

## **LVN in $\tau^- \rightarrow \pi^+ \mu^- \mu^- \nu_{\tau}$ decay**

*Wednesday, 20 May 2015 13:10 (0:20)*

### **Abstract**

In this work, the non-observed process  $\tau^- \rightarrow \pi^+ \mu^- \mu^- \nu_{\tau}$  is simulated in agreement to Belle II experiment. In the process the lepton number is violated in two units with this we could determine the neutrino Majorana nature if this was so. The most important background is generated,  $\tau^- \rightarrow \pi^- \mu^- \mu^+ \nu_{\tau}$  and  $\tau^- \rightarrow \pi^+ \pi^- \pi^- \nu_{\tau}$ , and the observables used are momentum transverse and pseudorapidity.

### **Title**

**Primary author(s)** : Mr. RODRÍGUEZ PÉREZ, David (FCFM-UAS)

**Co-author(s)** : Dr. PODESTA LERMA, Pedro Luis Manuel (FCFM-UAS); Ms. DOMÍNGUEZ JIMÉNEZ, Isabel (Instituto de Ciencias Nucleares UNAM)

**Presenter(s)** : Mr. RODRÍGUEZ PÉREZ, David (FCFM-UAS)