



Contribution ID: 105

Type: Oral presentation

Spectral reconstruction in $SU(4)$ gauge theory with fermions in multiple representations

Friday, July 30, 2021 7:30 AM (15 minutes)

The naturalness problem in the Higgs sector finds a popular solution in composite Higgs models. In such theories the Higgs boson emerges as the pseudo-Nambu-Goldstone boson associated with the breaking of a global symmetry realised in a new, strongly interacting sector. In this talk we address a model arising in this context and well motivated by phenomenological arguments, a $SU(4)$ gauge theory with fermions in two distinct representations. We present a novel lattice study of this theory, in which we address the non-perturbative reconstruction of spectral densities from lattice correlators.

Primary author: LUPO, Alessandro (University of Edinburgh)

Co-authors: DEL DEBBIO, Luigi (The University of Edinburgh (GB)); PANERO, Marco (University of Turin and INFN, Turin); Prof. TANTALO, Nazario (University of Rome "Tor Vergata")

Presenter: LUPO, Alessandro (University of Edinburgh)

Session Classification: Particle physics beyond the Standard Model

Track Classification: Particle physics beyond the Standard Model