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Higgs to WW production at ATLAS

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In the summer of 2012, the ATLAS and CMS collaborations announced a discovery of the Standard-Model-like (SM) Higgs boson. Experimental focus has now shifted to precision measurements of properties of the new particle, such as couplings and spin. The SM Higgs boson is primarily produced via gluon fusion (GGF) and vector boson fusion (VBF) processes. This contribution will summarize latest ATLAS measurements of the Higgs boson properties in the H->WW decay mode, focusing on analysis channels most sensitive to the GGF production. The analysis uses proton-proton collision data corresponding to 4.6 fb-1 of data at sqrt(s) = 7 TeV and 20.7 fb-1 of data at sqrt(s) = 8 TeV recorded by the ATLAS detector. This presentation will focus on analysis techniques, data driven background estimation methods, and statistical interpretation of the observed data.

APS member ID

61027896

Primary author: Mr SCHAEFER, Doug (University of Pennsylvania)

Presenter: Mr SCHAEFER, Doug (University of Pennsylvania)

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