

Abstract Submitted
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A survey of multi-photon final states using the GlueX detector¹

SIMON TAYLOR, Jefferson Lab, GLUEX COLLABORATION — The primary focus of the GlueX experiment is the search for evidence for hybrid mesons. Models suggest that these mesons are likely to decay to final states containing at least one π^0 or η and are thereby likely to produce multiple photons. In addition, the conditionally-approved Jefferson Lab Eta Factory (JEF) experiment plans to explore the rare $\eta \rightarrow \pi^0 \gamma \gamma$ decay, which most of the time produces four photons in the final state. The final-state photons are detected in the Forward and Barrel Calorimeters of the GlueX detector. A overview will be presented of the excellent data quality from the Spring 2016 run for the exclusive reactions $\gamma p \rightarrow p + N\gamma$ with $N=2-6$.

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