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Erratum: Gauge invariant Barr-Zee type contributions to fermionic EDMs in the two-Higgs doublet models

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Here we fix several typographical errors in equations. All numerical results do not change.

- The right hand side of eq. (A.4) has additional minus sign.
- The function of $\tan(2\theta)$ in eq. (A.9) should be replaced by

$$\tan(2\theta) = \frac{-(\cos^2 \beta - \sin^2 \beta)}{\sin^2 \beta \cos^2 \beta (\lambda_1 + \lambda_2 - 2\lambda_{345}) + \lambda_5 \cos 2\phi} \lambda_5 \sin(2\phi). \quad (1)$$

- g_{WWA} in eq. (A.22) should be replaced by $g_{WW\gamma}$.
- $Z^{-\mu}$ in eq. (A.23) should be replaced by Z^μ .
- In eqs. (B.5) and (B.6), $m_H^\pm$ should be replaced by $m_{H^\pm}$.
- Equation (B.8) should be replaced by

$$\begin{aligned} \mathcal{I}_W^G(m_h) = & g_{WWG} \frac{2m_W^2}{m_h^2 - m_G^2} \\ & \times \left[-\frac{1}{4} \left\{ \left(6 - \frac{m_G^2}{m_W^2} \right) + \left(1 - \frac{m_G^2}{2m_W^2} \right) \frac{m_h^2}{m_W^2} \right\} [I_1(m_W, m_h) - I_1(m_W, m_G)] \right. \\ & + \left\{ \left(-4 + \frac{m_G^2}{m_W^2} \right) + \frac{1}{4} \left(6 - \frac{m_G^2}{m_W^2} + \left(1 - \frac{m_G^2}{2m_W^2} \right) \frac{m_h^2}{m_W^2} \right) \right\} \\ & \left. \times [I_2(m_W, m_h) - I_2(m_W, m_G)] \right]. \quad (2) \end{aligned}$$

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