Corrigendum

Corrigendum to "Resonance scattering of a dielectric sphere illuminated by electromagnetic Bessel non-diffracting (vortex) beams with arbitrary incidence and selective polarizations" [Ann. Phys. 361 (2015) 120–147]

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ABSTRACT

In the concerned article Mitri et al. (2015), misprints that have occurred are corrected in six equations. They are Eqs. (60)–(64) and (68). These corrections do neither alter the results and plots displayed in Mitri et al. (2015), nor the conclusions as the numerical computations used the correct equations.

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In the concerned article [1], misprints have occurred in Eqs. (60)–(64) and (68). The corrected versions of these equations are, respectively,

$$T_n^{21} = -\frac{m_1}{m_2}\frac{2i}{D_n}, \tag{60}$$

$$R_n^{212} = \frac{C_1 \xi_n^{(2)'}(\kappa_2)\xi_n^{(2)}(\kappa_1) - C_2 \xi_n^{(2)}(\kappa_2)\xi_n^{(2)'}(\kappa_1)}{D_n}, \tag{61}$$

$$T_n^{12} = -\frac{2i}{D_n}, \tag{62}$$

$$R_n^{121} = \frac{C_1 \xi_n^{(1)'}(\kappa_2) \xi_n^{(1)}(\kappa_1) - C_2 \xi_n^{(1)}(\kappa_2) \xi_n^{(1)'}(\kappa_1)}{D_n}, \tag{63}$$

$$D_n = -C_1 \xi_n^{(1)'}(\kappa_2) \xi_n^{(2)}(\kappa_1) + C_2 \xi_n^{(1)}(\kappa_2) \xi_n^{(2)'}(\kappa_1), \tag{64}$$

$$R_n^{c,212} = \begin{cases} -\dfrac{\xi_n^{(2)'}(\kappa_2)}{\xi_n^{(1)'}(\kappa_2)} & \text{for } TE \\[2ex] -\dfrac{\xi_n^{(2)}(\kappa_2)}{\xi_n^{(1)}(\kappa_2)} & \text{for } TM. \end{cases} \tag{68}$$

These corrections do neither alter the results and plots displayed in [1], nor the conclusions, as the numerical computations used the correct equations.

References

[1] F.G. Mitri, R.X. Li, L.X. Guo, C.Y. Ding, Ann. Physics 361 (2015) 120–147.