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ROBERT GALLAGER

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE

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PREFACE

The following notes were developed by the author in July 1970 in a course on Information Theory at the "Centro Internazionale di Scienze Meccaniche". Except for section 4, which develops a new theory of random trees, most of the material is to be found in expanded form in the author's book, "Information Theory and Reliable Communication", John Wiley and Sons, New York, 1968. A number of the results have been proved here in more satisfying ways which have been developed since the publication of the book. A higher level of mathematical maturity has been assumed here than in the book and an attempt has been made to present some of the deeper aspects of the subject without so much introductory material.

The author would like to express his appreciation to Professor Giuseppe Longo, who organized this set of courses, and to Professor Luigi Sobrero, the Secretary General of C.I.S.M., for their hospitality and for making this work possible.

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Robert G. Gallager

*Robert G. Gallager
(Prof. of E.E.,
Mass.Inst. of Tech., U.S.A.)
Udine, Italy, July 10, 1970.*