

Future Measurements of the Spin Dependent Proton Flavor Structure with the PHENIX Muon Arms

N. Bruner (for the PHENIX Collaboration)
University of New Mexico

The Relativistic Heavy Ion Collider (RHIC) debuted as the first and only polarized p+p collider during the 2001-2002 physics run. The beams were transversely polarized and collided at a center of mass energy of 200 GeV. From this run, the PHENIX experiment measured the absolute cross section and single spin asymmetries in neutral and charged hadronic channels.

In light of these successes, I present prospects for future measurements of flavor decomposed quark and anti-quark spin distributions in a polarized proton using the PHENIX Muon Arms. The first of two Muon Arms was commissioned in the RHIC 2001-2002 run. We discuss sensitivities based on the Muon Arm performance during this run.