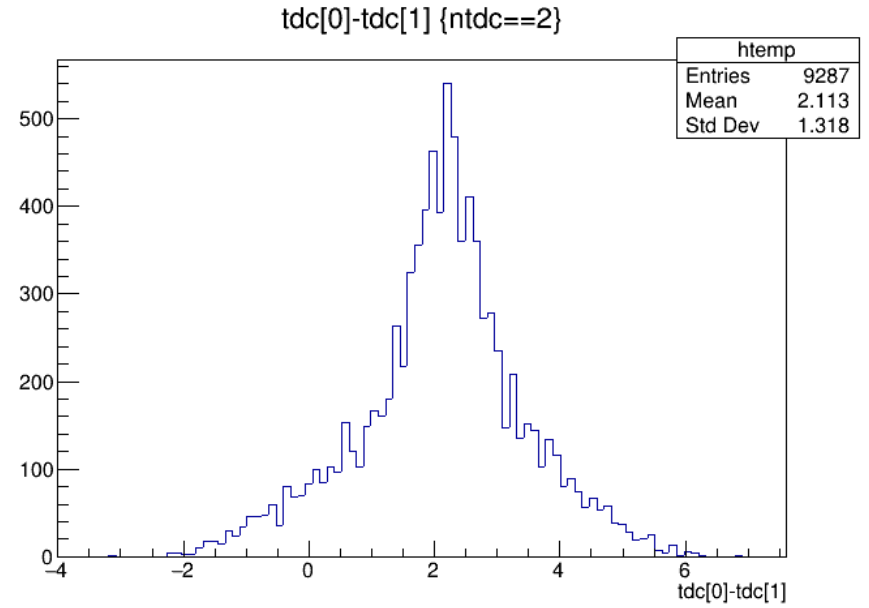
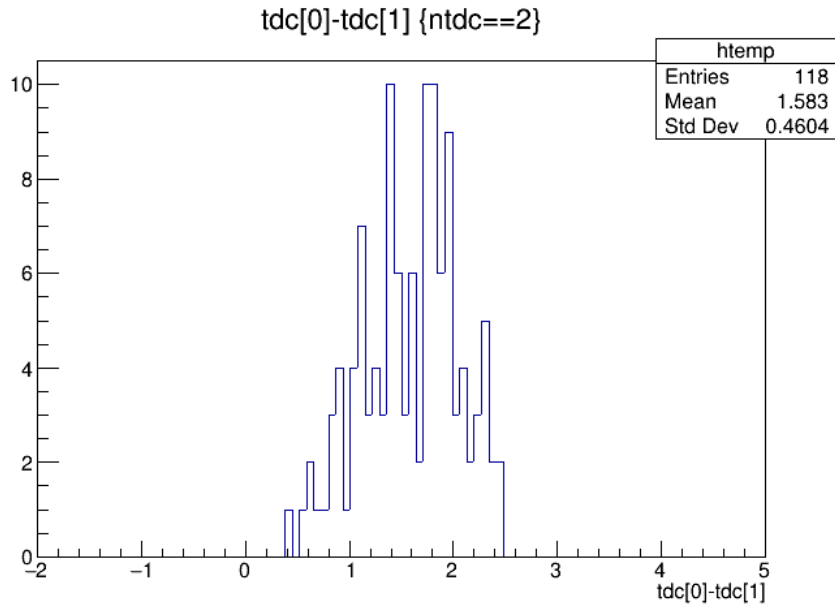


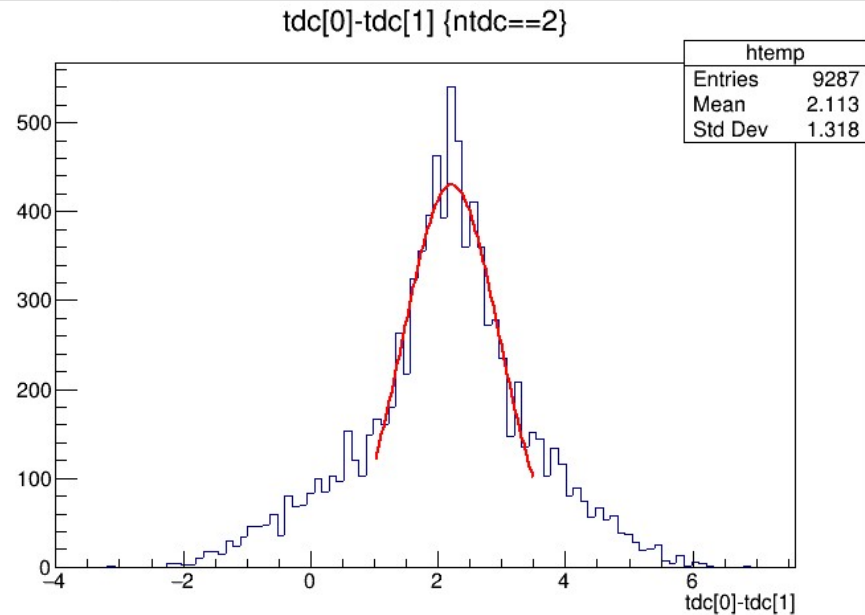
LAMPS monthly meeting

Hyungjun Lee
Jaehyeon Do
Mingjung Kweon



- Detect the difference of TDC values using 3mm x 9mm x 100mm scintillator
- Korea Univ. version counter (left)
Inha Univ. version counter (right)

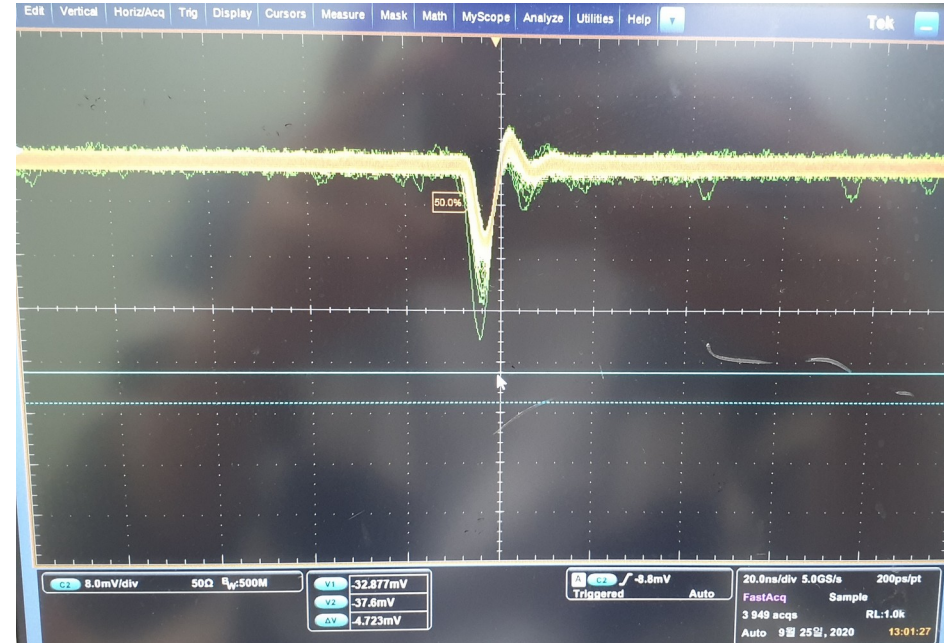
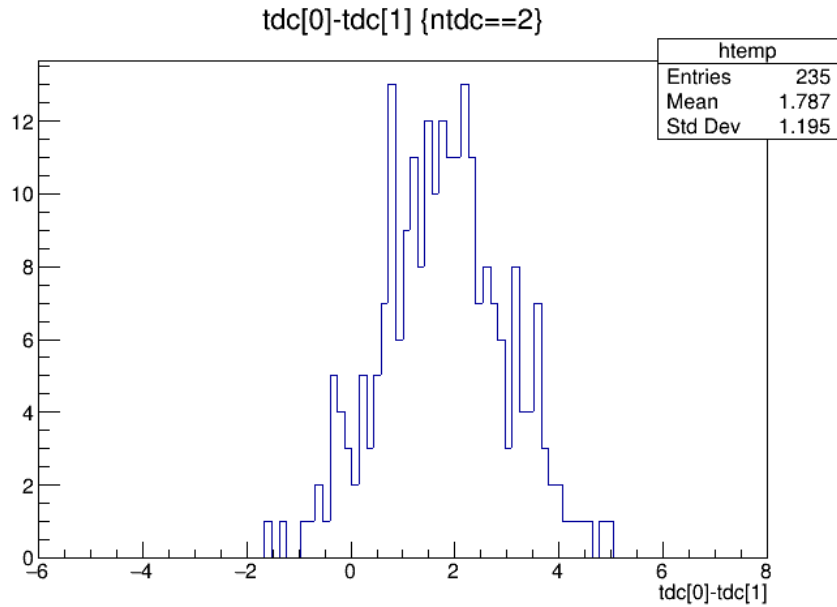




```
(f1) 0x350e17977270
root [1] tree_out->Draw("tdc[0]-tdc[1]","ntdc==2")
Info in <TCanvas::MakeDefCanvas>: created default TCanvas with name c1
(long long) 9287
root [2] FCN=789.795 FROM MIGRAD STATUS=CONVERGED 76 CALLS 77
TOTAL
EDM=3.02531e-08 STRATEGY= 1 ERROR MATRIX ACCURATE
EXT PARAMETER STEP FIRST
NO. NAME VALUE ERROR SIZE DERIVATIVE
1 Constant 3.06754e+02 4.78650e+00 4.57559e-02 5.90939e-05
2 Mean 2.15812e+00 1.43930e-02 1.93031e-04 2.41791e-03
3 Sigma 1.28096e+00 1.46312e-02 3.56372e-05 9.38476e-02
FCN=633.392 FROM MIGRAD STATUS=CONVERGED 82 CALLS 83 TOTAL
EDM=1.06328e-09 STRATEGY= 1 ERROR MATRIX ACCURATE
EXT PARAMETER STEP FIRST
NO. NAME VALUE ERROR SIZE DERIVATIVE
1 Constant 3.34790e+02 6.33269e+00 4.81735e-02 -4.64537e-06
2 Mean 2.14430e+00 1.76489e-02 1.94201e-04 -5.91336e-04
3 Sigma 1.13849e+00 2.52685e-02 5.70033e-05 -7.29659e-03
FCN=129.157 FROM MIGRAD STATUS=CONVERGED 68 CALLS 69 TOTAL
EDM=4.42844e-07 STRATEGY= 1 ERROR MATRIX ACCURATE
EXT PARAMETER STEP FIRST
NO. NAME VALUE ERROR SIZE DERIVATIVE
1 Constant 4.30265e+02 7.60774e+00 3.00418e-02 7.59936e-05
2 Mean 2.20550e+00 1.17747e-02 6.54183e-05 7.29591e-02
3 Sigma 7.53244e-01 1.45638e-02 2.86274e-05 7.42384e-02
```

- Detect the difference of TDC values using 3mm x 9mm x 100mm scintillator
- Korea Univ. version counter (left)
- Inha Univ. version counter (right)





- Detect the difference of TDC value using 200mm x 400mm x 5mm (veto scintillator) with Korea Univ. version counter.
- Check that the output signal is small ($\sim 16\text{mV}$) due to not seal with scintillator.

DAQ

- Check that the pedestal value is still recorded even if there no signal coming into QDC.
- Check that the BUSY status of QDC continues in high rates signal.

→ Debugging ongoing ..

Plan

- Seal the scintillator with aluminum mylar or teflon tape.
- Check the timing resolution after sealing.
- Correlation between TDC and QDC.
- Analyze a output pulse using FADC module.