

Abstract Submitted
for the DNP10 Meeting of
The American Physical Society

Transverse Single Spin Asymmetries in J/ψ Production in Polarized p+p Collisions at $\sqrt{s}=200$ GeV, measured in the PHENIX Detector at RHIC HUSSEIN AL-TA'ANI, New Mexico State University, PHENIX COLLABORATION — The measurement of transverse single spin asymmetries (A_N) gives us an opportunity to probe the quark and gluon structure of transversely polarized nucleons. At RHIC energies, heavy flavor production is dominated by gluon-gluon fusion. Because the gluon transversity is zero, The Collins effect has minimal impact on A_N in heavy flavor production. The measurement of A_N in heavy flavor production is uniquely sensitive to the gluon Sivers effect which is potentially related to the orbital angular momentum of gluons inside the polarized protons. The latest measurement of transverse SSAs in J/ψ production is presented. The data were taken by the PHENIX experiment at the Relativistic Heavy Ion Collider (RHIC) during the 2006 and 2008 run in transverse polarized proton+proton collisions at $\sqrt{s}=200$ GeV. The p_T and x_F dependencies are studied in rapidity regions $-2.2 < y < -1.2$, $|y| < 0.35$, and $1.2 < y < 2.2$, and p_T up to 6 GeV/c.

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Date submitted: 01 Jul 2010

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