

**Erratum: Exploring magnetic fluctuation effects in QED gauge fields:
Implications for mass generation
[Phys. Rev. D **109**, 056007 (2024)]**

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(Received 11 April 2024; published 12 June 2024)

DOI: [10.1103/PhysRevD.109.119903](https://doi.org/10.1103/PhysRevD.109.119903)

Equation (6) contains a typo: instead of \pm , it should be \mp . The latter follows from Eq. (A4). Therefore, the correct Eq. (6) is

$$iS_{\Delta}^{(\pm)}(p) = iS_0^{(\pm)}(p) + i\Delta \left(\frac{|q_f B|}{2\pi} \right) [\Theta_1(p)(\not{p}_{\parallel} + m)\mathcal{O}^{(\pm)} - \Theta_2(p)\gamma^3\mathcal{O}^{(\pm)} \mp \Theta_3(p)i\gamma^1\gamma^2(\not{p}_{\parallel} + m)] + \mathcal{O}(\Delta^2).$$

As a consequence, the overall sign of Eqs. (A9c), (A9f), (A9i), and (A9l) must be changed, so that the correct result of Eq. (18c) is

$$\lim_{\substack{p_0 \rightarrow 0 \\ \mathbf{p} \rightarrow 0}} T_3^{\mu\nu} = \frac{i|q_f B|}{3\pi m} \left[g_{\perp}^{\mu\nu} - \frac{1}{4} g_{\parallel}^{\mu\nu} \right]. \quad (1)$$

Therefore, Eq. (20) is modified to

$$\lim_{\substack{p_0 \rightarrow 0 \\ \mathbf{p} \rightarrow 0}} \Pi^{\mu\nu} = \frac{\alpha_{\text{em}} m^2 \mathcal{B}^2}{\pi} \tilde{\Delta} \left(\frac{59}{96} g_{\parallel}^{\mu\nu} - \frac{1}{3} g_{\perp}^{\mu\nu} + \delta_3^{\mu} \delta_3^{\nu} \right), \quad (2)$$

so that Eq. (22) reads

$$[D^{\mu\nu}(p)]^{-1} = i g_{\parallel}^{\mu\nu} (p^2 + iM_{\parallel}^2 + i\epsilon) + i g_{\perp}^{\mu\nu} (p^2 - iM_{\perp}^2 + i\epsilon) + 3iM_{\perp}^2 i\delta_3^{\mu} \delta_3^{\nu} + \dots,$$

where it is then necessary to set $M_{\parallel}^2 = 59\alpha_{\text{em}}\mathcal{B}^2\tilde{\Delta}m^2/(96\pi)$, and $iM_{\perp}^2 \rightarrow -iM_{\perp}^2$ in the subsequent equations.

The latter small change in the numerical value of M_{\parallel} does not have implications for the conclusions of our work concerning the generation of mass for the gauge fields.

Finally, there is a typo in Eq. (5a): there is a missing overall factor of 2. This is just a typo and it has no further consequences.