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Analysis of $\pi^0\eta$ and $\pi^0\eta'$ systems in $\gamma p \to \pi^0\eta^{(\prime)}p$ at GlueX ZACHARY BALDWIN, Carnegie Mellon Univ, GLUEX COLLABORATION — In order to search for the existence of exotic hybrid mesons, the GlueX experiment, at Jefferson Lab, utilizes a linearly polarized photon beam at E_γ = 8-9 GeV to map the spectrum of light mesons. A particular interest has been placed on the $\pi^0\eta$ and $\pi^0\eta'$ systems, as an observation of odd angular momentum L waves in this final state may indicate the presence of exotic quantum numbers. By comparing both systems, the role of flavor symmetry should be illuminated as to allow for a better understanding of meson production mechanisms. We will present preliminary results from initial studies of these channels from more than four petabytes of data recorded by the GlueX experiment, and compare the results to previous experimental observations of the same channels.

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