

## Performance of the CMS Strip detector and Phase 2 upgrade

*Wednesday 27 May 2015 13:30 (50 minutes)*

The CMS Silicon Tracker is the largest silicon detector ever built, containing 10 million readout channels. This presentation will cover the operational experience during the Run1 period and the commissioning during LS1, including challenges and detector status before the Run2 period. The Phase 2 upgrade of the LHC machine, scheduled in 2020s, will bring the luminosity up to around  $5 \cdot 10^{34} / \text{cm}^2 / \text{s}$  and will possibly reach an integrated luminosity of 3000/fb at the end of that phase. CMS will therefore need a completely new, radiation resistant Tracker detector with trigger capabilities. I will also discuss the design choices and ongoing performance studies to explore options for the Phase2 Outer Tracker detector.

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