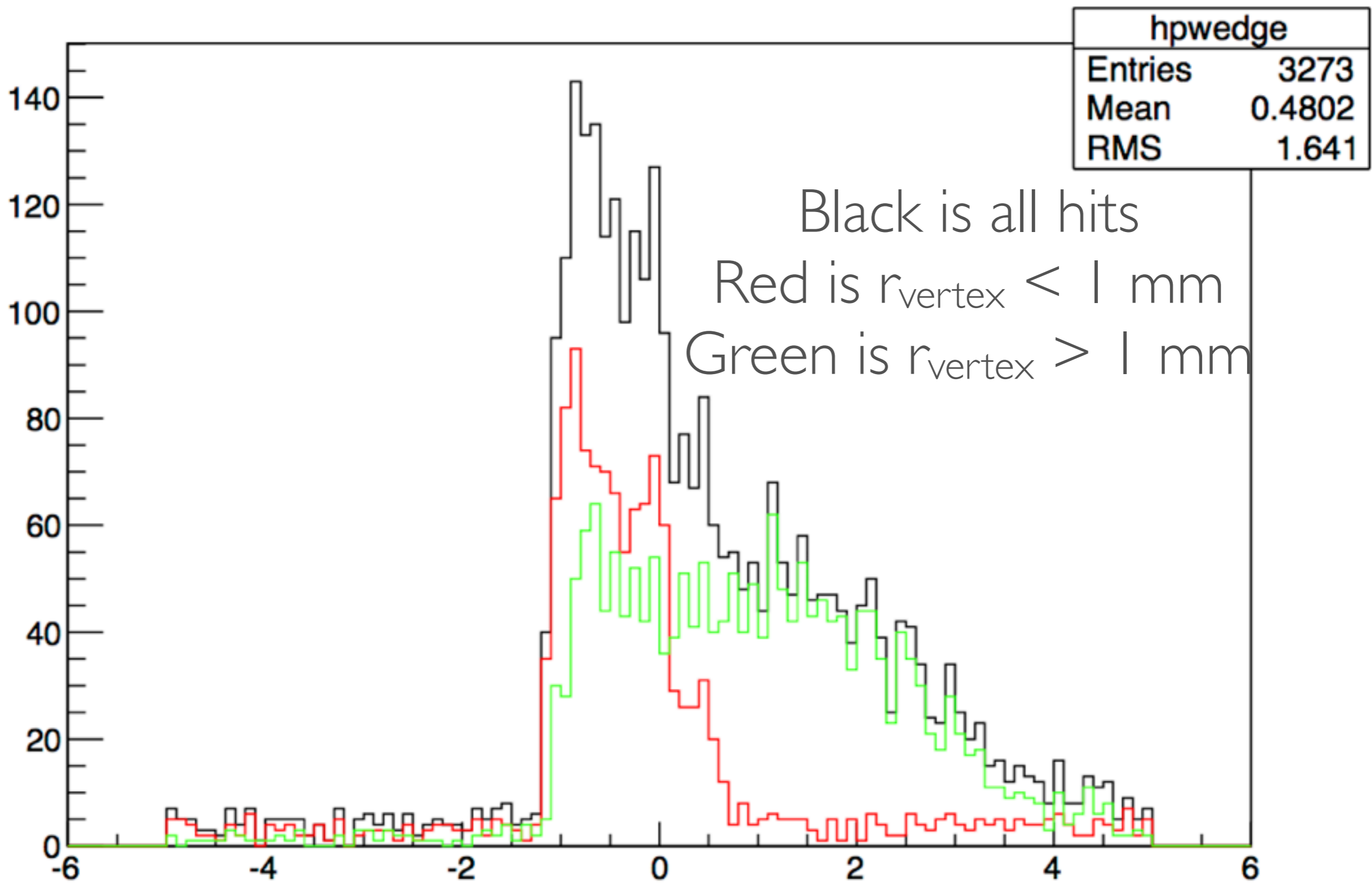


# BAFFLE ACCEPTANCES

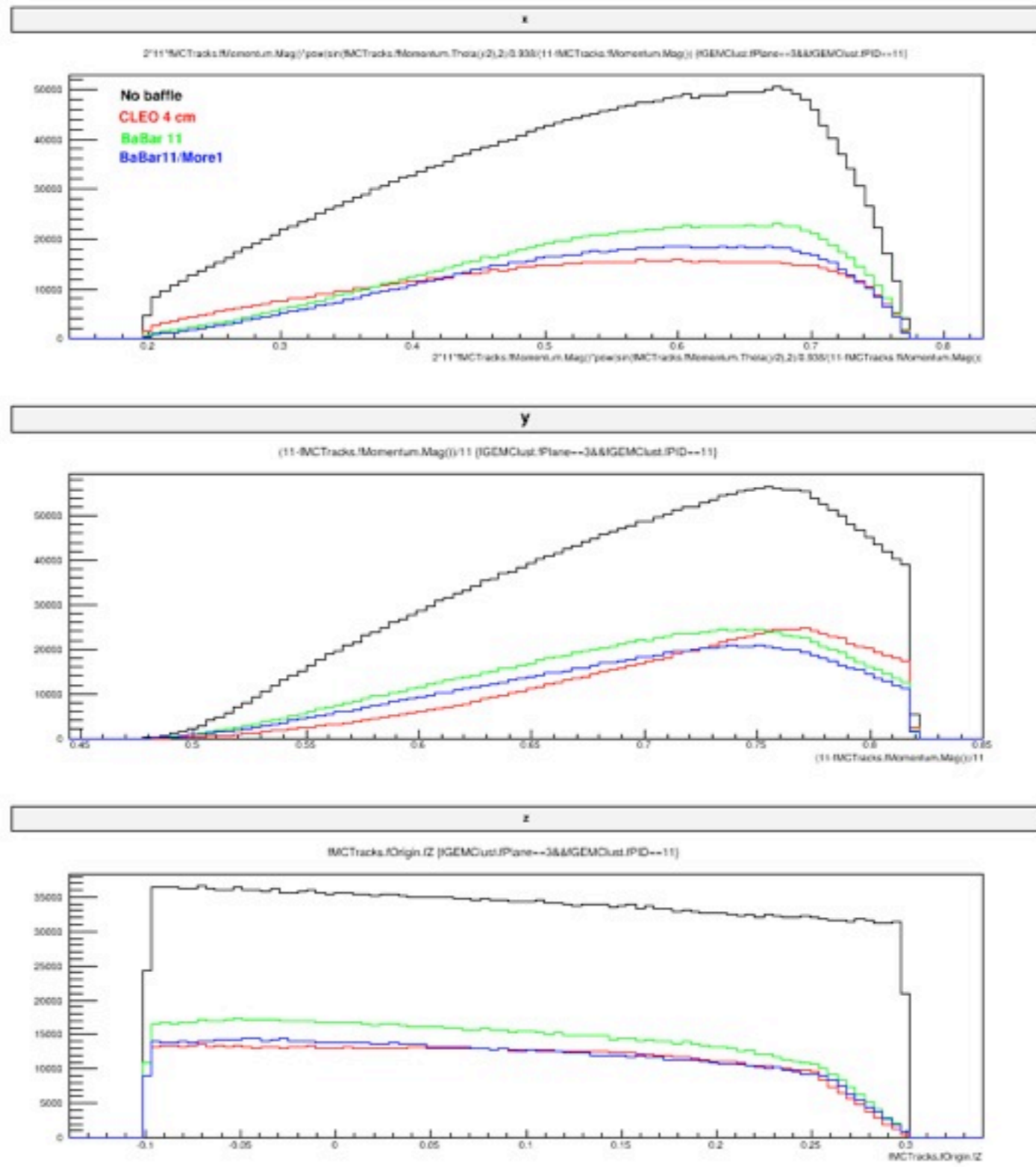
Rich Holmes  
Sep 24 2013 SoLID Meeting

- 5e6 electrons on target
- 5 cm CLEO kryptonite baffles, kryptonite beamline, GEMs
- Look at distribution of  $\phi_{\text{hit}}$  (relative to segment center). Why is it asymmetric? Look at hits from on/off beam center (no raster)



- 5e6 electrons generated with:  
Flat distribution in  $x$  from 0.2 to 0.8;  
 $p'$  from 2 to 6 GeV/c;  
 $z$  over target;  
 $\phi$  over  $2\pi$
- Kryptonite baffles and magnet, virtual last GEM, no other apparatus
- Look at distributions of  $x, y, z_{\text{vertex}}$  for: No baffles; 4 cm CLEO baffles; 11 layer BaBar style baffles; 11 layer BaBar with additional  $1^\circ$  blocked

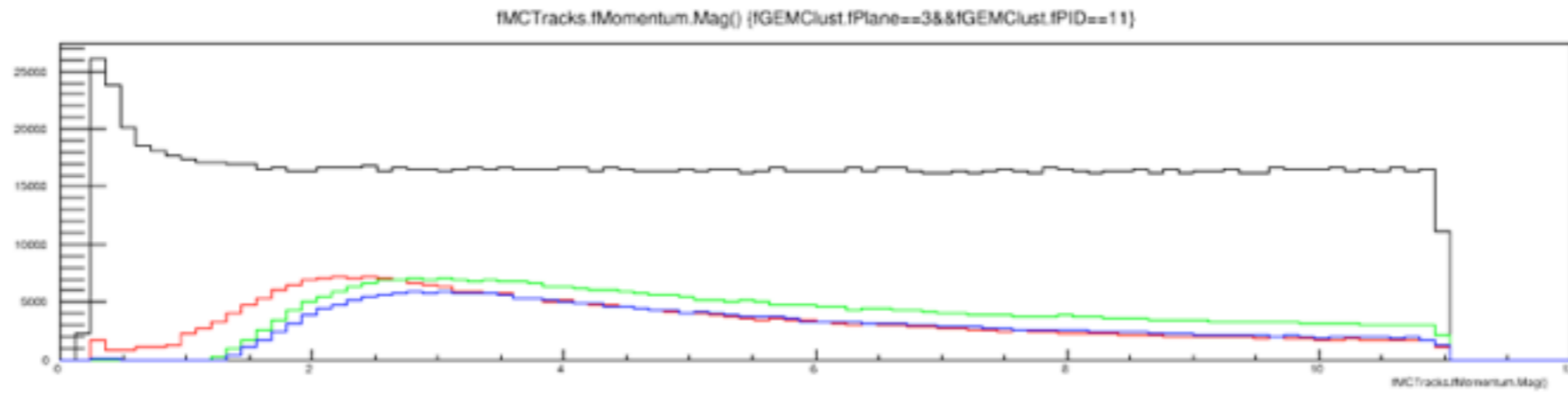
# Relative acceptances for electrons, GEM 4



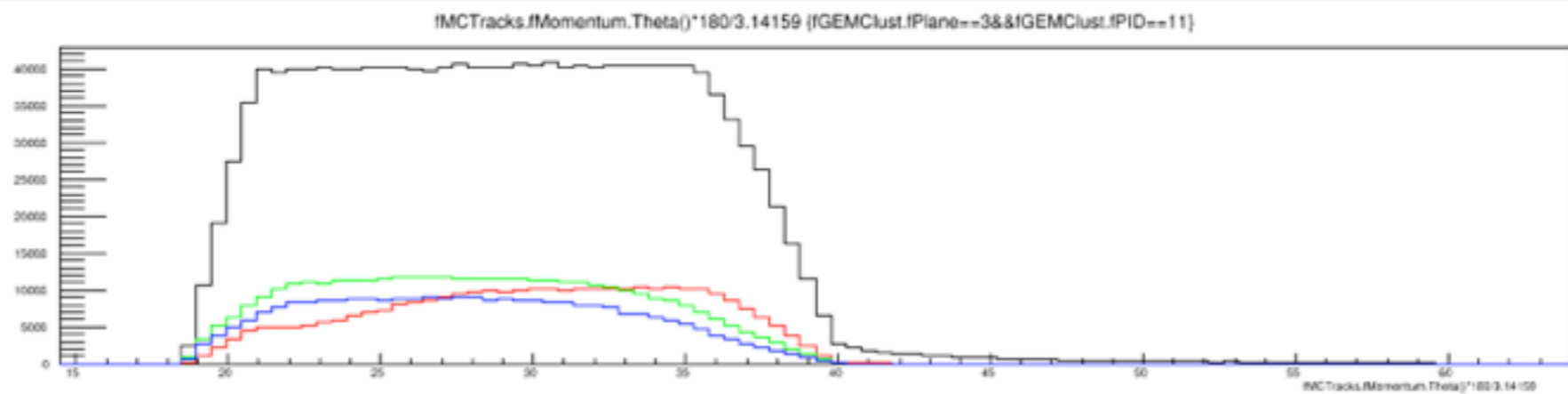
- 5e6 electrons generated with:  
Flat distribution in  $\theta$  from  $0^\circ$  to  $60^\circ$ ;  
 $p'$  from 0 to 11 GeV/c;  
 $z$  over target;  
 $\phi$  over  $2\pi$
- Kryptonite baffles and magnet, virtual last GEM, no other apparatus
- Look at distributions of  $p'$ ,  $\theta$ ,  $z_{\text{vertex}}$  for: No baffles; 4 cm CLEO baffles; 11 layer BaBar style baffles; 11 layer BaBar with additional  $1^\circ$  blocked

# Relative acceptances for electrons, GEM 4

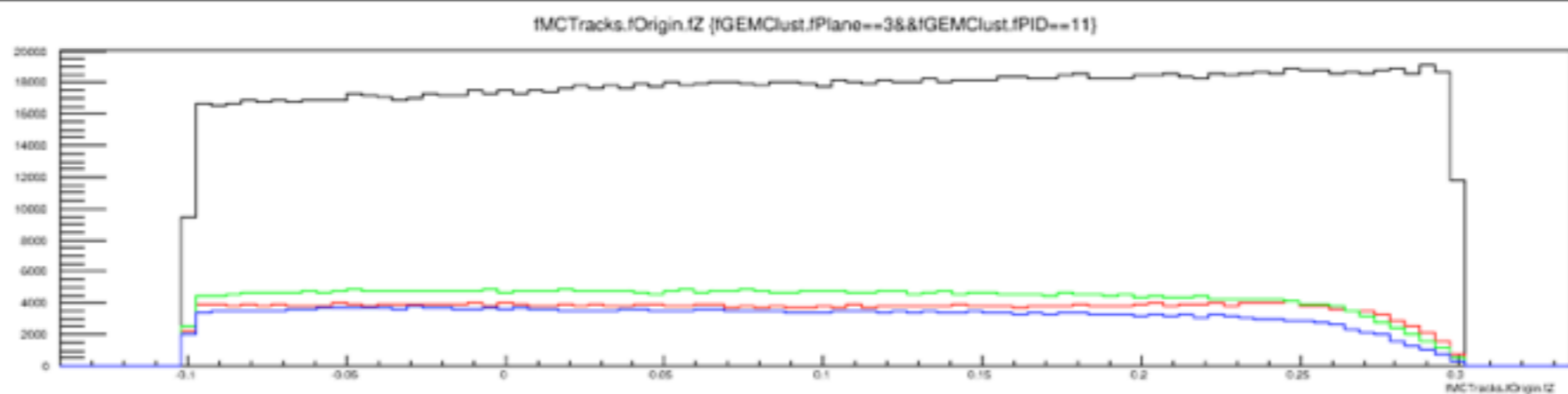
**p**



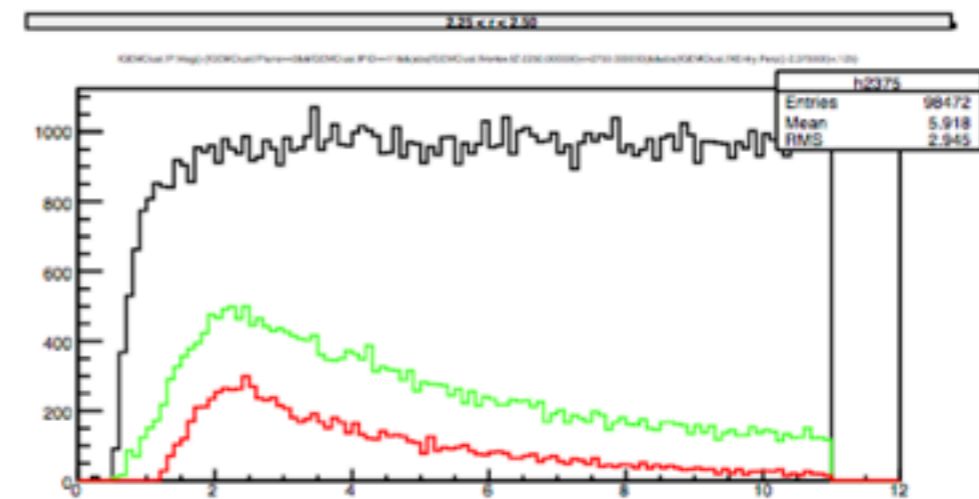
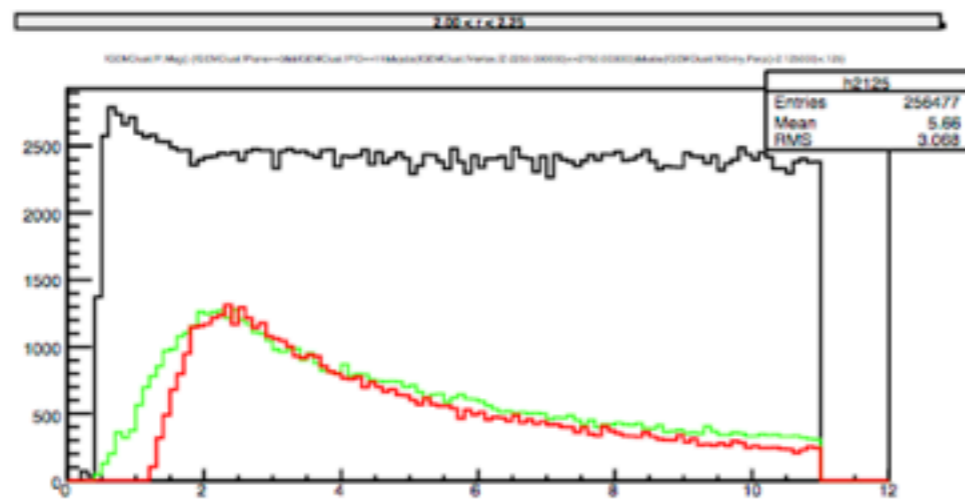
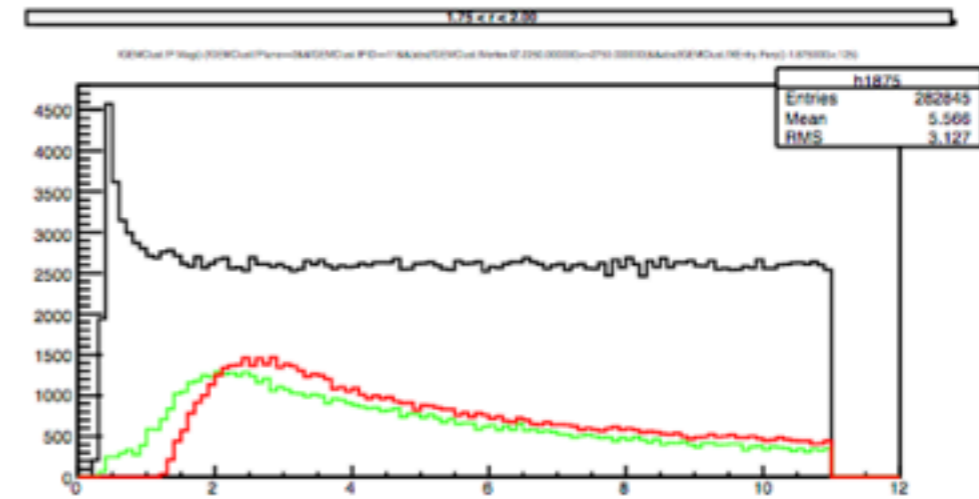
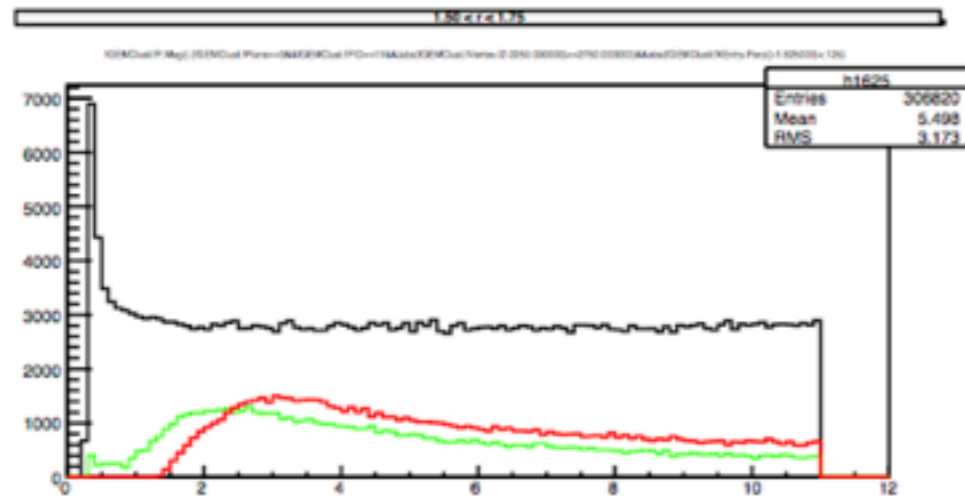
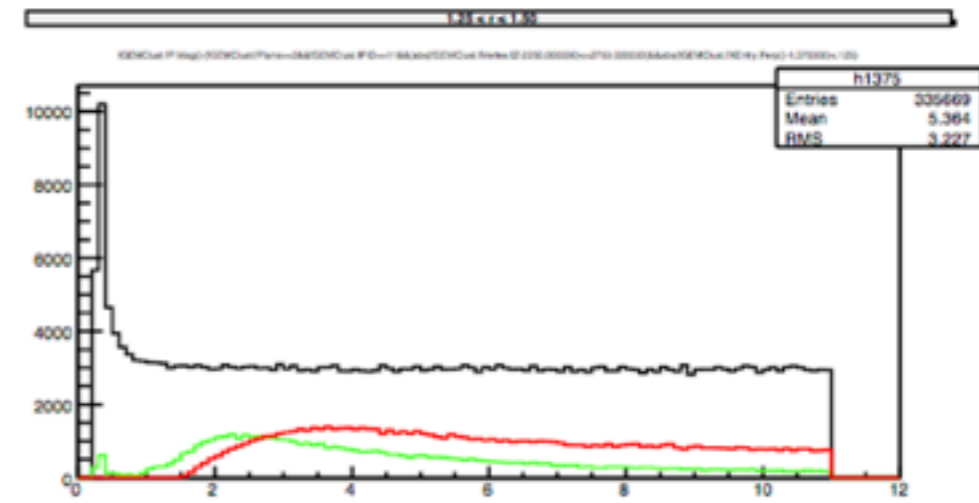
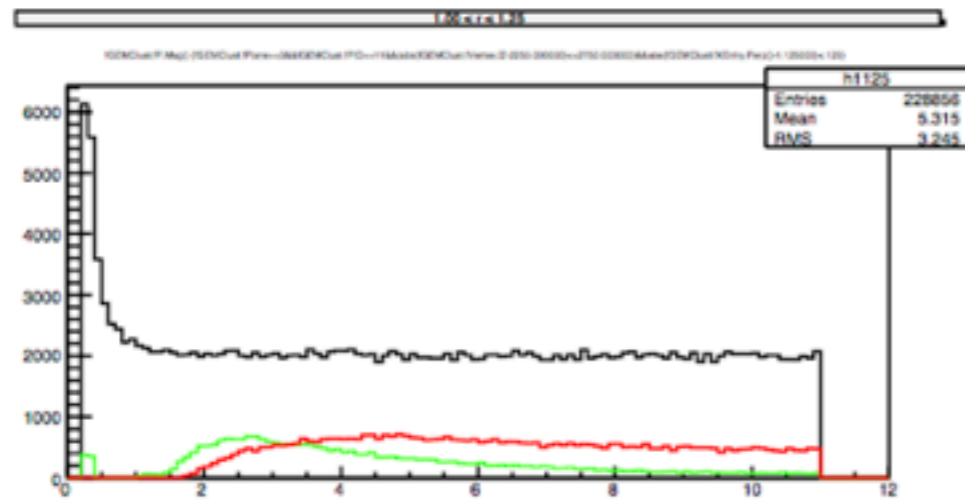
**theta**



**z**



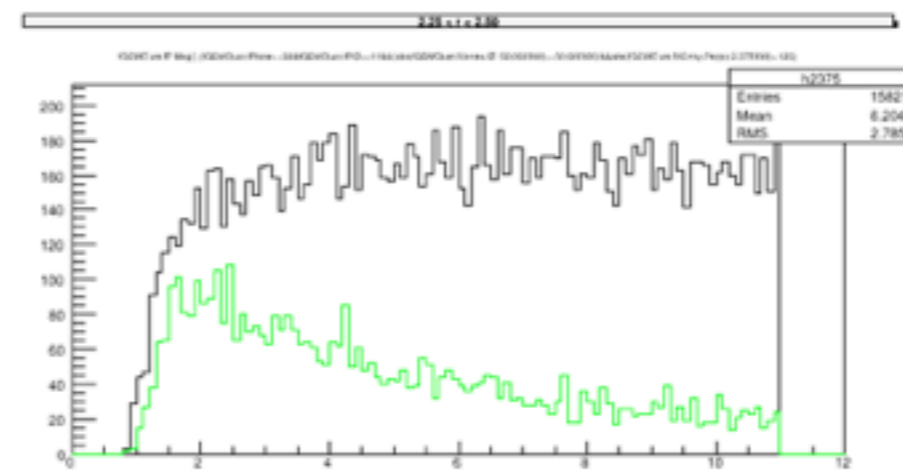
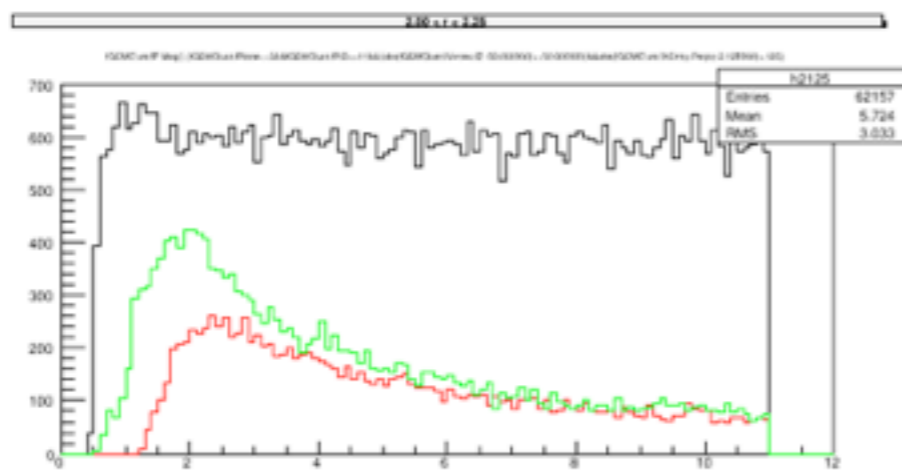
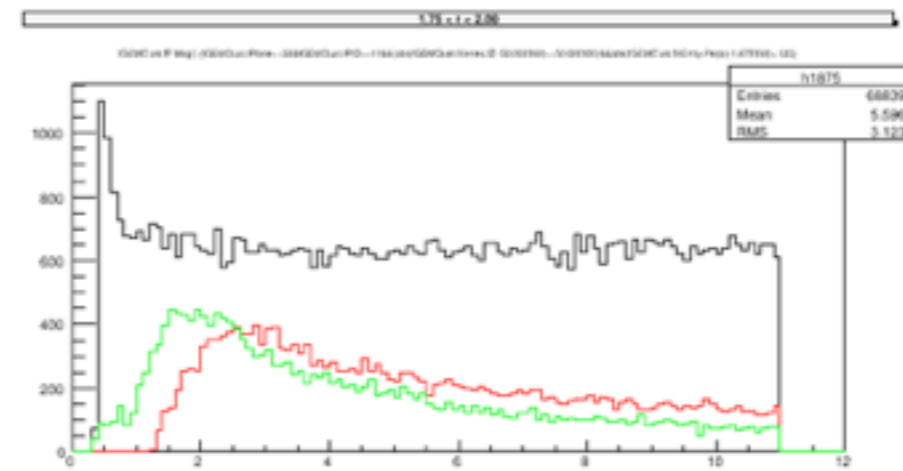
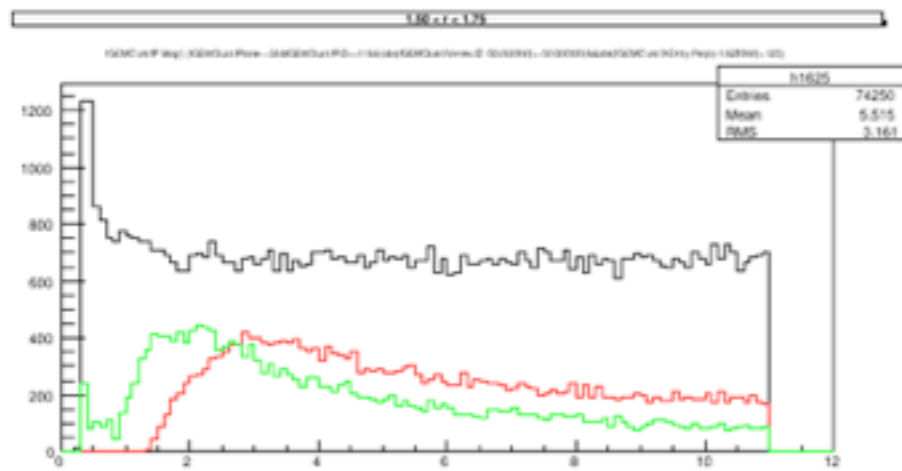
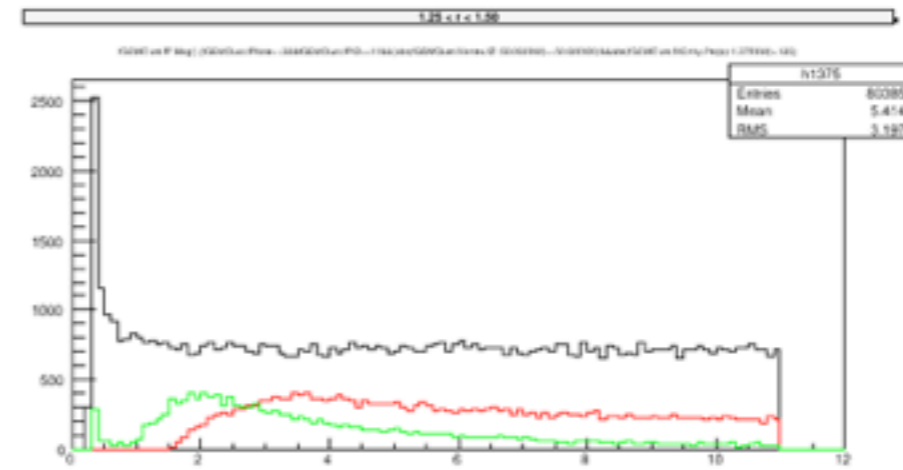
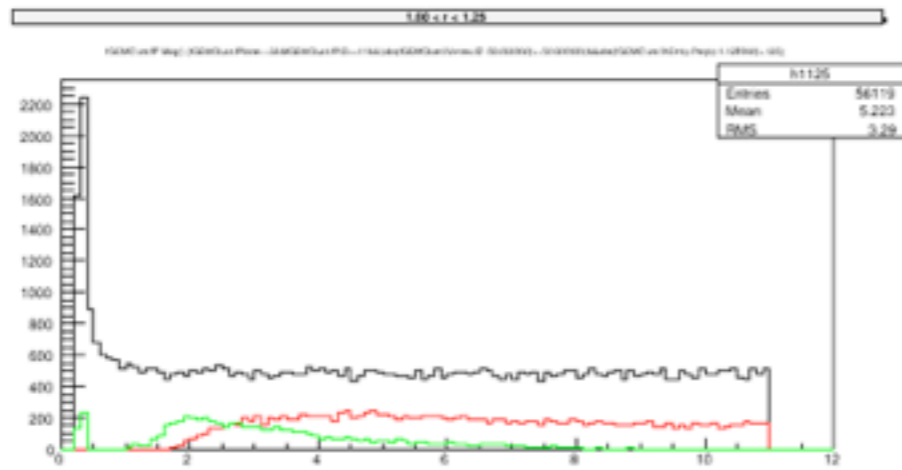
# Momentum acceptance for electrons, GEM 4



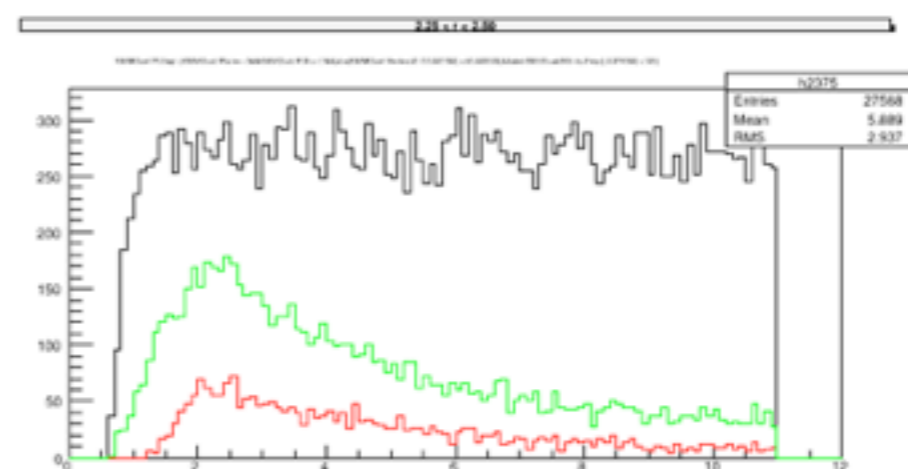
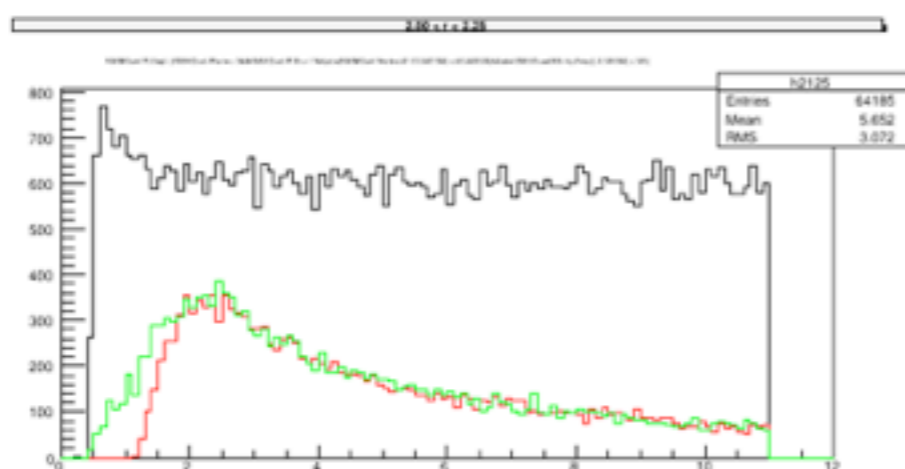
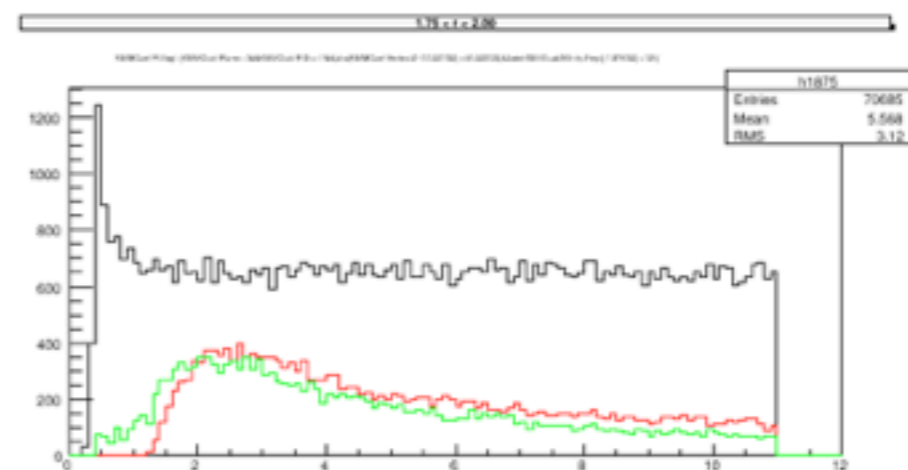
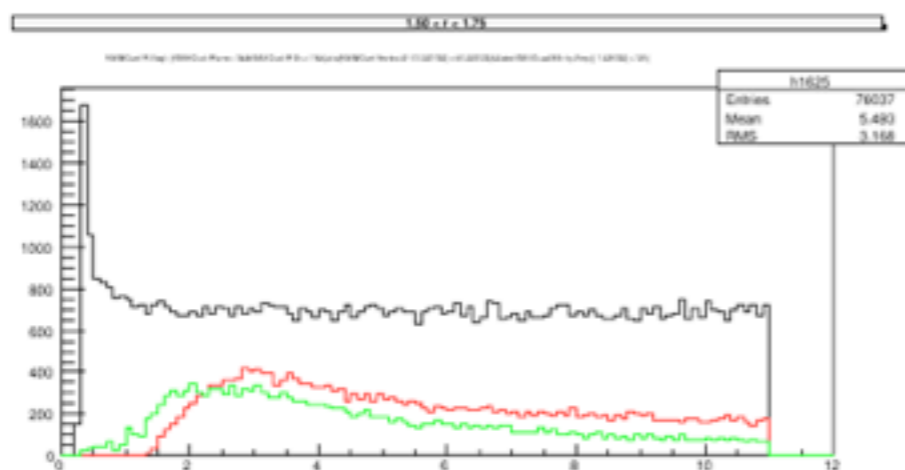
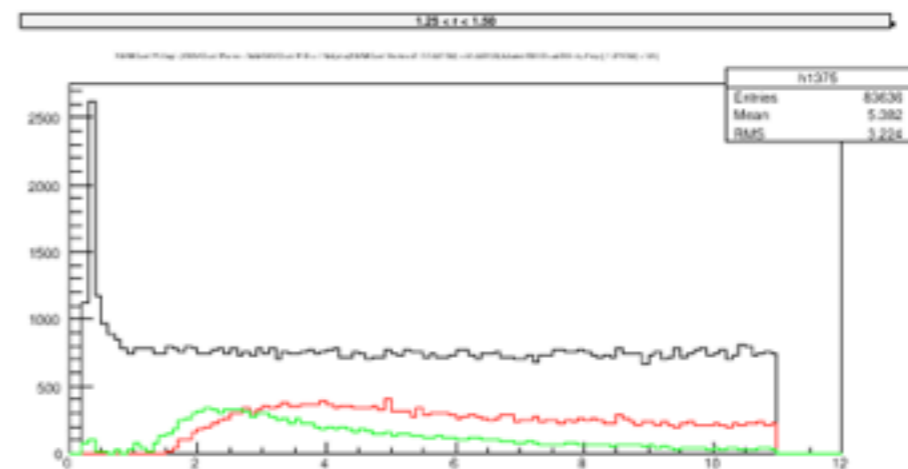
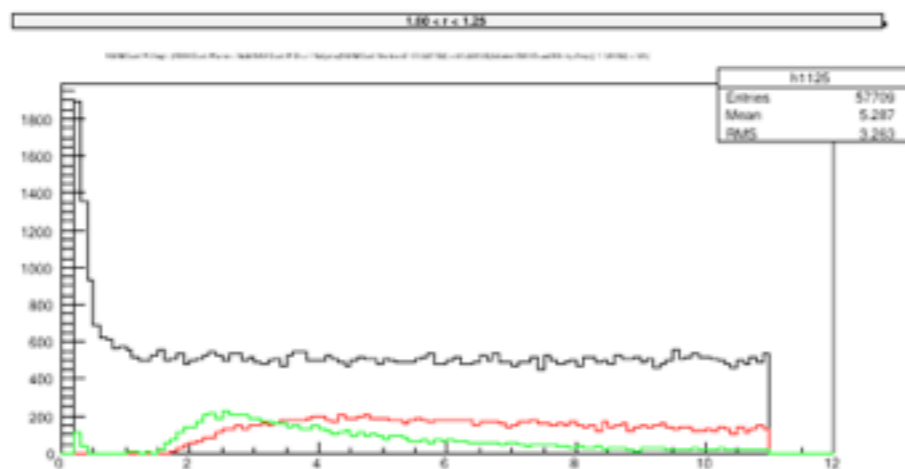
Here green is CLEO 4 cm, red is BaBar II



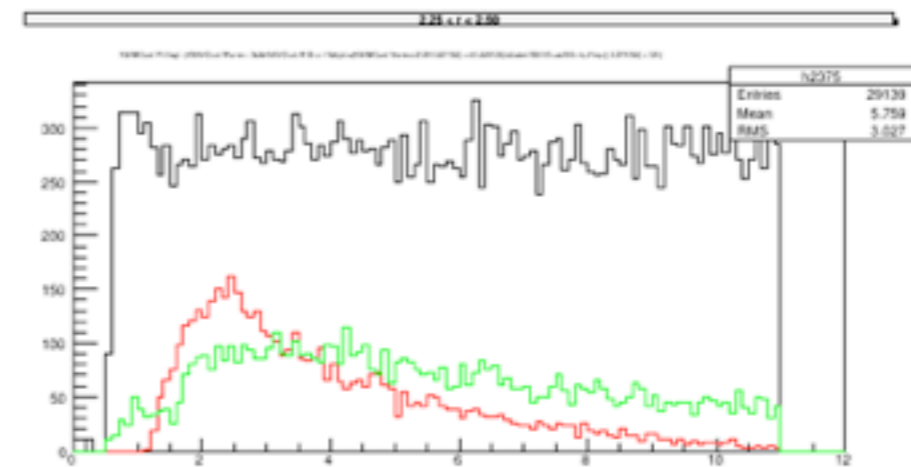
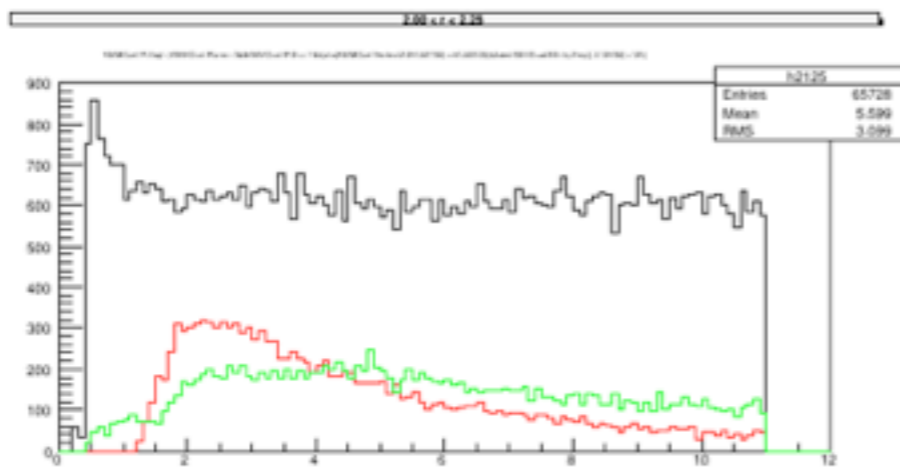
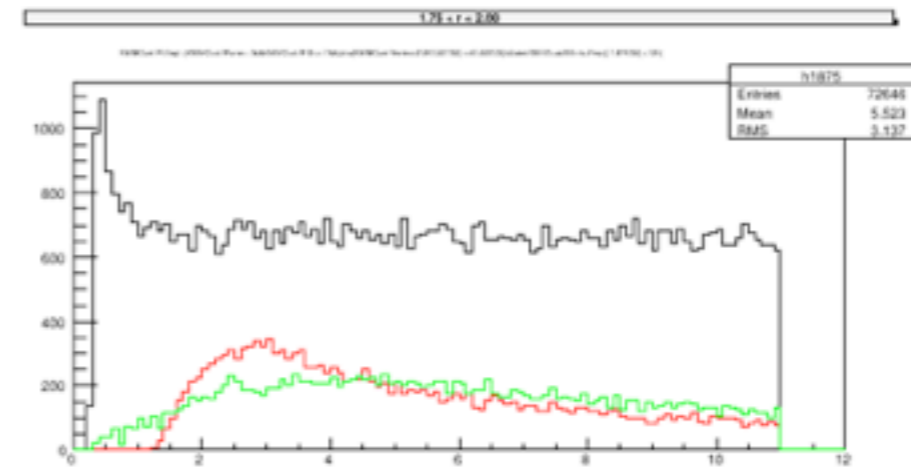
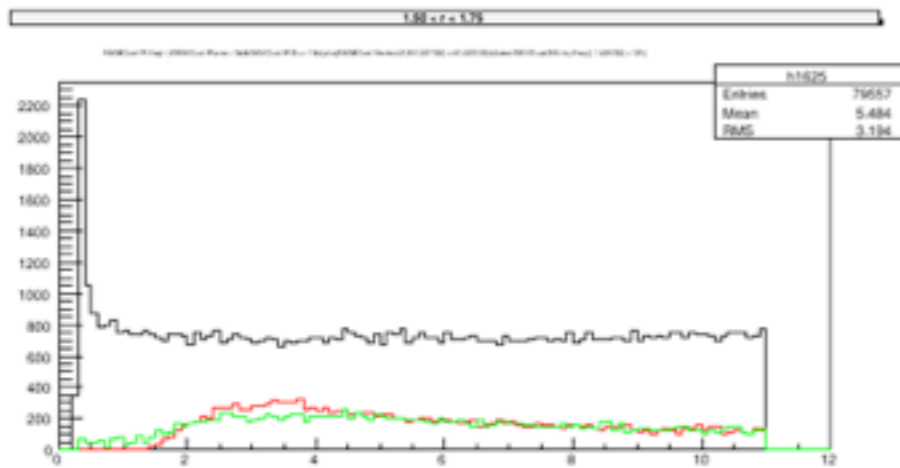
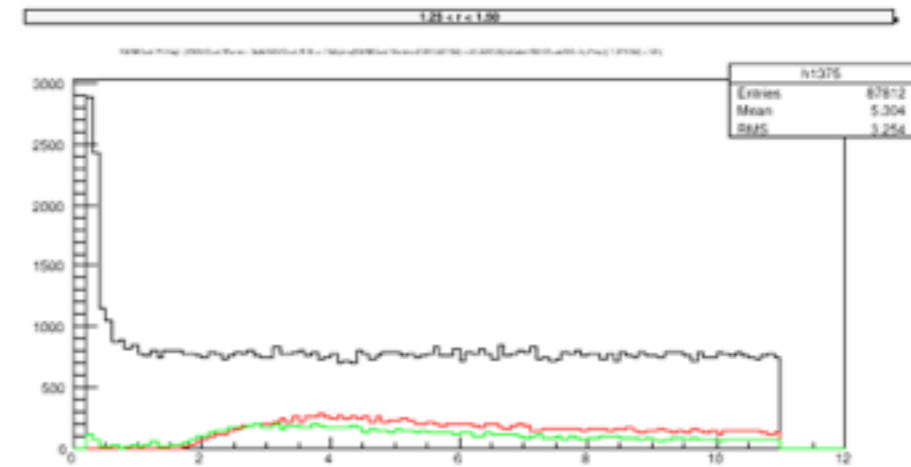
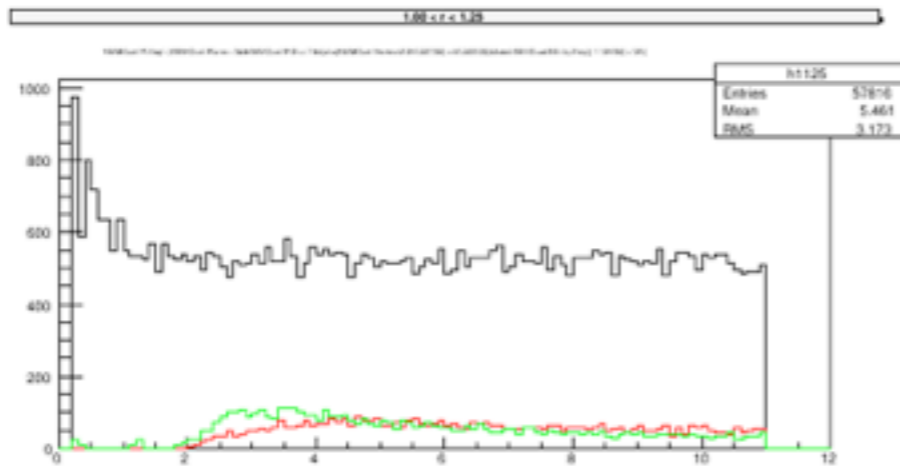
## Momentum acceptance for electrons, GEM 4 -100<z<0



## Momentum acceptance for electrons, GEM 4 $50 < z < 150$

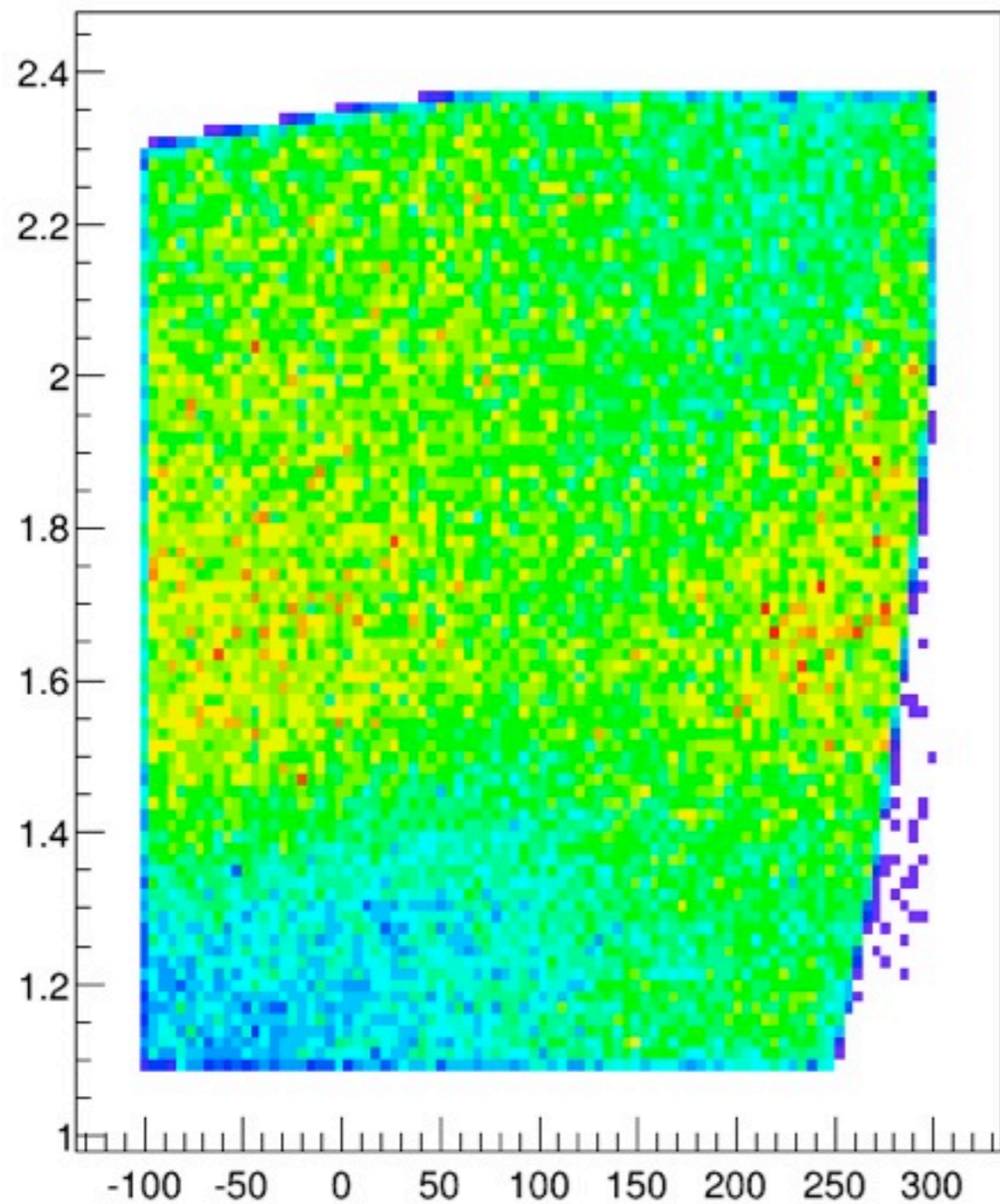


# Momentum acceptance for electrons, GEM 4 200<z<300



r\_hit vs z\_v 4cm CLEO

#GEMClust.FXEntry.Perp();#GEMClust.Vertex.Z (#GEMClust.Plane==3&&#GEMClust.PID==11)



r\_hit vs z\_v BaBar 11

#GEMClust.FXEntry.Perp();#GEMClust.Vertex.Z (#GEMClust.Plane==3&&#GEMClust.PID==11)

