

Abstract Submitted
for the DNP07 Meeting of
The American Physical Society

Design and Performance of Reaction Plane Detector in PHENIX

RUI WEI, Stony Brook University, PHENIX COLLABORATION — Measuring the event anisotropy of nucleus-nucleus collisions is one of the most important methods to investigate the hot dense partonic matter produced at RHIC. Along with the discovery of jet suppression, the observation of large v_2 leads to the conclusion that the strongly coupled medium is formed in Au+Au collisions. However, the v_2 measurements of rare observables such as electrons, photons, $J\psi$ and high p_T particles are constrained by the low statistics and reaction plane resolution. By installing a new reaction plane detector at PHENIX, the resolution is improved by factor of 2. This enables us to further study the v_2 of rare probes and even to extend our view to v_4 . In the talk the performance of this new detector in this year's run will be discussed.

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Date submitted: 01 Jul 2007

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