Analysis of $\eta \pi^0$ and $\eta' \pi^0$ Systems at GlueX

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The GlueX experiment at Jefferson Lab aims to study the light meson spectrum with an emphasis on the search for hybrid mesons. The $\eta\pi^0$ and $\eta'\pi^0$ final states are promising channels for this search. Several experiments have observed a contribution with exotic quantum numbers in these channels in the past, but their resonance interpretation is not well established. GlueX will contribute significant results to this discussion by studying a complimentary production mechanism. The comparison between both channels can shed light on the nature of the exotic mesons, in particular their flavor content. We will present preliminary results obtained from an initial dataset recorded in 2017.