The 8th International Conference on Chirality, Vorticity and Magnetic Field in Quantum Matter



ID de Contribution: 66

Type: Talk

Inhibition of splitting of confining and chiral transition by rotation.

lundi 22 juillet 2024 15:00 (30 minutes)

We will discuss the effect of rotation on the confining and chiral properties of QCD using the linear sigma model coupled to the Polyakov loop. Enforcing the causality constraint by the spectral boundary conditions we obtain the phase diagram at finite temperature, baryon density, and angular frequency. At nonrotating limit we observe a splitting between the chiral and confining transitions that decreases with increasing radius. In the presence of finite rotation this splitting decreases with increasing angular velocity for experimentally relevant, slow angular velocities. However, we observe a increment in the splitting when the boundary of the system rotates at near-to-light velocities.

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Classification de Session: Phase diagram