

Abstract Submitted  
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**Scaling study of the pion electroproduction cross sections and the pion form factor** TANJA HORN, Jefferson Lab, PIONCT COLLABORATION  
— One of the main objectives of Jefferson Lab is to understand the structure of the nucleon in terms of the quark-gluon degrees of freedom. Measurements of inclusive processes, such as deep inelastic scattering (DIS), have shown that in the limit of large  $Q^2$ , at fixed values of  $x_B$ , such processes can be viewed as scattering from individual partons within the hadronic system. A similar factorization of scales, allowing perturbative QCD concepts to be used in the description of hadrons, may be expected in hard exclusive processes. The  $Q^2$  dependence of the separated  $p(e, e'\pi^+)_n$  cross sections provides one of the best ways to test the factorization of long-distance from short-distance physics, and at which values of  $Q^2$  it applies. Such tests will lay the foundation for a reliable interpretation of the results from the GPD program at Jefferson Lab, and for GPD studies with a future electron-ion collider. In this talk I will present a QCD scaling study using published  $^1\text{H}(e, e'\pi^+)_n$  cross sections and new results from the  $\pi\text{CT}$  experiment (E01-107), which was carried out in Hall C at Jefferson Lab.

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