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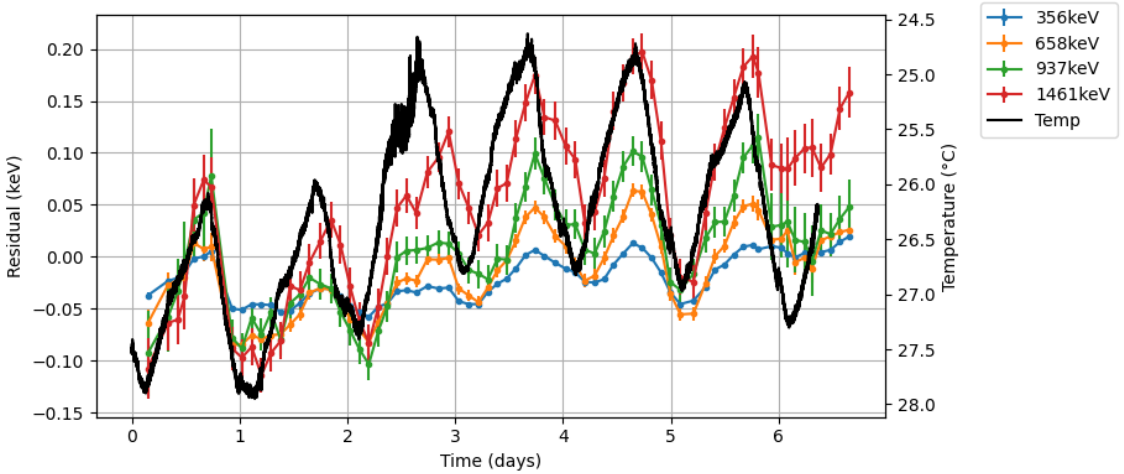
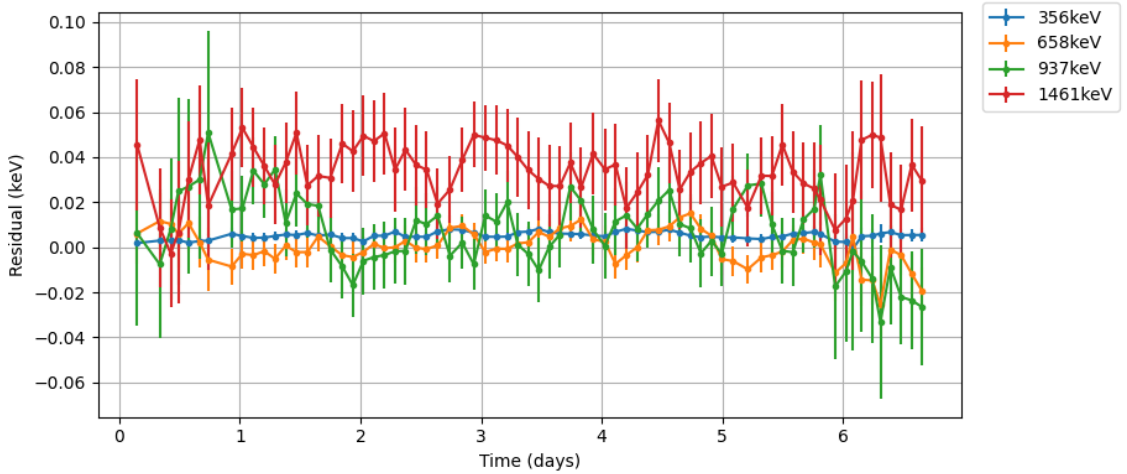
Update muX meeting 12/01

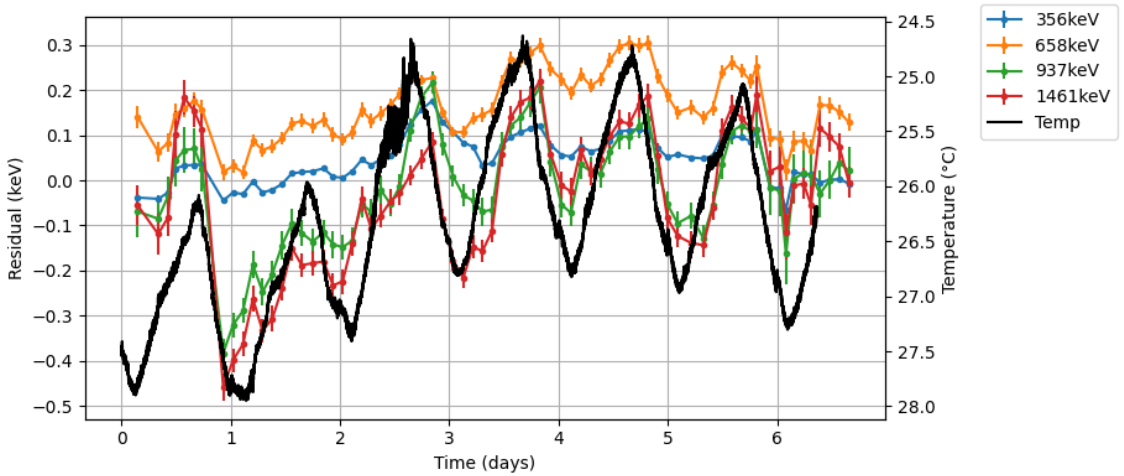
Michael Heines

Gain drift – Ge02

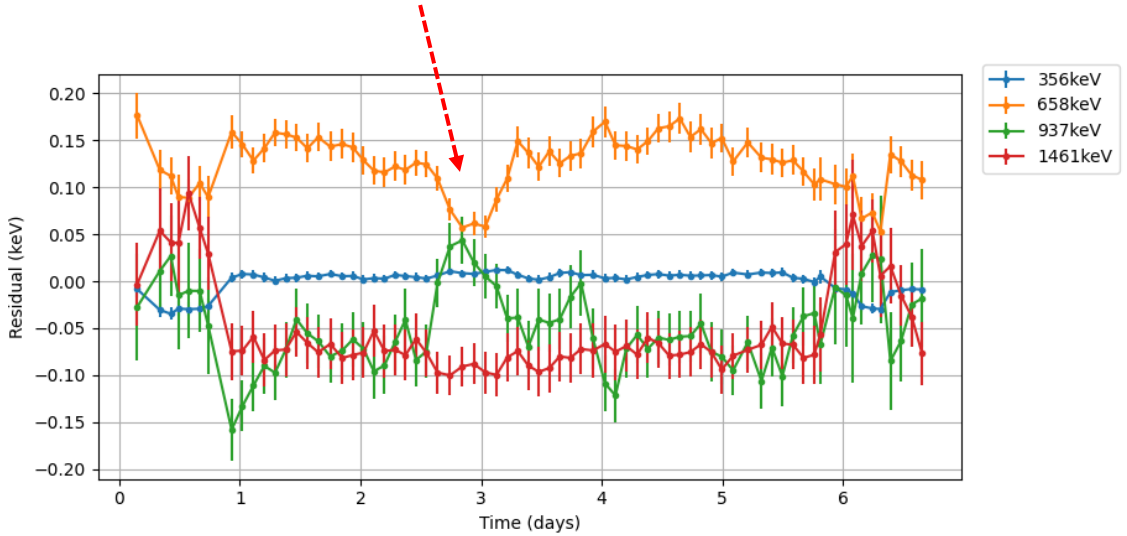




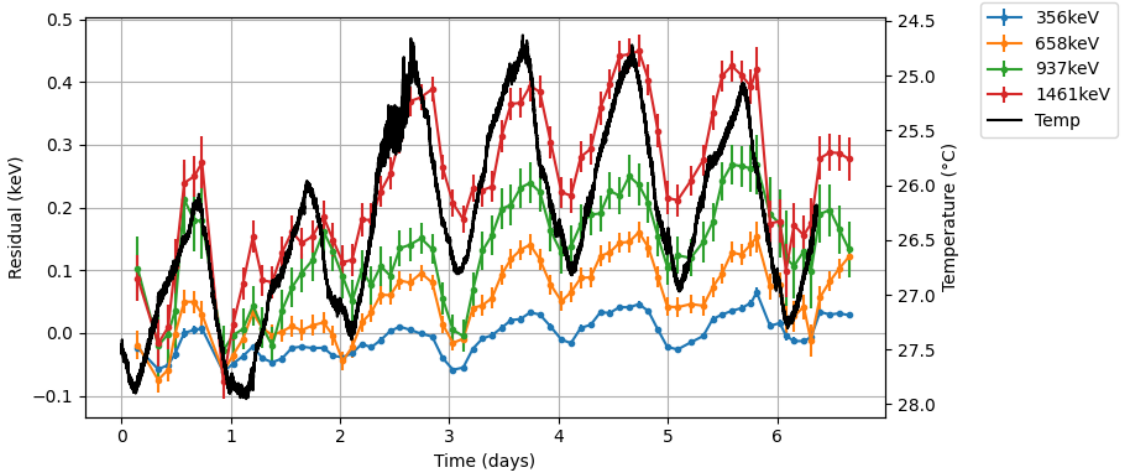
Gain drift – MB07A

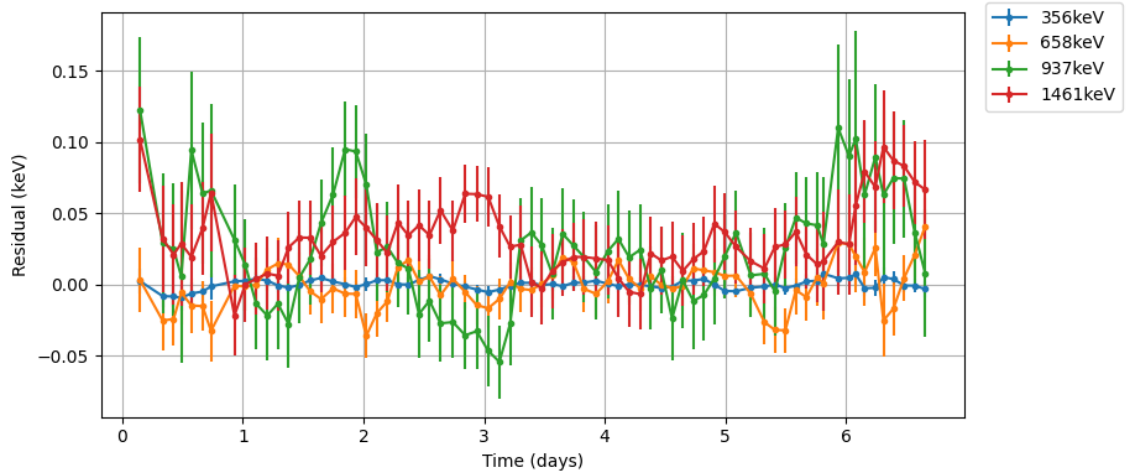


No beam → Statistics change in anticoincidence?
(won't affect results)



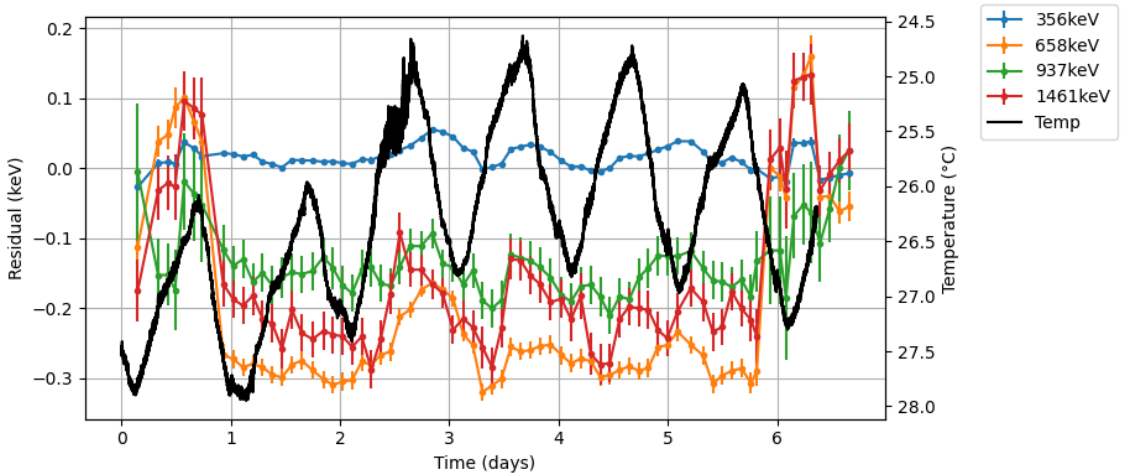
Gain drift – MB07B

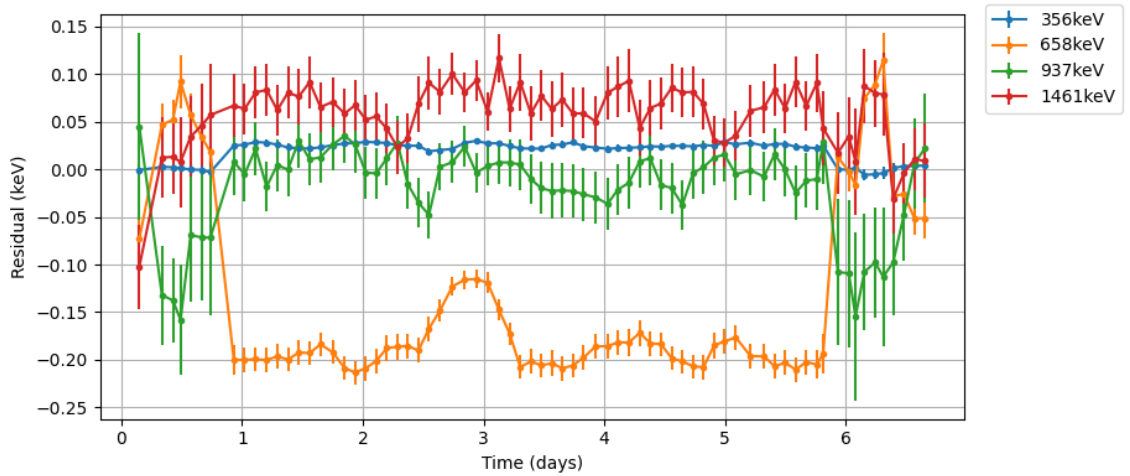




Gain drift – Ge06A

Most extreme in Ge06A, but also present in other clover crystals

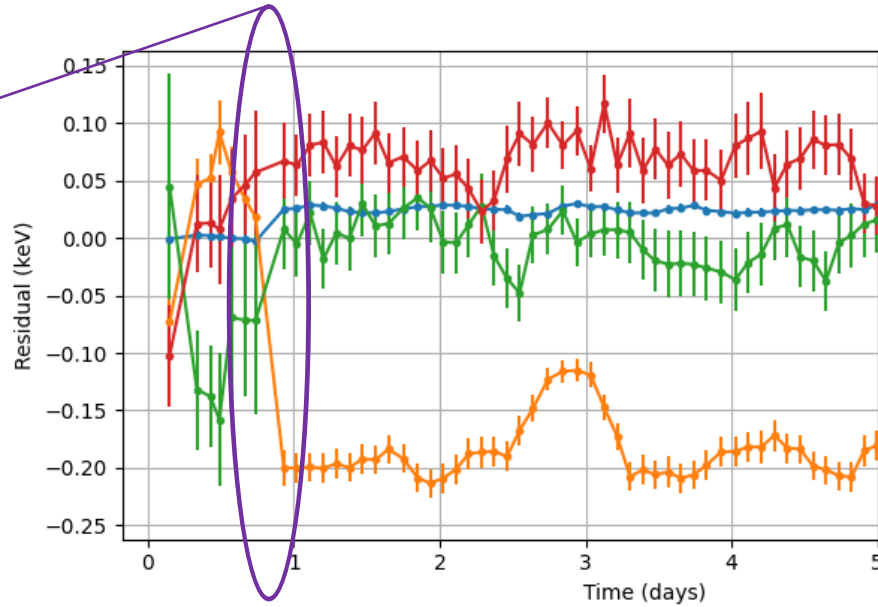




The weirdness of the clover

- Waveforms look normal
- Bias voltage and leakage current don’t suddenly change
- Rate doesn’t change
- Resolution doesn’t change

Calibration line	Source	Shift
276 keV	Ba-133	120(16) eV
356 keV	Ba-133	0(14) eV
658 keV	Ag-110m	313(20) eV
886 keV	Ag-110m	22(29) eV



What’s next?

- Rerunning analyzer saving anticoincidence and muon event trees
- Filtering muon events with electron veto, muon pile-up, energy gates, …
- Recalibrate using anticoincidence tree

General things

- Reference radii proposal for BVR: https://www.overleaf.com/9362818634rhmxmkjhzstf#f66159
  - Lanthanum
    - La-137: Ulli Koester
    - La-138: Separation at Offline (CERN)
    - La-139: No purification needed
  - Lutetium
    - Lu-175: No purification needed
    - Lu-176: Attempt with 10-20 mg 75% enriched (if it doesn't work → Better target preparation needed)

- muX 2022 data publication: https://www.overleaf.com/3255896293nmkhrjktphff#5d11fd
  - What uncertainty to assume for intensities?

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