

The 180th HENPIC seminar by Prof. Chun Shen

Title: 3D modeling of the collective behaviors in relativistic heavy-ion collisions

Abstract: Three-dimensional modeling of relativistic heavy-ion collisions has become an essential phenomenological tool for quantitatively studying Quark-Gluon Plasma's properties. In this seminar, I will discuss building a comprehensive 3D framework to study the collective bulk dynamics in heavy-ion collisions. This framework plays a central role in understanding the stopping dynamics in heavy-ion collisions at $O(10)$ GeV and probes the phase structure of quantum chromodynamics at finite baryon density. It also helps us to explore non-trivial longitudinal dynamics in asymmetric small collision systems at high energies.

Summary