

The new PHENIX Reaction Plane Detector at RHIC
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Determining event anisotropy is one of the key methods used in unlocking the hidden mysteries of hot dense partonic matter. In particular, the v_2 measurements of rare observables such as electrons, photons, J/ψ and high p_T particles provide rich information about the properties of this matter. However, results from these studies have been limited by low statistics and poor reaction plane resolution. With the installation of the new reaction plane detector at PHENIX we hope to improve the reaction plane resolution by a factor of 2 to $\langle \cos^2 \Delta\psi \rangle \sim 0.7$ for future heavy ion runs. In this talk an overview of the new PHENIX reaction plane detector's components, design, and expected results will be discussed.