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Target Normal Single-Spin Asymmetry in Inclusive DIS TIMO-THY HOLMSTROM, Longwood University, JEFFERSON LAB HALL A COL-LABORATION — 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) in Fall of 2008. The expected accuracy of this measurement is $\delta A_N^n = 3 \times 10^{-3}$. 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.

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