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Search for Vector-like Quarks using a Combination of Decay Channels in pp Collisions at $\sqrt{s}=8$ TeV Collected with the ATLAS Detector SARAH JONES, University of Arizona, ATLAS COLLABORATION — Vector-like quarks are predicted in several beyond the Standard Model theories. In some models, there is strong coupling to third generation quarks. The vector-like heavy quarks T and B can decay into several different channels involving third generation quarks. The ATLAS experiment has searched for vector-like quarks in several different decay channels using data collected in pp collisions at $\sqrt{s}=8$ TeV. We present search results by combining the results from the individual decay channel searches. The combination search improves the sensitivity to observing or excluding vector-like quarks.

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