

Contribution ID: 356

Type: Talk

Determination of the pseudoscalar decay constant from SU(2) with two fundamental flavors

Friday, 2 August 2024 14:35 (20 minutes)

The SU(2) gauge group with two fundamental flavors is a candidate for a composite Higgs extension of the Standard Model. Central to Higgs phenomenology is a non-perturbative determination of observables of the theory, such as the decay constant of the pseudo-Nambu-Goldstone Bosons. We present preliminary results for the continuum limit of the pseudoscalar decay constant using a mixed-action setup, with non-perturbatively improved stabilized Wilson Fermions on the sea, and maximally twisted valence quarks. Pivotal to this study is the recent porting of our simulation suite HiRep to GPU architecture.

Primary authors: Prof. RAGO, Antonio (QTC & IMADA, University of Southern Denmark); ROMERO-LOPEZ, Fernando (MIT / Uni Bern); BOWES, Laurence (University of Plymouth); FRITZSCH, Patrick (Trinity College Dublin); MARTINS, Sofie (University of Southern Denmark); DRACH, Vincent (University of Plymouth)

Presenter: MARTINS, Sofie (University of Southern Denmark)

Session Classification: Particle physics beyond the Standard Model

Track Classification: Particle Physics Beyond the Standard Model