

Erratum: Two-dimensional non-Hermitian fermionic superfluidity with spin imbalance [Phys. Rev. A **109**, 063306 (2024)]

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An error of our code in calculating the condensate energy led to an incorrect plot of the zero-temperature phase diagram as functions of interaction strength U_1 and dissipation γ for the cases of finite chemical potential difference $\delta\mu$ in Figs. 1(b) and 1(c) of the original article, which gives the correct boundary for the normal state but an incorrect boundary for a metastable superfluid state and a superfluid state. The corrected plot is shown in Fig. 1. However, our main results and conclusions remain unchanged, since the subsequent calculations and results in our paper are based on either the case of zero chemical potential difference, i.e., $\delta\mu = 0$, or the boundary of the normal phase, which are not affected. The main change in the original article is the statement on page 4 regarding Figs. 1(b) and 1(c), which should be corrected as follows: “In particular, by comparing Figs. 1(b) and 1(c) we find that the stability of the superfluid requires stronger attractions with increasing chemical potential difference.”

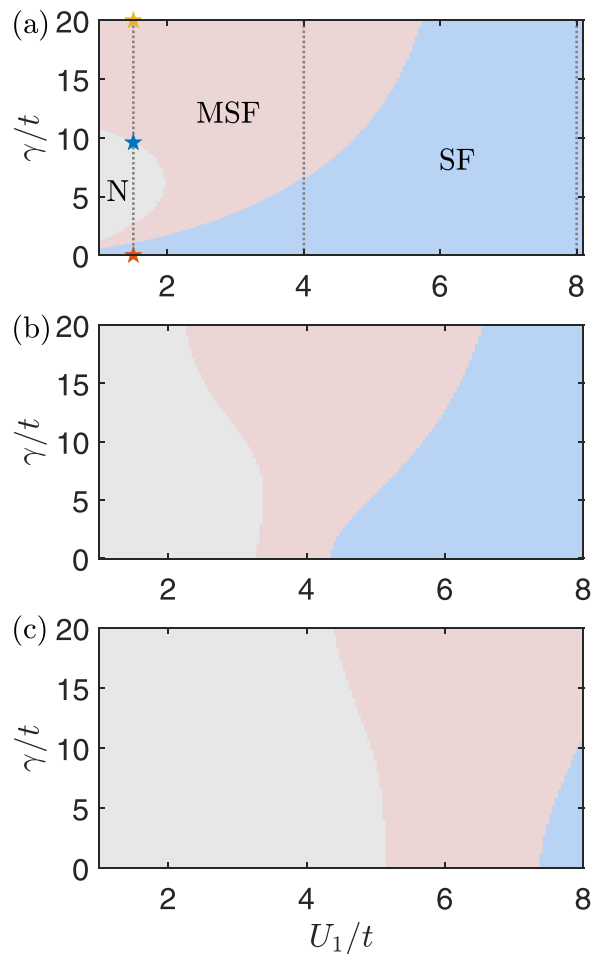


FIG. 1. Corrected zero-temperature phase diagram by varying the interaction strength U_1 and the dissipation γ with the chemical potential difference: (a) $\delta\mu/t = 0$, (b) $\delta\mu/t = 2$, and (c) $\delta\mu/t = 4$. The blue, red, and gray regions denote a stable superfluid, metastable superfluid, and normal states, respectively.