

ToF Digitization in ePIC simulation: Status Update (22nd May 2024)

RawTrackerHitCollection

- Energy deposited
 - Time of Flight
 - Cell ID
- } rawhits

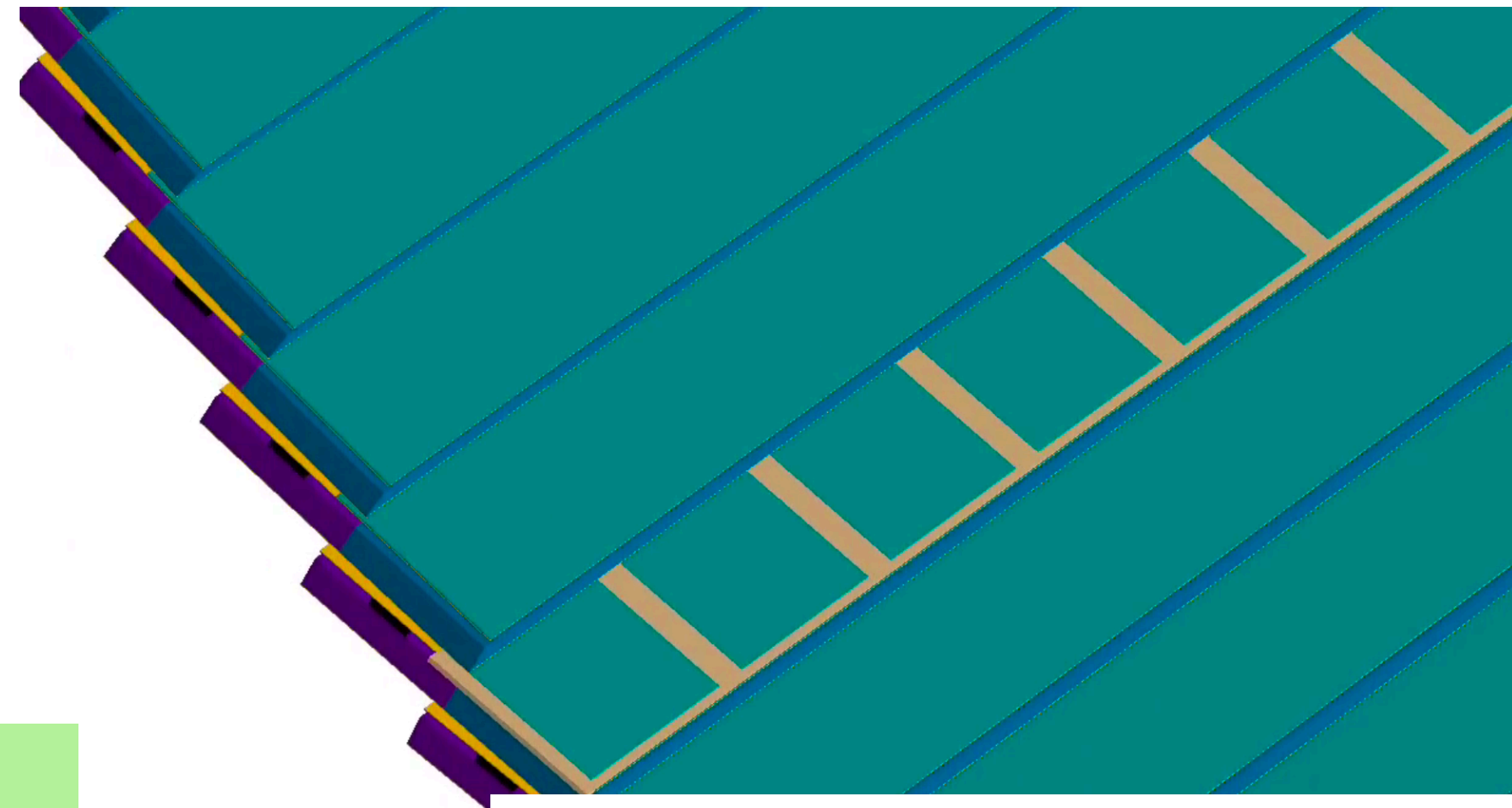
Analog
signal
generation

Reference clock
Delay cells
Threshold voltages

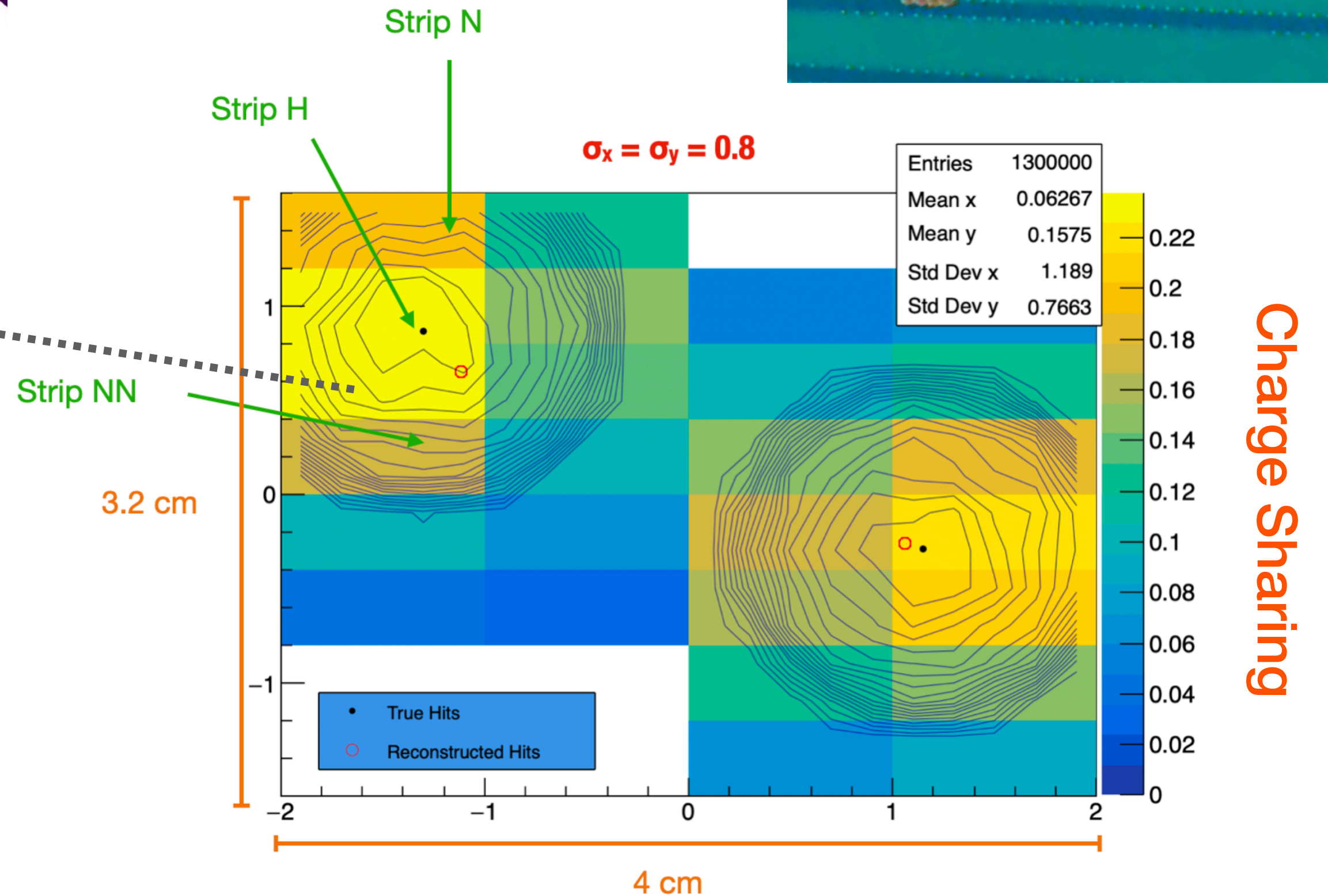
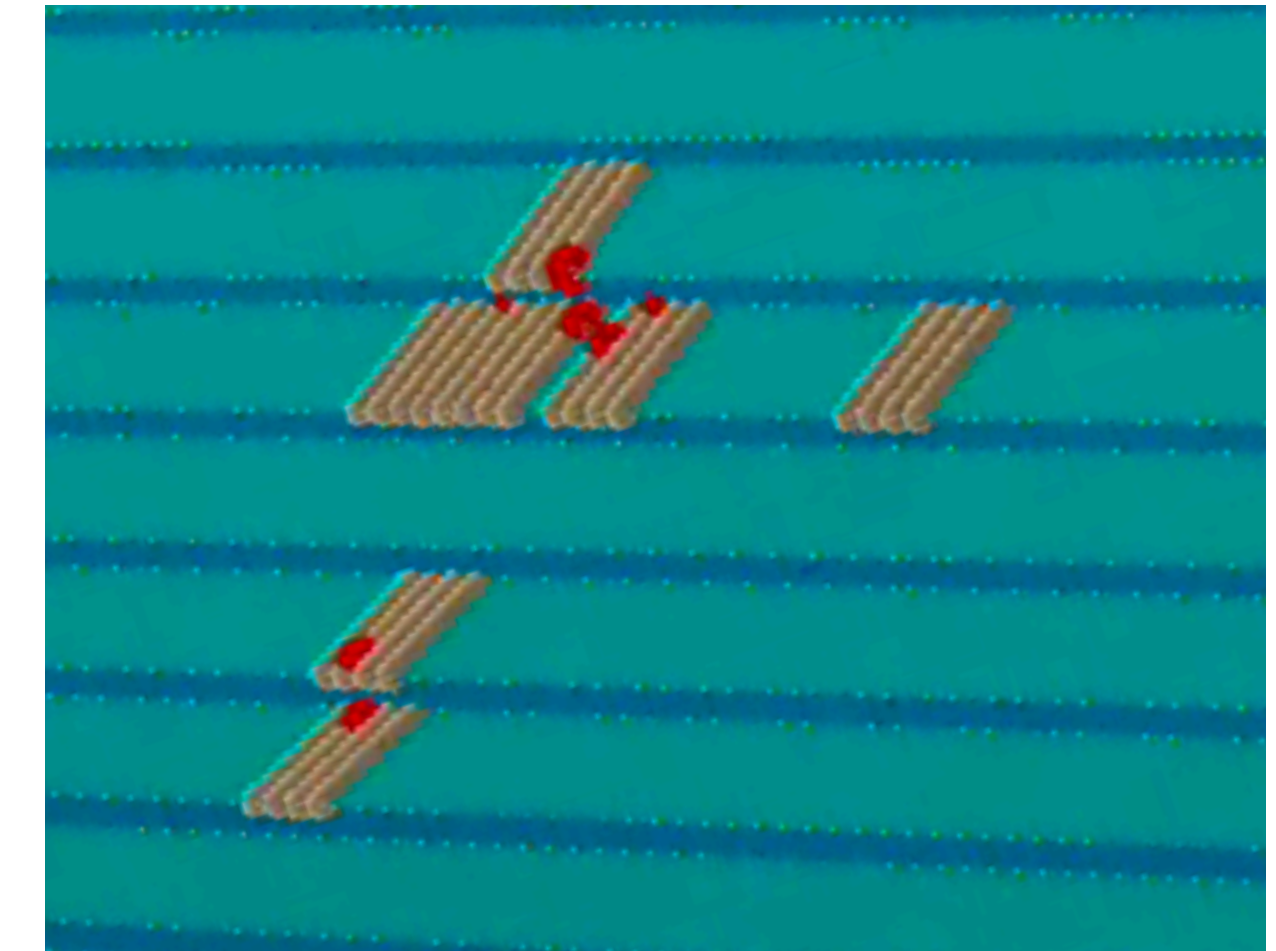
BTOFHitDigi (*Not on git yet*)

Resides in [drich-dev/EICrecon/src/algorithms/digi](#)

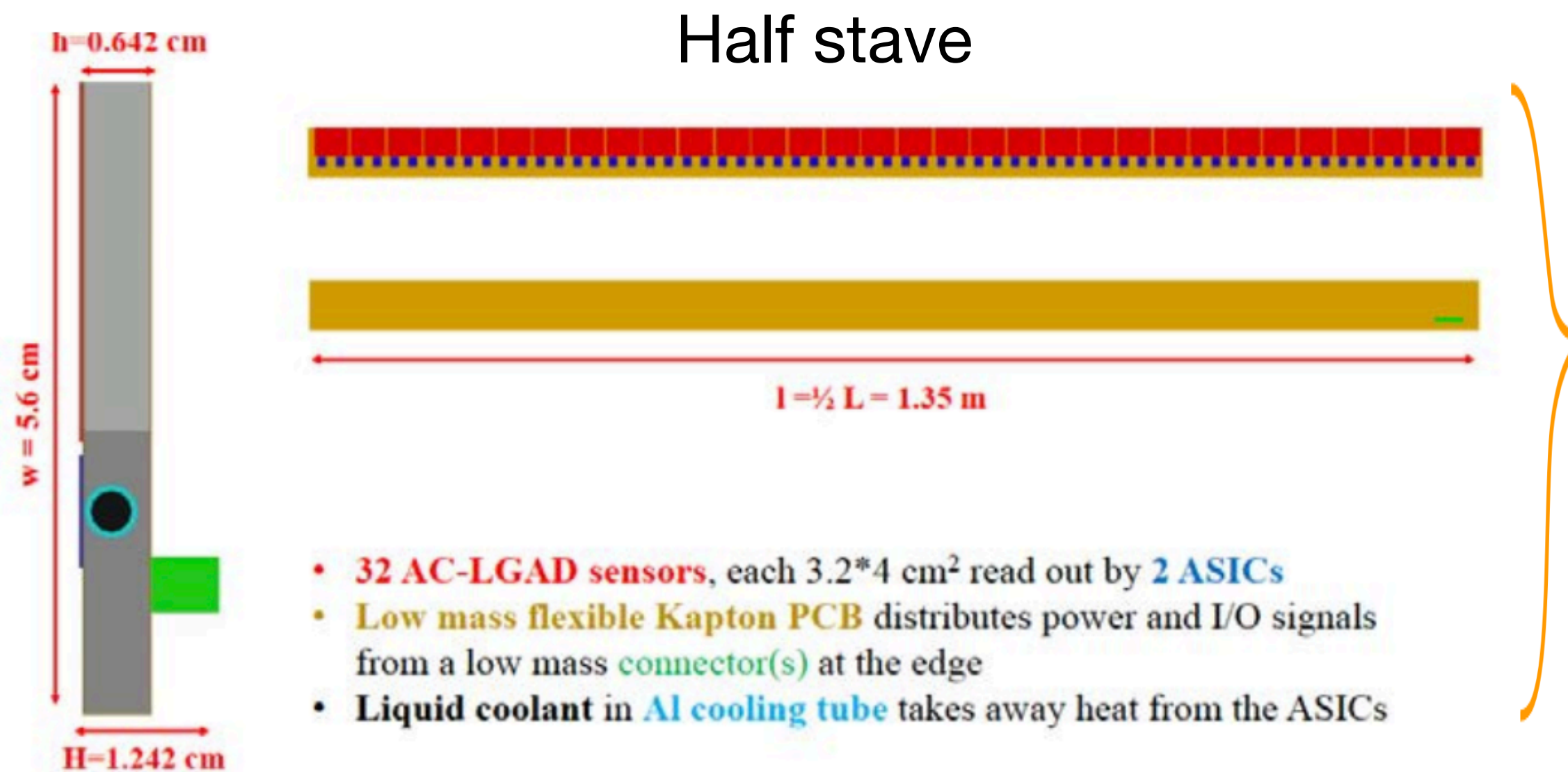
- ADC (8-bit)
 - TDC (10-bit)
 - Cell ID
 - Sensor ID
- } digi



Segmentation: Chun Yuen Tsang



BToF Geometry in ePIC simulation: Issue



For full stave,

L = 2.7m OLD, 2.89m NEW

64 AC-LGAD sensors -> 256 columns

For full stave (in simulation),
L = 2.87m (active area)

287 columns

