

Installation and commissioning status of the new GEM muon detectors in the CMS experiment

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The Large Hadron Collider at CERN is upgrading to a High Luminosity version that will increase the instantaneous luminosity to $5 \times 10^{34} \text{ cm}^{-2} \text{ s}^{-1}$. This substantial increase in rate means that the current experiments will need to be modified in order to cope with the increased rates. The Compact Muon Solenoid (CMS) detector is installing a new muon station consisting of 144 Gas Electron Multipliers (GEMs) that will work with the existing Cathode Strip Chambers (CSCs) to provide a more precise measurement of the muon bending angle. Currently, the new GEM detectors have finished installation in the CMS experiment and they are in the commissioning phase with operation scheduled to begin in LHC-Run 3. This talk will present the status of this new muon station at the CMS experiment.

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