Contribution ID: **61** Type: **not specified**

Determining dominant partial waves in photoproduction via moment analysis

Tuesday, June 11, 2019 4:30 PM (30 minutes)

Important insights into the excitation spectra of baryons are provided by measurements of polarization observables in reactions that involve particles with spin. The photoproduction of a single pseudoscalar meson constitutes an example-reaction that has been under intense investigation recently.
In this talk, we present the basic method of moment-analysis for pseudoscalar meson photoproduction, in which just the angular distributions are analyzed. Using this method, the total angular momentum quantum number of the dominant partial waves contributing in the data can be extracted quickly. Furthermore, the Legendre-coefficients extracted from the angular distributions show interesting composition-patterns in terms of multipoles and allow for instructive comparisons to models.
In the talk, we will show recent results for moment analyses of polarization data for the photoproduction of pions and eta-mesons.

Primary author: WUNDERLICH, Yannick (University of Bonn)

Presenter: WUNDERLICH, Yannick (University of Bonn)

Session Classification: Parallel Session A

Track Classification: Partial wave analyses and baryon resonance parameter extraction