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Spin Asymmetry Measurements for Deeply Virtual Compton Scattering on Polarized Protons ERIN SEDER, University of Connecticut, CLAS COLLABORATION — Generalized Parton Distributions (GPDs) have emerged as a universal tool to describe hadrons, particularly nucleons, in terms of their elementary constituents, quarks and gluons. Spin asymmetry measurements in the reaction $\vec{e}\vec{p} \rightarrow ep\gamma$, such as the proton target spin asymmetry which is directly proportional to the imaginary part of the Deeply Virtual Compton Scattering amplitude, give access to different combinations of GPDs. Combined measurements of proton target spin asymmetry (TSA), electron beam helicity asymmetry (BSA), and electron-proton double spin asymmetry (DSA) at the same kinematic points allows access to GPDs through a semi-model independent extraction of Compton Form Factors (CFFs). Preliminary TSA, BSA, and DSA studies for the reaction $\vec{e}\vec{p} \rightarrow ep\gamma$ and extracted CFFs will be presented from a dedicated experiment at Jefferson Lab using the CEBAF 6 GeV polarized electron beam, a polarized solid state $^{14}NH_3$ target, and the CEBAF Large Acceptance Spectrometer (CLAS) equipped with an additional Inner Calorimeter (IC). The accessible kinematic range for these measurements covers $1 < Q^2 < 4.5$ GeV^2, $0.1 < x_B < 0.58$, and $0.08 < -t < 1.8$ GeV^2.

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