$\Delta F = 1$ effective Hamiltonian in generic extensions of the Standard Model

Wednesday 23 September 2020 15:00 (15 minutes)

In this talk we will discus the flavour violating four-fermion interactions and dipole interaction in models with extra heavy particles whose masses are
equal to or above the electro-weak scale.
We use the Becchi-Rouet-Stora-Tyutin symmetry to constrain tree-level couplings to construct perturbatively unitary theories, for which we calculate one-loop corrections.
We focus on the gauge cancellation and give matching results for four-fermion operators in terms of a reduced set of couplings.
As an illustrative example, we will calculate the $\bar{d}_i d_j \rightarrow \bar{\ell}_i \ell_i$ process with one extra charged massive boson.

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