Contribution ID: **295** Type: **not specified**

Measurement of Transverse Single Spin Asymmetries in π^0 Production from $p^\uparrow + p$ and $p^\uparrow + A$ Collisions at STAR

Tuesday, 12 April 2016 11:20 (15 minutes)

In 2015 the first collisions between polarized protons and nuclei occurred at the Relativistic Heavy Ion Collider (RHIC), at a center-of-mass energy of $\sqrt{s_{NN}} = 200$ GeV. Comparisons between spin asymmetries and cross-sections in $p+p$ production to those in $p+A$ production provide insight into nuclear structure, namely nuclear modification factors, nuclear dependence of spin asymmetries, and comparison to models with saturation effects. The transverse single spin asymmetry, A_N, has been measured in π^0 production in the STAR Forward Meson Spectrometer (FMS), an electromagnetic calorimeter covering a forward psuedorapidity range of $2.6 < \eta < 4$. Within this kinematic range, STAR has previously reported the persistence of large π^0 asymmetries with unexpected dependences on p_T and event topology in $p + p$ collisions. This talk will compare these dependences to those in $p + A$ production.

Primary author: Mr DILKS, Christopher (Pennsylvania State University)

Presenter: Mr DILKS, Christopher (Pennsylvania State University)

Session Classification: WG6 Spin Physics

Track Classification: Spin Physics