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ERRATUM

Erratum to: QED in Krein Space Quantization

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The paper [A. Zarei et al., Int. J. Theor. Phys. 50 (2011) 2466] should be corrected by applying the following changes:

The formulae (3.8) and (3.22) which were mentioned in Sect. 3:

$$\Pi_{kr}\left(k^2\right) = -\frac{e^2}{12\pi^2}\ln\left(-\frac{k^2}{m^2}\right) - \frac{e^2}{6\pi^2}\frac{k^2}{m^2} - \frac{e^2}{2\pi^2}\int_0^1 dx(1-x)x\ln\left(1-x(1-x)\frac{k^2}{m^2}\right),$$

and

$$F_1^{kr}\left(q^2\right)_{q^2\to 0} = -\frac{e^2q^2}{16\pi^2m^2} + \frac{3e^2q^2}{64\pi^2m^2} - \frac{e^2q^2}{12\pi^2m^2}\left(\ln\frac{m}{\mu} - \frac{3}{8}\right),$$

should be corrected as follows:

$$\Pi_{kr}\left(k^2\right) = \frac{e^2}{12\pi^2}\ln\left(-\frac{k^2}{m^2}\right) + \frac{e^2}{2\pi^2}\int_0^1 dx(1-x)x\ln\left(1-x(1-x)\frac{k^2}{m^2}\right) - \frac{4e^2}{\pi^2}\left\{-\frac{5}{36} - \frac{m^2}{3k^2} + \frac{m^4}{3k^4} + \left(\frac{1}{6} - \frac{m^4}{2k^4} + \frac{m^6}{3k^6}\right)\ln\left(1-\frac{k^2}{m^2}\right)\right\},$$

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$$F_1^{kr}\left(q^2\right)_{q^2\to 0} = \frac{\alpha q^2}{3\pi m^2}\left(\ln\frac{m}{M} - \frac{3}{8} - \frac{1}{4}\right).$$

It is important to note that other equations and the conclusion in this paper are thoroughly correct and have not been affected by the above mentioned error.