

DEPFET Plans

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● Overview



- Status report
- Full integration into EUDET software framework
- TB related
 - New DEPFET generation
 - Irradiated matrices
 - Thin detectors
 - Utilize the magnet

- Already achieved



- Combined Test beam in September @ CERN
 - 5 telescope plans + 2 DUT's
- DEPFET-DUT integration on trigger level
- Measured first tracks and received the first plots - see Lars Reuens talk

- Full software integration



- Full integration into the JRA1 software framework
 - A DEPFET producer task is in work (Peter Fischer/Christian Kreidel Mannheim)
 - Main issue – dealing with threads under windows
- Software will be available in a few month
- Utilize the full potential of the JRA1 software framework

● The new generation - PXD5

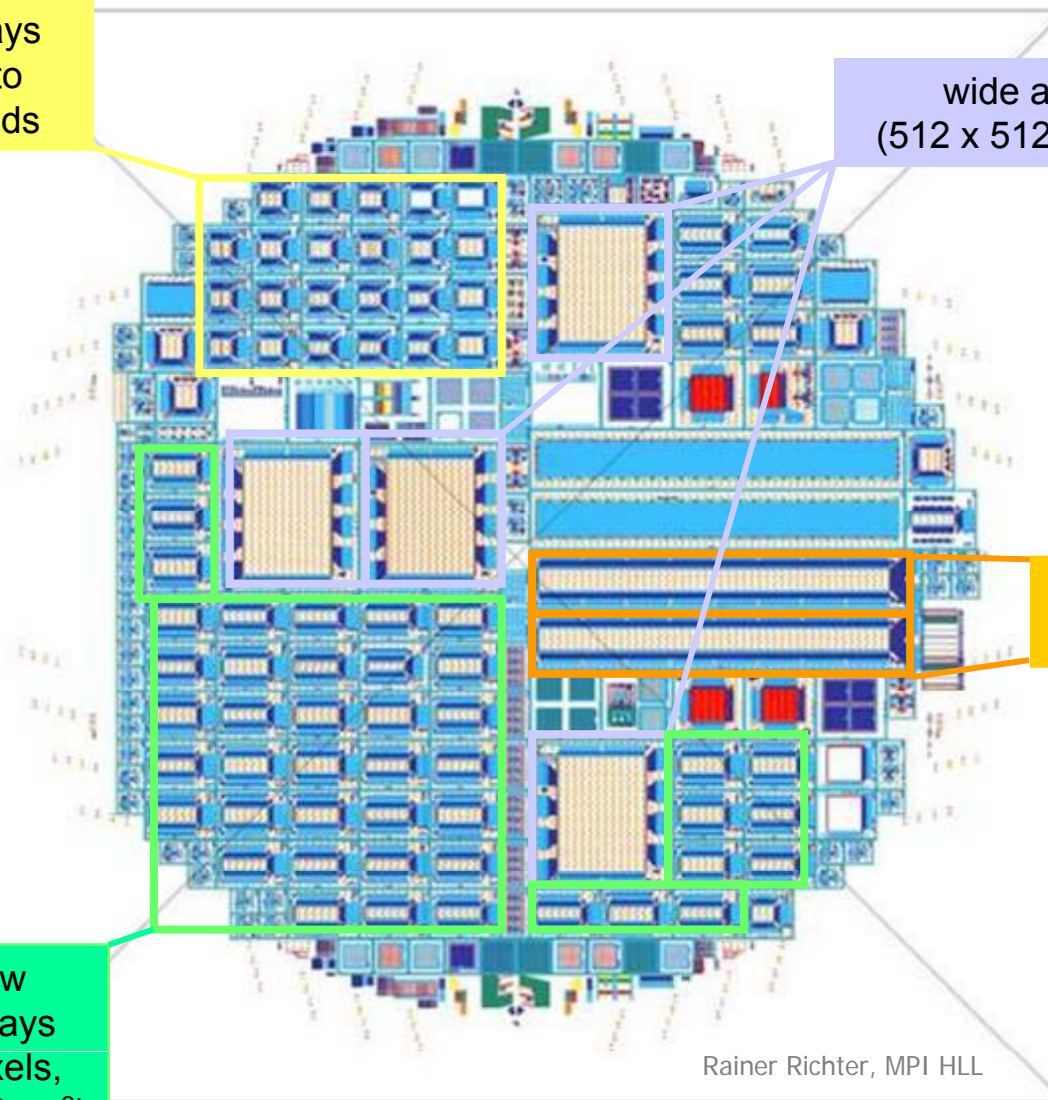


standard arrays
compatible to
existing hybrids

wide arrays
(512 x 512, full ILC)

long arrays
(256 x 1024, 1/2 ILC)

various new
standard arrays
(64 x 256 pixels,
down to 20x20µm²)



Rainer Richter, MPI HLL

- Further test beam plans

- PXD5 production is now finished
 - Large variety of new designs available (Pixel size, area and other features)
- Characterizing irradiated matrices in TB environment
- Further test beams

- A look ahead - the new production PXD6



- Start of the new production is planned next year
- Incorporating new features as
 - Larger sizes
 - Thinned detectors down to 50 μ m

- Possibility to test thin detectors within EUDET

● Further Ideas



- SC-Magnet available within JRA1
- Study the influence of a magnetic field with respect to charge collection and resolution
- Especially interesting for thin detectors!

● Summary



- Integration of DEPFET already achieved on trigger level
- Full software integration will be ready in a few month
- Possibility for further test beams