

Abstract Submitted
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The GlueX Experiment at Jefferson Lab CURTIS MEYER, Carnegie Mellon University, THE GLUEX COLLABORATION — The GlueX experiment is part of the Jefferson Lab 12-GeV upgrade and is a large solid angle device for the detection of photons and charged particles. GlueX will search for gluonic excitations of mesons (exotic hybrids) using linearly polarized 9 GeV photons incident on a hydrogen target. The experiment has been designed to be sensitive to the expected mass and decay modes of hybrid mesons. With this capability, the experiment will be able to map out several nonets of exotic hybrids and make solid comparisons to both lattice predictions as well as other QCD-inspired model predictions. Beyond the core program of hadron spectroscopy, the experiment will also be able to carry out measurements of photon interactions on various targets. Both the core physics as well as interesting measurements that will be possible using GlueX will be presented.

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