



Contribution ID: 15

Type: **not specified**

## Investigation of potential CP-violating Higgs boson couplings via the production of a Higgs boson in association with a single top quark in the $H \rightarrow b\bar{b}$ channel

A search for the production of a Higgs boson in association with a single top quark is performed using the decay  $H \rightarrow b\bar{b}$ . The rate of this Higgs production mode is particularly sensitive to a potential CP-violating pseudoscalar component of the Higgs boson couplings to the top quark. The first 2015 pp collisions data at a center of mass energy of 13 TeV are analyzed. This poster gives an overview of the analysis strategy used for calculating upper limits. The limits are computed at 21 points for a potential CP-violating pseudoscalar component in the top-Yukawa coupling.

### Summary

**Author:** MULLER, Denise (KIT - Karlsruhe Institute of Technology (DE))

**Presenter:** MULLER, Denise (KIT - Karlsruhe Institute of Technology (DE))

**Session Classification:** Poster Session & Finger-Food Dinner

**Track Classification:** Poster Session