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Neutron DVCS Cross Section Extraction at the CLAS12 Experiment

Understanding the internal structure of nucleons remains one of the important challenges in hadronic physics. The measurement of Deeply Virtual Compton Scattering (DVCS) from the neutron provides unique information on Generalized Parton Distributions (GPDs), offering a three-dimensional picture of the neutron's partonic structure. This talk will detail the extraction of the neutron DVCS cross-section from the CLAS12 experiment at the Jefferson Lab, with the electron beam about 10.4 GeV scattering off a liquid deuterium target. We will discuss the analysis strategies, including the selection of neutron DVCS events, the determination of the acceptance and the estimation of systematic uncertainties. The preliminary cross-section results will be presented as a function of relevant kinematic variables, providing valuable inputs for GPD models and furthering our understanding of the neutron's internal structure.

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