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## Advances and challenges in the full run 2 search of boosted di-higgs decaying to $b\bar{b}b\bar{b}$ with the ATLAS detector<sup>-</sup>

*Tuesday 9 April 2019 11:45 (15 minutes)*

After the discovery of a Standard Model like Higgs boson, new searches can now change focus towards using it as a tool to probe the Standard Model and new physics. With the largest branching fraction, the  $b\bar{b}b\bar{b}$  final state is one of the leading candidates to observe this process, but the overwhelming backgrounds and the highly boosted topology reached by this process, present a challenge. This talk will outline a few of these issues and explore novel techniques to mitigate their effect.

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