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## **Search for $W'$ to $tb$ decays in the all-hadronic final state using the shower deconstruction top tagger in $pp$ collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**

*Tuesday, June 5, 2018 5:15 PM (15 minutes)*

A search for  $W'$ -boson production in the  $W' \rightarrow tb \rightarrow qqbb$  decay channel is presented using  $36.1 \text{ fb}^{-1}$  of 13 TeV proton-proton collision data collected by the ATLAS detector at the Large Hadron Collider in 2015 and 2016. The search is interpreted in terms of both a left-handed and right-handed chiral  $W'$  boson within the mass range 1-5 TeV. Identification of the hadronically decaying top quark is performed using jet substructure tagging techniques based on a shower deconstruction algorithm.

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**Session Classification:** Posters session