

Evidence for $t\bar{t}H$ production with the ATLAS detector

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The current status on the search for the production of the Higgs boson with a top quark pair ($t\bar{t}H$) using proton-proton collision data at a center-of-mass energy of 13 TeV is reported. The $t\bar{t}H$ production allows to constrain the top Yukawa coupling, which is a key parameter of the Standard Model and its direct measurement through the $t\bar{t}H$ production mode is one of the most challenging physics program at LHC.

The ATLAS collaboration recently claimed for the evidence of this process after the explorative analysis of the full 2015 and 2016 dataset. The details of the analysis that led to the evidence, together with the state of the art of the CMS collaboration $t\bar{t}H$ search analysis, will be reviewed.

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