Erratum: Spontaneous decay of an excited atom in an absorbing dielectric [Phys. Rev. A 60, 4094 (1999)]

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(Published 4 May 2000)

PACS number(s): 42.50.Ct, 42.50.Lc, 99.10.+g

Unfortunately, in the above-mentioned article an error occurred in the numerical calculation of the decay rates for the real-cavity model. We would like to thank Dr. Ho Trung Dung for pointing it out to us. The following figures are the replacements for Figs. 1, 3, 5, and 6 of the article. Additionally, in Figs. 5 and 6 the correct value of R is $0.1\lambda_A$.

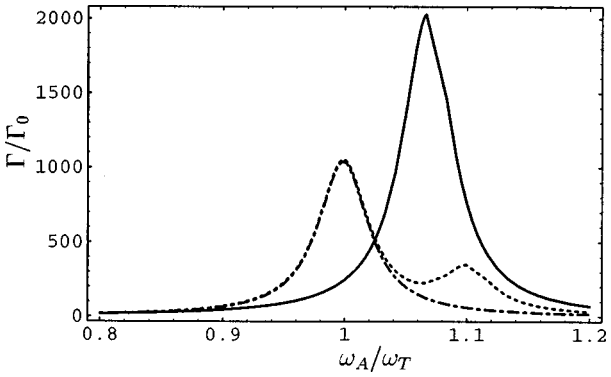

FIG. 1. The spontaneous decay rate Γ [Eq. (38)] is shown as a function of the atomic transition frequency ω_A near a medium resonance for the model permittivity (54) ($\omega_P=0.46\omega_T$, $\gamma=0.05\omega_T$) and $R=0.02\lambda_A$. The solid line corresponds to the real-cavity model [Eq. (53)], and the dotted line corresponds to the virtual-cavity model [Eq. (10) together with Eqs. (44) and (45)], the dash-dotted line indicating the transverse-field assisted rate $\Gamma^{\perp}$ from Eq. (45).

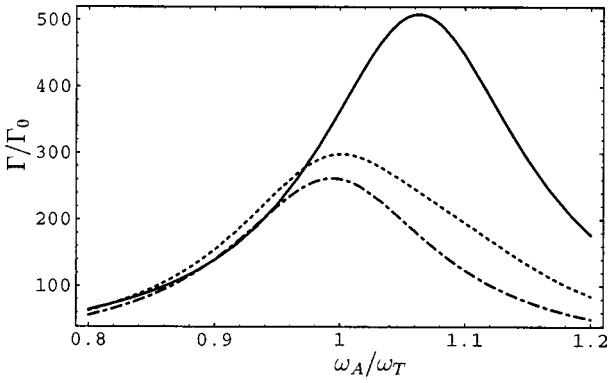

FIG. 3. The spontaneous decay rate Γ [Eq. (38)] is shown as a function of the atomic transition frequency ω_A near a medium resonance for the model permittivity (54) ($\omega_P=0.46\omega_T$, $\gamma=0.2\omega_T$) and $R=0.02\lambda_A$. The solid line corresponds to the real-cavity model, [Eq. (53)], and the dotted line corresponds to the virtual-cavity model [Eq. (10) together with Eqs. (44) and (45)], the dash-dotted line indicating the transverse-field assisted rate $\Gamma^{\perp}$ from Eq. (45).

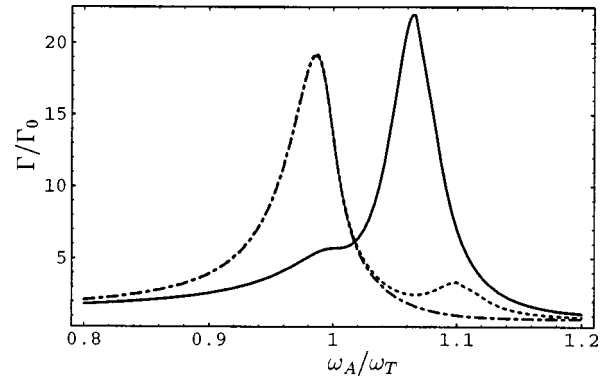

FIG. 5. The spontaneous decay rate Γ [Eq. (38)] is shown as a function of the atomic transition frequency ω_A near a medium resonance for the model permittivity (54) ($\omega_P=0.46\omega_T$, $\gamma=0.05\omega_T$) and $R=0.2\lambda_A$. The solid line corresponds to the real-cavity model [Eq. (53)], and the dotted line corresponds to the virtual-cavity model [Eq. (10) together with Eqs. (44) and (45)], the dash-dotted line indicating the transverse-field assisted rate $\Gamma^{\perp}$ from Eq. (45).

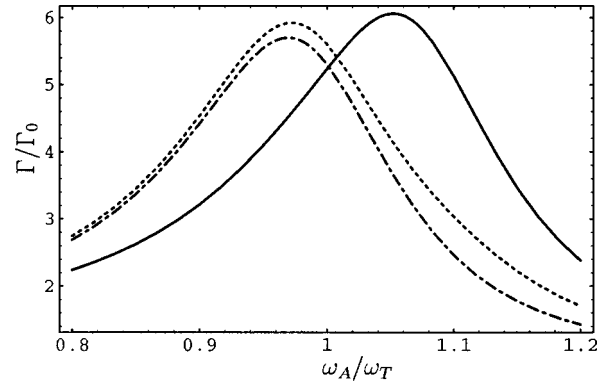

FIG. 6. The spontaneous decay rate Γ [Eq. (38)] is shown as a function of the atomic transition frequency ω_A near a medium resonance for the model permittivity (54) ($\omega_P=0.46\omega_T$, $\gamma=0.2\omega_T$) and $R=0.02\lambda_A$. The solid line corresponds to the real-cavity model [Eq. (53)], and the dotted line corresponds to the virtual-cavity model [Eq. (10) together with Eqs. (44) and (45)], the dash-dotted line indicating the transverse-field assisted rate $\Gamma^{\perp}$ from Eq. (45).

