



Contribution ID: 66

Type: **not specified**

The off-shell Higgs production and measurement of its decay width with the ATLAS experiment

Wednesday, 23 March 2022 15:15 (15 minutes)

The measurement of the off-shell Higgs production and its decay width is performed in the Higgs decay channels of $ZZ \rightarrow 4\ell$ and $ZZ \rightarrow 2\ell 2\nu$. The measurement uses Monte Carlo samples at a centre-of-mass energy of 13 TeV, produced according to the ATLAS detector configurations with an integrated luminosity of 139 fb^{-1} . The results are presented as an expected upper limit on the off-shell Higgs signal strength at 95% confidence levels (CLs). In addition, the ZZ off-shell and on-shell combined results are shown.

Primary author: Mr MOHAMMED, Abdualazem (University of the Witwatersrand)

Co-authors: FANG, Yaquan (Institute of High Energy Physics); Dr RUAN, Xifeng (School of Physics, Institute for Collider Particle Physics, University of the Witwatersrand)

Presenter: Mr MOHAMMED, Abdualazem (University of the Witwatersrand)

Session Classification: Parallel Session V, Collider - Experiment