Abstract Submitted
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The Spring 2016 Deeply Virtual Compton Scattering (DVCS) Run (E12-06-114) in Hall A of TJNAF[1] MONGI DLAMINI, Ohio University — The DVCS experiment in Hall A of the Thomas Jefferson National Accelerator Facility will provide high precision data necessary to map out the 3D structure of the nucleon in the Generalized Parton Distribution (GPD) framework. GPDs are a new class of light-cone matrix elements which encode the transverse momentum and spatial distribution of partons as a function of the longitudinal momentum of the nucleon. DVCS off the nucleon (γ^*N $\rightarrow$ γN) is the cleanest process that can access GPDs. The Hall A DVCS experiment is set to run in the Spring of 2016 using a polarized electron beam with energy ranging from 8 to 11 GeV, allowing an extended kinematic range coverage. This experiment will measure both polarized and unpolarized cross sections of the H(e,e'γ)p and H(e,e'π^0)p reactions and hence probe proton GPDs. The run will complete Q^2 scans at x_{Bj} ranging from 0.36 to 0.60. The Q^2-dependent cross sections allow the separation of the leading-twist GPD amplitude from the higher-twist scaling-violating terms. In this talk, the status of the experiment will be presented.

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