7th International Conference on Position Sensitive Detectors



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Laser Tests Of Silicon Strip Detectors

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This presentation collects experiences from tests of ATLAS end cap SCT

modules using infrared semiconductor laser on 1060 nm wavelenght. Sophisticated method of focusing was developed. Timing and interstrip properties of modules were measured.

Tests of silicon sensors simulate real experimental conditions and check

important detector properties. Laser tests have good time and space description, but photons generate electron-hole pairs in silicon bulk via

different mechanism. Detailed discusion about usability of laser test for $\,$

particle detectors is presented.

Laser tests are extremely useful for tuning individual sensor and readout

settings to find optimal working parameters. Furthermore they are good for

comparison between the same type of detectors with exactly the same top

surface properties.

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