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## Measurement of the Higgs boson production in association with top quarks in final states with multileptons using data taken during the Run 2 of the LHC with CMS

The production of the Higgs boson in association with a pair of top-antitop quarks is studied using final states with multiple leptons in proton-proton collisions collected by the CMS experiment at  $\sqrt{s} = 13$  TeV centre-of-mass energy, during the Run 2 of the LHC. Machine learning and matrix element techniques are used to enhance the sensitivity of the analysis by discriminating signal and backgrounds. The measured production rates are used to determine constraints on the Yukawa coupling of the Higgs boson to the top quark.

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CMS

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