

Latest results from the ATLAS experiment at the CERN LHC

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The ATLAS experiment has been collecting data, produced by the collisions of the Large Hadron Collider at CERN, for over a decade. The ATLAS detector has been operating throughout this time and has recently gone through a period of upgrade to be prepared for higher energy proton collisions, at 13.6 TeV Centre-of-mass energy, commencing this year.

This talk will focus on the results of the analyses of the 13TeV collision data taken between 2015 and 2018, a period referred to as “Run-2”. I will summarise the advancements in our understanding of fundamental physics because of this program and present results related to the Higgs boson, top quarks and various searches for the Beyond the Standard Model phenomena. The latter part of the talk will look towards the future and where results from the next run of the LHC from 2022-2025 (“Run-3”) may lead us.