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The critical line of QCD with four degenerate quarks

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We determine the pseudo-critical couplings at imaginary chemical potentials by high-statistics Monte Carlo simulations of QCD with four degenerate quarks at non-zero temperature and baryon density by the method of analytic continuation.

We reveal deviations from the simple quadratic dependence on the chemical potential visible in earlier works on the same subject.

Finally, we discuss the implications of our findings for the shape of the pseudo-critical line at real chemical potential, comparing different possible extrapolations.

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talk

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