

Status and prospects for tau property measurements at Belle II

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The Belle II experiment is a substantial upgrade of the Belle detector, operating at the SuperKEKB energy-asymmetric e^+e^- collider. The design luminosity of the machine is $8 \times 10^{35} \text{ cm}^{-2}\text{s}^{-1}$, and the Belle II experiment aims to record 50 ab^{-1} of data, a factor of 50 more than its predecessor. From February to July 2018, the machine has completed a commissioning run and the main operation of SuperKEKB has started in March 2019. Belle II has a broad tau physics program, from high-precision measurements of SM parameters to searches of new physics via experimental observation of BSM processes, such as lepton flavor universality (LFU) violation or lepton flavor violation (LFV) decays. In this talk we review the status of the Belle II experiment, and the prospects for the measurement of the tau lepton mass and lifetime, fundamental inputs in tests of LFU violation.

What is your topic?

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