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Measurement of the double longitudinal spin asymmetry in inclusive jet production in polarized proton-proton collisions at $\sqrt{s} = 200$ GeV. JOANNA KIRYLUK, MIT, STAR COLLABORATION — One of the main objectives of the spin physics program at the Relativistic Heavy Ion Collider at Brookhaven National Laboratory is the precise determination of the polarized gluon distribution in the nucleon over a wide kinematic range, $0.01 < x_g < 0.3$, by measurements of double longitudinal spin asymmetries in collisions of polarized protons at $\sqrt{s} = 200\,\mathrm{GeV}$ and $\sqrt{s} = 500\,\mathrm{GeV}$. This contribution reports on preliminary results for the double longitudinal spin asymmetry A_{LL} in inclusive jet production in polarized proton proton collsions at $\sqrt{s} = 200\,\mathrm{GeV}$. The data amount to 0.5 inverse pb and the jet transverse energies are in the range of $5 < E_T < 20\,\mathrm{GeV}$. An outlook of future STAR measurements to determine the gluon polarization in the nucleon will be provided.

Richard Milner
MIT

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