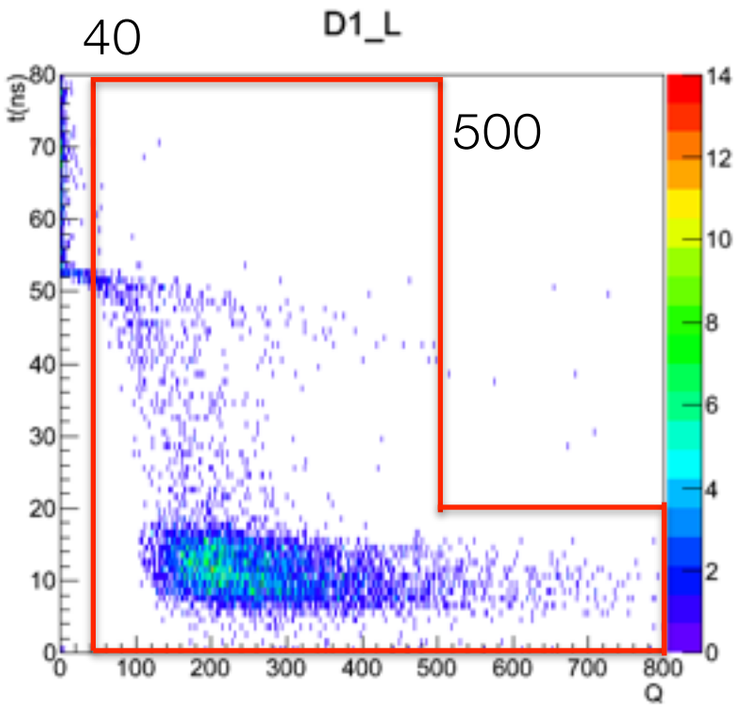
neutron pedestal problem

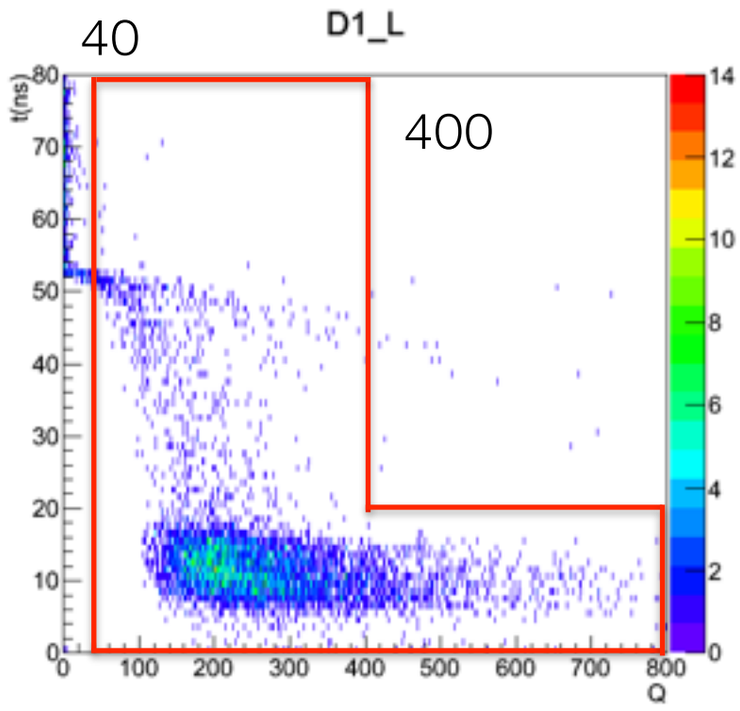
2014_2_28_labmeeting

KiSoo Lee

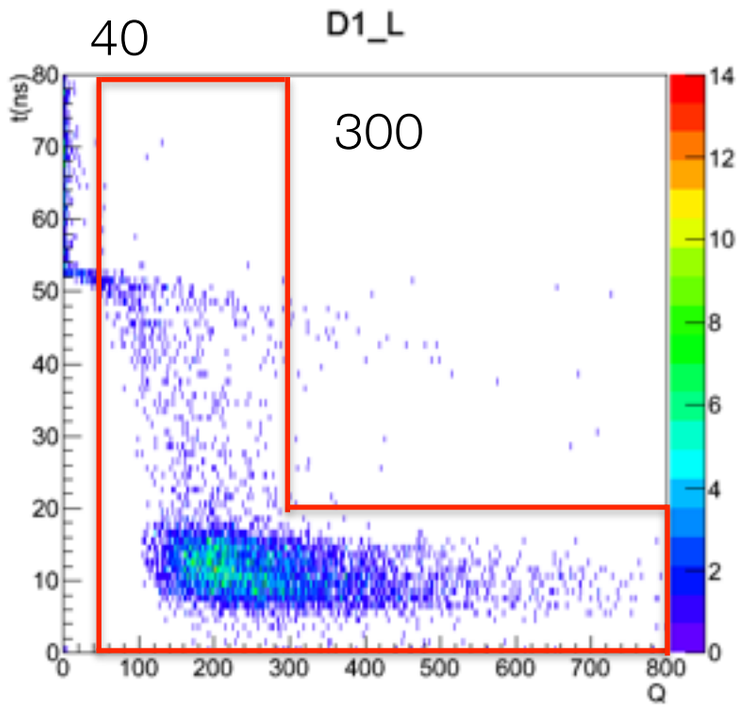
cut

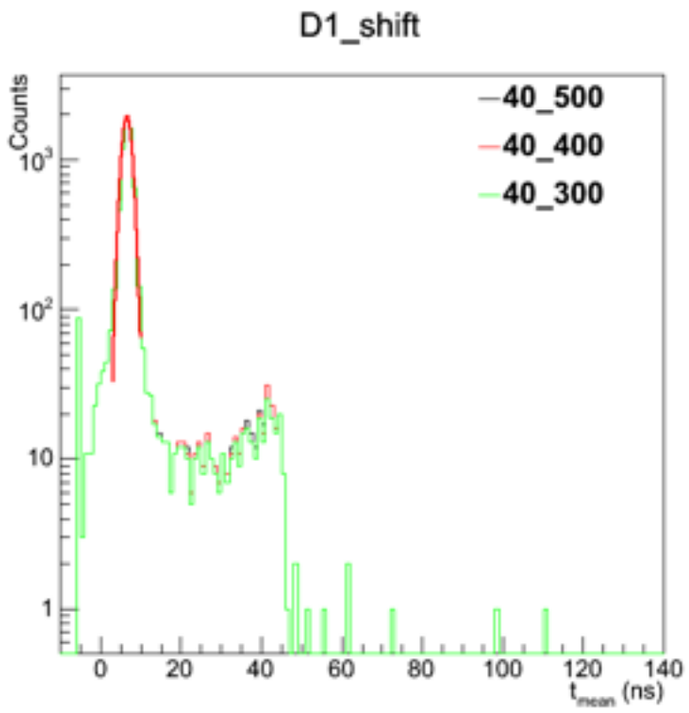


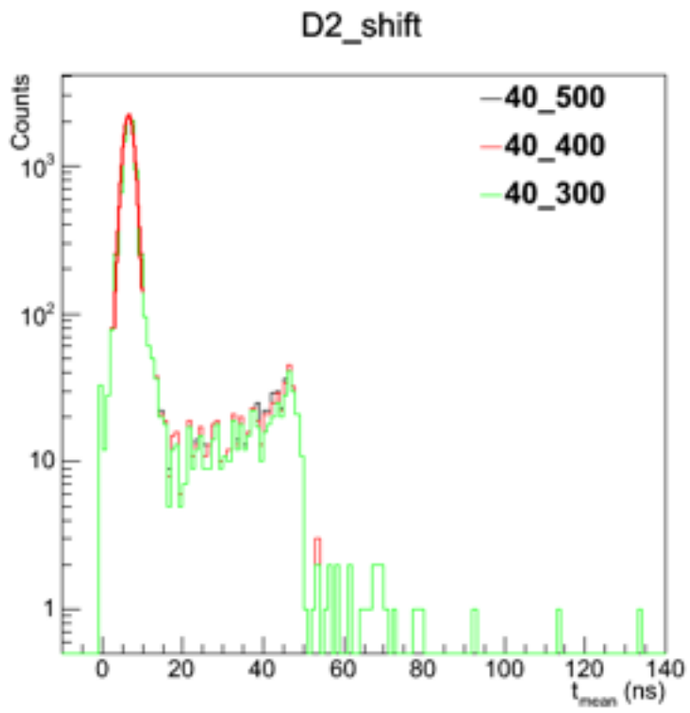
20 ns



20 ns







- almost no change by cut

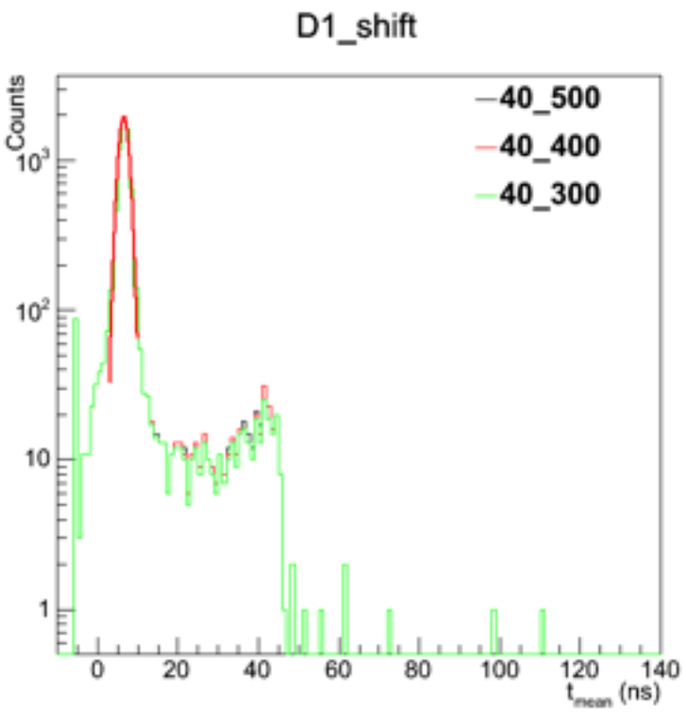
new setup

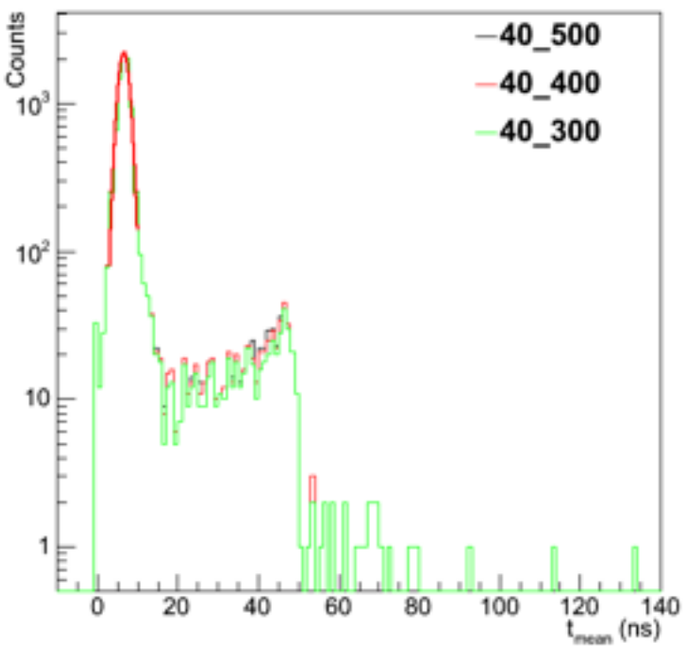
- clean around 1 m from trigger

- prediction: scattering or delayed gamma from surroundings influenced to data

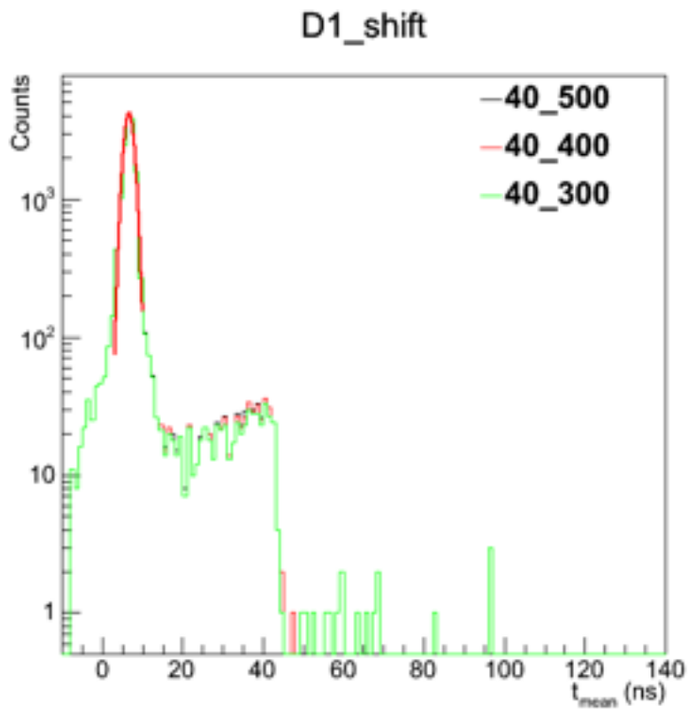
cut of new setup

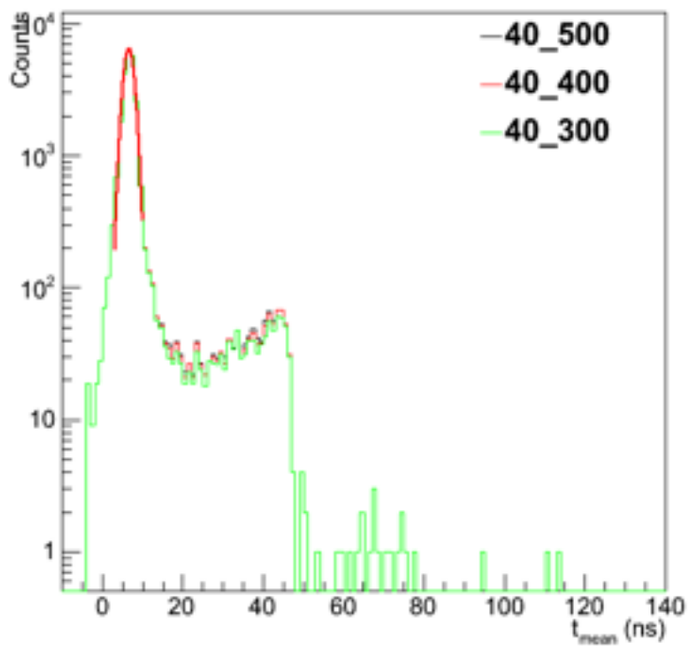
before





after

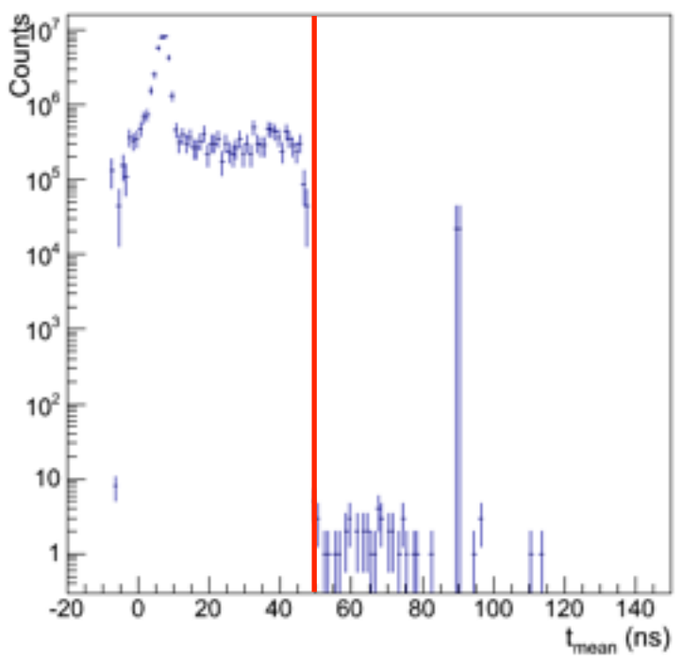


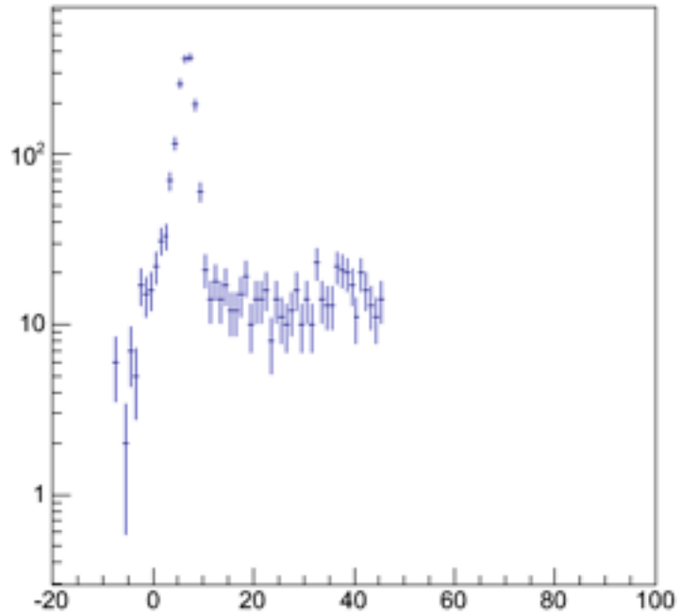


- no difference after clean surrounding

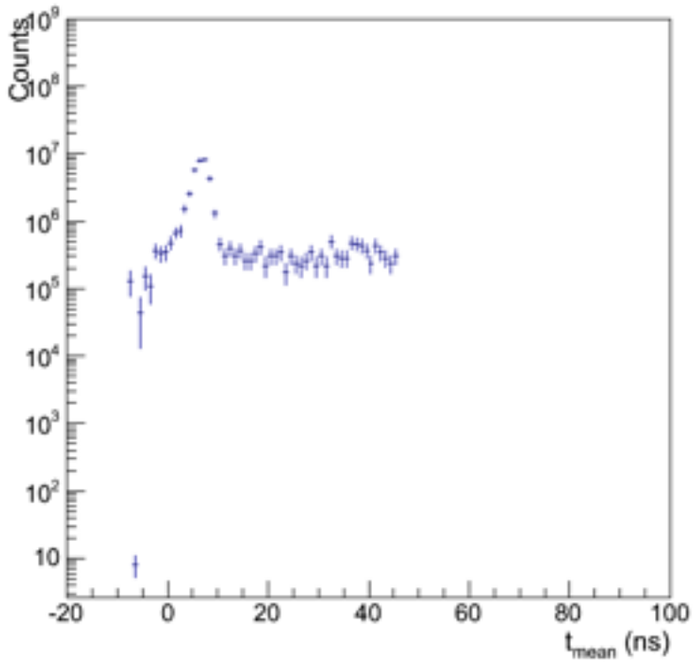
accidental subtraction

300



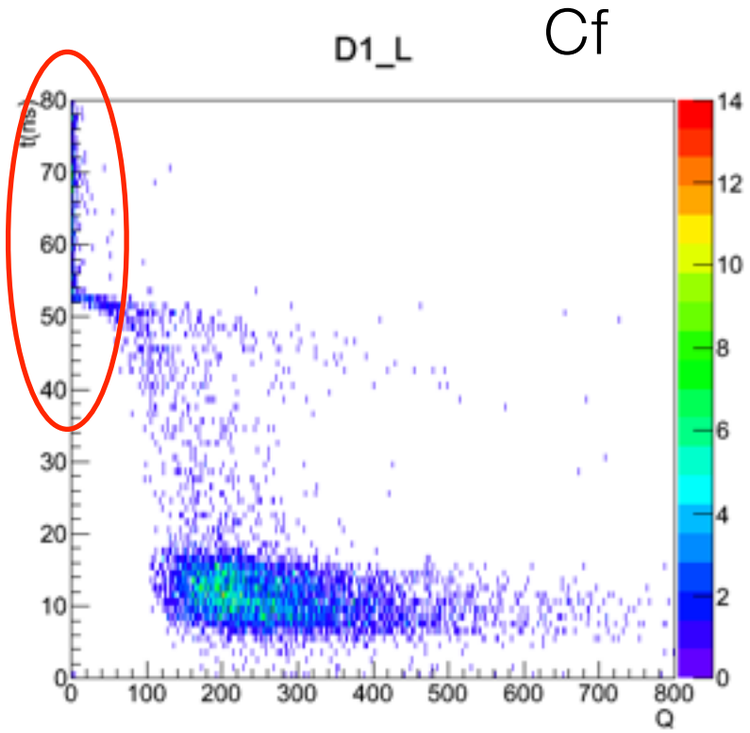


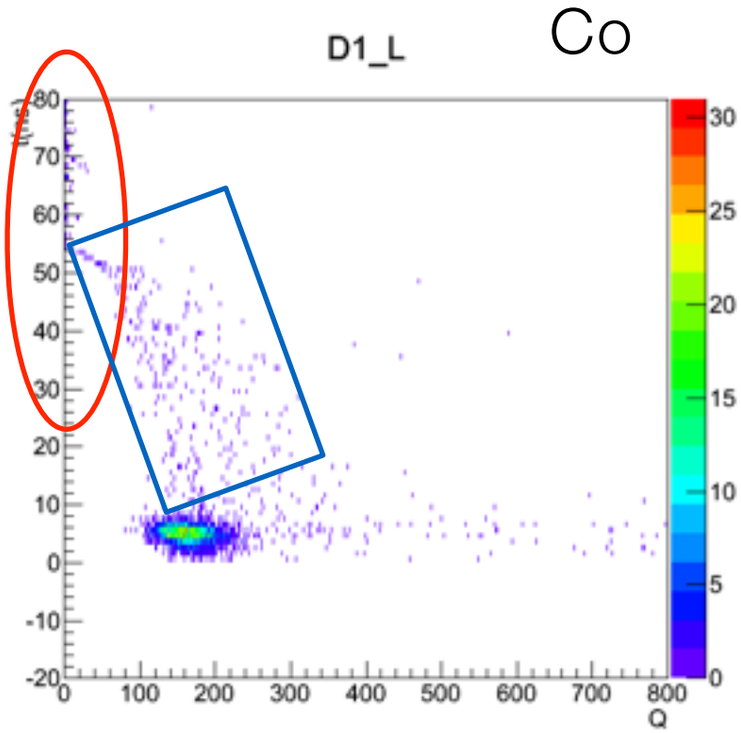
- use $t_{mean} < 46$

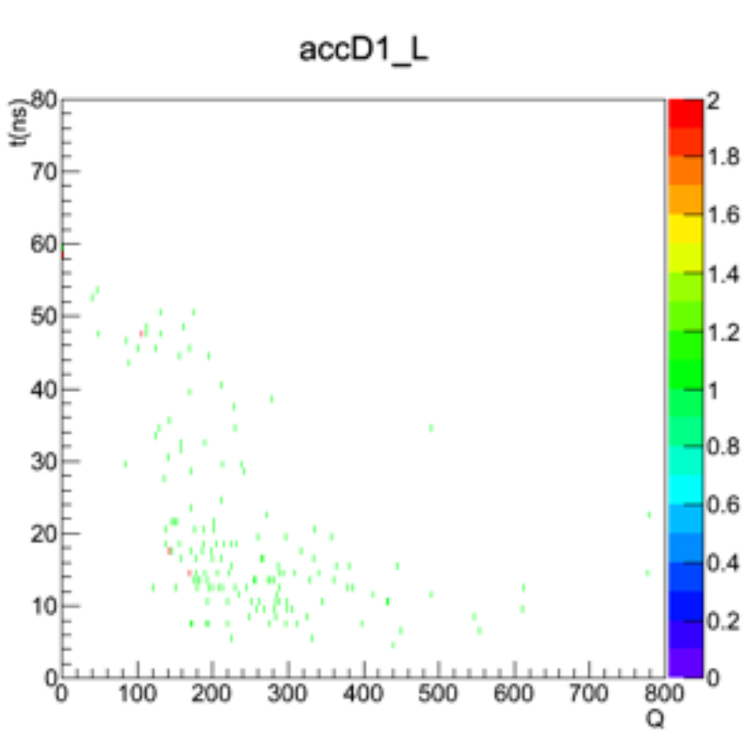


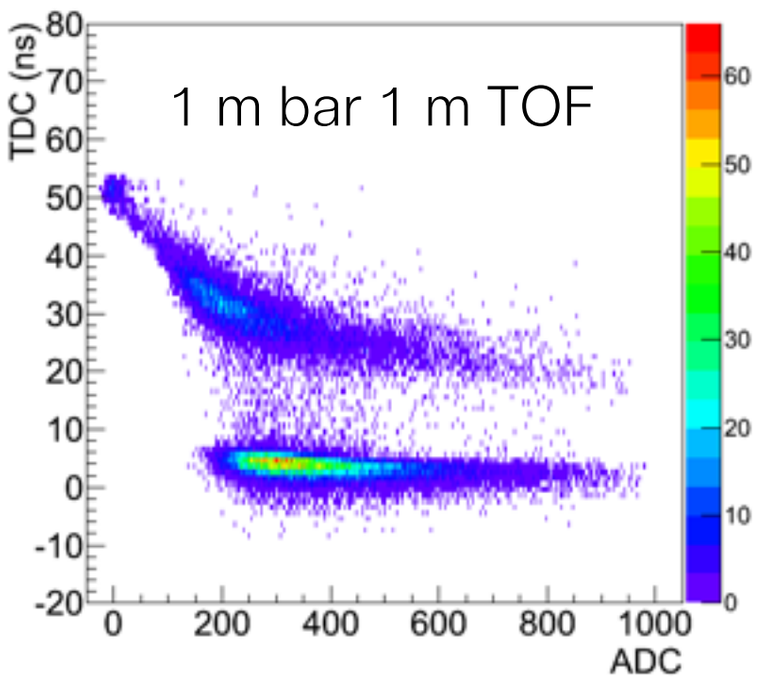
- neutron region is flat

pedestal?



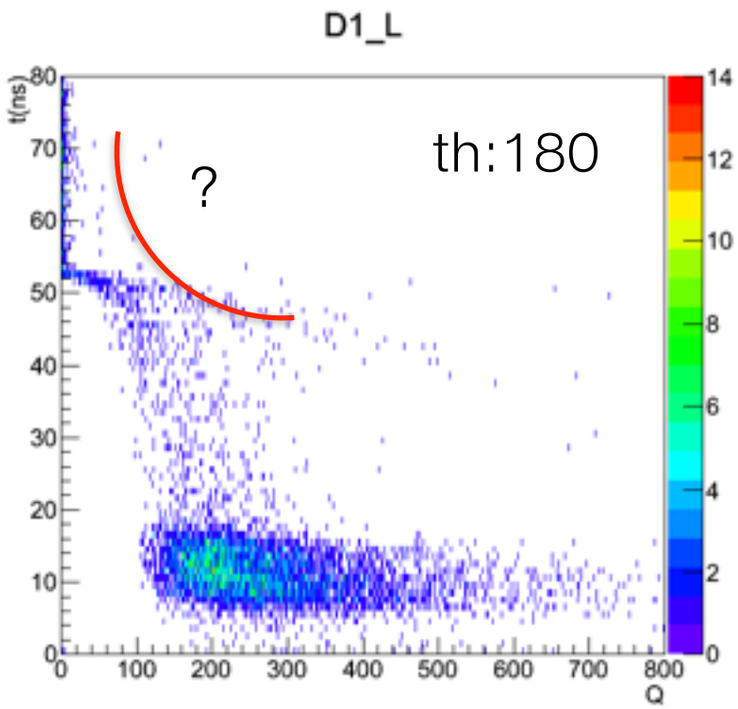


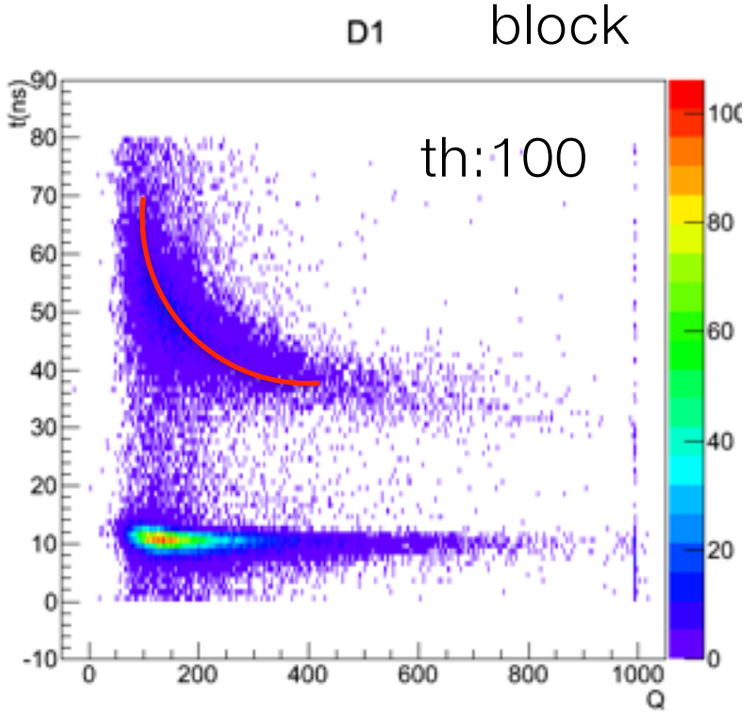




- there are always ADC around 0 when time > 50 ns
- if neutron energy is high, ADC is high and TDC is low
- 50 ns is about 700 bin in TDC

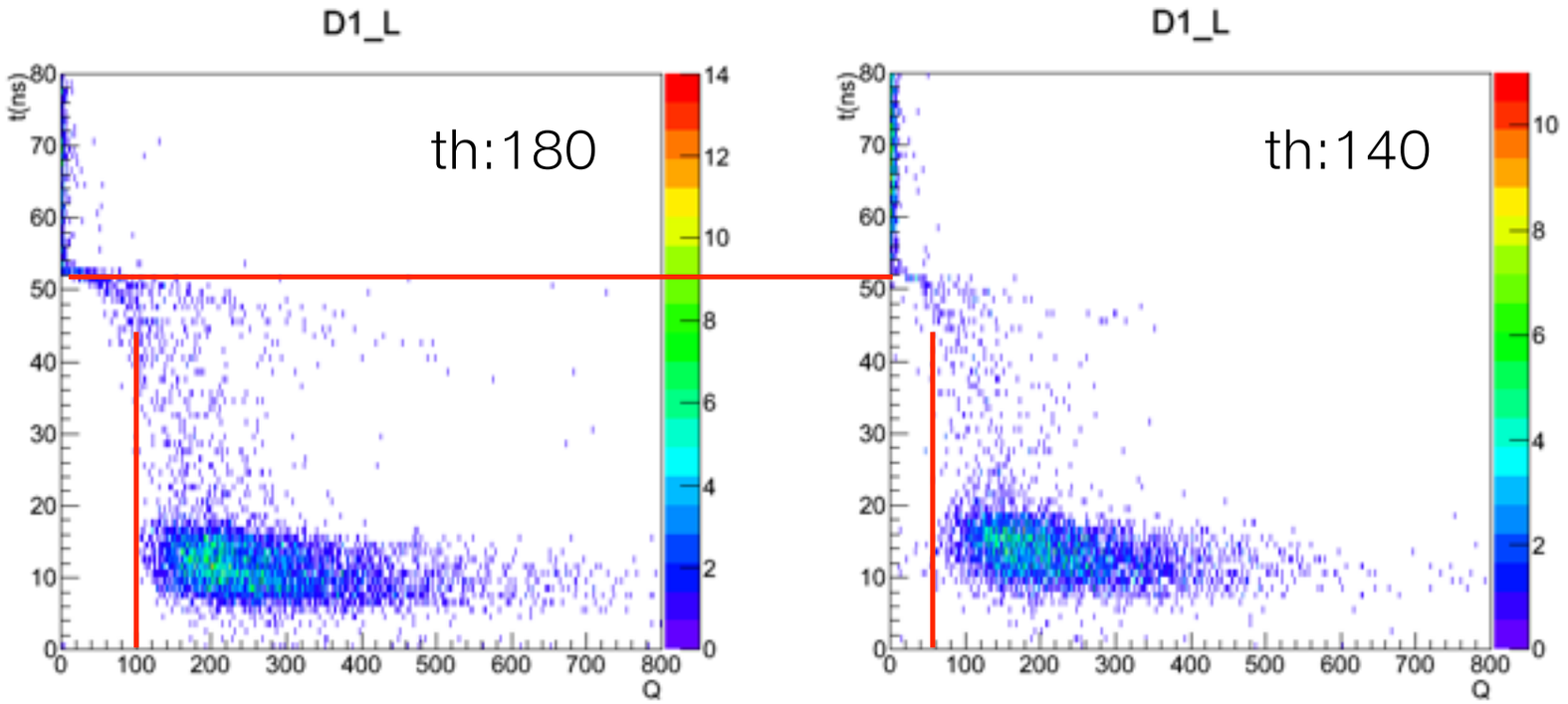
comparison with block





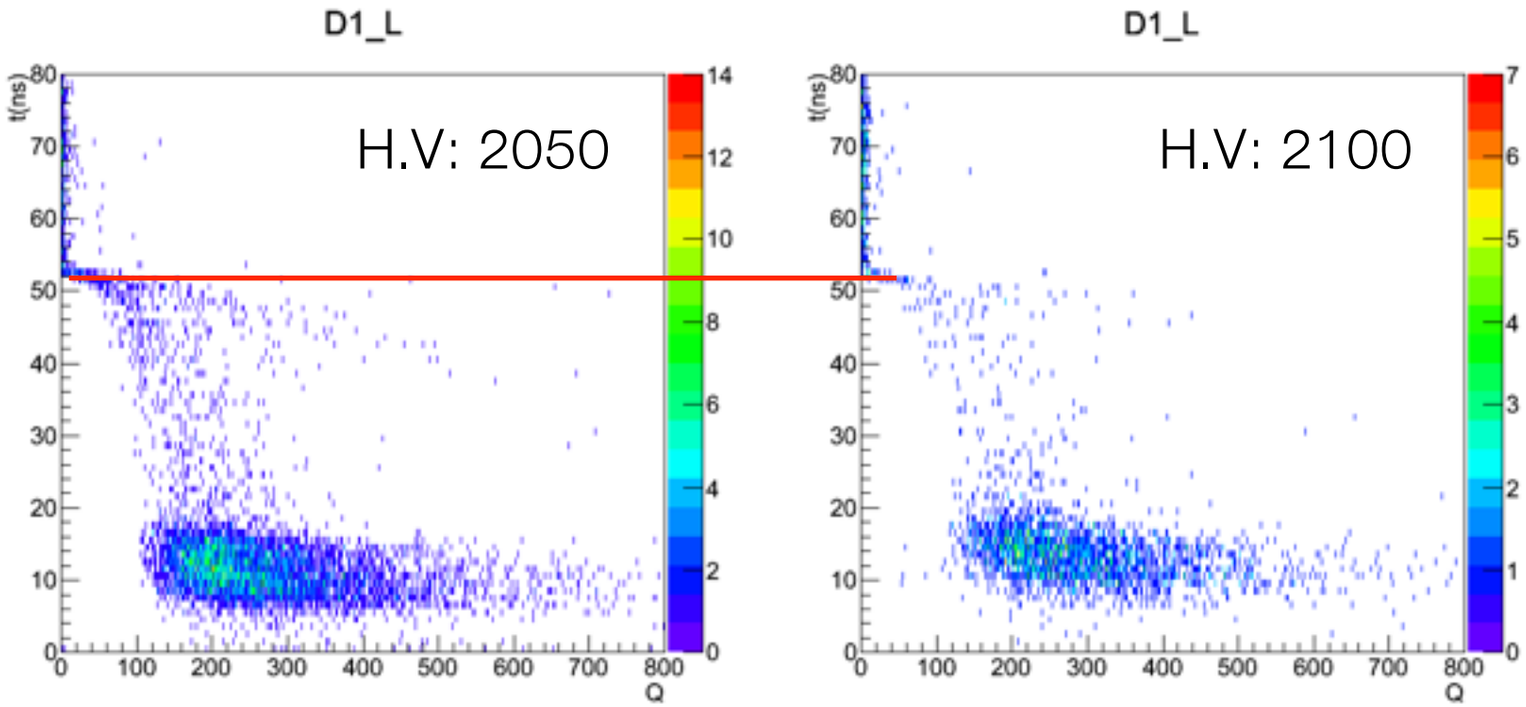
- maybe we applied too tight threshold.
- but noise rate is already high.
- need to check threshold and voltage

threshold comparison



- when threshold 140 mV applied, time limit has not changed but Q low limit has changed

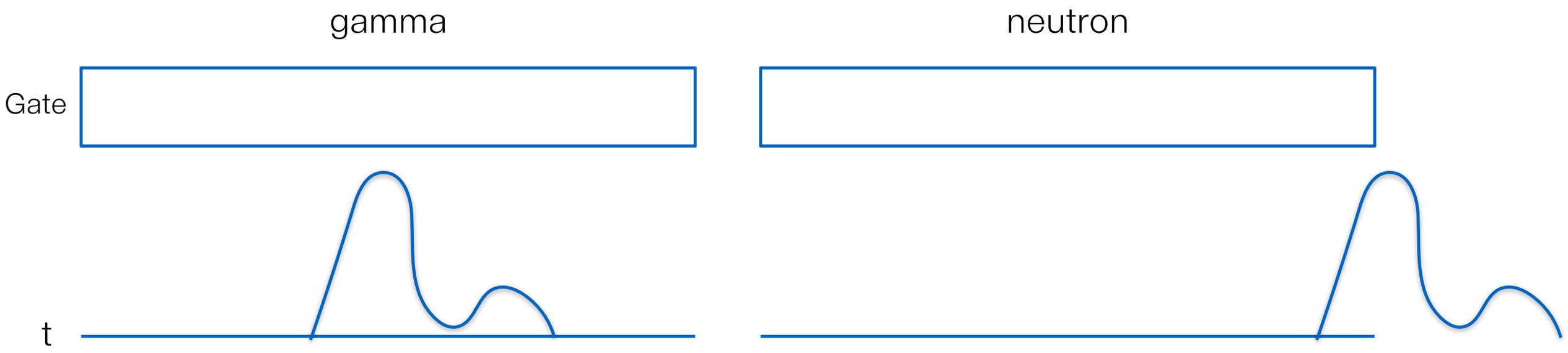
high voltage comparison



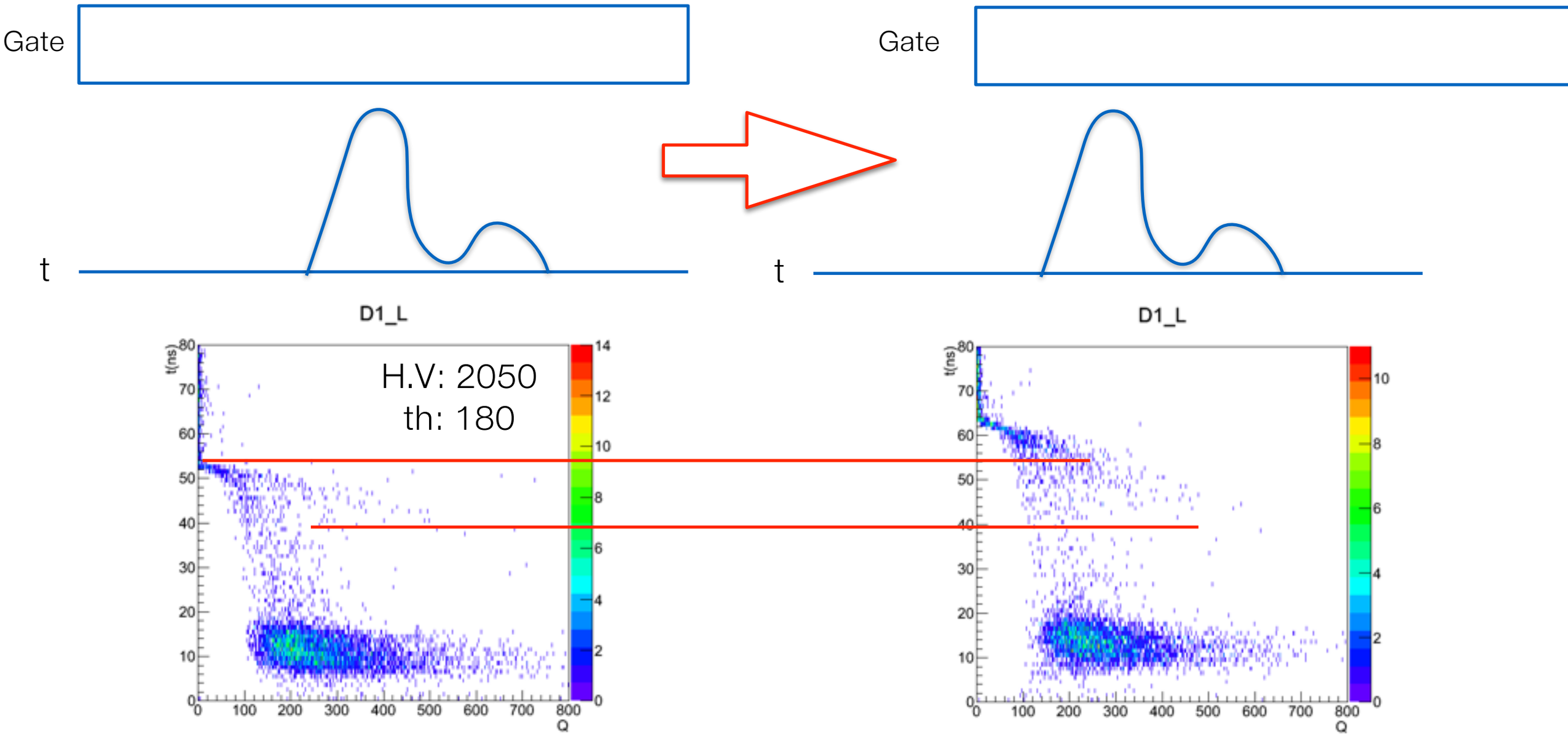
- no clear difference between two H.V

charge integration timing

- ADC value is integrated charge in Gate
- TDC is independent with trigger width.
- but Gate width is same with trigger width.
- it could be pedestal value at late neutron



gate adjust result



- ADC limit is changed but shape is not changed