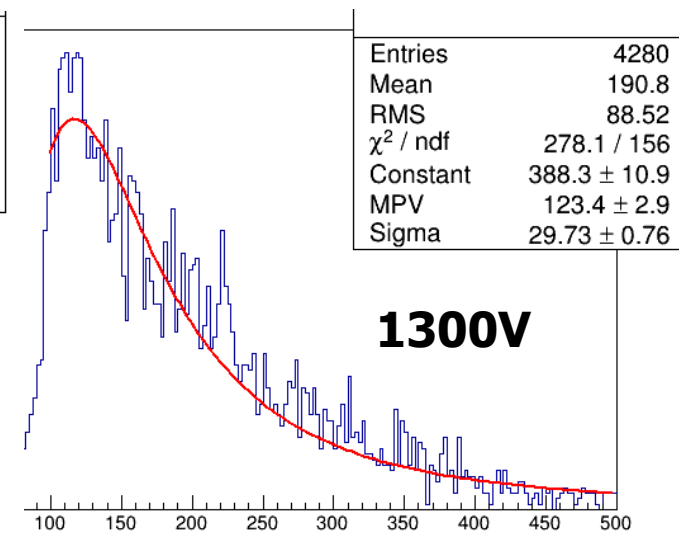
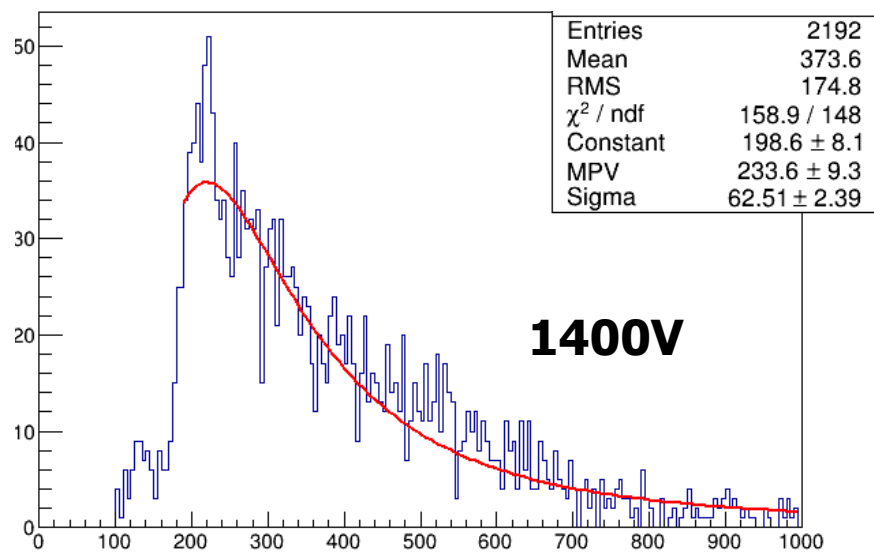
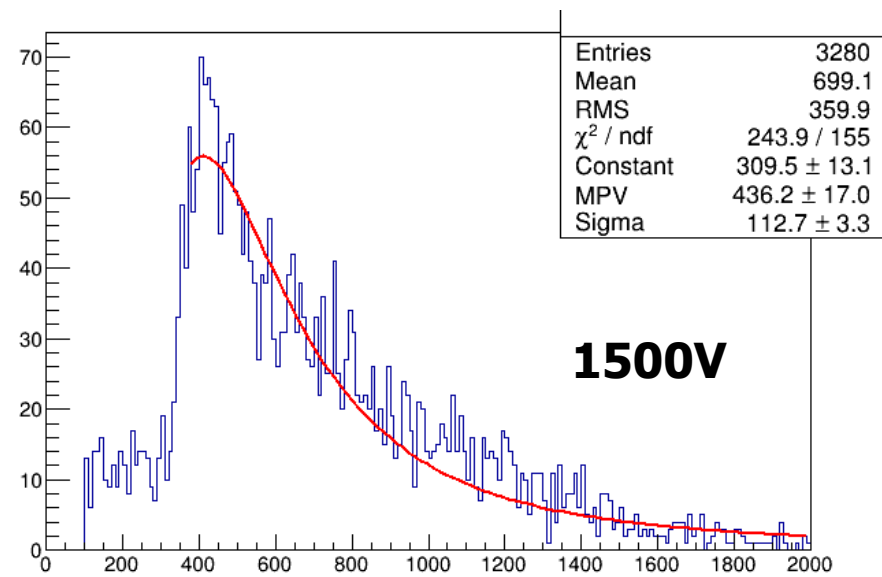
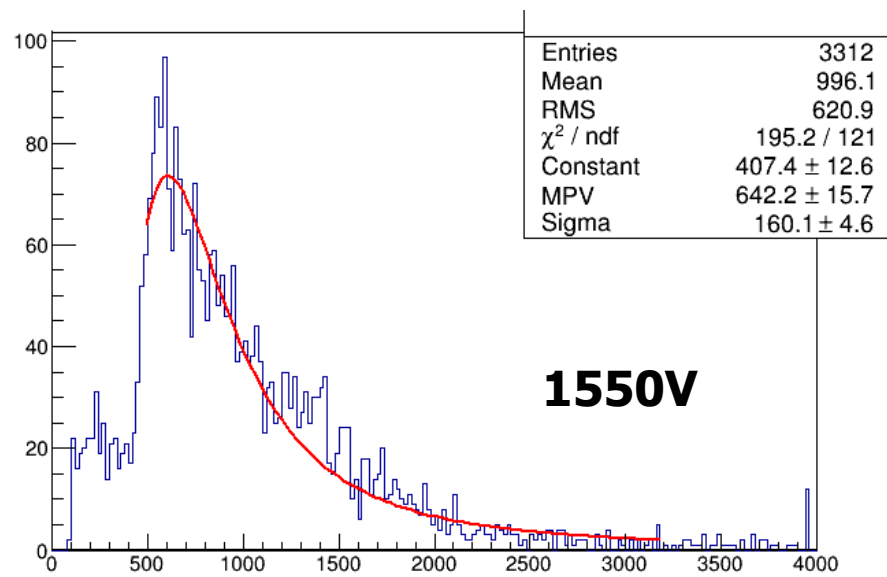
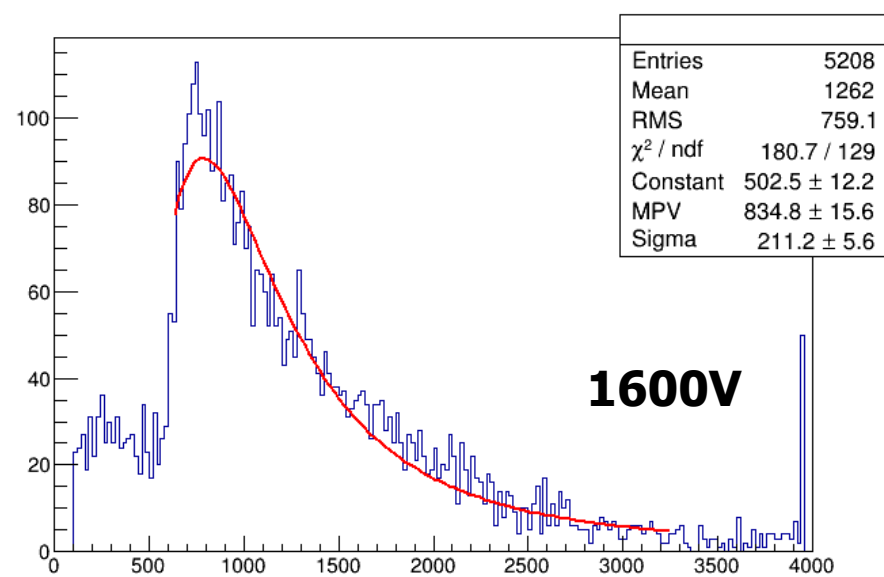


20161114

TOF counter test status

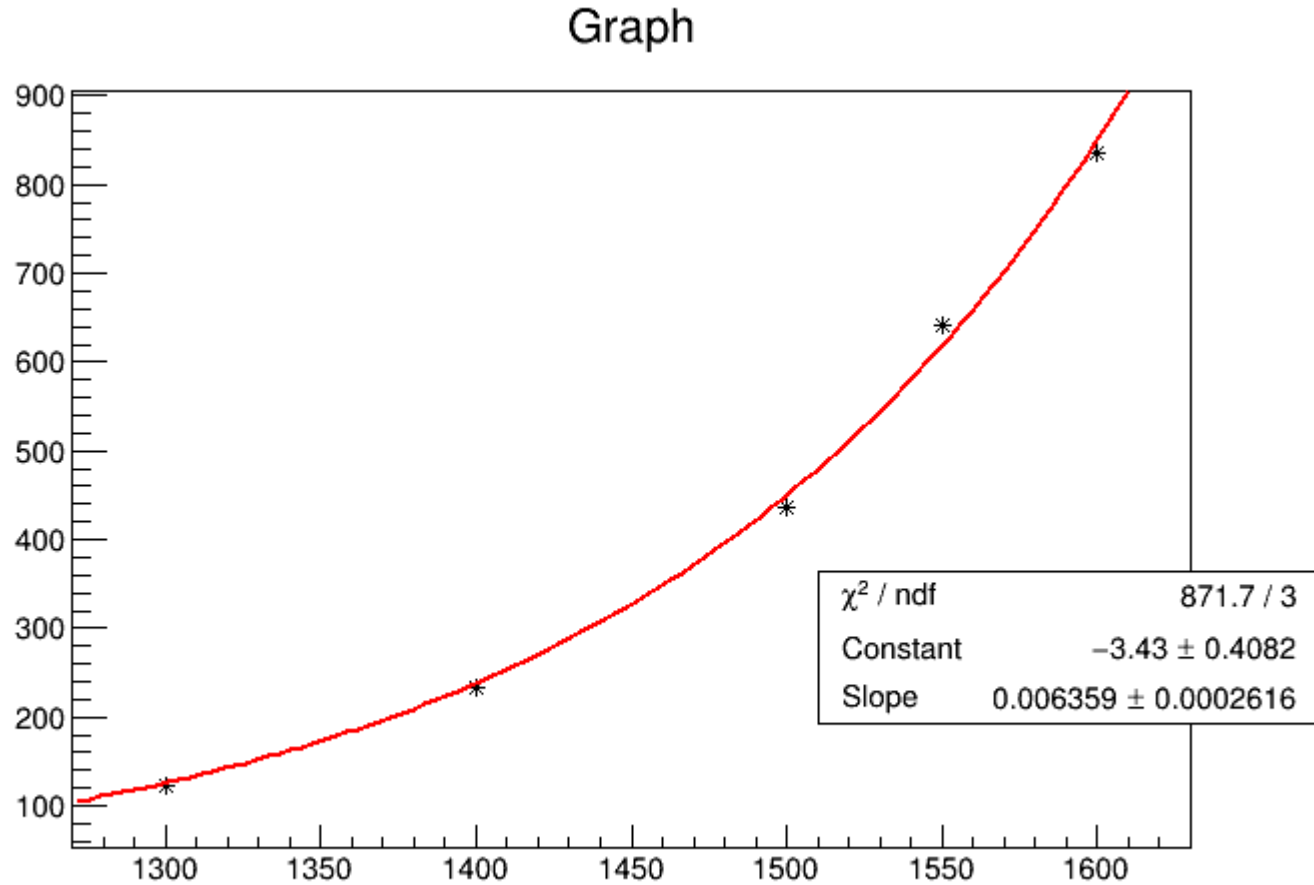
Ahram lee

Cosmic ray peak over various HV – ch0



Cosmic ray peak over various HV – ch0

- can get PMT gain curve



when $x = 2500V$, $y = 2.598 * 10^5$



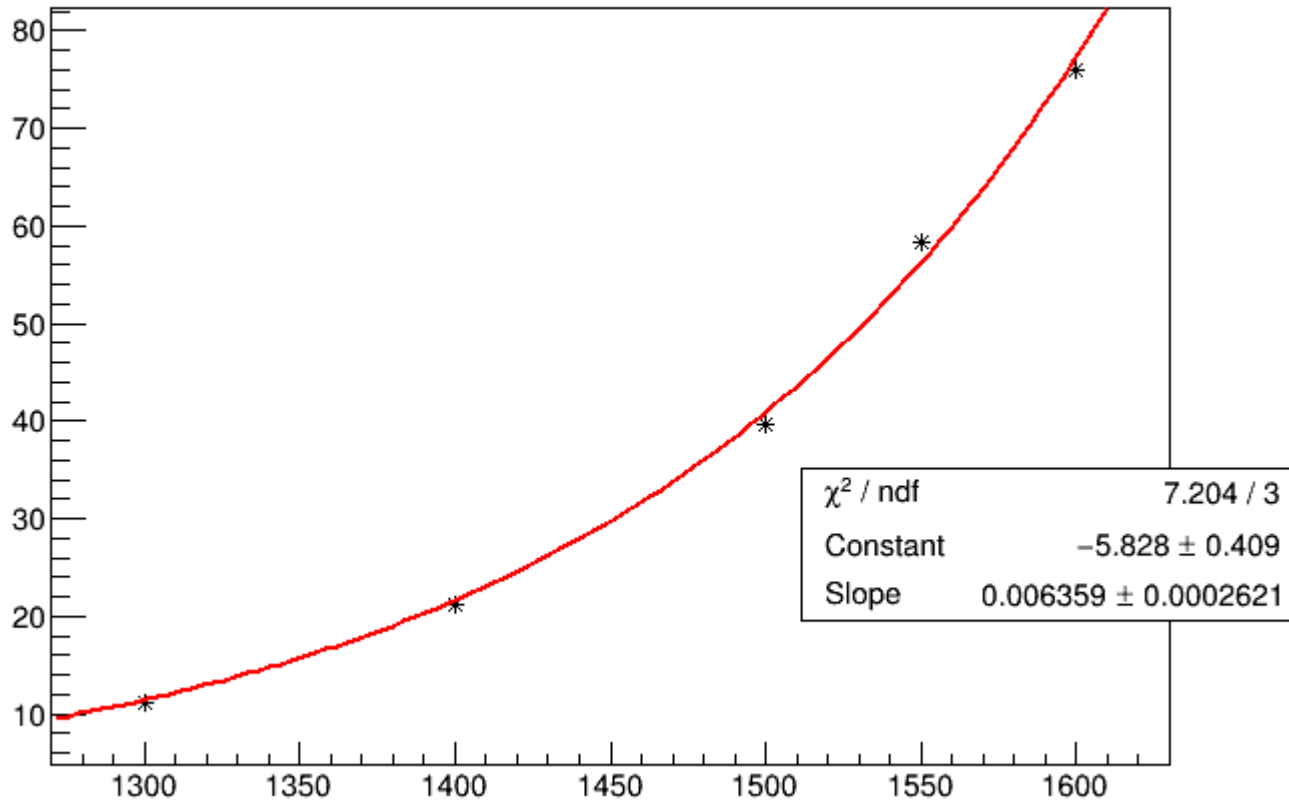
$$y = e^{0.006359x - 3.43}$$

$x[\text{volt}]: HV$
 $y[\text{ch}]: \text{peak height}$

Cosmic ray peak over various HV – ch0

- can get PMT gain curve
- use the fact that muon peak is 11MeV (resulted from simulation)

Graph

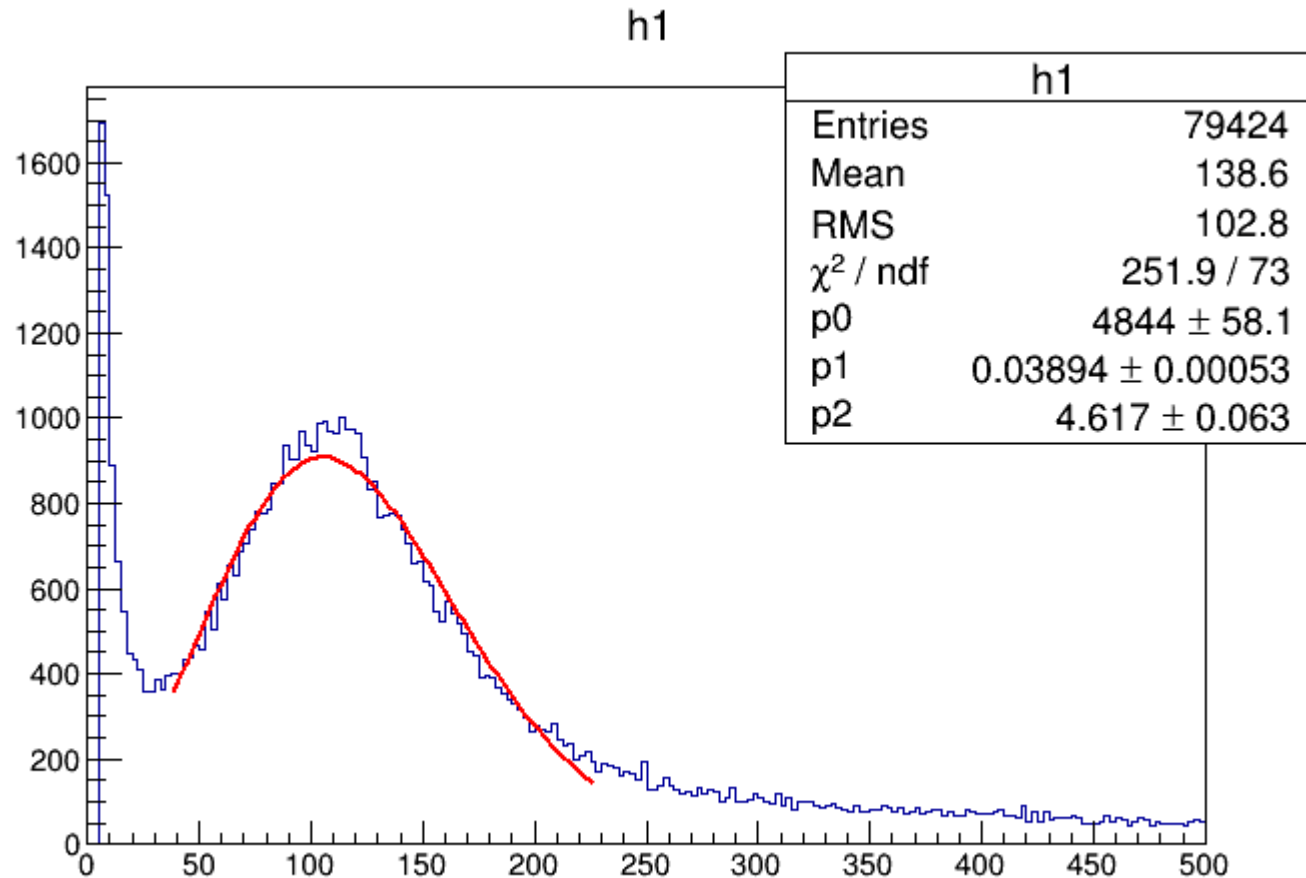


$$y = e^{0.006359x - 5.828}$$

$x[\text{volt}]: HV$
 $y[\text{ch/MeV}]: \text{gain}$

Single Photoelectron peak – ch0

- HV= 2500[V], th=5[ch]



`[0] * TMath::Poisson(x * [1], [2])`

p0 = const.

p1 = x rescale factor

p2 = rescaled mean

$$\text{mean} = \frac{4.617}{0.03894} \cong 118.6$$

Single Photoelectron and cosmic ray peak

