# **20170922 STATUS REPORT**

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### **CERN data analysis Data Information**

#### dataRC

/home/arlee/dataRC/LOG, RAW, HIST, CONFIG /runcatalog.db

runnum : ~#160 From 2017-08-11 to 2017-09-06

Data taking by PC Vers. 1.2.0

dataRC\_old /home/arlee/dataRC\_old/LOG, RAW, HISTS /runcatalog.db

runnum : ~#205 From 2017-03-16 to 2017-07-26

Data taking by laptop Vers. 1.1.0

### **CERN data analysis Gain Stability Check**

/dataRC_old/	#181	07-21 (3h)	4bar trigger, th=200
/dataRC/	#48 #76 #120 #151	08-17 ~ 08-18 (2d) 08-21 ~ 08-22 (2d) 08-25 ~ 08-29 (4d) 08-30 ~ 09-06 (7d)	6bar trigger, th=100

Cut height[0], height[1], height[22], height[23] > 300 bar1 bar11











Ch 2 Height Distribution

- #048 782.465361

7000

6000

5000

2657

Std Dev

1214































7000





2017-09-22

Weekly Meeting

4



Ch 6 Height Distribution

h50

Entries 26574 Mitan 958.2 Std Dev 623.7

Errities. Mean Std Dev

20574 941.8 663.1



Ch 5 Height Distribution

- #048 749.129701

727.912672

787.785188

760.388872

\_\_\_ #076

*#*120

- #151

2500

7000

6000

5000

4000

3000

2000

8000

1000

h40

Std Dev

26574 1037 684.5





26574 1124

063.9

#### CERN data analysis Gain Stability Check Without old#181



#### **CERN data analysis Gain Stability Check** With old#181



Stability Check with 181

## CERN data analysis Muon Fit : [ch] – [MeV] conversion

To calibrate a signal height variation which depends Muon hit position, Select signals which passed near a center of each counter.



2. calculate speed

tWIDTH[0] = 23.0 [ns]  
time to pass a counter = 
$$\frac{tWIDTH[0]}{2}$$
 = 12.5[ns]  
speed =  $\frac{170cm}{12.5}$  = 1.48 \*  $10^{10}$ [cm/s]  
 $\rightarrow 1cm = \frac{1}{14.8}$ [ns] = 0.068[ns]

 $08-30 \sim 09-06$ 

6bar trigger

#151



# CERN data analysis Muon Fit : [ch] – [MeV] conversion

To calibrate a signal height variation which depends Muon hit position, Select signals which passed near a center of each counter.

by using a near bar, select Muon Fits within near counter center (-3cm ~ +3cm)
 Fit those histogram(experimental) by simulation results



