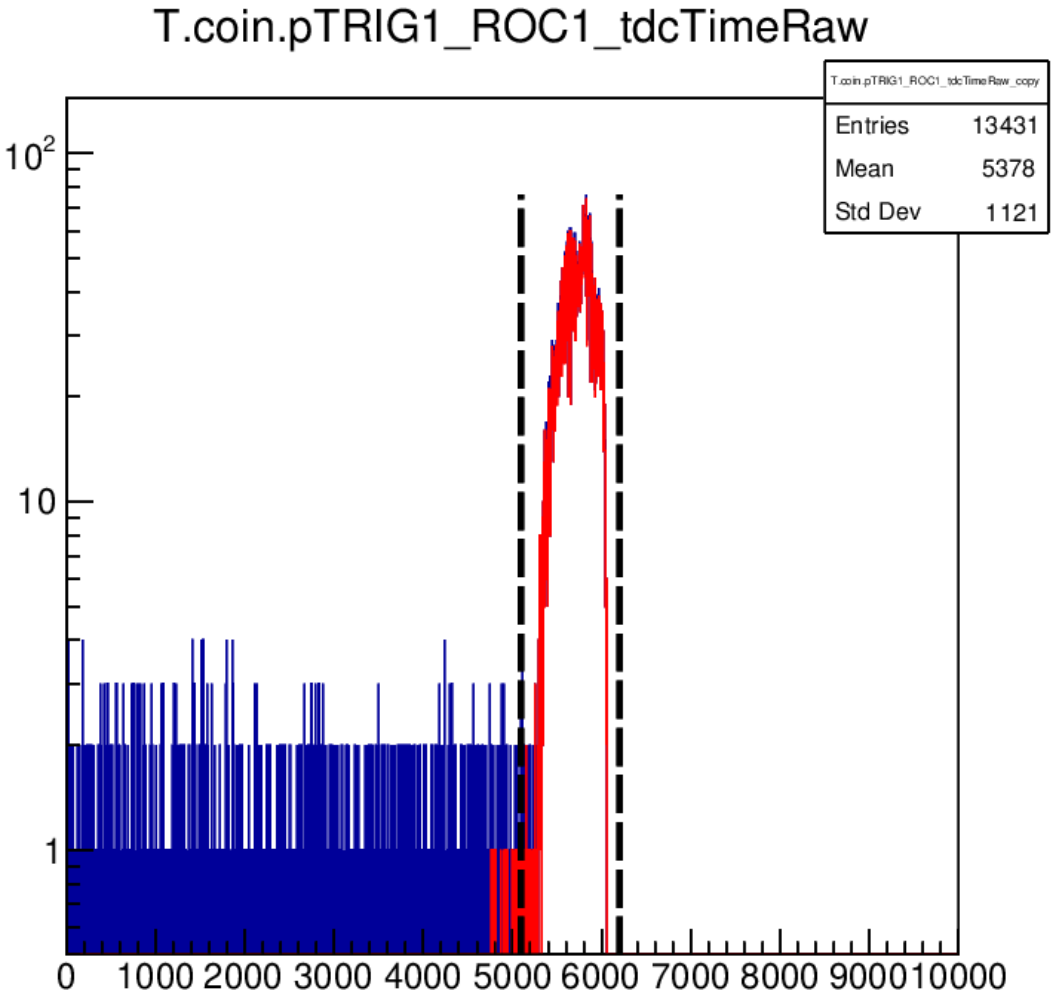
TCoin Reference Times Update 2023/11/30

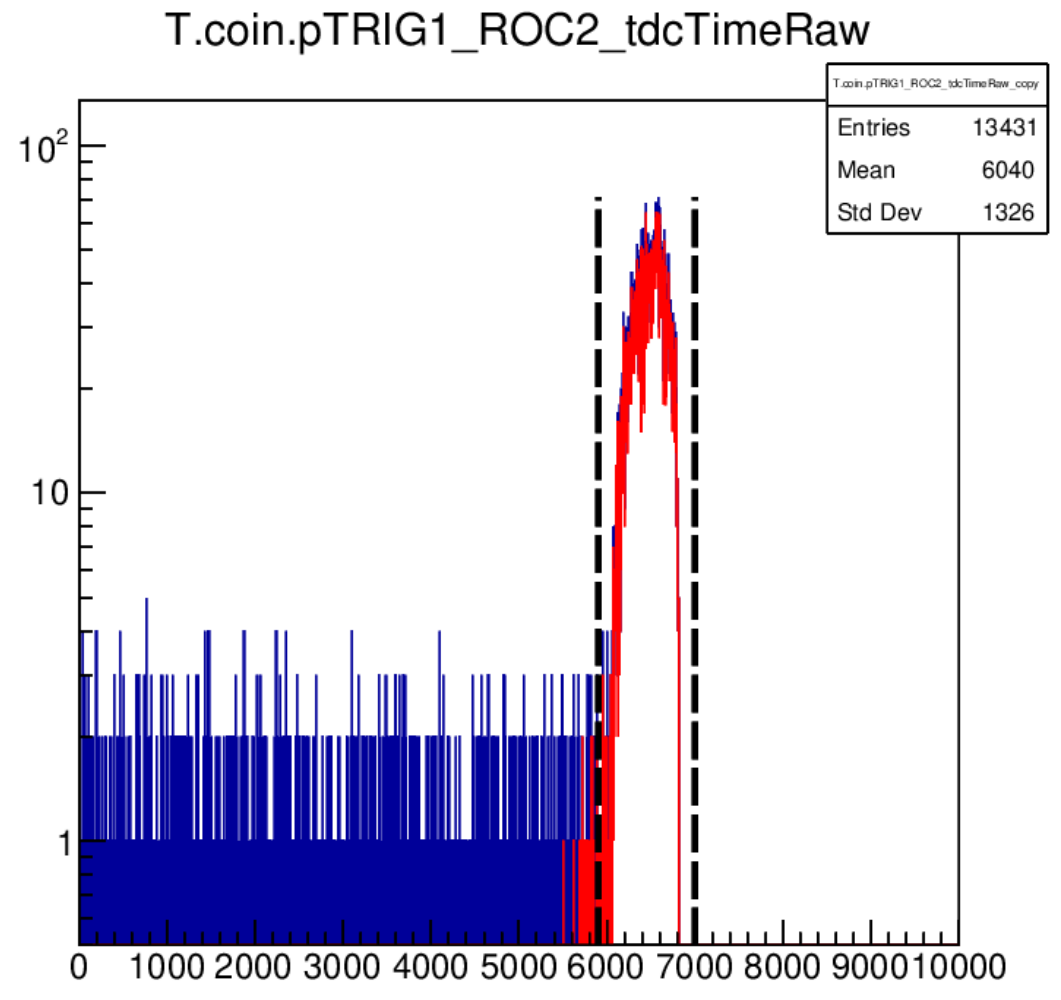
Been working on reference time study to determine the proper cuts for pionLT data.

Goal is to improve the coin event selection in hcana.

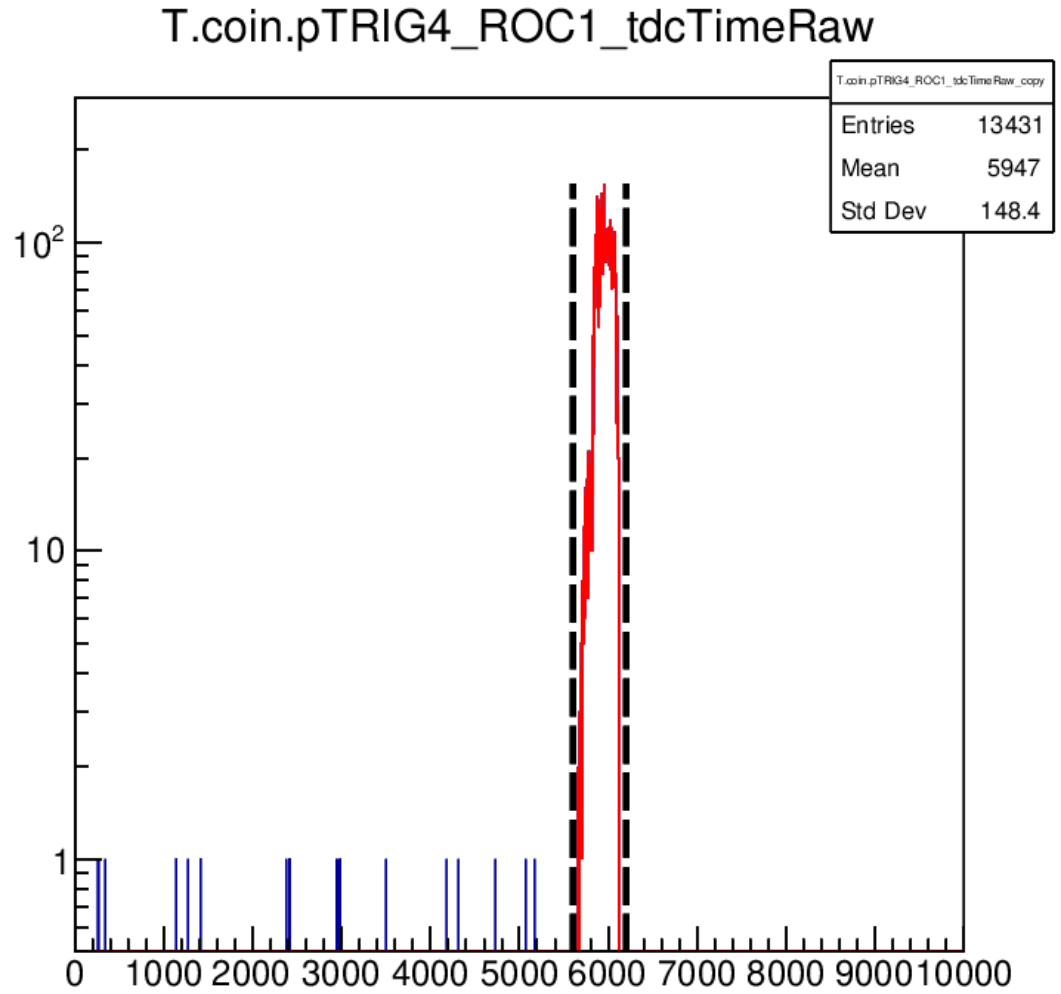
I have selected some cut values, need 2 sets, one for elReal trigger (pTrig5) one for 3/4 trigger (pTrig6)

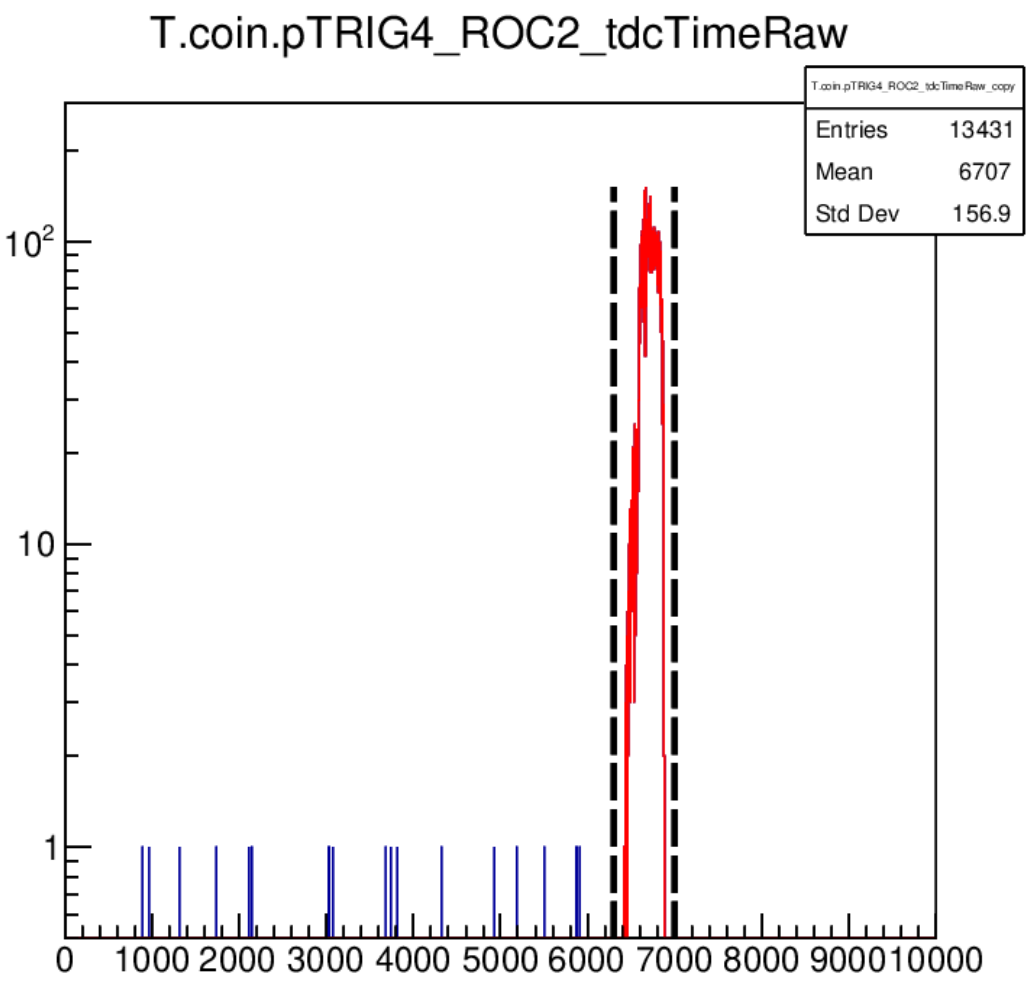
ElReal (14039)





ElReal (14039)

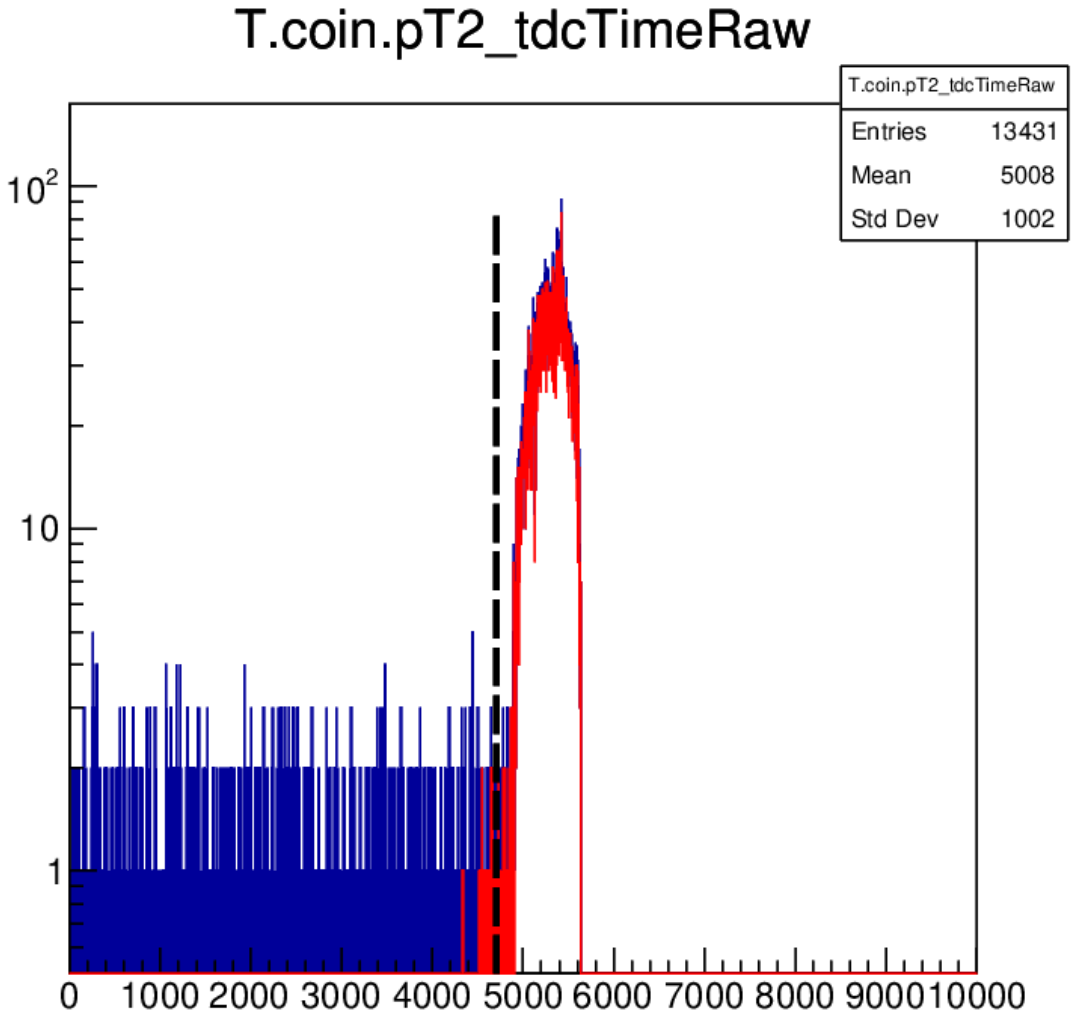




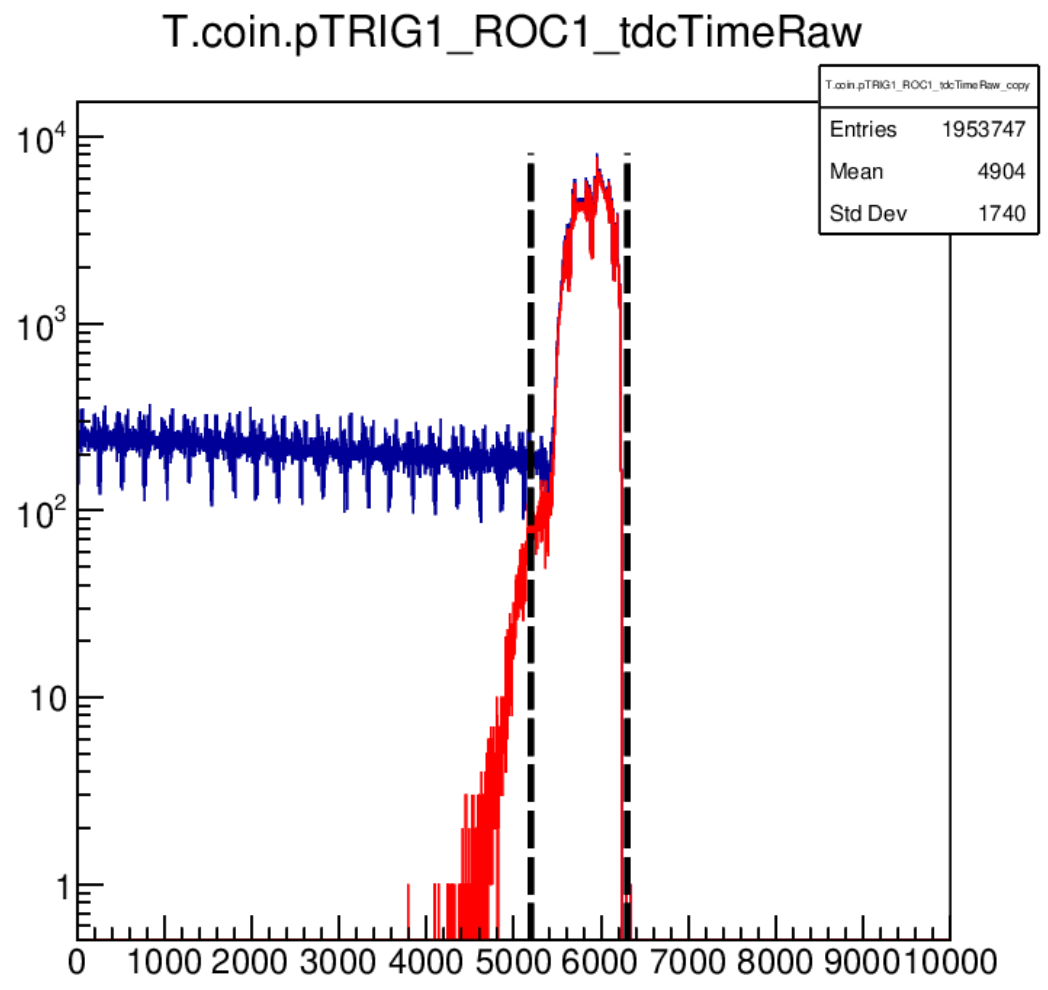
ElReal (14039)

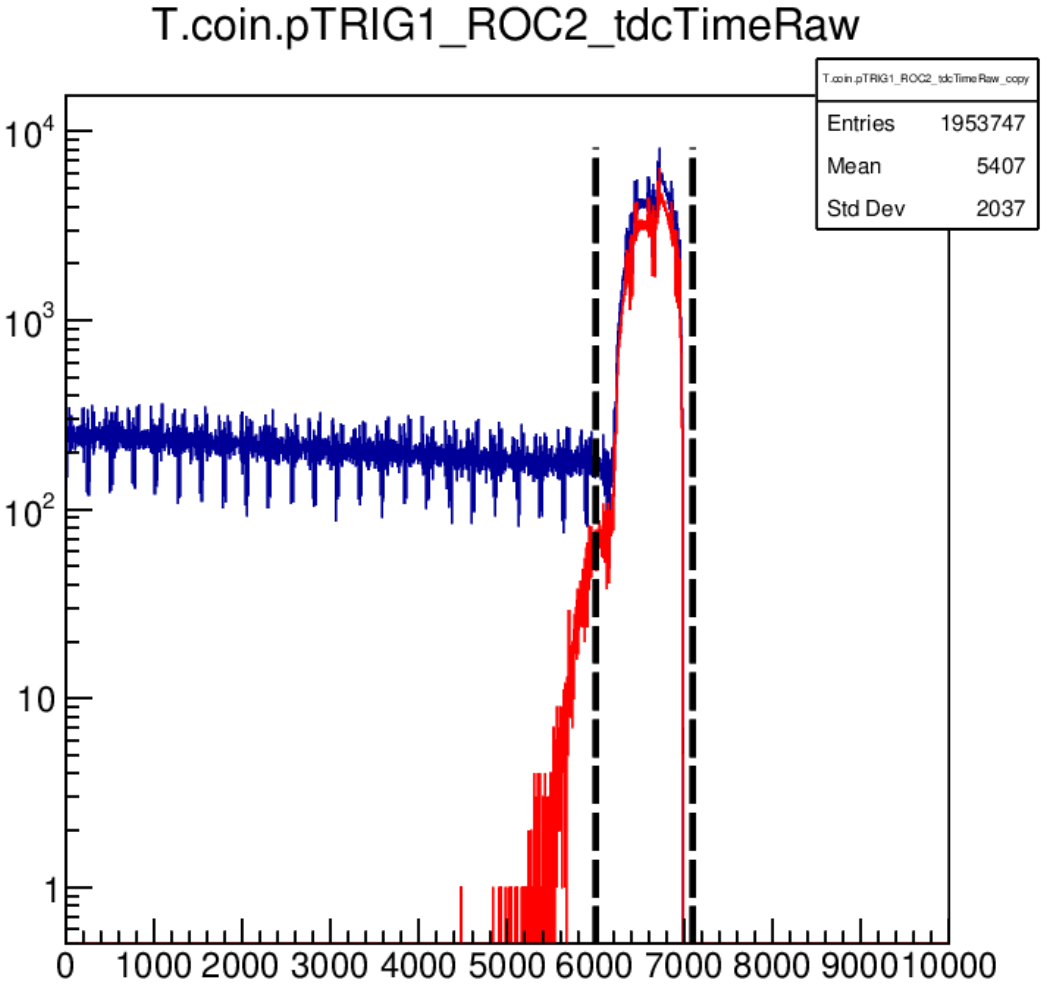
Cut Values

pTrig1_Roc1	5100	6200
pTrig4_Roc1	5600	6200
pTrig1_Roc2	5800	7000
pTrig4_Roc2	6300	7000
pT2	4700	



3/4 (16355)


T.coin.pTRIG1_ROC1_tdcTimeRaw
T.coin.pTRIG1_ROC1_tdcTimeRaw_copy
Entries 1953747
Mean 4904
Std Dev 1740
10^4
10^3
10^2
10
1
0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000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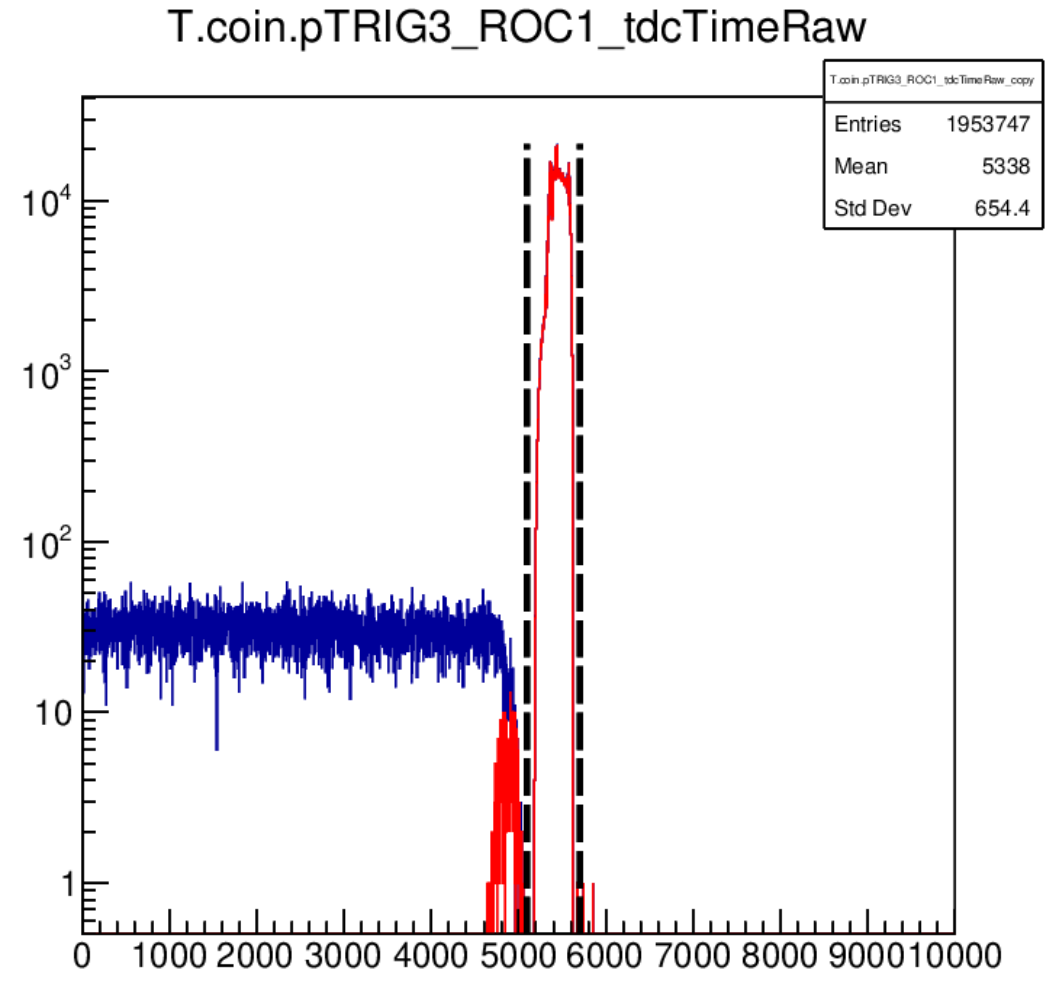
T.coin.pTRIG1_ROC2_tdcTimeRaw_copy
Entries 1953747
Mean 5407
Std Dev 2037
10^4
10^3
10^2
10
1
0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

3/4 (16355)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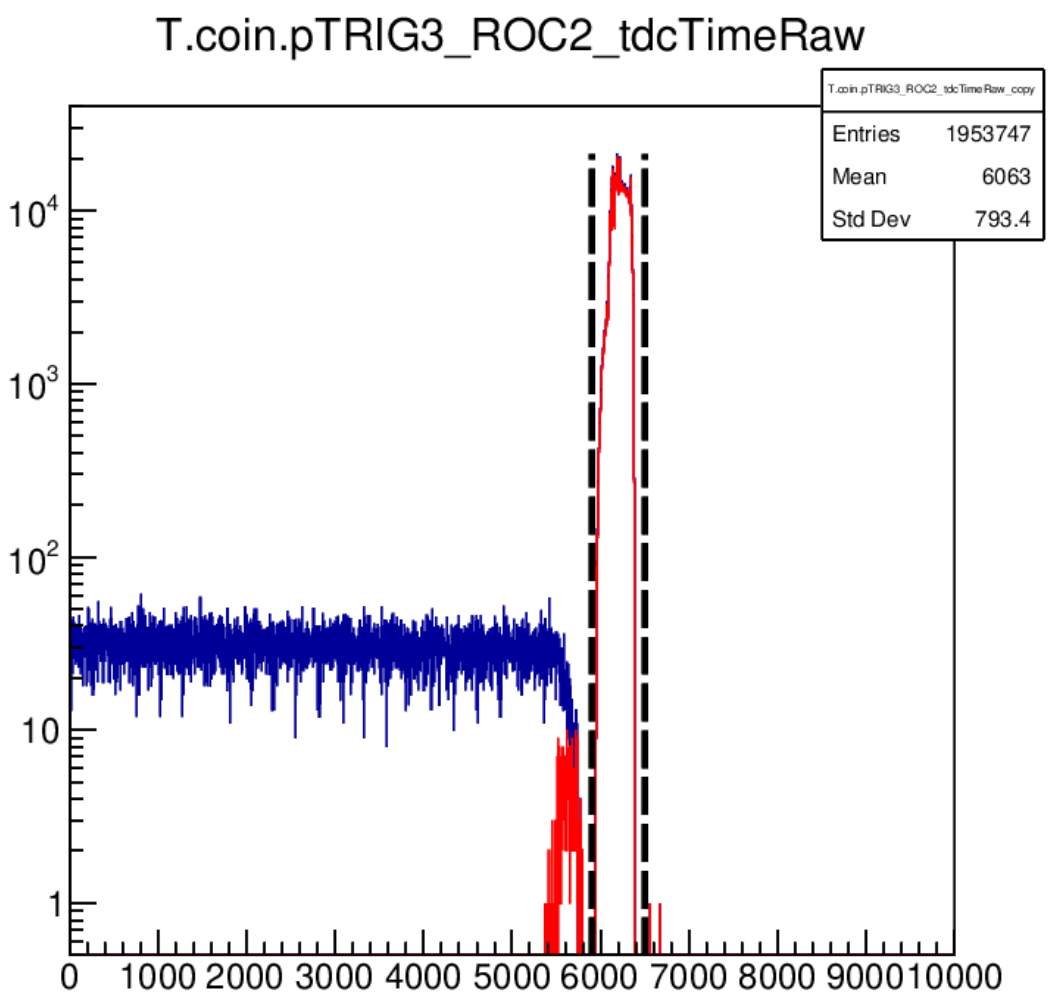
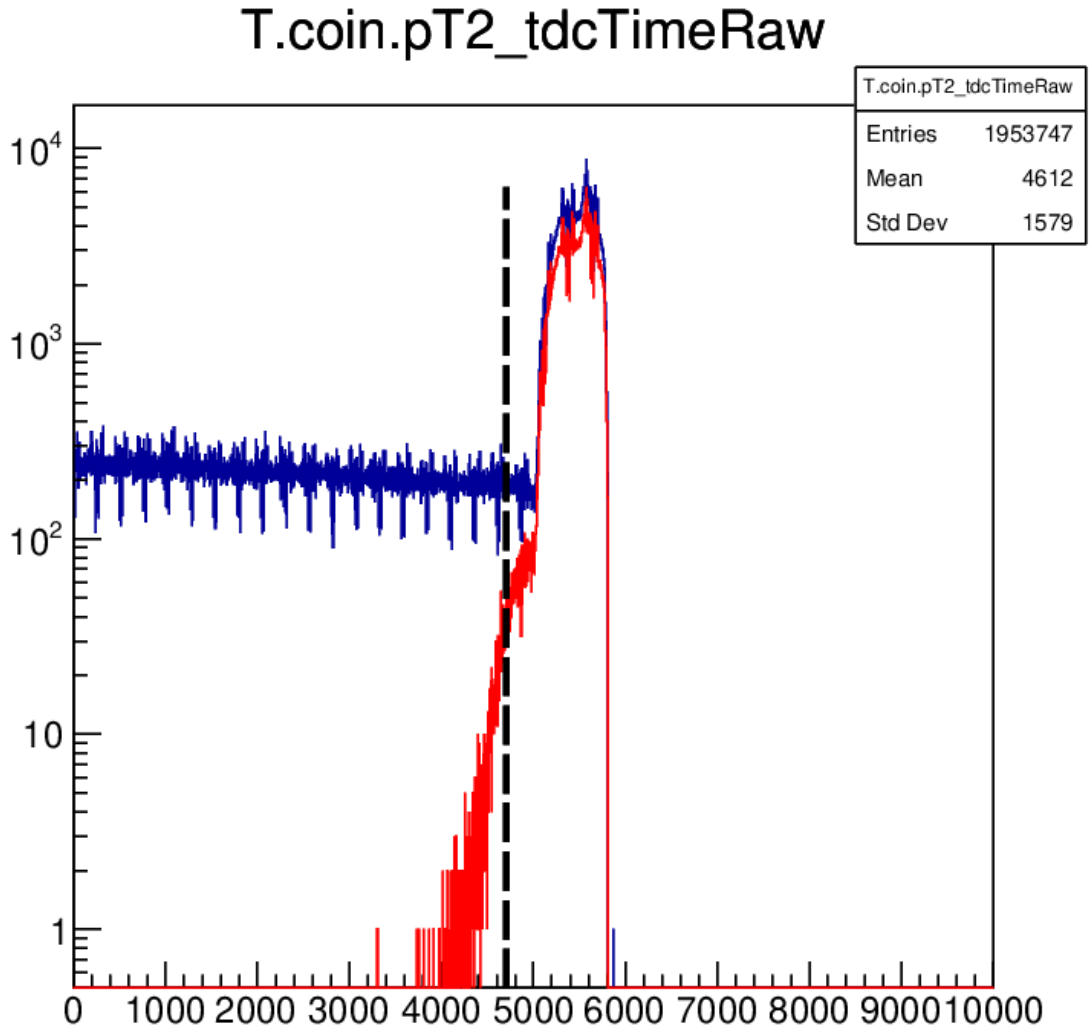
T.coin.pTRIG3_ROC1_tdcTimeRaw_copy
Entries 1953747
Mean 5338
Std Dev 654.4
10^4
10^3
10^2
10
1
0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000


T.coin.pTRIG3_ROC2_tdcTimeRaw
T.coin.pTRIG3_ROC2_tdcTimeRaw_copy
Entries 1953747
Mean 6063
Std Dev 793.4
10^4
10^3
10^2
10
1
0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

3/4 (16355)

Cut Values

pTrig1_Roc1	5200	6300
pTrig4_Roc2	6000	7100
pTrig3_Roc1	5100	5700
pTrig3_Roc2	5900	6500
pT2	4800	



conclusion

- Next step is to test these values, and compare them to those used online
- After that I’m waiting for Juniad to push his changes to the param files before implementing these changes.