First look at Carbon and Silicon yield

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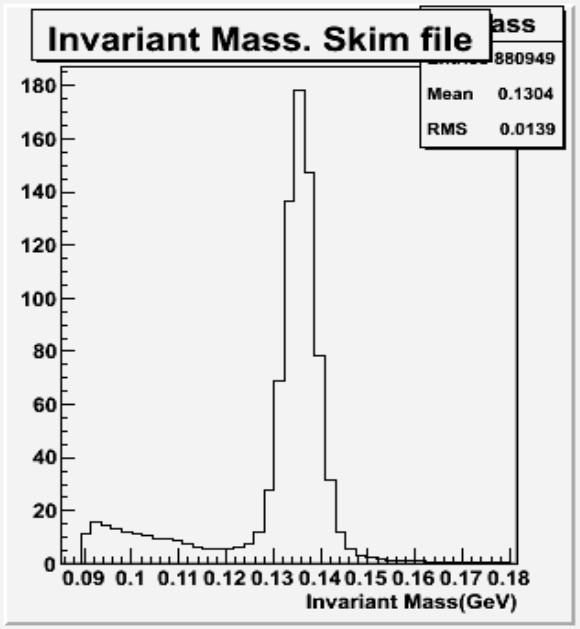
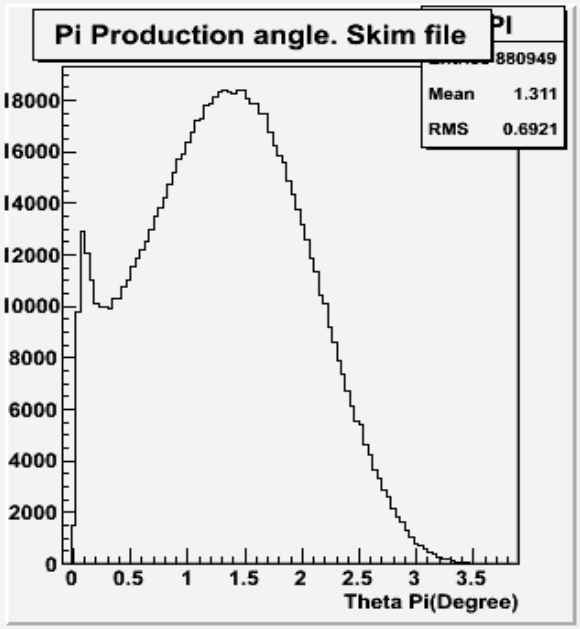
Some basic cuts

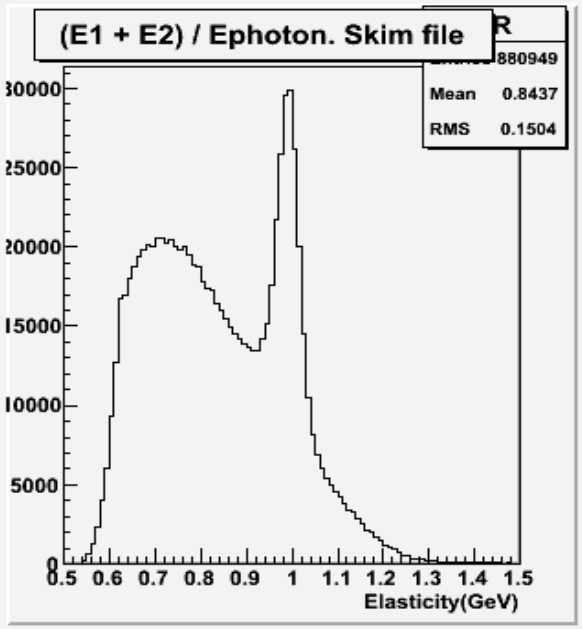
- Photon Bank | Tdiff | < 40 nsec
- Photon Bank photon ID = 2
- HyCal Cluseter energy is between 0.5 GeV and 7 GeV
- HyCal type = 2 and 0
- E1 + E2 – photon energy < 2 GeV
- Invariant Mass > 0.09 GeV

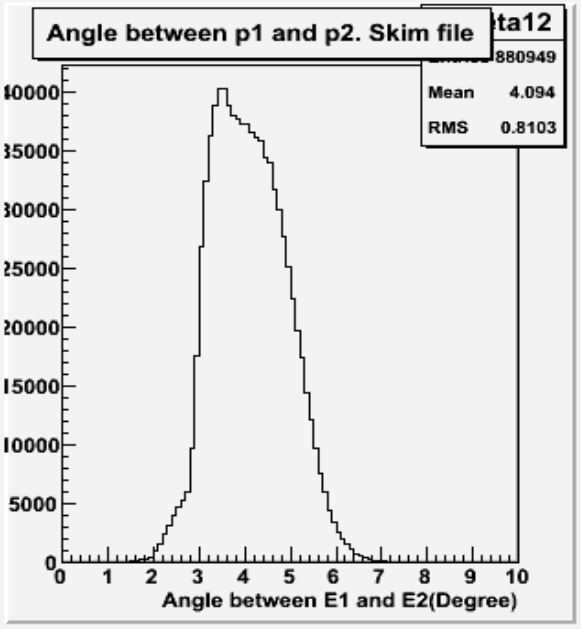
Carbon and Silicon target data is analyzed.

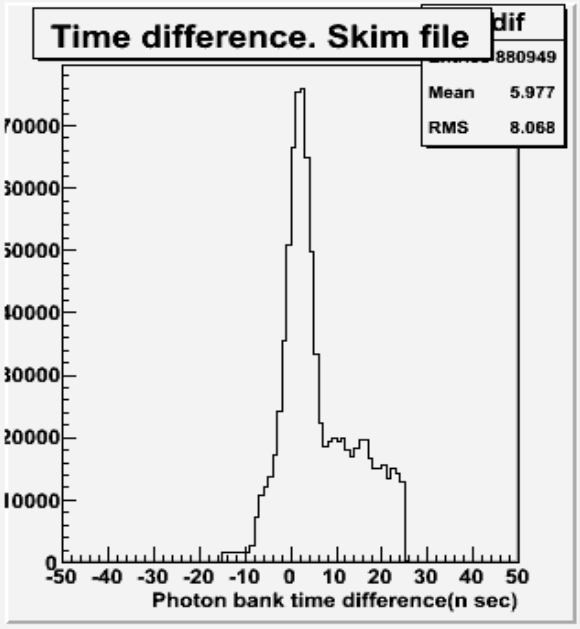
- Two dimensional histograms of different quantities.
- Two Gaussain fit to Invariant Mass.
- When plotting the yield dN/dt , the step size is dt = 0.025 degree
- dN = Integral of total fit to invariant mass from 0.12 GeV to 0.15 GeV -
  Integral of background fit to invariant mass from 0.12 GeV to 0.15 GeV

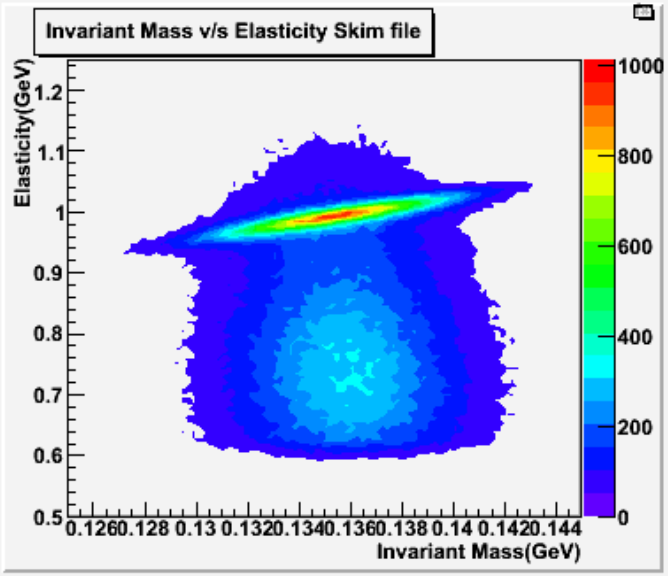

Invariant Mass. Skim file
Mean 0.1304
RMS 0.0139
Invariant Mass(GeV)

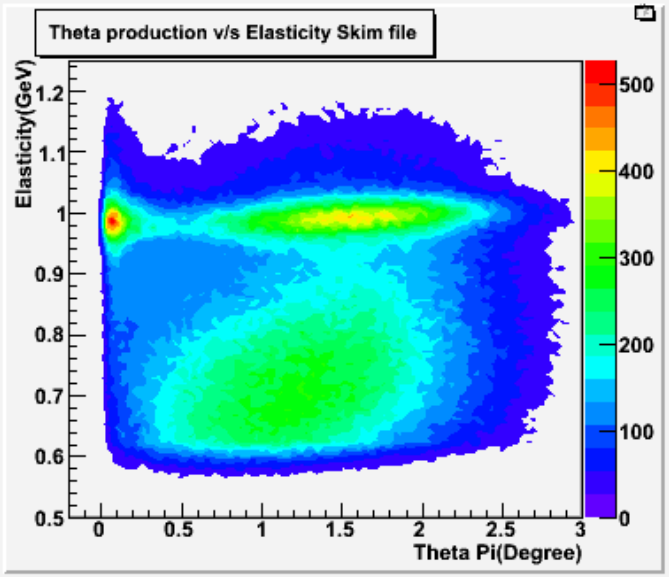

Pi Production angle. Skim file
Mean 1.311
RMS 0.6921
Theta Pi(Degree)

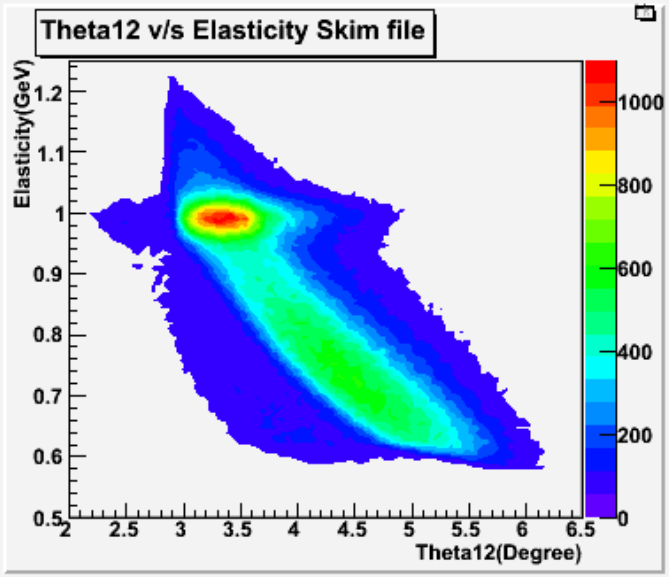

(E1 + E2) / Ephoton. Skim file
Mean 0.8437
RMS 0.1504
Elasticity(GeV)

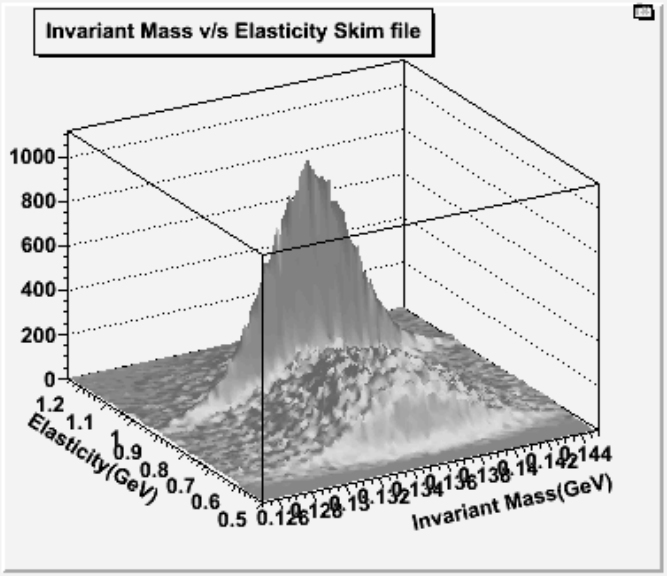

Angle between p1 and p2. Skim file
Mean 4.094
RMS 0.8103
Angle between E1 and E2(Degree)

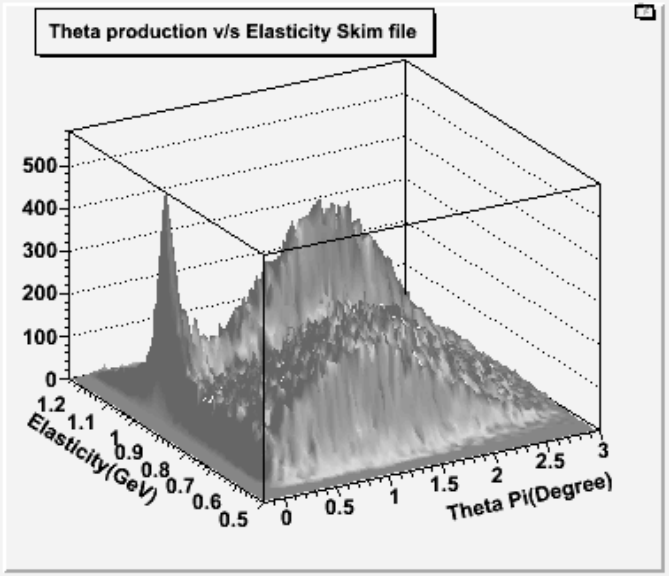

Time difference. Skim file
Mean 5.977
RMS 8.068
Photon bank time difference(n sec)

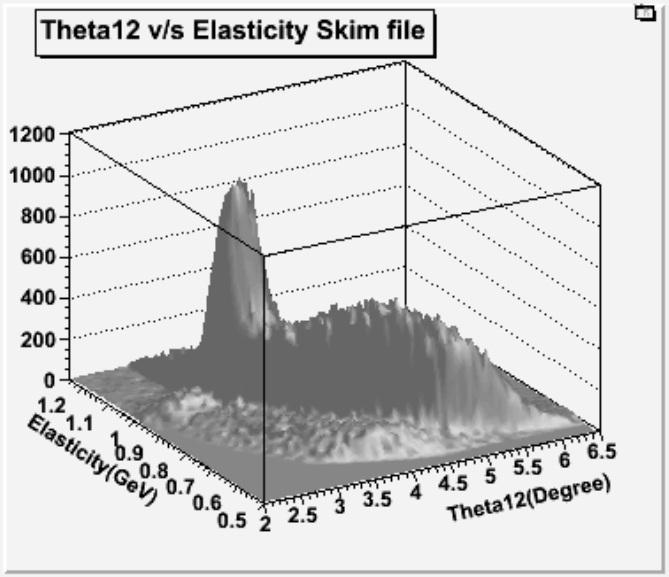

Invariant Mass v/s Elasticity Skim file
Elasticity(GeV)
Invariant Mass(GeV)

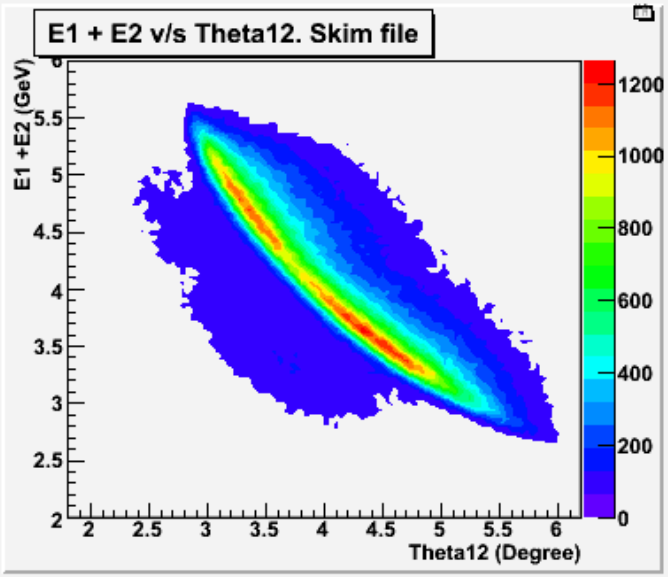

Theta production v/s Elasticity Skim file
Elasticity(GeV)
Theta Pi(Degree)

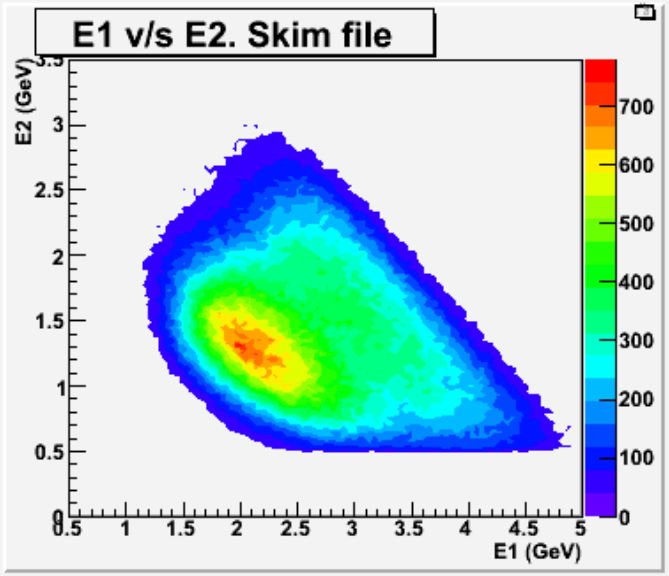

Theta12 v/s Elasticity Skim file
Elasticity(GeV)
Theta12(Degree)

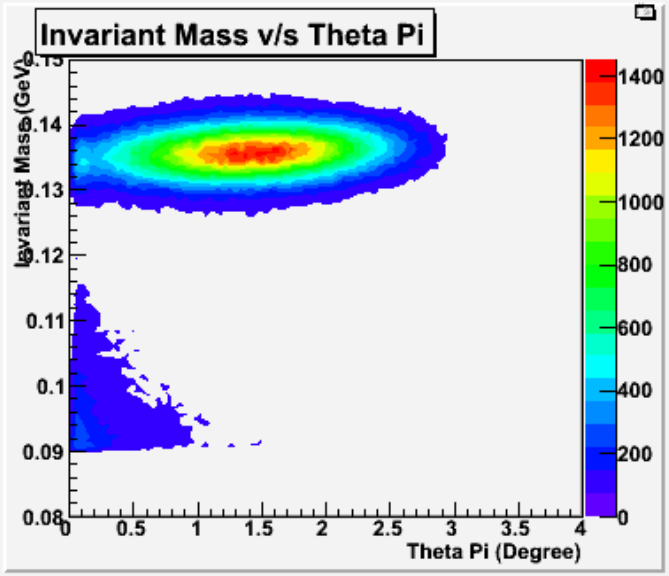

Invariant Mass v/s Elasticity Skim file
Elasticity(GeV)
Invariant Mass(GeV)

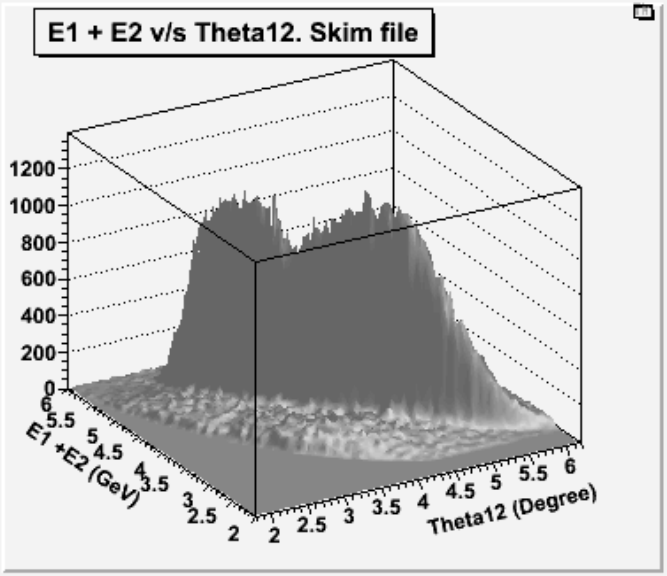

Theta production v/s Elasticity Skim file
Elasticity(GeV)
Theta Pi(Degree)

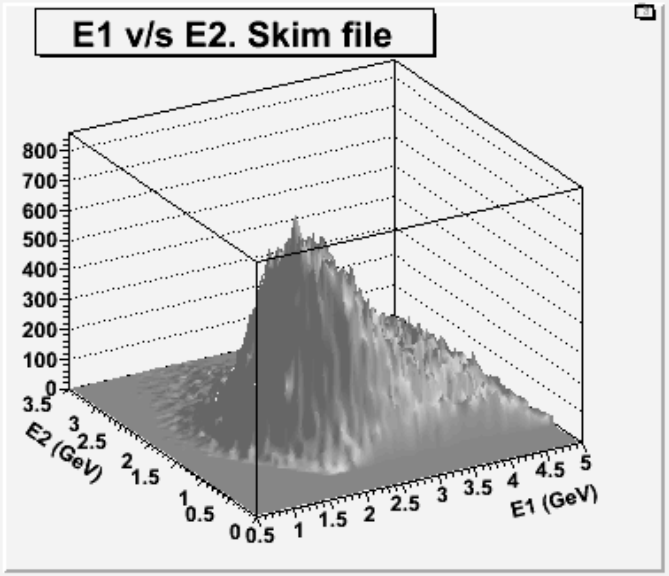

Theta12 v/s Elasticity Skim file
Elasticity(GeV)
Theta12(Degree)

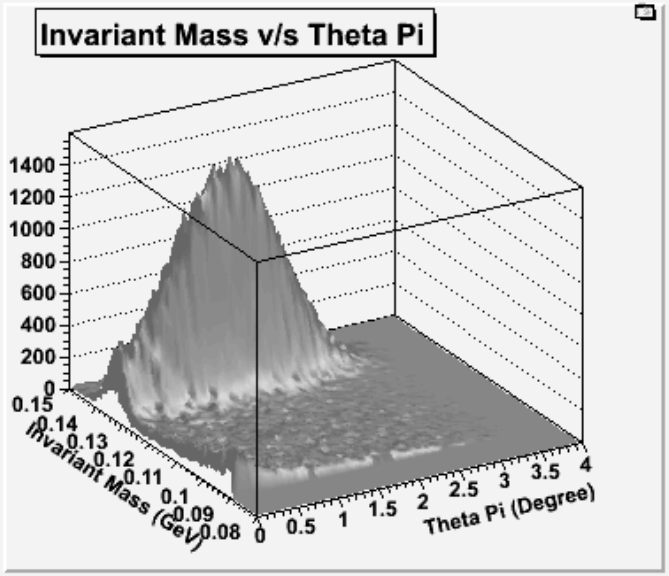

E1 + E2 v/s Theta12. Skim file
E1 +E2 (GeV)
Theta12 (Degree)


E1 v/s E2. Skim file
E2 (GeV)
E1 (GeV)

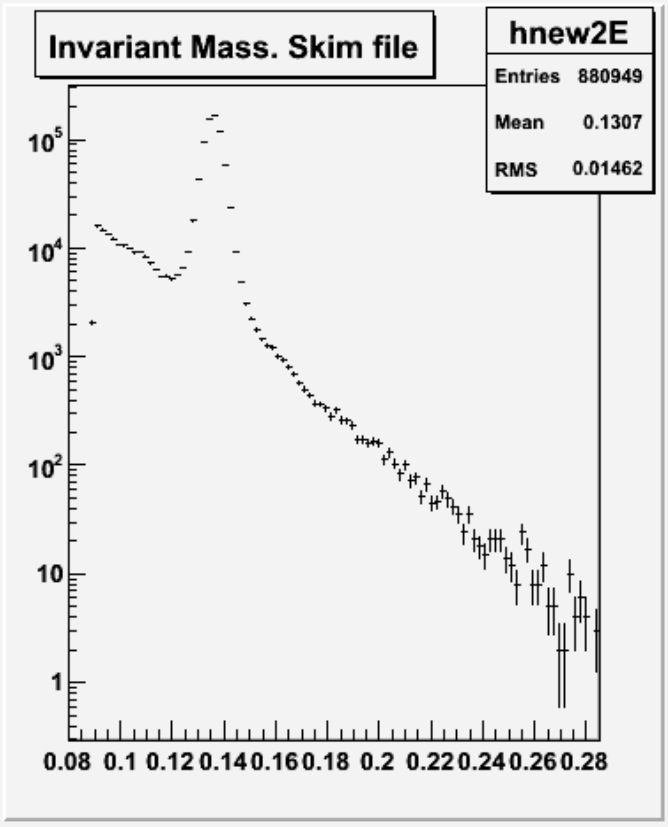

Invariant Mass v/s Theta Pi
Invariant Mass (GeV)
Theta Pi (Degree)

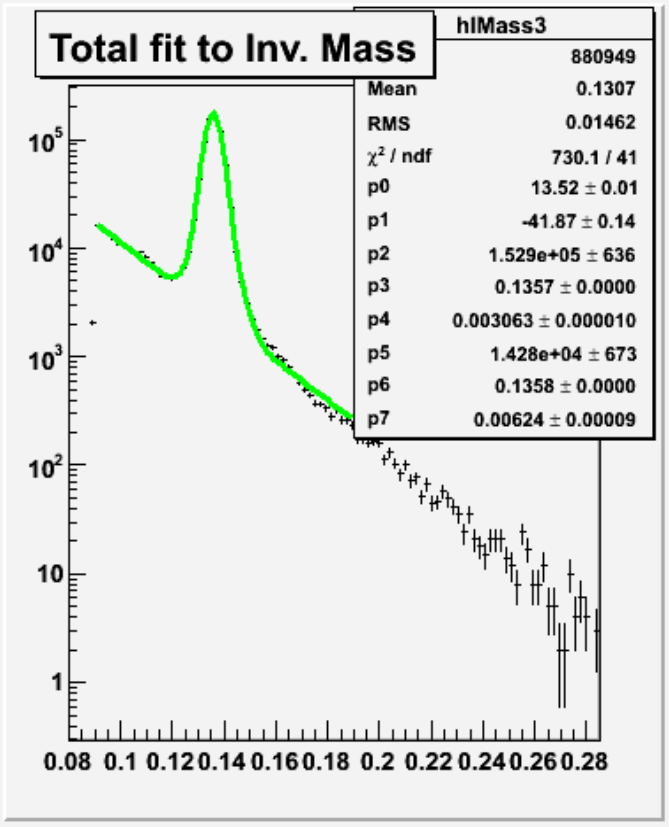

E1 + E2 v/s Theta12. Skim file
E1 +E2 (GeV)
Theta12 (Degree)

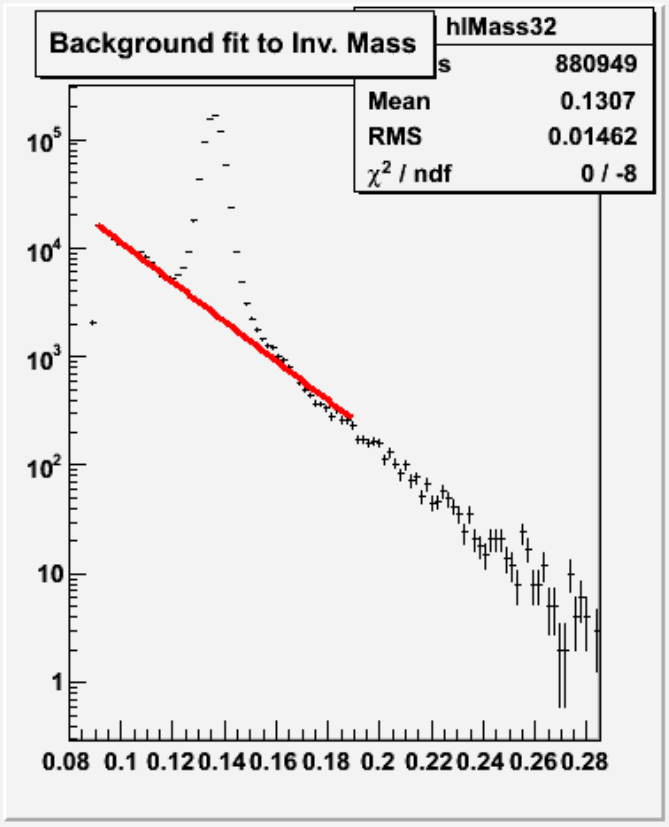

E1 v/s E2. Skim file
E2 (GeV)
E1 (GeV)

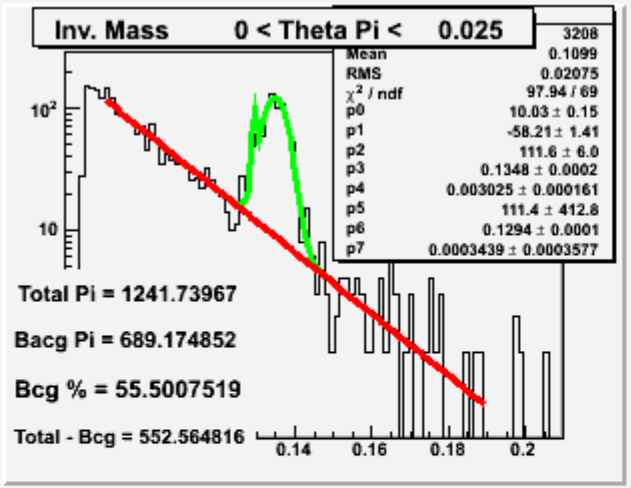

Invariant Mass v/s Theta Pi
Invariant Mass (GeV)
Theta Pi (Degree)

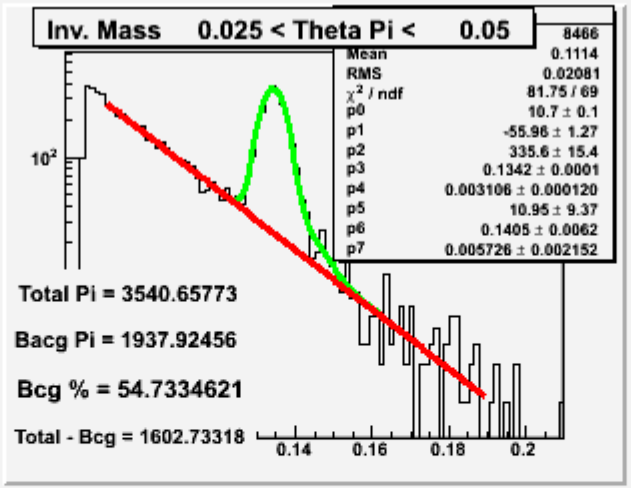
Carbon data. Invariant Mass two Gaussian Fit

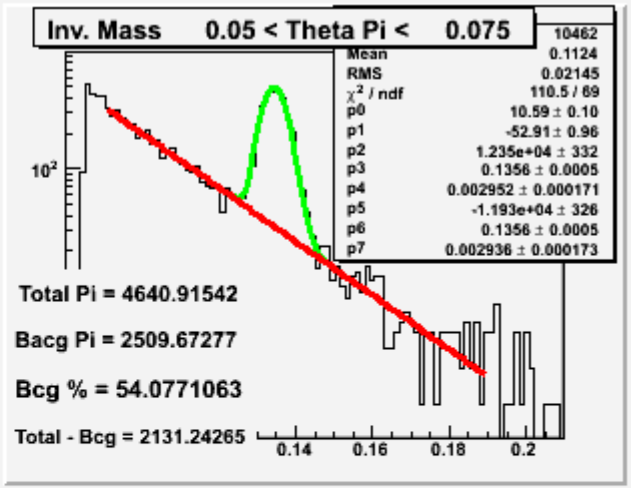


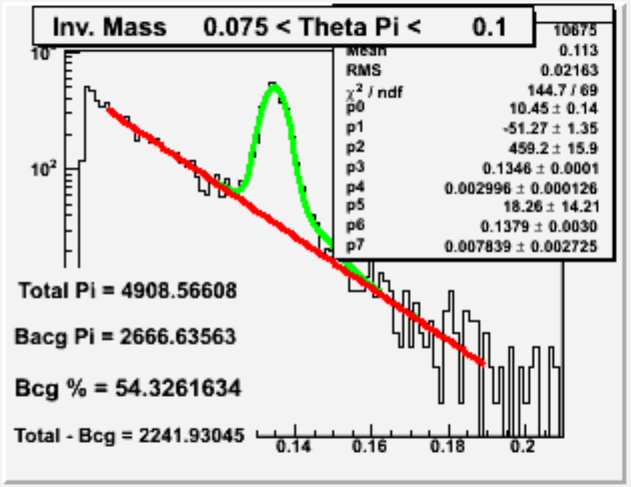


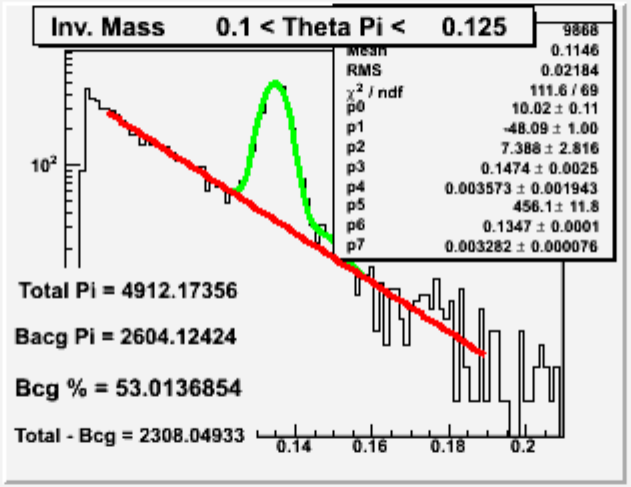


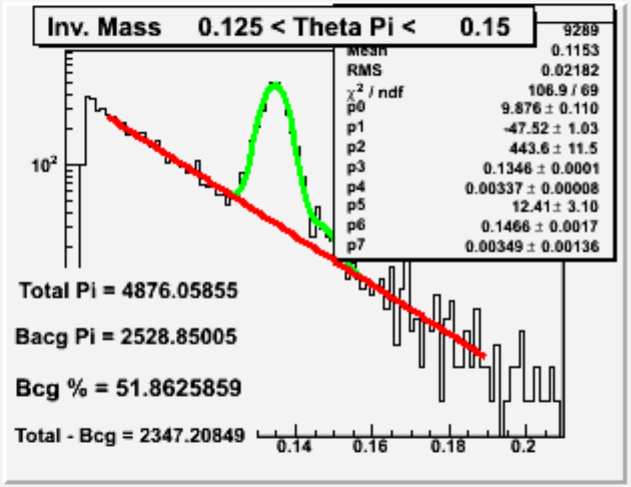

Inv. Mass 0 < Theta Pi < 0.025
3208
Mean 0.1099
RMS 0.02075
χ² / ndf 97.94 / 69
p0 10.03 ± 0.15
p1 -58.21 ± 1.41
p2 111.6 ± 6.0
p3 0.1348 ± 0.0002
p4 0.003025 ± 0.000161
p5 111.4 ± 412.8
p6 0.1294 ± 0.0001
p7 0.0003439 ± 0.0003577
Total Pi = 1241.73967
Bacg Pi = 689.174852
Bcg % = 55.5007519
Total - Bcg = 552.564816

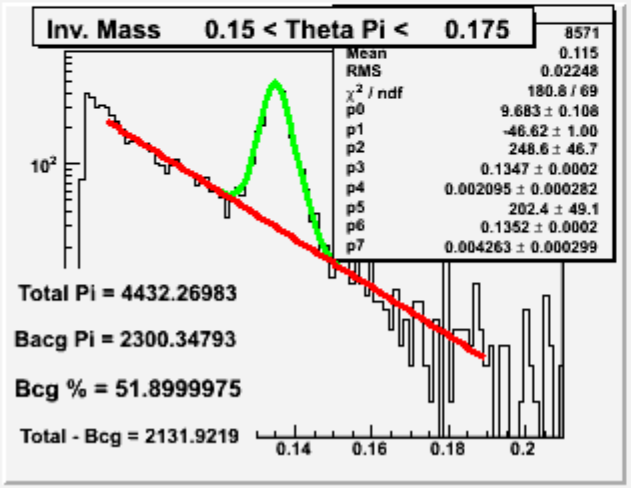

Inv. Mass 0.025 < Theta Pi < 0.05
8466
Mean 0.1114
RMS 0.02081
χ² / ndf 81.75 / 69
p0 10.7 ± 0.1
p1 -55.96 ± 1.27
p2 335.6 ± 15.4
p3 0.1342 ± 0.0001
p4 0.003106 ± 0.000120
p5 10.95 ± 9.37
p6 0.1405 ± 0.0062
p7 0.005726 ± 0.002152
Total Pi = 3540.65773
Bacg Pi = 1937.92456
Bcg % = 54.7334621
Total - Bcg = 1602.73318

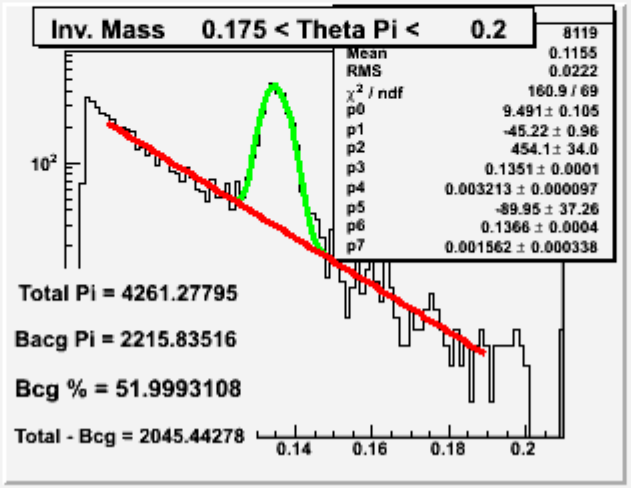

Inv. Mass 0.05 < Theta Pi < 0.075
10462
Mean 0.1124
RMS 0.02145
χ² / ndf 110.5 / 69
p0 10.59 ± 0.10
p1 -52.91 ± 0.96
p2 1.235e+04 ± 332
p3 0.1356 ± 0.0005
p4 0.002952 ± 0.000171
p5 -1.193e+04 ± 326
p6 0.1356 ± 0.0005
p7 0.002936 ± 0.000173
Total Pi = 4640.91542
Bacg Pi = 2509.67277
Bcg % = 54.0771063
Total - Bcg = 2131.24265

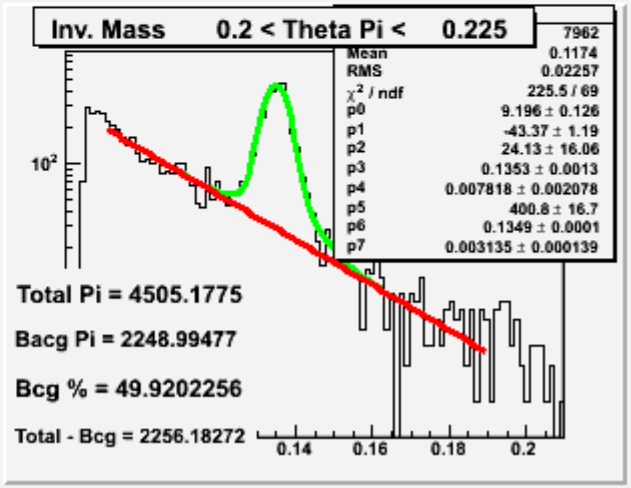

Inv. Mass 0.075 < Theta Pi < 0.1
10675
Mean 0.113
RMS 0.02163
χ² / ndf 144.7 / 69
p0 10.45 ± 0.14
p1 -51.27 ± 1.35
p2 459.2 ± 15.9
p3 0.1346 ± 0.0001
p4 0.002996 ± 0.000126
p5 18.26 ± 14.21
p6 0.1379 ± 0.0030
p7 0.007839 ± 0.002725
Total Pi = 4908.56608
Bacg Pi = 2666.63563
Bcg % = 54.3261634
Total - Bcg = 2241.93045

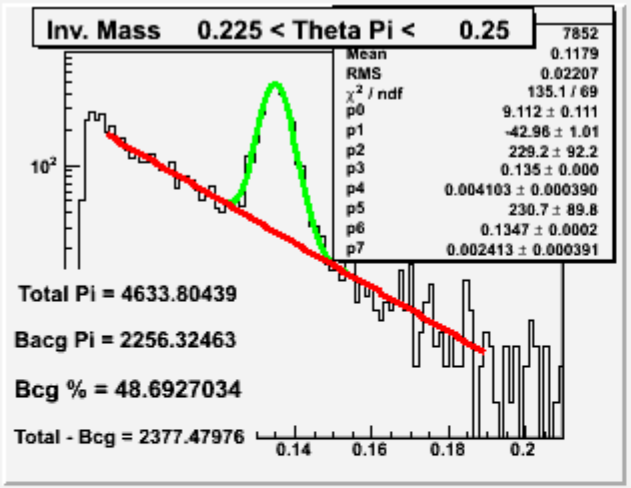

Inv. Mass 0.1 < Theta Pi < 0.125
9868
Mean 0.1146
RMS 0.02184
χ² / ndf 111.6 / 69
p0 10.02 ± 0.11
p1 -48.09 ± 1.00
p2 7.388 ± 2.816
p3 0.1474 ± 0.0025
p4 0.003573 ± 0.001943
p5 456.1 ± 11.8
p6 0.1347 ± 0.0001
p7 0.003282 ± 0.000076
Total Pi = 4912.17356
Bacg Pi = 2604.12424
Bcg % = 53.0136854
Total - Bcg = 2308.04933

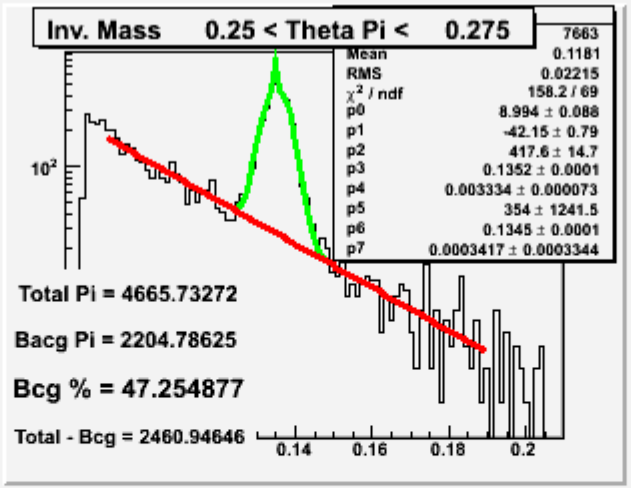

Inv. Mass 0.125 < Theta Pi < 0.15
9289
Mean 0.1153
RMS 0.02182
χ² / ndf 106.9 / 69
p0 9.876 ± 0.110
p1 -47.52 ± 1.03
p2 443.6 ± 11.5
p3 0.1346 ± 0.0001
p4 0.00337 ± 0.00008
p5 12.41 ± 3.10
p6 0.1466 ± 0.0017
p7 0.00349 ± 0.00136
Total Pi = 4876.05855
Bacg Pi = 2528.85005
Bcg % = 51.8625859
Total - Bcg = 2347.20849

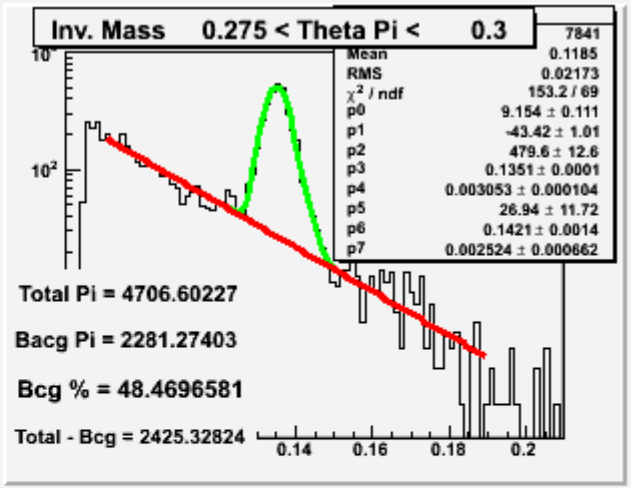

Inv. Mass 0.15 < Theta Pi < 0.175
8571
Mean 0.115
RMS 0.02248
χ² / ndf 180.8 / 69
p0 9.683 ± 0.108
p1 -46.62 ± 1.00
p2 248.6 ± 46.7
p3 0.1347 ± 0.0002
p4 0.002095 ± 0.000282
p5 202.4 ± 49.1
p6 0.1352 ± 0.0002
p7 0.004263 ± 0.000299
Total Pi = 4432.26983
Bacg Pi = 2300.34793
Bcg % = 51.8999975
Total - Bcg = 2131.9219

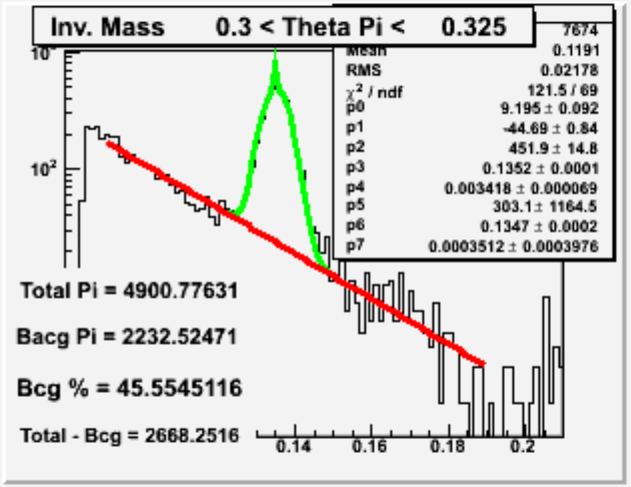

Inv. Mass 0.175 < Theta Pi < 0.2
8119
Mean 0.1155
RMS 0.0222
χ² / ndf 160.9 / 69
p0 9.491 ± 0.105
p1 -45.22 ± 0.96
p2 454.1 ± 34.0
p3 0.1351 ± 0.0001
p4 0.003213 ± 0.000097
p5 -89.95 ± 37.26
p6 0.1366 ± 0.0004
p7 0.001562 ± 0.000338
Total Pi = 4261.27795
Bacg Pi = 2215.83516
Bcg % = 51.9993108
Total - Bcg = 2045.44278

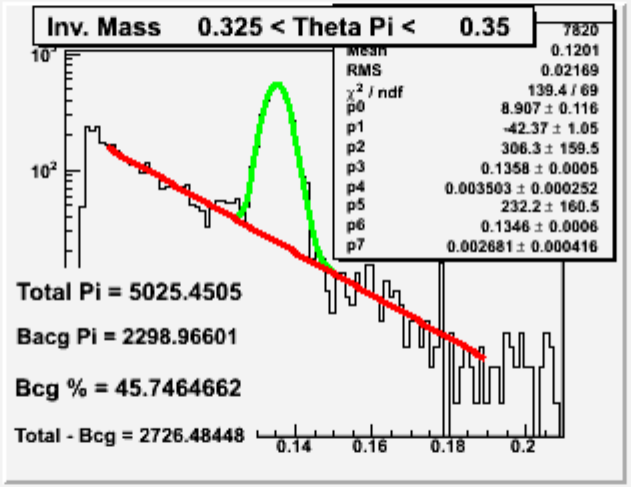

Inv. Mass 0.2 < Theta Pi < 0.225
7962
Mean 0.1174
RMS 0.02257
χ² / ndf 225.5 / 69
p0 9.196 ± 0.126
p1 -43.37 ± 1.19
p2 24.13 ± 16.06
p3 0.1353 ± 0.0013
p4 0.007818 ± 0.002078
p5 400.8 ± 16.7
p6 0.1349 ± 0.0001
p7 0.003135 ± 0.000139
Total Pi = 4505.1775
Bacg Pi = 2248.99477
Bcg % = 49.9202256
Total - Bcg = 2256.18272

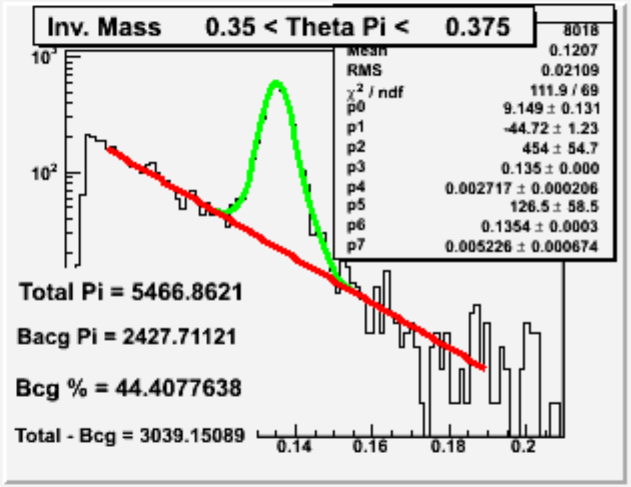

Inv. Mass 0.225 < Theta Pi < 0.25
7852
Mean 0.1179
RMS 0.02207
χ² / ndf 135.1 / 69
p0 9.112 ± 0.111
p1 -42.96 ± 1.01
p2 229.2 ± 92.2
p3 0.135 ± 0.000
p4 0.004103 ± 0.000390
p5 230.7 ± 89.8
p6 0.1347 ± 0.0002
p7 0.002413 ± 0.000391
Total Pi = 4633.80439
Bacg Pi = 2256.32463
Bcg % = 48.6927034
Total - Bcg = 2377.47976

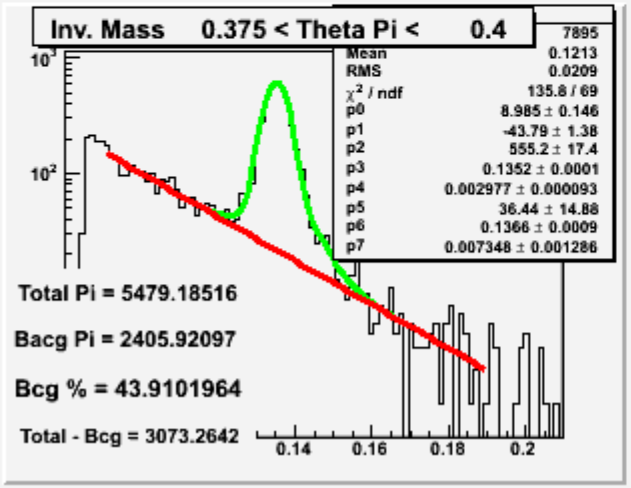

Inv. Mass 0.25 < Theta Pi < 0.275
7663
Mean 0.1181
RMS 0.02215
χ² / ndf 158.2 / 69
p0 8.994 ± 0.088
p1 -42.15 ± 0.79
p2 417.6 ± 14.7
p3 0.1352 ± 0.0001
p4 0.003334 ± 0.000073
p5 354 ± 1241.5
p6 0.1345 ± 0.0001
p7 0.0003417 ± 0.0003344
Total Pi = 4665.73272
Bacg Pi = 2204.78625
Bcg % = 47.254877
Total - Bcg = 2460.94646

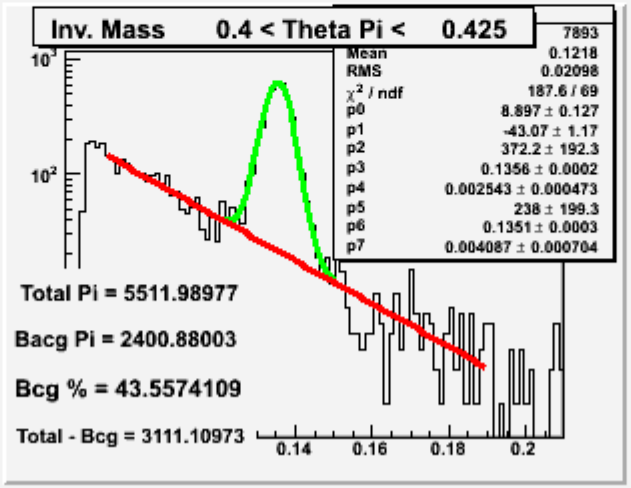

Inv. Mass 0.275 < Theta Pi < 0.3
7841
Mean 0.1185
RMS 0.02173
χ² / ndf 153.2 / 69
p0 9.154 ± 0.111
p1 -43.42 ± 1.01
p2 479.6 ± 12.6
p3 0.1351 ± 0.0001
p4 0.003053 ± 0.000104
p5 26.94 ± 11.72
p6 0.1421 ± 0.0014
p7 0.002524 ± 0.000662
Total Pi = 4706.60227
Bacg Pi = 2281.27403
Bcg % = 48.4696581
Total - Bcg = 2425.32824

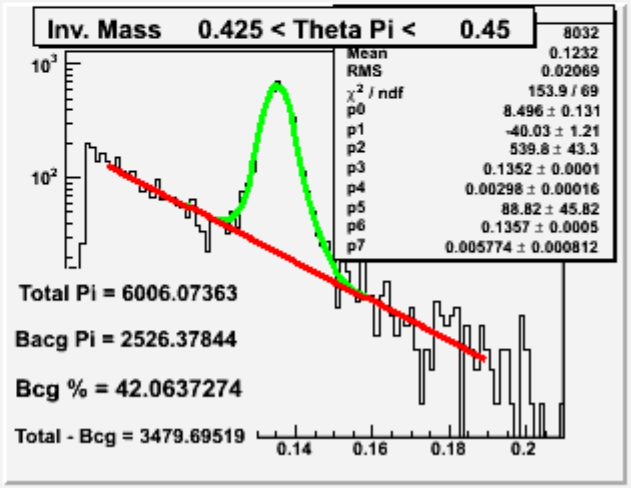

Inv. Mass 0.3 < Theta Pi < 0.325
7674
Mean 0.1191
RMS 0.02178
χ² / ndf 121.5 / 69
p0 9.195 ± 0.092
p1 -44.69 ± 0.84
p2 451.9 ± 14.8
p3 0.1352 ± 0.0001
p4 0.003418 ± 0.000069
p5 303.1 ± 1164.5
p6 0.1347 ± 0.0002
p7 0.0003512 ± 0.0003976
Total Pi = 4900.77631
Bacg Pi = 2232.52471
Bcg % = 45.5545116
Total - Bcg = 2668.2516

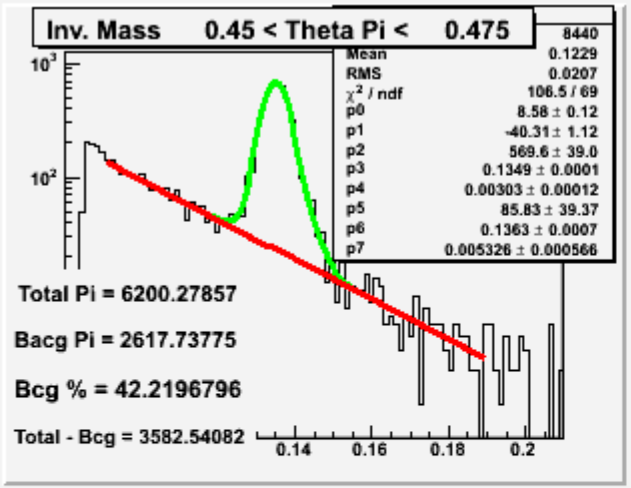

Inv. Mass 0.325 < Theta Pi < 0.35
7820
Mean 0.1201
RMS 0.02169
χ² / ndf 139.4 / 69
p0 8.907 ± 0.116
p1 -42.37 ± 1.05
p2 306.3 ± 159.5
p3 0.1358 ± 0.0005
p4 0.003503 ± 0.000252
p5 232.2 ± 160.5
p6 0.1346 ± 0.0006
p7 0.002681 ± 0.000416
Total Pi = 5025.4505
Bacg Pi = 2298.96601
Bcg % = 45.7464662
Total - Bcg = 2726.48448

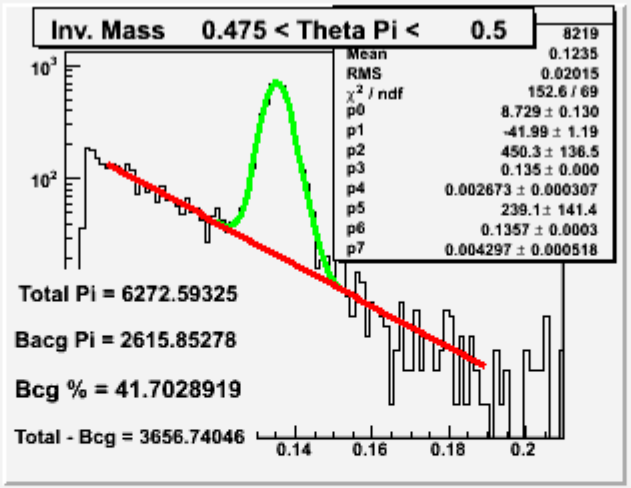

Inv. Mass 0.35 < Theta Pi < 0.375
8018
Mean 0.1207
RMS 0.02109
χ² / ndf 111.9 / 69
p0 9.149 ± 0.131
p1 -44.72 ± 1.23
p2 454 ± 54.7
p3 0.135 ± 0.000
p4 0.002717 ± 0.000206
p5 126.5 ± 58.5
p6 0.1354 ± 0.0003
p7 0.005226 ± 0.000674
Total Pi = 5466.8621
Bacg Pi = 2427.71121
Bcg % = 44.4077638
Total - Bcg = 3039.15089

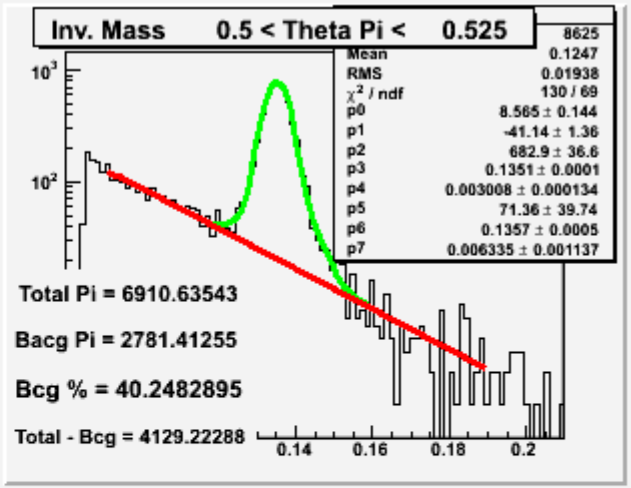

Inv. Mass 0.375 < Theta Pi < 0.4
7895
Mean 0.1213
RMS 0.0209
χ² / ndf 135.8 / 69
p0 8.985 ± 0.146
p1 -43.79 ± 1.38
p2 555.2 ± 17.4
p3 0.1352 ± 0.0001
p4 0.002977 ± 0.000093
p5 36.44 ± 14.88
p6 0.1366 ± 0.0009
p7 0.007348 ± 0.001286
Total Pi = 5479.18516
Bacg Pi = 2405.92097
Bcg % = 43.9101964
Total - Bcg = 3073.2642

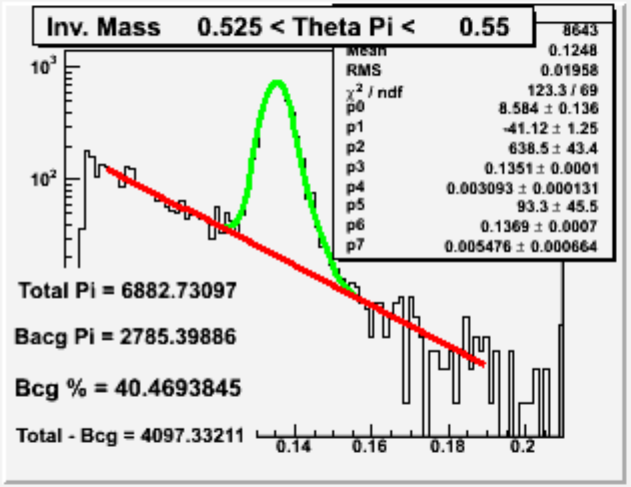

Inv. Mass 0.4 < Theta Pi < 0.425
7893
Mean 0.1218
RMS 0.02098
χ² / ndf 187.6 / 69
p0 8.897 ± 0.127
p1 -43.07 ± 1.17
p2 372.2 ± 192.3
p3 0.1356 ± 0.0002
p4 0.002543 ± 0.000473
p5 238 ± 199.3
p6 0.1351 ± 0.0003
p7 0.004087 ± 0.000704
Total Pi = 5511.98977
Bacg Pi = 2400.88003
Bcg % = 43.5574109
Total - Bcg = 3111.10973

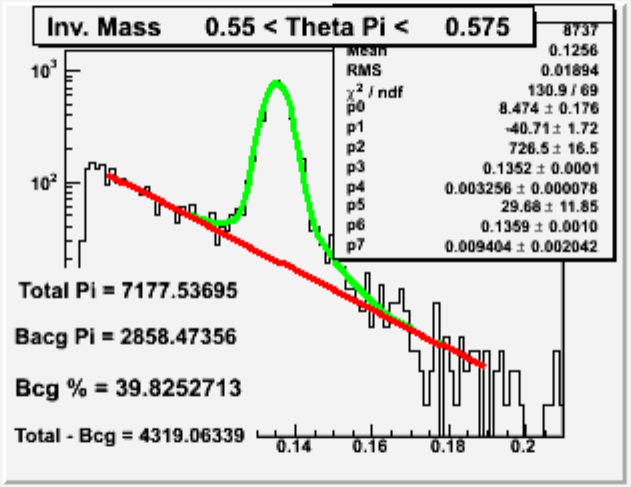

Inv. Mass 0.425 < Theta Pi < 0.45
8032
Mean 0.1232
RMS 0.02069
χ² / ndf 153.9 / 69
p0 8.496 ± 0.131
p1 -40.03 ± 1.21
p2 539.8 ± 43.3
p3 0.1352 ± 0.0001
p4 0.00298 ± 0.00016
p5 88.82 ± 45.82
p6 0.1357 ± 0.0005
p7 0.005774 ± 0.000812
Total Pi = 6006.07363
Bacg Pi = 2526.37844
Bcg % = 42.0637274
Total - Bcg = 3479.69519

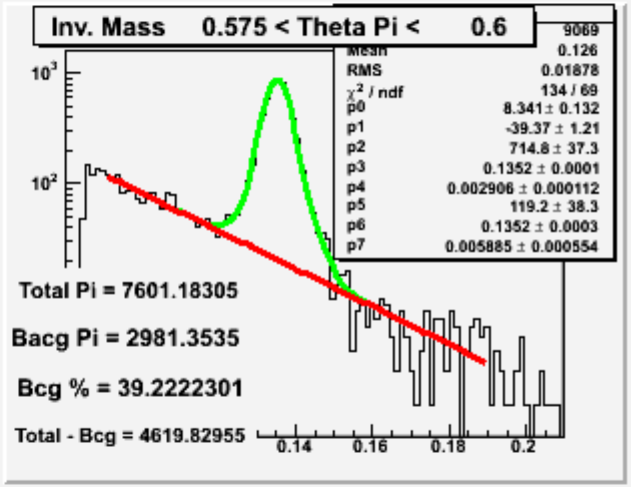

Inv. Mass 0.45 < Theta Pi < 0.475
8440
Mean 0.1229
RMS 0.0207
χ² / ndf 106.5 / 69
p0 8.58 ± 0.12
p1 -40.31 ± 1.12
p2 569.6 ± 39.0
p3 0.1349 ± 0.0001
p4 0.00303 ± 0.00012
p5 85.83 ± 39.37
p6 0.1363 ± 0.0007
p7 0.005326 ± 0.000566
Total Pi = 6200.27857
Bacg Pi = 2617.73775
Bcg % = 42.2196796
Total - Bcg = 3582.54082

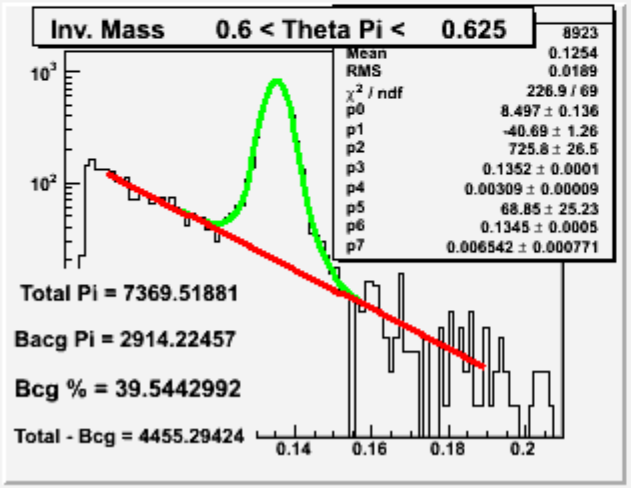

Inv. Mass 0.475 < Theta Pi < 0.5
8219
Mean 0.1235
RMS 0.02015
χ² / ndf 152.6 / 69
p0 8.729 ± 0.130
p1 -41.99 ± 1.19
p2 450.3 ± 136.5
p3 0.135 ± 0.000
p4 0.002673 ± 0.000307
p5 239.1 ± 141.4
p6 0.1357 ± 0.0003
p7 0.004297 ± 0.000518
Total Pi = 6272.59325
Bacg Pi = 2615.85278
Bcg % = 41.7028919
Total - Bcg = 3656.74046

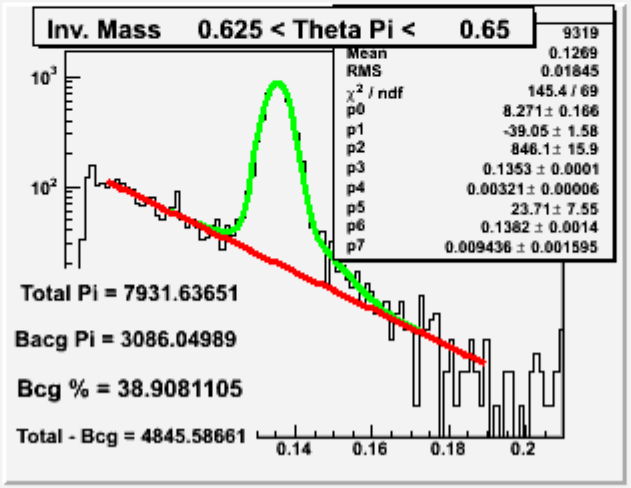

Inv. Mass 0.5 < Theta Pi < 0.525
8625
Mean 0.1247
RMS 0.01938
χ² / ndf 130 / 69
p0 8.565 ± 0.144
p1 -41.14 ± 1.36
p2 682.9 ± 36.6
p3 0.1351 ± 0.0001
p4 0.003008 ± 0.000134
p5 71.36 ± 39.74
p6 0.1357 ± 0.0005
p7 0.006335 ± 0.001137
Total Pi = 6910.63543
Bacg Pi = 2781.41255
Bcg % = 40.2482895
Total - Bcg = 4129.22288

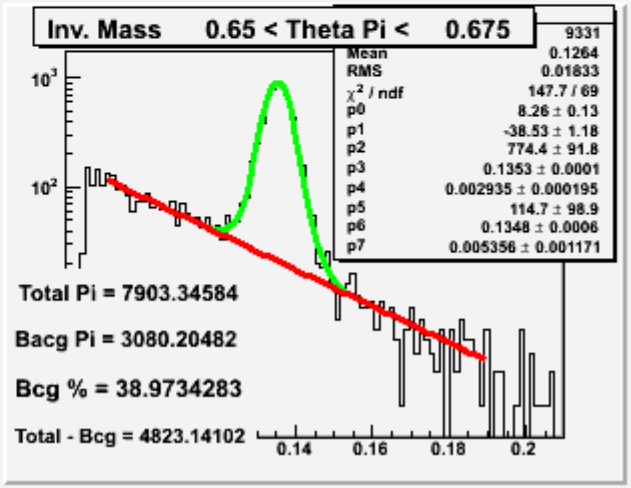

Inv. Mass 0.525 < Theta Pi < 0.55
8643
Mean 0.1248
RMS 0.01958
χ² / ndf 123.3 / 69
p0 8.584 ± 0.136
p1 -41.12 ± 1.25
p2 638.5 ± 43.4
p3 0.1351 ± 0.0001
p4 0.003093 ± 0.000131
p5 93.3 ± 45.5
p6 0.1369 ± 0.0007
p7 0.005476 ± 0.000664
Total Pi = 6882.73097
Bacg Pi = 2785.39886
Bcg % = 40.4693845
Total - Bcg = 4097.33211

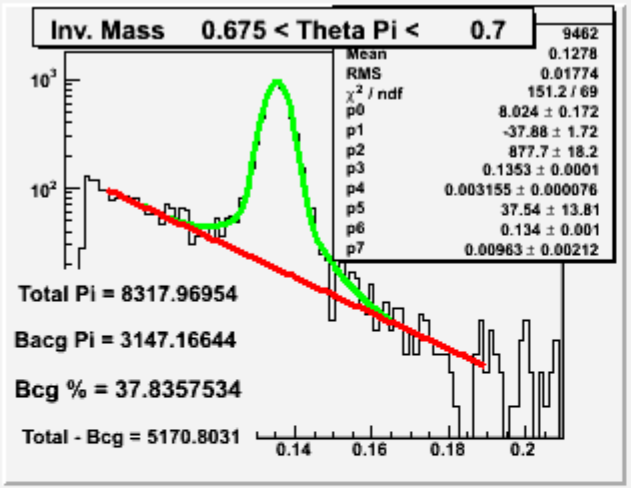

Inv. Mass 0.55 < Theta Pi < 0.575
8737
Mean 0.1256
RMS 0.01894
χ² / ndf 130.9 / 69
p0 8.474 ± 0.176
p1 -40.71 ± 1.72
p2 726.5 ± 16.5
p3 0.1352 ± 0.0001
p4 0.003256 ± 0.000078
p5 29.68 ± 11.85
p6 0.1359 ± 0.0010
p7 0.009404 ± 0.002042
Total Pi = 7177.53695
Bacg Pi = 2858.47356
Bcg % = 39.8252713
Total - Bcg = 4319.06339

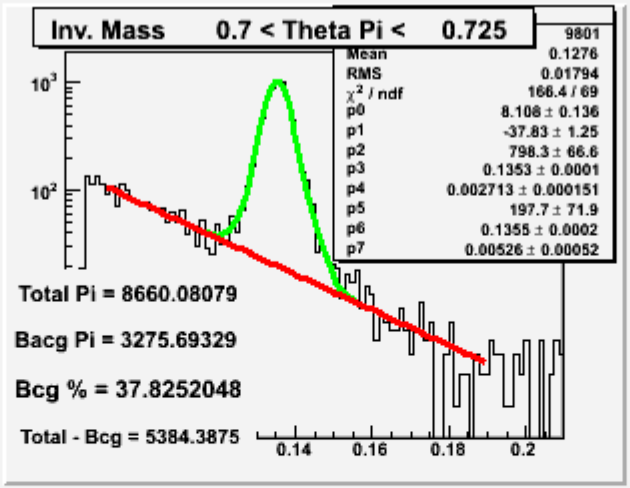

Inv. Mass 0.575 < Theta Pi < 0.6
9069
Mean 0.126
RMS 0.01878
χ² / ndf 134 / 69
p0 8.341 ± 0.132
p1 -39.37 ± 1.21
p2 714.8 ± 37.3
p3 0.1352 ± 0.0001
p4 0.002906 ± 0.000112
p5 119.2 ± 38.3
p6 0.1352 ± 0.0003
p7 0.005885 ± 0.000554
Total Pi = 7601.18305
Bacg Pi = 2981.3535
Bcg % = 39.2222301
Total - Bcg = 4619.82955

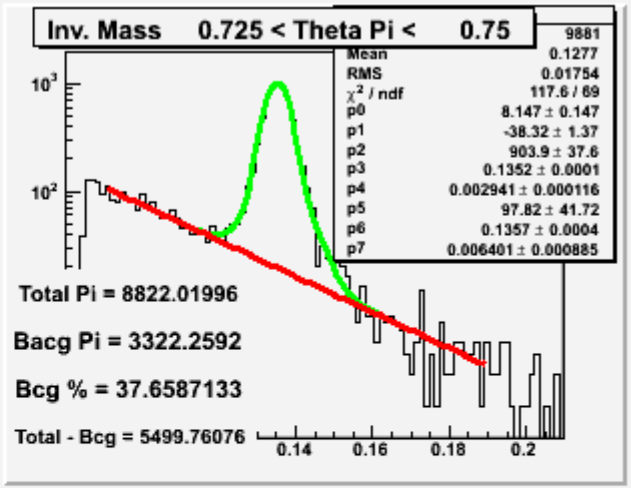

Inv. Mass 0.6 < Theta Pi < 0.625
8923
Mean 0.1254
RMS 0.0189
χ² / ndf 226.9 / 69
p0 8.497 ± 0.136
p1 -40.69 ± 1.26
p2 725.8 ± 26.5
p3 0.1352 ± 0.0001
p4 0.00309 ± 0.00009
p5 68.85 ± 25.23
p6 0.1345 ± 0.0005
p7 0.006542 ± 0.000771
Total Pi = 7369.51881
Bacg Pi = 2914.22457
Bcg % = 39.5442992
Total - Bcg = 4455.29424

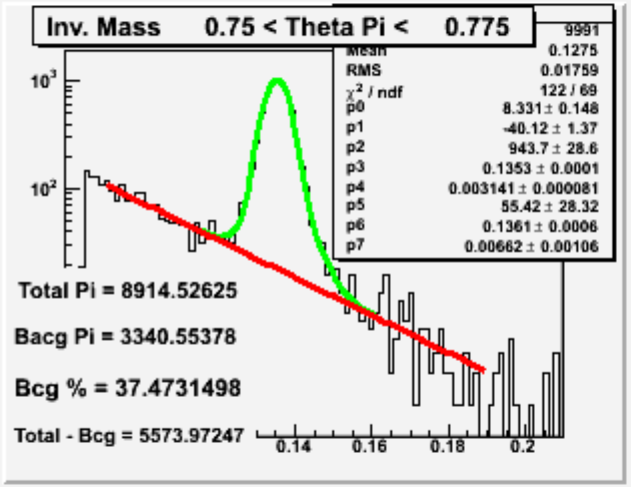

Inv. Mass 0.625 < Theta Pi < 0.65
9319
Mean 0.1269
RMS 0.01845
χ² / ndf 145.4 / 69
p0 8.271 ± 0.166
p1 -39.05 ± 1.58
p2 846.1 ± 15.9
p3 0.1353 ± 0.0001
p4 0.00321 ± 0.00006
p5 23.71 ± 7.55
p6 0.1382 ± 0.0014
p7 0.009436 ± 0.001595
Total Pi = 7931.63651
Bacg Pi = 3086.04989
Bcg % = 38.9081105
Total - Bcg = 4845.58661

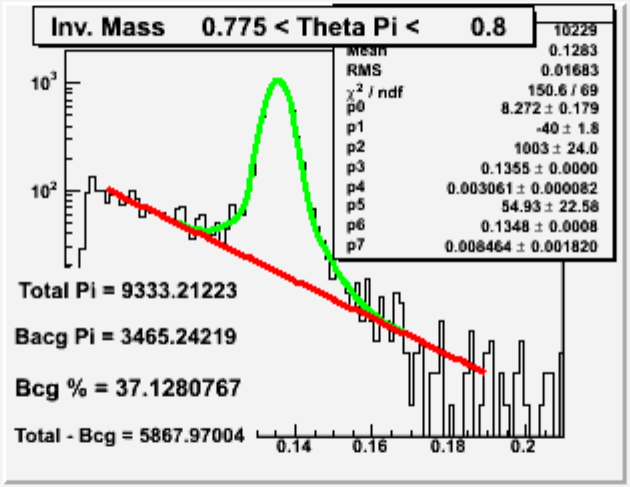

Inv. Mass 0.65 < Theta Pi < 0.675
9331
Mean 0.1264
RMS 0.01833
χ² / ndf 147.7 / 69
p0 8.26 ± 0.13
p1 -38.53 ± 1.18
p2 774.4 ± 91.8
p3 0.1353 ± 0.0001
p4 0.002935 ± 0.000195
p5 114.7 ± 98.9
p6 0.1348 ± 0.0006
p7 0.005356 ± 0.001171
Total Pi = 7903.34584
Bacg Pi = 3080.20482
Bcg % = 38.9734283
Total - Bcg = 4823.14102

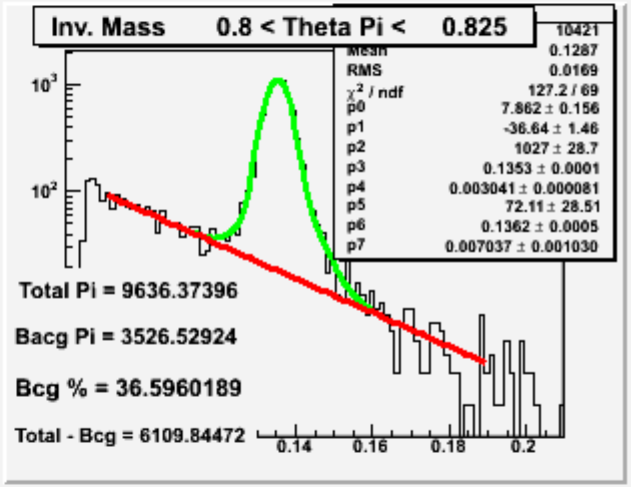

Inv. Mass 0.675 < Theta Pi < 0.7
9462
Mean 0.1278
RMS 0.01774
χ² / ndf 151.2 / 69
p0 8.024 ± 0.172
p1 -37.88 ± 1.72
p2 877.7 ± 18.2
p3 0.1353 ± 0.0001
p4 0.003155 ± 0.000076
p5 37.54 ± 13.81
p6 0.134 ± 0.001
p7 0.00963 ± 0.00212
Total Pi = 8317.96954
Bacg Pi = 3147.16644
Bcg % = 37.8357534
Total - Bcg = 5170.8031

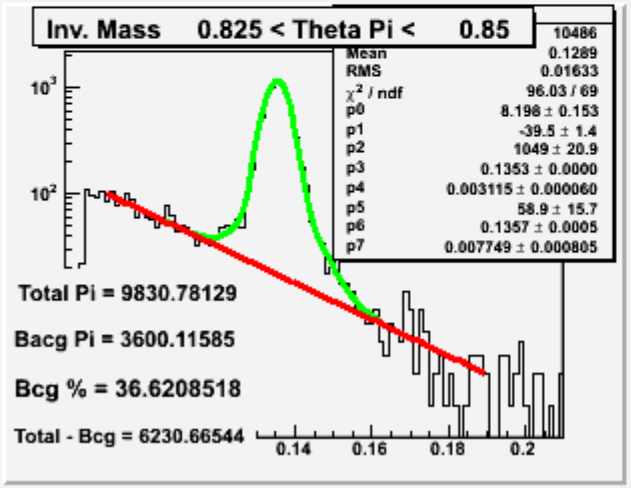

Inv. Mass 0.7 < Theta Pi < 0.725
9801
Mean 0.1276
RMS 0.01794
χ² / ndf 166.4 / 69
p0 8.108 ± 0.136
p1 -37.83 ± 1.25
p2 798.3 ± 66.6
p3 0.1353 ± 0.0001
p4 0.002713 ± 0.000151
p5 197.7 ± 71.9
p6 0.1355 ± 0.0002
p7 0.00526 ± 0.00052
Total Pi = 8660.08079
Bacg Pi = 3275.69329
Bcg % = 37.8252048
Total - Bcg = 5384.3875

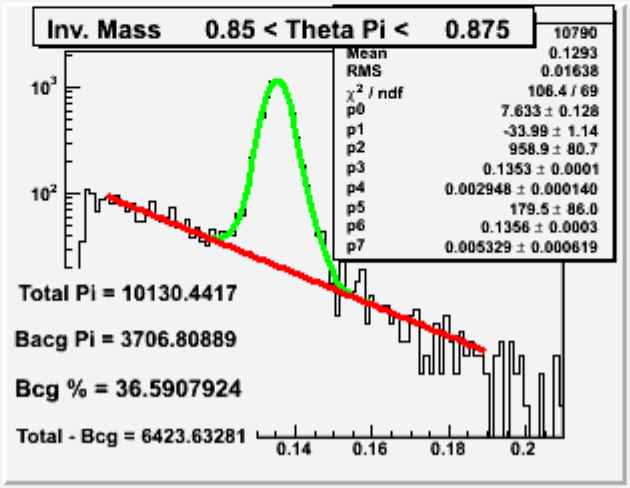

Inv. Mass 0.725 < Theta Pi < 0.75
9881
Mean 0.1277
RMS 0.01754
χ² / ndf 117.6 / 69
p0 8.147 ± 0.147
p1 -38.32 ± 1.37
p2 903.9 ± 37.6
p3 0.1352 ± 0.0001
p4 0.002941 ± 0.000116
p5 97.82 ± 41.72
p6 0.1357 ± 0.0004
p7 0.006401 ± 0.000885
Total Pi = 8822.01996
Bacg Pi = 3322.2592
Bcg % = 37.6587133
Total - Bcg = 5499.76076

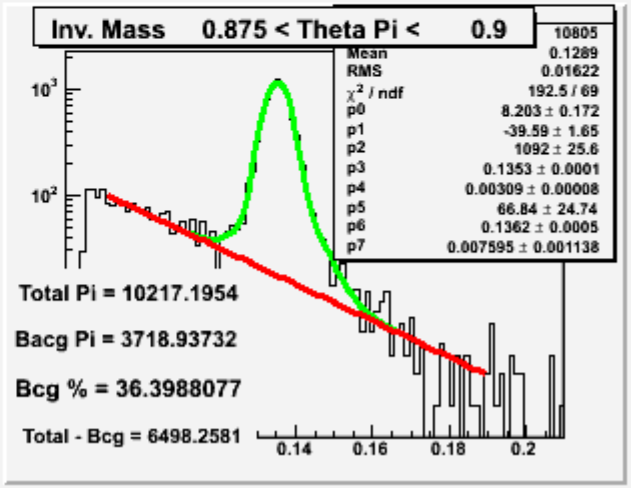

Inv. Mass 0.75 < Theta Pi < 0.775
9991
Mean 0.1275
RMS 0.01759
χ² / ndf 122 / 69
p0 8.331 ± 0.148
p1 -40.12 ± 1.37
p2 943.7 ± 28.6
p3 0.1353 ± 0.0001
p4 0.003141 ± 0.000081
p5 55.42 ± 28.32
p6 0.1361 ± 0.0006
p7 0.00662 ± 0.00106
Total Pi = 8914.52625
Bacg Pi = 3340.55378
Bcg % = 37.4731498
Total - Bcg = 5573.97247

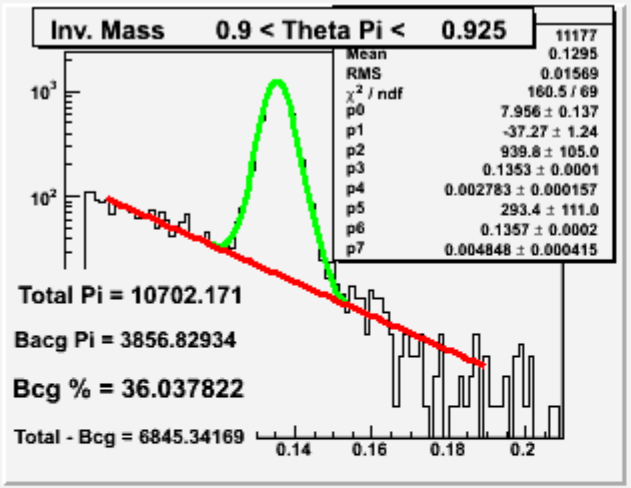

Inv. Mass 0.775 < Theta Pi < 0.8
10229
Mean 0.1283
RMS 0.01683
χ² / ndf 150.6 / 69
p0 8.272 ± 0.179
p1 -40 ± 1.8
p2 1003 ± 24.0
p3 0.1355 ± 0.0000
p4 0.003061 ± 0.000082
p5 54.93 ± 22.58
p6 0.1348 ± 0.0008
p7 0.008464 ± 0.001820
Total Pi = 9333.21223
Bacg Pi = 3465.24219
Bcg % = 37.1280767
Total - Bcg = 5867.97004

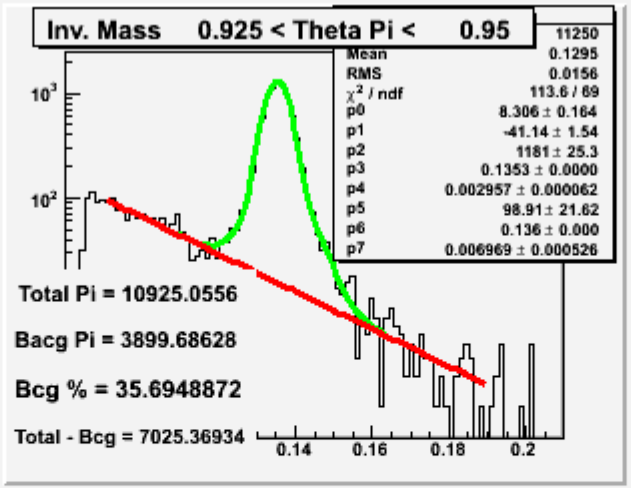

Inv. Mass 0.8 < Theta Pi < 0.825
10421
Mean 0.1287
RMS 0.0169
χ² / ndf 127.2 / 69
p0 7.862 ± 0.156
p1 -36.64 ± 1.46
p2 1027 ± 28.7
p3 0.1353 ± 0.0001
p4 0.003041 ± 0.000081
p5 72.11 ± 28.51
p6 0.1362 ± 0.0005
p7 0.007037 ± 0.001030
Total Pi = 9636.37396
Bacg Pi = 3526.52924
Bcg % = 36.5960189
Total - Bcg = 6109.84472

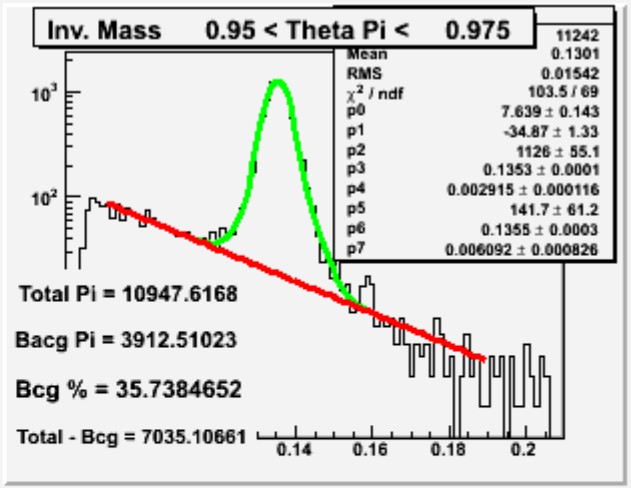

Inv. Mass 0.825 < Theta Pi < 0.85
10486
Mean 0.1289
RMS 0.01633
χ² / ndf 96.03 / 69
p0 8.198 ± 0.153
p1 -39.5 ± 1.4
p2 1049 ± 20.9
p3 0.1353 ± 0.0000
p4 0.003115 ± 0.000060
p5 58.9 ± 15.7
p6 0.1357 ± 0.0005
p7 0.007749 ± 0.000805
Total Pi = 9830.78129
Bacg Pi = 3600.11585
Bcg % = 36.6208518
Total - Bcg = 6230.66544

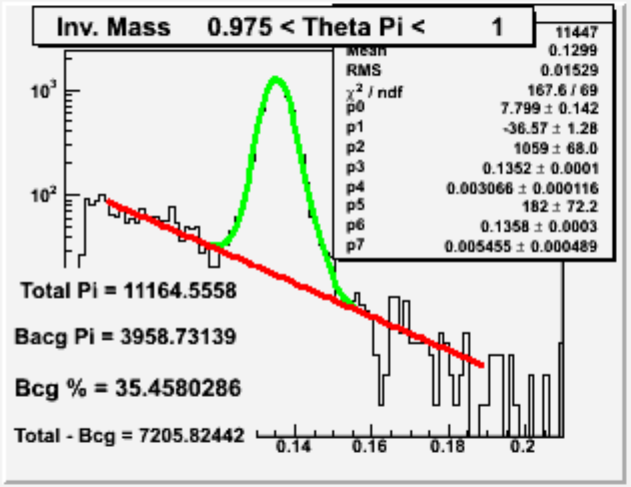

Inv. Mass 0.85 < Theta Pi < 0.875
10790
Mean 0.1293
RMS 0.01638
χ² / ndf 106.4 / 69
p0 7.633 ± 0.128
p1 -33.99 ± 1.14
p2 958.9 ± 80.7
p3 0.1353 ± 0.0001
p4 0.002948 ± 0.000140
p5 179.5 ± 86.0
p6 0.1356 ± 0.0003
p7 0.005329 ± 0.000619
Total Pi = 10130.4417
Bacg Pi = 3706.80889
Bcg % = 36.5907924
Total - Bcg = 6423.63281

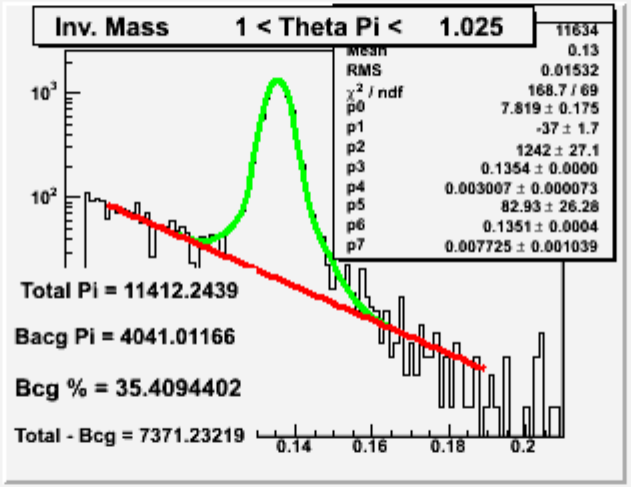

Inv. Mass 0.875 < Theta Pi < 0.9
10805
Mean 0.1289
RMS 0.01622
χ² / ndf 192.5 / 69
p0 8.203 ± 0.172
p1 -39.59 ± 1.65
p2 1092 ± 25.6
p3 0.1353 ± 0.0001
p4 0.00309 ± 0.00008
p5 66.84 ± 24.74
p6 0.1362 ± 0.0005
p7 0.007595 ± 0.001138
Total Pi = 10217.1954
Bacg Pi = 3718.93732
Bcg % = 36.3988077
Total - Bcg = 6498.2581

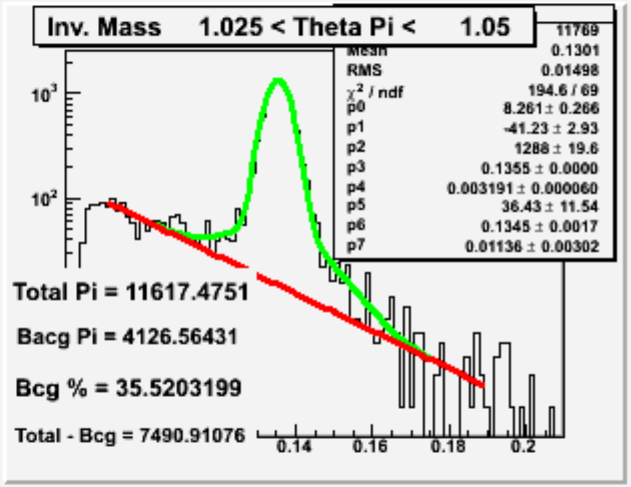

Inv. Mass 0.9 < Theta Pi < 0.925
11177
Mean 0.1295
RMS 0.01569
χ² / ndf 160.5 / 69
p0 7.956 ± 0.137
p1 -37.27 ± 1.24
p2 939.8 ± 105.0
p3 0.1353 ± 0.0001
p4 0.002783 ± 0.000157
p5 293.4 ± 111.0
p6 0.1357 ± 0.0002
p7 0.004848 ± 0.000415
Total Pi = 10702.171
Bacg Pi = 3856.82934
Bcg % = 36.037822
Total - Bcg = 6845.34169

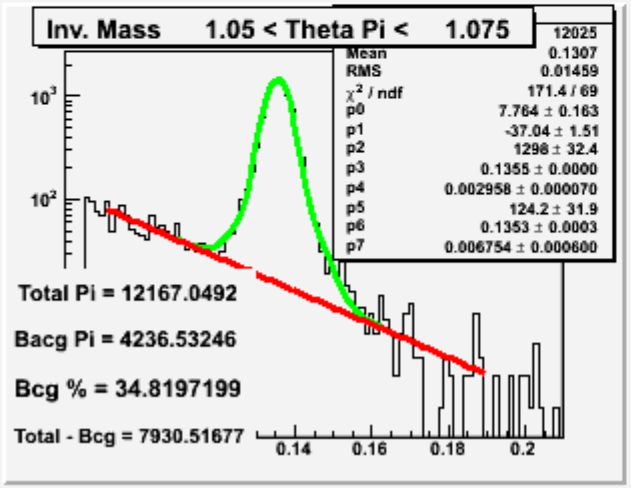

Inv. Mass 0.925 < Theta Pi < 0.95
11250
Mean 0.1295
RMS 0.0156
χ² / ndf 113.6 / 69
p0 8.306 ± 0.164
p1 -41.14 ± 1.54
p2 1181 ± 25.3
p3 0.1353 ± 0.0000
p4 0.002957 ± 0.000062
p5 98.91 ± 21.62
p6 0.136 ± 0.000
p7 0.006969 ± 0.000526
Total Pi = 10925.0556
Bacg Pi = 3899.68628
Bcg % = 35.6948872
Total - Bcg = 7025.36934

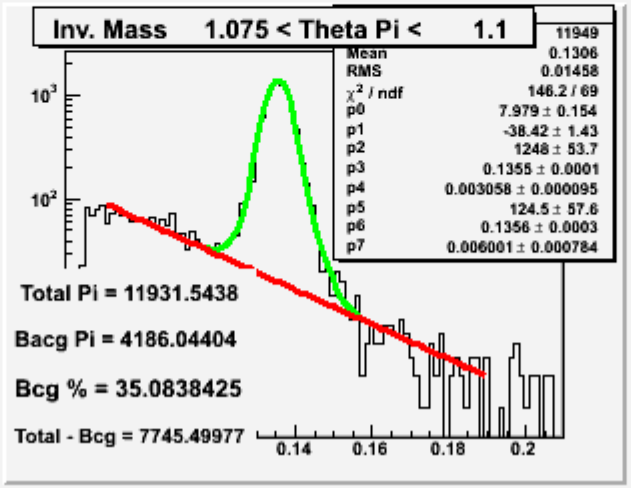

Inv. Mass 0.95 < Theta Pi < 0.975
11242
Mean 0.1301
RMS 0.01542
χ² / ndf 103.5 / 69
p0 7.639 ± 0.143
p1 -34.87 ± 1.33
p2 1126 ± 55.1
p3 0.1353 ± 0.0001
p4 0.002915 ± 0.000116
p5 141.7 ± 61.2
p6 0.1355 ± 0.0003
p7 0.006092 ± 0.000826
Total Pi = 10947.6168
Bacg Pi = 3912.51023
Bcg % = 35.7384652
Total - Bcg = 7035.10661

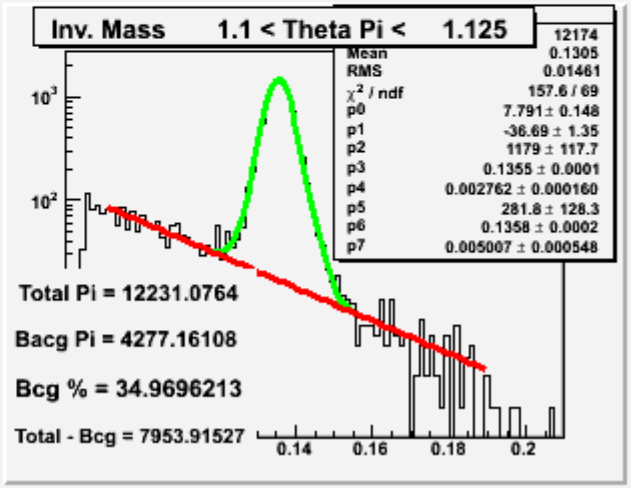

Inv. Mass 0.975 < Theta Pi < 1
11447
Mean 0.1299
RMS 0.01529
χ² / ndf 167.6 / 69
p0 7.799 ± 0.142
p1 -36.57 ± 1.28
p2 1059 ± 68.0
p3 0.1352 ± 0.0001
p4 0.003066 ± 0.000116
p5 182 ± 72.2
p6 0.1358 ± 0.0003
p7 0.005455 ± 0.000489
Total Pi = 11164.5558
Bacg Pi = 3958.73139
Bcg % = 35.4580286
Total - Bcg = 7205.82442

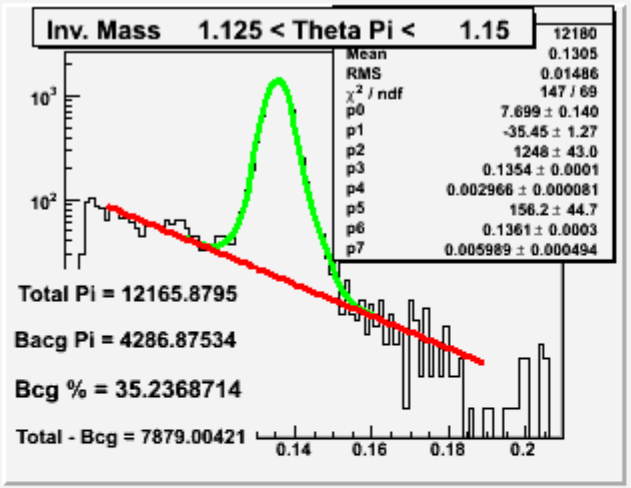

Inv. Mass 1 < Theta Pi < 1.025
11634
Mean 0.13
RMS 0.01532
χ² / ndf 168.7 / 69
p0 7.819 ± 0.175
p1 -37 ± 1.7
p2 1242 ± 27.1
p3 0.1354 ± 0.0000
p4 0.003007 ± 0.000073
p5 82.93 ± 26.28
p6 0.1351 ± 0.0004
p7 0.007725 ± 0.001039
Total Pi = 11412.2439
Bacg Pi = 4041.01166
Bcg % = 35.4094402
Total - Bcg = 7371.23219

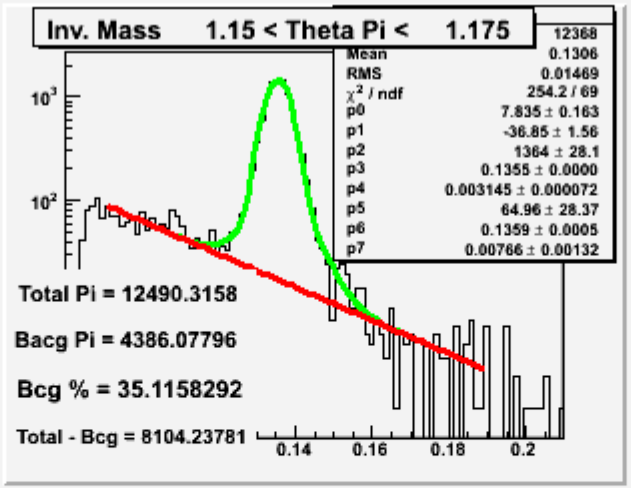

Inv. Mass 1.025 < Theta Pi < 1.05
11769
Mean 0.1301
RMS 0.01498
χ² / ndf 194.6 / 69
p0 8.261 ± 0.266
p1 -41.23 ± 2.93
p2 1288 ± 19.6
p3 0.1355 ± 0.0000
p4 0.003191 ± 0.000060
p5 36.43 ± 11.54
p6 0.1345 ± 0.0017
p7 0.01136 ± 0.00302
Total Pi = 11617.4751
Bacg Pi = 4126.56431
Bcg % = 35.5203199
Total - Bcg = 7490.91076

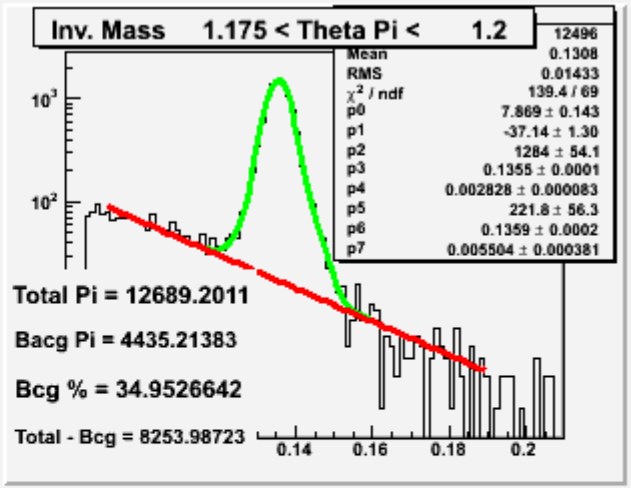

Inv. Mass 1.05 < Theta Pi < 1.075
12025
Mean 0.1307
RMS 0.01459
χ² / ndf 171.4 / 69
p0 7.764 ± 0.163
p1 -37.04 ± 1.51
p2 1298 ± 32.4
p3 0.1355 ± 0.0000
p4 0.002958 ± 0.000070
p5 124.2 ± 31.9
p6 0.1353 ± 0.0003
p7 0.006754 ± 0.000600
Total Pi = 12167.0492
Bacg Pi = 4236.53246
Bcg % = 34.8197199
Total - Bcg = 7930.51677

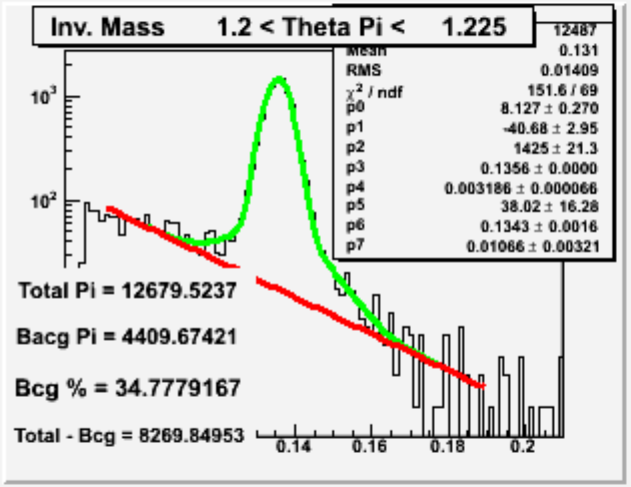

Inv. Mass 1.075 < Theta Pi < 1.1
11949
Mean 0.1306
RMS 0.01458
χ² / ndf 146.2 / 69
p0 7.979 ± 0.154
p1 -38.42 ± 1.43
p2 1248 ± 53.7
p3 0.1355 ± 0.0001
p4 0.003058 ± 0.000095
p5 124.5 ± 57.6
p6 0.1356 ± 0.0003
p7 0.006001 ± 0.000784
Total Pi = 11931.5438
Bacg Pi = 4186.04404
Bcg % = 35.0838425
Total - Bcg = 7745.49977

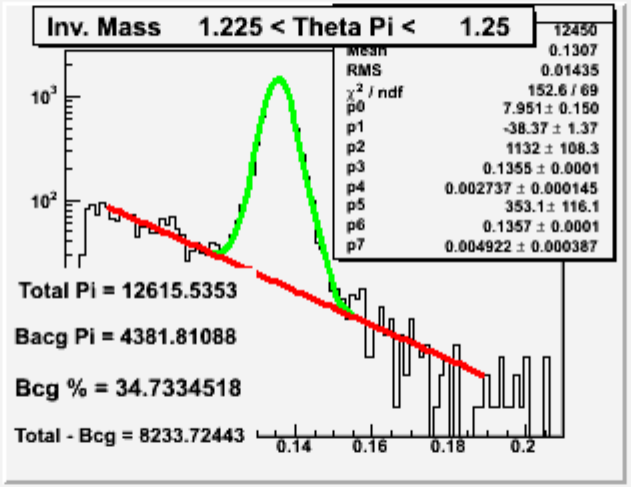

Inv. Mass 1.1 < Theta Pi < 1.125
12174
Mean 0.1305
RMS 0.01461
χ² / ndf 157.6 / 69
p0 7.791 ± 0.148
p1 -36.69 ± 1.35
p2 1179 ± 117.7
p3 0.1355 ± 0.0001
p4 0.002762 ± 0.000160
p5 281.8 ± 128.3
p6 0.1358 ± 0.0002
p7 0.005007 ± 0.000548
Total Pi = 12231.0764
Bacg Pi = 4277.16108
Bcg % = 34.9696213
Total - Bcg = 7953.91527

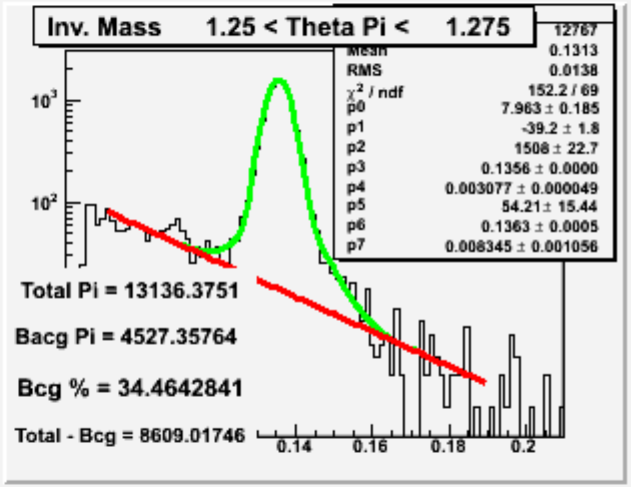

Inv. Mass 1.125 < Theta Pi < 1.15
12180
Mean 0.1305
RMS 0.01486
χ² / ndf 147 / 69
p0 7.699 ± 0.140
p1 -35.45 ± 1.27
p2 1248 ± 43.0
p3 0.1354 ± 0.0001
p4 0.002966 ± 0.000081
p5 156.2 ± 44.7
p6 0.1361 ± 0.0003
p7 0.005989 ± 0.000494
Total Pi = 12165.8795
Bacg Pi = 4286.87534
Bcg % = 35.2368714
Total - Bcg = 7879.00421

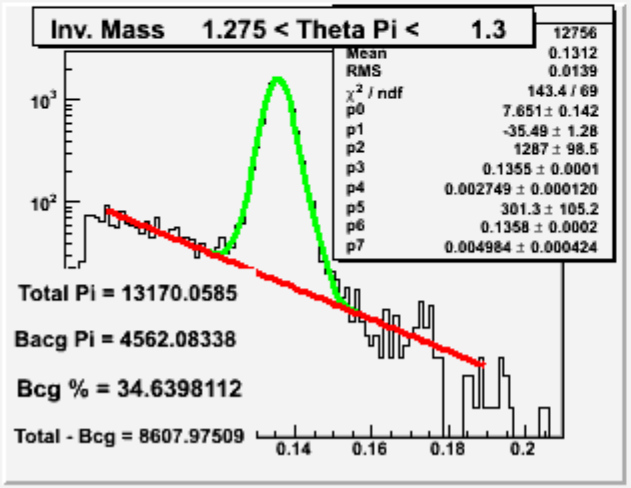

Inv. Mass 1.15 < Theta Pi < 1.175
12368
Mean 0.1306
RMS 0.01469
χ² / ndf 254.2 / 69
p0 7.835 ± 0.163
p1 -36.85 ± 1.56
p2 1364 ± 28.1
p3 0.1355 ± 0.0000
p4 0.003145 ± 0.000072
p5 64.96 ± 28.37
p6 0.1359 ± 0.0005
p7 0.00766 ± 0.00132
Total Pi = 12490.3158
Bacg Pi = 4386.07796
Bcg % = 35.1158292
Total - Bcg = 8104.23781

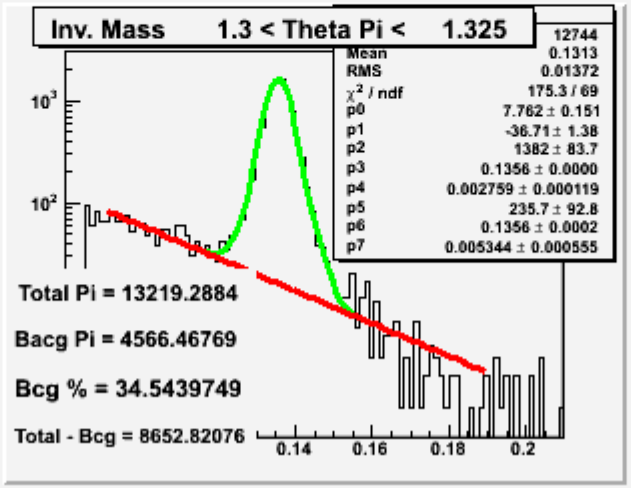

Inv. Mass 1.175 < Theta Pi < 1.2
12496
Mean 0.1308
RMS 0.01433
χ² / ndf 139.4 / 69
p0 7.869 ± 0.143
p1 -37.14 ± 1.30
p2 1284 ± 54.1
p3 0.1355 ± 0.0001
p4 0.002828 ± 0.000083
p5 221.8 ± 56.3
p6 0.1359 ± 0.0002
p7 0.005504 ± 0.000381
Total Pi = 12689.2011
Bacg Pi = 4435.21383
Bcg % = 34.9526642
Total - Bcg = 8253.98723

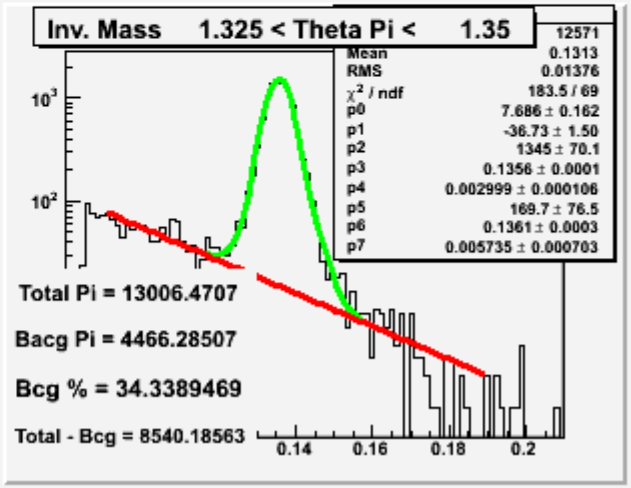

Inv. Mass 1.2 < Theta Pi < 1.225
12487
Mean 0.131
RMS 0.01409
χ² / ndf 151.6 / 69
p0 8.127 ± 0.270
p1 -40.68 ± 2.95
p2 1425 ± 21.3
p3 0.1356 ± 0.0000
p4 0.003186 ± 0.000066
p5 38.02 ± 16.28
p6 0.1343 ± 0.0016
p7 0.01066 ± 0.00321
Total Pi = 12679.5237
Bacg Pi = 4409.67421
Bcg % = 34.7779167
Total - Bcg = 8269.84953

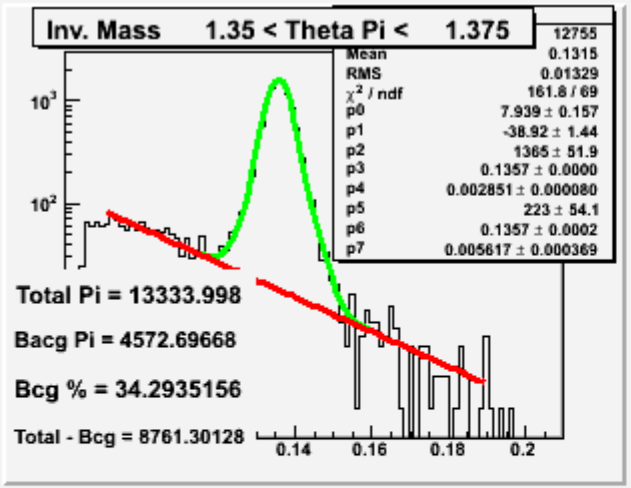

Inv. Mass 1.225 < Theta Pi < 1.25
12450
Mean 0.1307
RMS 0.01435
χ² / ndf 152.6 / 69
p0 7.951 ± 0.150
p1 -38.37 ± 1.37
p2 1132 ± 108.3
p3 0.1355 ± 0.0001
p4 0.002737 ± 0.000145
p5 353.1 ± 116.1
p6 0.1357 ± 0.0001
p7 0.004922 ± 0.000387
Total Pi = 12615.5353
Bacg Pi = 4381.81088
Bcg % = 34.7334518
Total - Bcg = 8233.72443

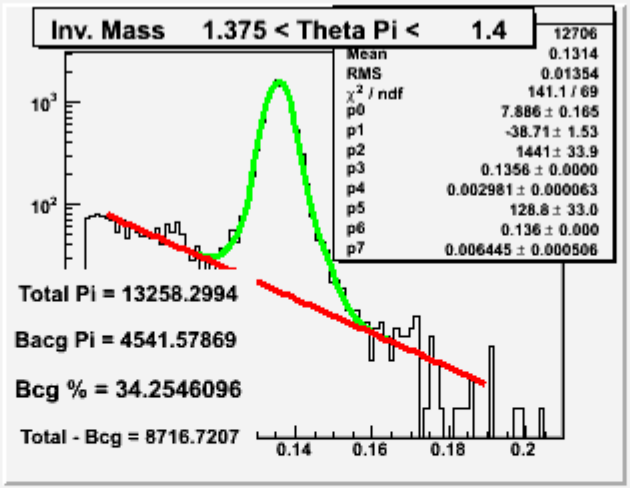

Inv. Mass 1.25 < Theta Pi < 1.275
12767
Mean 0.1313
RMS 0.0138
χ² / ndf 152.2 / 69
p0 7.963 ± 0.185
p1 -39.2 ± 1.8
p2 1508 ± 22.7
p3 0.1356 ± 0.0000
p4 0.003077 ± 0.000049
p5 54.21 ± 15.44
p6 0.1363 ± 0.0005
p7 0.008345 ± 0.001056
Total Pi = 13136.3751
Bacg Pi = 4527.35764
Bcg % = 34.4642841
Total - Bcg = 8609.01746

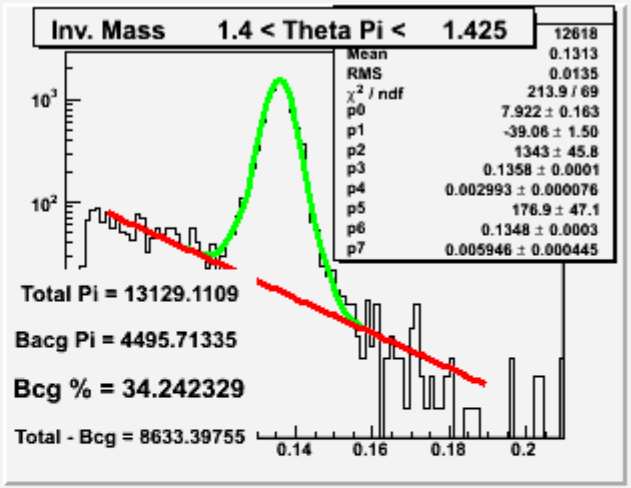

Inv. Mass 1.275 < Theta Pi < 1.3
12756
Mean 0.1312
RMS 0.0139
χ² / ndf 143.4 / 69
p0 7.651 ± 0.142
p1 -35.49 ± 1.28
p2 1287 ± 98.5
p3 0.1355 ± 0.0001
p4 0.002749 ± 0.000120
p5 301.3 ± 105.2
p6 0.1358 ± 0.0002
p7 0.004984 ± 0.000424
Total Pi = 13170.0585
Bacg Pi = 4562.08338
Bcg % = 34.6398112
Total - Bcg = 8607.97509

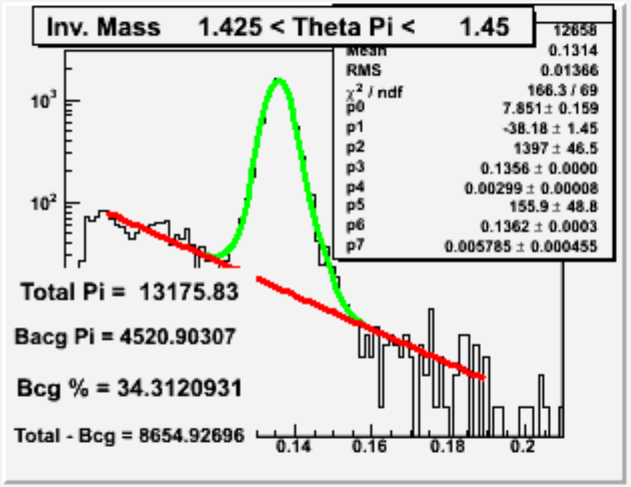

Inv. Mass 1.3 < Theta Pi < 1.325
12744
Mean 0.1313
RMS 0.01372
χ² / ndf 175.3 / 69
p0 7.762 ± 0.151
p1 -36.71 ± 1.38
p2 1382 ± 83.7
p3 0.1356 ± 0.0000
p4 0.002759 ± 0.000119
p5 235.7 ± 92.8
p6 0.1356 ± 0.0002
p7 0.005344 ± 0.000555
Total Pi = 13219.2884
Bacg Pi = 4566.46769
Bcg % = 34.5439749
Total - Bcg = 8652.82076

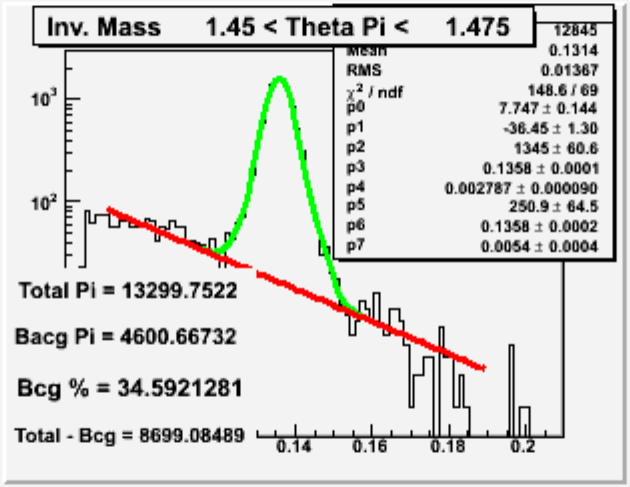

Inv. Mass 1.325 < Theta Pi < 1.35
12571
Mean 0.1313
RMS 0.01376
χ² / ndf 183.5 / 69
p0 7.686 ± 0.162
p1 -36.73 ± 1.50
p2 1345 ± 70.1
p3 0.1356 ± 0.0001
p4 0.002999 ± 0.000106
p5 169.7 ± 76.5
p6 0.1361 ± 0.0003
p7 0.005735 ± 0.000703
Total Pi = 13006.4707
Bacg Pi = 4466.28507
Bcg % = 34.3389469
Total - Bcg = 8540.18563

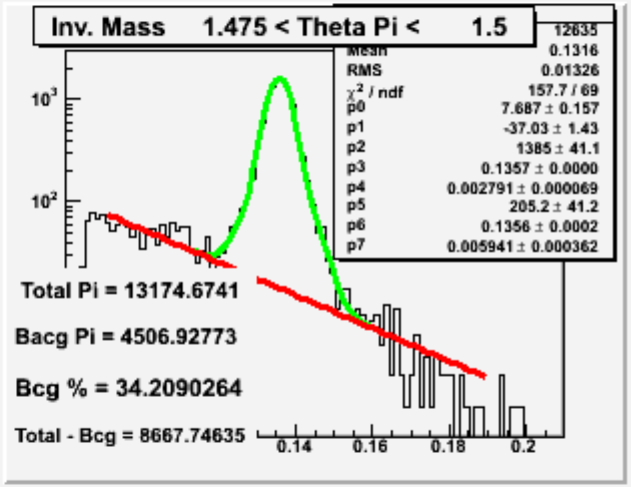

Inv. Mass 1.35 < Theta Pi < 1.375
12755
Mean 0.1315
RMS 0.01329
χ² / ndf 161.8 / 69
p0 7.939 ± 0.157
p1 -38.92 ± 1.44
p2 1365 ± 51.9
p3 0.1357 ± 0.0000
p4 0.002851 ± 0.000080
p5 223 ± 54.1
p6 0.1357 ± 0.0002
p7 0.005617 ± 0.000369
Total Pi = 13333.998
Bacg Pi = 4572.69668
Bcg % = 34.2935156
Total - Bcg = 8761.30128

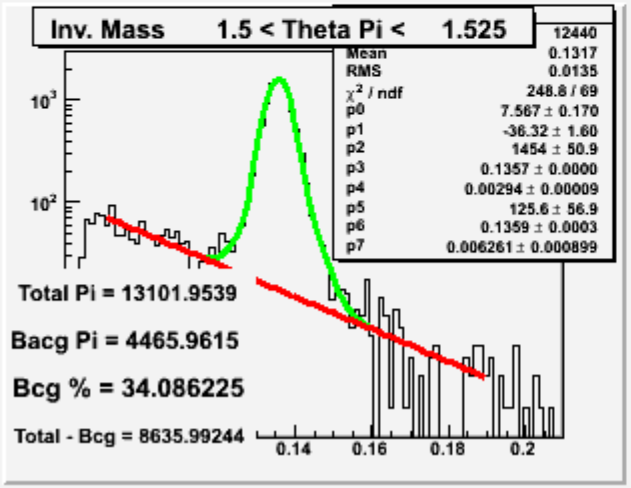

Inv. Mass 1.375 < Theta Pi < 1.4
12706
Mean 0.1314
RMS 0.01354
χ² / ndf 141.1 / 69
p0 7.886 ± 0.165
p1 -38.71 ± 1.53
p2 1441 ± 33.9
p3 0.1356 ± 0.0000
p4 0.002981 ± 0.000063
p5 128.8 ± 33.0
p6 0.136 ± 0.000
p7 0.006445 ± 0.000506
Total Pi = 13258.2994
Bacg Pi = 4541.57869
Bcg % = 34.2546096
Total - Bcg = 8716.7207

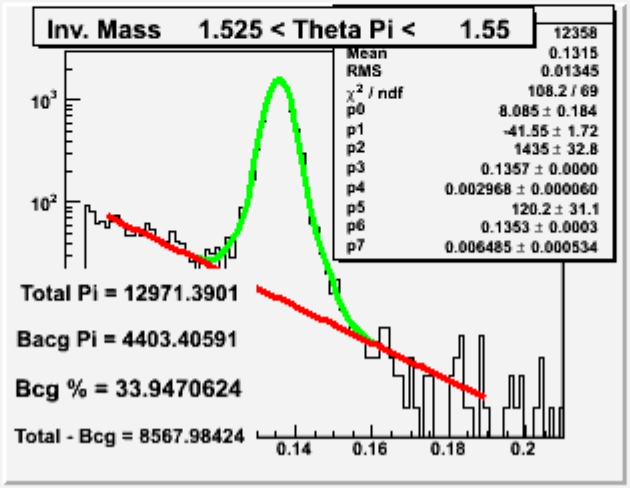

Inv. Mass 1.4 < Theta Pi < 1.425
12618
Mean 0.1313
RMS 0.0135
χ² / ndf 213.9 / 69
p0 7.922 ± 0.163
p1 -39.06 ± 1.50
p2 1343 ± 45.8
p3 0.1358 ± 0.0001
p4 0.002993 ± 0.000076
p5 176.9 ± 47.1
p6 0.1348 ± 0.0003
p7 0.005946 ± 0.000445
Total Pi = 13129.1109
Bacg Pi = 4495.71335
Bcg % = 34.242329
Total - Bcg = 8633.39755

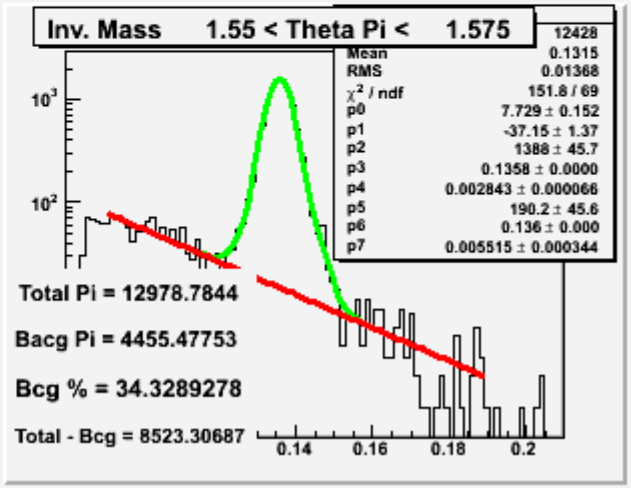

Inv. Mass 1.425 < Theta Pi < 1.45
12658
Mean 0.1314
RMS 0.01366
χ² / ndf 166.3 / 69
p0 7.851 ± 0.159
p1 -38.18 ± 1.45
p2 1397 ± 46.5
p3 0.1356 ± 0.0000
p4 0.00299 ± 0.00008
p5 155.9 ± 48.8
p6 0.1362 ± 0.0003
p7 0.005785 ± 0.000455
Total Pi = 13175.83
Bacg Pi = 4520.90307
Bcg % = 34.3120931
Total - Bcg = 8654.92696

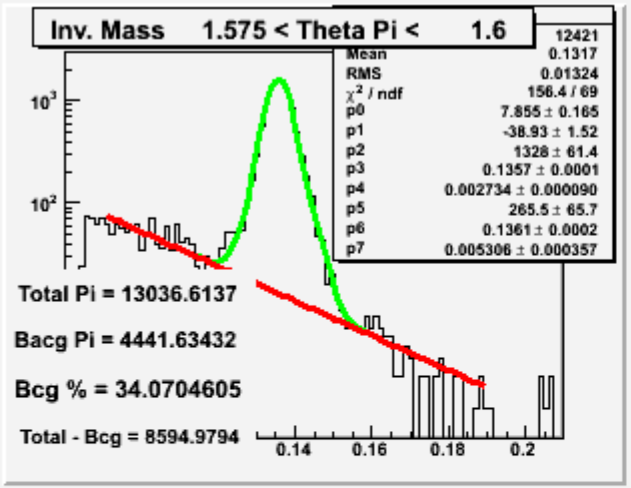

Inv. Mass 1.45 < Theta Pi < 1.475
12845
Mean 0.1314
RMS 0.01367
χ² / ndf 148.6 / 69
p0 7.747 ± 0.144
p1 -36.45 ± 1.30
p2 1345 ± 60.6
p3 0.1358 ± 0.0001
p4 0.002787 ± 0.000090
p5 250.9 ± 64.5
p6 0.1358 ± 0.0002
p7 0.0054 ± 0.0004
Total Pi = 13299.7522
Bacg Pi = 4600.66732
Bcg % = 34.5921281
Total - Bcg = 8699.08489

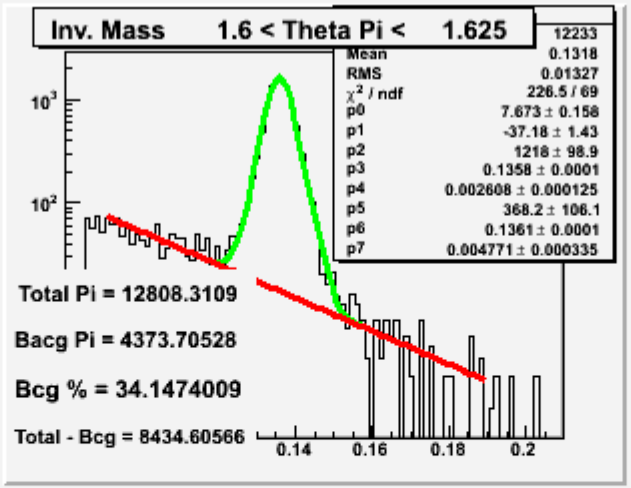

Inv. Mass 1.475 < Theta Pi < 1.5
12635
Mean 0.1316
RMS 0.01326
χ² / ndf 157.7 / 69
p0 7.687 ± 0.157
p1 -37.03 ± 1.43
p2 1385 ± 41.1
p3 0.1357 ± 0.0000
p4 0.002791 ± 0.000069
p5 205.2 ± 41.2
p6 0.1356 ± 0.0002
p7 0.005941 ± 0.000362
Total Pi = 13174.6741
Bacg Pi = 4506.92773
Bcg % = 34.2090264
Total - Bcg = 8667.74635

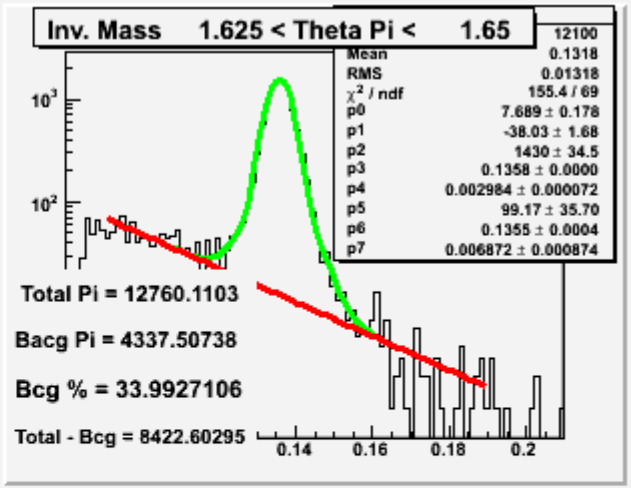

Inv. Mass 1.5 < Theta Pi < 1.525
12440
Mean 0.1317
RMS 0.0135
χ² / ndf 248.8 / 69
p0 7.567 ± 0.170
p1 -36.32 ± 1.60
p2 1454 ± 50.9
p3 0.1357 ± 0.0000
p4 0.00294 ± 0.00009
p5 125.6 ± 56.9
p6 0.1359 ± 0.0003
p7 0.006261 ± 0.000899
Total Pi = 13101.9539
Bacg Pi = 4465.9615
Bcg % = 34.086225
Total - Bcg = 8635.99244

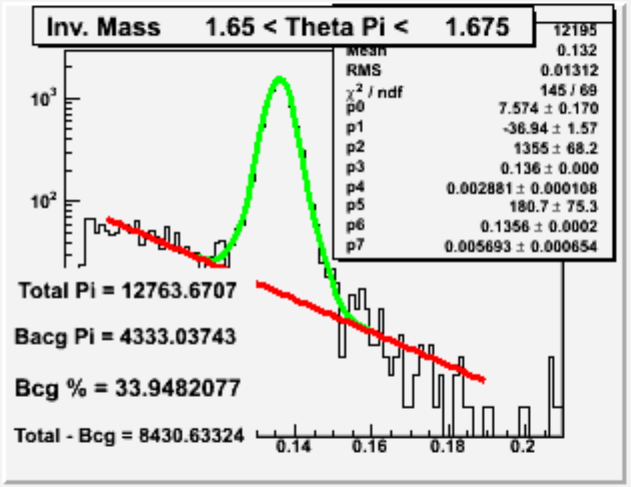

Inv. Mass 1.525 < Theta Pi < 1.55
12358
Mean 0.1315
RMS 0.01345
χ² / ndf 108.2 / 69
p0 8.085 ± 0.184
p1 -41.55 ± 1.72
p2 1435 ± 32.8
p3 0.1357 ± 0.0000
p4 0.002968 ± 0.000060
p5 120.2 ± 31.1
p6 0.1353 ± 0.0003
p7 0.006485 ± 0.000534
Total Pi = 12971.3901
Bacg Pi = 4403.40591
Bcg % = 33.9470624
Total - Bcg = 8567.98424

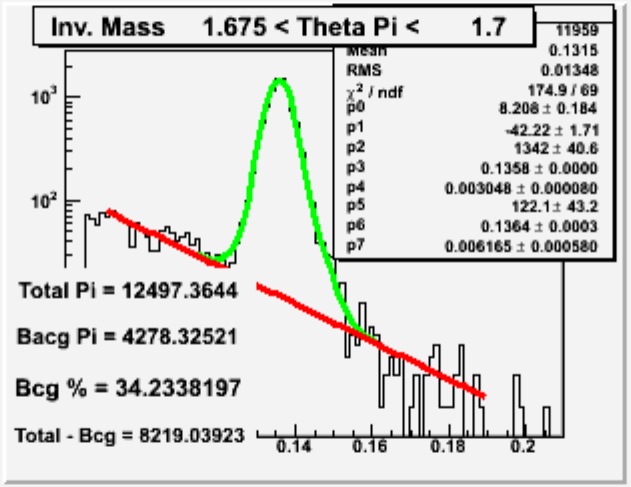

Inv. Mass 1.55 < Theta Pi < 1.575
12428
Mean 0.1315
RMS 0.01368
χ² / ndf 151.8 / 69
p0 7.729 ± 0.152
p1 -37.15 ± 1.37
p2 1388 ± 45.7
p3 0.1358 ± 0.0000
p4 0.002843 ± 0.000066
p5 190.2 ± 45.6
p6 0.136 ± 0.000
p7 0.005515 ± 0.000344
Total Pi = 12978.7844
Bacg Pi = 4455.47753
Bcg % = 34.3289278
Total - Bcg = 8523.30687

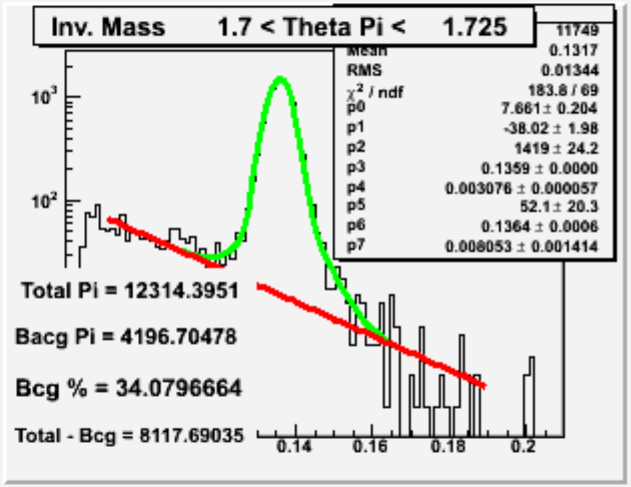

Inv. Mass 1.575 < Theta Pi < 1.6
12421
Mean 0.1317
RMS 0.01324
χ² / ndf 156.4 / 69
p0 7.855 ± 0.165
p1 -38.93 ± 1.52
p2 1328 ± 61.4
p3 0.1357 ± 0.0001
p4 0.002734 ± 0.000090
p5 265.5 ± 65.7
p6 0.1361 ± 0.0002
p7 0.005306 ± 0.000357
Total Pi = 13036.6137
Bacg Pi = 4441.63432
Bcg % = 34.0704605
Total - Bcg = 8594.9794

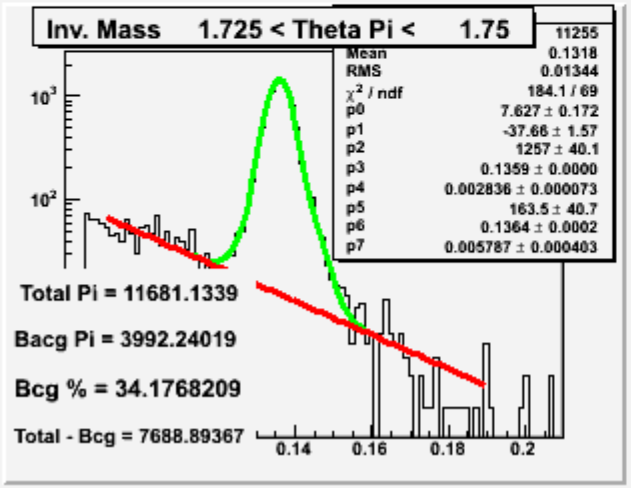

Inv. Mass 1.6 < Theta Pi < 1.625
12233
Mean 0.1318
RMS 0.01327
χ² / ndf 226.5 / 69
p0 7.673 ± 0.158
p1 -37.18 ± 1.43
p2 1218 ± 98.9
p3 0.1358 ± 0.0001
p4 0.002608 ± 0.000125
p5 368.2 ± 106.1
p6 0.1361 ± 0.0001
p7 0.004771 ± 0.000335
Total Pi = 12808.3109
Bacg Pi = 4373.70528
Bcg % = 34.1474009
Total - Bcg = 8434.60566

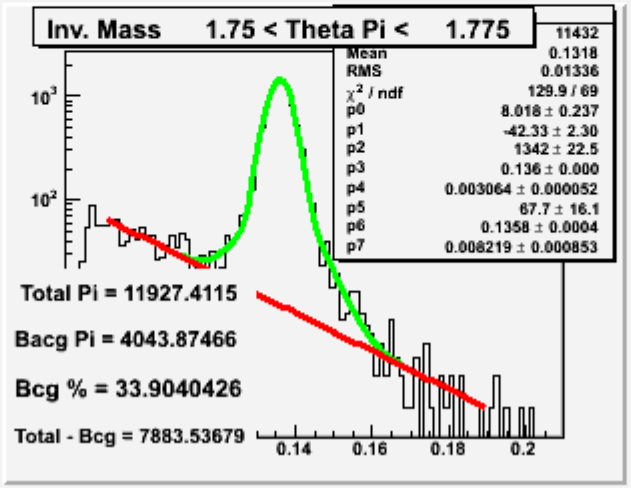

Inv. Mass 1.625 < Theta Pi < 1.65
12100
Mean 0.1318
RMS 0.01318
χ² / ndf 155.4 / 69
p0 7.689 ± 0.178
p1 -38.03 ± 1.68
p2 1430 ± 34.5
p3 0.1358 ± 0.0000
p4 0.002984 ± 0.000072
p5 99.17 ± 35.70
p6 0.1355 ± 0.0004
p7 0.006872 ± 0.000874
Total Pi = 12760.1103
Bacg Pi = 4337.50738
Bcg % = 33.9927106
Total - Bcg = 8422.60295

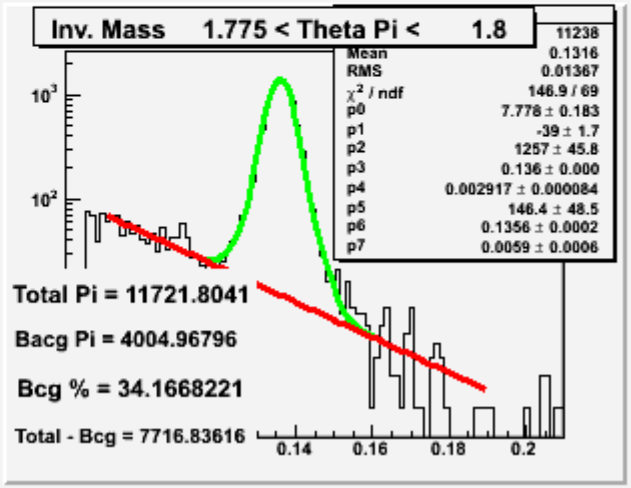

Inv. Mass 1.65 < Theta Pi < 1.675
12195
Mean 0.132
RMS 0.01312
χ² / ndf 145 / 69
p0 7.574 ± 0.170
p1 -36.94 ± 1.57
p2 1355 ± 68.2
p3 0.136 ± 0.000
p4 0.002881 ± 0.000108
p5 180.7 ± 75.3
p6 0.1356 ± 0.0002
p7 0.005693 ± 0.000654
Total Pi = 12763.6707
Bacg Pi = 4333.03743
Bcg % = 33.9482077
Total - Bcg = 8430.63324

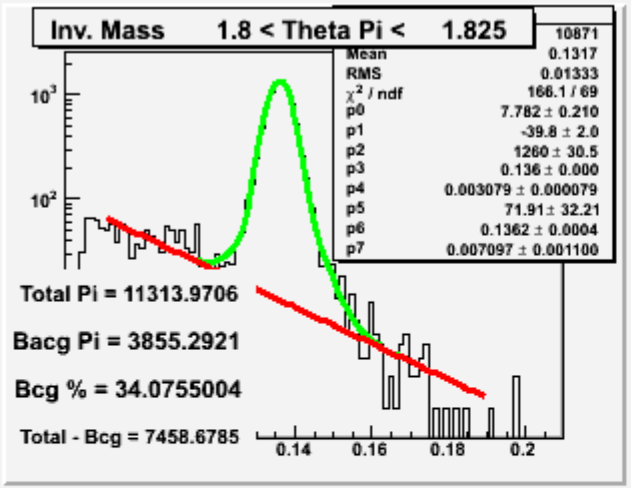

Inv. Mass 1.675 < Theta Pi < 1.7
11959
Mean 0.1315
RMS 0.01348
χ² / ndf 174.9 / 69
p0 8.208 ± 0.184
p1 -42.22 ± 1.71
p2 1342 ± 40.6
p3 0.1358 ± 0.0000
p4 0.003048 ± 0.000080
p5 122.1 ± 43.2
p6 0.1364 ± 0.0003
p7 0.006165 ± 0.000580
Total Pi = 12497.3644
Bacg Pi = 4278.32521
Bcg % = 34.2338197
Total - Bcg = 8219.03923

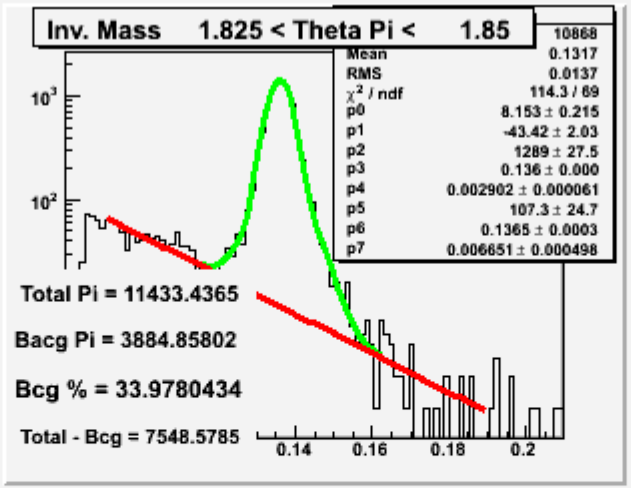

Inv. Mass 1.7 < Theta Pi < 1.725
11749
Mean 0.1317
RMS 0.01344
χ² / ndf 183.8 / 69
p0 7.661 ± 0.204
p1 -38.02 ± 1.98
p2 1419 ± 24.2
p3 0.1359 ± 0.0000
p4 0.003076 ± 0.000057
p5 52.1 ± 20.3
p6 0.1364 ± 0.0006
p7 0.008053 ± 0.001414
Total Pi = 12314.3951
Bacg Pi = 4196.70478
Bcg % = 34.0796664
Total - Bcg = 8117.69035

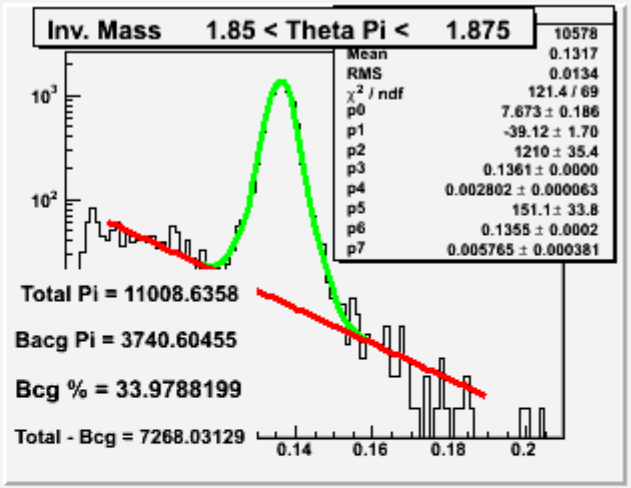

Inv. Mass 1.725 < Theta Pi < 1.75
11255
Mean 0.1318
RMS 0.01344
χ² / ndf 184.1 / 69
p0 7.627 ± 0.172
p1 -37.66 ± 1.57
p2 1257 ± 40.1
p3 0.1359 ± 0.0000
p4 0.002836 ± 0.000073
p5 163.5 ± 40.7
p6 0.1364 ± 0.0002
p7 0.005787 ± 0.000403
Total Pi = 11681.1339
Bacg Pi = 3992.24019
Bcg % = 34.1768209
Total - Bcg = 7688.89367

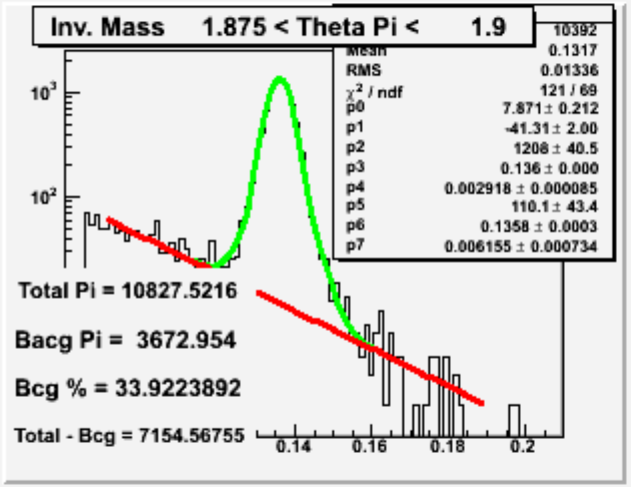

Inv. Mass 1.75 < Theta Pi < 1.775
11432
Mean 0.1318
RMS 0.01336
χ² / ndf 129.9 / 69
p0 8.018 ± 0.237
p1 -42.33 ± 2.30
p2 1342 ± 22.5
p3 0.136 ± 0.000
p4 0.003064 ± 0.000052
p5 67.7 ± 16.1
p6 0.1358 ± 0.0004
p7 0.008219 ± 0.000853
Total Pi = 11927.4115
Bacg Pi = 4043.87466
Bcg % = 33.9040426
Total - Bcg = 7883.53679

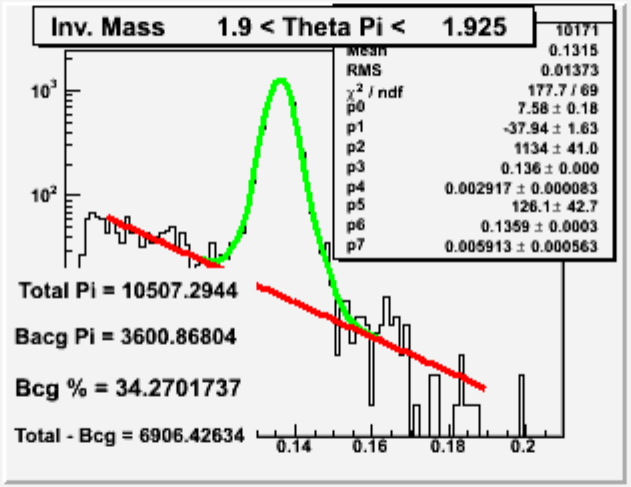

Inv. Mass 1.775 < Theta Pi < 1.8
11238
Mean 0.1316
RMS 0.01367
χ² / ndf 146.9 / 69
p0 7.778 ± 0.183
p1 -39 ± 1.7
p2 1257 ± 45.8
p3 0.136 ± 0.000
p4 0.002917 ± 0.000084
p5 146.4 ± 48.5
p6 0.1356 ± 0.0002
p7 0.0059 ± 0.0006
Total Pi = 11721.8041
Bacg Pi = 4004.96796
Bcg % = 34.1668221
Total - Bcg = 7716.83616

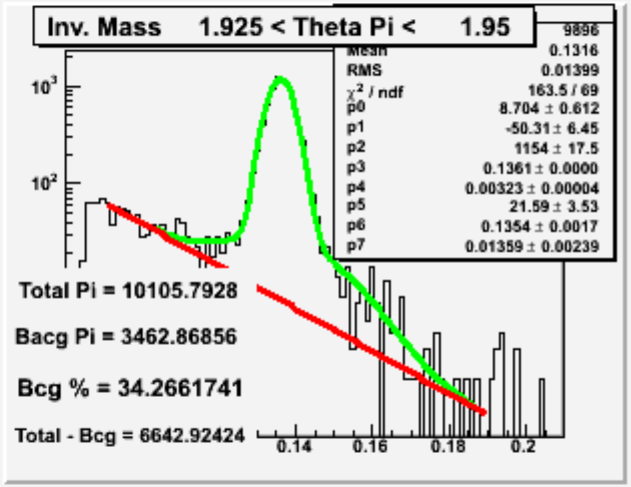

Inv. Mass 1.8 < Theta Pi < 1.825
10871
Mean 0.1317
RMS 0.01333
χ² / ndf 166.1 / 69
p0 7.782 ± 0.210
p1 -39.8 ± 2.0
p2 1260 ± 30.5
p3 0.136 ± 0.000
p4 0.003079 ± 0.000079
p5 71.91 ± 32.21
p6 0.1362 ± 0.0004
p7 0.007097 ± 0.001100
Total Pi = 11313.9706
Bacg Pi = 3855.2921
Bcg % = 34.0755004
Total - Bcg = 7458.6785

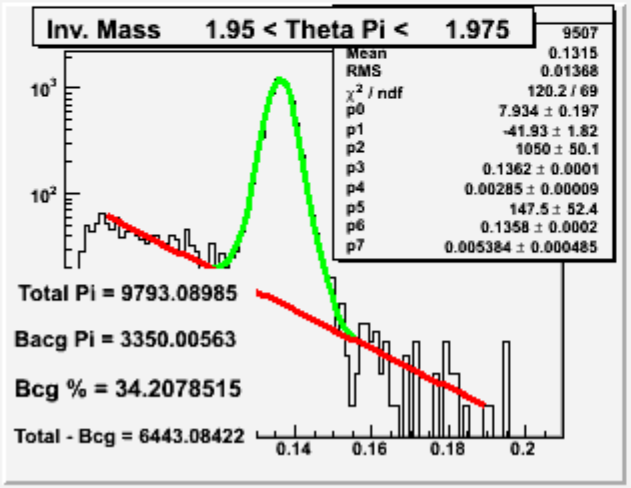

Inv. Mass 1.825 < Theta Pi < 1.85
10868
Mean 0.1317
RMS 0.0137
χ² / ndf 114.3 / 69
p0 8.153 ± 0.215
p1 -43.42 ± 2.03
p2 1289 ± 27.5
p3 0.136 ± 0.000
p4 0.002902 ± 0.000061
p5 107.3 ± 24.7
p6 0.1365 ± 0.0003
p7 0.006651 ± 0.000498
Total Pi = 11433.4365
Bacg Pi = 3884.85802
Bcg % = 33.9780434
Total - Bcg = 7548.5785

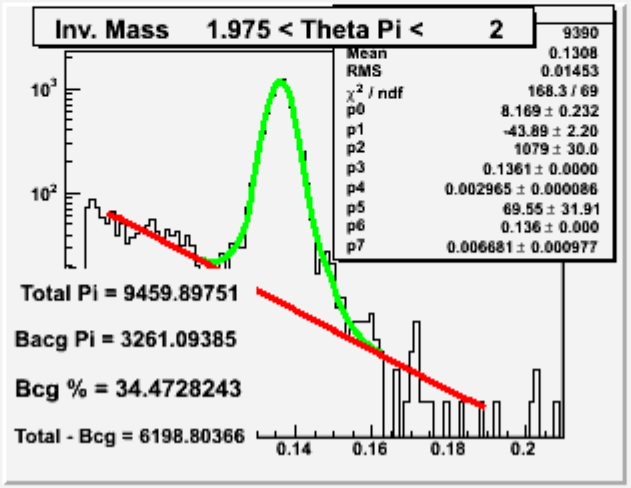

Inv. Mass 1.85 < Theta Pi < 1.875
10578
Mean 0.1317
RMS 0.0134
χ² / ndf 121.4 / 69
p0 7.673 ± 0.186
p1 -39.12 ± 1.70
p2 1210 ± 35.4
p3 0.1361 ± 0.0000
p4 0.002802 ± 0.000063
p5 151.1 ± 33.8
p6 0.1355 ± 0.0002
p7 0.005765 ± 0.000381
Total Pi = 11008.6358
Bacg Pi = 3740.60455
Bcg % = 33.9788199
Total - Bcg = 7268.03129

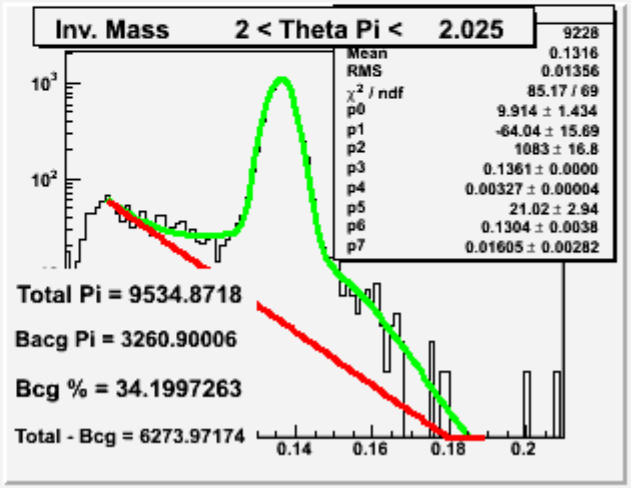

Inv. Mass 1.875 < Theta Pi < 1.9
10392
Mean 0.1317
RMS 0.01336
χ² / ndf 121 / 69
p0 7.871 ± 0.212
p1 -41.31 ± 2.00
p2 1208 ± 40.5
p3 0.136 ± 0.000
p4 0.002918 ± 0.000085
p5 110.1 ± 43.4
p6 0.1358 ± 0.0003
p7 0.006155 ± 0.000734
Total Pi = 10827.5216
Bacg Pi = 3672.954
Bcg % = 33.9223892
Total - Bcg = 7154.56755

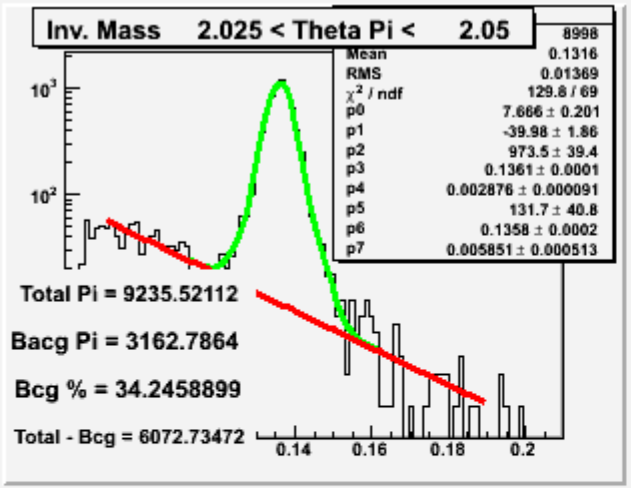

Inv. Mass 1.9 < Theta Pi < 1.925
10171
Mean 0.1315
RMS 0.01373
χ² / ndf 177.7 / 69
p0 7.58 ± 0.18
p1 -37.94 ± 1.63
p2 1134 ± 41.0
p3 0.136 ± 0.000
p4 0.002917 ± 0.000083
p5 126.1 ± 42.7
p6 0.1359 ± 0.0003
p7 0.005913 ± 0.000563
Total Pi = 10507.2944
Bacg Pi = 3600.86804
Bcg % = 34.2701737
Total - Bcg = 6906.42634

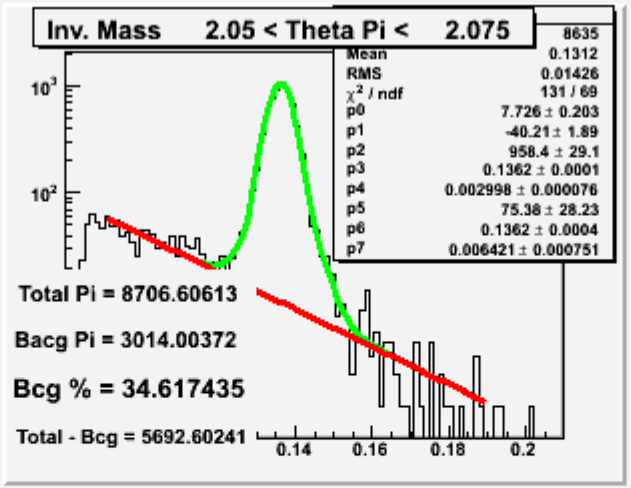

Inv. Mass 1.925 < Theta Pi < 1.95
9896
Mean 0.1316
RMS 0.01399
χ² / ndf 163.5 / 69
p0 8.704 ± 0.612
p1 -50.31 ± 6.45
p2 1154 ± 17.5
p3 0.1361 ± 0.0000
p4 0.00323 ± 0.00004
p5 21.59 ± 3.53
p6 0.1354 ± 0.0017
p7 0.01359 ± 0.00239
Total Pi = 10105.7928
Bacg Pi = 3462.86856
Bcg % = 34.2661741
Total - Bcg = 6642.92424

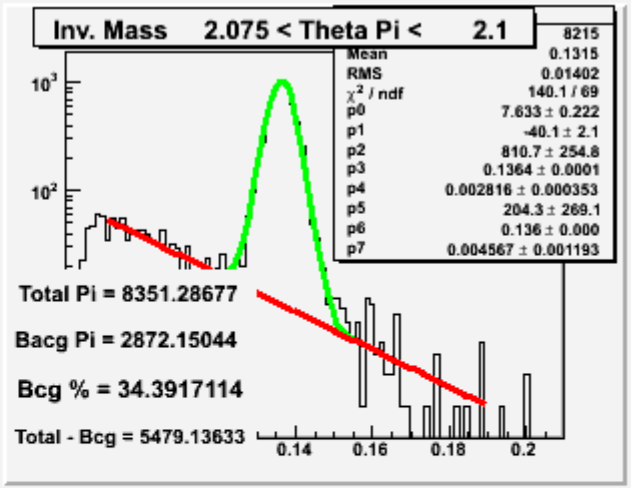

Inv. Mass 1.95 < Theta Pi < 1.975
9507
Mean 0.1315
RMS 0.01368
χ² / ndf 120.2 / 69
p0 7.934 ± 0.197
p1 -41.93 ± 1.82
p2 1050 ± 50.1
p3 0.1362 ± 0.0001
p4 0.00285 ± 0.00009
p5 147.5 ± 52.4
p6 0.1358 ± 0.0002
p7 0.005384 ± 0.000485
Total Pi = 9793.08985
Bacg Pi = 3350.00563
Bcg % = 34.2078515
Total - Bcg = 6443.08422

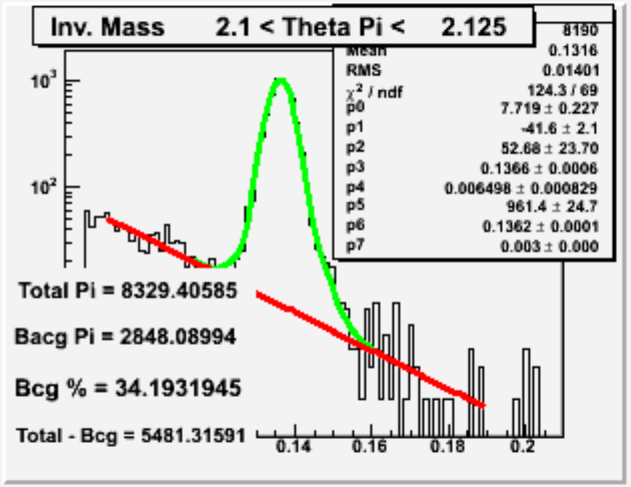

Inv. Mass 1.975 < Theta Pi < 2
9390
Mean 0.1308
RMS 0.01453
χ² / ndf 168.3 / 69
p0 8.169 ± 0.232
p1 -43.89 ± 2.20
p2 1079 ± 30.0
p3 0.1361 ± 0.0000
p4 0.002965 ± 0.000086
p5 69.55 ± 31.91
p6 0.136 ± 0.000
p7 0.006681 ± 0.000977
Total Pi = 9459.89751
Bacg Pi = 3261.09385
Bcg % = 34.4728243
Total - Bcg = 6198.80366

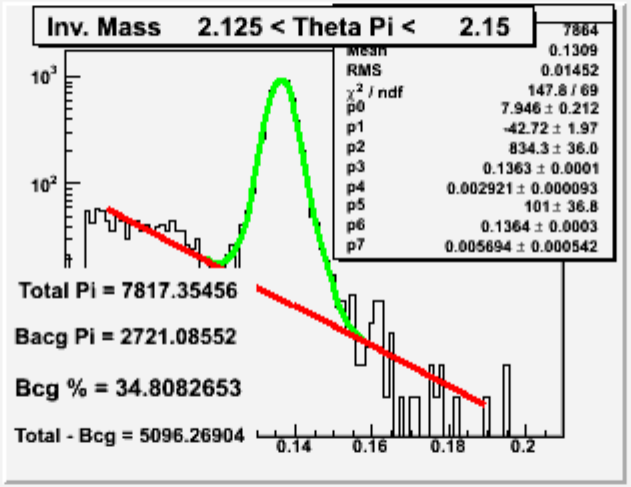

Inv. Mass 2 < Theta Pi < 2.025
9228
Mean 0.1316
RMS 0.01356
χ² / ndf 85.17 / 69
p0 9.914 ± 1.434
p1 -64.04 ± 15.69
p2 1083 ± 16.8
p3 0.1361 ± 0.0000
p4 0.00327 ± 0.00004
p5 21.02 ± 2.94
p6 0.1304 ± 0.0038
p7 0.01605 ± 0.00282
Total Pi = 9534.8718
Bacg Pi = 3260.90006
Bcg % = 34.1997263
Total - Bcg = 6273.97174

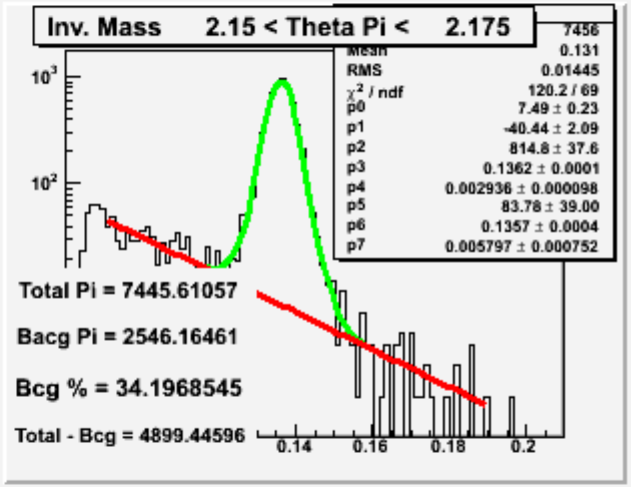

Inv. Mass 2.025 < Theta Pi < 2.05
8998
Mean 0.1316
RMS 0.01369
χ² / ndf 129.8 / 69
p0 7.666 ± 0.201
p1 -39.98 ± 1.86
p2 973.5 ± 39.4
p3 0.1361 ± 0.0001
p4 0.002876 ± 0.000091
p5 131.7 ± 40.8
p6 0.1358 ± 0.0002
p7 0.005851 ± 0.000513
Total Pi = 9235.52112
Bacg Pi = 3162.7864
Bcg % = 34.2458899
Total - Bcg = 6072.73472

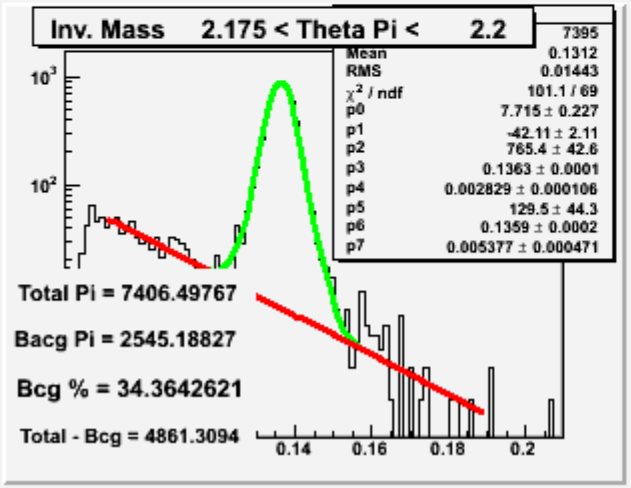

Inv. Mass 2.05 < Theta Pi < 2.075
8635
Mean 0.1312
RMS 0.01426
χ² / ndf 131 / 69
p0 7.726 ± 0.203
p1 -40.21 ± 1.89
p2 958.4 ± 29.1
p3 0.1362 ± 0.0001
p4 0.002998 ± 0.000076
p5 75.38 ± 28.23
p6 0.1362 ± 0.0004
p7 0.006421 ± 0.000751
Total Pi = 8706.60613
Bacg Pi = 3014.00372
Bcg % = 34.617435
Total - Bcg = 5692.60241

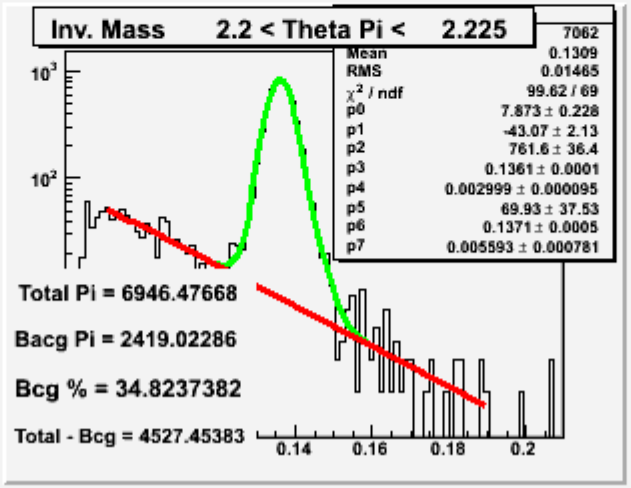

Inv. Mass 2.075 < Theta Pi < 2.1
8215
Mean 0.1315
RMS 0.01402
χ² / ndf 140.1 / 69
p0 7.633 ± 0.222
p1 -40.1 ± 2.1
p2 810.7 ± 254.8
p3 0.1364 ± 0.0001
p4 0.002816 ± 0.000353
p5 204.3 ± 269.1
p6 0.136 ± 0.000
p7 0.004567 ± 0.001193
Total Pi = 8351.28677
Bacg Pi = 2872.15044
Bcg % = 34.3917114
Total - Bcg = 5479.13633

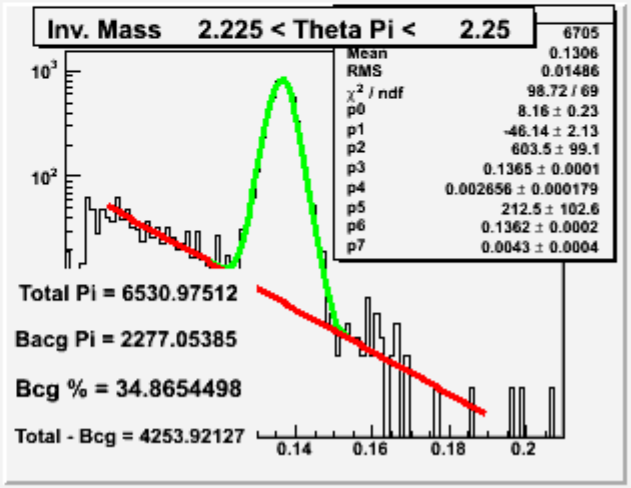

Inv. Mass 2.1 < Theta Pi < 2.125
8190
Mean 0.1316
RMS 0.01401
χ² / ndf 124.3 / 69
p0 7.719 ± 0.227
p1 -41.6 ± 2.1
p2 52.68 ± 23.70
p3 0.1366 ± 0.0006
p4 0.006498 ± 0.000829
p5 961.4 ± 24.7
p6 0.1362 ± 0.0001
p7 0.003 ± 0.000
Total Pi = 8329.40585
Bacg Pi = 2848.08994
Bcg % = 34.1931945
Total - Bcg = 5481.31591

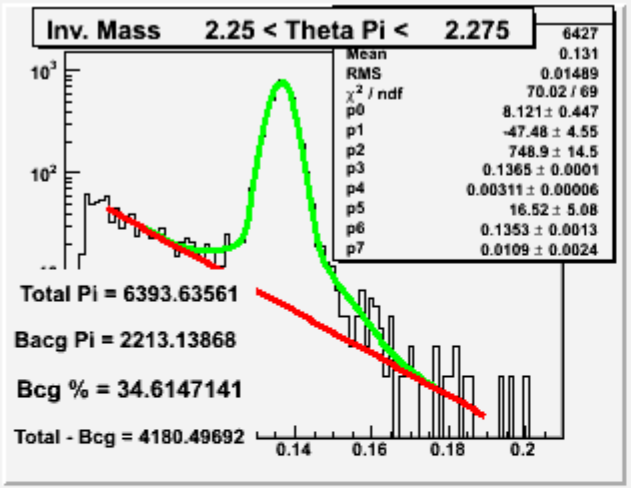

Inv. Mass 2.125 < Theta Pi < 2.15
7864
Mean 0.1309
RMS 0.01452
χ² / ndf 147.8 / 69
p0 7.946 ± 0.212
p1 -42.72 ± 1.97
p2 834.3 ± 36.0
p3 0.1363 ± 0.0001
p4 0.002921 ± 0.000093
p5 101 ± 36.8
p6 0.1364 ± 0.0003
p7 0.005694 ± 0.000542
Total Pi = 7817.35456
Bacg Pi = 2721.08552
Bcg % = 34.8082653
Total - Bcg = 5096.26904

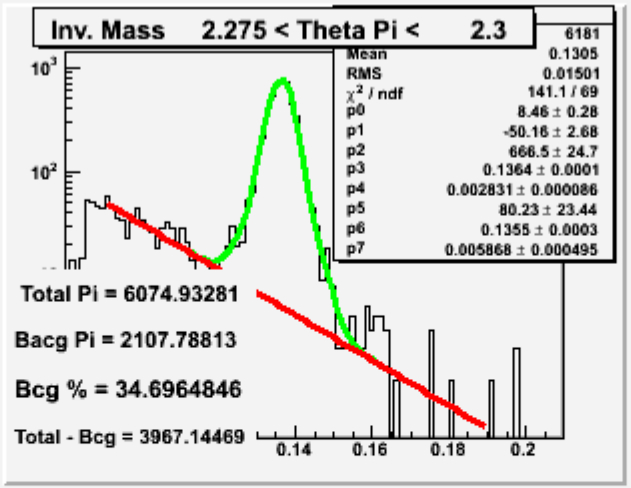

Inv. Mass 2.15 < Theta Pi < 2.175
7456
Mean 0.131
RMS 0.01445
χ² / ndf 120.2 / 69
p0 7.49 ± 0.23
p1 -40.44 ± 2.09
p2 814.8 ± 37.6
p3 0.1362 ± 0.0001
p4 0.002936 ± 0.000098
p5 83.78 ± 39.00
p6 0.1357 ± 0.0004
p7 0.005797 ± 0.000752
Total Pi = 7445.61057
Bacg Pi = 2546.16461
Bcg % = 34.1968545
Total - Bcg = 4899.44596

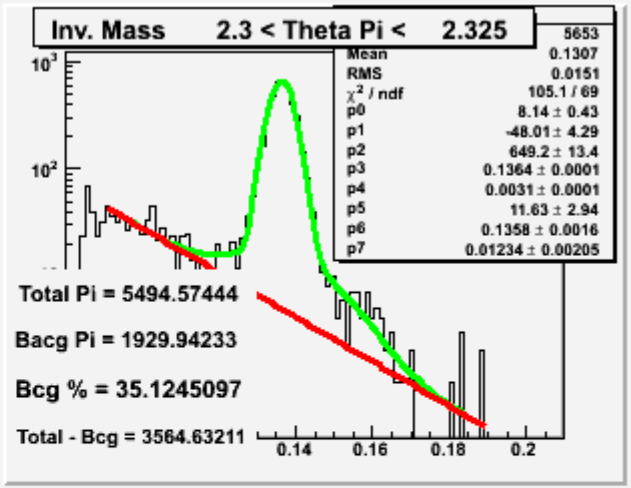

Inv. Mass 2.175 < Theta Pi < 2.2
7395
Mean 0.1312
RMS 0.01443
χ² / ndf 101.1 / 69
p0 7.715 ± 0.227
p1 -42.11 ± 2.11
p2 765.4 ± 42.6
p3 0.1363 ± 0.0001
p4 0.002829 ± 0.000106
p5 129.5 ± 44.3
p6 0.1359 ± 0.0002
p7 0.005377 ± 0.000471
Total Pi = 7406.49767
Bacg Pi = 2545.18827
Bcg % = 34.3642621
Total - Bcg = 4861.3094

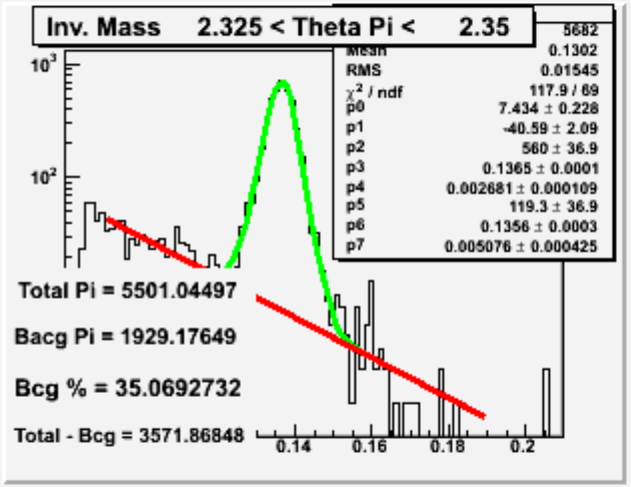

Inv. Mass 2.2 < Theta Pi < 2.225
7062
Mean 0.1309
RMS 0.01465
χ² / ndf 99.62 / 69
p0 7.873 ± 0.228
p1 -43.07 ± 2.13
p2 761.6 ± 36.4
p3 0.1361 ± 0.0001
p4 0.002999 ± 0.000095
p5 69.93 ± 37.53
p6 0.1371 ± 0.0005
p7 0.005593 ± 0.000781
Total Pi = 6946.47668
Bacg Pi = 2419.02286
Bcg % = 34.8237382
Total - Bcg = 4527.45383

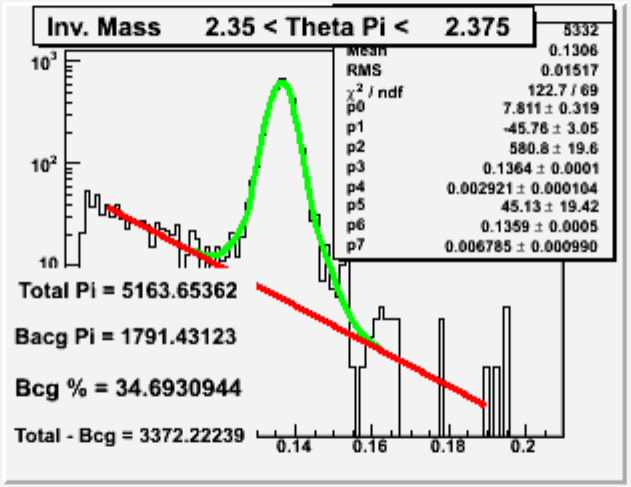

Inv. Mass 2.225 < Theta Pi < 2.25
6705
Mean 0.1306
RMS 0.01486
χ² / ndf 98.72 / 69
p0 8.16 ± 0.23
p1 -46.14 ± 2.13
p2 603.5 ± 99.1
p3 0.1365 ± 0.0001
p4 0.002656 ± 0.000179
p5 212.5 ± 102.6
p6 0.1362 ± 0.0002
p7 0.0043 ± 0.0004
Total Pi = 6530.97512
Bacg Pi = 2277.05385
Bcg % = 34.8654498
Total - Bcg = 4253.92127

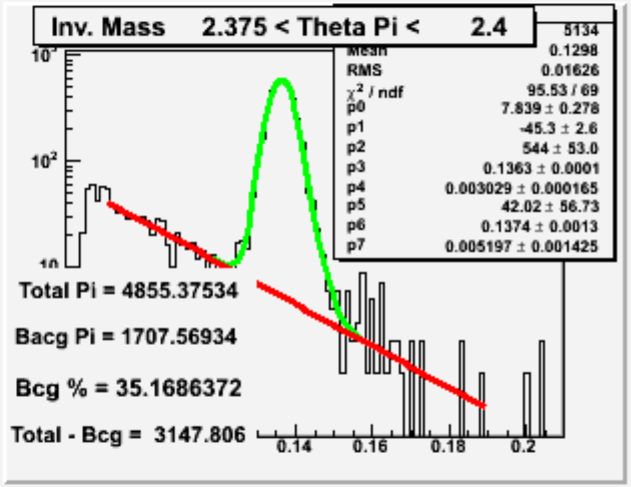

Inv. Mass 2.25 < Theta Pi < 2.275
6427
Mean 0.131
RMS 0.01489
χ² / ndf 70.02 / 69
p0 8.121 ± 0.447
p1 -47.48 ± 4.55
p2 748.9 ± 14.5
p3 0.1365 ± 0.0001
p4 0.00311 ± 0.00006
p5 16.52 ± 5.08
p6 0.1353 ± 0.0013
p7 0.0109 ± 0.0024
Total Pi = 6393.63561
Bacg Pi = 2213.13868
Bcg % = 34.6147141
Total - Bcg = 4180.49692

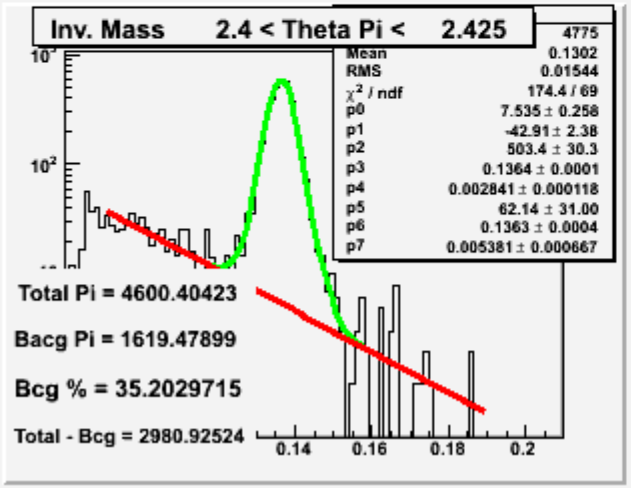

Inv. Mass 2.275 < Theta Pi < 2.3
6181
Mean 0.1305
RMS 0.01501
χ² / ndf 141.1 / 69
p0 8.46 ± 0.28
p1 -50.16 ± 2.68
p2 666.5 ± 24.7
p3 0.1364 ± 0.0001
p4 0.002831 ± 0.000086
p5 80.23 ± 23.44
p6 0.1355 ± 0.0003
p7 0.005868 ± 0.000495
Total Pi = 6074.93281
Bacg Pi = 2107.78813
Bcg % = 34.6964846
Total - Bcg = 3967.14469

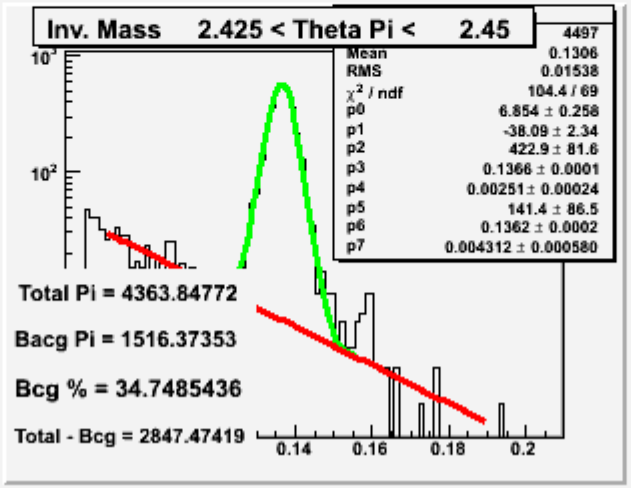

Inv. Mass 2.3 < Theta Pi < 2.325
5653
Mean 0.1307
RMS 0.0151
χ² / ndf 105.1 / 69
p0 8.14 ± 0.43
p1 -48.01 ± 4.29
p2 649.2 ± 13.4
p3 0.1364 ± 0.0001
p4 0.0031 ± 0.0001
p5 11.63 ± 2.94
p6 0.1358 ± 0.0016
p7 0.01234 ± 0.00205
Total Pi = 5494.57444
Bacg Pi = 1929.94233
Bcg % = 35.1245097
Total - Bcg = 3564.63211

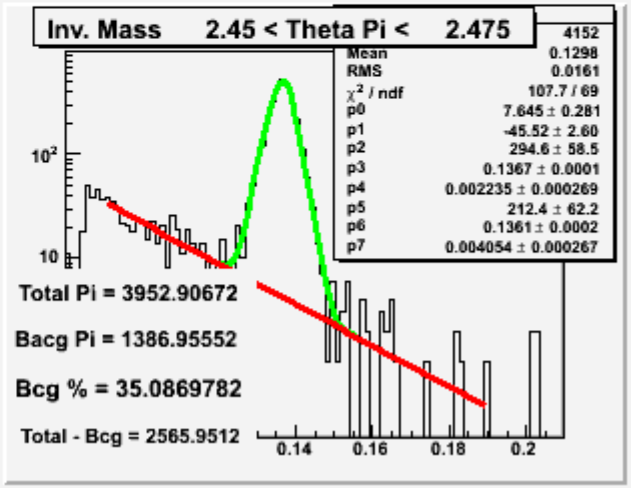

Inv. Mass 2.325 < Theta Pi < 2.35
5682
Mean 0.1302
RMS 0.01545
χ² / ndf 117.9 / 69
p0 7.434 ± 0.228
p1 -40.59 ± 2.09
p2 560 ± 36.9
p3 0.1365 ± 0.0001
p4 0.002681 ± 0.000109
p5 119.3 ± 36.9
p6 0.1356 ± 0.0003
p7 0.005076 ± 0.000425
Total Pi = 5501.04497
Bacg Pi = 1929.17649
Bcg % = 35.0692732
Total - Bcg = 3571.86848

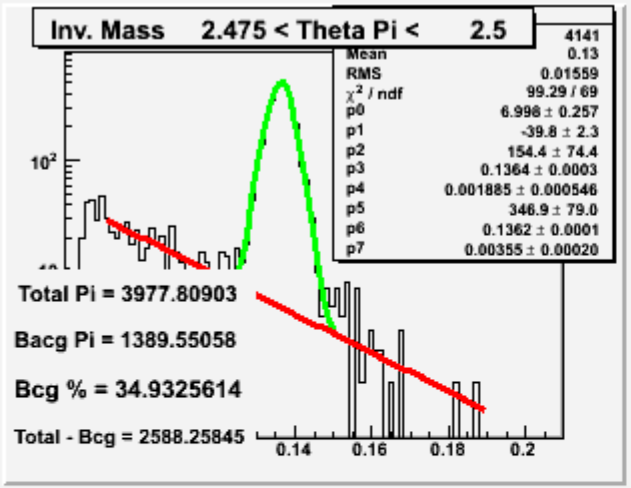

Inv. Mass 2.35 < Theta Pi < 2.375
5332
Mean 0.1306
RMS 0.01517
χ² / ndf 122.7 / 69
p0 7.811 ± 0.319
p1 -45.76 ± 3.05
p2 580.8 ± 19.6
p3 0.1364 ± 0.0001
p4 0.002921 ± 0.000104
p5 45.13 ± 19.42
p6 0.1359 ± 0.0005
p7 0.006785 ± 0.000990
Total Pi = 5163.65362
Bacg Pi = 1791.43123
Bcg % = 34.6930944
Total - Bcg = 3372.22239

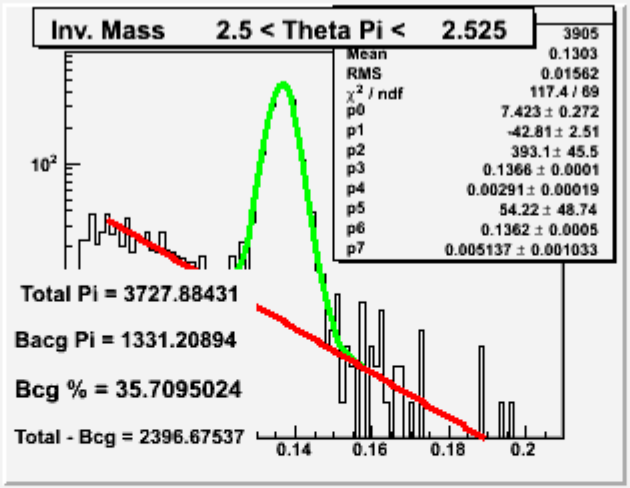

Inv. Mass 2.375 < Theta Pi < 2.4
5134
Mean 0.1298
RMS 0.01626
χ² / ndf 95.53 / 69
p0 7.839 ± 0.278
p1 -45.3 ± 2.6
p2 544 ± 53.0
p3 0.1363 ± 0.0001
p4 0.003029 ± 0.000165
p5 42.02 ± 56.73
p6 0.1374 ± 0.0013
p7 0.005197 ± 0.001425
Total Pi = 4855.37534
Bacg Pi = 1707.56934
Bcg % = 35.1686372
Total - Bcg = 3147.806

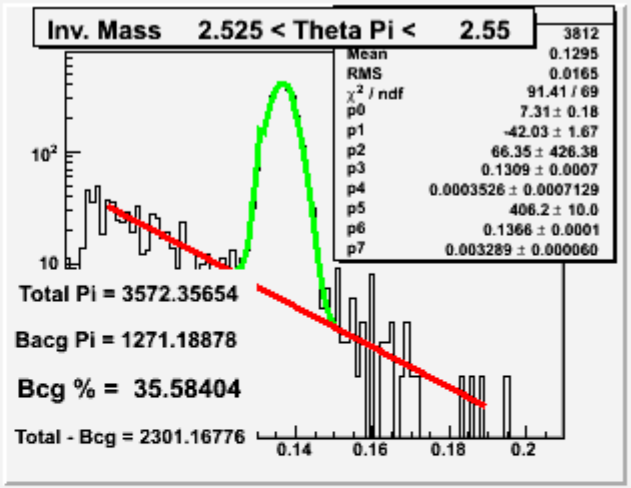

Inv. Mass 2.4 < Theta Pi < 2.425
4775
Mean 0.1302
RMS 0.01544
χ² / ndf 174.4 / 69
p0 7.535 ± 0.258
p1 -42.91 ± 2.38
p2 503.4 ± 30.3
p3 0.1364 ± 0.0001
p4 0.002841 ± 0.000118
p5 62.14 ± 31.00
p6 0.1363 ± 0.0004
p7 0.005381 ± 0.000667
Total Pi = 4600.40423
Bacg Pi = 1619.47899
Bcg % = 35.2029715
Total - Bcg = 2980.92524

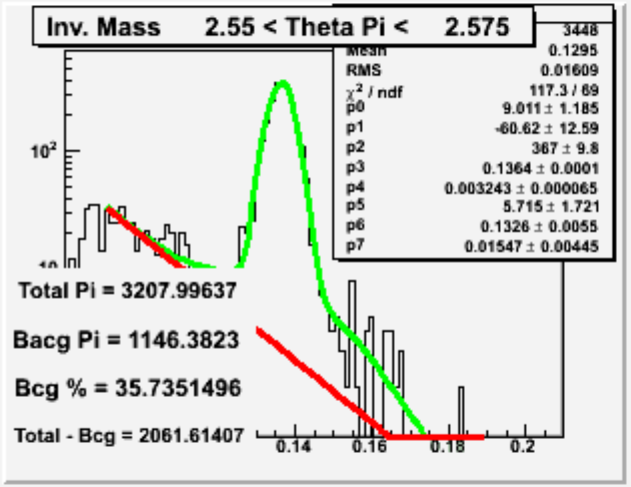

Inv. Mass 2.425 < Theta Pi < 2.45
4497
Mean 0.1306
RMS 0.01538
χ² / ndf 104.4 / 69
p0 6.854 ± 0.258
p1 -38.09 ± 2.34
p2 422.9 ± 81.6
p3 0.1366 ± 0.0001
p4 0.00251 ± 0.00024
p5 141.4 ± 86.5
p6 0.1362 ± 0.0002
p7 0.004312 ± 0.000580
Total Pi = 4363.84772
Bacg Pi = 1516.37353
Bcg % = 34.7485436
Total - Bcg = 2847.47419

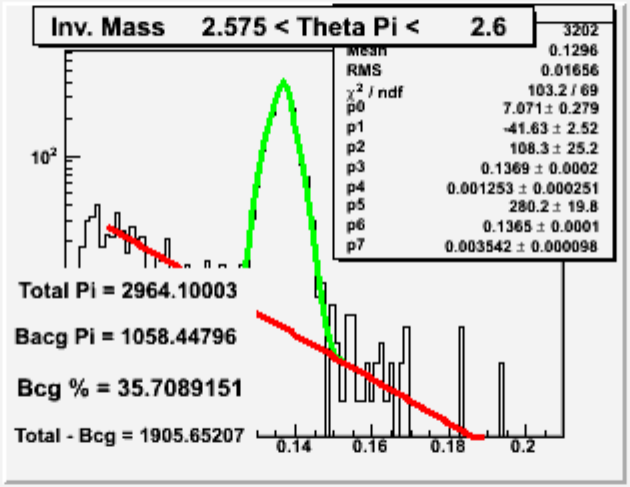

Inv. Mass 2.45 < Theta Pi < 2.475
4152
Mean 0.1298
RMS 0.0161
χ² / ndf 107.7 / 69
p0 7.645 ± 0.281
p1 -45.52 ± 2.60
p2 294.6 ± 58.5
p3 0.1367 ± 0.0001
p4 0.002235 ± 0.000269
p5 212.4 ± 62.2
p6 0.1361 ± 0.0002
p7 0.004054 ± 0.000267
Total Pi = 3952.90672
Bacg Pi = 1386.95552
Bcg % = 35.0869782
Total - Bcg = 2565.9512

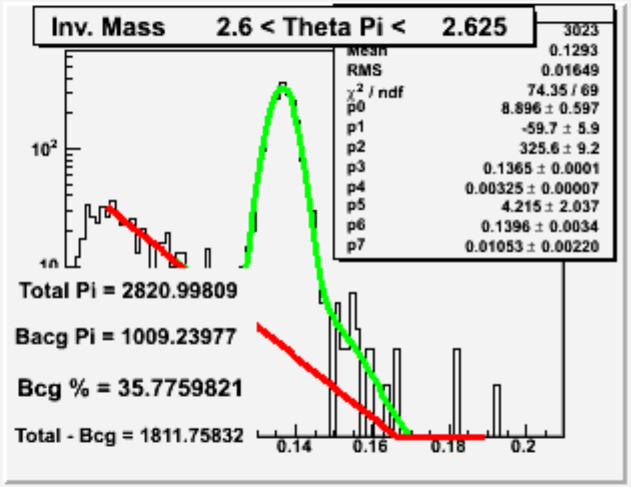

Inv. Mass 2.475 < Theta Pi < 2.5
4141
Mean 0.13
RMS 0.01559
χ² / ndf 99.29 / 69
p0 6.998 ± 0.257
p1 -39.8 ± 2.3
p2 154.4 ± 74.4
p3 0.1364 ± 0.0003
p4 0.001885 ± 0.000546
p5 346.9 ± 79.0
p6 0.1362 ± 0.0001
p7 0.00355 ± 0.00020
Total Pi = 3977.80903
Bacg Pi = 1389.55058
Bcg % = 34.9325614
Total - Bcg = 2588.25845

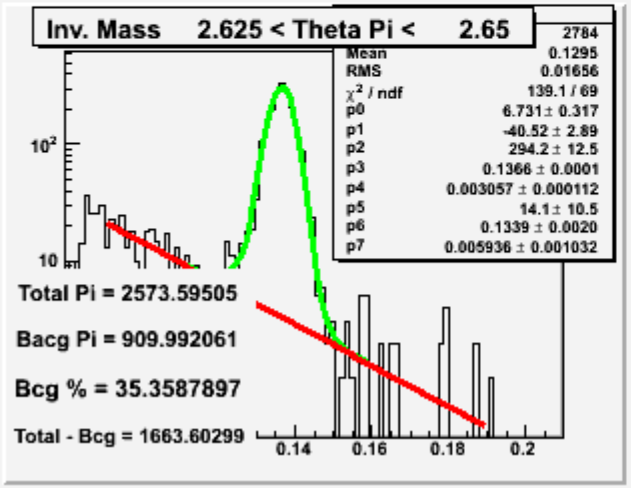

Inv. Mass 2.5 < Theta Pi < 2.525
3905
Mean 0.1303
RMS 0.01562
χ² / ndf 117.4 / 69
p0 7.423 ± 0.272
p1 -42.81 ± 2.51
p2 393.1 ± 45.5
p3 0.1366 ± 0.0001
p4 0.00291 ± 0.00019
p5 54.22 ± 48.74
p6 0.1362 ± 0.0005
p7 0.005137 ± 0.001033
Total Pi = 3727.88431
Bacg Pi = 1331.20894
Bcg % = 35.7095024
Total - Bcg = 2396.67537

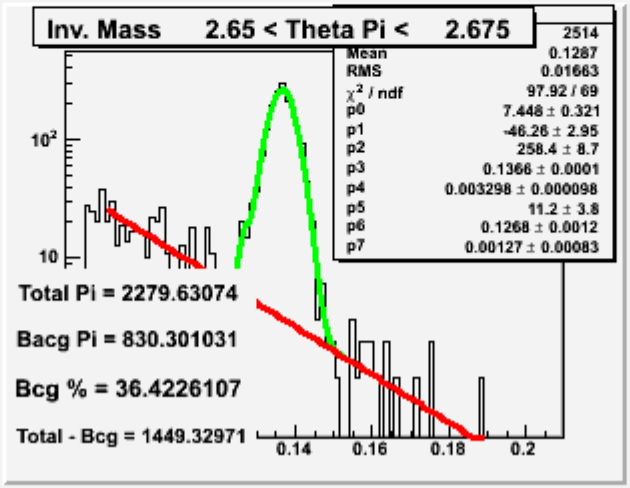

Inv. Mass 2.525 < Theta Pi < 2.55
3812
Mean 0.1295
RMS 0.0165
χ² / ndf 91.41 / 69
p0 7.31 ± 0.18
p1 -42.03 ± 1.67
p2 66.35 ± 426.38
p3 0.1309 ± 0.0007
p4 0.0003526 ± 0.0007129
p5 406.2 ± 10.0
p6 0.1366 ± 0.0001
p7 0.003289 ± 0.000060
Total Pi = 3572.35654
Bacg Pi = 1271.18878
Bcg % = 35.58404
Total - Bcg = 2301.16776

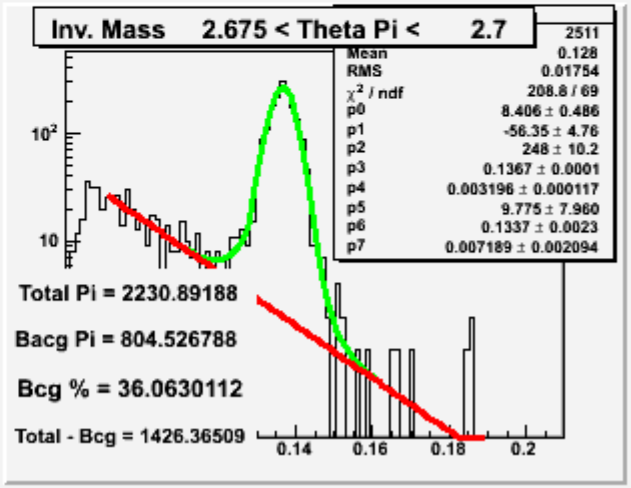

Inv. Mass 2.55 < Theta Pi < 2.575
3448
Mean 0.1295
RMS 0.01609
χ² / ndf 117.3 / 69
p0 9.011 ± 1.185
p1 -60.62 ± 12.59
p2 367 ± 9.8
p3 0.1364 ± 0.0001
p4 0.003243 ± 0.000065
p5 5.715 ± 1.721
p6 0.1326 ± 0.0055
p7 0.01547 ± 0.00445
Total Pi = 3207.99637
Bacg Pi = 1146.3823
Bcg % = 35.7351496
Total - Bcg = 2061.61407

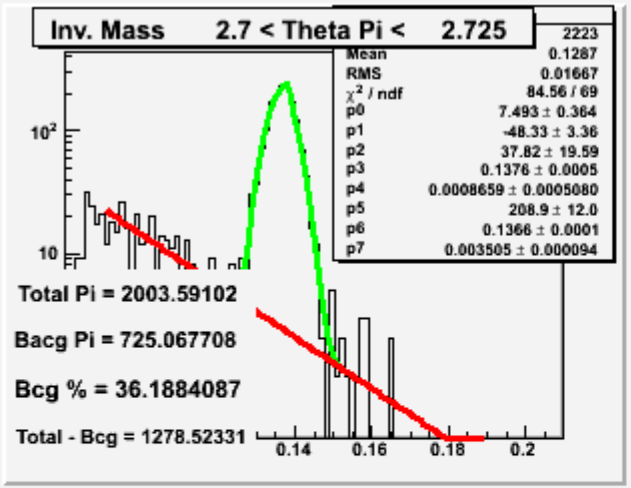

Inv. Mass 2.575 < Theta Pi < 2.6
3202
Mean 0.1296
RMS 0.01656
χ² / ndf 103.2 / 69
p0 7.071 ± 0.279
p1 -41.63 ± 2.52
p2 108.3 ± 25.2
p3 0.1369 ± 0.0002
p4 0.001253 ± 0.000251
p5 280.2 ± 19.8
p6 0.1365 ± 0.0001
p7 0.003542 ± 0.000098
Total Pi = 2964.10003
Bacg Pi = 1058.44796
Bcg % = 35.7089151
Total - Bcg = 1905.65207

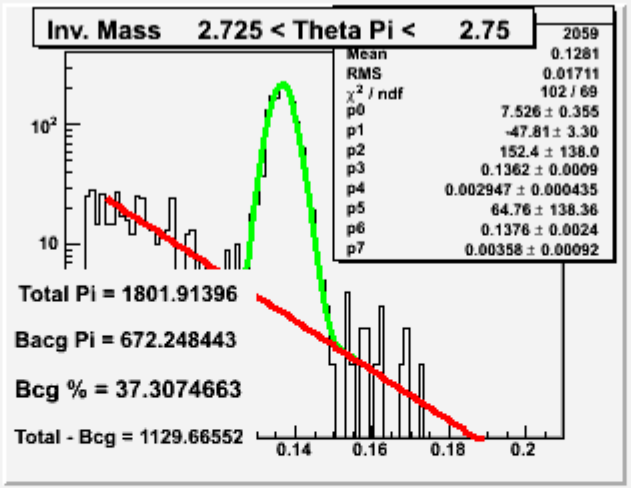

Inv. Mass 2.6 < Theta Pi < 2.625
3023
Mean 0.1293
RMS 0.01649
χ² / ndf 74.35 / 69
p0 8.896 ± 0.597
p1 -59.7 ± 5.9
p2 325.6 ± 9.2
p3 0.1365 ± 0.0001
p4 0.00325 ± 0.00007
p5 4.215 ± 2.037
p6 0.1396 ± 0.0034
p7 0.01053 ± 0.00220
Total Pi = 2820.99809
Bacg Pi = 1009.23977
Bcg % = 35.7759821
Total - Bcg = 1811.75832

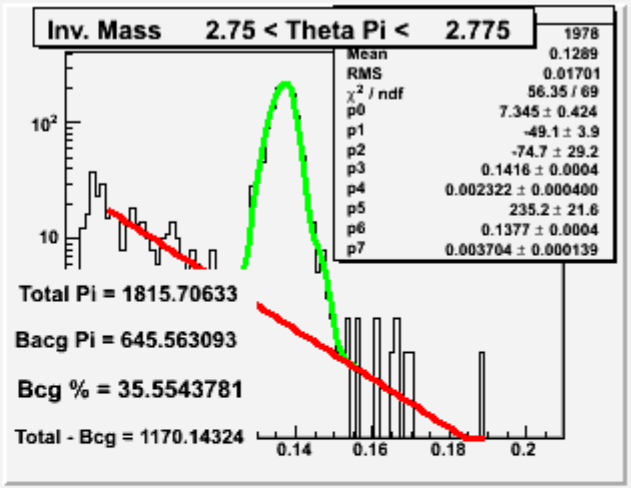

Inv. Mass 2.625 < Theta Pi < 2.65
2784
Mean 0.1295
RMS 0.01656
χ² / ndf 139.1 / 69
p0 6.731 ± 0.317
p1 -40.52 ± 2.89
p2 294.2 ± 12.5
p3 0.1366 ± 0.0001
p4 0.003057 ± 0.000112
p5 14.1 ± 10.5
p6 0.1339 ± 0.0020
p7 0.005936 ± 0.001032
Total Pi = 2573.59505
Bacg Pi = 909.992061
Bcg % = 35.3587897
Total - Bcg = 1663.60299

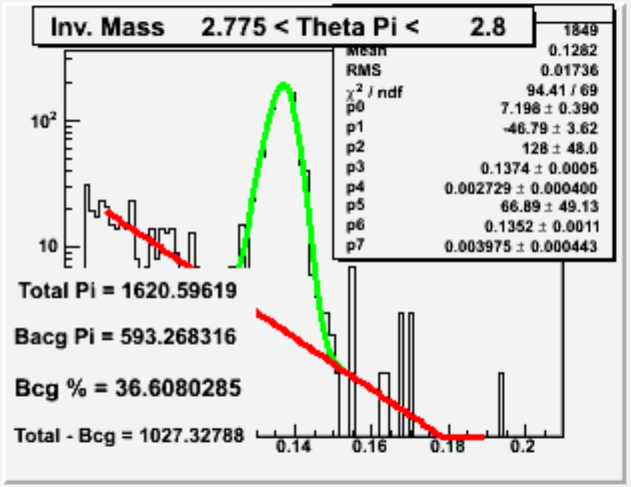

Inv. Mass 2.65 < Theta Pi < 2.675
2514
Mean 0.1287
RMS 0.01663
χ² / ndf 97.92 / 69
p0 7.448 ± 0.321
p1 -46.26 ± 2.95
p2 258.4 ± 8.7
p3 0.1366 ± 0.0001
p4 0.003298 ± 0.000098
p5 11.2 ± 3.8
p6 0.1268 ± 0.0012
p7 0.00127 ± 0.00083
Total Pi = 2279.63074
Bacg Pi = 830.301031
Bcg % = 36.4226107
Total - Bcg = 1449.32971

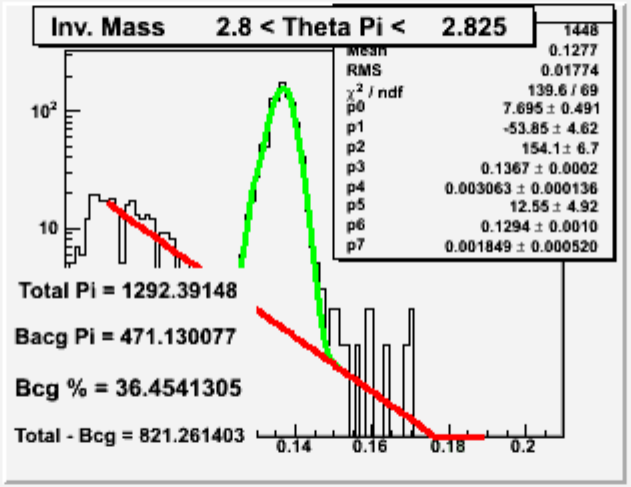

Inv. Mass 2.675 < Theta Pi < 2.7
2511
Mean 0.128
RMS 0.01754
χ² / ndf 208.8 / 69
p0 8.406 ± 0.486
p1 -56.35 ± 4.76
p2 248 ± 10.2
p3 0.1367 ± 0.0001
p4 0.003196 ± 0.000117
p5 9.775 ± 7.960
p6 0.1337 ± 0.0023
p7 0.007189 ± 0.002094
Total Pi = 2230.89188
Bacg Pi = 804.526788
Bcg % = 36.0630112
Total - Bcg = 1426.36509

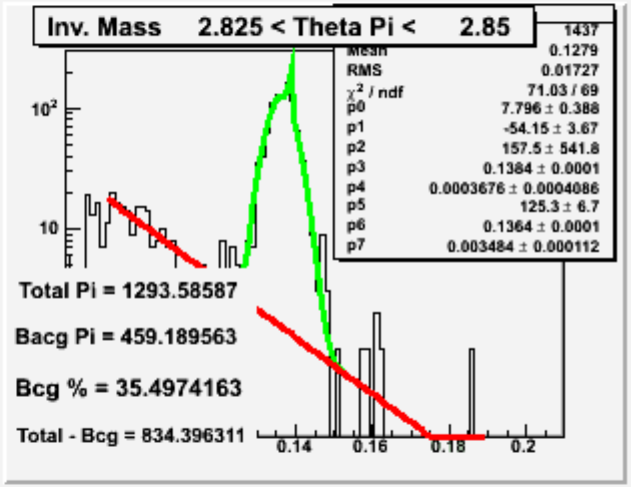

Inv. Mass 2.7 < Theta Pi < 2.725
2223
Mean 0.1287
RMS 0.01667
χ² / ndf 84.56 / 69
p0 7.493 ± 0.364
p1 -48.33 ± 3.36
p2 37.82 ± 19.59
p3 0.1376 ± 0.0005
p4 0.0008659 ± 0.0005080
p5 208.9 ± 12.0
p6 0.1366 ± 0.0001
p7 0.003505 ± 0.000094
Total Pi = 2003.59102
Bacg Pi = 725.067708
Bcg % = 36.1884087
Total - Bcg = 1278.52331

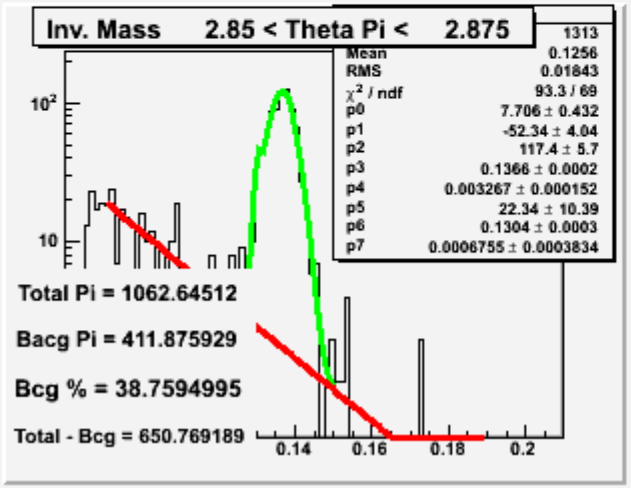

Inv. Mass 2.725 < Theta Pi < 2.75
2059
Mean 0.1281
RMS 0.01711
χ² / ndf 102 / 69
p0 7.526 ± 0.355
p1 -47.81 ± 3.30
p2 152.4 ± 138.0
p3 0.1362 ± 0.0009
p4 0.002947 ± 0.000435
p5 64.76 ± 138.36
p6 0.1376 ± 0.0024
p7 0.00358 ± 0.00092
Total Pi = 1801.91396
Bacg Pi = 672.248443
Bcg % = 37.3074663
Total - Bcg = 1129.66552

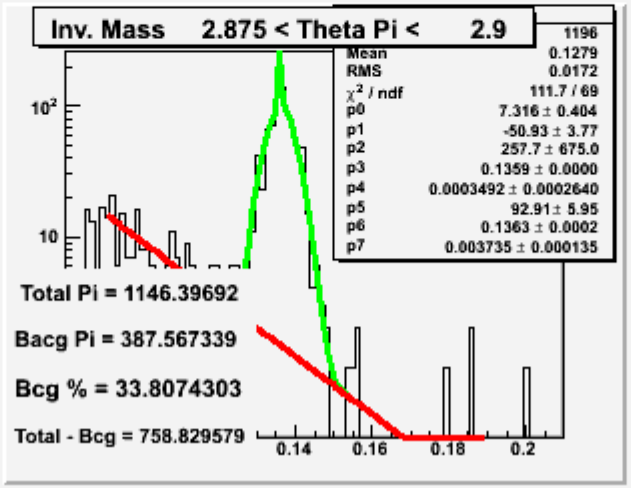

Inv. Mass 2.75 < Theta Pi < 2.775
1978
Mean 0.1289
RMS 0.01701
χ² / ndf 56.35 / 69
p0 7.345 ± 0.424
p1 -49.1 ± 3.9
p2 -74.7 ± 29.2
p3 0.1416 ± 0.0004
p4 0.002322 ± 0.000400
p5 235.2 ± 21.6
p6 0.1377 ± 0.0004
p7 0.003704 ± 0.000139
Total Pi = 1815.70633
Bacg Pi = 645.563093
Bcg % = 35.5543781
Total - Bcg = 1170.14324

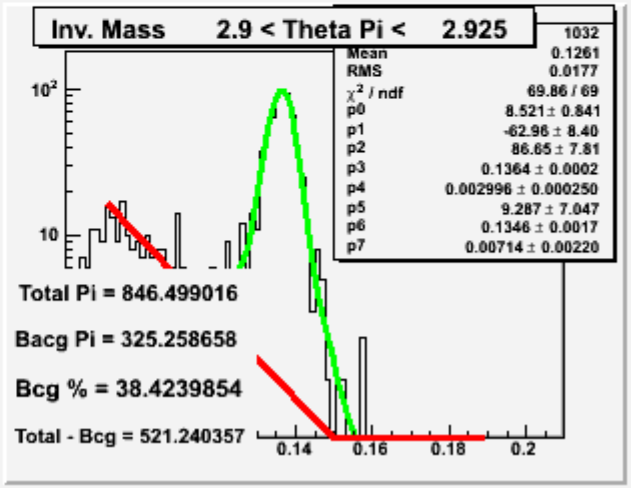

Inv. Mass 2.775 < Theta Pi < 2.8
1849
Mean 0.1282
RMS 0.01736
χ² / ndf 94.41 / 69
p0 7.198 ± 0.390
p1 -46.79 ± 3.62
p2 128 ± 48.0
p3 0.1374 ± 0.0005
p4 0.002729 ± 0.000400
p5 66.89 ± 49.13
p6 0.1352 ± 0.0011
p7 0.003975 ± 0.000443
Total Pi = 1620.59619
Bacg Pi = 593.268316
Bcg % = 36.6080285
Total - Bcg = 1027.32788

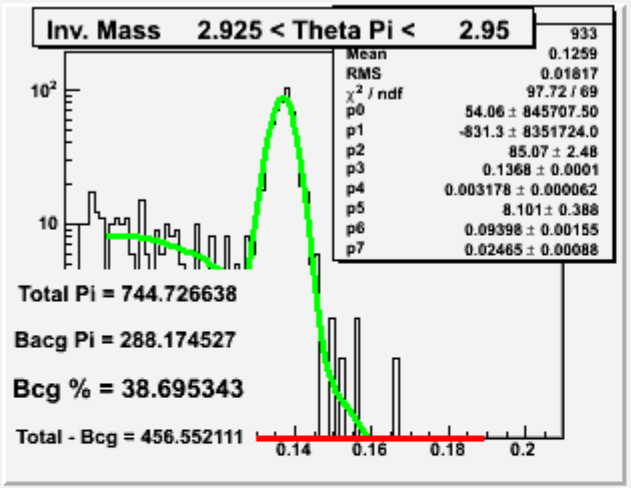

Inv. Mass 2.8 < Theta Pi < 2.825
1448
Mean 0.1277
RMS 0.01774
χ² / ndf 139.6 / 69
p0 7.695 ± 0.491
p1 -53.85 ± 4.62
p2 154.1 ± 6.7
p3 0.1367 ± 0.0002
p4 0.003063 ± 0.000136
p5 12.55 ± 4.92
p6 0.1294 ± 0.0010
p7 0.001849 ± 0.000520
Total Pi = 1292.39148
Bacg Pi = 471.130077
Bcg % = 36.4541305
Total - Bcg = 821.261403

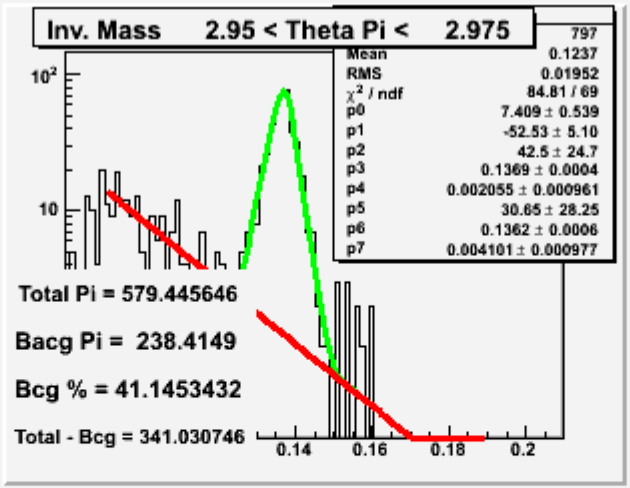

Inv. Mass 2.825 < Theta Pi < 2.85
1437
Mean 0.1279
RMS 0.01727
χ² / ndf 71.03 / 69
p0 7.796 ± 0.388
p1 -54.15 ± 3.67
p2 157.5 ± 541.8
p3 0.1384 ± 0.0001
p4 0.0003676 ± 0.0004086
p5 125.3 ± 6.7
p6 0.1364 ± 0.0001
p7 0.003484 ± 0.000112
Total Pi = 1293.58587
Bacg Pi = 459.189563
Bcg % = 35.4974163
Total - Bcg = 834.396311

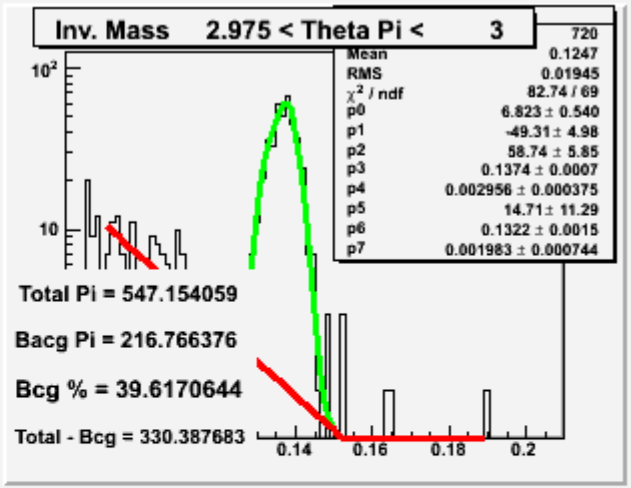

Inv. Mass 2.85 < Theta Pi < 2.875
1313
Mean 0.1256
RMS 0.01843
χ² / ndf 93.3 / 69
p0 7.706 ± 0.432
p1 -52.34 ± 4.04
p2 117.4 ± 5.7
p3 0.1366 ± 0.0002
p4 0.003267 ± 0.000152
p5 22.34 ± 10.39
p6 0.1304 ± 0.0003
p7 0.0006755 ± 0.0003834
Total Pi = 1062.64512
Bacg Pi = 411.875929
Bcg % = 38.7594995
Total - Bcg = 650.769189

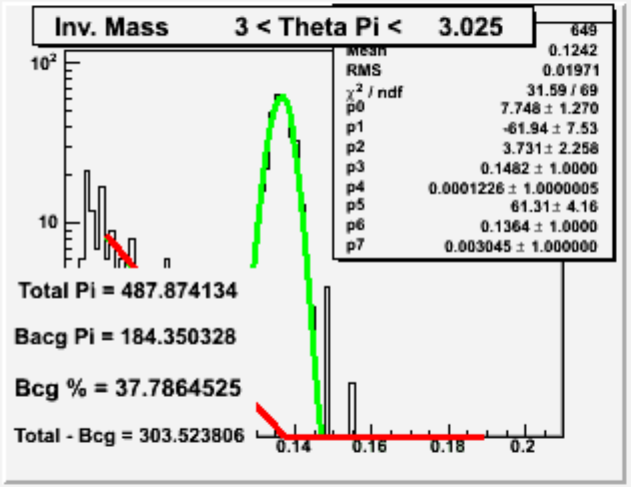

Inv. Mass 2.875 < Theta Pi < 2.9
1196
Mean 0.1279
RMS 0.0172
χ² / ndf 111.7 / 69
p0 7.316 ± 0.404
p1 -50.93 ± 3.77
p2 257.7 ± 675.0
p3 0.1359 ± 0.0000
p4 0.0003492 ± 0.0002640
p5 92.91 ± 5.95
p6 0.1363 ± 0.0002
p7 0.003735 ± 0.000135
Total Pi = 1146.39692
Bacg Pi = 387.567339
Bcg % = 33.8074303
Total - Bcg = 758.829579

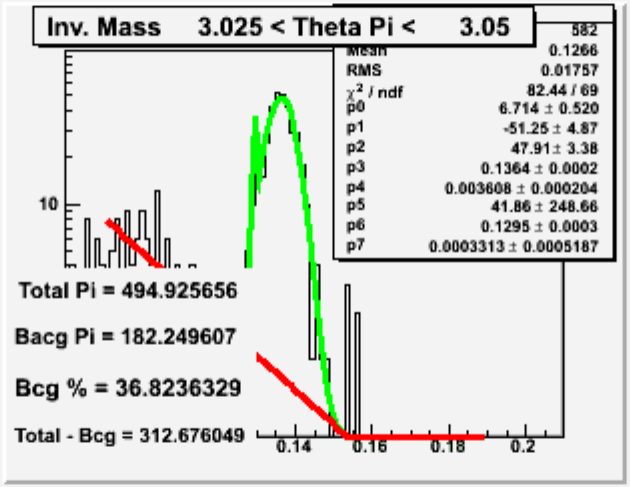

Inv. Mass 2.9 < Theta Pi < 2.925
1032
Mean 0.1261
RMS 0.0177
χ² / ndf 69.86 / 69
p0 8.521 ± 0.841
p1 -62.96 ± 8.40
p2 86.65 ± 7.81
p3 0.1364 ± 0.0002
p4 0.002996 ± 0.000250
p5 9.287 ± 7.047
p6 0.1346 ± 0.0017
p7 0.00714 ± 0.00220
Total Pi = 846.499016
Bacg Pi = 325.258658
Bcg % = 38.4239854
Total - Bcg = 521.240357

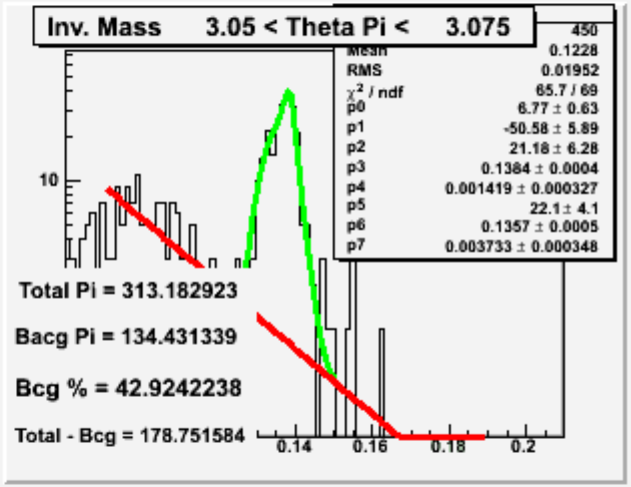

Inv. Mass 2.925 < Theta Pi < 2.95
933
Mean 0.1259
RMS 0.01817
χ² / ndf 97.72 / 69
p0 54.06 ± 845707.50
p1 -831.3 ± 8351724.0
p2 85.07 ± 2.48
p3 0.1368 ± 0.0001
p4 0.003178 ± 0.000062
p5 8.101 ± 0.388
p6 0.09398 ± 0.00155
p7 0.02465 ± 0.00088
Total Pi = 744.726638
Bacg Pi = 288.174527
Bcg % = 38.695343
Total - Bcg = 456.552111

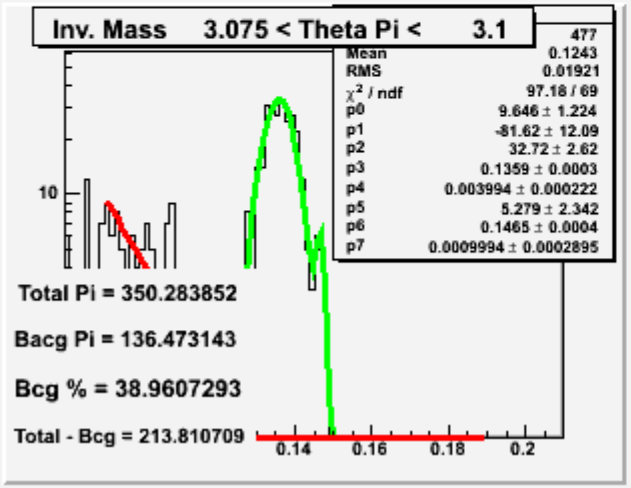

Inv. Mass 2.95 < Theta Pi < 2.975
797
Mean 0.1237
RMS 0.01952
χ² / ndf 84.81 / 69
p0 7.409 ± 0.539
p1 -52.53 ± 5.10
p2 42.5 ± 24.7
p3 0.1369 ± 0.0004
p4 0.002055 ± 0.000961
p5 30.65 ± 28.25
p6 0.1362 ± 0.0006
p7 0.004101 ± 0.000977
Total Pi = 579.445646
Bacg Pi = 238.4149
Bcg % = 41.1453432
Total - Bcg = 341.030746

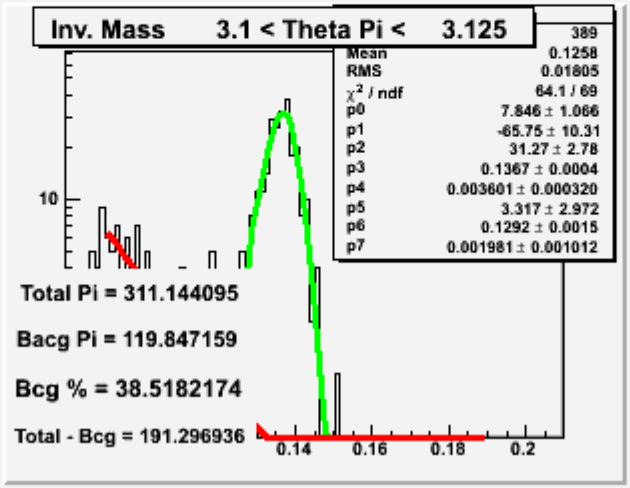

Inv. Mass 2.975 < Theta Pi < 3
720
Mean 0.1247
RMS 0.01945
χ² / ndf 82.74 / 69
p0 6.823 ± 0.540
p1 -49.31 ± 4.98
p2 58.74 ± 5.85
p3 0.1374 ± 0.0007
p4 0.002956 ± 0.000375
p5 14.71 ± 11.29
p6 0.1322 ± 0.0015
p7 0.001983 ± 0.000744
Total Pi = 547.154059
Bacg Pi = 216.766376
Bcg % = 39.6170644
Total - Bcg = 330.387683

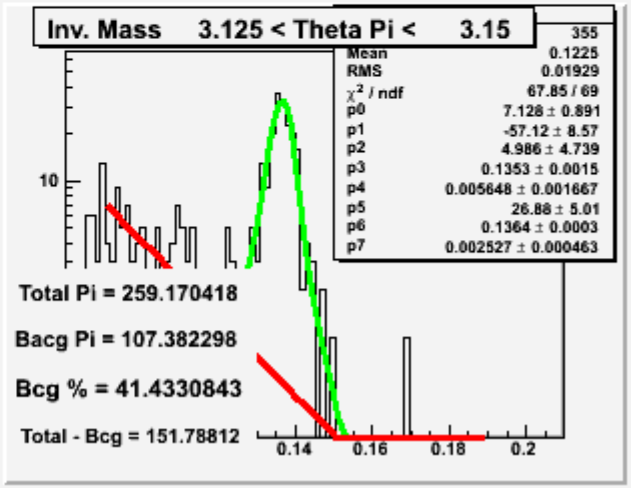

Inv. Mass 3 < Theta Pi < 3.025
649
Mean 0.1242
RMS 0.01971
χ² / ndf 31.59 / 69
p0 7.748 ± 1.270
p1 -61.94 ± 7.53
p2 3.731 ± 2.258
p3 0.1482 ± 1.0000
p4 0.0001226 ± 1.0000005
p5 61.31 ± 4.16
p6 0.1364 ± 1.0000
p7 0.003045 ± 1.000000
Total Pi = 487.874134
Bacg Pi = 184.350328
Bcg % = 37.7864525
Total - Bcg = 303.523806

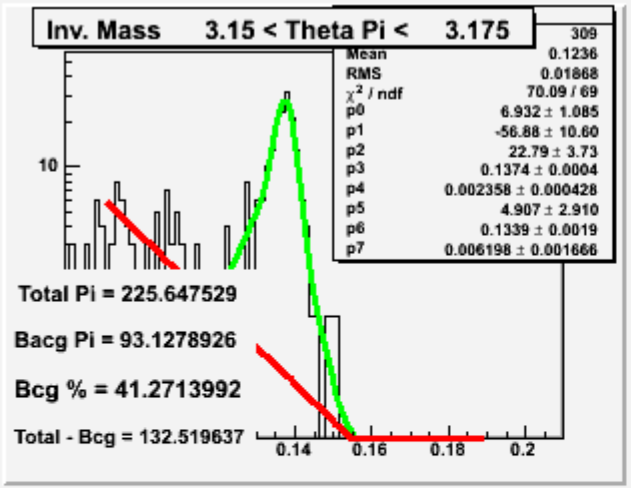

Inv. Mass 3.025 < Theta Pi < 3.05
582
Mean 0.1266
RMS 0.01757
χ² / ndf 82.44 / 69
p0 6.714 ± 0.520
p1 -51.25 ± 4.87
p2 47.91 ± 3.38
p3 0.1364 ± 0.0002
p4 0.003608 ± 0.000204
p5 41.86 ± 248.66
p6 0.1295 ± 0.0003
p7 0.0003313 ± 0.0005187
Total Pi = 494.925656
Bacg Pi = 182.249607
Bcg % = 36.8236329
Total - Bcg = 312.676049

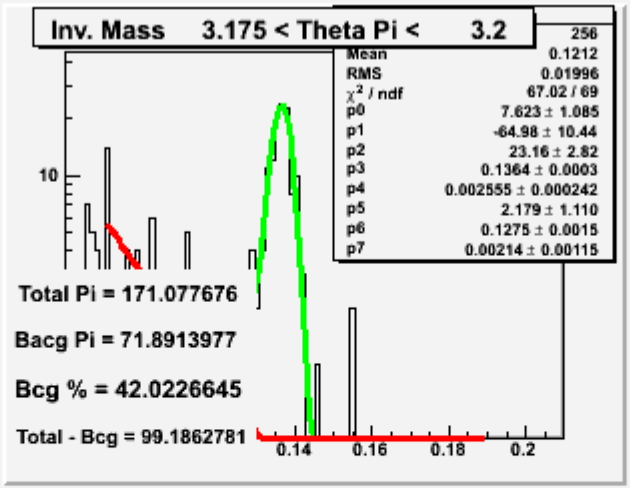

Inv. Mass 3.05 < Theta Pi < 3.075
450
Mean 0.1228
RMS 0.01952
χ² / ndf 65.7 / 69
p0 6.77 ± 0.63
p1 -50.58 ± 5.89
p2 21.18 ± 6.28
p3 0.1384 ± 0.0004
p4 0.001419 ± 0.000327
p5 22.1 ± 4.1
p6 0.1357 ± 0.0005
p7 0.003733 ± 0.000348
Total Pi = 313.182923
Bacg Pi = 134.431339
Bcg % = 42.9242238
Total - Bcg = 178.751584

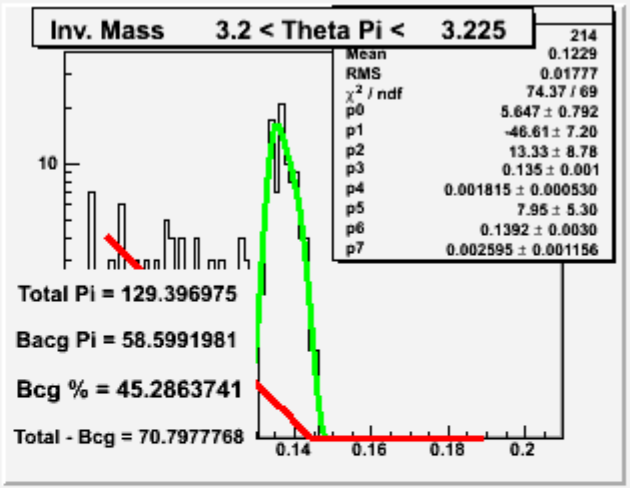

Inv. Mass 3.075 < Theta Pi < 3.1
477
Mean 0.1243
RMS 0.01921
χ² / ndf 97.18 / 69
p0 9.646 ± 1.224
p1 -81.62 ± 12.09
p2 32.72 ± 2.62
p3 0.1359 ± 0.0003
p4 0.003994 ± 0.000222
p5 5.279 ± 2.342
p6 0.1465 ± 0.0004
p7 0.0009994 ± 0.0002895
Total Pi = 350.283852
Bacg Pi = 136.473143
Bcg % = 38.9607293
Total - Bcg = 213.810709

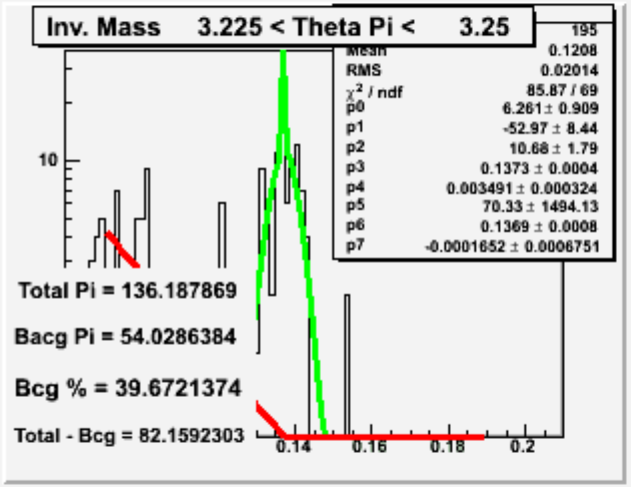

Inv. Mass 3.1 < Theta Pi < 3.125
389
Mean 0.1258
RMS 0.01805
χ² / ndf 64.1 / 69
p0 7.846 ± 1.066
p1 -65.75 ± 10.31
p2 31.27 ± 2.78
p3 0.1367 ± 0.0004
p4 0.003601 ± 0.000320
p5 3.317 ± 2.972
p6 0.1292 ± 0.0015
p7 0.001981 ± 0.001012
Total Pi = 311.144095
Bacg Pi = 119.847159
Bcg % = 38.5182174
Total - Bcg = 191.296936

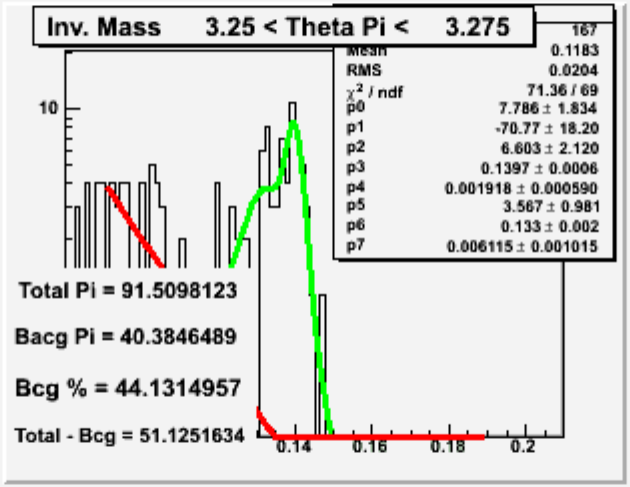

Inv. Mass 3.125 < Theta Pi < 3.15
355
Mean 0.1225
RMS 0.01929
χ² / ndf 67.85 / 69
p0 7.128 ± 0.891
p1 -57.12 ± 8.57
p2 4.986 ± 4.739
p3 0.1353 ± 0.0015
p4 0.005648 ± 0.001667
p5 26.88 ± 5.01
p6 0.1364 ± 0.0003
p7 0.002527 ± 0.000463
Total Pi = 259.170418
Bacg Pi = 107.382298
Bcg % = 41.4330843
Total - Bcg = 151.78812

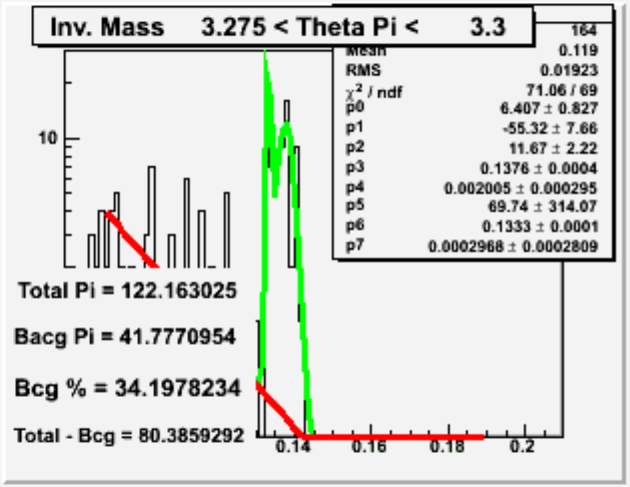

Inv. Mass 3.15 < Theta Pi < 3.175
309
Mean 0.1236
RMS 0.01868
χ² / ndf 70.09 / 69
p0 6.932 ± 1.085
p1 -56.88 ± 10.60
p2 22.79 ± 3.73
p3 0.1374 ± 0.0004
p4 0.002358 ± 0.000428
p5 4.907 ± 2.910
p6 0.1339 ± 0.0019
p7 0.006198 ± 0.001666
Total Pi = 225.647529
Bacg Pi = 93.1278926
Bcg % = 41.2713992
Total - Bcg = 132.519637

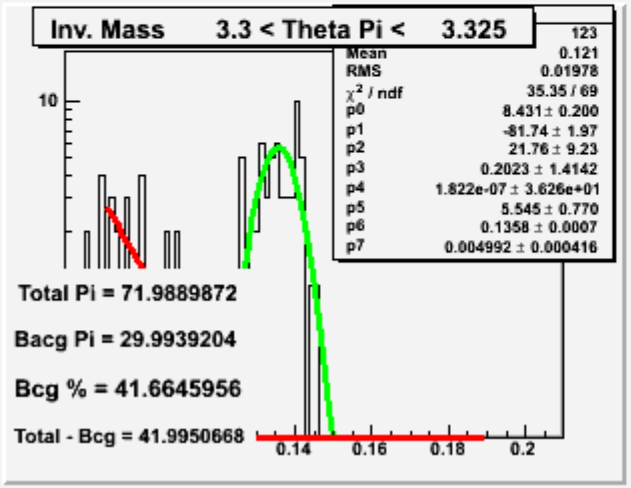

Inv. Mass 3.175 < Theta Pi < 3.2
256
Mean 0.1212
RMS 0.01996
χ² / ndf 67.02 / 69
p0 7.623 ± 1.085
p1 -64.98 ± 10.44
p2 23.16 ± 2.82
p3 0.1364 ± 0.0003
p4 0.002555 ± 0.000242
p5 2.179 ± 1.110
p6 0.1275 ± 0.0015
p7 0.00214 ± 0.00115
Total Pi = 171.077676
Bacg Pi = 71.8913977
Bcg % = 42.0226645
Total - Bcg = 99.1862781


Inv. Mass 3.2 < Theta Pi < 3.225
214
Mean 0.1229
RMS 0.01777
χ² / ndf 74.37 / 69
p0 5.647 ± 0.792
p1 -46.61 ± 7.20
p2 13.33 ± 8.78
p3 0.135 ± 0.001
p4 0.001815 ± 0.000530
p5 7.95 ± 5.30
p6 0.1392 ± 0.0030
p7 0.002595 ± 0.001156
Total Pi = 129.396975
Bacg Pi = 58.5991981
Bcg % = 45.2863741
Total - Bcg = 70.7977768

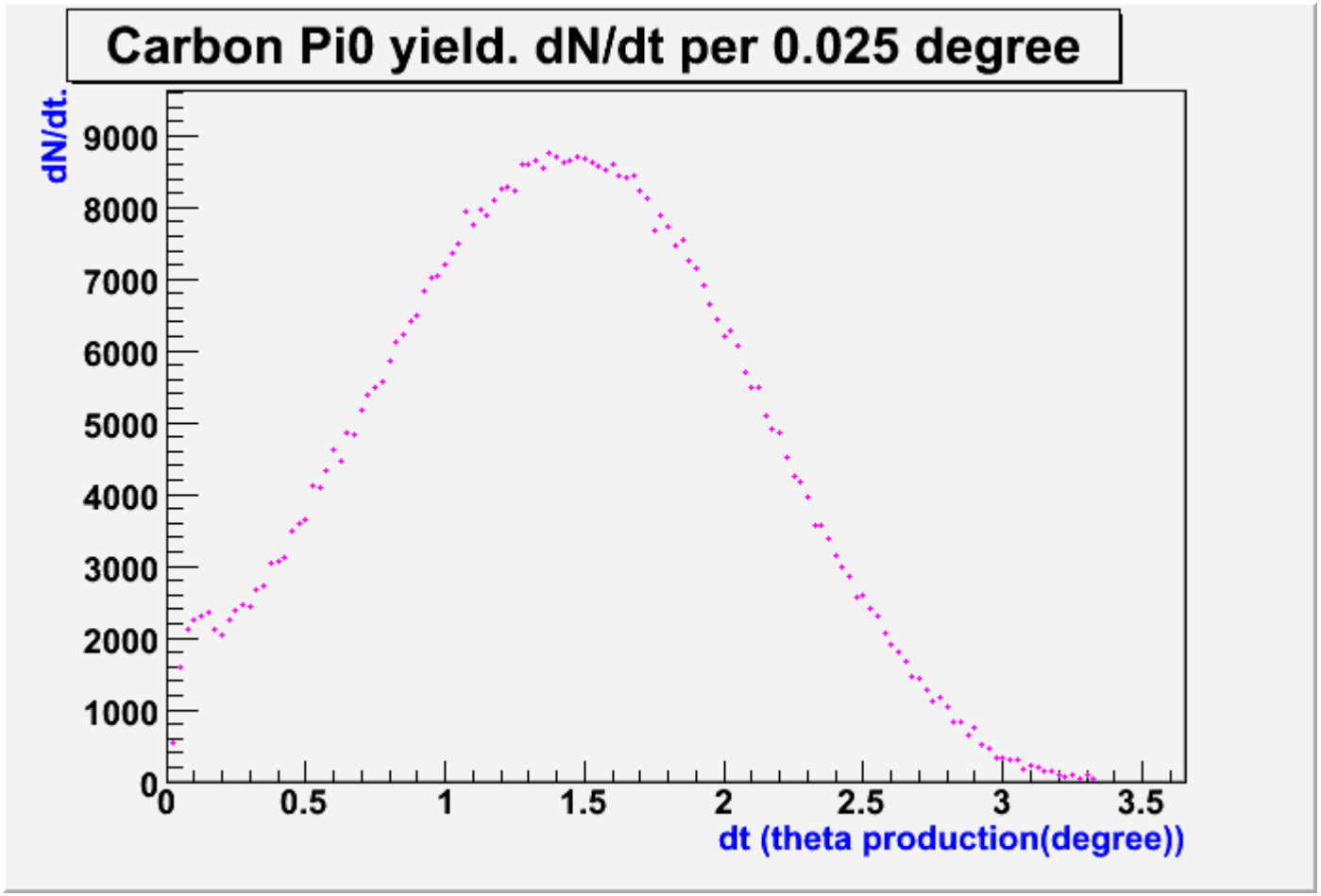

Inv. Mass 3.225 < Theta Pi < 3.25
195
Mean 0.1208
RMS 0.02014
χ² / ndf 85.87 / 69
p0 6.261 ± 0.909
p1 -52.97 ± 8.44
p2 10.68 ± 1.79
p3 0.1373 ± 0.0004
p4 0.003491 ± 0.000324
p5 70.33 ± 1494.13
p6 0.1369 ± 0.0008
p7 -0.0001652 ± 0.0006751
Total Pi = 136.187869
Bacg Pi = 54.0286384
Bcg % = 39.6721374
Total - Bcg = 82.1592303

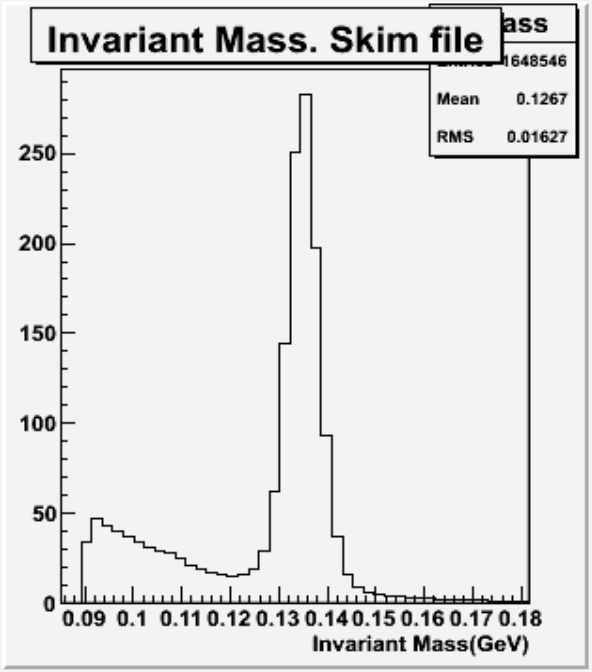

Inv. Mass 3.25 < Theta Pi < 3.275
167
Mean 0.1183
RMS 0.0204
χ² / ndf 71.36 / 69
p0 7.786 ± 1.834
p1 -70.77 ± 18.20
p2 6.603 ± 2.120
p3 0.1397 ± 0.0006
p4 0.001918 ± 0.000590
p5 3.567 ± 0.981
p6 0.133 ± 0.002
p7 0.006115 ± 0.001015
Total Pi = 91.5098123
Bacg Pi = 40.3846489
Bcg % = 44.1314957
Total - Bcg = 51.1251634

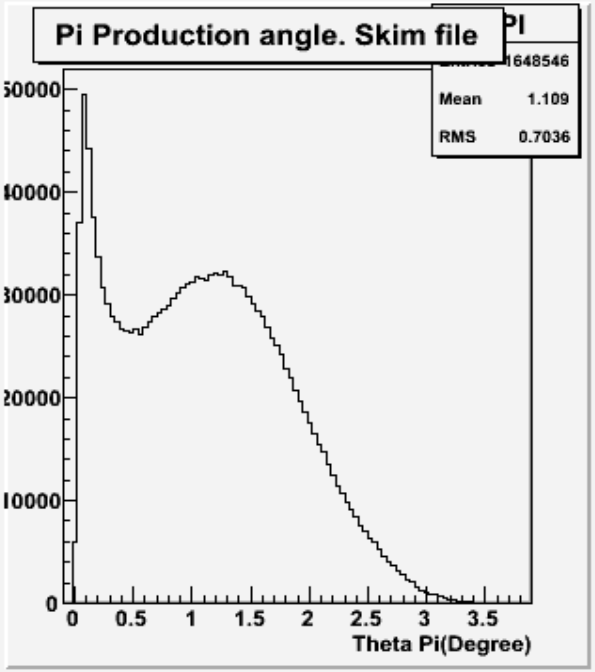

Inv. Mass 3.275 < Theta Pi < 3.3
164
Mean 0.119
RMS 0.01923
χ² / ndf 71.06 / 69
p0 6.407 ± 0.827
p1 -55.32 ± 7.66
p2 11.67 ± 2.22
p3 0.1376 ± 0.0004
p4 0.002005 ± 0.000295
p5 69.74 ± 314.07
p6 0.1333 ± 0.0001
p7 0.0002968 ± 0.0002809
Total Pi = 122.163025
Bacg Pi = 41.7770954
Bcg % = 34.1978234
Total - Bcg = 80.3859292

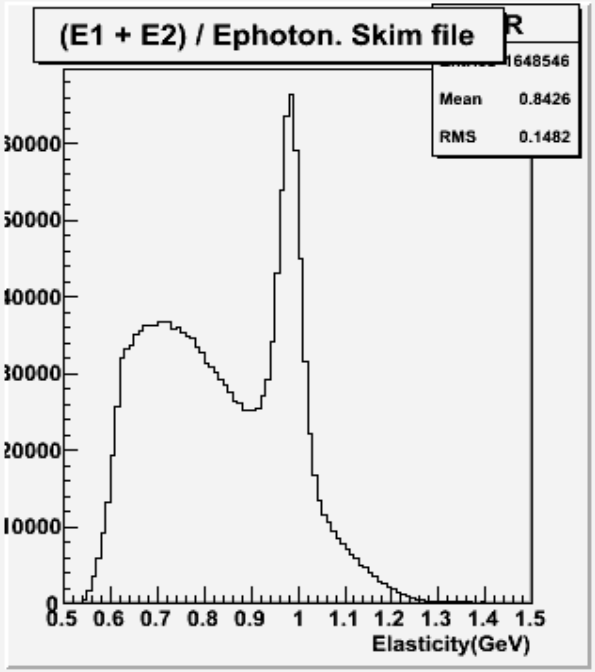

Inv. Mass 3.3 < Theta Pi < 3.325
123
Mean 0.121
RMS 0.01978
χ² / ndf 35.35 / 69
p0 8.431 ± 0.200
p1 -81.74 ± 1.97
p2 21.76 ± 9.23
p3 0.2023 ± 1.4142
p4 1.822e-07 ± 3.626e+01
p5 5.545 ± 0.770
p6 0.1358 ± 0.0007
p7 0.004992 ± 0.000416
Total Pi = 71.9889872
Bacg Pi = 29.9939204
Bcg % = 41.6645956
Total - Bcg = 41.9950668

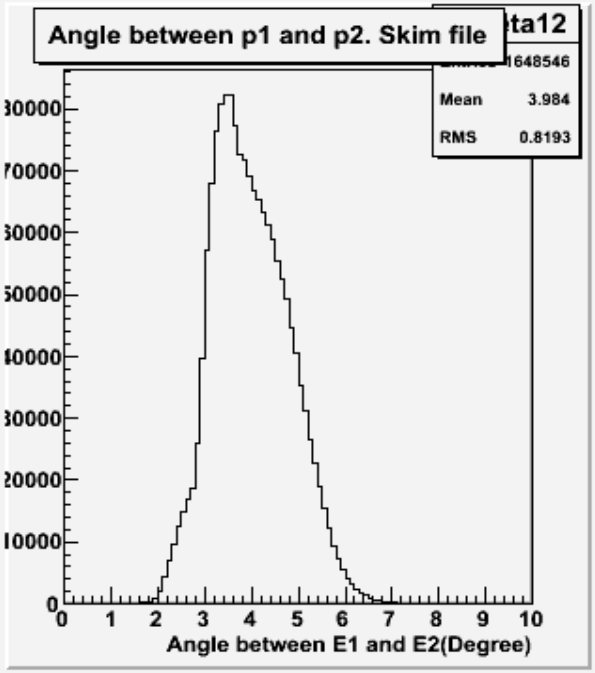
dN = Integral of total fit to invariant mass from 0.12 GeV to 0.15 GeV -
Integral of background fit to invariant mass from 0.12 GeV to 0.15 GeV

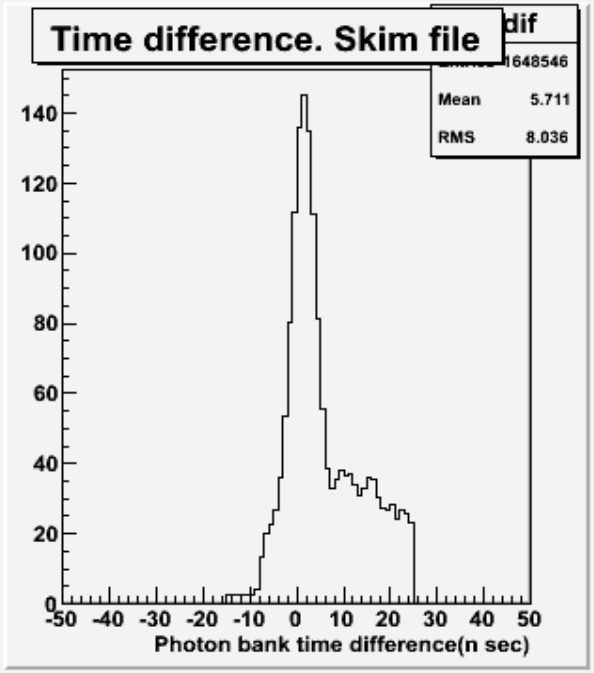


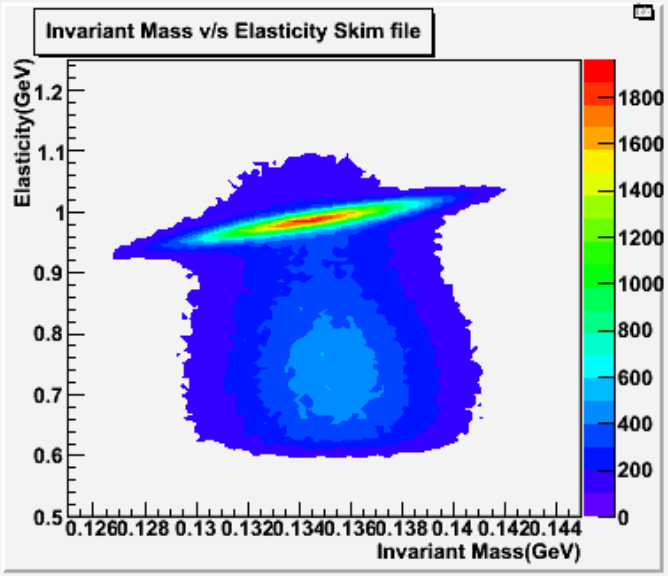

Invariant Mass. Skim file
Mean 0.1267
RMS 0.01627
Invariant Mass(GeV)

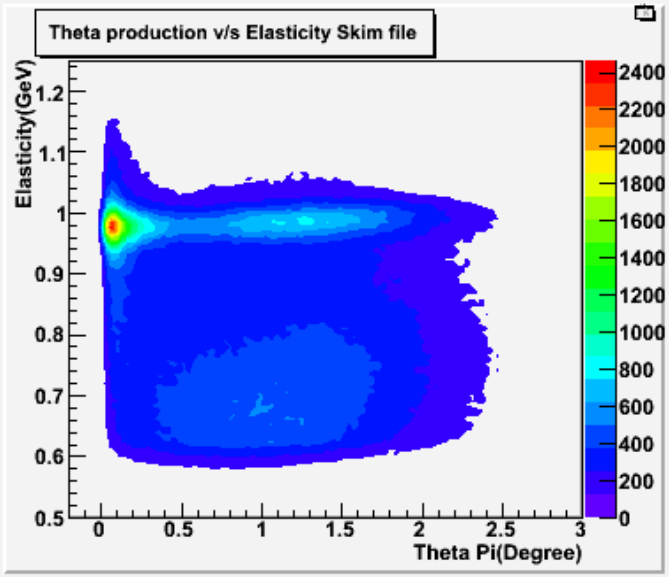

Pi Production angle. Skim file
Mean 1.109
RMS 0.7036
Theta Pi(Degree)

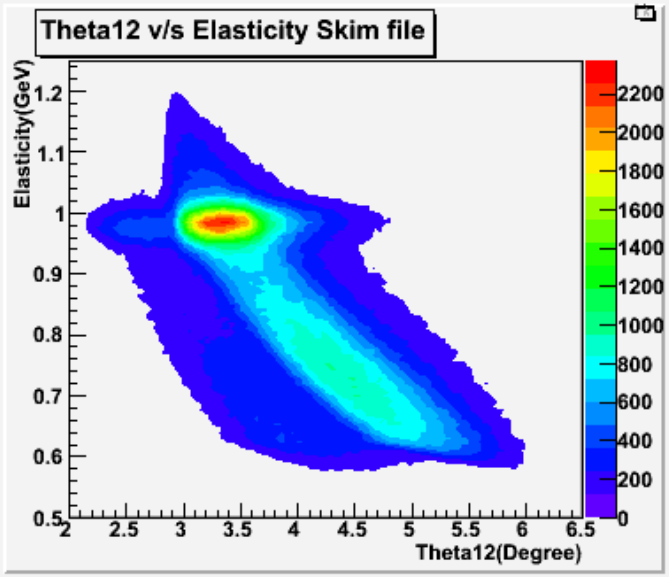

(E1 + E2) / Ephoton. Skim file
Mean 0.8426
RMS 0.1482
Elasticity(GeV)

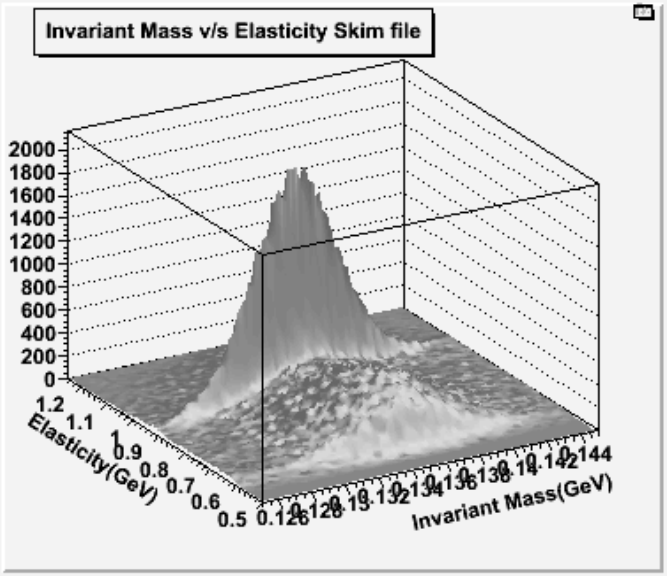

Angle between p1 and p2. Skim file
Mean 3.984
RMS 0.8193
Angle between E1 and E2(Degree)

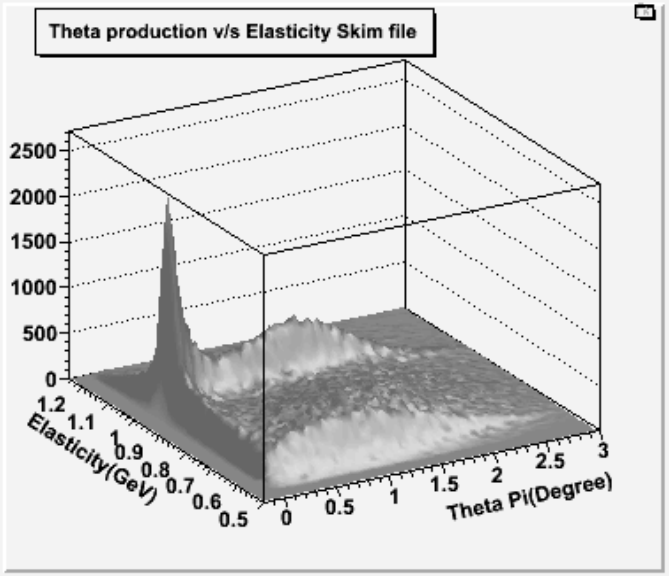

Time difference. Skim file
Mean 5.711
RMS 8.036
Photon bank time difference(n sec)

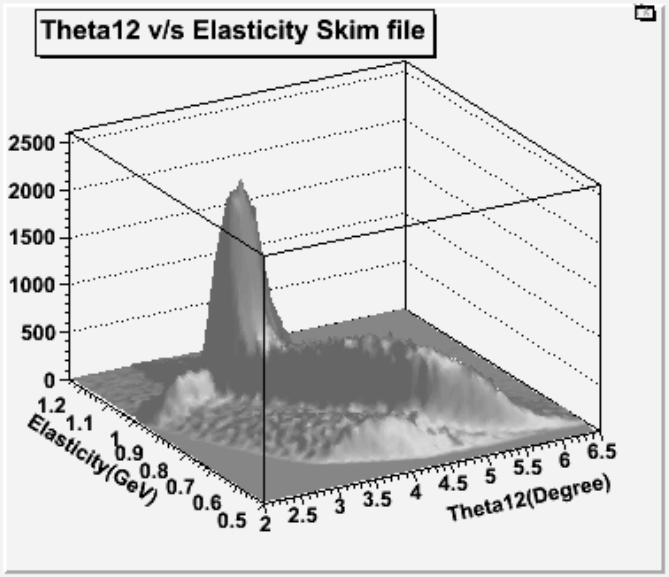

Invariant Mass v/s Elasticity Skim file
Elasticity(GeV)
Invariant Mass(GeV)

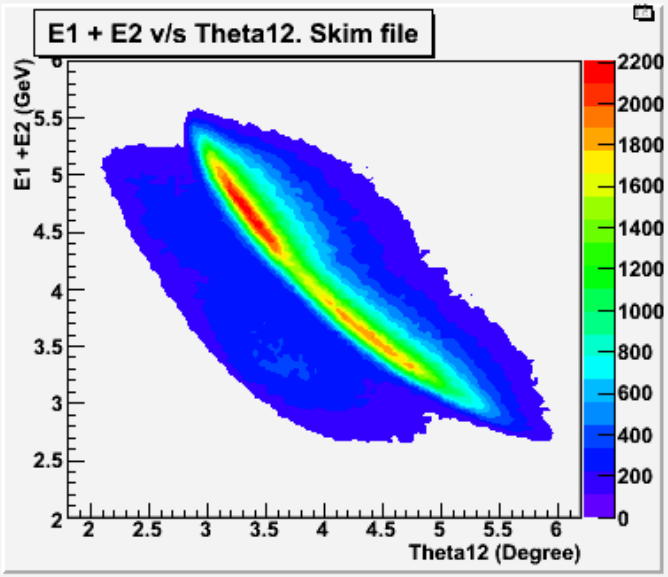

Theta production v/s Elasticity Skim file
Elasticity(GeV)
Theta Pi(Degree)

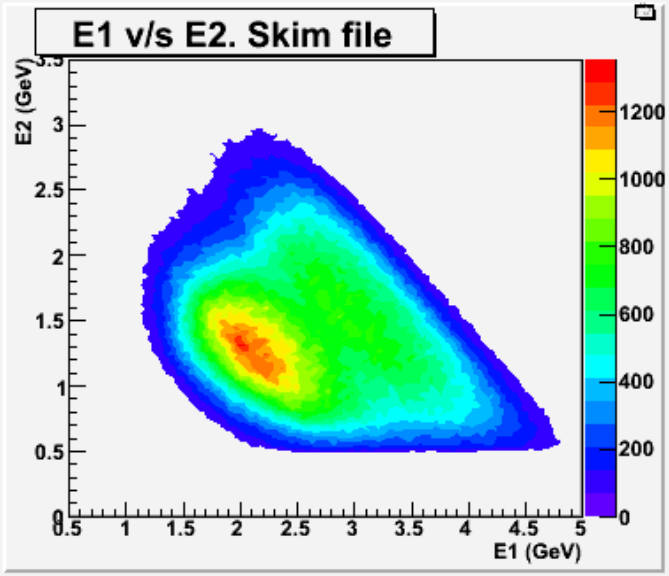

Theta12 v/s Elasticity Skim file
Elasticity(GeV)
Theta12(Degree)

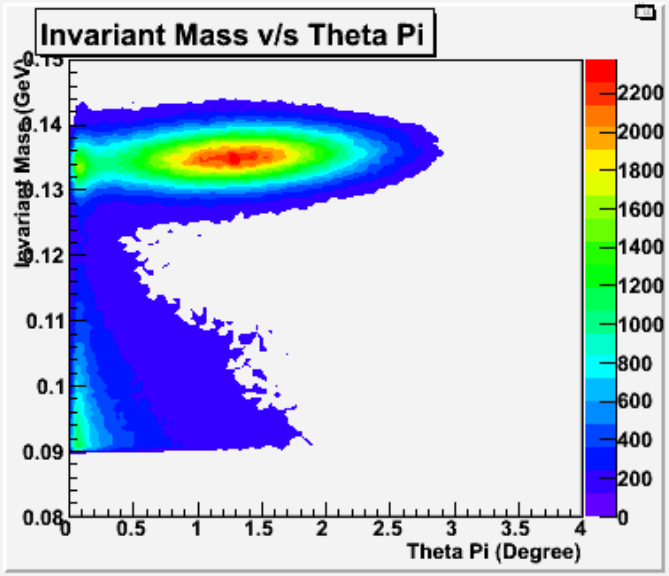

Invariant Mass v/s Elasticity Skim file
Elasticity(GeV)
Invariant Mass(GeV)

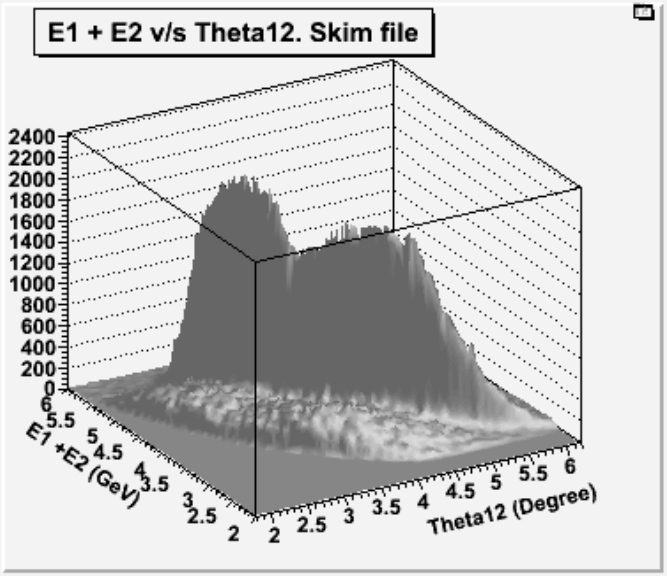

Theta production v/s Elasticity Skim file
Elasticity(GeV)
Theta Pi(Degree)

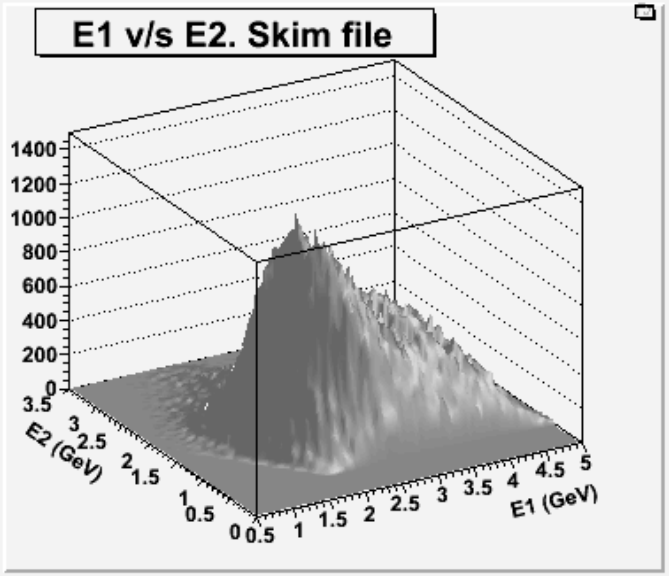

Theta12 v/s Elasticity Skim file
Elasticity(GeV)
Theta12(Degree)

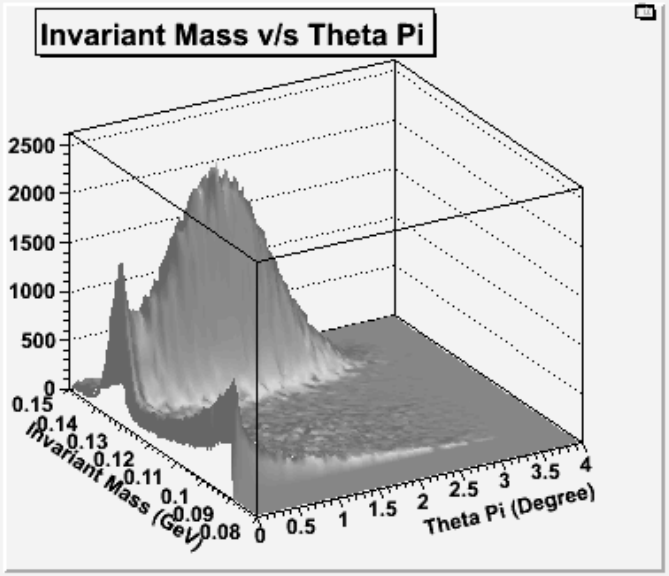

E1 + E2 v/s Theta12. Skim file
E1 +E2 (GeV)
Theta12 (Degree)


E1 v/s E2. Skim file
E2 (GeV)
E1 (GeV)

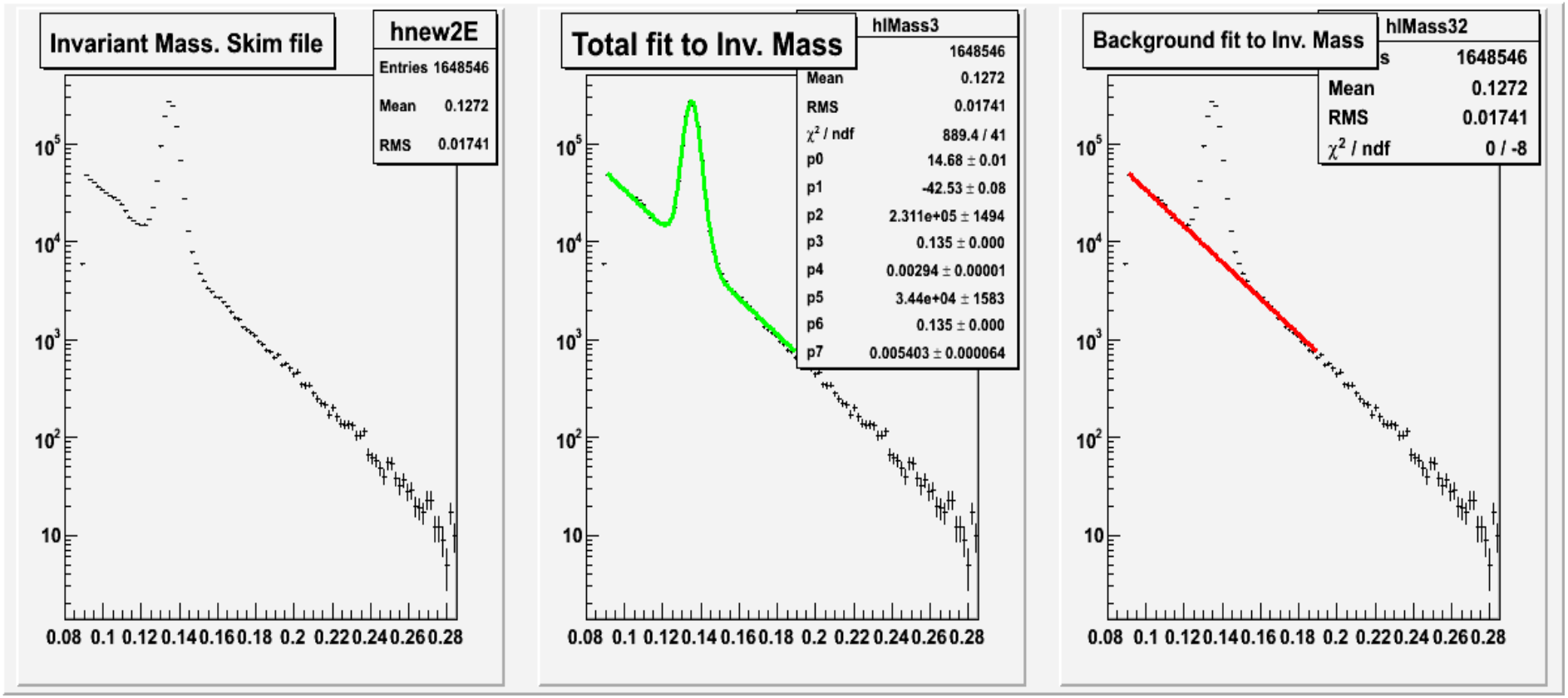

Invariant Mass v/s Theta Pi
Invariant Mass (GeV)
Theta Pi (Degree)

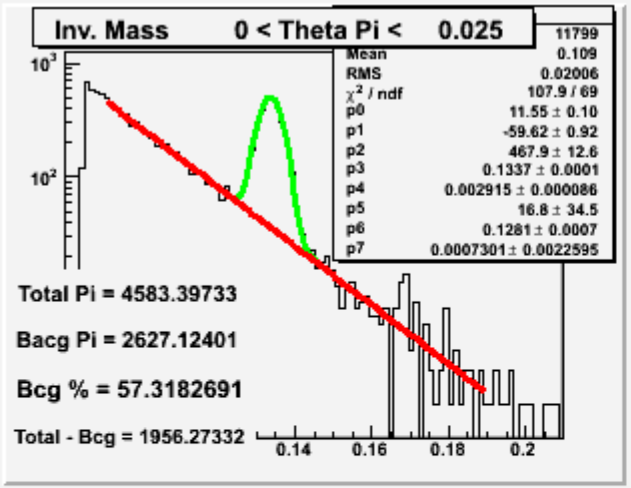

E1 + E2 v/s Theta12. Skim file
E1 +E2 (GeV)
Theta12 (Degree)

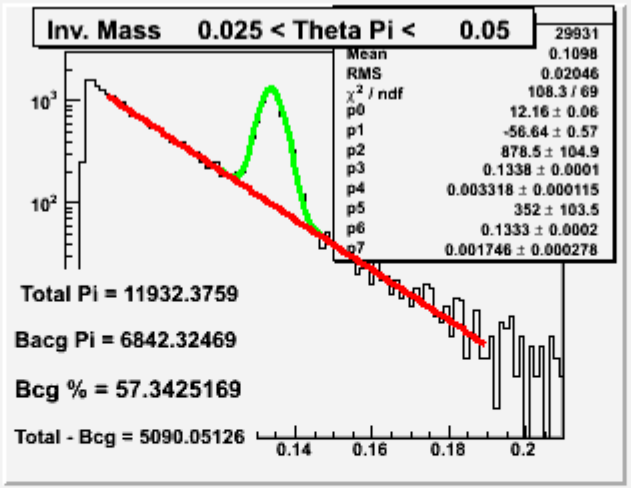

E1 v/s E2. Skim file
E2 (GeV)
E1 (GeV)

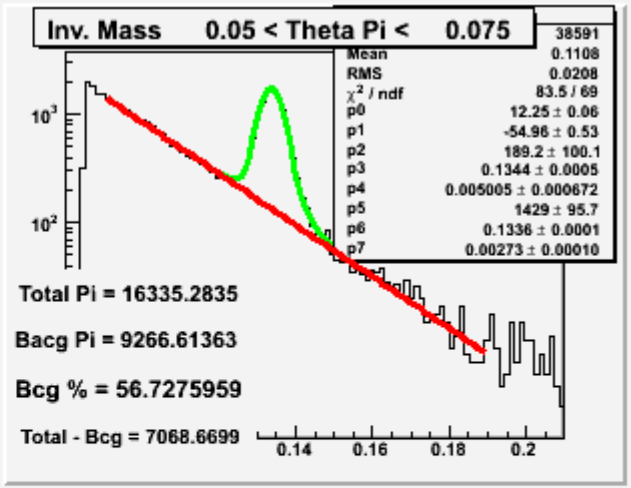

Invariant Mass v/s Theta Pi
Invariant Mass (GeV)
Theta Pi (Degree)

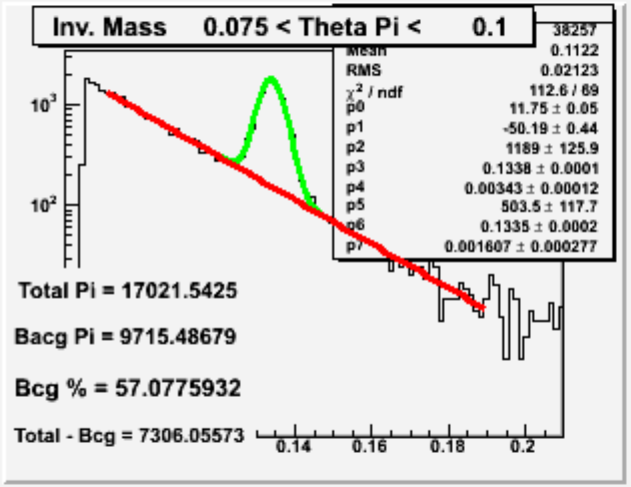
Silicon data. Invariant Mass two Gaussian Fit

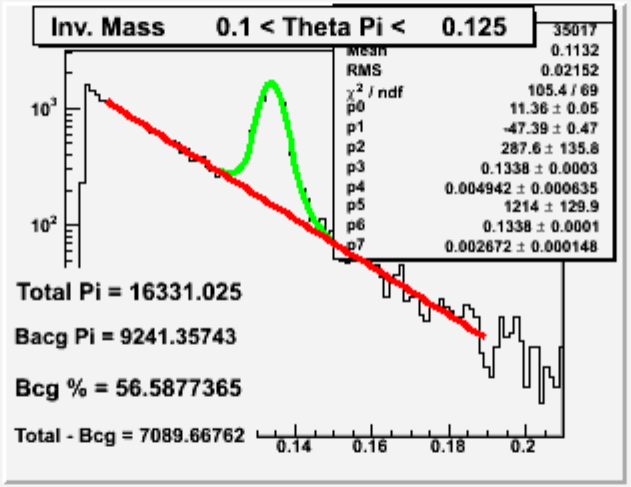


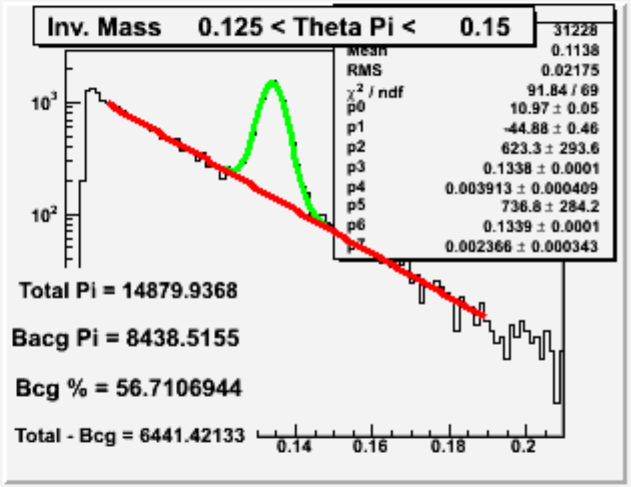

Inv. Mass 0 < Theta Pi < 0.025
11799
Mean 0.109
RMS 0.02006
χ² / ndf 107.9 / 69
p0 11.55 ± 0.10
p1 -59.62 ± 0.92
p2 467.9 ± 12.6
p3 0.1337 ± 0.0001
p4 0.002915 ± 0.000086
p5 16.8 ± 34.5
p6 0.1281 ± 0.0007
p7 0.0007301 ± 0.0022595
Total Pi = 4583.39733
Bacg Pi = 2627.12401
Bcg % = 57.3182691
Total - Bcg = 1956.27332

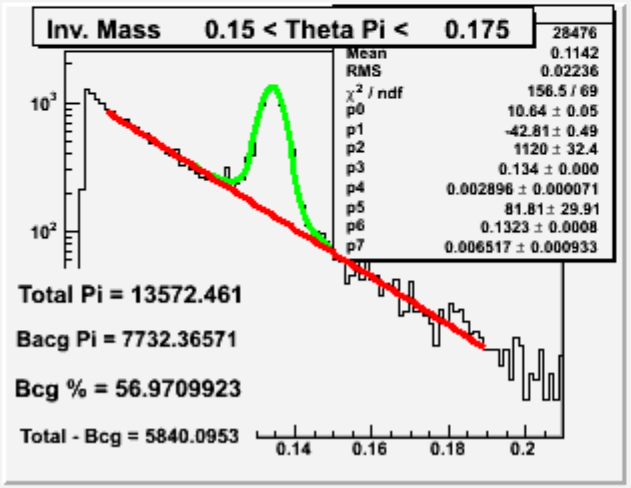

Inv. Mass 0.025 < Theta Pi < 0.05
29931
Mean 0.1098
RMS 0.02046
χ² / ndf 108.3 / 69
p0 12.16 ± 0.06
p1 -56.64 ± 0.57
p2 878.5 ± 104.9
p3 0.1338 ± 0.0001
p4 0.003318 ± 0.000115
p5 352 ± 103.5
p6 0.1333 ± 0.0002
p7 0.001746 ± 0.000278
Total Pi = 11932.3759
Bacg Pi = 6842.32469
Bcg % = 57.3425169
Total - Bcg = 5090.05126

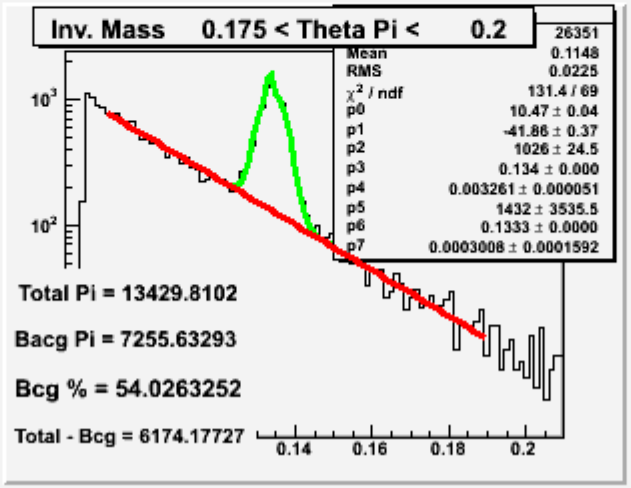

Inv. Mass 0.05 < Theta Pi < 0.075
38591
Mean 0.1108
RMS 0.0208
χ² / ndf 83.5 / 69
p0 12.25 ± 0.06
p1 -54.96 ± 0.53
p2 189.2 ± 100.1
p3 0.1344 ± 0.0005
p4 0.005005 ± 0.000672
p5 1429 ± 95.7
p6 0.1336 ± 0.0001
p7 0.00273 ± 0.00010
Total Pi = 16335.2835
Bacg Pi = 9266.61363
Bcg % = 56.7275959
Total - Bcg = 7068.6699

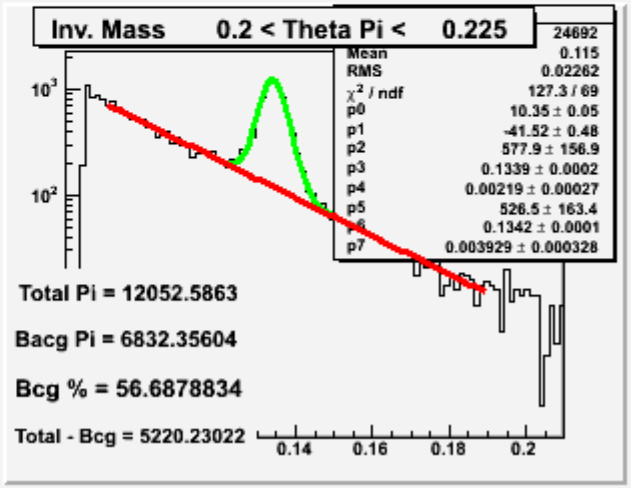

Inv. Mass 0.075 < Theta Pi < 0.1
38257
Mean 0.1122
RMS 0.02123
χ² / ndf 112.6 / 69
p0 11.75 ± 0.05
p1 -50.19 ± 0.44
p2 1189 ± 125.9
p3 0.1338 ± 0.0001
p4 0.00343 ± 0.00012
p5 503.5 ± 117.7
p6 0.1335 ± 0.0002
p7 0.001607 ± 0.000277
Total Pi = 17021.5425
Bacg Pi = 9715.48679
Bcg % = 57.0775932
Total - Bcg = 7306.05573

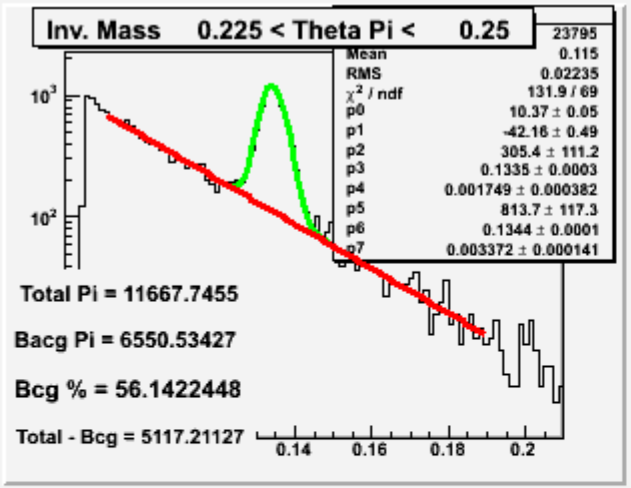

Inv. Mass 0.1 < Theta Pi < 0.125
35017
Mean 0.1132
RMS 0.02152
χ² / ndf 105.4 / 69
p0 11.36 ± 0.05
p1 -47.39 ± 0.47
p2 287.6 ± 135.8
p3 0.1338 ± 0.0003
p4 0.004942 ± 0.000635
p5 1214 ± 129.9
p6 0.1338 ± 0.0001
p7 0.002672 ± 0.000148
Total Pi = 16331.025
Bacg Pi = 9241.35743
Bcg % = 56.5877365
Total - Bcg = 7089.66762

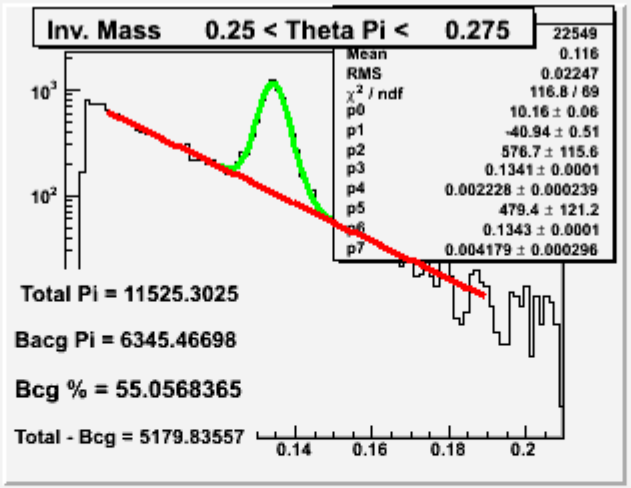

Inv. Mass 0.125 < Theta Pi < 0.15
31228
Mean 0.1138
RMS 0.02175
χ² / ndf 91.84 / 69
p0 10.97 ± 0.05
p1 -44.88 ± 0.46
p2 623.3 ± 293.6
p3 0.1338 ± 0.0001
p4 0.003913 ± 0.000409
p5 736.8 ± 284.2
p6 0.1339 ± 0.0001
p7 0.002366 ± 0.000343
Total Pi = 14879.9368
Bacg Pi = 8438.5155
Bcg % = 56.7106944
Total - Bcg = 6441.42133

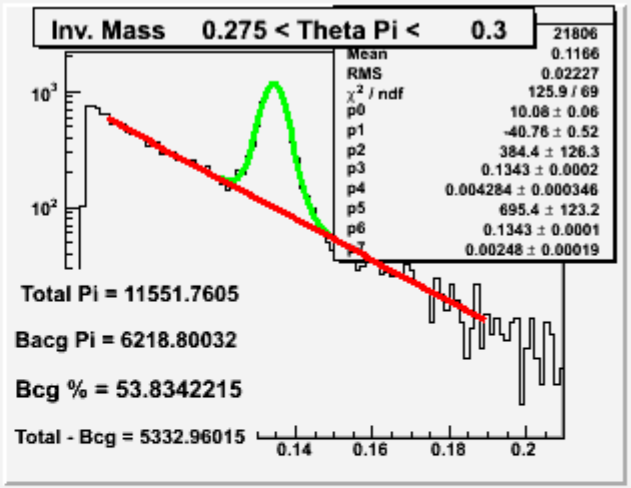

Inv. Mass 0.15 < Theta Pi < 0.175
28476
Mean 0.1142
RMS 0.02236
χ² / ndf 156.5 / 69
p0 10.64 ± 0.05
p1 -42.81 ± 0.49
p2 1120 ± 32.4
p3 0.134 ± 0.000
p4 0.002896 ± 0.000071
p5 81.81 ± 29.91
p6 0.1323 ± 0.0008
p7 0.006517 ± 0.000933
Total Pi = 13572.461
Bacg Pi = 7732.36571
Bcg % = 56.9709923
Total - Bcg = 5840.0953

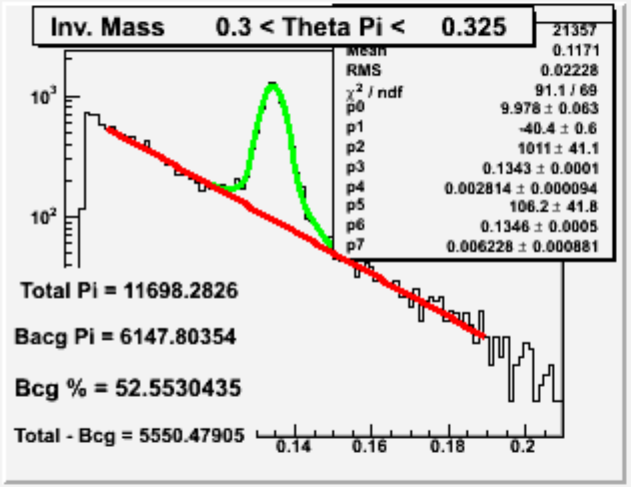

Inv. Mass 0.175 < Theta Pi < 0.2
26351
Mean 0.1148
RMS 0.0225
χ² / ndf 131.4 / 69
p0 10.47 ± 0.04
p1 -41.86 ± 0.37
p2 1026 ± 24.5
p3 0.134 ± 0.000
p4 0.003261 ± 0.000051
p5 1432 ± 3535.5
p6 0.1333 ± 0.0000
p7 0.0003008 ± 0.0001592
Total Pi = 13429.8102
Bacg Pi = 7255.63293
Bcg % = 54.0263252
Total - Bcg = 6174.17727

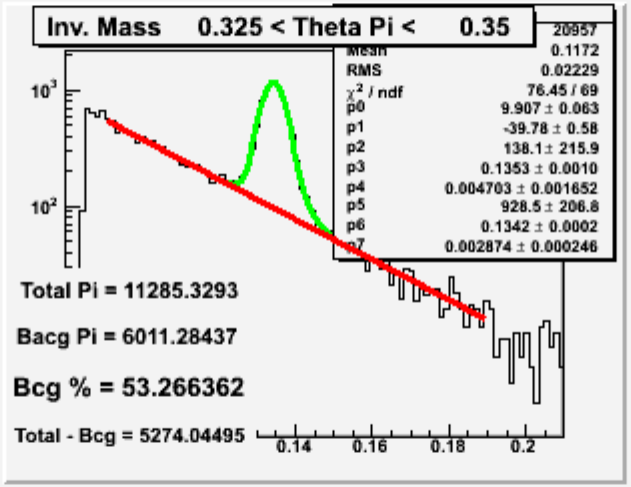

Inv. Mass 0.2 < Theta Pi < 0.225
24692
Mean 0.115
RMS 0.02262
χ² / ndf 127.3 / 69
p0 10.35 ± 0.05
p1 -41.52 ± 0.48
p2 577.9 ± 156.9
p3 0.1339 ± 0.0002
p4 0.00219 ± 0.00027
p5 526.5 ± 163.4
p6 0.1342 ± 0.0001
p7 0.003929 ± 0.000328
Total Pi = 12052.5863
Bacg Pi = 6832.35604
Bcg % = 56.6878834
Total - Bcg = 5220.23022

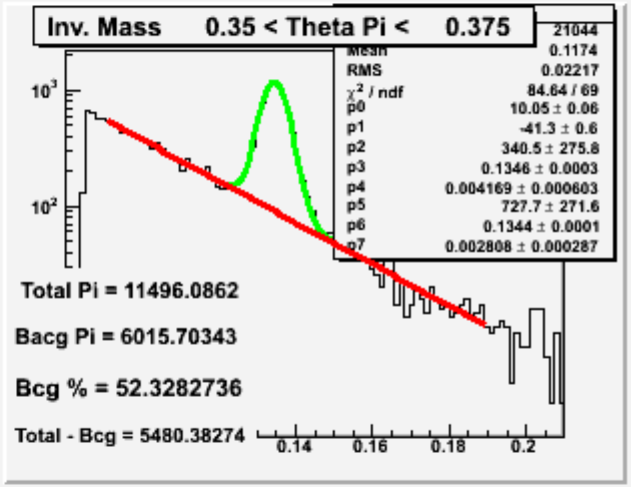

Inv. Mass 0.225 < Theta Pi < 0.25
23795
Mean 0.115
RMS 0.02235
χ² / ndf 131.9 / 69
p0 10.37 ± 0.05
p1 -42.16 ± 0.49
p2 305.4 ± 111.2
p3 0.1335 ± 0.0003
p4 0.001749 ± 0.000382
p5 813.7 ± 117.3
p6 0.1344 ± 0.0001
p7 0.003372 ± 0.000141
Total Pi = 11667.7455
Bacg Pi = 6550.53427
Bcg % = 56.1422448
Total - Bcg = 5117.21127

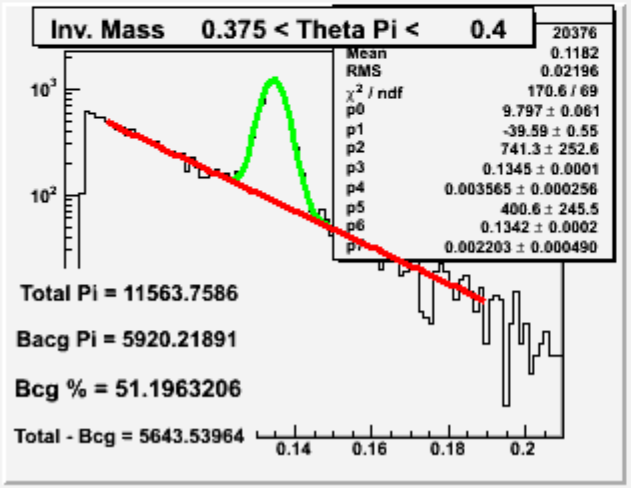

Inv. Mass 0.25 < Theta Pi < 0.275
22549
Mean 0.116
RMS 0.02247
χ² / ndf 116.8 / 69
p0 10.16 ± 0.06
p1 -40.94 ± 0.51
p2 576.7 ± 115.6
p3 0.1341 ± 0.0001
p4 0.002228 ± 0.000239
p5 479.4 ± 121.2
p6 0.1343 ± 0.0001
p7 0.004179 ± 0.000296
Total Pi = 11525.3025
Bacg Pi = 6345.46698
Bcg % = 55.0568365
Total - Bcg = 5179.83557

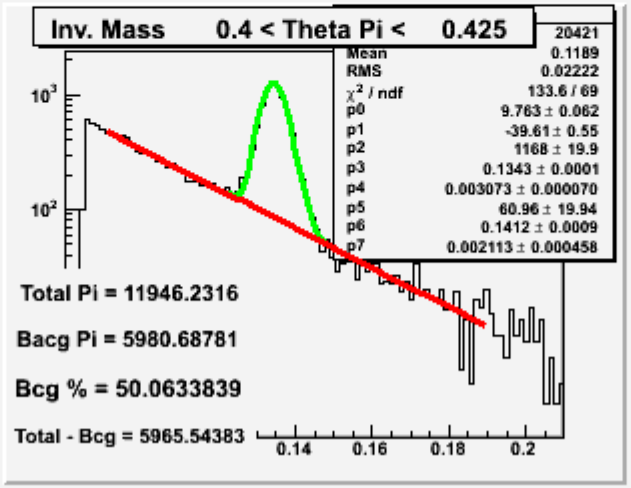

Inv. Mass 0.275 < Theta Pi < 0.3
21806
Mean 0.1166
RMS 0.02227
χ² / ndf 125.9 / 69
p0 10.08 ± 0.06
p1 -40.76 ± 0.52
p2 384.4 ± 126.3
p3 0.1343 ± 0.0002
p4 0.004284 ± 0.000346
p5 695.4 ± 123.2
p6 0.1343 ± 0.0001
p7 0.00248 ± 0.00019
Total Pi = 11551.7605
Bacg Pi = 6218.80032
Bcg % = 53.8342215
Total - Bcg = 5332.96015

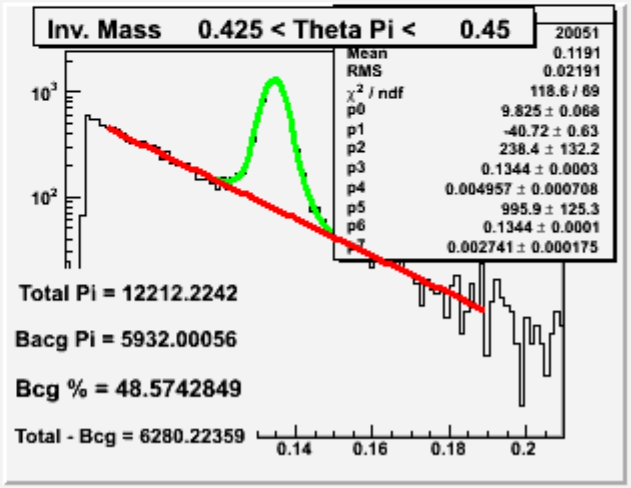

Inv. Mass 0.3 < Theta Pi < 0.325
21357
Mean 0.1171
RMS 0.02228
χ² / ndf 91.1 / 69
p0 9.978 ± 0.063
p1 -40.4 ± 0.6
p2 1011 ± 41.1
p3 0.1343 ± 0.0001
p4 0.002814 ± 0.000094
p5 106.2 ± 41.8
p6 0.1346 ± 0.0005
p7 0.006228 ± 0.000881
Total Pi = 11698.2826
Bacg Pi = 6147.80354
Bcg % = 52.5530435
Total - Bcg = 5550.47905

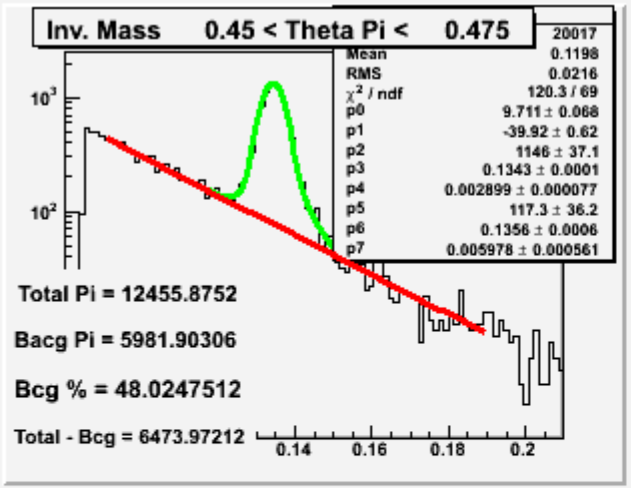

Inv. Mass 0.325 < Theta Pi < 0.35
20957
Mean 0.1172
RMS 0.02229
χ² / ndf 76.45 / 69
p0 9.907 ± 0.063
p1 -39.78 ± 0.58
p2 138.1 ± 215.9
p3 0.1353 ± 0.0010
p4 0.004703 ± 0.001652
p5 928.5 ± 206.8
p6 0.1342 ± 0.0002
p7 0.002874 ± 0.000246
Total Pi = 11285.3293
Bacg Pi = 6011.28437
Bcg % = 53.266362
Total - Bcg = 5274.04495

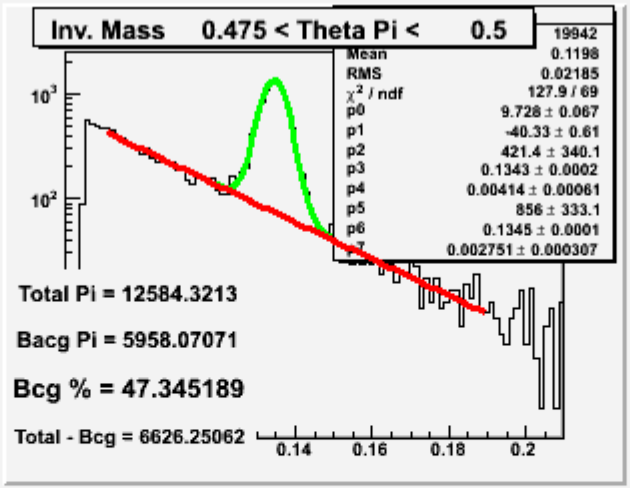

Inv. Mass 0.35 < Theta Pi < 0.375
21044
Mean 0.1174
RMS 0.02217
χ² / ndf 84.64 / 69
p0 10.05 ± 0.06
p1 -41.3 ± 0.6
p2 340.5 ± 275.8
p3 0.1346 ± 0.0003
p4 0.004169 ± 0.000603
p5 727.7 ± 271.6
p6 0.1344 ± 0.0001
p7 0.002808 ± 0.000287
Total Pi = 11496.0862
Bacg Pi = 6015.70343
Bcg % = 52.3282736
Total - Bcg = 5480.38274

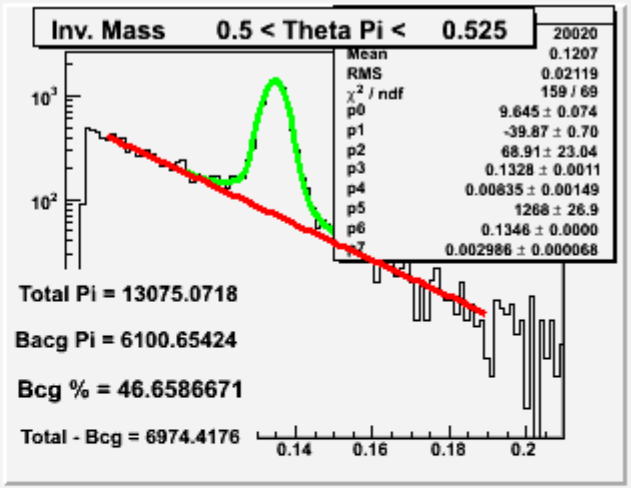

Inv. Mass 0.375 < Theta Pi < 0.4
20376
Mean 0.1182
RMS 0.02196
χ² / ndf 170.6 / 69
p0 9.797 ± 0.061
p1 -39.59 ± 0.55
p2 741.3 ± 252.6
p3 0.1345 ± 0.0001
p4 0.003565 ± 0.000256
p5 400.6 ± 245.5
p6 0.1342 ± 0.0002
p7 0.002203 ± 0.000490
Total Pi = 11563.7586
Bacg Pi = 5920.21891
Bcg % = 51.1963206
Total - Bcg = 5643.53964

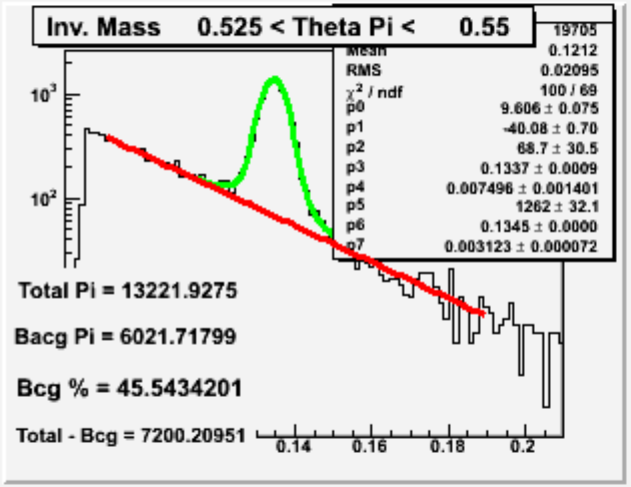

Inv. Mass 0.4 < Theta Pi < 0.425
20421
Mean 0.1189
RMS 0.02222
χ² / ndf 133.6 / 69
p0 9.763 ± 0.062
p1 -39.61 ± 0.55
p2 1168 ± 19.9
p3 0.1343 ± 0.0001
p4 0.003073 ± 0.000070
p5 60.96 ± 19.94
p6 0.1412 ± 0.0009
p7 0.002113 ± 0.000458
Total Pi = 11946.2316
Bacg Pi = 5980.68781
Bcg % = 50.0633839
Total - Bcg = 5965.54383

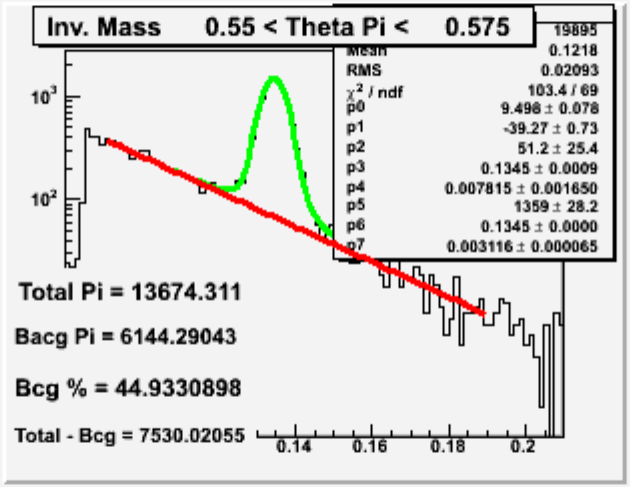

Inv. Mass 0.425 < Theta Pi < 0.45
20051
Mean 0.1191
RMS 0.02191
χ² / ndf 118.6 / 69
p0 9.825 ± 0.068
p1 -40.72 ± 0.63
p2 238.4 ± 132.2
p3 0.1344 ± 0.0003
p4 0.004957 ± 0.000708
p5 995.9 ± 125.3
p6 0.1344 ± 0.0001
p7 0.002741 ± 0.000175
Total Pi = 12212.2242
Bacg Pi = 5932.00056
Bcg % = 48.5742849
Total - Bcg = 6280.22359

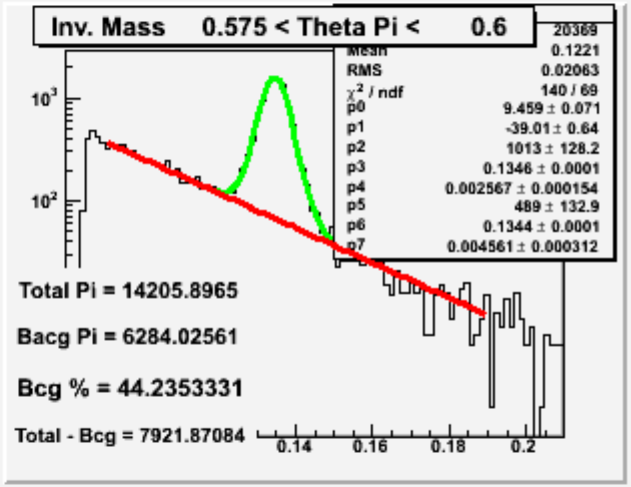

Inv. Mass 0.45 < Theta Pi < 0.475
20017
Mean 0.1198
RMS 0.0216
χ² / ndf 120.3 / 69
p0 9.711 ± 0.068
p1 -39.92 ± 0.62
p2 1146 ± 37.1
p3 0.1343 ± 0.0001
p4 0.002899 ± 0.000077
p5 117.3 ± 36.2
p6 0.1356 ± 0.0006
p7 0.005978 ± 0.000561
Total Pi = 12455.8752
Bacg Pi = 5981.90306
Bcg % = 48.0247512
Total - Bcg = 6473.97212

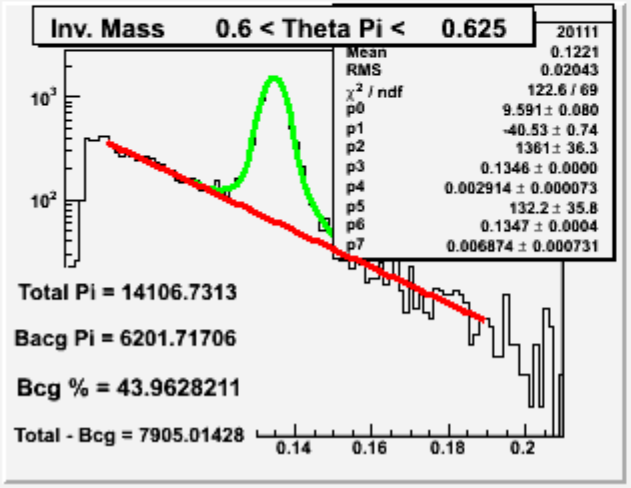

Inv. Mass 0.475 < Theta Pi < 0.5
19942
Mean 0.1198
RMS 0.02185
χ² / ndf 127.9 / 69
p0 9.728 ± 0.067
p1 -40.33 ± 0.61
p2 421.4 ± 340.1
p3 0.1343 ± 0.0002
p4 0.00414 ± 0.00061
p5 856 ± 333.1
p6 0.1345 ± 0.0001
p7 0.002751 ± 0.000307
Total Pi = 12584.3213
Bacg Pi = 5958.07071
Bcg % = 47.345189
Total - Bcg = 6626.25062

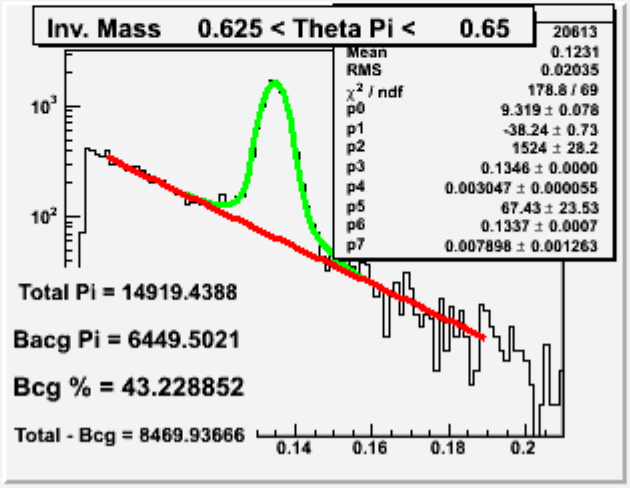

Inv. Mass 0.5 < Theta Pi < 0.525
20020
Mean 0.1207
RMS 0.02119
χ² / ndf 159 / 69
p0 9.645 ± 0.074
p1 -39.87 ± 0.70
p2 68.91 ± 23.04
p3 0.1328 ± 0.0011
p4 0.00835 ± 0.00149
p5 1268 ± 26.9
p6 0.1346 ± 0.0000
p7 0.002986 ± 0.000068
Total Pi = 13075.0718
Bacg Pi = 6100.65424
Bcg % = 46.6586671
Total - Bcg = 6974.4176

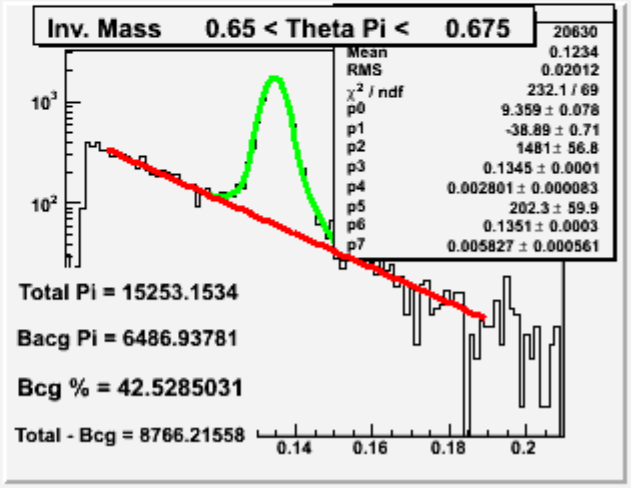

Inv. Mass 0.525 < Theta Pi < 0.55
19705
Mean 0.1212
RMS 0.02095
χ² / ndf 100 / 69
p0 9.606 ± 0.075
p1 -40.08 ± 0.70
p2 68.7 ± 30.5
p3 0.1337 ± 0.0009
p4 0.007496 ± 0.001401
p5 1262 ± 32.1
p6 0.1345 ± 0.0000
p7 0.003123 ± 0.000072
Total Pi = 13221.9275
Bacg Pi = 6021.71799
Bcg % = 45.5434201
Total - Bcg = 7200.20951

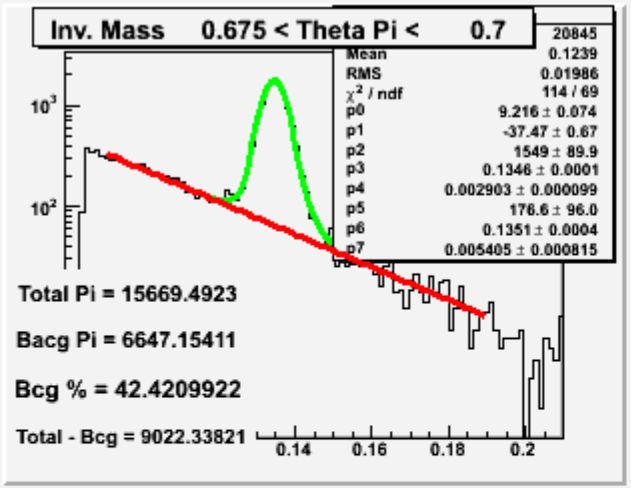

Inv. Mass 0.55 < Theta Pi < 0.575
19895
Mean 0.1218
RMS 0.02093
χ² / ndf 103.4 / 69
p0 9.498 ± 0.078
p1 -39.27 ± 0.73
p2 51.2 ± 25.4
p3 0.1345 ± 0.0009
p4 0.007815 ± 0.001650
p5 1359 ± 28.2
p6 0.1345 ± 0.0000
p7 0.003116 ± 0.000065
Total Pi = 13674.311
Bacg Pi = 6144.29043
Bcg % = 44.9330898
Total - Bcg = 7530.02055

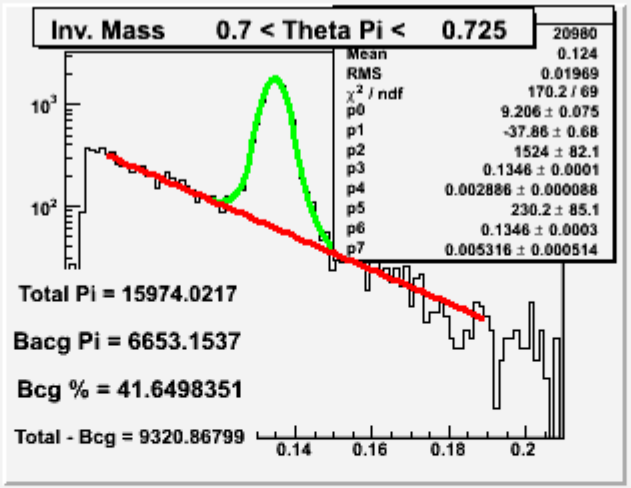

Inv. Mass 0.575 < Theta Pi < 0.6
20369
Mean 0.1221
RMS 0.02063
χ² / ndf 140 / 69
p0 9.459 ± 0.071
p1 -39.01 ± 0.64
p2 1013 ± 128.2
p3 0.1346 ± 0.0001
p4 0.002567 ± 0.000154
p5 489 ± 132.9
p6 0.1344 ± 0.0001
p7 0.004561 ± 0.000312
Total Pi = 14205.8965
Bacg Pi = 6284.02561
Bcg % = 44.2353331
Total - Bcg = 7921.87084

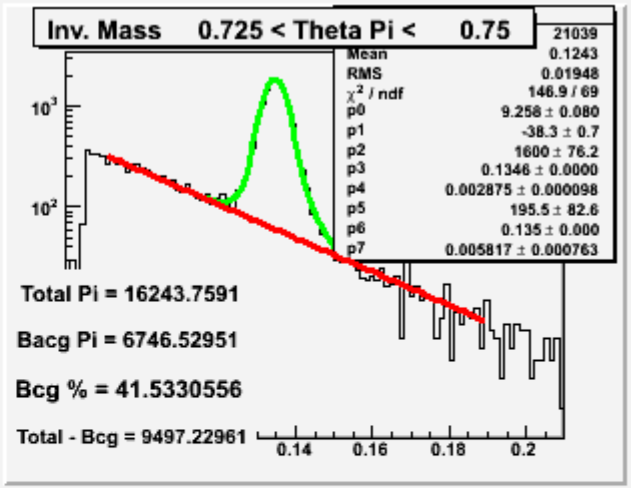

Inv. Mass 0.6 < Theta Pi < 0.625
20111
Mean 0.1221
RMS 0.02043
χ² / ndf 122.6 / 69
p0 9.591 ± 0.080
p1 -40.53 ± 0.74
p2 1361 ± 36.3
p3 0.1346 ± 0.0000
p4 0.002914 ± 0.000073
p5 132.2 ± 35.8
p6 0.1347 ± 0.0004
p7 0.006874 ± 0.000731
Total Pi = 14106.7313
Bacg Pi = 6201.71706
Bcg % = 43.9628211
Total - Bcg = 7905.01428

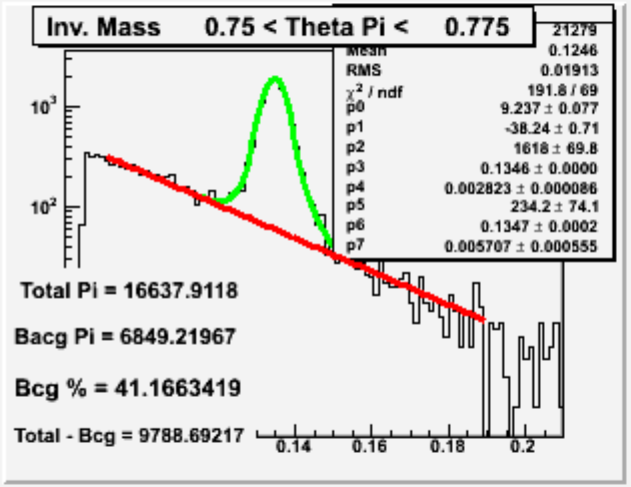

Inv. Mass 0.625 < Theta Pi < 0.65
20613
Mean 0.1231
RMS 0.02035
χ² / ndf 178.8 / 69
p0 9.319 ± 0.078
p1 -38.24 ± 0.73
p2 1524 ± 28.2
p3 0.1346 ± 0.0000
p4 0.003047 ± 0.000055
p5 67.43 ± 23.53
p6 0.1337 ± 0.0007
p7 0.007898 ± 0.001263
Total Pi = 14919.4388
Bacg Pi = 6449.5021
Bcg % = 43.228852
Total - Bcg = 8469.93666

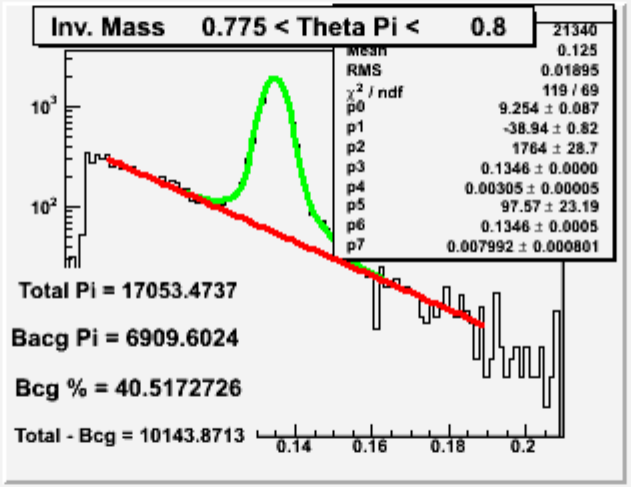

Inv. Mass 0.65 < Theta Pi < 0.675
20630
Mean 0.1234
RMS 0.02012
χ² / ndf 232.1 / 69
p0 9.359 ± 0.078
p1 -38.89 ± 0.71
p2 1481 ± 56.8
p3 0.1345 ± 0.0001
p4 0.002801 ± 0.000083
p5 202.3 ± 59.9
p6 0.1351 ± 0.0003
p7 0.005827 ± 0.000561
Total Pi = 15253.1534
Bacg Pi = 6486.93781
Bcg % = 42.5285031
Total - Bcg = 8766.21558

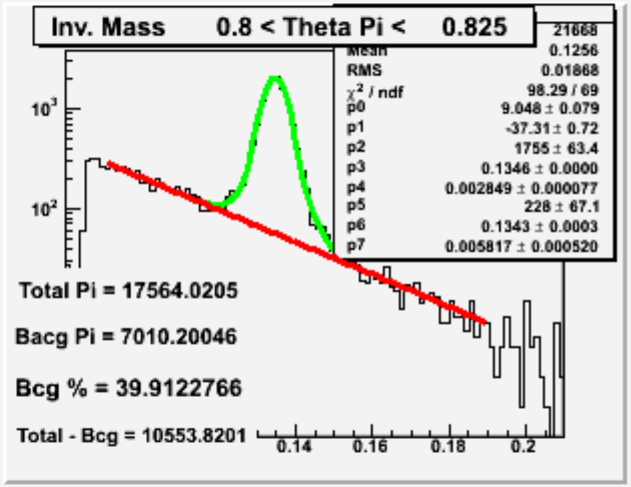

Inv. Mass 0.675 < Theta Pi < 0.7
20845
Mean 0.1239
RMS 0.01986
χ² / ndf 114 / 69
p0 9.216 ± 0.074
p1 -37.47 ± 0.67
p2 1549 ± 89.9
p3 0.1346 ± 0.0001
p4 0.002903 ± 0.000099
p5 176.6 ± 96.0
p6 0.1351 ± 0.0004
p7 0.005405 ± 0.000815
Total Pi = 15669.4923
Bacg Pi = 6647.15411
Bcg % = 42.4209922
Total - Bcg = 9022.33821

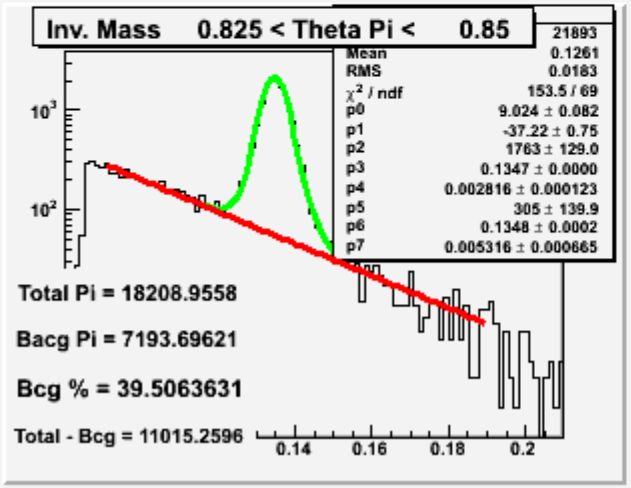

Inv. Mass 0.7 < Theta Pi < 0.725
20980
Mean 0.124
RMS 0.01969
χ² / ndf 170.2 / 69
p0 9.206 ± 0.075
p1 -37.86 ± 0.68
p2 1524 ± 82.1
p3 0.1346 ± 0.0001
p4 0.002886 ± 0.000088
p5 230.2 ± 85.1
p6 0.1346 ± 0.0003
p7 0.005316 ± 0.000514
Total Pi = 15974.0217
Bacg Pi = 6653.1537
Bcg % = 41.6498351
Total - Bcg = 9320.86799

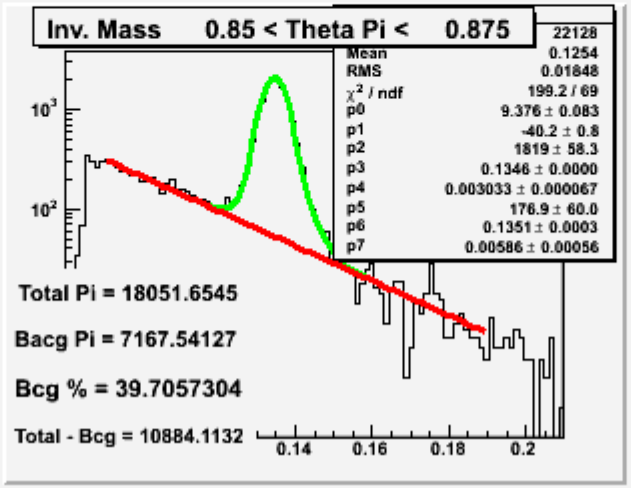

Inv. Mass 0.725 < Theta Pi < 0.75
21039
Mean 0.1243
RMS 0.01948
χ² / ndf 146.9 / 69
p0 9.258 ± 0.080
p1 -38.3 ± 0.7
p2 1600 ± 76.2
p3 0.1346 ± 0.0000
p4 0.002875 ± 0.000098
p5 195.5 ± 82.6
p6 0.135 ± 0.000
p7 0.005817 ± 0.000763
Total Pi = 16243.7591
Bacg Pi = 6746.52951
Bcg % = 41.5330556
Total - Bcg = 9497.22961

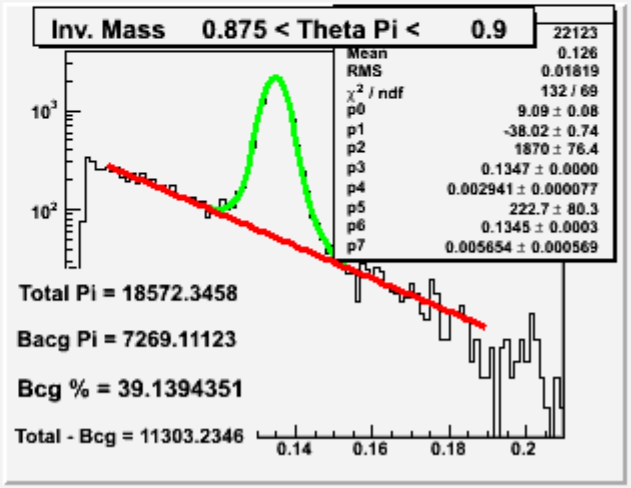

Inv. Mass 0.75 < Theta Pi < 0.775
21279
Mean 0.1246
RMS 0.01913
χ² / ndf 191.8 / 69
p0 9.237 ± 0.077
p1 -38.24 ± 0.71
p2 1618 ± 69.8
p3 0.1346 ± 0.0000
p4 0.002823 ± 0.000086
p5 234.2 ± 74.1
p6 0.1347 ± 0.0002
p7 0.005707 ± 0.000555
Total Pi = 16637.9118
Bacg Pi = 6849.21967
Bcg % = 41.1663419
Total - Bcg = 9788.69217

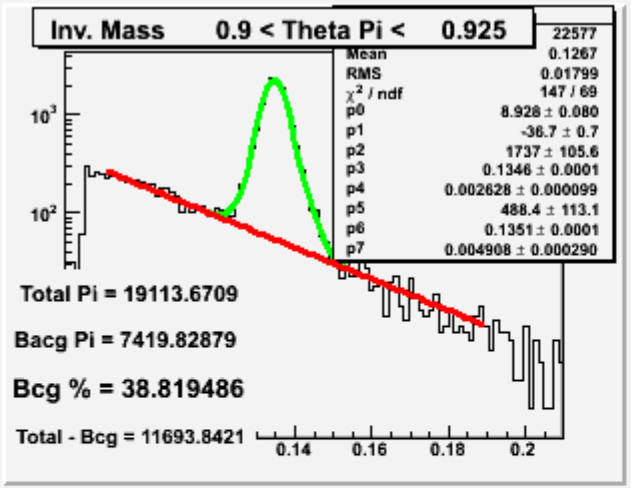

Inv. Mass 0.775 < Theta Pi < 0.8
21340
Mean 0.125
RMS 0.01895
χ² / ndf 119 / 69
p0 9.254 ± 0.087
p1 -38.94 ± 0.82
p2 1764 ± 28.7
p3 0.1346 ± 0.0000
p4 0.00305 ± 0.00005
p5 97.57 ± 23.19
p6 0.1346 ± 0.0005
p7 0.007992 ± 0.000801
Total Pi = 17053.4737
Bacg Pi = 6909.6024
Bcg % = 40.5172726
Total - Bcg = 10143.8713

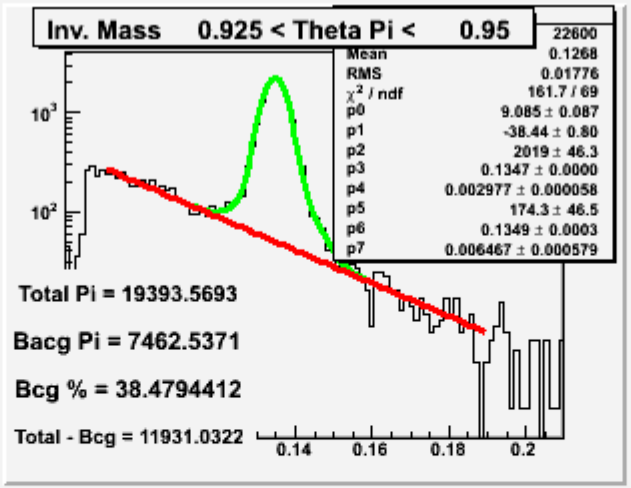

Inv. Mass 0.8 < Theta Pi < 0.825
21668
Mean 0.1256
RMS 0.01868
χ² / ndf 98.29 / 69
p0 9.048 ± 0.079
p1 -37.31 ± 0.72
p2 1755 ± 63.4
p3 0.1346 ± 0.0000
p4 0.002849 ± 0.000077
p5 228 ± 67.1
p6 0.1343 ± 0.0003
p7 0.005817 ± 0.000520
Total Pi = 17564.0205
Bacg Pi = 7010.20046
Bcg % = 39.9122766
Total - Bcg = 10553.8201

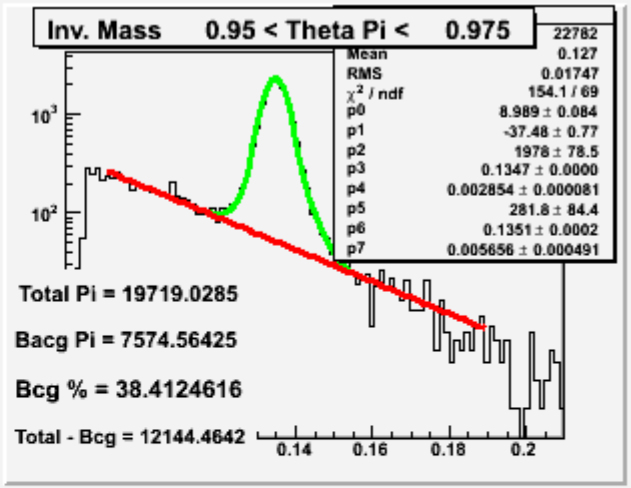

Inv. Mass 0.825 < Theta Pi < 0.85
21893
Mean 0.1261
RMS 0.0183
χ² / ndf 153.5 / 69
p0 9.024 ± 0.082
p1 -37.22 ± 0.75
p2 1763 ± 129.0
p3 0.1347 ± 0.0000
p4 0.002816 ± 0.000123
p5 305 ± 139.9
p6 0.1348 ± 0.0002
p7 0.005316 ± 0.000665
Total Pi = 18208.9558
Bacg Pi = 7193.69621
Bcg % = 39.5063631
Total - Bcg = 11015.2596

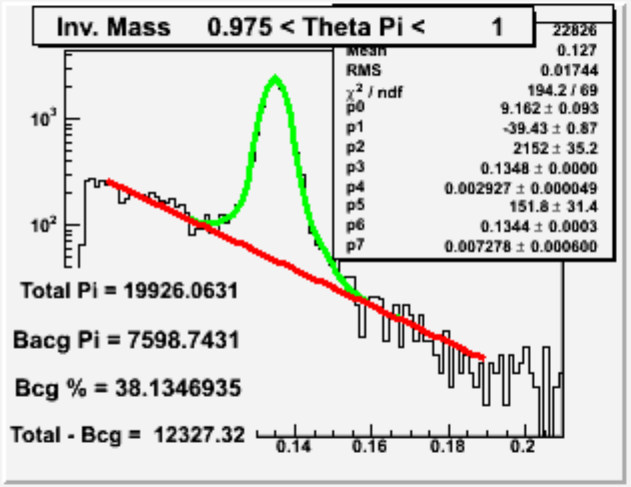

Inv. Mass 0.85 < Theta Pi < 0.875
22128
Mean 0.1254
RMS 0.01848
χ² / ndf 199.2 / 69
p0 9.376 ± 0.083
p1 -40.2 ± 0.8
p2 1819 ± 58.3
p3 0.1346 ± 0.0000
p4 0.003033 ± 0.000067
p5 176.9 ± 60.0
p6 0.1351 ± 0.0003
p7 0.00586 ± 0.00056
Total Pi = 18051.6545
Bacg Pi = 7167.54127
Bcg % = 39.7057304
Total - Bcg = 10884.1132

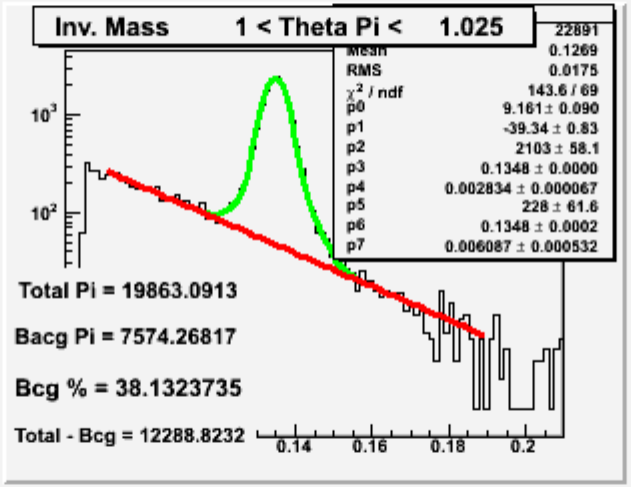

Inv. Mass 0.875 < Theta Pi < 0.9
22123
Mean 0.126
RMS 0.01819
χ² / ndf 132 / 69
p0 9.09 ± 0.08
p1 -38.02 ± 0.74
p2 1870 ± 76.4
p3 0.1347 ± 0.0000
p4 0.002941 ± 0.000077
p5 222.7 ± 80.3
p6 0.1345 ± 0.0003
p7 0.005654 ± 0.000569
Total Pi = 18572.3458
Bacg Pi = 7269.11123
Bcg % = 39.1394351
Total - Bcg = 11303.2346

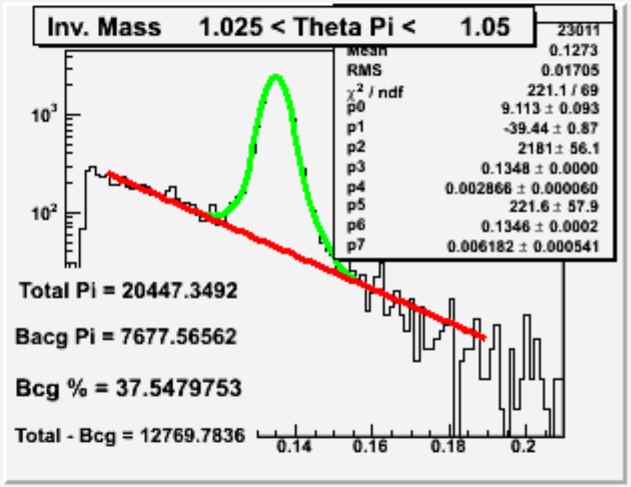

Inv. Mass 0.9 < Theta Pi < 0.925
22577
Mean 0.1267
RMS 0.01799
χ² / ndf 147 / 69
p0 8.928 ± 0.080
p1 -36.7 ± 0.7
p2 1737 ± 105.6
p3 0.1346 ± 0.0001
p4 0.002628 ± 0.000099
p5 488.4 ± 113.1
p6 0.1351 ± 0.0001
p7 0.004908 ± 0.000290
Total Pi = 19113.6709
Bacg Pi = 7419.82879
Bcg % = 38.819486
Total - Bcg = 11693.8421

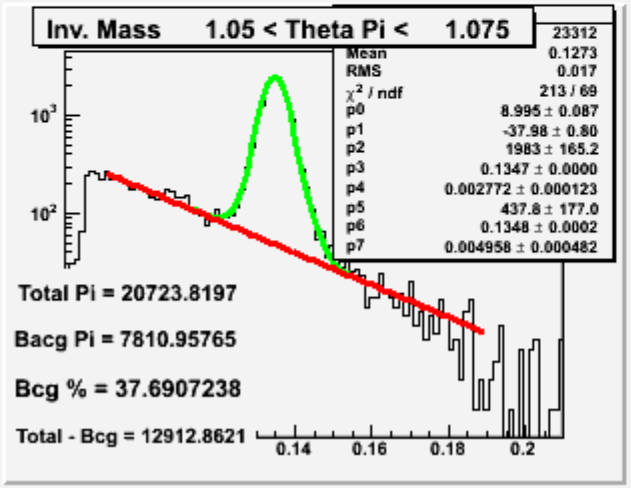

Inv. Mass 0.925 < Theta Pi < 0.95
22600
Mean 0.1268
RMS 0.01776
χ² / ndf 161.7 / 69
p0 9.085 ± 0.087
p1 -38.44 ± 0.80
p2 2019 ± 46.3
p3 0.1347 ± 0.0000
p4 0.002977 ± 0.000058
p5 174.3 ± 46.5
p6 0.1349 ± 0.0003
p7 0.006467 ± 0.000579
Total Pi = 19393.5693
Bacg Pi = 7462.5371
Bcg % = 38.4794412
Total - Bcg = 11931.0322

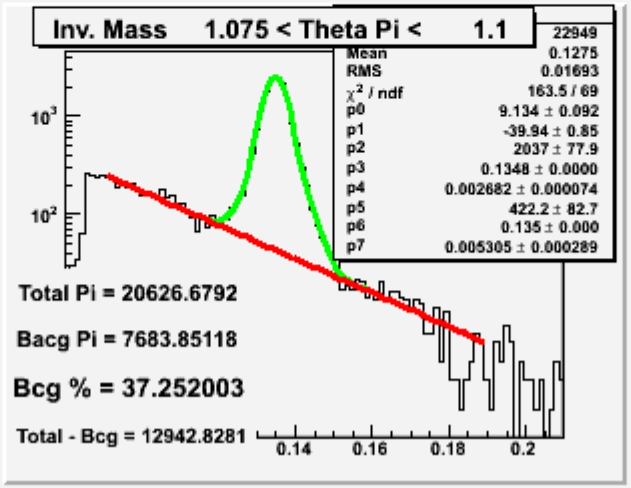

Inv. Mass 0.95 < Theta Pi < 0.975
22782
Mean 0.127
RMS 0.01747
χ² / ndf 154.1 / 69
p0 8.989 ± 0.084
p1 -37.48 ± 0.77
p2 1978 ± 78.5
p3 0.1347 ± 0.0000
p4 0.002854 ± 0.000081
p5 281.8 ± 84.4
p6 0.1351 ± 0.0002
p7 0.005656 ± 0.000491
Total Pi = 19719.0285
Bacg Pi = 7574.56425
Bcg % = 38.4124616
Total - Bcg = 12144.4642

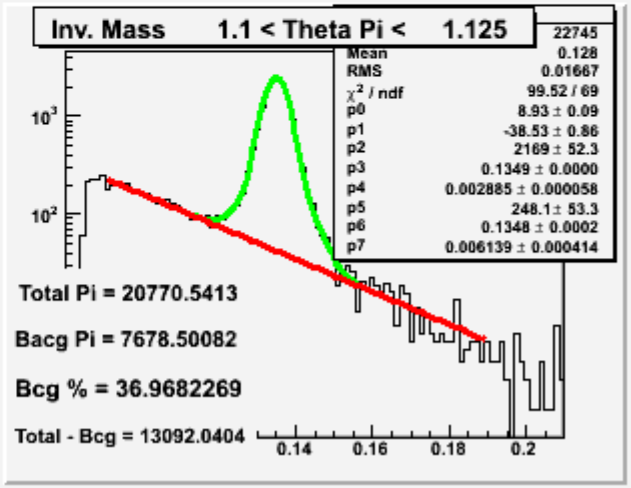

Inv. Mass 0.975 < Theta Pi < 1
22826
Mean 0.127
RMS 0.01744
χ² / ndf 194.2 / 69
p0 9.162 ± 0.093
p1 -39.43 ± 0.87
p2 2152 ± 35.2
p3 0.1348 ± 0.0000
p4 0.002927 ± 0.000049
p5 151.8 ± 31.4
p6 0.1344 ± 0.0003
p7 0.007278 ± 0.000600
Total Pi = 19926.0631
Bacg Pi = 7598.7431
Bcg % = 38.1346935
Total - Bcg = 12327.32

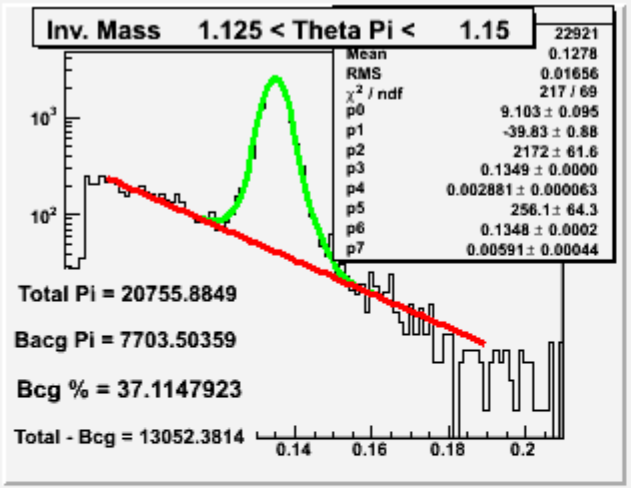

Inv. Mass 1 < Theta Pi < 1.025
22891
Mean 0.1269
RMS 0.0175
χ² / ndf 143.6 / 69
p0 9.161 ± 0.090
p1 -39.34 ± 0.83
p2 2103 ± 58.1
p3 0.1348 ± 0.0000
p4 0.002834 ± 0.000067
p5 228 ± 61.6
p6 0.1348 ± 0.0002
p7 0.006087 ± 0.000532
Total Pi = 19863.0913
Bacg Pi = 7574.26817
Bcg % = 38.1323735
Total - Bcg = 12288.8232

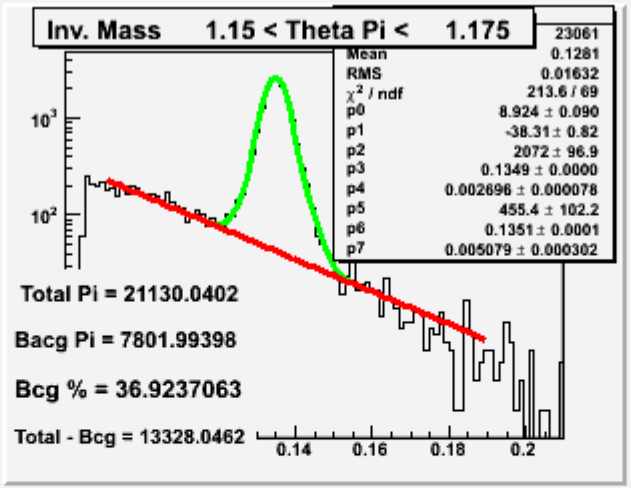

Inv. Mass 1.025 < Theta Pi < 1.05
23011
Mean 0.1273
RMS 0.01705
χ² / ndf 221.1 / 69
p0 9.113 ± 0.093
p1 -39.44 ± 0.87
p2 2181 ± 56.1
p3 0.1348 ± 0.0000
p4 0.002866 ± 0.000060
p5 221.6 ± 57.9
p6 0.1346 ± 0.0002
p7 0.006182 ± 0.000541
Total Pi = 20447.3492
Bacg Pi = 7677.56562
Bcg % = 37.5479753
Total - Bcg = 12769.7836

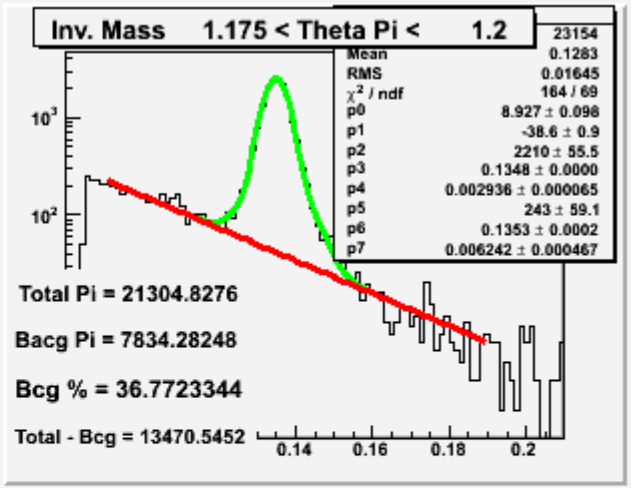

Inv. Mass 1.05 < Theta Pi < 1.075
23312
Mean 0.1273
RMS 0.017
χ² / ndf 213 / 69
p0 8.995 ± 0.087
p1 -37.98 ± 0.80
p2 1983 ± 165.2
p3 0.1347 ± 0.0000
p4 0.002772 ± 0.000123
p5 437.8 ± 177.0
p6 0.1348 ± 0.0002
p7 0.004958 ± 0.000482
Total Pi = 20723.8197
Bacg Pi = 7810.95765
Bcg % = 37.6907238
Total - Bcg = 12912.8621

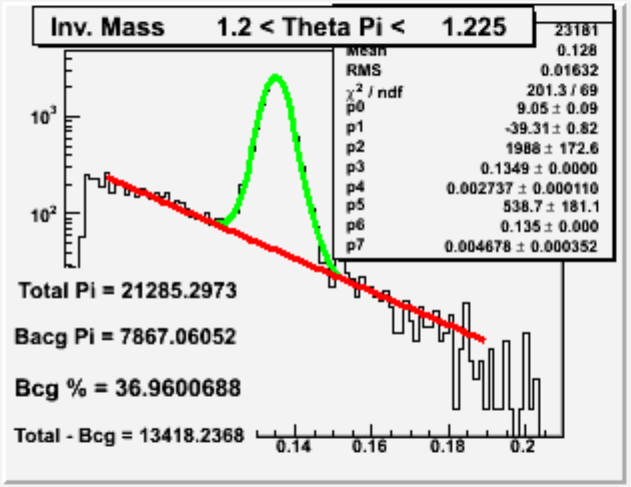

Inv. Mass 1.075 < Theta Pi < 1.1
22949
Mean 0.1275
RMS 0.01693
χ² / ndf 163.5 / 69
p0 9.134 ± 0.092
p1 -39.94 ± 0.85
p2 2037 ± 77.9
p3 0.1348 ± 0.0000
p4 0.002682 ± 0.000074
p5 422.2 ± 82.7
p6 0.135 ± 0.000
p7 0.005305 ± 0.000289
Total Pi = 20626.6792
Bacg Pi = 7683.85118
Bcg % = 37.252003
Total - Bcg = 12942.8281

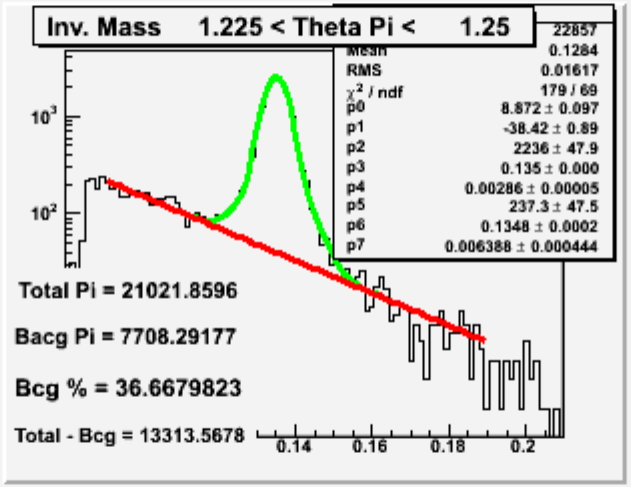

Inv. Mass 1.1 < Theta Pi < 1.125
22745
Mean 0.128
RMS 0.01667
χ² / ndf 99.52 / 69
p0 8.93 ± 0.09
p1 -38.53 ± 0.86
p2 2169 ± 52.3
p3 0.1349 ± 0.0000
p4 0.002885 ± 0.000058
p5 248.1 ± 53.3
p6 0.1348 ± 0.0002
p7 0.006139 ± 0.000414
Total Pi = 20770.5413
Bacg Pi = 7678.50082
Bcg % = 36.9682269
Total - Bcg = 13092.0404

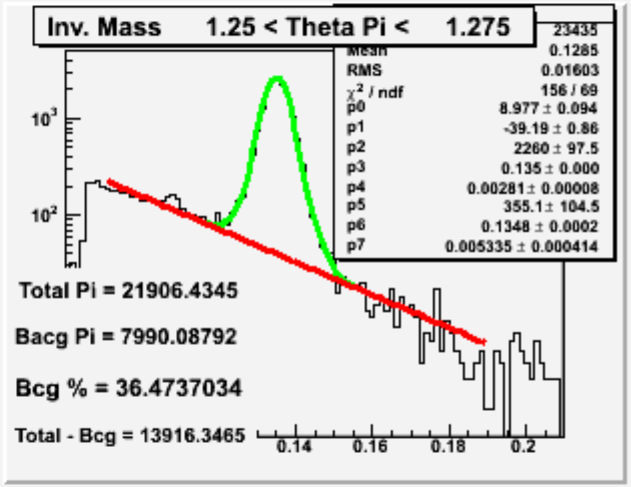

Inv. Mass 1.125 < Theta Pi < 1.15
22921
Mean 0.1278
RMS 0.01656
χ² / ndf 217 / 69
p0 9.103 ± 0.095
p1 -39.83 ± 0.88
p2 2172 ± 61.6
p3 0.1349 ± 0.0000
p4 0.002881 ± 0.000063
p5 256.1 ± 64.3
p6 0.1348 ± 0.0002
p7 0.00591 ± 0.00044
Total Pi = 20755.8849
Bacg Pi = 7703.50359
Bcg % = 37.1147923
Total - Bcg = 13052.3814

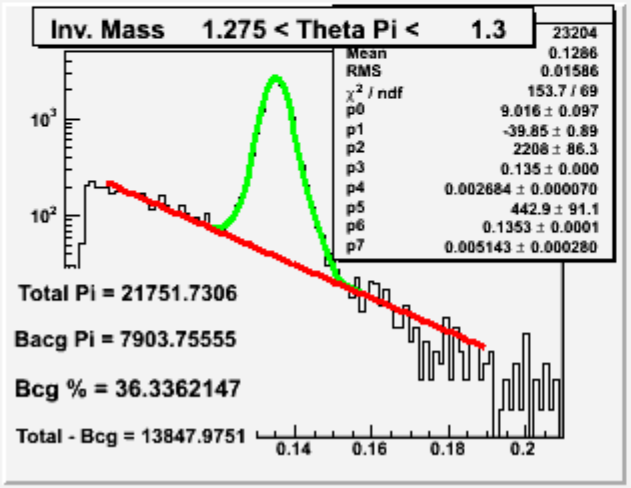

Inv. Mass 1.15 < Theta Pi < 1.175
23061
Mean 0.1281
RMS 0.01632
χ² / ndf 213.6 / 69
p0 8.924 ± 0.090
p1 -38.31 ± 0.82
p2 2072 ± 96.9
p3 0.1349 ± 0.0000
p4 0.002696 ± 0.000078
p5 455.4 ± 102.2
p6 0.1351 ± 0.0001
p7 0.005079 ± 0.000302
Total Pi = 21130.0402
Bacg Pi = 7801.99398
Bcg % = 36.9237063
Total - Bcg = 13328.0462

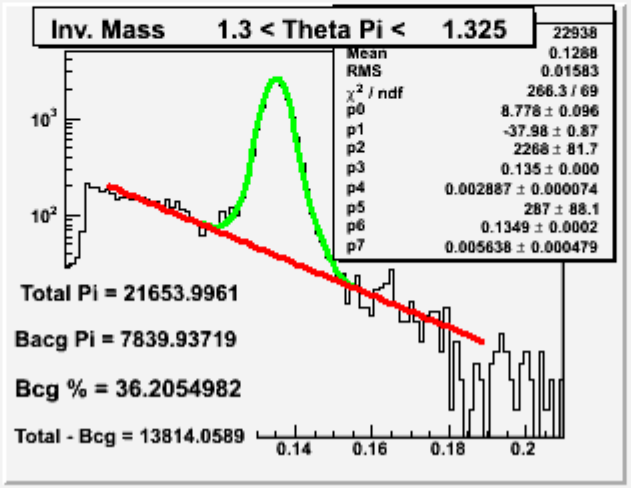

Inv. Mass 1.175 < Theta Pi < 1.2
23154
Mean 0.1283
RMS 0.01645
χ² / ndf 164 / 69
p0 8.927 ± 0.098
p1 -38.6 ± 0.9
p2 2210 ± 55.5
p3 0.1348 ± 0.0000
p4 0.002936 ± 0.000065
p5 243 ± 59.1
p6 0.1353 ± 0.0002
p7 0.006242 ± 0.000467
Total Pi = 21304.8276
Bacg Pi = 7834.28248
Bcg % = 36.7723344
Total - Bcg = 13470.5452

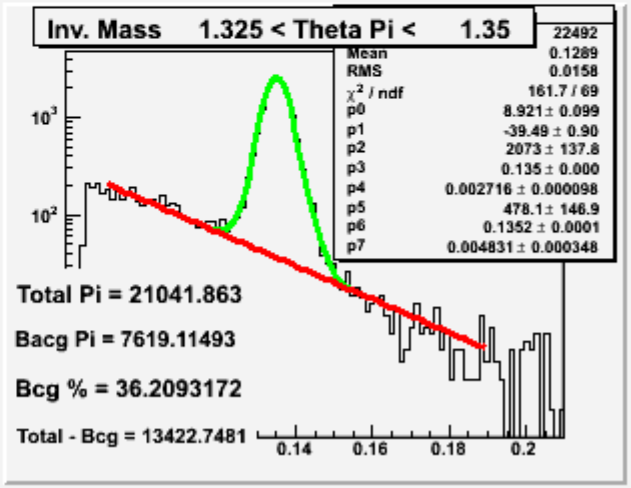

Inv. Mass 1.2 < Theta Pi < 1.225
23181
Mean 0.128
RMS 0.01632
χ² / ndf 201.3 / 69
p0 9.05 ± 0.09
p1 -39.31 ± 0.82
p2 1988 ± 172.6
p3 0.1349 ± 0.0000
p4 0.002737 ± 0.000110
p5 538.7 ± 181.1
p6 0.135 ± 0.000
p7 0.004678 ± 0.000352
Total Pi = 21285.2973
Bacg Pi = 7867.06052
Bcg % = 36.9600688
Total - Bcg = 13418.2368

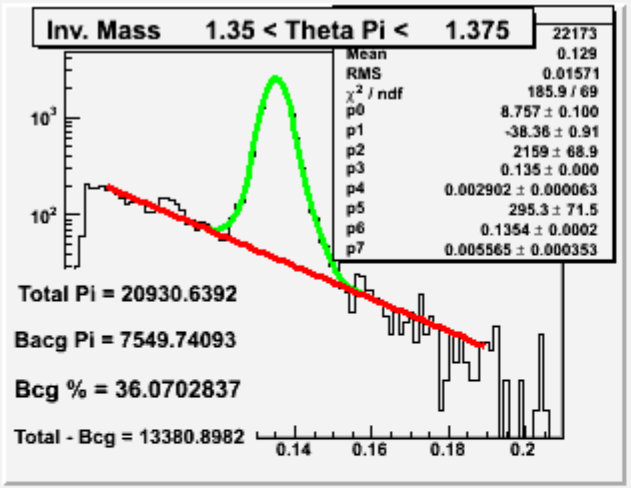

Inv. Mass 1.225 < Theta Pi < 1.25
22857
Mean 0.1284
RMS 0.01617
χ² / ndf 179 / 69
p0 8.872 ± 0.097
p1 -38.42 ± 0.89
p2 2236 ± 47.9
p3 0.135 ± 0.000
p4 0.00286 ± 0.00005
p5 237.3 ± 47.5
p6 0.1348 ± 0.0002
p7 0.006388 ± 0.000444
Total Pi = 21021.8596
Bacg Pi = 7708.29177
Bcg % = 36.6679823
Total - Bcg = 13313.5678

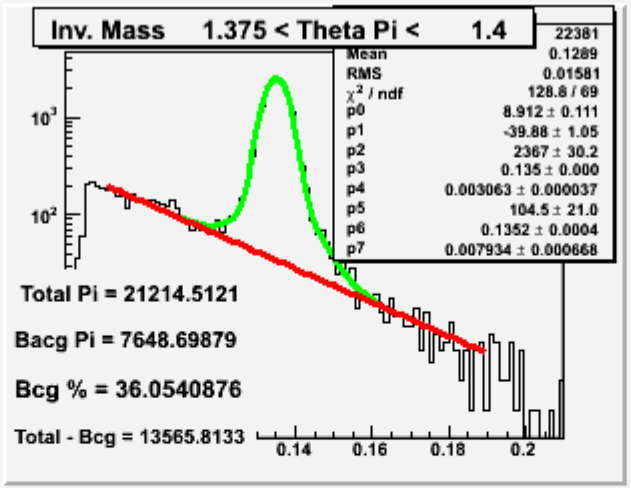

Inv. Mass 1.25 < Theta Pi < 1.275
23435
Mean 0.1285
RMS 0.01603
χ² / ndf 156 / 69
p0 8.977 ± 0.094
p1 -39.19 ± 0.86
p2 2260 ± 97.5
p3 0.135 ± 0.000
p4 0.00281 ± 0.00008
p5 355.1 ± 104.5
p6 0.1348 ± 0.0002
p7 0.005335 ± 0.000414
Total Pi = 21906.4345
Bacg Pi = 7990.08792
Bcg % = 36.4737034
Total - Bcg = 13916.3465

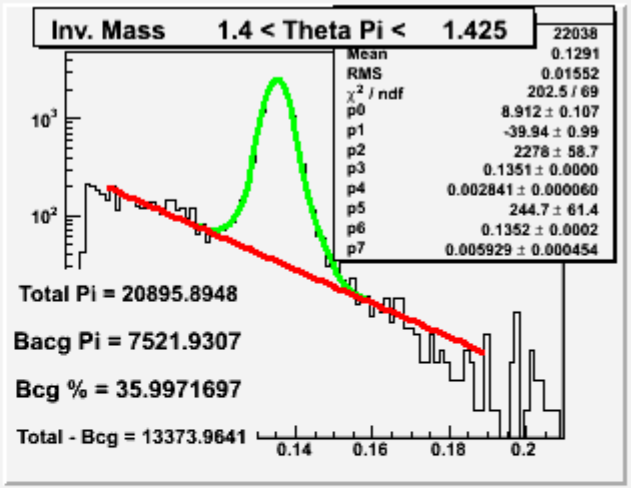

Inv. Mass 1.275 < Theta Pi < 1.3
23204
Mean 0.1286
RMS 0.01586
χ² / ndf 153.7 / 69
p0 9.016 ± 0.097
p1 -39.85 ± 0.89
p2 2208 ± 86.3
p3 0.135 ± 0.000
p4 0.002684 ± 0.000070
p5 442.9 ± 91.1
p6 0.1353 ± 0.0001
p7 0.005143 ± 0.000280
Total Pi = 21751.7306
Bacg Pi = 7903.75555
Bcg % = 36.3362147
Total - Bcg = 13847.9751

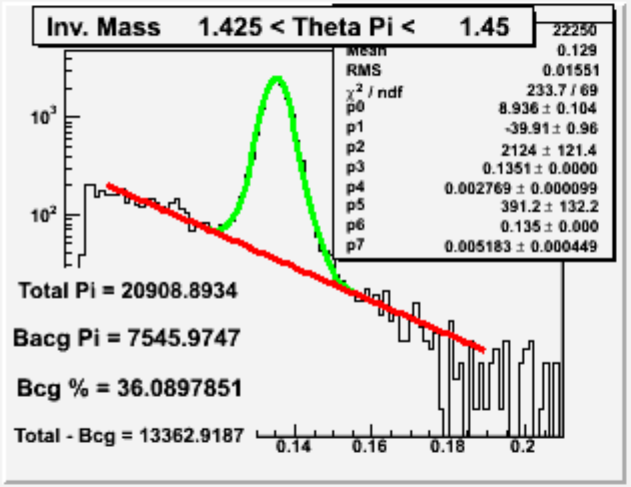

Inv. Mass 1.3 < Theta Pi < 1.325
22938
Mean 0.1288
RMS 0.01583
χ² / ndf 266.3 / 69
p0 8.778 ± 0.096
p1 -37.98 ± 0.87
p2 2268 ± 81.7
p3 0.135 ± 0.000
p4 0.002887 ± 0.000074
p5 287 ± 88.1
p6 0.1349 ± 0.0002
p7 0.005638 ± 0.000479
Total Pi = 21653.9961
Bacg Pi = 7839.93719
Bcg % = 36.2054982
Total - Bcg = 13814.0589

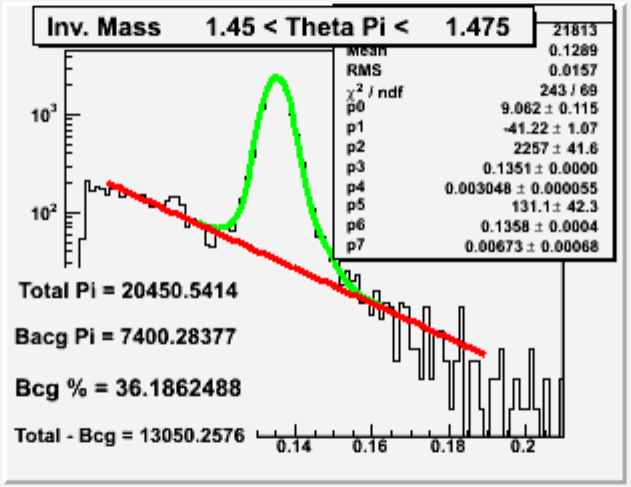

Inv. Mass 1.325 < Theta Pi < 1.35
22492
Mean 0.1289
RMS 0.0158
χ² / ndf 161.7 / 69
p0 8.921 ± 0.099
p1 -39.49 ± 0.90
p2 2073 ± 137.8
p3 0.135 ± 0.000
p4 0.002716 ± 0.000098
p5 478.1 ± 146.9
p6 0.1352 ± 0.0001
p7 0.004831 ± 0.000348
Total Pi = 21041.863
Bacg Pi = 7619.11493
Bcg % = 36.2093172
Total - Bcg = 13422.7481

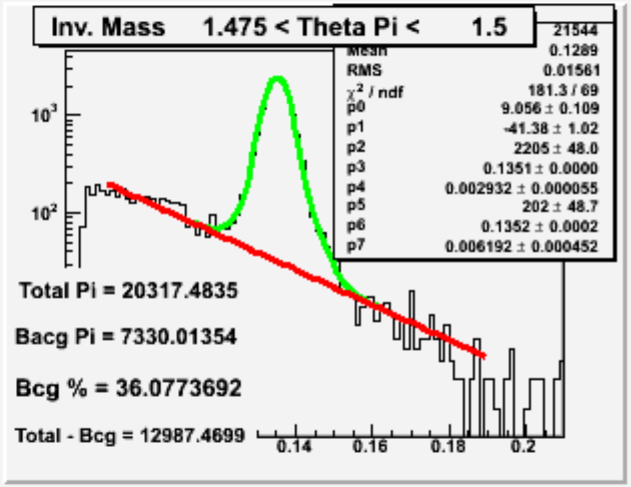

Inv. Mass 1.35 < Theta Pi < 1.375
22173
Mean 0.129
RMS 0.01571
χ² / ndf 185.9 / 69
p0 8.757 ± 0.100
p1 -38.36 ± 0.91
p2 2159 ± 68.9
p3 0.135 ± 0.000
p4 0.002902 ± 0.000063
p5 295.3 ± 71.5
p6 0.1354 ± 0.0002
p7 0.005565 ± 0.000353
Total Pi = 20930.6392
Bacg Pi = 7549.74093
Bcg % = 36.0702837
Total - Bcg = 13380.8982

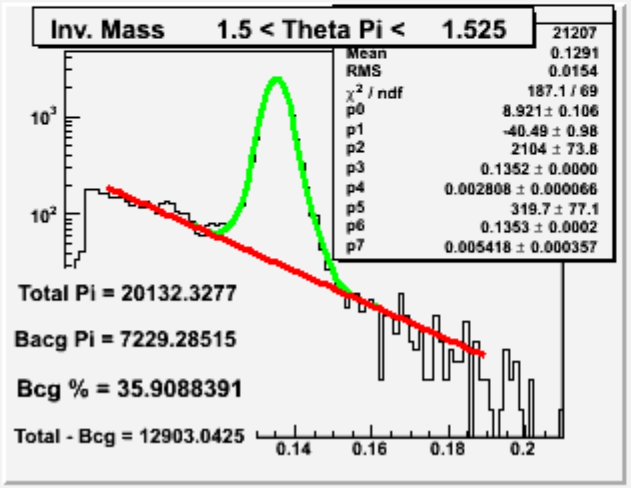

Inv. Mass 1.375 < Theta Pi < 1.4
22381
Mean 0.1289
RMS 0.01581
χ² / ndf 128.8 / 69
p0 8.912 ± 0.111
p1 -39.88 ± 1.05
p2 2367 ± 30.2
p3 0.135 ± 0.000
p4 0.003063 ± 0.000037
p5 104.5 ± 21.0
p6 0.1352 ± 0.0004
p7 0.007934 ± 0.000668
Total Pi = 21214.5121
Bacg Pi = 7648.69879
Bcg % = 36.0540876
Total - Bcg = 13565.8133

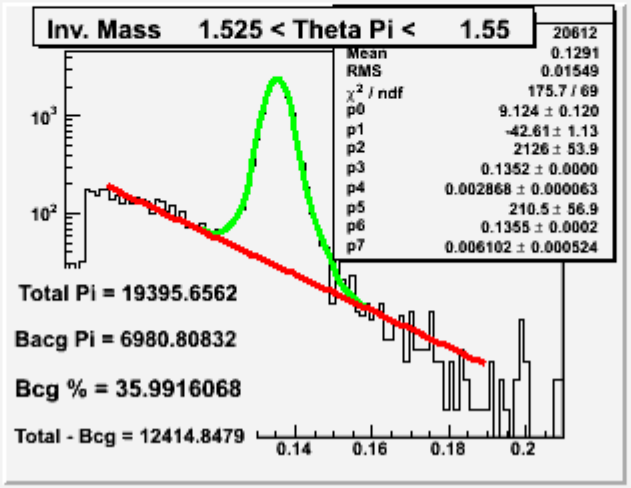

Inv. Mass 1.4 < Theta Pi < 1.425
22038
Mean 0.1291
RMS 0.01552
χ² / ndf 202.5 / 69
p0 8.912 ± 0.107
p1 -39.94 ± 0.99
p2 2278 ± 58.7
p3 0.1351 ± 0.0000
p4 0.002841 ± 0.000060
p5 244.7 ± 61.4
p6 0.1352 ± 0.0002
p7 0.005929 ± 0.000454
Total Pi = 20895.8948
Bacg Pi = 7521.9307
Bcg % = 35.9971697
Total - Bcg = 13373.9641

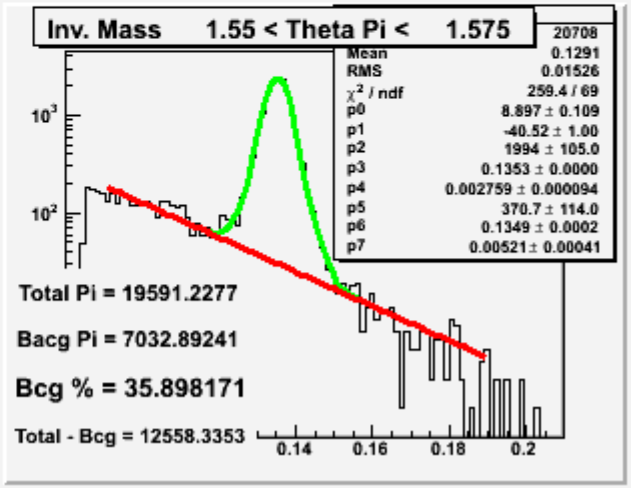

Inv. Mass 1.425 < Theta Pi < 1.45
22250
Mean 0.129
RMS 0.01551
χ² / ndf 233.7 / 69
p0 8.936 ± 0.104
p1 -39.91 ± 0.96
p2 2124 ± 121.4
p3 0.1351 ± 0.0000
p4 0.002769 ± 0.000099
p5 391.2 ± 132.2
p6 0.135 ± 0.000
p7 0.005183 ± 0.000449
Total Pi = 20908.8934
Bacg Pi = 7545.9747
Bcg % = 36.0897851
Total - Bcg = 13362.9187

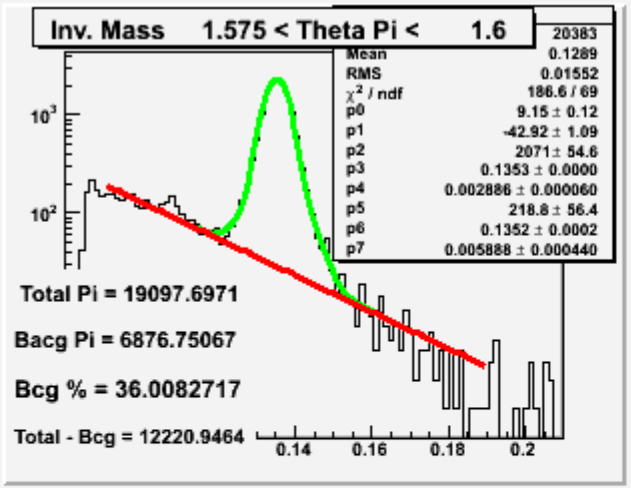

Inv. Mass 1.45 < Theta Pi < 1.475
21813
Mean 0.1289
RMS 0.0157
χ² / ndf 243 / 69
p0 9.062 ± 0.115
p1 -41.22 ± 1.07
p2 2257 ± 41.6
p3 0.1351 ± 0.0000
p4 0.003048 ± 0.000055
p5 131.1 ± 42.3
p6 0.1358 ± 0.0004
p7 0.00673 ± 0.00068
Total Pi = 20450.5414
Bacg Pi = 7400.28377
Bcg % = 36.1862488
Total - Bcg = 13050.2576

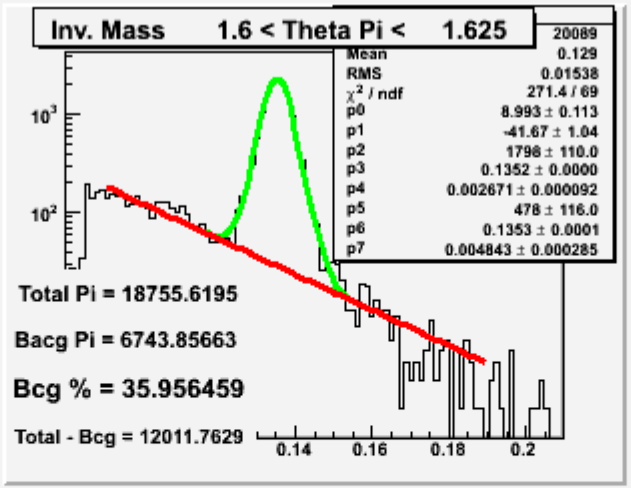

Inv. Mass 1.475 < Theta Pi < 1.5
21544
Mean 0.1289
RMS 0.01561
χ² / ndf 181.3 / 69
p0 9.056 ± 0.109
p1 -41.38 ± 1.02
p2 2205 ± 48.0
p3 0.1351 ± 0.0000
p4 0.002932 ± 0.000055
p5 202 ± 48.7
p6 0.1352 ± 0.0002
p7 0.006192 ± 0.000452
Total Pi = 20317.4835
Bacg Pi = 7330.01354
Bcg % = 36.0773692
Total - Bcg = 12987.4699

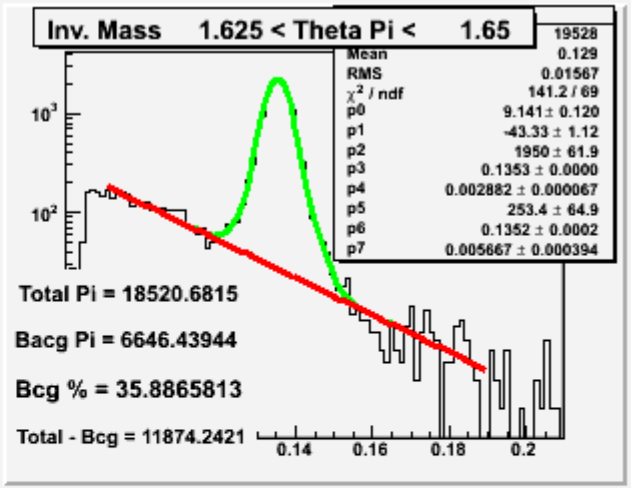

Inv. Mass 1.5 < Theta Pi < 1.525
21207
Mean 0.1291
RMS 0.0154
χ² / ndf 187.1 / 69
p0 8.921 ± 0.106
p1 -40.49 ± 0.98
p2 2104 ± 73.8
p3 0.1352 ± 0.0000
p4 0.002808 ± 0.000066
p5 319.7 ± 77.1
p6 0.1353 ± 0.0002
p7 0.005418 ± 0.000357
Total Pi = 20132.3277
Bacg Pi = 7229.28515
Bcg % = 35.9088391
Total - Bcg = 12903.0425

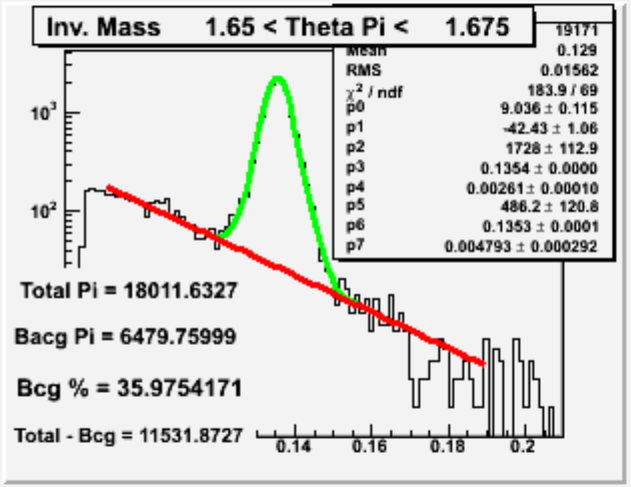

Inv. Mass 1.525 < Theta Pi < 1.55
20612
Mean 0.1291
RMS 0.01549
χ² / ndf 175.7 / 69
p0 9.124 ± 0.120
p1 -42.61 ± 1.13
p2 2126 ± 53.9
p3 0.1352 ± 0.0000
p4 0.002868 ± 0.000063
p5 210.5 ± 56.9
p6 0.1355 ± 0.0002
p7 0.006102 ± 0.000524
Total Pi = 19395.6562
Bacg Pi = 6980.80832
Bcg % = 35.9916068
Total - Bcg = 12414.8479

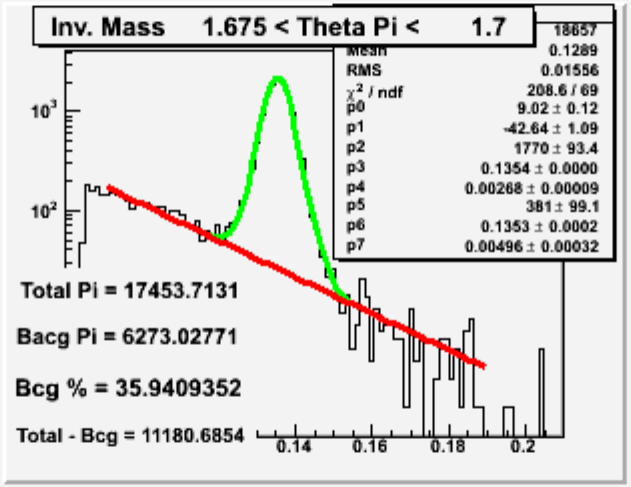

Inv. Mass 1.55 < Theta Pi < 1.575
20708
Mean 0.1291
RMS 0.01526
χ² / ndf 259.4 / 69
p0 8.897 ± 0.109
p1 -40.52 ± 1.00
p2 1994 ± 105.0
p3 0.1353 ± 0.0000
p4 0.002759 ± 0.000094
p5 370.7 ± 114.0
p6 0.1349 ± 0.0002
p7 0.00521 ± 0.00041
Total Pi = 19591.2277
Bacg Pi = 7032.89241
Bcg % = 35.898171
Total - Bcg = 12558.3353

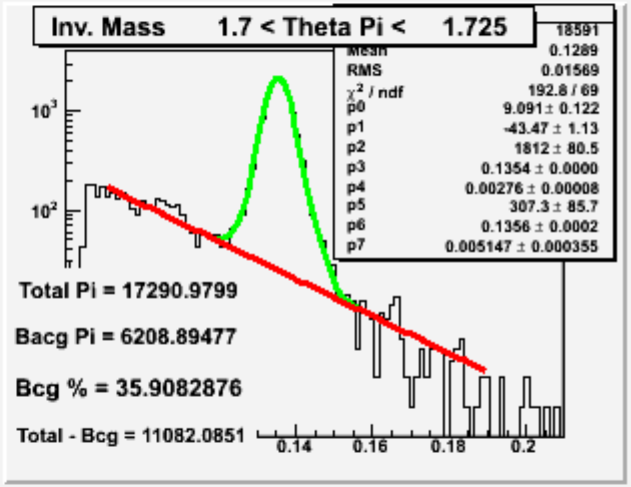

Inv. Mass 1.575 < Theta Pi < 1.6
20383
Mean 0.1289
RMS 0.01552
χ² / ndf 186.6 / 69
p0 9.15 ± 0.12
p1 -42.92 ± 1.09
p2 2071 ± 54.6
p3 0.1353 ± 0.0000
p4 0.002886 ± 0.000060
p5 218.8 ± 56.4
p6 0.1352 ± 0.0002
p7 0.005888 ± 0.000440
Total Pi = 19097.6971
Bacg Pi = 6876.75067
Bcg % = 36.0082717
Total - Bcg = 12220.9464

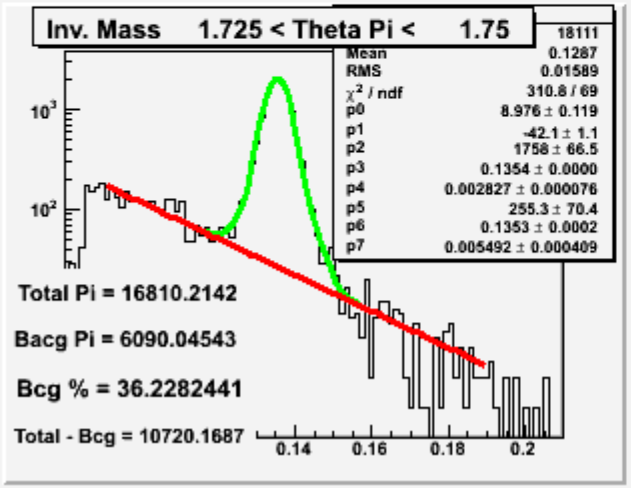

Inv. Mass 1.6 < Theta Pi < 1.625
20089
Mean 0.129
RMS 0.01538
χ² / ndf 271.4 / 69
p0 8.993 ± 0.113
p1 -41.67 ± 1.04
p2 1798 ± 110.0
p3 0.1352 ± 0.0000
p4 0.002671 ± 0.000092
p5 478 ± 116.0
p6 0.1353 ± 0.0001
p7 0.004843 ± 0.000285
Total Pi = 18755.6195
Bacg Pi = 6743.85663
Bcg % = 35.956459
Total - Bcg = 12011.7629

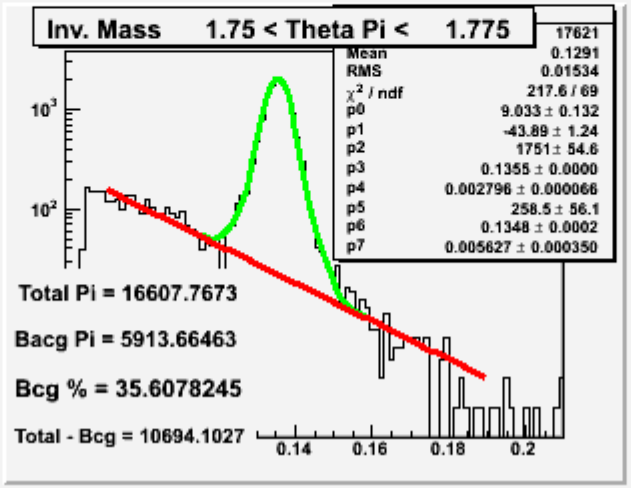

Inv. Mass 1.625 < Theta Pi < 1.65
19528
Mean 0.129
RMS 0.01567
χ² / ndf 141.2 / 69
p0 9.141 ± 0.120
p1 -43.33 ± 1.12
p2 1950 ± 61.9
p3 0.1353 ± 0.0000
p4 0.002882 ± 0.000067
p5 253.4 ± 64.9
p6 0.1352 ± 0.0002
p7 0.005667 ± 0.000394
Total Pi = 18520.6815
Bacg Pi = 6646.43944
Bcg % = 35.8865813
Total - Bcg = 11874.2421

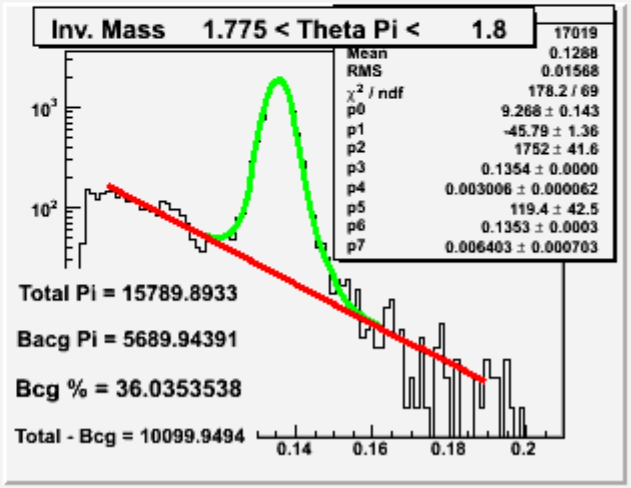

Inv. Mass 1.65 < Theta Pi < 1.675
19171
Mean 0.129
RMS 0.01562
χ² / ndf 183.9 / 69
p0 9.036 ± 0.115
p1 -42.43 ± 1.06
p2 1728 ± 112.9
p3 0.1354 ± 0.0000
p4 0.00261 ± 0.00010
p5 486.2 ± 120.8
p6 0.1353 ± 0.0001
p7 0.004793 ± 0.000292
Total Pi = 18011.6327
Bacg Pi = 6479.75999
Bcg % = 35.9754171
Total - Bcg = 11531.8727

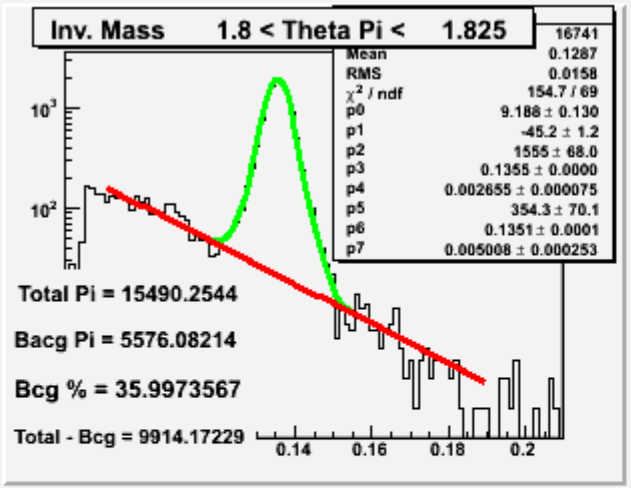

Inv. Mass 1.675 < Theta Pi < 1.7
18657
Mean 0.1289
RMS 0.01556
χ² / ndf 208.6 / 69
p0 9.02 ± 0.12
p1 -42.64 ± 1.09
p2 1770 ± 93.4
p3 0.1354 ± 0.0000
p4 0.00268 ± 0.00009
p5 381 ± 99.1
p6 0.1353 ± 0.0002
p7 0.00496 ± 0.00032
Total Pi = 17453.7131
Bacg Pi = 6273.02771
Bcg % = 35.9409352
Total - Bcg = 11180.6854

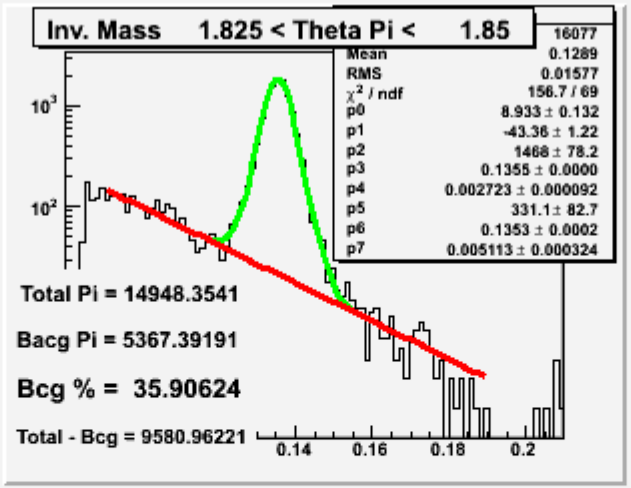

Inv. Mass 1.7 < Theta Pi < 1.725
18591
Mean 0.1289
RMS 0.01569
χ² / ndf 192.8 / 69
p0 9.091 ± 0.122
p1 -43.47 ± 1.13
p2 1812 ± 80.5
p3 0.1354 ± 0.0000
p4 0.00276 ± 0.00008
p5 307.3 ± 85.7
p6 0.1356 ± 0.0002
p7 0.005147 ± 0.000355
Total Pi = 17290.9799
Bacg Pi = 6208.89477
Bcg % = 35.9082876
Total - Bcg = 11082.0851

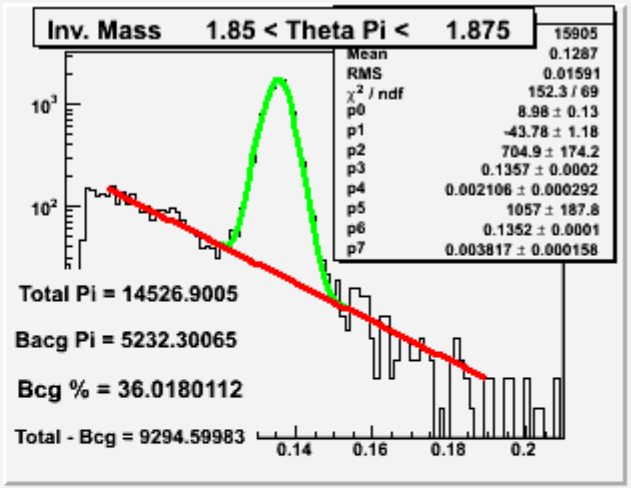

Inv. Mass 1.725 < Theta Pi < 1.75
18111
Mean 0.1287
RMS 0.01589
χ² / ndf 310.8 / 69
p0 8.976 ± 0.119
p1 -42.1 ± 1.1
p2 1758 ± 66.5
p3 0.1354 ± 0.0000
p4 0.002827 ± 0.000076
p5 255.3 ± 70.4
p6 0.1353 ± 0.0002
p7 0.005492 ± 0.000409
Total Pi = 16810.2142
Bacg Pi = 6090.04543
Bcg % = 36.2282441
Total - Bcg = 10720.1687

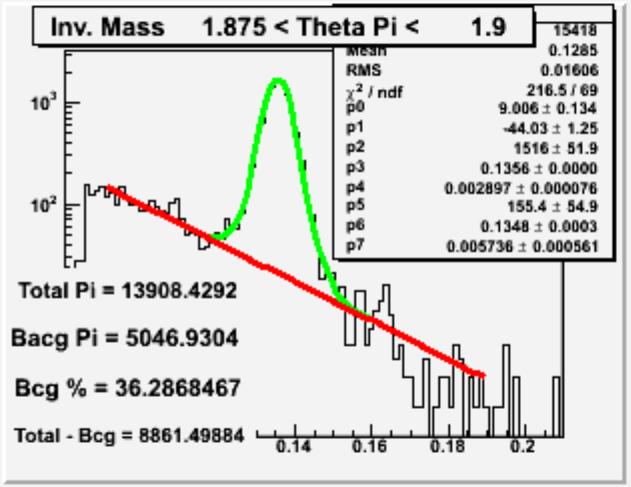

Inv. Mass 1.75 < Theta Pi < 1.775
17621
Mean 0.1291
RMS 0.01534
χ² / ndf 217.6 / 69
p0 9.033 ± 0.132
p1 -43.89 ± 1.24
p2 1751 ± 54.6
p3 0.1355 ± 0.0000
p4 0.002796 ± 0.000066
p5 258.5 ± 56.1
p6 0.1348 ± 0.0002
p7 0.005627 ± 0.000350
Total Pi = 16607.7673
Bacg Pi = 5913.66463
Bcg % = 35.6078245
Total - Bcg = 10694.1027

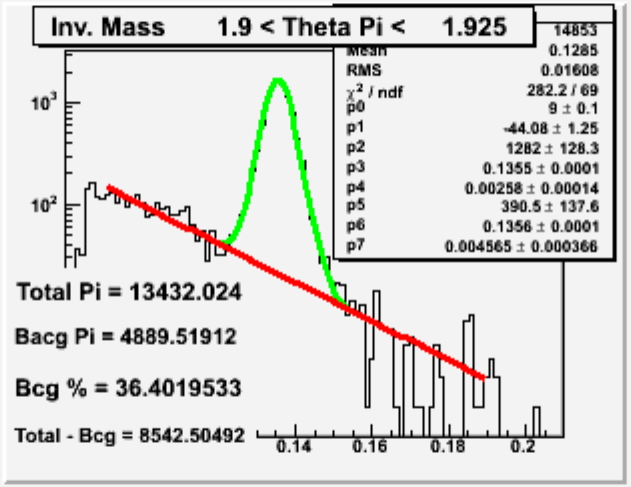

Inv. Mass 1.775 < Theta Pi < 1.8
17019
Mean 0.1288
RMS 0.01568
χ² / ndf 178.2 / 69
p0 9.268 ± 0.143
p1 -45.79 ± 1.36
p2 1752 ± 41.6
p3 0.1354 ± 0.0000
p4 0.003006 ± 0.000062
p5 119.4 ± 42.5
p6 0.1353 ± 0.0003
p7 0.006403 ± 0.000703
Total Pi = 15789.8933
Bacg Pi = 5689.94391
Bcg % = 36.0353538
Total - Bcg = 10099.9494

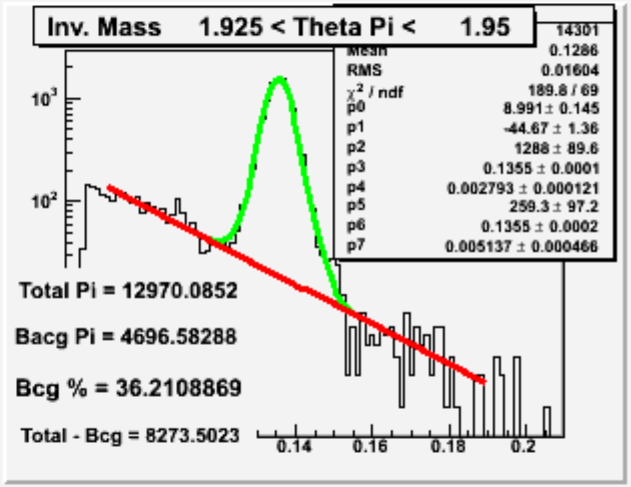

Inv. Mass 1.8 < Theta Pi < 1.825
16741
Mean 0.1287
RMS 0.0158
χ² / ndf 154.7 / 69
p0 9.188 ± 0.130
p1 -45.2 ± 1.2
p2 1555 ± 68.0
p3 0.1355 ± 0.0000
p4 0.002655 ± 0.000075
p5 354.3 ± 70.1
p6 0.1351 ± 0.0001
p7 0.005008 ± 0.000253
Total Pi = 15490.2544
Bacg Pi = 5576.08214
Bcg % = 35.9973567
Total - Bcg = 9914.17229

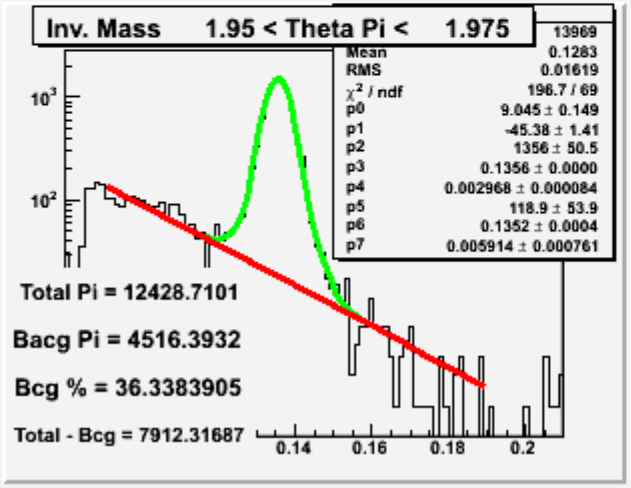

Inv. Mass 1.825 < Theta Pi < 1.85
16077
Mean 0.1289
RMS 0.01577
χ² / ndf 156.7 / 69
p0 8.933 ± 0.132
p1 -43.36 ± 1.22
p2 1468 ± 78.2
p3 0.1355 ± 0.0000
p4 0.002723 ± 0.000092
p5 331.1 ± 82.7
p6 0.1353 ± 0.0002
p7 0.005113 ± 0.000324
Total Pi = 14948.3541
Bacg Pi = 5367.39191
Bcg % = 35.90624
Total - Bcg = 9580.96221

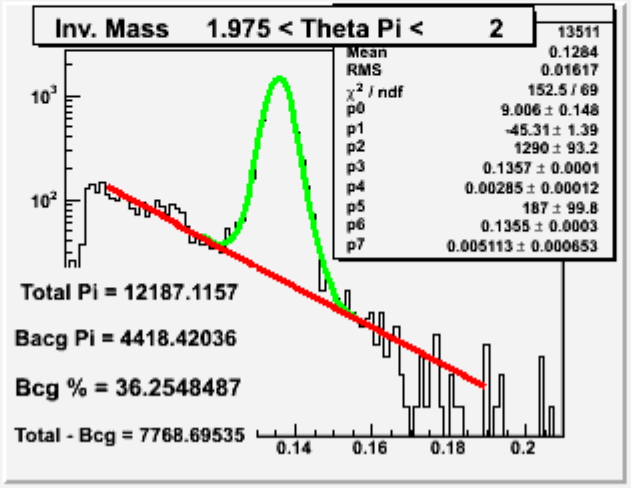

Inv. Mass 1.85 < Theta Pi < 1.875
15905
Mean 0.1287
RMS 0.01591
χ² / ndf 152.3 / 69
p0 8.98 ± 0.13
p1 -43.78 ± 1.18
p2 704.9 ± 174.2
p3 0.1357 ± 0.0002
p4 0.002106 ± 0.000292
p5 1057 ± 187.8
p6 0.1352 ± 0.0001
p7 0.003817 ± 0.000158
Total Pi = 14526.9005
Bacg Pi = 5232.30065
Bcg % = 36.0180112
Total - Bcg = 9294.59983

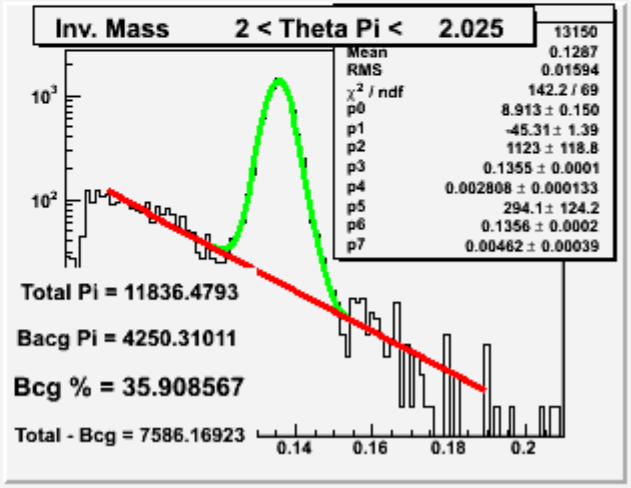

Inv. Mass 1.875 < Theta Pi < 1.9
15418
Mean 0.1285
RMS 0.01606
χ² / ndf 216.5 / 69
p0 9.006 ± 0.134
p1 -44.03 ± 1.25
p2 1516 ± 51.9
p3 0.1356 ± 0.0000
p4 0.002897 ± 0.000076
p5 155.4 ± 54.9
p6 0.1348 ± 0.0003
p7 0.005736 ± 0.000561
Total Pi = 13908.4292
Bacg Pi = 5046.9304
Bcg % = 36.2868467
Total - Bcg = 8861.49884

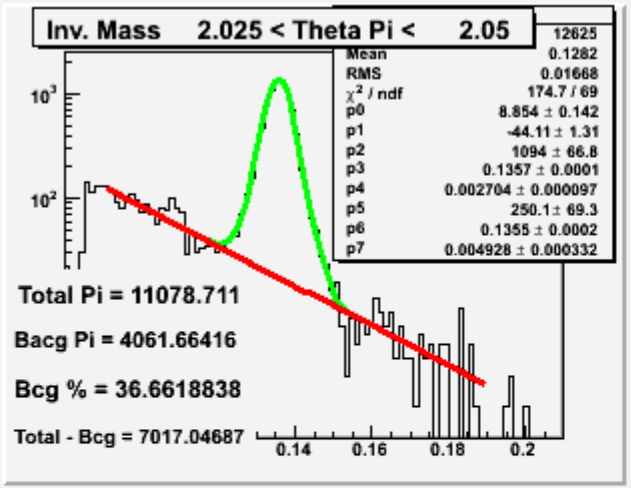

Inv. Mass 1.9 < Theta Pi < 1.925
14853
Mean 0.1285
RMS 0.01608
χ² / ndf 282.2 / 69
p0 9 ± 0.1
p1 -44.08 ± 1.25
p2 1282 ± 128.3
p3 0.1355 ± 0.0001
p4 0.00258 ± 0.00014
p5 390.5 ± 137.6
p6 0.1356 ± 0.0001
p7 0.004565 ± 0.000366
Total Pi = 13432.024
Bacg Pi = 4889.51912
Bcg % = 36.4019533
Total - Bcg = 8542.50492

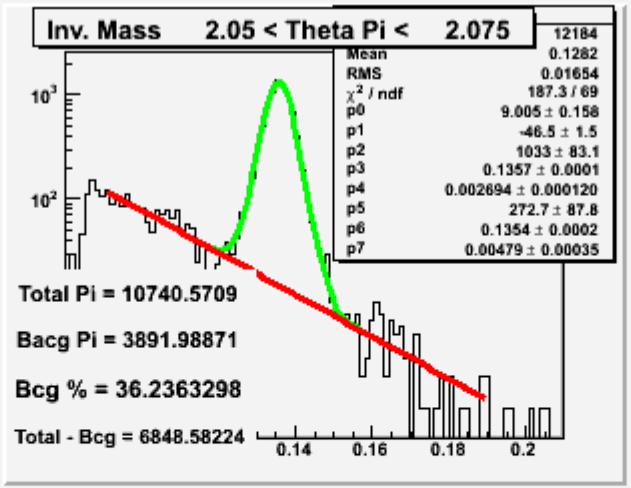

Inv. Mass 1.925 < Theta Pi < 1.95
14301
Mean 0.1286
RMS 0.01604
χ² / ndf 189.8 / 69
p0 8.991 ± 0.145
p1 -44.67 ± 1.36
p2 1288 ± 89.6
p3 0.1355 ± 0.0001
p4 0.002793 ± 0.000121
p5 259.3 ± 97.2
p6 0.1355 ± 0.0002
p7 0.005137 ± 0.000466
Total Pi = 12970.0852
Bacg Pi = 4696.58288
Bcg % = 36.2108869
Total - Bcg = 8273.5023

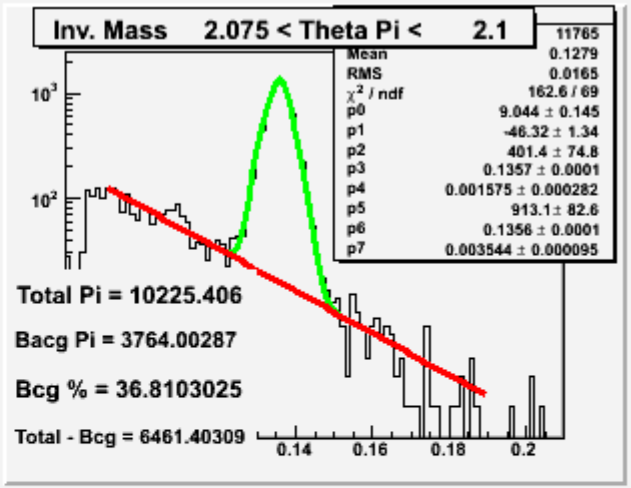

Inv. Mass 1.95 < Theta Pi < 1.975
13969
Mean 0.1283
RMS 0.01619
χ² / ndf 196.7 / 69
p0 9.045 ± 0.149
p1 -45.38 ± 1.41
p2 1356 ± 50.5
p3 0.1356 ± 0.0000
p4 0.002968 ± 0.000084
p5 118.9 ± 53.9
p6 0.1352 ± 0.0004
p7 0.005914 ± 0.000761
Total Pi = 12428.7101
Bacg Pi = 4516.3932
Bcg % = 36.3383905
Total - Bcg = 7912.31687

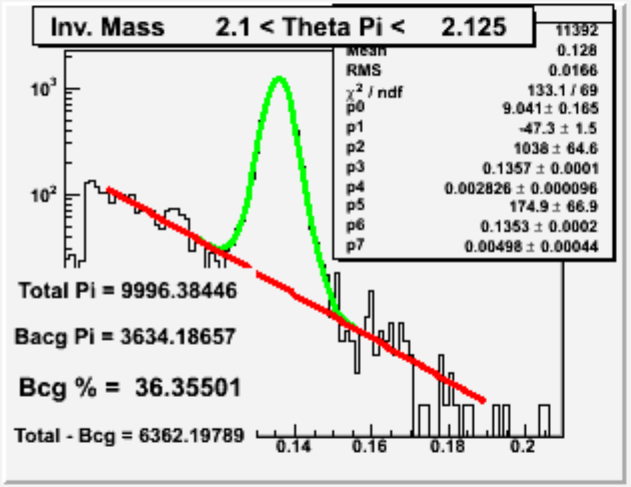

Inv. Mass 1.975 < Theta Pi < 2
13511
Mean 0.1284
RMS 0.01617
χ² / ndf 152.5 / 69
p0 9.006 ± 0.148
p1 -45.31 ± 1.39
p2 1290 ± 93.2
p3 0.1357 ± 0.0001
p4 0.00285 ± 0.00012
p5 187 ± 99.8
p6 0.1355 ± 0.0003
p7 0.005113 ± 0.000653
Total Pi = 12187.1157
Bacg Pi = 4418.42036
Bcg % = 36.2548487
Total - Bcg = 7768.69535

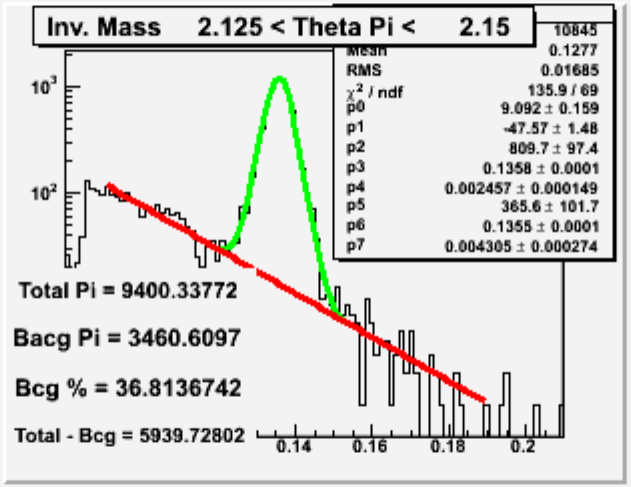

Inv. Mass 2 < Theta Pi < 2.025
13150
Mean 0.1287
RMS 0.01594
χ² / ndf 142.2 / 69
p0 8.913 ± 0.150
p1 -45.31 ± 1.39
p2 1123 ± 118.8
p3 0.1355 ± 0.0001
p4 0.002808 ± 0.000133
p5 294.1 ± 124.2
p6 0.1356 ± 0.0002
p7 0.00462 ± 0.00039
Total Pi = 11836.4793
Bacg Pi = 4250.31011
Bcg % = 35.908567
Total - Bcg = 7586.16923

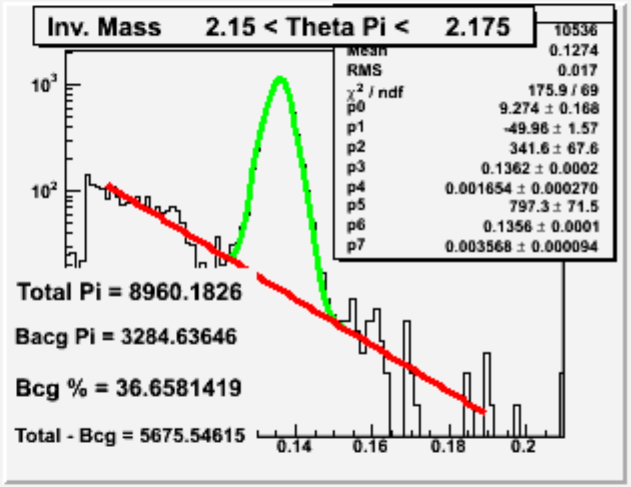

Inv. Mass 2.025 < Theta Pi < 2.05
12625
Mean 0.1282
RMS 0.01668
χ² / ndf 174.7 / 69
p0 8.854 ± 0.142
p1 -44.11 ± 1.31
p2 1094 ± 66.8
p3 0.1357 ± 0.0001
p4 0.002704 ± 0.000097
p5 250.1 ± 69.3
p6 0.1355 ± 0.0002
p7 0.004928 ± 0.000332
Total Pi = 11078.711
Bacg Pi = 4061.66416
Bcg % = 36.6618838
Total - Bcg = 7017.04687

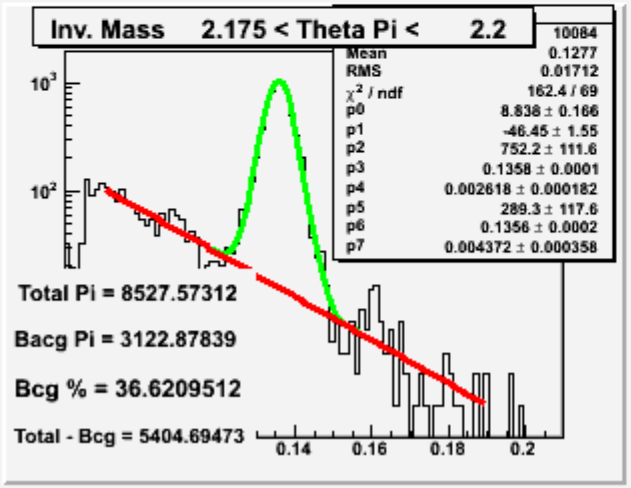

Inv. Mass 2.05 < Theta Pi < 2.075
12184
Mean 0.1282
RMS 0.01654
χ² / ndf 187.3 / 69
p0 9.005 ± 0.158
p1 -46.5 ± 1.5
p2 1033 ± 83.1
p3 0.1357 ± 0.0001
p4 0.002694 ± 0.000120
p5 272.7 ± 87.8
p6 0.1354 ± 0.0002
p7 0.00479 ± 0.00035
Total Pi = 10740.5709
Bacg Pi = 3891.98871
Bcg % = 36.2363298
Total - Bcg = 6848.58224

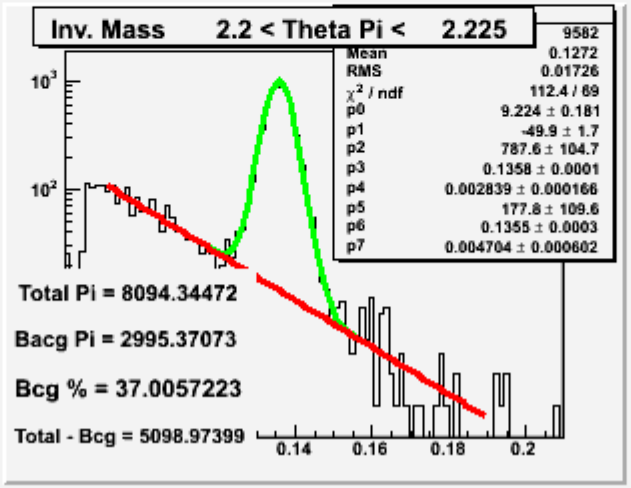

Inv. Mass 2.075 < Theta Pi < 2.1
11765
Mean 0.1279
RMS 0.0165
χ² / ndf 162.6 / 69
p0 9.044 ± 0.145
p1 -46.32 ± 1.34
p2 401.4 ± 74.8
p3 0.1357 ± 0.0001
p4 0.001575 ± 0.000282
p5 913.1 ± 82.6
p6 0.1356 ± 0.0001
p7 0.003544 ± 0.000095
Total Pi = 10225.406
Bacg Pi = 3764.00287
Bcg % = 36.8103025
Total - Bcg = 6461.40309

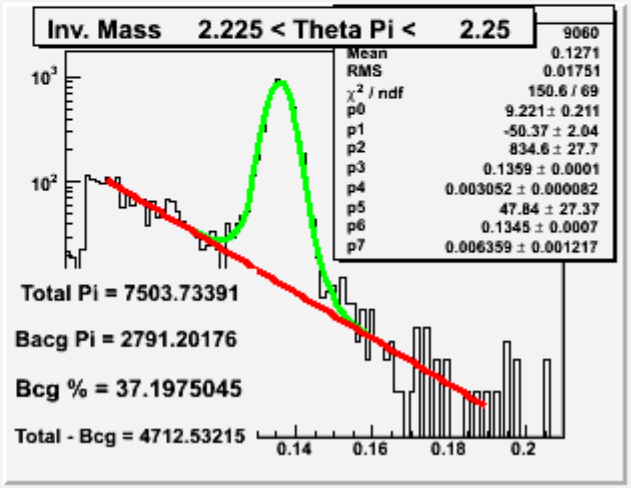

Inv. Mass 2.1 < Theta Pi < 2.125
11392
Mean 0.128
RMS 0.0166
χ² / ndf 133.1 / 69
p0 9.041 ± 0.165
p1 -47.3 ± 1.5
p2 1038 ± 64.6
p3 0.1357 ± 0.0001
p4 0.002826 ± 0.000096
p5 174.9 ± 66.9
p6 0.1353 ± 0.0002
p7 0.00498 ± 0.00044
Total Pi = 9996.38446
Bacg Pi = 3634.18657
Bcg % = 36.35501
Total - Bcg = 6362.19789

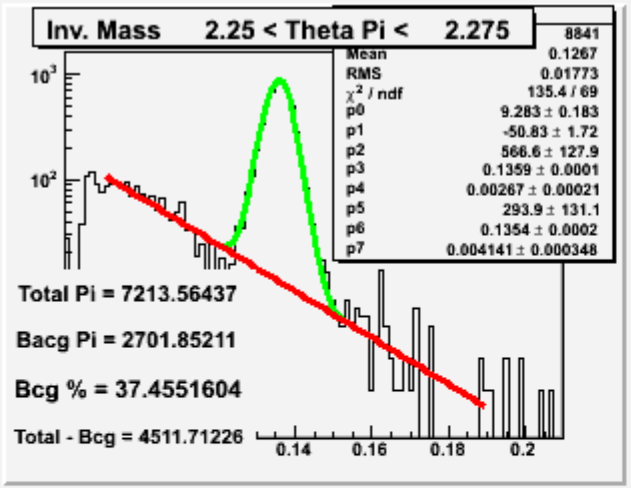

Inv. Mass 2.125 < Theta Pi < 2.15
10845
Mean 0.1277
RMS 0.01685
χ² / ndf 135.9 / 69
p0 9.092 ± 0.159
p1 -47.57 ± 1.48
p2 809.7 ± 97.4
p3 0.1358 ± 0.0001
p4 0.002457 ± 0.000149
p5 365.6 ± 101.7
p6 0.1355 ± 0.0001
p7 0.004305 ± 0.000274
Total Pi = 9400.33772
Bacg Pi = 3460.6097
Bcg % = 36.8136742
Total - Bcg = 5939.72802

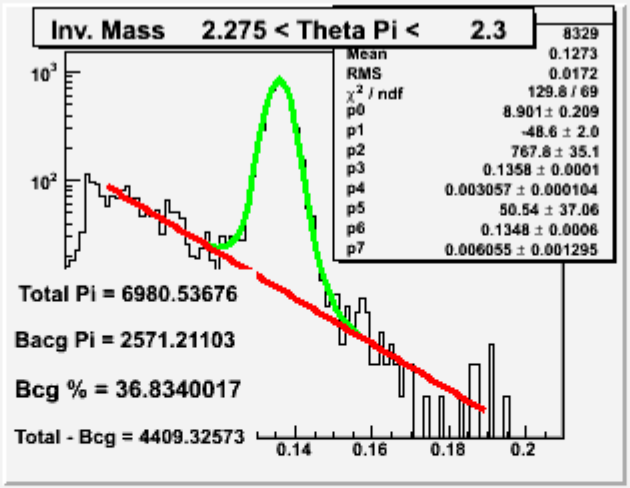

Inv. Mass 2.15 < Theta Pi < 2.175
10536
Mean 0.1274
RMS 0.017
χ² / ndf 175.9 / 69
p0 9.274 ± 0.168
p1 -49.96 ± 1.57
p2 341.6 ± 67.6
p3 0.1362 ± 0.0002
p4 0.001654 ± 0.000270
p5 797.3 ± 71.5
p6 0.1356 ± 0.0001
p7 0.003568 ± 0.000094
Total Pi = 8960.1826
Bacg Pi = 3284.63646
Bcg % = 36.6581419
Total - Bcg = 5675.54615

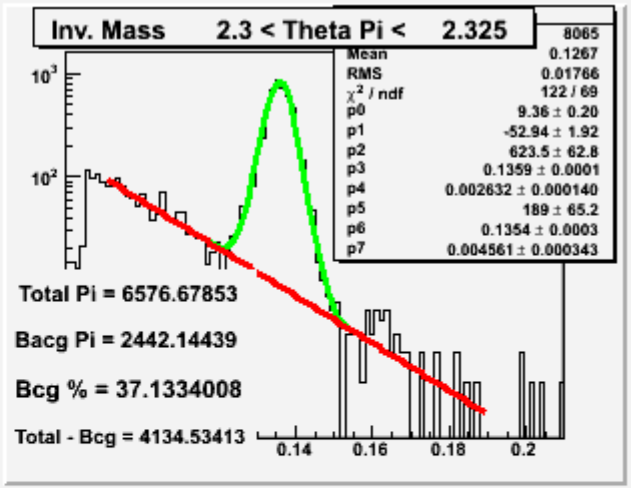

Inv. Mass 2.175 < Theta Pi < 2.2
10084
Mean 0.1277
RMS 0.01712
χ² / ndf 162.4 / 69
p0 8.838 ± 0.166
p1 -46.45 ± 1.55
p2 752.2 ± 111.6
p3 0.1358 ± 0.0001
p4 0.002618 ± 0.000182
p5 289.3 ± 117.6
p6 0.1356 ± 0.0002
p7 0.004372 ± 0.000358
Total Pi = 8527.57312
Bacg Pi = 3122.87839
Bcg % = 36.6209512
Total - Bcg = 5404.69473

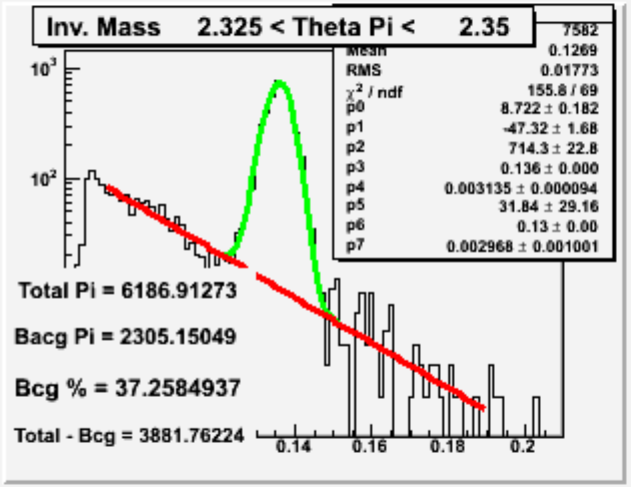

Inv. Mass 2.2 < Theta Pi < 2.225
9582
Mean 0.1272
RMS 0.01726
χ² / ndf 112.4 / 69
p0 9.224 ± 0.181
p1 -49.9 ± 1.7
p2 787.6 ± 104.7
p3 0.1358 ± 0.0001
p4 0.002839 ± 0.000166
p5 177.8 ± 109.6
p6 0.1355 ± 0.0003
p7 0.004704 ± 0.000602
Total Pi = 8094.34472
Bacg Pi = 2995.37073
Bcg % = 37.0057223
Total - Bcg = 5098.97399

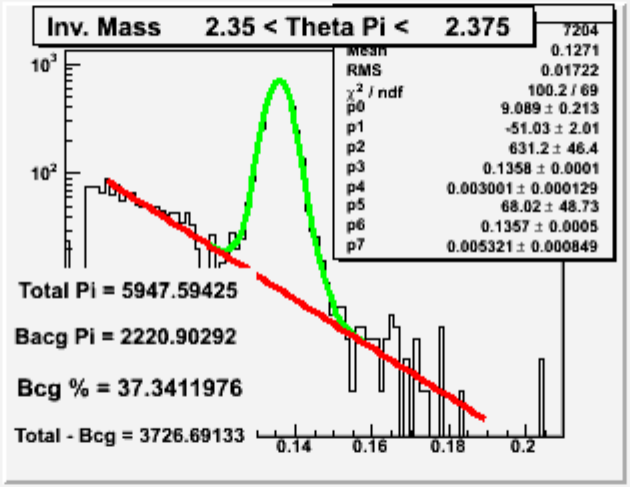

Inv. Mass 2.225 < Theta Pi < 2.25
9060
Mean 0.1271
RMS 0.01751
χ² / ndf 150.6 / 69
p0 9.221 ± 0.211
p1 -50.37 ± 2.04
p2 834.6 ± 27.7
p3 0.1359 ± 0.0001
p4 0.003052 ± 0.000082
p5 47.84 ± 27.37
p6 0.1345 ± 0.0007
p7 0.006359 ± 0.001217
Total Pi = 7503.73391
Bacg Pi = 2791.20176
Bcg % = 37.1975045
Total - Bcg = 4712.53215

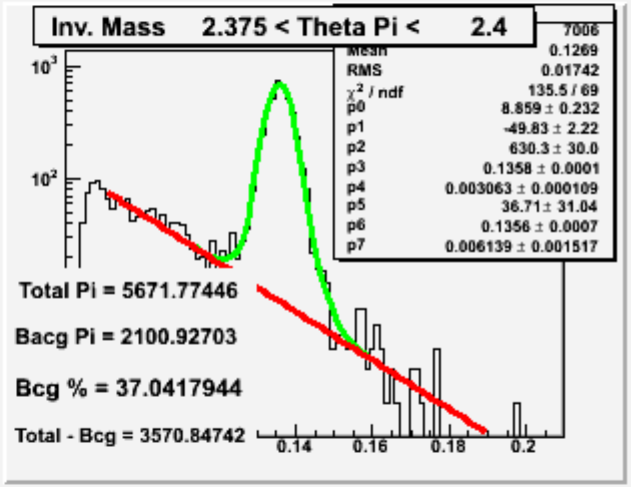

Inv. Mass 2.25 < Theta Pi < 2.275
8841
Mean 0.1267
RMS 0.01773
χ² / ndf 135.4 / 69
p0 9.283 ± 0.183
p1 -50.83 ± 1.72
p2 566.6 ± 127.9
p3 0.1359 ± 0.0001
p4 0.00267 ± 0.00021
p5 293.9 ± 131.1
p6 0.1354 ± 0.0002
p7 0.004141 ± 0.000348
Total Pi = 7213.56437
Bacg Pi = 2701.85211
Bcg % = 37.4551604
Total - Bcg = 4511.71226

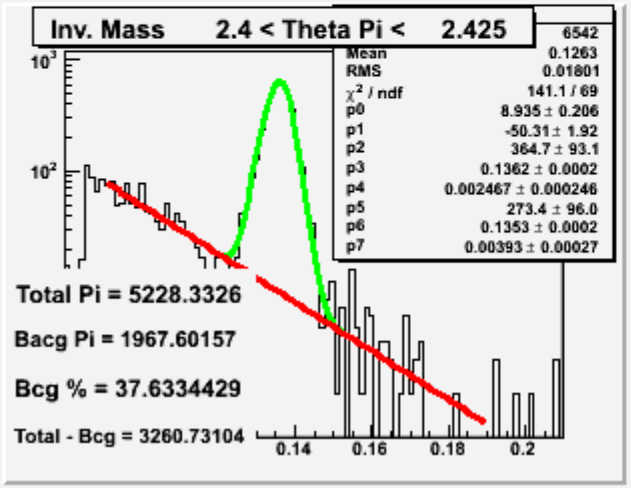

Inv. Mass 2.275 < Theta Pi < 2.3
8329
Mean 0.1273
RMS 0.0172
χ² / ndf 129.8 / 69
p0 8.901 ± 0.209
p1 -48.6 ± 2.0
p2 767.8 ± 35.1
p3 0.1358 ± 0.0001
p4 0.003057 ± 0.000104
p5 50.54 ± 37.06
p6 0.1348 ± 0.0006
p7 0.006055 ± 0.001295
Total Pi = 6980.53676
Bacg Pi = 2571.21103
Bcg % = 36.8340017
Total - Bcg = 4409.32573

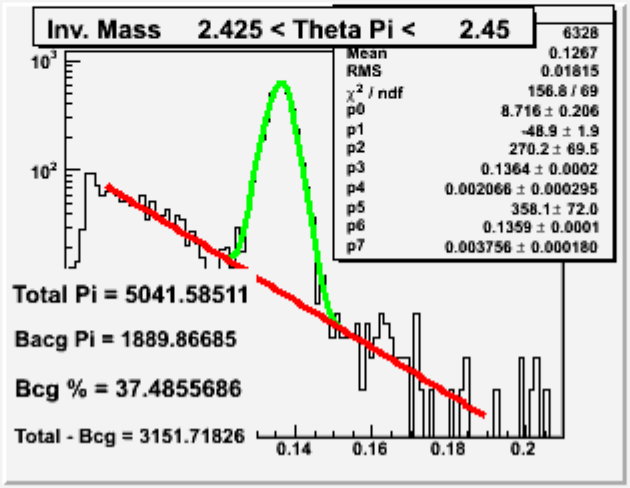

Inv. Mass 2.3 < Theta Pi < 2.325
8065
Mean 0.1267
RMS 0.01766
χ² / ndf 122 / 69
p0 9.36 ± 0.20
p1 -52.94 ± 1.92
p2 623.5 ± 62.8
p3 0.1359 ± 0.0001
p4 0.002632 ± 0.000140
p5 189 ± 65.2
p6 0.1354 ± 0.0003
p7 0.004561 ± 0.000343
Total Pi = 6576.67853
Bacg Pi = 2442.14439
Bcg % = 37.1334008
Total - Bcg = 4134.53413

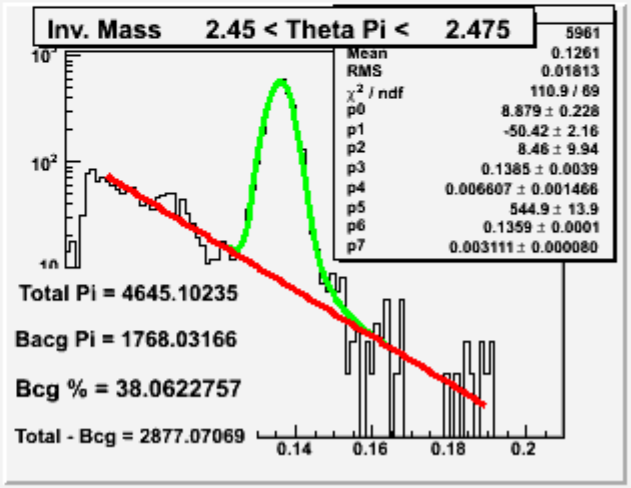

Inv. Mass 2.325 < Theta Pi < 2.35
7582
Mean 0.1269
RMS 0.01773
χ² / ndf 155.8 / 69
p0 8.722 ± 0.182
p1 -47.32 ± 1.68
p2 714.3 ± 22.8
p3 0.136 ± 0.000
p4 0.003135 ± 0.000094
p5 31.84 ± 29.16
p6 0.13 ± 0.00
p7 0.002968 ± 0.001001
Total Pi = 6186.91273
Bacg Pi = 2305.15049
Bcg % = 37.2584937
Total - Bcg = 3881.76224

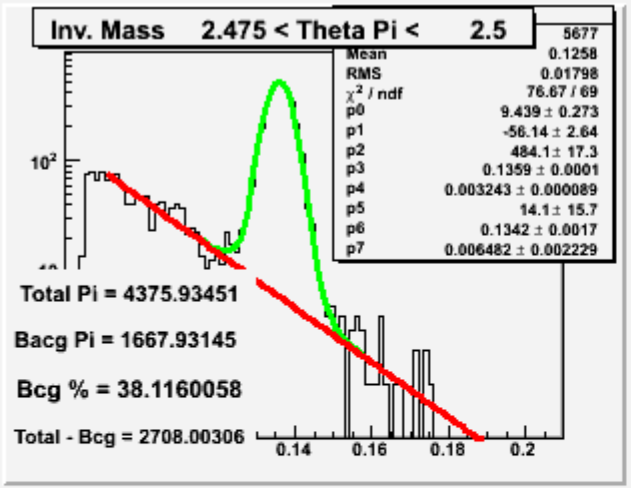

Inv. Mass 2.35 < Theta Pi < 2.375
7204
Mean 0.1271
RMS 0.01722
χ² / ndf 100.2 / 69
p0 9.089 ± 0.213
p1 -51.03 ± 2.01
p2 631.2 ± 46.4
p3 0.1358 ± 0.0001
p4 0.003001 ± 0.000129
p5 68.02 ± 48.73
p6 0.1357 ± 0.0005
p7 0.005321 ± 0.000849
Total Pi = 5947.59425
Bacg Pi = 2220.90292
Bcg % = 37.3411976
Total - Bcg = 3726.69133

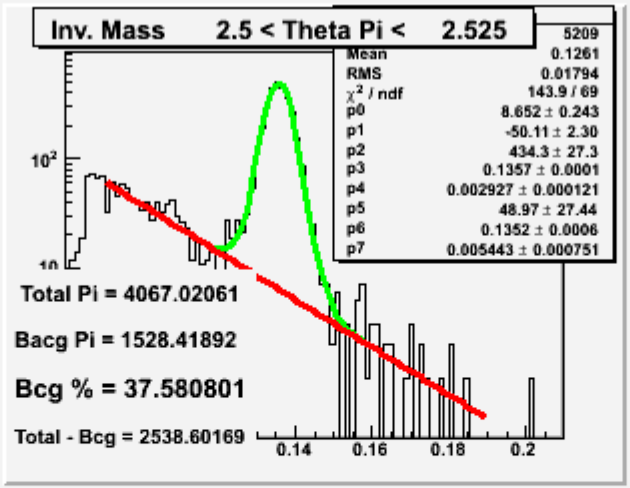

Inv. Mass 2.375 < Theta Pi < 2.4
7006
Mean 0.1269
RMS 0.01742
χ² / ndf 135.5 / 69
p0 8.859 ± 0.232
p1 -49.83 ± 2.22
p2 630.3 ± 30.0
p3 0.1358 ± 0.0001
p4 0.003063 ± 0.000109
p5 36.71 ± 31.04
p6 0.1356 ± 0.0007
p7 0.006139 ± 0.001517
Total Pi = 5671.77446
Bacg Pi = 2100.92703
Bcg % = 37.0417944
Total - Bcg = 3570.84742

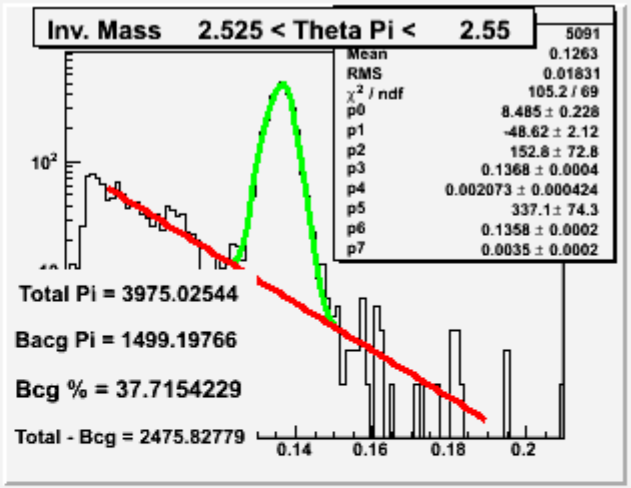

Inv. Mass 2.4 < Theta Pi < 2.425
6542
Mean 0.1263
RMS 0.01801
χ² / ndf 141.1 / 69
p0 8.935 ± 0.206
p1 -50.31 ± 1.92
p2 364.7 ± 93.1
p3 0.1362 ± 0.0002
p4 0.002467 ± 0.000246
p5 273.4 ± 96.0
p6 0.1353 ± 0.0002
p7 0.00393 ± 0.00027
Total Pi = 5228.3326
Bacg Pi = 1967.60157
Bcg % = 37.6334429
Total - Bcg = 3260.73104

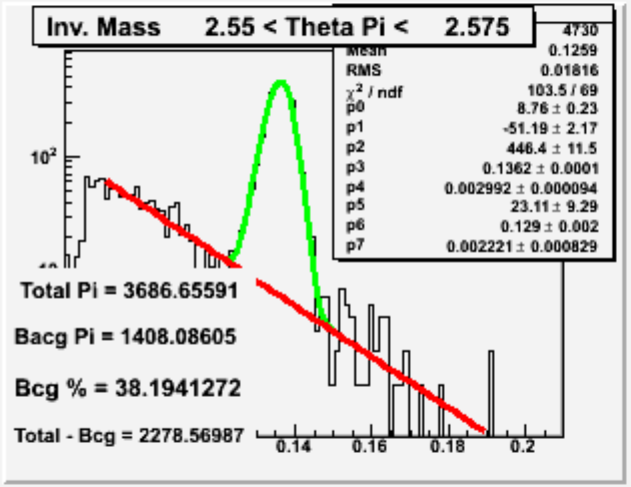

Inv. Mass 2.425 < Theta Pi < 2.45
6328
Mean 0.1267
RMS 0.01815
χ² / ndf 156.8 / 69
p0 8.716 ± 0.206
p1 -48.9 ± 1.9
p2 270.2 ± 69.5
p3 0.1364 ± 0.0002
p4 0.002066 ± 0.000295
p5 358.1 ± 72.0
p6 0.1359 ± 0.0001
p7 0.003756 ± 0.000180
Total Pi = 5041.58511
Bacg Pi = 1889.86685
Bcg % = 37.4855686
Total - Bcg = 3151.71826

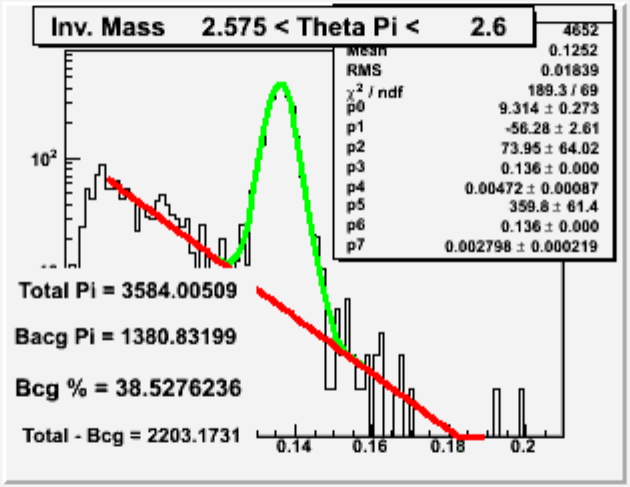

Inv. Mass 2.45 < Theta Pi < 2.475
5961
Mean 0.1261
RMS 0.01813
χ² / ndf 110.9 / 69
p0 8.879 ± 0.228
p1 -50.42 ± 2.16
p2 8.46 ± 9.94
p3 0.1385 ± 0.0039
p4 0.006607 ± 0.001466
p5 544.9 ± 13.9
p6 0.1359 ± 0.0001
p7 0.003111 ± 0.000080
Total Pi = 4645.10235
Bacg Pi = 1768.03166
Bcg % = 38.0622757
Total - Bcg = 2877.07069

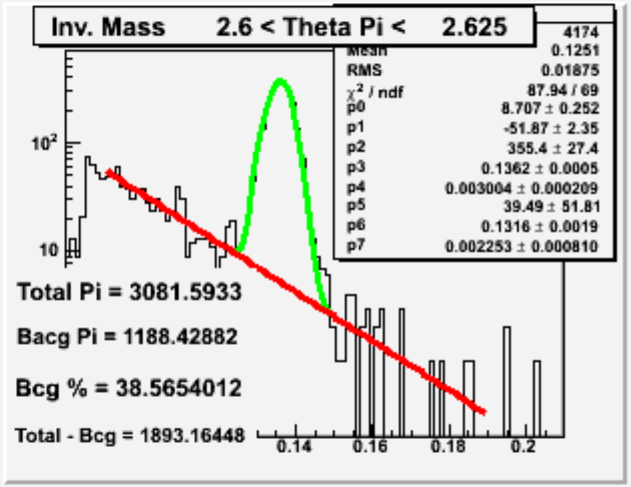

Inv. Mass 2.475 < Theta Pi < 2.5
5677
Mean 0.1258
RMS 0.01798
χ² / ndf 76.67 / 69
p0 9.439 ± 0.273
p1 -56.14 ± 2.64
p2 484.1 ± 17.3
p3 0.1359 ± 0.0001
p4 0.003243 ± 0.000089
p5 14.1 ± 15.7
p6 0.1342 ± 0.0017
p7 0.006482 ± 0.002229
Total Pi = 4375.93451
Bacg Pi = 1667.93145
Bcg % = 38.1160058
Total - Bcg = 2708.00306

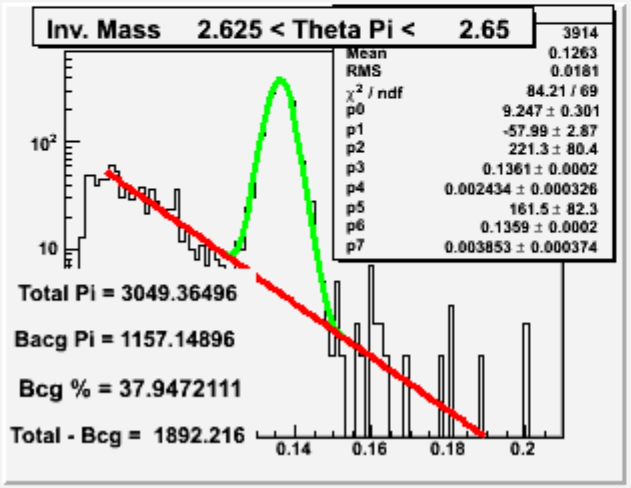

Inv. Mass 2.5 < Theta Pi < 2.525
5209
Mean 0.1261
RMS 0.01794
χ² / ndf 143.9 / 69
p0 8.652 ± 0.243
p1 -50.11 ± 2.30
p2 434.3 ± 27.3
p3 0.1357 ± 0.0001
p4 0.002927 ± 0.000121
p5 48.97 ± 27.44
p6 0.1352 ± 0.0006
p7 0.005443 ± 0.000751
Total Pi = 4067.02061
Bacg Pi = 1528.41892
Bcg % = 37.580801
Total - Bcg = 2538.60169

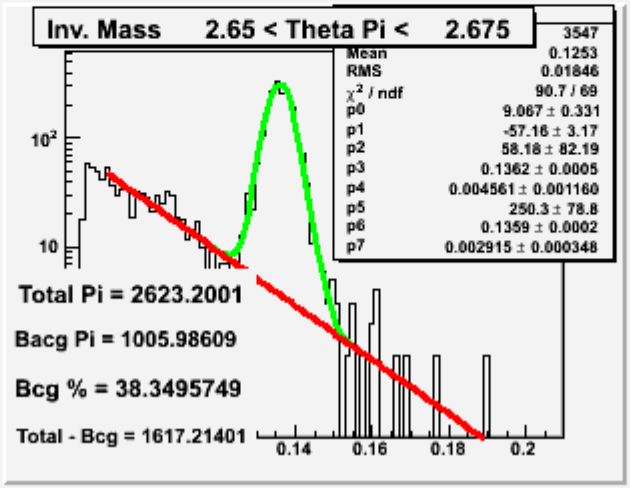

Inv. Mass 2.525 < Theta Pi < 2.55
5091
Mean 0.1263
RMS 0.01831
χ² / ndf 105.2 / 69
p0 8.485 ± 0.228
p1 -48.62 ± 2.12
p2 152.8 ± 72.8
p3 0.1368 ± 0.0004
p4 0.002073 ± 0.000424
p5 337.1 ± 74.3
p6 0.1358 ± 0.0002
p7 0.0035 ± 0.0002
Total Pi = 3975.02544
Bacg Pi = 1499.19766
Bcg % = 37.7154229
Total - Bcg = 2475.82779

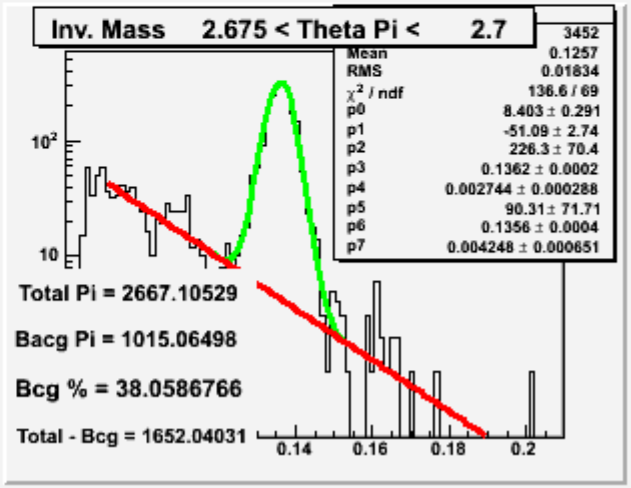

Inv. Mass 2.55 < Theta Pi < 2.575
4730
Mean 0.1259
RMS 0.01816
χ² / ndf 103.5 / 69
p0 8.76 ± 0.23
p1 -51.19 ± 2.17
p2 446.4 ± 11.5
p3 0.1362 ± 0.0001
p4 0.002992 ± 0.000094
p5 23.11 ± 9.29
p6 0.129 ± 0.002
p7 0.002221 ± 0.000829
Total Pi = 3686.65591
Bacg Pi = 1408.08605
Bcg % = 38.1941272
Total - Bcg = 2278.56987

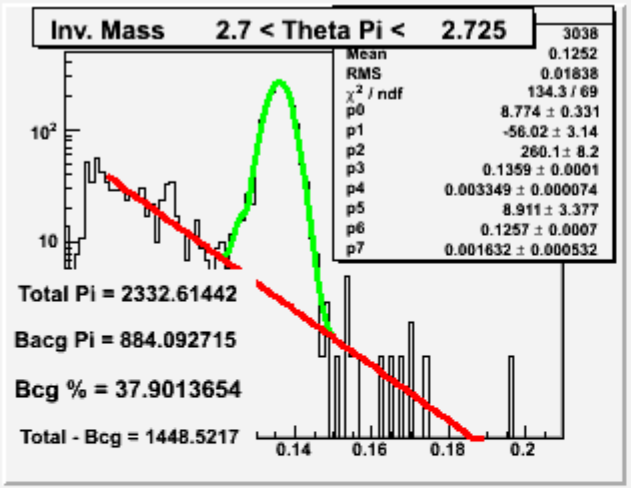

Inv. Mass 2.575 < Theta Pi < 2.6
4652
Mean 0.1252
RMS 0.01839
χ² / ndf 189.3 / 69
p0 9.314 ± 0.273
p1 -56.28 ± 2.61
p2 73.95 ± 64.02
p3 0.136 ± 0.000
p4 0.00472 ± 0.00087
p5 359.8 ± 61.4
p6 0.136 ± 0.000
p7 0.002798 ± 0.000219
Total Pi = 3584.00509
Bacg Pi = 1380.83199
Bcg % = 38.5276236
Total - Bcg = 2203.1731

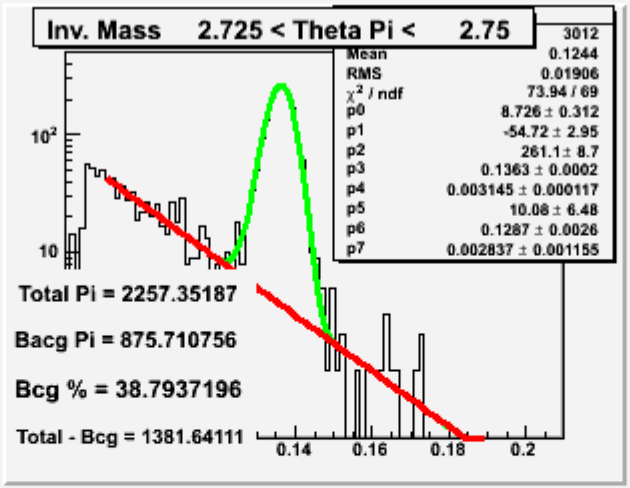

Inv. Mass 2.6 < Theta Pi < 2.625
4174
Mean 0.1251
RMS 0.01875
χ² / ndf 87.94 / 69
p0 8.707 ± 0.252
p1 -51.87 ± 2.35
p2 355.4 ± 27.4
p3 0.1362 ± 0.0005
p4 0.003004 ± 0.000209
p5 39.49 ± 51.81
p6 0.1316 ± 0.0019
p7 0.002253 ± 0.000810
Total Pi = 3081.5933
Bacg Pi = 1188.42882
Bcg % = 38.5654012
Total - Bcg = 1893.16448

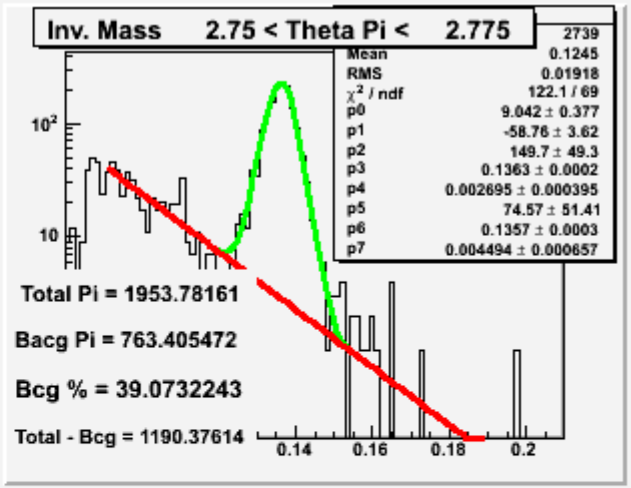

Inv. Mass 2.625 < Theta Pi < 2.65
3914
Mean 0.1263
RMS 0.0181
χ² / ndf 84.21 / 69
p0 9.247 ± 0.301
p1 -57.99 ± 2.87
p2 221.3 ± 80.4
p3 0.1361 ± 0.0002
p4 0.002434 ± 0.000326
p5 161.5 ± 82.3
p6 0.1359 ± 0.0002
p7 0.003853 ± 0.000374
Total Pi = 3049.36496
Bacg Pi = 1157.14896
Bcg % = 37.9472111
Total - Bcg = 1892.216

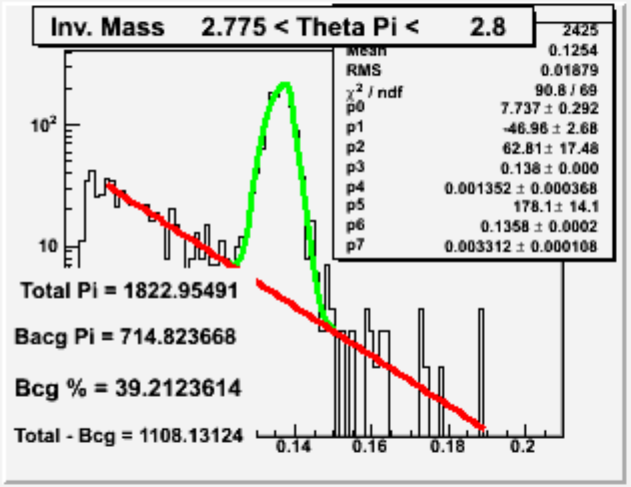

Inv. Mass 2.65 < Theta Pi < 2.675
3547
Mean 0.1253
RMS 0.01846
χ² / ndf 90.7 / 69
p0 9.067 ± 0.331
p1 -57.16 ± 3.17
p2 58.18 ± 82.19
p3 0.1362 ± 0.0005
p4 0.004561 ± 0.001160
p5 250.3 ± 78.8
p6 0.1359 ± 0.0002
p7 0.002915 ± 0.000348
Total Pi = 2623.2001
Bacg Pi = 1005.98609
Bcg % = 38.3495749
Total - Bcg = 1617.21401

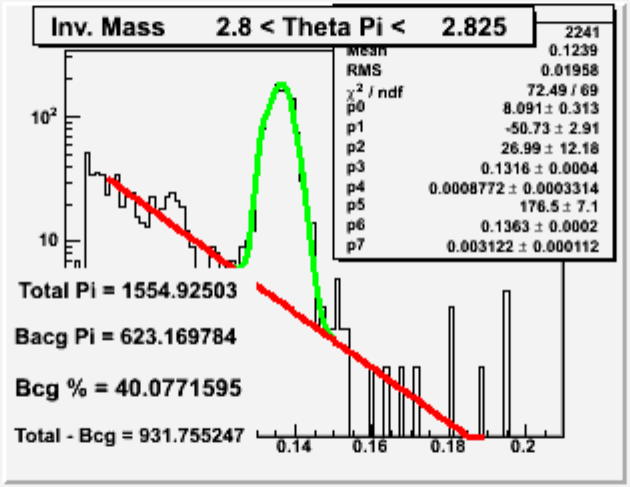

Inv. Mass 2.675 < Theta Pi < 2.7
3452
Mean 0.1257
RMS 0.01834
χ² / ndf 136.6 / 69
p0 8.403 ± 0.291
p1 -51.09 ± 2.74
p2 226.3 ± 70.4
p3 0.1362 ± 0.0002
p4 0.002744 ± 0.000288
p5 90.31 ± 71.71
p6 0.1356 ± 0.0004
p7 0.004248 ± 0.000651
Total Pi = 2667.10529
Bacg Pi = 1015.06498
Bcg % = 38.0586766
Total - Bcg = 1652.04031

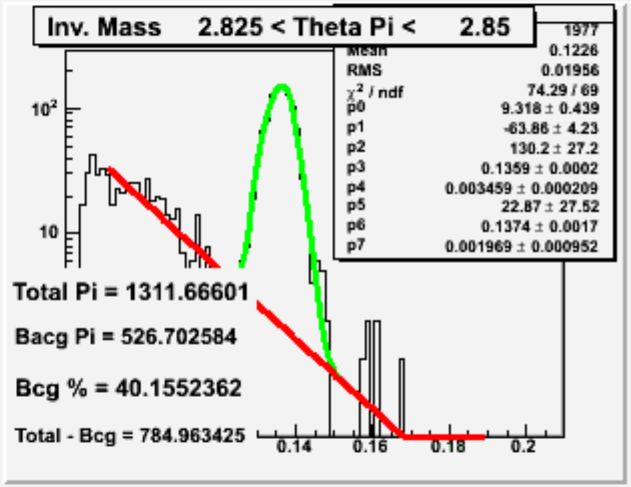

Inv. Mass 2.7 < Theta Pi < 2.725
3038
Mean 0.1252
RMS 0.01838
χ² / ndf 134.3 / 69
p0 8.774 ± 0.331
p1 -56.02 ± 3.14
p2 260.1 ± 8.2
p3 0.1359 ± 0.0001
p4 0.003349 ± 0.000074
p5 8.911 ± 3.377
p6 0.1257 ± 0.0007
p7 0.001632 ± 0.000532
Total Pi = 2332.61442
Bacg Pi = 884.092715
Bcg % = 37.9013654
Total - Bcg = 1448.5217

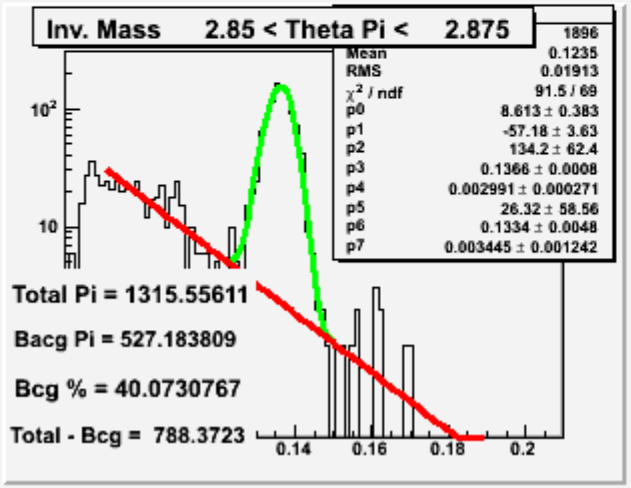

Inv. Mass 2.725 < Theta Pi < 2.75
3012
Mean 0.1244
RMS 0.01906
χ² / ndf 73.94 / 69
p0 8.726 ± 0.312
p1 -54.72 ± 2.95
p2 261.1 ± 8.7
p3 0.1363 ± 0.0002
p4 0.003145 ± 0.000117
p5 10.08 ± 6.48
p6 0.1287 ± 0.0026
p7 0.002837 ± 0.001155
Total Pi = 2257.35187
Bacg Pi = 875.710756
Bcg % = 38.7937196
Total - Bcg = 1381.64111

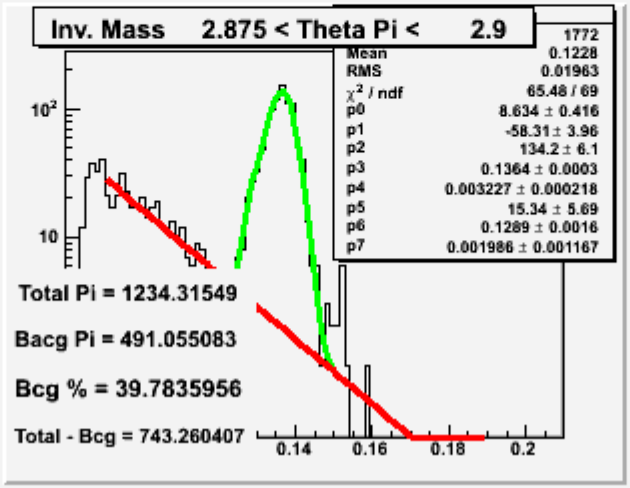

Inv. Mass 2.75 < Theta Pi < 2.775
2739
Mean 0.1245
RMS 0.01918
χ² / ndf 122.1 / 69
p0 9.042 ± 0.377
p1 -58.76 ± 3.62
p2 149.7 ± 49.3
p3 0.1363 ± 0.0002
p4 0.002695 ± 0.000395
p5 74.57 ± 51.41
p6 0.1357 ± 0.0003
p7 0.004494 ± 0.000657
Total Pi = 1953.78161
Bacg Pi = 763.405472
Bcg % = 39.0732243
Total - Bcg = 1190.37614

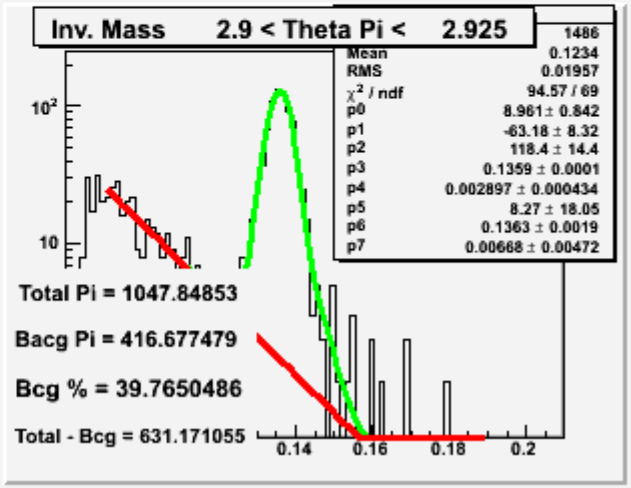

Inv. Mass 2.775 < Theta Pi < 2.8
2425
Mean 0.1254
RMS 0.01879
χ² / ndf 90.8 / 69
p0 7.737 ± 0.292
p1 -46.96 ± 2.68
p2 62.81 ± 17.48
p3 0.138 ± 0.000
p4 0.001352 ± 0.000368
p5 178.1 ± 14.1
p6 0.1358 ± 0.0002
p7 0.003312 ± 0.000108
Total Pi = 1822.95491
Bacg Pi = 714.823668
Bcg % = 39.2123614
Total - Bcg = 1108.13124

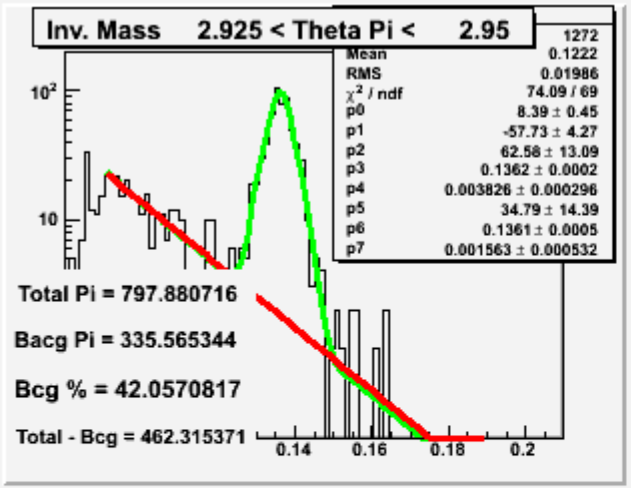

Inv. Mass 2.8 < Theta Pi < 2.825
2241
Mean 0.1239
RMS 0.01958
χ² / ndf 72.49 / 69
p0 8.091 ± 0.313
p1 -50.73 ± 2.91
p2 26.99 ± 12.18
p3 0.1316 ± 0.0004
p4 0.0008772 ± 0.0003314
p5 176.5 ± 7.1
p6 0.1363 ± 0.0002
p7 0.003122 ± 0.000112
Total Pi = 1554.92503
Bacg Pi = 623.169784
Bcg % = 40.0771595
Total - Bcg = 931.755247

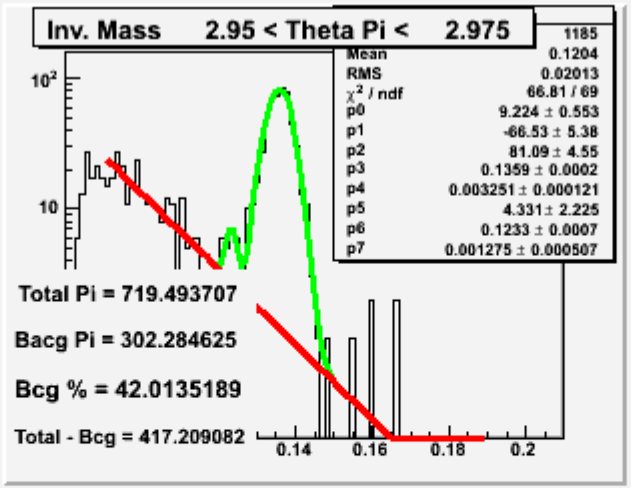

Inv. Mass 2.825 < Theta Pi < 2.85
1977
Mean 0.1226
RMS 0.01956
χ² / ndf 74.29 / 69
p0 9.318 ± 0.439
p1 -63.86 ± 4.23
p2 130.2 ± 27.2
p3 0.1359 ± 0.0002
p4 0.003459 ± 0.000209
p5 22.87 ± 27.52
p6 0.1374 ± 0.0017
p7 0.001969 ± 0.000952
Total Pi = 1311.66601
Bacg Pi = 526.702584
Bcg % = 40.1552362
Total - Bcg = 784.963425

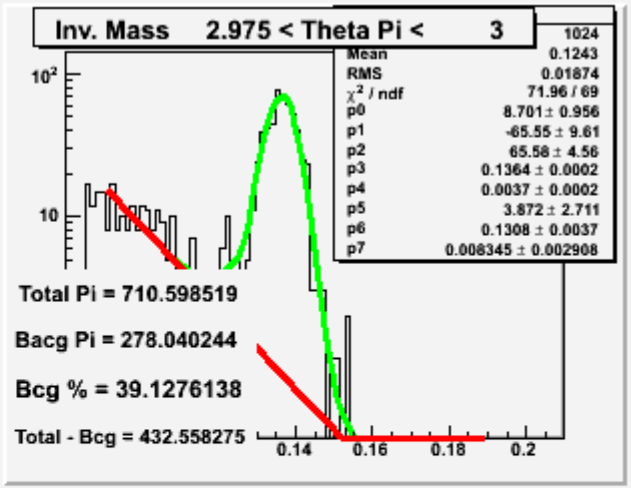

Inv. Mass 2.85 < Theta Pi < 2.875
1896
Mean 0.1235
RMS 0.01913
χ² / ndf 91.5 / 69
p0 8.613 ± 0.383
p1 -57.18 ± 3.63
p2 134.2 ± 62.4
p3 0.1366 ± 0.0008
p4 0.002991 ± 0.000271
p5 26.32 ± 58.56
p6 0.1334 ± 0.0048
p7 0.003445 ± 0.001242
Total Pi = 1315.55611
Bacg Pi = 527.183809
Bcg % = 40.0730767
Total - Bcg = 788.3723

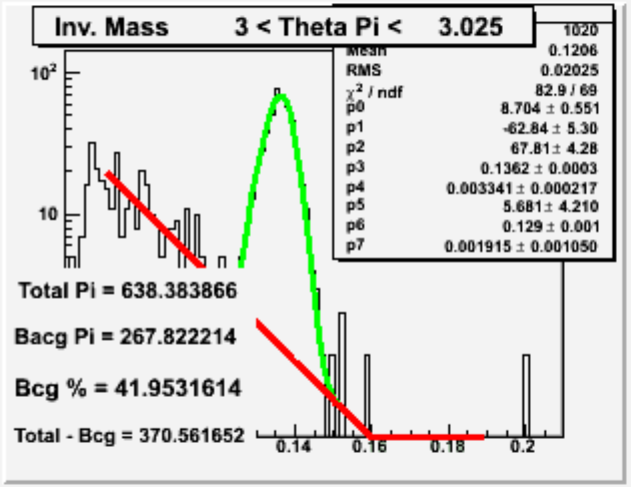

Inv. Mass 2.875 < Theta Pi < 2.9
1772
Mean 0.1228
RMS 0.01963
χ² / ndf 65.48 / 69
p0 8.634 ± 0.416
p1 -58.31 ± 3.96
p2 134.2 ± 6.1
p3 0.1364 ± 0.0003
p4 0.003227 ± 0.000218
p5 15.34 ± 5.69
p6 0.1289 ± 0.0016
p7 0.001986 ± 0.001167
Total Pi = 1234.31549
Bacg Pi = 491.055083
Bcg % = 39.7835956
Total - Bcg = 743.260407

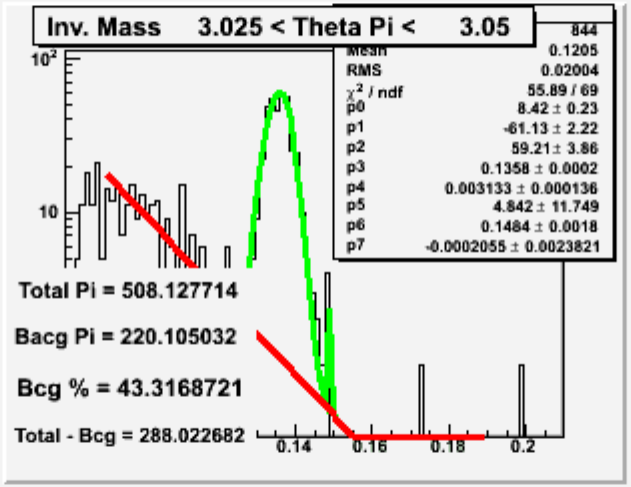

Inv. Mass 2.9 < Theta Pi < 2.925
1486
Mean 0.1234
RMS 0.01957
χ² / ndf 94.57 / 69
p0 8.961 ± 0.842
p1 -63.18 ± 8.32
p2 118.4 ± 14.4
p3 0.1359 ± 0.0001
p4 0.002897 ± 0.000434
p5 8.27 ± 18.05
p6 0.1363 ± 0.0019
p7 0.00668 ± 0.00472
Total Pi = 1047.84853
Bacg Pi = 416.677479
Bcg % = 39.7650486
Total - Bcg = 631.171055

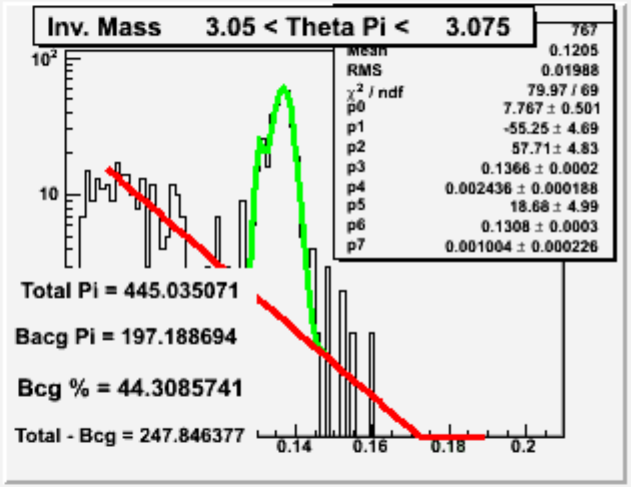

Inv. Mass 2.925 < Theta Pi < 2.95
1272
Mean 0.1222
RMS 0.01986
χ² / ndf 74.09 / 69
p0 8.39 ± 0.45
p1 -57.73 ± 4.27
p2 62.58 ± 13.09
p3 0.1362 ± 0.0002
p4 0.003826 ± 0.000296
p5 34.79 ± 14.39
p6 0.1361 ± 0.0005
p7 0.001563 ± 0.000532
Total Pi = 797.880716
Bacg Pi = 335.565344
Bcg % = 42.0570817
Total - Bcg = 462.315371

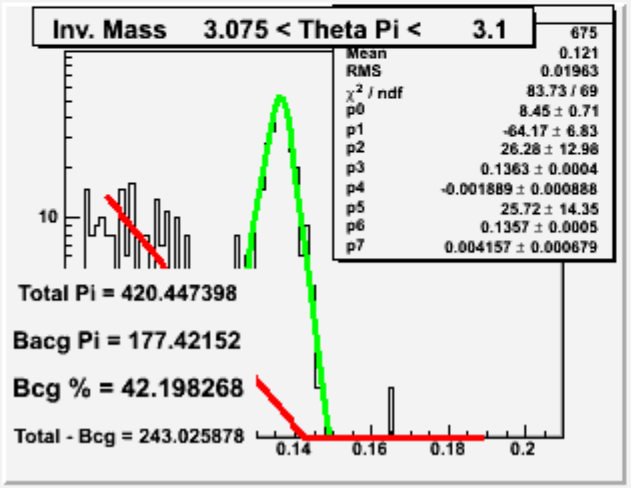

Inv. Mass 2.95 < Theta Pi < 2.975
1185
Mean 0.1204
RMS 0.02013
χ² / ndf 66.81 / 69
p0 9.224 ± 0.553
p1 -66.53 ± 5.38
p2 81.09 ± 4.55
p3 0.1359 ± 0.0002
p4 0.003251 ± 0.000121
p5 4.331 ± 2.225
p6 0.1233 ± 0.0007
p7 0.001275 ± 0.000507
Total Pi = 719.493707
Bacg Pi = 302.284625
Bcg % = 42.0135189
Total - Bcg = 417.209082

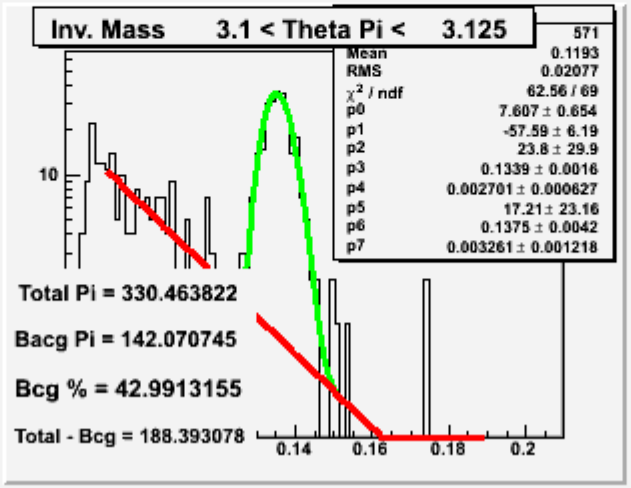

Inv. Mass 2.975 < Theta Pi < 3
1024
Mean 0.1243
RMS 0.01874
χ² / ndf 71.96 / 69
p0 8.701 ± 0.956
p1 -65.55 ± 9.61
p2 65.58 ± 4.56
p3 0.1364 ± 0.0002
p4 0.0037 ± 0.0002
p5 3.872 ± 2.711
p6 0.1308 ± 0.0037
p7 0.008345 ± 0.002908
Total Pi = 710.598519
Bacg Pi = 278.040244
Bcg % = 39.1276138
Total - Bcg = 432.558275

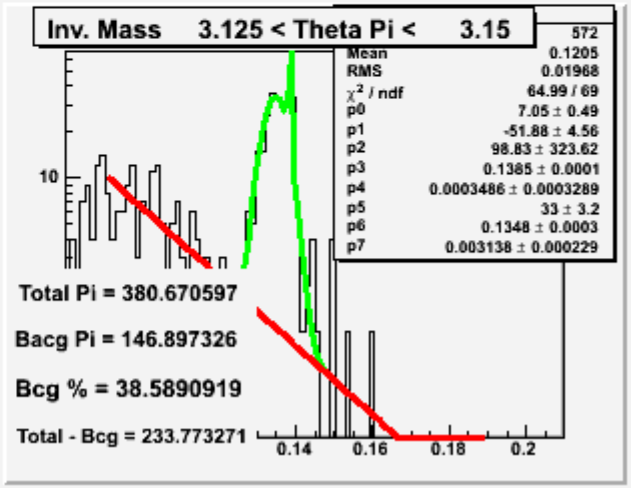

Inv. Mass 3 < Theta Pi < 3.025
1020
Mean 0.1206
RMS 0.02025
χ² / ndf 82.9 / 69
p0 8.704 ± 0.551
p1 -62.84 ± 5.30
p2 67.81 ± 4.28
p3 0.1362 ± 0.0003
p4 0.003341 ± 0.000217
p5 5.681 ± 4.210
p6 0.129 ± 0.001
p7 0.001915 ± 0.001050
Total Pi = 638.383866
Bacg Pi = 267.822214
Bcg % = 41.9531614
Total - Bcg = 370.561652

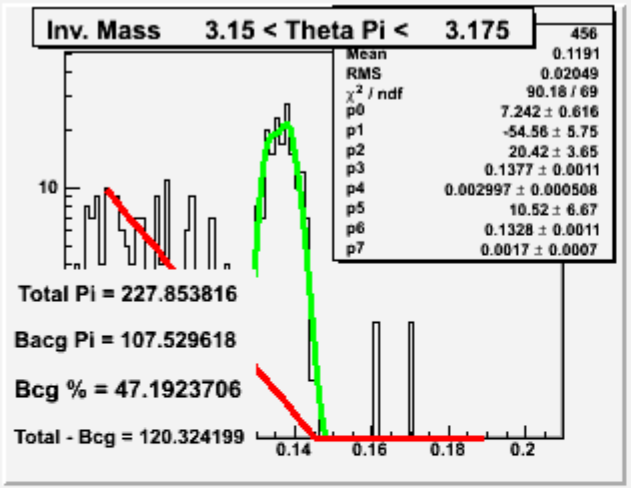

Inv. Mass 3.025 < Theta Pi < 3.05
844
Mean 0.1205
RMS 0.02004
χ² / ndf 55.89 / 69
p0 8.42 ± 0.23
p1 -61.13 ± 2.22
p2 59.21 ± 3.86
p3 0.1358 ± 0.0002
p4 0.003133 ± 0.000136
p5 4.842 ± 11.749
p6 0.1484 ± 0.0018
p7 -0.0002055 ± 0.0023821
Total Pi = 508.127714
Bacg Pi = 220.105032
Bcg % = 43.3168721
Total - Bcg = 288.022682

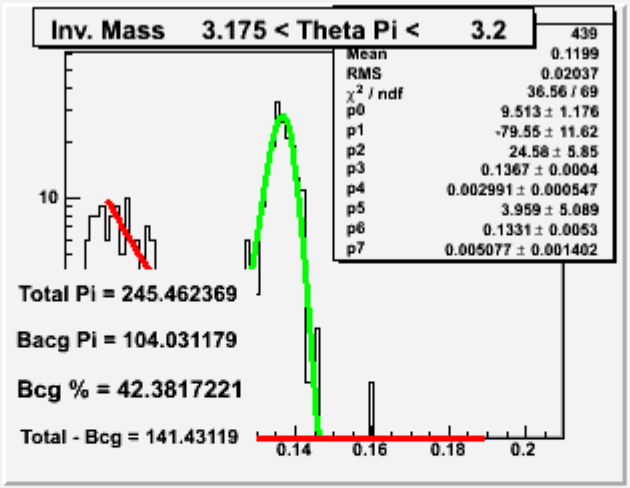

Inv. Mass 3.05 < Theta Pi < 3.075
767
Mean 0.1205
RMS 0.01988
χ² / ndf 79.97 / 69
p0 7.767 ± 0.501
p1 -55.25 ± 4.69
p2 57.71 ± 4.83
p3 0.1366 ± 0.0002
p4 0.002436 ± 0.000188
p5 18.68 ± 4.99
p6 0.1308 ± 0.0003
p7 0.001004 ± 0.000226
Total Pi = 445.035071
Bacg Pi = 197.188694
Bcg % = 44.3085741
Total - Bcg = 247.846377

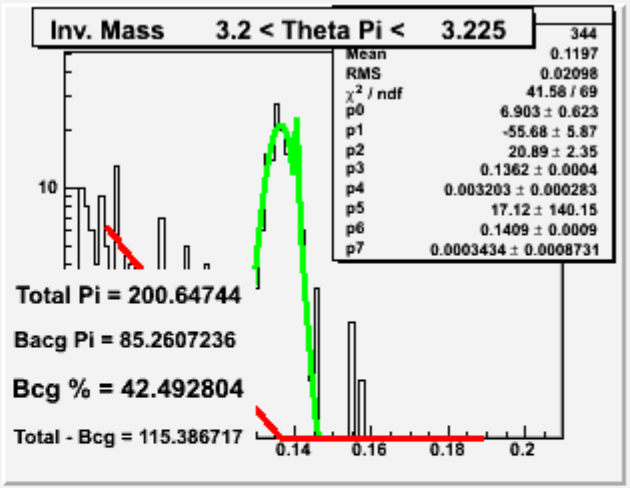

Inv. Mass 3.075 < Theta Pi < 3.1
675
Mean 0.121
RMS 0.01963
χ² / ndf 83.73 / 69
p0 8.45 ± 0.71
p1 -64.17 ± 6.83
p2 26.28 ± 12.98
p3 0.1363 ± 0.0004
p4 -0.001889 ± 0.000888
p5 25.72 ± 14.35
p6 0.1357 ± 0.0005
p7 0.004157 ± 0.000679
Total Pi = 420.447398
Bacg Pi = 177.42152
Bcg % = 42.198268
Total - Bcg = 243.025878

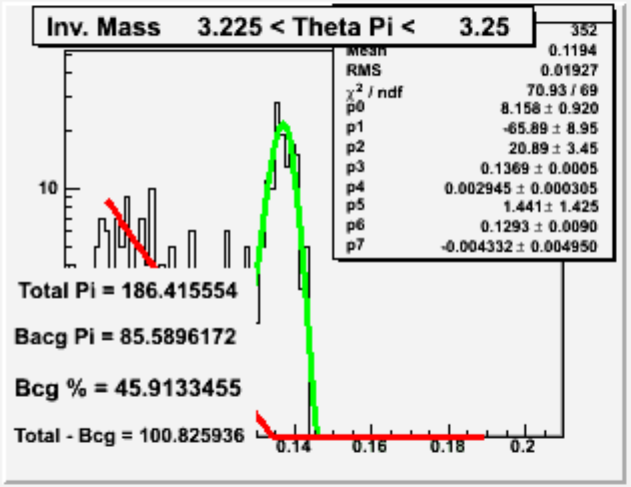

Inv. Mass 3.1 < Theta Pi < 3.125
571
Mean 0.1193
RMS 0.02077
χ² / ndf 62.56 / 69
p0 7.607 ± 0.654
p1 -57.59 ± 6.19
p2 23.8 ± 29.9
p3 0.1339 ± 0.0016
p4 0.002701 ± 0.000627
p5 17.21 ± 23.16
p6 0.1375 ± 0.0042
p7 0.003261 ± 0.001218
Total Pi = 330.463822
Bacg Pi = 142.070745
Bcg % = 42.9913155
Total - Bcg = 188.393078

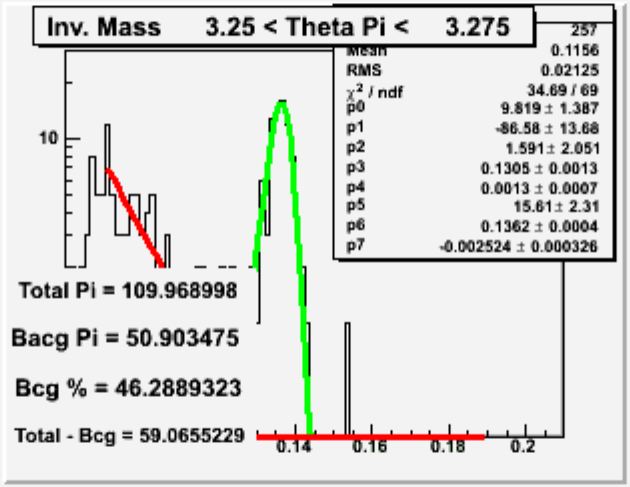

Inv. Mass 3.125 < Theta Pi < 3.15
572
Mean 0.1205
RMS 0.01968
χ² / ndf 64.99 / 69
p0 7.05 ± 0.49
p1 -51.88 ± 4.56
p2 98.83 ± 323.62
p3 0.1385 ± 0.0001
p4 0.0003486 ± 0.0003289
p5 33 ± 3.2
p6 0.1348 ± 0.0003
p7 0.003138 ± 0.000229
Total Pi = 380.670597
Bacg Pi = 146.897326
Bcg % = 38.5890919
Total - Bcg = 233.773271

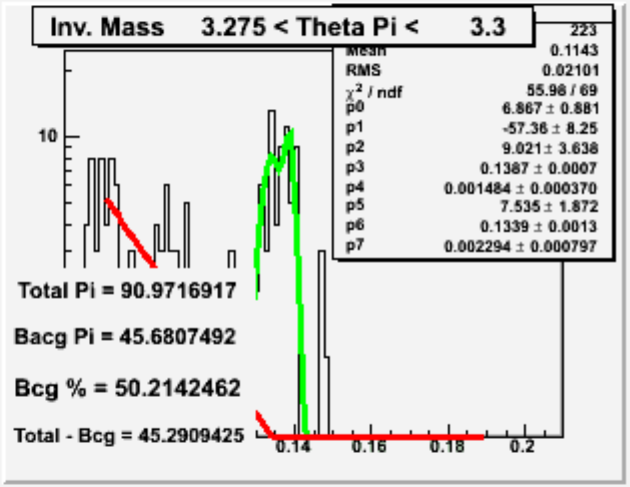

Inv. Mass 3.15 < Theta Pi < 3.175
456
Mean 0.1191
RMS 0.02049
χ² / ndf 90.18 / 69
p0 7.242 ± 0.616
p1 -54.56 ± 5.75
p2 20.42 ± 3.65
p3 0.1377 ± 0.0011
p4 0.002997 ± 0.000508
p5 10.52 ± 6.67
p6 0.1328 ± 0.0011
p7 0.0017 ± 0.0007
Total Pi = 227.853816
Bacg Pi = 107.529618
Bcg % = 47.1923706
Total - Bcg = 120.324199

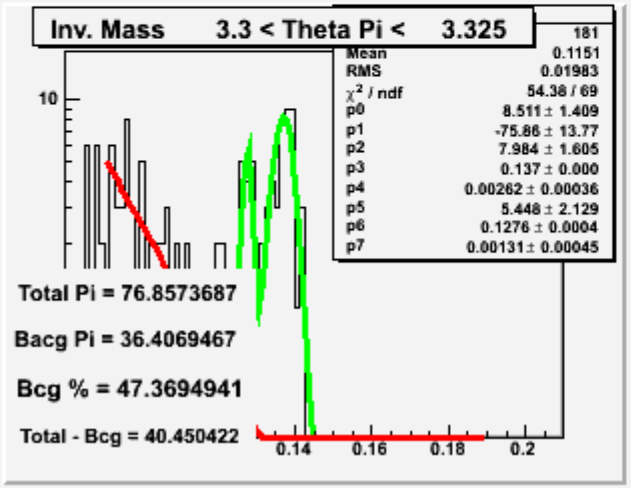

Inv. Mass 3.175 < Theta Pi < 3.2
439
Mean 0.1199
RMS 0.02037
χ² / ndf 36.56 / 69
p0 9.513 ± 1.176
p1 -79.55 ± 11.62
p2 24.58 ± 5.85
p3 0.1367 ± 0.0004
p4 0.002991 ± 0.000547
p5 3.959 ± 5.089
p6 0.1331 ± 0.0053
p7 0.005077 ± 0.001402
Total Pi = 245.462369
Bacg Pi = 104.031179
Bcg % = 42.3817221
Total - Bcg = 141.43119

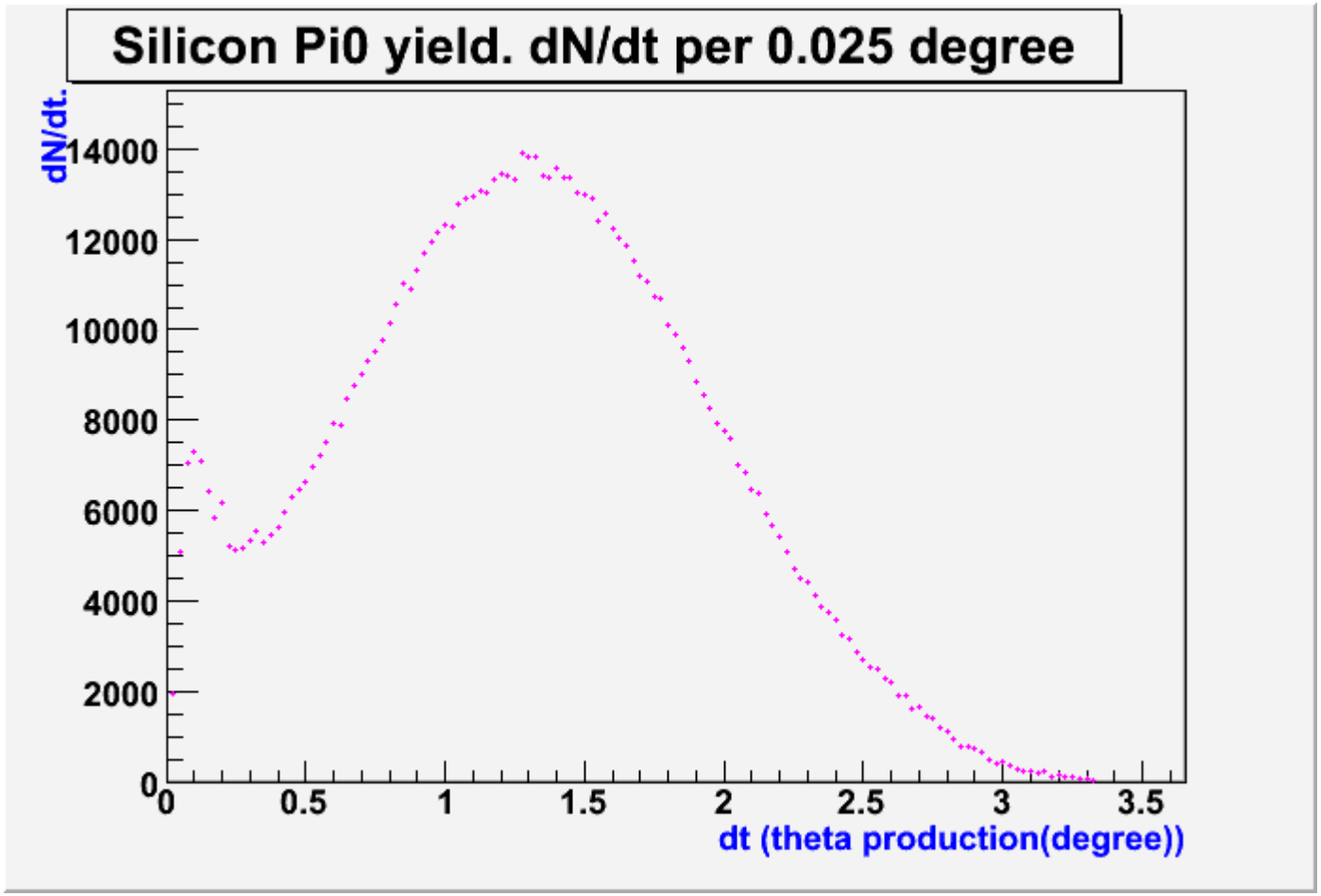

Inv. Mass 3.2 < Theta Pi < 3.225
344
Mean 0.1197
RMS 0.02098
χ² / ndf 41.58 / 69
p0 6.903 ± 0.623
p1 -55.68 ± 5.87
p2 20.89 ± 2.35
p3 0.1362 ± 0.0004
p4 0.003203 ± 0.000283
p5 17.12 ± 140.15
p6 0.1409 ± 0.0009
p7 0.0003434 ± 0.0008731
Total Pi = 200.64744
Bacg Pi = 85.2607236
Bcg % = 42.492804
Total - Bcg = 115.386717


Inv. Mass 3.225 < Theta Pi < 3.25
352
Mean 0.1194
RMS 0.01927
χ² / ndf 70.93 / 69
p0 8.158 ± 0.920
p1 -65.89 ± 8.95
p2 20.89 ± 3.45
p3 0.1369 ± 0.0005
p4 0.002945 ± 0.000305
p5 1.441 ± 1.425
p6 0.1293 ± 0.0090
p7 -0.004332 ± 0.004950
Total Pi = 186.415554
Bacg Pi = 85.5896172
Bcg % = 45.9133455
Total - Bcg = 100.825936


Inv. Mass 3.25 < Theta Pi < 3.275
257
Mean 0.1156
RMS 0.02125
χ² / ndf 34.69 / 69
p0 9.819 ± 1.387
p1 -86.58 ± 13.68
p2 1.591 ± 2.051
p3 0.1305 ± 0.0013
p4 0.0013 ± 0.0007
p5 15.61 ± 2.31
p6 0.1362 ± 0.0004
p7 -0.002524 ± 0.000326
Total Pi = 109.968998
Bacg Pi = 50.903475
Bcg % = 46.2889323
Total - Bcg = 59.0655229


Inv. Mass 3.275 < Theta Pi < 3.3
223
Mean 0.1143
RMS 0.02101
χ² / ndf 55.98 / 69
p0 6.867 ± 0.881
p1 -57.36 ± 8.25
p2 9.021 ± 3.638
p3 0.1387 ± 0.0007
p4 0.001484 ± 0.000370
p5 7.535 ± 1.872
p6 0.1339 ± 0.0013
p7 0.002294 ± 0.000797
Total Pi = 90.9716917
Bacg Pi = 45.6807492
Bcg % = 50.2142462
Total - Bcg = 45.2909425


Inv. Mass 3.3 < Theta Pi < 3.325
181
Mean 0.1151
RMS 0.01983
χ² / ndf 54.38 / 69
p0 8.511 ± 1.409
p1 -75.86 ± 13.77
p2 7.984 ± 1.605
p3 0.137 ± 0.000
p4 0.00262 ± 0.00036
p5 5.448 ± 2.129
p6 0.1276 ± 0.0004
p7 0.00131 ± 0.00045
Total Pi = 76.8573687
Bacg Pi = 36.4069467
Bcg % = 47.3694941
Total - Bcg = 40.450422


Silicon Pi0 yield. dN/dt per 0.025 degree
dN/dt.
14000
12000
10000
8000
6000
4000
2000
0
0
0.5
1
1.5
2
2.5
3
3.5
dt (theta production(degree))