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Extraction of Compton Form Factors from DVCS data

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Generalized Parton Distributions (GPDs) allow to describe the structure of the nucleon in a very rich and unprecedented way: they contain the correlations between the (transverse) position and (longitudinal) momentum distributions of the partons in the nucleon, they allow to derive the orbital momentum contribution of partons to the nucleon's spin, they provide an access to the nucleon's (q-qbar) content, etc… GPDs can be accessed experimentally through the exclusive leptoproduction of a photon ("Deep Virtual Compton Scattering", DVCS) -and possibly of a meson-. In this presentation, we will present the result of our fitter code which aims at extracting, in a largely model-independent way, the GPD information (Compton Form Factors -CFF-) from experimental data. We will show the results of this code applied to the JLab and HERMES DVCS data. In particular, we have extracted some first important constraints on the Htilde CFF, from the HERMES and CLAS DVCS data obtained with a longitudinally polarized proton target. The kinematical dependence (xB,t) of these CFFs provides some new insights on nucleon structure.

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