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Erratum: Color-flavor locked superconductor in a magnetic field [Phys. Rev. D **76**, 105030 (2007)]

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The numerical results for the magnetization in color-flavor locked (CFL) color superconducting quark matter in magnetic fields had a factor of the fine structure constant ($\alpha \simeq 1/137$) missing in our original paper [1]. All analytical formulas in the original text, as well as the numerical results for the color superconducting gap parameters in the CFL phase remain valid. However, the mistake in the magnetization does affect also the numerical results in Fig. 3, which shows the external field eH/μ^2 plotted as a function of eB/μ^2 . (Note that the differences between the results at $\phi_0 = 10$ MeV and $\phi_0 = 25$ MeV are so small that they cannot be distinguished.) Also, our conclusion regarding the possible instabilities with respect to the formation of magnetic domain configurations is changed. The magnetization in the CFL phase is too weak to trigger the instability.

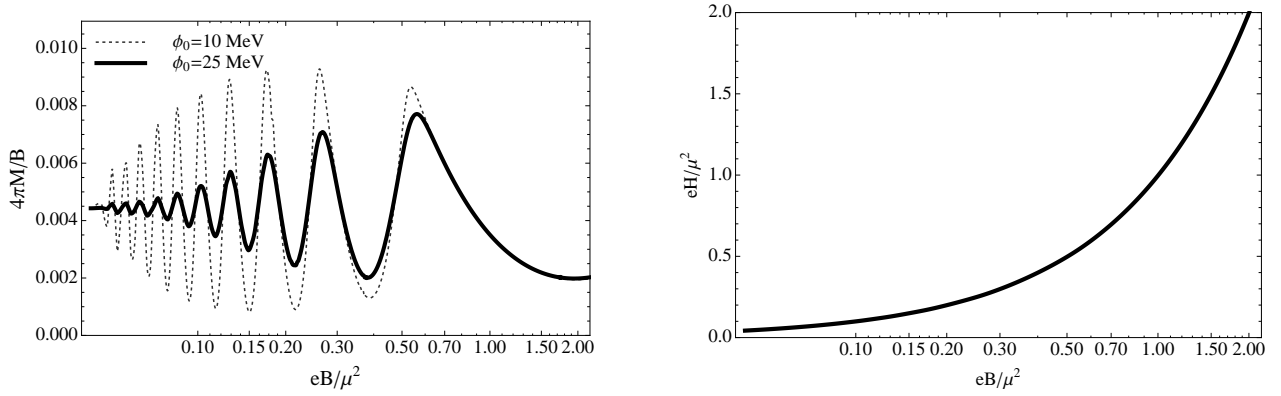


FIG. 1: Left: Corrected version of Fig. 2 in the paper. Right: Corrected version of Fig. 3 in the paper.

Acknowledgments

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[1] J. L. Noronha and I. A. Shovkovy, Phys. Rev. D **76**, 105030 (2007).

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