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## Search for the Higgs boson decay to a pair of muons with the ATLAS detector at the LHC

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Higgs decay to a muon pair is the most promising way to probe Yukawa couplings to the second generation fermions at the LHC. Experimentally the analysis is challenging due to a small branching ratio ( $2.2 \cdot 10^{-4}$ ) and proceeds as a search for an excess at the Higgs mass in the dimuon invariant mass spectrum dominated by the irreducible Drell-Yan background. This talk presents the search with  $79.8 \text{ fb}^{-1}$  of data collected with the ATLAS detector at  $\sqrt{s}=13 \text{ TeV}$ , and prospects for the High Luminosity LHC.

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