Search for Missing Resonances in $\gamma p \to K^+\Lambda$ using circularly polarized photons on longitudinally polarized target

Liam Casey
Catholic University of America (CLAS collaboration)

Abstract

Focus in the search for missing baryon resonances has been directed toward the prospect of performing a full partial wave analysis using all single and double polarization observables across multiple decay channels. In particular, the possibility of resonances coupling strongly to decay channels with strangeness is encouraging. Double polarization data has been taken in Jefferson Lab's CLAS detector using circularly polarized photons on a longitudinally polarized frozen-spin butanol target. Measurements of the double polarization observables E (beam-target) and L_x and L_z (target-recoil) for the $\gamma p \to K^+\Lambda$ channel will be presented and compared with model predictions.