

Abstract Submitted
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The CLAS Two Photon Exchange Experiment DASUNI ADIKARAM, Old Dominion University, CLAS COLLABORATION — There is a large discrepancy between the proton electron form factor ($G_{Ep}(Q^2)$) measured using the Rosenbluth separation and polarization transfer methods. The most likely explanation of this discrepancy is the inclusion of two-photon exchange (TPE) amplitude contributions to the elastic electron-proton cross section. The TPE contribution can be extracted in a model-independent way from the measured ratio of the cross sections of positron-proton and electron-proton elastic scattering. This ratio was measured in Hall B at Jefferson Lab using a simultaneous mixed tertiary beam of electrons and positrons incident on a liquid hydrogen target in the center of the CLAS detector in 2010-2011. This talk will present the analysis techniques used to identify the elastic scattering events, and some preliminary results at $Q^2 = 1.4$ (GeV/c^2).

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