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# Nucleon Resonance Electrocouplings and the Emergence of Hadron Mass

Understanding of the strong interaction dynamics that underlie the emergence of hadron mass (EHM) represents a challenging open problem in the Standard Model. New opportunities for gaining insight into EHM will be presented from the results on the evolution of the nucleon resonance electroexcitation amplitudes (i.e. the gvpN*electrocouplings) with photon virtuality Q2 determined from exclusive meson electroproduction data measured with the CLAS detector. A successful description of the electrocouplings of the Delta(1232)3/2+ and N(1440)1/2+ resonances of different structure has been achieved within the continuum Schwinger method (CSM) with the same momentum-dependent mass of the dressed quarks inferred from the QCD Lagrangian and used for the successful description of the nucleon and pion elastic form factors. This success has conclusively demonstrated the capability of gaining insight into EHM from the resonance electrocoupling studies. Furthermore, the CSM predictions on the electrocouplings of the Delta(1600)3/2+ resonance have been confirmed by still preliminary experimental results determined from pi+pi-p electroproduction data, solidifying evidence for insight into EHM. The CLAS12 detector in Hall B at JLab is the only available and foreseen facility in the world capable of extending information on the □vpN* electrocouplings for most prominent resonances within the almost unexplored range of Q2>5.0 GeV2. Analyses of these results within QCD-rooted approaches will shed light on the strong interaction dynamics in the range of distances where ˜50% of hadron mass is expected to be generated. Studies of the □vpN* electrocouplings at Q2>5.0 GeV2 are of particular importance for insight into the strong interaction mechanisms that underlie the generation of >98% of hadron mass in the Universe.

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