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**Constraints on  $\Delta G$  through Longitudinal Double Spin Asymmetry Measurements of Inclusive Jet Production in Polarized p+p Collisions at 200 GeV** MURAD SARSOUR, Texas A&M University, STAR COLLABORATION — The STAR experiment at the Relativistic Heavy Ion Collider at Brookhaven National Laboratory uses polarized pp collisions at a center of mass energy of  $\sqrt{s} = 200$  GeV to determine the polarized gluon distribution in the proton via spin asymmetry measurements. The inclusive jet channel is particularly robust due to its large cross-sections and relative independence from fragmentation functions. Data were collected during 2006, at sampled luminosity of  $\sim 6$  pb<sup>-1</sup>, with 60% beam polarization. We present run 2006 analysis progress for the double longitudinal spin asymmetry for inclusive jet production at mid-rapidity, along with results from run 2005. Comparisons to theoretical calculations using deep-inelastic scattering parameterization for gluon polarization in the nucleon are also presented.

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