

Automated choice of the best renormalization scheme

Friday 29 April 2022 16:30 (30 minutes)

In BSM models often many choices for the renormalization scheme (RS) for the BSM particles (masses and mixings) are possible. Several of them lead to numerically unstable results. However, for a given parameter point in a BSM model it is a priori not known which RS leads to stable results, which makes the implementation of higher-order corrections in BSM models into automated codes complicated. We present a new and simple method to test the RS's for BSM parameter points, and to determine which one leads to stable results. This will facilitate the implementation of higher-order corrections to BSM processes into fully automated codes.

Primary authors: HEINEMEYER, Sven (IFCA (CSIC, Santander)); Dr VON DER PAHLEN, Federico (Medellin university)

Presenter: HEINEMEYER, Sven (IFCA (CSIC, Santander))

Session Classification: Parallel 10