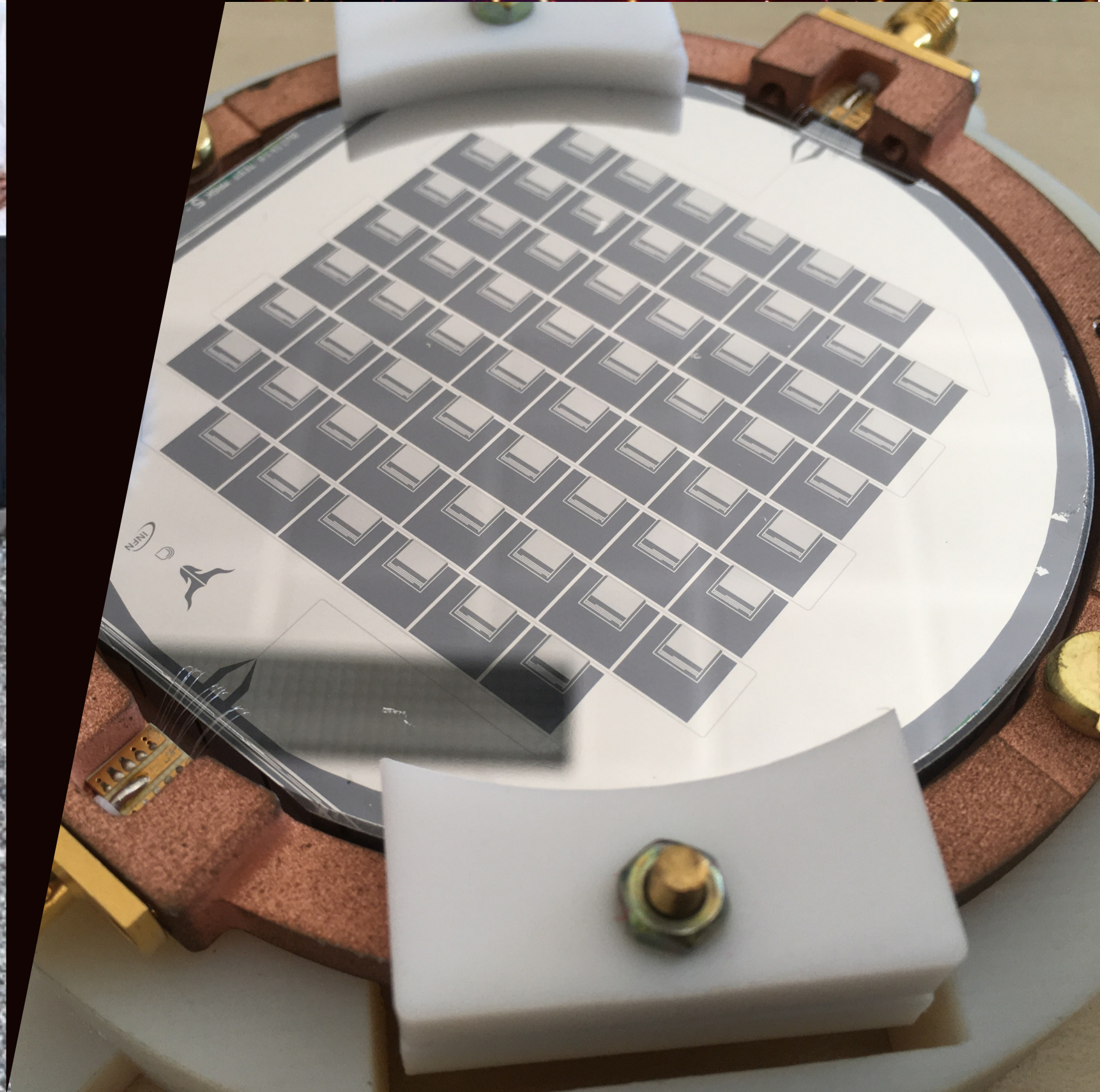
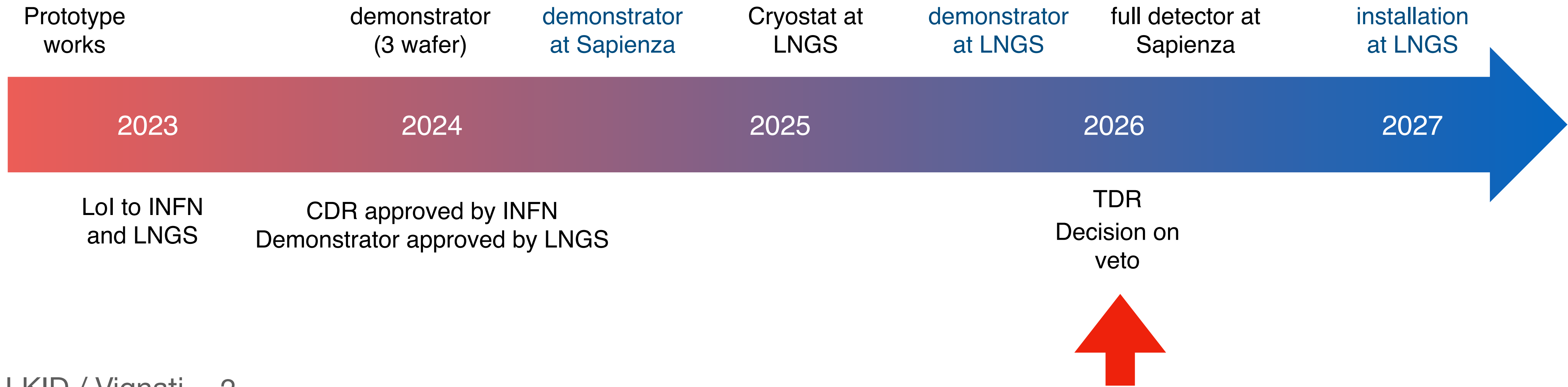
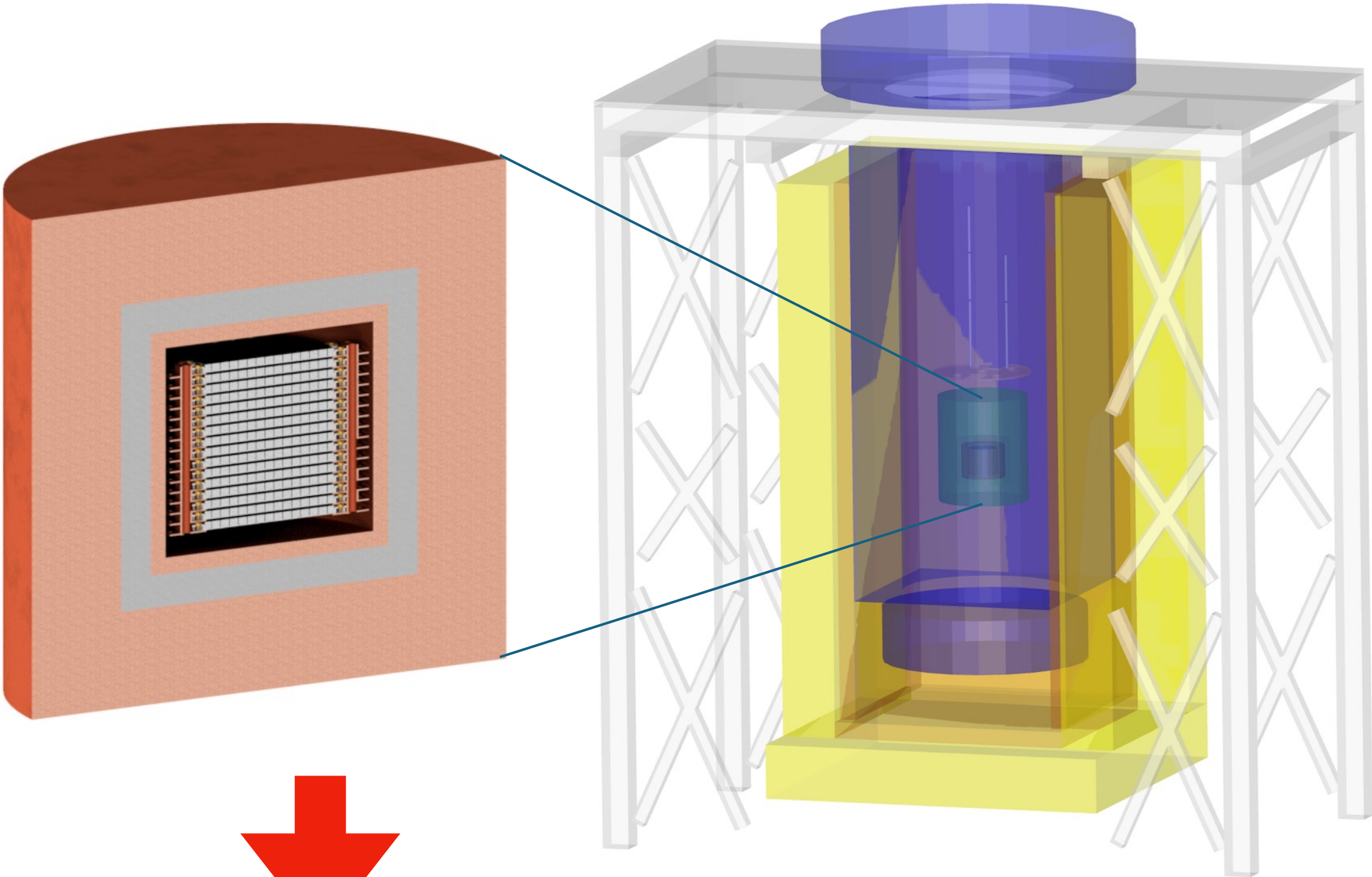
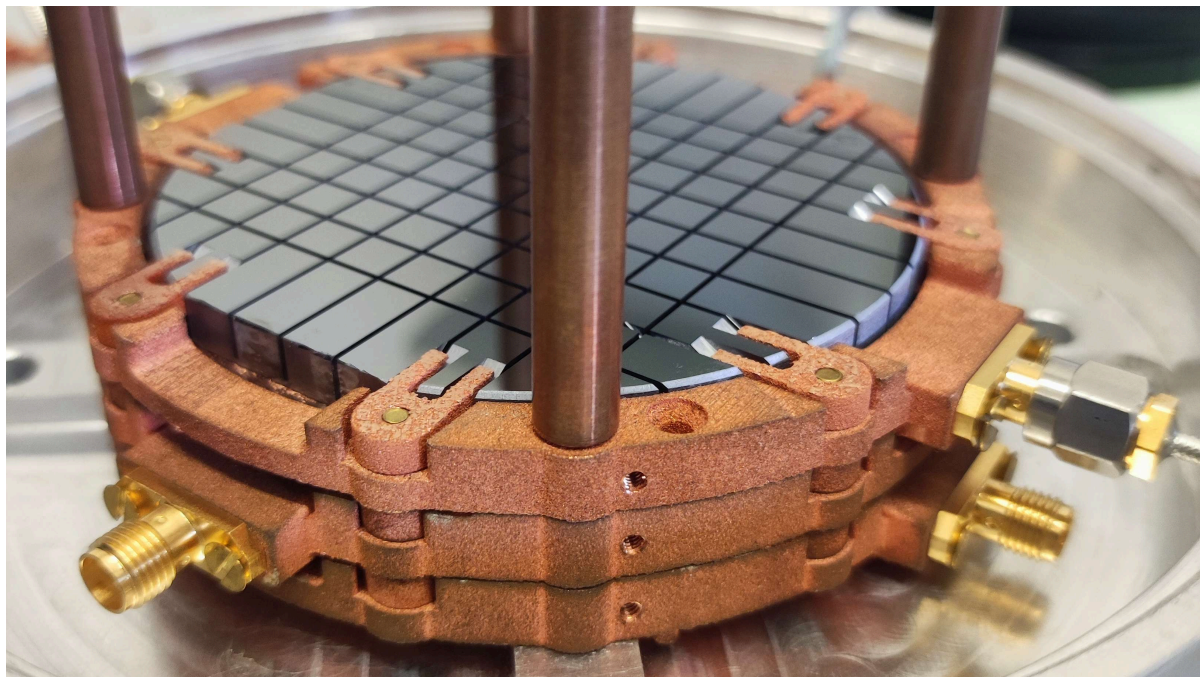


Conclusions

Marco Vignati, BULLKID-DM Coll. meeting, Ferrara - July 2025

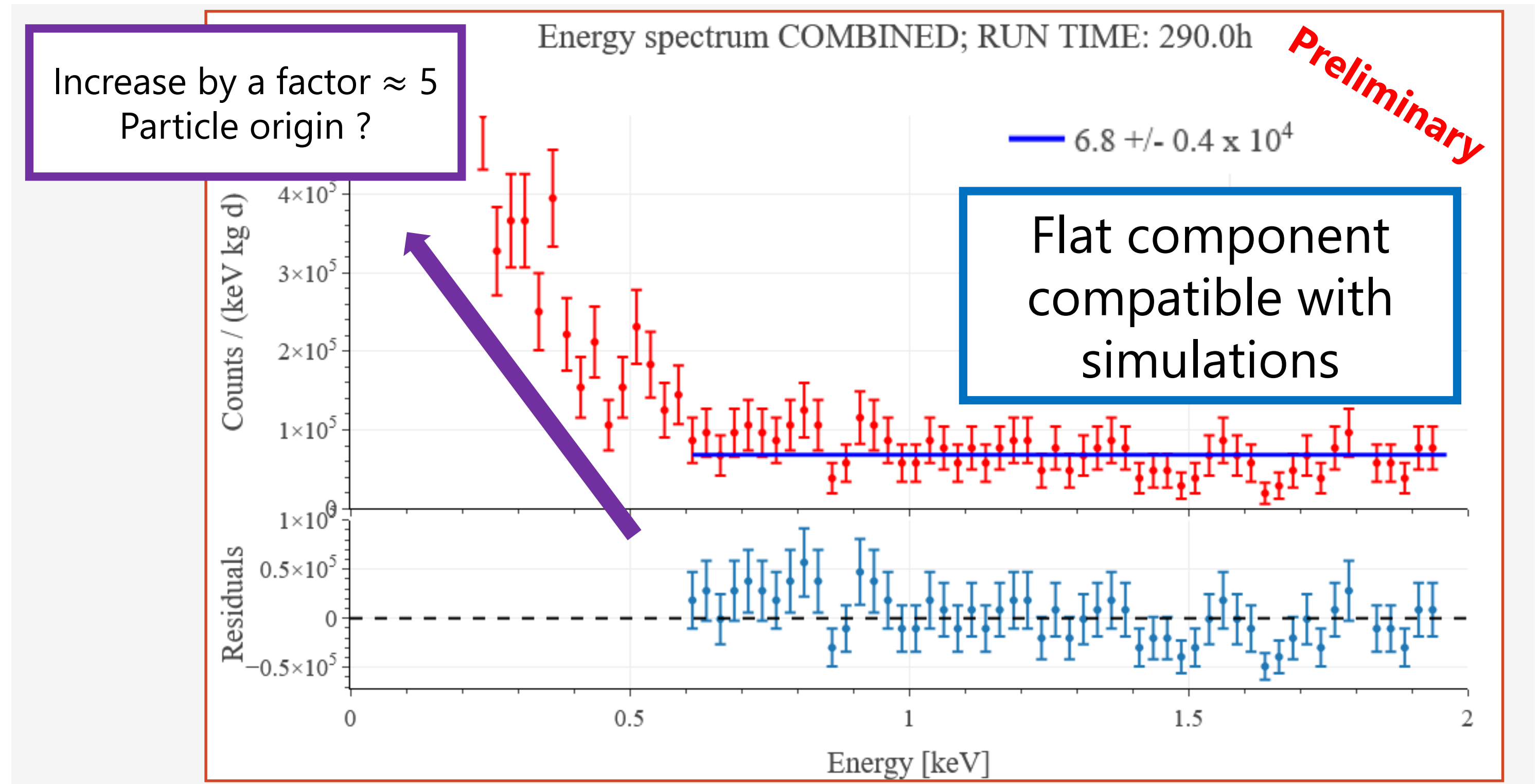


Path



Demonstrator

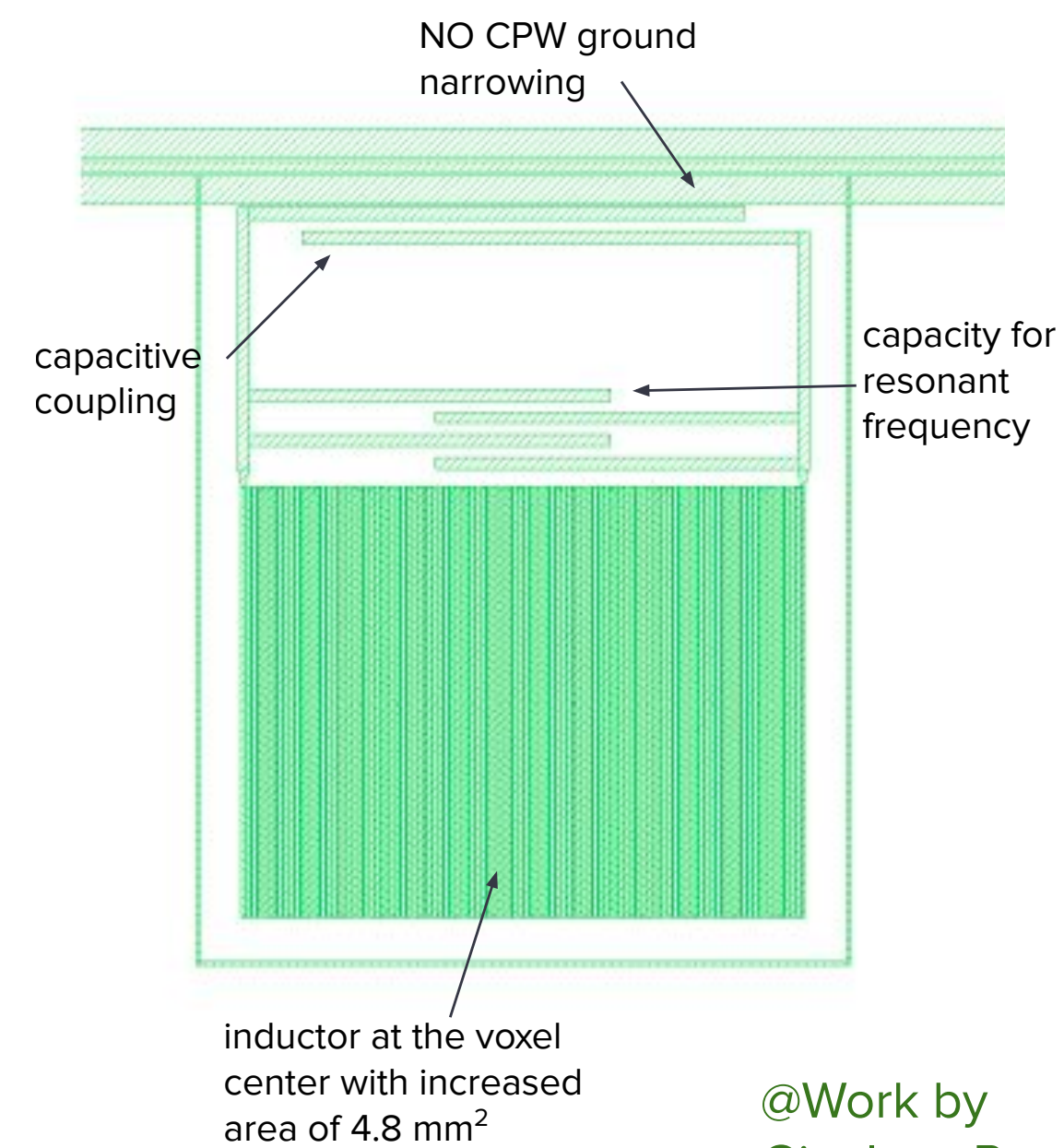
- Still need to build a 3-working-wafer stack -> over the summer
- Rising background to be understood:
 - simulations
 - technical run at gran sasso



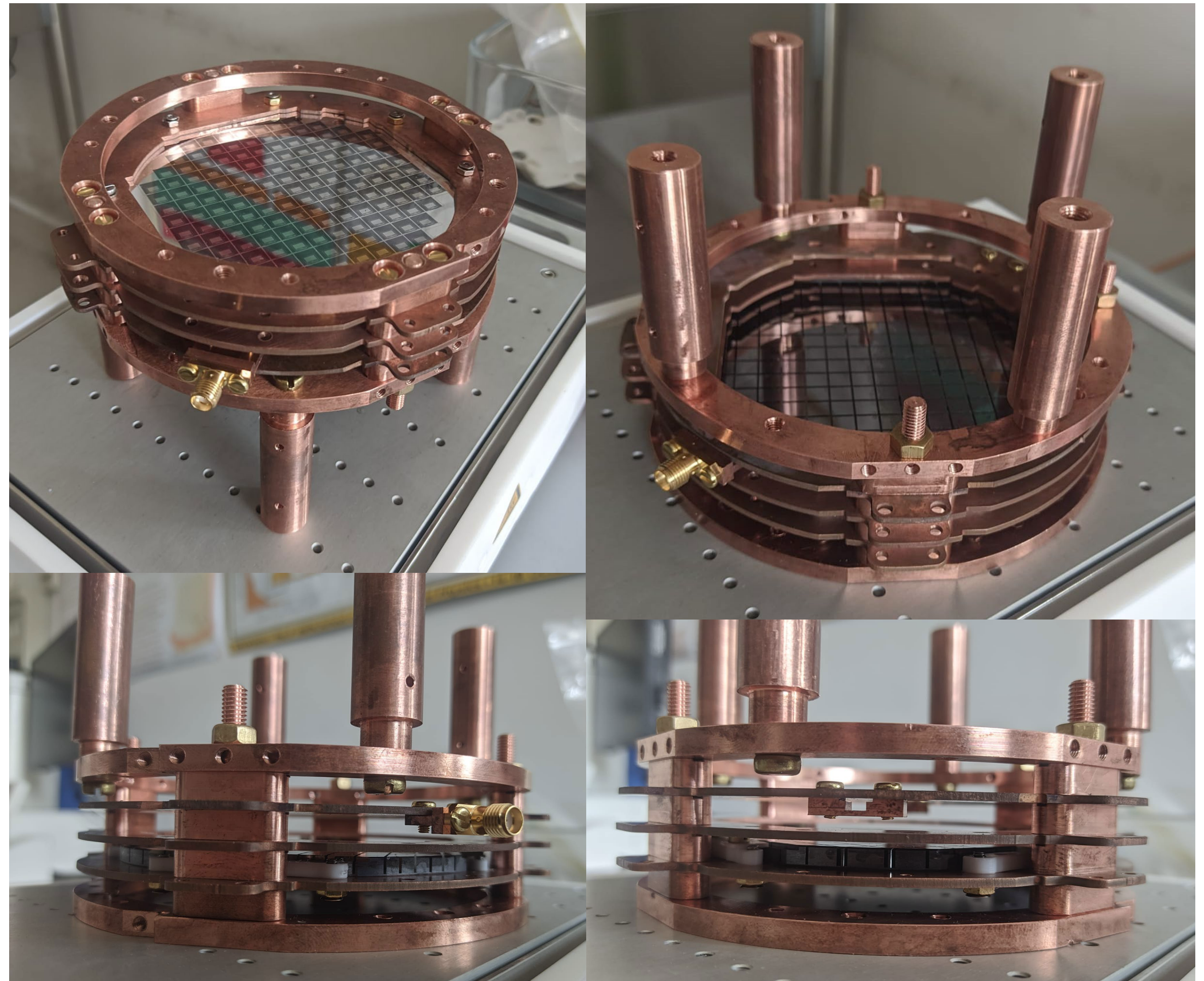
Define a clear plan for the technical run at LNGS and identify responsibilities

100 mm stack

- Assembly done!
- Production of wafers starting over the summer
- New sensor layout and ordering under study

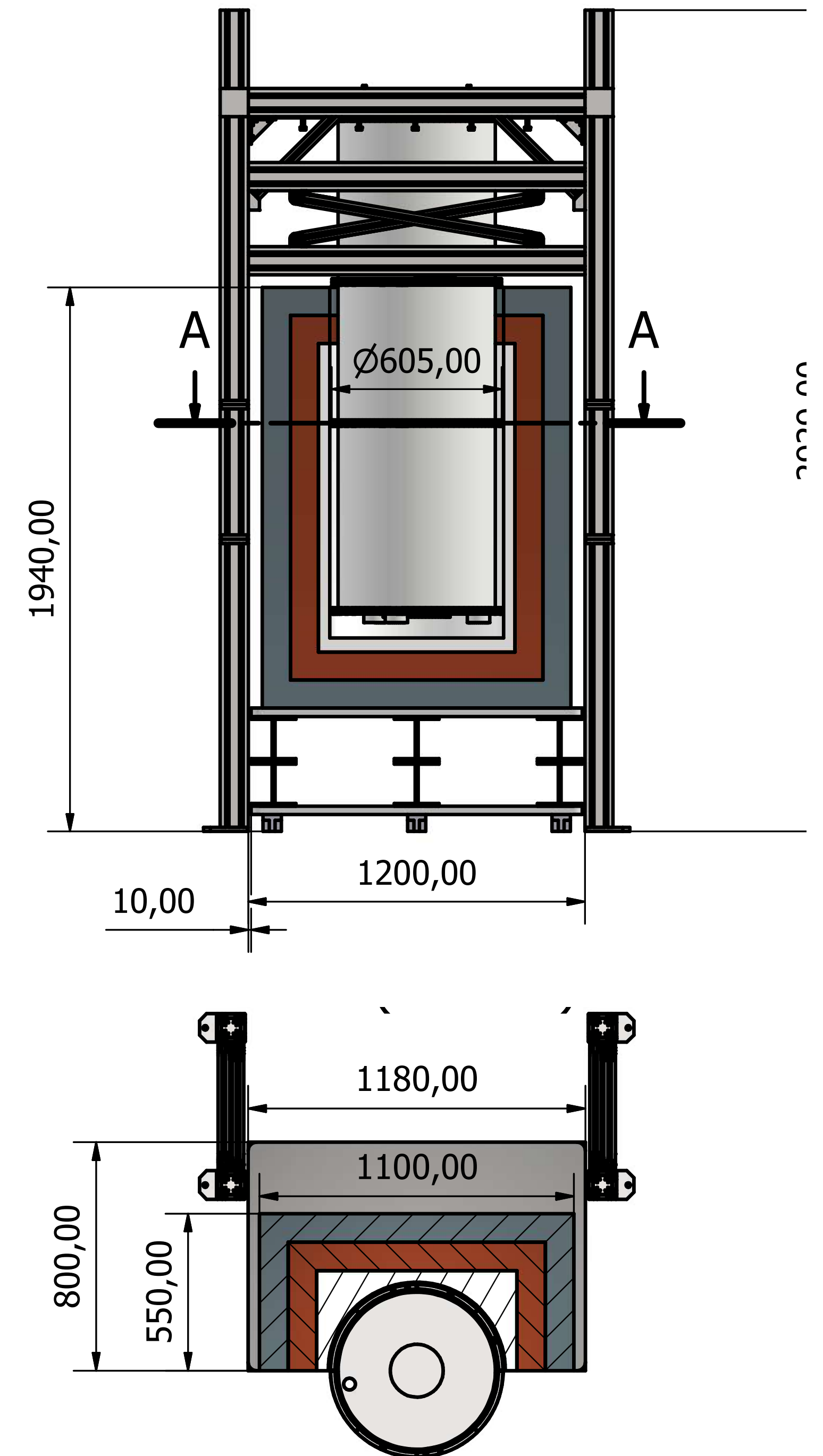


@Work by
Gianluca Pesce



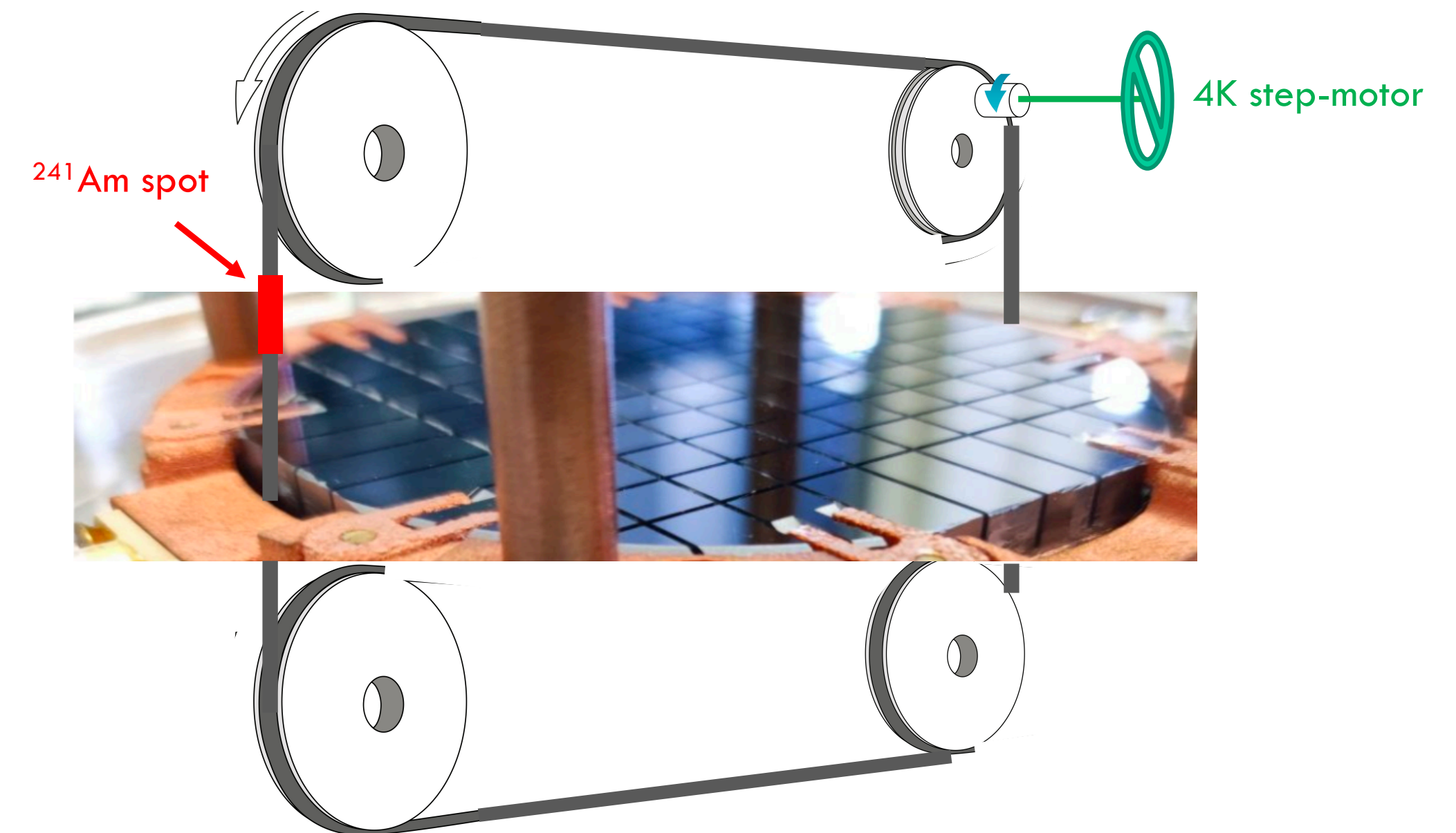
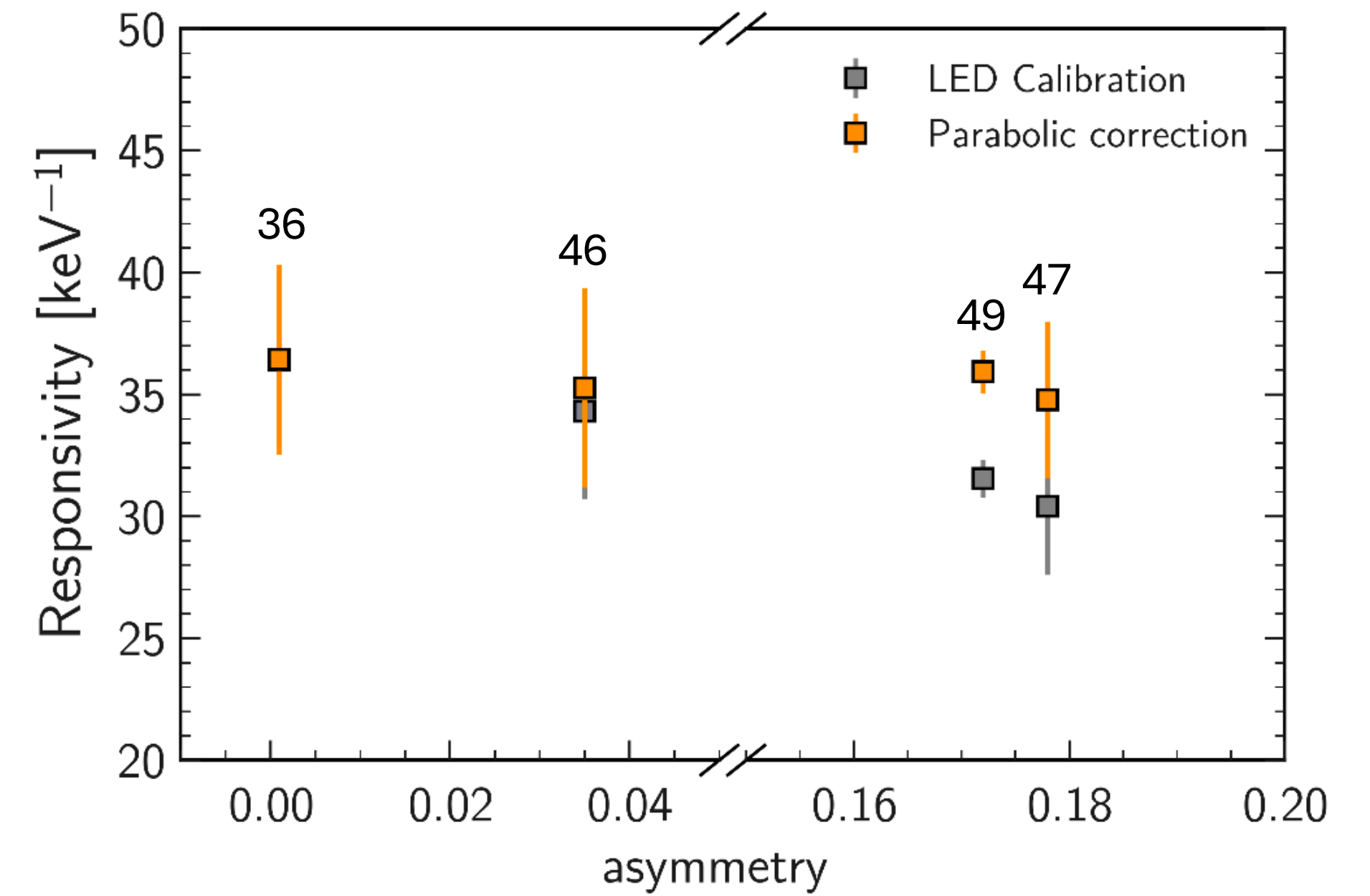
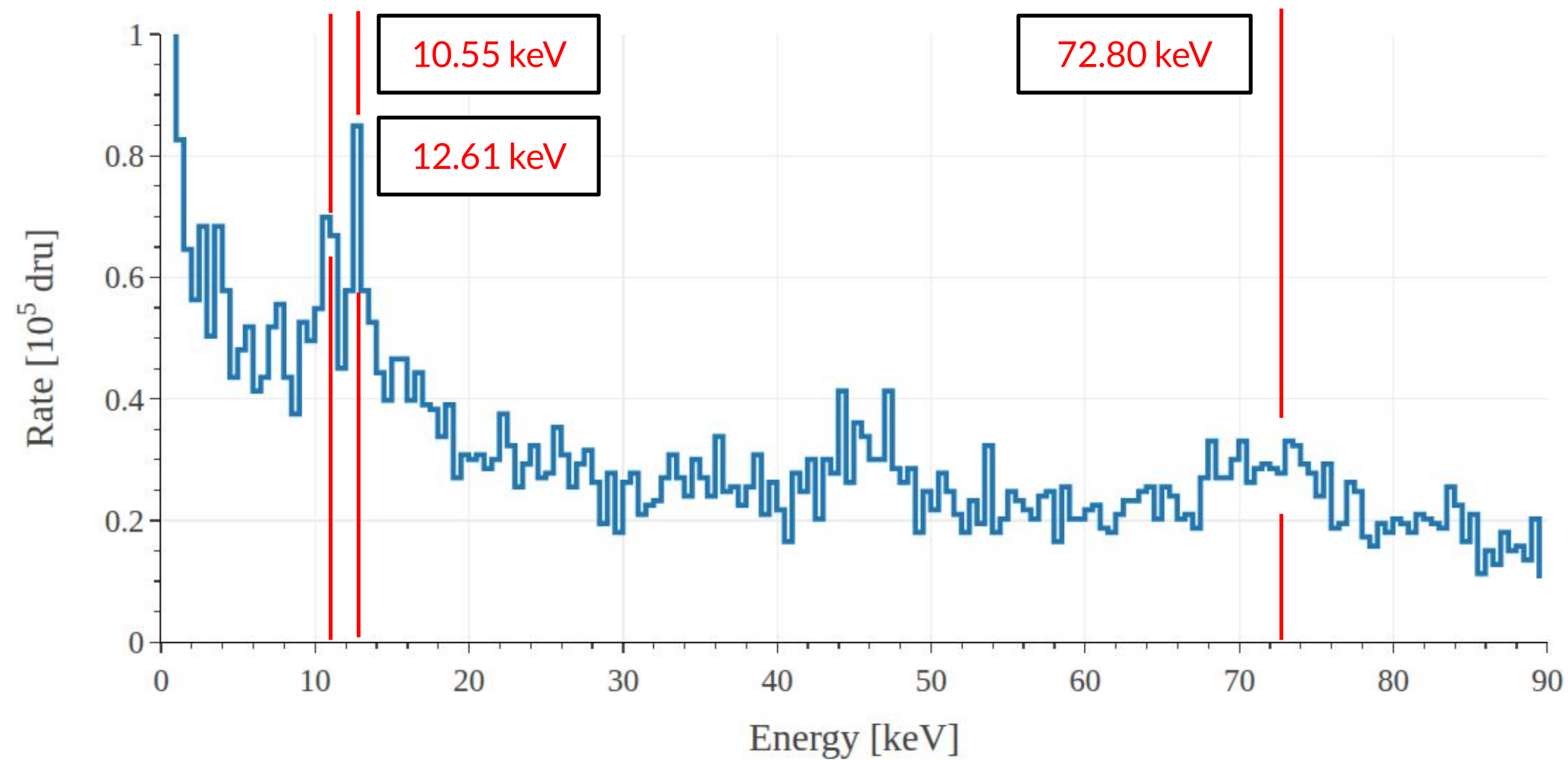
Gran Sasso

- Cryostat is arriving
- Cryoplatfrom will be ready for the technical run in beginning 2026
- Shield almost defined (5 or 10 cm o Cu?), need to take into account external polyethylene



Calibration

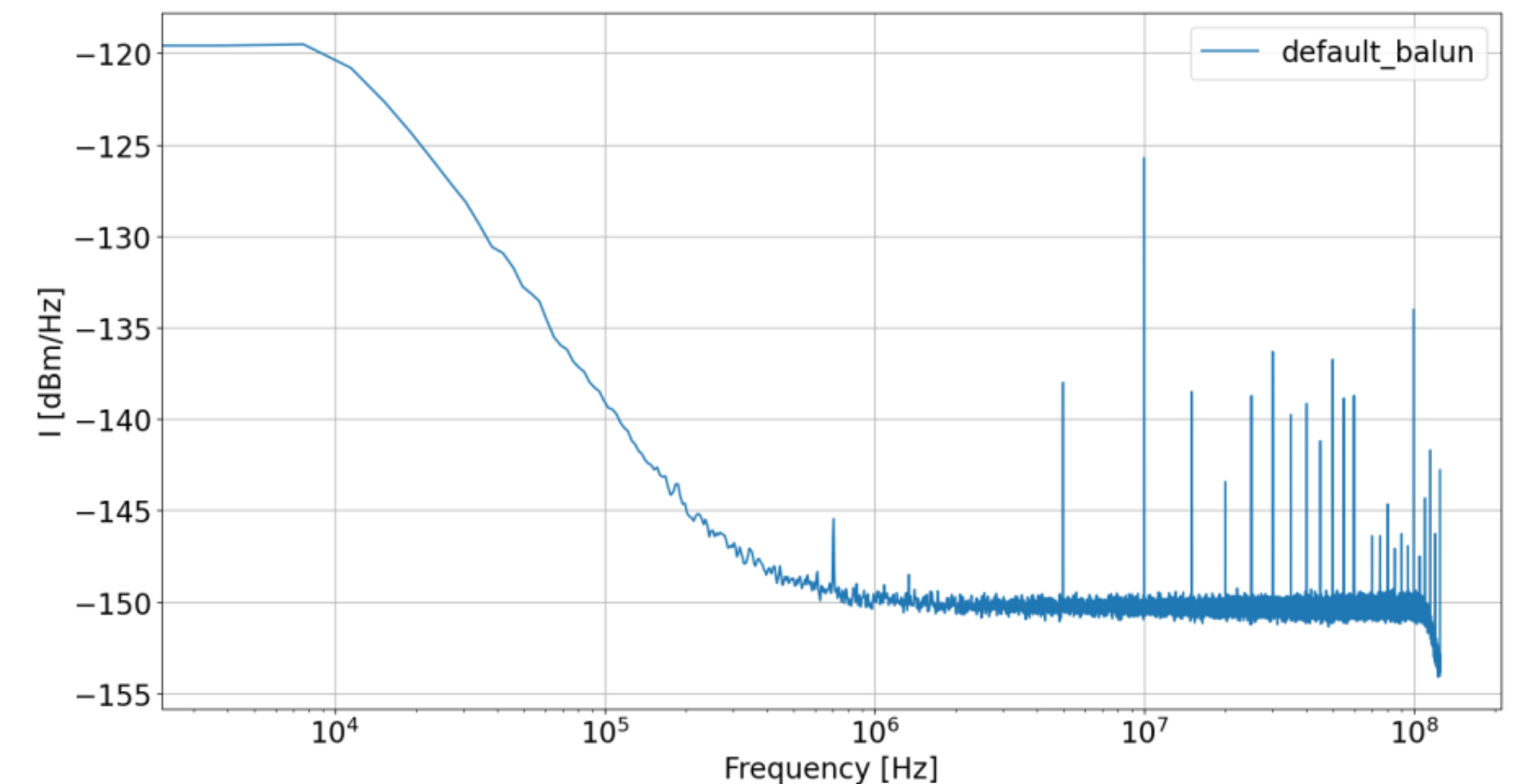
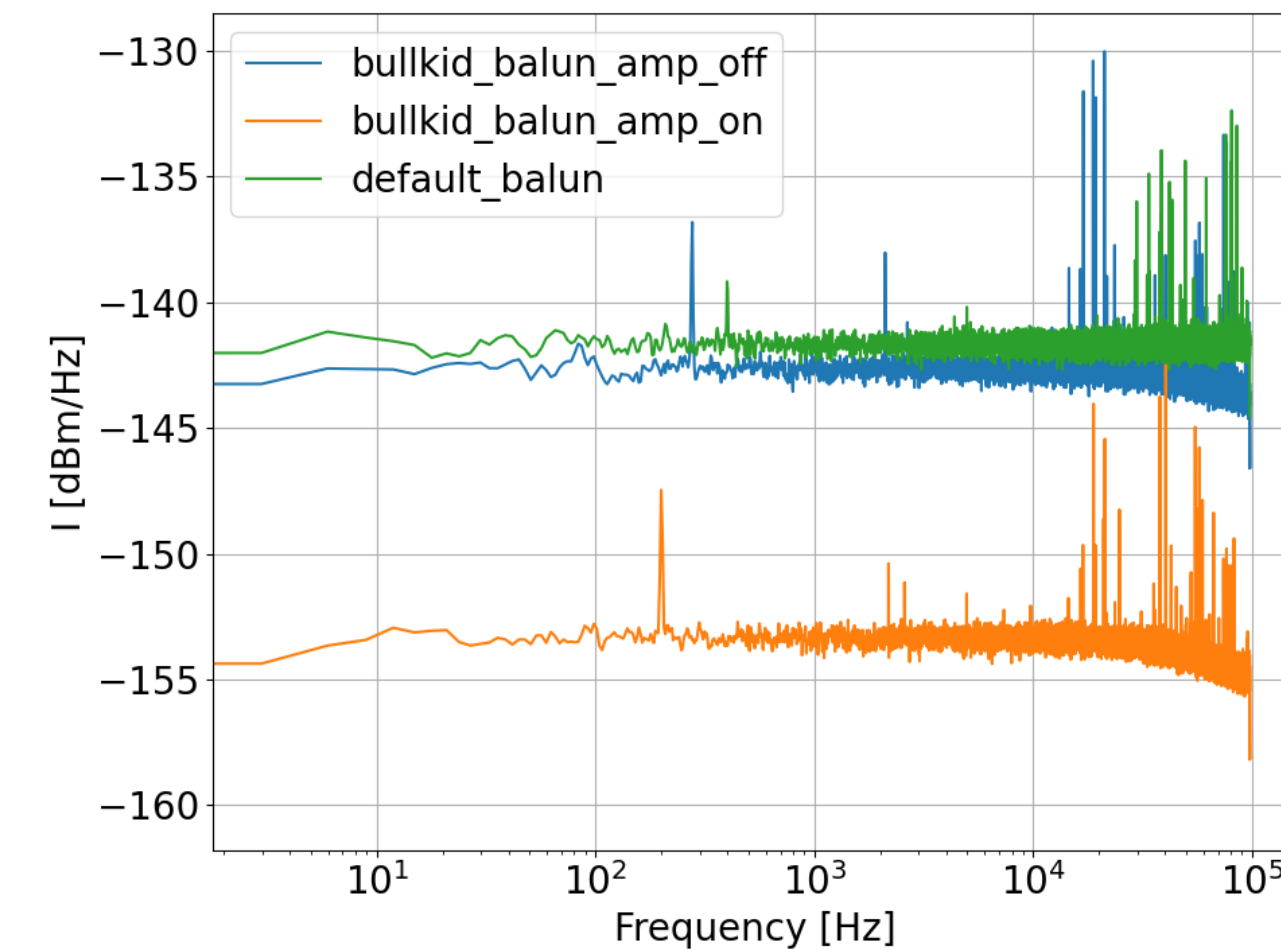
- Several results!
- PoC of calibration with source in the next months



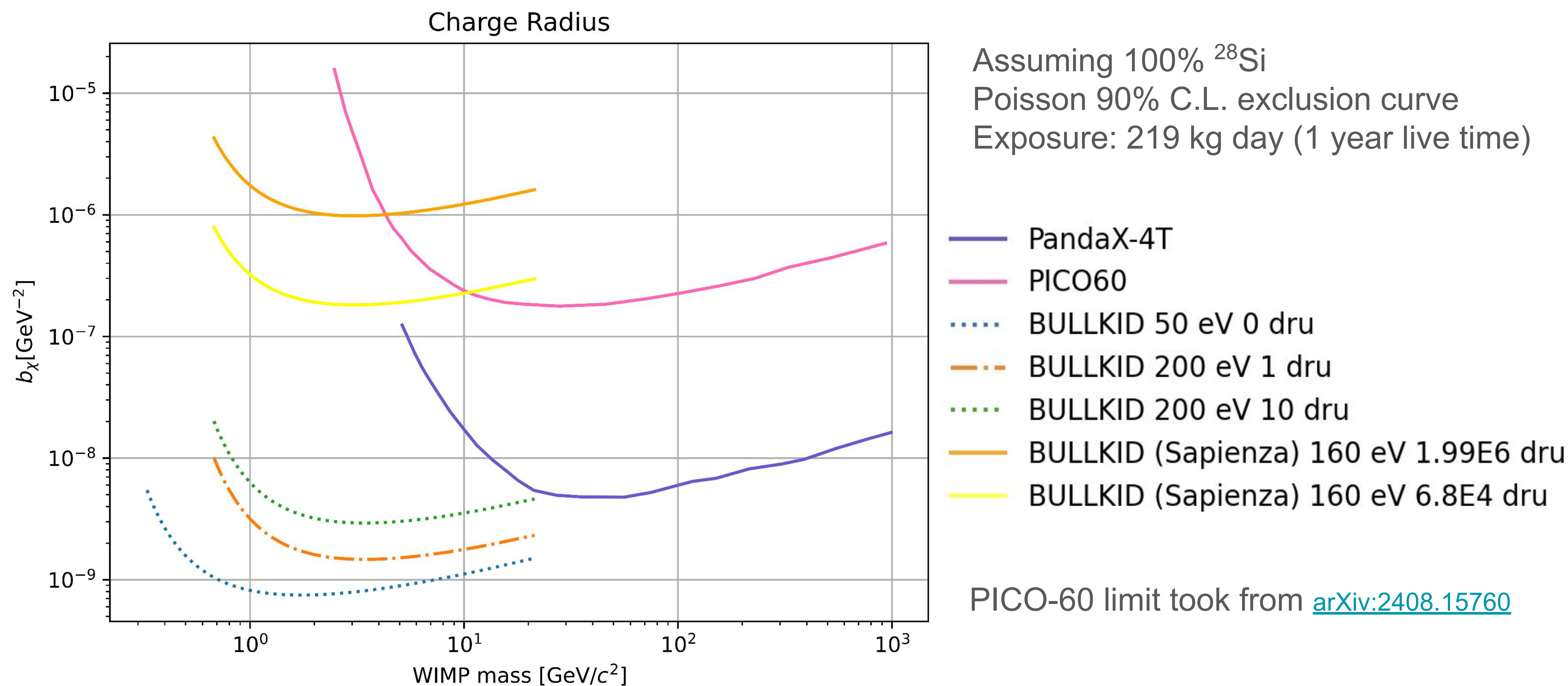
Electronics

- Later this week:
 - Continuation of noise analysis in Rome
 - Integrate DAQ into measurement scripts
- This summer:
 - Implementation of Matched Filter
 - Optimization of channelization chain
- Later this year:
 - Multi-wafer readout (3 stack demonstrator)
 - Readout of 145 pixels

- Noise hunting methodology is defined



Limits on electromagnetic DM interactions



Misc

- WP regular meetings to be started in September
- Define a clear plan for the technical run at LNGS and identify responsibilities
- Website and wiki
- Papers:
 - Bulk events with Americium
 - Collaboration paper derived from CDR (experimental setup, simulations and sensitivity)
 - Demonstrator on surface + simulation
 - Calibration with response function
 - Photon-mediated interactions
- Next meetings:
 - Digest 17 September 2025
 - Coll. Meeting in Grenoble in January 2026
 - Coll. Meeting at KIT in June 2026