

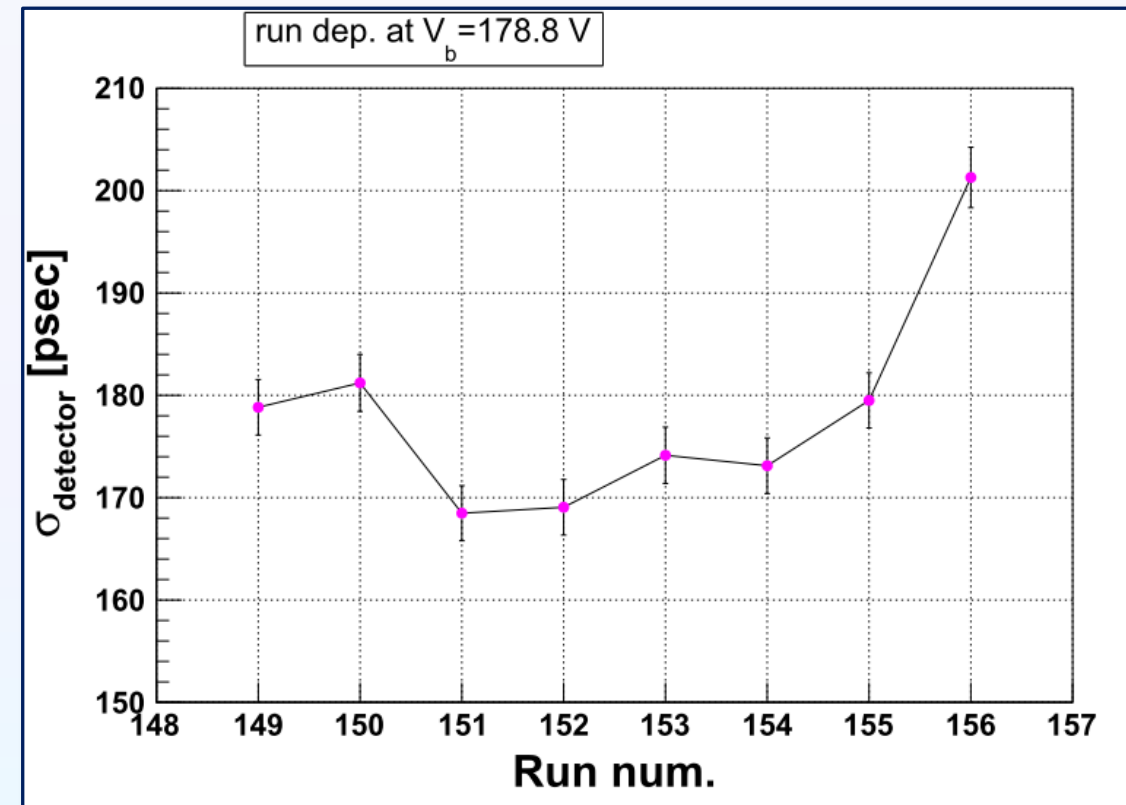
# Status Report #28

2020. 05. 22 (Fri)

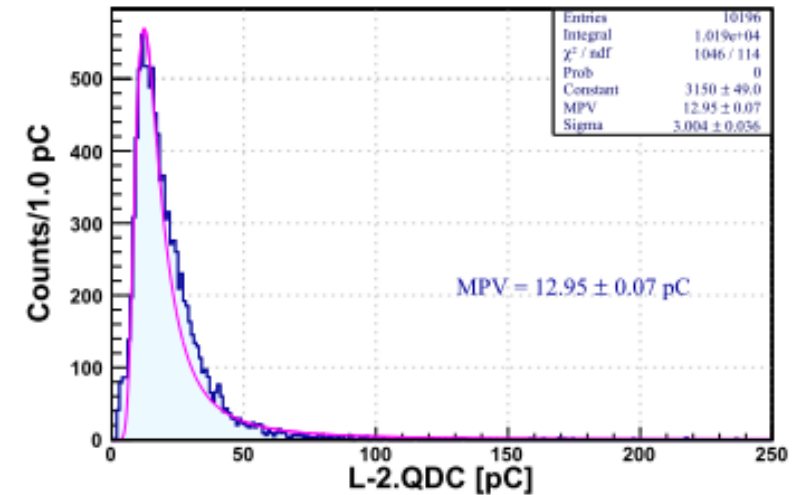
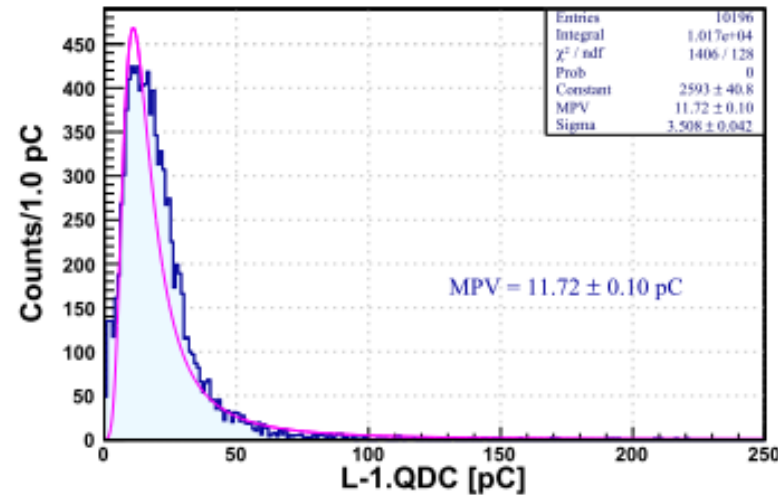
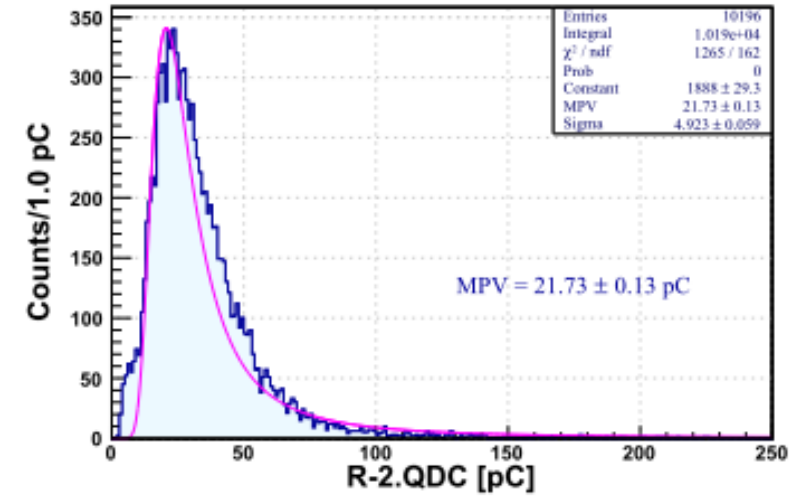
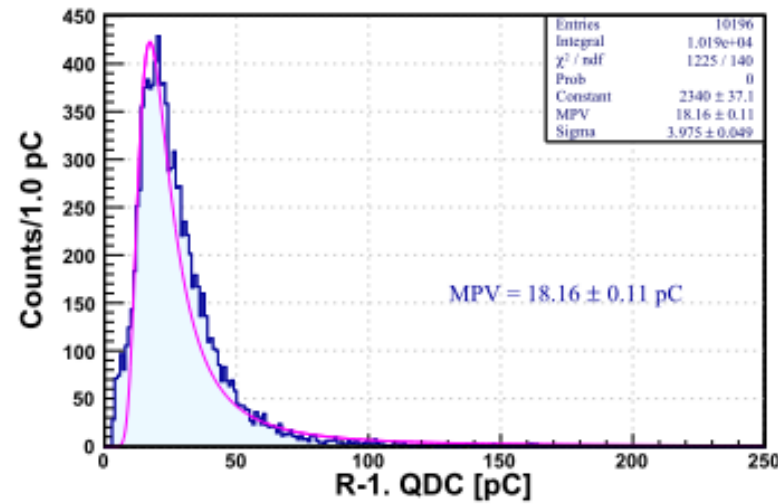
M1 FUJIWARA Tomomasa

生活リズム崩壊太郎

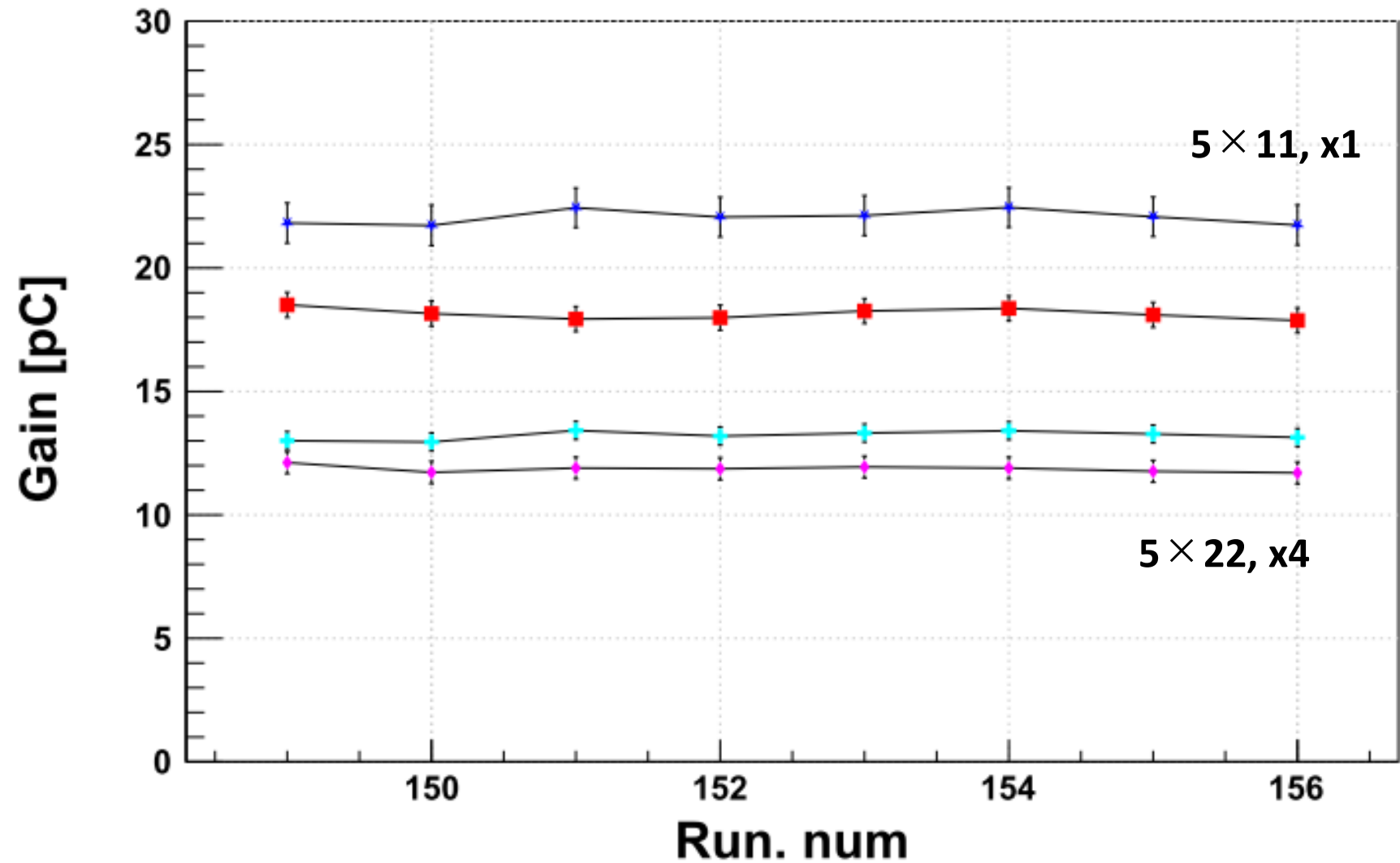
- 前回:  $V_b = 178.8$  V での時間分解能に安定性が見られない
- Pedestalは安定しているように見える
- Gainを確認すべき by 永尾さん



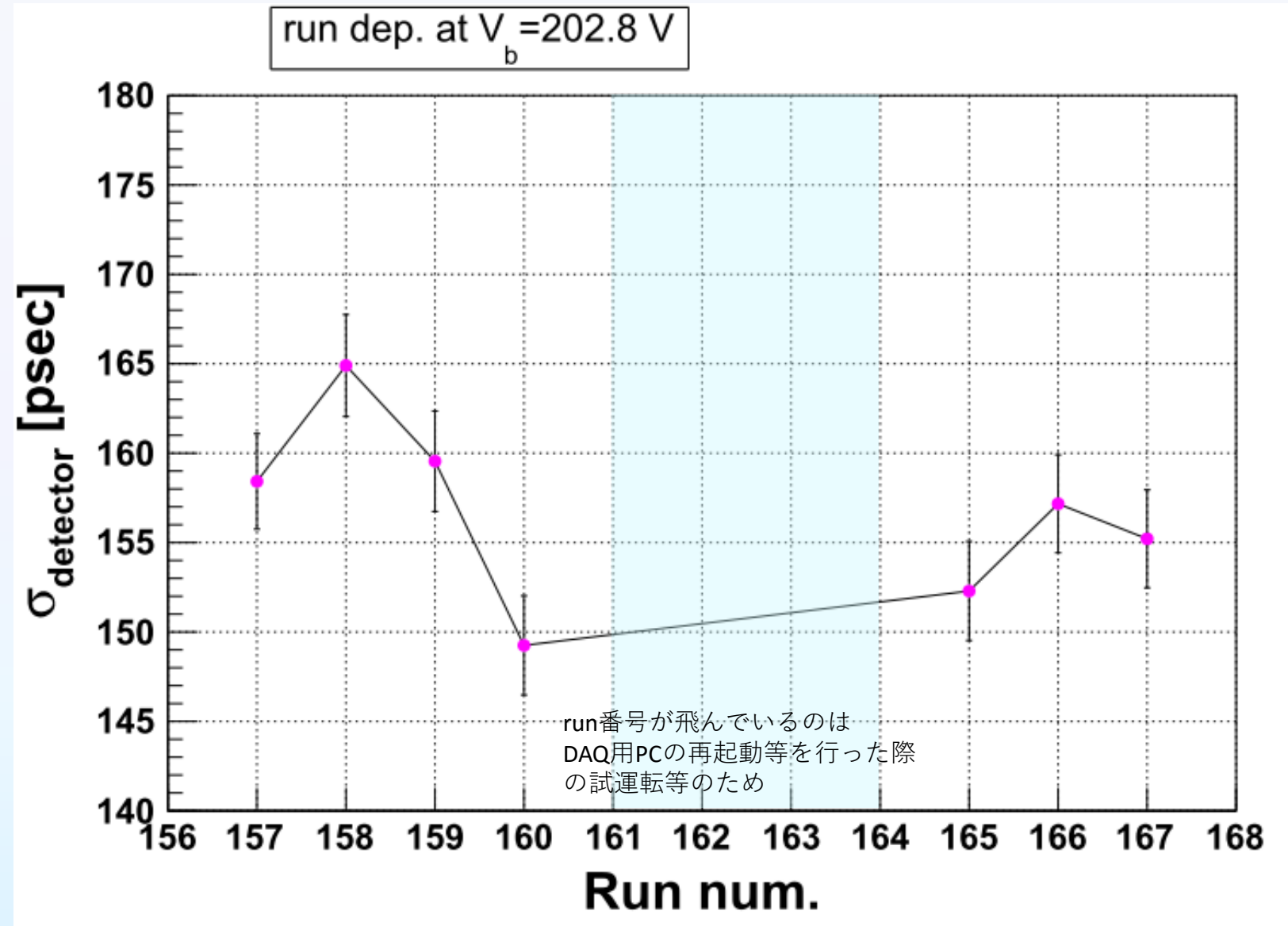
- ペDESTAL=0に揃えたQDC
- Landau をフィットし, そのMPVを採用.



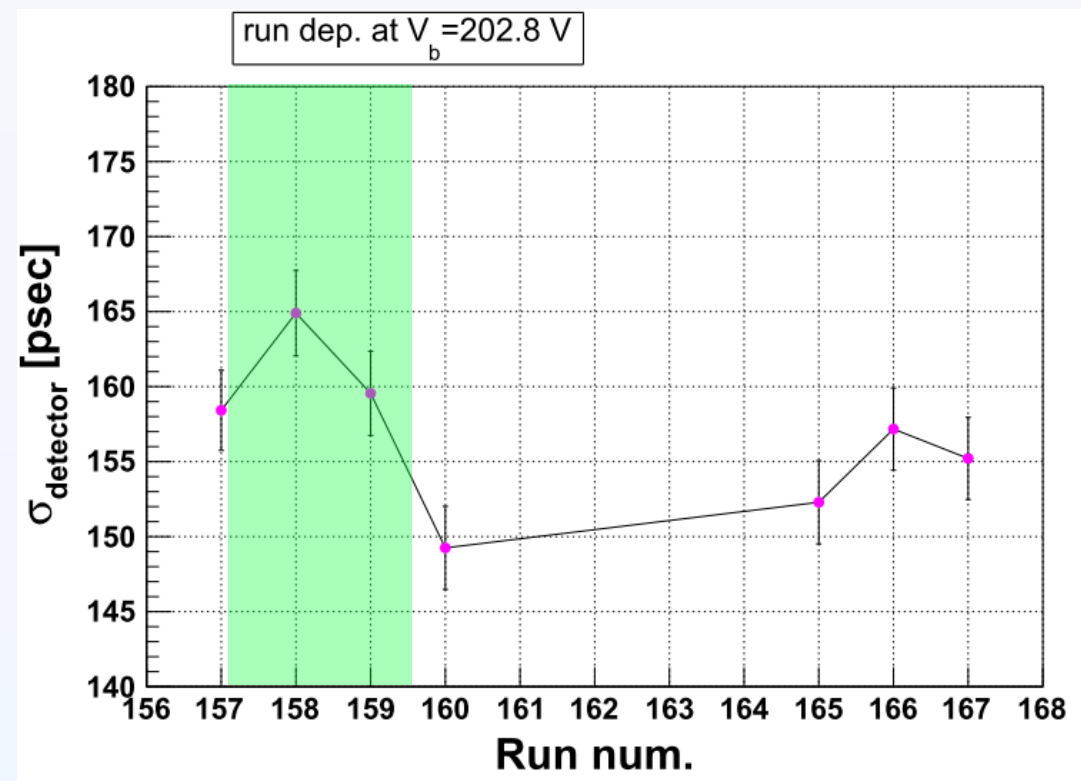
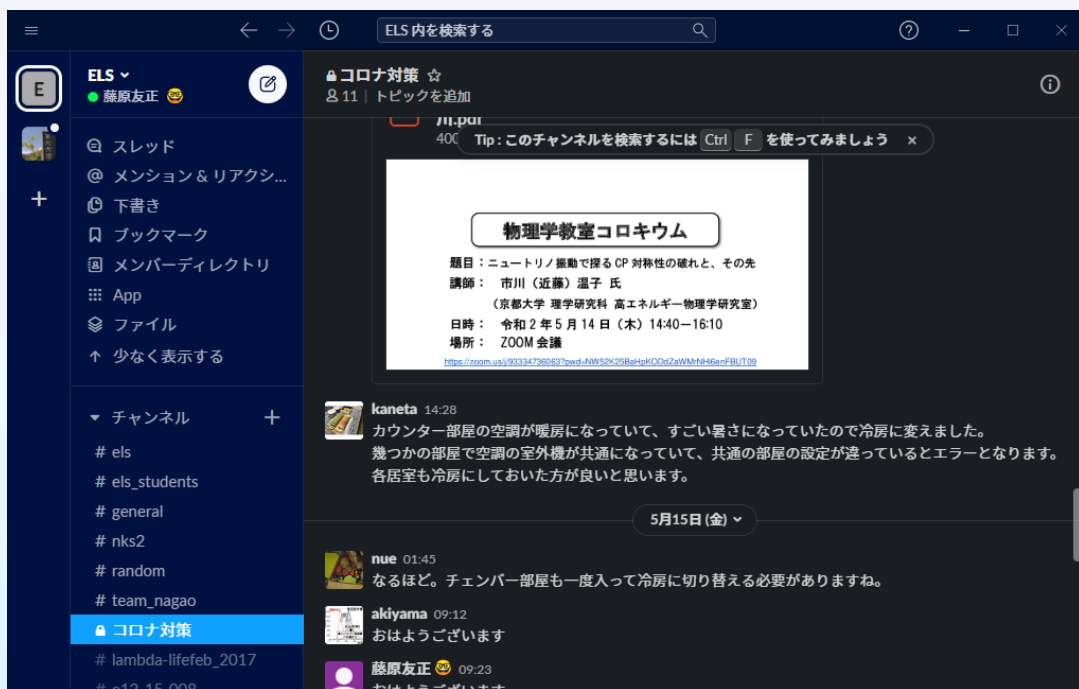
- $V_b = 178.8$  V



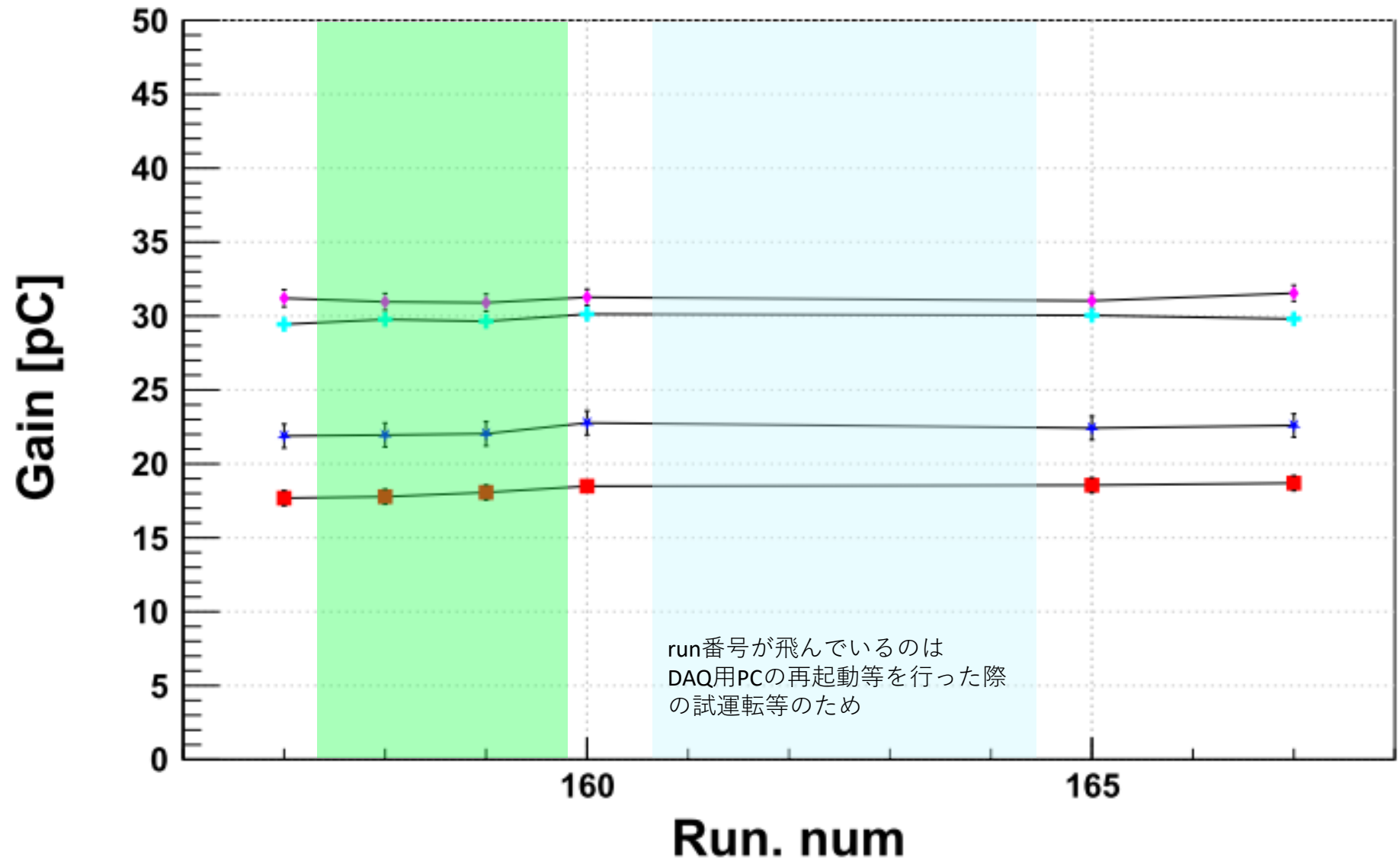
- run dependence ( $V=202.8$  V)



- run dependence ( $V=202.8$  V)

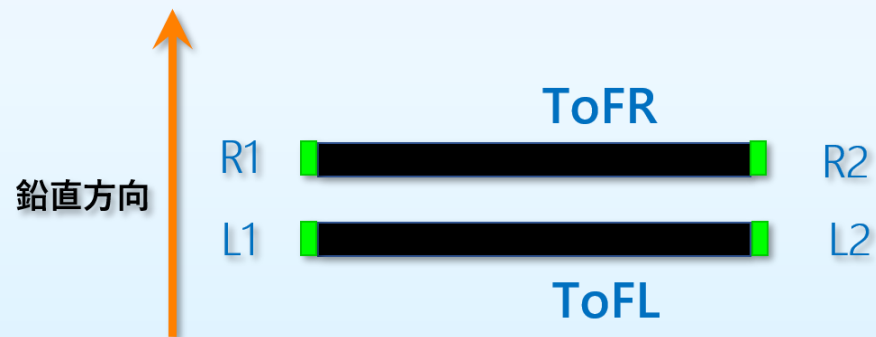


- $V_b = 202.8 \text{ V}$



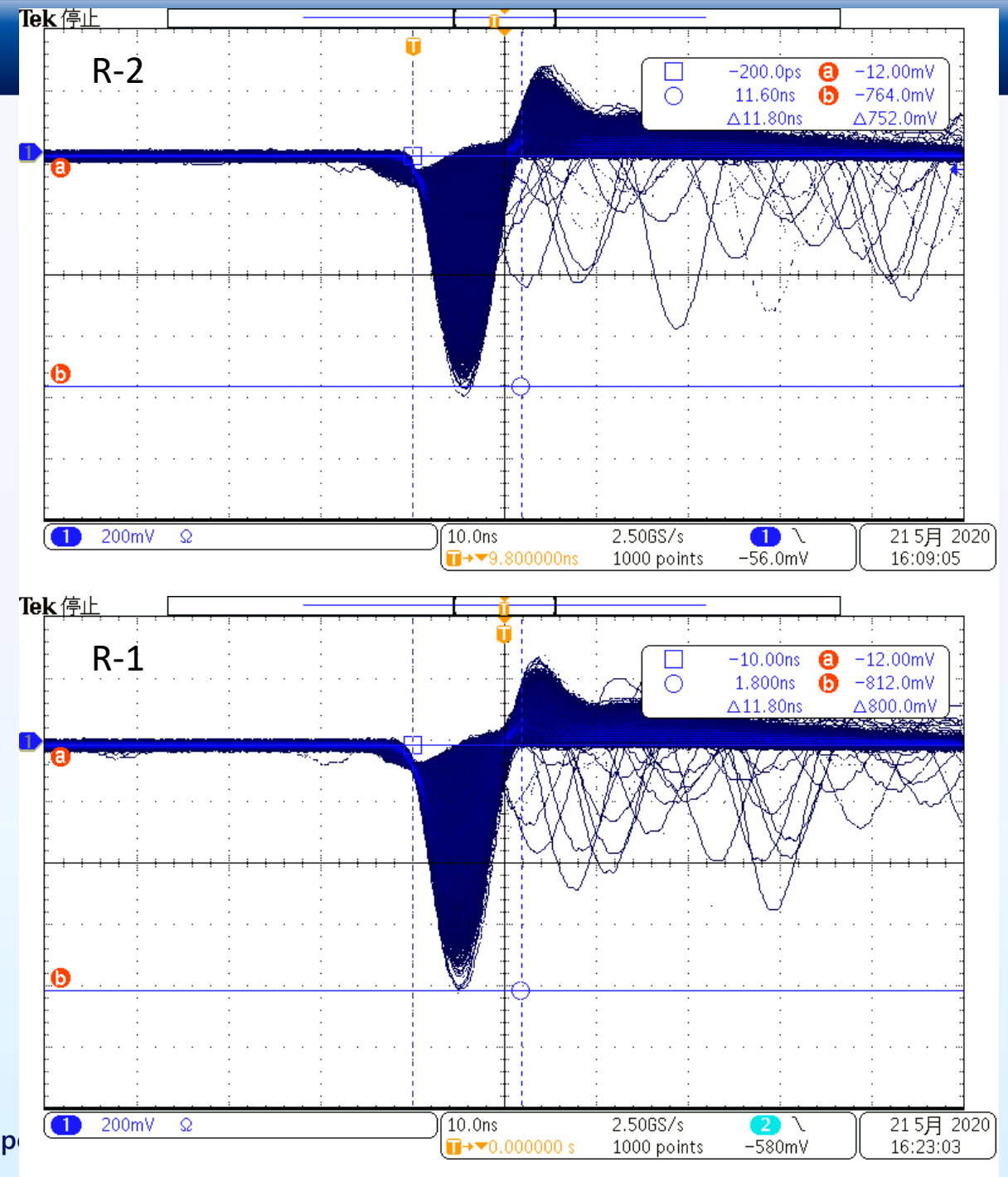
# New Board

- $V = 89.4 \text{ V}$  (44.7V/mppc)
- MIP:  $\sim 750\text{-}800 \text{ mV}$

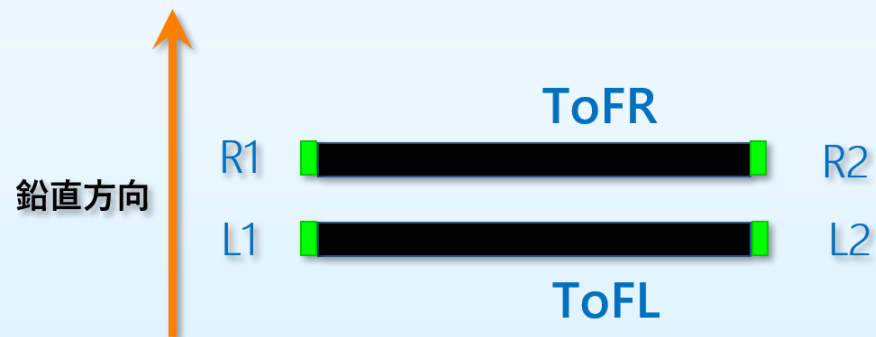
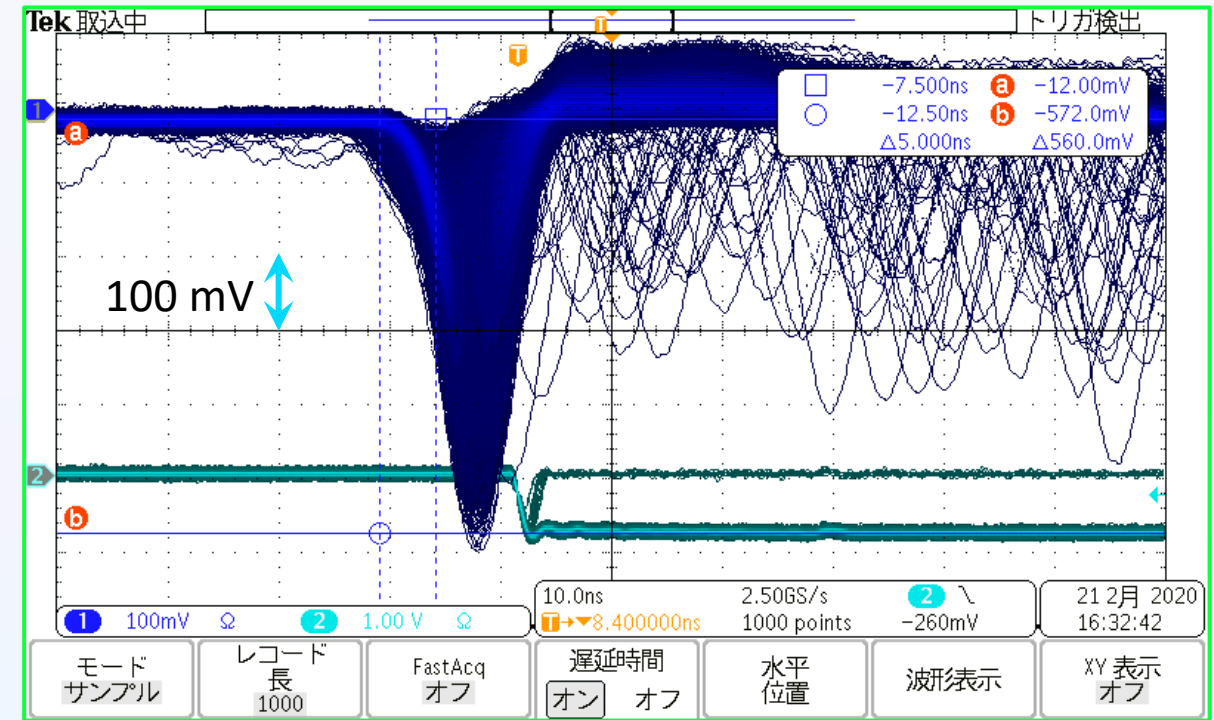
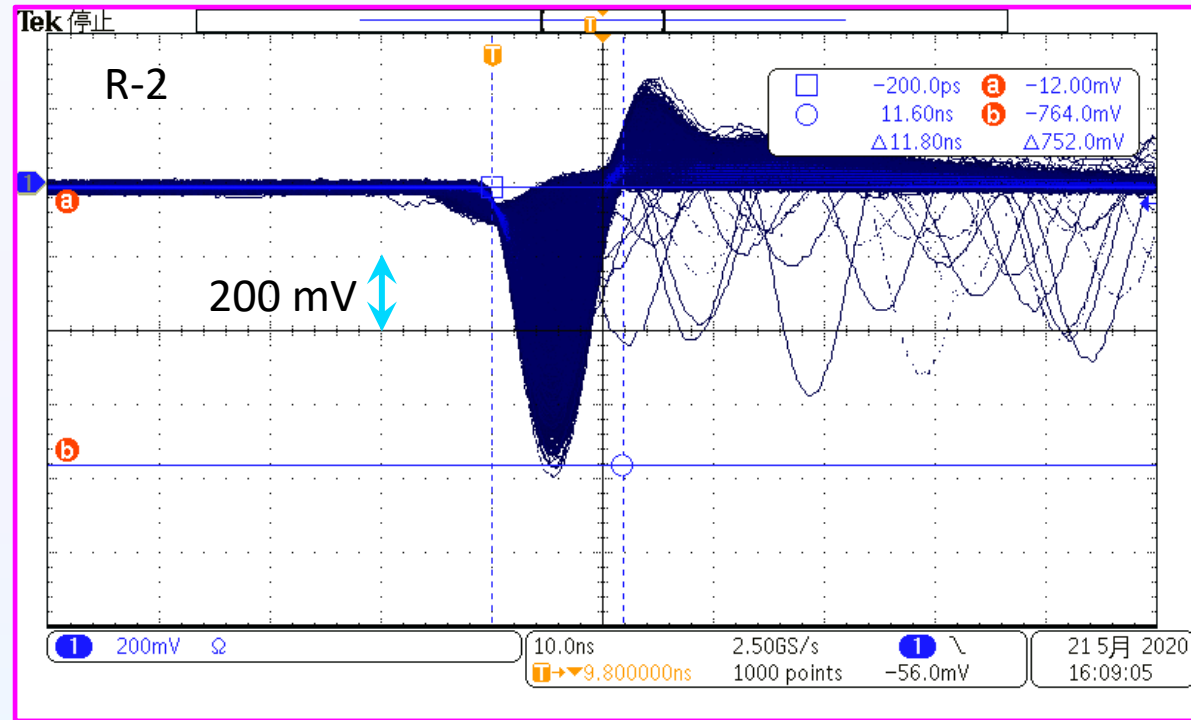


2020. 05. 22 (Fri) NKS2 meeting

Status Rep



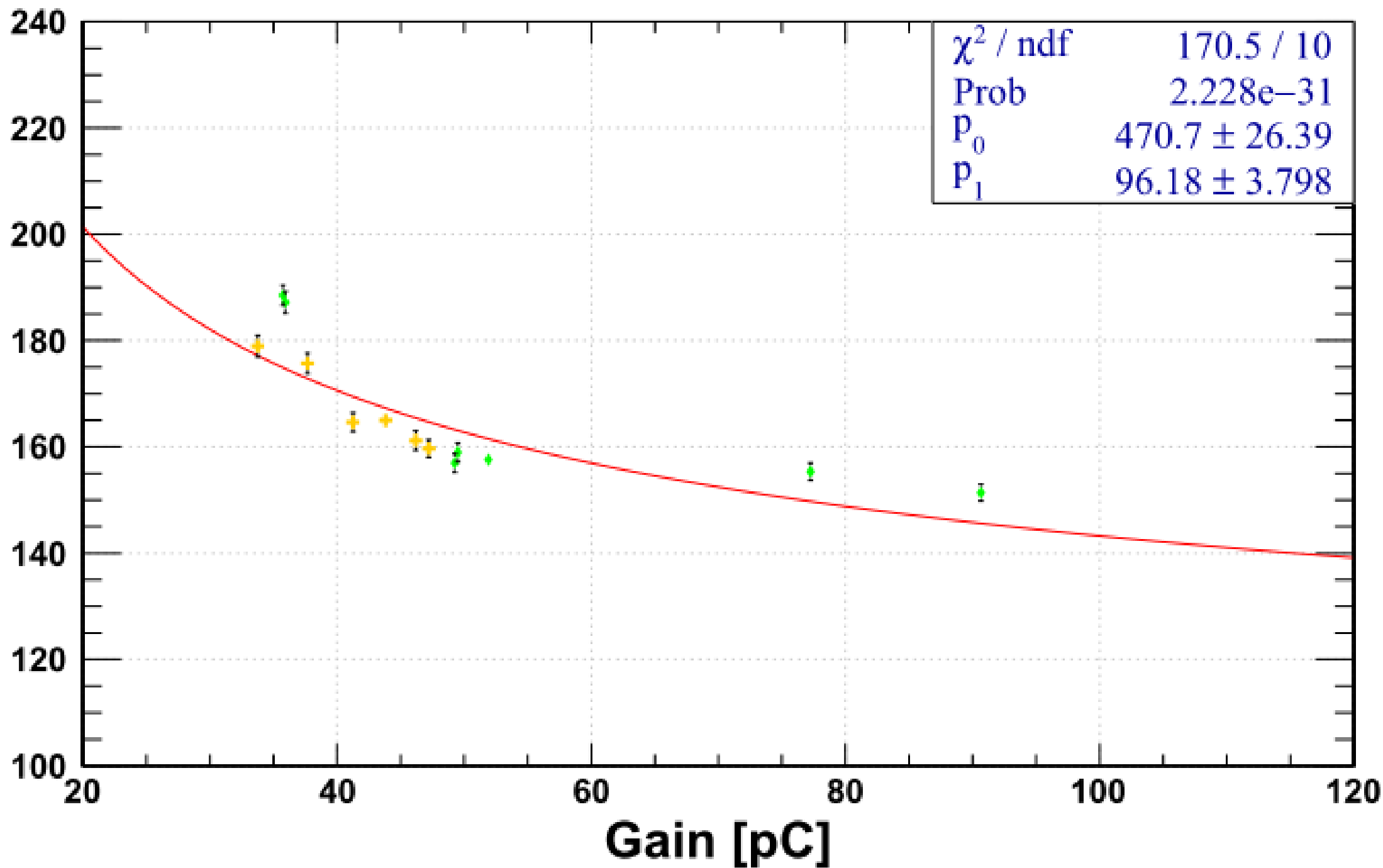


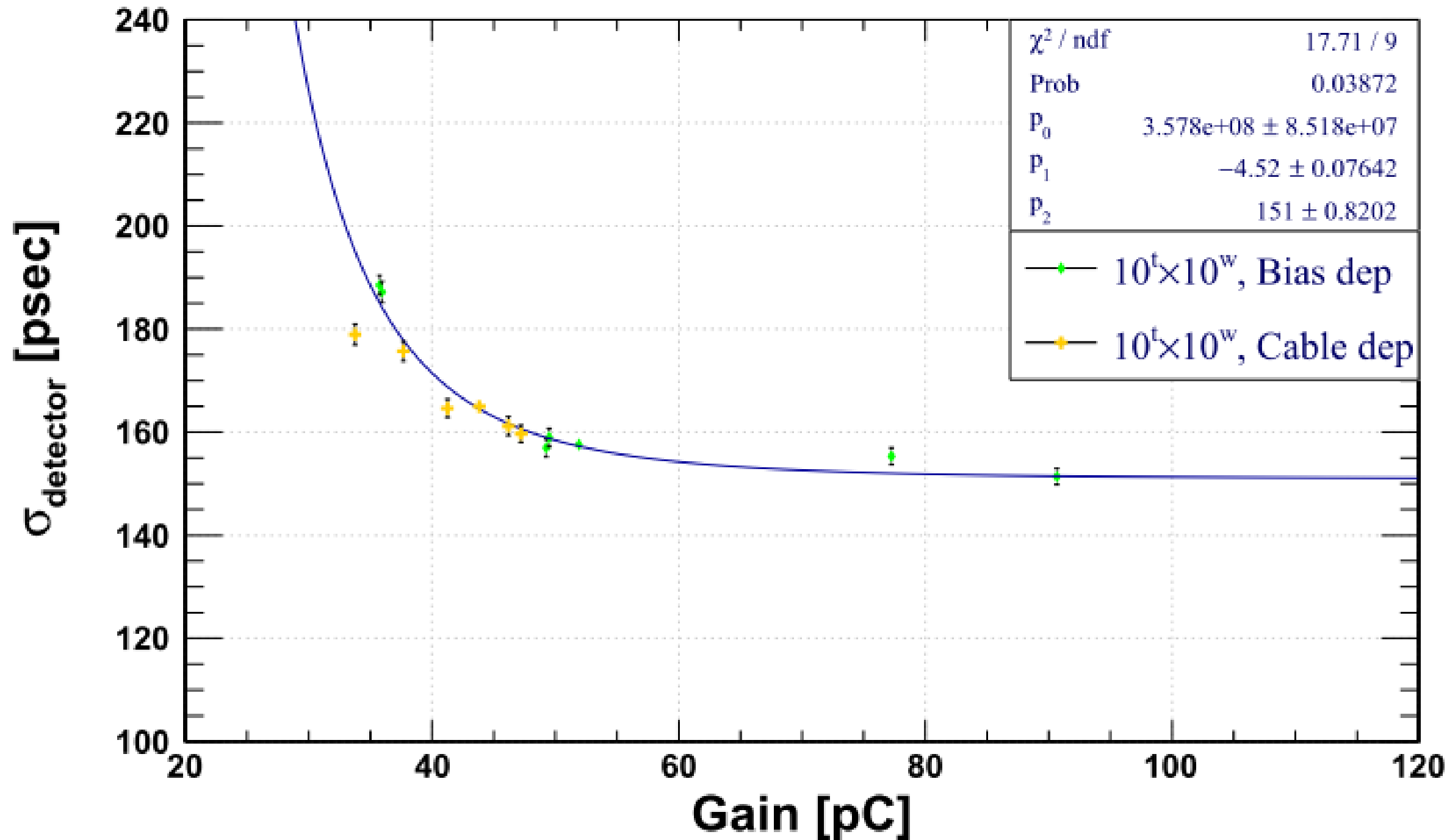


Right: old board (x1, series)  
Left: New board (x2, series)

- Test for MPPC\*2, 直列 w/  $5^t \times 11^w \Rightarrow$  昨日変更, 現在測定中.
- G4 simulation
- 卒論: 書き終わりました. 現在永尾さんに確認お願い中です.

$\sigma_{\text{detector}}$  [psec]





10\*10

FCN=17.7076 FROM MIGRAD STATUS=CALL LIMIT 1346 CALLS 1347 TOTAL  
EDM=0.362068 STRATEGY= 1 ERROR MATRIX UNCERTAINTY 22.6 per cent

EXT	PARAMETER	APPROXIMATE	STEP	FIRST	
NO.	NAME	VALUE	ERROR	SIZE	DERIVATIVE
1	p_{0}	3.57822e+08	8.51829e+07	3.68699e+07	-7.94208e-08
2	p_{1}	-4.52024e+00	7.64248e-02	-3.52813e-02	-9.26416e+01
3	p_{2}	1.50965e+02	8.20225e-01	3.62354e-01	-8.56371e-01

5\*44

FCN=4.33541 FROM MIGRAD STATUS=CONVERGED 178 CALLS 179 TOTAL  
EDM=2.71327e-07 STRATEGY= 1 ERROR MATRIX ACCURATE

EXT	PARAMETER	STEP	FIRST		
NO.	NAME	VALUE	ERROR	SIZE	DERIVATIVE
1	p_{0}	6.14701e+02	3.69061e+01	6.78043e-03	6.94860e-05
2	p_{1}	-7.84733e-01	1.04910e-01	5.76421e-06	4.91859e-02
3	p_{2}	1.36744e+02	1.88633e+01	1.37142e-03	1.73894e-04

5\*11

FCN=0.323421 FROM MIGRAD STATUS=CONVERGED 223 CALLS 224 TOTAL  
EDM=2.08363e-08 STRATEGY= 1 ERROR MATRIX ACCURATE

EXT	PARAMETER	STEP	FIRST		
NO.	NAME	VALUE	ERROR	SIZE	DERIVATIVE
1	p_{0}	5.19055e+02	8.88023e+01	3.25218e-03	-6.05626e-06
2	p_{1}	-4.16223e-01	2.74344e-01	2.01451e-06	-2.37897e-03
3	p_{2}	-1.42870e+01	9.65636e+01	8.68222e-04	-3.42190e-07

5\*22

FCN=1.62444 FROM MIGRAD STATUS=CONVERGED 234 CALLS 235 TOTAL  
EDM=4.83466e-09 STRATEGY= 1 ERROR MATRIX ACCURATE

EXT	PARAMETER	STEP	FIRST		
NO.	NAME	VALUE	ERROR	SIZE	DERIVATIVE
1	p_{0}	1.17095e+03	5.81501e+02	2.56468e-02	-2.64786e-06
2	p_{1}	-1.23714e+00	3.09641e-01	9.41320e-06	-6.40929e-03
3	p_{2}	1.30595e+02	1.24411e+01	1.04698e-03	-3.99219e-05

Cable dep. run

Initial : 001, 002

+1.2 : 015, 016

+2.4 : 017, 018

+3.2 : 026, 027

+9.6 : 029, 030

+16.0 : 032, 033