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Status on Higgs to tau lepton pair measurements and searches in CMS

This poster presents the status of the searches and measurements of a Higgs boson decaying to a tau lepton pair using the data collected by the CMS experiment from 2016 to 2018. Since the observation of the Higgs boson decaying to a tau lepton pair by the CMS Collaboration in 2018 many analyses used this final state to make new measurements or to search for different production modes of the Higgs boson. The Higgs boson can be produced in association with bottom quarks, but the small cross section of only 0.51 picobarn makes it hard to distinguish the b associated production mode from the gluon fusion production mode with a gluon splitting into bottom quarks. Therefore, both production modes are considered as signal for this search.

Collaboration / Activity

CMS Collaboration

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