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## Comparison between LQCD and PNJL model at finite chemical potentials

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Lattice QCD (LQCD) has the sign problem at real quark chemical potential. There are some regions with no sign problem; one is the imaginary quark chemical potential region and another is the real and imaginary isospin chemical potential regions.

We show that the Polyakov-loop extended Nambu–Jona-Lasinio (PNJL) model can reproduce LQCD data in the regions. We also determine the parameters of the model from the data and predict the QCD phase diagram in the real quark chemical potential region. The PNJL model can also reproduce LQCD data on the average phase factor at small real quark chemical potential, when temperature is smaller than the critical temperature.

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talk and poster

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