

Abstract Submitted
for the DNP20 Meeting of
The American Physical Society

CLAS12 Charged Two-Pion Electroproduction Off the Proton¹

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COLLABORATION — The study of the structure of excited states of the nucleon is one of the major fields to investigate the strong interaction dynamics that underlie baryon generation from quarks and gluons. CLAS in Hall B at Jefferson Lab has already produced the dominant part of the available world data on charged double-pion electroproduction in the nucleon resonance region for photon virtualities, Q^2 , up to 5 GeV^2 . These data have allowed us to obtain the resonance electroexcitation amplitudes for most excited states in the mass range up to 1.8 GeV . This talk will highlight some recent CLAS results in this channel and focus particularly on preliminary results of one of the first measurements with the CLAS12 detector. CLAS12 is the only available facility in the world capable of exploring resonance electroexcitation amplitudes in the still almost uncharted range of $Q^2 > 5.0 \text{ GeV}^2$. The charged double-pion channel, offers a unique opportunity to explore the evolution of the resonance structure at the distances where the transition from quark-gluon confinement to pQCD regime is expected.

¹NSF grant PHY 1812382

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Date submitted: 26 Jun 2020

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