

# Statistical treatment in the search for the Standard Model Higgs boson produced in association with a vector boson and decaying to bottom quarks with the ATLAS detector

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A search for the Standard Model Higgs boson produced in association with a W or Z boson and decaying to  $b\bar{b}$  using the ATLAS detector at the LHC is performed. The search uses  $4.7 \text{ fb}^{-1}$  of data at  $\sqrt{s} = 7 \text{ TeV}$  and  $21 \text{ fb}^{-1}$  at  $\sqrt{s} = 8 \text{ TeV}$ . The analysis uses events containing zero, one and two leptons. This talk will focus on the one lepton channel, which targets WH to lvbb, and will describe the results of the combination of all three channels.

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