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Effective theory for Sudakov logarithms in lepton-nucleon interactions

Monday, 8 August 2016 18:30 (2 hours)

A new framework for computing electromagnetic radiative corrections to precision measurements involving lepton-nucleon interactions is presented. A class of two-loop corrections to elastic electron-proton scattering is implemented and the status of the proton radius puzzle is reviewed. Related applications to long-baseline neutrino oscillation measurements, muon-electron conversion, and hadronic inputs to muon g-2, are discussed.

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