

Abstract Submitted
for the APR14 Meeting of
The American Physical Society

Extracting W Single Spin Asymmetry in Longitudinally Polarized pp Collisions at PHENIX forward arms¹ ABRAHAM MELES², New Mexico State University — The parity-violating asymmetry A_L in the production of W bosons in $p + p$ collisions at $\sqrt{s} = 510$ GeV is sensitive to the polarization of light quarks and anti-quarks in the proton. However, identifying the lepton from the decay of the W is challenging due to a great background of hadronic processes. In the forward and backward hemispheres of PHENIX at RHIC, the muon spectrometers have been recently upgraded in order to provide additional trigger and tracking information to suppress those backgrounds. One of those upgrades is the Forward Vertex (FVTX) detector, a silicon-strip tracker. In 2013, PHENIX collected approximately 240 pb^{-1} of polarized $p + p$ collisions at $\sqrt{s} = 510$ GeV with a beam polarization of 52%. The ability of the FVTX to improve the W signal will be reviewed, and progress on analysis of real data in the RHIC 2013 run will be discussed.

¹Supported by the US DOE, Office of Science

²(Physics Department, New Mexico State University, Las Cruces NM 88003)

Abraham Meles
New Mexico State University

Date submitted: 10 Jan 2014

Electronic form version 1.4