

The anomalous magnetic moment key on NJL-SU(2) model

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Magnetars and heavy-ion-collisions (HIC) are environments where only a robust theory to strong interactions can extract reasonable quantities in account with the astronomical observations and HIC-experiments nowadays. Because of the sign problem, the Quantum Chromodynamics (QCD) isn't treatable to important cases where there are finite chemical potentials. From Nambu–Jona-Lasinio (NJL) model, one of the most prominent among the effective models for QCD, a lot of questions in hadron and low energy physics were found. Under an electromagnetic field and taking a phenomenological term of anomalous magnetic moment, thermodynamic properties, and so the QCD phase diagram, can be altered in a non-negligible way. In this talk, I will present the general formalism and get the effective quark masses using different regularization schemes.

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