Abstract Submitted
for the HAW09 Meeting of
The American Physical Society

Measurement of Single Target-Spin Asymmetry in Semi-Inclusive DIS using Transversely Polarized ^{3}He Target KALYAN ALLADA, University of Kentucky, JEFFERSON LAB E06-010 COLLABORATION, JEFFERSON LAB HALL A COLLABORATION — We recently measured the neutron target single spin asymmetry in the semi-inclusive deep inelastic $^3He^{\uparrow}(e, e'\pi^{+/-})X$ reactions with a transversely polarized ^{3}He target. The experiment was performed at Jefferson Lab Hall A from October 2008 to February 2009. The pions were detected in the high-resolution spectrometer in coincidence with the scattered electrons detected by the BigBite spectrometer. The kinematic coverage focuses on the valence quark region, $x = 0.13$ to 0.41, at $Q^2 = 1.31$ to 3.10 $(\mathrm{GeV/c})^2$. Good particle identification was achieved using a RICH detector, an aerogel Cherenkov counter and Time-of-Flight detectors, which allowed for clean $\pi^{\pm}$ and $K^{\pm}$ detection. The data from this experiment, when combined with the world data, will provide constraints on the transversity and Sivers distributions on both u-quark and d-quark in the valence region. An update on the on-going analysis will be presented in this talk.

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Date submitted: 29 Jun 2009 Electronic form version 1.4