

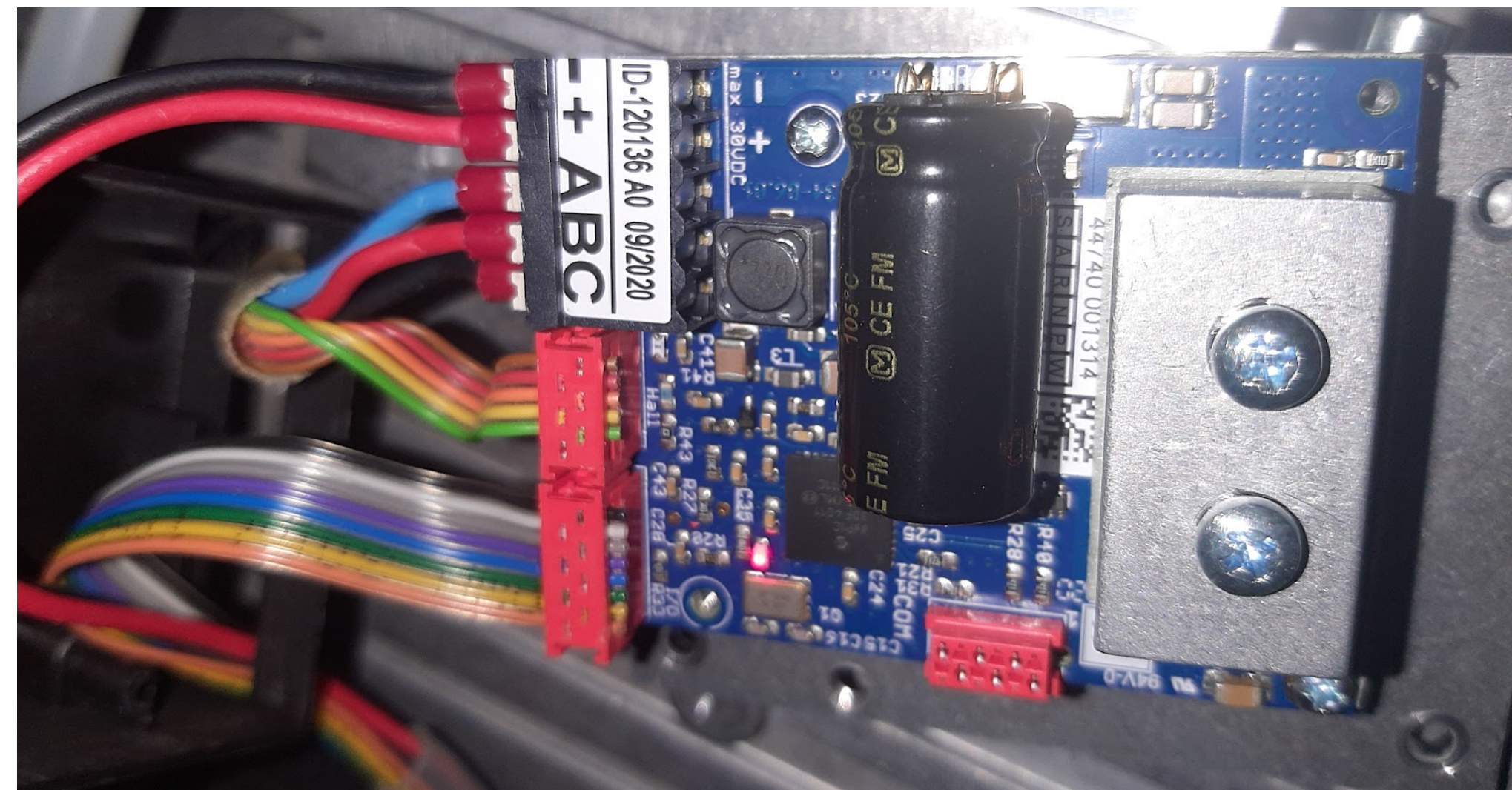
CYGNO status, Aug 2023

LIME: Run3

- After tests with **AmBe**, Run 3 is now paused because of issues with the recirculation pump;
- We took anyway enough data (see Stefano's talk) for the background characterisation and for the nuclear recoil studies;
- INFN referees received very positively the news of this complete set of data and are now waiting for the results of a comprehensive data analysis and comparison with MC;
- From now on, we should really coordinate and organise these tasks in order to reach stable results.

LIME: Gas System

- After the interventions on July, both the filter lines are properly working, keeping gas humidity under control;
- The gas leakages were fixed, and we are able to flush the system at a rate of 1 litre/hour;
- On Friday the 4th evening the recirculation pump stopped working. We tried to fix it on Saturday and Monday, unsuccessfully
- The control board indicated a very-likely fake temperature problem



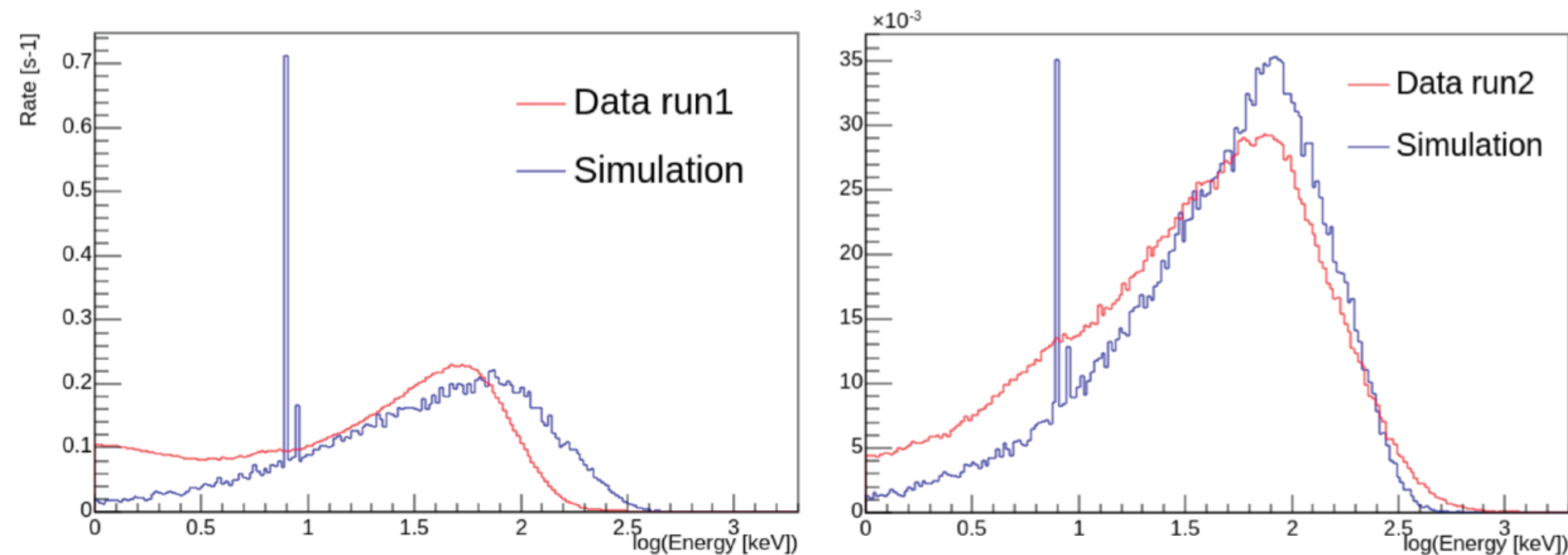
LIME: Run3

- Yesterday there was an unsuccessful attempt to restart it;
- The new pump will arrive tomorrow and will be installed in the next one;
- Other intervention on the gas system are expected next week that should stabilise the gas recovery branch;
- As soon as we have a stable and reliable setup, Run 3 will start again;
- We are preparing a proposal for the schedule.



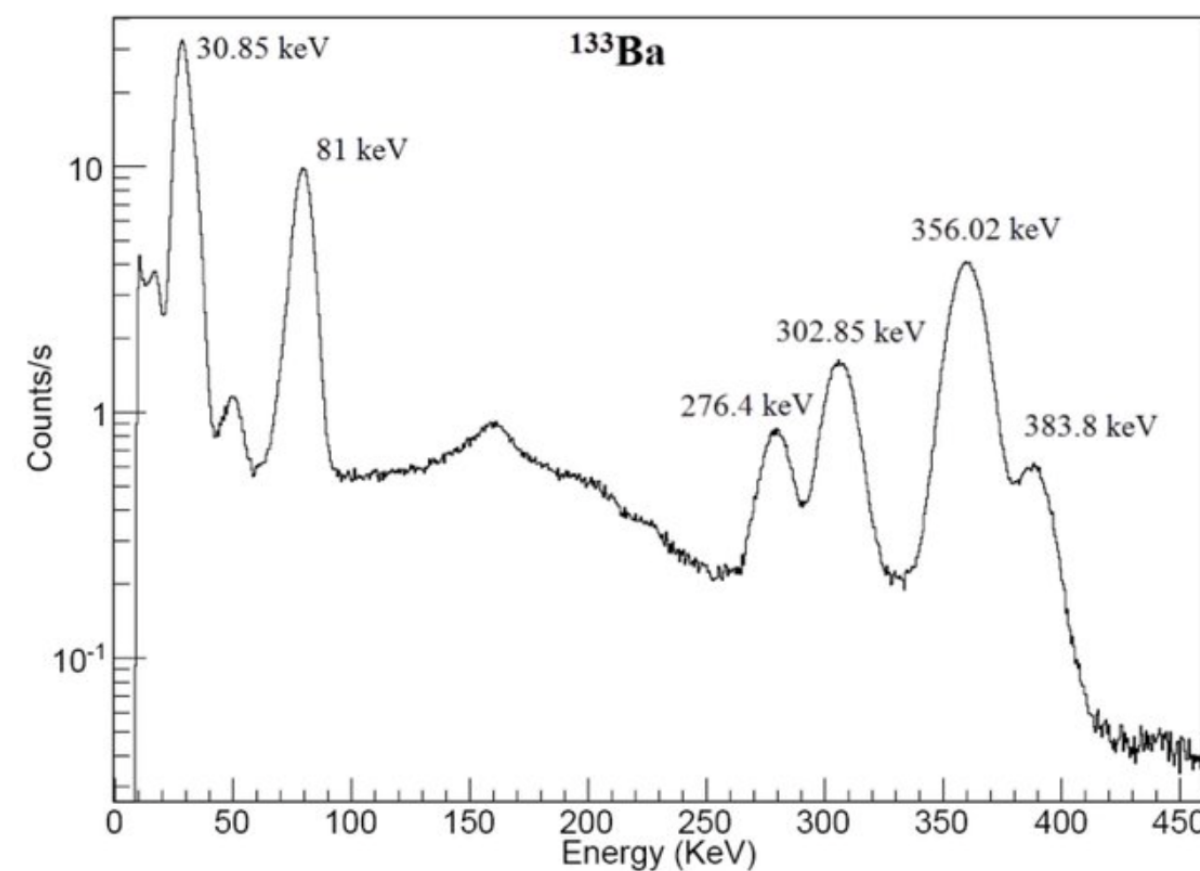
Test with high energy X rays

- The shape and the total rate of experimental and simulated events seem comparable

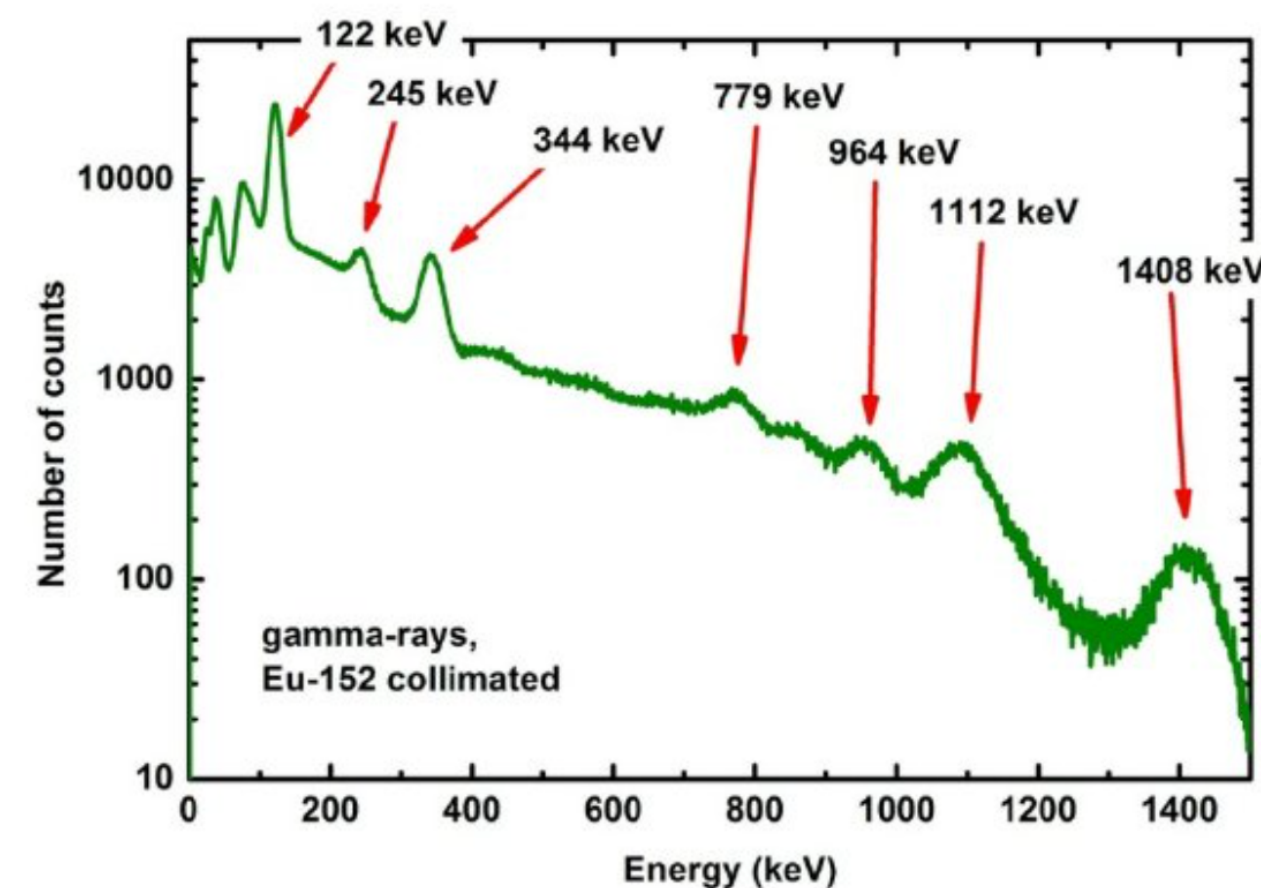


- Anyway the inter-calibration is showing some issue as a function of the energy;
- For this reason we are planning a test with high energy X rays to cross-check the behaviour of LIME and reco

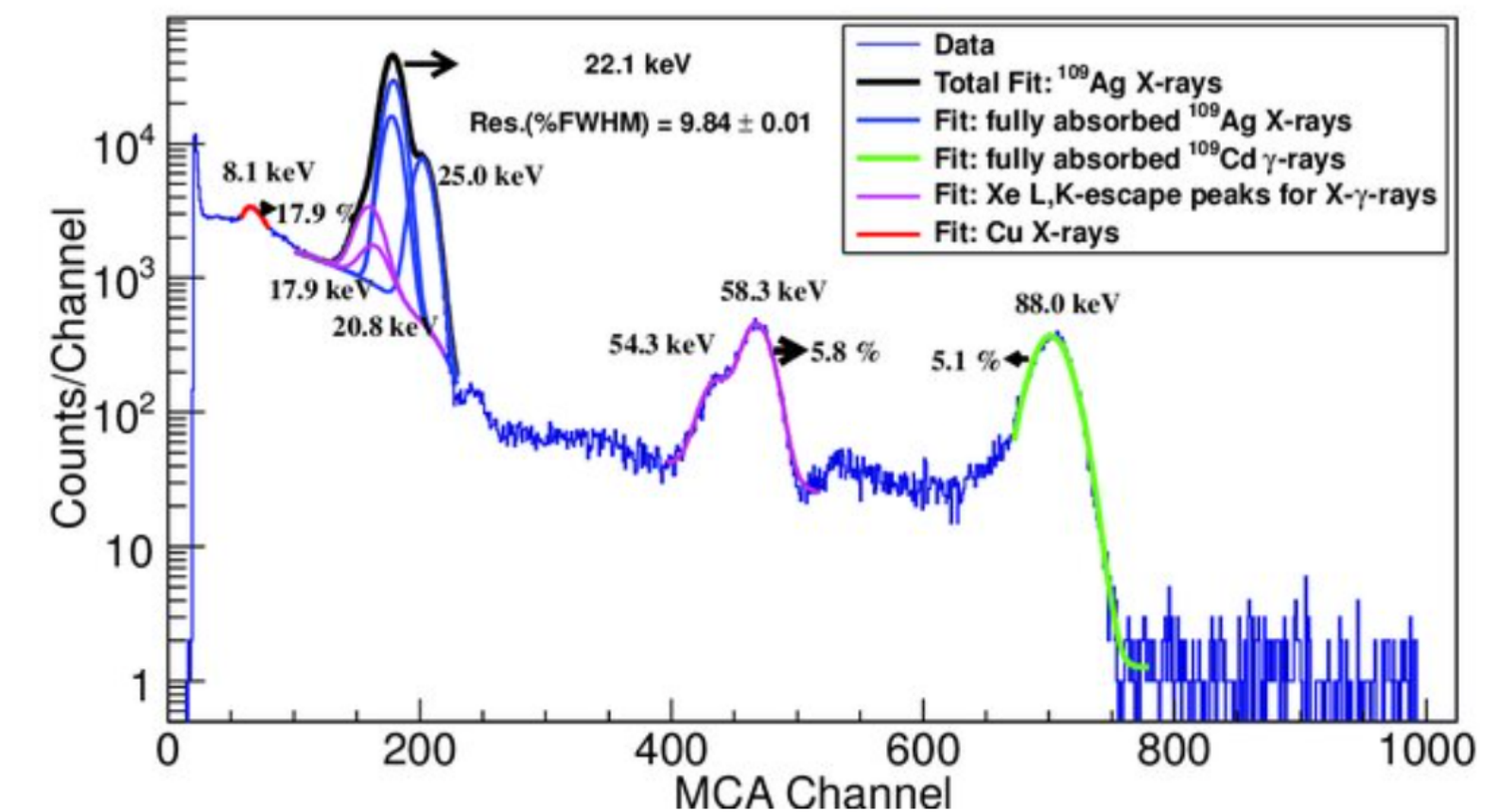
^{133}Ba : 31 and 81 keV



^{152}Eu : 122, 245, 344 keV



^{109}Cd : 22, 88 keV



Meetings

- Starting from next week, all meetings will start again:
 - Design and Integration on Monday 9.00 (weekly)
 - Simulation on Monday 14.30 (bi-weekly)
 - DAQ on Wednesday 14.30 (bi-weekly)
 - Reconstruction and Analysis **exceptionally on Friday** 14.30 (usually on Thursday bi-weekly)