# Erratum: Nonperturbative test of nucleation calculations for strong phase transitions [Phys. Rev. D 111, L051901 (2025)]

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The dynamical factor $A_{\rm dyn}$ was missing in our one-loop results for the nucleation rate. This was due to a typo in the script used to compute it. All our lattice results are unaffected. The tree-level and LPA results are also unaffected.

Correctly including the dynamical factor in the one-loop rate brings it in somewhat closer agreement with the lattice results. At the temperature simulated, Eq. (17) becomes

$$|\log\Gamma|^{\rm lat} = 74.09(5), \qquad |\log\Gamma|^{\rm pt} = 38.0 + 29.1 + \cdots. \tag{1}$$

This correction reduces the discrepancy between lattice and one-loop perturbation theory from 20% to 9%. Our broad conclusions, that perturbation theory does significantly worse in estimating the nucleation rate than the field condensate, are weakened but not invalidated. At the critical temperature, lattice and one-loop perturbation theory agree on $\Delta\langle\phi\rangle_{\rm c}$ to $0.2\% \ll 9\%$. The different behavior of perturbation theory for these two observables still calls for an explanation.

Figure 4 here is a corrected version of Fig. 4 that includes the dynamical factor for the one-loop rate. No other results are affected. The data have also been updated on Zenodo [1].

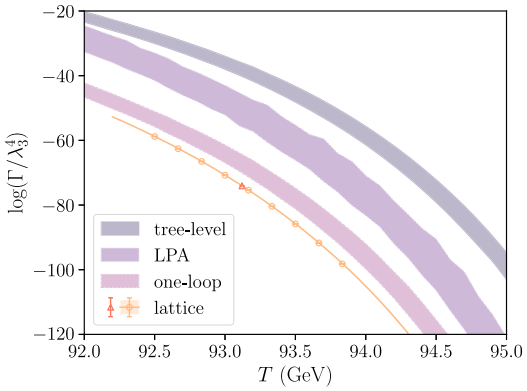



FIG. 4. Corrected version. Note that only the one-loop results are changed, bringing them into somewhat closer agreement with the lattice results.

[1] Oliver Gould, Anna Kormu, and David J. Weir, 10.5281/zenodo.10891523 (2026).

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