

# Search for associated top-Higgs production in events with multiple leptons at CMS

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While the Higgs discovery is now nearly two years old, many of its properties have yet to be compared precisely to Standard Model predictions. One such parameter is the Higgs-top quark coupling, which can be measured at tree-level in the (yet unobserved) associated production of the Higgs boson with a top-quark pair. I will present the most sensitive search for the  $t\bar{t}H$  process to date, targeting Higgs decays to vector bosons or tau leptons, in events with two or more leptons in the CMS detector. Besides probing Standard Model and BSM processes in the Higgs sector, this analysis is sensitive to a variety of new physics models.