



Contribution ID: 4

Type: **not specified**

Report of double Higgs boson production search at CMS

Saturday 6 October 2018 13:10 (40 minutes)

The search for standard model double Higgs boson (hh) production at CMS is presented, using final states from various decay channels: $HH \rightarrow b\bar{b}b\bar{b}$, $b\bar{b}VV$, $b\bar{b}\tau\tau$, and $b\bar{b}\gamma\gamma$. The hh production serves to measure the self-coupling of the Higgs boson the rate of which is small in the SM. However, contributions from beyond standard models (BSM) can significantly enhance the rate. Furthermore, many BSM particles may decay to hh that can be manifested as a resonance in the hh invariant mass spectrum.

Presenter: LEE, Sangeun (Kyungpook National University (KR))

Session Classification: Session 2 : di-Higgs