

# 2020 Index

## IEEE Transactions on Wireless Communications

### Vol. 19

This index covers all technical items—papers, correspondence, reviews, etc.—that appeared in this periodical during 2020, and items from previous years that were commented upon or corrected in 2020. Departments and other items may also be covered if they have been judged to have archival value.

The Author Index contains the primary entry for each item, listed under the first author's name. The primary entry includes the coauthors' names, the title of the paper or other item, and its location, specified by the publication abbreviation, year, month, and inclusive pagination. The Subject Index contains entries describing the item under all appropriate subject headings, plus the first author's name, the publication abbreviation, month, and year, and inclusive pages. Note that the item title is found only under the primary entry in the Author Index.

#### AUTHOR INDEX

##### A

- Abbasfar, A.**, *see* Attarifar, M., *TWC June 2020 4183-4194*
- Abbasi, O.**, Yanikomeroglu, H., Ebrahimi, A., and Yamchi, N.M., Trajectory Design and Power Allocation for Drone-Assisted NR-V2X Network With Dynamic NOMA/OMA; *TWC Nov. 2020 7153-7168*
- Abdallah, S.**, Saad, M., Alnajjar, K., and Masood, M., Semi-Blind Joint Timing-Offset and Channel Estimation for Amplify-and-Forward Two-Way Relaying; *TWC April 2020 2613-2627*
- Abdel-Rahman, M.J.**, *see* Chatterjee, S., *TWC July 2020 4378-4393*
- Abdel-Rahman, M.J.**, *see* Nabil, A., *TWC Nov. 2020 7528-7542*
- Abdelhady, A.M.**, Amin, O., Shihada, B., and Alouini, M., Spectral Efficiency and Energy Harvesting in Multi-Cell SLIPT Systems; *TWC May 2020 3304-3318*
- Abdi, Y.**, and Ristaniemi, T., The Max-Product Algorithm Viewed as Linear Data-Fusion: A Distributed Detection Scenario; *TWC Nov. 2020 7585-7597*
- Abdul Careem, M.A.**, and Dutta, A., Real-time Prediction of Non-stationary Wireless Channels; *TWC Dec. 2020 7836-7850*
- Abou-Rjeily, C.**, and Kaddoum, G., Free Space Optical Cooperative Communications via an Energy Harvesting Harvest-Store-Use Relay; *TWC Oct. 2020 6564-6577*
- Abrrardo, A.**, Moretti, M., and Saggese, F., Power and Subcarrier Allocation in 5G NOMA-FD Systems; *TWC Dec. 2020 8246-8260*
- Adachi, F.**, *see* Huang, H., *TWC Aug. 2020 5373-5388*
- Adachi, F.**, *see* Sun, Y., *TWC Oct. 2020 6331-6346*
- Adiga, S.**, *see* Peken, T., *TWC Oct. 2020 6621-6642*
- Adve, R.S.**, *see* Khan, A.A., *TWC Aug. 2020 5162-5175*
- Adve, R.S.**, *see* Khan, A.A., *TWC Dec. 2020 8410-8426*
- Afisiadis, O.**, Cotting, M., Burg, A., and Balatsoukas-Stimming, A., On the Error Rate of the LoRa Modulation With Interference; *TWC Feb. 2020 1292-1304*
- Aghvami, A.H.**, *see* Li, Y., *TWC Dec. 2020 7779-7795*
- Agustin, A.**, *see* Raafat, A., *TWC Oct. 2020 6871-6883*
- Ahiadormey, R.K.**, *see* Anokye, P., *TWC Aug. 2020 5503-5517*
- Ahmed, M.H.**, *see* Nobar, S.K., *TWC Aug. 2020 5101-5116*
- Ai, B.**, *see* Huang, C., *TWC June 2020 3643-3657*
- Ai, B.**, *see* Yang, M., *TWC Sept. 2020 5860-5874*
- Aissa, S.**, *see* Li, Y., *TWC May 2020 2946-2959*
- Ajami, A.**, *see* Ammar, H.A., *TWC Oct. 2020 6643-6659*
- Ajib, W.**, *see* Kusaladharma, S., *TWC Feb. 2020 1280-1291*
- Akl, N.**, and Tewfik, A., Non-Blocking Scheme for Blind Network-Assisted Diversity Multiple Access in Synchronous Channels; *TWC March 2020 1894-1905*
- Akoum, S.**, *see* Zhu, D., *TWC Feb. 2020 1357-1372*
- Al-Dhahir, N.**, *see* Yang, Z., *TWC Oct. 2020 6899-6915*
- Al-Dhahir, N.**, *see* Lv, L., *TWC Oct. 2020 6486-6503*
- Al-Dhahir, N.**, *see* Mu, X., *TWC Oct. 2020 6884-6898*
- Al-Dubai, A.**, *see* Lin, N., *TWC July 2020 4919-4933*
- Al-Dweik, A.**, *see* Al-Jarrah, M.A., *TWC Jan. 2020 134-147*
- Al-Jarrah, M.A.**, Park, K., Al-Dweik, A., and Alouini, M., Error Rate Analysis of Amplitude-Coherent Detection Over Rician Fading Channels With Receiver Diversity; *TWC Jan. 2020 134-147*
- Al-Naffouri, T.Y.**, *see* Celik, A., *TWC Feb. 2020 1167-1181*
- Al-Obiedollah, H.M.**, Cumanan, K., Thiyagalingam, J., Tang, J., Burr, A.G., Ding, Z., and Dobre, O.A., Spectral-Energy Efficiency Trade-Off-Based Beamforming Design for MISO Non-Orthogonal Multiple Access Systems; *TWC Oct. 2020 6593-6606*
- Al-Rubaye, S.**, *see* Zhou, Z., *TWC Nov. 2020 7339-7352*
- Al-Shatri, H.**, *see* Mousavi, M., *TWC Jan. 2020 310-324*
- Aldubaikhy, K.**, Wu, W., Ye, Q., and Shen, X., Low-Complexity User Selection Algorithms for Multiuser Transmissions in mmWave WLANs; *TWC April 2020 2397-2410*
- Alfano, G.**, Chiasserini, C., and Nardio, A., SINR and Multiuser Efficiency Gap Between MIMO Linear Receivers; *TWC Jan. 2020 106-119*
- Ali, A.**, *see* Park, S., *TWC Feb. 2020 1084-1097*
- Ali, K.S.**, Hossain, E., and Hossain, M.J., Partial Non-Orthogonal Multiple Access (NOMA) in Downlink Poisson Networks; *TWC Nov. 2020 7637-7652*
- Alizadeh, M.**, *see* Khani, M., *TWC Aug. 2020 5635-5648*
- Almasi, M.A.**, Amiri, R., Jafarkhani, H., and Mehrpouyan, H., mmWave Lens-Based MIMO System for Suppressing Small-Scale Fading and Shadowing; *TWC Aug. 2020 5292-5306*
- Alnajjar, K.**, *see* Abdallah, S., *TWC April 2020 2613-2627*
- Alouini, M.**, *see* Al-Jarrah, M.A., *TWC Jan. 2020 134-147*
- Alouini, M.**, *see* Amhoud, E., *TWC Feb. 2020 888-900*
- Alouini, M.**, *see* Celik, A., *TWC Feb. 2020 1167-1181*
- Alouini, M.**, *see* Rakia, T., *TWC March 2020 1802-1813*
- Alouini, M.**, *see* Lee, J., *TWC March 2020 1610-1621*
- Alouini, M.**, *see* Abdelhady, A.M., *TWC May 2020 3304-3318*
- Alouini, M.**, *see* Rached, N.B., *TWC July 2020 4353-4362*
- Alouini, M.**, *see* Ye, J., *TWC Aug. 2020 5561-5574*
- Alouini, M.**, *see* Alsharoa, A., *TWC Aug. 2020 5088-5100*
- Alouini, M.**, *see* Zhang, Z., *TWC Sept. 2020 5846-5859*
- Alouini, M.**, *see* Zedini, E., *TWC Sept. 2020 5908-5923*
- Alouini, M.**, *see* Pan, G., *TWC Oct. 2020 6693-6707*
- Alouini, M.**, *see* Pan, G., *TWC Oct. 2020 6277-6288*
- Alouini, M.**, *see* Guo, S., *TWC Oct. 2020 6660-6674*
- Alouini, M.**, *see* Benkhelifa, F., *TWC April 2020 2699-2712*
- Alouini, M.**, *see* Bashir, M.S., *TWC April 2020 2181-2195*
- Alouini, M.**, *see* Dang, S., *TWC April 2020 2489-2503*
- Alouini, M.**, *see* Nadeem, Q., *TWC Dec. 2020 7748-7764*
- Alouini, M.**, *see* Ye, J., *TWC Dec. 2020 7897-7912*
- Alouini, M.**, *see* Ye, J., *TWC Dec. 2020 7851-7863*
- Alouini, M.**, *see* Pan, G., *TWC Dec. 2020 7998-8010*
- Alouini, M.**, *see* Ma, S., *TWC Nov. 2020 7265-7278*
- Alouini, M.S.**, *see* Pan, G., *TWC Nov. 2020 7097-7107*
- Alphones, A.**, *see* Yang, H., *TWC July 2020 4671-4684*
- Alsharoa, A.**, and Alouini, M., Improvement of the Global Connectivity Using Integrated Satellite-Airborne-Terrestrial Networks With Resource Optimization; *TWC Aug. 2020 5088-5100*
- Amhoud, E.**, Ooi, B.S., and Alouini, M., A Unified Statistical Model for Atmospheric Turbulence-Induced Fading in Orbital Angular Momentum Multiplexed FSO Systems; *TWC Feb. 2020 888-900*
- Amin, O.**, *see* Abdelhady, A.M., *TWC May 2020 3304-3318*
- Amiri, M.M.**, and Gunduz, D., Federated Learning Over Wireless Fading Channels; *TWC May 2020 3546-3557*

- Amiri, M.M.**, see Zhao, J., *TWC Nov. 2020 7484-7497*
- Amiri, R.**, see Almasi, M.A., *TWC Aug. 2020 5292-5306*
- Ammar, H.A.**, Ajami, A., and Artail, H., A Poisson Line Process-Based Framework for Determining the Needed RSU Density and Relaying Hops in Vehicular Networks; *TWC Oct. 2020 6643-6659*
- Amudala, D.N.**, see Sharma, E., *TWC Feb. 2020 1429-1448*
- An, J.**, see Pan, G., *TWC Oct. 2020 6277-6288*
- An, J.**, Zhang, Y., Gao, X., and Yang, K., Energy-Efficient Base Station Association and Beamforming for Multi-Cell Multiuser Systems; *TWC April 2020 2841-2854*
- An, J.**, see Pan, G., *TWC Nov. 2020 7097-7107*
- Anand, K.**, see Liu, X., *TWC June 2020 3924-3937*
- Andreev, S.**, see Samuylov, A., *TWC May 2020 3421-3434*
- Andrews, J.G.**, see Balevi, E., *TWC March 2020 2079-2090*
- Andrews, J.G.**, see Gupta, M., *TWC Dec. 2020 8024-8038*
- Anokye, P.**, Ahiodormey, R.K., Jo, H., Song, C., and Lee, K., Low-Resolution ADC Quantized Full-Duplex Massive MIMO-Enabled Wireless Backhaul in Heterogeneous Networks Over Rician Channels; *TWC Aug. 2020 5503-5517*
- Antoun, J.**, see Khabbaz, M., *TWC May 2020 3228-3240*
- Arafah, M.A.**, see Mao, Y., *TWC Oct. 2020 6362-6376*
- Araniti, G.**, Rinaldi, F., Scopelliti, P., Molinaro, A., and Iera, A., A Dynamic MBSFN Area Formation Algorithm for Multicast Service Delivery in 5G NR Networks; *TWC Feb. 2020 808-821*
- Ardakani, M.**, see Rahimian, S., *TWC Sept. 2020 5794-5806*
- Ardakani, M.**, see Heidarpour, A.R., *TWC Nov. 2020 7251-7264*
- Arfaoui, M.A.**, Ghayeb, A., and Assi, C.M., Secrecy Performance of the MIMO VLC Wiretap Channel With Randomly Located Eavesdropper; *TWC Jan. 2020 265-278*
- Artail, H.**, see Ammar, H.A., *TWC Oct. 2020 6643-6659*
- Ashdown, J.D.**, see Shang, B., *TWC Dec. 2020 7957-7972*
- Ashikhmin, A.**, see Ngo, H.Q., *TWC May 2020 3623-3624*
- Ashrafzadeh, B.**, Zaimbashi, A., Soleimani-Nasab, E., and Uysal, M., Unified Performance Analysis of Multi-Hop FSO Systems Over Double Generalized Gamma Turbulence Channels With Pointing Errors; *TWC Nov. 2020 7732-7746*
- Assi, C.**, see Khabbaz, M., *TWC May 2020 3228-3240*
- Assi, C.M.**, see Samir, M., *TWC Jan. 2020 34-46*
- Assi, C.M.**, see Arfaoui, M.A., *TWC Jan. 2020 265-278*
- Attarifar, M.**, Abbasfar, A., and Lozano, A., Subset MMSE Receivers for Cell-Free Networks; *TWC June 2020 4183-4194*
- Aykin, I.**, and Krunz, M., Efficient Beam Sweeping Algorithms and Initial Access Protocols for Millimeter-Wave Networks; *TWC April 2020 2504-2514*
- Azari, M.M.**, Geraci, G., Garcia-Rodriguez, A., and Pollin, S., UAV-to-UAV Communications in Cellular Networks; *TWC Sept. 2020 6130-6144*
- Azimi-Abarghouyi, S.M.**, see Sadeghabadi, E., *TWC Jan. 2020 579-594*
- Azimi-Abarghouyi, S.M.**, Nasiri-Kenari, M., and Debbah, M., Stochastic Design and Analysis of User-Centric Wireless Cloud Caching Networks; *TWC July 2020 4978-4993*
- B**
- Baccelli, F.**, see Choi, C., *TWC March 2020 1825-1838*
- Bacha, M.**, Di Renzo, M., and Clerckx, B., Treating Interference as Noise in Cellular Networks: A Stochastic Geometry Approach; *TWC March 2020 1918-1932*
- Bagaa, M.**, Dutra, D.L.C., Taleb, T., and Samdanis, K., On SDN-Driven Network Optimization and QoS Aware Routing Using Multiple Paths; *TWC July 2020 4700-4714*
- Bagaa, M.**, see Hellaoui, H., *TWC Dec. 2020 8287-8302*
- Baghdadi, A.**, see Nadal, J., *TWC Aug. 2020 5307-5320*
- Bai, Z.**, Liang, S., Ma, P., Dong, Y., Zhang, H., and Ma, Y., QoS Driven Power Allocation in Secure Multicarrier Full-Duplex Relay Systems; *TWC Feb. 2020 929-941*
- Bailleul, J.**, Jacobs, L., Guenach, M., and Moeneclaey, M., Optimized Precoded Spatio-Temporal Partial-Response Signaling Over Frequency-Selective MIMO Channels; *TWC Sept. 2020 5938-5950*
- Baiocchi, A.**, Garlisi, D., Valvo, A.L., Santaromita, G., and Tinnirello, I., 'Good to Repeat': Making Random Access Near-Optimal With Repeated Contentions; *TWC Jan. 2020 712-726*
- Balatsoukas-Stimming, A.**, see Afisiadis, O., *TWC Feb. 2020 1292-1304*
- Balevi, E.**, Doshi, A., and Andrews, J.G., Massive MIMO Channel Estimation With an Untrained Deep Neural Network; *TWC March 2020 2079-2090*
- Balti, E.**, and Johnson, B.K., Tractable Approach to MmWaves Cellular Analysis With FSO Backhauling Under Feedback Delay and Hardware Limitations; *TWC Jan. 2020 410-422*
- Banagar, M.**, and Dhillon, H.S., Performance Characterization of Canonical Mobility Models in Drone Cellular Networks; *TWC July 2020 4994-5009*
- Bandi, A.**, Shankar M. R. B., Chatzinotas, S., and Ottersten, B., A Joint Solution for Scheduling and Precoding in Multiuser MISO Downlink Channels; *TWC Jan. 2020 475-490*
- Bandi, A.**, Shankar, M.R.B., Chatzinotas, S., and Ottersten, B., Joint User Grouping, Scheduling, and Precoding for Multicast Energy Efficiency in Multigroup Multicast Systems; *TWC Dec. 2020 8195-8210*
- Banez, R.A.**, see Gao, H., *TWC Dec. 2020 7825-7835*
- Banez, R.A.**, Tembine, H., Li, L., Yang, C., Song, L., Han, Z., and Poor, H.V., Mean-Field-Type Game-Based Computation Offloading in Multi-Access Edge Computing Networks; *TWC Dec. 2020 8366-8381*
- Bao, Z.**, see Li, Y., *TWC June 2020 3963-3976*
- Barati, C.N.**, see Dutta, S., *TWC Feb. 2020 756-770*
- Bas, C.U.**, see Wang, R., *TWC May 2020 3077-3090*
- Basar, E.**, see Li, Q., *TWC Jan. 2020 192-204*
- Basar, E.**, see Canbilin, A.E., *TWC May 2020 3034-3046*
- Basar, E.**, see Dogukan, A.T., *TWC Nov. 2020 7353-7362*
- Bashir, M.S.**, and Alouini, M., Signal Acquisition With Photon-Counting Detector Arrays in Free-Space Optical Communications; *TWC April 2020 2181-2195*
- Bassi, F.**, see Khreis, A., *TWC Sept. 2020 6224-6237*
- Battistelli, G.**, see Kim, H., *TWC June 2020 3782-3795*
- Bazzi, O.**, see El Hassan, M., *TWC April 2020 2352-2366*
- Bazzi, S.**, see Laas, T., *TWC Oct. 2020 6440-6453*
- Beaulieu, N.C.**, see Yang, Q., *TWC April 2020 2472-2488*
- Becirovic, E.**, Bjornson, E., and Larsson, E.G., Joint Antenna Detection and Bayesian Channel Estimation for Non-Coherent User Terminals; *TWC Nov. 2020 7081-7096*
- Becvar, Z.**, see Najla, M., *TWC Nov. 2020 7124-7138*
- Behroozi, H.**, see Letafati, M., *TWC Oct. 2020 6771-6785*
- Bendlin, R.**, see Zhu, D., *TWC Feb. 2020 1357-1372*
- Benkhelifa, F.**, ElSawy, H., Mccann, J.A., and Alouini, M., Recycling Cellular Energy for Self-Sustainable IoT Networks: A Spatiotemporal Study; *TWC April 2020 2699-2712*
- Bennis, M.**, see Pandey, S.R., *TWC May 2020 3241-3256*
- Bennis, M.**, see Chen, X., *TWC April 2020 2268-2281*
- Bennis, M.**, see Wen, D., *TWC Dec. 2020 8272-8286*
- Bentley, E.S.**, see Shang, B., *TWC Dec. 2020 7957-7972*
- Bentley, E.S.**, see Song, H., *TWC Dec. 2020 8382-8395*
- Bentum, M.J.**, see Bilal, I., *TWC Feb. 2020 859-873*
- Besser, K.**, and Jorswieck, E.A., Reliability Bounds for Dependent Fading Wireless Channels; *TWC Sept. 2020 5833-5845*
- Beyranvand, H.**, see Dastgheib, M.A., *TWC Oct. 2020 6813-6825*
- Bhardwaj, A.**, see Gentile, C., *TWC Oct. 2020 6504-6519*
- Bhargava, V.K.**, see Prasad, K.N.R.S.V., *TWC July 2020 4847-4862*
- Bhashyam, S.**, see Moothedath, V.N., *TWC Nov. 2020 7196-7209*
- Bhatnagar, M.R.**, see Priyadarshani, R., *TWC March 2020 1593-1609*
- Bi, S.**, see Yan, J., *TWC Jan. 2020 235-250*
- Bi, S.**, Huang, L., and Zhang, Y.A., Joint Optimization of Service Caching Placement and Computation Offloading in Mobile Edge Computing Systems; *TWC July 2020 4947-4963*
- Bi, S.**, see Yan, J., *TWC Aug. 2020 5404-5419*
- Biglieri, E.**, see Lai, I., *TWC July 2020 4579-4593*
- Bilal, I.**, Meijerink, A., and Bentum, M.J., A Frequency Offset Transmit Reference System in Dense Multipath Environments: Propagation Effects and Design Considerations; *TWC Feb. 2020 859-873*

- Biswas, S.**, Singh, K., Taghizadeh, O., and Ratnarajah, T., Design and Analysis of FD MIMO Cellular Systems in Coexistence With MIMO Radar; *TWC July 2020 4727-4743*
- Bjornson, E.**, and Sanguinetti, L., Making Cell-Free Massive MIMO Competitive With MMSE Processing and Centralized Implementation; *TWC Jan. 2020 77-90*
- Bjornson, E.**, see Interdonato, G., *TWC July 2020 4758-4774*
- Bjornson, E.**, see Van Chien, T., *TWC Sept. 2020 5732-5748*
- Bjornson, E.**, see Van Chien, T., *TWC Oct. 2020 6798-6812*
- Bjornson, E.**, see Becirovic, E., *TWC Nov. 2020 7081-7096*
- Bocus, M.Z.**, see Gruppi, E., *TWC July 2020 4363-4377*
- Bodi, A.**, see Gentile, C., *TWC Oct. 2020 6504-6519*
- Bohata, J.**, see Priyadarshani, R., *TWC March 2020 1593-1609*
- Borst, S.**, see Post, B., *TWC Nov. 2020 7677-7689*
- Bose, R.**, see Pechetti, S.V., *TWC May 2020 3332-3345*
- Bose, T.**, see Peken, T., *TWC Oct. 2020 6621-6642*
- Botev, Z.**, see Rached, N.B., *TWC July 2020 4353-4362*
- Braham, H.**, see Hadj-Kacem, I., *TWC July 2020 4604-4616*
- Bucheli Garcia, J.C.**, Kamoun, M., and Sibille, A., Low-Complexity Adaptive Spatial Processing of ESPAR Antenna Systems; *TWC June 2020 3700-3711*
- Buckwalter, J.F.**, see Dutta, S., *TWC Feb. 2020 756-770*
- Budhiraja, R.**, see Sharma, E., *TWC Feb. 2020 1429-1448*
- Budhiraja, R.**, see Sharma, E., *TWC Feb. 2020 1397-1414*
- Buehrer, R.M.**, see Shahanaghi, A., *TWC June 2020 4154-4169*
- Buehrer, R.M.**, see Xu, Y., *TWC July 2020 4494-4506*
- Burg, A.**, see Afisiadis, O., *TWC Feb. 2020 1292-1304*
- Burr, A.G.**, see Al-Obiedollah, H.M., *TWC Oct. 2020 6593-6606*
- Buzzi, S.**, see D'Andrea, C., *TWC Jan. 2020 19-33*
- Buzzi, S.**, D'Andrea, C., Zappone, A., and D'Elia, C., User-Centric 5G Cellular Networks: Resource Allocation and Comparison With the Cell-Free Massive MIMO Approach; *TWC Feb. 2020 1250-1264*
- C**
- Cai, J.**, see Li, G., *TWC Jan. 2020 624-636*
- Cai, J.**, see Ding, J., *TWC March 2020 2006-2021*
- Cai, L.**, see Lan, X., *TWC Feb. 2020 1182-1195*
- Cai, L.X.**, see Chen, X., *TWC July 2020 4879-4893*
- Cai, S.**, see Li, L., *TWC Feb. 2020 1008-1024*
- Cai, X.**, Xu, W., Miao, M., and Wang, L., Design and Performance Analysis of a New  $M$ -Ary Differential Chaos Shift Keying With Index Modulation; *TWC Feb. 2020 846-858*
- Cai, Y.**, see Zhao, M., *TWC June 2020 4125-4140*
- Cai, Y.**, see He, Y., *TWC Aug. 2020 5333-5344*
- Cai, Y.**, see Hu, Q., *TWC Sept. 2020 6179-6195*
- Cai, Y.**, see Zhao, C., *TWC April 2020 2382-2396*
- Caire, G.**, see Choi, J., *TWC Jan. 2020 162-176*
- Caire, G.**, see Song, X., *TWC March 2020 1754-1769*
- Caire, G.**, see Tian, C., *TWC Aug. 2020 5447-5460*
- Caire, G.**, see Gaudio, L., *TWC Sept. 2020 5951-5965*
- Calvanese Strinati, E.**, see Sana, M., *TWC Oct. 2020 6520-6534*
- Canbilen, A.E.**, Ikki, S.S., Basar, E., Gultekin, S.S., and Develi, I., Joint Impact of I/Q Imbalance and Imperfect CSI on SM-MIMO Systems Over Generalized Beckmann Fading Channels: Optimal Detection and Cramer-Rao Bound; *TWC May 2020 3034-3046*
- Cao, L.**, see Tang, Z., *TWC March 2020 1519-1534*
- Cao, W.**, Dytso, A., Fauss, M., Feng, G., and Poor, H.V., Robust Power Allocation for Parallel Gaussian Channels With Approximately Gaussian Input Distributions; *TWC June 2020 3685-3699*
- Cao, X.**, Song, Z., Yang, B., Qian, L., and Han, Z., Full-Duplex MAC in LAA/Wi-Fi Coexistence Networks: Design, Modeling, and Analysis; *TWC Aug. 2020 5531-5546*
- Cao, X.**, Zhu, G., Xu, J., and Huang, K., Optimized Power Control for Over-the-Air Computation in Fading Channels; *TWC Nov. 2020 7498-7513*
- Cao, Y.**, see Zhou, B., *TWC July 2020 4863-4878*
- Cao, Y.**, see Liu, B., *TWC April 2020 2855-2867*
- Celik, A.**, Saeed, N., Shihada, B., Al-Naffouri, T.Y., and Alouini, M., End-to-End Performance Analysis of Underwater Optical Wireless Relaying and Routing Techniques Under Location Uncertainty; *TWC Feb. 2020 1167-1181*
- Centenaro, M.**, Vangelista, L., and Saur, S., Analysis of 5G Radio Access Protocols for Uplink URLLC in a Connection-Less Mode; *TWC May 2020 3104-3117*
- Chaaban, A.**, see Zhang, Z., *TWC Sept. 2020 5846-5859*
- Chaaban, A.**, see Nadeem, Q., *TWC Dec. 2020 7748-7764*
- Chaffi, M.**, see Ehsanfar, S., *TWC Sept. 2020 5875-5890*
- Chakraborty, S.**, see Karmakar, R., *TWC Dec. 2020 8330-8340*
- Chamaa, M.E.**, and Lankl, B., Noncoherent Symbol Detection of Short CPM Bursts in Frequency-Selective Fading Channels; *TWC Feb. 2020 771-782*
- Champagne, B.**, see Zhao, M., *TWC June 2020 4125-4140*
- Chang, F.**, see Yu, J., *TWC May 2020 3376-3389*
- Chang, H.**, see Zhou, Z., *TWC June 2020 3712-3726*
- Chang, J.**, see Park, C., *TWC Sept. 2020 5819-5832*
- Chang, T.**, see Li, L., *TWC Feb. 2020 1008-1024*
- Chang, T.**, see Xu, Y., *TWC Feb. 2020 1054-1069*
- Chang, W.**, Xiao, Y., Lou, W., and Shou, G., Offloading Decision in Edge Computing for Continuous Applications Under Uncertainty; *TWC Sept. 2020 6196-6209*
- Chang, W.**, and Kang, H., Cyclic Block-Spreading Direct Discovery for D2D Networks; *TWC Nov. 2020 7610-7620*
- Chatterjee, S.**, Abdel-Rahman, M.J., and MacKenzie, A.B., On Optimal Orchestration of Virtualized Cellular Networks With Downlink Rate Coverage Probability Constraints; *TWC July 2020 4378-4393*
- Chattopadhyay, S.**, see Karmakar, R., *TWC Dec. 2020 8330-8340*
- Chatzidiamantis, N.D.**, see Papadopoulos, A., *TWC June 2020 4195-4208*
- Chatzinotas, S.**, see Bandi, A., *TWC Jan. 2020 475-490*
- Chatzinotas, S.**, see Vu, T.X., *TWC Feb. 2020 1141-1153*
- Chatzinotas, S.**, see Kisseleff, S., *TWC June 2020 4307-4320*
- Chatzinotas, S.**, see Bandi, A., *TWC Dec. 2020 8195-8210*
- Chatzinotas, S.**, see Domouchtsidis, S., *TWC Dec. 2020 7973-7985*
- Chauhan, S.S.**, see Sharma, E., *TWC Feb. 2020 1397-1414*
- Cheffena, M.**, see Li, Q., *TWC Jan. 2020 696-711*
- Chelli, A.**, see Hellaoui, H., *TWC Dec. 2020 8287-8302*
- Chen, B.**, see Chen, W., *TWC Dec. 2020 8099-8112*
- Chen, C.**, see Li, M., *TWC Jan. 2020 650-664*
- Chen, C.**, Wang, G., Guan, H., Liang, Y., and Tellambura, C., Transceiver Design and Signal Detection in Backscatter Communication Systems With Multiple-Antenna Tags; *TWC May 2020 3273-3288*
- Chen, C.**, see Yang, H., *TWC July 2020 4671-4684*
- Chen, C.**, Wang, Q., Gaber, A., Guevara, A.P., and Pollin, S., User Scheduling and Antenna Topology in Dense Massive MIMO Networks: An Experimental Study; *TWC Sept. 2020 6210-6223*
- Chen, D.**, see Liu, P., *TWC Feb. 2020 795-807*
- Chen, D.**, see Xiao, L., *TWC Dec. 2020 8232-8245*
- Chen, D.**, see Liu, W., *TWC Nov. 2020 7169-7180*
- Chen, F.**, see Li, Q., *TWC Jan. 2020 192-204*
- Chen, F.**, see Li, Q., *TWC July 2020 4449-4463*
- Chen, G.**, see Feng, C., *TWC Nov. 2020 7377-7391*
- Chen, H.**, see Shafin, R., *TWC June 2020 4038-4053*
- Chen, H.**, see Hu, J., *TWC July 2020 4907-4918*
- Chen, H.**, see Yu, J., *TWC Aug. 2020 5621-5634*
- Chen, H.**, see Yin, W., *TWC April 2020 2756-2769*
- Chen, H.**, see Wang, Q., *TWC Dec. 2020 8054-8067*
- Chen, H.**, see Shang, B., *TWC Dec. 2020 7957-7972*
- Chen, H.**, see Yin, W., *TWC Nov. 2020 7514-7527*
- Chen, J.**, and Gesbert, D., Efficient Local Map Search Algorithms for the Placement of Flying Relays; *TWC Feb. 2020 1305-1319*
- Chen, J.**, and Wang, Z., Topology Control in Hybrid VLC/RF Vehicular Ad-Hoc Network; *TWC March 2020 1965-1976*
- Chen, J.**, see Guo, H., *TWC May 2020 3064-3076*
- Chen, J.**, and Shu, T., Statistical Modeling and Analysis on the Confidentiality of Indoor VLC Systems; *TWC July 2020 4744-4757*
- Chen, J.**, see Zhuang, H., *TWC July 2020 4507-4518*

- Chen, J.**, *see* Yang, L., *TWC Sept. 2020 6065-6082*
- Chen, J.**, *see* Wu, H., *TWC Oct. 2020 6409-6424*
- Chen, J.**, *see* Yang, S., *TWC Oct. 2020 6708-6720*
- Chen, J.**, *see* Lv, L., *TWC Oct. 2020 6486-6503*
- Chen, K.**, *see* Lai, I., *TWC July 2020 4579-4593*
- Chen, K.**, *see* Cui, Q., *TWC July 2020 4519-4534*
- Chen, K.**, *see* Zeng, C., *TWC April 2020 2785-2799*
- Chen, K.**, *see* Qi, C., *TWC Dec. 2020 8142-8152*
- Chen, L.**, *see* Yang, M., *TWC Sept. 2020 5860-5874*
- Chen, L.**, *see* Wu, F., *TWC April 2020 2252-2267*
- Chen, M.**, Semiari, O., Saad, W., Liu, X., and Yin, C., Federated Echo State Learning for Minimizing Breaks in Presence in Wireless Virtual Reality Networks; *TWC Jan. 2020 177-191*
- Chen, M.**, *see* Hu, Y., *TWC June 2020 3908-3923*
- Chen, M.**, *see* Wang, Y., *TWC Nov. 2020 7049-7063*
- Chen, P.**, *see* Meng, F., *TWC Oct. 2020 6255-6267*
- Chen, P.**, *see* Wang, S., *TWC April 2020 2601-2612*
- Chen, Q.**, *see* Luo, J., *TWC March 2020 1577-1592*
- Chen, Q.**, *see* Yin, R., *TWC June 2020 4141-4153*
- Chen, Q.**, *see* Wang, Y., *TWC June 2020 4220-4233*
- Chen, Q.**, and Ding, Z., Accommodating LAA Within IEEE 802.11ax WiFi Networks for Enhanced Coexistence; *TWC Nov. 2020 7621-7636*
- Chen, R.**, Long, W., Wang, X., and Jiandong, L., Multi-Mode OAM Radio Waves: Generation, Angle of Arrival Estimation and Reception With UCAs; *TWC Oct. 2020 6932-6947*
- Chen, S.**, Morillo, R., Qin, Y., Russell, A., Jin, R., Wang, B., and Vasudevan, S., Asynchronous Neighbor Discovery on Duty-Cycled Mobile Devices: Models and Schedules; *TWC Aug. 2020 5204-5217*
- Chen, S.**, *see* Xing, C., *TWC Aug. 2020 5473-5487*
- Chen, S.**, *see* Deng, R., *TWC Oct. 2020 6240-6254*
- Chen, T.**, *see* Chen, X., *TWC April 2020 2268-2281*
- Chen, W.**, *see* Yu, J., *TWC May 2020 3376-3389*
- Chen, W.**, Ding, H., Wang, S., da Costa, D.B., and Gong, F., Impartial SWIPT-Assisted User Cooperation Schemes; *TWC May 2020 3361-3375*
- Chen, W.**, *see* Han, D., *TWC June 2020 3938-3951*
- Chen, W.**, *see* Hui, H., *TWC Aug. 2020 5148-5161*
- Chen, W.**, *see* Li, L., *TWC Oct. 2020 6393-6408*
- Chen, W.**, Chen, B., and Jiang, M., Spherical Quasi-Physical Model-Based Color-Shift Keying for Visible Light Communication; *TWC Dec. 2020 8099-8112*
- Chen, X.**, *see* Li, E., *TWC Jan. 2020 447-457*
- Chen, X.**, Liu, Y., Cai, L.X., Chen, Z., and Zhang, D., Resource Allocation for Wireless Cooperative IoT Network With Energy Harvesting; *TWC July 2020 4879-4893*
- Chen, X.**, *see* Luo, S., *TWC Oct. 2020 6535-6548*
- Chen, X.**, *see* Ma, H., *TWC Oct. 2020 6454-6468*
- Chen, X.**, Wu, C., Chen, T., Zhang, H., Liu, Z., Zhang, Y., and Bennis, M., Age of Information Aware Radio Resource Management in Vehicular Networks: A Proactive Deep Reinforcement Learning Perspective; *TWC April 2020 2268-2281*
- Chen, X.**, *see* Zhou, H., *TWC April 2020 2658-2669*
- Chen, X.**, *see* Luo, S., *TWC April 2020 2643-2657*
- Chen, X.**, *see* Luo, S., *TWC April 2020 2643-2657*
- Chen, Y.**, *see* Lan, X., *TWC Feb. 2020 1182-1195*
- Chen, Y.**, *see* Su, J., *TWC May 2020 2974-2986*
- Chen, Y.**, *see* Yang, Y., *TWC May 2020 3091-3103*
- Chen, Y.**, *see* Duan, S., *TWC July 2020 4715-4726*
- Chen, Y.**, *see* Li, T., *TWC Aug. 2020 5461-5472*
- Chen, Y.**, *see* Yang, Z., *TWC Oct. 2020 6899-6915*
- Chen, Y.**, *see* Wu, F., *TWC April 2020 2252-2267*
- Chen, Z.**, *see* Wan, Q., *TWC June 2020 4234-4246*
- Chen, Z.**, *see* Sun, Y., *TWC June 2020 3992-4007*
- Chen, Z.**, *see* Li, K., *TWC July 2020 4563-4578*
- Chen, Z.**, *see* Chen, X., *TWC July 2020 4879-4893*
- Chen, Z.**, *see* Gao, H., *TWC July 2020 4894-4906*
- Cheng, J.**, *see* Hassan, M.Z., *TWC March 2020 1464-1483*
- Cheng, J.**, *see* Meng, F., *TWC Oct. 2020 6255-6267*
- Cheng, J.**, *see* Fang, F., *TWC Nov. 2020 7008-7020*
- Cheng, L.**, Kong, L., Song, Y., Niu, J., Luo, C., Gu, Y., Mumtaz, S., and He, T., Adaptive Forwarding With Probabilistic Delay Guarantee in Low-Duty-Cycle WSNs; *TWC July 2020 4775-4792*
- Cheng, N.**, *see* Qin, M., *TWC Aug. 2020 5547-5560*
- Cheng, N.**, *see* Wu, H., *TWC Oct. 2020 6409-6424*
- Cheng, N.**, *see* Zhao, Y., *TWC Oct. 2020 6549-6563*
- Cheng, N.**, *see* Sheng, M., *TWC April 2020 2813-2826*
- Cheng, N.**, *see* Song, Y., *TWC Nov. 2020 7392-7406*
- Cheng, Q.**, *see* Li, L., *TWC Oct. 2020 6393-6408*
- Cheng, W.**, *see* Yu, J., *TWC Aug. 2020 5621-5634*
- Cheng, X.**, *see* Yu, J., *TWC Aug. 2020 5621-5634*
- Cheng, X.**, *see* Gao, S., *TWC Sept. 2020 5703-5715*
- Cheng, Z.**, *see* Wang, R., *TWC May 2020 3077-3090*
- Cheng, Z.**, *see* Gentile, C., *TWC Oct. 2020 6504-6519*
- Chetlur, V.V.**, and Dhillon, H.S., Coverage and Rate Analysis of Downlink Cellular Vehicle-to-Everything (C-V2X) Communication; *TWC March 2020 1738-1753*
- Chi, K.**, *see* Zheng, K., *TWC Jan. 2020 533-546*
- Chi, K.**, *see* Xia, M., *TWC June 2020 3769-3781*
- Chi, K.**, *see* Liu, X., *TWC Nov. 2020 7663-7676*
- Chiariotti, F.**, *see* Mason, F., *TWC Aug. 2020 5605-5620*
- Chiasserini, C.**, *see* Alfano, G., *TWC Jan. 2020 106-119*
- Chin, W.H.**, *see* Gruppi, E., *TWC July 2020 4363-4377*
- Choi, C.**, Baccelli, F., Veciana, G.d., Modeling and Analysis of Data Harvesting Architecture Based on Unmanned Aerial Vehicles; *TWC March 2020 1825-1838*
- Choi, J.**, Lee, N., Hong, S., and Caire, G., Joint User Selection, Power Allocation, and Precoding Design With Imperfect CSIT for Multi-Cell MU-MIMO Downlink Systems; *TWC Jan. 2020 162-176*
- Choi, J.**, Opportunistic NOMA for Uplink Short-Message Delivery With a Delay Constraint; *TWC June 2020 3727-3737*
- Choi, J.**, On Throughput Improvement Using Immediate Re-Transmission in Grant-Free Random Access With Massive MIMO; *TWC Dec. 2020 8341-8350*
- Choi, J.W.**, *see* Kim, S., *TWC June 2020 3658-3672*
- Choi, K.W.**, *see* Kim, S.H., *TWC Nov. 2020 7309-7323*
- Choi, M.**, Molisch, A.F., and Kim, J., Joint Distributed Link Scheduling and Power Allocation for Content Delivery in Wireless Caching Networks; *TWC Dec. 2020 7810-7824*
- Choi, S.**, *see* Jung, M., *TWC March 2020 2052-2065*
- Choi, T.**, *see* Wang, R., *TWC May 2020 3077-3090*
- Choi, T.**, *see* Gentile, C., *TWC Oct. 2020 6504-6519*
- Choi, T.**, *see* Rottenberg, F., *TWC April 2020 2728-2741*
- Chou, S.**, Pang, A., and Yu, Y., Energy-Aware 3D Unmanned Aerial Vehicle Deployment for Network Throughput Optimization; *TWC Jan. 2020 563-578*
- Chowdhury, M.**, *see* Dean, T.R., *TWC June 2020 3629-3642*
- Chuang, J.**, *see* Gentile, C., *TWC Oct. 2020 6504-6519*
- Ciblat, P.**, *see* Khreis, A., *TWC Sept. 2020 6224-6237*
- Cimini, L.J.**, *see* Liu, G., *TWC Feb. 2020 995-1007*
- Ciuonzo, D.**, *see* Dey, I., *TWC Aug. 2020 5246-5260*
- Clerckx, B.**, *see* Bacha, M., *TWC March 2020 1918-1932*
- Clerckx, B.**, *see* Mao, Y., *TWC Oct. 2020 6362-6376*
- Clerckx, B.**, *see* Kim, J., *TWC Nov. 2020 7453-7469*
- Colavolpe, G.**, *see* Gaudio, L., *TWC Sept. 2020 5951-5965*
- Coleri, S.**, *see* Iqbal, M.S., *TWC Sept. 2020 5993-6006*
- Coleri, S.**, *see* Onalan, A.G., *TWC Nov. 2020 7181-7195*
- Collings, I.B.**, *see* Liu, C., *TWC Aug. 2020 5117-5131*
- Conti, A.**, *see* Mucchi, L., *TWC Sept. 2020 5666-5675*
- Coon, J.P.**, *see* Dang, S., *TWC April 2020 2489-2503*
- Coon, J.P.**, *see* Yarkin, F., *TWC Nov. 2020 7557-7570*
- Costa, M.**, *see* Rostami, S., *TWC Sept. 2020 6020-6036*
- Costa-Perez, X.**, *see* Han, B., *TWC July 2020 5010-5024*
- Cotting, M.**, *see* Afisiadis, O., *TWC Feb. 2020 1292-1304*
- Coupechoux, M.**, *see* Daher, A., *TWC July 2020 4934-4946*

- Croce, D.**, Gucciardo, M., Mangione, S., Santaromita, G., and Tinnirello, I., LoRa Technology Demystified: From Link Behavior to Cell-Level Performance; *TWC Feb. 2020 822-834*
- Crussiere, M.**, see El Hassan, M., *TWC April 2020 2352-2366*
- Cui, J.**, Liu, Y., and Nallanathan, A., Multi-Agent Reinforcement Learning-Based Resource Allocation for UAV Networks; *TWC Feb. 2020 729-743*
- Cui, Q.**, Zhang, J., Zhang, X., Chen, K., Tao, X., and Zhang, P., Online Anticipatory Proactive Network Association in Mobile Edge Computing for IoT; *TWC July 2020 4519-4534*
- Cui, Q.**, see Yu, X., *TWC July 2020 4408-4423*
- Cui, S.**, see Huang, D., *TWC Jan. 2020 62-76*
- Cui, S.**, see Wang, Z., *TWC Oct. 2020 6607-6620*
- Cui, S.**, see Wang, F., *TWC April 2020 2443-2459*
- Cui, Y.**, see Jia, Y., *TWC Dec. 2020 8068-8082*
- Cui, Y.**, Xu, W., Wang, Y., Lin, J., and Lu, L., Side-Information Aided Compressed Multi-User Detection for Up-Link Grant-Free NOMA; *TWC Nov. 2020 7720-7731*
- Cumanan, K.**, see Al-Obedollah, H.M., *TWC Oct. 2020 6593-6606*
- D**
- D'Andrea, C.**, Buzzi, S., and Lops, M., Communications and Radar Coexistence in the Massive MIMO Regime: Uplink Analysis; *TWC Jan. 2020 19-33*
- D'Andrea, C.**, see Buzzi, S., *TWC Feb. 2020 1250-1264*
- D'Elia, C.**, see Buzzi, S., *TWC Feb. 2020 1250-1264*
- D'souza, K.B.**, see Prasad, K.N.R.S.V., *TWC July 2020 4847-4862*
- da Costa, D.B.**, see Sousa de Sena, A., *TWC March 2020 1622-1635*
- da Costa, D.B.**, see Chen, W., *TWC May 2020 3361-3375*
- da Costa, D.B.**, see de Sena, A.S., *TWC Sept. 2020 6100-6115*
- da Silva, C.R.N.**, see de Lima Tejerina, G.R., *TWC Dec. 2020 8153-8164*
- da Silva, J.M.B.**, Sabharwal, A., Fodor, G., and Fischione, C., 1-bit Phase Shifters for Large-Antenna Full-Duplex mmWave Communications; *TWC Oct. 2020 6916-6931*
- Dabiri, M.T.**, Safi, H., Parsaeefard, S., and Saad, W., Analytical Channel Models for Millimeter Wave UAV Networks Under Hovering Fluctuations; *TWC April 2020 2868-2883*
- Daher, A.**, Coupechoux, M., Godlewski, P., Ngouat, P., and Minot, P., A Dynamic Clustering Algorithm for Multi-Point Transmissions in Mission-Critical Communications; *TWC July 2020 4934-4946*
- Dai, H.**, see He, X., *TWC March 2020 1814-1824*
- Dai, H.**, see He, X., *TWC June 2020 4054-4066*
- Dai, H.**, see Yapici, Y., *TWC Aug. 2020 5433-5446*
- Dai, H.**, see Hosseinipour, S., *TWC Nov. 2020 7033-7048*
- Dai, L.**, see Sun, X., *TWC April 2020 2713-2727*
- Dai, W.**, see Wang, Y., *TWC Sept. 2020 6037-6049*
- Dai, Y.**, see Sheng, M., *TWC April 2020 2813-2826*
- Daneshrad, B.**, see Zhao, H., *TWC May 2020 3505-3516*
- Dang, J.**, see Wu, L., *TWC Feb. 2020 1113-1126*
- Dang, S.**, see Li, Q., *TWC Jan. 2020 192-204*
- Dang, S.**, see Guo, S., *TWC Oct. 2020 6660-6674*
- Dang, S.**, Guo, S., Coon, J.P., Shihada, B., and Alouini, M., Enhanced Huffman Coded OFDM With Index Modulation; *TWC April 2020 2489-2503*
- Dang, S.**, see Ye, J., *TWC Dec. 2020 7897-7912*
- Dao, M.N.**, see Vu, T.T., *TWC Oct. 2020 6377-6392*
- Dasgheib, M.A.**, Beyranvand, H., and Salehi, J.A., Optimal Placement of Access Points in Cellular Visible Light Communication Networks: An Adaptive Gradient Projection Method; *TWC Oct. 2020 6813-6825*
- de Campos, M.L.R.**, see Filomeno, M.d.L., *TWC Oct. 2020 6289-6300*
- De Domenico, A.**, see Sana, M., *TWC Oct. 2020 6520-6534*
- De Domenico, A.**, Liu, Y., and Yu, W., Optimal Virtual Network Function Deployment for 5G Network Slicing in a Hybrid Cloud Infrastructure; *TWC Dec. 2020 7942-7956*
- de Lima Tejerina, G.R.**, da Silva, C.R.N., and Yacoub, M.D., Extended  $\eta$ - $\mu$  Fading Models; *TWC Dec. 2020 8153-8164*
- de Sena, A.S.**, Lima, F.R.M., da Costa, D.B., Ding, Z., Nardelli, P.H.J., Dias, U.S., and Papadias, C.B., Massive MIMO-NOMA Networks With Imperfect SIC: Design and Fairness Enhancement; *TWC Sept. 2020 6100-6115*
- Dean, T.R.**, Chowdhury, M., Grimwood, N., and Goldsmith, A.J., Rethinking Modulation and Detection for High Doppler Channels; *TWC June 2020 3629-3642*
- Debbah, M.**, see Feng, Q., *TWC May 2020 3435-3448*
- Debbah, M.**, see Azimi-Abarghouyi, S.M., *TWC July 2020 4978-4993*
- Debbah, M.**, see Li, L., *TWC Oct. 2020 6393-6408*
- Debbah, M.**, see Nadeem, Q., *TWC Dec. 2020 7748-7764*
- Decurninge, A.**, see Ngo, K., *TWC March 2020 1948-1964*
- Decurninge, A.**, see Ngo, K., *TWC Sept. 2020 6145-6161*
- Deekshith, P.K.**, Shenoy, K.G., and Sharma, V., Refined Asymptotics for a Block Fading Channel Under Energy Harvesting and Fixed Power Constraints; *TWC April 2020 2558-2569*
- Deng, L.**, see Liu, X., *TWC June 2020 3924-3937*
- Deng, N.**, and Haenggi, M., A Tractable Model for Wirelessly Powered Networks With Energy Correlation; *TWC Sept. 2020 5765-5778*
- Deng, R.**, Di, B., Chen, S., Sun, S., and Song, L., Ultra-Dense LEO Satellite Offloading for Terrestrial Networks: How Much to Pay the Satellite Operator?; *TWC Oct. 2020 6240-6254*
- Deng, X.**, see Wu, X., *TWC Dec. 2020 8211-8219*
- Deng, Y.**, see Ren, H., *TWC March 2020 1786-1801*
- Deng, Y.**, see Li, Y., *TWC Dec. 2020 7779-7795*
- Develi, I.**, see Canbilen, A.E., *TWC May 2020 3034-3046*
- Dey, I.**, Ciunzo, D., and Rossi, P.S., Wideband Collaborative Spectrum Sensing Using Massive MIMO Decision Fusion; *TWC Aug. 2020 5246-5260*
- Dhananjay, A.**, see Dutta, S., *TWC Feb. 2020 756-770*
- Dhillon, H.S.**, see Chetlur, V.V., *TWC March 2020 1738-1753*
- Dhillon, H.S.**, see Mankar, P.D., *TWC June 2020 3796-3811*
- Dhillon, H.S.**, see Banagar, M., *TWC July 2020 4994-5009*
- Di, B.**, see Deng, R., *TWC Oct. 2020 6240-6254*
- Di Renzo, M.**, see Bacha, M., *TWC March 2020 1918-1932*
- Di Renzo, M.**, see Lam, T.T., *TWC Oct. 2020 6752-6770*
- Di Renzo, M.**, see Heidarpour, A.R., *TWC Nov. 2020 7251-7264*
- Diamant, R.**, see Huang, J., *TWC Oct. 2020 6844-6857*
- Diamantoulakis, P.D.**, see Xiao, Y., *TWC Feb. 2020 1154-1166*
- Dias, U.S.**, see Sousa de Sena, A., *TWC March 2020 1622-1635*
- Dias, U.S.**, see de Sena, A.S., *TWC Sept. 2020 6100-6115*
- Ding, H.**, see Lin, S., *TWC May 2020 3199-3213*
- Ding, H.**, see Chen, W., *TWC May 2020 3361-3375*
- Ding, J.**, and Cai, J., Two-Side Coalitional Matching Approach for Joint MIMO-NOMA Clustering and BS Selection in Multi-Cell MIMO-NOMA Systems; *TWC March 2020 2006-2021*
- Ding, R.**, Gao, F., and Shen, X.S., 3D UAV Trajectory Design and Frequency Band Allocation for Energy-Efficient and Fair Communication: A Deep Reinforcement Learning Approach; *TWC Dec. 2020 7796-7809*
- Ding, Z.**, see Li, X., *TWC Jan. 2020 680-695*
- Ding, Z.**, see Jalali, A., *TWC March 2020 2066-2078*
- Ding, Z.**, see Yang, K., *TWC March 2020 2022-2035*
- Ding, Z.**, see Sousa de Sena, A., *TWC March 2020 1622-1635*
- Ding, Z.**, see Ma, Y., *TWC May 2020 3144-3155*
- Ding, Z.**, see Lu, Y., *TWC June 2020 4290-4306*
- Ding, Z.**, see New, W.K., *TWC July 2020 4793-4805*
- Ding, Z.**, see Zhu, J., *TWC July 2020 4964-4977*
- Ding, Z.**, see Sun, C., *TWC Aug. 2020 5575-5588*
- Ding, Z.**, see Huang, H., *TWC Aug. 2020 5373-5388*
- Ding, Z.**, see de Sena, A.S., *TWC Sept. 2020 6100-6115*
- Ding, Z.**, see Yang, L., *TWC Sept. 2020 6065-6082*
- Ding, Z.**, see Al-Obedollah, H.M., *TWC Oct. 2020 6593-6606*
- Ding, Z.**, see Lv, L., *TWC Oct. 2020 6486-6503*
- Ding, Z.**, see Pan, G., *TWC Nov. 2020 7097-7107*
- Ding, Z.**, see Chen, Q., *TWC Nov. 2020 7621-7636*
- Dinh, T.Q.**, Liang, B., Quek, T.Q., and Shin, H., Online Resource Procurement and Allocation in a Hybrid Edge-Cloud Computing System; *TWC March 2020 2137-2149*
- Dini, P.**, see Rostami, S., *TWC Sept. 2020 6020-6036*
- Diniz, P.S.R.**, see Mendonca, M.O.K., *TWC March 2020 1868-1881*
- Dmochowski, P.A.**, see Li, S., *TWC June 2020 3977-3991*
- Dmochowski, P.A.**, see Senanayake, R., *TWC June 2020 4335-4348*

- Dobre, O.A.**, see Al-Obiedollah, H.M., *TWC Oct. 2020 6593-6606*
- Dobre, O.A.**, see Qi, C., *TWC Dec. 2020 8142-8152*
- Dogukan, A.T.**, and Basar, E., Super-Mode OFDM With Index Modulation; *TWC Nov. 2020 7353-7362*
- Domanovitz, E.**, and Erez, U., Simple Bounds for the Symmetric Capacity of the Rayleigh Fading Multiple Access Channel; *TWC July 2020 4594-4603*
- Domouchtsidis, S.**, Tsinos, C.G., Chatzinotas, S., and Ottersten, B., Constant Envelope MIMO-OFDM Precoding for Low Complexity Large-Scale Antenna Array Systems; *TWC Dec. 2020 7973-7985*
- Dong, L.**, and Wang, H., Enhancing Secure MIMO Transmission via Intelligent Reflecting Surface; *TWC Nov. 2020 7543-7556*
- Dong, X.**, You, Z., Wang, L., Gao, S., Shen, Y., and Ma, J., A Truthful Online Incentive Mechanism for Nondeterministic Spectrum Allocation; *TWC July 2020 4632-4642*
- Dong, Y.**, see Bai, Z., *TWC Feb. 2020 929-941*
- Doshi, A.**, see Balevi, E., *TWC March 2020 2079-2090*
- Du, J.**, see Han, G., *TWC March 2020 1636-1649*
- Du, J.**, see Feng, J., *TWC June 2020 4321-4334*
- Du, P.**, see Yang, H., *TWC July 2020 4671-4684*
- Du, R.**, Shokri-Ghadikolaei, H., and Fischione, C., Wirelessly-Powered Sensor Networks: Power Allocation for Channel Estimation and Energy Beamforming; *TWC May 2020 2987-3002*
- Du, X.**, Sun, Y., Shroff, N.B., and Sabharwal, A., Balancing Queueing and Retransmission: Latency-Optimal Massive MIMO Design; *TWC April 2020 2293-2307*
- Duan, H.**, see Yang, L., *TWC Jan. 2020 520-532*
- Duan, H.**, see Wan, Q., *TWC June 2020 4234-4246*
- Duan, L.**, see Zhang, H., *TWC July 2020 4817-4830*
- Duan, S.**, Su, R., Xu, C., Chen, Y., and He, J., Ultra-Wideband Radio Channel Characteristics for Near-Ground Swarm Robots Communication; *TWC July 2020 4715-4726*
- Duan, W.**, see Padidar, P., *TWC Jan. 2020 354-366*
- Dudin, A.N.**, see Kim, C., *TWC Feb. 2020 744-755*
- Dudin, S.A.**, see Kim, C., *TWC Feb. 2020 744-755*
- Dudina, O.S.**, see Kim, C., *TWC Feb. 2020 744-755*
- Duhamel, P.**, see Khreis, A., *TWC Sept. 2020 6224-6237*
- Duong, T.M.**, and Kwon, S., Vertical Handover Analysis for Randomly Deployed Small Cells in Heterogeneous Networks; *TWC April 2020 2282-2292*
- Duong, T.Q.**, see Sheng, Z., *TWC May 2020 2905-2919*
- Dupleich, D.**, see Gentile, C., *TWC Oct. 2020 6504-6519*
- Durisi, G.**, see Lancho, A., *TWC July 2020 4831-4846*
- Durrani, S.**, see Idrees, S., *TWC Oct. 2020 6316-6330*
- Dutra, D.L.C.**, see Baggaa, M., *TWC July 2020 4700-4714*
- Dutta, A.**, see Abdul Careem, M.A., *TWC Dec. 2020 7836-7850*
- Dutta, S.**, Barati, C.N., Ramirez, D., Dhananjay, A., Buckwalter, J.F., and Rangan, S., A Case for Digital Beamforming at mmWave; *TWC Feb. 2020 756-770*
- Dytso, A.**, see Cao, W., *TWC June 2020 3685-3699*

## E

- Ebrahimi, A.**, see Abbasi, O., *TWC Nov. 2020 7153-7168*
- Ebrahimi, M.**, Lahouti, F., and Kostina, V., Two-Layer Coded Channel Access With Collision Resolution: Design and Analysis; *TWC Dec. 2020 7986-7997*
- Ebrahimzadeh, A.**, and Maier, M., Cooperative Computation Offloading in FiWi Enhanced 4G HetNets Using Self-Organizing MEC; *TWC July 2020 4480-4493*
- Edfors, O.**, see Flordelis, J., *TWC Jan. 2020 380-394*
- Ehsanfar, S.**, Chafii, M., and Fettweis, G.P., On UW-Based Transmission for MIMO Multi-Carriers With Spatial Multiplexing; *TWC Sept. 2020 5875-5890*
- El Bakoury, I.**, and Nazer, B., Integer-Forcing Architectures for Uplink Cloud Radio Access Networks; *TWC April 2020 2336-2351*
- El Hassan, M.**, Crussiere, M., Helard, J., Nasser, Y., and Bazzi, O., EVM Closed-Form Expression for OFDM Signals With Tone Reservation-Based PAPR Reduction; *TWC April 2020 2352-2366*

- Elamassie, M.**, and Uysal, M., Vertical Underwater Visible Light Communication Links: Channel Modeling and Performance Analysis; *TWC Oct. 2020 6948-6959*
- Elbir, A.M.**, and Mishra, K.V., Joint Antenna Selection and Hybrid Beamformer Design Using Unquantized and Quantized Deep Learning Networks; *TWC March 2020 1677-1688*
- Eldar, Y.C.**, see Shlezinger, N., *TWC May 2020 3319-3331*
- Elkashlan, M.**, see Ren, H., *TWC March 2020 1786-1801*
- Elkashlan, M.**, see Pan, C., *TWC Aug. 2020 5218-5233*
- Elkordy, A.R.**, Motahari, A.S., Nafie, M., and Gunduz, D., Cache-Aided Combination Networks With Interference; *TWC Jan. 2020 148-161*
- Elnahas, O.**, Ma, Y., Jiang, Y., and Quan, Z., Clock Synchronization in Wireless Networks Using Matrix Completion-Based Maximum Likelihood Estimation; *TWC Dec. 2020 8220-8231*
- ElSawy, H.**, see Benkhelifa, F., *TWC April 2020 2699-2712*
- Emadi, M.J.**, see Masoumi, H., *TWC Feb. 2020 1038-1053*
- Erez, U.**, see Domanovitz, E., *TWC July 2020 4594-4603*
- Erkip, E.**, see Hassanzadeh, P., *TWC May 2020 3019-3033*
- Eslami Rasekh, M.**, Guo, D., and Madhow, U., Joint Routing and Resource Allocation for Millimeter Wave Pico cellular Backhaul; *TWC Feb. 2020 783-794*
- Evans, J.S.**, see Senanayake, R., *TWC June 2020 4335-4348*

## F

- Fan, P.**, see Ma, J., *TWC June 2020 4247-4261*
- Fan, P.**, see Lu, Y., *TWC June 2020 4290-4306*
- Fan, P.**, see Liu, X., *TWC June 2020 3924-3937*
- Fan, P.**, see Liu, J., *TWC Nov. 2020 7064-7080*
- Fang, F.**, see Zhu, J., *TWC July 2020 4964-4977*
- Fang, F.**, see Yang, L., *TWC Sept. 2020 6065-6082*
- Fang, F.**, Ye, G., Zhang, H., Cheng, J., and Leung, V.C.M., Energy-Efficient Joint User Association and Power Allocation in a Heterogeneous Network; *TWC Nov. 2020 7008-7020*
- Fang, H.**, Wang, X., and Xu, L., Fuzzy Learning for Multi-Dimensional Adaptive Physical Layer Authentication: A Compact and Robust Approach; *TWC Aug. 2020 5420-5432*
- Fang, J.**, see Yang, L., *TWC Jan. 2020 520-532*
- Fang, J.**, see Wan, Q., *TWC June 2020 4234-4246*
- Fang, S.**, see Yan, K., *TWC Aug. 2020 5176-5187*
- Fang, Y.**, see Lin, S., *TWC May 2020 3199-3213*
- Fang, Y.**, see Han, D., *TWC June 2020 3938-3951*
- Fang, Z.**, see Xiao, Y., *TWC Feb. 2020 1154-1166*
- Farsad, N.**, see Shlezinger, N., *TWC May 2020 3319-3331*
- Fauss, M.**, see Cao, W., *TWC June 2020 3685-3699*
- Fazeli, A.**, Nguyen, H.H., and Hanif, M., Generalized OFDM-IM With Noncoherent Detection; *TWC July 2020 4464-4479*
- Feng, C.**, Fu, L., Wu, X., Gan, X., Wang, X., Chen, G., and Xu, J., Evolution Matters: Content Transmission in Evolving Wireless Social Networks; *TWC Nov. 2020 7377-7391*
- Feng, D.**, see Han, B., *TWC July 2020 5010-5024*
- Feng, G.**, see Cao, W., *TWC June 2020 3685-3699*
- Feng, H.**, see Liu, G., *TWC Feb. 2020 995-1007*
- Feng, H.**, see Wang, R., *TWC May 2020 3077-3090*
- Feng, H.**, see Jiang, Y., *TWC Dec. 2020 8442-8454*
- Feng, J.**, Yu, F.R., Pei, Q., Du, J., and Zhu, L., Joint Optimization of Radio and Computational Resources Allocation in Blockchain-Enabled Mobile Edge Computing Systems; *TWC June 2020 4321-4334*
- Feng, K.**, and Haenggi, M., Separability, Asymptotics, and Applications of the SIR Meta Distribution in Cellular Networks; *TWC July 2020 4806-4816*
- Feng, M.**, see Zhang, H., *TWC Feb. 2020 835-845*
- Feng, Q.**, Pang, J., Maso, M., Debbah, M., and Tong, W., IDFT-VFDM for Supplementary Uplink and LTE-NR Co-Existence; *TWC May 2020 3435-3448*
- Feng, S.**, see Fu, H., *TWC Dec. 2020 8351-8365*
- Feng, T.**, see Zhao, Y., *TWC March 2020 1770-1785*
- Feng, Y.**, see Tang, Z., *TWC March 2020 1519-1534*
- Feng, Z.**, see Ma, Y., *TWC May 2020 3144-3155*

- Fernandes, V.**, Poor, H.V., and Ribeiro, M.V., Dedicated Energy Harvesting in Concatenated Hybrid PLC-Wireless Systems; *TWC June 2020 3839-3853*
- Fernandez-Plazaola, U.**, Moreno-Pozas, L., Lopez-Martinez, F.J., Paris, J.F., Martos-Naya, E., and Romero-Jerez, J.M., A Tractable Product Channel Model for Line-of-Sight Scenarios; *TWC March 2020 2107-2121*
- Ferreira, T.N.**, see Mendonca, M.O.K., *TWC March 2020 1868-1881*
- Fettweis, G.P.**, see Ehsanfar, S., *TWC Sept. 2020 5875-5890*
- Filho, J.C.S.S.**, see Perim, V., *TWC Jan. 2020 205-217*
- Filo, M.**, Foh, C.H., Vahid, S., and Tafazolli, R., Performance Analysis of Ultra-Dense Networks With Regularly Deployed Base Stations; *TWC May 2020 3530-3545*
- Filomeno, M.d.L.**, de Campos, M.L.R., Poor, H.V., and Ribeiro, M.V., Hybrid Power Line/Wireless Systems: An Optimal Power Allocation Perspective; *TWC Oct. 2020 6289-6300*
- Fischione, C.**, see Du, R., *TWC May 2020 2987-3002*
- Fischione, C.**, see da Silva, J.M.B., *TWC Oct. 2020 6916-6931*
- Fleming, P.**, see Khani, M., *TWC Aug. 2020 5635-5648*
- Flordelis, J.**, Li, X., Edfors, O., and Tufvesson, F., Massive MIMO Extensions to the COST 2100 Channel Model: Modeling and Validation; *TWC Jan. 2020 380-394*
- Fodor, G.**, see da Silva, J.M.B., *TWC Oct. 2020 6916-6931*
- Foh, C.H.**, see Filo, M., *TWC May 2020 3530-3545*
- Fu, H.**, Feng, S., Tang, W., and Ng, D.W.K., Robust Secure Beamforming Design for Two-User Downlink MISO Rate-Splitting Systems; *TWC Dec. 2020 8351-8365*
- Fu, J.**, Juyal, P., and Zajic, A., Modeling of 300 GHz Chip-to-Chip Wireless Channels in Metal Enclosures; *TWC May 2020 3214-3227*
- Fu, L.**, see Lin, S., *TWC May 2020 3199-3213*
- Fu, L.**, see Lin, N., *TWC July 2020 4919-4933*
- Fu, L.**, see Feng, C., *TWC Nov. 2020 7377-7391*
- Fu, X.**, Yu, F.R., Wang, J., Qi, Q., and Liao, J., Dynamic Service Function Chain Embedding for NFV-Enabled IoT: A Deep Reinforcement Learning Approach; *TWC Jan. 2020 507-519*
- Fu, Z.**, see Su, J., *TWC May 2020 2974-2986*
- Fuja, T.E.**, see Wu, X., *TWC Aug. 2020 5321-5332*
- Fukui, T.**, Komatsu, K., Miyaji, Y., and Uehara, H., Analog Self-Interference Cancellation Using Auxiliary Transmitter Considering IQ Imbalance and Amplifier Nonlinearity; *TWC Nov. 2020 7439-7452*
- G**
- Gaber, A.**, see Chen, C., *TWC Sept. 2020 6210-6223*
- Gacanin, H.**, see Lin, N., *TWC July 2020 4919-4933*
- Gaidamaka, Y.**, see Samuylov, A., *TWC May 2020 3421-3434*
- Gan, X.**, see Feng, C., *TWC Nov. 2020 7377-7391*
- Ganji, M.**, see Zou, X., *TWC March 2020 1503-1518*
- Ganji, M.**, Zou, X., and Jafarkhani, H., Exploiting Time Asynchrony in Multi-User Transmit Beamforming; *TWC May 2020 3156-3169*
- Gao, B.**, Lu, L., Xiong, K., Park, J., Yang, Y., and Wang, Y., Spectrum Sharing Among Rapidly Deployable Small Cells: A Hybrid Multi-Agent Approach; *TWC Jan. 2020 395-409*
- Gao, F.**, see Ma, J., *TWC Oct. 2020 6721-6736*
- Gao, F.**, see Ding, R., *TWC Dec. 2020 7796-7809*
- Gao, H.**, Xiao, K., Xia, B., and Chen, Z., Mutual Information Analysis of Mixed-ADC MIMO Systems Over Rayleigh Channels Based on Random Matrix Theory; *TWC July 2020 4894-4906*
- Gao, H.**, Li, W., Banez, R.A., Han, Z., and Poor, H.V., Mean Field Evolutionary Dynamics in Dense-User Multi-Access Edge Computing Systems; *TWC Dec. 2020 7825-7835*
- Gao, L.**, see Kim, H., *TWC June 2020 3782-3795*
- Gao, S.**, see Dong, X., *TWC July 2020 4632-4642*
- Gao, S.**, Cheng, X., and Yang, L., Estimating Doubly-Selective Channels for Hybrid mmWave Massive MIMO Systems: A Doubly-Sparse Approach; *TWC Sept. 2020 5703-5715*
- Gao, W.**, see Shi, Z., *TWC Sept. 2020 5692-5702*
- Gao, X.**, see Sun, C., *TWC Aug. 2020 5575-5588*
- Gao, X.**, see An, J., *TWC April 2020 2841-2854*
- Gao, X.**, see Lu, A., *TWC April 2020 2628-2642*
- Gao, X.**, see You, L., *TWC April 2020 2684-2698*
- Gao, Y.**, and Roy, S., Achieving Proportional Fairness for LTE-LAA and Wi-Fi Coexistence in Unlicensed Spectrum; *TWC May 2020 3390-3404*
- Gao, Z.**, see Pu, L., *TWC Feb. 2020 1237-1249*
- Gao, Z.**, see Sun, Y., *TWC Oct. 2020 6331-6346*
- Garcia, M.J.F.**, see Villalonga, D.A.U., *TWC June 2020 3826-3838*
- Garcia-Rodriguez, A.**, see Azari, M.M., *TWC Sept. 2020 6130-6144*
- Garg, H.K.**, see Zhao, Y., *TWC March 2020 1770-1785*
- Garlisi, D.**, see Baiocchi, A., *TWC Jan. 2020 712-726*
- Garnaev, A.**, Petropulu, A.P., Trappe, W., and Vincent Poor, H., A Jamming Game With Rival-Type Uncertainty; *TWC Aug. 2020 5359-5372*
- Gaudio, L.**, Kobayashi, M., Caire, G., and Colavolpe, G., On the Effectiveness of OTFS for Joint Radar Parameter Estimation and Communication; *TWC Sept. 2020 5951-5965*
- Gebali, F.**, see Rakkia, T., *TWC March 2020 1802-1813*
- Gentile, C.**, Molisch, A.F., Chuang, J., Michelson, D.G., Bodi, A., Bhardwaj, A., Ozdemir, O., Khawaja, W.A.G., Guvenc, I., Cheng, Z., Rottenberg, F., Choi, T., Muller, R., Han, N., and Dupleich, D., Methodology for Benchmarking Radio-Frequency Channel Sounders Through a System Model; *TWC Oct. 2020 6504-6519*
- Georgiadis, L.**, see Papadopoulos, A., *TWC June 2020 4195-4208*
- Geraci, G.**, see Azari, M.M., *TWC Sept. 2020 6130-6144*
- Gesbert, D.**, see Chen, J., *TWC Feb. 2020 1305-1319*
- Gesbert, D.**, see Najla, M., *TWC Nov. 2020 7124-7138*
- Ghassemlooy, Z.**, see Priyadarshani, R., *TWC March 2020 1593-1609*
- Ghauch, H.**, see Mouris, B.A., *TWC May 2020 3575-3590*
- Ghosh, A.**, see Zhu, D., *TWC Feb. 2020 1357-1372*
- Ghosh, A.**, see Gupta, M., *TWC Dec. 2020 8024-8038*
- Ghrayeb, A.**, see Samir, M., *TWC Jan. 2020 34-46*
- Ghrayeb, A.**, see Arfaoui, M.A., *TWC Jan. 2020 265-278*
- Gilimyanov, R.**, see Zhuang, H., *TWC July 2020 4507-4518*
- Giordani, M.**, see Mason, F., *TWC Aug. 2020 5605-5620*
- Giorgetti, A.**, see Senanayake, R., *TWC June 2020 4335-4348*
- Godlewski, P.**, see Daher, A., *TWC July 2020 4934-4946*
- Goedel, D.**, see Li, K., *TWC May 2020 3463-3473*
- Goldsmith, A.J.**, see Gomez-Cuba, F., *TWC Jan. 2020 47-61*
- Goldsmith, A.J.**, see Shlezinger, N., *TWC May 2020 3319-3331*
- Goldsmith, A.J.**, see Dean, T.R., *TWC June 2020 3629-3642*
- Gomez, J.T.**, see Villalonga, D.A.U., *TWC June 2020 3826-3838*
- Gomez-Cuba, F.**, and Goldsmith, A.J., Compressed Sensing Channel Estimation for OFDM With Non-Gaussian Multipath Gains; *TWC Jan. 2020 47-61*
- Gomez-Cuba, F.**, and Zorzi, M., Optimal Link Scheduling in Millimeter Wave Multi-Hop Networks With MU-MIMO Radios; *TWC March 2020 1839-1854*
- Gomez-Ponce, J.**, see Wang, R., *TWC May 2020 3077-3090*
- Gong, C.**, see Liu, B., *TWC Feb. 2020 1386-1396*
- Gong, F.**, see Chen, W., *TWC May 2020 3361-3375*
- Gong, S.**, Wang, S., Xing, C., Ma, S., and Quek, T.Q.S., Robust Superimposed Training Optimization for UAV Assisted Communication Systems; *TWC March 2020 1704-1721*
- Gong, S.**, see Xing, C., *TWC Aug. 2020 5473-5487*
- Gong, S.**, Ma, S., Xing, C., Li, Y., and Hanzo, L., Multi-Antenna Aided Secrecy Beamforming Optimization for Wirelessly Powered HetNets; *TWC Aug. 2020 5261-5277*
- Gong, Y.**, see Lan, Q., *TWC Sept. 2020 5716-5731*
- Gong, Y.**, see Li, X., *TWC Sept. 2020 6116-6129*
- Gong, Z.**, Li, C., Jiang, F., and Zheng, J., AUV-Aided Localization of Underwater Acoustic Devices Based on Doppler Shift Measurements; *TWC April 2020 2226-2239*
- Gonzalez-Prelcic, N.**, see Park, S., *TWC Feb. 2020 1084-1097*
- Gonzalez-Prelcic, N.**, see Xie, H., *TWC Nov. 2020 7407-7422*
- Gopalam, S.**, Hanly, S.V., and Whiting, P., Distributed User Association and Resource Allocation Algorithms for Three Tier HetNets; *TWC Dec. 2020 7913-7926*
- Granstrom, K.**, see Kim, H., *TWC June 2020 3782-3795*
- Gregoratti, D.**, see Mestre, X., *TWC March 2020 2122-2136*

- Grimwood, N.**, see Dean, T.R., *TWC June 2020 3629-3642*
- Gross, J.**, see Schiessl, S., *TWC June 2020 3879-3893*
- Grossi, E.**, Lops, M., and Venturino, L., Adaptive Detection and Localization Exploiting the IEEE 802.11ad Standard; *TWC July 2020 4394-4407*
- Gruppi, E.**, Wong, K., Bocus, M.Z., and Chin, W.H., Ultra Dense Edge Caching Networks With Arbitrary User Spatial Density; *TWC July 2020 4363-4377*
- Gu, K.**, see Wang, Y., *TWC Sept. 2020 6037-6049*
- Gu, Q.**, see Yao, Y., *TWC May 2020 3047-3063*
- Gu, Y.**, see Cheng, L., *TWC July 2020 4775-4792*
- Gu, Y.**, see Wang, Q., *TWC Dec. 2020 8054-8067*
- Gu, Z.**, Shen, T., Wang, Y., and Lau, F.C., Efficient Rendezvous for Heterogeneous Interference in Cognitive Radio Networks; *TWC Jan. 2020 91-105*
- Guan, H.**, see Chen, C., *TWC May 2020 3273-3288*
- Guan, X.**, see Li, M., *TWC Jan. 2020 650-664*
- Guan, Y.L.**, see Liu, X., *TWC June 2020 3924-3937*
- Gucciardo, M.**, see Croce, D., *TWC Feb. 2020 822-834*
- Guenach, M.**, see Bailleul, J., *TWC Sept. 2020 5938-5950*
- Guevara, A.P.**, see Chen, C., *TWC Sept. 2020 6210-6223*
- Gui, G.**, see Sun, Y., *TWC Oct. 2020 6331-6346*
- Guillaud, M.**, see Ngo, K., *TWC March 2020 1948-1964*
- Guillaud, M.**, see Ngo, K., *TWC Sept. 2020 6145-6161*
- Guizani, M.**, see Han, G., *TWC March 2020 1636-1649*
- Guizani, M.**, see Xue, K., *TWC June 2020 3673-3684*
- Guizani, M.**, see Huang, J., *TWC April 2020 2308-2320*
- Gultekin, S.S.**, see Canbilen, A.E., *TWC May 2020 3034-3046*
- Gultekin, Y.C.**, J. van Houtum, W., Koppelaar, A.G.C., and Willems, F.M.J., Enumerative Sphere Shaping for Wireless Communications With Short Packets; *TWC Feb. 2020 1098-1112*
- Gunduz, D.**, see Elkordy, A.R., *TWC Jan. 2020 148-161*
- Gunduz, D.**, see Amiri, M.M., *TWC May 2020 3546-3557*
- Gunduz, D.**, see Zhao, J., *TWC Nov. 2020 7484-7497*
- Guo, D.**, see Esлами Rasekh, M., *TWC Feb. 2020 783-794*
- Guo, D.**, see Ren, J., *TWC Nov. 2020 7690-7703*
- Guo, F.**, Yu, F.R., Zhang, H., Ji, H., Liu, M., and Leung, V.C.M., Adaptive Resource Allocation in Future Wireless Networks With Blockchain and Mobile Edge Computing; *TWC March 2020 1689-1703*
- Guo, H.**, Liang, Y., Chen, J., and Larsson, E.G., Weighted Sum-Rate Maximization for Reconfigurable Intelligent Surface Aided Wireless Networks; *TWC May 2020 3064-3076*
- Guo, J.**, Yu, Q., Meng, W., and Xiang, W., Energy-Efficient Hybrid Precoder With Adaptive Overlapped Subarrays for Large-Array mmWave Systems; *TWC March 2020 1484-1502*
- Guo, J.**, Wen, C., Jin, S., and Li, G.Y., Convolutional Neural Network-Based Multiple-Rate Compressive Sensing for Massive MIMO CSI Feedback: Design, Simulation, and Analysis; *TWC April 2020 2827-2840*
- Guo, K.**, see Xia, W., *TWC Nov. 2020 7108-7123*
- Guo, L.**, see Mu, X., *TWC Oct. 2020 6884-6898*
- Guo, S.**, see Ye, J., *TWC Aug. 2020 5561-5574*
- Guo, S.**, Zhang, H., Zhang, P., Dang, S., Xu, C., and Alouini, M., Signal Shaping for Non-Uniform Beamspace Modulated mmWave Hybrid MIMO Communications; *TWC Oct. 2020 6660-6674*
- Guo, S.**, see Dang, S., *TWC April 2020 2489-2503*
- Guo, Y.J.**, see Qin, C., *TWC Oct. 2020 6425-6439*
- Guo, Y.J.**, see Le, A.T., *TWC April 2020 2460-2471*
- Gupta, M.**, Rao, A., Visotsky, E., Ghosh, A., and Andrews, J.G., Learning Link Schedules in Self-Backhauled Millimeter Wave Cellular Networks; *TWC Dec. 2020 8024-8038*
- Guvenc, I.**, see Yapici, Y., *TWC Aug. 2020 5433-5446*
- Guvenc, I.**, see Gentile, C., *TWC Oct. 2020 6504-6519*
- Hadj-Kacem, I.**, Braham, H., and Jemaa, S.B., SINR and Rate Distributions for Downlink Cellular Networks; *TWC July 2020 4604-4616*
- Haenggi, M.**, see Pezeshki, H., *TWC June 2020 4095-4108*
- Haenggi, M.**, see Yu, X., *TWC July 2020 4408-4423*
- Haenggi, M.**, see Feng, K., *TWC July 2020 4806-4816*
- Haenggi, M.**, see Deng, N., *TWC Sept. 2020 5765-5778*
- Hamalainen, M.**, see Mucchi, L., *TWC Sept. 2020 5666-5675*
- Hamici, Z.**, Elements Failure Robust Compensation in 2D Phased Arrays for DOA Estimation With M-ary PSK Signals; *TWC Feb. 2020 1347-1356*
- Han, B.**, Sciancalepore, V., Costa-Perez, X., Feng, D., and Schotten, H.D., Multiservice-Based Network Slicing Orchestration With Impatient Tenants; *TWC July 2020 5010-5024*
- Han, D.**, Chen, W., and Fang, Y., Joint Channel and Queue Aware Scheduling for Latency Sensitive Mobile Edge Computing With Power Constraints; *TWC June 2020 3938-3951*
- Han, D.**, see Li, T., *TWC Aug. 2020 5461-5472*
- Han, G.**, Du, J., Lin, C., Wu, H., and Guizani, M., An Energy-Balanced Trust Cloud Migration Scheme for Underwater Acoustic Sensor Networks; *TWC March 2020 1636-1649*
- Han, N.**, see Gentile, C., *TWC Oct. 2020 6504-6519*
- Han, S.**, Su, H., Yang, C., and Molisch, A.F., Proactive Edge Caching for Video on Demand With Quality Adaptation; *TWC Jan. 2020 218-234*
- Han, Y.**, Rao, B.D., and Lee, J., Massive Uncoordinated Access With Massive MIMO: A Dictionary Learning Approach; *TWC Feb. 2020 1320-1332*
- Han, Z.**, see Liu, J., *TWC Jan. 2020 435-446*
- Han, Z.**, see Xiong, Z., *TWC March 2020 1722-1737*
- Han, Z.**, see Zhu, Y., *TWC June 2020 3894-3907*
- Han, Z.**, see Cao, X., *TWC Aug. 2020 5531-5546*
- Han, Z.**, see Ma, J., *TWC Oct. 2020 6721-6736*
- Han, Z.**, see Li, L., *TWC Oct. 2020 6393-6408*
- Han, Z.**, see Zhang, S., *TWC Oct. 2020 6578-6592*
- Han, Z.**, see Gao, H., *TWC Dec. 2020 7825-7835*
- Han, Z.**, see Banez, R.A., *TWC Dec. 2020 8366-8381*
- Handel, P.**, and Ronnow, D., MIMO and Massive MIMO Transmitter Crosstalk; *TWC March 2020 1882-1893*
- Haneda, K.**, see Miao, Y., *TWC Aug. 2020 5345-5358*
- Hanif, M.**, see Fazeli, A., *TWC July 2020 4464-4479*
- Hanly, S.V.**, see Liu, C., *TWC Aug. 2020 5117-5131*
- Hanly, S.V.**, see Gopalram, S., *TWC Dec. 2020 7913-7926*
- Hanzo, L.**, see Liu, Y., *TWC Jan. 2020 610-623*
- Hanzo, L.**, see Yuan, W., *TWC Feb. 2020 915-928*
- Hanzo, L.**, see Xiao, L., *TWC March 2020 1990-2005*
- Hanzo, L.**, see Xia, G., *TWC July 2020 4643-4656*
- Hanzo, L.**, see Pan, C., *TWC Aug. 2020 5218-5233*
- Hanzo, L.**, see Xing, C., *TWC Aug. 2020 5473-5487*
- Hanzo, L.**, see Gong, S., *TWC Aug. 2020 5261-5277*
- Hanzo, L.**, see Zhao, C., *TWC April 2020 2382-2396*
- Hao, L.**, see Xiao, Y., *TWC Feb. 2020 1154-1166*
- Hardjawana, W.**, see Wang, H., *TWC March 2020 2036-2051*
- Hasan, M.N.**, Kurkoski, B.M., Sakzad, A., and Viterbo, E., Steepest Gradient-Based Orthogonal Precoder for Integer-Forcing MIMO; *TWC Feb. 2020 942-955*
- Hassan, F.**, see Nabil, A., *TWC Nov. 2020 7528-7542*
- Hassan, M.Z.**, Hossain, M.J., Cheng, J., and Leung, V.C.M., Hybrid RF/FSO Backhaul Networks With Statistical-QoS-Aware Buffer-Aided Relaying; *TWC March 2020 1464-1483*
- Hassanpour, M.**, see Hoseinitabatabei, S.A., *TWC May 2020 3346-3360*
- Hassanzadeh, P.**, Tulino, A.M., Llorca, J., and Erkip, E., Rate-Distortion-Memory Trade-Offs in Heterogeneous Caching Networks; *TWC May 2020 3019-3033*
- Hassibi, B.**, see Walk, P., *TWC Oct. 2020 6675-6692*
- He, H.**, Shan, H., Huang, A., Ye, Q., and Zhuang, W., Edge-Aided Computing and Transmission Scheduling for LTE-U-Enabled IoT; *TWC Dec. 2020 7881-7896*
- He, J.**, see Duan, S., *TWC July 2020 4715-4726*
- He, R.**, see Huang, C., *TWC June 2020 3643-3657*
- He, R.**, see Yang, M., *TWC Sept. 2020 5860-5874*

## H

- Ha, V.N.**, see Nguyen, T.T., *TWC Jan. 2020 293-309*
- Haas, H.**, see Liu, Y., *TWC Jan. 2020 610-623*
- Haas, H.**, see Xiao, L., *TWC March 2020 1990-2005*
- Haas, H.**, see Kazemi, H., *TWC Sept. 2020 5676-5691*

- He, S.**, see Zhou, H., *TWC April 2020 2658-2669*
- He, T.**, see Cheng, L., *TWC July 2020 4775-4792*
- He, X.**, Jin, R., and Dai, H., Peace: Privacy-Preserving and Cost-Efficient Task Offloading for Mobile-Edge Computing; *TWC March 2020 1814-1824*
- He, X.**, Jin, R., and Dai, H., Physical-Layer Assisted Secure Offloading in Mobile-Edge Computing; *TWC June 2020 4054-4066*
- He, Y.**, Ren, J., Yu, G., and Cai, Y., Optimizing the Learning Performance in Mobile Augmented Reality Systems With CNN; *TWC Aug. 2020 5333-5344*
- He, Y.**, see Ren, J., *TWC Nov. 2020 7690-7703*
- He, Z.**, see Wang, S., *TWC April 2020 2601-2612*
- Heath, R.W.**, see Zhu, D., *TWC Feb. 2020 1357-1372*
- Heath, R.W.**, see Park, S., *TWC Feb. 2020 1084-1097*
- Hedayati, M.**, and Kim, I., CoMP-NOMA in the SWIPT Networks; *TWC July 2020 4549-4562*
- Hedgpeth, T.**, see Li, T., *TWC Aug. 2020 5461-5472*
- Heidarpour, A.R.**, Ardaki, M., Tellambura, C., Di Renzo, M., and Uysal, M., Network-Coded Cooperative Systems With Generalized User-Relay Selection; *TWC Nov. 2020 7251-7264*
- Helard, J.**, see El Hassan, M., *TWC April 2020 2352-2366*
- Hellaoui, H.**, Bagaa, M., Chelli, A., and Taleb, T., Joint Sub-Carrier and Power Allocation for Efficient Communication of Cellular UAVs; *TWC Dec. 2020 8287-8302*
- Hemadep, I.A.**, see Xiao, L., *TWC Dec. 2020 8232-8245*
- Henige, T.**, see Wang, R., *TWC May 2020 3077-3090*
- Ho, P.**, see Padidar, P., *TWC Jan. 2020 354-366*
- Hong, C.S.**, see Pandey, S.R., *TWC May 2020 3241-3256*
- Hong, D.**, see Kim, H., *TWC Feb. 2020 1373-1385*
- Hong, S.**, see Choi, J., *TWC Jan. 2020 162-176*
- Hoseinitabatabei, S.A.**, Mohamed, A., Hassanpour, M., and Tafazolli, R., The Power of Mobility Prediction in Reducing Idle-State Signaling in Cellular Systems: A Revisit to 4G Mobility Management; *TWC May 2020 3346-3360*
- Hossain, E.**, see Ali, K.S., *TWC Nov. 2020 7637-7652*
- Hossain, M.J.**, see Hassan, M.Z., *TWC March 2020 1464-1483*
- Hossain, M.J.**, see Ali, K.S., *TWC Nov. 2020 7637-7652*
- Hosseinalipour, S.**, Rahmati, A., and Dai, H., Interference Avoidance Position Planning in Dual-Hop and Multi-Hop UAV Relay Networks; *TWC Nov. 2020 7033-7048*
- Hou, X.**, and Leib, H., A Network Linear Block Coding Approach to Selective Detect-and-Forward Multi-Way Relaying With Differential Modulation; *TWC Sept. 2020 5749-5764*
- Hou, X.**, see Ye, N., *TWC April 2020 2208-2225*
- Hou, Y.**, see Wu, H., *TWC April 2020 2411-2426*
- Hou, Z.**, She, C., Li, Y., Zhuo, L., and Vucetic, B., Prediction and Communication Co-Design for Ultra-Reliable and Low-Latency Communications; *TWC Feb. 2020 1196-1209*
- Hoydis, J.**, see Khani, M., *TWC Aug. 2020 5635-5648*
- Hu, C.**, see Yin, B., *TWC April 2020 2240-2251*
- Hu, J.**, Li, M., Yang, K., Ng, S.X., and Wong, K., Unary Coding Controlled Simultaneous Wireless Information and Power Transfer; *TWC Jan. 2020 637-649*
- Hu, J.**, Wang, Z., Wei, J., Lv, R., Zhao, J., Wang, Q., Chen, H., and Yang, D., Towards Demand-Driven Dynamic Incentive for Mobile Crowdsensing Systems; *TWC July 2020 4907-4918*
- Hu, J.**, see Zhao, Y., *TWC Dec. 2020 8039-8053*
- Hu, J.**, see Liang, Q., *TWC Dec. 2020 7927-7941*
- Hu, Q.**, Cai, Y., Liu, A., Yu, G., and Li, G.Y., Low-Complexity Joint Resource Allocation and Trajectory Design for UAV-Aided Relay Networks With the Segmented Ray-Tracing Channel Model; *TWC Sept. 2020 6179-6195*
- Hu, R.Q.**, see Zhou, F., *TWC May 2020 3170-3184*
- Hu, R.Q.**, see Zhou, Z., *TWC Nov. 2020 7339-7352*
- Hu, X.**, Wang, L., Wong, K., Tao, M., Zhang, Y., and Zheng, Z., Edge and Central Cloud Computing: A Perfect Pairing for High Energy Efficiency and Low-Latency; *TWC Feb. 2020 1070-1083*
- Hu, X.**, Wong, K., and Zhang, Y., Wireless-Powered Edge Computing With Cooperative UAV: Task, Time Scheduling and Trajectory Design; *TWC Dec. 2020 8083-8098*
- Hu, Y.**, Chen, M., and Saad, W., Joint Access and Backhaul Resource Management in Satellite-Drone Networks: A Competitive Market Approach; *TWC June 2020 3908-3923*
- Hu, Y.H.**, see Xia, M., *TWC June 2020 3769-3781*
- Hua, C.**, see Li, M., *TWC Jan. 2020 650-664*
- Huang, A.**, see He, H., *TWC Dec. 2020 7881-7896*
- Huang, C.**, Molisch, A.F., He, R., Wang, R., Tang, P., Ai, B., and Zhong, Z., Machine Learning-Enabled LOS/NLOS Identification for MIMO Systems in Dynamic Environments; *TWC June 2020 3643-3657*
- Huang, C.**, see Yang, M., *TWC Sept. 2020 5860-5874*
- Huang, D.**, Tao, X., Jiang, C., Cui, S., and Lu, J., Trace-Driven QoE-Aware Proactive Caching for Mobile Video Streaming in Metropolis; *TWC Jan. 2020 62-76*
- Huang, H.**, see Latinovic, Z., *TWC Feb. 2020 1415-1428*
- Huang, H.**, Yang, Y., Ding, Z., Wang, H., Sari, H., and Adachi, F., Deep Learning-Based Sum Data Rate and Energy Efficiency Optimization for MIMO-NOMA Systems; *TWC Aug. 2020 5373-5388*
- Huang, J.**, and Diamant, R., Adaptive Modulation for Long-Range Underwater Acoustic Communication; *TWC Oct. 2020 6844-6857*
- Huang, J.**, Xing, C., and Guizani, M., Power Allocation for D2D Communications With SWIPT; *TWC April 2020 2308-2320*
- Huang, K.**, see Zhu, G., *TWC Jan. 2020 491-506*
- Huang, K.**, Liu, W., Shirvanimoghaddam, M., Li, Y., and Vucetic, B., Real-Time Remote Estimation With Hybrid ARQ in Wireless Networked Control; *TWC May 2020 3490-3504*
- Huang, K.**, see Lan, Q., *TWC Sept. 2020 5716-5731*
- Huang, K.**, see Li, X., *TWC Sept. 2020 6116-6129*
- Huang, K.**, Liu, J., Song, D., Tian, X., and Su, L., Multilinear Plus Sparse Based Tensor Completion for Long-Term Operating Large-Scale and Heterogeneous Sensor Networks; *TWC Oct. 2020 6301-6315*
- Huang, K.**, see Wen, D., *TWC Dec. 2020 8272-8286*
- Huang, K.**, see Cao, X., *TWC Nov. 2020 7498-7513*
- Huang, K.**, see Ren, J., *TWC Nov. 2020 7690-7703*
- Huang, L.**, see Bi, S., *TWC July 2020 4947-4963*
- Huang, T.**, see Zhang, R., *TWC Oct. 2020 6469-6485*
- Huang, X.**, see Yuan, W., *TWC Feb. 2020 915-928*
- Huang, X.**, see Qin, C., *TWC Oct. 2020 6425-6439*
- Huang, X.**, see Le, A.T., *TWC April 2020 2460-2471*
- Huang, Y.**, see Zhang, J., *TWC Feb. 2020 1265-1279*
- Huang, Y.**, see Zhu, J., *TWC July 2020 4964-4977*
- Huang, Y.**, Wang, W., Wang, H., Jiang, T., and Zhang, Q., Authenticating On-Body IoT Devices: An Adversarial Learning Approach; *TWC Aug. 2020 5234-5245*
- Huang, Y.**, see Song, Y., *TWC Nov. 2020 7392-7406*
- Huangfu, W.**, see Zhang, H., *TWC June 2020 4209-4219*
- Huangfu, W.**, see Qin, Y., *TWC Dec. 2020 8303-8314*
- Hui, H.**, Chen, W., and Wang, L., Caching With Finite Buffer and Request Delay Information: A Markov Decision Process Approach; *TWC Aug. 2020 5148-5161*
- Hur, S.**, see Shafin, R., *TWC June 2020 4038-4053*

## I

- Ibrahim, M.S.**, and Sidiropoulos, N.D., Reliable Detection of Unknown Cell-Edge Users via Canonical Correlation Analysis; *TWC June 2020 4170-4182*
- Idrees, S.**, Zhou, X., Durrani, S., and Niyato, D., Design of Ambient Backscatter Training for Wireless Power Transfer; *TWC Oct. 2020 6316-6330*
- Iera, A.**, see Araniti, G., *TWC Feb. 2020 808-821*
- Iinatti, J.**, see Mucchi, L., *TWC Sept. 2020 5666-5675*
- Ikki, S.S.**, see Canbilen, A.E., *TWC May 2020 3034-3046*
- Imran, M.A.**, see Yang, B., *TWC Aug. 2020 5132-5147*
- Interdonato, G.**, Karlsson, M., Bjornson, E., and Larsson, E.G., Local Partial Zero-Forcing Precoding for Cell-Free Massive MIMO; *TWC July 2020 4758-4774*
- Iqbal, M.S.**, Sadi, Y., and Coleri, S., Minimum Length Scheduling for Full Duplex Time-Critical Wireless Powered Communication Networks; *TWC Sept. 2020 5993-6006*

**Irmak, S.**, see Salam, A., *TWC Sept. 2020 5966-5981*  
**Ishihara, T.**, see Osaki, S., *TWC Dec. 2020 8165-8178*  
**Ishioka, K.**, see Sakai, M., *TWC April 2020 2196-2207*  
**Iura, H.**, see Sakai, M., *TWC April 2020 2196-2207*

## J

**J. van Houtum, W.**, see Gultekin, Y.C., *TWC Feb. 2020 1098-1112*  
**Jacobs, L.**, see Bailleul, J., *TWC Sept. 2020 5938-5950*  
**Jafarkhani, H.**, see Jiang, L., *TWC Feb. 2020 1333-1346*  
**Jafarkhani, H.**, see Zou, X., *TWC March 2020 1503-1518*  
**Jafarkhani, H.**, see Ganji, M., *TWC May 2020 3156-3169*  
**Jafarkhani, H.**, see Almasi, M.A., *TWC Aug. 2020 5292-5306*  
**Jafarkhani, H.**, see Walk, P., *TWC Oct. 2020 6675-6692*  
**Jaiswal, A.**, see Priyadarshani, R., *TWC March 2020 1593-1609*  
**Jalali, A.**, and Ding, Z., Joint Detection and Decoding of Polar Coded 5G Control Channels; *TWC March 2020 2066-2078*  
**Jamali, M.V.**, and Mahdavi, H., Uplink Non-Orthogonal Multiple Access Over Mixed RF-FSO Systems; *TWC May 2020 3558-3574*  
**Jamalipour, A.**, see Lin, P., *TWC March 2020 1977-1989*  
**Jang, Y.**, see Jung, M., *TWC March 2020 2052-2065*  
**Jemaa, S.B.**, see Hadj-Kacem, I., *TWC July 2020 4604-4616*  
**Jeon, S.**, see Park, Y.D., *TWC June 2020 3854-3866*  
**Jeon, Y.**, Lee, N., and Poor, H.V., Robust Data Detection for MIMO Systems With One-Bit ADCs: A Reinforcement Learning Approach; *TWC March 2020 1663-1676*  
**Jeong, S.**, see Park, Y.D., *TWC June 2020 3854-3866*  
**Ji, H.**, see Guo, F., *TWC March 2020 1689-1703*  
**Ji, J.**, Zhu, K., Niyato, D., and Wang, R., Joint Cache Placement, Flight Trajectory, and Transmission Power Optimization for Multi-UAV Assisted Wireless Networks; *TWC Aug. 2020 5389-5403*  
**Ji, X.**, see Xing, F., *TWC Jan. 2020 251-264*  
**Ji, Y.**, see Padidar, P., *TWC Jan. 2020 354-366*  
**Jia, Y.**, Ye, C., and Cui, Y., Analysis and Optimization of an Intelligent Reflecting Surface-Assisted System With Interference; *TWC Dec. 2020 8068-8082*  
**Jiandong, L.**, see Chen, R., *TWC Oct. 2020 6932-6947*  
**Jiang, C.**, see Huang, D., *TWC Jan. 2020 62-76*  
**Jiang, C.**, and Zhu, X., Reinforcement Learning Based Capacity Management in Multi-Layer Satellite Networks; *TWC July 2020 4685-4699*  
**Jiang, C.**, see Yang, Q., *TWC April 2020 2472-2488*  
**Jiang, F.**, see Gong, Z., *TWC April 2020 2226-2239*  
**Jiang, H.**, see Yang, L., *TWC Sept. 2020 6065-6082*  
**Jiang, H.**, see Yao, K., *TWC April 2020 2800-2812*  
**Jiang, L.**, and Jafarkhani, H., mmWave Amplify-and-Forward MIMO Relay Networks With Hybrid Precoding/Combining Design; *TWC Feb. 2020 1333-1346*  
**Jiang, M.**, see Chen, W., *TWC Dec. 2020 8099-8112*  
**Jiang, S.**, Yuan, X., Wang, X., Xu, C., and Yu, W., Joint User Identification, Channel Estimation, and Signal Detection for Grant-Free NOMA; *TWC Oct. 2020 6960-6976*  
**Jiang, T.**, see Zhang, Q., *TWC Feb. 2020 874-887*  
**Jiang, T.**, see Liu, P., *TWC Feb. 2020 795-807*  
**Jiang, T.**, see Yang, K., *TWC March 2020 2022-2035*  
**Jiang, T.**, see Huang, Y., *TWC Aug. 2020 5234-5245*  
**Jiang, T.**, see Zhang, S., *TWC Sept. 2020 5807-5818*  
**Jiang, T.**, see Liu, B., *TWC April 2020 2855-2867*  
**Jiang, T.**, see Yang, Q., *TWC April 2020 2472-2488*  
**Jiang, T.**, see Xiao, L., *TWC Dec. 2020 8232-8245*  
**Jiang, T.**, see Liu, W., *TWC Nov. 2020 7169-7180*  
**Jiang, X.**, see Zhang, P., *TWC March 2020 1563-1576*  
**Jiang, Y.**, see Elnahas, O., *TWC Dec. 2020 8220-8231*  
**Jiang, Y.**, Feng, H., Zheng, F., Niyato, D., and You, X., Deep Learning-Based Edge Caching in Fog Radio Access Networks; *TWC Dec. 2020 8442-8454*  
**Jiao, J.**, Xu, L., Wu, S., Wang, Y., Lu, R., and Zhang, Q., Unequal Access Latency Random Access Protocol for Massive Machine-Type Communications; *TWC Sept. 2020 5924-5937*  
**Jin, R.**, see He, X., *TWC March 2020 1814-1824*

**Jin, R.**, see He, X., *TWC June 2020 4054-4066*  
**Jin, R.**, see Chen, S., *TWC Aug. 2020 5204-5217*  
**Jin, S.**, see Zhu, J., *TWC March 2020 1549-1562*  
**Jin, S.**, see Wang, H., *TWC March 2020 2036-2051*  
**Jin, S.**, see Zhang, S., *TWC Sept. 2020 5807-5818*  
**Jin, S.**, see Guo, J., *TWC April 2020 2827-2840*  
**Jing, Y.**, see Rahimian, S., *TWC Sept. 2020 5794-5806*  
**Jo, H.**, see Anokye, P., *TWC Aug. 2020 5503-5517*  
**Johnson, B.K.**, see Balti, E., *TWC Jan. 2020 410-422*  
**Jonsson, B.L.G.**, see Mouris, B.A., *TWC May 2020 3575-3590*  
**Jorswieck, E.A.**, see Besser, K., *TWC Sept. 2020 5833-5845*  
**Joung, J.**, see Ye, H., *TWC July 2020 5057-5072*  
**Juang, B.**, see Ye, H., *TWC May 2020 3133-3143*  
**Juhana, T.**, see Yang, M., *TWC Sept. 2020 5860-5874*  
**Jung, M.**, Saad, W., Jang, Y., Kong, G., and Choi, S., Performance Analysis of Large Intelligent Surfaces (LISs): Asymptotic Data Rate and Channel Hardening Effects; *TWC March 2020 2052-2065*  
**Jung, P.**, see Walk, P., *TWC Oct. 2020 6675-6692*  
**Juntti, M.**, see Vu, Q., *TWC Sept. 2020 5891-5907*  
**Juyal, P.**, see Fu, J., *TWC May 2020 3214-3227*

## K

**Kaddoum, G.**, see Abou-Rjeily, C., *TWC Oct. 2020 6564-6577*  
**Kalantari, E.**, Yanikomeroglu, H., and Yongacoglu, A., Wireless Networks With Cache-Enabled and Backhaul-Limited Aerial Base Stations; *TWC Nov. 2020 7363-7376*  
**Kaleva, J.**, see Tolli, A., *TWC March 2020 2091-2106*  
**Kaljic, E.**, see Maric, A., *TWC Dec. 2020 7864-7880*  
**Kamei, T.**, see Kawamoto, Y., *TWC May 2020 2934-2945*  
**Kamiya, S.**, Yamamoto, K., Kim, S., Nishio, T., and Morikura, M., SINR Distribution and Scheduling Gain Analysis of Uplink Channel-Adaptive Scheduling; *TWC April 2020 2321-2335*  
**Kammoun, A.**, see Zedini, E., *TWC Sept. 2020 5908-5923*  
**Kammoun, A.**, see Nadeem, Q., *TWC Dec. 2020 7748-7764*  
**Kammoun, A.**, see Ye, J., *TWC Dec. 2020 7851-7863*  
**Kamohara, K.**, see Sakai, M., *TWC April 2020 2196-2207*  
**Kamoun, M.**, see Bucheli Garcia, J.C., *TWC June 2020 3700-3711*  
**Kang, H.**, see Chang, W., *TWC Nov. 2020 7610-7620*  
**Kang, J.**, see Xiong, Z., *TWC Sept. 2020 5779-5793*  
**Kang, X.**, see Wei, Z., *TWC Jan. 2020 547-562*  
**Kang, X.**, see Ye, H., *TWC July 2020 5057-5072*  
**Kang, X.**, see Wang, J., *TWC Aug. 2020 5278-5291*  
**Karagiannidis, G.K.**, see Zhang, H., *TWC Feb. 2020 835-845*  
**Karagiannidis, G.K.**, see Xiao, Y., *TWC Feb. 2020 1154-1166*  
**Karlsson, M.**, see Interdonato, G., *TWC July 2020 4758-4774*  
**Karmakar, R.**, Chattopadhyay, S., and Chakraborty, S., A Deep Probabilistic Control Machinery for Auto-Configuration of WiFi Link Parameters; *TWC Dec. 2020 8330-8340*  
**Kasper Facenda, G.**, and Silva, D., Efficient Scheduling for the Massive Random Access Gaussian Channel; *TWC Nov. 2020 7598-7609*  
**Kassab, R.**, Simeone, O., and Popovski, P., Information-Centric Grant-Free Access for IoT Fog Networks: Edge vs. Cloud Detection and Learning; *TWC Oct. 2020 6347-6361*  
**Kato, N.**, see Kawamoto, Y., *TWC May 2020 2934-2945*  
**Kato, N.**, see Shi, Z., *TWC Sept. 2020 5692-5702*  
**Kawamoto, Y.**, Kamei, T., Takahashi, M., Kato, N., Miura, A., and Toyoshima, M., Flexible Resource Allocation With Inter-Beam Interference in Satellite Communication Systems With a Digital Channelizer; *TWC May 2020 2934-2945*  
**Kazemi, H.**, Safari, M., and Haas, H., Multi-Hop Wireless Optical Backhauling for LiFi Attocell Networks: Bandwidth Scheduling and Power Control; *TWC Sept. 2020 5676-5691*  
**Kellerer, W.**, see Klugel, M., *TWC April 2020 2528-2542*  
**Kelly, P.A.**, see Li, K., *TWC May 2020 3463-3473*

- Khabbaz, M.**, Antoun, J., Sharafeddine, S., and Assi, C., Modeling and Delay Analysis of Intermittent V2U Communication in Secluded Areas; *TWC May 2020 3228-3240*
- Khalaj, B.H.**, see Tolli, A., *TWC March 2020 2091-2106*
- Khalili, A.**, Robat Mili, M., Rasti, M., Parsaeefard, S., and Ng, D.W.K., Antenna Selection Strategy for Energy Efficiency Maximization in Uplink OFDMA Networks: A Multi-Objective Approach; *TWC Jan. 2020 595-609*
- Khalilsarai, M.B.**, see Tian, C., *TWC Aug. 2020 5447-5460*
- Khan, A.A.**, Adve, R.S., and Yu, W., Optimizing Downlink Resource Allocation in Multiuser MIMO Networks via Fractional Programming and the Hungarian Algorithm; *TWC Aug. 2020 5162-5175*
- Khan, A.A.**, and Adve, R.S., Centralized and Distributed Deep Reinforcement Learning Methods for Downlink Sum-Rate Optimization; *TWC Dec. 2020 8410-8426*
- Khani, M.**, Alizadeh, M., Hoydis, J., and Fleming, P., Adaptive Neural Signal Detection for Massive MIMO; *TWC Aug. 2020 5635-5648*
- Khawaja, W.A.G.**, see Gentile, C., *TWC Oct. 2020 6504-6519*
- Khreis, A.**, Bassi, F., Ciblat, P., and Duhamel, P., Multi-Layer HARQ With Delayed Feedback; *TWC Sept. 2020 6224-6237*
- Kim, C.**, Dudin, S.A., Dudina, O.S., and Dudin, A.N., Mathematical Models for the Operation of a Cell With Bandwidth Sharing and Moving Users; *TWC Feb. 2020 744-755*
- Kim, D.**, Lee, J., and Quek, T.Q.S., Multi-layer Unmanned Aerial Vehicle Networks: Modeling and Performance Analysis; *TWC Jan. 2020 325-339*
- Kim, D.I.**, see Sharma, P.K., *TWC April 2020 2770-2784*
- Kim, D.I.**, see Kim, S.H., *TWC Nov. 2020 7309-7323*
- Kim, H.**, Park, Y., Kim, J., and Hong, D., A Low-Complex SVD-Based F-OFDM; *TWC Feb. 2020 1373-1385*
- Kim, H.**, Granstrom, K., Gao, L., Battistelli, G., Kim, S., and Wymeersch, H., 5G mmWave Cooperative Positioning and Mapping Using Multi-Model PHD Filter and Map Fusion; *TWC June 2020 3782-3795*
- Kim, I.**, see Hedayati, M., *TWC July 2020 4549-4562*
- Kim, J.**, see Kim, H., *TWC Feb. 2020 1373-1385*
- Kim, J.**, see Choi, M., *TWC Dec. 2020 7810-7824*
- Kim, J.**, Clerckx, B., and Mitcheson, P.D., Signal and System Design for Wireless Power Transfer: Prototype, Experiment and Validation; *TWC Nov. 2020 7453-7469*
- Kim, J.D.**, A Comment on Eq. (20a) in “Centralized Random Backoff for Collision Resolution in Wi-Fi Networks” *TWC April 2020 2900*
- Kim, J.D.**, Effects of Retransmission Limit on the Performance of Centralized Random Backoff; *TWC Dec. 2020 8126-8141*
- Kim, K.**, Lee, H., and Lee, J., Opportunistic Waveform Scheduling for Wireless Power Transfer With Multiple Devices; *TWC Sept. 2020 5651-5665*
- Kim, K.J.**, see Liu, H., *TWC July 2020 4657-4670*
- Kim, M.**, see Miao, Y., *TWC Aug. 2020 5345-5358*
- Kim, S.**, Bsense: Practical Cross-Technology Communication Utilizing Beacon Frames of Commodity WiFi APs; *TWC Feb. 2020 901-914*
- Kim, S.**, see Kim, H., *TWC June 2020 3782-3795*
- Kim, S.**, Choi, J.W., and Shim, B., Downlink Pilot Precoding and Compressed Channel Feedback for FDD-Based Cell-Free Systems; *TWC June 2020 3658-3672*
- Kim, S.**, see Kamiya, S., *TWC April 2020 2321-2335*
- Kim, S.H.**, Park, S.Y., Choi, K.W., Lee, T., and Kim, D.I., Backscatter-Aided Cooperative Transmission in Wireless-Powered Heterogeneous Networks; *TWC Nov. 2020 7309-7323*
- Kim, Y.J.D.**, see Vargas, D., *TWC Feb. 2020 979-994*
- Kisseleff, S.**, Chatzinotas, S., and Ottersten, B., Random Access-Based Reliable Uplink Communication and Power Transfer Using Dynamic Power Splitting; *TWC June 2020 4307-4320*
- Klein, A.**, see Mousavi, M., *TWC Jan. 2020 310-324*
- Klugel, M.**, and Kellerer, W., Optimal Mode Selection by Cross-Layer Decomposition in D2D Cellular Networks; *TWC April 2020 2528-2542*
- Ko, Y.**, see Lee, J., *TWC March 2020 1610-1621*
- Ko, Y.**, see Van Luong, T., *TWC June 2020 3952-3962*
- Kobayashi, M.**, see Gaudio, L., *TWC Sept. 2020 5951-5965*
- Koch, T.**, see Lancho, A., *TWC July 2020 4831-4846*
- Komatsu, K.**, Miyaji, Y., and Uehara, H., Iterative Nonlinear Self-Interference Cancellation for In-Band Full-Duplex Wireless Communications Under Mixer Imbalance and Amplifier Nonlinearity; *TWC July 2020 4424-4438*
- Komatsu, K.**, see Fukui, T., *TWC Nov. 2020 7439-7452*
- Kong, G.**, see Jung, M., *TWC March 2020 2052-2065*
- Kong, L.**, see Cheng, L., *TWC July 2020 4775-4792*
- Koppelaar, A.G.C.**, see Gultekin, Y.C., *TWC Feb. 2020 1098-1112*
- Kosasih, A.**, see Wang, H., *TWC March 2020 2036-2051*
- Kostina, V.**, see Ebrahimi, M., *TWC Dec. 2020 7986-7997*
- Koucheryavy, Y.**, see Samuylov, A., *TWC May 2020 3421-3434*
- Kovalchukov, R.**, see Samuylov, A., *TWC May 2020 3421-3434*
- Krishnan K. S., A.**, and Sharma, V., Multihop Wireless Networks With Quality-of-Service: Fluid and Diffusion Approximations; *TWC Dec. 2020 8113-8125*
- Krunz, M.**, see Aykin, I., *TWC April 2020 2504-2514*
- Kuhestani, A.**, see Letafati, M., *TWC Oct. 2020 6771-6785*
- Kuhne, T.**, see Song, X., *TWC March 2020 1754-1769*
- Kundu, N.K.**, Mallik, R.K., and McKay, M.R., Signal Design for Frequency-Phase Keying; *TWC June 2020 4067-4079*
- Kurkoski, B.M.**, see Hasan, M.N., *TWC Feb. 2020 942-955*
- Kusaladharma, S.**, Zhu, W., and Ajib, W., Outage Performance and Average Rate for Large-Scale Millimeter-Wave NOMA Networks; *TWC Feb. 2020 1280-1291*
- Kwak, K.S.**, see Liu, H., *TWC July 2020 4657-4670*
- Kwon, G.**, and Park, H., Limited Feedback Hybrid Beamforming for Multi-Mode Transmission in Wideband Millimeter Wave Channel; *TWC June 2020 4008-4022*
- Kwon, S.**, see Nguyen, M., *TWC April 2020 2670-2683*
- Kwon, S.**, see Duong, T.M., *TWC April 2020 2282-2292*

## L

- Laas, T.**, Nosseck, J.A., Bazzi, S., and Xu, W., On Reciprocity in Physically Consistent TDD Systems With Coupled Antennas; *TWC Oct. 2020 6440-6453*
- Lagen, S.**, see Rostami, S., *TWC Sept. 2020 6020-6036*
- Lahouti, F.**, see Ebrahimi, M., *TWC Dec. 2020 7986-7997*
- Lai, I.**, Shih, J., Chen, K., and Biglieri, E., Generalized Path-Permutation Codes for Reliable End-to-End Networking of Opportunistic Links; *TWC July 2020 4579-4593*
- Lam, T.T.**, and Di Renzo, M., On the Energy Efficiency of Heterogeneous Cellular Networks With Renewable Energy Sources—A Stochastic Geometry Framework; *TWC Oct. 2020 6752-6770*
- Lamboharan, S.**, see Zhang, J., *TWC June 2020 3738-3752*
- Lan, Q.**, Lv, B., Wang, R., Huang, K., and Gong, Y., Adaptive Video Streaming for Massive MIMO Networks via Approximate MDP and Reinforcement Learning; *TWC Sept. 2020 5716-5731*
- Lan, X.**, Chen, Y., and Cai, L., Throughput-Optimal H-QMW Scheduling for Hybrid Wireless Networks With Persistent and Dynamic Flows; *TWC Feb. 2020 1182-1195*
- Lancho, A.**, Ostman, J., Durisi, G., Koch, T., and Vazquez-Vilar, G., Saddlepoint Approximations for Short-Packet Wireless Communications; *TWC July 2020 4831-4846*
- Laneman, J.N.**, see Pezeshki, H., *TWC June 2020 4095-4108*
- Lankl, B.**, see Chamaa, M.E., *TWC Feb. 2020 771-782*
- Larsson, E.G.**, see Ngo, H.Q., *TWC May 2020 3623-3624*
- Larsson, E.G.**, see Guo, H., *TWC May 2020 3064-3076*
- Larsson, E.G.**, see Interdonato, G., *TWC July 2020 4758-4774*
- Larsson, E.G.**, see Van Chien, T., *TWC Sept. 2020 5732-5748*
- Larsson, E.G.**, see Van Chien, T., *TWC Oct. 2020 6798-6812*
- Larsson, E.G.**, see Becirovic, E., *TWC Nov. 2020 7081-7096*
- Latinovic, Z.**, and Huang, H., A Channel Model for Indoor Time-of-Arrival Ranging; *TWC Feb. 2020 1415-1428*
- Lau, F.C.**, see Gu, Z., *TWC Jan. 2020 91-105*
- Lau, V.**, see Zhou, B., *TWC July 2020 5025-5039*
- Lau, V.K.N.**, see Liu, A., *TWC May 2020 3185-3198*

- Le, A.T.**, Tran, L.C., Huang, X., and Guo, Y.J., Beam-Based Analog Self-Interference Cancellation in Full-Duplex MIMO Systems; *TWC April 2020* 2460-2471
- Lee, K.N.**, Fundamentals of Acute Relay CSI Severity; *TWC Nov. 2020* 7653-7662
- Lee, L.B.**, see Nguyen, T.T., *TWC Jan. 2020* 293-309
- Leduc-Primeau, F.**, see Nadal, J., *TWC Aug. 2020* 5307-5320
- Lee, H.**, Quek, T.Q.S., and Lee, S.H., A Deep Learning Approach to Universal Binary Visible Light Communication Transceiver; *TWC Feb. 2020* 956-969
- Lee, H.**, see Kim, K., *TWC Sept. 2020* 5651-5665
- Lee, J.**, see Kim, D., *TWC Jan. 2020* 325-339
- Lee, J.**, see Han, Y., *TWC Feb. 2020* 1320-1332
- Lee, J.**, Park, K., Ko, Y., and Alouini, M., A UAV-Mounted Free Space Optical Communication: Trajectory Optimization for Flight Time; *TWC March 2020* 1610-1621
- Lee, J.**, see Kim, K., *TWC Sept. 2020* 5651-5665
- Lee, J.**, see Mukherjee, S., *TWC April 2020* 2884-2899
- Lee, K.**, see Nguyen, N.T., *TWC Feb. 2020* 1127-1140
- Lee, K.**, see Nguyen, N.T., *TWC June 2020* 4262-4275
- Lee, K.**, see Anokye, P., *TWC Aug. 2020* 5503-5517
- Lee, M.**, and Molisch, A.F., Individual Preference Aware Caching Policy Design in Wireless D2D Networks; *TWC Aug. 2020* 5589-5604
- Lee, N.**, see Choi, J., *TWC Jan. 2020* 162-176
- Lee, N.**, see Jeon, Y., *TWC March 2020* 1663-1676
- Lee, S.H.**, see Lee, H., *TWC Feb. 2020* 956-969
- Lee, T.**, see Kim, S.H., *TWC Nov. 2020* 7309-7323
- Lei, H.**, see Pan, G., *TWC Oct. 2020* 6277-6288
- Lei, H.**, see Pan, G., *TWC Nov. 2020* 7097-7107
- Leib, H.**, see Hou, X., *TWC Sept. 2020* 5749-5764
- Leng, S.**, see Mao, S., *TWC March 2020* 1855-1867
- Leow, C.Y.**, see New, W.K., *TWC July 2020* 4793-4805
- Letafati, M.**, Kuhistani, A., Behroozi, H., and Ng, D.W.K., Jamming-Resilient Frequency Hopping-Aided Secure Communication for Internet-of-Things in the Presence of an Untrusted Relay; *TWC Oct. 2020* 6771-6785
- Letaief, K.B.**, see Shen, Y., *TWC Jan. 2020* 665-679
- Letaief, K.B.**, see Lu, Y., *TWC June 2020* 4290-4306
- Letaief, K.B.**, see Liu, J., *TWC Nov. 2020* 7064-7080
- Leung, V.C.M.**, see Xing, F., *TWC Jan. 2020* 251-264
- Leung, V.C.M.**, see Zhang, H., *TWC Feb. 2020* 835-845
- Leung, V.C.M.**, see Hassan, M.Z., *TWC March 2020* 1464-1483
- Leung, V.C.M.**, see Guo, F., *TWC March 2020* 1689-1703
- Leung, V.C.M.**, see Sun, M., *TWC June 2020* 4109-4124
- Leung, V.C.M.**, see Zhang, H., *TWC June 2020* 4209-4219
- Leung, V.C.M.**, see Zhou, H., *TWC April 2020* 2658-2669
- Leung, V.C.M.**, see Liu, X., *TWC April 2020* 2586-2600
- Leung, V.C.M.**, see Fang, F., *TWC Nov. 2020* 7008-7020
- Li, A.**, Liu, F., Masouros, C., Li, Y., and Vucetic, B., Interference Exploitation 1-Bit Massive MIMO Precoding: A Partial Branch-and-Bound Solution With Near-Optimal Performance; *TWC May 2020* 3474-3489
- Li, A.**, see Pradhan, C., *TWC Sept. 2020* 6083-6099
- Li, B.**, see Xie, H., *TWC June 2020* 3812-3825
- Li, C.**, see Yu, J., *TWC May 2020* 3376-3389
- Li, C.**, see Zhang, X., *TWC Sept. 2020* 5982-5992
- Li, C.**, see Zhao, Y., *TWC Oct. 2020* 6549-6563
- Li, C.**, see Gong, Z., *TWC April 2020* 2226-2239
- Li, D.**, see Ma, Y., *TWC May 2020* 3144-3155
- Li, E.**, Zeng, L., Zhou, Z., and Chen, X., Edge AI: On-Demand Accelerating Deep Neural Network Inference via Edge Computing; *TWC Jan. 2020* 447-457
- Li, F.**, see Yu, J., *TWC May 2020* 3376-3389
- Li, G.**, and Cai, J., An Online Incentive Mechanism for Collaborative Task Offloading in Mobile Edge Computing; *TWC Jan. 2020* 624-636
- Li, G.**, see Liu, T., *TWC May 2020* 3003-3018
- Li, G.Y.**, see Ye, H., *TWC May 2020* 3133-3143
- Li, G.Y.**, see Ma, W., *TWC May 2020* 3517-3529
- Li, G.Y.**, see Hu, Q., *TWC Sept. 2020* 6179-6195
- Li, G.Y.**, see Guo, J., *TWC April 2020* 2827-2840
- Li, G.Y.**, see Qi, C., *TWC Dec. 2020* 8142-8152
- Li, H.**, see Yang, L., *TWC Jan. 2020* 520-532
- Li, H.**, see Wan, Q., *TWC June 2020* 4234-4246
- Li, H.**, see Ma, J., *TWC Oct. 2020* 6721-6736
- Li, H.**, see Ma, S., *TWC Nov. 2020* 7265-7278
- Li, J.**, see Li, X., *TWC Jan. 2020* 680-695
- Li, J.**, see Zhang, S., *TWC March 2020* 2150-2162
- Li, J.**, see Zhu, Y., *TWC June 2020* 3894-3907
- Li, J.**, Xue, K., Wei, D.S.L., Liu, J., and Zhang, Y., Energy Efficiency and Traffic Offloading Optimization in Integrated Satellite/Terrestrial Radio Access Networks; *TWC April 2020* 2367-2381
- Li, K.**, Kelly, P.A., and Goeckel, D., Optimal Power Adaptation in Covert Communication With an Uninformed Jammer; *TWC May 2020* 3463-3473
- Li, K.**, Tao, M., and Chen, Z., Exploiting Computation Replication for Mobile Edge Computing: A Fundamental Computation-Communication Tradeoff Study; *TWC July 2020* 4563-4578
- Li, L.**, Chang, T., and Cai, S., UAV Positioning and Power Control for Two-Way Wireless Relaying; *TWC Feb. 2020* 1008-1024
- Li, L.**, Ren, H., Cheng, Q., Xue, K., Chen, W., Debbah, M., and Han, Z., Millimeter-Wave Networking in the Sky: A Machine Learning and Mean Field Game Approach for Joint Beamforming and Beam-Steering; *TWC Oct. 2020* 6393-6408
- Li, L.**, see Banez, R.A., *TWC Dec. 2020* 8366-8381
- Li, M.**, see Hu, J., *TWC Jan. 2020* 637-649
- Li, M.**, Chen, C., Hua, C., and Guan, X., A Learning-Based Pre-Allocation Scheme for Low-Latency Access in Industrial Wireless Networks; *TWC Jan. 2020* 650-664
- Li, M.**, see Liu, C., *TWC Aug. 2020* 5117-5131
- Li, P.**, and Xu, J., Fundamental Rate Limits of UAV-Enabled Multiple Access Channel With Trajectory Optimization; *TWC Jan. 2020* 458-474
- Li, Q.**, Zhang, N., Cheffena, M., and Shen, X., Channel-Based Optimal Back-Off Delay Control in Delay-Constrained Industrial WSNs; *TWC Jan. 2020* 696-711
- Li, Q.**, Wen, M., Dang, S., Basar, E., Poor, H.V., and Chen, F., Opportunistic Spectrum Sharing Based on OFDM With Index Modulation; *TWC Jan. 2020* 192-204
- Li, Q.**, Wen, M., Renzo, M.D., Poor, H.V., Mumtaz, S., and Chen, F., Dual-Hop Spatial Modulation With a Relay Transmitting its Own Information; *TWC July 2020* 4449-4463
- Li, S.**, see Liu, T., *TWC May 2020* 3003-3018
- Li, S.**, Smith, P.J., Dmochowski, P.A., Tataria, H., Matthaoui, M., and Yin, J., Massive MIMO Asymptotics for Ray-Based Propagation Channels; *TWC June 2020* 3977-3991
- Li, S.**, see Yan, K., *TWC Aug. 2020* 5176-5187
- Li, S.**, see Ma, S., *TWC Nov. 2020* 7265-7278
- Li, T.**, Han, D., Chen, Y., Zhang, R., Zhang, Y., and Hedgpeth, T., IndoorWaze: A Crowdsourcing-Based Context-Aware Indoor Navigation System; *TWC Aug. 2020* 5461-5472
- Li, V.O.K.**, see Mao, Y., *TWC Oct. 2020* 6362-6376
- Li, W.**, see Liu, J., *TWC Jan. 2020* 435-446
- Li, W.**, see Gao, H., *TWC Dec. 2020* 7825-7835
- Li, X.**, see Flordelis, J., *TWC Jan. 2020* 380-394
- Li, X.**, Li, J., Liu, Y., Ding, Z., and Nallanathan, A., Residual Transceiver Hardware Impairments on Cooperative NOMA Networks; *TWC Jan. 2020* 680-695
- Li, X.**, see Yue, X., *TWC March 2020* 2163-2178
- Li, X.**, see Ma, Y., *TWC May 2020* 3144-3155
- Li, X.**, Zhu, G., Shen, K., Yu, W., Gong, Y., and Huang, K., Joint Annotator-and-Spectrum Allocation in Wireless Networks for Crowd Labeling; *TWC Sept. 2020* 6116-6129
- Li, X.**, see Yang, M., *TWC Sept. 2020* 5860-5874
- Li, X.**, see Ye, N., *TWC April 2020* 2208-2225
- Li, X.**, see Shang, Z., *TWC Nov. 2020* 7021-7032
- Li, Y.**, see Yuan, W., *TWC Feb. 2020* 915-928
- Li, Y.**, see Hou, Z., *TWC Feb. 2020* 1196-1209

- Li, Y., Xia, M., and Wu, Y., Caching at Base Stations With Multi-Cluster Multicast Wireless Backhaul via Accelerated First-Order Algorithms; *TWC May 2020 2920-2933*
- Li, Y., see Li, A., *TWC May 2020 3474-3489*
- Li, Y., Xia, M., and Aissa, S., Coordinated Multi-Point Transmission: A Poisson-Delaunay Triangulation Based Approach; *TWC May 2020 2946-2959*
- Li, Y., see Huang, K., *TWC May 2020 3490-3504*
- Li, Y., Zhou, J., Wang, J., Bao, Z., Quek, T.Q.S., and Wang, J., On Data Dissemination Enhanced by Network Coded Device-to-Device Communications; *TWC June 2020 3963-3976*
- Li, Y., see Liu, W., *TWC Aug. 2020 5488-5502*
- Li, Y., see Gong, S., *TWC Aug. 2020 5261-5277*
- Li, Y., see Pradhan, C., *TWC Sept. 2020 6083-6099*
- Li, Y., see Yang, M., *TWC Sept. 2020 5860-5874*
- Li, Y., see Wang, Q., *TWC Dec. 2020 8054-8067*
- Li, Y., Zhao, R., Deng, Y., Shu, F., Nie, Z., and Aghvami, A.H., Harvest-and-Opportunistically-Relay: Analyses on Transmission Outage and Covertiness; *TWC Dec. 2020 7779-7795*
- Li, Y., see Xu, X., *TWC Nov. 2020 7210-7223*
- Li, Y., Miridakis, N.I., Tsiftsis, T.A., Yang, G., and Xia, M., Air-to-Air Communications Beyond 5G: A Novel 3D CoMP Transmission Scheme; *TWC Nov. 2020 7324-7338*
- Li, Z., see Tang, J., *TWC Jan. 2020 120-133*
- Li, Z., see Wang, R., *TWC May 2020 3077-3090*
- Li, Z., see Zhao, Y., *TWC Oct. 2020 6549-6563*
- Li, Z., see Lv, L., *TWC Oct. 2020 6486-6503*
- Li, Z., Wang, S., Mu, P., and Wu, Y., Probabilistic Constrained Secure Transmissions: Variable-Rate Design and Performance Analysis; *TWC April 2020 2543-2557*
- Lian, L., see Liu, A., *TWC May 2020 3185-3198*
- Liang, B., see Dinh, T.Q., *TWC March 2020 2137-2149*
- Liang, C., see Wang, X., *TWC May 2020 3289-3303*
- Liang, L., see Ye, H., *TWC May 2020 3133-3143*
- Liang, Q., Liu, D., and Hu, J., Secure Degrees of Freedom of MIMO Two-Way Wiretap Channel With no CSI Anywhere; *TWC Dec. 2020 7927-7941*
- Liang, S., see Bai, Z., *TWC Feb. 2020 929-941*
- Liang, Y., see Guo, H., *TWC May 2020 3064-3076*
- Liang, Y., see Chen, C., *TWC May 2020 3273-3288*
- Liang, Y., see Zhang, Q., *TWC July 2020 4535-4548*
- Liang, Y., see Ye, H., *TWC July 2020 5057-5072*
- Liang, Y., see Wang, J., *TWC Aug. 2020 5278-5291*
- Liao, J., see Fu, X., *TWC Jan. 2020 507-519*
- Liew, S.C., see Wang, Z., *TWC Jan. 2020 279-292*
- Liew, S.C., and Shao, Y., New Transceiver Designs for Interleaved Frequency-Division Multiple Access; *TWC Dec. 2020 7765-7778*
- Liew, S.C., see Shao, Y., *TWC Nov. 2020 7139-7152*
- Lim, W., see Morocho-Cayamcela, M.E., *TWC Aug. 2020 5075-5087*
- Lima, F.R.M., see de Sena, A.S., *TWC Sept. 2020 6100-6115*
- Lin, C., see Han, G., *TWC March 2020 1636-1649*
- Lin, J., see Mu, X., *TWC Oct. 2020 6884-6898*
- Lin, J., see Cui, Y., *TWC Nov. 2020 7720-7731*
- Lin, N., Fu, L., Zhao, L., Min, G., Al-Dubai, A., and Gacanin, H., A Novel Multimodal Collaborative Drone-Assisted VANET Networking Model; *TWC July 2020 4919-4933*
- Lin, P., Song, Q., and Jamalipour, A., Multidimensional Cooperative Caching in CoMP-Integrated Ultra-Dense Cellular Networks; *TWC March 2020 1977-1989*
- Lin, R., Zhou, Z., Luo, S., Xiao, Y., Wang, X., Wang, S., and Zukerman, M., Distributed Optimization for Computation Offloading in Edge Computing; *TWC Dec. 2020 8179-8194*
- Lin, S., see Xu, Y., *TWC Feb. 2020 1054-1069*
- Lin, S., Ding, H., Fu, L., Fang, Y., and Shi, J., Energy Minimization of Multi-Cell Cognitive Capacity Harvesting Networks With Neighbor Resource Sharing; *TWC May 2020 3199-3213*
- Lin, Y., see Xia, G., *TWC July 2020 4643-4656*
- Linnartz, J.M.G., see Wu, X., *TWC Dec. 2020 8211-8219*
- Lipovac, V., see Maric, A., *TWC Dec. 2020 7864-7880*
- Liu, A., Liu, G., Lian, L., Lau, V.K.N., and Zhao, M., Robust Recovery of Structured Sparse Signals With Uncertain Sensing Matrix: A Turbo-VBI Approach; *TWC May 2020 3185-3198*
- Liu, A., see Zhou, B., *TWC July 2020 5025-5039*
- Liu, A., see Tian, C., *TWC Aug. 2020 5447-5460*
- Liu, A., see Hu, Q., *TWC Sept. 2020 6179-6195*
- Liu, A., see Yu, D., *TWC April 2020 2742-2755*
- Liu, A., see Zhao, C., *TWC April 2020 2382-2396*
- Liu, A.X., see Su, J., *TWC May 2020 2974-2986*
- Liu, B., Gong, C., and Xu, Z., Correlation Analysis and Link Gain Prediction for Optical Wireless Scattering Communication Over Broad Spectra; *TWC Feb. 2020 1386-1396*
- Liu, B., see Xia, M., *TWC June 2020 3769-3781*
- Liu, B., Liu, C., Peng, M., Liu, Y., and Yan, S., Resource Allocation for Non-Orthogonal Multiple Access-Enabled Fog Radio Access Networks; *TWC June 2020 3867-3878*
- Liu, B., Cao, Y., Zhang, Y., and Jiang, T., A Distributed Framework for Task Offloading in Edge Computing Networks of Arbitrary Topology; *TWC April 2020 2855-2867*
- Liu, C., see Liu, B., *TWC June 2020 3867-3878*
- Liu, C., Li, M., Zhao, L., Whiting, P., Hanly, S.V., and Collings, I.B., Millimeter-Wave Beam Search With Iterative Deactivation and Beam Shifting; *TWC Aug. 2020 5117-5131*
- Liu, C., see Song, Y., *TWC Nov. 2020 7392-7406*
- Liu, D., see Xing, C., *TWC Aug. 2020 5473-5487*
- Liu, D., see Zeng, C., *TWC April 2020 2785-2799*
- Liu, D., see Liang, Q., *TWC Dec. 2020 7927-7941*
- Liu, F., and Petrova, M., Performance of Dynamic Power and Channel Allocation for Downlink MC-NOMA Systems; *TWC March 2020 1650-1662*
- Liu, F., see Li, A., *TWC May 2020 3474-3489*
- Liu, F., Yuan, W., Masouros, C., and Yuan, J., Radar-Assisted Predictive Beamforming for Vehicular Links: Communication Served by Sensing; *TWC Nov. 2020 7704-7719*
- Liu, G., Feng, H., Wang, Q., and Cimini, L.J., Overhead-Performance Tradeoff for MISO Broadcast Channels With Zero-Forcing Precoder; *TWC Feb. 2020 995-1007*
- Liu, G., see Liu, A., *TWC May 2020 3185-3198*
- Liu, H., see Wu, L., *TWC Feb. 2020 1113-1126*
- Liu, H., see Sun, Y., *TWC June 2020 3992-4007*
- Liu, H., Tsiftsis, T.A., Kim, K.J., Kwak, K.S., and Poor, H.V., Rate Splitting for Uplink NOMA With Enhanced Fairness and Outage Performance; *TWC July 2020 4657-4670*
- Liu, H., Yuan, X., and Zhang, Y.J., Statistical Beamforming for FDD Downlink Massive MIMO via Spatial Information Extraction and Beam Selection; *TWC July 2020 4617-4631*
- Liu, J., Han, Z., and Li, W., Performance Analysis of TCP New Reno Over Satellite DVB-RCS2 Random Access Links; *TWC Jan. 2020 435-446*
- Liu, J., see Xia, M., *TWC June 2020 3769-3781*
- Liu, J., see Shi, Z., *TWC Sept. 2020 5692-5702*
- Liu, J., see Sun, W., *TWC Sept. 2020 6050-6064*
- Liu, J., see Huang, K., *TWC Oct. 2020 6301-6315*
- Liu, J., see Zhang, R., *TWC Oct. 2020 6469-6485*
- Liu, J., see Sheng, M., *TWC April 2020 2813-2826*
- Liu, J., see Li, J., *TWC April 2020 2367-2381*
- Liu, J., Xiong, K., Ng, D.W.K., Fan, P., Zhong, Z., and Letaief, K.B., Max-Min Energy Balance in Wireless-Powered Hierarchical Fog-Cloud Computing Networks; *TWC Nov. 2020 7064-7080*
- Liu, K., see Zheng, K., *TWC Jan. 2020 533-546*
- Liu, L., see Wang, P., *TWC Feb. 2020 1025-1037*
- Liu, L., see Shafin, R., *TWC May 2020 3591-3606*
- Liu, L., see Zhou, Z., *TWC June 2020 3712-3726*
- Liu, L., see Ma, J., *TWC June 2020 4247-4261*
- Liu, L., see Shafin, R., *TWC June 2020 4038-4053*
- Liu, L., see Wang, Z., *TWC Oct. 2020 6607-6620*
- Liu, L., see Shang, B., *TWC Dec. 2020 7957-7972*
- Liu, L., see Song, H., *TWC Dec. 2020 8382-8395*
- Liu, M., see Tang, J., *TWC Jan. 2020 120-133*

- Liu, M.**, see Guo, F., *TWC March 2020 1689-1703*
- Liu, P.**, Luo, K., Chen, D., and Jiang, T., Spectral Efficiency Analysis of Cell-Free Massive MIMO Systems With Zero-Forcing Detector; *TWC Feb. 2020 795-807*
- Liu, R.**, see Yue, X., *TWC March 2020 2163-2178*
- Liu, S.**, see Xiao, L., *TWC Jan. 2020 423-434*
- Liu, S.**, see Yin, R., *TWC June 2020 4141-4153*
- Liu, T.**, Li, G., Lu, L., Li, S., and Tian, S., Robust Hybrid Cooperative Positioning Via a Modified Distributed Projection-Based Method; *TWC May 2020 3003-3018*
- Liu, T.**, see Xia, G., *TWC July 2020 4643-4656*
- Liu, T.**, Qu, X., and Tan, W., Online Optimal Control for Wireless Cooperative Transmission by Ambient RF Powered Sensors; *TWC Sept. 2020 6007-6019*
- Liu, W.**, see Huang, K., *TWC May 2020 3490-3504*
- Liu, W.**, Zang, X., Li, Y., and Vucetic, B., Over-the-Air Computation Systems: Optimization, Analysis and Scaling Laws; *TWC Aug. 2020 5488-5502*
- Liu, W.**, see Ye, N., *TWC April 2020 2208-2225*
- Liu, W.**, Schwarz, S., Rupp, M., Chen, D., and Jiang, T., Preamble-Based Channel Estimation for OQAM/FBMC Systems With Delay Diversity; *TWC Nov. 2020 7169-7180*
- Liu, X.**, see Zheng, K., *TWC Jan. 2020 533-546*
- Liu, X.**, see Chen, M., *TWC Jan. 2020 177-191*
- Liu, X.**, Anand, K., Guan, Y.L., Deng, L., Fan, P., and Zhou, Z., BEM-PSP for Single-Carrier and SC-FDMA Communication Over a Doubly Selective Fading Channel; *TWC June 2020 3924-3937*
- Liu, X.**, Zhang, X., Zhang, L., Xiao, P., Wei, J., Zhang, H., and Leung, V.C.M., PAPR Reduction Using Iterative Clipping/Filtering and ADMM Approaches for OFDM-Based Mixed-Numerology Systems; *TWC April 2020 2586-2600*
- Liu, X.**, Zheng, K., Chi, K., and Zhu, Y., Cooperative Spectrum Sensing Optimization in Energy-Harvesting Cognitive Radio Networks; *TWC Nov. 2020 7663-7676*
- Liu, Y.**, see Li, X., *TWC Jan. 2020 680-695*
- Liu, Y.**, Yang, L., Xiao, P., Haas, H., and Hanzo, L., Spatial Modulated Multicarrier Sparse Code-Division Multiple Access; *TWC Jan. 2020 610-623*
- Liu, Y.**, see Cui, J., *TWC Feb. 2020 729-743*
- Liu, Y.**, see Yue, X., *TWC March 2020 2163-2178*
- Liu, Y.**, see Yu, J., *TWC May 2020 3376-3389*
- Liu, Y.**, see Liu, B., *TWC June 2020 3867-3878*
- Liu, Y.**, see Chen, X., *TWC July 2020 4879-4893*
- Liu, Y.**, see Yang, Z., *TWC Oct. 2020 6899-6915*
- Liu, Y.**, see Mu, X., *TWC Oct. 2020 6884-6898*
- Liu, Y.**, see Zhang, R., *TWC Oct. 2020 6469-6485*
- Liu, Y.**, see De Domenico, A., *TWC Dec. 2020 7942-7956*
- Liu, Y.**, see Song, Y., *TWC Nov. 2020 7392-7406*
- Liu, Y.**, see Zhang, T., *TWC Nov. 2020 7470-7483*
- Liu, Z.**, see Xiao, L., *TWC March 2020 1990-2005*
- Liu, Z.**, see Chen, X., *TWC April 2020 2268-2281*
- Llorca, J.**, see Hassanzadeh, P., *TWC May 2020 3019-3033*
- Lohan, P.**, and Mishra, D., Utility-Aware Optimal Resource Allocation Protocol for UAV-Assisted Small Cells With Heterogeneous Coverage Demands; *TWC Feb. 2020 1221-1236*
- Long, K.**, see Zhang, H., *TWC Feb. 2020 835-845*
- Long, K.**, see Zhang, H., *TWC June 2020 4209-4219*
- Long, K.**, see Qin, Y., *TWC Dec. 2020 8303-8314*
- Long, W.**, see Chen, R., *TWC Oct. 2020 6932-6947*
- Lopez-Martinez, F.J.**, see Fernandez-Plazaola, U., *TWC March 2020 2107-2121*
- Lops, M.**, see D'Andrea, C., *TWC Jan. 2020 19-33*
- Lops, M.**, see Grossi, E., *TWC July 2020 4394-4407*
- Lostanlen, Y.**, see Sana, M., *TWC Oct. 2020 6520-6534*
- Lou, W.**, see Chang, W., *TWC Sept. 2020 6196-6209*
- Lovisolo, L.**, see Mendonca, M.O.K., *TWC March 2020 1868-1881*
- Lozano, A.**, see Attarifar, M., *TWC June 2020 4183-4194*
- Lu, A.**, Gao, X., Meng, X., and Xia, X., Omnidirectional Precoding for 3D Massive MIMO With Uniform Planar Arrays; *TWC April 2020 2628-2642*
- Lu, J.**, see Huang, D., *TWC Jan. 2020 62-76*
- Lu, L.**, see Gao, B., *TWC Jan. 2020 395-409*
- Lu, L.**, see Liu, T., *TWC May 2020 3003-3018*
- Lu, L.**, see Cui, Y., *TWC Nov. 2020 7720-7731*
- Lu, R.**, see Jiao, J., *TWC Sept. 2020 5924-5937*
- Lu, Y.**, Xiong, K., Fan, P., Ding, Z., Zhong, Z., and Letaief, K.B., Secrecy Energy Efficiency in Multi-Antenna SWIPT Networks With Dual-Layer PS Receivers; *TWC June 2020 4290-4306*
- Lu, Z.**, see Zhao, S., *TWC Nov. 2020 7224-7236*
- Luo, C.**, see Cheng, L., *TWC July 2020 4775-4792*
- Luo, H.**, see Zhang, S., *TWC March 2020 2150-2162*
- Luo, J.**, Yu, F.R., Chen, Q., and Tang, L., Adaptive Video Streaming With Edge Caching and Video Transcoding Over Software-Defined Mobile Networks: A Deep Reinforcement Learning Approach; *TWC March 2020 1577-1592*
- Luo, K.**, see Zhang, Q., *TWC Feb. 2020 874-887*
- Luo, K.**, see Liu, P., *TWC Feb. 2020 795-807*
- Luo, P.**, see Rottenberg, F., *TWC April 2020 2728-2741*
- Luo, S.**, Chen, X., Wu, Q., Zhou, Z., and Yu, S., HFEL: Joint Edge Association and Resource Allocation for Cost-Efficient Hierarchical Federated Edge Learning; *TWC Oct. 2020 6535-6548*
- Luo, S.**, Chen, X., Zhou, Z., Chen, X., and Wu, W., Incentive-Aware Micro Computing Cluster Formation for Cooperative Fog Computing; *TWC April 2020 2643-2657*
- Luo, S.**, see Lin, R., *TWC Dec. 2020 8179-8194*
- Luo, T.**, see Wang, Y., *TWC Nov. 2020 7049-7063*
- Luo, W.**, see Tian, C., *TWC Aug. 2020 5447-5460*
- Luo, Y.**, Pu, L., Zhao, Y., Wang, W., and Yang, Q., A Nonlinear Recursive Model Based Optimal Transmission Scheduling in RF Energy Harvesting Wireless Communications; *TWC May 2020 3449-3462*
- Lv, B.**, see Lan, Q., *TWC Sept. 2020 5716-5731*
- Lv, L.**, Ye, Q., Ding, Z., Li, Z., Al-Dhahir, N., and Chen, J., Multi-Antenna Two-Way Relay Based Cooperative NOMA; *TWC Oct. 2020 6486-6503*
- Lv, R.**, see Hu, J., *TWC July 2020 4907-4918*
- Lv, W.**, see Yu, J., *TWC Aug. 2020 5621-5634*

## M

- Ma, H.**, Zhou, Z., and Chen, X., Leveraging the Power of Prediction: Predictive Service Placement for Latency-Sensitive Mobile Edge Computing; *TWC Oct. 2020 6454-6468*
- Ma, J.**, Liu, L., Song, H., Shafin, R., Shang, B., and Fan, P., Scalable Video Transmission in Cache-Aided Device-to-Device Networks; *TWC June 2020 4247-4261*
- Ma, J.**, see Dong, X., *TWC July 2020 4632-4642*
- Ma, J.**, Zhang, S., Li, H., Gao, F., and Han, Z., Time-Varying Downlink Channel Tracking for Quantized Massive MIMO Networks; *TWC Oct. 2020 6721-6736*
- Ma, M.**, and Wong, V.W., Age of Information Driven Cache Content Update Scheduling for Dynamic Contents in Heterogeneous Networks; *TWC Dec. 2020 8427-8441*
- Ma, M.**, see Shang, Z., *TWC Nov. 2020 7021-7032*
- Ma, P.**, see Bai, Z., *TWC Feb. 2020 929-941*
- Ma, S.**, see Gong, S., *TWC March 2020 1704-1721*
- Ma, S.**, see Gong, S., *TWC Aug. 2020 5261-5277*
- Ma, S.**, Zhang, F., Li, H., Zhou, F., Alouini, M., and Li, S., Aggregated VLC-RF Systems: Achievable Rates, Optimal Power Allocation, and Energy Efficiency; *TWC Nov. 2020 7265-7278*
- Ma, W.**, Qi, C., and Li, G.Y., High-Resolution Channel Estimation for Frequency-Selective mmWave Massive MIMO Systems; *TWC May 2020 3517-3529*
- Ma, Y.**, see Bai, Z., *TWC Feb. 2020 929-941*
- Ma, Y.**, Quan, Z., Li, D., Zhang, S., Li, X., Feng, Z., and Ding, Z., Optimal Linear Cooperation for Signal Classification in Cognitive Communication Networks; *TWC May 2020 3144-3155*
- Ma, Y.**, see Elnahas, O., *TWC Dec. 2020 8220-8231*
- Ma, Z.**, see Xiao, Y., *TWC Feb. 2020 1154-1166*
- Ma, Z.**, see Yang, M., *TWC Sept. 2020 5860-5874*
- Maaref, A.**, see Mheich, Z., *TWC Nov. 2020 7423-7438*
- Mach, P.**, see Najla, M., *TWC Nov. 2020 7124-7138*
- MacKenzie, A.B.**, see Chatterjee, S., *TWC July 2020 4378-4393*

- MacKenzie, A.B.**, see Nabil, A., *TWC Nov. 2020 7528-7542*
- Mackinlay, D.**, see Rached, N.B., *TWC July 2020 4353-4362*
- Madhow, U.**, see Eslami Rasekh, M., *TWC Feb. 2020 783-794*
- Maghsudi, S.**, and van der Schaar, M., A Non-Stationary Bandit-Learning Approach to Energy-Efficient Femto-Caching With Rateless-Coded Transmission; *TWC July 2020 5040-5056*
- Maharjan, S.**, see Mao, S., *TWC March 2020 1855-1867*
- Mahdavifar, H.**, see Jamali, M.V., *TWC May 2020 3558-3574*
- Mahmoud, S.A.**, see Nobar, S.K., *TWC Aug. 2020 5101-5116*
- Maier, M.**, see Ebrahimzadeh, A., *TWC July 2020 4480-4493*
- Maier, M.**, see Morocho-Cayamcela, M.E., *TWC Aug. 2020 5075-5087*
- Makki, B.**, see Sadeghabadi, E., *TWC Jan. 2020 579-594*
- Malik, R.**, and Vu, M., Energy-Efficient Computation Offloading in Delay-Constrained Massive MIMO Enabled Edge Network Using Data Partitioning; *TWC Oct. 2020 6977-6991*
- Mallik, R.K.**, see Kundu, N.K., *TWC June 2020 4067-4079*
- Mandic, D.P.**, see Zhang, X., *TWC Sept. 2020 5982-5992*
- Mangione, S.**, see Croce, D., *TWC Feb. 2020 822-834*
- Mankar, P.D.**, and Dhillon, H.S., Downlink Analysis of NOMA-Enabled Cellular Networks With 3GPP-Inspired User Ranking; *TWC June 2020 3796-3811*
- Manzoor, A.**, see Pandey, S.R., *TWC May 2020 3241-3256*
- Mao, G.**, see Sun, Y., *TWC Oct. 2020 6331-6346*
- Mao, J.**, Zhang, L., Xiao, P., and Nikitopoulos, K., Interference Analysis and Power Allocation in the Presence of Mixed Numerologies; *TWC Aug. 2020 5188-5203*
- Mao, S.**, Leng, S., Maharjan, S., and Zhang, Y., Energy Efficiency and Delay Tradeoff for Wireless Powered Mobile-Edge Computing Systems With Multi-Access Schemes; *TWC March 2020 1855-1867*
- Mao, Y.**, Clerckx, B., Zhang, J., Li, V.O.K., and Arafah, M.A., Max-Min Fairness of  $K$ -User Cooperative Rate-Splitting in MISO Broadcast Channel With User Relaying; *TWC Oct. 2020 6362-6376*
- Maric, A.**, Kaljic, E., Njemcevic, P., and Lipovac, V., Projective Approach in Determining Homogeneous Hyperspherical Geometrically-Based Stochastic Channel Model's Statistics: Angle of Departure, Angle of Arrival and Time of Arrival; *TWC Dec. 2020 7864-7880*
- Martos-Naya, E.**, see Fernandez-Plazaola, U., *TWC March 2020 2107-2121*
- Marzetta, T.L.**, see Ngo, H.Q., *TWC May 2020 3623-3624*
- Mashino, J.**, see Sakai, M., *TWC April 2020 2196-2207*
- Maso, M.**, see Feng, Q., *TWC May 2020 3435-3448*
- Mason, F.**, Giordani, M., Chiariotti, F., Zanella, A., and Zorzi, M., An Adaptive Broadcasting Strategy for Efficient Dynamic Mapping in Vehicular Networks; *TWC Aug. 2020 5605-5620*
- Masood, M.**, see Abdallah, S., *TWC April 2020 2613-2627*
- Masoumi, H.**, and Emadi, M.J., Performance Analysis of Cell-Free Massive MIMO System With Limited Fronthaul Capacity and Hardware Impairments; *TWC Feb. 2020 1038-1053*
- Masouros, C.**, see Wei, Z., *TWC Jan. 2020 547-562*
- Masouros, C.**, see Li, A., *TWC May 2020 3474-3489*
- Masouros, C.**, see Liu, F., *TWC Nov. 2020 7704-7719*
- Matthaiou, M.**, see Yuan, J., *TWC May 2020 2960-2973*
- Matthaiou, M.**, see Li, S., *TWC June 2020 3977-3991*
- Matthaiou, M.**, see Van Luong, T., *TWC June 2020 3952-3962*
- Mccann, J.A.**, see Benkhelifa, F., *TWC April 2020 2699-2712*
- McKay, M.R.**, see Kundu, N.K., *TWC June 2020 4067-4079*
- Mehrpouyan, H.**, see Almasi, M.A., *TWC Aug. 2020 5292-5306*
- Meijerink, A.**, see Bilal, I., *TWC Feb. 2020 859-873*
- Mendonca, M.O.K.**, Diniz, P.S.R., Ferreira, T.N., and Lovisolio, L., Antenna Selection in Massive MIMO Based on Greedy Algorithms; *TWC March 2020 1868-1881*
- Meng, F.**, Chen, P., Wu, L., and Cheng, J., Power Allocation in Multi-User Cellular Networks: Deep Reinforcement Learning Approaches; *TWC Oct. 2020 6255-6267*
- Meng, W.**, see Guo, J., *TWC March 2020 1484-1502*
- Meng, W.**, see Xue, K., *TWC June 2020 3673-3684*
- Meng, X.**, see Lu, A., *TWC April 2020 2628-2642*
- Mestre, X.**, Gregoratti, D., and Zhang, P., Optimum Performance of Short Block Length Codes Under Multivariate Stationary Rayleigh Fading; *TWC March 2020 2122-2136*
- Mheich, Z.**, Yu, W., Xiao, P., Quddus, A.U., and Maaref, A., On the Performance of HARQ Protocols With Blanking in NOMA Systems; *TWC Nov. 2020 7423-7438*
- Miao, M.**, see Cai, X., *TWC Feb. 2020 846-858*
- Miao, Y.**, Haneda, K., Naganawa, J., Kim, M., and Takada, J., Measurement-Based Analysis and Modeling of Multimode Channel Behaviors in Spherical Vector Wave Domain; *TWC Aug. 2020 5345-5358*
- Michelson, D.G.**, see Gentile, C., *TWC Oct. 2020 6504-6519*
- Middleton, R.H.**, see Vu, T.T., *TWC Oct. 2020 6377-6392*
- Min, G.**, see Lin, N., *TWC July 2020 4919-4933*
- Minot, P.**, see Daher, A., *TWC July 2020 4934-4946*
- Miridakis, N.I.**, see Li, Y., *TWC Nov. 2020 7324-7338*
- Mishra, D.**, see Lohan, P., *TWC Feb. 2020 1221-1236*
- Mishra, K.V.**, see Elbir, A.M., *TWC March 2020 1677-1688*
- Mitcheson, P.D.**, see Kim, J., *TWC Nov. 2020 7453-7469*
- Miura, A.**, see Kawamoto, Y., *TWC May 2020 2934-2945*
- Miyaji, Y.**, see Komatsu, K., *TWC July 2020 4424-4438*
- Miyaji, Y.**, see Fukui, T., *TWC Nov. 2020 7439-7452*
- Moeneclaey, M.**, see Bailleul, J., *TWC Sept. 2020 5938-5950*
- Mohamed, A.**, see Hoseinitabatabei, S.A., *TWC May 2020 3346-3360*
- Moharir, S.**, see Sombabu, B., *TWC July 2020 4439-4448*
- Molinaro, A.**, see Araniti, G., *TWC Feb. 2020 808-821*
- Molisch, A.F.**, see Han, S., *TWC Jan. 2020 218-234*
- Molisch, A.F.**, see Wang, R., *TWC May 2020 3077-3090*
- Molisch, A.F.**, see Huang, C., *TWC June 2020 3643-3657*
- Molisch, A.F.**, see Lee, M., *TWC Aug. 2020 5589-5604*
- Molisch, A.F.**, see Gentile, C., *TWC Oct. 2020 6504-6519*
- Molisch, A.F.**, see Rottenberg, F., *TWC April 2020 2728-2741*
- Molisch, A.F.**, see Choi, M., *TWC Dec. 2020 7810-7824*
- Moltchanov, D.**, see Samuylov, A., *TWC May 2020 3421-3434*
- Monroe, R.**, see Wang, R., *TWC May 2020 3077-3090*
- Moothedath, V.N.**, and Bhashyam, S., Distributed Pareto Optimal Beamforming for the MISO Multi-Band Multi-Cell Downlink; *TWC Nov. 2020 7196-7209*
- Moreno-Pozas, L.**, see Fernandez-Plazaola, U., *TWC March 2020 2107-2121*
- Moretti, M.**, see Abrardo, A., *TWC Dec. 2020 8246-8260*
- Morgan, Y.**, see Nobar, S.K., *TWC Aug. 2020 5101-5116*
- Morikura, M.**, see Kamiya, S., *TWC April 2020 2321-2335*
- Morillo, R.**, see Chen, S., *TWC Aug. 2020 5204-5217*
- Morocho-Cayamcela, M.E.**, Maier, M., and Lim, W., Breaking Wireless Propagation Environmental Uncertainty With Deep Learning; *TWC Aug. 2020 5075-5087*
- Morton, Y.J.**, see Wang, P., *TWC Aug. 2020 5518-5530*
- Motahari, A.S.**, see Elkordy, A.R., *TWC Jan. 2020 148-161*
- Mouris, B.A.**, Ghauch, H., Thobaben, R., and Jonsson, B.L.G., Multi-Tone Signal Optimization for Wireless Power Transfer in the Presence of Wireless Communication Links; *TWC May 2020 3575-3590*
- Mousavi, M.**, Al-Shatri, H., and Klein, A., Cost Sharing Games for Energy-Efficient Multi-Hop Broadcast in Wireless Networks; *TWC Jan. 2020 310-324*
- Mu, P.**, see Li, Z., *TWC April 2020 2543-2557*
- Mu, X.**, Liu, Y., Guo, L., Lin, J., and Al-Dhahir, N., Exploiting Intelligent Reflecting Surfaces in NOMA Networks: Joint Beamforming Optimization; *TWC Oct. 2020 6884-6898*
- Mucchi, L.**, Vuohtoniemi, R., Virk, H., Conti, A., Hamalainen, M., Iinatti, J., and Win, M.Z., Spectrum Occupancy and Interference Model Based on Network Experimentation in Hospital; *TWC Sept. 2020 5666-5675*
- Mukherjee, S.**, and Lee, J., Edge Computing-Enabled Cell-Free Massive MIMO Systems; *TWC April 2020 2884-2899*
- Muller, R.**, see Gentile, C., *TWC Oct. 2020 6504-6519*
- Mumtaz, S.**, see Cheng, L., *TWC July 2020 4775-4792*
- Mumtaz, S.**, see Li, Q., *TWC July 2020 4449-4463*
- Mumtaz, S.**, see Yang, Q., *TWC April 2020 2472-2488*
- Mumtaz, S.**, see Zhou, Z., *TWC Nov. 2020 7339-7352*
- Muneer, P.**, see Sanoopkumar, P.S., *TWC June 2020 4276-4289*

**Murata, Y.**, *see* Sakai, M., *TWC April 2020 2196-2207*

## N

**Nabil, A.**, Abdel-Rahman, M.J., MacKenzie, A.B., and Hassan, F., A Stochastic Optimization Framework for Channel Bonding in Wireless LANs Under Demand Uncertainty; *TWC Nov. 2020 7528-7542*

**Nadal, J.**, Leduc-Primeau, F., Nour, C.A., and Baghdadi, A., Overlap-Save FBMC Receivers; *TWC Aug. 2020 5307-5320*

**Nadeem, Q.**, Kammoun, A., Chaaban, A., Debbah, M., and Alouini, M., Asymptotic Max-Min SINR Analysis of Reconfigurable Intelligent Surface Assisted MISO Systems; *TWC Dec. 2020 7748-7764*

**Nadeem, Q.**, *see* Ye, J., *TWC Dec. 2020 7851-7863*

**Nafie, M.**, *see* Elkordy, A.R., *TWC Jan. 2020 148-161*

**Naganawa, J.**, *see* Miao, Y., *TWC Aug. 2020 5345-5358*

**Najla, M.**, Becvar, Z., Mach, P., and Gesbert, D., Predicting Device-to-Device Channels From Cellular Channel Measurements: A Learning Approach; *TWC Nov. 2020 7124-7138*

**Nallanathan, A.**, *see* Li, X., *TWC Jan. 2020 680-695*

**Nallanathan, A.**, *see* Cui, J., *TWC Feb. 2020 729-743*

**Nallanathan, A.**, *see* Ren, H., *TWC March 2020 1786-1801*

**Nallanathan, A.**, *see* Yue, X., *TWC March 2020 2163-2178*

**Nallanathan, A.**, *see* Pan, C., *TWC Aug. 2020 5218-5233*

**Nallanathan, A.**, *see* Zhang, T., *TWC Nov. 2020 7470-7483*

**Nam, Y.**, *see* Shafin, R., *TWC June 2020 4038-4053*

**Nardelli, P.H.J.**, *see* Sousa de Sena, A., *TWC March 2020 1622-1635*

**Nardelli, P.H.J.**, *see* de Sena, A.S., *TWC Sept. 2020 6100-6115*

**Nasir, A.A.**, *see* Sheng, Z., *TWC May 2020 2905-2919*

**Nasiri-Kenari, M.**, *see* Sadeghabadi, E., *TWC Jan. 2020 579-594*

**Nasiri-Kenari, M.**, *see* Azimi-Abarghouyi, S.M., *TWC July 2020 4978-4993*

**Nasser, Y.**, *see* El Hassan, M., *TWC April 2020 2352-2366*

**Navaie, K.**, *see* New, W.K., *TWC July 2020 4793-4805*

**Navaie, K.**, *see* Zhu, J., *TWC July 2020 4964-4977*

**Nazer, B.**, *see* El Bakoury, I., *TWC April 2020 2336-2351*

**New, W.K.**, Leow, C.Y., Navaie, K., and Ding, Z., Robust Non-Orthogonal Multiple Access for Aerial and Ground Users; *TWC July 2020 4793-4805*

**Ng, D.W.K.**, *see* Khalili, A., *TWC Jan. 2020 595-609*

**Ng, D.W.K.**, *see* Zheng, T., *TWC May 2020 3405-3420*

**Ng, D.W.K.**, *see* Letafati, M., *TWC Oct. 2020 6771-6785*

**Ng, D.W.K.**, *see* Fu, H., *TWC Dec. 2020 8351-8365*

**Ng, D.W.K.**, *see* Liu, J., *TWC Nov. 2020 7064-7080*

**Ng, S.X.**, *see* Hu, J., *TWC Jan. 2020 637-649*

**Ngo, D.T.**, *see* Vu, T.T., *TWC Oct. 2020 6377-6392*

**Ngo, D.T.**, *see* Nguyen, L.V., *TWC April 2020 2427-2442*

**Ngo, H.Q.**, Ashikhmin, A., Yang, H., Larsson, E.G., and Marzetta, T.L., Correction to "Cell-Free Massive MIMO Versus Small Cells" [Mar 17 1834-1850]; *TWC May 2020 3623-3624*

**Ngo, H.Q.**, *see* Yuan, J., *TWC May 2020 2960-2973*

**Ngo, H.Q.**, *see* Xie, H., *TWC June 2020 3812-3825*

**Ngo, H.Q.**, *see* Van Luong, T., *TWC June 2020 3952-3962*

**Ngo, H.Q.**, *see* Vu, T.T., *TWC Oct. 2020 6377-6392*

**Ngo, K.**, Decurninge, A., Guillaud, M., and Yang, S., Cube-Split: A Structured Grassmannian Constellation for Non-Coherent SIMO Communications; *TWC March 2020 1948-1964*

**Ngo, K.**, Guillaud, M., Decurninge, A., Yang, S., and Schniter, P., Multi-User Detection Based on Expectation Propagation for the Non-Coherent SIMO Multiple Access Channel; *TWC Sept. 2020 6145-6161*

**Ngouat, P.**, *see* Daher, A., *TWC July 2020 4934-4946*

**Nguyen, D.H.N.**, *see* Nguyen, L.V., *TWC April 2020 2427-2442*

**Nguyen, H.H.**, *see* Fazeli, A., *TWC July 2020 4464-4479*

**Nguyen, L.V.**, Ngo, D.T., Tran, N.H., Swindlehurst, A.L., and Nguyen, D.H.N., Supervised and Semi-Supervised Learning for MIMO Blind Detection With Low-Resolution ADCs; *TWC April 2020 2427-2442*

**Nguyen, M.**, and Kwon, S., Geometry-Based Analysis of Optimal Handover Parameters for Self-Organizing Networks; *TWC April 2020 2670-2683*

**Nguyen, N.T.**, and Lee, K., Unequally Sub-Connected Architecture for Hybrid Beamforming in Massive MIMO Systems; *TWC Feb. 2020 1127-1140*

**Nguyen, N.T.**, and Lee, K., Deep Learning-Aided Tabu Search Detection for Large MIMO Systems; *TWC June 2020 4262-4275*

**Nguyen, T.M.**, *see* Samir, M., *TWC Jan. 2020 34-46*

**Nguyen, T.T.**, Ha, V.N., Le, L.B., and Schober, R., Joint Data Compression and Computation Offloading in Hierarchical Fog-Cloud Systems; *TWC Jan. 2020 293-309*

**Nguyen, T.V.**, *see* Ranjbar, M., *TWC Sept. 2020 6162-6178*

**Nguyen Canh, T.**, *see* Van Chien, T., *TWC Sept. 2020 5732-5748*

**Nie, Z.**, *see* Li, Y., *TWC Dec. 2020 7779-7795*

**Nikitopoulos, K.**, *see* Mao, J., *TWC Aug. 2020 5188-5203*

**Nishimoto, H.**, *see* Sakai, M., *TWC April 2020 2196-2207*

**Nishio, T.**, *see* Kamiya, S., *TWC April 2020 2321-2335*

**Niu, J.**, *see* Cheng, L., *TWC July 2020 4775-4792*

**Niu, K.**, *see* Wang, S., *TWC April 2020 2601-2612*

**Niu, Z.**, *see* Zheng, X., *TWC Nov. 2020 7237-7250*

**Niyato, D.**, *see* Xiong, Z., *TWC March 2020 1722-1737*

**Niyato, D.**, *see* Ji, J., *TWC Aug. 2020 5389-5403*

**Niyato, D.**, *see* Xiong, Z., *TWC Sept. 2020 5779-5793*

**Niyato, D.**, *see* Idrees, S., *TWC Oct. 2020 6316-6330*

**Niyato, D.**, *see* Jiang, Y., *TWC Dec. 2020 8442-8454*

**Njemcevic, P.**, *see* Maric, A., *TWC Dec. 2020 7864-7880*

**Nobar, S.K.**, Ahmed, M.H., Morgan, Y., and Mahmoud, S.A., Uplink Resource Allocation in Energy Harvesting Cellular Network With H2H/M2M Coexistence; *TWC Aug. 2020 5101-5116*

**Noh, S.**, Song, J., and Sung, Y., Fast Beam Search and Refinement for Millimeter-Wave Massive MIMO Based on Two-Level Phased Arrays; *TWC Oct. 2020 6737-6751*

**Nonaka, N.**, *see* Sakai, M., *TWC April 2020 2196-2207*

**Nordio, A.**, *see* Alfano, G., *TWC Jan. 2020 106-119*

**Nossek, J.A.**, *see* Laas, T., *TWC Oct. 2020 6440-6453*

**Nour, C.A.**, *see* Nadal, J., *TWC Aug. 2020 5307-5320*

## O

**O'Brien, D.C.**, *see* Wu, X., *TWC Oct. 2020 6268-6276*

**O'Brien, D.C.**, *see* Wu, X., *TWC Dec. 2020 8211-8219*

**Oh, S.**, *see* Park, J.W., *TWC Jan. 2020 367-379*

**Okamura, A.**, *see* Sakai, M., *TWC April 2020 2196-2207*

**Okazaki, A.**, *see* Sakai, M., *TWC April 2020 2196-2207*

**Okumura, Y.**, *see* Sakai, M., *TWC April 2020 2196-2207*

**Olanrewaju, H.G.**, Thompson, J., and Popoola, W.O., Pairwise Coding for MIMO-OFDM Visible Light Communication; *TWC Feb. 2020 1210-1220*

**Onalan, A.G.**, Salik, E.D., and Coleri, S., Relay Selection, Scheduling, and Power Control in Wireless-Powered Cooperative Communication Networks; *TWC Nov. 2020 7181-7195*

**Onireti, O.**, *see* Yang, B., *TWC Aug. 2020 5132-5147*

**Ooi, B.S.**, *see* Amhoud, E., *TWC Feb. 2020 888-900*

**Osaki, S.**, Ishihara, T., and Sugiura, S., Eigenvalue-Decomposition-Precoded Ultra-Dense Non-Orthogonal Frequency-Division Multiplexing; *TWC Dec. 2020 8165-8178*

**Ostman, J.**, *see* Lancha, A., *TWC July 2020 4831-4846*

**Ottersten, B.**, *see* Bandi, A., *TWC Jan. 2020 475-490*

**Ottersten, B.**, *see* Vu, T.X., *TWC Feb. 2020 1141-1153*

**Ottersten, B.**, *see* Kisseleff, S., *TWC June 2020 4307-4320*

**Ottersten, B.**, *see* Bandi, A., *TWC Dec. 2020 8195-8210*

**Ottersten, B.**, *see* Domouchtsidis, S., *TWC Dec. 2020 7973-7985*

**Oviedo, J.A.**, and Sadjadpour, H.R., Fundamentals of Power Allocation Strategies for Downlink Multi-User NOMA With Target Rates; *TWC March 2020 1906-1917*

**Ozdemir, O.**, *see* Gentile, C., *TWC Oct. 2020 6504-6519*

## P

**Padidar, P.**, Ho, P., Ji, Y., and Duan, W., A Deep Study on Layered Multi-Relay Non-Orthogonal Amplify-Forward Networks; *TWC Jan. 2020 354-366*

**Pan, C.**, *see* Ren, H., *TWC March 2020 1786-1801*

- Pan, C.**, Ren, H., Wang, K., Xu, W., El Kashlan, M., Nallanathan, A., and Hanzo, L., Multicell MIMO Communications Relying on Intelligent Reflecting Surfaces; *TWC Aug. 2020* 5218-5233
- Pan, G.**, Ye, J., Zhang, Y., and Alouini, M., Performance Analysis and Optimization of Cooperative Satellite-Aerial-Terrestrial Systems; *TWC Oct. 2020* 6693-6707
- Pan, G.**, Lei, H., An, J., Zhang, S., and Alouini, M., On the Secrecy of UAV Systems With Linear Trajectory; *TWC Oct. 2020* 6277-6288
- Pan, G.**, Ye, J., Tian, Y., and Alouini, M., On HARQ Schemes in Satellite-Terrestrial Transmissions; *TWC Dec. 2020* 7998-8010
- Pan, G.**, Ye, J., Zhang, C., An, J., Lei, H., Ding, Z., and Alouini, M.S., Secure Cooperative Hybrid VLC-RF Systems; *TWC Nov. 2020* 7097-7107
- Pandey, S.R.**, Tran, N.H., Bennis, M., Tun, Y.K., Manzoor, A., and Hong, C.S., A Crowdsourcing Framework for On-Device Federated Learning; *TWC May 2020* 3241-3256
- Pang, A.**, see Chou, S., *TWC Jan. 2020* 563-578
- Pang, J.**, see Feng, Q., *TWC May 2020* 3435-3448
- Papadias, C.B.**, see Sousa de Sena, A., *TWC March 2020* 1622-1635
- Papadias, C.B.**, see de Sena, A.S., *TWC Sept. 2020* 6100-6115
- Papadopoulos, A.**, Chatzidiamantis, N.D., and Georgiadis, L., Network Coding Techniques for Primary-Secondary User Cooperation in Cognitive Radio Networks; *TWC June 2020* 4195-4208
- Paris, J.F.**, see Fernandez-Plazaola, U., *TWC March 2020* 2107-2121
- Park, C.**, and Chang, J., Robust Localization Based on ML-Type, Multi-Stage ML-Type, and Extrapolated Single Propagation UKF Methods Under Mixed LOS/NLOS Conditions; *TWC Sept. 2020* 5819-5832
- Park, H.**, see Kwon, G., *TWC June 2020* 4008-4022
- Park, J.**, see Gao, B., *TWC Jan. 2020* 395-409
- Park, J.**, see Wang, R., *TWC May 2020* 3077-3090
- Park, J.**, see Shafin, R., *TWC June 2020* 4038-4053
- Park, J.W.**, Yoo, D., and Oh, S., User-Number Threshold-Based Small-Cell On/Off Control Scheme: Performance Evaluation and Optimization; *TWC Jan. 2020* 367-379
- Park, K.**, see Al-Jarrah, M.A., *TWC Jan. 2020* 134-147
- Park, K.**, see Lee, J., *TWC March 2020* 1610-1621
- Park, S.**, Ali, A., Gonzalez-Prelcic, N., and Heath, R.W., Spatial Channel Covariance Estimation for Hybrid Architectures Based on Tensor Decompositions; *TWC Feb. 2020* 1084-1097
- Park, S.Y.**, see Kim, S.H., *TWC Nov. 2020* 7309-7323
- Park, Y.**, see Kim, H., *TWC Feb. 2020* 1373-1385
- Park, Y.D.**, Jeong, S., Jeon, S., and Suh, Y., WiderCast: Enabling Wider Bandwidth for Wireless Multicast Over IEEE 802.11ac WLANs; *TWC June 2020* 3854-3866
- Parsaeefard, S.**, see Khalili, A., *TWC Jan. 2020* 595-609
- Parsaeefard, S.**, see Dabiri, M.T., *TWC April 2020* 2868-2883
- Pechetti, S.V.**, and Bose, R., Precoding-Aided Spatial Modulation Assisted Joint Two-Tier Downlink Reception; *TWC May 2020* 3332-3345
- Pei, Q.**, see Feng, J., *TWC June 2020* 4321-4334
- Peken, T.**, Adiga, S., Tandon, R., and Bose, T., Deep Learning for SVD and Hybrid Beamforming; *TWC Oct. 2020* 6621-6642
- Peng, G.**, see Wang, P., *TWC Feb. 2020* 1025-1037
- Peng, M.**, see Liu, B., *TWC June 2020* 3867-3878
- Peng, M.**, see Xiang, H., *TWC April 2020* 2515-2527
- Peng, M.**, see Yin, B., *TWC April 2020* 2240-2251
- Perim, V.**, Sanchez, J.D.V., and Filho, J.C.S.S., Asymptotically Exact Approximations to Generalized Fading Sum Statistics; *TWC Jan. 2020* 205-217
- Petropulu, A.P.**, see Garnaeu, A., *TWC Aug. 2020* 5359-5372
- Petrova, M.**, see Liu, F., *TWC March 2020* 1650-1662
- Pezechki, H.**, Sadeghi, M., Haenggi, M., and Laneman, J.N., Anywhere Decoding: Low-Overhead Uplink Interference Management for Wireless Networks; *TWC June 2020* 4095-4108
- Ping, L.**, see Wang, X., *TWC May 2020* 3289-3303
- Pirmagomedov, R.**, see Samuylov, A., *TWC May 2020* 3421-3434
- Pollin, S.**, see Chen, C., *TWC Sept. 2020* 6210-6223
- Pollin, S.**, see Azari, M.M., *TWC Sept. 2020* 6130-6144
- Poor, H.V.**, see Xiao, L., *TWC Jan. 2020* 423-434
- Poor, H.V.**, see Li, Q., *TWC Jan. 2020* 192-204
- Poor, H.V.**, see Zhang, H., *TWC Feb. 2020* 835-845
- Poor, H.V.**, see Jeon, Y., *TWC March 2020* 1663-1676
- Poor, H.V.**, see Sheng, Z., *TWC May 2020* 2905-2919
- Poor, H.V.**, see Fernandes, V., *TWC June 2020* 3839-3853
- Poor, H.V.**, see Cao, W., *TWC June 2020* 3685-3699
- Poor, H.V.**, see Zhang, Q., *TWC July 2020* 4535-4548
- Poor, H.V.**, see Liu, H., *TWC July 2020* 4657-4670
- Poor, H.V.**, see Li, Q., *TWC July 2020* 4449-4463
- Poor, H.V.**, see Xiong, Z., *TWC Sept. 2020* 5779-5793
- Poor, H.V.**, see Filomeno, M.d.L., *TWC Oct. 2020* 6289-6300
- Poor, H.V.**, see Zhang, S., *TWC Oct. 2020* 6578-6592
- Poor, H.V.**, see Gao, H., *TWC Dec. 2020* 7825-7835
- Poor, H.V.**, see Banez, R.A., *TWC Dec. 2020* 8366-8381
- Poor, H.V.**, see Wang, S., *TWC Nov. 2020* 7293-7308
- Popoola, W.O.**, see Olanrewaju, H.G., *TWC Feb. 2020* 1210-1220
- Popovski, P.**, see Razlighi, M.M., *TWC May 2020* 3118-3132
- Popovski, P.**, see Kassab, R., *TWC Oct. 2020* 6347-6361
- Post, B.**, and Borst, S., Load-Driven Dynamic User Assignment Algorithms for Dense Cellular Networks; *TWC Nov. 2020* 7677-7689
- Pottie, G.J.**, see Zhao, H., *TWC May 2020* 3505-3516
- Pradhan, C.**, Li, A., Zhuo, L., Li, Y., and Vucetic, B., Hybrid-Precoding for mmWave Multi-User Communications in the Presence of Beam-Misalignment; *TWC Sept. 2020* 6083-6099
- Prasad, K.N.R.S.V.**, D'souza, K.B., and Bhargava, V.K., A Downscaled Faster-RCNN Framework for Signal Detection and Time-Frequency Localization in Wideband RF Systems; *TWC July 2020* 4847-4862
- Pratt, T.G.**, see Wu, X., *TWC Aug. 2020* 5321-5332
- Priyadarshani, R.**, Jaiswal, A., Bhatnagar, M.R., Bohata, J., Zvanovec, S., and Ghassemloo, Z., Impact of Channel Correlation on Different Performance Metrics of OSSK-Based FSO Systems; *TWC March 2020* 1593-1609
- Pu, L.**, Wu, H., Yan, K., Gao, Z., Wang, X., and Xiang, W., Novel Three-Hierarchy Multiple-Tag-Recognition Technique for Next Generation RFID Systems; *TWC Feb. 2020* 1237-1249
- Pu, L.**, see Luo, Y., *TWC May 2020* 3449-3462
- Pudlewski, S.**, see Shang, B., *TWC Dec. 2020* 7957-7972
- Pudlewski, S.M.**, see Song, H., *TWC Dec. 2020* 8382-8395

## Q

- Qi, C.**, see Ma, W., *TWC May 2020* 3517-3529
- Qi, C.**, Chen, K., Dobre, O.A., and Li, G.Y., Hierarchical Codebook-Based Multiuser Beam Training for Millimeter Wave Massive MIMO; *TWC Dec. 2020* 8142-8152
- Qi, Q.**, see Fu, X., *TWC Jan. 2020* 507-519
- Qi, S.**, see Tang, Z., *TWC March 2020* 1519-1534
- Qian, L.**, see Cao, X., *TWC Aug. 2020* 5531-5546
- Qian, Y.**, see Yang, H., *TWC May 2020* 3607-3622
- Qin, C.**, Zhang, J.A., Huang, X., Wu, K., and Guo, Y.J., Fast Angle-of-Arrival Estimation via Virtual Subarrays in Analog Antenna Array; *TWC Oct. 2020* 6425-6439
- Qin, M.**, Wu, W., Yang, Q., Zhang, R., Cheng, N., Zhou, H., Rao, R.R., and Shen, X., Green-Oriented Dynamic Resource-on-Demand Strategy for Multi-RAT Wireless Networks Powered by Heterogeneous Energy Sources; *TWC Aug. 2020* 5547-5560
- Qin, Y.**, see Chen, S., *TWC Aug. 2020* 5204-5217
- Qin, Y.**, Huangfu, W., Zhang, H., and Long, K., Boosting the Cellular Network Coverage Optimization in Accordance With the Metric Structure of Antenna Variables; *TWC Dec. 2020* 8303-8314
- Qu, X.**, see Liu, T., *TWC Sept. 2020* 6007-6019
- Quan, Z.**, see Ma, Y., *TWC May 2020* 3144-3155
- Quan, Z.**, see Elnahas, O., *TWC Dec. 2020* 8220-8231
- Quddus, A.U.**, see Mheich, Z., *TWC Nov. 2020* 7423-7438
- Quek, T.Q.**, see Dinh, T.Q., *TWC March 2020* 2137-2149
- Quek, T.Q.S.**, see Kim, D., *TWC Jan. 2020* 325-339
- Quek, T.Q.S.**, see Lee, H., *TWC Feb. 2020* 956-969
- Quek, T.Q.S.**, see Gong, S., *TWC March 2020* 1704-1721
- Quek, T.Q.S.**, see Li, Y., *TWC June 2020* 3963-3976

**Quek, T.Q.S.**, *see* Xia, W., *TWC Nov. 2020 7108-7123*

## R

**Raafat, A.**, Agustin, A., and Vidal, J., Downlink Multi-User Massive MIMO Transmission Using Receive Spatial Modulation; *TWC Oct. 2020 6871-6883*

**Rached, N.B.**, Mackinlay, D., Botev, Z., Tempone, R., and Alouini, M., A Universal Splitting Estimator for the Performance Evaluation of Wireless Communications Systems; *TWC July 2020 4353-4362*

**Rahimian, S.**, Jing, Y., and Ardakani, M., Performance Analysis of Massive MIMO Multi-Way Relay Networks With Low-Resolution ADCs; *TWC Sept. 2020 5794-5806*

**Rahmati, A.**, *see* Hosseinalipour, S., *TWC Nov. 2020 7033-7048*

**Rakesh, R.T.**, and Viterbo, E., Channel Modeling for Wireless Communications Using Ambit Processes; *TWC Dec. 2020 8396-8409*

**Rakia, T.**, Gebali, F., Yang, H., and Alouini, M., Performance Analysis of Multiuser FSO/RF Network Under Non-Equal Priority With  $P$ -Persistence Protocol; *TWC March 2020 1802-1813*

**Ramirez, D.**, *see* Dutta, S., *TWC Feb. 2020 756-770*

**Rangan, S.**, *see* Dutta, S., *TWC Feb. 2020 756-770*

**Ranjbar, M.**, Tran, N.H., Vu, M.N., Nguyen, T.V., and Cenk Gursoy, M., Capacity Region and Capacity-Achieving Signaling Schemes for 1-bit ADC Multi-Region Access Channels in Rayleigh Fading; *TWC Sept. 2020 6162-6178*

**Rao, A.**, *see* Gupta, M., *TWC Dec. 2020 8024-8038*

**Rao, B.D.**, *see* Han, Y., *TWC Feb. 2020 1320-1332*

**Rao, R.R.**, *see* Qin, M., *TWC Aug. 2020 5547-5560*

**Rasti, M.**, *see* Khalili, A., *TWC Jan. 2020 595-609*

**Ratnarajah, T.**, *see* Biswas, S., *TWC July 2020 4727-4743*

**Razlighi, M.M.**, Zlatanov, N., and Popovski, P., Dynamic Time-Frequency Division Duplex; *TWC May 2020 3118-3132*

**Reed, J.H.**, *see* Shafin, R., *TWC June 2020 4038-4053*

**Ren, H.**, Pan, C., Deng, Y., Elkashlan, M., and Nallanathan, A., Joint Power and Blocklength Optimization for URLLC in a Factory Automation Scenario; *TWC March 2020 1786-1801*

**Ren, H.**, *see* Pan, C., *TWC Aug. 2020 5218-5233*

**Ren, H.**, *see* Li, L., *TWC Oct. 2020 6393-6408*

**Ren, J.**, *see* He, Y., *TWC Aug. 2020 5333-5344*

**Ren, J.**, He, Y., Wen, D., Yu, G., Huang, K., and Guo, D., Scheduling for Cellular Federated Edge Learning With Importance and Channel Awareness; *TWC Nov. 2020 7690-7703*

**Renzo, M.D.**, *see* Li, Q., *TWC July 2020 4449-4463*

**Ribeiro, M.V.**, *see* Fernandes, V., *TWC June 2020 3839-3853*

**Ribeiro, M.V.**, *see* Filomeno, M.d.L., *TWC Oct. 2020 6289-6300*

**Richard Yu, F.**, *see* Wu, F., *TWC April 2020 2252-2267*

**Rinaldi, F.**, *see* Araniti, G., *TWC Feb. 2020 808-821*

**Ristaniemi, T.**, *see* Abdi, Y., *TWC Nov. 2020 7585-7597*

**Robot Mili, M.**, *see* Khalili, A., *TWC Jan. 2020 595-609*

**Romero-Jerez, J.M.**, *see* Fernandez-Plazaola, U., *TWC March 2020 2107-2121*

**Rong, Y.**, *see* Wang, S., *TWC April 2020 2601-2612*

**Ronnnow, D.**, *see* Handel, P., *TWC March 2020 1882-1893*

**Rossi, P.S.**, *see* Dey, I., *TWC Aug. 2020 5246-5260*

**Rostami, S.**, Trinh, H.D., Lagen, S., Costa, M., Valkama, M., and Dini, P., Wake-Up Scheduling for Energy-Efficient Mobile Devices; *TWC Sept. 2020 6020-6036*

**Rottenberg, F.**, *see* Gentile, C., *TWC Oct. 2020 6504-6519*

**Rottenberg, F.**, Choi, T., Luo, P., Zhang, C.J., and Molisch, A.F., Performance Analysis of Channel Extrapolation in FDD Massive MIMO Systems; *TWC April 2020 2728-2741*

**Roy, S.**, *see* Gao, Y., *TWC May 2020 3390-3404*

**Rupp, M.**, *see* Liu, W., *TWC Nov. 2020 7169-7180*

**Russell, A.**, *see* Chen, S., *TWC Aug. 2020 5204-5217*

## S

**Saad, M.**, *see* Abdallah, S., *TWC April 2020 2613-2627*

**Saad, W.**, *see* Chen, M., *TWC Jan. 2020 177-191*

**Saad, W.**, *see* Zhou, B., *TWC March 2020 1933-1947*

**Saad, W.**, *see* Jung, M., *TWC March 2020 2052-2065*

**Saad, W.**, *see* Hu, Y., *TWC June 2020 3908-3923*

**Saad, W.**, *see* Dabiri, M.T., *TWC April 2020 2868-2883*

**Saad, W.**, *see* Wang, Y., *TWC Nov. 2020 7049-7063*

**Sabharwal, A.**, *see* da Silva, J.M.B., *TWC Oct. 2020 6916-6931*

**Sabharwal, A.**, *see* Du, X., *TWC April 2020 2293-2307*

**Sadeghabadi, E.**, Azimi-Abarghouyi, S.M., Makki, B., Nasiri-Kenari, M., and Svensson, T., Asynchronous Downlink Massive MIMO Networks: A Stochastic Geometry Approach; *TWC Jan. 2020 579-594*

**Sadeghi, M.**, *see* Pezeshki, H., *TWC June 2020 4095-4108*

**Sadi, Y.**, *see* Iqbal, M.S., *TWC Sept. 2020 5993-6006*

**Sadjadpour, H.R.**, *see* Oviedo, J.A., *TWC March 2020 1906-1917*

**Saeed, N.**, *see* Celik, A., *TWC Feb. 2020 1167-1181*

**Safari, M.**, *see* Kazemi, H., *TWC Sept. 2020 5676-5691*

**Safi, H.**, *see* Dabiri, M.T., *TWC April 2020 2868-2883*

**Saggese, F.**, *see* Abrardo, A., *TWC Dec. 2020 8246-8260*

**Sahin, A.**, and Yang, R., An Uplink Control Channel Design With Complementary Sequences for Unlicensed Bands; *TWC Oct. 2020 6858-6870*

**Sakai, M.**, Kamohara, K., Iura, H., Nishimoto, H., Ishioka, K., Murata, Y., Yamamoto, M., Okazaki, A., Nonaka, N., Suyama, S., Mashino, J., Okamura, A., and Okumura, Y., Experimental Field Trials on MU-MIMO Transmissions for High SHF Wide-Band Massive MIMO in 5G; *TWC April 2020 2196-2207*

**Sakzad, A.**, *see* Hasan, M.N., *TWC Feb. 2020 942-955*

**Salam, A.**, Vuran, M.C., and Irmak, S., A Statistical Impulse Response Model Based on Empirical Characterization of Wireless Underground Channels; *TWC Sept. 2020 5966-5981*

**Salehi, J.A.**, *see* Dastgheib, M.A., *TWC Oct. 2020 6813-6825*

**Salik, E.D.**, *see* Onalan, A.G., *TWC Nov. 2020 7181-7195*

**Samdanis, K.**, *see* Bagaa, M., *TWC July 2020 4700-4714*

**Sameer, S.M.**, *see* Sanoopkumar, P.S., *TWC June 2020 4276-4289*

**Samir, M.**, Sharafeddine, S., Assi, C.M., Nguyen, T.M., and Ghrayeb, A., UAV Trajectory Planning for Data Collection from Time-Constrained IoT Devices; *TWC Jan. 2020 34-46*

**Samouylov, K.**, *see* Samuylov, A., *TWC May 2020 3421-3434*

**Samuylov, A.**, Moltchanov, D., Kovalchukov, R., Pirmagomedov, R., Gaidamaka, Y., Andreev, S., Koucheryavy, Y., and Samouylov, K., Characterizing Resource Allocation Trade-Offs in 5G NR Serving Multicast and Unicast Traffic; *TWC May 2020 3421-3434*

**Sana, M.**, De Domenico, A., Yu, W., Lostanlen, Y., and Calvanese Strinati, E., Multi-Agent Reinforcement Learning for Adaptive User Association in Dynamic mmWave Networks; *TWC Oct. 2020 6520-6534*

**Sanchez, J.D.V.**, *see* Perim, V., *TWC Jan. 2020 205-217*

**Sangodoyin, S.**, *see* Wang, R., *TWC May 2020 3077-3090*

**Sanguinetti, L.**, *see* Bjornson, E., *TWC Jan. 2020 77-90*

**Sanoopkumar, P.S.**, Muneer, P., and Sameer, S.M., Joint Estimation of RF Impairments, Channel, and Low Complexity Iterative Equalization Technique for High Mobility SC-FDMA/OFDMA Uplink Systems; *TWC June 2020 4276-4289*

**Santaromita, G.**, *see* Baiocchi, A., *TWC Jan. 2020 712-726*

**Santaromita, G.**, *see* Croce, D., *TWC Feb. 2020 822-834*

**Sari, H.**, *see* Huang, H., *TWC Aug. 2020 5373-5388*

**Saur, S.**, *see* Centenaro, M., *TWC May 2020 3104-3117*

**Schiessl, S.**, Skoglund, M., and Gross, J., NOMA in the Uplink: Delay Analysis With Imperfect CSI and Finite-Length Coding; *TWC June 2020 3879-3893*

**Schniter, P.**, *see* Ngo, K., *TWC Sept. 2020 6145-6161*

**Schober, R.**, *see* Nguyen, T.T., *TWC Jan. 2020 293-309*

**Schober, R.**, *see* Zhang, J., *TWC Feb. 2020 1265-1279*

**Schotten, H.D.**, *see* Han, B., *TWC July 2020 5010-5024*

**Schwarz, S.**, *see* Liu, W., *TWC Nov. 2020 7169-7180*

**Sciancalepore, V.**, *see* Han, B., *TWC July 2020 5010-5024*

**Scopelliti, P.**, *see* Araniti, G., *TWC Feb. 2020 808-821*

**Semiari, O.**, *see* Chen, M., *TWC Jan. 2020 177-191*

**Senanayake, R.**, Smith, P.J., Dmochowski, P.A., Giorgetti, A., and Evans, J.S., Mixture Detectors for Improved Spectrum Sensing; *TWC June 2020 4335-4348*

- Shafin, R.**, and Liu, L., Superimposed Pilot for Multi-Cell Multi-User Massive FD-MIMO Systems; *TWC May 2020 3591-3606*
- Shafin, R.**, see Ma, J., *TWC June 2020 4247-4261*
- Shafin, R.**, Chen, H., Nam, Y., Hur, S., Park, J., Zhang, J., Reed, J.H., and Liu, L., Self-Tuning Sectorization: Deep Reinforcement Learning Meets Broadcast Beam Optimization; *TWC June 2020 4038-4053*
- Shahanaghi, A.**, Yang, Y., and Buehrer, R.M., Stochastic Link Modeling of Static Wireless Sensor Networks Over the Ocean Surface; *TWC June 2020 4154-4169*
- Shan, H.**, see He, H., *TWC Dec. 2020 7881-7896*
- Shang, B.**, see Ma, J., *TWC June 2020 4247-4261*
- Shang, B.**, Liu, L., Chen, H., Zhang, C.J., Pudlewski, S., Bentley, E.S., and Ashdown, J.D., Spatial Spectrum Sensing in Uplink Two-Tier User-Centric Deployed HetNets; *TWC Dec. 2020 7957-7972*
- Shang, Z.**, Ma, M., and Li, X., A Secure Group-Oriented Device-to-Device Authentication Protocol for 5G Wireless Networks; *TWC Nov. 2020 7021-7032*
- Shankar, M.R.B.**, see Bandi, A., *TWC Dec. 2020 8195-8210*
- Shankar M. R. B.**, see Bandi, A., *TWC Jan. 2020 475-490*
- Shao, Y.**, see Liew, S.C., *TWC Dec. 2020 7765-7778*
- Shao, Y.**, and Liew, S.C., Flexible Subcarrier Allocation for Interleaved Frequency Division Multiple Access; *TWC Nov. 2020 7139-7152*
- Sharafeddine, S.**, see Samir, M., *TWC Jan. 2020 34-46*
- Sharafeddine, S.**, see Khabbaz, M., *TWC May 2020 3228-3240*
- Shariatpanahi, S.P.**, see Tolli, A., *TWC March 2020 2091-2106*
- Sharma, E.**, Amudala, D.N., and Budhiraja, R., Energy Efficiency Optimization of Massive MIMO FD Relay With Quadratic Transform; *TWC Feb. 2020 1429-1448*
- Sharma, E.**, Chauhan, S.S., and Budhiraja, R., Decentralized WSEE Optimization for Massive MIMO Two-Way Half-Duplex AF Relaying; *TWC Feb. 2020 1397-1414*
- Sharma, P.K.**, and Kim, D.I., Secure 3D Mobile UAV Relaying for Hybrid Satellite-Terrestrial Networks; *TWC April 2020 2770-2784*
- Sharma, V.**, see Deekshith, P.K., *TWC April 2020 2558-2569*
- Sharma, V.**, see Krishnan K. S., A., *TWC Dec. 2020 8113-8125*
- She, C.**, see Hou, Z., *TWC Feb. 2020 1196-1209*
- Shen, C.**, see Xu, Y., *TWC Feb. 2020 1054-1069*
- Shen, C.**, see Xu, X., *TWC April 2020 2570-2585*
- Shen, K.**, see Li, X., *TWC Sept. 2020 6116-6129*
- Shen, T.**, see Gu, Z., *TWC Jan. 2020 91-105*
- Shen, X.**, see Li, Q., *TWC Jan. 2020 696-711*
- Shen, X.**, see Zhang, S., *TWC March 2020 2150-2162*
- Shen, X.**, see Qin, M., *TWC Aug. 2020 5547-5560*
- Shen, X.**, see Wu, H., *TWC Oct. 2020 6409-6424*
- Shen, X.**, see Zhao, Y., *TWC Oct. 2020 6549-6563*
- Shen, X.**, see Aldubaikhy, K., *TWC April 2020 2397-2410*
- Shen, X.**, see Sheng, M., *TWC April 2020 2813-2826*
- Shen, X.**, see Song, Y., *TWC Nov. 2020 7392-7406*
- Shen, X.S.**, see Ding, R., *TWC Dec. 2020 7796-7809*
- Shen, Y.**, Shi, Y., Zhang, J., and Letaief, K.B., LORM: Learning to Optimize for Resource Management in Wireless Networks With Few Training Samples; *TWC Jan. 2020 665-679*
- Shen, Y.**, see Wu, L., *TWC Feb. 2020 1113-1126*
- Shen, Y.**, see Dong, X., *TWC July 2020 4632-4642*
- Shen, Y.**, see Wang, Y., *TWC Sept. 2020 6037-6049*
- Sheng, M.**, see Zhu, Y., *TWC June 2020 3894-3907*
- Sheng, M.**, Dai, Y., Liu, J., Cheng, N., Shen, X., and Yang, Q., Delay-Aware Computation Offloading in NOMA MEC Under Differentiated Uploading Delay; *TWC April 2020 2813-2826*
- Sheng, Z.**, Tuan, H.D., Nasir, A.A., Duong, T.Q., and Poor, H.V., Secure UAV-Enabled Communication Using Han-Kobayashi Signaling; *TWC May 2020 2905-2919*
- Sheng, Z.**, see Su, J., *TWC May 2020 2974-2986*
- Shenoy, K.G.**, see Deekshith, P.K., *TWC April 2020 2558-2569*
- Shi, J.**, see Lin, S., *TWC May 2020 3199-3213*
- Shi, J.**, see Yang, L., *TWC Sept. 2020 6065-6082*
- Shi, J.**, see Sun, B., *TWC Oct. 2020 6826-6843*
- Shi, Q.**, see Zhao, M., *TWC May 2020 3257-3272*
- Shi, W.**, see Zhang, S., *TWC March 2020 2150-2162*
- Shi, W.**, see Wu, H., *TWC Oct. 2020 6409-6424*
- Shi, Y.**, see Shen, Y., *TWC Jan. 2020 665-679*
- Shi, Y.**, see Yang, K., *TWC March 2020 2022-2035*
- Shi, Z.**, Gao, W., Zhang, S., Liu, J., and Kato, N., Machine Learning-Enabled Cooperative Spectrum Sensing for Non-Orthogonal Multiple Access; *TWC Sept. 2020 5692-5702*
- Shih, J.**, see Lai, I., *TWC July 2020 4579-4593*
- Shihada, B.**, see Celik, A., *TWC Feb. 2020 1167-1181*
- Shihada, B.**, see Abdelhady, A.M., *TWC May 2020 3304-3318*
- Shihada, B.**, see Dang, S., *TWC April 2020 2489-2503*
- Shihada, B.**, see Ye, J., *TWC Dec. 2020 7897-7912*
- Shim, B.**, see Kim, S., *TWC June 2020 3658-3672*
- Shim, B.**, see Sun, Y., *TWC Oct. 2020 6331-6346*
- Shin, H.**, see Dinh, T.Q., *TWC March 2020 2137-2149*
- Shirvanimoghaddam, M.**, see Huang, K., *TWC May 2020 3490-3504*
- Shlezinger, N.**, Farsad, N., Eldar, Y.C., and Goldsmith, A.J., ViterbiNet: A Deep Learning Based Viterbi Algorithm for Symbol Detection; *TWC May 2020 3319-3331*
- Shokri-Ghadikolaei, H.**, see Du, R., *TWC May 2020 2987-3002*
- Shou, G.**, see Chang, W., *TWC Sept. 2020 6196-6209*
- Shroff, N.B.**, see Du, X., *TWC April 2020 2293-2307*
- Shu, F.**, see Xia, G., *TWC July 2020 4643-4656*
- Shu, F.**, see Li, Y., *TWC Dec. 2020 7779-7795*
- Shu, T.**, see Chen, J., *TWC July 2020 4744-4757*
- Sibille, A.**, see Bucheli Garcia, J.C., *TWC June 2020 3700-3711*
- Sidiropoulos, N.D.**, see Ibrahim, M.S., *TWC June 2020 4170-4182*
- Silva, D.**, see Kasper Facenda, G., *TWC Nov. 2020 7598-7609*
- Simeone, O.**, see Kassab, R., *TWC Oct. 2020 6347-6361*
- Singh, K.**, see Biswas, S., *TWC July 2020 4727-4743*
- Skoglund, M.**, see Schiessl, S., *TWC June 2020 3879-3893*
- Smith, P.J.**, see Li, S., *TWC June 2020 3977-3991*
- Smith, P.J.**, see Senanayake, R., *TWC June 2020 4335-4348*
- So, D.K.C.**, see Tang, J., *TWC Jan. 2020 120-133*
- Soleimani-Nasab, E.**, see Ashrafzadeh, B., *TWC Nov. 2020 7732-7746*
- Sombabu, B.**, and Moharir, S., Age-of-Information Based Scheduling for Multi-Channel Systems; *TWC July 2020 4439-4448*
- Song, C.**, see Anokye, P., *TWC Aug. 2020 5503-5517*
- Song, D.**, see Huang, K., *TWC Oct. 2020 6301-6315*
- Song, H.**, see Ma, J., *TWC June 2020 4247-4261*
- Song, H.**, Liu, L., Pudlewski, S.M., and Bentley, E.S., Random Network Coding Enabled Routing Protocol in Unmanned Aerial Vehicle Networks; *TWC Dec. 2020 8382-8395*
- Song, J.**, see Tang, H., *TWC June 2020 4023-4037*
- Song, J.**, see Noh, S., *TWC Oct. 2020 6737-6751*
- Song, L.**, see Zhang, S., *TWC Oct. 2020 6578-6592*
- Song, L.**, see Deng, R., *TWC Oct. 2020 6240-6254*
- Song, L.**, see Banez, R.A., *TWC Dec. 2020 8366-8381*
- Song, M.**, see Xin, C., *TWC Feb. 2020 970-978*
- Song, Q.**, see Lin, P., *TWC March 2020 1977-1989*
- Song, X.**, Kuhne, T., and Caire, G., Fully-/Partially-Connected Hybrid Beamforming Architectures for mmWave MU-MIMO; *TWC March 2020 1754-1769*
- Song, Y.**, see Cheng, L., *TWC July 2020 4775-4792*
- Song, Y.**, Liu, C., Liu, Y., Cheng, N., Huang, Y., and Shen, X., Joint Spatial Division and Multiplexing in Massive MIMO: A Neighbor-Based Approach; *TWC Nov. 2020 7392-7406*
- Song, Z.**, see Cao, X., *TWC Aug. 2020 5531-5546*
- Sousa de Sena, A.**, da Costa, D.B., Ding, Z., Nardelli, P.H.J., Dias, U.S., and Papadakis, C.B., Massive MIMO-NOMA Networks With Successive Sub-Array Activation; *TWC March 2020 1622-1635*
- Su, H.**, see Han, S., *TWC Jan. 2020 218-234*
- Su, J.**, Sheng, Z., Liu, A.X., Fu, Z., and Chen, Y., A Time and Energy Saving-Based Frame Adjustment Strategy (TES-FAS) Tag Identification Algorithm for UHF RFID Systems; *TWC May 2020 2974-2986*
- Su, L.**, see Huang, K., *TWC Oct. 2020 6301-6315*

**Su, R.**, see Duan, S., *TWC July 2020 4715-4726*  
**Sugiura, S.**, see Osaki, S., *TWC Dec. 2020 8165-8178*  
**Suh, Y.**, see Park, Y.D., *TWC June 2020 3854-3866*  
**Sun, B.**, Zhou, Y., Yuan, J., and Shi, J., Interference Cancellation Based Channel Estimation for Massive MIMO Systems With Time Shifted Pilots; *TWC Oct. 2020 6826-6843*  
**Sun, C.**, Wang, J., Gao, X., and Ding, Z., Networked Optical Massive MIMO Communications; *TWC Aug. 2020 5575-5588*  
**Sun, J.**, Zhang, Y., Xue, J., and Xu, Z., Learning to Search for MIMO Detection; *TWC Nov. 2020 7571-7584*  
**Sun, L.**, see Tang, Z., *TWC March 2020 1519-1534*  
**Sun, M.**, Xu, X., Tao, X., Zhang, P., and Leung, V.C.M., NOMA-Based D2D-Enabled Traffic Offloading for 5G and Beyond Networks Employing Licensed and Unlicensed Access; *TWC June 2020 4109-4124*  
**Sun, S.**, see Wang, J., *TWC Aug. 2020 5278-5291*  
**Sun, S.**, see Deng, R., *TWC Oct. 2020 6240-6254*  
**Sun, W.**, Liu, J., Yue, Y., and Wang, P., Joint Resource Allocation and Incentive Design for Blockchain-Based Mobile Edge Computing; *TWC Sept. 2020 6050-6064*  
**Sun, X.**, and Dai, L., Towards Fair and Efficient Spectrum Sharing Between LTE and WiFi in Unlicensed Bands: Fairness-Constrained Throughput Maximization; *TWC April 2020 2713-2727*  
**Sun, Y.**, Chen, Z., Tao, M., and Liu, H., Bandwidth Gain From Mobile Edge Computing and Caching in Wireless Multicast Systems; *TWC June 2020 3992-4007*  
**Sun, Y.**, Gao, Z., Wang, H., Shim, B., Gui, G., Mao, G., and Adachi, F., Principal Component Analysis-Based Broadband Hybrid Precoding for Millimeter-Wave Massive MIMO Systems; *TWC Oct. 2020 6331-6346*  
**Sun, Y.**, see Du, X., *TWC April 2020 2293-2307*  
**Sung, Y.**, see Noh, S., *TWC Oct. 2020 6737-6751*  
**Suyama, S.**, see Sakai, M., *TWC April 2020 2196-2207*  
**Svensson, T.**, see Sadeghabadi, E., *TWC Jan. 2020 579-594*  
**Swindlehurst, A.L.**, see Nguyen, L.V., *TWC April 2020 2427-2442*

## T

**Tafazolli, R.**, see Hoseinitabatabei, S.A., *TWC May 2020 3346-3360*  
**Tafazolli, R.**, see Filo, M., *TWC May 2020 3530-3545*  
**Tafazolli, R.**, see Yang, B., *TWC Aug. 2020 5132-5147*  
**Taghizadeh, O.**, see Biswas, S., *TWC July 2020 4727-4743*  
**Takada, J.**, see Miao, Y., *TWC Aug. 2020 5345-5358*  
**Takahashi, M.**, see Kawamoto, Y., *TWC May 2020 2934-2945*  
**Taleb, T.**, see Zhang, P., *TWC March 2020 1563-1576*  
**Taleb, T.**, see Bagaa, M., *TWC July 2020 4700-4714*  
**Taleb, T.**, see Hellaoui, H., *TWC Dec. 2020 8287-8302*  
**Tan, W.**, see Liu, T., *TWC Sept. 2020 6007-6019*  
**Tandon, R.**, see Peken, T., *TWC Oct. 2020 6621-6642*  
**Tang, A.**, see Xie, D., *TWC June 2020 4080-4094*  
**Tang, H.**, Wang, J., Tang, Z., and Song, J., Scheduling to Minimize Age of Synchronization in Wireless Broadcast Networks With Random Updates; *TWC June 2020 4023-4037*  
**Tang, J.**, Yu, Y., Liu, M., So, D.K.C., Zhang, X., Li, Z., and Wong, K., Joint Power Allocation and Splitting Control for SWIPT-Enabled NOMA Systems; *TWC Jan. 2020 120-133*  
**Tang, J.**, see Al-Obiedollah, H.M., *TWC Oct. 2020 6593-6606*  
**Tang, L.**, see Luo, J., *TWC March 2020 1577-1592*  
**Tang, P.**, see Wang, R., *TWC May 2020 3077-3090*  
**Tang, P.**, see Huang, C., *TWC June 2020 3643-3657*  
**Tang, S.**, see Zhang, S., *TWC Sept. 2020 5807-5818*  
**Tang, S.**, and Wang, X., Battery-Level-Triggered Transmit Power Control for Energy Harvesting Communications; *TWC Dec. 2020 8011-8023*  
**Tang, W.**, see Fu, H., *TWC Dec. 2020 8351-8365*  
**Tang, Z.**, Sun, L., Cao, L., Qi, S., and Feng, Y., Reconsidering Design of Multi-Antenna NOMA Systems With Limited Feedback; *TWC March 2020 1519-1534*  
**Tang, Z.**, see Tang, H., *TWC June 2020 4023-4037*  
**Tao, M.**, see Yan, J., *TWC Jan. 2020 235-250*

**Tao, M.**, see Hu, X., *TWC Feb. 2020 1070-1083*  
**Tao, M.**, see Sun, Y., *TWC June 2020 3992-4007*  
**Tao, M.**, see Li, K., *TWC July 2020 4563-4578*  
**Tao, M.**, see Xu, X., *TWC April 2020 2570-2585*  
**Tao, X.**, see Huang, D., *TWC Jan. 2020 62-76*  
**Tao, X.**, see Sun, M., *TWC June 2020 4109-4124*  
**Tao, X.**, see Cui, Q., *TWC July 2020 4519-4534*  
**Tao, X.**, see Wu, H., *TWC April 2020 2411-2426*  
**Tataria, H.**, see Li, S., *TWC June 2020 3977-3991*  
**Tellambura, C.**, see Chen, C., *TWC May 2020 3273-3288*  
**Tellambura, C.**, see Heidarpour, A.R., *TWC Nov. 2020 7251-7264*  
**Tembine, H.**, see Banez, R.A., *TWC Dec. 2020 8366-8381*  
**Tempone, R.**, see Rached, N.B., *TWC July 2020 4353-4362*  
**ten Brink, S.**, see Wang, X., *TWC May 2020 3289-3303*  
**Tewfik, A.**, see Akl, N., *TWC March 2020 1894-1905*  
**Thiyagalingam, J.**, see Al-Obiedollah, H.M., *TWC Oct. 2020 6593-6606*  
**Thobaben, R.**, see Mouris, B.A., *TWC May 2020 3575-3590*  
**Thompson, J.**, see Olanrewaju, H.G., *TWC Feb. 2020 1210-1220*  
**Tian, C.**, Liu, A., Khalilsarai, M.B., Caire, G., Luo, W., and Zhao, M., Randomized Channel Sparsifying Hybrid Precoding for FDD Massive MIMO Systems; *TWC Aug. 2020 5447-5460*  
**Tian, S.**, see Liu, T., *TWC May 2020 3003-3018*  
**Tian, X.**, see Huang, K., *TWC Oct. 2020 6301-6315*  
**Tian, Y.**, see Pan, G., *TWC Dec. 2020 7998-8010*  
**Tinnirello, I.**, see Baiocchi, A., *TWC Jan. 2020 712-726*  
**Tinnirello, I.**, see Croce, D., *TWC Feb. 2020 822-834*  
**Tolli, A.**, Shariatpanahi, S.P., Kaleva, J., and Khalaj, B.H., Multi-Antenna Interference Management for Coded Caching; *TWC March 2020 2091-2106*  
**Tong, J.**, see Zhu, J., *TWC March 2020 1549-1562*  
**Tong, W.**, see Feng, Q., *TWC May 2020 3435-3448*  
**Toyoshima, M.**, see Kawamoto, Y., *TWC May 2020 2934-2945*  
**Tran, L.**, see Vu, Q., *TWC Sept. 2020 5891-5907*  
**Tran, L.C.**, see Le, A.T., *TWC April 2020 2460-2471*  
**Tran, N.H.**, see Pandey, S.R., *TWC May 2020 3241-3256*  
**Tran, N.H.**, see Ranjbar, M., *TWC Sept. 2020 6162-6178*  
**Tran, N.H.**, see Vu, T.T., *TWC Oct. 2020 6377-6392*  
**Tran, N.H.**, see Nguyen, L.V., *TWC April 2020 2427-2442*  
**Trappe, W.**, see Garnae, A., *TWC Aug. 2020 5359-5372*  
**Trinh, A.V.**, see Vu, T.X., *TWC Feb. 2020 1141-1153*  
**Trinh, H.D.**, see Rostami, S., *TWC Sept. 2020 6020-6036*  
**Tsiftsis, T.A.**, see Zhao, M., *TWC June 2020 4125-4140*  
**Tsiftsis, T.A.**, see Liu, H., *TWC July 2020 4657-4670*  
**Tsiftsis, T.A.**, see Li, Y., *TWC Nov. 2020 7324-7338*  
**Tsinos, C.G.**, see Domouchtsidis, S., *TWC Dec. 2020 7973-7985*  
**Tsourdos, A.**, see Zhou, Z., *TWC Nov. 2020 7339-7352*  
**Tuan, H.D.**, see Sheng, Z., *TWC May 2020 2905-2919*  
**Tufvesson, F.**, see Flordelis, J., *TWC Jan. 2020 380-394*  
**Tulino, A.M.**, see Hassanzadeh, P., *TWC May 2020 3019-3033*  
**Tun, Y.K.**, see Pandey, S.R., *TWC May 2020 3241-3256*

## U

**Uehara, H.**, see Komatsu, K., *TWC July 2020 4424-4438*  
**Uehara, H.**, see Fukui, T., *TWC Nov. 2020 7439-7452*  
**Uysal, M.**, see Elamassie, M., *TWC Oct. 2020 6948-6959*  
**Uysal, M.**, see Heidarpour, A.R., *TWC Nov. 2020 7251-7264*  
**Uysal, M.**, see Ashrafzadeh, B., *TWC Nov. 2020 7732-7746*

## V

**Vahid, S.**, see Filo, M., *TWC May 2020 3530-3545*  
**Valkama, M.**, see Rostami, S., *TWC Sept. 2020 6020-6036*  
**Valvo, A.L.**, see Baiocchi, A., *TWC Jan. 2020 712-726*  
**Van Chien, T.**, Nguyen Canh, T., Bjornson, E., and Larsson, E.G., Power Control in Cellular Massive MIMO With Varying User Activity: A Deep Learning Solution; *TWC Sept. 2020 5732-5748*

- Van Chien, T.**, Bjornson, E., and Larsson, E.G., Joint Power Allocation and Load Balancing Optimization for Energy-Efficient Cell-Free Massive MIMO Networks; *TWC Oct. 2020* 6798-6812
- van der Schaar, M.**, see Maghsudi, S., *TWC July 2020* 5040-5056
- Van Luong, T.**, Ko, Y., Vien, N.A., Matthaiou, M., and Ngo, H.Q., Deep Energy Autoencoder for Noncoherent Multicarrier MU-SIMO Systems; *TWC June 2020* 3952-3962
- Vangelista, L.**, see Centenaro, M., *TWC May 2020* 3104-3117
- Vargas, D.**, and Kim, Y.J.D., Two-Layered Superposition of Broadcast/Multicast and Unicast Signals in Multiuser OFDMA Systems; *TWC Feb. 2020* 979-994
- Vasudevan, S.**, see Chen, S., *TWC Aug. 2020* 5204-5217
- Vazquez-Vilar, G.**, see Lancho, A., *TWC July 2020* 4831-4846
- Veciana, G.d.**, see Choi, C., *TWC March 2020* 1825-1838
- Venturino, L.**, see Grossi, E., *TWC July 2020* 4394-4407
- Vidal, J.**, see Raafat, A., *TWC Oct. 2020* 6871-6883
- Vien, N.A.**, see Van Luong, T., *TWC June 2020* 3952-3962
- Villalonga, D.A.U.**, Gomez, J.T., and Garcia, M.J.F., Optimal Sensing Policy for Energy Harvesting Cognitive Radio Systems; *TWC June 2020* 3826-3838
- Vincent Poor, H.**, see Garnaev, A., *TWC Aug. 2020* 5359-5372
- Virk, H.**, see Mucchi, L., *TWC Sept. 2020* 5666-5675
- Visotsky, E.**, see Gupta, M., *TWC Dec. 2020* 8024-8038
- Viterbo, E.**, see Hasan, M.N., *TWC Feb. 2020* 942-955
- Viterbo, E.**, see Rakesh, R.T., *TWC Dec. 2020* 8396-8409
- Vu, M.**, see Malik, R., *TWC Oct. 2020* 6977-6991
- Vu, M.N.**, see Ranjbar, M., *TWC Sept. 2020* 6162-6178
- Vu, Q.**, Tran, L., and Juntti, M., Noncoherent Joint Transmission Beamforming for Dense Small Cell Networks: Global Optimality, Efficient Solution and Distributed Implementation; *TWC Sept. 2020* 5891-5907
- Vu, T.T.**, Ngo, D.T., Tran, N.H., Ngo, H.Q., Dao, M.N., and Middleton, R.H., Cell-Free Massive MIMO for Wireless Federated Learning; *TWC Oct. 2020* 6377-6392
- Vu, T.X.**, Chatzinotas, S., Ottersten, B., and Trinh, A.V., Full-Duplex Enabled Mobile Edge Caching: From Distributed to Cooperative Caching; *TWC Feb. 2020* 1141-1153
- Vucetic, B.**, see Hou, Z., *TWC Feb. 2020* 1196-1209
- Vucetic, B.**, see Li, A., *TWC May 2020* 3474-3489
- Vucetic, B.**, see Huang, K., *TWC May 2020* 3490-3504
- Vucetic, B.**, see Liu, W., *TWC Aug. 2020* 5488-5502
- Vucetic, B.**, see Pradhan, C., *TWC Sept. 2020* 6083-6099
- Vucetic, B.**, see Wang, Q., *TWC Dec. 2020* 8054-8067
- Vucetic, B.**, see Xu, X., *TWC Nov. 2020* 7210-7223
- Vuohtoniemi, R.**, see Mucchi, L., *TWC Sept. 2020* 5666-5675
- Vuran, M.C.**, see Salam, A., *TWC Sept. 2020* 5966-5981
- W**
- Walk, P.**, Jung, P., Hassibi, B., and Jafarkhani, H., MOCZ for Blind Short-Packet Communication: Practical Aspects; *TWC Oct. 2020* 6675-6692
- Wan, Q.**, Fang, J., Duan, H., Chen, Z., and Li, H., Generalized Bussgang LMMSE Channel Estimation for One-Bit Massive MIMO Systems; *TWC June 2020* 4234-4246
- Wan, X.**, see Xiao, L., *TWC Jan. 2020* 423-434
- Wang, A.**, Yin, R., and Zhong, C., PCA-Based Channel Estimation and Tracking for Massive MIMO Systems With Uniform Rectangular Arrays; *TWC Oct. 2020* 6786-6797
- Wang, B.**, see Chen, S., *TWC Aug. 2020* 5204-5217
- Wang, C.**, see Yan, K., *TWC Aug. 2020* 5176-5187
- Wang, C.**, see Zhao, S., *TWC Nov. 2020* 7224-7236
- Wang, F.**, Xu, J., and Cui, S., Optimal Energy Allocation and Task Offloading Policy for Wireless Powered Mobile Edge Computing Systems; *TWC April 2020* 2443-2459
- Wang, G.**, see Chen, C., *TWC May 2020* 3273-3288
- Wang, G.**, see Yang, M., *TWC Sept. 2020* 5860-5874
- Wang, H.**, see Wang, Q., *TWC March 2020* 1453-1463
- Wang, H.**, Kosasih, A., Wen, C., Jin, S., and Hardjawana, W., Expectation Propagation Detector for Extra-Large Scale Massive MIMO; *TWC March 2020* 2036-2051
- Wang, H.**, see Zheng, T., *TWC May 2020* 3405-3420
- Wang, H.**, see Huang, Y., *TWC Aug. 2020* 5234-5245
- Wang, H.**, see Huang, H., *TWC Aug. 2020* 5373-5388
- Wang, H.**, see Sun, Y., *TWC Oct. 2020* 6331-6346
- Wang, H.**, see Dong, L., *TWC Nov. 2020* 7543-7556
- Wang, J.**, and Zhang, X., Cooperative MIMO-OFDM-Based Exposure-Path Prevention Over 3D Clustered Wireless Camera Sensor Networks; *TWC Jan. 2020* 4-18
- Wang, J.**, see Fu, X., *TWC Jan. 2020* 507-519
- Wang, J.**, see Wu, L., *TWC Feb. 2020* 1113-1126
- Wang, J.**, see Zhang, J., *TWC Feb. 2020* 1265-1279
- Wang, J.**, see Tang, H., *TWC June 2020* 4023-4037
- Wang, J.**, see Li, Y., *TWC June 2020* 3963-3976
- Wang, J.**, see Li, Y., *TWC June 2020* 3963-3976
- Wang, J.**, see Zhu, J., *TWC July 2020* 4964-4977
- Wang, J.**, see Sun, C., *TWC Aug. 2020* 5575-5588
- Wang, J.**, Kang, X., Sun, S., and Liang, Y., Throughput Maximization for Peer-Assisted Wireless Powered IoT NOMA Networks; *TWC Aug. 2020* 5278-5291
- Wang, J.**, see Yang, M., *TWC Sept. 2020* 5860-5874
- Wang, J.**, see You, L., *TWC April 2020* 2684-2698
- Wang, J.**, see Yao, K., *TWC April 2020* 2800-2812
- Wang, J.**, see Yang, Q., *TWC April 2020* 2472-2488
- Wang, K.**, see Pan, C., *TWC Aug. 2020* 5218-5233
- Wang, L.**, see Xiao, L., *TWC Jan. 2020* 423-434
- Wang, L.**, see Hu, X., *TWC Feb. 2020* 1070-1083
- Wang, L.**, see Cai, X., *TWC Feb. 2020* 846-858
- Wang, L.**, and Zhou, S., Flexible Functional Split and Power Control for Energy Harvesting Cloud Radio Access Networks; *TWC March 2020* 1535-1548
- Wang, L.**, see Dong, X., *TWC July 2020* 4632-4642
- Wang, L.**, see Hui, H., *TWC Aug. 2020* 5148-5161
- Wang, L.**, see Wu, H., *TWC Oct. 2020* 6409-6424
- Wang, P.**, Liu, L., Zhou, S., Peng, G., Yin, S., and Wei, S., Near-Optimal MIMO-SCMA Uplink Detection With Low-Complexity Expectation Propagation; *TWC Feb. 2020* 1025-1037
- Wang, P.**, see Xiong, Z., *TWC March 2020* 1722-1737
- Wang, P.**, and Morton, Y.J., Multipath Estimating Delay Lock Loop for LTE Signal TOA Estimation in Indoor and Urban Environments; *TWC Aug. 2020* 5518-5530
- Wang, P.**, see Xiong, Z., *TWC Sept. 2020* 5779-5793
- Wang, P.**, see Sun, W., *TWC Sept. 2020* 6050-6064
- Wang, Q.**, see Liu, G., *TWC Feb. 2020* 995-1007
- Wang, Q.**, Wang, H., and Wang, Y., Degrees of Freedom of Rank-Deficient  $2 \times 2 \times 2$  MIMO Interference Networks; *TWC March 2020* 1453-1463
- Wang, Q.**, see Hu, J., *TWC July 2020* 4907-4918
- Wang, Q.**, see Chen, C., *TWC Sept. 2020* 6210-6223
- Wang, Q.**, Chen, H., Gu, Y., Li, Y., and Vucetic, B., Minimizing the Age of Information of Cognitive Radio-Based IoT Systems Under a Collision Constraint; *TWC Dec. 2020* 8054-8067
- Wang, R.**, Bas, C.U., Cheng, Z., Choi, T., Feng, H., Li, Z., Ye, X., Tang, P., Sangodoyin, S., Gomez-Ponce, J., Monroe, R., Henige, T., Xu, G., Zhang, J., Park, J., and Molisch, A.F., Enabling Super-Resolution Parameter Estimation for mm-Wave Channel Sounding; *TWC May 2020* 3077-3090
- Wang, R.**, see Huang, C., *TWC June 2020* 3643-3657
- Wang, R.**, see Ji, J., *TWC Aug. 2020* 5389-5403
- Wang, R.**, see Lan, Q., *TWC Sept. 2020* 5716-5731
- Wang, R.**, see Wang, S., *TWC Nov. 2020* 7293-7308
- Wang, S.**, see Gong, S., *TWC March 2020* 1704-1721
- Wang, S.**, see Chen, W., *TWC May 2020* 3361-3375
- Wang, S.**, see Li, Z., *TWC April 2020* 2543-2557
- Wang, S.**, He, Z., Niu, K., Chen, P., and Rong, Y., New Results on Joint Channel and Impulsive Noise Estimation and Tracking in Underwater Acoustic OFDM Systems; *TWC April 2020* 2601-2612
- Wang, S.**, see Lin, R., *TWC Dec. 2020* 8179-8194

- Wang, S.**, Wu, Y., Xia, M., Wang, R., and Poor, H.V., Machine Intelligence at the Edge With Learning Centric Power Allocation; *TWC Nov. 2020 7293-7308*
- Wang, W.**, see Zhang, Q., *TWC Feb. 2020 874-887*
- Wang, W.**, see Luo, Y., *TWC May 2020 3449-3462*
- Wang, W.**, see Yang, Y., *TWC May 2020 3091-3103*
- Wang, W.**, see Huang, Y., *TWC Aug. 2020 5234-5245*
- Wang, W.**, see Zhang, S., *TWC Sept. 2020 5807-5818*
- Wang, W.**, see Zhao, Y., *TWC Oct. 2020 6549-6563*
- Wang, W.**, see You, L., *TWC April 2020 5684-5698*
- Wang, X.**, see Pu, L., *TWC Feb. 2020 1237-1249*
- Wang, X.**, Liang, C., Ping, L., and ten Brink, S., Achievable Rate Region for Iterative Multi-User Detection via Low-Cost Gaussian Approximation; *TWC May 2020 3289-3303*
- Wang, X.**, see Xia, M., *TWC June 2020 3769-3781*
- Wang, X.**, see Xie, D., *TWC June 2020 4080-4094*
- Wang, X.**, see Fang, H., *TWC Aug. 2020 5420-5432*
- Wang, X.**, see Jiang, S., *TWC Oct. 2020 6960-6976*
- Wang, X.**, see Chen, R., *TWC Oct. 2020 6932-6947*
- Wang, X.**, see Lin, R., *TWC Dec. 2020 8179-8194*
- Wang, X.**, see Tang, S., *TWC Dec. 2020 8011-8023*
- Wang, X.**, see Feng, C., *TWC Nov. 2020 7377-7391*
- Wang, Y.**, see Gao, B., *TWC Jan. 2020 395-409*
- Wang, Y.**, see Zhu, G., *TWC Jan. 2020 491-506*
- Wang, Y.**, see Gu, Z., *TWC Jan. 2020 91-105*
- Wang, Y.**, see Wang, Q., *TWC March 2020 1453-1463*
- Wang, Y.**, Yuan, J., Yu, G., Chen, Q., and Yin, R., Minority Game for Distributed User Association in Unlicensed Heterogeneous Networks; *TWC June 2020 4220-4233*
- Wang, Y.**, see Yu, X., *TWC July 2020 4408-4423*
- Wang, Y.**, see Jiao, J., *TWC Sept. 2020 5924-5937*
- Wang, Y.**, Gu, K., Wu, Y., Dai, W., and Shen, Y., NLOS Effect Mitigation via Spatial Geometry Exploitation in Cooperative Localization; *TWC Sept. 2020 6037-6049*
- Wang, Y.**, see Cui, Y., *TWC Nov. 2020 7720-7731*
- Wang, Y.**, Chen, M., Yang, Z., Luo, T., and Saad, W., Deep Learning for Optimal Deployment of UAVs With Visible Light Communications; *TWC Nov. 2020 7049-7063*
- Wang, Y.**, see Zhang, T., *TWC Nov. 2020 7470-7483*
- Wang, Z.**, and Liew, S.C., Coherent Detection for Short-Packet Physical-Layer Network Coding With Binary FSK Modulation; *TWC Jan. 2020 279-292*
- Wang, Z.**, see Chen, J., *TWC March 2020 1965-1976*
- Wang, Z.**, see Hu, J., *TWC July 2020 4907-4918*
- Wang, Z.**, Liu, L., and Cui, S., Channel Estimation for Intelligent Reflecting Surface Assisted Multiuser Communications: Framework, Algorithms, and Analysis; *TWC Oct. 2020 6607-6620*
- Wei, D.S.L.**, see Xue, K., *TWC June 2020 3673-3684*
- Wei, D.S.L.**, see Li, J., *TWC April 2020 2367-2381*
- Wei, G.**, see Wu, F., *TWC April 2020 2252-2267*
- Wei, J.**, see Hu, J., *TWC July 2020 4907-4918*
- Wei, J.**, see Liu, X., *TWC April 2020 2586-2600*
- Wei, S.**, see Wang, P., *TWC Feb. 2020 1025-1037*
- Wei, Z.**, Masouros, C., Wong, K., and Kang, X., Multi-Cell Interference Exploitation: Enhancing the Power Efficiency in Cell Coordination; *TWC Jan. 2020 547-562*
- Wei, Z.**, see Wu, H., *TWC April 2020 2411-2426*
- Wen, C.**, see Zhu, J., *TWC March 2020 1549-1562*
- Wen, C.**, see Wang, H., *TWC March 2020 2036-2051*
- Wen, C.**, see Guo, J., *TWC April 2020 2827-2840*
- Wen, D.**, Bennis, M., and Huang, K., Joint Parameter-and-Bandwidth Allocation for Improving the Efficiency of Partitioned Edge Learning; *TWC Dec. 2020 8272-8286*
- Wen, D.**, see Ren, J., *TWC Nov. 2020 7690-7703*
- Wen, M.**, see Li, Q., *TWC Jan. 2020 192-204*
- Wen, M.**, see Li, Q., *TWC July 2020 4449-4463*
- Wen, W.**, see Xia, W., *TWC Nov. 2020 7108-7123*
- Whiting, P.**, see Liu, C., *TWC Aug. 2020 5117-5131*
- Whiting, P.**, see Gopalam, S., *TWC Dec. 2020 7913-7926*
- Willems, F.M.J.**, see Gultekin, Y.C., *TWC Feb. 2020 1098-1112*
- Win, M.Z.**, see Mucchi, L., *TWC Sept. 2020 5666-5675*
- Wong, K.**, see Hu, J., *TWC Jan. 2020 637-649*
- Wong, K.**, see Tang, J., *TWC Jan. 2020 120-133*
- Wong, K.**, see Wei, Z., *TWC Jan. 2020 547-562*
- Wong, K.**, see Hu, X., *TWC Feb. 2020 1070-1083*
- Wong, K.**, see Zhang, J., *TWC June 2020 3738-3752*
- Wong, K.**, see Gruppi, E., *TWC July 2020 4363-4377*
- Wong, K.**, see Zhao, Y., *TWC Dec. 2020 8039-8053*
- Wong, K.**, see Hu, X., *TWC Dec. 2020 8083-8098*
- Wong, V.W.**, see Ma, M., *TWC Dec. 2020 8427-8441*
- Wong, W.**, see Zhao, Y., *TWC March 2020 1770-1785*
- Wu, B.**, see Zhang, P., *TWC March 2020 1563-1576*
- Wu, C.**, see Chen, X., *TWC April 2020 2268-2281*
- Wu, F.**, Chen, L., Zhao, N., Chen, Y., Richard Yu, F., and Wei, G., NOMA-Enhanced Computation Over Multi-Access Channels; *TWC April 2020 2252-2267*
- Wu, H.**, see Pu, L., *TWC Feb. 2020 1237-1249*
- Wu, H.**, see Han, G., *TWC March 2020 1636-1649*
- Wu, H.**, see Yan, K., *TWC Aug. 2020 5176-5187*
- Wu, H.**, Chen, J., Xu, W., Cheng, N., Shi, W., Wang, L., and Shen, X., Delay-Minimized Edge Caching in Heterogeneous Vehicular Networks: A Matching-Based Approach; *TWC Oct. 2020 6409-6424*
- Wu, H.**, Wei, Z., Hou, Y., Zhang, N., and Tao, X., Cell-Edge User Offloading via Flying UAV in Non-Uniform Heterogeneous Cellular Networks; *TWC April 2020 2411-2426*
- Wu, K.**, see Qin, C., *TWC Oct. 2020 6425-6439*
- Wu, L.**, Shen, Y., Zhang, Z., Dang, J., Liu, H., and Wang, J., Receiver Algorithms for Single-Carrier OSM Based High-Rate Indoor Visible Light Communications; *TWC Feb. 2020 1113-1126*
- Wu, L.**, see Meng, F., *TWC Oct. 2020 6255-6267*
- Wu, N.**, see Yuan, W., *TWC Feb. 2020 915-928*
- Wu, Q.**, see Luo, S., *TWC Oct. 2020 6535-6548*
- Wu, S.**, see Jiao, J., *TWC Sept. 2020 5924-5937*
- Wu, W.**, see Qin, M., *TWC Aug. 2020 5547-5560*
- Wu, W.**, see Aldubaikhy, K., *TWC April 2020 2397-2410*
- Wu, W.**, see Luo, S., *TWC April 2020 2643-2657*
- Wu, X.**, Pratt, T.G., and Fuja, T.E., Hybrid Constellations for Dual-Polarized Wireless Communications; *TWC Aug. 2020 5321-5332*
- Wu, X.**, and O'Brien, D.C., Parallel Transmission LiFi; *TWC Oct. 2020 6268-6276*
- Wu, X.**, O'Brien, D.C., Deng, X., and Linnartz, J.M.G., Smart Handover for Hybrid LiFi and WiFi Networks; *TWC Dec. 2020 8211-8219*
- Wu, X.**, see Feng, C., *TWC Nov. 2020 7377-7391*
- Wu, Y.**, see Li, Y., *TWC May 2020 2920-2933*
- Wu, Y.**, see Wang, Y., *TWC Sept. 2020 6037-6049*
- Wu, Y.**, see Li, Z., *TWC April 2020 2543-2557*
- Wu, Y.**, see Wang, S., *TWC Nov. 2020 7293-7308*
- Wymeersch, H.**, see Kim, H., *TWC June 2020 3782-3795*

## X

- Xia, B.**, see Yao, Y., *TWC May 2020 3047-3063*
- Xia, B.**, see Gao, H., *TWC July 2020 4894-4906*
- Xia, G.**, Lin, Y., Liu, T., Shu, F., and Hanzo, L., Transmit Antenna Selection and Beamformer Design for Secure Spatial Modulation With Rough CSI of Eve; *TWC July 2020 4643-4656*
- Xia, M.**, see Li, Y., *TWC May 2020 2920-2933*
- Xia, M.**, see Li, Y., *TWC May 2020 2946-2959*
- Xia, M.**, Liu, B., Hu, Y.H., Chi, K., Wang, X., and Liu, J., PACE: Physically-Assisted Channel Estimation; *TWC June 2020 3769-3781*
- Xia, M.**, see Wang, S., *TWC Nov. 2020 7293-7308*
- Xia, M.**, see Li, Y., *TWC Nov. 2020 7324-7338*
- Xia, W.**, see Zhang, J., *TWC June 2020 3738-3752*
- Xia, W.**, Quek, T.Q.S., Guo, K., Wen, W., Yang, H.H., and Zhu, H., Multi-Armed Bandit-Based Client Scheduling for Federated Learning; *TWC Nov. 2020 7108-7123*

- Xia, X.**, see Lu, A., *TWC April 2020 2628-2642*
- Xia, Y.**, see Zhang, X., *TWC Sept. 2020 5982-5992*
- Xiang, H.**, Yan, S., and Peng, M., A Realization of Fog-RAN Slicing via Deep Reinforcement Learning; *TWC April 2020 2515-2527*
- Xiang, W.**, see Pu, L., *TWC Feb. 2020 1237-1249*
- Xiang, W.**, see Guo, J., *TWC March 2020 1484-1502*
- Xiao, K.**, see Yao, Y., *TWC May 2020 3047-3063*
- Xiao, K.**, see Gao, H., *TWC July 2020 4894-4906*
- Xiao, L.**, Zhang, H., Xiao, Y., Wan, X., Liu, S., Wang, L., and Poor, H.V., Reinforcement Learning-Based Downlink Interference Control for Ultra-Dense Small Cells; *TWC Jan. 2020 423-434*
- Xiao, L.**, Xiao, P., Liu, Z., Yu, W., Haas, H., and Hanzo, L., A Compressive Sensing Assisted Massive SM-VBLAST System: Error Probability and Capacity Analysis; *TWC March 2020 1990-2005*
- Xiao, L.**, Chen, D., Hemadeh, I.A., Xiao, P., and Jiang, T., Graph Theory Assisted Bit-to-Index-Combination Gray Coding for Generalized Index Modulation; *TWC Dec. 2020 8232-8245*
- Xiao, P.**, see Liu, Y., *TWC Jan. 2020 610-623*
- Xiao, P.**, see Xiao, L., *TWC March 2020 1990-2005*
- Xiao, P.**, see Yang, B., *TWC Aug. 2020 5132-5147*
- Xiao, P.**, see Mao, J., *TWC Aug. 2020 5188-5203*
- Xiao, P.**, see Liu, X., *TWC April 2020 2586-2600*
- Xiao, P.**, see Xiao, L., *TWC Dec. 2020 8232-8245*
- Xiao, P.**, see Mheich, Z., *TWC Nov. 2020 7423-7438*
- Xiao, Y.**, see Xiao, L., *TWC Jan. 2020 423-434*
- Xiao, Y.**, Diamantoulakis, P.D., Fang, Z., Ma, Z., Hao, L., and Karagiannidis, G.K., Hybrid Lightwave/RF Cooperative NOMA Networks; *TWC Feb. 2020 1154-1166*
- Xiao, Y.**, see Chang, W., *TWC Sept. 2020 6196-6209*
- Xiao, Y.**, see Lin, R., *TWC Dec. 2020 8179-8194*
- Xie, A.**, see Zhao, Y., *TWC Dec. 2020 8039-8053*
- Xie, D.**, Zhang, J., Tang, A., and Wang, X., Multi-Dimensional Busy-Tone Arbitration for OFDMA Random Access in IEEE 802.11ax; *TWC June 2020 4080-4094*
- Xie, H.**, Xu, W., Ngo, H.Q., and Li, B., Non-Coherent Massive MIMO Systems: A Constellation Design Approach; *TWC June 2020 3812-3825*
- Xie, H.**, and Gonzalez-Prelcic, N., Dictionary Learning for Channel Estimation in Hybrid Frequency-Selective mmWave MIMO Systems; *TWC Nov. 2020 7407-7422*
- Xie, S.**, see Xiong, Z., *TWC Sept. 2020 5779-5793*
- Xie, X.**, see Yang, H., *TWC July 2020 4671-4684*
- Xin, C.**, and Song, M., Analysis of the On-Demand Spectrum Access Architecture for CBRS Cognitive Radio Networks; *TWC Feb. 2020 970-978*
- Xing, C.**, see Gong, S., *TWC March 2020 1704-1721*
- Xing, C.**, Liu, D., Gong, S., Xu, W., Chen, S., and Hanzo, L., Training Optimization for Hybrid MIMO Communication Systems; *TWC Aug. 2020 5473-5487*
- Xing, C.**, see Gong, S., *TWC Aug. 2020 5261-5277*
- Xing, C.**, see Huang, J., *TWC April 2020 2308-2320*
- Xing, F.**, Yin, H., Ji, X., and Leung, V.C.M., Joint Relay Selection and Power Allocation for Underwater Cooperative Optical Wireless Networks; *TWC Jan. 2020 251-264*
- Xiong, J.**, see You, L., *TWC April 2020 2684-2698*
- Xiong, K.**, see Gao, B., *TWC Jan. 2020 395-409*
- Xiong, K.**, see Lu, Y., *TWC June 2020 4290-4306*
- Xiong, K.**, see Liu, J., *TWC Nov. 2020 7064-7080*
- Xiong, Z.**, Niyato, D., Wang, P., Han, Z., and Zhang, Y., Dynamic Pricing for Revenue Maximization in Mobile Social Data Market With Network Effects; *TWC March 2020 1722-1737*
- Xiong, Z.**, Kang, J., Niyato, D., Wang, P., Poor, H.V., and Xie, S., A Multi-Dimensional Contract Approach for Data Rewarding in Mobile Networks; *TWC Sept. 2020 5779-5793*
- Xu, C.**, see Zhu, J., *TWC March 2020 1549-1562*
- Xu, C.**, see Duan, S., *TWC July 2020 4715-4726*
- Xu, C.**, see Jiang, S., *TWC Oct. 2020 6960-6976*
- Xu, C.**, see Guo, S., *TWC Oct. 2020 6660-6674*
- Xu, D.**, see Yin, W., *TWC Nov. 2020 7514-7527*
- Xu, G.**, see Wang, R., *TWC May 2020 3077-3090*
- Xu, J.**, see Li, P., *TWC Jan. 2020 458-474*
- Xu, J.**, see Yao, J., *TWC Oct. 2020 6992-7006*
- Xu, J.**, see Wang, F., *TWC April 2020 2443-2459*
- Xu, J.**, see Cao, X., *TWC Nov. 2020 7498-7513*
- Xu, J.**, see Feng, C., *TWC Nov. 2020 7377-7391*
- Xu, L.**, see Fang, H., *TWC Aug. 2020 5420-5432*
- Xu, L.**, see Jiao, J., *TWC Sept. 2020 5924-5937*
- Xu, W.**, see Cai, X., *TWC Feb. 2020 846-858*
- Xu, W.**, see Xie, H., *TWC June 2020 3812-3825*
- Xu, W.**, see Pan, C., *TWC Aug. 2020 5218-5233*
- Xu, W.**, see Xing, C., *TWC Aug. 2020 5473-5487*
- Xu, W.**, see Wu, H., *TWC Oct. 2020 6409-6424*
- Xu, W.**, see Laas, T., *TWC Oct. 2020 6440-6453*
- Xu, W.**, see Cui, Y., *TWC Nov. 2020 7720-7731*
- Xu, W.**, see Zhang, T., *TWC Nov. 2020 7470-7483*
- Xu, X.**, see Sun, M., *TWC June 2020 4109-4124*
- Xu, X.**, Tao, M., and Shen, C., Collaborative Multi-Agent Multi-Armed Bandit Learning for Small-Cell Caching; *TWC April 2020 2570-2585*
- Xu, X.**, Zeng, Y., Li, Y., and Vucetic, B., Minimum-Latency FEC Design With Delayed Feedback: Mathematical Modeling and Efficient Algorithms; *TWC Nov. 2020 7210-7223*
- Xu, Y.**, Shen, C., Chang, T., Lin, S., Zhao, Y., and Zhu, G., Transmission Energy Minimization for Heterogeneous Low-Latency NOMA Downlink; *TWC Feb. 2020 1054-1069*
- Xu, Y.**, Yu, J., and Buehrer, R.M., The Application of Deep Reinforcement Learning to Distributed Spectrum Access in Dynamic Heterogeneous Environments With Partial Observations; *TWC July 2020 4494-4506*
- Xu, Y.**, see Yao, K., *TWC April 2020 2800-2812*
- Xu, Y.**, see Yao, K., *TWC April 2020 2800-2812*
- Xu, Z.**, see Liu, B., *TWC Feb. 2020 1386-1396*
- Xu, Z.**, see Sun, J., *TWC Nov. 2020 7571-7584*
- Xue, J.**, see Sun, J., *TWC Nov. 2020 7571-7584*
- Xue, K.**, Meng, W., Zhou, H., Wei, D.S.L., and Guizani, M., A Lightweight and Secure Group Key Based Handover Authentication Protocol for the Software-Defined Space Information Network; *TWC June 2020 3673-3684*
- Xue, K.**, see Li, L., *TWC Oct. 2020 6393-6408*
- Xue, K.**, see Li, J., *TWC April 2020 2367-2381*
- Xue, X.**, see Yang, L., *TWC Sept. 2020 6065-6082*

## Y

- Yacoub, M.D.**, see de Lima Tejerina, G.R., *TWC Dec. 2020 8153-8164*
- Yamamoto, K.**, see Kamiya, S., *TWC April 2020 2321-2335*
- Yamamoto, M.**, see Sakai, M., *TWC April 2020 2196-2207*
- Yamchi, N.M.**, see Abbasi, O., *TWC Nov. 2020 7153-7168*
- Yan, J.**, Bi, S., Zhang, Y.J., and Tao, M., Optimal Task Offloading and Resource Allocation in Mobile-Edge Computing With Inter-User Task Dependency; *TWC Jan. 2020 235-250*
- Yan, J.**, Bi, S., and Zhang, Y.J.A., Offloading and Resource Allocation With General Task Graph in Mobile Edge Computing: A Deep Reinforcement Learning Approach; *TWC Aug. 2020 5404-5419*
- Yan, K.**, see Pu, L., *TWC Feb. 2020 1237-1249*
- Yan, K.**, Wu, H., Fang, S., Wang, C., Li, S., and Zhang, L., Indoor Femtocell Interference Localization; *TWC Aug. 2020 5176-5187*
- Yan, S.**, see Liu, B., *TWC June 2020 3867-3878*
- Yan, S.**, see Xiang, H., *TWC April 2020 2515-2527*
- Yan, S.**, see Yin, B., *TWC April 2020 2240-2251*
- Yang, B.**, Zhang, L., Onireti, O., Xiao, P., Imran, M.A., and Tafazolli, R., Mixed-Numerology Signals Transmission and Interference Cancellation for Radio Access Network Slicing; *TWC Aug. 2020 5132-5147*
- Yang, B.**, see Cao, X., *TWC Aug. 2020 5531-5546*
- Yang, C.**, see Han, S., *TWC Jan. 2020 218-234*
- Yang, C.**, see Banez, R.A., *TWC Dec. 2020 8366-8381*
- Yang, D.**, see Hu, J., *TWC July 2020 4907-4918*
- Yang, D.**, and Yang, K., Multimode Integer-Forcing Receivers for Block Fading Channels; *TWC Dec. 2020 8261-8271*

- Yang, G., *see* Yang, Y., *TWC May 2020 3091-3103*
- Yang, G., *see* Li, Y., *TWC Nov. 2020 7324-7338*
- Yang, H., *see* Rakia, T., *TWC March 2020 1802-1813*
- Yang, H., *see* Ngo, H.Q., *TWC May 2020 3623-3624*
- Yang, H., Zhang, K., Zheng, K., and Qian, Y., Joint Frame Design and Resource Allocation for Ultra-Reliable and Low-Latency Vehicular Networks; *TWC May 2020 3607-3622*
- Yang, H., Zhong, W., Chen, C., Alphones, A., Du, P., Zhang, S., and Xie, X., Coordinated Resource Allocation-Based Integrated Visible Light Communication and Positioning Systems for Indoor IoT; *TWC July 2020 4671-4684*
- Yang, H.H., *see* Xia, W., *TWC Nov. 2020 7108-7123*
- Yang, K., *see* Hu, J., *TWC Jan. 2020 637-649*
- Yang, K., Jiang, T., Shi, Y., and Ding, Z., Federated Learning via Over-the-Air Computation; *TWC March 2020 2022-2035*
- Yang, K., *see* Yu, J., *TWC May 2020 3376-3389*
- Yang, K., *see* An, J., *TWC April 2020 2841-2854*
- Yang, K., *see* Zhao, Y., *TWC Dec. 2020 8039-8053*
- Yang, K., *see* Yang, D., *TWC Dec. 2020 8261-8271*
- Yang, L., Fang, J., Duan, H., and Li, H., Fast Compressed Power Spectrum Estimation: Toward a Practical Solution for Wideband Spectrum Sensing; *TWC Jan. 2020 520-532*
- Yang, L., *see* Liu, Y., *TWC Jan. 2020 610-623*
- Yang, L., *see* Zhang, J., *TWC Feb. 2020 1265-1279*
- Yang, L., *see* Zhang, X., *TWC Sept. 2020 5982-5992*
- Yang, L., *see* Gao, S., *TWC Sept. 2020 5703-5715*
- Yang, L., Jiang, H., Ye, Q., Ding, Z., Fang, F., Shi, J., Chen, J., and Xue, X., Opportunistic Adaptive Non-Orthogonal Multiple Access in Multiuser Wireless Systems: Probabilistic User Scheduling and Performance Analysis; *TWC Sept. 2020 6065-6082*
- Yang, L., *see* Yu, D., *TWC April 2020 2742-2755*
- Yang, M., Ai, B., He, R., Wang, G., Chen, L., Li, X., Huang, C., Ma, Z., Zhong, Z., Wang, J., Li, Y., and Juhana, T., Measurements and Cluster-Based Modeling of Vehicle-to-Vehicle Channels With Large Vehicle Obstructions; *TWC Sept. 2020 5860-5874*
- Yang, N., *see* Zhang, H., *TWC June 2020 4209-4219*
- Yang, Q., *see* Luo, Y., *TWC May 2020 3449-3462*
- Yang, Q., *see* Qin, M., *TWC Aug. 2020 5547-5560*
- Yang, Q., Jiang, T., Beaulieu, N.C., Wang, J., Jiang, C., Mumtaz, S., and Zhou, Z., Heterogeneous Semi-Blind Interference Alignment in Finite-SNR Networks With Fairness Consideration; *TWC April 2020 2472-2488*
- Yang, Q., *see* Sheng, M., *TWC April 2020 2813-2826*
- Yang, R., *see* Sahin, A., *TWC Oct. 2020 6858-6870*
- Yang, S., *see* Ngo, K., *TWC March 2020 1948-1964*
- Yang, S., *see* Ngo, K., *TWC Sept. 2020 6145-6161*
- Yang, S., and Chen, J., A Maximin Optimal Online Power Control Policy for Energy Harvesting Communications; *TWC Oct. 2020 6708-6720*
- Yang, Y., *see* Gao, B., *TWC Jan. 2020 395-409*
- Yang, Y., Chen, Y., Wang, W., and Yang, G., Securing Channel State Information in Multiuser MIMO With Limited Feedback; *TWC May 2020 3091-3103*
- Yang, Y., *see* Shahanaghi, A., *TWC June 2020 4154-4169*
- Yang, Y., *see* Huang, H., *TWC Aug. 2020 5373-5388*
- Yang, Y., *see* Yao, K., *TWC April 2020 2800-2812*
- Yang, Y., *see* Yin, W., *TWC Nov. 2020 7514-7527*
- Yang, Z., Liu, Y., Chen, Y., and Al-Dhahir, N., Cache-Aided NOMA Mobile Edge Computing: A Reinforcement Learning Approach; *TWC Oct. 2020 6899-6915*
- Yang, Z., *see* Wang, Y., *TWC Nov. 2020 7049-7063*
- Yanikomeroglu, H., *see* Kalantari, E., *TWC Nov. 2020 7363-7376*
- Yanikomeroglu, H., *see* Abbasi, O., *TWC Nov. 2020 7153-7168*
- Yao, J., and Xu, J., Joint 3D Maneuver and Power Adaptation for Secure UAV Communication With CoMP Reception; *TWC Oct. 2020 6992-7006*
- Yao, J., *see* Yao, K., *TWC April 2020 2800-2812*
- Yao, K., Wang, J., Xu, Y., Xu, Y., Yang, Y., Zhang, Y., Jiang, H., and Yao, J., Self-Organizing Slot Access for Neighboring Cooperation in UAV Swarms; *TWC April 2020 2800-2812*
- Yao, Y., *see* Yue, X., *TWC March 2020 2163-2178*
- Yao, Y., Xiao, K., Xia, B., and Gu, Q., Design and Analysis of Rotated-QAM Based Probabilistic Shaping Scheme for Rayleigh Fading Channels; *TWC May 2020 3047-3063*
- Yapici, Y., Guvenc, I., and Dai, H., Low-Resolution Limited-Feedback NOMA for mmWave Communications; *TWC Aug. 2020 5433-5446*
- Yarkin, F., and Coon, J.P., Set Partition Modulation; *TWC Nov. 2020 7557-7570*
- Ye, C., *see* Jia, Y., *TWC Dec. 2020 8068-8082*
- Ye, G., *see* Fang, F., *TWC Nov. 2020 7008-7020*
- Ye, H., Liang, L., Li, G.Y., and Juang, B., Deep Learning-Based End-to-End Wireless Communication Systems With Conditional GANs as Unknown Channels; *TWC May 2020 3133-3143*
- Ye, H., Kang, X., Joung, J., and Liang, Y., Optimization for Full-Duplex Rotary-Wing UAV-Enabled Wireless-Powered IoT Networks; *TWC July 2020 5057-5072*
- Ye, J., Guo, S., and Alouini, M., Joint Reflecting and Precoding Designs for SER Minimization in Reconfigurable Intelligent Surfaces Assisted MIMO Systems; *TWC Aug. 2020 5561-5574*
- Ye, J., *see* Pan, G., *TWC Oct. 2020 6693-6707*
- Ye, J., Dang, S., Shihada, B., and Alouini, M., Space-Air-Ground Integrated Networks: Outage Performance Analysis; *TWC Dec. 2020 7897-7912*
- Ye, J., Nadeem, Q., Kammoun, A., and Alouini, M., Asymptotic Analysis of MRT Over Double Scattering Channels With MMSE Estimation; *TWC Dec. 2020 7851-7863*
- Ye, J., *see* Pan, G., *TWC Dec. 2020 7998-8010*
- Ye, J., *see* Pan, G., *TWC Nov. 2020 7097-7107*
- Ye, N., Li, X., Yu, H., Zhao, L., Liu, W., and Hou, X., DeepNOMA: A Unified Framework for NOMA Using Deep Multi-Task Learning; *TWC April 2020 2208-2225*
- Ye, Q., *see* Yang, L., *TWC Sept. 2020 6065-6082*
- Ye, Q., *see* Lv, L., *TWC Oct. 2020 6486-6503*
- Ye, Q., *see* Aldubaikhy, K., *TWC April 2020 2397-2410*
- Ye, Q., *see* He, H., *TWC Dec. 2020 7881-7896*
- Ye, X., *see* Wang, R., *TWC May 2020 3077-3090*
- Yi, X., *see* You, L., *TWC April 2020 2684-2698*
- Yin, B., Peng, M., Yan, S., and Hu, C., Tradeoff Between Ergodic Rate and Delivery Latency in Fog Radio Access Networks; *TWC April 2020 2240-2251*
- Yin, C., *see* Chen, M., *TWC Jan. 2020 177-191*
- Yin, H., *see* Xing, F., *TWC Jan. 2020 251-264*
- Yin, J., *see* Li, S., *TWC June 2020 3977-3991*
- Yin, R., Liu, S., Yu, G., Zhang, Y., and Chen, Q., Semi-Distributed Joint Power and Spectrum Allocation for LAA Based Small Cell Networks; *TWC June 2020 4141-4153*
- Yin, R., *see* Wang, Y., *TWC June 2020 4220-4233*
- Yin, R., *see* Wang, A., *TWC Oct. 2020 6786-6797*
- Yin, S., *see* Wang, P., *TWC Feb. 2020 1025-1037*
- Yin, W., and Chen, H., Decision-Driven Time-Adaptive Spectrum Sensing in Cognitive Radio Networks; *TWC April 2020 2756-2769*
- Yin, W., Chen, H., Xu, D., and Yang, Y., LRT Detectors for Spectrum Sensing of Weak OFDM Signals With Periodic Pilots; *TWC Nov. 2020 7514-7527*
- Yongacoglu, A., *see* Kalantari, E., *TWC Nov. 2020 7363-7376*
- Yoo, D., *see* Park, J.W., *TWC Jan. 2020 367-379*
- You, C., and Zhang, R., Hybrid Offline-Online Design for UAV-Enabled Data Harvesting in Probabilistic LoS Channels; *TWC June 2020 3753-3768*
- You, C., *see* Zheng, B., *TWC Dec. 2020 8315-8329*
- You, L., and Yuan, D., User-Centric Performance Optimization With Remote Radio Head Cooperation in C-RAN; *TWC Jan. 2020 340-353*
- You, L., Xiong, J., Yi, X., Wang, J., Wang, W., and Gao, X., Energy Efficiency Optimization for Downlink Massive MIMO With Statistical CSIT; *TWC April 2020 2684-2698*
- You, M., *see* Zhang, J., *TWC June 2020 3738-3752*
- You, X., *see* Jiang, Y., *TWC Dec. 2020 8442-8454*
- You, Z., *see* Dong, X., *TWC July 2020 4632-4642*
- Yu, D., *see* Yu, J., *TWC Aug. 2020 5621-5634*
- Yu, D., Yue, G., Liu, A., and Yang, L., Absolute Amplitude Differential Phase Spatial Modulation and Its Non-Coherent Detection Under Fast Fading Channels; *TWC April 2020 2742-2755*

- Yu, F.R.**, see Fu, X., *TWC Jan. 2020 507-519*
- Yu, F.R.**, see Luo, J., *TWC March 2020 1577-1592*
- Yu, F.R.**, see Guo, F., *TWC March 2020 1689-1703*
- Yu, F.R.**, see Feng, J., *TWC June 2020 4321-4334*
- Yu, F.R.**, see Zhang, R., *TWC Oct. 2020 6469-6485*
- Yu, G.**, see Yin, R., *TWC June 2020 4141-4153*
- Yu, G.**, see Wang, Y., *TWC June 2020 4220-4233*
- Yu, G.**, see He, Y., *TWC Aug. 2020 5333-5344*
- Yu, G.**, see Hu, Q., *TWC Sept. 2020 6179-6195*
- Yu, G.**, see Ren, J., *TWC Nov. 2020 7690-7703*
- Yu, H.**, see Ye, N., *TWC April 2020 2208-2225*
- Yu, H.**, see Zhou, Z., *TWC Nov. 2020 7339-7352*
- Yu, J.**, Chen, W., Li, F., Li, C., Yang, K., Liu, Y., and Chang, F., Channel Measurement and Modeling of the Small-Scale Fading Characteristics for Urban Inland River Environment; *TWC May 2020 3376-3389*
- Yu, J.**, see Xu, Y., *TWC July 2020 4494-4506*
- Yu, J.**, Yu, K., Yu, D., Lv, W., Cheng, X., Chen, H., and Cheng, W., Efficient Link Scheduling in Wireless Networks Under Rayleigh-Fading and Multiuser Interference; *TWC Aug. 2020 5621-5634*
- Yu, K.**, see Yu, J., *TWC Aug. 2020 5621-5634*
- Yu, Q.**, see Guo, J., *TWC March 2020 1484-1502*
- Yu, S.**, see Luo, S., *TWC Oct. 2020 6535-6548*
- Yu, W.**, see Xiao, L., *TWC March 2020 1990-2005*
- Yu, W.**, see Khan, A.A., *TWC Aug. 2020 5162-5175*
- Yu, W.**, see Li, X., *TWC Sept. 2020 6116-6129*
- Yu, W.**, see Jiang, S., *TWC Oct. 2020 6960-6976*
- Yu, W.**, see Sana, M., *TWC Oct. 2020 6520-6534*
- Yu, W.**, see De Domenico, A., *TWC Dec. 2020 7942-7956*
- Yu, W.**, see Mheich, Z., *TWC Nov. 2020 7423-7438*
- Yu, X.**, Cui, Q., Wang, Y., and Haenggi, M., The Joint and Product Meta Distributions of the SIR and Their Applications to Secrecy and Cooperation; *TWC July 2020 4408-4423*
- Yu, Y.**, see Tang, J., *TWC Jan. 2020 120-133*
- Yu, Y.**, see Chou, S., *TWC Jan. 2020 563-578*
- Yuan, D.**, see You, L., *TWC Jan. 2020 340-353*
- Yuan, J.**, Ngo, H.Q., and Matthaiou, M., Machine Learning-Based Channel Prediction in Massive MIMO With Channel Aging; *TWC May 2020 2960-2973*
- Yuan, J.**, see Zheng, T., *TWC May 2020 3405-3420*
- Yuan, J.**, see Wang, Y., *TWC June 2020 4220-4233*
- Yuan, J.**, see Sun, B., *TWC Oct. 2020 6826-6843*
- Yuan, J.**, see Liu, F., *TWC Nov. 2020 7704-7719*
- Yuan, W.**, Wu, N., Zhang, A., Huang, X., Li, Y., and Hanzo, L., Iterative Receiver Design for FTN Signaling Aided Sparse Code Multiple Access; *TWC Feb. 2020 915-928*
- Yuan, W.**, see Liu, F., *TWC Nov. 2020 7704-7719*
- Yuan, X.**, see Liu, H., *TWC July 2020 4617-4631*
- Yuan, X.**, see Jiang, S., *TWC Oct. 2020 6960-6976*
- Yue, G.**, see Yu, D., *TWC April 2020 2742-2755*
- Yue, X.**, Liu, Y., Yao, Y., Li, X., Liu, R., and Nallanathan, A., Secure Communications in a Unified Non-Orthogonal Multiple Access Framework; *TWC March 2020 2163-2178*
- Yue, Y.**, see Sun, W., *TWC Sept. 2020 6050-6064*
- Z**
- Zaimbashi, A.**, see Ashrafzadeh, B., *TWC Nov. 2020 7732-7746*
- Zajic, A.**, see Fu, J., *TWC May 2020 3214-3227*
- Zanella, A.**, see Mason, F., *TWC Aug. 2020 5605-5620*
- Zang, X.**, see Liu, W., *TWC Aug. 2020 5488-5502*
- Zappone, A.**, see Buzzi, S., *TWC Feb. 2020 1250-1264*
- Zedini, E.**, Kammoun, A., and Alouini, M., Performance of Multibeam Very High Throughput Satellite Systems Based on FSO Feeder Links With HPA Nonlinearity; *TWC Sept. 2020 5908-5923*
- Zeng, C.**, Chen, K., and Liu, D., Two-Stage ICI Suppression in the Downlink of Asynchronous URLLC; *TWC April 2020 2785-2799*
- Zeng, L.**, see Li, E., *TWC Jan. 2020 447-457*
- Zeng, Y.**, see Xu, X., *TWC Nov. 2020 7210-7223*
- Zeng, Y.**, see Zhan, C., *TWC Nov. 2020 7279-7292*
- Zhan, C.**, and Zeng, Y., Energy-Efficient Data Uploading for Cellular-Connected UAV Systems; *TWC Nov. 2020 7279-7292*
- Zhang, A.**, see Yuan, W., *TWC Feb. 2020 915-928*
- Zhang, C.**, see Pan, G., *TWC Nov. 2020 7097-7107*
- Zhang, C.J.**, see Rottenberg, F., *TWC April 2020 2728-2741*
- Zhang, C.J.**, see Shang, B., *TWC Dec. 2020 7957-7972*
- Zhang, D.**, see Chen, X., *TWC July 2020 4879-4893*
- Zhang, F.**, see Ma, S., *TWC Nov. 2020 7265-7278*
- Zhang, H.**, see Xiao, L., *TWC Jan. 2020 423-434*
- Zhang, H.**, see Bai, Z., *TWC Feb. 2020 929-941*
- Zhang, H.**, Feng, M., Long, K., Karagiannis, G.K., Leung, V.C.M., and Poor, H.V., Energy Efficient Resource Management in SWIPT Enabled Heterogeneous Networks With NOMA; *TWC Feb. 2020 835-845*
- Zhang, H.**, see Guo, F., *TWC March 2020 1689-1703*
- Zhang, H.**, Yang, N., Huangfu, W., Long, K., and Leung, V.C.M., Power Control Based on Deep Reinforcement Learning for Spectrum Sharing; *TWC June 2020 4209-4219*
- Zhang, H.**, Duan, L., and Zhang, R., Jamming-Assisted Proactive Eavesdropping Over Two Suspicious Communication Links; *TWC July 2020 4817-4830*
- Zhang, H.**, see Zhang, S., *TWC Oct. 2020 6578-6592*
- Zhang, H.**, see Guo, S., *TWC Oct. 2020 6660-6674*
- Zhang, H.**, see Chen, X., *TWC April 2020 2268-2281*
- Zhang, H.**, see Liu, X., *TWC April 2020 2586-2600*
- Zhang, H.**, see Qin, Y., *TWC Dec. 2020 8303-8314*
- Zhang, H.**, see Fang, F., *TWC Nov. 2020 7008-7020*
- Zhang, J.**, Online Content Editor Team Joins Transactions on Wireless Communications; *TWC Jan. 2020 3*
- Zhang, J.**, see Shen, Y., *TWC Jan. 2020 665-679*
- Zhang, J.**, Huang, Y., Wang, J., Schober, R., and Yang, L., Power-Efficient Beam Designs for Millimeter Wave Communication Systems; *TWC Feb. 2020 1265-1279*
- Zhang, J.**, see Wang, R., *TWC May 2020 3077-3090*
- Zhang, J.**, see Xie, D., *TWC June 2020 4080-4094*
- Zhang, J.**, Xia, W., You, M., Zheng, G., Lambotaran, S., and Wong, K., Deep Learning Enabled Optimization of Downlink Beamforming Under Per-Antenna Power Constraints: Algorithms and Experimental Demonstration; *TWC June 2020 3738-3752*
- Zhang, J.**, see Shafin, R., *TWC June 2020 4038-4053*
- Zhang, J.**, see Cui, Q., *TWC July 2020 4519-4534*
- Zhang, J.**, see Mao, Y., *TWC Oct. 2020 6362-6376*
- Zhang, J.A.**, see Qin, C., *TWC Oct. 2020 6425-6439*
- Zhang, K.**, see Yang, H., *TWC May 2020 3607-3622*
- Zhang, L.**, see Yan, K., *TWC Aug. 2020 5176-5187*
- Zhang, L.**, see Yang, B., *TWC Aug. 2020 5132-5147*
- Zhang, L.**, see Mao, J., *TWC Aug. 2020 5188-5203*
- Zhang, L.**, see Liu, X., *TWC April 2020 2586-2600*
- Zhang, N.**, see Li, Q., *TWC Jan. 2020 696-711*
- Zhang, N.**, see Wu, H., *TWC April 2020 2411-2426*
- Zhang, P.**, Taleb, T., Jiang, X., and Wu, B., Physical Layer Authentication for Massive MIMO Systems With Hardware Impairments; *TWC March 2020 1563-1576*
- Zhang, P.**, see Mestre, X., *TWC March 2020 2122-2136*
- Zhang, P.**, see Sun, M., *TWC June 2020 4109-4124*
- Zhang, P.**, see Cui, Q., *TWC July 2020 4519-4534*
- Zhang, P.**, see Guo, S., *TWC Oct. 2020 6660-6674*
- Zhang, Q.**, Luo, K., Wang, W., and Jiang, T., Joint C-OMA and C-NOMA Wireless Backhaul Scheduling in Heterogeneous Ultra Dense Networks; *TWC Feb. 2020 874-887*
- Zhang, Q.**, Liang, Y., and Poor, H.V., Intelligent User Association for Symbiotic Radio Networks Using Deep Reinforcement Learning; *TWC July 2020 4535-4548*
- Zhang, Q.**, see Huang, Y., *TWC Aug. 2020 5234-5245*
- Zhang, Q.**, see Jiao, J., *TWC Sept. 2020 5924-5937*
- Zhang, R.**, see You, C., *TWC June 2020 3753-3768*
- Zhang, R.**, see Zhang, H., *TWC July 2020 4817-4830*

- Zhang, R.**, see Li, T., *TWC Aug. 2020 5461-5472*
- Zhang, R.**, see Qin, M., *TWC Aug. 2020 5547-5560*
- Zhang, R.**, Yu, F.R., Liu, J., Huang, T., and Liu, Y., Deep Reinforcement Learning (DRL)-Based Device-to-Device (D2D) Caching With Blockchain and Mobile Edge Computing; *TWC Oct. 2020 6469-6485*
- Zhang, R.**, see Zheng, B., *TWC Dec. 2020 8315-8329*
- Zhang, S.**, Luo, H., Li, J., Shi, W., and Shen, X., Hierarchical Soft Slicing to Meet Multi-Dimensional QoS Demand in Cache-Enabled Vehicular Networks; *TWC March 2020 2150-2162*
- Zhang, S.**, see Ma, Y., *TWC May 2020 3144-3155*
- Zhang, S.**, see Yang, H., *TWC July 2020 4671-4684*
- Zhang, S.**, Wang, W., Tang, S., Jin, S., and Jiang, T., Robot-Assisted Backscatter Localization for IoT Applications; *TWC Sept. 2020 5807-5818*
- Zhang, S.**, see Shi, Z., *TWC Sept. 2020 5692-5702*
- Zhang, S.**, see Ma, J., *TWC Oct. 2020 6721-6736*
- Zhang, S.**, Zhang, H., Han, Z., Poor, H.V., and Song, L., Age of Information in a Cellular Internet of UAVs: Sensing and Communication Trade-Off Design; *TWC Oct. 2020 6578-6592*
- Zhang, S.**, see Pan, G., *TWC Oct. 2020 6277-6288*
- Zhang, T.**, Wang, Y., Liu, Y., Xu, W., and Nallanathan, A., Cache-Enabling UAV Communications: Network Deployment and Resource Allocation; *TWC Nov. 2020 7470-7483*
- Zhang, X.**, see Wang, J., *TWC Jan. 2020 4-18*
- Zhang, X.**, see Tang, J., *TWC Jan. 2020 120-133*
- Zhang, X.**, see Cui, Q., *TWC July 2020 4519-4534*
- Zhang, X.**, Xia, Y., Li, C., Yang, L., and Mandic, D.P., Complex Propensity Inspired Blind Adaptive Frequency-Dependent I/Q Imbalance Compensation for Wideband Direct-Conversion Receivers; *TWC Sept. 2020 5982-5992*
- Zhang, X.**, see Liu, X., *TWC April 2020 2586-2600*
- Zhang, Y.**, see Hu, X., *TWC Feb. 2020 1070-1083*
- Zhang, Y.**, see Xiong, Z., *TWC March 2020 1722-1737*
- Zhang, Y.**, see Mao, S., *TWC March 2020 1855-1867*
- Zhang, Y.**, see Yin, R., *TWC June 2020 4141-4153*
- Zhang, Y.**, see Li, T., *TWC Aug. 2020 5461-5472*
- Zhang, Y.**, see Pan, G., *TWC Oct. 2020 6693-6707*
- Zhang, Y.**, see An, J., *TWC April 2020 2841-2854*
- Zhang, Y.**, see Chen, X., *TWC April 2020 2268-2281*
- Zhang, Y.**, see Liu, B., *TWC April 2020 2855-2867*
- Zhang, Y.**, see Yao, K., *TWC April 2020 2800-2812*
- Zhang, Y.**, see Li, J., *TWC April 2020 2367-2381*
- Zhang, Y.**, see Hu, X., *TWC Dec. 2020 8083-8098*
- Zhang, Y.**, see Sun, J., *TWC Nov. 2020 7571-7584*
- Zhang, Y.A.**, see Bi, S., *TWC July 2020 4947-4963*
- Zhang, Y.J.**, see Yan, J., *TWC Jan. 2020 235-250*
- Zhang, Y.J.**, see Liu, H., *TWC July 2020 4617-4631*
- Zhang, Y.J.A.**, see Yan, J., *TWC Aug. 2020 5404-5419*
- Zhang, Z.**, see Wu, L., *TWC Feb. 2020 1113-1126*
- Zhang, Z.**, Chaaban, A., and Alouini, M., Residual Clipping Noise in Multi-Layer Optical OFDM: Modeling, Analysis, and Applications; *TWC Sept. 2020 5846-5859*
- Zhao, C.**, Cai, Y., Liu, A., Zhao, M., and Hanzo, L., Mobile Edge Computing Meets mmWave Communications: Joint Beamforming and Resource Allocation for System Delay Minimization; *TWC April 2020 2382-2396*
- Zhao, H.**, Pottie, G.J., and Daneshrad, B., Reciprocity Calibration of TDD MIMO Channel for Interference Alignment; *TWC May 2020 3505-3516*
- Zhao, J.**, see Hu, J., *TWC July 2020 4907-4918*
- Zhao, J.**, Amiri, M.M., and Gunduz, D., Multi-Antenna Coded Content Delivery With Caching: A Low-Complexity Solution; *TWC Nov. 2020 7484-7497*
- Zhao, L.**, see Lin, N., *TWC July 2020 4919-4933*
- Zhao, L.**, see Liu, C., *TWC Aug. 2020 5117-5131*
- Zhao, L.**, see Ye, N., *TWC April 2020 2208-2225*
- Zhao, M.**, and Shi, Q., Efficiency Maximization for UAV-Enabled Mobile Relaying Systems With Laser Charging; *TWC May 2020 3257-3272*
- Zhao, M.**, see Zhao, M., *TWC May 2020 3257-3272*
- Zhao, M.**, see Liu, A., *TWC May 2020 3185-3198*
- Zhao, M.**, Cai, Y., Champagne, B., and Tsiftsis, T.A., Improving Caching Efficiency in Content-Aware C-RAN-Based Cooperative Beamforming: A Joint Design Approach; *TWC June 2020 4125-4140*
- Zhao, M.**, see Zhao, M., *TWC June 2020 4125-4140*
- Zhao, M.**, see Tian, C., *TWC Aug. 2020 5447-5460*
- Zhao, M.**, see Zhao, C., *TWC April 2020 2382-2396*
- Zhao, N.**, see Wu, F., *TWC April 2020 2252-2267*
- Zhao, R.**, see Li, Y., *TWC Dec. 2020 7779-7795*
- Zhao, S.**, Lu, Z., and Wang, C., How Can Randomized Routing Protocols Hide Flow Information in Wireless Networks?; *TWC Nov. 2020 7224-7236*
- Zhao, Y.**, see Xu, Y., *TWC Feb. 2020 1054-1069*
- Zhao, Y.**, Wong, W., Feng, T., and Garg, H.K., Calibration-Free Indoor Positioning Using Crowdsourced Data and Multidimensional Scaling; *TWC March 2020 1770-1785*
- Zhao, Y.**, see Luo, Y., *TWC May 2020 3449-3462*
- Zhao, Y.**, Li, Z., Cheng, N., Wang, W., Li, C., and Shen, X., Covert Localization in Wireless Networks: Feasibility and Performance Analysis; *TWC Oct. 2020 6549-6563*
- Zhao, Y.**, Hu, J., Xie, A., Yang, K., and Wong, K., Receive Spatial Modulation Aided Simultaneous Wireless Information and Power Transfer With Finite Alphabet; *TWC Dec. 2020 8039-8053*
- Zheng, B.**, You, C., and Zhang, R., Intelligent Reflecting Surface Assisted Multi-User OFDMA: Channel Estimation and Training Design; *TWC Dec. 2020 8315-8329*
- Zheng, F.**, see Jiang, Y., *TWC Dec. 2020 8442-8454*
- Zheng, G.**, see Zhang, J., *TWC June 2020 3738-3752*
- Zheng, J.**, see Gong, Z., *TWC April 2020 2226-2239*
- Zheng, K.**, Liu, X., Zhu, Y., Chi, K., and Liu, K., Total Throughput Maximization of Cooperative Cognitive Radio Networks With Energy Harvesting; *TWC Jan. 2020 533-546*
- Zheng, K.**, see Yang, H., *TWC May 2020 3607-3622*
- Zheng, K.**, see Liu, X., *TWC Nov. 2020 7663-7676*
- Zheng, T.**, Wang, H., Ng, D.W.K., and Yuan, J., Physical-Layer Security in the Finite Blocklength Regime Over Fading Channels; *TWC May 2020 3405-3420*
- Zheng, X.**, Zhou, S., and Niu, Z., Urgency of Information for Context-Aware Timely Status Updates in Remote Control Systems; *TWC Nov. 2020 7237-7250*
- Zheng, Z.**, see Hu, X., *TWC Feb. 2020 1070-1083*
- Zhong, C.**, see Wang, A., *TWC Oct. 2020 6786-6797*
- Zhong, W.**, see Yang, H., *TWC July 2020 4671-4684*
- Zhong, Z.**, see Lu, Y., *TWC June 2020 4290-4306*
- Zhong, Z.**, see Huang, C., *TWC June 2020 3643-3657*
- Zhong, Z.**, see Yang, M., *TWC Sept. 2020 5860-5874*
- Zhong, Z.**, see Liu, J., *TWC Nov. 2020 7064-7080*
- Zhou, B.**, and Saad, W., Minimum Age of Information in the Internet of Things With Non-Uniform Status Packet Sizes; *TWC March 2020 1933-1947*
- Zhou, B.**, Zhuang, Y., and Cao, Y., On the Performance Gain of Harnessing Non-Line-of-Sight Propagation for Visible Light-Based Positioning; *TWC July 2020 4863-4878*
- Zhou, B.**, Liu, A., and Lau, V., Visible Light-Based User Position, Orientation and Channel Estimation Using Self-Adaptive Location-Domain Grid Sampling; *TWC July 2020 5025-5039*
- Zhou, D.**, see Zhu, Y., *TWC June 2020 3894-3907*
- Zhou, F.**, and Hu, R.Q., Computation Efficiency Maximization in Wireless-Powered Mobile Edge Computing Networks; *TWC May 2020 3170-3184*
- Zhou, F.**, see Ma, S., *TWC Nov. 2020 7265-7278*
- Zhou, H.**, see Xue, K., *TWC June 2020 3673-3684*
- Zhou, H.**, see Qin, M., *TWC Aug. 2020 5547-5560*
- Zhou, H.**, Chen, X., He, S., Zhu, C., and Leung, V.C.M., Freshness-Aware Seed Selection for Offloading Cellular Traffic Through Opportunistic Mobile Networks; *TWC April 2020 2658-2669*
- Zhou, J.**, see Li, Y., *TWC June 2020 3963-3976*
- Zhou, S.**, see Wang, P., *TWC Feb. 2020 1025-1037*
- Zhou, S.**, see Wang, L., *TWC March 2020 1535-1548*
- Zhou, S.**, see Zheng, X., *TWC Nov. 2020 7237-7250*
- Zhou, X.**, see Idrees, S., *TWC Oct. 2020 6316-6330*

- Zhou, Y., see Sun, B., *TWC Oct. 2020 6826-6843*
- Zhou, Z., see Li, E., *TWC Jan. 2020 447-457*
- Zhou, Z., Liu, L., and Chang, H., Learning for Detection: MIMO-OFDM Symbol Detection Through Downlink Pilots; *TWC June 2020 3712-3726*
- Zhou, Z., see Liu, X., *TWC June 2020 3924-3937*
- Zhou, Z., see Luo, S., *TWC Oct. 2020 6535-6548*
- Zhou, Z., see Ma, H., *TWC Oct. 2020 6454-6468*
- Zhou, Z., see Yang, Q., *TWC April 2020 2472-2488*
- Zhou, Z., see Luo, S., *TWC April 2020 2643-2657*
- Zhou, Z., see Lin, R., *TWC Dec. 2020 8179-8194*
- Zhou, Z., Yu, H., Mumtaz, S., Al-Rubaye, S., Tsourdos, A., and Hu, R.Q., Power Control Optimization for Large-Scale Multi-Antenna Systems; *TWC Nov. 2020 7339-7352*
- Zhu, C., see Zhou, H., *TWC April 2020 2658-2669*
- Zhu, D., Bendlin, R., Akoum, S., Ghosh, A., and Heath, R.W., Double-Sequence Frequency Synchronization for Wideband Millimeter-Wave Systems With Few-Bit ADCs; *TWC Feb. 2020 1357-1372*
- Zhu, G., Wang, Y., and Huang, K., Broadband Analog Aggregation for Low-Latency Federated Edge Learning; *TWC Jan. 2020 491-506*
- Zhu, G., see Xu, Y., *TWC Feb. 2020 1054-1069*
- Zhu, G., see Li, X., *TWC Sept. 2020 6116-6129*
- Zhu, G., see Cao, X., *TWC Nov. 2020 7498-7513*
- Zhu, H., see Xia, W., *TWC Nov. 2020 7108-7123*
- Zhu, J., Wen, C., Tong, J., Xu, C., and Jin, S., Grid-Less Variational Bayesian Channel Estimation for Antenna Array Systems With Low Resolution ADCs; *TWC March 2020 1549-1562*
- Zhu, J., Wang, J., Huang, Y., Fang, F., Navaie, K., and Ding, Z., Resource Allocation for Hybrid NOMA MEC Offloading; *TWC July 2020 4964-4977*
- Zhu, K., see Ji, J., *TWC Aug. 2020 5389-5403*
- Zhu, L., see Feng, J., *TWC June 2020 4321-4334*
- Zhu, W., see Kusaladharma, S., *TWC Feb. 2020 1280-1291*
- Zhu, X., see Jiang, C., *TWC July 2020 4685-4699*
- Zhu, Y., see Zheng, K., *TWC Jan. 2020 533-546*
- Zhu, Y., Sheng, M., Li, J., Zhou, D., and Han, Z., Modeling and Performance Analysis for Satellite Data Relay Networks Using Two-Dimensional Markov-Modulated Process; *TWC June 2020 3894-3907*
- Zhu, Y., see Liu, X., *TWC Nov. 2020 7663-7676*
- Zhuang, H., Chen, J., and Gilimyanov, R., Hierarchical Energy Optimization With More Realistic Power Consumption and Interference Models for Ultra-Dense Networks; *TWC July 2020 4507-4518*
- Zhuang, W., see He, H., *TWC Dec. 2020 7881-7896*
- Zhuang, Y., see Zhou, B., *TWC July 2020 4863-4878*
- Zhuo, L., see Hou, Z., *TWC Feb. 2020 1196-1209*
- Zhuo, L., see Pradhan, C., *TWC Sept. 2020 6083-6099*
- Zlatanov, N., see Razlighi, M.M., *TWC May 2020 3118-3132*
- Zorzi, M., see Gomez-Cuba, F., *TWC March 2020 1839-1854*
- Zorzi, M., see Mason, F., *TWC Aug. 2020 5605-5620*
- Zou, X., Ganji, M., and Jafarkhani, H., Cooperative Asynchronous Non-Orthogonal Multiple Access With Power Minimization Under QoS Constraints; *TWC March 2020 1503-1518*
- Zou, X., see Ganji, M., *TWC May 2020 3156-3169*
- Zukerman, M., see Lin, R., *TWC Dec. 2020 8179-8194*
- Zvanovec, S., see Priyadarshani, R., *TWC March 2020 1593-1609*
- Towards Fair and Efficient Spectrum Sharing Between LTE and WiFi in Unlicensed Bands: Fairness-Constrained Throughput Maximization. Sun, X., +, *TWC April 2020 2713-2727*
- Two-Layered Superposition of Broadcast/Multicast and Unicast Signals in Multiuser OFDMA Systems. Vargas, D., +, *TWC Feb. 2020 979-994*
- 3GPP**
- Accommodating LAA Within IEEE 802.11ax WiFi Networks for Enhanced Coexistence. Chen, Q., +, *TWC Nov. 2020 7621-7636*
- Spatial Spectrum Sensing in Uplink Two-Tier User-Centric Deployed HetNets. Shang, B., +, *TWC Dec. 2020 7957-7972*
- 4G mobile communication**
- Cooperative Computation Offloading in FiWi Enhanced 4G HetNets Using Self-Organizing MEC. Ebrahimzadeh, A., +, *TWC July 2020 4480-4493*
- Joint Detection and Decoding of Polar Coded 5G Control Channels. Jalali, A., +, *TWC March 2020 2066-2078*
- The Power of Mobility Prediction in Reducing Idle-State Signaling in Cellular Systems: A Revisit to 4G Mobility Management. Hoseinitabatabei, S.A., +, *TWC May 2020 3346-3360*
- 5G mobile communication**
- 5G mmWave Cooperative Positioning and Mapping Using Multi-Model PHD Filter and Map Fusion. Kim, H., +, *TWC June 2020 3782-3795*
- A Realization of Fog-RAN Slicing via Deep Reinforcement Learning. Xiang, H., +, *TWC April 2020 2515-2527*
- A Secure Group-Oriented Device-to-Device Authentication Protocol for 5G Wireless Networks. Shang, Z., +, *TWC Nov. 2020 7021-7032*
- Analysis of 5G Radio Access Protocols for Uplink URLLC in a Connection-Less Mode. Centenaro, M., +, *TWC May 2020 3104-3117*
- Balancing Queueing and Retransmission: Latency-Optimal Massive MIMO Design. Du, X., +, *TWC April 2020 2293-2307*
- Characterizing Resource Allocation Trade-Offs in 5G NR Serving Multicast and Unicast Traffic. Samuylov, A., +, *TWC May 2020 3421-3434*
- Communications and Radar Coexistence in the Massive MIMO Regime: Uplink Analysis. D'Andrea, C., +, *TWC Jan. 2020 19-33*
- Distributed User Association and Resource Allocation Algorithms for Three Tier HetNets. Gopalam, S., +, *TWC Dec. 2020 7913-7926*
- Efficient Beam Sweeping Algorithms and Initial Access Protocols for Millimeter-Wave Networks. Aykin, I., +, *TWC April 2020 2504-2514*
- Green-Oriented Dynamic Resource-on-Demand Strategy for Multi-RAT Wireless Networks Powered by Heterogeneous Energy Sources. Qin, M., +, *TWC Aug. 2020 5547-5560*
- Hierarchical Energy Optimization With More Realistic Power Consumption and Interference Models for Ultra-Dense Networks. Zhuang, H., +, *TWC July 2020 4507-4518*
- Interference Analysis and Power Allocation in the Presence of Mixed Numerologies. Mao, J., +, *TWC Aug. 2020 5188-5203*
- Jamming-Resilient Frequency Hopping-Aided Secure Communication for Internet-of-Things in the Presence of an Untrusted Relay. Letafati, M., +, *TWC Oct. 2020 6771-6785*
- Joint C-OMA and C-NOMA Wireless Backhaul Scheduling in Heterogeneous Ultra Dense Networks. Zhang, Q., +, *TWC Feb. 2020 874-887*
- Joint Detection and Decoding of Polar Coded 5G Control Channels. Jalali, A., +, *TWC March 2020 2066-2078*
- Joint Frame Design and Resource Allocation for Ultra-Reliable and Low-Latency Vehicular Networks. Yang, H., +, *TWC May 2020 3607-3622*
- Joint Power and Blocklength Optimization for URLLC in a Factory Automation Scenario. Ren, H., +, *TWC March 2020 1786-1801*
- Local Partial Zero-Forcing Precoding for Cell-Free Massive MIMO. Interdonato, G., +, *TWC July 2020 4758-4774*
- Making Cell-Free Massive MIMO Competitive With MMSE Processing and Centralized Implementation. Bjornson, E., +, *TWC Jan. 2020 77-90*
- Massive Uncoordinated Access With Massive MIMO: A Dictionary Learning Approach. Han, Y., +, *TWC Feb. 2020 1320-1332*
- Mixed-Numerology Signals Transmission and Interference Cancellation for Radio Access Network Slicing. Yang, B., +, *TWC Aug. 2020 5132-5147*
- Multi-Agent Reinforcement Learning for Adaptive User Association in Dynamic mmWave Networks. Sana, M., +, *TWC Oct. 2020 6520-6534*

## SUBJECT INDEX

### Numeric

#### 3G mobile communication

- A Case for Digital Beamforming at mmWave. Dutta, S., +, *TWC Feb. 2020 756-770*
- A Dynamic MBSFN Area Formation Algorithm for Multicast Service Delivery in 5G NR Networks. Arantiti, G., +, *TWC Feb. 2020 808-821*
- Learning for Detection: MIMO-OFDM Symbol Detection Through Downlink Pilots. Zhou, Z., +, *TWC June 2020 3712-3726*
- Performance Characterization of Canonical Mobility Models in Drone Cellular Networks. Banagar, M., +, *TWC July 2020 4994-5009*

- Network-Coded Cooperative Systems With Generalized User-Relay Selection. *Heidarpour, A.R.*, +, *TWC Nov. 2020 7251-7264*
- NOMA-Based D2D-Enabled Traffic Offloading for 5G and Beyond Networks Employing Licensed and Unlicensed Access. *Sun, M.*, +, *TWC June 2020 4109-4124*
- On Optimal Orchestration of Virtualized Cellular Networks With Downlink Rate Coverage Probability Constraints. *Chatterjee, S.*, +, *TWC July 2020 4378-4393*
- On SDN-Driven Network Optimization and QoS Aware Routing Using Multiple Paths. *Bagaa, M.*, +, *TWC July 2020 4700-4714*
- Optimal Virtual Network Function Deployment for 5G Network Slicing in a Hybrid Cloud Infrastructure. *De Domenico, A.*, +, *TWC Dec. 2020 7942-7956*
- Physical Layer Authentication for Massive MIMO Systems With Hardware Impairments. *Zhang, P.*, +, *TWC March 2020 1563-1576*
- Prediction and Communication Co-Design for Ultra-Reliable and Low-Latency Communications. *Hou, Z.*, +, *TWC Feb. 2020 1196-1209*
- Reinforcement Learning-Based Downlink Interference Control for Ultra-Dense Small Cells. *Xiao, L.*, +, *TWC Jan. 2020 423-434*
- Resource Allocation for Hybrid NOMA MEC Offloading. *Zhu, J.*, +, *TWC July 2020 4964-4977*
- Scalable Video Transmission in Cache-Aided Device-to-Device Networks. *Ma, J.*, +, *TWC June 2020 4247-4261*
- Secure Communications in a Unified Non-Orthogonal Multiple Access Framework. *Yue, X.*, +, *TWC March 2020 2163-2178*
- Super-Mode OFDM With Index Modulation. *Dogukan, A.T.*, +, *TWC Nov. 2020 7353-7362*
- User-Centric 5G Cellular Networks: Resource Allocation and Comparison With the Cell-Free Massive MIMO Approach. *Buzzi, S.*, +, *TWC Feb. 2020 1250-1264*
- Wake-Up Scheduling for Energy-Efficient Mobile Devices. *Rostami, S.*, +, *TWC Sept. 2020 6020-6036*

## A

**Access protocols**

- 'Good to Repeat': Making Random Access Near-Optimal With Repeated Contentions. *Baiocchi, A.*, +, *TWC Jan. 2020 712-726*
- A Time and Energy Saving-Based Frame Adjustment Strategy (TES-FAS) Tag Identification Algorithm for UHF RFID Systems. *Su, J.*, +, *TWC May 2020 2974-2986*
- Analysis of 5G Radio Access Protocols for Uplink URLLC in a Connection-Less Mode. *Centenaro, M.*, +, *TWC May 2020 3104-3117*
- Efficient Beam Sweeping Algorithms and Initial Access Protocols for Millimeter-Wave Networks. *Aykin, I.*, +, *TWC April 2020 2504-2514*
- Massive Uncoordinated Access With Massive MIMO: A Dictionary Learning Approach. *Han, Y.*, +, *TWC Feb. 2020 1320-1332*
- Multi-Dimensional Busy-Tone Arbitration for OFDMA Random Access in IEEE 802.11ax. *Xie, D.*, +, *TWC June 2020 4080-4094*
- Optimal Mode Selection by Cross-Layer Decomposition in D2D Cellular Networks. *Klugel, M.*, +, *TWC April 2020 2528-2542*
- Unequal Access Latency Random Access Protocol for Massive Machine-Type Communications. *Jiao, J.*, +, *TWC Sept. 2020 5924-5937*

**Acoustic devices**

- AUV-Aided Localization of Underwater Acoustic Devices Based on Doppler Shift Measurements. *Gong, Z.*, +, *TWC April 2020 2226-2239*

**Ad hoc networks**

- Evolution Matters: Content Transmission in Evolving Wireless Social Networks. *Feng, C.*, +, *TWC Nov. 2020 7377-7391*
- How Can Randomized Routing Protocols Hide Flow Information in Wireless Networks?. *Zhao, S.*, +, *TWC Nov. 2020 7224-7236*

**Adaptation models**

- Deep Learning-Based Edge Caching in Fog Radio Access Networks. *Jiang, Y.*, +, *TWC Dec. 2020 8442-8454*

**Adaptive filters**

- Beam-Based Analog Self-Interference Cancellation in Full-Duplex MIMO Systems. *Le, A.T.*, +, *TWC April 2020 2460-2471*

**Adaptive modulation**

- Adaptive Modulation for Long-Range Underwater Acoustic Communication. *Huang, J.*, +, *TWC Oct. 2020 6844-6857*

**Adders**

- Two-Layer Coded Channel Access With Collision Resolution: Design and Analysis. *Ebrahimi, M.*, +, *TWC Dec. 2020 7986-7997*

**Admission control**

- Joint User Grouping, Scheduling, and Precoding for Multicast Energy Efficiency in Multigroup Multicast Systems. *Bandi, A.*, +, *TWC Dec. 2020 8195-8210*

**Advertising**

- A Multi-Dimensional Contract Approach for Data Rewarding in Mobile Networks. *Xiong, Z.*, +, *TWC Sept. 2020 5779-5793*

**Aerospace communication**

- A UAV-Mounted Free Space Optical Communication: Trajectory Optimization for Flight Time. *Lee, J.*, +, *TWC March 2020 1610-1621*
- Energy-Aware 3D Unmanned Aerial Vehicle Deployment for Network Throughput Optimization. *Chou, S.*, +, *TWC Jan. 2020 563-578*

**Aerospace propulsion**

- A UAV-Mounted Free Space Optical Communication: Trajectory Optimization for Flight Time. *Lee, J.*, +, *TWC March 2020 1610-1621*

**Aircraft communication**

- Analytical Channel Models for Millimeter Wave UAV Networks Under Hovering Fluctuations. *Dabiri, M.T.*, +, *TWC April 2020 2868-2883*

**Amplify and forward communication**

- A Deep Study on Layered Multi-Relay Non-Orthogonal Amplify-Forward Networks. *Padidar, P.*, +, *TWC Jan. 2020 354-366*
- Decentralized WSEE Optimization for Massive MIMO Two-Way Half-Duplex AF Relaying. *Sharma, E.*, +, *TWC Feb. 2020 1397-1414*
- Dual-Hop Spatial Modulation With a Relay Transmitting its Own Information. *Li, Q.*, +, *TWC July 2020 4449-4463*
- End-to-End Performance Analysis of Underwater Optical Wireless Relaying and Routing Techniques Under Location Uncertainty. *Celik, A.*, +, *TWC Feb. 2020 1167-1181*

- mmWave Amplify-and-Forward MIMO Relay Networks With Hybrid Precoding/Combining Design. *Jiang, L.*, +, *TWC Feb. 2020 1333-1346*

- Residual Transceiver Hardware Impairments on Cooperative NOMA Networks. *Li, X.*, +, *TWC Jan. 2020 680-695*

- Semi-Blind Joint Timing-Offset and Channel Estimation for Amplify-and-Forward Two-Way Relaying. *Abdallah, S.*, +, *TWC April 2020 2613-2627*

**Amplitude shift keying**

- A Deep Learning Approach to Universal Binary Visible Light Communication Transceiver. *Lee, H.*, +, *TWC Feb. 2020 956-969*
- Absolute Amplitude Differential Phase Spatial Modulation and Its Non-Coherent Detection Under Fast Fading Channels. *Yu, D.*, +, *TWC April 2020 2742-2755*

- Design and Analysis of Rotated-QAM Based Probabilistic Shaping Scheme for Rayleigh Fading Channels. *Yao, Y.*, +, *TWC May 2020 3047-3063*

- Error Rate Analysis of Amplitude-Coherent Detection Over Rician Fading Channels With Receiver Diversity. *Al-Jarrah, M.A.*, +, *TWC Jan. 2020 134-147*

**Analog-digital conversion**

- A Case for Digital Beamforming at mmWave. *Dutta, S.*, +, *TWC Feb. 2020 756-770*

- Capacity Region and Capacity-Achieving Signaling Schemes for 1-bit ADC Multiple Access Channels in Rayleigh Fading. *Ranjbar, M.*, +, *TWC Sept. 2020 6162-6178*

- Double-Sequence Frequency Synchronization for Wideband Millimeter-Wave Systems With Few-Bit ADCs. *Zhu, D.*, +, *TWC Feb. 2020 1357-1372*

- Grid-Less Variational Bayesian Channel Estimation for Antenna Array Systems With Low Resolution ADCs. *Zhu, J.*, +, *TWC March 2020 1549-1562*
- Mutual Information Analysis of Mixed-ADC MIMO Systems Over Rayleigh Channels Based on Random Matrix Theory. *Gao, H.*, +, *TWC July 2020 4894-4906*

- Performance Analysis of Massive MIMO Multi-Way Relay Networks With Low-Resolution ADCs. *Rahimian, S.*, +, *TWC Sept. 2020 5794-5806*

- Robust Data Detection for MIMO Systems With One-Bit ADCs: A Reinforcement Learning Approach. *Jeon, Y.*, +, *TWC March 2020 1663-1676*
- Supervised and Semi-Supervised Learning for MIMO Blind Detection With Low-Resolution ADCs. *Nguyen, L.V.*, +, *TWC April 2020 2427-2442*
- Analytic hierarchy process**
- Towards Demand-Driven Dynamic Incentive for Mobile Crowdsensing Systems. *Hu, J.*, +, *TWC July 2020 4907-4918*
- Analytical models**
- Projective Approach in Determining Homogeneous Hyperspherical Geometrically-Based Stochastic Channel Model's Statistics: Angle of Departure, Angle of Arrival and Time of Arrival. *Maric, A.*, +, *TWC Dec. 2020 7864-7880*
- Secure Cooperative Hybrid VLC-RF Systems. *Pan, G.*, +, *TWC Nov. 2020 7097-7107*
- Angular momentum**
- Multi-Mode OAM Radio Waves: Generation, Angle of Arrival Estimation and Reception With UCAs. *Chen, R.*, +, *TWC Oct. 2020 6932-6947*
- Antenna arrays**
- 5G mmWave Cooperative Positioning and Mapping Using Multi-Model PHD Filter and Map Fusion. *Kim, H.*, +, *TWC June 2020 3782-3795*
- Antenna Selection in Massive MIMO Based on Greedy Algorithms. *Mendonca, M.O.K.*, +, *TWC March 2020 1868-1881*
- Asymptotic Max-Min SINR Analysis of Reconfigurable Intelligent Surface Assisted MISO Systems. *Nadeem, Q.*, +, *TWC Dec. 2020 7748-7764*
- Balancing Queueing and Retransmission: Latency-Optimal Massive MIMO Design. *Du, X.*, +, *TWC April 2020 2293-2307*
- Communications and Radar Coexistence in the Massive MIMO Regime: Uplink Analysis. *D'Andrea, C.*, +, *TWC Jan. 2020 19-33*
- Constant Envelope MIMO-OFDM Precoding for Low Complexity Large-Scale Antenna Array Systems. *Domouchtsidis, S.*, +, *TWC Dec. 2020 7973-7985*
- Convolutional Neural Network-Based Multiple-Rate Compressive Sensing for Massive MIMO CSI Feedback: Design, Simulation, and Analysis. *Guo, J.*, +, *TWC April 2020 2827-2840*
- Deep Learning Enabled Optimization of Downlink Beamforming Under Per-Antenna Power Constraints: Algorithms and Experimental Demonstration. *Zhang, J.*, +, *TWC June 2020 3738-3752*
- Dictionary Learning for Channel Estimation in Hybrid Frequency-Selective mmWave MIMO Systems. *Xie, H.*, +, *TWC Nov. 2020 7407-7422*
- Edge and Central Cloud Computing: A Perfect Pairing for High Energy Efficiency and Low-Latency. *Hu, X.*, +, *TWC Feb. 2020 1070-1083*
- Error Rate Analysis of Amplitude-Coherent Detection Over Rician Fading Channels With Receiver Diversity. *Al-Jarrah, M.A.*, +, *TWC Jan. 2020 134-147*
- Estimating Doubly-Selective Channels for Hybrid mmWave Massive MIMO Systems: A Doubly-Sparse Approach. *Gao, S.*, +, *TWC Sept. 2020 5703-5715*
- Expectation Propagation Detector for Extra-Large Scale Massive MIMO. *Wang, H.*, +, *TWC March 2020 2036-2051*
- Exploiting Time Asynchrony in Multi-User Transmit Beamforming. *Ganji, M.*, +, *TWC May 2020 3156-3169*
- Fast Angle-of-Arrival Estimation via Virtual Subarrays in Analog Antenna Array. *Qin, C.*, +, *TWC Oct. 2020 6425-6439*
- Generalized Bussgang LMMSE Channel Estimation for One-Bit Massive MIMO Systems. *Wan, Q.*, +, *TWC June 2020 4234-4246*
- High-Resolution Channel Estimation for Frequency-Selective mmWave Massive MIMO Systems. *Ma, W.*, +, *TWC May 2020 3517-3529*
- IDFT-VFDM for Supplementary Uplink and LTE-NR Co-Existence. *Feng, Q.*, +, *TWC May 2020 3435-3448*
- Interference Cancellation Based Channel Estimation for Massive MIMO Systems With Time Shifted Pilots. *Sun, B.*, +, *TWC Oct. 2020 6826-6843*
- Joint Power Allocation and Load Balancing Optimization for Energy-Efficient Cell-Free Massive MIMO Networks. *Van Chien, T.*, +, *TWC Oct. 2020 6798-6812*
- Low-Complexity Adaptive Spatial Processing of ESPAR Antenna Systems. *Bucheli Garcia, J.C.*, +, *TWC June 2020 3700-3711*
- Low-Resolution ADC Quantized Full-Duplex Massive MIMO-Enabled Wireless Backhaul in Heterogeneous Networks Over Rician Channels. *Anokye, P.*, +, *TWC Aug. 2020 5503-5517*
- Machine Learning-Based Channel Prediction in Massive MIMO With Channel Aging. *Yuan, J.*, +, *TWC May 2020 2960-2973*
- Massive MIMO Channel Estimation With an Untrained Deep Neural Network. *Balevi, E.*, +, *TWC March 2020 2079-2090*
- Massive MIMO Extensions to the COST 2100 Channel Model: Modeling and Validation. *Flordelis, J.*, +, *TWC Jan. 2020 380-394*
- Massive MIMO-NOMA Networks With Successive Sub-Array Activation. *Sousa de Sena, A.*, +, *TWC March 2020 1622-1635*
- Measurement-Based Analysis and Modeling of Multimode Channel Behaviors in Spherical Vector Wave Domain. *Miao, Y.*, +, *TWC Aug. 2020 5345-5358*
- Mixture Detectors for Improved Spectrum Sensing. *Senanayake, R.*, +, *TWC June 2020 4335-4348*
- Multi-Antenna Aided Secrecy Beamforming Optimization for Wirelessly Powered HetNets. *Gong, S.*, +, *TWC Aug. 2020 5261-5277*
- Multi-Antenna Interference Management for Coded Caching. *Tolli, A.*, +, *TWC March 2020 2091-2106*
- Multi-Antenna Two-Way Relay Based Cooperative NOMA. *Lv, L.*, +, *TWC Oct. 2020 6486-6503*
- Multi-Mode OAM Radio Waves: Generation, Angle of Arrival Estimation and Reception With UCAs. *Chen, R.*, +, *TWC Oct. 2020 6932-6947*
- Mutual Information Analysis of Mixed-ADC MIMO Systems Over Rayleigh Channels Based on Random Matrix Theory. *Gao, H.*, +, *TWC July 2020 4894-4906*
- Near-Optimal MIMO-SCMA Uplink Detection With Low-Complexity Expectation Propagation. *Wang, P.*, +, *TWC Feb. 2020 1025-1037*
- On Reciprocity in Physically Consistent TDD Systems With Coupled Antennas. *Laas, T.*, +, *TWC Oct. 2020 6440-6453*
- On the Effectiveness of OTFS for Joint Radar Parameter Estimation and Communication. *Gaudio, L.*, +, *TWC Sept. 2020 5951-5965*
- Optimizing Downlink Resource Allocation in Multiuser MIMO Networks via Fractional Programming and the Hungarian Algorithm. *Khan, A.A.*, +, *TWC Aug. 2020 5162-5175*
- PCA-Based Channel Estimation and Tracking for Massive MIMO Systems With Uniform Rectangular Arrays. *Wang, A.*, +, *TWC Oct. 2020 6786-6797*
- Performance Analysis of Cell-Free Massive MIMO System With Limited Fronthaul Capacity and Hardware Impairments. *Masoumi, H.*, +, *TWC Feb. 2020 1038-1053*
- Performance Analysis of Channel Extrapolation in FDD Massive MIMO Systems. *Rottenberg, F.*, +, *TWC April 2020 2728-2741*
- Performance Analysis of Large Intelligent Surfaces (LISs): Asymptotic Data Rate and Channel Hardening Effects. *Jung, M.*, +, *TWC March 2020 2052-2065*
- Performance Analysis of Massive MIMO Multi-Way Relay Networks With Low-Resolution ADCs. *Rahimian, S.*, +, *TWC Sept. 2020 5794-5806*
- Physical-Layer Security in the Finite Blocklength Regime Over Fading Channels. *Zheng, T.*, +, *TWC May 2020 3405-3420*
- Radar-Assisted Predictive Beamforming for Vehicular Links: Communication Served by Sensing. *Liu, F.*, +, *TWC Nov. 2020 7704-7719*
- Reciprocity Calibration of TDD MIMO Channel for Interference Alignment. *Zhao, H.*, +, *TWC May 2020 3505-3516*
- Reconsidering Design of Multi-Antenna NOMA Systems With Limited Feedback. *Tang, Z.*, +, *TWC March 2020 1519-1534*
- Secrecy Energy Efficiency in Multi-Antenna SWIPT Networks With Dual-Layer PS Receivers. *Lu, Y.*, +, *TWC June 2020 4290-4306*
- Spectral Efficiency Analysis of Cell-Free Massive MIMO Systems With Zero-Forcing Detector. *Liu, P.*, +, *TWC Feb. 2020 795-807*
- Stochastic Design and Analysis of User-Centric Wireless Cloud Caching Networks. *Azimi-Abarghouyi, S.M.*, +, *TWC July 2020 4978-4993*
- Transceiver Design and Signal Detection in Backscatter Communication Systems With Multiple-Antenna Tags. *Chen, C.*, +, *TWC May 2020 3273-3288*
- Unequally Sub-Connected Architecture for Hybrid Beamforming in Massive MIMO Systems. *Nguyen, N.T.*, +, *TWC Feb. 2020 1127-1140*

- User Scheduling and Antenna Topology in Dense Massive MIMO Networks: An Experimental Study. *Chen, C.*, +, *TWC Sept. 2020 6210-6223*
- User-Centric 5G Cellular Networks: Resource Allocation and Comparison With the Cell-Free Massive MIMO Approach. *Buzzi, S.*, +, *TWC Feb. 2020 1250-1264*
- Wideband Collaborative Spectrum Sensing Using Massive MIMO Decision Fusion. *Dey, I.*, +, *TWC Aug. 2020 5246-5260*
- Wirelessly-Powered Sensor Networks: Power Allocation for Channel Estimation and Energy Beamforming. *Du, R.*, +, *TWC May 2020 2987-3002*
- Antenna phased arrays**
- Design of Ambient Backscatter Training for Wireless Power Transfer. *Idrees, S.*, +, *TWC Oct. 2020 6316-6330*
- Antenna radiation patterns**
- Characterizing Resource Allocation Trade-Offs in 5G NR Serving Multicast and Unicast Traffic. *Samuylov, A.*, +, *TWC May 2020 3421-3434*
- Low-Complexity Adaptive Spatial Processing of ESPAR Antenna Systems. *Bucheli Garcia, J.C.*, +, *TWC June 2020 3700-3711*
- Antennas**
- Analysis and Optimization of an Intelligent Reflecting Surface-Assisted System With Interference. *Jia, Y.*, +, *TWC Dec. 2020 8068-8082*
- Asymptotic Analysis of MRT Over Double Scattering Channels With MMSE Estimation. *Ye, J.*, +, *TWC Dec. 2020 7851-7863*
- Boosting the Cellular Network Coverage Optimization in Accordance With the Metric Structure of Antenna Variables. *Qin, Y.*, +, *TWC Dec. 2020 8303-8314*
- Hierarchical Codebook-Based Multiuser Beam Training for Millimeter Wave Massive MIMO. *Qi, C.*, +, *TWC Dec. 2020 8142-8152*
- Joint User Grouping, Scheduling, and Precoding for Multicast Energy Efficiency in Multigroup Multicast Systems. *Bandi, A.*, +, *TWC Dec. 2020 8195-8210*
- Power Control Optimization for Large-Scale Multi-Antenna Systems. *Zhou, Z.*, +, *TWC Nov. 2020 7339-7352*
- Secure Cooperative Hybrid VLC-RF Systems. *Pan, G.*, +, *TWC Nov. 2020 7097-7107*
- Approximation algorithms**
- Multihop Wireless Networks With Quality-of-Service: Fluid and Diffusion Approximations. *Krishnan K. S., A.*, +, *TWC Dec. 2020 8113-8125*
- The Max-Product Algorithm Viewed as Linear Data-Fusion: A Distributed Detection Scenario. *Abdi, Y.*, +, *TWC Nov. 2020 7585-7597*
- Approximation theory**
- Adaptive Video Streaming for Massive MIMO Networks via Approximate MDP and Reinforcement Learning. *Lan, Q.*, +, *TWC Sept. 2020 5716-5731*
- Asymptotically Exact Approximations to Generalized Fading Sum Statistics. *Perim, V.*, +, *TWC Jan. 2020 205-217*
- AUV-Aided Localization of Underwater Acoustic Devices Based on Doppler Shift Measurements. *Gong, Z.*, +, *TWC April 2020 2226-2239*
- Decentralized WSEE Optimization for Massive MIMO Two-Way Half-Duplex AF Relaying. *Sharma, E.*, +, *TWC Feb. 2020 1397-1414*
- Deep Learning-Aided Tabu Search Detection for Large MIMO Systems. *Nguyen, N.T.*, +, *TWC June 2020 4262-4275*
- Efficient Link Scheduling in Wireless Networks Under Rayleigh-Fading and Multiuser Interference. *Yu, J.*, +, *TWC Aug. 2020 5621-5634*
- Exploiting Intelligent Reflecting Surfaces in NOMA Networks: Joint Beamforming Optimization. *Mu, X.*, +, *TWC Oct. 2020 6884-6898*
- Full-Duplex Enabled Mobile Edge Caching: From Distributed to Cooperative Caching. *Yu, T.X.*, +, *TWC Feb. 2020 1141-1153*
- Improvement of the Global Connectivity Using Integrated Satellite-Airborne-Terrestrial Networks With Resource Optimization. *Alsharou, A.*, +, *TWC Aug. 2020 5088-5100*
- Joint Cache Placement, Flight Trajectory, and Transmission Power Optimization for Multi-UAV Assisted Wireless Networks. *Ji, J.*, +, *TWC Aug. 2020 5389-5403*
- Low-Complexity Joint Resource Allocation and Trajectory Design for UAV-Aided Relay Networks With the Segmented Ray-Tracing Channel Model. *Hu, Q.*, +, *TWC Sept. 2020 6179-6195*
- Massive MIMO-NOMA Networks With Successive Sub-Array Activation. *Sousa de Sena, A.*, +, *TWC March 2020 1622-1635*
- Max-Min Fairness of  $K$ -User Cooperative Rate-Splitting in MISO Broadcast Channel With User Relaying. *Mao, Y.*, +, *TWC Oct. 2020 6362-6376*
- Minimum Age of Information in the Internet of Things With Non-Uniform Status Packet Sizes. *Zhou, B.*, +, *TWC March 2020 1933-1947*
- Noncoherent Joint Transmission Beamforming for Dense Small Cell Networks: Global Optimality, Efficient Solution and Distributed Implementation. *Vu, Q.*, +, *TWC Sept. 2020 5891-5907*
- On SDN-Driven Network Optimization and QoS Aware Routing Using Multiple Paths. *Bagaa, M.*, +, *TWC July 2020 4700-4714*
- Online Optimal Control for Wireless Cooperative Transmission by Ambient RF Powered Sensors. *Liu, T.*, +, *TWC Sept. 2020 6007-6019*
- Opportunistic Adaptive Non-Orthogonal Multiple Access in Multiuser Wireless Systems: Probabilistic User Scheduling and Performance Analysis. *Yang, L.*, +, *TWC Sept. 2020 6065-6082*
- Opportunistic Waveform Scheduling for Wireless Power Transfer With Multiple Devices. *Kim, K.*, +, *TWC Sept. 2020 5651-5665*
- QoS Driven Power Allocation in Secure Multicarrier Full-Duplex Relay Systems. *Bai, Z.*, +, *TWC Feb. 2020 929-941*
- Resource Allocation for Non-Orthogonal Multiple Access-Enabled Fog Radio Access Networks. *Liu, B.*, +, *TWC June 2020 3867-3878*
- Robust Data Detection for MIMO Systems With One-Bit ADCs: A Reinforcement Learning Approach. *Jeon, Y.*, +, *TWC March 2020 1663-1676*
- Saddlepoint Approximations for Short-Packet Wireless Communications. *Lancho, A.*, +, *TWC July 2020 4831-4846*
- Secrecy Energy Efficiency in Multi-Antenna SWIPT Networks With Dual-Layer PS Receivers. *Lu, Y.*, +, *TWC June 2020 4290-4306*
- Signal Acquisition With Photon-Counting Detector Arrays in Free-Space Optical Communications. *Bashir, M.S.*, +, *TWC April 2020 2181-2195*
- Spectral-Energy Efficiency Trade-Off-Based Beamforming Design for MISO Non-Orthogonal Multiple Access Systems. *Al-Obiedollah, H.M.*, +, *TWC Oct. 2020 6593-6606*
- Statistical Beamforming for FDD Downlink Massive MIMO via Spatial Information Extraction and Beam Selection. *Liu, H.*, +, *TWC July 2020 4617-4631*
- UAV Positioning and Power Control for Two-Way Wireless Relaying. *Li, L.*, +, *TWC Feb. 2020 1008-1024*
- Weighted Sum-Rate Maximization for Reconfigurable Intelligent Surface Aided Wireless Networks. *Guo, H.*, +, *TWC May 2020 3064-3076*
- Array signal processing**
- 1-bit Phase Shifters for Large-Antenna Full-Duplex mmWave Communications. *da Silva, J.M.B.*, +, *TWC Oct. 2020 6916-6931*
- A Case for Digital Beamforming at mmWave. *Dutta, S.*, +, *TWC Feb. 2020 756-770*
- Analysis and Optimization of an Intelligent Reflecting Surface-Assisted System With Interference. *Jia, Y.*, +, *TWC Dec. 2020 8068-8082*
- Channel Estimation for Intelligent Reflecting Surface Assisted Multiuser Communications: Framework, Algorithms, and Analysis. *Wang, Z.*, +, *TWC Oct. 2020 6607-6620*
- Communications and Radar Coexistence in the Massive MIMO Regime: Uplink Analysis. *D'Andrea, C.*, +, *TWC Jan. 2020 19-33*
- Correction to "Cell-Free Massive MIMO Versus Small Cells" [Mar 17 1834-1850]. *Ng, H.Q.*, +, *TWC May 2020 3623-3624*
- Deep Learning Enabled Optimization of Downlink Beamforming Under Per-Antenna Power Constraints: Algorithms and Experimental Demonstration. *Zhang, J.*, +, *TWC June 2020 3738-3752*
- Deep Learning for SVD and Hybrid Beamforming. *Peken, T.*, +, *TWC Oct. 2020 6621-6642*
- Design of Ambient Backscatter Training for Wireless Power Transfer. *Idrees, S.*, +, *TWC Oct. 2020 6316-6330*
- Distributed Pareto Optimal Beamforming for the MISO Multi-Band Multi-Cell Downlink. *Moothedath, V.N.*, +, *TWC Nov. 2020 7196-7209*
- Efficient Beam Sweeping Algorithms and Initial Access Protocols for Millimeter-Wave Networks. *Aykin, I.*, +, *TWC April 2020 2504-2514*
- Elements Failure Robust Compensation in 2D Phased Arrays for DOA Estimation With  $M$ -ary PSK Signals. *Hamici, Z.*, *TWC Feb. 2020 1347-1356*
- Enabling Super-Resolution Parameter Estimation for mm-Wave Channel Sounding. *Wang, R.*, +, *TWC May 2020 3077-3090*

- Energy-Efficient Base Station Association and Beamforming for Multi-Cell Multiuser Systems. *An, J.*, +, *TWC April 2020 2841-2854*
- Experimental Field Trials on MU-MIMO Transmissions for High SHF Wide-Band Massive MIMO in 5G. *Sakai, M.*, +, *TWC April 2020 2196-2207*
- Exploiting Intelligent Reflecting Surfaces in NOMA Networks: Joint Beamforming Optimization. *Mu, X.*, +, *TWC Oct. 2020 6884-6898*
- Exploiting Time Asynchrony in Multi-User Transmit Beamforming. *Ganji, M.*, +, *TWC May 2020 3156-3169*
- Fast Angle-of-Arrival Estimation via Virtual Subarrays in Analog Antenna Array. *Qin, C.*, +, *TWC Oct. 2020 6425-6439*
- Fast Beam Search and Refinement for Millimeter-Wave Massive MIMO Based on Two-Level Phased Arrays. *Noh, S.*, +, *TWC Oct. 2020 6737-6751*
- Federated Learning via Over-the-Air Computation. *Yang, K.*, +, *TWC March 2020 2022-2035*
- Fully-/Partially-Connected Hybrid Beamforming Architectures for mmWave MU-MIMO. *Song, X.*, +, *TWC March 2020 1754-1769*
- Grid-Less Variational Bayesian Channel Estimation for Antenna Array Systems With Low Resolution ADCs. *Zhu, J.*, +, *TWC March 2020 1549-1562*
- Improving Caching Efficiency in Content-Aware C-RAN-Based Cooperative Beamforming: A Joint Design Approach. *Zhao, M.*, +, *TWC June 2020 4125-4140*
- Intelligent Reflecting Surface Assisted Multi-User OFDMA: Channel Estimation and Training Design. *Zheng, B.*, +, *TWC Dec. 2020 8315-8329*
- Joint Antenna Selection and Hybrid Beamformer Design Using Unquantized and Quantized Deep Learning Networks. *Elbir, A.M.*, +, *TWC March 2020 1677-1688*
- Joint Spatial Division and Multiplexing in Massive MIMO: A Neighbor-Based Approach. *Song, Y.*, +, *TWC Nov. 2020 7392-7406*
- Limited Feedback Hybrid Beamforming for Multi-Mode Transmission in Wideband Millimeter Wave Channel. *Kwon, G.*, +, *TWC June 2020 4008-4022*
- Low-Complexity Adaptive Spatial Processing of ESPAR Antenna Systems. *Bucheli Garcia, J.C.*, +, *TWC June 2020 3700-3711*
- Low-Complexity User Selection Algorithms for Multiuser Transmissions in mmWave WLANs. *Aldubaikhy, K.*, +, *TWC April 2020 2397-2410*
- Massive MIMO-NOMA Networks With Successive Sub-Array Activation. *Sousa de Sena, A.*, +, *TWC March 2020 1622-1635*
- Millimeter-Wave Networking in the Sky: A Machine Learning and Mean Field Game Approach for Joint Beamforming and Beam-Steering. *Li, L.*, +, *TWC Oct. 2020 6393-6408*
- Mobile Edge Computing Meets mmWave Communications: Joint Beamforming and Resource Allocation for System Delay Minimization. *Zhao, C.*, +, *TWC April 2020 2382-2396*
- Multi-Antenna Aided Secrecy Beamforming Optimization for Wirelessly Powered HetNets. *Gong, S.*, +, *TWC Aug. 2020 5261-5277*
- Multi-Antenna Coded Content Delivery With Caching: A Low-Complexity Solution. *Zhao, J.*, +, *TWC Nov. 2020 7484-7497*
- Multi-Antenna Interference Management for Coded Caching. *Tolli, A.*, +, *TWC March 2020 2091-2106*
- Multi-Cell Interference Exploitation: Enhancing the Power Efficiency in Cell Coordination. *Wei, Z.*, +, *TWC Jan. 2020 547-562*
- Multi-Mode OAM Radio Waves: Generation, Angle of Arrival Estimation and Reception With UCAs. *Chen, R.*, +, *TWC Oct. 2020 6932-6947*
- Noncoherent Joint Transmission Beamforming for Dense Small Cell Networks: Global Optimality, Efficient Solution and Distributed Implementation. *Vu, Q.*, +, *TWC Sept. 2020 5891-5907*
- Online Optimal Control for Wireless Cooperative Transmission by Ambient RF Powered Sensors. *Liu, T.*, +, *TWC Sept. 2020 6007-6019*
- Optimal Energy Allocation and Task Offloading Policy for Wirelessly Powered Mobile Edge Computing Systems. *Wang, F.*, +, *TWC April 2020 2443-2459*
- Optimizing Downlink Resource Allocation in Multiuser MIMO Networks via Fractional Programming and the Hungarian Algorithm. *Khan, A.A.*, +, *TWC Aug. 2020 5162-5175*
- PCA-Based Channel Estimation and Tracking for Massive MIMO Systems With Uniform Rectangular Arrays. *Wang, A.*, +, *TWC Oct. 2020 6786-6797*
- Performance Analysis of Channel Extrapolation in FDD Massive MIMO Systems. *Rottenberg, F.*, +, *TWC April 2020 2728-2741*
- Power-Efficient Beam Designs for Millimeter Wave Communication Systems. *Zhang, J.*, +, *TWC Feb. 2020 1265-1279*
- Radar-Assisted Predictive Beamforming for Vehicular Links: Communication Served by Sensing. *Liu, F.*, +, *TWC Nov. 2020 7704-7719*
- Reconsidering Design of Multi-Antenna NOMA Systems With Limited Feedback. *Tang, Z.*, +, *TWC March 2020 1519-1534*
- Robust Secure Beamforming Design for Two-User Downlink MISO Rate-Splitting Systems. *Fu, H.*, +, *TWC Dec. 2020 8351-8365*
- Self-Tuning Sectorization: Deep Reinforcement Learning Meets Broadcast Beam Optimization. *Shafiq, R.*, +, *TWC June 2020 4038-4053*
- Signal and System Design for Wireless Power Transfer: Prototype, Experiment and Validation. *Kim, J.*, +, *TWC Nov. 2020 7453-7469*
- Spectral-Energy Efficiency Trade-Off-Based Beamforming Design for MISO Non-Orthogonal Multiple Access Systems. *Al-Obiedollah, H.M.*, +, *TWC Oct. 2020 6593-6606*
- Statistical Beamforming for FDD Downlink Massive MIMO via Spatial Information Extraction and Beam Selection. *Liu, H.*, +, *TWC July 2020 4617-4631*
- Transmit Antenna Selection and Beamformer Design for Secure Spatial Modulation With Rough CSI of Eve. *Xia, G.*, +, *TWC July 2020 4643-4656*
- Unequally Sub-Connected Architecture for Hybrid Beamforming in Massive MIMO Systems. *Nguyen, N.T.*, +, *TWC Feb. 2020 1127-1140*
- User-Centric 5G Cellular Networks: Resource Allocation and Comparison With the Cell-Free Massive MIMO Approach. *Buzzi, S.*, +, *TWC Feb. 2020 1250-1264*
- Weighted Sum-Rate Maximization for Reconfigurable Intelligent Surface Aided Wireless Networks. *Guo, H.*, +, *TWC May 2020 3064-3076*
- Wirelessly-Powered Sensor Networks: Power Allocation for Channel Estimation and Energy Beamforming. *Du, R.*, +, *TWC May 2020 2987-3002*
- Artificial intelligence**
- Edge AI: On-Demand Accelerating Deep Neural Network Inference via Edge Computing. *Li, E.*, +, *TWC Jan. 2020 447-457*
- Artificial neural networks**
- Age of Information Driven Cache Content Update Scheduling for Dynamic Contents in Heterogeneous Networks. *Ma, M.*, +, *TWC Dec. 2020 8427-8441*
- Artificial satellites**
- Reinforcement Learning Based Capacity Management in Multi-Layer Satellite Networks. *Jiang, C.*, +, *TWC July 2020 4685-4699*
- Atmospheric modeling**
- 3D UAV Trajectory Design and Frequency Band Allocation for Energy-Efficient and Fair Communication: A Deep Reinforcement Learning Approach. *Ding, R.*, +, *TWC Dec. 2020 7796-7809*
- Air-to-Air Communications Beyond 5G: A Novel 3D CoMP Transmission Scheme. *Li, Y.*, +, *TWC Nov. 2020 7324-7338*
- Atmospheric turbulence**
- Tractable Approach to MmWaves Cellular Analysis With FSO Backhauling Under Feedback Delay and Hardware Limitations. *Balti, E.*, +, *TWC Jan. 2020 410-422*
- Vertical Underwater Visible Light Communication Links: Channel Modeling and Performance Analysis. *Elamassie, M.*, +, *TWC Oct. 2020 6948-6959*
- Augmented reality**
- Optimizing the Learning Performance in Mobile Augmented Reality Systems With CNN. *He, Y.*, +, *TWC Aug. 2020 5333-5344*
- Authentication**
- A Secure Group-Oriented Device-to-Device Authentication Protocol for 5G Wireless Networks. *Shang, Z.*, +, *TWC Nov. 2020 7021-7032*
- Authorization**
- Fuzzy Learning for Multi-Dimensional Adaptive Physical Layer Authentication: A Compact and Robust Approach. *Fang, H.*, +, *TWC Aug. 2020 5420-5432*
- Automatic repeat request**
- Multi-Layer HARQ With Delayed Feedback. *Khreis, A.*, +, *TWC Sept. 2020 6224-6237*
- Real-Time Remote Estimation With Hybrid ARQ in Wireless Networked Control. *Huang, K.*, +, *TWC May 2020 3490-3504*

**Autonomous aerial vehicles**

- A UAV-Mounted Free Space Optical Communication: Trajectory Optimization for Flight Time. *Lee, J.*, +, *TWC March 2020 1610-1621*
- Age of Information in a Cellular Internet of UAVs: Sensing and Communication Trade-Off Design. *Zhang, S.*, +, *TWC Oct. 2020 6578-6592*
- Analytical Channel Models for Millimeter Wave UAV Networks Under Hovering Fluctuations. *Dabiri, M.T.*, +, *TWC April 2020 2868-2883*
- Cell-Edge User Offloading via Flying UAV in Non-Uniform Heterogeneous Cellular Networks. *Wu, H.*, +, *TWC April 2020 2411-2426*
- Efficiency Maximization for UAV-Enabled Mobile Relaying Systems With Laser Charging. *Zhao, M.*, +, *TWC May 2020 3257-3272*
- Efficient Local Map Search Algorithms for the Placement of Flying Relays. *Chen, J.*, +, *TWC Feb. 2020 1305-1319*
- Energy-Aware 3D Unmanned Aerial Vehicle Deployment for Network Throughput Optimization. *Chou, S.*, +, *TWC Jan. 2020 563-578*
- Fundamental Rate Limits of UAV-Enabled Multiple Access Channel With Trajectory Optimization. *Li, P.*, +, *TWC Jan. 2020 458-474*
- Hybrid Offline-Online Design for UAV-Enabled Data Harvesting in Probabilistic LoS Channels. *You, C.*, +, *TWC June 2020 3753-3768*
- Joint 3D Maneuver and Power Adaptation for Secure UAV Communication With CoMP Reception. *Yao, J.*, +, *TWC Oct. 2020 6992-7006*
- Joint Cache Placement, Flight Trajectory, and Transmission Power Optimization for Multi-UAV Assisted Wireless Networks. *Ji, J.*, +, *TWC Aug. 2020 5389-5403*
- Low-Complexity Joint Resource Allocation and Trajectory Design for UAV-Aided Relay Networks With the Segmented Ray-Tracing Channel Model. *Hu, Q.*, +, *TWC Sept. 2020 6179-6195*
- Millimeter-Wave Networking in the Sky: A Machine Learning and Mean Field Game Approach for Joint Beamforming and Beam-Steering. *Li, L.*, +, *TWC Oct. 2020 6393-6408*
- Modeling and Analysis of Data Harvesting Architecture Based on Unmanned Aerial Vehicles. *Choi, C.*, +, *TWC March 2020 1825-1838*
- Multi-Agent Reinforcement Learning-Based Resource Allocation for UAV Networks. *Cui, J.*, +, *TWC Feb. 2020 729-743*
- Multi-layer Unmanned Aerial Vehicle Networks: Modeling and Performance Analysis. *Kim, D.*, +, *TWC Jan. 2020 325-339*
- On the Secrecy of UAV Systems With Linear Trajectory. *Pan, G.*, +, *TWC Oct. 2020 6277-6288*
- Optimization for Full-Duplex Rotary-Wing UAV-Enabled Wireless-Powered IoT Networks. *Ye, H.*, +, *TWC July 2020 5057-5072*
- Robust Superimposed Training Optimization for UAV Assisted Communication Systems. *Gong, S.*, +, *TWC March 2020 1704-1721*
- Secure 3D Mobile UAV Relaying for Hybrid Satellite-Terrestrial Networks. *Sharma, P.K.*, +, *TWC April 2020 2770-2784*
- Secure UAV-Enabled Communication Using Han-Kobayashi Signaling. *Sheng, Z.*, +, *TWC May 2020 2905-2919*
- Self-Organizing Slot Access for Neighboring Cooperation in UAV Swarms. *Yao, K.*, +, *TWC April 2020 2800-2812*
- UAV Positioning and Power Control for Two-Way Wireless Relaying. *Li, L.*, +, *TWC Feb. 2020 1008-1024*
- UAV Trajectory Planning for Data Collection from Time-Constrained IoT Devices. *Samir, M.*, +, *TWC Jan. 2020 34-46*
- Utility-Aware Optimal Resource Allocation Protocol for UAV-Assisted Small Cells With Heterogeneous Coverage Demands. *Lohan, P.*, +, *TWC Feb. 2020 1221-1236*

**Autonomous underwater vehicles**

- AUV-Aided Localization of Underwater Acoustic Devices Based on Doppler Shift Measurements. *Gong, Z.*, +, *TWC April 2020 2226-2239*

**Autoregressive processes**

- Machine Learning-Based Channel Prediction in Massive MIMO With Channel Aging. *Yuan, J.*, +, *TWC May 2020 2960-2973*

**Auxiliary transmitters**

- Analog Self-Interference Cancellation Using Auxiliary Transmitter Considering IQ Imbalance and Amplifier Nonlinearity. *Fukui, T.*, +, *TWC Nov. 2020 7439-7452*

**AWGN channels**

- A Maximin Optimal Online Power Control Policy for Energy Harvesting Communications. *Yang, S.*, +, *TWC Oct. 2020 6708-6720*

- Deep Learning-Based End-to-End Wireless Communication Systems With Conditional GANs as Unknown Channels. *Ye, H.*, +, *TWC May 2020 3133-3143*

- Design and Performance Analysis of a New  $M$ -Ary Differential Chaos Shift Keying With Index Modulation. *Cai, X.*, +, *TWC Feb. 2020 846-858*

- Enumerative Sphere Shaping for Wireless Communications With Short Packets. *Gultekin, Y.C.*, +, *TWC Feb. 2020 1098-1112*

- Hybrid Constellations for Dual-Polarized Wireless Communications. *Wu, X.*, +, *TWC Aug. 2020 5321-5332*

- On the Error Rate of the LoRa Modulation With Interference. *Afisiadis, O.*, +, *TWC Feb. 2020 1292-1304*

- Optimal Power Adaptation in Covert Communication With an Uninformed Jammer. *Li, K.*, +, *TWC May 2020 3463-3473*

- Refined Asymptotics for a Block Fading Channel Under Energy Harvesting and Fixed Power Constraints. *Deekshith, P.K.*, +, *TWC April 2020 2558-2569*

- Signal Design for Frequency-Phase Keying. *Kundu, N.K.*, +, *TWC June 2020 4067-4079*

**B****Backscatter**

- Backscatter-Aided Cooperative Transmission in Wireless-Powered Heterogeneous Networks. *Kim, S.H.*, +, *TWC Nov. 2020 7309-7323*

- Design of Ambient Backscatter Training for Wireless Power Transfer. *Idrees, S.*, +, *TWC Oct. 2020 6316-6330*

- Intelligent User Association for Symbiotic Radio Networks Using Deep Reinforcement Learning. *Zhang, Q.*, +, *TWC July 2020 4535-4548*

- Transceiver Design and Signal Detection in Backscatter Communication Systems With Multiple-Antenna Tags. *Chen, C.*, +, *TWC May 2020 3273-3288*

**Backtracking**

- Towards Demand-Driven Dynamic Incentive for Mobile Crowdsensing Systems. *Hu, J.*, +, *TWC July 2020 4907-4918*

**Bandwidth allocation**

- A Stochastic Optimization Framework for Channel Bonding in Wireless LANs Under Demand Uncertainty. *Nabil, A.*, +, *TWC Nov. 2020 7528-7542*

- Accommodating LAA Within IEEE 802.11ax WiFi Networks for Enhanced Coexistence. *Chen, Q.*, +, *TWC Nov. 2020 7621-7636*

- Aggregated VLC-RF Systems: Achievable Rates, Optimal Power Allocation, and Energy Efficiency. *Ma, S.*, +, *TWC Nov. 2020 7265-7278*

- Bandwidth Gain From Mobile Edge Computing and Caching in Wireless Multicast Systems. *Sun, Y.*, +, *TWC June 2020 3992-4007*

- Cyclic Block-Spreading Direct Discovery for D2D Networks. *Chang, W.*, +, *TWC Nov. 2020 7610-7620*

- Eigenvalue-Decomposition-Precoded Ultra-Dense Non-Orthogonal Frequency-Division Multiplexing. *Osaki, S.*, +, *TWC Dec. 2020 8165-8178*

- Low-Complexity Joint Resource Allocation and Trajectory Design for UAV-Aided Relay Networks With the Segmented Ray-Tracing Channel Model. *Hu, Q.*, +, *TWC Sept. 2020 6179-6195*

- Mathematical Models for the Operation of a Cell With Bandwidth Sharing and Moving Users. *Kim, C.*, +, *TWC Feb. 2020 744-755*

- Multi-Hop Wireless Optical Backhauling for LiFi Attocell Networks: Bandwidth Scheduling and Power Control. *Kazemi, H.*, +, *TWC Sept. 2020 5676-5691*

**Base stations**

- Efficient Scheduling for the Massive Random Access Gaussian Channel. *Kasper Facenda, G.*, +, *TWC Nov. 2020 7598-7609*

- Joint Antenna Detection and Bayesian Channel Estimation for Non-Coherent User Terminals. *Becirovic, E.*, +, *TWC Nov. 2020 7081-7096*

- Wireless Networks With Cache-Enabled and Backhaul-Limited Aerial Base Stations. *Kalantari, E.*, +, *TWC Nov. 2020 7363-7376*

**Batteries**

- Battery-Level-Triggered Transmit Power Control for Energy Harvesting Communications. *Tang, S.*, +, *TWC Dec. 2020 8011-8023*

**Bayes methods**

- A Jamming Game With Rival-Type Uncertainty. *Garnaev, A.*, +, *TWC Aug. 2020 5359-5372*
- Expectation Propagation Detector for Extra-Large Scale Massive MIMO. *Wang, H.*, +, *TWC March 2020 2036-2051*
- Grid-Less Variational Bayesian Channel Estimation for Antenna Array Systems With Low Resolution ADCs. *Zhu, J.*, +, *TWC March 2020 1549-1562*
- Millimeter-Wave Beam Search With Iterative Deactivation and Beam Shifting. *Liu, C.*, +, *TWC Aug. 2020 5117-5131*
- New Results on Joint Channel and Impulsive Noise Estimation and Tracking in Underwater Acoustic OFDM Systems. *Wang, S.*, +, *TWC April 2020 2601-2612*
- Robust Recovery of Structured Sparse Signals With Uncertain Sensing Matrix: A Turbo-VBI Approach. *Liu, A.*, +, *TWC May 2020 3185-3198*
- Time-Varying Downlink Channel Tracking for Quantized Massive MIMO Networks. *Ma, J.*, +, *TWC Oct. 2020 6721-6736*

**Beam steering**

- Low-Complexity Adaptive Spatial Processing of ESPAR Antenna Systems. *Bucheli Garcia, J.C.*, +, *TWC June 2020 3700-3711*
- Millimeter-Wave Networking in the Sky: A Machine Learning and Mean Field Game Approach for Joint Beamforming and Beam-Steering. *Li, L.*, +, *TWC Oct. 2020 6393-6408*
- Multi-Mode OAM Radio Waves: Generation, Angle of Arrival Estimation and Reception With UCAs. *Chen, R.*, +, *TWC Oct. 2020 6932-6947*

**Belief propagation**

- A Network Linear Block Coding Approach to Selective Detect-and-Forward Multi-Way Relaying With Differential Modulation. *Hou, X.*, +, *TWC Sept. 2020 5749-5764*

**Big Data**

- Over-the-Air Computation Systems: Optimization, Analysis and Scaling Laws. *Liu, W.*, +, *TWC Aug. 2020 5488-5502*

**Binary codes**

- A Deep Learning Approach to Universal Binary Visible Light Communication Transceiver. *Lee, H.*, +, *TWC Feb. 2020 956-969*

**Biological system modeling**

- 3D UAV Trajectory Design and Frequency Band Allocation for Energy-Efficient and Fair Communication: A Deep Reinforcement Learning Approach. *Ding, R.*, +, *TWC Dec. 2020 7796-7809*

**Biomedical communication**

- Spectrum Occupancy and Interference Model Based on Network Experimentation in Hospital. *Mucchi, L.*, +, *TWC Sept. 2020 5666-5675*

**Bit error rate**

- Extended  $\eta$ - $\mu$  Fading Models. *de Lima Tejerina, G.R.*, +, *TWC Dec. 2020 8153-8164*
- Super-Mode OFDM With Index Modulation. *Dogukan, A.T.*, +, *TWC Nov. 2020 7353-7362*
- Unified Performance Analysis of Multi-Hop FSO Systems Over Double Generalized Gamma Turbulence Channels With Pointing Errors. *Ashrafzadeh, B.*, +, *TWC Nov. 2020 7732-7746*

**Blind source separation**

- Novel Three-Hierarchy Multiple-Tag-Recognition Technique for Next Generation RFID Systems. *Pu, L.*, +, *TWC Feb. 2020 1237-1249*
- Supervised and Semi-Supervised Learning for MIMO Blind Detection With Low-Resolution ADCs. *Nguyen, L.V.*, +, *TWC April 2020 2427-2442*

**Block codes**

- A Network Linear Block Coding Approach to Selective Detect-and-Forward Multi-Way Relaying With Differential Modulation. *Hou, X.*, +, *TWC Sept. 2020 5749-5764*
- Optimum Performance of Short Block Length Codes Under Multivariate Stationary Rayleigh Fading. *Mestre, X.*, +, *TWC March 2020 2122-2136*
- Two-Stage ICI Suppression in the Downlink of Asynchronous URLLC. *Zeng, C.*, +, *TWC April 2020 2785-2799*

**Bluetooth**

- A Downscaled Faster-RCNN Framework for Signal Detection and Time-Frequency Localization in Wideband RF Systems. *Prasad, K.N.R.S.V.*, +, *TWC July 2020 4847-4862*
- Spectrum Occupancy and Interference Model Based on Network Experimentation in Hospital. *Mucchi, L.*, +, *TWC Sept. 2020 5666-5675*

**Bonding**

- A Deep Probabilistic Control Machinery for Auto-Configuration of WiFi Link Parameters. *Karmakar, R.*, +, *TWC Dec. 2020 8330-8340*
- A Stochastic Optimization Framework for Channel Bonding in Wireless LANs Under Demand Uncertainty. *Nabil, A.*, +, *TWC Nov. 2020 7528-7542*

**Broadband networks**

- Analysis of the On-Demand Spectrum Access Architecture for CBRS Cognitive Radio Networks. *Xin, C.*, +, *TWC Feb. 2020 970-978*
- Multiservice-Based Network Slicing Orchestration With Impatient Tenants. *Han, B.*, +, *TWC July 2020 5010-5024*

**Broadcast channels**

- Degrees of Freedom of Rank-Deficient  $2 \times 2 \times 2$  MIMO Interference Networks. *Wang, Q.*, +, *TWC March 2020 1453-1463*
- Max-Min Fairness of  $K$ -User Cooperative Rate-Splitting in MISO Broadcast Channel With User Relaying. *Mao, Y.*, +, *TWC Oct. 2020 6362-6376*
- Multi-Antenna Interference Management for Coded Caching. *Tolli, A.*, +, *TWC March 2020 2091-2106*
- Overhead-Performance Tradeoff for MISO Broadcast Channels With Zero-Forcing Precoder. *Liu, G.*, +, *TWC Feb. 2020 995-1007*

**Broadcast communication**

- Cost Sharing Games for Energy-Efficient Multi-Hop Broadcast in Wireless Networks. *Mousavi, M.*, +, *TWC Jan. 2020 310-324*
- On Data Dissemination Enhanced by Network Coded Device-to-Device Communications. *Li, Y.*, +, *TWC June 2020 3963-3976*
- Scheduling to Minimize Age of Synchronization in Wireless Broadcast Networks With Random Updates. *Tang, H.*, +, *TWC June 2020 4023-4037*
- Self-Tuning Sectorization: Deep Reinforcement Learning Meets Broadcast Beam Optimization. *Shafin, R.*, +, *TWC June 2020 4038-4053*

**Buffer storage**

- Adaptive Video Streaming With Edge Caching and Video Transcoding Over Software-Defined Mobile Networks: A Deep Reinforcement Learning Approach. *Luo, J.*, +, *TWC March 2020 1577-1592*

**C****Cache storage**

- A Non-Stationary Bandit-Learning Approach to Energy-Efficient Femto-Caching With Rateless-Coded Transmission. *Maghsudi, S.*, +, *TWC July 2020 5040-5056*
- Adaptive Video Streaming With Edge Caching and Video Transcoding Over Software-Defined Mobile Networks: A Deep Reinforcement Learning Approach. *Luo, J.*, +, *TWC March 2020 1577-1592*
- Bandwidth Gain From Mobile Edge Computing and Caching in Wireless Multicast Systems. *Sun, Y.*, +, *TWC June 2020 3992-4007*
- Cache-Aided Combination Networks With Interference. *Elkordy, A.R.*, +, *TWC Jan. 2020 148-161*
- Cache-Aided NOMA Mobile Edge Computing: A Reinforcement Learning Approach. *Yang, Z.*, +, *TWC Oct. 2020 6899-6915*
- Caching at Base Stations With Multi-Cluster Multicast Wireless Backhaul via Accelerated First-Order Algorithms. *Li, Y.*, +, *TWC May 2020 2920-2933*
- Caching With Finite Buffer and Request Delay Information: A Markov Decision Process Approach. *Hui, H.*, +, *TWC Aug. 2020 5148-5161*
- Collaborative Multi-Agent Multi-Armed Bandit Learning for Small-Cell Caching. *Xu, X.*, +, *TWC April 2020 2570-2585*
- Deep Reinforcement Learning (DRL)-Based Device-to-Device (D2D) Caching With Blockchain and Mobile Edge Computing. *Zhang, R.*, +, *TWC Oct. 2020 6469-6485*
- Delay-Minimized Edge Caching in Heterogeneous Vehicular Networks: A Matching-Based Approach. *Wu, H.*, +, *TWC Oct. 2020 6409-6424*
- Hierarchical Soft Slicing to Meet Multi-Dimensional QoS Demand in Cache-Enabled Vehicular Networks. *Zhang, S.*, +, *TWC March 2020 2150-2162*
- Individual Preference Aware Caching Policy Design in Wireless D2D Networks. *Lee, M.*, +, *TWC Aug. 2020 5589-5604*

- Joint Cache Placement, Flight Trajectory, and Transmission Power Optimization for Multi-UAV Assisted Wireless Networks. *Ji, J.*, +, *TWC Aug. 2020 5389-5403*
- Joint Optimization of Service Caching Placement and Computation Offloading in Mobile Edge Computing Systems. *Bi, S.*, +, *TWC July 2020 4947-4963*
- Multidimensional Cooperative Caching in CoMP-Integrated Ultra-Dense Cellular Networks. *Lin, P.*, +, *TWC March 2020 1977-1989*
- Proactive Edge Caching for Video on Demand With Quality Adaptation. *Han, S.*, +, *TWC Jan. 2020 218-234*
- Rate-Distortion-Memory Trade-Offs in Heterogeneous Caching Networks. *Hassanzadeh, P.*, +, *TWC May 2020 3019-3033*
- Scalable Video Transmission in Cache-Aided Device-to-Device Networks. *Ma, J.*, +, *TWC June 2020 4247-4261*
- Stochastic Design and Analysis of User-Centric Wireless Cloud Caching Networks. *Azimi-Abarghouyi, S.M.*, +, *TWC July 2020 4978-4993*
- Trace-Driven QoE-Aware Proactive Caching for Mobile Video Streaming in Metropolis. *Huang, D.*, +, *TWC Jan. 2020 62-76*
- Tradeoff Between Ergodic Rate and Delivery Latency in Fog Radio Access Networks. *Yin, B.*, +, *TWC April 2020 2240-2251*
- Ultra Dense Edge Caching Networks With Arbitrary User Spatial Density. *Gruppi, E.*, +, *TWC July 2020 4363-4377*
- Calibration**
- Calibration-Free Indoor Positioning Using Crowdsourced Data and Multidimensional Scaling. *Zhao, Y.*, +, *TWC March 2020 1770-1785*
- Dictionary Learning for Channel Estimation in Hybrid Frequency-Selective mmWave MIMO Systems. *Xie, H.*, +, *TWC Nov. 2020 7407-7422*
- Enabling Super-Resolution Parameter Estimation for mm-Wave Channel Sounding. *Wang, R.*, +, *TWC May 2020 3077-3090*
- Methodology for Benchmarking Radio-Frequency Channel Sounders Through a System Model. *Gentile, C.*, +, *TWC Oct. 2020 6504-6519*
- Reciprocity Calibration of TDD MIMO Channel for Interference Alignment. *Zhao, H.*, +, *TWC May 2020 3505-3516*
- Cameras**
- Cooperative MIMO-OFDM-Based Exposure-Path Prevention Over 3D Clustered Wireless Camera Sensor Networks. *Wang, J.*, +, *TWC Jan. 2020 4-18*
- Carrier transmission on power lines**
- Dedicated Energy Harvesting in Concatenated Hybrid PLC-Wireless Systems. *Fernandes, V.*, +, *TWC June 2020 3839-3853*
- Hybrid Power Line/Wireless Systems: An Optimal Power Allocation Perspective. *Filomeno, M.d.L.*, +, *TWC Oct. 2020 6289-6300*
- Cascading style sheets**
- Age of Information Driven Cache Content Update Scheduling for Dynamic Contents in Heterogeneous Networks. *Ma, M.*, +, *TWC Dec. 2020 8427-8441*
- Cooperative Spectrum Sensing Optimization in Energy-Harvesting Cognitive Radio Networks. *Liu, X.*, +, *TWC Nov. 2020 7663-7676*
- Cellular networks**
- Cache-Enabling UAV Communications: Network Deployment and Resource Allocation. *Zhang, T.*, +, *TWC Nov. 2020 7470-7483*
- Energy-Efficient Data Uploading for Cellular-Connected UAV Systems. *Zhan, C.*, +, *TWC Nov. 2020 7279-7292*
- Load-Driven Dynamic User Assignment Algorithms for Dense Cellular Networks. *Post, B.*, +, *TWC Nov. 2020 7677-7689*
- Spatial Spectrum Sensing in Uplink Two-Tier User-Centric Deployed Het-Nets. *Shang, B.*, +, *TWC Dec. 2020 7957-7972*
- Cellular radio**
- 1-bit Phase Shifters for Large-Antenna Full-Duplex mmWave Communications. *da Silva, J.M.B.*, +, *TWC Oct. 2020 6916-6931*
- A Case for Digital Beamforming at mmWave. *Dutta, S.*, +, *TWC Feb. 2020 756-770*
- A Dynamic Clustering Algorithm for Multi-Point Transmissions in Mission-Critical Communications. *Daher, A.*, +, *TWC July 2020 4934-4946*
- A Learning-Based Pre-Allocation Scheme for Low-Latency Access in Industrial Wireless Networks. *Li, M.*, +, *TWC Jan. 2020 650-664*
- Adaptive Resource Allocation in Future Wireless Networks With Blockchain and Mobile Edge Computing. *Guo, F.*, +, *TWC March 2020 1689-1703*
- Analysis of 5G Radio Access Protocols for Uplink URLLC in a Connection-Less Mode. *Centenaro, M.*, +, *TWC May 2020 3104-3117*
- Antenna Selection Strategy for Energy Efficiency Maximization in Uplink OFDMA Networks: A Multi-Objective Approach. *Khalili, A.*, +, *TWC Jan. 2020 595-609*
- Anywhere Decoding: Low-Overhead Uplink Interference Management for Wireless Networks. *Pezeshki, H.*, +, *TWC June 2020 4095-4108*
- Asynchronous Downlink Massive MIMO Networks: A Stochastic Geometry Approach. *Sadeghabadi, E.*, +, *TWC Jan. 2020 579-594*
- Broadband Analog Aggregation for Low-Latency Federated Edge Learning. *Zhu, G.*, +, *TWC Jan. 2020 491-506*
- Caching at Base Stations With Multi-Cluster Multicast Wireless Backhaul via Accelerated First-Order Algorithms. *Li, Y.*, +, *TWC May 2020 2920-2933*
- Cell-Edge User Offloading via Flying UAV in Non-Uniform Heterogeneous Cellular Networks. *Wu, H.*, +, *TWC April 2020 2411-2426*
- Cell-Free Massive MIMO for Wireless Federated Learning. *Vu, T.T.*, +, *TWC Oct. 2020 6377-6392*
- Communications and Radar Coexistence in the Massive MIMO Regime: Uplink Analysis. *D'Andrea, C.*, +, *TWC Jan. 2020 19-33*
- CoMP-NOMA in the SWIPT Networks. *Hedayati, M.*, +, *TWC July 2020 4549-4562*
- Cooperative Computation Offloading in FiWi Enhanced 4G HetNets Using Self-Organizing MEC. *Ebrahimzadeh, A.*, +, *TWC July 2020 4480-4493*
- Coordinated Multi-Point Transmission: A Poisson-Delaunay Triangulation Based Approach. *Li, Y.*, +, *TWC May 2020 2946-2959*
- Coverage and Rate Analysis of Downlink Cellular Vehicle-to-Everything (C-V2X) Communication. *Chetlur, V.V.*, +, *TWC March 2020 1738-1753*
- Delay-Minimized Edge Caching in Heterogeneous Vehicular Networks: A Matching-Based Approach. *Wu, H.*, +, *TWC Oct. 2020 6409-6424*
- Design and Analysis of FD MIMO Cellular Systems in Coexistence With MIMO Radar. *Biswas, S.*, +, *TWC July 2020 4727-4743*
- Downlink Analysis of NOMA-Enabled Cellular Networks With 3GPP-Inspired User Ranking. *Mankar, P.D.*, +, *TWC June 2020 3796-3811*
- Edge and Central Cloud Computing: A Perfect Pairing for High Energy Efficiency and Low-Latency. *Hu, X.*, +, *TWC Feb. 2020 1070-1083*
- Efficient Local Map Search Algorithms for the Placement of Flying Relays. *Chen, J.*, +, *TWC Feb. 2020 1305-1319*
- Energy Efficiency Optimization for Downlink Massive MIMO With Statistical CSIT. *You, L.*, +, *TWC April 2020 2684-2698*
- Energy Minimization of Multi-Cell Cognitive Capacity Harvesting Networks With Neighbor Resource Sharing. *Lin, S.*, +, *TWC May 2020 3199-3213*
- Energy-Aware 3D Unmanned Aerial Vehicle Deployment for Network Throughput Optimization. *Chou, S.*, +, *TWC Jan. 2020 563-578*
- Energy-Efficient Base Station Association and Beamforming for Multi-Cell Multiuser Systems. *An, J.*, +, *TWC April 2020 2841-2854*
- Freshness-Aware Seed Selection for Offloading Cellular Traffic Through Opportunistic Mobile Networks. *Zhou, H.*, +, *TWC April 2020 2658-2669*
- Geometry-Based Analysis of Optimal Handover Parameters for Self-Organizing Networks. *Nguyen, M.*, +, *TWC April 2020 2670-2683*
- IDFT-VFDM for Supplementary Uplink and LTE-NR Co-Existence. *Feng, Q.*, +, *TWC May 2020 3435-3448*
- Impartial SWIPT-Assisted User Cooperation Schemes. *Chen, W.*, +, *TWC May 2020 3361-3375*
- Information-Centric Grant-Free Access for IoT Fog Networks: Edge vs. Cloud Detection and Learning. *Kassab, R.*, +, *TWC Oct. 2020 6347-6361*
- Intelligent User Association for Symbiotic Radio Networks Using Deep Reinforcement Learning. *Zhang, Q.*, +, *TWC July 2020 4535-4548*
- Interference Cancellation Based Channel Estimation for Massive MIMO Systems With Time Shifted Pilots. *Sun, B.*, +, *TWC Oct. 2020 6826-6843*
- Joint Access and Backhaul Resource Management in Satellite-Drone Networks: A Competitive Market Approach. *Hu, Y.*, +, *TWC June 2020 3908-3923*
- Joint C-OMA and C-NOMA Wireless Backhaul Scheduling in Heterogeneous Ultra Dense Networks. *Zhang, Q.*, +, *TWC Feb. 2020 874-887*

- Joint Cache Placement, Flight Trajectory, and Transmission Power Optimization for Multi-UAV Assisted Wireless Networks. *Ji, J.*, +, *TWC Aug. 2020 5389-5403*
- Joint Frame Design and Resource Allocation for Ultra-Reliable and Low-Latency Vehicular Networks. *Yang, H.*, +, *TWC May 2020 3607-3622*
- Joint Power Allocation and Load Balancing Optimization for Energy-Efficient Cell-Free Massive MIMO Networks. *Van Chien, T.*, +, *TWC Oct. 2020 6798-6812*
- Joint User Selection, Power Allocation, and Precoding Design With Imperfect CSIT for Multi-Cell MU-MIMO Downlink Systems. *Choi, J.*, +, *TWC Jan. 2020 162-176*
- Leveraging the Power of Prediction: Predictive Service Placement for Latency-Sensitive Mobile Edge Computing. *Ma, H.*, +, *TWC Oct. 2020 6454-6468*
- Low-Resolution ADC Quantized Full-Duplex Massive MIMO-Enabled Wireless Backhaul in Heterogeneous Networks Over Rician Channels. *Anokye, P.*, +, *TWC Aug. 2020 5503-5517*
- Low-Resolution Limited-Feedback NOMA for mmWave Communications. *Yapici, Y.*, +, *TWC Aug. 2020 5433-5446*
- Massive MIMO Asymptotics for Ray-Based Propagation Channels. *Li, S.*, +, *TWC June 2020 3977-3991*
- Massive MIMO Channel Estimation With an Untrained Deep Neural Network. *Balevi, E.*, +, *TWC March 2020 2079-2090*
- Massive MIMO-NOMA Networks With Successive Sub-Array Activation. *Sousa de Sena, A.*, +, *TWC March 2020 1622-1635*
- Massive Uncoordinated Access With Massive MIMO: A Dictionary Learning Approach. *Han, Y.*, +, *TWC Feb. 2020 1320-1332*
- Mathematical Models for the Operation of a Cell With Bandwidth Sharing and Moving Users. *Kim, C.*, +, *TWC Feb. 2020 744-755*
- Mixed-Numerology Signals Transmission and Interference Cancellation for Radio Access Network Slicing. *Yang, B.*, +, *TWC Aug. 2020 5132-5147*
- Multi-Agent Reinforcement Learning for Adaptive User Association in Dynamic mmWave Networks. *Sana, M.*, +, *TWC Oct. 2020 6520-6534*
- Multi-Antenna Interference Management for Coded Caching. *Tolli, A.*, +, *TWC March 2020 2091-2106*
- Multi-Cell Interference Exploitation: Enhancing the Power Efficiency in Cell Coordination. *Wei, Z.*, +, *TWC Jan. 2020 547-562*
- Multi-Hop Wireless Optical Backhauling for LiFi Attocell Networks: Bandwidth Scheduling and Power Control. *Kazemi, H.*, +, *TWC Sept. 2020 5676-5691*
- Multicell MIMO Communications Relying on Intelligent Reflecting Surfaces. *Pan, C.*, +, *TWC Aug. 2020 5218-5233*
- Multidimensional Cooperative Caching in CoMP-Integrated Ultra-Dense Cellular Networks. *Lin, P.*, +, *TWC March 2020 1977-1989*
- Multipath Estimating Delay Lock Loop for LTE Signal TOA Estimation in Indoor and Urban Environments. *Wang, P.*, +, *TWC Aug. 2020 5518-5530*
- NOMA-Based D2D-Enabled Traffic Offloading for 5G and Beyond Networks Employing Licensed and Unlicensed Access. *Sun, M.*, +, *TWC June 2020 4109-4124*
- Noncoherent Joint Transmission Beamforming for Dense Small Cell Networks: Global Optimality, Efficient Solution and Distributed Implementation. *Vu, Q.*, +, *TWC Sept. 2020 5891-5907*
- On Optimal Orchestration of Virtualized Cellular Networks With Downlink Rate Coverage Probability Constraints. *Chatterjee, S.*, +, *TWC July 2020 4378-4393*
- On the Energy Efficiency of Heterogeneous Cellular Networks With Renewable Energy Sources—A Stochastic Geometry Framework. *Lam, T.T.*, +, *TWC Oct. 2020 6752-6770*
- Optimal Mode Selection by Cross-Layer Decomposition in D2D Cellular Networks. *Klugel, M.*, +, *TWC April 2020 2528-2542*
- Optimal Task Offloading and Resource Allocation in Mobile-Edge Computing With Inter-User Task Dependency. *Yan, J.*, +, *TWC Jan. 2020 235-250*
- Optimizing Downlink Resource Allocation in Multiuser MIMO Networks via Fractional Programming and the Hungarian Algorithm. *Khan, A.A.*, +, *TWC Aug. 2020 5162-5175*
- Outage Performance and Average Rate for Large-Scale Millimeter-Wave NOMA Networks. *Kusaladharma, S.*, +, *TWC Feb. 2020 1280-1291*
- Performance Analysis and Optimization of Cooperative Satellite-Aerial-Terrestrial Systems. *Pan, G.*, +, *TWC Oct. 2020 6693-6707*
- Performance Analysis of Ultra-Dense Networks With Regularly Deployed Base Stations. *Filo, M.*, +, *TWC May 2020 3530-3545*
- Performance Characterization of Canonical Mobility Models in Drone Cellular Networks. *Banagar, M.*, +, *TWC July 2020 4994-5009*
- Power Allocation for D2D Communications With SWIPT. *Huang, J.*, +, *TWC April 2020 2308-2320*
- Power Allocation in Multi-User Cellular Networks: Deep Reinforcement Learning Approaches. *Meng, F.*, +, *TWC Oct. 2020 6255-6267*
- Prediction and Communication Co-Design for Ultra-Reliable and Low-Latency Communications. *Hou, Z.*, +, *TWC Feb. 2020 1196-1209*
- Proactive Edge Caching for Video on Demand With Quality Adaptation. *Han, S.*, +, *TWC Jan. 2020 218-234*
- Recycling Cellular Energy for Self-Sustainable IoT Networks: A Spatiotemporal Study. *Benkhelifa, F.*, +, *TWC April 2020 2699-2712*
- Reinforcement Learning-Based Downlink Interference Control for Ultra-Dense Small Cells. *Xiao, L.*, +, *TWC Jan. 2020 423-434*
- Reliable Detection of Unknown Cell-Edge Users via Canonical Correlation Analysis. *Ibrahim, M.S.*, +, *TWC June 2020 4170-4182*
- Robust Non-Orthogonal Multiple Access for Aerial and Ground Users. *New, W.K.*, +, *TWC July 2020 4793-4805*
- Robust Superimposed Training Optimization for UAV Assisted Communication Systems. *Gong, S.*, +, *TWC March 2020 1704-1721*
- Self-Tuning Sectorization: Deep Reinforcement Learning Meets Broadcast Beam Optimization. *Shafin, R.*, +, *TWC June 2020 4038-4053*
- Semi-Distributed Joint Power and Spectrum Allocation for LAA Based Small Cell Networks. *Yin, R.*, +, *TWC June 2020 4141-4153*
- Separability, Asymptotics, and Applications of the SIR Meta Distribution in Cellular Networks. *Feng, K.*, +, *TWC July 2020 4806-4816*
- SINR and Rate Distributions for Downlink Cellular Networks. *Hadj-Kacem, I.*, +, *TWC July 2020 4604-4616*
- SINR Distribution and Scheduling Gain Analysis of Uplink Channel-Adaptive Scheduling. *Kamiya, S.*, +, *TWC April 2020 2321-2335*
- Spectrum Sharing Among Rapidly Deployable Small Cells: A Hybrid Multi-Agent Approach. *Gao, B.*, +, *TWC Jan. 2020 395-409*
- Subset MMSE Receivers for Cell-Free Networks. *Attarifar, M.*, +, *TWC June 2020 4183-4194*
- Superimposed Pilot for Multi-Cell Multi-User Massive FD-MIMO Systems. *Shafin, R.*, +, *TWC May 2020 3591-3606*
- The Joint and Product Meta Distributions of the SIR and Their Applications to Secrecy and Cooperation. *Yu, X.*, +, *TWC July 2020 4408-4423*
- The Power of Mobility Prediction in Reducing Idle-State Signaling in Cellular Systems: A Revisit to 4G Mobility Management. *Hoseinitabatabei, S.A.*, +, *TWC May 2020 3346-3360*
- Tractable Approach to MmWaves Cellular Analysis With FSO Backhauling Under Feedback Delay and Hardware Limitations. *Balti, E.*, +, *TWC Jan. 2020 410-422*
- Treating Interference as Noise in Cellular Networks: A Stochastic Geometry Approach. *Bacha, M.*, +, *TWC March 2020 1918-1932*
- Two-Side Coalitional Matching Approach for Joint MIMO-NOMA Clustering and BS Selection in Multi-Cell MIMO-NOMA Systems. *Ding, J.*, +, *TWC March 2020 2006-2021*
- UAV-to-UAV Communications in Cellular Networks. *Azari, M.M.*, +, *TWC Sept. 2020 6130-6144*
- Ultra Dense Edge Caching Networks With Arbitrary User Spatial Density. *Gruppi, E.*, +, *TWC July 2020 4363-4377*
- Uplink Resource Allocation in Energy Harvesting Cellular Network With H2H/M2M Coexistence. *Nobar, S.K.*, +, *TWC Aug. 2020 5101-5116*
- User-Number Threshold-Based Small-Cell On/Off Control Scheme: Performance Evaluation and Optimization. *Park, J.W.*, +, *TWC Jan. 2020 367-379*
- Utility-Aware Optimal Resource Allocation Protocol for UAV-Assisted Small Cells With Heterogeneous Coverage Demands. *Lohan, P.*, +, *TWC Feb. 2020 1221-1236*
- Vertical Handover Analysis for Randomly Deployed Small Cells in Heterogeneous Networks. *Duong, T.M.*, +, *TWC April 2020 2282-2292*

**Centralized control**

NOMA-Based D2D-Enabled Traffic Offloading for 5G and Beyond Networks Employing Licensed and Unlicensed Access. *Sun, M., +, TWC June 2020 4109-4124*

**Channel allocation**

A Stochastic Optimization Framework for Channel Bonding in Wireless LANs Under Demand Uncertainty. *Nabil, A., +, TWC Nov. 2020 7528-7542*

A Truthful Online Incentive Mechanism for Nondeterministic Spectrum Allocation. *Dong, X., +, TWC July 2020 4632-4642*

Energy Efficient Resource Management in SWIPT Enabled Heterogeneous Networks With NOMA. *Zhang, H., +, TWC Feb. 2020 835-845*

Joint Parameter-and-Bandwidth Allocation for Improving the Efficiency of Partitioned Edge Learning. *Wen, D., +, TWC Dec. 2020 8272-8286*

NOMA-Based D2D-Enabled Traffic Offloading for 5G and Beyond Networks Employing Licensed and Unlicensed Access. *Sun, M., +, TWC June 2020 4109-4124*

Performance of Dynamic Power and Channel Allocation for Downlink MC-NOMA Systems. *Liu, F., +, TWC March 2020 1650-1662*

Wireless Networks With Cache-Enabled and Backhaul-Limited Aerial Base Stations. *Kalantari, E., +, TWC Nov. 2020 7363-7376*

**Channel bank filters**

Overlap-Save FBMC Receivers. *Nadal, J., +, TWC Aug. 2020 5307-5320*

**Channel capacity**

A Tractable Product Channel Model for Line-of-Sight Scenarios. *Fernandez-Plazaola, U., +, TWC March 2020 2107-2121*

Achievable Rate Region for Iterative Multi-User Detection via Low-Cost Gaussian Approximation. *Wang, X., +, TWC May 2020 3289-3303*

Capacity Region and Capacity-Achieving Signaling Schemes for 1-bit ADC Multiple Access Channels in Rayleigh Fading. *Ranjbar, M., +, TWC Sept. 2020 6162-6178*

Communications and Radar Coexistence in the Massive MIMO Regime: Uplink Analysis. *D'Andrea, C., +, TWC Jan. 2020 19-33*

Energy Minimization of Multi-Cell Cognitive Capacity Harvesting Networks With Neighbor Resource Sharing. *Lin, S., +, TWC May 2020 3199-3213*

Fundamental Rate Limits of UAV-Enabled Multiple Access Channel With Trajectory Optimization. *Li, P., +, TWC Jan. 2020 458-474*

Impact of Channel Correlation on Different Performance Metrics of OSSK-Based FSO Systems. *Priyadarshani, R., +, TWC March 2020 1593-1609*

Jamming-Assisted Proactive Eavesdropping Over Two Suspicious Communication Links. *Zhang, H., +, TWC July 2020 4817-4830*

Joint Power and Blocklength Optimization for URLLC in a Factory Automation Scenario. *Ren, H., +, TWC March 2020 1786-1801*

Measurement-Based Analysis and Modeling of Multimode Channel Behaviors in Spherical Vector Wave Domain. *Miao, Y., +, TWC Aug. 2020 5345-5358*

Multi-User Detection Based on Expectation Propagation for the Non-Coherent SIMO Multiple Access Channel. *Ngo, K., +, TWC Sept. 2020 6145-6161*

Optimal Power Adaptation in Covert Communication With an Uninformed Jammer. *Li, K., +, TWC May 2020 3463-3473*

Optimum Performance of Short Block Length Codes Under Multivariate Stationary Rayleigh Fading. *Mestre, X., +, TWC March 2020 2122-2136*

Over-the-Air Computation Systems: Optimization, Analysis and Scaling Laws. *Liu, W., +, TWC Aug. 2020 5488-5502*

Reciprocity Calibration of TDD MIMO Channel for Interference Alignment. *Zhao, H., +, TWC May 2020 3505-3516*

Refined Asymptotics for a Block Fading Channel Under Energy Harvesting and Fixed Power Constraints. *Deekshith, P.K., +, TWC April 2020 2558-2569*

Reliability Bounds for Dependent Fading Wireless Channels. *Besser, K., +, TWC Sept. 2020 5833-5845*

Residual Transceiver Hardware Impairments on Cooperative NOMA Networks. *Li, X., +, TWC Jan. 2020 680-695*

Secure UAV-Enabled Communication Using Han-Kobayashi Signaling. *Sheng, Z., +, TWC May 2020 2905-2919*

Simple Bounds for the Symmetric Capacity of the Rayleigh Fading Multiple Access Channel. *Domanovitz, E., +, TWC July 2020 4594-4603*

Statistical Modeling and Analysis on the Confidentiality of Indoor VLC Systems. *Chen, J., +, TWC July 2020 4744-4757*

Transmission Energy Minimization for Heterogeneous Low-Latency NOMA Downlink. *Xu, Y., +, TWC Feb. 2020 1054-1069*

**Channel coding**

A Deep Study on Layered Multi-Relay Non-Orthogonal Amplify-Forward Networks. *Padidar, P., +, TWC Jan. 2020 354-366*

A Joint Solution for Scheduling and Precoding in Multiuser MISO Downlink Channels. *Bandi, A., +, TWC Jan. 2020 475-490*

A Network Linear Block Coding Approach to Selective Detect-and-Forward Multi-Way Relaying With Differential Modulation. *Hou, X., +, TWC Sept. 2020 5749-5764*

Achievable Rate Region for Iterative Multi-User Detection via Low-Cost Gaussian Approximation. *Wang, X., +, TWC May 2020 3289-3303*

An Uplink Control Channel Design With Complementary Sequences for Unlicensed Bands. *Sahin, A., +, TWC Oct. 2020 6858-6870*

Coherent Detection for Short-Packet Physical-Layer Network Coding With Binary FSK Modulation. *Wang, Z., +, TWC Jan. 2020 279-292*

Cube-Split: A Structured Grassmannian Constellation for Non-Coherent SIMO Communications. *Ngo, K., +, TWC March 2020 1948-1964*

Enhanced Huffman Coded OFDM With Index Modulation. *Dang, S., +, TWC April 2020 2489-2503*

Enumerative Sphere Shaping for Wireless Communications With Short Packets. *Gultekin, Y.C., +, TWC Feb. 2020 1098-1112*

Integer-Forcing Architectures for Uplink Cloud Radio Access Networks. *El Bakoury, I., +, TWC April 2020 2336-2351*

Iterative Receiver Design for FTN Signaling Aided Sparse Code Multiple Access. *Yuan, W., +, TWC Feb. 2020 915-928*

Joint Detection and Decoding of Polar Coded 5G Control Channels. *Jalali, A., +, TWC March 2020 2066-2078*

Joint Power and Blocklength Optimization for URLLC in a Factory Automation Scenario. *Ren, H., +, TWC March 2020 1786-1801*

Joint User Selection, Power Allocation, and Precoding Design With Imperfect CSIT for Multi-Cell MU-MIMO Downlink Systems. *Choi, J., +, TWC Jan. 2020 162-176*

mmWave Lens-Based MIMO System for Suppressing Small-Scale Fading and Shadowing. *Almasi, M.A., +, TWC Aug. 2020 5292-5306*

MOCZ for Blind Short-Packet Communication: Practical Aspects. *Walk, P., +, TWC Oct. 2020 6675-6692*

Multi-Layer HARQ With Delayed Feedback. *Khreis, A., +, TWC Sept. 2020 6224-6237*

Multi-User Detection Based on Expectation Propagation for the Non-Coherent SIMO Multiple Access Channel. *Ngo, K., +, TWC Sept. 2020 6145-6161*

NOMA in the Uplink: Delay Analysis With Imperfect CSI and Finite-Length Coding. *Schiessl, S., +, TWC June 2020 3879-3893*

On the Effectiveness of OTFS for Joint Radar Parameter Estimation and Communication. *Gaudio, L., +, TWC Sept. 2020 5951-5965*

Optimized Precoded Spatio-Temporal Partial-Response Signaling Over Frequency-Selective MIMO Channels. *Bailleul, J., +, TWC Sept. 2020 5938-5950*

Physical-Layer Security in the Finite Blocklength Regime Over Fading Channels. *Zheng, T., +, TWC May 2020 3405-3420*

Refined Asymptotics for a Block Fading Channel Under Energy Harvesting and Fixed Power Constraints. *Deekshith, P.K., +, TWC April 2020 2558-2569*

Saddlepoint Approximations for Short-Packet Wireless Communications. *Lancho, A., +, TWC July 2020 4831-4846*

Simple Bounds for the Symmetric Capacity of the Rayleigh Fading Multiple Access Channel. *Domanovitz, E., +, TWC July 2020 4594-4603*

Spatial Channel Covariance Estimation for Hybrid Architectures Based on Tensor Decompositions. *Park, S., +, TWC Feb. 2020 1084-1097*

Steepest Gradient-Based Orthogonal Precoder for Integer-Forcing MIMO. *Hasan, M.N., +, TWC Feb. 2020 942-955*

- Transmission Energy Minimization for Heterogeneous Low-Latency NOMA Downlink. *Xu, Y.*, +, *TWC Feb. 2020 1054-1069*
- Channel estimation**
- Analog Self-Interference Cancellation Using Auxiliary Transmitter Considering IQ Imbalance and Amplifier Nonlinearity. *Fukui, T.*, +, *TWC Nov. 2020 7439-7452*
- Analysis and Optimization of an Intelligent Reflecting Surface-Assisted System With Interference. *Jia, Y.*, +, *TWC Dec. 2020 8068-8082*
- Balancing Queueing and Retransmission: Latency-Optimal Massive MIMO Design. *Du, X.*, +, *TWC April 2020 2293-2307*
- BEM-PSP for Single-Carrier and SC-FDMA Communication Over a Doubly Selective Fading Channel. *Liu, X.*, +, *TWC June 2020 3924-3937*
- Channel Estimation for Intelligent Reflecting Surface Assisted Multiuser Communications: Framework, Algorithms, and Analysis. *Wang, Z.*, +, *TWC Oct. 2020 6607-6620*
- Coherent Detection for Short-Packet Physical-Layer Network Coding With Binary FSK Modulation. *Wang, Z.*, +, *TWC Jan. 2020 279-292*
- Communications and Radar Coexistence in the Massive MIMO Regime: Uplink Analysis. *D'Andrea, C.*, +, *TWC Jan. 2020 19-33*
- Compressed Sensing Channel Estimation for OFDM With Non-Gaussian Multipath Gains. *Gomez-Cuba, F.*, +, *TWC Jan. 2020 47-61*
- Deep Energy Autoencoder for Noncoherent Multicarrier MU-SIMO Systems. *Van Luong, T.*, +, *TWC June 2020 3952-3962*
- Deep Learning-Based End-to-End Wireless Communication Systems With Conditional GANs as Unknown Channels. *Ye, H.*, +, *TWC May 2020 3133-3143*
- Dictionary Learning for Channel Estimation in Hybrid Frequency-Selective mmWave MIMO Systems. *Xie, H.*, +, *TWC Nov. 2020 7407-7422*
- Energy-Efficient Computation Offloading in Delay-Constrained Massive MIMO Enabled Edge Network Using Data Partitioning. *Malik, R.*, +, *TWC Oct. 2020 6977-6991*
- Estimating Doubly-Selective Channels for Hybrid mmWave Massive MIMO Systems: A Doubly-Sparse Approach. *Gao, S.*, +, *TWC Sept. 2020 5703-5715*
- Generalized Bussgang LMMSE Channel Estimation for One-Bit Massive MIMO Systems. *Wan, Q.*, +, *TWC June 2020 4234-4246*
- Grid-Less Variational Bayesian Channel Estimation for Antenna Array Systems With Low Resolution ADCs. *Zhu, J.*, +, *TWC March 2020 1549-1562*
- Harvest-and-Opportunistically-Relay: Analyses on Transmission Outage and Covertess. *Li, Y.*, +, *TWC Dec. 2020 7779-7795*
- High-Resolution Channel Estimation for Frequency-Selective mmWave Massive MIMO Systems. *Ma, W.*, +, *TWC May 2020 3517-3529*
- IDFT-VFDM for Supplementary Uplink and LTE-NR Co-Existence. *Feng, Q.*, +, *TWC May 2020 3435-3448*
- Intelligent Reflecting Surface Assisted Multi-User OFDMA: Channel Estimation and Training Design. *Zheng, B.*, +, *TWC Dec. 2020 8315-8329*
- Interference Cancellation Based Channel Estimation for Massive MIMO Systems With Time Shifted Pilots. *Sun, B.*, +, *TWC Oct. 2020 6826-6843*
- Interference Exploitation 1-Bit Massive MIMO Precoding: A Partial Branch-and-Bound Solution With Near-Optimal Performance. *Li, A.*, +, *TWC May 2020 3474-3489*
- Iterative Nonlinear Self-Interference Cancellation for In-Band Full-Duplex Wireless Communications Under Mixer Imbalance and Amplifier Nonlinearity. *Komatsu, K.*, +, *TWC July 2020 4424-4438*
- Iterative Receiver Design for FTN Signaling Aided Sparse Code Multiple Access. *Yuan, W.*, +, *TWC Feb. 2020 915-928*
- Joint Antenna Detection and Bayesian Channel Estimation for Non-Coherent User Terminals. *Becirovic, E.*, +, *TWC Nov. 2020 7081-7096*
- Joint Estimation of RF Impairments, Channel, and Low Complexity Iterative Equalization Technique for High Mobility SC-FDMA/OFDMA Uplink Systems. *Sanoopkumar, P.S.*, +, *TWC June 2020 4276-4289*
- Joint Frame Design and Resource Allocation for Ultra-Reliable and Low-Latency Vehicular Networks. *Yang, H.*, +, *TWC May 2020 3607-3622*
- Joint Impact of I/Q Imbalance and Imperfect CSI on SM-MIMO Systems Over Generalized Beckmann Fading Channels: Optimal Detection and Cramer-Rao Bound. *Canbilen, A.E.*, +, *TWC May 2020 3034-3046*
- Joint Spatial Division and Multiplexing in Massive MIMO: A Neighbor-Based Approach. *Song, Y.*, +, *TWC Nov. 2020 7392-7406*
- Joint User Identification, Channel Estimation, and Signal Detection for Grant-Free NOMA. *Jiang, S.*, +, *TWC Oct. 2020 6960-6976*
- Local Partial Zero-Forcing Precoding for Cell-Free Massive MIMO. *Interdonato, G.*, +, *TWC July 2020 4758-4774*
- Low-Complexity Adaptive Spatial Processing of ESPAR Antenna Systems. *Bucheli Garcia, J.C.*, +, *TWC June 2020 3700-3711*
- Machine Learning-Based Channel Prediction in Massive MIMO With Channel Aging. *Yuan, J.*, +, *TWC May 2020 2960-2973*
- Massive MIMO Channel Estimation With an Untrained Deep Neural Network. *Balevi, E.*, +, *TWC March 2020 2079-2090*
- MOCZ for Blind Short-Packet Communication: Practical Aspects. *Walk, P.*, +, *TWC Oct. 2020 6675-6692*
- Multi-User Detection Based on Expectation Propagation for the Non-Coherent SIMO Multiple Access Channel. *Ngo, K.*, +, *TWC Sept. 2020 6145-6161*
- New Results on Joint Channel and Impulsive Noise Estimation and Tracking in Underwater Acoustic OFDM Systems. *Wang, S.*, +, *TWC April 2020 2601-2612*
- Noncoherent Symbol Detection of Short CPM Bursts in Frequency-Selective Fading Channels. *Chamaa, M.E.*, +, *TWC Feb. 2020 771-782*
- On Reciprocity in Physically Consistent TDD Systems With Coupled Antennas. *Laas, T.*, +, *TWC Oct. 2020 6440-6453*
- On the Effectiveness of OTFS for Joint Radar Parameter Estimation and Communication. *Gaudio, L.*, +, *TWC Sept. 2020 5951-5965*
- On Throughput Improvement Using Immediate Re-Transmission in Grant-Free Random Access With Massive MIMO. *Choi, J.*, *TWC Dec. 2020 8341-8350*
- On UW-Based Transmission for MIMO Multi-Carriers With Spatial Multiplexing. *Ehsanfar, S.*, +, *TWC Sept. 2020 5875-5890*
- PACE: Physically-Assisted Channel Estimation. *Xia, M.*, +, *TWC June 2020 3769-3781*
- PCA-Based Channel Estimation and Tracking for Massive MIMO Systems With Uniform Rectangular Arrays. *Wang, A.*, +, *TWC Oct. 2020 6786-6797*
- Performance Analysis of Channel Extrapolation in FDD Massive MIMO Systems. *Rottenberg, F.*, +, *TWC April 2020 2728-2741*
- Performance Analysis of Large Intelligent Surfaces (LISs): Asymptotic Data Rate and Channel Hardening Effects. *Jung, M.*, +, *TWC March 2020 2052-2065*
- Physical Layer Authentication for Massive MIMO Systems With Hardware Impairments. *Zhang, P.*, +, *TWC March 2020 1563-1576*
- Preamble-Based Channel Estimation for OQAM/FBMC Systems With Delay Diversity. *Liu, W.*, +, *TWC Nov. 2020 7169-7180*
- Predicting Device-to-Device Channels From Cellular Channel Measurements: A Learning Approach. *Najla, M.*, +, *TWC Nov. 2020 7124-7138*
- Probabilistic Constrained Secure Transmissions: Variable-Rate Design and Performance Analysis. *Li, Z.*, +, *TWC April 2020 2543-2557*
- Randomized Channel Sparsifying Hybrid Precoding for FDD Massive MIMO Systems. *Tian, C.*, +, *TWC Aug. 2020 5447-5460*
- Real-time Prediction of Non-stationary Wireless Channels. *Abdul Careem, M.A.*, +, *TWC Dec. 2020 7836-7850*
- Receiver Algorithms for Single-Carrier OSB Based High-Rate Indoor Visible Light Communications. *Wu, L.*, +, *TWC Feb. 2020 1113-1126*
- Rethinking Modulation and Detection for High Doppler Channels. *Dean, T.R.*, +, *TWC June 2020 3629-3642*
- Robust Data Detection for MIMO Systems With One-Bit ADCs: A Reinforcement Learning Approach. *Jeon, Y.*, +, *TWC March 2020 1663-1676*
- Robust Superimposed Training Optimization for UAV Assisted Communication Systems. *Gong, S.*, +, *TWC March 2020 1704-1721*
- Semi-Blind Joint Timing-Offset and Channel Estimation for Amplify-and-Forward Two-Way Relaying. *Abdallah, S.*, +, *TWC April 2020 2613-2627*
- Spatial Channel Covariance Estimation for Hybrid Architectures Based on Tensor Decompositions. *Park, S.*, +, *TWC Feb. 2020 1084-1097*
- Spectral Efficiency Analysis of Cell-Free Massive MIMO Systems With Zero-Forcing Detector. *Liu, P.*, +, *TWC Feb. 2020 795-807*

- Statistical Beamforming for FDD Downlink Massive MIMO via Spatial Information Extraction and Beam Selection. *Liu, H., +, TWC July 2020 4617-4631*
- Subnet MMSE Receivers for Cell-Free Networks. *Attarifar, M., +, TWC June 2020 4183-4194*
- Superimposed Pilot for Multi-Cell Multi-User Massive FD-MIMO Systems. *Shafiq, R., +, TWC May 2020 3591-3606*
- Time-Varying Downlink Channel Tracking for Quantized Massive MIMO Networks. *Ma, J., +, TWC Oct. 2020 6721-6736*
- Training Optimization for Hybrid MIMO Communication Systems. *Xing, C., +, TWC Aug. 2020 5473-5487*
- Transceiver Design and Signal Detection in Backscatter Communication Systems With Multiple-Antenna Tags. *Chen, C., +, TWC May 2020 3273-3288*
- Two-Layered Superposition of Broadcast/Multicast and Unicast Signals in Multiuser OFDMA Systems. *Vargas, D., +, TWC Feb. 2020 979-994*
- User Scheduling and Antenna Topology in Dense Massive MIMO Networks: An Experimental Study. *Chen, C., +, TWC Sept. 2020 6210-6223*
- Visible Light-Based User Position, Orientation and Channel Estimation Using Self-Adaptive Location-Domain Grid Sampling. *Zhou, B., +, TWC July 2020 5025-5039*
- Wirelessly-Powered Sensor Networks: Power Allocation for Channel Estimation and Energy Beamforming. *Du, R., +, TWC May 2020 2987-3002*
- Channel models**
- Channel Modeling for Wireless Communications Using Ambit Processes. *Rakesh, R.T., +, TWC Dec. 2020 8396-8409*
- Dictionary Learning for Channel Estimation in Hybrid Frequency-Selective mmWave MIMO Systems. *Xie, H., +, TWC Nov. 2020 7407-7422*
- Network-Coded Cooperative Systems With Generalized User-Relay Selection. *Heidarpour, A.R., +, TWC Nov. 2020 7251-7264*
- Projective Approach in Determining Homogeneous Hyperspherical Geometrically-Based Stochastic Channel Model's Statistics: Angle of Departure, Angle of Arrival and Time of Arrival. *Maric, A., +, TWC Dec. 2020 7864-7880*
- Chaotic communication**
- Design and Performance Analysis of a New  $M$ -Ary Differential Chaos Shift Keying With Index Modulation. *Cai, X., +, TWC Feb. 2020 846-858*
- Closed-form solutions**
- Extended  $\eta$ - $\mu$  Fading Models. *de Lima Tejerina, G.R., +, TWC Dec. 2020 8153-8164*
- Cloud computing**
- A Realization of Fog-RAN Slicing via Deep Reinforcement Learning. *Xiang, H., +, TWC April 2020 2515-2527*
- Adaptive Video Streaming With Edge Caching and Video Transcoding Over Software-Defined Mobile Networks: A Deep Reinforcement Learning Approach. *Luo, J., +, TWC March 2020 1577-1592*
- An Energy-Balanced Trust Cloud Migration Scheme for Underwater Acoustic Sensor Networks. *Han, G., +, TWC March 2020 1636-1649*
- Bandwidth Gain From Mobile Edge Computing and Caching in Wireless Multicast Systems. *Sun, Y., +, TWC June 2020 3992-4007*
- Cooperative Computation Offloading in FiWi Enhanced 4G HetNets Using Self-Organizing MEC. *Ebrahimzadeh, A., +, TWC July 2020 4480-4493*
- Edge and Central Cloud Computing: A Perfect Pairing for High Energy Efficiency and Low-Latency. *Hu, X., +, TWC Feb. 2020 1070-1083*
- Edge Computing-Enabled Cell-Free Massive MIMO Systems. *Mukherjee, S., +, TWC April 2020 2884-2899*
- Federated Learning via Over-the-Air Computation. *Yang, K., +, TWC March 2020 2022-2035*
- HFEL: Joint Edge Association and Resource Allocation for Cost-Efficient Hierarchical Federated Edge Learning. *Luo, S., +, TWC Oct. 2020 6535-6548*
- Improving Caching Efficiency in Content-Aware C-RAN-Based Cooperative Beamforming: A Joint Design Approach. *Zhao, M., +, TWC June 2020 4125-4140*
- Joint Data Compression and Computation Offloading in Hierarchical Fog-Cloud Systems. *Nguyen, T.T., +, TWC Jan. 2020 293-309*
- Leveraging the Power of Prediction: Predictive Service Placement for Latency-Sensitive Mobile Edge Computing. *Ma, H., +, TWC Oct. 2020 6454-6468*
- Max-Min Energy Balance in Wireless-Powered Hierarchical Fog-Cloud Computing Networks. *Liu, J., +, TWC Nov. 2020 7064-7080*
- Mean-Field-Type Game-Based Computation Offloading in Multi-Access Edge Computing Networks. *Banez, R.A., +, TWC Dec. 2020 8366-8381*
- Multiservice-Based Network Slicing Orchestration With Impatient Tenants. *Han, B., +, TWC July 2020 5010-5024*
- Offloading Decision in Edge Computing for Continuous Applications Under Uncertainty. *Chang, W., +, TWC Sept. 2020 6196-6209*
- Online Resource Procurement and Allocation in a Hybrid Edge-Cloud Computing System. *Dinh, T.Q., +, TWC March 2020 2137-2149*
- Optimal Task Offloading and Resource Allocation in Mobile-Edge Computing With Inter-User Task Dependency. *Yan, J., +, TWC Jan. 2020 235-250*
- Optimal Virtual Network Function Deployment for 5G Network Slicing in a Hybrid Cloud Infrastructure. *De Domenico, A., +, TWC Dec. 2020 7942-7956*
- Stochastic Design and Analysis of User-Centric Wireless Cloud Caching Networks. *Azimi-Abarghouyi, S.M., +, TWC July 2020 4978-4993*
- Tradeoff Between Ergodic Rate and Delivery Latency in Fog Radio Access Networks. *Yin, B., +, TWC April 2020 2240-2251*
- User-Centric Performance Optimization With Remote Radio Head Cooperation in C-RAN. *You, L., +, TWC Jan. 2020 340-353*
- Clustering algorithms**
- Joint Distributed Link Scheduling and Power Allocation for Content Delivery in Wireless Caching Networks. *Choi, M., +, TWC Dec. 2020 7810-7824*
- Load-Driven Dynamic User Assignment Algorithms for Dense Cellular Networks. *Post, B., +, TWC Nov. 2020 7677-7689*
- Cochannel interference**
- An Uplink Control Channel Design With Complementary Sequences for Unlicensed Bands. *Sahin, A., +, TWC Oct. 2020 6858-6870*
- Channel-Based Optimal Back-Off Delay Control in Delay-Constrained Industrial WSNs. *Li, Q., +, TWC Jan. 2020 696-711*
- Delay-Aware Computation Offloading in NOMA MEC Under Differentiated Uploading Delay. *Sheng, M., +, TWC April 2020 2813-2826*
- Random Access-Based Reliable Uplink Communication and Power Transfer Using Dynamic Power Splitting. *Kisseleff, S., +, TWC June 2020 4307-4320*
- Resource Allocation for Non-Orthogonal Multiple Access-Enabled Fog Radio Access Networks. *Liu, B., +, TWC June 2020 3867-3878*
- Semi-Distributed Joint Power and Spectrum Allocation for LAA Based Small Cell Networks. *Yin, R., +, TWC June 2020 4141-4153*
- Code division multiple access**
- Achievable Rate Region for Iterative Multi-User Detection via Low-Cost Gaussian Approximation. *Wang, X., +, TWC May 2020 3289-3303*
- Cooperative MIMO-OFDM-Based Exposure-Path Prevention Over 3D Clustered Wireless Camera Sensor Networks. *Wang, J., +, TWC Jan. 2020 4-18*
- Spatial Modulated Multicarrier Sparse Code-Division Multiple Access. *Liu, Y., +, TWC Jan. 2020 610-623*
- Codecs**
- A Network Linear Block Coding Approach to Selective Detect-and-Forward Multi-Way Relaying With Differential Modulation. *Hou, X., +, TWC Sept. 2020 5749-5764*
- Cognitive radio**
- Analysis of the On-Demand Spectrum Access Architecture for CBRS Cognitive Radio Networks. *Xin, C., +, TWC Feb. 2020 970-978*
- Cooperative Spectrum Sensing Optimization in Energy-Harvesting Cognitive Radio Networks. *Liu, X., +, TWC Nov. 2020 7663-7676*
- Decision-Driven Time-Adaptive Spectrum Sensing in Cognitive Radio Networks. *Yin, W., +, TWC April 2020 2756-2769*
- Efficient Rendezvous for Heterogeneous Interference in Cognitive Radio Networks. *Gu, Z., +, TWC Jan. 2020 91-105*
- Energy Minimization of Multi-Cell Cognitive Capacity Harvesting Networks With Neighbor Resource Sharing. *Lin, S., +, TWC May 2020 3199-3213*

- Fast Compressed Power Spectrum Estimation: Toward a Practical Solution for Wideband Spectrum Sensing. *Yang, L.*, +, *TWC Jan. 2020 520-532*
- Machine Learning-Enabled Cooperative Spectrum Sensing for Non-Orthogonal Multiple Access. *Shi, Z.*, +, *TWC Sept. 2020 5692-5702*
- Mixture Detectors for Improved Spectrum Sensing. *Senanayake, R.*, +, *TWC June 2020 4335-4348*
- Network Coding Techniques for Primary-Secondary User Cooperation in Cognitive Radio Networks. *Papadopoulos, A.*, +, *TWC June 2020 4195-4208*
- Opportunistic Spectrum Sharing Based on OFDM With Index Modulation. *Li, Q.*, +, *TWC Jan. 2020 192-204*
- Optimal Linear Cooperation for Signal Classification in Cognitive Communication Networks. *Ma, Y.*, +, *TWC May 2020 3144-3155*
- Power Control Based on Deep Reinforcement Learning for Spectrum Sharing. *Zhang, H.*, +, *TWC June 2020 4209-4219*
- The Application of Deep Reinforcement Learning to Distributed Spectrum Access in Dynamic Heterogeneous Environments With Partial Observations. *Xu, Y.*, +, *TWC July 2020 4494-4506*
- Total Throughput Maximization of Cooperative Cognitive Radio Networks With Energy Harvesting. *Zheng, K.*, +, *TWC Jan. 2020 533-546*
- UAV-to-UAV Communications in Cellular Networks. *Azari, M.M.*, +, *TWC Sept. 2020 6130-6144*
- Wideband Collaborative Spectrum Sensing Using Massive MIMO Decision Fusion. *Dey, I.*, +, *TWC Aug. 2020 5246-5260*
- Coherence**
- Cube-Split: A Structured Grassmannian Constellation for Non-Coherent SIMO Communications. *Ngo, K.*, +, *TWC March 2020 1948-1964*
- Joint Antenna Detection and Bayesian Channel Estimation for Non-Coherent User Terminals. *Becirovic, E.*, +, *TWC Nov. 2020 7081-7096*
- Secure Degrees of Freedom of MIMO Two-Way Wiretap Channel With no CSI Anywhere. *Liang, Q.*, +, *TWC Dec. 2020 7927-7941*
- Collision avoidance**
- Cyclic Block-Spreading Direct Discovery for D2D Networks. *Chang, W.*, +, *TWC Nov. 2020 7610-7620*
- Commerce**
- A Multi-Dimensional Contract Approach for Data Rewarding in Mobile Networks. *Xiong, Z.*, +, *TWC Sept. 2020 5779-5793*
- Communication complexity**
- Cube-Split: A Structured Grassmannian Constellation for Non-Coherent SIMO Communications. *Ngo, K.*, +, *TWC March 2020 1948-1964*
- Expectation Propagation Detector for Extra-Large Scale Massive MIMO. *Wang, H.*, +, *TWC March 2020 2036-2051*
- Learning for Detection: MIMO-OFDM Symbol Detection Through Downlink Pilots. *Zhou, Z.*, +, *TWC June 2020 3712-3726*
- Complexity theory**
- Distributed User Association and Resource Allocation Algorithms for Three Tier HetNets. *Gopalam, S.*, +, *TWC Dec. 2020 7913-7926*
- Graph Theory Assisted Bit-to-Index-Combination Gray Coding for Generalized Index Modulation. *Xiao, L.*, +, *TWC Dec. 2020 8232-8245*
- Learning to Search for MIMO Detection. *Sun, J.*, +, *TWC Nov. 2020 7571-7584*
- Power and Subcarrier Allocation in 5G NOMA-FD Systems. *Abrardo, A.*, +, *TWC Dec. 2020 8246-8260*
- Compressed sensing**
- A Compressive Sensing Assisted Massive SM-VBLAST System: Error Probability and Capacity Analysis. *Xiao, L.*, +, *TWC March 2020 1990-2005*
- Compressed Sensing Channel Estimation for OFDM With Non-Gaussian Multipath Gains. *Gomez-Cuba, F.*, +, *TWC Jan. 2020 47-61*
- Convolutional Neural Network-Based Multiple-Rate Compressive Sensing for Massive MIMO CSI Feedback: Design, Simulation, and Analysis. *Guo, J.*, +, *TWC April 2020 2827-2840*
- Efficient Beam Sweeping Algorithms and Initial Access Protocols for Millimeter-Wave Networks. *Aykin, I.*, +, *TWC April 2020 2504-2514*
- Efficient Scheduling for the Massive Random Access Gaussian Channel. *Kasper Facenda, G.*, +, *TWC Nov. 2020 7598-7609*
- Fast Compressed Power Spectrum Estimation: Toward a Practical Solution for Wideband Spectrum Sensing. *Yang, L.*, +, *TWC Jan. 2020 520-532*
- Performance Analysis of Cell-Free Massive MIMO System With Limited Fronthaul Capacity and Hardware Impairments. *Masoumi, H.*, +, *TWC Feb. 2020 1038-1053*
- Robust Recovery of Structured Sparse Signals With Uncertain Sensing Matrix: A Turbo-VBI Approach. *Liu, A.*, +, *TWC May 2020 3185-3198*
- Side-Information Aided Compressed Multi-User Detection for Up-Link Grant-Free NOMA. *Cui, Y.*, +, *TWC Nov. 2020 7720-7731*
- Computational complexity**
- A Low-Complex SVD-Based F-OFDM. *Kim, H.*, +, *TWC Feb. 2020 1373-1385*
- A Maximin Optimal Online Power Control Policy for Energy Harvesting Communications. *Yang, S.*, +, *TWC Oct. 2020 6708-6720*
- A Non-Stationary Bandit-Learning Approach to Energy-Efficient Femto-Caching With Rateless-Coded Transmission. *Maghsudi, S.*, +, *TWC July 2020 5040-5056*
- Adaptive Neural Signal Detection for Massive MIMO. *Khani, M.*, +, *TWC Aug. 2020 5635-5648*
- Age of Information in a Cellular Internet of UAVs: Sensing and Communication Trade-Off Design. *Zhang, S.*, +, *TWC Oct. 2020 6578-6592*
- Bandwidth Gain From Mobile Edge Computing and Caching in Wireless Multicast Systems. *Sun, Y.*, +, *TWC June 2020 3992-4007*
- Collaborative Multi-Agent Multi-Armed Bandit Learning for Small-Cell Caching. *Xu, X.*, +, *TWC April 2020 2570-2585*
- Cost Sharing Games for Energy-Efficient Multi-Hop Broadcast in Wireless Networks. *Mousavi, M.*, +, *TWC Jan. 2020 310-324*
- Deep Learning for SVD and Hybrid Beamforming. *Peken, T.*, +, *TWC Oct. 2020 6621-6642*
- DeepNOMA: A Unified Framework for NOMA Using Deep Multi-Task Learning. *Ye, N.*, +, *TWC April 2020 2208-2225*
- Efficient Link Scheduling in Wireless Networks Under Rayleigh-Fading and Multiuser Interference. *Yu, J.*, +, *TWC Aug. 2020 5621-5634*
- Energy Efficient Resource Management in SWIPT Enabled Heterogeneous Networks With NOMA. *Zhang, H.*, +, *TWC Feb. 2020 835-845*
- Exploiting Computation Replication for Mobile Edge Computing: A Fundamental Computation-Communication Tradeoff Study. *Li, K.*, +, *TWC July 2020 4563-4578*
- Exploiting Time Asynchrony in Multi-User Transmit Beamforming. *Ganji, M.*, +, *TWC May 2020 3156-3169*
- Fast Compressed Power Spectrum Estimation: Toward a Practical Solution for Wideband Spectrum Sensing. *Yang, L.*, +, *TWC Jan. 2020 520-532*
- High-Resolution Channel Estimation for Frequency-Selective mmWave Massive MIMO Systems. *Ma, W.*, +, *TWC May 2020 3517-3529*
- Interference Exploitation 1-Bit Massive MIMO Precoding: A Partial Branch-and-Bound Solution With Near-Optimal Performance. *Li, A.*, +, *TWC May 2020 3474-3489*
- Joint Annotator-and-Spectrum Allocation in Wireless Networks for Crowd Labeling. *Li, X.*, +, *TWC Sept. 2020 6116-6129*
- Joint Cache Placement, Flight Trajectory, and Transmission Power Optimization for Multi-UAV Assisted Wireless Networks. *Ji, J.*, +, *TWC Aug. 2020 5389-5403*
- Joint Power Allocation and Load Balancing Optimization for Energy-Efficient Cell-Free Massive MIMO Networks. *Van Chien, T.*, +, *TWC Oct. 2020 6798-6812*
- LORM: Learning to Optimize for Resource Management in Wireless Networks With Few Training Samples. *Shen, Y.*, +, *TWC Jan. 2020 665-679*
- Low-Complexity Adaptive Spatial Processing of ESPAR Antenna Systems. *Bucheli Garcia, J.C.*, +, *TWC June 2020 3700-3711*
- Low-Complexity User Selection Algorithms for Multiuser Transmissions in mmWave WLANs. *Aldubaikhy, K.*, +, *TWC April 2020 2397-2410*
- Max-Min Fairness of  $K$ -User Cooperative Rate-Splitting in MISO Broadcast Channel With User Relaying. *Mao, Y.*, +, *TWC Oct. 2020 6362-6376*
- Millimeter-Wave Beam Search With Iterative Deactivation and Beam Shifting. *Liu, C.*, +, *TWC Aug. 2020 5117-5131*
- Minimum Length Scheduling for Full Duplex Time-Critical Wireless Powered Communication Networks. *Iqbal, M.S.*, +, *TWC Sept. 2020 5993-6006*

- Offloading and Resource Allocation With General Task Graph in Mobile Edge Computing: A Deep Reinforcement Learning Approach. *Yan, J., +, TWC Aug. 2020 5404-5419*
- On Optimal Orchestration of Virtualized Cellular Networks With Downlink Rate Coverage Probability Constraints. *Chatterjee, S., +, TWC July 2020 4378-4393*
- Opportunistic Waveform Scheduling for Wireless Power Transfer With Multiple Devices. *Kim, K., +, TWC Sept. 2020 5651-5665*
- Optimal Linear Cooperation for Signal Classification in Cognitive Communication Networks. *Ma, Y., +, TWC May 2020 3144-3155*
- Optimizing Downlink Resource Allocation in Multiuser MIMO Networks via Fractional Programming and the Hungarian Algorithm. *Khan, A.A., +, TWC Aug. 2020 5162-5175*
- Optimizing the Learning Performance in Mobile Augmented Reality Systems With CNN. *He, Y., +, TWC Aug. 2020 5333-5344*
- PCA-Based Channel Estimation and Tracking for Massive MIMO Systems With Uniform Rectangular Arrays. *Wang, A., +, TWC Oct. 2020 6786-6797*
- Power Allocation in Multi-User Cellular Networks: Deep Reinforcement Learning Approaches. *Meng, F., +, TWC Oct. 2020 6255-6267*
- Resource Allocation for Non-Orthogonal Multiple Access-Enabled Fog Radio Access Networks. *Liu, B., +, TWC June 2020 3867-3878*
- Scheduling to Minimize Age of Synchronization in Wireless Broadcast Networks With Random Updates. *Tang, H., +, TWC June 2020 4023-4037*
- Self-Organizing Slot Access for Neighboring Cooperation in UAV Swarms. *Yao, K., +, TWC April 2020 2800-2812*
- Semi-Blind Joint Timing-Offset and Channel Estimation for Amplify-and-Forward Two-Way Relaying. *Abdallah, S., +, TWC April 2020 2613-2627*
- Signal Shaping for Non-Uniform Beamspace Modulated mmWave Hybrid MIMO Communications. *Guo, S., +, TWC Oct. 2020 6660-6674*
- Transmit Antenna Selection and Beamformer Design for Secure Spatial Modulation With Rough CSI of Eve. *Xia, G., +, TWC July 2020 4643-4656*
- Two-Side Coalitional Matching Approach for Joint MIMO-NOMA Clustering and BS Selection in Multi-Cell MIMO-NOMA Systems. *Ding, J., +, TWC March 2020 2006-2021*
- UAV Trajectory Planning for Data Collection from Time-Constrained IoT Devices. *Samir, M., +, TWC Jan. 2020 34-46*
- Unary Coding Controlled Simultaneous Wireless Information and Power Transfer. *Hu, J., +, TWC Jan. 2020 637-649*
- Unequally Sub-Connected Architecture for Hybrid Beamforming in Massive MIMO Systems. *Nguyen, N.T., +, TWC Feb. 2020 1127-1140*
- User-Centric Performance Optimization With Remote Radio Head Cooperation in C-RAN. *You, L., +, TWC Jan. 2020 340-353*
- Computational geometry**
- Optimal Placement of Access Points in Cellular Visible Light Communication Networks: An Adaptive Gradient Projection Method. *Dastgheib, M.A., +, TWC Oct. 2020 6813-6825*
- Computational modeling**
- Channel Modeling for Wireless Communications Using Ambient Processes. *Rakesh, R.T., +, TWC Dec. 2020 8396-8409*
- Joint Parameter-and-Bandwidth Allocation for Improving the Efficiency of Partitioned Edge Learning. *Wen, D., +, TWC Dec. 2020 8272-8286*
- Machine Intelligence at the Edge With Learning Centric Power Allocation. *Wang, S., +, TWC Nov. 2020 7293-7308*
- Mean-Field-Type Game-Based Computation Offloading in Multi-Access Edge Computing Networks. *Banez, R.A., +, TWC Dec. 2020 8366-8381*
- Multi-Armed Bandit-Based Client Scheduling for Federated Learning. *Xia, W., +, TWC Nov. 2020 7108-7123*
- Computer architecture**
- Optimal Virtual Network Function Deployment for 5G Network Slicing in a Hybrid Cloud Infrastructure. *De Domenico, A., +, TWC Dec. 2020 7942-7956*
- Wireless-Powered Edge Computing With Cooperative UAV: Task, Time Scheduling and Trajectory Design. *Hu, X., +, TWC Dec. 2020 8083-8098*
- Computer network management**
- Dynamic Service Function Chain Embedding for NFV-Enabled IoT: A Deep Reinforcement Learning Approach. *Fu, X., +, TWC Jan. 2020 507-519*
- Computer network security**
- Authenticating On-Body IoT Devices: An Adversarial Learning Approach. *Huang, Y., +, TWC Aug. 2020 5234-5245*
- Jamming-Resilient Frequency Hopping-Aided Secure Communication for Internet-of-Things in the Presence of an Untrusted Relay. *Letafati, M., +, TWC Oct. 2020 6771-6785*
- Multiservice-Based Network Slicing Orchestration With Impatient Tenants. *Han, B., +, TWC July 2020 5010-5024*
- Concave programming**
- A Joint Solution for Scheduling and Precoding in Multiuser MISO Downlink Channels. *Bandi, A., +, TWC Jan. 2020 475-490*
- Bandwidth Gain From Mobile Edge Computing and Caching in Wireless Multicast Systems. *Sun, Y., +, TWC June 2020 3992-4007*
- Cell-Free Massive MIMO for Wireless Federated Learning. *Vu, T.T., +, TWC Oct. 2020 6377-6392*
- Computation Efficiency Maximization in Wireless-Powered Mobile Edge Computing Networks. *Zhou, F., +, TWC May 2020 3170-3184*
- Decentralized WSEE Optimization for Massive MIMO Two-Way Half-Duplex AF Relaying. *Sharma, E., +, TWC Feb. 2020 1397-1414*
- Delay-Aware Computation Offloading in NOMA MEC Under Differentiated Uploading Delay. *Sheng, M., +, TWC April 2020 2813-2826*
- Edge and Central Cloud Computing: A Perfect Pairing for High Energy Efficiency and Low-Latency. *Hu, X., +, TWC Feb. 2020 1070-1083*
- Efficiency Maximization for UAV-Enabled Mobile Relaying Systems With Laser Charging. *Zhao, M., +, TWC May 2020 3257-3272*
- Energy Efficiency Optimization of Massive MIMO FD Relay With Quadratic Transform. *Sharma, E., +, TWC Feb. 2020 1429-1448*
- Energy Efficient Resource Management in SWIPT Enabled Heterogeneous Networks With NOMA. *Zhang, H., +, TWC Feb. 2020 835-845*
- Energy-Aware 3D Unmanned Aerial Vehicle Deployment for Network Throughput Optimization. *Chou, S., +, TWC Jan. 2020 563-578*
- Energy-Efficient Base Station Association and Beamforming for Multi-Cell Multiuser Systems. *An, J., +, TWC April 2020 2841-2854*
- Exploiting Intelligent Reflecting Surfaces in NOMA Networks: Joint Beamforming Optimization. *Mu, X., +, TWC Oct. 2020 6884-6898*
- Full-Duplex Enabled Mobile Edge Caching: From Distributed to Cooperative Caching. *Vu, T.X., +, TWC Feb. 2020 1141-1153*
- Hybrid-Precoding for mmWave Multi-User Communications in the Presence of Beam-Misalignment. *Pradhan, C., +, TWC Sept. 2020 6083-6099*
- Improving Caching Efficiency in Content-Aware C-RAN-Based Cooperative Beamforming: A Joint Design Approach. *Zhao, M., +, TWC June 2020 4125-4140*
- Joint Cache Placement, Flight Trajectory, and Transmission Power Optimization for Multi-UAV Assisted Wireless Networks. *Ji, J., +, TWC Aug. 2020 5389-5403*
- Joint Power Allocation and Splitting Control for SWIPT-Enabled NOMA Systems. *Tang, J., +, TWC Jan. 2020 120-133*
- Joint User Selection, Power Allocation, and Precoding Design With Imperfect CSIT for Multi-Cell MU-MIMO Downlink Systems. *Choi, J., +, TWC Jan. 2020 162-176*
- Low-Complexity Joint Resource Allocation and Trajectory Design for UAV-Aided Relay Networks With the Segmented Ray-Tracing Channel Model. *Hu, Q., +, TWC Sept. 2020 6179-6195*
- Mobile Edge Computing Meets mmWave Communications: Joint Beamforming and Resource Allocation for System Delay Minimization. *Zhao, C., +, TWC April 2020 2382-2396*
- Multi-Tone Signal Optimization for Wireless Power Transfer in the Presence of Wireless Communication Links. *Mouris, B.A., +, TWC May 2020 3575-3590*
- Noncoherent Joint Transmission Beamforming for Dense Small Cell Networks: Global Optimality, Efficient Solution and Distributed Implementation. *Vu, Q., +, TWC Sept. 2020 5891-5907*
- Optimal Placement of Access Points in Cellular Visible Light Communication Networks: An Adaptive Gradient Projection Method. *Dastgheib, M.A., +, TWC Oct. 2020 6813-6825*
- Robust Superimposed Training Optimization for UAV Assisted Communication Systems. *Gong, S., +, TWC March 2020 1704-1721*

- Spectral-Energy Efficiency Trade-Off-Based Beamforming Design for MISO Non-Orthogonal Multiple Access Systems. *Al-Obiedollah, H.M.*, +, *TWC Oct. 2020 6593-6606*
- UAV Trajectory Planning for Data Collection from Time-Constrained IoT Devices. *Samir, M.*, +, *TWC Jan. 2020 34-46*
- Wirelessly-Powered Sensor Networks: Power Allocation for Channel Estimation and Energy Beamforming. *Du, R.*, +, *TWC May 2020 2987-3002*
- Content-based retrieval**
- Scalable Video Transmission in Cache-Aided Device-to-Device Networks. *Ma, J.*, +, *TWC June 2020 4247-4261*
- Continuous phase modulation**
- Noncoherent Symbol Detection of Short CPM Bursts in Frequency-Selective Fading Channels. *Chamaa, M.E.*, +, *TWC Feb. 2020 771-782*
- Contracts**
- A Multi-Dimensional Contract Approach for Data Rewarding in Mobile Networks. *Xiong, Z.*, +, *TWC Sept. 2020 5779-5793*
- Control engineering computing**
- Joint 3D Maneuver and Power Adaptation for Secure UAV Communication With CoMP Reception. *Yao, J.*, +, *TWC Oct. 2020 6992-7006*
- Multi-Agent Reinforcement Learning-Based Resource Allocation for UAV Networks. *Cui, J.*, +, *TWC Feb. 2020 729-743*
- Power Control Based on Deep Reinforcement Learning for Spectrum Sharing. *Zhang, H.*, +, *TWC June 2020 4209-4219*
- Convergence**
- Enhancing Secure MIMO Transmission via Intelligent Reflecting Surface. *Dong, L.*, +, *TWC Nov. 2020 7543-7556*
- Federated Learning via Over-the-Air Computation. *Yang, K.*, +, *TWC March 2020 2022-2035*
- Load-Driven Dynamic User Assignment Algorithms for Dense Cellular Networks. *Post, B.*, +, *TWC Nov. 2020 7677-7689*
- Multi-Armed Bandit-Based Client Scheduling for Federated Learning. *Xia, W.*, +, *TWC Nov. 2020 7108-7123*
- Multihop Wireless Networks With Quality-of-Service: Fluid and Diffusion Approximations. *Krishnan K. S., A.*, +, *TWC Dec. 2020 8113-8125*
- Scheduling for Cellular Federated Edge Learning With Importance and Channel Awareness. *Ren, J.*, +, *TWC Nov. 2020 7690-7703*
- Convex programming**
- A Joint Solution for Scheduling and Precoding in Multiuser MISO Downlink Channels. *Bandi, A.*, +, *TWC Jan. 2020 475-490*
- Bandwidth Gain From Mobile Edge Computing and Caching in Wireless Multicast Systems. *Sun, Y.*, +, *TWC June 2020 3992-4007*
- Cell-Free Massive MIMO for Wireless Federated Learning. *Vu, T.T.*, +, *TWC Oct. 2020 6377-6392*
- Computation Efficiency Maximization in Wireless-Powered Mobile Edge Computing Networks. *Zhou, F.*, +, *TWC May 2020 3170-3184*
- Decentralized WSEE Optimization for Massive MIMO Two-Way Half-Duplex AF Relaying. *Sharma, E.*, +, *TWC Feb. 2020 1397-1414*
- Deep Learning Enabled Optimization of Downlink Beamforming Under Per-Antenna Power Constraints: Algorithms and Experimental Demonstration. *Zhang, J.*, +, *TWC June 2020 3738-3752*
- Delay-Aware Computation Offloading in NOMA MEC Under Differentiated Uploading Delay. *Sheng, M.*, +, *TWC April 2020 2813-2826*
- Edge and Central Cloud Computing: A Perfect Pairing for High Energy Efficiency and Low-Latency. *Hu, X.*, +, *TWC Feb. 2020 1070-1083*
- Efficiency Maximization for UAV-Enabled Mobile Relaying Systems With Laser Charging. *Zhao, M.*, +, *TWC May 2020 3257-3272*
- Energy Efficiency Optimization of Massive MIMO FD Relay With Quadratic Transform. *Sharma, E.*, +, *TWC Feb. 2020 1429-1448*
- Energy Efficient Resource Management in SWIPT Enabled Heterogeneous Networks With NOMA. *Zhang, H.*, +, *TWC Feb. 2020 835-845*
- Energy Minimization of Multi-Cell Cognitive Capacity Harvesting Networks With Neighbor Resource Sharing. *Lin, S.*, +, *TWC May 2020 3199-3213*
- Energy-Efficient Base Station Association and Beamforming for Multi-Cell Multiuser Systems. *An, J.*, +, *TWC April 2020 2841-2854*
- Exploiting Intelligent Reflecting Surfaces in NOMA Networks: Joint Beamforming Optimization. *Mu, X.*, +, *TWC Oct. 2020 6884-6898*
- Federated Learning via Over-the-Air Computation. *Yang, K.*, +, *TWC March 2020 2022-2035*
- Improving Caching Efficiency in Content-Aware C-RAN-Based Cooperative Beamforming: A Joint Design Approach. *Zhao, M.*, +, *TWC June 2020 4125-4140*
- Joint Cache Placement, Flight Trajectory, and Transmission Power Optimization for Multi-UAV Assisted Wireless Networks. *Ji, J.*, +, *TWC Aug. 2020 5389-5403*
- Joint Power Allocation and Splitting Control for SWIPT-Enabled NOMA Systems. *Tang, J.*, +, *TWC Jan. 2020 120-133*
- Low-Complexity Joint Resource Allocation and Trajectory Design for UAV-Aided Relay Networks With the Segmented Ray-Tracing Channel Model. *Hu, Q.*, +, *TWC Sept. 2020 6179-6195*
- Massive MIMO-NOMA Networks With Imperfect SIC: Design and Fairness Enhancement. *de Sena, A.S.*, +, *TWC Sept. 2020 6100-6115*
- Max-Min Fairness of  $K$ -User Cooperative Rate-Splitting in MISO Broadcast Channel With User Relaying. *Mao, Y.*, +, *TWC Oct. 2020 6362-6376*
- Multi-Antenna Aided Secrecy Beamforming Optimization for Wirelessly Powered HetNets. *Gong, S.*, +, *TWC Aug. 2020 5261-5277*
- Multi-Hop Wireless Optical Backhauling for LiFi Attocell Networks: Bandwidth Scheduling and Power Control. *Kazemi, H.*, +, *TWC Sept. 2020 5676-5691*
- Multicell MIMO Communications Relying on Intelligent Reflecting Surfaces. *Pan, C.*, +, *TWC Aug. 2020 5218-5233*
- NOMA-Based D2D-Enabled Traffic Offloading for 5G and Beyond Networks Employing Licensed and Unlicensed Access. *Sun, M.*, +, *TWC June 2020 4109-4124*
- Online Optimal Control for Wireless Cooperative Transmission by Ambient RF Powered Sensors. *Liu, T.*, +, *TWC Sept. 2020 6007-6019*
- Opportunistic Waveform Scheduling for Wireless Power Transfer With Multiple Devices. *Kim, K.*, +, *TWC Sept. 2020 5651-5665*
- Optimal Energy Allocation and Task Offloading Policy for Wireless Powered Mobile Edge Computing Systems. *Wang, F.*, +, *TWC April 2020 2443-2459*
- Optimizing Downlink Resource Allocation in Multiuser MIMO Networks via Fractional Programming and the Hungarian Algorithm. *Khan, A.A.*, +, *TWC Aug. 2020 5162-5175*
- Randomized Channel Sparsifying Hybrid Precoding for FDD Massive MIMO Systems. *Tian, C.*, +, *TWC Aug. 2020 5447-5460*
- Resource Allocation for Non-Orthogonal Multiple Access-Enabled Fog Radio Access Networks. *Liu, B.*, +, *TWC June 2020 3867-3878*
- Robust Superimposed Training Optimization for UAV Assisted Communication Systems. *Gong, S.*, +, *TWC March 2020 1704-1721*
- Throughput Maximization for Peer-Assisted Wireless Powered IoT NOMA Networks. *Wang, J.*, +, *TWC Aug. 2020 5278-5291*
- Transmit Antenna Selection and Beamformer Design for Secure Spatial Modulation With Rough CSI of Eve. *Xia, G.*, +, *TWC July 2020 4643-4656*
- UAV Positioning and Power Control for Two-Way Wireless Relaying. *Li, L.*, +, *TWC Feb. 2020 1008-1024*
- UAV Trajectory Planning for Data Collection from Time-Constrained IoT Devices. *Samir, M.*, +, *TWC Jan. 2020 34-46*
- Weighted Sum-Rate Maximization for Reconfigurable Intelligent Surface Aided Wireless Networks. *Guo, H.*, +, *TWC May 2020 3064-3076*
- Wirelessly-Powered Sensor Networks: Power Allocation for Channel Estimation and Energy Beamforming. *Du, R.*, +, *TWC May 2020 2987-3002*
- Convolutional codes**
- Enumerative Sphere Shaping for Wireless Communications With Short Packets. *Gultekin, Y.C.*, +, *TWC Feb. 2020 1098-1112*
- Convolutional neural nets**
- A Downscaled Faster-RCNN Framework for Signal Detection and Time-Frequency Localization in Wideband RF Systems. *Prasad, K.N.R.S.V.*, +, *TWC July 2020 4847-4862*
- Convolutional Neural Network-Based Multiple-Rate Compressive Sensing for Massive MIMO CSI Feedback: Design, Simulation, and Analysis. *Guo, J.*, +, *TWC April 2020 2827-2840*

Deep Learning Enabled Optimization of Downlink Beamforming Under Per-Antenna Power Constraints: Algorithms and Experimental Demonstration. *Zhang, J.*, +, *TWC June 2020 3738-3752*

Deep Learning-Based Sum Data Rate and Energy Efficiency Optimization for MIMO-NOMA Systems. *Huang, H.*, +, *TWC Aug. 2020 5373-5388*

Joint Antenna Selection and Hybrid Beamformer Design Using Unquantized and Quantized Deep Learning Networks. *Elbir, A.M.*, +, *TWC March 2020 1677-1688*

Optimizing the Learning Performance in Mobile Augmented Reality Systems With CNN. *He, Y.*, +, *TWC Aug. 2020 5333-5344*

#### Cooperative communication

5G mmWave Cooperative Positioning and Mapping Using Multi-Model PHD Filter and Map Fusion. *Kim, H.*, +, *TWC June 2020 3782-3795*

A Dynamic Clustering Algorithm for Multi-Point Transmissions in Mission-Critical Communications. *Daher, A.*, +, *TWC July 2020 4934-4946*

Caching at Base Stations With Multi-Cluster Multicast Wireless Backhaul via Accelerated First-Order Algorithms. *Li, Y.*, +, *TWC May 2020 2920-2933*

Cooperative Asynchronous Non-Orthogonal Multiple Access With Power Minimization Under QoS Constraints. *Zou, X.*, +, *TWC March 2020 1503-1518*

Cooperative MIMO-OFDM-Based Exposure-Path Prevention Over 3D Clustered Wireless Camera Sensor Networks. *Wang, J.*, +, *TWC Jan. 2020 4-18*

Dual-Hop Spatial Modulation With a Relay Transmitting its Own Information. *Li, Q.*, +, *TWC July 2020 4449-4463*

Energy Efficiency and Traffic Offloading Optimization in Integrated Satellite/Terrestrial Radio Access Networks. *Li, J.*, +, *TWC April 2020 2367-2381*

Free Space Optical Cooperative Communications via an Energy Harvesting Harvest-Store-Use Relay. *Abou-Rjeily, C.*, +, *TWC Oct. 2020 6564-6577*

Full-Duplex Enabled Mobile Edge Caching: From Distributed to Cooperative Caching. *Vu, T.X.*, +, *TWC Feb. 2020 1141-1153*

Hybrid Lightwave/RF Cooperative NOMA Networks. *Xiao, Y.*, +, *TWC Feb. 2020 1154-1166*

Hybrid RF/FSO Backhaul Networks With Statistical-QoS-Aware Buffer-Aided Relaying. *Hassan, M.Z.*, +, *TWC March 2020 1464-1483*

Impartial SWIPT-Assisted User Cooperation Schemes. *Chen, W.*, +, *TWC May 2020 3361-3375*

Improving Caching Efficiency in Content-Aware C-RAN-Based Cooperative Beamforming: A Joint Design Approach. *Zhao, M.*, +, *TWC June 2020 4125-4140*

Incentive-Aware Micro Computing Cluster Formation for Cooperative Fog Computing. *Luo, S.*, +, *TWC April 2020 2643-2657*

Interference Cancellation Based Channel Estimation for Massive MIMO Systems With Time Shifted Pilots. *Sun, B.*, +, *TWC Oct. 2020 6826-6843*

Jamming-Resilient Frequency Hopping-Aided Secure Communication for Internet-of-Things in the Presence of an Untrusted Relay. *Letafati, M.*, +, *TWC Oct. 2020 6771-6785*

Joint 3D Maneuver and Power Adaptation for Secure UAV Communication With CoMP Reception. *Yao, J.*, +, *TWC Oct. 2020 6992-7006*

Joint C-OMA and C-NOMA Wireless Backhaul Scheduling in Heterogeneous Ultra Dense Networks. *Zhang, Q.*, +, *TWC Feb. 2020 874-887*

Joint Power and Blocklength Optimization for URLLC in a Factory Automation Scenario. *Ren, H.*, +, *TWC March 2020 1786-1801*

Joint Relay Selection and Power Allocation for Underwater Cooperative Optical Wireless Networks. *Xing, F.*, +, *TWC Jan. 2020 251-264*

Joint User Selection, Power Allocation, and Precoding Design With Imperfect CSIT for Multi-Cell MU-MIMO Downlink Systems. *Choi, J.*, +, *TWC Jan. 2020 162-176*

Max-Min Fairness of  $K$ -User Cooperative Rate-Splitting in MISO Broadcast Channel With User Relaying. *Mao, Y.*, +, *TWC Oct. 2020 6362-6376*

Mixture Detectors for Improved Spectrum Sensing. *Senanayake, R.*, +, *TWC June 2020 4335-4348*

Multi-Antenna Two-Way Relay Based Cooperative NOMA. *Ly, L.*, +, *TWC Oct. 2020 6486-6503*

Multidimensional Cooperative Caching in CoMP-Integrated Ultra-Dense Cellular Networks. *Lin, P.*, +, *TWC March 2020 1977-1989*

Network Coding Techniques for Primary-Secondary User Cooperation in Cognitive Radio Networks. *Papadopoulos, A.*, +, *TWC June 2020 4195-4208*

On Data Dissemination Enhanced by Network Coded Device-to-Device Communications. *Li, Y.*, +, *TWC June 2020 3963-3976*

Online Optimal Control for Wireless Cooperative Transmission by Ambient RF Powered Sensors. *Liu, T.*, +, *TWC Sept. 2020 6007-6019*

Optimal Linear Cooperation for Signal Classification in Cognitive Communication Networks. *Ma, Y.*, +, *TWC May 2020 3144-3155*

Performance Analysis and Optimization of Cooperative Satellite-Aerial-Terrestrial Systems. *Pan, G.*, +, *TWC Oct. 2020 6693-6707*

Reliability Bounds for Dependent Fading Wireless Channels. *Besser, K.*, +, *TWC Sept. 2020 5833-5845*

Residual Transceiver Hardware Impairments on Cooperative NOMA Networks. *Li, X.*, +, *TWC Jan. 2020 680-695*

Resource Allocation for Wireless Cooperative IoT Network With Energy Harvesting. *Chen, X.*, +, *TWC July 2020 4879-4893*

Robust Hybrid Cooperative Positioning Via a Modified Distributed Projection-Based Method. *Liu, T.*, +, *TWC May 2020 3003-3018*

The Joint and Product Meta Distributions of the SIR and Their Applications to Secrecy and Cooperation. *Yu, X.*, +, *TWC July 2020 4408-4423*

Total Throughput Maximization of Cooperative Cognitive Radio Networks With Energy Harvesting. *Zheng, K.*, +, *TWC Jan. 2020 533-546*

UAV-to-UAV Communications in Cellular Networks. *Azari, M.M.*, +, *TWC Sept. 2020 6130-6144*

User-Centric Performance Optimization With Remote Radio Head Cooperation in C-RAN. *You, L.*, +, *TWC Jan. 2020 340-353*

Visible Light-Based User Position, Orientation and Channel Estimation Using Self-Adaptive Location-Domain Grid Sampling. *Zhou, B.*, +, *TWC July 2020 5025-5039*

Wirelessly-Powered Sensor Networks: Power Allocation for Channel Estimation and Energy Beamforming. *Du, R.*, +, *TWC May 2020 2987-3002*

#### Correlation methods

Correlation Analysis and Link Gain Prediction for Optical Wireless Scattering Communication Over Broad Spectra. *Liu, B.*, +, *TWC Feb. 2020 1386-1396*

Extended  $\eta$ - $\mu$  Fading Models. *de Lima Tejerina, G.R.*, +, *TWC Dec. 2020 8153-8164*

Multipath Estimating Delay Lock Loop for LTE Signal TOA Estimation in Indoor and Urban Environments. *Wang, P.*, +, *TWC Aug. 2020 5518-5530*

Reliable Detection of Unknown Cell-Edge Users via Canonical Correlation Analysis. *Ibrahim, M.S.*, +, *TWC June 2020 4170-4182*

Side-Information Aided Compressed Multi-User Detection for Up-Link Grant-Free NOMA. *Cui, Y.*, +, *TWC Nov. 2020 7720-7731*

#### Correlation theory

Massive MIMO Extensions to the COST 2100 Channel Model: Modeling and Validation. *Flordelis, J.*, +, *TWC Jan. 2020 380-394*

#### Cost reduction

HFEL: Joint Edge Association and Resource Allocation for Cost-Efficient Hierarchical Federated Edge Learning. *Luo, S.*, +, *TWC Oct. 2020 6335-6548*

#### Covariance matrices

Correlation Analysis and Link Gain Prediction for Optical Wireless Scattering Communication Over Broad Spectra. *Liu, B.*, +, *TWC Feb. 2020 1386-1396*

Edge and Central Cloud Computing: A Perfect Pairing for High Energy Efficiency and Low-Latency. *Hu, X.*, +, *TWC Feb. 2020 1070-1083*

Elements Failure Robust Compensation in 2D Phased Arrays for DOA Estimation With M-ary PSK Signals. *Hamici, Z.*, *TWC Feb. 2020 1347-1356*

Energy Efficiency Optimization for Downlink Massive MIMO With Statistical CSIT. *You, L.*, +, *TWC April 2020 2684-2698*

Jamming-Assisted Proactive Eavesdropping Over Two Suspicious Communication Links. *Zhang, H.*, +, *TWC July 2020 4817-4830*

Massive MIMO Channel Estimation With an Untrained Deep Neural Network. *Balevi, E.*, +, *TWC March 2020 2079-2090*

- Multi-Antenna Aided Secrecy Beamforming Optimization for Wirelessly Powered HetNets. *Gong, S.*, +, *TWC Aug. 2020 5261-5277*
- Physical Layer Authentication for Massive MIMO Systems With Hardware Impairments. *Zhang, P.*, +, *TWC March 2020 1563-1576*
- Secrecy Energy Efficiency in Multi-Antenna SWIPT Networks With Dual-Layer PS Receivers. *Lu, Y.*, +, *TWC June 2020 4290-4306*
- Spatial Channel Covariance Estimation for Hybrid Architectures Based on Tensor Decompositions. *Park, S.*, +, *TWC Feb. 2020 1084-1097*
- Transmit Antenna Selection and Beamformer Design for Secure Spatial Modulation With Rough CSI of Eve. *Xia, G.*, +, *TWC July 2020 4643-4656*
- Two-Stage ICI Suppression in the Downlink of Asynchronous URLLC. *Zeng, C.*, +, *TWC April 2020 2785-2799*
- Crosstalk**
- MIMO and Massive MIMO Transmitter Crosstalk. *Handel, P.*, +, *TWC March 2020 1882-1893*
- Crowdsourcing**
- A Crowdsourcing Framework for On-Device Federated Learning. *Pandey, S.R.*, +, *TWC May 2020 3241-3256*
- IndoorWaze: A Crowdsourcing-Based Context-Aware Indoor Navigation System. *Li, T.*, +, *TWC Aug. 2020 5461-5472*
- Joint Annotator-and-Spectrum Allocation in Wireless Networks for Crowd Labeling. *Li, X.*, +, *TWC Sept. 2020 6116-6129*
- Cryptocurrencies**
- Deep Reinforcement Learning (DRL)-Based Device-to-Device (D2D) Caching With Blockchain and Mobile Edge Computing. *Zhang, R.*, +, *TWC Oct. 2020 6469-6485*
- Joint Optimization of Radio and Computational Resources Allocation in Blockchain-Enabled Mobile Edge Computing Systems. *Feng, J.*, +, *TWC June 2020 4321-4334*
- Joint Resource Allocation and Incentive Design for Blockchain-Based Mobile Edge Computing. *Sun, W.*, +, *TWC Sept. 2020 6050-6064*
- Cryptographic protocols**
- A Lightweight and Secure Group Key Based Handover Authentication Protocol for the Software-Defined Space Information Network. *Xue, K.*, +, *TWC June 2020 3673-3684*
- Authenticating On-Body IoT Devices: An Adversarial Learning Approach. *Huang, Y.*, +, *TWC Aug. 2020 5234-5245*
- Cryptography**
- Jamming-Resilient Frequency Hopping-Aided Secure Communication for Internet-of-Things in the Presence of an Untrusted Relay. *Letafati, M.*, +, *TWC Oct. 2020 6771-6785*
- Joint Optimization of Radio and Computational Resources Allocation in Blockchain-Enabled Mobile Edge Computing Systems. *Feng, J.*, +, *TWC June 2020 4321-4334*
- Curve fitting**
- Multi-Tone Signal Optimization for Wireless Power Transfer in the Presence of Wireless Communication Links. *Mouris, B.A.*, +, *TWC May 2020 3575-3590*
- CW radar**
- On the Effectiveness of OTFS for Joint Radar Parameter Estimation and Communication. *Gaudio, L.*, +, *TWC Sept. 2020 5951-5965*
- Cyber-physical systems**
- PACE: Physically-Assisted Channel Estimation. *Xia, M.*, +, *TWC June 2020 3769-3781*
- Cyclic codes**
- MOCZ for Blind Short-Packet Communication: Practical Aspects. *Walk, P.*, +, *TWC Oct. 2020 6675-6692*
- Cyclic redundancy check codes**
- Supervised and Semi-Supervised Learning for MIMO Blind Detection With Low-Resolution ADCs. *Nguyen, L.V.*, +, *TWC April 2020 2427-2442*
- D**
- Data acquisition**
- UAV Trajectory Planning for Data Collection from Time-Constrained IoT Devices. *Samir, M.*, +, *TWC Jan. 2020 34-46*
- Data analysis**
- Modeling and Analysis of Data Harvesting Architecture Based on Unmanned Aerial Vehicles. *Choi, C.*, +, *TWC March 2020 1825-1838*
- Data communication**
- A Nonlinear Recursive Model Based Optimal Transmission Scheduling in RF Energy Harvesting Wireless Communications. *Luo, Y.*, +, *TWC May 2020 3449-3462*
- Fully-/Partially-Connected Hybrid Beamforming Architectures for mmWave MU-MIMO. *Song, X.*, +, *TWC March 2020 1754-1769*
- Hybrid Power Line/Wireless Systems: An Optimal Power Allocation Perspective. *Filomeno, M.d.L.*, +, *TWC Oct. 2020 6289-6300*
- Mixed-Numerology Signals Transmission and Interference Cancellation for Radio Access Network Slicing. *Yang, B.*, +, *TWC Aug. 2020 5132-5147*
- Multi-Agent Reinforcement Learning-Based Resource Allocation for UAV Networks. *Cui, J.*, +, *TWC Feb. 2020 729-743*
- Data compression**
- Joint Data Compression and Computation Offloading in Hierarchical Fog-Cloud Systems. *Nguyen, T.T.*, +, *TWC Jan. 2020 293-309*
- Data dissemination**
- On Data Dissemination Enhanced by Network Coded Device-to-Device Communications. *Li, Y.*, +, *TWC June 2020 3963-3976*
- Data handling**
- A Downscaled Faster-RCNN Framework for Signal Detection and Time-Frequency Localization in Wideband RF Systems. *Prasad, K.N.R.S.V.*, +, *TWC July 2020 4847-4862*
- Data models**
- Machine Intelligence at the Edge With Learning Centric Power Allocation. *Wang, S.*, +, *TWC Nov. 2020 7293-7308*
- Multi-Armed Bandit-Based Client Scheduling for Federated Learning. *Xia, W.*, +, *TWC Nov. 2020 7108-7123*
- Data privacy**
- Broadband Analog Aggregation for Low-Latency Federated Edge Learning. *Zhu, G.*, +, *TWC Jan. 2020 491-506*
- Federated Learning via Over-the-Air Computation. *Yang, K.*, +, *TWC March 2020 2022-2035*
- HFEL: Joint Edge Association and Resource Allocation for Cost-Efficient Hierarchical Federated Edge Learning. *Luo, S.*, +, *TWC Oct. 2020 6535-6548*
- Peace: Privacy-Preserving and Cost-Efficient Task Offloading for Mobile-Edge Computing. *He, X.*, +, *TWC March 2020 1814-1824*
- Databases**
- Deep Learning-Based Edge Caching in Fog Radio Access Networks. *Jiang, Y.*, +, *TWC Dec. 2020 8442-8454*
- Decision making**
- A Distributed Framework for Task Offloading in Edge Computing Networks of Arbitrary Topology. *Liu, B.*, +, *TWC April 2020 2855-2867*
- Adaptive Forwarding With Probabilistic Delay Guarantee in Low-Duty-Cycle WSNs. *Cheng, L.*, +, *TWC July 2020 4775-4792*
- Collaborative Multi-Agent Multi-Armed Bandit Learning for Small-Cell Caching. *Xu, X.*, +, *TWC April 2020 2570-2585*
- Joint Data Compression and Computation Offloading in Hierarchical Fog-Cloud Systems. *Nguyen, T.T.*, +, *TWC Jan. 2020 293-309*
- Decision theory**
- Adaptive Video Streaming for Massive MIMO Networks via Approximate MDP and Reinforcement Learning. *Lan, Q.*, +, *TWC Sept. 2020 5716-5731*
- Adaptive Video Streaming With Edge Caching and Video Transcoding Over Software-Defined Mobile Networks: A Deep Reinforcement Learning Approach. *Luo, J.*, +, *TWC March 2020 1577-1592*
- Age of Information Aware Radio Resource Management in Vehicular Networks: A Proactive Deep Reinforcement Learning Perspective. *Chen, X.*, +, *TWC April 2020 2268-2281*
- Robust Data Detection for MIMO Systems With One-Bit ADCs: A Reinforcement Learning Approach. *Jeon, Y.*, +, *TWC March 2020 1663-1676*
- Decode and forward communication**
- A Deep Study on Layered Multi-Relay Non-Orthogonal Amplify-Forward Networks. *Padidar, P.*, +, *TWC Jan. 2020 354-366*
- Dual-Hop Spatial Modulation With a Relay Transmitting its Own Information. *Li, Q.*, +, *TWC July 2020 4449-4463*
- End-to-End Performance Analysis of Underwater Optical Wireless Relaying and Routing Techniques Under Location Uncertainty. *Celik, A.*, +, *TWC Feb. 2020 1167-1181*

Free Space Optical Cooperative Communications via an Energy Harvesting Harvest-Store-Use Relay. *Abou-Rjeily, C.*, +, *TWC Oct. 2020 6564-6577*

Secure 3D Mobile UAV Relaying for Hybrid Satellite-Terrestrial Networks. *Sharma, P.K.*, +, *TWC April 2020 2770-2784*

Tractable Approach to MmWaves Cellular Analysis With FSO Backhauling Under Feedback Delay and Hardware Limitations. *Balti, E.*, +, *TWC Jan. 2020 410-422*

#### Decoding

A Deep Learning Approach to Universal Binary Visible Light Communication Transceiver. *Lee, H.*, +, *TWC Feb. 2020 956-969*

A Network Linear Block Coding Approach to Selective Detect-and-Forward Multi-Way Relaying With Differential Modulation. *Hou, X.*, +, *TWC Sept. 2020 5749-5764*

Anywhere Decoding: Low-Overhead Uplink Interference Management for Wireless Networks. *Pezeshki, H.*, +, *TWC June 2020 4095-4108*

Cooperative Asynchronous Non-Orthogonal Multiple Access With Power Minimization Under QoS Constraints. *Zou, X.*, +, *TWC March 2020 1503-1518*

Cube-Split: A Structured Grassmannian Constellation for Non-Coherent SIMO Communications. *Ngo, K.*, +, *TWC March 2020 1948-1964*

Deep Energy Autoencoder for Noncoherent Multicarrier MU-SIMO Systems. *Van Luong, T.*, +, *TWC June 2020 3952-3962*

Delay-Aware Computation Offloading in NOMA MEC Under Differentiated Uploading Delay. *Sheng, M.*, +, *TWC April 2020 2813-2826*

Design and Analysis of Rotated-QAM Based Probabilistic Shaping Scheme for Rayleigh Fading Channels. *Yao, Y.*, +, *TWC May 2020 3047-3063*

Exploiting Intelligent Reflecting Surfaces in NOMA Networks: Joint Beamforming Optimization. *Mu, X.*, +, *TWC Oct. 2020 6884-6898*

Fundamentals of Power Allocation Strategies for Downlink Multi-User NOMA With Target Rates. *Oviedo, J.A.*, +, *TWC March 2020 1906-1917*

Heterogeneous Semi-Blind Interference Alignment in Finite-SNR Networks With Fairness Consideration. *Yang, Q.*, +, *TWC April 2020 2472-2488*

Integer-Forcing Architectures for Uplink Cloud Radio Access Networks. *El Bakoury, I.*, +, *TWC April 2020 2336-2351*

Jamming-Assisted Proactive Eavesdropping Over Two Suspicious Communication Links. *Zhang, H.*, +, *TWC July 2020 4817-4830*

Joint Detection and Decoding of Polar Coded 5G Control Channels. *Jalali, A.*, +, *TWC March 2020 2066-2078*

Joint Power Allocation and Splitting Control for SWIPT-Enabled NOMA Systems. *Tang, J.*, +, *TWC Jan. 2020 120-133*

Joint Power and Blocklength Optimization for URLLC in a Factory Automation Scenario. *Ren, H.*, +, *TWC March 2020 1786-1801*

Learning for Detection: MIMO-OFDM Symbol Detection Through Downlink Pilots. *Zhou, Z.*, +, *TWC June 2020 3712-3726*

Making Cell-Free Massive MIMO Competitive With MMSE Processing and Centralized Implementation. *Bjornson, E.*, +, *TWC Jan. 2020 77-90*

Minimum-Latency FEC Design With Delayed Feedback: Mathematical Modeling and Efficient Algorithms. *Xu, X.*, +, *TWC Nov. 2020 7210-7223*

MOCZ for Blind Short-Packet Communication: Practical Aspects. *Walk, P.*, +, *TWC Oct. 2020 6675-6692*

Multi-Layer HARQ With Delayed Feedback. *Khreis, A.*, +, *TWC Sept. 2020 6224-6237*

Multi-User Detection Based on Expectation Propagation for the Non-Coherent SIMO Multiple Access Channel. *Ngo, K.*, +, *TWC Sept. 2020 6145-6161*

NOMA in the Uplink: Delay Analysis With Imperfect CSI and Finite-Length Coding. *Schiessl, S.*, +, *TWC June 2020 3879-3893*

Non-Coherent Massive MIMO Systems: A Constellation Design Approach. *Xie, H.*, +, *TWC June 2020 3812-3825*

On the Effectiveness of OTFS for Joint Radar Parameter Estimation and Communication. *Gaudio, L.*, +, *TWC Sept. 2020 5951-5965*

On the Performance of HARQ Protocols With Blanking in NOMA Systems. *Mheich, Z.*, +, *TWC Nov. 2020 7423-7438*

On Throughput Improvement Using Immediate Re-Transmission in Grant-Free Random Access With Massive MIMO. *Choi, J.*, *TWC Dec. 2020 8341-8350*

Optimized Precoded Spatio-Temporal Partial-Response Signaling Over Frequency-Selective MIMO Channels. *Bailleul, J.*, +, *TWC Sept. 2020 5938-5950*

Partial Non-Orthogonal Multiple Access (NOMA) in Downlink Poisson Networks. *Ali, K.S.*, +, *TWC Nov. 2020 7637-7652*

Physical-Layer Security in the Finite Blocklength Regime Over Fading Channels. *Zheng, T.*, +, *TWC May 2020 3405-3420*

Secure UAV-Enabled Communication Using Han-Kobayashi Signaling. *Sheng, Z.*, +, *TWC May 2020 2905-2919*

Supervised and Semi-Supervised Learning for MIMO Blind Detection With Low-Resolution ADCs. *Nguyen, L.V.*, +, *TWC April 2020 2427-2442*

Two-Layer Coded Channel Access With Collision Resolution: Design and Analysis. *Ebrahimi, M.*, +, *TWC Dec. 2020 7986-7997*

Unary Coding Controlled Simultaneous Wireless Information and Power Transfer. *Hu, J.*, +, *TWC Jan. 2020 637-649*

#### Delay effects

Distributed Optimization for Computation Offloading in Edge Computing. *Lin, R.*, +, *TWC Dec. 2020 8179-8194*

#### Delay lock loops

Multipath Estimating Delay Lock Loop for LTE Signal TOA Estimation in Indoor and Urban Environments. *Wang, P.*, +, *TWC Aug. 2020 5518-5530*

#### Delay tolerant networks

Freshness-Aware Seed Selection for Offloading Cellular Traffic Through Opportunistic Mobile Networks. *Zhou, H.*, +, *TWC April 2020 2658-2669*

#### Delays

A Channel Model for Indoor Time-of-Arrival Ranging. *Latinovic, Z.*, +, *TWC Feb. 2020 1415-1428*

Adaptive Forwarding With Probabilistic Delay Guarantee in Low-Duty-Cycle WSNs. *Cheng, L.*, +, *TWC July 2020 4775-4792*

Cache-Enabling UAV Communications: Network Deployment and Resource Allocation. *Zhang, T.*, +, *TWC Nov. 2020 7470-7483*

Channel-Based Optimal Back-Off Delay Control in Delay-Constrained Industrial WSNs. *Li, Q.*, +, *TWC Jan. 2020 696-711*

Clock Synchronization in Wireless Networks Using Matrix Completion-Based Maximum Likelihood Estimation. *Elnahas, O.*, +, *TWC Dec. 2020 8220-8231*

Distributed Optimization for Computation Offloading in Edge Computing. *Lin, R.*, +, *TWC Dec. 2020 8179-8194*

Edge-Aided Computing and Transmission Scheduling for LTE-U-Enabled IoT. *He, H.*, +, *TWC Dec. 2020 7881-7896*

How Can Randomized Routing Protocols Hide Flow Information in Wireless Networks?. *Zhao, S.*, +, *TWC Nov. 2020 7224-7236*

Joint Distributed Link Scheduling and Power Allocation for Content Delivery in Wireless Caching Networks. *Choi, M.*, +, *TWC Dec. 2020 7810-7824*

Learning Link Schedules in Self-Backhauled Millimeter Wave Cellular Networks. *Gupta, M.*, +, *TWC Dec. 2020 8024-8038*

Leveraging the Power of Prediction: Predictive Service Placement for Latency-Sensitive Mobile Edge Computing. *Ma, H.*, +, *TWC Oct. 2020 6454-6468*

Max-Min Energy Balance in Wireless-Powered Hierarchical Fog-Cloud Computing Networks. *Liu, J.*, +, *TWC Nov. 2020 7064-7080*

Minimizing the Age of Information of Cognitive Radio-Based IoT Systems Under a Collision Constraint. *Wang, Q.*, +, *TWC Dec. 2020 8054-8067*

Minimum-Latency FEC Design With Delayed Feedback: Mathematical Modeling and Efficient Algorithms. *Xu, X.*, +, *TWC Nov. 2020 7210-7223*

Multi-Layer HARQ With Delayed Feedback. *Khreis, A.*, +, *TWC Sept. 2020 6224-6237*

Multihop Wireless Networks With Quality-of-Service: Fluid and Diffusion Approximations. *Krishnan K. S. A.*, +, *TWC Dec. 2020 8113-8125*

Opportunistic NOMA for Uplink Short-Message Delivery With a Delay Constraint. *Choi, J.*, *TWC June 2020 3727-3737*

Preamble-Based Channel Estimation for OQAM/FBMC Systems With Delay Diversity. *Liu, W.*, +, *TWC Nov. 2020 7169-7180*

Random Network Coding Enabled Routing Protocol in Unmanned Aerial Vehicle Networks. *Song, H.*, +, *TWC Dec. 2020 8382-8395*

Rethinking Modulation and Detection for High Doppler Channels. *Dean, T.R.*, +, *TWC June 2020 3629-3642*

**Demodulation**

On UW-Based Transmission for MIMO Multi-Carriers With Spatial Multiplexing. *Ehsanfar, S.*, +, *TWC Sept. 2020 5875-5890*

**Detectors**

Learning to Search for MIMO Detection. *Sun, J.*, +, *TWC Nov. 2020 7571-7584*

LRT Detectors for Spectrum Sensing of Weak OFDM Signals With Periodic Pilots. *Yin, W.*, +, *TWC Nov. 2020 7514-7527*

**Device-to-device communication**

A Secure Group-Oriented Device-to-Device Authentication Protocol for 5G Wireless Networks. *Shang, Z.*, +, *TWC Nov. 2020 7021-7032*

Cyclic Block-Spreading Direct Discovery for D2D Networks. *Chang, W.*, +, *TWC Nov. 2020 7610-7620*

Predicting Device-to-Device Channels From Cellular Channel Measurements: A Learning Approach. *Najla, M.*, +, *TWC Nov. 2020 7124-7138*

**Dictionaries**

Dictionary Learning for Channel Estimation in Hybrid Frequency-Selective mmWave MIMO Systems. *Xie, H.*, +, *TWC Nov. 2020 7407-7422*

**Differential phase shift keying**

Cooperative MIMO-OFDM-Based Exposure-Path Prevention Over 3D Clustered Wireless Camera Sensor Networks. *Wang, J.*, +, *TWC Jan. 2020 4-18*

Hybrid Constellations for Dual-Polarized Wireless Communications. *Wu, X.*, +, *TWC Aug. 2020 5321-5332*

**Digital video broadcasting**

EVM Closed-Form Expression for OFDM Signals With Tone Reservation-Based PAPR Reduction. *El Hassan, M.*, +, *TWC April 2020 2352-2366*

**Digital-analog conversion**

A Case for Digital Beamforming at mmWave. *Dutta, S.*, +, *TWC Feb. 2020 756-770*

**Direct broadcasting by satellite**

Energy Efficiency and Traffic Offloading Optimization in Integrated Satellite/Terrestrial Radio Access Networks. *Li, J.*, +, *TWC April 2020 2367-2381*

Performance Analysis of TCP New Reno Over Satellite DVB-RCS2 Random Access Links. *Liu, J.*, +, *TWC Jan. 2020 435-446*

**Directed graphs**

Machine Learning-Enabled Cooperative Spectrum Sensing for Non-Orthogonal Multiple Access. *Shi, Z.*, +, *TWC Sept. 2020 5692-5702*

**Direction-of-arrival estimation**

Elements Failure Robust Compensation in 2D Phased Arrays for DOA Estimation With M-ary PSK Signals. *Hamici, Z.*, *TWC Feb. 2020 1347-1356*

Enabling Super-Resolution Parameter Estimation for mm-Wave Channel Sounding. *Wang, R.*, +, *TWC May 2020 3077-3090*

Fast Angle-of-Arrival Estimation via Virtual Subarrays in Analog Antenna Array. *Qin, C.*, +, *TWC Oct. 2020 6425-6439*

High-Resolution Channel Estimation for Frequency-Selective mmWave Massive MIMO Systems. *Ma, W.*, +, *TWC May 2020 3517-3529*

Multi-Mode OAM Radio Waves: Generation, Angle of Arrival Estimation and Reception With UCAs. *Chen, R.*, +, *TWC Oct. 2020 6932-6947*

PCA-Based Channel Estimation and Tracking for Massive MIMO Systems With Uniform Rectangular Arrays. *Wang, A.*, +, *TWC Oct. 2020 6786-6797*

Statistical Beamforming for FDD Downlink Massive MIMO via Spatial Information Extraction and Beam Selection. *Liu, H.*, +, *TWC July 2020 4617-4631*

**Directive antennas**

Analytical Channel Models for Millimeter Wave UAV Networks Under Hovering Fluctuations. *Dabiri, M.T.*, +, *TWC April 2020 2868-2883*

Characterizing Resource Allocation Trade-Offs in 5G NR Serving Multicast and Unicast Traffic. *Samuylov, A.*, +, *TWC May 2020 3421-3434*

**Discrete Fourier transforms**

IDFT-VFDM for Supplementary Uplink and LTE-NR Co-Existence. *Feng, Q.*, +, *TWC May 2020 3435-3448*

Mixed-Numerology Signals Transmission and Interference Cancellation for Radio Access Network Slicing. *Yang, B.*, +, *TWC Aug. 2020 5132-5147*

New Transceiver Designs for Interleaved Frequency-Division Multiple Access. *Liew, S.C.*, +, *TWC Dec. 2020 7765-7778*

**Discrete time systems**

A Maximin Optimal Online Power Control Policy for Energy Harvesting Communications. *Yang, S.*, +, *TWC Oct. 2020 6708-6720*

**Discrete transforms**

Uplink Resource Allocation in Energy Harvesting Cellular Network With H2H/M2M Coexistence. *Nobar, S.K.*, +, *TWC Aug. 2020 5101-5116*

**Distance measurement**

NLOS Effect Mitigation via Spatial Geometry Exploitation in Cooperative Localization. *Wang, Y.*, +, *TWC Sept. 2020 6037-6049*

**Distortion**

Iterative Nonlinear Self-Interference Cancellation for In-Band Full-Duplex Wireless Communications Under Mixer Imbalance and Amplifier Nonlinearity. *Komatsu, K.*, +, *TWC July 2020 4424-4438*

Optimized Power Control for Over-the-Air Computation in Fading Channels. *Cao, X.*, +, *TWC Nov. 2020 7498-7513*

**Distributed algorithms**

Distributed Optimization for Computation Offloading in Edge Computing. *Lin, R.*, +, *TWC Dec. 2020 8179-8194*

**Distributed control**

NOMA-Based D2D-Enabled Traffic Offloading for 5G and Beyond Networks Employing Licensed and Unlicensed Access. *Sun, M.*, +, *TWC June 2020 4109-4124*

**Distributed databases**

Deep Reinforcement Learning (DRL)-Based Device-to-Device (D2D) Caching With Blockchain and Mobile Edge Computing. *Zhang, R.*, +, *TWC Oct. 2020 6469-6485*

Joint Optimization of Radio and Computational Resources Allocation in Blockchain-Enabled Mobile Edge Computing Systems. *Feng, J.*, +, *TWC June 2020 4321-4334*

Joint Resource Allocation and Incentive Design for Blockchain-Based Mobile Edge Computing. *Sun, W.*, +, *TWC Sept. 2020 6050-6064*

**Distributed processing**

A Distributed Framework for Task Offloading in Edge Computing Networks of Arbitrary Topology. *Liu, B.*, +, *TWC April 2020 2855-2867*

Edge AI: On-Demand Accelerating Deep Neural Network Inference via Edge Computing. *Li, E.*, +, *TWC Jan. 2020 447-457*

Joint Channel and Queue Aware Scheduling for Latency Sensitive Mobile Edge Computing With Power Constraints. *Han, D.*, +, *TWC June 2020 3938-3951*

Mobile Edge Computing Meets mmWave Communications: Joint Beamforming and Resource Allocation for System Delay Minimization. *Zhao, C.*, +, *TWC April 2020 2382-2396*

Online Anticipatory Proactive Network Association in Mobile Edge Computing for IoT. *Cui, Q.*, +, *TWC July 2020 4519-4534*

**Distributed sensors**

Hybrid Offline-Online Design for UAV-Enabled Data Harvesting in Probabilistic LoS Channels. *You, C.*, +, *TWC June 2020 3753-3768*

**Diversity methods**

Set Partition Modulation. *Yarkin, F.*, +, *TWC Nov. 2020 7557-7570*

Super-Mode OFDM With Index Modulation. *Dogukan, A.T.*, +, *TWC Nov. 2020 7353-7362*

**Diversity reception**

A Deep Study on Layered Multi-Relay Non-Orthogonal Amplify-Forward Networks. *Padidar, P.*, +, *TWC Jan. 2020 354-366*

A Learning-Based Pre-Allocation Scheme for Low-Latency Access in Industrial Wireless Networks. *Li, M.*, +, *TWC Jan. 2020 650-664*

A Unified Statistical Model for Atmospheric Turbulence-Induced Fading in Orbital Angular Momentum Multiplexed FSO Systems. *Amhoud, E.*, +, *TWC Feb. 2020 888-900*

Design and Analysis of Rotated-QAM Based Probabilistic Shaping Scheme for Rayleigh Fading Channels. *Yao, Y.*, +, *TWC May 2020 3047-3063*

Error Rate Analysis of Amplitude-Coherent Detection Over Rician Fading Channels With Receiver Diversity. *Al-Jarrah, M.A.*, +, *TWC Jan. 2020 134-147*

Generalized OFDM-IM With Noncoherent Detection. *Fazeli, A.*, +, *TWC July 2020 4464-4479*

Hybrid Lightwave/RF Cooperative NOMA Networks. *Xiao, Y.*, +, *TWC Feb. 2020 1154-1166*

- Hybrid Power Line/Wireless Systems: An Optimal Power Allocation Perspective. *Filomeno, M.d.L.*, +, *TWC Oct. 2020 6289-6300*
- Impartial SWIPT-Assisted User Cooperation Schemes. *Chen, W.*, +, *TWC May 2020 3361-3375*
- Joint Impact of I/Q Imbalance and Imperfect CSI on SM-MIMO Systems Over Generalized Beckmann Fading Channels: Optimal Detection and Cramer-Rao Bound. *Cambilen, A.E.*, +, *TWC May 2020 3034-3046*
- Making Cell-Free Massive MIMO Competitive With MMSE Processing and Centralized Implementation. *Bjornson, E.*, +, *TWC Jan. 2020 77-90*
- mmWave Amplify-and-Forward MIMO Relay Networks With Hybrid Precoding/Combining Design. *Jiang, L.*, +, *TWC Feb. 2020 1333-1346*
- mmWave Lens-Based MIMO System for Suppressing Small-Scale Fading and Shadowing. *Almasi, M.A.*, +, *TWC Aug. 2020 5292-5306*
- MOCZ for Blind Short-Packet Communication: Practical Aspects. *Walk, P.*, +, *TWC Oct. 2020 6675-6692*
- Multi-Antenna Two-Way Relay Based Cooperative NOMA. *Lv, L.*, +, *TWC Oct. 2020 6486-6503*
- Network-Coded Cooperative Systems With Generalized User-Relay Selection. *Heidarpour, A.R.*, +, *TWC Nov. 2020 7251-7264*
- Non-Blocking Scheme for Blind Network-Assisted Diversity Multiple Access in Synchronous Channels. *Akl, N.*, +, *TWC March 2020 1894-1905*
- Performance of Dynamic Power and Channel Allocation for Downlink MC-NOMA Systems. *Liu, F.*, +, *TWC March 2020 1650-1662*
- Reliability Bounds for Dependent Fading Wireless Channels. *Besser, K.*, +, *TWC Sept. 2020 5833-5845*
- Residual Transceiver Hardware Impairments on Cooperative NOMA Networks. *Li, X.*, +, *TWC Jan. 2020 680-695*
- Secure 3D Mobile UAV Relaying for Hybrid Satellite-Terrestrial Networks. *Sharma, P.K.*, +, *TWC April 2020 2770-2784*
- Secure Communications in a Unified Non-Orthogonal Multiple Access Framework. *Yue, X.*, +, *TWC March 2020 2163-2178*
- Signal Design for Frequency-Phase Keying. *Kundu, N.K.*, +, *TWC June 2020 4067-4079*
- Simple Bounds for the Symmetric Capacity of the Rayleigh Fading Multiple Access Channel. *Domanovitz, E.*, +, *TWC July 2020 4594-4603*
- SINR Distribution and Scheduling Gain Analysis of Uplink Channel-Adaptive Scheduling. *Kamiya, S.*, +, *TWC April 2020 2321-2335*
- Tractable Approach to MmWaves Cellular Analysis With FSO Backhauling Under Feedback Delay and Hardware Limitations. *Balti, E.*, +, *TWC Jan. 2020 410-422*
- Transceiver Design and Signal Detection in Backscatter Communication Systems With Multiple-Antenna Tags. *Chen, C.*, +, *TWC May 2020 3273-3288*
- Wideband Collaborative Spectrum Sensing Using Massive MIMO Decision Fusion. *Dey, I.*, +, *TWC Aug. 2020 5246-5260*
- Doppler radar**
- Adaptive Detection and Localization Exploiting the IEEE 802.11ad Standard. *Grossi, E.*, +, *TWC July 2020 4394-4407*
- On the Effectiveness of OTFS for Joint Radar Parameter Estimation and Communication. *Gaudio, L.*, +, *TWC Sept. 2020 5951-5965*
- Doppler shift**
- AUV-Aided Localization of Underwater Acoustic Devices Based on Doppler Shift Measurements. *Gong, Z.*, +, *TWC April 2020 2226-2239*
- Downlink**
- Asymptotic Analysis of MRT Over Double Scattering Channels With MMSE Estimation. *Ye, J.*, +, *TWC Dec. 2020 7851-7863*
- Asymptotic Max-Min SINR Analysis of Reconfigurable Intelligent Surface Assisted MISO Systems. *Nadeem, Q.*, +, *TWC Dec. 2020 7748-7764*
- Centralized and Distributed Deep Reinforcement Learning Methods for Downlink Sum-Rate Optimization. *Khan, A.A.*, +, *TWC Dec. 2020 8410-8426*
- Correction to "Cell-Free Massive MIMO Versus Small Cells" [Mar 17 1834-1850]. *Ngo, H.Q.*, +, *TWC May 2020 3623-3624*
- Distributed Pareto Optimal Beamforming for the MISO Multi-Band Multi-Cell Downlink. *Moothedath, V.N.*, +, *TWC Nov. 2020 7196-7209*
- Efficient Scheduling for the Massive Random Access Gaussian Channel. *Kasper Facenda, G.*, +, *TWC Nov. 2020 7598-7609*
- Energy-Efficient Joint User Association and Power Allocation in a Heterogeneous Network. *Fang, F.*, +, *TWC Nov. 2020 7008-7020*
- Joint Spatial Division and Multiplexing in Massive MIMO: A Neighbor-Based Approach. *Song, Y.*, +, *TWC Nov. 2020 7392-7406*
- Joint Sub-Carrier and Power Allocation for Efficient Communication of Cellular UAVs. *Hellaoui, H.*, +, *TWC Dec. 2020 8287-8302*
- Partial Non-Orthogonal Multiple Access (NOMA) in Downlink Poisson Networks. *Ali, K.S.*, +, *TWC Nov. 2020 7637-7652*
- Power and Subcarrier Allocation in 5G NOMA-FD Systems. *Abrardo, A.*, +, *TWC Dec. 2020 8246-8260*
- Radar-Assisted Predictive Beamforming for Vehicular Links: Communication Served by Sensing. *Liu, F.*, +, *TWC Nov. 2020 7704-7719*
- Robust Secure Beamforming Design for Two-User Downlink MISO Rate-Splitting Systems. *Fu, H.*, +, *TWC Dec. 2020 8351-8365*
- Duality (mathematics)**
- Randomized Channel Sparsifying Hybrid Precoding for FDD Massive MIMO Systems. *Tian, C.*, +, *TWC Aug. 2020 5447-5460*
- Dynamic programming**
- Optimal Sensing Policy for Energy Harvesting Cognitive Radio Systems. *Villalonga, D.A.U.*, +, *TWC June 2020 3826-3838*
- Towards Demand-Driven Dynamic Incentive for Mobile Crowdsensing Systems. *Hu, J.*, +, *TWC July 2020 4907-4918*
- Dynamic scheduling**
- Age of Information Driven Cache Content Update Scheduling for Dynamic Contents in Heterogeneous Networks. *Ma, M.*, +, *TWC Dec. 2020 8427-8441*
- Edge-Aided Computing and Transmission Scheduling for LTE-U-Enabled IoT. *He, H.*, +, *TWC Dec. 2020 7881-7896*
- E**
- Economics**
- Power Control Optimization for Large-Scale Multi-Antenna Systems. *Zhou, Z.*, +, *TWC Nov. 2020 7339-7352*
- Edge computing**
- Distributed Optimization for Computation Offloading in Edge Computing. *Lin, R.*, +, *TWC Dec. 2020 8179-8194*
- Edge-Aided Computing and Transmission Scheduling for LTE-U-Enabled IoT. *He, H.*, +, *TWC Dec. 2020 7881-7896*
- Max-Min Energy Balance in Wireless-Powered Hierarchical Fog-Cloud Computing Networks. *Liu, J.*, +, *TWC Nov. 2020 7064-7080*
- Mean-Field-Type Game-Based Computation Offloading in Multi-Access Edge Computing Networks. *Banez, R.A.*, +, *TWC Dec. 2020 8366-8381*
- Eigenvalues and eigenfunctions**
- Correlation Analysis and Link Gain Prediction for Optical Wireless Scattering Communication Over Broad Spectra. *Liu, B.*, +, *TWC Feb. 2020 1386-1396*
- Eigenvalue-Decomposition-Precoded Ultra-Dense Non-Orthogonal Frequency-Division Multiplexing. *Osaki, S.*, +, *TWC Dec. 2020 8165-8178*
- Energy Efficiency Optimization for Downlink Massive MIMO With Statistical CSIT. *You, L.*, +, *TWC April 2020 2684-2698*
- PCA-Based Channel Estimation and Tracking for Massive MIMO Systems With Uniform Rectangular Arrays. *Wang, A.*, +, *TWC Oct. 2020 6786-6797*
- Electromagnetic coupling**
- On Reciprocity in Physically Consistent TDD Systems With Coupled Antennas. *Laas, T.*, +, *TWC Oct. 2020 6440-6453*
- Electromagnetic wave propagation**
- Absolute Amplitude Differential Phase Spatial Modulation and Its Non-Coherent Detection Under Fast Fading Channels. *Yu, D.*, +, *TWC April 2020 2742-2755*
- Near-Optimal MIMO-SCMA Uplink Detection With Low-Complexity Expectation Propagation. *Wang, P.*, +, *TWC Feb. 2020 1025-1037*
- Electromagnetic wave reflection**
- Design of Ambient Backscatter Training for Wireless Power Transfer. *Idrees, S.*, +, *TWC Oct. 2020 6316-6330*
- Electromagnetic wave scattering**
- Design of Ambient Backscatter Training for Wireless Power Transfer. *Idrees, S.*, +, *TWC Oct. 2020 6316-6330*

Modeling of 300 GHz Chip-to-Chip Wireless Channels in Metal Enclosures. *Fu, J.*, +, *TWC May 2020 3214-3227*

#### Electronic messaging

Opportunistic NOMA for Uplink Short-Message Delivery With a Delay Constraint. *Choi, J.*, *TWC June 2020 3727-3737*

#### Elliptic curves

A Secure Group-Oriented Device-to-Device Authentication Protocol for 5G Wireless Networks. *Shang, Z.*, +, *TWC Nov. 2020 7021-7032*

#### Encoding

Cache-Aided Combination Networks With Interference. *Elkordy, A.R.*, +, *TWC Jan. 2020 148-161*

Communications and Radar Coexistence in the Massive MIMO Regime: Uplink Analysis. *D'Andrea, C.*, +, *TWC Jan. 2020 19-33*

Deep Energy Autoencoder for Noncoherent Multicarrier MU-SIMO Systems. *Van Luong, T.*, +, *TWC June 2020 3952-3962*

Efficient Scheduling for the Massive Random Access Gaussian Channel. *Kasper Facenda, G.*, +, *TWC Nov. 2020 7598-7609*

Graph Theory Assisted Bit-to-Index-Combination Gray Coding for Generalized Index Modulation. *Xiao, L.*, +, *TWC Dec. 2020 8232-8245*

Minimum-Latency FEC Design With Delayed Feedback: Mathematical Modeling and Efficient Algorithms. *Xu, X.*, +, *TWC Nov. 2020 7210-7223*

Multi-Layer HARQ With Delayed Feedback. *Khreis, A.*, +, *TWC Sept. 2020 6224-6237*

Two-Layer Coded Channel Access With Collision Resolution: Design and Analysis. *Ebrahimi, M.*, +, *TWC Dec. 2020 7986-7997*

#### Energy conservation

A Time and Energy Saving-Based Frame Adjustment Strategy (TES-FAS) Tag Identification Algorithm for UHF RFID Systems. *Su, J.*, +, *TWC May 2020 2974-2986*

Adaptive Forwarding With Probabilistic Delay Guarantee in Low-Duty-Cycle WSNs. *Cheng, L.*, +, *TWC July 2020 4775-4792*

An Energy-Balanced Trust Cloud Migration Scheme for Underwater Acoustic Sensor Networks. *Han, G.*, +, *TWC March 2020 1636-1649*

Antenna Selection Strategy for Energy Efficiency Maximization in Uplink OFDMA Networks: A Multi-Objective Approach. *Khalili, A.*, +, *TWC Jan. 2020 595-609*

Convolutional Neural Network-Based Multiple-Rate Compressive Sensing for Massive MIMO CSI Feedback: Design, Simulation, and Analysis. *Guo, J.*, +, *TWC April 2020 2827-2840*

Cooperative MIMO-OFDM-Based Exposure-Path Prevention Over 3D Clustered Wireless Camera Sensor Networks. *Wang, J.*, +, *TWC Jan. 2020 4-18*

Decentralized WSEE Optimization for Massive MIMO Two-Way Half-Duplex AF Relaying. *Sharma, E.*, +, *TWC Feb. 2020 1397-1414*

Edge and Central Cloud Computing: A Perfect Pairing for High Energy Efficiency and Low-Latency. *Hu, X.*, +, *TWC Feb. 2020 1070-1083*

Energy Efficiency and Delay Tradeoff for Wireless Powered Mobile-Edge Computing Systems With Multi-Access Schemes. *Mao, S.*, +, *TWC March 2020 1855-1867*

Energy Efficiency and Traffic Offloading Optimization in Integrated Satellite/Terrestrial Radio Access Networks. *Li, J.*, +, *TWC April 2020 2367-2381*

Energy Efficiency Optimization for Downlink Massive MIMO With Statistical CSIT. *You, L.*, +, *TWC April 2020 2684-2698*

Energy Efficiency Optimization of Massive MIMO FD Relay With Quadratic Transform. *Sharma, E.*, +, *TWC Feb. 2020 1429-1448*

Energy Efficient Resource Management in SWIPT Enabled Heterogeneous Networks With NOMA. *Zhang, H.*, +, *TWC Feb. 2020 835-845*

Energy-Efficient Base Station Association and Beamforming for Multi-Cell Multiuser Systems. *An, J.*, +, *TWC April 2020 2841-2854*

Energy-Efficient Computation Offloading in Delay-Constrained Massive MIMO Enabled Edge Network Using Data Partitioning. *Malik, R.*, +, *TWC Oct. 2020 6977-6991*

Energy-Efficient Hybrid Precoder With Adaptive Overlapped Subarrays for Large-Array mmWave Systems. *Guo, J.*, +, *TWC March 2020 1484-1502*

Green-Oriented Dynamic Resource-on-Demand Strategy for Multi-RAT Wireless Networks Powered by Heterogeneous Energy Sources. *Qin, M.*, +, *TWC Aug. 2020 5547-5560*

Hierarchical Energy Optimization With More Realistic Power Consumption and Interference Models for Ultra-Dense Networks. *Zhuang, H.*, +, *TWC July 2020 4507-4518*

Individual Preference Aware Caching Policy Design in Wireless D2D Networks. *Lee, M.*, +, *TWC Aug. 2020 5589-5604*

Low-Resolution ADC Quantized Full-Duplex Massive MIMO-Enabled Wireless Backhaul in Heterogeneous Networks Over Rician Channels. *Anokye, P.*, +, *TWC Aug. 2020 5503-5517*

Omnidirectional Precoding for 3D Massive MIMO With Uniform Planar Arrays. *Lu, A.*, +, *TWC April 2020 2628-2642*

Power Allocation for D2D Communications With SWIPT. *Huang, J.*, +, *TWC April 2020 2308-2320*

Principal Component Analysis-Based Broadband Hybrid Precoding for Millimeter-Wave Massive MIMO Systems. *Sun, Y.*, +, *TWC Oct. 2020 6331-6346*

Residual Transceiver Hardware Impairments on Cooperative NOMA Networks. *Li, X.*, +, *TWC Jan. 2020 680-695*

Spectral-Energy Efficiency Trade-Off-Based Beamforming Design for MISO Non-Orthogonal Multiple Access Systems. *Al-Obiedollah, H.M.*, +, *TWC Oct. 2020 6593-6606*

User-Number Threshold-Based Small-Cell On/Off Control Scheme: Performance Evaluation and Optimization. *Park, J.W.*, +, *TWC Jan. 2020 367-379*

Wake-Up Scheduling for Energy-Efficient Mobile Devices. *Rostami, S.*, +, *TWC Sept. 2020 6020-6036*

#### Energy consumption

Adaptive Video Streaming With Edge Caching and Video Transcoding Over Software-Defined Mobile Networks: A Deep Reinforcement Learning Approach. *Luo, J.*, +, *TWC March 2020 1577-1592*

An Energy-Balanced Trust Cloud Migration Scheme for Underwater Acoustic Sensor Networks. *Han, G.*, +, *TWC March 2020 1636-1649*

Edge Computing-Enabled Cell-Free Massive MIMO Systems. *Mukherjee, S.*, +, *TWC April 2020 2884-2899*

Hierarchical Energy Optimization With More Realistic Power Consumption and Interference Models for Ultra-Dense Networks. *Zhuang, H.*, +, *TWC July 2020 4507-4518*

#### Energy efficiency

Joint User Grouping, Scheduling, and Precoding for Multicast Energy Efficiency in Multigroup Multicast Systems. *Bandi, A.*, +, *TWC Dec. 2020 8195-8210*

#### Energy harvesting

A Maximin Optimal Online Power Control Policy for Energy Harvesting Communications. *Yang, S.*, +, *TWC Oct. 2020 6708-6720*

A Nonlinear Recursive Model Based Optimal Transmission Scheduling in RF Energy Harvesting Wireless Communications. *Luo, Y.*, +, *TWC May 2020 3449-3462*

A Tractable Model for Wirelessly Powered Networks With Energy Correlation. *Deng, N.*, +, *TWC Sept. 2020 5765-5778*

Battery-Level-Triggered Transmit Power Control for Energy Harvesting Communications. *Tang, S.*, +, *TWC Dec. 2020 8011-8023*

Computation Efficiency Maximization in Wireless-Powered Mobile Edge Computing Networks. *Zhou, F.*, +, *TWC May 2020 3170-3184*

Cooperative Spectrum Sensing Optimization in Energy-Harvesting Cognitive Radio Networks. *Liu, X.*, +, *TWC Nov. 2020 7663-7676*

Dedicated Energy Harvesting in Concatenated Hybrid PLC-Wireless Systems. *Fernandes, V.*, +, *TWC June 2020 3839-3853*

Design of Ambient Backscatter Training for Wireless Power Transfer. *Idrees, S.*, +, *TWC Oct. 2020 6316-6330*

Efficiency Maximization for UAV-Enabled Mobile Relaying Systems With Laser Charging. *Zhao, M.*, +, *TWC May 2020 3257-3272*

Energy Efficient Resource Management in SWIPT Enabled Heterogeneous Networks With NOMA. *Zhang, H.*, +, *TWC Feb. 2020 835-845*

Flexible Functional Split and Power Control for Energy Harvesting Cloud Radio Access Networks. *Wang, L.*, +, *TWC March 2020 1535-1548*

Free Space Optical Cooperative Communications via an Energy Harvesting Harvest-Store-Use Relay. *Abou-Rjeily, C.*, +, *TWC Oct. 2020 6564-6577*

- Green-Oriented Dynamic Resource-on-Demand Strategy for Multi-RAT Wireless Networks Powered by Heterogeneous Energy Sources. *Qin, M.*, +, *TWC Aug. 2020 5547-5560*
- Impartial SWIPT-Assisted User Cooperation Schemes. *Chen, W.*, +, *TWC May 2020 3361-3375*
- Joint Power Allocation and Splitting Control for SWIPT-Enabled NOMA Systems. *Tang, J.*, +, *TWC Jan. 2020 120-133*
- Minimum Length Scheduling for Full Duplex Time-Critical Wireless Powered Communication Networks. *Iqbal, M.S.*, +, *TWC Sept. 2020 5993-6006*
- Multi-Tone Signal Optimization for Wireless Power Transfer in the Presence of Wireless Communication Links. *Mouris, B.A.*, +, *TWC May 2020 3575-3590*
- Online Optimal Control for Wireless Cooperative Transmission by Ambient RF Powered Sensors. *Liu, T.*, +, *TWC Sept. 2020 6007-6019*
- Optimal Energy Allocation and Task Offloading Policy for Wireless Powered Mobile Edge Computing Systems. *Wang, F.*, +, *TWC April 2020 2443-2459*
- Optimal Sensing Policy for Energy Harvesting Cognitive Radio Systems. *Villalonga, D.A.U.*, +, *TWC June 2020 3826-3838*
- Random Access-Based Reliable Uplink Communication and Power Transfer Using Dynamic Power Splitting. *Kisseleff, S.*, +, *TWC June 2020 4307-4320*
- Recycling Cellular Energy for Self-Sustainable IoT Networks: A Spatiotemporal Study. *Benkhelifa, F.*, +, *TWC April 2020 2699-2712*
- Refined Asymptotics for a Block Fading Channel Under Energy Harvesting and Fixed Power Constraints. *Deekshith, P.K.*, +, *TWC April 2020 2558-2569*
- Relay Selection, Scheduling, and Power Control in Wireless-Powered Cooperative Communication Networks. *Onalan, A.G.*, +, *TWC Nov. 2020 7181-7195*
- Resource Allocation for Wireless Cooperative IoT Network With Energy Harvesting. *Chen, X.*, +, *TWC July 2020 4879-4893*
- Secrecy Energy Efficiency in Multi-Antenna SWIPT Networks With Dual-Layer PS Receivers. *Lu, Y.*, +, *TWC June 2020 4290-4306*
- Spectral Efficiency and Energy Harvesting in Multi-Cell SLIPT Systems. *Abdelhady, A.M.*, +, *TWC May 2020 3304-3318*
- Throughput Maximization for Peer-Assisted Wireless Powered IoT NOMA Networks. *Wang, J.*, +, *TWC Aug. 2020 5278-5291*
- Total Throughput Maximization of Cooperative Cognitive Radio Networks With Energy Harvesting. *Zheng, K.*, +, *TWC Jan. 2020 533-546*
- Unary Coding Controlled Simultaneous Wireless Information and Power Transfer. *Hu, J.*, +, *TWC Jan. 2020 637-649*
- Uplink Resource Allocation in Energy Harvesting Cellular Network With H2M/M2M Coexistence. *Nobar, S.K.*, +, *TWC Aug. 2020 5101-5116*
- Entropy**
- Robust Power Allocation for Parallel Gaussian Channels With Approximately Gaussian Input Distributions. *Cao, W.*, +, *TWC June 2020 3685-3699*
- Equalizers**
- BEM-PSP for Single-Carrier and SC-FDMA Communication Over a Doubly Selective Fading Channel. *Liu, X.*, +, *TWC June 2020 3924-3937*
- Joint Estimation of RF Impairments, Channel, and Low Complexity Iterative Equalization Technique for High Mobility SC-FDMA/OFDMA Uplink Systems. *Sanoopkumar, P.S.*, +, *TWC June 2020 4276-4289*
- On UW-Based Transmission for MIMO Multi-Carriers With Spatial Multiplexing. *Ehsanfar, S.*, +, *TWC Sept. 2020 5875-5890*
- Optimized Precoded Spatio-Temporal Partial-Response Signaling Over Frequency-Selective MIMO Channels. *Bailleul, J.*, +, *TWC Sept. 2020 5938-5950*
- Overlap-Save FBMC Receivers. *Nadal, J.*, +, *TWC Aug. 2020 5307-5320*
- Rethinking Modulation and Detection for High Doppler Channels. *Dean, T.R.*, +, *TWC June 2020 3629-3642*
- Error correction codes**
- Achievable Rate Region for Iterative Multi-User Detection via Low-Cost Gaussian Approximation. *Wang, X.*, +, *TWC May 2020 3289-3303*
- Error statistics**
- A Compressive Sensing Assisted Massive SM-VBLAST System: Error Probability and Capacity Analysis. *Xiao, L.*, +, *TWC March 2020 1990-2005*
- A Deep Learning Approach to Universal Binary Visible Light Communication Transceiver. *Lee, H.*, +, *TWC Feb. 2020 956-969*
- A Low-Complex SVD-Based F-OFDM. *Kim, H.*, +, *TWC Feb. 2020 1373-1385*
- Achievable Rate Region for Iterative Multi-User Detection via Low-Cost Gaussian Approximation. *Wang, X.*, +, *TWC May 2020 3289-3303*
- BEM-PSP for Single-Carrier and SC-FDMA Communication Over a Doubly Selective Fading Channel. *Liu, X.*, +, *TWC June 2020 3924-3937*
- Bsense: Practical Cross-Technology Communication Utilizing Beacon Frames of Commodity WiFi APs. *Kim, S.*, *TWC Feb. 2020 901-914*
- Cube-Split: A Structured Grassmannian Constellation for Non-Coherent SIMO Communications. *Ngo, K.*, +, *TWC March 2020 1948-1964*
- Deep Learning-Based End-to-End Wireless Communication Systems With Conditional GANs as Unknown Channels. *Ye, H.*, +, *TWC May 2020 3133-3143*
- Design and Analysis of Rotated-QAM Based Probabilistic Shaping Scheme for Rayleigh Fading Channels. *Yao, Y.*, +, *TWC May 2020 3047-3063*
- Design and Performance Analysis of a New  $M$ -Ary Differential Chaos Shift Keying With Index Modulation. *Cai, X.*, +, *TWC Feb. 2020 846-858*
- Dual-Hop Spatial Modulation With a Relay Transmitting its Own Information. *Li, Q.*, +, *TWC July 2020 4449-4463*
- End-to-End Performance Analysis of Underwater Optical Wireless Relaying and Routing Techniques Under Location Uncertainty. *Celik, A.*, +, *TWC Feb. 2020 1167-1181*
- Error Rate Analysis of Amplitude-Coherent Detection Over Rician Fading Channels With Receiver Diversity. *Al-Jarrah, M.A.*, +, *TWC Jan. 2020 134-147*
- Hybrid Constellations for Dual-Polarized Wireless Communications. *Wu, X.*, +, *TWC Aug. 2020 5321-5332*
- Hybrid Lightwave/RF Cooperative NOMA Networks. *Xiao, Y.*, +, *TWC Feb. 2020 1154-1166*
- Hybrid-Precoding for mmWave Multi-User Communications in the Presence of Beam-Misalignment. *Pradhan, C.*, +, *TWC Sept. 2020 6083-6099*
- Impact of Channel Correlation on Different Performance Metrics of OSSK-Based FSO Systems. *Priyadarshani, R.*, +, *TWC March 2020 1593-1609*
- Joint Impact of I/Q Imbalance and Imperfect CSI on SM-MIMO Systems Over Generalized Beckmann Fading Channels: Optimal Detection and Cramer-Rao Bound. *Canbilen, A.E.*, +, *TWC May 2020 3034-3046*
- Joint Power and Blocklength Optimization for URLLC in a Factory Automation Scenario. *Ren, H.*, +, *TWC March 2020 1786-1801*
- Joint Reflecting and Precoding Designs for SER Minimization in Reconfigurable Intelligent Surfaces Assisted MIMO Systems. *Ye, J.*, +, *TWC Aug. 2020 5561-5574*
- mmWave Lens-Based MIMO System for Suppressing Small-Scale Fading and Shadowing. *Almasi, M.A.*, +, *TWC Aug. 2020 5292-5306*
- MOCZ for Blind Short-Packet Communication: Practical Aspects. *Walk, P.*, +, *TWC Oct. 2020 6675-6692*
- Multi-User Detection Based on Expectation Propagation for the Non-Coherent SIMO Multiple Access Channel. *Ngo, K.*, +, *TWC Sept. 2020 6145-6161*
- New Results on Joint Channel and Impulsive Noise Estimation and Tracking in Underwater Acoustic OFDM Systems. *Wang, S.*, +, *TWC April 2020 2601-2612*
- Non-Coherent Massive MIMO Systems: A Constellation Design Approach. *Xie, H.*, +, *TWC June 2020 3812-3825*
- Noncoherent Symbol Detection of Short CPM Bursts in Frequency-Selective Fading Channels. *Chamaa, M.E.*, +, *TWC Feb. 2020 771-782*
- On the Error Rate of the LoRa Modulation With Interference. *Afsiadis, O.*, +, *TWC Feb. 2020 1292-1304*
- Opportunistic NOMA for Uplink Short-Message Delivery With a Delay Constraint. *Choi, J.*, *TWC June 2020 3727-3737*
- Opportunistic Spectrum Sharing Based on OFDM With Index Modulation. *Li, Q.*, +, *TWC Jan. 2020 192-204*

Optimized Precoded Spatio-Temporal Partial-Response Signaling Over Frequency-Selective MIMO Channels. *Bailleul, J.*, +, *TWC Sept. 2020 5938-5950*

Pairwise Coding for MIMO-OFDM Visible Light Communication. *Olanrewaju, H.G.*, +, *TWC Feb. 2020 1210-1220*

Performance of Dynamic Power and Channel Allocation for Downlink MC-NOMA Systems. *Liu, F.*, +, *TWC March 2020 1650-1662*

Performance of Multibeam Very High Throughput Satellite Systems Based on FSO Feeder Links With HPA Nonlinearity. *Zedini, E.*, +, *TWC Sept. 2020 5908-5923*

Receiver Algorithms for Single-Carrier OSM Based High-Rate Indoor Visible Light Communications. *Wu, L.*, +, *TWC Feb. 2020 1113-1126*

Reliable Detection of Unknown Cell-Edge Users via Canonical Correlation Analysis. *Ibrahim, M.S.*, +, *TWC June 2020 4170-4182*

Saddlepoint Approximations for Short-Packet Wireless Communications. *Lancho, A.*, +, *TWC July 2020 4831-4846*

Semi-Blind Joint Timing-Offset and Channel Estimation for Amplify-and-Forward Two-Way Relaying. *Abdallah, S.*, +, *TWC April 2020 2613-2627*

Signal Design for Frequency-Phase Keying. *Kundu, N.K.*, +, *TWC June 2020 4067-4079*

Spatial Modulated Multicarrier Sparse Code-Division Multiple Access. *Liu, Y.*, +, *TWC Jan. 2020 610-623*

Tractable Approach to MmWaves Cellular Analysis With FSO Backhauling Under Feedback Delay and Hardware Limitations. *Balti, E.*, +, *TWC Jan. 2020 410-422*

Transceiver Design and Signal Detection in Backscatter Communication Systems With Multiple-Antenna Tags. *Chen, C.*, +, *TWC May 2020 3273-3288*

Transmit Antenna Selection and Beamformer Design for Secure Spatial Modulation With Rough CSI of Eve. *Xia, G.*, +, *TWC July 2020 4643-4656*

Two-Stage ICI Suppression in the Downlink of Asynchronous URLLC. *Zeng, C.*, +, *TWC April 2020 2785-2799*

Uplink Non-Orthogonal Multiple Access Over Mixed RF-FSO Systems. *Jamali, M.V.*, +, *TWC May 2020 3558-3574*

Vertical Underwater Visible Light Communication Links: Channel Modeling and Performance Analysis. *Elamassie, M.*, +, *TWC Oct. 2020 6948-6959*

#### Estimation error

Urgency of Information for Context-Aware Timely Status Updates in Remote Control Systems. *Zheng, X.*, +, *TWC Nov. 2020 7237-7250*

#### Estimation theory

Adaptive Detection and Localization Exploiting the IEEE 802.11ad Standard. *Grossi, E.*, +, *TWC July 2020 4394-4407*

The Max-Product Algorithm Viewed as Linear Data-Fusion: A Distributed Detection Scenario. *Abdi, Y.*, +, *TWC Nov. 2020 7585-7597*

#### Evolutionary computation

A Non-Stationary Bandit-Learning Approach to Energy-Efficient Femto-Caching With Rateless-Coded Transmission. *Maghsudi, S.*, +, *TWC July 2020 5040-5056*

Mean Field Evolutionary Dynamics in Dense-User Multi-Access Edge Computing Systems. *Gao, H.*, +, *TWC Dec. 2020 7825-7835*

#### Expectation-maximization algorithms

New Results on Joint Channel and Impulsive Noise Estimation and Tracking in Underwater Acoustic OFDM Systems. *Wang, S.*, +, *TWC April 2020 2601-2612*

Semi-Blind Joint Timing-Offset and Channel Estimation for Amplify-and-Forward Two-Way Relaying. *Abdallah, S.*, +, *TWC April 2020 2613-2627*

Time-Varying Downlink Channel Tracking for Quantized Massive MIMO Networks. *Ma, J.*, +, *TWC Oct. 2020 6721-6736*

#### Exponential distribution

Massive MIMO Extensions to the COST 2100 Channel Model: Modeling and Validation. *Flordelis, J.*, +, *TWC Jan. 2020 380-394*

#### Extrapolation

Performance Analysis of Channel Extrapolation in FDD Massive MIMO Systems. *Rottenberg, F.*, +, *TWC April 2020 2728-2741*

## F

#### Factory automation

Joint Power and Blocklength Optimization for URLLC in a Factory Automation Scenario. *Ren, H.*, +, *TWC March 2020 1786-1801*

#### Fading channels

A Frequency Offset Transmit Reference System in Dense Multipath Environments: Propagation Effects and Design Considerations. *Bilal, I.*, +, *TWC Feb. 2020 859-873*

Absolute Amplitude Differential Phase Spatial Modulation and Its Non-Coherent Detection Under Fast Fading Channels. *Yu, D.*, +, *TWC April 2020 2742-2755*

Asymptotically Exact Approximations to Generalized Fading Sum Statistics. *Perim, V.*, +, *TWC Jan. 2020 205-217*

BEM-PSP for Single-Carrier and SC-FDMA Communication Over a Doubly Selective Fading Channel. *Liu, X.*, +, *TWC June 2020 3924-3937*

Channel-Based Optimal Back-Off Delay Control in Delay-Constrained Industrial WSNs. *Li, Q.*, +, *TWC Jan. 2020 696-711*

Compressed Sensing Channel Estimation for OFDM With Non-Gaussian Multipath Gains. *Gomez-Cuba, F.*, +, *TWC Jan. 2020 47-61*

Deep Energy Autoencoder for Noncoherent Multicarrier MU-SIMO Systems. *Van Luong, T.*, +, *TWC June 2020 3952-3962*

Extended  $\eta$ - $\mu$  Fading Models. *de Lima Tejerina, G.R.*, +, *TWC Dec. 2020 8153-8164*

Federated Learning Over Wireless Fading Channels. *Amiri, M.M.*, +, *TWC May 2020 3546-3557*

Generalized OFDM-IM With Noncoherent Detection. *Fazeli, A.*, +, *TWC July 2020 4464-4479*

Hybrid Constellations for Dual-Polarized Wireless Communications. *Wu, X.*, +, *TWC Aug. 2020 5321-5332*

Impact of Channel Correlation on Different Performance Metrics of OSSK-Based FSO Systems. *Priyadarshani, R.*, +, *TWC March 2020 1593-1609*

Individual Preference Aware Caching Policy Design in Wireless D2D Networks. *Lee, M.*, +, *TWC Aug. 2020 5589-5604*

mmWave Lens-Based MIMO System for Suppressing Small-Scale Fading and Shadowing. *Almasi, M.A.*, +, *TWC Aug. 2020 5292-5306*

Multi-User Detection Based on Expectation Propagation for the Non-Coherent SIMO Multiple Access Channel. *Ngo, K.*, +, *TWC Sept. 2020 6145-6161*

Multimode Integer-Forcing Receivers for Block Fading Channels. *Yang, D.*, +, *TWC Dec. 2020 8261-8271*

Near-Optimal MIMO-SCMA Uplink Detection With Low-Complexity Expectation Propagation. *Wang, P.*, +, *TWC Feb. 2020 1025-1037*

Network-Coded Cooperative Systems With Generalized User-Relay Selection. *Heidarpour, A.R.*, +, *TWC Nov. 2020 7251-7264*

Noncoherent Symbol Detection of Short CPM Bursts in Frequency-Selective Fading Channels. *Chamaa, M.E.*, +, *TWC Feb. 2020 771-782*

Offloading and Resource Allocation With General Task Graph in Mobile Edge Computing: A Deep Reinforcement Learning Approach. *Yan, J.*, +, *TWC Aug. 2020 5404-5419*

On HARQ Schemes in Satellite-Terrestrial Transmissions. *Pan, G.*, +, *TWC Dec. 2020 7998-8010*

Optimized Power Control for Over-the-Air Computation in Fading Channels. *Cao, X.*, +, *TWC Nov. 2020 7498-7513*

Physical-Layer Security in the Finite Blocklength Regime Over Fading Channels. *Zheng, T.*, +, *TWC May 2020 3405-3420*

Real-time Prediction of Non-stationary Wireless Channels. *Abdul Careem, M.A.*, +, *TWC Dec. 2020 7836-7850*

Real-Time Remote Estimation With Hybrid ARQ in Wireless Networked Control. *Huang, K.*, +, *TWC May 2020 3490-3504*

Refined Asymptotics for a Block Fading Channel Under Energy Harvesting and Fixed Power Constraints. *Deekshith, P.K.*, +, *TWC April 2020 2558-2569*

Reliability Bounds for Dependent Fading Wireless Channels. *Besser, K.*, +, *TWC Sept. 2020 5833-5845*

Residual Transceiver Hardware Impairments on Cooperative NOMA Networks. *Li, X.*, +, *TWC Jan. 2020 680-695*

- SINR and Rate Distributions for Downlink Cellular Networks. *Hadj-Kacem, I.*, +, *TWC July 2020 4604-4616*
- Spatial Modulated Multicarrier Sparse Code-Division Multiple Access. *Liu, Y.*, +, *TWC Jan. 2020 610-623*
- Statistical Beamforming for FDD Downlink Massive MIMO via Spatial Information Extraction and Beam Selection. *Liu, H.*, +, *TWC July 2020 4617-4631*
- Two-Layered Superposition of Broadcast/Multicast and Unicast Signals in Multiuser OFDMA Systems. *Vargas, D.*, +, *TWC Feb. 2020 979-994*
- Unified Performance Analysis of Multi-Hop FSO Systems Over Double Generalized Gamma Turbulence Channels With Pointing Errors. *Ashrafzadeh, B.*, +, *TWC Nov. 2020 7732-7746*
- Vertical Underwater Visible Light Communication Links: Channel Modeling and Performance Analysis. *Elamassie, M.*, +, *TWC Oct. 2020 6948-6959*
- Fast Fourier transforms**
- Fast Beam Search and Refinement for Millimeter-Wave Massive MIMO Based on Two-Level Phased Arrays. *Noh, S.*, +, *TWC Oct. 2020 6737-6751*
- Fast Compressed Power Spectrum Estimation: Toward a Practical Solution for Wideband Spectrum Sensing. *Yang, L.*, +, *TWC Jan. 2020 520-532*
- Feature extraction**
- Breaking Wireless Propagation Environmental Uncertainty With Deep Learning. *Morocho-Cayamcela, M.E.*, +, *TWC Aug. 2020 5075-5087*
- Feedback**
- Convolutional Neural Network-Based Multiple-Rate Compressive Sensing for Massive MIMO CSI Feedback: Design, Simulation, and Analysis. *Guo, J.*, +, *TWC April 2020 2827-2840*
- Limited Feedback Hybrid Beamforming for Multi-Mode Transmission in Wideband Millimeter Wave Channel. *Kwon, G.*, +, *TWC June 2020 4008-4022*
- Low-Resolution Limited-Feedback NOMA for mmWave Communications. *Yapici, Y.*, +, *TWC Aug. 2020 5433-5446*
- Multi-Layer HARQ With Delayed Feedback. *Khreis, A.*, +, *TWC Sept. 2020 6224-6237*
- Overhead-Performance Tradeoff for MISO Broadcast Channels With Zero-Forcing Precoder. *Liu, G.*, +, *TWC Feb. 2020 995-1007*
- Reconsidering Design of Multi-Antenna NOMA Systems With Limited Feedback. *Tang, Z.*, +, *TWC March 2020 1519-1534*
- Feedforward**
- Limited Feedback Hybrid Beamforming for Multi-Mode Transmission in Wideband Millimeter Wave Channel. *Kwon, G.*, +, *TWC June 2020 4008-4022*
- Femtocellular radio**
- A Non-Stationary Bandit-Learning Approach to Energy-Efficient Femto-Caching With Rateless-Coded Transmission. *Maghsudi, S.*, +, *TWC July 2020 5040-5056*
- Indoor Femtocell Interference Localization. *Yan, K.*, +, *TWC Aug. 2020 5176-5187*
- Multi-Antenna Aided Secrecy Beamforming Optimization for Wirelessly Powered HetNets. *Gong, S.*, +, *TWC Aug. 2020 5261-5277*
- Precoding-Aided Spatial Modulation Assisted Joint Two-Tier Downlink Reception. *Pechetti, S.V.*, +, *TWC May 2020 3332-3345*
- Field programmable gate arrays**
- Fast Compressed Power Spectrum Estimation: Toward a Practical Solution for Wideband Spectrum Sensing. *Yang, L.*, +, *TWC Jan. 2020 520-532*
- File servers**
- Joint Data Compression and Computation Offloading in Hierarchical Fog-Cloud Systems. *Nguyen, T.T.*, +, *TWC Jan. 2020 293-309*
- Filtering theory**
- 5G mmWave Cooperative Positioning and Mapping Using Multi-Model PHD Filter and Map Fusion. *Kim, H.*, +, *TWC June 2020 3782-3795*
- A Low-Complex SVD-Based F-OFDM. *Kim, H.*, +, *TWC Feb. 2020 1373-1385*
- MOCZ for Blind Short-Packet Communication: Practical Aspects. *Walk, P.*, +, *TWC Oct. 2020 6675-6692*
- PAPR Reduction Using Iterative Clipping/Filtering and ADMM Approaches for OFDM-Based Mixed-Numerology Systems. *Liu, X.*, +, *TWC April 2020 2586-2600*
- FM radar**
- On the Effectiveness of OTFS for Joint Radar Parameter Estimation and Communication. *Gaudio, L.*, +, *TWC Sept. 2020 5951-5965*
- Forward error correction**
- Enumerative Sphere Shaping for Wireless Communications With Short Packets. *Gultekin, Y.C.*, +, *TWC Feb. 2020 1098-1112*
- Minimum-Latency FEC Design With Delayed Feedback: Mathematical Modeling and Efficient Algorithms. *Xu, X.*, +, *TWC Nov. 2020 7210-7223*
- Free-space optical communication**
- A UAV-Mounted Free Space Optical Communication: Trajectory Optimization for Flight Time. *Lee, J.*, +, *TWC March 2020 1610-1621*
- A Unified Statistical Model for Atmospheric Turbulence-Induced Fading in Orbital Angular Momentum Multiplexed FSO Systems. *Amhoud, E.*, +, *TWC Feb. 2020 888-900*
- Coordinated Resource Allocation-Based Integrated Visible Light Communication and Positioning Systems for Indoor IoT. *Yang, H.*, +, *TWC July 2020 4671-4684*
- Free Space Optical Cooperative Communications via an Energy Harvesting Harvest-Store-Use Relay. *Abou-Rjeily, C.*, +, *TWC Oct. 2020 6564-6577*
- Hybrid RF/FSO Backhaul Networks With Statistical-QoS-Aware Buffer-Aided Relaying. *Hassan, M.Z.*, +, *TWC March 2020 1464-1483*
- Impact of Channel Correlation on Different Performance Metrics of OSSK-Based FSO Systems. *Priyadarshani, R.*, +, *TWC March 2020 1593-1609*
- Multi-Hop Wireless Optical Backhauling for LiFi Attocell Networks: Bandwidth Scheduling and Power Control. *Kazemi, H.*, +, *TWC Sept. 2020 5676-5691*
- Networked Optical Massive MIMO Communications. *Sun, C.*, +, *TWC Aug. 2020 5575-5588*
- On the Performance Gain of Harnessing Non-Line-of-Sight Propagation for Visible Light-Based Positioning. *Zhou, B.*, +, *TWC July 2020 4863-4878*
- Optimal Placement of Access Points in Cellular Visible Light Communication Networks: An Adaptive Gradient Projection Method. *Dastgheib, M.A.*, +, *TWC Oct. 2020 6813-6825*
- Parallel Transmission LiFi. *Wu, X.*, +, *TWC Oct. 2020 6268-6276*
- Performance Analysis of Multiuser FSO/RF Network Under Non-Equal Priority With  $P$ -Persistence Protocol. *Rakia, T.*, +, *TWC March 2020 1802-1813*
- Performance of Multibeam Very High Throughput Satellite Systems Based on FSO Feeder Links With HPA Nonlinearity. *Zedini, E.*, +, *TWC Sept. 2020 5908-5923*
- Secrecy Performance of the MIMO VLC Wiretap Channel With Randomly Located Eavesdropper. *Arfaoui, M.A.*, +, *TWC Jan. 2020 265-278*
- Signal Acquisition With Photon-Counting Detector Arrays in Free-Space Optical Communications. *Bashir, M.S.*, +, *TWC April 2020 2181-2195*
- Statistical Modeling and Analysis on the Confidentiality of Indoor VLC Systems. *Chen, J.*, +, *TWC July 2020 4744-4757*
- Topology Control in Hybrid VLC/RF Vehicular Ad-Hoc Network. *Chen, J.*, +, *TWC March 2020 1965-1976*
- Tractable Approach to MmWaves Cellular Analysis With FSO Backhauling Under Feedback Delay and Hardware Limitations. *Balti, E.*, +, *TWC Jan. 2020 410-422*
- Uplink Non-Orthogonal Multiple Access Over Mixed RF-FSO Systems. *Jamali, M.V.*, +, *TWC May 2020 3558-3574*
- Frequency allocation**
- Flexible Resource Allocation With Inter-Beam Interference in Satellite Communication Systems With a Digital Channelizer. *Kawamoto, Y.*, +, *TWC May 2020 2934-2945*
- Improvement of the Global Connectivity Using Integrated Satellite-Airborne-Terrestrial Networks With Resource Optimization. *Alsharoa, A.*, +, *TWC Aug. 2020 5088-5100*
- NOMA-Based D2D-Enabled Traffic Offloading for 5G and Beyond Networks Employing Licensed and Unlicensed Access. *Sun, M.*, +, *TWC June 2020 4109-4124*
- Semi-Distributed Joint Power and Spectrum Allocation for LAA Based Small Cell Networks. *Yin, R.*, +, *TWC June 2020 4141-4153*
- Frequency division multiple access**
- 'Good to Repeat': Making Random Access Near-Optimal With Repeated Contentions. *Baiocchi, A.*, +, *TWC Jan. 2020 712-726*

Antenna Selection Strategy for Energy Efficiency Maximization in Uplink OFDMA Networks: A Multi-Objective Approach. *Khalili, A.*, +, *TWC Jan. 2020 595-609*

BEM-PSP for Single-Carrier and SC-FDMA Communication Over a Doubly Selective Fading Channel. *Liu, X.*, +, *TWC June 2020 3924-3937*

Broadband Analog Aggregation for Low-Latency Federated Edge Learning. *Zhu, G.*, +, *TWC Jan. 2020 491-506*

Coordinated Resource Allocation-Based Integrated Visible Light Communication and Positioning Systems for Indoor IoT. *Yang, H.*, +, *TWC July 2020 4671-4684*

Energy Efficient Resource Management in SWIPT Enabled Heterogeneous Networks With NOMA. *Zhang, H.*, +, *TWC Feb. 2020 835-845*

Fundamental Rate Limits of UAV-Enabled Multiple Access Channel With Trajectory Optimization. *Li, P.*, +, *TWC Jan. 2020 458-474*

IDFT-VFDM for Supplementary Uplink and LTE-NR Co-Existence. *Feng, Q.*, +, *TWC May 2020 3435-3448*

Impartial SWIPT-Assisted User Cooperation Schemes. *Chen, W.*, +, *TWC May 2020 3361-3375*

Joint Estimation of RF Impairments, Channel, and Low Complexity Iterative Equalization Technique for High Mobility SC-FDMA/OFDMA Uplink Systems. *Sanoopkumar, P.S.*, +, *TWC June 2020 4276-4289*

Multi-Dimensional Busy-Tone Arbitration for OFDMA Random Access in IEEE 802.11ax. *Xie, D.*, +, *TWC June 2020 4080-4094*

Two-Layered Superposition of Broadcast/Multicast and Unicast Signals in Multiuser OFDMA Systems. *Vargas, D.*, +, *TWC Feb. 2020 979-994*

Uplink Resource Allocation in Energy Harvesting Cellular Network With H2H/M2M Coexistence. *Nobar, S.K.*, +, *TWC Aug. 2020 5101-5116*

#### Frequency division multiplexing

Downlink Pilot Precoding and Compressed Channel Feedback for FDD-Based Cell-Free Systems. *Kim, S.*, +, *TWC June 2020 3658-3672*

Dynamic Time-Frequency Division Duplex. *Razlighi, M.M.*, +, *TWC May 2020 3118-3132*

Eigenvalue-Decomposition-Precoded Ultra-Dense Non-Orthogonal Frequency-Division Multiplexing. *Osaki, S.*, +, *TWC Dec. 2020 8165-8178*

IDFT-VFDM for Supplementary Uplink and LTE-NR Co-Existence. *Feng, Q.*, +, *TWC May 2020 3435-3448*

Residual Clipping Noise in Multi-Layer Optical OFDM: Modeling, Analysis, and Applications. *Zhang, Z.*, +, *TWC Sept. 2020 5846-5859*

Securing Channel State Information in Multiuser MIMO With Limited Feedback. *Yang, Y.*, +, *TWC May 2020 3091-3103*

Set Partition Modulation. *Yarkin, F.*, +, *TWC Nov. 2020 7557-7570*

Statistical Beamforming for FDD Downlink Massive MIMO via Spatial Information Extraction and Beam Selection. *Liu, H.*, +, *TWC July 2020 4617-4631*

#### Frequency estimation

Double-Sequence Frequency Synchronization for Wideband Millimeter-Wave Systems With Few-Bit ADCs. *Zhu, D.*, +, *TWC Feb. 2020 1357-1372*

#### Frequency hop communication

Jamming-Resilient Frequency Hopping-Aided Secure Communication for Internet-of-Things in the Presence of an Untrusted Relay. *Letafati, M.*, +, *TWC Oct. 2020 6771-6785*

#### Frequency response

Performance Analysis of Channel Extrapolation in FDD Massive MIMO Systems. *Rottenberg, F.*, +, *TWC April 2020 2728-2741*

#### Frequency shift keying

Coherent Detection for Short-Packet Physical-Layer Network Coding With Binary FSK Modulation. *Wang, Z.*, +, *TWC Jan. 2020 279-292*

Signal Design for Frequency-Phase Keying. *Kundu, N.K.*, +, *TWC June 2020 4067-4079*

#### Frequency-domain analysis

An Uplink Control Channel Design With Complementary Sequences for Unlicensed Bands. *Sahin, A.*, +, *TWC Oct. 2020 6858-6870*

Constant Envelope MIMO-OFDM Precoding for Low Complexity Large-Scale Antenna Array Systems. *Domouchtsidis, S.*, +, *TWC Dec. 2020 7973-7985*

Iterative Nonlinear Self-Interference Cancellation for In-Band Full-Duplex Wireless Communications Under Mixer Imbalance and Amplifier Nonlinearity. *Komatsu, K.*, +, *TWC July 2020 4424-4438*

Preamble-Based Channel Estimation for OQAM/FBMC Systems With Delay Diversity. *Liu, W.*, +, *TWC Nov. 2020 7169-7180*

#### Frequency-selective fading channels

Intelligent Reflecting Surface Assisted Multi-User OFDMA: Channel Estimation and Training Design. *Zheng, B.*, +, *TWC Dec. 2020 8315-8329*

#### Function approximation

DeepNOMA: A Unified Framework for NOMA Using Deep Multi-Task Learning. *Ye, N.*, +, *TWC April 2020 2208-2225*

#### Fuzzy set theory

Fuzzy Learning for Multi-Dimensional Adaptive Physical Layer Authentication: A Compact and Robust Approach. *Fang, H.*, +, *TWC Aug. 2020 5420-5432*

## G

#### Galois fields

Joint Detection and Decoding of Polar Coded 5G Control Channels. *Jalali, A.*, +, *TWC March 2020 2066-2078*

#### Game theory

A Crowdsourcing Framework for On-Device Federated Learning. *Pandey, S.R.*, +, *TWC May 2020 3241-3256*

A Jamming Game With Rival-Type Uncertainty. *Garnaev, A.*, +, *TWC Aug. 2020 5359-5372*

Cost Sharing Games for Energy-Efficient Multi-Hop Broadcast in Wireless Networks. *Mousavi, M.*, +, *TWC Jan. 2020 310-324*

Energy Minimization of Multi-Cell Cognitive Capacity Harvesting Networks With Neighbor Resource Sharing. *Lin, S.*, +, *TWC May 2020 3199-3213*

Incentive-Aware Micro Computing Cluster Formation for Cooperative Fog Computing. *Luo, S.*, +, *TWC April 2020 2643-2657*

Millimeter-Wave Networking in the Sky: A Machine Learning and Mean Field Game Approach for Joint Beamforming and Beam-Steering. *Li, L.*, +, *TWC Oct. 2020 6393-6408*

Minority Game for Distributed User Association in Unlicensed Heterogeneous Networks. *Wang, Y.*, +, *TWC June 2020 4220-4233*

NOMA-Based D2D-Enabled Traffic Offloading for 5G and Beyond Networks Employing Licensed and Unlicensed Access. *Sun, M.*, +, *TWC June 2020 4109-4124*

Power Allocation for D2D Communications With SWIPT. *Huang, J.*, +, *TWC April 2020 2308-2320*

Resource Allocation for Non-Orthogonal Multiple Access-Enabled Fog Radio Access Networks. *Liu, B.*, +, *TWC June 2020 3867-3878*

Self-Organizing Slot Access for Neighboring Cooperation in UAV Swarms. *Yao, K.*, +, *TWC April 2020 2800-2812*

Topology Control in Hybrid VLC/RF Vehicular Ad-Hoc Network. *Chen, J.*, +, *TWC March 2020 1965-1976*

Ultra-Dense LEO Satellite Offloading for Terrestrial Networks: How Much to Pay the Satellite Operator?. *Deng, R.*, +, *TWC Oct. 2020 6240-6254*

#### Games

Joint Sub-Carrier and Power Allocation for Efficient Communication of Cellular UAVs. *Hellaoui, H.*, +, *TWC Dec. 2020 8287-8302*

Mean-Field-Type Game-Based Computation Offloading in Multi-Access Edge Computing Networks. *Banez, R.A.*, +, *TWC Dec. 2020 8366-8381*

#### Gamma distribution

Non-Coherent Massive MIMO Systems: A Constellation Design Approach. *Xie, H.*, +, *TWC June 2020 3812-3825*

Performance of Multibeam Very High Throughput Satellite Systems Based on FSO Feeder Links With HPA Nonlinearity. *Zedini, E.*, +, *TWC Sept. 2020 5908-5923*

Vertical Underwater Visible Light Communication Links: Channel Modeling and Performance Analysis. *Elamassie, M.*, +, *TWC Oct. 2020 6948-6959*

#### Gaussian channels

Adaptive Neural Signal Detection for Massive MIMO. *Khani, M.*, +, *TWC Aug. 2020 5635-5648*

Capacity Region and Capacity-Achieving Signaling Schemes for 1-bit ADC Multiple Access Channels in Rayleigh Fading. *Ranjbar, M.*, +, *TWC Sept. 2020 6162-6178*

Robust Power Allocation for Parallel Gaussian Channels With Approximately Gaussian Input Distributions. *Cao, W.*, +, *TWC June 2020 3685-3699*

Secrecy Performance of the MIMO VLC Wiretap Channel With Randomly Located Eavesdropper. *Arfaoui, M.A.*, +, *TWC Jan. 2020 265-278*

#### Gaussian distribution

A Unified Statistical Model for Atmospheric Turbulence-Induced Fading in Orbital Angular Momentum Multiplexed FSO Systems. *Amhoud, E.*, +, *TWC Feb. 2020 888-900*

AUV-Aided Localization of Underwater Acoustic Devices Based on Doppler Shift Measurements. *Gong, Z.*, +, *TWC April 2020 2226-2239*

Channel Measurement and Modeling of the Small-Scale Fading Characteristics for Urban Inland River Environment. *Yu, J.*, +, *TWC May 2020 3376-3389*

Non-Coherent Massive MIMO Systems: A Constellation Design Approach. *Xie, H.*, +, *TWC June 2020 3812-3825*

Robust Power Allocation for Parallel Gaussian Channels With Approximately Gaussian Input Distributions. *Cao, W.*, +, *TWC June 2020 3685-3699*

#### Gaussian noise

On the Error Rate of the LoRa Modulation With Interference. *Afisiadis, O.*, +, *TWC Feb. 2020 1292-1304*

#### Gaussian processes

Coherent Detection for Short-Packet Physical-Layer Network Coding With Binary FSK Modulation. *Wang, Z.*, +, *TWC Jan. 2020 279-292*

Communications and Radar Coexistence in the Massive MIMO Regime: Uplink Analysis. *D'Andrea, C.*, +, *TWC Jan. 2020 19-33*

Joint User Identification, Channel Estimation, and Signal Detection for Grant-Free NOMA. *Jiang, S.*, +, *TWC Oct. 2020 6960-6976*

Machine Learning-Enabled Cooperative Spectrum Sensing for Non-Orthogonal Multiple Access. *Shi, Z.*, +, *TWC Sept. 2020 5692-5702*

#### Genetic algorithms

Boosting the Cellular Network Coverage Optimization in Accordance With the Metric Structure of Antenna Variables. *Qin, Y.*, +, *TWC Dec. 2020 8303-8314*

Multidimensional Cooperative Caching in CoMP-Integrated Ultra-Dense Cellular Networks. *Lin, P.*, +, *TWC March 2020 1977-1989*

Unary Coding Controlled Simultaneous Wireless Information and Power Transfer. *Hu, J.*, +, *TWC Jan. 2020 637-649*

#### Geometric programming

Online Optimal Control for Wireless Cooperative Transmission by Ambient RF Powered Sensors. *Liu, T.*, +, *TWC Sept. 2020 6007-6019*

Performance Analysis of Cell-Free Massive MIMO System With Limited Fronthaul Capacity and Hardware Impairments. *Masoumi, H.*, +, *TWC Feb. 2020 1038-1053*

#### Geometry

Coordinated Multi-Point Transmission: A Poisson-Delaunay Triangulation Based Approach. *Li, Y.*, +, *TWC May 2020 2946-2959*

Geometry-Based Analysis of Optimal Handover Parameters for Self-Organizing Networks. *Nguyen, M.*, +, *TWC April 2020 2670-2683*

On the Energy Efficiency of Heterogeneous Cellular Networks With Renewable Energy Sources—A Stochastic Geometry Framework. *Lam, T.T.*, +, *TWC Oct. 2020 6752-6770*

#### Geophysical image processing

Breaking Wireless Propagation Environmental Uncertainty With Deep Learning. *Morocho-Cayamcela, M.E.*, +, *TWC Aug. 2020 5075-5087*

#### Global Positioning System

Random Network Coding Enabled Routing Protocol in Unmanned Aerial Vehicle Networks. *Song, H.*, +, *TWC Dec. 2020 8382-8395*

#### Golay codes

Omnidirectional Precoding for 3D Massive MIMO With Uniform Planar Arrays. *Lu, A.*, +, *TWC April 2020 2628-2642*

#### Gradient methods

Deep Learning Enabled Optimization of Downlink Beamforming Under Per-Antenna Power Constraints: Algorithms and Experimental Demonstration. *Zhang, J.*, +, *TWC June 2020 3738-3752*

Energy-Aware 3D Unmanned Aerial Vehicle Deployment for Network Throughput Optimization. *Chou, S.*, +, *TWC Jan. 2020 563-578*

Federated Learning Over Wireless Fading Channels. *Amiri, M.M.*, +, *TWC May 2020 3546-3557*

Generalized Bussgang LMMSE Channel Estimation for One-Bit Massive MIMO Systems. *Wan, Q.*, +, *TWC June 2020 4234-4246*

Optimal Placement of Access Points in Cellular Visible Light Communication Networks: An Adaptive Gradient Projection Method. *Dastgheib, M.A.*, +, *TWC Oct. 2020 6813-6825*

Power Control Based on Deep Reinforcement Learning for Spectrum Sharing. *Zhang, H.*, +, *TWC June 2020 4209-4219*

QoS Driven Power Allocation in Secure Multicarrier Full-Duplex Relay Systems. *Bai, Z.*, +, *TWC Feb. 2020 929-941*

Steepest Gradient-Based Orthogonal Precoder for Integer-Forcing MIMO. *Hasan, M.N.*, +, *TWC Feb. 2020 942-955*

UAV Positioning and Power Control for Two-Way Wireless Relaying. *Li, L.*, +, *TWC Feb. 2020 1008-1024*

#### Graph theory

Dynamic Pricing for Revenue Maximization in Mobile Social Data Market With Network Effects. *Xiong, Z.*, +, *TWC March 2020 1722-1737*

Graph Theory Assisted Bit-to-Index-Combination Gray Coding for Generalized Index Modulation. *Xiao, L.*, +, *TWC Dec. 2020 8232-8245*

Reinforcement Learning Based Capacity Management in Multi-Layer Satellite Networks. *Jiang, C.*, +, *TWC July 2020 4685-4699*

#### Greedy algorithms

Age of Information in a Cellular Internet of UAVs: Sensing and Communication Trade-Off Design. *Zhang, S.*, +, *TWC Oct. 2020 6578-6592*

Antenna Selection in Massive MIMO Based on Greedy Algorithms. *Mendonca, M.O.K.*, +, *TWC March 2020 1868-1881*

Freshness-Aware Seed Selection for Offloading Cellular Traffic Through Opportunistic Mobile Networks. *Zhou, H.*, +, *TWC April 2020 2658-2669*

Joint C-OMA and C-NOMA Wireless Backhaul Scheduling in Heterogeneous Ultra Dense Networks. *Zhang, Q.*, +, *TWC Feb. 2020 874-887*

UAV Trajectory Planning for Data Collection from Time-Constrained IoT Devices. *Samir, M.*, +, *TWC Jan. 2020 34-46*

## H

#### Handover

Smart Handover for Hybrid LiFi and WiFi Networks. *Wu, X.*, +, *TWC Dec. 2020 8211-8219*

#### Hardware

Dictionary Learning for Channel Estimation in Hybrid Frequency-Selective mmWave MIMO Systems. *Xie, H.*, +, *TWC Nov. 2020 7407-7422*

#### Health care

Spectrum Occupancy and Interference Model Based on Network Experimentation in Hospital. *Mucchi, L.*, +, *TWC Sept. 2020 5666-5675*

#### Heterodyne detection

Performance of Multibeam Very High Throughput Satellite Systems Based on FSO Feeder Links With HPA Nonlinearity. *Zedini, E.*, +, *TWC Sept. 2020 5908-5923*

#### Heterogeneous networks

Backscatter-Aided Cooperative Transmission in Wireless-Powered Heterogeneous Networks. *Kim, S.H.*, +, *TWC Nov. 2020 7309-7323*

#### Heuristic algorithms

Age of Information Driven Cache Content Update Scheduling for Dynamic Contents in Heterogeneous Networks. *Ma, M.*, +, *TWC Dec. 2020 8427-8441*

Load-Driven Dynamic User Assignment Algorithms for Dense Cellular Networks. *Post, B.*, +, *TWC Nov. 2020 7677-7689*

#### Hidden Markov models

Semi-Blind Joint Timing-Offset and Channel Estimation for Amplify-and-Forward Two-Way Relaying. *Abdallah, S.*, +, *TWC April 2020 2613-2627*

**High altitude stratospheric platforms**

Improvement of the Global Connectivity Using Integrated Satellite-Airborne-Terrestrial Networks With Resource Optimization. *Alsharoa, A.*, +, *TWC Aug. 2020 5088-5100*

**Higher order statistics**

A Universal Splitting Estimator for the Performance Evaluation of Wireless Communications Systems. *Rached, N.B.*, +, *TWC July 2020 4353-4362*

**Hospitals**

Spectrum Occupancy and Interference Model Based on Network Experimentation in Hospital. *Mucchi, L.*, +, *TWC Sept. 2020 5666-5675*

**Huffman codes**

Enhanced Huffman Coded OFDM With Index Modulation. *Dang, S.*, +, *TWC April 2020 2489-2503*

**I****IEEE 802.11 Standard**

Accommodating LAA Within IEEE 802.11ax WiFi Networks for Enhanced Coexistence. *Chen, Q.*, +, *TWC Nov. 2020 7621-7636*

**Image color analysis**

Spherical Quasi-Physical Model-Based Color-Shift Keying for Visible Light Communication. *Chen, W.*, +, *TWC Dec. 2020 8099-8112*

**Image denoising**

Massive MIMO Channel Estimation With an Untrained Deep Neural Network. *Balevi, E.*, +, *TWC March 2020 2079-2090*

**Image edge detection**

Machine Intelligence at the Edge With Learning Centric Power Allocation. *Wang, S.*, +, *TWC Nov. 2020 7293-7308*

**Image segmentation**

Breaking Wireless Propagation Environmental Uncertainty With Deep Learning. *Morocho-Cayamcela, M.E.*, +, *TWC Aug. 2020 5075-5087*

**Image sensors**

Cooperative MIMO-OFDM-Based Exposure-Path Prevention Over 3D Clustered Wireless Camera Sensor Networks. *Wang, J.*, +, *TWC Jan. 2020 4-18*

**Impulse noise**

New Results on Joint Channel and Impulsive Noise Estimation and Tracking in Underwater Acoustic OFDM Systems. *Wang, S.*, +, *TWC April 2020 2601-2612*

**Incentive schemes**

Joint Resource Allocation and Incentive Design for Blockchain-Based Mobile Edge Computing. *Sun, W.*, +, *TWC Sept. 2020 6050-6064*

Towards Demand-Driven Dynamic Incentive for Mobile Crowdsensing Systems. *Hu, J.*, +, *TWC July 2020 4907-4918*

**Indexes**

Set Partition Modulation. *Yarkin, F.*, +, *TWC Nov. 2020 7557-7570*

Super-Mode OFDM With Index Modulation. *Dogukan, A.T.*, +, *TWC Nov. 2020 7353-7362*

**Indoor communication**

A Channel Model for Indoor Time-of-Arrival Ranging. *Latinovic, Z.*, +, *TWC Feb. 2020 1415-1428*

Coordinated Resource Allocation-Based Integrated Visible Light Communication and Positioning Systems for Indoor IoT. *Yang, H.*, +, *TWC July 2020 4671-4684*

Pairwise Coding for MIMO-OFDM Visible Light Communication. *Olanrewaju, H.G.*, +, *TWC Feb. 2020 1210-1220*

Receiver Algorithms for Single-Carrier OSM Based High-Rate Indoor Visible Light Communications. *Wu, L.*, +, *TWC Feb. 2020 1113-1126*

Statistical Modeling and Analysis on the Confidentiality of Indoor VLC Systems. *Chen, J.*, +, *TWC July 2020 4744-4757*

**Indoor navigation**

Calibration-Free Indoor Positioning Using Crowdsourced Data and Multidimensional Scaling. *Zhao, Y.*, +, *TWC March 2020 1770-1785*

IndoorWaze: A Crowdsourcing-Based Context-Aware Indoor Navigation System. *Li, T.*, +, *TWC Aug. 2020 5461-5472*

**Indoor radio**

A Channel Model for Indoor Time-of-Arrival Ranging. *Latinovic, Z.*, +, *TWC Feb. 2020 1415-1428*

A Statistical Impulse Response Model Based on Empirical Characterization of Wireless Underground Channels. *Salam, A.*, +, *TWC Sept. 2020 5966-5981*

Channel Measurement and Modeling of the Small-Scale Fading Characteristics for Urban Inland River Environment. *Yu, J.*, +, *TWC May 2020 3376-3389*

Indoor Femtocell Interference Localization. *Yan, K.*, +, *TWC Aug. 2020 5176-5187*

IndoorWaze: A Crowdsourcing-Based Context-Aware Indoor Navigation System. *Li, T.*, +, *TWC Aug. 2020 5461-5472*

Measurements and Cluster-Based Modeling of Vehicle-to-Vehicle Channels With Large Vehicle Obstructions. *Yang, M.*, +, *TWC Sept. 2020 5860-5874*

Multipath Estimating Delay Lock Loop for LTE Signal TOA Estimation in Indoor and Urban Environments. *Wang, P.*, +, *TWC Aug. 2020 5518-5530*

Robot-Assisted Backscatter Localization for IoT Applications. *Zhang, S.*, +, *TWC Sept. 2020 5807-5818*

Robust Localization Based on ML-Type, Multi-Stage ML-Type, and Extrapolated Single Propagation UKF Methods Under Mixed LOS/NLOS Conditions. *Park, C.*, +, *TWC Sept. 2020 5819-5832*

Ultra-Wideband Radio Channel Characteristics for Near-Ground Swarm Robots Communication. *Duan, S.*, +, *TWC July 2020 4715-4726*

**Inductive power transmission**

Joint Power Allocation and Splitting Control for SWIPT-Enabled NOMA Systems. *Tang, J.*, +, *TWC Jan. 2020 120-133*

Multi-Tone Signal Optimization for Wireless Power Transfer in the Presence of Wireless Communication Links. *Mouris, B.A.*, +, *TWC May 2020 3575-3590*

Opportunistic Waveform Scheduling for Wireless Power Transfer With Multiple Devices. *Kim, K.*, +, *TWC Sept. 2020 5651-5665*

Unary Coding Controlled Simultaneous Wireless Information and Power Transfer. *Hu, J.*, +, *TWC Jan. 2020 637-649*

**Inference algorithms**

The Max-Product Algorithm Viewed as Linear Data-Fusion: A Distributed Detection Scenario. *Abdi, Y.*, +, *TWC Nov. 2020 7585-7597*

**Inference mechanisms**

Robust Recovery of Structured Sparse Signals With Uncertain Sensing Matrix: A Turbo-VBI Approach. *Liu, A.*, +, *TWC May 2020 3185-3198*

**Infinite horizon**

Minimum Age of Information in the Internet of Things With Non-Uniform Status Packet Sizes. *Zhou, B.*, +, *TWC March 2020 1933-1947*

**Information exchange**

Backscatter-Aided Cooperative Transmission in Wireless-Powered Heterogeneous Networks. *Kim, S.H.*, +, *TWC Nov. 2020 7309-7323*

Centralized and Distributed Deep Reinforcement Learning Methods for Downlink Sum-Rate Optimization. *Khan, A.A.*, +, *TWC Dec. 2020 8410-8426*

**Information processing**

Relay Selection, Scheduling, and Power Control in Wireless-Powered Cooperative Communication Networks. *Onalan, A.G.*, +, *TWC Nov. 2020 7181-7195*

**Information theory**

Robust Power Allocation for Parallel Gaussian Channels With Approximately Gaussian Input Distributions. *Cao, W.*, +, *TWC June 2020 3685-3699*

SINR and Rate Distributions for Downlink Cellular Networks. *Hadj-Kacem, I.*, +, *TWC July 2020 4604-4616*

**Integer programming**

Antenna Selection Strategy for Energy Efficiency Maximization in Uplink OFDMA Networks: A Multi-Objective Approach. *Khalili, A.*, +, *TWC Jan. 2020 595-609*

Asynchronous Neighbor Discovery on Duty-Cycled Mobile Devices: Models and Schedules. *Chen, S.*, +, *TWC Aug. 2020 5204-5217*

Delay-Minimized Edge Caching in Heterogeneous Vehicular Networks: A Matching-Based Approach. *Wu, H.*, +, *TWC Oct. 2020 6409-6424*

Edge and Central Cloud Computing: A Perfect Pairing for High Energy Efficiency and Low-Latency. *Hu, X.*, +, *TWC Feb. 2020 1070-1083*

- Energy Minimization of Multi-Cell Cognitive Capacity Harvesting Networks With Neighbor Resource Sharing. *Lin, S.*, +, *TWC May 2020 3199-3213*
- Joint Annotator-and-Spectrum Allocation in Wireless Networks for Crowd Labeling. *Li, X.*, +, *TWC Sept. 2020 6116-6129*
- Joint C-OMA and C-NOMA Wireless Backhaul Scheduling in Heterogeneous Ultra Dense Networks. *Zhang, Q.*, +, *TWC Feb. 2020 874-887*
- Joint Cache Placement, Flight Trajectory, and Transmission Power Optimization for Multi-UAV Assisted Wireless Networks. *Ji, J.*, +, *TWC Aug. 2020 5389-5403*
- Joint Optimization of Service Caching Placement and Computation Offloading in Mobile Edge Computing Systems. *Bi, S.*, +, *TWC July 2020 4947-4963*
- Joint Power Allocation and Load Balancing Optimization for Energy-Efficient Cell-Free Massive MIMO Networks. *Van Chien, T.*, +, *TWC Oct. 2020 6798-6812*
- LORM: Learning to Optimize for Resource Management in Wireless Networks With Few Training Samples. *Shen, Y.*, +, *TWC Jan. 2020 665-679*
- Minimum Length Scheduling for Full Duplex Time-Critical Wireless Powered Communication Networks. *Iqbal, M.S.*, +, *TWC Sept. 2020 5993-6006*
- Multi-Tone Signal Optimization for Wireless Power Transfer in the Presence of Wireless Communication Links. *Mouris, B.A.*, +, *TWC May 2020 3575-3590*
- Multidimensional Cooperative Caching in CoMP-Integrated Ultra-Dense Cellular Networks. *Lin, P.*, +, *TWC March 2020 1977-1989*
- NOMA-Based D2D-Enabled Traffic Offloading for 5G and Beyond Networks Employing Licensed and Unlicensed Access. *Sun, M.*, +, *TWC June 2020 4109-4124*
- On SDN-Driven Network Optimization and QoS Aware Routing Using Multiple Paths. *Bagaa, M.*, +, *TWC July 2020 4700-4714*
- Online Optimal Control for Wireless Cooperative Transmission by Ambient RF Powered Sensors. *Liu, T.*, +, *TWC Sept. 2020 6007-6019*
- Optimal Link Scheduling in Millimeter Wave Multi-Hop Networks With MU-MIMO Radios. *Gomez-Cuba, F.*, +, *TWC March 2020 1839-1854*
- Optimizing the Learning Performance in Mobile Augmented Reality Systems With CNN. *He, Y.*, +, *TWC Aug. 2020 5333-5344*
- UAV Trajectory Planning for Data Collection from Time-Constrained IoT Devices. *Samir, M.*, +, *TWC Jan. 2020 34-46*
- Integrated circuits**
- Graph Theory Assisted Bit-to-Index-Combination Gray Coding for Generalized Index Modulation. *Xiao, L.*, +, *TWC Dec. 2020 8232-8245*
- Inter-carrier interference**
- Generalized OFDM-IM With Noncoherent Detection. *Fazeli, A.*, +, *TWC July 2020 4464-4479*
- Two-Stage ICI Suppression in the Downlink of Asynchronous URLLC. *Zeng, C.*, +, *TWC April 2020 2785-2799*
- Wideband Collaborative Spectrum Sensing Using Massive MIMO Decision Fusion. *Dey, I.*, +, *TWC Aug. 2020 5246-5260*
- Inter-cell interference**
- Anywhere Decoding: Low-Overhead Uplink Interference Management for Wireless Networks. *Pezeshki, H.*, +, *TWC June 2020 4095-4108*
- Joint User Selection, Power Allocation, and Precoding Design With Imperfect CSIT for Multi-Cell MU-MIMO Downlink Systems. *Choi, J.*, +, *TWC Jan. 2020 162-176*
- Reinforcement Learning-Based Downlink Interference Control for Ultra-Dense Small Cells. *Xiao, L.*, +, *TWC Jan. 2020 423-434*
- Inter-channel interference**
- Energy-Efficient Joint User Association and Power Allocation in a Heterogeneous Network. *Fang, F.*, +, *TWC Nov. 2020 7008-7020*
- Interference**
- A Deep Probabilistic Control Machinery for Auto-Configuration of WiFi Link Parameters. *Karmakar, R.*, +, *TWC Dec. 2020 8330-8340*
- Air-to-Air Communications Beyond 5G: A Novel 3D CoMP Transmission Scheme. *Li, Y.*, +, *TWC Nov. 2020 7324-7338*
- Analysis and Optimization of an Intelligent Reflecting Surface-Assisted System With Interference. *Jia, Y.*, +, *TWC Dec. 2020 8068-8082*
- Asymptotic Analysis of MRT Over Double Scattering Channels With MMSE Estimation. *Ye, J.*, +, *TWC Dec. 2020 7851-7863*
- Asymptotic Max-Min SINR Analysis of Reconfigurable Intelligent Surface Assisted MISO Systems. *Nadeem, Q.*, +, *TWC Dec. 2020 7748-7764*
- Deep Learning for Optimal Deployment of UAVs With Visible Light Communications. *Wang, Y.*, +, *TWC Nov. 2020 7049-7063*
- Distributed Pareto Optimal Beamforming for the MISO Multi-Band Multi-Cell Downlink. *Moothedath, V.N.*, +, *TWC Nov. 2020 7196-7209*
- Distributed User Association and Resource Allocation Algorithms for Three Tier HetNets. *Gopalam, S.*, +, *TWC Dec. 2020 7913-7926*
- Eigenvalue-Decomposition-Precoded Ultra-Dense Non-Orthogonal Frequency-Division Multiplexing. *Osaki, S.*, +, *TWC Dec. 2020 8165-8178*
- Interference Avoidance Position Planning in Dual-Hop and Multi-Hop UAV Relay Networks. *Hosseinalipour, S.*, +, *TWC Nov. 2020 7033-7048*
- Joint Distributed Link Scheduling and Power Allocation for Content Delivery in Wireless Caching Networks. *Choi, M.*, +, *TWC Dec. 2020 7810-7824*
- Joint Spatial Division and Multiplexing in Massive MIMO: A Neighbor-Based Approach. *Song, Y.*, +, *TWC Nov. 2020 7392-7406*
- Joint Sub-Carrier and Power Allocation for Efficient Communication of Cellular UAVs. *Hellaoui, H.*, +, *TWC Dec. 2020 8287-8302*
- Minimizing the Age of Information of Cognitive Radio-Based IoT Systems Under a Collision Constraint. *Wang, Q.*, +, *TWC Dec. 2020 8054-8067*
- On the Performance of HARQ Protocols With Blanking in NOMA Systems. *Mheich, Z.*, +, *TWC Nov. 2020 7423-7438*
- On Throughput Improvement Using Immediate Re-Transmission in Grant-Free Random Access With Massive MIMO. *Choi, J.*, *TWC Dec. 2020 8341-8350*
- Optimal Placement of Access Points in Cellular Visible Light Communication Networks: An Adaptive Gradient Projection Method. *Dastgheib, M.A.*, +, *TWC Oct. 2020 6813-6825*
- Partial Non-Orthogonal Multiple Access (NOMA) in Downlink Poisson Networks. *Ali, K.S.*, +, *TWC Nov. 2020 7637-7652*
- Power and Subcarrier Allocation in 5G NOMA-FD Systems. *Abrardo, A.*, +, *TWC Dec. 2020 8246-8260*
- Predicting Device-to-Device Channels From Cellular Channel Measurements: A Learning Approach. *Najla, M.*, +, *TWC Nov. 2020 7124-7138*
- Smart Handover for Hybrid LiFi and WiFi Networks. *Wu, X.*, +, *TWC Dec. 2020 8211-8219*
- Spatial Spectrum Sensing in Uplink Two-Tier User-Centric Deployed HetNets. *Shang, B.*, +, *TWC Dec. 2020 7957-7972*
- Interference suppression**
- 1-bit Phase Shifters for Large-Antenna Full-Duplex mmWave Communications. *da Silva, J.M.B.*, +, *TWC Oct. 2020 6916-6931*
- Beam-Based Analog Self-Interference Cancellation in Full-Duplex MIMO Systems. *Le, A.T.*, +, *TWC April 2020 2460-2471*
- Communications and Radar Coexistence in the Massive MIMO Regime: Uplink Analysis. *D'Andrea, C.*, +, *TWC Jan. 2020 19-33*
- CoMP-NOMA in the SWIPT Networks. *Hedayati, M.*, +, *TWC July 2020 4549-4562*
- Cooperative Asynchronous Non-Orthogonal Multiple Access With Power Minimization Under QoS Constraints. *Zou, X.*, +, *TWC March 2020 1503-1518*
- Cooperative MIMO-OFDM-Based Exposure-Path Prevention Over 3D Clustered Wireless Camera Sensor Networks. *Wang, J.*, +, *TWC Jan. 2020 4-18*
- DeepNOMA: A Unified Framework for NOMA Using Deep Multi-Task Learning. *Ye, N.*, +, *TWC April 2020 2208-2225*
- Delay-Aware Computation Offloading in NOMA MEC Under Differentiated Uploading Delay. *Sheng, M.*, +, *TWC April 2020 2813-2826*
- Design and Analysis of FD MIMO Cellular Systems in Coexistence With MIMO Radar. *Biswas, S.*, +, *TWC July 2020 4727-4743*
- Design of Ambient Backscatter Training for Wireless Power Transfer. *Idrees, S.*, +, *TWC Oct. 2020 6316-6330*
- Experimental Field Trials on MU-MIMO Transmissions for High SHF Wide-Band Massive MIMO in 5G. *Sakai, M.*, +, *TWC April 2020 2196-2207*
- Exploiting Intelligent Reflecting Surfaces in NOMA Networks: Joint Beamforming Optimization. *Mu, X.*, +, *TWC Oct. 2020 6884-6898*

- Full-Duplex Enabled Mobile Edge Caching: From Distributed to Cooperative Caching. *Vu, T.X.*, +, *TWC Feb. 2020 1141-1153*
- Fundamental Rate Limits of UAV-Enabled Multiple Access Channel With Trajectory Optimization. *Li, P.*, +, *TWC Jan. 2020 458-474*
- Fundamentals of Power Allocation Strategies for Downlink Multi-User NOMA With Target Rates. *Oviedo, J.A.*, +, *TWC March 2020 1906-1917*
- Interference Cancellation Based Channel Estimation for Massive MIMO Systems With Time Shifted Pilots. *Sun, B.*, +, *TWC Oct. 2020 6826-6843*
- Iterative Nonlinear Self-Interference Cancellation for In-Band Full-Duplex Wireless Communications Under Mixer Imbalance and Amplifier Nonlinearity. *Komatsu, K.*, +, *TWC July 2020 4424-4438*
- Iterative Receiver Design for FTN Signaling Aided Sparse Code Multiple Access. *Yuan, W.*, +, *TWC Feb. 2020 915-928*
- Jamming-Assisted Proactive Eavesdropping Over Two Suspicious Communication Links. *Zhang, H.*, +, *TWC July 2020 4817-4830*
- Local Partial Zero-Forcing Precoding for Cell-Free Massive MIMO. *Interdonato, G.*, +, *TWC July 2020 4758-4774*
- Massive MIMO-NOMA Networks With Imperfect SIC: Design and Fairness Enhancement. *de Sena, A.S.*, +, *TWC Sept. 2020 6100-6115*
- Mixed-Numerology Signals Transmission and Interference Cancellation for Radio Access Network Slicing. *Yang, B.*, +, *TWC Aug. 2020 5132-5147*
- mmWave Amplify-and-Forward MIMO Relay Networks With Hybrid Precoding/Combining Design. *Jiang, L.*, +, *TWC Feb. 2020 1333-1346*
- Multi-Antenna Interference Management for Coded Caching. *Tolli, A.*, +, *TWC March 2020 2091-2106*
- Multi-Cell Interference Exploitation: Enhancing the Power Efficiency in Cell Coordination. *Wei, Z.*, +, *TWC Jan. 2020 547-562*
- Multi-User Detection Based on Expectation Propagation for the Non-Coherent SIMO Multiple Access Channel. *Ngo, K.*, +, *TWC Sept. 2020 6145-6161*
- NOMA in the Uplink: Delay Analysis With Imperfect CSI and Finite-Length Coding. *Schiessl, S.*, +, *TWC June 2020 3879-3893*
- On the Effectiveness of OTFS for Joint Radar Parameter Estimation and Communication. *Gaudio, L.*, +, *TWC Sept. 2020 5951-5965*
- On the Error Rate of the LoRa Modulation With Interference. *Afsiadis, O.*, +, *TWC Feb. 2020 1292-1304*
- Outage Performance and Average Rate for Large-Scale Millimeter-Wave NOMA Networks. *Kusaladharma, S.*, +, *TWC Feb. 2020 1280-1291*
- Performance of Dynamic Power and Channel Allocation for Downlink MC-NOMA Systems. *Liu, F.*, +, *TWC March 2020 1650-1662*
- Physical-Layer Assisted Secure Offloading in Mobile-Edge Computing. *He, X.*, +, *TWC June 2020 4054-4066*
- Precoding-Aided Spatial Modulation Assisted Joint Two-Tier Downlink Reception. *Pechetti, S.V.*, +, *TWC May 2020 3332-3345*
- Rate Splitting for Uplink NOMA With Enhanced Fairness and Outage Performance. *Liu, H.*, +, *TWC July 2020 4657-4670*
- Reconsidering Design of Multi-Antenna NOMA Systems With Limited Feedback. *Tang, Z.*, +, *TWC March 2020 1519-1534*
- Reinforcement Learning-Based Downlink Interference Control for Ultra-Dense Small Cells. *Xiao, L.*, +, *TWC Jan. 2020 423-434*
- Residual Transceiver Hardware Impairments on Cooperative NOMA Networks. *Li, X.*, +, *TWC Jan. 2020 680-695*
- Robust Non-Orthogonal Multiple Access for Aerial and Ground Users. *New, W.K.*, +, *TWC July 2020 4793-4805*
- Secure Communications in a Unified Non-Orthogonal Multiple Access Framework. *Yue, X.*, +, *TWC March 2020 2163-2178*
- Securing Channel State Information in Multiuser MIMO With Limited Feedback. *Yang, Y.*, +, *TWC May 2020 3091-3103*
- Semi-Distributed Joint Power and Spectrum Allocation for LAA Based Small Cell Networks. *Yin, R.*, +, *TWC June 2020 4141-4153*
- Transmission Energy Minimization for Heterogeneous Low-Latency NOMA Downlink. *Xu, Y.*, +, *TWC Feb. 2020 1054-1069*
- Two-Layered Superposition of Broadcast/Multicast and Unicast Signals in Multiuser OFDMA Systems. *Vargas, D.*, +, *TWC Feb. 2020 979-994*
- Two-Stage ICI Suppression in the Downlink of Asynchronous URLLC. *Zeng, C.*, +, *TWC April 2020 2785-2799*
- UAV-to-UAV Communications in Cellular Networks. *Azari, M.M.*, +, *TWC Sept. 2020 6130-6144*
- Internet of Things**
- A Learning-Based Pre-Allocation Scheme for Low-Latency Access in Industrial Wireless Networks. *Li, M.*, +, *TWC Jan. 2020 650-664*
- Age-of-Information Based Scheduling for Multi-Channel Systems. *Sombabu, B.*, +, *TWC July 2020 4439-4448*
- Analysis of 5G Radio Access Protocols for Uplink URLLC in a Connection-Less Mode. *Centenaro, M.*, +, *TWC May 2020 3104-3117*
- Authenticating On-Body IoT Devices: An Adversarial Learning Approach. *Huang, Y.*, +, *TWC Aug. 2020 5234-5245*
- Coordinated Resource Allocation-Based Integrated Visible Light Communication and Positioning Systems for Indoor IoT. *Yang, H.*, +, *TWC July 2020 4671-4684*
- DeepNOMA: A Unified Framework for NOMA Using Deep Multi-Task Learning. *Ye, N.*, +, *TWC April 2020 2208-2225*
- Design of Ambient Backscatter Training for Wireless Power Transfer. *Idrees, S.*, +, *TWC Oct. 2020 6316-6330*
- Dynamic Service Function Chain Embedding for NFV-Enabled IoT: A Deep Reinforcement Learning Approach. *Fu, X.*, +, *TWC Jan. 2020 507-519*
- Incentive-Aware Micro Computing Cluster Formation for Cooperative Fog Computing. *Luo, S.*, +, *TWC April 2020 2643-2657*
- Information-Centric Grant-Free Access for IoT Fog Networks: Edge vs. Cloud Detection and Learning. *Kassab, R.*, +, *TWC Oct. 2020 6347-6361*
- Intelligent User Association for Symbiotic Radio Networks Using Deep Reinforcement Learning. *Zhang, Q.*, +, *TWC July 2020 4535-4548*
- Jamming-Resilient Frequency Hopping-Aided Secure Communication for Internet-of-Things in the Presence of an Untrusted Relay. *Letafati, M.*, +, *TWC Oct. 2020 6771-6785*
- Joint Annotator-and-Spectrum Allocation in Wireless Networks for Crowd Labeling. *Li, X.*, +, *TWC Sept. 2020 6116-6129*
- Massive Uncoordinated Access With Massive MIMO: A Dictionary Learning Approach. *Han, Y.*, +, *TWC Feb. 2020 1320-1332*
- Minimum Age of Information in the Internet of Things With Non-Uniform Status Packet Sizes. *Zhou, B.*, +, *TWC March 2020 1933-1947*
- Modeling and Analysis of Data Harvesting Architecture Based on Unmanned Aerial Vehicles. *Choi, C.*, +, *TWC March 2020 1825-1838*
- Multilinear Plus Sparse Based Tensor Completion for Long-Term Operating Large-Scale and Heterogeneous Sensor Networks. *Huang, K.*, +, *TWC Oct. 2020 6301-6315*
- On the Error Rate of the LoRa Modulation With Interference. *Afsiadis, O.*, +, *TWC Feb. 2020 1292-1304*
- Online Anticipatory Proactive Network Association in Mobile Edge Computing for IoT. *Cui, Q.*, +, *TWC July 2020 4519-4534*
- Optimization for Full-Duplex Rotary-Wing UAV-Enabled Wireless-Powered IoT Networks. *Ye, H.*, +, *TWC July 2020 5057-5072*
- Over-the-Air Computation Systems: Optimization, Analysis and Scaling Laws. *Liu, W.*, +, *TWC Aug. 2020 5488-5502*
- PACE: Physically-Assisted Channel Estimation. *Xia, M.*, +, *TWC June 2020 3769-3781*
- Recycling Cellular Energy for Self-Sustainable IoT Networks: A Spatiotemporal Study. *Benkhalifa, F.*, +, *TWC April 2020 2699-2712*
- Resource Allocation for Wireless Cooperative IoT Network With Energy Harvesting. *Chen, X.*, +, *TWC July 2020 4879-4893*
- Robot-Assisted Backscatter Localization for IoT Applications. *Zhang, S.*, +, *TWC Sept. 2020 5807-5818*
- Throughput Maximization for Peer-Assisted Wireless Powered IoT NOMA Networks. *Wang, J.*, +, *TWC Aug. 2020 5278-5291*
- UAV Trajectory Planning for Data Collection from Time-Constrained IoT Devices. *Samir, M.*, +, *TWC Jan. 2020 34-46*
- Unary Coding Controlled Simultaneous Wireless Information and Power Transfer. *Hu, J.*, +, *TWC Jan. 2020 637-649*
- Internetworking**
- Uplink Resource Allocation in Energy Harvesting Cellular Network With H2H/M2M Coexistence. *Nobar, S.K.*, +, *TWC Aug. 2020 5101-5116*

**Interpolation**

BEM-PSP for Single-Carrier and SC-FDMA Communication Over a Doubly Selective Fading Channel. *Liu, X., +, TWC June 2020 3924-3937*

**Intersymbol interference**

Iterative Receiver Design for FTN Signaling Aided Sparse Code Multiple Access. *Yuan, W., +, TWC Feb. 2020 915-928*

Optimized Precoded Spatio-Temporal Partial-Response Signaling Over Frequency-Selective MIMO Channels. *Bailleul, J., +, TWC Sept. 2020 5938-5950*

Receiver Algorithms for Single-Carrier OSM Based High-Rate Indoor Visible Light Communications. *Wu, L., +, TWC Feb. 2020 1113-1126*

**Iterative decoding**

Iterative Receiver Design for FTN Signaling Aided Sparse Code Multiple Access. *Yuan, W., +, TWC Feb. 2020 915-928*

**Iterative methods**

A Joint Solution for Scheduling and Precoding in Multiuser MISO Downlink Channels. *Bandi, A., +, TWC Jan. 2020 475-490*

Achievable Rate Region for Iterative Multi-User Detection via Low-Cost Gaussian Approximation. *Wang, X., +, TWC May 2020 3289-3303*

Adaptive Neural Signal Detection for Massive MIMO. *Khani, M., +, TWC Aug. 2020 5635-5648*

Adaptive Video Streaming for Massive MIMO Networks via Approximate MDP and Reinforcement Learning. *Lan, Q., +, TWC Sept. 2020 5716-5731*

Age of Information in a Cellular Internet of UAVs: Sensing and Communication Trade-Off Design. *Zhang, S., +, TWC Oct. 2020 6578-6592*

AUV-Aided Localization of Underwater Acoustic Devices Based on Doppler Shift Measurements. *Gong, Z., +, TWC April 2020 2226-2239*

Caching With Finite Buffer and Request Delay Information: A Markov Decision Process Approach. *Hui, H., +, TWC Aug. 2020 5148-5161*

Compressed Sensing Channel Estimation for OFDM With Non-Gaussian Multipath Gains. *Gomez-Cuba, F., +, TWC Jan. 2020 47-61*

Computation Efficiency Maximization in Wireless-Powered Mobile Edge Computing Networks. *Zhou, F., +, TWC May 2020 3170-3184*

Decentralized WSEE Optimization for Massive MIMO Two-Way Half-Duplex AF Relaying. *Sharma, E., +, TWC Feb. 2020 1397-1414*

Delay-Aware Computation Offloading in NOMA MEC Under Differentiated Uploading Delay. *Sheng, M., +, TWC April 2020 2813-2826*

Edge and Central Cloud Computing: A Perfect Pairing for High Energy Efficiency and Low-Latency. *Hu, X., +, TWC Feb. 2020 1070-1083*

Energy Efficiency Optimization for Downlink Massive MIMO With Statistical CSIT. *You, L., +, TWC April 2020 2684-2698*

Energy-Efficient Base Station Association and Beamforming for Multi-Cell Multiuser Systems. *An, J., +, TWC April 2020 2841-2854*

Expectation Propagation Detector for Extra-Large Scale Massive MIMO. *Wang, H., +, TWC March 2020 2036-2051*

Exploiting Intelligent Reflecting Surfaces in NOMA Networks: Joint Beamforming Optimization. *Mu, X., +, TWC Oct. 2020 6884-6898*

Federated Learning Over Wireless Fading Channels. *Amiri, M.M., +, TWC May 2020 3546-3557*

Freshness-Aware Seed Selection for Offloading Cellular Traffic Through Opportunistic Mobile Networks. *Zhou, H., +, TWC April 2020 2658-2669*

Full-Duplex Enabled Mobile Edge Caching: From Distributed to Cooperative Caching. *Yu, T.X., +, TWC Feb. 2020 1141-1153*

Hierarchical Energy Optimization With More Realistic Power Consumption and Interference Models for Ultra-Dense Networks. *Zhuang, H., +, TWC July 2020 4507-4518*

Iterative Nonlinear Self-Interference Cancellation for In-Band Full-Duplex Wireless Communications Under Mixer Imbalance and Amplifier Nonlinearity. *Komatsu, K., +, TWC July 2020 4424-4438*

Iterative Receiver Design for FTN Signaling Aided Sparse Code Multiple Access. *Yuan, W., +, TWC Feb. 2020 915-928*

Joint Access and Backhaul Resource Management in Satellite-Drone Networks: A Competitive Market Approach. *Hu, Y., +, TWC June 2020 3908-3923*

Joint Cache Placement, Flight Trajectory, and Transmission Power Optimization for Multi-UAV Assisted Wireless Networks. *Ji, J., +, TWC Aug. 2020 5389-5403*

Joint Estimation of RF Impairments, Channel, and Low Complexity Iterative Equalization Technique for High Mobility SC-FDMA/OFDMA Uplink Systems. *Sanoopkumar, P.S., +, TWC June 2020 4276-4289*

Joint Optimization of Radio and Computational Resources Allocation in Blockchain-Enabled Mobile Edge Computing Systems. *Feng, J., +, TWC June 2020 4321-4334*

Joint Power Allocation and Splitting Control for SWIPT-Enabled NOMA Systems. *Tang, J., +, TWC Jan. 2020 120-133*

Joint User Selection, Power Allocation, and Precoding Design With Imperfect CSIT for Multi-Cell MU-MIMO Downlink Systems. *Choi, J., +, TWC Jan. 2020 162-176*

Low-Complexity Joint Resource Allocation and Trajectory Design for UAV-Aided Relay Networks With the Segmented Ray-Tracing Channel Model. *Hu, Q., +, TWC Sept. 2020 6179-6195*

Massive MIMO-NOMA Networks With Imperfect SIC: Design and Fairness Enhancement. *de Sena, A.S., +, TWC Sept. 2020 6100-6115*

Millimeter-Wave Beam Search With Iterative Deactivation and Beam Shifting. *Liu, C., +, TWC Aug. 2020 5117-5131*

mmWave Amplify-and-Forward MIMO Relay Networks With Hybrid Precoding/Combining Design. *Jiang, L., +, TWC Feb. 2020 1333-1346*

Multi-User Detection Based on Expectation Propagation for the Non-Coherent SIMO Multiple Access Channel. *Ngo, K., +, TWC Sept. 2020 6145-6161*

Near-Optimal MIMO-SCMA Uplink Detection With Low-Complexity Expectation Propagation. *Wang, P., +, TWC Feb. 2020 1025-1037*

NLOS Effect Mitigation via Spatial Geometry Exploitation in Cooperative Localization. *Wang, Y., +, TWC Sept. 2020 6037-6049*

Optimized Precoded Spatio-Temporal Partial-Response Signaling Over Frequency-Selective MIMO Channels. *Bailleul, J., +, TWC Sept. 2020 5938-5950*

Optimizing Downlink Resource Allocation in Multiuser MIMO Networks via Fractional Programming and the Hungarian Algorithm. *Khan, A.A., +, TWC Aug. 2020 5162-5175*

PAPR Reduction Using Iterative Clipping/Filtering and ADMM Approaches for OFDM-Based Mixed-Numerology Systems. *Liu, X., +, TWC April 2020 2586-2600*

Performance Analysis of Cell-Free Massive MIMO System With Limited Fronthaul Capacity and Hardware Impairments. *Masoumi, H., +, TWC Feb. 2020 1038-1053*

Power Control in Cellular Massive MIMO With Varying User Activity: A Deep Learning Solution. *Van Chien, T., +, TWC Sept. 2020 5732-5748*

Robust Hybrid Cooperative Positioning Via a Modified Distributed Projection-Based Method. *Liu, T., +, TWC May 2020 3003-3018*

Spectral-Energy Efficiency Trade-Off-Based Beamforming Design for MISO Non-Orthogonal Multiple Access Systems. *Al-Obiedollah, H.M., +, TWC Oct. 2020 6593-6606*

UAV Positioning and Power Control for Two-Way Wireless Relaying. *Li, L., +, TWC Feb. 2020 1008-1024*

User-Centric Performance Optimization With Remote Radio Head Cooperation in C-RAN. *You, L., +, TWC Jan. 2020 340-353*

Visible Light-Based User Position, Orientation and Channel Estimation Using Self-Adaptive Location-Domain Grid Sampling. *Zhou, B., +, TWC July 2020 5025-5039*

**J****Jamming**

A Jamming Game With Rival-Type Uncertainty. *Garnaev, A., +, TWC Aug. 2020 5359-5372*

Jamming-Assisted Proactive Eavesdropping Over Two Suspicious Communication Links. *Zhang, H., +, TWC July 2020 4817-4830*

Jamming-Resilient Frequency Hopping-Aided Secure Communication for Internet-of-Things in the Presence of an Untrusted Relay. *Letafati, M., +, TWC Oct. 2020 6771-6785*

Secure Degrees of Freedom of MIMO Two-Way Wiretap Channel With no CSI Anywhere. *Liang, Q., +, TWC Dec. 2020 7927-7941*

**Job shop scheduling**

Learning Link Schedules in Self-Backhauled Millimeter Wave Cellular Networks. *Gupta, M., +, TWC Dec. 2020 8024-8038*

**K****Kalman filters**

New Results on Joint Channel and Impulsive Noise Estimation and Tracking in Underwater Acoustic OFDM Systems. *Wang, S., +, TWC April 2020 2601-2612*

Robust Localization Based on ML-Type, Multi-Stage ML-Type, and Extrapolated Single Propagation UKF Methods Under Mixed LOS/NLOS Conditions. *Park, C., +, TWC Sept. 2020 5819-5832*

**Knapsack problems**

A Non-Stationary Bandit-Learning Approach to Energy-Efficient Femto-Caching With Rateless-Coded Transmission. *Maghsudi, S., +, TWC July 2020 5040-5056*

Joint Annotator-and-Spectrum Allocation in Wireless Networks for Crowd Labeling. *Li, X., +, TWC Sept. 2020 6116-6129*

**L****Laplace transforms**

Coverage and Rate Analysis of Downlink Cellular Vehicle-to-Everything (C-V2X) Communication. *Chehkur, V.V., +, TWC March 2020 1738-1753*

Stochastic Design and Analysis of User-Centric Wireless Cloud Caching Networks. *Azimi-Abarghouyi, S.M., +, TWC July 2020 4978-4993*

**Lattices**

Multimode Integer-Forcing Receivers for Block Fading Channels. *Yang, D., +, TWC Dec. 2020 8261-8271*

**Learning (artificial intelligence)**

A Crowdsourcing Framework for On-Device Federated Learning. *Pandey, S.R., +, TWC May 2020 3241-3256*

A Deep Learning Approach to Universal Binary Visible Light Communication Transceiver. *Lee, H., +, TWC Feb. 2020 956-969*

A Learning-Based Pre-Allocation Scheme for Low-Latency Access in Industrial Wireless Networks. *Li, M., +, TWC Jan. 2020 650-664*

A Non-Stationary Bandit-Learning Approach to Energy-Efficient Femto-Caching With Rateless-Coded Transmission. *Maghsudi, S., +, TWC July 2020 5040-5056*

A Realization of Fog-RAN Slicing via Deep Reinforcement Learning. *Xiang, H., +, TWC April 2020 2515-2527*

Adaptive Neural Signal Detection for Massive MIMO. *Khani, M., +, TWC Aug. 2020 5635-5648*

Adaptive Resource Allocation in Future Wireless Networks With Blockchain and Mobile Edge Computing. *Guo, F., +, TWC March 2020 1689-1703*

Adaptive Video Streaming for Massive MIMO Networks via Approximate MDP and Reinforcement Learning. *Lan, Q., +, TWC Sept. 2020 5716-5731*

Adaptive Video Streaming With Edge Caching and Video Transcoding Over Software-Defined Mobile Networks: A Deep Reinforcement Learning Approach. *Luo, J., +, TWC March 2020 1577-1592*

Age of Information Aware Radio Resource Management in Vehicular Networks: A Proactive Deep Reinforcement Learning Perspective. *Chen, X., +, TWC April 2020 2268-2281*

Authenticating On-Body IoT Devices: An Adversarial Learning Approach. *Huang, Y., +, TWC Aug. 2020 5234-5245*

Breaking Wireless Propagation Environmental Uncertainty With Deep Learning. *Morocho-Cayamcela, M.E., +, TWC Aug. 2020 5075-5087*

Broadband Analog Aggregation for Low-Latency Federated Edge Learning. *Zhu, G., +, TWC Jan. 2020 491-506*

Cache-Aided NOMA Mobile Edge Computing: A Reinforcement Learning Approach. *Yang, Z., +, TWC Oct. 2020 6899-6915*

Cell-Free Massive MIMO for Wireless Federated Learning. *Vu, T.T., +, TWC Oct. 2020 6377-6392*

Collaborative Multi-Agent Multi-Armed Bandit Learning for Small-Cell Caching. *Xu, X., +, TWC April 2020 2570-2585*

Convolutional Neural Network-Based Multiple-Rate Compressive Sensing for Massive MIMO CSI Feedback: Design, Simulation, and Analysis. *Guo, J., +, TWC April 2020 2827-2840*

Deep Energy Autoencoder for Noncoherent Multicarrier MU-SIMO Systems. *Van Luong, T., +, TWC June 2020 3952-3962*

Deep Learning Enabled Optimization of Downlink Beamforming Under Per-Antenna Power Constraints: Algorithms and Experimental Demonstration. *Zhang, J., +, TWC June 2020 3738-3752*

Deep Learning for SVD and Hybrid Beamforming. *Peken, T., +, TWC Oct. 2020 6621-6642*

Deep Learning-Aided Tabu Search Detection for Large MIMO Systems. *Nguyen, N.T., +, TWC June 2020 4262-4275*

Deep Learning-Based End-to-End Wireless Communication Systems With Conditional GANs as Unknown Channels. *Ye, H., +, TWC May 2020 3133-3143*

Deep Learning-Based Sum Data Rate and Energy Efficiency Optimization for MIMO-NOMA Systems. *Huang, H., +, TWC Aug. 2020 5373-5388*

Deep Reinforcement Learning (DRL)-Based Device-to-Device (D2D) Caching With Blockchain and Mobile Edge Computing. *Zhang, R., +, TWC Oct. 2020 6469-6485*

DeepNOMA: A Unified Framework for NOMA Using Deep Multi-Task Learning. *Ye, N., +, TWC April 2020 2208-2225*

Dynamic Service Function Chain Embedding for NFV-Enabled IoT: A Deep Reinforcement Learning Approach. *Fu, X., +, TWC Jan. 2020 507-519*

Federated Echo State Learning for Minimizing Breaks in Presence in Wireless Virtual Reality Networks. *Chen, M., +, TWC Jan. 2020 177-191*

Federated Learning Over Wireless Fading Channels. *Amiri, M.M., +, TWC May 2020 3546-3557*

Federated Learning via Over-the-Air Computation. *Yang, K., +, TWC March 2020 2022-2035*

Fuzzy Learning for Multi-Dimensional Adaptive Physical Layer Authentication: A Compact and Robust Approach. *Fang, H., +, TWC Aug. 2020 5420-5432*

HFEL: Joint Edge Association and Resource Allocation for Cost-Efficient Hierarchical Federated Edge Learning. *Luo, S., +, TWC Oct. 2020 6535-6548*

Intelligent User Association for Symbiotic Radio Networks Using Deep Reinforcement Learning. *Zhang, Q., +, TWC July 2020 4535-4548*

Joint Antenna Selection and Hybrid Beamformer Design Using Unquantized and Quantized Deep Learning Networks. *Elbir, A.M., +, TWC March 2020 1677-1688*

LORM: Learning to Optimize for Resource Management in Wireless Networks With Few Training Samples. *Shen, Y., +, TWC Jan. 2020 665-679*

Machine Learning-Based Channel Prediction in Massive MIMO With Channel Aging. *Yuan, J., +, TWC May 2020 2960-2973*

Machine Learning-Enabled LOS/NLOS Identification for MIMO Systems in Dynamic Environments. *Huang, C., +, TWC June 2020 3643-3657*

Massive MIMO Channel Estimation With an Untrained Deep Neural Network. *Balevi, E., +, TWC March 2020 2079-2090*

Massive Uncoordinated Access With Massive MIMO: A Dictionary Learning Approach. *Han, Y., +, TWC Feb. 2020 1320-1332*

Millimeter-Wave Networking in the Sky: A Machine Learning and Mean Field Game Approach for Joint Beamforming and Beam-Steering. *Li, L., +, TWC Oct. 2020 6393-6408*

Multi-Agent Reinforcement Learning for Adaptive User Association in Dynamic mmWave Networks. *Sana, M., +, TWC Oct. 2020 6520-6534*

Multi-Agent Reinforcement Learning-Based Resource Allocation for UAV Networks. *Cui, J., +, TWC Feb. 2020 729-743*

New Results on Joint Channel and Impulsive Noise Estimation and Tracking in Underwater Acoustic OFDM Systems. *Wang, S., +, TWC April 2020 2601-2612*

Offloading and Resource Allocation With General Task Graph in Mobile Edge Computing: A Deep Reinforcement Learning Approach. *Yan, J., +, TWC Aug. 2020 5404-5419*

Online Anticipatory Proactive Network Association in Mobile Edge Computing for IoT. *Cui, Q., +, TWC July 2020 4519-4534*

- Optimizing the Learning Performance in Mobile Augmented Reality Systems With CNN. *He, Y.*, +, *TWC Aug. 2020 5333-5344*
- Power Allocation in Multi-User Cellular Networks: Deep Reinforcement Learning Approaches. *Meng, F.*, +, *TWC Oct. 2020 6255-6267*
- Power Control Based on Deep Reinforcement Learning for Spectrum Sharing. *Zhang, H.*, +, *TWC June 2020 4209-4219*
- Power Control in Cellular Massive MIMO With Varying User Activity: A Deep Learning Solution. *Van Chien, T.*, +, *TWC Sept. 2020 5732-5748*
- Reinforcement Learning Based Capacity Management in Multi-Layer Satellite Networks. *Jiang, C.*, +, *TWC July 2020 4685-4699*
- Reinforcement Learning-Based Downlink Interference Control for Ultra-Dense Small Cells. *Xiao, L.*, +, *TWC Jan. 2020 423-434*
- Robust Data Detection for MIMO Systems With One-Bit ADCs: A Reinforcement Learning Approach. *Jeon, Y.*, +, *TWC March 2020 1663-1676*
- Self-Tuning Sectorization: Deep Reinforcement Learning Meets Broadcast Beam Optimization. *Shafiq, R.*, +, *TWC June 2020 4038-4053*
- The Application of Deep Reinforcement Learning to Distributed Spectrum Access in Dynamic Heterogeneous Environments With Partial Observations. *Xu, Y.*, +, *TWC July 2020 4494-4506*
- Time-Varying Downlink Channel Tracking for Quantized Massive MIMO Networks. *Ma, J.*, +, *TWC Oct. 2020 6721-6736*
- Visible Light-Based User Position, Orientation and Channel Estimation Using Self-Adaptive Location-Domain Grid Sampling. *Zhou, B.*, +, *TWC July 2020 5025-5039*
- ViterbiNet: A Deep Learning Based Viterbi Algorithm for Symbol Detection. *Shlezinger, N.*, +, *TWC May 2020 3319-3331*
- Learning automata**
- Cache-Aided NOMA Mobile Edge Computing: A Reinforcement Learning Approach. *Yang, Z.*, +, *TWC Oct. 2020 6899-6915*
- Least mean squares methods**
- Adaptive Neural Signal Detection for Massive MIMO. *Khani, M.*, +, *TWC Aug. 2020 5635-5648*
- Beam-Based Analog Self-Interference Cancellation in Full-Duplex MIMO Systems. *Le, A.T.*, +, *TWC April 2020 2460-2471*
- Channel Estimation for Intelligent Reflecting Surface Assisted Multiuser Communications: Framework, Algorithms, and Analysis. *Wang, Z.*, +, *TWC Oct. 2020 6607-6620*
- Communications and Radar Coexistence in the Massive MIMO Regime: Uplink Analysis. *D'Andrea, C.*, +, *TWC Jan. 2020 19-33*
- Correlation Analysis and Link Gain Prediction for Optical Wireless Scattering Communication Over Broad Spectra. *Liu, B.*, +, *TWC Feb. 2020 1386-1396*
- Full-Duplex Enabled Mobile Edge Caching: From Distributed to Cooperative Caching. *Vu, T.X.*, +, *TWC Feb. 2020 1141-1153*
- Hybrid-Precoding for mmWave Multi-User Communications in the Presence of Beam-Misalignment. *Pradhan, C.*, +, *TWC Sept. 2020 6083-6099*
- Jamming-Assisted Proactive Eavesdropping Over Two Suspicious Communication Links. *Zhang, H.*, +, *TWC July 2020 4817-4830*
- Learning for Detection: MIMO-OFDM Symbol Detection Through Downlink Pilots. *Zhou, Z.*, +, *TWC June 2020 3712-3726*
- Making Cell-Free Massive MIMO Competitive With MMSE Processing and Centralized Implementation. *Bjornson, E.*, +, *TWC Jan. 2020 77-90*
- Massive MIMO Channel Estimation With an Untrained Deep Neural Network. *Balevi, E.*, +, *TWC March 2020 2079-2090*
- mmWave Amplify-and-Forward MIMO Relay Networks With Hybrid Precoding/Combining Design. *Jiang, L.*, +, *TWC Feb. 2020 1333-1346*
- Optimized Precoded Spatio-Temporal Partial-Response Signaling Over Frequency-Selective MIMO Channels. *Bailleul, J.*, +, *TWC Sept. 2020 5938-5950*
- Optimizing Downlink Resource Allocation in Multiuser MIMO Networks via Fractional Programming and the Hungarian Algorithm. *Khan, A.A.*, +, *TWC Aug. 2020 5162-5175*
- Robust Power Allocation for Parallel Gaussian Channels With Approximately Gaussian Input Distributions. *Cao, W.*, +, *TWC June 2020 3685-3699*
- Subset MMSE Receivers for Cell-Free Networks. *Attarifar, M.*, +, *TWC June 2020 4183-4194*
- Two-Stage ICI Suppression in the Downlink of Asynchronous URLLC. *Zeng, C.*, +, *TWC April 2020 2785-2799*
- Least squares approximations**
- NLOS Effect Mitigation via Spatial Geometry Exploitation in Cooperative Localization. *Wang, Y.*, +, *TWC Sept. 2020 6037-6049*
- Robust Localization Based on ML-Type, Multi-Stage ML-Type, and Extrapolated Single Propagation UKF Methods Under Mixed LOS/NLOS Conditions. *Park, C.*, +, *TWC Sept. 2020 5819-5832*
- LED lamps**
- Secure Cooperative Hybrid VLC-RF Systems. *Pan, G.*, +, *TWC Nov. 2020 7097-7107*
- Lens antennas**
- mmWave Lens-Based MIMO System for Suppressing Small-Scale Fading and Shadowing. *Almasi, M.A.*, +, *TWC Aug. 2020 5292-5306*
- Lenses**
- Spectral Efficiency and Energy Harvesting in Multi-Cell SLIPT Systems. *Abdelhady, A.M.*, +, *TWC May 2020 3304-3318*
- Libraries**
- Multi-Antenna Coded Content Delivery With Caching: A Low-Complexity Solution. *Zhao, J.*, +, *TWC Nov. 2020 7484-7497*
- Light emitting diodes**
- Aggregated VLC-RF Systems: Achievable Rates, Optimal Power Allocation, and Energy Efficiency. *Ma, S.*, +, *TWC Nov. 2020 7265-7278*
- Pairwise Coding for MIMO-OFDM Visible Light Communication. *Olanrewaju, H.G.*, +, *TWC Feb. 2020 1210-1220*
- Receiver Algorithms for Single-Carrier OSB Based High-Rate Indoor Visible Light Communications. *Wu, L.*, +, *TWC Feb. 2020 1113-1126*
- Secrecy Performance of the MIMO VLC Wiretap Channel With Randomly Located Eavesdropper. *Arfaoui, M.A.*, +, *TWC Jan. 2020 265-278*
- Spectral Efficiency and Energy Harvesting in Multi-Cell SLIPT Systems. *Abdelhady, A.M.*, +, *TWC May 2020 3304-3318*
- Light fidelity**
- Smart Handover for Hybrid LiFi and WiFi Networks. *Wu, X.*, +, *TWC Dec. 2020 8211-8219*
- Light interference**
- Optimal Placement of Access Points in Cellular Visible Light Communication Networks: An Adaptive Gradient Projection Method. *Dastgheib, M.A.*, +, *TWC Oct. 2020 6813-6825*
- Light propagation**
- On the Performance Gain of Harnessing Non-Line-of-Sight Propagation for Visible Light-Based Positioning. *Zhou, B.*, +, *TWC July 2020 4863-4878*
- Light rail systems**
- LRT Detectors for Spectrum Sensing of Weak OFDM Signals With Periodic Pilots. *Yin, W.*, +, *TWC Nov. 2020 7514-7527*
- Light reflection**
- Optimal Placement of Access Points in Cellular Visible Light Communication Networks: An Adaptive Gradient Projection Method. *Dastgheib, M.A.*, +, *TWC Oct. 2020 6813-6825*
- Statistical Modeling and Analysis on the Confidentiality of Indoor VLC Systems. *Chen, J.*, +, *TWC July 2020 4744-4757*
- Lighting**
- Deep Learning for Optimal Deployment of UAVs With Visible Light Communications. *Wang, Y.*, +, *TWC Nov. 2020 7049-7063*
- Spherical Quasi-Physical Model-Based Color-Shift Keying for Visible Light Communication. *Chen, W.*, +, *TWC Dec. 2020 8099-8112*
- Linear antenna arrays**
- Massive MIMO Asymptotics for Ray-Based Propagation Channels. *Li, S.*, +, *TWC June 2020 3977-3991*
- Linear antennas**
- Steepest Gradient-Based Orthogonal Precoder for Integer-Forcing MIMO. *Hasan, M.N.*, +, *TWC Feb. 2020 942-955*
- Linear codes**
- A Network Linear Block Coding Approach to Selective Detect-and-Forward Multi-Way Relaying With Differential Modulation. *Hou, X.*, +, *TWC Sept. 2020 5749-5764*
- Joint Reflecting and Precoding Designs for SER Minimization in Reconfigurable Intelligent Surfaces Assisted MIMO Systems. *Ye, J.*, +, *TWC Aug. 2020 5561-5574*

On Data Dissemination Enhanced by Network Coded Device-to-Device Communications. *Li, Y., +, TWC June 2020 3963-3976*

#### Linear programming

Delay-Minimized Edge Caching in Heterogeneous Vehicular Networks: A Matching-Based Approach. *Wu, H., +, TWC Oct. 2020 6409-6424*

Joint Detection and Decoding of Polar Coded 5G Control Channels. *Jalali, A., +, TWC March 2020 2066-2078*

Joint Optimization of Service Caching Placement and Computation Offloading in Mobile Edge Computing Systems. *Bi, S., +, TWC July 2020 4947-4963*

Minimum Length Scheduling for Full Duplex Time-Critical Wireless Powered Communication Networks. *Iqbal, M.S., +, TWC Sept. 2020 5993-6006*

Multidimensional Cooperative Caching in CoMP-Integrated Ultra-Dense Cellular Networks. *Lin, P., +, TWC March 2020 1977-1989*

On SDN-Driven Network Optimization and QoS Aware Routing Using Multiple Paths. *Bagaa, M., +, TWC July 2020 4700-4714*

Optimal Link Scheduling in Millimeter Wave Multi-Hop Networks With MU-MIMO Radios. *Gomez-Cuba, F., +, TWC March 2020 1839-1854*

#### Linear systems

Real-Time Remote Estimation With Hybrid ARQ in Wireless Networked Control. *Huang, K., +, TWC May 2020 3490-3504*

#### Load management

Mean Field Evolutionary Dynamics in Dense-User Multi-Access Edge Computing Systems. *Gao, H., +, TWC Dec. 2020 7825-7835*

#### Load modeling

Joint Parameter-and-Bandwidth Allocation for Improving the Efficiency of Partitioned Edge Learning. *Wen, D., +, TWC Dec. 2020 8272-8286*

Mean Field Evolutionary Dynamics in Dense-User Multi-Access Edge Computing Systems. *Gao, H., +, TWC Dec. 2020 7825-7835*

#### Log normal distribution

A Statistical Impulse Response Model Based on Empirical Characterization of Wireless Underground Channels. *Salam, A., +, TWC Sept. 2020 5966-5981*

SINR and Rate Distributions for Downlink Cellular Networks. *Hadj-Kacem, I., +, TWC July 2020 4604-4616*

Vertical Underwater Visible Light Communication Links: Channel Modeling and Performance Analysis. *Elamassie, M., +, TWC Oct. 2020 6948-6959*

#### Long Term Evolution

A Dynamic MBSFN Area Formation Algorithm for Multicast Service Delivery in 5G NR Networks. *Araniti, G., +, TWC Feb. 2020 808-821*

Achieving Proportional Fairness for LTE-LAA and Wi-Fi Coexistence in Unlicensed Spectrum. *Gao, Y., +, TWC May 2020 3390-3404*

Cooperative Computation Offloading in FiWi Enhanced 4G HetNets Using Self-Organizing MEC. *Ebrahimzadeh, A., +, TWC July 2020 4480-4493*

Coordinated Multi-Point Transmission: A Poisson-Delaunay Triangulation Based Approach. *Li, Y., +, TWC May 2020 2946-2959*

EVM Closed-Form Expression for OFDM Signals With Tone Reservation-Based PAPR Reduction. *El Hassan, M., +, TWC April 2020 2352-2366*

Full-Duplex MAC in LAA/ Wi-Fi Coexistence Networks: Design, Modeling, and Analysis. *Cao, X., +, TWC Aug. 2020 5531-5546*

IDFT-VFDM for Supplementary Uplink and LTE-NR Co-Existence. *Feng, Q., +, TWC May 2020 3435-3448*

Joint Detection and Decoding of Polar Coded 5G Control Channels. *Jalali, A., +, TWC March 2020 2066-2078*

Learning for Detection: MIMO-OFDM Symbol Detection Through Downlink Pilots. *Zhou, Z., +, TWC June 2020 3712-3726*

Minority Game for Distributed User Association in Unlicensed Heterogeneous Networks. *Wang, Y., +, TWC June 2020 4220-4233*

Multipath Estimating Delay Lock Loop for LTE Signal TOA Estimation in Indoor and Urban Environments. *Wang, P., +, TWC Aug. 2020 5518-5530*

The Power of Mobility Prediction in Reducing Idle-State Signaling in Cellular Systems: A Revisit to 4G Mobility Management. *Hoseinitabatabei, S.A., +, TWC May 2020 3346-3360*

Towards Fair and Efficient Spectrum Sharing Between LTE and WiFi in Unlicensed Bands: Fairness-Constrained Throughput Maximization. *Sun, X., +, TWC April 2020 2713-2727*

Two-Layered Superposition of Broadcast/Multicast and Unicast Signals in Multiuser OFDMA Systems. *Vargas, D., +, TWC Feb. 2020 979-994*

#### Low noise amplifiers

Iterative Nonlinear Self-Interference Cancellation for In-Band Full-Duplex Wireless Communications Under Mixer Imbalance and Amplifier Nonlinearity. *Komatsu, K., +, TWC July 2020 4424-4438*

#### Low-pass filters

Complex Properness Inspired Blind Adaptive Frequency-Dependent I/Q Imbalance Compensation for Wideband Direct-Conversion Receivers. *Zhang, X., +, TWC Sept. 2020 5982-5992*

#### Low-power electronics

Online Optimal Control for Wireless Cooperative Transmission by Ambient RF Powered Sensors. *Liu, T., +, TWC Sept. 2020 6007-6019*

#### Lyapunov methods

Adaptive Video Streaming With Edge Caching and Video Transcoding Over Software-Defined Mobile Networks: A Deep Reinforcement Learning Approach. *Luo, J., +, TWC March 2020 1577-1592*

Energy Efficiency and Delay Tradeoff for Wireless Powered Mobile-Edge Computing Systems With Multi-Access Schemes. *Mao, S., +, TWC March 2020 1855-1867*

Green-Oriented Dynamic Resource-on-Demand Strategy for Multi-RAT Wireless Networks Powered by Heterogeneous Energy Sources. *Qin, M., +, TWC Aug. 2020 5547-5560*

Resource Allocation for Wireless Cooperative IoT Network With Energy Harvesting. *Chen, X., +, TWC July 2020 4879-4893*

## M

#### Machine learning

Centralized and Distributed Deep Reinforcement Learning Methods for Downlink Sum-Rate Optimization. *Khan, A.A., +, TWC Dec. 2020 8410-8426*

Deep Learning for Optimal Deployment of UAVs With Visible Light Communications. *Wang, Y., +, TWC Nov. 2020 7049-7063*

Deep Learning-Based Edge Caching in Fog Radio Access Networks. *Jiang, Y., +, TWC Dec. 2020 8442-8454*

Learning to Search for MIMO Detection. *Sun, J., +, TWC Nov. 2020 7571-7584*

Machine Intelligence at the Edge With Learning Centric Power Allocation. *Wang, S., +, TWC Nov. 2020 7293-7308*

#### Machine-to-machine communication

Joint User Identification, Channel Estimation, and Signal Detection for Grant-Free NOMA. *Jiang, S., +, TWC Oct. 2020 6960-6976*

Uplink Resource Allocation in Energy Harvesting Cellular Network With H2H/M2M Coexistence. *Nobar, S.K., +, TWC Aug. 2020 5101-5116*

#### Macrocell networks

Energy-Efficient Joint User Association and Power Allocation in a Heterogeneous Network. *Fang, F., +, TWC Nov. 2020 7008-7020*

#### Maintenance engineering

3D UAV Trajectory Design and Frequency Band Allocation for Energy-Efficient and Fair Communication: A Deep Reinforcement Learning Approach. *Ding, R., +, TWC Dec. 2020 7796-7809*

#### Market research

Deep Learning-Based Edge Caching in Fog Radio Access Networks. *Jiang, Y., +, TWC Dec. 2020 8442-8454*

#### Markov processes

A Universal Splitting Estimator for the Performance Evaluation of Wireless Communications Systems. *Rached, N.B., +, TWC July 2020 4353-4362*

Adaptive Video Streaming for Massive MIMO Networks via Approximate MDP and Reinforcement Learning. *Lan, Q., +, TWC Sept. 2020 5716-5731*

Adaptive Video Streaming With Edge Caching and Video Transcoding Over Software-Defined Mobile Networks: A Deep Reinforcement Learning Approach. *Luo, J., +, TWC March 2020 1577-1592*

Age of Information Aware Radio Resource Management in Vehicular Networks: A Proactive Deep Reinforcement Learning Perspective. *Chen, X., +, TWC April 2020 2268-2281*

Balancing Queueing and Retransmission: Latency-Optimal Massive MIMO Design. *Du, X., +, TWC April 2020 2293-2307*

- Caching With Finite Buffer and Request Delay Information: A Markov Decision Process Approach. *Hui, H.*, +, *TWC Aug. 2020 5148-5161*
- Channel-Based Optimal Back-Off Delay Control in Delay-Constrained Industrial WSNs. *Li, Q.*, +, *TWC Jan. 2020 696-711*
- Deep Reinforcement Learning (DRL)-Based Device-to-Device (D2D) Caching With Blockchain and Mobile Edge Computing. *Zhang, R.*, +, *TWC Oct. 2020 6469-6485*
- Effects of Retransmission Limit on the Performance of Centralized Random Backoff. *Kim, J.D.*, *TWC Dec. 2020 8126-8141*
- Flexible Functional Split and Power Control for Energy Harvesting Cloud Radio Access Networks. *Wang, L.*, +, *TWC March 2020 1535-1548*
- Free Space Optical Cooperative Communications via an Energy Harvesting Harvest-Store-Use Relay. *Abou-Rjeily, C.*, +, *TWC Oct. 2020 6564-6577*
- Full-Duplex MAC in LAA/ Wi-Fi Coexistence Networks: Design, Modeling, and Analysis. *Cao, X.*, +, *TWC Aug. 2020 5531-5546*
- Joint Channel and Queue Aware Scheduling for Latency Sensitive Mobile Edge Computing With Power Constraints. *Han, D.*, +, *TWC June 2020 3938-3951*
- Mathematical Models for the Operation of a Cell With Bandwidth Sharing and Moving Users. *Kim, C.*, +, *TWC Feb. 2020 744-755*
- Minimizing the Age of Information of Cognitive Radio-Based IoT Systems Under a Collision Constraint. *Wang, Q.*, +, *TWC Dec. 2020 8054-8067*
- Minimum Age of Information in the Internet of Things With Non-Uniform Status Packet Sizes. *Zhou, B.*, +, *TWC March 2020 1933-1947*
- Modeling and Performance Analysis for Satellite Data Relay Networks Using Two-Dimensional Markov-Modulated Process. *Zhu, Y.*, +, *TWC June 2020 3894-3907*
- Multiservice-Based Network Slicing Orchestration With Impatient Tenants. *Han, B.*, +, *TWC July 2020 5010-5024*
- On the Energy Efficiency of Heterogeneous Cellular Networks With Renewable Energy Sources—A Stochastic Geometry Framework. *Lam, T.T.*, +, *TWC Oct. 2020 6752-6770*
- Online Anticipatory Proactive Network Association in Mobile Edge Computing for IoT. *Cui, Q.*, +, *TWC July 2020 4519-4534*
- Performance Analysis of Multiuser FSO/RF Network Under Non-Equal Priority With  $P$ -Persistence Protocol. *Rakia, T.*, +, *TWC March 2020 1802-1813*
- Performance Analysis of TCP New Reno Over Satellite DVB-RCS2 Random Access Links. *Liu, J.*, +, *TWC Jan. 2020 435-446*
- Real-Time Remote Estimation With Hybrid ARQ in Wireless Networked Control. *Huang, K.*, +, *TWC May 2020 3490-3504*
- Recycling Cellular Energy for Self-Sustainable IoT Networks: A Spatiotemporal Study. *Benkhalifa, F.*, +, *TWC April 2020 2699-2712*
- Robust Data Detection for MIMO Systems With One-Bit ADCs: A Reinforcement Learning Approach. *Jeon, Y.*, +, *TWC March 2020 1663-1676*
- Scheduling to Minimize Age of Synchronization in Wireless Broadcast Networks With Random Updates. *Tang, H.*, +, *TWC June 2020 4023-4037*
- Self-Tuning Sectorization: Deep Reinforcement Learning Meets Broadcast Beam Optimization. *Shafiq, R.*, +, *TWC June 2020 4038-4053*
- Matched filters**
- Correction to “Cell-Free Massive MIMO Versus Small Cells” [Mar 17 1834-1850]. *Ngo, H.Q.*, +, *TWC May 2020 3623-3624*
- Optimal Sensing Policy for Energy Harvesting Cognitive Radio Systems. *Villalonga, D.A.U.*, +, *TWC June 2020 3826-3838*
- Subset MMSE Receivers for Cell-Free Networks. *Attarifar, M.*, +, *TWC June 2020 4183-4194*
- Mathematical analysis**
- Impact of Channel Correlation on Different Performance Metrics of OSSK-Based FSO Systems. *Priyadarshani, R.*, +, *TWC March 2020 1593-1609*
- Residual Clipping Noise in Multi-Layer Optical OFDM: Modeling, Analysis, and Applications. *Zhang, Z.*, +, *TWC Sept. 2020 5846-5859*
- Mathematical model**
- 3D UAV Trajectory Design and Frequency Band Allocation for Energy-Efficient and Fair Communication: A Deep Reinforcement Learning Approach. *Ding, R.*, +, *TWC Dec. 2020 7796-7809*
- Channel Modeling for Wireless Communications Using Ambit Processes. *Rakesh, R.T.*, +, *TWC Dec. 2020 8396-8409*
- Extended  $\eta$ - $\mu$  Fading Models. *de Lima Tejerina, G.R.*, +, *TWC Dec. 2020 8153-8164*
- Fundamentals of Acute Relay CSI Severity. *Le, K.N.*, *TWC Nov. 2020 7653-7662*
- Mathematical programming**
- Covert Localization in Wireless Networks: Feasibility and Performance Analysis. *Zhao, Y.*, +, *TWC Oct. 2020 6549-6563*
- Matrix algebra**
- A Network Linear Block Coding Approach to Selective Detect-and-Forward Multi-Way Relaying With Differential Modulation. *Hou, X.*, +, *TWC Sept. 2020 5749-5764*
- Degrees of Freedom of Rank-Deficient  $2 \times 2 \times 2$  MIMO Interference Networks. *Wang, Q.*, +, *TWC March 2020 1453-1463*
- High-Resolution Channel Estimation for Frequency-Selective mmWave Massive MIMO Systems. *Ma, W.*, +, *TWC May 2020 3517-3529*
- Joint Reflecting and Precoding Designs for SER Minimization in Reconfigurable Intelligent Surfaces Assisted MIMO Systems. *Ye, J.*, +, *TWC Aug. 2020 5561-5574*
- Low-Complexity Adaptive Spatial Processing of ESPAR Antenna Systems. *Bucheli Garcia, J.C.*, +, *TWC June 2020 3700-3711*
- mmWave Amplify-and-Forward MIMO Relay Networks With Hybrid Precoding/Combining Design. *Jiang, L.*, +, *TWC Feb. 2020 1333-1346*
- mmWave Lens-Based MIMO System for Suppressing Small-Scale Fading and Shadowing. *Almasi, M.A.*, +, *TWC Aug. 2020 5292-5306*
- Mobile Edge Computing Meets mmWave Communications: Joint Beamforming and Resource Allocation for System Delay Minimization. *Zhao, C.*, +, *TWC April 2020 2382-2396*
- Multi-Mode OAM Radio Waves: Generation, Angle of Arrival Estimation and Reception With UCAs. *Chen, R.*, +, *TWC Oct. 2020 6932-6947*
- Multicell MIMO Communications Relying on Intelligent Reflecting Surfaces. *Pan, C.*, +, *TWC Aug. 2020 5218-5233*
- Mutual Information Analysis of Mixed-ADC MIMO Systems Over Rayleigh Channels Based on Random Matrix Theory. *Gao, H.*, +, *TWC July 2020 4894-4906*
- Omnidirectional Precoding for 3D Massive MIMO With Uniform Planar Arrays. *Lu, A.*, +, *TWC April 2020 2628-2642*
- Performance Analysis of Massive MIMO Multi-Way Relay Networks With Low-Resolution ADCs. *Rahimian, S.*, +, *TWC Sept. 2020 5794-5806*
- Reliable Detection of Unknown Cell-Edge Users via Canonical Correlation Analysis. *Ibrahim, M.S.*, +, *TWC June 2020 4170-4182*
- Secrecy Performance of the MIMO VLC Wiretap Channel With Randomly Located Eavesdropper. *Arfaoui, M.A.*, +, *TWC Jan. 2020 265-278*
- SINR and Multiuser Efficiency Gap Between MIMO Linear Receivers. *Alfano, G.*, +, *TWC Jan. 2020 106-119*
- Steepest Gradient-Based Orthogonal Precoder for Integer-Forcing MIMO. *Hasan, M.N.*, +, *TWC Feb. 2020 942-955*
- Training Optimization for Hybrid MIMO Communication Systems. *Xing, C.*, +, *TWC Aug. 2020 5473-5487*
- Transmit Antenna Selection and Beamformer Design for Secure Spatial Modulation With Rough CSI of Eve. *Xia, G.*, +, *TWC July 2020 4643-4656*
- Maximum likelihood decoding**
- Optimized Precoded Spatio-Temporal Partial-Response Signaling Over Frequency-Selective MIMO Channels. *Bailleul, J.*, +, *TWC Sept. 2020 5938-5950*
- Maximum likelihood detection**
- Absolute Amplitude Differential Phase Spatial Modulation and Its Non-Coherent Detection Under Fast Fading Channels. *Yu, D.*, +, *TWC April 2020 2742-2755*
- Decision-Driven Time-Adaptive Spectrum Sensing in Cognitive Radio Networks. *Yin, W.*, +, *TWC April 2020 2756-2769*
- Generalized OFDM-IM With Noncoherent Detection. *Fazeli, A.*, +, *TWC July 2020 4464-4479*
- Joint Impact of I/Q Imbalance and Imperfect CSI on SM-MIMO Systems Over Generalized Beckmann Fading Channels: Optimal Detection and Cramer-Rao Bound. *Canbilen, A.E.*, +, *TWC May 2020 3034-3046*
- Opportunistic Spectrum Sharing Based on OFDM With Index Modulation. *Li, Q.*, +, *TWC Jan. 2020 192-204*

Signal Acquisition With Photon-Counting Detector Arrays in Free-Space Optical Communications. *Bashir, M.S.*, +, *TWC April 2020 2181-2195*

#### Maximum likelihood estimation

Fast Angle-of-Arrival Estimation via Virtual Subarrays in Analog Antenna Array. *Qin, C.*, +, *TWC Oct. 2020 6425-6439*

Joint Estimation of RF Impairments, Channel, and Low Complexity Iterative Equalization Technique for High Mobility SC-FDMA/OFDMA Uplink Systems. *Sanoopkumar, P.S.*, +, *TWC June 2020 4276-4289*

Massive MIMO Extensions to the COST 2100 Channel Model: Modeling and Validation. *Flordelis, J.*, +, *TWC Jan. 2020 380-394*

NLOS Effect Mitigation via Spatial Geometry Exploitation in Cooperative Localization. *Wang, Y.*, +, *TWC Sept. 2020 6037-6049*

Noncoherent Symbol Detection of Short CPM Bursts in Frequency-Selective Fading Channels. *Chamaa, M.E.*, +, *TWC Feb. 2020 771-782*

On the Effectiveness of OTFS for Joint Radar Parameter Estimation and Communication. *Gaudio, L.*, +, *TWC Sept. 2020 5951-5965*

Robust Localization Based on ML-Type, Multi-Stage ML-Type, and Extrapolated Single Propagation UKF Methods Under Mixed LOS/NLOS Conditions. *Park, C.*, +, *TWC Sept. 2020 5819-5832*

Signal Design for Frequency-Phase Keying. *Kundu, N.K.*, +, *TWC June 2020 4067-4079*

Spatial Modulated Multicarrier Sparse Code-Division Multiple Access. *Liu, Y.*, +, *TWC Jan. 2020 610-623*

#### Mean square error methods

Achievable Rate Region for Iterative Multi-User Detection via Low-Cost Gaussian Approximation. *Wang, X.*, +, *TWC May 2020 3289-3303*

Antenna Selection in Massive MIMO Based on Greedy Algorithms. *Mendonca, M.O.K.*, +, *TWC March 2020 1868-1881*

BEM-PSP for Single-Carrier and SC-FDMA Communication Over a Doubly Selective Fading Channel. *Liu, X.*, +, *TWC June 2020 3924-3937*

Communications and Radar Coexistence in the Massive MIMO Regime: Uplink Analysis. *D'Andrea, C.*, +, *TWC Jan. 2020 19-33*

Compressed Sensing Channel Estimation for OFDM With Non-Gaussian Multipath Gains. *Gomez-Cuba, F.*, +, *TWC Jan. 2020 47-61*

Correlation Analysis and Link Gain Prediction for Optical Wireless Scattering Communication Over Broad Spectra. *Liu, B.*, +, *TWC Feb. 2020 1386-1396*

Generalized Busgang LMMSE Channel Estimation for One-Bit Massive MIMO Systems. *Wan, Q.*, +, *TWC June 2020 4234-4246*

Interference Cancellation Based Channel Estimation for Massive MIMO Systems With Time Shifted Pilots. *Sun, B.*, +, *TWC Oct. 2020 6826-6843*

MIMO and Massive MIMO Transmitter Crosstalk. *Handel, P.*, +, *TWC March 2020 1882-1893*

Optimized Precoded Spatio-Temporal Partial-Response Signaling Over Frequency-Selective MIMO Channels. *Bailleul, J.*, +, *TWC Sept. 2020 5938-5950*

Over-the-Air Computation Systems: Optimization, Analysis and Scaling Laws. *Liu, W.*, +, *TWC Aug. 2020 5488-5502*

Performance Analysis of Channel Extrapolation in FDD Massive MIMO Systems. *Rottenberg, F.*, +, *TWC April 2020 2728-2741*

Power Control Based on Deep Reinforcement Learning for Spectrum Sharing. *Zhang, H.*, +, *TWC June 2020 4209-4219*

Real-Time Remote Estimation With Hybrid ARQ in Wireless Networked Control. *Huang, K.*, +, *TWC May 2020 3490-3504*

Robust Localization Based on ML-Type, Multi-Stage ML-Type, and Extrapolated Single Propagation UKF Methods Under Mixed LOS/NLOS Conditions. *Park, C.*, +, *TWC Sept. 2020 5819-5832*

SINR and Multiuser Efficiency Gap Between MIMO Linear Receivers. *Alfano, G.*, +, *TWC Jan. 2020 106-119*

Training Optimization for Hybrid MIMO Communication Systems. *Xing, C.*, +, *TWC Aug. 2020 5473-5487*

#### Measurement

Urgency of Information for Context-Aware Timely Status Updates in Remote Control Systems. *Zheng, X.*, +, *TWC Nov. 2020 7237-7250*

#### Measurement uncertainty

A Deep Probabilistic Control Machinery for Auto-Configuration of WiFi Link Parameters. *Karmakar, R.*, +, *TWC Dec. 2020 8330-8340*

#### Media Access Protocol

Effects of Retransmission Limit on the Performance of Centralized Random Backoff. *Kim, J.D.*, *TWC Dec. 2020 8126-8141*

#### Mesh generation

Coordinated Multi-Point Transmission: A Poisson-Delaunay Triangulation Based Approach. *Li, Y.*, +, *TWC May 2020 2946-2959*

#### Message authentication

A Lightweight and Secure Group Key Based Handover Authentication Protocol for the Software-Defined Space Information Network. *Xue, K.*, +, *TWC June 2020 3673-3684*

Fuzzy Learning for Multi-Dimensional Adaptive Physical Layer Authentication: A Compact and Robust Approach. *Fang, H.*, +, *TWC Aug. 2020 5420-5432*

#### Message passing

Iterative Receiver Design for FTN Signaling Aided Sparse Code Multiple Access. *Yuan, W.*, +, *TWC Feb. 2020 915-928*

Joint User Identification, Channel Estimation, and Signal Detection for Grant-Free NOMA. *Jiang, S.*, +, *TWC Oct. 2020 6960-6976*

Near-Optimal MIMO-SCMA Uplink Detection With Low-Complexity Expectation Propagation. *Wang, P.*, +, *TWC Feb. 2020 1025-1037*

Robust Recovery of Structured Sparse Signals With Uncertain Sensing Matrix: A Turbo-VBI Approach. *Liu, A.*, +, *TWC May 2020 3185-3198*

Spatial Modulated Multicarrier Sparse Code-Division Multiple Access. *Liu, Y.*, +, *TWC Jan. 2020 610-623*

Time-Varying Downlink Channel Tracking for Quantized Massive MIMO Networks. *Ma, J.*, +, *TWC Oct. 2020 6721-6736*

#### Microcellular radio

Measurement-Based Analysis and Modeling of Multimicro Channel Behaviors in Spherical Vector Wave Domain. *Miao, Y.*, +, *TWC Aug. 2020 5345-5358*

#### Microscopy

Evolution Matters: Content Transmission in Evolving Wireless Social Networks. *Feng, C.*, +, *TWC Nov. 2020 7377-7391*

#### Microwave measurement

Channel Measurement and Modeling of the Small-Scale Fading Characteristics for Urban Inland River Environment. *Yu, J.*, +, *TWC May 2020 3376-3389*

#### Microwave propagation

Channel Measurement and Modeling of the Small-Scale Fading Characteristics for Urban Inland River Environment. *Yu, J.*, +, *TWC May 2020 3376-3389*

Measurements and Cluster-Based Modeling of Vehicle-to-Vehicle Channels With Large Vehicle Obstructions. *Yang, M.*, +, *TWC Sept. 2020 5860-5874*

#### Millimeter wave amplifiers

Power-Efficient Beam Designs for Millimeter Wave Communication Systems. *Zhang, J.*, +, *TWC Feb. 2020 1265-1279*

#### Millimeter wave antenna arrays

1-bit Phase Shifters for Large-Antenna Full-Duplex mmWave Communications. *da Silva, J.M.B.*, +, *TWC Oct. 2020 6916-6931*

Characterizing Resource Allocation Trade-Offs in 5G NR Serving Multicast and Unicast Traffic. *Samuylov, A.*, +, *TWC May 2020 3421-3434*

Efficient Beam Sweeping Algorithms and Initial Access Protocols for Millimeter-Wave Networks. *Aykin, I.*, +, *TWC April 2020 2504-2514*

Energy-Efficient Hybrid Precoder With Adaptive Overlapped Subarrays for Large-Array mmWave Systems. *Guo, J.*, +, *TWC March 2020 1484-1502*

Fast Beam Search and Refinement for Millimeter-Wave Massive MIMO Based on Two-Level Phased Arrays. *Noh, S.*, +, *TWC Oct. 2020 6737-6751*

Limited Feedback Hybrid Beamforming for Multi-Mode Transmission in Wideband Millimeter Wave Channel. *Kwon, G.*, +, *TWC June 2020 4008-4022*

mmWave Lens-Based MIMO System for Suppressing Small-Scale Fading and Shadowing. *Almasi, M.A.*, +, *TWC Aug. 2020 5292-5306*

Power-Efficient Beam Designs for Millimeter Wave Communication Systems. *Zhang, J.*, +, *TWC Feb. 2020 1265-1279*

Principal Component Analysis-Based Broadband Hybrid Precoding for Millimeter-Wave Massive MIMO Systems. *Sun, Y.*, +, *TWC Oct. 2020 6331-6346*

Signal Shaping for Non-Uniform BeamSpace Modulated mmWave Hybrid MIMO Communications. *Guo, S.*, +, *TWC Oct. 2020 6660-6674*

#### Millimeter wave antennas

Analytical Channel Models for Millimeter Wave UAV Networks Under Hovering Fluctuations. *Dabiri, M.T.*, +, *TWC April 2020 2868-2883*

#### Millimeter wave communication

5G mmWave Cooperative Positioning and Mapping Using Multi-Model PHD Filter and Map Fusion. *Kim, H.*, +, *TWC June 2020 3782-3795*

Adaptive Detection and Localization Exploiting the IEEE 802.11ad Standard. *Grossi, E.*, +, *TWC July 2020 4394-4407*

Analytical Channel Models for Millimeter Wave UAV Networks Under Hovering Fluctuations. *Dabiri, M.T.*, +, *TWC April 2020 2868-2883*

Characterizing Resource Allocation Trade-Offs in 5G NR Serving Multicast and Unicast Traffic. *Samuylov, A.*, +, *TWC May 2020 3421-3434*

Double-Sequence Frequency Synchronization for Wideband Millimeter-Wave Systems With Few-Bit ADCs. *Zhu, D.*, +, *TWC Feb. 2020 1357-1372*

Efficient Beam Sweeping Algorithms and Initial Access Protocols for Millimeter-Wave Networks. *Aykin, I.*, +, *TWC April 2020 2504-2514*

Enabling Super-Resolution Parameter Estimation for mm-Wave Channel Sounding. *Wang, R.*, +, *TWC May 2020 3077-3090*

Energy-Efficient Hybrid Precoder With Adaptive Overlapped Subarrays for Large-Array mmWave Systems. *Guo, J.*, +, *TWC March 2020 1484-1502*

Fully-/Partially-Connected Hybrid Beamforming Architectures for mmWave MU-MIMO. *Song, X.*, +, *TWC March 2020 1754-1769*

Grid-Less Variational Bayesian Channel Estimation for Antenna Array Systems With Low Resolution ADCs. *Zhu, J.*, +, *TWC March 2020 1549-1562*

Hybrid-Precoding for mmWave Multi-User Communications in the Presence of Beam-Misalignment. *Pradhan, C.*, +, *TWC Sept. 2020 6083-6099*

Joint Antenna Selection and Hybrid Beamformer Design Using Unquantized and Quantized Deep Learning Networks. *Elbir, A.M.*, +, *TWC March 2020 1677-1688*

Joint Routing and Resource Allocation for Millimeter Wave Picocellular Backhaul. *Eslami Rasekh, M.*, +, *TWC Feb. 2020 783-794*

Limited Feedback Hybrid Beamforming for Multi-Mode Transmission in Wideband Millimeter Wave Channel. *Kwon, G.*, +, *TWC June 2020 4008-4022*

Low-Complexity User Selection Algorithms for Multiuser Transmissions in mmWave WLANs. *Aldubaikhy, K.*, +, *TWC April 2020 2397-2410*

Low-Resolution Limited-Feedback NOMA for mmWave Communications. *Yapici, Y.*, +, *TWC Aug. 2020 5433-5446*

Millimeter-Wave Beam Search With Iterative Deactivation and Beam Shifting. *Liu, C.*, +, *TWC Aug. 2020 5117-5131*

Millimeter-Wave Networking in the Sky: A Machine Learning and Mean Field Game Approach for Joint Beamforming and Beam-Steering. *Li, L.*, +, *TWC Oct. 2020 6393-6408*

mmWave Amplify-and-Forward MIMO Relay Networks With Hybrid Precoding/Combining Design. *Jiang, L.*, +, *TWC Feb. 2020 1333-1346*

mmWave Lens-Based MIMO System for Suppressing Small-Scale Fading and Shadowing. *Almasi, M.A.*, +, *TWC Aug. 2020 5292-5306*

Mobile Edge Computing Meets mmWave Communications: Joint Beamforming and Resource Allocation for System Delay Minimization. *Zhao, C.*, +, *TWC April 2020 2382-2396*

Multi-Agent Reinforcement Learning for Adaptive User Association in Dynamic mmWave Networks. *Sana, M.*, +, *TWC Oct. 2020 6520-6534*

Optimal Link Scheduling in Millimeter Wave Multi-Hop Networks With MU-MIMO Radios. *Gomez-Cuba, F.*, +, *TWC March 2020 1839-1854*

Power-Efficient Beam Designs for Millimeter Wave Communication Systems. *Zhang, J.*, +, *TWC Feb. 2020 1265-1279*

Rethinking Modulation and Detection for High Doppler Channels. *Dean, T.R.*, +, *TWC June 2020 3629-3642*

Signal Shaping for Non-Uniform BeamSpace Modulated mmWave Hybrid MIMO Communications. *Guo, S.*, +, *TWC Oct. 2020 6660-6674*

Tractable Approach to MmWaves Cellular Analysis With FSO Backhauling Under Feedback Delay and Hardware Limitations. *Balti, E.*, +, *TWC Jan. 2020 410-422*

#### Millimeter wave filters

mmWave Amplify-and-Forward MIMO Relay Networks With Hybrid Precoding/Combining Design. *Jiang, L.*, +, *TWC Feb. 2020 1333-1346*

#### Millimeter wave phase shifters

mmWave Lens-Based MIMO System for Suppressing Small-Scale Fading and Shadowing. *Almasi, M.A.*, +, *TWC Aug. 2020 5292-5306*

Power-Efficient Beam Designs for Millimeter Wave Communication Systems. *Zhang, J.*, +, *TWC Feb. 2020 1265-1279*

#### Millimeter wave propagation

Millimeter-Wave Beam Search With Iterative Deactivation and Beam Shifting. *Liu, C.*, +, *TWC Aug. 2020 5117-5131*

#### MIMO communication

1-bit Phase Shifters for Large-Antenna Full-Duplex mmWave Communications. *da Silva, J.M.B.*, +, *TWC Oct. 2020 6916-6931*

A Case for Digital Beamforming at mmWave. *Dutta, S.*, +, *TWC Feb. 2020 756-770*

A Channel Model for Indoor Time-of-Arrival Ranging. *Latinovic, Z.*, +, *TWC Feb. 2020 1415-1428*

A Compressive Sensing Assisted Massive SM-VBLAST System: Error Probability and Capacity Analysis. *Xiao, L.*, +, *TWC March 2020 1990-2005*

A Deep Probabilistic Control Machinery for Auto-Configuration of WiFi Link Parameters. *Karmakar, R.*, +, *TWC Dec. 2020 8330-8340*

A Deep Study on Layered Multi-Relay Non-Orthogonal Amplify-Forward Networks. *Padidar, P.*, +, *TWC Jan. 2020 354-366*

Absolute Amplitude Differential Phase Spatial Modulation and Its Non-Coherent Detection Under Fast Fading Channels. *Yu, D.*, +, *TWC April 2020 2742-2755*

Accommodating LAA Within IEEE 802.11ax WiFi Networks for Enhanced Coexistence. *Chen, Q.*, +, *TWC Nov. 2020 7621-7636*

Achievable Rate Region for Iterative Multi-User Detection via Low-Cost Gaussian Approximation. *Wang, X.*, +, *TWC May 2020 3289-3303*

Adaptive Neural Signal Detection for Massive MIMO. *Khani, M.*, +, *TWC Aug. 2020 5635-5648*

Adaptive Video Streaming for Massive MIMO Networks via Approximate MDP and Reinforcement Learning. *Lan, Q.*, +, *TWC Sept. 2020 5716-5731*

Antenna Selection in Massive MIMO Based on Greedy Algorithms. *Mendonca, M.O.K.*, +, *TWC March 2020 1868-1881*

Asymptotic Analysis of MRT Over Double Scattering Channels With MMSE Estimation. *Ye, J.*, +, *TWC Dec. 2020 7851-7863*

Asymptotic Max-Min SINR Analysis of Reconfigurable Intelligent Surface Assisted MISO Systems. *Nadeem, Q.*, +, *TWC Dec. 2020 7748-7764*

Asynchronous Downlink Massive MIMO Networks: A Stochastic Geometry Approach. *Sadeghabadi, E.*, +, *TWC Jan. 2020 579-594*

Balancing Queuing and Retransmission: Latency-Optimal Massive MIMO Design. *Du, X.*, +, *TWC April 2020 2293-2307*

Beam-Based Analog Self-Interference Cancellation in Full-Duplex MIMO Systems. *Le, A.T.*, +, *TWC April 2020 2460-2471*

Caching at Base Stations With Multi-Cluster Multicast Wireless Backhaul via Accelerated First-Order Algorithms. *Li, Y.*, +, *TWC May 2020 2920-2933*

Capacity Region and Capacity-Achieving Signaling Schemes for 1-bit ADC Multiple Access Channels in Rayleigh Fading. *Ranjbar, M.*, +, *TWC Sept. 2020 6162-6178*

Cell-Free Massive MIMO for Wireless Federated Learning. *Vu, T.T.*, +, *TWC Oct. 2020 6377-6392*

Communications and Radar Coexistence in the Massive MIMO Regime: Uplink Analysis. *D'Andrea, C.*, +, *TWC Jan. 2020 19-33*

Convolutional Neural Network-Based Multiple-Rate Compressive Sensing for Massive MIMO CSI Feedback: Design, Simulation, and Analysis. *Guo, J.*, +, *TWC April 2020 2827-2840*

Cooperative MIMO-OFDM-Based Exposure-Path Prevention Over 3D Clustered Wireless Camera Sensor Networks. *Wang, J.*, +, *TWC Jan. 2020 4-18*

Correction to "Cell-Free Massive MIMO Versus Small Cells" [Mar 17 1834-1850]. *Ngo, H.Q.*, +, *TWC May 2020 3623-3624*

- Correlation Analysis and Link Gain Prediction for Optical Wireless Scattering Communication Over Broad Spectra. *Liu, B.*, +, *TWC Feb. 2020 1386-1396*
- Decentralized WSEE Optimization for Massive MIMO Two-Way Half-Duplex AF Relaying. *Sharma, E.*, +, *TWC Feb. 2020 1397-1414*
- Deep Learning Enabled Optimization of Downlink Beamforming Under Per-Antenna Power Constraints: Algorithms and Experimental Demonstration. *Zhang, J.*, +, *TWC June 2020 3738-3752*
- Deep Learning for SVD and Hybrid Beamforming. *Peken, T.*, +, *TWC Oct. 2020 6621-6642*
- Deep Learning-Based Sum Data Rate and Energy Efficiency Optimization for MIMO-NOMA Systems. *Huang, H.*, +, *TWC Aug. 2020 5373-5388*
- Degrees of Freedom of Rank-Deficient  $2 \times 2 \times 2$  MIMO Interference Networks. *Wang, Q.*, +, *TWC March 2020 1453-1463*
- Design and Analysis of FD MIMO Cellular Systems in Coexistence With MIMO Radar. *Biswas, S.*, +, *TWC July 2020 4727-4743*
- Dictionary Learning for Channel Estimation in Hybrid Frequency-Selective mmWave MIMO Systems. *Xie, H.*, +, *TWC Nov. 2020 7407-7422*
- Downlink Multi-User Massive MIMO Transmission Using Receive Spatial Modulation. *Raafat, A.*, +, *TWC Oct. 2020 6871-6883*
- Edge and Central Cloud Computing: A Perfect Pairing for High Energy Efficiency and Low-Latency. *Hu, X.*, +, *TWC Feb. 2020 1070-1083*
- Edge Computing-Enabled Cell-Free Massive MIMO Systems. *Mukherjee, S.*, +, *TWC April 2020 2884-2899*
- Enabling Super-Resolution Parameter Estimation for mm-Wave Channel Sounding. *Wang, R.*, +, *TWC May 2020 3077-3090*
- Energy Efficiency Optimization for Downlink Massive MIMO With Statistical CSIT. *You, L.*, +, *TWC April 2020 2684-2698*
- Energy Efficiency Optimization of Massive MIMO FD Relay With Quadratic Transform. *Sharma, E.*, +, *TWC Feb. 2020 1429-1448*
- Energy Efficient Resource Management in SWIPT Enabled Heterogeneous Networks With NOMA. *Zhang, H.*, +, *TWC Feb. 2020 835-845*
- Energy-Efficient Computation Offloading in Delay-Constrained Massive MIMO Enabled Edge Network Using Data Partitioning. *Malik, R.*, +, *TWC Oct. 2020 6977-6991*
- Enhancing Secure MIMO Transmission via Intelligent Reflecting Surface. *Dong, L.*, +, *TWC Nov. 2020 7543-7556*
- Estimating Doubly-Selective Channels for Hybrid mmWave Massive MIMO Systems: A Doubly-Sparse Approach. *Gao, S.*, +, *TWC Sept. 2020 5703-5715*
- Expectation Propagation Detector for Extra-Large Scale Massive MIMO. *Wang, H.*, +, *TWC March 2020 2036-2051*
- Experimental Field Trials on MU-MIMO Transmissions for High SHF Wide-Band Massive MIMO in 5G. *Sakai, M.*, +, *TWC April 2020 2196-2207*
- Exploiting Intelligent Reflecting Surfaces in NOMA Networks: Joint Beamforming Optimization. *Mu, X.*, +, *TWC Oct. 2020 6884-6898*
- Fast Beam Search and Refinement for Millimeter-Wave Massive MIMO Based on Two-Level Phased Arrays. *Noh, S.*, +, *TWC Oct. 2020 6737-6751*
- Fully-/Partially-Connected Hybrid Beamforming Architectures for mmWave MU-MIMO. *Song, X.*, +, *TWC March 2020 1754-1769*
- Generalized Busgang LMMSE Channel Estimation for One-Bit Massive MIMO Systems. *Wan, Q.*, +, *TWC June 2020 4234-4246*
- Hierarchical Codebook-Based Multiuser Beam Training for Millimeter Wave Massive MIMO. *Qi, C.*, +, *TWC Dec. 2020 8142-8152*
- High-Resolution Channel Estimation for Frequency-Selective mmWave Massive MIMO Systems. *Ma, W.*, +, *TWC May 2020 3517-3529*
- Hybrid Lightwave/RF Cooperative NOMA Networks. *Xiao, Y.*, +, *TWC Feb. 2020 1154-1166*
- Impact of Channel Correlation on Different Performance Metrics of OSSK-Based FSO Systems. *Priyadarshani, R.*, +, *TWC March 2020 1593-1609*
- Interference Cancellation Based Channel Estimation for Massive MIMO Systems With Time Shifted Pilots. *Sun, B.*, +, *TWC Oct. 2020 6826-6843*
- Interference Exploitation 1-Bit Massive MIMO Precoding: A Partial Branch-and-Bound Solution With Near-Optimal Performance. *Li, A.*, +, *TWC May 2020 3474-3489*
- Iterative Receiver Design for FTN Signaling Aided Sparse Code Multiple Access. *Yuan, W.*, +, *TWC Feb. 2020 915-928*
- Joint Antenna Selection and Hybrid Beamformer Design Using Unquantized and Quantized Deep Learning Networks. *Elbir, A.M.*, +, *TWC March 2020 1677-1688*
- Joint Detection and Decoding of Polar Coded 5G Control Channels. *Jalali, A.*, +, *TWC March 2020 2066-2078*
- Joint Impact of I/Q Imbalance and Imperfect CSI on SM-MIMO Systems Over Generalized Beckmann Fading Channels: Optimal Detection and Cramer-Rao Bound. *Canbilen, A.E.*, +, *TWC May 2020 3034-3046*
- Joint Power Allocation and Load Balancing Optimization for Energy-Efficient Cell-Free Massive MIMO Networks. *Van Chien, T.*, +, *TWC Oct. 2020 6798-6812*
- Joint Reflecting and Precoding Designs for SER Minimization in Reconfigurable Intelligent Surfaces Assisted MIMO Systems. *Ye, J.*, +, *TWC Aug. 2020 5561-5574*
- Joint Spatial Division and Multiplexing in Massive MIMO: A Neighbor-Based Approach. *Song, Y.*, +, *TWC Nov. 2020 7392-7406*
- Joint User Selection, Power Allocation, and Precoding Design With Imperfect CSIT for Multi-Cell MU-MIMO Downlink Systems. *Choi, J.*, +, *TWC Jan. 2020 162-176*
- Learning for Detection: MIMO-OFDM Symbol Detection Through Downlink Pilots. *Zhou, Z.*, +, *TWC June 2020 3712-3726*
- Learning to Search for MIMO Detection. *Sun, J.*, +, *TWC Nov. 2020 7571-7584*
- Local Partial Zero-Forcing Precoding for Cell-Free Massive MIMO. *Interdonato, G.*, +, *TWC July 2020 4758-4774*
- Low-Complexity User Selection Algorithms for Multiuser Transmissions in mmWave WLANs. *Aldubaikhy, K.*, +, *TWC April 2020 2397-2410*
- Low-Resolution ADC Quantized Full-Duplex Massive MIMO-Enabled Wireless Backhaul in Heterogeneous Networks Over Rician Channels. *Anokye, P.*, +, *TWC Aug. 2020 5503-5517*
- Low-Resolution Limited-Feedback NOMA for mmWave Communications. *Yapici, Y.*, +, *TWC Aug. 2020 5433-5446*
- Machine Learning-Based Channel Prediction in Massive MIMO With Channel Aging. *Yuan, J.*, +, *TWC May 2020 2960-2973*
- Machine Learning-Enabled LOS/NLOS Identification for MIMO Systems in Dynamic Environments. *Huang, C.*, +, *TWC June 2020 3643-3657*
- Making Cell-Free Massive MIMO Competitive With MMSE Processing and Centralized Implementation. *Bjornson, E.*, +, *TWC Jan. 2020 77-90*
- Massive MIMO Asymptotics for Ray-Based Propagation Channels. *Li, S.*, +, *TWC June 2020 3977-3991*
- Massive MIMO Channel Estimation With an Untrained Deep Neural Network. *Balevi, E.*, +, *TWC March 2020 2079-2090*
- Massive MIMO Extensions to the COST 2100 Channel Model: Modeling and Validation. *Flordelis, J.*, +, *TWC Jan. 2020 380-394*
- Massive MIMO-NOMA Networks With Imperfect SIC: Design and Fairness Enhancement. *de Sena, A.S.*, +, *TWC Sept. 2020 6100-6115*
- Massive MIMO-NOMA Networks With Successive Sub-Array Activation. *Sousa de Sena, A.*, +, *TWC March 2020 1622-1635*
- Massive Uncoordinated Access With Massive MIMO: A Dictionary Learning Approach. *Han, Y.*, +, *TWC Feb. 2020 1320-1332*
- Millimeter-Wave Networking in the Sky: A Machine Learning and Mean Field Game Approach for Joint Beamforming and Beam-Steering. *Li, L.*, +, *TWC Oct. 2020 6393-6408*
- MIMO and Massive MIMO Transmitter Crosstalk. *Handel, P.*, +, *TWC March 2020 1882-1893*
- mmWave Amplify-and-Forward MIMO Relay Networks With Hybrid Precoding/Combining Design. *Jiang, L.*, +, *TWC Feb. 2020 1333-1346*
- mmWave Lens-Based MIMO System for Suppressing Small-Scale Fading and Shadowing. *Almasi, M.A.*, +, *TWC Aug. 2020 5292-5306*
- MOCZ for Blind Short-Packet Communication: Practical Aspects. *Walk, P.*, +, *TWC Oct. 2020 6675-6692*
- Multi-Antenna Aided Secrecy Beamforming Optimization for Wirelessly Powered HetNets. *Gong, S.*, +, *TWC Aug. 2020 5261-5277*
- Multi-Mode OAM Radio Waves: Generation, Angle of Arrival Estimation and Reception With UCAs. *Chen, R.*, +, *TWC Oct. 2020 6932-6947*

- Multi-User Detection Based on Expectation Propagation for the Non-Coherent SIMO Multiple Access Channel. *Ngo, K., +, TWC Sept. 2020 6145-6161*
- Multicell MIMO Communications Relying on Intelligent Reflecting Surfaces. *Pan, C., +, TWC Aug. 2020 5218-5233*
- Multimode Integer-Forcing Receivers for Block Fading Channels. *Yang, D., +, TWC Dec. 2020 8261-8271*
- Mutual Information Analysis of Mixed-ADC MIMO Systems Over Rayleigh Channels Based on Random Matrix Theory. *Gao, H., +, TWC July 2020 4894-4906*
- Near-Optimal MIMO-SCMA Uplink Detection With Low-Complexity Expectation Propagation. *Wang, P., +, TWC Feb. 2020 1025-1037*
- Networked Optical Massive MIMO Communications. *Sun, C., +, TWC Aug. 2020 5575-5588*
- NOMA in the Uplink: Delay Analysis With Imperfect CSI and Finite-Length Coding. *Schiessl, S., +, TWC June 2020 3879-3893*
- Non-Coherent Massive MIMO Systems: A Constellation Design Approach. *Xie, H., +, TWC June 2020 3812-3825*
- Noncoherent Joint Transmission Beamforming for Dense Small Cell Networks: Global Optimality, Efficient Solution and Distributed Implementation. *Vu, Q., +, TWC Sept. 2020 5891-5907*
- Omnidirectional Precoding for 3D Massive MIMO With Uniform Planar Arrays. *Lu, A., +, TWC April 2020 2628-2642*
- On Reciprocity in Physically Consistent TDD Systems With Coupled Antennas. *Laas, T., +, TWC Oct. 2020 6440-6453*
- On the Effectiveness of OTFS for Joint Radar Parameter Estimation and Communication. *Gaudio, L., +, TWC Sept. 2020 5951-5965*
- On Throughput Improvement Using Immediate Re-Transmission in Grant-Free Random Access With Massive MIMO. *Choi, J., TWC Dec. 2020 8341-8350*
- On UW-Based Transmission for MIMO Multi-Carriers With Spatial Multiplexing. *Ehsanfar, S., +, TWC Sept. 2020 5875-5890*
- Optimal Link Scheduling in Millimeter Wave Multi-Hop Networks With MU-MIMO Radios. *Gomez-Cuba, F., +, TWC March 2020 1839-1854*
- Optimized Precoded Spatio-Temporal Partial-Response Signaling Over Frequency-Selective MIMO Channels. *Bailleul, J., +, TWC Sept. 2020 5938-5950*
- Optimizing Downlink Resource Allocation in Multiuser MIMO Networks via Fractional Programming and the Hungarian Algorithm. *Khan, A.A., +, TWC Aug. 2020 5162-5175*
- Overlap-Save FBMC Receivers. *Nadal, J., +, TWC Aug. 2020 5307-5320*
- Pairwise Coding for MIMO-OFDM Visible Light Communication. *Olanrewaju, H.G., +, TWC Feb. 2020 1210-1220*
- PCA-Based Channel Estimation and Tracking for Massive MIMO Systems With Uniform Rectangular Arrays. *Wang, A., +, TWC Oct. 2020 6786-6797*
- Performance Analysis of Cell-Free Massive MIMO System With Limited Fronthaul Capacity and Hardware Impairments. *Masoumi, H., +, TWC Feb. 2020 1038-1053*
- Performance Analysis of Channel Extrapolation in FDD Massive MIMO Systems. *Rottenberg, F., +, TWC April 2020 2728-2741*
- Performance Analysis of Massive MIMO Multi-Way Relay Networks With Low-Resolution ADCs. *Rahimian, S., +, TWC Sept. 2020 5794-5806*
- Performance of Multibeam Very High Throughput Satellite Systems Based on FSO Feeder Links With HPA Nonlinearity. *Zedini, E., +, TWC Sept. 2020 5908-5923*
- Physical Layer Authentication for Massive MIMO Systems With Hardware Impairments. *Zhang, P., +, TWC March 2020 1563-1576*
- Power Control in Cellular Massive MIMO With Varying User Activity: A Deep Learning Solution. *Van Chien, T., +, TWC Sept. 2020 5732-5748*
- Precoding-Aided Spatial Modulation Assisted Joint Two-Tier Downlink Reception. *Pechetti, S.V., +, TWC May 2020 3332-3345*
- Principal Component Analysis-Based Broadband Hybrid Precoding for Millimeter-Wave Massive MIMO Systems. *Sun, Y., +, TWC Oct. 2020 6331-6346*
- Randomized Channel Sparsifying Hybrid Precoding for FDD Massive MIMO Systems. *Tian, C., +, TWC Aug. 2020 5447-5460*
- Receiver Algorithms for Single-Carrier OSM Based High-Rate Indoor Visible Light Communications. *Wu, L., +, TWC Feb. 2020 1113-1126*
- Reciprocity Calibration of TDD MIMO Channel for Interference Alignment. *Zhao, H., +, TWC May 2020 3505-3516*
- Robust Data Detection for MIMO Systems With One-Bit ADCs: A Reinforcement Learning Approach. *Jeon, Y., +, TWC March 2020 1663-1676*
- Robust Superimposed Training Optimization for UAV Assisted Communication Systems. *Gong, S., +, TWC March 2020 1704-1721*
- Secrecy Performance of the MIMO VLC Wiretap Channel With Randomly Located Eavesdropper. *Arfaoui, M.A., +, TWC Jan. 2020 265-278*
- Secure Degrees of Freedom of MIMO Two-Way Wiretap Channel With no CSI Anywhere. *Liang, Q., +, TWC Dec. 2020 7927-7941*
- Securing Channel State Information in Multiuser MIMO With Limited Feedback. *Yang, Y., +, TWC May 2020 3091-3103*
- Self-Tuning Sectorization: Deep Reinforcement Learning Meets Broadcast Beam Optimization. *Shafin, R., +, TWC June 2020 4038-4053*
- Signal Shaping for Non-Uniform Beamspace Modulated mmWave Hybrid MIMO Communications. *Guo, S., +, TWC Oct. 2020 6660-6674*
- Simple Bounds for the Symmetric Capacity of the Rayleigh Fading Multiple Access Channel. *Domanovitz, E., +, TWC July 2020 4594-4603*
- SINR and Multiuser Efficiency Gap Between MIMO Linear Receivers. *Alfano, G., +, TWC Jan. 2020 106-119*
- Spectral Efficiency Analysis of Cell-Free Massive MIMO Systems With Zero-Forcing Detector. *Liu, P., +, TWC Feb. 2020 795-807*
- Statistical Beamforming for FDD Downlink Massive MIMO via Spatial Information Extraction and Beam Selection. *Liu, H., +, TWC July 2020 4617-4631*
- Steepest Gradient-Based Orthogonal Precoder for Integer-Forcing MIMO. *Hasan, M.N., +, TWC Feb. 2020 942-955*
- Superimposed Pilot for Multi-Cell Multi-User Massive FD-MIMO Systems. *Shafin, R., +, TWC May 2020 3591-3606*
- Supervised and Semi-Supervised Learning for MIMO Blind Detection With Low-Resolution ADCs. *Nguyen, L.V., +, TWC April 2020 2427-2442*
- Time-Varying Downlink Channel Tracking for Quantized Massive MIMO Networks. *Ma, J., +, TWC Oct. 2020 6721-6736*
- Training Optimization for Hybrid MIMO Communication Systems. *Xing, C., +, TWC Aug. 2020 5473-5487*
- Two-Layered Superposition of Broadcast/Multicast and Unicast Signals in Multiuser OFDMA Systems. *Vargas, D., +, TWC Feb. 2020 979-994*
- Two-Side Coalitional Matching Approach for Joint MIMO-NOMA Clustering and BS Selection in Multi-Cell MIMO-NOMA Systems. *Ding, J., +, TWC March 2020 2006-2021*
- Unequally Sub-Connected Architecture for Hybrid Beamforming in Massive MIMO Systems. *Nguyen, N.T., +, TWC Feb. 2020 1127-1140*
- User Scheduling and Antenna Topology in Dense Massive MIMO Networks: An Experimental Study. *Chen, C., +, TWC Sept. 2020 6210-6223*
- User-Centric 5G Cellular Networks: Resource Allocation and Comparison With the Cell-Free Massive MIMO Approach. *Buzzi, S., +, TWC Feb. 2020 1250-1264*
- Wideband Collaborative Spectrum Sensing Using Massive MIMO Decision Fusion. *Dey, I., +, TWC Aug. 2020 5246-5260*
- Wirelessly-Powered Sensor Networks: Power Allocation for Channel Estimation and Energy Beamforming. *Du, R., +, TWC May 2020 2987-3002*
- MIMO radar**
- Design and Analysis of FD MIMO Cellular Systems in Coexistence With MIMO Radar. *Biswas, S., +, TWC July 2020 4727-4743*
- MIMO systems**
- Deep Learning-Aided Tabu Search Detection for Large MIMO Systems. *Nguyen, N.T., +, TWC June 2020 4262-4275*
- Estimating Doubly-Selective Channels for Hybrid mmWave Massive MIMO Systems: A Doubly-Sparse Approach. *Gao, S., +, TWC Sept. 2020 5703-5715*
- Minimax techniques**
- A Joint Solution for Scheduling and Precoding in Multiuser MISO Downlink Channels. *Bandi, A., +, TWC Jan. 2020 475-490*
- Computation Efficiency Maximization in Wireless-Powered Mobile Edge Computing Networks. *Zhou, F., +, TWC May 2020 3170-3184*

Hybrid-Precoding for mmWave Multi-User Communications in the Presence of Beam-Misalignment. *Pradhan, C.*, +, *TWC Sept. 2020 6083-6099*

Opportunistic Adaptive Non-Orthogonal Multiple Access in Multiuser Wireless Systems: Probabilistic User Scheduling and Performance Analysis. *Yang, L.*, +, *TWC Sept. 2020 6065-6082*

Two-Side Coalitional Matching Approach for Joint MIMO-NOMA Clustering and BS Selection in Multi-Cell MIMO-NOMA Systems. *Ding, J.*, +, *TWC March 2020 2006-2021*

#### Minimization

A Dynamic Clustering Algorithm for Multi-Point Transmissions in Mission-Critical Communications. *Daher, A.*, +, *TWC July 2020 4934-4946*

A UAV-Mounted Free Space Optical Communication: Trajectory Optimization for Flight Time. *Lee, J.*, +, *TWC March 2020 1610-1621*

Adaptive Forwarding With Probabilistic Delay Guarantee in Low-Duty-Cycle WSNs. *Cheng, L.*, +, *TWC July 2020 4775-4792*

Antenna Selection Strategy for Energy Efficiency Maximization in Uplink OFDMA Networks: A Multi-Objective Approach. *Khalili, A.*, +, *TWC Jan. 2020 595-609*

Cell-Free Massive MIMO for Wireless Federated Learning. *Vu, T.T.*, +, *TWC Oct. 2020 6377-6392*

Design and Analysis of FD MIMO Cellular Systems in Coexistence With MIMO Radar. *Biswas, S.*, +, *TWC July 2020 4727-4743*

Geometry-Based Analysis of Optimal Handover Parameters for Self-Organizing Networks. *Nguyen, M.*, +, *TWC April 2020 2670-2683*

Green-Oriented Dynamic Resource-on-Demand Strategy for Multi-RAT Wireless Networks Powered by Heterogeneous Energy Sources. *Qin, M.*, +, *TWC Aug. 2020 5547-5560*

Improving Caching Efficiency in Content-Aware C-RAN-Based Cooperative Beamforming: A Joint Design Approach. *Zhao, M.*, +, *TWC June 2020 4125-4140*

Joint Optimization of Service Caching Placement and Computation Offloading in Mobile Edge Computing Systems. *Bi, S.*, +, *TWC July 2020 4947-4963*

Joint Reflecting and Precoding Designs for SER Minimization in Reconfigurable Intelligent Surfaces Assisted MIMO Systems. *Ye, J.*, +, *TWC Aug. 2020 5561-5574*

Minimizing the Age of Information of Cognitive Radio-Based IoT Systems Under a Collision Constraint. *Wang, Q.*, +, *TWC Dec. 2020 8054-8067*

Minimum Length Scheduling for Full Duplex Time-Critical Wireless Powered Communication Networks. *Iqbal, M.S.*, +, *TWC Sept. 2020 5993-6006*

Multidimensional Cooperative Caching in CoMP-Integrated Ultra-Dense Cellular Networks. *Lin, P.*, +, *TWC March 2020 1977-1989*

Offloading Decision in Edge Computing for Continuous Applications Under Uncertainty. *Chang, W.*, +, *TWC Sept. 2020 6196-6209*

On Optimal Orchestration of Virtualized Cellular Networks With Downlink Rate Coverage Probability Constraints. *Chatterjee, S.*, +, *TWC July 2020 4378-4393*

Optimal Energy Allocation and Task Offloading Policy for Wireless Powered Mobile Edge Computing Systems. *Wang, F.*, +, *TWC April 2020 2443-2459*

PAPR Reduction Using Iterative Clipping/Filtering and ADMM Approaches for OFDM-Based Mixed-Numerology Systems. *Liu, X.*, +, *TWC April 2020 2586-2600*

Scheduling to Minimize Age of Synchronization in Wireless Broadcast Networks With Random Updates. *Tang, H.*, +, *TWC June 2020 4023-4037*

UAV Positioning and Power Control for Two-Way Wireless Relaying. *Li, L.*, +, *TWC Feb. 2020 1008-1024*

#### MISO communication

A Deep Study on Layered Multi-Relay Non-Orthogonal Amplify-Forward Networks. *Padidar, P.*, +, *TWC Jan. 2020 354-366*

A Joint Solution for Scheduling and Precoding in Multiuser MISO Downlink Channels. *Bandi, A.*, +, *TWC Jan. 2020 475-490*

Asymptotic Max-Min SINR Analysis of Reconfigurable Intelligent Surface Assisted MISO Systems. *Nadeem, Q.*, +, *TWC Dec. 2020 7748-7764*

Enhancing Secure MIMO Transmission via Intelligent Reflecting Surface. *Dong, L.*, +, *TWC Nov. 2020 7543-7556*

Max-Min Fairness of  $K$ -User Cooperative Rate-Splitting in MISO Broadcast Channel With User Relaying. *Mao, Y.*, +, *TWC Oct. 2020 6362-6376*

Secrecy Energy Efficiency in Multi-Antenna SWIPT Networks With Dual-Layer PS Receivers. *Lu, Y.*, +, *TWC June 2020 4290-4306*

Spectral-Energy Efficiency Trade-Off-Based Beamforming Design for MISO Non-Orthogonal Multiple Access Systems. *Al-Obiedollah, H.M.*, +, *TWC Oct. 2020 6593-6606*

#### Mixers (circuits)

Iterative Nonlinear Self-Interference Cancellation for In-Band Full-Duplex Wireless Communications Under Mixer Imbalance and Amplifier Nonlinearity. *Komatsu, K.*, +, *TWC July 2020 4424-4438*

#### Mixture models

Coherent Detection for Short-Packet Physical-Layer Network Coding With Binary FSK Modulation. *Wang, Z.*, +, *TWC Jan. 2020 279-292*

Joint User Identification, Channel Estimation, and Signal Detection for Grant-Free NOMA. *Jiang, S.*, +, *TWC Oct. 2020 6960-6976*

#### Mobile antennas

5G mmWave Cooperative Positioning and Mapping Using Multi-Model PHD Filter and Map Fusion. *Kim, H.*, +, *TWC June 2020 3782-3795*

#### Mobile communication

Optimal Placement of Access Points in Cellular Visible Light Communication Networks: An Adaptive Gradient Projection Method. *Dastgheib, M.A.*, +, *TWC Oct. 2020 6813-6825*

#### Mobile computing

A Crowdsourcing Framework for On-Device Federated Learning. *Pandey, S.R.*, +, *TWC May 2020 3241-3256*

A Multi-Dimensional Contract Approach for Data Rewarding in Mobile Networks. *Xiong, Z.*, +, *TWC Sept. 2020 5779-5793*

Adaptive Resource Allocation in Future Wireless Networks With Blockchain and Mobile Edge Computing. *Guo, F.*, +, *TWC March 2020 1689-1703*

Adaptive Video Streaming With Edge Caching and Video Transcoding Over Software-Defined Mobile Networks: A Deep Reinforcement Learning Approach. *Luo, J.*, +, *TWC March 2020 1577-1592*

An Online Incentive Mechanism for Collaborative Task Offloading in Mobile Edge Computing. *Li, G.*, +, *TWC Jan. 2020 624-636*

Bandwidth Gain From Mobile Edge Computing and Caching in Wireless Multicast Systems. *Sun, Y.*, +, *TWC June 2020 3992-4007*

Broadband Analog Aggregation for Low-Latency Federated Edge Learning. *Zhu, G.*, +, *TWC Jan. 2020 491-506*

Cache-Aided NOMA Mobile Edge Computing: A Reinforcement Learning Approach. *Yang, Z.*, +, *TWC Oct. 2020 6899-6915*

Computation Efficiency Maximization in Wireless-Powered Mobile Edge Computing Networks. *Zhou, F.*, +, *TWC May 2020 3170-3184*

Cooperative Computation Offloading in FiWi Enhanced 4G HetNets Using Self-Organizing MEC. *Ebrahimzadeh, A.*, +, *TWC July 2020 4480-4493*

Deep Reinforcement Learning (DRL)-Based Device-to-Device (D2D) Caching With Blockchain and Mobile Edge Computing. *Zhang, R.*, +, *TWC Oct. 2020 6469-6485*

Delay-Aware Computation Offloading in NOMA MEC Under Differentiated Uploading Delay. *Sheng, M.*, +, *TWC April 2020 2813-2826*

Dynamic Pricing for Revenue Maximization in Mobile Social Data Market With Network Effects. *Xiong, Z.*, +, *TWC March 2020 1722-1737*

Edge Computing-Enabled Cell-Free Massive MIMO Systems. *Mukherjee, S.*, +, *TWC April 2020 2884-2899*

Energy Efficiency and Delay Tradeoff for Wireless Powered Mobile-Edge Computing Systems With Multi-Access Schemes. *Mao, S.*, +, *TWC March 2020 1855-1867*

Energy-Efficient Computation Offloading in Delay-Constrained Massive MIMO Enabled Edge Network Using Data Partitioning. *Malik, R.*, +, *TWC Oct. 2020 6977-6991*

Exploiting Computation Replication for Mobile Edge Computing: A Fundamental Computation-Communication Tradeoff Study. *Li, K.*, +, *TWC July 2020 4563-4578*

Federated Learning via Over-the-Air Computation. *Yang, K.*, +, *TWC March 2020 2022-2035*

Full-Duplex Enabled Mobile Edge Caching: From Distributed to Cooperative Caching. *Vu, T.X.*, +, *TWC Feb. 2020 1141-1153*

- HFEL: Joint Edge Association and Resource Allocation for Cost-Efficient Hierarchical Federated Edge Learning. *Luo, S.*, +, *TWC Oct. 2020 6535-6548*
- Incentive-Aware Micro Computing Cluster Formation for Cooperative Fog Computing. *Luo, S.*, +, *TWC April 2020 2643-2657*
- Joint Annotator-and-Spectrum Allocation in Wireless Networks for Crowd Labeling. *Li, X.*, +, *TWC Sept. 2020 6116-6129*
- Joint Channel and Queue Aware Scheduling for Latency Sensitive Mobile Edge Computing With Power Constraints. *Han, D.*, +, *TWC June 2020 3938-3951*
- Joint Data Compression and Computation Offloading in Hierarchical Fog-Cloud Systems. *Nguyen, T.T.*, +, *TWC Jan. 2020 293-309*
- Joint Optimization of Radio and Computational Resources Allocation in Blockchain-Enabled Mobile Edge Computing Systems. *Feng, J.*, +, *TWC June 2020 4321-4334*
- Joint Optimization of Service Caching Placement and Computation Offloading in Mobile Edge Computing Systems. *Bi, S.*, +, *TWC July 2020 4947-4963*
- Joint Resource Allocation and Incentive Design for Blockchain-Based Mobile Edge Computing. *Sun, W.*, +, *TWC Sept. 2020 6050-6064*
- Leveraging the Power of Prediction: Predictive Service Placement for Latency-Sensitive Mobile Edge Computing. *Ma, H.*, +, *TWC Oct. 2020 6454-6468*
- Mathematical Models for the Operation of a Cell With Bandwidth Sharing and Moving Users. *Kim, C.*, +, *TWC Feb. 2020 744-755*
- Mobile Edge Computing Meets mmWave Communications: Joint Beamforming and Resource Allocation for System Delay Minimization. *Zhao, C.*, +, *TWC April 2020 2382-2396*
- Multidimensional Cooperative Caching in CoMP-Integrated Ultra-Dense Cellular Networks. *Lin, P.*, +, *TWC March 2020 1977-1989*
- Offloading and Resource Allocation With General Task Graph in Mobile Edge Computing: A Deep Reinforcement Learning Approach. *Yan, J.*, +, *TWC Aug. 2020 5404-5419*
- Offloading Decision in Edge Computing for Continuous Applications Under Uncertainty. *Chang, W.*, +, *TWC Sept. 2020 6196-6209*
- Online Anticipatory Proactive Network Association in Mobile Edge Computing for IoT. *Cui, Q.*, +, *TWC July 2020 4519-4534*
- Optimal Energy Allocation and Task Offloading Policy for Wireless Powered Mobile Edge Computing Systems. *Wang, F.*, +, *TWC April 2020 2443-2459*
- Optimal Task Offloading and Resource Allocation in Mobile-Edge Computing With Inter-User Task Dependency. *Yan, J.*, +, *TWC Jan. 2020 235-250*
- Optimizing the Learning Performance in Mobile Augmented Reality Systems With CNN. *He, Y.*, +, *TWC Aug. 2020 5333-5344*
- Peace: Privacy-Preserving and Cost-Efficient Task Offloading for Mobile-Edge Computing. *He, X.*, +, *TWC March 2020 1814-1824*
- Physical-Layer Assisted Secure Offloading in Mobile-Edge Computing. *He, X.*, +, *TWC June 2020 4054-4066*
- Power-Efficient Beam Designs for Millimeter Wave Communication Systems. *Zhang, J.*, +, *TWC Feb. 2020 1265-1279*
- Proactive Edge Caching for Video on Demand With Quality Adaptation. *Han, S.*, +, *TWC Jan. 2020 218-234*
- Resource Allocation for Hybrid NOMA MEC Offloading. *Zhu, J.*, +, *TWC July 2020 4964-4977*
- Towards Demand-Driven Dynamic Incentive for Mobile Crowdsensing Systems. *Hu, J.*, +, *TWC July 2020 4907-4918*
- Mobile handsets**
- Physical-Layer Assisted Secure Offloading in Mobile-Edge Computing. *He, X.*, +, *TWC June 2020 4054-4066*
- Mobile radio**
- Adaptive Video Streaming With Edge Caching and Video Transcoding Over Software-Defined Mobile Networks: A Deep Reinforcement Learning Approach. *Luo, J.*, +, *TWC March 2020 1577-1592*
- Anywhere Decoding: Low-Overhead Uplink Interference Management for Wireless Networks. *Pezeshki, H.*, +, *TWC June 2020 4095-4108*
- Asynchronous Neighbor Discovery on Duty-Cycled Mobile Devices: Models and Schedules. *Chen, S.*, +, *TWC Aug. 2020 5204-5217*
- Deep Reinforcement Learning (DRL)-Based Device-to-Device (D2D) Caching With Blockchain and Mobile Edge Computing. *Zhang, R.*, +, *TWC Oct. 2020 6469-6485*
- Energy Efficiency and Traffic Offloading Optimization in Integrated Satellite/Terrestrial Radio Access Networks. *Li, J.*, +, *TWC April 2020 2367-2381*
- Freshness-Aware Seed Selection for Offloading Cellular Traffic Through Opportunistic Mobile Networks. *Zhou, H.*, +, *TWC April 2020 2658-2669*
- Individual Preference Aware Caching Policy Design in Wireless D2D Networks. *Lee, M.*, +, *TWC Aug. 2020 5589-5604*
- Joint Optimization of Radio and Computational Resources Allocation in Blockchain-Enabled Mobile Edge Computing Systems. *Feng, J.*, +, *TWC June 2020 4321-4334*
- Massive MIMO Extensions to the COST 2100 Channel Model: Modeling and Validation. *Flordelis, J.*, +, *TWC Jan. 2020 380-394*
- Measurements and Cluster-Based Modeling of Vehicle-to-Vehicle Channels With Large Vehicle Obstructions. *Yang, M.*, +, *TWC Sept. 2020 5860-5874*
- NLOS Effect Mitigation via Spatial Geometry Exploitation in Cooperative Localization. *Wang, Y.*, +, *TWC Sept. 2020 6037-6049*
- On Data Dissemination Enhanced by Network Coded Device-to-Device Communications. *Li, Y.*, +, *TWC June 2020 3963-3976*
- On Reciprocity in Physically Consistent TDD Systems With Coupled Antennas. *Laas, T.*, +, *TWC Oct. 2020 6440-6453*
- Rate-Distortion-Memory Trade-Offs in Heterogeneous Caching Networks. *Hassanzadeh, P.*, +, *TWC May 2020 3019-3033*
- Scheduling to Minimize Age of Synchronization in Wireless Broadcast Networks With Random Updates. *Tang, H.*, +, *TWC June 2020 4023-4037*
- Trace-Driven QoE-Aware Proactive Caching for Mobile Video Streaming in Metropolis. *Huang, D.*, +, *TWC Jan. 2020 62-76*
- Two-Stage ICI Suppression in the Downlink of Asynchronous URLLC. *Zeng, C.*, +, *TWC April 2020 2785-2799*
- Visible Light-Based User Position, Orientation and Channel Estimation Using Self-Adaptive Location-Domain Grid Sampling. *Zhou, B.*, +, *TWC July 2020 5025-5039*
- Mobile robots**
- Online Anticipatory Proactive Network Association in Mobile Edge Computing for IoT. *Cui, Q.*, +, *TWC July 2020 4519-4534*
- Robot-Assisted Backscatter Localization for IoT Applications. *Zhang, S.*, +, *TWC Sept. 2020 5807-5818*
- Ultra-Wideband Radio Channel Characteristics for Near-Ground Swarm Robots Communication. *Duan, S.*, +, *TWC July 2020 4715-4726*
- Mobile satellite communication**
- Joint Access and Backhaul Resource Management in Satellite-Drone Networks: A Competitive Market Approach. *Hu, Y.*, +, *TWC June 2020 3908-3923*
- Mobility management (mobile radio)**
- A Lightweight and Secure Group Key Based Handover Authentication Protocol for the Software-Defined Space Information Network. *Xue, K.*, +, *TWC June 2020 3673-3684*
- Calibration-Free Indoor Positioning Using Crowdsourced Data and Multidimensional Scaling. *Zhao, Y.*, +, *TWC March 2020 1770-1785*
- Cooperative Computation Offloading in FiWi Enhanced 4G HetNets Using Self-Organizing MEC. *Ebrahimzadeh, A.*, +, *TWC July 2020 4480-4493*
- Geometry-Based Analysis of Optimal Handover Parameters for Self-Organizing Networks. *Nguyen, M.*, +, *TWC April 2020 2670-2683*
- Indoor Femtocell Interference Localization. *Yan, K.*, +, *TWC Aug. 2020 5176-5187*
- Joint Estimation of RF Impairments, Channel, and Low Complexity Iterative Equalization Technique for High Mobility SC-FDMA/OFDMA Uplink Systems. *Sanoopkumar, P.S.*, +, *TWC June 2020 4276-4289*
- NLOS Effect Mitigation via Spatial Geometry Exploitation in Cooperative Localization. *Wang, Y.*, +, *TWC Sept. 2020 6037-6049*
- Online Anticipatory Proactive Network Association in Mobile Edge Computing for IoT. *Cui, Q.*, +, *TWC July 2020 4519-4534*
- Power Allocation for D2D Communications With SWIPT. *Huang, J.*, +, *TWC April 2020 2308-2320*

- Prediction and Communication Co-Design for Ultra-Reliable and Low-Latency Communications. *Hou, Z.*, +, *TWC Feb. 2020 1196-1209*
- Rethinking Modulation and Detection for High Doppler Channels. *Dean, T.R.*, +, *TWC June 2020 3629-3642*
- Secure 3D Mobile UAV Relaying for Hybrid Satellite-Terrestrial Networks. *Sharma, P.K.*, +, *TWC April 2020 2770-2784*
- Self-Tuning Sectorization: Deep Reinforcement Learning Meets Broadcast Beam Optimization. *Shafiq, R.*, +, *TWC June 2020 4038-4053*
- The Power of Mobility Prediction in Reducing Idle-State Signaling in Cellular Systems: A Revisit to 4G Mobility Management. *Hoseinitabatabei, S.A.*, +, *TWC May 2020 3346-3360*
- Vertical Handover Analysis for Randomly Deployed Small Cells in Heterogeneous Networks. *Duong, T.M.*, +, *TWC April 2020 2282-2292*

#### Modulation

- Design and Performance Analysis of a New  $M$ -Ary Differential Chaos Shift Keying With Index Modulation. *Cai, X.*, +, *TWC Feb. 2020 846-858*
- Downlink Multi-User Massive MIMO Transmission Using Receive Spatial Modulation. *Raafat, A.*, +, *TWC Oct. 2020 6871-6883*
- Dual-Hop Spatial Modulation With a Relay Transmitting its Own Information. *Li, Q.*, +, *TWC July 2020 4449-4463*
- Flexible Subcarrier Allocation for Interleaved Frequency Division Multiple Access. *Shao, Y.*, +, *TWC Nov. 2020 7139-7152*
- Graph Theory Assisted Bit-to-Index-Combination Gray Coding for Generalized Index Modulation. *Xiao, L.*, +, *TWC Dec. 2020 8232-8245*
- Modeling and Performance Analysis for Satellite Data Relay Networks Using Two-Dimensional Markov-Modulated Process. *Zhu, Y.*, +, *TWC June 2020 3894-3907*
- Novel Three-Hierarchy Multiple-Tag-Recognition Technique for Next Generation RFID Systems. *Pu, L.*, +, *TWC Feb. 2020 1237-1249*
- Receive Spatial Modulation Aided Simultaneous Wireless Information and Power Transfer With Finite Alphabet. *Zhao, Y.*, +, *TWC Dec. 2020 8039-8053*
- Set Partition Modulation. *Yarkin, F.*, +, *TWC Nov. 2020 7557-7570*
- Signal and System Design for Wireless Power Transfer: Prototype, Experiment and Validation. *Kim, J.*, +, *TWC Nov. 2020 7453-7469*
- Spatial Modulated Multicarrier Sparse Code-Division Multiple Access. *Liu, Y.*, +, *TWC Jan. 2020 610-623*
- Spherical Quasi-Physical Model-Based Color-Shift Keying for Visible Light Communication. *Chen, W.*, +, *TWC Dec. 2020 8099-8112*
- Super-Mode OFDM With Index Modulation. *Dogukan, A.T.*, +, *TWC Nov. 2020 7353-7362*

#### Modulation coding

- Generalized Path-Permutation Codes for Reliable End-to-End Networking of Opportunistic Links. *Lai, L.*, +, *TWC July 2020 4579-4593*
- Hybrid Constellations for Dual-Polarized Wireless Communications. *Wu, X.*, +, *TWC Aug. 2020 5321-5332*
- Steepest Gradient-Based Orthogonal Precoder for Integer-Forcing MIMO. *Hasan, M.N.*, +, *TWC Feb. 2020 942-955*

#### Moisture measurement

- A Statistical Impulse Response Model Based on Empirical Characterization of Wireless Underground Channels. *Salam, A.*, +, *TWC Sept. 2020 5966-5981*

#### Monopoly

- Dynamic Pricing for Revenue Maximization in Mobile Social Data Market With Network Effects. *Xiong, Z.*, +, *TWC March 2020 1722-1737*

#### Monte Carlo methods

- A Joint Solution for Scheduling and Precoding in Multiuser MISO Downlink Channels. *Bandi, A.*, +, *TWC Jan. 2020 475-490*
- Analytical Channel Models for Millimeter Wave UAV Networks Under Hovering Fluctuations. *Dabiri, M.T.*, +, *TWC April 2020 2868-2883*
- Dual-Hop Spatial Modulation With a Relay Transmitting its Own Information. *Li, Q.*, +, *TWC July 2020 4449-4463*
- Low-Complexity Adaptive Spatial Processing of ESPAR Antenna Systems. *Bucheli Garcia, J.C.*, +, *TWC June 2020 3700-3711*
- Modeling and Performance Analysis for Satellite Data Relay Networks Using Two-Dimensional Markov-Modulated Process. *Zhu, Y.*, +, *TWC June 2020 3894-3907*

- Multi-Hop Wireless Optical Backhauling for LiFi Attocell Networks: Bandwidth Scheduling and Power Control. *Kazemi, H.*, +, *TWC Sept. 2020 5676-5691*
- Noncoherent Symbol Detection of Short CPM Bursts in Frequency-Selective Fading Channels. *Chamaa, M.E.*, +, *TWC Feb. 2020 771-782*
- Novel Three-Hierarchy Multiple-Tag-Recognition Technique for Next Generation RFID Systems. *Pu, L.*, +, *TWC Feb. 2020 1237-1249*
- On Reciprocity in Physically Consistent TDD Systems With Coupled Antennas. *Laas, T.*, +, *TWC Oct. 2020 6440-6453*
- On the Energy Efficiency of Heterogeneous Cellular Networks With Renewable Energy Sources—A Stochastic Geometry Framework. *Lam, T.T.*, +, *TWC Oct. 2020 6752-6770*
- On the Secrecy of UAV Systems With Linear Trajectory. *Pan, G.*, +, *TWC Oct. 2020 6277-6288*
- Rate Splitting for Uplink NOMA With Enhanced Fairness and Outage Performance. *Liu, H.*, +, *TWC July 2020 4657-4670*
- Signal Acquisition With Photon-Counting Detector Arrays in Free-Space Optical Communications. *Bashir, M.S.*, +, *TWC April 2020 2181-2195*
- SINR and Multiuser Efficiency Gap Between MIMO Linear Receivers. *Alfano, G.*, +, *TWC Jan. 2020 106-119*
- SINR and Rate Distributions for Downlink Cellular Networks. *Hadj-Kacem, I.*, +, *TWC July 2020 4604-4616*
- Statistical Modeling and Analysis on the Confidentiality of Indoor VLC Systems. *Chen, J.*, +, *TWC July 2020 4744-4757*
- Ultra-Wideband Radio Channel Characteristics for Near-Ground Swarm Robots Communication. *Duan, S.*, +, *TWC July 2020 4715-4726*
- Wideband Collaborative Spectrum Sensing Using Massive MIMO Decision Fusion. *Dey, I.*, +, *TWC Aug. 2020 5246-5260*

#### Multi-access systems

- Achievable Rate Region for Iterative Multi-User Detection via Low-Cost Gaussian Approximation. *Wang, X.*, +, *TWC May 2020 3289-3303*
- Capacity Region and Capacity-Achieving Signaling Schemes for 1-bit ADC Multiple Access Channels in Rayleigh Fading. *Ranjbar, M.*, +, *TWC Sept. 2020 6162-6178*
- Communications and Radar Coexistence in the Massive MIMO Regime: Uplink Analysis. *D'Andrea, C.*, +, *TWC Jan. 2020 19-33*
- CoMP-NOMA in the SWIPT Networks. *Hedayati, M.*, +, *TWC July 2020 4549-4562*
- Cooperative Asynchronous Non-Orthogonal Multiple Access With Power Minimization Under QoS Constraints. *Zou, X.*, +, *TWC March 2020 1503-1518*
- DeepNOMA: A Unified Framework for NOMA Using Deep Multi-Task Learning. *Ye, N.*, +, *TWC April 2020 2208-2225*
- Delay-Aware Computation Offloading in NOMA MEC Under Differentiated Uploading Delay. *Sheng, M.*, +, *TWC April 2020 2813-2826*
- Downlink Analysis of NOMA-Enabled Cellular Networks With 3GPP-Inspired User Ranking. *Mankar, P.D.*, +, *TWC June 2020 3796-3811*
- Edge Computing-Enabled Cell-Free Massive MIMO Systems. *Mukherjee, S.*, +, *TWC April 2020 2884-2899*
- Efficient Beam Sweeping Algorithms and Initial Access Protocols for Millimeter-Wave Networks. *Aykin, I.*, +, *TWC April 2020 2504-2514*
- Energy Efficiency and Delay Tradeoff for Wireless Powered Mobile-Edge Computing Systems With Multi-Access Schemes. *Mao, S.*, +, *TWC March 2020 1855-1867*
- Energy Efficient Resource Management in SWIPT Enabled Heterogeneous Networks With NOMA. *Zhang, H.*, +, *TWC Feb. 2020 835-845*
- Energy-Efficient Computation Offloading in Delay-Constrained Massive MIMO Enabled Edge Network Using Data Partitioning. *Malik, R.*, +, *TWC Oct. 2020 6977-6991*
- Exploiting Intelligent Reflecting Surfaces in NOMA Networks: Joint Beamforming Optimization. *Mu, X.*, +, *TWC Oct. 2020 6884-6898*
- Federated Learning Over Wireless Fading Channels. *Amiri, M.M.*, +, *TWC May 2020 3546-3557*
- Fundamental Rate Limits of UAV-Enabled Multiple Access Channel With Trajectory Optimization. *Li, P.*, +, *TWC Jan. 2020 458-474*
- Fundamentals of Power Allocation Strategies for Downlink Multi-User NOMA With Target Rates. *Oviedo, J.A.*, +, *TWC March 2020 1906-1917*

- Generalized Busgang LMMSE Channel Estimation for One-Bit Massive MIMO Systems. *Wan, Q.*, +, *TWC June 2020 4234-4246*
- Hybrid Lightwave/RF Cooperative NOMA Networks. *Xiao, Y.*, +, *TWC Feb. 2020 1154-1166*
- Hybrid-Precoding for mmWave Multi-User Communications in the Presence of Beam-Misalignment. *Pradhan, C.*, +, *TWC Sept. 2020 6083-6099*
- Information-Centric Grant-Free Access for IoT Fog Networks: Edge vs. Cloud Detection and Learning. *Kassab, R.*, +, *TWC Oct. 2020 6347-6361*
- Iterative Receiver Design for FTN Signaling Aided Sparse Code Multiple Access. *Yuan, W.*, +, *TWC Feb. 2020 915-928*
- Joint C-OMA and C-NOMA Wireless Backhaul Scheduling in Heterogeneous Ultra Dense Networks. *Zhang, Q.*, +, *TWC Feb. 2020 874-887*
- Joint Power and Blocklength Optimization for URLLC in a Factory Automation Scenario. *Ren, H.*, +, *TWC March 2020 1786-1801*
- Joint User Identification, Channel Estimation, and Signal Detection for Grant-Free NOMA. *Jiang, S.*, +, *TWC Oct. 2020 6960-6976*
- Local Partial Zero-Forcing Precoding for Cell-Free Massive MIMO. *Interdonato, G.*, +, *TWC July 2020 4758-4774*
- Low-Resolution Limited-Feedback NOMA for mmWave Communications. *Yapici, Y.*, +, *TWC Aug. 2020 5433-5446*
- Massive MIMO-NOMA Networks With Imperfect SIC: Design and Fairness Enhancement. *de Sena, A.S.*, +, *TWC Sept. 2020 6100-6115*
- Minority Game for Distributed User Association in Unlicensed Heterogeneous Networks. *Wang, Y.*, +, *TWC June 2020 4220-4233*
- Multi-Antenna Two-Way Relay Based Cooperative NOMA. *Lv, L.*, +, *TWC Oct. 2020 6486-6503*
- Networked Optical Massive MIMO Communications. *Sun, C.*, +, *TWC Aug. 2020 5575-5588*
- NOMA in the Uplink: Delay Analysis With Imperfect CSI and Finite-Length Coding. *Schiessl, S.*, +, *TWC June 2020 3879-3893*
- NOMA-Based D2D-Enabled Traffic Offloading for 5G and Beyond Networks Employing Licensed and Unlicensed Access. *Sun, M.*, +, *TWC June 2020 4109-4124*
- NOMA-Enhanced Computation Over Multi-Access Channels. *Wu, F.*, +, *TWC April 2020 2252-2267*
- Non-Blocking Scheme for Blind Network-Assisted Diversity Multiple Access in Synchronous Channels. *Akl, N.*, +, *TWC March 2020 1894-1905*
- On Reciprocity in Physically Consistent TDD Systems With Coupled Antennas. *Laas, T.*, +, *TWC Oct. 2020 6440-6453*
- Opportunistic Adaptive Non-Orthogonal Multiple Access in Multiuser Wireless Systems: Probabilistic User Scheduling and Performance Analysis. *Yang, L.*, +, *TWC Sept. 2020 6065-6082*
- Opportunistic NOMA for Uplink Short-Message Delivery With a Delay Constraint. *Choi, J.*, *TWC June 2020 3727-3737*
- Optimal Sensing Policy for Energy Harvesting Cognitive Radio Systems. *Villalonga, D.A.U.*, +, *TWC June 2020 3826-3838*
- Over-the-Air Computation Systems: Optimization, Analysis and Scaling Laws. *Liu, W.*, +, *TWC Aug. 2020 5488-5502*
- Overhead-Performance Tradeoff for MISO Broadcast Channels With Zero-Forcing Precoder. *Liu, G.*, +, *TWC Feb. 2020 995-1007*
- Performance Analysis of Multiuser FSO/RF Network Under Non-Equal Priority With  $P$ -Persistence Protocol. *Rakia, T.*, +, *TWC March 2020 1802-1813*
- Performance of Dynamic Power and Channel Allocation for Downlink MC-NOMA Systems. *Liu, F.*, +, *TWC March 2020 1650-1662*
- Power Allocation in Multi-User Cellular Networks: Deep Reinforcement Learning Approaches. *Meng, F.*, +, *TWC Oct. 2020 6255-6267*
- Rate Splitting for Uplink NOMA With Enhanced Fairness and Outage Performance. *Liu, H.*, +, *TWC July 2020 4657-4670*
- Reconsidering Design of Multi-Antenna NOMA Systems With Limited Feedback. *Tang, Z.*, +, *TWC March 2020 1519-1534*
- Residual Transceiver Hardware Impairments on Cooperative NOMA Networks. *Li, X.*, +, *TWC Jan. 2020 680-695*
- Resource Allocation for Hybrid NOMA MEC Offloading. *Zhu, J.*, +, *TWC July 2020 4964-4977*
- Robust Non-Orthogonal Multiple Access for Aerial and Ground Users. *New, W.K.*, +, *TWC July 2020 4793-4805*
- Secure Communications in a Unified Non-Orthogonal Multiple Access Framework. *Yue, X.*, +, *TWC March 2020 2163-2178*
- Secure UAV-Enabled Communication Using Han-Kobayashi Signaling. *Sheng, Z.*, +, *TWC May 2020 2905-2919*
- Securing Channel State Information in Multiuser MIMO With Limited Feedback. *Yang, Y.*, +, *TWC May 2020 3091-3103*
- Simple Bounds for the Symmetric Capacity of the Rayleigh Fading Multiple Access Channel. *Domanovitz, E.*, +, *TWC July 2020 4594-4603*
- SINR and Multiuser Efficiency Gap Between MIMO Linear Receivers. *Alfano, G.*, +, *TWC Jan. 2020 106-119*
- SINR Distribution and Scheduling Gain Analysis of Uplink Channel-Adaptive Scheduling. *Kamiya, S.*, +, *TWC April 2020 2321-2335*
- Superimposed Pilot for Multi-Cell Multi-User Massive FD-MIMO Systems. *Shafiq, R.*, +, *TWC May 2020 3591-3606*
- Tradeoff Between Ergodic Rate and Delivery Latency in Fog Radio Access Networks. *Yin, B.*, +, *TWC April 2020 2240-2251*
- Transmission Energy Minimization for Heterogeneous Low-Latency NOMA Downlink. *Xu, Y.*, +, *TWC Feb. 2020 1054-1069*
- Two-Side Coalitional Matching Approach for Joint MIMO-NOMA Clustering and BS Selection in Multi-Cell MIMO-NOMA Systems. *Ding, J.*, +, *TWC March 2020 2006-2021*
- Uplink Non-Orthogonal Multiple Access Over Mixed RF-FSO Systems. *Jamali, M.V.*, +, *TWC May 2020 3558-3574*
- Weighted Sum-Rate Maximization for Reconfigurable Intelligent Surface Aided Wireless Networks. *Guo, H.*, +, *TWC May 2020 3064-3076*
- Multi-agent systems**
- Age of Information Aware Radio Resource Management in Vehicular Networks: A Proactive Deep Reinforcement Learning Perspective. *Chen, X.*, +, *TWC April 2020 2268-2281*
- Cache-Aided NOMA Mobile Edge Computing: A Reinforcement Learning Approach. *Yang, Z.*, +, *TWC Oct. 2020 6899-6915*
- Collaborative Multi-Agent Multi-Armed Bandit Learning for Small-Cell Caching. *Xu, X.*, +, *TWC April 2020 2570-2585*
- Multi-Agent Reinforcement Learning for Adaptive User Association in Dynamic mmWave Networks. *Sana, M.*, +, *TWC Oct. 2020 6520-6534*
- Multi-Agent Reinforcement Learning-Based Resource Allocation for UAV Networks. *Cui, J.*, +, *TWC Feb. 2020 729-743*
- Power Allocation in Multi-User Cellular Networks: Deep Reinforcement Learning Approaches. *Meng, F.*, +, *TWC Oct. 2020 6255-6267*
- Spectrum Sharing Among Rapidly Deployable Small Cells: A Hybrid Multi-Agent Approach. *Gao, B.*, +, *TWC Jan. 2020 395-409*
- Multi-robot systems**
- Modeling and Analysis of Data Harvesting Architecture Based on Unmanned Aerial Vehicles. *Choi, C.*, +, *TWC March 2020 1825-1838*
- Ultra-Wideband Radio Channel Characteristics for Near-Ground Swarm Robots Communication. *Duan, S.*, +, *TWC July 2020 4715-4726*
- Multicast communication**
- A Dynamic Clustering Algorithm for Multi-Point Transmissions in Mission-Critical Communications. *Daher, A.*, +, *TWC July 2020 4934-4946*
- A Dynamic MBSFN Area Formation Algorithm for Multicast Service Delivery in 5G NR Networks. *Araniti, G.*, +, *TWC Feb. 2020 808-821*
- Bandwidth Gain From Mobile Edge Computing and Caching in Wireless Multicast Systems. *Sun, Y.*, +, *TWC June 2020 3992-4007*
- Cache-Aided Combination Networks With Interference. *Elkordy, A.R.*, +, *TWC Jan. 2020 148-161*
- Caching at Base Stations With Multi-Cluster Multicast Wireless Backhaul via Accelerated First-Order Algorithms. *Li, Y.*, +, *TWC May 2020 2920-2933*
- Characterizing Resource Allocation Trade-Offs in 5G NR Serving Multicast and Unicast Traffic. *Samuylov, A.*, +, *TWC May 2020 3421-3434*
- Multi-Antenna Interference Management for Coded Caching. *Tolli, A.*, +, *TWC March 2020 2091-2106*
- Rate-Distortion-Memory Trade-Offs in Heterogeneous Caching Networks. *Hassanzadeh, P.*, +, *TWC May 2020 3019-3033*
- WiderCast: Enabling Wider Bandwidth for Wireless Multicast Over IEEE 802.11ac WLANs. *Park, Y.D.*, +, *TWC June 2020 3854-3866*

**Multimedia communication**

- A Dynamic Clustering Algorithm for Multi-Point Transmissions in Mission-Critical Communications. *Daher, A.*, +, *TWC July 2020 4934-4946*
- A Dynamic MBSFN Area Formation Algorithm for Multicast Service Delivery in 5G NR Networks. *Araniti, G.*, +, *TWC Feb. 2020 808-821*
- Multidimensional Cooperative Caching in CoMP-Integrated Ultra-Dense Cellular Networks. *Lin, P.*, +, *TWC March 2020 1977-1989*

**Multipath channels**

- A Channel Model for Indoor Time-of-Arrival Ranging. *Latinovic, Z.*, +, *TWC Feb. 2020 1415-1428*
- A Frequency Offset Transmit Reference System in Dense Multipath Environments: Propagation Effects and Design Considerations. *Bilal, I.*, +, *TWC Feb. 2020 859-873*
- A Statistical Impulse Response Model Based on Empirical Characterization of Wireless Underground Channels. *Salam, A.*, +, *TWC Sept. 2020 5966-5981*
- BEM-PSP for Single-Carrier and SC-FDMA Communication Over a Doubly Selective Fading Channel. *Liu, X.*, +, *TWC June 2020 3924-3937*
- Channel Measurement and Modeling of the Small-Scale Fading Characteristics for Urban Inland River Environment. *Yu, J.*, +, *TWC May 2020 3376-3389*
- Channel-Based Optimal Back-Off Delay Control in Delay-Constrained Industrial WSNs. *Li, Q.*, +, *TWC Jan. 2020 696-711*
- Compressed Sensing Channel Estimation for OFDM With Non-Gaussian Multipath Gains. *Gomez-Cuba, F.*, +, *TWC Jan. 2020 47-61*
- Design and Performance Analysis of a New  $M$ -Ary Differential Chaos Shift Keying With Index Modulation. *Cai, X.*, +, *TWC Feb. 2020 846-858*
- Enabling Super-Resolution Parameter Estimation for mm-Wave Channel Sounding. *Wang, R.*, +, *TWC May 2020 3077-3090*
- Hybrid Constellations for Dual-Polarized Wireless Communications. *Wu, X.*, +, *TWC Aug. 2020 5321-5332*
- Massive MIMO Extensions to the COST 2100 Channel Model: Modeling and Validation. *Flordelis, J.*, +, *TWC Jan. 2020 380-394*
- Measurement-Based Analysis and Modeling of Multimode Channel Behaviors in Spherical Vector Wave Domain. *Miao, Y.*, +, *TWC Aug. 2020 5345-5358*
- Measurements and Cluster-Based Modeling of Vehicle-to-Vehicle Channels With Large Vehicle Obstructions. *Yang, M.*, +, *TWC Sept. 2020 5860-5874*
- MOCZ for Blind Short-Packet Communication: Practical Aspects. *Walk, P.*, +, *TWC Oct. 2020 6675-6692*
- Modeling of 300 GHz Chip-to-Chip Wireless Channels in Metal Enclosures. *Fu, J.*, +, *TWC May 2020 3214-3227*
- On the Effectiveness of OTFS for Joint Radar Parameter Estimation and Communication. *Gaudio, L.*, +, *TWC Sept. 2020 5951-5965*
- Overlap-Save FBMC Receivers. *Nadal, J.*, +, *TWC Aug. 2020 5307-5320*
- PCA-Based Channel Estimation and Tracking for Massive MIMO Systems With Uniform Rectangular Arrays. *Wang, A.*, +, *TWC Oct. 2020 6786-6797*
- Rethinking Modulation and Detection for High Doppler Channels. *Dean, T.R.*, +, *TWC June 2020 3629-3642*

**Multiplexing**

- A Deep Study on Layered Multi-Relay Non-Orthogonal Amplify-Forward Networks. *Padidar, P.*, +, *TWC Jan. 2020 354-366*
- A Unified Statistical Model for Atmospheric Turbulence-Induced Fading in Orbital Angular Momentum Multiplexed FSO Systems. *Amhoud, E.*, +, *TWC Feb. 2020 888-900*
- Hierarchical Soft Slicing to Meet Multi-Dimensional QoS Demand in Cache-Enabled Vehicular Networks. *Zhang, S.*, +, *TWC March 2020 2150-2162*
- Joint Spatial Division and Multiplexing in Massive MIMO: A Neighbor-Based Approach. *Song, Y.*, +, *TWC Nov. 2020 7392-7406*
- Local Partial Zero-Forcing Precoding for Cell-Free Massive MIMO. *Interdonato, G.*, +, *TWC July 2020 4758-4774*
- Multi-Mode OAM Radio Waves: Generation, Angle of Arrival Estimation and Reception With UCAs. *Chen, R.*, +, *TWC Oct. 2020 6932-6947*
- Two-Layered Superposition of Broadcast/Multicast and Unicast Signals in Multiuser OFDMA Systems. *Vargas, D.*, +, *TWC Feb. 2020 979-994*

**Multiuser channels**

- A Joint Solution for Scheduling and Precoding in Multiuser MISO Downlink Channels. *Bandi, A.*, +, *TWC Jan. 2020 475-490*
- Achievable Rate Region for Iterative Multi-User Detection via Low-Cost Gaussian Approximation. *Wang, X.*, +, *TWC May 2020 3289-3303*
- Channel Estimation for Intelligent Reflecting Surface Assisted Multiuser Communications: Framework, Algorithms, and Analysis. *Wang, Z.*, +, *TWC Oct. 2020 6607-6620*
- Fundamentals of Power Allocation Strategies for Downlink Multi-User NOMA With Target Rates. *Oviedo, J.A.*, +, *TWC March 2020 1906-1917*
- Low-Complexity User Selection Algorithms for Multiuser Transmissions in mmWave WLANs. *Aldubaikhy, K.*, +, *TWC April 2020 2397-2410*
- Max-Min Fairness of  $K$ -User Cooperative Rate-Splitting in MISO Broadcast Channel With User Relaying. *Mao, Y.*, +, *TWC Oct. 2020 6362-6376*
- NOMA-Enhanced Computation Over Multi-Access Channels. *Wu, F.*, +, *TWC April 2020 2252-2267*
- Two-Layered Superposition of Broadcast/Multicast and Unicast Signals in Multiuser OFDMA Systems. *Vargas, D.*, +, *TWC Feb. 2020 979-994*

**Multiuser detection**

- Achievable Rate Region for Iterative Multi-User Detection via Low-Cost Gaussian Approximation. *Wang, X.*, +, *TWC May 2020 3289-3303*
- Analysis of 5G Radio Access Protocols for Uplink URLLC in a Connection-Less Mode. *Centenaro, M.*, +, *TWC May 2020 3104-3117*
- DeepNOMA: A Unified Framework for NOMA Using Deep Multi-Task Learning. *Ye, N.*, +, *TWC April 2020 2208-2225*
- Energy-Efficient Base Station Association and Beamforming for Multi-Cell Multiuser Systems. *An, J.*, +, *TWC April 2020 2841-2854*
- Joint User Identification, Channel Estimation, and Signal Detection for Grant-Free NOMA. *Jiang, S.*, +, *TWC Oct. 2020 6960-6976*
- Joint User Selection, Power Allocation, and Precoding Design With Imperfect CSIT for Multi-Cell MU-MIMO Downlink Systems. *Choi, J.*, +, *TWC Jan. 2020 162-176*
- Multi-User Detection Based on Expectation Propagation for the Non-Coherent SIMO Multiple Access Channel. *Ngo, K.*, +, *TWC Sept. 2020 6145-6161*
- Reliable Detection of Unknown Cell-Edge Users via Canonical Correlation Analysis. *Ibrahim, M.S.*, +, *TWC June 2020 4170-4182*
- Side-Information Aided Compressed Multi-User Detection for Up-Link Grant-Free NOMA. *Cui, Y.*, +, *TWC Nov. 2020 7720-7731*
- Two-Stage ICI Suppression in the Downlink of Asynchronous URLLC. *Zeng, C.*, +, *TWC April 2020 2785-2799*

**N****Nakagami channels**

- A Tractable Product Channel Model for Line-of-Sight Scenarios. *Fernandez-Plazaola, U.*, +, *TWC March 2020 2107-2121*
- Cooperative MIMO-OFDM-Based Exposure-Path Prevention Over 3D Clustered Wireless Camera Sensor Networks. *Wang, J.*, +, *TWC Jan. 2020 4-18*
- Design of Ambient Backscatter Training for Wireless Power Transfer. *Idrees, S.*, +, *TWC Oct. 2020 6316-6330*
- Measurements and Cluster-Based Modeling of Vehicle-to-Vehicle Channels With Large Vehicle Obstructions. *Yang, M.*, +, *TWC Sept. 2020 5860-5874*
- Tractable Approach to MmWaves Cellular Analysis With FSO Backhauling Under Feedback Delay and Hardware Limitations. *Balti, E.*, +, *TWC Jan. 2020 410-422*

**Network coding**

- A Network Linear Block Coding Approach to Selective Detect-and-Forward Multi-Way Relaying With Differential Modulation. *Hou, X.*, +, *TWC Sept. 2020 5749-5764*
- Coherent Detection for Short-Packet Physical-Layer Network Coding With Binary FSK Modulation. *Wang, Z.*, +, *TWC Jan. 2020 279-292*
- Generalized Path-Permutation Codes for Reliable End-to-End Networking of Opportunistic Links. *Lai, I.*, +, *TWC July 2020 4579-4593*
- Network Coding Techniques for Primary-Secondary User Cooperation in Cognitive Radio Networks. *Papadopoulos, A.*, +, *TWC June 2020 4195-4208*

- On Data Dissemination Enhanced by Network Coded Device-to-Device Communications. *Li, Y.*, +, *TWC June 2020 3963-3976*
- Rate-Distortion-Memory Trade-Offs in Heterogeneous Caching Networks. *Hassanzadeh, P.*, +, *TWC May 2020 3019-3033*
- Network topology**
- Random Network Coding Enabled Routing Protocol in Unmanned Aerial Vehicle Networks. *Song, H.*, +, *TWC Dec. 2020 8382-8395*
- Self-Organizing Slot Access for Neighboring Cooperation in UAV Swarms. *Yao, K.*, +, *TWC April 2020 2800-2812*
- Neural network architecture**
- Deep Learning for SVD and Hybrid Beamforming. *Peken, T.*, +, *TWC Oct. 2020 6621-6642*
- Neural networks**
- A Deep Learning Approach to Universal Binary Visible Light Communication Transceiver. *Lee, H.*, +, *TWC Feb. 2020 956-969*
- A Realization of Fog-RAN Slicing via Deep Reinforcement Learning. *Xiang, H.*, +, *TWC April 2020 2515-2527*
- Adaptive Neural Signal Detection for Massive MIMO. *Khani, M.*, +, *TWC Aug. 2020 5635-5648*
- Authenticating On-Body IoT Devices: An Adversarial Learning Approach. *Huang, Y.*, +, *TWC Aug. 2020 5234-5245*
- Deep Energy Autoencoder for Noncoherent Multicarrier MU-SIMO Systems. *Van Luong, T.*, +, *TWC June 2020 3952-3962*
- Deep Learning-Aided Tabu Search Detection for Large MIMO Systems. *Nguyen, N.T.*, +, *TWC June 2020 4262-4275*
- Deep Learning-Based End-to-End Wireless Communication Systems With Conditional GANs as Unknown Channels. *Ye, H.*, +, *TWC May 2020 3133-3143*
- DeepNOMA: A Unified Framework for NOMA Using Deep Multi-Task Learning. *Ye, N.*, +, *TWC April 2020 2208-2225*
- Dynamic Service Function Chain Embedding for NFV-Enabled IoT: A Deep Reinforcement Learning Approach. *Fu, X.*, +, *TWC Jan. 2020 507-519*
- Edge AI: On-Demand Accelerating Deep Neural Network Inference via Edge Computing. *Li, E.*, +, *TWC Jan. 2020 447-457*
- HFEL: Joint Edge Association and Resource Allocation for Cost-Efficient Hierarchical Federated Edge Learning. *Luo, S.*, +, *TWC Oct. 2020 6535-6548*
- Learning to Search for MIMO Detection. *Sun, J.*, +, *TWC Nov. 2020 7571-7584*
- Machine Learning-Enabled Cooperative Spectrum Sensing for Non-Orthogonal Multiple Access. *Shi, Z.*, +, *TWC Sept. 2020 5692-5702*
- Machine Learning-Enabled LOS/NLOS Identification for MIMO Systems in Dynamic Environments. *Huang, C.*, +, *TWC June 2020 3643-3657*
- Massive MIMO Channel Estimation With an Untrained Deep Neural Network. *Balevi, E.*, +, *TWC March 2020 2079-2090*
- Power Control Based on Deep Reinforcement Learning for Spectrum Sharing. *Zhang, H.*, +, *TWC June 2020 4209-4219*
- Power Control in Cellular Massive MIMO With Varying User Activity: A Deep Learning Solution. *Van Chien, T.*, +, *TWC Sept. 2020 5732-5748*
- Self-Tuning Sectorization: Deep Reinforcement Learning Meets Broadcast Beam Optimization. *Shafiq, R.*, +, *TWC June 2020 4038-4053*
- Statistical Modeling and Analysis on the Confidentiality of Indoor VLC Systems. *Chen, J.*, +, *TWC July 2020 4744-4757*
- ViterbiNet: A Deep Learning Based Viterbi Algorithm for Symbol Detection. *Shlezinger, N.*, +, *TWC May 2020 3319-3331*
- Next generation networks**
- A Learning-Based Pre-Allocation Scheme for Low-Latency Access in Industrial Wireless Networks. *Li, M.*, +, *TWC Jan. 2020 650-664*
- Adaptive Video Streaming With Edge Caching and Video Transcoding Over Software-Defined Mobile Networks: A Deep Reinforcement Learning Approach. *Luo, J.*, +, *TWC March 2020 1577-1592*
- Analytical Channel Models for Millimeter Wave UAV Networks Under Hovering Fluctuations. *Dabiri, M.T.*, +, *TWC April 2020 2868-2883*
- Asynchronous Downlink Massive MIMO Networks: A Stochastic Geometry Approach. *Sadeghabadi, E.*, +, *TWC Jan. 2020 579-594*
- Energy-Aware 3D Unmanned Aerial Vehicle Deployment for Network Throughput Optimization. *Chou, S.*, +, *TWC Jan. 2020 563-578*
- Heterogeneous Semi-Blind Interference Alignment in Finite-SNR Networks With Fairness Consideration. *Yang, Q.*, +, *TWC April 2020 2472-2488*
- On Optimal Orchestration of Virtualized Cellular Networks With Downlink Rate Coverage Probability Constraints. *Chatterjee, S.*, +, *TWC July 2020 4378-4393*
- Performance Analysis of Ultra-Dense Networks With Regularly Deployed Base Stations. *Filo, M.*, +, *TWC May 2020 3530-3545*
- NIST**
- Hierarchical Codebook-Based Multiuser Beam Training for Millimeter Wave Massive MIMO. *Qi, C.*, +, *TWC Dec. 2020 8142-8152*
- Noise measurement**
- On Reciprocity in Physically Consistent TDD Systems With Coupled Antennas. *Laas, T.*, +, *TWC Oct. 2020 6440-6453*
- NOMA**
- On the Performance of HARQ Protocols With Blanking in NOMA Systems. *Mheich, Z.*, +, *TWC Nov. 2020 7423-7438*
- Partial Non-Orthogonal Multiple Access (NOMA) in Downlink Poisson Networks. *Ali, K.S.*, +, *TWC Nov. 2020 7637-7652*
- Power and Subcarrier Allocation in 5G NOMA-FD Systems. *Abrardo, A.*, +, *TWC Dec. 2020 8246-8260*
- Robust Secure Beamforming Design for Two-User Downlink MISO Rate-Splitting Systems. *Fu, H.*, +, *TWC Dec. 2020 8351-8365*
- Side-Information Aided Compressed Multi-User Detection for Up-Link Grant-Free NOMA. *Cui, Y.*, +, *TWC Nov. 2020 7720-7731*
- Trajectory Design and Power Allocation for Drone-Assisted NR-V2X Network With Dynamic NOMA/OMA. *Abbasi, O.*, +, *TWC Nov. 2020 7153-7168*
- Nonlinear codes**
- Making Cell-Free Massive MIMO Competitive With MMSE Processing and Centralized Implementation. *Bjornson, E.*, +, *TWC Jan. 2020 77-90*
- Nonlinear distortion**
- Analog Self-Interference Cancellation Using Auxiliary Transmitter Considering IQ Imbalance and Amplifier Nonlinearity. *Fukui, T.*, +, *TWC Nov. 2020 7439-7452*
- Nonlinear estimation**
- Iterative Nonlinear Self-Interference Cancellation for In-Band Full-Duplex Wireless Communications Under Mixer Imbalance and Amplifier Nonlinearity. *Komatsu, K.*, +, *TWC July 2020 4424-4438*
- Nonlinear filters**
- Robust Localization Based on ML-Type, Multi-Stage ML-Type, and Extrapolated Single Propagation UKF Methods Under Mixed LOS/NLOS Conditions. *Park, C.*, +, *TWC Sept. 2020 5819-5832*
- Nonlinear programming**
- Antenna Selection Strategy for Energy Efficiency Maximization in Uplink OFDMA Networks: A Multi-Objective Approach. *Khalili, A.*, +, *TWC Jan. 2020 595-609*
- Energy Efficiency and Traffic Offloading Optimization in Integrated Satellite/Terrestrial Radio Access Networks. *Li, J.*, +, *TWC April 2020 2367-2381*
- Energy-Aware 3D Unmanned Aerial Vehicle Deployment for Network Throughput Optimization. *Chou, S.*, +, *TWC Jan. 2020 563-578*
- Joint C-OMA and C-NOMA Wireless Backhaul Scheduling in Heterogeneous Ultra Dense Networks. *Zhang, Q.*, +, *TWC Feb. 2020 874-887*
- Joint Cache Placement, Flight Trajectory, and Transmission Power Optimization for Multi-UAV Assisted Wireless Networks. *Ji, J.*, +, *TWC Aug. 2020 5389-5403*
- LORM: Learning to Optimize for Resource Management in Wireless Networks With Few Training Samples. *Shen, Y.*, +, *TWC Jan. 2020 665-679*
- Minimum Length Scheduling for Full Duplex Time-Critical Wireless Powered Communication Networks. *Iqbal, M.S.*, +, *TWC Sept. 2020 5993-6006*
- Optimizing the Learning Performance in Mobile Augmented Reality Systems With CNN. *He, Y.*, +, *TWC Aug. 2020 5333-5344*
- UAV Trajectory Planning for Data Collection from Time-Constrained IoT Devices. *Samir, M.*, +, *TWC Jan. 2020 34-46*
- Numerical analysis**
- Generalized Path-Permutation Codes for Reliable End-to-End Networking of Opportunistic Links. *Lai, I.*, +, *TWC July 2020 4579-4593*

**Numerical models**

3D UAV Trajectory Design and Frequency Band Allocation for Energy-Efficient and Fair Communication: A Deep Reinforcement Learning Approach. *Ding, R.*, +, *TWC Dec. 2020 7796-7809*

**O****Oceanographic techniques**

Stochastic Link Modeling of Static Wireless Sensor Networks Over the Ocean Surface. *Shahanaghi, A.*, +, *TWC June 2020 4154-4169*

**OFDM modulation**

'Good to Repeat': Making Random Access Near-Optimal With Repeated Contentions. *Baiocchi, A.*, +, *TWC Jan. 2020 712-726*

A Low-Complex SVD-Based F-OFDM. *Kim, H.*, +, *TWC Feb. 2020 1373-1385*

Antenna Selection Strategy for Energy Efficiency Maximization in Uplink OFDMA Networks: A Multi-Objective Approach. *Khalili, A.*, +, *TWC Jan. 2020 595-609*

Broadband Analog Aggregation for Low-Latency Federated Edge Learning. *Zhu, G.*, +, *TWC Jan. 2020 491-506*

Complex Properness Inspired Blind Adaptive Frequency-Dependent I/Q Imbalance Compensation for Wideband Direct-Conversion Receivers. *Zhang, X.*, +, *TWC Sept. 2020 5982-5992*

Compressed Sensing Channel Estimation for OFDM With Non-Gaussian Multipath Gains. *Gomez-Cuba, F.*, +, *TWC Jan. 2020 47-61*

Constant Envelope MIMO-OFDM Precoding for Low Complexity Large-Scale Antenna Array Systems. *Domouchtsidis, S.*, +, *TWC Dec. 2020 7973-7985*

Cooperative MIMO-OFDM-Based Exposure-Path Prevention Over 3D Clustered Wireless Camera Sensor Networks. *Wang, J.*, +, *TWC Jan. 2020 4-18*

Coordinated Resource Allocation-Based Integrated Visible Light Communication and Positioning Systems for Indoor IoT. *Yang, H.*, +, *TWC July 2020 4671-4684*

Double-Sequence Frequency Synchronization for Wideband Millimeter-Wave Systems With Few-Bit ADCs. *Zhu, D.*, +, *TWC Feb. 2020 1357-1372*

Dynamic Time-Frequency Division Duplex. *Razlighi, M.M.*, +, *TWC May 2020 3118-3132*

Eigenvalue-Decomposition-Precoded Ultra-Dense Non-Orthogonal Frequency-Division Multiplexing. *Osaki, S.*, +, *TWC Dec. 2020 8165-8178*

Energy-Efficient Joint User Association and Power Allocation in a Heterogeneous Network. *Fang, F.*, +, *TWC Nov. 2020 7008-7020*

Energy Efficient Resource Management in SWIPT Enabled Heterogeneous Networks With NOMA. *Zhang, H.*, +, *TWC Feb. 2020 835-845*

Enhanced Huffman Coded OFDM With Index Modulation. *Dang, S.*, +, *TWC April 2020 2489-2503*

EVM Closed-Form Expression for OFDM Signals With Tone Reservation-Based PAPR Reduction. *El Hassan, M.*, +, *TWC April 2020 2352-2366*

Generalized OFDM-IM With Noncoherent Detection. *Fazeli, A.*, +, *TWC July 2020 4464-4479*

Hybrid Constellations for Dual-Polarized Wireless Communications. *Wu, X.*, +, *TWC Aug. 2020 5321-5332*

Impartial SWIPT-Assisted User Cooperation Schemes. *Chen, W.*, +, *TWC May 2020 3361-3375*

Intelligent Reflecting Surface Assisted Multi-User OFDMA: Channel Estimation and Training Design. *Zheng, B.*, +, *TWC Dec. 2020 8315-8329*

Interference Analysis and Power Allocation in the Presence of Mixed Numerologies. *Mao, J.*, +, *TWC Aug. 2020 5188-5203*

Iterative Receiver Design for FTN Signaling Aided Sparse Code Multiple Access. *Yuan, W.*, +, *TWC Feb. 2020 915-928*

Joint Estimation of RF Impairments, Channel, and Low Complexity Iterative Equalization Technique for High Mobility SC-FDMA/OFDMA Uplink Systems. *Sanoopkumar, P.S.*, +, *TWC June 2020 4276-4289*

Learning for Detection: MIMO-OFDM Symbol Detection Through Downlink Pilots. *Zhou, Z.*, +, *TWC June 2020 3712-3726*

Limited Feedback Hybrid Beamforming for Multi-Mode Transmission in Wideband Millimeter Wave Channel. *Kwon, G.*, +, *TWC June 2020 4008-4022*

LRT Detectors for Spectrum Sensing of Weak OFDM Signals With Periodic Pilots. *Yin, W.*, +, *TWC Nov. 2020 7514-7527*

MOCZ for Blind Short-Packet Communication: Practical Aspects. *Walk, P.*, +, *TWC Oct. 2020 6675-6692*

Multi-Dimensional Busy-Tone Arbitration for OFDMA Random Access in IEEE 802.11ax. *Xie, D.*, +, *TWC June 2020 4080-4094*

Multi-Mode OAM Radio Waves: Generation, Angle of Arrival Estimation and Reception With UCAs. *Chen, R.*, +, *TWC Oct. 2020 6932-6947*

New Results on Joint Channel and Impulsive Noise Estimation and Tracking in Underwater Acoustic OFDM Systems. *Wang, S.*, +, *TWC April 2020 2601-2612*

On the Effectiveness of OTFS for Joint Radar Parameter Estimation and Communication. *Gaudio, L.*, +, *TWC Sept. 2020 5951-5965*

Opportunistic Spectrum Sharing Based on OFDM With Index Modulation. *Li, Q.*, +, *TWC Jan. 2020 192-204*

Optimum Performance of Short Block Length Codes Under Multivariate Stationary Rayleigh Fading. *Mestre, X.*, +, *TWC March 2020 2122-2136*

Overlap-Save FBMC Receivers. *Nadal, J.*, +, *TWC Aug. 2020 5307-5320*

Pairwise Coding for MIMO-OFDM Visible Light Communication. *Olanrewaju, H.G.*, +, *TWC Feb. 2020 1210-1220*

PAPR Reduction Using Iterative Clipping/Filtering and ADMM Approaches for OFDM-Based Mixed-Numerology Systems. *Liu, X.*, +, *TWC April 2020 2586-2600*

Preamble-Based Channel Estimation for OQAM/FBMC Systems With Delay Diversity. *Liu, W.*, +, *TWC Nov. 2020 7169-7180*

Receiver Algorithms for Single-Carrier OSM Based High-Rate Indoor Visible Light Communications. *Wu, L.*, +, *TWC Feb. 2020 1113-1126*

Reconsidering Design of Multi-Antenna NOMA Systems With Limited Feedback. *Tang, Z.*, +, *TWC March 2020 1519-1534*

Rethinking Modulation and Detection for High Doppler Channels. *Dean, T.R.*, +, *TWC June 2020 3629-3642*

Set Partition Modulation. *Yarkin, F.*, +, *TWC Nov. 2020 7557-7570*

Super-Mode OFDM With Index Modulation. *Dogukan, A.T.*, +, *TWC Nov. 2020 7353-7362*

Two-Layered Superposition of Broadcast/Multicast and Unicast Signals in Multiuser OFDMA Systems. *Vargas, D.*, +, *TWC Feb. 2020 979-994*

Two-Stage ICI Suppression in the Downlink of Asynchronous URLLC. *Zeng, C.*, +, *TWC April 2020 2785-2799*

Wideband Collaborative Spectrum Sensing Using Massive MIMO Decision Fusion. *Dey, I.*, +, *TWC Aug. 2020 5246-5260*

**Omnidirectional antennas**

Omnidirectional Precoding for 3D Massive MIMO With Uniform Planar Arrays. *Lu, A.*, +, *TWC April 2020 2628-2642*

**Optical communication**

Pairwise Coding for MIMO-OFDM Visible Light Communication. *Olanrewaju, H.G.*, +, *TWC Feb. 2020 1210-1220*

Residual Clipping Noise in Multi-Layer Optical OFDM: Modeling, Analysis, and Applications. *Zhang, Z.*, +, *TWC Sept. 2020 5846-5859*

**Optical computing**

A Deep Learning Approach to Universal Binary Visible Light Communication Transceiver. *Lee, H.*, +, *TWC Feb. 2020 956-969*

**Optical correlation**

Impact of Channel Correlation on Different Performance Metrics of OSSK-Based FSO Systems. *Priyadarshani, R.*, +, *TWC March 2020 1593-1609*

**Optical crosstalk**

A Unified Statistical Model for Atmospheric Turbulence-Induced Fading in Orbital Angular Momentum Multiplexed FSO Systems. *Amhoud, E.*, +, *TWC Feb. 2020 888-900*

**Optical links**

End-to-End Performance Analysis of Underwater Optical Wireless Relaying and Routing Techniques Under Location Uncertainty. *Celik, A.*, +, *TWC Feb. 2020 1167-1181*

Hybrid RF/FSO Backhaul Networks With Statistical-QoS-Aware Buffer-Aided Relaying. *Hassan, M.Z.*, +, *TWC March 2020 1464-1483*

- Impact of Channel Correlation on Different Performance Metrics of OSSK-Based FSO Systems. *Priyadarshani, R.*, +, *TWC March 2020 1593-1609*
- Joint Relay Selection and Power Allocation for Underwater Cooperative Optical Wireless Networks. *Xing, F.*, +, *TWC Jan. 2020 251-264*
- Performance Analysis of Multiuser FSO/RF Network Under Non-Equal Priority With  $P$ -Persistence Protocol. *Rakia, T.*, +, *TWC March 2020 1802-1813*
- Performance of Multibeam Very High Throughput Satellite Systems Based on FSO Feeder Links With HPA Nonlinearity. *Zedini, E.*, +, *TWC Sept. 2020 5908-5923*
- Tractable Approach to MmWaves Cellular Analysis With FSO Backhauling Under Feedback Delay and Hardware Limitations. *Balti, E.*, +, *TWC Jan. 2020 410-422*
- Optical modulation**
- Impact of Channel Correlation on Different Performance Metrics of OSSK-Based FSO Systems. *Priyadarshani, R.*, +, *TWC March 2020 1593-1609*
- Receiver Algorithms for Single-Carrier OSM Based High-Rate Indoor Visible Light Communications. *Wu, L.*, +, *TWC Feb. 2020 1113-1126*
- Tractable Approach to MmWaves Cellular Analysis With FSO Backhauling Under Feedback Delay and Hardware Limitations. *Balti, E.*, +, *TWC Jan. 2020 410-422*
- Optical noise**
- Residual Clipping Noise in Multi-Layer Optical OFDM: Modeling, Analysis, and Applications. *Zhang, Z.*, +, *TWC Sept. 2020 5846-5859*
- Optical receivers**
- Pairwise Coding for MIMO-OFDM Visible Light Communication. *Olanrewaju, H.G.*, +, *TWC Feb. 2020 1210-1220*
- Receiver Algorithms for Single-Carrier OSM Based High-Rate Indoor Visible Light Communications. *Wu, L.*, +, *TWC Feb. 2020 1113-1126*
- Secrecy Performance of the MIMO VLC Wiretap Channel With Randomly Located Eavesdropper. *Arfaoui, M.A.*, +, *TWC Jan. 2020 265-278*
- Spectral Efficiency and Energy Harvesting in Multi-Cell SLIPT Systems. *Abdelhady, A.M.*, +, *TWC May 2020 3304-3318*
- Statistical Modeling and Analysis on the Confidentiality of Indoor VLC Systems. *Chen, J.*, +, *TWC July 2020 4744-4757*
- Optical transceivers**
- A Deep Learning Approach to Universal Binary Visible Light Communication Transceiver. *Lee, H.*, +, *TWC Feb. 2020 956-969*
- Networked Optical Massive MIMO Communications. *Sun, C.*, +, *TWC Aug. 2020 5575-5588*
- Optical transmitters**
- Secrecy Performance of the MIMO VLC Wiretap Channel With Randomly Located Eavesdropper. *Arfaoui, M.A.*, +, *TWC Jan. 2020 265-278*
- Statistical Modeling and Analysis on the Confidentiality of Indoor VLC Systems. *Chen, J.*, +, *TWC July 2020 4744-4757*
- Optimal control**
- A Maximin Optimal Online Power Control Policy for Energy Harvesting Communications. *Yang, S.*, +, *TWC Oct. 2020 6708-6720*
- Age of Information Aware Radio Resource Management in Vehicular Networks: A Proactive Deep Reinforcement Learning Perspective. *Chen, X.*, +, *TWC April 2020 2268-2281*
- Online Optimal Control for Wireless Cooperative Transmission by Ambient RF Powered Sensors. *Liu, T.*, +, *TWC Sept. 2020 6007-6019*
- Optimization**
- 1-bit Phase Shifters for Large-Antenna Full-Duplex mmWave Communications. *da Silva, J.M.B.*, +, *TWC Oct. 2020 6916-6931*
- A Deep Learning Approach to Universal Binary Visible Light Communication Transceiver. *Lee, H.*, +, *TWC Feb. 2020 956-969*
- A Distributed Framework for Task Offloading in Edge Computing Networks of Arbitrary Topology. *Liu, B.*, +, *TWC April 2020 2855-2867*
- A Maximin Optimal Online Power Control Policy for Energy Harvesting Communications. *Yang, S.*, +, *TWC Oct. 2020 6708-6720*
- A Multi-Dimensional Contract Approach for Data Rewarding in Mobile Networks. *Xiong, Z.*, +, *TWC Sept. 2020 5779-5793*
- A Nonlinear Recursive Model Based Optimal Transmission Scheduling in RF Energy Harvesting Wireless Communications. *Luo, Y.*, +, *TWC May 2020 3449-3462*
- A Realization of Fog-RAN Slicing via Deep Reinforcement Learning. *Xiang, H.*, +, *TWC April 2020 2515-2527*
- A Stochastic Optimization Framework for Channel Bonding in Wireless LANs Under Demand Uncertainty. *Nabil, A.*, +, *TWC Nov. 2020 7528-7542*
- Adaptive Resource Allocation in Future Wireless Networks With Blockchain and Mobile Edge Computing. *Guo, F.*, +, *TWC March 2020 1689-1703*
- Adaptive Video Streaming With Edge Caching and Video Transcoding Over Software-Defined Mobile Networks: A Deep Reinforcement Learning Approach. *Luo, J.*, +, *TWC March 2020 1577-1592*
- Age of Information Aware Radio Resource Management in Vehicular Networks: A Proactive Deep Reinforcement Learning Perspective. *Chen, X.*, +, *TWC April 2020 2268-2281*
- Age of Information in a Cellular Internet of UAVs: Sensing and Communication Trade-Off Design. *Zhang, S.*, +, *TWC Oct. 2020 6578-6592*
- An Online Incentive Mechanism for Collaborative Task Offloading in Mobile Edge Computing. *Li, G.*, +, *TWC Jan. 2020 624-636*
- Analysis and Optimization of an Intelligent Reflecting Surface-Assisted System With Interference. *Jia, Y.*, +, *TWC Dec. 2020 8068-8082*
- Balancing Queuing and Retransmission: Latency-Optimal Massive MIMO Design. *Du, X.*, +, *TWC April 2020 2293-2307*
- Boosting the Cellular Network Coverage Optimization in Accordance With the Metric Structure of Antenna Variables. *Qin, Y.*, +, *TWC Dec. 2020 8303-8314*
- Broadband Analog Aggregation for Low-Latency Federated Edge Learning. *Zhu, G.*, +, *TWC Jan. 2020 491-506*
- Cache-Aided NOMA Mobile Edge Computing: A Reinforcement Learning Approach. *Yang, Z.*, +, *TWC Oct. 2020 6899-6915*
- Cache-Enabling UAV Communications: Network Deployment and Resource Allocation. *Zhang, T.*, +, *TWC Nov. 2020 7470-7483*
- Caching at Base Stations With Multi-Cluster Multicast Wireless Backhaul via Accelerated First-Order Algorithms. *Li, Y.*, +, *TWC May 2020 2920-2933*
- Calibration-Free Indoor Positioning Using Crowdsourced Data and Multidimensional Scaling. *Zhao, Y.*, +, *TWC March 2020 1770-1785*
- Capacity Region and Capacity-Achieving Signaling Schemes for 1-bit ADC Multiple Access Channels in Rayleigh Fading. *Ranjbar, M.*, +, *TWC Sept. 2020 6162-6178*
- Centralized and Distributed Deep Reinforcement Learning Methods for Downlink Sum-Rate Optimization. *Khan, A.A.*, +, *TWC Dec. 2020 8410-8426*
- Cooperative Asynchronous Non-Orthogonal Multiple Access With Power Minimization Under QoS Constraints. *Zou, X.*, +, *TWC March 2020 1503-1518*
- Coordinated Resource Allocation-Based Integrated Visible Light Communication and Positioning Systems for Indoor IoT. *Yang, H.*, +, *TWC July 2020 4671-4684*
- Correlation Analysis and Link Gain Prediction for Optical Wireless Scattering Communication Over Broad Spectra. *Liu, B.*, +, *TWC Feb. 2020 1386-1396*
- Deep Learning for Optimal Deployment of UAVs With Visible Light Communications. *Wang, Y.*, +, *TWC Nov. 2020 7049-7063*
- Deep Learning-Aided Tabu Search Detection for Large MIMO Systems. *Nguyen, N.T.*, +, *TWC June 2020 4262-4275*
- DeepNOMA: A Unified Framework for NOMA Using Deep Multi-Task Learning. *Ye, N.*, +, *TWC April 2020 2208-2225*
- Design and Analysis of Rotated-QAM Based Probabilistic Shaping Scheme for Rayleigh Fading Channels. *Yao, Y.*, +, *TWC May 2020 3047-3063*
- Distributed Optimization for Computation Offloading in Edge Computing. *Lin, R.*, +, *TWC Dec. 2020 8179-8194*
- Distributed User Association and Resource Allocation Algorithms for Three Tier HetNets. *Gopalam, S.*, +, *TWC Dec. 2020 7913-7926*
- Dynamic Pricing for Revenue Maximization in Mobile Social Data Market With Network Effects. *Xiong, Z.*, +, *TWC March 2020 1722-1737*
- Efficient Local Map Search Algorithms for the Placement of Flying Relays. *Chen, J.*, +, *TWC Feb. 2020 1305-1319*

- Energy Efficiency Optimization for Downlink Massive MIMO With Statistical CSIT. *You, L.*, +, *TWC April 2020 2684-2698*
- Energy-Efficient Data Uploading for Cellular-Connected UAV Systems. *Zhan, C.*, +, *TWC Nov. 2020 7279-7292*
- Energy-Efficient Hybrid Precoder With Adaptive Overlapped Subarrays for Large-Array mmWave Systems. *Guo, J.*, +, *TWC March 2020 1484-1502*
- Energy-Efficient Joint User Association and Power Allocation in a Heterogeneous Network. *Fang, F.*, +, *TWC Nov. 2020 7008-7020*
- Enhancing Secure MIMO Transmission via Intelligent Reflecting Surface. *Dong, L.*, +, *TWC Nov. 2020 7543-7556*
- Exploiting Computation Replication for Mobile Edge Computing: A Fundamental Computation-Communication Tradeoff Study. *Li, K.*, +, *TWC July 2020 4563-4578*
- Fast Angle-of-Arrival Estimation via Virtual Subarrays in Analog Antenna Array. *Qin, C.*, +, *TWC Oct. 2020 6425-6439*
- Federated Echo State Learning for Minimizing Breaks in Presence in Wireless Virtual Reality Networks. *Chen, M.*, +, *TWC Jan. 2020 177-191*
- Flexible Functional Split and Power Control for Energy Harvesting Cloud Radio Access Networks. *Wang, L.*, +, *TWC March 2020 1535-1548*
- Fundamental Rate Limits of UAV-Enabled Multiple Access Channel With Trajectory Optimization. *Li, P.*, +, *TWC Jan. 2020 458-474*
- Graph Theory Assisted Bit-to-Index-Combination Gray Coding for Generalized Index Modulation. *Xiao, L.*, +, *TWC Dec. 2020 8232-8245*
- HFEL: Joint Edge Association and Resource Allocation for Cost-Efficient Hierarchical Federated Edge Learning. *Luo, S.*, +, *TWC Oct. 2020 6535-6548*
- Hybrid Offline-Online Design for UAV-Enabled Data Harvesting in Probabilistic LoS Channels. *You, C.*, +, *TWC June 2020 3753-3768*
- Hybrid Power Line/Wireless Systems: An Optimal Power Allocation Perspective. *Filomeno, M.d.L.*, +, *TWC Oct. 2020 6289-6300*
- Hybrid RF/FSO Backhaul Networks With Statistical-QoS-Aware Buffer-Aided Relaying. *Hassan, M.Z.*, +, *TWC March 2020 1464-1483*
- Improvement of the Global Connectivity Using Integrated Satellite-Airborne-Terrestrial Networks With Resource Optimization. *Alsharoa, A.*, +, *TWC Aug. 2020 5088-5100*
- Individual Preference Aware Caching Policy Design in Wireless D2D Networks. *Lee, M.*, +, *TWC Aug. 2020 5589-5604*
- Information-Centric Grant-Free Access for IoT Fog Networks: Edge vs. Cloud Detection and Learning. *Kassab, R.*, +, *TWC Oct. 2020 6347-6361*
- Integer-Forcing Architectures for Uplink Cloud Radio Access Networks. *El Bakoury, I.*, +, *TWC April 2020 2336-2351*
- Interference Analysis and Power Allocation in the Presence of Mixed Numerologies. *Mao, J.*, +, *TWC Aug. 2020 5188-5203*
- Interference Exploitation 1-Bit Massive MIMO Precoding: A Partial Branch-and-Bound Solution With Near-Optimal Performance. *Li, A.*, +, *TWC May 2020 3474-3489*
- Jamming-Assisted Proactive Eavesdropping Over Two Suspicious Communication Links. *Zhang, H.*, +, *TWC July 2020 4817-4830*
- Joint 3D Maneuver and Power Adaptation for Secure UAV Communication With CoMP Reception. *Yao, J.*, +, *TWC Oct. 2020 6992-7006*
- Joint Access and Backhaul Resource Management in Satellite-Drone Networks: A Competitive Market Approach. *Hu, Y.*, +, *TWC June 2020 3908-3923*
- Joint Channel and Queue Aware Scheduling for Latency Sensitive Mobile Edge Computing With Power Constraints. *Han, D.*, +, *TWC June 2020 3938-3951*
- Joint Data Compression and Computation Offloading in Hierarchical Fog-Cloud Systems. *Nguyen, T.T.*, +, *TWC Jan. 2020 293-309*
- Joint Optimization of Radio and Computational Resources Allocation in Blockchain-Enabled Mobile Edge Computing Systems. *Feng, J.*, +, *TWC June 2020 4321-4334*
- Joint Power and Blocklength Optimization for URLLC in a Factory Automation Scenario. *Ren, H.*, +, *TWC March 2020 1786-1801*
- Joint Relay Selection and Power Allocation for Underwater Cooperative Optical Wireless Networks. *Xing, F.*, +, *TWC Jan. 2020 251-264*
- Joint Sub-Carrier and Power Allocation for Efficient Communication of Cellular UAVs. *Hellaoui, H.*, +, *TWC Dec. 2020 8287-8302*
- Joint User Grouping, Scheduling, and Precoding for Multicast Energy Efficiency in Multigroup Multicast Systems. *Bandi, A.*, +, *TWC Dec. 2020 8195-8210*
- Learning to Search for MIMO Detection. *Sun, J.*, +, *TWC Nov. 2020 7571-7584*
- Leveraging the Power of Prediction: Predictive Service Placement for Latency-Sensitive Mobile Edge Computing. *Ma, H.*, +, *TWC Oct. 2020 6454-6468*
- Limited Feedback Hybrid Beamforming for Multi-Mode Transmission in Wideband Millimeter Wave Channel. *Kwon, G.*, +, *TWC June 2020 4008-4022*
- Millimeter-Wave Networking in the Sky: A Machine Learning and Mean Field Game Approach for Joint Beamforming and Beam-Steering. *Li, L.*, +, *TWC Oct. 2020 6393-6408*
- MIMO and Massive MIMO Transmitter Crosstalk. *Handel, P.*, +, *TWC March 2020 1882-1893*
- Minimizing the Age of Information of Cognitive Radio-Based IoT Systems Under a Collision Constraint. *Wang, Q.*, +, *TWC Dec. 2020 8054-8067*
- Mixed-Numerology Signals Transmission and Interference Cancellation for Radio Access Network Slicing. *Yang, B.*, +, *TWC Aug. 2020 5132-5147*
- Multi-Agent Reinforcement Learning for Adaptive User Association in Dynamic mmWave Networks. *Sana, M.*, +, *TWC Oct. 2020 6520-6534*
- Multi-Antenna Coded Content Delivery With Caching: A Low-Complexity Solution. *Zhao, J.*, +, *TWC Nov. 2020 7484-7497*
- Multi-Cell Interference Exploitation: Enhancing the Power Efficiency in Cell Coordination. *Wei, Z.*, +, *TWC Jan. 2020 547-562*
- Noncoherent Joint Transmission Beamforming for Dense Small Cell Networks: Global Optimality, Efficient Solution and Distributed Implementation. *Vu, Q.*, +, *TWC Sept. 2020 5891-5907*
- Offloading and Resource Allocation With General Task Graph in Mobile Edge Computing: A Deep Reinforcement Learning Approach. *Yan, J.*, +, *TWC Aug. 2020 5404-5419*
- On Data Dissemination Enhanced by Network Coded Device-to-Device Communications. *Li, Y.*, +, *TWC June 2020 3963-3976*
- Online Anticipatory Proactive Network Association in Mobile Edge Computing for IoT. *Cui, Q.*, +, *TWC July 2020 4519-4534*
- Online Optimal Control for Wireless Cooperative Transmission by Ambient RF Powered Sensors. *Liu, T.*, +, *TWC Sept. 2020 6007-6019*
- Opportunistic Waveform Scheduling for Wireless Power Transfer With Multiple Devices. *Kim, K.*, +, *TWC Sept. 2020 5651-5665*
- Optimal Linear Cooperation for Signal Classification in Cognitive Communication Networks. *Ma, Y.*, +, *TWC May 2020 3144-3155*
- Optimal Mode Selection by Cross-Layer Decomposition in D2D Cellular Networks. *Klugel, M.*, +, *TWC April 2020 2528-2542*
- Optimal Sensing Policy for Energy Harvesting Cognitive Radio Systems. *Villalonga, D.A.U.*, +, *TWC June 2020 3826-3838*
- Optimal Task Offloading and Resource Allocation in Mobile-Edge Computing With Inter-User Task Dependency. *Yan, J.*, +, *TWC Jan. 2020 235-250*
- Optimization for Full-Duplex Rotary-Wing UAV-Enabled Wireless-Powered IoT Networks. *Ye, H.*, +, *TWC July 2020 5057-5072*
- Optimized Precoded Spatio-Temporal Partial-Response Signaling Over Frequency-Selective MIMO Channels. *Bailleul, J.*, +, *TWC Sept. 2020 5938-5950*
- Over-the-Air Computation Systems: Optimization, Analysis and Scaling Laws. *Liu, W.*, +, *TWC Aug. 2020 5488-5502*
- Overhead-Performance Tradeoff for MISO Broadcast Channels With Zero-Forcing Precoder. *Liu, G.*, +, *TWC Feb. 2020 995-1007*
- Performance Analysis and Optimization of Cooperative Satellite-Aerial-Terrestrial Systems. *Pan, G.*, +, *TWC Oct. 2020 6693-6707*
- Performance of Dynamic Power and Channel Allocation for Downlink MC-NOMA Systems. *Liu, F.*, +, *TWC March 2020 1650-1662*
- Physical-Layer Assisted Secure Offloading in Mobile-Edge Computing. *He, X.*, +, *TWC June 2020 4054-4066*
- Physical-Layer Security in the Finite Blocklength Regime Over Fading Channels. *Zheng, T.*, +, *TWC May 2020 3405-3420*
- Power Allocation for D2D Communications With SWIPT. *Huang, J.*, +, *TWC April 2020 2308-2320*

- Power Control Optimization for Large-Scale Multi-Antenna Systems. *Zhou, Z., +, TWC Nov. 2020 7339-7352*
- Power-Efficient Beam Designs for Millimeter Wave Communication Systems. *Zhang, J., +, TWC Feb. 2020 1265-1279*
- Prediction and Communication Co-Design for Ultra-Reliable and Low-Latency Communications. *Hou, Z., +, TWC Feb. 2020 1196-1209*
- Proactive Edge Caching for Video on Demand With Quality Adaptation. *Han, S., +, TWC Jan. 2020 218-234*
- QoS Driven Power Allocation in Secure Multicarrier Full-Duplex Relay Systems. *Bai, Z., +, TWC Feb. 2020 929-941*
- Reinforcement Learning Based Capacity Management in Multi-Layer Satellite Networks. *Jiang, C., +, TWC July 2020 4685-4699*
- Residual Transceiver Hardware Impairments on Cooperative NOMA Networks. *Li, X., +, TWC Jan. 2020 680-695*
- Resource Allocation for Hybrid NOMA MEC Offloading. *Zhu, J., +, TWC July 2020 4964-4977*
- Resource Allocation for Wireless Cooperative IoT Network With Energy Harvesting. *Chen, X., +, TWC July 2020 4879-4893*
- Robot-Assisted Backscatter Localization for IoT Applications. *Zhang, S., +, TWC Sept. 2020 5807-5818*
- Robust Hybrid Cooperative Positioning Via a Modified Distributed Projection-Based Method. *Liu, T., +, TWC May 2020 3003-3018*
- Robust Secure Beamforming Design for Two-User Downlink MISO Rate-Splitting Systems. *Fu, H., +, TWC Dec. 2020 8351-8365*
- Scalable Video Transmission in Cache-Aided Device-to-Device Networks. *Ma, J., +, TWC June 2020 4247-4261*
- Secure UAV-Enabled Communication Using Han-Kobayashi Signaling. *Sheng, Z., +, TWC May 2020 2905-2919*
- Self-Tuning Sectorization: Deep Reinforcement Learning Meets Broadcast Beam Optimization. *Shafiq, R., +, TWC June 2020 4038-4053*
- Spectral Efficiency and Energy Harvesting in Multi-Cell SLIPT Systems. *Abdelhady, A.M., +, TWC May 2020 3304-3318*
- Spectrum Sharing Among Rapidly Deployable Small Cells: A Hybrid Multi-Agent Approach. *Gao, B., +, TWC Jan. 2020 395-409*
- Spherical Quasi-Physical Model-Based Color-Shift Keying for Visible Light Communication. *Chen, W., +, TWC Dec. 2020 8099-8112*
- Stochastic Design and Analysis of User-Centric Wireless Cloud Caching Networks. *Azimi-Abarghouyi, S.M., +, TWC July 2020 4978-4993*
- Total Throughput Maximization of Cooperative Cognitive Radio Networks With Energy Harvesting. *Zheng, K., +, TWC Jan. 2020 533-546*
- Towards Fair and Efficient Spectrum Sharing Between LTE and WiFi in Unlicensed Bands: Fairness-Constrained Throughput Maximization. *Sun, X., +, TWC April 2020 2713-2727*
- Training Optimization for Hybrid MIMO Communication Systems. *Xing, C., +, TWC Aug. 2020 5473-5487*
- Trajectory Design and Power Allocation for Drone-Assisted NR-V2X Network With Dynamic NOMA/OMA. *Abbasi, O., +, TWC Nov. 2020 7153-7168*
- Treating Interference as Noise in Cellular Networks: A Stochastic Geometry Approach. *Bacha, M., +, TWC March 2020 1918-1932*
- Ultra Dense Edge Caching Networks With Arbitrary User Spatial Density. *Gruppi, E., +, TWC July 2020 4363-4377*
- Unequal Access Latency Random Access Protocol for Massive Machine-Type Communications. *Jiao, J., +, TWC Sept. 2020 5924-5937*
- Unequally Sub-Connected Architecture for Hybrid Beamforming in Massive MIMO Systems. *Nguyen, N.T., +, TWC Feb. 2020 1127-1140*
- Uplink Resource Allocation in Energy Harvesting Cellular Network With H2H/M2M Coexistence. *Nobar, S.K., +, TWC Aug. 2020 5101-5116*
- User-Centric 5G Cellular Networks: Resource Allocation and Comparison With the Cell-Free Massive MIMO Approach. *Buzzi, S., +, TWC Feb. 2020 1250-1264*
- User-Centric Performance Optimization With Remote Radio Cooperation in C-RAN. *You, L., +, TWC Jan. 2020 340-353*
- User-Number Threshold-Based Small-Cell On/Off Control Scheme: Performance Evaluation and Optimization. *Park, J.W., +, TWC Jan. 2020 367-379*
- Utility-Aware Optimal Resource Allocation Protocol for UAV-Assisted Small Cells With Heterogeneous Coverage Demands. *Lohan, P., +, TWC Feb. 2020 1221-1236*
- Visible Light-Based User Position, Orientation and Channel Estimation Using Self-Adaptive Location-Domain Grid Sampling. *Zhou, B., +, TWC July 2020 5025-5039*
- Wake-Up Scheduling for Energy-Efficient Mobile Devices. *Rostami, S., +, TWC Sept. 2020 6020-6036*
- Orthogonal codes**
- Hybrid Constellations for Dual-Polarized Wireless Communications. *Wu, X., +, TWC Aug. 2020 5321-5332*
- Non-Coherent Massive MIMO Systems: A Constellation Design Approach. *Xie, H., +, TWC June 2020 3812-3825*
- P**
- Packet loss**
- Clock Synchronization in Wireless Networks Using Matrix Completion-Based Maximum Likelihood Estimation. *Elnahas, O., +, TWC Dec. 2020 8220-8231*
- Packet radio networks**
- Analysis of 5G Radio Access Protocols for Uplink URLLC in a Connection-Less Mode. *Centenaro, M., +, TWC May 2020 3104-3117*
- Non-Blocking Scheme for Blind Network-Assisted Diversity Multiple Access in Synchronous Channels. *Akl, N., +, TWC March 2020 1894-1905*
- Saddlepoint Approximations for Short-Packet Wireless Communications. *Lancho, A., +, TWC July 2020 4831-4846*
- Packet switching**
- Non-Blocking Scheme for Blind Network-Assisted Diversity Multiple Access in Synchronous Channels. *Akl, N., +, TWC March 2020 1894-1905*
- Parameter estimation**
- Adaptive Detection and Localization Exploiting the IEEE 802.11ad Standard. *Grossi, E., +, TWC July 2020 4394-4407*
- On the Effectiveness of OTFS for Joint Radar Parameter Estimation and Communication. *Gaudio, L., +, TWC Sept. 2020 5951-5965*
- Pareto optimization**
- Distributed Pareto Optimal Beamforming for the MISO Multi-Band Multi-Cell Downlink. *Moothedath, V.N., +, TWC Nov. 2020 7196-7209*
- Recycling Cellular Energy for Self-Sustainable IoT Networks: A Spatiotemporal Study. *Benkhelifa, F., +, TWC April 2020 2699-2712*
- Parity check codes**
- A Network Linear Block Coding Approach to Selective Detect-and-Forward Multi-Way Relaying With Differential Modulation. *Hou, X., +, TWC Sept. 2020 5749-5764*
- Two-Layer Coded Channel Access With Collision Resolution: Design and Analysis. *Ebrahimi, M., +, TWC Dec. 2020 7986-7997*
- Partial differential equations**
- Millimeter-Wave Networking in the Sky: A Machine Learning and Mean Field Game Approach for Joint Beamforming and Beam-Steering. *Li, L., +, TWC Oct. 2020 6393-6408*
- Particle swarm optimization**
- A Novel Multimodal Collaborative Drone-Assisted VANET Networking Model. *Lin, N., +, TWC July 2020 4919-4933*
- Partitioning algorithms**
- Set Partition Modulation. *Yarkin, F., +, TWC Nov. 2020 7557-7570*
- Path planning**
- Efficient Local Map Search Algorithms for the Placement of Flying Relays. *Chen, J., +, TWC Feb. 2020 1305-1319*
- Hybrid Offline-Online Design for UAV-Enabled Data Harvesting in Probabilistic LoS Channels. *You, C., +, TWC June 2020 3753-3768*
- UAV Trajectory Planning for Data Collection from Time-Constrained IoT Devices. *Samir, M., +, TWC Jan. 2020 34-46*
- Pattern clustering**
- A Dynamic Clustering Algorithm for Multi-Point Transmissions in Mission-Critical Communications. *Daher, A., +, TWC July 2020 4934-4946*
- An Energy-Balanced Trust Cloud Migration Scheme for Underwater Acoustic Sensor Networks. *Han, G., +, TWC March 2020 1636-1649*

Improving Caching Efficiency in Content-Aware C-RAN-Based Cooperative Beamforming: A Joint Design Approach. *Zhao, M.*, +, *TWC June 2020 4125-4140*

Joint Annotator-and-Spectrum Allocation in Wireless Networks for Crowd Labeling. *Li, X.*, +, *TWC Sept. 2020 6116-6129*

Machine Learning-Enabled Cooperative Spectrum Sensing for Non-Orthogonal Multiple Access. *Shi, Z.*, +, *TWC Sept. 2020 5692-5702*

Two-Side Coalitional Matching Approach for Joint MIMO-NOMA Clustering and BS Selection in Multi-Cell MIMO-NOMA Systems. *Ding, J.*, +, *TWC March 2020 2006-2021*

#### Pattern recognition

Authenticating On-Body IoT Devices: An Adversarial Learning Approach. *Huang, Y.*, +, *TWC Aug. 2020 5234-5245*

#### Peak to average power ratio

Flexible Subcarrier Allocation for Interleaved Frequency Division Multiple Access. *Shao, Y.*, +, *TWC Nov. 2020 7139-7152*

New Transceiver Designs for Interleaved Frequency-Division Multiple Access. *Liew, S.C.*, +, *TWC Dec. 2020 7765-7778*

#### Peer-to-peer computing

Joint Distributed Link Scheduling and Power Allocation for Content Delivery in Wireless Caching Networks. *Choi, M.*, +, *TWC Dec. 2020 7810-7824*

#### Performance analysis

Air-to-Air Communications Beyond 5G: A Novel 3D CoMP Transmission Scheme. *Li, Y.*, +, *TWC Nov. 2020 7324-7338*

Space-Air-Ground Integrated Networks: Outage Performance Analysis. *Ye, J.*, +, *TWC Dec. 2020 7897-7912*

#### Performance evaluation

Backscatter-Aided Cooperative Transmission in Wireless-Powered Heterogeneous Networks. *Kim, S.H.*, +, *TWC Nov. 2020 7309-7323*

Effects of Retransmission Limit on the Performance of Centralized Random Backoff. *Kim, J.D.*, *TWC Dec. 2020 8126-8141*

On Throughput Improvement Using Immediate Re-Transmission in Grant-Free Random Access With Massive MIMO. *Choi, J.*, *TWC Dec. 2020 8341-8350*

Optimized Power Control for Over-the-Air Computation in Fading Channels. *Cao, X.*, +, *TWC Nov. 2020 7498-7513*

#### Phase noise

Analog Self-Interference Cancellation Using Auxiliary Transmitter Considering IQ Imbalance and Amplifier Nonlinearity. *Fukui, T.*, +, *TWC Nov. 2020 7439-7452*

Enabling Super-Resolution Parameter Estimation for mm-Wave Channel Sounding. *Wang, R.*, +, *TWC May 2020 3077-3090*

#### Phase shift keying

A Network Linear Block Coding Approach to Selective Detect-and-Forward Multi-Way Relaying With Differential Modulation. *Hou, X.*, +, *TWC Sept. 2020 5749-5764*

Absolute Amplitude Differential Phase Spatial Modulation and Its Non-Coherent Detection Under Fast Fading Channels. *Yu, D.*, +, *TWC April 2020 2742-2755*

Cooperative MIMO-OFDM-Based Exposure-Path Prevention Over 3D Clustered Wireless Camera Sensor Networks. *Wang, J.*, +, *TWC Jan. 2020 4-18*

Elements Failure Robust Compensation in 2D Phased Arrays for DOA Estimation With M-ary PSK Signals. *Hamici, Z.*, *TWC Feb. 2020 1347-1356*

Error Rate Analysis of Amplitude-Coherent Detection Over Rician Fading Channels With Receiver Diversity. *Al-Jarrah, M.A.*, +, *TWC Jan. 2020 134-147*

Interference Exploitation 1-Bit Massive MIMO Precoding: A Partial Branch-and-Bound Solution With Near-Optimal Performance. *Li, A.*, +, *TWC May 2020 3474-3489*

Precoding-Aided Spatial Modulation Assisted Joint Two-Tier Downlink Reception. *Pechetti, S.V.*, +, *TWC May 2020 3332-3345*

Signal Design for Frequency-Phase Keying. *Kundu, N.K.*, +, *TWC June 2020 4067-4079*

#### Phase shifters

1-bit Phase Shifters for Large-Antenna Full-Duplex mmWave Communications. *da Silva, J.M.B.*, +, *TWC Oct. 2020 6916-6931*

Energy-Efficient Hybrid Precoder With Adaptive Overlapped Subarrays for Large-Array mmWave Systems. *Guo, J.*, +, *TWC March 2020 1484-1502*

#### Photodetectors

Networked Optical Massive MIMO Communications. *Sun, C.*, +, *TWC Aug. 2020 5575-5588*

#### Photodiodes

Secrecy Performance of the MIMO VLC Wiretap Channel With Randomly Located Eavesdropper. *Arfaoui, M.A.*, +, *TWC Jan. 2020 265-278*

#### Photon counting

Signal Acquisition With Photon-Counting Detector Arrays in Free-Space Optical Communications. *Bashir, M.S.*, +, *TWC April 2020 2181-2195*

#### Physical layer

Evolution Matters: Content Transmission in Evolving Wireless Social Networks. *Feng, C.*, +, *TWC Nov. 2020 7377-7391*

#### Picocellular radio

Joint Routing and Resource Allocation for Millimeter Wave Picocellular Backhaul. *Eslami Rasekh, M.*, +, *TWC Feb. 2020 783-794*

Optimal Link Scheduling in Millimeter Wave Multi-Hop Networks With MU-MIMO Radios. *Gomez-Cuba, F.*, +, *TWC March 2020 1839-1854*

#### Planar antenna arrays

Massive MIMO Asymptotics for Ray-Based Propagation Channels. *Li, S.*, +, *TWC June 2020 3977-3991*

Omnidirectional Precoding for 3D Massive MIMO With Uniform Planar Arrays. *Lu, A.*, +, *TWC April 2020 2628-2642*

#### Planning

Interference Avoidance Position Planning in Dual-Hop and Multi-Hop UAV Relay Networks. *Hosseinalipour, S.*, +, *TWC Nov. 2020 7033-7048*

#### Poisson distribution

A Tractable Model for Wirelessly Powered Networks With Energy Correlation. *Deng, N.*, +, *TWC Sept. 2020 5765-5778*

Massive MIMO Extensions to the COST 2100 Channel Model: Modeling and Validation. *Flordelis, J.*, +, *TWC Jan. 2020 380-394*

#### Polynomials

Joint Estimation of RF Impairments, Channel, and Low Complexity Iterative Equalization Technique for High Mobility SC-FDMA/OFDMA Uplink Systems. *Sanoopkumar, P.S.*, +, *TWC June 2020 4276-4289*

Millimeter-Wave Beam Search With Iterative Deactivation and Beam Shifting. *Liu, C.*, +, *TWC Aug. 2020 5117-5131*

Multi-Tone Signal Optimization for Wireless Power Transfer in the Presence of Wireless Communication Links. *Mouris, B.A.*, +, *TWC May 2020 3575-3590*

Overlap-Save FBMC Receivers. *Nadal, J.*, +, *TWC Aug. 2020 5307-5320*

#### Power amplifiers

EVM Closed-Form Expression for OFDM Signals With Tone Reservation-Based PAPR Reduction. *El Hassan, M.*, +, *TWC April 2020 2352-2366*

Fully-/Partially-Connected Hybrid Beamforming Architectures for mmWave MU-MIMO. *Song, X.*, +, *TWC March 2020 1754-1769*

Iterative Nonlinear Self-Interference Cancellation for In-Band Full-Duplex Wireless Communications Under Mixer Imbalance and Amplifier Nonlinearity. *Komatsu, K.*, +, *TWC July 2020 4424-4438*

MIMO and Massive MIMO Transmitter Crosstalk. *Handel, P.*, +, *TWC March 2020 1882-1893*

Tractable Approach to MmWaves Cellular Analysis With FSO Backhauling Under Feedback Delay and Hardware Limitations. *Balti, E.*, +, *TWC Jan. 2020 410-422*

#### Power aware computing

An Energy-Balanced Trust Cloud Migration Scheme for Underwater Acoustic Sensor Networks. *Han, G.*, +, *TWC March 2020 1636-1649*

Edge Computing-Enabled Cell-Free Massive MIMO Systems. *Mukherjee, S.*, +, *TWC April 2020 2884-2899*

Energy-Efficient Computation Offloading in Delay-Constrained Massive MIMO Enabled Edge Network Using Data Partitioning. *Malik, R.*, +, *TWC Oct. 2020 6977-6991*

Incentive-Aware Micro Computing Cluster Formation for Cooperative Fog Computing. *Luo, S.*, +, *TWC April 2020 2643-2657*

**Power consumption**

- Cooperative MIMO-OFDM-Based Exposure-Path Prevention Over 3D Clustered Wireless Camera Sensor Networks. *Wang, J.*, +, *TWC Jan. 2020* 4-18
- Generalized Busgang LMMSE Channel Estimation for One-Bit Massive MIMO Systems. *Wan, Q.*, +, *TWC June 2020* 4234-4246
- Green-Oriented Dynamic Resource-on-Demand Strategy for Multi-RAT Wireless Networks Powered by Heterogeneous Energy Sources. *Qin, M.*, +, *TWC Aug. 2020* 5547-5560
- Joint Antenna Selection and Hybrid Beamformer Design Using Unquantized and Quantized Deep Learning Networks. *Elbir, A.M.*, +, *TWC March 2020* 1677-1688
- Joint Channel and Queue Aware Scheduling for Latency Sensitive Mobile Edge Computing With Power Constraints. *Han, D.*, +, *TWC June 2020* 3938-3951
- Joint Power Allocation and Load Balancing Optimization for Energy-Efficient Cell-Free Massive MIMO Networks. *Van Chien, T.*, +, *TWC Oct. 2020* 6798-6812
- Online Anticipatory Proactive Network Association in Mobile Edge Computing for IoT. *Cui, Q.*, +, *TWC July 2020* 4519-4534
- User-Number Threshold-Based Small-Cell On/Off Control Scheme: Performance Evaluation and Optimization. *Park, J.W.*, +, *TWC Jan. 2020* 367-379

**Power control**

- A Maximin Optimal Online Power Control Policy for Energy Harvesting Communications. *Yang, S.*, +, *TWC Oct. 2020* 6708-6720
- Asynchronous Downlink Massive MIMO Networks: A Stochastic Geometry Approach. *Sadeghabadi, E.*, +, *TWC Jan. 2020* 579-594
- Battery-Level-Triggered Transmit Power Control for Energy Harvesting Communications. *Tang, S.*, +, *TWC Dec. 2020* 8011-8023
- Energy-Efficient Computation Offloading in Delay-Constrained Massive MIMO Enabled Edge Network Using Data Partitioning. *Malik, R.*, +, *TWC Oct. 2020* 6977-6991
- Flexible Functional Split and Power Control for Energy Harvesting Cloud Radio Access Networks. *Wang, L.*, +, *TWC March 2020* 1535-1548
- Joint 3D Maneuver and Power Adaptation for Secure UAV Communication With CoMP Reception. *Yao, J.*, +, *TWC Oct. 2020* 6992-7006
- Joint Cache Placement, Flight Trajectory, and Transmission Power Optimization for Multi-UAV Assisted Wireless Networks. *Ji, J.*, +, *TWC Aug. 2020* 5389-5403
- Joint Power Allocation and Load Balancing Optimization for Energy-Efficient Cell-Free Massive MIMO Networks. *Van Chien, T.*, +, *TWC Oct. 2020* 6798-6812
- LoRa Technology Demystified: From Link Behavior to Cell-Level Performance. *Croce, D.*, +, *TWC Feb. 2020* 822-834
- Minimum Length Scheduling for Full Duplex Time-Critical Wireless Powered Communication Networks. *Iqbal, M.S.*, +, *TWC Sept. 2020* 5993-6006
- NOMA-Based D2D-Enabled Traffic Offloading for 5G and Beyond Networks Employing Licensed and Unlicensed Access. *Sun, M.*, +, *TWC June 2020* 4109-4124
- Opportunistic NOMA for Uplink Short-Message Delivery With a Delay Constraint. *Choi, J.*, *TWC June 2020* 3727-3737
- Optimal Mode Selection by Cross-Layer Decomposition in D2D Cellular Networks. *Klugel, M.*, +, *TWC April 2020* 2528-2542
- Optimized Power Control for Over-the-Air Computation in Fading Channels. *Cao, X.*, +, *TWC Nov. 2020* 7498-7513
- Power Allocation in Multi-User Cellular Networks: Deep Reinforcement Learning Approaches. *Meng, F.*, +, *TWC Oct. 2020* 6255-6267
- Power Control Based on Deep Reinforcement Learning for Spectrum Sharing. *Zhang, H.*, +, *TWC June 2020* 4209-4219
- Power Control in Cellular Massive MIMO With Varying User Activity: A Deep Learning Solution. *Van Chien, T.*, +, *TWC Sept. 2020* 5732-5748
- Power Control Optimization for Large-Scale Multi-Antenna Systems. *Zhou, Z.*, +, *TWC Nov. 2020* 7339-7352
- Relay Selection, Scheduling, and Power Control in Wireless-Powered Cooperative Communication Networks. *Onalan, A.G.*, +, *TWC Nov. 2020* 7181-7195

- SINR Distribution and Scheduling Gain Analysis of Uplink Channel-Adaptive Scheduling. *Kamiya, S.*, +, *TWC April 2020* 2321-2335
- UAV Positioning and Power Control for Two-Way Wireless Relaying. *Li, L.*, +, *TWC Feb. 2020* 1008-1024
- UAV-to-UAV Communications in Cellular Networks. *Azari, M.M.*, +, *TWC Sept. 2020* 6130-6144

**Power engineering computing**

- Resource Allocation for Wireless Cooperative IoT Network With Energy Harvesting. *Chen, X.*, +, *TWC July 2020* 4879-4893
- Unary Coding Controlled Simultaneous Wireless Information and Power Transfer. *Hu, J.*, +, *TWC Jan. 2020* 637-649

**Power grids**

- Dedicated Energy Harvesting in Concatenated Hybrid PLC-Wireless Systems. *Fernandes, V.*, +, *TWC June 2020* 3839-3853
- Green-Oriented Dynamic Resource-on-Demand Strategy for Multi-RAT Wireless Networks Powered by Heterogeneous Energy Sources. *Qin, M.*, +, *TWC Aug. 2020* 5547-5560

**Power system reliability**

- Cyclic Block-Spreading Direct Discovery for D2D Networks. *Chang, W.*, +, *TWC Nov. 2020* 7610-7620
- Space-Air-Ground Integrated Networks: Outage Performance Analysis. *Ye, J.*, +, *TWC Dec. 2020* 7897-7912
- Unified Performance Analysis of Multi-Hop FSO Systems Over Double Generalized Gamma Turbulence Channels With Pointing Errors. *Ashrafzadeh, B.*, +, *TWC Nov. 2020* 7732-7746

**Power transmission control**

- Joint Power Allocation and Splitting Control for SWIPT-Enabled NOMA Systems. *Tang, J.*, +, *TWC Jan. 2020* 120-133

**Precoding**

- A Joint Solution for Scheduling and Precoding in Multiuser MISO Downlink Channels. *Bandi, A.*, +, *TWC Jan. 2020* 475-490
- Asymptotic Analysis of MRT Over Double Scattering Channels With MMSE Estimation. *Ye, J.*, +, *TWC Dec. 2020* 7851-7863
- Constant Envelope MIMO-OFDM Precoding for Low Complexity Large-Scale Antenna Array Systems. *Domouchtsidis, S.*, +, *TWC Dec. 2020* 7973-7985
- Design and Analysis of FD MIMO Cellular Systems in Coexistence With MIMO Radar. *Biswas, S.*, +, *TWC July 2020* 4727-4743
- Downlink Pilot Precoding and Compressed Channel Feedback for FDD-Based Cell-Free Systems. *Kim, S.*, +, *TWC June 2020* 3658-3672
- Energy Efficiency Optimization for Downlink Massive MIMO With Statistical CSIT. *You, L.*, +, *TWC April 2020* 2684-2698
- Energy-Efficient Hybrid Precoder With Adaptive Overlapped Subarrays for Large-Array mmWave Systems. *Guo, J.*, +, *TWC March 2020* 1484-1502
- Experimental Field Trials on MU-MIMO Transmissions for High SHF Wide-Band Massive MIMO in 5G. *Sakai, M.*, +, *TWC April 2020* 2196-2207
- Full-Duplex Enabled Mobile Edge Caching: From Distributed to Cooperative Caching. *Vu, T.X.*, +, *TWC Feb. 2020* 1141-1153
- Fully-/Partially-Connected Hybrid Beamforming Architectures for mmWave MU-MIMO. *Song, X.*, +, *TWC March 2020* 1754-1769
- Hierarchical Codebook-Based Multiuser Beam Training for Millimeter Wave Massive MIMO. *Qi, C.*, +, *TWC Dec. 2020* 8142-8152
- High-Resolution Channel Estimation for Frequency-Selective mmWave Massive MIMO Systems. *Ma, W.*, +, *TWC May 2020* 3517-3529
- Hybrid-Precoding for mmWave Multi-User Communications in the Presence of Beam-Misalignment. *Pradhan, C.*, +, *TWC Sept. 2020* 6083-6099
- Interference Exploitation 1-Bit Massive MIMO Precoding: A Partial Branch-and-Bound Solution With Near-Optimal Performance. *Li, A.*, +, *TWC May 2020* 3474-3489
- Joint Reflecting and Precoding Designs for SER Minimization in Reconfigurable Intelligent Surfaces Assisted MIMO Systems. *Ye, J.*, +, *TWC Aug. 2020* 5561-5574
- Joint User Grouping, Scheduling, and Precoding for Multicast Energy Efficiency in Multigroup Multicast Systems. *Bandi, A.*, +, *TWC Dec. 2020* 8195-8210
- Joint User Selection, Power Allocation, and Precoding Design With Imperfect CSIT for Multi-Cell MU-MIMO Downlink Systems. *Choi, J.*, +, *TWC Jan. 2020* 162-176

- Local Partial Zero-Forcing Precoding for Cell-Free Massive MIMO. *Interdonato, G., +, TWC July 2020 4758-4774*
- Max-Min Fairness of  $K$ -User Cooperative Rate-Splitting in MISO Broadcast Channel With User Relaying. *Mao, Y., +, TWC Oct. 2020 6362-6376*
- Millimeter-Wave Networking in the Sky: A Machine Learning and Mean Field Game Approach for Joint Beamforming and Beam-Steering. *Li, L., +, TWC Oct. 2020 6393-6408*
- mmWave Amplify-and-Forward MIMO Relay Networks With Hybrid Precoding/Combining Design. *Jiang, L., +, TWC Feb. 2020 1333-1346*
- Multicell MIMO Communications Relying on Intelligent Reflecting Surfaces. *Pan, C., +, TWC Aug. 2020 5218-5233*
- Omnidirectional Precoding for 3D Massive MIMO With Uniform Planar Arrays. *Lu, A., +, TWC April 2020 2628-2642*
- Optimized Precoded Spatio-Temporal Partial-Response Signaling Over Frequency-Selective MIMO Channels. *Bailleul, J., +, TWC Sept. 2020 5938-5950*
- Overhead-Performance Tradeoff for MISO Broadcast Channels With Zero-Forcing Precoder. *Liu, G., +, TWC Feb. 2020 995-1007*
- Pairwise Coding for MIMO-OFDM Visible Light Communication. *Olanrewaju, H.G., +, TWC Feb. 2020 1210-1220*
- Performance of Multibeam Very High Throughput Satellite Systems Based on FSO Feeder Links With HPA Nonlinearity. *Zedini, E., +, TWC Sept. 2020 5908-5923*
- Precoding-Aided Spatial Modulation Assisted Joint Two-Tier Downlink Reception. *Pechetti, S.V., +, TWC May 2020 3332-3345*
- Principal Component Analysis-Based Broadband Hybrid Precoding for Millimeter-Wave Massive MIMO Systems. *Sun, Y., +, TWC Oct. 2020 6331-6346*
- Randomized Channel Sparsifying Hybrid Precoding for FDD Massive MIMO Systems. *Tian, C., +, TWC Aug. 2020 5447-5460*
- Secrecy Performance of the MIMO VLC Wiretap Channel With Randomly Located Eavesdropper. *Arfaoui, M.A., +, TWC Jan. 2020 265-278*
- Signal Shaping for Non-Uniform Beamspace Modulated mmWave Hybrid MIMO Communications. *Guo, S., +, TWC Oct. 2020 6660-6674*
- Simple Bounds for the Symmetric Capacity of the Rayleigh Fading Multiple Access Channel. *Domanovitz, E., +, TWC July 2020 4594-4603*
- Spatial Channel Covariance Estimation for Hybrid Architectures Based on Tensor Decompositions. *Park, S., +, TWC Feb. 2020 1084-1097*
- Steepest Gradient-Based Orthogonal Precoder for Integer-Forcing MIMO. *Hasan, M.N., +, TWC Feb. 2020 942-955*
- Prediction algorithms**
- Deep Learning for Optimal Deployment of UAVs With Visible Light Communications. *Wang, Y., +, TWC Nov. 2020 7049-7063*
- Predicting Device-to-Device Channels From Cellular Channel Measurements: A Learning Approach. *Najla, M., +, TWC Nov. 2020 7124-7138*
- Predictive models**
- Deep Learning-Based Edge Caching in Fog Radio Access Networks. *Jiang, Y., +, TWC Dec. 2020 8442-8454*
- Predicting Device-to-Device Channels From Cellular Channel Measurements: A Learning Approach. *Najla, M., +, TWC Nov. 2020 7124-7138*
- Pricing**
- Dynamic Pricing for Revenue Maximization in Mobile Social Data Market With Network Effects. *Xiong, Z., +, TWC March 2020 1722-1737*
- Joint Access and Backhaul Resource Management in Satellite-Drone Networks: A Competitive Market Approach. *Hu, Y., +, TWC June 2020 3908-3923*
- Ultra-Dense LEO Satellite Offloading for Terrestrial Networks: How Much to Pay the Satellite Operator?. *Deng, R., +, TWC Oct. 2020 6240-6254*
- Principal component analysis**
- Correlation Analysis and Link Gain Prediction for Optical Wireless Scattering Communication Over Broad Spectra. *Liu, B., +, TWC Feb. 2020 1386-1396*
- Multilinear Plus Sparse Based Tensor Completion for Long-Term Operating Large-Scale and Heterogeneous Sensor Networks. *Huang, K., +, TWC Oct. 2020 6301-6315*
- PCA-Based Channel Estimation and Tracking for Massive MIMO Systems With Uniform Rectangular Arrays. *Wang, A., +, TWC Oct. 2020 6786-6797*
- Principal Component Analysis-Based Broadband Hybrid Precoding for Millimeter-Wave Massive MIMO Systems. *Sun, Y., +, TWC Oct. 2020 6331-6346*
- Privacy**
- Harvest-and-Opportunistically-Relay: Analyses on Transmission Outage and Covertness. *Li, Y., +, TWC Dec. 2020 7779-7795*
- Probabilistic logic**
- Scheduling for Cellular Federated Edge Learning With Importance and Channel Awareness. *Ren, J., +, TWC Nov. 2020 7690-7703*
- Probability**
- 5G mmWave Cooperative Positioning and Mapping Using Multi-Model PHD Filter and Map Fusion. *Kim, H., +, TWC June 2020 3782-3795*
- A Dynamic Clustering Algorithm for Multi-Point Transmissions in Mission-Critical Communications. *Daher, A., +, TWC July 2020 4934-4946*
- A Frequency Offset Transmit Reference System in Dense Multipath Environments: Propagation Effects and Design Considerations. *Bilal, I., +, TWC Feb. 2020 859-873*
- A Tractable Model for Wirelessly Powered Networks With Energy Correlation. *Deng, N., +, TWC Sept. 2020 5765-5778*
- A Tractable Product Channel Model for Line-of-Sight Scenarios. *Fernandez-Plazaola, U., +, TWC March 2020 2107-2121*
- Adaptive Forwarding With Probabilistic Delay Guarantee in Low-Duty-Cycle WSNs. *Cheng, L., +, TWC July 2020 4775-4792*
- An Adaptive Broadcasting Strategy for Efficient Dynamic Mapping in Vehicular Networks. *Mason, F., +, TWC Aug. 2020 5605-5620*
- Analytical Channel Models for Millimeter Wave UAV Networks Under Hovering Fluctuations. *Dabiri, M.T., +, TWC April 2020 2868-2883*
- Anywhere Decoding: Low-Overhead Uplink Interference Management for Wireless Networks. *Pezeshki, H., +, TWC June 2020 4095-4108*
- Asynchronous Downlink Massive MIMO Networks: A Stochastic Geometry Approach. *Sadeghabadi, E., +, TWC Jan. 2020 579-594*
- Channel-Based Optimal Back-Off Delay Control in Delay-Constrained Industrial WSNs. *Li, Q., +, TWC Jan. 2020 696-711*
- Characterizing Resource Allocation Trade-Offs in 5G NR Serving Multicast and Unicast Traffic. *Samuylov, A., +, TWC May 2020 3421-3434*
- CoMP-NOMA in the SWIPT Networks. *Hedayati, M., +, TWC July 2020 4549-4562*
- Cooperative MIMO-OFDM-Based Exposure-Path Prevention Over 3D Clustered Wireless Camera Sensor Networks. *Wang, J., +, TWC Jan. 2020 4-18*
- Coverage and Rate Analysis of Downlink Cellular Vehicle-to-Everything (C-V2X) Communication. *Chetlur, V.V., +, TWC March 2020 1738-1753*
- Cyclic Block-Spreading Direct Discovery for D2D Networks. *Chang, W., +, TWC Nov. 2020 7610-7620*
- Design and Analysis of FD MIMO Cellular Systems in Coexistence With MIMO Radar. *Biswas, S., +, TWC July 2020 4727-4743*
- Design and Analysis of Rotated-QAM Based Probabilistic Shaping Scheme for Rayleigh Fading Channels. *Yao, Y., +, TWC May 2020 3047-3063*
- Dynamic Time-Frequency Division Duplex. *Razlighi, M.M., +, TWC May 2020 3118-3132*
- Edge Computing-Enabled Cell-Free Massive MIMO Systems. *Mukherjee, S., +, TWC April 2020 2884-2899*
- Efficient Beam Sweeping Algorithms and Initial Access Protocols for Millimeter-Wave Networks. *Aykin, I., +, TWC April 2020 2504-2514*
- Free Space Optical Cooperative Communications via an Energy Harvesting Harvest-Store-Use Relay. *Abou-Rjeily, C., +, TWC Oct. 2020 6564-6577*
- Fundamentals of Power Allocation Strategies for Downlink Multi-User NOMA With Target Rates. *Oviedo, J.A., +, TWC March 2020 1906-1917*
- Generalized OFDM-IM With Noncoherent Detection. *Fazeli, A., +, TWC July 2020 4464-4479*
- Harvest-and-Opportunistically-Relay: Analyses on Transmission Outage and Covertness. *Li, Y., +, TWC Dec. 2020 7779-7795*
- Hybrid Lightwave/RF Cooperative NOMA Networks. *Xiao, Y., +, TWC Feb. 2020 1154-1166*
- Hybrid Offline-Online Design for UAV-Enabled Data Harvesting in Probabilistic LoS Channels. *You, C., +, TWC June 2020 3753-3768*

- Hybrid Power Line/Wireless Systems: An Optimal Power Allocation Perspective. *Filomeno, M.d.L.*, +, *TWC Oct. 2020 6289-6300*
- Hybrid RF/FSO Backhaul Networks With Statistical-QoS-Aware Buffer-Aided Relaying. *Hassan, M.Z.*, +, *TWC March 2020 1464-1483*
- Impartial SWIPT-Assisted User Cooperation Schemes. *Chen, W.*, +, *TWC May 2020 3361-3375*
- Information-Centric Grant-Free Access for IoT Fog Networks: Edge vs. Cloud Detection and Learning. *Kassab, R.*, +, *TWC Oct. 2020 6347-6361*
- Integer-Forcing Architectures for Uplink Cloud Radio Access Networks. *El Bakoury, I.*, +, *TWC April 2020 2336-2351*
- Joint Power and Blocklength Optimization for URLLC in a Factory Automation Scenario. *Ren, H.*, +, *TWC March 2020 1786-1801*
- Low-Resolution Limited-Feedback NOMA for mmWave Communications. *Yapici, Y.*, +, *TWC Aug. 2020 5433-5446*
- Massive MIMO-NOMA Networks With Imperfect SIC: Design and Fairness Enhancement. *de Sena, A.S.*, +, *TWC Sept. 2020 6100-6115*
- Massive MIMO-NOMA Networks With Successive Sub-Array Activation. *Sousa de Sena, A.*, +, *TWC March 2020 1622-1635*
- Massive Uncoordinated Access With Massive MIMO: A Dictionary Learning Approach. *Han, Y.*, +, *TWC Feb. 2020 1320-1332*
- Millimeter-Wave Beam Search With Iterative Deactivation and Beam Shifting. *Liu, C.*, +, *TWC Aug. 2020 5117-5131*
- Modeling and Performance Analysis for Satellite Data Relay Networks Using Two-Dimensional Markov-Modulated Process. *Zhu, Y.*, +, *TWC June 2020 3894-3907*
- Multi-Antenna Two-Way Relay Based Cooperative NOMA. *Ly, L.*, +, *TWC Oct. 2020 6486-6503*
- Multi-Hop Wireless Optical Backhauling for LiFi Attocell Networks: Bandwidth Scheduling and Power Control. *Kazemi, H.*, +, *TWC Sept. 2020 5676-5691*
- Multi-layer Unmanned Aerial Vehicle Networks: Modeling and Performance Analysis. *Kim, D.*, +, *TWC Jan. 2020 325-339*
- Offloading Decision in Edge Computing for Continuous Applications Under Uncertainty. *Chang, W.*, +, *TWC Sept. 2020 6196-6209*
- On Optimal Orchestration of Virtualized Cellular Networks With Downlink Rate Coverage Probability Constraints. *Chatterjee, S.*, +, *TWC July 2020 4378-4393*
- On the Energy Efficiency of Heterogeneous Cellular Networks With Renewable Energy Sources—A Stochastic Geometry Framework. *Lam, T.T.*, +, *TWC Oct. 2020 6752-6770*
- On the Secrecy of UAV Systems With Linear Trajectory. *Pan, G.*, +, *TWC Oct. 2020 6277-6288*
- Opportunistic Adaptive Non-Orthogonal Multiple Access in Multiuser Wireless Systems: Probabilistic User Scheduling and Performance Analysis. *Yang, L.*, +, *TWC Sept. 2020 6065-6082*
- Optimal Linear Cooperation for Signal Classification in Cognitive Communication Networks. *Ma, Y.*, +, *TWC May 2020 3144-3155*
- Optimal Placement of Access Points in Cellular Visible Light Communication Networks: An Adaptive Gradient Projection Method. *Dastgheib, M.A.*, +, *TWC Oct. 2020 6813-6825*
- Optimal Power Adaptation in Covert Communication With an Uninformed Jammer. *Li, K.*, +, *TWC May 2020 3463-3473*
- Optimal Sensing Policy for Energy Harvesting Cognitive Radio Systems. *Villalonga, D.A.U.*, +, *TWC June 2020 3826-3838*
- Outage Performance and Average Rate for Large-Scale Millimeter-Wave NOMA Networks. *Kusaladharma, S.*, +, *TWC Feb. 2020 1280-1291*
- Performance Analysis and Optimization of Cooperative Satellite-Aerial-Terrestrial Systems. *Pan, G.*, +, *TWC Oct. 2020 6693-6707*
- Performance Analysis of Multiuser FSO/RF Network Under Non-Equal Priority With  $P$ -Persistence Protocol. *Rakia, T.*, +, *TWC March 2020 1802-1813*
- Physical Layer Authentication for Massive MIMO Systems With Hardware Impairments. *Zhang, P.*, +, *TWC March 2020 1563-1576*
- Probabilistic Constrained Secure Transmissions: Variable-Rate Design and Performance Analysis. *Li, Z.*, +, *TWC April 2020 2543-2557*
- Rate Splitting for Uplink NOMA With Enhanced Fairness and Outage Performance. *Liu, H.*, +, *TWC July 2020 4657-4670*
- Recycling Cellular Energy for Self-Sustainable IoT Networks: A Spatiotemporal Study. *Benkhelifa, F.*, +, *TWC April 2020 2699-2712*
- Reliability Bounds for Dependent Fading Wireless Channels. *Besser, K.*, +, *TWC Sept. 2020 5833-5845*
- Residual Transceiver Hardware Impairments on Cooperative NOMA Networks. *Li, X.*, +, *TWC Jan. 2020 680-695*
- Robust Non-Orthogonal Multiple Access for Aerial and Ground Users. *New, W.K.*, +, *TWC July 2020 4793-4805*
- Scalable Video Transmission in Cache-Aided Device-to-Device Networks. *Ma, J.*, +, *TWC June 2020 4247-4261*
- Scheduling to Minimize Age of Synchronization in Wireless Broadcast Networks With Random Updates. *Tang, H.*, +, *TWC June 2020 4023-4037*
- Secure Communications in a Unified Non-Orthogonal Multiple Access Framework. *Yue, X.*, +, *TWC March 2020 2163-2178*
- Signal Acquisition With Photon-Counting Detector Arrays in Free-Space Optical Communications. *Bashir, M.S.*, +, *TWC April 2020 2181-2195*
- Simple Bounds for the Symmetric Capacity of the Rayleigh Fading Multiple Access Channel. *Domanovitz, E.*, +, *TWC July 2020 4594-4603*
- SINR and Multiuser Efficiency Gap Between MIMO Linear Receivers. *Alfano, G.*, +, *TWC Jan. 2020 106-119*
- SINR Distribution and Scheduling Gain Analysis of Uplink Channel-Adaptive Scheduling. *Kamiya, S.*, +, *TWC April 2020 2321-2335*
- Space-Air-Ground Integrated Networks: Outage Performance Analysis. *Ye, J.*, +, *TWC Dec. 2020 7897-7912*
- Steepest Gradient-Based Orthogonal Precoder for Integer-Forcing MIMO. *Hasan, M.N.*, +, *TWC Feb. 2020 942-955*
- Stochastic Design and Analysis of User-Centric Wireless Cloud Caching Networks. *Azimi-Abarghouyi, S.M.*, +, *TWC July 2020 4978-4993*
- Stochastic Link Modeling of Static Wireless Sensor Networks Over the Ocean Surface. *Shahanaghi, A.*, +, *TWC June 2020 4154-4169*
- The Joint and Product Meta Distributions of the SIR and Their Applications to Secrecy and Cooperation. *Yu, X.*, +, *TWC July 2020 4408-4423*
- Tractable Approach to MmWaves Cellular Analysis With FSO Backhauling Under Feedback Delay and Hardware Limitations. *Balti, E.*, +, *TWC Jan. 2020 410-422*
- Tradeoff Between Ergodic Rate and Delivery Latency in Fog Radio Access Networks. *Yin, B.*, +, *TWC April 2020 2240-2251*
- Transceiver Design and Signal Detection in Backscatter Communication Systems With Multiple-Antenna Tags. *Chen, C.*, +, *TWC May 2020 3273-3288*
- Treating Interference as Noise in Cellular Networks: A Stochastic Geometry Approach. *Bacha, M.*, +, *TWC March 2020 1918-1932*
- UAV-to-UAV Communications in Cellular Networks. *Azari, M.M.*, +, *TWC Sept. 2020 6130-6144*
- Ultra Dense Edge Caching Networks With Arbitrary User Spatial Density. *Gruppi, E.*, +, *TWC July 2020 4363-4377*
- Unary Coding Controlled Simultaneous Wireless Information and Power Transfer. *Hu, J.*, +, *TWC Jan. 2020 637-649*
- Unequal Access Latency Random Access Protocol for Massive Machine-Type Communications. *Jiao, J.*, +, *TWC Sept. 2020 5924-5937*
- Unified Performance Analysis of Multi-Hop FSO Systems Over Double Generalized Gamma Turbulence Channels With Pointing Errors. *Ashrafzadeh, B.*, +, *TWC Nov. 2020 7732-7746*
- Uplink Non-Orthogonal Multiple Access Over Mixed RF-FSO Systems. *Jamali, M.V.*, +, *TWC May 2020 3558-3574*
- User-Number Threshold-Based Small-Cell On/Off Control Scheme: Performance Evaluation and Optimization. *Park, J.W.*, +, *TWC Jan. 2020 367-379*
- Utility-Aware Optimal Resource Allocation Protocol for UAV-Assisted Small Cells With Heterogeneous Coverage Demands. *Lohan, P.*, +, *TWC Feb. 2020 1221-1236*
- Vertical Handover Analysis for Randomly Deployed Small Cells in Heterogeneous Networks. *Duong, T.M.*, +, *TWC April 2020 2282-2292*
- Wideband Collaborative Spectrum Sensing Using Massive MIMO Decision Fusion. *Dey, I.*, +, *TWC Aug. 2020 5246-5260*

**Probability density function**

Extended  $\eta$ - $\mu$  Fading Models. *de Lima Tejerina, G.R.*, +, *TWC Dec. 2020 8153-8164*

Fundamentals of Acute Relay CSI Severity. *Le, K.N.*, *TWC Nov. 2020 7653-7662*

**Process control**

Battery-Level-Triggered Transmit Power Control for Energy Harvesting Communications. *Tang, S.*, +, *TWC Dec. 2020 8011-8023*

**Processor scheduling**

Edge-Aided Computing and Transmission Scheduling for LTE-U-Enabled IoT. *He, H.*, +, *TWC Dec. 2020 7881-7896*

Scheduling for Cellular Federated Edge Learning With Importance and Channel Awareness. *Ren, J.*, +, *TWC Nov. 2020 7690-7703*

**Procurement**

Online Resource Procurement and Allocation in a Hybrid Edge-Cloud Computing System. *Dinh, T.Q.*, +, *TWC March 2020 2137-2149*

**Profitability**

Joint Resource Allocation and Incentive Design for Blockchain-Based Mobile Edge Computing. *Sun, W.*, +, *TWC Sept. 2020 6050-6064*

**Programming**

Joint User Grouping, Scheduling, and Precoding for Multicast Energy Efficiency in Multigroup Multicast Systems. *Bandi, A.*, +, *TWC Dec. 2020 8195-8210*

**Protocols**

A Secure Group-Oriented Device-to-Device Authentication Protocol for 5G Wireless Networks. *Shang, Z.*, +, *TWC Nov. 2020 7021-7032*

Accommodating LAA Within IEEE 802.11ax WiFi Networks for Enhanced Coexistence. *Chen, Q.*, +, *TWC Nov. 2020 7621-7636*

Asynchronous Neighbor Discovery on Duty-Cycled Mobile Devices: Models and Schedules. *Chen, S.*, +, *TWC Aug. 2020 5204-5217*

Deep Reinforcement Learning (DRL)-Based Device-to-Device (D2D) Caching With Blockchain and Mobile Edge Computing. *Zhang, R.*, +, *TWC Oct. 2020 6469-6485*

Dual-Hop Spatial Modulation With a Relay Transmitting its Own Information. *Li, Q.*, +, *TWC July 2020 4449-4463*

Effects of Retransmission Limit on the Performance of Centralized Random Backoff. *Kim, J.D.*, *TWC Dec. 2020 8126-8141*

Efficient Scheduling for the Massive Random Access Gaussian Channel. *Kasper Facenda, G.*, +, *TWC Nov. 2020 7598-7609*

Energy-Efficient Computation Offloading in Delay-Constrained Massive MIMO Enabled Edge Network Using Data Partitioning. *Malik, R.*, +, *TWC Oct. 2020 6977-6991*

Harvest-and-Opportunistically-Relay: Analyses on Transmission Outage and Covertess. *Li, Y.*, +, *TWC Dec. 2020 7779-7795*

Information-Centric Grant-Free Access for IoT Fog Networks: Edge vs. Cloud Detection and Learning. *Kassab, R.*, +, *TWC Oct. 2020 6347-6361*

Max-Min Fairness of  $K$ -User Cooperative Rate-Splitting in MISO Broadcast Channel With User Relaying. *Mao, Y.*, +, *TWC Oct. 2020 6362-6376*

Multi-Layer HARQ With Delayed Feedback. *Khreis, A.*, +, *TWC Sept. 2020 6224-6237*

On HARQ Schemes in Satellite-Terrestrial Transmissions. *Pan, G.*, +, *TWC Dec. 2020 7998-8010*

On the Performance of HARQ Protocols With Blanking in NOMA Systems. *Mheich, Z.*, +, *TWC Nov. 2020 7423-7438*

Performance Analysis of Multiuser FSO/RF Network Under Non-Equal Priority With  $P$ -Persistence Protocol. *Rakia, T.*, +, *TWC March 2020 1802-1813*

Securing Channel State Information in Multiuser MIMO With Limited Feedback. *Yang, Y.*, +, *TWC May 2020 3091-3103*

Simple Bounds for the Symmetric Capacity of the Rayleigh Fading Multiple Access Channel. *Domanovitz, E.*, +, *TWC July 2020 4594-4603*

Unequal Access Latency Random Access Protocol for Massive Machine-Type Communications. *Jiao, J.*, +, *TWC Sept. 2020 5924-5937*

Utility-Aware Optimal Resource Allocation Protocol for UAV-Assisted Small Cells With Heterogeneous Coverage Demands. *Lohan, P.*, +, *TWC Feb. 2020 1221-1236*

**Prototypes**

Backscatter-Aided Cooperative Transmission in Wireless-Powered Heterogeneous Networks. *Kim, S.H.*, +, *TWC Nov. 2020 7309-7323*

Signal and System Design for Wireless Power Transfer: Prototype, Experiment and Validation. *Kim, J.*, +, *TWC Nov. 2020 7453-7469*

**Pulse amplitude modulation**

Receiver Algorithms for Single-Carrier OSM Based High-Rate Indoor Visible Light Communications. *Wu, L.*, +, *TWC Feb. 2020 1113-1126*

**Q****Quadratic programming**

EVM Closed-Form Expression for OFDM Signals With Tone Reservation-Based PAPR Reduction. *El Hassan, M.*, +, *TWC April 2020 2352-2366*

Multi-Tone Signal Optimization for Wireless Power Transfer in the Presence of Wireless Communication Links. *Mouris, B.A.*, +, *TWC May 2020 3575-3590*

Signal Shaping for Non-Uniform Beamspace Modulated mmWave Hybrid MIMO Communications. *Guo, S.*, +, *TWC Oct. 2020 6660-6674*

**Quadrature amplitude modulation**

Design and Analysis of Rotated-QAM Based Probabilistic Shaping Scheme for Rayleigh Fading Channels. *Yao, Y.*, +, *TWC May 2020 3047-3063*

Generalized Path-Permutation Codes for Reliable End-to-End Networking of Opportunistic Links. *Lai, I.*, +, *TWC July 2020 4579-4593*

Hybrid Constellations for Dual-Polarized Wireless Communications. *Wu, X.*, +, *TWC Aug. 2020 5321-5332*

Interference Exploitation 1-Bit Massive MIMO Precoding: A Partial Branch-and-Bound Solution With Near-Optimal Performance. *Li, A.*, +, *TWC May 2020 3474-3489*

Overlap-Save FBMC Receivers. *Nadal, J.*, +, *TWC Aug. 2020 5307-5320*

Steepest Gradient-Based Orthogonal Precoder for Integer-Forcing MIMO. *Hasan, M.N.*, +, *TWC Feb. 2020 942-955*

**Quality of experience**

Adaptive Video Streaming With Edge Caching and Video Transcoding Over Software-Defined Mobile Networks: A Deep Reinforcement Learning Approach. *Luo, J.*, +, *TWC March 2020 1577-1592*

Cache-Enabling UAV Communications: Network Deployment and Resource Allocation. *Zhang, T.*, +, *TWC Nov. 2020 7470-7483*

Proactive Edge Caching for Video on Demand With Quality Adaptation. *Han, S.*, +, *TWC Jan. 2020 218-234*

Scalable Video Transmission in Cache-Aided Device-to-Device Networks. *Ma, J.*, +, *TWC June 2020 4247-4261*

Trace-Driven QoE-Aware Proactive Caching for Mobile Video Streaming in Metropolis. *Huang, D.*, +, *TWC Jan. 2020 62-76*

User-Centric Performance Optimization With Remote Radio Head Cooperation in C-RAN. *You, L.*, +, *TWC Jan. 2020 340-353*

**Quality of service**

Adaptive Resource Allocation in Future Wireless Networks With Blockchain and Mobile Edge Computing. *Guo, F.*, +, *TWC March 2020 1689-1703*

Analysis of 5G Radio Access Protocols for Uplink URLLC in a Connection-Less Mode. *Centenaro, M.*, +, *TWC May 2020 3104-3117*

CoMP-NOMA in the SWIPT Networks. *Hedayati, M.*, +, *TWC July 2020 4549-4562*

Cooperative Asynchronous Non-Orthogonal Multiple Access With Power Minimization Under QoS Constraints. *Zou, X.*, +, *TWC March 2020 1503-1518*

Design and Analysis of FD MIMO Cellular Systems in Coexistence With MIMO Radar. *Biswas, S.*, +, *TWC July 2020 4727-4743*

Energy-Efficient Data Uploading for Cellular-Connected UAV Systems. *Zhan, C.*, +, *TWC Nov. 2020 7279-7292*

Exploiting Time Asynchrony in Multi-User Transmit Beamforming. *Ganji, M.*, +, *TWC May 2020 3156-3169*

Hierarchical Soft Slicing to Meet Multi-Dimensional QoS Demand in Cache-Enabled Vehicular Networks. *Zhang, S.*, +, *TWC March 2020 2150-2162*

Hybrid RF/FSO Backhaul Networks With Statistical-QoS-Aware Buffer-Aided Relaying. *Hassan, M.Z.*, +, *TWC March 2020 1464-1483*

- Joint Access and Backhaul Resource Management in Satellite-Drone Networks: A Competitive Market Approach. *Hu, Y.*, +, *TWC June 2020 3908-3923*
- Joint Sub-Carrier and Power Allocation for Efficient Communication of Cellular UAVs. *Hellaoui, H.*, +, *TWC Dec. 2020 8287-8302*
- Multidimensional Cooperative Caching in CoMP-Integrated Ultra-Dense Cellular Networks. *Lin, P.*, +, *TWC March 2020 1977-1989*
- Multihop Wireless Networks With Quality-of-Service: Fluid and Diffusion Approximations. *Krishnan K. S., A.*, +, *TWC Dec. 2020 8113-8125*
- On SDN-Driven Network Optimization and QoS Aware Routing Using Multiple Paths. *Bagaa, M.*, +, *TWC July 2020 4700-4714*
- Parallel Transmission LiFi. *Wu, X.*, +, *TWC Oct. 2020 6268-6276*
- Power Control Based on Deep Reinforcement Learning for Spectrum Sharing. *Zhang, H.*, +, *TWC June 2020 4209-4219*
- QoS Driven Power Allocation in Secure Multicarrier Full-Duplex Relay Systems. *Bai, Z.*, +, *TWC Feb. 2020 929-941*
- Reinforcement Learning Based Capacity Management in Multi-Layer Satellite Networks. *Jiang, C.*, +, *TWC July 2020 4685-4699*
- Robust Non-Orthogonal Multiple Access for Aerial and Ground Users. *New, W.K.*, +, *TWC July 2020 4793-4805*
- Spatial Spectrum Sensing in Uplink Two-Tier User-Centric Deployed HetNets. *Shang, B.*, +, *TWC Dec. 2020 7957-7972*
- Two-Layered Superposition of Broadcast/Multicast and Unicast Signals in Multiuser OFDMA Systems. *Vargas, D.*, +, *TWC Feb. 2020 979-994*
- Ultra-Dense LEO Satellite Offloading for Terrestrial Networks: How Much to Pay the Satellite Operator?. *Deng, R.*, +, *TWC Oct. 2020 6240-6254*
- Unequal Access Latency Random Access Protocol for Massive Machine-Type Communications. *Jiao, J.*, +, *TWC Sept. 2020 5924-5937*
- Wireless Networks With Cache-Enabled and Backhaul-Limited Aerial Base Stations. *Kalantari, E.*, +, *TWC Nov. 2020 7363-7376*

#### Quantization (signal)

- A Case for Digital Beamforming at mmWave. *Dutta, S.*, +, *TWC Feb. 2020 756-770*
- Exploiting Intelligent Reflecting Surfaces in NOMA Networks: Joint Beamforming Optimization. *Mu, X.*, +, *TWC Oct. 2020 6884-6898*
- Generalized Bussgang LMMSE Channel Estimation for One-Bit Massive MIMO Systems. *Wan, Q.*, +, *TWC June 2020 4234-4246*
- Grid-Less Variational Bayesian Channel Estimation for Antenna Array Systems With Low Resolution ADCs. *Zhu, J.*, +, *TWC March 2020 1549-1562*
- Integer-Forcing Architectures for Uplink Cloud Radio Access Networks. *El Bakoury, I.*, +, *TWC April 2020 2336-2351*
- Low-Resolution ADC Quantized Full-Duplex Massive MIMO-Enabled Wireless Backhaul in Heterogeneous Networks Over Rician Channels. *Anokye, P.*, +, *TWC Aug. 2020 5503-5517*
- mmWave Lens-Based MIMO System for Suppressing Small-Scale Fading and Shadowing. *Almasi, M.A.*, +, *TWC Aug. 2020 5292-5306*
- Mutual Information Analysis of Mixed-ADC MIMO Systems Over Rayleigh Channels Based on Random Matrix Theory. *Gao, H.*, +, *TWC July 2020 4894-4906*
- Performance Analysis of Massive MIMO Multi-Way Relay Networks With Low-Resolution ADCs. *Rahimian, S.*, +, *TWC Sept. 2020 5794-5806*
- Reconsidering Design of Multi-Antenna NOMA Systems With Limited Feedback. *Tang, Z.*, +, *TWC March 2020 1519-1534*
- Time-Varying Downlink Channel Tracking for Quantized Massive MIMO Networks. *Ma, J.*, +, *TWC Oct. 2020 6721-6736*

#### Quaternions

- Boosting the Cellular Network Coverage Optimization in Accordance With the Metric Structure of Antenna Variables. *Qin, Y.*, +, *TWC Dec. 2020 8303-8314*

#### Queueing theory

- Balancing Queueing and Retransmission: Latency-Optimal Massive MIMO Design. *Du, X.*, +, *TWC April 2020 2293-2307*
- Channel-Based Optimal Back-Off Delay Control in Delay-Constrained Industrial WSNs. *Li, Q.*, +, *TWC Jan. 2020 696-711*
- Characterizing Resource Allocation Trade-Offs in 5G NR Serving Multicast and Unicast Traffic. *Samuylov, A.*, +, *TWC May 2020 3421-3434*

- Edge Computing-Enabled Cell-Free Massive MIMO Systems. *Mukherjee, S.*, +, *TWC April 2020 2884-2899*
- Green-Oriented Dynamic Resource-on-Demand Strategy for Multi-RAT Wireless Networks Powered by Heterogeneous Energy Sources. *Qin, M.*, +, *TWC Aug. 2020 5547-5560*
- Hybrid RF/FSO Backhaul Networks With Statistical-QoS-Aware Buffer-Aided Relaying. *Hassan, M.Z.*, +, *TWC March 2020 1464-1483*
- Joint Channel and Queue Aware Scheduling for Latency Sensitive Mobile Edge Computing With Power Constraints. *Han, D.*, +, *TWC June 2020 3938-3951*
- Modeling and Delay Analysis of Intermittent V2U Communication in Secluded Areas. *Khabbaz, M.*, +, *TWC May 2020 3228-3240*
- Modeling and Performance Analysis for Satellite Data Relay Networks Using Two-Dimensional Markov-Modulated Process. *Zhu, Y.*, +, *TWC June 2020 3894-3907*
- Multiservice-Based Network Slicing Orchestration With Impatient Tenants. *Han, B.*, +, *TWC July 2020 5010-5024*
- Non-Blocking Scheme for Blind Network-Assisted Diversity Multiple Access in Synchronous Channels. *Akl, N.*, +, *TWC March 2020 1894-1905*
- Performance Analysis of Multiuser FSO/RF Network Under Non-Equal Priority With  $P$ -Persistence Protocol. *Rakia, T.*, +, *TWC March 2020 1802-1813*
- Recycling Cellular Energy for Self-Sustainable IoT Networks: A Spatiotemporal Study. *Benkhelifa, F.*, +, *TWC April 2020 2699-2712*
- Throughput-Optimal H-QMWS Scheduling for Hybrid Wireless Networks With Persistent and Dynamic Flows. *Lan, X.*, +, *TWC Feb. 2020 1182-1195*
- Tradeoff Between Ergodic Rate and Delivery Latency in Fog Radio Access Networks. *Yin, B.*, +, *TWC April 2020 2240-2251*

#### R

#### Radar clutter

- Communications and Radar Coexistence in the Massive MIMO Regime: Uplink Analysis. *D'Andrea, C.*, +, *TWC Jan. 2020 19-33*

#### Radar detection

- Adaptive Detection and Localization Exploiting the IEEE 802.11ad Standard. *Grossi, E.*, +, *TWC July 2020 4394-4407*

#### Radar interference

- Adaptive Detection and Localization Exploiting the IEEE 802.11ad Standard. *Grossi, E.*, +, *TWC July 2020 4394-4407*

#### Radar resolution

- Adaptive Detection and Localization Exploiting the IEEE 802.11ad Standard. *Grossi, E.*, +, *TWC July 2020 4394-4407*

#### Radar signal processing

- On the Effectiveness of OTFS for Joint Radar Parameter Estimation and Communication. *Gaudio, L.*, +, *TWC Sept. 2020 5951-5965*

#### Radar tracking

- Radar-Assisted Predictive Beamforming for Vehicular Links: Communication Served by Sensing. *Liu, F.*, +, *TWC Nov. 2020 7704-7719*

#### Radio access networks

- A Realization of Fog-RAN Slicing via Deep Reinforcement Learning. *Xiang, H.*, +, *TWC April 2020 2515-2527*
- Cache-Aided Combination Networks With Interference. *Elkordy, A.R.*, +, *TWC Jan. 2020 148-161*
- Caching at Base Stations With Multi-Cluster Multicast Wireless Backhaul via Accelerated First-Order Algorithms. *Li, Y.*, +, *TWC May 2020 2920-2933*
- Cooperative Computation Offloading in FiWi Enhanced 4G HetNets Using Self-Organizing MEC. *Ebrahimzadeh, A.*, +, *TWC July 2020 4480-4493*
- Energy Efficiency and Traffic Offloading Optimization in Integrated Satellite/Terrestrial Radio Access Networks. *Li, J.*, +, *TWC April 2020 2367-2381*
- Flexible Functional Split and Power Control for Energy Harvesting Cloud Radio Access Networks. *Wang, L.*, +, *TWC March 2020 1535-1548*
- Full-Duplex MAC in LAA/ Wi-Fi Coexistence Networks: Design, Modeling, and Analysis. *Cao, X.*, +, *TWC Aug. 2020 5531-5546*

Green-Oriented Dynamic Resource-on-Demand Strategy for Multi-RAT Wireless Networks Powered by Heterogeneous Energy Sources. *Qin, M.*, +, *TWC Aug. 2020 5547-5560*

Improving Caching Efficiency in Content-Aware C-RAN-Based Cooperative Beamforming: A Joint Design Approach. *Zhao, M.*, +, *TWC June 2020 4125-4140*

Information-Centric Grant-Free Access for IoT Fog Networks: Edge vs. Cloud Detection and Learning. *Kassab, R.*, +, *TWC Oct. 2020 6347-6361*  
 Inter-Forcing Architectures for Uplink Cloud Radio Access Networks. *El Bakoury, I.*, +, *TWC April 2020 2336-2351*

Joint Access and Backhaul Resource Management in Satellite-Drone Networks: A Competitive Market Approach. *Hu, Y.*, +, *TWC June 2020 3908-3923*

Massive Uncoordinated Access With Massive MIMO: A Dictionary Learning Approach. *Han, Y.*, +, *TWC Feb. 2020 1320-1332*

Mixed-Numerology Signals Transmission and Interference Cancellation for Radio Access Network Slicing. *Yang, B.*, +, *TWC Aug. 2020 5132-5147*

Optimal Virtual Network Function Deployment for 5G Network Slicing in a Hybrid Cloud Infrastructure. *De Domenico, A.*, +, *TWC Dec. 2020 7942-7956*

Optimizing Downlink Resource Allocation in Multiuser MIMO Networks via Fractional Programming and the Hungarian Algorithm. *Khan, A.A.*, +, *TWC Aug. 2020 5162-5175*

Resource Allocation for Non-Orthogonal Multiple Access-Enabled Fog Radio Access Networks. *Liu, B.*, +, *TWC June 2020 3867-3878*

Tradeoff Between Ergodic Rate and Delivery Latency in Fog Radio Access Networks. *Yin, B.*, +, *TWC April 2020 2240-2251*

User-Centric Performance Optimization With Remote Radio Head Cooperation in C-RAN. *You, L.*, +, *TWC Jan. 2020 340-353*

#### Radio frequency

Aggregated VLC-RF Systems: Achievable Rates, Optimal Power Allocation, and Energy Efficiency. *Ma, S.*, +, *TWC Nov. 2020 7265-7278*

Analog Self-Interference Cancellation Using Auxiliary Transmitter Considering IQ Imbalance and Amplifier Nonlinearity. *Fukui, T.*, +, *TWC Nov. 2020 7439-7452*

Backscatter-Aided Cooperative Transmission in Wireless-Powered Heterogeneous Networks. *Kim, S.H.*, +, *TWC Nov. 2020 7309-7323*

Cooperative Spectrum Sensing Optimization in Energy-Harvesting Cognitive Radio Networks. *Liu, X.*, +, *TWC Nov. 2020 7663-7676*

Harvest-and-Opportunistically-Relay: Analyses on Transmission Outage and Covertness. *Li, Y.*, +, *TWC Dec. 2020 7779-7795*

Hierarchical Codebook-Based Multiuser Beam Training for Millimeter Wave Massive MIMO. *Qi, C.*, +, *TWC Dec. 2020 8142-8152*

Receive Spatial Modulation Aided Simultaneous Wireless Information and Power Transfer With Finite Alphabet. *Zhao, Y.*, +, *TWC Dec. 2020 8039-8053*

Secure Cooperative Hybrid VLC-RF Systems. *Pan, G.*, +, *TWC Nov. 2020 7097-7107*

#### Radio links

A Non-Stationary Bandit-Learning Approach to Energy-Efficient Femto-Caching With Rateless-Coded Transmission. *Maghsudi, S.*, +, *TWC July 2020 5040-5056*

Adaptive Forwarding With Probabilistic Delay Guarantee in Low-Duty-Cycle WSNs. *Cheng, L.*, +, *TWC July 2020 4775-4792*

Channel Estimation for Intelligent Reflecting Surface Assisted Multiuser Communications: Framework, Algorithms, and Analysis. *Wang, Z.*, +, *TWC Oct. 2020 6607-6620*

Coverage and Rate Analysis of Downlink Cellular Vehicle-to-Everything (C-V2X) Communication. *Chehrlur, V.V.*, +, *TWC March 2020 1738-1753*

Downlink Pilot Precoding and Compressed Channel Feedback for FDD-Based Cell-Free Systems. *Kim, S.*, +, *TWC June 2020 3658-3672*

Dynamic Time-Frequency Division Duplex. *Razlighi, M.M.*, +, *TWC May 2020 3118-3132*

Efficient Local Map Search Algorithms for the Placement of Flying Relays. *Chen, J.*, +, *TWC Feb. 2020 1305-1319*

Fundamentals of Power Allocation Strategies for Downlink Multi-User NOMA With Target Rates. *Oviedo, J.A.*, +, *TWC March 2020 1906-1917*

Generalized Path-Permutation Codes for Reliable End-to-End Networking of Opportunistic Links. *Lai, I.*, +, *TWC July 2020 4579-4593*

Geometry-Based Analysis of Optimal Handover Parameters for Self-Organizing Networks. *Nguyen, M.*, +, *TWC April 2020 2670-2683*

Improving Caching Efficiency in Content-Aware C-RAN-Based Cooperative Beamforming: A Joint Design Approach. *Zhao, M.*, +, *TWC June 2020 4125-4140*

Jamming-Assisted Proactive Eavesdropping Over Two Suspicious Communication Links. *Zhang, H.*, +, *TWC July 2020 4817-4830*

Multi-Layer HARQ With Delayed Feedback. *Khreis, A.*, +, *TWC Sept. 2020 6224-6237*

NOMA-Based D2D-Enabled Traffic Offloading for 5G and Beyond Networks Employing Licensed and Unlicensed Access. *Sun, M.*, +, *TWC June 2020 4109-4124*

PACE: Physically-Assisted Channel Estimation. *Xia, M.*, +, *TWC June 2020 3769-3781*

Performance Analysis and Optimization of Cooperative Satellite-Aerial-Terrestrial Systems. *Pan, G.*, +, *TWC Oct. 2020 6693-6707*

Performance Analysis of Multiuser FSO/RF Network Under Non-Equal Priority With  $P$ -Persistence Protocol. *Rakia, T.*, +, *TWC March 2020 1802-1813*

Stochastic Link Modeling of Static Wireless Sensor Networks Over the Ocean Surface. *Shahanaghi, A.*, +, *TWC June 2020 4154-4169*

Uplink Non-Orthogonal Multiple Access Over Mixed RF-FSO Systems. *Jamali, M.V.*, +, *TWC May 2020 3558-3574*

Wirelessly-Powered Sensor Networks: Power Allocation for Channel Estimation and Energy Beamforming. *Du, R.*, +, *TWC May 2020 2987-3002*

#### Radio networks

A Distributed Framework for Task Offloading in Edge Computing Networks of Arbitrary Topology. *Liu, B.*, +, *TWC April 2020 2855-2867*

Analysis of the On-Demand Spectrum Access Architecture for CBRS Cognitive Radio Networks. *Xin, C.*, +, *TWC Feb. 2020 970-978*

Caching With Finite Buffer and Request Delay Information: A Markov Decision Process Approach. *Hui, H.*, +, *TWC Aug. 2020 5148-5161*

CoMP-NOMA in the SWIPT Networks. *Hedayati, M.*, +, *TWC July 2020 4549-4562*

Cost Sharing Games for Energy-Efficient Multi-Hop Broadcast in Wireless Networks. *Mousavi, M.*, +, *TWC Jan. 2020 310-324*

Covert Localization in Wireless Networks: Feasibility and Performance Analysis. *Zhao, Y.*, +, *TWC Oct. 2020 6549-6563*

Dynamic Pricing for Revenue Maximization in Mobile Social Data Market With Network Effects. *Xiong, Z.*, +, *TWC March 2020 1722-1737*

Efficient Rendezvous for Heterogeneous Interference in Cognitive Radio Networks. *Gu, Z.*, +, *TWC Jan. 2020 91-105*

Enumerative Sphere Shaping for Wireless Communications With Short Packets. *Gultekin, Y.C.*, +, *TWC Feb. 2020 1098-1112*

Federated Learning Over Wireless Fading Channels. *Amiri, M.M.*, +, *TWC May 2020 3546-3557*

Fundamental Rate Limits of UAV-Enabled Multiple Access Channel With Trajectory Optimization. *Li, P.*, +, *TWC Jan. 2020 458-474*

Fuzzy Learning for Multi-Dimensional Adaptive Physical Layer Authentication: A Compact and Robust Approach. *Fang, H.*, +, *TWC Aug. 2020 5420-5432*

Generalized Path-Permutation Codes for Reliable End-to-End Networking of Opportunistic Links. *Lai, I.*, +, *TWC July 2020 4579-4593*

IDFT-VFDM for Supplementary Uplink and LTE-NR Co-Existence. *Feng, Q.*, +, *TWC May 2020 3435-3448*

Intelligent User Association for Symbiotic Radio Networks Using Deep Reinforcement Learning. *Zhang, Q.*, +, *TWC July 2020 4535-4548*

Joint Cache Placement, Flight Trajectory, and Transmission Power Optimization for Multi-UAV Assisted Wireless Networks. *Ji, J.*, +, *TWC Aug. 2020 5389-5403*

LORM: Learning to Optimize for Resource Management in Wireless Networks With Few Training Samples. *Shen, Y.*, +, *TWC Jan. 2020 665-679*

Minimum Length Scheduling for Full Duplex Time-Critical Wireless Powered Communication Networks. *Iqbal, M.S.*, +, *TWC Sept. 2020 5993-6006*

- Multicell MIMO Communications Relying on Intelligent Reflecting Surfaces. *Pan, C.*, +, *TWC Aug. 2020 5218-5233*
- Network Coding Techniques for Primary-Secondary User Cooperation in Cognitive Radio Networks. *Papadopoulos, A.*, +, *TWC June 2020 4195-4208*
- NOMA-Based D2D-Enabled Traffic Offloading for 5G and Beyond Networks Employing Licensed and Unlicensed Access. *Sun, M.*, +, *TWC June 2020 4109-4124*
- Opportunistic Adaptive Non-Orthogonal Multiple Access in Multiuser Wireless Systems: Probabilistic User Scheduling and Performance Analysis. *Yang, L.*, +, *TWC Sept. 2020 6065-6082*
- Performance of Dynamic Power and Channel Allocation for Downlink MC-NOMA Systems. *Liu, F.*, +, *TWC March 2020 1650-1662*
- Random Access-Based Reliable Uplink Communication and Power Transfer Using Dynamic Power Splitting. *Kisseleff, S.*, +, *TWC June 2020 4307-4320*
- Reliability Bounds for Dependent Fading Wireless Channels. *Besser, K.*, +, *TWC Sept. 2020 5833-5845*
- Resource Allocation for Wireless Cooperative IoT Network With Energy Harvesting. *Chen, X.*, +, *TWC July 2020 4879-4893*
- Scalable Video Transmission in Cache-Aided Device-to-Device Networks. *Ma, J.*, +, *TWC June 2020 4247-4261*
- Self-Organizing Slot Access for Neighboring Cooperation in UAV Swarms. *Yao, K.*, +, *TWC April 2020 2800-2812*
- Stochastic Design and Analysis of User-Centric Wireless Cloud Caching Networks. *Azimi-Abarghouyi, S.M.*, +, *TWC July 2020 4978-4993*
- The Application of Deep Reinforcement Learning to Distributed Spectrum Access in Dynamic Heterogeneous Environments With Partial Observations. *Xu, Y.*, +, *TWC July 2020 4494-4506*
- Throughput-Optimal H-QMW Scheduling for Hybrid Wireless Networks With Persistent and Dynamic Flows. *Lan, X.*, +, *TWC Feb. 2020 1182-1195*
- Total Throughput Maximization of Cooperative Cognitive Radio Networks With Energy Harvesting. *Zheng, K.*, +, *TWC Jan. 2020 533-546*
- Radio receivers**
- A Case for Digital Beamforming at mmWave. *Dutta, S.*, +, *TWC Feb. 2020 756-770*
- A Frequency Offset Transmit Reference System in Dense Multipath Environments: Propagation Effects and Design Considerations. *Bilal, I.*, +, *TWC Feb. 2020 859-873*
- A Low-Complex SVD-Based F-OFDM. *Kim, H.*, +, *TWC Feb. 2020 1373-1385*
- Analytical Channel Models for Millimeter Wave UAV Networks Under Hovering Fluctuations. *Dabiri, M.T.*, +, *TWC April 2020 2868-2883*
- Communications and Radar Coexistence in the Massive MIMO Regime: Uplink Analysis. *D'Andrea, C.*, +, *TWC Jan. 2020 19-33*
- Deep Energy Autoencoder for Noncoherent Multicarrier MU-SIMO Systems. *Van Luong, T.*, +, *TWC June 2020 3952-3962*
- Hybrid Constellations for Dual-Polarized Wireless Communications. *Wu, X.*, +, *TWC Aug. 2020 5321-5332*
- Iterative Receiver Design for FTN Signaling Aided Sparse Code Multiple Access. *Yuan, W.*, +, *TWC Feb. 2020 915-928*
- Jamming-Assisted Proactive Eavesdropping Over Two Suspicious Communication Links. *Zhang, H.*, +, *TWC July 2020 4817-4830*
- Joint Impact of I/Q Imbalance and Imperfect CSI on SM-MIMO Systems Over Generalized Beckmann Fading Channels: Optimal Detection and Cramer-Rao Bound. *Canbilen, A.E.*, +, *TWC May 2020 3034-3046*
- MOCZ for Blind Short-Packet Communication: Practical Aspects. *Walk, P.*, +, *TWC Oct. 2020 6675-6692*
- Multi-Mode OAM Radio Waves: Generation, Angle of Arrival Estimation and Reception With UCAs. *Chen, R.*, +, *TWC Oct. 2020 6932-6947*
- Multi-User Detection Based on Expectation Propagation for the Non-Coherent SIMO Multiple Access Channel. *Ngo, K.*, +, *TWC Sept. 2020 6145-6161*
- Network Coding Techniques for Primary-Secondary User Cooperation in Cognitive Radio Networks. *Papadopoulos, A.*, +, *TWC June 2020 4195-4208*
- Overlap-Save FBMC Receivers. *Nadal, J.*, +, *TWC Aug. 2020 5307-5320*
- Physical-Layer Security in the Finite Blocklength Regime Over Fading Channels. *Zheng, T.*, +, *TWC May 2020 3405-3420*
- Rate Splitting for Uplink NOMA With Enhanced Fairness and Outage Performance. *Liu, H.*, +, *TWC July 2020 4657-4670*
- Reciprocity Calibration of TDD MIMO Channel for Interference Alignment. *Zhao, H.*, +, *TWC May 2020 3505-3516*
- Refined Asymptotics for a Block Fading Channel Under Energy Harvesting and Fixed Power Constraints. *Deekshith, P.K.*, +, *TWC April 2020 2558-2569*
- Secrecy Energy Efficiency in Multi-Antenna SWIPT Networks With Dual-Layer PS Receivers. *Lu, Y.*, +, *TWC June 2020 4290-4306*
- SINR and Multiuser Efficiency Gap Between MIMO Linear Receivers. *Alfano, G.*, +, *TWC Jan. 2020 106-119*
- Spatial Channel Covariance Estimation for Hybrid Architectures Based on Tensor Decompositions. *Park, S.*, +, *TWC Feb. 2020 1084-1097*
- Steepest Gradient-Based Orthogonal Precoder for Integer-Forcing MIMO. *Hasan, M.N.*, +, *TWC Feb. 2020 942-955*
- Subset MMSE Receivers for Cell-Free Networks. *Attarifar, M.*, +, *TWC June 2020 4183-4194*
- Training Optimization for Hybrid MIMO Communication Systems. *Xing, C.*, +, *TWC Aug. 2020 5473-5487*
- Two-Layered Superposition of Broadcast/Multicast and Unicast Signals in Multiuser OFDMA Systems. *Vargas, D.*, +, *TWC Feb. 2020 979-994*
- Two-Stage ICI Suppression in the Downlink of Asynchronous URLLC. *Zeng, C.*, +, *TWC April 2020 2785-2799*
- Radio spectrum management**
- A Downscaled Faster-RCNN Framework for Signal Detection and Time-Frequency Localization in Wideband RF Systems. *Prasad, K.N.R.S.V.*, +, *TWC July 2020 4847-4862*
- A Learning-Based Pre-Allocation Scheme for Low-Latency Access in Industrial Wireless Networks. *Li, M.*, +, *TWC Jan. 2020 650-664*
- A Truthful Online Incentive Mechanism for Nondeterministic Spectrum Allocation. *Dong, X.*, +, *TWC July 2020 4632-4642*
- Absolute Amplitude Differential Phase Spatial Modulation and Its Non-Coherent Detection Under Fast Fading Channels. *Yu, D.*, +, *TWC April 2020 2742-2755*
- Achieving Proportional Fairness for LTE-LAA and Wi-Fi Coexistence in Unlicensed Spectrum. *Gao, Y.*, +, *TWC May 2020 3390-3404*
- Air-to-Air Communications Beyond 5G: A Novel 3D CoMP Transmission Scheme. *Li, Y.*, +, *TWC Nov. 2020 7324-7338*
- Analysis of the On-Demand Spectrum Access Architecture for CBRS Cognitive Radio Networks. *Xin, C.*, +, *TWC Feb. 2020 970-978*
- Asynchronous Downlink Massive MIMO Networks: A Stochastic Geometry Approach. *Sadeghabadi, E.*, +, *TWC Jan. 2020 579-594*
- Decision-Driven Time-Adaptive Spectrum Sensing in Cognitive Radio Networks. *Yin, W.*, +, *TWC April 2020 2756-2769*
- Design and Analysis of FD MIMO Cellular Systems in Coexistence With MIMO Radar. *Biswas, S.*, +, *TWC July 2020 4727-4743*
- Fast Compressed Power Spectrum Estimation: Toward a Practical Solution for Wideband Spectrum Sensing. *Yang, L.*, +, *TWC Jan. 2020 520-532*
- Full-Duplex MAC in LAA/ Wi-Fi Coexistence Networks: Design, Modeling, and Analysis. *Cao, X.*, +, *TWC Aug. 2020 5531-5546*
- Joint Routing and Resource Allocation for Millimeter Wave Picocellular Backhaul. *Eslami Rasekh, M.*, +, *TWC Feb. 2020 783-794*
- Joint User Selection, Power Allocation, and Precoding Design With Imperfect CSIT for Multi-Cell MU-MIMO Downlink Systems. *Choi, J.*, +, *TWC Jan. 2020 162-176*
- Local Partial Zero-Forcing Precoding for Cell-Free Massive MIMO. *Interdonato, G.*, +, *TWC July 2020 4758-4774*
- Low-Resolution ADC Quantized Full-Duplex Massive MIMO-Enabled Wireless Backhaul in Heterogeneous Networks Over Rician Channels. *Anokye, P.*, +, *TWC Aug. 2020 5503-5517*
- Machine Learning-Enabled Cooperative Spectrum Sensing for Non-Orthogonal Multiple Access. *Shi, Z.*, +, *TWC Sept. 2020 5692-5702*
- Mixture Detectors for Improved Spectrum Sensing. *Senanayake, R.*, +, *TWC June 2020 4335-4348*

- NOMA-Enhanced Computation Over Multi-Access Channels. *Wu, F.*, +, *TWC April 2020 2252-2267*
- Omnidirectional Precoding for 3D Massive MIMO With Uniform Planar Arrays. *Lu, A.*, +, *TWC April 2020 2628-2642*
- Opportunistic Spectrum Sharing Based on OFDM With Index Modulation. *Li, Q.*, +, *TWC Jan. 2020 192-204*
- Performance Analysis of Channel Extrapolation in FDD Massive MIMO Systems. *Rottenberg, F.*, +, *TWC April 2020 2728-2741*
- Power Control Based on Deep Reinforcement Learning for Spectrum Sharing. *Zhang, H.*, +, *TWC June 2020 4209-4219*
- Power-Efficient Beam Designs for Millimeter Wave Communication Systems. *Zhang, J.*, +, *TWC Feb. 2020 1265-1279*
- Spectrum Sharing Among Rapidly Deployable Small Cells: A Hybrid Multi-Agent Approach. *Gao, B.*, +, *TWC Jan. 2020 395-409*
- The Application of Deep Reinforcement Learning to Distributed Spectrum Access in Dynamic Heterogeneous Environments With Partial Observations. *Xu, Y.*, +, *TWC July 2020 4494-4506*
- Towards Fair and Efficient Spectrum Sharing Between LTE and WiFi in Unlicensed Bands: Fairness-Constrained Throughput Maximization. *Sun, X.*, +, *TWC April 2020 2713-2727*
- Tradeoff Between Ergodic Rate and Delivery Latency in Fog Radio Access Networks. *Yin, B.*, +, *TWC April 2020 2240-2251*
- UAV-to-UAV Communications in Cellular Networks. *Azari, M.M.*, +, *TWC Sept. 2020 6130-6144*
- Ultra-Dense LEO Satellite Offloading for Terrestrial Networks: How Much to Pay the Satellite Operator?. *Deng, R.*, +, *TWC Oct. 2020 6240-6254*
- Wideband Collaborative Spectrum Sensing Using Massive MIMO Decision Fusion. *Dey, I.*, +, *TWC Aug. 2020 5246-5260*

#### Radio transceivers

- 1-bit Phase Shifters for Large-Antenna Full-Duplex mmWave Communications. *da Silva, J.M.B.*, +, *TWC Oct. 2020 6916-6931*
- Deep Learning-Based End-to-End Wireless Communication Systems With Conditional GANs as Unknown Channels. *Ye, H.*, +, *TWC May 2020 3133-3143*
- DeepNOMA: A Unified Framework for NOMA Using Deep Multi-Task Learning. *Ye, N.*, +, *TWC April 2020 2208-2225*
- Iterative Nonlinear Self-Interference Cancellation for In-Band Full-Duplex Wireless Communications Under Mixer Imbalance and Amplifier Nonlinearity. *Komatsu, K.*, +, *TWC July 2020 4424-4438*
- Joint Detection and Decoding of Polar Coded 5G Control Channels. *Jalali, A.*, +, *TWC March 2020 2066-2078*
- Joint Estimation of RF Impairments, Channel, and Low Complexity Iterative Equalization Technique for High Mobility SC-FDMA/OFDMA Uplink Systems. *Sanoopkumar, P.S.*, +, *TWC June 2020 4276-4289*
- mmWave Amplify-and-Forward MIMO Relay Networks With Hybrid Precoding/Combining Design. *Jiang, L.*, +, *TWC Feb. 2020 1333-1346*
- Residual Transceiver Hardware Impairments on Cooperative NOMA Networks. *Li, X.*, +, *TWC Jan. 2020 680-695*
- Spatial Modulated Multicarrier Sparse Code-Division Multiple Access. *Liu, Y.*, +, *TWC Jan. 2020 610-623*
- Supervised and Semi-Supervised Learning for MIMO Blind Detection With Low-Resolution ADCs. *Nguyen, L.V.*, +, *TWC April 2020 2427-2442*
- Transceiver Design and Signal Detection in Backscatter Communication Systems With Multiple-Antenna Tags. *Chen, C.*, +, *TWC May 2020 3273-3288*
- Weighted Sum-Rate Maximization for Reconfigurable Intelligent Surface Aided Wireless Networks. *Guo, H.*, +, *TWC May 2020 3064-3076*

#### Radio transmitters

- A Low-Complex SVD-Based F-OFDM. *Kim, H.*, +, *TWC Feb. 2020 1373-1385*
- Analytical Channel Models for Millimeter Wave UAV Networks Under Hovering Fluctuations. *Dabiri, M.T.*, +, *TWC April 2020 2868-2883*
- Deep Energy Autoencoder for Noncoherent Multicarrier MU-SIMO Systems. *Van Luong, T.*, +, *TWC June 2020 3952-3962*
- MIMO and Massive MIMO Transmitter Crosstalk. *Handel, P.*, +, *TWC March 2020 1882-1893*

- Network Coding Techniques for Primary-Secondary User Cooperation in Cognitive Radio Networks. *Papadopoulos, A.*, +, *TWC June 2020 4195-4208*
- Physical-Layer Security in the Finite Blocklength Regime Over Fading Channels. *Zheng, T.*, +, *TWC May 2020 3405-3420*
- Probabilistic Constrained Secure Transmissions: Variable-Rate Design and Performance Analysis. *Li, Z.*, +, *TWC April 2020 2543-2557*
- Reciprocity Calibration of TDD MIMO Channel for Interference Alignment. *Zhao, H.*, +, *TWC May 2020 3505-3516*
- Refined Asymptotics for a Block Fading Channel Under Energy Harvesting and Fixed Power Constraints. *Deekshith, P.K.*, +, *TWC April 2020 2558-2569*
- Secrecy Energy Efficiency in Multi-Antenna SWIPT Networks With Dual-Layer PS Receivers. *Lu, Y.*, +, *TWC June 2020 4290-4306*
- Steepest Gradient-Based Orthogonal Precoder for Integer-Forcing MIMO. *Hasan, M.N.*, +, *TWC Feb. 2020 942-955*
- Training Optimization for Hybrid MIMO Communication Systems. *Xing, C.*, +, *TWC Aug. 2020 5473-5487*

#### Radiocommunication

- A Jamming Game With Rival-Type Uncertainty. *Garnaev, A.*, +, *TWC Aug. 2020 5359-5372*
- A Nonlinear Recursive Model Based Optimal Transmission Scheduling in RF Energy Harvesting Wireless Communications. *Luo, Y.*, +, *TWC May 2020 3449-3462*
- A Universal Splitting Estimator for the Performance Evaluation of Wireless Communications Systems. *Rached, N.B.*, +, *TWC July 2020 4353-4362*
- Iterative Nonlinear Self-Interference Cancellation for In-Band Full-Duplex Wireless Communications Under Mixer Imbalance and Amplifier Nonlinearity. *Komatsu, K.*, +, *TWC July 2020 4424-4438*
- Modeling of 300 GHz Chip-to-Chip Wireless Channels in Metal Enclosures. *Fu, J.*, +, *TWC May 2020 3214-3227*
- Spatial Modulated Multicarrier Sparse Code-Division Multiple Access. *Liu, Y.*, +, *TWC Jan. 2020 610-623*

#### Radiofrequency filters

- Semi-Blind Joint Timing-Offset and Channel Estimation for Amplify-and-Forward Two-Way Relaying. *Abdallah, S.*, +, *TWC April 2020 2613-2627*

#### Radiofrequency identification

- A Time and Energy Saving-Based Frame Adjustment Strategy (TES-FAS) Tag Identification Algorithm for UHF RFID Systems. *Su, J.*, +, *TWC May 2020 2974-2986*
- Novel Three-Hierarchy Multiple-Tag-Recognition Technique for Next Generation RFID Systems. *Pu, L.*, +, *TWC Feb. 2020 1237-1249*
- Robot-Assisted Backscatter Localization for IoT Applications. *Zhang, S.*, +, *TWC Sept. 2020 5807-5818*

#### Radiofrequency interference

- 1-bit Phase Shifters for Large-Antenna Full-Duplex mmWave Communications. *da Silva, J.M.B.*, +, *TWC Oct. 2020 6916-6931*
- A Downscaled Faster-RCNN Framework for Signal Detection and Time-Frequency Localization in Wideband RF Systems. *Prasad, K.N.R.S.V.*, +, *TWC July 2020 4847-4862*
- A Joint Solution for Scheduling and Precoding in Multiuser MISO Downlink Channels. *Bandi, A.*, +, *TWC Jan. 2020 475-490*
- A Non-Stationary Bandit-Learning Approach to Energy-Efficient Femto-Caching With Rateless-Coded Transmission. *Maghsudi, S.*, +, *TWC July 2020 5040-5056*
- A Truthful Online Incentive Mechanism for Nondeterministic Spectrum Allocation. *Dong, X.*, +, *TWC July 2020 4632-4642*
- Analysis of the On-Demand Spectrum Access Architecture for CBRS Cognitive Radio Networks. *Xin, C.*, +, *TWC Feb. 2020 970-978*
- Cache-Aided Combination Networks With Interference. *Elkordy, A.R.*, +, *TWC Jan. 2020 148-161*
- Caching at Base Stations With Multi-Cluster Multicast Wireless Backhaul via Accelerated First-Order Algorithms. *Li, Y.*, +, *TWC May 2020 2920-2933*
- Communications and Radar Coexistence in the Massive MIMO Regime: Uplink Analysis. *D'Andrea, C.*, +, *TWC Jan. 2020 19-33*

- CoMP-NOMA in the SWIPT Networks. *Hedayati, M.*, +, *TWC July 2020 4549-4562*
- Complex Properness Inspired Blind Adaptive Frequency-Dependent I/Q Imbalance Compensation for Wideband Direct-Conversion Receivers. *Zhang, X.*, +, *TWC Sept. 2020 5982-5992*
- Cooperative Asynchronous Non-Orthogonal Multiple Access With Power Minimization Under QoS Constraints. *Zou, X.*, +, *TWC March 2020 1503-1518*
- Cooperative MIMO-OFDM-Based Exposure-Path Prevention Over 3D Clustered Wireless Camera Sensor Networks. *Wang, J.*, +, *TWC Jan. 2020 4-18*
- Coordinated Multi-Point Transmission: A Poisson-Delaunay Triangulation Based Approach. *Li, Y.*, +, *TWC May 2020 2946-2959*
- Coverage and Rate Analysis of Downlink Cellular Vehicle-to-Everything (C-V2X) Communication. *Chetlur, V.V.*, +, *TWC March 2020 1738-1753*
- Deep Learning Enabled Optimization of Downlink Beamforming Under Per-Antenna Power Constraints: Algorithms and Experimental Demonstration. *Zhang, J.*, +, *TWC June 2020 3738-3752*
- DeepNOMA: A Unified Framework for NOMA Using Deep Multi-Task Learning. *Ye, N.*, +, *TWC April 2020 2208-2225*
- Degrees of Freedom of Rank-Deficient  $2 \times 2 \times 2$  MIMO Interference Networks. *Wang, Q.*, +, *TWC March 2020 1453-1463*
- Design and Analysis of FD MIMO Cellular Systems in Coexistence With MIMO Radar. *Biswas, S.*, +, *TWC July 2020 4727-4743*
- Design of Ambient Backscatter Training for Wireless Power Transfer. *Idrees, S.*, +, *TWC Oct. 2020 6316-6330*
- Dynamic Time-Frequency Division Duplex. *Razlighi, M.M.*, +, *TWC May 2020 3118-3132*
- Efficient Link Scheduling in Wireless Networks Under Rayleigh-Fading and Multiuser Interference. *Yu, J.*, +, *TWC Aug. 2020 5621-5634*
- Efficient Rendezvous for Heterogeneous Interference in Cognitive Radio Networks. *Gu, Z.*, +, *TWC Jan. 2020 91-105*
- Energy Efficient Resource Management in SWIPT Enabled Heterogeneous Networks With NOMA. *Zhang, H.*, +, *TWC Feb. 2020 835-845*
- Flexible Resource Allocation With Inter-Beam Interference in Satellite Communication Systems With a Digital Channelizer. *Kawamoto, Y.*, +, *TWC May 2020 2934-2945*
- Full-Duplex MAC in LAA/ Wi-Fi Coexistence Networks: Design, Modeling, and Analysis. *Cao, X.*, +, *TWC Aug. 2020 5531-5546*
- Fundamental Rate Limits of UAV-Enabled Multiple Access Channel With Trajectory Optimization. *Li, P.*, +, *TWC Jan. 2020 458-474*
- Fundamentals of Power Allocation Strategies for Downlink Multi-User NOMA With Target Rates. *Oviedo, J.A.*, +, *TWC March 2020 1906-1917*
- Geometry-Based Analysis of Optimal Handover Parameters for Self-Organizing Networks. *Nguyen, M.*, +, *TWC April 2020 2670-2683*
- Heterogeneous Semi-Blind Interference Alignment in Finite-SNR Networks With Fairness Consideration. *Yang, Q.*, +, *TWC April 2020 2472-2488*
- Hierarchical Energy Optimization With More Realistic Power Consumption and Interference Models for Ultra-Dense Networks. *Zhuang, H.*, +, *TWC July 2020 4507-4518*
- Hybrid Lightwave/RF Cooperative NOMA Networks. *Xiao, Y.*, +, *TWC Feb. 2020 1154-1166*
- Indoor Femtocell Interference Localization. *Yan, K.*, +, *TWC Aug. 2020 5176-5187*
- Interference Analysis and Power Allocation in the Presence of Mixed Numerologies. *Mao, J.*, +, *TWC Aug. 2020 5188-5203*
- Interference Cancellation Based Channel Estimation for Massive MIMO Systems With Time Shifted Pilots. *Sun, B.*, +, *TWC Oct. 2020 6826-6843*
- Joint Estimation of RF Impairments, Channel, and Low Complexity Iterative Equalization Technique for High Mobility SC-FDMA/OFDMA Uplink Systems. *Sanoopkumar, P.S.*, +, *TWC June 2020 4276-4289*
- Joint Impact of I/Q Imbalance and Imperfect CSI on SM-MIMO Systems Over Generalized Beckmann Fading Channels: Optimal Detection and Cramer-Rao Bound. *Cambilen, A.E.*, +, *TWC May 2020 3034-3046*
- Joint Power Allocation and Load Balancing Optimization for Energy-Efficient Cell-Free Massive MIMO Networks. *Van Chien, T.*, +, *TWC Oct. 2020 6798-6812*
- Joint Routing and Resource Allocation for Millimeter Wave Picocellular Backhaul. *Eslami Rasekh, M.*, +, *TWC Feb. 2020 783-794*
- Local Partial Zero-Forcing Precoding for Cell-Free Massive MIMO. *Interdonato, G.*, +, *TWC July 2020 4758-4774*
- LoRa Technology Demystified: From Link Behavior to Cell-Level Performance. *Croce, D.*, +, *TWC Feb. 2020 822-834*
- Low-Resolution ADC Quantized Full-Duplex Massive MIMO-Enabled Wireless Backhaul in Heterogeneous Networks Over Rician Channels. *Anokye, P.*, +, *TWC Aug. 2020 5503-5517*
- Machine Learning-Based Channel Prediction in Massive MIMO With Channel Aging. *Yuan, J.*, +, *TWC May 2020 2960-2973*
- Massive MIMO Asymptotics for Ray-Based Propagation Channels. *Li, S.*, +, *TWC June 2020 3977-3991*
- Massive MIMO Channel Estimation With an Untrained Deep Neural Network. *Balevi, E.*, +, *TWC March 2020 2079-2090*
- Max-Min Fairness of  $K$ -User Cooperative Rate-Splitting in MISO Broadcast Channel With User Relaying. *Mao, Y.*, +, *TWC Oct. 2020 6362-6376*
- Mixed-Numerology Signals Transmission and Interference Cancellation for Radio Access Network Slicing. *Yang, B.*, +, *TWC Aug. 2020 5132-5147*
- Multi-Antenna Aided Secrecy Beamforming Optimization for Wirelessly Powered HetNets. *Gong, S.*, +, *TWC Aug. 2020 5261-5277*
- Multi-Antenna Interference Management for Coded Caching. *Tolli, A.*, +, *TWC March 2020 2091-2106*
- Multi-Cell Interference Exploitation: Enhancing the Power Efficiency in Cell Coordination. *Wei, Z.*, +, *TWC Jan. 2020 547-562*
- Multicell MIMO Communications Relying on Intelligent Reflecting Surfaces. *Pan, C.*, +, *TWC Aug. 2020 5218-5233*
- On Reciprocity in Physically Consistent TDD Systems With Coupled Antennas. *Laas, T.*, +, *TWC Oct. 2020 6440-6453*
- On the Effectiveness of OTFS for Joint Radar Parameter Estimation and Communication. *Gaudio, L.*, +, *TWC Sept. 2020 5951-5965*
- On the Error Rate of the LoRa Modulation With Interference. *Afisiadis, O.*, +, *TWC Feb. 2020 1292-1304*
- Optimizing Downlink Resource Allocation in Multiuser MIMO Networks via Fractional Programming and the Hungarian Algorithm. *Khan, A.A.*, +, *TWC Aug. 2020 5162-5175*
- Outage Performance and Average Rate for Large-Scale Millimeter-Wave NOMA Networks. *Kusaladharma, S.*, +, *TWC Feb. 2020 1280-1291*
- PAPR Reduction Using Iterative Clipping/Filtering and ADMM Approaches for OFDM-Based Mixed-Numerology Systems. *Liu, X.*, +, *TWC April 2020 2586-2600*
- Performance Analysis and Optimization of Cooperative Satellite-Aerial-Terrestrial Systems. *Pan, G.*, +, *TWC Oct. 2020 6693-6707*
- Performance Analysis of Large Intelligent Surfaces (LISs): Asymptotic Data Rate and Channel Hardening Effects. *Jung, M.*, +, *TWC March 2020 2052-2065*
- Performance of Dynamic Power and Channel Allocation for Downlink MC-NOMA Systems. *Liu, F.*, +, *TWC March 2020 1650-1662*
- Performance of Multibeam Very High Throughput Satellite Systems Based on FSO Feeder Links With HPA Nonlinearity. *Zedini, E.*, +, *TWC Sept. 2020 5908-5923*
- Physical-Layer Assisted Secure Offloading in Mobile-Edge Computing. *He, X.*, +, *TWC June 2020 4054-4066*
- Power Allocation for D2D Communications With SWIPT. *Huang, J.*, +, *TWC April 2020 2308-2320*
- Precoding-Aided Spatial Modulation Assisted Joint Two-Tier Downlink Reception. *Pechetti, S.V.*, +, *TWC May 2020 3332-3345*
- QoS Driven Power Allocation in Secure Multicarrier Full-Duplex Relay Systems. *Bai, Z.*, +, *TWC Feb. 2020 929-941*
- Reciprocity Calibration of TDD MIMO Channel for Interference Alignment. *Zhao, H.*, +, *TWC May 2020 3505-3516*
- Reconsidering Design of Multi-Antenna NOMA Systems With Limited Feedback. *Tang, Z.*, +, *TWC March 2020 1519-1534*
- Reliable Detection of Unknown Cell-Edge Users via Canonical Correlation Analysis. *Ibrahim, M.S.*, +, *TWC June 2020 4170-4182*
- Residual Transceiver Hardware Impairments on Cooperative NOMA Networks. *Li, X.*, +, *TWC Jan. 2020 680-695*

- Secure Communications in a Unified Non-Orthogonal Multiple Access Framework. *Yue, X.*, +, *TWC March 2020 2163-2178*
- Self-Organizing Slot Access for Neighboring Cooperation in UAV Swarms. *Yao, K.*, +, *TWC April 2020 2800-2812*
- Separability, Asymptotics, and Applications of the SIR Meta Distribution in Cellular Networks. *Feng, K.*, +, *TWC July 2020 4806-4816*
- SINR and Multiuser Efficiency Gap Between MIMO Linear Receivers. *Alfano, G.*, +, *TWC Jan. 2020 106-119*
- SINR and Rate Distributions for Downlink Cellular Networks. *Hadj-Kacem, I.*, +, *TWC July 2020 4604-4616*
- Spectral-Energy Efficiency Trade-Off-Based Beamforming Design for MISO Non-Orthogonal Multiple Access Systems. *Al-Obiedollah, H.M.*, +, *TWC Oct. 2020 6593-6606*
- Spectrum Occupancy and Interference Model Based on Network Experimentation in Hospital. *Mucchi, L.*, +, *TWC Sept. 2020 5666-5675*
- Stochastic Design and Analysis of User-Centric Wireless Cloud Caching Networks. *Azimi-Abarghouyi, S.M.*, +, *TWC July 2020 4978-4993*
- Subset MMSE Receivers for Cell-Free Networks. *Attarifar, M.*, +, *TWC June 2020 4183-4194*
- The Joint and Product Meta Distributions of the SIR and Their Applications to Secrecy and Cooperation. *Yu, X.*, +, *TWC July 2020 4408-4423*
- Transmission Energy Minimization for Heterogeneous Low-Latency NOMA Downlink. *Xu, Y.*, +, *TWC Feb. 2020 1054-1069*
- Treating Interference as Noise in Cellular Networks: A Stochastic Geometry Approach. *Bacha, M.*, +, *TWC March 2020 1918-1932*
- Two-Layered Superposition of Broadcast/Multicast and Unicast Signals in Multiuser OFDMA Systems. *Vargas, D.*, +, *TWC Feb. 2020 979-994*
- UAV-to-UAV Communications in Cellular Networks. *Azari, M.M.*, +, *TWC Sept. 2020 6130-6144*
- Uplink Non-Orthogonal Multiple Access Over Mixed RF-FSO Systems. *Jamali, M.V.*, +, *TWC May 2020 3558-3574*
- Radiofrequency power transmission**
- CoMP-NOMA in the SWIPT Networks. *Hedayati, M.*, +, *TWC July 2020 4549-4562*
- Design of Ambient Backscatter Training for Wireless Power Transfer. *Idrees, S.*, +, *TWC Oct. 2020 6316-6330*
- Energy Efficiency and Delay Tradeoff for Wireless Powered Mobile-Edge Computing Systems With Multi-Access Schemes. *Mao, S.*, +, *TWC March 2020 1855-1867*
- Impartial SWIPT-Assisted User Cooperation Schemes. *Chen, W.*, +, *TWC May 2020 3361-3375*
- Opportunistic Waveform Scheduling for Wireless Power Transfer With Multiple Devices. *Kim, K.*, +, *TWC Sept. 2020 5651-5665*
- Power Allocation for D2D Communications With SWIPT. *Huang, J.*, +, *TWC April 2020 2308-2320*
- Unary Coding Controlled Simultaneous Wireless Information and Power Transfer. *Hu, J.*, +, *TWC Jan. 2020 637-649*
- Radionavigation**
- Calibration-Free Indoor Positioning Using Crowdsourced Data and Multidimensional Scaling. *Zhao, Y.*, +, *TWC March 2020 1770-1785*
- Radiowave propagation**
- A Channel Model for Indoor Time-of-Arrival Ranging. *Latinovic, Z.*, +, *TWC Feb. 2020 1415-1428*
- Authenticating On-Body IoT Devices: An Adversarial Learning Approach. *Huang, Y.*, +, *TWC Aug. 2020 5234-5245*
- Breaking Wireless Propagation Environmental Uncertainty With Deep Learning. *Morocho-Cayamcela, M.E.*, +, *TWC Aug. 2020 5075-5087*
- Channel-Based Optimal Back-Off Delay Control in Delay-Constrained Industrial WSNs. *Li, Q.*, +, *TWC Jan. 2020 696-711*
- Expectation Propagation Detector for Extra-Large Scale Massive MIMO. *Wang, H.*, +, *TWC March 2020 2036-2051*
- Massive MIMO Asymptotics for Ray-Based Propagation Channels. *Li, S.*, +, *TWC June 2020 3977-3991*
- Massive MIMO-NOMA Networks With Imperfect SIC: Design and Fairness Enhancement. *de Sena, A.S.*, +, *TWC Sept. 2020 6100-6115*
- Measurement-Based Analysis and Modeling of Multimode Channel Behaviors in Spherical Vector Wave Domain. *Miao, Y.*, +, *TWC Aug. 2020 5345-5358*
- Measurements and Cluster-Based Modeling of Vehicle-to-Vehicle Channels With Large Vehicle Obstructions. *Yang, M.*, +, *TWC Sept. 2020 5860-5874*
- Methodology for Benchmarking Radio-Frequency Channel Sounders Through a System Model. *Gentile, C.*, +, *TWC Oct. 2020 6504-6519*
- Modeling of 300 GHz Chip-to-Chip Wireless Channels in Metal Enclosures. *Fu, J.*, +, *TWC May 2020 3214-3227*
- Multipath Estimating Delay Lock Loop for LTE Signal TOA Estimation in Indoor and Urban Environments. *Wang, P.*, +, *TWC Aug. 2020 5518-5530*
- Ultra-Wideband Radio Channel Characteristics for Near-Ground Swarm Robots Communication. *Duan, S.*, +, *TWC July 2020 4715-4726*
- Random codes**
- On Data Dissemination Enhanced by Network Coded Device-to-Device Communications. *Li, Y.*, +, *TWC June 2020 3963-3976*
- Random forests**
- Machine Learning-Enabled LOS/NLOS Identification for MIMO Systems in Dynamic Environments. *Huang, C.*, +, *TWC June 2020 3643-3657*
- Random processes**
- A Universal Splitting Estimator for the Performance Evaluation of Wireless Communications Systems. *Rached, N.B.*, +, *TWC July 2020 4353-4362*
- Random Access-Based Reliable Uplink Communication and Power Transfer Using Dynamic Power Splitting. *Kisseleff, S.*, +, *TWC June 2020 4307-4320*
- Random variables**
- The Max-Product Algorithm Viewed as Linear Data-Fusion: A Distributed Detection Scenario. *Abdi, Y.*, +, *TWC Nov. 2020 7585-7597*
- Rate distortion theory**
- Overhead-Performance Tradeoff for MISO Broadcast Channels With Zero-Forcing Precoder. *Liu, G.*, +, *TWC Feb. 2020 995-1007*
- Ray tracing**
- Statistical Modeling and Analysis on the Confidentiality of Indoor VLC Systems. *Chen, J.*, +, *TWC July 2020 4744-4757*
- Rayleigh channels**
- Capacity Region and Capacity-Achieving Signaling Schemes for 1-bit ADC Multiple Access Channels in Rayleigh Fading. *Ranjbar, M.*, +, *TWC Sept. 2020 6162-6178*
- Cube-Split: A Structured Grassmannian Constellation for Non-Coherent SIMO Communications. *Ngo, K.*, +, *TWC March 2020 1948-1964*
- Deep Learning-Based End-to-End Wireless Communication Systems With Conditional GANs as Unknown Channels. *Ye, H.*, +, *TWC May 2020 3133-3143*
- Design and Analysis of Rotated-QAM Based Probabilistic Shaping Scheme for Rayleigh Fading Channels. *Yao, Y.*, +, *TWC May 2020 3047-3063*
- Design and Performance Analysis of a New  $M$ -Ary Differential Chaos Shift Keying With Index Modulation. *Cai, X.*, +, *TWC Feb. 2020 846-858*
- Dual-Hop Spatial Modulation With a Relay Transmitting its Own Information. *Li, Q.*, +, *TWC July 2020 4449-4463*
- Efficient Link Scheduling in Wireless Networks Under Rayleigh-Fading and Multiuser Interference. *Yu, J.*, +, *TWC Aug. 2020 5621-5634*
- Error Rate Analysis of Amplitude-Coherent Detection Over Rician Fading Channels With Receiver Diversity. *Al-Jarrah, M.A.*, +, *TWC Jan. 2020 134-147*
- Fundamentals of Acute Relay CSI Severity. *Le, K.N.*, *TWC Nov. 2020 7653-7662*
- Joint Impact of I/Q Imbalance and Imperfect CSI on SM-MIMO Systems Over Generalized Beckmann Fading Channels: Optimal Detection and Cramer-Rao Bound. *Canbilen, A.E.*, +, *TWC May 2020 3034-3046*
- Joint User Selection, Power Allocation, and Precoding Design With Imperfect CSIT for Multi-Cell MU-MIMO Downlink Systems. *Choi, J.*, +, *TWC Jan. 2020 162-176*
- Local Partial Zero-Forcing Precoding for Cell-Free Massive MIMO. *Interdonato, G.*, +, *TWC July 2020 4758-4774*
- Multi-User Detection Based on Expectation Propagation for the Non-Coherent SIMO Multiple Access Channel. *Ngo, K.*, +, *TWC Sept. 2020 6145-6161*

- Mutual Information Analysis of Mixed-ADC MIMO Systems Over Rayleigh Channels Based on Random Matrix Theory. *Gao, H.*, +, *TWC July 2020 4894-4906*
- Near-Optimal MIMO-SCMA Uplink Detection With Low-Complexity Expectation Propagation. *Wang, P.*, +, *TWC Feb. 2020 1025-1037*
- Optimal Power Adaptation in Covert Communication With an Uninformed Jammer. *Li, K.*, +, *TWC May 2020 3463-3473*
- Optimum Performance of Short Block Length Codes Under Multivariate Stationary Rayleigh Fading. *Mestre, X.*, +, *TWC March 2020 2122-2136*
- Reliability Bounds for Dependent Fading Wireless Channels. *Besser, K.*, +, *TWC Sept. 2020 5833-5845*
- Saddlepoint Approximations for Short-Packet Wireless Communications. *Lancho, A.*, +, *TWC July 2020 4831-4846*
- Separability, Asymptotics, and Applications of the SIR Meta Distribution in Cellular Networks. *Feng, K.*, +, *TWC July 2020 4806-4816*
- Signal Design for Frequency-Phase Keying. *Kundu, N.K.*, +, *TWC June 2020 4067-4079*
- Simple Bounds for the Symmetric Capacity of the Rayleigh Fading Multiple Access Channel. *Domanovitz, E.*, +, *TWC July 2020 4594-4603*
- Real-time systems**
- Distributed User Association and Resource Allocation Algorithms for Three Tier HetNets. *Gopalam, S.*, +, *TWC Dec. 2020 7913-7926*
- Receivers**
- Adaptive Modulation for Long-Range Underwater Acoustic Communication. *Huang, J.*, +, *TWC Oct. 2020 6844-6857*
- Analog Self-Interference Cancellation Using Auxiliary Transmitter Considering IQ Imbalance and Amplifier Nonlinearity. *Fukui, T.*, +, *TWC Nov. 2020 7439-7452*
- Complex Properness Inspired Blind Adaptive Frequency-Dependent I/Q Imbalance Compensation for Wideband Direct-Conversion Receivers. *Zhang, X.*, +, *TWC Sept. 2020 5982-5992*
- Interference Avoidance Position Planning in Dual-Hop and Multi-Hop UAV Relay Networks. *Hosseinalipour, S.*, +, *TWC Nov. 2020 7033-7048*
- Minimum-Latency FEC Design With Delayed Feedback: Mathematical Modeling and Efficient Algorithms. *Xu, X.*, +, *TWC Nov. 2020 7210-7223*
- Multi-Antenna Coded Content Delivery With Caching: A Low-Complexity Solution. *Zhao, J.*, +, *TWC Nov. 2020 7484-7497*
- Multi-Tone Signal Optimization for Wireless Power Transfer in the Presence of Wireless Communication Links. *Mouris, B.A.*, +, *TWC May 2020 3575-3590*
- On HARQ Schemes in Satellite-Terrestrial Transmissions. *Pan, G.*, +, *TWC Dec. 2020 7998-8010*
- Real-time Prediction of Non-stationary Wireless Channels. *Abdul Careem, M.A.*, +, *TWC Dec. 2020 7836-7850*
- Two-Layer Coded Channel Access With Collision Resolution: Design and Analysis. *Ebrahimi, M.*, +, *TWC Dec. 2020 7986-7997*
- Receiving antennas**
- Aggregated VLC-RF Systems: Achievable Rates, Optimal Power Allocation, and Energy Efficiency. *Ma, S.*, +, *TWC Nov. 2020 7265-7278*
- Deep Energy Autoencoder for Noncoherent Multicarrier MU-SIMO Systems. *Van Luong, T.*, +, *TWC June 2020 3952-3962*
- Error Rate Analysis of Amplitude-Coherent Detection Over Rician Fading Channels With Receiver Diversity. *Al-Jarrah, M.A.*, +, *TWC Jan. 2020 134-147*
- Generalized Busgang LMMSE Channel Estimation for One-Bit Massive MIMO Systems. *Wan, Q.*, +, *TWC June 2020 4234-4246*
- Low-Resolution ADC Quantized Full-Duplex Massive MIMO-Enabled Wireless Backhaul in Heterogeneous Networks Over Rician Channels. *Anokye, P.*, +, *TWC Aug. 2020 5503-5517*
- Measurement-Based Analysis and Modeling of Multimode Channel Behaviors in Spherical Vector Wave Domain. *Miao, Y.*, +, *TWC Aug. 2020 5345-5358*
- MOCZ for Blind Short-Packet Communication: Practical Aspects. *Walk, P.*, +, *TWC Oct. 2020 6675-6692*
- Multi-Mode OAM Radio Waves: Generation, Angle of Arrival Estimation and Reception With UCAs. *Chen, R.*, +, *TWC Oct. 2020 6932-6947*
- Multi-User Detection Based on Expectation Propagation for the Non-Coherent SIMO Multiple Access Channel. *Ngo, K.*, +, *TWC Sept. 2020 6145-6161*
- Multimode Integer-Forcing Receivers for Block Fading Channels. *Yang, D.*, +, *TWC Dec. 2020 8261-8271*
- Mutual Information Analysis of Mixed-ADC MIMO Systems Over Rayleigh Channels Based on Random Matrix Theory. *Gao, H.*, +, *TWC July 2020 4894-4906*
- Near-Optimal MIMO-SCMA Uplink Detection With Low-Complexity Expectation Propagation. *Wang, P.*, +, *TWC Feb. 2020 1025-1037*
- Preamble-Based Channel Estimation for OQAM/FBMC Systems With Delay Diversity. *Liu, W.*, +, *TWC Nov. 2020 7169-7180*
- Receive Spatial Modulation Aided Simultaneous Wireless Information and Power Transfer With Finite Alphabet. *Zhao, Y.*, +, *TWC Dec. 2020 8039-8053*
- Secure Degrees of Freedom of MIMO Two-Way Wiretap Channel With no CSI Anywhere. *Liang, Q.*, +, *TWC Dec. 2020 7927-7941*
- Steepest Gradient-Based Orthogonal Precoder for Integer-Forcing MIMO. *Hasan, M.N.*, +, *TWC Feb. 2020 942-955*
- Transceiver Design and Signal Detection in Backscatter Communication Systems With Multiple-Antenna Tags. *Chen, C.*, +, *TWC May 2020 3273-3288*
- Ultra-Wideband Radio Channel Characteristics for Near-Ground Swarm Robots Communication. *Duan, S.*, +, *TWC July 2020 4715-4726*
- Rectennas**
- Signal and System Design for Wireless Power Transfer: Prototype, Experiment and Validation. *Kim, J.*, +, *TWC Nov. 2020 7453-7469*
- Recurrent neural networks**
- Cache-Aided NOMA Mobile Edge Computing: A Reinforcement Learning Approach. *Yang, Z.*, +, *TWC Oct. 2020 6899-6915*
- Learning for Detection: MIMO-OFDM Symbol Detection Through Downlink Pilots. *Zhou, Z.*, +, *TWC June 2020 3712-3726*
- Machine Learning-Based Channel Prediction in Massive MIMO With Channel Aging. *Yuan, J.*, +, *TWC May 2020 2960-2973*
- The Application of Deep Reinforcement Learning to Distributed Spectrum Access in Dynamic Heterogeneous Environments With Partial Observations. *Xu, Y.*, +, *TWC July 2020 4494-4506*
- Wake-Up Scheduling for Energy-Efficient Mobile Devices. *Rostami, S.*, +, *TWC Sept. 2020 6020-6036*
- Recursive estimation**
- A Nonlinear Recursive Model Based Optimal Transmission Scheduling in RF Energy Harvesting Wireless Communications. *Luo, Y.*, +, *TWC May 2020 3449-3462*
- Redundancy**
- Non-Coherent Massive MIMO Systems: A Constellation Design Approach. *Xie, H.*, +, *TWC June 2020 3812-3825*
- Reed-Muller codes**
- An Uplink Control Channel Design With Complementary Sequences for Unlicensed Bands. *Sahin, A.*, +, *TWC Oct. 2020 6858-6870*
- Regression analysis**
- Edge AI: On-Demand Accelerating Deep Neural Network Inference via Edge Computing. *Li, E.*, +, *TWC Jan. 2020 447-457*
- Relaxation theory**
- Energy-Aware 3D Unmanned Aerial Vehicle Deployment for Network Throughput Optimization. *Chou, S.*, +, *TWC Jan. 2020 563-578*
- Relay networks (telecommunication)**
- A Deep Study on Layered Multi-Relay Non-Orthogonal Amplify-Forward Networks. *Padidar, P.*, +, *TWC Jan. 2020 354-366*
- A Network Linear Block Coding Approach to Selective Detect-and-Forward Multi-Way Relaying With Differential Modulation. *Hou, X.*, +, *TWC Sept. 2020 5749-5764*
- A Novel Multimodal Collaborative Drone-Assisted VANET Networking Model. *Lin, N.*, +, *TWC July 2020 4919-4933*
- A Poisson Line Process-Based Framework for Determining the Needed RSU Density and Relaying Hops in Vehicular Networks. *Ammar, H.A.*, +, *TWC Oct. 2020 6643-6659*
- Coherent Detection for Short-Packet Physical-Layer Network Coding With Binary FSK Modulation. *Wang, Z.*, +, *TWC Jan. 2020 279-292*

- Decentralized WSEE Optimization for Massive MIMO Two-Way Half-Duplex AF Relaying. *Sharma, E.*, +, *TWC Feb. 2020 1397-1414*
- Dual-Hop Spatial Modulation With a Relay Transmitting its Own Information. *Li, Q.*, +, *TWC July 2020 4449-4463*
- Efficiency Maximization for UAV-Enabled Mobile Relaying Systems With Laser Charging. *Zhao, M.*, +, *TWC May 2020 3257-3272*
- End-to-End Performance Analysis of Underwater Optical Wireless Relaying and Routing Techniques Under Location Uncertainty. *Celik, A.*, +, *TWC Feb. 2020 1167-1181*
- Energy Efficiency Optimization of Massive MIMO FD Relay With Quadratic Transform. *Sharma, E.*, +, *TWC Feb. 2020 1429-1448*
- Free Space Optical Cooperative Communications via an Energy Harvesting Harvest-Store-Use Relay. *Abou-Rjeily, C.*, +, *TWC Oct. 2020 6564-6577*
- Fundamentals of Acute Relay CSI Severity. *Le, K.N.*, *TWC Nov. 2020 7653-7662*
- Generalized Path-Permutation Codes for Reliable End-to-End Networking of Opportunistic Links. *Lai, L.*, +, *TWC July 2020 4579-4593*
- Hybrid RF/FSO Backhaul Networks With Statistical-QoS-Aware Buffer-Aided Relaying. *Hassan, M.Z.*, +, *TWC March 2020 1464-1483*
- Jamming-Resilient Frequency Hopping-Aided Secure Communication for Internet-of-Things in the Presence of an Untrusted Relay. *Letafati, M.*, +, *TWC Oct. 2020 6771-6785*
- Joint Relay Selection and Power Allocation for Underwater Cooperative Optical Wireless Networks. *Xing, F.*, +, *TWC Jan. 2020 251-264*
- Low-Complexity Joint Resource Allocation and Trajectory Design for UAV-Aided Relay Networks With the Segmented Ray-Tracing Channel Model. *Hu, Q.*, +, *TWC Sept. 2020 6179-6195*
- Modeling and Performance Analysis for Satellite Data Relay Networks Using Two-Dimensional Markov-Modulated Process. *Zhu, Y.*, +, *TWC June 2020 3894-3907*
- Multi-Antenna Two-Way Relay Based Cooperative NOMA. *Lv, L.*, +, *TWC Oct. 2020 6486-6503*
- Network Coding Techniques for Primary-Secondary User Cooperation in Cognitive Radio Networks. *Papadopoulos, A.*, +, *TWC June 2020 4195-4208*
- Performance Analysis and Optimization of Cooperative Satellite-Aerial-Terrestrial Systems. *Pan, G.*, +, *TWC Oct. 2020 6693-6707*
- QoS Driven Power Allocation in Secure Multicarrier Full-Duplex Relay Systems. *Bai, Z.*, +, *TWC Feb. 2020 929-941*
- Random Access-Based Reliable Uplink Communication and Power Transfer Using Dynamic Power Splitting. *Kisseleff, S.*, +, *TWC June 2020 4307-4320*
- Residual Transceiver Hardware Impairments on Cooperative NOMA Networks. *Li, X.*, +, *TWC Jan. 2020 680-695*
- Secure 3D Mobile UAV Relaying for Hybrid Satellite-Terrestrial Networks. *Sharma, P.K.*, +, *TWC April 2020 2770-2784*
- Semi-Blind Joint Timing-Offset and Channel Estimation for Amplify-and-Forward Two-Way Relaying. *Abdallah, S.*, +, *TWC April 2020 2613-2627*
- Tractable Approach to MmWaves Cellular Analysis With FSO Backhauling Under Feedback Delay and Hardware Limitations. *Balti, E.*, +, *TWC Jan. 2020 410-422*
- Uplink Non-Orthogonal Multiple Access Over Mixed RF-FSO Systems. *Jamali, M.V.*, +, *TWC May 2020 3558-3574*
- Uplink Resource Allocation in Energy Harvesting Cellular Network With H2H/M2M Coexistence. *Nobar, S.K.*, +, *TWC Aug. 2020 5101-5116*
- Relays**
- Harvest-and-Opportunistically-Relay: Analyses on Transmission Outage and Covertness. *Li, Y.*, +, *TWC Dec. 2020 7779-7795*
- Interference Avoidance Position Planning in Dual-Hop and Multi-Hop UAV Relay Networks. *Hosseinipour, S.*, +, *TWC Nov. 2020 7033-7048*
- Network-Coded Cooperative Systems With Generalized User-Relay Selection. *Heidarpour, A.R.*, +, *TWC Nov. 2020 7251-7264*
- Relay Selection, Scheduling, and Power Control in Wireless-Powered Cooperative Communication Networks. *Onalan, A.G.*, +, *TWC Nov. 2020 7181-7195*
- Secure Cooperative Hybrid VLC-RF Systems. *Pan, G.*, +, *TWC Nov. 2020 7097-7107*
- Trajectory Design and Power Allocation for Drone-Assisted NR-V2X Network With Dynamic NOMA/OMA. *Abbasi, O.*, +, *TWC Nov. 2020 7153-7168*
- Unified Performance Analysis of Multi-Hop FSO Systems Over Double Generalized Gamma Turbulence Channels With Pointing Errors. *Ashrafzadeh, B.*, +, *TWC Nov. 2020 7732-7746*
- Wireless-Powered Edge Computing With Cooperative UAV: Task, Time Scheduling and Trajectory Design. *Hu, X.*, +, *TWC Dec. 2020 8083-8098*
- Reliability**
- A Truthful Online Incentive Mechanism for Nondeterministic Spectrum Allocation. *Dong, X.*, +, *TWC July 2020 4632-4642*
- On HARQ Schemes in Satellite-Terrestrial Transmissions. *Pan, G.*, +, *TWC Dec. 2020 7998-8010*
- Space-Air-Ground Integrated Networks: Outage Performance Analysis. *Ye, J.*, +, *TWC Dec. 2020 7897-7912*
- Remote sensing**
- Breaking Wireless Propagation Environmental Uncertainty With Deep Learning. *Morocho-Cayamcela, M.E.*, +, *TWC Aug. 2020 5075-5087*
- Remotely operated vehicles**
- A Novel Multimodal Collaborative Drone-Assisted VANET Networking Model. *Lin, N.*, +, *TWC July 2020 4919-4933*
- Performance Characterization of Canonical Mobility Models in Drone Cellular Networks. *Banagar, M.*, +, *TWC July 2020 4994-5009*
- Self-Organizing Slot Access for Neighboring Cooperation in UAV Swarms. *Yao, K.*, +, *TWC April 2020 2800-2812*
- Renewable energy sources**
- Green-Oriented Dynamic Resource-on-Demand Strategy for Multi-RAT Wireless Networks Powered by Heterogeneous Energy Sources. *Qin, M.*, +, *TWC Aug. 2020 5547-5560*
- On the Energy Efficiency of Heterogeneous Cellular Networks With Renewable Energy Sources—A Stochastic Geometry Framework. *Lam, T.T.*, +, *TWC Oct. 2020 6752-6770*
- Power Control Optimization for Large-Scale Multi-Antenna Systems. *Zhou, Z.*, +, *TWC Nov. 2020 7339-7352*
- Resource allocation**
- A Distributed Framework for Task Offloading in Edge Computing Networks of Arbitrary Topology. *Liu, B.*, +, *TWC April 2020 2855-2867*
- A Learning-Based Pre-Allocation Scheme for Low-Latency Access in Industrial Wireless Networks. *Li, M.*, +, *TWC Jan. 2020 650-664*
- A Non-Stationary Bandit-Learning Approach to Energy-Efficient Femto-Caching With Rateless-Coded Transmission. *Maghsudi, S.*, +, *TWC July 2020 5040-5056*
- Adaptive Resource Allocation in Future Wireless Networks With Blockchain and Mobile Edge Computing. *Guo, F.*, +, *TWC March 2020 1689-1703*
- An Online Incentive Mechanism for Collaborative Task Offloading in Mobile Edge Computing. *Li, G.*, +, *TWC Jan. 2020 624-636*
- An Uplink Control Channel Design With Complementary Sequences for Unlicensed Bands. *Sahin, A.*, +, *TWC Oct. 2020 6858-6870*
- Antenna Selection Strategy for Energy Efficiency Maximization in Uplink OFDMA Networks: A Multi-Objective Approach. *Khalili, A.*, +, *TWC Jan. 2020 595-609*
- Cache-Aided NOMA Mobile Edge Computing: A Reinforcement Learning Approach. *Yang, Z.*, +, *TWC Oct. 2020 6899-6915*
- Characterizing Resource Allocation Trade-Offs in 5G NR Serving Multicast and Unicast Traffic. *Samuylov, A.*, +, *TWC May 2020 3421-3434*
- Computation Efficiency Maximization in Wireless-Powered Mobile Edge Computing Networks. *Zhou, F.*, +, *TWC May 2020 3170-3184*
- Coordinated Resource Allocation-Based Integrated Visible Light Communication and Positioning Systems for Indoor IoT. *Yang, H.*, +, *TWC July 2020 4671-4684*
- Delay-Aware Computation Offloading in NOMA MEC Under Differentiated Uploading Delay. *Sheng, M.*, +, *TWC April 2020 2813-2826*
- Downlink Analysis of NOMA-Enabled Cellular Networks With 3GPP-Inspired User Ranking. *Mankar, P.D.*, +, *TWC June 2020 3796-3811*

- Energy Efficiency and Delay Tradeoff for Wireless Powered Mobile-Edge Computing Systems With Multi-Access Schemes. *Mao, S.*, +, *TWC March 2020 1855-1867*
- Energy Efficiency Optimization for Downlink Massive MIMO With Statistical CSIT. *You, L.*, +, *TWC April 2020 2684-2698*
- Energy Efficient Resource Management in SWIPT Enabled Heterogeneous Networks With NOMA. *Zhang, H.*, +, *TWC Feb. 2020 835-845*
- Flexible Resource Allocation With Inter-Beam Interference in Satellite Communication Systems With a Digital Channelizer. *Kawamoto, Y.*, +, *TWC May 2020 2934-2945*
- Fundamental Rate Limits of UAV-Enabled Multiple Access Channel With Trajectory Optimization. *Li, P.*, +, *TWC Jan. 2020 458-474*
- Green-Oriented Dynamic Resource-on-Demand Strategy for Multi-RAT Wireless Networks Powered by Heterogeneous Energy Sources. *Qin, M.*, +, *TWC Aug. 2020 5547-5560*
- HFEL: Joint Edge Association and Resource Allocation for Cost-Efficient Hierarchical Federated Edge Learning. *Luo, S.*, +, *TWC Oct. 2020 6535-6548*
- Hierarchical Energy Optimization With More Realistic Power Consumption and Interference Models for Ultra-Dense Networks. *Zhuang, H.*, +, *TWC July 2020 4507-4518*
- Hybrid Power Line/Wireless Systems: An Optimal Power Allocation Perspective. *Filomeno, M.d.L.*, +, *TWC Oct. 2020 6289-6300*
- Improvement of the Global Connectivity Using Integrated Satellite-Airborne-Terrestrial Networks With Resource Optimization. *Alsharoa, A.*, +, *TWC Aug. 2020 5088-5100*
- Incentive-Aware Micro Computing Cluster Formation for Cooperative Fog Computing. *Luo, S.*, +, *TWC April 2020 2643-2657*
- Joint Access and Backhaul Resource Management in Satellite-Drone Networks: A Competitive Market Approach. *Hu, Y.*, +, *TWC June 2020 3908-3923*
- Joint Annotator-and-Spectrum Allocation in Wireless Networks for Crowd Labeling. *Li, X.*, +, *TWC Sept. 2020 6116-6129*
- Joint Data Compression and Computation Offloading in Hierarchical Fog-Cloud Systems. *Nguyen, T.T.*, +, *TWC Jan. 2020 293-309*
- Joint Frame Design and Resource Allocation for Ultra-Reliable and Low-Latency Vehicular Networks. *Yang, H.*, +, *TWC May 2020 3607-3622*
- Joint Optimization of Radio and Computational Resources Allocation in Blockchain-Enabled Mobile Edge Computing Systems. *Feng, J.*, +, *TWC June 2020 4321-4334*
- Joint Optimization of Service Caching Placement and Computation Offloading in Mobile Edge Computing Systems. *Bi, S.*, +, *TWC July 2020 4947-4963*
- Joint Power Allocation and Load Balancing Optimization for Energy-Efficient Cell-Free Massive MIMO Networks. *Van Chien, T.*, +, *TWC Oct. 2020 6798-6812*
- Joint Resource Allocation and Incentive Design for Blockchain-Based Mobile Edge Computing. *Sun, W.*, +, *TWC Sept. 2020 6050-6064*
- Minority Game for Distributed User Association in Unlicensed Heterogeneous Networks. *Wang, Y.*, +, *TWC June 2020 4220-4233*
- Mobile Edge Computing Meets mmWave Communications: Joint Beamforming and Resource Allocation for System Delay Minimization. *Zhao, C.*, +, *TWC April 2020 2382-2396*
- Modeling and Performance Analysis for Satellite Data Relay Networks Using Two-Dimensional Markov-Modulated Process. *Zhu, Y.*, +, *TWC June 2020 3894-3907*
- Multi-Agent Reinforcement Learning-Based Resource Allocation for UAV Networks. *Cui, J.*, +, *TWC Feb. 2020 729-743*
- Multi-Antenna Interference Management for Coded Caching. *Tolli, A.*, +, *TWC March 2020 2091-2106*
- Multi-Dimensional Busy-Tone Arbitration for OFDMA Random Access in IEEE 802.11ax. *Xie, D.*, +, *TWC June 2020 4080-4094*
- Multiservice-Based Network Slicing Orchestration With Impatient Tenants. *Han, B.*, +, *TWC July 2020 5010-5024*
- NOMA-Enhanced Computation Over Multi-Access Channels. *Wu, F.*, +, *TWC April 2020 2252-2267*
- Offloading and Resource Allocation With General Task Graph in Mobile Edge Computing: A Deep Reinforcement Learning Approach. *Yan, J.*, +, *TWC Aug. 2020 5404-5419*
- On Optimal Orchestration of Virtualized Cellular Networks With Downlink Rate Coverage Probability Constraints. *Chatterjee, S.*, +, *TWC July 2020 4378-4393*
- Online Resource Procurement and Allocation in a Hybrid Edge-Cloud Computing System. *Dinh, T.Q.*, +, *TWC March 2020 2137-2149*
- Optimal Energy Allocation and Task Offloading Policy for Wireless Powered Mobile Edge Computing Systems. *Wang, F.*, +, *TWC April 2020 2443-2459*
- Optimal Task Offloading and Resource Allocation in Mobile-Edge Computing With Inter-User Task Dependency. *Yan, J.*, +, *TWC Jan. 2020 235-250*
- Optimizing Downlink Resource Allocation in Multiuser MIMO Networks via Fractional Programming and the Hungarian Algorithm. *Khan, A.A.*, +, *TWC Aug. 2020 5162-5175*
- Optimizing the Learning Performance in Mobile Augmented Reality Systems With CNN. *He, Y.*, +, *TWC Aug. 2020 5333-5344*
- Parallel Transmission LiFi. *Wu, X.*, +, *TWC Oct. 2020 6268-6276*
- Peace: Privacy-Preserving and Cost-Efficient Task Offloading for Mobile-Edge Computing. *He, X.*, +, *TWC March 2020 1814-1824*
- Residual Clipping Noise in Multi-Layer Optical OFDM: Modeling, Analysis, and Applications. *Zhang, Z.*, +, *TWC Sept. 2020 5846-5859*
- Resource Allocation for Hybrid NOMA MEC Offloading. *Zhu, J.*, +, *TWC July 2020 4964-4977*
- Resource Allocation for Non-Orthogonal Multiple Access-Enabled Fog Radio Access Networks. *Liu, B.*, +, *TWC June 2020 3867-3878*
- Resource Allocation for Wireless Cooperative IoT Network With Energy Harvesting. *Chen, X.*, +, *TWC July 2020 4879-4893*
- Spectral-Energy Efficiency Trade-Off-Based Beamforming Design for MISO Non-Orthogonal Multiple Access Systems. *Al-Obiedollah, H.M.*, +, *TWC Oct. 2020 6593-6606*
- Spectrum Sharing Among Rapidly Deployable Small Cells: A Hybrid Multi-Agent Approach. *Gao, B.*, +, *TWC Jan. 2020 395-409*
- Two-Layered Superposition of Broadcast/Multicast and Unicast Signals in Multiuser OFDMA Systems. *Vargas, D.*, +, *TWC Feb. 2020 979-994*
- Two-Side Coalitional Matching Approach for Joint MIMO-NOMA Clustering and BS Selection in Multi-Cell MIMO-NOMA Systems. *Ding, J.*, +, *TWC March 2020 2006-2021*
- UAV Trajectory Planning for Data Collection from Time-Constrained IoT Devices. *Samir, M.*, +, *TWC Jan. 2020 34-46*
- Ultra Dense Edge Caching Networks With Arbitrary User Spatial Density. *Gruppi, E.*, +, *TWC July 2020 4363-4377*
- Ultra-Dense LEO Satellite Offloading for Terrestrial Networks: How Much to Pay the Satellite Operator?. *Deng, R.*, +, *TWC Oct. 2020 6240-6254*
- Uplink Resource Allocation in Energy Harvesting Cellular Network With H2H/M2M Coexistence. *Nobar, S.K.*, +, *TWC Aug. 2020 5101-5116*
- User-Centric 5G Cellular Networks: Resource Allocation and Comparison With the Cell-Free Massive MIMO Approach. *Buzzi, S.*, +, *TWC Feb. 2020 1250-1264*
- User-Centric Performance Optimization With Remote Radio Head Cooperation in C-RAN. *You, L.*, +, *TWC Jan. 2020 340-353*
- Utility-Aware Optimal Resource Allocation Protocol for UAV-Assisted Small Cells With Heterogeneous Coverage Demands. *Lohan, P.*, +, *TWC Feb. 2020 1221-1236*

#### Resource management

- A Stochastic Optimization Framework for Channel Bonding in Wireless LANs Under Demand Uncertainty. *Nabil, A.*, +, *TWC Nov. 2020 7528-7542*
- Aggregated VLC-RF Systems: Achievable Rates, Optimal Power Allocation, and Energy Efficiency. *Ma, S.*, +, *TWC Nov. 2020 7265-7278*
- Cache-Enabling UAV Communications: Network Deployment and Resource Allocation. *Zhang, T.*, +, *TWC Nov. 2020 7470-7483*
- Centralized and Distributed Deep Reinforcement Learning Methods for Downlink Sum-Rate Optimization. *Khan, A.A.*, +, *TWC Dec. 2020 8410-8426*

- Distributed Optimization for Computation Offloading in Edge Computing. *Lin, R.*, +, *TWC Dec. 2020 8179-8194*
- Distributed Pareto Optimal Beamforming for the MISO Multi-Band Multi-Cell Downlink. *Moothedath, V.N.*, +, *TWC Nov. 2020 7196-7209*
- Distributed User Association and Resource Allocation Algorithms for Three Tier HetNets. *Gopalam, S.*, +, *TWC Dec. 2020 7913-7926*
- Eigenvalue-Decomposition-Precoded Ultra-Dense Non-Orthogonal Frequency-Division Multiplexing. *Osaki, S.*, +, *TWC Dec. 2020 8165-8178*
- Energy-Efficient Joint User Association and Power Allocation in a Heterogeneous Network. *Fang, F.*, +, *TWC Nov. 2020 7008-7020*
- Flexible Subcarrier Allocation for Interleaved Frequency Division Multiple Access. *Shao, Y.*, +, *TWC Nov. 2020 7139-7152*
- Intelligent Reflecting Surface Assisted Multi-User OFDMA: Channel Estimation and Training Design. *Zheng, B.*, +, *TWC Dec. 2020 8315-8329*
- Joint Distributed Link Scheduling and Power Allocation for Content Delivery in Wireless Caching Networks. *Choi, M.*, +, *TWC Dec. 2020 7810-7824*
- Joint Parameter-and-Bandwidth Allocation for Improving the Efficiency of Partitioned Edge Learning. *Wen, D.*, +, *TWC Dec. 2020 8272-8286*
- Joint Sub-Carrier and Power Allocation for Efficient Communication of Cellular UAVs. *Hellaoui, H.*, +, *TWC Dec. 2020 8287-8302*
- Machine Intelligence at the Edge With Learning Centric Power Allocation. *Wang, S.*, +, *TWC Nov. 2020 7293-7308*
- Max-Min Energy Balance in Wireless-Powered Hierarchical Fog-Cloud Computing Networks. *Liu, J.*, +, *TWC Nov. 2020 7064-7080*
- New Transceiver Designs for Interleaved Frequency-Division Multiple Access. *Liew, S.C.*, +, *TWC Dec. 2020 7765-7778*
- Optimal Virtual Network Function Deployment for 5G Network Slicing in a Hybrid Cloud Infrastructure. *De Domenico, A.*, +, *TWC Dec. 2020 7942-7956*
- Partial Non-Orthogonal Multiple Access (NOMA) in Downlink Poisson Networks. *Ali, K.S.*, +, *TWC Nov. 2020 7637-7652*
- Power and Subcarrier Allocation in 5G NOMA-FD Systems. *Abrardo, A.*, +, *TWC Dec. 2020 8246-8260*
- Power Control Optimization for Large-Scale Multi-Antenna Systems. *Zhou, Z.*, +, *TWC Nov. 2020 7339-7352*
- Predicting Device-to-Device Channels From Cellular Channel Measurements: A Learning Approach. *Najla, M.*, +, *TWC Nov. 2020 7124-7138*
- Radar-Assisted Predictive Beamforming for Vehicular Links: Communication Served by Sensing. *Liu, F.*, +, *TWC Nov. 2020 7704-7719*
- Scheduling for Cellular Federated Edge Learning With Importance and Channel Awareness. *Ren, J.*, +, *TWC Nov. 2020 7690-7703*
- Trajectory Design and Power Allocation for Drone-Assisted NR-V2X Network With Dynamic NOMA/OMA. *Abbasi, O.*, +, *TWC Nov. 2020 7153-7168*
- Wireless Networks With Cache-Enabled and Backhaul-Limited Aerial Base Stations. *Kalantari, E.*, +, *TWC Nov. 2020 7363-7376*
- Wireless-Powered Edge Computing With Cooperative UAV: Task, Time Scheduling and Trajectory Design. *Hu, X.*, +, *TWC Dec. 2020 8083-8098*
- Reverberation**
- Adaptive Detection and Localization Exploiting the IEEE 802.11ad Standard. *Grossi, E.*, +, *TWC July 2020 4394-4407*
- Communications and Radar Coexistence in the Massive MIMO Regime: Uplink Analysis. *D'Andrea, C.*, +, *TWC Jan. 2020 19-33*
- RF signals**
- Receive Spatial Modulation Aided Simultaneous Wireless Information and Power Transfer With Finite Alphabet. *Zhao, Y.*, +, *TWC Dec. 2020 8039-8053*
- Rician channels**
- Analysis and Optimization of an Intelligent Reflecting Surface-Assisted System With Interference. *Jia, Y.*, +, *TWC Dec. 2020 8068-8082*
- Channel Measurement and Modeling of the Small-Scale Fading Characteristics for Urban Inland River Environment. *Yu, J.*, +, *TWC May 2020 3376-3389*
- Error Rate Analysis of Amplitude-Coherent Detection Over Rician Fading Channels With Receiver Diversity. *Al-Jarrah, M.A.*, +, *TWC Jan. 2020 134-147*
- Low-Resolution ADC Quantized Full-Duplex Massive MIMO-Enabled Wireless Backhaul in Heterogeneous Networks Over Rician Channels. *Anokye, P.*, +, *TWC Aug. 2020 5503-5517*
- Measurement-Based Analysis and Modeling of Multimode Channel Behaviors in Spherical Vector Wave Domain. *Miao, Y.*, +, *TWC Aug. 2020 5345-5358*
- Performance Analysis of Large Intelligent Surfaces (LISs): Asymptotic Data Rate and Channel Hardening Effects. *Jung, M.*, +, *TWC March 2020 2052-2065*
- Performance of Multibeam Very High Throughput Satellite Systems Based on FSO Feeder Links With HPA Nonlinearity. *Zedini, E.*, +, *TWC Sept. 2020 5908-5923*
- Robust Superimposed Training Optimization for UAV Assisted Communication Systems. *Gong, S.*, +, *TWC March 2020 1704-1721*
- Road traffic**
- Wake-Up Scheduling for Energy-Efficient Mobile Devices. *Rostami, S.*, +, *TWC Sept. 2020 6020-6036*
- Robustness**
- A Deep Probabilistic Control Machinery for Auto-Configuration of WiFi Link Parameters. *Karmakar, R.*, +, *TWC Dec. 2020 8330-8340*
- Cyclic Block-Spreading Direct Discovery for D2D Networks. *Chang, W.*, +, *TWC Nov. 2020 7610-7620*
- Robust Secure Beamforming Design for Two-User Downlink MISO Rate-Splitting Systems. *Fu, H.*, +, *TWC Dec. 2020 8351-8365*
- Routing**
- How Can Randomized Routing Protocols Hide Flow Information in Wireless Networks?. *Zhao, S.*, +, *TWC Nov. 2020 7224-7236*
- Learning Link Schedules in Self-Backhauled Millimeter Wave Cellular Networks. *Gupta, M.*, +, *TWC Dec. 2020 8024-8038*
- Routing protocols**
- A Novel Multimodal Collaborative Drone-Assisted VANET Networking Model. *Lin, N.*, +, *TWC July 2020 4919-4933*
- End-to-End Performance Analysis of Underwater Optical Wireless Relaying and Routing Techniques Under Location Uncertainty. *Celik, A.*, +, *TWC Feb. 2020 1167-1181*
- How Can Randomized Routing Protocols Hide Flow Information in Wireless Networks?. *Zhao, S.*, +, *TWC Nov. 2020 7224-7236*
- PACE: Physically-Assisted Channel Estimation. *Xia, M.*, +, *TWC June 2020 3769-3781*
- Random Network Coding Enabled Routing Protocol in Unmanned Aerial Vehicle Networks. *Song, H.*, +, *TWC Dec. 2020 8382-8395*
- RSSI**
- Tractable Approach to MmWaves Cellular Analysis With FSO Backhauling Under Feedback Delay and Hardware Limitations. *Balti, E.*, +, *TWC Jan. 2020 410-422*
- Visible Light-Based User Position, Orientation and Channel Estimation Using Self-Adaptive Location-Domain Grid Sampling. *Zhou, B.*, +, *TWC July 2020 5025-5039*
- S**
- Satellite broadcasting**
- Space-Air-Ground Integrated Networks: Outage Performance Analysis. *Ye, J.*, +, *TWC Dec. 2020 7897-7912*
- Satellite communication**
- Flexible Resource Allocation With Inter-Beam Interference in Satellite Communication Systems With a Digital Channelizer. *Kawamoto, Y.*, +, *TWC May 2020 2934-2945*
- Improvement of the Global Connectivity Using Integrated Satellite-Airborne-Terrestrial Networks With Resource Optimization. *Alsharoa, A.*, +, *TWC Aug. 2020 5088-5100*
- Modeling and Performance Analysis for Satellite Data Relay Networks Using Two-Dimensional Markov-Modulated Process. *Zhu, Y.*, +, *TWC June 2020 3894-3907*
- Performance Analysis and Optimization of Cooperative Satellite-Aerial-Terrestrial Systems. *Pan, G.*, +, *TWC Oct. 2020 6693-6707*

Performance of Multibeam Very High Throughput Satellite Systems Based on FSO Feeder Links With HPA Nonlinearity. *Zedini, E., +, TWC Sept. 2020 5908-5923*

Reinforcement Learning Based Capacity Management in Multi-Layer Satellite Networks. *Jiang, C., +, TWC July 2020 4685-4699*

Secure 3D Mobile UAV Relaying for Hybrid Satellite-Terrestrial Networks. *Sharma, P.K., +, TWC April 2020 2770-2784*

Ultra-Dense LEO Satellite Offloading for Terrestrial Networks: How Much to Pay the Satellite Operator?. *Deng, R., +, TWC Oct. 2020 6240-6254*

#### Satellites

On HARQ Schemes in Satellite-Terrestrial Transmissions. *Pan, G., +, TWC Dec. 2020 7998-8010*

#### Scattering

Asymptotic Analysis of MRT Over Double Scattering Channels With MMSE Estimation. *Ye, J., +, TWC Dec. 2020 7851-7863*

Channel Modeling for Wireless Communications Using Ambit Processes. *Rakesh, R.T., +, TWC Dec. 2020 8396-8409*

Projective Approach in Determining Homogeneous Hyperspherical Geometrically-Based Stochastic Channel Model's Statistics: Angle of Departure, Angle of Arrival and Time of Arrival. *Maric, A., +, TWC Dec. 2020 7864-7880*

Real-time Prediction of Non-stationary Wireless Channels. *Abdul Careem, M.A., +, TWC Dec. 2020 7836-7850*

#### Schedules

##### Scheduling

Adaptive Video Streaming for Massive MIMO Networks via Approximate MDP and Reinforcement Learning. *Lan, Q., +, TWC Sept. 2020 5716-5731*

Age of Information Aware Radio Resource Management in Vehicular Networks: A Proactive Deep Reinforcement Learning Perspective. *Chen, X., +, TWC April 2020 2268-2281*

An Online Incentive Mechanism for Collaborative Task Offloading in Mobile Edge Computing. *Li, G., +, TWC Jan. 2020 624-636*

HFEL: Joint Edge Association and Resource Allocation for Cost-Efficient Hierarchical Federated Edge Learning. *Luo, S., +, TWC Oct. 2020 6535-6548*

Hybrid Offline-Online Design for UAV-Enabled Data Harvesting in Probabilistic LoS Channels. *You, C., +, TWC June 2020 3753-3768*

Joint Distributed Link Scheduling and Power Allocation for Content Delivery in Wireless Caching Networks. *Choi, M., +, TWC Dec. 2020 7810-7824*

Joint User Grouping, Scheduling, and Precoding for Multicast Energy Efficiency in Multigroup Multicast Systems. *Bandi, A., +, TWC Dec. 2020 8195-8210*

Low-Complexity Joint Resource Allocation and Trajectory Design for UAV-Aided Relay Networks With the Segmented Ray-Tracing Channel Model. *Hu, Q., +, TWC Sept. 2020 6179-6195*

Minimum Age of Information in the Internet of Things With Non-Uniform Status Packet Sizes. *Zhou, B., +, TWC March 2020 1933-1947*

Minimum Length Scheduling for Full Duplex Time-Critical Wireless Powered Communication Networks. *Iqbal, M.S., +, TWC Sept. 2020 5993-6006*

Modeling and Analysis of Data Harvesting Architecture Based on Unmanned Aerial Vehicles. *Choi, C., +, TWC March 2020 1825-1838*

Opportunistic Waveform Scheduling for Wireless Power Transfer With Multiple Devices. *Kim, K., +, TWC Sept. 2020 5651-5665*

Optimal Link Scheduling in Millimeter Wave Multi-Hop Networks With MU-MIMO Radios. *Gomez-Cuba, F., +, TWC March 2020 1839-1854*

Peace: Privacy-Preserving and Cost-Efficient Task Offloading for Mobile-Edge Computing. *He, X., +, TWC March 2020 1814-1824*

Scheduling for Cellular Federated Edge Learning With Importance and Channel Awareness. *Ren, J., +, TWC Nov. 2020 7690-7703*

Urgency of Information for Context-Aware Timely Status Updates in Remote Control Systems. *Zheng, X., +, TWC Nov. 2020 7237-7250*

User Scheduling and Antenna Topology in Dense Massive MIMO Networks: An Experimental Study. *Chen, C., +, TWC Sept. 2020 6210-6223*

##### Scheduling algorithms

Age of Information Driven Cache Content Update Scheduling for Dynamic Contents in Heterogeneous Networks. *Ma, M., +, TWC Dec. 2020 8427-8441*

#### Search methods

Boosting the Cellular Network Coverage Optimization in Accordance With the Metric Structure of Antenna Variables. *Qin, Y., +, TWC Dec. 2020 8303-8314*

#### Search problems

Absolute Amplitude Differential Phase Spatial Modulation and Its Non-Coherent Detection Under Fast Fading Channels. *Yu, D., +, TWC April 2020 2742-2755*

Deep Learning-Aided Tabu Search Detection for Large MIMO Systems. *Nguyen, N.T., +, TWC June 2020 4262-4275*

Efficient Local Map Search Algorithms for the Placement of Flying Relays. *Chen, J., +, TWC Feb. 2020 1305-1319*

Millimeter-Wave Beam Search With Iterative Deactivation and Beam Shifting. *Liu, C., +, TWC Aug. 2020 5117-5131*

Optimal Task Offloading and Resource Allocation in Mobile-Edge Computing With Inter-User Task Dependency. *Yan, J., +, TWC Jan. 2020 235-250*

Optimizing the Learning Performance in Mobile Augmented Reality Systems With CNN. *He, Y., +, TWC Aug. 2020 5333-5344*

Power-Efficient Beam Designs for Millimeter Wave Communication Systems. *Zhang, J., +, TWC Feb. 2020 1265-1279*

#### Security

Robust Secure Beamforming Design for Two-User Downlink MISO Rate-Splitting Systems. *Fu, H., +, TWC Dec. 2020 8351-8365*

#### Self-organizing feature maps

Geometry-Based Analysis of Optimal Handover Parameters for Self-Organizing Networks. *Nguyen, M., +, TWC April 2020 2670-2683*

#### Sensor fusion

Over-the-Air Computation Systems: Optimization, Analysis and Scaling Laws. *Liu, W., +, TWC Aug. 2020 5488-5502*

#### Sensor placement

Robot-Assisted Backscatter Localization for IoT Applications. *Zhang, S., +, TWC Sept. 2020 5807-5818*

#### Sensors

Cooperative Spectrum Sensing Optimization in Energy-Harvesting Cognitive Radio Networks. *Liu, X., +, TWC Nov. 2020 7663-7676*

Optimization for Full-Duplex Rotary-Wing UAV-Enabled Wireless-Powered IoT Networks. *Ye, H., +, TWC July 2020 5057-5072*

Optimized Power Control for Over-the-Air Computation in Fading Channels. *Cao, X., +, TWC Nov. 2020 7498-7513*

Radar-Assisted Predictive Beamforming for Vehicular Links: Communication Served by Sensing. *Liu, F., +, TWC Nov. 2020 7704-7719*

Side-Information Aided Compressed Multi-User Detection for Up-Link Grant-Free NOMA. *Cui, Y., +, TWC Nov. 2020 7720-7731*

Spatial Spectrum Sensing in Uplink Two-Tier User-Centric Deployed Het-Nets. *Shang, B., +, TWC Dec. 2020 7957-7972*

The Max-Product Algorithm Viewed as Linear Data-Fusion: A Distributed Detection Scenario. *Abdi, Y., +, TWC Nov. 2020 7585-7597*

#### Servers

Deep Learning-Based Edge Caching in Fog Radio Access Networks. *Jiang, Y., +, TWC Dec. 2020 8442-8454*

Edge-Aided Computing and Transmission Scheduling for LTE-U-Enabled IoT. *He, H., +, TWC Dec. 2020 7881-7896*

Joint Parameter-and-Bandwidth Allocation for Improving the Efficiency of Partitioned Edge Learning. *Wen, D., +, TWC Dec. 2020 8272-8286*

Max-Min Energy Balance in Wireless-Powered Hierarchical Fog-Cloud Computing Networks. *Liu, J., +, TWC Nov. 2020 7064-7080*

Mean Field Evolutionary Dynamics in Dense-User Multi-Access Edge Computing Systems. *Gao, H., +, TWC Dec. 2020 7825-7835*

Scheduling for Cellular Federated Edge Learning With Importance and Channel Awareness. *Ren, J., +, TWC Nov. 2020 7690-7703*

Wireless-Powered Edge Computing With Cooperative UAV: Task, Time Scheduling and Trajectory Design. *Hu, X., +, TWC Dec. 2020 8083-8098*

#### Set theory

Efficient Rendezvous for Heterogeneous Interference in Cognitive Radio Networks. *Gu, Z., +, TWC Jan. 2020 91-105*

#### Signal classification

Optimal Linear Cooperation for Signal Classification in Cognitive Communication Networks. *Ma, Y., +, TWC May 2020 3144-3155*

**Signal denoising**

PAPR Reduction Using Iterative Clipping/Filtering and ADMM Approaches for OFDM-Based Mixed-Numerology Systems. *Liu, X.*, +, *TWC April 2020 2586-2600*

Tractable Approach to MmWaves Cellular Analysis With FSO Backhauling Under Feedback Delay and Hardware Limitations. *Balti, E.*, +, *TWC Jan. 2020 410-422*

**Signal design**

Signal and System Design for Wireless Power Transfer: Prototype, Experiment and Validation. *Kim, J.*, +, *TWC Nov. 2020 7453-7469*

**Signal detection**

A Compressive Sensing Assisted Massive SM-VBLAST System: Error Probability and Capacity Analysis. *Xiao, L.*, +, *TWC March 2020 1990-2005*

A Downscaled Faster-RCNN Framework for Signal Detection and Time-Frequency Localization in Wideband RF Systems. *Prasad, K.N.R.S.V.*, +, *TWC July 2020 4847-4862*

A Network Linear Block Coding Approach to Selective Detect-and-Forward Multi-Way Relaying With Differential Modulation. *Hou, X.*, +, *TWC Sept. 2020 5749-5764*

A Truthful Online Incentive Mechanism for Nondeterministic Spectrum Allocation. *Dong, X.*, +, *TWC July 2020 4632-4642*

Adaptive Neural Signal Detection for Massive MIMO. *Khani, M.*, +, *TWC Aug. 2020 5635-5648*

Coherent Detection for Short-Packet Physical-Layer Network Coding With Binary FSK Modulation. *Wang, Z.*, +, *TWC Jan. 2020 279-292*

Communications and Radar Coexistence in the Massive MIMO Regime: Uplink Analysis. *D'Andrea, C.*, +, *TWC Jan. 2020 19-33*

Design and Analysis of FD MIMO Cellular Systems in Coexistence With MIMO Radar. *Biswas, S.*, +, *TWC July 2020 4727-4743*

Efficient Beam Sweeping Algorithms and Initial Access Protocols for Millimeter-Wave Networks. *Aykin, I.*, +, *TWC April 2020 2504-2514*

Error Rate Analysis of Amplitude-Coherent Detection Over Rician Fading Channels With Receiver Diversity. *Al-Jarrah, M.A.*, +, *TWC Jan. 2020 134-147*

Fast Compressed Power Spectrum Estimation: Toward a Practical Solution for Wideband Spectrum Sensing. *Yang, L.*, +, *TWC Jan. 2020 520-532*

Joint Detection and Decoding of Polar Coded 5G Control Channels. *Jalali, A.*, +, *TWC March 2020 2066-2078*

Joint User Identification, Channel Estimation, and Signal Detection for Grant-Free NOMA. *Jiang, S.*, +, *TWC Oct. 2020 6960-6976*

Learning for Detection: MIMO-OFDM Symbol Detection Through Downlink Pilots. *Zhou, Z.*, +, *TWC June 2020 3712-3726*

Machine Learning-Enabled Cooperative Spectrum Sensing for Non-Orthogonal Multiple Access. *Shi, Z.*, +, *TWC Sept. 2020 5692-5702*

Mixture Detectors for Improved Spectrum Sensing. *Senanayake, R.*, +, *TWC June 2020 4335-4348*

Near-Optimal MIMO-SCMA Uplink Detection With Low-Complexity Expectation Propagation. *Wang, P.*, +, *TWC Feb. 2020 1025-1037*

Optimal Sensing Policy for Energy Harvesting Cognitive Radio Systems. *Villalonga, D.A.U.*, +, *TWC June 2020 3826-3838*

Residual Clipping Noise in Multi-Layer Optical OFDM: Modeling, Analysis, and Applications. *Zhang, Z.*, +, *TWC Sept. 2020 5846-5859*

Robust Data Detection for MIMO Systems With One-Bit ADCs: A Reinforcement Learning Approach. *Jeon, Y.*, +, *TWC March 2020 1663-1676*

Spatial Modulated Multicarrier Sparse Code-Division Multiple Access. *Liu, Y.*, +, *TWC Jan. 2020 610-623*

Tractable Approach to MmWaves Cellular Analysis With FSO Backhauling Under Feedback Delay and Hardware Limitations. *Balti, E.*, +, *TWC Jan. 2020 410-422*

Transceiver Design and Signal Detection in Backscatter Communication Systems With Multiple-Antenna Tags. *Chen, C.*, +, *TWC May 2020 3273-3288*

Wideband Collaborative Spectrum Sensing Using Massive MIMO Decision Fusion. *Dey, I.*, +, *TWC Aug. 2020 5246-5260*

**Signal processing**

Downlink Pilot Precoding and Compressed Channel Feedback for FDD-Based Cell-Free Systems. *Kim, S.*, +, *TWC June 2020 3658-3672*

Dual-Hop Spatial Modulation With a Relay Transmitting its Own Information. *Li, Q.*, +, *TWC July 2020 4449-4463*

On the Performance Gain of Harnessing Non-Line-of-Sight Propagation for Visible Light-Based Positioning. *Zhou, B.*, +, *TWC July 2020 4863-4878*

Performance Analysis of Cell-Free Massive MIMO System With Limited Fronthaul Capacity and Hardware Impairments. *Masoumi, H.*, +, *TWC Feb. 2020 1038-1053*

Physical Layer Authentication for Massive MIMO Systems With Hardware Impairments. *Zhang, P.*, +, *TWC March 2020 1563-1576*

User-Centric Performance Optimization With Remote Radio Head Cooperation in C-RAN. *You, L.*, +, *TWC Jan. 2020 340-353*

**Signal reconstruction**

Compressed Sensing Channel Estimation for OFDM With Non-Gaussian Multipath Gains. *Gomez-Cuba, F.*, +, *TWC Jan. 2020 47-61*

Fast Compressed Power Spectrum Estimation: Toward a Practical Solution for Wideband Spectrum Sensing. *Yang, L.*, +, *TWC Jan. 2020 520-532*

Robust Recovery of Structured Sparse Signals With Uncertain Sensing Matrix: A Turbo-VBI Approach. *Liu, A.*, +, *TWC May 2020 3185-3198*

**Signal resolution**

Enabling Super-Resolution Parameter Estimation for mm-Wave Channel Sounding. *Wang, R.*, +, *TWC May 2020 3077-3090*

Multipath Estimating Delay Lock Loop for LTE Signal TOA Estimation in Indoor and Urban Environments. *Wang, P.*, +, *TWC Aug. 2020 5518-5530*

Supervised and Semi-Supervised Learning for MIMO Blind Detection With Low-Resolution ADCs. *Nguyen, L.V.*, +, *TWC April 2020 2427-2442*

**Signal sampling**

A Case for Digital Beamforming at mmWave. *Dutta, S.*, +, *TWC Feb. 2020 756-770*

Fast Compressed Power Spectrum Estimation: Toward a Practical Solution for Wideband Spectrum Sensing. *Yang, L.*, +, *TWC Jan. 2020 520-532*

SINR and Rate Distributions for Downlink Cellular Networks. *Hadj-Kacem, I.*, +, *TWC July 2020 4604-4616*

**Signal to noise ratio**

Asymptotic Analysis of MRT Over Double Scattering Channels With MMSE Estimation. *Ye, J.*, +, *TWC Dec. 2020 7851-7863*

Asymptotic Max-Min SINR Analysis of Reconfigurable Intelligent Surface Assisted MISO Systems. *Nadeem, Q.*, +, *TWC Dec. 2020 7748-7764*

Multi-Antenna Coded Content Delivery With Caching: A Low-Complexity Solution. *Zhao, J.*, +, *TWC Nov. 2020 7484-7497*

Network-Coded Cooperative Systems With Generalized User-Relay Selection. *Heidarpour, A.R.*, +, *TWC Nov. 2020 7251-7264*

On Throughput Improvement Using Immediate Re-Transmission in Grant-Free Random Access With Massive MIMO. *Choi, J.*, *TWC Dec. 2020 8341-8350*

Smart Handover for Hybrid LiFi and WiFi Networks. *Wu, X.*, +, *TWC Dec. 2020 8211-8219*

Unified Performance Analysis of Multi-Hop FSO Systems Over Double Generalized Gamma Turbulence Channels With Pointing Errors. *Ashrafzadeh, B.*, +, *TWC Nov. 2020 7732-7746*

**Silicon carbide**

On the Performance of HARQ Protocols With Blanking in NOMA Systems. *Mheich, Z.*, +, *TWC Nov. 2020 7423-7438*

**SIMO communication**

Cube-Split: A Structured Grassmannian Constellation for Non-Coherent SIMO Communications. *Ngo, K.*, +, *TWC March 2020 1948-1964*

Deep Energy Autoencoder for Noncoherent Multicarrier MU-SIMO Systems. *Van Luong, T.*, +, *TWC June 2020 3952-3962*

**Simulated annealing**

An Energy-Balanced Trust Cloud Migration Scheme for Underwater Acoustic Sensor Networks. *Han, G.*, +, *TWC March 2020 1636-1649*

Transmit Antenna Selection and Beamformer Design for Secure Spatial Modulation With Rough CSI of Eve. *Xia, G.*, +, *TWC July 2020 4643-4656*

**Simulation**

Enhancing Secure MIMO Transmission via Intelligent Reflecting Surface. *Dong, L.*, +, *TWC Nov. 2020 7543-7556*

**Singular value decomposition**

- A Low-Complex SVD-Based F-OFDM. *Kim, H.*, +, *TWC Feb. 2020 1373-1385*
- Deep Learning for SVD and Hybrid Beamforming. *Peken, T.*, +, *TWC Oct. 2020 6621-6642*
- Pairwise Coding for MIMO-OFDM Visible Light Communication. *Olanrewaju, H.G.*, +, *TWC Feb. 2020 1210-1220*
- Secrecy Performance of the MIMO VLC Wiretap Channel With Randomly Located Eavesdropper. *Arfaoui, M.A.*, +, *TWC Jan. 2020 265-278*

**Slot antennas**

- Joint Antenna Detection and Bayesian Channel Estimation for Non-Coherent User Terminals. *Becirovic, E.*, +, *TWC Nov. 2020 7081-7096*

**Smart cities**

- UAV Trajectory Planning for Data Collection from Time-Constrained IoT Devices. *Samir, M.*, +, *TWC Jan. 2020 34-46*

**Smart grids**

- Power Control Optimization for Large-Scale Multi-Antenna Systems. *Zhou, Z.*, +, *TWC Nov. 2020 7339-7352*

**Smart phones**

- An Online Incentive Mechanism for Collaborative Task Offloading in Mobile Edge Computing. *Li, G.*, +, *TWC Jan. 2020 624-636*
- IndoorWaze: A Crowdsourcing-Based Context-Aware Indoor Navigation System. *Li, T.*, +, *TWC Aug. 2020 5461-5472*
- Multi-Armed Bandit-Based Client Scheduling for Federated Learning. *Xia, W.*, +, *TWC Nov. 2020 7108-7123*

**Social networking (online)**

- Dynamic Pricing for Revenue Maximization in Mobile Social Data Market With Network Effects. *Xiong, Z.*, +, *TWC March 2020 1722-1737*
- Evolution Matters: Content Transmission in Evolving Wireless Social Networks. *Feng, C.*, +, *TWC Nov. 2020 7377-7391*

**Sociology**

- Load-Driven Dynamic User Assignment Algorithms for Dense Cellular Networks. *Post, B.*, +, *TWC Nov. 2020 7677-7689*
- Mean Field Evolutionary Dynamics in Dense-User Multi-Access Edge Computing Systems. *Gao, H.*, +, *TWC Dec. 2020 7825-7835*

**Software defined networking**

- A Lightweight and Secure Group Key Based Handover Authentication Protocol for the Software-Defined Space Information Network. *Xue, K.*, +, *TWC June 2020 3673-3684*
- Adaptive Video Streaming With Edge Caching and Video Transcoding Over Software-Defined Mobile Networks: A Deep Reinforcement Learning Approach. *Luo, J.*, +, *TWC March 2020 1577-1592*
- On SDN-Driven Network Optimization and QoS Aware Routing Using Multiple Paths. *Bagaa, M.*, +, *TWC July 2020 4700-4714*

**Software radio**

- Authenticating On-Body IoT Devices: An Adversarial Learning Approach. *Huang, Y.*, +, *TWC Aug. 2020 5234-5245*
- Hybrid Constellations for Dual-Polarized Wireless Communications. *Wu, X.*, +, *TWC Aug. 2020 5321-5332*
- Secrecy Energy Efficiency in Multi-Antenna SWIPT Networks With Dual-Layer PS Receivers. *Lu, Y.*, +, *TWC June 2020 4290-4306*
- WiderCast: Enabling Wider Bandwidth for Wireless Multicast Over IEEE 802.11ac WLANs. *Park, Y.D.*, +, *TWC June 2020 3854-3866*

**Soil**

- A Statistical Impulse Response Model Based on Empirical Characterization of Wireless Underground Channels. *Salam, A.*, +, *TWC Sept. 2020 5966-5981*

**Solid modeling**

- Air-to-Air Communications Beyond 5G: A Novel 3D CoMP Transmission Scheme. *Li, Y.*, +, *TWC Nov. 2020 7324-7338*
- Projective Approach in Determining Homogeneous Hyperspherical Geometrically-Based Stochastic Channel Model's Statistics: Angle of Departure, Angle of Arrival and Time of Arrival. *Maric, A.*, +, *TWC Dec. 2020 7864-7880*

**Sonar signal processing**

- AUV-Aided Localization of Underwater Acoustic Devices Based on Doppler Shift Measurements. *Gong, Z.*, +, *TWC April 2020 2226-2239*

**Source coding**

- A Deep Study on Layered Multi-Relay Non-Orthogonal Amplify-Forward Networks. *Padidar, P.*, +, *TWC Jan. 2020 354-366*
- Overhead-Performance Tradeoff for MISO Broadcast Channels With Zero-Forcing Precoder. *Liu, G.*, +, *TWC Feb. 2020 995-1007*

**Space division multiple access**

- Exploiting Time Asynchrony in Multi-User Transmit Beamforming. *Ganji, M.*, +, *TWC May 2020 3156-3169*
- Max-Min Fairness of  $K$ -User Cooperative Rate-Splitting in MISO Broadcast Channel With User Relaying. *Mao, Y.*, +, *TWC Oct. 2020 6362-6376*
- Optimal Link Scheduling in Millimeter Wave Multi-Hop Networks With MU-MIMO Radios. *Gomez-Cuba, F.*, +, *TWC March 2020 1839-1854*

**Space division multiplexing**

- Limited Feedback Hybrid Beamforming for Multi-Mode Transmission in Wideband Millimeter Wave Channel. *Kwon, G.*, +, *TWC June 2020 4008-4022*
- Multi-Antenna Interference Management for Coded Caching. *Tolli, A.*, +, *TWC March 2020 2091-2106*
- On UW-Based Transmission for MIMO Multi-Carriers With Spatial Multiplexing. *Ehsanfar, S.*, +, *TWC Sept. 2020 5875-5890*
- Optimal Link Scheduling in Millimeter Wave Multi-Hop Networks With MU-MIMO Radios. *Gomez-Cuba, F.*, +, *TWC March 2020 1839-1854*
- Randomized Channel Sparsifying Hybrid Precoding for FDD Massive MIMO Systems. *Tian, C.*, +, *TWC Aug. 2020 5447-5460*

**Space-time block codes**

- mmWave Lens-Based MIMO System for Suppressing Small-Scale Fading and Shadowing. *Almasi, M.A.*, +, *TWC Aug. 2020 5292-5306*

**Space-time codes**

- Simple Bounds for the Symmetric Capacity of the Rayleigh Fading Multiple Access Channel. *Domanovitz, E.*, +, *TWC July 2020 4594-4603*
- Two-Stage ICI Suppression in the Downlink of Asynchronous URLLC. *Zeng, C.*, +, *TWC April 2020 2785-2799*

**Spectral analysis**

- Principal Component Analysis-Based Broadband Hybrid Precoding for Millimeter-Wave Massive MIMO Systems. *Sun, Y.*, +, *TWC Oct. 2020 6331-6346*

**Spread spectrum communication**

- A Frequency Offset Transmit Reference System in Dense Multipath Environments: Propagation Effects and Design Considerations. *Bilal, I.*, +, *TWC Feb. 2020 859-873*
- Cooperative MIMO-OFDM-Based Exposure-Path Prevention Over 3D Clustered Wireless Camera Sensor Networks. *Wang, J.*, +, *TWC Jan. 2020 4-18*
- Jamming-Resilient Frequency Hopping-Aided Secure Communication for Internet-of-Things in the Presence of an Untrusted Relay. *Letafati, M.*, +, *TWC Oct. 2020 6771-6785*
- Learning Link Schedules in Self-Backhauled Millimeter Wave Cellular Networks. *Gupta, M.*, +, *TWC Dec. 2020 8024-8038*
- Multihop Wireless Networks With Quality-of-Service: Fluid and Diffusion Approximations. *Krishnan K. S., A.*, +, *TWC Dec. 2020 8113-8125*
- Novel Three-Hierarchy Multiple-Tag-Recognition Technique for Next Generation RFID Systems. *Pu, L.*, +, *TWC Feb. 2020 1237-1249*
- On the Error Rate of the LoRa Modulation With Interference. *Afsiadis, O.*, +, *TWC Feb. 2020 1292-1304*

**Statistical analysis**

- A Channel Model for Indoor Time-of-Arrival Ranging. *Latinovic, Z.*, +, *TWC Feb. 2020 1415-1428*
- A Statistical Impulse Response Model Based on Empirical Characterization of Wireless Underground Channels. *Salam, A.*, +, *TWC Sept. 2020 5966-5981*
- A Unified Statistical Model for Atmospheric Turbulence-Induced Fading in Orbital Angular Momentum Multiplexed FSO Systems. *Amhoud, E.*, +, *TWC Feb. 2020 888-900*
- Breaking Wireless Propagation Environmental Uncertainty With Deep Learning. *Morocho-Cayamcela, M.E.*, +, *TWC Aug. 2020 5075-5087*
- Energy Efficiency Optimization for Downlink Massive MIMO With Statistical CSIT. *You, L.*, +, *TWC April 2020 2684-2698*

- EVM Closed-Form Expression for OFDM Signals With Tone Reservation-Based PAPR Reduction. *El Hassan, M.*, +, *TWC April 2020 2352-2366*
- Hybrid RF/FSO Backhaul Networks With Statistical-QoS-Aware Buffer-Aided Relaying. *Hassan, M.Z.*, +, *TWC March 2020 1464-1483*
- Measurements and Cluster-Based Modeling of Vehicle-to-Vehicle Channels With Large Vehicle Obstructions. *Yang, M.*, +, *TWC Sept. 2020 5860-5874*
- Modeling of 300 GHz Chip-to-Chip Wireless Channels in Metal Enclosures. *Fu, J.*, +, *TWC May 2020 3214-3227*
- Mutual Information Analysis of Mixed-ADC MIMO Systems Over Rayleigh Channels Based on Random Matrix Theory. *Gao, H.*, +, *TWC July 2020 4894-4906*
- Network Coding Techniques for Primary-Secondary User Cooperation in Cognitive Radio Networks. *Papadopoulos, A.*, +, *TWC June 2020 4195-4208*
- Physical-Layer Security in the Finite Blocklength Regime Over Fading Channels. *Zheng, T.*, +, *TWC May 2020 3405-3420*
- QoS Driven Power Allocation in Secure Multicarrier Full-Duplex Relay Systems. *Bai, Z.*, +, *TWC Feb. 2020 929-941*
- Spectrum Occupancy and Interference Model Based on Network Experimentation in Hospital. *Mucchi, L.*, +, *TWC Sept. 2020 5666-5675*
- Statistical Modeling and Analysis on the Confidentiality of Indoor VLC Systems. *Chen, J.*, +, *TWC July 2020 4744-4757*
- Statistical distributions**
- A Universal Splitting Estimator for the Performance Evaluation of Wireless Communications Systems. *Rached, N.B.*, +, *TWC July 2020 4353-4362*
- Asymptotically Exact Approximations to Generalized Fading Sum Statistics. *Perim, V.*, +, *TWC Jan. 2020 205-217*
- Enumerative Sphere Shaping for Wireless Communications With Short Packets. *Gultekin, Y.C.*, +, *TWC Feb. 2020 1098-1112*
- Measurement-Based Analysis and Modeling of Multimode Channel Behaviors in Spherical Vector Wave Domain. *Miao, Y.*, +, *TWC Aug. 2020 5345-5358*
- Statistical testing**
- Physical Layer Authentication for Massive MIMO Systems With Hardware Impairments. *Zhang, P.*, +, *TWC March 2020 1563-1576*
- Semi-Blind Joint Timing-Offset and Channel Estimation for Amplify-and-Forward Two-Way Relaying. *Abdallah, S.*, +, *TWC April 2020 2613-2627*
- Transceiver Design and Signal Detection in Backscatter Communication Systems With Multiple-Antenna Tags. *Chen, C.*, +, *TWC May 2020 3273-3288*
- Statistics**
- Load-Driven Dynamic User Assignment Algorithms for Dense Cellular Networks. *Post, B.*, +, *TWC Nov. 2020 7677-7689*
- Mean Field Evolutionary Dynamics in Dense-User Multi-Access Edge Computing Systems. *Gao, H.*, +, *TWC Dec. 2020 7825-7835*
- Stochastic games**
- Multi-Agent Reinforcement Learning-Based Resource Allocation for UAV Networks. *Cui, J.*, +, *TWC Feb. 2020 729-743*
- Spectrum Sharing Among Rapidly Deployable Small Cells: A Hybrid Multi-Agent Approach. *Gao, B.*, +, *TWC Jan. 2020 395-409*
- Stochastic processes**
- A Deep Learning Approach to Universal Binary Visible Light Communication Transceiver. *Lee, H.*, +, *TWC Feb. 2020 956-969*
- A Non-Stationary Bandit-Learning Approach to Energy-Efficient Femto-Caching With Rateless-Coded Transmission. *Maghsudi, S.*, +, *TWC July 2020 5040-5056*
- A Poisson Line Process-Based Framework for Determining the Needed RSU Density and Relaying Hops in Vehicular Networks. *Ammar, H.A.*, +, *TWC Oct. 2020 6643-6659*
- A Tractable Model for Wirelessly Powered Networks With Energy Correlation. *Deng, N.*, +, *TWC Sept. 2020 5765-5778*
- A Universal Splitting Estimator for the Performance Evaluation of Wireless Communications Systems. *Rached, N.B.*, +, *TWC July 2020 4353-4362*
- Asynchronous Downlink Massive MIMO Networks: A Stochastic Geometry Approach. *Sadeghabadi, E.*, +, *TWC Jan. 2020 579-594*
- Battery-Level-Triggered Transmit Power Control for Energy Harvesting Communications. *Tang, S.*, +, *TWC Dec. 2020 8011-8023*
- Channel Modeling for Wireless Communications Using Ambient Processes. *Rakesh, R.T.*, +, *TWC Dec. 2020 8396-8409*
- Coverage and Rate Analysis of Downlink Cellular Vehicle-to-Everything (C-V2X) Communication. *Chetlur, V.V.*, +, *TWC March 2020 1738-1753*
- Federated Learning Over Wireless Fading Channels. *Amiri, M.M.*, +, *TWC May 2020 3546-3557*
- Minimum Age of Information in the Internet of Things With Non-Uniform Status Packet Sizes. *Zhou, B.*, +, *TWC March 2020 1933-1947*
- On Optimal Orchestration of Virtualized Cellular Networks With Downlink Rate Coverage Probability Constraints. *Chatterjee, S.*, +, *TWC July 2020 4378-4393*
- On the Energy Efficiency of Heterogeneous Cellular Networks With Renewable Energy Sources—A Stochastic Geometry Framework. *Lam, T.T.*, +, *TWC Oct. 2020 6752-6770*
- Outage Performance and Average Rate for Large-Scale Millimeter-Wave NOMA Networks. *Kusaladharma, S.*, +, *TWC Feb. 2020 1280-1291*
- Performance Analysis and Optimization of Cooperative Satellite-Aerial-Terrestrial Systems. *Pan, G.*, +, *TWC Oct. 2020 6693-6707*
- Performance Characterization of Canonical Mobility Models in Drone Cellular Networks. *Banagar, M.*, +, *TWC July 2020 4994-5009*
- Projective Approach in Determining Homogeneous Hyperspherical Geometrically-Based Stochastic Channel Model's Statistics: Angle of Departure, Angle of Arrival and Time of Arrival. *Maric, A.*, +, *TWC Dec. 2020 7864-7880*
- Recycling Cellular Energy for Self-Sustainable IoT Networks: A Spatiotemporal Study. *Benkhelifa, F.*, +, *TWC April 2020 2699-2712*
- Resource Allocation for Wireless Cooperative IoT Network With Energy Harvesting. *Chen, X.*, +, *TWC July 2020 4879-4893*
- Secrecy Performance of the MIMO VLC Wiretap Channel With Randomly Located Eavesdropper. *Arfaoui, M.A.*, +, *TWC Jan. 2020 265-278*
- Secure 3D Mobile UAV Relaying for Hybrid Satellite-Terrestrial Networks. *Sharma, P.K.*, +, *TWC April 2020 2770-2784*
- Secure Communications in a Unified Non-Orthogonal Multiple Access Framework. *Yue, X.*, +, *TWC March 2020 2163-2178*
- Separability, Asymptotics, and Applications of the SIR Meta Distribution in Cellular Networks. *Feng, K.*, +, *TWC July 2020 4806-4816*
- SINR Distribution and Scheduling Gain Analysis of Uplink Channel-Adaptive Scheduling. *Kamiya, S.*, +, *TWC April 2020 2321-2335*
- Stochastic Design and Analysis of User-Centric Wireless Cloud Caching Networks. *Azimi-Abarghouyi, S.M.*, +, *TWC July 2020 4978-4993*
- Stochastic Link Modeling of Static Wireless Sensor Networks Over the Ocean Surface. *Shahanaghi, A.*, +, *TWC June 2020 4154-4169*
- Tradeoff Between Ergodic Rate and Delivery Latency in Fog Radio Access Networks. *Yin, B.*, +, *TWC April 2020 2240-2251*
- Treating Interference as Noise in Cellular Networks: A Stochastic Geometry Approach. *Bacha, M.*, +, *TWC March 2020 1918-1932*
- Vertical Handover Analysis for Randomly Deployed Small Cells in Heterogeneous Networks. *Duong, T.M.*, +, *TWC April 2020 2282-2292*
- Wake-Up Scheduling for Energy-Efficient Mobile Devices. *Rostami, S.*, +, *TWC Sept. 2020 6020-6036*
- Stochastic programming**
- Cell-Free Massive MIMO for Wireless Federated Learning. *Vu, T.T.*, +, *TWC Oct. 2020 6377-6392*
- Energy Efficiency and Delay Tradeoff for Wireless Powered Mobile-Edge Computing Systems With Multi-Access Schemes. *Mao, S.*, +, *TWC March 2020 1855-1867*
- Green-Oriented Dynamic Resource-on-Demand Strategy for Multi-RAT Wireless Networks Powered by Heterogeneous Energy Sources. *Qin, M.*, +, *TWC Aug. 2020 5547-5560*
- Randomized Channel Sparsifying Hybrid Precoding for FDD Massive MIMO Systems. *Tian, C.*, +, *TWC Aug. 2020 5447-5460*
- Storage management**
- An Energy-Balanced Trust Cloud Migration Scheme for Underwater Acoustic Sensor Networks. *Han, G.*, +, *TWC March 2020 1636-1649*

Rate-Distortion-Memory Trade-Offs in Heterogeneous Caching Networks. *Hassanzadeh, P.*, +, *TWC May 2020 3019-3033*

#### Subcarrier multiplexing

Coordinated Resource Allocation-Based Integrated Visible Light Communication and Positioning Systems for Indoor IoT. *Yang, H.*, +, *TWC July 2020 4671-4684*

#### Suboptimal control

A UAV-Mounted Free Space Optical Communication: Trajectory Optimization for Flight Time. *Lee, J.*, +, *TWC March 2020 1610-1621*

#### Sum product algorithm

The Max-Product Algorithm Viewed as Linear Data-Fusion: A Distributed Detection Scenario. *Abdi, Y.*, +, *TWC Nov. 2020 7585-7597*

#### Supervised learning

Centralized and Distributed Deep Reinforcement Learning Methods for Downlink Sum-Rate Optimization. *Khan, A.A.*, +, *TWC Dec. 2020 8410-8426*

Joint Annotator-and-Spectrum Allocation in Wireless Networks for Crowd Labeling. *Li, X.*, +, *TWC Sept. 2020 6116-6129*

Supervised and Semi-Supervised Learning for MIMO Blind Detection With Low-Resolution ADCs. *Nguyen, L.V.*, +, *TWC April 2020 2427-2442*

#### Support vector machines

Machine Learning-Enabled Cooperative Spectrum Sensing for Non-Orthogonal Multiple Access. *Shi, Z.*, +, *TWC Sept. 2020 5692-5702*

Machine Learning-Enabled LOS/NLOS Identification for MIMO Systems in Dynamic Environments. *Huang, C.*, +, *TWC June 2020 3643-3657*

#### Surveillance

Fast Compressed Power Spectrum Estimation: Toward a Practical Solution for Wideband Spectrum Sensing. *Yang, L.*, +, *TWC Jan. 2020 520-532*

#### Synchronization

Asynchronous Downlink Massive MIMO Networks: A Stochastic Geometry Approach. *Sadeghabadi, E.*, +, *TWC Jan. 2020 579-594*

Balancing Queueing and Retransmission: Latency-Optimal Massive MIMO Design. *Du, X.*, +, *TWC April 2020 2293-2307*

Clock Synchronization in Wireless Networks Using Matrix Completion-Based Maximum Likelihood Estimation. *Elnahas, O.*, +, *TWC Dec. 2020 8220-8231*

Delay-Aware Computation Offloading in NOMA MEC Under Differentiated Uploading Delay. *Sheng, M.*, +, *TWC April 2020 2813-2826*

Double-Sequence Frequency Synchronization for Wideband Millimeter-Wave Systems With Few-Bit ADCs. *Zhu, D.*, +, *TWC Feb. 2020 1357-1372*

Edge Computing-Enabled Cell-Free Massive MIMO Systems. *Mukherjee, S.*, +, *TWC April 2020 2884-2899*

Green-Oriented Dynamic Resource-on-Demand Strategy for Multi-RAT Wireless Networks Powered by Heterogeneous Energy Sources. *Qin, M.*, +, *TWC Aug. 2020 5547-5560*

LRT Detectors for Spectrum Sensing of Weak OFDM Signals With Periodic Pilots. *Yin, W.*, +, *TWC Nov. 2020 7514-7527*

Modeling and Performance Analysis for Satellite Data Relay Networks Using Two-Dimensional Markov-Modulated Process. *Zhu, Y.*, +, *TWC June 2020 3894-3907*

Reliable Detection of Unknown Cell-Edge Users via Canonical Correlation Analysis. *Ibrahim, M.S.*, +, *TWC June 2020 4170-4182*

Scheduling to Minimize Age of Synchronization in Wireless Broadcast Networks With Random Updates. *Tang, H.*, +, *TWC June 2020 4023-4037*

Self-Organizing Slot Access for Neighboring Cooperation in UAV Swarms. *Yao, K.*, +, *TWC April 2020 2800-2812*

Tractable Approach to MmWaves Cellular Analysis With FSO Backhauling Under Feedback Delay and Hardware Limitations. *Balti, E.*, +, *TWC Jan. 2020 410-422*

Tradeoff Between Ergodic Rate and Delivery Latency in Fog Radio Access Networks. *Yin, B.*, +, *TWC April 2020 2240-2251*

#### System monitoring

Minimum Age of Information in the Internet of Things With Non-Uniform Status Packet Sizes. *Zhou, B.*, +, *TWC March 2020 1933-1947*

## T

#### Table lookup

Millimeter-Wave Beam Search With Iterative Deactivation and Beam Shifting. *Liu, C.*, +, *TWC Aug. 2020 5117-5131*

#### Task analysis

Edge-Aided Computing and Transmission Scheduling for LTE-U-Enabled IoT. *He, H.*, +, *TWC Dec. 2020 7881-7896*

Max-Min Energy Balance in Wireless-Powered Hierarchical Fog-Cloud Computing Networks. *Liu, J.*, +, *TWC Nov. 2020 7064-7080*

Mean-Field-Type Game-Based Computation Offloading in Multi-Access Edge Computing Networks. *Banez, R.A.*, +, *TWC Dec. 2020 8366-8381*

Wireless-Powered Edge Computing With Cooperative UAV: Task, Time Scheduling and Trajectory Design. *Hu, X.*, +, *TWC Dec. 2020 8083-8098*

#### Telecommunication channels

Probabilistic Constrained Secure Transmissions: Variable-Rate Design and Performance Analysis. *Li, Z.*, +, *TWC April 2020 2543-2557*

Throughput-Optimal H-QMW Scheduling for Hybrid Wireless Networks With Persistent and Dynamic Flows. *Lan, X.*, +, *TWC Feb. 2020 1182-1195*

#### Telecommunication computing

A Distributed Framework for Task Offloading in Edge Computing Networks of Arbitrary Topology. *Liu, B.*, +, *TWC April 2020 2855-2867*

A Learning-Based Pre-Allocation Scheme for Low-Latency Access in Industrial Wireless Networks. *Li, M.*, +, *TWC Jan. 2020 650-664*

A Non-Stationary Bandit-Learning Approach to Energy-Efficient Femto-Caching With Rateless-Coded Transmission. *Maghsudi, S.*, +, *TWC July 2020 5040-5056*

A Realization of Fog-RAN Slicing via Deep Reinforcement Learning. *Xiang, H.*, +, *TWC April 2020 2515-2527*

Adaptive Neural Signal Detection for Massive MIMO. *Khani, M.*, +, *TWC Aug. 2020 5635-5648*

Cell-Free Massive MIMO for Wireless Federated Learning. *Vu, T.T.*, +, *TWC Oct. 2020 6377-6392*

Convolutional Neural Network-Based Multiple-Rate Compressive Sensing for Massive MIMO CSI Feedback: Design, Simulation, and Analysis. *Guo, J.*, +, *TWC April 2020 2827-2840*

Deep Energy Autoencoder for Noncoherent Multicarrier MU-SIMO Systems. *Van Luong, T.*, +, *TWC June 2020 3952-3962*

Deep Learning Enabled Optimization of Downlink Beamforming Under Per-Antenna Power Constraints: Algorithms and Experimental Demonstration. *Zhang, J.*, +, *TWC June 2020 3738-3752*

Deep Learning-Based End-to-End Wireless Communication Systems With Conditional GANs as Unknown Channels. *Ye, H.*, +, *TWC May 2020 3133-3143*

Deep Learning-Based Sum Data Rate and Energy Efficiency Optimization for MIMO-NOMA Systems. *Huang, H.*, +, *TWC Aug. 2020 5373-5388*

DeepNOMA: A Unified Framework for NOMA Using Deep Multi-Task Learning. *Ye, N.*, +, *TWC April 2020 2208-2225*

Energy Efficiency and Delay Tradeoff for Wireless Powered Mobile-Edge Computing Systems With Multi-Access Schemes. *Mao, S.*, +, *TWC March 2020 1855-1867*

Federated Learning Over Wireless Fading Channels. *Amiri, M.M.*, +, *TWC May 2020 3546-3557*

Fuzzy Learning for Multi-Dimensional Adaptive Physical Layer Authentication: A Compact and Robust Approach. *Fang, H.*, +, *TWC Aug. 2020 5420-5432*

Geometry-Based Analysis of Optimal Handover Parameters for Self-Organizing Networks. *Nguyen, M.*, +, *TWC April 2020 2670-2683*

Improving Caching Efficiency in Content-Aware C-RAN-Based Cooperative Beamforming: A Joint Design Approach. *Zhao, M.*, +, *TWC June 2020 4125-4140*

Intelligent User Association for Symbiotic Radio Networks Using Deep Reinforcement Learning. *Zhang, Q.*, +, *TWC July 2020 4535-4548*

Joint Antenna Selection and Hybrid Beamformer Design Using Unquantized and Quantized Deep Learning Networks. *Elbir, A.M.*, +, *TWC March 2020 1677-1688*

Learning for Detection: MIMO-OFDM Symbol Detection Through Downlink Pilots. *Zhou, Z.*, +, *TWC June 2020 3712-3726*

LORM: Learning to Optimize for Resource Management in Wireless Networks With Few Training Samples. *Shen, Y.*, +, *TWC Jan. 2020 665-679*

Machine Learning-Based Channel Prediction in Massive MIMO With Channel Aging. *Yuan, J.*, +, *TWC May 2020 2960-2973*

Machine Learning-Enabled Cooperative Spectrum Sensing for Non-Orthogonal Multiple Access. *Shi, Z.*, +, *TWC Sept. 2020 5692-5702*

Machine Learning-Enabled LOS/NLOS Identification for MIMO Systems in Dynamic Environments. *Huang, C.*, +, *TWC June 2020 3643-3657*

Massive MIMO Channel Estimation With an Untrained Deep Neural Network. *Balevi, E.*, +, *TWC March 2020 2079-2090*

Millimeter-Wave Networking in the Sky: A Machine Learning and Mean Field Game Approach for Joint Beamforming and Beam-Steering. *Li, L.*, +, *TWC Oct. 2020 6393-6408*

New Results on Joint Channel and Impulsive Noise Estimation and Tracking in Underwater Acoustic OFDM Systems. *Wang, S.*, +, *TWC April 2020 2601-2612*

Online Anticipatory Proactive Network Association in Mobile Edge Computing for IoT. *Cui, Q.*, +, *TWC July 2020 4519-4534*

Reinforcement Learning Based Capacity Management in Multi-Layer Satellite Networks. *Jiang, C.*, +, *TWC July 2020 4685-4699*

Robust Data Detection for MIMO Systems With One-Bit ADCs: A Reinforcement Learning Approach. *Jeon, Y.*, +, *TWC March 2020 1663-1676*

Self-Tuning Sectorization: Deep Reinforcement Learning Meets Broadcast Beam Optimization. *Shafiq, R.*, +, *TWC June 2020 4038-4053*

Statistical Modeling and Analysis on the Confidentiality of Indoor VLC Systems. *Chen, J.*, +, *TWC July 2020 4744-4757*

Supervised and Semi-Supervised Learning for MIMO Blind Detection With Low-Resolution ADCs. *Nguyen, L.V.*, +, *TWC April 2020 2427-2442*

The Application of Deep Reinforcement Learning to Distributed Spectrum Access in Dynamic Heterogeneous Environments With Partial Observations. *Xu, Y.*, +, *TWC July 2020 4494-4506*

Time-Varying Downlink Channel Tracking for Quantized Massive MIMO Networks. *Ma, J.*, +, *TWC Oct. 2020 6721-6736*

User-Centric Performance Optimization With Remote Radio Head Cooperation in C-RAN. *You, L.*, +, *TWC Jan. 2020 340-353*

Visible Light-Based User Position, Orientation and Channel Estimation Using Self-Adaptive Location-Domain Grid Sampling. *Zhou, B.*, +, *TWC July 2020 5025-5039*

Wake-Up Scheduling for Energy-Efficient Mobile Devices. *Rostami, S.*, +, *TWC Sept. 2020 6020-6036*

#### Telecommunication congestion control

A Comment on Eq. (20a) in "Centralized Random Backoff for Collision Resolution in Wi-Fi Networks". *Kim, J.D.*, *TWC April 2020 2900*

An Adaptive Broadcasting Strategy for Efficient Dynamic Mapping in Vehicular Networks. *Mason, F.*, +, *TWC Aug. 2020 5605-5620*

Dynamic Pricing for Revenue Maximization in Mobile Social Data Market With Network Effects. *Xiong, Z.*, +, *TWC March 2020 1722-1737*

LoRa Technology Demystified: From Link Behavior to Cell-Level Performance. *Croce, D.*, +, *TWC Feb. 2020 822-834*

Multiservice-Based Network Slicing Orchestration With Impatient Tenants. *Han, B.*, +, *TWC July 2020 5010-5024*

Performance Analysis of TCP New Reno Over Satellite DVB-RCS2 Random Access Links. *Liu, J.*, +, *TWC Jan. 2020 435-446*

Self-Organizing Slot Access for Neighboring Cooperation in UAV Swarms. *Yao, K.*, +, *TWC April 2020 2800-2812*

#### Telecommunication control

A Maximin Optimal Online Power Control Policy for Energy Harvesting Communications. *Yang, S.*, +, *TWC Oct. 2020 6708-6720*

An Uplink Control Channel Design With Complementary Sequences for Unlicensed Bands. *Sahin, A.*, +, *TWC Oct. 2020 6858-6870*

Channel-Based Optimal Back-Off Delay Control in Delay-Constrained Industrial WSNs. *Li, Q.*, +, *TWC Jan. 2020 696-711*

Efficient Local Map Search Algorithms for the Placement of Flying Relays. *Chen, J.*, +, *TWC Feb. 2020 1305-1319*

Joint Power Allocation and Load Balancing Optimization for Energy-Efficient Cell-Free Massive MIMO Networks. *Van Chien, T.*, +, *TWC Oct. 2020 6798-6812*

NOMA-Based D2D-Enabled Traffic Offloading for 5G and Beyond Networks Employing Licensed and Unlicensed Access. *Sun, M.*, +, *TWC June 2020 4109-4124*

Opportunistic NOMA for Uplink Short-Message Delivery With a Delay Constraint. *Choi, J.*, *TWC June 2020 3727-3737*

Optimal Mode Selection by Cross-Layer Decomposition in D2D Cellular Networks. *Klugel, M.*, +, *TWC April 2020 2528-2542*

Power Allocation in Multi-User Cellular Networks: Deep Reinforcement Learning Approaches. *Meng, F.*, +, *TWC Oct. 2020 6255-6267*

Real-Time Remote Estimation With Hybrid ARQ in Wireless Networked Control. *Huang, K.*, +, *TWC May 2020 3490-3504*

Reinforcement Learning-Based Downlink Interference Control for Ultra-Dense Small Cells. *Xiao, L.*, +, *TWC Jan. 2020 423-434*

UAV-to-UAV Communications in Cellular Networks. *Azari, M.M.*, +, *TWC Sept. 2020 6130-6144*

User-Number Threshold-Based Small-Cell On/Off Control Scheme: Performance Evaluation and Optimization. *Park, J.W.*, +, *TWC Jan. 2020 367-379*

#### Telecommunication network management

A Realization of Fog-RAN Slicing via Deep Reinforcement Learning. *Xiang, H.*, +, *TWC April 2020 2515-2527*

Age of Information Aware Radio Resource Management in Vehicular Networks: A Proactive Deep Reinforcement Learning Perspective. *Chen, X.*, +, *TWC April 2020 2268-2281*

Anywhere Decoding: Low-Overhead Uplink Interference Management for Wireless Networks. *Pezeshki, H.*, +, *TWC June 2020 4095-4108*

Hierarchical Soft Slicing to Meet Multi-Dimensional QoS Demand in Cache-Enabled Vehicular Networks. *Zhang, S.*, +, *TWC March 2020 2150-2162*

Individual Preference Aware Caching Policy Design in Wireless D2D Networks. *Lee, M.*, +, *TWC Aug. 2020 5589-5604*

On SDN-Driven Network Optimization and QoS Aware Routing Using Multiple Paths. *Bagaa, M.*, +, *TWC July 2020 4700-4714*

#### Telecommunication network planning

Broadband Analog Aggregation for Low-Latency Federated Edge Learning. *Zhu, G.*, +, *TWC Jan. 2020 491-506*

Optimal Placement of Access Points in Cellular Visible Light Communication Networks: An Adaptive Gradient Projection Method. *Dastgheib, M.A.*, +, *TWC Oct. 2020 6813-6825*

Stochastic Link Modeling of Static Wireless Sensor Networks Over the Ocean Surface. *Shahanaghi, A.*, +, *TWC June 2020 4154-4169*

Towards Fair and Efficient Spectrum Sharing Between LTE and WiFi in Unlicensed Bands: Fairness-Constrained Throughput Maximization. *Sun, X.*, +, *TWC April 2020 2713-2727*

#### Telecommunication network reliability

A Dynamic Clustering Algorithm for Multi-Point Transmissions in Mission-Critical Communications. *Daher, A.*, +, *TWC July 2020 4934-4946*

Analytical Channel Models for Millimeter Wave UAV Networks Under Hovering Fluctuations. *Dabiri, M.T.*, +, *TWC April 2020 2868-2883*

Anywhere Decoding: Low-Overhead Uplink Interference Management for Wireless Networks. *Pezeshki, H.*, +, *TWC June 2020 4095-4108*

Balancing Queueing and Retransmission: Latency-Optimal Massive MIMO Design. *Du, X.*, +, *TWC April 2020 2293-2307*

Channel-Based Optimal Back-Off Delay Control in Delay-Constrained Industrial WSNs. *Li, Q.*, +, *TWC Jan. 2020 696-711*

Deep Energy Autoencoder for Noncoherent Multicarrier MU-SIMO Systems. *Van Luong, T.*, +, *TWC June 2020 3952-3962*

End-to-End Performance Analysis of Underwater Optical Wireless Relaying and Routing Techniques Under Location Uncertainty. *Celik, A.*, +, *TWC Feb. 2020 1167-1181*

Energy Efficiency and Delay Tradeoff for Wireless Powered Mobile-Edge Computing Systems With Multi-Access Schemes. *Mao, S.*, +, *TWC March 2020 1855-1867*

Enhanced Huffman Coded OFDM With Index Modulation. *Dang, S.*, +, *TWC April 2020 2489-2503*

Federated Learning Over Wireless Fading Channels. *Amiri, M.M.*, +, *TWC May 2020 3546-3557*

- Free Space Optical Cooperative Communications via an Energy Harvesting Harvest-Store-Use Relay. *Abou-Rjeily, C.*, +, *TWC Oct. 2020 6564-6577*
- Fundamentals of Power Allocation Strategies for Downlink Multi-User NOMA With Target Rates. *Oviedo, J.A.*, +, *TWC March 2020 1906-1917*
- Generalized Path-Permutation Codes for Reliable End-to-End Networking of Opportunistic Links. *Lai, L.*, +, *TWC July 2020 4579-4593*
- Geometry-Based Analysis of Optimal Handover Parameters for Self-Organizing Networks. *Nguyen, M.*, +, *TWC April 2020 2670-2683*
- Hybrid Lightwave/RF Cooperative NOMA Networks. *Xiao, Y.*, +, *TWC Feb. 2020 1154-1166*
- Hybrid RF/FSO Backhaul Networks With Statistical-QoS-Aware Buffer-Aided Relaying. *Hassan, M.Z.*, +, *TWC March 2020 1464-1483*
- Impartial SWIPT-Assisted User Cooperation Schemes. *Chen, W.*, +, *TWC May 2020 3361-3375*
- Joint Frame Design and Resource Allocation for Ultra-Reliable and Low-Latency Vehicular Networks. *Yang, H.*, +, *TWC May 2020 3607-3622*
- Joint Power and Blocklength Optimization for URLLC in a Factory Automation Scenario. *Ren, H.*, +, *TWC March 2020 1786-1801*
- Low-Resolution Limited-Feedback NOMA for mmWave Communications. *Yapici, Y.*, +, *TWC Aug. 2020 5433-5446*
- Massive MIMO-NOMA Networks With Imperfect SIC: Design and Fairness Enhancement. *de Sena, A.S.*, +, *TWC Sept. 2020 6100-6115*
- Massive MIMO-NOMA Networks With Successive Sub-Array Activation. *Sousa de Sena, A.*, +, *TWC March 2020 1622-1635*
- mmWave Lens-Based MIMO System for Suppressing Small-Scale Fading and Shadowing. *Almasi, M.A.*, +, *TWC Aug. 2020 5292-5306*
- Multi-Antenna Aided Secrecy Beamforming Optimization for Wirelessly Powered HetNets. *Gong, S.*, +, *TWC Aug. 2020 5261-5277*
- Multi-Antenna Two-Way Relay Based Cooperative NOMA. *Lu, L.*, +, *TWC Oct. 2020 6486-6503*
- NOMA in the Uplink: Delay Analysis With Imperfect CSI and Finite-Length Coding. *Schiessl, S.*, +, *TWC June 2020 3879-3893*
- On Data Dissemination Enhanced by Network Coded Device-to-Device Communications. *Li, Y.*, +, *TWC June 2020 3963-3976*
- Opportunistic Adaptive Non-Orthogonal Multiple Access in Multiuser Wireless Systems: Probabilistic User Scheduling and Performance Analysis. *Yang, L.*, +, *TWC Sept. 2020 6065-6082*
- Optimal Placement of Access Points in Cellular Visible Light Communication Networks: An Adaptive Gradient Projection Method. *Dastgheib, M.A.*, +, *TWC Oct. 2020 6813-6825*
- Optimum Performance of Short Block Length Codes Under Multivariate Stationary Rayleigh Fading. *Mestre, X.*, +, *TWC March 2020 2122-2136*
- PACE: Physically-Assisted Channel Estimation. *Xia, M.*, +, *TWC June 2020 3769-3781*
- Performance Analysis and Optimization of Cooperative Satellite-Aerial-Terrestrial Systems. *Pan, G.*, +, *TWC Oct. 2020 6693-6707*
- Performance Analysis of Large Intelligent Surfaces (LISs): Asymptotic Data Rate and Channel Hardening Effects. *Jung, M.*, +, *TWC March 2020 2052-2065*
- Random Access-Based Reliable Uplink Communication and Power Transfer Using Dynamic Power Splitting. *Kisseleff, S.*, +, *TWC June 2020 4307-4320*
- Rate Splitting for Uplink NOMA With Enhanced Fairness and Outage Performance. *Liu, H.*, +, *TWC July 2020 4657-4670*
- Real-Time Remote Estimation With Hybrid ARQ in Wireless Networked Control. *Huang, K.*, +, *TWC May 2020 3490-3504*
- Reliability Bounds for Dependent Fading Wireless Channels. *Besser, K.*, +, *TWC Sept. 2020 5833-5845*
- Reliable Detection of Unknown Cell-Edge Users via Canonical Correlation Analysis. *Ibrahim, M.S.*, +, *TWC June 2020 4170-4182*
- Residual Transceiver Hardware Impairments on Cooperative NOMA Networks. *Li, X.*, +, *TWC Jan. 2020 680-695*
- Robust Non-Orthogonal Multiple Access for Aerial and Ground Users. *New, W.K.*, +, *TWC July 2020 4793-4805*
- Secure 3D Mobile UAV Relaying for Hybrid Satellite-Terrestrial Networks. *Sharma, P.K.*, +, *TWC April 2020 2770-2784*
- Secure Communications in a Unified Non-Orthogonal Multiple Access Framework. *Yue, X.*, +, *TWC March 2020 2163-2178*
- SINR and Rate Distributions for Downlink Cellular Networks. *Hadj-Kacem, I.*, +, *TWC July 2020 4604-4616*
- Subset MMSE Receivers for Cell-Free Networks. *Attarifar, M.*, +, *TWC June 2020 4183-4194*
- The Joint and Product Meta Distributions of the SIR and Their Applications to Secrecy and Cooperation. *Yu, X.*, +, *TWC July 2020 4408-4423*
- Topology Control in Hybrid VLC/RF Vehicular Ad-Hoc Network. *Chen, J.*, +, *TWC March 2020 1965-1976*
- Tractable Approach to MmWaves Cellular Analysis With FSO Backhauling Under Feedback Delay and Hardware Limitations. *Balti, E.*, +, *TWC Jan. 2020 410-422*
- Uplink Non-Orthogonal Multiple Access Over Mixed RF-FSO Systems. *Jamali, M.V.*, +, *TWC May 2020 3558-3574*
- Wirelessly-Powered Sensor Networks: Power Allocation for Channel Estimation and Energy Beamforming. *Du, R.*, +, *TWC May 2020 2987-3002*
- Telecommunication network routing**
- A Distributed Framework for Task Offloading in Edge Computing Networks of Arbitrary Topology. *Liu, B.*, +, *TWC April 2020 2855-2867*
- Adaptive Forwarding With Probabilistic Delay Guarantee in Low-Duty-Cycle WSNs. *Cheng, L.*, +, *TWC July 2020 4775-4792*
- Energy Minimization of Multi-Cell Cognitive Capacity Harvesting Networks With Neighbor Resource Sharing. *Lin, S.*, +, *TWC May 2020 3199-3213*
- Joint Routing and Resource Allocation for Millimeter Wave Picocellular Backhaul. *Eslami Rasekh, M.*, +, *TWC Feb. 2020 783-794*
- On SDN-Driven Network Optimization and QoS Aware Routing Using Multiple Paths. *Bagaa, M.*, +, *TWC July 2020 4700-4714*
- Telecommunication network topology**
- A Distributed Framework for Task Offloading in Edge Computing Networks of Arbitrary Topology. *Liu, B.*, +, *TWC April 2020 2855-2867*
- A Lightweight and Secure Group Key Based Handover Authentication Protocol for the Software-Defined Space Information Network. *Xue, K.*, +, *TWC June 2020 3673-3684*
- A Novel Multimodal Collaborative Drone-Assisted VANET Networking Model. *Lin, N.*, +, *TWC July 2020 4919-4933*
- Analysis of the On-Demand Spectrum Access Architecture for CBRS Cognitive Radio Networks. *Xin, C.*, +, *TWC Feb. 2020 970-978*
- Delay-Minimized Edge Caching in Heterogeneous Vehicular Networks: A Matching-Based Approach. *Wu, H.*, +, *TWC Oct. 2020 6409-6424*
- Dynamic Service Function Chain Embedding for NFV-Enabled IoT: A Deep Reinforcement Learning Approach. *Fu, X.*, +, *TWC Jan. 2020 507-519*
- End-to-End Performance Analysis of Underwater Optical Wireless Relaying and Routing Techniques Under Location Uncertainty. *Celik, A.*, +, *TWC Feb. 2020 1167-1181*
- Joint Routing and Resource Allocation for Millimeter Wave Picocellular Backhaul. *Eslami Rasekh, M.*, +, *TWC Feb. 2020 783-794*
- Topology Control in Hybrid VLC/RF Vehicular Ad-Hoc Network. *Chen, J.*, +, *TWC March 2020 1965-1976*
- Vertical Handover Analysis for Randomly Deployed Small Cells in Heterogeneous Networks. *Duong, T.M.*, +, *TWC April 2020 2282-2292*
- Telecommunication power management**
- A Maximin Optimal Online Power Control Policy for Energy Harvesting Communications. *Yang, S.*, +, *TWC Oct. 2020 6708-6720*
- Adaptive Forwarding With Probabilistic Delay Guarantee in Low-Duty-Cycle WSNs. *Cheng, L.*, +, *TWC July 2020 4775-4792*
- Antenna Selection Strategy for Energy Efficiency Maximization in Uplink OFDMA Networks: A Multi-Objective Approach. *Khalili, A.*, +, *TWC Jan. 2020 595-609*
- Convolutional Neural Network-Based Multiple-Rate Compressive Sensing for Massive MIMO CSI Feedback: Design, Simulation, and Analysis. *Guo, J.*, +, *TWC April 2020 2827-2840*
- Cooperative MIMO-OFDM-Based Exposure-Path Prevention Over 3D Clustered Wireless Camera Sensor Networks. *Wang, J.*, +, *TWC Jan. 2020 4-18*

- Decentralized WSEE Optimization for Massive MIMO Two-Way Half-Duplex AF Relaying. *Sharma, E.*, +, *TWC Feb. 2020 1397-1414*
- Dedicated Energy Harvesting in Concatenated Hybrid PLC-Wireless Systems. *Fernandes, V.*, +, *TWC June 2020 3839-3853*
- Deep Learning-Based Sum Data Rate and Energy Efficiency Optimization for MIMO-NOMA Systems. *Huang, H.*, +, *TWC Aug. 2020 5373-5388*
- Design of Ambient Backscatter Training for Wireless Power Transfer. *Idrees, S.*, +, *TWC Oct. 2020 6316-6330*
- Edge and Central Cloud Computing: A Perfect Pairing for High Energy Efficiency and Low-Latency. *Hu, X.*, +, *TWC Feb. 2020 1070-1083*
- Edge Computing-Enabled Cell-Free Massive MIMO Systems. *Mukherjee, S.*, +, *TWC April 2020 2884-2899*
- Energy Efficiency and Delay Tradeoff for Wireless Powered Mobile-Edge Computing Systems With Multi-Access Schemes. *Mao, S.*, +, *TWC March 2020 1855-1867*
- Energy Efficiency and Traffic Offloading Optimization in Integrated Satellite/Terrestrial Radio Access Networks. *Li, J.*, +, *TWC April 2020 2367-2381*
- Energy Efficiency Optimization for Downlink Massive MIMO With Statistical CSIT. *You, L.*, +, *TWC April 2020 2684-2698*
- Energy Efficient Resource Management in SWIPT Enabled Heterogeneous Networks With NOMA. *Zhang, H.*, +, *TWC Feb. 2020 835-845*
- Energy Minimization of Multi-Cell Cognitive Capacity Harvesting Networks With Neighbor Resource Sharing. *Lin, S.*, +, *TWC May 2020 3199-3213*
- Energy-Aware 3D Unmanned Aerial Vehicle Deployment for Network Throughput Optimization. *Chou, S.*, +, *TWC Jan. 2020 563-578*
- Energy-Efficient Base Station Association and Beamforming for Multi-Cell Multiuser Systems. *An, J.*, +, *TWC April 2020 2841-2854*
- Energy-Efficient Computation Offloading in Delay-Constrained Massive MIMO Enabled Edge Network Using Data Partitioning. *Malik, R.*, +, *TWC Oct. 2020 6977-6991*
- Energy-Efficient Hybrid Precoder With Adaptive Overlapped Subarrays for Large-Array mmWave Systems. *Guo, J.*, +, *TWC March 2020 1484-1502*
- Enhanced Huffman Coded OFDM With Index Modulation. *Dang, S.*, +, *TWC April 2020 2489-2503*
- Flexible Functional Split and Power Control for Energy Harvesting Cloud Radio Access Networks. *Wang, L.*, +, *TWC March 2020 1535-1548*
- Free Space Optical Cooperative Communications via an Energy Harvesting Harvest-Store-Use Relay. *Abou-Rjeily, C.*, +, *TWC Oct. 2020 6564-6577*
- Generalized Bussgang LMMSE Channel Estimation for One-Bit Massive MIMO Systems. *Wan, Q.*, +, *TWC June 2020 4234-4246*
- Green-Oriented Dynamic Resource-on-Demand Strategy for Multi-RAT Wireless Networks Powered by Heterogeneous Energy Sources. *Qin, M.*, +, *TWC Aug. 2020 5547-5560*
- Hierarchical Energy Optimization With More Realistic Power Consumption and Interference Models for Ultra-Dense Networks. *Zhuang, H.*, +, *TWC July 2020 4507-4518*
- Individual Preference Aware Caching Policy Design in Wireless D2D Networks. *Lee, M.*, +, *TWC Aug. 2020 5589-5604*
- Joint Channel and Queue Aware Scheduling for Latency Sensitive Mobile Edge Computing With Power Constraints. *Han, D.*, +, *TWC June 2020 3938-3951*
- Joint Power Allocation and Load Balancing Optimization for Energy-Efficient Cell-Free Massive MIMO Networks. *Van Chien, T.*, +, *TWC Oct. 2020 6798-6812*
- Low-Resolution ADC Quantized Full-Duplex Massive MIMO-Enabled Wireless Backhaul in Heterogeneous Networks Over Rician Channels. *Anokye, P.*, +, *TWC Aug. 2020 5503-5517*
- Omnidirectional Precoding for 3D Massive MIMO With Uniform Planar Arrays. *Lu, A.*, +, *TWC April 2020 2628-2642*
- On Data Dissemination Enhanced by Network Coded Device-to-Device Communications. *Li, Y.*, +, *TWC June 2020 3963-3976*
- On the Energy Efficiency of Heterogeneous Cellular Networks With Renewable Energy Sources—A Stochastic Geometry Framework. *Lam, T.T.*, +, *TWC Oct. 2020 6752-6770*
- Online Anticipatory Proactive Network Association in Mobile Edge Computing for IoT. *Cui, Q.*, +, *TWC July 2020 4519-4534*
- Optimal Energy Allocation and Task Offloading Policy for Wireless Powered Mobile Edge Computing Systems. *Wang, F.*, +, *TWC April 2020 2443-2459*
- Optimal Sensing Policy for Energy Harvesting Cognitive Radio Systems. *Villalonga, D.A.U.*, +, *TWC June 2020 3826-3838*
- Power Allocation for D2D Communications With SWIPT. *Huang, J.*, +, *TWC April 2020 2308-2320*
- Power-Efficient Beam Designs for Millimeter Wave Communication Systems. *Zhang, J.*, +, *TWC Feb. 2020 1265-1279*
- Principal Component Analysis-Based Broadband Hybrid Precoding for Millimeter-Wave Massive MIMO Systems. *Sun, Y.*, +, *TWC Oct. 2020 6331-6346*
- QoS Driven Power Allocation in Secure Multicarrier Full-Duplex Relay Systems. *Bai, Z.*, +, *TWC Feb. 2020 929-941*
- Random Access-Based Reliable Uplink Communication and Power Transfer Using Dynamic Power Splitting. *Kisseleff, S.*, +, *TWC June 2020 4307-4320*
- Recycling Cellular Energy for Self-Sustainable IoT Networks: A Spatiotemporal Study. *Benkhelifa, F.*, +, *TWC April 2020 2699-2712*
- Refined Asymptotics for a Block Fading Channel Under Energy Harvesting and Fixed Power Constraints. *Deekshith, P.K.*, +, *TWC April 2020 2558-2569*
- Residual Transceiver Hardware Impairments on Cooperative NOMA Networks. *Li, X.*, +, *TWC Jan. 2020 680-695*
- Resource Allocation for Hybrid NOMA MEC Offloading. *Zhu, J.*, +, *TWC July 2020 4964-4977*
- Robust Non-Orthogonal Multiple Access for Aerial and Ground Users. *New, W.K.*, +, *TWC July 2020 4793-4805*
- Secrecy Energy Efficiency in Multi-Antenna SWIPT Networks With Dual-Layer PS Receivers. *Lu, Y.*, +, *TWC June 2020 4290-4306*
- Spectral-Energy Efficiency Trade-Off-Based Beamforming Design for MISO Non-Orthogonal Multiple Access Systems. *Al-Obiedollah, H.M.*, +, *TWC Oct. 2020 6593-6606*
- Throughput Maximization for Peer-Assisted Wireless Powered IoT NOMA Networks. *Wang, J.*, +, *TWC Aug. 2020 5278-5291*
- Unequally Sub-Connected Architecture for Hybrid Beamforming in Massive MIMO Systems. *Nguyen, N.T.*, +, *TWC Feb. 2020 1127-1140*
- Uplink Resource Allocation in Energy Harvesting Cellular Network With H2H/M2M Coexistence. *Nobar, S.K.*, +, *TWC Aug. 2020 5101-5116*
- User-Number Threshold-Based Small-Cell On/Off Control Scheme: Performance Evaluation and Optimization. *Park, J.W.*, +, *TWC Jan. 2020 367-379*
- Wake-Up Scheduling for Energy-Efficient Mobile Devices. *Rostami, S.*, +, *TWC Sept. 2020 6020-6036*
- Wirelessly-Powered Sensor Networks: Power Allocation for Channel Estimation and Energy Beamforming. *Du, R.*, +, *TWC May 2020 2987-3002*

#### Telecommunication scheduling

- A Joint Solution for Scheduling and Precoding in Multiuser MISO Downlink Channels. *Bandi, A.*, +, *TWC Jan. 2020 475-490*
- A Learning-Based Pre-Allocation Scheme for Low-Latency Access in Industrial Wireless Networks. *Li, M.*, +, *TWC Jan. 2020 650-664*
- A Nonlinear Recursive Model Based Optimal Transmission Scheduling in RF Energy Harvesting Wireless Communications. *Luo, Y.*, +, *TWC May 2020 3449-3462*
- Age-of-Information Based Scheduling for Multi-Channel Systems. *Somababu, B.*, +, *TWC July 2020 4439-4448*
- Broadband Analog Aggregation for Low-Latency Federated Edge Learning. *Zhu, G.*, +, *TWC Jan. 2020 491-506*
- Efficient Link Scheduling in Wireless Networks Under Rayleigh-Fading and Multiuser Interference. *Yu, J.*, +, *TWC Aug. 2020 5621-5634*
- Federated Learning Over Wireless Fading Channels. *Amiri, M.M.*, +, *TWC May 2020 3546-3557*
- Green-Oriented Dynamic Resource-on-Demand Strategy for Multi-RAT Wireless Networks Powered by Heterogeneous Energy Sources. *Qin, M.*, +, *TWC Aug. 2020 5547-5560*

- Joint C-OMA and C-NOMA Wireless Backhaul Scheduling in Heterogeneous Ultra Dense Networks. *Zhang, Q.*, +, *TWC Feb. 2020 874-887*
- Joint Channel and Queue Aware Scheduling for Latency Sensitive Mobile Edge Computing With Power Constraints. *Han, D.*, +, *TWC June 2020 3938-3951*
- Joint Frame Design and Resource Allocation for Ultra-Reliable and Low-Latency Vehicular Networks. *Yang, H.*, +, *TWC May 2020 3607-3622*
- Joint Optimization of Radio and Computational Resources Allocation in Blockchain-Enabled Mobile Edge Computing Systems. *Feng, J.*, +, *TWC June 2020 4321-4334*
- Limited Feedback Hybrid Beamforming for Multi-Mode Transmission in Wideband Millimeter Wave Channel. *Kwon, G.*, +, *TWC June 2020 4008-4022*
- Massive Uncoordinated Access With Massive MIMO: A Dictionary Learning Approach. *Han, Y.*, +, *TWC Feb. 2020 1320-1332*
- Max-Min Fairness of  $K$ -User Cooperative Rate-Splitting in MISO Broadcast Channel With User Relaying. *Mao, Y.*, +, *TWC Oct. 2020 6362-6376*
- Multi-Hop Wireless Optical Backhauling for LiFi Attocell Networks: Bandwidth Scheduling and Power Control. *Kazemi, H.*, +, *TWC Sept. 2020 5676-5691*
- Opportunistic Adaptive Non-Orthogonal Multiple Access in Multiuser Wireless Systems: Probabilistic User Scheduling and Performance Analysis. *Yang, L.*, +, *TWC Sept. 2020 6065-6082*
- Optimal Link Scheduling in Millimeter Wave Multi-Hop Networks With MU-MIMO Radios. *Gomez-Cuba, F.*, +, *TWC March 2020 1839-1854*
- Optimal Sensing Policy for Energy Harvesting Cognitive Radio Systems. *Villalonga, D.A.U.*, +, *TWC June 2020 3826-3838*
- Optimizing Downlink Resource Allocation in Multiuser MIMO Networks via Fractional Programming and the Hungarian Algorithm. *Khan, A.A.*, +, *TWC Aug. 2020 5162-5175*
- Scheduling to Minimize Age of Synchronization in Wireless Broadcast Networks With Random Updates. *Tang, H.*, +, *TWC June 2020 4023-4037*
- SINR Distribution and Scheduling Gain Analysis of Uplink Channel-Adaptive Scheduling. *Kamiya, S.*, +, *TWC April 2020 2321-2335*
- Throughput-Optimal H-QMW Scheduling for Hybrid Wireless Networks With Persistent and Dynamic Flows. *Lan, X.*, +, *TWC Feb. 2020 1182-1195*
- Treating Interference as Noise in Cellular Networks: A Stochastic Geometry Approach. *Bacha, M.*, +, *TWC March 2020 1918-1932*
- Wake-Up Scheduling for Energy-Efficient Mobile Devices. *Rostami, S.*, +, *TWC Sept. 2020 6020-6036*

#### Telecommunication security

- An Energy-Balanced Trust Cloud Migration Scheme for Underwater Acoustic Sensor Networks. *Han, G.*, +, *TWC March 2020 1636-1649*
- Covert Localization in Wireless Networks: Feasibility and Performance Analysis. *Zhao, Y.*, +, *TWC Oct. 2020 6549-6563*
- Fuzzy Learning for Multi-Dimensional Adaptive Physical Layer Authentication: A Compact and Robust Approach. *Fang, H.*, +, *TWC Aug. 2020 5420-5432*
- Jamming-Assisted Proactive Eavesdropping Over Two Suspicious Communication Links. *Zhang, H.*, +, *TWC July 2020 4817-4830*
- Joint 3D Maneuver and Power Adaptation for Secure UAV Communication With CoMP Reception. *Yao, J.*, +, *TWC Oct. 2020 6992-7006*
- Multi-Antenna Aided Secrecy Beamforming Optimization for Wirelessly Powered HetNets. *Gong, S.*, +, *TWC Aug. 2020 5261-5277*
- Physical Layer Authentication for Massive MIMO Systems With Hardware Impairments. *Zhang, P.*, +, *TWC March 2020 1563-1576*
- Physical-Layer Assisted Secure Offloading in Mobile-Edge Computing. *He, X.*, +, *TWC June 2020 4054-4066*
- Physical-Layer Security in the Finite Blocklength Regime Over Fading Channels. *Zheng, T.*, +, *TWC May 2020 3405-3420*
- Probabilistic Constrained Secure Transmissions: Variable-Rate Design and Performance Analysis. *Li, Z.*, +, *TWC April 2020 2543-2557*
- QoS Driven Power Allocation in Secure Multicarrier Full-Duplex Relay Systems. *Bai, Z.*, +, *TWC Feb. 2020 929-941*
- Secrecy Performance of the MIMO VLC Wiretap Channel With Randomly Located Eavesdropper. *Arfaoui, M.A.*, +, *TWC Jan. 2020 265-278*

- Secure 3D Mobile UAV Relaying for Hybrid Satellite-Terrestrial Networks. *Sharma, P.K.*, +, *TWC April 2020 2770-2784*
- Secure Communications in a Unified Non-Orthogonal Multiple Access Framework. *Yue, X.*, +, *TWC March 2020 2163-2178*
- Secure UAV-Enabled Communication Using Han-Kobayashi Signaling. *Sheng, Z.*, +, *TWC May 2020 2905-2919*
- Securing Channel State Information in Multiuser MIMO With Limited Feedback. *Yang, Y.*, +, *TWC May 2020 3091-3103*
- The Joint and Product Meta Distributions of the SIR and Their Applications to Secrecy and Cooperation. *Yu, X.*, +, *TWC July 2020 4408-4423*
- Transmit Antenna Selection and Beamformer Design for Secure Spatial Modulation With Rough CSI of Eve. *Xia, G.*, +, *TWC July 2020 4643-4656*

#### Telecommunication signaling

- A Learning-Based Pre-Allocation Scheme for Low-Latency Access in Industrial Wireless Networks. *Li, M.*, +, *TWC Jan. 2020 650-664*
- Making Cell-Free Massive MIMO Competitive With MMSE Processing and Centralized Implementation. *Bjornson, E.*, +, *TWC Jan. 2020 77-90*
- Secure UAV-Enabled Communication Using Han-Kobayashi Signaling. *Sheng, Z.*, +, *TWC May 2020 2905-2919*
- Spatial Modulated Multicarrier Sparse Code-Division Multiple Access. *Liu, Y.*, +, *TWC Jan. 2020 610-623*
- The Power of Mobility Prediction in Reducing Idle-State Signaling in Cellular Systems: A Revisit to 4G Mobility Management. *Hoseinitabatabei, S.A.*, +, *TWC May 2020 3346-3360*

#### Telecommunication traffic

- A Distributed Framework for Task Offloading in Edge Computing Networks of Arbitrary Topology. *Liu, B.*, +, *TWC April 2020 2855-2867*
- A Dynamic Clustering Algorithm for Multi-Point Transmissions in Mission-Critical Communications. *Daher, A.*, +, *TWC July 2020 4934-4946*
- A Dynamic MBSFN Area Formation Algorithm for Multicast Service Delivery in 5G NR Networks. *Araniti, G.*, +, *TWC Feb. 2020 808-821*
- A Novel Multimodal Collaborative Drone-Assisted VANET Networking Model. *Lin, N.*, +, *TWC July 2020 4919-4933*
- Adaptive Forwarding With Probabilistic Delay Guarantee in Low-Duty-Cycle WSNs. *Cheng, L.*, +, *TWC July 2020 4775-4792*
- Age of Information Aware Radio Resource Management in Vehicular Networks: A Proactive Deep Reinforcement Learning Perspective. *Chen, X.*, +, *TWC April 2020 2268-2281*
- Characterizing Resource Allocation Trade-Offs in 5G NR Serving Multicast and Unicast Traffic. *Samuylov, A.*, +, *TWC May 2020 3421-3434*
- Cooperative Computation Offloading in FiWi Enhanced 4G HetNets Using Self-Organizing MEC. *Ebrahimzadeh, A.*, +, *TWC July 2020 4480-4493*
- Deep Reinforcement Learning (DRL)-Based Device-to-Device (D2D) Caching With Blockchain and Mobile Edge Computing. *Zhang, R.*, +, *TWC Oct. 2020 6469-6485*
- End-to-End Performance Analysis of Underwater Optical Wireless Relaying and Routing Techniques Under Location Uncertainty. *Celik, A.*, +, *TWC Feb. 2020 1167-1181*
- Energy Efficiency and Traffic Offloading Optimization in Integrated Satellite/Terrestrial Radio Access Networks. *Li, J.*, +, *TWC April 2020 2367-2381*
- Energy-Aware 3D Unmanned Aerial Vehicle Deployment for Network Throughput Optimization. *Chou, S.*, +, *TWC Jan. 2020 563-578*
- Freshness-Aware Seed Selection for Offloading Cellular Traffic Through Opportunistic Mobile Networks. *Zhou, H.*, +, *TWC April 2020 2658-2669*
- Full-Duplex MAC in LAA/ Wi-Fi Coexistence Networks: Design, Modeling, and Analysis. *Cao, X.*, +, *TWC Aug. 2020 5531-5546*
- Improving Caching Efficiency in Content-Aware C-RAN-Based Cooperative Beamforming: A Joint Design Approach. *Zhao, M.*, +, *TWC June 2020 4125-4140*
- Joint Cache Placement, Flight Trajectory, and Transmission Power Optimization for Multi-UAV Assisted Wireless Networks. *Ji, J.*, +, *TWC Aug. 2020 5389-5403*
- Leveraging the Power of Prediction: Predictive Service Placement for Latency-Sensitive Mobile Edge Computing. *Ma, H.*, +, *TWC Oct. 2020 6454-6468*

- LoRa Technology Demystified: From Link Behavior to Cell-Level Performance. *Croce, D.*, +, *TWC Feb. 2020 822-834*
- Modeling and Performance Analysis for Satellite Data Relay Networks Using Two-Dimensional Markov-Modulated Process. *Zhu, Y.*, +, *TWC June 2020 3894-3907*
- Multi-Dimensional Busy-Tone Arbitration for OFDMA Random Access in IEEE 802.11ax. *Xie, D.*, +, *TWC June 2020 4080-4094*
- Multiservice-Based Network Slicing Orchestration With Impatient Tenants. *Han, B.*, +, *TWC July 2020 5010-5024*
- NOMA-Based D2D-Enabled Traffic Offloading for 5G and Beyond Networks Employing Licensed and Unlicensed Access. *Sun, M.*, +, *TWC June 2020 4109-4124*
- Reinforcement Learning Based Capacity Management in Multi-Layer Satellite Networks. *Jiang, C.*, +, *TWC July 2020 4685-4699*
- Throughput-Optimal H-QMW Scheduling for Hybrid Wireless Networks With Persistent and Dynamic Flows. *Lan, X.*, +, *TWC Feb. 2020 1182-1195*
- Trace-Driven QoE-Aware Proactive Caching for Mobile Video Streaming in Metropolis. *Huang, D.*, +, *TWC Jan. 2020 62-76*
- Wake-Up Scheduling for Energy-Efficient Mobile Devices. *Rostami, S.*, +, *TWC Sept. 2020 6020-6036*
- Tensile stress**
- Real-time Prediction of Non-stationary Wireless Channels. *Abdul Careem, M.A.*, +, *TWC Dec. 2020 7836-7850*
- Tensors**
- Multilinear Plus Sparse Based Tensor Completion for Long-Term Operating Large-Scale and Heterogeneous Sensor Networks. *Huang, K.*, +, *TWC Oct. 2020 6301-6315*
- Spatial Channel Covariance Estimation for Hybrid Architectures Based on Tensor Decompositions. *Park, S.*, +, *TWC Feb. 2020 1084-1097*
- Three-dimensional displays**
- Air-to-Air Communications Beyond 5G: A Novel 3D CoMP Transmission Scheme. *Li, Y.*, +, *TWC Nov. 2020 7324-7338*
- Spherical Quasi-Physical Model-Based Color-Shift Keying for Visible Light Communication. *Chen, W.*, +, *TWC Dec. 2020 8099-8112*
- Wireless Networks With Cache-Enabled and Backhaul-Limited Aerial Base Stations. *Kalantari, E.*, +, *TWC Nov. 2020 7363-7376*
- Throughput**
- A Deep Probabilistic Control Machinery for Auto-Configuration of WiFi Link Parameters. *Karmakar, R.*, +, *TWC Dec. 2020 8330-8340*
- Battery-Level-Triggered Transmit Power Control for Energy Harvesting Communications. *Tang, S.*, +, *TWC Dec. 2020 8011-8023*
- Cooperative Spectrum Sensing Optimization in Energy-Harvesting Cognitive Radio Networks. *Liu, X.*, +, *TWC Nov. 2020 7663-7676*
- Effects of Retransmission Limit on the Performance of Centralized Random Backoff. *Kim, J.D.*, *TWC Dec. 2020 8126-8141*
- Energy-Efficient Data Uploading for Cellular-Connected UAV Systems. *Zhan, C.*, +, *TWC Nov. 2020 7279-7292*
- Learning Link Schedules in Self-Backhauled Millimeter Wave Cellular Networks. *Gupta, M.*, +, *TWC Dec. 2020 8024-8038*
- Minimizing the Age of Information of Cognitive Radio-Based IoT Systems Under a Collision Constraint. *Wang, Q.*, +, *TWC Dec. 2020 8054-8067*
- Multihop Wireless Networks With Quality-of-Service: Fluid and Diffusion Approximations. *Krishnan K. S., A.*, +, *TWC Dec. 2020 8113-8125*
- On HARQ Schemes in Satellite-Terrestrial Transmissions. *Pan, G.*, +, *TWC Dec. 2020 7998-8010*
- On the Performance of HARQ Protocols With Blanking in NOMA Systems. *Mheich, Z.*, +, *TWC Nov. 2020 7423-7438*
- On Throughput Improvement Using Immediate Re-Transmission in Grant-Free Random Access With Massive MIMO. *Choi, J.*, *TWC Dec. 2020 8341-8350*
- Partial Non-Orthogonal Multiple Access (NOMA) in Downlink Poisson Networks. *Ali, K.S.*, +, *TWC Nov. 2020 7637-7652*
- Relay Selection, Scheduling, and Power Control in Wireless-Powered Cooperative Communication Networks. *Onalan, A.G.*, +, *TWC Nov. 2020 7181-7195*
- Time division multiple access**
- Cell-Free Massive MIMO for Wireless Federated Learning. *Vu, T.T.*, +, *TWC Oct. 2020 6377-6392*
- Computation Efficiency Maximization in Wireless-Powered Mobile Edge Computing Networks. *Zhou, F.*, +, *TWC May 2020 3170-3184*
- Fundamental Rate Limits of UAV-Enabled Multiple Access Channel With Trajectory Optimization. *Li, P.*, +, *TWC Jan. 2020 458-474*
- Intelligent User Association for Symbiotic Radio Networks Using Deep Reinforcement Learning. *Zhang, Q.*, +, *TWC July 2020 4535-4548*
- Throughput Maximization for Peer-Assisted Wireless Powered IoT NOMA Networks. *Wang, J.*, +, *TWC Aug. 2020 5278-5291*
- Transmission Energy Minimization for Heterogeneous Low-Latency NOMA Downlink. *Xu, Y.*, +, *TWC Feb. 2020 1054-1069*
- Time division multiplexing**
- Downlink Pilot Precoding and Compressed Channel Feedback for FDD-Based Cell-Free Systems. *Kim, S.*, +, *TWC June 2020 3658-3672*
- Dynamic Time-Frequency Division Duplex. *Razlighi, M.M.*, +, *TWC May 2020 3118-3132*
- On Reciprocity in Physically Consistent TDD Systems With Coupled Antennas. *Laas, T.*, +, *TWC Oct. 2020 6440-6453*
- Performance Analysis of Channel Extrapolation in FDD Massive MIMO Systems. *Rottenberg, F.*, +, *TWC April 2020 2728-2741*
- Reciprocity Calibration of TDD MIMO Channel for Interference Alignment. *Zhao, H.*, +, *TWC May 2020 3505-3516*
- Superimposed Pilot for Multi-Cell Multi-User Massive FD-MIMO Systems. *Shafiq, R.*, +, *TWC May 2020 3591-3606*
- Time factors**
- Mean Field Evolutionary Dynamics in Dense-User Multi-Access Edge Computing Systems. *Gao, H.*, +, *TWC Dec. 2020 7825-7835*
- Time-domain analysis**
- Constant Envelope MIMO-OFDM Precoding for Low Complexity Large-Scale Antenna Array Systems. *Domouchtsidis, S.*, +, *TWC Dec. 2020 7973-7985*
- Iterative Nonlinear Self-Interference Cancellation for In-Band Full-Duplex Wireless Communications Under Mixer Imbalance and Amplifier Nonlinearity. *Komatsu, K.*, +, *TWC July 2020 4424-4438*
- Preamble-Based Channel Estimation for OQAM/FBMC Systems With Delay Diversity. *Liu, W.*, +, *TWC Nov. 2020 7169-7180*
- Time-frequency analysis**
- Partial Non-Orthogonal Multiple Access (NOMA) in Downlink Poisson Networks. *Ali, K.S.*, +, *TWC Nov. 2020 7637-7652*
- Time-of-arrival estimation**
- A Channel Model for Indoor Time-of-Arrival Ranging. *Latinovic, Z.*, +, *TWC Feb. 2020 1415-1428*
- AUV-Aided Localization of Underwater Acoustic Devices Based on Doppler Shift Measurements. *Gong, Z.*, +, *TWC April 2020 2226-2239*
- Multipath Estimating Delay Lock Loop for LTE Signal TOA Estimation in Indoor and Urban Environments. *Wang, P.*, +, *TWC Aug. 2020 5518-5530*
- NLOS Effect Mitigation via Spatial Geometry Exploitation in Cooperative Localization. *Wang, Y.*, +, *TWC Sept. 2020 6037-6049*
- Robust Hybrid Cooperative Positioning Via a Modified Distributed Projection-Based Method. *Liu, T.*, +, *TWC May 2020 3003-3018*
- Robust Localization Based on ML-Type, Multi-Stage ML-Type, and Extrapolated Single Propagation UKF Methods Under Mixed LOS/NLOS Conditions. *Park, C.*, +, *TWC Sept. 2020 5819-5832*
- Time-varying channels**
- A Realization of Fog-RAN Slicing via Deep Reinforcement Learning. *Xiang, H.*, +, *TWC April 2020 2515-2527*
- Adaptive Video Streaming With Edge Caching and Video Transcoding Over Software-Defined Mobile Networks: A Deep Reinforcement Learning Approach. *Luo, J.*, +, *TWC March 2020 1577-1592*
- Age-of-Information Based Scheduling for Multi-Channel Systems. *Somababu, B.*, +, *TWC July 2020 4439-4448*
- Channel-Based Optimal Back-Off Delay Control in Delay-Constrained Industrial WSNs. *Li, Q.*, +, *TWC Jan. 2020 696-711*
- Cooperative MIMO-OFDM-Based Exposure-Path Prevention Over 3D Clustered Wireless Camera Sensor Networks. *Wang, J.*, +, *TWC Jan. 2020 4-18*
- Fuzzy Learning for Multi-Dimensional Adaptive Physical Layer Authentication: A Compact and Robust Approach. *Fang, H.*, +, *TWC Aug. 2020 5420-5432*

- Multi-Layer HARQ With Delayed Feedback. *Khreis, A.*, +, *TWC Sept. 2020 6224-6237*
- New Results on Joint Channel and Impulsive Noise Estimation and Tracking in Underwater Acoustic OFDM Systems. *Wang, S.*, +, *TWC April 2020 2601-2612*
- Opportunistic Waveform Scheduling for Wireless Power Transfer With Multiple Devices. *Kim, K.*, +, *TWC Sept. 2020 5651-5665*
- Optimal Energy Allocation and Task Offloading Policy for Wireless Powered Mobile Edge Computing Systems. *Wang, F.*, +, *TWC April 2020 2443-2459*
- Overlap-Save FBMC Receivers. *Nadal, J.*, +, *TWC Aug. 2020 5307-5320*
- Principal Component Analysis-Based Broadband Hybrid Precoding for Millimeter-Wave Massive MIMO Systems. *Sun, Y.*, +, *TWC Oct. 2020 6331-6346*
- Reinforcement Learning-Based Downlink Interference Control for Ultra-Dense Small Cells. *Xiao, L.*, +, *TWC Jan. 2020 423-434*
- Rethinking Modulation and Detection for High Doppler Channels. *Dean, T.R.*, +, *TWC June 2020 3629-3642*
- Robust Non-Orthogonal Multiple Access for Aerial and Ground Users. *New, W.K.*, +, *TWC July 2020 4793-4805*
- ViterbiNet: A Deep Learning Based Viterbi Algorithm for Symbol Detection. *Shlezinger, N.*, +, *TWC May 2020 3319-3331*
- Traffic engineering computing**
- Age of Information Aware Radio Resource Management in Vehicular Networks: A Proactive Deep Reinforcement Learning Perspective. *Chen, X.*, +, *TWC April 2020 2268-2281*
- Training data**
- Hierarchical Codebook-Based Multiuser Beam Training for Millimeter Wave Massive MIMO. *Qi, C.*, +, *TWC Dec. 2020 8142-8152*
- Intelligent Reflecting Surface Assisted Multi-User OFDMA: Channel Estimation and Training Design. *Zheng, B.*, +, *TWC Dec. 2020 8315-8329*
- Joint Parameter-and-Bandwidth Allocation for Improving the Efficiency of Partitioned Edge Learning. *Wen, D.*, +, *TWC Dec. 2020 8272-8286*
- Machine Intelligence at the Edge With Learning Centric Power Allocation. *Wang, S.*, +, *TWC Nov. 2020 7293-7308*
- Multi-Armed Bandit-Based Client Scheduling for Federated Learning. *Xia, W.*, +, *TWC Nov. 2020 7108-7123*
- Predicting Device-to-Device Channels From Cellular Channel Measurements: A Learning Approach. *Najla, M.*, +, *TWC Nov. 2020 7124-7138*
- Trajectory**
- Energy-Efficient Data Uploading for Cellular-Connected UAV Systems. *Zhan, C.*, +, *TWC Nov. 2020 7279-7292*
- Trajectory Design and Power Allocation for Drone-Assisted NR-V2X Network With Dynamic NOMA/OMA. *Abbasi, O.*, +, *TWC Nov. 2020 7153-7168*
- Wireless-Powered Edge Computing With Cooperative UAV: Task, Time Scheduling and Trajectory Design. *Hu, X.*, +, *TWC Dec. 2020 8083-8098*
- Trajectory control**
- A UAV-Mounted Free Space Optical Communication: Trajectory Optimization for Flight Time. *Lee, J.*, +, *TWC March 2020 1610-1621*
- UAV Trajectory Planning for Data Collection from Time-Constrained IoT Devices. *Samir, M.*, +, *TWC Jan. 2020 34-46*
- Trajectory optimization (aerospace)**
- A UAV-Mounted Free Space Optical Communication: Trajectory Optimization for Flight Time. *Lee, J.*, +, *TWC March 2020 1610-1621*
- Transceivers**
- Analog Self-Interference Cancellation Using Auxiliary Transmitter Considering IQ Imbalance and Amplifier Nonlinearity. *Fukui, T.*, +, *TWC Nov. 2020 7439-7452*
- Downlink Multi-User Massive MIMO Transmission Using Receive Spatial Modulation. *Raafat, A.*, +, *TWC Oct. 2020 6871-6883*
- Estimating Doubly-Selective Channels for Hybrid mmWave Massive MIMO Systems: A Doubly-Sparse Approach. *Gao, S.*, +, *TWC Sept. 2020 5703-5715*
- New Transceiver Designs for Interleaved Frequency-Division Multiple Access. *Liew, S.C.*, +, *TWC Dec. 2020 7765-7778*
- Transcoding**
- Adaptive Video Streaming With Edge Caching and Video Transcoding Over Software-Defined Mobile Networks: A Deep Reinforcement Learning Approach. *Luo, J.*, +, *TWC March 2020 1577-1592*
- Transfer functions**
- Deep Learning-Based End-to-End Wireless Communication Systems With Conditional GANs as Unknown Channels. *Ye, H.*, +, *TWC May 2020 3133-3143*
- Transforms**
- Energy Efficiency Optimization of Massive MIMO FD Relay With Quadratic Transform. *Sharma, E.*, +, *TWC Feb. 2020 1429-1448*
- Multilinear Plus Sparse Based Tensor Completion for Long-Term Operating Large-Scale and Heterogeneous Sensor Networks. *Huang, K.*, +, *TWC Oct. 2020 6301-6315*
- Transient response**
- A Statistical Impulse Response Model Based on Empirical Characterization of Wireless Underground Channels. *Salam, A.*, +, *TWC Sept. 2020 5966-5981*
- Machine Learning-Enabled LOS/NLOS Identification for MIMO Systems in Dynamic Environments. *Huang, C.*, +, *TWC June 2020 3643-3657*
- Transmitters**
- Adaptive Modulation for Long-Range Underwater Acoustic Communication. *Huang, J.*, +, *TWC Oct. 2020 6844-6857*
- Battery-Level-Triggered Transmit Power Control for Energy Harvesting Communications. *Tang, S.*, +, *TWC Dec. 2020 8011-8023*
- Enhancing Secure MIMO Transmission via Intelligent Reflecting Surface. *Dong, L.*, +, *TWC Nov. 2020 7543-7556*
- Flexible Subcarrier Allocation for Interleaved Frequency Division Multiple Access. *Shao, Y.*, +, *TWC Nov. 2020 7139-7152*
- Interference Avoidance Position Planning in Dual-Hop and Multi-Hop UAV Relay Networks. *Hosseinipour, S.*, +, *TWC Nov. 2020 7033-7048*
- Multi-Tone Signal Optimization for Wireless Power Transfer in the Presence of Wireless Communication Links. *Mouris, B.A.*, +, *TWC May 2020 3575-3590*
- New Transceiver Designs for Interleaved Frequency-Division Multiple Access. *Liew, S.C.*, +, *TWC Dec. 2020 7765-7778*
- On the Performance of HARQ Protocols With Blanking in NOMA Systems. *Mheich, Z.*, +, *TWC Nov. 2020 7423-7438*
- Real-time Prediction of Non-stationary Wireless Channels. *Abdul Careem, M.A.*, +, *TWC Dec. 2020 7836-7850*
- Two-Layer Coded Channel Access With Collision Resolution: Design and Analysis. *Ebrahimi, M.*, +, *TWC Dec. 2020 7986-7997*
- Transmitting antennas**
- Absolute Amplitude Differential Phase Spatial Modulation and Its Non-Coherent Detection Under Fast Fading Channels. *Yu, D.*, +, *TWC April 2020 2742-2755*
- Antenna Selection in Massive MIMO Based on Greedy Algorithms. *Mendonca, M.O.K.*, +, *TWC March 2020 1868-1881*
- Antenna Selection Strategy for Energy Efficiency Maximization in Uplink OFDMA Networks: A Multi-Objective Approach. *Khalili, A.*, +, *TWC Jan. 2020 595-609*
- Constant Envelope MIMO-OFDM Precoding for Low Complexity Large-Scale Antenna Array Systems. *Domouchtsidis, S.*, +, *TWC Dec. 2020 7973-7985*
- Cube-Split: A Structured Grassmannian Constellation for Non-Coherent SMO Communications. *Ngo, K.*, +, *TWC March 2020 1948-1964*
- Deep Learning Enabled Optimization of Downlink Beamforming Under Per-Antenna Power Constraints: Algorithms and Experimental Demonstration. *Zhang, J.*, +, *TWC June 2020 3738-3752*
- Distributed Pareto Optimal Beamforming for the MISO Multi-Band Multi-Cell Downlink. *Moothedath, V.N.*, +, *TWC Nov. 2020 7196-7209*
- Dual-Hop Spatial Modulation With a Relay Transmitting its Own Information. *Li, Q.*, +, *TWC July 2020 4449-4463*
- Exploiting Time Asynchrony in Multi-User Transmit Beamforming. *Ganji, M.*, +, *TWC May 2020 3156-3169*
- Joint Antenna Detection and Bayesian Channel Estimation for Non-Coherent User Terminals. *Becirovic, E.*, +, *TWC Nov. 2020 7081-7096*

- Low-Resolution ADC Quantized Full-Duplex Massive MIMO-Enabled Wireless Backhaul in Heterogeneous Networks Over Rician Channels. *Anokye, P.*, +, *TWC Aug. 2020 5503-5517*
- Measurement-Based Analysis and Modeling of Multimode Channel Behaviors in Spherical Vector Wave Domain. *Miao, Y.*, +, *TWC Aug. 2020 5345-5358*
- Multi-Antenna Coded Content Delivery With Caching: A Low-Complexity Solution. *Zhao, J.*, +, *TWC Nov. 2020 7484-7497*
- Multi-Antenna Interference Management for Coded Caching. *Tolli, A.*, +, *TWC March 2020 2091-2106*
- Multimode Integer-Forcing Receivers for Block Fading Channels. *Yang, D.*, +, *TWC Dec. 2020 8261-8271*
- Overhead-Performance Tradeoff for MISO Broadcast Channels With Zero-Forcing Precoder. *Liu, G.*, +, *TWC Feb. 2020 995-1007*
- Performance Analysis of Channel Extrapolation in FDD Massive MIMO Systems. *Rottenberg, F.*, +, *TWC April 2020 2728-2741*
- Preamble-Based Channel Estimation for OQAM/FBMC Systems With Delay Diversity. *Liu, W.*, +, *TWC Nov. 2020 7169-7180*
- Receive Spatial Modulation Aided Simultaneous Wireless Information and Power Transfer With Finite Alphabet. *Zhao, Y.*, +, *TWC Dec. 2020 8039-8053*
- Secure Degrees of Freedom of MIMO Two-Way Wiretap Channel With no CSI Anywhere. *Liang, Q.*, +, *TWC Dec. 2020 7927-7941*
- Secure UAV-Enabled Communication Using Han-Kobayashi Signaling. *Sheng, Z.*, +, *TWC May 2020 2905-2919*
- Steepest Gradient-Based Orthogonal Precoder for Integer-Forcing MIMO. *Hasan, M.N.*, +, *TWC Feb. 2020 942-955*
- Transmit Antenna Selection and Beamformer Design for Secure Spatial Modulation With Rough CSI of Eve. *Xia, G.*, +, *TWC July 2020 4643-4656*
- Ultra-Wideband Radio Channel Characteristics for Near-Ground Swarm Robots Communication. *Duan, S.*, +, *TWC July 2020 4715-4726*
- Transponders**
- Performance of Multibeam Very High Throughput Satellite Systems Based on FSO Feeder Links With HPA Nonlinearity. *Zedini, E.*, +, *TWC Sept. 2020 5908-5923*
- Transport protocols**
- Performance Analysis of TCP New Reno Over Satellite DVB-RCS2 Random Access Links. *Liu, J.*, +, *TWC Jan. 2020 435-446*
- Traveling wave amplifiers**
- Tractable Approach to MmWaves Cellular Analysis With FSO Backhauling Under Feedback Delay and Hardware Limitations. *Balti, E.*, +, *TWC Jan. 2020 410-422*
- Tree codes**
- Enhanced Huffman Coded OFDM With Index Modulation. *Dang, S.*, +, *TWC April 2020 2489-2503*
- Tree searching**
- Interference Exploitation 1-Bit Massive MIMO Precoding: A Partial Branch-and-Bound Solution With Near-Optimal Performance. *Li, A.*, +, *TWC May 2020 3474-3489*
- Joint Annotator-and-Spectrum Allocation in Wireless Networks for Crowd Labeling. *Li, X.*, +, *TWC Sept. 2020 6116-6129*
- LORM: Learning to Optimize for Resource Management in Wireless Networks With Few Training Samples. *Shen, Y.*, +, *TWC Jan. 2020 665-679*
- Trees (mathematics)**
- Cost Sharing Games for Energy-Efficient Multi-Hop Broadcast in Wireless Networks. *Mousavi, M.*, +, *TWC Jan. 2020 310-324*
- Trusted computing**
- An Energy-Balanced Trust Cloud Migration Scheme for Underwater Acoustic Sensor Networks. *Han, G.*, +, *TWC March 2020 1636-1649*
- Jamming-Resilient Frequency Hopping-Aided Secure Communication for Internet-of-Things in the Presence of an Untrusted Relay. *Letafati, M.*, +, *TWC Oct. 2020 6771-6785*
- Turbo codes**
- Multi-User Detection Based on Expectation Propagation for the Non-Coherent SIMO Multiple Access Channel. *Ngo, K.*, +, *TWC Sept. 2020 6145-6161*
- Two dimensional displays**
- Spherical Quasi-Physical Model-Based Color-Shift Keying for Visible Light Communication. *Chen, W.*, +, *TWC Dec. 2020 8099-8112*
- U**
- Ubiquitous computing**
- IndoorWaze: A Crowdsourcing-Based Context-Aware Indoor Navigation System. *Li, T.*, +, *TWC Aug. 2020 5461-5472*
- Ultra wideband communication**
- A Frequency Offset Transmit Reference System in Dense Multipath Environments: Propagation Effects and Design Considerations. *Bilal, I.*, +, *TWC Feb. 2020 859-873*
- Measurements and Cluster-Based Modeling of Vehicle-to-Vehicle Channels With Large Vehicle Obstructions. *Yang, M.*, +, *TWC Sept. 2020 5860-5874*
- Ultra-Wideband Radio Channel Characteristics for Near-Ground Swarm Robots Communication. *Duan, S.*, +, *TWC July 2020 4715-4726*
- Uncertainty**
- A Stochastic Optimization Framework for Channel Bonding in Wireless LANs Under Demand Uncertainty. *Nabil, A.*, +, *TWC Nov. 2020 7528-7542*
- Underground communication**
- A Statistical Impulse Response Model Based on Empirical Characterization of Wireless Underground Channels. *Salam, A.*, +, *TWC Sept. 2020 5966-5981*
- Underwater acoustic communication**
- Adaptive Modulation for Long-Range Underwater Acoustic Communication. *Huang, J.*, +, *TWC Oct. 2020 6844-6857*
- An Energy-Balanced Trust Cloud Migration Scheme for Underwater Acoustic Sensor Networks. *Han, G.*, +, *TWC March 2020 1636-1649*
- New Results on Joint Channel and Impulsive Noise Estimation and Tracking in Underwater Acoustic OFDM Systems. *Wang, S.*, +, *TWC April 2020 2601-2612*
- Underwater optical wireless communication**
- End-to-End Performance Analysis of Underwater Optical Wireless Relaying and Routing Techniques Under Location Uncertainty. *Celik, A.*, +, *TWC Feb. 2020 1167-1181*
- Joint Relay Selection and Power Allocation for Underwater Cooperative Optical Wireless Networks. *Xing, F.*, +, *TWC Jan. 2020 251-264*
- Vertical Underwater Visible Light Communication Links: Channel Modeling and Performance Analysis. *Elamassie, M.*, +, *TWC Oct. 2020 6948-6959*
- Unmanned aerial vehicles**
- 3D UAV Trajectory Design and Frequency Band Allocation for Energy-Efficient and Fair Communication: A Deep Reinforcement Learning Approach. *Ding, R.*, +, *TWC Dec. 2020 7796-7809*
- Cache-Enabling UAV Communications: Network Deployment and Resource Allocation. *Zhang, T.*, +, *TWC Nov. 2020 7470-7483*
- Deep Learning for Optimal Deployment of UAVs With Visible Light Communications. *Wang, Y.*, +, *TWC Nov. 2020 7049-7063*
- Energy-Efficient Data Uploading for Cellular-Connected UAV Systems. *Zhan, C.*, +, *TWC Nov. 2020 7279-7292*
- Interference Avoidance Position Planning in Dual-Hop and Multi-Hop UAV Relay Networks. *Hosseinalipour, S.*, +, *TWC Nov. 2020 7033-7048*
- Random Network Coding Enabled Routing Protocol in Unmanned Aerial Vehicle Networks. *Song, H.*, +, *TWC Dec. 2020 8382-8395*
- Wireless-Powered Edge Computing With Cooperative UAV: Task, Time Scheduling and Trajectory Design. *Hu, X.*, +, *TWC Dec. 2020 8083-8098*
- Unsupervised learning**
- Machine Learning-Enabled Cooperative Spectrum Sensing for Non-Orthogonal Multiple Access. *Shi, Z.*, +, *TWC Sept. 2020 5692-5702*
- Uplink**
- Correction to "Cell-Free Massive MIMO Versus Small Cells" [Mar 17 1834-1850]. *Ngo, H.Q.*, +, *TWC May 2020 3623-3624*
- Efficient Scheduling for the Massive Random Access Gaussian Channel. *Kasper Facenda, G.*, +, *TWC Nov. 2020 7598-7609*
- Joint Antenna Detection and Bayesian Channel Estimation for Non-Coherent User Terminals. *Becirovic, E.*, +, *TWC Nov. 2020 7081-7096*

Joint Spatial Division and Multiplexing in Massive MIMO: A Neighbor-Based Approach. *Song, Y.*, +, *TWC Nov. 2020 7392-7406*  
 Power and Subcarrier Allocation in 5G NOMA-FD Systems. *Abrardo, A.*, +, *TWC Dec. 2020 8246-8260*  
 Spatial Spectrum Sensing in Uplink Two-Tier User-Centric Deployed Het-Nets. *Shang, B.*, +, *TWC Dec. 2020 7957-7972*

#### Upper bound

Multi-Armed Bandit-Based Client Scheduling for Federated Learning. *Xia, W.*, +, *TWC Nov. 2020 7108-7123*

#### User experience

Online Resource Procurement and Allocation in a Hybrid Edge-Cloud Computing System. *Dinh, T.Q.*, +, *TWC March 2020 2137-2149*  
 Peace: Privacy-Preserving and Cost-Efficient Task Offloading for Mobile-Edge Computing. *He, X.*, +, *TWC March 2020 1814-1824*

## V

#### Vector quantization

Overhead-Performance Tradeoff for MISO Broadcast Channels With Zero-Forcing Precoder. *Liu, G.*, +, *TWC Feb. 2020 995-1007*

#### Vectors

Federated Learning Over Wireless Fading Channels. *Amiri, M.M.*, +, *TWC May 2020 3546-3557*  
 Mobile Edge Computing Meets mmWave Communications: Joint Beamforming and Resource Allocation for System Delay Minimization. *Zhao, C.*, +, *TWC April 2020 2382-2396*  
 Omnidirectional Precoding for 3D Massive MIMO With Uniform Planar Arrays. *Lu, A.*, +, *TWC April 2020 2628-2642*

#### Vehicle dynamics

Age of Information Driven Cache Content Update Scheduling for Dynamic Contents in Heterogeneous Networks. *Ma, M.*, +, *TWC Dec. 2020 8427-8441*  
 Trajectory Design and Power Allocation for Drone-Assisted NR-V2X Network With Dynamic NOMA/OMA. *Abbasi, O.*, +, *TWC Nov. 2020 7153-7168*

#### Vehicular ad hoc networks

A Novel Multimodal Collaborative Drone-Assisted VANET Networking Model. *Lin, N.*, +, *TWC July 2020 4919-4933*  
 A Poisson Line Process-Based Framework for Determining the Needed RSU Density and Relaying Hops in Vehicular Networks. *Ammar, H.A.*, +, *TWC Oct. 2020 6643-6659*  
 Age of Information Aware Radio Resource Management in Vehicular Networks: A Proactive Deep Reinforcement Learning Perspective. *Chen, X.*, +, *TWC April 2020 2268-2281*  
 An Adaptive Broadcasting Strategy for Efficient Dynamic Mapping in Vehicular Networks. *Mason, F.*, +, *TWC Aug. 2020 5605-5620*  
 Coverage and Rate Analysis of Downlink Cellular Vehicle-to-Everything (C-V2X) Communication. *Chehlor, V.V.*, +, *TWC March 2020 1738-1753*  
 Delay-Minimized Edge Caching in Heterogeneous Vehicular Networks: A Matching-Based Approach. *Wu, H.*, +, *TWC Oct. 2020 6409-6424*  
 Hierarchical Soft Slicing to Meet Multi-Dimensional QoS Demand in Cache-Enabled Vehicular Networks. *Zhang, S.*, +, *TWC March 2020 2150-2162*  
 Joint Frame Design and Resource Allocation for Ultra-Reliable and Low-Latency Vehicular Networks. *Yang, H.*, +, *TWC May 2020 3607-3622*  
 Machine Learning-Enabled LOS/NLOS Identification for MIMO Systems in Dynamic Environments. *Huang, C.*, +, *TWC June 2020 3643-3657*  
 Measurements and Cluster-Based Modeling of Vehicle-to-Vehicle Channels With Large Vehicle Obstructions. *Yang, M.*, +, *TWC Sept. 2020 5860-5874*  
 Modeling and Delay Analysis of Intermittent V2U Communication in Secluded Areas. *Khabbaz, M.*, +, *TWC May 2020 3228-3240*  
 Secure UAV-Enabled Communication Using Han-Kobayashi Signaling. *Sheng, Z.*, +, *TWC May 2020 2905-2919*  
 Topology Control in Hybrid VLC/RF Vehicular Ad-Hoc Network. *Chen, J.*, +, *TWC March 2020 1965-1976*

#### Video coding

A Dynamic MBSFN Area Formation Algorithm for Multicast Service Delivery in 5G NR Networks. *Araniti, G.*, +, *TWC Feb. 2020 808-821*

Adaptive Video Streaming With Edge Caching and Video Transcoding Over Software-Defined Mobile Networks: A Deep Reinforcement Learning Approach. *Luo, J.*, +, *TWC March 2020 1577-1592*

Scalable Video Transmission in Cache-Aided Device-to-Device Networks. *Ma, J.*, +, *TWC June 2020 4247-4261*

#### Video communication

A Dynamic Clustering Algorithm for Multi-Point Transmissions in Mission-Critical Communications. *Daher, A.*, +, *TWC July 2020 4934-4946*

Scalable Video Transmission in Cache-Aided Device-to-Device Networks. *Ma, J.*, +, *TWC June 2020 4247-4261*

#### Video on demand

Proactive Edge Caching for Video on Demand With Quality Adaptation. *Han, S.*, +, *TWC Jan. 2020 218-234*

#### Video retrieval

Scalable Video Transmission in Cache-Aided Device-to-Device Networks. *Ma, J.*, +, *TWC June 2020 4247-4261*

#### Video signal processing

Rate-Distortion-Memory Trade-Offs in Heterogeneous Caching Networks. *Hassanzadeh, P.*, +, *TWC May 2020 3019-3033*

#### Video streaming

Adaptive Video Streaming for Massive MIMO Networks via Approximate MDP and Reinforcement Learning. *Lan, Q.*, +, *TWC Sept. 2020 5716-5731*  
 Adaptive Video Streaming With Edge Caching and Video Transcoding Over Software-Defined Mobile Networks: A Deep Reinforcement Learning Approach. *Luo, J.*, +, *TWC March 2020 1577-1592*  
 Rate-Distortion-Memory Trade-Offs in Heterogeneous Caching Networks. *Hassanzadeh, P.*, +, *TWC May 2020 3019-3033*  
 Trace-Driven QoE-Aware Proactive Caching for Mobile Video Streaming in Metropolis. *Huang, D.*, +, *TWC Jan. 2020 62-76*  
 Wake-Up Scheduling for Energy-Efficient Mobile Devices. *Rostami, S.*, +, *TWC Sept. 2020 6020-6036*

#### Virtual reality

Federated Echo State Learning for Minimizing Breaks in Presence in Wireless Virtual Reality Networks. *Chen, M.*, +, *TWC Jan. 2020 177-191*

#### Virtualization

Dynamic Service Function Chain Embedding for NFV-Enabled IoT: A Deep Reinforcement Learning Approach. *Fu, X.*, +, *TWC Jan. 2020 507-519*  
 Multiservice-Based Network Slicing Orchestration With Impatient Tenants. *Han, B.*, +, *TWC July 2020 5010-5024*  
 On Optimal Orchestration of Virtualized Cellular Networks With Downlink Rate Coverage Probability Constraints. *Chatterjee, S.*, +, *TWC July 2020 4378-4393*

#### Viterbi decoding

ViterbiNet: A Deep Learning Based Viterbi Algorithm for Symbol Detection. *Shlezinger, N.*, +, *TWC May 2020 3319-3331*

#### Viterbi detection

ViterbiNet: A Deep Learning Based Viterbi Algorithm for Symbol Detection. *Shlezinger, N.*, +, *TWC May 2020 3319-3331*

## W

#### Wearable computers

Authenticating On-Body IoT Devices: An Adversarial Learning Approach. *Huang, Y.*, +, *TWC Aug. 2020 5234-5245*

#### Weibull distribution

3D UAV Trajectory Design and Frequency Band Allocation for Energy-Efficient and Fair Communication: A Deep Reinforcement Learning Approach. *Ding, R.*, +, *TWC Dec. 2020 7796-7809*  
 Channel Measurement and Modeling of the Small-Scale Fading Characteristics for Urban Inland River Environment. *Yu, J.*, +, *TWC May 2020 3376-3389*

#### Wireless channels

1-bit Phase Shifters for Large-Antenna Full-Duplex mmWave Communications. *da Silva, J.M.B.*, +, *TWC Oct. 2020 6916-6931*  
 A Channel Model for Indoor Time-of-Arrival Ranging. *Latinovic, Z.*, +, *TWC Feb. 2020 1415-1428*  
 A Deep Study on Layered Multi-Relay Non-Orthogonal Amplify-Forward Networks. *Padidar, P.*, +, *TWC Jan. 2020 354-366*

- A Realization of Fog-RAN Slicing via Deep Reinforcement Learning. *Xiang, H.*, +, *TWC April 2020 2515-2527*
- A Statistical Impulse Response Model Based on Empirical Characterization of Wireless Underground Channels. *Salam, A.*, +, *TWC Sept. 2020 5966-5981*
- A UAV-Mounted Free Space Optical Communication: Trajectory Optimization for Flight Time. *Lee, J.*, +, *TWC March 2020 1610-1621*
- A Unified Statistical Model for Atmospheric Turbulence-Induced Fading in Orbital Angular Momentum Multiplexed FSO Systems. *Amhoud, E.*, +, *TWC Feb. 2020 888-900*
- Adaptive Modulation for Long-Range Underwater Acoustic Communication. *Huang, J.*, +, *TWC Oct. 2020 6844-6857*
- Adaptive Neural Signal Detection for Massive MIMO. *Khani, M.*, +, *TWC Aug. 2020 5635-5648*
- Analysis of 5G Radio Access Protocols for Uplink URLLC in a Connection-Less Mode. *Centenaro, M.*, +, *TWC May 2020 3104-3117*
- Antenna Selection Strategy for Energy Efficiency Maximization in Uplink OFDMA Networks: A Multi-Objective Approach. *Khalili, A.*, +, *TWC Jan. 2020 595-609*
- Coherent Detection for Short-Packet Physical-Layer Network Coding With Binary FSK Modulation. *Wang, Z.*, +, *TWC Jan. 2020 279-292*
- Communications and Radar Coexistence in the Massive MIMO Regime: Uplink Analysis. *D'Andrea, C.*, +, *TWC Jan. 2020 19-33*
- CoMP-NOMA in the SWIPT Networks. *Hedayati, M.*, +, *TWC July 2020 4549-4562*
- Compressed Sensing Channel Estimation for OFDM With Non-Gaussian Multipath Gains. *Gomez-Cuba, F.*, +, *TWC Jan. 2020 47-61*
- Cooperative Asynchronous Non-Orthogonal Multiple Access With Power Minimization Under QoS Constraints. *Zou, X.*, +, *TWC March 2020 1503-1518*
- Cooperative MIMO-OFDM-Based Exposure-Path Prevention Over 3D Clustered Wireless Camera Sensor Networks. *Wang, J.*, +, *TWC Jan. 2020 4-18*
- Correlation Analysis and Link Gain Prediction for Optical Wireless Scattering Communication Over Broad Spectra. *Liu, B.*, +, *TWC Feb. 2020 1386-1396*
- Covert Localization in Wireless Networks: Feasibility and Performance Analysis. *Zhao, Y.*, +, *TWC Oct. 2020 6549-6563*
- Dedicated Energy Harvesting in Concatenated Hybrid PLC-Wireless Systems. *Fernandes, V.*, +, *TWC June 2020 3839-3853*
- Degrees of Freedom of Rank-Deficient  $2 \times 2 \times 2$  MIMO Interference Networks. *Wang, Q.*, +, *TWC March 2020 1453-1463*
- Design and Analysis of FD MIMO Cellular Systems in Coexistence With MIMO Radar. *Biswas, S.*, +, *TWC July 2020 4727-4743*
- Downlink Pilot Precoding and Compressed Channel Feedback for FDD-Based Cell-Free Systems. *Kim, S.*, +, *TWC June 2020 3658-3672*
- Dynamic Time-Frequency Division Duplex. *Razlighi, M.M.*, +, *TWC May 2020 3118-3132*
- Efficient Rendezvous for Heterogeneous Interference in Cognitive Radio Networks. *Gu, Z.*, +, *TWC Jan. 2020 91-105*
- Enabling Super-Resolution Parameter Estimation for mm-Wave Channel Sounding. *Wang, R.*, +, *TWC May 2020 3077-3090*
- Energy Efficiency and Delay Tradeoff for Wireless Powered Mobile-Edge Computing Systems With Multi-Access Schemes. *Mao, S.*, +, *TWC March 2020 1855-1867*
- Energy-Efficient Base Station Association and Beamforming for Multi-Cell Multiuser Systems. *An, J.*, +, *TWC April 2020 2841-2854*
- Enhanced Huffman Coded OFDM With Index Modulation. *Dang, S.*, +, *TWC April 2020 2489-2503*
- Enumerative Sphere Shaping for Wireless Communications With Short Packets. *Gultekin, Y.C.*, +, *TWC Feb. 2020 1098-1112*
- Estimating Doubly-Selective Channels for Hybrid mmWave Massive MIMO Systems: A Doubly-Sparse Approach. *Gao, S.*, +, *TWC Sept. 2020 5703-5715*
- Exploiting Time Asynchrony in Multi-User Transmit Beamforming. *Ganji, M.*, +, *TWC May 2020 3156-3169*
- Fundamentals of Power Allocation Strategies for Downlink Multi-User NOMA With Target Rates. *Oviedo, J.A.*, +, *TWC March 2020 1906-1917*
- Fuzzy Learning for Multi-Dimensional Adaptive Physical Layer Authentication: A Compact and Robust Approach. *Fang, H.*, +, *TWC Aug. 2020 5420-5432*
- Heterogeneous Semi-Blind Interference Alignment in Finite-SNR Networks With Fairness Consideration. *Yang, Q.*, +, *TWC April 2020 2472-2488*
- Hybrid Power Line/Wireless Systems: An Optimal Power Allocation Perspective. *Filomeno, M.d.L.*, +, *TWC Oct. 2020 6289-6300*
- IDFT-VFDM for Supplementary Uplink and LTE-NR Co-Existence. *Feng, Q.*, +, *TWC May 2020 3435-3448*
- Jamming-Assisted Proactive Eavesdropping Over Two Suspicious Communication Links. *Zhang, H.*, +, *TWC July 2020 4817-4830*
- Joint 3D Maneuver and Power Adaptation for Secure UAV Communication With CoMP Reception. *Yao, J.*, +, *TWC Oct. 2020 6992-7006*
- Joint C-OMA and C-NOMA Wireless Backhaul Scheduling in Heterogeneous Ultra Dense Networks. *Zhang, Q.*, +, *TWC Feb. 2020 874-887*
- Joint Channel and Queue Aware Scheduling for Latency Sensitive Mobile Edge Computing With Power Constraints. *Han, D.*, +, *TWC June 2020 3938-3951*
- Joint Detection and Decoding of Polar Coded 5G Control Channels. *Jalali, A.*, +, *TWC March 2020 2066-2078*
- Joint Frame Design and Resource Allocation for Ultra-Reliable and Low-Latency Vehicular Networks. *Yang, H.*, +, *TWC May 2020 3607-3622*
- Joint Power and Blocklength Optimization for URLLC in a Factory Automation Scenario. *Ren, H.*, +, *TWC March 2020 1786-1801*
- Low-Complexity Adaptive Spatial Processing of ESPAR Antenna Systems. *Bucheli Garcia, J.C.*, +, *TWC June 2020 3700-3711*
- Low-Complexity Joint Resource Allocation and Trajectory Design for UAV-Aided Relay Networks With the Segmented Ray-Tracing Channel Model. *Hu, Q.*, +, *TWC Sept. 2020 6179-6195*
- Low-Resolution Limited-Feedback NOMA for mmWave Communications. *Yapici, Y.*, +, *TWC Aug. 2020 5433-5446*
- Machine Learning-Based Channel Prediction in Massive MIMO With Channel Aging. *Yuan, J.*, +, *TWC May 2020 2960-2973*
- Machine Learning-Enabled LOS/NLOS Identification for MIMO Systems in Dynamic Environments. *Huang, C.*, +, *TWC June 2020 3643-3657*
- Massive MIMO Asymptotics for Ray-Based Propagation Channels. *Li, S.*, +, *TWC June 2020 3977-3991*
- Massive MIMO Channel Estimation With an Untrained Deep Neural Network. *Balevi, E.*, +, *TWC March 2020 2079-2090*
- Massive MIMO Extensions to the COST 2100 Channel Model: Modeling and Validation. *Flordelis, J.*, +, *TWC Jan. 2020 380-394*
- Massive MIMO-NOMA Networks With Successive Sub-Array Activation. *Sousa de Sena, A.*, +, *TWC March 2020 1622-1635*
- Max-Min Fairness of  $K$ -User Cooperative Rate-Splitting in MISO Broadcast Channel With User Relaying. *Mao, Y.*, +, *TWC Oct. 2020 6362-6376*
- Measurement-Based Analysis and Modeling of Multimode Channel Behaviors in Spherical Vector Wave Domain. *Miao, Y.*, +, *TWC Aug. 2020 5345-5358*
- Measurements and Cluster-Based Modeling of Vehicle-to-Vehicle Channels With Large Vehicle Obstructions. *Yang, M.*, +, *TWC Sept. 2020 5860-5874*
- Methodology for Benchmarking Radio-Frequency Channel Sounders Through a System Model. *Gentile, C.*, +, *TWC Oct. 2020 6504-6519*
- Millimeter-Wave Beam Search With Iterative Deactivation and Beam Shifting. *Liu, C.*, +, *TWC Aug. 2020 5117-5131*
- Millimeter-Wave Networking in the Sky: A Machine Learning and Mean Field Game Approach for Joint Beamforming and Beam-Steering. *Li, L.*, +, *TWC Oct. 2020 6393-6408*
- Modeling of 300 GHz Chip-to-Chip Wireless Channels in Metal Enclosures. *Fu, J.*, +, *TWC May 2020 3214-3227*
- Multi-Antenna Interference Management for Coded Caching. *Tolli, A.*, +, *TWC March 2020 2091-2106*
- Multi-Antenna Two-Way Relay Based Cooperative NOMA. *Lv, L.*, +, *TWC Oct. 2020 6486-6503*
- Multi-Cell Interference Exploitation: Enhancing the Power Efficiency in Cell Coordination. *Wei, Z.*, +, *TWC Jan. 2020 547-562*

- Multi-Hop Wireless Optical Backhauling for LiFi Attocell Networks: Bandwidth Scheduling and Power Control. *Kazemi, H.*, +, *TWC Sept. 2020 5676-5691*
- Multi-Layer HARQ With Delayed Feedback. *Khreis, A.*, +, *TWC Sept. 2020 6224-6237*
- Multi-Mode OAM Radio Waves: Generation, Angle of Arrival Estimation and Reception With UCAs. *Chen, R.*, +, *TWC Oct. 2020 6932-6947*
- Networked Optical Massive MIMO Communications. *Sun, C.*, +, *TWC Aug. 2020 5575-5588*
- New Results on Joint Channel and Impulsive Noise Estimation and Tracking in Underwater Acoustic OFDM Systems. *Wang, S.*, +, *TWC April 2020 2601-2612*
- NOMA-Enhanced Computation Over Multi-Access Channels. *Wu, F.*, +, *TWC April 2020 2252-2267*
- On Reciprocity in Physically Consistent TDD Systems With Coupled Antennas. *Laas, T.*, +, *TWC Oct. 2020 6440-6453*
- On the Effectiveness of OTFS for Joint Radar Parameter Estimation and Communication. *Gaudio, L.*, +, *TWC Sept. 2020 5951-5965*
- On the Performance Gain of Harnessing Non-Line-of-Sight Propagation for Visible Light-Based Positioning. *Zhou, B.*, +, *TWC July 2020 4863-4878*
- On UW-Based Transmission for MIMO Multi-Carriers With Spatial Multiplexing. *Ehsanfar, S.*, +, *TWC Sept. 2020 5875-5890*
- Online Optimal Control for Wireless Cooperative Transmission by Ambient RF Powered Sensors. *Liu, T.*, +, *TWC Sept. 2020 6007-6019*
- Opportunistic Spectrum Sharing Based on OFDM With Index Modulation. *Li, Q.*, +, *TWC Jan. 2020 192-204*
- Optimal Energy Allocation and Task Offloading Policy for Wireless Powered Mobile Edge Computing Systems. *Wang, F.*, +, *TWC April 2020 2443-2459*
- Outage Performance and Average Rate for Large-Scale Millimeter-Wave NOMA Networks. *Kusaladharma, S.*, +, *TWC Feb. 2020 1280-1291*
- Overhead-Performance Tradeoff for MISO Broadcast Channels With Zero-Forcing Precoder. *Liu, G.*, +, *TWC Feb. 2020 995-1007*
- Performance Analysis of Massive MIMO Multi-Way Relay Networks With Low-Resolution ADCs. *Rahimian, S.*, +, *TWC Sept. 2020 5794-5806*
- Performance of Dynamic Power and Channel Allocation for Downlink MC-NOMA Systems. *Liu, F.*, +, *TWC March 2020 1650-1662*
- Physical Layer Authentication for Massive MIMO Systems With Hardware Impairments. *Zhang, P.*, +, *TWC March 2020 1563-1576*
- Principal Component Analysis-Based Broadband Hybrid Precoding for Millimeter-Wave Massive MIMO Systems. *Sun, Y.*, +, *TWC Oct. 2020 6331-6346*
- QoS Driven Power Allocation in Secure Multicarrier Full-Duplex Relay Systems. *Bai, Z.*, +, *TWC Feb. 2020 929-941*
- Random Access-Based Reliable Uplink Communication and Power Transfer Using Dynamic Power Splitting. *Kisseleff, S.*, +, *TWC June 2020 4307-4320*
- Randomized Channel Sparsifying Hybrid Precoding for FDD Massive MIMO Systems. *Tian, C.*, +, *TWC Aug. 2020 5447-5460*
- Reciprocity Calibration of TDD MIMO Channel for Interference Alignment. *Zhao, H.*, +, *TWC May 2020 3505-3516*
- Reconsidering Design of Multi-Antenna NOMA Systems With Limited Feedback. *Tang, Z.*, +, *TWC March 2020 1519-1534*
- Reliability Bounds for Dependent Fading Wireless Channels. *Besser, K.*, +, *TWC Sept. 2020 5833-5845*
- Resource Allocation for Wireless Cooperative IoT Network With Energy Harvesting. *Chen, X.*, +, *TWC July 2020 4879-4893*
- Rethinking Modulation and Detection for High Doppler Channels. *Dean, T.R.*, +, *TWC June 2020 3629-3642*
- Robust Data Detection for MIMO Systems With One-Bit ADCs: A Reinforcement Learning Approach. *Jeon, Y.*, +, *TWC March 2020 1663-1676*
- Robust Non-Orthogonal Multiple Access for Aerial and Ground Users. *New, W.K.*, +, *TWC July 2020 4793-4805*
- Robust Power Allocation for Parallel Gaussian Channels With Approximately Gaussian Input Distributions. *Cao, W.*, +, *TWC June 2020 3685-3699*
- Saddlepoint Approximations for Short-Packet Wireless Communications. *Lancho, A.*, +, *TWC July 2020 4831-4846*
- Secure UAV-Enabled Communication Using Han-Kobayashi Signaling. *Sheng, Z.*, +, *TWC May 2020 2905-2919*
- Securing Channel State Information in Multiuser MIMO With Limited Feedback. *Yang, Y.*, +, *TWC May 2020 3091-3103*
- SINR Distribution and Scheduling Gain Analysis of Uplink Channel-Adaptive Scheduling. *Kamiya, S.*, +, *TWC April 2020 2321-2335*
- Spatial Channel Covariance Estimation for Hybrid Architectures Based on Tensor Decompositions. *Park, S.*, +, *TWC Feb. 2020 1084-1097*
- Subset MMSE Receivers for Cell-Free Networks. *Attarifar, M.*, +, *TWC June 2020 4183-4194*
- Supervised and Semi-Supervised Learning for MIMO Blind Detection With Low-Resolution ADCs. *Nguyen, L.V.*, +, *TWC April 2020 2427-2442*
- Training Optimization for Hybrid MIMO Communication Systems. *Xing, C.*, +, *TWC Aug. 2020 5473-5487*
- Two-Side Coalitional Matching Approach for Joint MIMO-NOMA Clustering and BS Selection in Multi-Cell MIMO-NOMA Systems. *Ding, J.*, +, *TWC March 2020 2006-2021*
- UAV-to-UAV Communications in Cellular Networks. *Azari, M.M.*, +, *TWC Sept. 2020 6130-6144*
- Ultra-Wideband Radio Channel Characteristics for Near-Ground Swarm Robots Communication. *Duan, S.*, +, *TWC July 2020 4715-4726*
- Unequally Sub-Connected Architecture for Hybrid Beamforming in Massive MIMO Systems. *Nguyen, N.T.*, +, *TWC Feb. 2020 1127-1140*
- ViterbiNet: A Deep Learning Based Viterbi Algorithm for Symbol Detection. *Shlezinger, N.*, +, *TWC May 2020 3319-3331*
- Weighted Sum-Rate Maximization for Reconfigurable Intelligent Surface Aided Wireless Networks. *Guo, H.*, +, *TWC May 2020 3064-3076*
- WiderCast: Enabling Wider Bandwidth for Wireless Multicast Over IEEE 802.11ac WLANs. *Park, Y.D.*, +, *TWC June 2020 3854-3866*
- Wireless communication**
- A Deep Probabilistic Control Machinery for Auto-Configuration of WiFi Link Parameters. *Karmakar, R.*, +, *TWC Dec. 2020 8330-8340*
- Accommodating LAA Within IEEE 802.11ax WiFi Networks for Enhanced Coexistence. *Chen, Q.*, +, *TWC Nov. 2020 7621-7636*
- Age of Information Driven Cache Content Update Scheduling for Dynamic Contents in Heterogeneous Networks. *Ma, M.*, +, *TWC Dec. 2020 8427-8441*
- Aggregated VLC-RF Systems: Achievable Rates, Optimal Power Allocation, and Energy Efficiency. *Ma, S.*, +, *TWC Nov. 2020 7265-7278*
- Air-to-Air Communications Beyond 5G: A Novel 3D CoMP Transmission Scheme. *Li, Y.*, +, *TWC Nov. 2020 7324-7338*
- Analysis and Optimization of an Intelligent Reflecting Surface-Assisted System With Interference. *Jia, Y.*, +, *TWC Dec. 2020 8068-8082*
- Asymptotic Max-Min SINR Analysis of Reconfigurable Intelligent Surface Assisted MISO Systems. *Nadeem, Q.*, +, *TWC Dec. 2020 7748-7764*
- Backscatter-Aided Cooperative Transmission in Wireless-Powered Heterogeneous Networks. *Kim, S.H.*, +, *TWC Nov. 2020 7309-7323*
- Cache-Enabling UAV Communications: Network Deployment and Resource Allocation. *Zhang, T.*, +, *TWC Nov. 2020 7470-7483*
- Centralized and Distributed Deep Reinforcement Learning Methods for Downlink Sum-Rate Optimization. *Khan, A.A.*, +, *TWC Dec. 2020 8410-8426*
- Channel Modeling for Wireless Communications Using Ambient Processes. *Rakesh, R.T.*, +, *TWC Dec. 2020 8396-8409*
- Clock Synchronization in Wireless Networks Using Matrix Completion-Based Maximum Likelihood Estimation. *Elnahas, O.*, +, *TWC Dec. 2020 8220-8231*
- Constant Envelope MIMO-OFDM Precoding for Low Complexity Large-Scale Antenna Array Systems. *Domouchtsidis, S.*, +, *TWC Dec. 2020 7973-7985*
- Correction to "Cell-Free Massive MIMO Versus Small Cells" [Mar 17 1834-1850]. *Ng, H.Q.*, +, *TWC May 2020 3623-3624*
- Cyclic Block-Spreading Direct Discovery for D2D Networks. *Chang, W.*, +, *TWC Nov. 2020 7610-7620*

- Deep Learning for Optimal Deployment of UAVs With Visible Light Communications. *Wang, Y.*, +, *TWC Nov. 2020 7049-7063*
- Deep Learning-Based Edge Caching in Fog Radio Access Networks. *Jiang, Y.*, +, *TWC Dec. 2020 8442-8454*
- Distributed Optimization for Computation Offloading in Edge Computing. *Lin, R.*, +, *TWC Dec. 2020 8179-8194*
- Distributed User Association and Resource Allocation Algorithms for Three Tier HetNets. *Gopalam, S.*, +, *TWC Dec. 2020 7913-7926*
- Edge-Aided Computing and Transmission Scheduling for LTE-U-Enabled IoT. *He, H.*, +, *TWC Dec. 2020 7881-7896*
- Efficient Scheduling for the Massive Random Access Gaussian Channel. *Kasper Facenda, G.*, +, *TWC Nov. 2020 7598-7609*
- Eigenvalue-Decomposition-Precoded Ultra-Dense Non-Orthogonal Frequency-Division Multiplexing. *Osaki, S.*, +, *TWC Dec. 2020 8165-8178*
- Energy-Efficient Joint User Association and Power Allocation in a Heterogeneous Network. *Fang, F.*, +, *TWC Nov. 2020 7008-7020*
- Enhancing Secure MIMO Transmission via Intelligent Reflecting Surface. *Dong, L.*, +, *TWC Nov. 2020 7543-7556*
- Evolution Matters: Content Transmission in Evolving Wireless Social Networks. *Feng, C.*, +, *TWC Nov. 2020 7377-7391*
- Extended  $\eta$ - $\mu$  Fading Models. *de Lima Tejerina, G.R.*, +, *TWC Dec. 2020 8153-8164*
- Flexible Subcarrier Allocation for Interleaved Frequency Division Multiple Access. *Shao, Y.*, +, *TWC Nov. 2020 7139-7152*
- Harvest-and-Opportunistically-Relay: Analyses on Transmission Outage and Covertess. *Li, Y.*, +, *TWC Dec. 2020 7779-7795*
- Hierarchical Codebook-Based Multiuser Beam Training for Millimeter Wave Massive MIMO. *Qi, C.*, +, *TWC Dec. 2020 8142-8152*
- Intelligent Reflecting Surface Assisted Multi-User OFDMA: Channel Estimation and Training Design. *Zheng, B.*, +, *TWC Dec. 2020 8315-8329*
- Interference Avoidance Position Planning in Dual-Hop and Multi-Hop UAV Relay Networks. *Hosseinalipour, S.*, +, *TWC Nov. 2020 7033-7048*
- Joint Distributed Link Scheduling and Power Allocation for Content Delivery in Wireless Caching Networks. *Choi, M.*, +, *TWC Dec. 2020 7810-7824*
- Joint Parameter-and-Bandwidth Allocation for Improving the Efficiency of Partitioned Edge Learning. *Wen, D.*, +, *TWC Dec. 2020 8272-8286*
- Joint Sub-Carrier and Power Allocation for Efficient Communication of Cellular UAVs. *Hellaoui, H.*, +, *TWC Dec. 2020 8287-8302*
- Learning Link Schedules in Self-Backhauled Millimeter Wave Cellular Networks. *Gupta, M.*, +, *TWC Dec. 2020 8024-8038*
- Learning to Search for MIMO Detection. *Sun, J.*, +, *TWC Nov. 2020 7571-7584*
- Load-Driven Dynamic User Assignment Algorithms for Dense Cellular Networks. *Post, B.*, +, *TWC Nov. 2020 7677-7689*
- LRT Detectors for Spectrum Sensing of Weak OFDM Signals With Periodic Pilots. *Yin, W.*, +, *TWC Nov. 2020 7514-7527*
- Machine Intelligence at the Edge With Learning Centric Power Allocation. *Wang, S.*, +, *TWC Nov. 2020 7293-7308*
- Max-Min Energy Balance in Wireless-Powered Hierarchical Fog-Cloud Computing Networks. *Liu, J.*, +, *TWC Nov. 2020 7064-7080*
- Mean-Field-Type Game-Based Computation Offloading in Multi-Access Edge Computing Networks. *Banez, R.A.*, +, *TWC Dec. 2020 8366-8381*
- Minimizing the Age of Information of Cognitive Radio-Based IoT Systems Under a Collision Constraint. *Wang, Q.*, +, *TWC Dec. 2020 8054-8067*
- Minimum-Latency FEC Design With Delayed Feedback: Mathematical Modeling and Efficient Algorithms. *Xu, X.*, +, *TWC Nov. 2020 7210-7223*
- Multi-Antenna Coded Content Delivery With Caching: A Low-Complexity Solution. *Zhao, J.*, +, *TWC Nov. 2020 7484-7497*
- Multi-Armed Bandit-Based Client Scheduling for Federated Learning. *Xia, W.*, +, *TWC Nov. 2020 7108-7123*
- Multihop Wireless Networks With Quality-of-Service: Fluid and Diffusion Approximations. *Krishnan K. S., A.*, +, *TWC Dec. 2020 8113-8125*
- Multimode Integer-Forcing Receivers for Block Fading Channels. *Yang, D.*, +, *TWC Dec. 2020 8261-8271*
- Network-Coded Cooperative Systems With Generalized User-Relay Selection. *Heidarpour, A.R.*, +, *TWC Nov. 2020 7251-7264*
- On HARQ Schemes in Satellite-Terrestrial Transmissions. *Pan, G.*, +, *TWC Dec. 2020 7998-8010*
- Optimal Virtual Network Function Deployment for 5G Network Slicing in a Hybrid Cloud Infrastructure. *De Domenico, A.*, +, *TWC Dec. 2020 7942-7956*
- Optimized Power Control for Over-the-Air Computation in Fading Channels. *Cao, X.*, +, *TWC Nov. 2020 7498-7513*
- Power and Subcarrier Allocation in 5G NOMA-FD Systems. *Abrardo, A.*, +, *TWC Dec. 2020 8246-8260*
- Random Network Coding Enabled Routing Protocol in Unmanned Aerial Vehicle Networks. *Song, H.*, +, *TWC Dec. 2020 8382-8395*
- Real-time Prediction of Non-stationary Wireless Channels. *Abdul Careem, M.A.*, +, *TWC Dec. 2020 7836-7850*
- Receive Spatial Modulation Aided Simultaneous Wireless Information and Power Transfer With Finite Alphabet. *Zhao, Y.*, +, *TWC Dec. 2020 8039-8053*
- Relay Selection, Scheduling, and Power Control in Wireless-Powered Cooperative Communication Networks. *Onalan, A.G.*, +, *TWC Nov. 2020 7181-7195*
- Robust Secure Beamforming Design for Two-User Downlink MISO Rate-Splitting Systems. *Fu, H.*, +, *TWC Dec. 2020 8351-8365*
- Scheduling for Cellular Federated Edge Learning With Importance and Channel Awareness. *Ren, J.*, +, *TWC Nov. 2020 7690-7703*
- Secure Cooperative Hybrid VLC-RF Systems. *Pan, G.*, +, *TWC Nov. 2020 7097-7107*
- Secure Degrees of Freedom of MIMO Two-Way Wiretap Channel With no CSI Anywhere. *Liang, Q.*, +, *TWC Dec. 2020 7927-7941*
- Set Partition Modulation. *Yarkin, F.*, +, *TWC Nov. 2020 7557-7570*
- Side-Information Aided Compressed Multi-User Detection for Up-Link Grant-Free NOMA. *Cui, Y.*, +, *TWC Nov. 2020 7720-7731*
- Signal and System Design for Wireless Power Transfer: Prototype, Experiment and Validation. *Kim, J.*, +, *TWC Nov. 2020 7453-7469*
- Smart Handover for Hybrid LiFi and WiFi Networks. *Wu, X.*, +, *TWC Dec. 2020 8211-8219*
- Space-Air-Ground Integrated Networks: Outage Performance Analysis. *Ye, J.*, +, *TWC Dec. 2020 7897-7912*
- Spatial Spectrum Sensing in Uplink Two-Tier User-Centric Deployed HetNets. *Shang, B.*, +, *TWC Dec. 2020 7957-7972*
- Spherical Quasi-Physical Model-Based Color-Shift Keying for Visible Light Communication. *Chen, W.*, +, *TWC Dec. 2020 8099-8112*
- The Max-Product Algorithm Viewed as Linear Data-Fusion: A Distributed Detection Scenario. *Abdi, Y.*, +, *TWC Nov. 2020 7585-7597*
- Trajectory Design and Power Allocation for Drone-Assisted NR-V2X Network With Dynamic NOMA/OMA. *Abbasi, O.*, +, *TWC Nov. 2020 7153-7168*
- Two-Layer Coded Channel Access With Collision Resolution: Design and Analysis. *Ebrahimi, M.*, +, *TWC Dec. 2020 7986-7997*
- Unified Performance Analysis of Multi-Hop FSO Systems Over Double Generalized Gamma Turbulence Channels With Pointing Errors. *Ashrafzadeh, B.*, +, *TWC Nov. 2020 7732-7746*
- Urgency of Information for Context-Aware Timely Status Updates in Remote Control Systems. *Zheng, X.*, +, *TWC Nov. 2020 7237-7250*
- Wireless fidelity**
- Accommodating LAA Within IEEE 802.11ax WiFi Networks for Enhanced Coexistence. *Chen, Q.*, +, *TWC Nov. 2020 7621-7636*
- Effects of Retransmission Limit on the Performance of Centralized Random Backoff. *Kim, J.D.*, *TWC Dec. 2020 8126-8141*
- Smart Handover for Hybrid LiFi and WiFi Networks. *Wu, X.*, +, *TWC Dec. 2020 8211-8219*
- Wireless LAN**
- 'Good to Repeat': Making Random Access Near-Optimal With Repeated Contentions. *Baiocchi, A.*, +, *TWC Jan. 2020 712-726*
- A Comment on Eq. (20a) in "Centralized Random Backoff for Collision Resolution in Wi-Fi Networks". *Kim, J.D.*, *TWC April 2020 2900*
- A Downscaled Faster-RCNN Framework for Signal Detection and Time-Frequency Localization in Wideband RF Systems. *Prasad, K.N.R.S.V.*, +, *TWC July 2020 4847-4862*

- A Stochastic Optimization Framework for Channel Bonding in Wireless LANs Under Demand Uncertainty. *Nabil, A., +, TWC Nov. 2020 7528-7542*
- Achieving Proportional Fairness for LTE-LAA and Wi-Fi Coexistence in Unlicensed Spectrum. *Gao, Y., +, TWC May 2020 3390-3404*
- Adaptive Detection and Localization Exploiting the IEEE 802.11ad Standard. *Grossi, E., +, TWC July 2020 4394-4407*
- Breaking Wireless Propagation Environmental Uncertainty With Deep Learning. *Morocho-Cayamcela, M.E., +, TWC Aug. 2020 5075-5087*
- Bsense: Practical Cross-Technology Communication Utilizing Beacon Frames of Commodity WiFi APs. *Kim, S., TWC Feb. 2020 901-914*
- Calibration-Free Indoor Positioning Using Crowdsourced Data and Multidimensional Scaling. *Zhao, Y., +, TWC March 2020 1770-1785*
- Delay-Minimized Edge Caching in Heterogeneous Vehicular Networks: A Matching-Based Approach. *Wu, H., +, TWC Oct. 2020 6409-6424*
- Effects of Retransmission Limit on the Performance of Centralized Random Backoff. *Kim, J.D., TWC Dec. 2020 8126-8141*
- Efficient Beam Sweeping Algorithms and Initial Access Protocols for Millimeter-Wave Networks. *Aykin, I., +, TWC April 2020 2504-2514*
- Enumerative Sphere Shaping for Wireless Communications With Short Packets. *Gultekin, Y.C., +, TWC Feb. 2020 1098-1112*
- Full-Duplex MAC in LAA/ Wi-Fi Coexistence Networks: Design, Modeling, and Analysis. *Cao, X., +, TWC Aug. 2020 5531-5546*
- IndoorWaze: A Crowdsourcing-Based Context-Aware Indoor Navigation System. *Li, T., +, TWC Aug. 2020 5461-5472*
- Low-Complexity User Selection Algorithms for Multiuser Transmissions in mmWave WLANs. *Aldubaikhy, K., +, TWC April 2020 2397-2410*
- Minority Game for Distributed User Association in Unlicensed Heterogeneous Networks. *Wang, Y., +, TWC June 2020 4220-4233*
- Multi-Dimensional Busy-Tone Arbitration for OFDMA Random Access in IEEE 802.11ax. *Xie, D., +, TWC June 2020 4080-4094*
- NOMA-Based D2D-Enabled Traffic Offloading for 5G and Beyond Networks Employing Licensed and Unlicensed Access. *Sun, M., +, TWC June 2020 4109-4124*
- Robot-Assisted Backscatter Localization for IoT Applications. *Zhang, S., +, TWC Sept. 2020 5807-5818*
- Semi-Distributed Joint Power and Spectrum Allocation for LAA Based Small Cell Networks. *Yin, R., +, TWC June 2020 4141-4153*
- Spectrum Occupancy and Interference Model Based on Network Experimentation in Hospital. *Mucchi, L., +, TWC Sept. 2020 5666-5675*
- Towards Fair and Efficient Spectrum Sharing Between LTE and WiFi in Unlicensed Bands: Fairness-Constrained Throughput Maximization. *Sun, X., +, TWC April 2020 2713-2727*
- WiderCast: Enabling Wider Bandwidth for Wireless Multicast Over IEEE 802.11ac WLANs. *Park, Y.D., +, TWC June 2020 3854-3866*
- Wireless mesh networks**
- Joint Routing and Resource Allocation for Millimeter Wave Picocellular Backhaul. *Eslami Rasekh, M., +, TWC Feb. 2020 783-794*
- Wireless networks**
- A Secure Group-Oriented Device-to-Device Authentication Protocol for 5G Wireless Networks. *Shang, Z., +, TWC Nov. 2020 7021-7032*
- Fundamentals of Acute Relay CSI Severity. *Le, K.N., TWC Nov. 2020 7653-7662*
- How Can Randomized Routing Protocols Hide Flow Information in Wireless Networks?. *Zhao, S., +, TWC Nov. 2020 7224-7236*
- Wireless Networks With Cache-Enabled and Backhaul-Limited Aerial Base Stations. *Kalantari, E., +, TWC Nov. 2020 7363-7376*
- Wireless power transfer**
- Signal and System Design for Wireless Power Transfer: Prototype, Experiment and Validation. *Kim, J., +, TWC Nov. 2020 7453-7469*
- Wireless sensor networks**
- A Frequency Offset Transmit Reference System in Dense Multipath Environments: Propagation Effects and Design Considerations. *Bilal, I., +, TWC Feb. 2020 859-873*
- A Tractable Model for Wirelessly Powered Networks With Energy Correlation. *Deng, N., +, TWC Sept. 2020 5765-5778*
- Adaptive Forwarding With Probabilistic Delay Guarantee in Low-Duty-Cycle WSNs. *Cheng, L., +, TWC July 2020 4775-4792*
- Age-of-Information Based Scheduling for Multi-Channel Systems. *Sombabu, B., +, TWC July 2020 4439-4448*
- An Energy-Balanced Trust Cloud Migration Scheme for Underwater Acoustic Sensor Networks. *Han, G., +, TWC March 2020 1636-1649*
- Bsense: Practical Cross-Technology Communication Utilizing Beacon Frames of Commodity WiFi APs. *Kim, S., TWC Feb. 2020 901-914*
- Channel-Based Optimal Back-Off Delay Control in Delay-Constrained Industrial WSNs. *Li, Q., +, TWC Jan. 2020 696-711*
- Clock Synchronization in Wireless Networks Using Matrix Completion-Based Maximum Likelihood Estimation. *Elnahas, O., +, TWC Dec. 2020 8220-8231*
- Cooperative MIMO-OFDM-Based Exposure-Path Prevention Over 3D Clustered Wireless Camera Sensor Networks. *Wang, J., +, TWC Jan. 2020 4-18*
- Evolution Matters: Content Transmission in Evolving Wireless Social Networks. *Feng, C., +, TWC Nov. 2020 7377-7391*
- Federated Learning via Over-the-Air Computation. *Yang, K., +, TWC March 2020 2022-2035*
- How Can Randomized Routing Protocols Hide Flow Information in Wireless Networks?. *Zhao, S., +, TWC Nov. 2020 7224-7236*
- Hybrid Offline-Online Design for UAV-Enabled Data Harvesting in Probabilistic LoS Channels. *You, C., +, TWC June 2020 3753-3768*
- Joint Annotator-and-Spectrum Allocation in Wireless Networks for Crowd Labeling. *Li, X., +, TWC Sept. 2020 6116-6129*
- LRT Detectors for Spectrum Sensing of Weak OFDM Signals With Periodic Pilots. *Yin, W., +, TWC Nov. 2020 7514-7527*
- Multilinear Plus Sparse Based Tensor Completion for Long-Term Operating Large-Scale and Heterogeneous Sensor Networks. *Huang, K., +, TWC Oct. 2020 6301-6315*
- Optimized Power Control for Over-the-Air Computation in Fading Channels. *Cao, X., +, TWC Nov. 2020 7498-7513*
- Real-Time Remote Estimation With Hybrid ARQ in Wireless Networked Control. *Huang, K., +, TWC May 2020 3490-3504*
- Robot-Assisted Backscatter Localization for IoT Applications. *Zhang, S., +, TWC Sept. 2020 5807-5818*
- Side-Information Aided Compressed Multi-User Detection for Up-Link Grant-Free NOMA. *Cui, Y., +, TWC Nov. 2020 7720-7731*
- Spectrum Occupancy and Interference Model Based on Network Experimentation in Hospital. *Mucchi, L., +, TWC Sept. 2020 5666-5675*
- Stochastic Link Modeling of Static Wireless Sensor Networks Over the Ocean Surface. *Shahanaghi, A., +, TWC June 2020 4154-4169*
- Wirelessly-Powered Sensor Networks: Power Allocation for Channel Estimation and Energy Beamforming. *Du, R., +, TWC May 2020 2987-3002*