Contribution ID: **341** Type: **Parallel**

Study of the Lorentz structure of tau decays and the rare tau decays from Belle

Saturday 7 July 2018 16:50 (20 minutes)

We evaluate the Michel parameters of τ decays using the full data sample of Belle. This is important to reveal the Lorentz structure of τ leptonic decays, which includes not only the V - A interaction but also contributions from scalar, tensor and others that may arise from New Physics, thus testing lepton universality as well. We use both tau+ ⟶ l+ nu nu and tau+ ⟶ l+ gamma nu nu. We also measure branching fractions of τ decays into three charged leptons and two neutrinos as well as charged pion, lepton-pairs and a neutrino. Recently, their precise theoretical prediction of the branching fractions are given (O(10ˆ-5 .. -7)) and the statistics of the Belle data allows us to achieve the first observation for them.

Authors: NISHIDA, Shohei (KEK); HAYASAKA, Kiyoshi

Presenter: HAYASAKA, Kiyoshi

Session Classification: Quark and Lepton Flavor Physics