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## Characterization of the PANDA MVD Trapezoidal Silicon Strip Sensors and Their First Operation in a Proton Beam

The  $\bar{P}$ ANDA-experiment will be one of the main experiments inside the upcoming Facility for Antiproton and Ion Research (FAIR) at the GSI in Darmstadt. The fixed target experiment will explore  $\bar{p}p$  annihilation in the charm mass region with intense, phase space cooled beams with momenta between 1.5 and 15 GeV/c.

The innermost subdetector of  $\bar{P}$ ANDA will be the Micro Vertex Detector (MVD) and consists of silicon strip and pixel detectors.

The MVD can be further divided into two sub-structures. A barrel-structure around the vertex and a disc-structure in beam direction with six disks of different size.

The last two disks are hybrid disks with trapezoidal strip sensors in the outer layer surrounding a smaller ring of pixel sensors in the inner part. The other disks are made only out of pixel detectors.

The first trapezoidal prototype sensors were produced by CiS<sup>1</sup> and have a stereo angle of  $15^\circ$  with 512 strips per sensor side and a strip pitch of  $67.5 \mu\text{m}$ .

In order to operate and test the prototype sensors, they were characterized with a probestation as well as with a dedicated testboard. A first beam test was done at COSY<sup>2</sup> with protons of 2.95 GeV/c and 800 MeV/c in December 2013 and January 2014.

In this talk the characterization of the trapezoidal strip sensors and the results of their first operation in a proton beam will be presented.

**Primary author:** DEERMANN, Dariusch (Forschungszentrum Jülich)

**Co-authors:** Prof. RITMAN, James (Forschungszentrum Jülich GmbH); STOCKMANN, Tobias (Forschungszentrum Jülich GmbH)

**Presenter:** DEERMANN, Dariusch (Forschungszentrum Jülich)

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