Abstract Submitted
for the DNP20 Meeting of
The American Physical Society

**Deeply Virtual Compton Scattering cross section measurements with CLAS12** SANGBAEK LEE, Massachusetts Institute of Technology MIT, CLAS COLLABORATION — The deeply virtual Compton scattering (DVCS) is an electroproduction process of the real photon off the nucleon, mediated by the virtual photon. The proton DVCS events are experimentally characterized by exclusive detections of the electron, proton, and photon final states in certain kinematic conditions. Thanks to the large acceptance of the CLAS12 detector and high luminosity 10.6 GeV CEBAF electron beam of Jefferson Lab, about a million DVCS events have been collected with the liquid hydrogen target in a wide range of kinematics region. Extracting DVCS differential cross sections is a powerful analysis method to study proton's 3-dimensional imaging and the proton's generalized parton distributions (GPD), and is thus important. We will present preliminary proton DVCS differential cross sections after a careful review of the detector properties, which is the requirement for the cross section study and underway.

Sangbaek Lee
Massachusetts Institute of Technology MIT

Date submitted: 26 Jun 2020 Electronic form version 1.4