

Abstract Submitted
for the DNP17 Meeting of
The American Physical Society

Photoproduction of Lambda - Anti-Lambda Particle Pairs.

SAMUEL DAI, REINHARD SCHUMACHER, Carnegie Mellon University, GLUEX COLLABORATION — Photoproduction of baryon-antibaryon pairs is very poorly studied up to the present time. Using the GlueX spectrometer at Jefferson Lab, we have isolated a sample of $\gamma p \rightarrow p\bar{\Lambda}\Lambda$ events. This reaction has never previously been seen. With our data sample, we plan to determine the differential photoproduction cross section in the photon energy range from threshold to 11.5 GeV. Comparisons can be made to the simultaneously-measured $\bar{p}p$ photoproduction reaction. In addition, the self-analyzing decay of the hyperons may allow measurement of the hyperon spin polarization and the spin correlations between the hyperon pairs.

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Date submitted: 26 Jul 2017

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