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Studies of Excited Nucleon Structure with CLAS and CLAS12[1]

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Significant progress has been realized in studies of excited nucleon state structure (N^* program) from the data on exclusive meson electroproduction measured with the CLAS detector in Hall B at Jefferson Laboratory (JLab). Electrocouplings of most N^* with masses <1.8 GeV have become available at Q^2 <5 GeV^2. These results give us the unique opportunity to explore the interplay of quark-gluon core and meson-baryon cloud in the N^* structure and to shed light on the hadron mass generation. New precision experimental data with the CLAS12 detector have been taken to extract the N^* electrocouplings at high photon vitalities (Q^2) ever achieved up to 10-12 GeV^2. This high-Q^2 reach will shed light on the emergence of the dominant part of the hadron mass from QCD based on the data on electrocouplings of all prominent nucleon resonances of different structure at the distances where the transition from quark-gluon confinement to perturbative QCD is expected. This talk will review the current status of N^* program with CLAS and discuss on-going efforts with CLAS12.

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