

Abstract Submitted
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Global Analysis of Exclusive Pion and Kaon Electroproduction

TANJA HORN, Catholic University of America — Exclusive pion and kaon electroproduction are important tools in the study of hadron structure, and in particular for our understanding of the dominant reaction mechanism in exclusive reactions. The dependence of the cross section on the Mandelstam variable $-t$ provides important information about the role of the t -channel meson exchange, which is also needed for the extraction of meson form factors. Increasing the photon virtuality, Q^2 , in electron scattering experiments makes one more sensitive to the partonic picture, where soft non-perturbative and hard physics have been shown to factorize. In that regime, Generalized Parton Distributions (GPDs) provide the most complete description of the non-perturbative physics. Meson electroproduction at intermediate energies provides a good way to study the transition from the non-perturbative to the perturbative physics. In this talk I will review the world's data on exclusive $p(e, e'\pi^+)n$ and the $p(e, e'K^+)\Lambda$ reactions, and show opportunities for further studies at future facilities.

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