

ATLAS-CMS comparison: Search for flavour-changing neutral-current couplings between the top quark and Higgs boson in multi-lepton final states

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A search for flavour-changing neutral-current interactions involving the top quark, the Higgs boson and an up-type quark ($q = u, c$) with the ATLAS detector at the Large Hadron Collider is presented. The analysis considers leptonic decays of the top quark along with Higgs-boson decays into two W bosons, two Z bosons or a $\tau^+\tau^-$ pair. It focuses on final states containing either two leptons (electrons or muons) of the same charge or three leptons, of which exactly two have an identical charge. The considered processes are $t\bar{t}$ production with one top quark decaying via $t \rightarrow Hq$ and $pp \rightarrow Ht$ production. The proton-proton collision data set analysed amounts to 140 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$.

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