

Abstract Submitted  
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**Search for Standard Model Higgs using dimuon final state with ATLAS at LHC** YANLIN LIU, Univ of Michigan - Ann Arbor, ATLAS COLLABORATION — Observation and measurement of the SM  $H\mu\mu$  is important for the Yukawa couplings of the Higgs boson, which is a new type of coupling (regarded as a new force) in particle physics. The SM branching fraction for the  $H\rightarrow\mu\mu$  decays is  $2.2\times 10^{-4}$  for a Higgs boson mass of 125 GeV. This talk will present the prospects of search sensitivity for this decay mode with the ATLAS detector at the LHC Run 2.

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