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### **TMD and GPD Studies at HERMES**

FRANK ELLINGHAUS, University of Colorado

In the last few years the HERMES experiment has taken dedicated data for studies of TMD-PDFs (Transverse Momentum Dependent Parton Distribution Functions) and GPDs (Generalized Parton Distributions). The data taken on a transversely polarized hydrogen target (2002-2005) allow, e.g., for studies of the Sivers and Collins mechanisms via measurements of azimuthal single-spin asymmetries in the semi-inclusive production of hadrons. A preliminary result for pions with much higher statistical significance than the published result and a measurement for kaons will be presented. In the last two years data was taken with a newly installed detector in the target region, which allows for the detection of the recoiling proton in exclusive processes used to study GPDs. While the analysis of this latest data set is ongoing, exclusive processes for earlier data sets have been identified using, e.g., missing mass techniques. Results from the exclusive production of pseudoscalar- and vector mesons and real photons (DVCS) will be shown, whereby especially in the case of DVCS various asymmetries on different targets and with respect to the beam spin, beam charge and longitudinal- and transverse target spin have been measured. Of particular interest are the asymmetries on the transversely polarized hydrogen target which led to a first attempt for a model dependent extraction of the orbital angular momentum of quarks in the nucleon.