

Hybrid pixel modules and R&D on compact modules

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For the High-Luminosity upgrade of the LHC, a new pixel detector is foreseen for the ATLAS experiment. Currently, the prototyping phase is ongoing to build various detector components. The standard hybrid pixel modules consisting of a silicon pixel sensor and front-end electronics connected via bump-bonding are widely used. Prototypes with p-type sensors are built and tested.

In addition, the R&D activity deploying an alternative module assembly step, the concept using through-silicon-vias and laser soldering will be shown. Using modified components of standard modules first trials of TSV modules are discussed.

TRACK

Planar Sensors

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