

Observation and coupling measurements of Higgs boson in the diphoton decay mode in ATLAS

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The diphoton decay mode was the most sensitive mode for the discovery of the Higgs-like resonance in 2012. This mode remains very important in the post-discovery era, being sensitive to the existence of new physics. In this talk, I summarize the observation of the resonance in the diphoton channel by the ATLAS experiment using the full Run I dataset. I also describe the measurement of signal strengths and couplings in this channel in the gluon fusion, vector boson fusion and associated production modes.

APS member ID

dgwnb

Primary author: YANG, Hongtao (University of Wisconsin-Madison)

Presenter: YANG, Hongtao (University of Wisconsin-Madison)

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