



Contribution ID: 53

Type: **Talk**

Higgs boson couplings to quarks and leptons at the ATLAS experiment

Wednesday, 11 September 2019 10:00 (25 minutes)

In the Standard Model, fermion masses are generated by Yukawa couplings between the Higgs boson and the fermions. These couplings can be determined from measurements of Higgs boson production and decays. For example, Higgs boson production via gluon fusion and in association with a $t\bar{t}$ pair are sensitive to the top Yukawa coupling, and Higgs boson decays to fermions are sensitive to the lighter fermion Yukawa couplings. In addition, differential distributions and rare decays to a meson and a photon can be used to set limits on light fermion Yukawa couplings. This talk presents an overview of these measurements and their results.

Primary author: ATLAS COLLABORATION

Presenter: WANG, Zirui (Shanghai Jiao Tong University (CN))

Session Classification: ElectroWeak - Standard Model