Spin Duality on the Neutron (^{3}He)

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Jefferson Lab experiment E01-012 used the polarized ^{3}He target in Hall A for a measurement of the virtual photon asymmetry $A_1^{^3\mathrm{He}}$ and the spin structure function $g_1^{^3\mathrm{He}}$ in the resonance region over a Q^2 range from 1.0 to 4.0 $(GeV/c)^2$. The same quantities are extracted for the neutron. Data from E01-012 combined with deep inelastic scattering data will provide a test of quark-hadron duality predictions. This will be one of the first test of the spin and flavor dependence of quark-hadron duality. The demonstration of duality for spin structure functions will enable us to use the resonance data to study the nucleon spin structure in the large x_{bj} region. Some details of the experiment and preliminary results will be presented.