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ERRATUM

Erratum to: Methods of continuous translation of the origin of the current density revisited

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In the original publication of the article, Eqs. (68), (84) and (85) are incorrect. The correct versions of these equations are given below

$$\begin{aligned}\mathbf{J}_p^{\mathbf{d}\times\mathbf{B}}(\mathbf{r}) = -\frac{ne}{m_e}\int \mathrm{d}\mathbf{x}_2,\ldots,\mathrm{d}\mathbf{x}_n \\ \times\Big[\mathbf{d}\times\mathbf{B}\cdot\boldsymbol{\Psi}_a^{\mathbf{d}\times\mathbf{B}*}(\mathbf{r},\mathbf{x}_2,\ldots,\mathbf{x}_n)\hat{\mathbf{p}}\Psi_a^{(0)}(\mathbf{r},\mathbf{x}_2,\ldots,\mathbf{x}_n) \\ +\Psi_a^{(0)*}(\mathbf{r},\mathbf{x}_2,\ldots,\mathbf{x}_n)\hat{\mathbf{p}}\,\mathbf{d}\times\mathbf{B}\cdot\boldsymbol{\Psi}_a^{\mathbf{d}\times\mathbf{B}}(\mathbf{r},\mathbf{x}_2,\ldots,\mathbf{x}_n)\Big]\end{aligned} \tag{68}$$

$$\begin{aligned}\hat{\xi}_{\alpha\beta}^{\Delta} &= -\frac{ie^2}{8m_e\hbar}\sum_{i=1}^{n}\left\{\epsilon_{\beta\gamma\delta}\left[r_\gamma,\hat{u}_{\delta\alpha}\right]_i+\epsilon_{\alpha\gamma\delta}\left[r_\gamma,\hat{u}_{\delta\beta}\right]_i\right\} \\ &= -\frac{ie^2}{8m_e\hbar}\left\{\epsilon_{\beta\gamma\delta}\left[\hat{R}_\gamma,\hat{U}_{\delta\alpha}\right]+\epsilon_{\alpha\gamma\delta}\left[\hat{R}_\gamma,\hat{U}_{\delta\beta}\right]_i\right\}\end{aligned} \tag{84}$$

$$\begin{aligned}\hat{\sigma}_{\alpha\beta}^{\Delta I} &= \frac{ie^2}{2m_e\hbar}\epsilon_{\beta\gamma\delta}\sum_{i=1}^{n}\left[r_\gamma,\hat{t}_{I_{\delta\alpha}}\right]_i \\ &= \frac{ie^2}{2m_e\hbar}\epsilon_{\beta\gamma\delta}\left[\hat{R}_\gamma,\hat{T}_{I_{\delta\alpha}}\right]\end{aligned} \tag{85}$$

The online version of the original article can be found under doi:10.1007/s00214-012-1222-y.

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