

## **Characteristics of the ALICE Silicon Drift Detector**

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### **Abstract**

A Silicon Drift Detector (SDD) with an active area of  $7.0 \times 7.5 \text{ cm}^2$  has been designed, produced and tested for the ALICE Inner Tracking System. The development of the SDD has been focussed on the capability of the detector to work without an external support to the integrated high voltage divider. The detector is equipped with periodically distributed “point-like” MOS injectors that allow the online monitoring of local mobility. Several features have been implemented in the design in order to increase robustness and the long-term electrical stability of the detector. One of the prototypes has been tested in a pion beam at the CERN SPS. The detector showed an excellent position resolution along both coordinates, confirming the validity of the chosen design. We report on the status of the project.