

Perspectives of the CMS phase-II upgrade for HL-LHC

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The LHC phase-II upgrade will provide considerably higher annual luminosities leading to a total of 3000 fb⁻¹. This data will allow precision measurements of Higgs properties, vector boson scattering and substantially higher sensitivities in searches for new physics in particular for rare processes. Detectors will need to be upgraded in order to operate in such a high rate and high radiation environment at the HL-LHC. Embedded in a large upgrade program, CMS will receive new tracking and new forward instrumentation for calorimetry and muon tagging along with an increase in acceptance. The CMS upgrade program and the expected performance will be reviewed.

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