Quark Matter 2018



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Charged Particle Yields and Anisotropic Flow at Forward Rapidities from Au+Au Collisions at 54 GeV Using the STAR Event Plane Detector

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The Event Plane Detector (EPD) is an upgrade to the STAR experiment that will significantly improve event plane resolution and provide a measure of collision centrality at forward rapidity (2.1 < $|\eta| < 5.1$). The complete detector, composed of two scintillator wheels at $\pm \eta$ and $2.1 < |\eta| < 5.1$, will be operational in the 2018 run, but in 2017, a quarter of one wheel was commissioned. Results from this run including the partial EPD from Au+Au collisions at $\sqrt{s_{NN}}=54$ GeV will be presented. The track densities at this energy are considerably higher than those expected for RHIC Beam Energy Scan energies ($\sqrt{s_{NN}} \le 20$ GeV) for which the detector was originally designed. Nevertheless, the detector performed very well in this higher density environment. Preliminary pseudorapidity distributions and anisotropic flow (v_1 and v_2) results will be shown for forward rapidities measured by the EPD during the 2017 run.

Content type

Experiment

Collaboration

STAR

Centralised submission by Collaboration

Presenter name already specified

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