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# Freiburg activities in Si-D Consortium

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## **Freiburg Research Lines**

- Large Area CMOS sensors
- Also known as "passive CMOS strips"
  - Sensors: 150nm LFoundry, 150 µm thick, passive (Bonn, TU Dortmund, DESY, Freiburg)
  - Two lengths of strips: 2.1 and 4.1 cm
  - 1 cm2 reticle used  $\rightarrow$  up to 5 stitches
- Result in a nutshell: sensors work, stitching works, even after irradiation





Time resolution of ancient IBL 3Ds and Torino LGADs

- Fast Timing 3D sensors
- RD50 Common Project, plus some ancient IBL 3Ds
- Calculate SNR (Signal to noise ratio) in each strip
- Identify real hits and create clusters of hit strips by applying a cut in SNR (Seed or Neighbour cut)
- Measure cluster size



CVs of some dedicated fast timing 3Ds from RD50

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