

Abstract Submitted
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Timelike Compton Scattering¹ ARTHUR MKRTCHYAN, IBRAHIM ALBAYRAK, TANJA HORN, Catholic Univ of America, PAWEL NADEL-TURONSKI, Jefferson Lab — Deeply Virtual Compton Scattering (DVCS) is deemed the simplest and cleanest way to access the Generalized Parton Distributions (GPDs) of the nucleon. The DVCS process interferes with the Bethe-Heitler process allowing one to access the DVCS amplitudes. The imaginary part of the Compton amplitude is now relatively well understood, primarily through measurements of DVCS. However, much less is known about the real part of the amplitude. Time-like Compton Scattering (TCS) is the inverse process of DVCS and provides a new and promising way for probing the real part of the amplitude, and so constraining GPDs. Comparing data from Time-like Compton Scattering and the space-like DVCS process will also allow for testing the universality of GPDs. First studies of TCS using real tagged and quasi-real untagged photons were carried out at Jefferson Lab 6 GeV. In this talk, preliminary results on asymmetries and extraction of the real part of the CFF using photoproduction data and a comparison to electroproduction data will be presented. We will also discuss future plans for dilepton production at Jefferson Lab 12 GeV.

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