

Effective field theory basis and UV origin

Thursday 16 June 2022 13:00 (30 minutes)

We classify the SMEFT operators into the so-called “J-basis” that are responsible for generating local amplitude of the specific scattering channel with definite angular momenta and gauge quantum numbers. In this sense, the J-basis operators can be viewed as originating from integrating out a heavy field with the corresponding spin and gauge quantum numbers. Such a classification can lead to a complete classification of the UV origin of certain operators from a pure bottom-up approach, and can also be used as a selection rule for the non-interference effect between different amplitudes.

Presenter: HAO-LIN, Li (CP3 UCLouvain)