

9th Beam Telescopes and Test Beams Workshop



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The Argonne FE-I4 Pixel Tracking Telescope at Fermilab

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The Argonne Pixel Tracking Telescope is installed at the Fermilab Test Beam Facility to study the performance of various pixel detectors and new DAQ systems. The tracking telescope consists of six planar n-in-p silicon sensors and read out by the FE-I4 front-end chip with a pixel size of $250 \times 50 \mu\text{m}^2$. The telescope performance is evaluated using a 120 GeV proton beam. The measured spatial resolution of the telescope plane is $72 \mu\text{m}$ in the X-direction and $13 \mu\text{m}$ in the Y-direction. These results are consistent with simulated results produced using the allPix2 software.

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