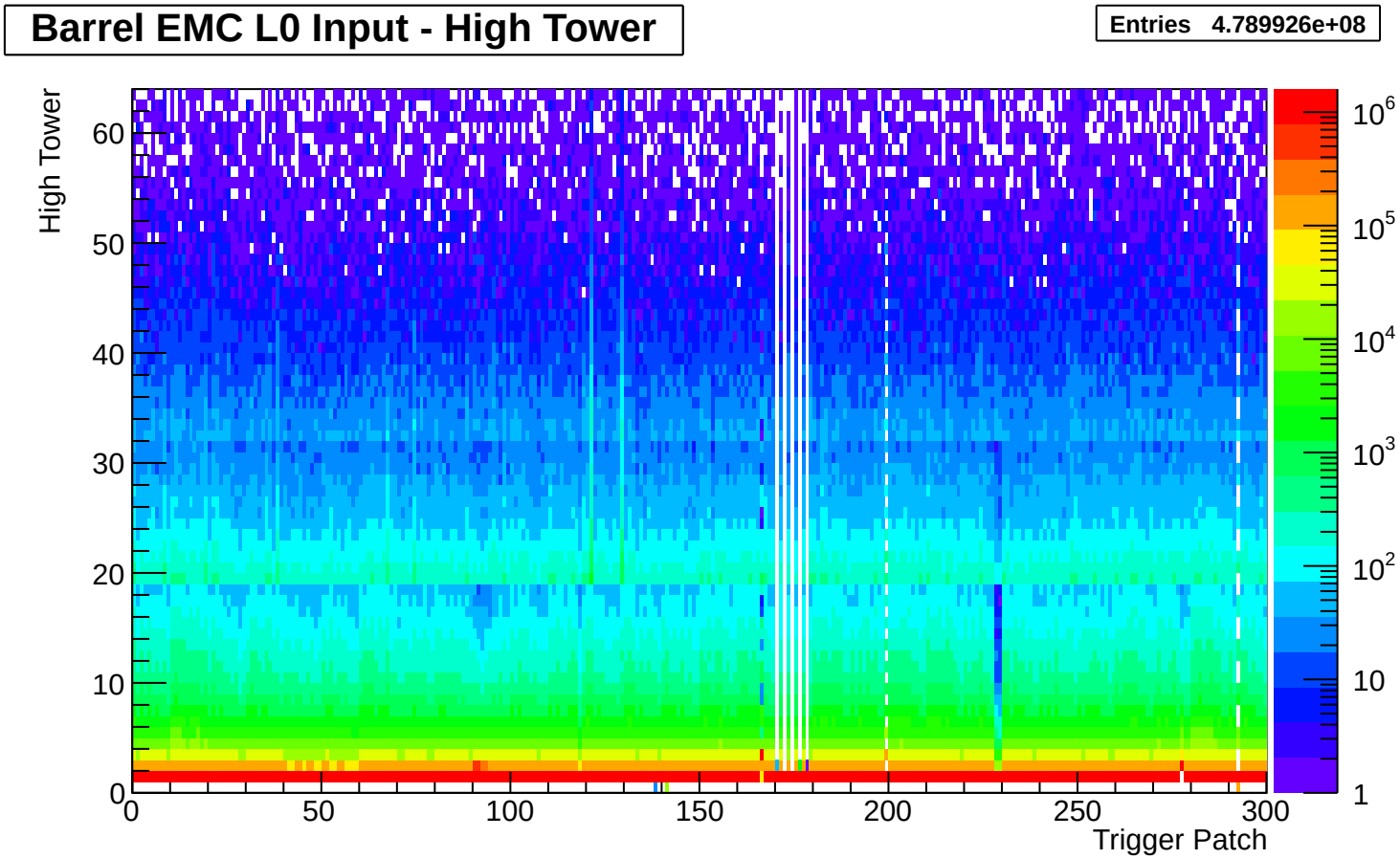
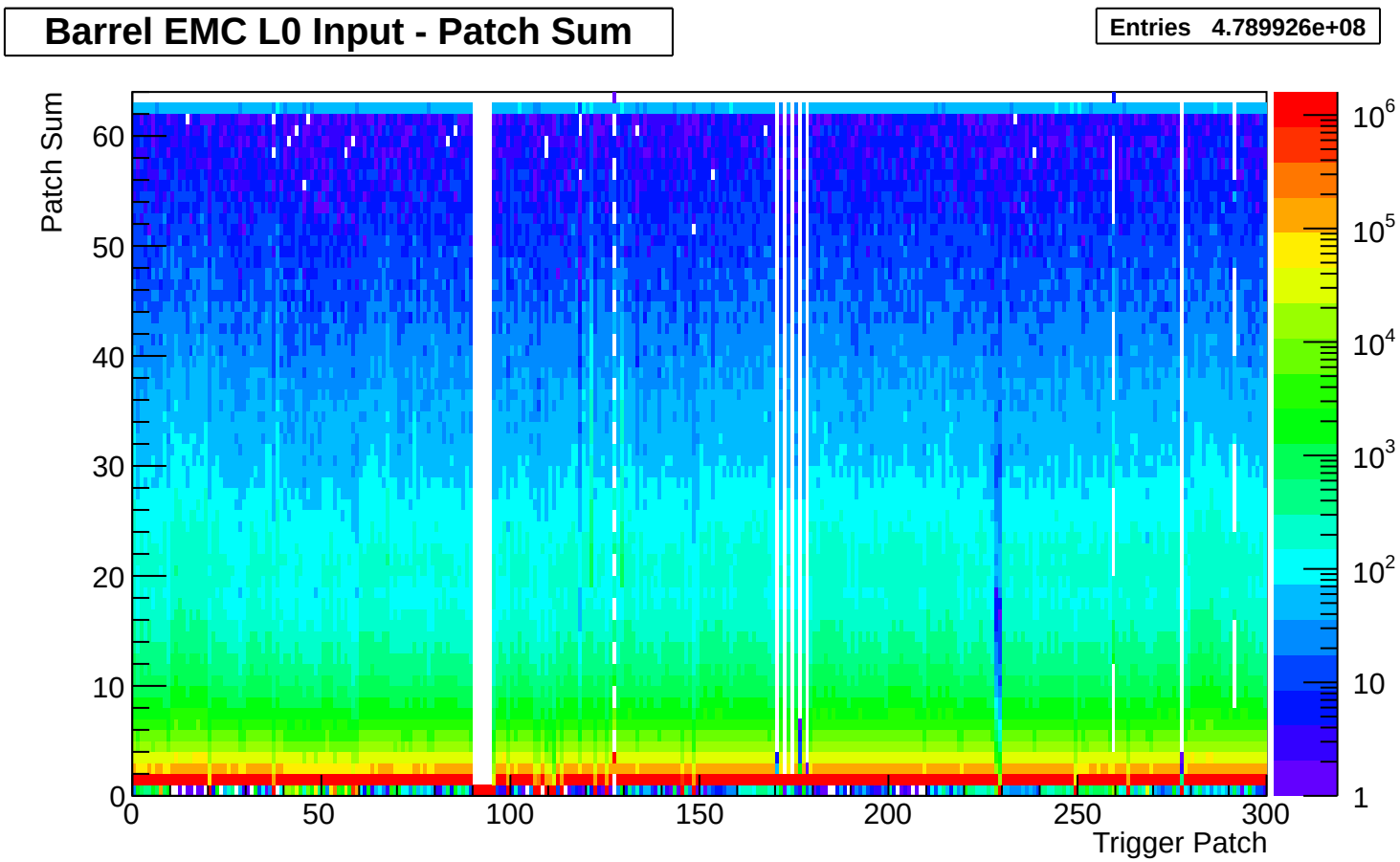
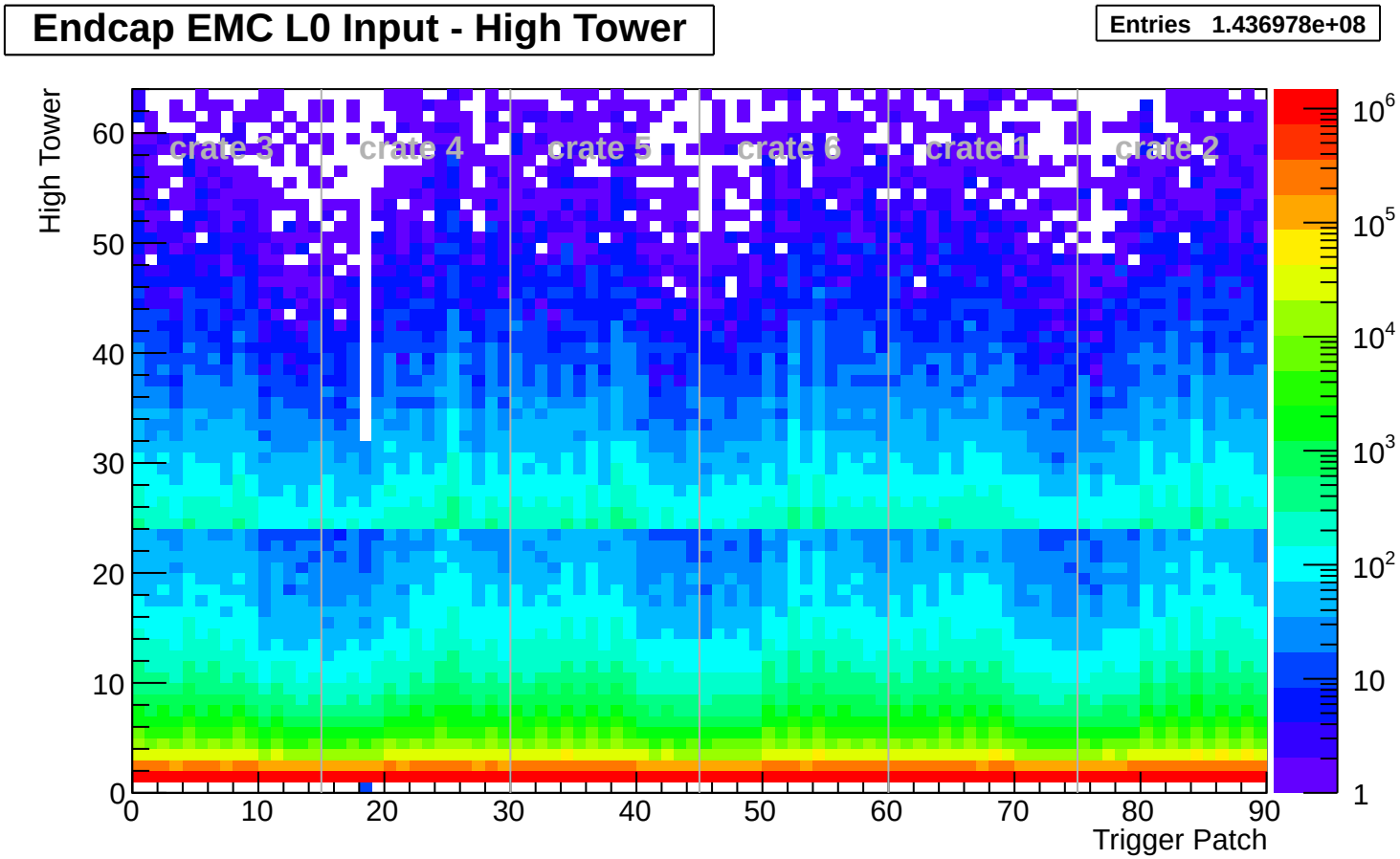
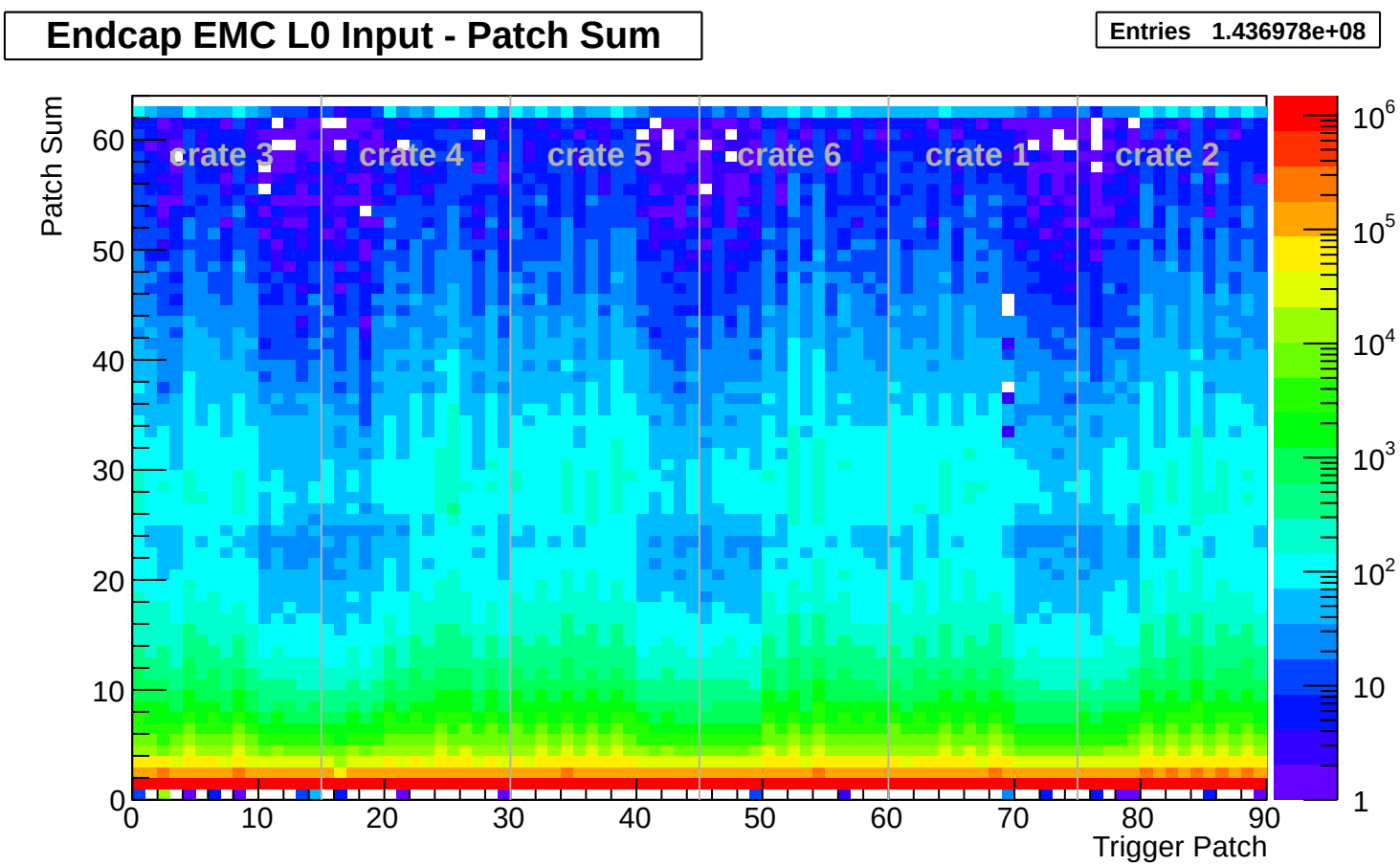
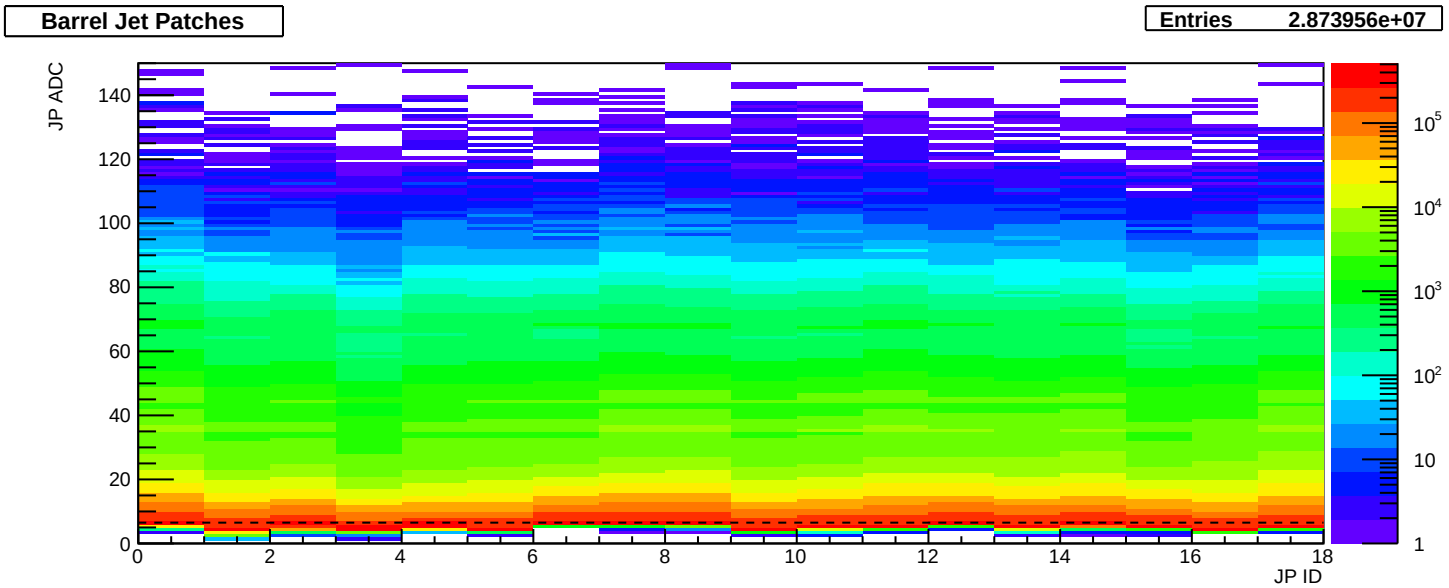
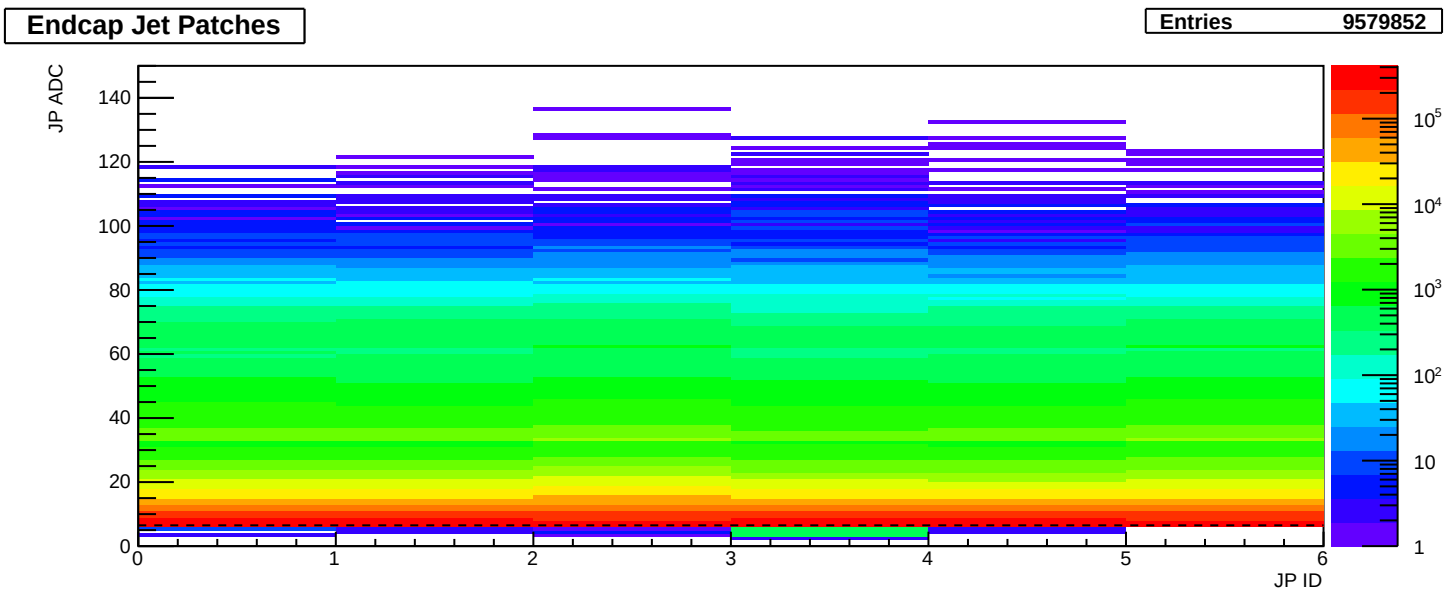

Barrel EMC L0 Input - High Tower
Entries 4.789926e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

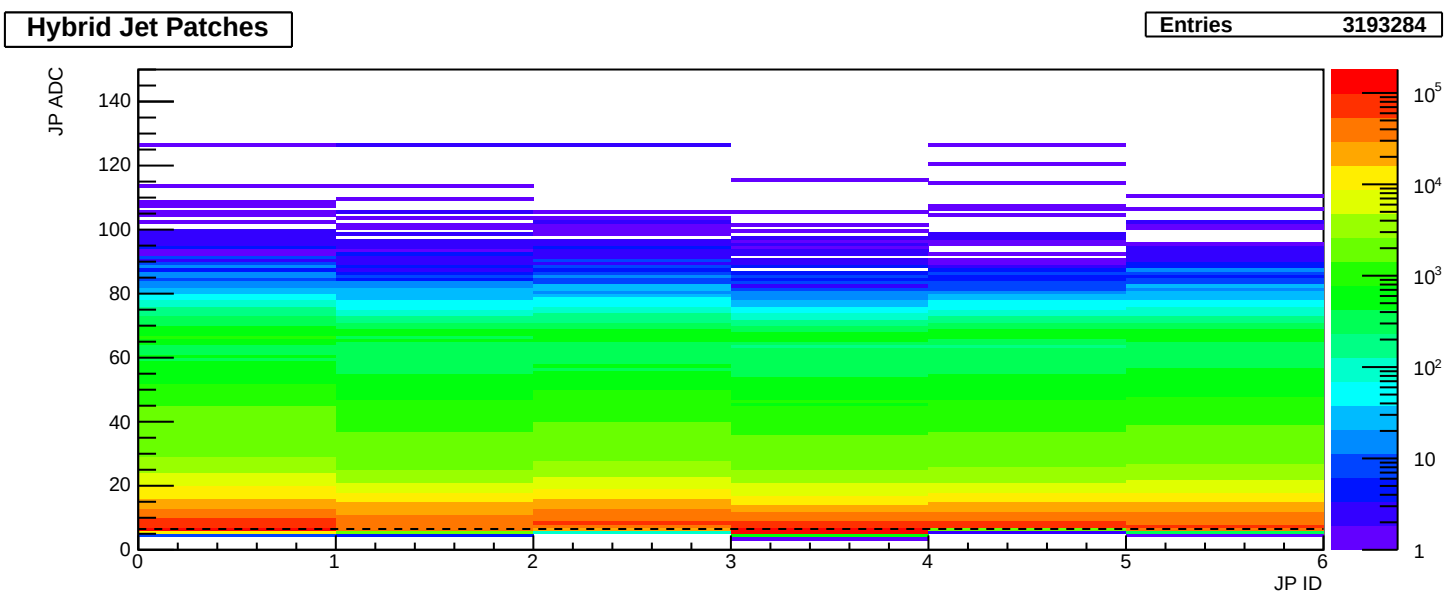

Barrel EMC L0 Input - Patch Sum
Entries 4.789926e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

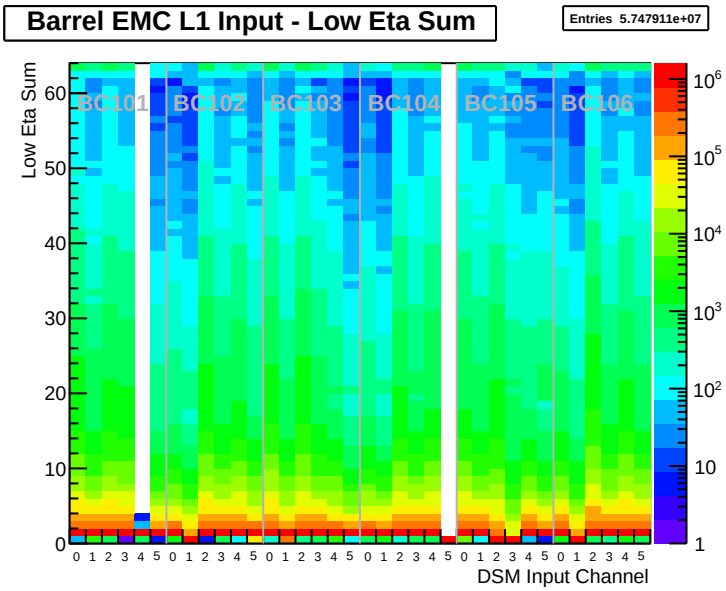

Endcap EMC L0 Input - High Tower
Entries 1.436978e+08
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

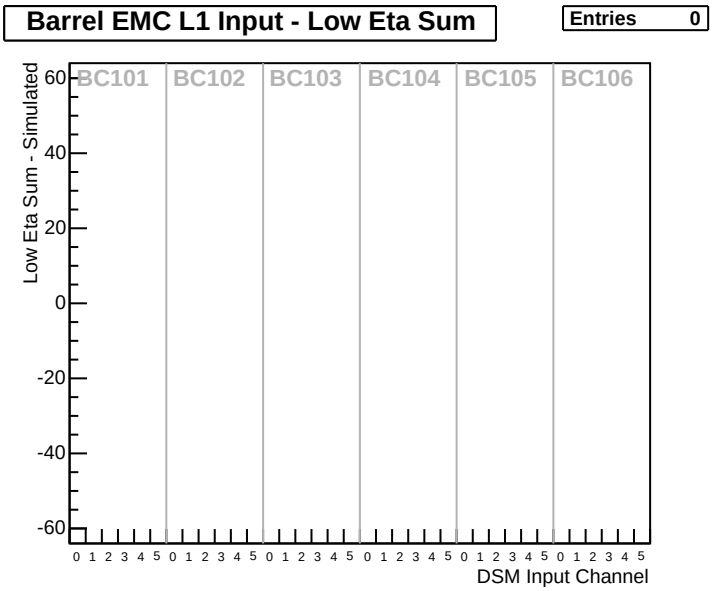

Endcap EMC L0 Input - Patch Sum
Entries 1.436978e+08
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

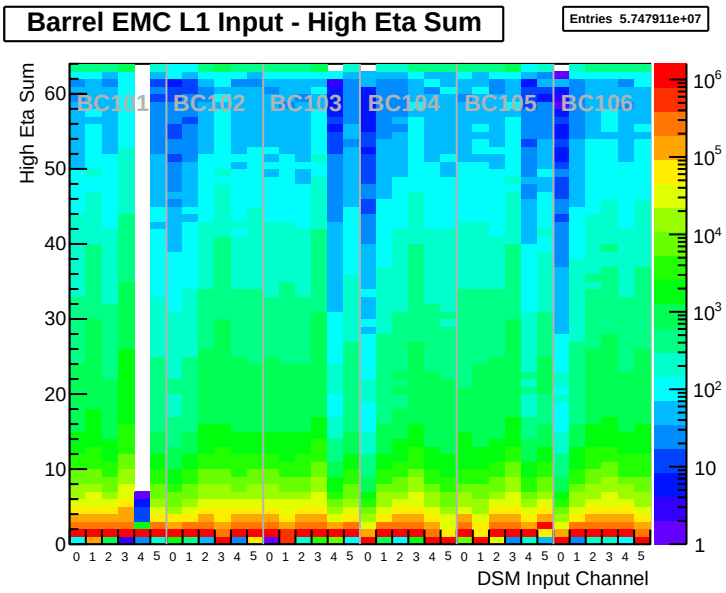

Barrel Jet Patches
Entries 2.873956e+07
JP ADC
JP ID

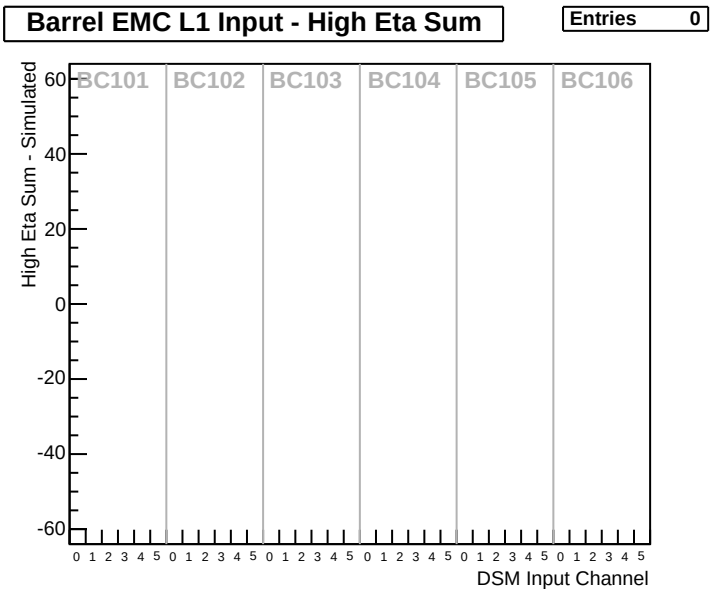

Endcap Jet Patches
Entries 9579852
JP ADC
JP ID

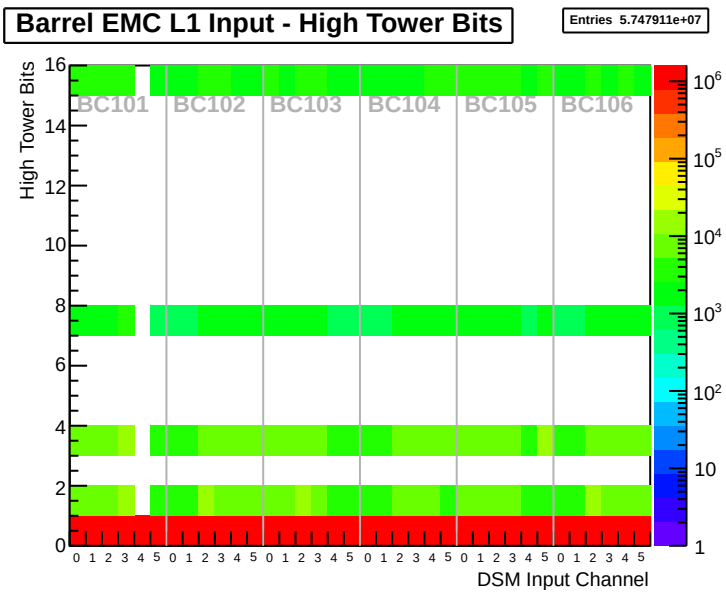

Hybrid Jet Patches
Entries 3193284
JP ADC
JP ID

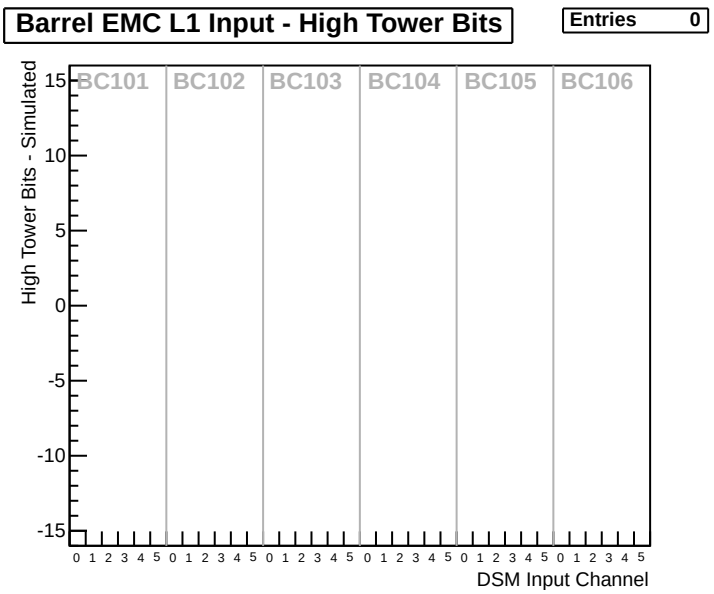

Barrel EMC L1 Input - Low Eta Sum
Entries 5.747911e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

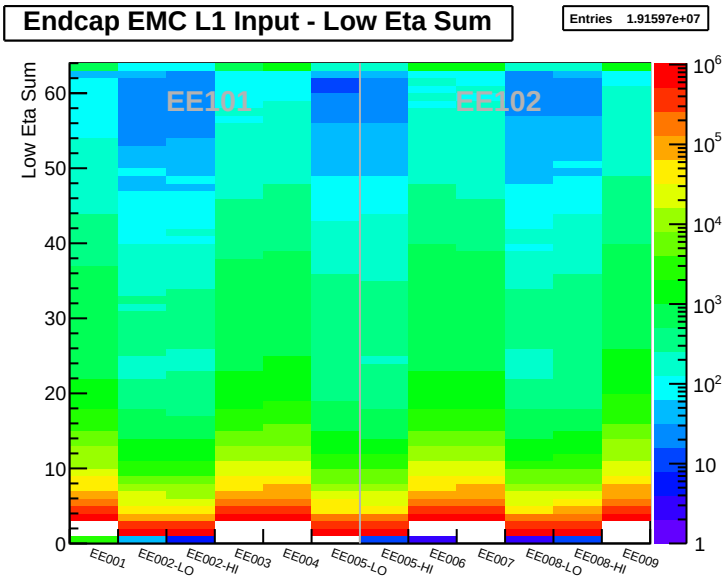

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

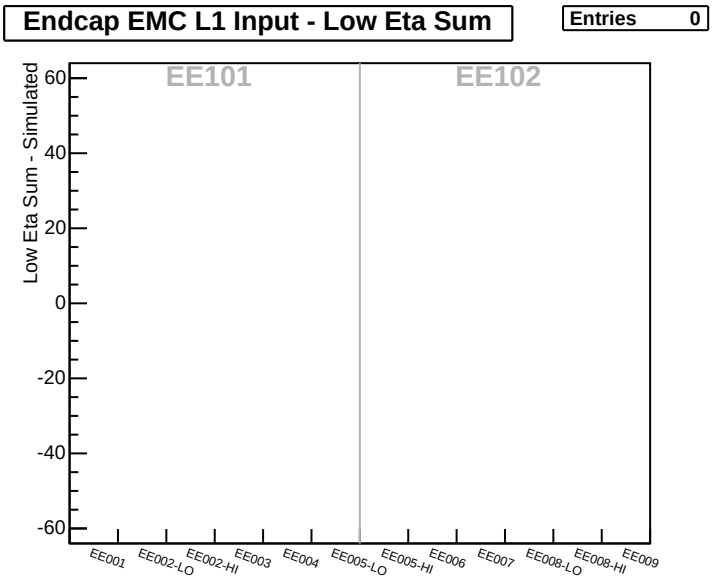

Barrel EMC L1 Input - High Eta Sum
Entries 5.747911e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

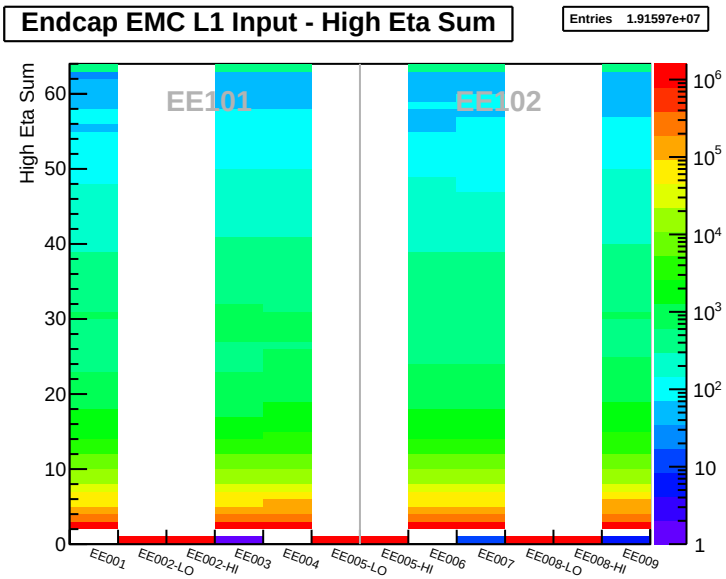

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

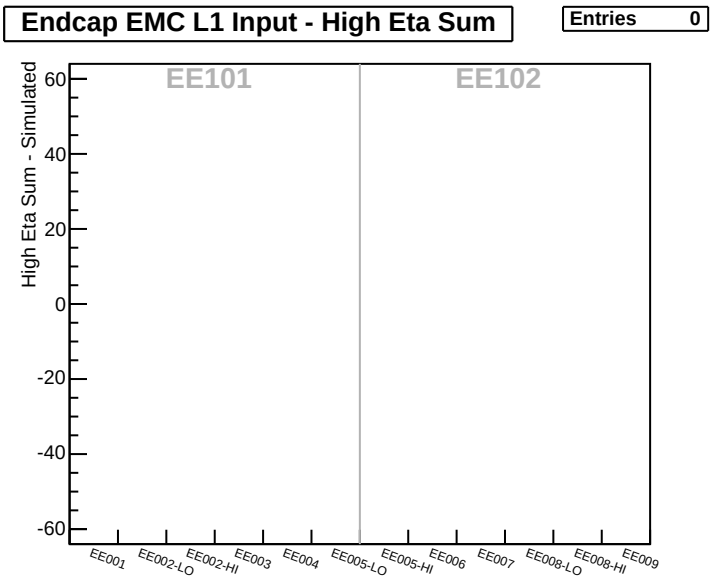

Barrel EMC L1 Input - High Tower Bits
Entries 5.747911e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

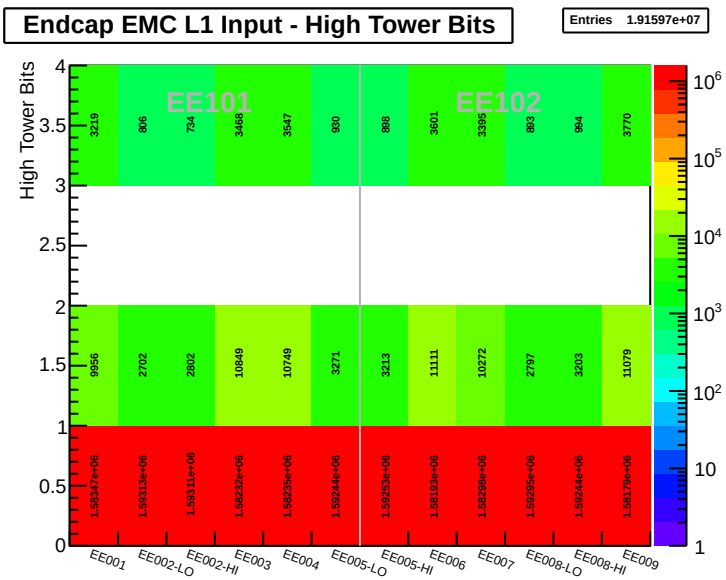

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

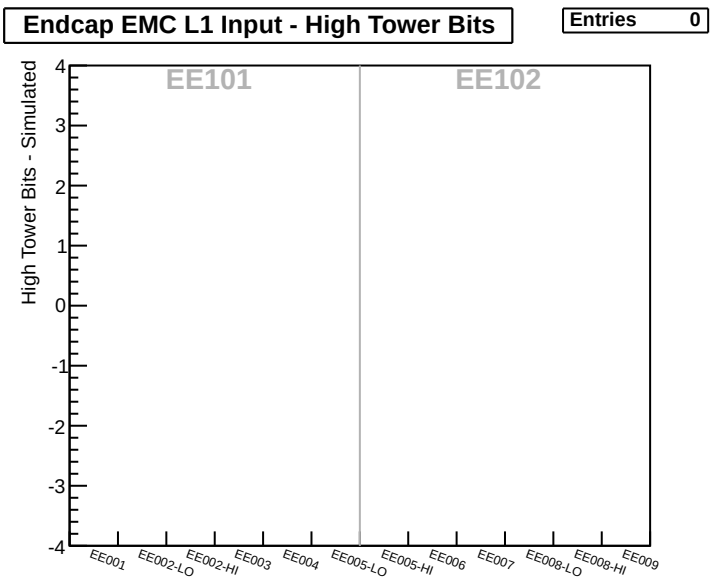

Endcap EMC L1 Input - Low Eta Sum
Entries 1.91597e+07
Low Eta Sum
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

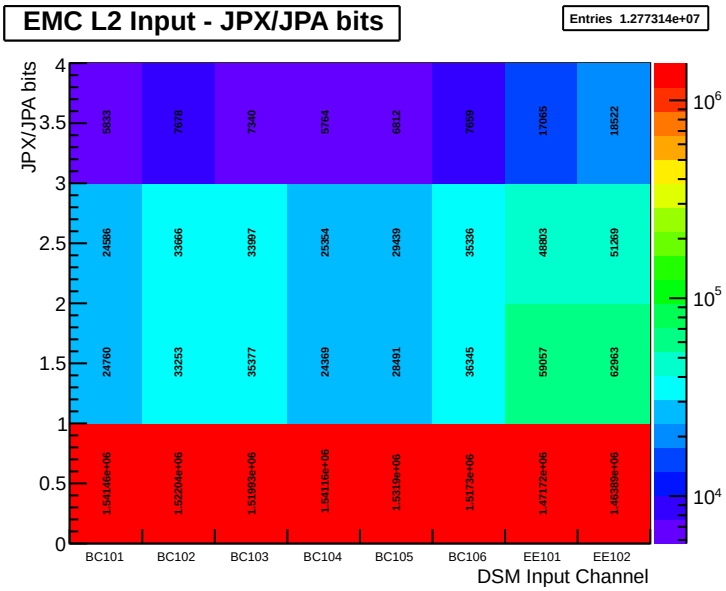

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

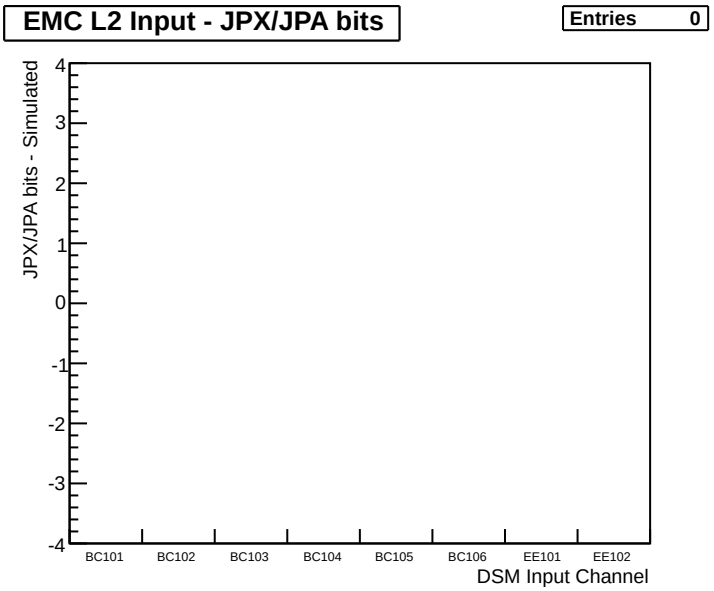

Endcap EMC L1 Input - High Eta Sum
Entries 1.91597e+07
High Eta Sum
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

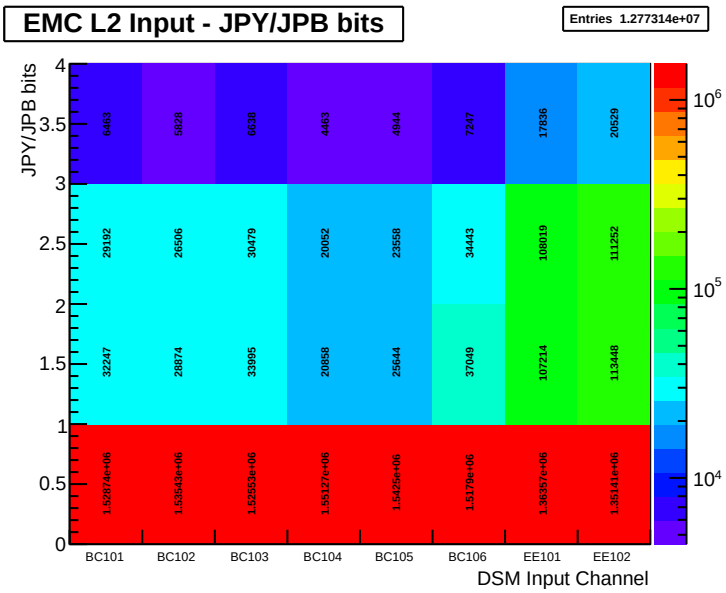

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

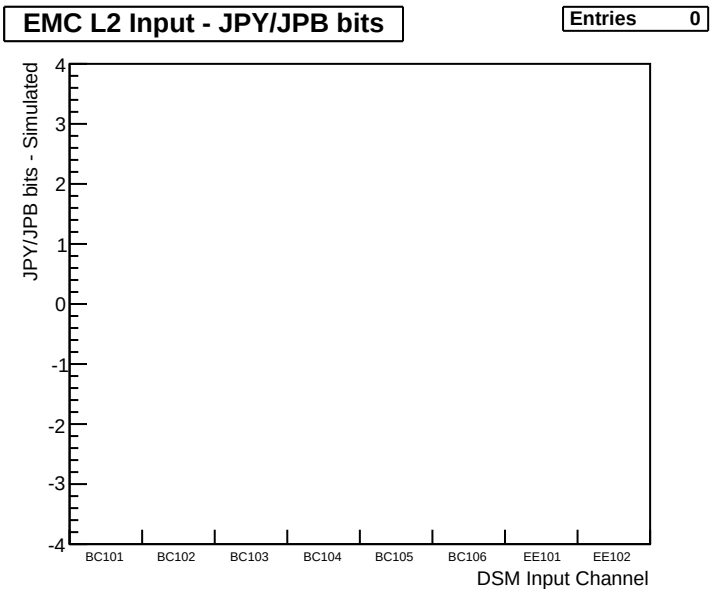

Endcap EMC L1 Input - High Tower Bits
Entries 1.91597e+07
High Tower Bits
EE101
EE102
3219
806
734
3468
3547
930
898
3601
3395
893
994
3770
9956
2702
2802
10849
10749
3271
3213
11111
10272
2797
3203
11079
1.58347e+06
1.59313e+06
1.59311e+06
1.58232e+06
1.58235e+06
1.59244e+06
1.59253e+06
1.58193e+06
1.58298e+06
1.59295e+06
1.59244e+06
1.58179e+06
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

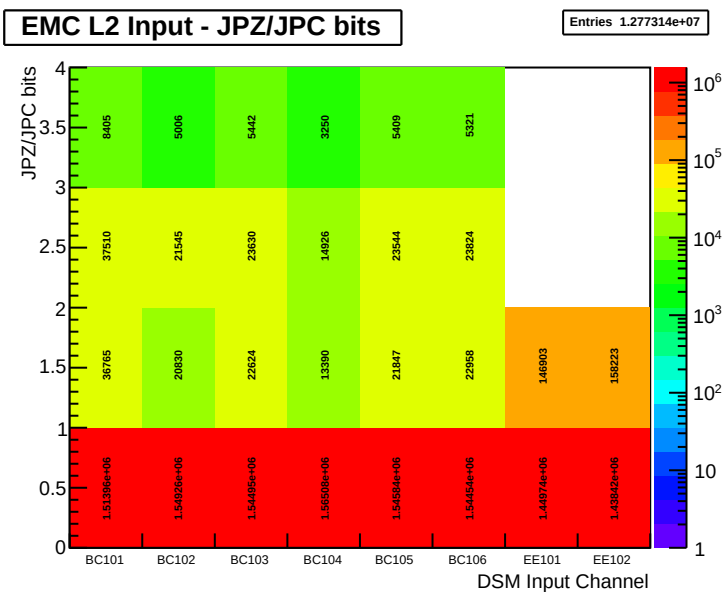

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

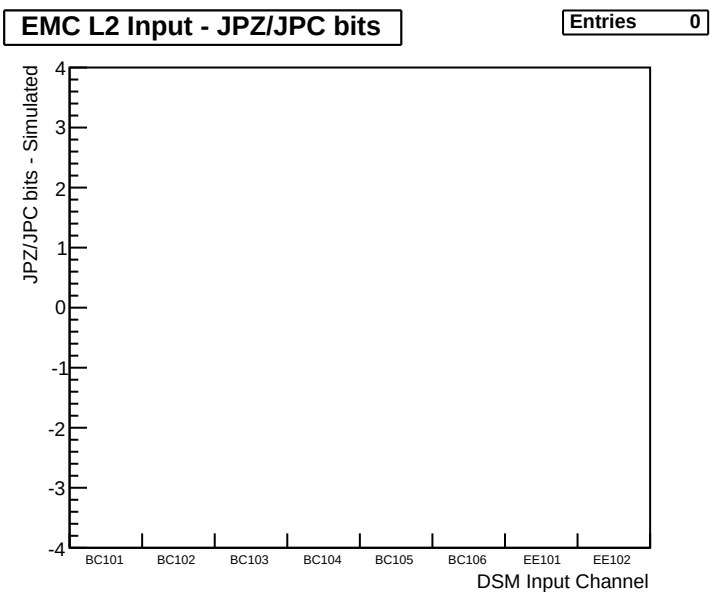

EMC L2 Input - JPX/JPA bits
Entries 1.277314e+07
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
5633 7678 7340 5764 6812 7659 17065 18522
24586 33666 33997 25354 29439 35336 49803 51269
24760 33253 35377 24369 28491 36345 59057 62963
1.54146e+06 1.52204e+06 1.51993e+06 1.54116e+06 1.5319e+06 1.5173e+06 1.47172e+06 1.46359e+06

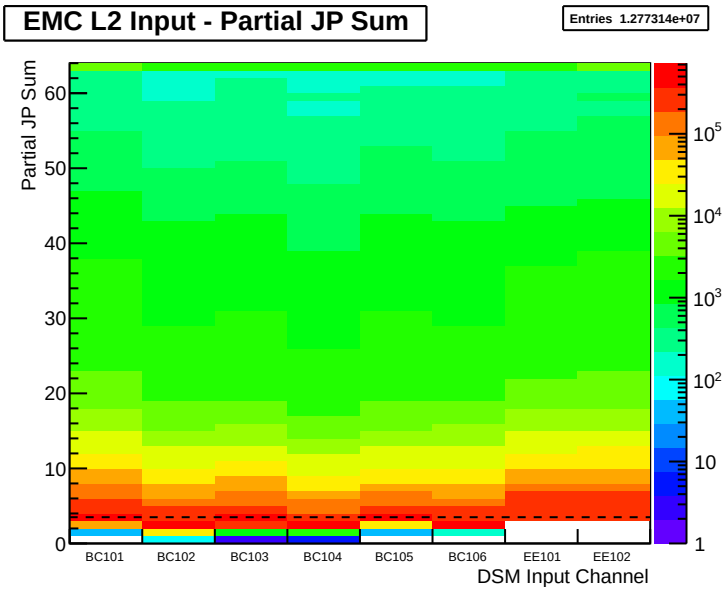

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

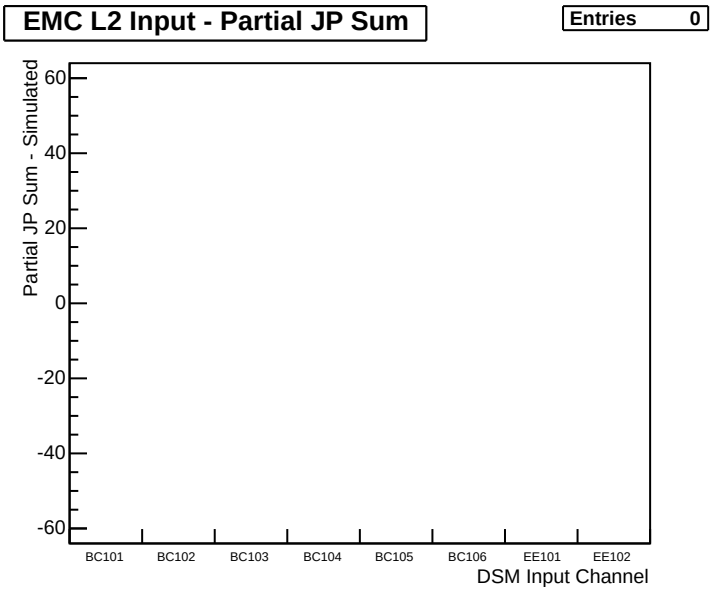

EMC L2 Input - JPY/JPB bits
Entries 1.277314e+07
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
6463 5828 6638 4463 4944 7247 17836 20529
29192 26506 30479 20052 23558 34443 108019 111252
32247 28874 33995 20858 25644 37049 107214 113448
1.52874e+06 1.53543e+06 1.52553e+06 1.55127e+06 1.5425e+06 1.5178e+06 1.36357e+06 1.35141e+06

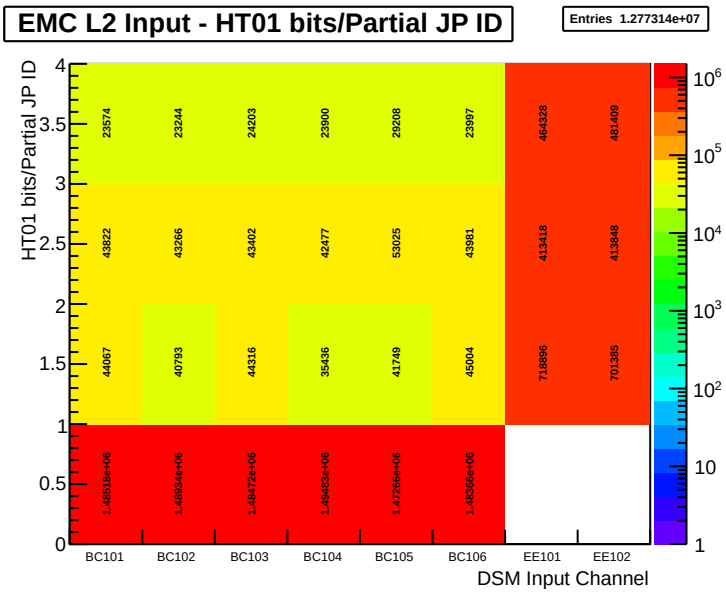

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

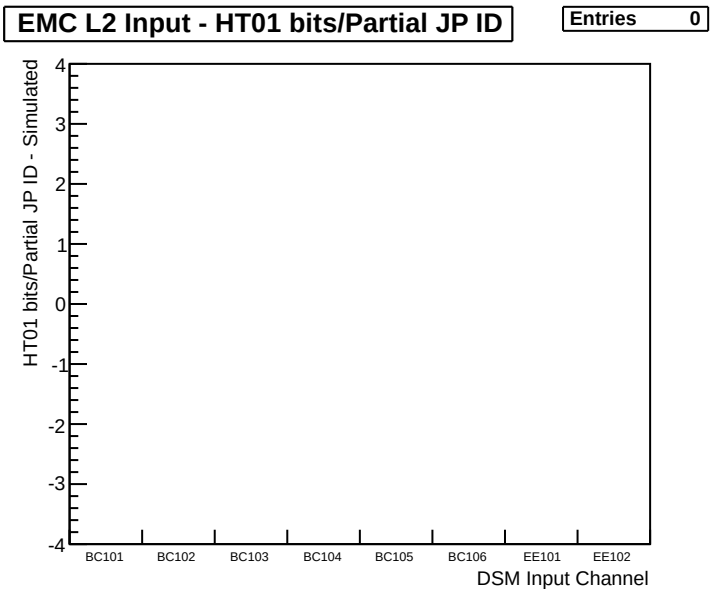

EMC L2 Input - JPZ/JPC bits
Entries 1.277314e+07
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
8405 5006 5442 3250 5409 5321
37510 21545 23630 14926 23544 23824
36765 20630 22624 13390 21847 22958 146903 158223
1.51396e+06 1.54926e+06 1.54495e+06 1.56508e+06 1.54584e+06 1.54454e+06 1.44974e+06 1.43842e+06

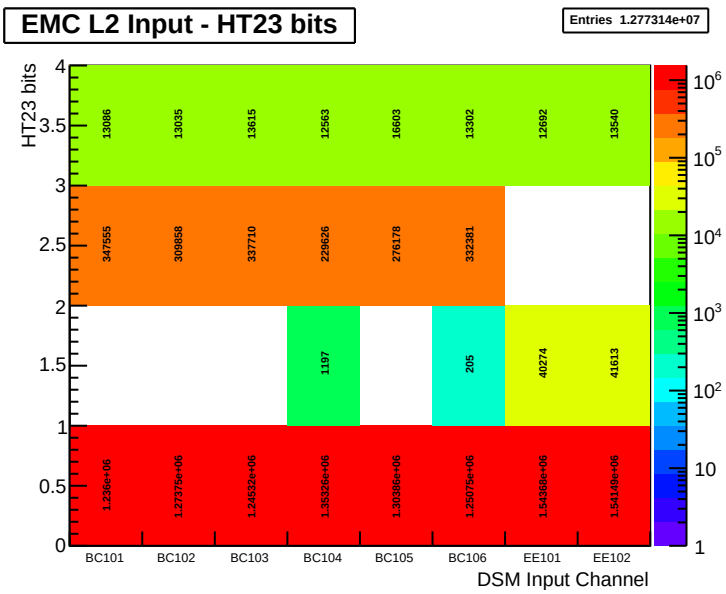

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

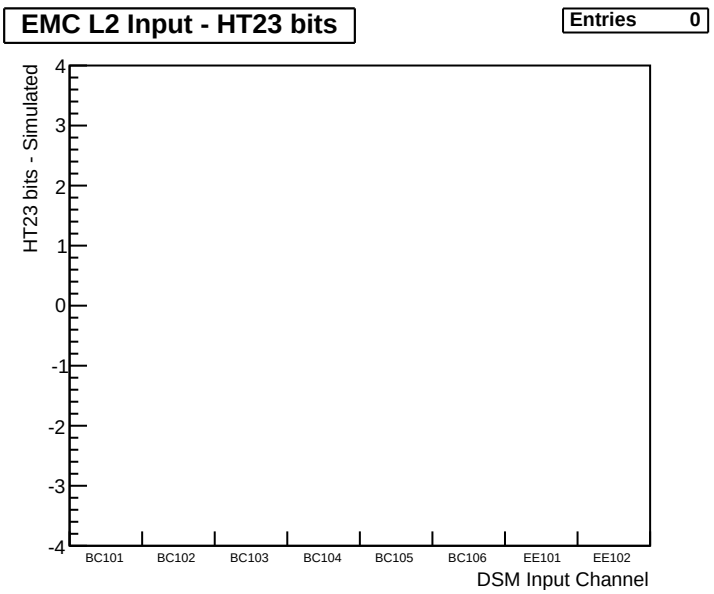

EMC L2 Input - Partial JP Sum
Entries 1.277314e+07
Partial JP Sum
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

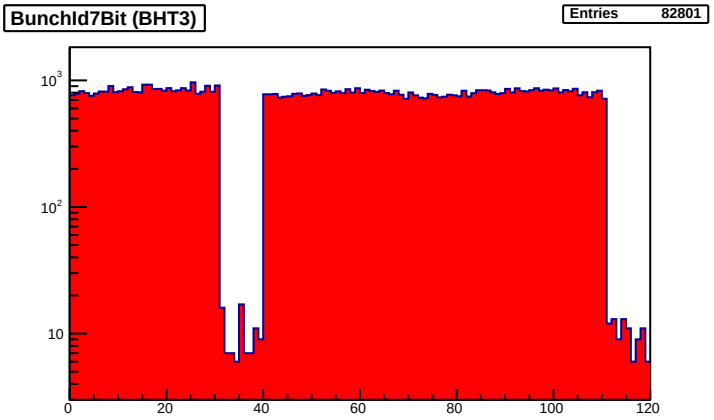

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

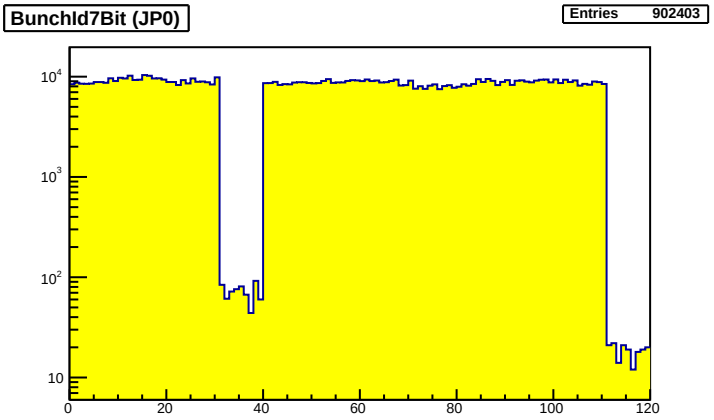

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1.277314e+07
HT01 bits/Partial JP ID
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

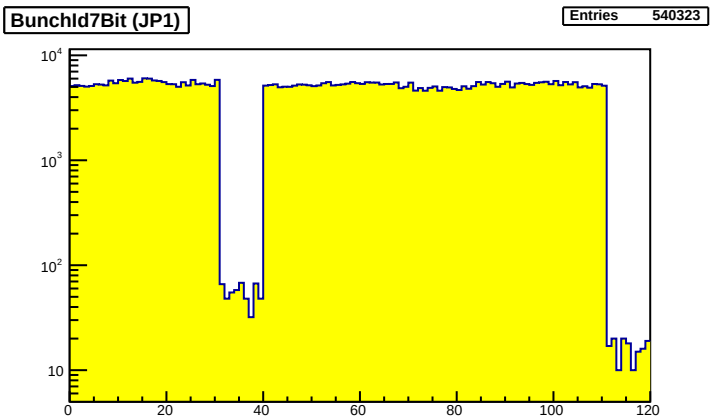

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

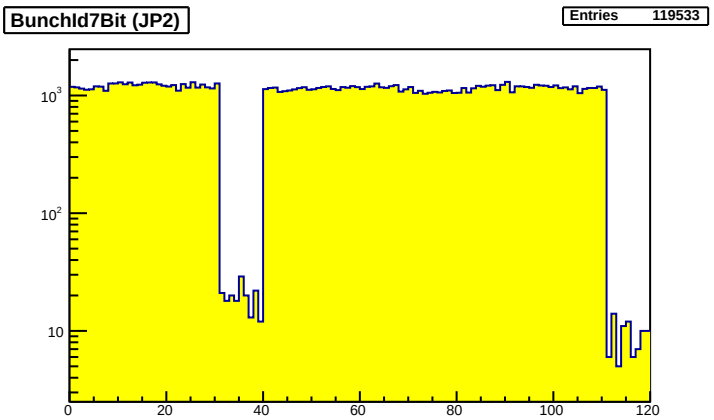

EMC L2 Input - HT23 bits
Entries 1.277314e+07
HT23 bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

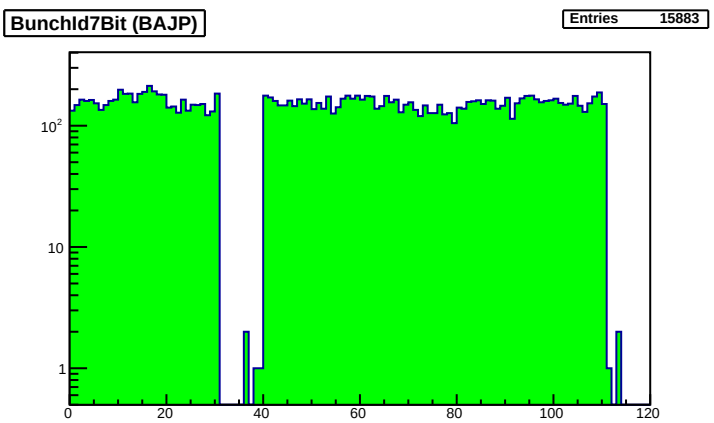

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

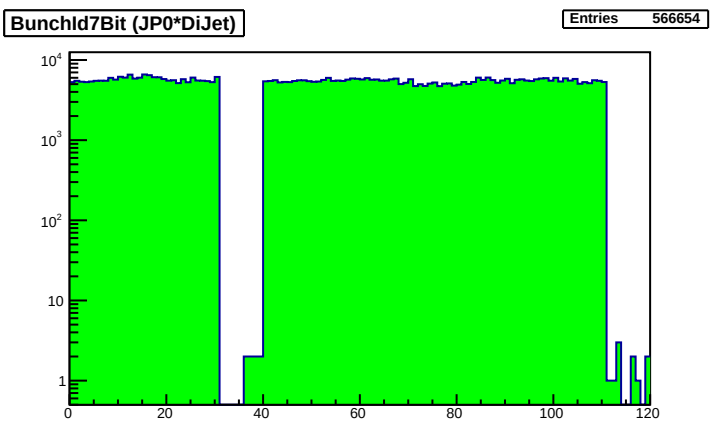

BunchId7Bit (BHT3)
Entries 82801

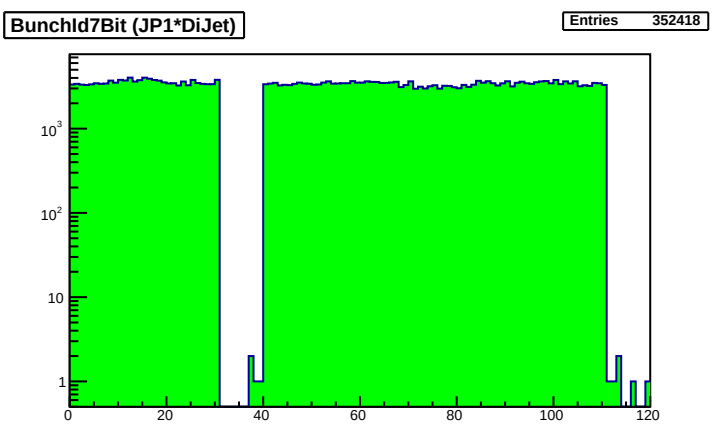

BunchId7Bit (JP0)
Entries 902403

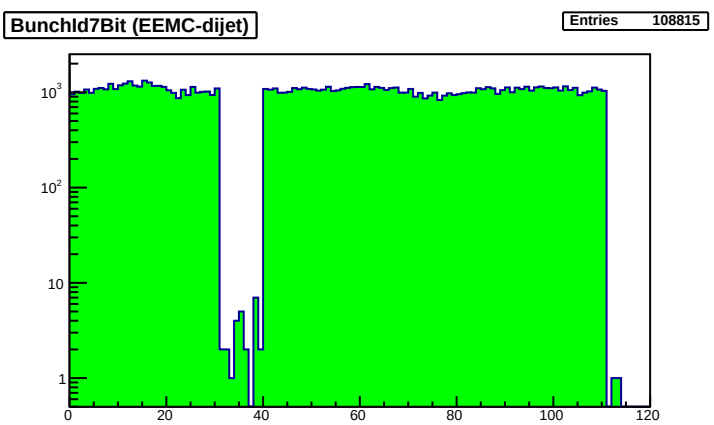

BunchId7Bit (JP1)
Entries 540323

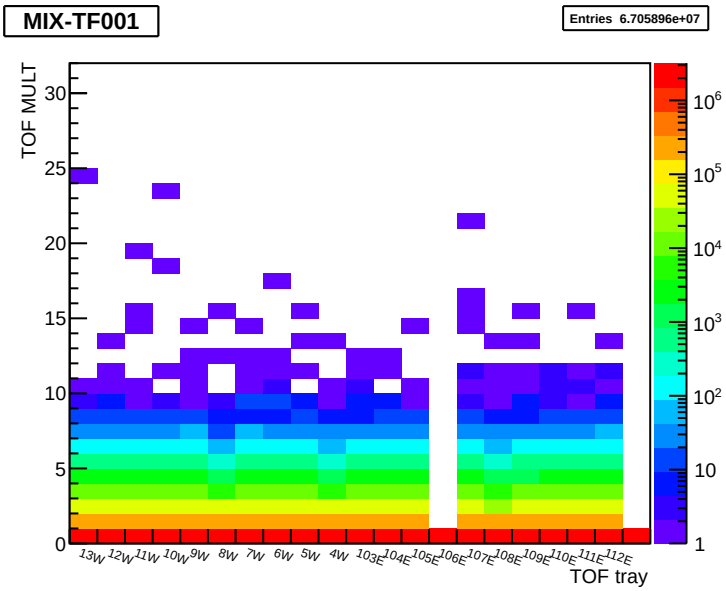

BunchId7Bit (JP2)
Entries 119533

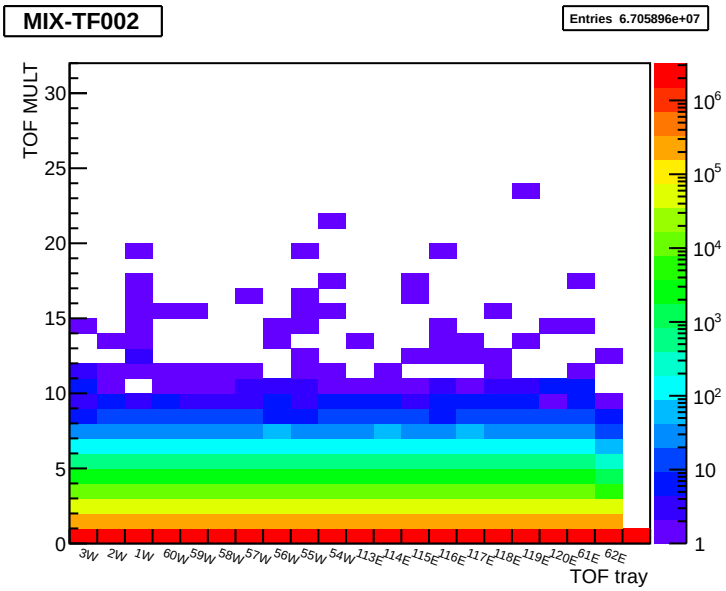

BunchId7Bit (BAJP)
Entries 15883

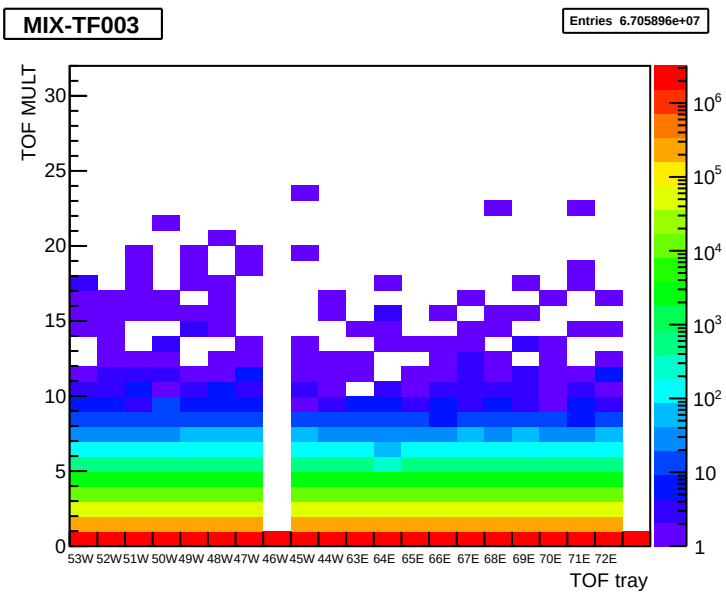

BunchId7Bit (JP0*DiJet)
Entries 566654

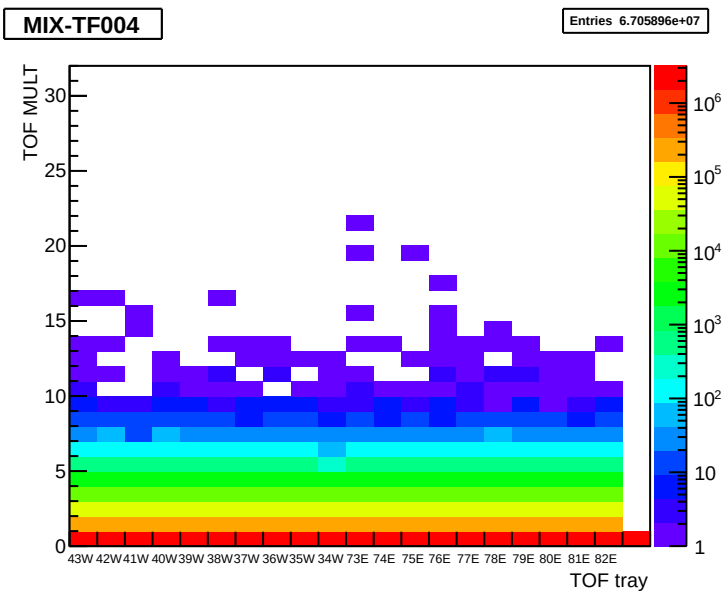

BunchId7Bit (JP1*DiJet)
Entries 352418

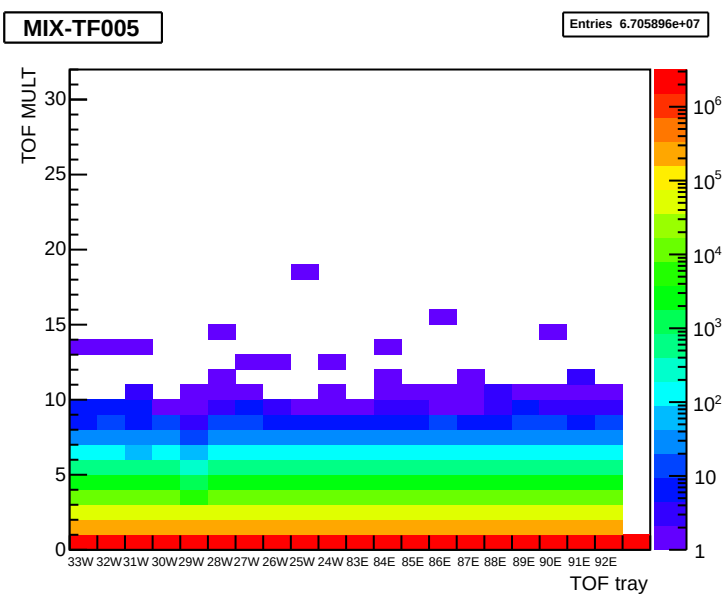

BunchId7Bit (EEMC-dijet)
Entries 108815

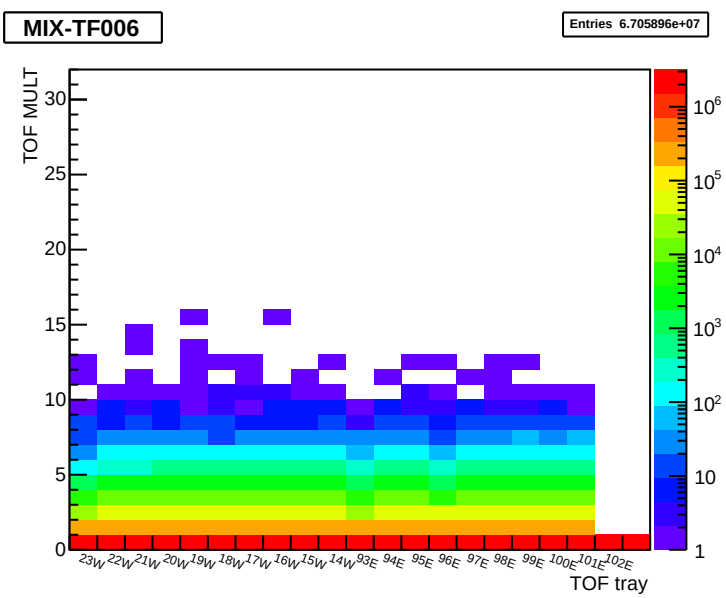

MIX-TF001
Entries 6.705896e+07
TOF MULT
TOF tray

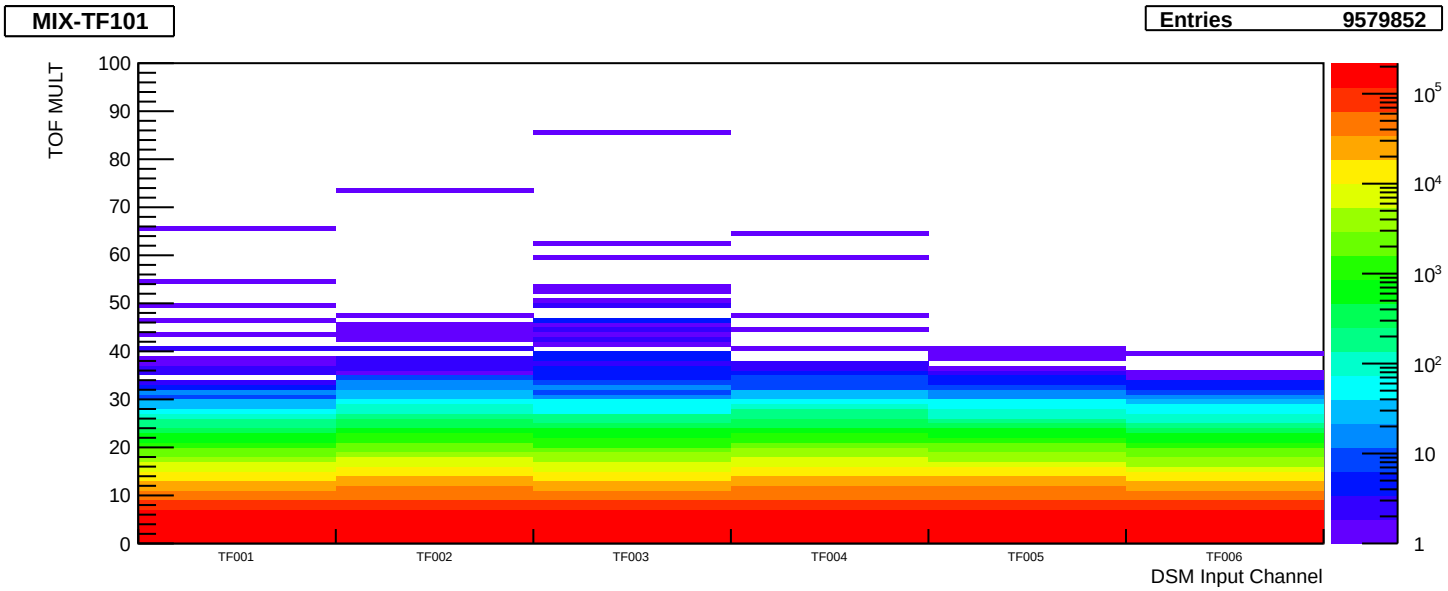

MIX-TF002
Entries 6.705896e+07
TOF MULT
TOF tray

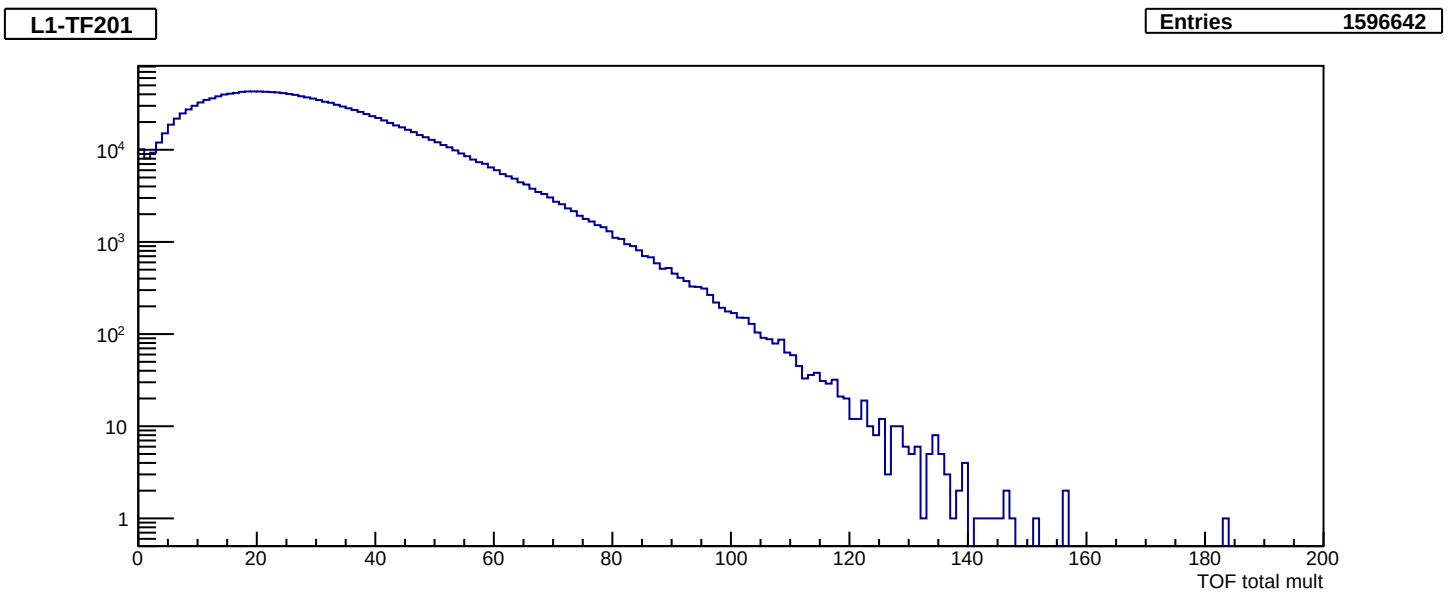

MIX-TF003
Entries 6.705896e+07
TOF MULT
TOF tray

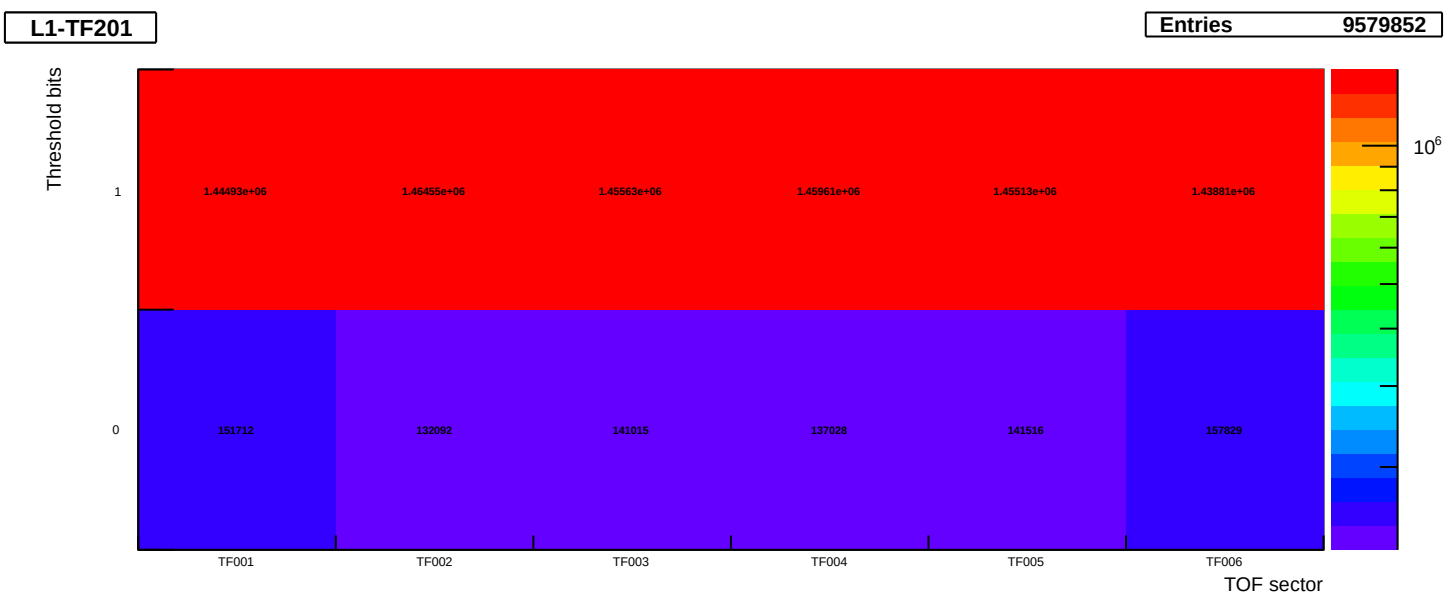

MIX-TF004
Entries 6.705896e+07
TOF MULT
TOF tray

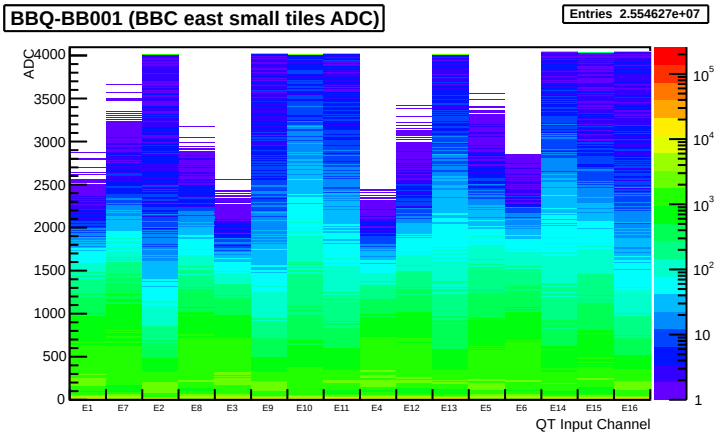

MIX-TF005
Entries 6.705896e+07
TOF MULT
TOF tray

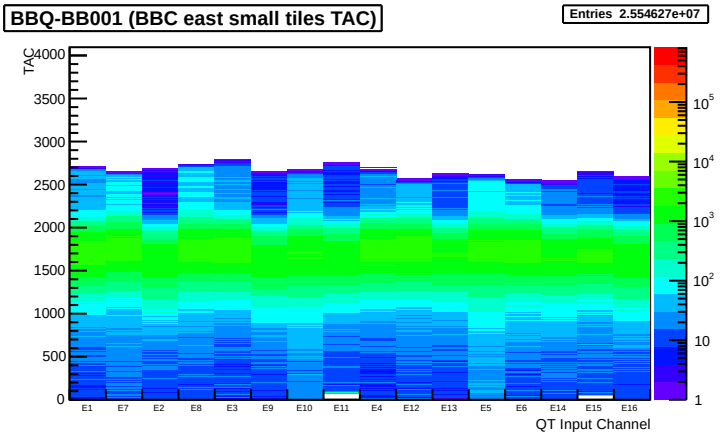

MIX-TF006
Entries 6.705896e+07
TOF MULT
TOF tray

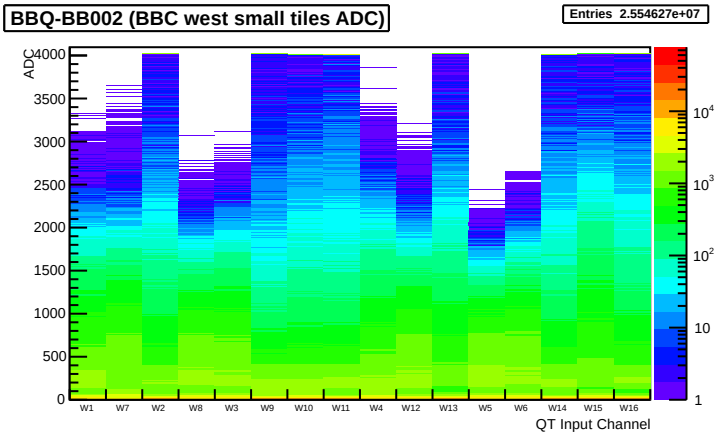

MIX-TF101
Entries 9579852
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

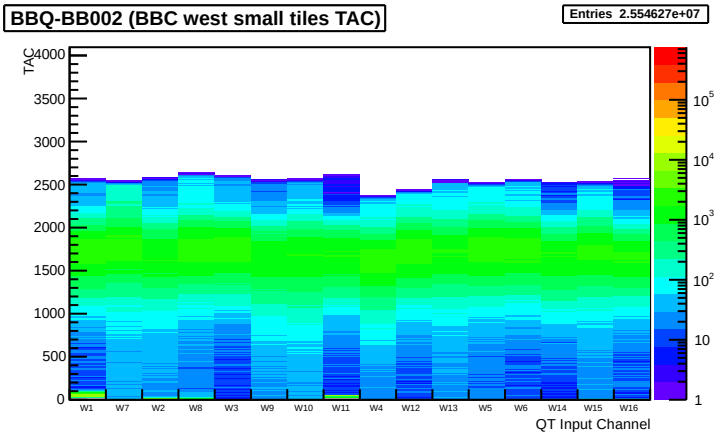

L1-TF201
Entries 1596642
TOF total mult

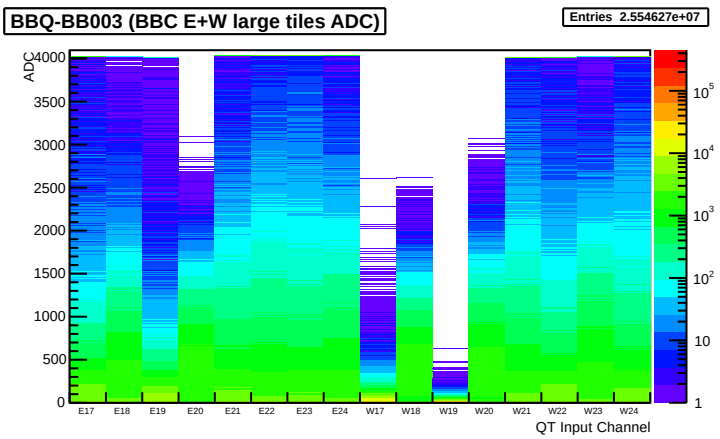

L1-TF201
Entries 9579852
Threshold bits
1.44493e+06
1.46455e+06
1.45563e+06
1.45961e+06
1.45513e+06
1.43881e+06
151712
132092
141015
137028
141516
157829
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

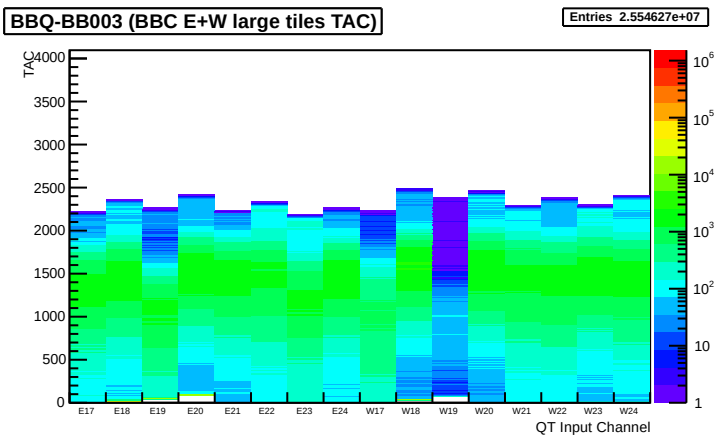

BBQ-BB001 (BBC east small tiles ADC)
Entries 2.554627e+07
ADC
QT Input Channel

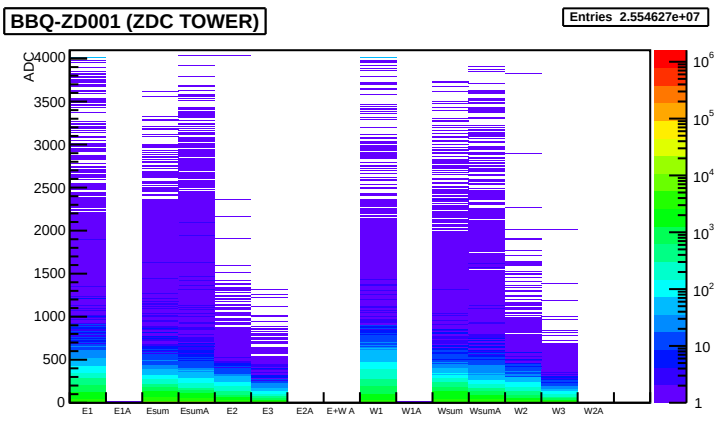

BBQ-BB001 (BBC east small tiles TAC)
Entries 2.554627e+07
TAC
QT Input Channel

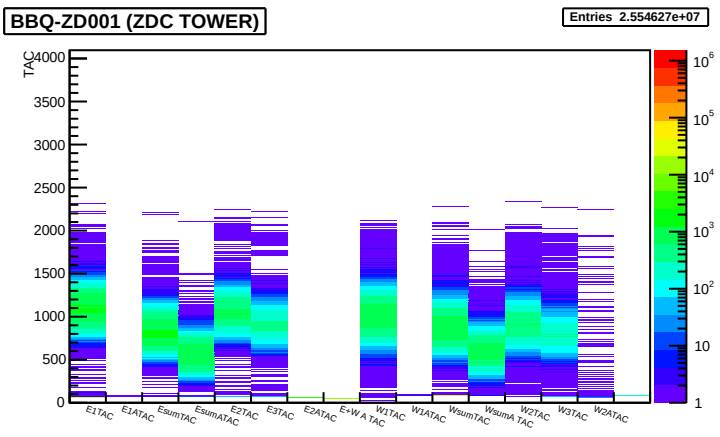

BBQ-BB002 (BBC west small tiles ADC)
Entries 2.554627e+07
ADC
QT Input Channel

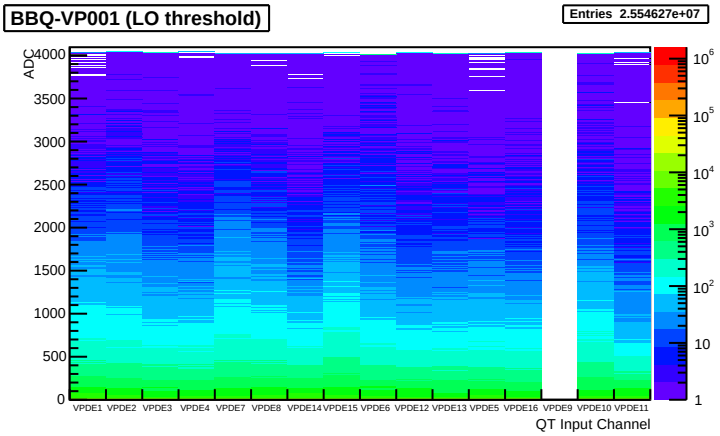

BBQ-BB002 (BBC west small tiles TAC)
Entries 2.554627e+07
TAC
QT Input Channel

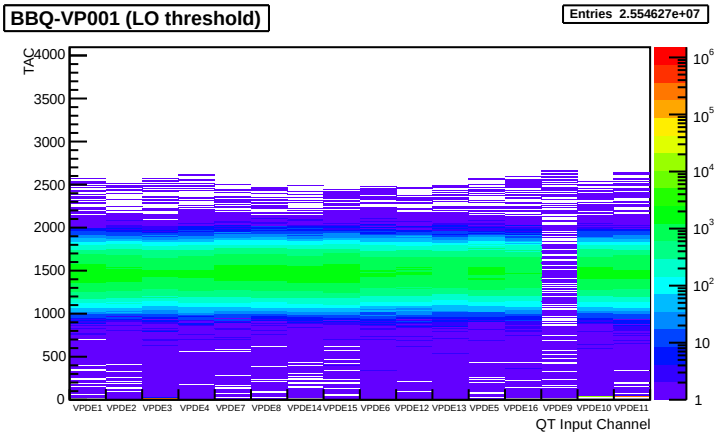

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 2.554627e+07
ADC
QT Input Channel

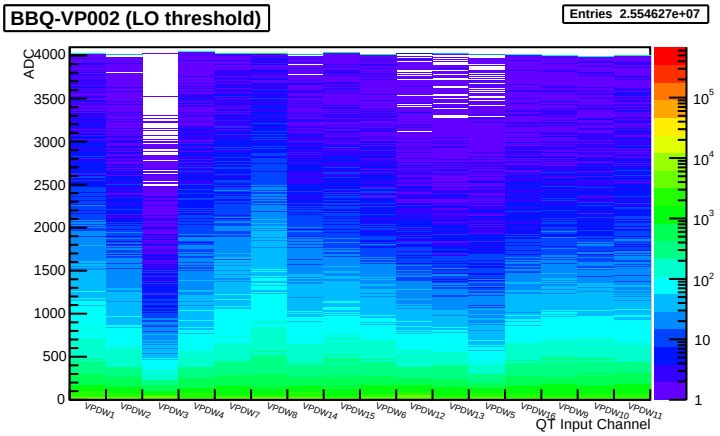

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 2.554627e+07
TAC
QT Input Channel

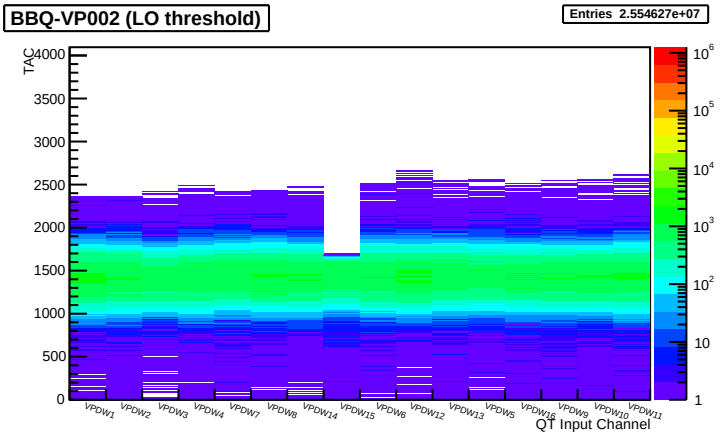

BBQ-ZD001 (ZDC TOWER)
Entries 2.554627e+07
ADC

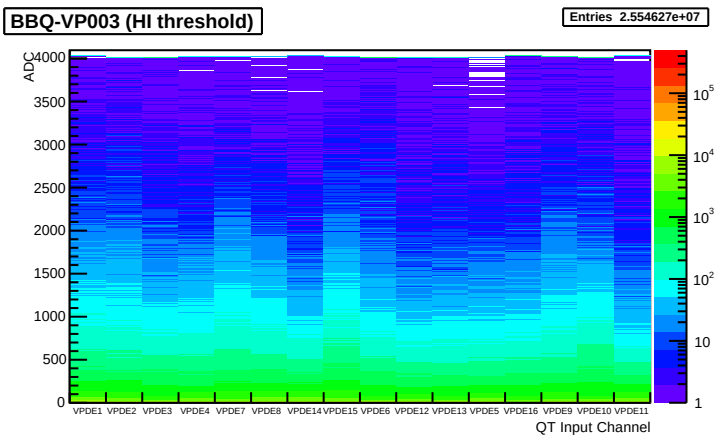

BBQ-ZD001 (ZDC TOWER)
Entries 2.554627e+07
TAC

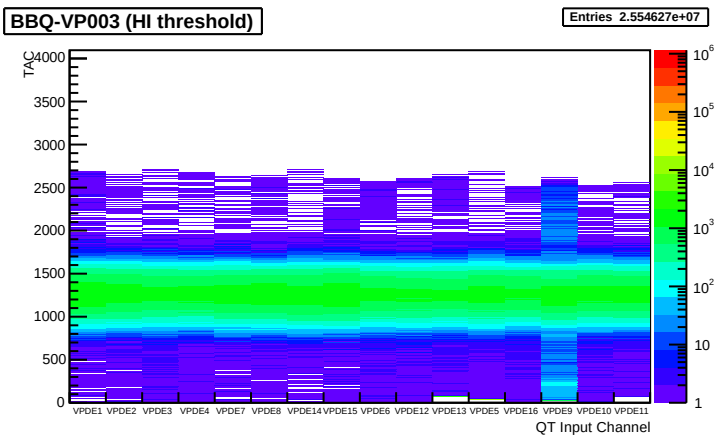

BBQ-VP001 (LO threshold)
Entries 2.554627e+07
ADC
QT Input Channel

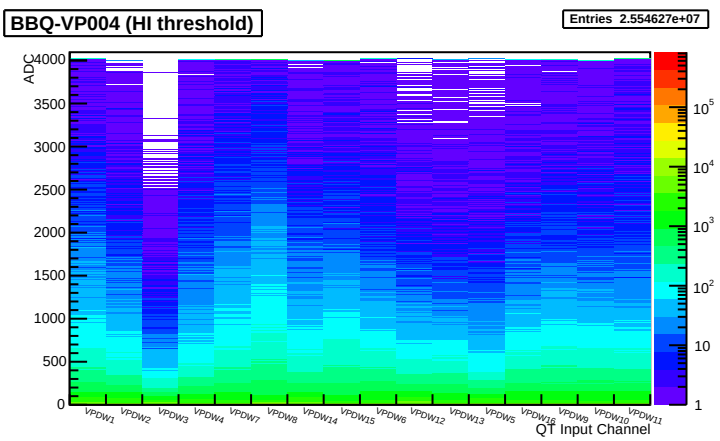

BBQ-VP001 (LO threshold)
Entries 2.554627e+07
TAC
QT Input Channel

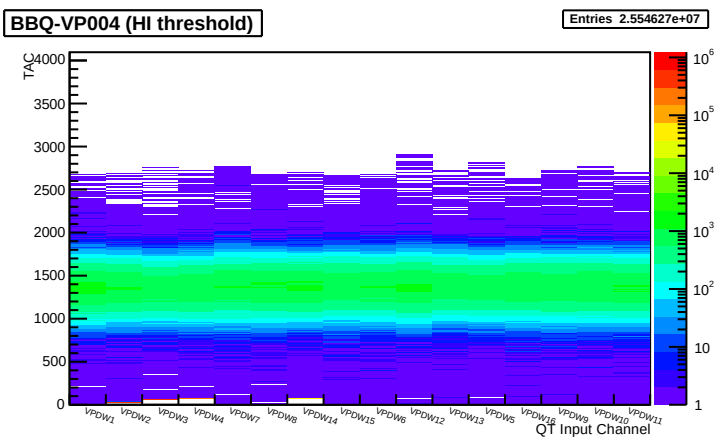

BBQ-VP002 (LO threshold)
Entries 2.554627e+07
ADC
QT Input Channel

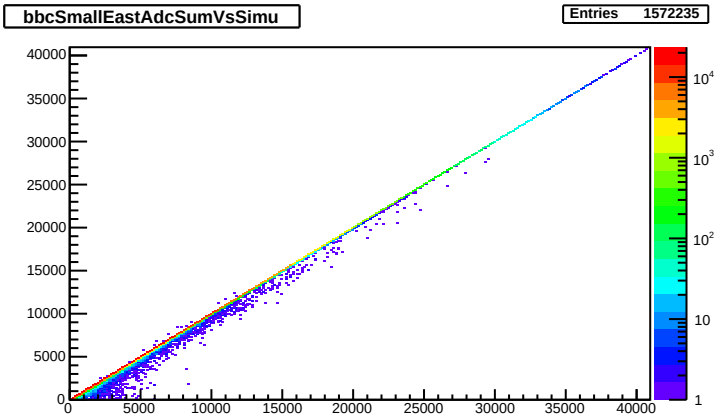

BBQ-VP002 (LO threshold)
Entries 2.554627e+07
TAC
QT Input Channel

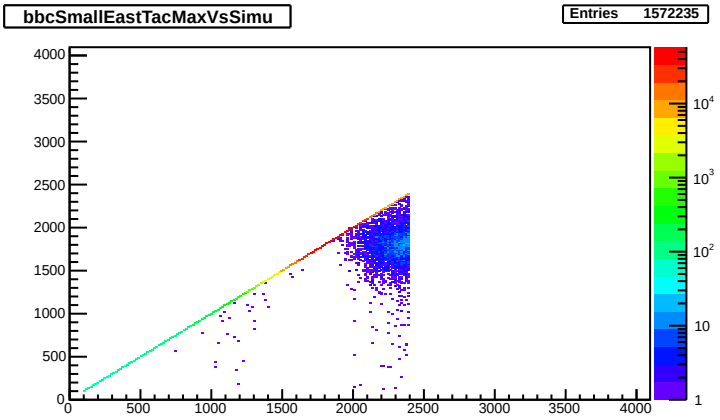

BBQ-VP003 (HI threshold)
Entries 2.554627e+07
ADC
QT Input Channel

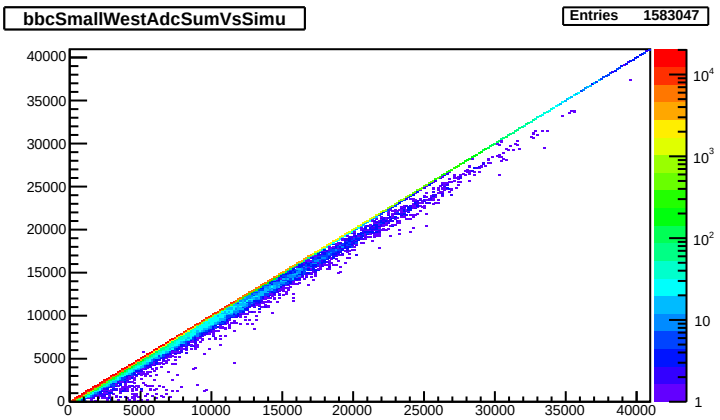

BBQ-VP003 (HI threshold)
Entries 2.554627e+07
TAC
QT Input Channel

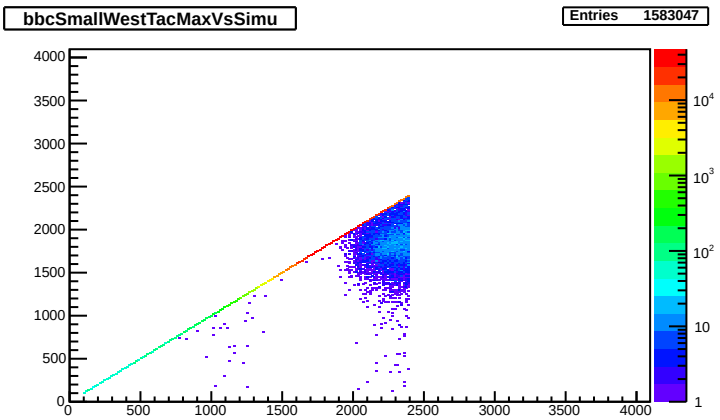

BBQ-VP004 (HI threshold)
Entries 2.554627e+07
ADC
QT Input Channel

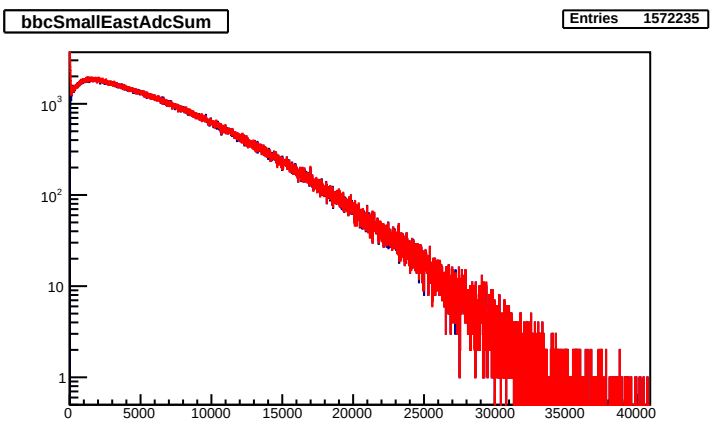

BBQ-VP004 (HI threshold)
Entries 2.554627e+07
TAC
QT Input Channel

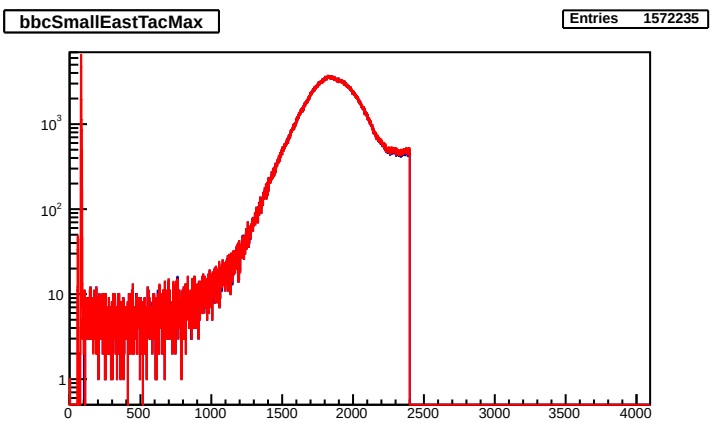

bbcSmallEastAdcSumVsSimu
Entries 1572235

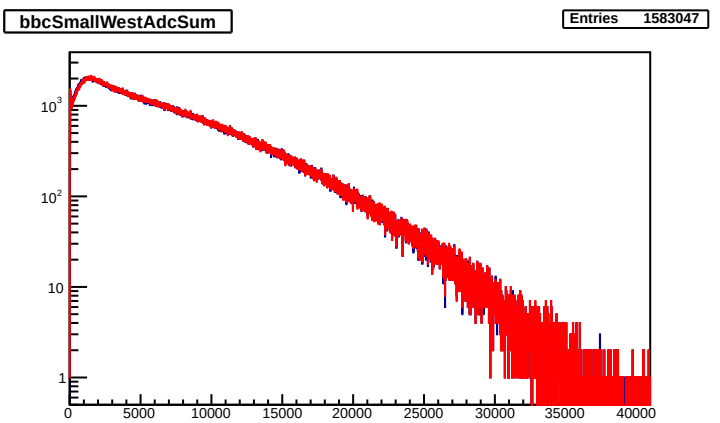

bbcSmallEastTacMaxVsSimu
Entries 1572235

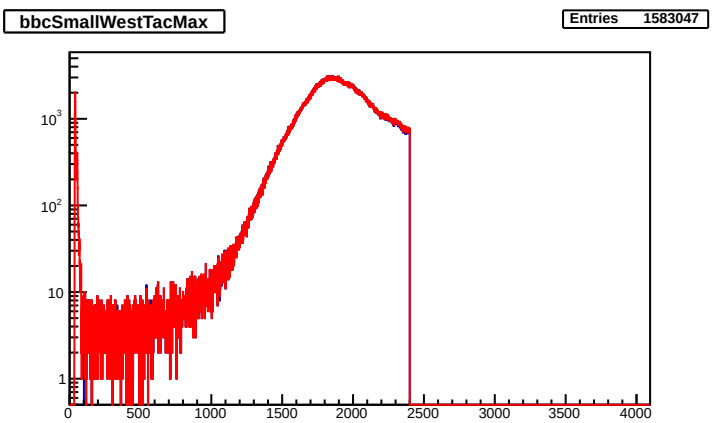

bbcSmallWestAdcSumVsSimu
Entries 1583047

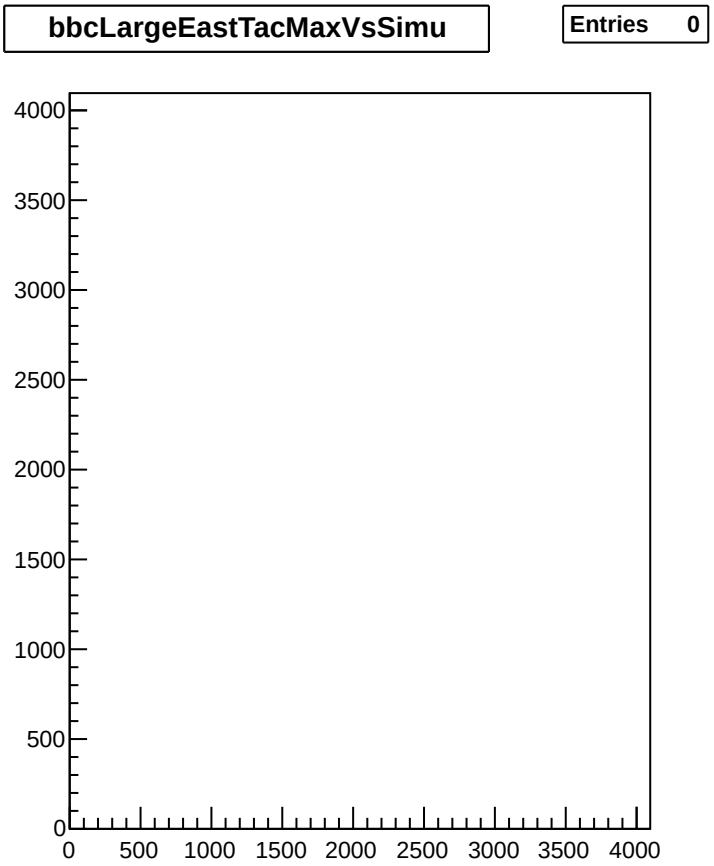

bbcSmallWestTacMaxVsSimu
Entries 1583047

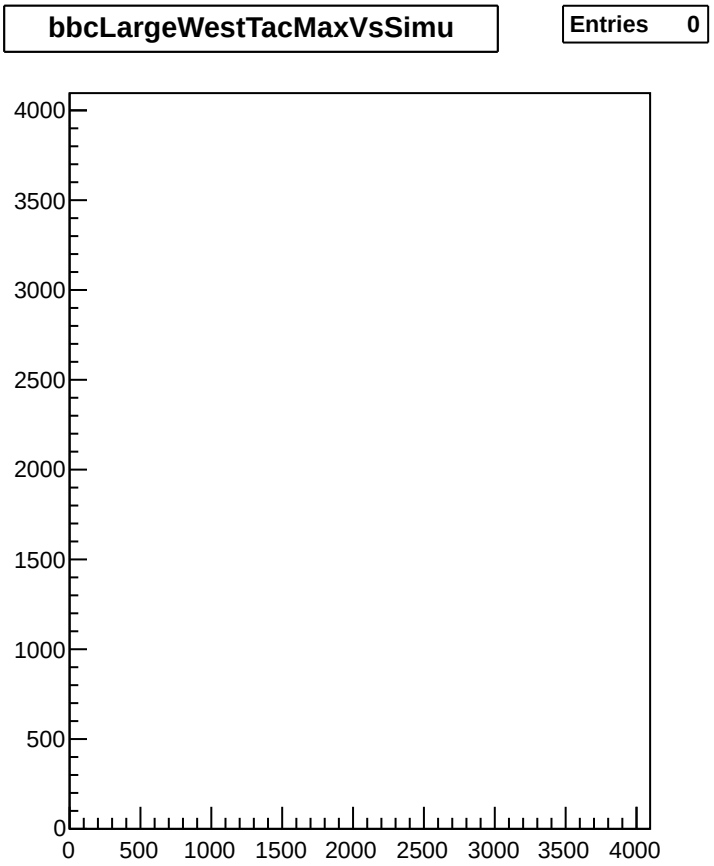

bbcSmallEastAdcSum
Entries 1572235

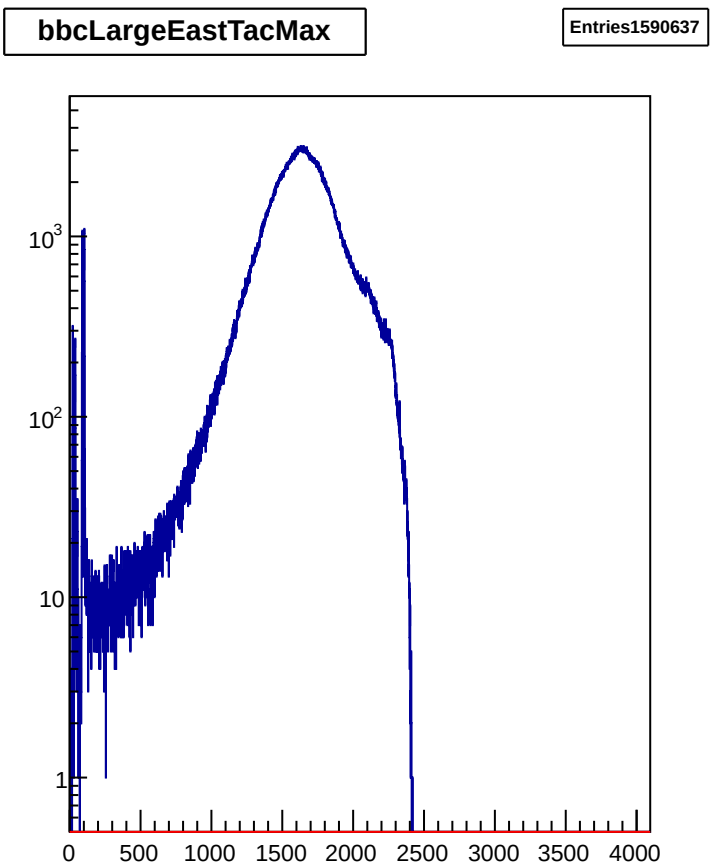

bbcSmallEastTacMax
Entries 1572235

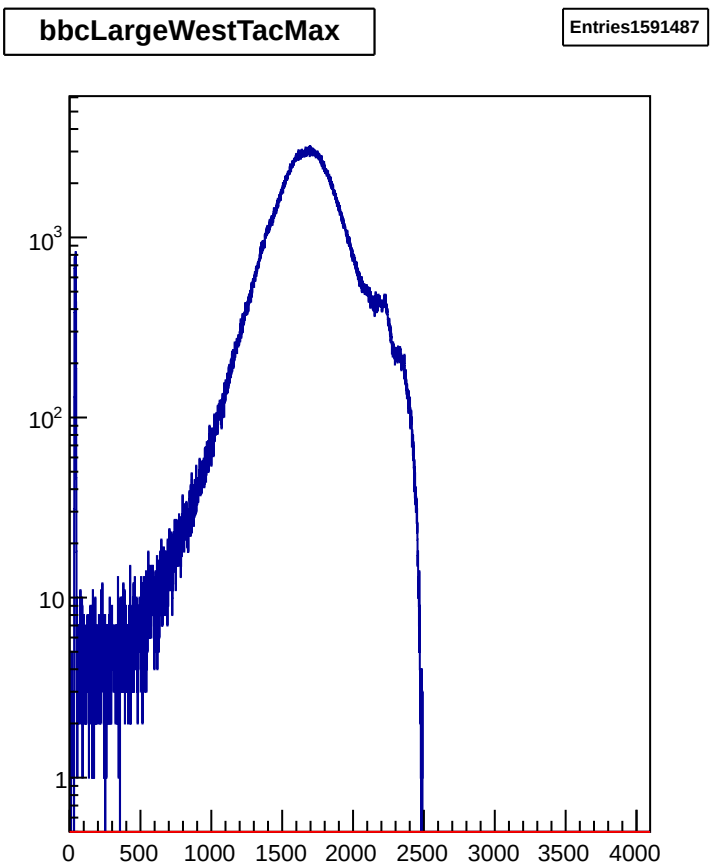

bbcSmallWestAdcSum
Entries 1583047

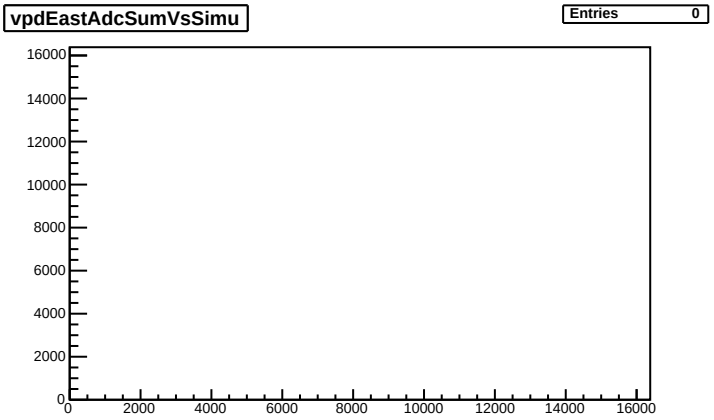

bbcSmallWestTacMax
Entries 1583047

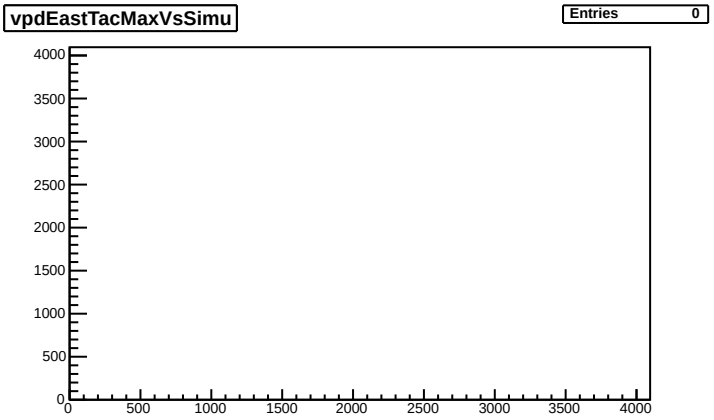

bbcLargeEastTacMaxVsSimu
Entries 0
4000
3500
3000
2500
2000
1500
1000
500
0
0 500 1000 1500 2000 2500 3000 3500 4000

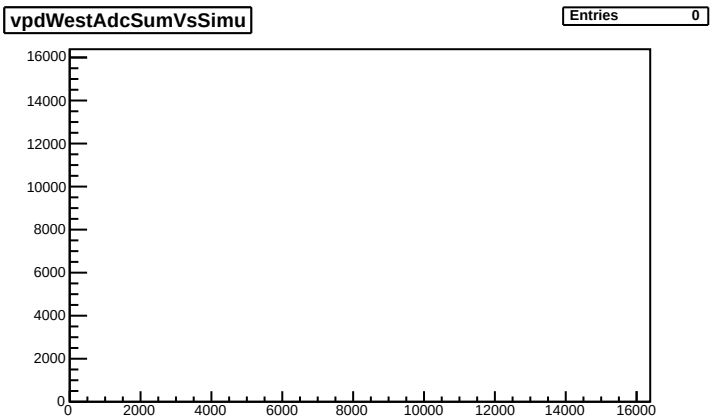

bbcLargeWestTacMaxVsSimu
Entries 0
4000
3500
3000
2500
2000
1500
1000
500
0
0 500 1000 1500 2000 2500 3000 3500 4000

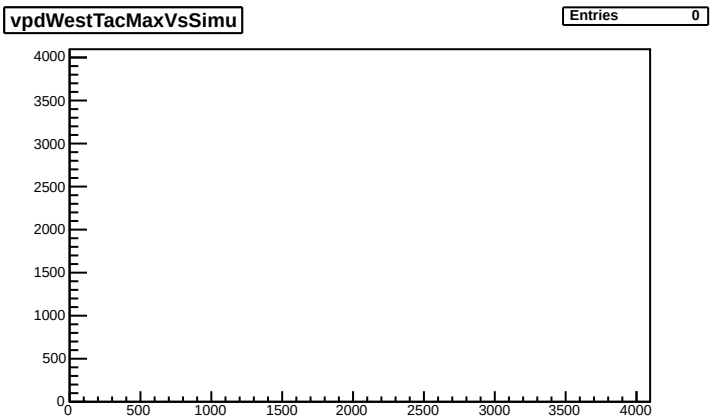

bbcLargeEastTacMax
Entries1590637
10^3
10^2
10
1
0 500 1000 1500 2000 2500 3000 3500 4000

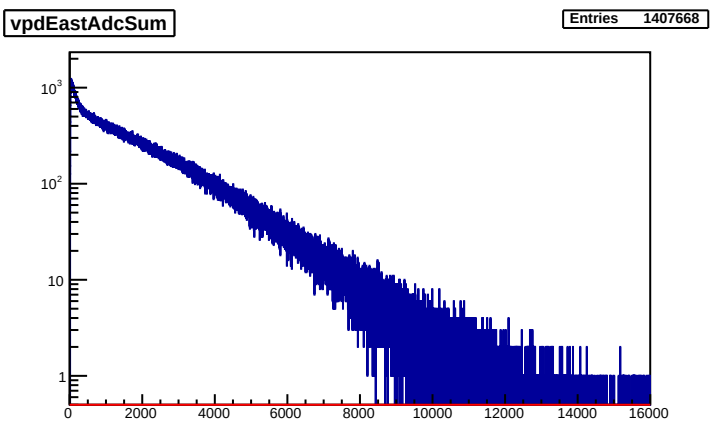

bbcLargeWestTacMax
Entries1591487
10^3
10^2
10
1
0 500 1000 1500 2000 2500 3000 3500 4000

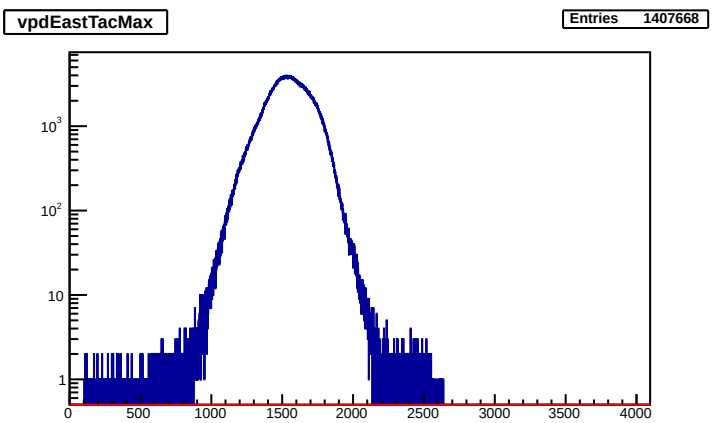

vpdEastAdcSumVsSimu
Entries 0

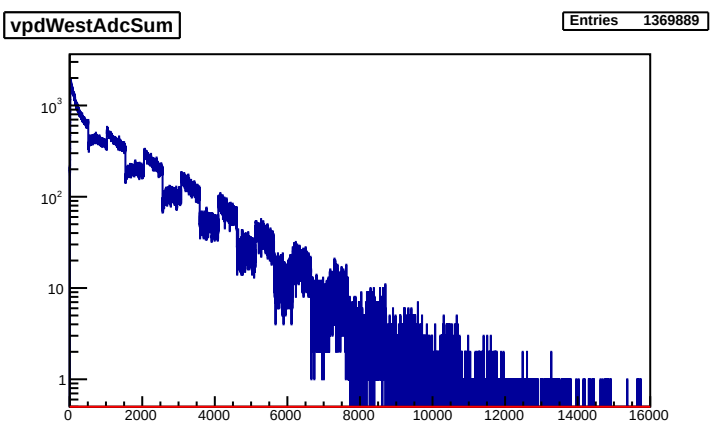

vpdEastTacMaxVsSimu
Entries 0

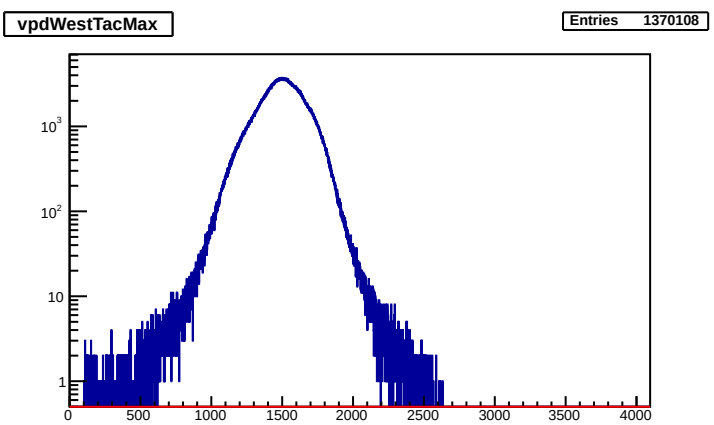

vpdWestAdcSumVsSimu
Entries 0

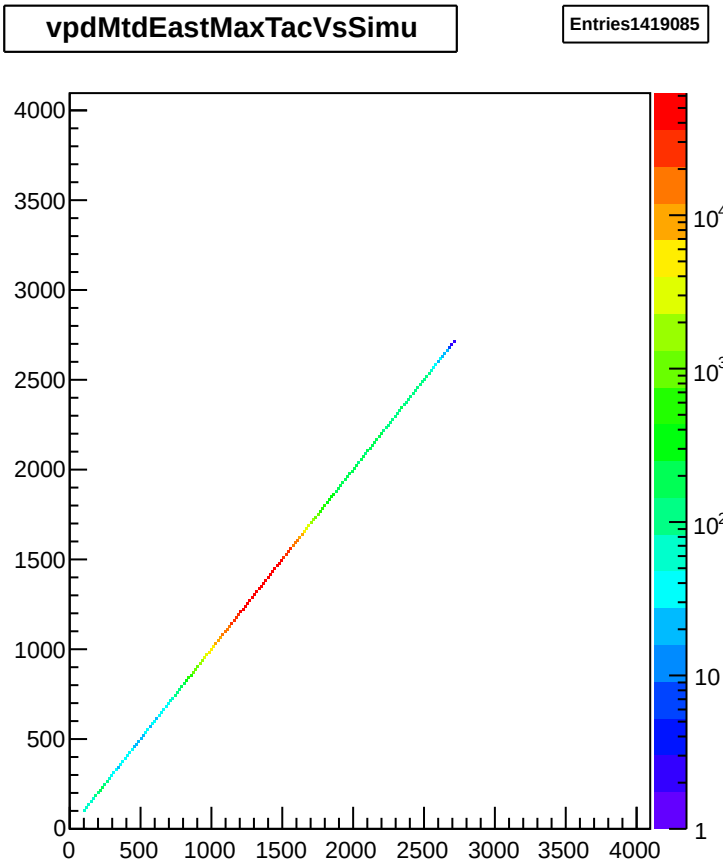

vpdWestTacMaxVsSimu
Entries 0

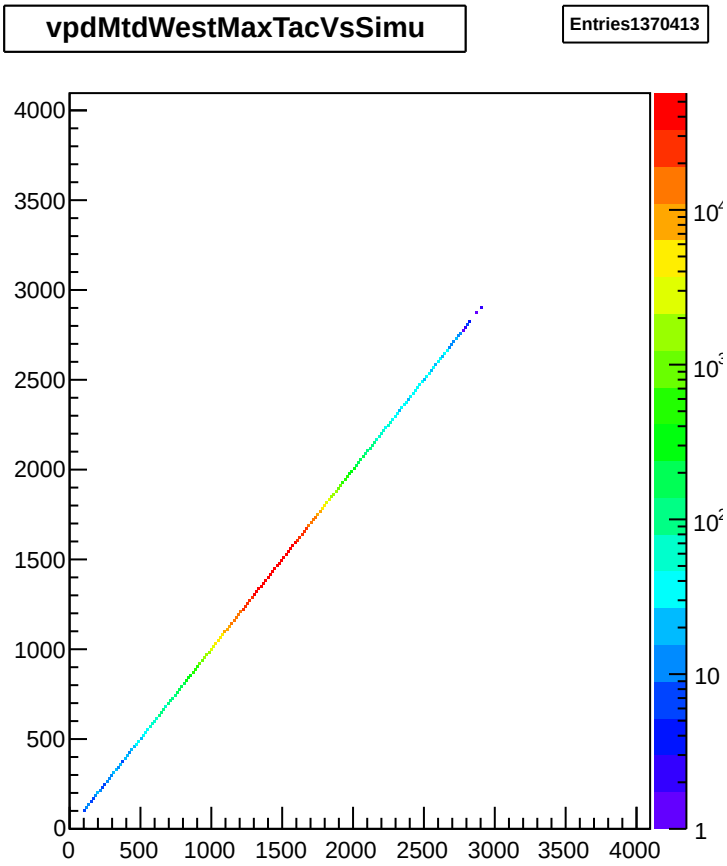

vpdEastAdcSum
Entries 1407668

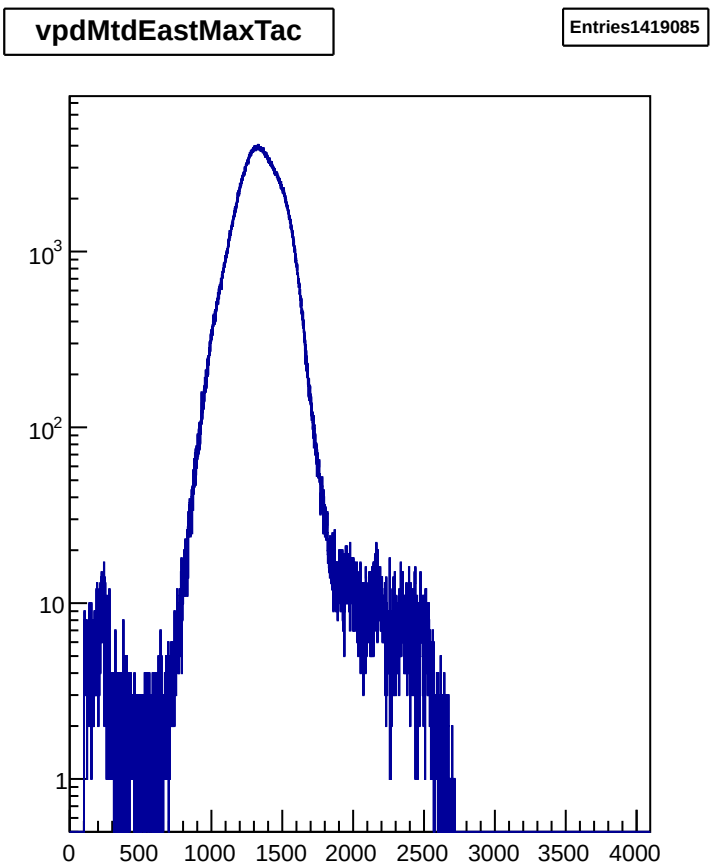

vpdEastTacMax
Entries 1407668

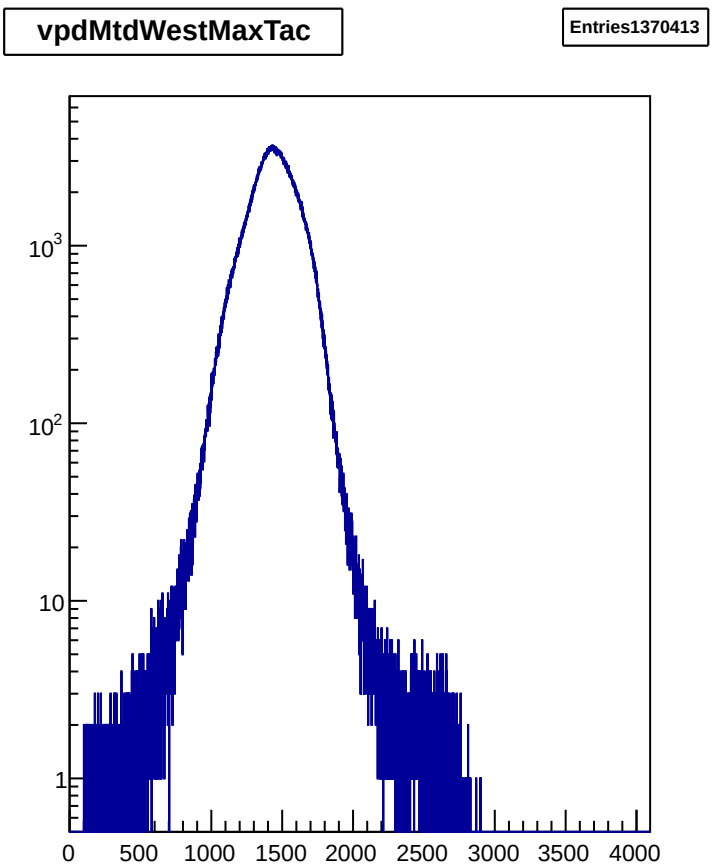

vpdWestAdcSum
Entries 1369889

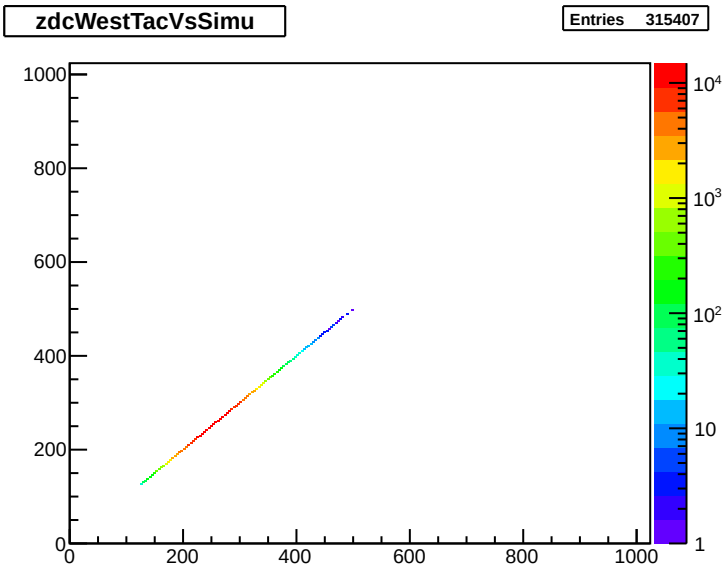

vpdWestTacMax
Entries 1370108

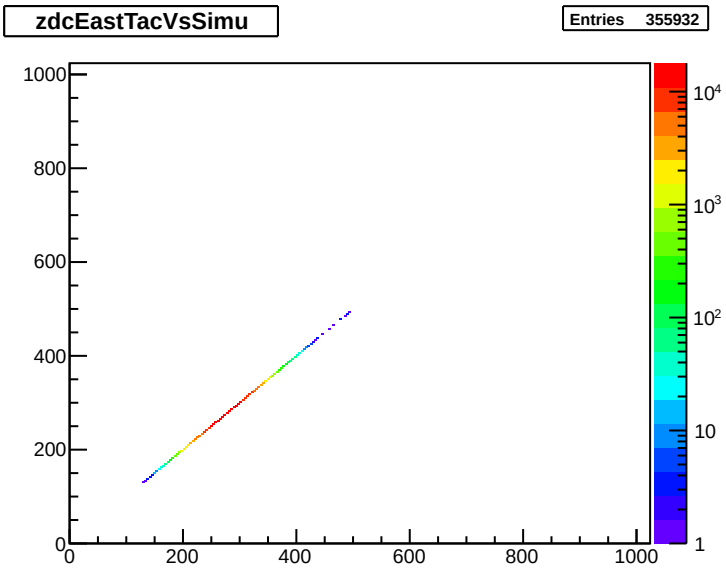

vpdMtdEastMaxTacVsSimu
Entries1419085
4000
3500
3000
2500
2000
1500
1000
500
0
0 500 1000 1500 2000 2500 3000 3500 4000
10
1

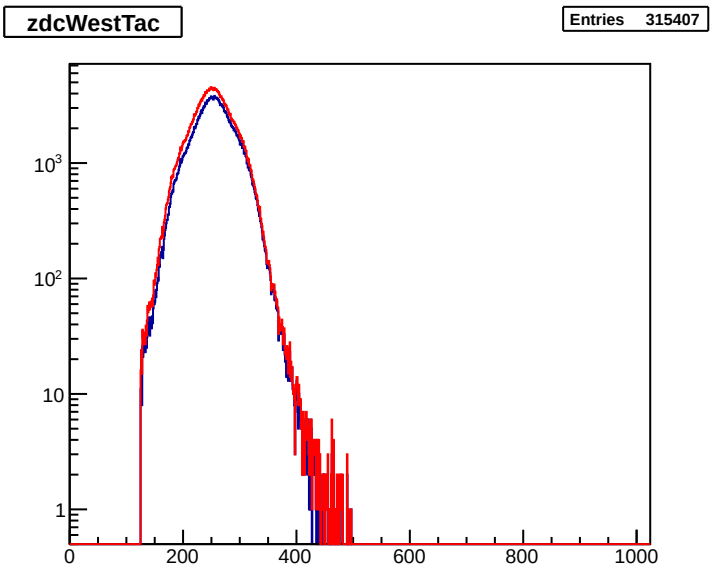

vpdMtdWestMaxTacVsSimu
Entries1370413
4000
3500
3000
2500
2000
1500
1000
500
0
0 500 1000 1500 2000 2500 3000 3500 4000
10
1

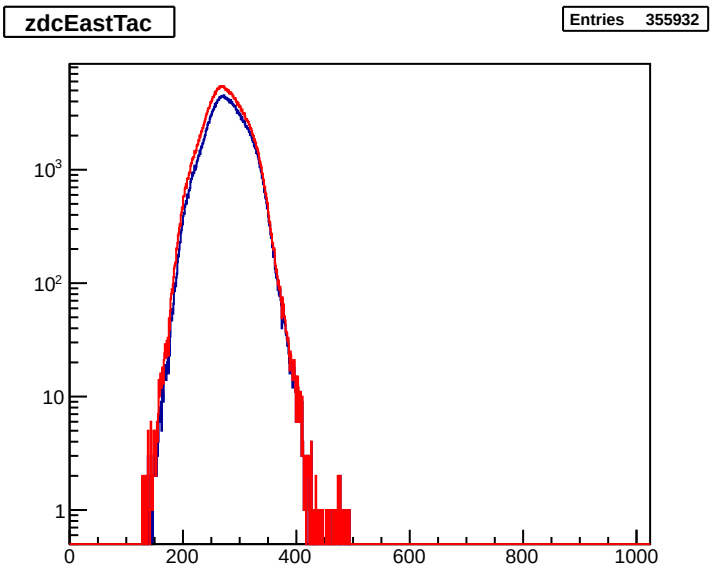

vpdMtdEastMaxTac
Entries1419085
10^3
10^2
10
1
0 500 1000 1500 2000 2500 3000 3500 4000

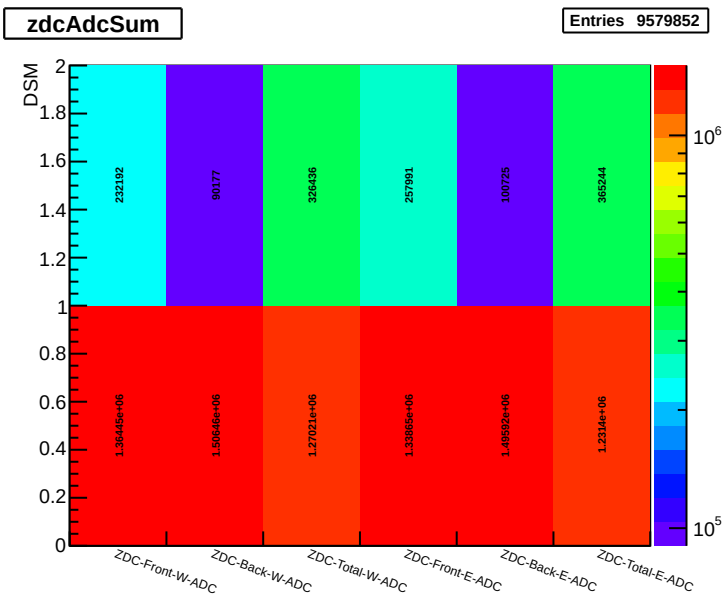

vpdMtdWestMaxTac
Entries1370413
10^3
10^2
10
1
0 500 1000 1500 2000 2500 3000 3500 4000

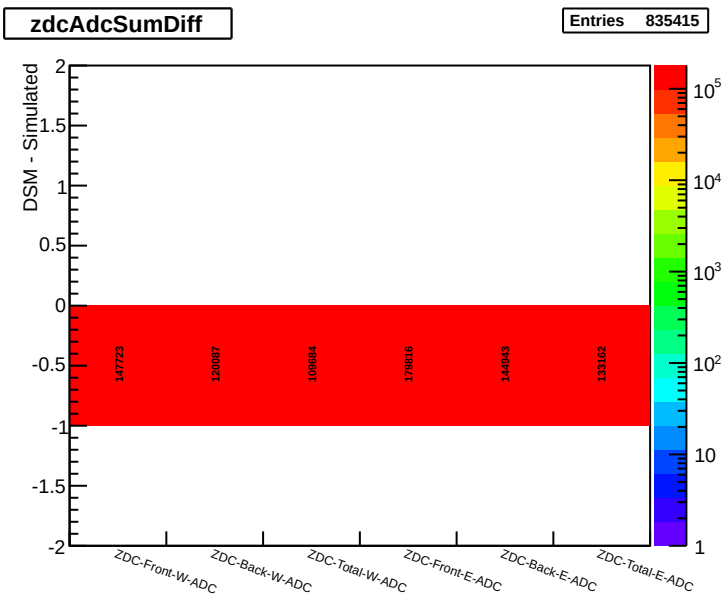

zdcWestTacVsSimu
Entries 315407

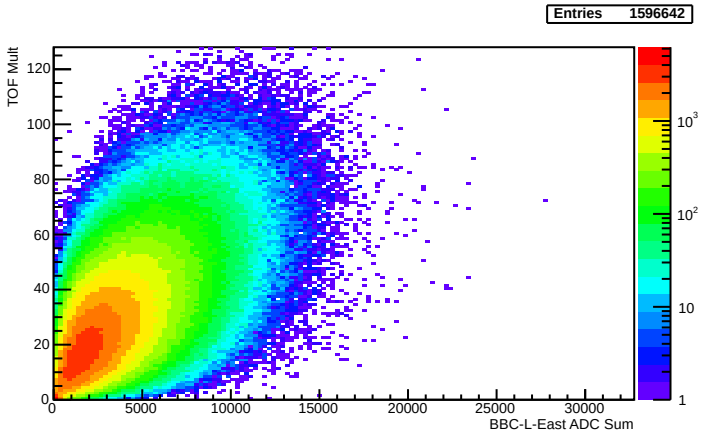

zdcEastTacVsSimu
Entries 355932

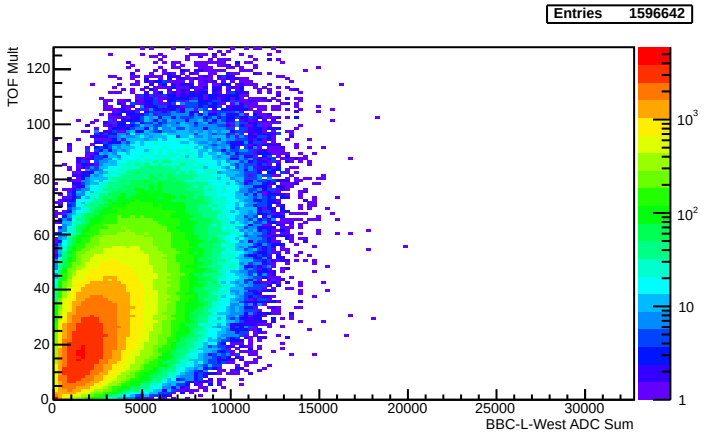

zdcWestTac
Entries 315407

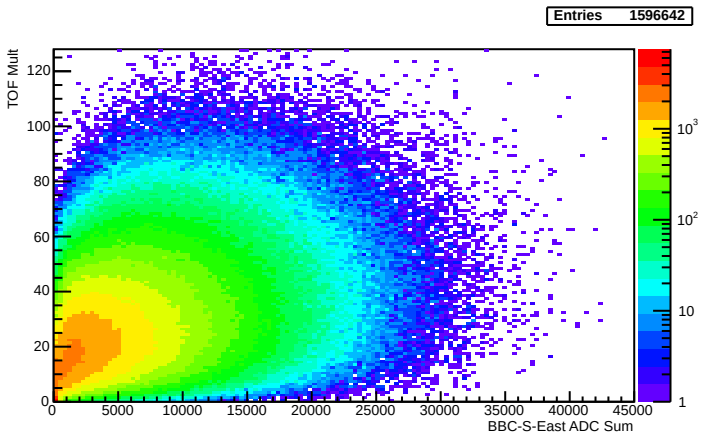

zdcEastTac
Entries 355932

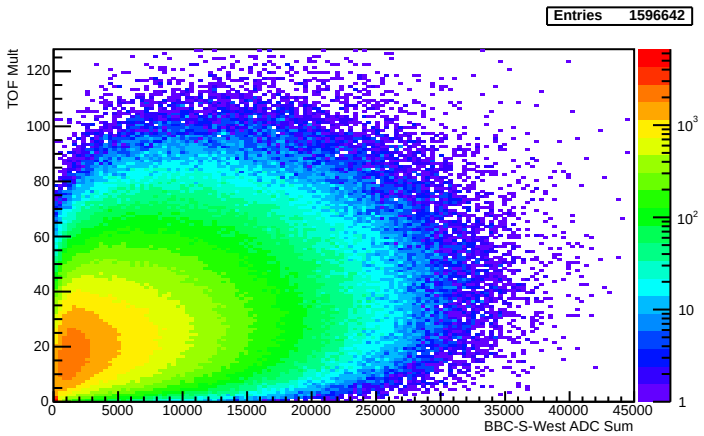

zdcAdcSum
Entries 9579852
DSM
232192
90177
326436
257991
100725
365244
1.36445e+06
1.50646e+06
1.27021e+06
1.33865e+06
1.49592e+06
1.2314e+06
ZDC-Front-W-ADC
ZDC-Back-W-ADC
ZDC-Total-W-ADC
ZDC-Front-E-ADC
ZDC-Back-E-ADC
ZDC-Total-E-ADC

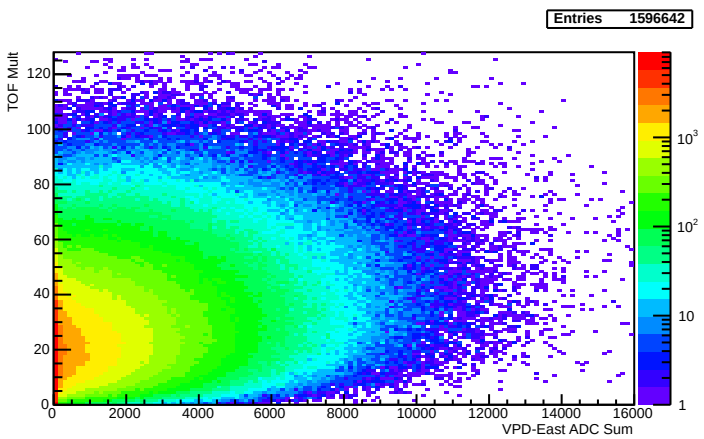

zdcAdcSumDiff
Entries 835415
DSM - Simulated
147723
120087
109684
179816
144943
133162
ZDC-Front-W-ADC
ZDC-Back-W-ADC
ZDC-Total-W-ADC
ZDC-Front-E-ADC
ZDC-Back-E-ADC
ZDC-Total-E-ADC

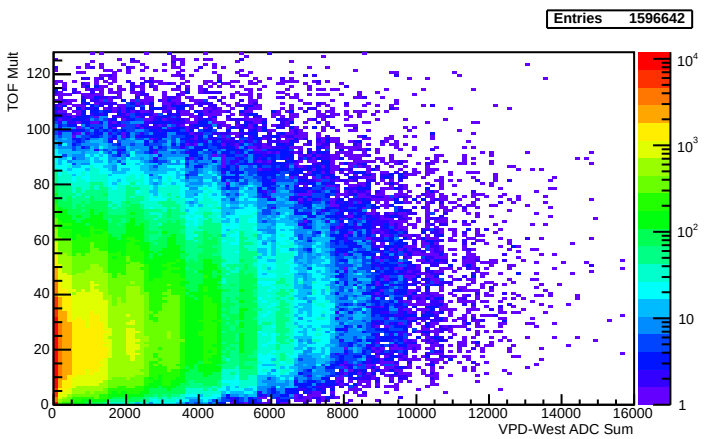

Entries 1596642
TOF Mult
BBC-L-East ADC Sum

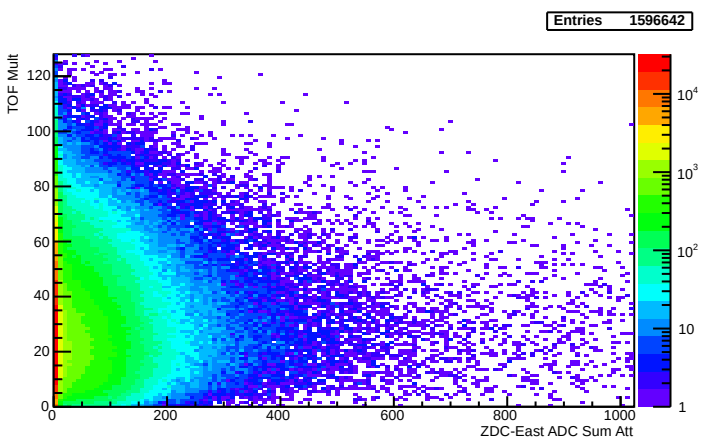

Entries 1596642
TOF Mult
BBC-L-West ADC Sum

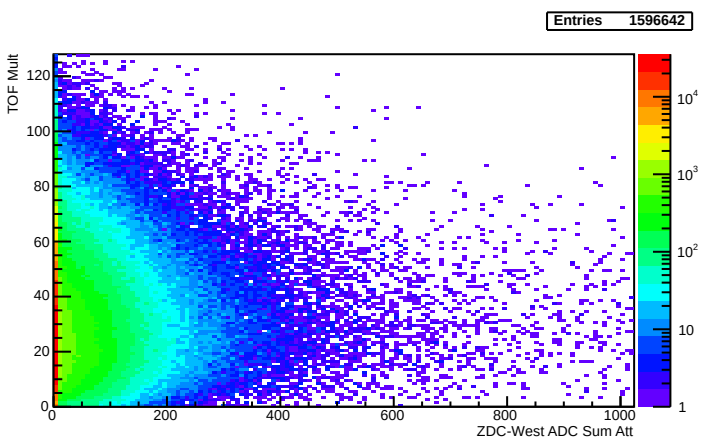

Entries 1596642
TOF Mult
BBC-S-East ADC Sum

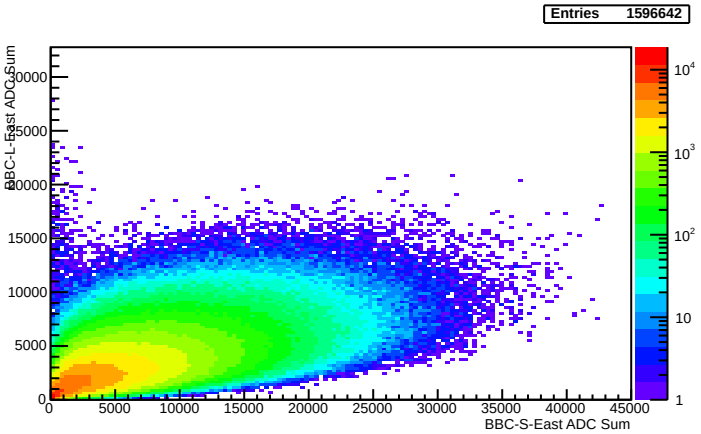

Entries 1596642
TOF Mult
BBC-S-West ADC Sum

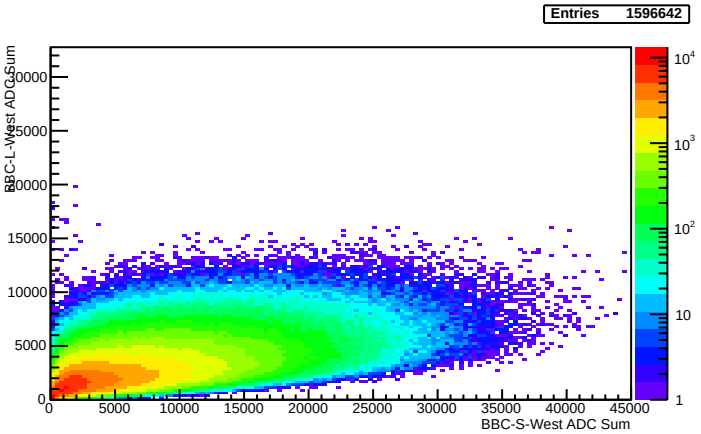

Entries 1596642
TOF Mult
VPD-East ADC Sum

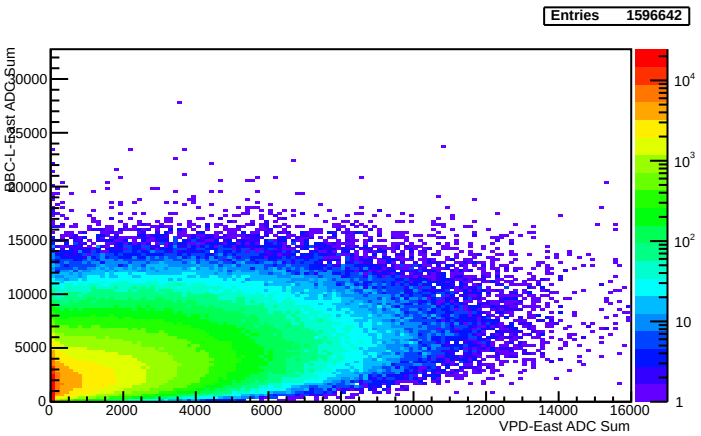

Entries 1596642
TOF Mult
VPD-West ADC Sum

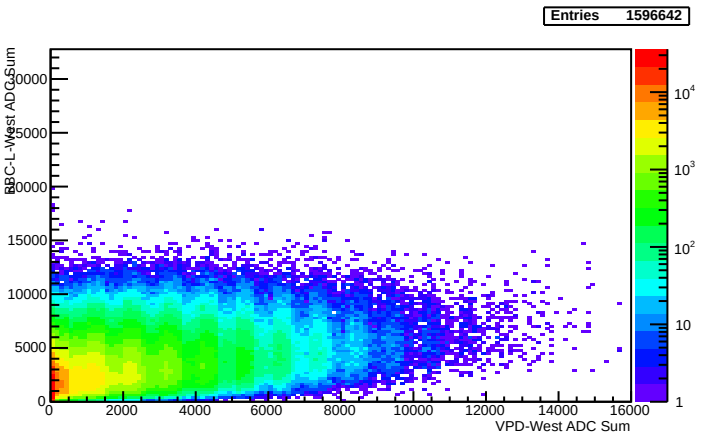

Entries 1596642
TOF Mult
ZDC-East ADC Sum Att

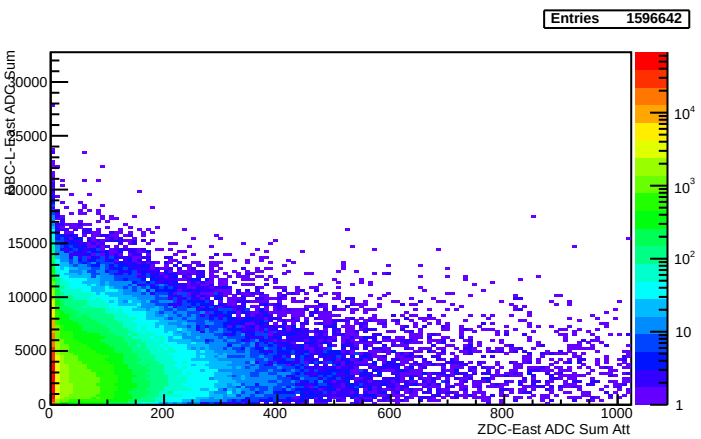

Entries 1596642
TOF Mult
ZDC-West ADC Sum Att

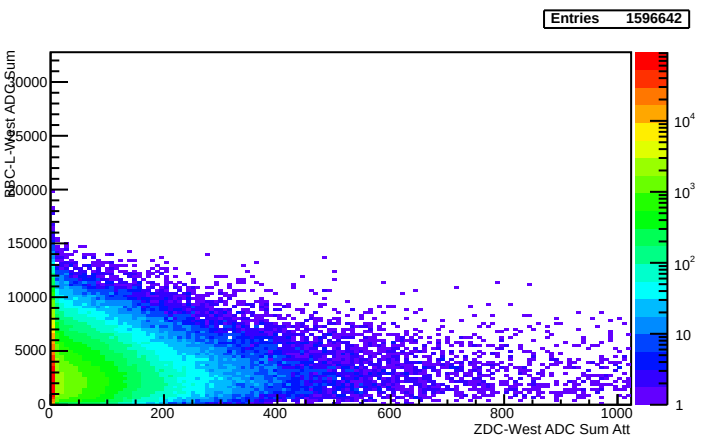

Entries 1596642
BBC-L-East ADC Sum
BBC-S-East ADC Sum

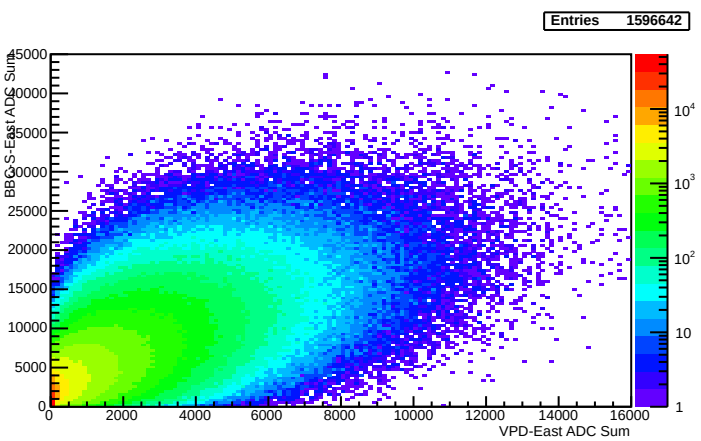

Entries 1596642
BBC-L-West ADC Sum
BBC-S-West ADC Sum

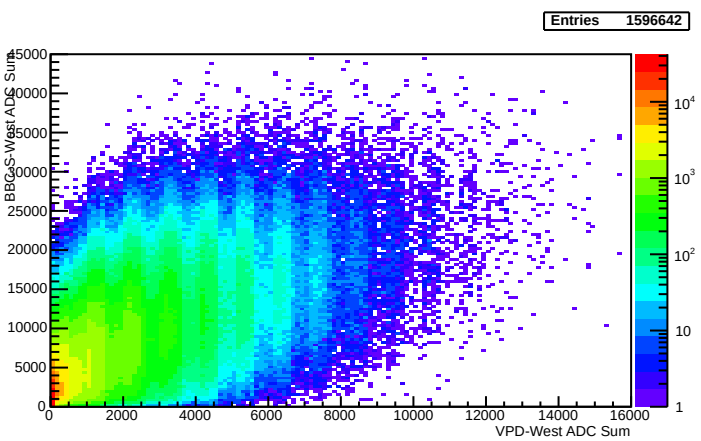

Entries 1596642
BBC-L-East ADC Sum
VPD-East ADC Sum

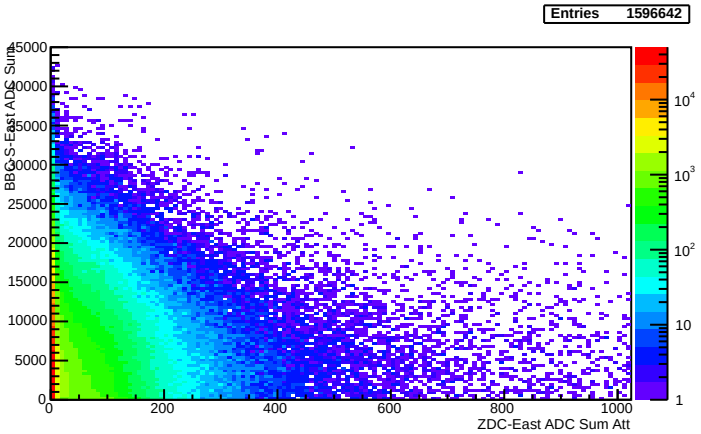

Entries 1596642
BBC-L-West ADC Sum
VPD-West ADC Sum

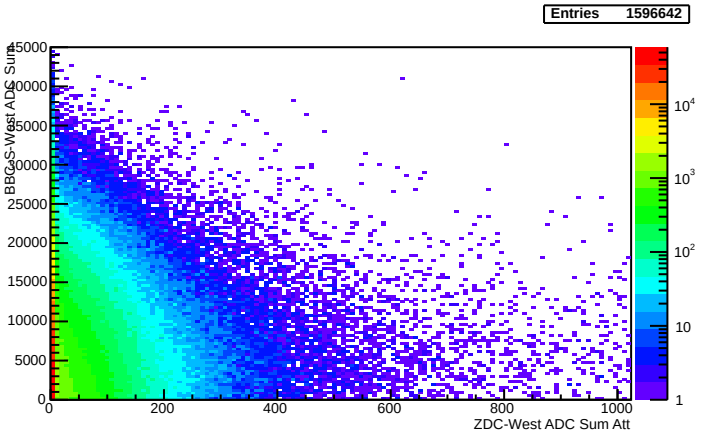

Entries 1596642
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

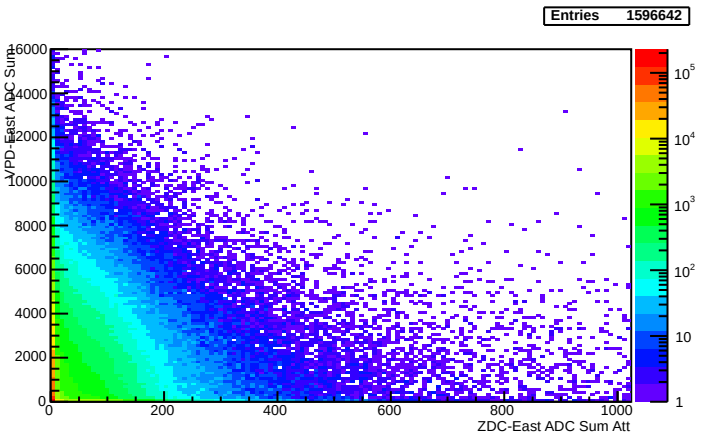

Entries 1596642
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

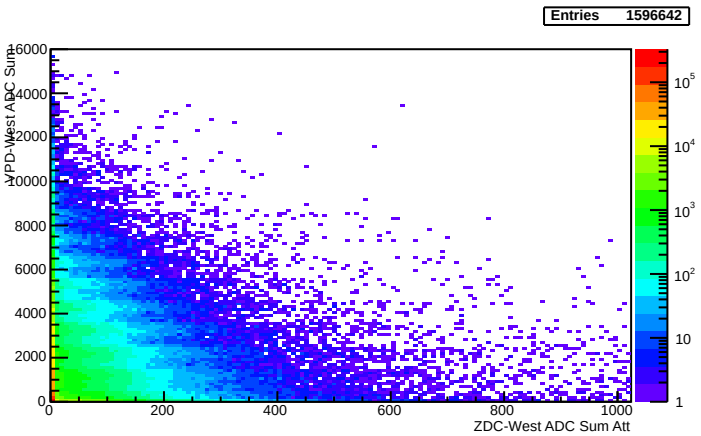

Entries 1596642
BBC-S-East ADC Sum
VPD-East ADC Sum

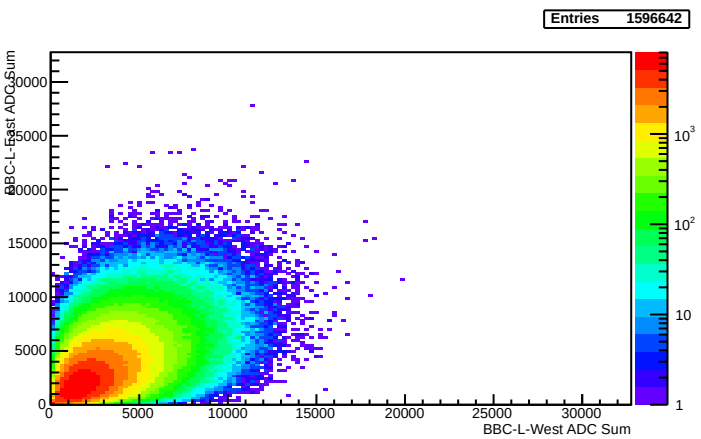

Entries 1596642
BBC-S-West ADC Sum
VPD-West ADC Sum

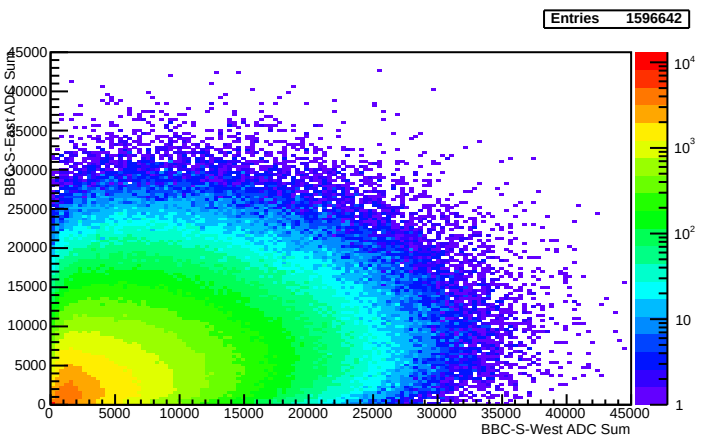

Entries 1596642
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

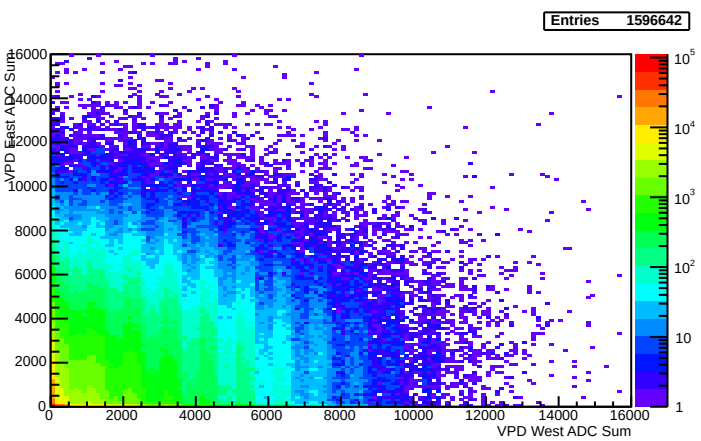

Entries 1596642
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

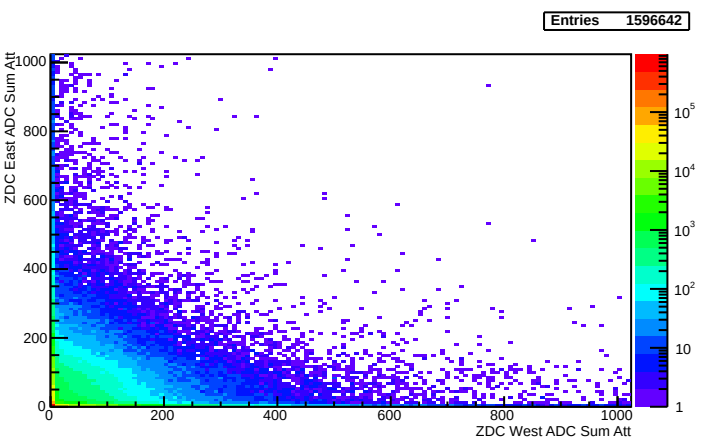

Entries 1596642
VPD-East ADC Sum
ZDC-East ADC Sum Att

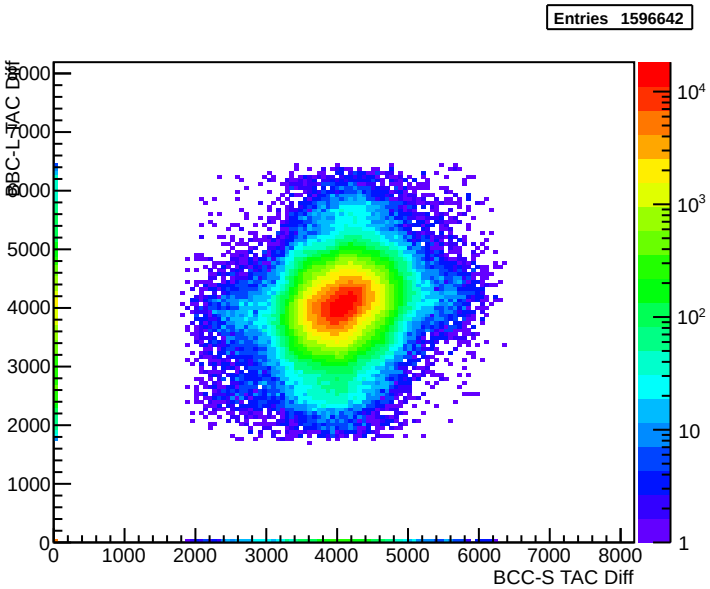

Entries 1596642
VPD-West ADC Sum
ZDC-West ADC Sum Att

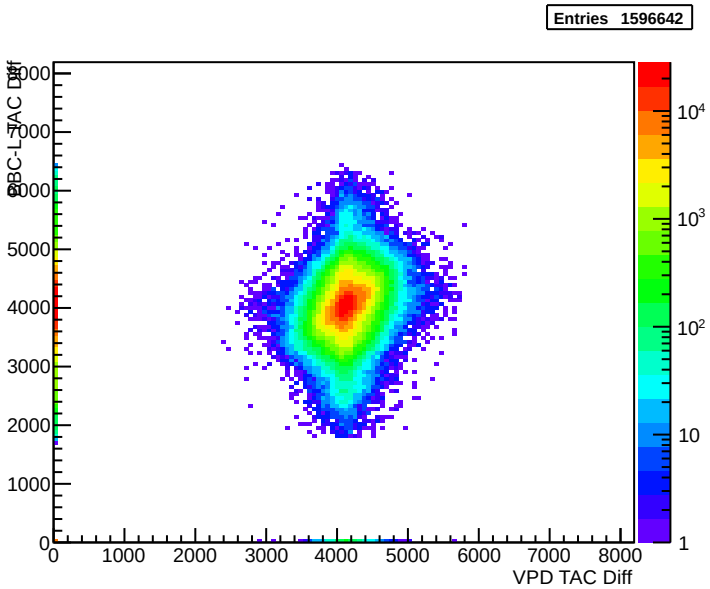

Entries 1596642
BBC-L-East ADC Sum
BBC-L-West ADC Sum

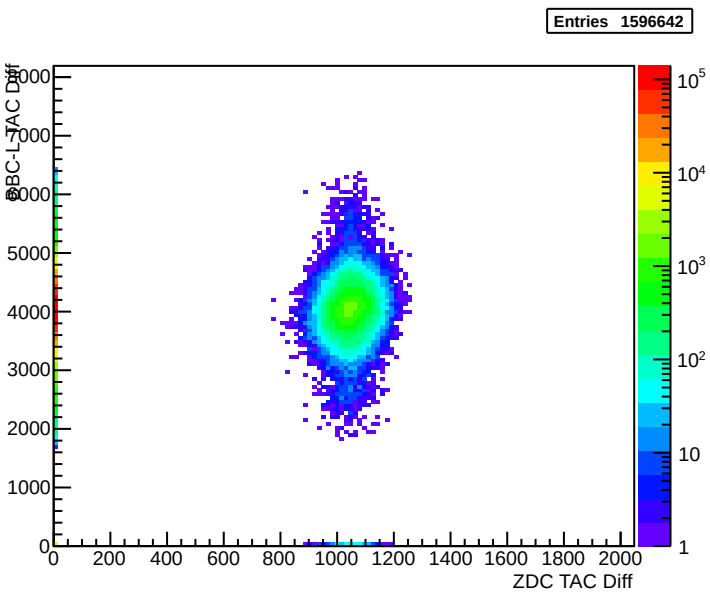

Entries 1596642
BBC-S-East ADC Sum
BBC-S-West ADC Sum

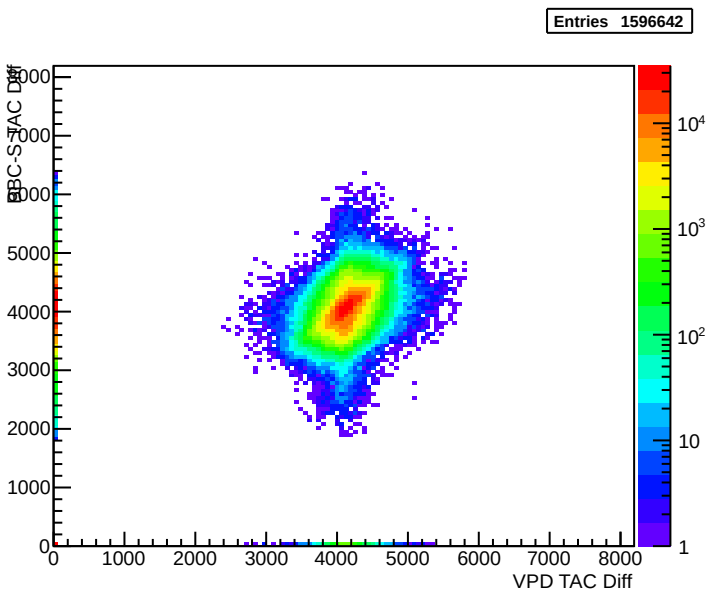

Entries 1596642
VPD East ADC Sum
VPD West ADC Sum

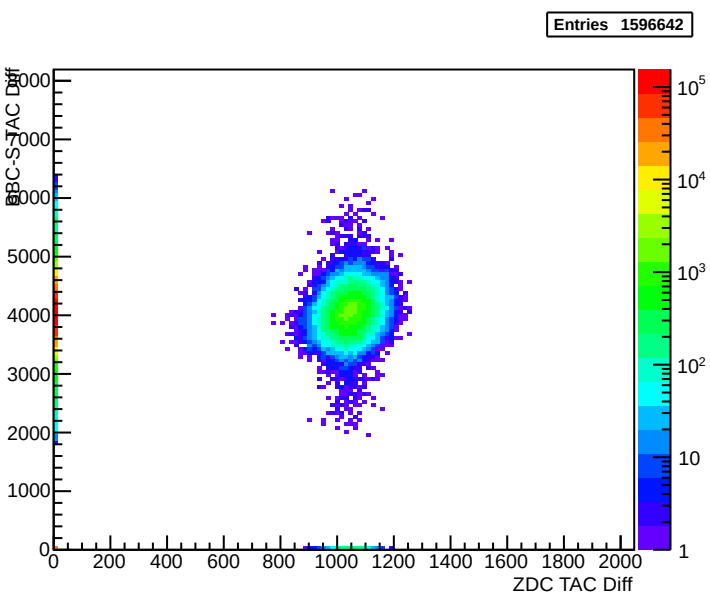

Entries 1596642
ZDC East ADC Sum Att
ZDC West ADC Sum Att

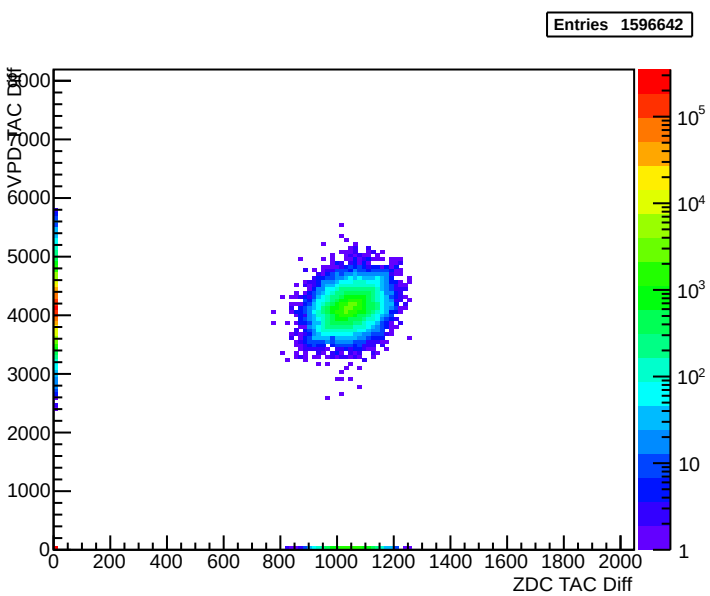

Entries 1596642
BBC-L TAC Diff
BCC-S TAC Diff

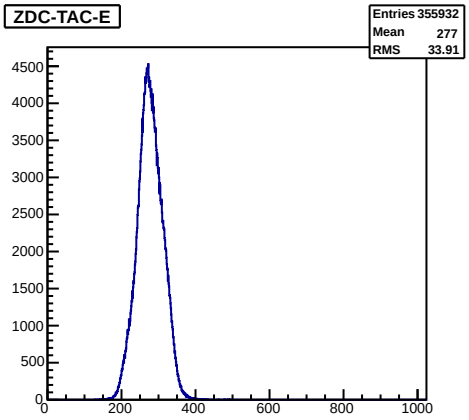

Entries 1596642
BBC-L TAC Diff
VPD TAC Diff

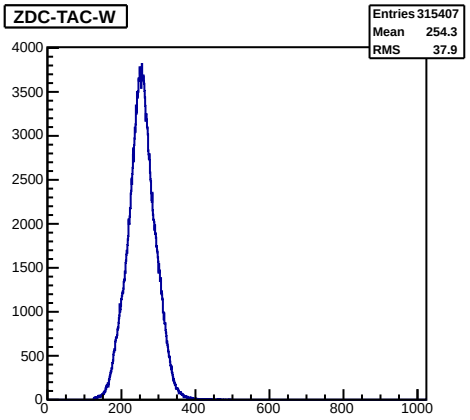

Entries 1596642
BBC-L TAC Diff
ZDC TAC Diff

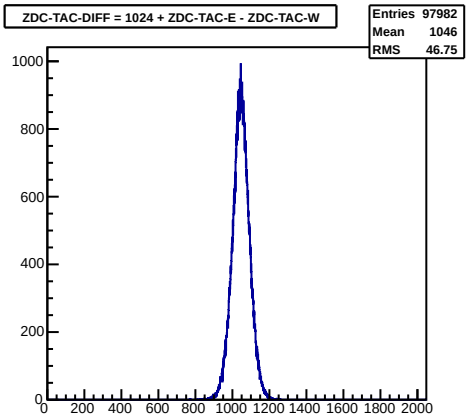

Entries 1596642
BBC-S TAC Diff
VPD TAC Diff

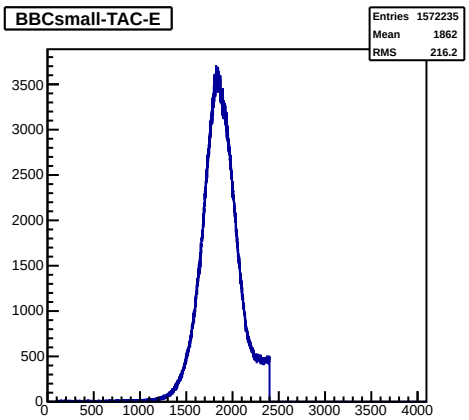

Entries 1596642
BBC-S TAC Diff
ZDC TAC Diff

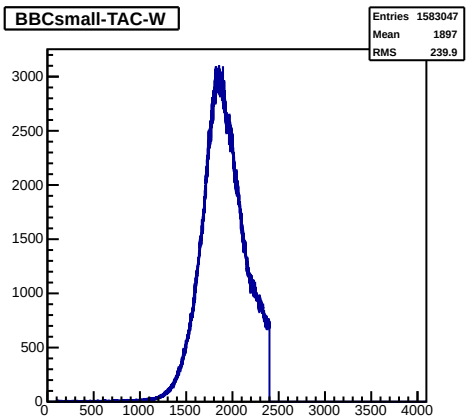

Entries 1596642
VPD TAC Diff
ZDC TAC Diff

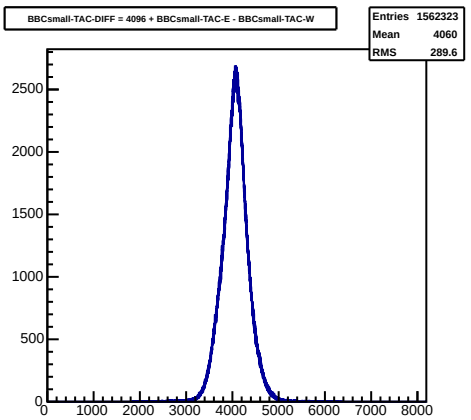

ZDC-TAC-E
Entries 355932
Mean 277
RMS 33.91

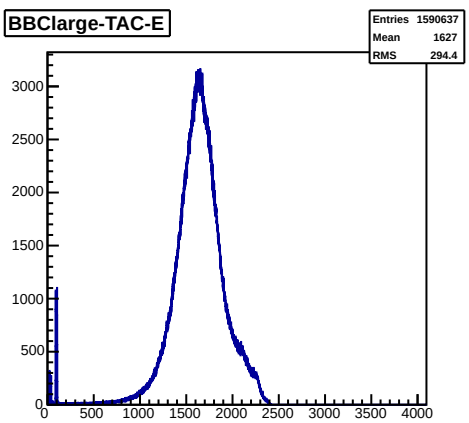

ZDC-TAC-W
Entries 315407
Mean 254.3
RMS 37.9

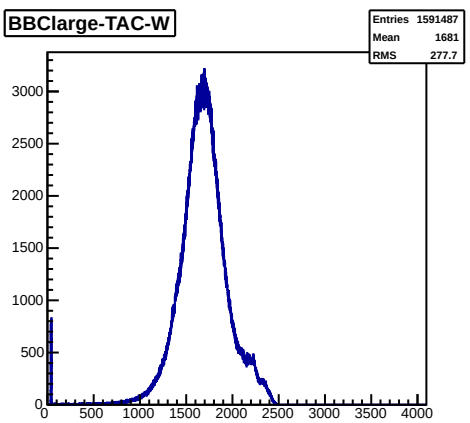

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 97982
Mean 1046
RMS 46.75

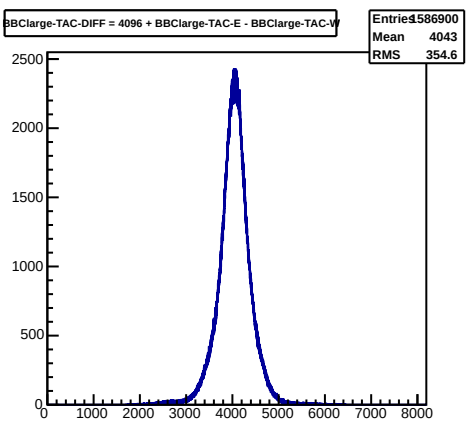

BBCsmall-TAC-E
Entries 1572235
Mean 1862
RMS 216.2

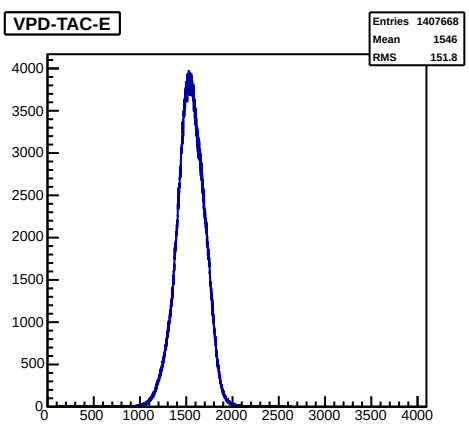

BBCsmall-TAC-W
Entries 1583047
Mean 1897
RMS 239.9

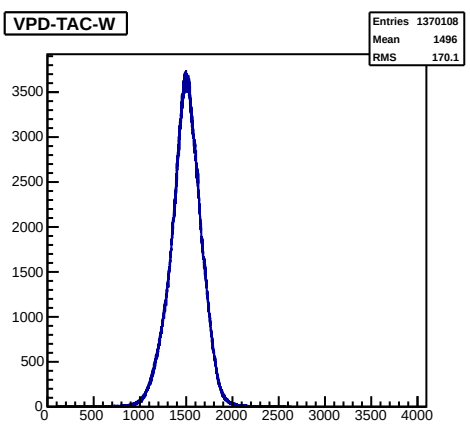

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 1562323
Mean 4060
RMS 289.6

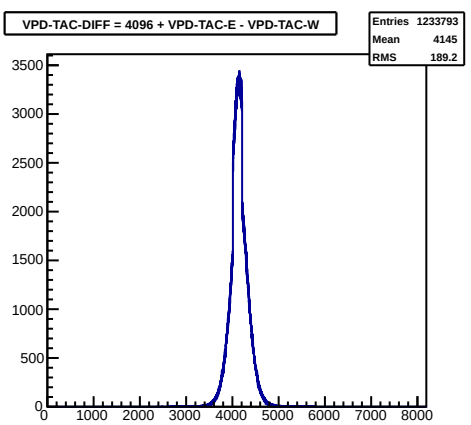

BBClarge-TAC-E
Entries 1590637
Mean 1627
RMS 294.4

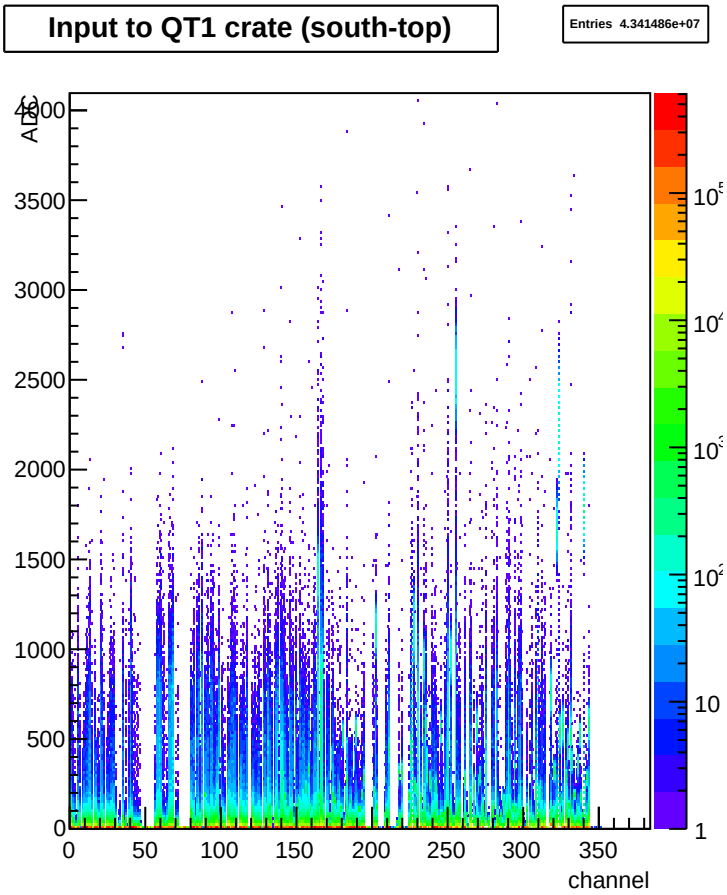

BBClarge-TAC-W
Entries 1591487
Mean 1681
RMS 277.7

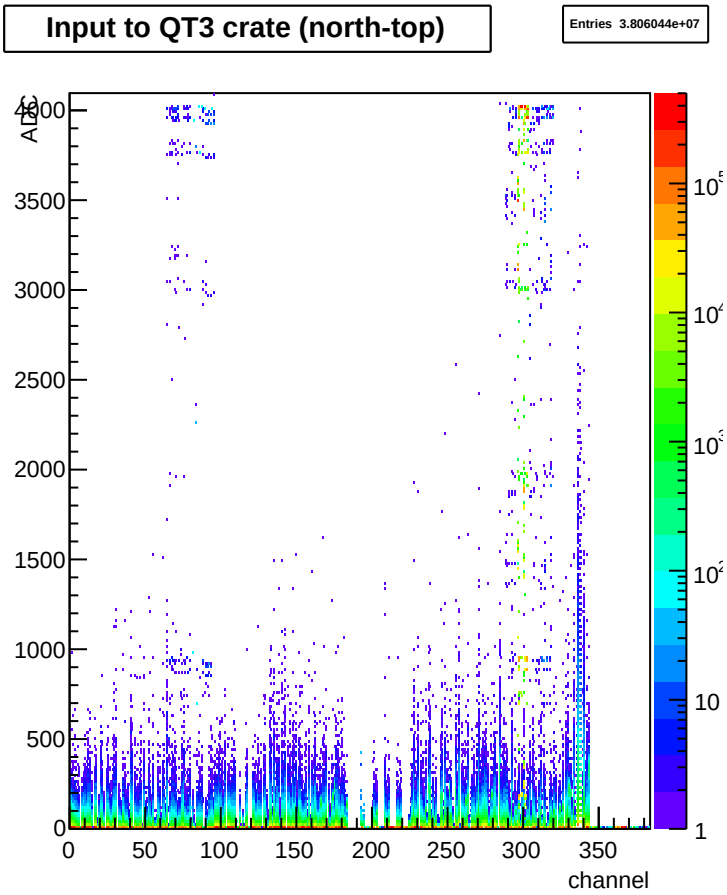

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 1586900
Mean 4043
RMS 354.6

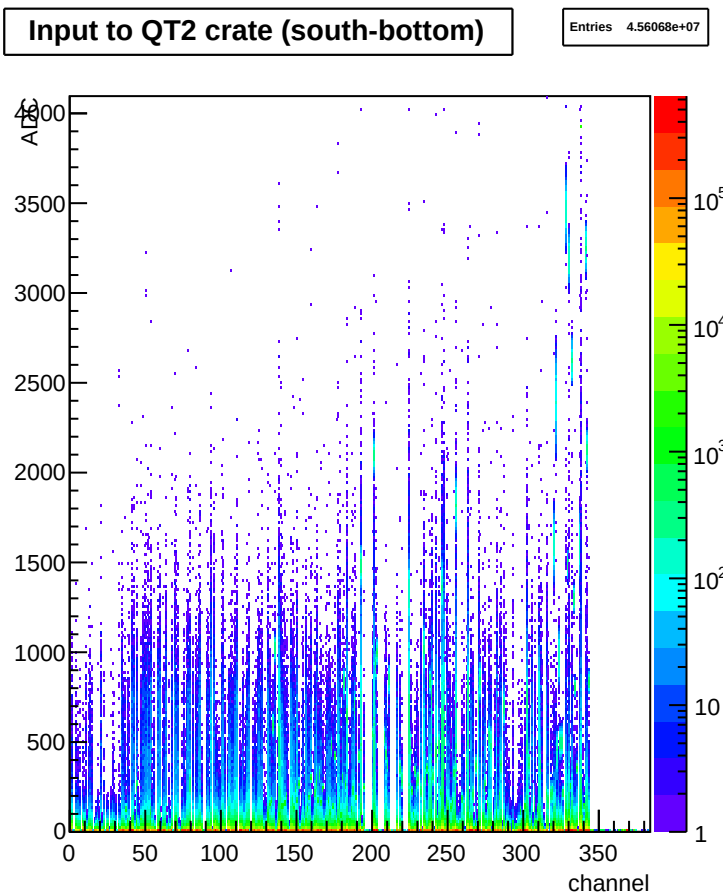

VPD-TAC-E
Entries 1407668
Mean 1546
RMS 151.8

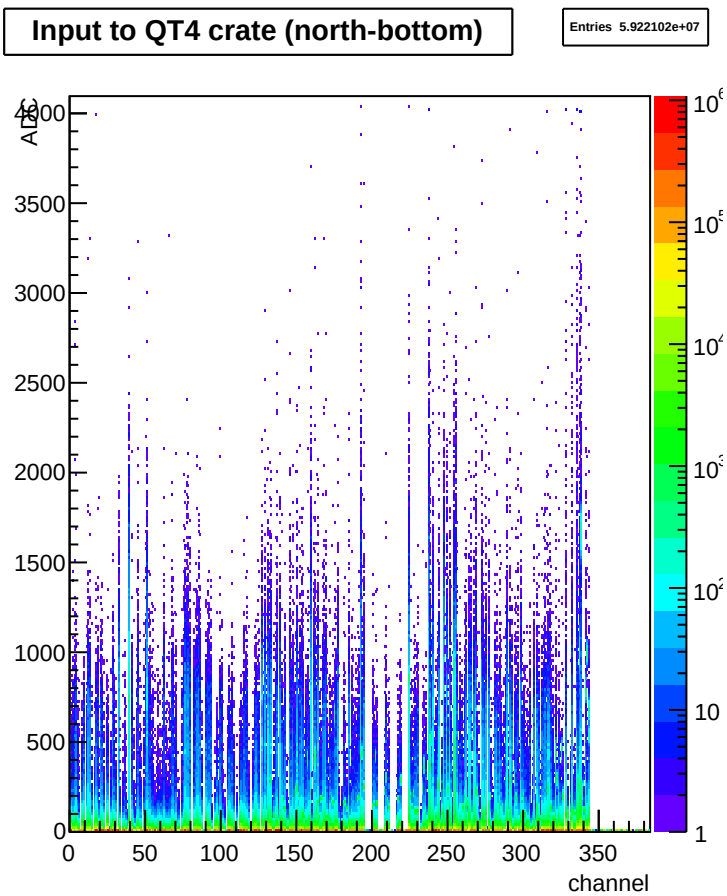

VPD-TAC-W
Entries 1370108
Mean 1496
RMS 170.1

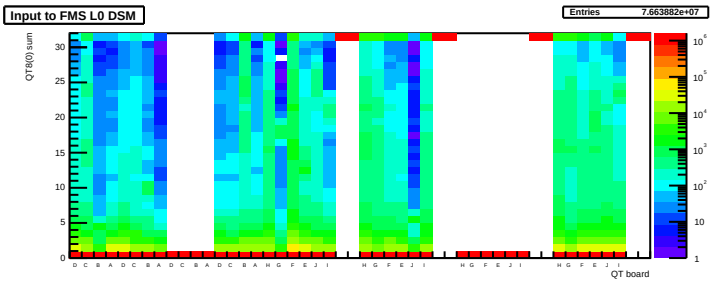

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 1233793
Mean 4145
RMS 189.2

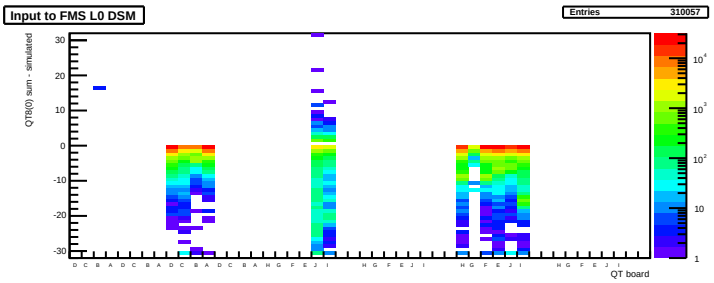

Input to QT1 crate (south-top)
Entries 4.341486e+07
ADC
channel

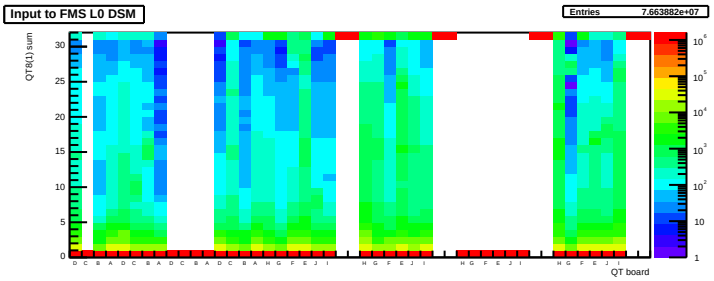

Input to QT3 crate (north-top)
Entries 3.806044e+07
ADC
channel

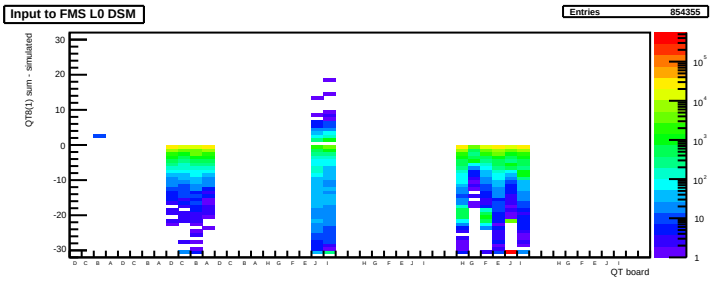

Input to QT2 crate (south-bottom)
Entries 4.56068e+07
ADC
channel

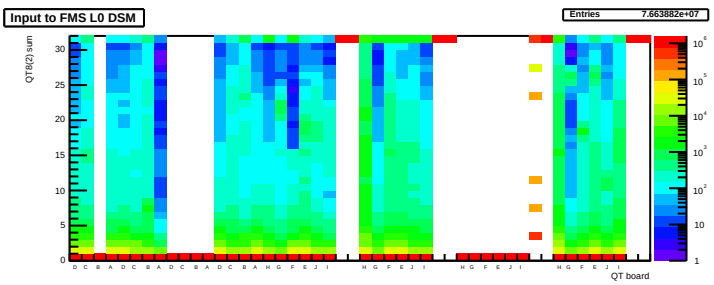

Input to QT4 crate (north-bottom)
Entries 5.922102e+07
ADC
channel

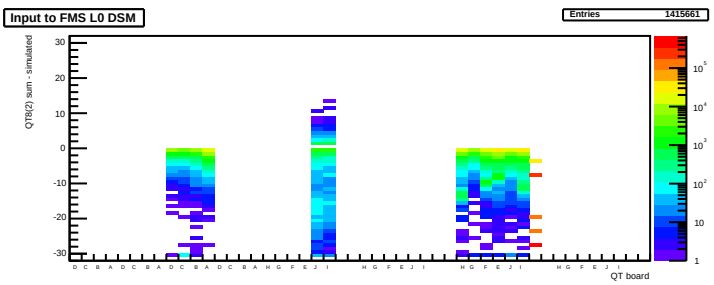

Input to FMS L0 DSM
Entries 7.663882e+07
QT8(0) sum
QT board

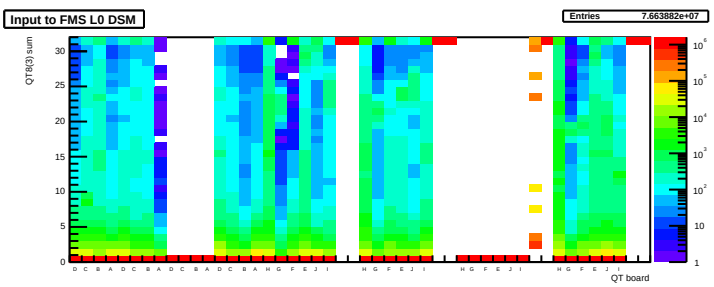

Input to FMS L0 DSM
Entries 310057
QT8(0) sum - simulated
QT board

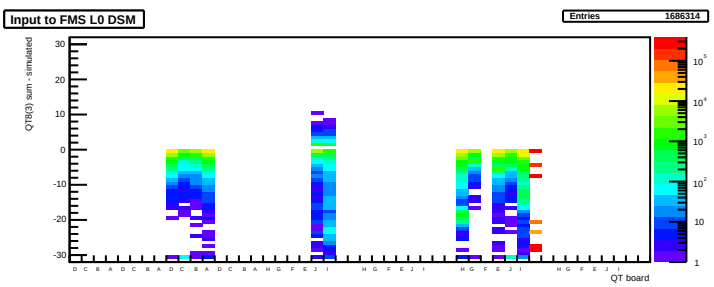

Input to FMS L0 DSM
Entries 7.663882e+07
QT8(1) sum
QT board

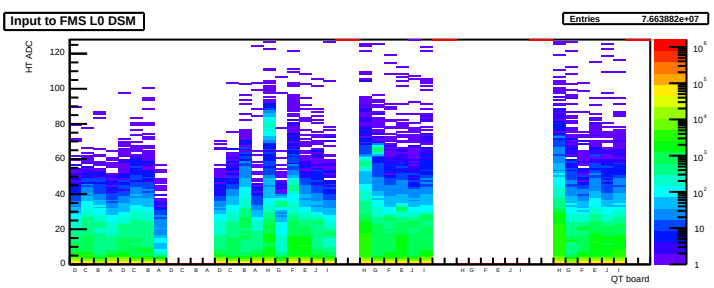

Input to FMS L0 DSM
Entries 854355
QT8(1) sum - simulated
QT board

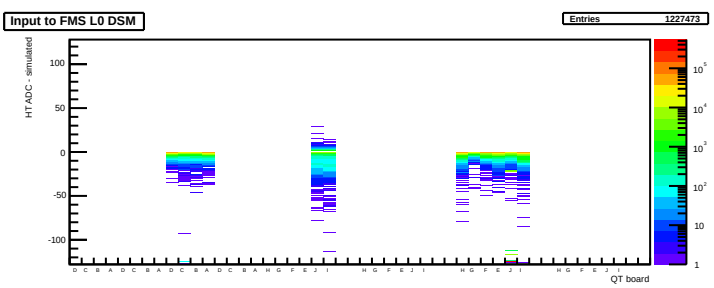

Input to FMS L0 DSM
Entries 7.663882e+07
QT8(2) sum
QT board

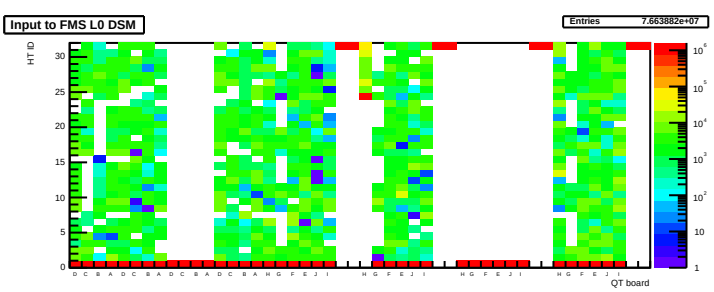

Input to FMS L0 DSM
Entries 1415661
QT8(2) sum - simulated
QT board

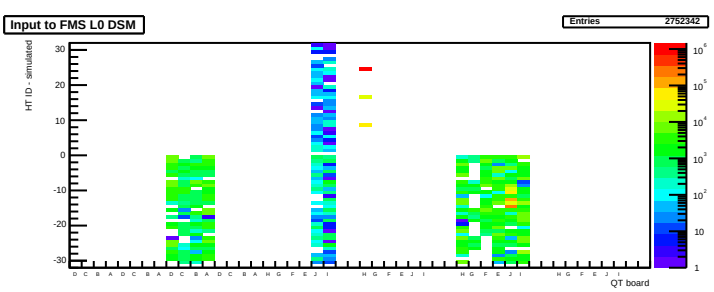

Input to FMS L0 DSM
Entries 7.663882e+07
QT8(3) sum
QT board

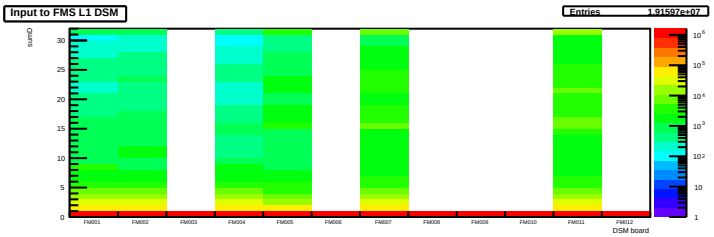

Input to FMS L0 DSM
Entries 1686314
QT8(3) sum - simulated
QT board

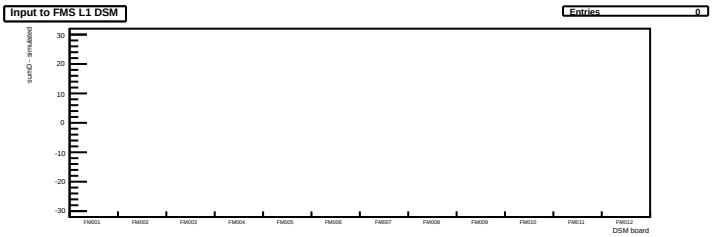

Input to FMS L0 DSM
Entries 7.663882e+07
HT ADC
QT board

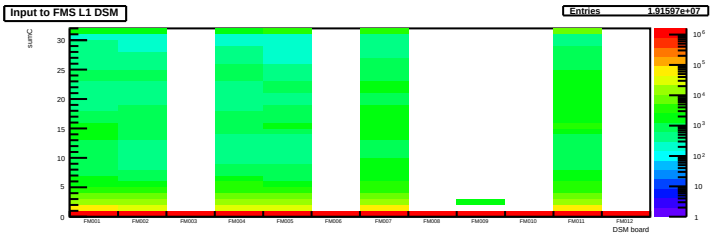

Input to FMS L0 DSM
Entries 1227473
HT ADC - simulated
QT board

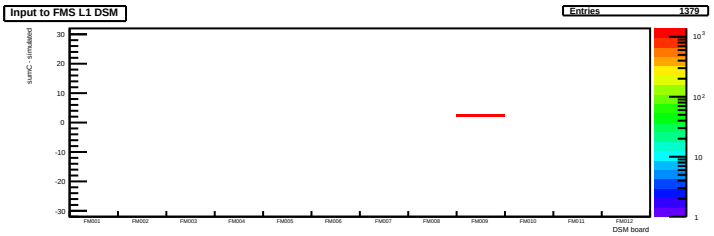

Input to FMS L0 DSM
Entries 7.663882e+07
HT ID
QT board

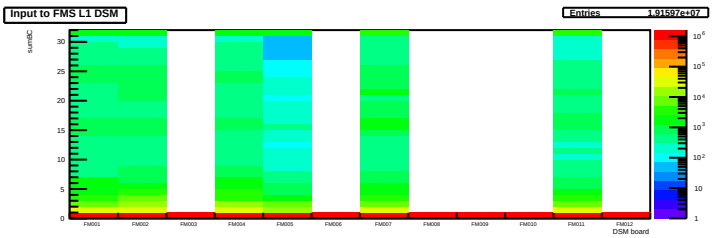

Input to FMS L0 DSM
Entries 2752342
HT ID - simulated
QT board

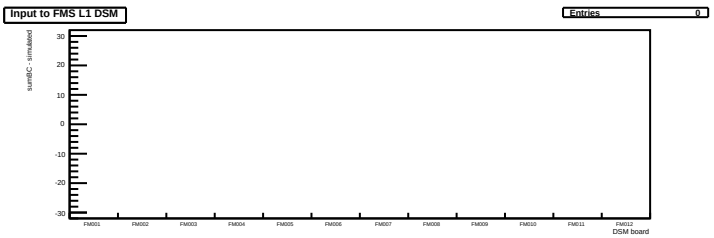

Input to FMS L1 DSM
Entries 1.91597e+07
sumD
DSM board

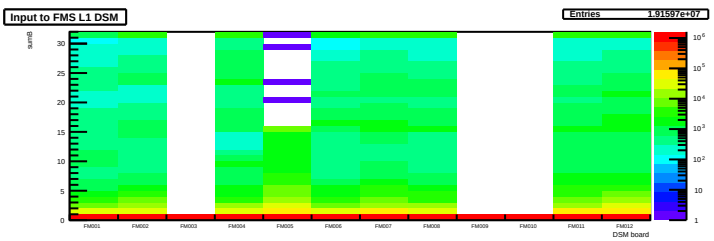

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

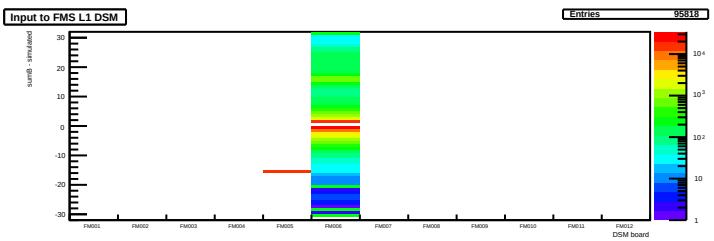

Input to FMS L1 DSM
Entries 1.91597e+07
sumC
DSM board

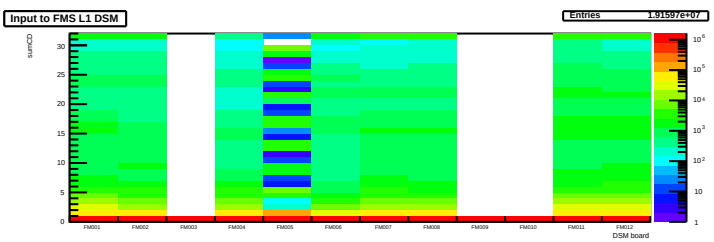

Input to FMS L1 DSM
Entries 1379
sumC - simulated
DSM board

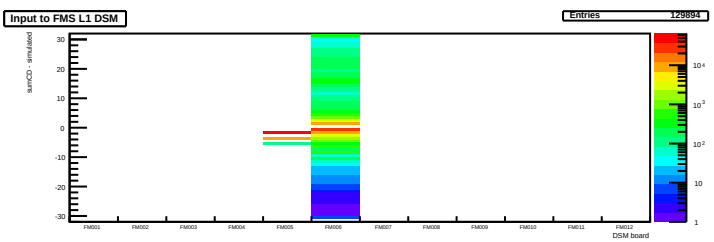

Input to FMS L1 DSM
Entries 1.91597e+07
sumBC
DSM board

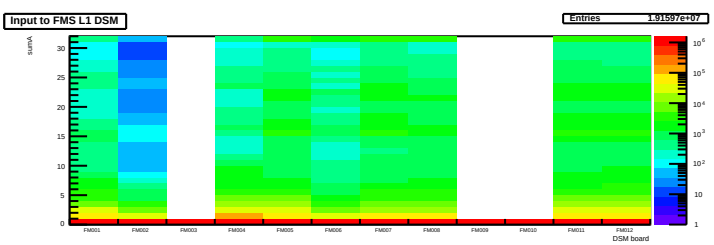

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

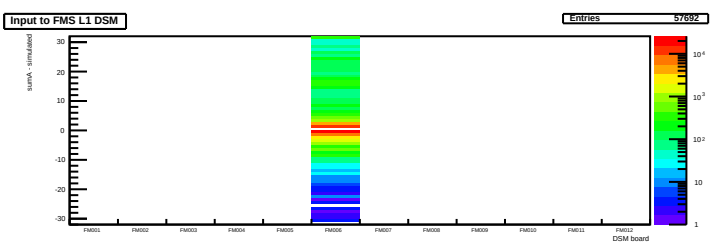

Input to FMS L1 DSM
Entries 1.91597e+07
sumB
DSM board

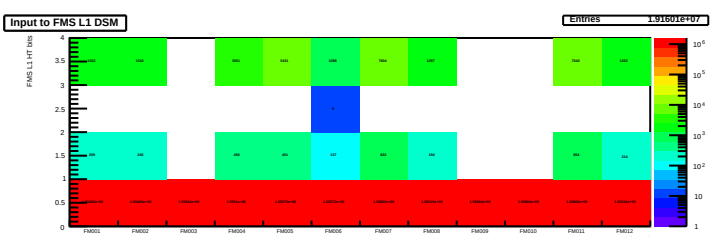

Input to FMS L1 DSM
Entries 95818
sumB - simulated
DSM board

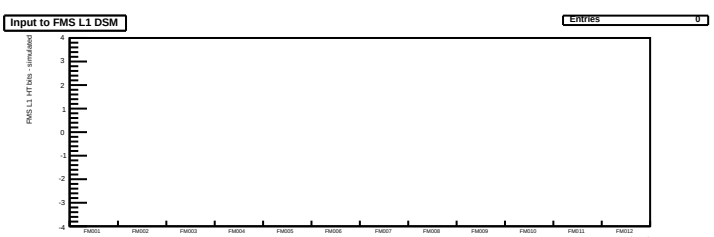

Input to FMS L1 DSM
Entries 1.91597e+07
sumCD
DSM board

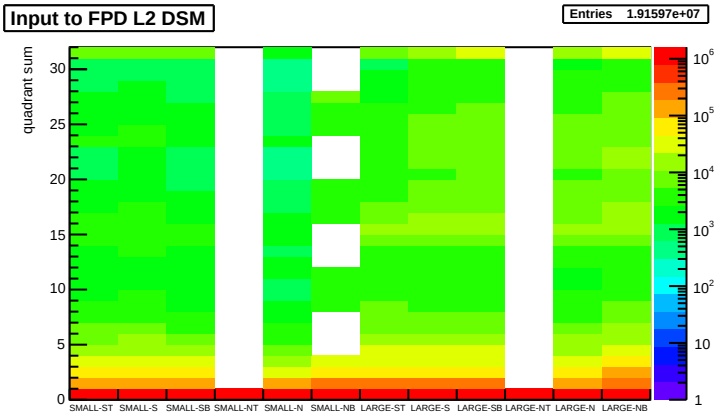

Input to FMS L1 DSM
Entries 129894
sumCD - simulated
DSM board

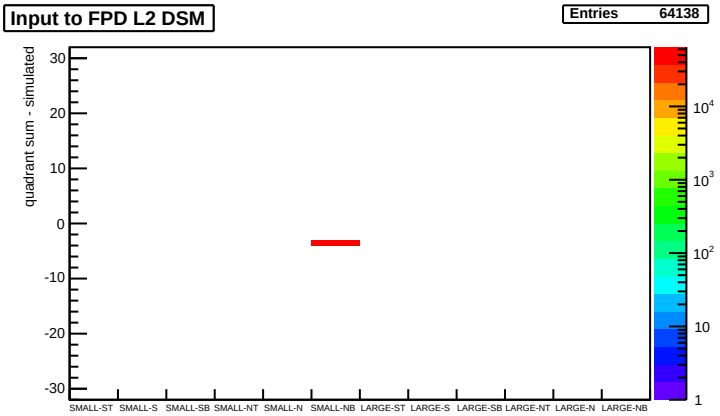

Input to FMS L1 DSM
Entries 1.91597e+07
sumA
DSM board

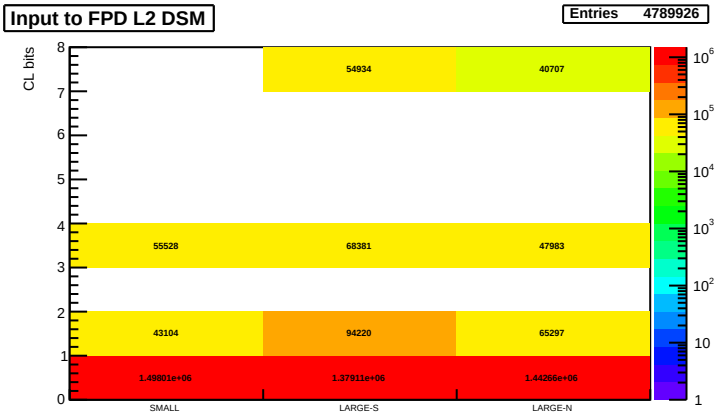

Input to FMS L1 DSM
Entries 57692
sumA - simulated
DSM board

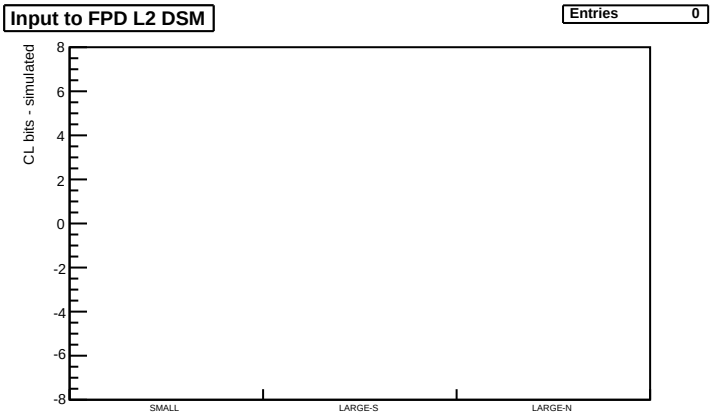

Input to FMS L1 DSM
Entries 1.91601e+07
FMS L1 HT bits
DSM board

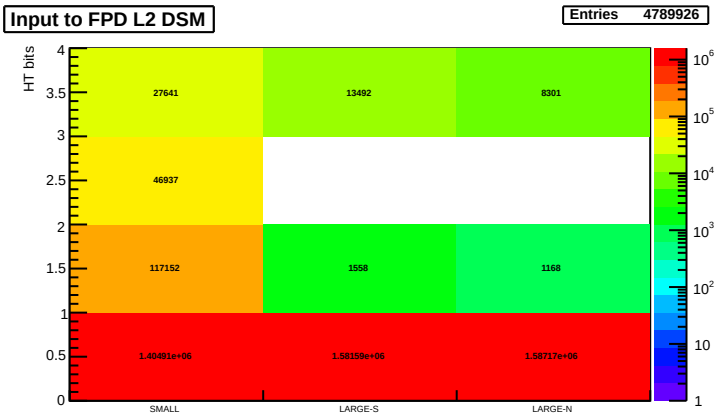

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

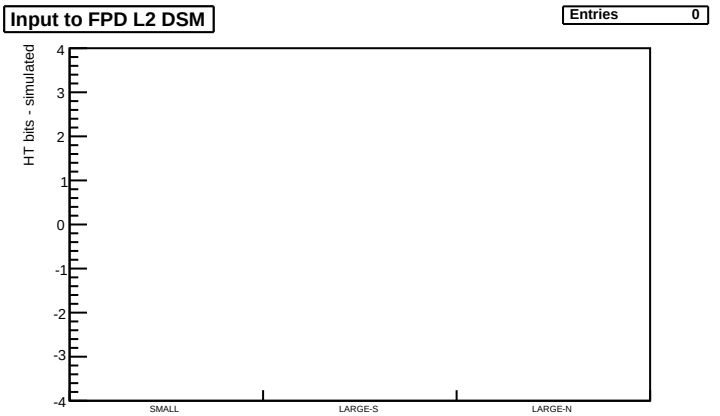

Input to FPD L2 DSM
Entries 1.91597e+07
quadrant sum
SMALL-ST SMALL-S SMALL-SB SMALL-NT SMALL-N SMALL-NB LARGE-ST LARGE-S LARGE-SB LARGE-NT LARGE-N LARGE-NB

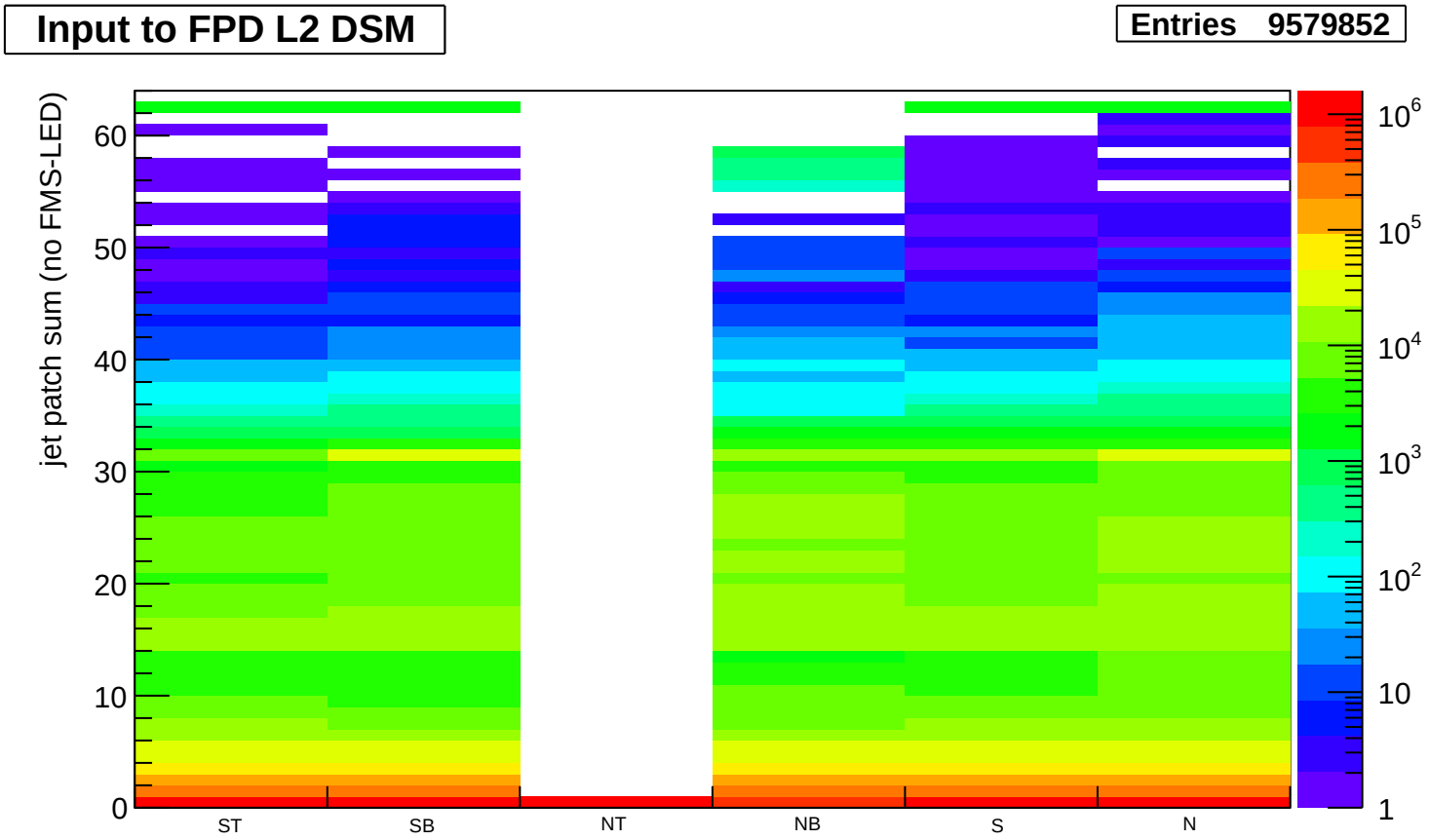

Input to FPD L2 DSM
Entries 64138
quadrant sum - simulated
SMALL-ST SMALL-S SMALL-SB SMALL-NT SMALL-N SMALL-NB LARGE-ST LARGE-S LARGE-SB LARGE-NT LARGE-N LARGE-NB

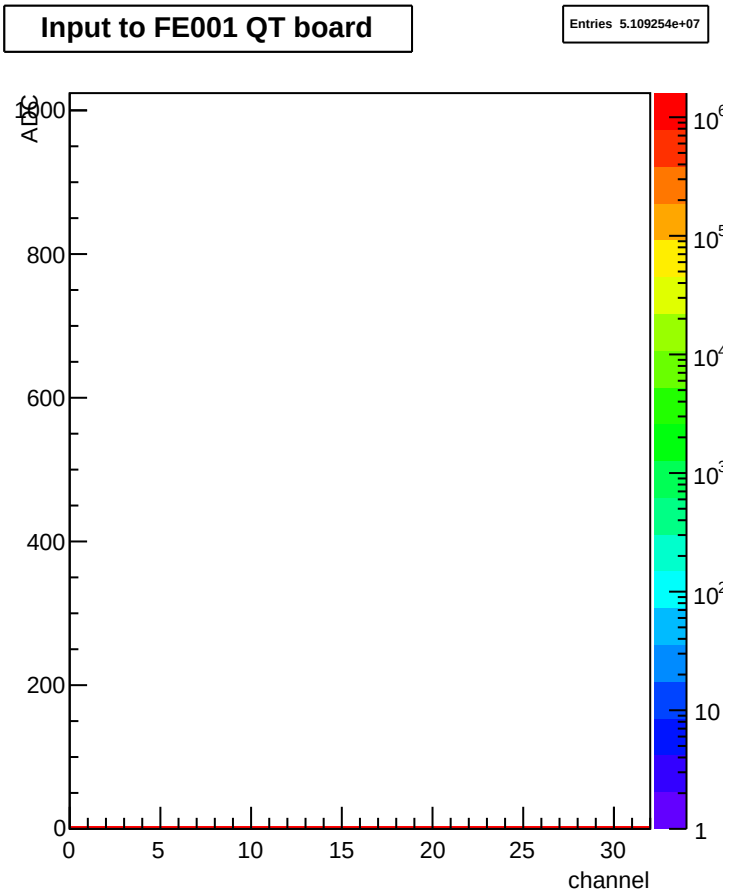

Input to FPD L2 DSM
Entries 4789926
CL bits
54934
40707
55528
68381
47983
43104
94220
65297
1.49801e+06
1.37911e+06
1.44266e+06
SMALL
LARGE-S
LARGE-N

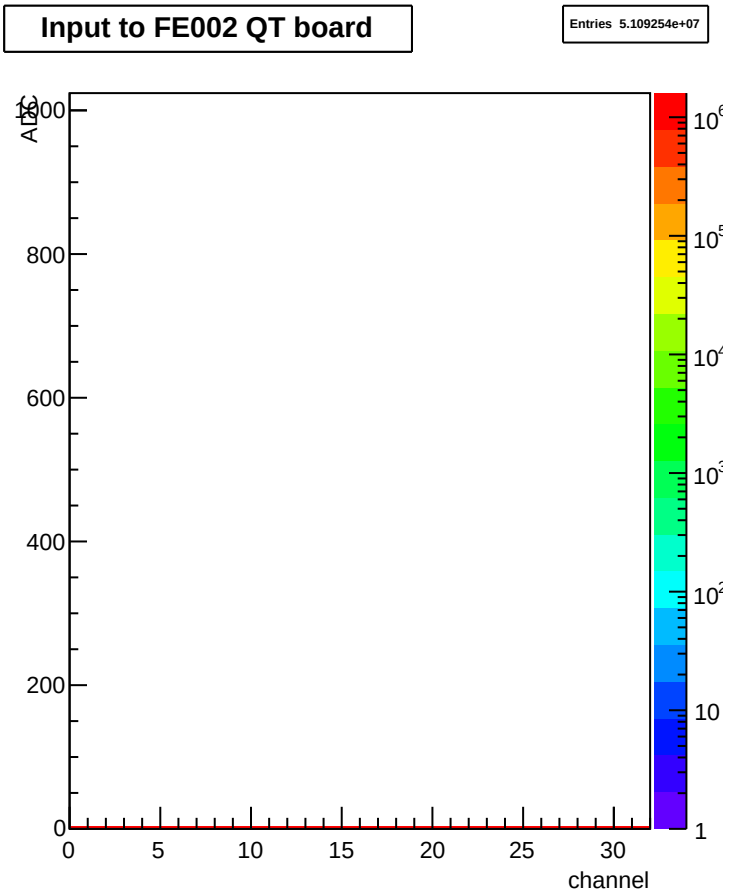

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL
LARGE-S
LARGE-N

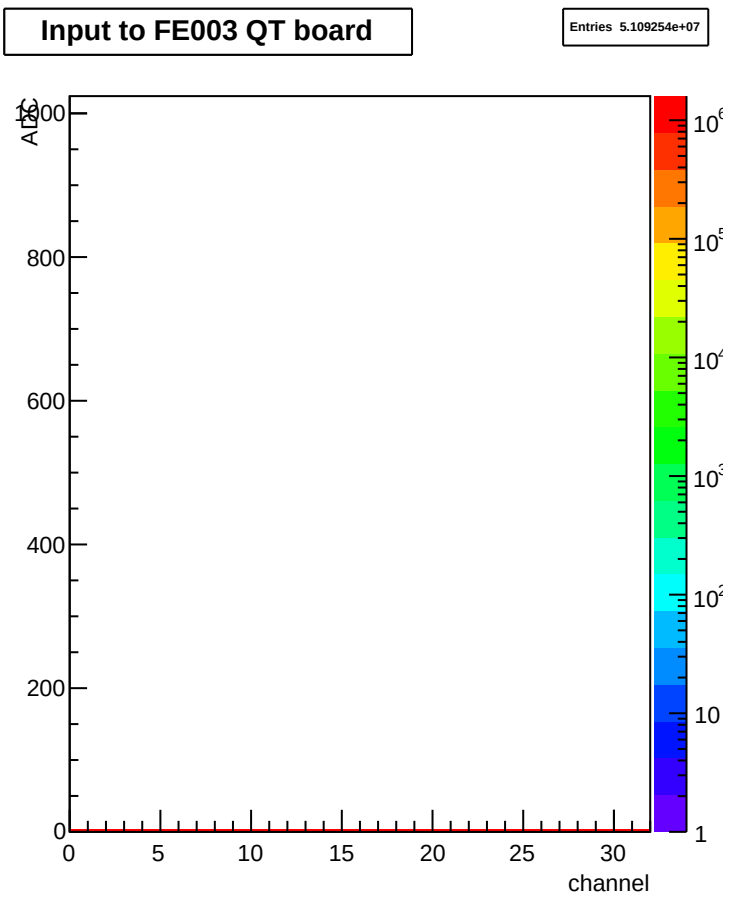

Input to FPD L2 DSM
Entries 4789926
HT bits
27641
13492
8301
46937
117152
1558
1168
1.40491e+06
1.58159e+06
1.58717e+06
SMALL
LARGE-S
LARGE-N

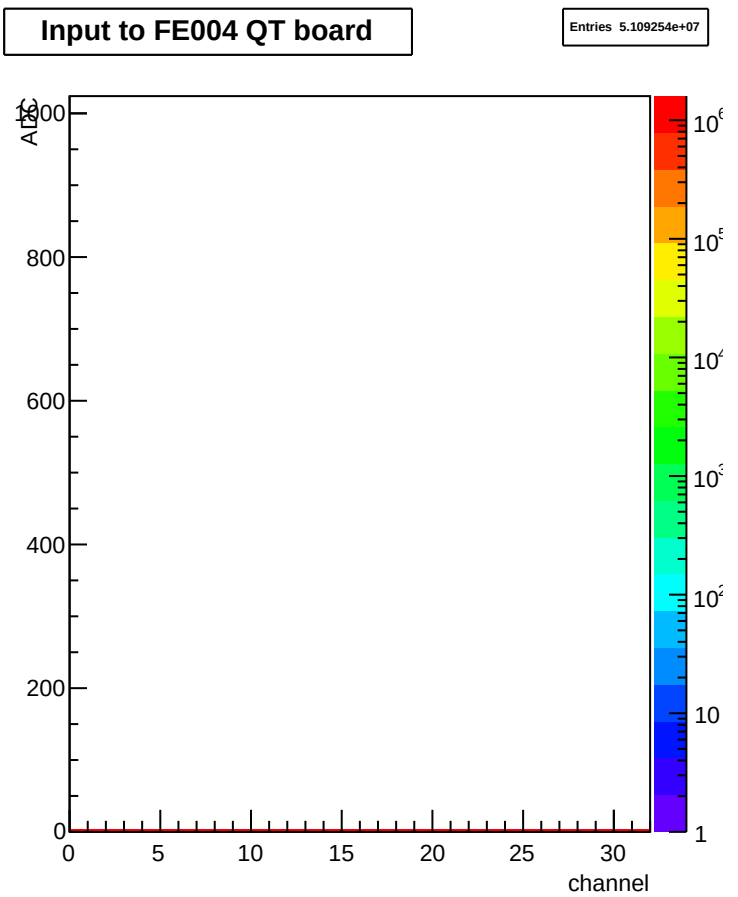

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

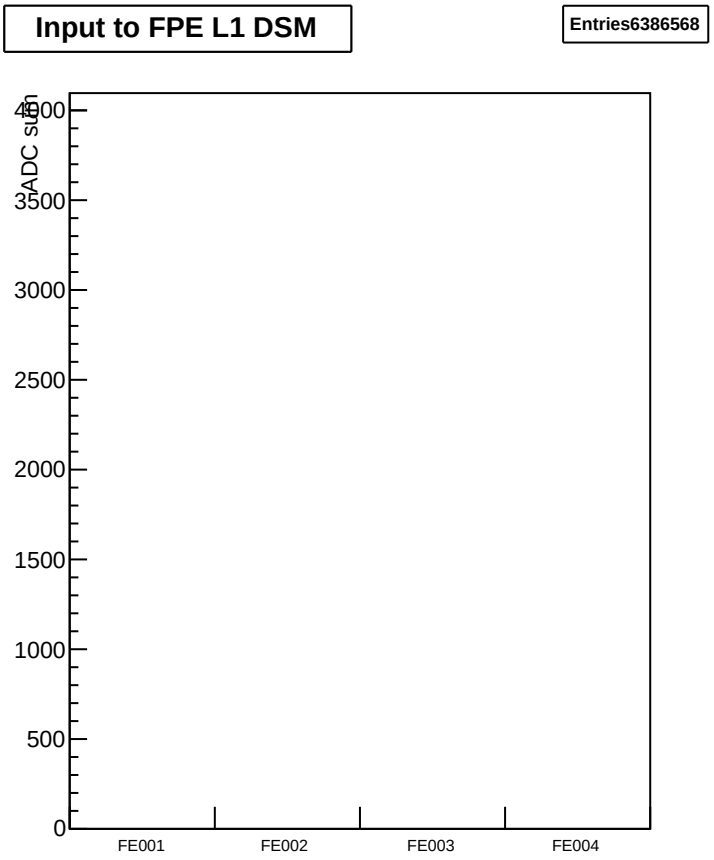

Input to FPD L2 DSM
Entries 9579852
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5
10^6

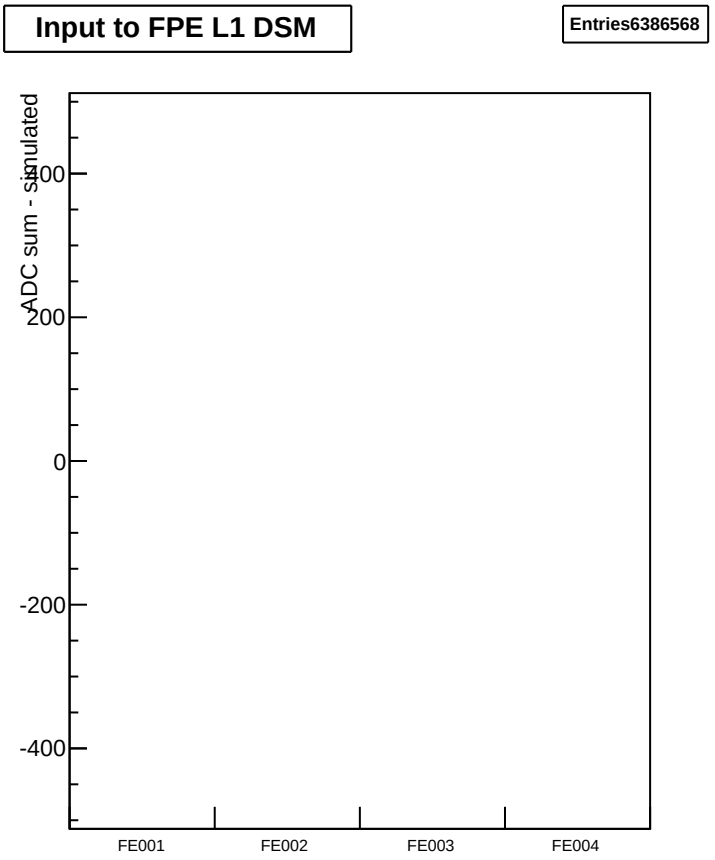

Input to FE001 QT board
Entries 5.109254e+07
ADC
channel

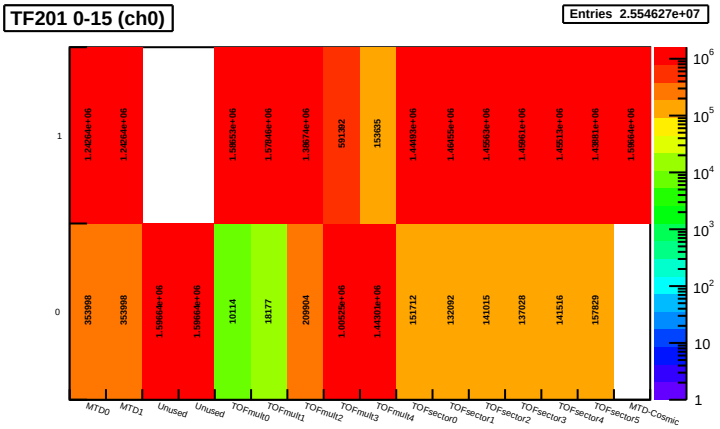

Input to FE002 QT board
Entries 5.109254e+07
ADC
channel

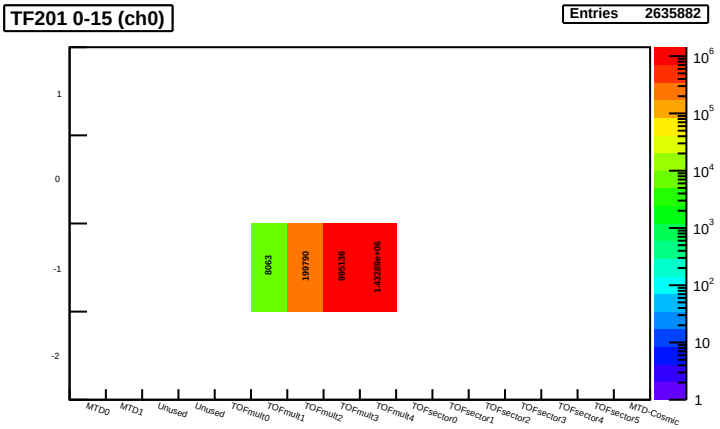

Input to FE003 QT board
Entries 5.109254e+07
ADC
channel

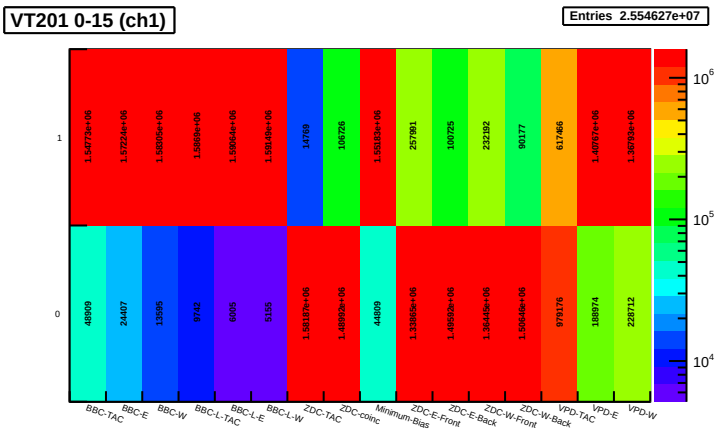

Input to FE004 QT board
Entries 5.109254e+07
ADC
channel

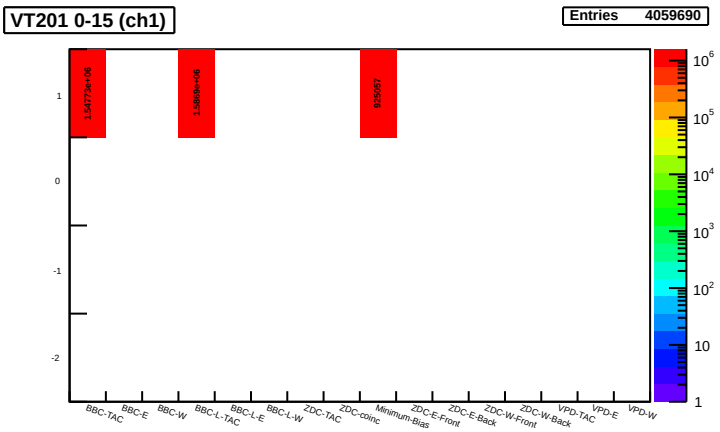

Input to FPE L1 DSM
Entries6386568
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004

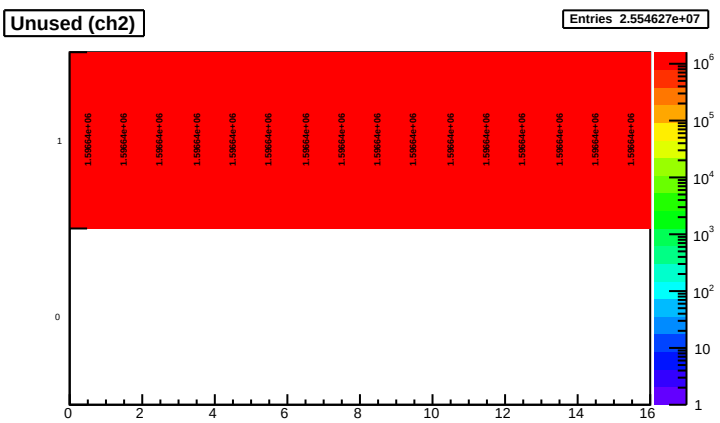

Input to FPE L1 DSM
Entries6386568
ADC sum - simulated
400
200
0
-200
-400
FE001
FE002
FE003
FE004

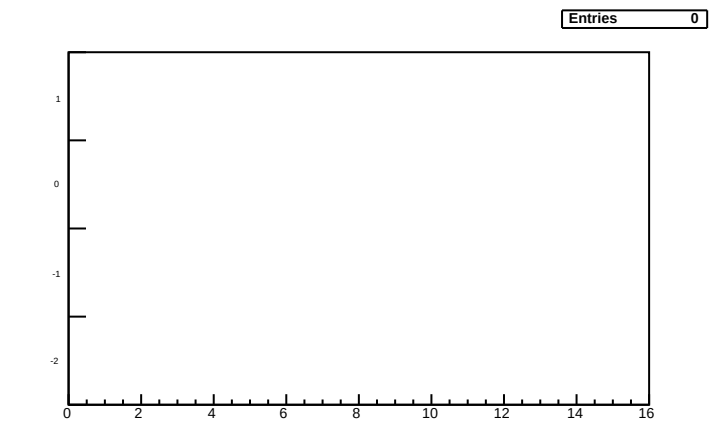

TF201 0-15 (ch0)
Entries 2.554627e+07
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

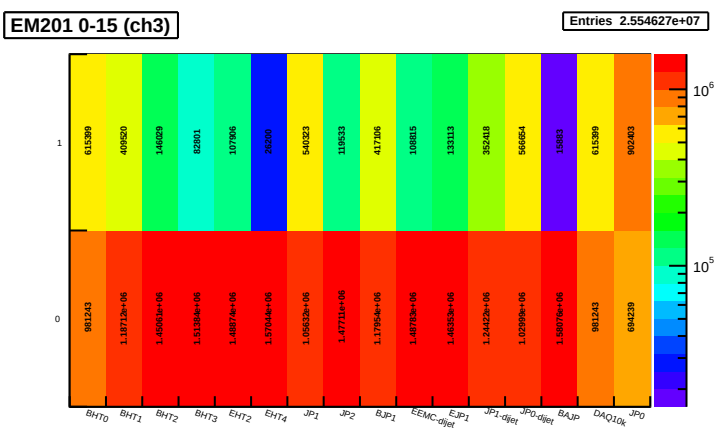

TF201 0-15 (ch0)
Entries 2635882
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

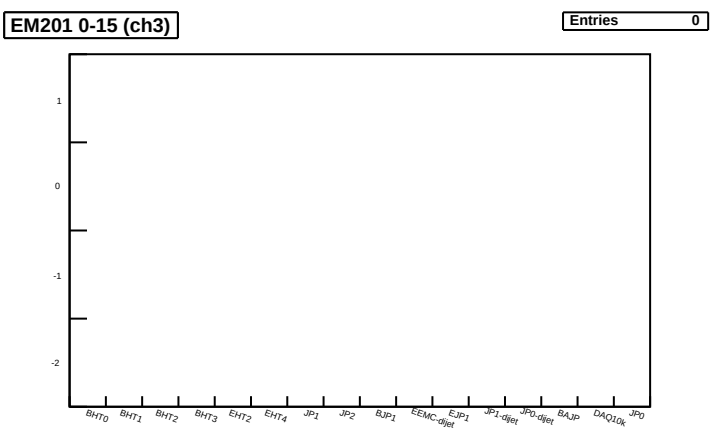

VT201 0-15 (ch1)
Entries 2.554627e+07
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-coinc Minimum-Bias ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 4059690
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

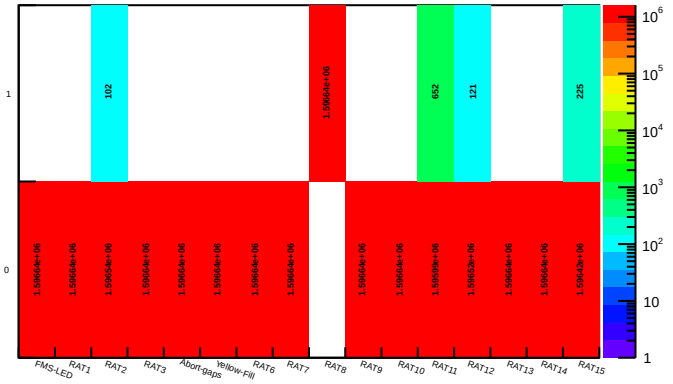

Unused (ch2)
Entries 2.554627e+07

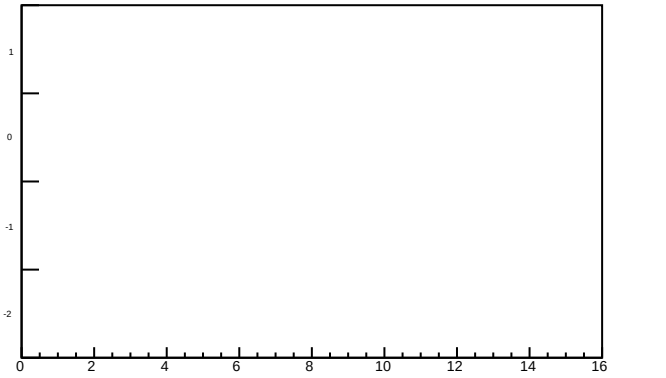

Entries 0


EM201 0-15 (ch3)
Entries 2.554627e+07
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 EEMC-diJet EJP1 JP1-diJet JP0-diJet BAJP DAQ10k JP0

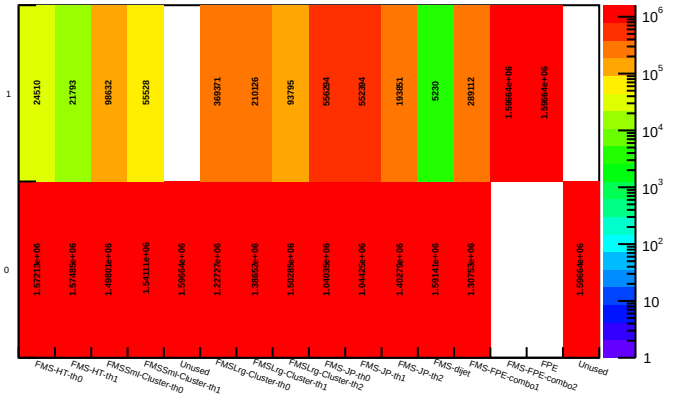

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 EEMC-diJet EJP1 JP1-diJet JP0-diJet BAJP DAQ10k JP0

RAT board (ch4)

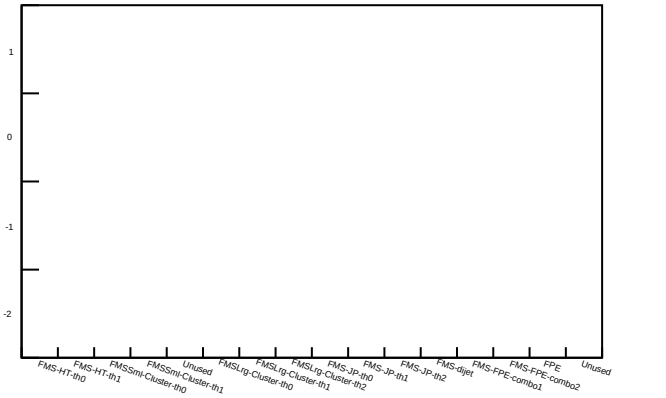




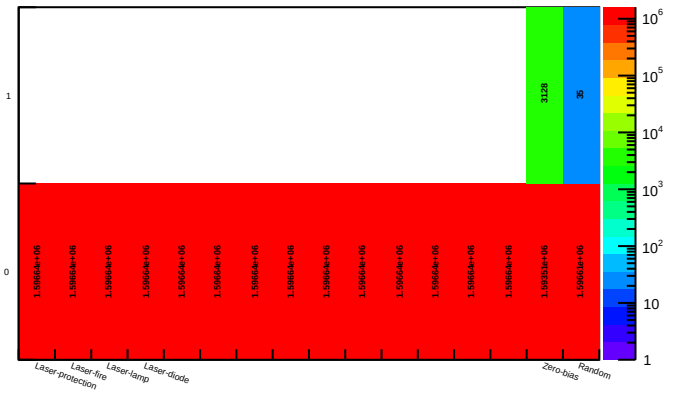
FP201 0-15 (ch5)

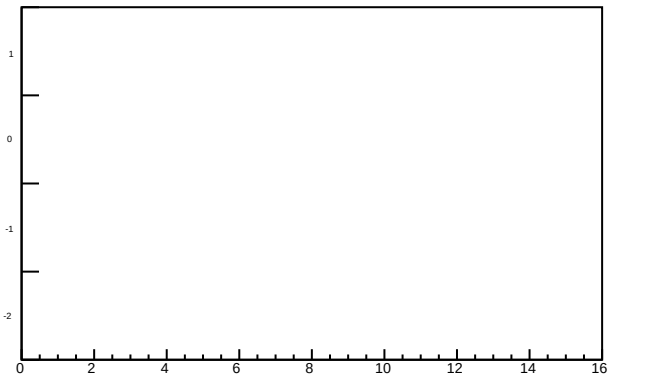
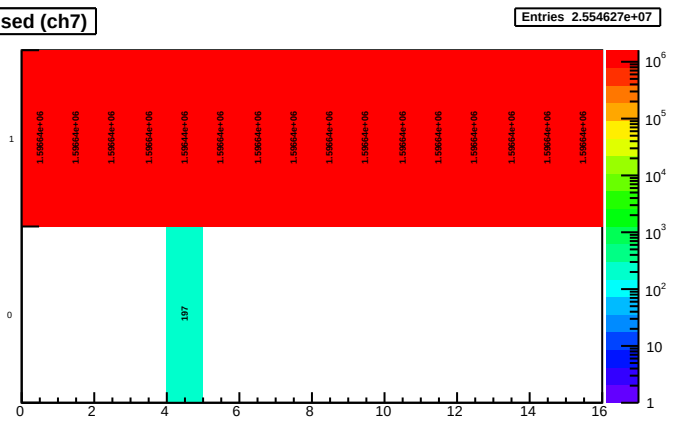
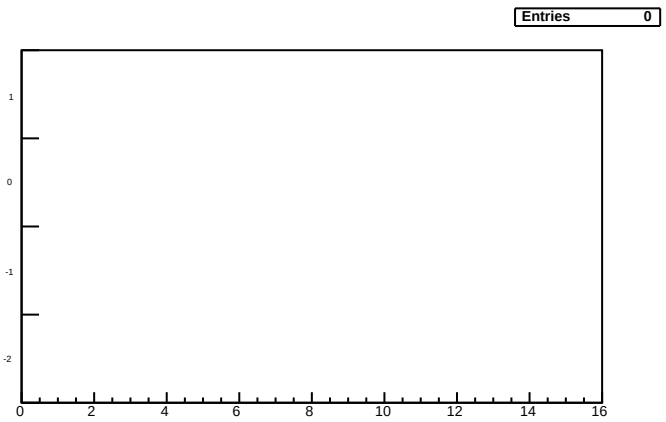


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)