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Deeply virtual compton scattering on Proton with CLAS12 GUILLAUME CHRISTIAENS[1], Glasgow university/CEA-Saclay, MAXIME DEFURNE, CEA-Saclay, DARIA SOKHAN, Glasgow university, CLAS COLLABORATION COLLABORATION — While it has been known since the 60s that nucleons are composed of quarks and gluons, very little is understood about the mechanisms responsible for the emergence of nucleons from these partons. Generalized Parton Distributions (GPDs) provide the opportunity to obtain a 3-dimensional, tomographic picture of a nucleon. Moreover, GPDs are related to total angular momentum, mass and pressure distributions inside the nucleon. GPDs are experimentally accessible via the deeply virtual Compton scattering (DVCS), i.e. the absorption of a highly virtual photon by the proton and the subsequent emission of a high-energy photon. At Jefferson Lab, the CLAS12 spectrometer has collected DVCS data on unpolarized proton with a longitudinally polarized 10.6-GeV electron beam in 2018. Central silicon and micromegas trackers within a 5T-solenoidal field surrounding the liquid hydrogen target are ideal to detect the recoil proton of a DVCS event. The forward detectors, placed in a toroidal magnetic field, detect the associated scattered electron and high energy photon. We will present preliminary results associated to the entire fall 2018 run period. After a careful subtraction of the background and a refined binning, a more detailed picture of the nucleon can be revealed by these new data.

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