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ERRATA

Erratum to: "Renormalization of the Lorentz–Abraham–Dirac Equation for Radiation Reaction Force in Classical Electrodynamics" [*Journal of Experimental and Theoretical Physics* 109, 207 (2009)]

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1. The typos are found. Equation (5) should read (without the factor of c by $m_n\dot{x}$ term):

$$p^i = p^i_{\rm em} + m_n\dot{x} = m\dot{x} - m(\dot{x})^i_{\rm rad}$$

In Section 6 the conservation law for generalized momentum should read:

$$(\mathbf{n}\cdot\dot{\mathbf{P}}) = -(\mathbf{n}\cdot\dot{\mathbf{p}}_{\rm rad}) \neq 0$$

(in the published version the last inequality reads as equation). In Eqs. (26) the dimensional factors are lost, they should read similarly to Eqs. (24):

$$\frac{E_{\rm rad}}{mc^2} = \tau_0\omega_E\sinh(\omega_E\tau),$$
$$\frac{(p_x)_{\rm rad}}{mc} = \tau_0\omega_E[\cosh(\omega_E\tau) - 1]. \quad (26)$$

2. At the beginning of Section 10, please, add a clarification as a footnote in the following way: "the limit on field strength required for the applicability of a classical treatment implies a small deviation from identity (3),

$$\frac{\hbar^2|f_L^2|}{m^2c^2} \ll m^2c^4, \quad c^2\left(1 - \frac{1}{137^2}\right) < \dot{x}^2 \le c^2$$

(which rules out any superluminal paradox)."[1]

[1] Indeed, $f_L^2 < 0$ and, using the first inequality, we find: $\dot{x}^2 = c^2 + \tau_0^2 f_L^2/m^2 = c^2 - \frac{4}{9}\left(\frac{e^2}{\hbar c}\right)^2\frac{\hbar^2|f_L^2|}{m^4c^4} > c^2\left(1 - \frac{1}{137^2}\right) > 0$ and $\dot{x}^2 \le c^2$. On the other hand, "the superluminal paradox" with $(d\mathbf{x}/dt)^2 > c^2$ would be possible only if $\dot{x}^2 < 0$, because $\dot{x}^2 \equiv [c^2 - (d\mathbf{x}/dt)^2](dt/d\tau)^2$ and $(dt/d\tau)^2 > 0$.