

Abstract Submitted
for the APR08 Meeting of
The American Physical Society

Measurement of the Double Longitudinal Spin Asymmetry for Inclusive Hadron Production in 200 GeV Polarized p+p Collisions at RHIC BERND SURROW, MIT, STAR COLLABORATION — A primary goal of the STAR-spin program is the measurement of the gluon polarization, Δg , in the proton. The STAR detector, with its large-acceptance tracking and calorimetry, provides a uniquely suited environment for asymmetry measurements in a number of different final-state channels in polarized p+p collisions. These asymmetries will provide significant contributions to a global analysis of Δg . We present here the most recent measurements of the double longitudinal spin asymmetries (A_{LL}) for the inclusive production of both neutral and charged pions at mid-rapidity. These asymmetries are compared to NLO pQCD calculations for different polarization scenarios and are used to provide constraints on Δg . Charged pions are of particular interest as they are sensitive to the sign of Δg . Results and continuing analyses are presented from RHIC runs 5 and 6.

Tai Sakuma
MIT

Date submitted: 11 Jan 2008

Electronic form version 1.4