

Azimuthal Anisotropy of Particles from Asymmetric Systems Measured in PHENIX at the RHIC

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The study of azimuthal anisotropy of particles produced in Heavy Ion collisions provides strong constraints to the evolution of the strongly coupled QCD medium and its event-by-event geometry fluctuations. The strength and predominance of these observables have long been identified as a manifestation of a strong collective behaviour in the formed medium.

However recent measurements of non-zero anisotropy in small systems both at RHIC and LHC have posed new questions: How small can a system be and still present collective effects? Are there other mechanisms different from collectivity that could give rise to such high degree of anisotropy?

Experimentally we can address these questions by a systematic study of azimuthal correlations for different collision systems. These studies are being pursued by the PHENIX experiment profiting from the different beam configurations in the RHIC during the last years. In this talk I will present the latest results from PHENIX on azimuthal anisotropy obtained from a variety of collisional systems and using different techniques.

List of tracks

Fluctuation in initial conditions, collective flow and correlations

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