

Abstract Submitted
for the SES11 Meeting of
The American Physical Society

Inclusive DIS: Target Normal Single-Spin Asymmetry TIM HOLMSTROM, Longwood University, JEFFERSON LAB HALL A COLLABORATION — An experiment (E07-013) to measure the target normal single spin asymmetry A_N^n in inclusive deep-inelastic $n^\uparrow(e, e')$ reaction with a vertically polarized ^3He target has completed data collection during Jefferson Lab's Hall A neutron transversity experiment (E06-010). The expected accuracy of this measurement is $\delta A_N^n = 3 \times 10^{-3}$. There are no previous measurements of this asymmetry on the neutron. The target normal spin asymmetry in DIS probes helicity-flip amplitudes at the quark level that are related to effects beyond the leading-twist picture of DIS. In view of the predicted rapid variation of the asymmetry between 10^{-2} (exclusive) and 10^{-4} (DIS-inclusive), a non-zero measurement would be sensitive to the transition from hadronic to partonic degrees of freedom. The status and perspectives of the data analysis will be discussed.

Tim Holmstrom
Longwood University

Date submitted: 24 Aug 2011

Electronic form version 1.4