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Search for charged lepton flavor violation at Belle

Monday, 21 August 2023 09:40 (15 minutes)

Charged lepton flavor violation (CLFV) is an unambiguous signature of new physics. In the Belle experiment, we study various CLFV signatures, which include τ leptons in the final state. In this presentation, we report searches for CLFV in $\Upsilon(1S) \to \ell^{\pm}\ell'^{\mp}$ and $\chi_{bJ}(1P) \to \ell^{\pm}\ell'^{\mp}$ decays, where $\ell, \ell' = e, \mu, \tau$ using 25fb^{-1} of $\Upsilon(2S)$ data. Using 772 million $B\bar{B}$ sample, we search for CLFV in $B^+ \to \tau^{\pm}\ell^{\mp}$ decays, where $\ell = e, \mu$. Also,
we search for CLFV in $B_s^0 \to \ell^{\pm}\tau^{\mp}$ decays, where $\ell = e, \mu$, using 121fb^{-1} of $\Upsilon(5S)$ sample.

Collaboration / Activity

Belle Collaboration

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