

# Tests of lepton flavour universality and a search for lepton and baryon number violation at Belle

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The electroweak penguin  $B$  decays mediated by  $b \rightarrow s\ell^+\ell^-$  transitions are flavour-changing neutral current processes, and are thus sensitive to new physics because of possible contributions of heavy particles in the quantum loop. Recently, Belle and LHCb obtained interesting results, where the lepton flavour universality violation (LFUV) effects might be seen. We report new measurements of LFUV observables  $R_K$  and  $R_{K^*}$ , the ratio of branching fractions of  $B \rightarrow K^{(*)}\mu^+\mu^-$  to  $B \rightarrow K^{(*)}e^+e^-$ , based on the full data sample recorded by Belle at the  $\Upsilon(4S)$  resonance from  $e^+e^-$  collisions produced by the KEKB collider. We also cover other studies related to lepton flavour universality or violation at Belle, such as lepton and baryon number violating decays of the  $\tau$  lepton.

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## Secondary track (number)

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