

Measurements of $R(D^{(*)})$ and other missing energy decays modes at Belle II.

Saturday, July 7, 2018 2:15 PM (15 minutes)

The Belle II experiment is a substantial upgrade of the Belle detector and will operate at the SuperKEKB energy-asymmetric e^+e^- collider. The accelerator has already successfully completed the first phase of commissioning in 2016 and first electron positron collisions in Belle II are expected for April 2018. The design luminosity of SuperKEKB 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 the Belle experiment. With this amount of data, decays sensitive to physics beyond the Standard Model can be studied with unprecedented precision. In this talk we will present our prospects for studying lepton flavor non-universality with the modes $B \rightarrow D^{(*)}\tau\nu$. Prospects for other missing energy modes sensitive to physics beyond the Standard Model such as $B^+ \rightarrow \tau^+\nu$ and $B \rightarrow K^{(*)}\nu\bar{\nu}$ will also be covered

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Session Classification: Beyond the Standard Model

Track Classification: Beyond the Standard Model