

Modeling of top quark and vector boson production as backgrounds to Higgs boson decays to b-quarks

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The modeling of top quark production (ttbar and single-top) and vector boson production (W/Z) in association with heavy flavor jets constitutes one of the largest uncertainties in the extraction of a Higgs to b-quarks signal at the LHC, and is thus a crucial aspect to address on the way from the observation of this decay to precise differential measurements. This talk will give an overview of how these backgrounds are currently dealt with in the VH, Higgs to bb analysis, the impact of their modeling uncertainties on the most recent inclusive and differential results, and provide an outlook about where improved predictions are needed to overcome the current limitations.

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