Contribution ID: **163** Type: **Poster**

New results of the H+->tb search using full Run-2 data with the ATLAS detector

Friday, 31 July 2020 13:45 (3 minutes)

A new search for heavy charged Higgs bosons decaying to a pair of top and bottom quarks is performed using the full LHC Run-2 proton-proton data with the ATLAS detector. The search is performed using multi-jet final states with one electron or muon. Events are categorised according to the multiplicity of jets and how likely these are to have originated from hadronisation of a bottom quark. A mass-parameterised neural network is used to discriminate between signal and background events in four separate signal regions and simultaneously included in a maximum-likelihood fit to the data. Results are interpreted in the context of the hMSSM and Mh-125 scenario of the Minimal Supersymmetric Standard Model.

I read the instructions

Secondary track (number)

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Session Classification: Higgs Physics - Posters

Track Classification: 01. Higgs Physics