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## Probing $\tau$ flavour change with $\mu \rightarrow e$ observables

*Monday 4 December 2023 16:00 (20 minutes)*

Exchanging a virtual  $\tau$  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  $\tau$  flavour change.

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