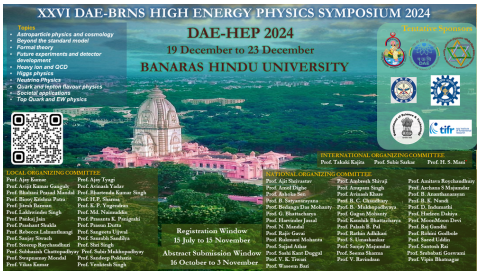

Contribution ID: **26** Type: **Oral**

Performance of CMS silicon tracker

Positioned at the innermost regions of the CMS detector, the silicon tracking system aims to measure charged particle trajectories with high precision. The tracking system is instrumented with both silicon pixel and strip detectors. The strip detector has been operational since the start of LHC Run 1 operations, whereas a new pixel detector was installed in 2017. The innermost layer of the pixel detector was again replaced at the start of Run 3. Since the beginning of LHC Run 3 operations, both the detectors have been operating efficiently, collecting collision data at 13.6 TeV. In this talk, the performance of the detectors will be shown, highlighting the key features which lead to good performance. Along with that, the alignment techniques which correct for precise trajectory reconstruction, and the ways it mitigates radiation damage, will also be discussed.

Field of contribution

Experiment

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Track Classification: Future experiments and detector development