



Seminar, Department of Physical Sciences,  
Bose Institute, Kolkata



Search for the QCD Critical Point in Heavy-Ion Collisions

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**Abstract:** A central open question in the QCD phase diagram is the existence and location of a critical point separating the hadronic and quark–gluon plasma phases. Heavy-ion collisions provide a unique experimental avenue to probe this structure through event-by-event fluctuations of conserved charges and particle multiplicities. Interpreting these measurements, however, requires a robust theoretical framework that connects QCD thermodynamics to the particle spectra and correlations observed in detectors. In this talk, I will review recent progress on both the experimental and theoretical fronts, and discuss ongoing efforts aimed at developing a coherent and quantitative understanding of the QCD phase diagram.

- Date/time: May 12, 2026 (Tuesday) at 02:30 PM
- Venue: Room 204, Physics Seminar Room, (Second floor, UAC, BI)