

The LHCb Upgrade

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The LHCb detector has been designed to study CP violation and other rare phenomena in B-meson decays up to a luminosity of $\sim 5 \cdot 10^{32} \text{cm}^{-2} \text{s}^{-1}$. We will describe the current limitations that prevent LHCb from exploiting the much higher luminosities available at the LHC, and what modifications can be made that allow data taking at an order of magnitude higher instantaneous luminosity. The aim of the LHCb upgrade is to increase the yields in hadronic B-decay channels by about a factor twenty, while for channels with leptons in the final state a factor ten increase in statistics is envisaged.

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