

# Vector-Pseudoscalar Partial Wave Analysis at GlueX

*Friday, 9 June 2023 10:35 (20 minutes)*

Analysis of vector and axial vector meson systems will give insight into the light quark meson spectrum. Vector-pseudoscalar final states provide access to a rich set of intermediate states, including those mentioned above, but their analysis is complicated by the non-zero spin of the vector meson. A resonance amplitude model in the reflectivity basis is used to perform a partial wave analysis of several vector-pseudoscalar final states photoproduced at the GlueX experiment located at Jefferson Lab in Newport News, VA, USA. This talk will discuss the challenges of performing a partial wave analysis on a vector-pseudoscalar final state, with emphasis on the  $\omega\pi$  channel. We will discuss the ongoing search for excited vector states in this and other vector-pseudoscalar channels, some of which are predicted to include gluonic excitation in their wavefunctions.

**Primary author:** SCHERTZ, Amy (Indiana University)

**Presenter:** SCHERTZ, Amy (Indiana University)

**Session Classification:** Light meson spectroscopy

**Track Classification:** Light meson spectroscopy