Abstract Submitted
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Studies of L-T Separated Kaon Electroproduction[1] RICHARD TROTTA, TANJA HORN, ANDRES VARGAS, Catholic Univ of America — QCD is characterized by two emergent phenomena: confinement and dynamical chiral symmetry breaking (DCSB). Pion and kaon form factors are of particular interest as they are connected to the Goldstone modes of DCSB. The flavor degrees of freedom of the produced meson selectively probe aspects of the reaction mechanism and the transition from hadronic to partonic degrees of freedom. There has been significant progress in the theoretical description of the nucleon structure in terms of QCD degrees of freedom, in particular through Generalized Parton Distributions (GPDs).The last decade saw a dramatic improvement in precision of charged pion form factor data and new results have become available on the pion transition form factor. The kaon provides an interesting way to expand these studies, opening the possibility to access the production mechanism involving strangeness. Kaon data at larger virtual photon mass allow one to search for the onset of the partonic picture. In this regime, hard and soft physics have been shown to factorize and GPDs provide the most complete description of the non-perturbative physics. The lack of necessary experimental facilities has left a gap in L-T separated data for exclusive K+ production from the proton above the resonance region.The newly upgraded 12 GeV beam energy at Jlab, in addition to the recently built SHMS spectrometer for Hall C, has provided an opportunity to expand the kaon data. Recent kaon form factor and cross section results will be discussed showing the impact of E12-09-011, the running Jlab 12 GeV kaon experiment.

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