

Abstract Submitted
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Measurement of Single-spin Asymmetry in Charged Kaon Electroproduction on a Transversely Polarized ^3He Target YOUCAI WANG, University of Illinois at Urbana-Champaign, JEFFERSON LAB HALL A AND E06-010 COLLABORATION — Data on target single-spin asymmetry in the semi-inclusive deep inelastic $\vec{n}(e, e'K^\pm)X$ reaction have been taken in Hall A at Jefferson Lab using a transversely polarized ^3He target and an electron beam of 5.9 GeV. This measurement covers the kinematic region, $x = 0.13 \sim 0.41$, at $Q^2 = 1.3 \sim 3.1 \text{ (GeV/c)}^2$. In coincidence with the scattered electrons detected in the large-acceptance BigBite spectrometer, kaons were detected in the high-resolution spectrometer and identified using an aerogel Cherenkov, gas Cherenkov and Ring-Imaging Cherenkov (RICH) detectors together with time-of-flight (TOF) information. The kaon single-spin asymmetry data from this experiment are expected to provide constraints on the flavor dependence of the transversity and the Sivers distribution functions. Results on the kaon single-spin asymmetry will be presented and compared with theoretical calculations.

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