Status Report #26

2020. 05. 08 (Thu)

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✓ Research

- Cosmic ray: check consistency at fix bias (V_b=178.8 V)
- Simulation: No progress (making mass square)

✓ Seminar

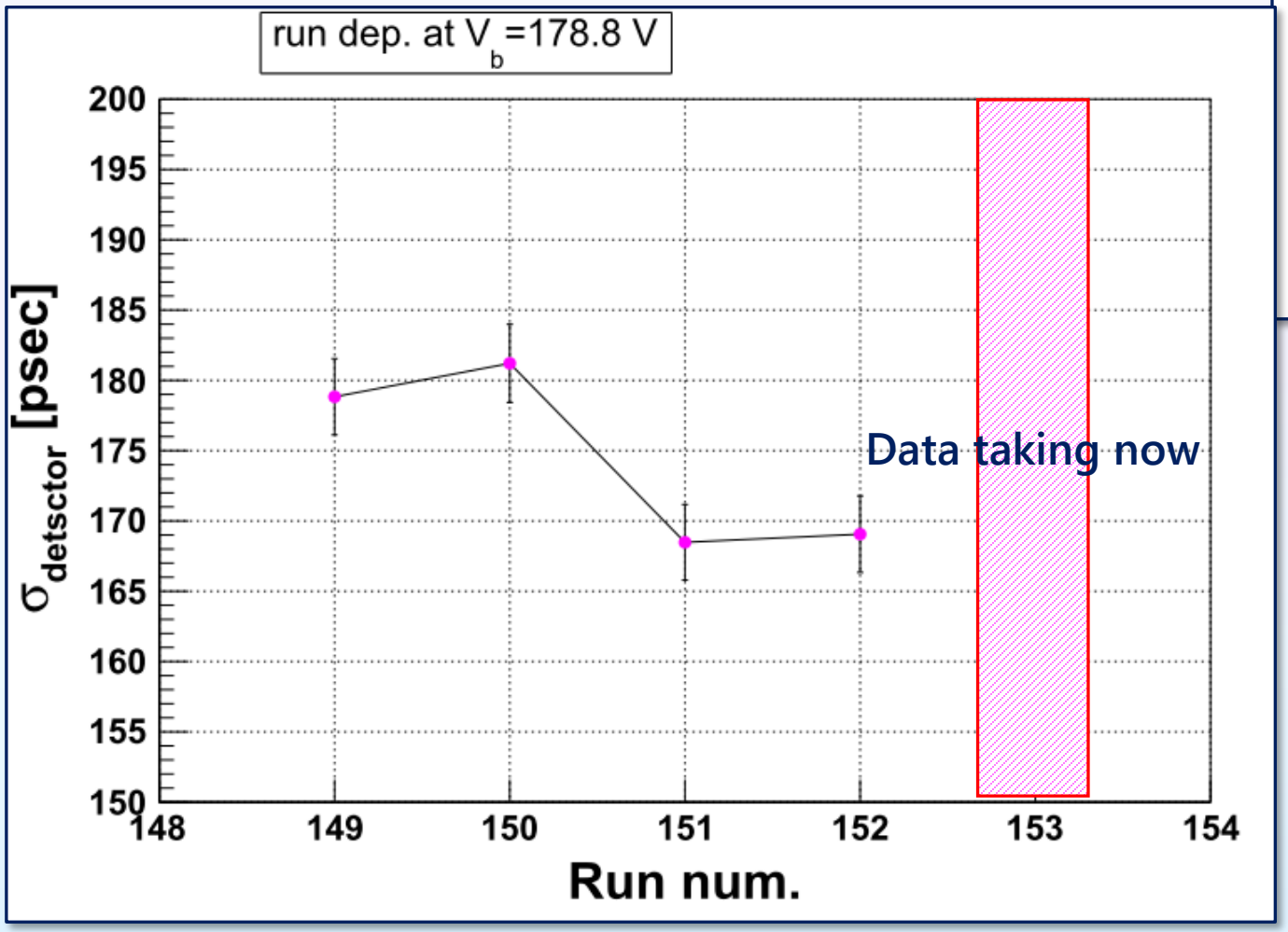
- Detector seminar (B4 & M1): Done (yesterday)
- ELS seminar: 来週月曜10:00~です. 只今準備中. 大炎上不可避

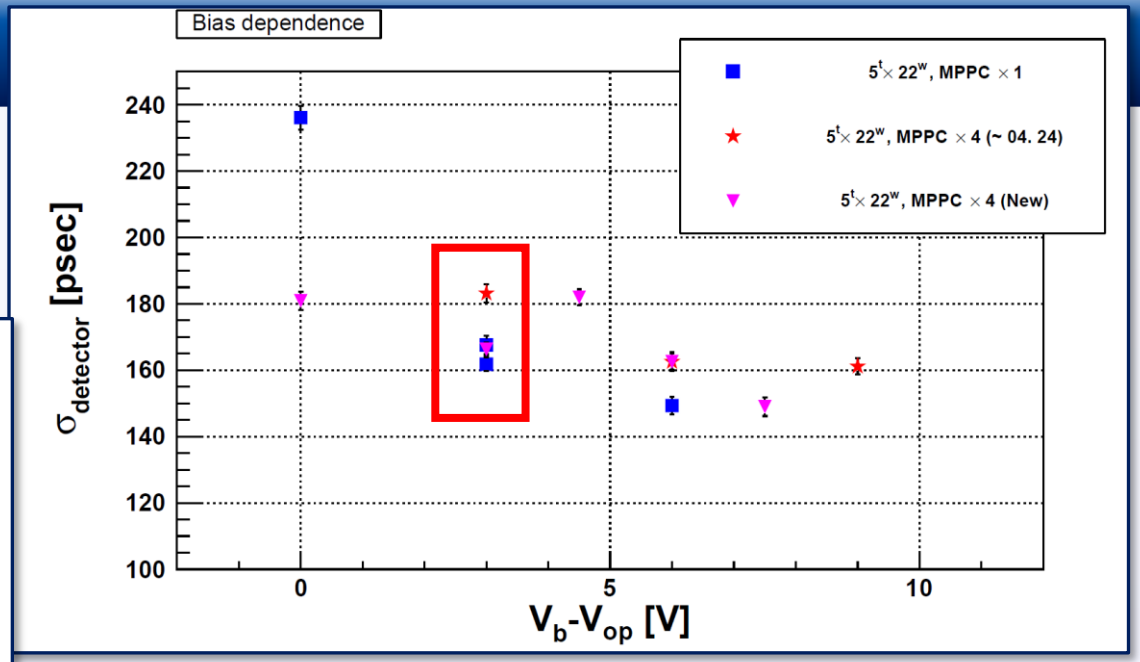
✓ Others

- Registration in this term
- TA (物理学実験II 計算機基礎実習, オンラインTA)

Cosmic ray

- 電圧をある値(今回はV_b = 178.8 V) に固定
- ~1日でデータを区切り変化を見る

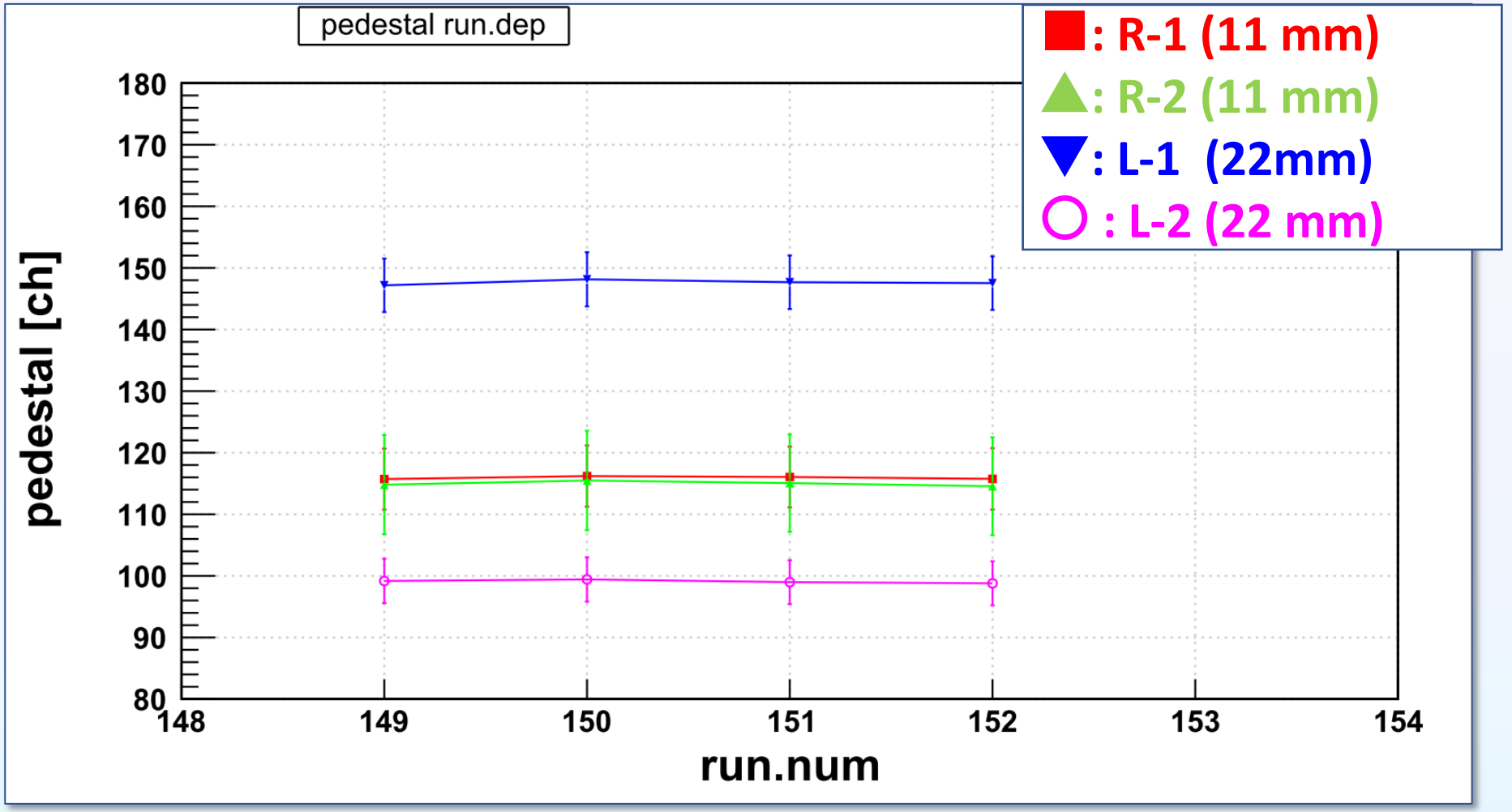




Fluctuate ~±10 ps even same bias

Cosmic ray: evaluate timing dependence

- Fluctuation of Pedestal
- change: ~ 1 ch or less

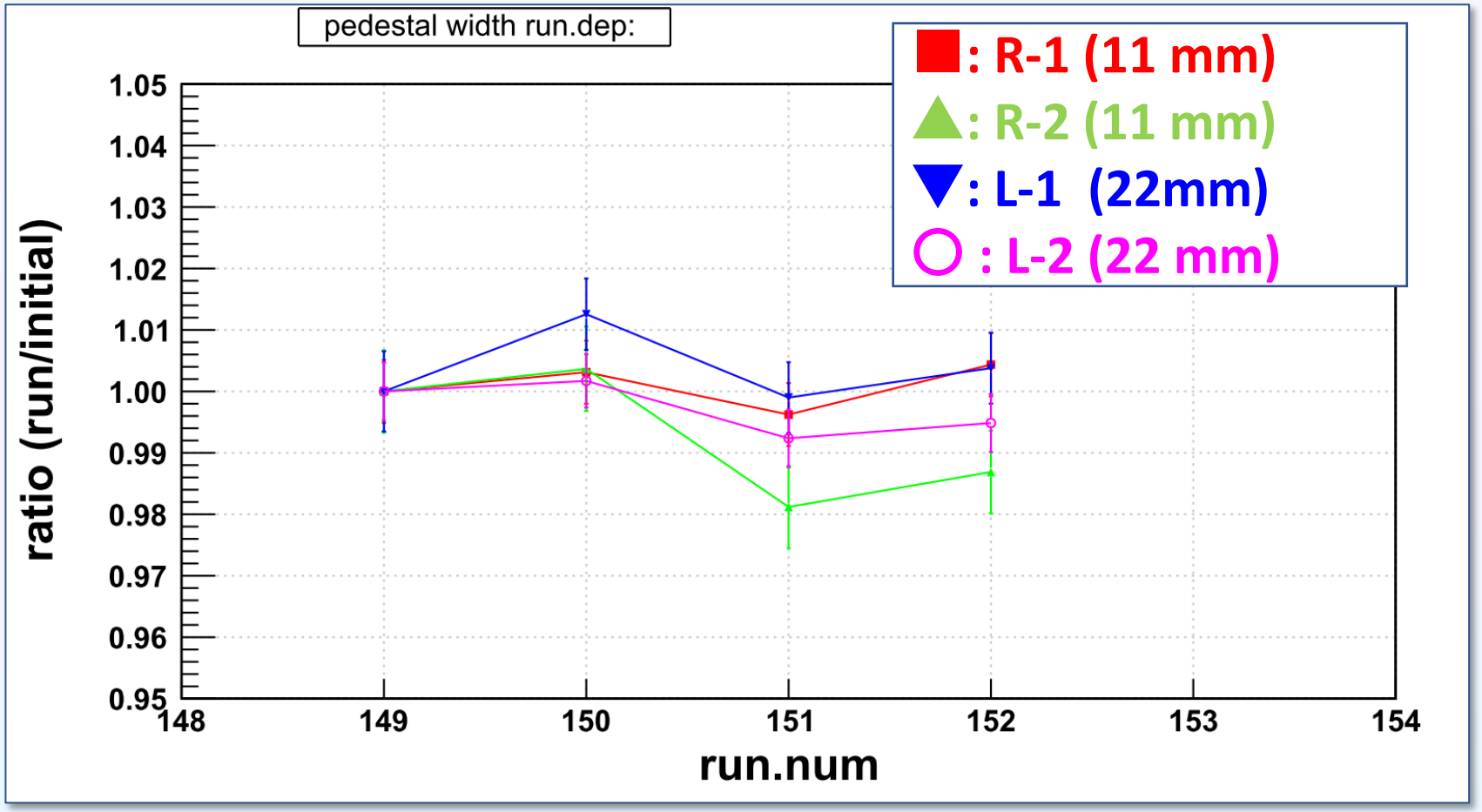


Cosmic ray: evaluate timing dependence

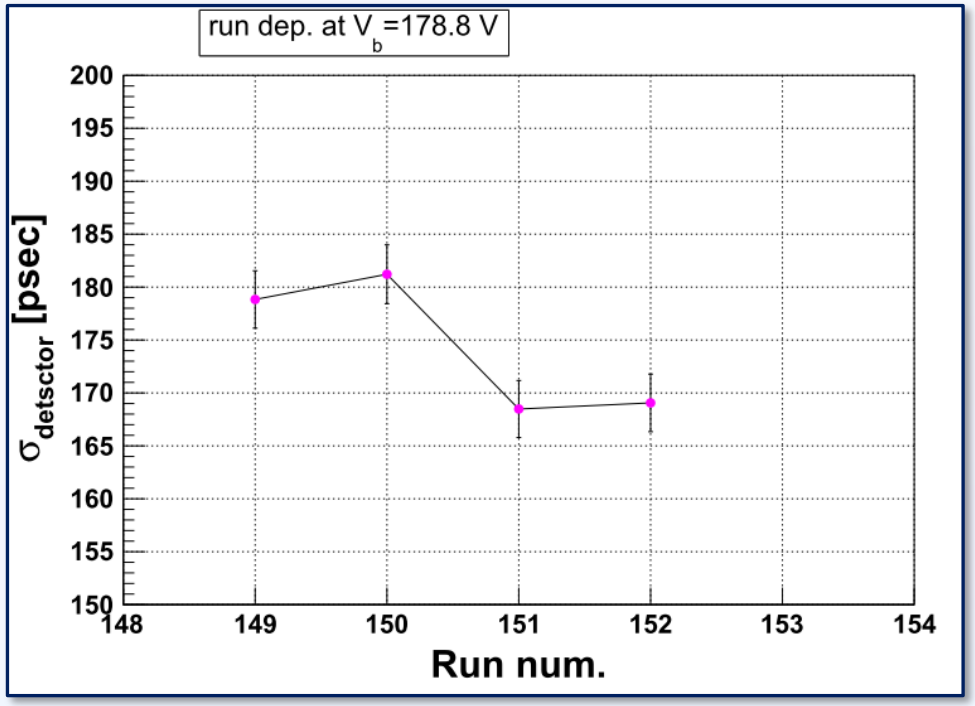
- Width of pedestal
- Evaluate the ratio between

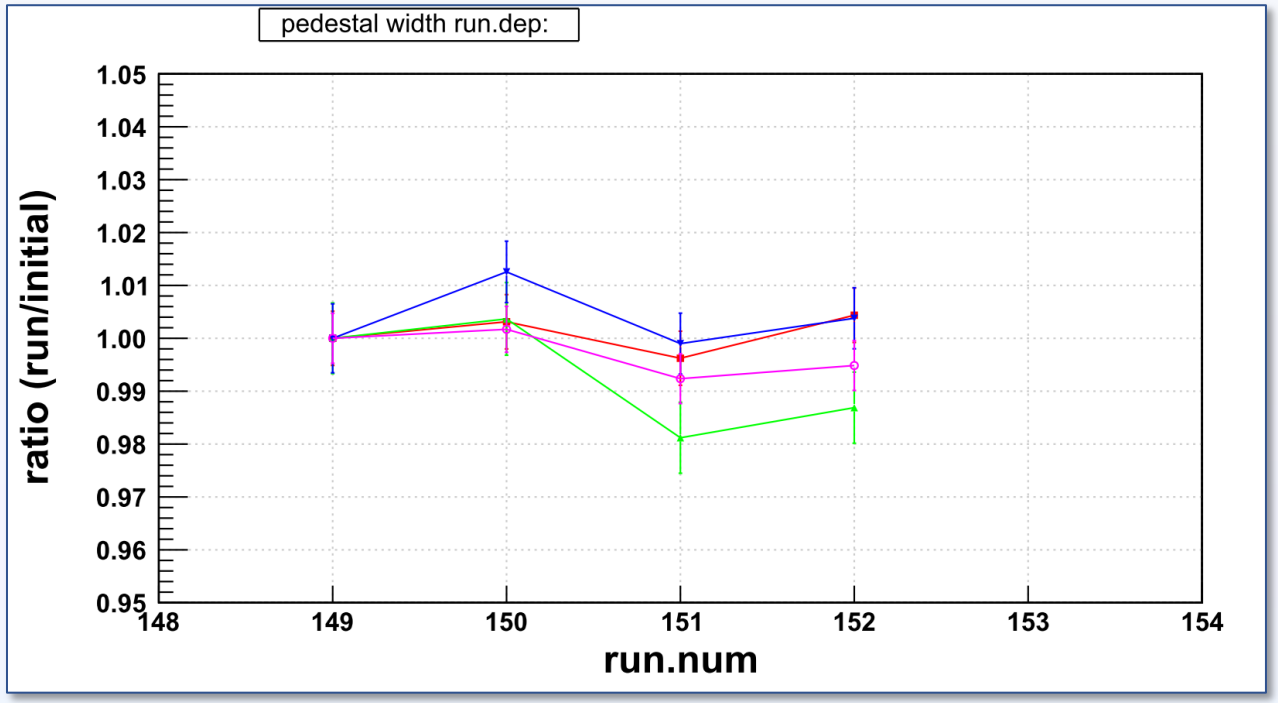
the run and initial value (at run149)

- ~ 2 % change



Cosmic ray: evaluate timing dependence





一見すると同じ傾向があるように見えるが, ペデスタルの幅の変化は1-2%程度
そこまで大きく影響するとは考えにくい

■: R-1 (11 mm)
▲: R-2 (11 mm)
▼: L-1 (22mm)
○ : L-2 (22 mm)

Next to do

✓ **G4 Simulation**

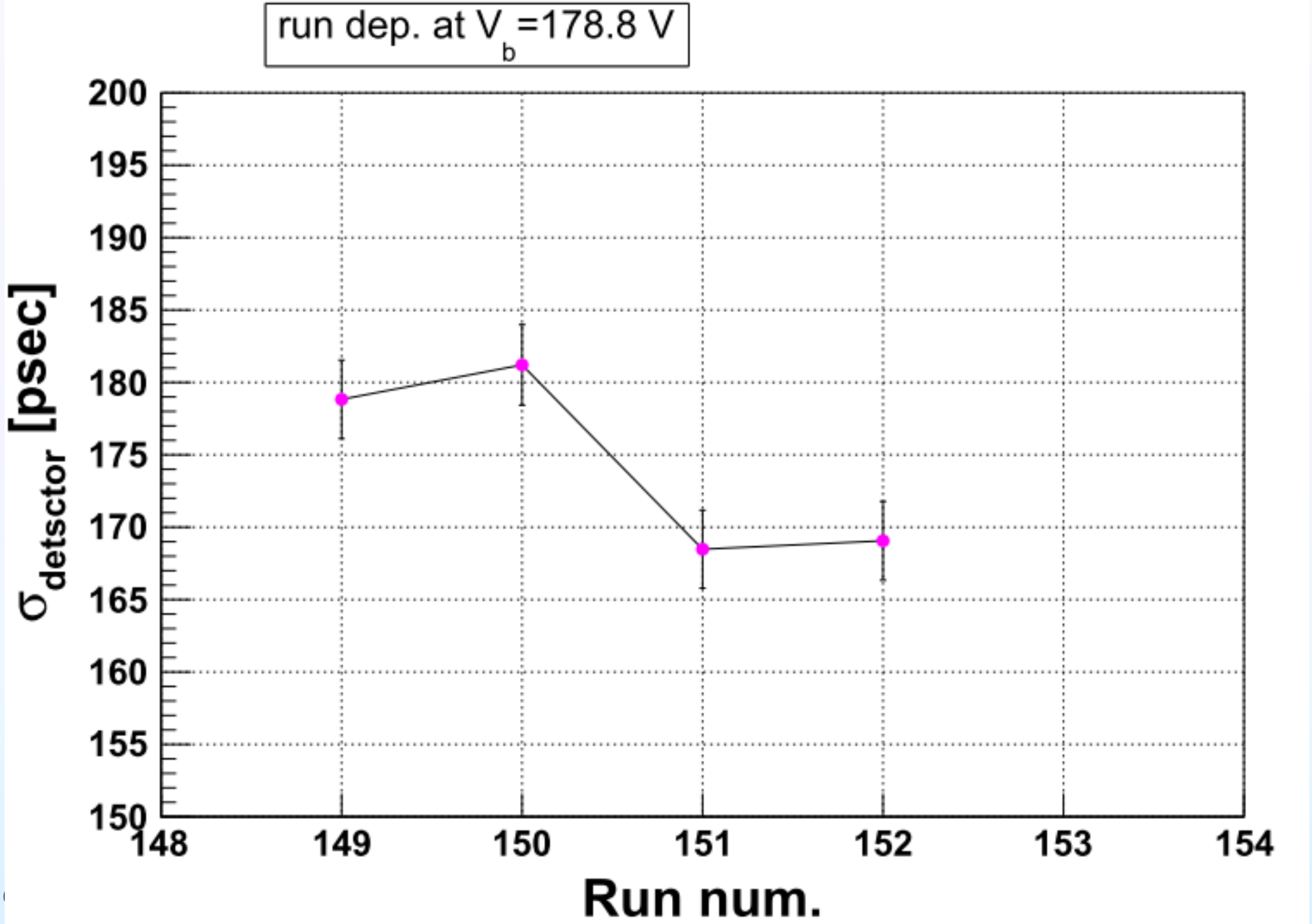
- Setting Target material
- Making mass square distribution → How to evaluate path length

✓ **Cosmic ray**

- Taking more data at the same bias (~10run)
- Test higher bias voltage (202.8 V)

✓ **卒論**

- Write down ~ 25 – 30 %


run dep. at V_b =178.8 V
σ_detsctor [psec]
200
195
190
185
180
175
170
165
160
155
150
148
149
150
151
152
153
154
Run num.