

# Potential enhancements in triple Higgs production in proton proton colliders

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Triple Higgs production will allow us to probe the nature of the scalar potential in High energy physics directly. In particular, it will permit us to probe the quartic self coupling of the Higgs boson. In this talk we will discuss the prospects of measuring triple Higgs production in proton-proton colliders within and beyond the Standard Model (BSM) considering the final state in which each Higgs decays into a pair  $b\bar{b}$  (six- $b$  jet final state). Potential enhancements on the production cross section of this process in the context of model dependent and model independent scenarios will be discussed.

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