

Abstract Submitted
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Commissioning and Alignment of the Pixel Luminosity Telescope of CMS GRANT RILEY, Univ of Tennessee, Knoxville, CMS COLLABORATION — The Pixel Luminosity Telescope (PLT) is one of the newest additions to the CMS detector at the LHC. It consists of 16 3-layer telescopes of silicon pixel detectors pointing toward the interaction point at the center of CMS. The pixel detectors are based on the same technology as the silicon pixel detector of CMS. The chips have an additional output, called a fast-out. This fast-out is sent whenever a hit is detected, and will be used to measure the luminosity. The fast-out can also be used to self trigger the the PLT allowing for measurement of the systematics and beam backgrounds. The PLT is expected to significantly improve the precision of the luminosity measurement that is fundamental for particle searches and cross section measurements with the CMS detector. Furthermore, with reconstructed particle trajectories, measurements of beam backgrounds and the location of the interaction point centroid can be obtained. First experiences with the PLT detector before and after installation are presented and the track reconstruction is discussed.

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