Abstract Submitted
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Spin Asymmetries of the Nucleon Experiment WHITNEY ARMSTRONG, Temple University, SANE COLLABORATION — The Spin Asymmetries of the Nucleon Experiment (SANE) measured the proton spin structure function g_2 in a range of Bjorken x, $0.3 < x < 0.8$, where extraction of the twist-3 matrix element, d_2^p, is most sensitive. The data were taken from $Q^2 = 2.5GeV^2$ up to $6.5GeV^2$. Using a polarized proton target and polarized electron beam, two double spin asymmetries, $A_{\parallel}$ and $A_{\perp}$, were measured at Jefferson Lab's Hall-C with the BETA (Big Electron Telescope Array) detector. BETA consists of a scintillator hodoscope, gas Cherenkov, lucite hodoscope and a large array of lead glass detectors. With a unique open geometry, a threshold gas Cherenkov detector allowed BETA to cleanly identify electrons for this inclusive experiment. In addition to presenting the latest results from SANE on the spin structure functions and virtual Compton scattering asymmetries, I will discuss the physics impact and extraction of the matrix element d_2^p.

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