Contribution ID: **116** Type: **Talk**

Search for lepton flavour violation with the CMS detector

Tuesday 25 September 2018 17:00 (20 minutes)

The experimental observation of neutrino oscillations proves that neutrinos have mass and Lepton Flavour is not conserved in the neutral sector. This implies that Lepton Flavour non-conservation occurs also in the charged sector through neutrino loops, which, however, are extremely suppressed, well beyond the foreseeable experimental reach. On the other hand, several Beyond the Standard Model scenarios predict charged LFV processes, such as tau->3mu, to have branching fractions at the level of 10^{-10} - 10^{8}, which can be achieved by the current experiment in the near or medium term. We present the search for the LFV tau->3mu decay using tau leptons from B and D mesons, as well as from W bosons, based on the 2016 CMS pp dataset, corresponding to an integrated luminosity of 33.1/fb.

Presenter: WANG, Jian (University of Florida (US))

Session Classification: Session