

# Spectroscopy of Excited Baryon Resonances at CLAS: A Review of the 6-GeV Program

*Monday, 11 June 2018 12:00 (0:30)*

## Collaboration

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## Abstract content

One of the most striking phenomenon of QCD is the formation of the nucleon out of massless gluons and almost massless quarks. This system of confined quarks and gluons serves as the basic constituent of ordinary baryonic matter and exhibits the characteristic spectra of excited states, which are sensitive to the details of quark confinement. Complementary to nucleon structure studies, nucleon excitations provide a unique opportunity to explore the many facets of non-perturbative QCD. The last few years have seen significant progress toward mapping out the nucleon spectrum. The rapidly growing database of high-quality experimental results on exclusive meson photo- and electroproduction off the nucleon from experimental facilities around the world allow us to determine the scattering amplitudes in the underlying reactions and to identify nucleon resonance contributions with minimal model dependence. In this presentation, I will review recent results from the experimental program at Jefferson Lab in the 6-GeV era using the CEBAF Large Acceptance Spectrometer (CLAS) and provide an overview on our progress in understanding the nucleon resonance spectrum.

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**Session Classification :** Plenary Session