MARATHON Offline Data Quality Check_Pass1

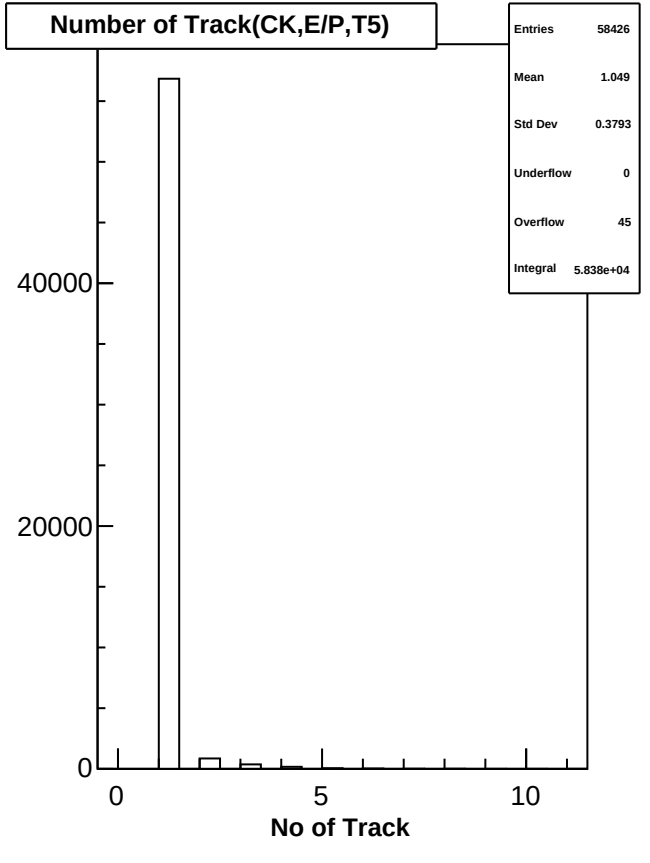
Target Type :H3

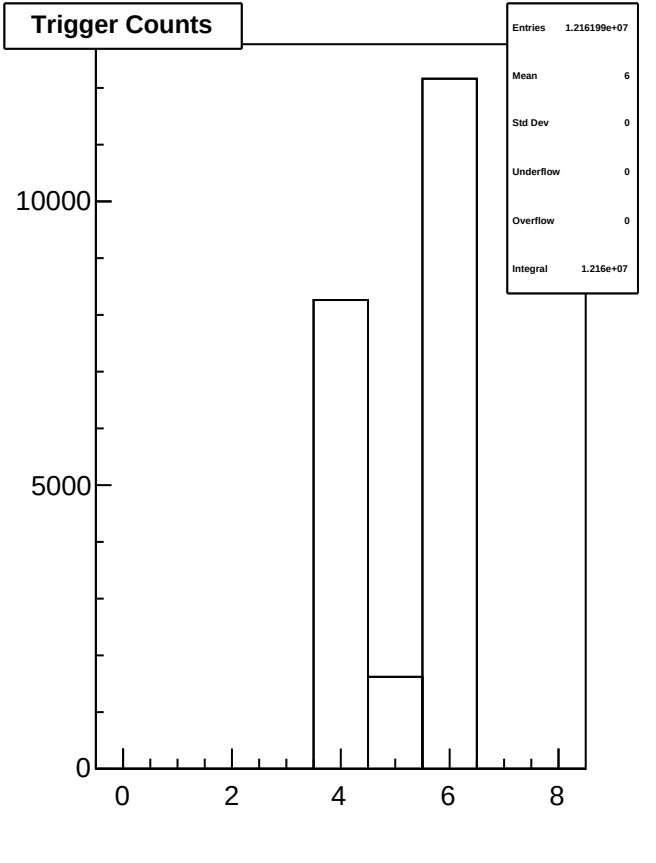
Kinematic Setting x=0.82

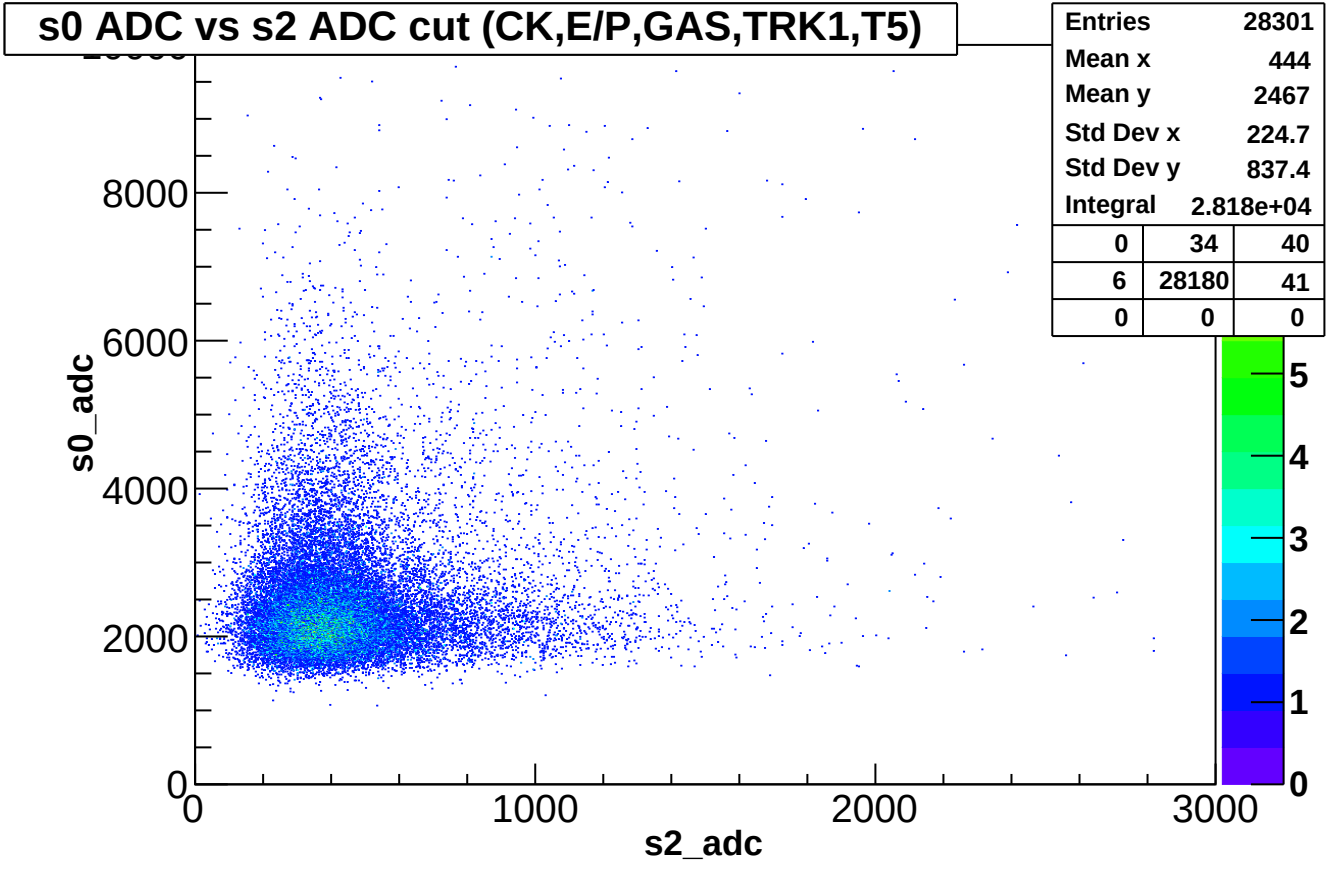
Kinematic Setting HRS angle=36.12

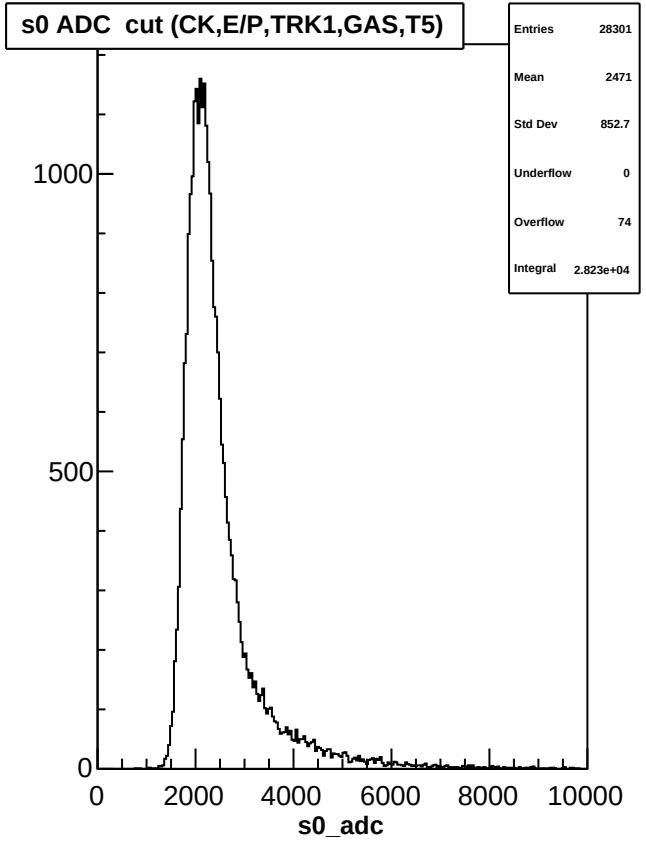
Run List Contain:

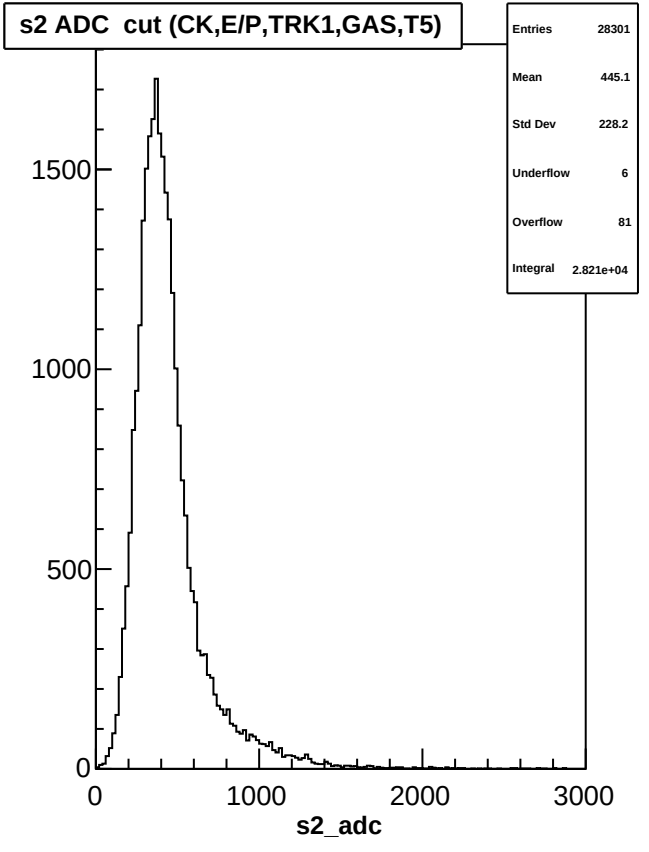
90884 90885 90886 90902 90903 90904 90907 90908 90909 90910 90922 90923
90924 90925 90926 90929 90950 90951 90952 90953 90968 90983 90984 90985
90986 91004 91005 91006 91007 91015 91017 91018 91019 91020 91021 91034
91035 91036 91037 91059 91060 91062 91074 91075 91076 91077 91078 91085
91086 91087 91088 91101 91103 91104 91105 91120 91121 91124 91127 91128
91129 91130 91131 91163 91164 91180 91181 91182 91183 91184 91185 91222
91223 91224 91225 91226 91235 91236 91237 91238 91248 91249 91250 91251
91266 91267 91268 91269 91270 91277 91278 91279 91290 91291 91292 91293
91304 91305 91306 91307 91319 91320 91321 91322 91323 91355 91356 91357
91358 91359 91367 91368 91369 91370 91381 91382 91383 91384 91385 91395
91396 91397 91399 91413 91414 91415 91416 91417 91418 91246 91427 91428
91429 91438 91439 91440 91441 91440 91451 91452 91476 91477 91478 91479
91488 91489 91490 91491 91492 91500 91501 91502 91503 91504 91515 91516
91517 91518 91527 91531 91532 91533 91534 91535 91550 91551 91552 91554
91555 91556 91562 91563 91564 91565 91571 91572 91573 91574 91575 91576
91577 91678 91679 91680 91681 91682 91691 91692 91693 91694 91734 91735
91736 91737 91739 91740 91741 91743 91742 91744 91745 91747 91748 91749
91750 91751 91789 91795 91805 91806 91816 91817 91818 91823 91824 91825
91834 91835 91848 91849 91850 91873 91874 91875 91876 91877 91878

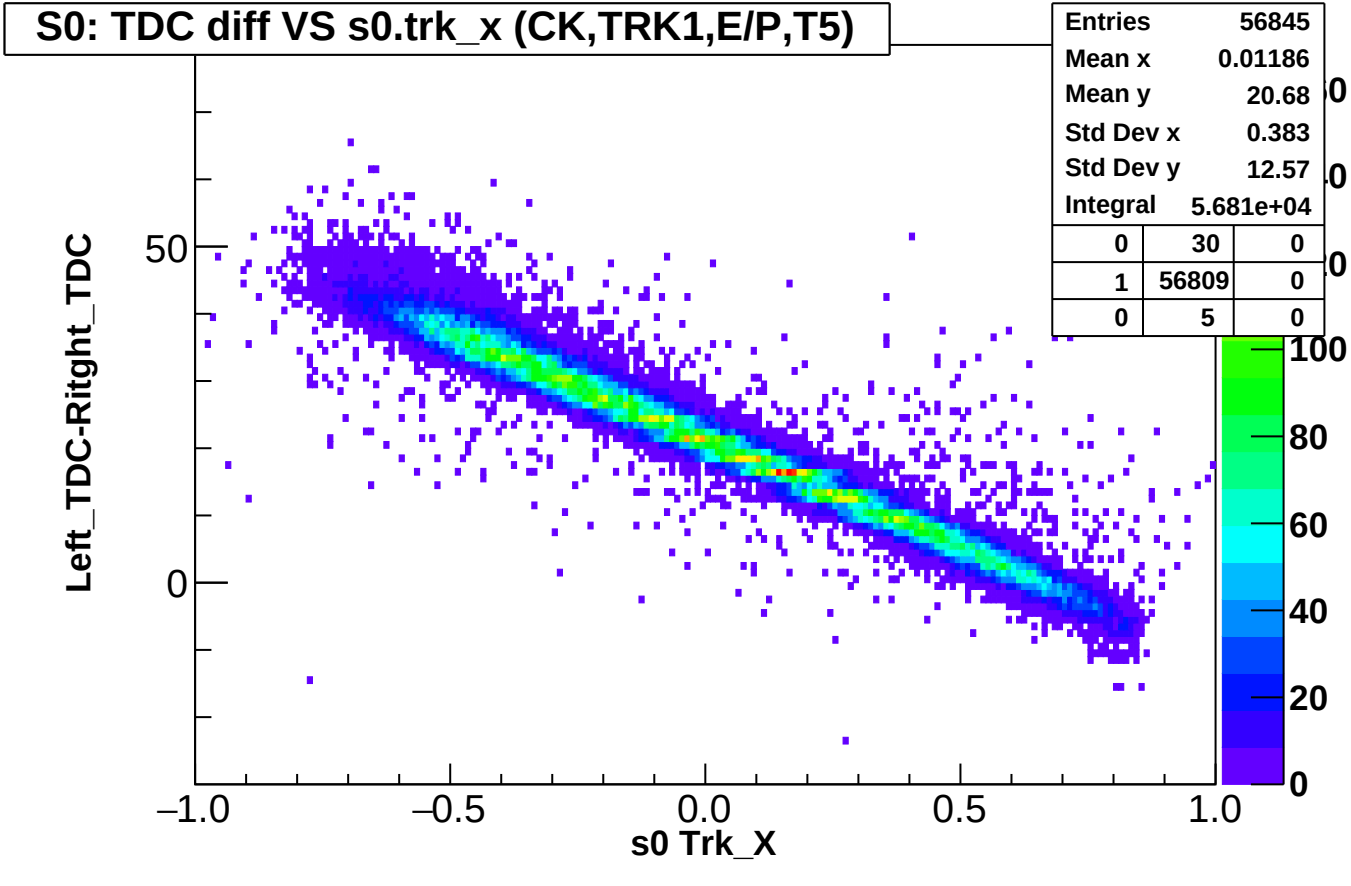

Number of Track(CK,E/P,T5)
Entries 58426
Mean 1.049
Std Dev 0.3793
Underflow 0
Overflow 45
Integral 5.838e+04
40000
20000
0
0
5
10
No of Track

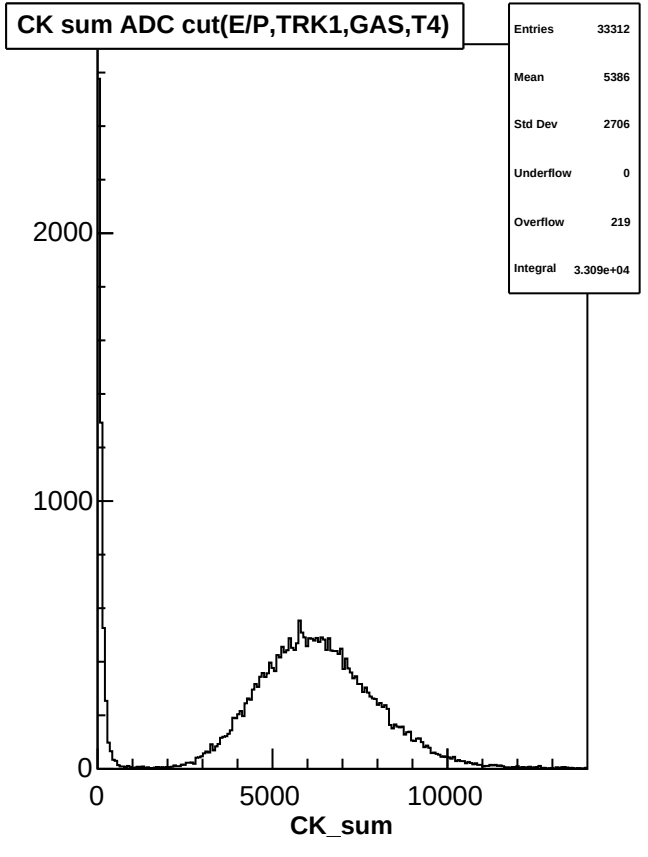

Trigger Counts
Entries 1.216199e+07
Mean 6
Std Dev 0
Underflow 0
Overflow 0
Integral 1.216e+07
10000
5000
0
0
2
4
6
8

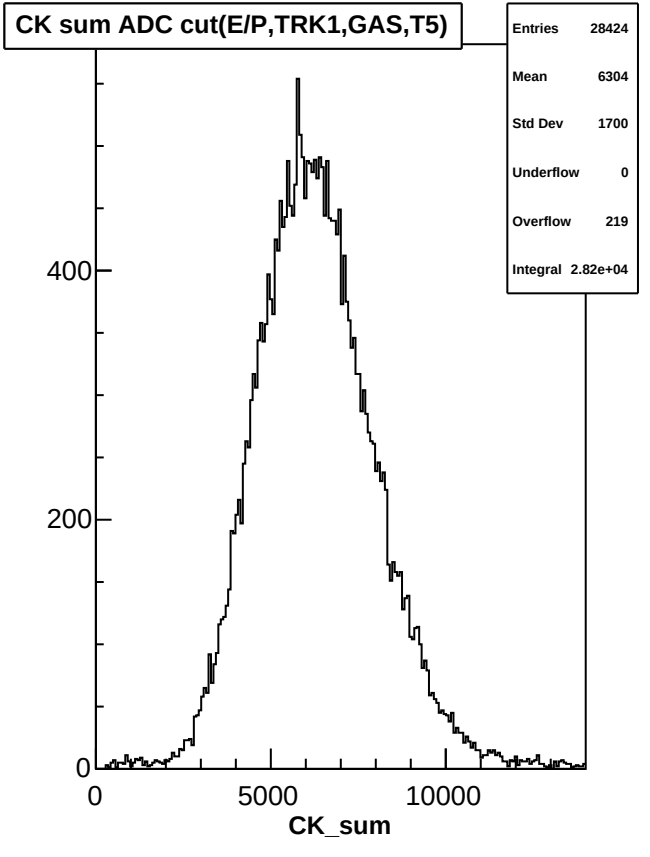

s0 ADC vs s2 ADC cut (CK,E/P,GAS,TRK1,T5)
Entries 28301
Mean x 444
Mean y 2467
Std Dev x 224.7
Std Dev y 837.4
Integral 2.818e+04
0 34 40
6 28180 41
0 0 0
s0_adc
s2_adc
0
2000
4000
6000
8000
1000
2000
3000
1
2
3
4
5

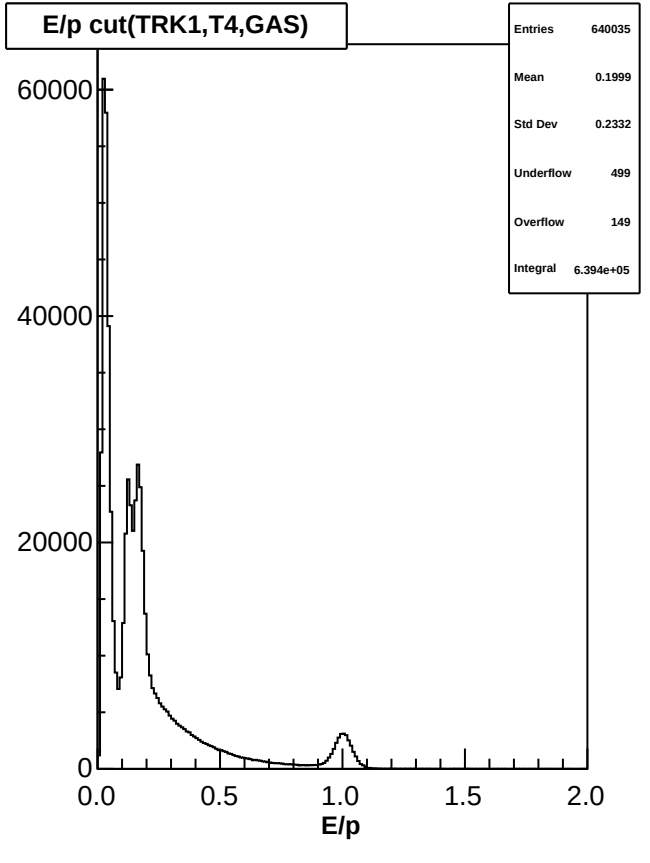

s0 ADC cut (CK,E/P,TRK1,GAS,T5)
Entries 28301
Mean 2471
Std Dev 852.7
Underflow 0
Overflow 74
Integral 2.823e+04
1000
500
0
0
2000
4000
6000
8000
10000
s0_adc

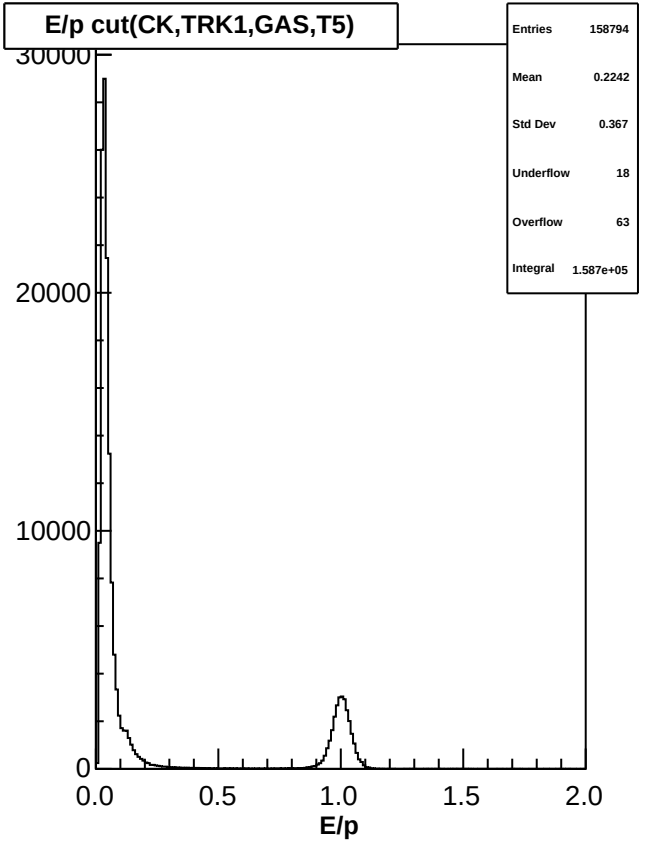

s2 ADC cut (CK,E/P,TRK1,GAS,T5)
Entries 28301
Mean 445.1
Std Dev 228.2
Underflow 6
Overflow 81
Integral 2.821e+04
1500
1000
500
0
0
1000
2000
3000
s2_adc

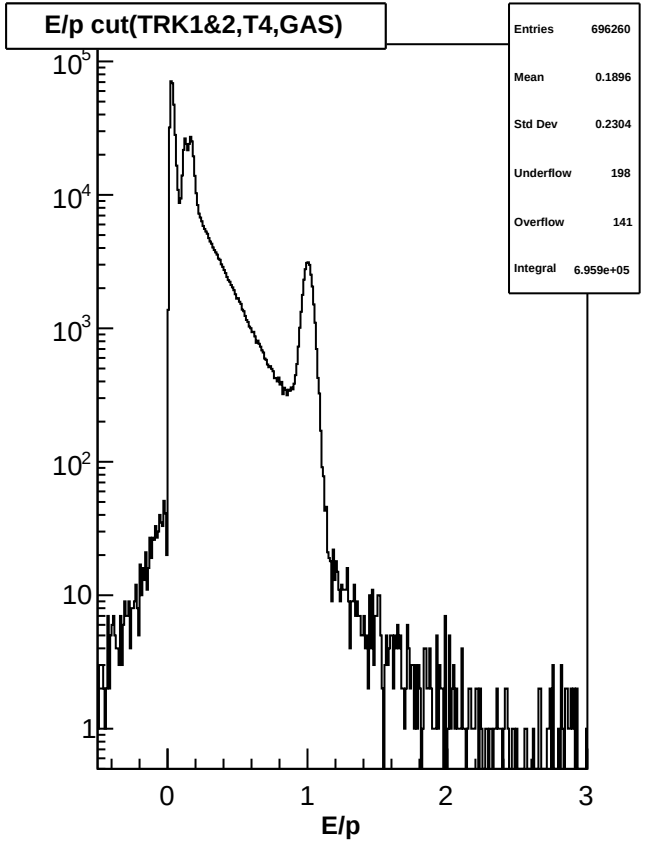

S0: TDC diff VS s0.trk_x (CK,TRK1,E/P,T5)
Entries 56845
Mean x 0.01186
Mean y 20.68
Std Dev x 0.383
Std Dev y 12.57
Integral 5.681e+04
0 30 0
1 56809 0
0 5 0
Left_TDC-Ritght_TDC
50
0
–1.0
–0.5
0.0
0.5
1.0
s0 Trk_X
100
80
60
40
20
0

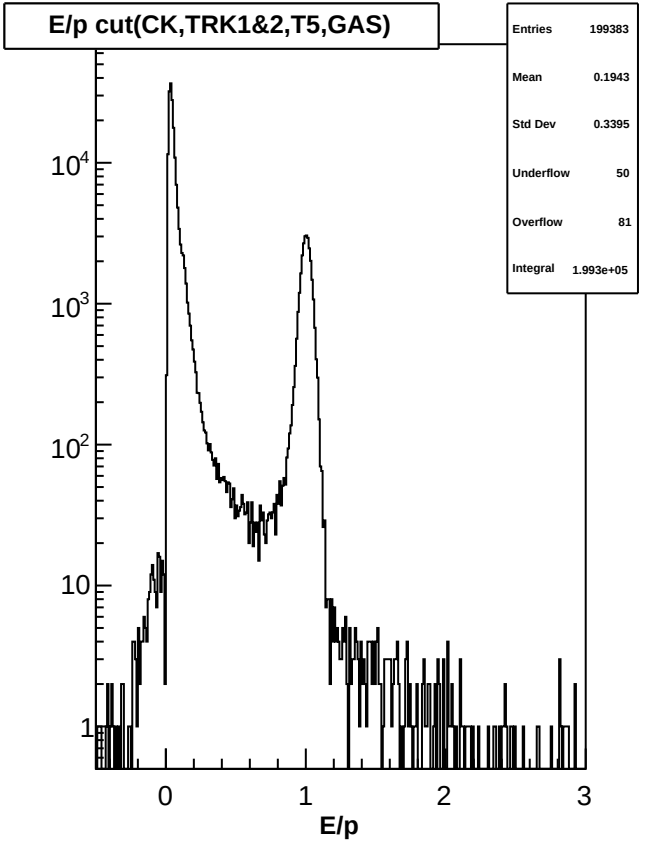

CK sum ADC cut(E/P,TRK1,GAS,T4)
Entries 33312
Mean 5386
Std Dev 2706
Underflow 0
Overflow 219
Integral 3.309e+04
2000
1000
0
0
5000
10000
CK_sum

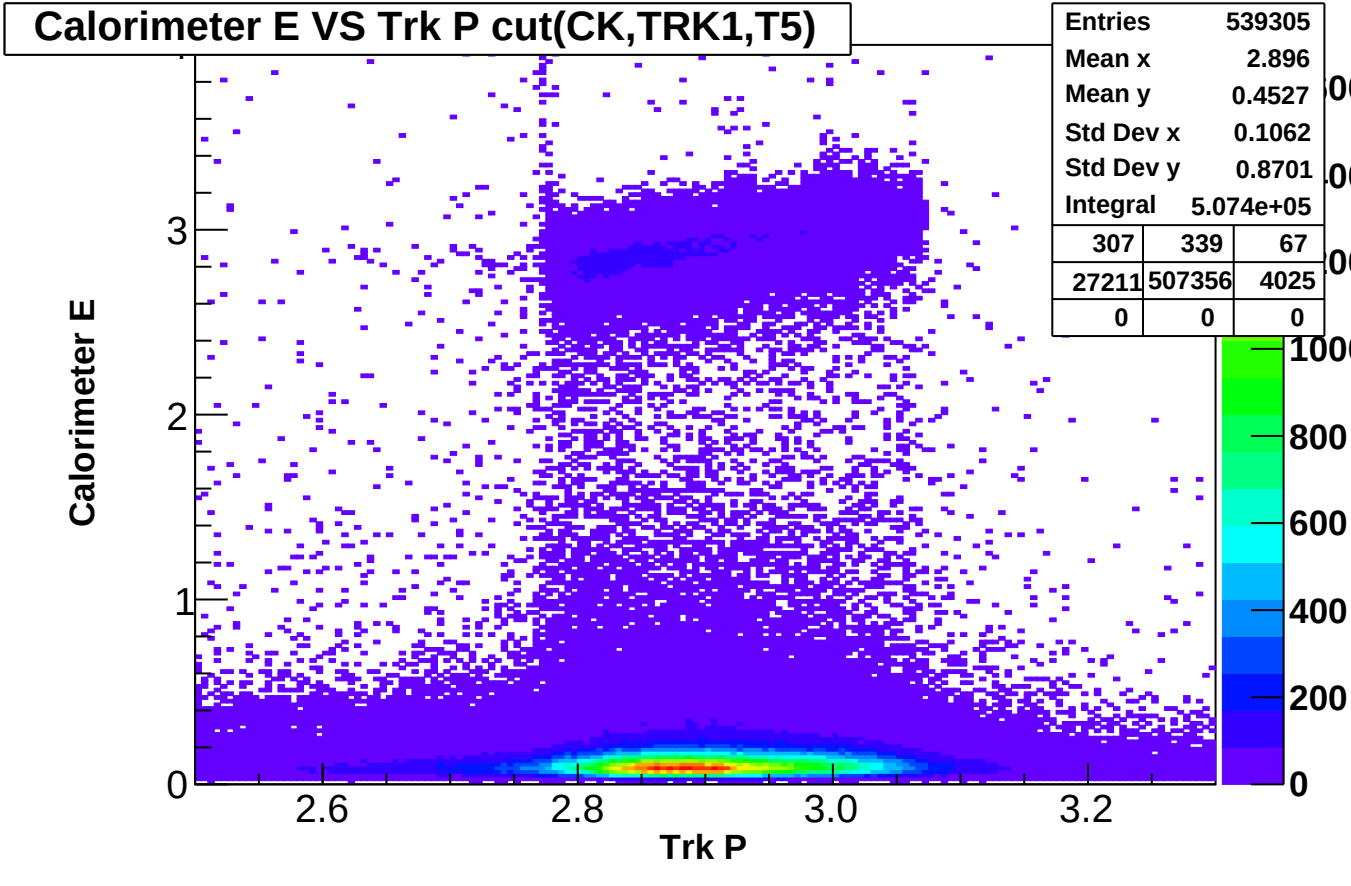

CK sum ADC cut(E/P,TRK1,GAS,T5)
Entries 28424
Mean 6304
Std Dev 1700
Underflow 0
Overflow 219
Integral 2.82e+04
400
200
0
0
5000
10000
CK_sum

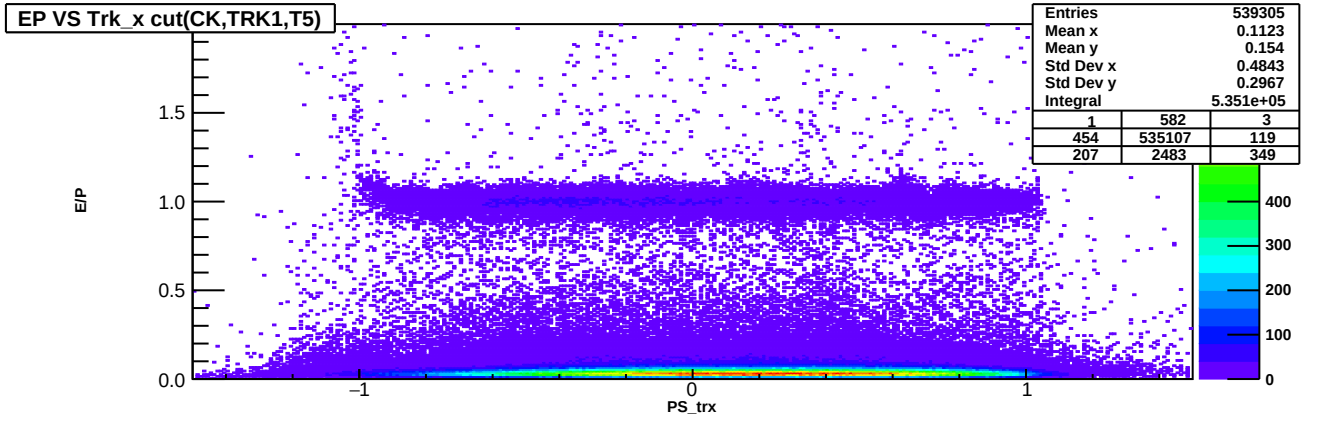

E/p cut(TRK1,T4,GAS)
Entries 640035
Mean 0.1999
Std Dev 0.2332
Underflow 499
Overflow 149
Integral 6.394e+05
60000
40000
20000
0
0.0
0.5
1.0
1.5
2.0
E/p

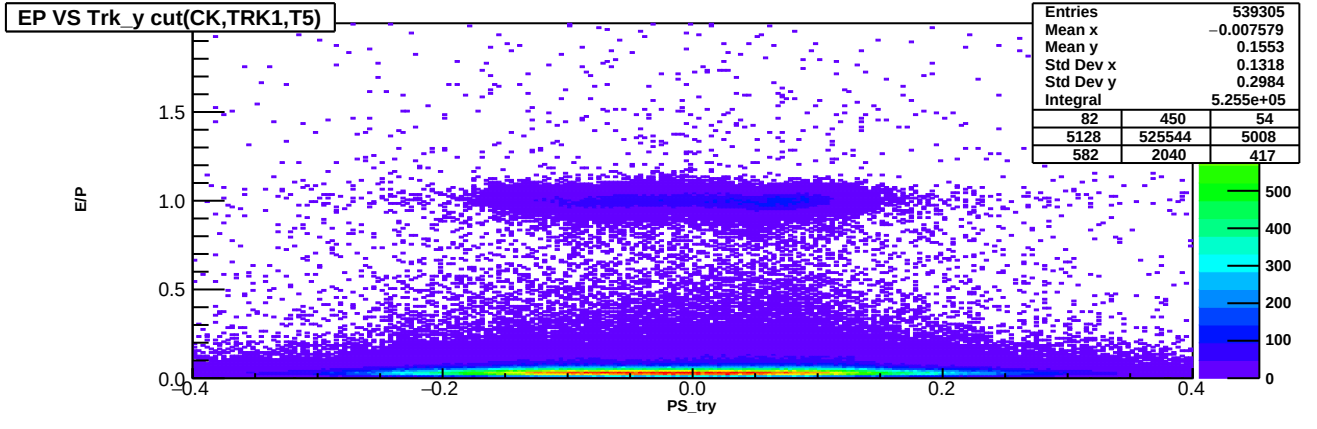

E/p cut(CK,TRK1,GAS,T5)
Entries 158794
Mean 0.2242
Std Dev 0.367
Underflow 18
Overflow 63
Integral 1.587e+05
30000
20000
10000
0
0.0
0.5
1.0
1.5
2.0
E/p

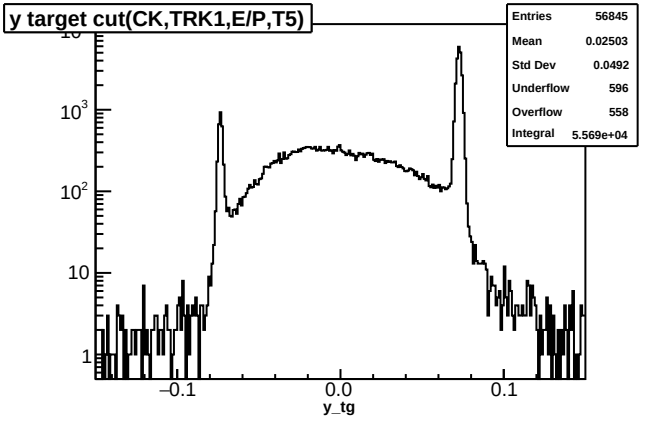

E/p cut(TRK1&2,T4,GAS)
Entries 696260
Mean 0.1896
Std Dev 0.2304
Underflow 198
Overflow 141
Integral 6.959e+05
10^5
10^4
10^3
10^2
10
1
0
1
2
3
E/p

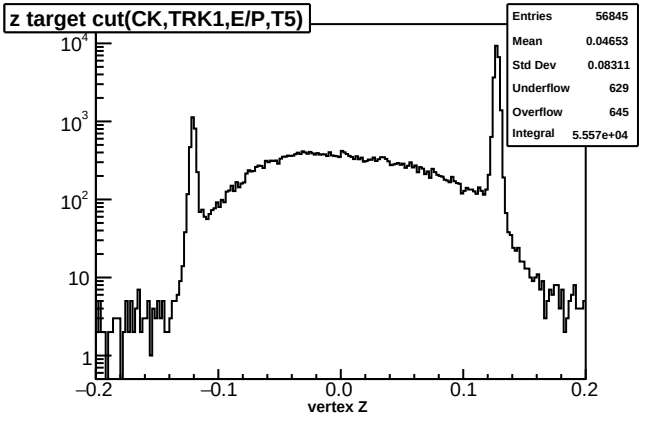

E/p cut(CK,TRK1&2,T5,GAS)
Entries 199383
Mean 0.1943
Std Dev 0.3395
Underflow 50
Overflow 81
Integral 1.993e+05
10^4
10^3
10^2
10
1
0
1
2
3
E/p

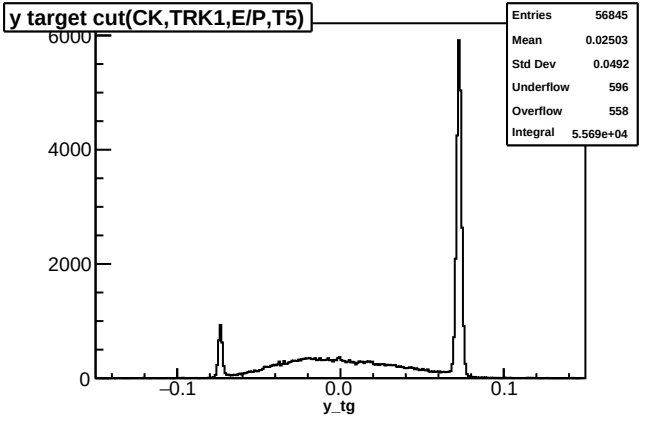

Calorimeter E VS Trk P cut(CK,TRK1,T5)
Entries 539305
Mean x 2.896
Mean y 0.4527
Std Dev x 0.1062
Std Dev y 0.8701
Integral 5.074e+05
307 339 67
27211 507356 4025
0 0 0
Calorimeter E
Trk P
0
1
2
3
2.6
2.8
3.0
3.2
0
200
400
600
800
1000

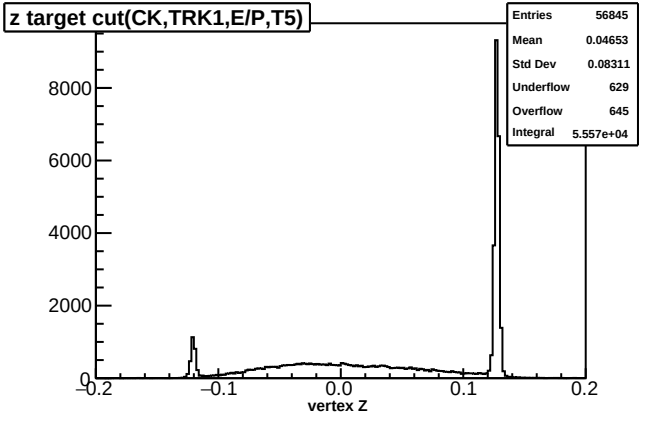

EP VS Trk_x cut(CK,TRK1,T5)
Entries 539305
Mean x 0.1123
Mean y 0.154
Std Dev x 0.4843
Std Dev y 0.2967
Integral 5.351e+05
1 582 3
454 535107 119
207 2483 349
E/P
PS_trx
0.0
0.5
1.0
1.5
−1
0
1
0
100
200
300
400

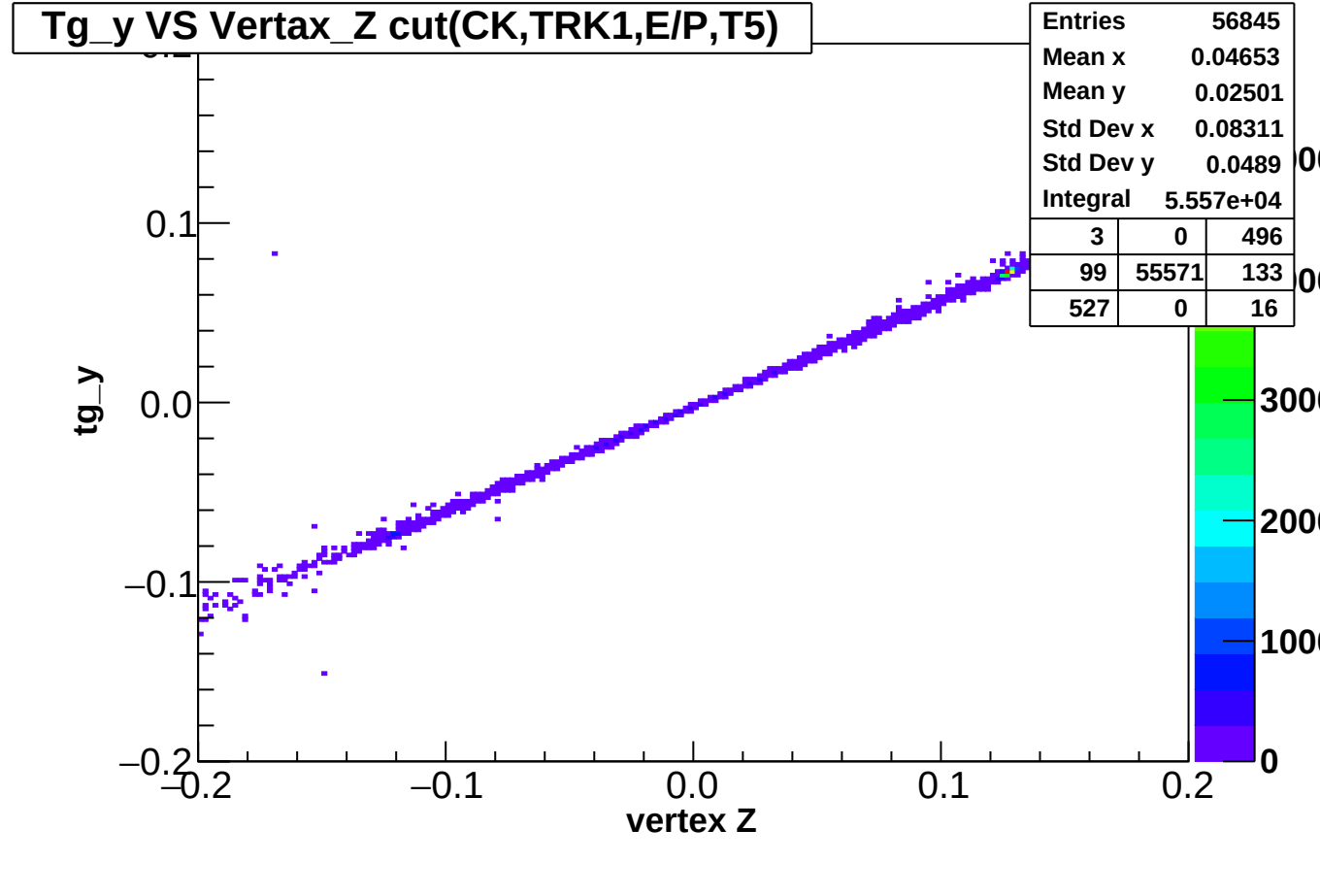

EP VS Trk_y cut(CK,TRK1,T5)
Entries 539305
Mean x −0.007579
Mean y 0.1553
Std Dev x 0.1318
Std Dev y 0.2984
Integral 5.255e+05
82 450 54
5128 525544 5008
582 2040 417
E/P
PS_try
0.0
0.5
1.0
1.5
−0.4
−0.2
0.0
0.2
0.4
0
100
200
300
400
500

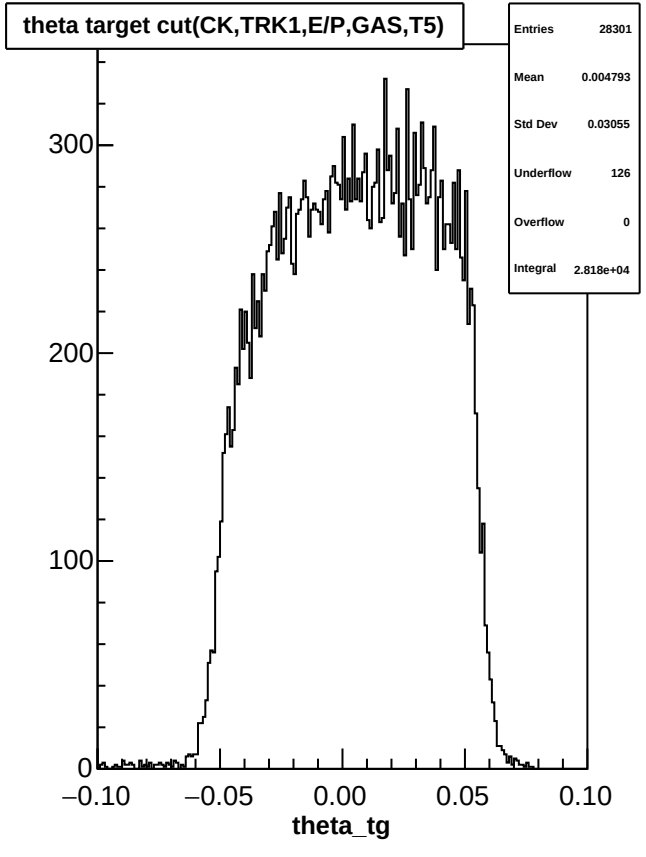

y target cut(CK,TRK1,E/P,T5)
Entries 56845
Mean 0.02503
Std Dev 0.0492
Underflow 596
Overflow 558
Integral 5.569e+04
y_tg

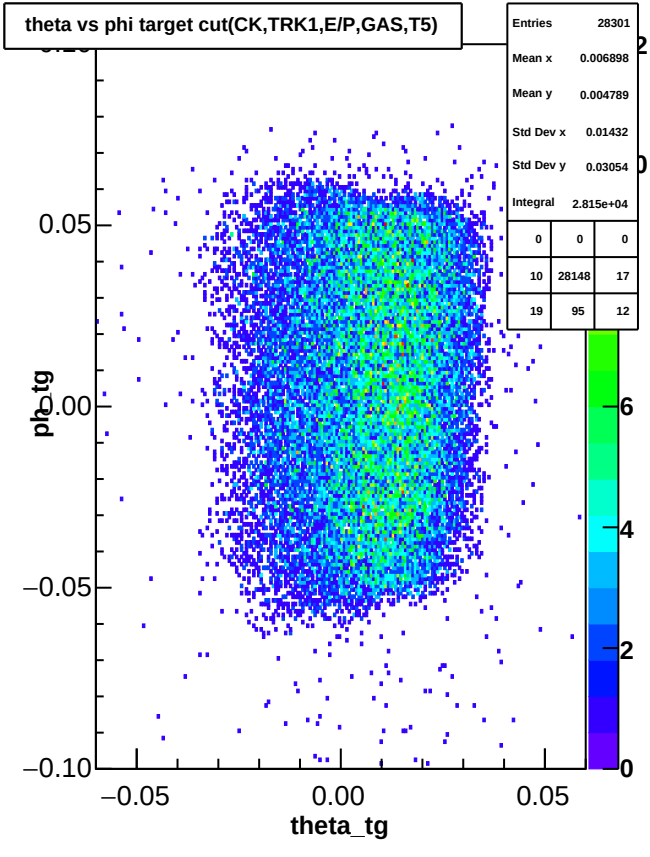

z target cut(CK,TRK1,E/P,T5)
Entries 56845
Mean 0.04653
Std Dev 0.08311
Underflow 629
Overflow 645
Integral 5.557e+04
vertex Z

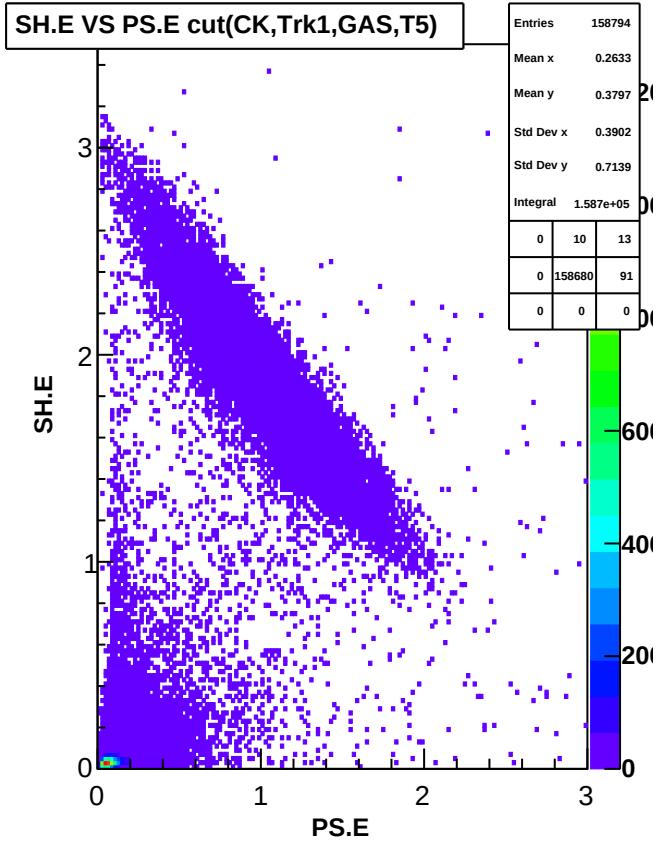

y target cut(CK,TRK1,E/P,T5)
Entries 56845
Mean 0.02503
Std Dev 0.0492
Underflow 596
Overflow 558
Integral 5.569e+04
y_tg

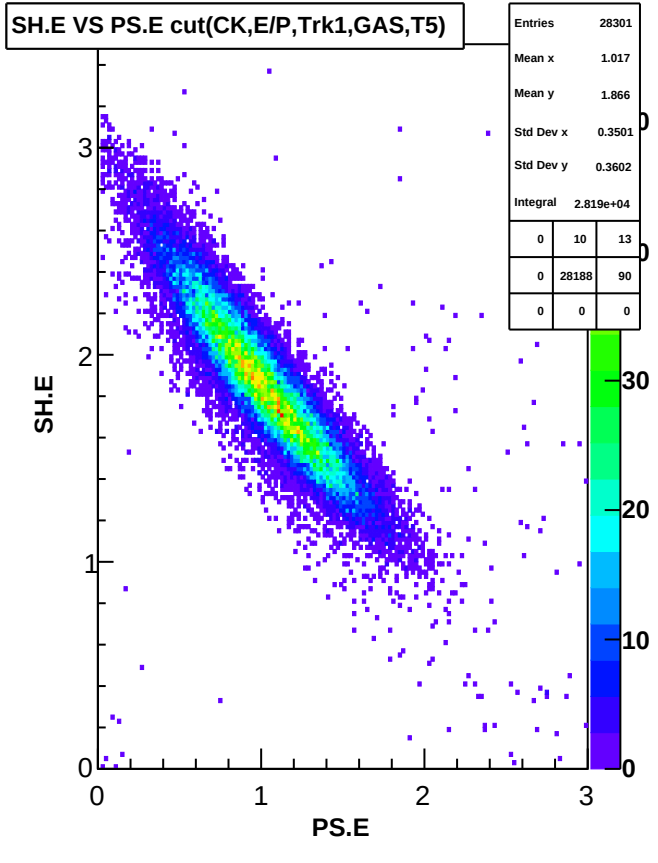

z target cut(CK,TRK1,E/P,T5)
Entries 56845
Mean 0.04653
Std Dev 0.08311
Underflow 629
Overflow 645
Integral 5.557e+04
vertex Z

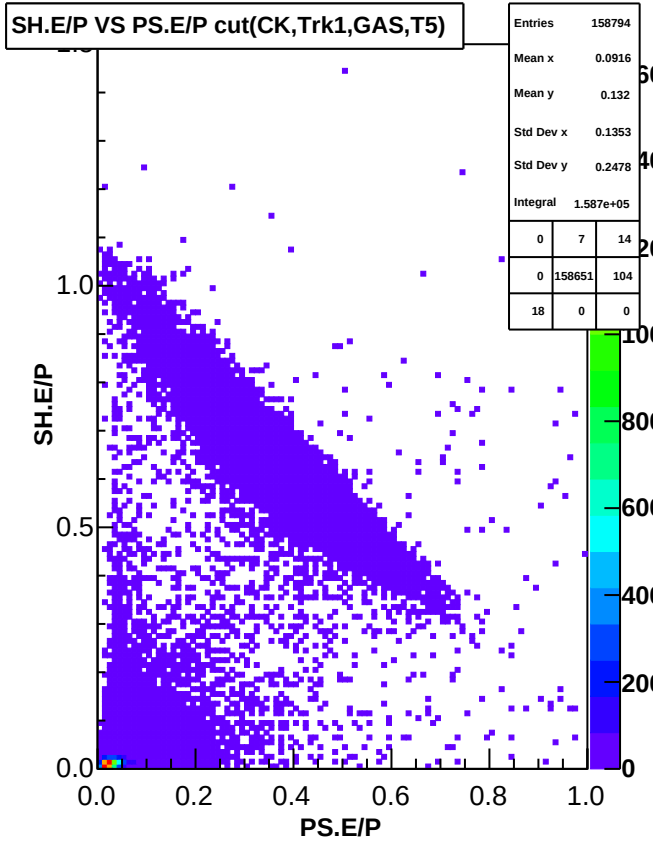

Tg_y VS Vertax_Z cut(CK,TRK1,E/P,T5)
Entries 56845
Mean x 0.04653
Mean y 0.02501
Std Dev x 0.08311
Std Dev y 0.0489
Integral 5.557e+04
3 0 496
99 55571 133
527 0 16
tg_y
vertex Z
0.1
0.0
−0.1
−0.2
−0.2
−0.1
0.0
0.1
0.2
300
200
100
0

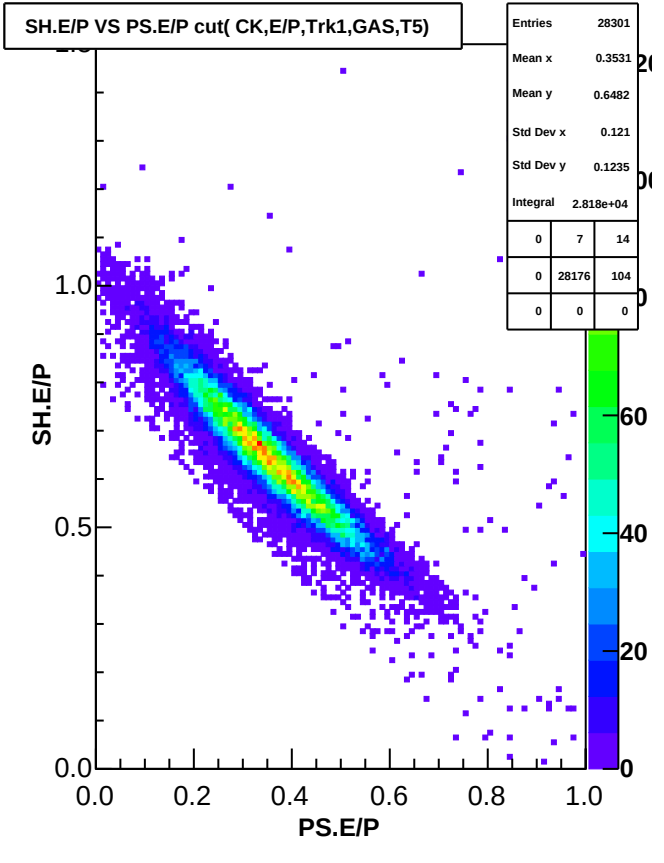

theta target cut(CK,TRK1,E/P,GAS,T5)
Entries 28301
Mean 0.004793
Std Dev 0.03055
Underflow 126
Overflow 0
Integral 2.818e+04
300
200
100
0
−0.10
−0.05
0.00
0.05
0.10
theta_tg

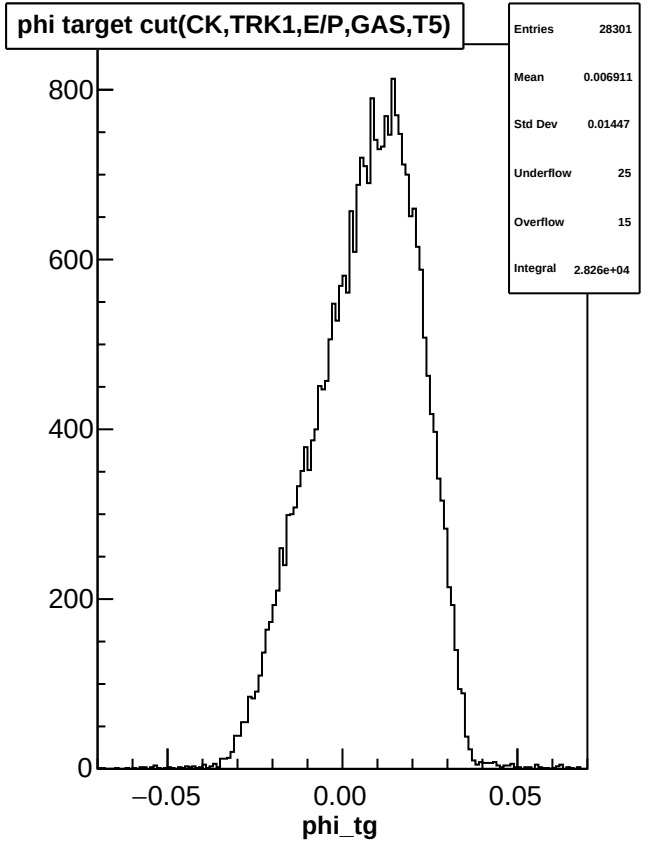

theta vs phi target cut(CK,TRK1,E/P,GAS,T5)
Entries 28301
Mean x 0.006898
Mean y 0.004789
Std Dev x 0.01432
Std Dev y 0.03054
Integral 2.815e+04
0 0 0
10 28148 17
19 95 12
0.05
0.00
−0.05
−0.10
phi_tg
−0.05
0.00
0.05
theta_tg
6
4
2
0

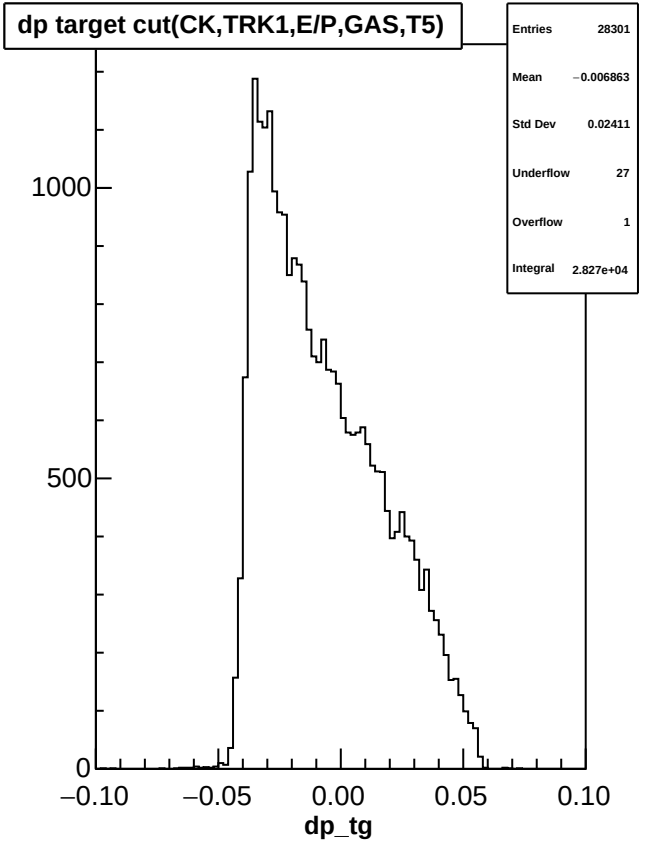

SH.E VS PS.E cut(CK,Trk1,GAS,T5)
Entries 158794
Mean x 0.2633
Mean y 0.3797
Std Dev x 0.3902
Std Dev y 0.7139
Integral 1.587e+05
0 10 13
0 158680 91
0 0 0
SH.E
PS.E
0
1
2
3
60
40
20

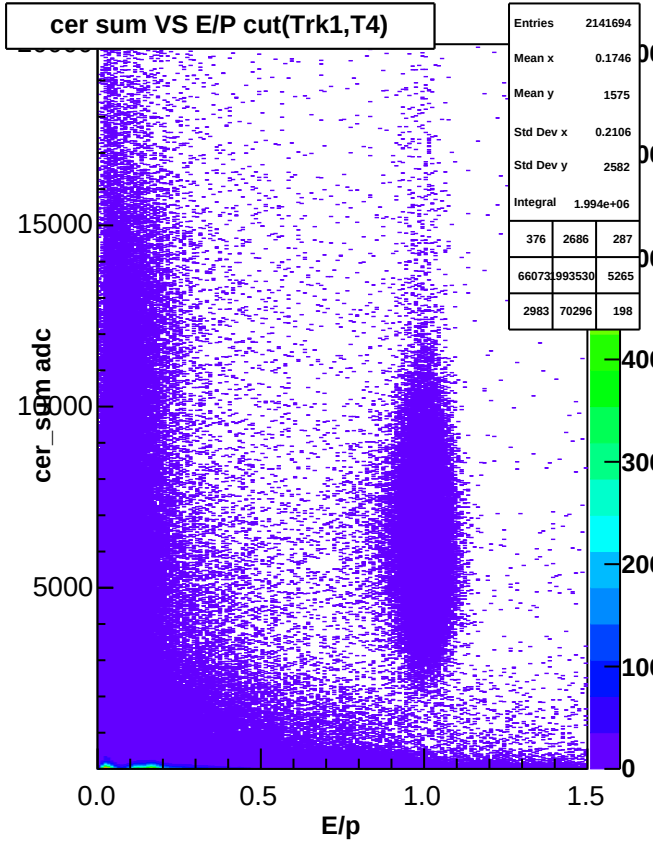

SH.E VS PS.E cut(CK,E/P,Trk1,GAS,T5)
Entries 28301
Mean x 1.017
Mean y 1.866
Std Dev x 0.3501
Std Dev y 0.3602
Integral 2.819e+04
0 10 13
0 28188 90
0 0 0
SH.E
PS.E
0
1
2
3
30
20
10

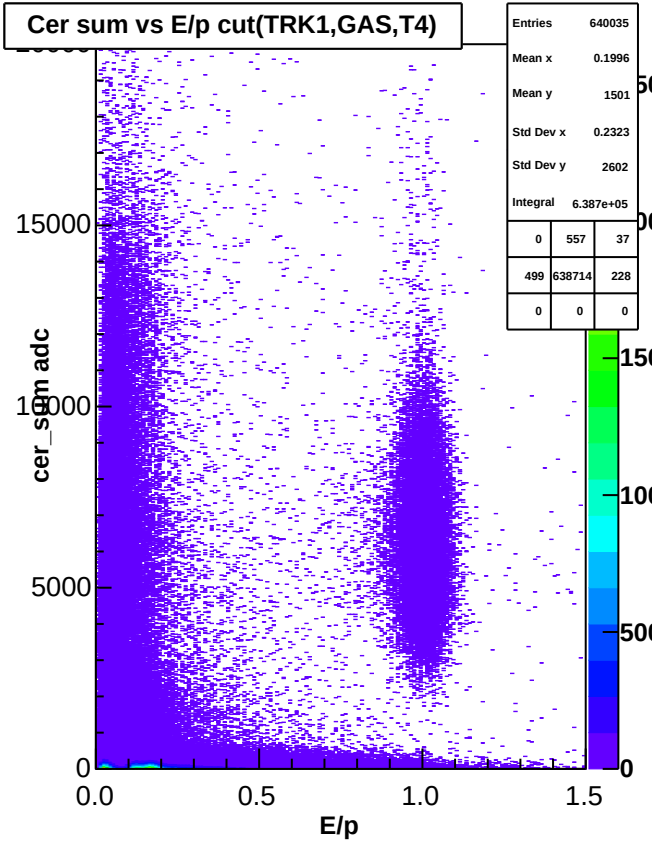

SH.E/P VS PS.E/P cut(CK,Trk1,GAS,T5)
Entries 158794
Mean x 0.0916
Mean y 0.132
Std Dev x 0.1353
Std Dev y 0.2478
Integral 1.587e+05
0 7 14
0 158651 104
18 0 0
SH.E/P
PS.E/P
0.0 0.2 0.4 0.6 0.8 1.0
0.0 0.5 1.0
0 20 40 60 80 100

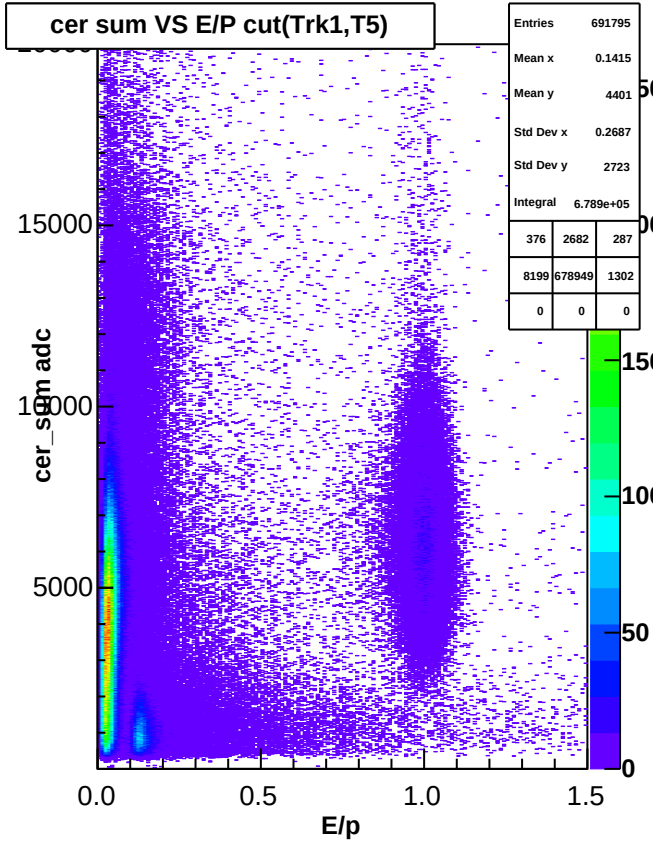

SH.E/P VS PS.E/P cut(CK,E/P,Trk1,GAS,T5)
Entries 28301
Mean x 0.3531
Mean y 0.6482
Std Dev x 0.121
Std Dev y 0.1235
Integral 2.818e+04
0 7 14
0 28176 104
0 0 0
SH.E/P
PS.E/P
0.0 0.2 0.4 0.6 0.8 1.0
0.0 0.5 1.0
0 20 40 60

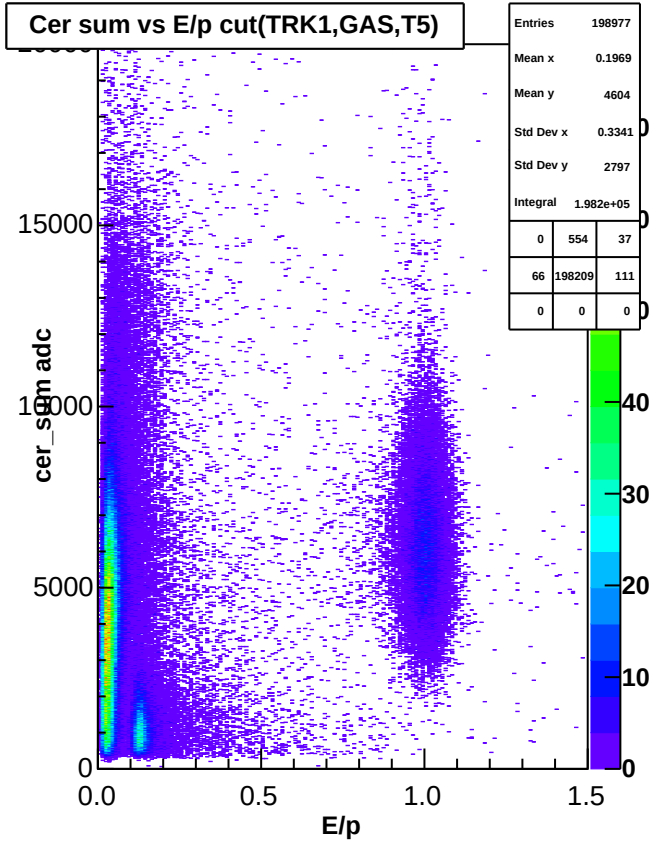

phi target cut(CK,TRK1,E/P,GAS,T5)
Entries 28301
Mean 0.006911
Std Dev 0.01447
Underflow 25
Overflow 15
Integral 2.826e+04
800
600
400
200
0
−0.05
0.00
0.05
phi_tg

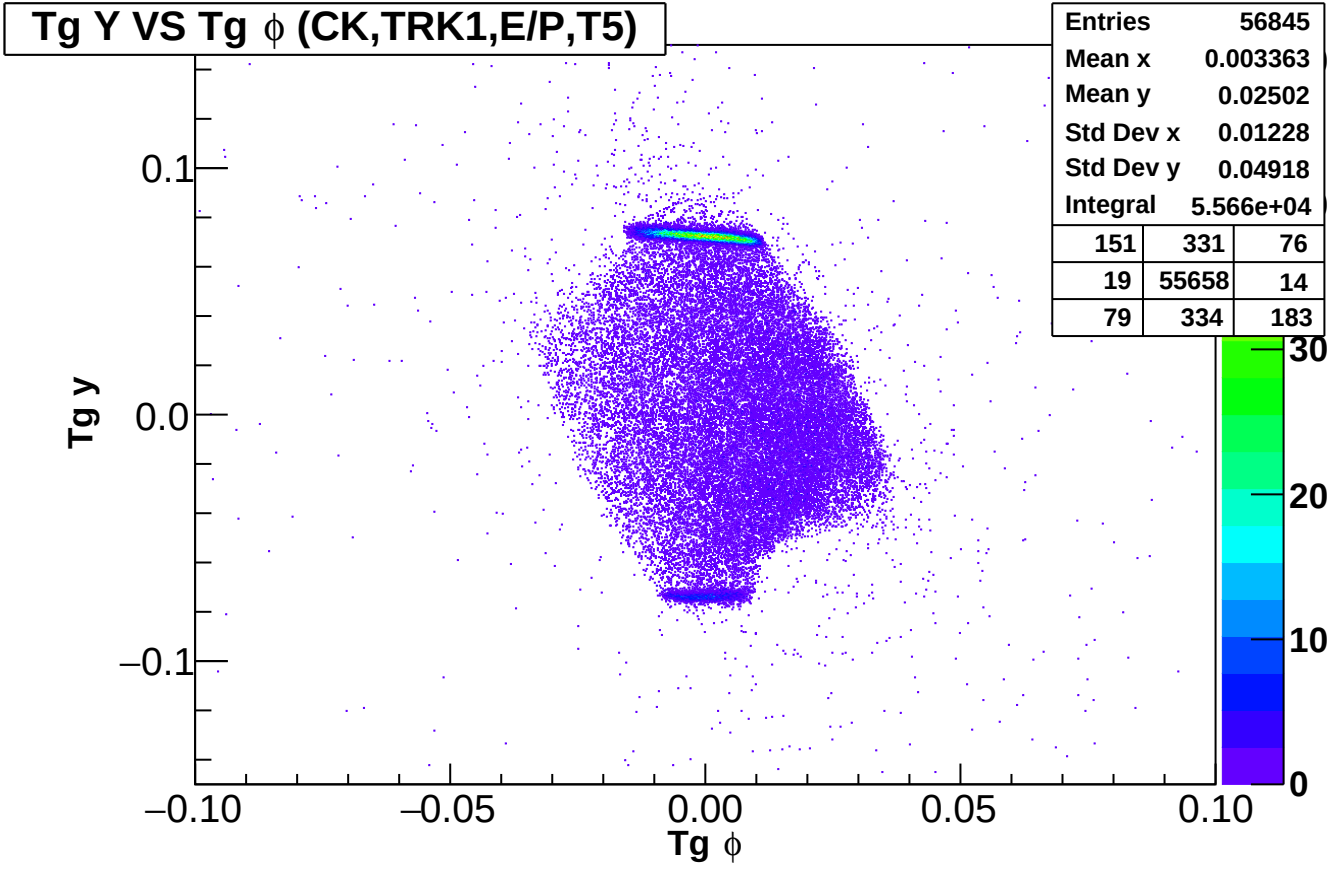

dp target cut(CK,TRK1,E/P,GAS,T5)
Entries 28301
Mean −0.006863
Std Dev 0.02411
Underflow 27
Overflow 1
Integral 2.827e+04
1000
500
0
−0.10
−0.05
0.00
0.05
0.10
dp_tg

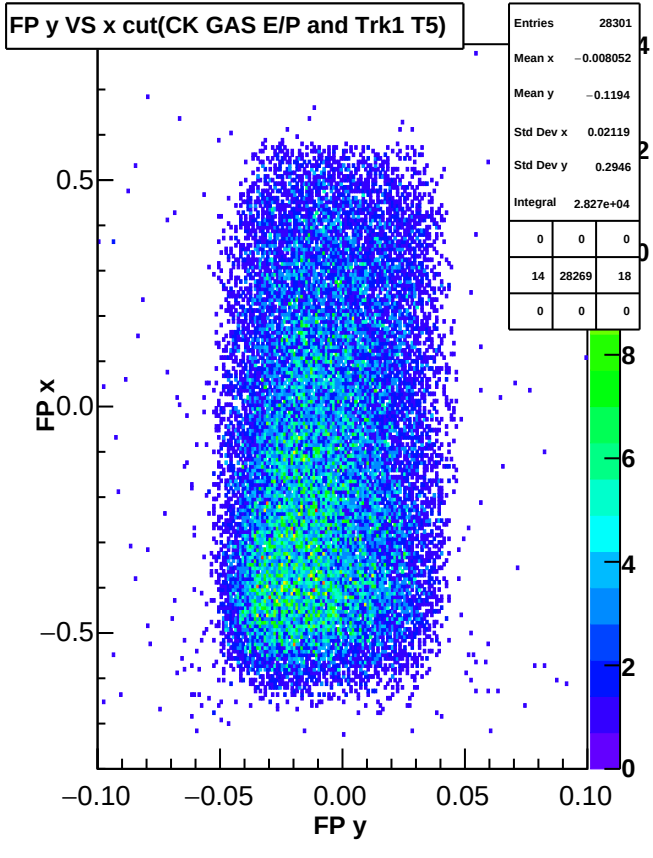

cer sum VS E/P cut(Trk1,T4)
Entries 2141694
Mean x 0.1746
Mean y 1575
Std Dev x 0.2106
Std Dev y 2582
Integral 1.994e+06
376 2686 287
66073 1993530 5265
2983 70296 198
cer_sum adc
15000
10000
5000
0.0
0.5
1.0
1.5
E/p
400
300
200
100
0

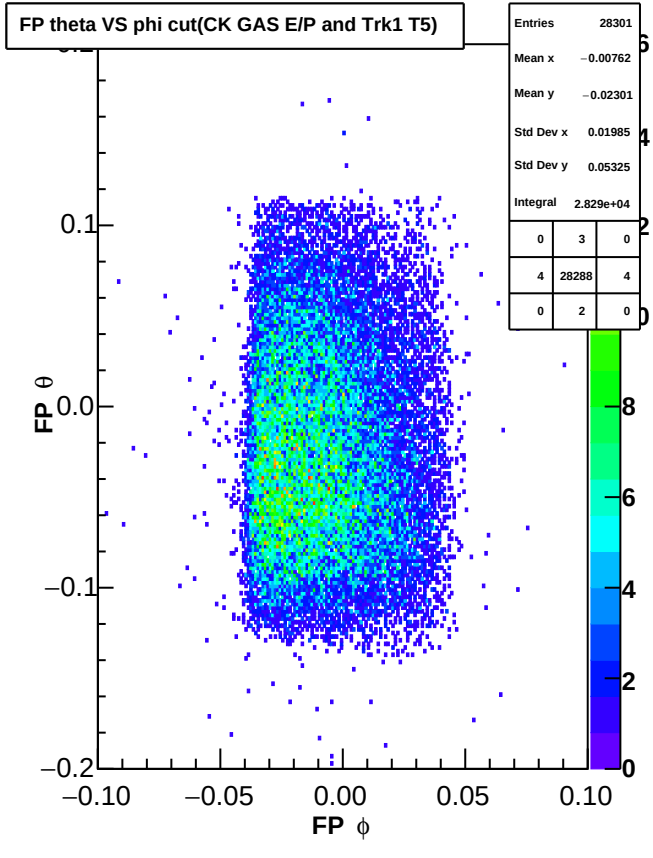

Cer sum vs E/p cut(TRK1,GAS,T4)
Entries 640035
Mean x 0.1996
Mean y 1501
Std Dev x 0.2323
Std Dev y 2602
Integral 6.387e+05
0 557 37
499 638714 228
0 0 0
cer_sum adc
15000
10000
5000
0
0.0
0.5
1.0
1.5
E/p
150
100
50
0

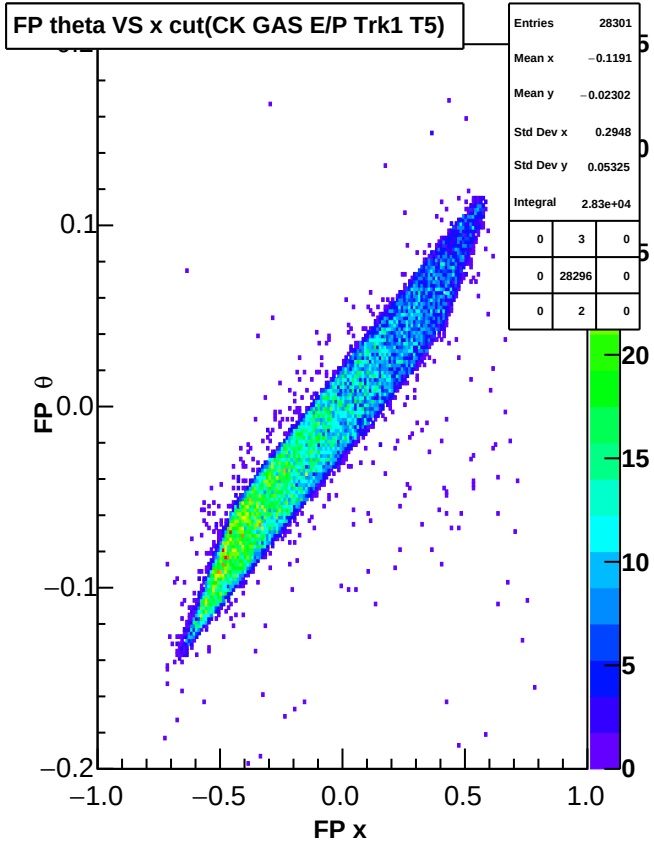

cer sum VS E/P cut(Trk1,T5)
Entries 691795
Mean x 0.1415
Mean y 4401
Std Dev x 0.2687
Std Dev y 2723
Integral 6.789e+05
376 2682 287
8199 678949 1302
0 0 0
cer_sum adc
E/p
0.0
0.5
1.0
1.5
5000
15000

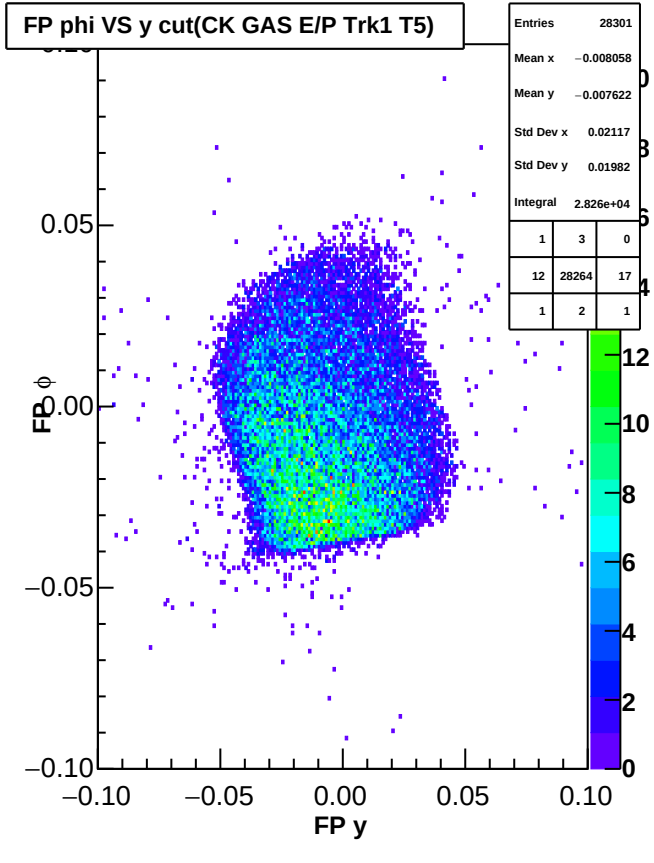

Cer sum vs E/p cut(TRK1,GAS,T5)
Entries 198977
Mean x 0.1969
Mean y 4604
Std Dev x 0.3341
Std Dev y 2797
Integral 1.982e+05
0 554 37
66 198209 111
0 0 0
cer_sum adc
E/p
0.0
0.5
1.0
1.5
0
5000
15000
40
30
20
10

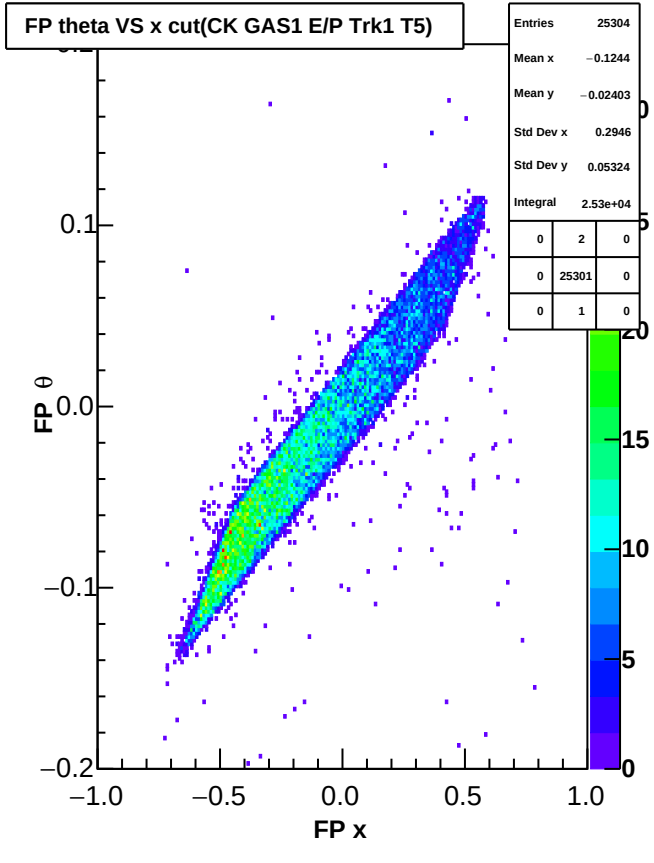

Tg Y VS Tg ϕ (CK,TRK1,E/P,T5)
Entries 56845
Mean x 0.003363
Mean y 0.02502
Std Dev x 0.01228
Std Dev y 0.04918
Integral 5.566e+04
151 331 76
19 55658 14
79 334 183
Tg y
0.1
0.0
−0.1
−0.10
−0.05
0.00
0.05
0.10
Tg ϕ
30
20
10
0

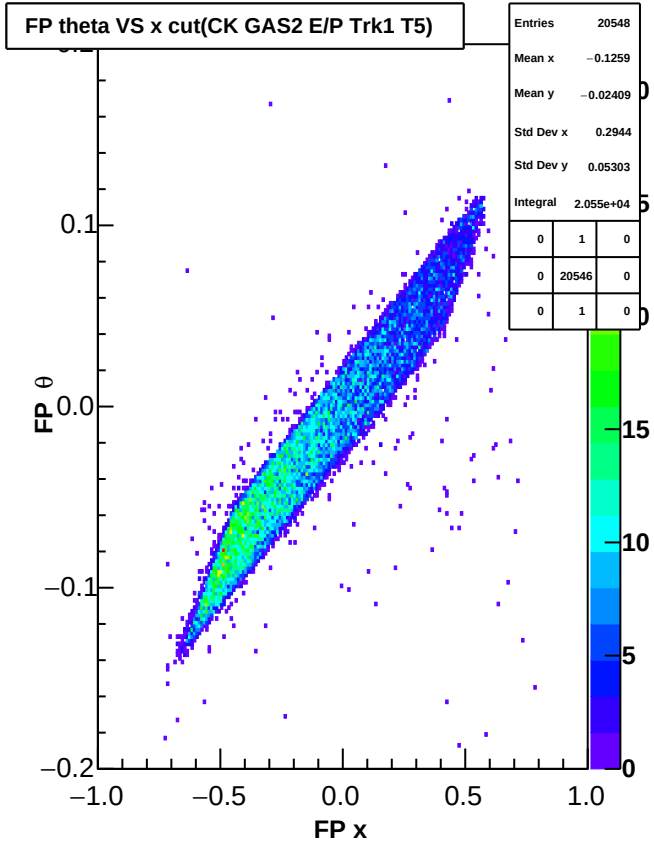

FP y VS x cut(CK GAS E/P and Trk1 T5)
Entries 28301
Mean x −0.008052
Mean y −0.1194
Std Dev x 0.02119
Std Dev y 0.2946
Integral 2.827e+04
0 0 0
14 28269 18
0 0 0
FP x
FP y
0.5
0.0
−0.5
−0.10
−0.05
0.00
0.05
0.10
8
6
4
2
0

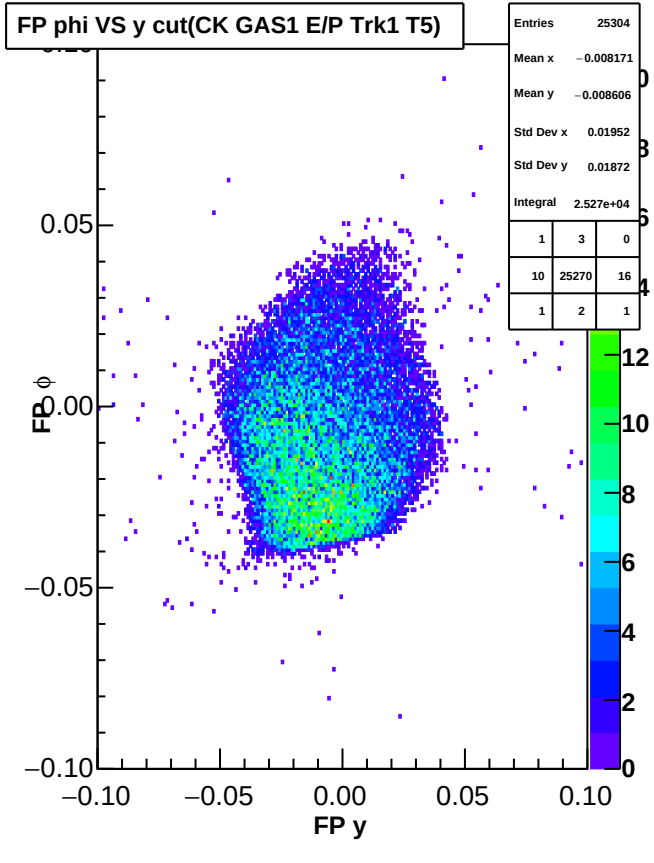

FP theta VS phi cut(CK GAS E/P and Trk1 T5)
Entries 28301
Mean x −0.00762
Mean y −0.02301
Std Dev x 0.01985
Std Dev y 0.05325
Integral 2.829e+04
0 3 0
4 28288 4
0 2 0
FP θ
FP ϕ
0.1
0.0
−0.1
−0.2
−0.10
−0.05
0.00
0.05
0.10
8
6
4
2
0

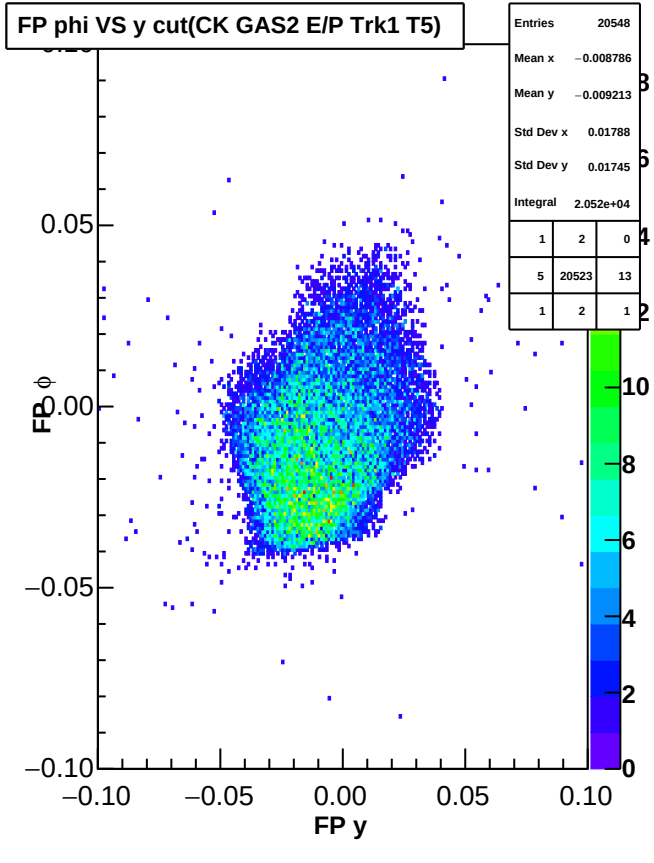

FP theta VS x cut(CK GAS E/P Trk1 T5)
Entries 28301
Mean x −0.1191
Mean y −0.02302
Std Dev x 0.2948
Std Dev y 0.05325
Integral 2.83e+04
0 3 0
0 28296 0
0 2 0
FP θ
FP x
0.1
0.0
−0.1
−0.2
−1.0
−0.5
0.0
0.5
1.0
20
15
10
5
0

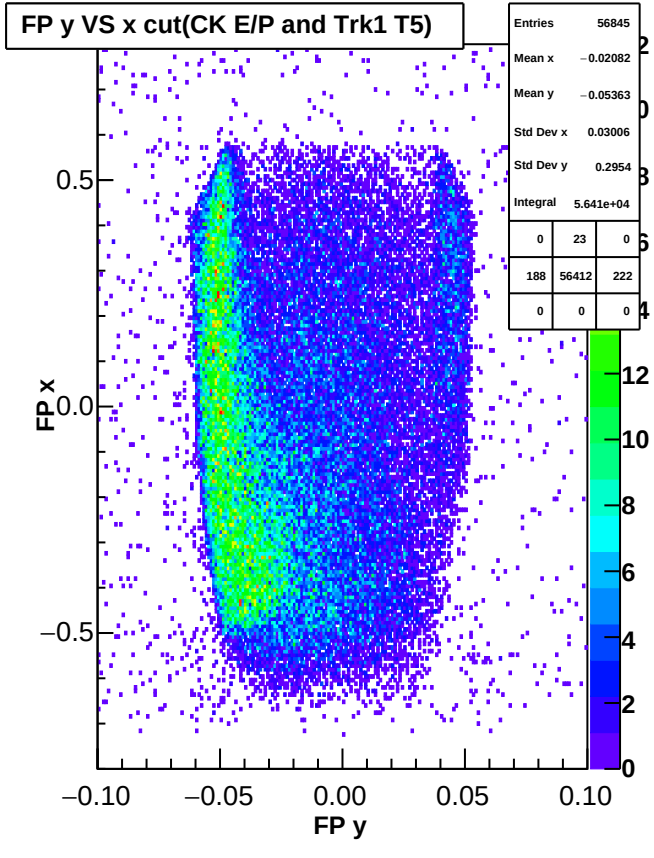

FP phi VS y cut(CK GAS E/P Trk1 T5)
Entries 28301
Mean x −0.008058
Mean y −0.007622
Std Dev x 0.02117
Std Dev y 0.01982
Integral 2.826e+04
1 3 0
12 28264 17
1 2 1
FP ϕ
FP y
0.05
0.00
−0.05
−0.10
−0.10
−0.05
0.00
0.05
0.10
12
10
8
6
4
2
0

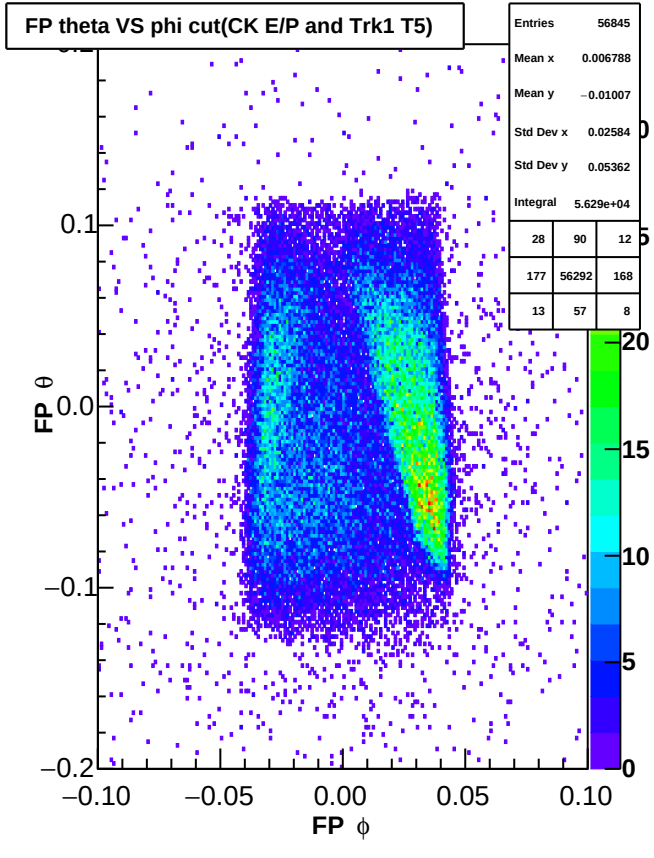

FP theta VS x cut(CK GAS1 E/P Trk1 T5)
Entries 25304
Mean x −0.1244
Mean y −0.02403
Std Dev x 0.2946
Std Dev y 0.05324
Integral 2.53e+04
0 2 0
0 25301 0
0 1 0
FP θ
FP x
0.1
0.0
−0.1
−0.2
−1.0
−0.5
0.0
0.5
1.0
15
10
5
0

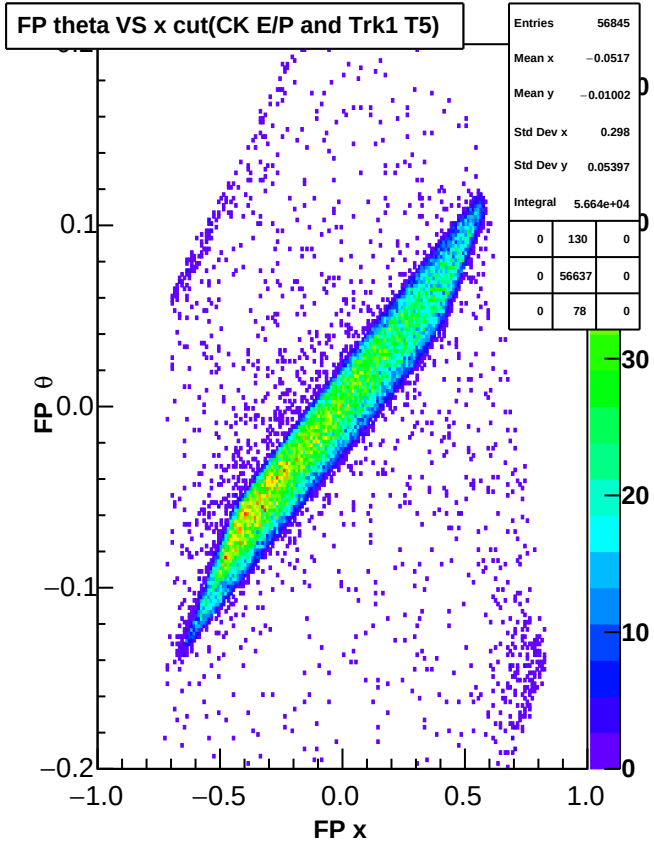

FP theta VS x cut(CK GAS2 E/P Trk1 T5)
Entries 20548
Mean x −0.1259
Mean y −0.02409
Std Dev x 0.2944
Std Dev y 0.05303
Integral 2.055e+04
0 1 0
0 20546 0
0 1 0
FP θ
FP x
0.1
0.0
−0.1
−0.2
−1.0
−0.5
0.0
0.5
1.0
15
10
5
0

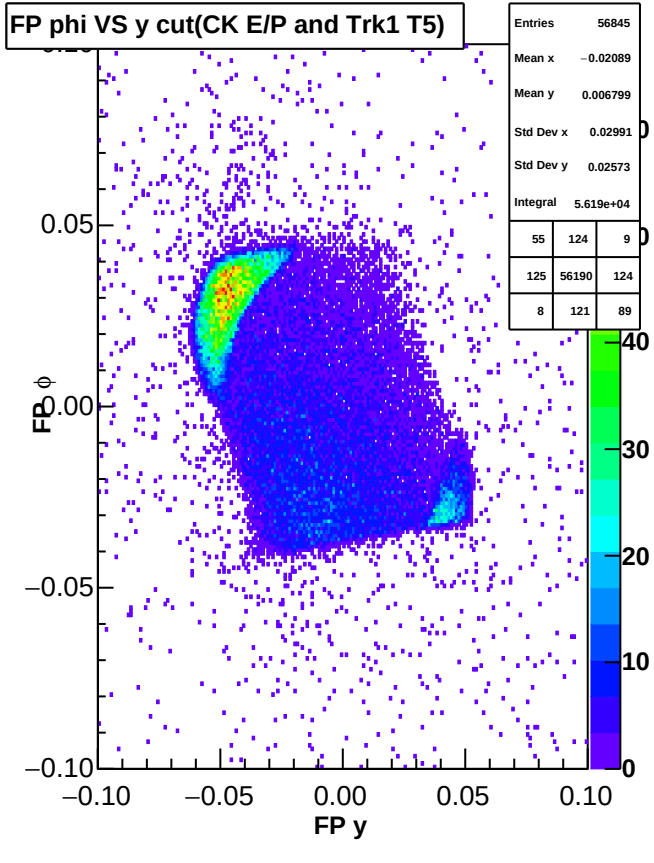

FP phi VS y cut(CK GAS1 E/P Trk1 T5)
Entries 25304
Mean x −0.008171
Mean y −0.008606
Std Dev x 0.01952
Std Dev y 0.01872
Integral 2.527e+04
1 3 0
10 25270 16
1 2 1
FP ϕ
FP y
0.05
0.00
−0.05
−0.10
−0.10
−0.05
0.00
0.05
0.10
12
10
8
6
4
2
0

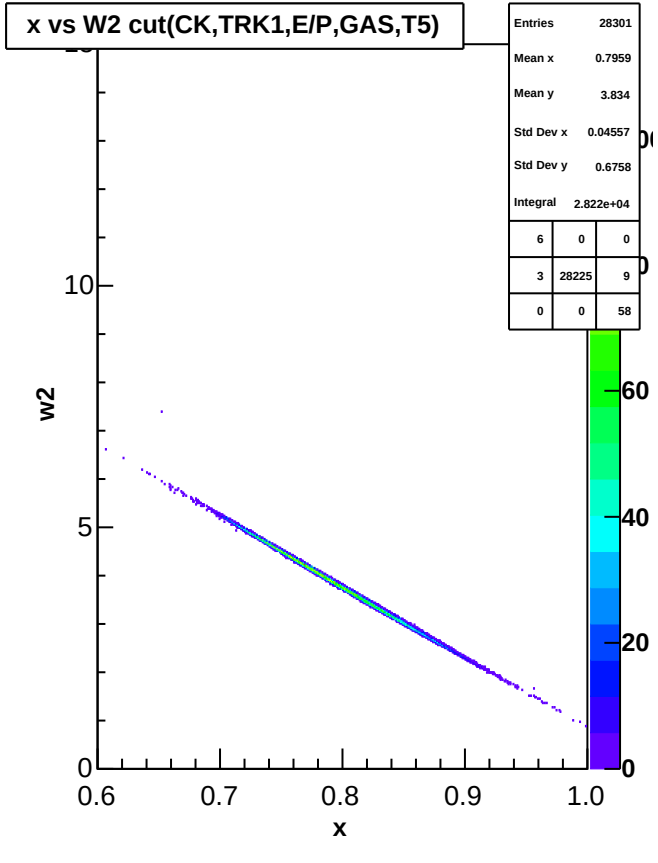

FP phi VS y cut(CK GAS2 E/P Trk1 T5)
Entries 20548
Mean x −0.008786
Mean y −0.009213
Std Dev x 0.01788
Std Dev y 0.01745
Integral 2.052e+04
1 2 0
5 20523 13
1 2 1
FP ϕ
FP y
0.05
0.00
−0.05
−0.10
−0.10
−0.05
0.00
0.05
0.10
10
8
6
4
2
0

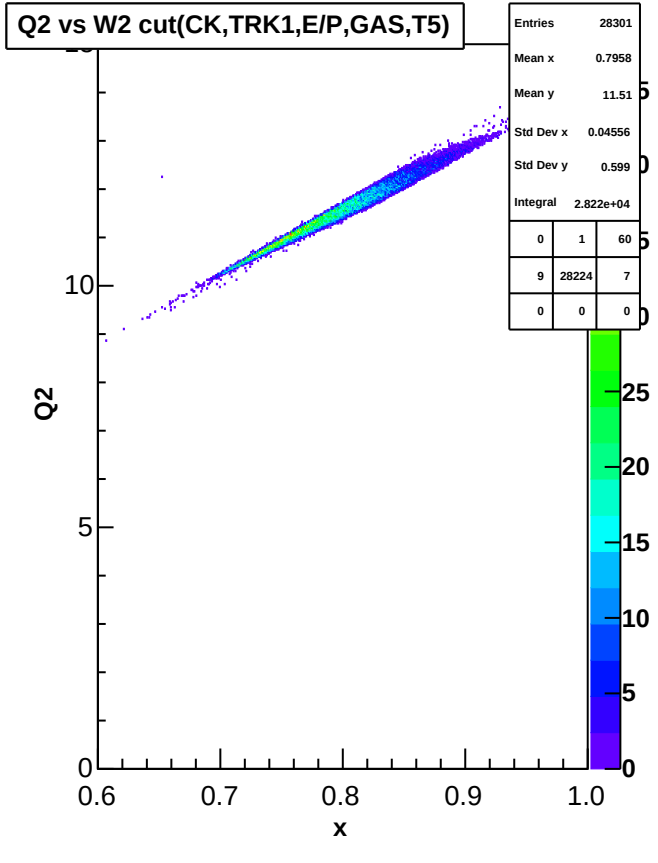

FP y VS x cut(CK E/P and Trk1 T5)
Entries 56845
Mean x −0.02082
Mean y −0.05363
Std Dev x 0.03006
Std Dev y 0.2954
Integral 5.641e+04
0 23 0
188 56412 222
0 0 0
FP x
FP y
0.5
0.0
−0.5
−0.10
−0.05
0.00
0.05
0.10
12
10
8
6
4
2
0

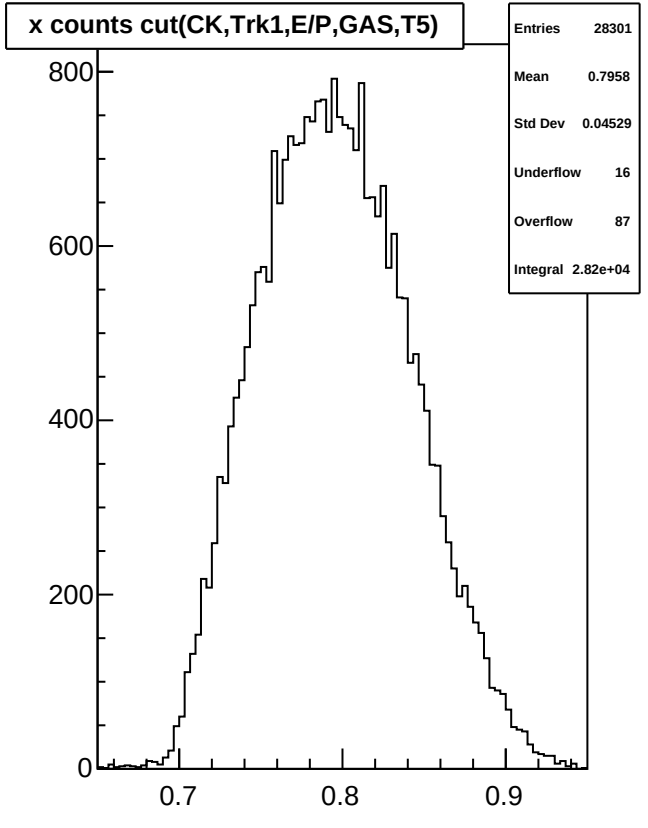

FP theta VS phi cut(CK E/P and Trk1 T5)
Entries 56845
Mean x 0.006788
Mean y −0.01007
Std Dev x 0.02584
Std Dev y 0.05362
Integral 5.629e+04
28 90 12
177 56292 168
13 57 8
FP θ
FP ϕ
0.1
0.0
−0.1
−0.2
−0.10
−0.05
0.00
0.05
0.10
20
15
10
5
0

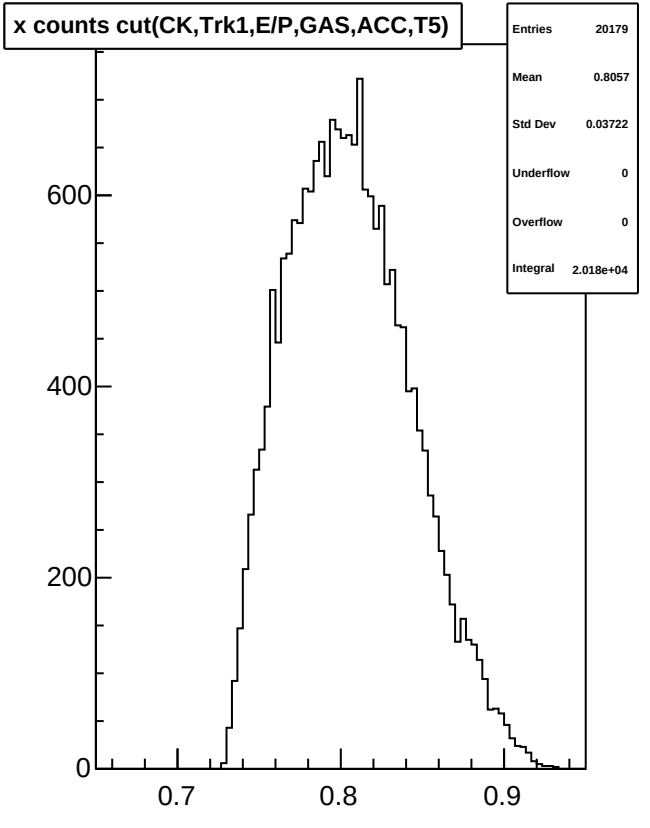

FP theta VS x cut(CK E/P and Trk1 T5)
Entries 56845
Mean x −0.0517
Mean y −0.01002
Std Dev x 0.298
Std Dev y 0.05397
Integral 5.664e+04
0 130 0
0 56637 0
0 78 0
FP θ
FP x
0.1
0.0
−0.1
−0.2
−1.0
−0.5
0.0
0.5
1.0
30
20
10
0


FP phi VS y cut(CK E/P and Trk1 T5)
Entries 56845
Mean x −0.02089
Mean y 0.006799
Std Dev x 0.02991
Std Dev y 0.02573
Integral 5.619e+04
55 124 9
125 56190 124
8 121 89
FP ϕ
FP y
0.05
0.00
−0.05
−0.10
−0.10
−0.05
0.00
0.05
0.10
40
30
20
10
0


x vs W2 cut(CK,TRK1,E/P,GAS,T5)
Entries 28301
Mean x 0.7959
Mean y 3.834
Std Dev x 0.04557
Std Dev y 0.6758
Integral 2.822e+04
6 0 0
3 28225 9
0 0 58
w2
x
0.6
0.7
0.8
0.9
1.0
0
5
10
0
20
40
60


Q2 vs W2 cut(CK,TRK1,E/P,GAS,T5)
Entries 28301
Mean x 0.7958
Mean y 11.51
Std Dev x 0.04556
Std Dev y 0.599
Integral 2.822e+04
0 1 60
9 28224 7
0 0 0
Q2
x
0.6
0.7
0.8
0.9
1.0
0
5
10
0
5
10
15
20
25


x counts cut(CK,Trk1,E/P,GAS,T5)
Entries 28301
Mean 0.7958
Std Dev 0.04529
Underflow 16
Overflow 87
Integral 2.82e+04
800
600
400
200
0
0.7
0.8
0.9


x counts cut(CK,Trk1,E/P,GAS,ACC,T5)
Entries 20179
Mean 0.8057
Std Dev 0.03722
Underflow 0
Overflow 0
Integral 2.018e+04
600
400
200
0
0.7
0.8
0.9