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The ATLAS Upgrade for the High-Luminosity LHC (I)

Wednesday 13 June 2018 08:00 (30 minutes)

The Large Hadron Collider (LHC) at CERN will be upgraded to a new machine, the High Luminosity LHC, starting up in 2026 with seven times the current luminosity. The ATLAS experiment will then collect 3000 fb⁻¹ of proton collisions at 14 TeV centre-of-mass energy. This large data set will increase the discovery reach and allow higher precision in many measurements. The ATLAS detector needs several improvements to cope with the unprecedented luminosity and radiation damage.

This talk will summarise the new physics reach and describe the planned detector and trigger improvements, concentrating on the Canadian contributions in the liquid argon calorimeter and the new silicon inner tracker.

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