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The High Level Trigger of the CMS experiment

The CMS experiment has been designed with a 2-level trigger system: the Level 1 Trigger, implemented on custom-designed electronics, and the High Level Trigger, a streamlined version of the CMS offline reconstruction software running on a computer farm. In this poster we will present the performance with the specific algorithms developed to cope with the increasing LHC pile-up and bunch crossing rate using 13 TeV data during 2015, and prospects for improvements brought to both L1T and HLT strategies to meet the new challenges for 2016 scenarios with a peak instantaneous luminosity of 1.2×10^{34} cm⁻²s⁻¹ and 30 pileup events.

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