

Abstract Submitted  
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**Constraints on  $\Delta G$  from Recent Measurements of Inclusive Jet Production in Longitudinally Polarized pp Collisions at  $\sqrt{s} = 200$  GeV**  
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STAR COLLABORATION — A major goal of the RHIC spin program is to determine the gluonic spin contribution to the proton. The large acceptance of the STAR detector is particularly suited for inclusive jet measurements at 200 GeV which arise in leading order from qq, and dominant qg and gg hard interactions. Robust measurements of the double longitudinal spin asymmetry  $A_{LL}$  sensitive to the gluon polarization are aided by the large inclusive jet cross section and relative insensitivity to fragmentation functions. Mid-rapidity  $A_{LL}$  data are presented from RHIC run 5 along with the more precise results from run 6 covering a transverse momentum range  $5 < P_T < 35$  GeV. Comparison of these data to predictions from parameterizations of the gluon polarization have been made and put significant new constraints on the gluon polarization contributions within the present kinematic range  $0.03 < x < 0.3$  of acceptance. The STAR data and their systematics, current constraints from various prediction comparisons as well as results from inclusion of pp measurements in global analyses will be discussed.

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