

Abstract Submitted
for the DNP12 Meeting of
The American Physical Society

W Production in Polarized p-p Collisions: A Probe for Sea Quark Spin DANIEL JUMPER¹, University of Illinois at Urbana-Champaign — The PHENIX experiment at the Relativistic Heavy Ion Collider aims to measure spin dependent momentum distributions for quarks and anti-quarks inside the proton. This is accomplished by measuring parity violating longitudinal single spin asymmetries of muon yields from W-boson decay in 500 GeV polarized p-p collisions. Through the parity violating weak interaction, W-bosons offer a flavor-sensitive, direct probe of the quark and anti-quark spin distributions in the proton. This measurement is made at forward rapidity with the use of a recent muon trigger upgrade consisting of newly installed Resistive Plate Chambers and new trigger electronics for the muon tracking chambers. The trigger allows the selection of high momentum muons from W decay. This talk will introduce the measurement, discuss first results from the 2011 run and the analysis status of the 2012 run data.

¹For the PHENIX Collaboration

Daniel Jumper
University of Illinois at Urbana-Champaign

Date submitted: 02 Jul 2012

Electronic form version 1.4