

Status of the upgrade project of the CMS Tracker for HL-LHC

Monday, September 13, 2021 2:30 PM (15 minutes)

The CMS experiment is currently preparing the upgrade of the tracking system for the High-Luminosity LHC operations (HL-LHC), scheduled to start in 2027, which ultimately will bring the instantaneous luminosity up to $7.5 \times 10^{34} \text{ cm}^{-2} \text{ s}^{-1}$. To achieve its physics goals the new detector needs to include selectively tracking information in the first level trigger stage and improve the tracking resolution while operating at up to 200 interactions per beam crossing and up to 4000 fb^{-1} of integrated luminosity over a decade. In this talk, the layout of the new detector, the main technological choices together with highlights on the current status of the main detector components will be presented.

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