

Abstract Submitted
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Exclusive ϕ Meson Electroproduction with CLAS12¹ BRANDON CLARY, University of Connecticut, CLAS12 COLLABORATION — The Continuous Electron Accelerator Facility Large Angle Spectrometer detector (CLAS12) at Jefferson Lab in Virginia has recently completed a successful period of data acquisition of a longitudinally polarized 10.6 GeV electron beam on a 5 cm unpolarized liquid hydrogen target. A program to study exclusive ϕ meson electroproduction is now underway as this is an ideal channel for quantifying the gluonic properties of the nucleon. This analysis focuses on the exclusive reaction $ep \rightarrow epK^+K^-$. The analysis strategy consists of two steps: first to establish the approach to the small-size regime by testing model-independent features of the reaction mechanism, such as the Q^2 -independence of the t-slopes; then in a second step, extracting the gluonic size in the valence region as a function of x_B . This contribution will present a study to extract the beam spin asymmetry for this reaction. Ultimately, the asymmetry will shed light on the structure functions of the interference terms from the longitudinal and transverse cross section.

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