

# NGCER Calibration Samples

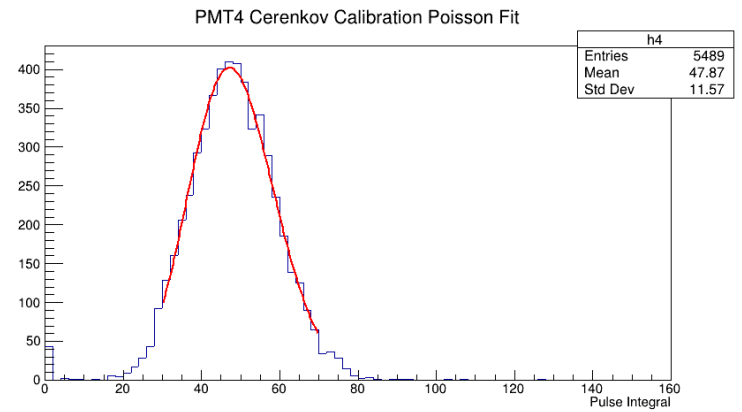
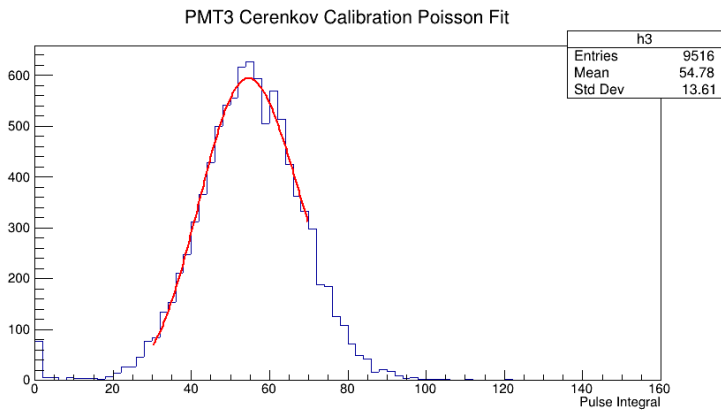
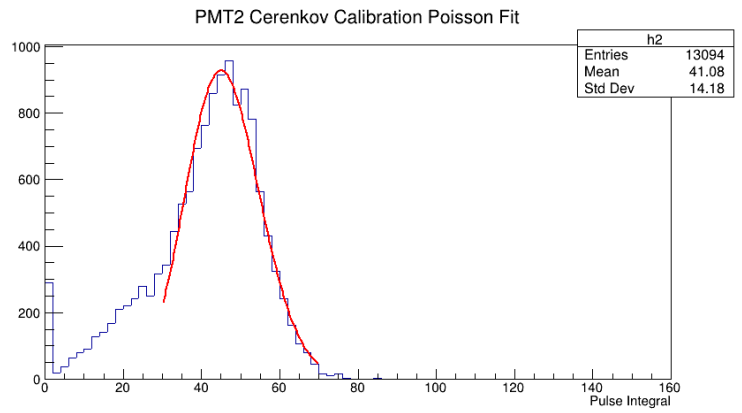
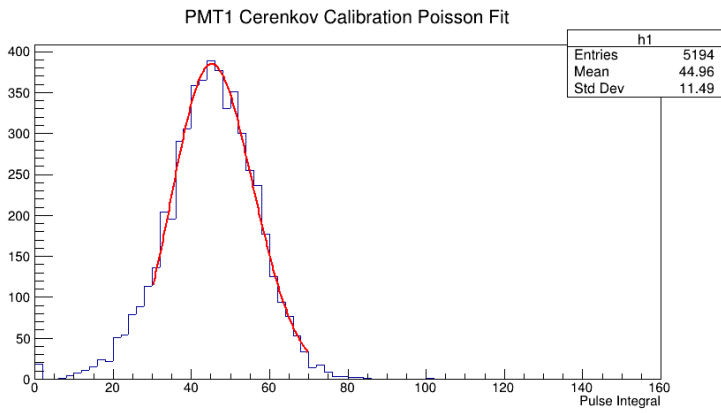
Cameron Cotton  
11/21/21

# About

- These slides contain the calibration plots output from my NGCER calibration code for 4 runs at 4 different kinematics (1M events).
- While the statistics are on the low side, the purpose of this is to provide examples of what the plots should look like across various kinematics.

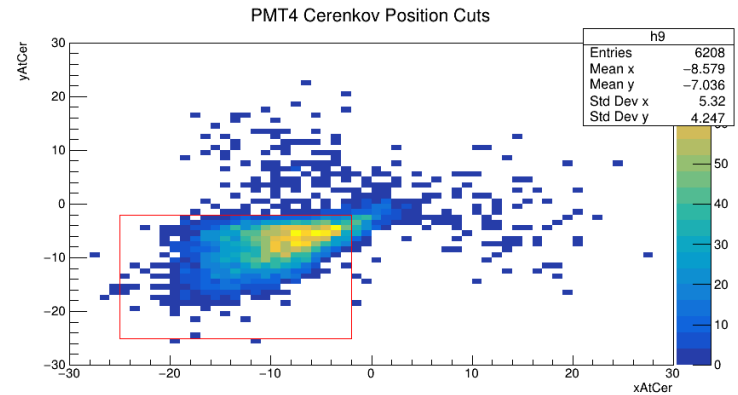
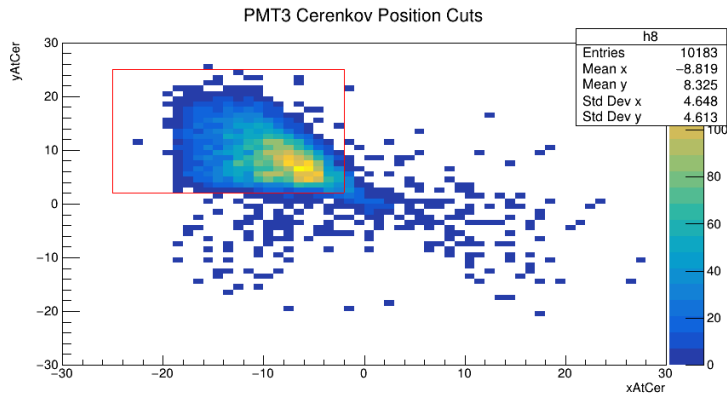
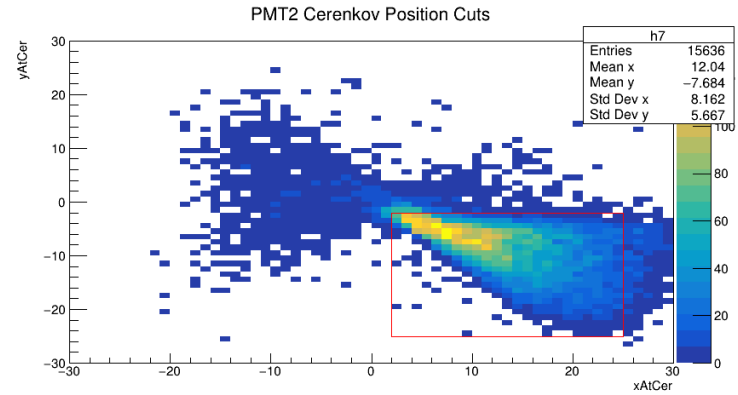
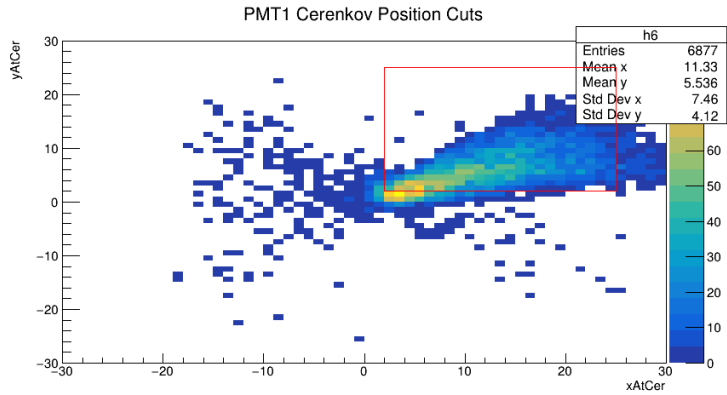
# 2549 (21°, 2.1 GeV)

1/PMT1 Calibration Constant: 2.27775  
1/PMT2 Calibration Constant: 1.92225  
1/PMT3 Calibration Constant: 2.93239  
1/PMT4 Calibration Constant: 2.43894



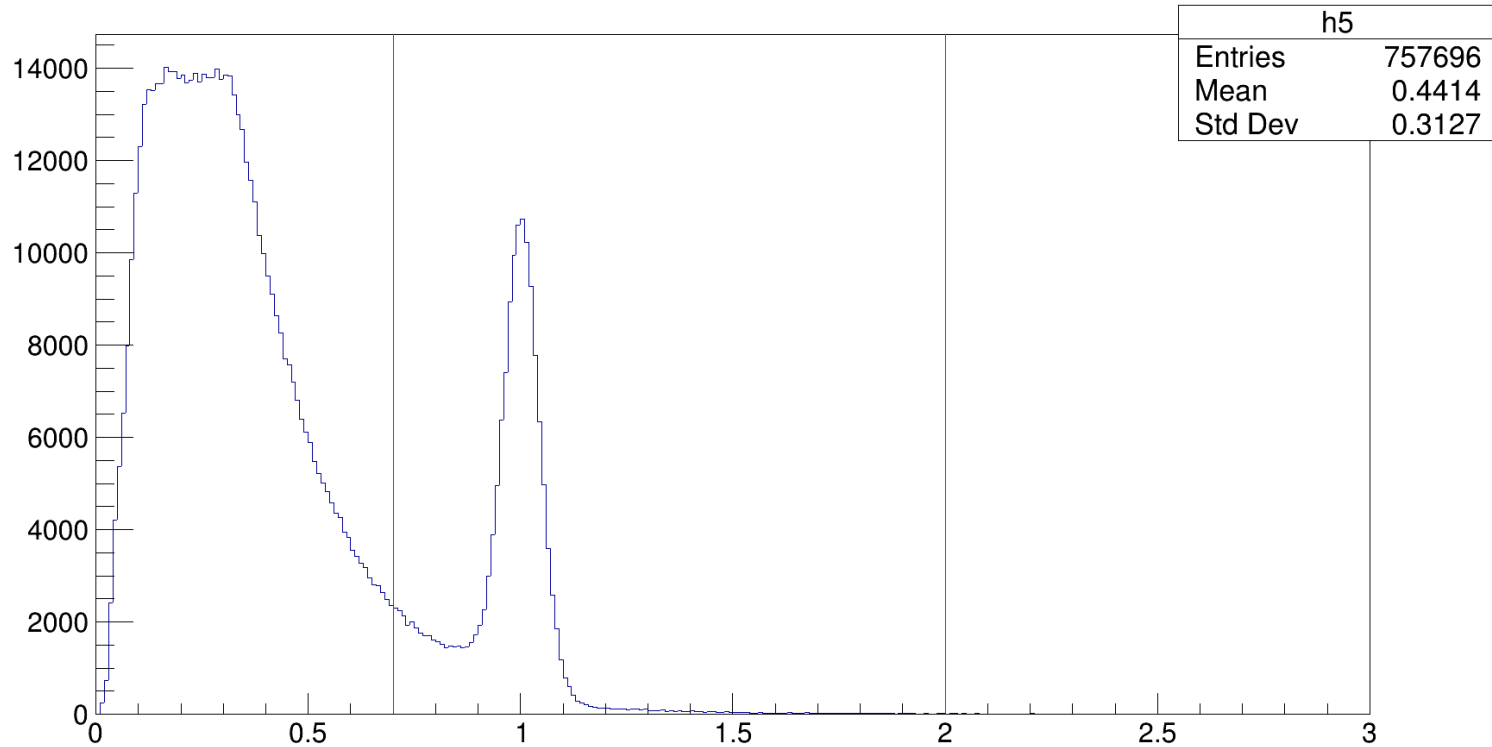
\*PMT2 Had Known Issue During This Time (All runs).  
\*Fit Range Could Be Fine Tuned

# 2549 (21°, 2.1 GeV)



# 2549 (21°, 2.1 GeV)

P.cal.etottracknorm Cuts on All Events

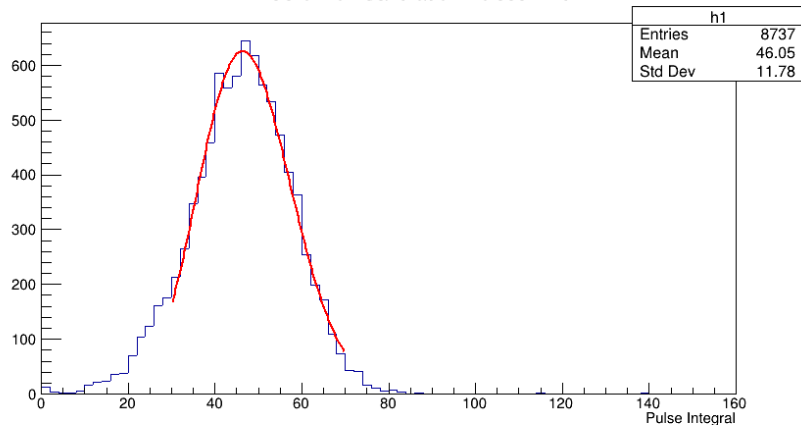


\*Low cut could be moved up (all runs)

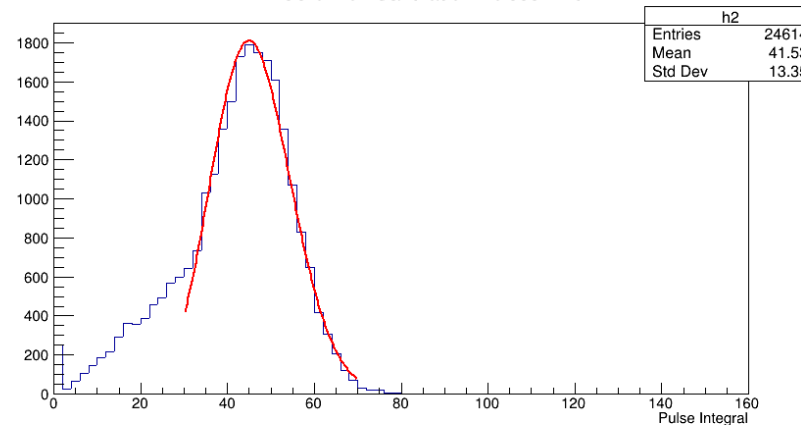
# 2527 (21°, 3.3 GeV)

1/PMT1 Calibration Constant: 2.38056  
1/PMT2 Calibration Constant: 1.83375  
1/PMT3 Calibration Constant: 2.87134  
1/PMT4 Calibration Constant: 2.35312

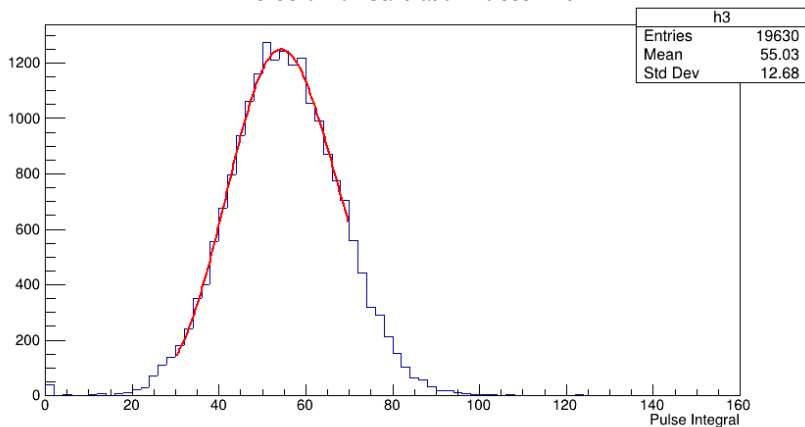
PMT1 Cerenkov Calibration Poisson Fit



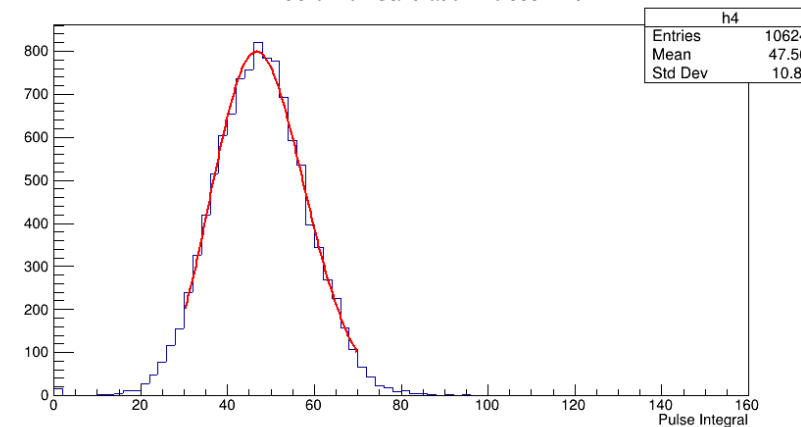
PMT2 Cerenkov Calibration Poisson Fit



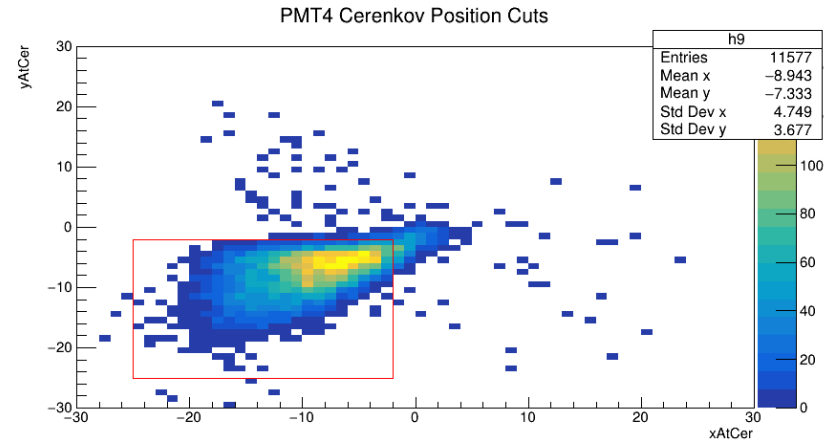
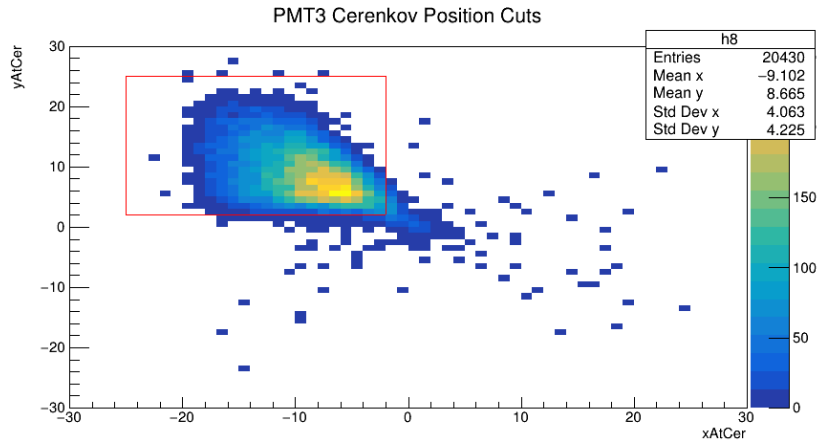
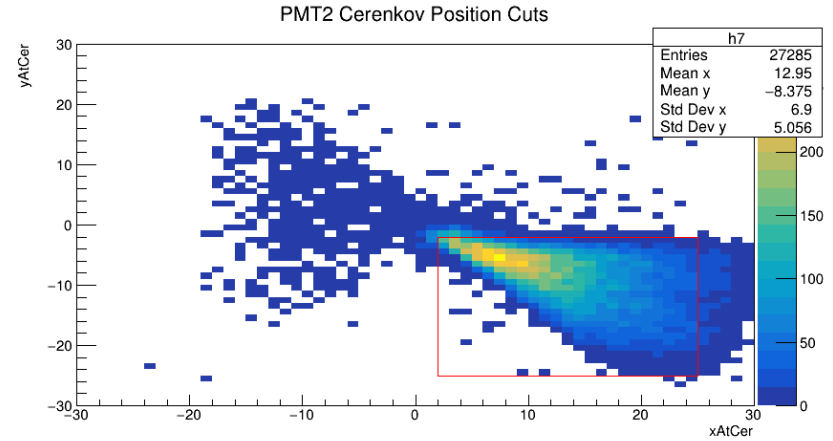
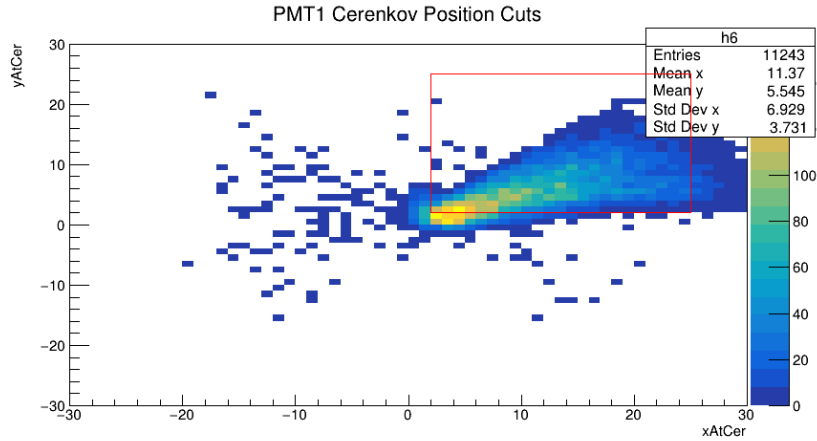
PMT3 Cerenkov Calibration Poisson Fit



PMT4 Cerenkov Calibration Poisson Fit

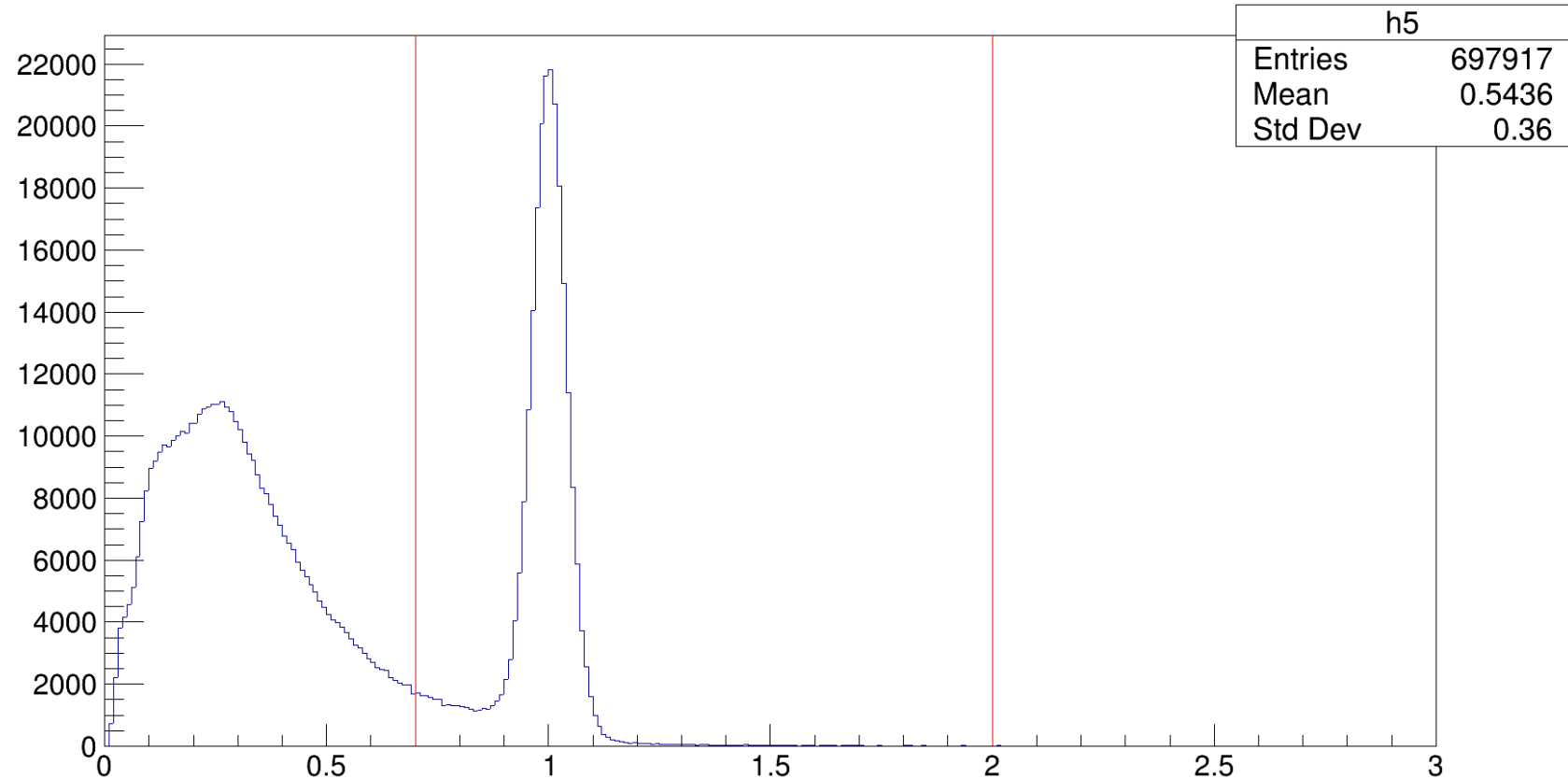


# 2527 (21°, 3.3 GeV)



# 2527 (21<sup>0</sup>, 3.3 GeV)

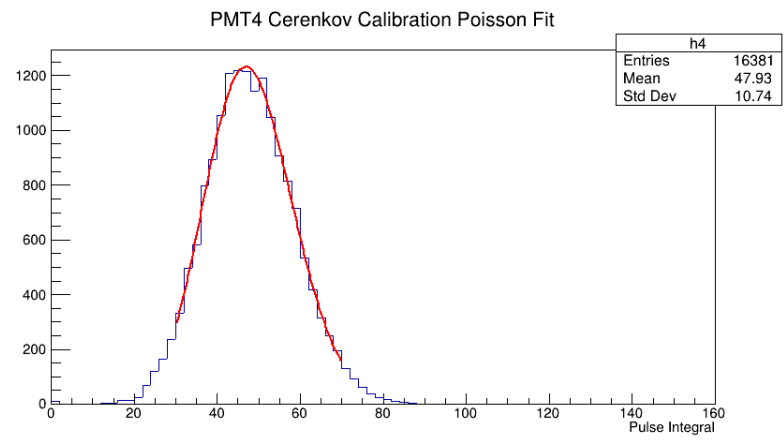
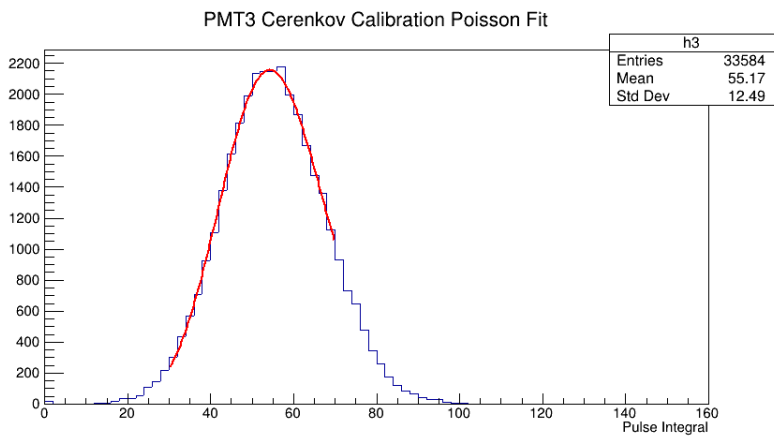
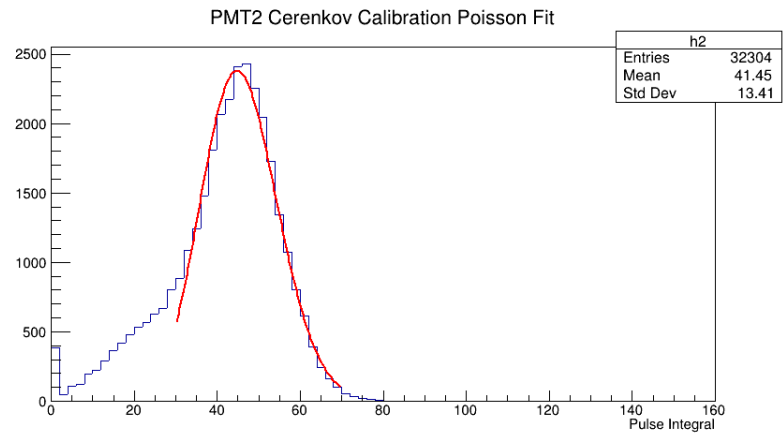
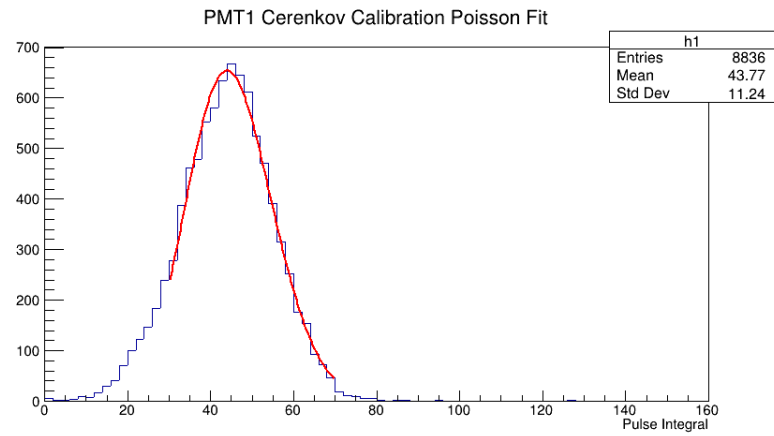
P.cal.etottracknorm Cuts on All Events



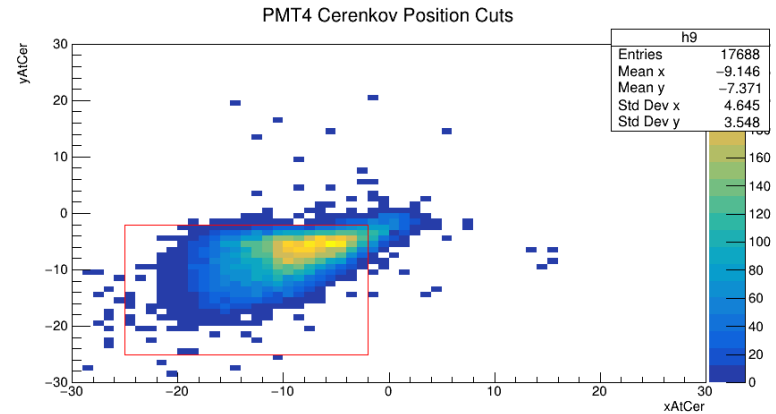
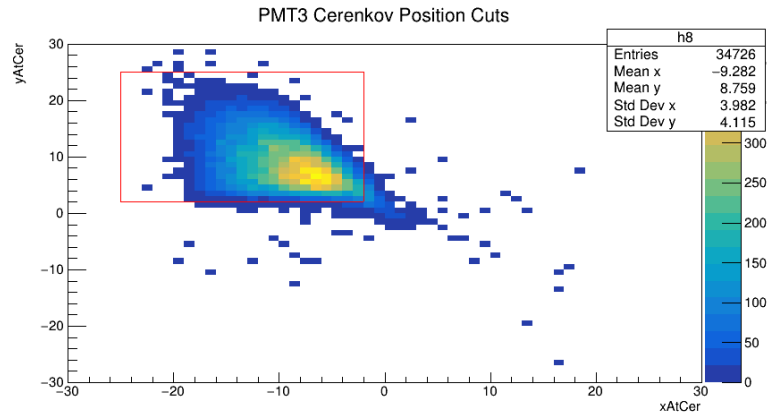
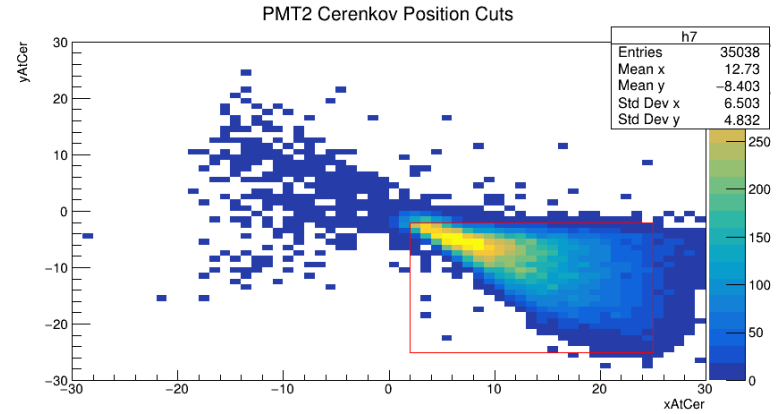
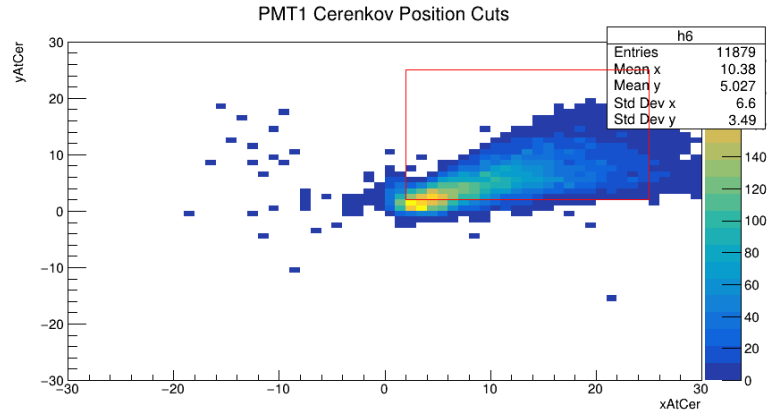


# 2518 (21°, 4.0 GeV)

1/PMT1 Calibration Constant: 2.33947  
1/PMT2 Calibration Constant: 1.8473  
1/PMT3 Calibration Constant: 2.80583  
1/PMT4 Calibration Constant: 2.32337

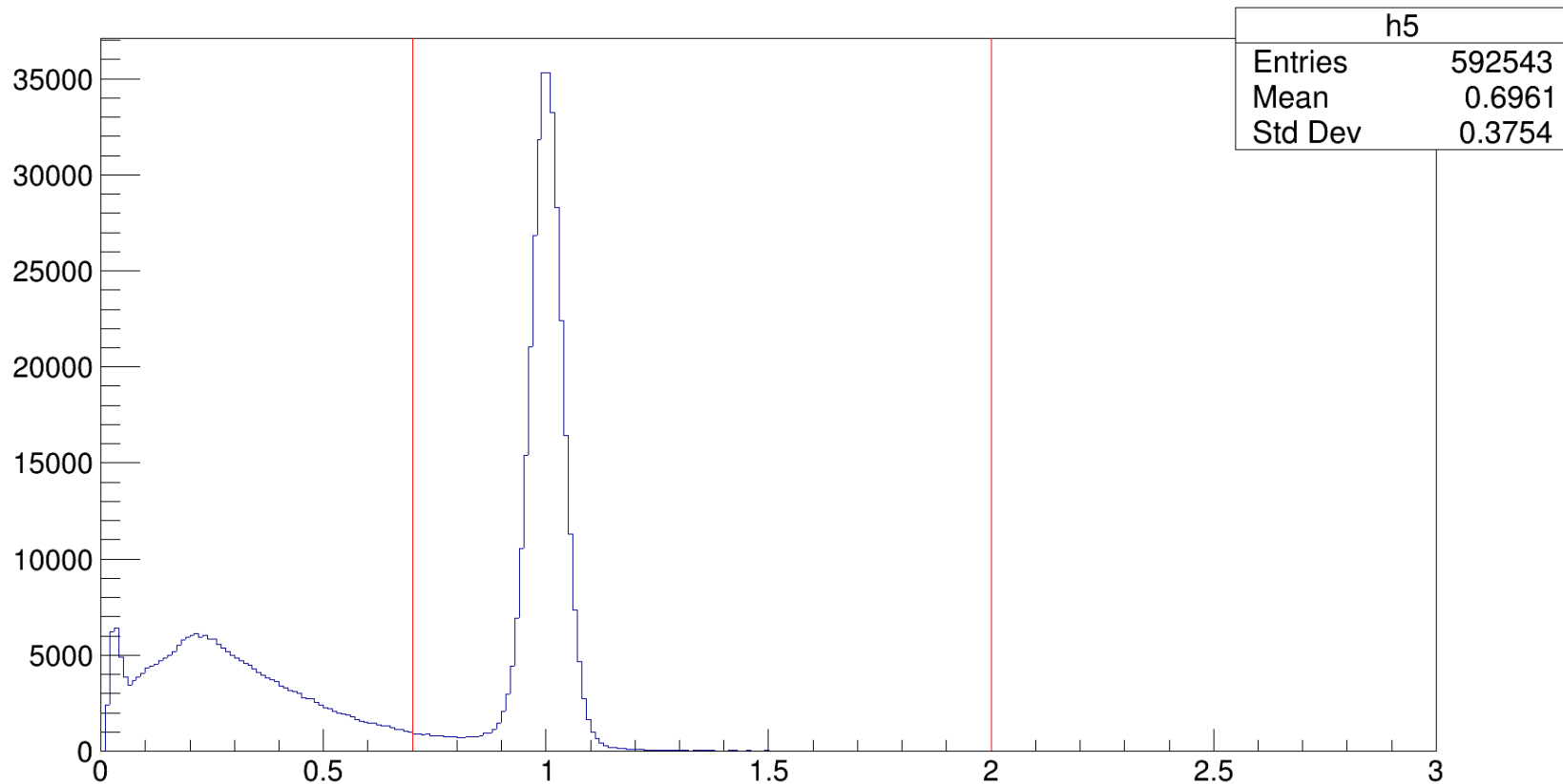


# 2518 (21°, 4.0 GeV)



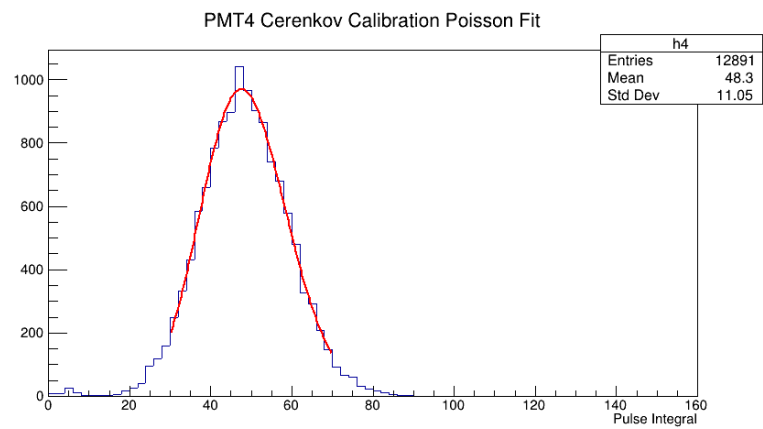
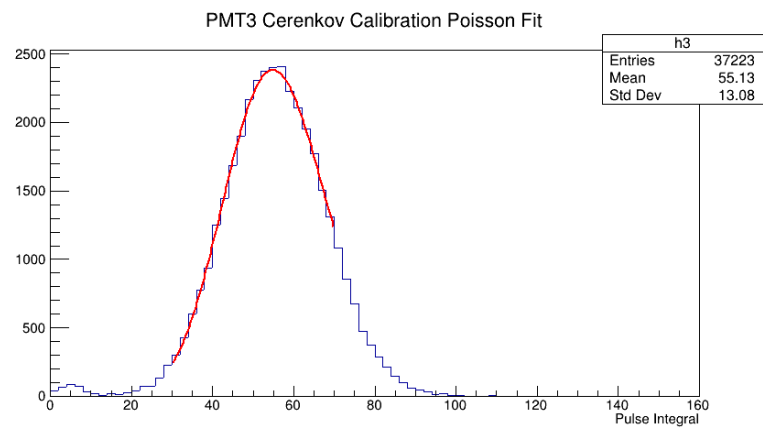
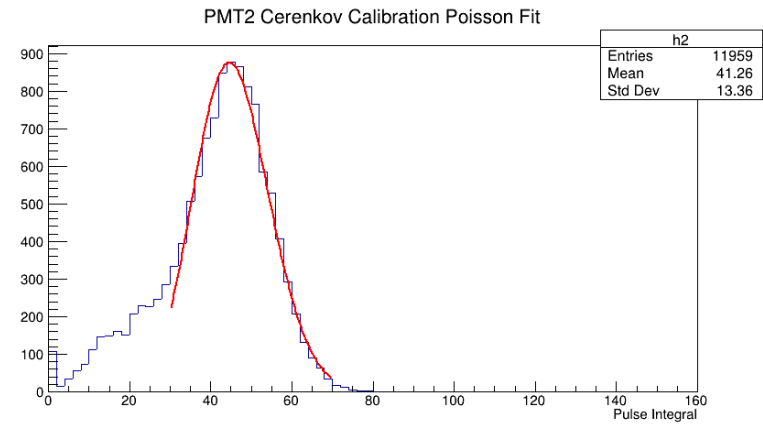
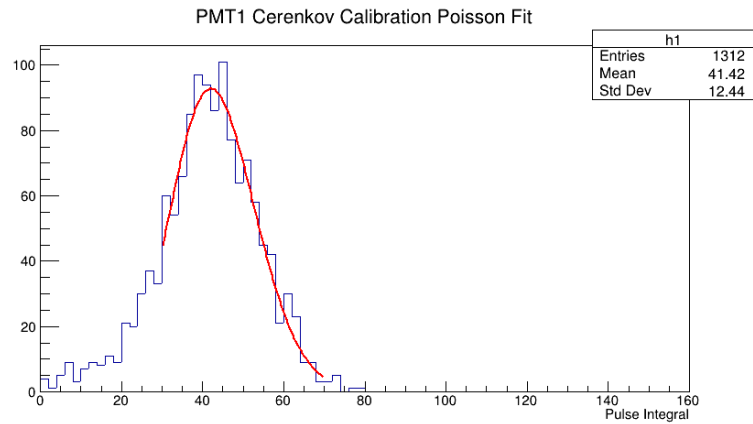
# 2518 (21<sup>o</sup>, 4.0 GeV)

P.cal.etotracknorm Cuts on All Events

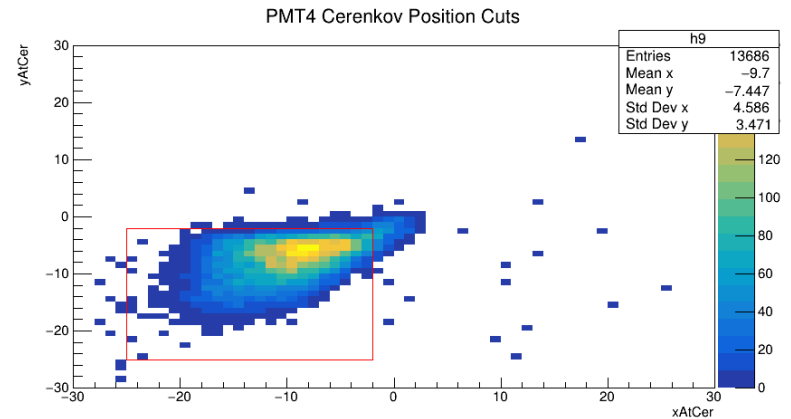
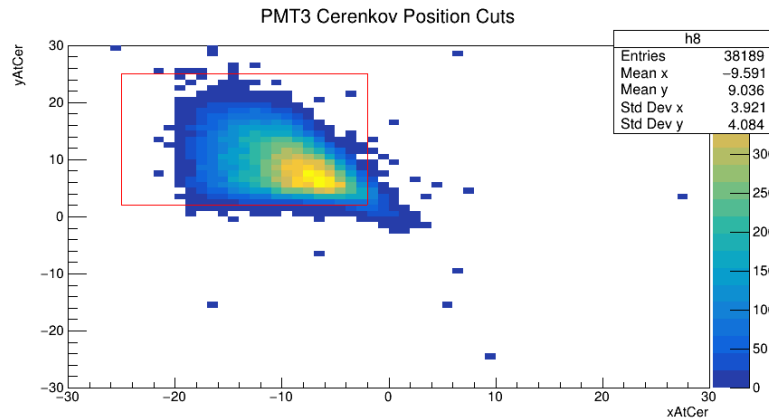
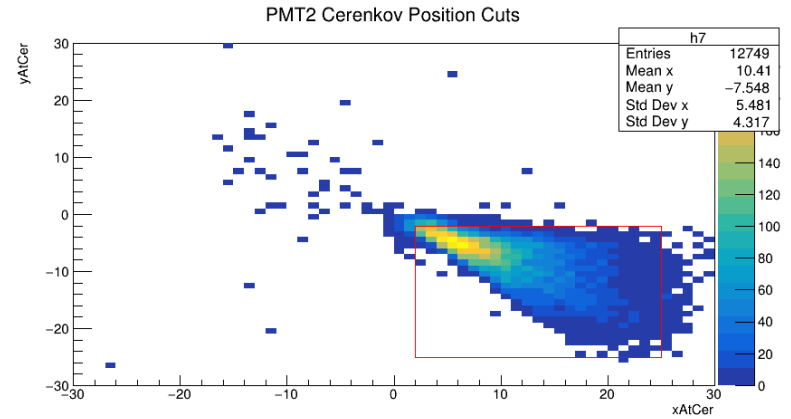
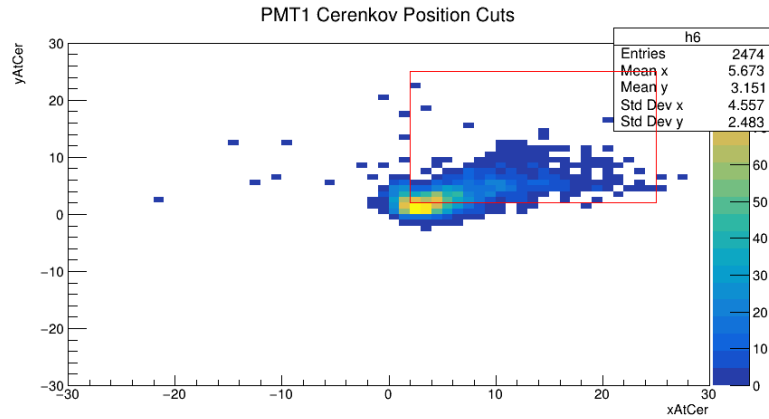


# 2491 (21°, 5.1 GeV)

1/PMT1 Calibration Constant: 2.46144  
1/PMT2 Calibration Constant: 1.8778  
1/PMT3 Calibration Constant: 2.81662  
1/PMT4 Calibration Constant: 2.2629



# 2491 (21°, 5.1 GeV)



# 2491 (21°, 5.1 GeV)

P.cal.etotracknorm Cuts on All Events

