



ID de Contribution: 85

Type: **Ordinary**

## $\bar{B} \rightarrow D^{(*)} \tau^- \bar{\nu}_\tau$ and Related Tauonic Topic at Belle

*mercredi 22 mars 2017 17:00 (15 minutes)*

The ratio of branching fractions  $R(D^{(*)}) \equiv BF(\bar{B} \rightarrow D^{(*)} \tau^- \bar{\nu}_\tau) / BF(\bar{B} \rightarrow D^{(*)} \ell^- \bar{\nu}_\tau)$  (where  $\ell^- = e^-, \mu^-$ ) from Belle, BaBar and LHCb showed about  $4\sigma$  deviation from the SM predictions as of 2015. In this talk, Belle's two measurements for the  $\bar{B} \rightarrow D^{(*)} \tau^- \bar{\nu}_\tau$  decay in 2016 will be introduced. These measurements include the first application of the semileptonic tagging to the  $R(D^*)$  measurement and the first measurement of the  $\tau$  polarization using the hadronic tagging and the hadronic tau decays. Along with the results of the  $\bar{B} \rightarrow \tau^- \bar{\nu}_\tau$  measurements, compatibility with the SM and the type-II Two-Higgs-Doublet Model will be discussed.

**Author:** HIROSE, Shigeki (Nagoya University)

**Orateur:** HIROSE, Shigeki (Nagoya University)

**Classification de Session:** Heavy Flavours (cont)

**Classification de thématique:** Experiment