

Abstract Submitted
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Exclusive η photoproduction and Σ beam asymmetries at GlueX¹

WILLIAM MCGINLEY, Carnegie Mellon University, GLUEX COLLABORATION
COLLABORATION — The goal of the GlueX experiment is to study the gluonic degrees of freedom in QCD by mapping the light meson spectrum with an emphasis on hybrid exotic states. This will be done using a tagged, linearly-polarized 9 GeV photon beam incident on a hydrogen target. Early measurements of exclusive η photoproduction will provide insight into the reaction mechanism. The GlueX experiment is making the first Σ beam asymmetry measurement for the η in this energy range and is expected to further constrain Regge theory models for photo-produced pseudoscalar mesons. This talk will present preliminary results for the photon beam Σ asymmetry for multiple decay modes of the exclusive reaction $\gamma p \rightarrow \eta p$ using data from a recent commissioning run.

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William McGinley
Carnegie Mellon University

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