



Contribution ID: 56

Type: **not specified**

Searches for lepton-flavour violation in τ decays at Belle and Belle II

Thursday 3 July 2025 16:30 (20 minutes)

The Belle and Belle II experiments have collected a 1.6 ab^{-1} sample of e^+e^- collision data at center-of-mass energy near the $\Upsilon(nS)$ resonances. This sample contains approximately 1.5 billion $e^+e^- \rightarrow \tau^+\tau^-$ events, which we use to search for lepton-flavour violating decays. We present searches for $\tau \rightarrow l\gamma$, tau decays into three leptons, $\tau^- \rightarrow K_S^0 l^-$ and $\tau^- \rightarrow l^- \alpha$ where α is an invisible scalar particle.

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Session Classification: Parallel session II