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**Search for  $Z'$  resonances decaying into top-antitop pairs in fully leptonic final state at CMS** SUPRIYA JAIN, University of Buffalo, CMS COLLABORATION — We present a search for narrow-width resonances ( $Z'$ ) decaying to top-antitop pairs using 4.6 /fb of data recorded by the CMS detector at the LHC in proton-proton collisions at  $\sqrt{s} = 7$  TeV. No significant deviation from Standard Model prediction is observed. We, therefore, set 95% confidence-level upper limits on the production cross section of the narrow-width resonance times its branching fraction to top-antitop for different resonance masses.

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