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# Amplitude Analysis of $\omega\pi^0$ Photoproduction at GlueX

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The GlueX experiment at Jefferson Laboratory seeks to map out the spectrum of light mesons produced from a linearly polarized photon beam. The production and decays of a light meson resonance $X$ such as $\gamma p \to Xp' \to \omega\pi^0 p'$ can be modeled with polarized vector-pseudoscalar amplitudes, which can describe the contribution of individual amplitudes to the total measured intensity. The status of mass-independent fits to the $\omega\pi^0$ mass spectrum over a wide mass and $t$ range will be presented, with a particular focus on the observed production process of the $b_1(1235)$ meson. Additionally, we will present a complementary polarized moment analysis for the vector-pseudoscalar process. Though moments lack immediate physical interpretation their basis has unique solutions by construction, allowing one to better understand consistency between repeated fit results. Their physical meaning can be recovered by translating back to the partial wave basis. The results of these analyses will enhance our understanding of how the various states of light mesons are produced.

## session

B. Hadron Spectroscopy

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