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Elliptic and Triangular Flow of inclusive charged hadrons in Au+Au and Cu+Cu at $\sqrt{s_{NN}} = 200$ GeV collisions at RHIC-PHENIX

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Considerable attention has been given to the investigation of anisotropic flow in heavy-ion collisions at both the Relativistic Heavy Ion Collider (RHIC) and the Large Hadron Collider (LHC).

The focus of current studies in this field is centered on the influence of the initial-state geometry [and its fluctuations] and its role in the extraction of the specific shear viscosity (i.e. the ratio of shear viscosity to entropy density η/s) of the quark gluon plasma (QGP).

The PHENIX measurements for elliptic (v_2) and triangular (v_3) flow in the Cu+Cu and Au+Au systems, allow detailed investigations of the respective influence of system size and initial-state fluctuations on the expansion dynamics and the associated transport coefficients.

Detailed differential results for inclusive charged hadron v_2 and v_3 for both systems as well as the scaling properties of these measurements, and their implications, will be presented and discussed.

On behalf of collaboration:

PHENIX

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