Abstract Submitted
for the HAW14 Meeting of
The American Physical Society

Gluon Polarization and Inclusive Jet Measurements with STAR
CARL GAGLIARDI, Texas A&M Univ, STAR COLLABORATION — The STAR Collaboration at RHIC has performed several measurements of the longitudinal double-spin asymmetry, A_{LL}, for mid-rapidity inclusive jet production in polarized pp collisions at $\sqrt{s} = 200$ GeV in order to determine the gluon polarization within the proton. The most recent study, using data that were recorded during 2009, profits from a 20-fold increase in event statistics compared to the previous measurements and improved analysis procedures that lead to reduced systematic uncertainties. The results provide evidence of positive gluon polarization in the Bjorken-x region $x > 0.05$. The data analysis and final results will be presented. In addition, a status report will be given on a similar analysis of data that were recorded by STAR at $\sqrt{s} = 510$ GeV during 2012, and plans to extend the $\sqrt{s} = 200$ GeV measurements at STAR during 2015 will be described.

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Date submitted: 30 Jun 2014 Electronic form version 1.4