Corrigendum: 'Coupling coefficients of synchronous modes on two arbitrarily-shaped weakly-guiding optical waveguides'

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Some errors in the above paper are corrected as follows:

1. In Equation 17, the minus sign before π should be deleted.
2. There is an error in the normalization of the coupling coefficients for circular fibres: Equations 20, 24, and 25 correctly read

$$C = \frac{(-1)^M \zeta_M F_{Ma}(R_a) F_{Mb}(R_b) [K_0(\gamma d) \pm K_{2M}(\gamma d)]}{2kn_c K_M(\gamma R_a) K_M(\gamma R_b) \left(\int_0^\infty F_{Ma}^2 r_a dr_a \int_0^\infty F_{Mb}^2 r_b dr_b \right)^{1/2}} \quad (20)$$

$$C_c = \frac{(-1)^M \zeta_M F_M^2(\rho)}{kn_c K_M^2(\gamma \rho) \int_0^\infty F_M^2(r) r dr} \left(\frac{\pi}{2\gamma d} \right)^{1/2} \exp(-\gamma d) \quad (24)$$

$$C_s = \frac{(-1)^{M-1} M^2 F_M^2(\rho)}{\gamma d kn_c K_M^2(\gamma \rho) \int_0^\infty F_M^2(r) r dr} \left(\frac{\pi}{2\gamma d} \right)^{1/2} \exp(-\gamma d) \quad (25)$$

3. The words 'must be' in lines 13/14 on page 651 should be replaced by the word 'are'.
4. The fifth line on page 652 should read 'reduces Equation 20 to'.
5. In the third line below Equation 25, the expression $4\gamma d/M^2$ should be replaced by $\gamma d/M^2$.
6. Equations 42 and 46 should read

$$w = \rho (\ln V)^{-1/2} \quad (42)$$

$$C = \zeta_q \left[\psi_q \frac{d\psi_q}{dx} \right]_{x=0} / kn_c P'_q = \gamma \psi_q^2(0) / kn_c P'_q \quad (46)$$

7. Incorrect data were presented in Fig. 4. The correct Fig. 4 is given below (the caption remains unchanged):
8. The asymptotic approximations for Equations 16 and 17 given by Equations 22 and 23 hold for $d \rightarrow \infty$ and all other quantities fixed, including R_a , R_b and γ with $\gamma > 0$. In general, $\gamma d \gg 1$ is only a necessary condition.
9. All other results are not affected by these amendments. In particular, in the case of coupled circularly symmetric fibres, $\gamma d \gg 1$ remains the sufficient condition to approximate Equations 20 by the asymptotic form of Equations 24 and 25 as given here.

Figure 4