

Abstract Submitted
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The $^3\text{He}(e, e'n)$ Channel in A_y and G_E^n Measurements ELENA LONG, Kent State University, JEFFERSON LAB HALL A E05-102 COLLABORATION, JEFFERSON LAB HALL A E08-005 COLLABORATION — Experiments E05-102 and E08-005 involved measurements of electron scattering from polarized ^3He reactions that have been conducted in Jefferson Lab's Hall A this past year. 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 $0.2 (\text{GeV}/c)^2$, where Laget and Nagorny predict A_y to be small, showed a large asymmetry as predicted by Faddeev calculations. The recent experiment measured this asymmetry at Q^2 of $0.1 (\text{GeV}/c)^2$, $0.5 (\text{GeV}/c)^2$ and $1.0 (\text{GeV}/c)^2$. 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 impulse approximation. During E05-102, a parasitic measurement of the electric form factor of the neutron (G_E^n) was taken using the $^3\text{He}(\vec{e}, e'n)$ channel at Q^2 of $0.4 (\text{GeV}/c)^2$, $0.5 (\text{GeV}/c)^2$ and $1.0 (\text{GeV}/c)^2$. An overview of these measurements will be presented.

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