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Towards 3000 fb⁻¹: ATLAS and CMS detector upgrades WOJCIECH FEDORKO, University of British Columbia

Over the next several years the LHC will undertake a two phase upgrade programme culminating in the High-Luminosity LHC upgrade planned to be commissioned in the second half of the next decade. During the first phase the instantaneous luminosity will be raised to $2x10^{34}$ cm⁻² s⁻¹ and to $5-7x10^{34}$ cm⁻² s⁻¹ during the second phase, enabling collection of 250 fb⁻¹ per year. Such massive datasets are needed to conduct precision measurements of the Higgs boson properties, precision measurements of the Standard Model parameters as well as searches for rare Standard Model processes and Beyond Standard Model physics. The CMS and ATLAS detectors will have to cope with up to 150 interactions per beam crossing and high radiation doses. This necessitates far reaching upgrades to both detectors encompassing tracking, calorimetry and muon detectors as well as front-end electronics and trigger and data acquisition systems. In this talk I will give an overview of the planned Phase I and II upgrades of the ATLAS and CMS detectors.