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Production of Four-Tops at the LHC

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The SM process where four top quarks are produced in proton-proton collisions is very rare process with a cross section of the order of 12 fb^{-1} at NLO accuracy in QCD+EWK. Studies of this process can provide limits to the top—quark Yukawa coupling using limits on the cross section. In addition, it is expected to provide insight to many BSM as these models modify the production of four tops. Using the data collected during the Run 2 of the LHC the CMS Collaboration is studying this rare process. Several decay channels are looked at and the results are combined to push the expected significance of four-tops production above the 3 standard-deviations (σ).

Is this abstract from experiment?

Yes

Name of experiment and experimental site

CMS

Is the speaker for that presentation defined?

Yes

Details

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Internet talk

No

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