

BSM Heavy Flavours, Non-Locality, and searches in Colliders

Tuesday, 4 June 2024 13:30 (1 hour)

A number of gravitation-motivated theories, as well as theories with new coloured fermions predict heavy particle towers with spectral densities $\rho(m^2)$ growing faster than e^m , a characteristic of nonlocalizable theories. In this talk we will discuss a general approach for extracting the new Physics from the data. Although the approach can be applied to dark sectors, fifth force search or Z'/W' phenomenology, our main focus is in nonlocal QFTs. A series of ongoing measurements are briefly discussed.

The double-Higgs production measurement at the LHC is proposed as a highly sensitive probe of nonlocality at the electroweak scale.

Please choose your flavour

Exotic

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Session Classification: Keynote Talks