

Search for W' production in the single top channel with the ATLAS detector

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We present the search for $W' \rightarrow tb$ using the LHC pp collision data collected with the ATLAS detector at a center-of-mass energy of 8 TeV. The primary backgrounds to this search are $t\bar{t}$, W +jets, and multijets processes. To reduce the contributions of these backgrounds we require a leptonic final state and use Boosted Decision Trees to discriminate against background-like events. This measurement gives the latest limits on the $W' \rightarrow tb$ cross section times branching ratio and the ratio of coupling constants g'/g as functions of the W' mass.

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