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Photoproduction of η and η' with EtaMAID

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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 $\eta\prime$ 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 $p(\gamma,\eta\prime)p$ 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 γ,π^0,γ,η and $\gamma,\eta\prime$. 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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