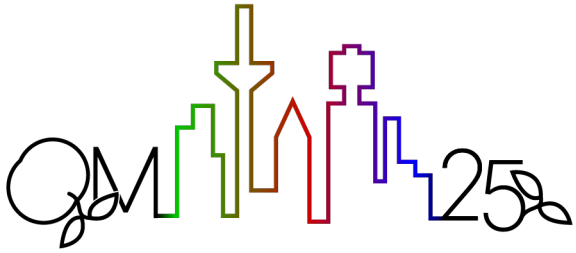

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sPHENIX charged hadron v_2 for Au+Au collisions at 200 GeV

sPHENIX is a next-generation, state-of-the-art particle detector at the Relativistic Heavy-Ion Collider (RHIC) that has recently completed full commissioning of its subsystems with datasets of 200 GeV Au+Au and p+p collisions during the 2023 and 2024 commissioning runs. From this inaugural dataset, the anisotropic flow (v_n) of charged hadrons has been measured for the first time in the sPHENIX detector using the event plane method. Anisotropic flow is a hallmark signature of the formation of a Quark-Gluon Plasma in ultra-relativistic nucleus-nucleus collisions, and the use of charged hadrons as the species of interest offers an important opportunity to benchmark the performances of both the sPHENIX Intermediate silicon tracker (INTT) and the sPHENIX Event Plane Detector (sEPD). This talk will present the status of measuring charged hadron v_2 in different centrality classes with a comparison to previous experimental results at RHIC.

Category

Experiment

Collaboration (if applicable)

sPHENIX Collaboration

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