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## Studies of Diamond Pixel Detectors for CMS at LHC THOMAS ROBACKER, University of Tennessee, CMS PLT COLLABORATION — Singlecrystalline diamond detectors are radiation hard and conduct heat very well which

makes them an ideal choice for particle tracking devices close to the LHC beam. As a first application they will be used in a luminosity telescope (PLT) that is scheduled to be inserted into the CMS detector in 2012. This summer, several diamond detectors have been bump-bonded to the readout-chip of the CMS silicon detector and their detection characteristics have been tested in the 150GeV pion beam of CERN's SPS, with and without a 3Tesla magnetic field. The poster will introduce the luminosity telescope and present results from the beam test.

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