

Abstract Submitted
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Search for electroweak production of a vector-like quark decaying to tH ALICE BEAN, University of Kansas, CMS COLLABORATION — Results of a search for a vector-like top-quark partner T of charge $2/3$ produced through electroweak interaction in association with a bottom or top quark and decaying to a top quark and a Higgs boson are presented using data collected in pp collisions at $\sqrt{s}=13$ TeV with the CMS detector. Depending on the coupling parameters for individual interactions, singly produced vector-like quarks might be enhanced compared to pair production at 13 TeV. The search uses boosted jet topologies to find Higgs boson candidates decaying to bottom quarks and fully hadronic top quark decays.

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