中国物理学会高能物理分会第十四届全国粒子物理学术会议(2024)

Contribution ID: 111

Type: Oral report

## Measurement of Higgs boson mass and width with LHC run2 data at the ATLAS experiment

The Higgs Boson plays a fundamental role in Standard Model, and the precise measurement of its mass and width is one of the most important tasks of particle physics experiments. The mass measurement benefits from the processes where Higgs Boson decays into four leptons and two photons due to their excellent mass resolution, while Higgs boson width is measured indirectly by combining the on-shell and off-shell production processes. This talk presents the recent Higgs boson mass and width measurement with ATLAS detector using the full Run 2 dataset of pp collisions at the LHC collected at 13 TeV.

Primary author: ZHANG, Yangfan (University of Science and Technology of China) Presenter: ZHANG, Yangfan (University of Science and Technology of China) Session Classification: 分会场一

Track Classification: TeV 物理和超出标准模型新物理