

Higgs decays in SM Effective Field Theory at one-loop

Friday, 15 January 2016 12:25 (25 minutes)

Standard Model Effective Field Theory (SMEFT) is a method to parametrise the impact of new physics which may become accessible at higher energies without specifying its UV origin. The new physics is said to be integrated out, leaving behind effective non-renormalisable operators. In this talk, we supplement the Standard Model with all (baryon number conserving) operators which appear at dimension-6 and calculate, to one-loop, the amplitudes for $h \rightarrow b\bar{b}$ and $h \rightarrow \tau\bar{\tau}$ in the limit of vanishing gauge couplings. Special attention will be given to the set-up and renormalisation of the amplitudes in the context of SMEFT.

Primary author: Mr SCOTT, Darren (IPPP, Durham University)

Presenter: Mr SCOTT, Darren (IPPP, Durham University)

Session Classification: Parallel session