

Abstract Submitted
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Constraining the Polarized Gluon Distribution Through Di-jet Measurements at $\sqrt{s} = 510$ GeV at STAR DANIEL OLVITT, JR, Temple Univ, STAR COLLABORATION — The production of jets from polarized p+p collisions at STAR is dominated by quark-gluon and gluon-gluon scattering. The di-jet double spin asymmetry (A_{LL}) is sensitive to the polarized gluon distribution (ΔG). Di-jets are also advantageous because the parton momentum fraction, x , of initial partons may be reconstructed to first order from the final state measurements. Both jet and di-jet A_{LL} measurements at $\sqrt{s} = 200$ GeV have helped to constrain ΔG to values of $x \approx 0.05$. In 2012, data were collected at $\sqrt{s} = 510$ GeV in order to probe lower values of x . Jet and di-jet preliminary A_{LL} results have been released and will soon be incorporated into theoretical fits. In 2013, data were also collected at $\sqrt{s} = 510$ GeV. An update on the di-jet A_{LL} measurement using polarized p+p data collected at STAR during 2013, with an estimated 250 pb^{-1} of integrated luminosity will be presented.

Daniel Olvitt, Jr
Temple Univ

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