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Recent Results of the Jefferson Lab SANE experiment

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The Spin Asymmetries of the Nucleon Experiment (SANE) ran at Jefferson Lab and measured double spin asymmetries for inclusive electron scattering on a proton target which was polarized parallel and perpendicular to the polarized electron beam. SANE used a large acceptance detector package to measured the proton's polarized spin structure functions g_1 and g_2 in a range of Bjorken x, 0.3 < x < 0.8, and a range of Q^2 from to $1.8 GeV^2$ up to $6.5 GeV^2$. Complementary measurements were made simulataneously with the standard Hall C small acceptance High Momentum Spectrometer. Within the operator product expansion framework, the twist-3 matrix element, $d_2^p = \int x^2 (2g_1 + 3g_2) dx$, is proportional to the

average color Lorentz force on the quark (moving in the infinite momentum frame) the instant after being struck by a virtual photon. In addition to

presenting the latest results on spin structure functions, we will discuss the physics impact and Q^2 dependence of d_2^p .

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