Erratum: Interplay of Purcell Effect, Stimulated Emission, and Leaky Modes in the Photoluminescence Spectra of Microsphere Cavities [Phys. Rev. Applied 11, 051001 (2019)]

Ching-Hang Chien, Shang-Hsuan Wu, Trong Huynh-Buu Ngo, and Yia-Chung Chang

(Received 18 September 2019; accepted 13 February 2020; published 28 February 2020)

DOI: [10.1103/PhysRevApplied.13.029901](https://doi.org/10.1103/PhysRevApplied.13.029901)

This is to correct an expression used in the rate equation and the definition of f_r (the ratio of the source distribution function in stimulated emission to that in spontaneous emission). The corrected definition of f_r does not alter the results and conclusions presented in the paper, since f_r is used as an empirical parameter.

In Page 2, Paragraph 3, Line 3, “ $\partial n_i / \partial t = \gamma_i g_i - n_i / \tau_i$ ” should read

“ $\partial n_i / \partial t = \gamma_i g_i n_i - n_i / \tau_i + R_{\text{sp}}(\omega_i)$ ”.

Consequently, in Line 2 of the next paragraph,

“ $n_i = \gamma_i \tau_i g_i$ ” should read “ $n_i = \tau_i R_{\text{sp}}(\omega_i) / (1 - \gamma_i \tau_i g_i)$ ”.

Furthermore, in the line below Eq. (11), “ $B_{\text{st}}(k_0) = \sum_i g_i \gamma_i \tau_0 \delta(\omega_i - ck_0)$ ”

should read “ $B_{\text{st}}(k_0) = \sum_i g_i \gamma_i n_i \delta(\omega_i - ck_0) / Q_i$ ” and eight lines below

“ f_r , which is proportional to the parameter $\gamma_i \tau_0 g_i / [f_i^U (1 - f_i^L)]$ ”

should read “ f_r , which is proportional to the parameter $\gamma_i \tau_0 g_i / (1 - \gamma_i \tau_i g_i)$ ”.

In addition, the symbol “ V ” in Eq. (7) should be removed, while a factor “ $(1/V)$ ” should be inserted after the symbol “ $=$ ” in the first line of Eq. (8) and in the definition of $S_l(k_0)$ four lines below.