Erratum: Comprehensive analysis of photonic-crystal surface-emitting lasers via time-dependent three-dimensional coupled-wave theory [Phys. Rev. B **99, 035308 (2019)]**

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In Eqs. (8) and (A6)–(A9) in our original paper, an imaginary unit “ i ” in front of the wave-coupling term [the fourth term on the right-hand side of Eq. (8) and the last term on the right-hand side of Eqs. (A6)–(A9)] was missing. The correct expression for these equations are as follows:

$$\frac{\partial}{\partial t} \begin{pmatrix} R_x \\ S_x \\ R_y \\ S_y \end{pmatrix} = \frac{c}{n_g} \left[-i\delta + \frac{g - \alpha_{in}}{2} \right] \begin{pmatrix} R_x \\ S_x \\ R_y \\ S_y \end{pmatrix} - \frac{c}{n_g} \begin{pmatrix} \partial R_x / \partial x \\ -\partial S_x / \partial x \\ \partial R_y / \partial y \\ -\partial S_y / \partial y \end{pmatrix} - \gamma \begin{pmatrix} R_x \\ S_x \\ R_y \\ S_y \end{pmatrix} + \frac{ic}{n_g} \mathbf{C} \begin{pmatrix} R_x \\ S_x \\ R_y \\ S_y \end{pmatrix} + \begin{pmatrix} f_1 \\ f_2 \\ f_3 \\ f_4 \end{pmatrix}, \quad (8)$$

$$\frac{\partial R_x}{\partial t} = \frac{c}{n_g} \left(-i\delta + \frac{g}{2} \right) R_x - \frac{c}{n_g} \frac{\partial R_x}{\partial x} - \gamma R_x + \frac{ic}{n_g} \cdot \frac{-\omega_0^2}{2\beta_0 c^2} \sum_{m', n'} \int \xi_{1-m', -n'} E_{y, m', n'} \Theta_0^*(z) dz, \quad (A6)$$

$$\frac{\partial S_x}{\partial t} = \frac{c}{n_g} \left(-i\delta + \frac{g}{2} \right) S_x + \frac{c}{n_g} \frac{\partial S_x}{\partial x} - \gamma S_x + \frac{ic}{n_g} \cdot \frac{-\omega_0^2}{2\beta_0 c^2} \sum_{m', n'} \int \xi_{-1-m', -n'} E_{y, m', n'} \Theta_0^*(z) dz, \quad (A7)$$

$$\frac{\partial R_y}{\partial t} = \frac{c}{n_g} \left(-i\delta + \frac{g}{2} \right) R_y - \frac{c}{n_g} \frac{\partial R_y}{\partial y} - \gamma R_y + \frac{ic}{n_g} \cdot \frac{-\omega_0^2}{2\beta_0 c^2} \sum_{m', n'} \int \xi_{-m', 1-n'} E_{x, m', n'} \Theta_0^*(z) dz, \quad (A8)$$

$$\frac{\partial S_y}{\partial t} = \frac{c}{n_g} \left(-i\delta + \frac{g}{2} \right) S_y + \frac{c}{n_g} \frac{\partial S_y}{\partial y} - \gamma S_y + \frac{ic}{n_g} \cdot \frac{-\omega_0^2}{2\beta_0 c^2} \sum_{m', n'} \int \xi_{-m', -1-n'} E_{x, m', n'} \Theta_0^*(z) dz. \quad (A9)$$

It should be noted that these typographical errors did not alter any numerical results in the paper.