

The light baryon resonance spectrum in a coupled-channel approach – recent results from the Juelich-Bonn model

Tuesday, 17 October 2023 09:00 (30 minutes)

In order to connect predictions for the baryon spectrum in the non-perturbative energy regime from quark models or lattice calculations to experimental data, coupled-channel frameworks are especially suited. In those approaches a simultaneous partial-wave analysis of multiple reactions with different initial and final states is performed.

I will present recent results from the Juelich-Bonn dynamical coupled-channel approach, where the spectrum of nucleon and Delta resonances is extracted based on a combined study of the pion- and photon-induced production of πN , ηN , $K\Lambda$ and $K\Sigma$ final states. The amplitudes of the Juelich-Bonn model also enter the study of electroproduction reactions as constraints at $Q^2=0$.

Parallel Session

Hadron Spectroscopy

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