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Search for H→tt with CMS

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A number of extensions of the SM predict additional Higgs bosons. If massive enough, they can decay to a pair of top quarks with a high branching fraction. The interference with the SM tt background results in a characteristic peak-dip structure in the mtt lineshape. This talk will present a search for heavy additional Higgs bosons in the H→tt decay channel, performed with 36/fb of data collected by the CMS experiment. The analysis considers l+jets and dilepton final states and exploits the invariant mass of the tt system and angular observables. Model-independent results as well as an interpretation in the hMSSM model will be presented.

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