Erratum: Phase diagrams in the three-flavor Nambu–Jona-Lasinio model with the Polyakov loop [Phys. Rev. D 77, 114028 (2008)]

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We found an error in the numerical implementation to estimate the effect of the vector-channel interaction with $g_V \neq 0$. We replace Fig. 18 in Ref. [1] by Fig. 1 in this erratum. The corrected results shown in Fig. 1 become closer to the value reported in the two-flavor case [2,3] where the critical value of g_V/g_S is between 0.15 and 0.2. It should be noted that the normalization of g_S in our work is different from Refs. [2,3] by a factor 2. To make sure of the validity and the normalization convention, we have checked that our code can exactly reproduce the numerical results in the two-flavor NJL model with the choice of the same model parameters.

All the results in Ref. [1] other than Fig. 18 are safe since only the calculation involving the vector-channel interaction needs corrections.

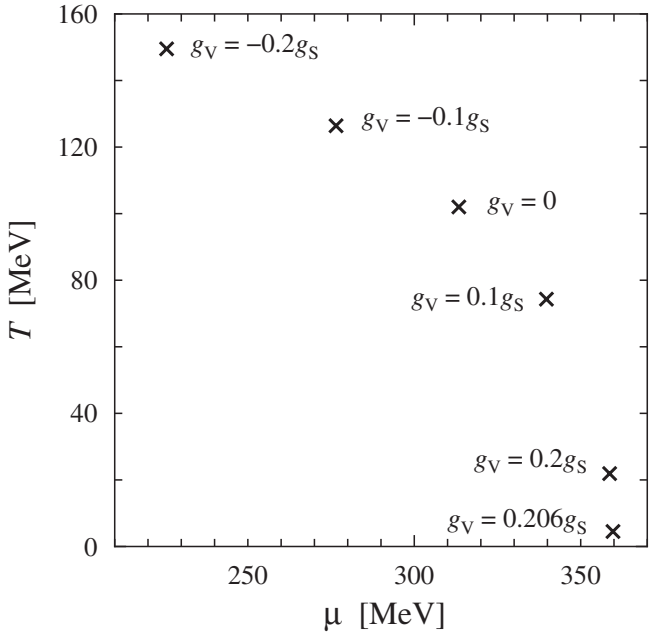

FIG. 1. Corrected results for Fig. 18 indicating the location of the chiral critical end point depending on g_V in units of the scalar interaction g_S.

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