The 7th international conference on particle physics and astrophysics



Contribution ID : 218

Type : Oral talk

Magnetic and vortical impacts on the effective QCD phase diagram

Friday, 25 October 2024 11:45 (20)

In this talk, we present a comprehensive analysis of chiral symmetry restoration using the Linear Sigma model coupled with quarks to illustrate the effective QCD phase diagrams. Specifically, we explore the temperaturebaryon chemical potential plane, incorporating magnetic field effects and investigating the impact of high vorticity on the QCD phase transition. Our study aims to pinpoint the Critical End Point within these phase diagrams. Additionally, we discuss the potential implications of our findings for relativistic heavy-ion collisions, offering insights into the critical behavior and phase structure of QCD under extreme conditions.

Primary author(s):HERNANDEZ, Luis (Universidad Autonoma Metropolitana)Presenter(s):HERNANDEZ, Luis (Universidad Autonoma Metropolitana)Session Classification:Heavy Ion

Track Classification : Heavy ion physics