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## BSM interpretation of four top quark production in CMS

A reinterpretation of four top quark ( $t\bar{t}t\bar{t}$ ) production is presented using the full Run 2 dataset recorded by the CMS experiment, corresponding to an integrated luminosity of 138/fb. The analysis targets BSM scenarios using the existing  $t\bar{t}t\bar{t}$  production measurement, including constraints on effective field theory (EFT) operators, top-philic heavy resonances, and the top-Yukawa coupling. The results provide competitive limits on several new physics models and demonstrate the sensitivity of multi-top final states to a wide range of BSM effects.

### Field

CMS

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