



Contribution ID: 19

Type: **Oral**

HL-LHC prospects from ATLAS and CMS

Thursday, 6 December 2018 17:20 (20 minutes)

The Large Hadron Collider (LHC) has been successfully delivering proton-proton collision data at the unprecedented center of mass energy of 13 TeV. An upgrade is planned to increase the instantaneous luminosity delivered by LHC in what is called HL-LHC, aiming to deliver a total of about 3000/fb of data per experiment. To cope with the expected data-taking conditions ATLAS is planning major upgrades of the detector. Additionally, ATLAS and CMS are preparing inputs to a CERN Yellow Report that aims to summarize the physics reach for HL-LHC and to be submitted as input to the European Strategy before the end of 2018. In this contribution we focus on the physics reach expected for a wide range of measurements and searches at the HL-LHC for the ATLAS and CMS experiments, including Higgs coupling, di-Higgs boson production sensitivity, Vector Boson Scattering prospects as well as discovery potential for electroweak SUSY and other exotic benchmark scenarios.

Primary author: Dr BERNIUS, Catrin (Catrin.Bernius@cern.ch)

Presenter: Dr BERNIUS, Catrin (Catrin.Bernius@cern.ch)

Session Classification: Parallel 09