

Search for boosted $H \rightarrow b\bar{b}$ decays in association with a jet using pp collision collected by the ATLAS detector

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$b\bar{b}$ -pairs are the largest decay mode of a 125 GeV SM Higgs boson, with a branching fraction of 58%. As a consequence, studying $H \rightarrow b\bar{b}$ has great importance to constrain the total Higgs boson decay width. In order to suppress overwhelming irreducible background from QCD multijet production of b quarks, $H \rightarrow b\bar{b}$ decays are searched for at hadron colliders in events in which the production of the Higgs boson is associated with a heavy boson (W or Z) decaying leptonically. Nonetheless, it has been proposed to use events where the Higgs boson is produced in association with a high- p_T jet, achieving high sensitivity for highly boosted b -tagged jets from the Higgs decay. In this presentation the latest ATLAS results will be shown about the search for 13 TeV events with $H \rightarrow b\bar{b}$ decays associated with a high- p_T jet.

Primary author: FOLLEGA, Francesco Maria (Università di Trento)

Presenter: FOLLEGA, Francesco Maria (Università di Trento)

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