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ATLAS : status, limitations and upgrade plans

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The ATLAS experiment has made a successful start of its operation and is producing many physics results, demonstrating its excellent performance. The LHC is progressively increasing luminosity, and will continue a series of phased upgrades. In a few years, the nominal energy and luminosity will be attained. There is a plan of further increasing the luminosity beyond the design value up to 5 times of it, i.e. $5x10^{-3}4cm^{-2}s^{-1}$. This will allow ATLAS to collect much higher integrated luminosity than initially anticipated, a total of 3000 fb⁻¹ as the target, that will open many new physics programs. In order to fully exploit the physics potential of the LHC, ATLAS also has plans of upgrades. This talk presents, after a brief introduction to the ATLAS detector and its present status, an overview of ATLAS upgrade plans at various phases from now and at the highest luminosity LHC.

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