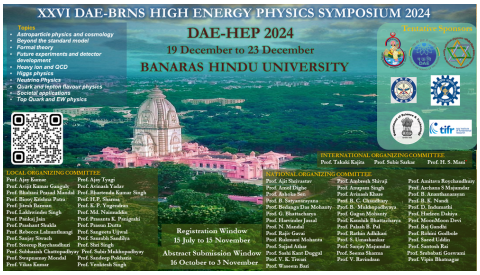

Contribution ID: **121** Type: **Oral**

Magnetically Induced Quarkonium Melting in a Dynamical Einstein-Born-Infeld-Dilaton Framework

We extend the potential reconstruction technique to establish a dynamical Einstein-Born-Infeld-dilaton model, which serves as a framework for investigating the melting of holographic quarkonium under an applied magnetic field. The model's non-linearity enables the magnetic field to interact directly with the quarkonium's internal structure, bypassing the need to introduce charged flavor degrees of freedom that back-react. By calculating the melting temperature from the spectral functions, we observe a transition from inverse magnetic catalysis to magnetic catalysis occurs as the magnetic field strength rises. Additionally, we examine the impact of anisotropy induced by the external field.

Field of contribution

Theory

Author: JENA, Siddhi Swarupa (National Institute of Technology, Rourkela)

Co-authors: TONIATO, Bruno; DUDAL, David (KU Leuven); BARMAN, Jyotirmoy; MAHAPATRA, subhash

Presenter: JENA, Siddhi Swarupa (National Institute of Technology, Rourkela)

Track Classification: Heavy ion and QCD