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Studies with the Pixel Luminosity Telescope of CMS[1] NIMMITHA KARUNARATHNA, University of Tennessee, CMS BRIL/PLT COLLABORATION — For the upcoming Run-3 of the LHC, the CMS experiment has installed a pixel luminosity telescope (PLT) that is made of three layers of pixel sensors that count charged particles from each bunch crossing of the LHC beam. The rate of triple-coincidences between layers is translated into a luminosity value that is published about every 1.3 seconds. In addition, at a lower rate, particle trajectories are reconstructed for systematic studies of beam backgrounds and efficiencies. I will present such studies based on Run-2 data and their application to monitor the beam conditions and detector status during Run-3 data taking.

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