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Probing τ flavour change with $\mu \rightarrow e$ observables

Monday 4 December 2023 16:00 (20 minutes)

Exchanging a virtual τ between a $\mu \rightarrow \tau$ and a $\tau \rightarrow e$ flavour changing vertex results in $\mu \rightarrow e$. This talk will discuss the sensitivity of $\mu \rightarrow e$ observables to products of $\mu \rightarrow \tau \times \tau \rightarrow e$ interactions in the Standard Model Effective Field Theory and in a Z' model. We will show that the exceptional sensitivity of upcoming $\mu \rightarrow e$ experiments could allow to probe parameter space beyond the reach of upcoming $\tau \rightarrow l$ searches, providing complementary information on τ flavour change.

Name of collaboration or list of co-authors

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