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Measuring Deeply Virtual Compton Scattering on the Neutron with CLAS12 at Jefferson Lab[1] KATHERYNE PRICE, Jefferson Lab, CLAS COLLABORATION — A key step towards understanding nucleon structure in terms of generalized parton distributions (GPDs) is the measurement of deeply virtual Compton scattering on the neutron (nDVCS). This talk will report on a new experiment, currently ongoing at Jefferson Lab, utilizing the upgraded 11 GeV CEBAF polarized electron beam, the CLAS12 detector, and a liquid deuterium target. We aim to measure beam-spin asymmetries for nDVCS ($ed \to e'n\gamma(p)$). The status of the data taking and of the nDVCS analysis, as well as the performances of the detectors and the quality of the data will be presented. This beam-spin asymmetry measurement, when taken with complementary pDVCS measurements, gives us access to quark total angular momentum. As quark GPDs are only accessible in linear combinations within proton and neutron GPDs, measurement of E via nDVCS will also allow us to perform quark flavor separation of GPDs, resulting in a more complete GPD picture of nucleon structure.

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