

**Rehearsal for KEK IPNS  
seminar, Kenta Uno**

**Report of Contributions**

Contribution ID: 1

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## Search for tau -> 3mu and test of light-lepton universality in tau decays at Belle II

*Monday, 15 January 2024 18:30 (1 hour)*

Date: Jan 16, 2024 15:00 JST-

Place: Kobaashi Hall and Zoom

Language: English

Speaker: Kenta Uno (KEK)

Title:

Search for tau -&gt; 3mu and test of light-lepton universality in tau decays at Belle II

Zoom:

topic: IPNS Seminar

<https://us02web.zoom.us/j/81258086591?pwd=WVRRdFY5MFlvRDlYM1BSZFluemZyZz09>

meeting ID: 812 5808 6591

passcode: 952696

Abstract:

Large number of tau leptons are produced at the SuperKEKB e+e- collider. The dataset collected by Belle II provides a unique opportunity to study the tau decays, especially on searches for lepton flavor violating decays of tau. Recently Belle II presented new results on the charged-lepton-flavor violating decay tau- -> mu- mu+ mu- and on a test of light-lepton universality between the decays tau- -> mu- nu nubar and tau- -> e- nu nubar, using the dataset collected in Run 1 (before summer 2022). For tau- -> mu- mu+ mu-, we obtained an upper limit of the branching fraction of  $1.9 \times 10^{-8}$ , which is the most stringent bounds despite the smaller data set compared to the previous results from Belle and BaBar.

**Presenter:** UNO, Kenta (KEK)