

Abstract Submitted  
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**The Photoproduction of Strangeness in  $\gamma p \rightarrow \Lambda K^+ \pi^+ \pi^-$  with CLAS at Jefferson Lab**<sup>1</sup> HUSSEIN GHOUL, Florida State University, CLAS COLLABORATION — Following the prediction of exotic states by Quantum Chromodynamics, the search for new and exotic mesons has become a priority in nuclear physics. The g12 Experiment, using the CEBAF Large Acceptance Spectrometer (CLAS) at Jefferson Lab, has provided a large photoproduction dataset. This experiment used a liquid hydrogen target, a 4 - 5.5 GeV tagged photon beam, and acquired 26 billion events. The reaction  $\gamma p \rightarrow \Lambda K^+ \pi^+ \pi^-$  provides an opportunity for searching for excited strange mesons, in the  $K^+ \pi^+ \pi^-$  system, using the g12 dataset. In this reaction, the  $\Lambda$  is identified via the  $p \pi^-$  decay. Studies indicate two dominating decay modes: the  $K^*(982)\pi$  mode, and the  $K^+ \rho$  mode. Preliminary results will be presented in this talk, along with the kinematics and dynamics of this reaction. Future plans, including partial wave analysis of the dataset, will be discussed briefly.

<sup>1</sup>On Behalf of the CLAS Collaboration

Hussein Ghoul  
Florida State University

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