

Abstract Submitted
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Transverse Beam Spin Asymmetries in Backward-Angle Elastic Electron-Proton and Quasielastic Electron-Deuteron Scattering JULIETTE MAMMEI, Virginia Tech, G0 COLLABORATION — There has been considerable recent interest in the two-photon exchange contribution to electron scattering, largely driven by the role the real part of this amplitude plays in the discrepancy between the Rosenbluth and polarization transfer measurements of the elastic form factor ratio G_E^p/G_M^p . The transverse beam spin asymmetry measured in the elastic scattering of electrons from unpolarized nucleons provides a measurement of the imaginary part of the two photon exchange amplitude. The G^0 collaboration at Jefferson Lab has taken data of this type during its backward-angle phase with an average laboratory electron scattering angle of 110° . Beam-normal single-spin asymmetry data were obtained under these conditions: elastic \vec{e} -p at beam energies of 362 MeV ($Q^2 = 0.23\text{GeV}^2$) and 687 MeV ($Q^2 = 0.64\text{ GeV}^2$) and quasi-elastic \vec{e} -d at a beam energy of 362 MeV ($Q^2 = 0.23\text{ GeV}^2$). The status of the analysis for these sets of data will be presented.

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