

# Phenomenology 2015 Symposium



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## Search for $t\bar{t}b\bar{r}$ resonances at CMS

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A search is presented for resonant top quark pair production. The full dataset recorded with the CMS detector in proton-proton collisions at a centre-of-mass energy of 8 TeV is used. The search is performed by measuring the invariant mass distribution of the top-quark pair and testing for deviations from the Standard Model prediction. Final states with no, one or two leptons are considered and the selection is optimized accordingly, taking into account the high Lorentz boost of the top quarks at high invariant masses. The results are presented from a combination of all channels.

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