

POLARIZATION OBSERVABLES IN THE DOUBLE PION PHOTO-PRODUCTION WITH CIRCULARLY POLARIZED PHOTONS OFF TRANSVERSELY POLARIZED PROTONS

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The double pion photo-production represents one of the strongest contribution to the total cross-section at high energies and thus it plays an important role in probing the nucleon resonance spectrum. The polarization observables provide an additional sensitivity in unraveling the reaction dynamics. The goal of this analysis is to extract the specific polarization observables $I^\odot, P_x^\odot, P_y^\odot, P_x, P_y$ for the $\gamma p \rightarrow p\pi^+\pi^-$ reaction. The data were taken as a part of the CLAS g9b (FROST) experiment at Jefferson Laboratory, which used a transversely polarized target and a circularly polarized photon beam with energies up to 3 GeV. This work presents an overview of the experiment, the analysis methods and the raw yield asymmetries.

This work is supported in parts by the U.S. National Science Foundation: NSF PHY-1205782.