Contribution ID: **117** Type: **Invited**

Meson spectroscopy at JLab

Saturday, 27 June 2026 09:30 (30 minutes)

Meson spectroscopy provides key insight into the non-perturbative regime of Quantum Chromodynamics (QCD), including confinement and the role of gluonic excitations. In particular, the search for exotic and hybrid mesons beyond the conventional quark–antiquark picture remains a central goal of current hadron physics. At Jefferson Lab, a comprehensive program combines measurements from the CLAS and CLAS12 detectors in Hall B with the GlueX experiment in Hall D. CLAS/CLAS12 enable detailed studies of exclusive meson electroproduction and photoproduction over a broad kinematic range, while GlueX focuses on photoproduction with linearly polarized photons to identify hybrid mesons.
Recent results and ongoing analyses are presented, together with developments in AI-based tools for event reconstruction and data analysis, enabling efficient extraction of rare signals from high-dimensional datasets.

Collaboration

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Session Classification: Plenary session

Track Classification: Light mesons (production, spectroscopy, decays)