Analysis of the polarization observables H and P for $\gamma p^+ \rightarrow \pi^+ n$

Robert Lee, Michael Dugger, and Barry Ritchie
(for the CLAS Collaboration)
Arizona State University, Tempe, AZ 85287-1504 *

Conference Experience for Undergraduates 2017

Polarization observables in meson photoproduction deepen our knowledge of the structure of the nucleon. A set of these observables has been measured using the CEBAF Large Acceptance Spectrometer(CLAS) at Jefferson Lab with linearly-polarized photons having energies from 725 to 2100 MeV and polarized protons in the Jefferson Lab FRozen Spin Target (FROST). By fitting π^+ yields over azimuthal scattering angle, the observables H and P have been extracted. Preliminary results for these observables will be presented and compared with predictions provided by SAID Partial-Wave Analysis Facility.

*Work at ASU is supported by the U.S. National Science Foundation