

20170406 STATUS REPORT

Ahram lee

TOF Detector Preparation

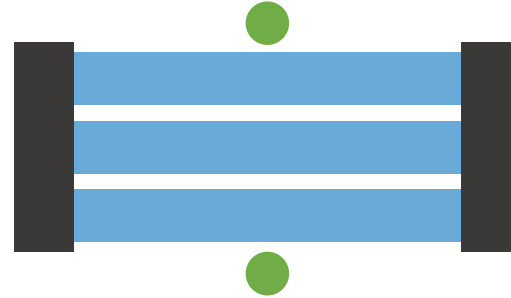
12bar test with 2trig



BAR 3, 4, 5

During 03/17 ~ 03/22,
About 1,500 cosmic ray signals

~ 12 counts/hour
~ 300 counts/day

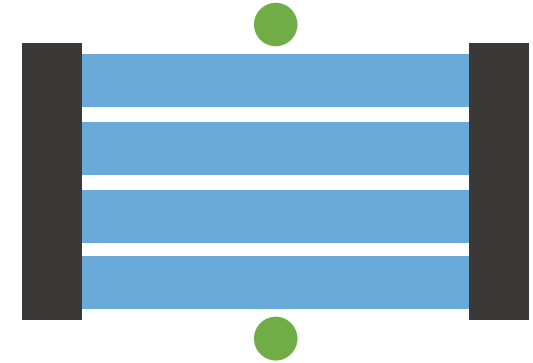


BAR 6, 7, 8

During 03/23 ~ 03/28,
About 3,500 cosmic ray signals

~ 33 counts/hour
~ 800 counts/day

Previous slide (03/29)



BAR 9, 10, 11, 12

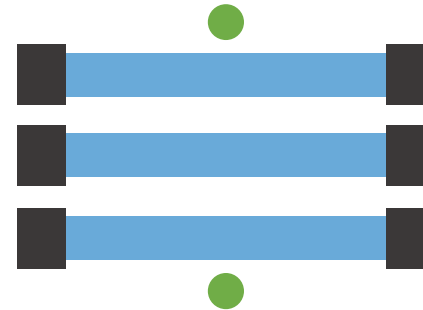
Plan : 03/31(Fri) – 04/04(Tue)
Use 4 bars at once

* All trig are situated at center(0cm)

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BAR 3,4,5 – 1384 events (03/17~03/22)

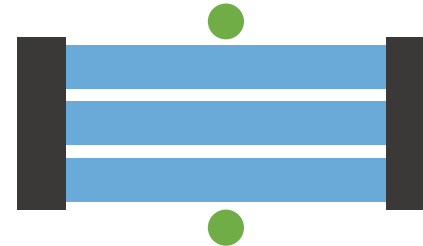


~ 12 counts/hour
~ 300 counts/day

BAR 6,7,8 – 3648 events (03/23~03/28)

BAR 9,10,11 – 4036 events (03/30~004/04)

BAR 1,2,12 – exp. next week



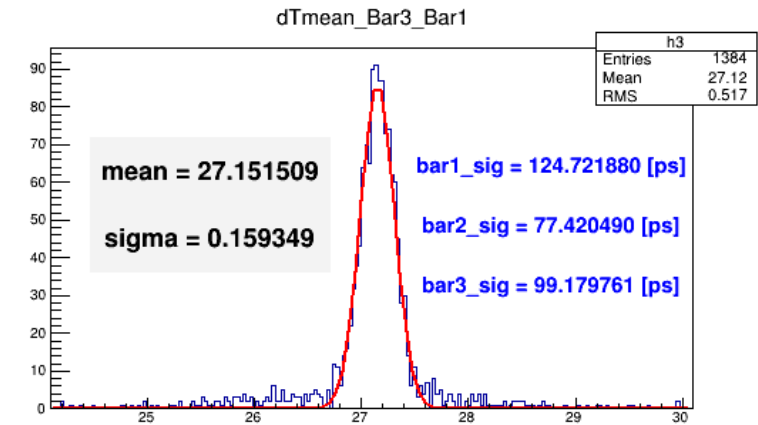
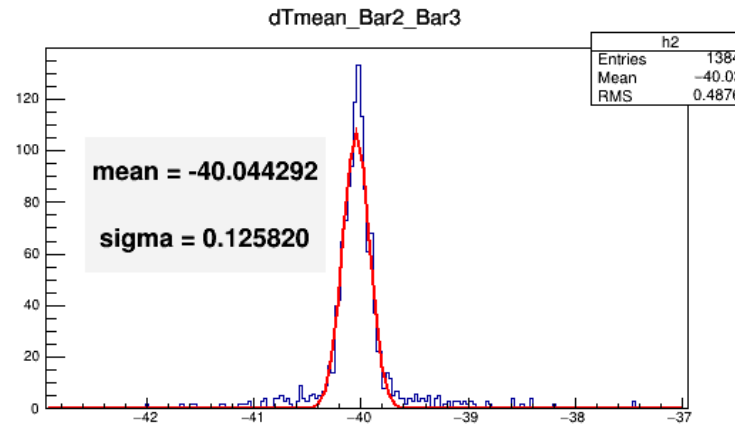
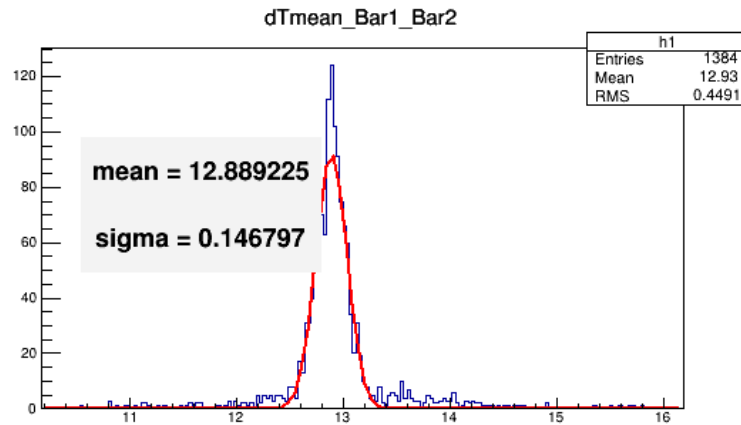
~ 33 counts/hour
~ 800 counts/day

* All trig are situated at center(0cm)

TOF Detector Preparation

12bar test with 2trig

1) dTmean distribution – BAR 3,4,5



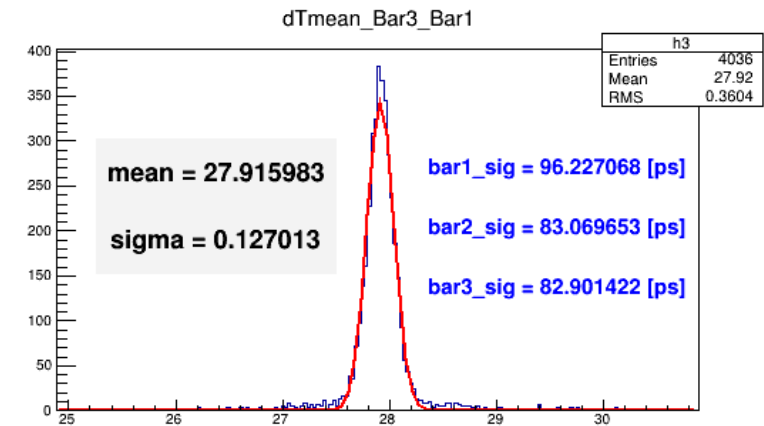
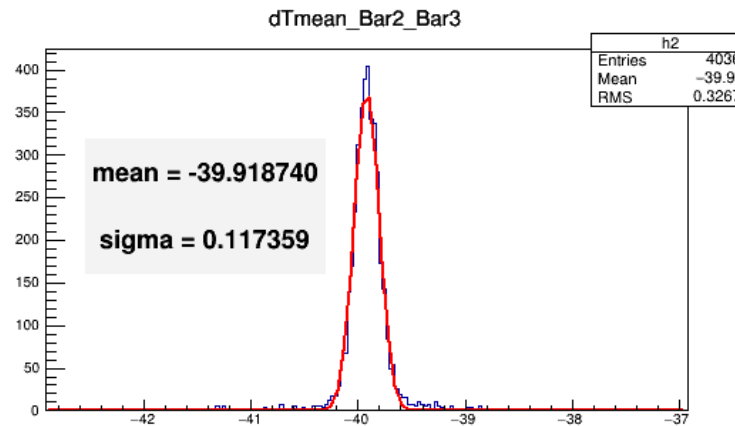
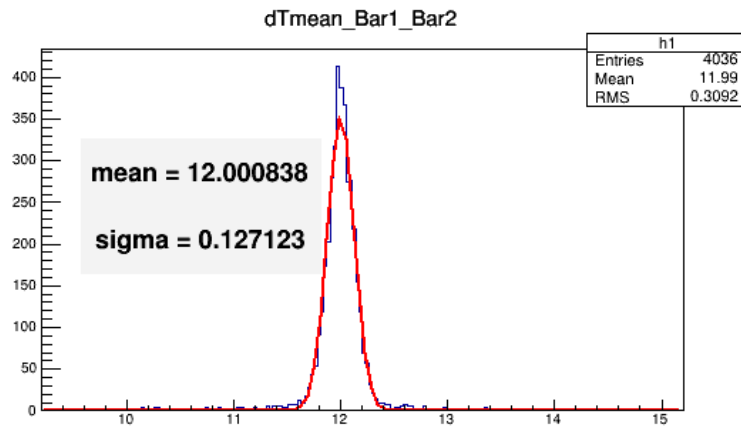
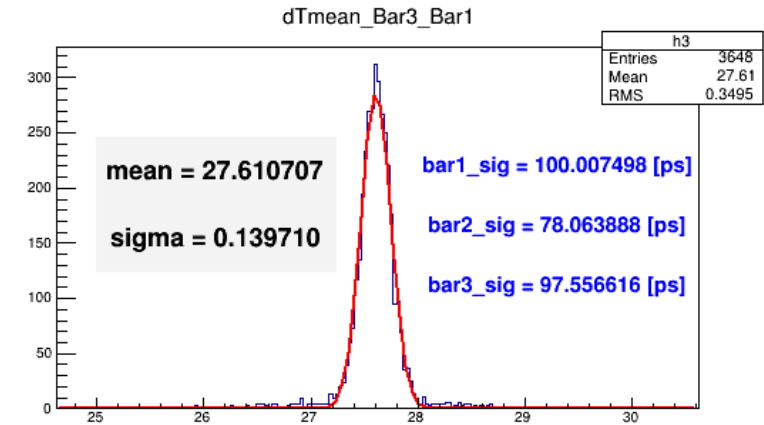
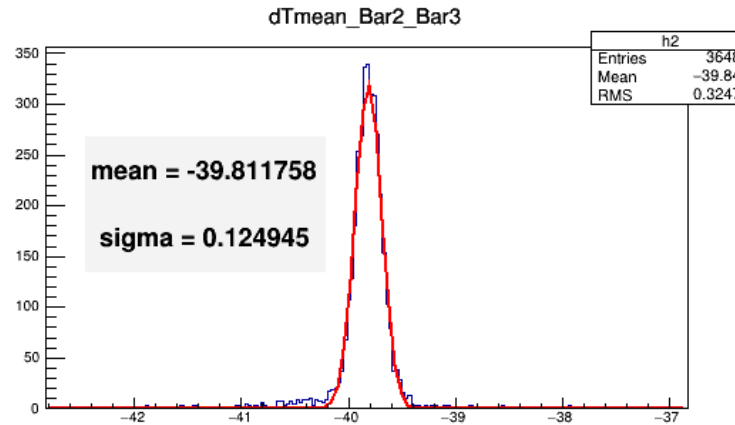
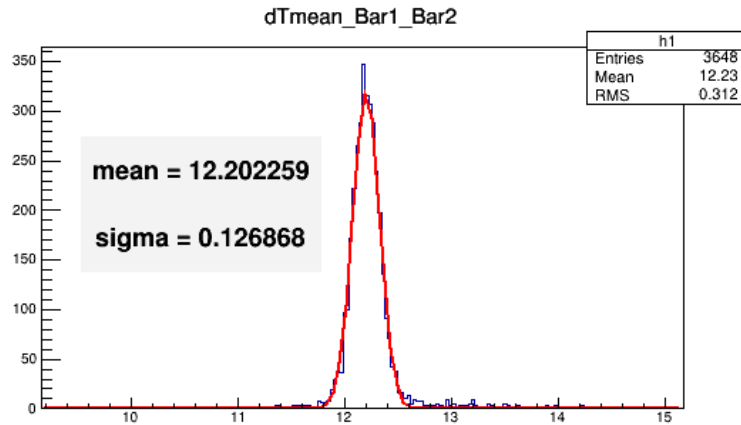
$$(\sigma_{h1})^2 = \sigma_1^2 + \sigma_2^2, \quad (\sigma_{h2})^2 = \sigma_2^2 + \sigma_3^2, \quad (\sigma_{h3})^2 = \sigma_3^2 + \sigma_1^2$$

$$\longrightarrow \sigma_1 = \sqrt{\frac{(\sigma_{h1})^2 - (\sigma_{h2})^2 + (\sigma_{h3})^2}{2}}, \quad \sigma_1 = \sqrt{\frac{(\sigma_{h1})^2 + (\sigma_{h2})^2 - (\sigma_{h3})^2}{2}}, \quad \sigma_1 = \sqrt{\frac{-(\sigma_{h1})^2 + (\sigma_{h2})^2 + (\sigma_{h3})^2}{2}}$$

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12bar test with 2trig

1) dTmean distribution – BAR 6,7,8(up) & BAR 9,10,11(down)



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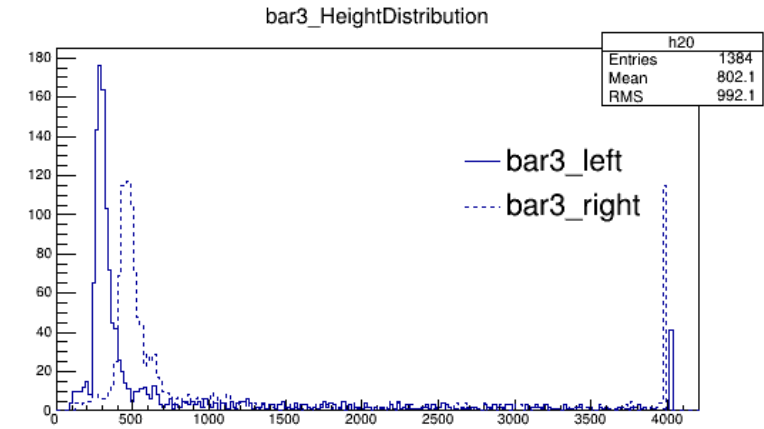
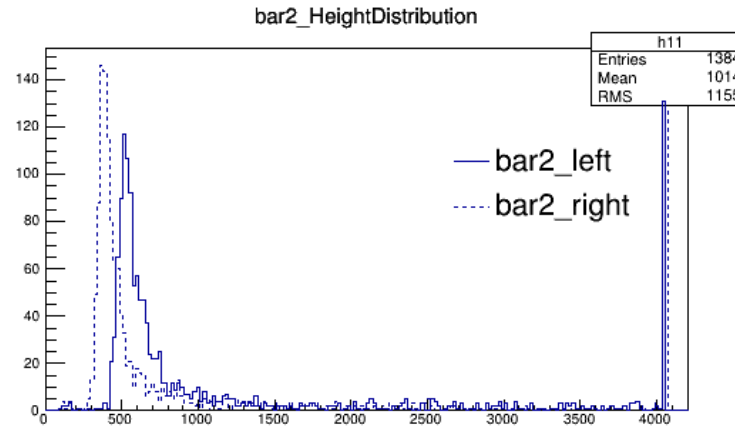
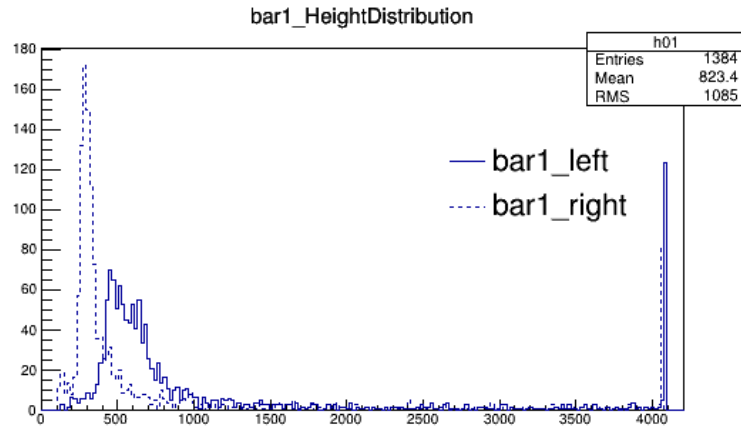
1) dTmean distribution – summary

Bar #	Sigma[ps]	Bar #	Sigma[ps]	Bar #	Sigma[ps]
3	124	6	100	9	96.2
4	77.4	7	78.1	10	83.1
5	99.2	8	97.6	11	82.9

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2) Gain – BAR 3,4,5



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12bar test with 2trig

2) Gain – BAR 6,7,8(up) & BAR 9,10,11(down)

