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Abstract for an Invited Paper for the SES19 Meeting of the American Physical Society

Recent Results From GlueX¹ COLIN GLEASON, Indiana University

The primary goal of the GlueX experiment at Jefferson Lab is to search for and map the spectrum of light hybrid mesons. GlueX began taking data in 2016 and in December 2018 completed its initial program of data collection, providing orders of magnitude more data than similar experiments at this energy. As a first step in developing its analysis program to search for hybrid mesons, the GlueX Collaboration aims to measure polarization observables, spin density matrix elements (SDMEs), and cross-sections of mesons in order to understand their production mechanism. This talk will give an overview of recent results from GlueX, including beam asymmetries and SDMEs, current efforts to study light mesons through amplitude analysis, discuss the prospects for hybrid meson searches, and report on other measurements such as the cross-section of J/ψ at threshold.

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