

Measurements of Higgs boson coupling properties to bottom quarks and charm quarks with the ATLAS detector

Friday, 19 July 2024 11:53 (17 minutes)

Testing the Yukawa couplings of the Higgs boson with fermions is essential to understanding the origin of fermion masses. Higgs boson decays to quark pairs are an important probe of these couplings, and of properties of the Higgs boson more generally. This talk presents various measurements of Higgs boson decays into two bottom quarks as well as searches for Higgs boson decays into two charm quarks by the ATLAS experiment, using the full Run 2 dataset of pp collisions collected at 13 TeV at the LHC, as well as their combination and interpretation. The results of the search for Higgs boson production associated with a charm quark is also reported.

Alternate track

I read the instructions above

Yes

Primary authors: DI BELLO, Francesco Armando (INFN e Universita Genova (IT)); DELIOT, Frederic (Université Paris-Saclay (FR))

Presenter: DI BELLO, Francesco Armando (INFN e Universita Genova (IT))

Session Classification: Higgs Physics

Track Classification: 01. Higgs Physics