## The 28th International Workshop on Vertex Detectors



Contribution ID: 70 Type: Talk

## CMS Outer Tracker: Operational Experience, Performance and Lessons Learned

Monday 14 October 2019 09:10 (22 minutes)

The CMS Tracker consists of two tracking devices utilizing advanced silicon technology: the inner tracker with pixel detectors and the outer tracker composed of strip detectors. The outer tracker with its more than 15000 silicon modules and 200m2 of active silicon area is in its tenth year of operation at the LHC. We present the performance of the detector in the LHC Run 2 data taking. Results for signal-to-noise, hit efficiency and single hit resolution will be presented. We review the behavior of the system when running at beyond-design instantaneous luminosity and describe challenges observed under these conditions. The evolution of detector parameters under the LHC conditions will also be discussed.

Primary author: SUSA, Tatjana (Rudjer Boskovic Institute (HR))

Presenter: SUSA, Tatjana (Rudjer Boskovic Institute (HR))

Session Classification: Large detectors