

Topology of two-color QCD at low temperature and high density

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We study two-color QCD with nonzero chemical potential using Iwasaki gauge and Wilson fermion action. The two-color gauge theory coupled to an even number of fundamental fermions does not suffer from the sign problem because the fermion transforms in a real representation.

To perform the simulation even in high chemical potential regime, as in earlier publications, we introduce a diquark source term into the action.

In this talk, we show our results for the phase diagram in low temperature regime. Furthermore, we present the μ dependence of the topological susceptibility.

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