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A_y Measurement from $^3He^\uparrow(e,e'n)$ Scattering at Jefferson Lab ELENA LONG, Kent State University, JEFFERSON LAB'S 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}He target. Experiment E08-005 measured the target single-spin asymmetry A_y in the quasi-elastic $^3He^\uparrow(e,e'n)$ 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 full calculations of Laget and Nagorny indicated A_y to be small, showed a large asymmetry as calculated by the Bochum group using Faddeev calculations to solve the three-body problem exactly. 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 test the models used to extract neutron form factors from polarized ^{3}He. Details of the measurement will be presented.

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