Generalized Parton Distributions

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In recent years parton distributions, describing longitudinal momentum, helicity and transversity distributions of quarks and gluons, have been generalized to account also for transverse distributions of partons, providing important information on the Orbital Angular Momentum of partons in the nucleon. Great progress has been made since then in measurements of exclusive processes in hard scattering kinematics providing access to Generalized Parton Distributions (GPDs). Different facilities world-wide including HERMES at HERA, CLAS and Hall-A at JLab and COMPASS at CERN have measurements of hard exclusive processes as one of their main focuses of research.

Deeply Virtual Compton Scattering (DVCS) has been identified as the cleanest tool to access GPDs in experiments and first measurements are already available demonstrating the feasibility of GPD studies from measurements at moderate momentum transfer, Q^2 . DVCS measurements performed at HERMES and CLAS with polarized beams and targets provide access to different combinations of GPDs allowing the separation of different contributions from global analysis of the data. In addition, measurements of hard exclusive pseudoscalar and vector meson production at higher Q^2 provide sensitivity to flavor dependence of GPDs.

In this talk we present an overview of the latest developments in studies of GPDs and discuss newly released results, ongoing activities, as well as planned near term and future measurements.