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## **(G\*) Characterizing the Higgs Boson at the LHC**

*Monday 7 June 2021 16:10 (10 minutes)*

As the most recently-discovered particle of the Standard Model, the Higgs boson is fundamental to our understanding of particle physics and is the focus of much attention at CERN'S Large Hadron Collider (LHC). The Higgs boson's couplings to other particles are predicted by the Standard Model (SM), so performing precise measurements of these couplings can probe for discrepancies and constrain theories beyond the SM. This talk will present recent work by the ATLAS experiment at CERN to characterize the newly-discovered Higgs boson by measuring its coupling to W bosons using data collected at the LHC from 2015-2018. It will highlight the first ATLAS observation of  $H \rightarrow WW^*$  decay in the vector boson fusion (VBF) production channel and its role in rigorously testing the SM.

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