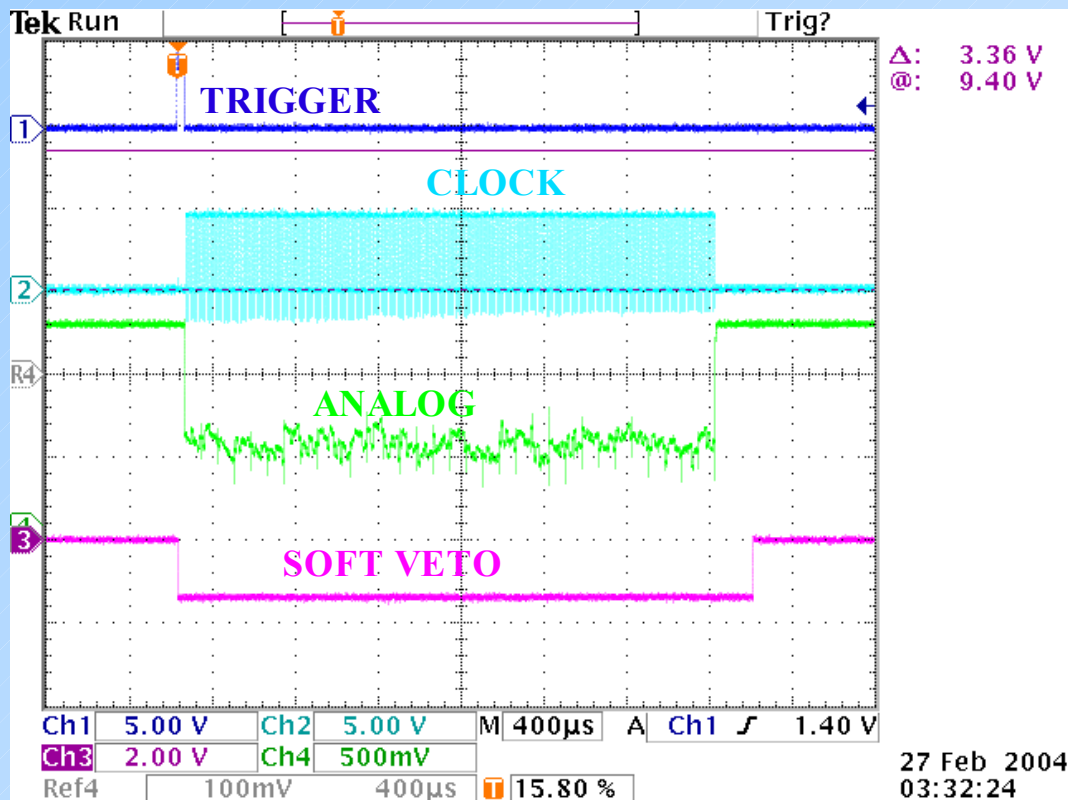


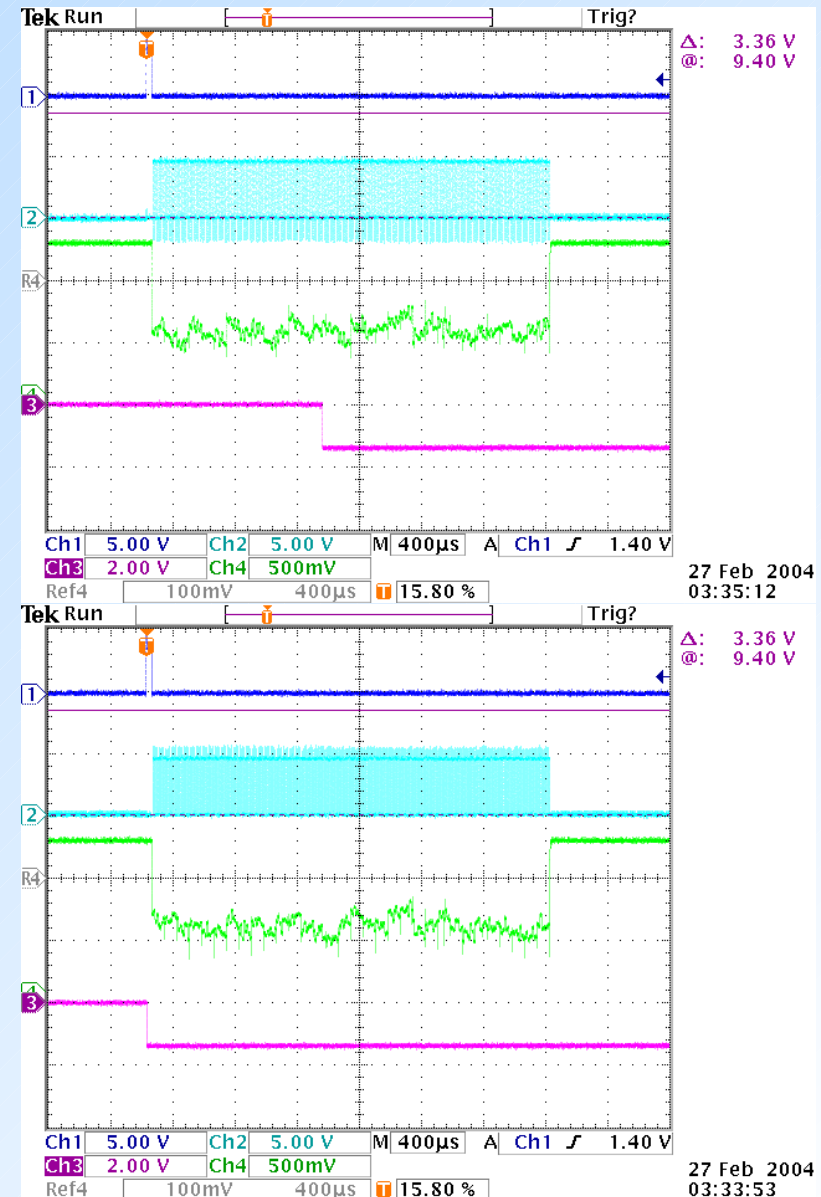
2002 DAQ ISSUES

NORMAL READOUT SEQUENCE



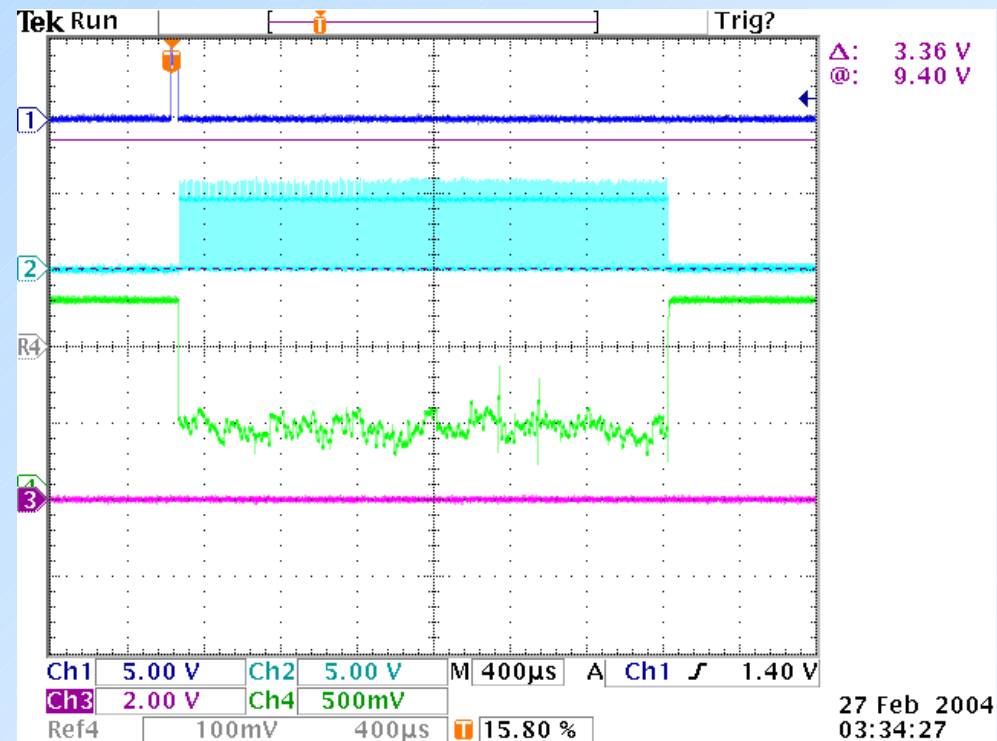
- readout not interrupted
- readout starts late or interrupted (CPU busy)

INCOMPLETE BUFFERS



ADC SHIFT & CAMAC - ADC SYNCRONISATION LOST

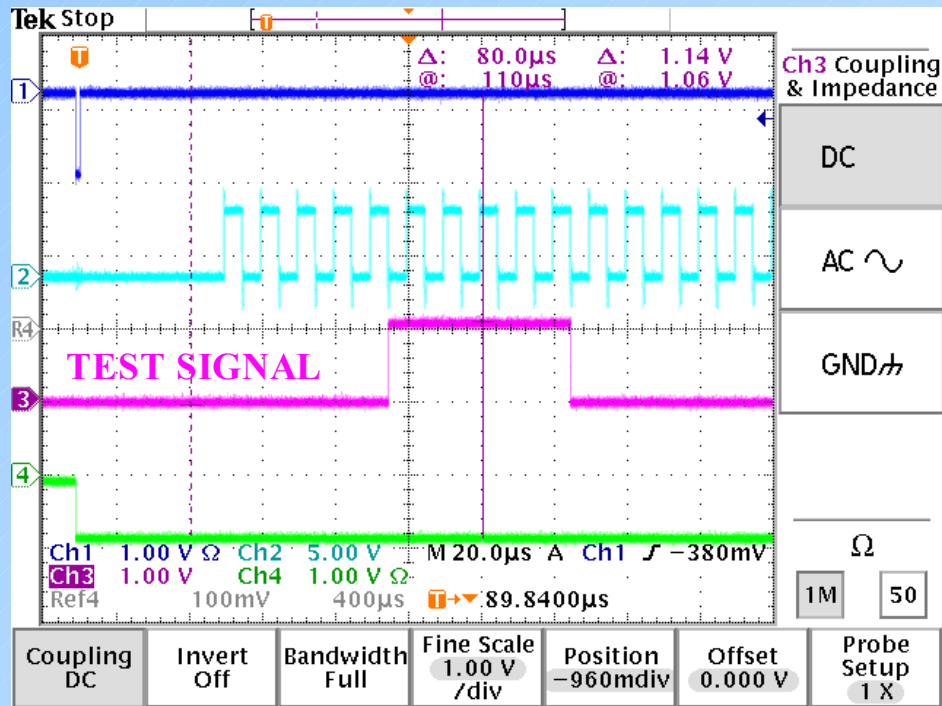
- ADC reading waiting from previous event
- event is missed (CPU busy) but CAMAC triggered
- 2 events before VETO



CHANGED FOR 2004 DAQ

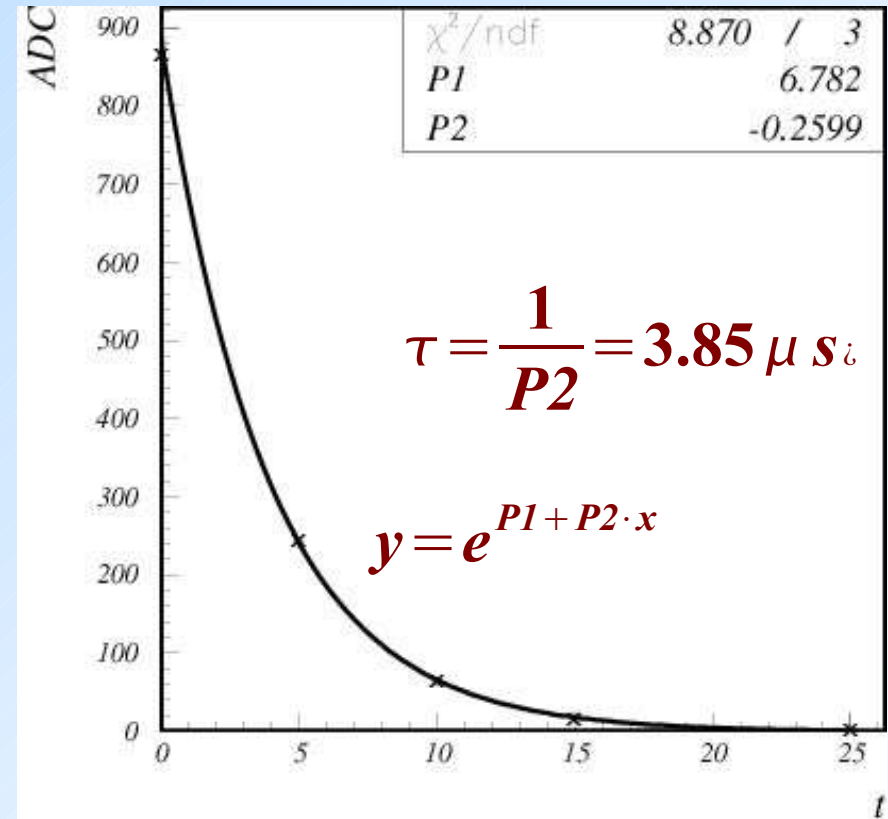
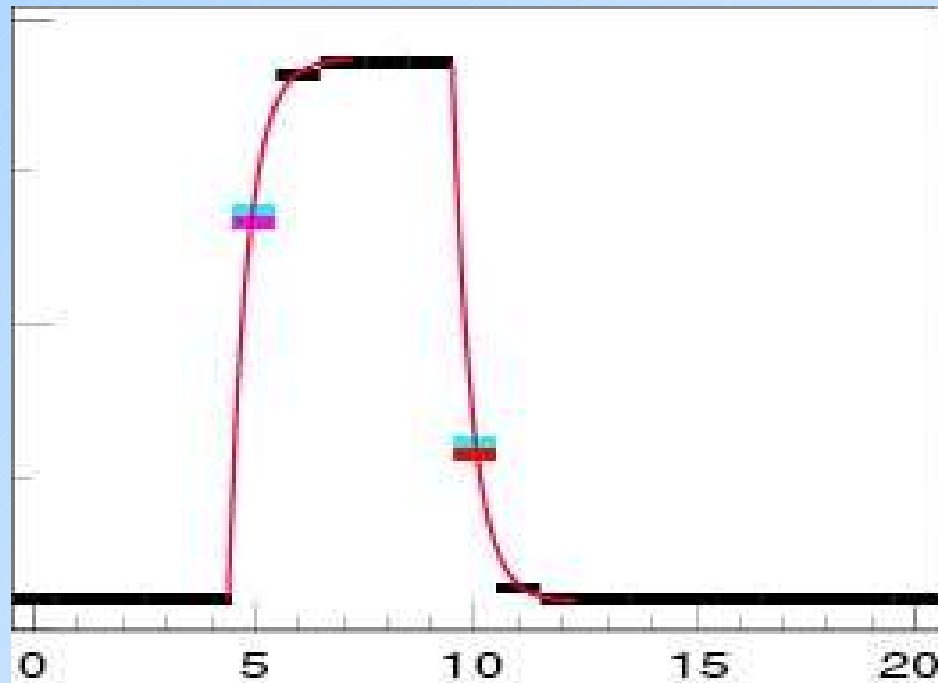
- VETO: HARD ON - SOFT OFF
- clear VETO just before entering the waiting loop
- clear ADC before read

ADC "CROSS TALK"



- ADC time constant (RC)

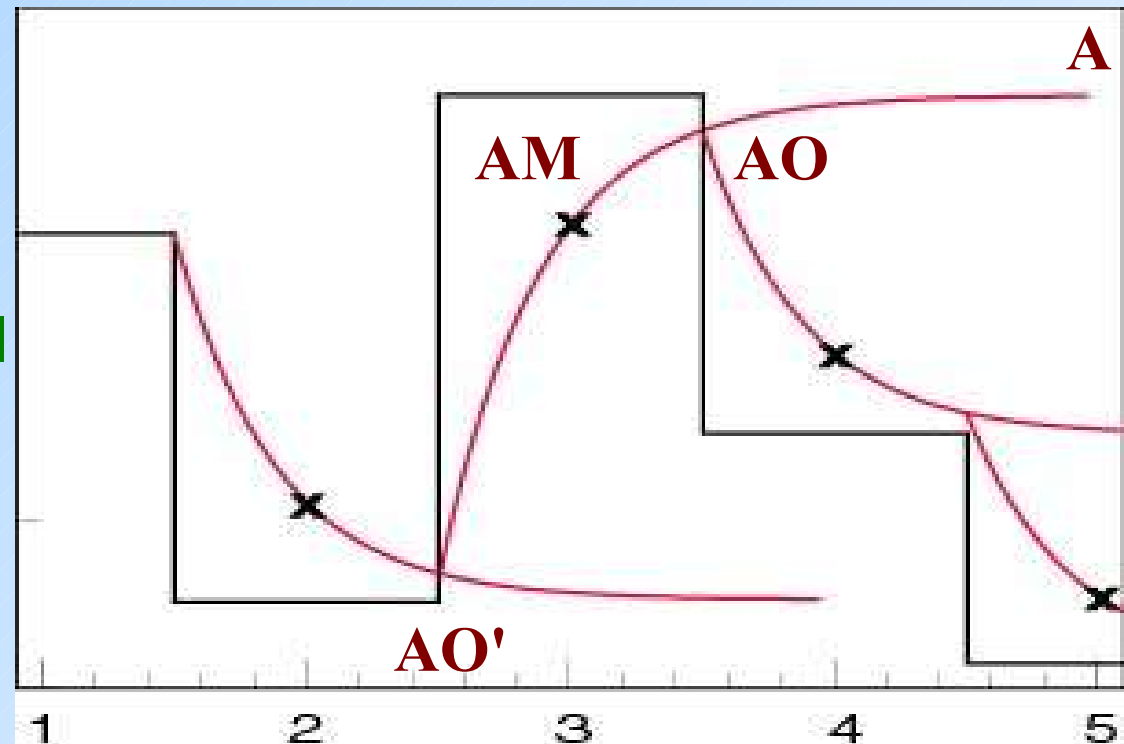
$$AM = AO + (A - AO)(1 - e^{-t/\tau})$$



$$AM = AO' + (A - AO')(1 - e^{-t_1/\tau})$$

ADC correction

- AO' - starting signal
- AM - measured signal
- AO - start for the next channel
- A - “real” value

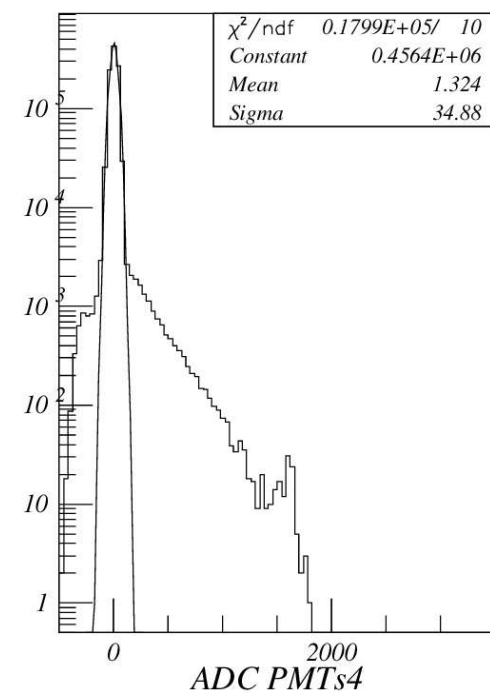
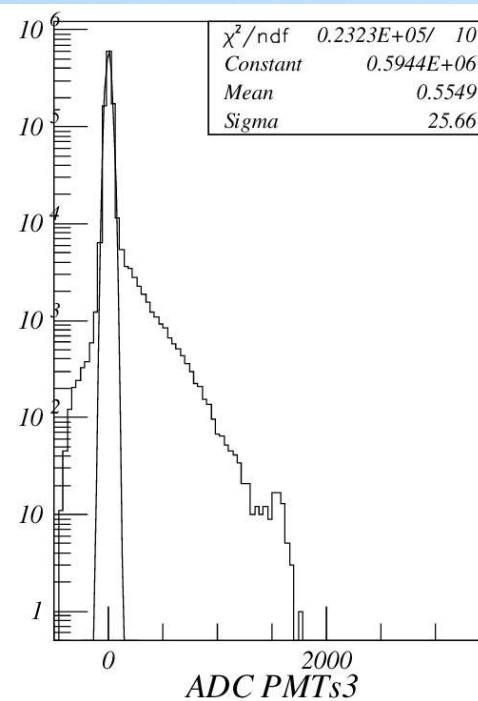
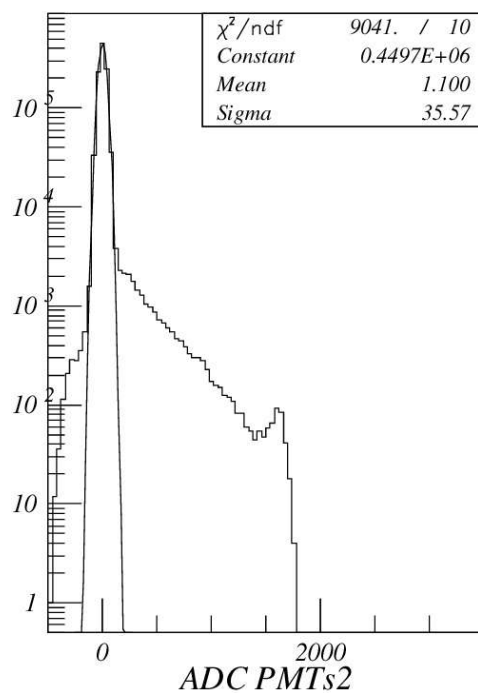
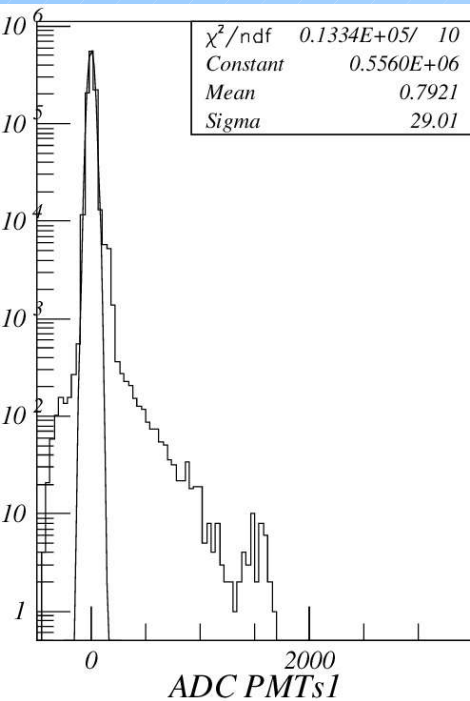


$$A = AO' + \frac{(AM - AO')}{(1 - e^{-t_1/\tau})}$$

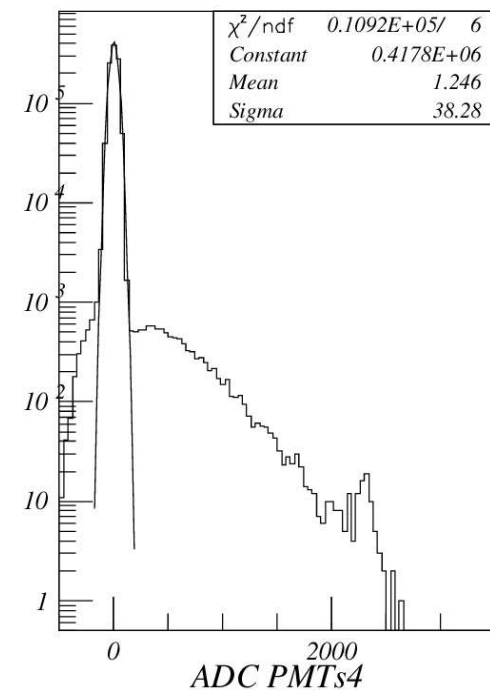
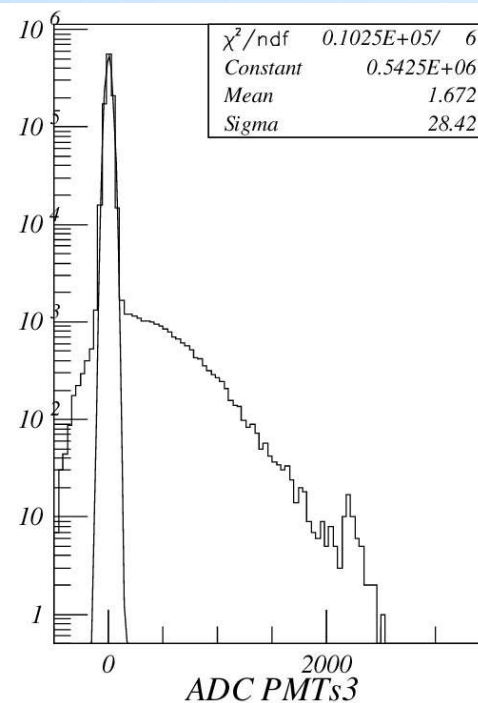
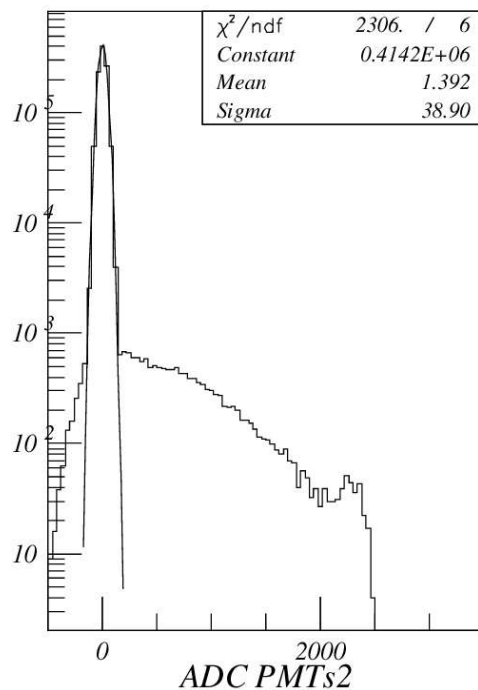
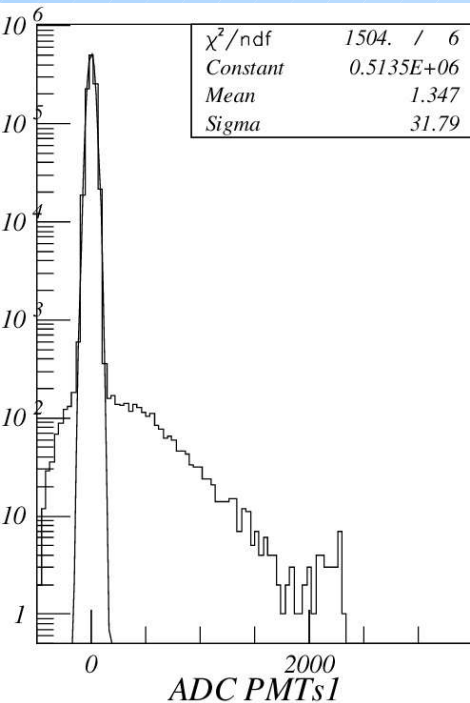
$$AO = AO' + (AN - AO')(1 - e^{-t_2/\tau})$$

- $t_1 \sim 4.65 \text{ us}$
- $t_2 \sim 10 \text{ us}$

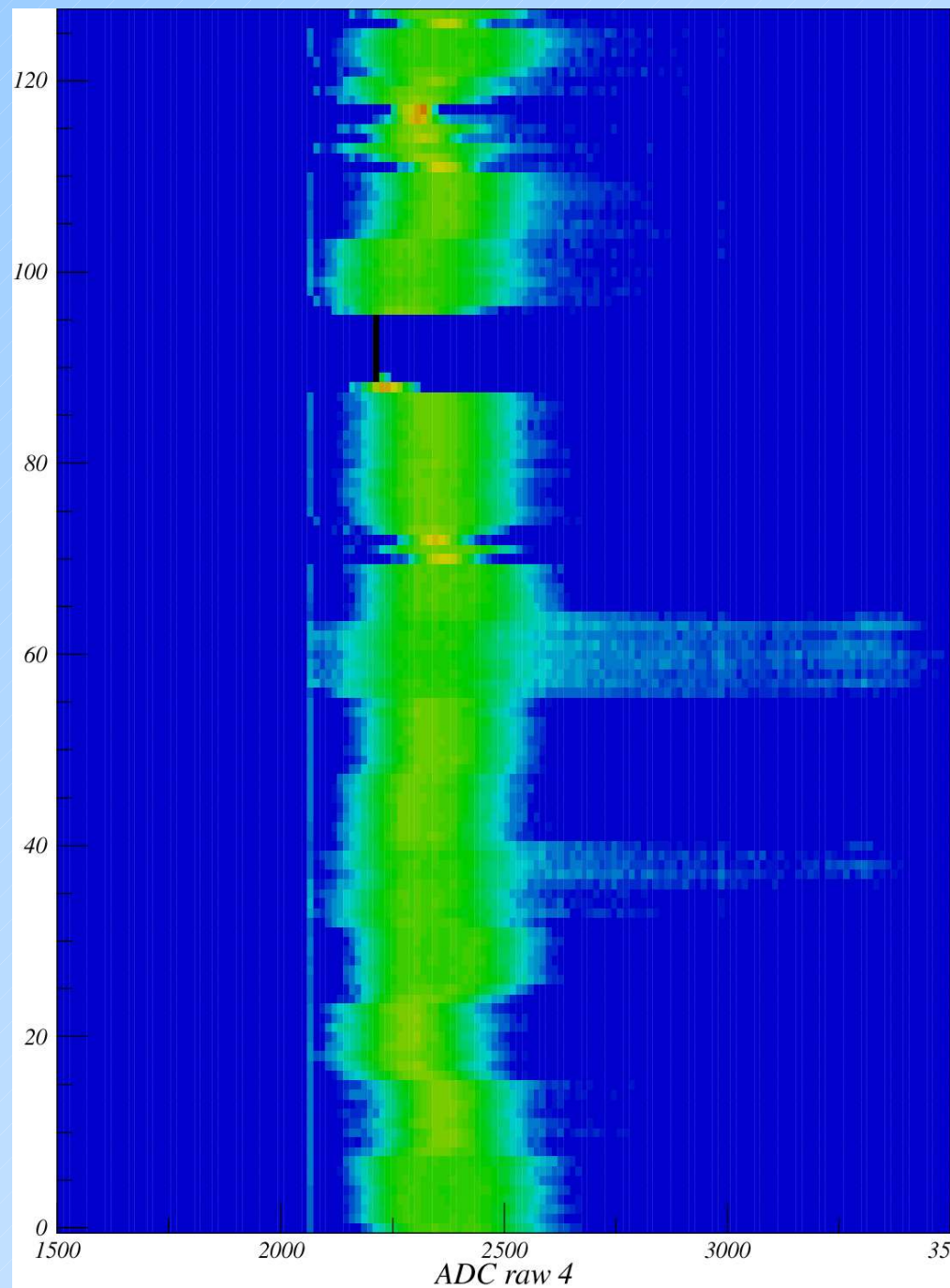
• ADC no correction



• ADC with correction



- ADC no correction



- ADC with correction

