

Phase diagram of rotating QCD matter

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Understanding of QCD matter under extreme rapidly rotation is a puzzle and a hot topic in physics because of the applications in many physical environments. The typical off-central heavy ion collisions experiment create a nonzero angular momentum QCD matter. In this talk, I will discuss the QCD phase diagram and respective chiral critical end point of rotating QCD matter by using 2 flavor NJL model with considering vector interaction. The angular velocity ω is using as a third dimension on the QCD phase diagram, and the new phase transition on temperature angular-velocity plane at certain chemical potential will be systemically discussed. An overall picture of chiral phase transition in a 3-D frame will be represented in the final.

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