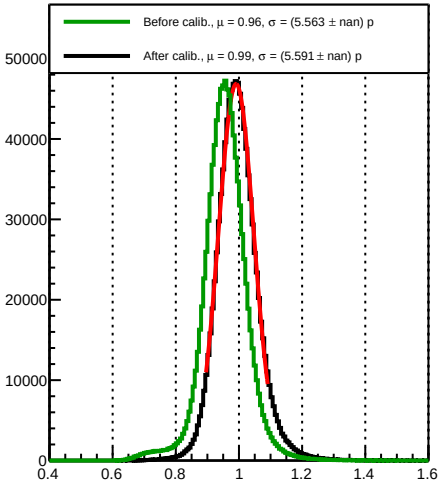
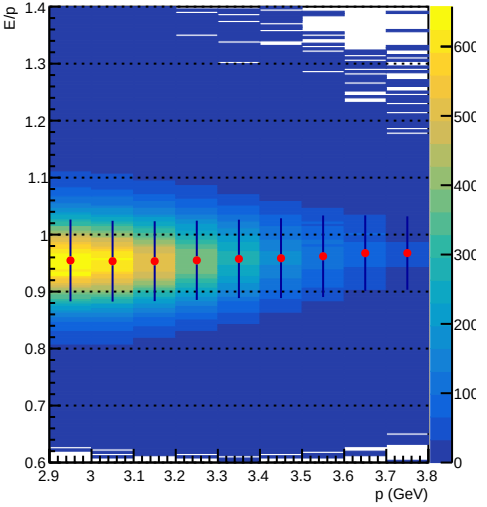
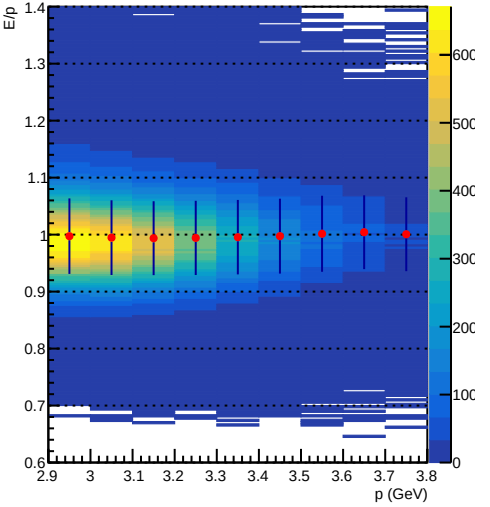
E/p



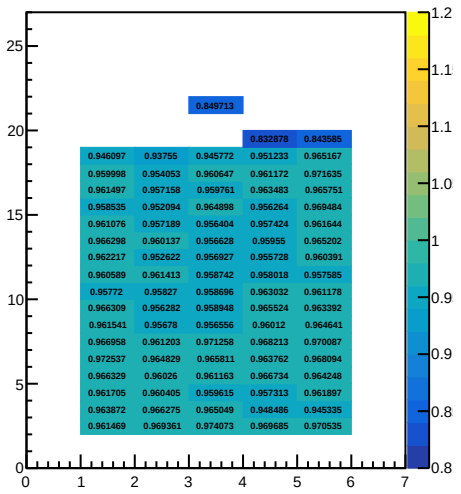
E/p vs p



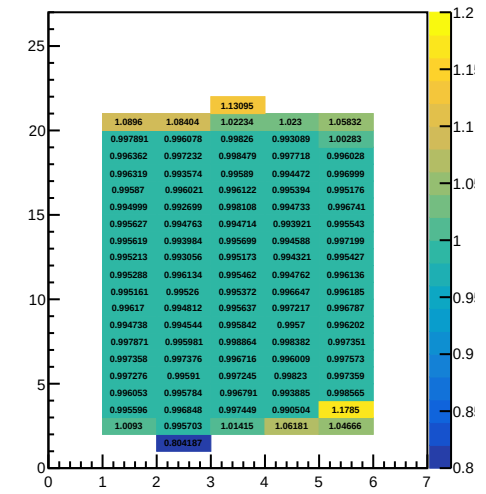
E/p vs p | After Calib.



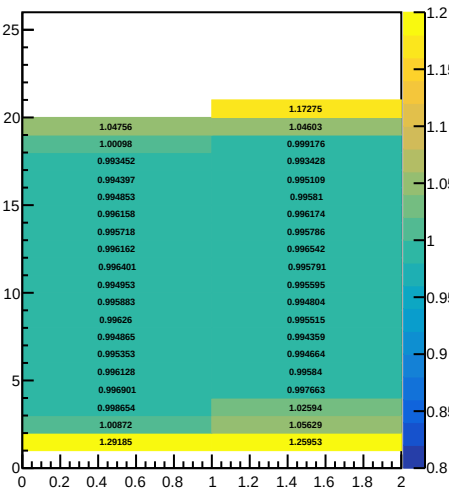
E/p per SH block



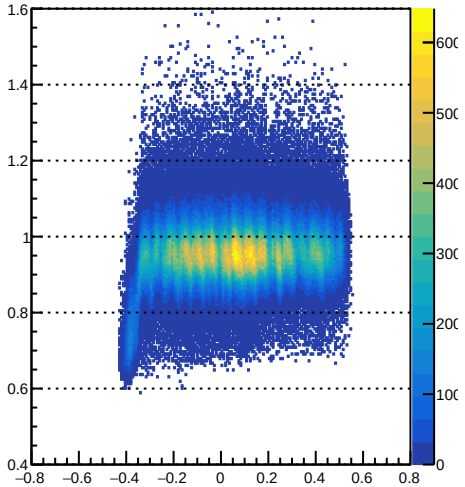
E/p per SH block | After Calib.



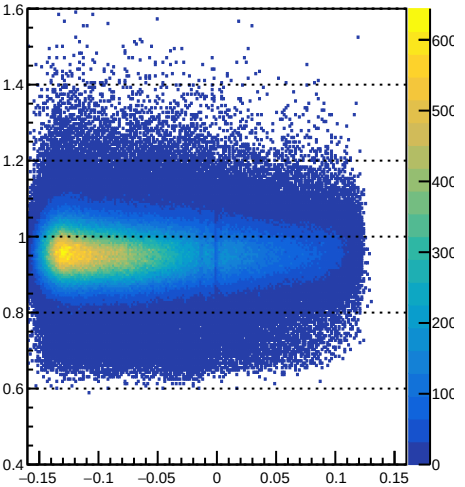
E/p per PS block | After Calib.



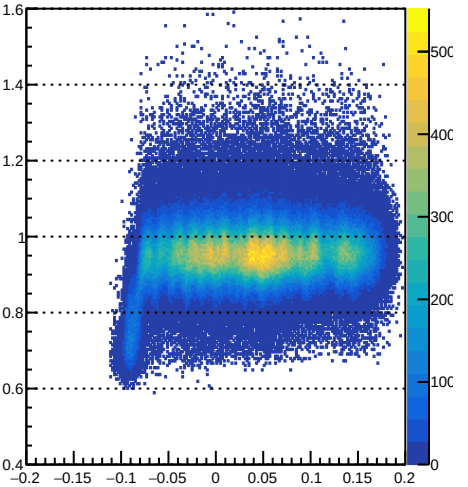
E/p vs Track x



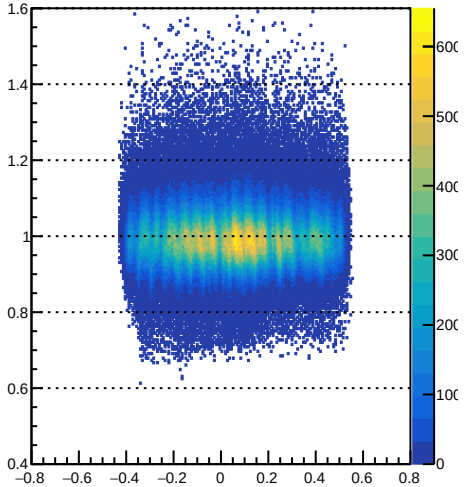
E/p vs Track y



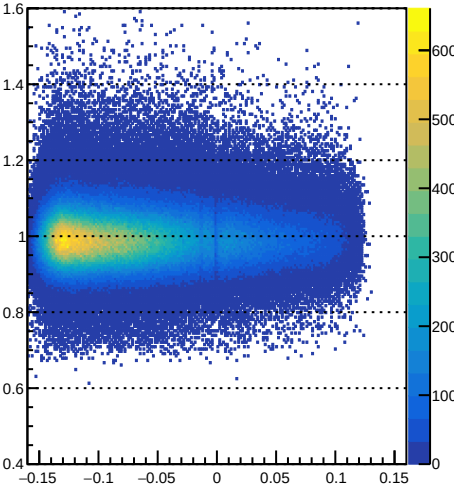
E/p vs Track theta



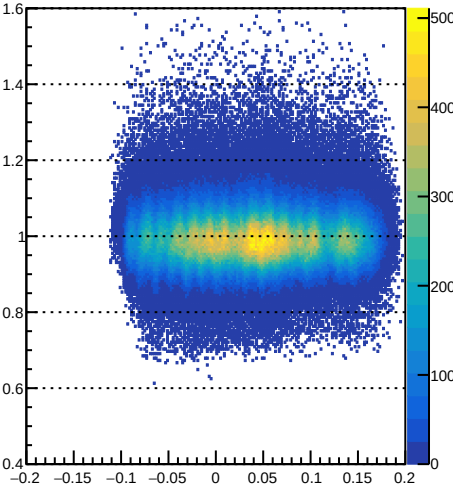
E/p vs Track x | After Calib.



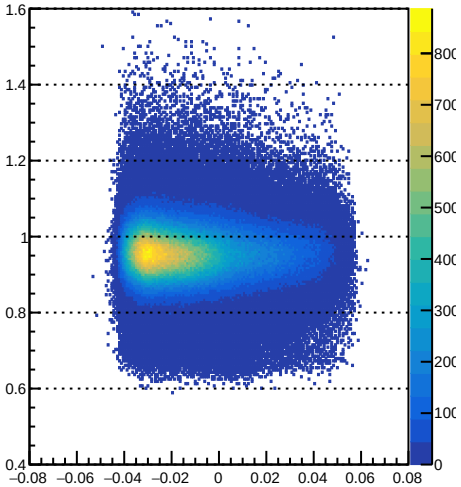
E/p vs Track y | After Calib.



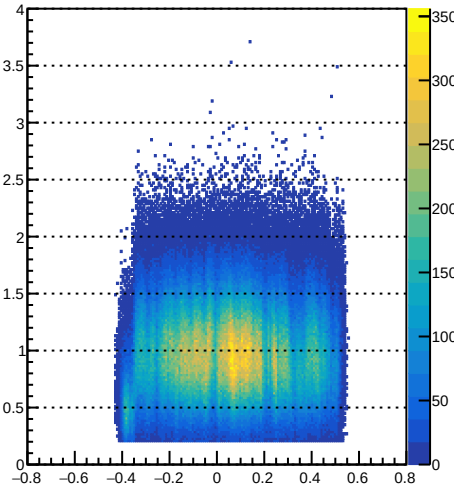
E/p vs Track theta | After Calib.



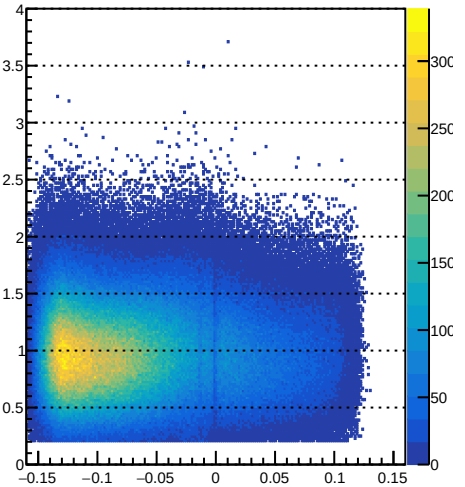
E/p vs Track phi



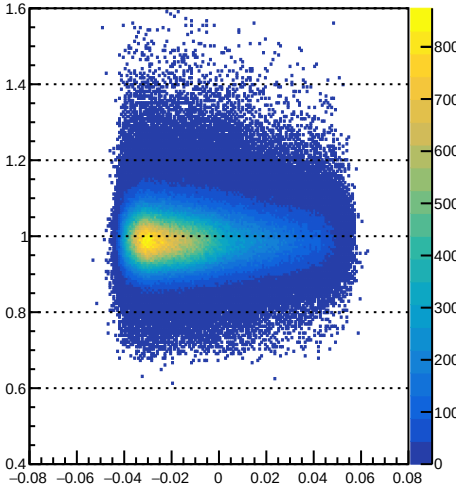
PS energy vs Track x



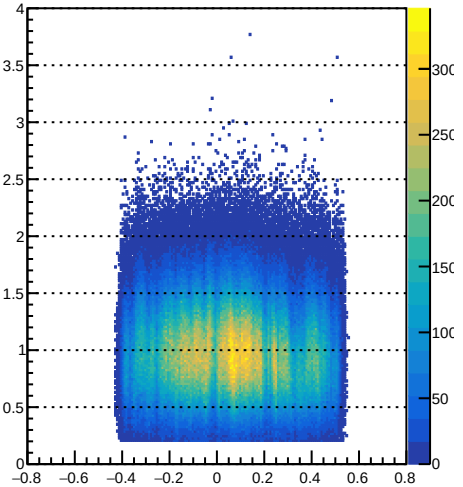
PS energy vs Track y



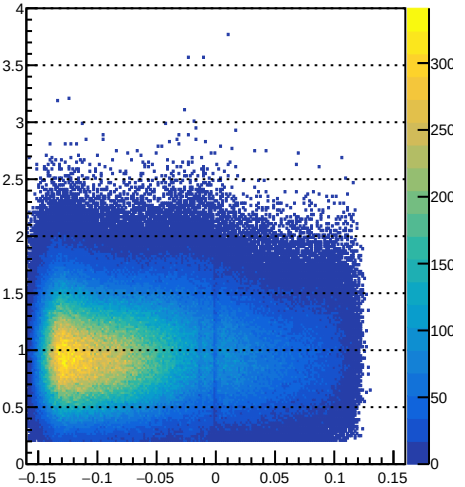
E/p vs Track phi | After Calib.

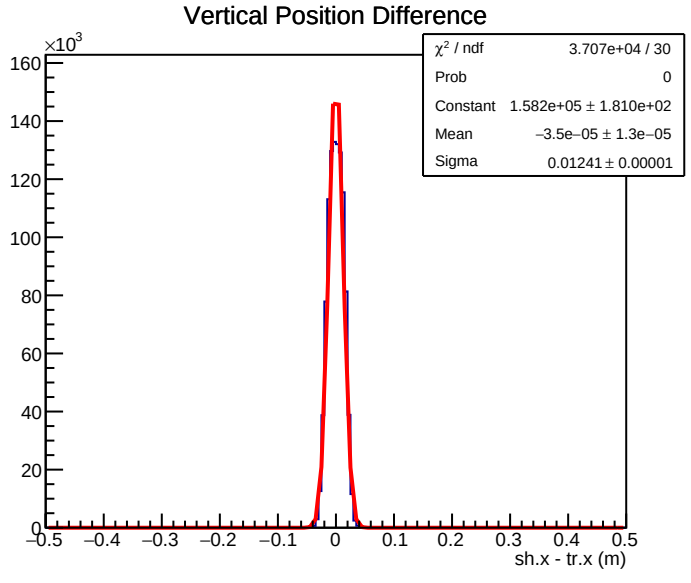


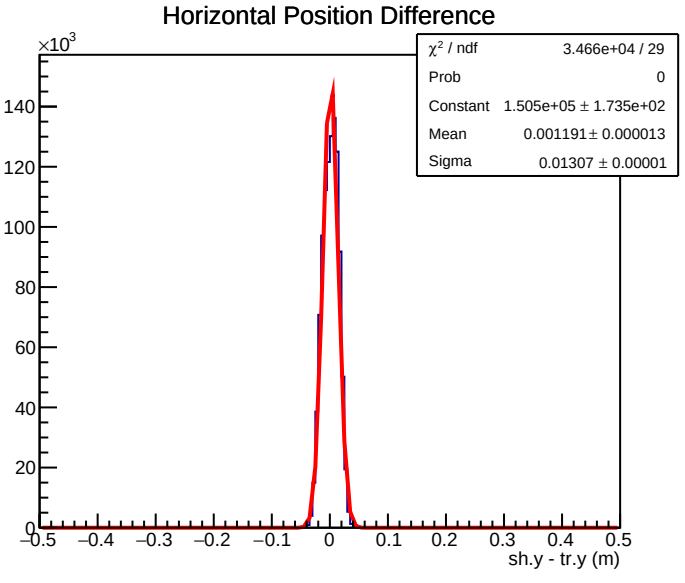
PS energy vs Track x | After Calib.

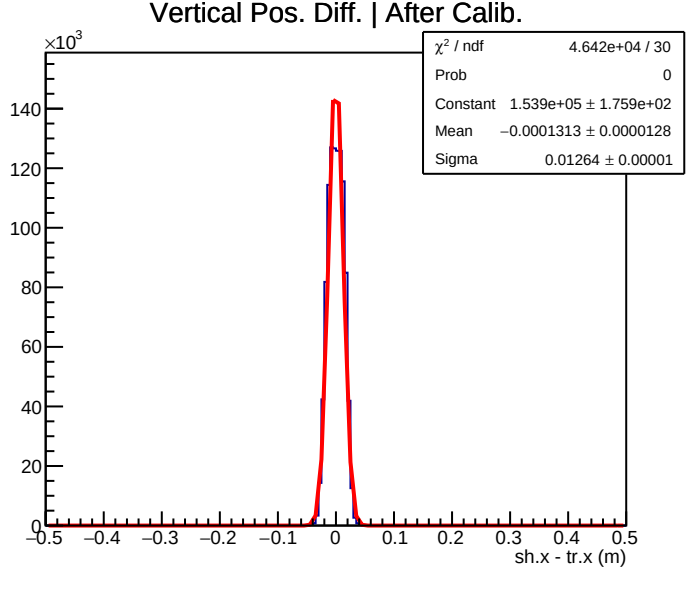


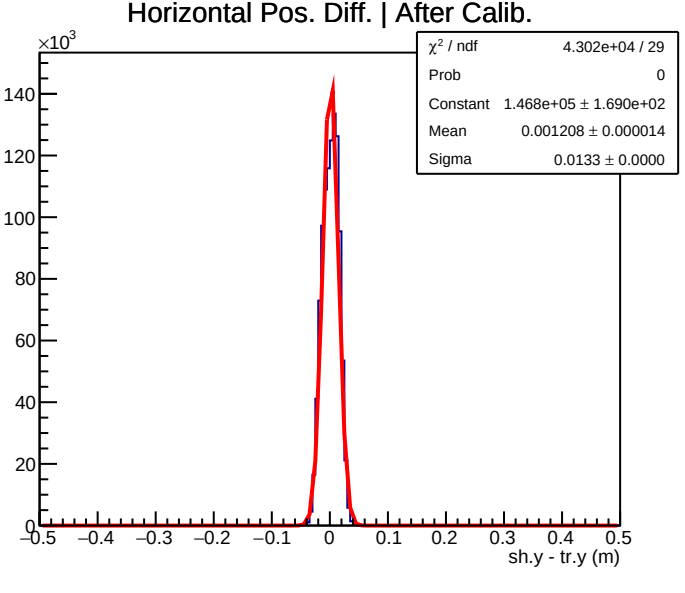
PS energy vs Track y | After Calib.



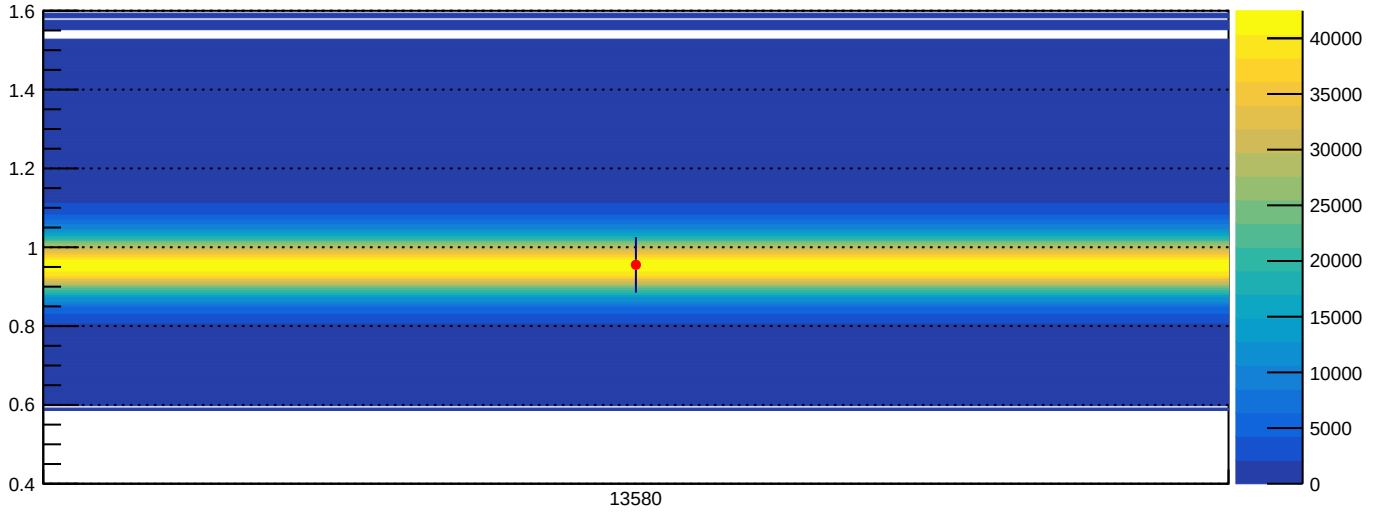

Vertical Position Difference
×10^3
χ² / ndf 3.707e+04 / 30
Prob 0
Constant 1.582e+05 ± 1.810e+02
Mean −3.5e−05 ± 1.3e−05
Sigma 0.01241 ± 0.00001
sh.x - tr.x (m)


Horizontal Position Difference
×10^3
χ² / ndf 3.466e+04 / 29
Prob 0
Constant 1.505e+05 ± 1.735e+02
Mean 0.001191 ± 0.000013
Sigma 0.01307 ± 0.00001
sh.y - tr.y (m)

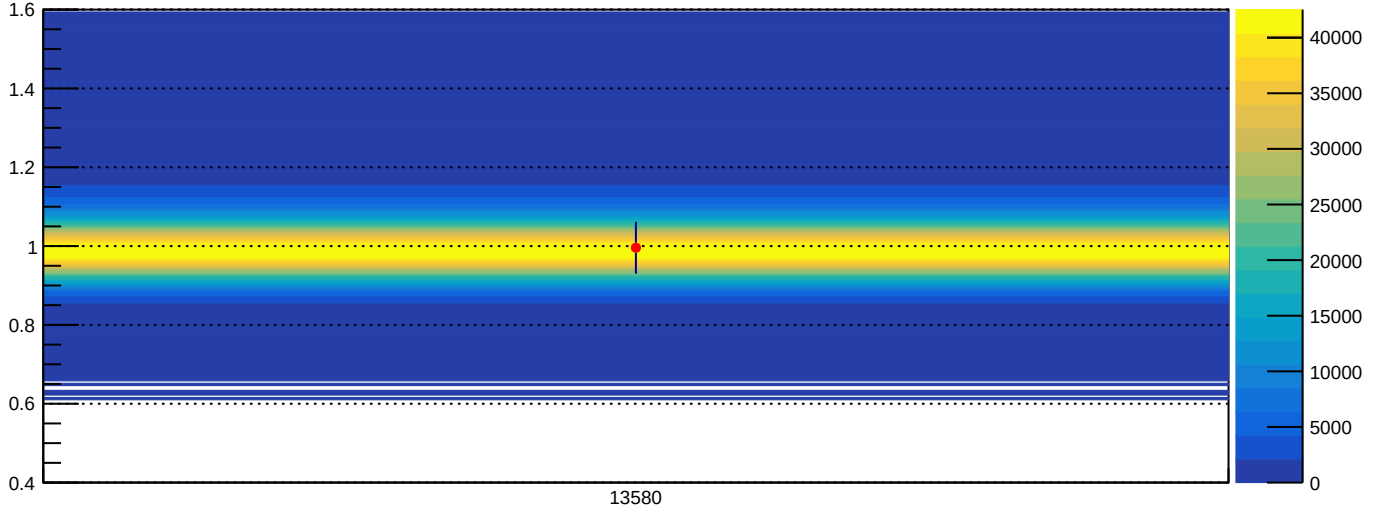

Vertical Pos. Diff. | After Calib.
×10^3
χ² / ndf 4.642e+04 / 30
Prob 0
Constant 1.539e+05 ± 1.759e+02
Mean −0.0001313 ± 0.0000128
Sigma 0.01264 ± 0.00001
sh.x - tr.x (m)


Horizontal Pos. Diff. | After Calib.
×10^3
χ² / ndf 4.302e+04 / 29
Prob 0
Constant 1.468e+05 ± 1.690e+02
Mean 0.001208 ± 0.000014
Sigma 0.0133 ± 0.0000
sh.y - tr.y (m)

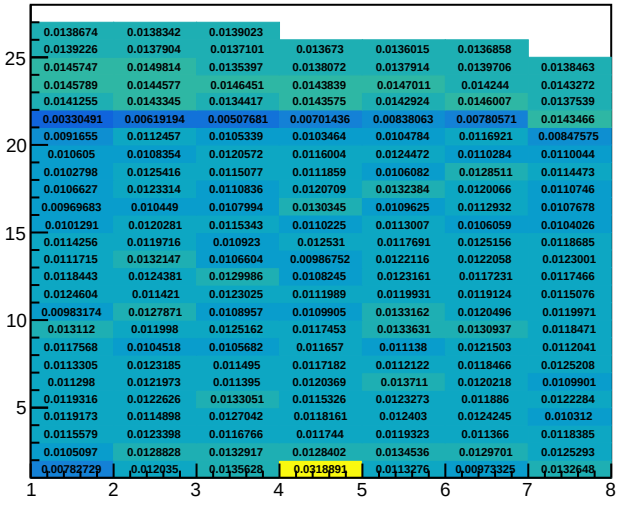
E/p vs Run no.



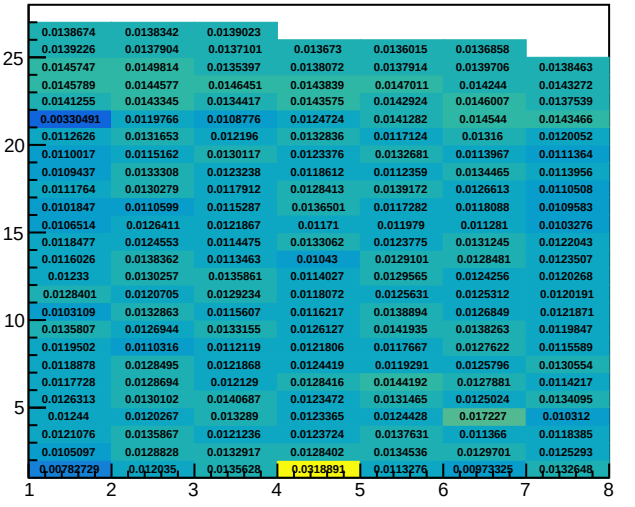
E/p vs Run no. | After Calib.



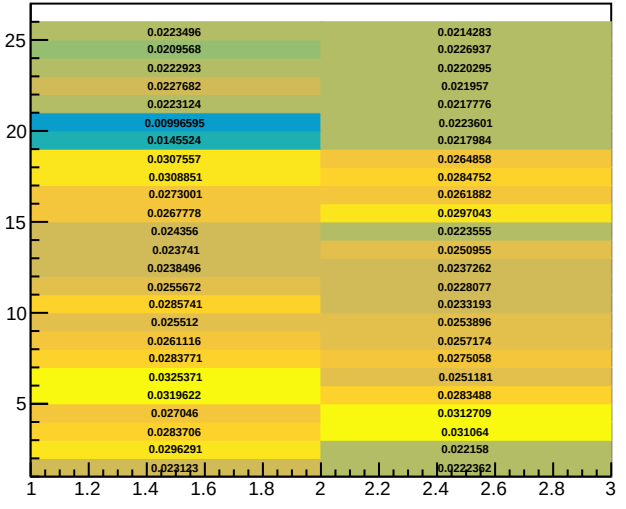
Old ADC Gain Coefficients | SH



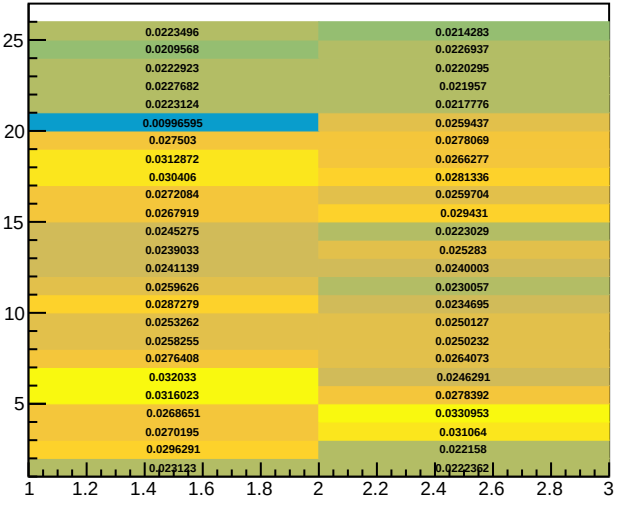
New ADC Gain Coefficients | SH



Old ADC Gain Coefficients | PS



New ADC Gain Coefficients | PS



Date of creation: 8/16/2023

Configfile: BBCal_replay/macros/Combined_macros/cfg/sbs8-sbs50p.cfg

Total # events analyzed: 3676896, Preparing for replay pass: 2

E/p (before calib.) | μ = 0.96, σ = (5.563 $\pm$ nan) p

E/p (after calib.) | μ = 0.99, σ = (5.591 $\pm$ nan) p

Global cuts:

bb.tr.n==1, abs(bb.tr.vz[0])<0.08, bb.gem.track.nhits>3,

abs(bb.tr.r_x[0]-0.9*bb.tr.r_th[0]+0.035)<0.345,

PS cluster energy > 0.2 GeV

p_recon > 2.9 GeV/c

 # events passed global cuts: 1390087

Other cuts:

Minimum # events per block: 1000, (Cluster) hit threshold: 0.02 GeV

Various offsets:

Momentum fudge factor: 1.00, BBCAL cluster energy scale factor: 1.00

Momentum calibration factors: A = 0.291513950, B = 1.036900100, C = 0.0, θ_{pitch}^{GEM} = 10.0^{o}, d_{BB} = 1.9747 m

Macro processing time: CPU 625.5s | Real 642.1s