

Abstract Submitted
for the DNP20 Meeting of
The American Physical Society

N \rightarrow N* transition GPD measurements with CLAS12 at JLAB¹

STEFAN DIEHL, Justus Liebig University Giessen and University of Connecticut, CLAS COLLABORATION — The measurement of transition GPDs is a unique tool to understand the 3 dimensional structure and the mechanical properties of nucleon resonances for the first time. To extract transition GPDs, the non-diagonal DVCS process can be used. In this process a pion-nucleon system, originating from the decay of an N* resonance, is produced in addition to a real photon. Because the factorisation of this process amplitude requires the constraints on Mandelstam variable t and photon virtuality Q^2 ($-t/Q^2 \ll 1$) and several final state particles have to be detected for a clean identification, CLAS12 in combination with the upgraded CEBAF accelerator at JLAB provides a unique opportunity to study this process. The talk will introduce the topic and present an on-going analysis effort on the recently collected CLAS12 data. The analysis will be discussed in the context of theoretical predictions for the $p \rightarrow \Delta$ transition GPDs.

¹This work is supported by DOE grant no: DE-FG02-04ER41309.

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Date submitted: 25 Jun 2020

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