

Photoproduction of η and η' with EtaMAID

Monday, 6 June 2016 16:05 (0:20)

Collaboration

Abstract content

The isobar model EtaMAID is an online program of the MAID collaboration in Mainz for calculations of observables, amplitudes and multipoles for η and η' photo- and electroproduction on the nucleon. It was introduced in 2001 and updated in 2003. Now we will present a new update EtaMAID2016, taking into account very recent high-precision data of differential cross sections for $p(\gamma, \eta)p$ and $p(\gamma, \eta')p$ from MAMI and polarization observables with beam and target polarization from MAMI, ELSA, JLab and GRAAL. The high-energy region $W > 2$ GeV is set-up with Regge trajectories and Regge cuts and can well describe all high-energy data including polarization observables for $\gamma, \pi^0, \gamma, \eta$ and γ, η' . In the resonance region below $W \approx 2$ GeV we investigated more than 20 N^* resonances and found significant contributions for 18 of them. A very good description has been obtained for all existing photoproduction data.

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Session Classification : Parallel Session A5