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Preliminary Results on Polarization Observables for Double-Pion Photoproduction from FROST[1] P. ROY, S. PARK, V. CREDE, Florida State University, FOR THE CLAS COLLABORATION — Hadron spectroscopy is essential to understand nucleon structure in the low energy regime. Many low mass resonances have been observed via πN scattering but only a few resonances above 1.7 GeV have been seen so far. It is speculated that photoproduction could be the key to detect the *missing* resonances, many of which probably decay into multi-particle final states. Double-pion photoproduction with $p\pi^+\pi^-$ final state becomes the biggest contributor to the total cross section for center-of-mass energies above 1.7 GeV, making it an indispensable channel to explore. It is imperative to measure polarization observables to isolate the resonant and non-resonant contributions to this reaction for the extraction of N^* parameters. Here we report on the preliminary results obtained for polarization observables $I^{\odot}$, P_z, $P_z^{\odot}$ from the study of $\pi^+\pi^-$ photoproduction using circularly polarized photons (E_γ up to 2.3 GeV) incident on a longitudinally polarized butanol target and discuss the ongoing analysis to extract $P_x^{s,c}$, $P_y^{s,c}$ using linearly polarized photons (coherent edge up to 2.1 GeV) and a transversely polarized target. The experiments were conducted at Jefferson Lab using the CLAS spectrometer.

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