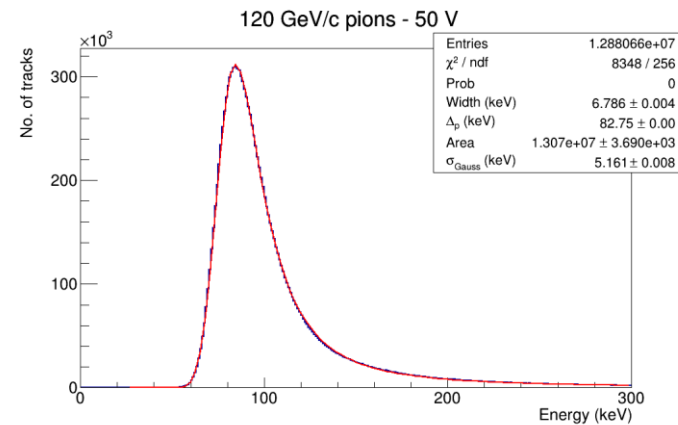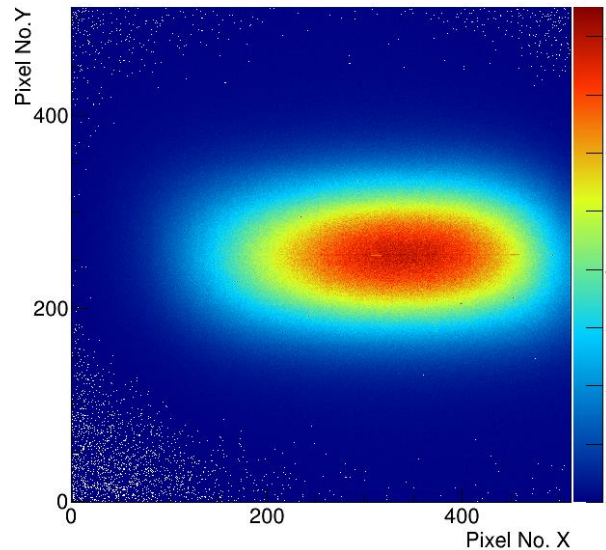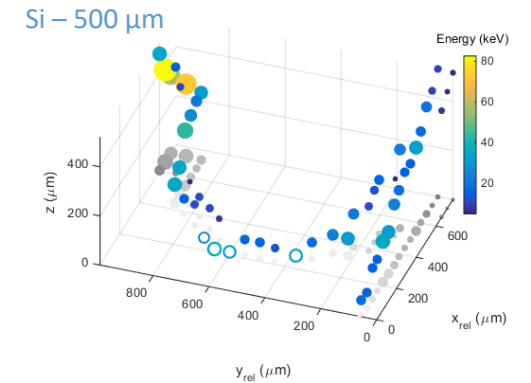# Medipix beam test

Benedikt Bergmann on behalf of the Medipix team at the Institute of Experimental and Applied Physics

# Motivation - Addressed detector development

- Characterization of different sensor materials (3D, GaAs:Cr, CZT, ...)

- Test of Timepix2/3 based detector for space application

- Timepix4 R/O system

- Characterization of the response of ATLAS-Timepix3

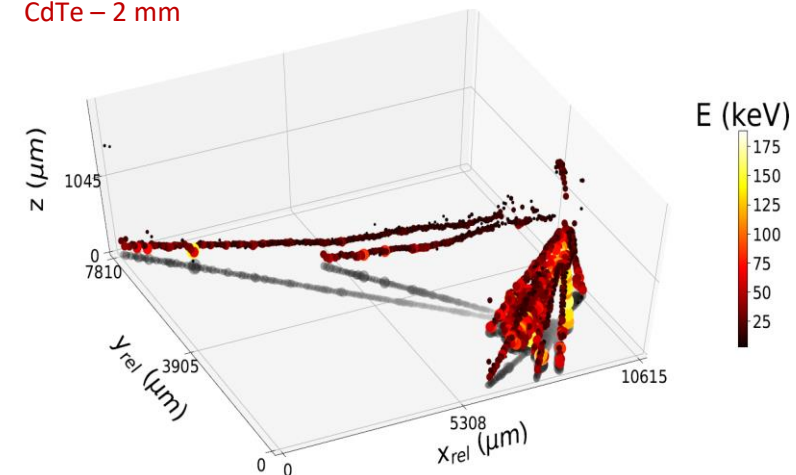- Test of software for real-time analysis and data compression



Timepix3 for single-layer particle tracking
Si – 500 μm



Beam spot and stopping power measurement
with Timepix3 Quad  (September 2021)



Event characterization using Timepix3 as solid-state TPC
CdTe – 2 mm

# Beam and infrastructure requirements

**Beam requirement:**

- Hadrons with energy > 80 GeV/c

**Infrastructure requirement:**

- Moveable table (e.g. DESY)
- Standard table for PCs, readout, voltage source
- (Beam trigger)


SPS 2021- Setup September




SPS 2021- Setup August