

Abstract Submitted
for the DNP19 Meeting of
USB Dept. of Physics and Astronomy

Sorting Category: (Experimental)

Photoproduction of Λ^* at CLAS UTSAV SHRESTHA,
KENNETH HICKS, Ohio University — Much is known about the photoproduction of the hyperon resonances $\Lambda(1405)1/2^-$ and $\Lambda(1520)3/2^-$, but little is known about photoproduction to the higher-mass resonances $\Lambda(1670)1/2^-$ and $\Lambda(1690)3/2^-$. Both pairs of resonances are spin-orbit partners and are rated as 4-star (well-known) by the Particle Data Group. In the quark model, the $\Lambda(1405)$ and $\Lambda(1520)$ resonances are assigned to the SU(3) singlet, where the $\Lambda(1670)$ and $\Lambda(1690)$ are assigned to the octet. In this presentation, we will present differential cross sections for $\Lambda(1520)3/2^-$ and preliminary look at the two hyperon octet resonances using the photoproduction data from the CLAS detector at Jefferson Lab. Future plans for a partial wave analysis, which will be necessary to resolve the individual cross sections for these two resonances, will be outlined.

Prefer Oral Session
 Prefer Poster Session

Utsav Shrestha
us810916@ohio.edu
Ohio University

Date submitted: June 26, 2019

Electronic form version 1.4