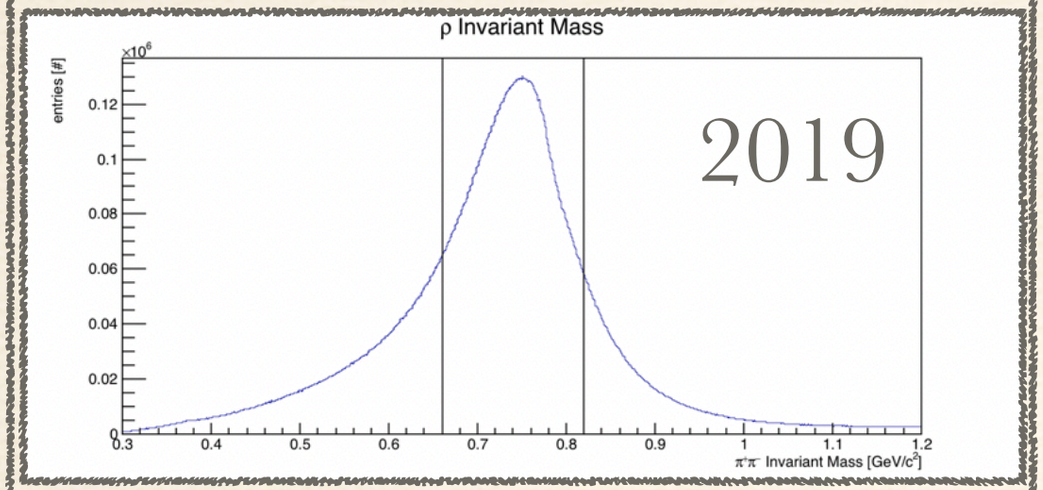
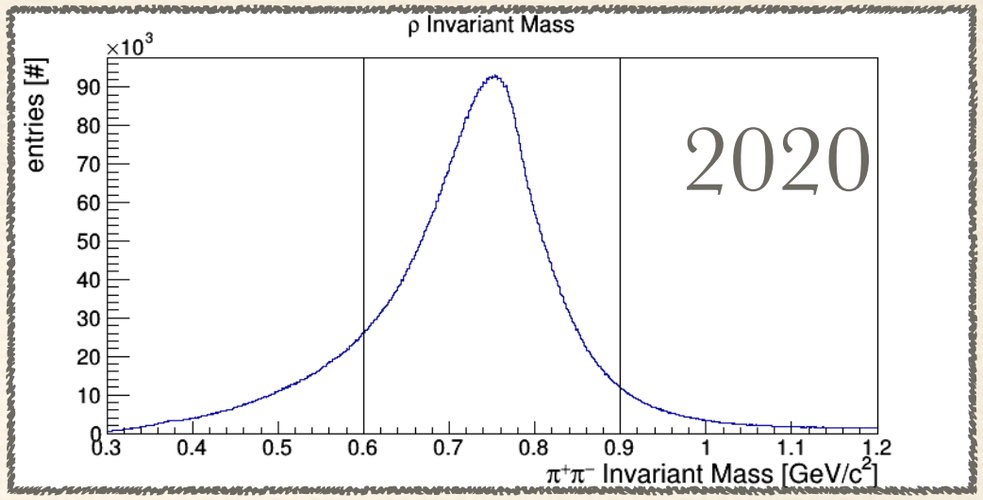
# GlueX DIRC Calibration 2020 (1)

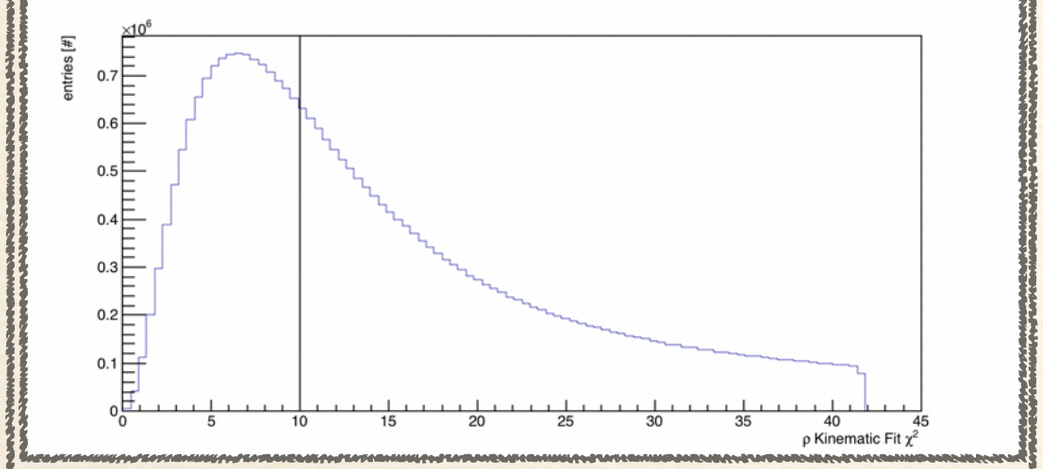
*Ahmed Ali*

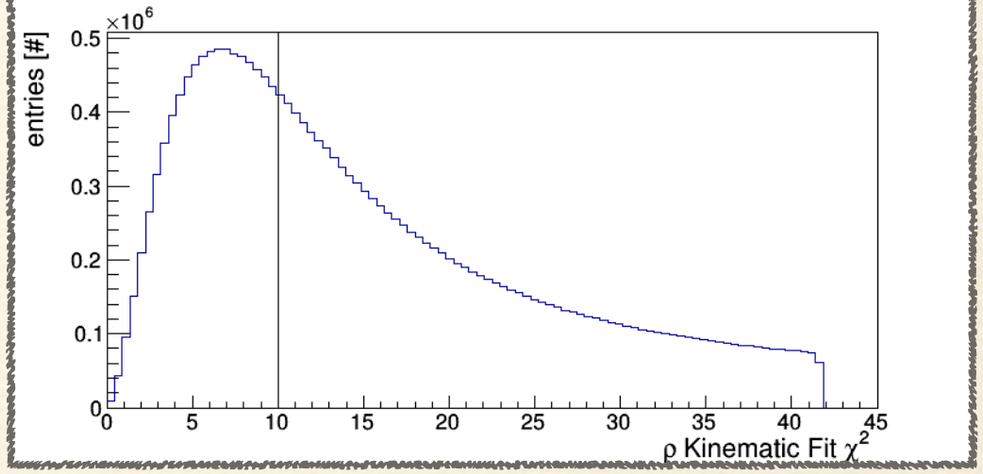
*3 Feb 2020*

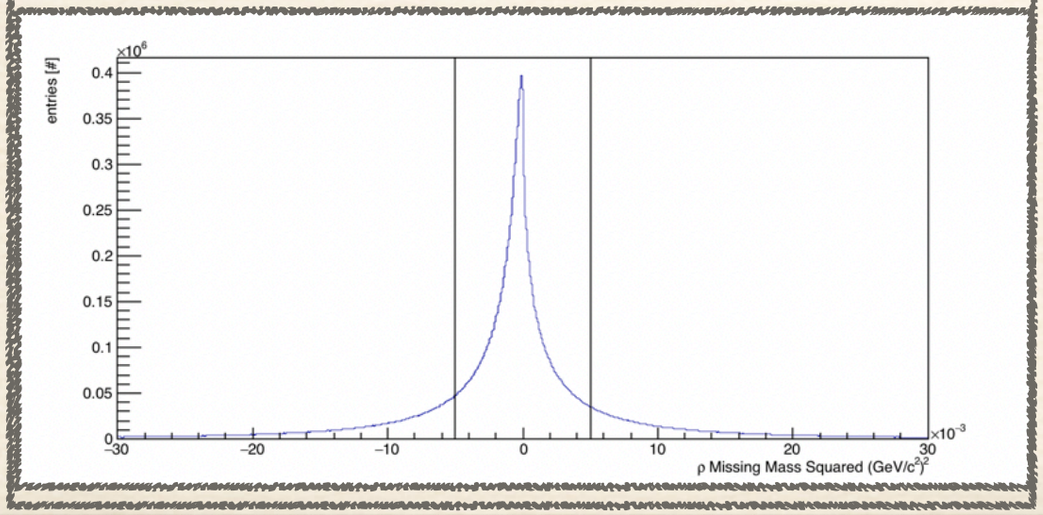
# Event Selection

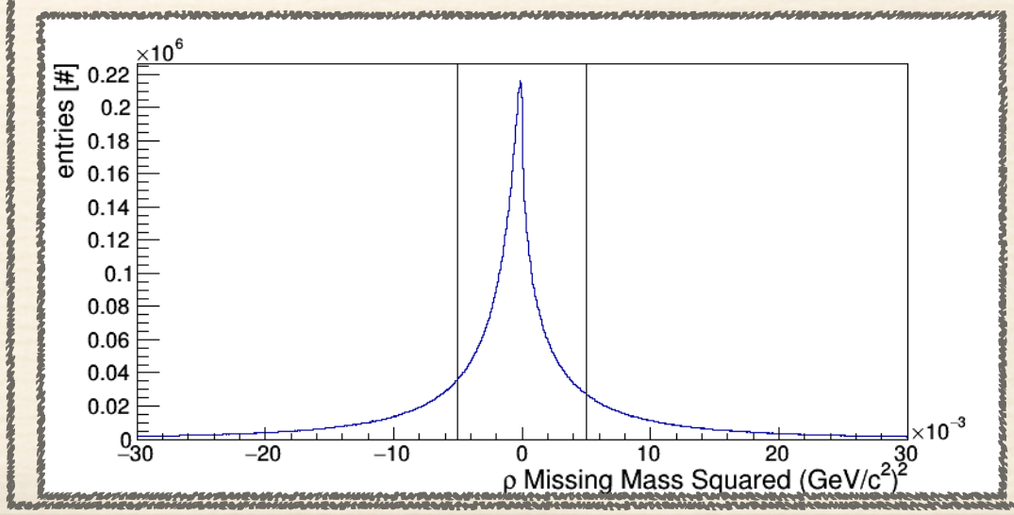


# Track Reconstruction Criteria

A) Time cuts:
Time difference between measured photon time and
calculated time form the LUT =
(+/- 3 ns for direct photon &
+/- 3.5 ns for reflected photon)

B) Cherenkov angle cut:
+/- 0.04 ns from the mean value of the expected
Cherenkov angle for Pions and Kaons

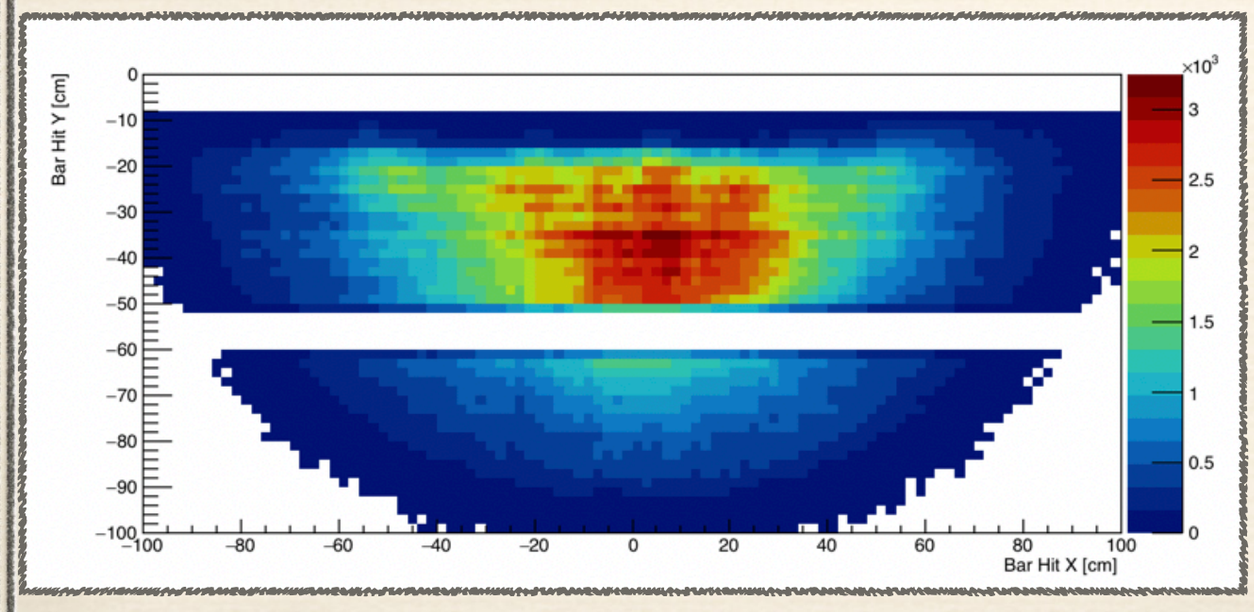
C) 0.834 >Reconstructed Cherenkov angle > 0.0818 rad

D) 11.5 > Single Photon resolution > 5.1 mrad

# Occupancy Reco. Tracks

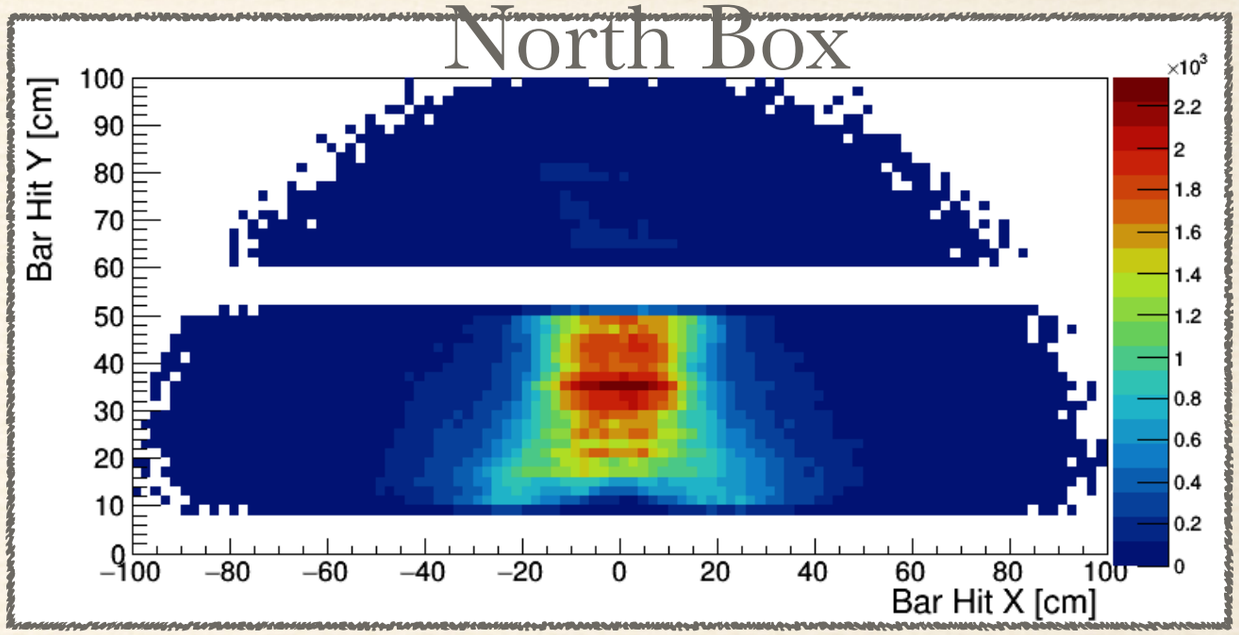
Occupancy of the reconstructed charged tracks on the DIRC wall

2019

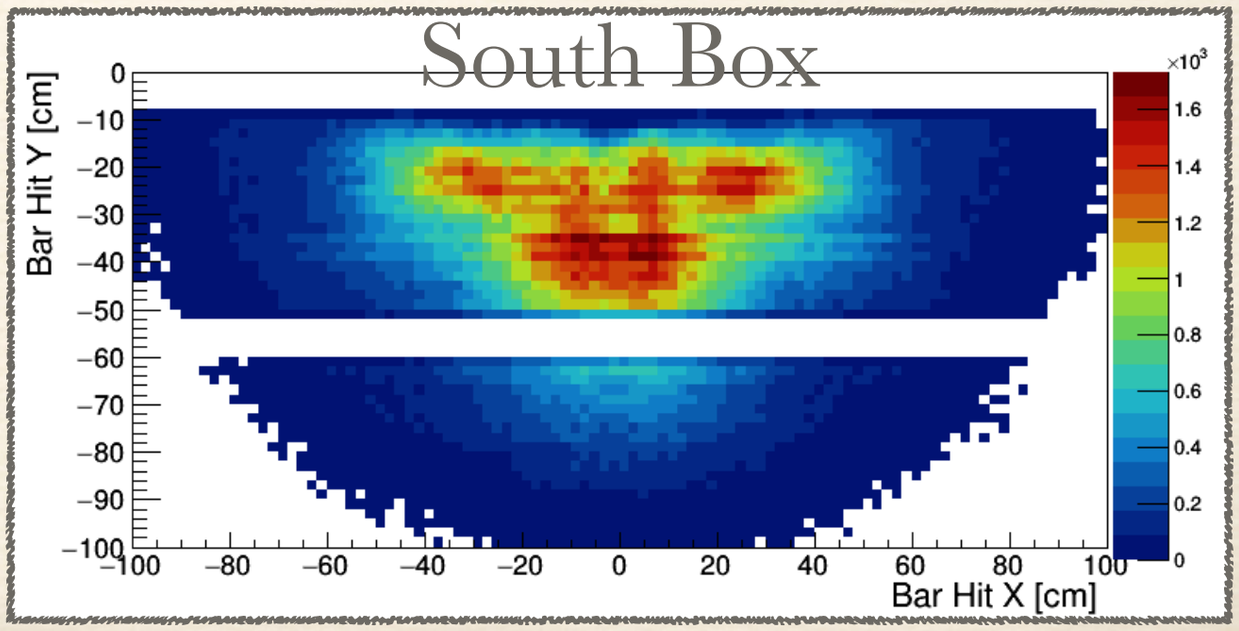



2020

North Box



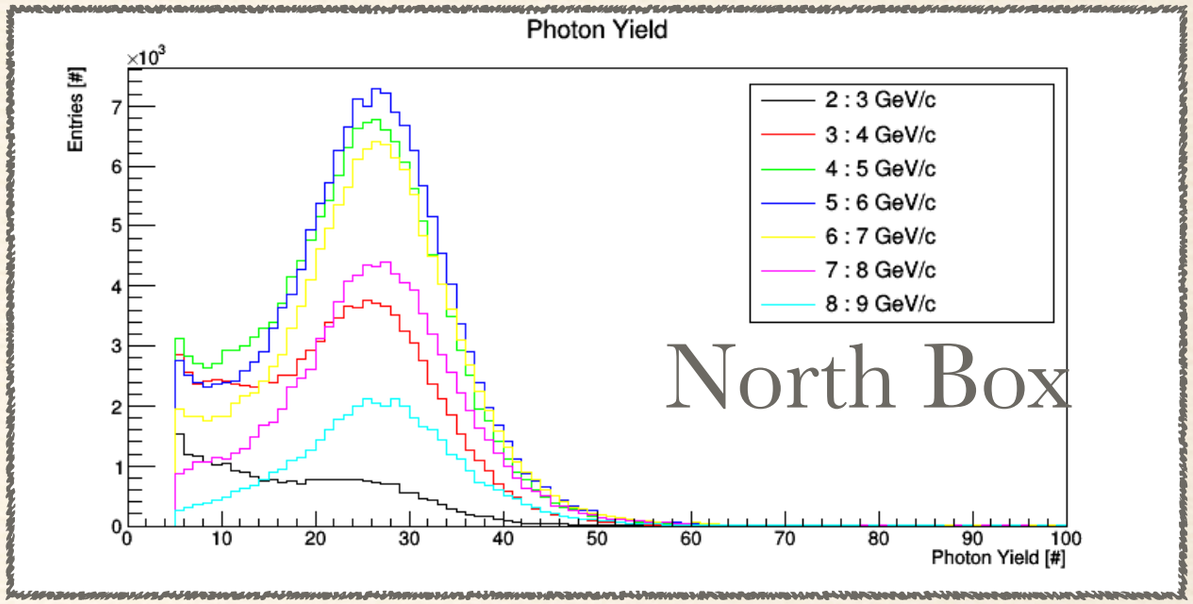

South Box



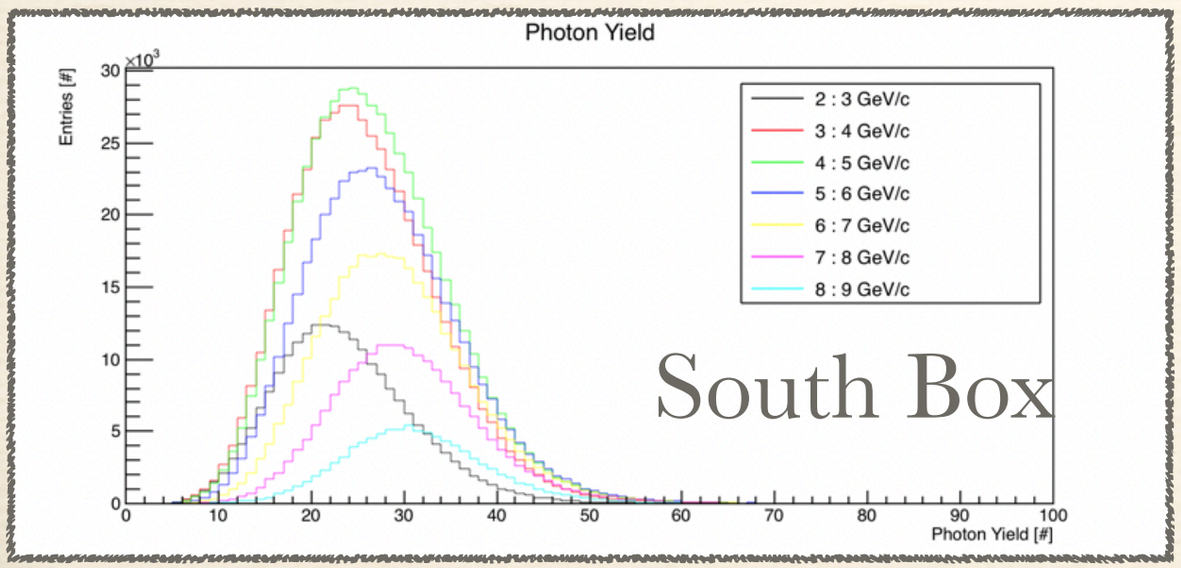
# Photon Yield

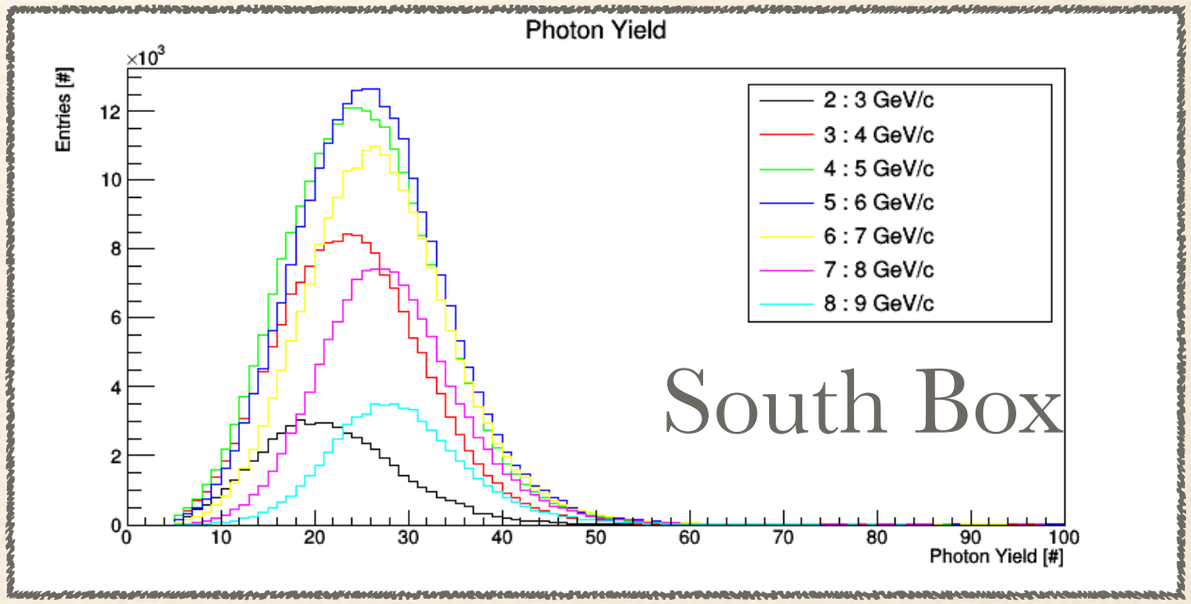
Photon yield from pions
- All bars
- Momenta slices

2020




2019

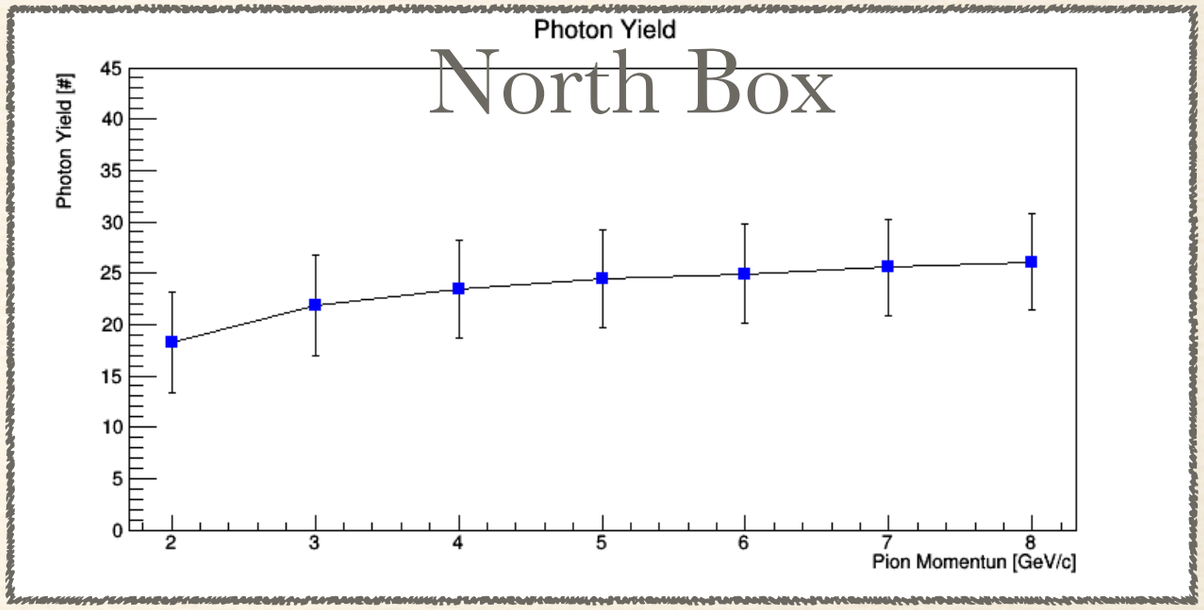


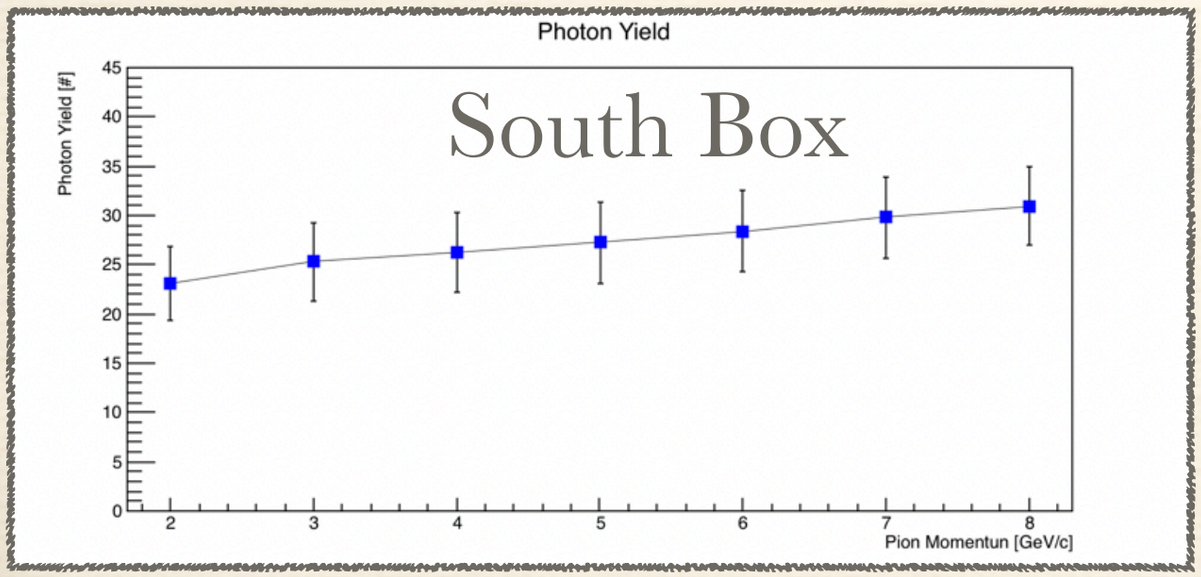
# Photon Yield

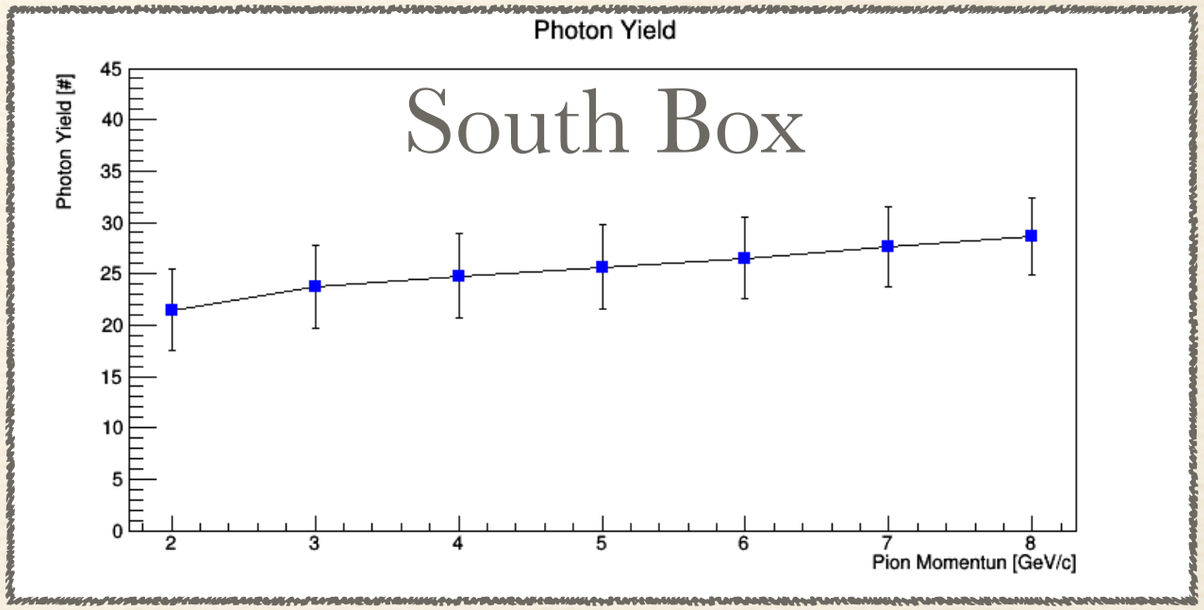
Photon yield Vs pions momenta
- All bars

2020




2019



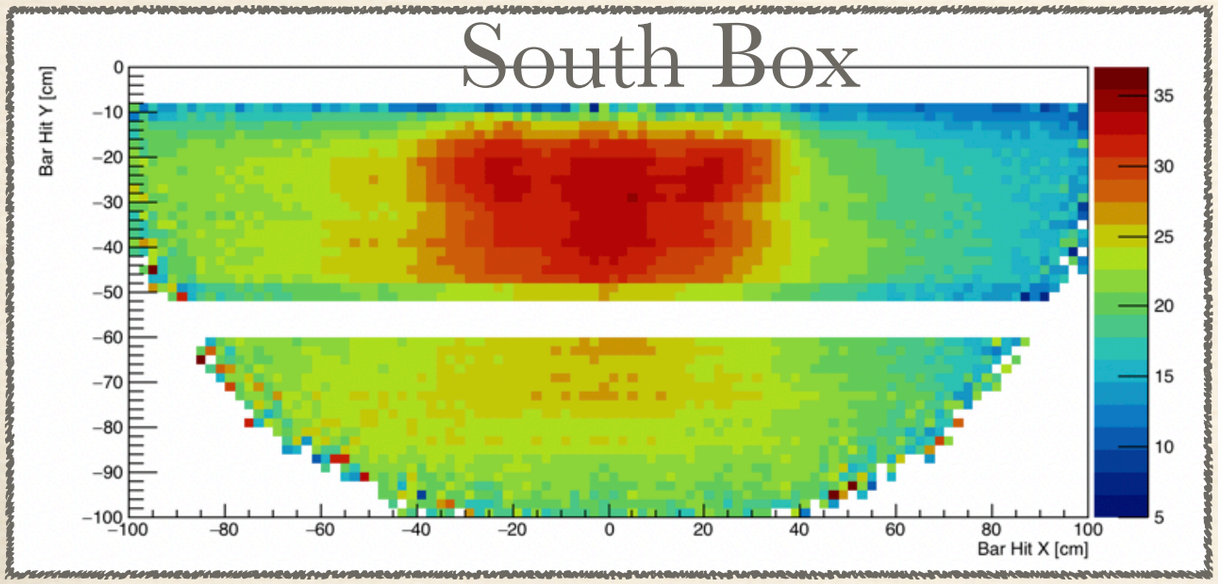



# Photon Yield Map

Photon yield map
- All bars
- All momenta

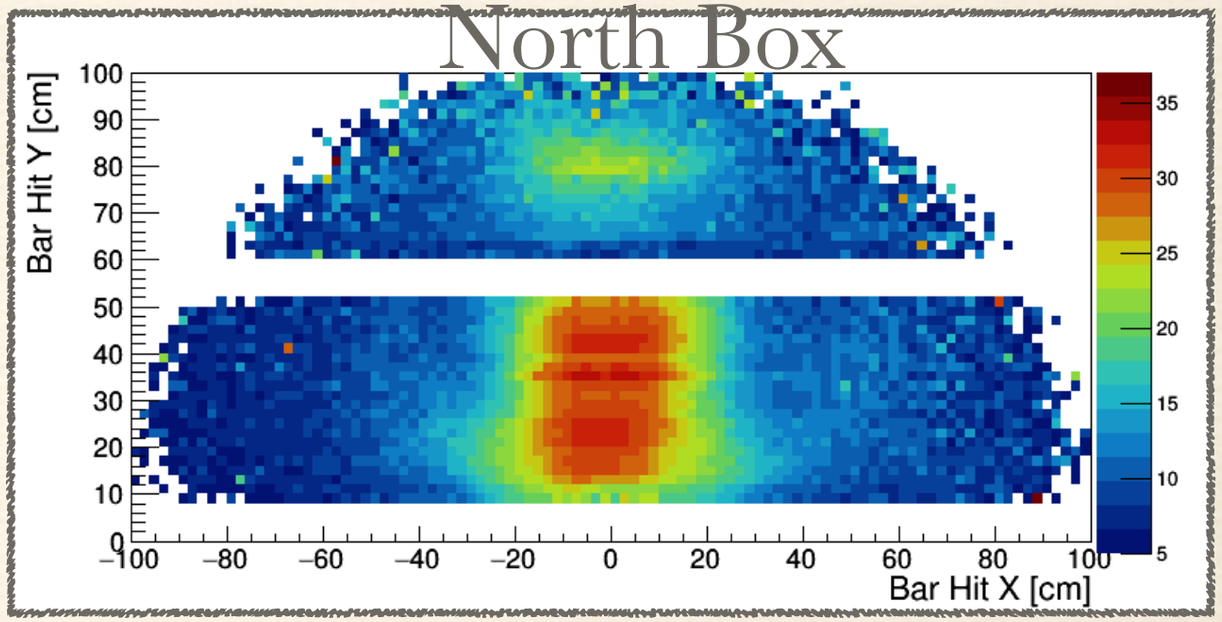
2019

South Box

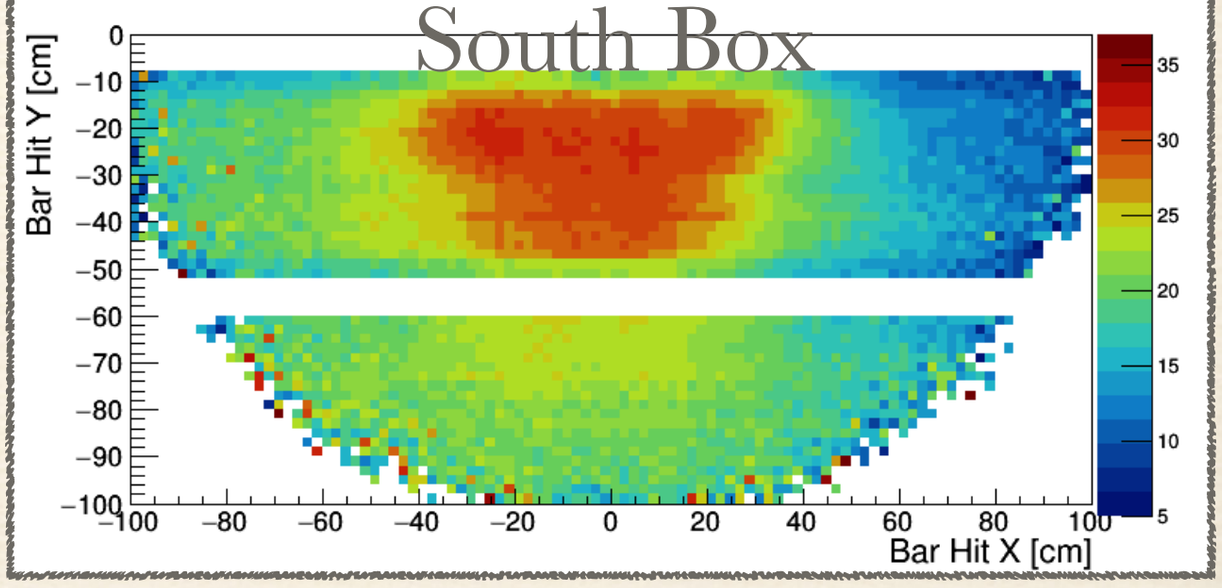



2020

North Box

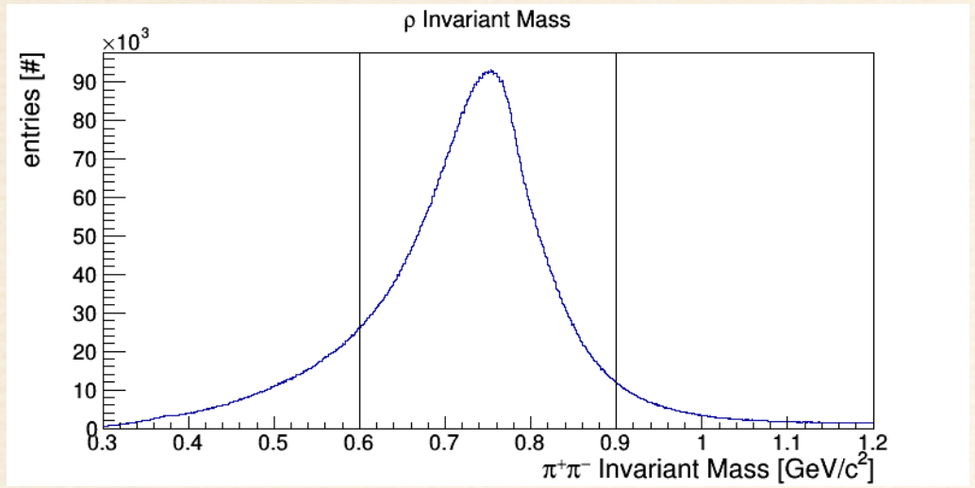


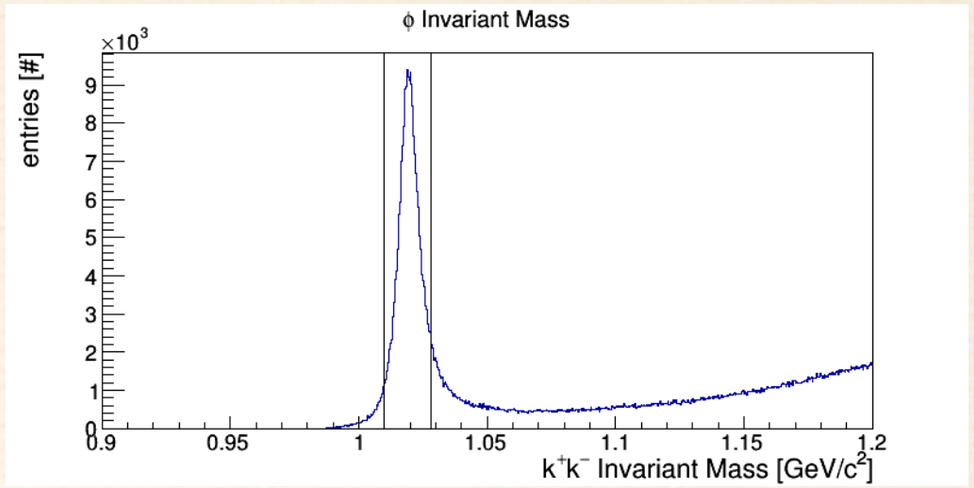

South Box

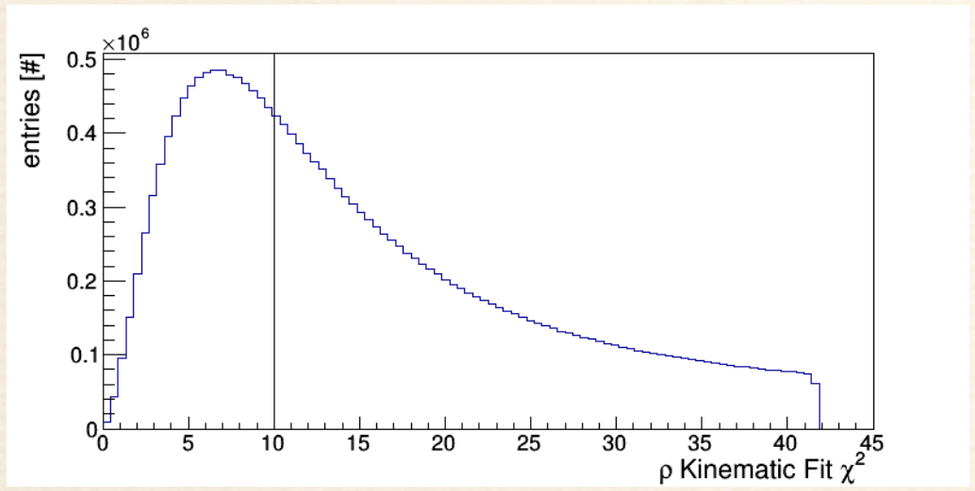


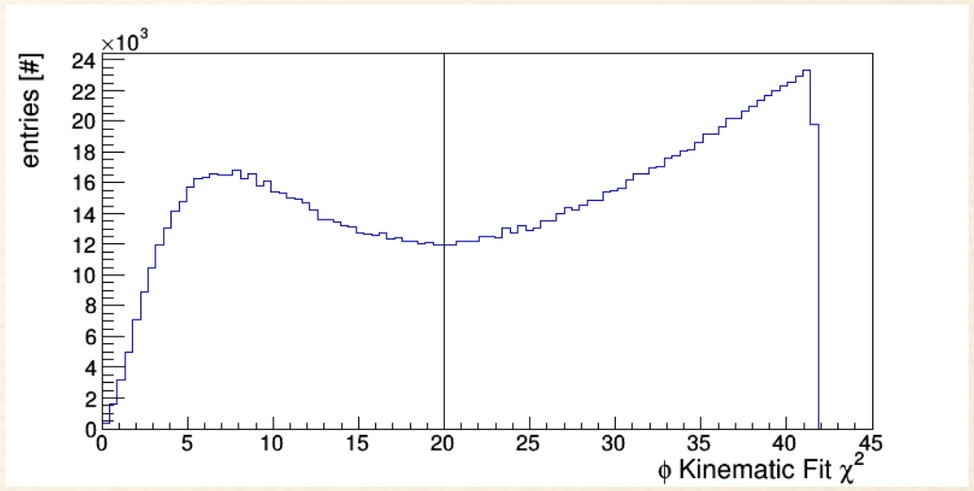
# Backup Slides

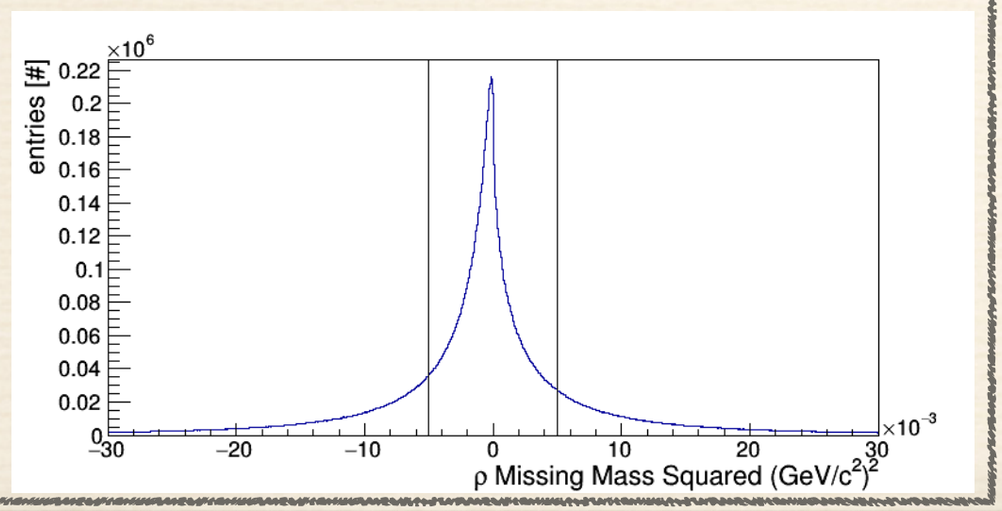
# Event Selection for Pi/K

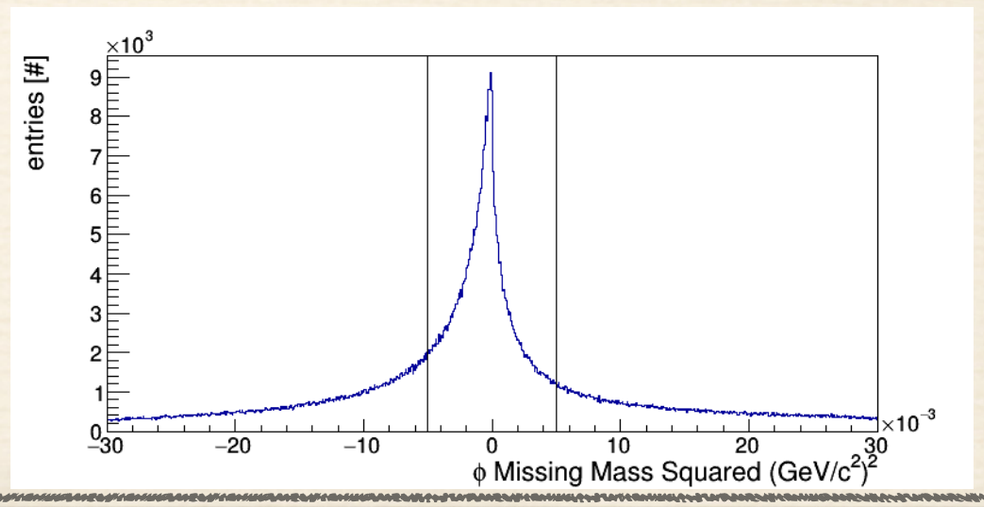


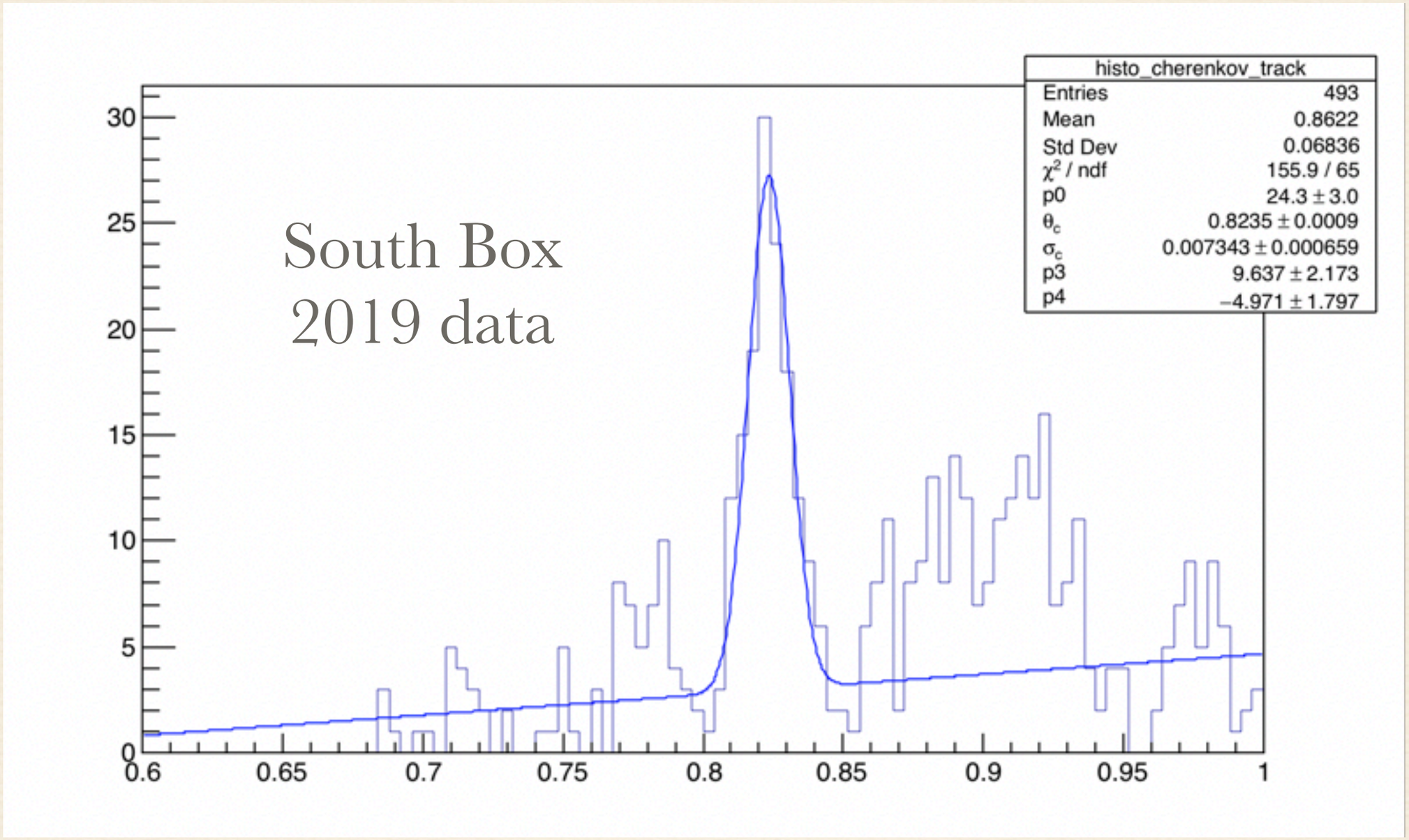



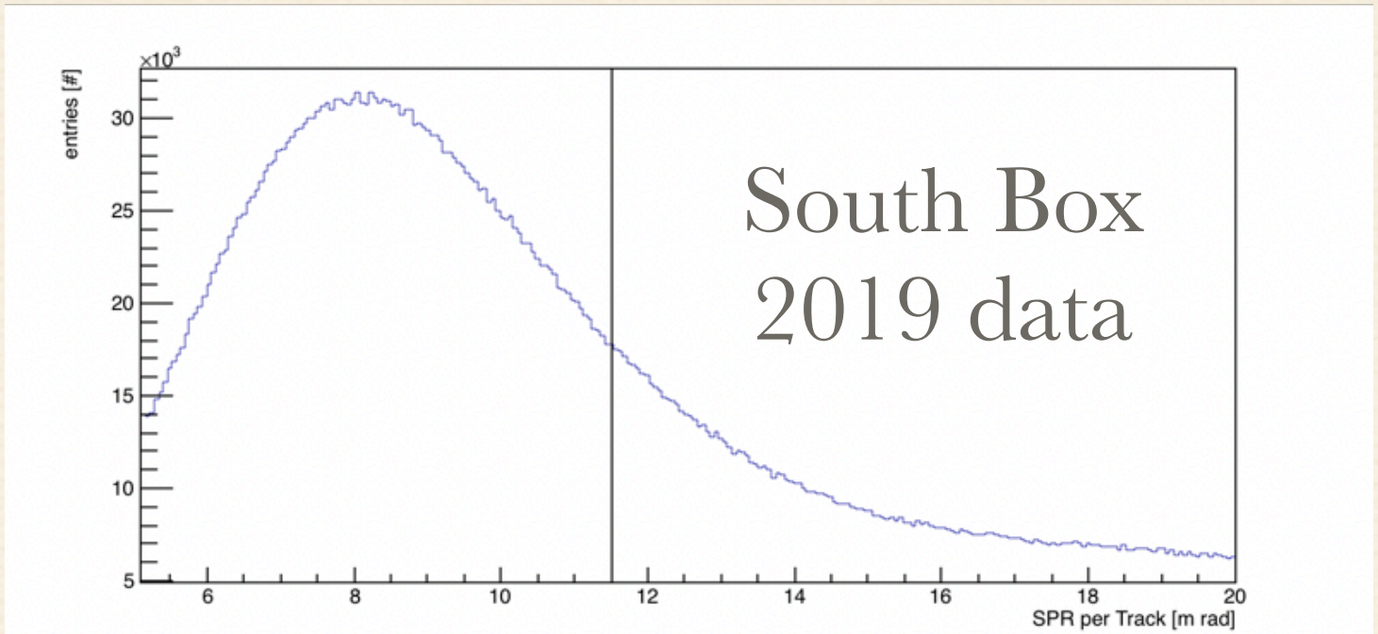



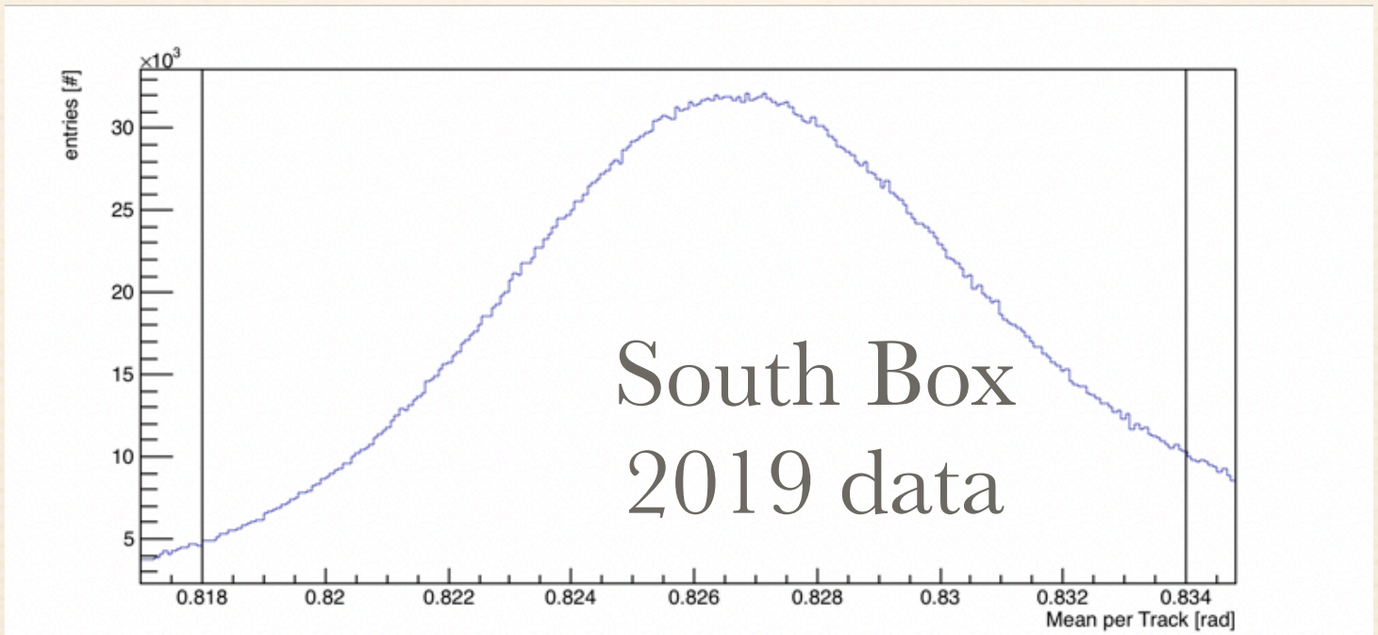



# Reconstruction per track example



# Track Reconstruction Criteria



# Example for difference plot