Lattice 2023



Contribution ID: 240

Type: Poster Presentation

Staggered nucleon axial charge and form factors

Tuesday, 1 August 2023 19:10 (3 minutes)

In this poster, I present preliminary results from the Fermilab Lattice and MILC collaborations on the nucleon axial charge and nucleon axial and vector form factors with the HISQ action for both valence and 2+1+1 sea quarks. For the nucleon axial charge, we compute correlators across four physical mass ensembles with approximate lattice spacings of 0.15, 0.12, 0.09, and 0.06 fm, and perform continuum extrapolation; for the nucleon form factors, we compute correlators on a 300 MeV pion-mass ensemble with the approximate lattice spacing of 0.12 fm and demonstrate the method to extract nucleon form factors with staggered action.

Topical area

Structure of Hadrons and Nuclei

Primary author: LIN, Yin

Co-authors: MEYER, Aaron (UC Berkeley); EL-KHADRA, Aida (University of Illinois at Urbana-Champaign); STRELCHENKO, Alexei (FNAL); HUGHES, Ciaran (Fermilab); GAMIZ, Elvira (University of Granada); SIMONE, James (Fermilab); GOTTLIEB, Steven (Indiana Univ.)

Presenters: LIN, Yin; MEYER, Aaron (UC Berkeley)

Session Classification: Poster session