



Contribution ID: 368

Type: **Talk**

Flavor diagonal charges of the nucleon and the sigma term

Monday 29 July 2024 11:35 (20 minutes)

This talk will summarize the calculations of the axial, scalar and tensor charges of the nucleons using lattice QCD. These charges quantify the pion-nucleon sigma term, the coupling to dark matter and Higgs-like interactions, the contribution of quark spin to the nucleon spin, the contribution of quark electric dipole moment to the neutron dipole moment and to the transversity moment. The implications of these results for the standard model and BSM physics will be discussed.

Primary author: GUPTA, Rajan (Los Alamos National Lab)

Co-authors: PARK, Sungwoo (Lawrence Livermore National Laboratory); BHATTACHARYA, Tanmoy (Los Alamos National Laboratory)

Presenter: GUPTA, Rajan (Los Alamos National Lab)

Session Classification: Structure of hadrons and nuclei

Track Classification: Structure of Hadrons and Nuclei