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Vector Meson Production and DVCS at CLAS and CLAS12

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Generalised Parton Distributions (GPDs) offer an insight into the three-dimensional structure of the nucleon and its
internal dynamics, relating the transverse position of quarks to their longitudinal momentum. Two effective means of
accessing GPDs are Deeply Virtual Compton Scattering (DVCS) and Meson Production (DVMP), in which a high energy electron
scatters from a single quark in the nucleon and, respectively, a real photon or meson is produced as a result. Jefferson
Laboratory (JLab), USA, is ideally suited for measuring these processes and a very active experimental programme has been
underway in the recent years, making use of the lab's continuous electron beam up to 6 GeV in energy and its large angle
spectrometer CLAS. In the future, a vast, new, as-yet unprobed kinematic region will become experimentally accessible
when the current upgrade of the JLab accelerator to operate at a maximum energy of 12 GeV is completed in a few years. It
is being complemented by the construction of a new suite of detectors, CLAS12, a number of them optimised specifically
for exclusive reconstruction of DVCS and DVMP in the new kinematic region. We present a selection of recent results of
DVCS and DVMP measurements using CLAS and introduce the exciting experimental programme planned for the future with
CLAS12.

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