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## Pixel telescope for luminosity measurement

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The Pixel Luminosity Telescope is a new complement to the CMS detector for the LHC Run II data taking period. It consists of eight 3-layer telescopes based on silicon pixel detectors that are placed around the beam pipe on each side of CMS viewing the interaction point at small angle. A fast 3-fold coincidence of the pixel planes in each telescope will provide a bunch-by-bunch measurement of the luminosity.

Particle tracking allows collision products to be distinguished from beam background, provides a self-alignment of the detectors, and provides for continuous in-time monitoring of the efficiency of each telescope plane.

The PLT is an independent luminometer, essential to reduce the uncertainty on the delivered luminosity. This will allow to determine production cross sections, and hence couplings, with higher precision and to set more stringent limits on new particle production.

An overview of the project and operational experience during LHC running are presented.

### Collaboration

CMS BRIL project

**Primary author:** Prof. LOHMANN, wolfgang (CERN & DESY)

**Co-author:** KORNMEYER, Andreas (CERN)

**Presenter:** KORNMEYER, Andreas (CERN)

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