

Update muX meeting 15/12

Michael Heines

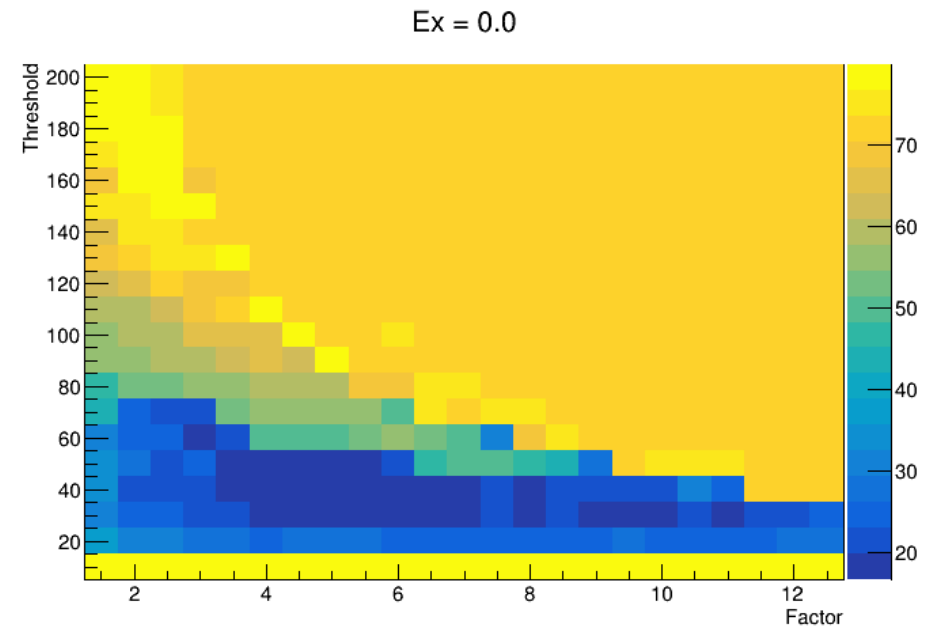
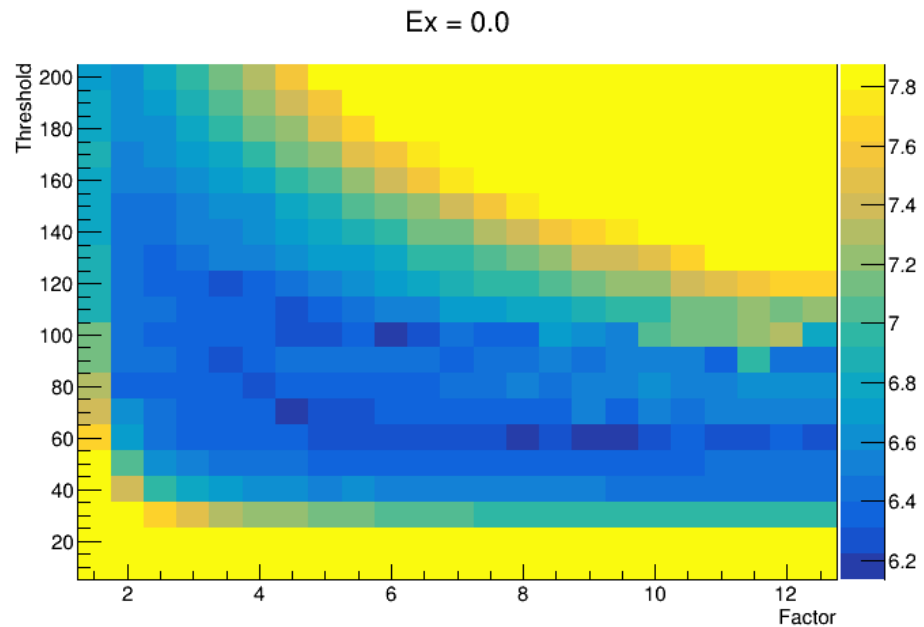
Timing at low energy (test for Andreas)



Optimizing parameters ($E_x = 0$)

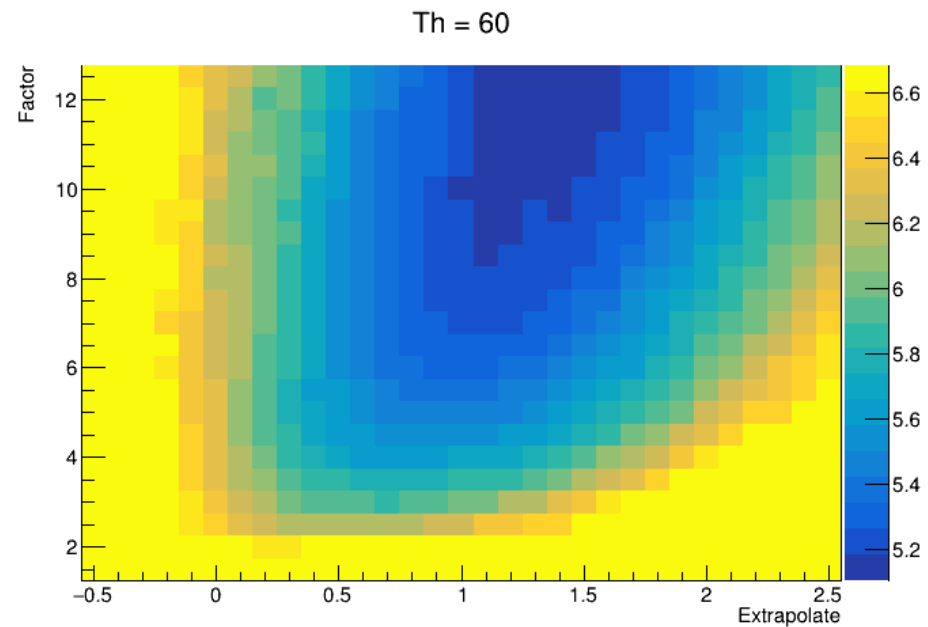
- Optimization around 713 keV

- Optimization around 114 keV

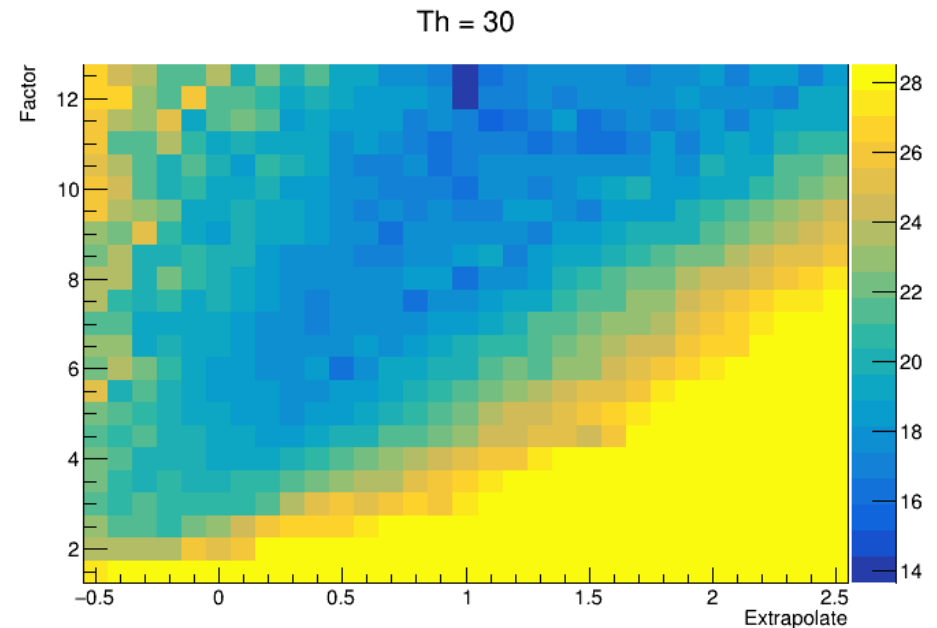


Optimizing parameters (Fixed Th)

- Optimization around 713 keV

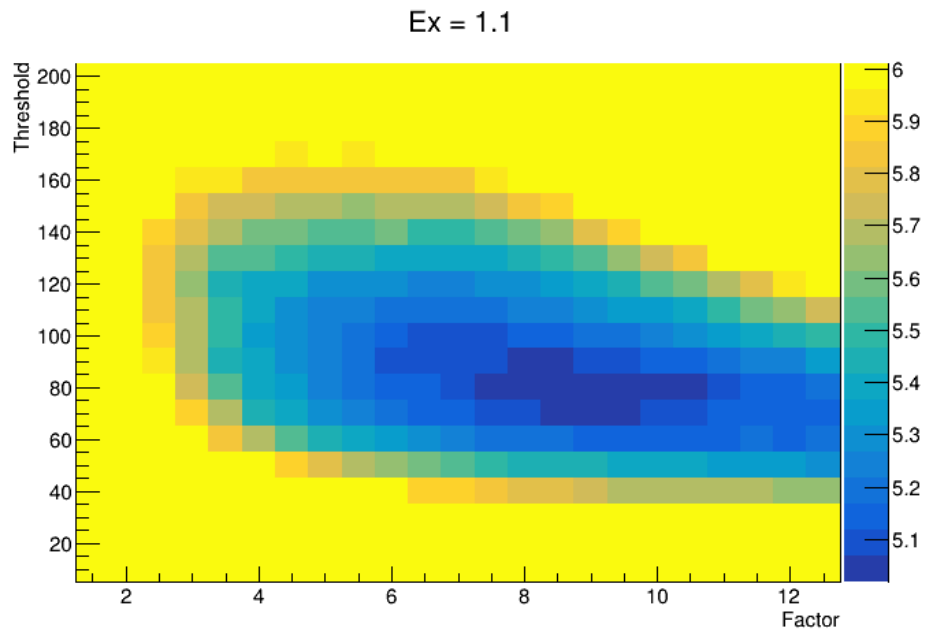


- Optimization around 114 keV

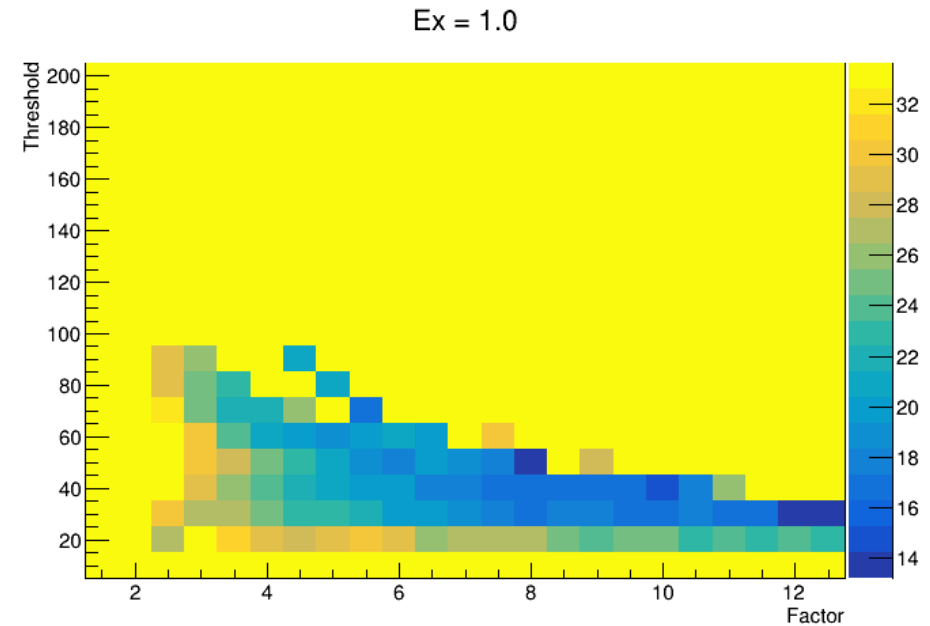


Optimizing parameters (Fixed Ex)

- Optimization around 713 keV

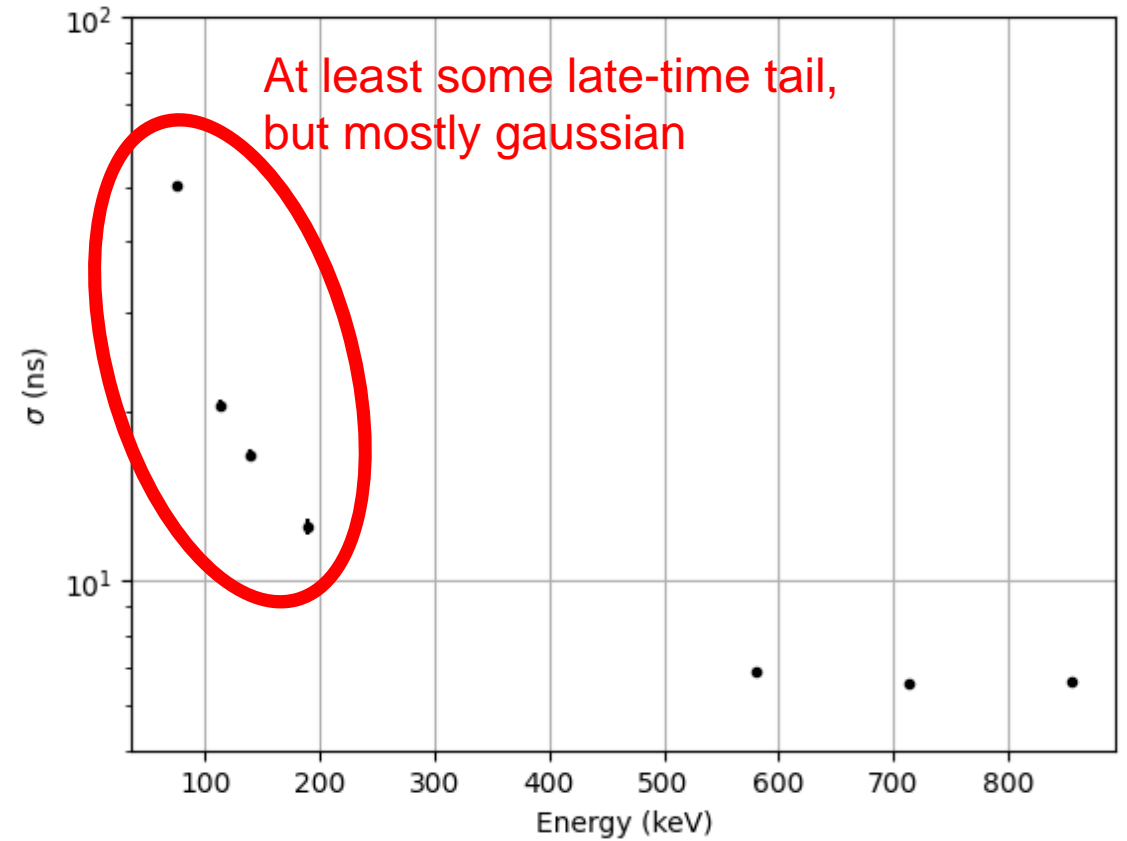
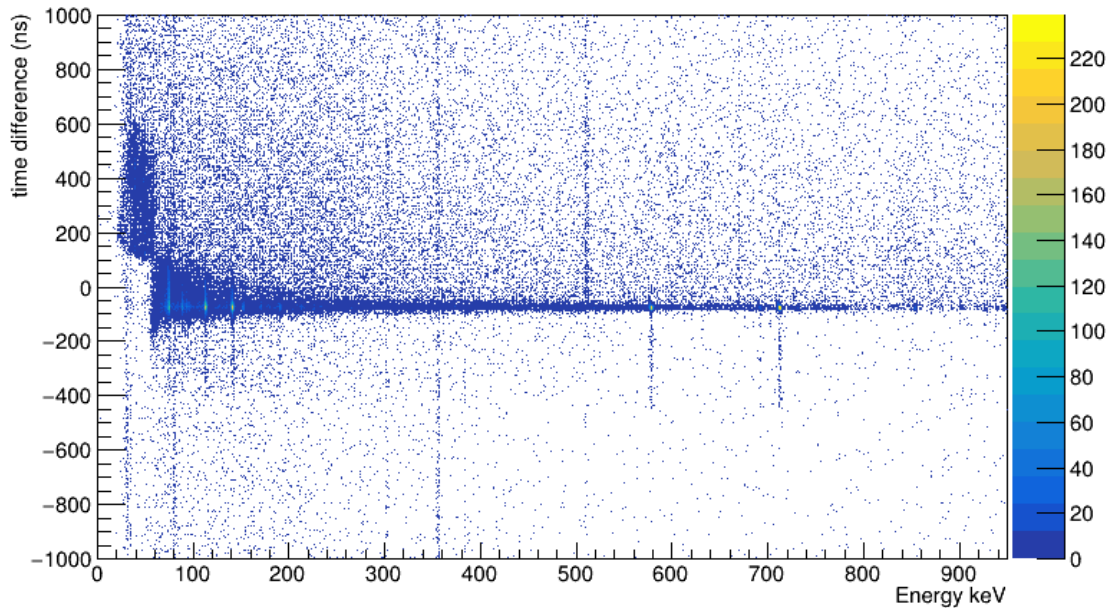


- Optimization around 114 keV



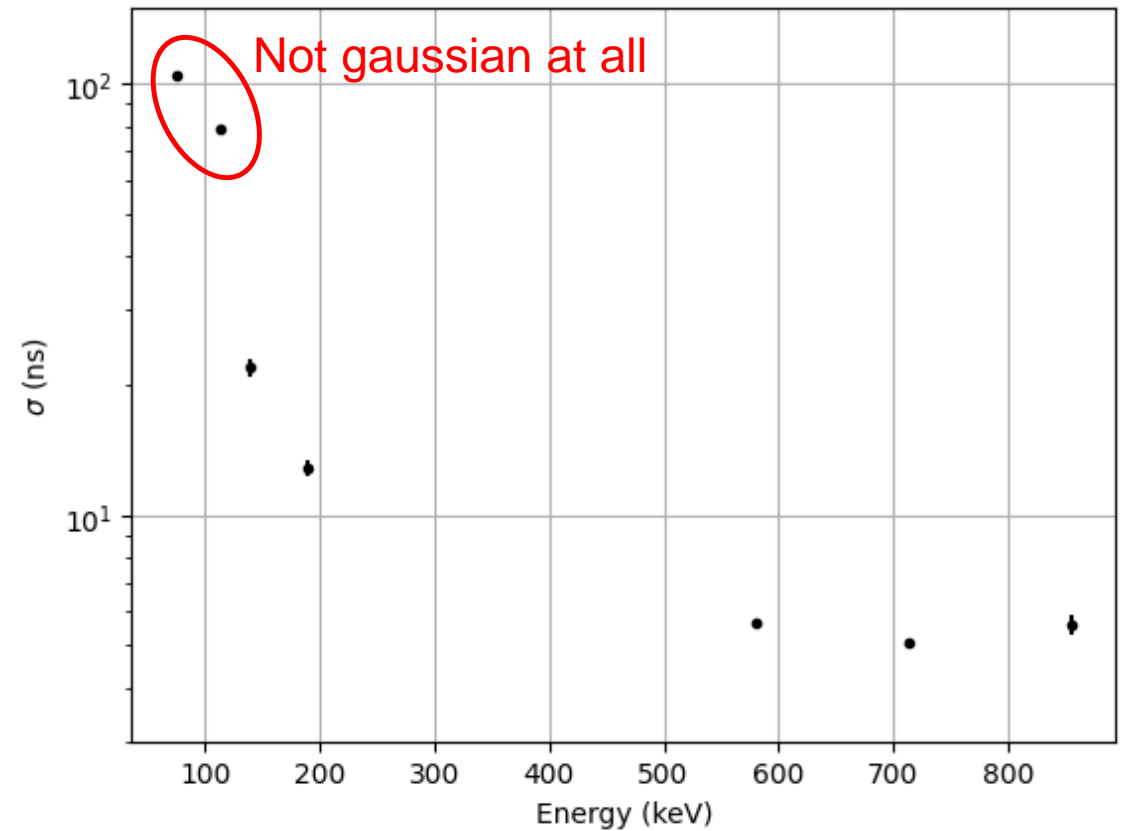
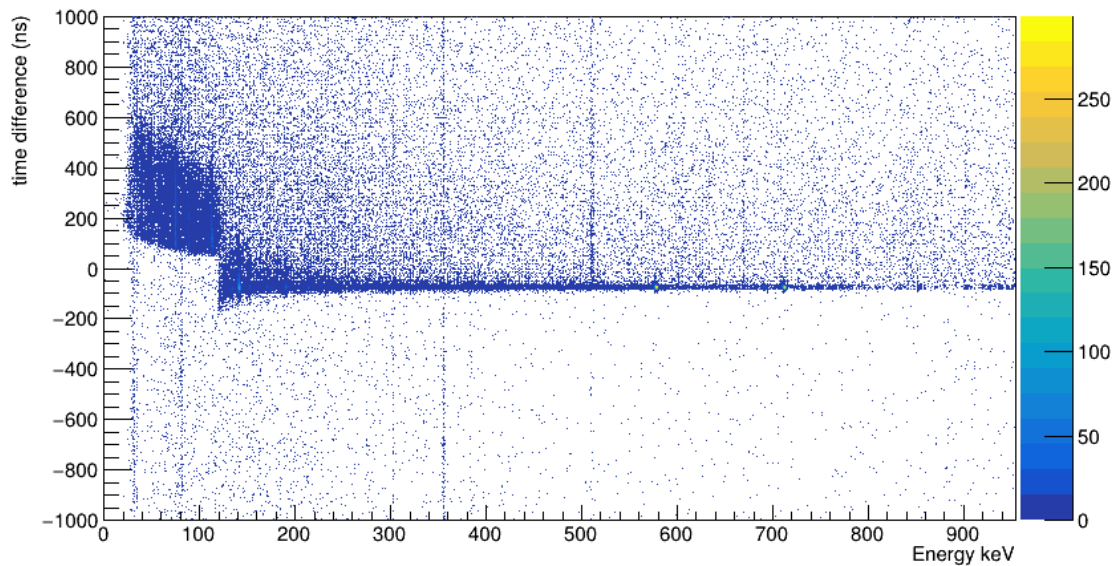
Optimized at low energy

Jump at 60keV (no longer reaching second threshold)



Optimized at low energy

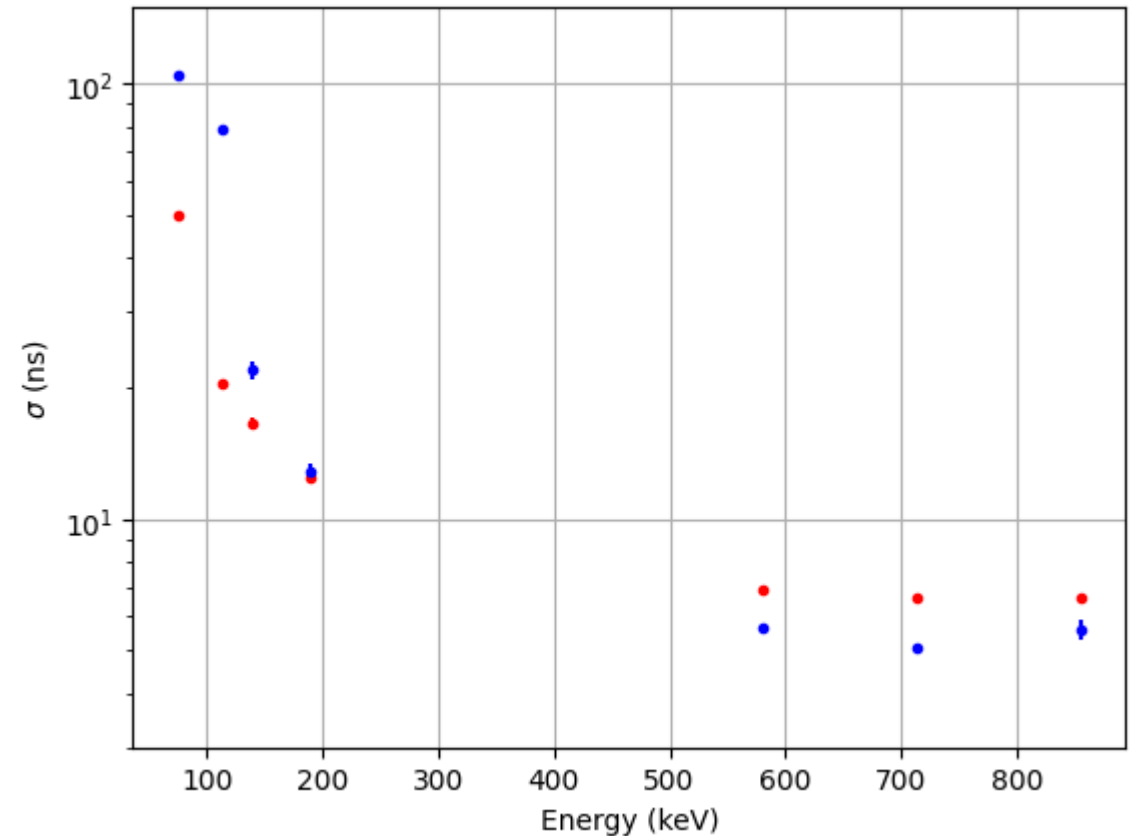
Jump at 120keV (no longer reaching second threshold)



Comparing the time resolutions

Time offset before offset correction:

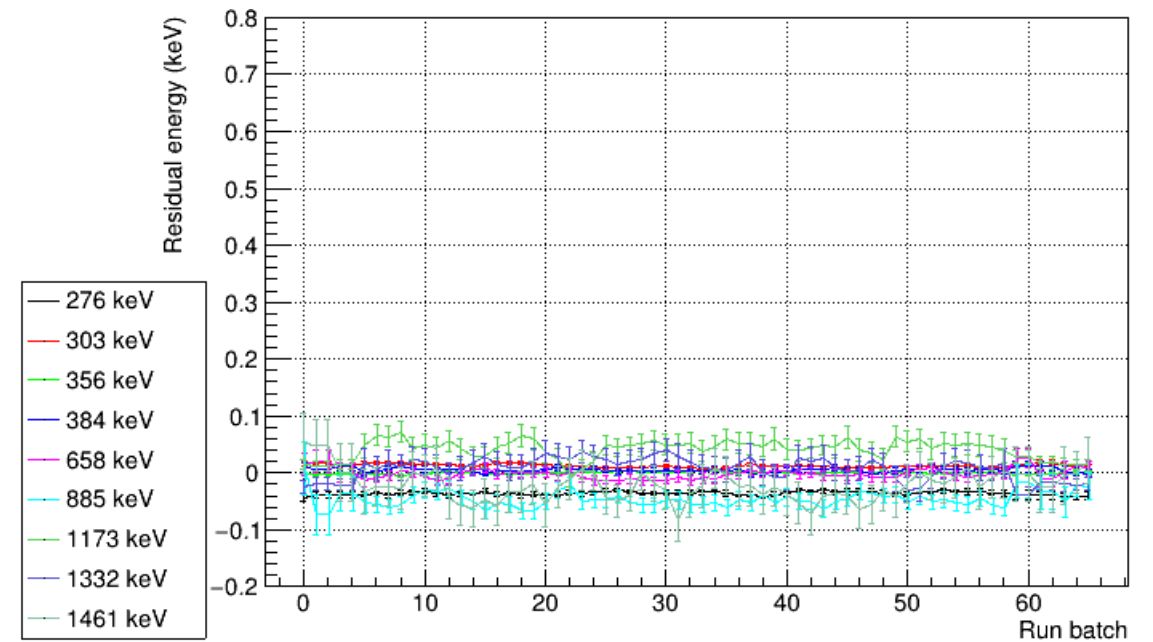
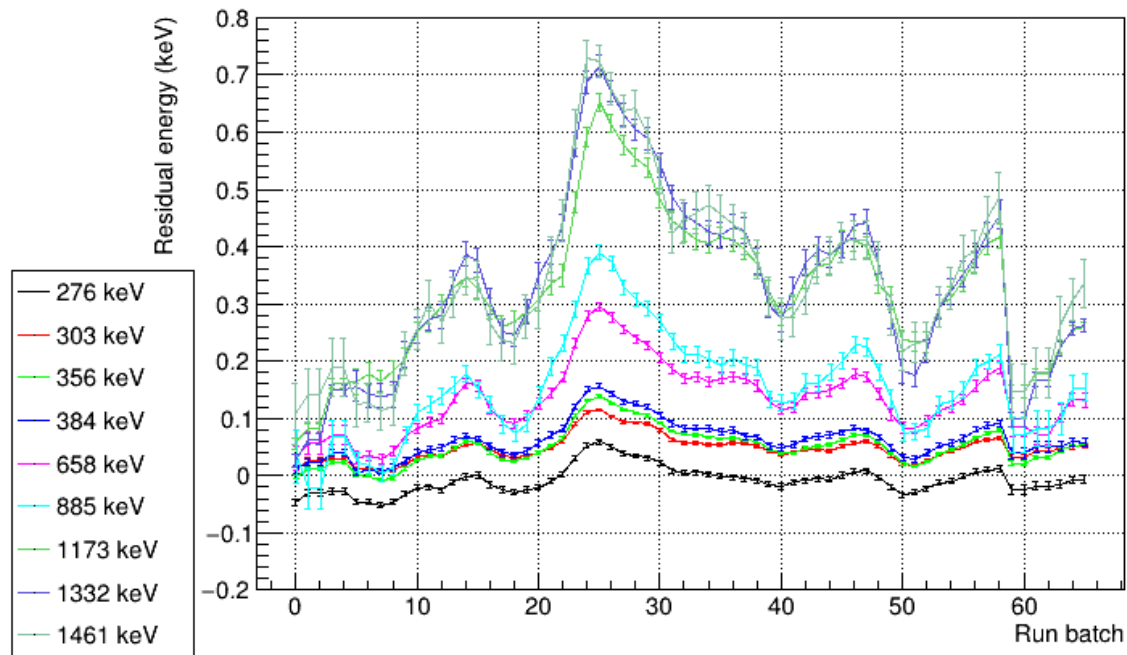
- Optimized at 713 keV \rightarrow -75.85(10) ns
- Optimized at 140 keV \rightarrow -77.22(13) ns



Calibration

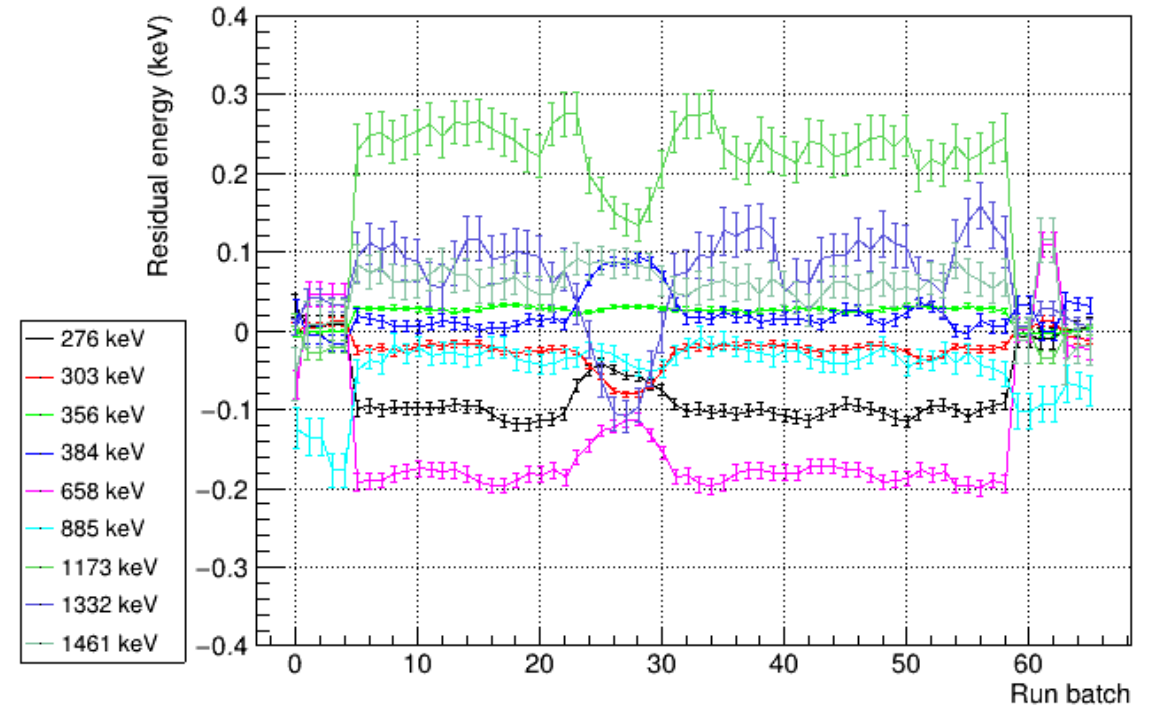
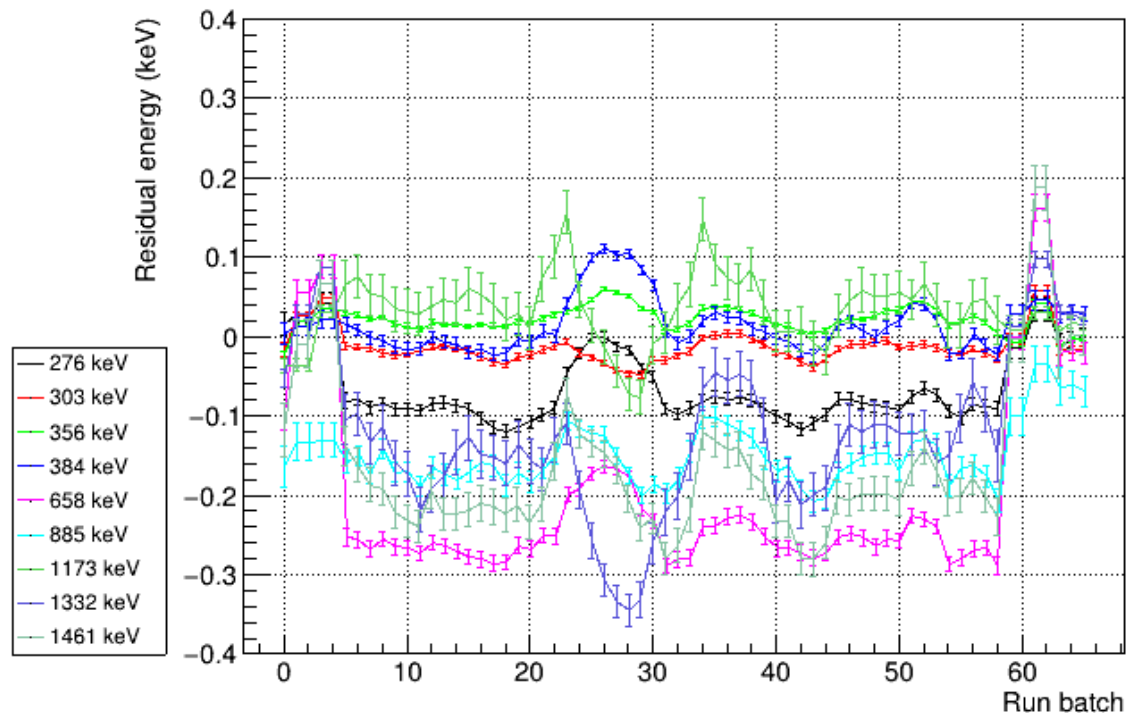


Gain drift – Ge01



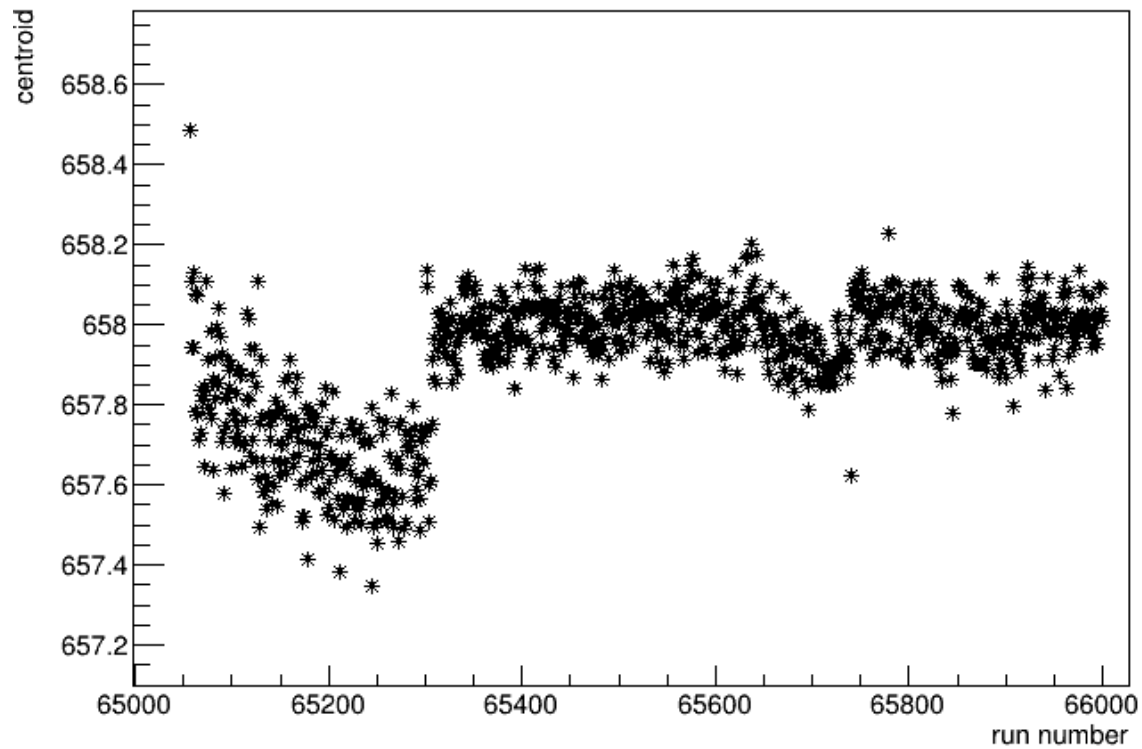
Gain drift – Ge06A

Why still a trend? Why do macroscopic measurements have better residuals?

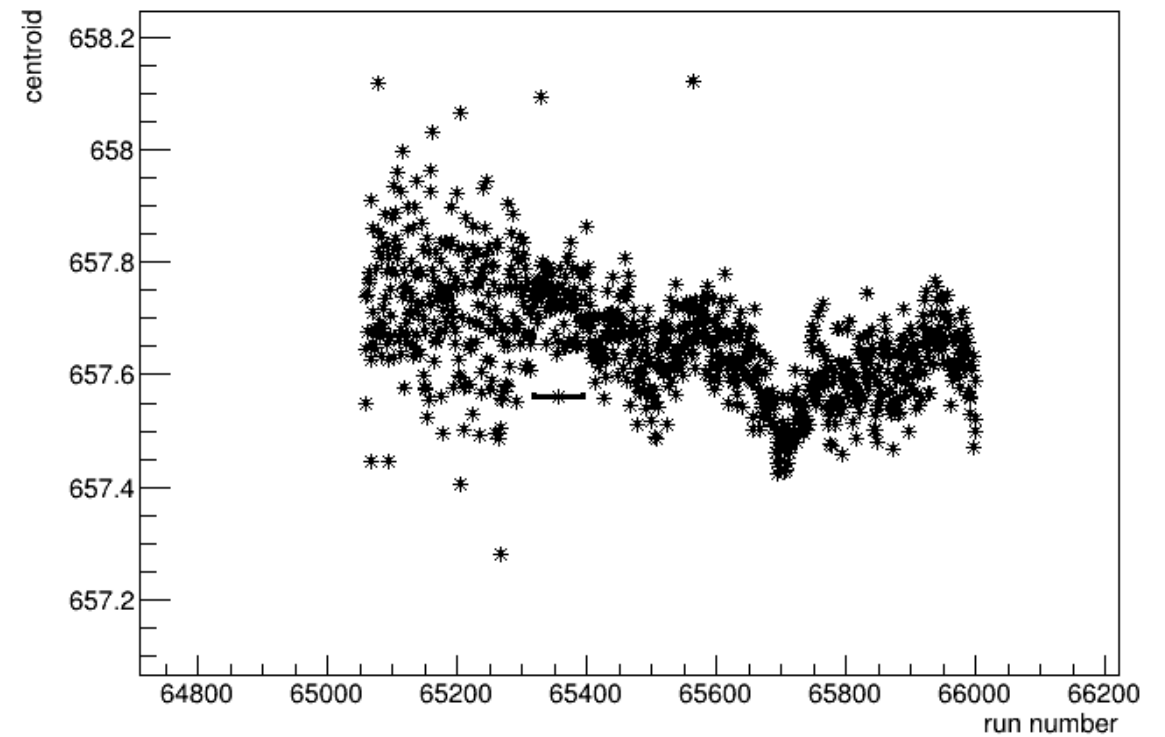


Why is it acting up? – Centroid position

658 keV in Ge06A



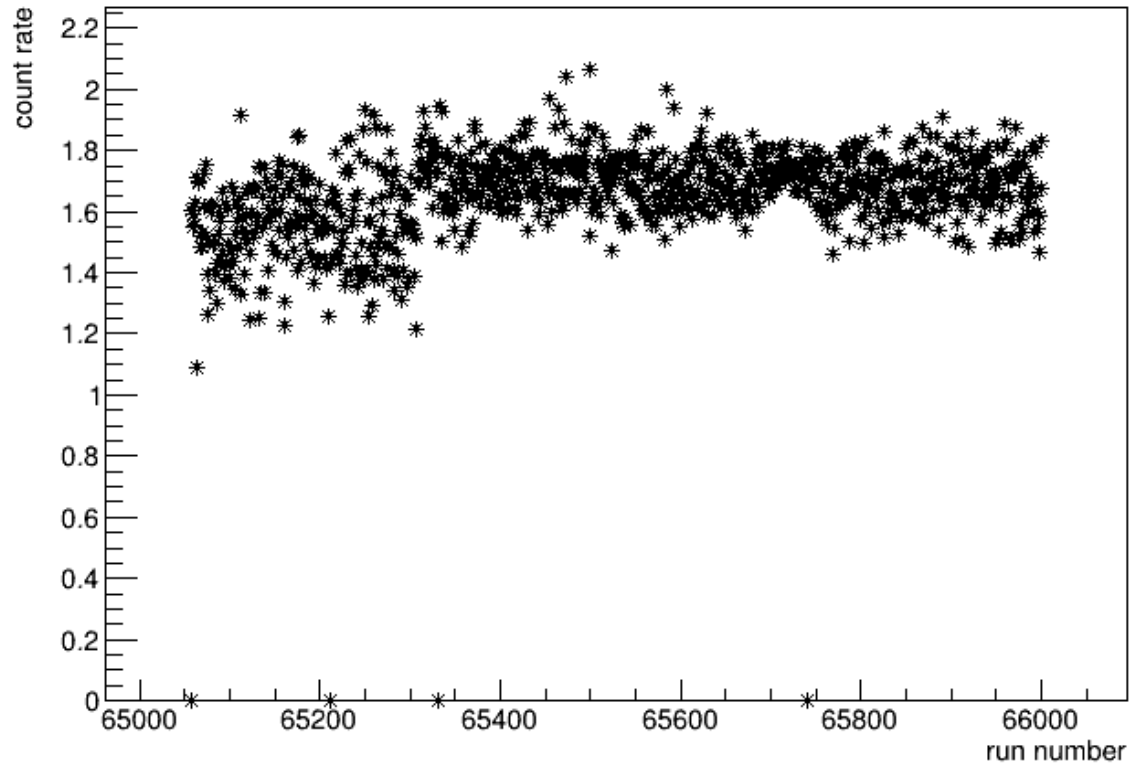
658 keV in Ge01



Why is it acting up? – Rate

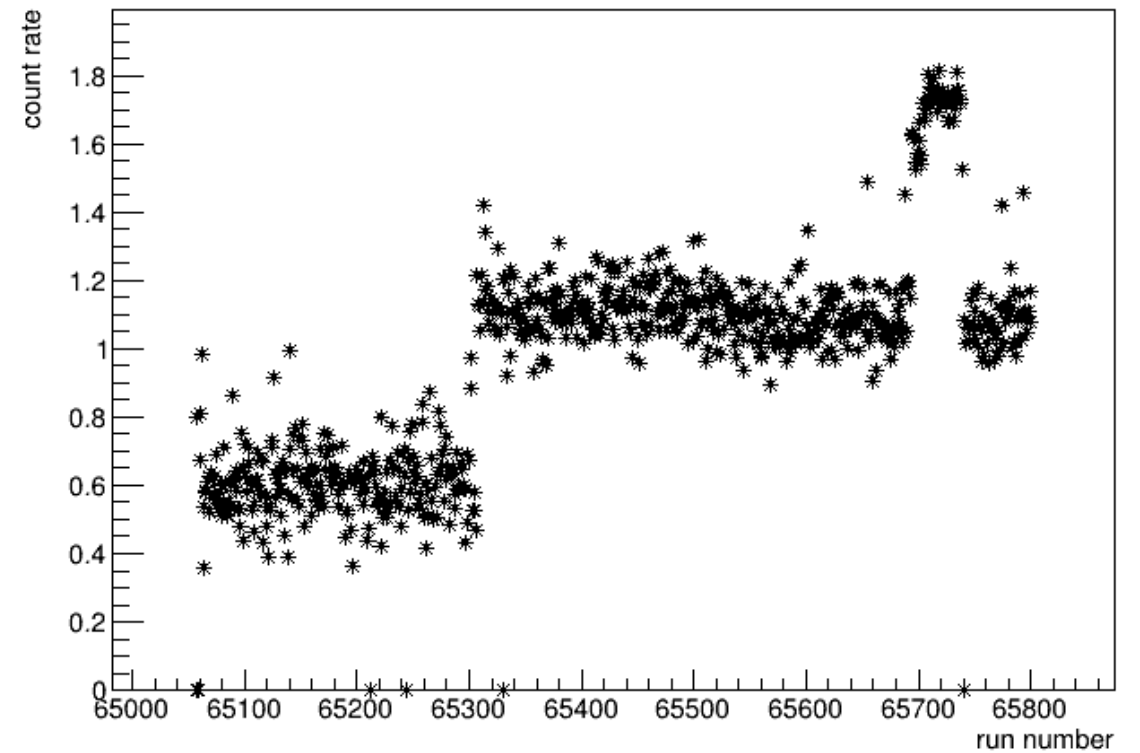
Full spectrum

658 keV in Ge06A



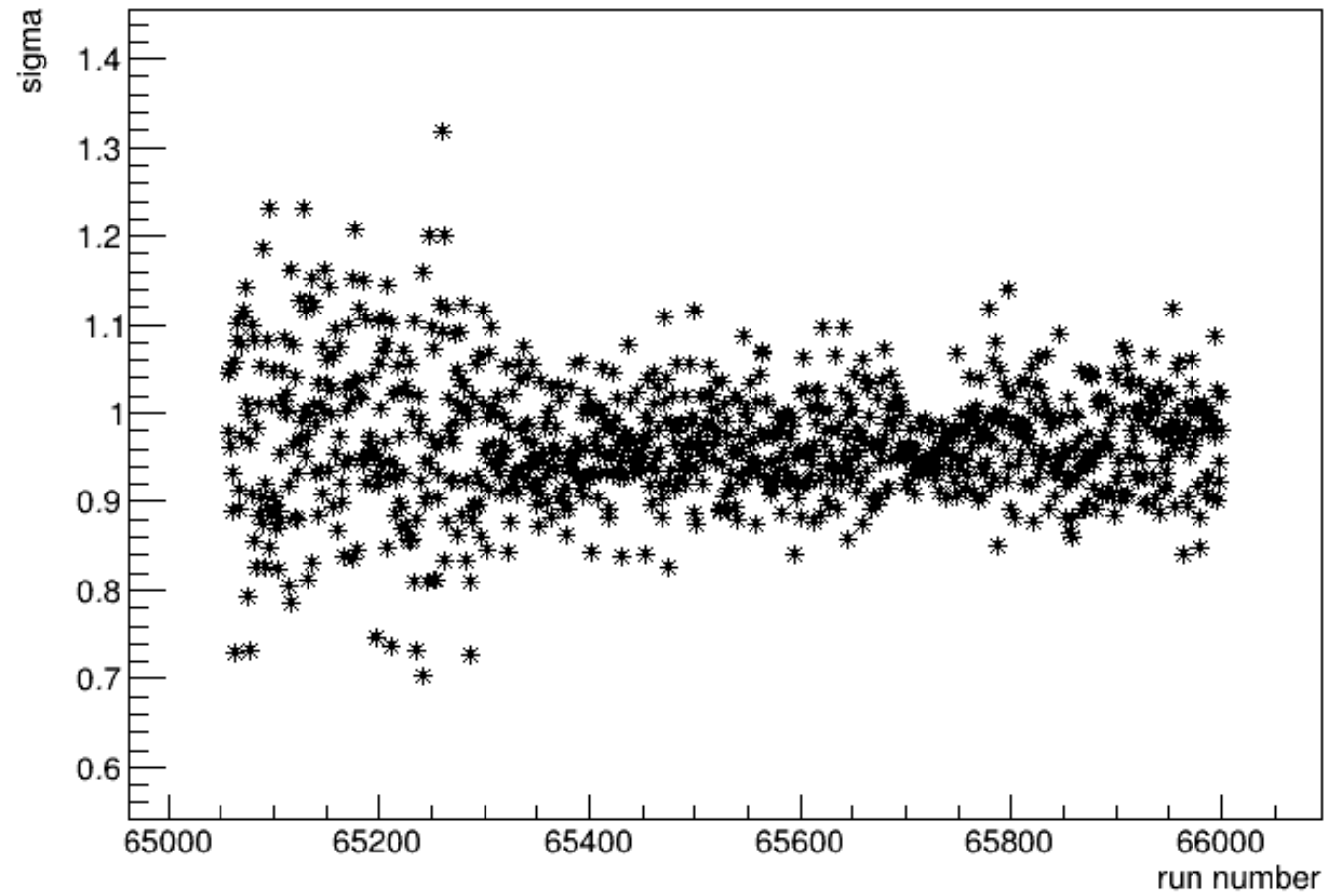
Anticoincidence spectrum

658 keV in Ge06A



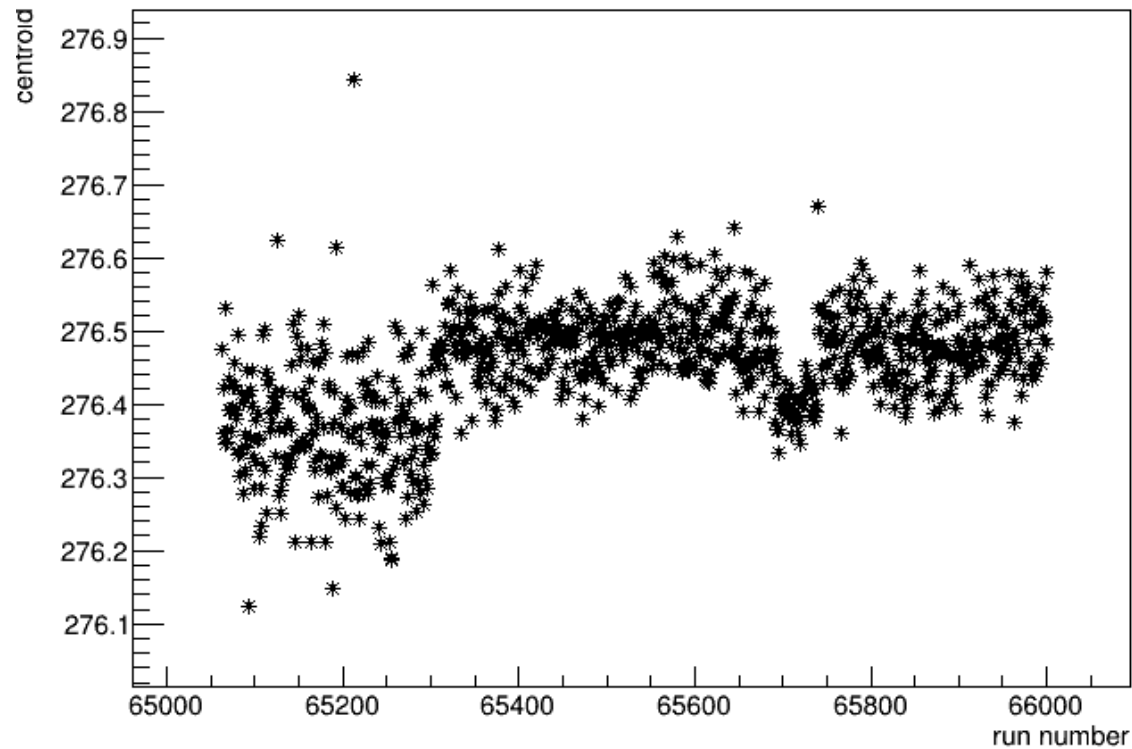
Why is it acting up? – Resolution

658 keV in Ge06A



Why is it acting up? – All lines?

276 keV in Ge06A



356 keV in Ge06A

