

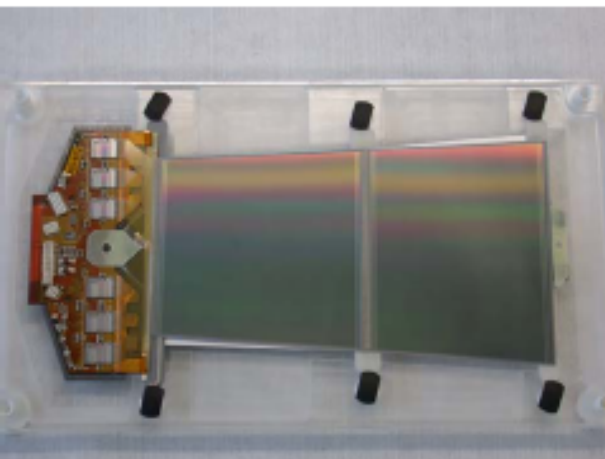
Freiburg: Experience, Status, Plans



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- Freiburg active in **ATLAS** since the beginning
- [ATLAS Analyses] ...
- **Silicon Strip Detectors:** sensors, modules, readout
 - 90s – today: ATLAS strip tracker: R&D, prototyping and module building for present SCT, tracker operation
 - 2005 – today: R&D, prototyping for ATLAS ITk (Phase 2 Upgrade)

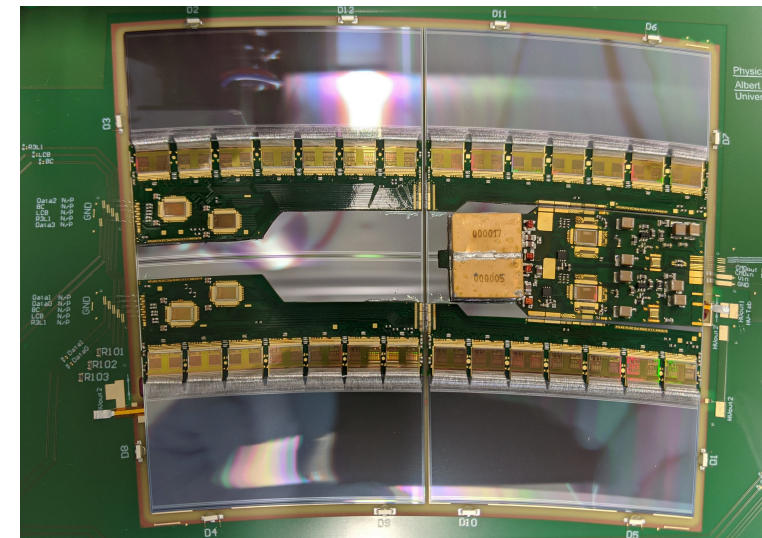
ATLAS SCT Module



ATLAS SCT



ATLAS ITk Module



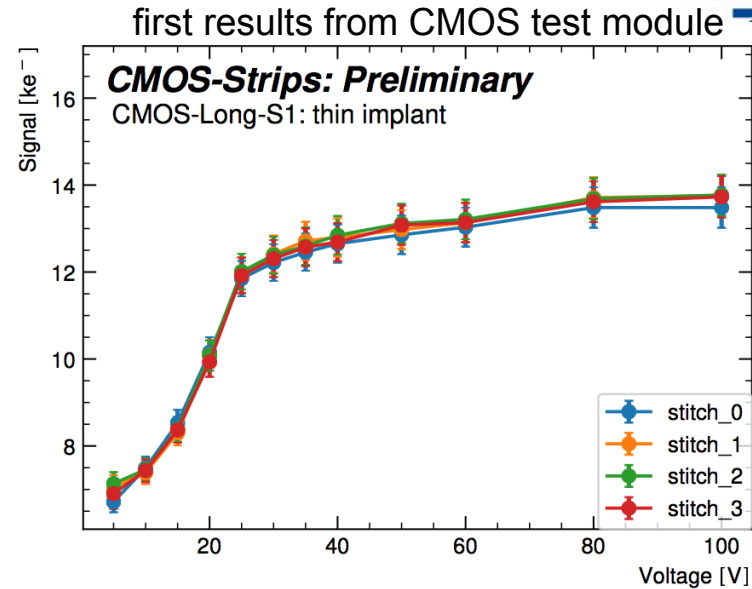
Ongoing R&D Beyond LHC

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- CMOS: Passive silicon strip sensors (with Bonn & DESY)
 - stitched sensors under study, aiming for large area, lower cost, many foundry CMOS
 - “useful for any collider”



- Fast silicon sensors:
 - RD50 project: Fast 3D sensors for tracking in 4D (normally studied in LGADs)
 - building test setup for 10ps time resolution now
 - “useful for any collider”

