

Abstract Submitted
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Nucleon Elastic Form Factors from the 6 GeV and 12 GeV eras at CEBAF¹ ANDREW PUCKETT, Univ of Connecticut - Storrs — The electromagnetic form factors (EMFFs) of the nucleon, measured in elastic lepton-nucleon scattering, are of central importance to hadronic physics, and continue to be a highly active area of experimental and theoretical investigation, both at low and high energies and momentum transfers. They serve as a first benchmark for testing state-of-the-art theoretical models of the nucleon and *ab initio* predictions of nucleon ground- and excited-state properties and dynamical behavior in lattice QCD. Through their model-independent connections to moments of Generalized Parton Distributions, the form factors can also be used to construct realistic images of the nucleon charge and magnetization densities in impact parameter space. Finally, precise knowledge of the ground state EMFFs of the nucleon over a wide range of Q^2 is required for the interpretation of a diverse array of experiments across nuclear, particle, and hadronic physics. In this talk I will review the experimental status of nucleon electromagnetic form factors, with an emphasis on the legacy of the 6 GeV era of CEBAF, and the near-future program of precision high- Q^2 form factor measurements in the 12 GeV era, including the upcoming Super BigBite Spectrometer (SBS) program, slated to begin in 2021.

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