Abstract Submitted for the APR13 Meeting of The American Physical Society

Single Spin Asymmetries in polarized proton nucleus collisions with the MPC-EX detector RICHARD SETO, University of California, Riverside, PHENIX COLLABORATION, MPC-EX TEAM — The strength of transverse spin asymmetries in polarized proton nucleus collisions has been proposed as a measure of the saturation scale. The RHIC facility is unique in its capability to provide the collisions of transversely polarized protons on heavy nuclei for such studies. The existing PHENIX Muon-Piston Calorimeter (MPC) together with a new preshower extension - the MPC-EX - covers a pseudorapidity region  $3.1 < |\eta| < 3.8$  and is ideally suited for such studies. The combined detector system can identify neutral pions to high energy (80 GeV), direct photons, and charged tracks. This talk will cover the motivation and possible signatures which can be measured and the implications for gluon saturation.

> Richard Seto University of California, Riverside

Date submitted: 11 Jan 2013

Electronic form version 1.4