

Higgs boson property measurements at the ATLAS experiment

Wednesday, November 9, 2022 2:15 PM (15 minutes)

Very detailed measurements of Higgs boson properties can be performed with the Run 2 13 TeV pp collision dataset collected by the ATLAS experiment. This talk presents a review of the latest measurements of the Higgs boson properties, including its mass, CP, and differential cross-sections. Furthermore, couplings, including self-coupling measurement using Higgs pair production, combining measurement targeting various production modes and decay channels are reported. Specific results on production mode cross sections, Simplified Template Cross Sections, and their interpretations are presented. These measurements are used to test specific scenarios of physics beyond the Standard Model, as well as its extension in the framework of Effective Field Theories.

Author: KITSAKI, Chara (National Technical Univ. of Athens (GR))

Presenter: KITSAKI, Chara (National Technical Univ. of Athens (GR))

Session Classification: BSM collider physics

Track Classification: All