Abstract Submitted
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Transverse Single Spin Asymmetry of J/ψ Production in Polarized $p+p$ Collisions at $\sqrt{s} = 200$ GeV[1] CHEN XU, New Mexico State University, PHENIX COLLABORATION — Transverse single spin asymmetries (SSAs) quantify the asymmetry of particle production relative to the transverse spin axis of a polarized hadron. SSAs have come to be recognized as a means of accessing QCD dynamics, both within initial-state hadrons and in the process of hadronization from partons. At $\sqrt{s} = 200$ GeV, heavy flavor single-spin asymmetries in proton-proton collisions provide access to gluon dynamics within the nucleon. Previous measurements of J/ψ SSAs have been performed at RHIC based on PHENIX 2006, 2008 and 2012 datasets at both central and forward rapidity. In 2015, PHENIX collected an integrated luminosity of transverse polarized $p + p$ collision data at $\sqrt{s} = 200$ GeV, about 2 times as large as the datasets in 2006, 2008, and 2012 combined. The latest status of the J/ψ SSA measurement for 200 GeV $p+p$ collisions based on the PHENIX 2015 data will be presented.

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