

Abstract Submitted
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Neutral Pion Cross Section and Spin Asymmetries at $0.8 < \eta < 2.0$ and $\sqrt{s} = 200$ GeV at STAR ADAM GIBSON, Valparaiso University, STAR COLLABORATION — The STAR endcap electromagnetic calorimeter (EEMC) was designed to allow measurement of cross sections and spin observables in an intermediate pseudorapidity range, $0.8 < \eta < 2.0$, and with full azimuth. Using the EEMC to measure double longitudinal spin asymmetries in photonic channels—such as inclusive neutral pions, prompt photon, and prompt photon + jet—allows access to ΔG covering a lower Bjorken- x region than current mid-rapidity measurements. Transverse spin asymmetries, shown to be near zero at η near zero and as large as 10% at η near four, measured with the EEMC occupy a previously unmeasured region in the 3D pseudorapidity, transverse momentum, and Feynman- x phase space. The neutral pion cross section measurement verifies that the signal of interest can be properly reconstructed and isolated from the background and can quantify the applicability of pQCD predictions. The status of the neutral pion cross section and asymmetry measurements will be discussed, and results obtained from up to 8.0 pb^{-1} of data from the 2006 RHIC run will be shown.

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