



Contribution ID: 105

Type: Oral presentation

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

*Friday, 30 July 2021 07:30 (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