

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

Thursday 18 July 2024 15:00 (15 minutes)

The Belle and Belle II experiments have collected a 1.4 ab^{-1} sample of e^+e^- collision data at centre-of-mass energies near the $\Upsilon(nS)$ resonances. This sample contains approximately 1.3 billion $e^+e^- \rightarrow \tau^+\tau^-$ events, which we use to search for lepton-flavour violating decays. We present searches for tau decay to three charged leptons, $\tau^- \rightarrow K_S^0 \ell^-$, $\tau^- \rightarrow \Lambda \pi^-$, $\tau^- \rightarrow \bar{\Lambda} \pi^-$ and $\tau^- \rightarrow \ell^- \alpha$, where α is an invisible scalar particle.

Alternate track

1. Beyond the Standard Model

I read the instructions above

Yes

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Session Classification: Quark and Lepton Flavour Physics

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