

Abstract Submitted
for the APR21 Meeting of
The American Physical Society

Measurement of the properties of Higgs boson production in the di-photon channel using 139 fb^{-1} of pp collision data with the ATLAS experiment SHUO HAN, HAICHEN WANG, Lawrence Berkeley National Laboratory, ATLAS COLLABORATION — Precision measurement of Higgs boson production and decay rates is one of the most important tasks after the Higgs boson discovery at the LHC in 2012. In this presentation, I will report inclusive cross section measurements for the dominant Higgs boson production modes, as well as Simplified Template Cross Sections, in the di-photon decay channel using 139 fb^{-1} of pp collision data collected by the ATLAS experiment during 2015-2018. I will also discuss how the measurements constrain the Higgs boson couplings to other particles in the Standard Model.

Shuo Han
Lawrence Berkeley National Laboratory

Date submitted: 06 Jan 2021

Electronic form version 1.4