



Contribution ID: 832

Type: **Parallel Talk**

Performance of the Pixel Luminosity Telescope for Luminosity Measurement at CMS during Run2

Thursday, July 6, 2017 12:15 PM (15 minutes)

The Pixel Luminosity Telescope (PLT) is a dedicated system for luminosity measurement at the CMS experiment using silicon pixel sensors arranged into “telescopes”, each consisting of three planes. It was installed during LS1 at the beginning of 2015 and has been providing online and offline luminosity measurements throughout Run 2. The online bunch-by-bunch luminosity measurement employs the “fast-or” capability of the pixel readout chip (PSI46) to identify events where a hit is registered in all three sensors in a telescope corresponding primarily to tracks originating from the interaction point. In addition, the full pixel information is read out at a lower rate, allowing for the calculation of corrections to the online luminosity from effects such as the miscounting of tracks not originating from the interaction point and detector efficiency. In this talk, we will present results from 2016 running and preliminary 2017 results, including commissioning and operational history, luminosity calibration using Van der Meer scans, and corrections to the online luminosity, as well as offline performance and monitoring.

Experimental Collaboration

CMS

Primary author: LUJAN, Paul (Universita e INFN, Padova (IT))**Presenter:** LUJAN, Paul (Universita e INFN, Padova (IT))**Session Classification:** Detectors and data handling**Track Classification:** Detector R&D and Data Handling