

# Layout and performance of GE1/1 chambers for the CMS muon spectrometer upgrade

*Tuesday, 11 June 2019 10:00 (15 minutes)*

The CMS Muon group has proposed the use of Gas Electron Multiplier (GEM) technology to maintain an efficient and reliable operation during the High Luminosity phase of the LHC (HL-LHC). This is particularly important to study many physics processes with muons in the final state. The CMS GEM chambers will cover eta region 1.6 to 2.2 of the endcap. We report on the GE1/1 layout and their performance studies estimated during the R&D and beam tests at CERN. We also provide the current status of GE1/1 project and future GEM upgrade plans.

## Summary

Current status, future upgrade plans, and the R&D results of CMS GE1/1 prototype chambers will be summarised.

**Primary author:** Mr SHAH, Aashaq (University of Delhi)

**Co-author:** Dr KUMAR, Ashok (University of Delhi)

**Presenter:** Mr SHAH, Aashaq (University of Delhi)

**Session Classification:** Tuesday Morning I