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dN_{charge}/deta and v_2 pseudorapidity dependence in ^3He+Au collisions at $\sqrt{s_{NN}}$ = 200 GeV with the PHENIX detector at RHIC

In small asymmetric collision systems such as ^3He+Au, precision measurements of the pseudorapidity dependence of the number of charged particles (N_{charge}) and the second order flow coefficient (v_2) have not been made. Nominally, v_2 is expected to be a monotonically decreasing function of rapidity from the Au going direction to the ^3He going direction. PHENIX's Silicon Vertex Detector (VTX) has a wide mid-pseudorapidity coverage (eta < |1.5|) which allows for the measurement of dN_{charge}/deta. When the VTX is coupled with information from PHENIX's forward detectors in the Au going direction, such as the MPC (-3.8 < eta < -3.1), a measurement of v_2 in several eta bins can be made.

This poster will present the latest status of analysis of the dN_{charge}/deta and v_2 pseudorapidity dependence in ^3He+Au collisions at $\sqrt{s_{NN}}$ = 200 GeV with the PHENIX detector at RHIC. We will also show comparisons to hydrodynamic model calculations. We will also give the current status of similar analyses in p+Au and high multiplicity p+p collisions at 200 GeV.

On behalf of collaboration:

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