Erratum: Dark Matter Interpretation of the Neutron Decay Anomaly [Phys. Rev. Lett. 120, 191801 (2018)]

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We correct an error in Eq. (5) of our Letter. The coefficient of the neutron magnetic moment interaction should be $g_n e / (8m_n)$ instead of $g_n e / (2m_n)$. Apart from Eq. (5), only Eqs. (6), (7) and (15) are affected by this change. All other equations and the entire discussion in the Letter remain accurate as they are.

Equation (5) should read

$$\mathcal{L}_1^{\text{eff}} = \bar{n} \left(i\not{\partial} - m_n + \frac{g_n e}{8m_n} \sigma^{\mu\nu} F_{\mu\nu} \right) n + \bar{\chi} (i\not{\partial} - m_\chi) \chi + \varepsilon (\bar{n} \chi + \bar{\chi} n), \quad (1)$$

which implies that Eq. (6) should be

$$\mathcal{L}_{n \rightarrow \chi\gamma}^{\text{eff}} = \frac{g_n e}{8m_n} \frac{\varepsilon}{(m_n - m_\chi)} \bar{\chi} \sigma^{\mu\nu} F_{\mu\nu} n, \quad (2)$$

and Eq. (7) should read

$$\Delta\Gamma_{n \rightarrow \chi\gamma} = \frac{g_n^2 e^2}{128\pi} \left(1 - \frac{m_\chi^2}{m_n^2} \right)^3 \frac{m_n \varepsilon^2}{(m_n - m_\chi)^2} \approx \Delta\Gamma_n^{\text{exp}} \left(\frac{1+x}{2} \right)^3 \left(\frac{1-x}{1.8 \times 10^{-3}} \right) \left(\frac{\varepsilon [\text{GeV}]}{3.7 \times 10^{-13}} \right)^2. \quad (3)$$

This requires a modification of Eq. (15) to

$$\frac{|\lambda_q \lambda_\chi|}{M_\Phi^2} \approx 2.7 \times 10^{-5} \text{ TeV}^{-2}. \quad (4)$$

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