

# Liverpool Characterisation status

Andy Boston

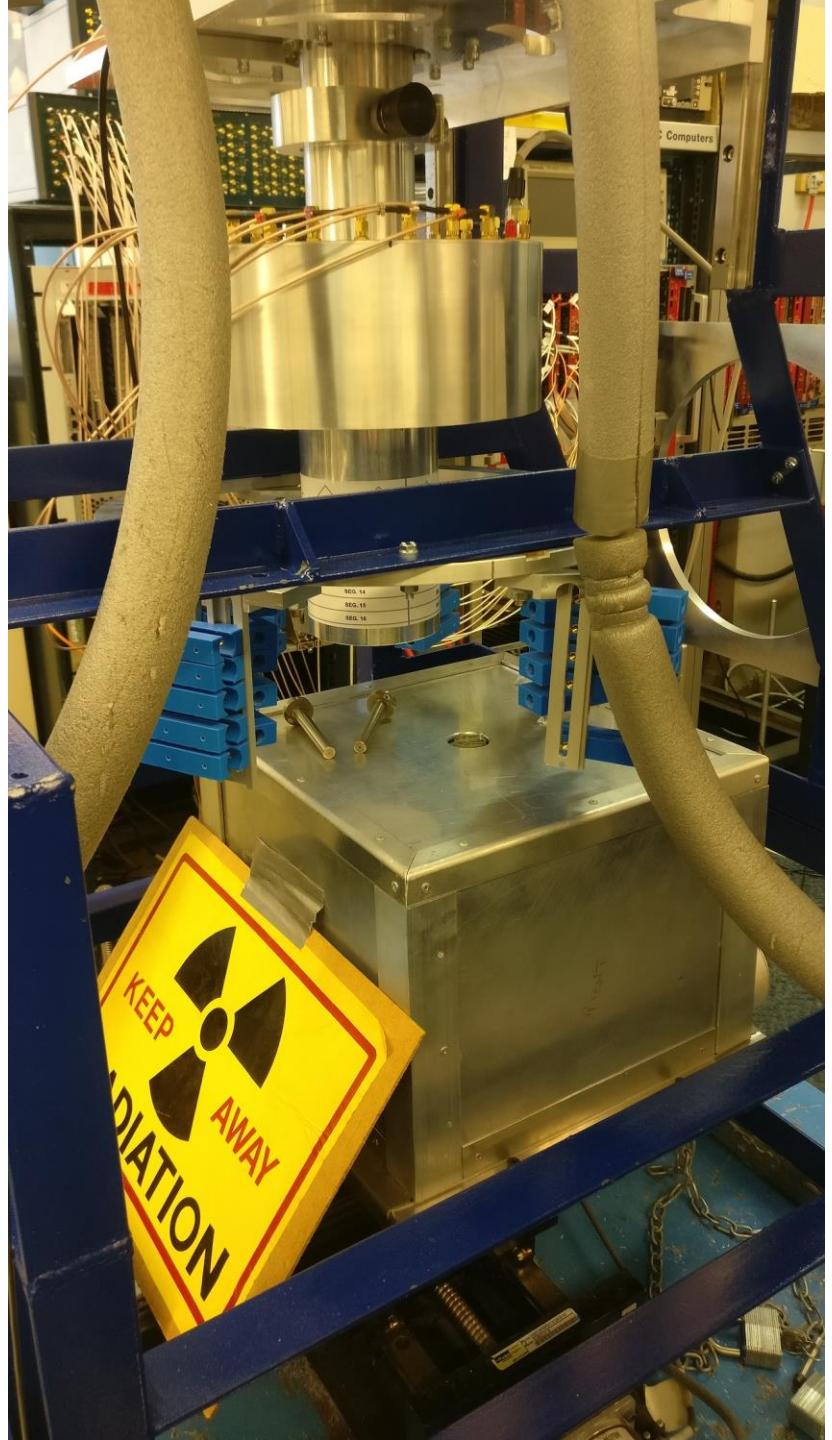
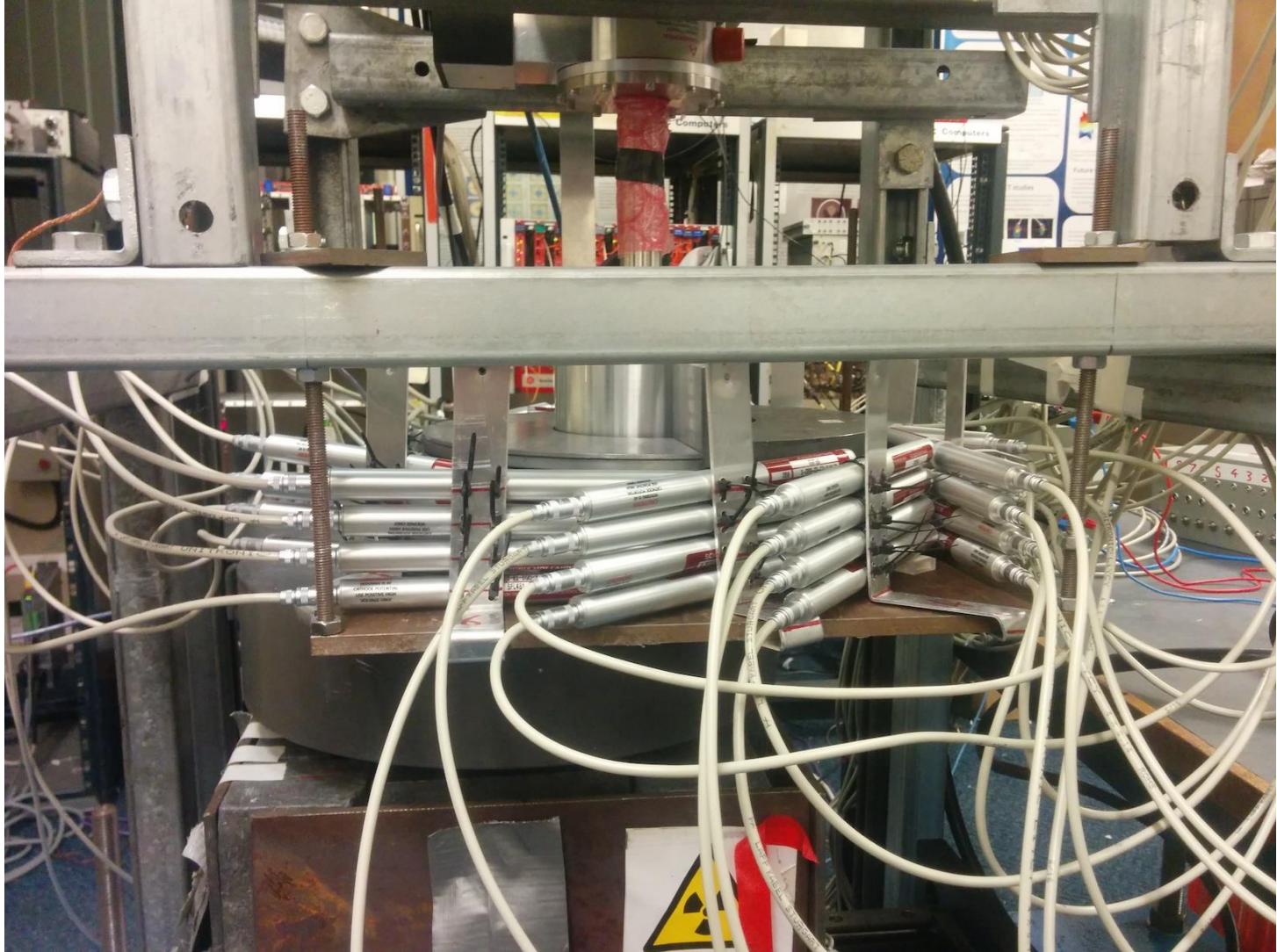


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# Characterisation Lab Status late 2017->18

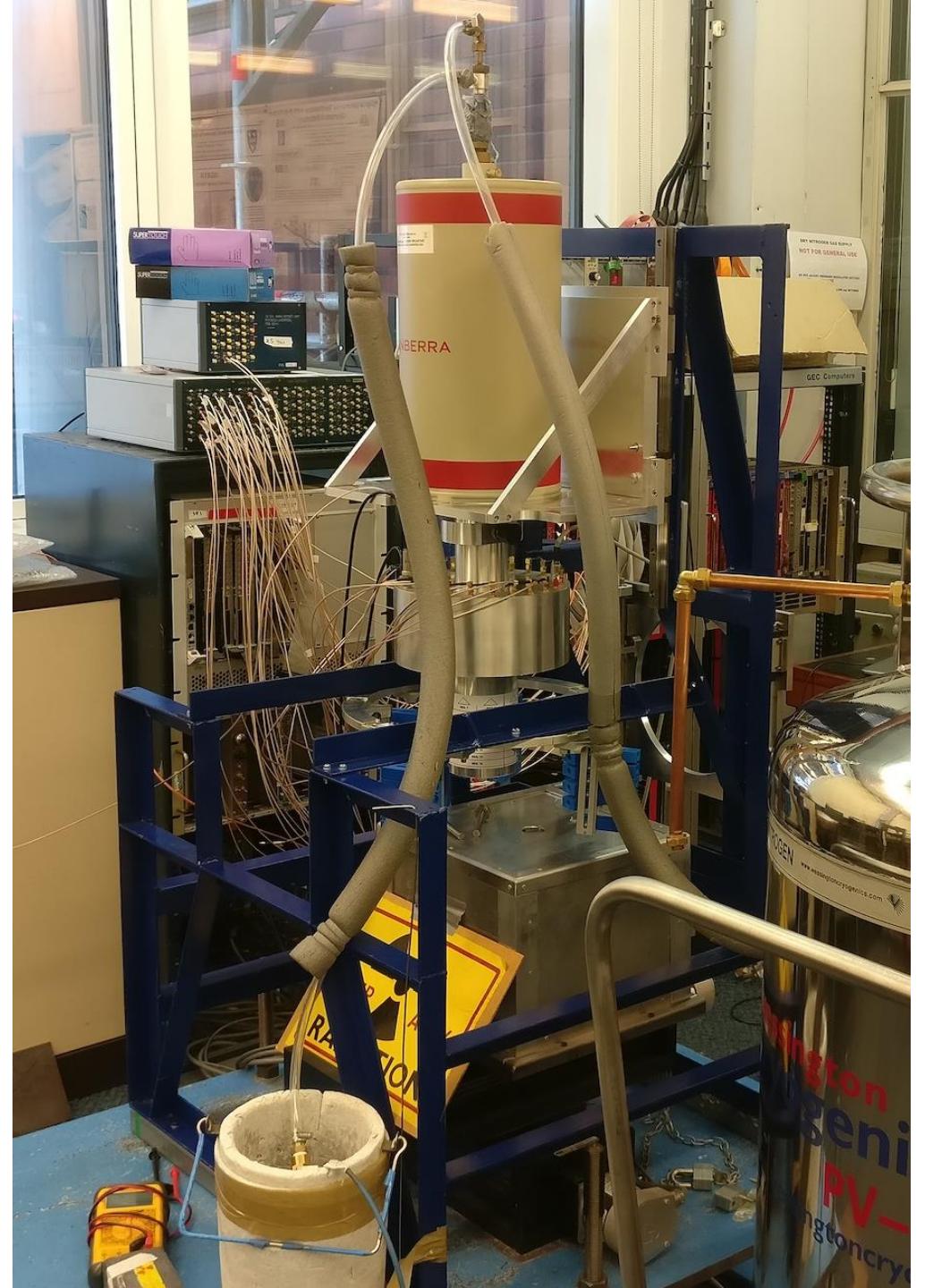
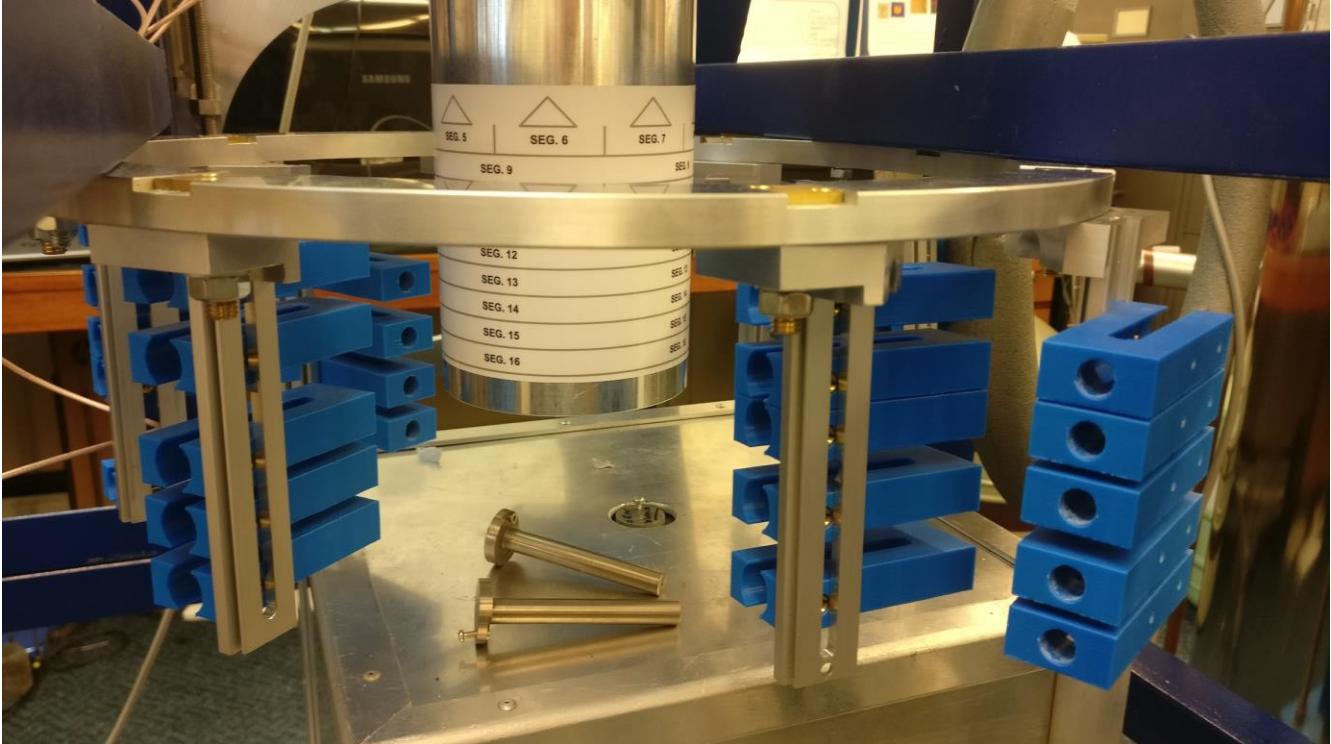
- Q4 2017 lab closed for major building work
- Reopened Q2 2018
- New  $^{137}\text{Cs}$  source assembly machined and built
- New BGO detectors procured and holding structure built
- Mechanical re-assembly
- Upgrade to Caen V1724 digitizer firmware
- Update DAQ software
- Debug of software/firmware....

# Updated components



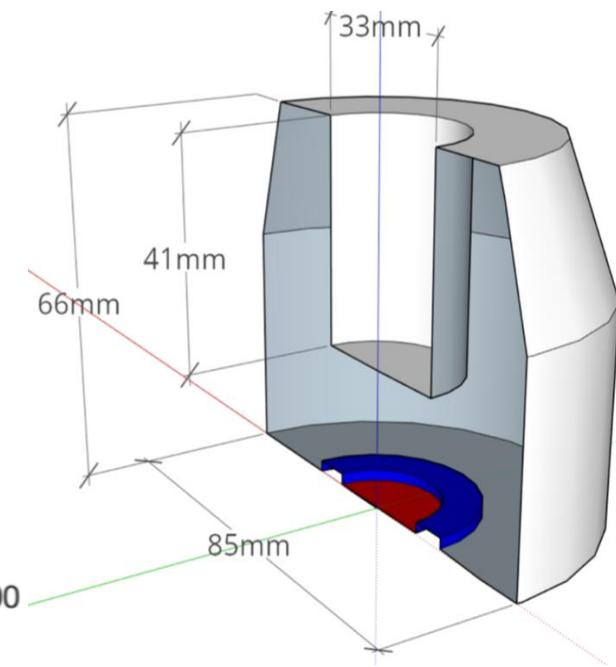
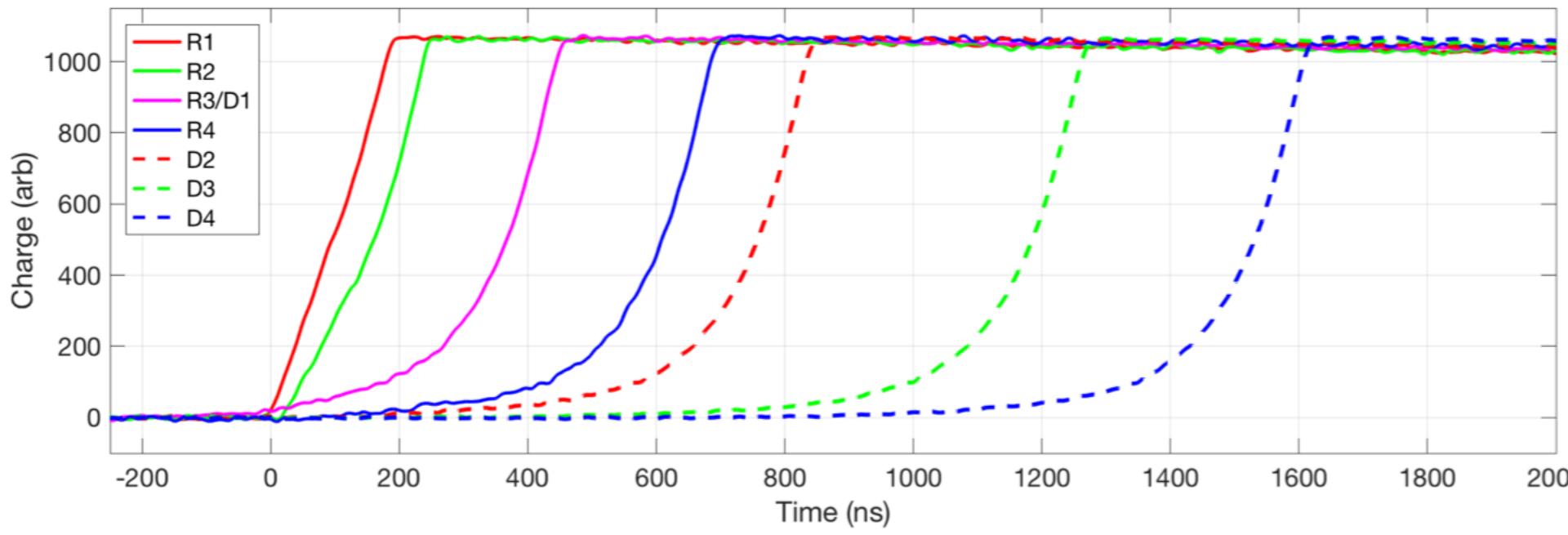
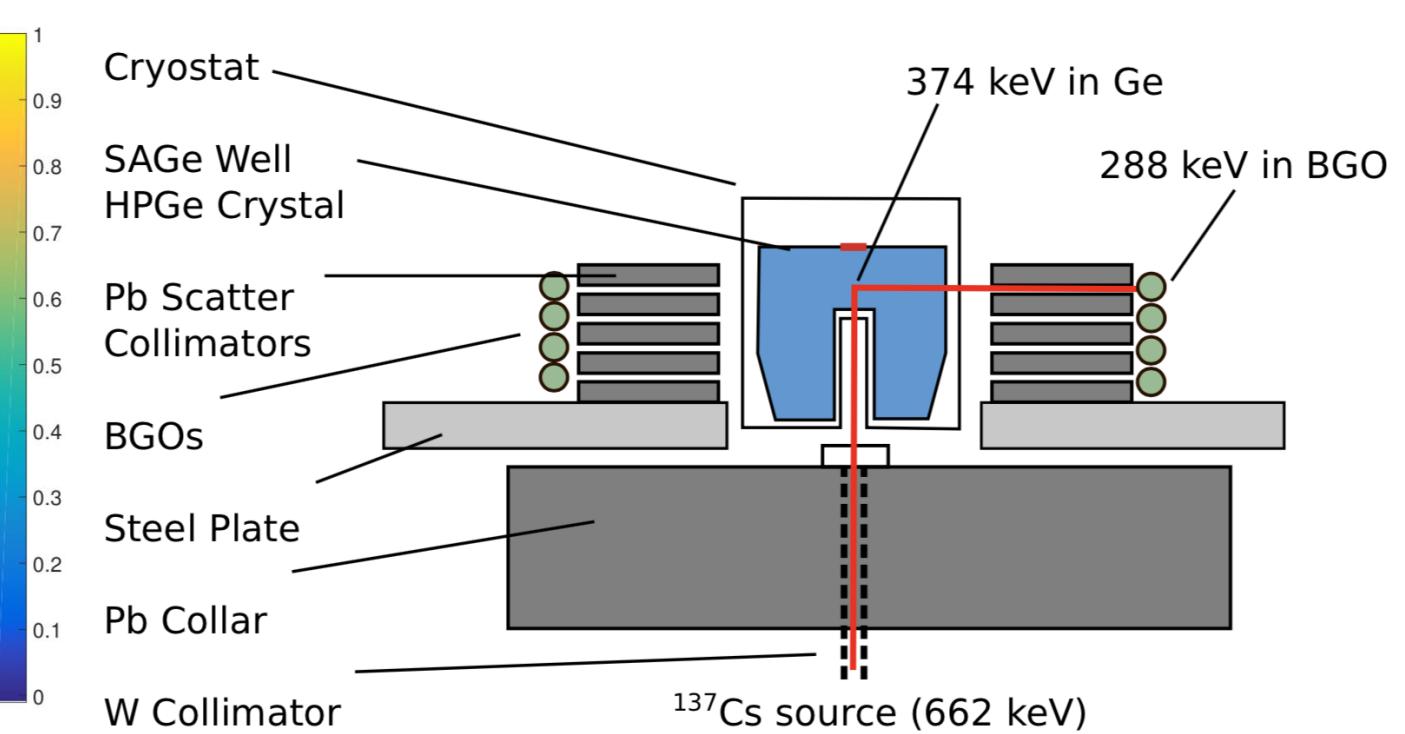
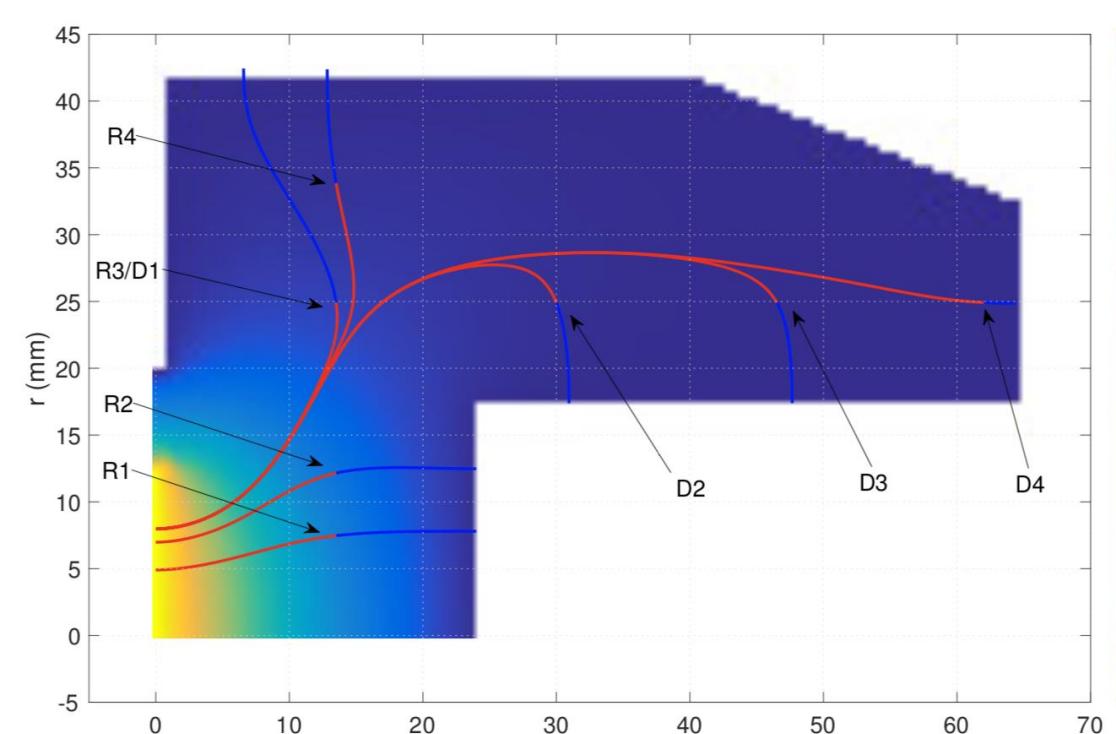
# SIGMA: characterisation

- Scans of charge collections profile
- SSE cuts applied

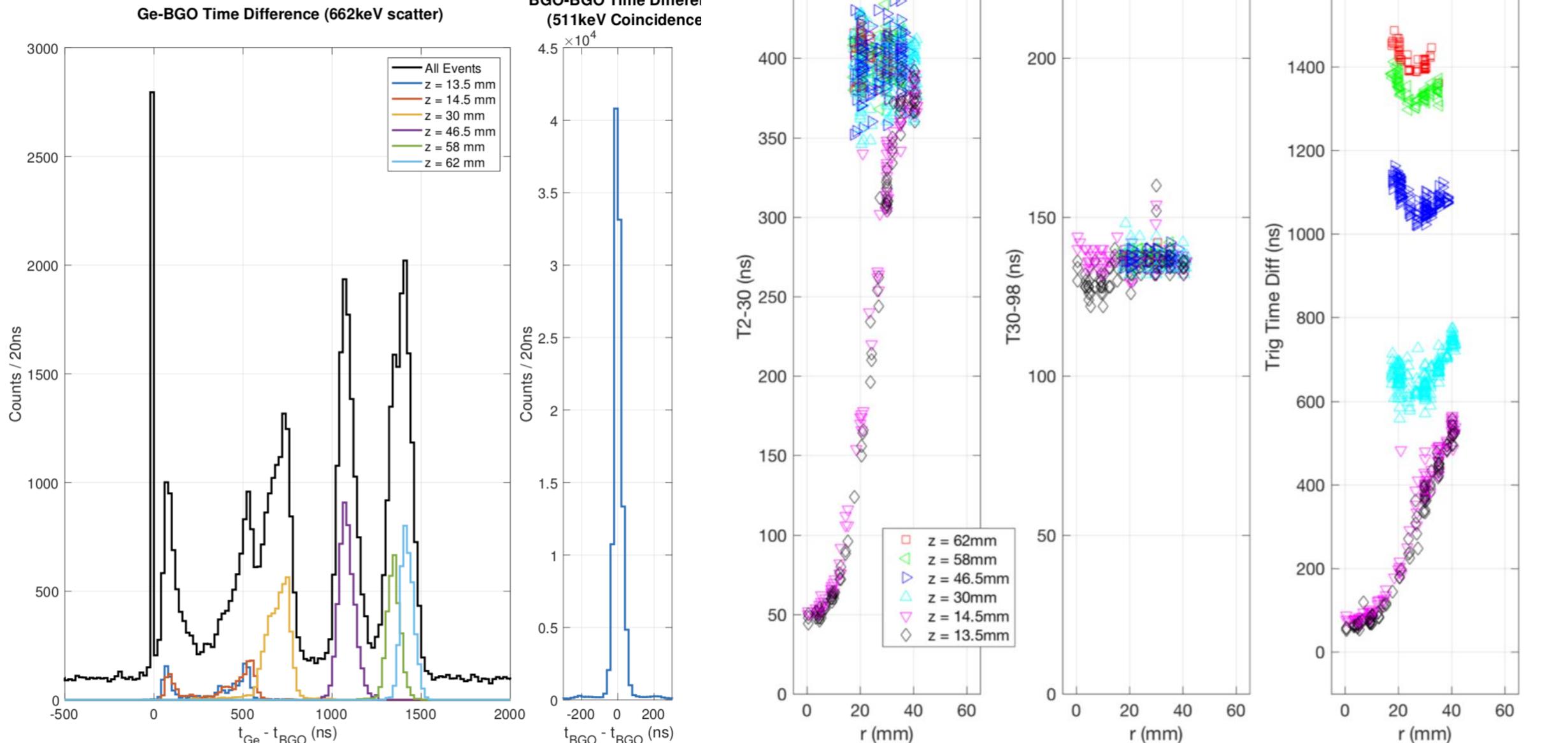


# Liverpool Characterisation Status

- Scan of SAGe Well detector (Q3 2017) TSLM readout
- System shutdown (Q4 2017)
- Recommission system (Q2 2018)
- Scan SIGMA detector (Q4 2018) TSLM readout
- Scan AGATA detector (Q1 2019) TSLM readout



# TSD performance tests



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- Scan AGATA detector (Q1 2019) TSLM readout

# Thanks to...



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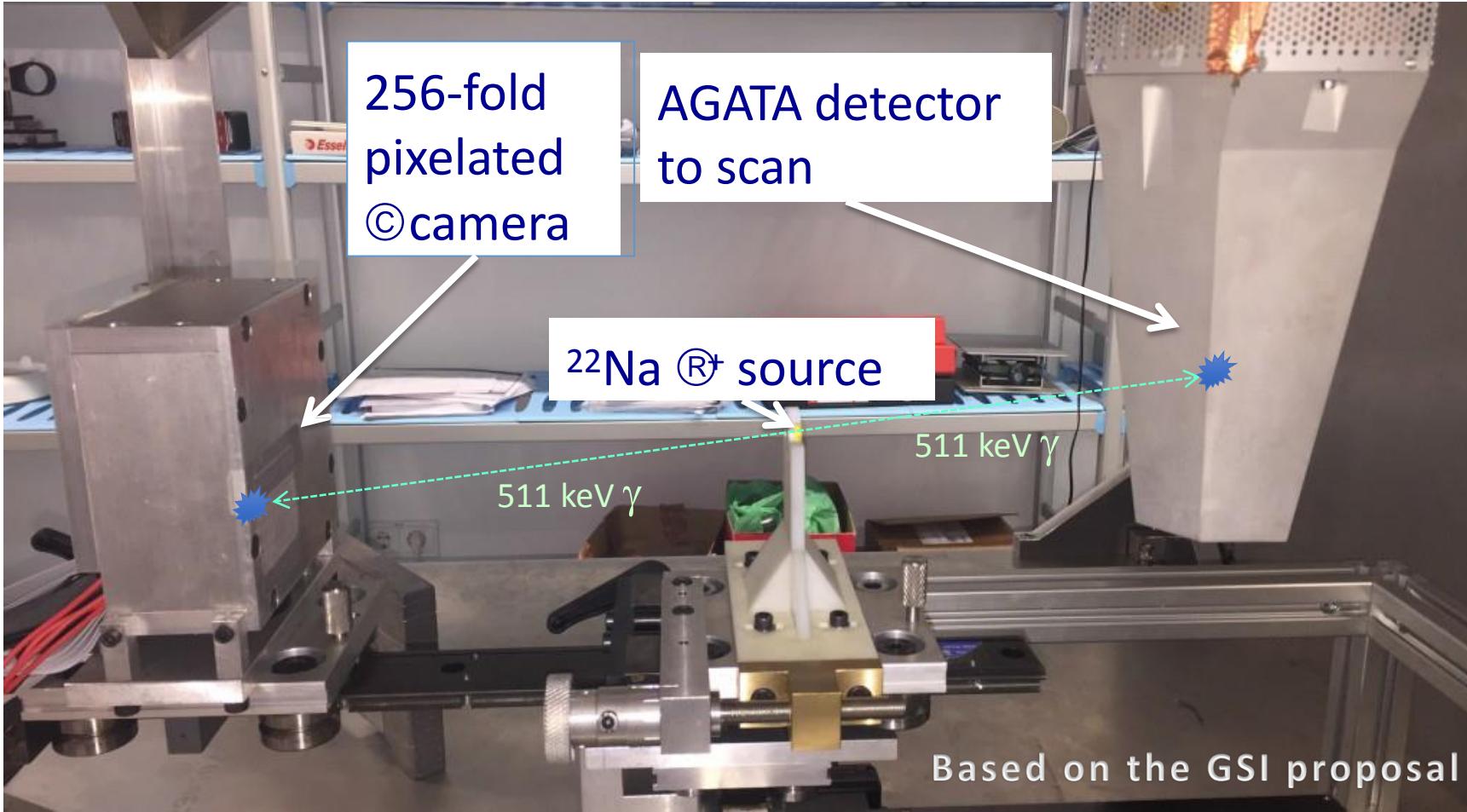
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# Characterisation: Plans and discussion

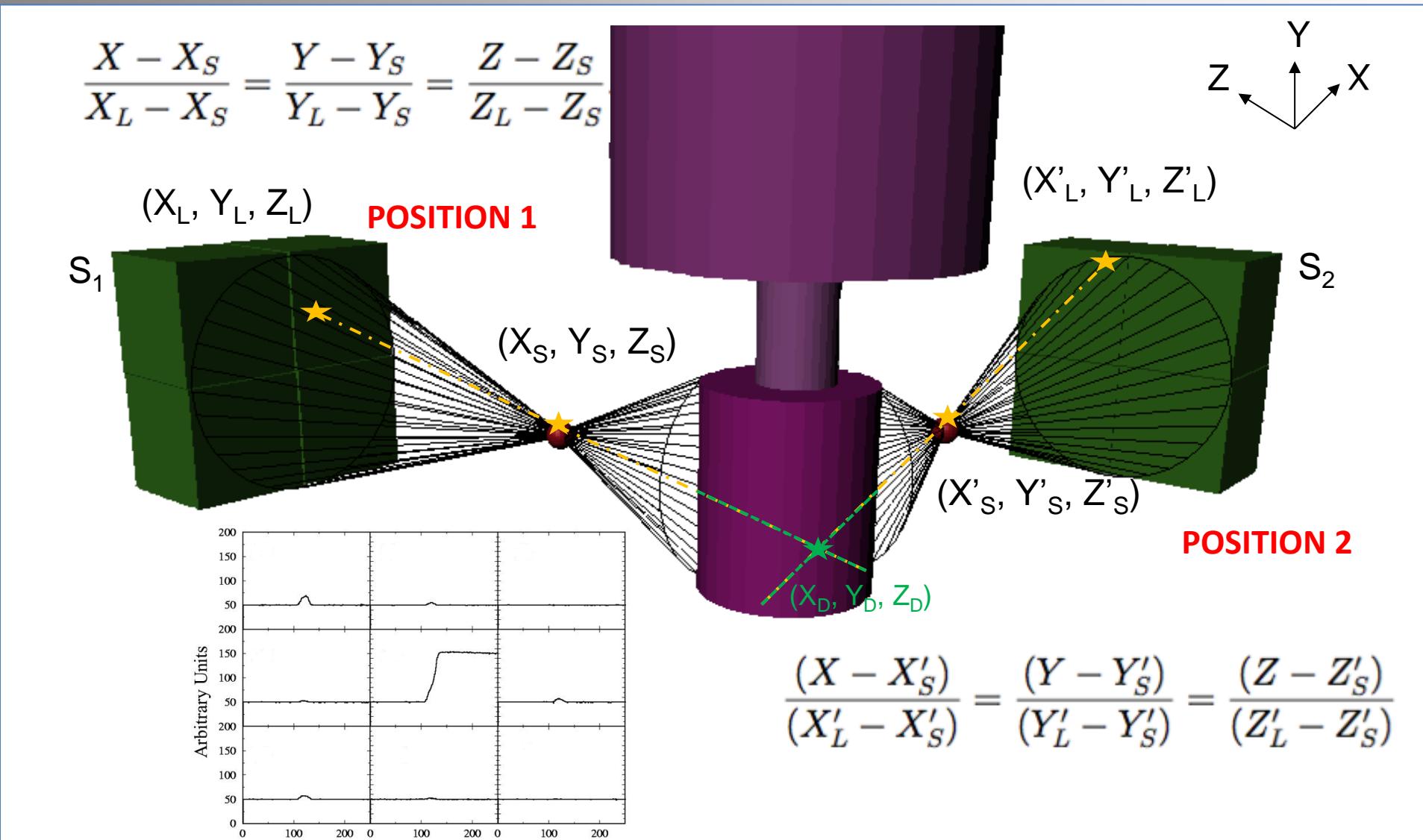
# AGATA collaboration Scanning tables

- Liverpool
  - Conventional singles and Coincidence
  - used to commission PSCS
  - validate other tables
- Orsay
  - Singles and Coincidence
- GSI
- IPHC Strasbourg scanning table based on the PSCS technique
- **Salamanca Scanning table (SALSA)**
  - 511keV coincidence and PSCS

# SALSA concept



# SALSA: Two-position scan



# AGATA electronics



Second generation AGATA digital electronics:

- 4 DIGI OPT12 (ASCOM)
- GGP (bus PCI-Express, Padova) in HP DL360pGen8 server



AGATA-SALSA COINCIDENCES  
DISENTANLED THROUGH  
SOFTWARE BY USING A RAMP  
GENERATOR

# B014 capsule measurements



- ✓ B014 capsule arrival middle of June 2017
- ✓ FWHM tests carried out to check cryostat
- ✓ Mechanically collimated measurements done to determine edges between segments in slice 1
- ✓ Method to select coincident signals set up
- ✓ One of the  $\gamma$  camera flat panels replaced
- ✓ Scanning measurements during three months

# Characterisation

- First team meeting June 2018
- Impact of electronics on signal shape
  - Digitiser: AGATA v2 vs TNT2 vs Caen v1724 etc
  - Preamplifier and grounding: single vs triple etc
- Validation of PSCS methodology
- ADL validation and questions...
- Acquire data from one detector with different DAQs
- Acquire data from one detector at two different scanning centres