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Studies of chiral-odd GPDs using pseudoscalar meson production at Jefferson Lab ANDREY KIM, Univ of Connecticut - Storrs

The quark-gluon dynamics manifests itself in a set of non-perturbative functions describing all possible spin-spin and spinorbit correlations. The Generalized Parton Distributions (GPDs) carry information not only on the longitudinal momentum but also on the transverse position of partons, providing rich and direct information on the orbital motion of quarks. The analysis of experimental measurements on hard exclusive pseudoscalar meson electroproduction is a key to constrain the chiral-odd GPD parameterizations. Combination of measurements on unpolarized cross-sections and spin asymmetries with a longitudinally polarized beam and both unpolarized and longitudinally polarized proton targets for π^0 and η electroproduction will provide a detailed test for existing model calculations and allow for the first insight into the quark flavor decomposition of the underlying chiral-odd GPDs. In this talk, we present an overview of the current status and some future measurements of hard exclusive processes and extraction of underlying GPDs at Jefferson Lab.