Abstract Submitted
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The Reliable Determination of F_π beyond Q^2=6 GeV[21] GARTH HUBER, Univ of Regina — The charged pion form factor, $F_\pi(Q^2)$, is an important quantity which can be used to advance our knowledge of hadronic structure. However, the extraction of F_π from electroproduction data requires a model of the ^{1}H$(e, e'\pi^+)n$ reaction, and thus is inherently model dependent. Furthermore, one is either (a) limited to the kinematic regime where the pion pole term dominates the longitudinal cross section ($-t_{min}$ <0.20 GeV^2), or (b) required to have some other reliable means to identify the non-pole backgrounds expected to dominate at higher $-t$. The E12-06-101 pion form factor experiment planned to run at Jefferson Lab Hall C in a few years respects constraint (a), and is expected to provide reliable F_π values of unprecedented quality up to Q^2=6 GeV^2. Measurements using the same Jefferson Lab apparatus above Q^2 >8 GeV^2 are possible, provided one has a means to address constraint (b). I will discuss some of the issues involved if one is to make these measurements a successful reality.

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