

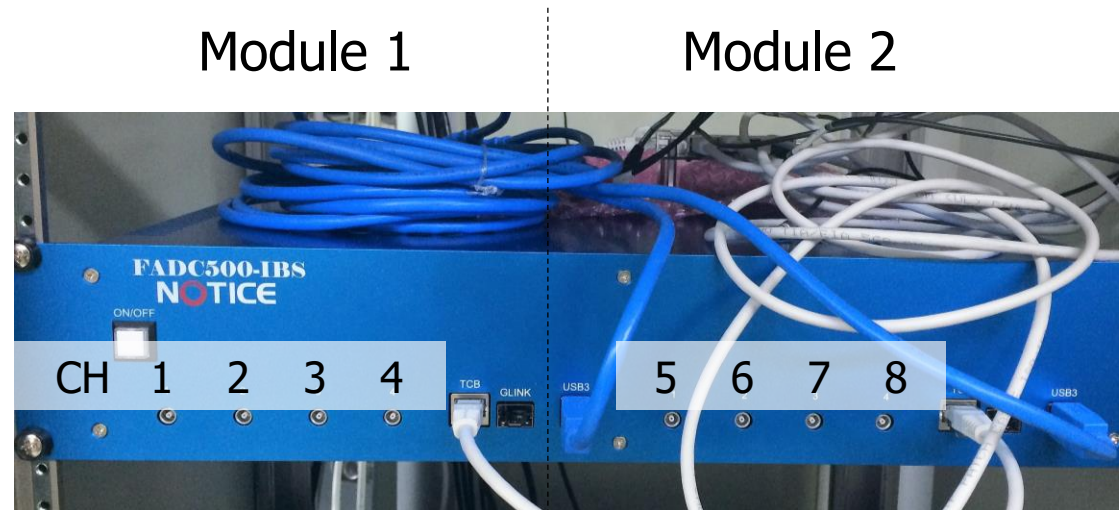
20160810

TOF counter test status

Aram lee

1. 2 modules FADC data
2. PMT gain test
3. A case design
4. To do

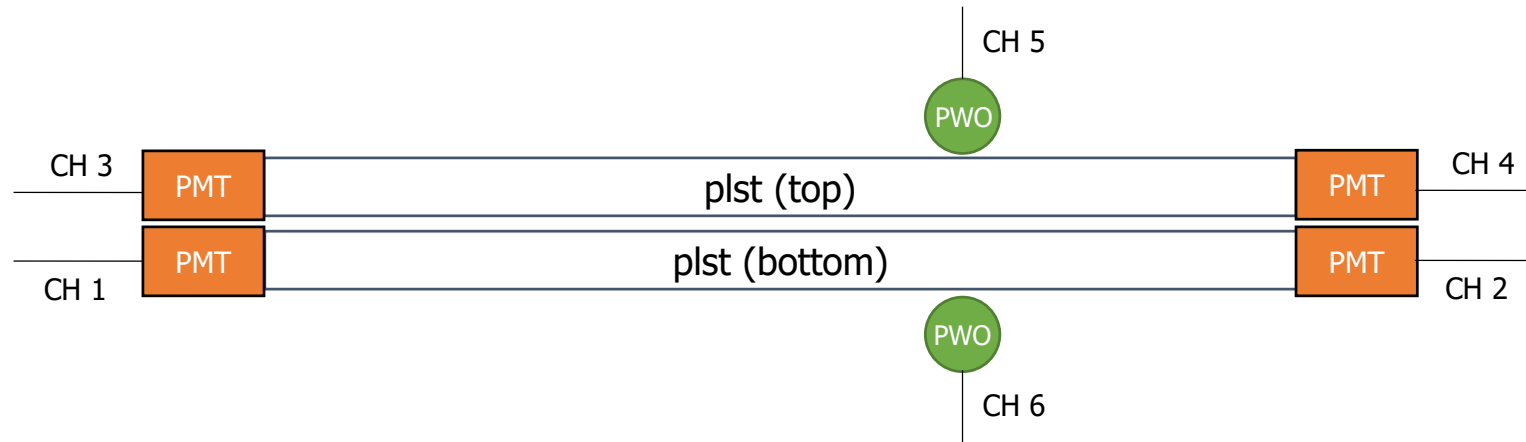
2 modules FADC data-taking



Top plastic scintillator – ch 1,2
Bottom plastic scintillator – ch 3,4

Trigger – ch5(up), ch6(down)

2 modules FADC data-taking

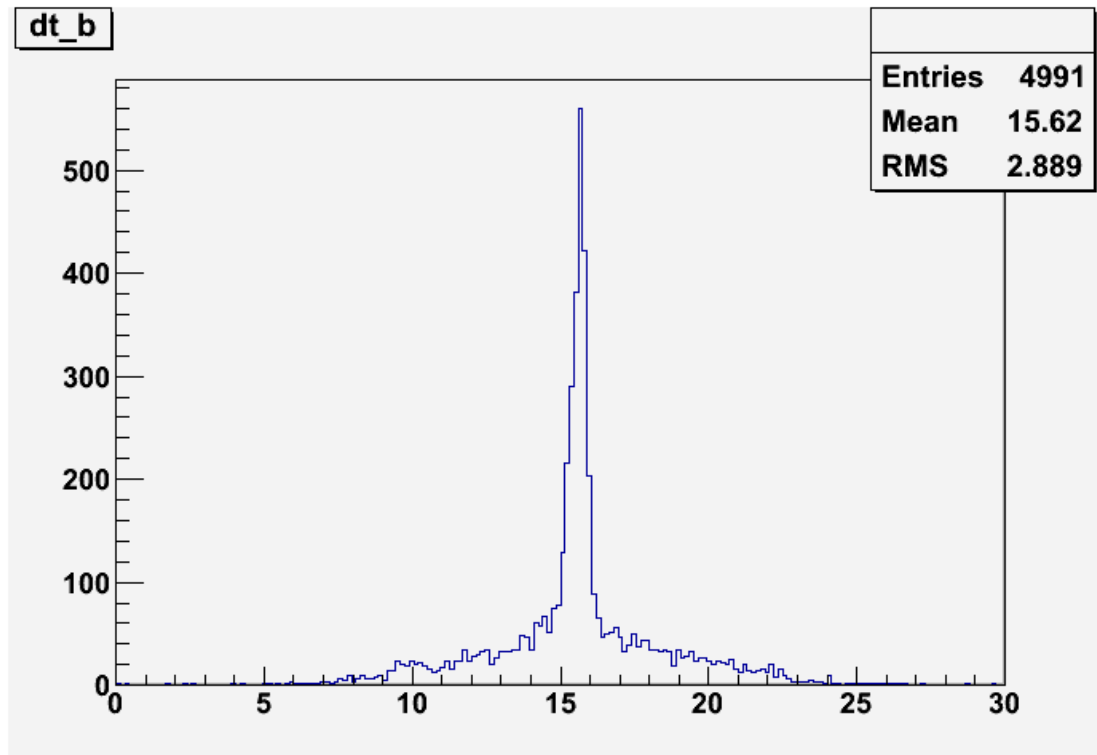


Top plastic scintillator – ch 1,2
Bottom plastic scintillator – ch 3,4

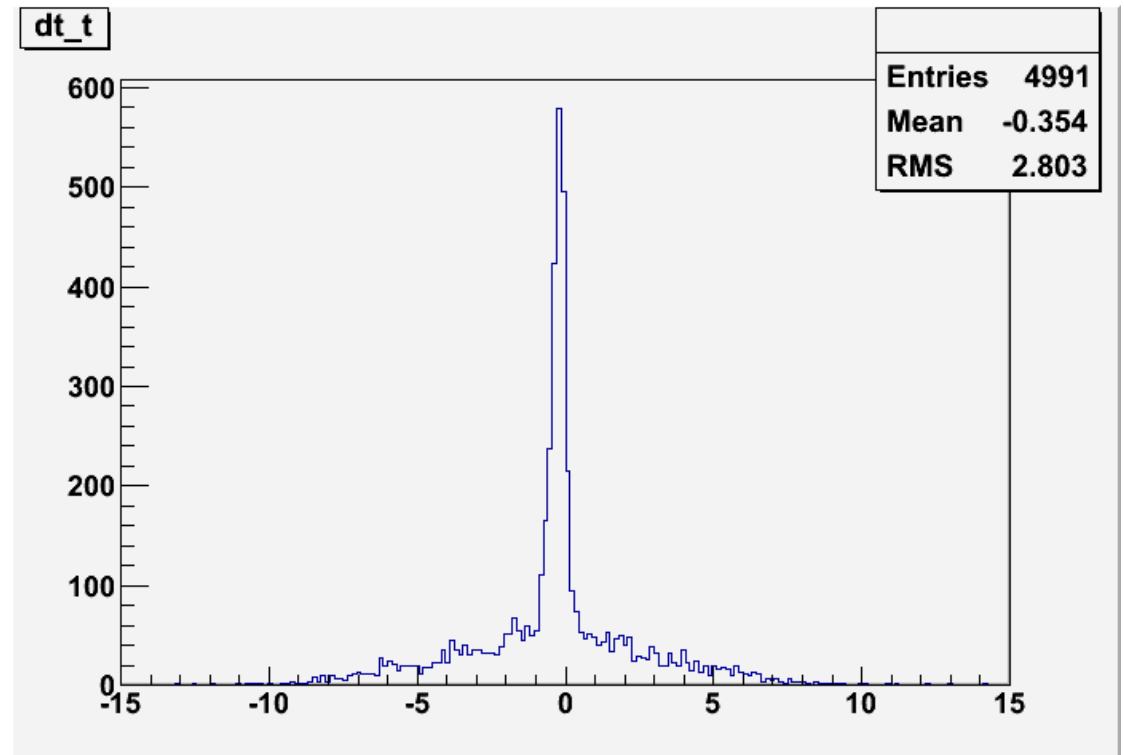
Trigger – ch5(up), ch6(down)

2 modules FADC data-taking – 2days(0804), at center

<dt_bottom>



<dt_top>



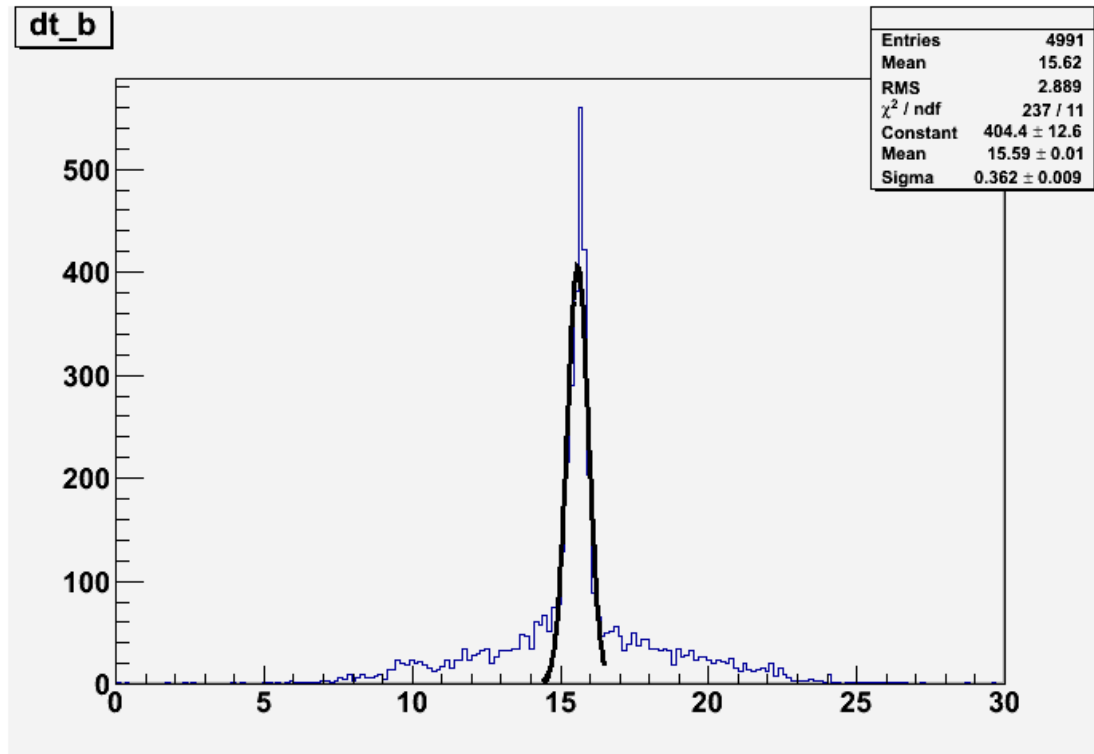
2 modules FADC data-taking – 2days(0804), at center

Fit with a Gaussian

<dt_bottom>

$m = 15.59$

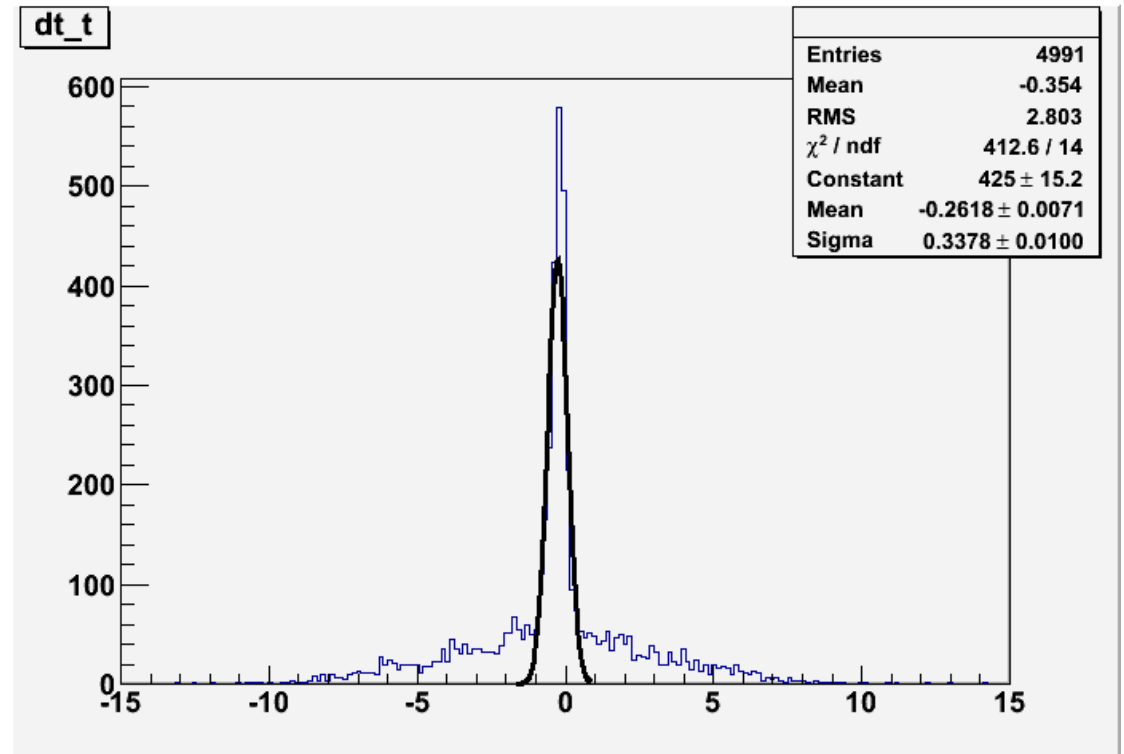
$\sigma = 0.362$



<dt_top>

$m = -0.262$

$\sigma = 0.3378$

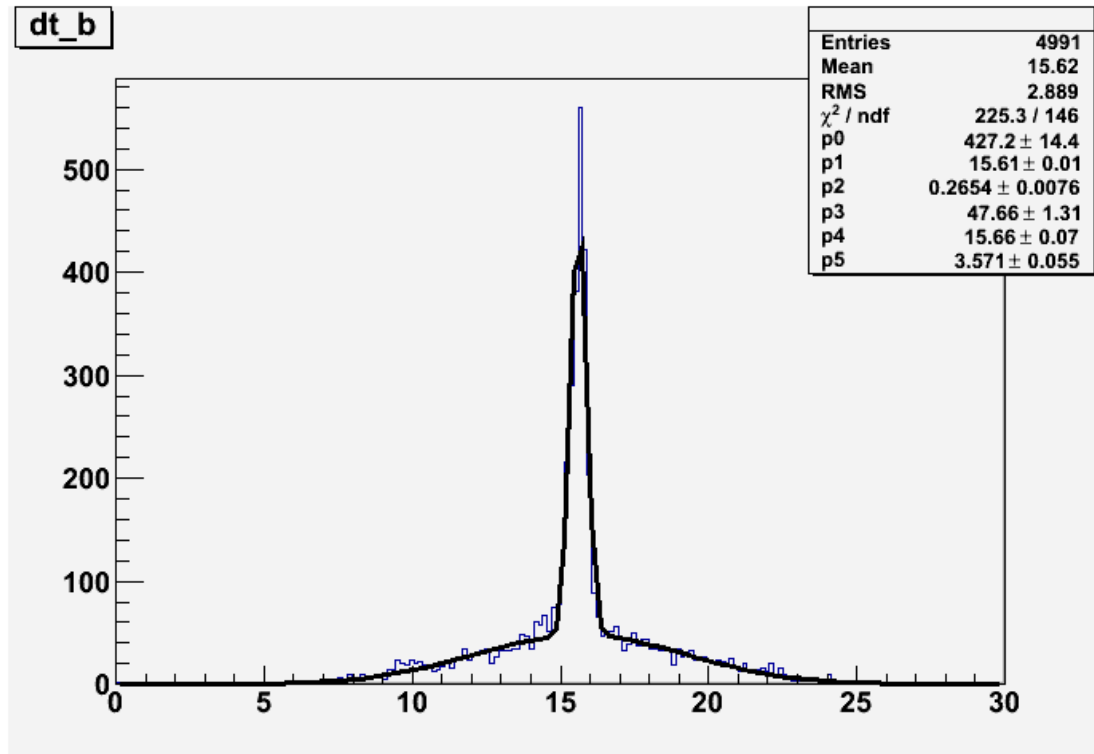


2 modules FADC data-taking – 2days(0804), at center

Fit with **two Gaussians**

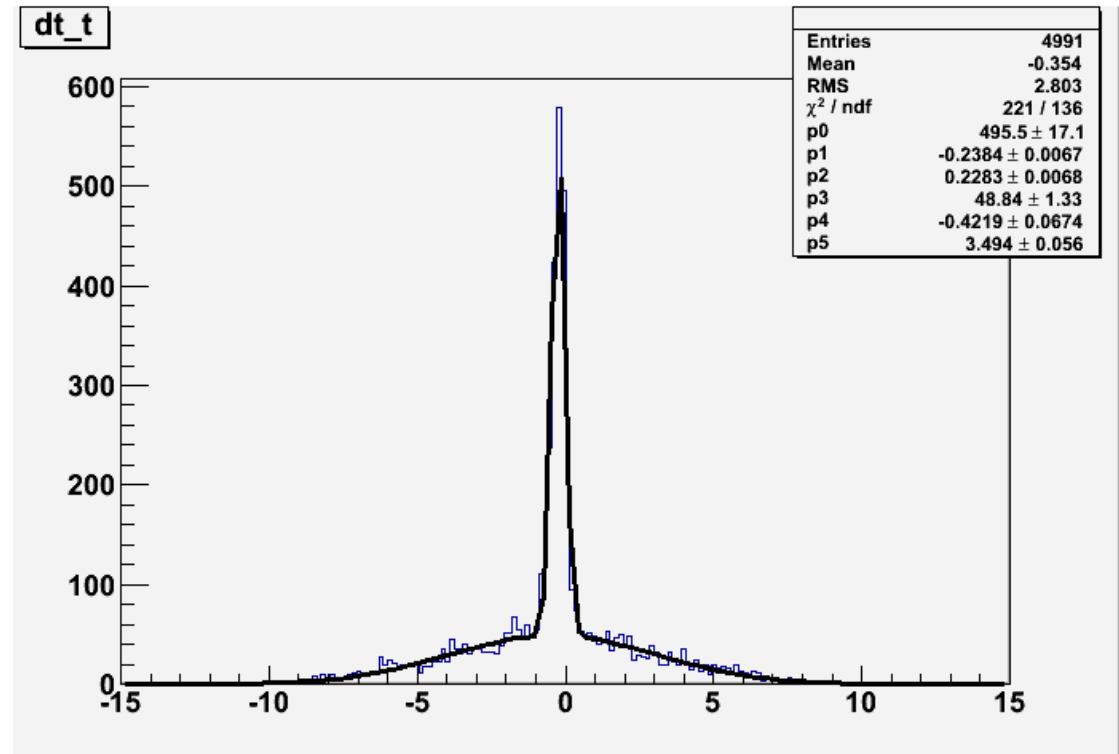
<dt_bottom>

$m = 15.61$
 $\sigma = 0.2654$



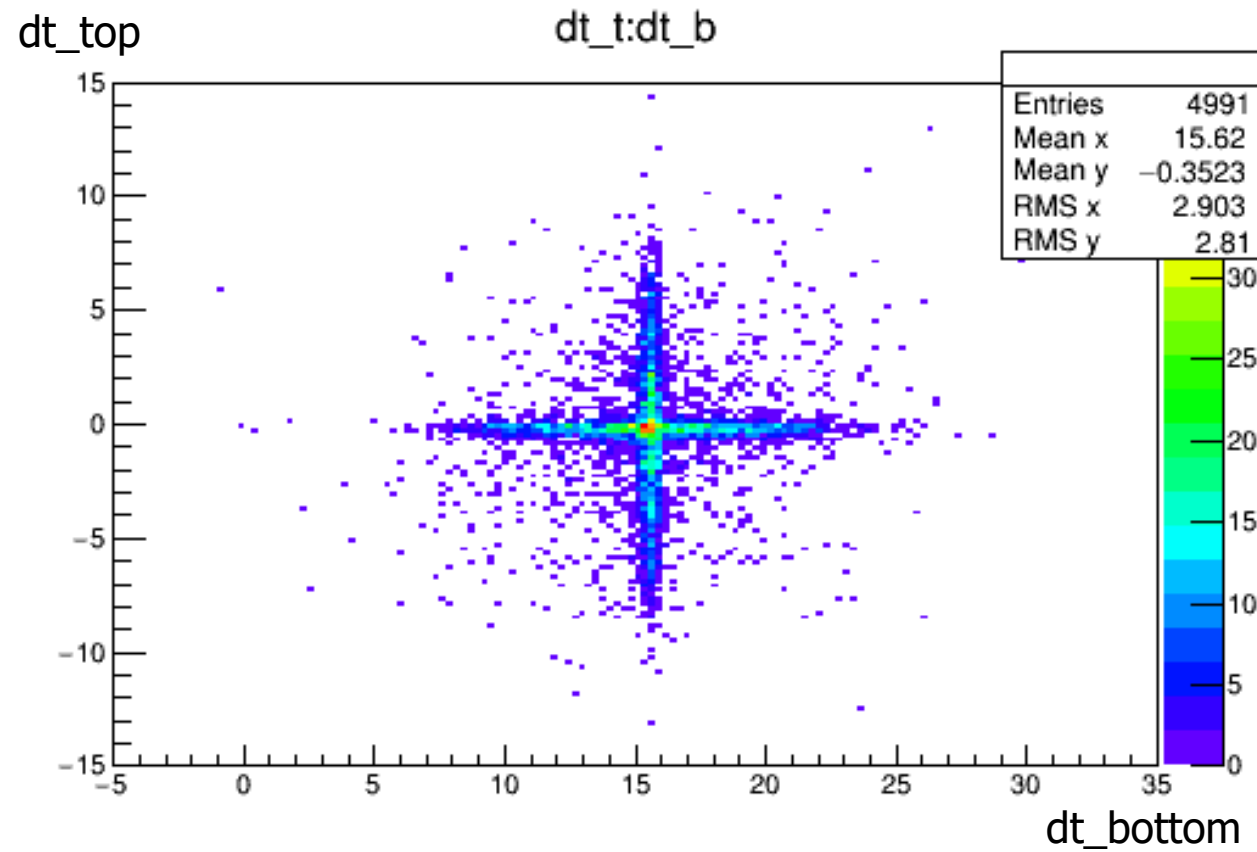
<dt_top>

$m = -0.238$
 $\sigma = 0.2283$



2 modules FADC data-taking – 2days(0804), at center

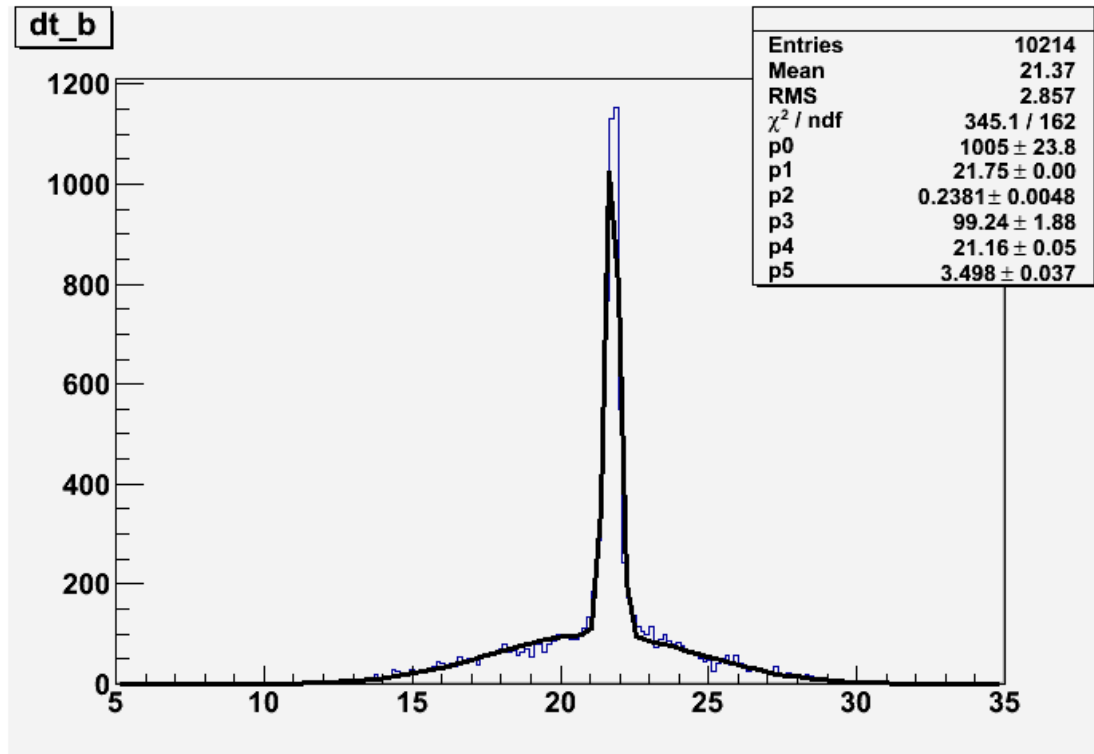
<2d histogram>



2 modules FADC data-taking – 4days(0808), at x=40 from ch2

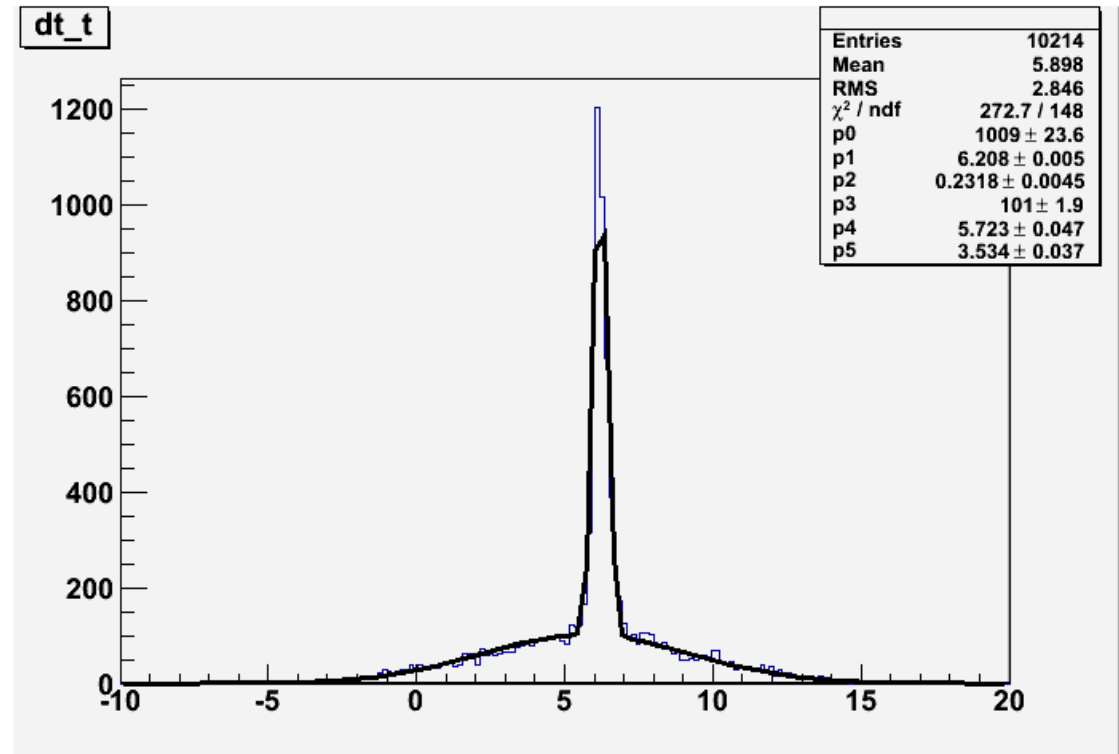
<dt_bottom>

m = 21.75
 $\sigma = 0.2381$



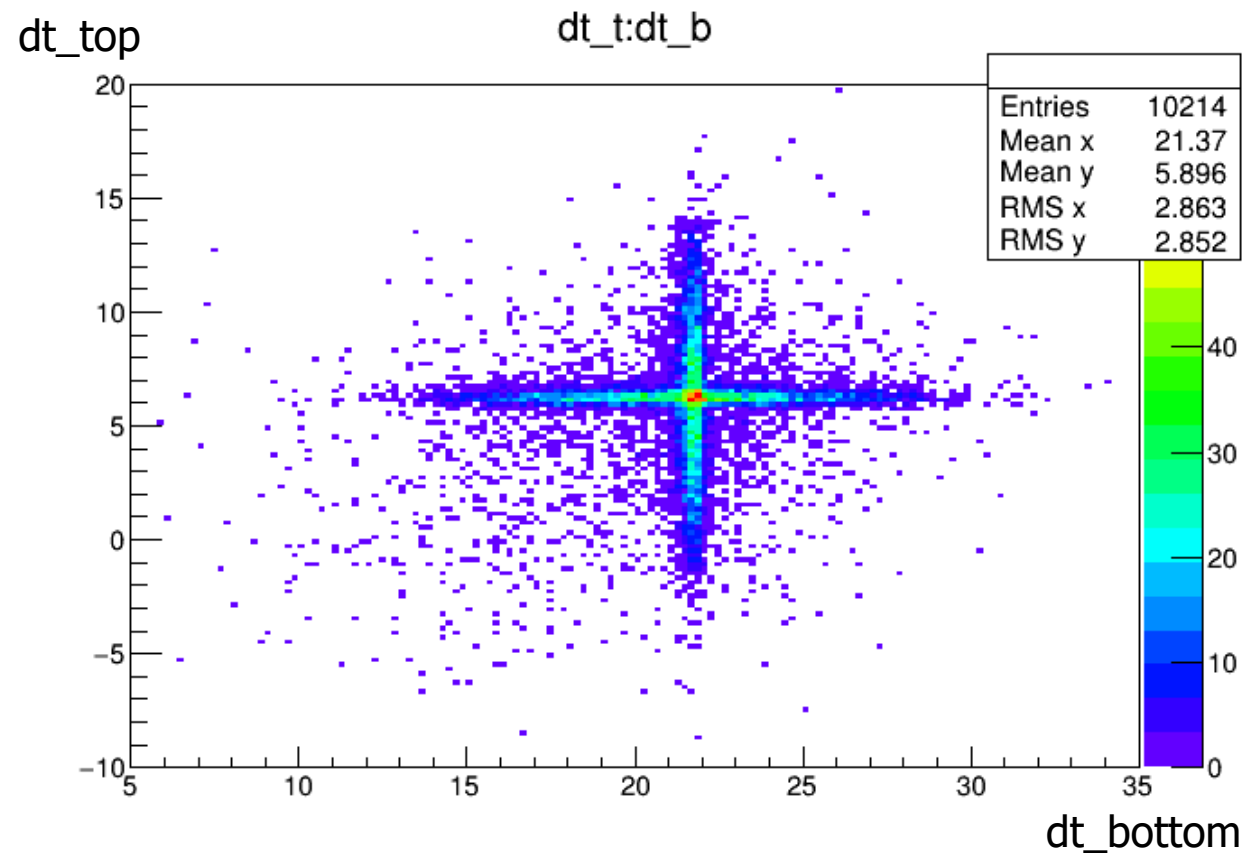
<dt_top>

m = 6.208
 $\sigma = 0.2318$



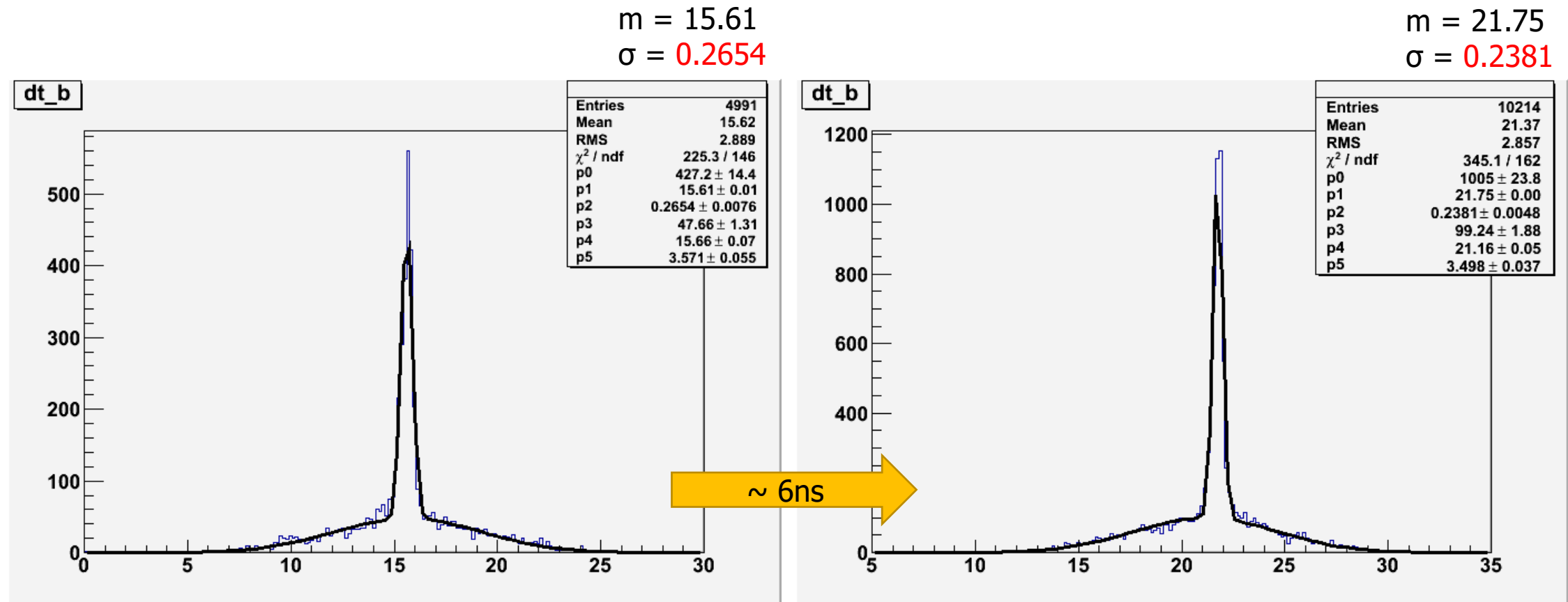
2 modules FADC data-taking – 4days(0808), at x=40 from ch2

<2d histogram>



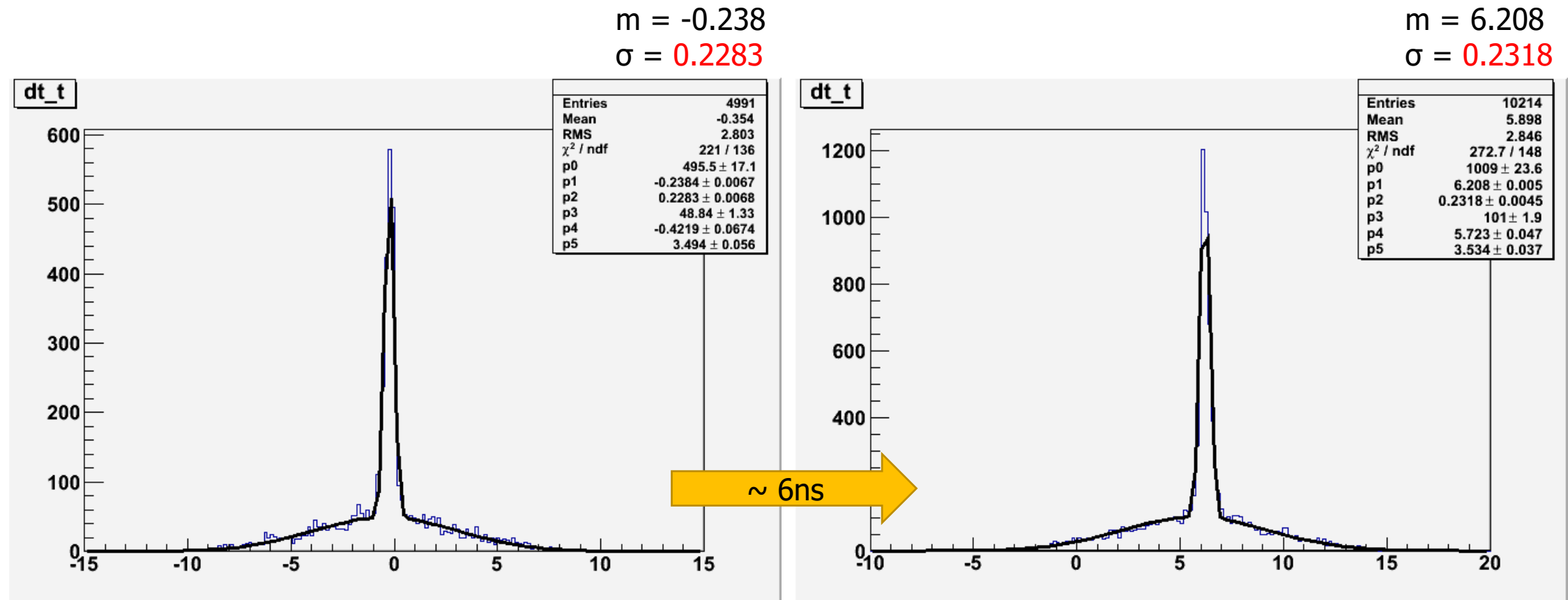
2 modules FADC data-taking – [at center] vs [at x=40 from ch2]

<dt_bottom>



2 modules FADC data-taking – [at center] vs [at x=40 from ch2]

<dt_top>



PMT gain test

labeled IBS 001~IBS 014

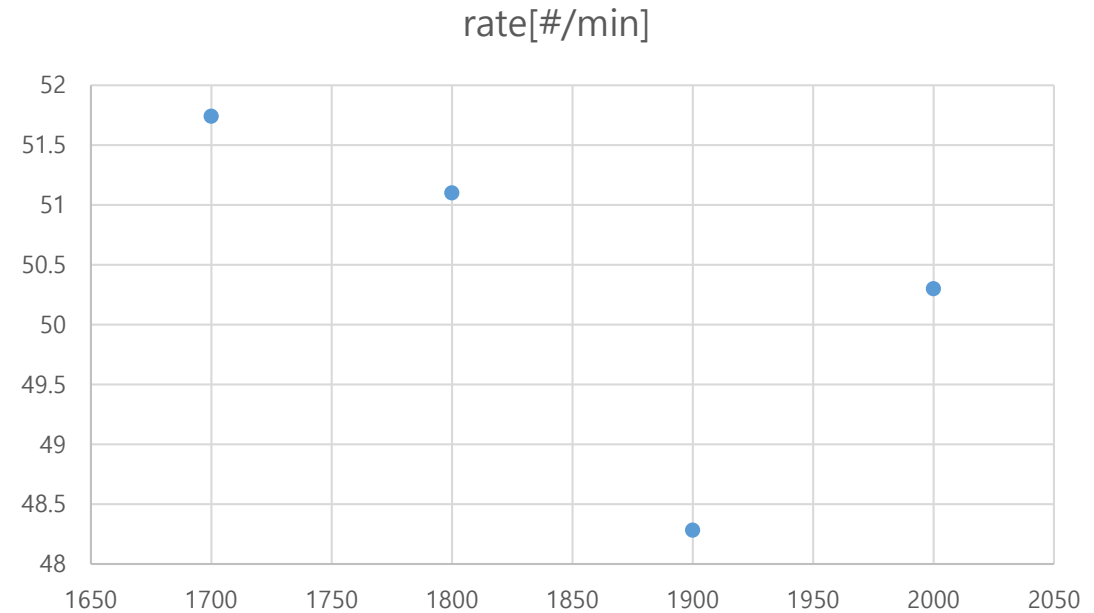
IBS 001 on test

investigating [single rate], [threshold], [gain] for each HV

[single rate]

trigger threshold = -25.5mV

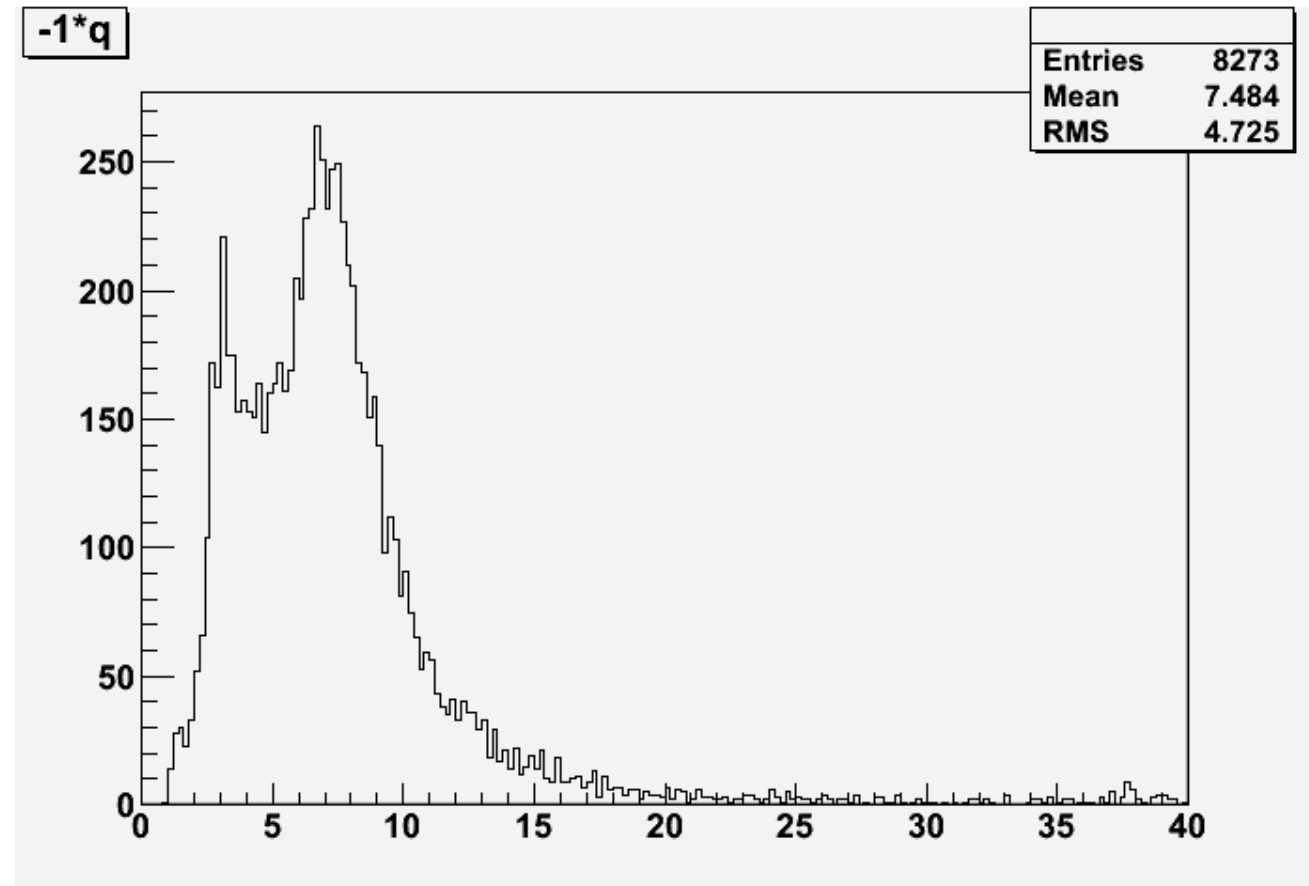
maybe because of
inaccurate time counting?



PMT gain test

[threshold], [gain]

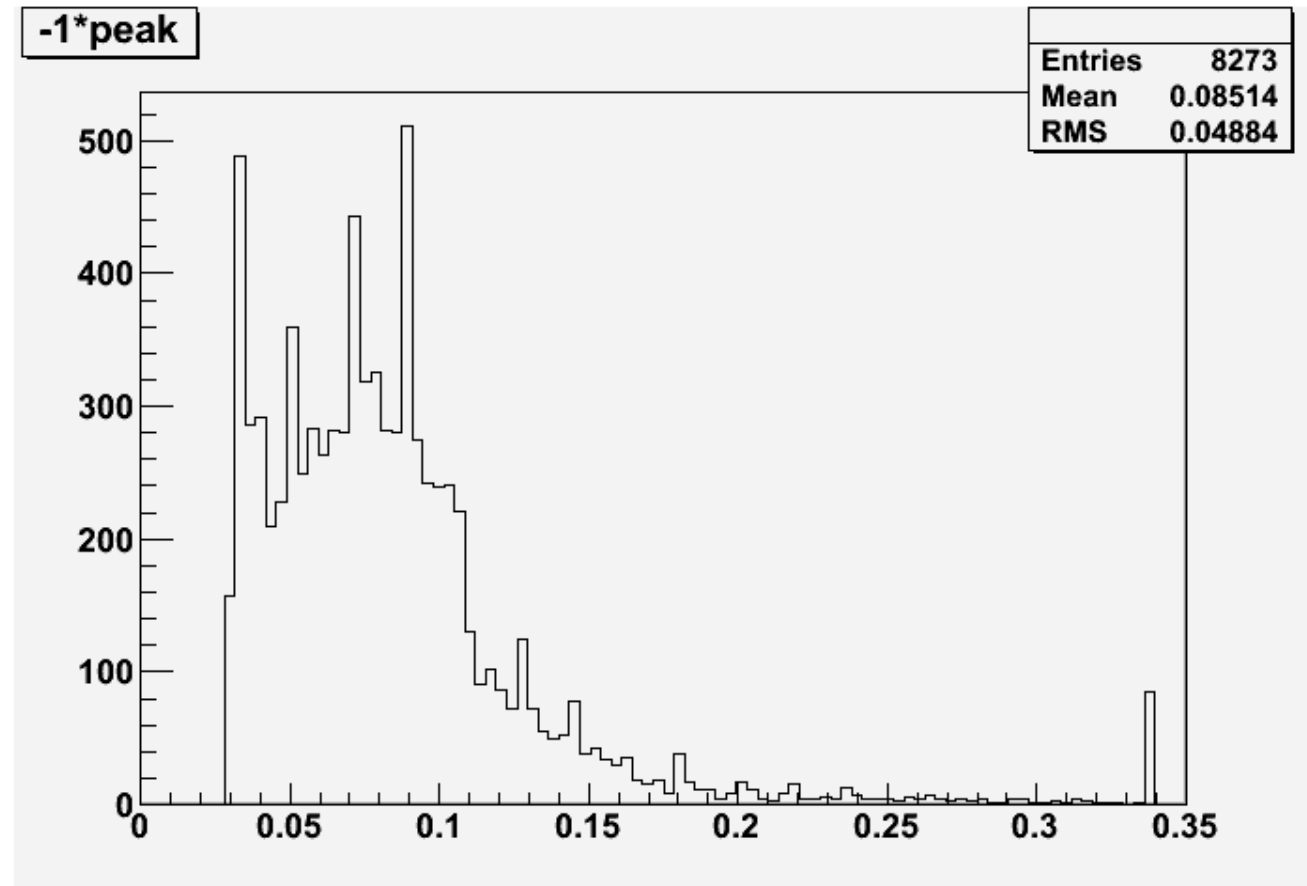
at HV=1800V
Area(charge) histogram



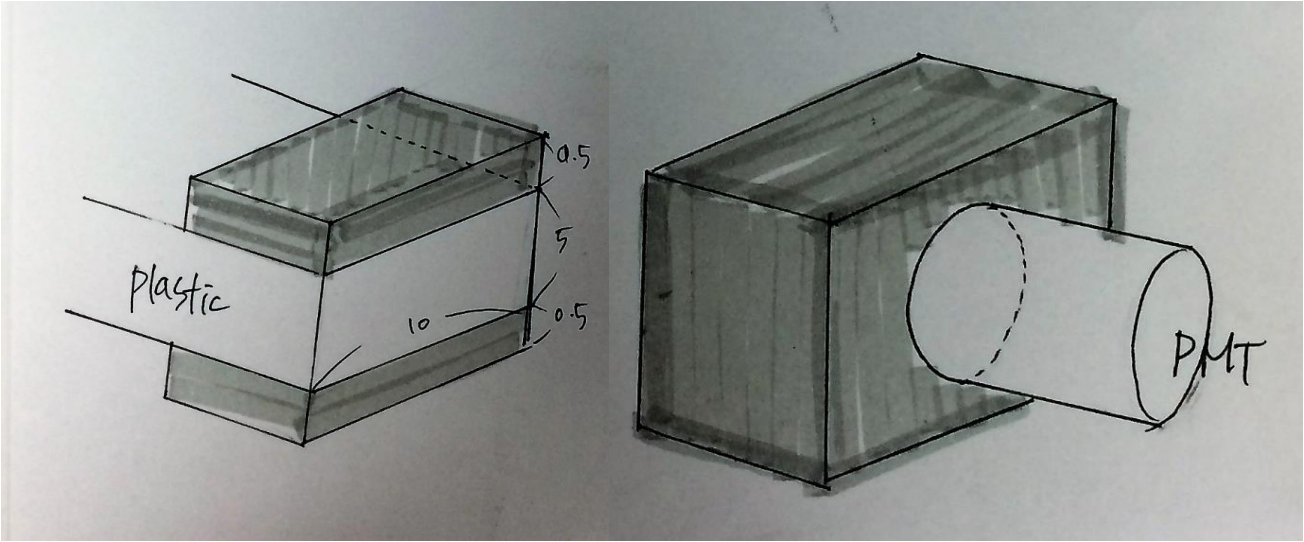
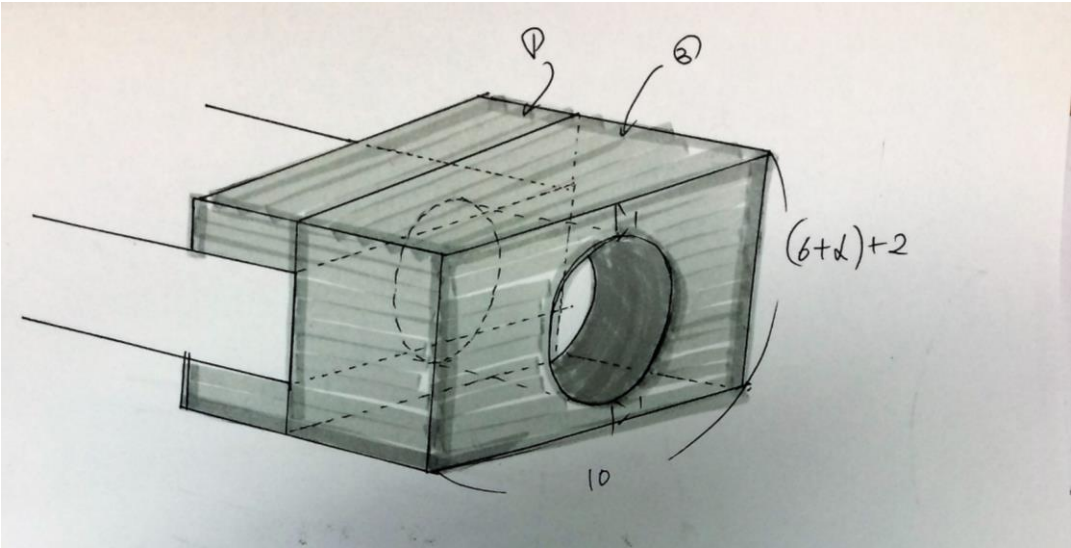
PMT gain test

[threshold], [gain]

at HV=1800V
peak height histogram



A case design



To do list

1. Find dt of FADC data with Gaussain fit
2. Accurate PMT gain test
3. (after a case sample available) test with the sample