

## Latest results on Standard Model Higgs boson in the $WW^*$ decay channel using the ATLAS detector

Friday, 21 December 2018 15:30 (15 minutes)

Higgs boson production cross-sections via the gluon-gluon fusion and vector-boson fusion modes are measured in the  $H \rightarrow WW \rightarrow e\nu\mu\nu$  decay channel in the ATLAS experiment at the LHC. The  $H \rightarrow WW$  decay channel has the second largest branching fraction and allows to measure Higgs boson production cross-section with good precision. The analysis based on the proton-proton collision data produced at the LHC at a centre-of-mass energy of 13 TeV and recorded by the ATLAS detector in 2015 and 2016, corresponding to an integrated luminosity of  $36.1 \text{ fb}^{-1}$  will be presented in this talk. Moreover, future perspectives on the  $WW$  channel using the full available data will be discussed.

### Type

Parallel talk

### Sessions (parallel only)

Higgs

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