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Search for $t\bar{t}H$ production in the $4\text{lepton}+\text{Jets}$ channel at 13 TeV with the ATLAS detector

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Precise measurements of the top quark-Higgs boson Yukawa coupling may provide insights about the underlying mechanisms of Electroweak Symmetry Breaking. Measurements of Higgs boson production in association with top quarks provide a powerful probe of the top-Higgs Yukawa coupling. The current status of the search for $t\bar{t}H$ production in the $4\text{lepton}+\text{Jets}$ final state using the data collected by the ATLAS experiment at the center-of-mass energy 13 TeV in 2015 and 2016 is presented. The analysis is most sensitive to $H\rightarrow WW$ and $H\rightarrow ZZ$ decay channels and exploits the very good signal to background ratio in this final state.

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