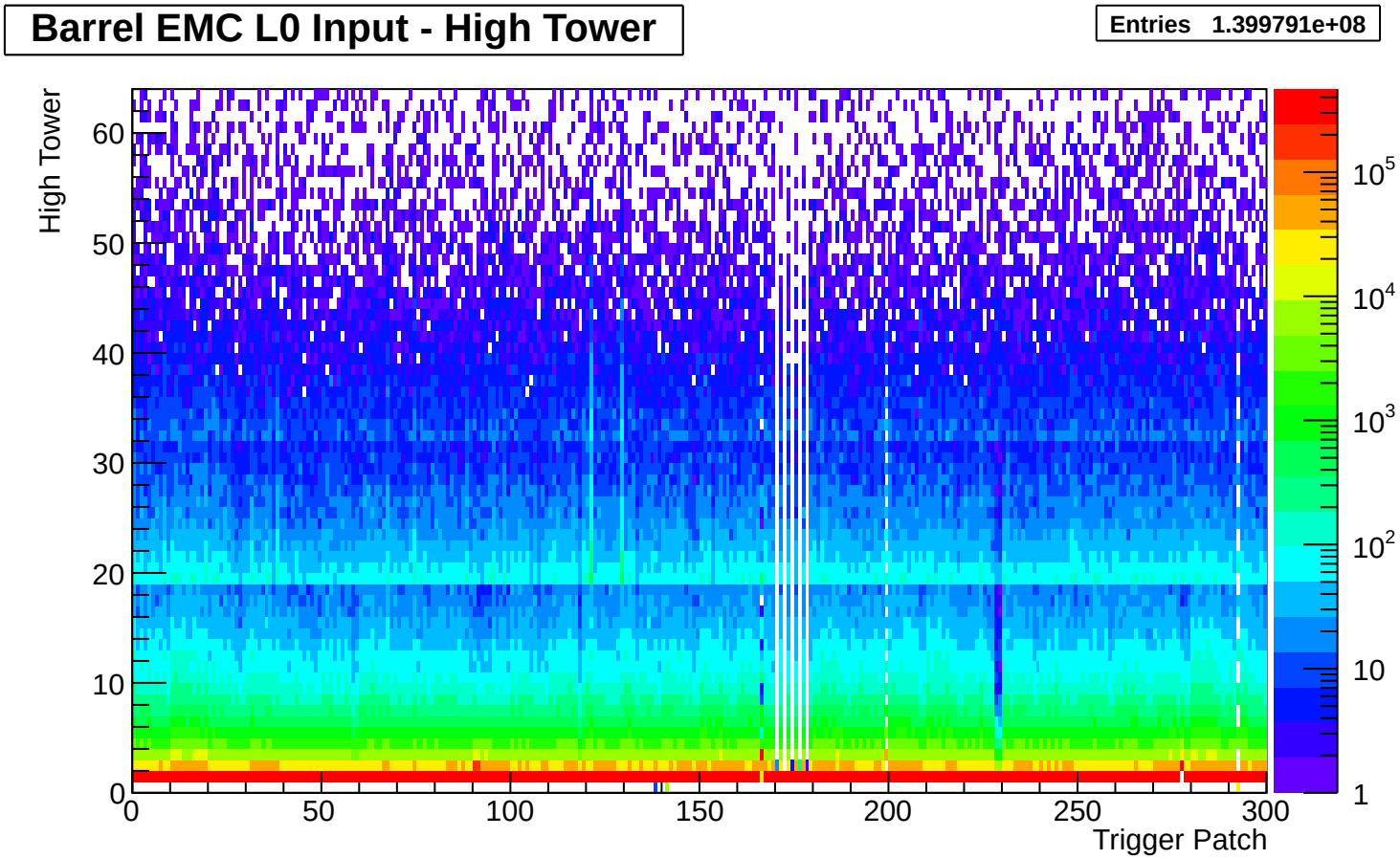
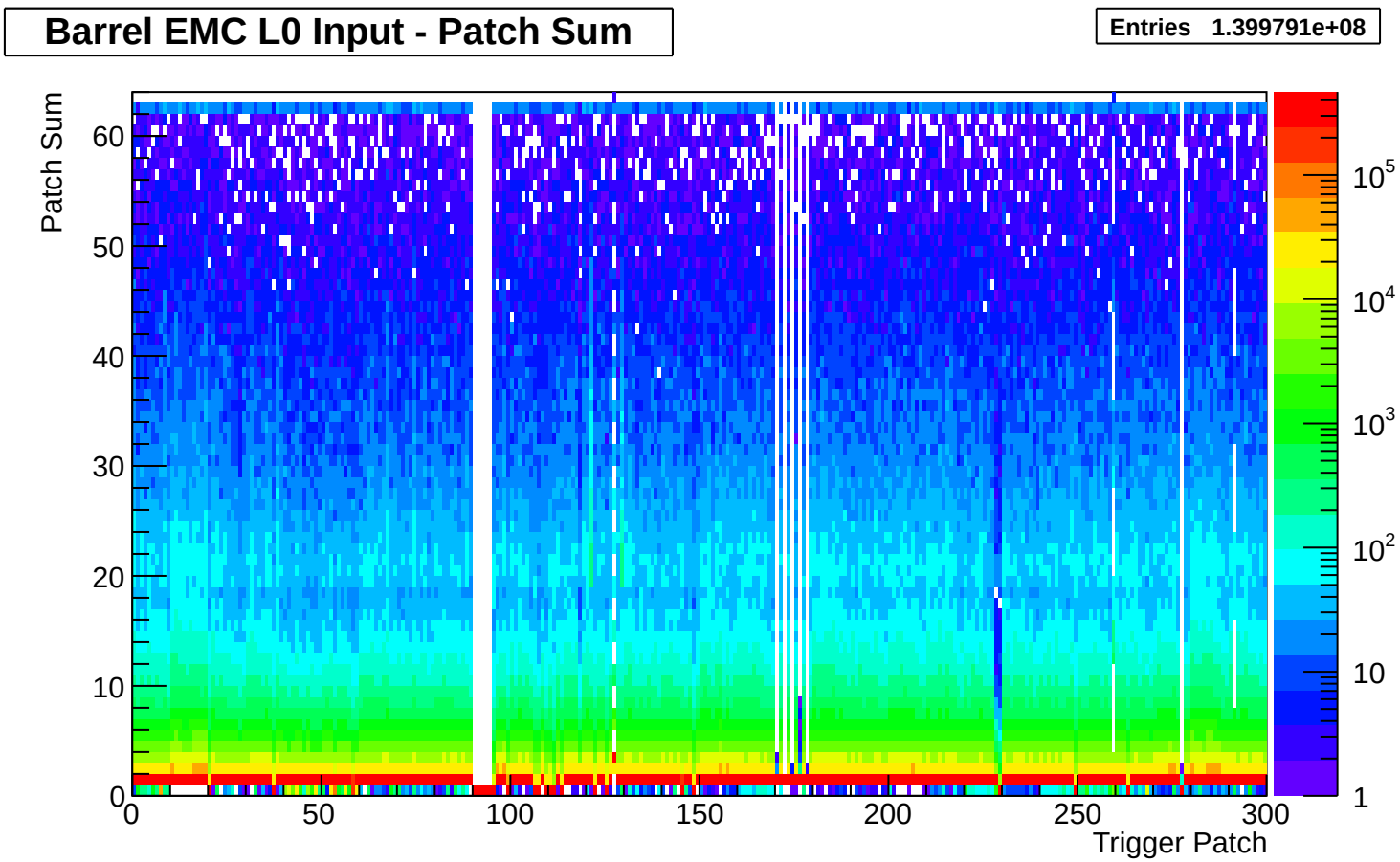
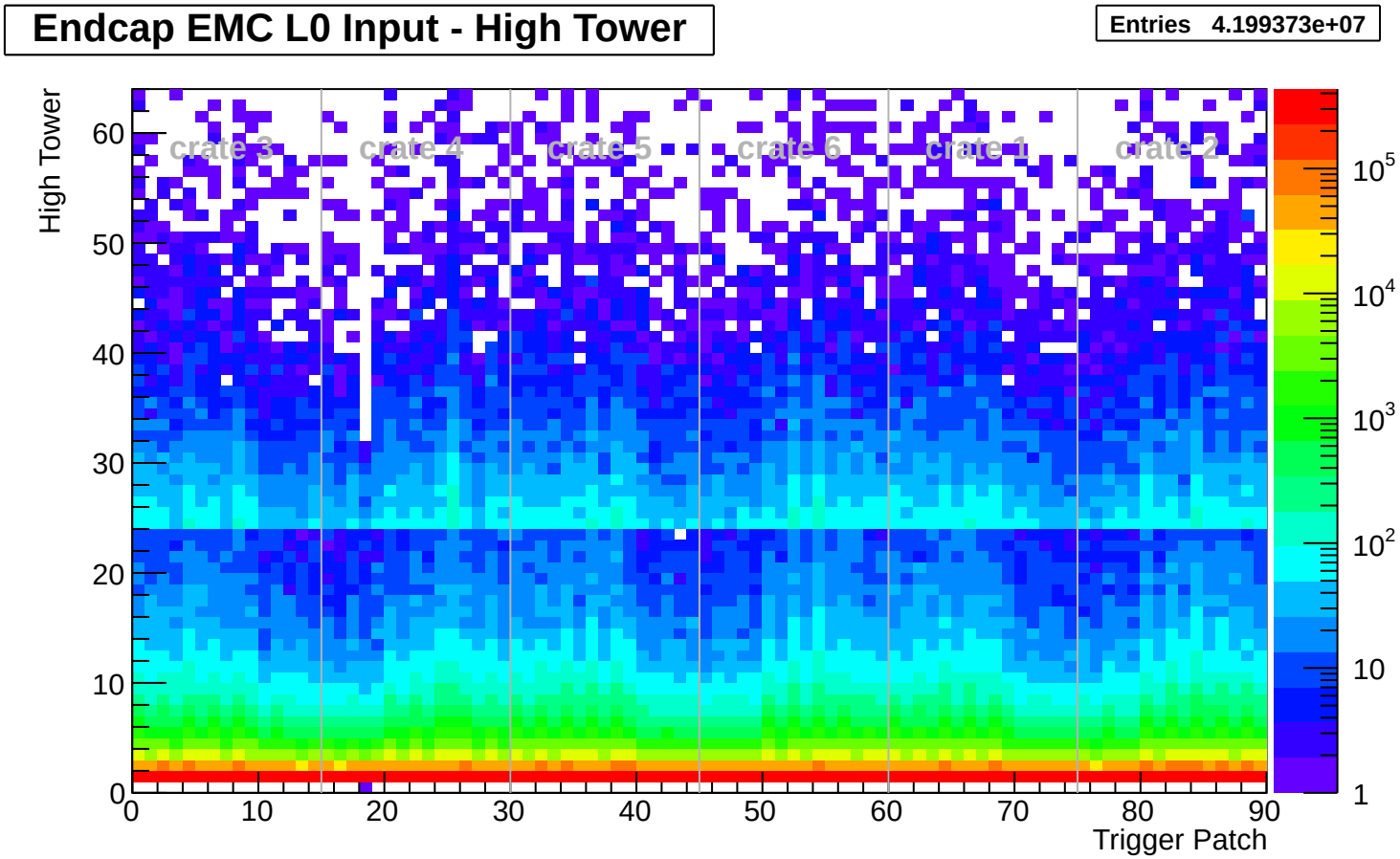
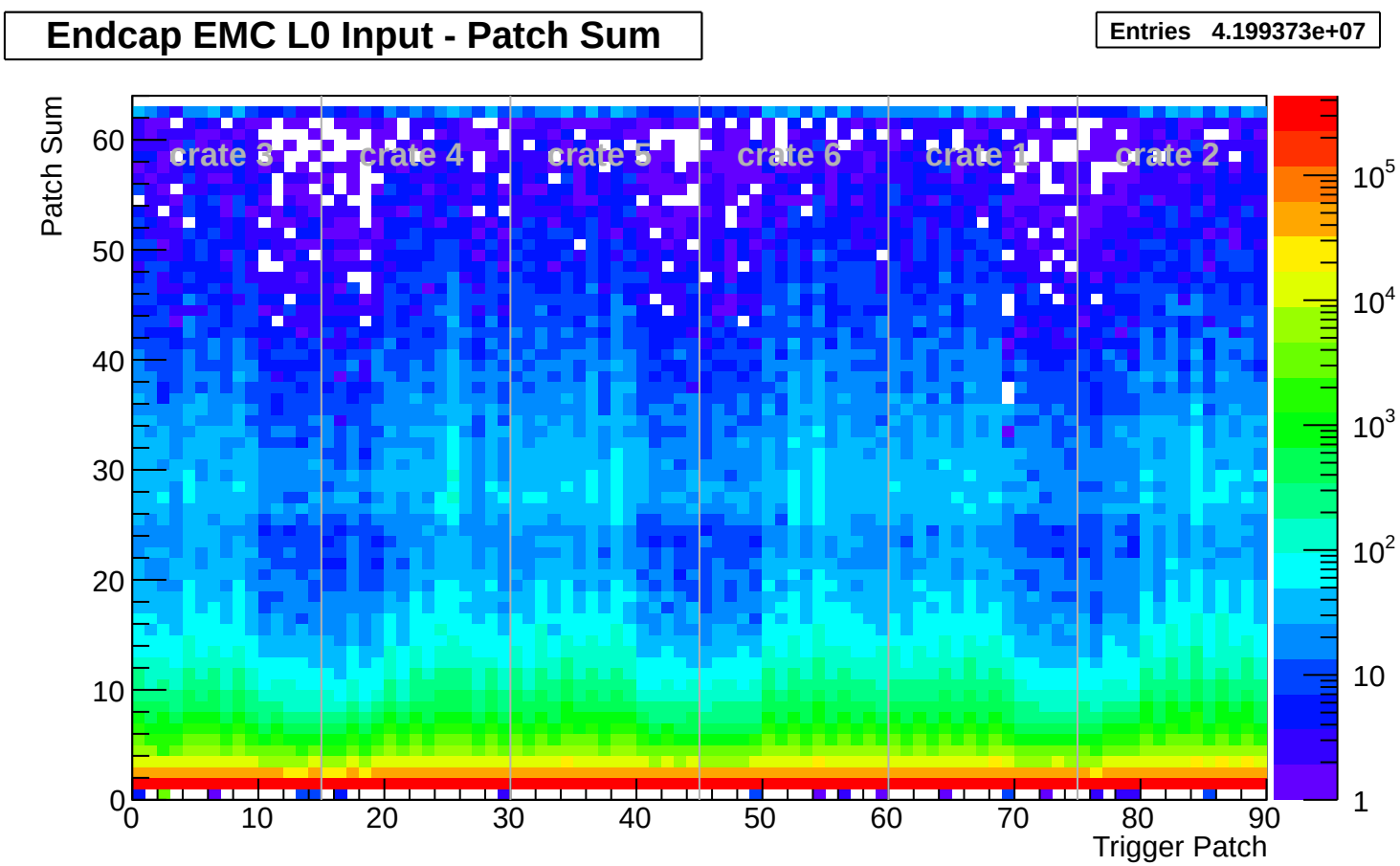
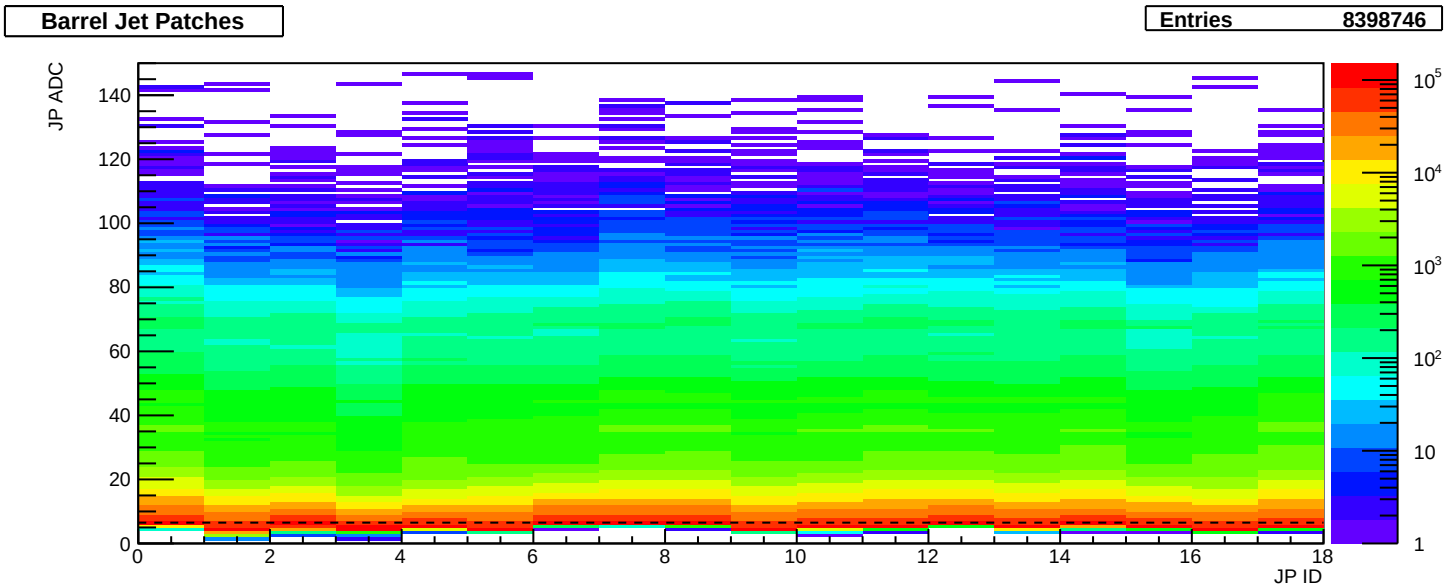
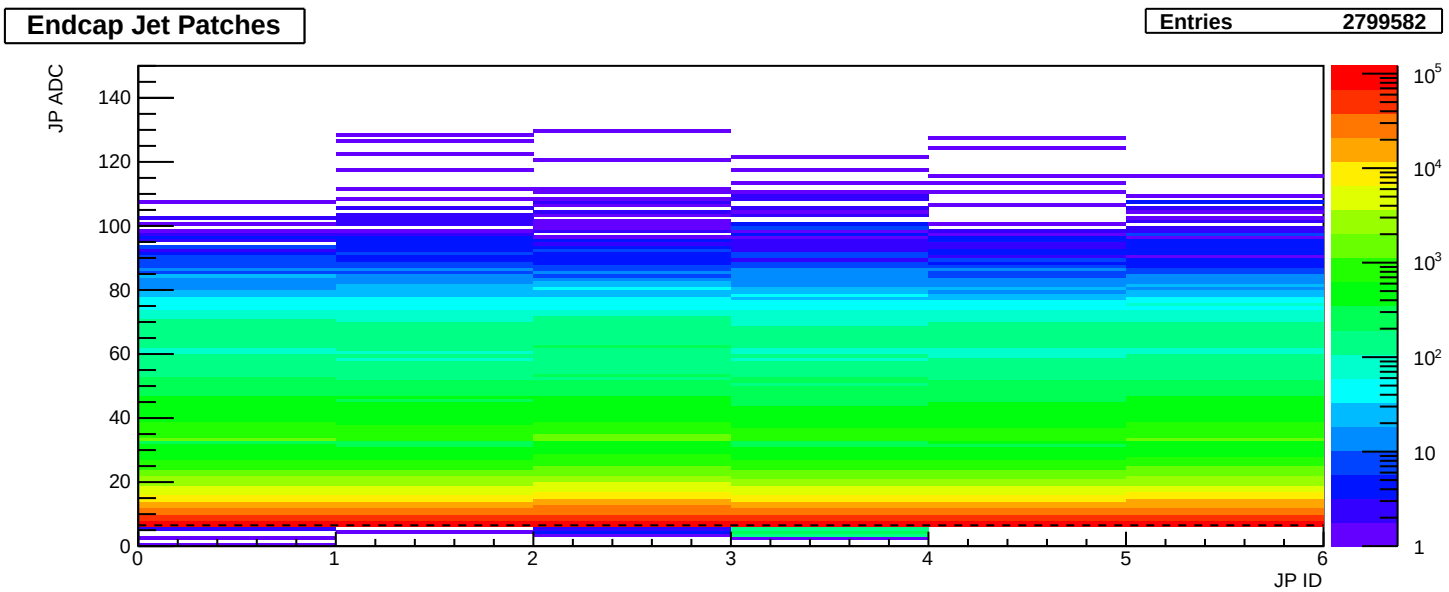

Barrel EMC L0 Input - High Tower
Entries 1.399791e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

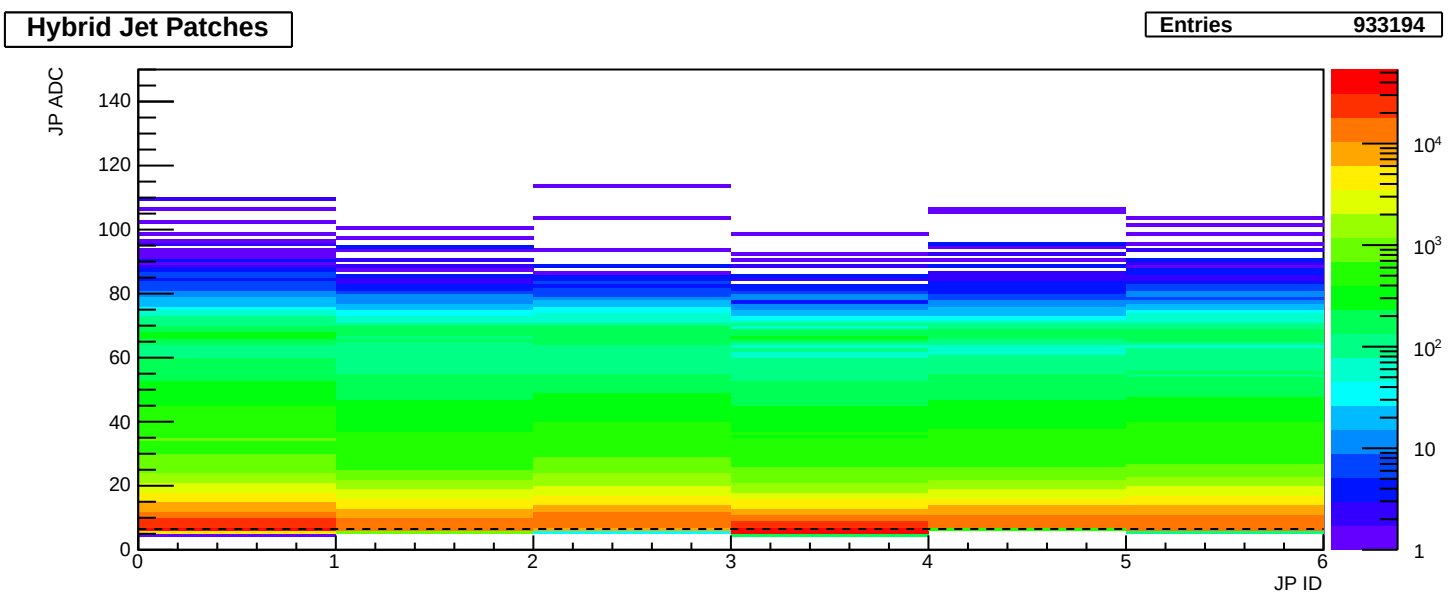

Barrel EMC L0 Input - Patch Sum
Entries 1.399791e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

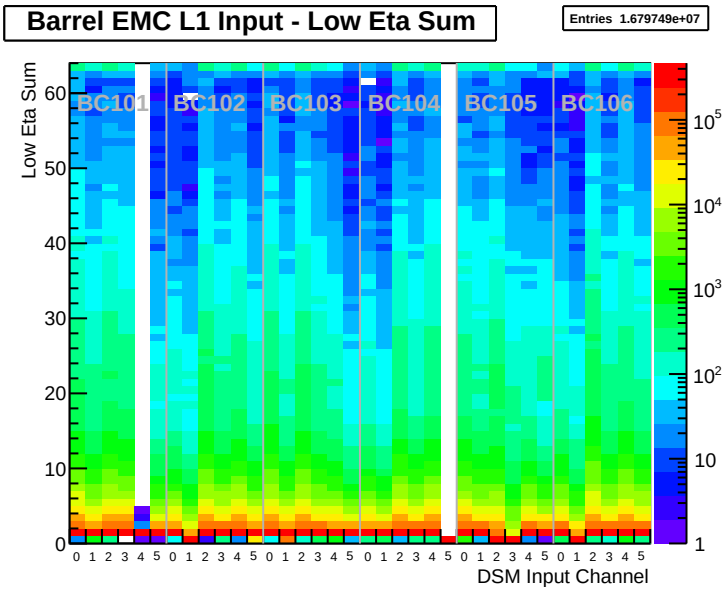

Endcap EMC L0 Input - High Tower
Entries 4.199373e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

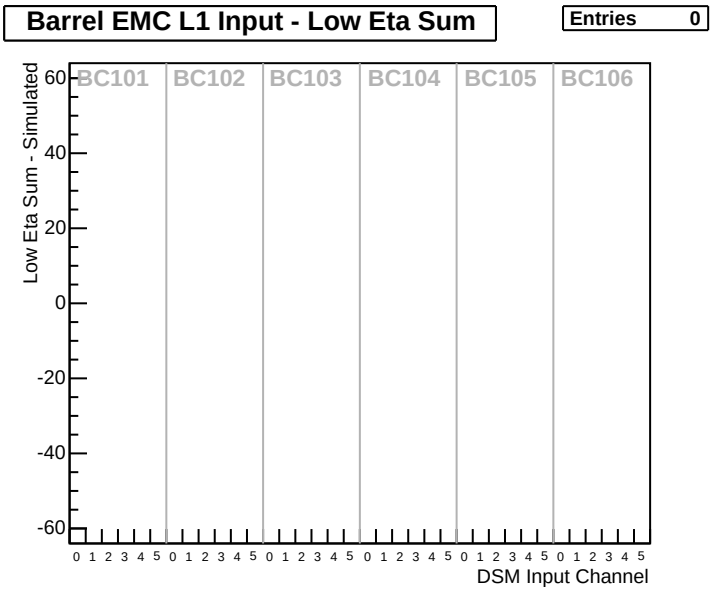

Endcap EMC L0 Input - Patch Sum
Entries 4.199373e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

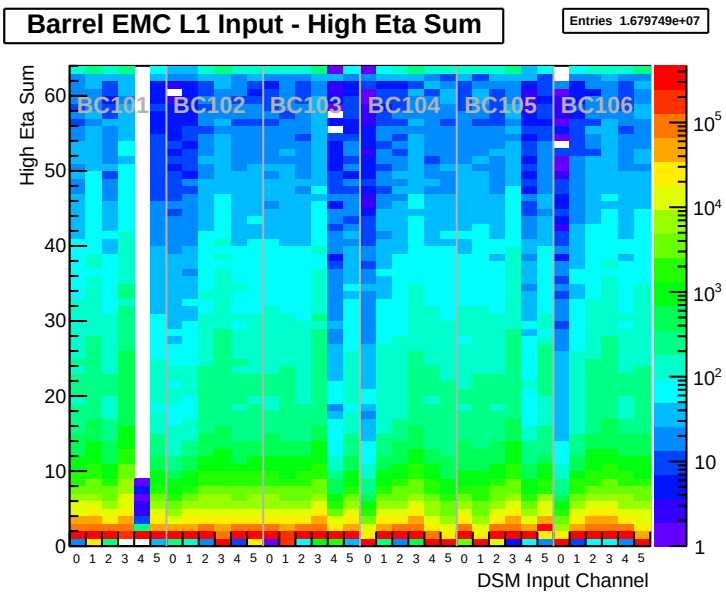

Barrel Jet Patches
Entries 8398746
JP ADC
JP ID

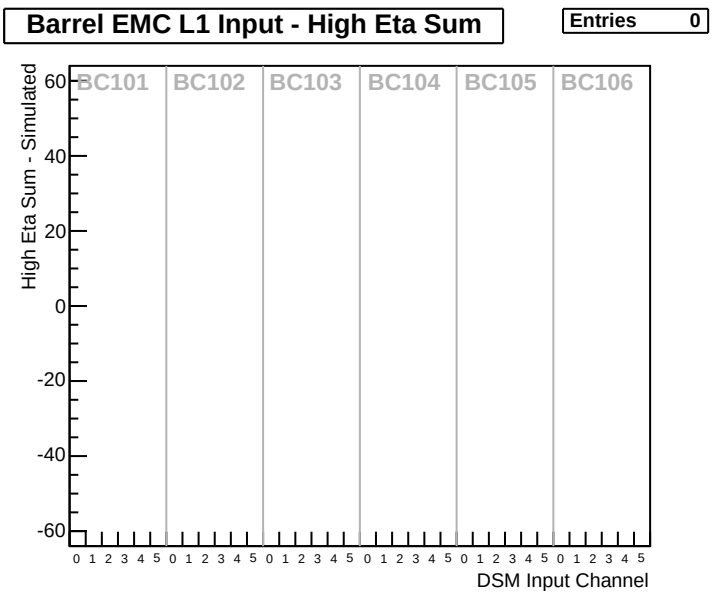

Endcap Jet Patches
Entries 2799582
JP ADC
JP ID

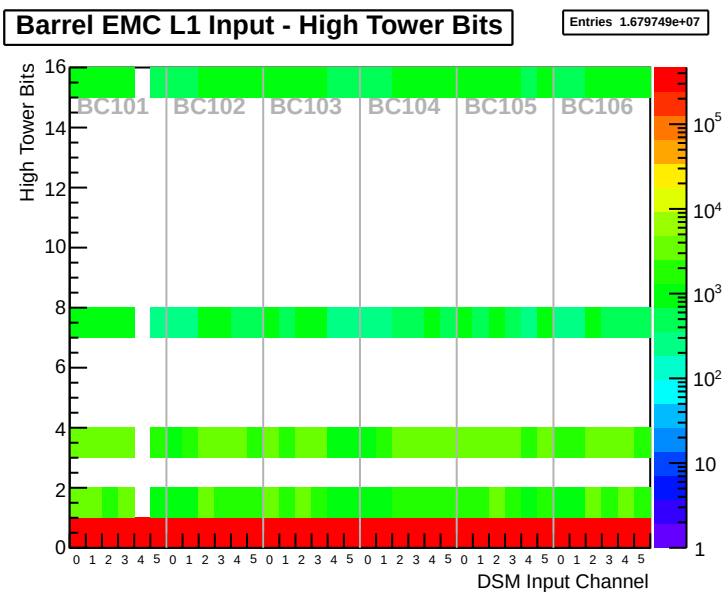

Hybrid Jet Patches
Entries 933194
JP ADC
JP ID

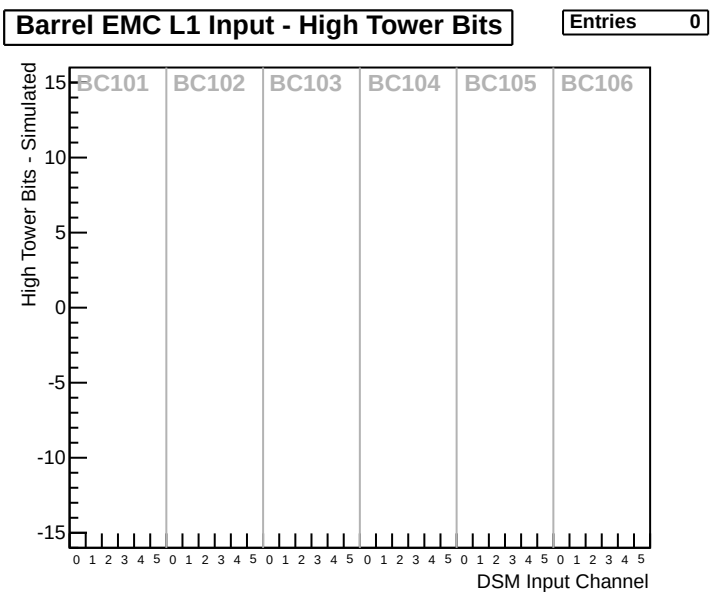

Barrel EMC L1 Input - Low Eta Sum
Entries 1.679749e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

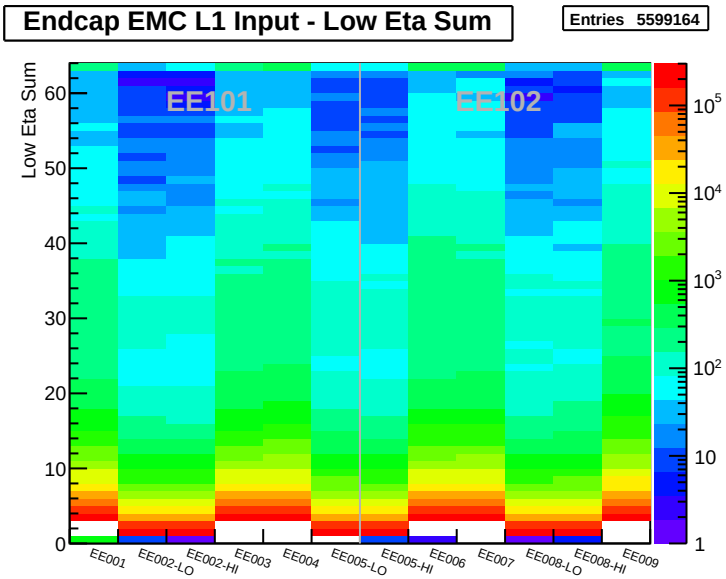

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

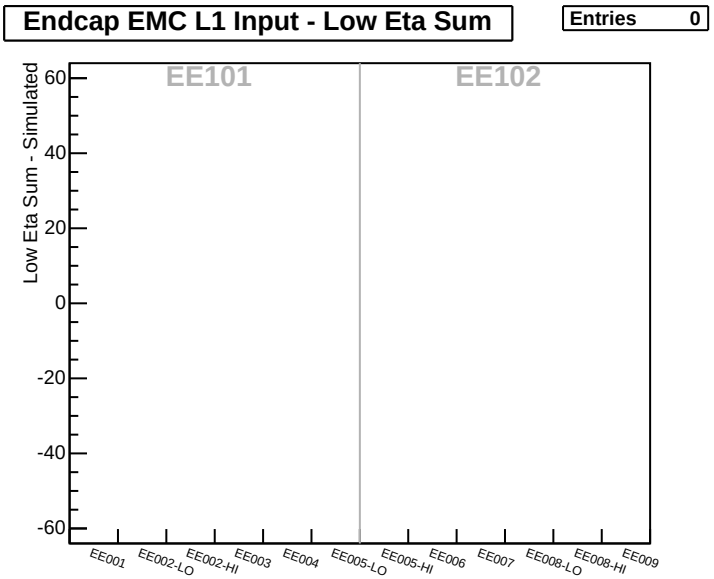

Barrel EMC L1 Input - High Eta Sum
Entries 1.679749e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

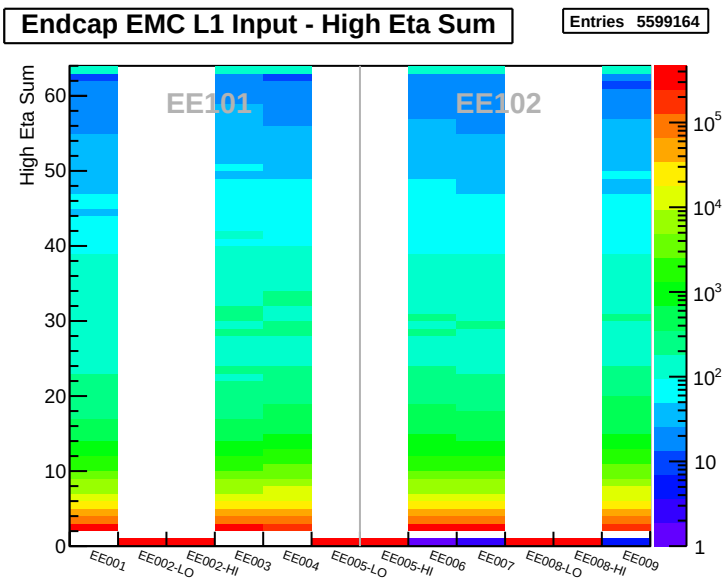

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

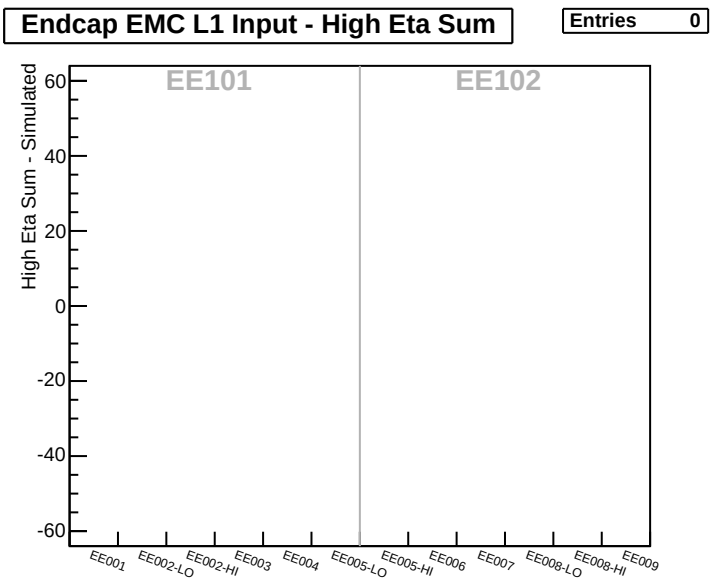

Barrel EMC L1 Input - High Tower Bits
Entries 1.679749e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

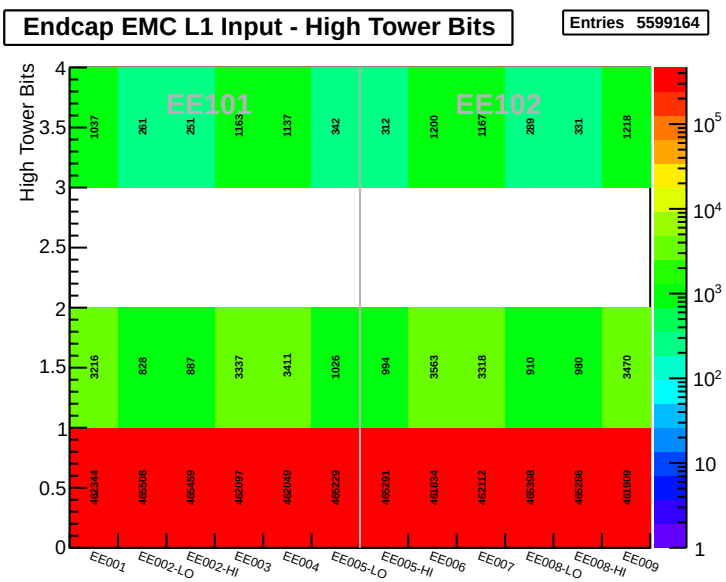

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

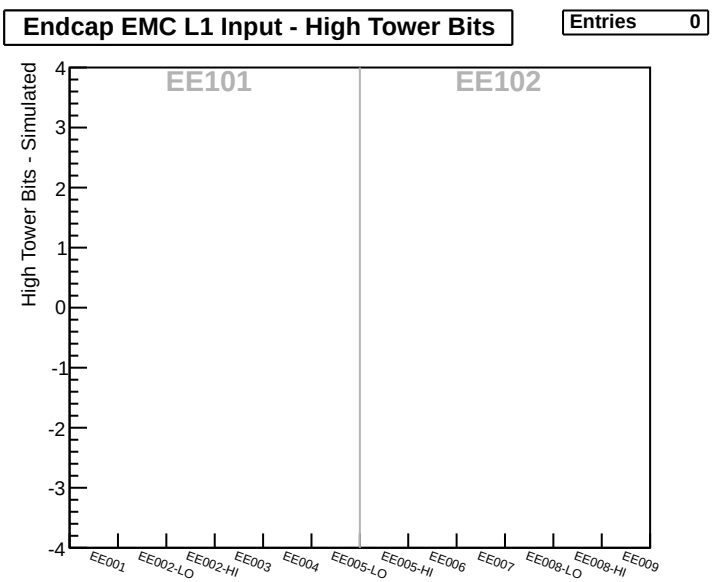

Endcap EMC L1 Input - Low Eta Sum
Entries 5599164
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

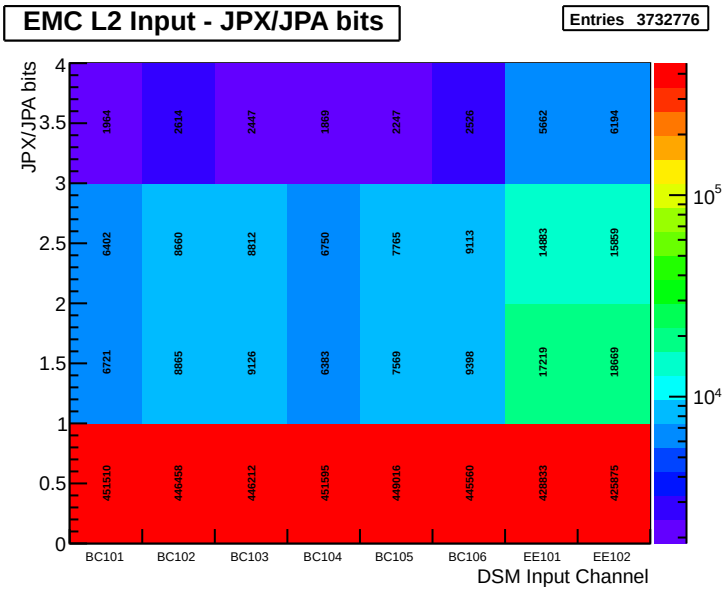

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

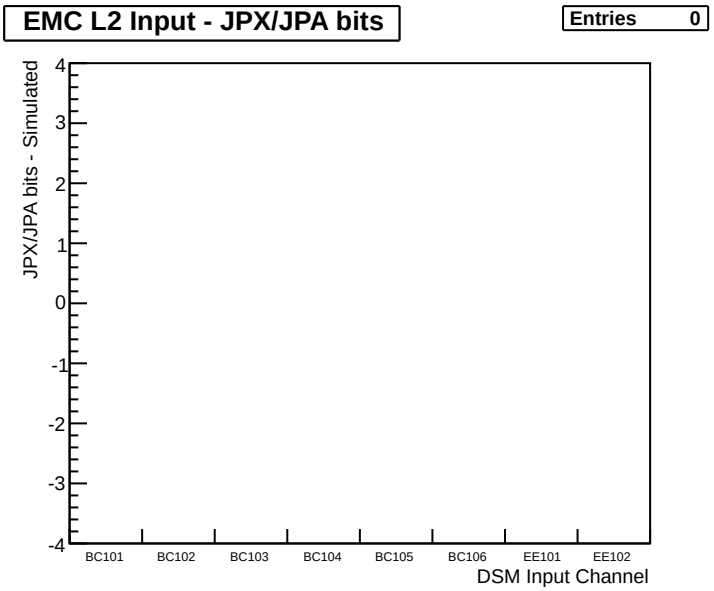

Endcap EMC L1 Input - High Eta Sum
Entries 5599164
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

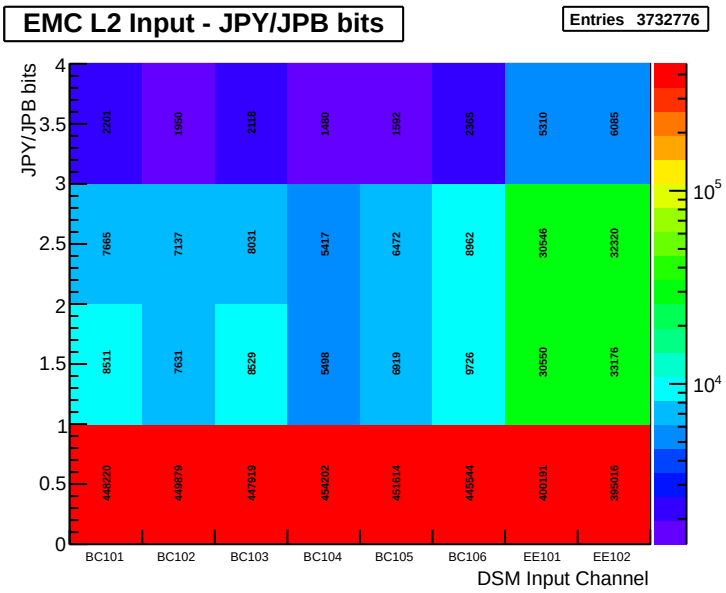

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

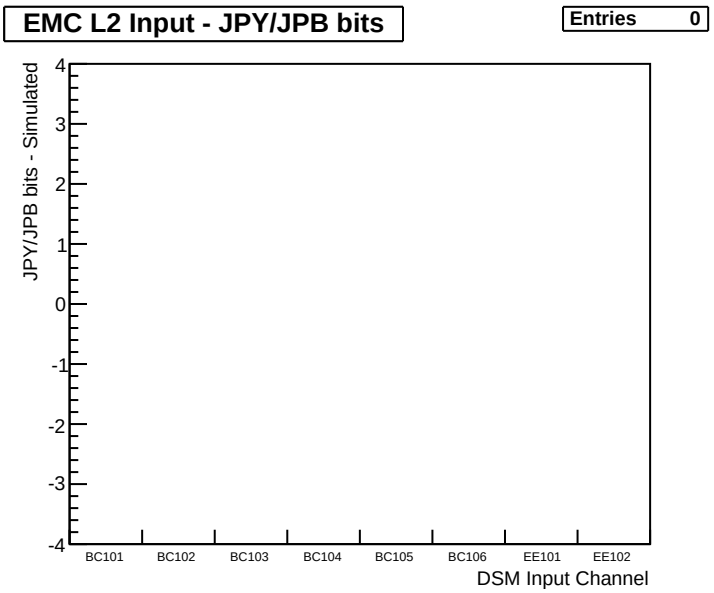

Endcap EMC L1 Input - High Tower Bits
Entries 5599164
High Tower Bits
EE101
EE102
1037 261 251 1163 1137 342 312 1200 1167 289 331 1218
3216 828 887 3337 3411 1026 994 3563 3318 910 980 3470
462344 465508 465459 462097 462049 465229 465291 461834 462112 466398 465286 461909
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

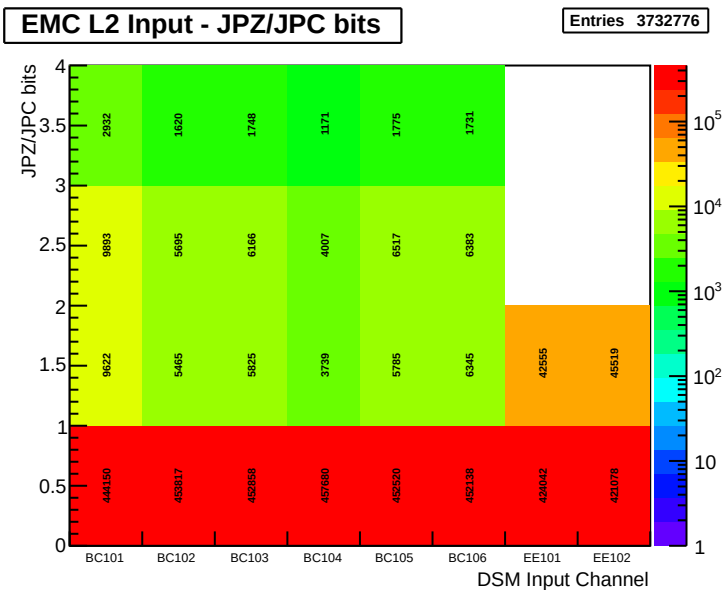

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

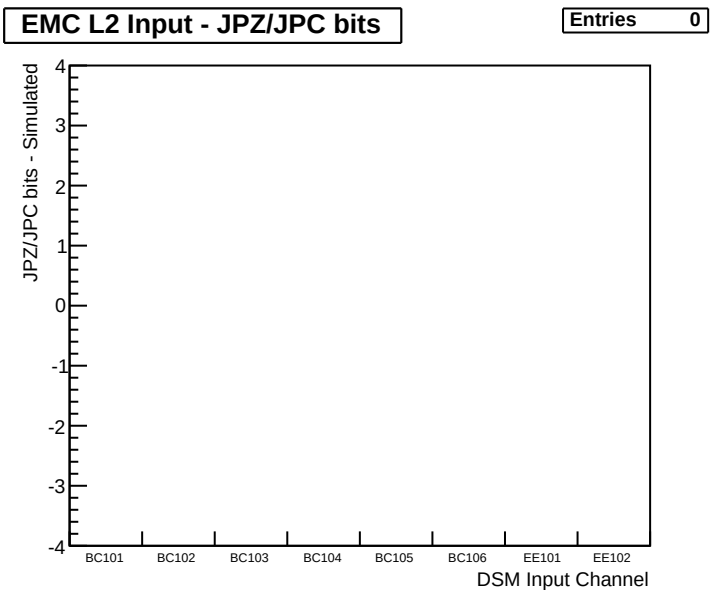

EMC L2 Input - JPX/JPA bits
Entries 3732776
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1964 2614 2447 1869 2247 2526 5662 6194
6402 8660 8812 6750 7765 9113 14883 15859
6721 8865 9126 6383 7569 9398 17219 18669
451510 446458 446212 451595 448016 445560 428833 425875

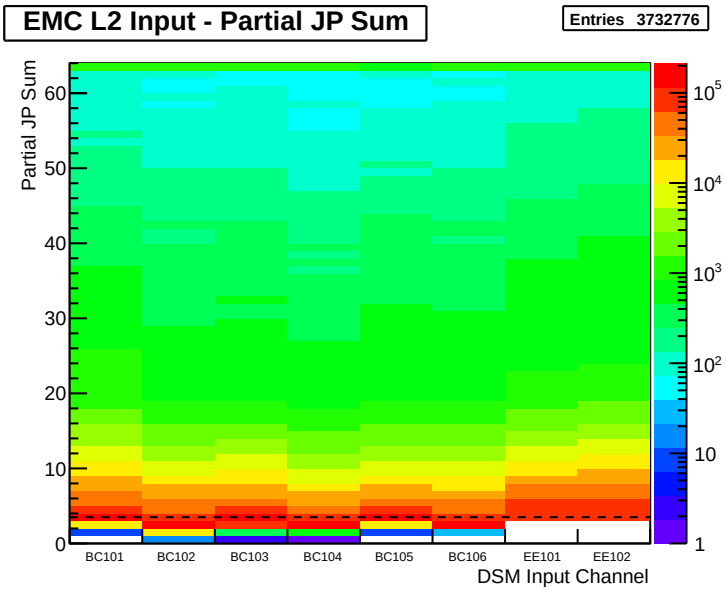

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

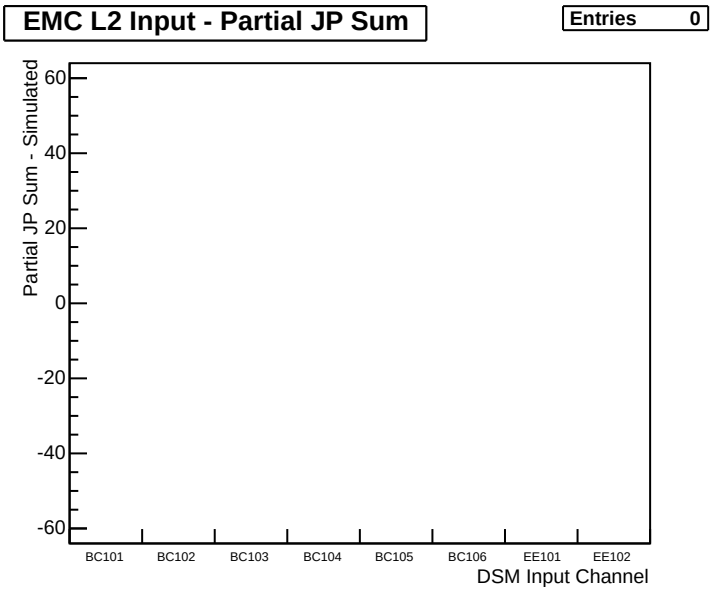

EMC L2 Input - JPY/JPB bits
Entries 3732776
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
2201 1950 2118 1480 1592 2365 5310 6085
7665 7137 8031 5417 6472 8962 30546 32320
8511 7631 8529 5498 6919 9726 30550 33176
448220 449879 447919 454202 451614 445544 400191 395016

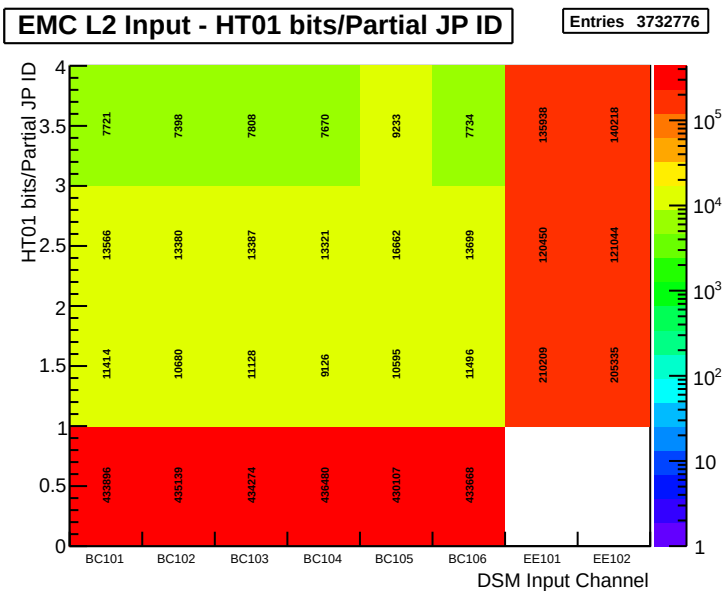

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

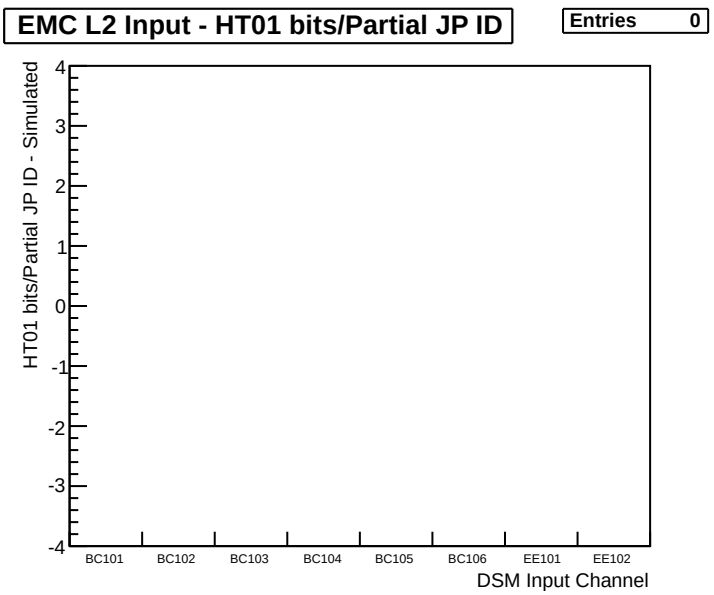

EMC L2 Input - JPZ/JPC bits
Entries 3732776
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
2932 1620 1748 1171 1775 1731
9893 5695 6166 4007 6517 6383
9622 5465 5825 3739 5785 6345 42555 45519
444150 453817 452868 457680 452520 452138 424042 421078

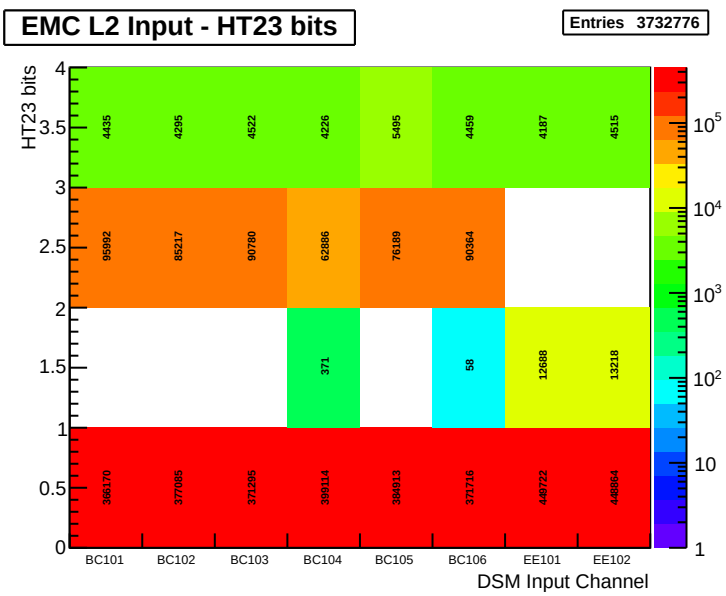

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

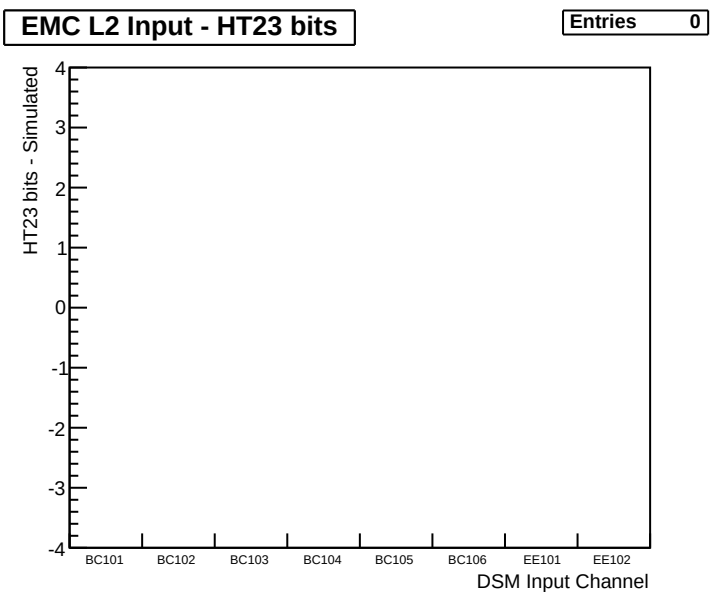

EMC L2 Input - Partial JP Sum
Entries 3732776
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

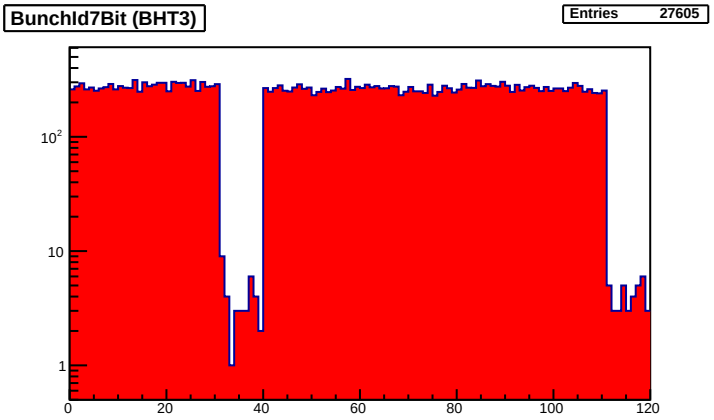

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

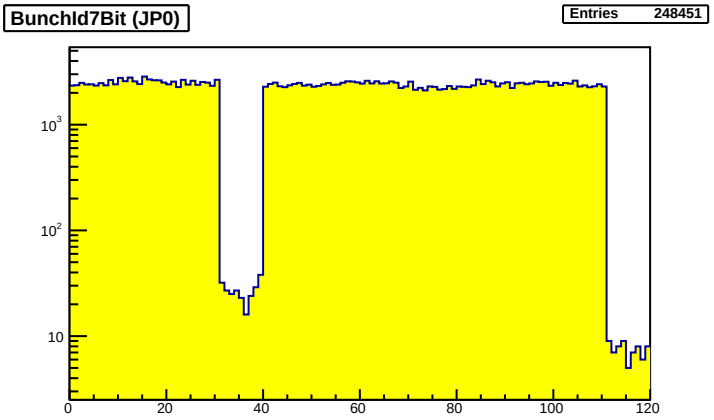

EMC L2 Input - HT01 bits/Partial JP ID
Entries 3732776
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
7721 7398 7808 7670 9233 7734 135938 140218
13566 13380 13387 13321 16662 13699 120450 121044
11414 10680 11128 9126 10595 11496 210209 205335
433806 435139 434274 436480 430107 433668

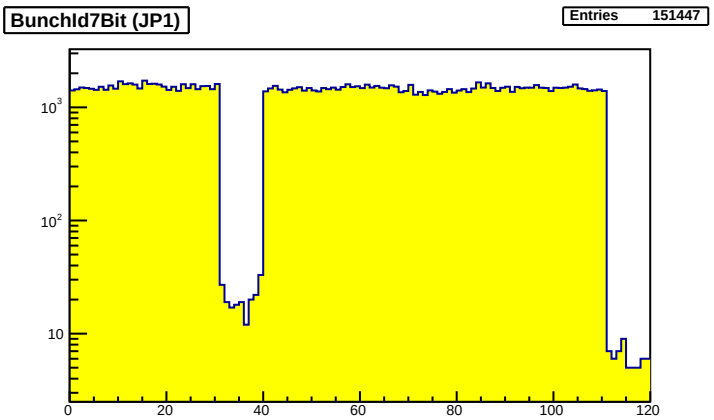

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

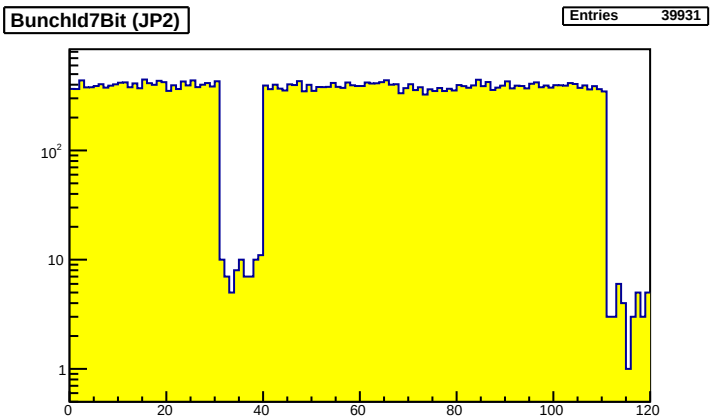

EMC L2 Input - HT23 bits
Entries 3732776
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
4435 4295 4522 4226 5495 4459 4187 4515
95992 85217 90780 62886 76189 90364
371 58 12688 13218
366170 377085 371295 399114 384913 371716 448722 448864

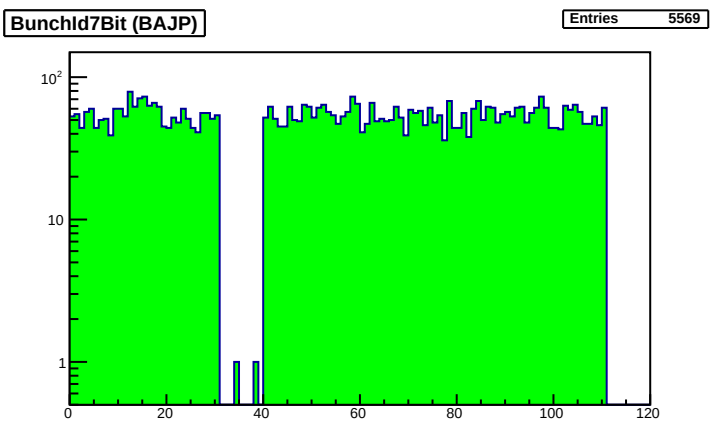

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

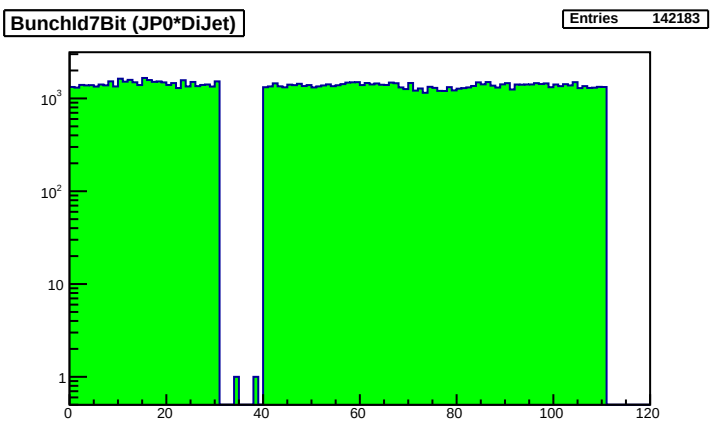

BunchId7Bit (BHT3)
Entries 27605

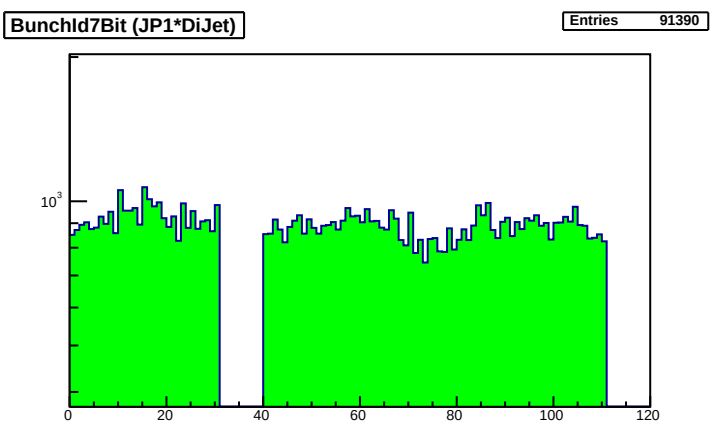

BunchId7Bit (JP0)
Entries 248451

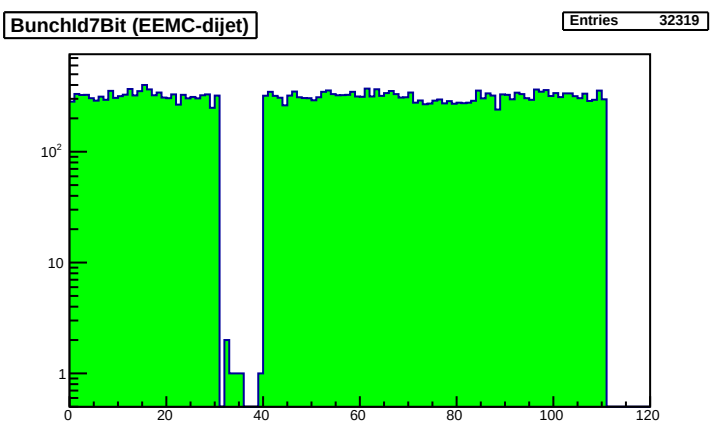

BunchId7Bit (JP1)
Entries 151447

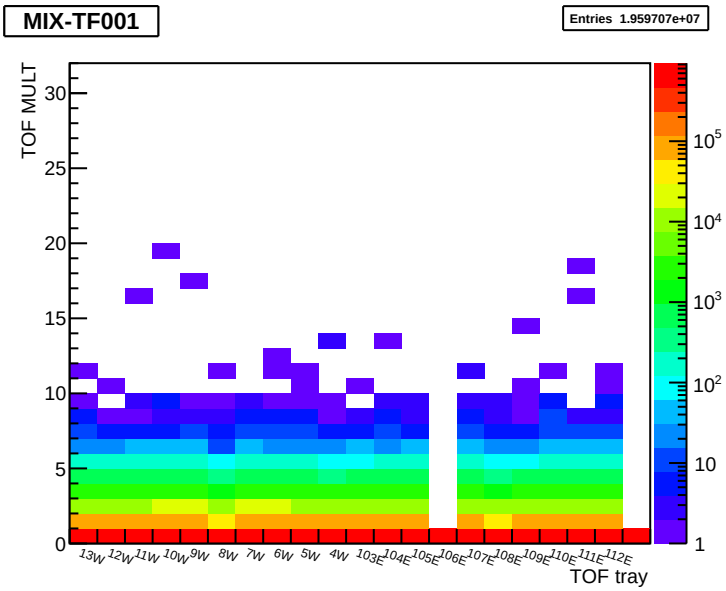

BunchId7Bit (JP2)
Entries 39931

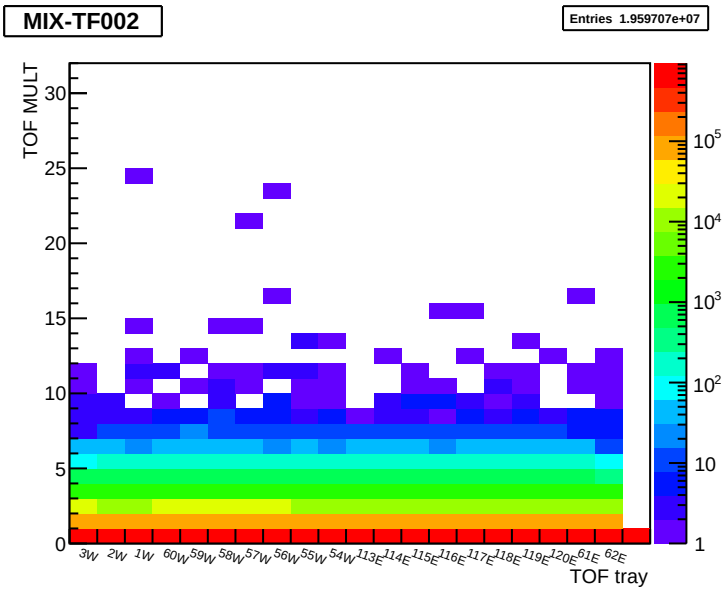

BunchId7Bit (BAJP)
Entries 5569

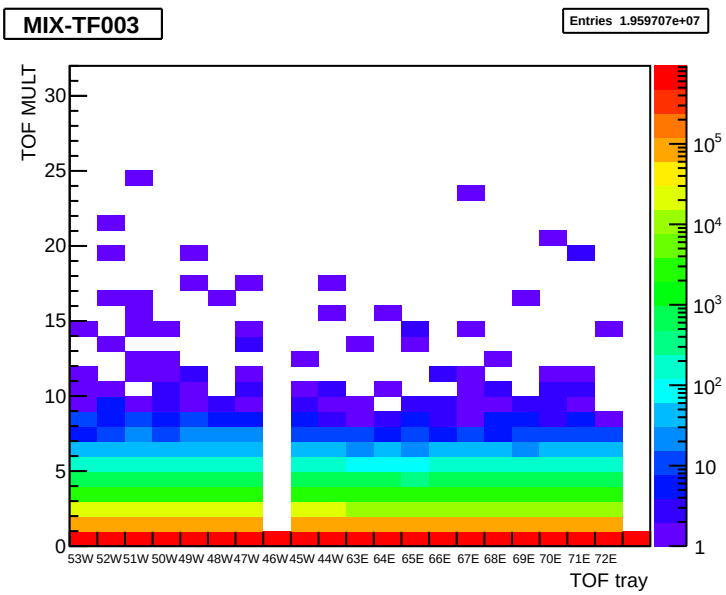

BunchId7Bit (JP0*DiJet)
Entries 142183

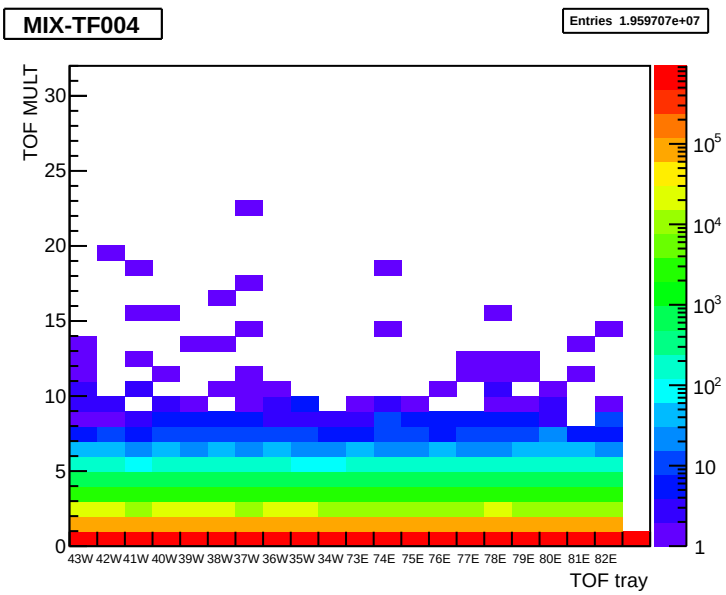

BunchId7Bit (JP1*DiJet)
Entries 91390

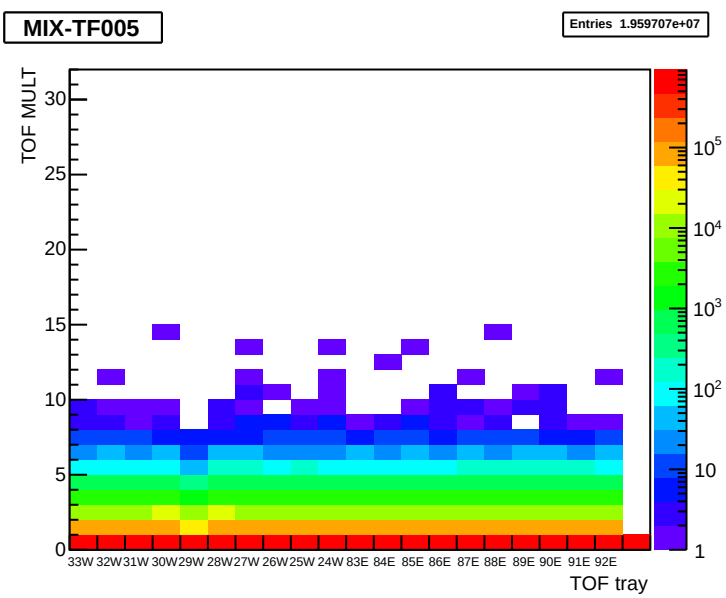

BunchId7Bit (EEMC-dijet)
Entries 32319

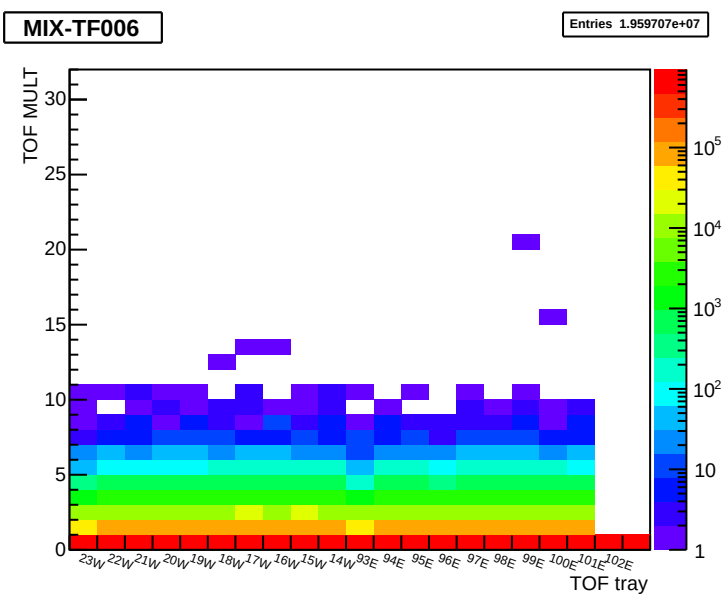

MIX-TF001
Entries 1.959707e+07
TOF MULT
TOF tray

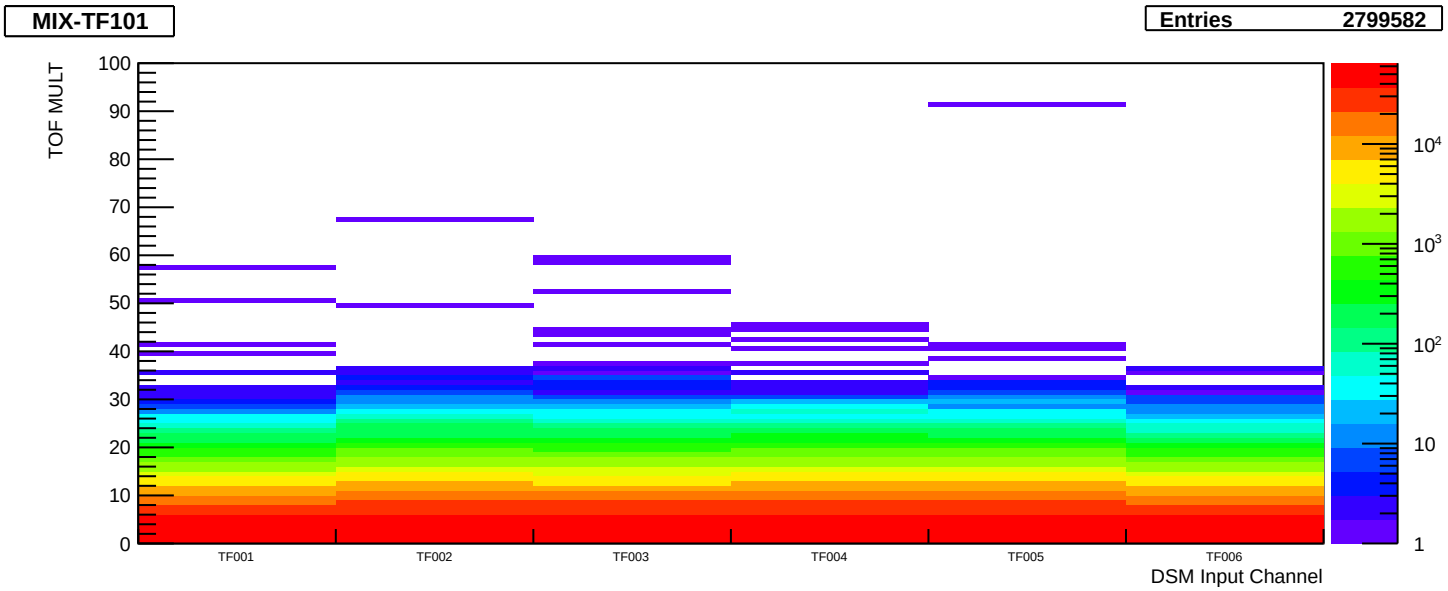

MIX-TF002
Entries 1.959707e+07
TOF MULT
TOF tray

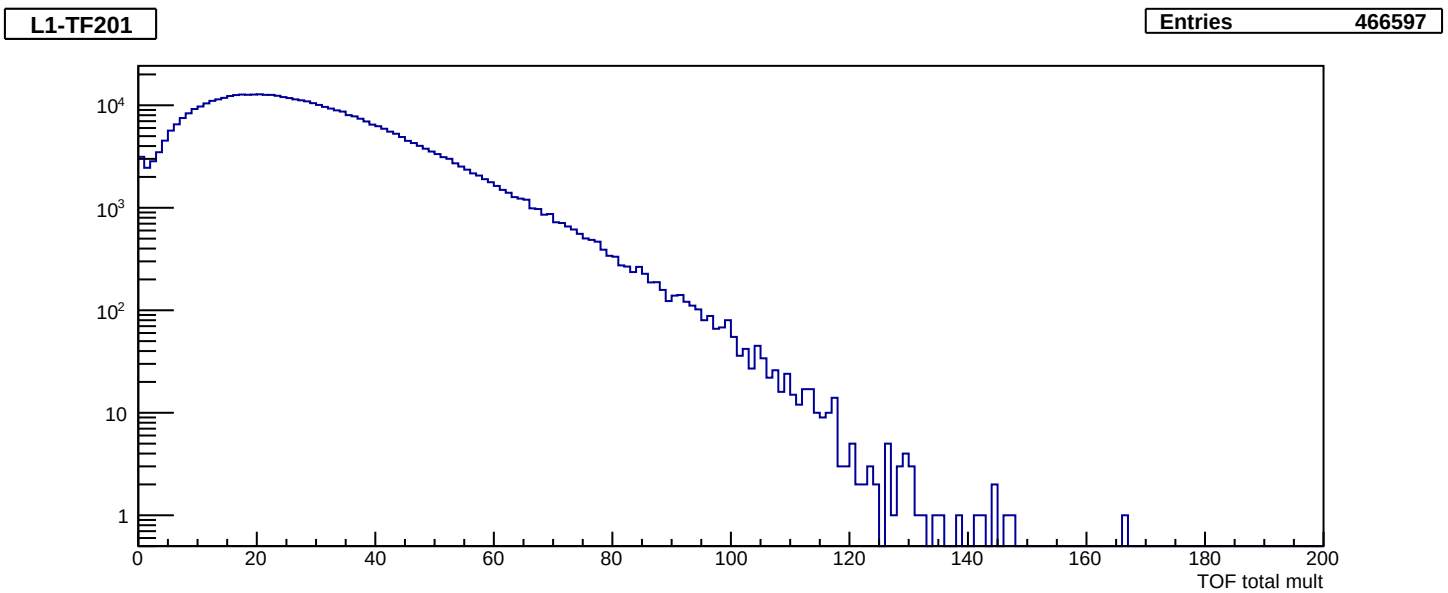

MIX-TF003
Entries 1.959707e+07
TOF MULT
TOF tray

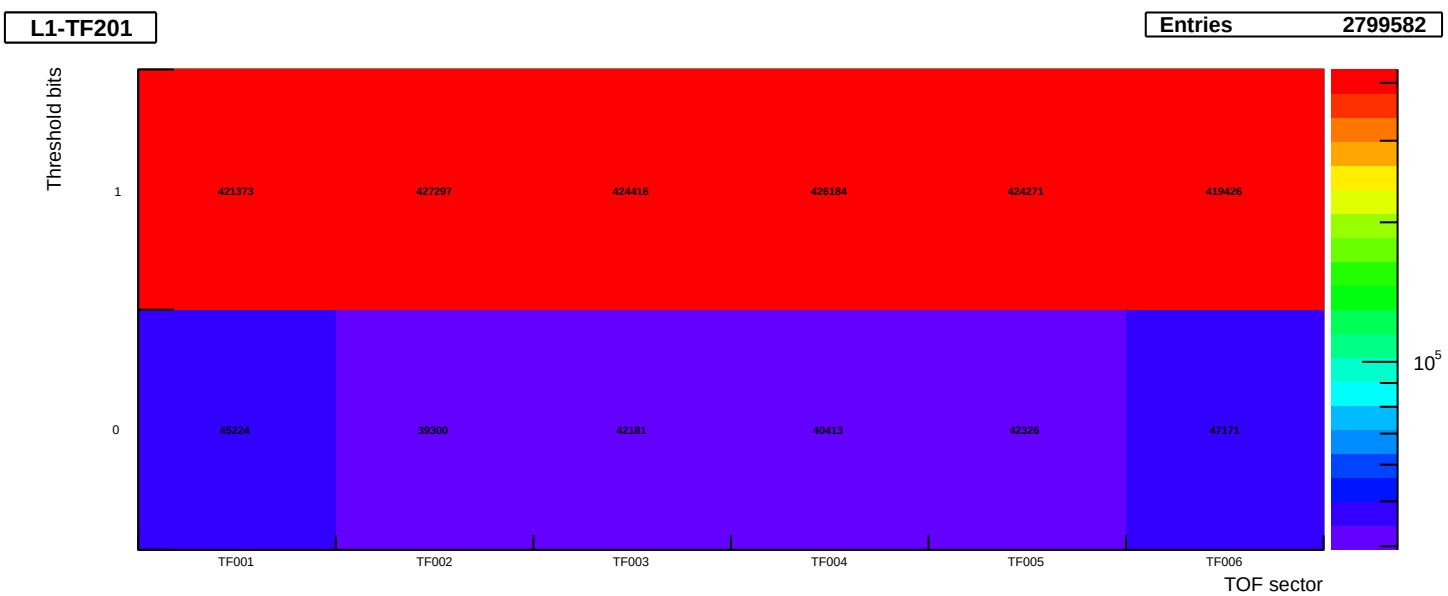

MIX-TF004
Entries 1.959707e+07
TOF MULT
TOF tray

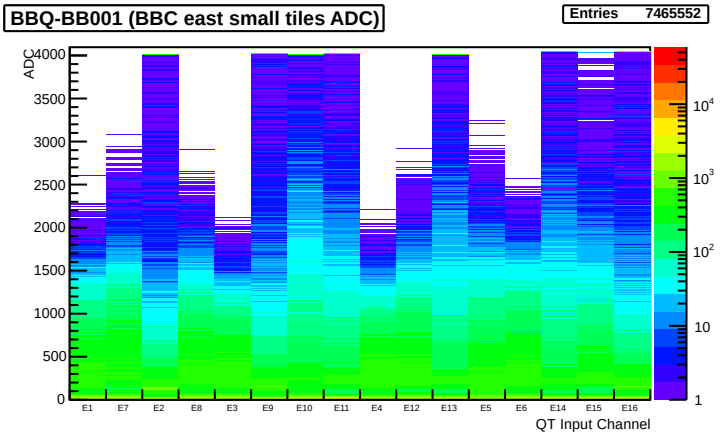

MIX-TF005
Entries 1.959707e+07
TOF MULT
TOF tray

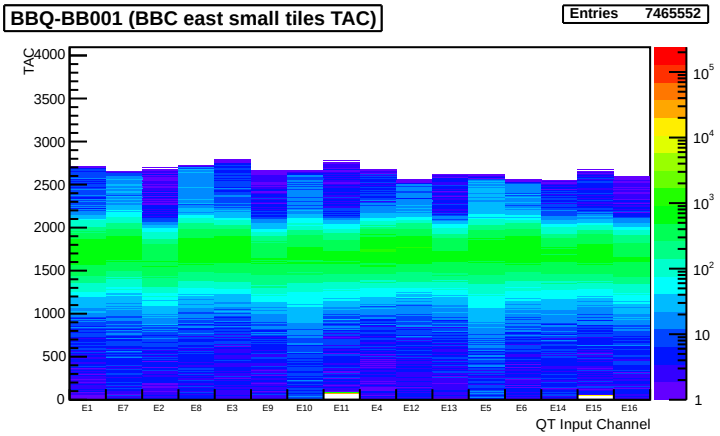

MIX-TF006
Entries 1.959707e+07
TOF MULT
TOF tray

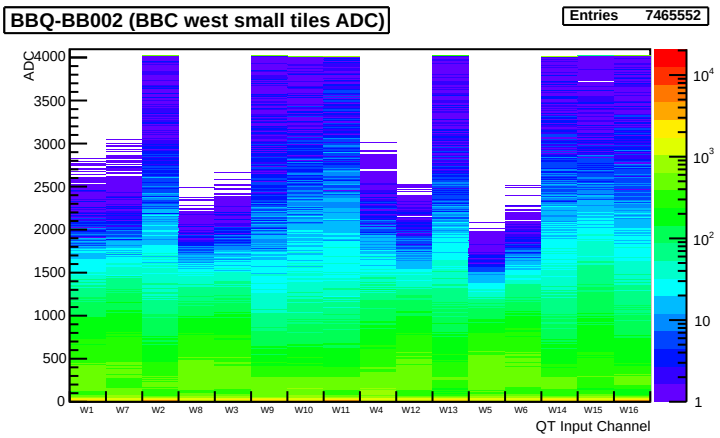

MIX-TF101
Entries 2799582
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

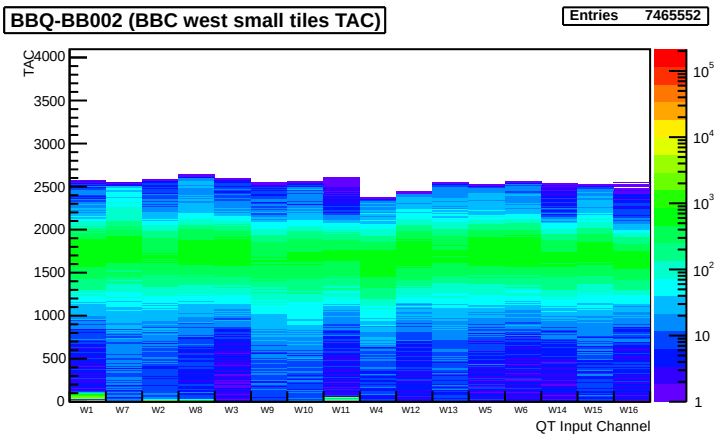

L1-TF201
Entries 466597
TOF total mult

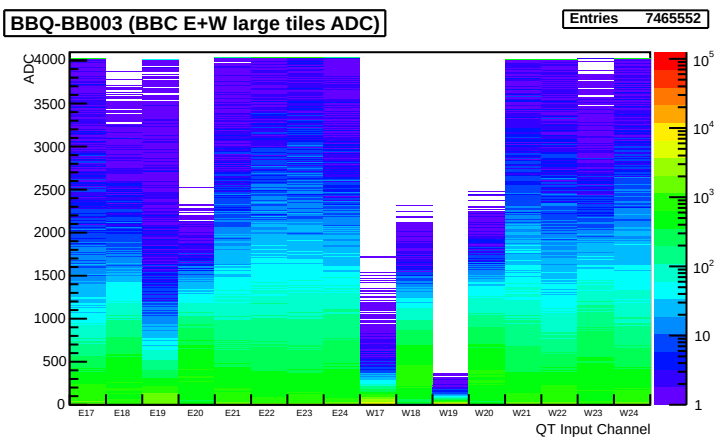

L1-TF201
Entries 2799582
Threshold bits
421373
427297
424416
426184
424271
419426
45224
39300
42181
40413
42326
47171
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

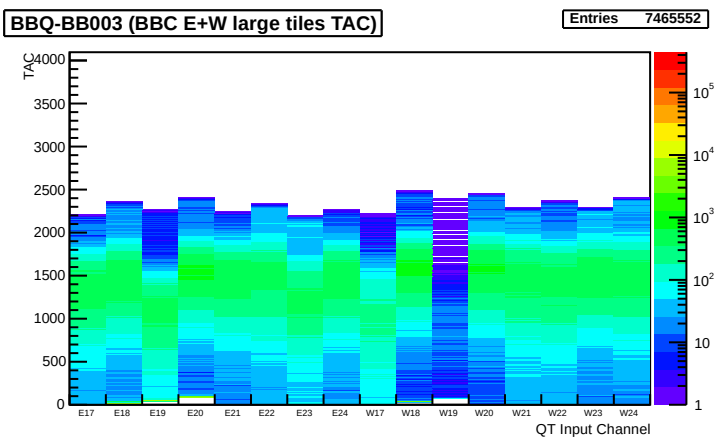

BBQ-BB001 (BBC east small tiles ADC)
Entries 7465552
ADC
QT Input Channel

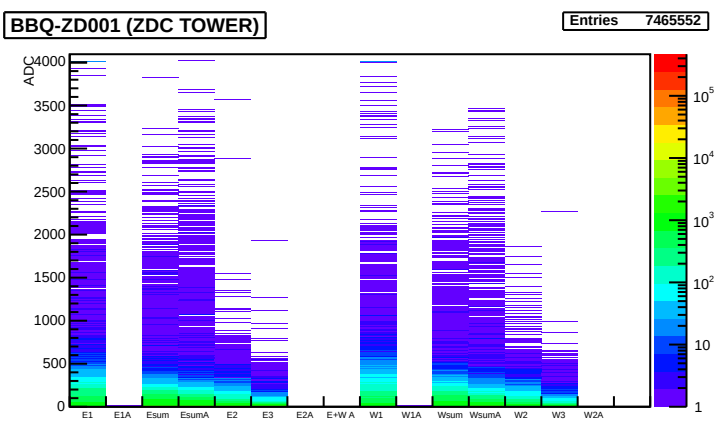

BBQ-BB001 (BBC east small tiles TAC)
Entries 7465552
TAC
QT Input Channel

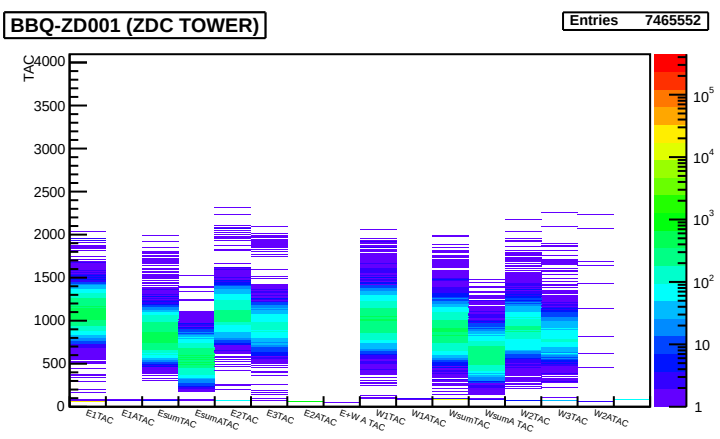

BBQ-BB002 (BBC west small tiles ADC)
Entries 7465552
ADC
QT Input Channel

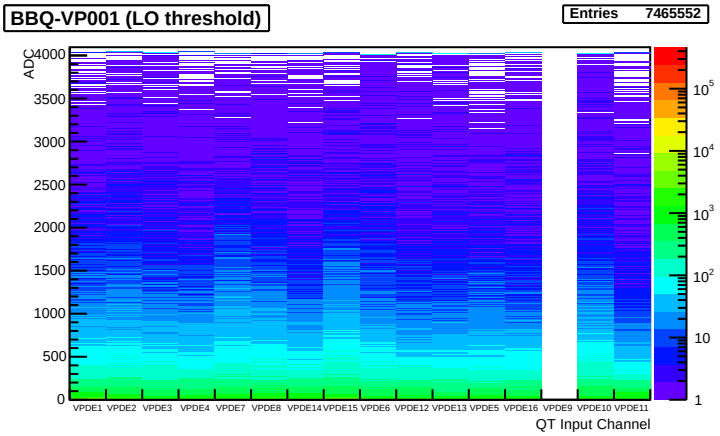

BBQ-BB002 (BBC west small tiles TAC)
Entries 7465552
TAC
QT Input Channel

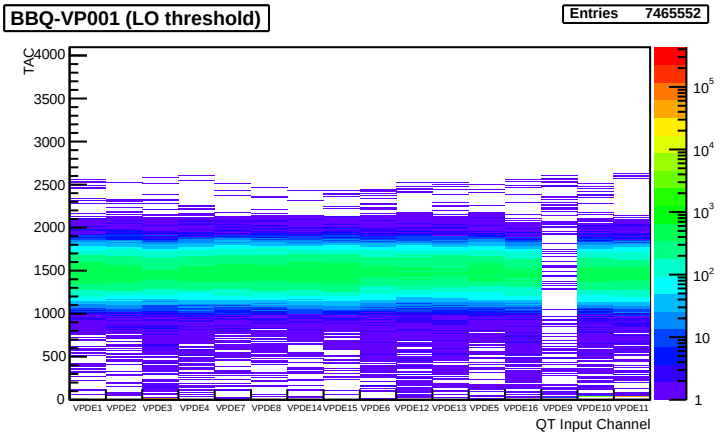

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 7465552
ADC
QT Input Channel

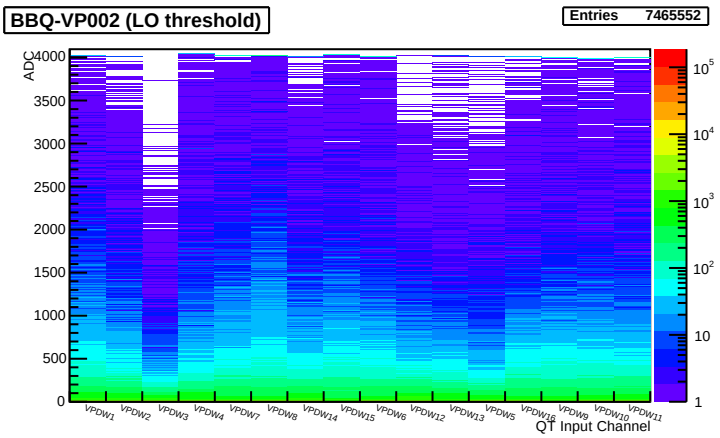

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 7465552
TAC
QT Input Channel

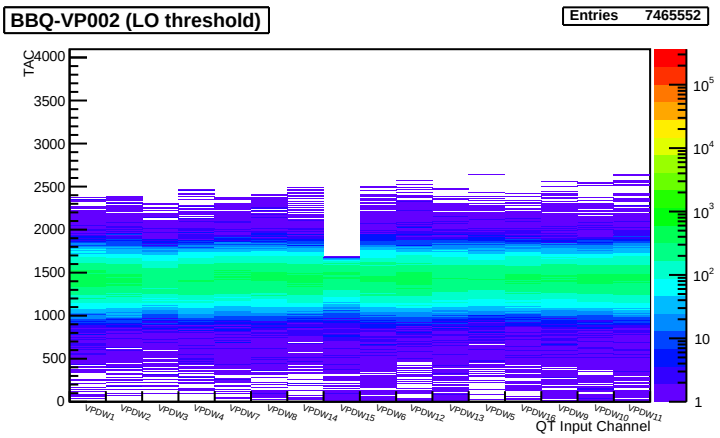

BBQ-ZD001 (ZDC TOWER)
Entries 7465552
ADC

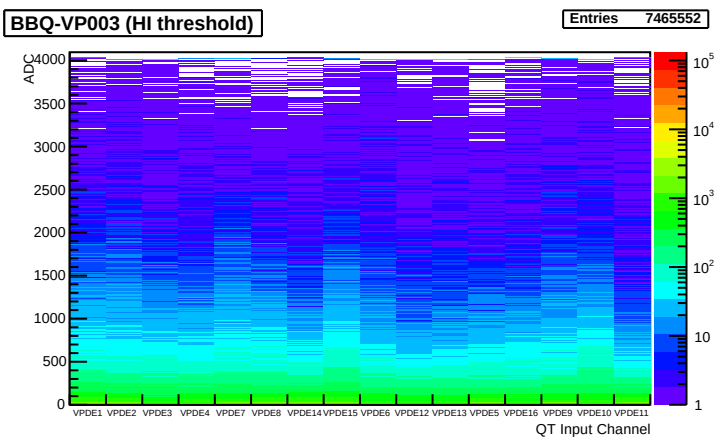

BBQ-ZD001 (ZDC TOWER)
Entries 7465552
TAC

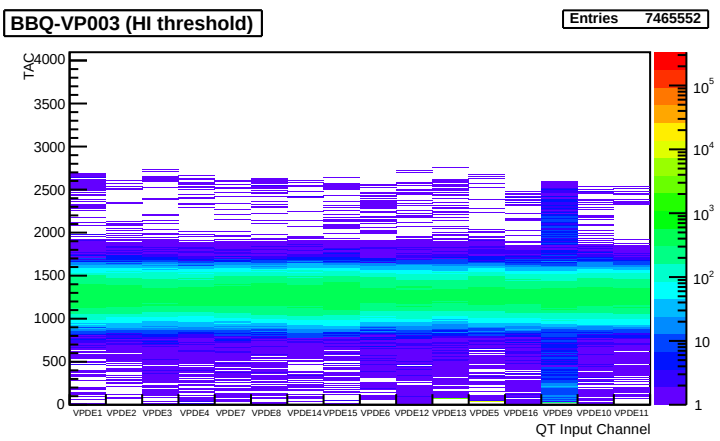

BBQ-VP001 (LO threshold)
Entries 7465552
ADC
QT Input Channel

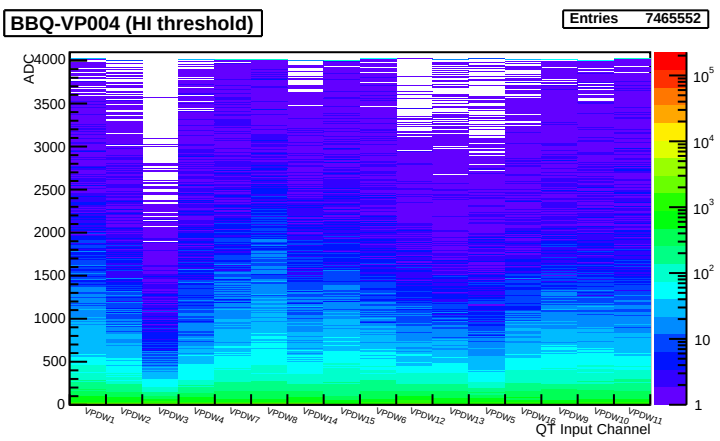

BBQ-VP001 (LO threshold)
Entries 7465552
TAC
QT Input Channel

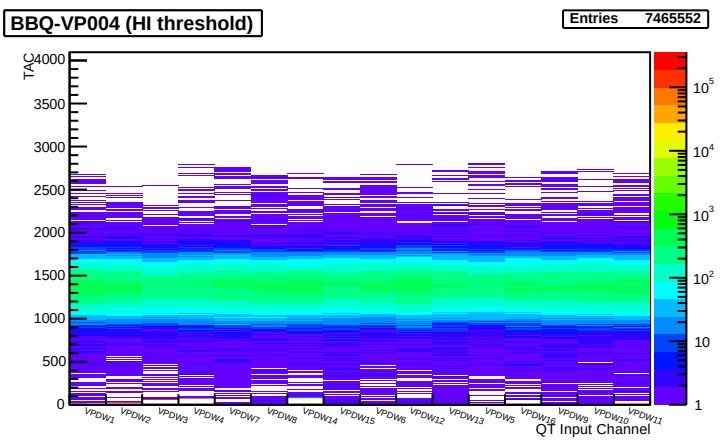

BBQ-VP002 (LO threshold)
Entries 7465552
ADC
QT Input Channel

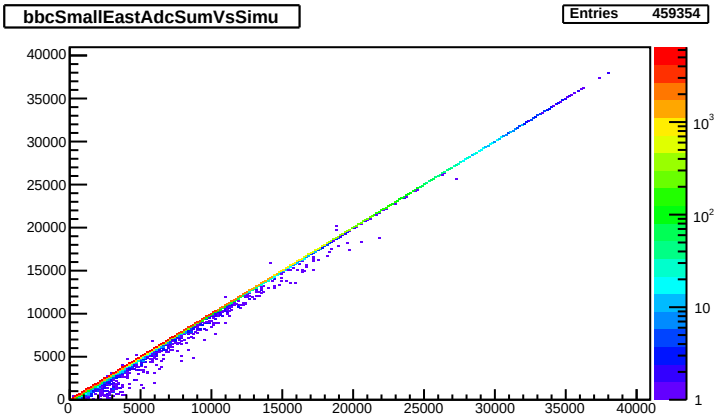

BBQ-VP002 (LO threshold)
Entries 7465552
TAC
QT Input Channel

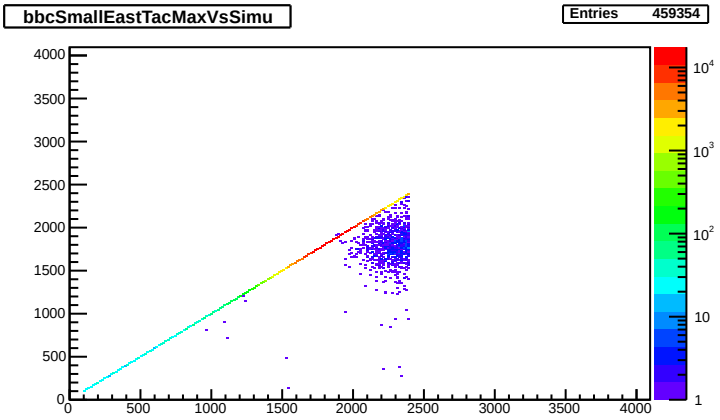

BBQ-VP003 (HI threshold)
Entries 7465552
ADC
QT Input Channel

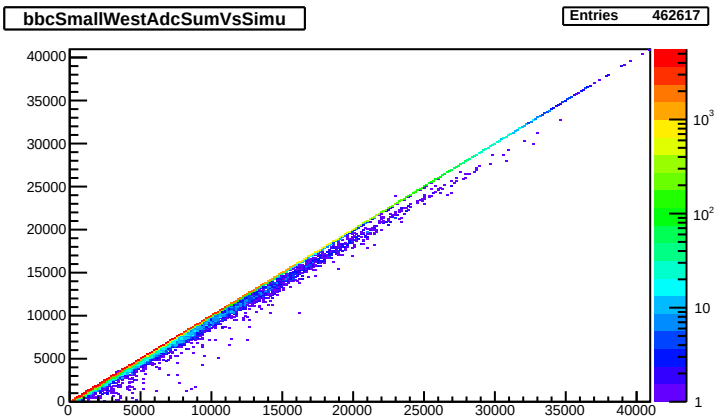

BBQ-VP003 (HI threshold)
Entries 7465552
TAC
QT Input Channel

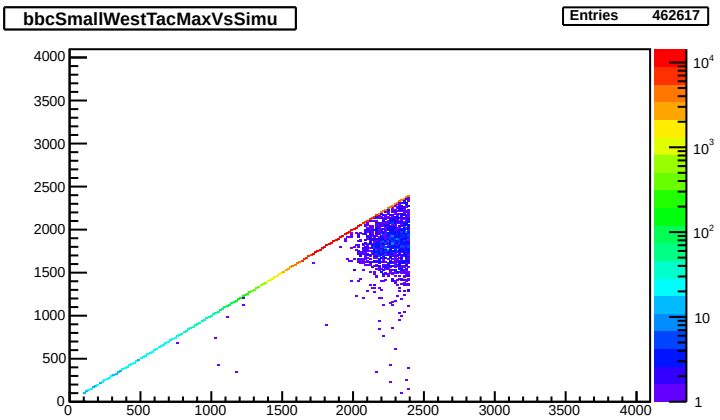

BBQ-VP004 (HI threshold)
Entries 7465552
ADC
QT Input Channel

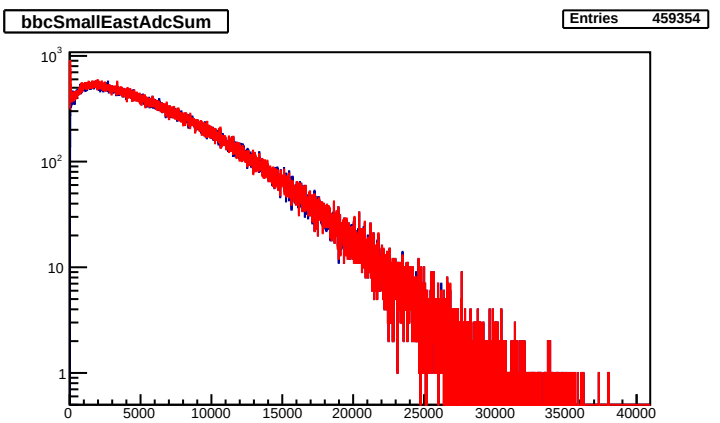

BBQ-VP004 (HI threshold)
Entries 7465552
TAC
QT Input Channel

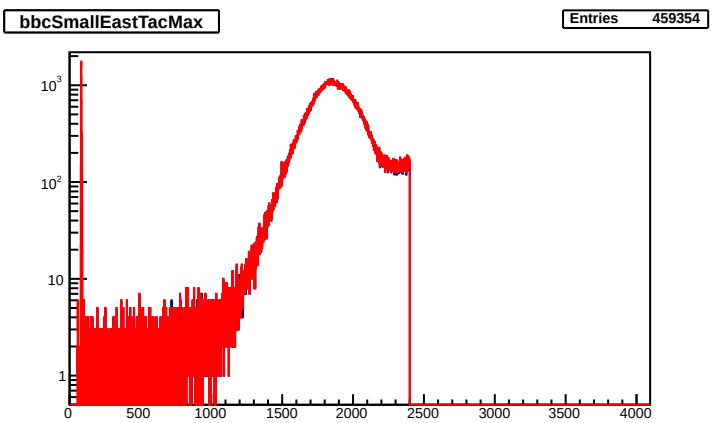

bbcSmallEastAdcSumVsSimu
Entries 459354

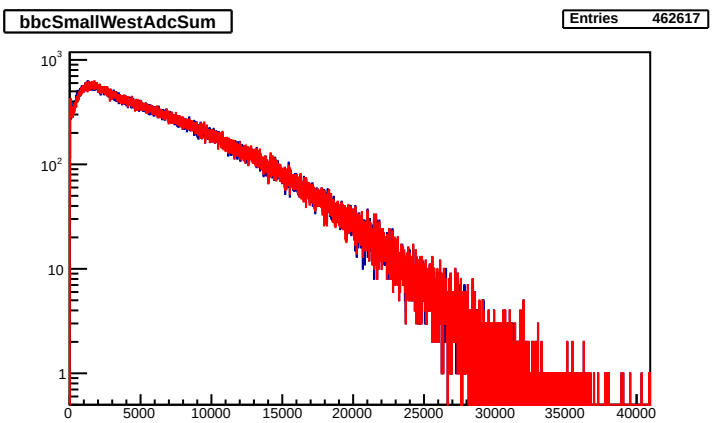

bbcSmallEastTacMaxVsSimu
Entries 459354

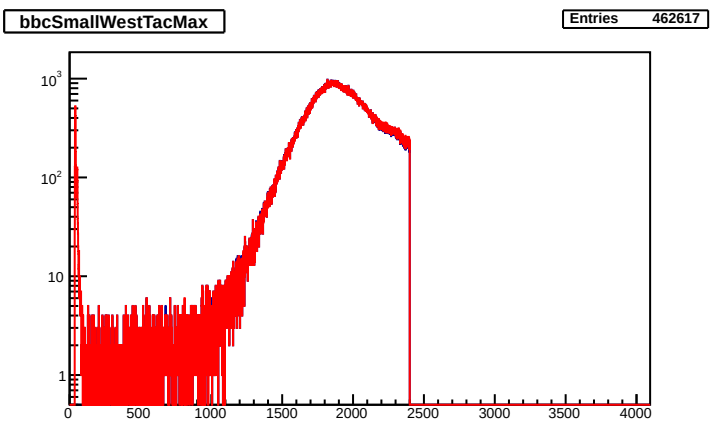

bbcSmallWestAdcSumVsSimu
Entries 462617

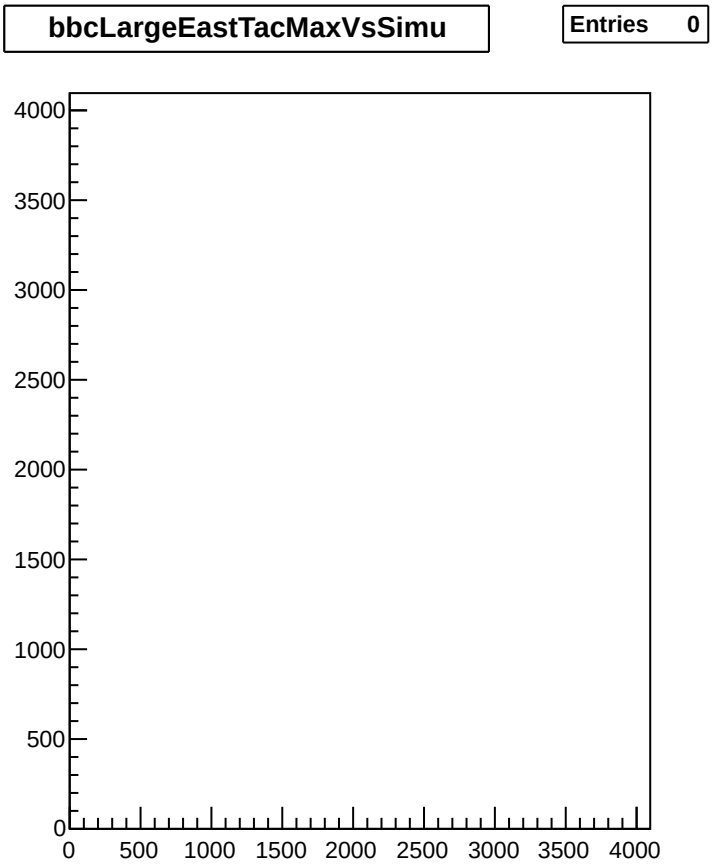

bbcSmallWestTacMaxVsSimu
Entries 462617

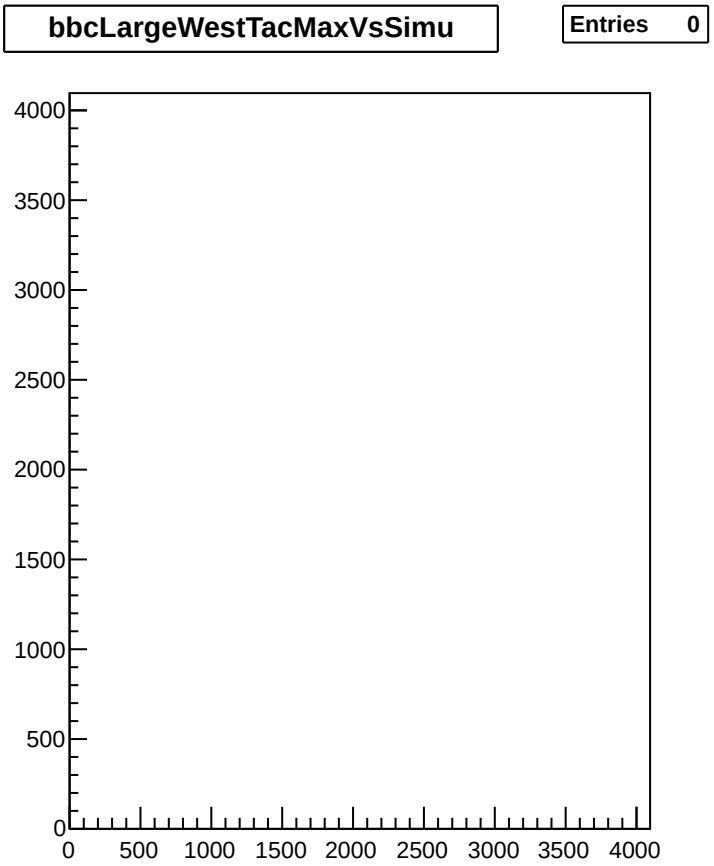

bbcSmallEastAdcSum
Entries 459354

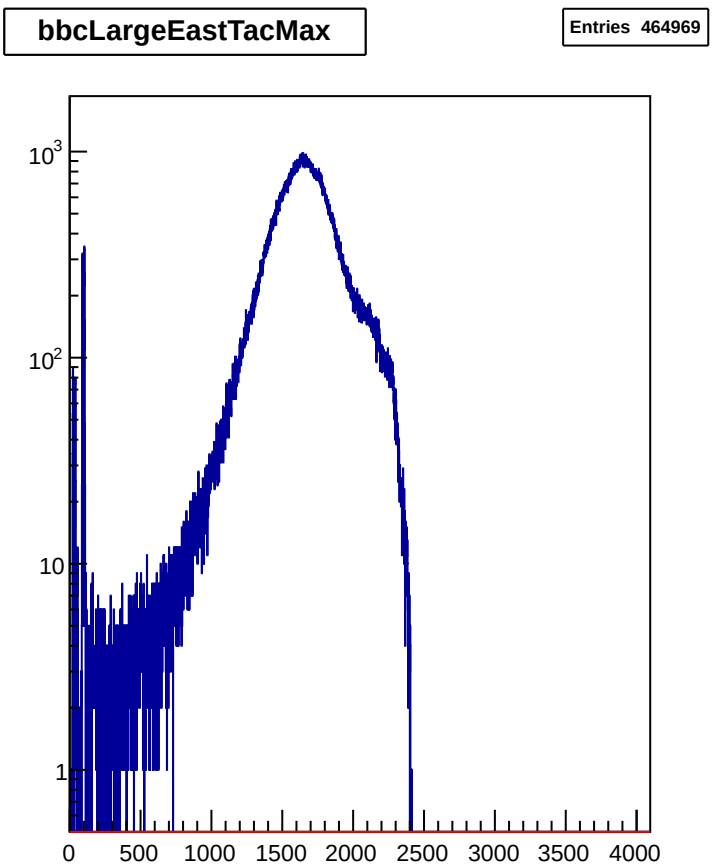

bbcSmallEastTacMax
Entries 459354

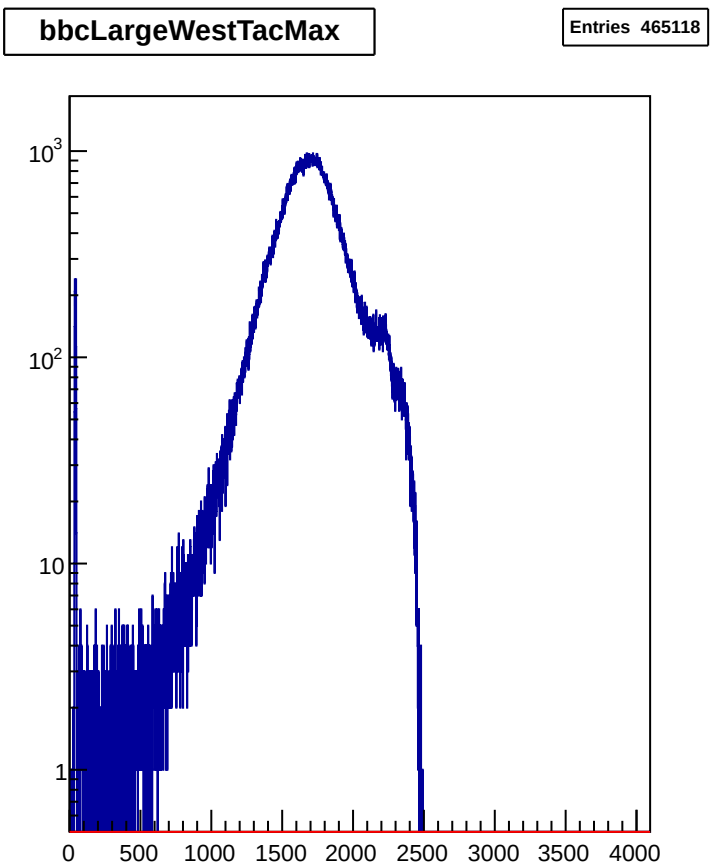

bbcSmallWestAdcSum
Entries 462617

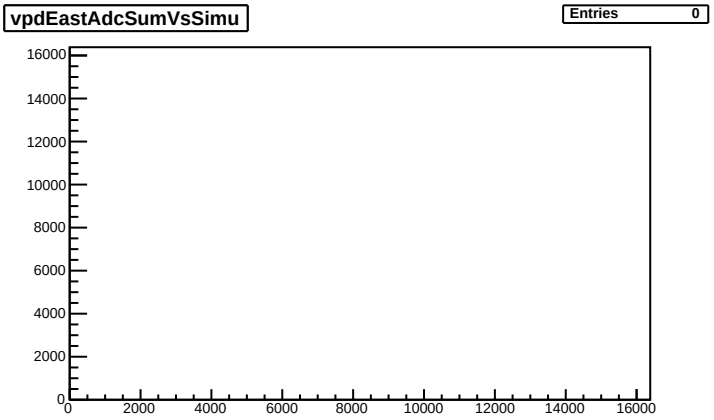

bbcSmallWestTacMax
Entries 462617

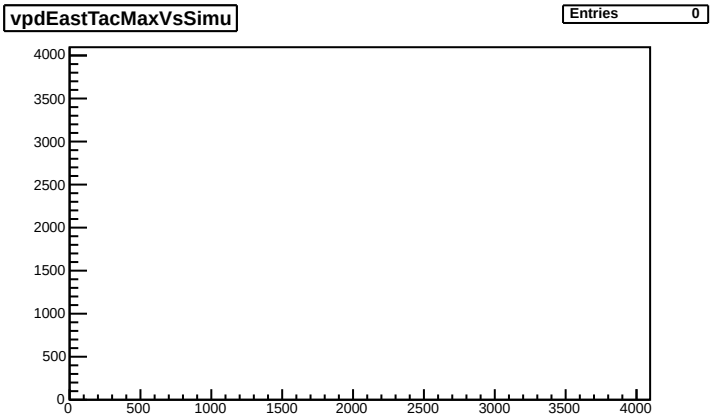

bbcLargeEastTacMaxVsSimu
Entries 0
4000
3500
3000
2500
2000
1500
1000
500
0
0 500 1000 1500 2000 2500 3000 3500 4000

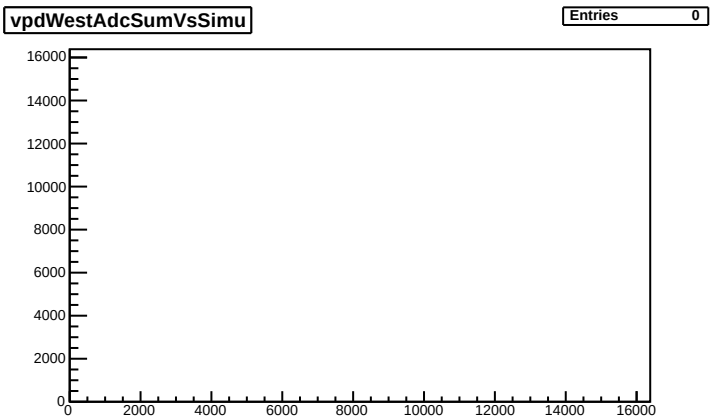

bbcLargeWestTacMaxVsSimu
Entries 0
4000
3500
3000
2500
2000
1500
1000
500
0
0 500 1000 1500 2000 2500 3000 3500 4000

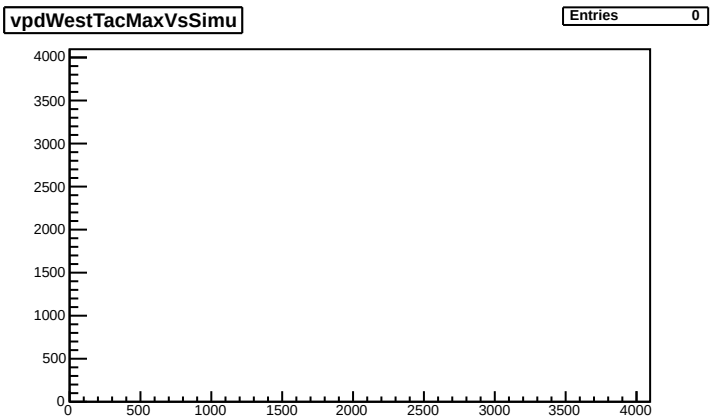

bbcLargeEastTacMax
Entries 464969
10^3
10^2
10
1
0 500 1000 1500 2000 2500 3000 3500 4000

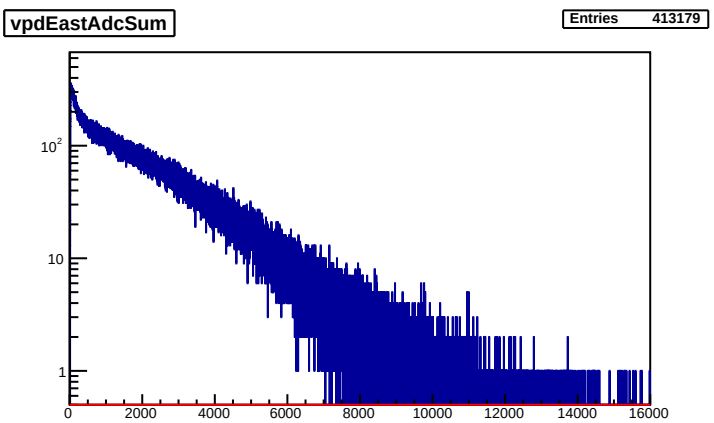

bbcLargeWestTacMax
Entries 465118
10^3
10^2
10
1
0 500 1000 1500 2000 2500 3000 3500 4000

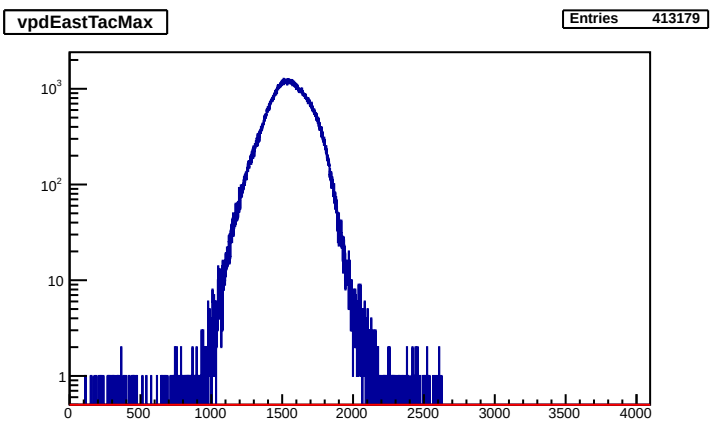

vpdEastAdcSumVsSimu
Entries 0

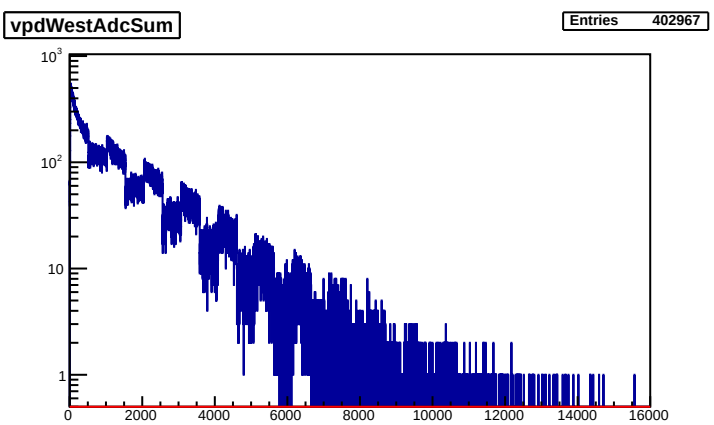

vpdEastTacMaxVsSimu
Entries 0

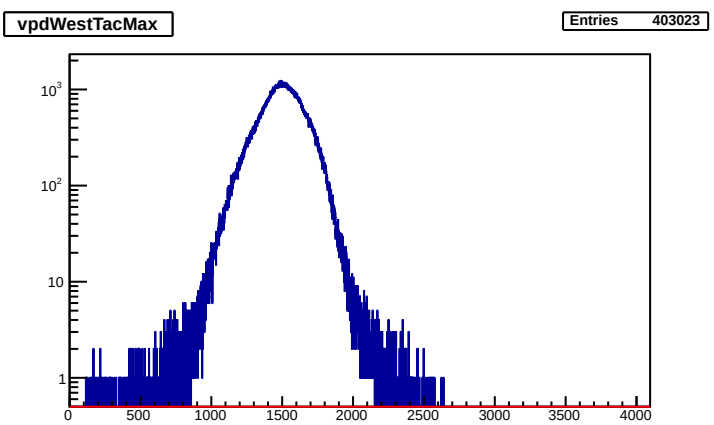

vpdWestAdcSumVsSimu
Entries 0

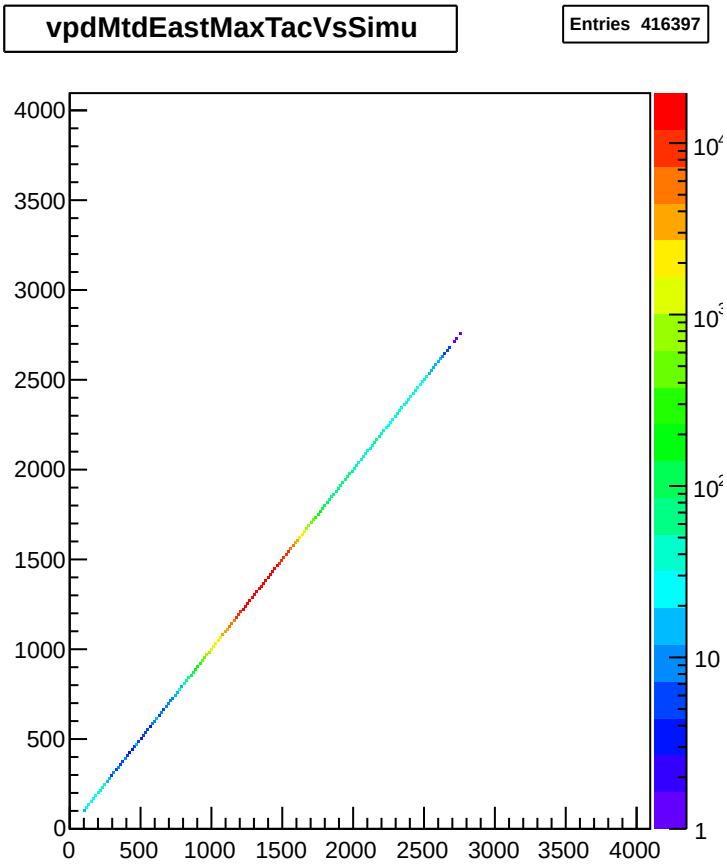

vpdWestTacMaxVsSimu
Entries 0

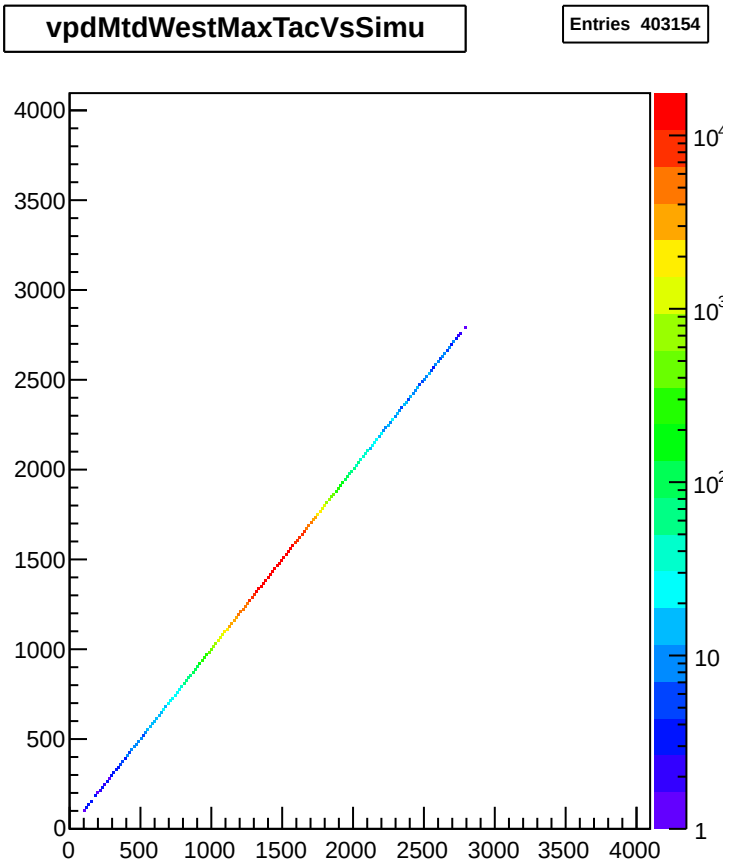

vpdEastAdcSum
Entries 413179

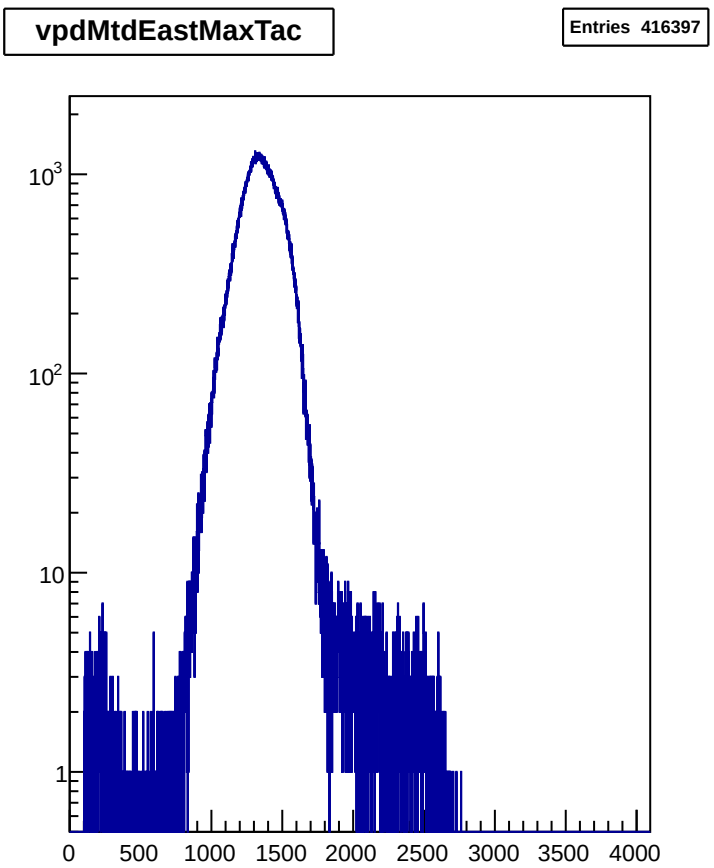

vpdEastTacMax
Entries 413179

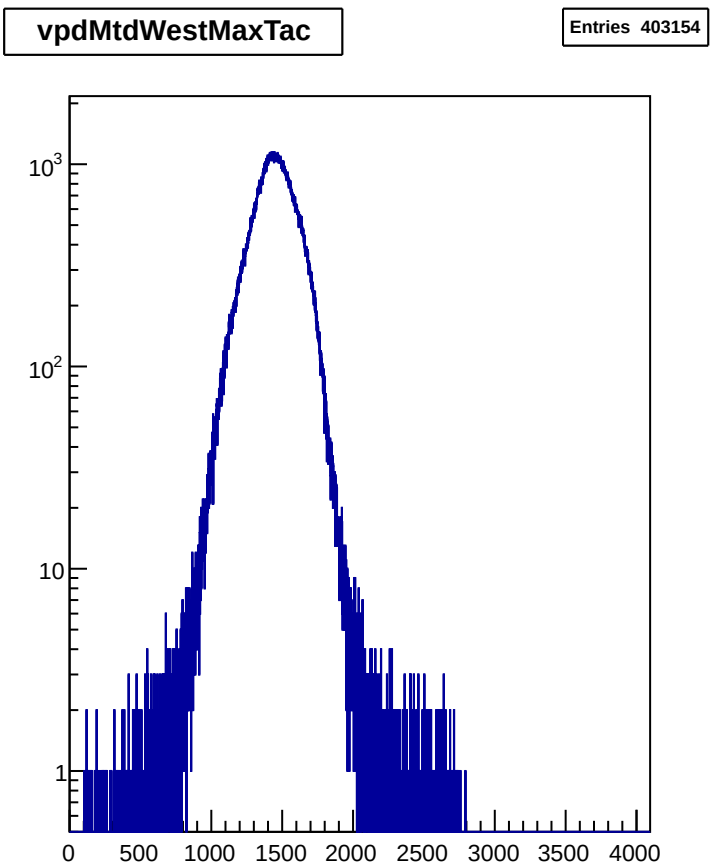

vpdWestAdcSum
Entries 402967

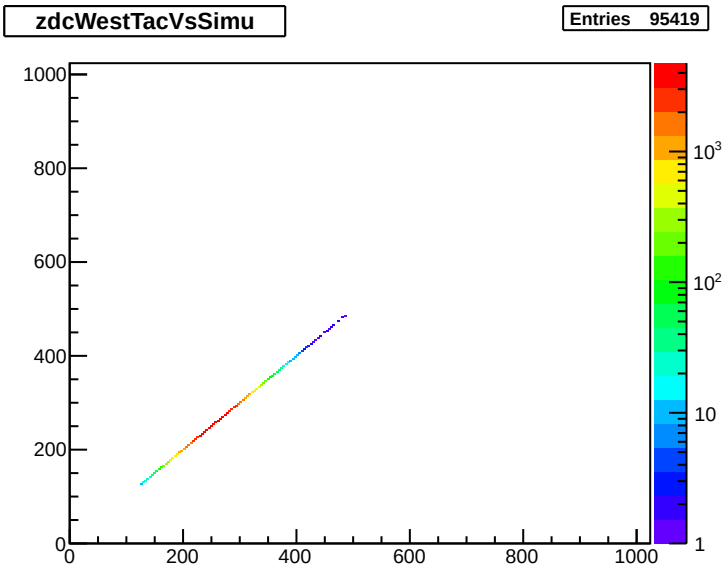

vpdWestTacMax
Entries 403023

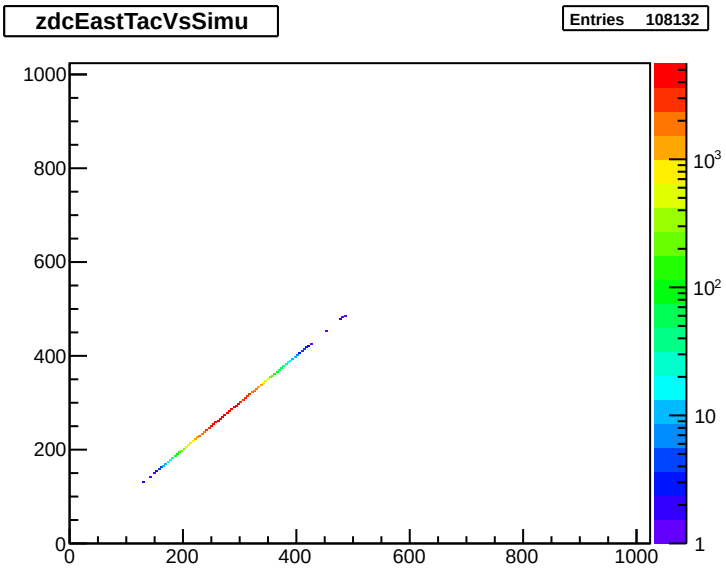

vpdMtdEastMaxTacVsSimu
Entries 416397

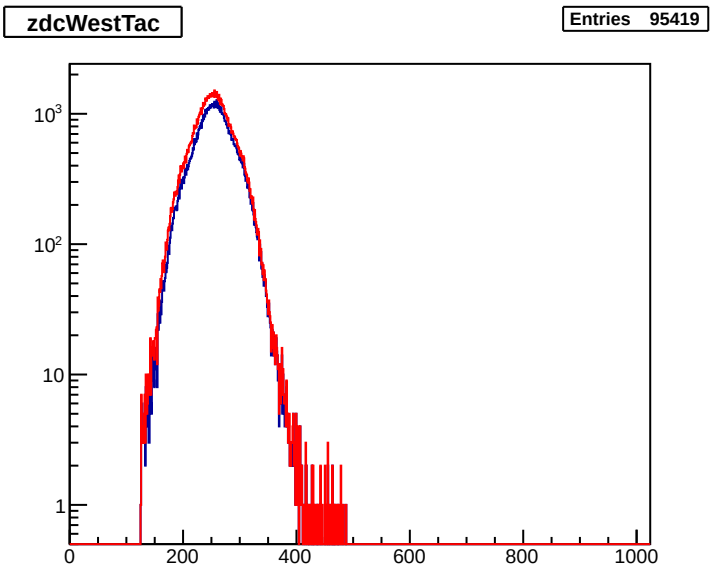

vpdMtdWestMaxTacVsSimu
Entries 403154

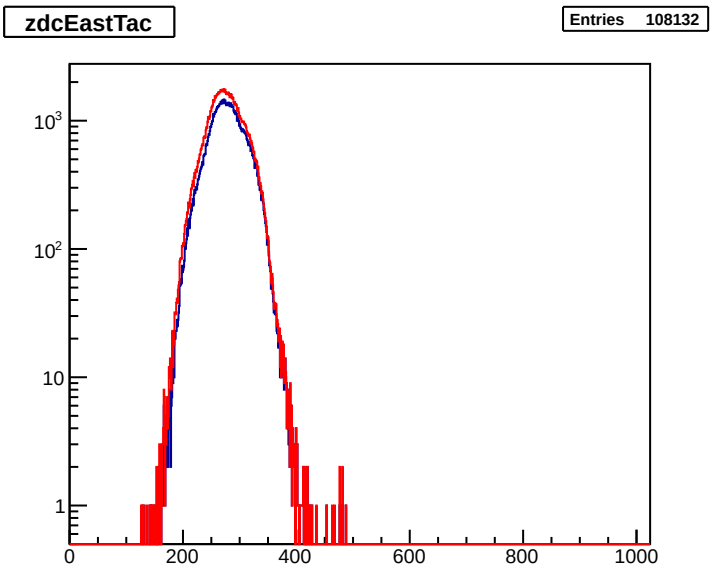

vpdMtdEastMaxTac
Entries 416397

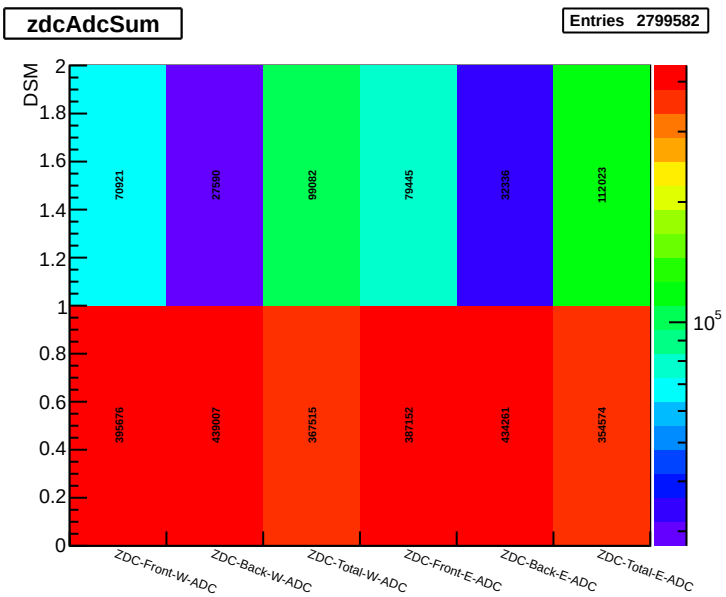

vpdMtdWestMaxTac
Entries 403154

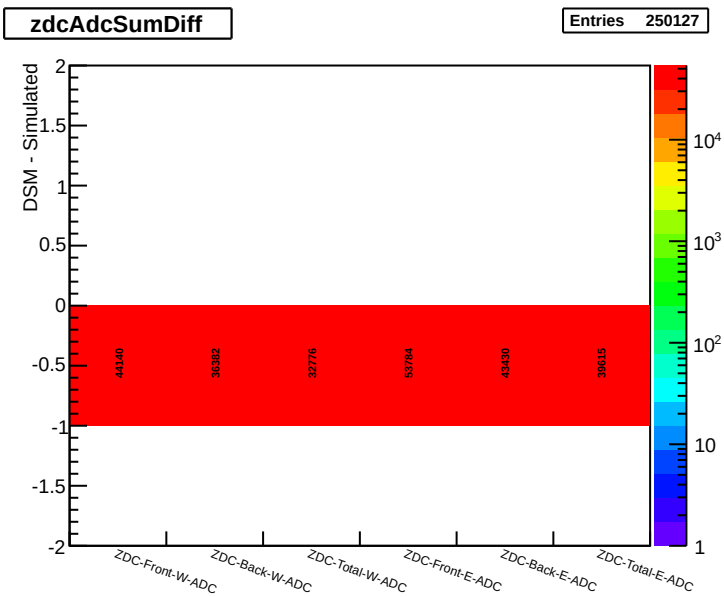

zdcWestTacVsSimu
Entries 95419

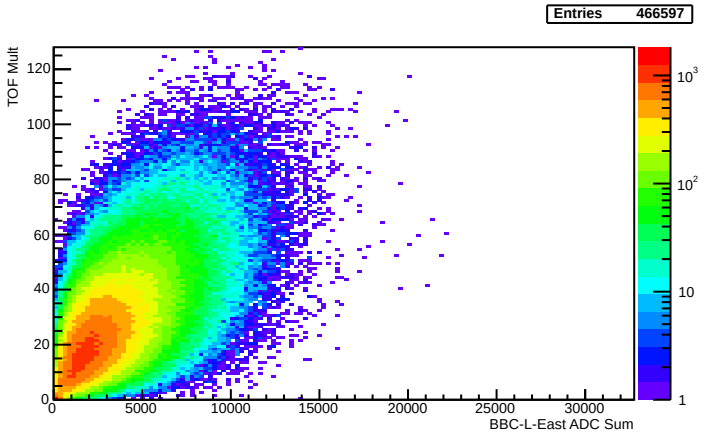

zdcEastTacVsSimu
Entries 108132

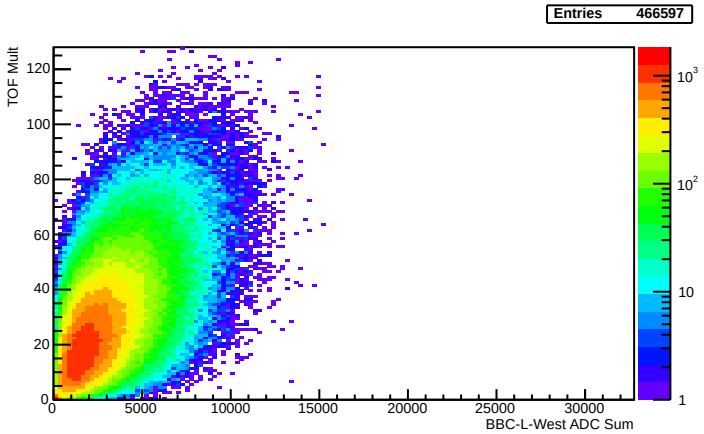

zdcWestTac
Entries 95419

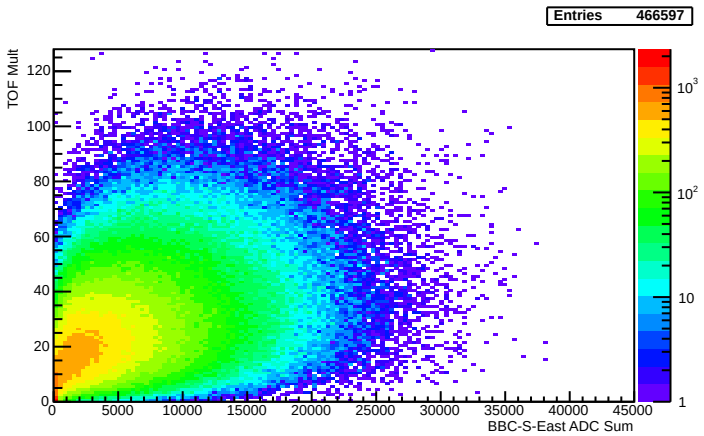

zdcEastTac
Entries 108132

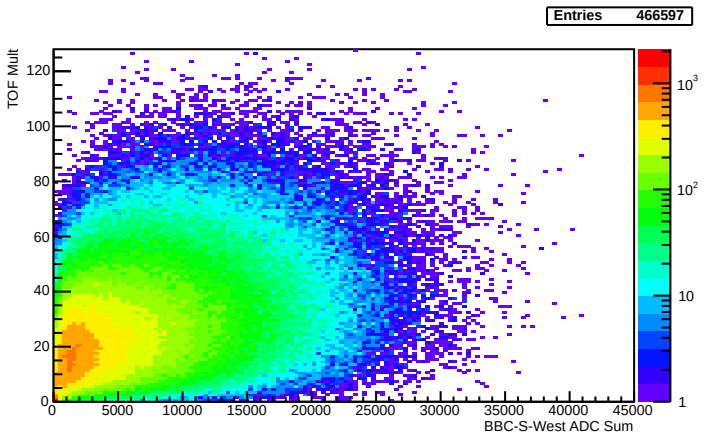

zdcAdcSum
Entries 2799582
DSM
70921
27590
99082
79445
32336
112023
395676
439007
367515
387152
434261
354574
ZDC-Front-W-ADC
ZDC-Back-W-ADC
ZDC-Total-W-ADC
ZDC-Front-E-ADC
ZDC-Back-E-ADC
ZDC-Total-E-ADC

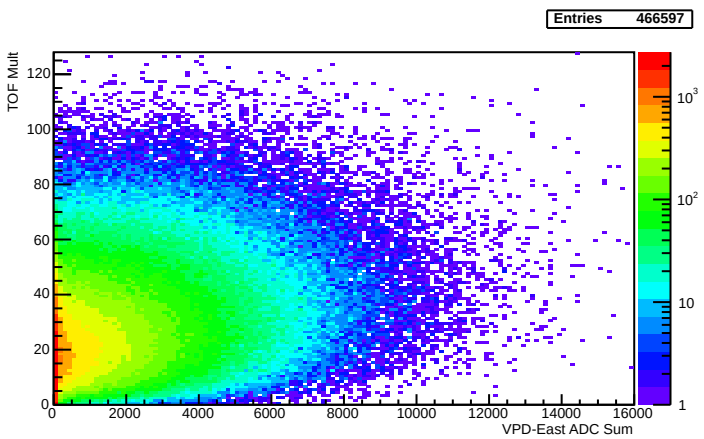

zdcAdcSumDiff
Entries 250127
DSM - Simulated
44140
36382
32776
53784
43430
39615
ZDC-Front-W-ADC
ZDC-Back-W-ADC
ZDC-Total-W-ADC
ZDC-Front-E-ADC
ZDC-Back-E-ADC
ZDC-Total-E-ADC

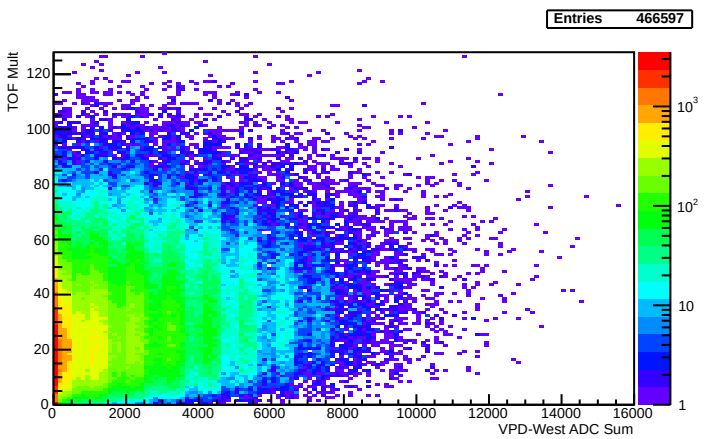

Entries 466597
TOF Mult
BBC-L-East ADC Sum

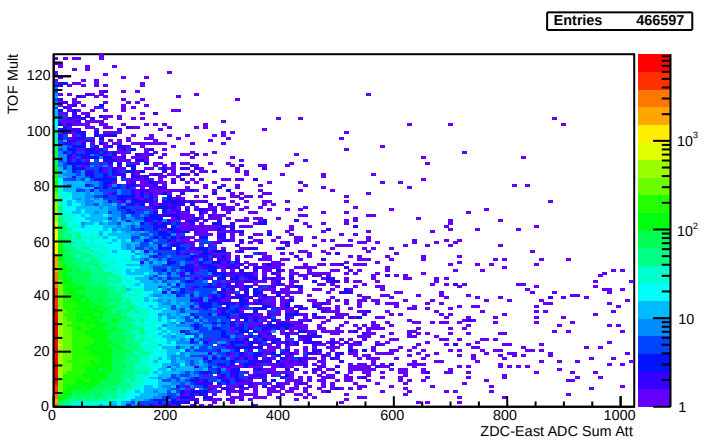

Entries 466597
TOF Mult
BBC-L-West ADC Sum

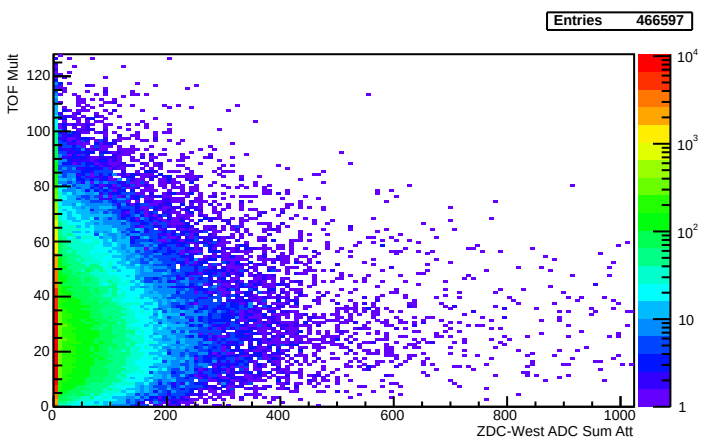

Entries 466597
TOF Mult
BBC-S-East ADC Sum

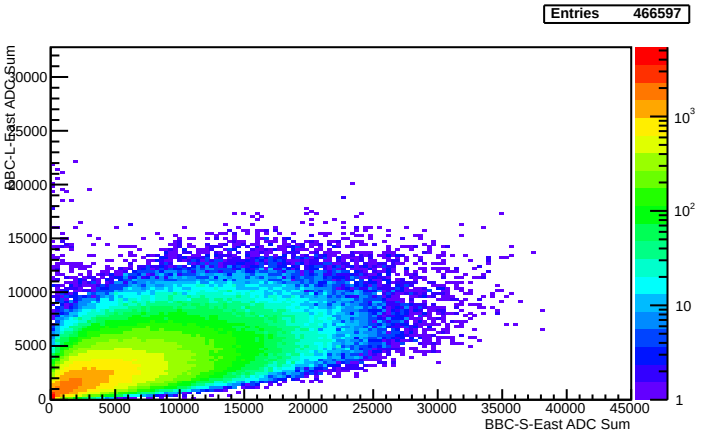

Entries 466597
TOF Mult
BBC-S-West ADC Sum

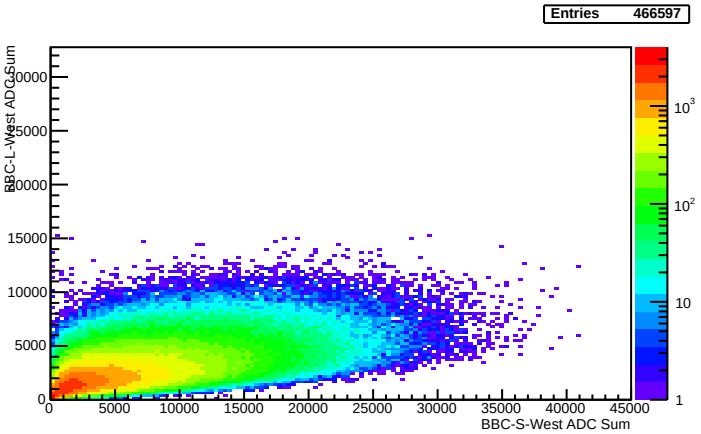

Entries 466597
TOF Mult
VPD-East ADC Sum

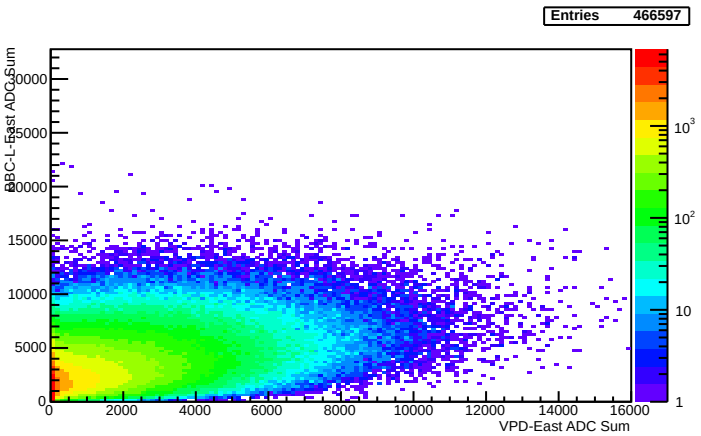

Entries 466597
TOF Mult
VPD-West ADC Sum

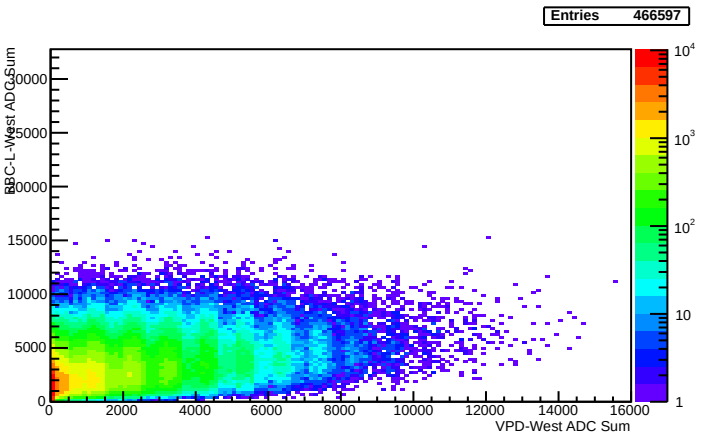

Entries 466597
TOF Mult
ZDC-East ADC Sum Att

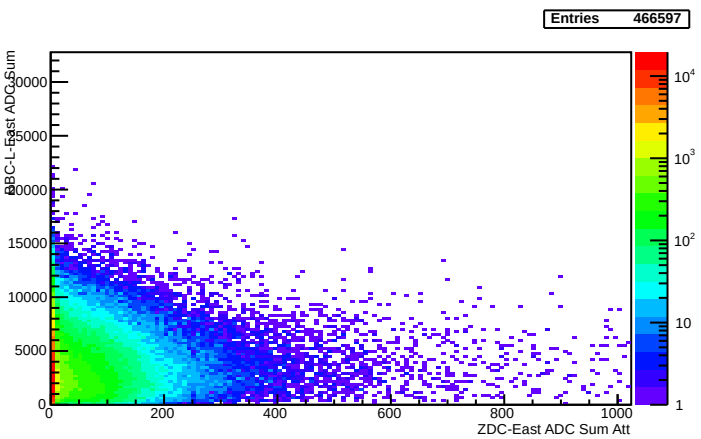

Entries 466597
TOF Mult
ZDC-West ADC Sum Att

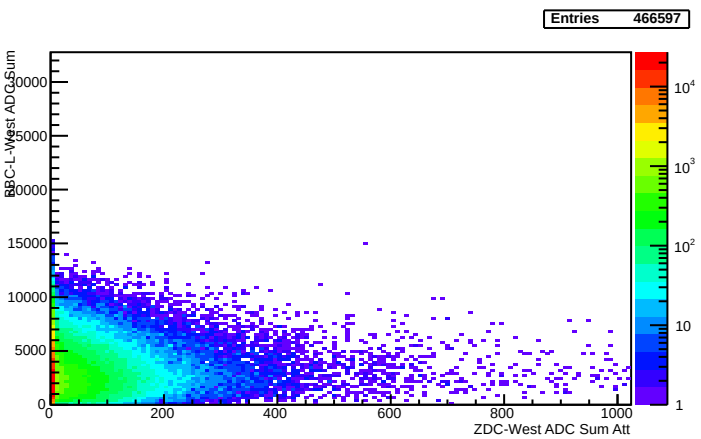

Entries 466597
BBC-L-East ADC Sum
BBC-S-East ADC Sum

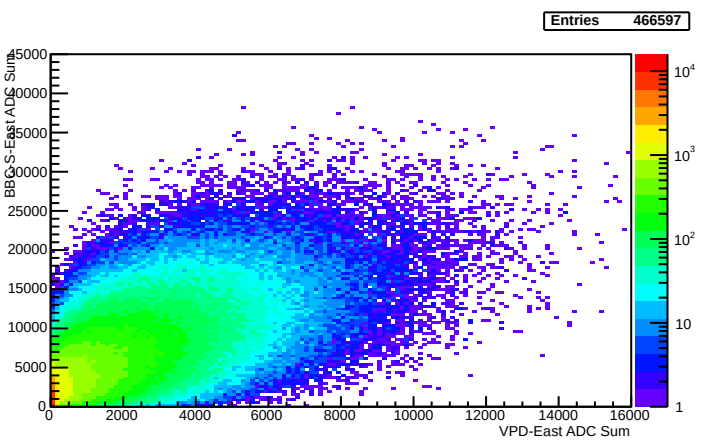

Entries 466597
BBC-L-West ADC Sum
BBC-S-West ADC Sum

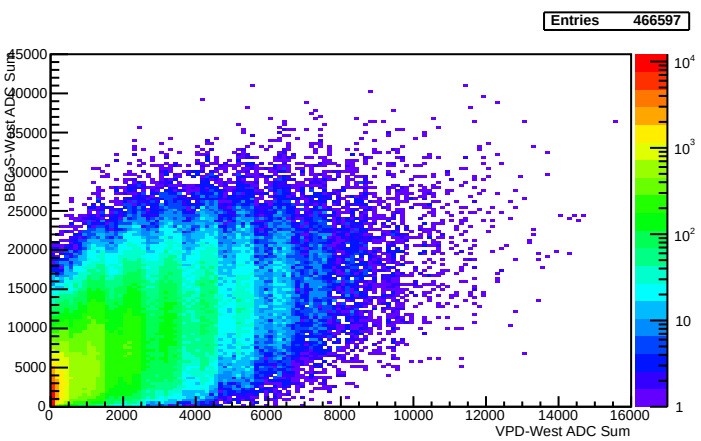

Entries 466597
BBC-L-East ADC Sum
VPD-East ADC Sum

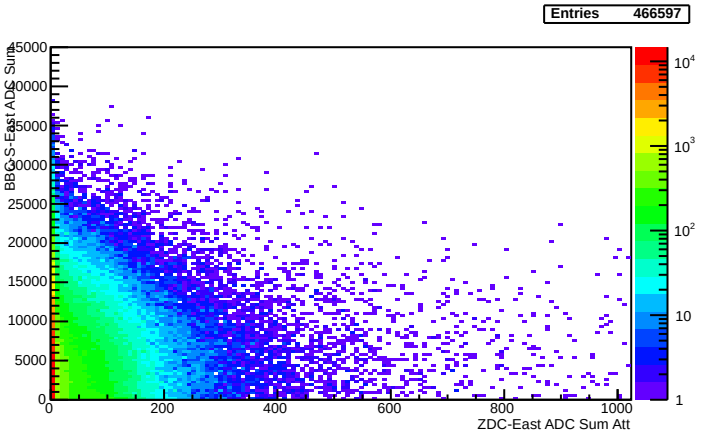

Entries 466597
BBC-L-West ADC Sum
VPD-West ADC Sum

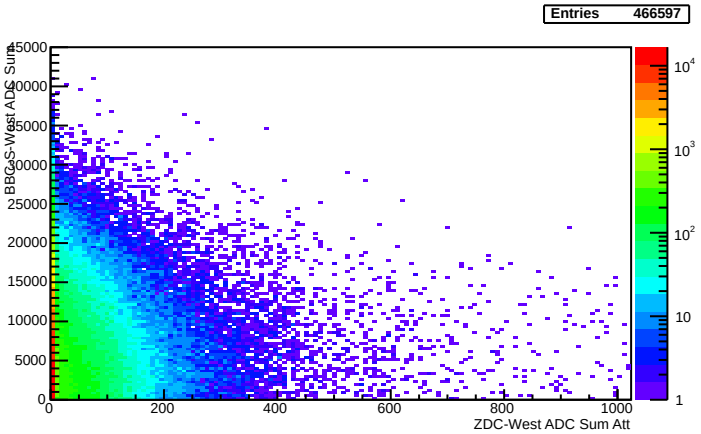

Entries 466597
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

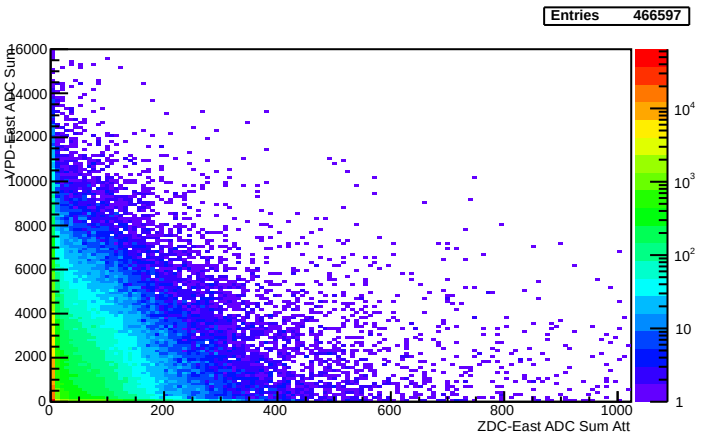

Entries 466597
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

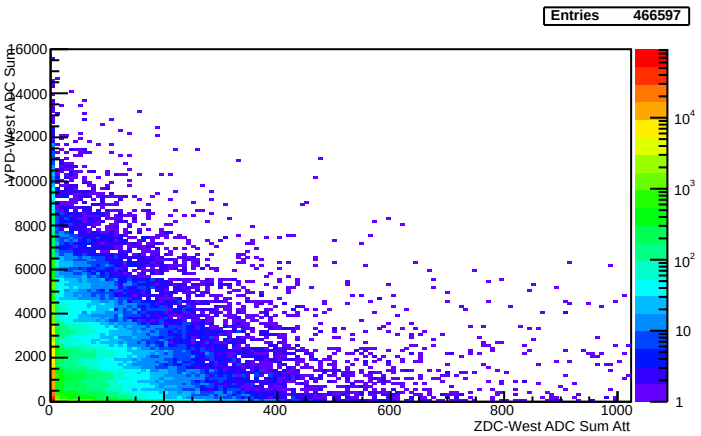

Entries 466597
BBC-S-East ADC Sum
VPD-East ADC Sum

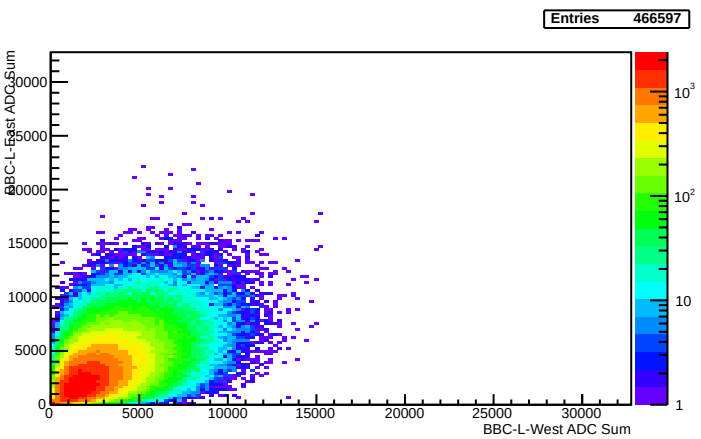

Entries 466597
BBC-S-West ADC Sum
VPD-West ADC Sum

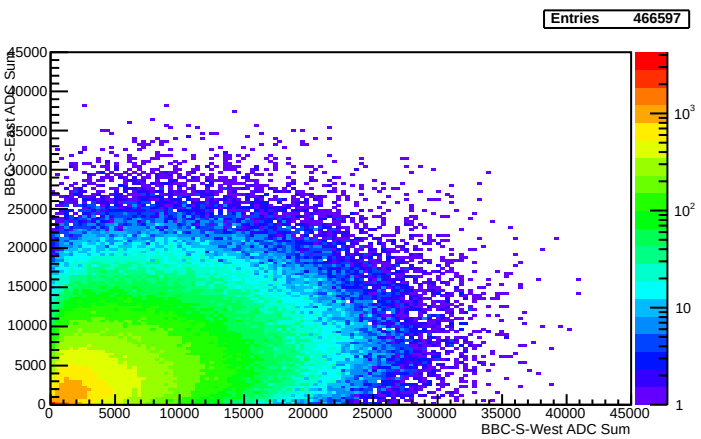

Entries 466597
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

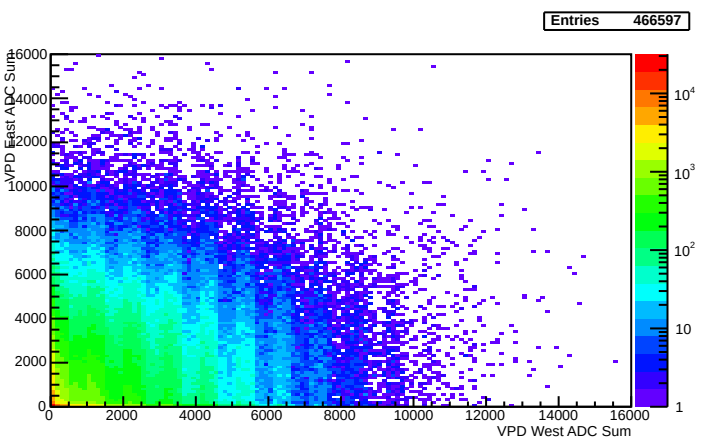

Entries 466597
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

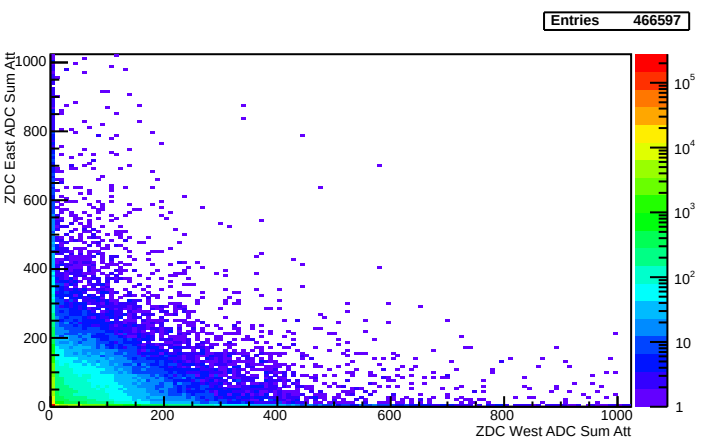

Entries 466597
VPD-East ADC Sum
ZDC-East ADC Sum Att

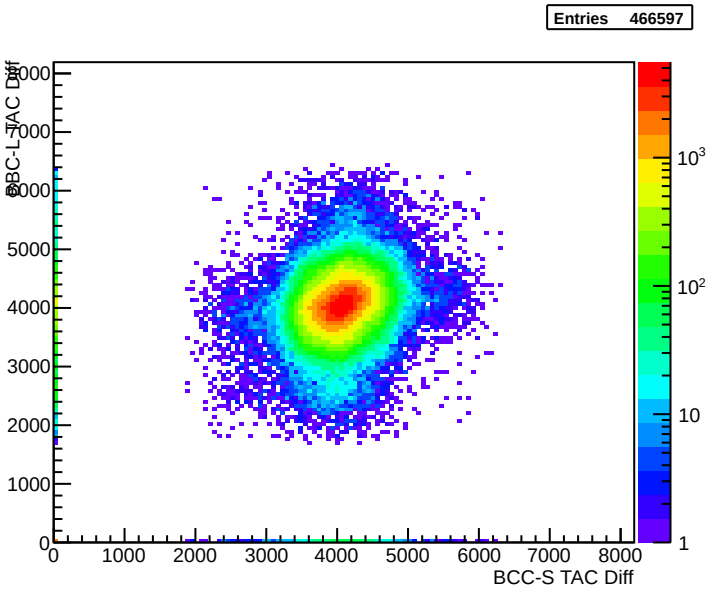

Entries 466597
VPD-West ADC Sum
ZDC-West ADC Sum Att

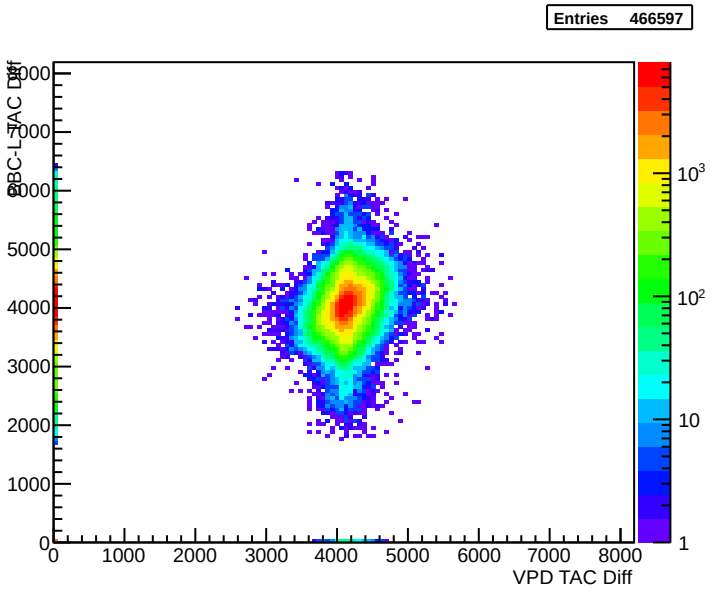

Entries 466597
BBC-L-East ADC Sum
BBC-L-West ADC Sum

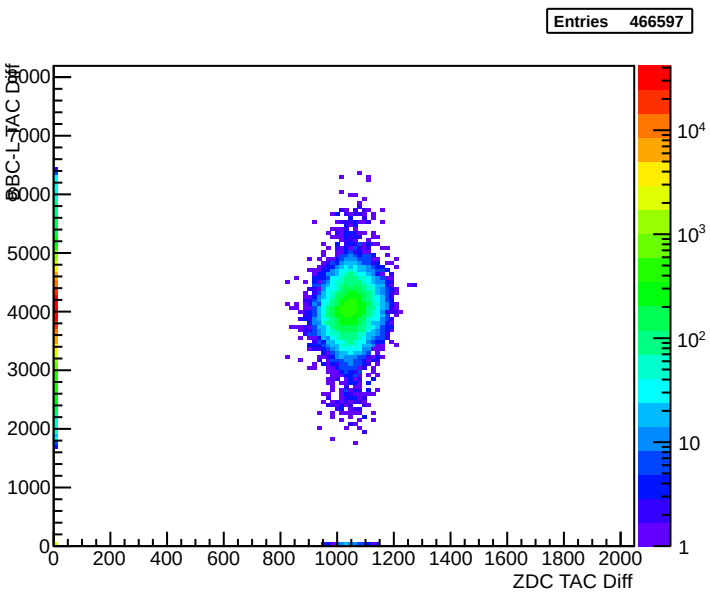

Entries 466597
BBC-S-East ADC Sum
BBC-S-West ADC Sum

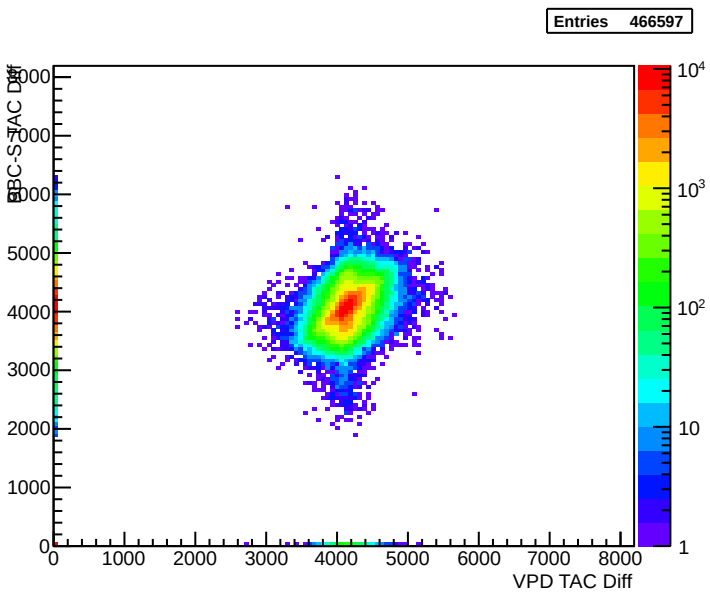

Entries 466597
VPD East ADC Sum
VPD West ADC Sum

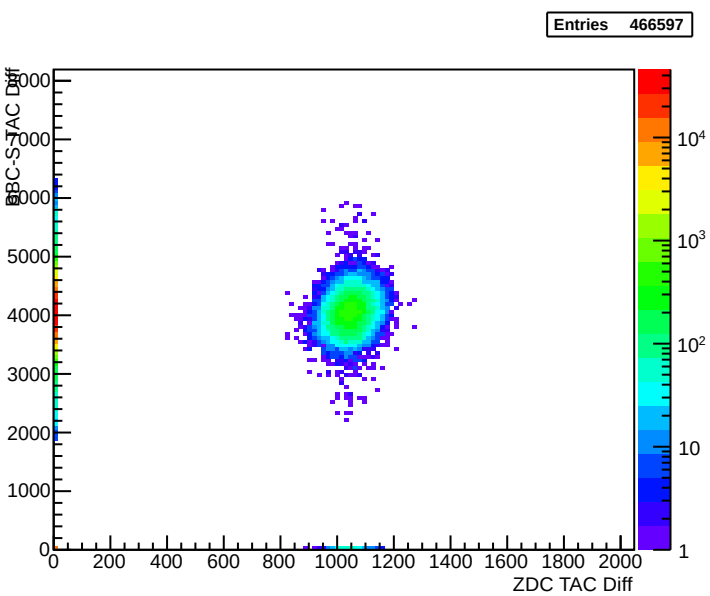

Entries 466597
ZDC East ADC Sum Att
ZDC West ADC Sum Att

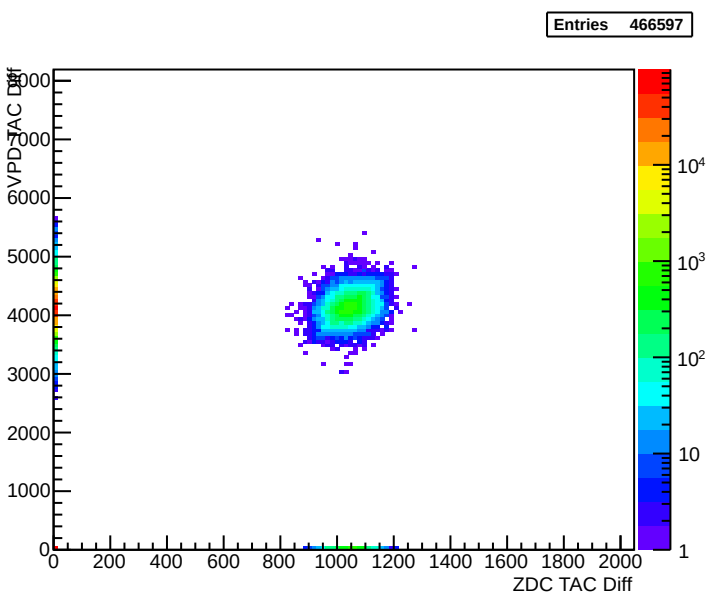

Entries 466597
BBC-L TAC Diff
BCC-S TAC Diff

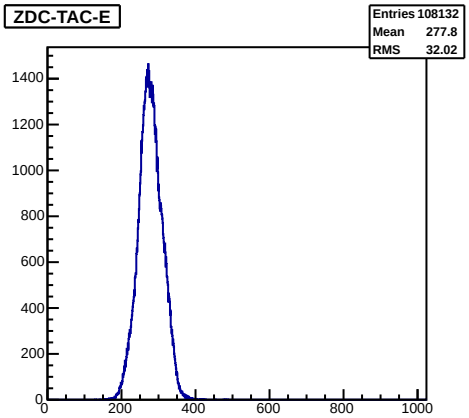

Entries 466597
BBC-L TAC Diff
VPD TAC Diff

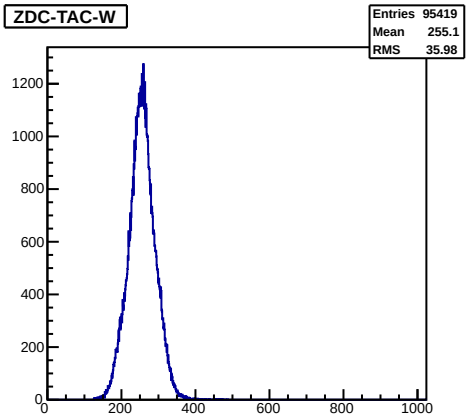

Entries 466597
BBC-L TAC Diff
ZDC TAC Diff

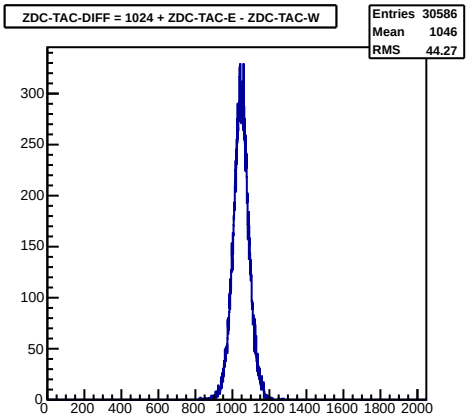

Entries 466597
BBC-S TAC Diff
VPD TAC Diff

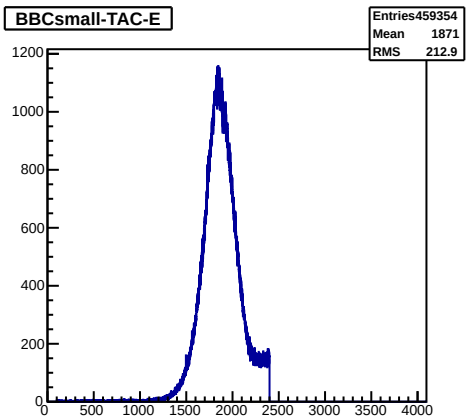

Entries 466597
BBC-S TAC Diff
ZDC TAC Diff

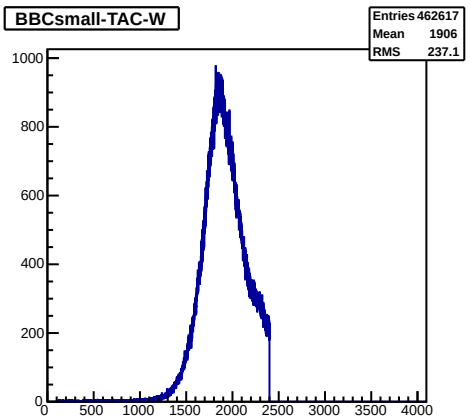

Entries 466597
VPD TAC Diff
ZDC TAC Diff

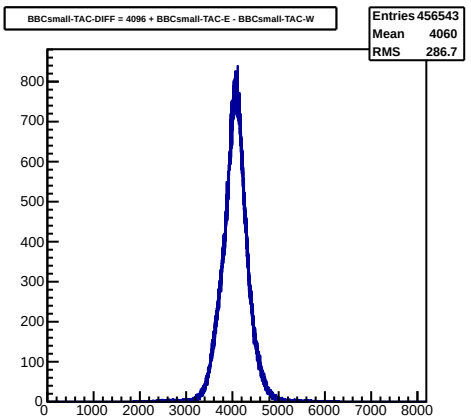

ZDC-TAC-E
Entries 108132
Mean 277.8
RMS 32.02

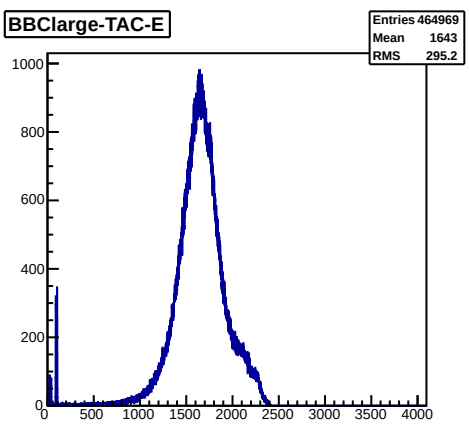

ZDC-TAC-W
Entries 95419
Mean 255.1
RMS 35.98

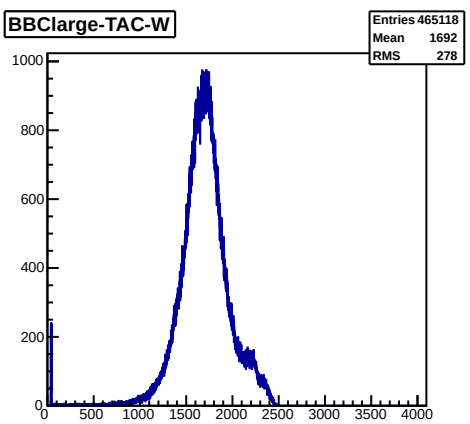

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 30586
Mean 1046
RMS 44.27

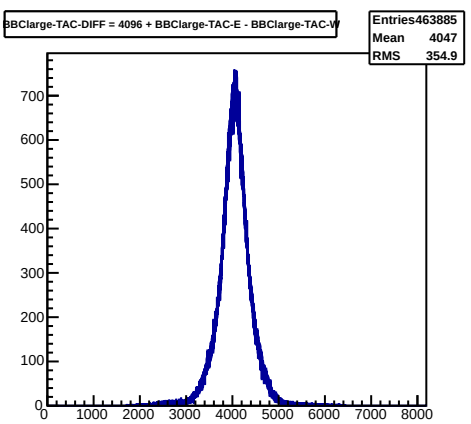

BBCsmall-TAC-E
Entries 459354
Mean 1871
RMS 212.9

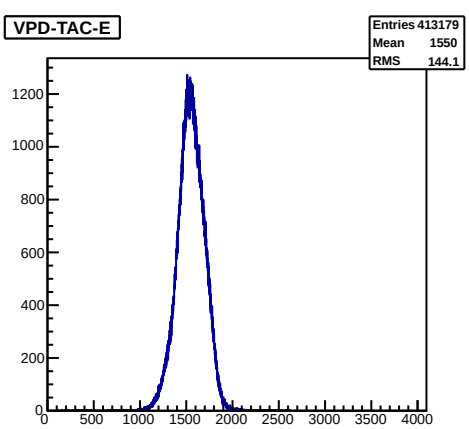

BBCsmall-TAC-W
Entries 462617
Mean 1906
RMS 237.1

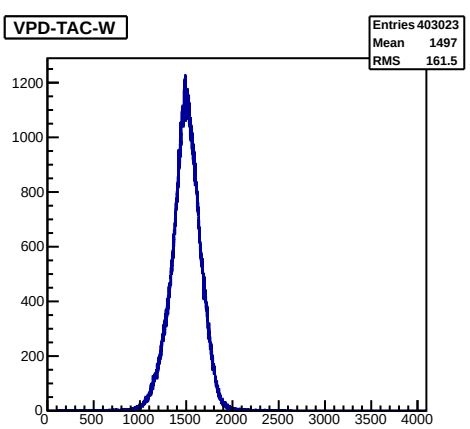

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 456543
Mean 4060
RMS 286.7

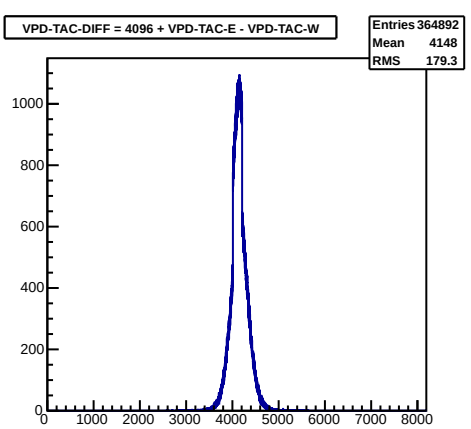

BBClarge-TAC-E
Entries 464969
Mean 1643
RMS 295.2

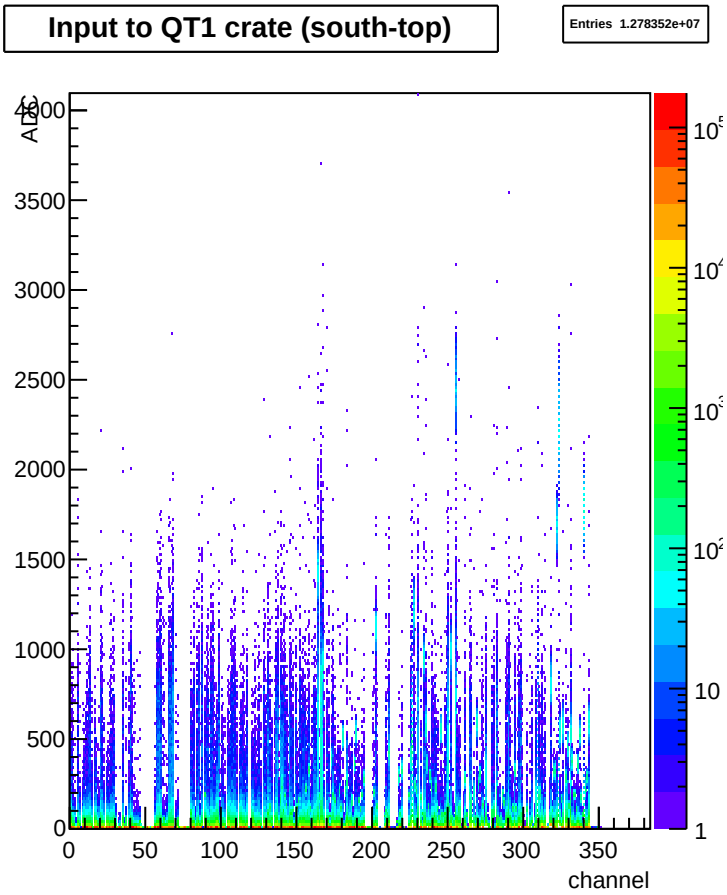

BBClarge-TAC-W
Entries 465118
Mean 1692
RMS 278

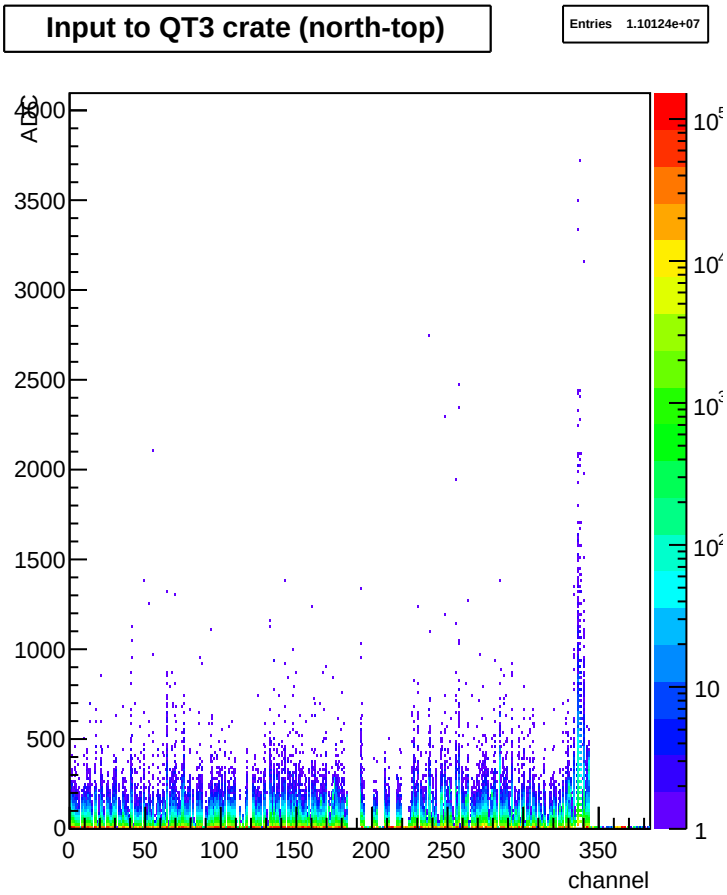

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 463885
Mean 4047
RMS 354.9

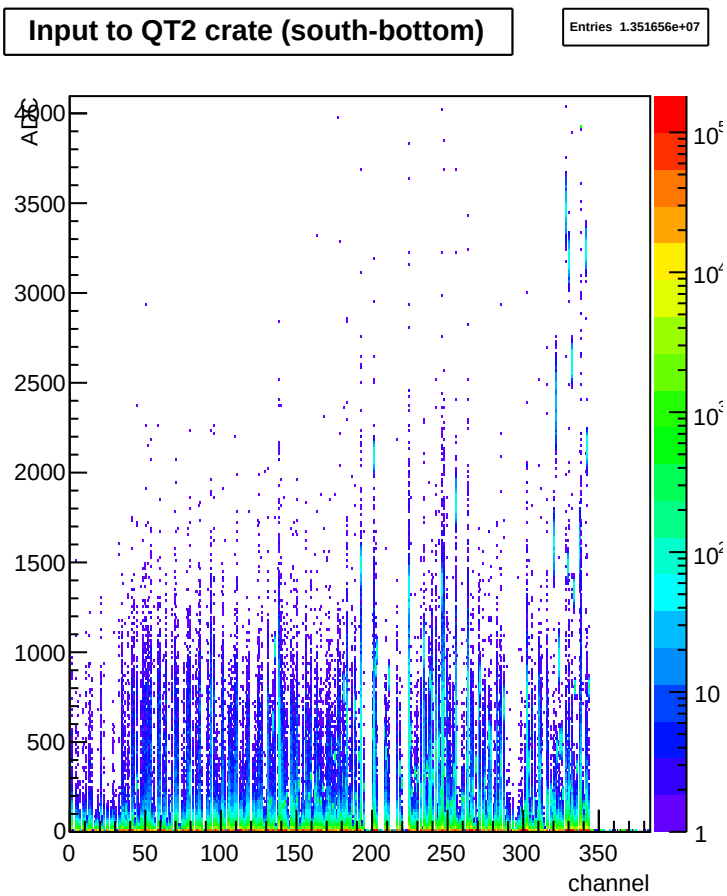

VPD-TAC-E
Entries 413179
Mean 1550
RMS 144.1

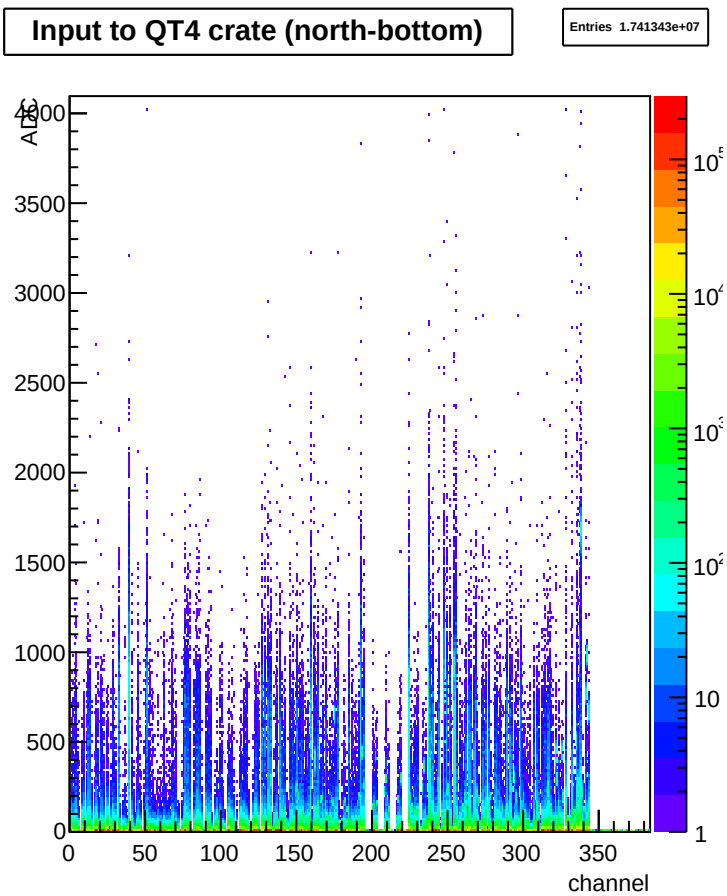

VPD-TAC-W
Entries 403023
Mean 1497
RMS 161.5

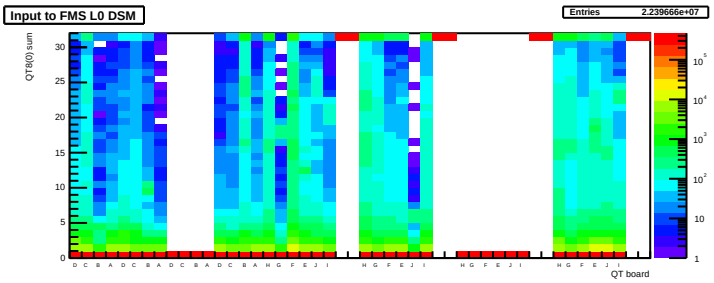

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 364892
Mean 4148
RMS 179.3

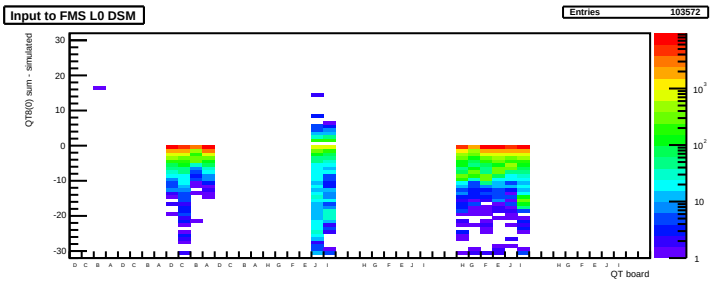

Input to QT1 crate (south-top)
Entries 1.278352e+07
ADC
channel

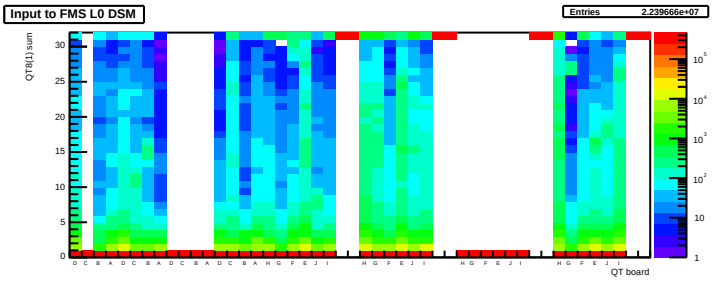

Input to QT3 crate (north-top)
Entries 1.10124e+07
ADC
channel

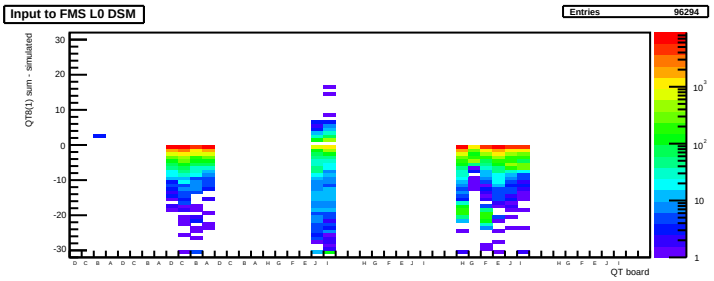

Input to QT2 crate (south-bottom)
Entries 1.351656e+07
ADC
channel

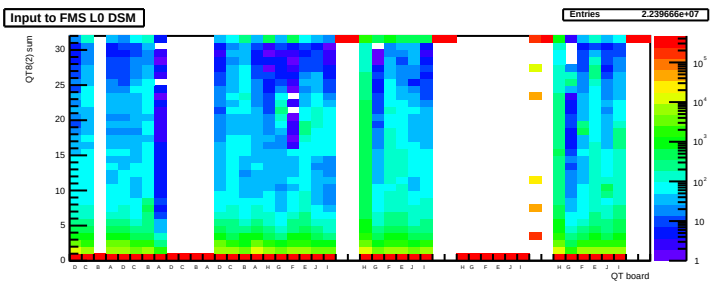

Input to QT4 crate (north-bottom)
Entries 1.741343e+07
ADC
channel

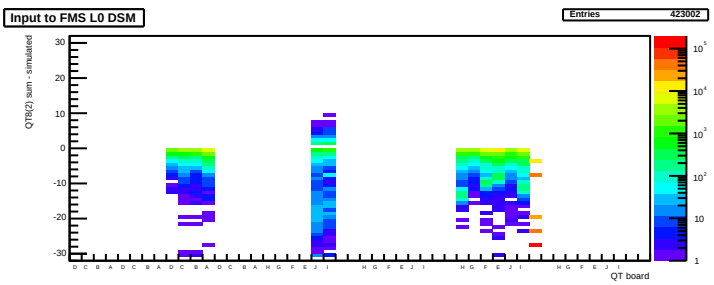

Input to FMS L0 DSM
Entries 2.239666e+07
QT8(0) sum
QT board

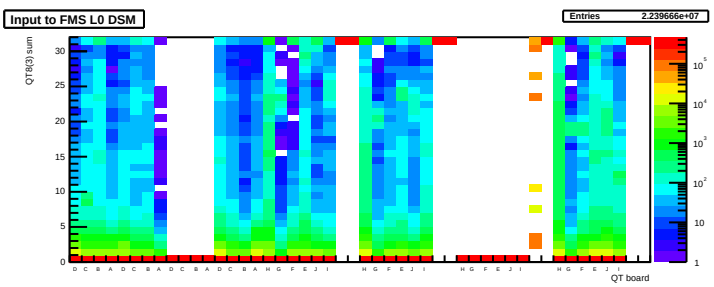

Input to FMS L0 DSM
Entries 103572
QT8(0) sum - simulated
QT board

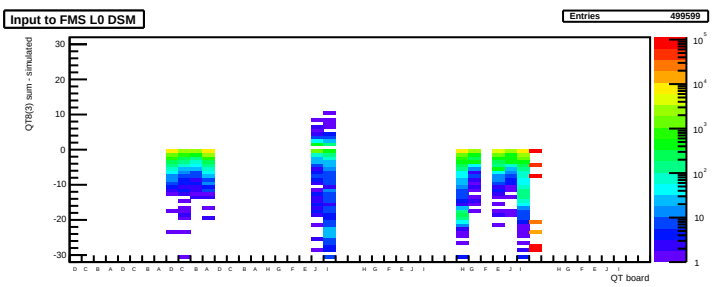

Input to FMS L0 DSM
Entries 2.239666e+07
QT8(1) sum
QT board

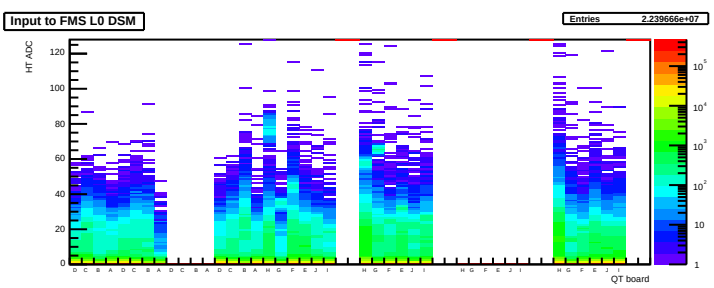

Input to FMS L0 DSM
Entries 96294
QT8(1) sum - simulated
QT board

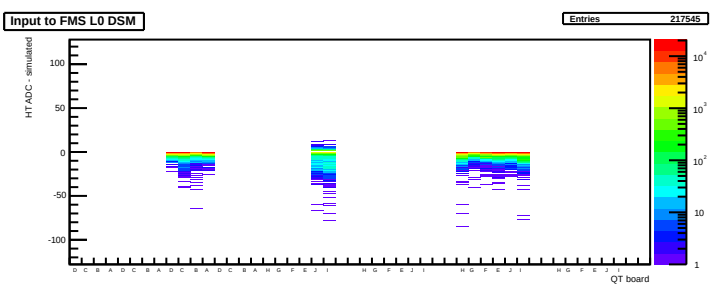

Input to FMS L0 DSM
Entries 2.239666e+07
QT8(2) sum
QT board

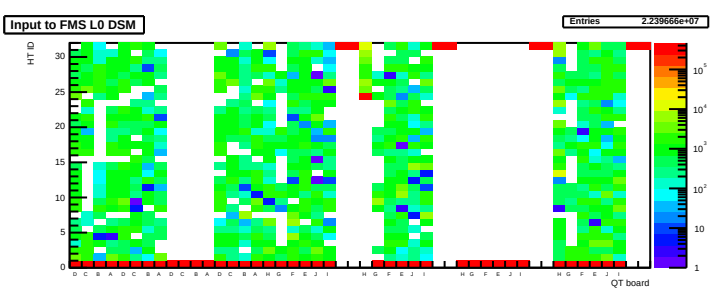

Input to FMS L0 DSM
Entries 423002
QT8(2) sum - simulated
QT board

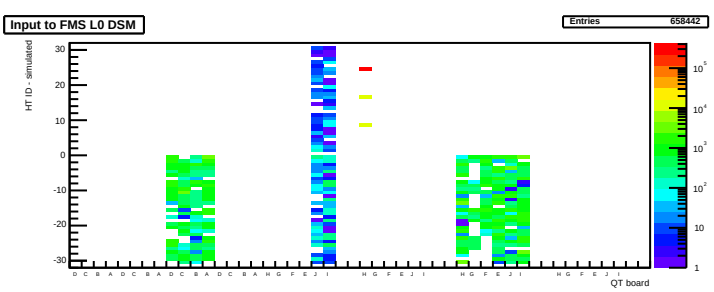

Input to FMS L0 DSM
Entries 2.239666e+07
QT8(3) sum
QT board

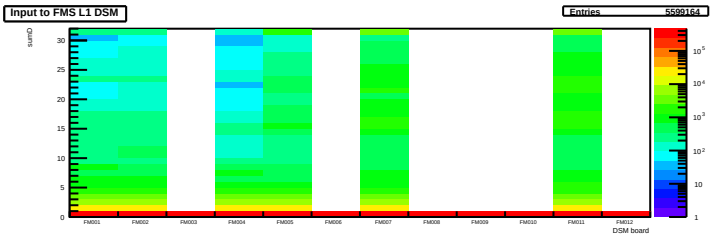

Input to FMS L0 DSM
Entries 499599
QT8(3) sum - simulated
QT board

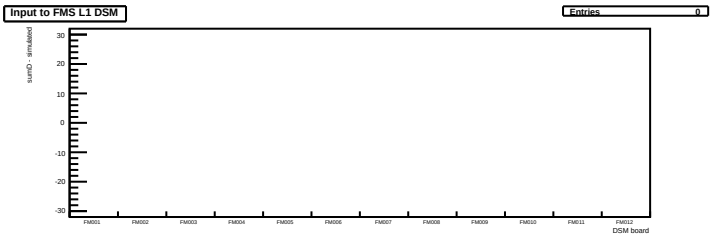

Input to FMS L0 DSM
Entries 2.239666e+07
HT ADC
QT board

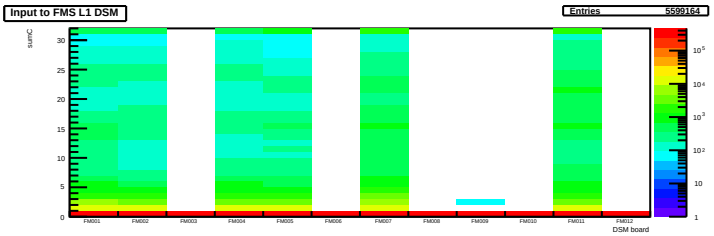

Input to FMS L0 DSM
Entries 217545
HT ADC - simulated
QT board

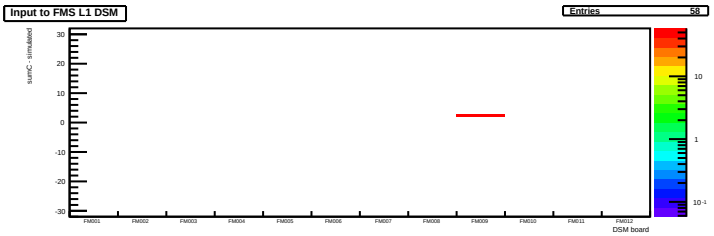

Input to FMS L0 DSM
Entries 2.239666e+07
HT ID
QT board

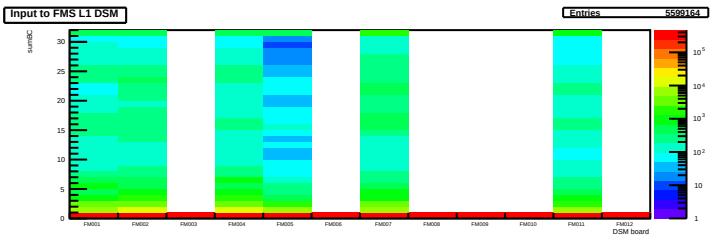

Input to FMS L0 DSM
Entries 658442
HT ID - simulated
QT board

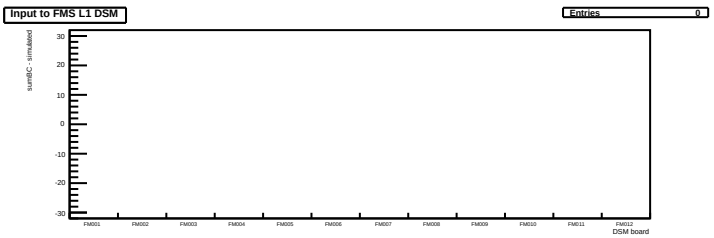

Input to FMS L1 DSM
Entries 5599164
sumD
DSM board

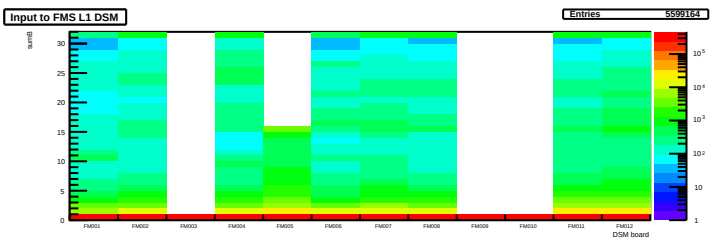

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

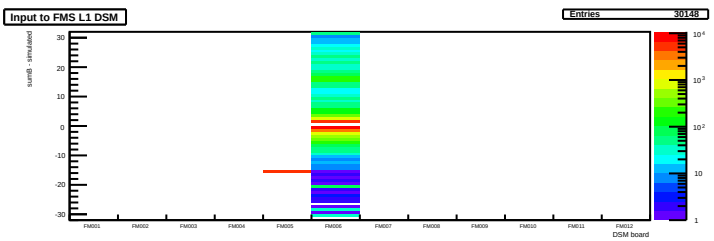

Input to FMS L1 DSM
Entries 5599164
sumC
DSM board

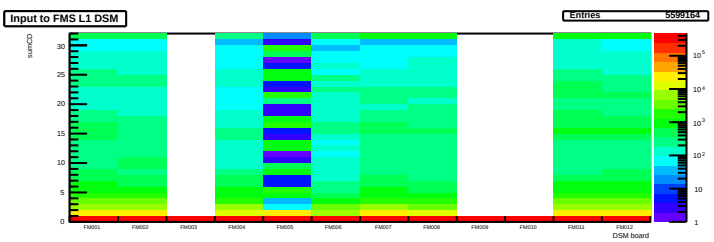

Input to FMS L1 DSM
Entries 58
sumC - simulated
DSM board

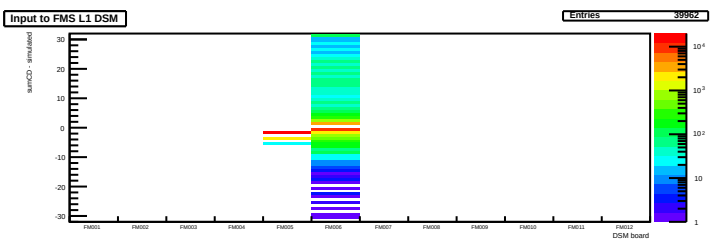

Input to FMS L1 DSM
Entries 5599164
sumBC
DSM board

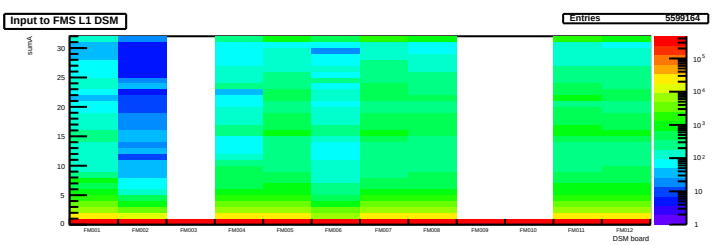

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

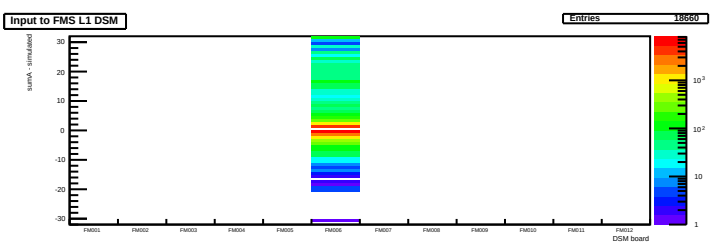

Input to FMS L1 DSM
Entries 5599164
sumB
DSM board

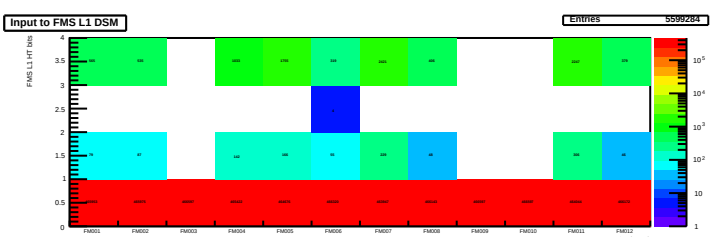

Input to FMS L1 DSM
Entries 30148
sumB - simulated
DSM board

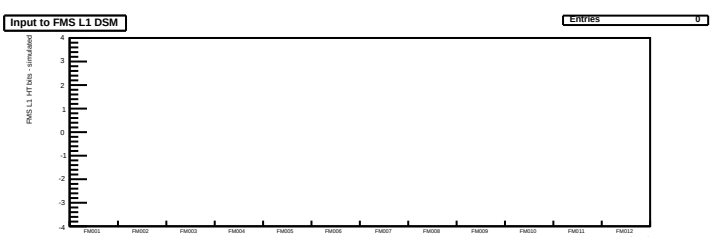

Input to FMS L1 DSM
Entries 5599164
sumCD
DSM board

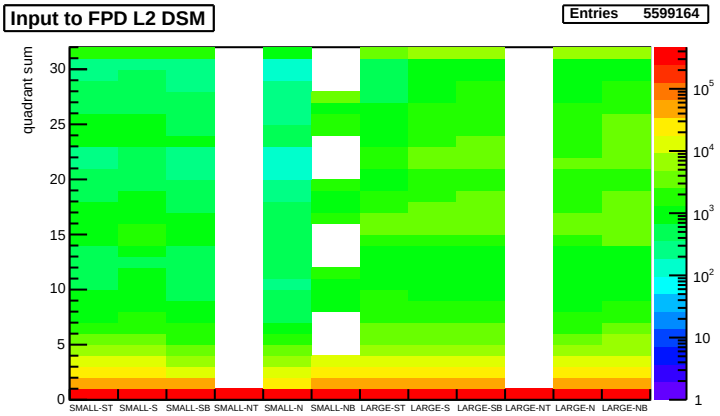

Input to FMS L1 DSM
Entries 39962
sumCD - simulated
DSM board

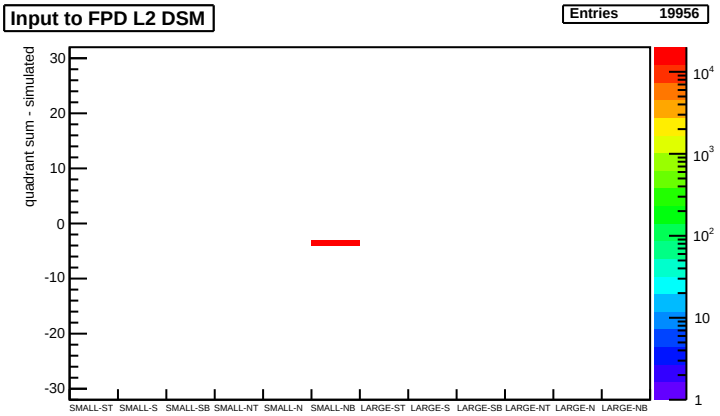

Input to FMS L1 DSM
Entries 5599164
sumA
DSM board

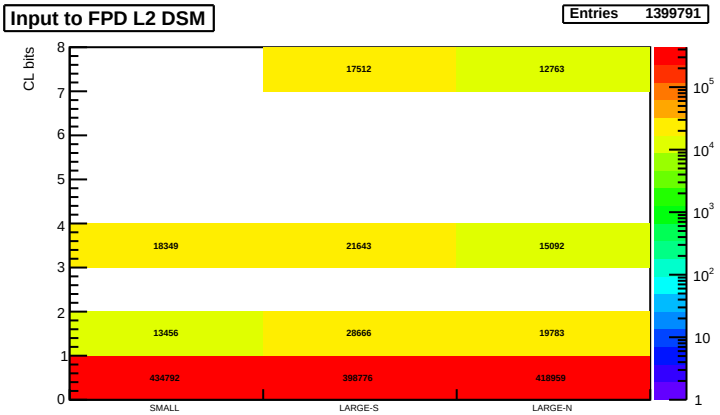

Input to FMS L1 DSM
Entries 18660
sumA - simulated
DSM board

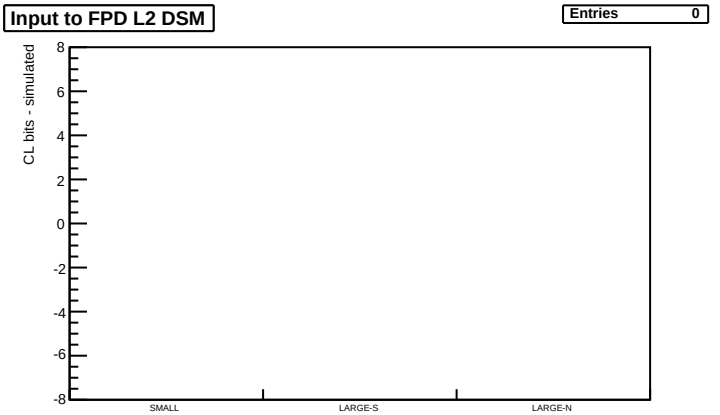

Input to FMS L1 DSM
Entries 5599284
FMS L1 HT bits
DSM board

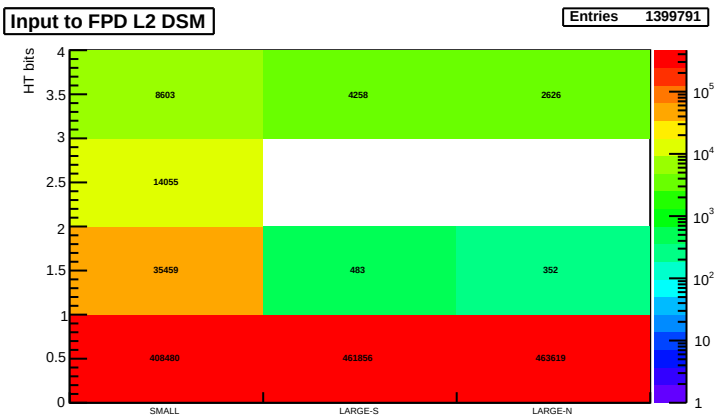

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

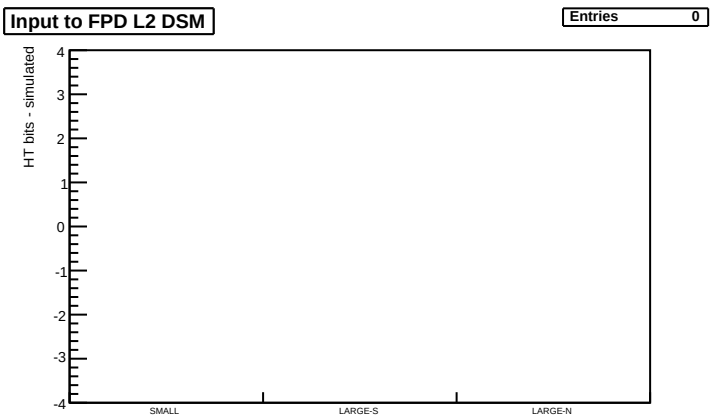

Input to FPD L2 DSM
Entries 5599164
quadrant sum
SMALL-ST SMALL-S SMALL-SB SMALL-NT SMALL-N SMALL-NB LARGE-ST LARGE-S LARGE-SB LARGE-NT LARGE-N LARGE-NB

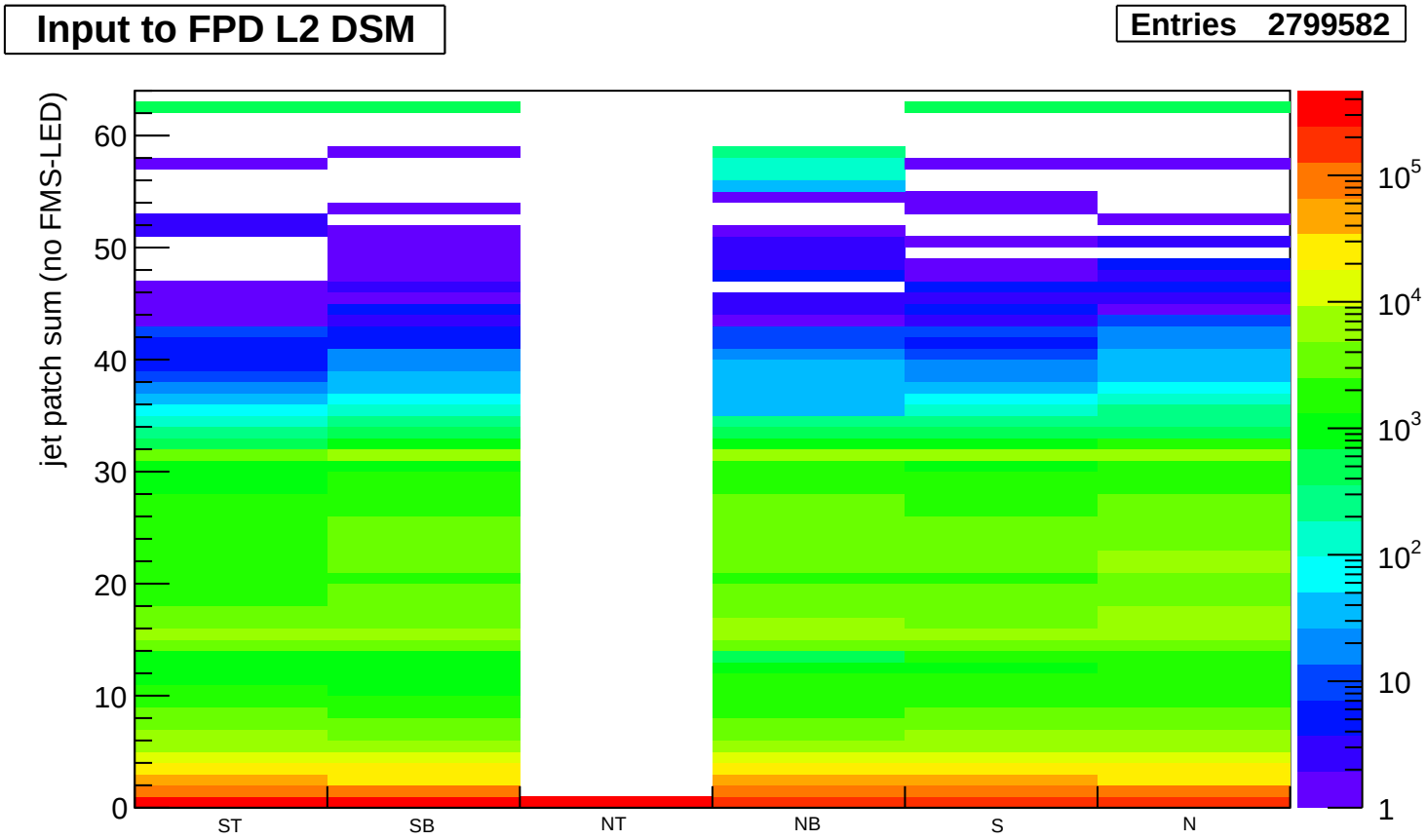

Input to FPD L2 DSM
Entries 19956
quadrant sum - simulated
SMALL-ST SMALL-S SMALL-SB SMALL-NT SMALL-N SMALL-NB LARGE-ST LARGE-S LARGE-SB LARGE-NT LARGE-N LARGE-NB

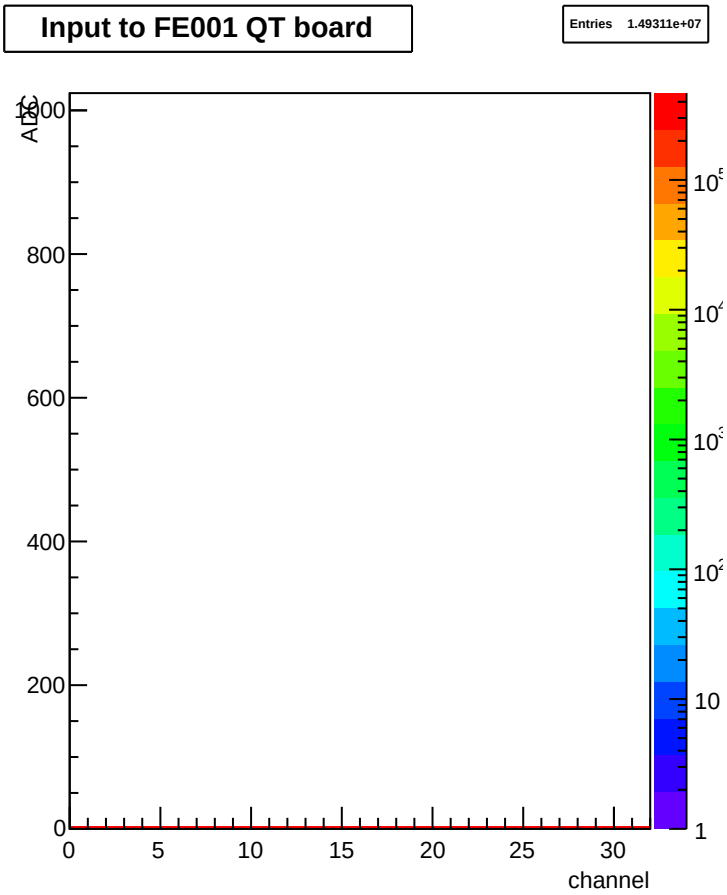

Input to FPD L2 DSM
Entries 1399791
CL bits
17512
12763
18349
21643
15092
13456
28666
19783
434792
398776
418959
SMALL
LARGE-S
LARGE-N

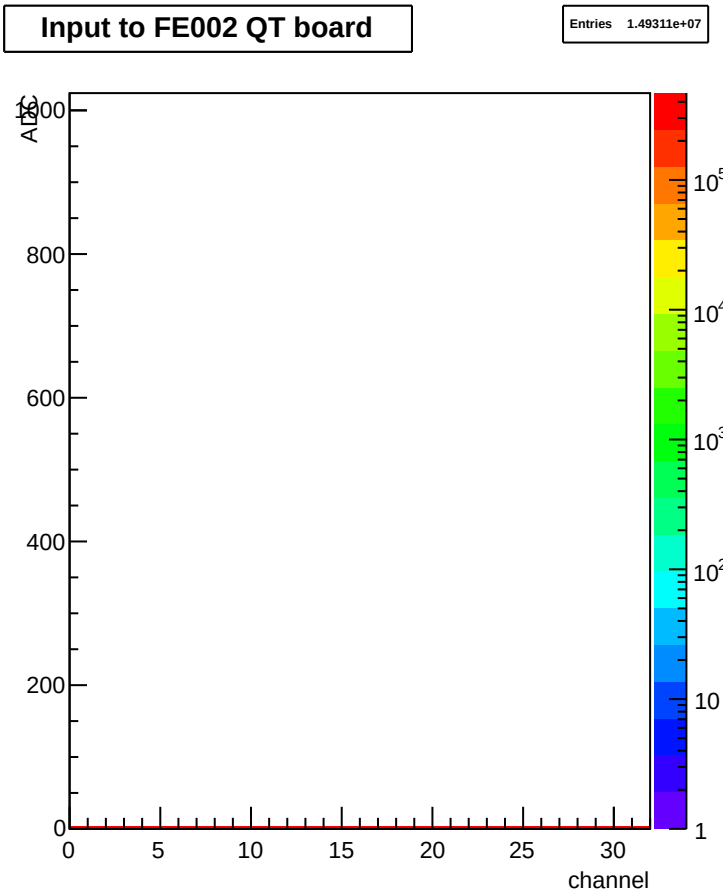

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL
LARGE-S
LARGE-N

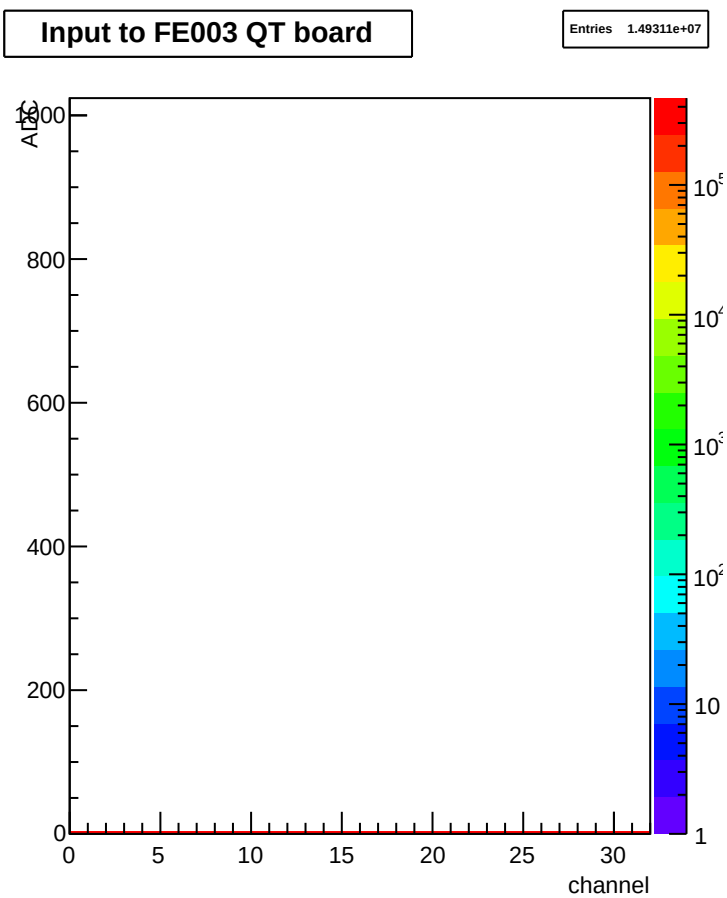

Input to FPD L2 DSM
Entries 1399791
HT bits
8603
4258
2626
14055
35459
483
352
408480
461856
463619
SMALL
LARGE-S
LARGE-N

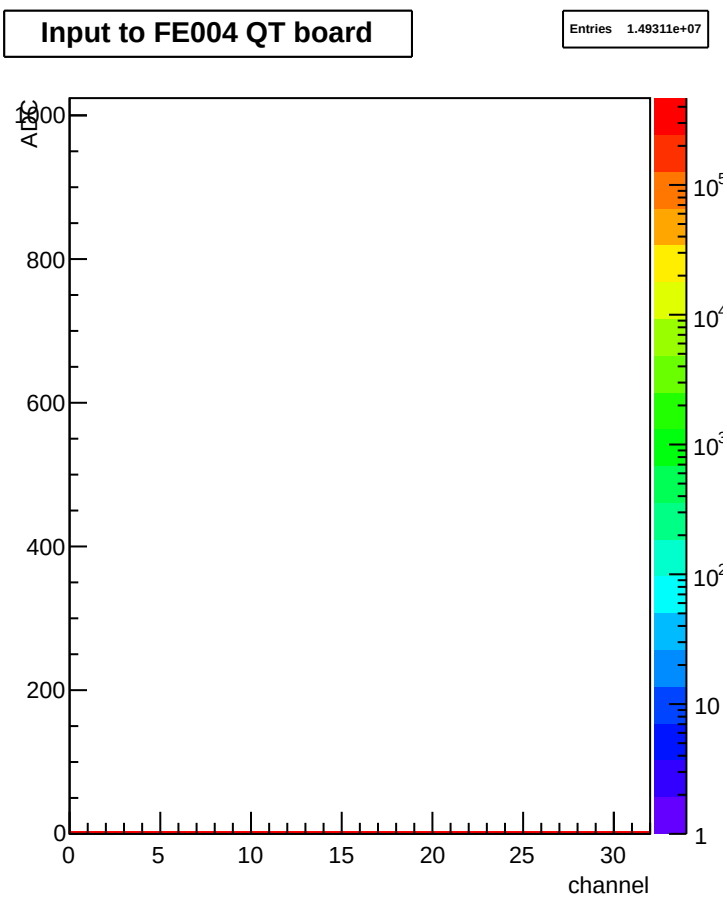

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

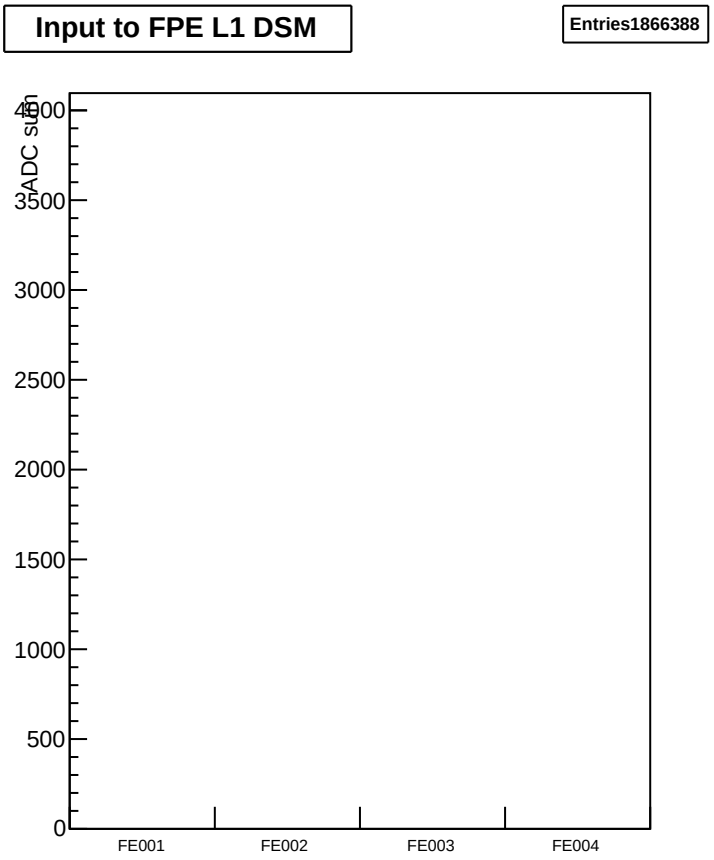

Input to FPD L2 DSM
Entries 2799582
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

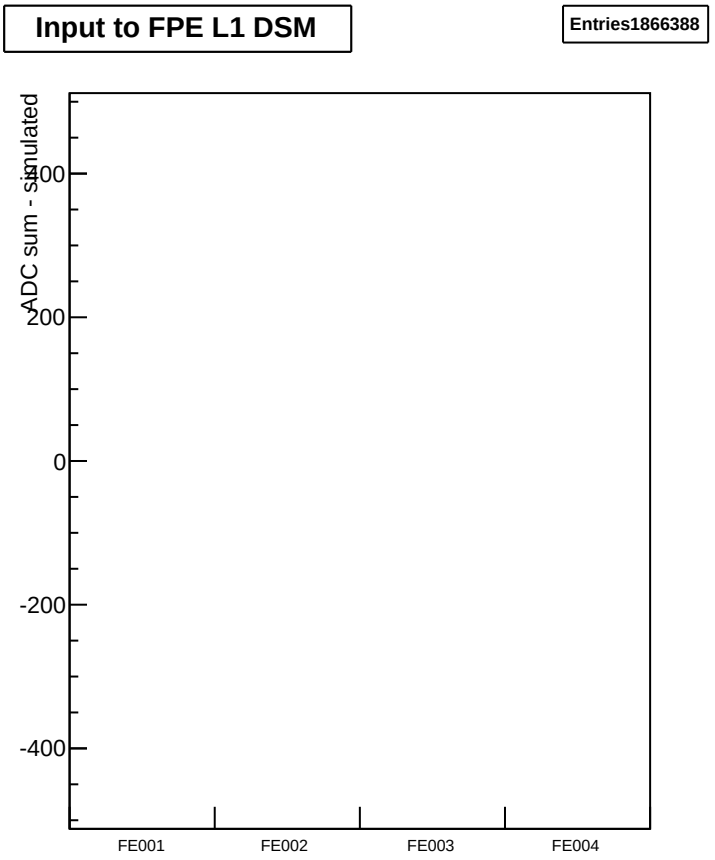

Input to FE001 QT board
Entries 1.49311e+07
ADC
channel

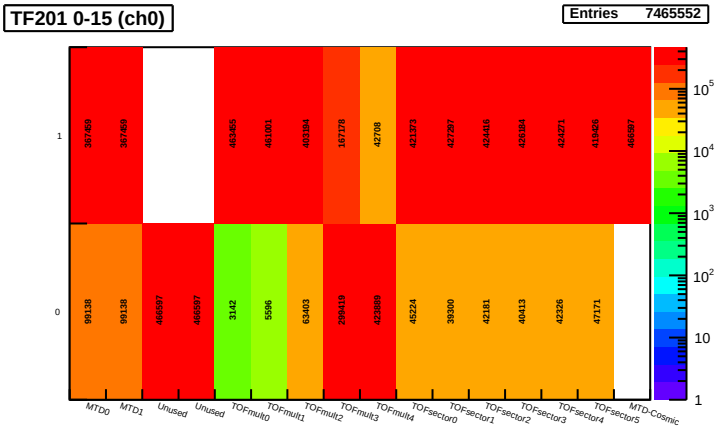

Input to FE002 QT board
Entries 1.49311e+07
ADC
channel

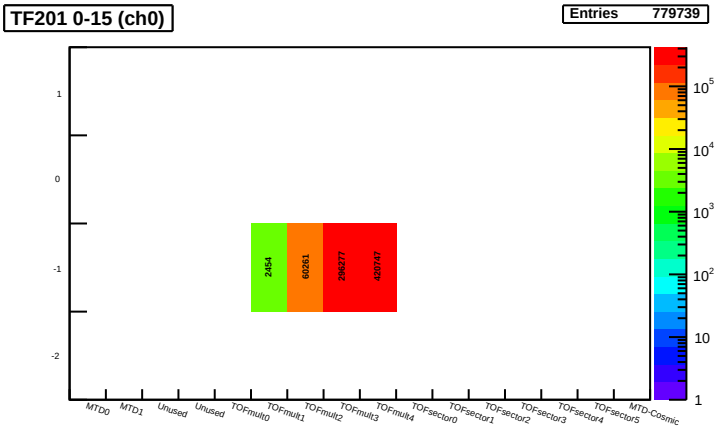

Input to FE003 QT board
Entries 1.49311e+07
ADC
channel

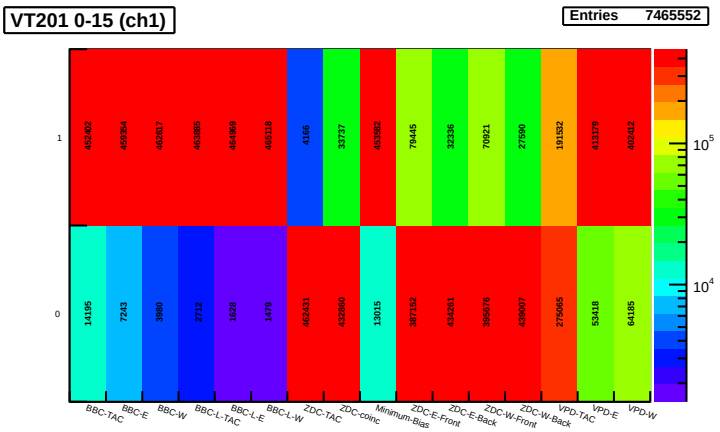

Input to FE004 QT board
Entries 1.49311e+07
ADC
channel

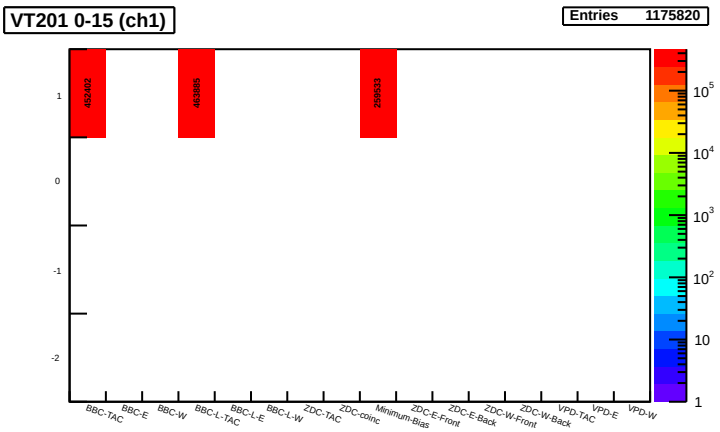

Input to FPE L1 DSM
Entries1866388
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004

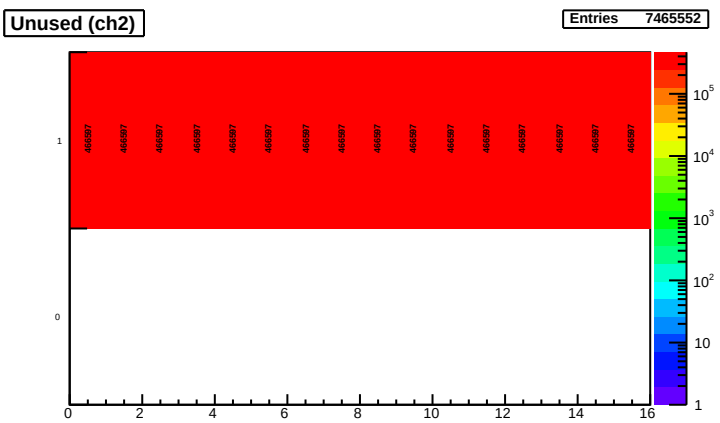

Input to FPE L1 DSM
Entries1866388
ADC sum - simulated
400
200
0
-200
-400
FE001
FE002
FE003
FE004

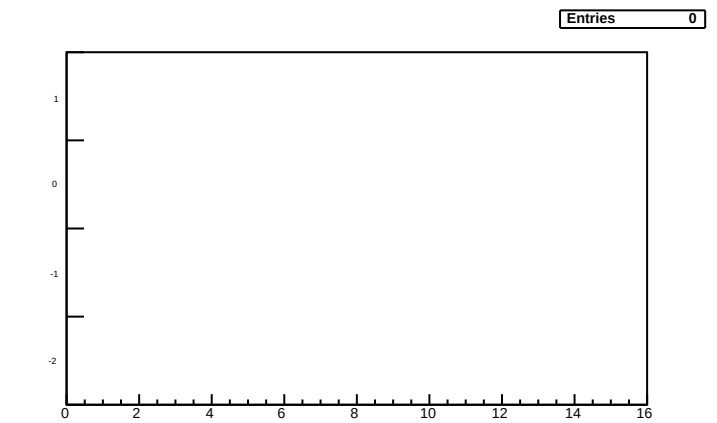

TF201 0-15 (ch0)
Entries 7465552
367459 367459 463455 461001 463184 167178 42708 421373 427297 424416 426184 424271 419456 466597
99138 99138 466597 466597 3142 5596 63403 299419 423889 45224 39300 42181 40413 42336 47171
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

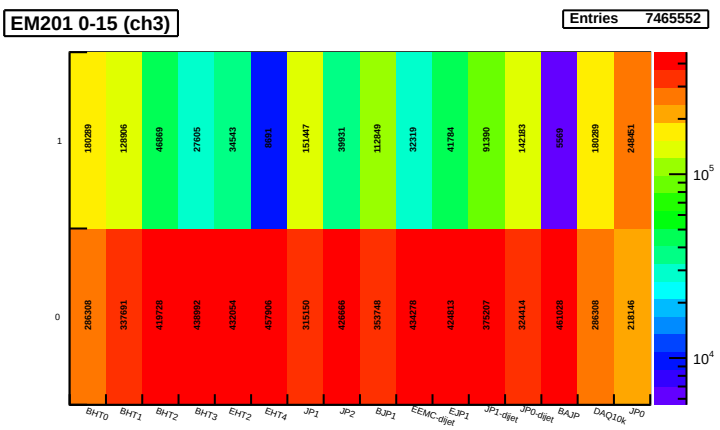

TF201 0-15 (ch0)
Entries 779739
2454 60261 296277 420747
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

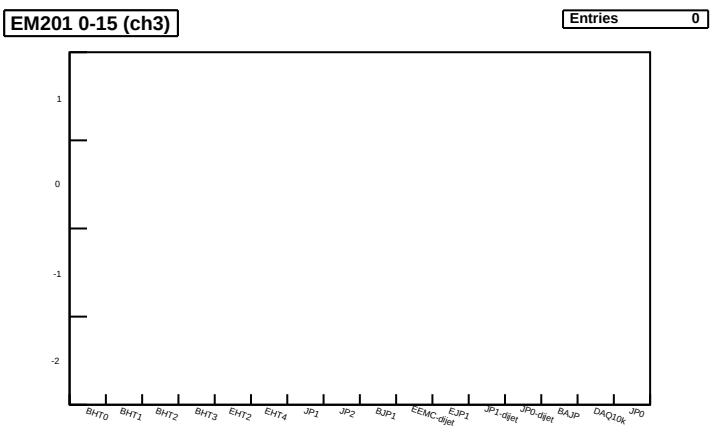

VT201 0-15 (ch1)
Entries 7465552
452402 459354 463817 463885 464969 465118 4166 33737 453862 79445 32236 70921 27590 191532 413179 402412
14195 7243 3980 2712 1628 1479 462431 432860 13015 397152 434261 395676 439007 275065 53418 64185
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-coinc Minimum-Bias ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

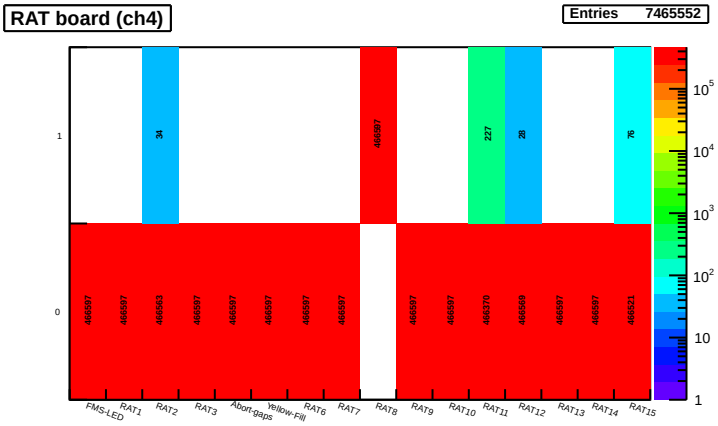

VT201 0-15 (ch1)
Entries 1175820
452402 463885 259533
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-coinc Minimum-Bias ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

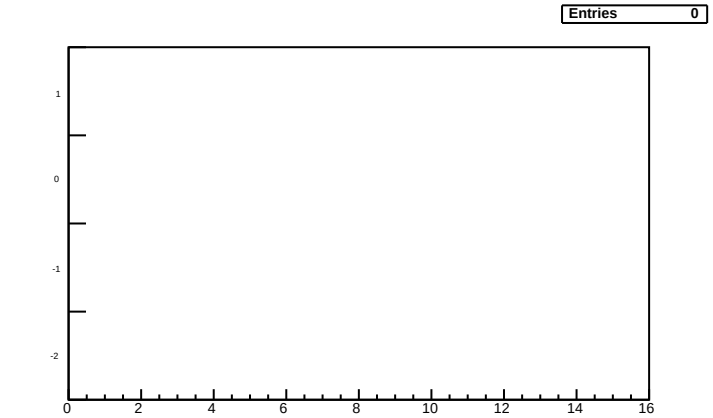

Unused (ch2)
Entries 7465552
466597 466597 466597 466597 466597 466597 466597 466597 466597 466597 466597 466597 466597 466597 466597 466597

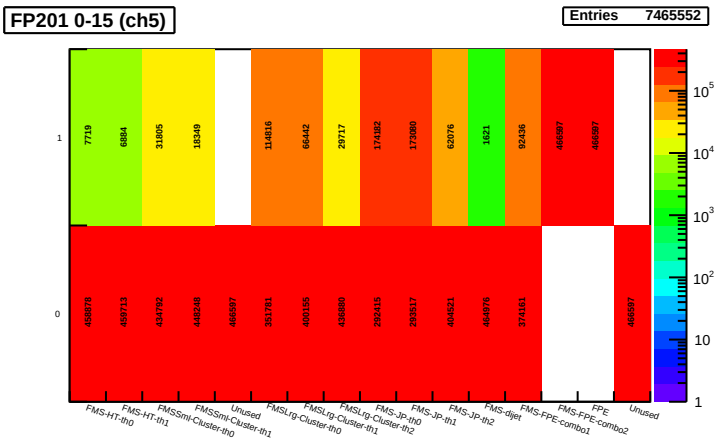

Entries 0

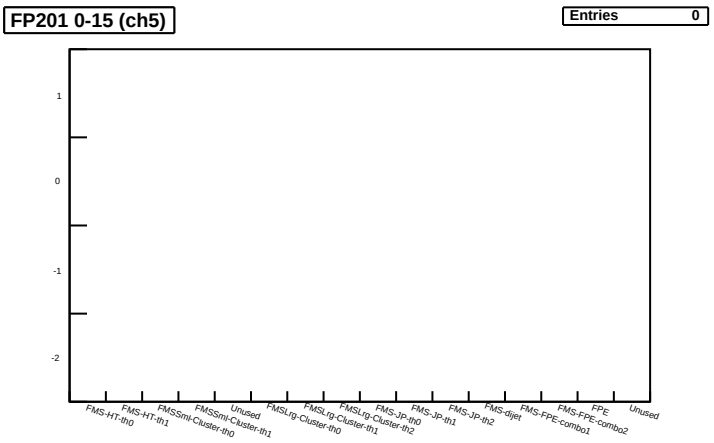

EM201 0-15 (ch3)
Entries 7465552
180289 128906 46869 27605 34543 8691 151447 39931 112849 32319 41784 91390 142383 5569 180289 248451
286308 337691 419728 438992 432054 457906 315150 426666 353748 434278 424813 373207 324414 461028 286308 218146
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 EEMC-dijet EJP-1 JP1-dijet JP0-dijet BAJP DAQ10k JP0

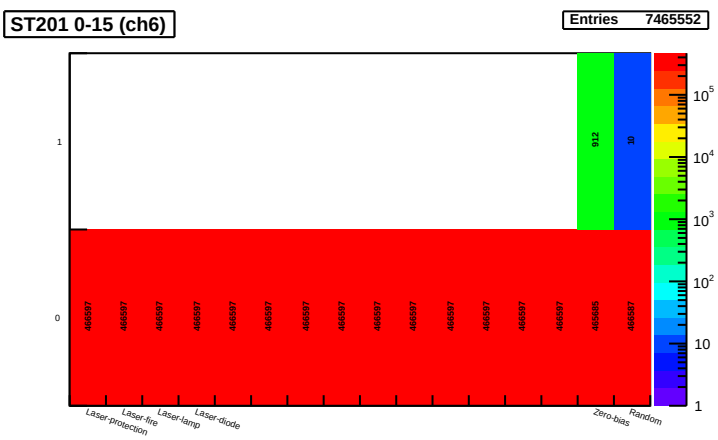

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 EEMC-dijet EJP-1 JP1-dijet JP0-dijet BAJP DAQ10k JP0

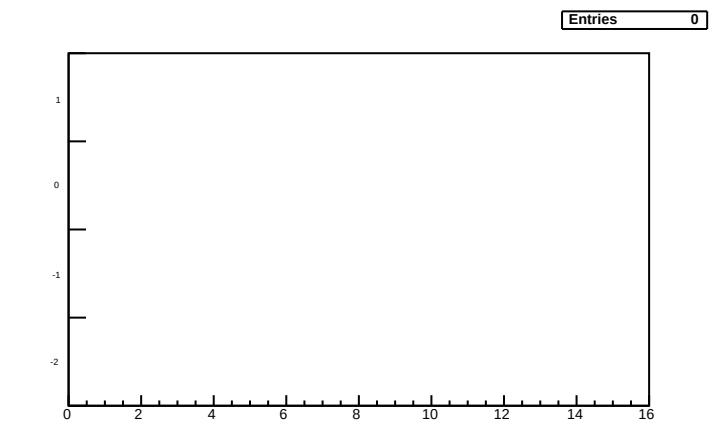

RAT board (ch4)
Entries 7465552
FMS-LED
RAT1
RAT2
RAT3
Abort-gaps
Yellow-Fill
RAT6
RAT7
RAT8
RAT9
RAT10
RAT11
RAT12
RAT13
RAT14
RAT15


Entries 0


FP201 0-15 (ch5)
Entries 7465552
FMS-HT-th0
FMS-HT-th1
FMSSmi-Cluster-th0
FMSSmi-Cluster-th1
Unused
FMSLrg-Cluster-th0
FMSLrg-Cluster-th1
FMSLrg-Cluster-th2
FMS-JP-th0
FMS-JP-th1
FMS-JP-th2
FMS-dijet
FMS-FPE-combo1
FMS-FPE-combo2
FPE
Unused


FP201 0-15 (ch5)
Entries 0
FMS-HT-th0
FMS-HT-th1
FMSSmi-Cluster-th0
FMSSmi-Cluster-th1
Unused
FMSLrg-Cluster-th0
FMSLrg-Cluster-th1
FMSLrg-Cluster-th2
FMS-JP-th0
FMS-JP-th1
FMS-JP-th2
FMS-dijet
FMS-FPE-combo1
FMS-FPE-combo2
FPE
Unused


ST201 0-15 (ch6)
Entries 7465552
Laser-protection
Laser-fire
Laser-lamp
Laser-diode
Zero-bias
Random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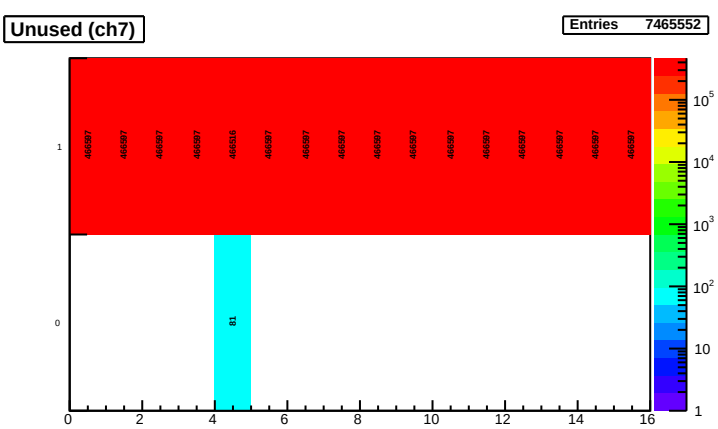
Unused (ch7)
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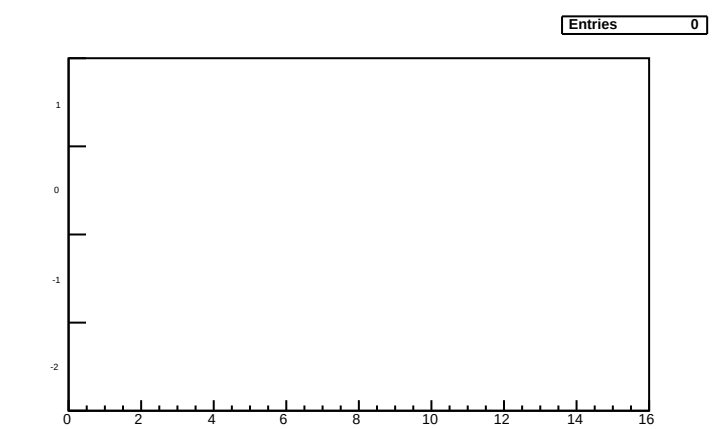
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