

Upgrades of the ATLAS Detector

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The LHC already operates at unprecedented energies and luminosities. The approved Run 2 (2015-2017, 10^{34} cm⁻²s⁻¹) and Run 3 (2019-2021, 2×10^{34} cm⁻²s⁻¹) phases, and the planned HL-LHC (2024-, up to 5×10^{34} cm⁻²s⁻¹) will bring unprecedented challenges for detector and trigger systems, which must be met if the physics goals of the programme are to be achieved. ATLAS has a programme of upgrades to trigger and data-acquisition, trackers, muon detectors, calorimeters and electronics, to take the experiment through to the collection of an ultimate data sample of 3 ab⁻¹.

In this presentation we will review some of the main physics goals of the upgrade and the solutions being developed by the different ATLAS subsystems.

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