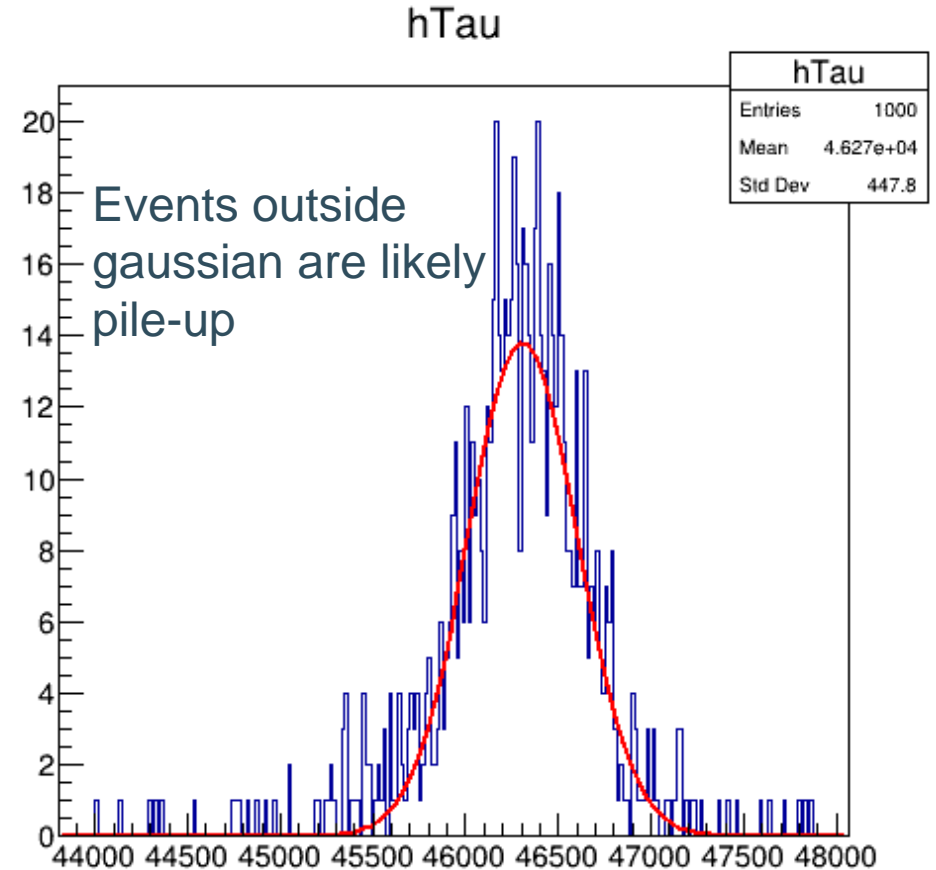
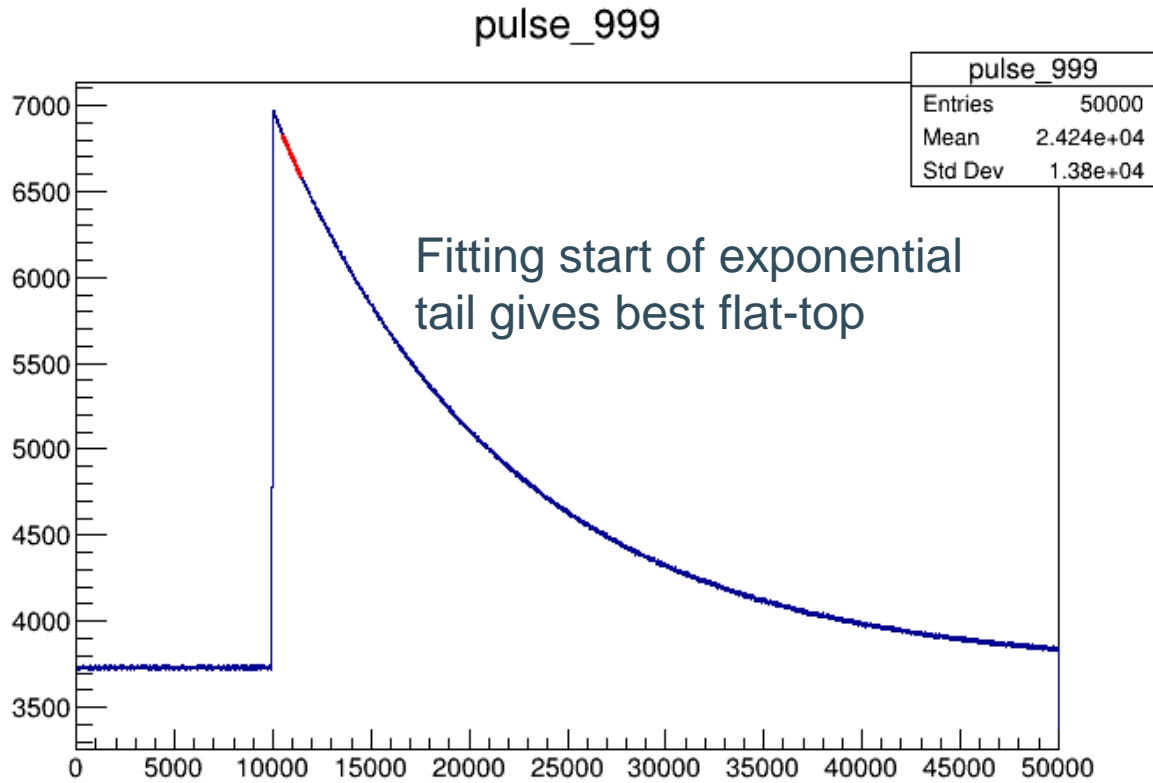


Update muX meeting 08/09

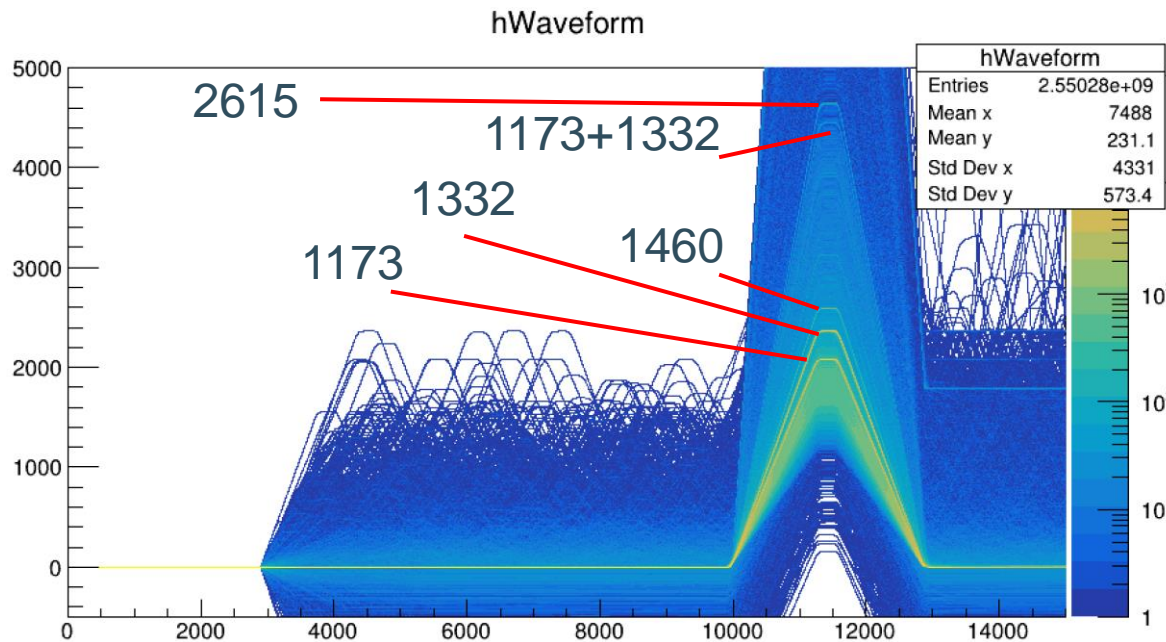
Michael Heines

Trapezoid – Fit for tau

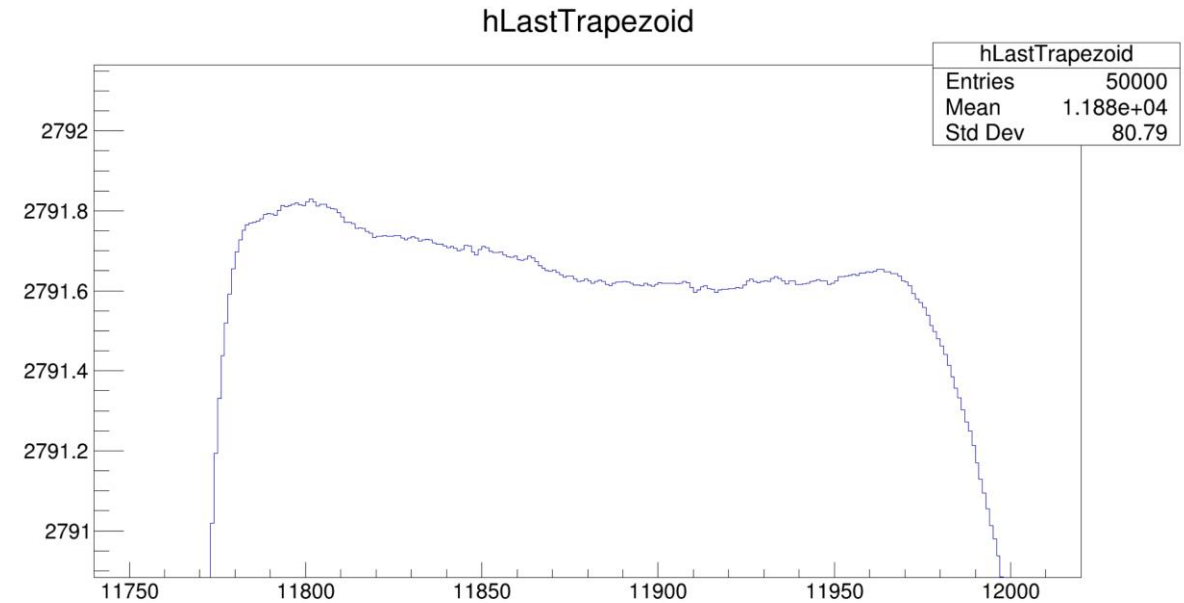


Trapezoid – How flat is flat?

Stella's run with Co-60

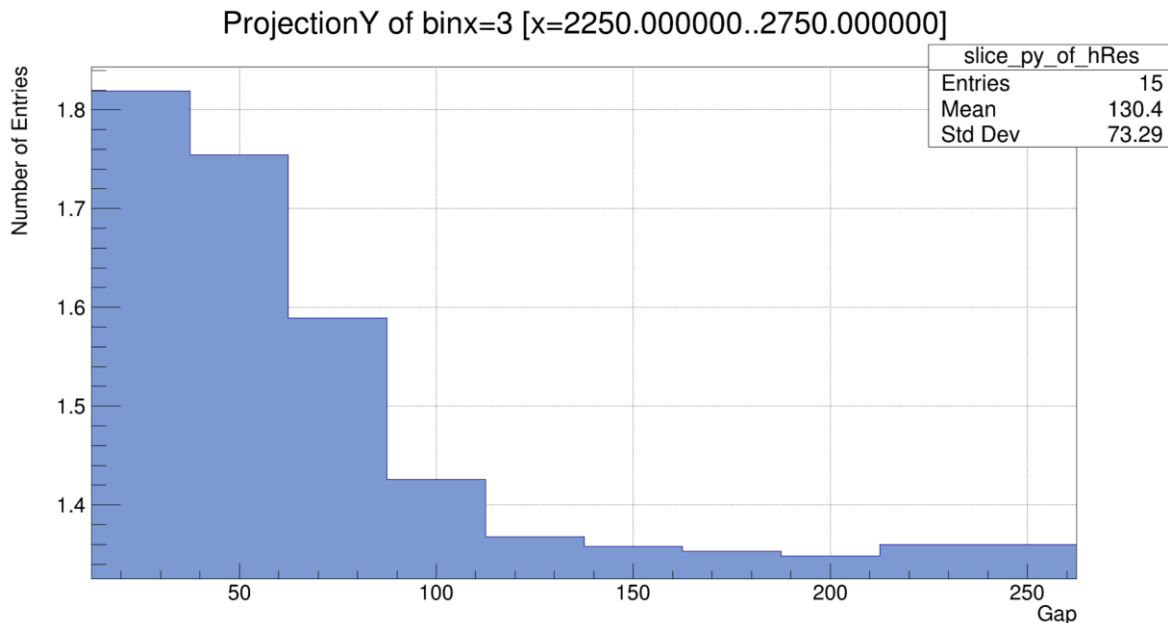


Flat up to less than 1 ADC channel!



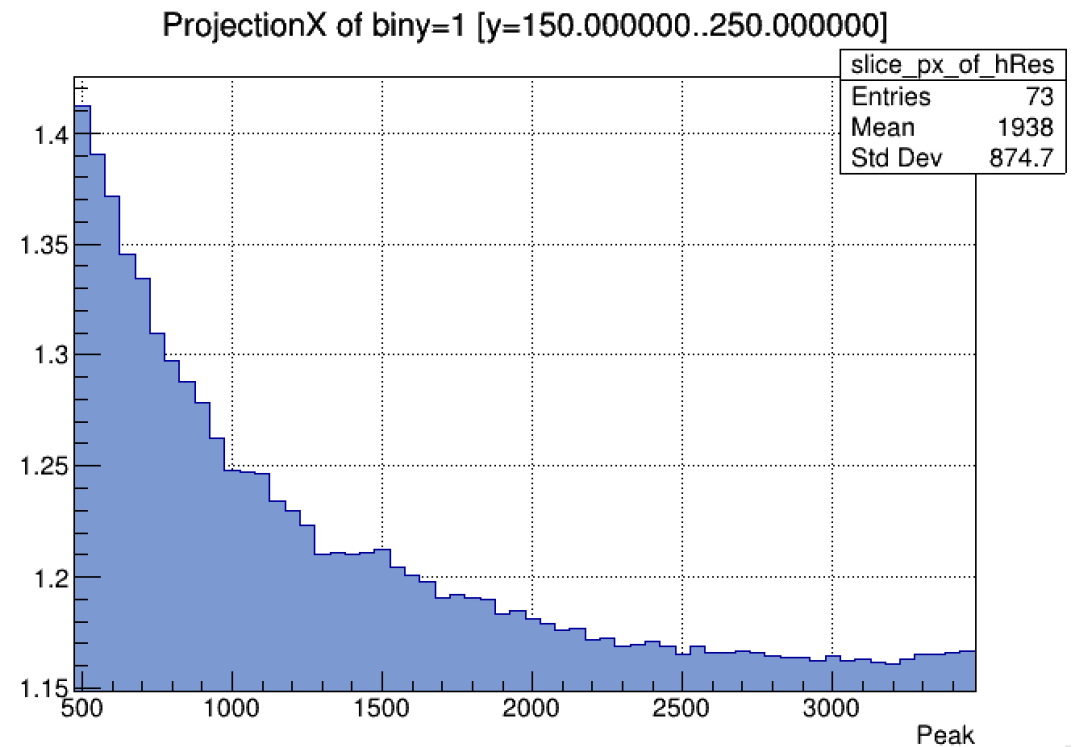
Trapezoid – Choosing gap and peaking time

- Cut with fixed peaking, vary gap

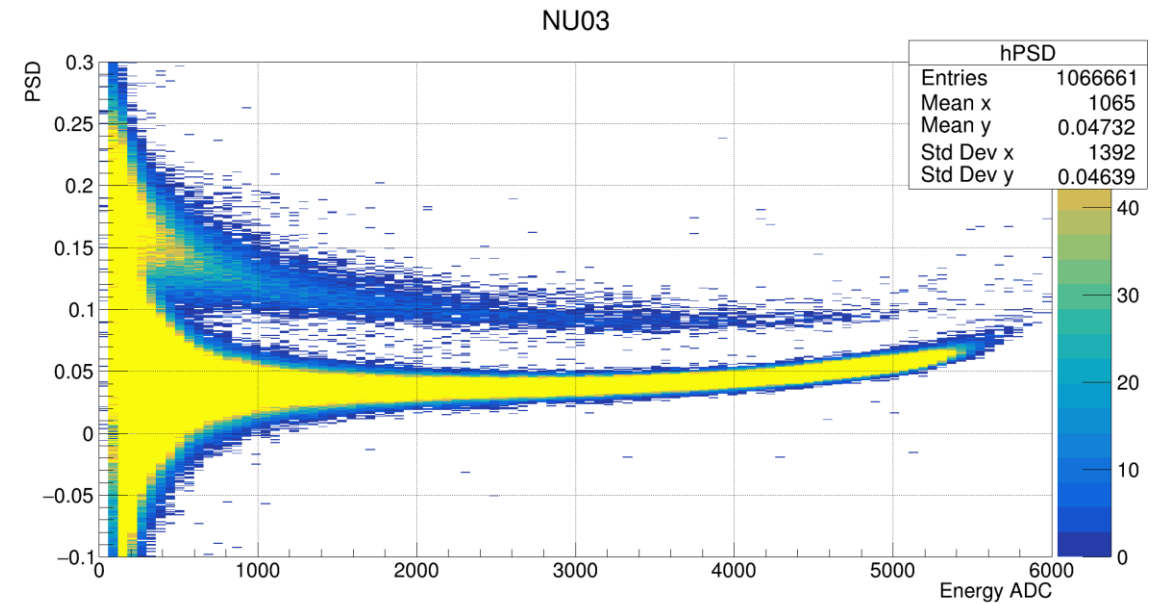
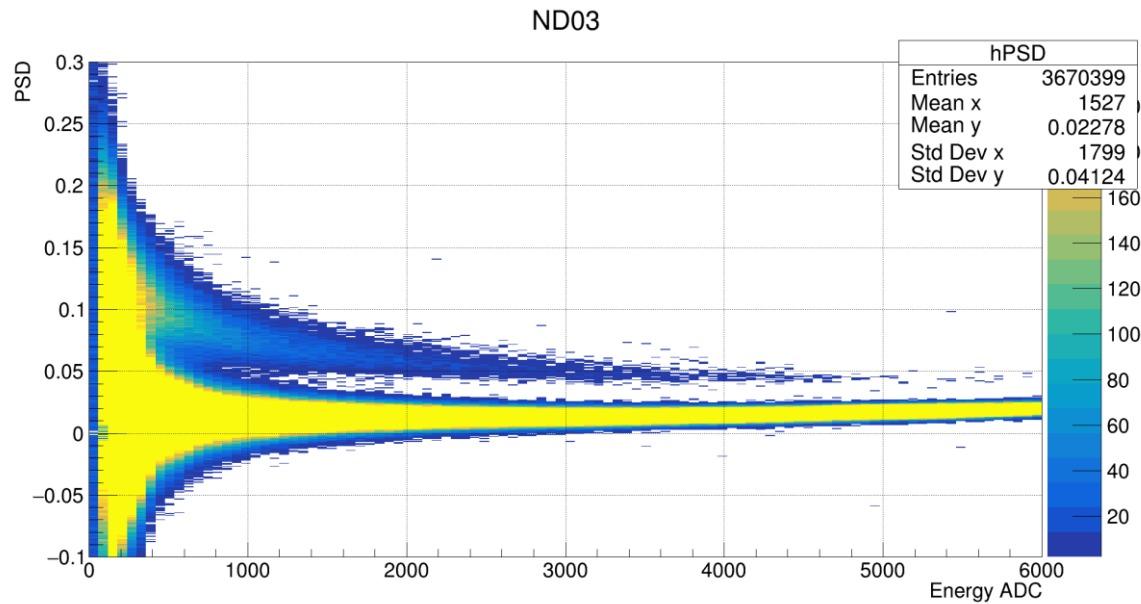


Some remaining discrepancy with Struck, but
Andreas says the trend would be reliable

- Cut with fixed gap, vary peaking

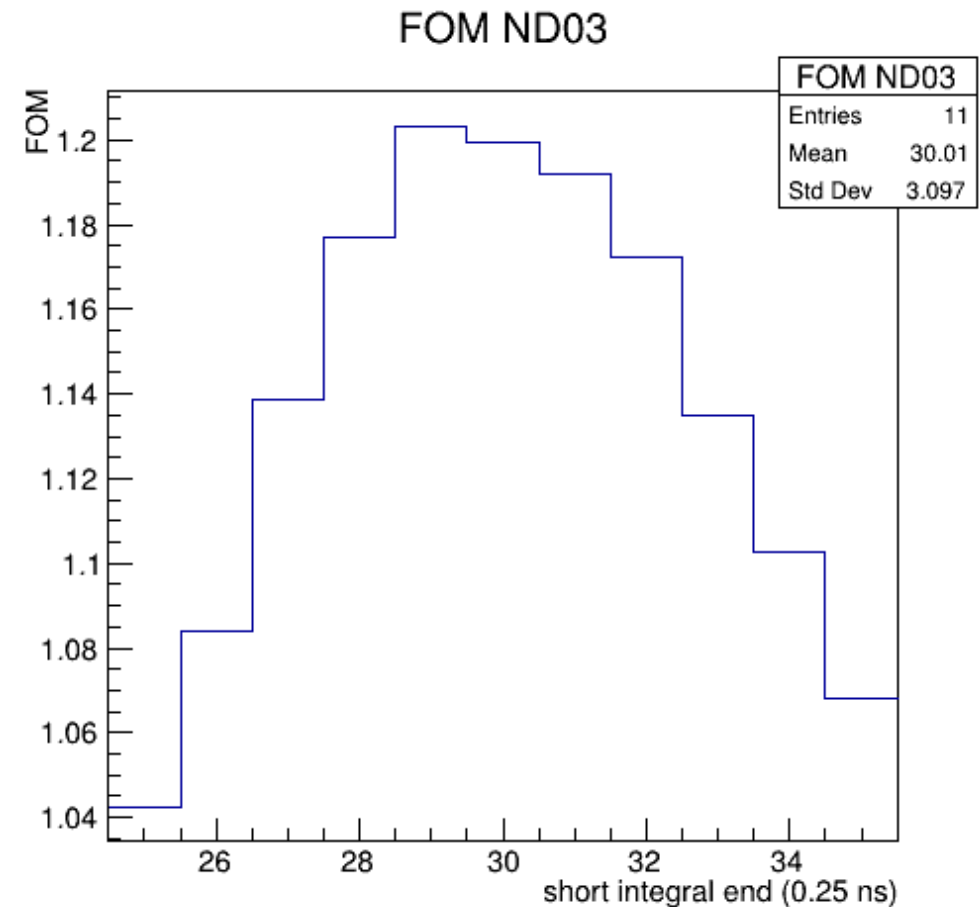


Neutrons – PSD



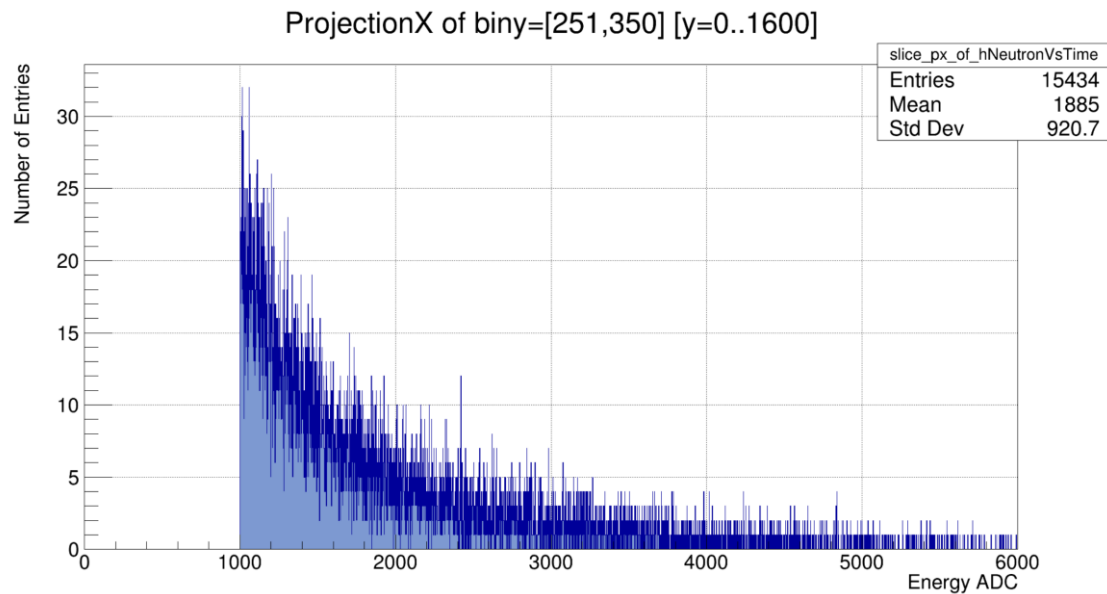
Neutrons – Tweaking short integration end

- Make 2D PSD histograms for a range of short integration ends
- Take an energy cut $1000 < \text{ADC} < 2000$
- Fit with double gaussian
- Figure of merit definition
- $$FOM = \frac{1}{2.355} \frac{|\mu_1 - \mu_2|}{|\sigma_1| + |\sigma_2|}$$

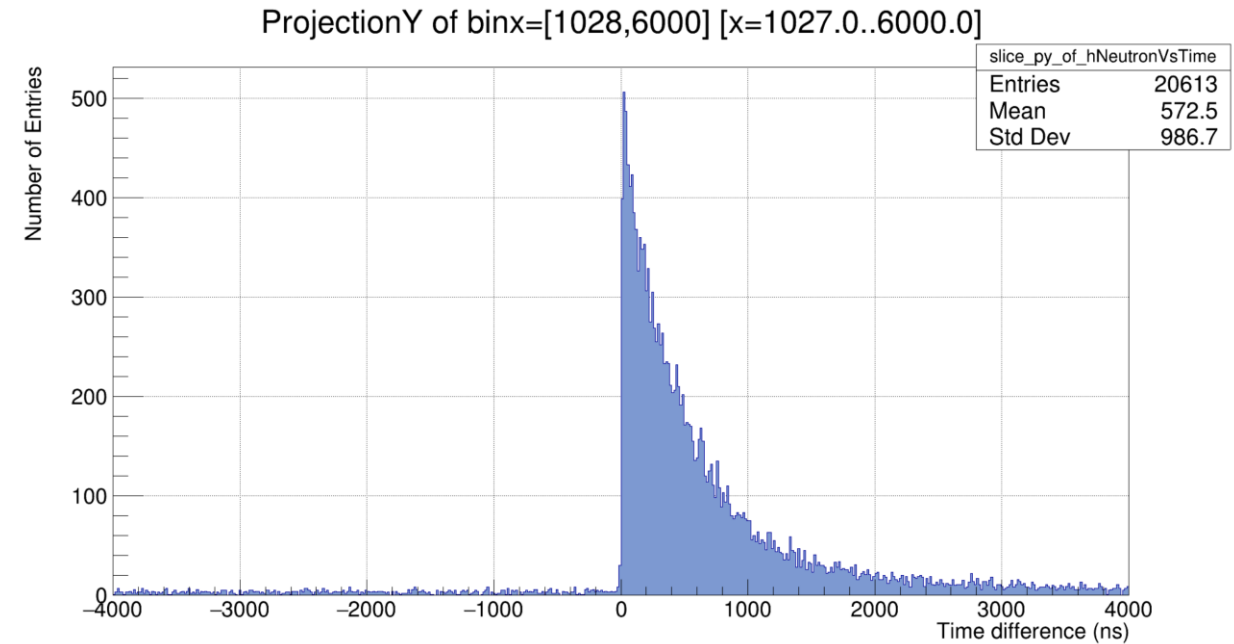


Neutrons – Some first results?

- Energy spectrum after muon



- Time behavior



General points

- iThemba update:
 - They think that they will be able start implanting K-40 very soon (this week/next week).
 - 3 μA of K-39 beam with natural KCl \rightarrow Taking into account abundances: ~2days of continuous beam for $1\text{E}17$ particles
 - Close, but certainly not impossible
- Try before beamtime
 - Prepare scripts for timing optimization, gain drift, and rerunning
 - Look at online display

