

Abstract Submitted
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Studies comparing $\pi^0\eta$ and $\pi^0\eta'$ systems in search for exotic hybrid mesons at GlueX ZACHARY BALDWIN, Carnegie Mellon Univ, GLUEX COLLABORATION — In the search for exotic hybrid mesons at the GlueX experiment, located at Thomas Jefferson National Laboratory, a strong interest has been placed on both the $\pi^0\eta$ and $\pi^0\eta'$ systems because of their possibility of containing non quark-antiquark (exotic) quantum numbers due to the systems' odd angular momentum L . By comparing both of these channels, the role of flavor symmetry could also be highlighted, allowing for a better understanding of meson production mechanisms. In this talk, preliminary results, including angular distribution analyses and double Regge exchange analyses (i.e. non-resonant Deck processes), for $\gamma p \rightarrow \pi^0\eta^{(\prime)}p \rightarrow 4\gamma\pi^+\pi^-p$ will be shown utilizing all of the GlueX Phase-1 data and comparing the observations to previous experimental (COMPASS) and theoretical (JPAC) results of the same channels.

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