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## **Search for Vector-Like Top Quarks in the CMS detector**

*Saturday, August 6, 2016 6:00 PM (2 hours)*

We present a search for pair production of a new massive vector-like top quark with charge  $2/3$  in single, double, and multi-lepton final states. Vector-like tops of this type have three decay channels:  $T \rightarrow Wb$ ,  $T \rightarrow tH(125\text{GeV})$ ,  $T \rightarrow tZ$ . Data were collected by the CMS detector in 2015-2016 from 13 TeV proton-proton collisions at the LHC. We set 95% confidence limits on the lower limit of vector-like top quark mass for various combinations of T quark decay branching fractions.

**Primary author:** Dr BARKER, Anthony (Purdue University)

**Presenter:** Dr BARKER, Anthony (Purdue University)

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