

Abstract Submitted
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A_y Measurement from ${}^3\text{He}^\uparrow(e, e'n)$ Scattering at Jefferson Lab
ELENA LONG, Kent State University, JEFFERSON LAB HALL A COLLABORATION — Recently A_y asymmetry measurements have been conducted in Jefferson Lab's Hall A through electron scattering from a vertically polarized ${}^3\text{He}$ target. Experiment E08-005 measured the target single-spin asymmetry A_y in the quasi-elastic ${}^3\text{He}^\uparrow(e, e'n)$ reaction. Plane wave impulse approximation (PWIA) predicts that A_y should be exactly zero. A previous experiment at Q^2 of 0.2 (GeV/c)^2 , where Laget and Nagorny indicated A_y to be small, showed a large asymmetry as inferred by Faddeev calculations. The recent experiment measured this asymmetry at Q^2 of 0.1 (GeV/c)^2 , 0.5 (GeV/c)^2 and 1.0 (GeV/c)^2 . This is the first measurement of A_y at large Q^2 , which is another region where A_y is expected to be small. Any non-zero result is an indication of effects beyond simple impulse approximation. This measurement will place new restrictions on form factor extractions from polarized ${}^3\text{He}$ at large Q^2 . Details of the measurement will be presented.

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