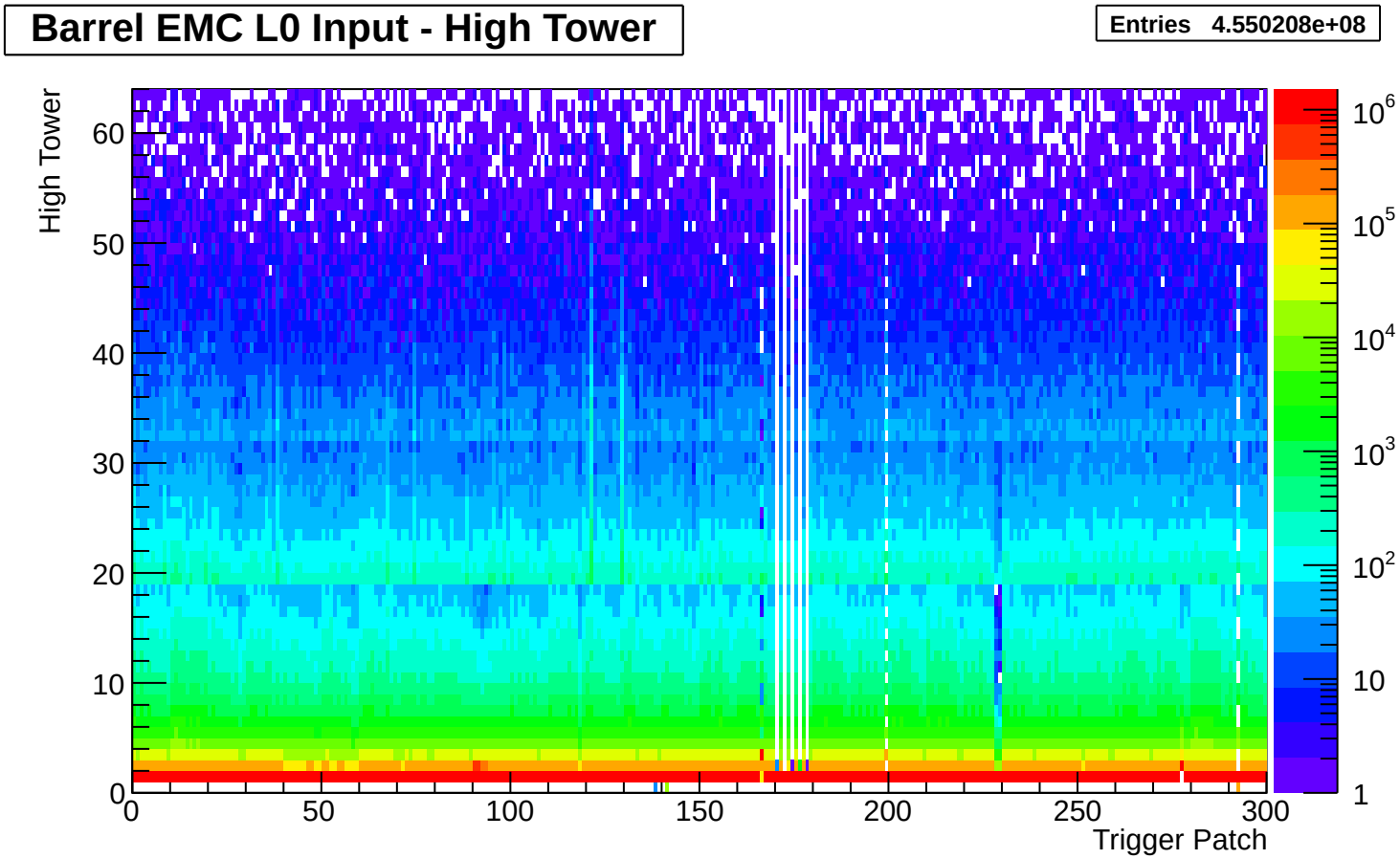
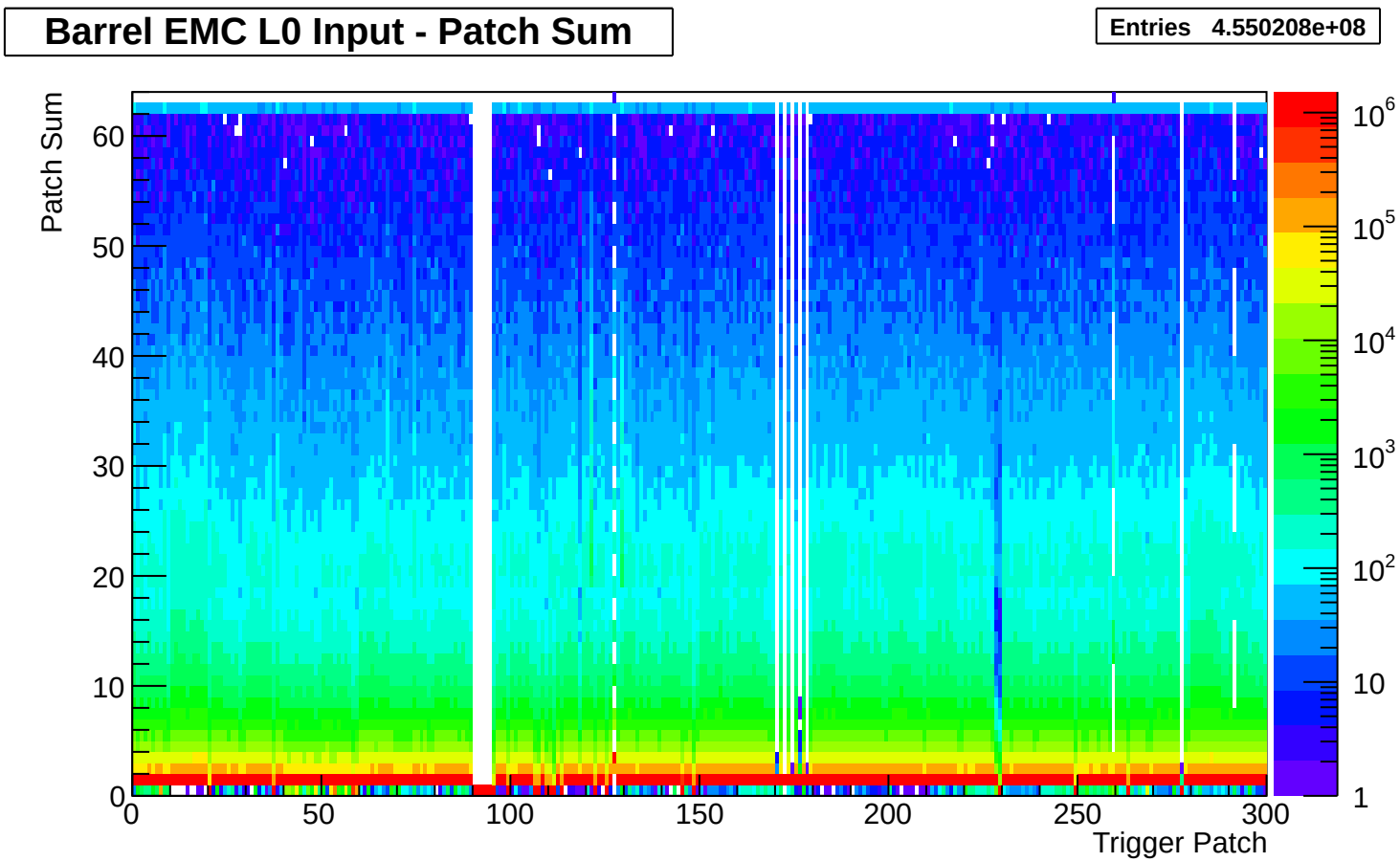
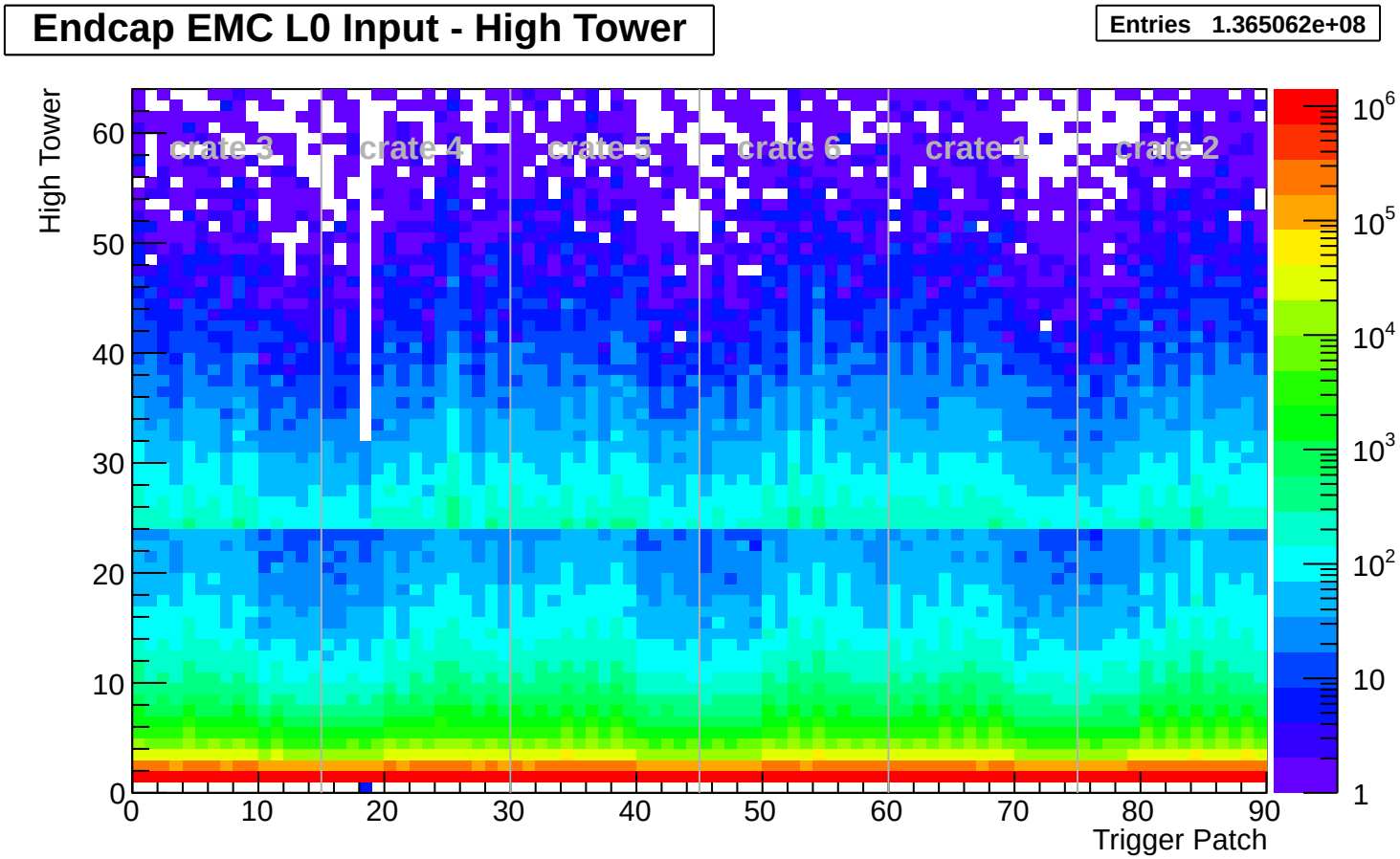
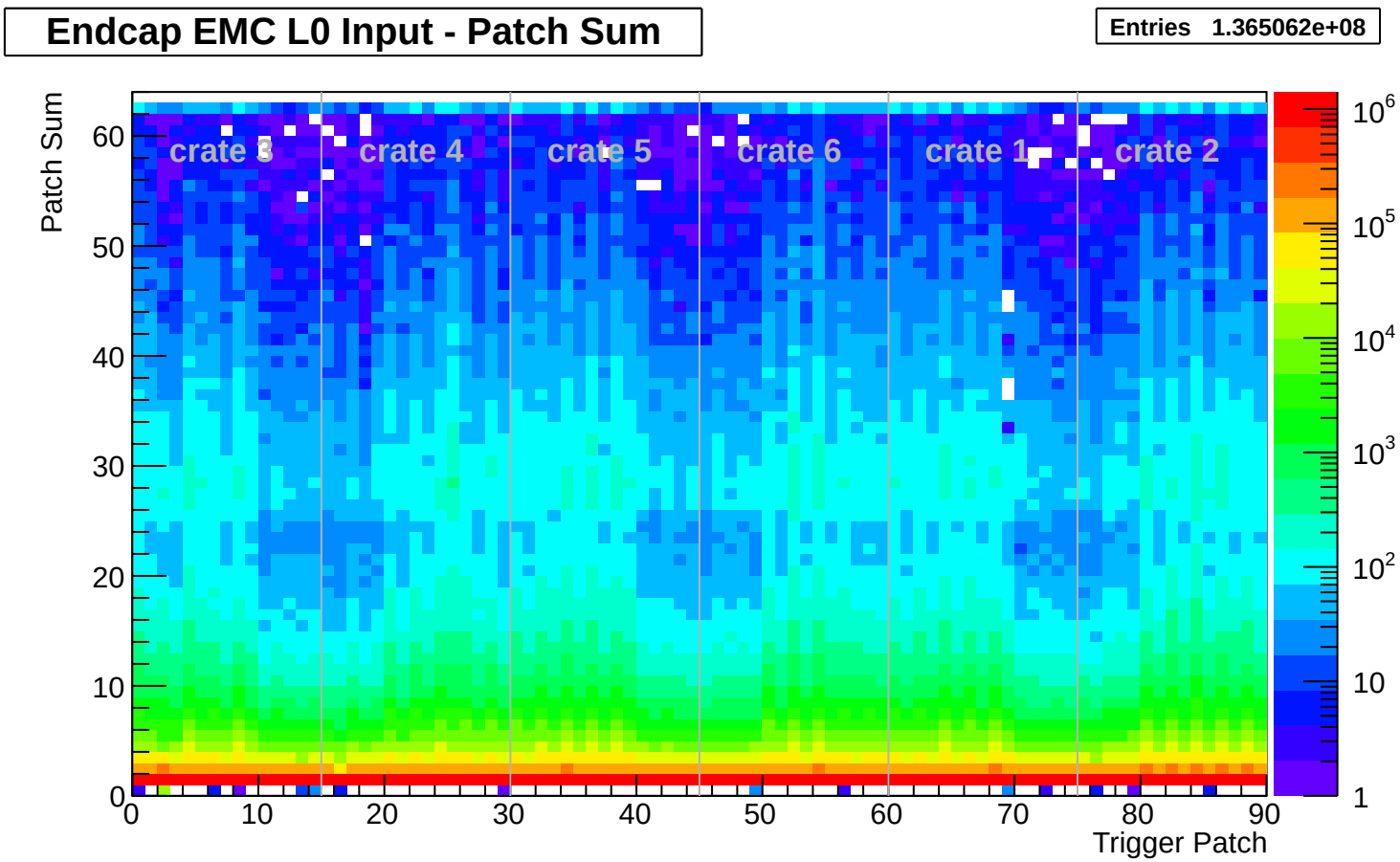
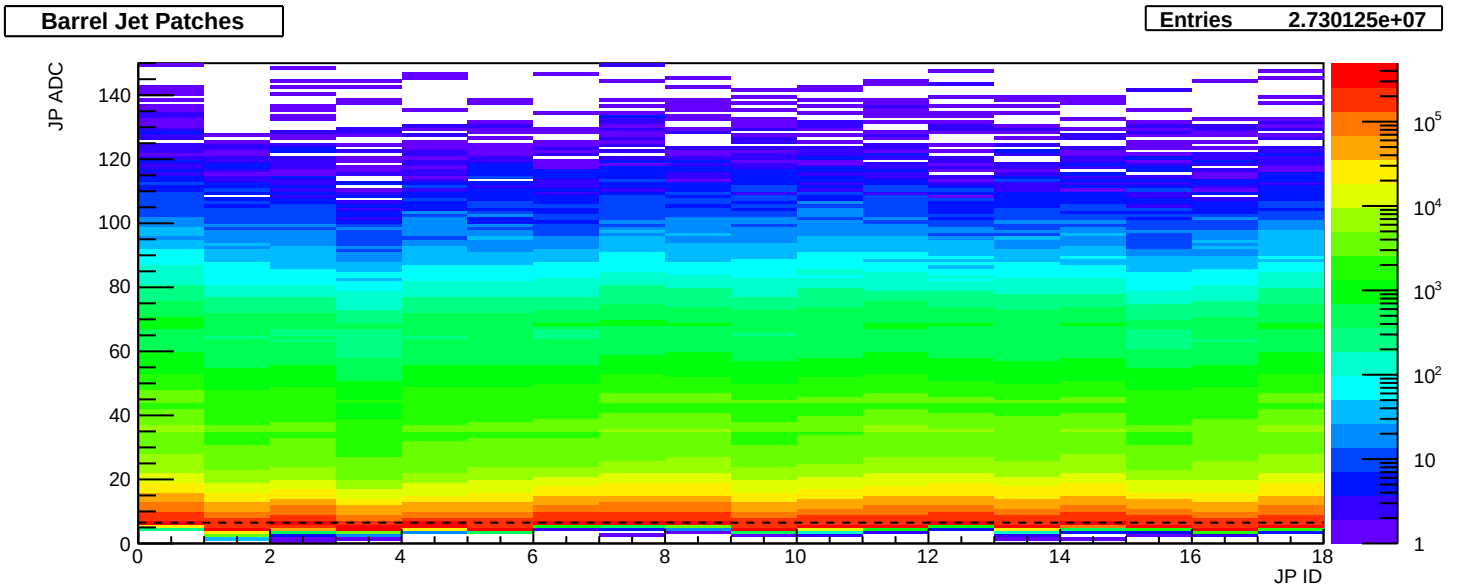
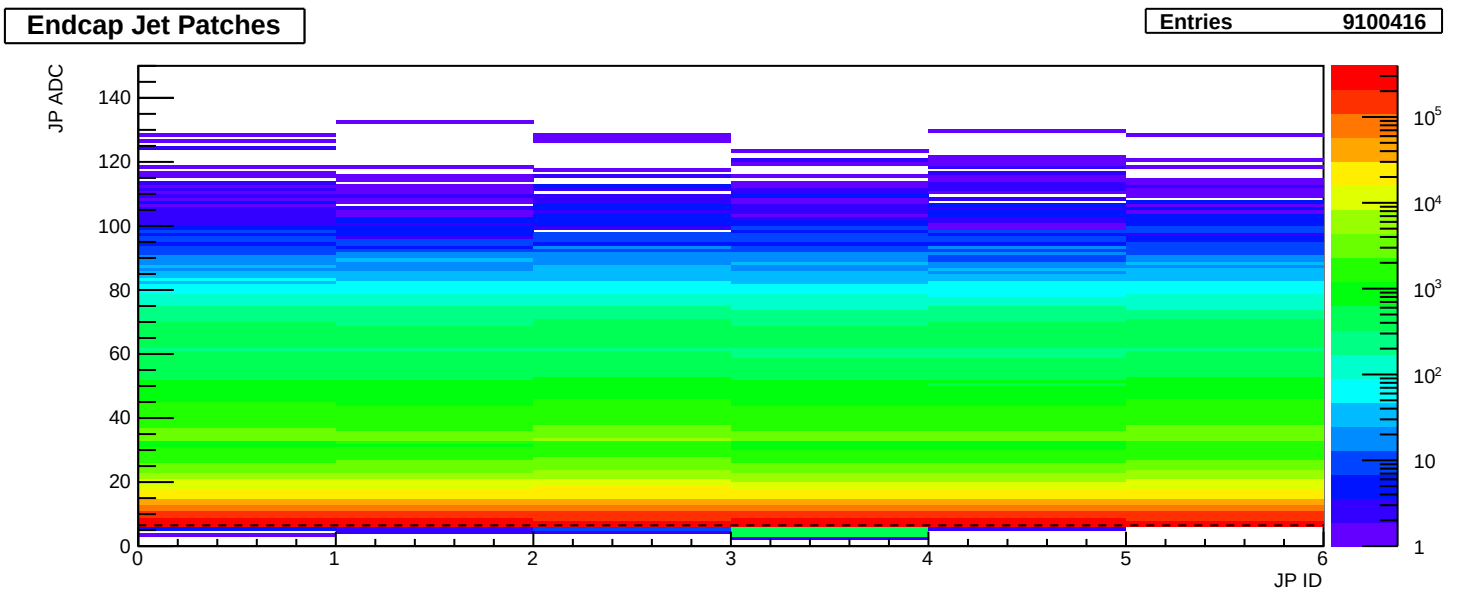

Barrel EMC L0 Input - High Tower
Entries 4.550208e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

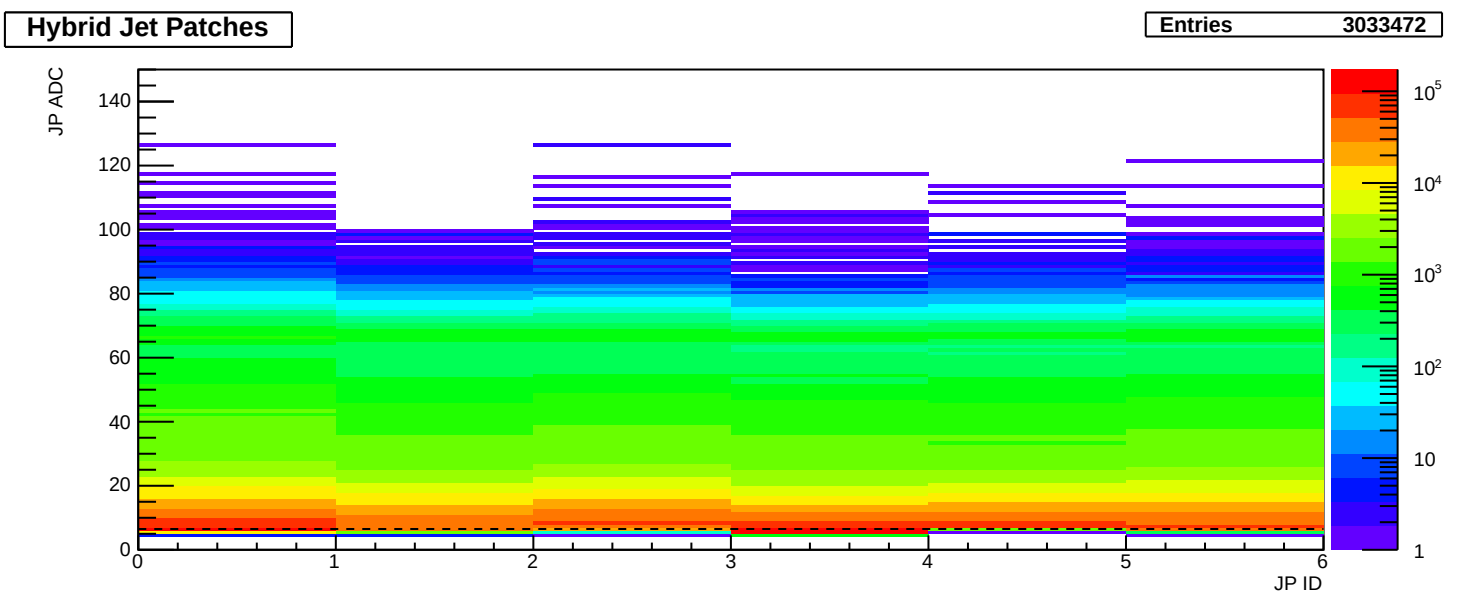

Barrel EMC L0 Input - Patch Sum
Entries 4.550208e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

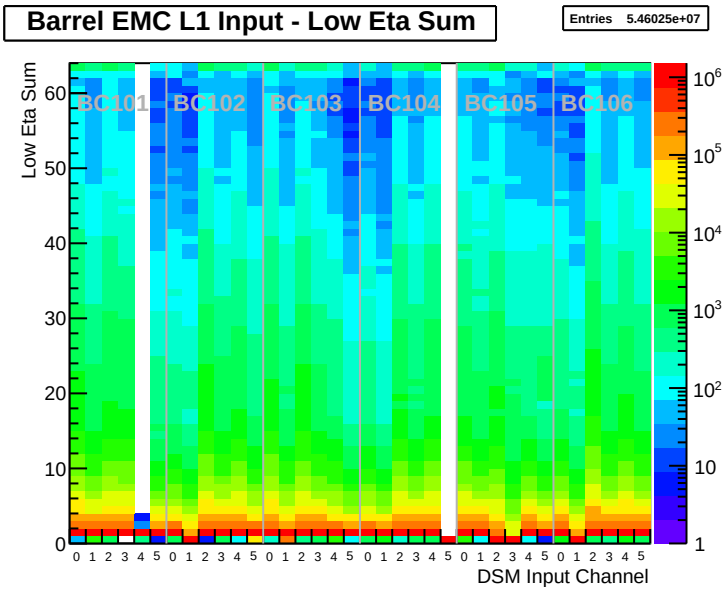

Endcap EMC L0 Input - High Tower
Entries 1.365062e+08
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

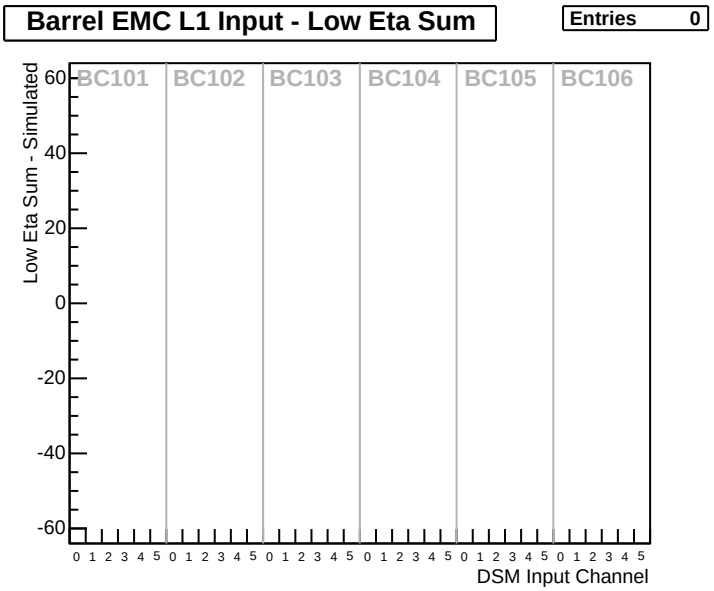

Endcap EMC L0 Input - Patch Sum
Entries 1.365062e+08
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

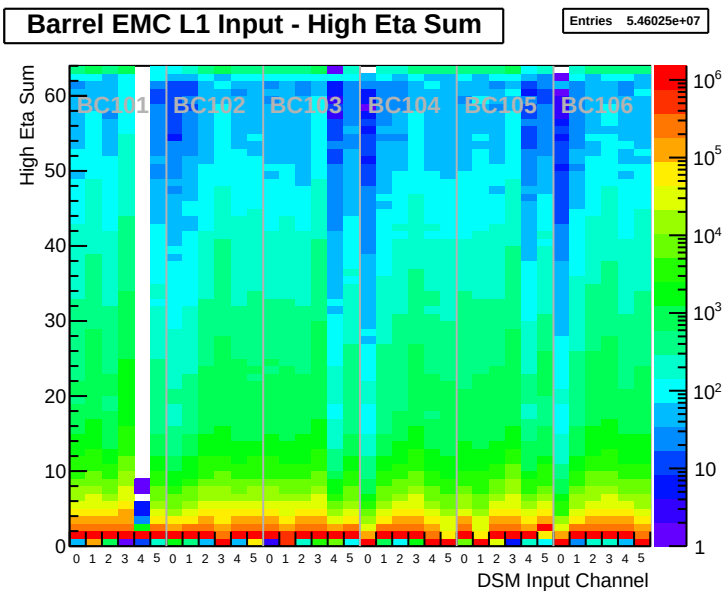

Barrel Jet Patches
Entries 2.730125e+07
JP ADC
JP ID

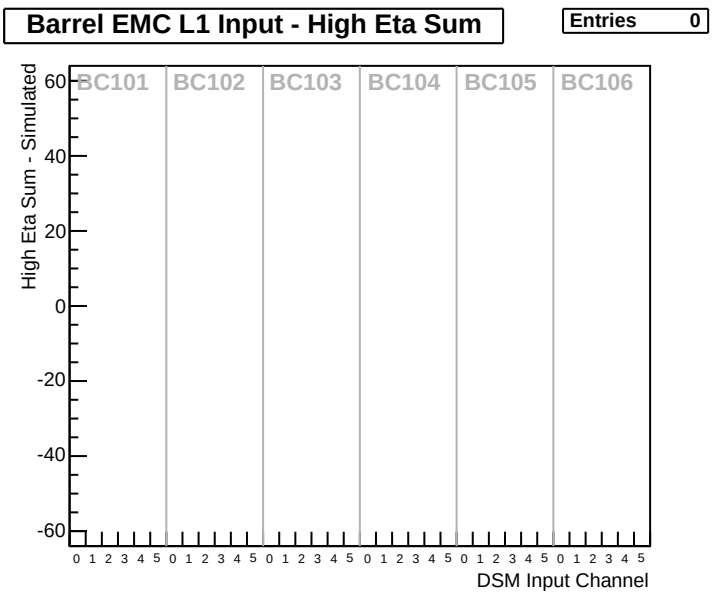

Endcap Jet Patches
Entries 9100416
JP ADC
JP ID

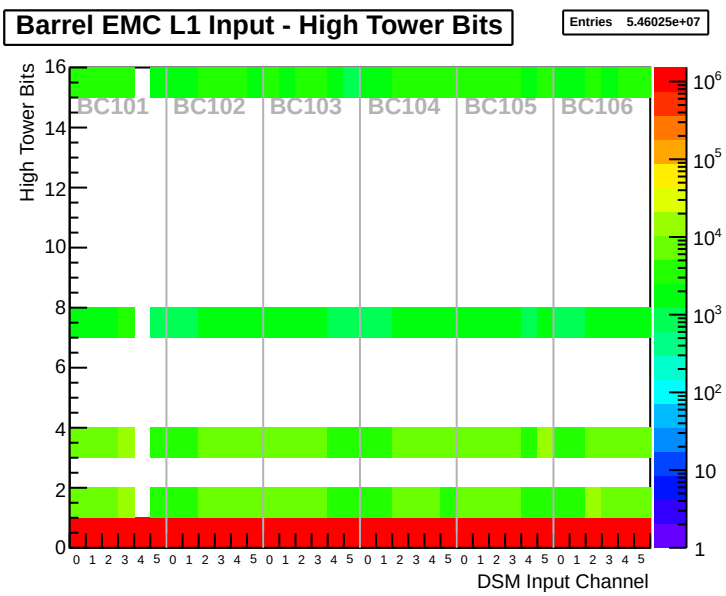

Hybrid Jet Patches
Entries 3033472
JP ADC
JP ID

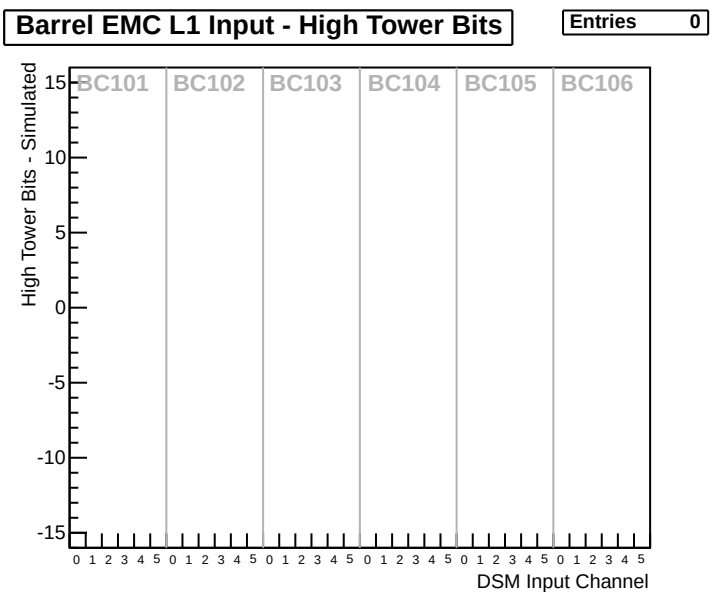

Barrel EMC L1 Input - Low Eta Sum
Entries 5.46025e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

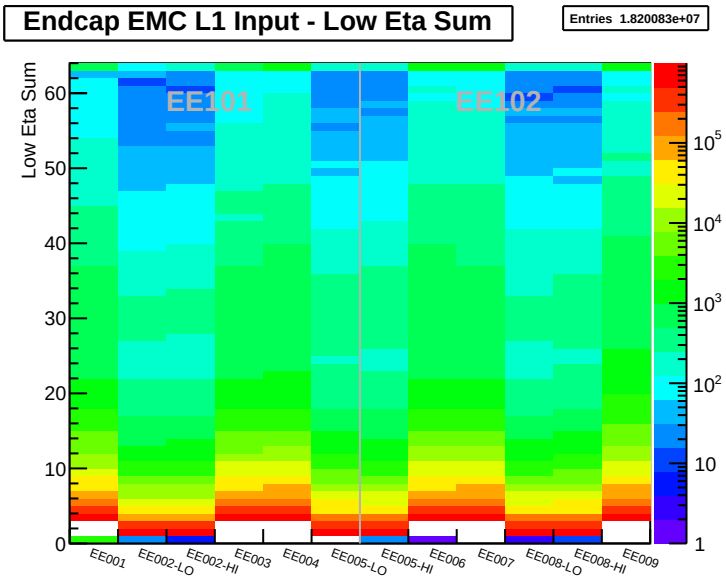

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

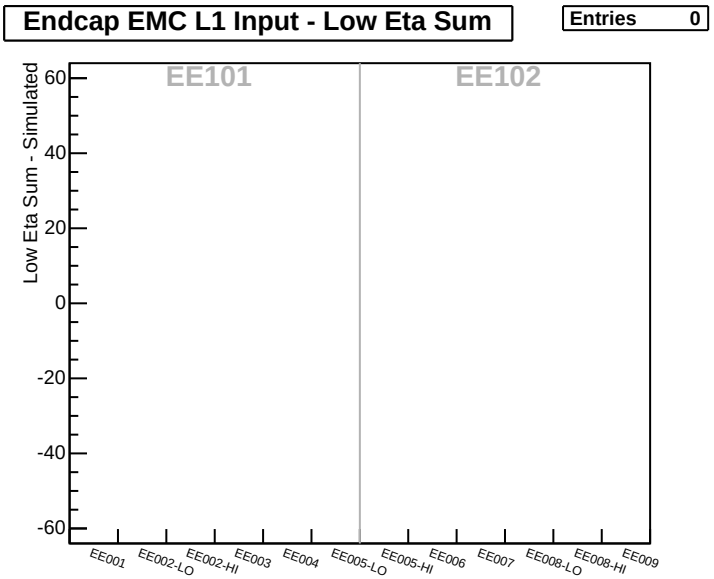

Barrel EMC L1 Input - High Eta Sum
Entries 5.46025e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

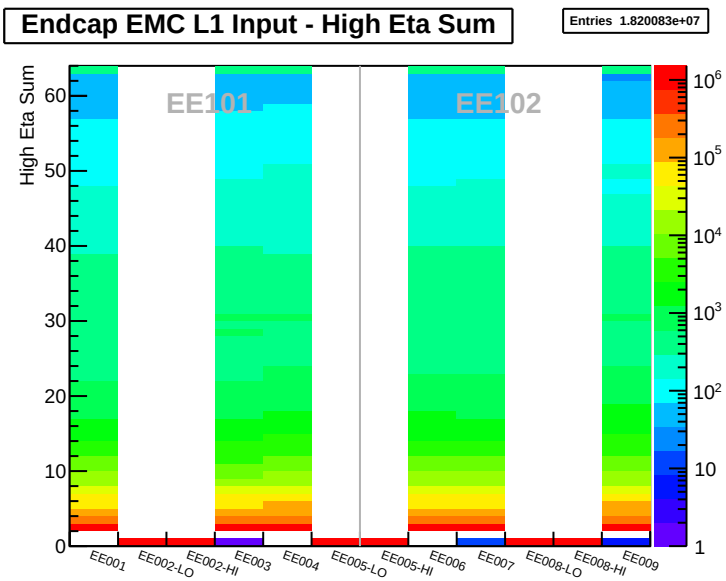

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

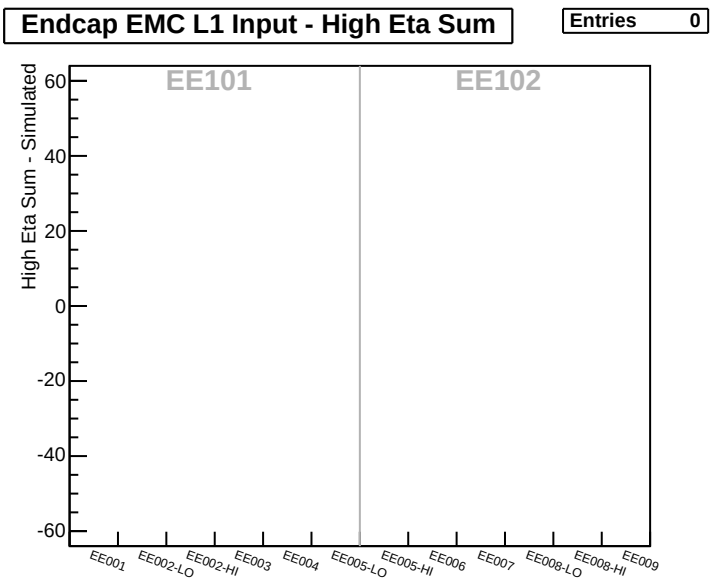

Barrel EMC L1 Input - High Tower Bits
Entries 5.46025e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

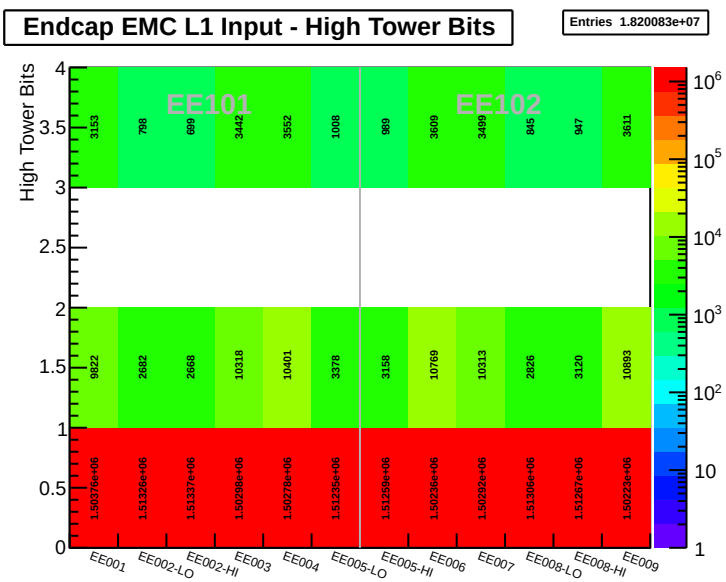

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

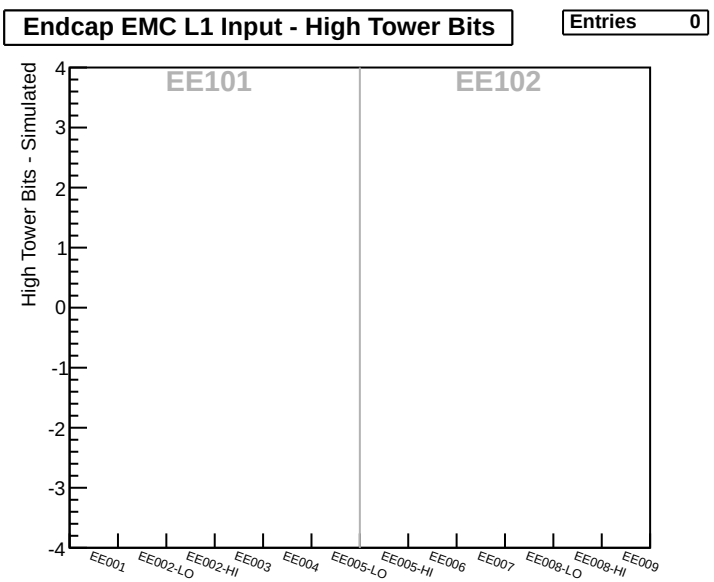

Endcap EMC L1 Input - Low Eta Sum
Entries 1.820083e+07
Low Eta Sum
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

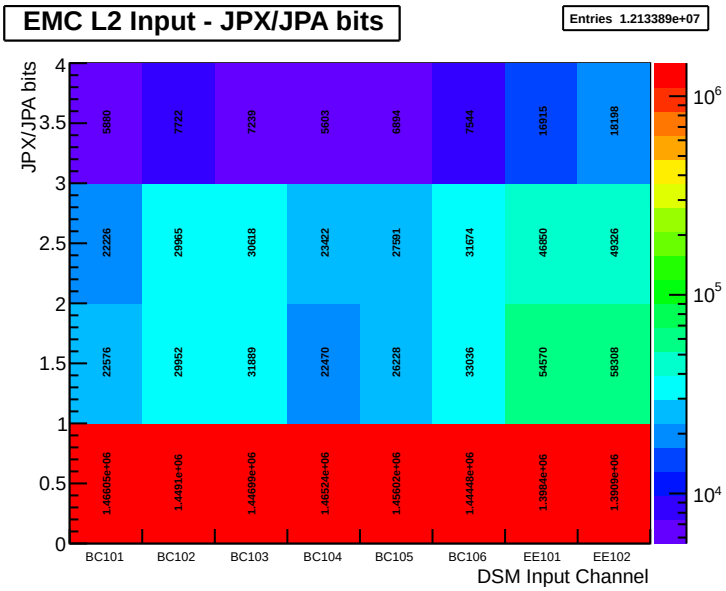

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

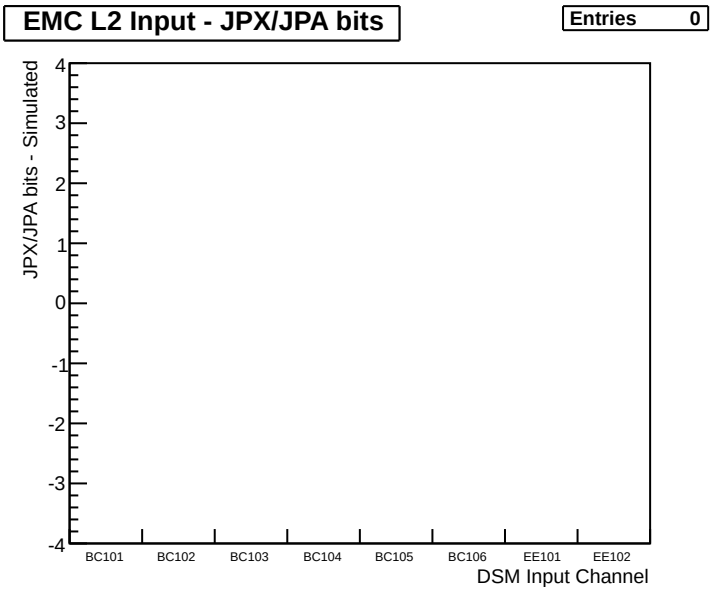

Endcap EMC L1 Input - High Eta Sum
Entries 1.820083e+07
High Eta Sum
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

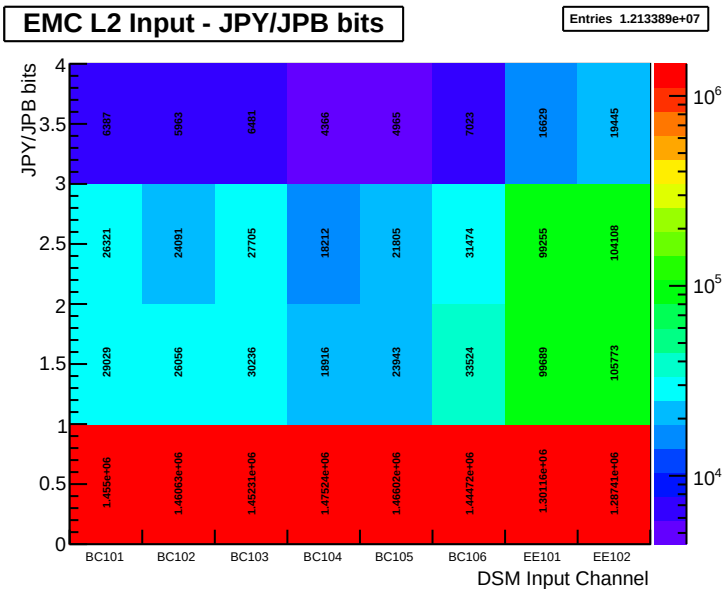

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

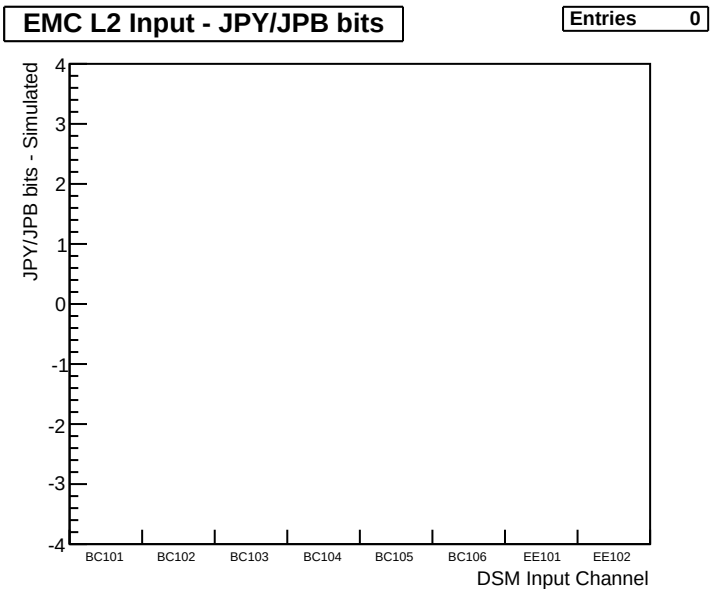

Endcap EMC L1 Input - High Tower Bits
Entries 1.820083e+07
High Tower Bits
EE101
EE102
3153
798
699
3442
3552
1008
989
3609
3499
845
947
3611
9822
2682
2668
10318
10401
3378
3158
10769
10313
2826
3120
10693
1.50376e+06
1.51326e+06
1.51337e+06
1.50298e+06
1.50278e+06
1.51235e+06
1.51259e+06
1.50236e+06
1.50292e+06
1.51306e+06
1.51287e+06
1.50223e+06
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

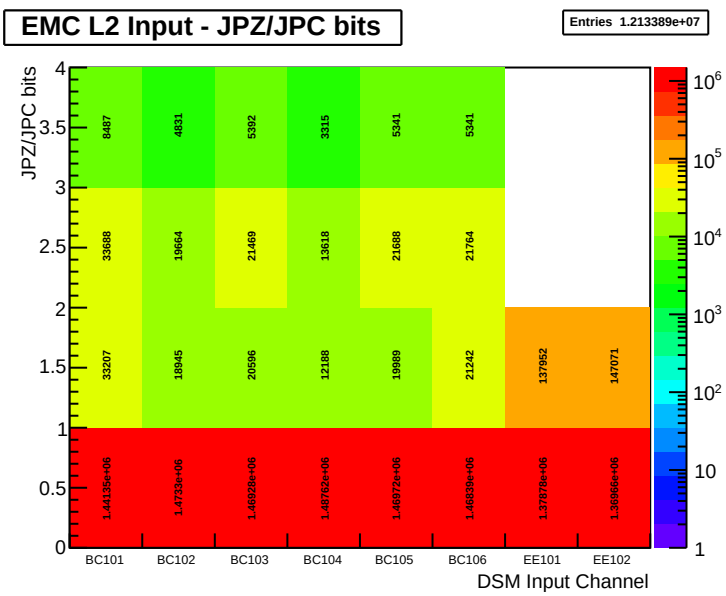

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

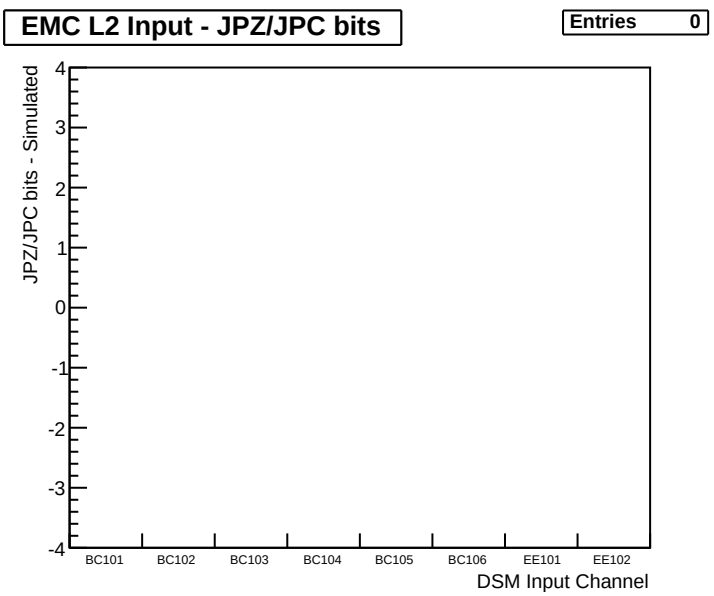

EMC L2 Input - JPX/JPA bits
Entries 1.213389e+07
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
5880 7722 7239 5603 6894 7544 16915 18198
22226 29965 30618 23422 27591 31674 46850 49326
22576 29952 31889 22470 26228 33036 54570 58308
1.46605e+06 1.44916e+06 1.44699e+06 1.46524e+06 1.45602e+06 1.44449e+06 1.39844e+06 1.39094e+06

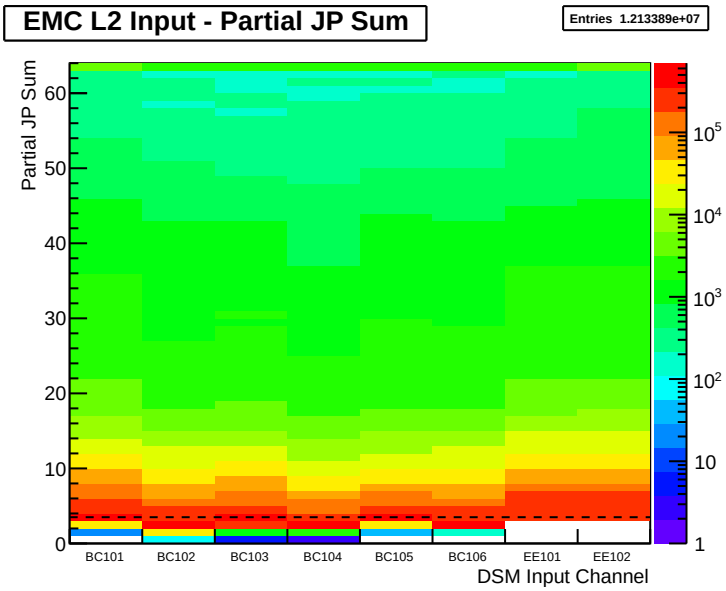

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

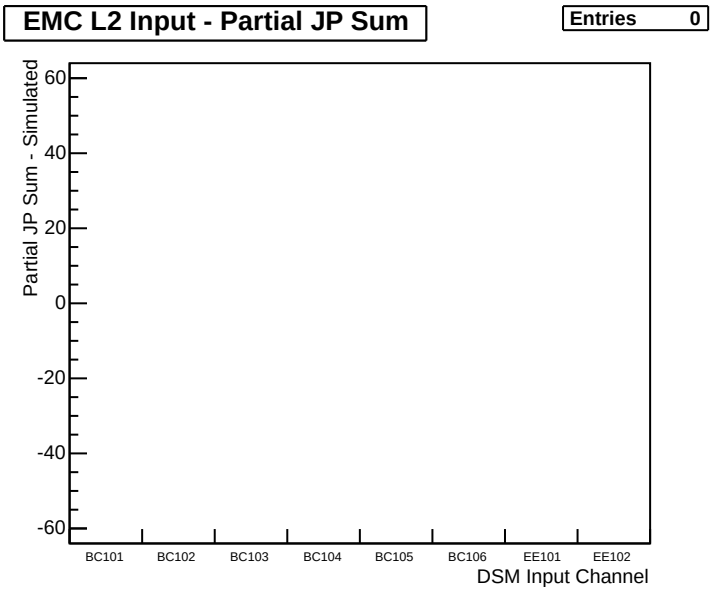

EMC L2 Input - JPY/JPB bits
Entries 1.213389e+07
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
6387 5963 6481 4366 4965 7023 16629 19445
26321 24091 27705 18212 21605 31474 99255 104108
29029 26056 30236 18916 23943 33524 99689 105773
1.4558e+06 1.46063e+06 1.45231e+06 1.47524e+06 1.46602e+06 1.44472e+06 1.30116e+06 1.28741e+06

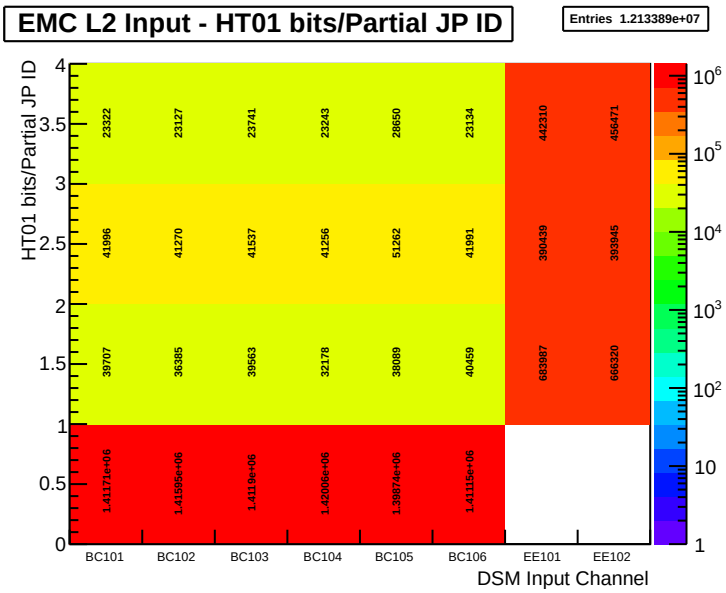

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

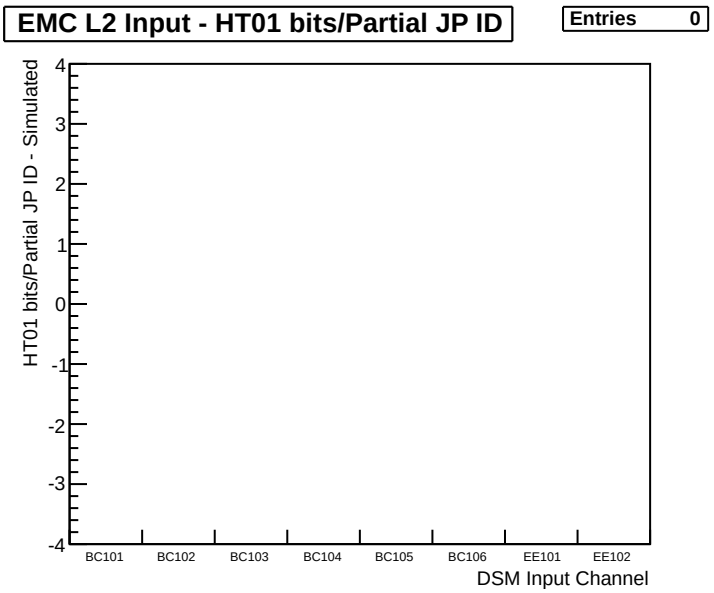

EMC L2 Input - JPZ/JPC bits
Entries 1.213389e+07
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
8487 4831 5392 3315 5341 5341
33688 19664 21469 13618 21688 21764
33207 18945 20596 12188 19989 21242 137952 147071
1.44135e+06 1.4733e+06 1.46928e+06 1.48762e+06 1.46972e+06 1.46839e+06 1.37878e+06 1.36966e+06

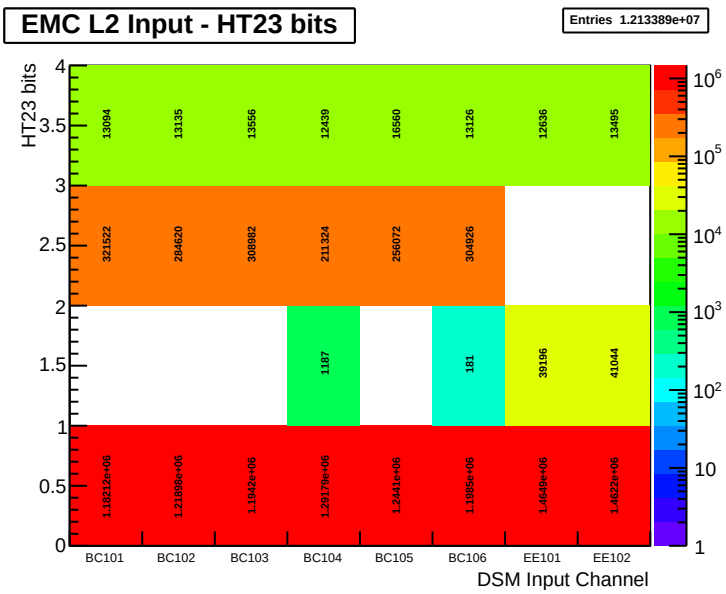

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

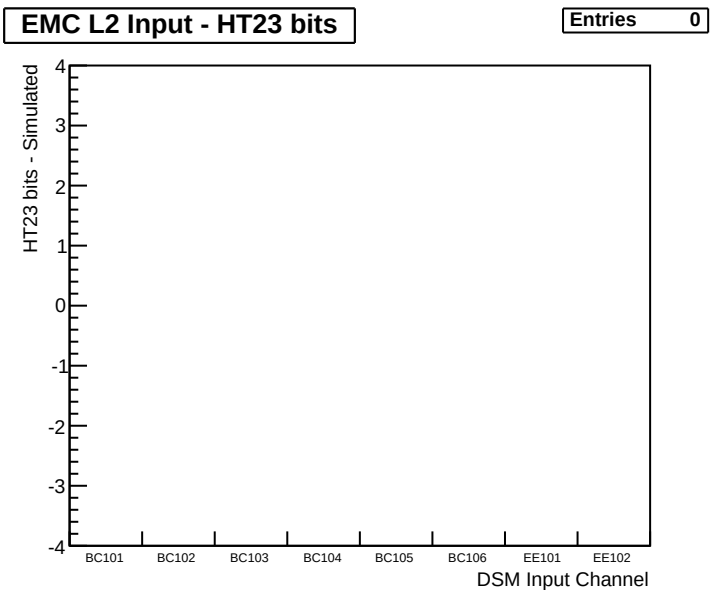

EMC L2 Input - Partial JP Sum
Entries 1.213389e+07
Partial JP Sum
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

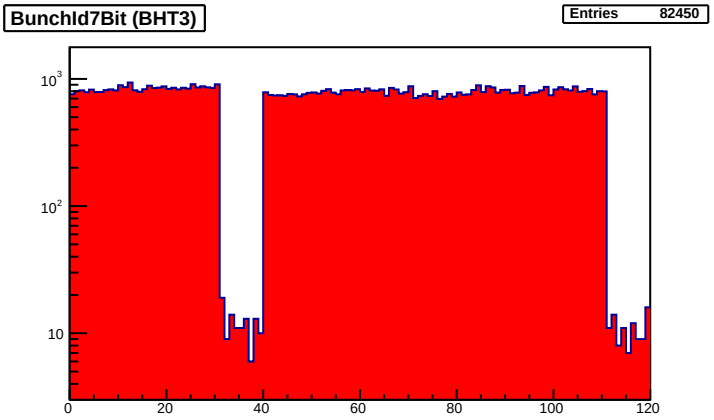

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

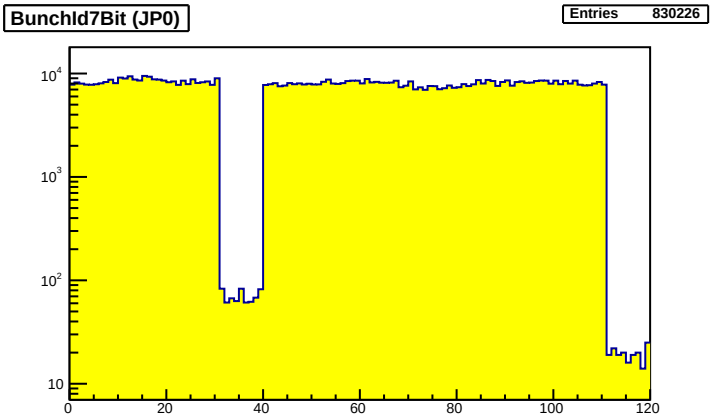

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1.213389e+07
HT01 bits/Partial JP ID
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

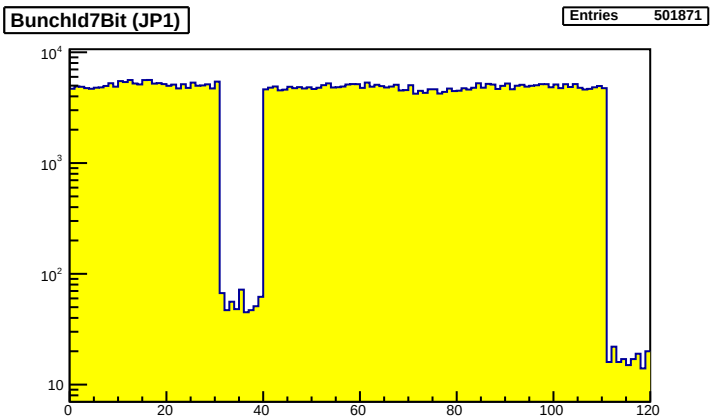

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

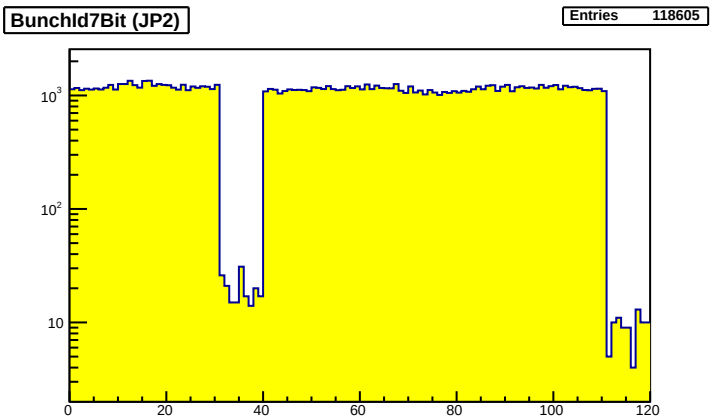

EMC L2 Input - HT23 bits
Entries 1.213389e+07
HT23 bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

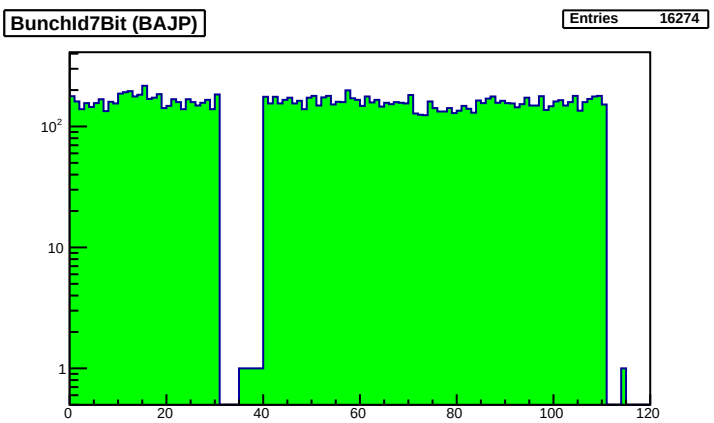

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

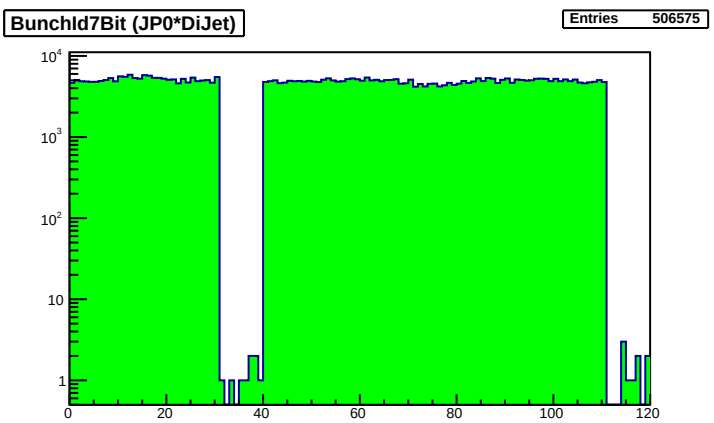

BunchId7Bit (BHT3)
Entries 82450

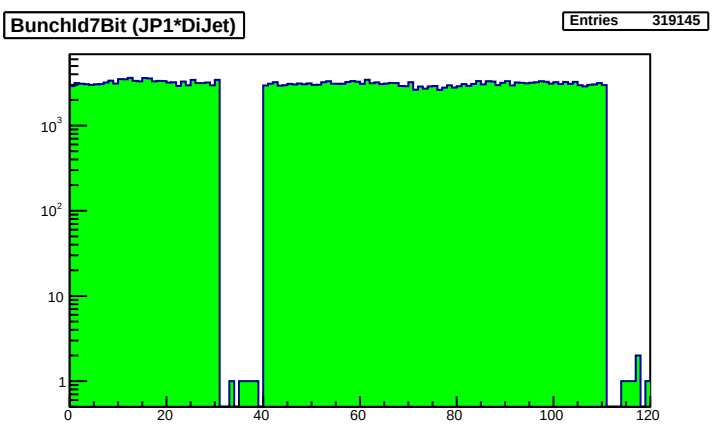

BunchId7Bit (JP0)
Entries 830226

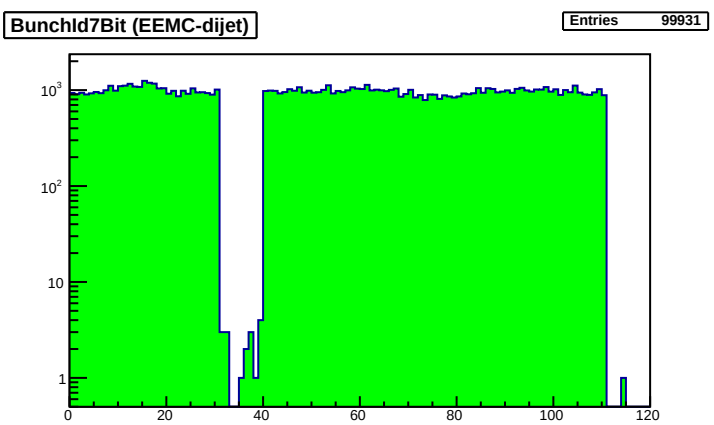

BunchId7Bit (JP1)
Entries 501871

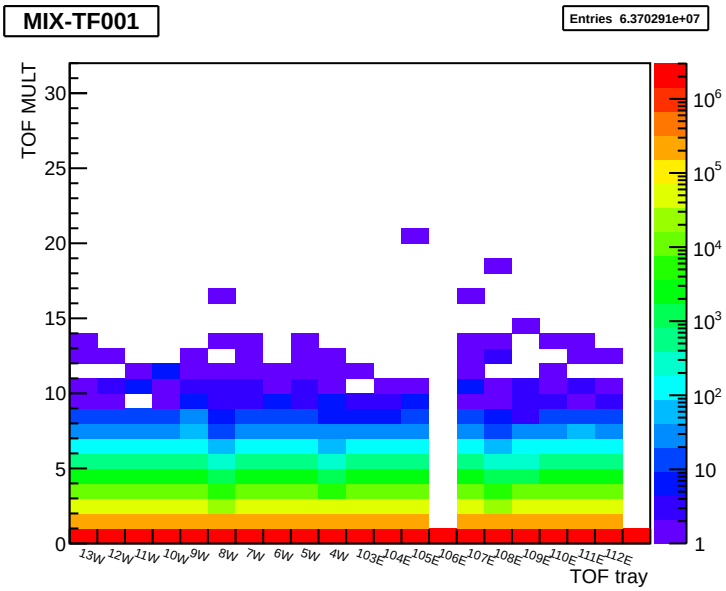

BunchId7Bit (JP2)
Entries 118605

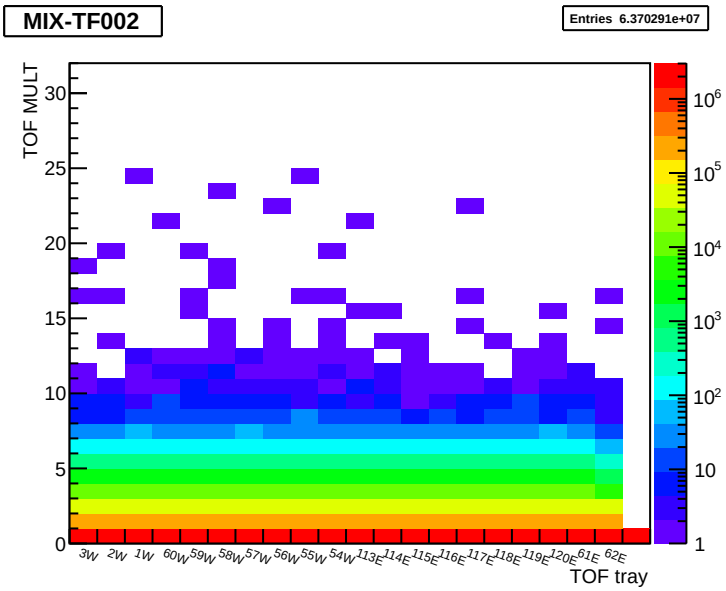

BunchId7Bit (BAJP)
Entries 16274

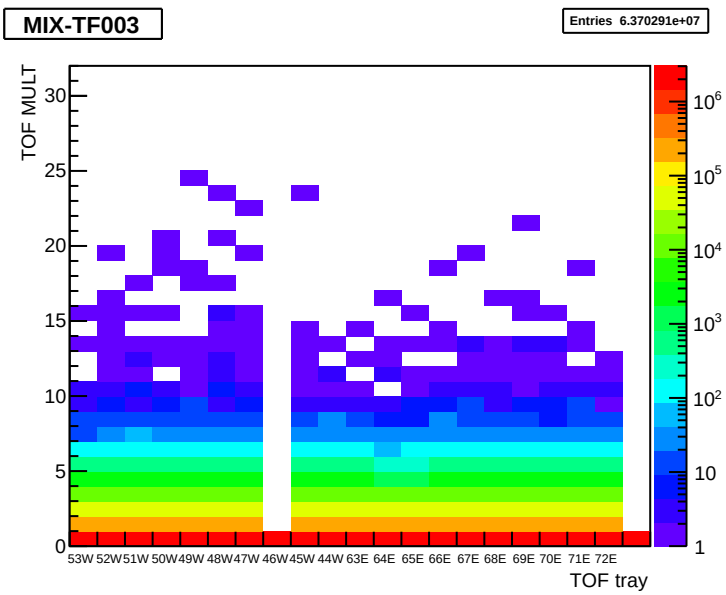

BunchId7Bit (JP0*DiJet)
Entries 506575

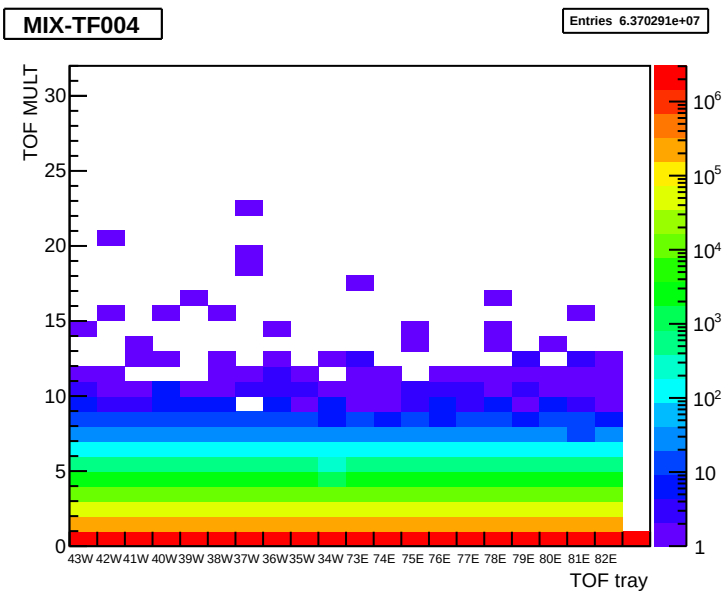

BunchId7Bit (JP1*DiJet)
Entries 319145

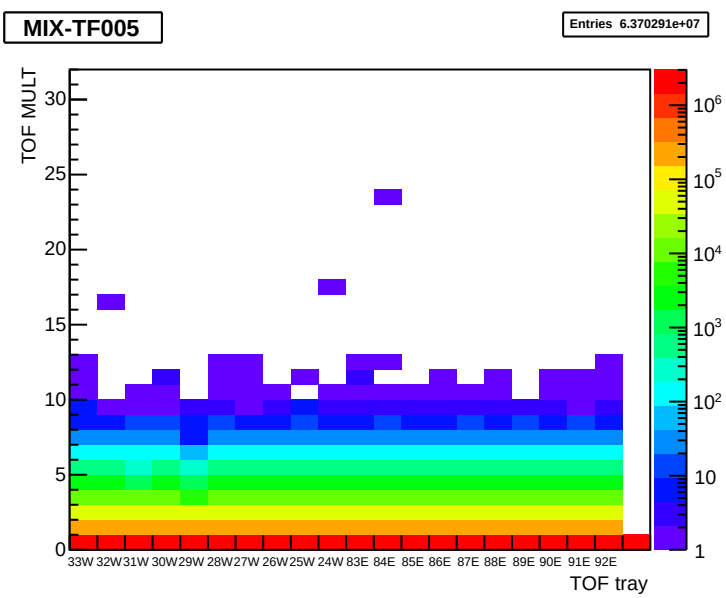

BunchId7Bit (EEMC-dijet)
Entries 99931

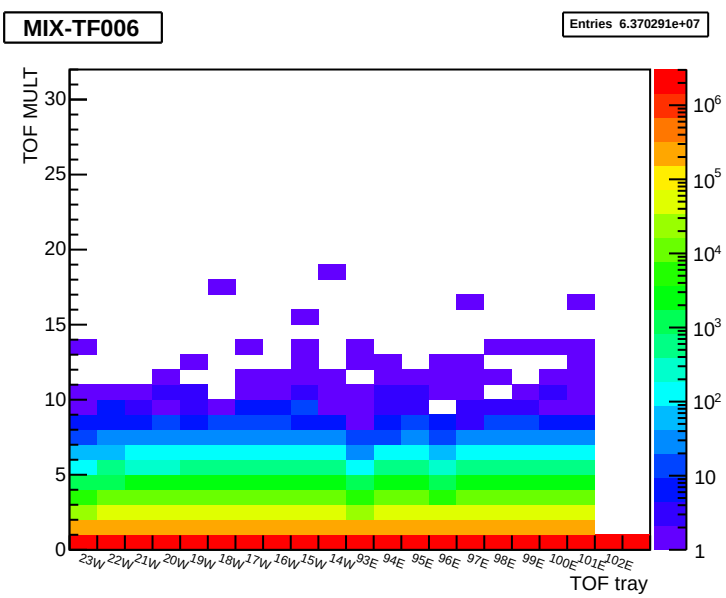

MIX-TF001
Entries 6.370291e+07
TOF MULT
TOF tray

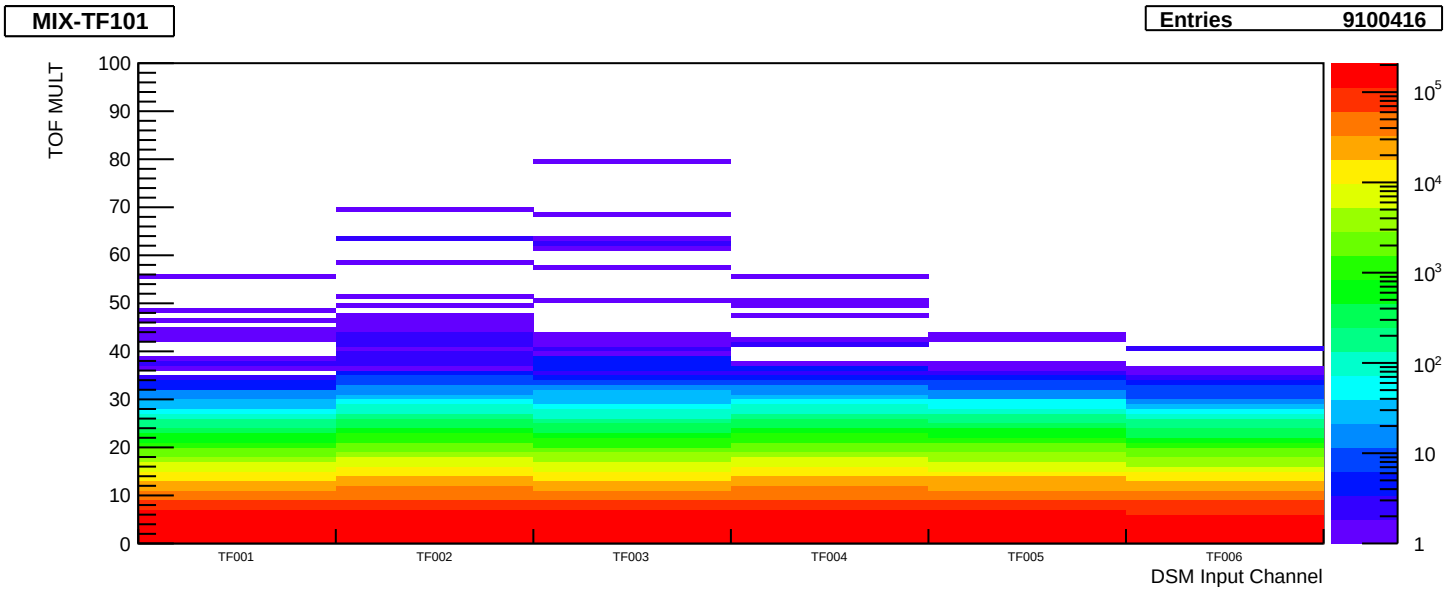

MIX-TF002
Entries 6.370291e+07
TOF MULT
TOF tray

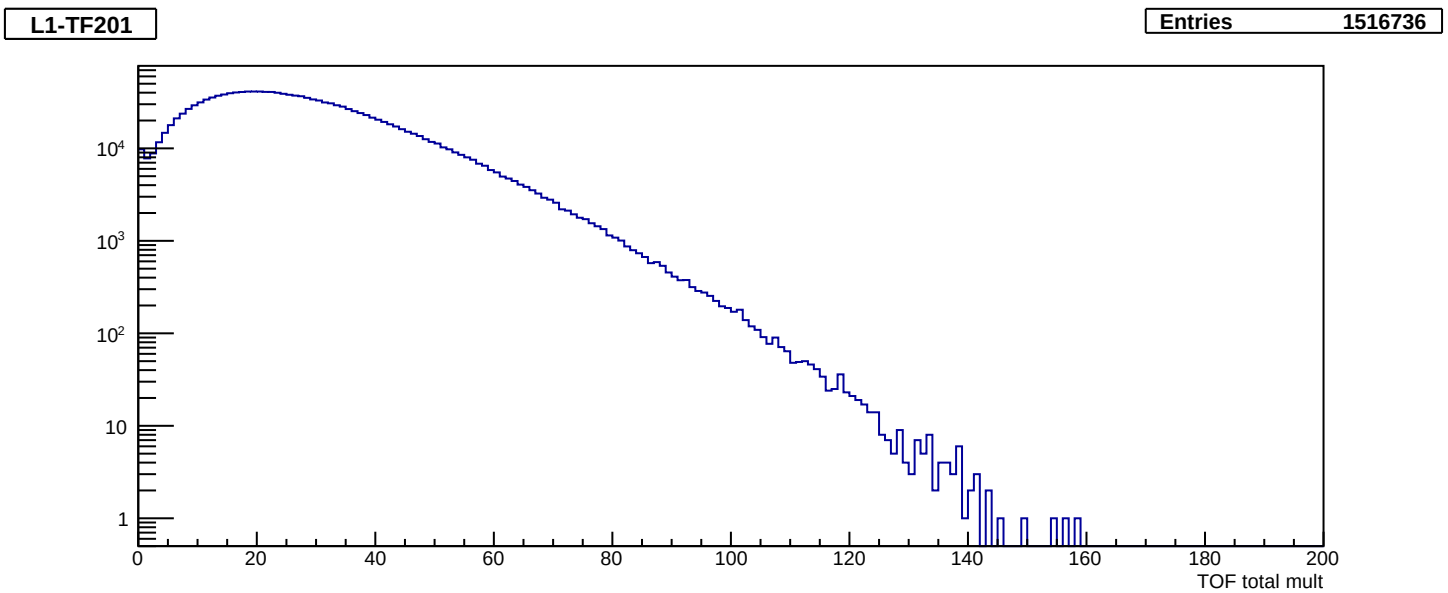

MIX-TF003
Entries 6.370291e+07
TOF MULT
TOF tray

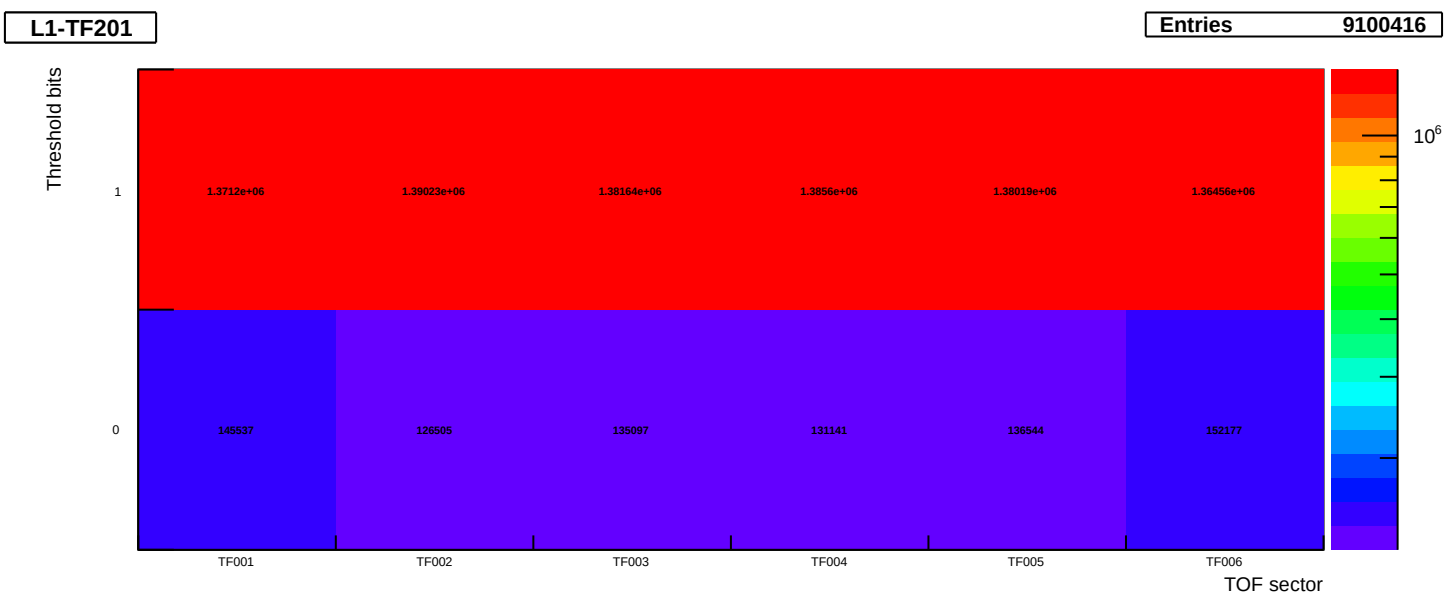

MIX-TF004
Entries 6.370291e+07
TOF MULT
TOF tray

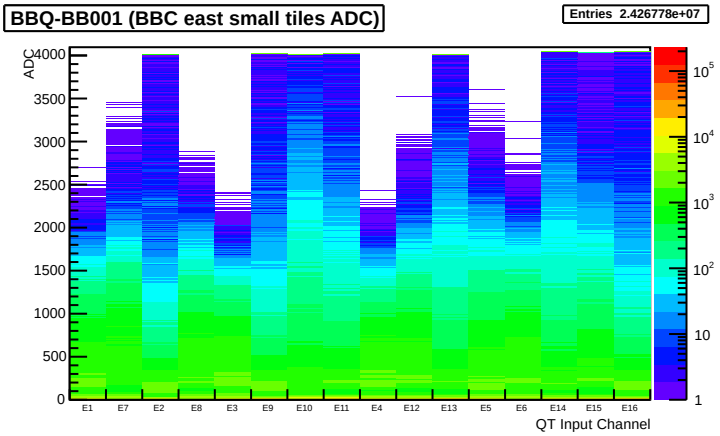

MIX-TF005
Entries 6.370291e+07
TOF MULT
TOF tray

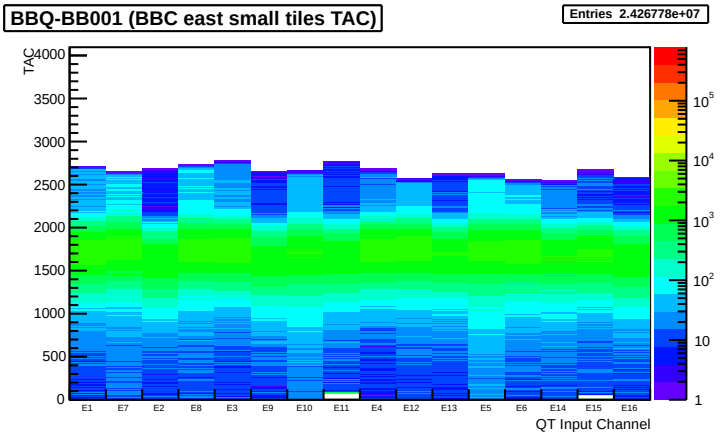

MIX-TF006
Entries 6.370291e+07
TOF MULT
TOF tray

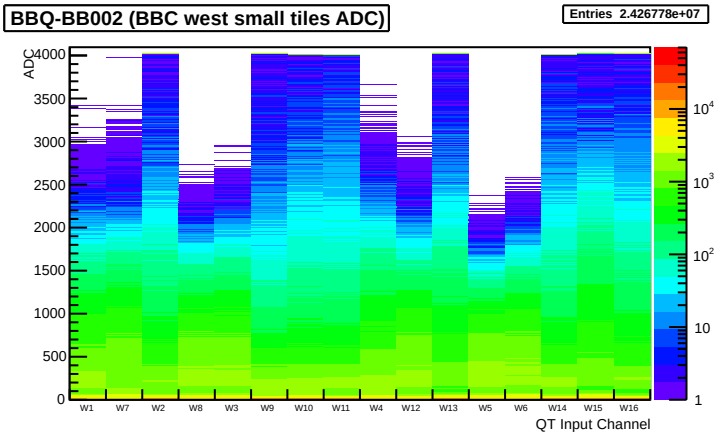

MIX-TF101
Entries 9100416
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

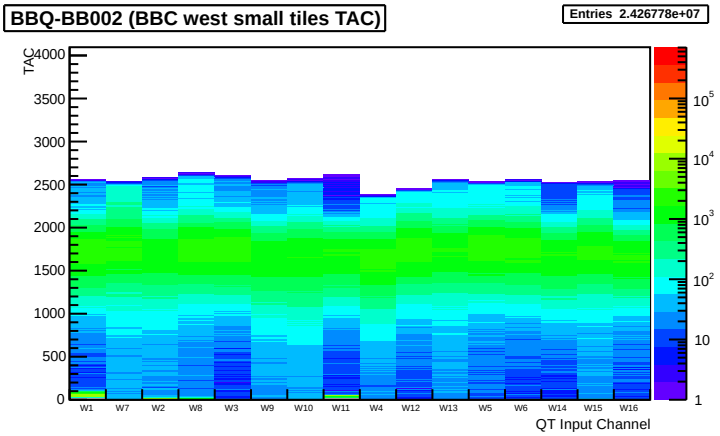

L1-TF201
Entries 1516736
TOF total mult

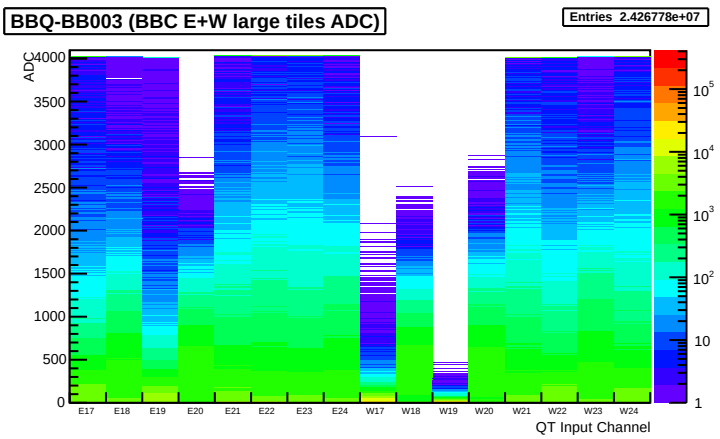

L1-TF201
Entries 9100416
Threshold bits
1.3712e+06
1.39023e+06
1.38164e+06
1.3856e+06
1.38019e+06
1.36456e+06
145537
126505
135097
131141
136544
152177
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

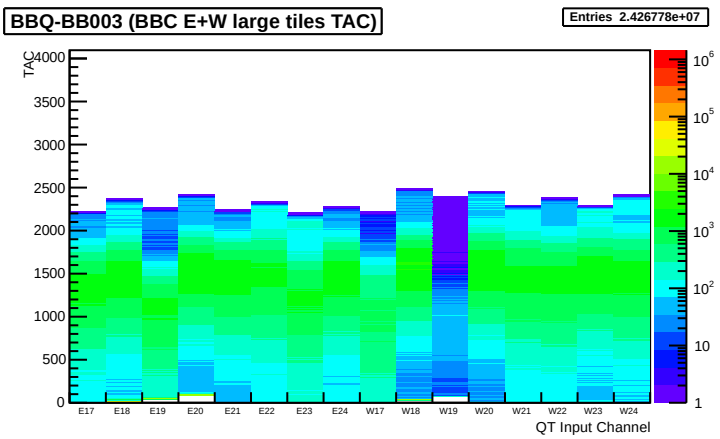

BBQ-BB001 (BBC east small tiles ADC)
Entries 2.426778e+07
ADC
QT Input Channel

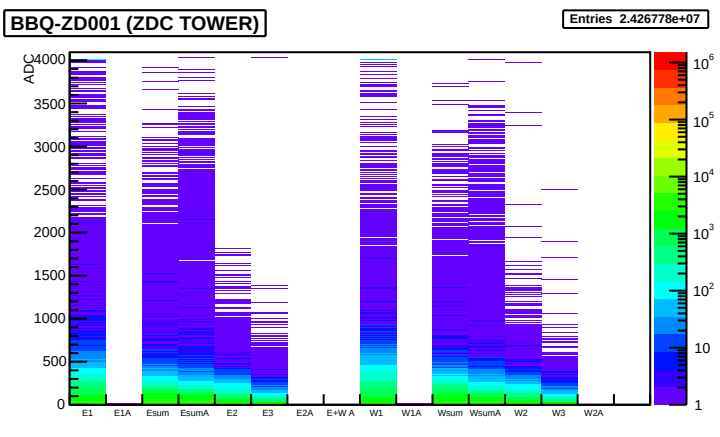

BBQ-BB001 (BBC east small tiles TAC)
Entries 2.426778e+07
TAC
QT Input Channel

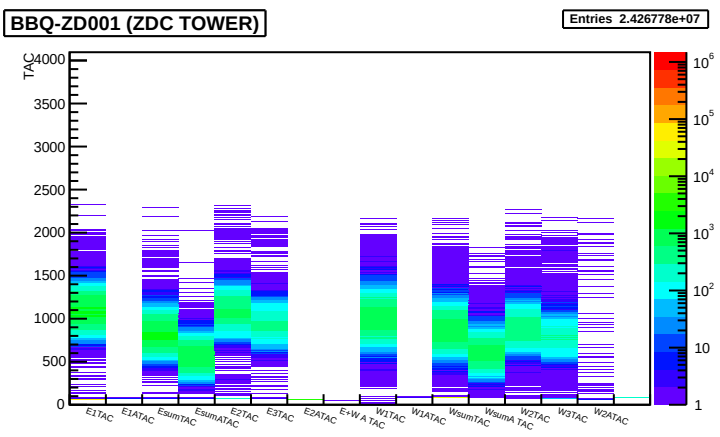

BBQ-BB002 (BBC west small tiles ADC)
Entries 2.426778e+07
ADC
QT Input Channel

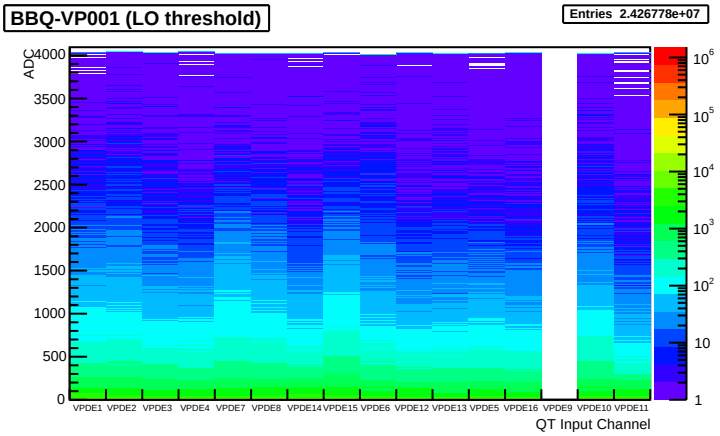

BBQ-BB002 (BBC west small tiles TAC)
Entries 2.426778e+07
TAC
QT Input Channel

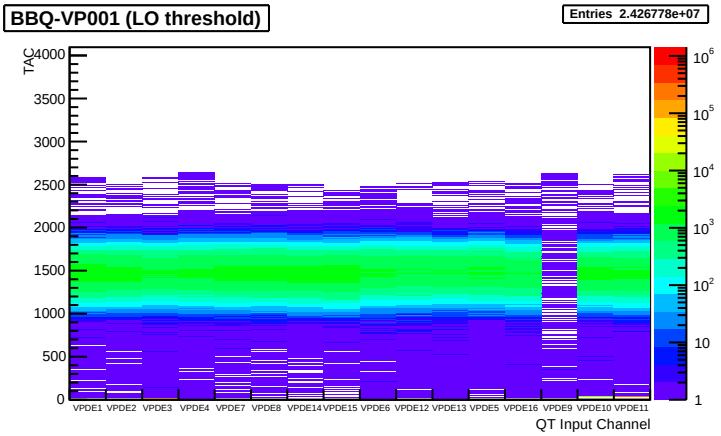

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 2.426778e+07
ADC
QT Input Channel

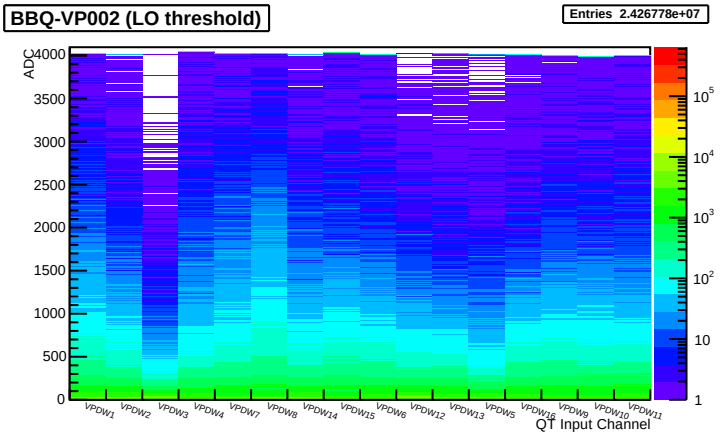

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 2.426778e+07
TAC
QT Input Channel

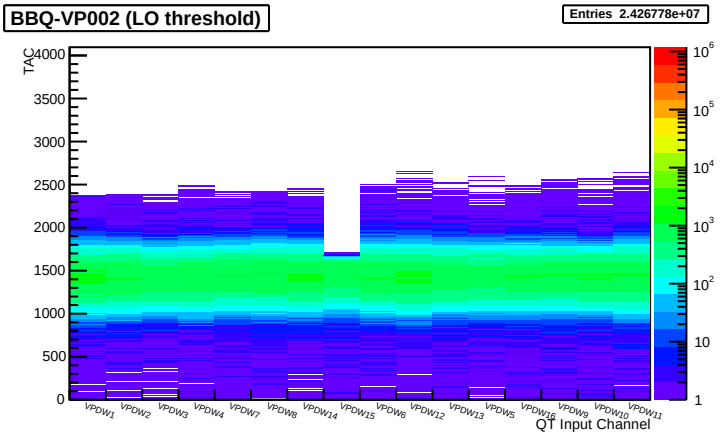

BBQ-ZD001 (ZDC TOWER)
Entries 2.426778e+07
ADC

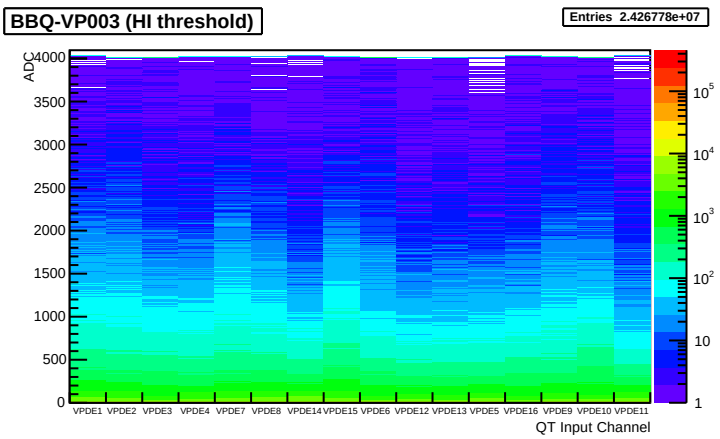

BBQ-ZD001 (ZDC TOWER)
Entries 2.426778e+07
TAC

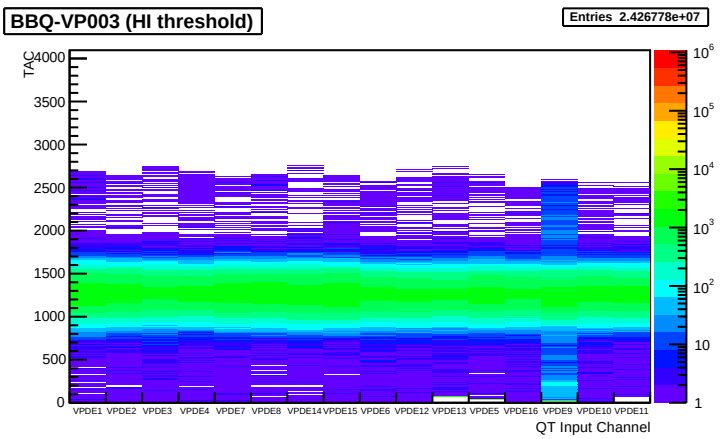

BBQ-VP001 (LO threshold)
Entries 2.426778e+07
ADC
QT Input Channel

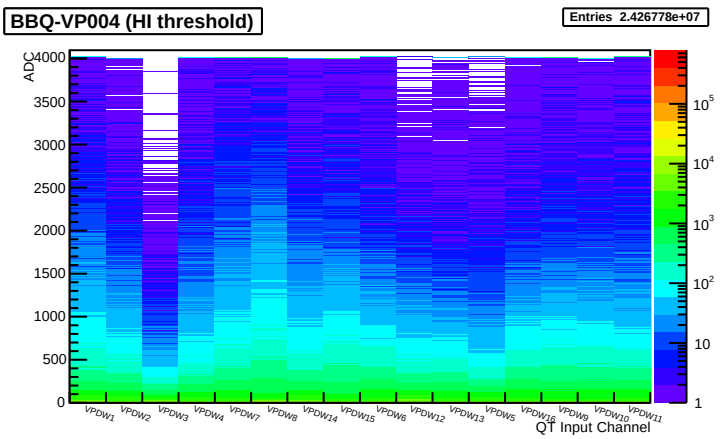

BBQ-VP001 (LO threshold)
Entries 2.426778e+07
TAC
QT Input Channel

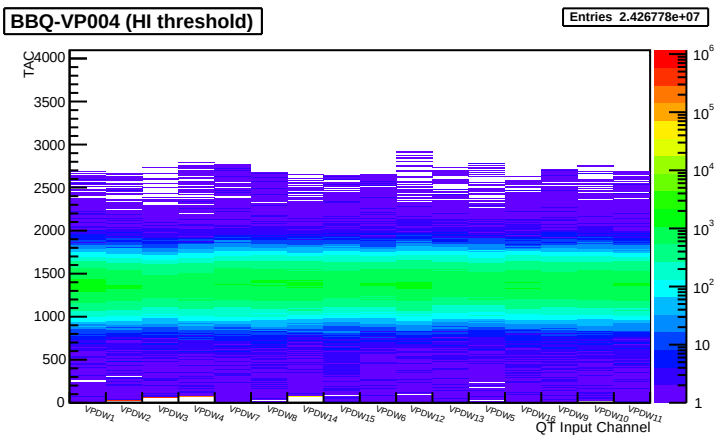

BBQ-VP002 (LO threshold)
Entries 2.426778e+07
ADC
QT Input Channel

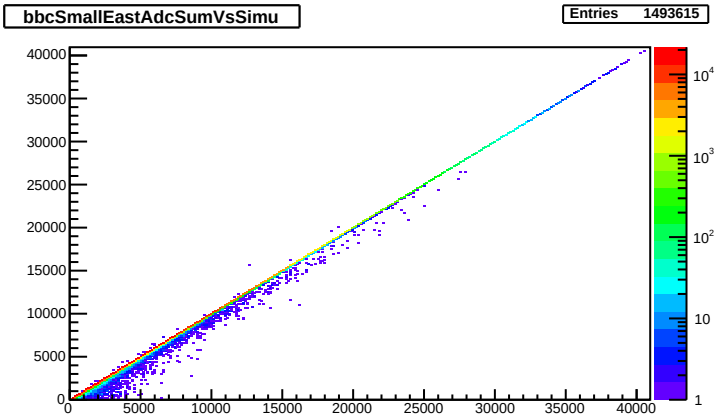

BBQ-VP002 (LO threshold)
Entries 2.426778e+07
TAC
QT Input Channel

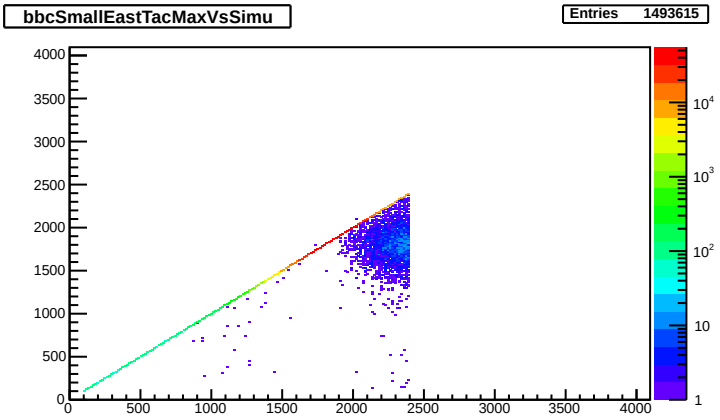

BBQ-VP003 (HI threshold)
Entries 2.426778e+07
ADC
QT Input Channel

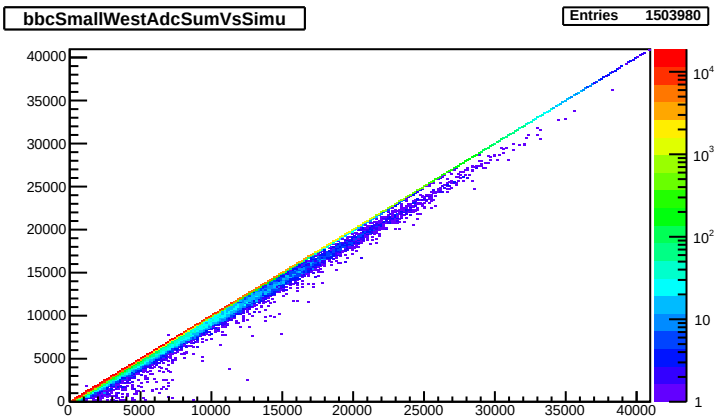

BBQ-VP003 (HI threshold)
Entries 2.426778e+07
TAC
QT Input Channel

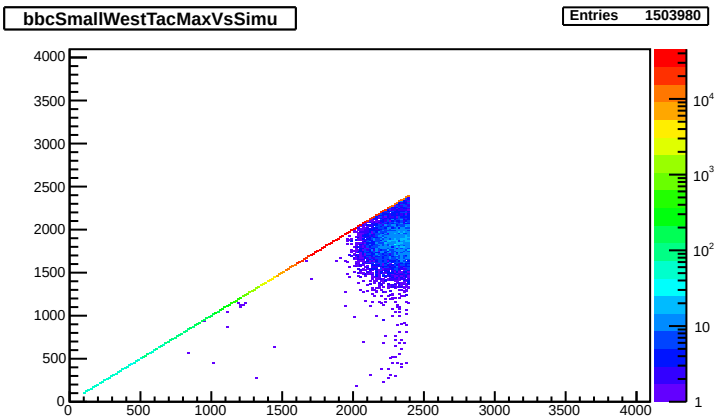

BBQ-VP004 (HI threshold)
Entries 2.426778e+07
ADC
QT Input Channel

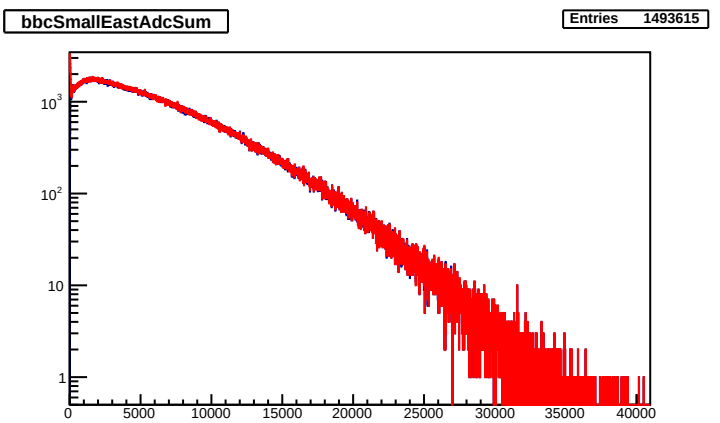

BBQ-VP004 (HI threshold)
Entries 2.426778e+07
TAC
QT Input Channel

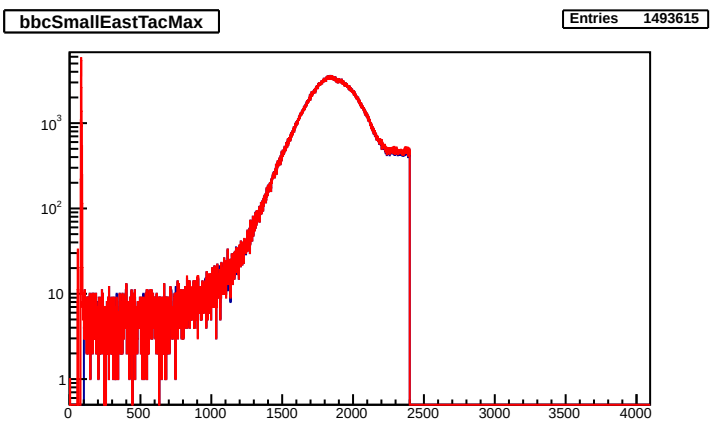

bbcSmallEastAdcSumVsSimu
Entries 1493615

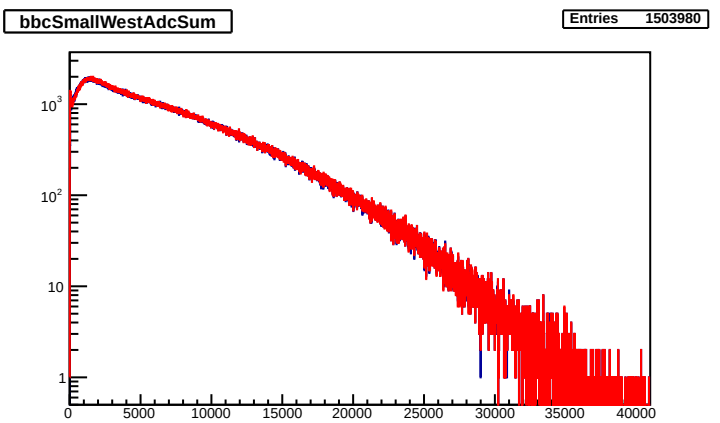

bbcSmallEastTacMaxVsSimu
Entries 1493615

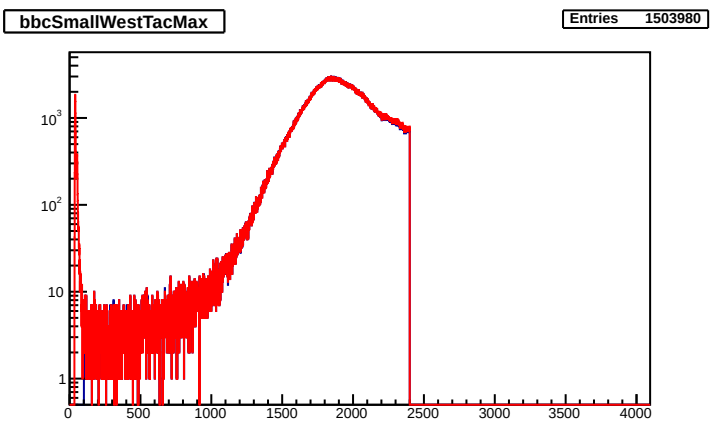

bbcSmallWestAdcSumVsSimu
Entries 1503980

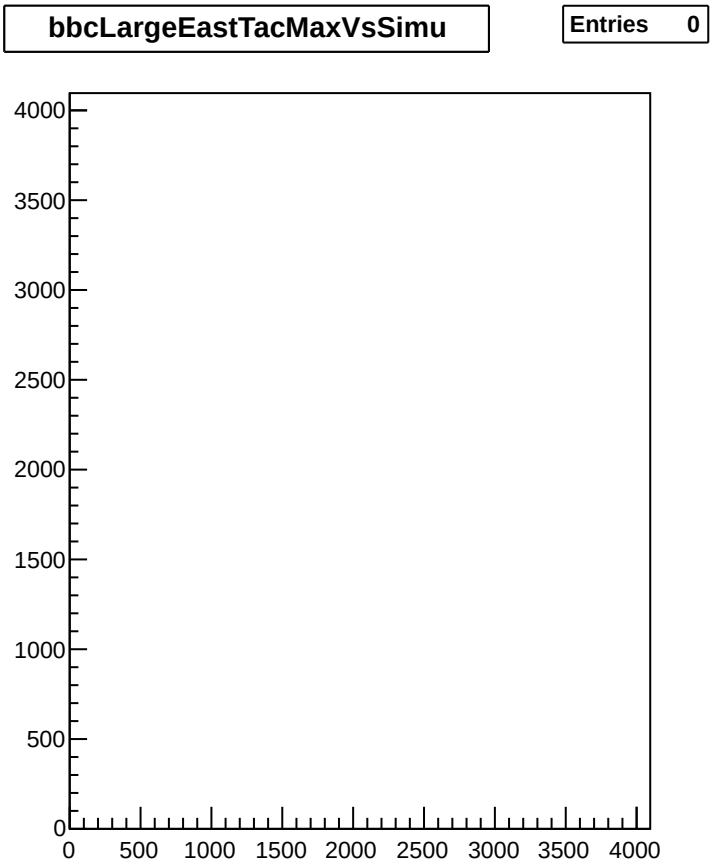

bbcSmallWestTacMaxVsSimu
Entries 1503980

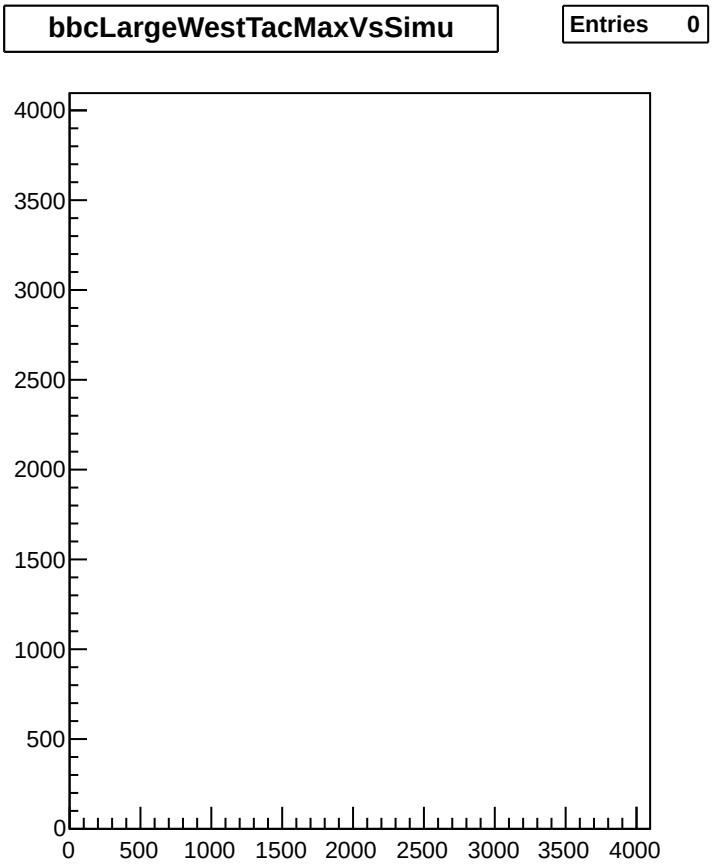

bbcSmallEastAdcSum
Entries 1493615

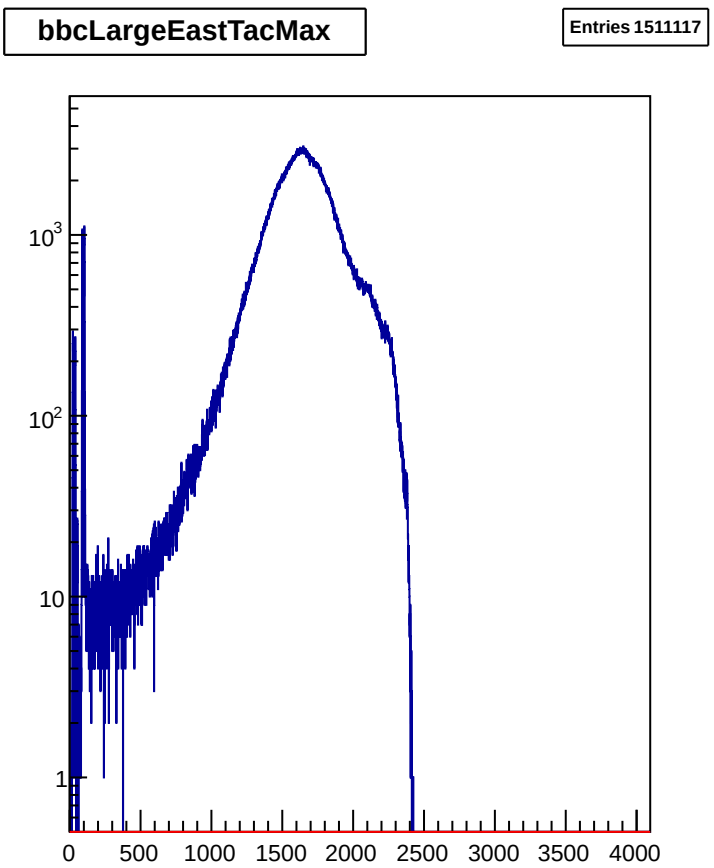

bbcSmallEastTacMax
Entries 1493615

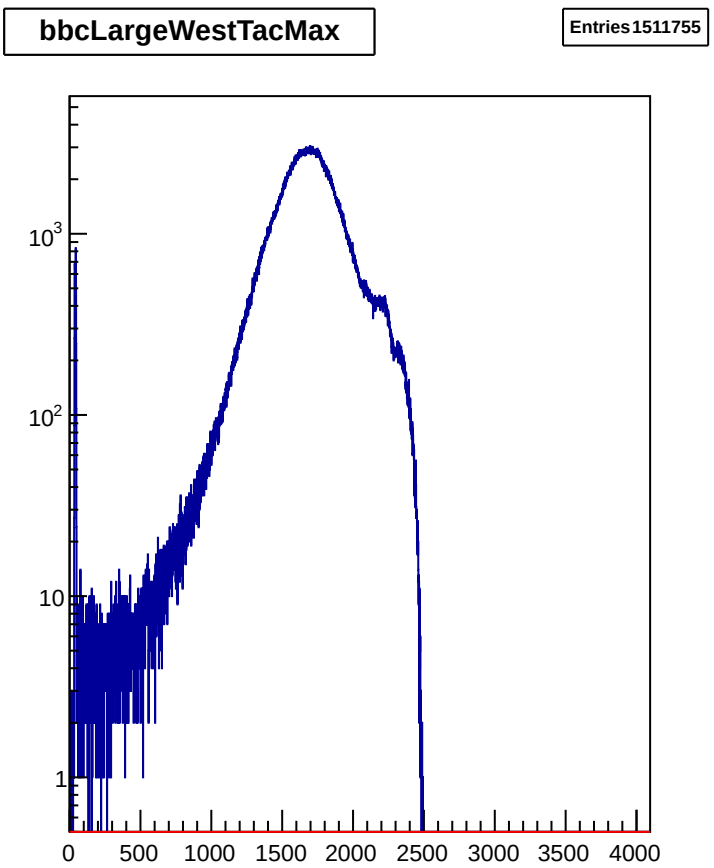

bbcSmallWestAdcSum
Entries 1503980

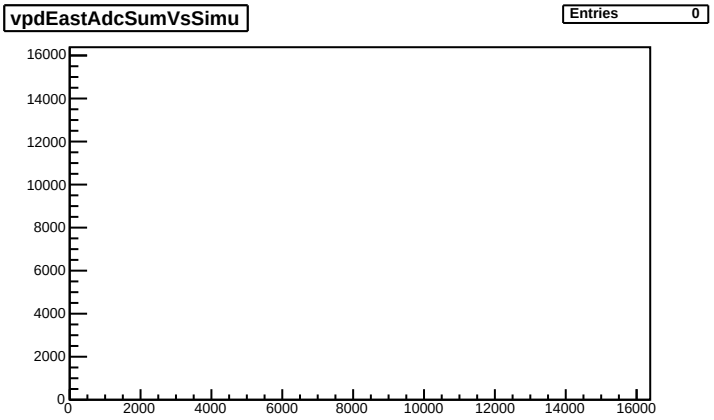

bbcSmallWestTacMax
Entries 1503980

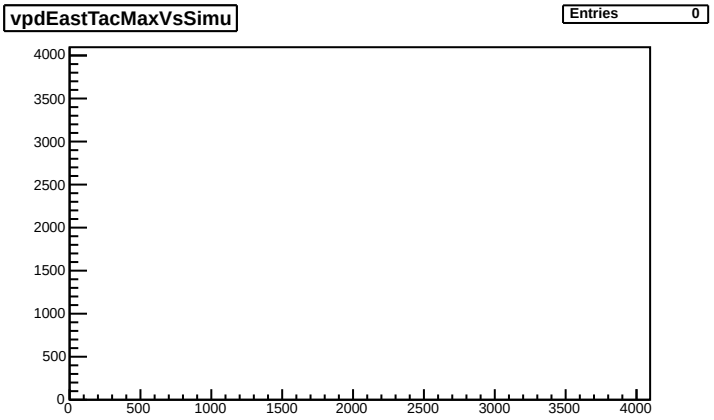

bbcLargeEastTacMaxVsSimu
Entries 0
4000
3500
3000
2500
2000
1500
1000
500
0
0 500 1000 1500 2000 2500 3000 3500 4000

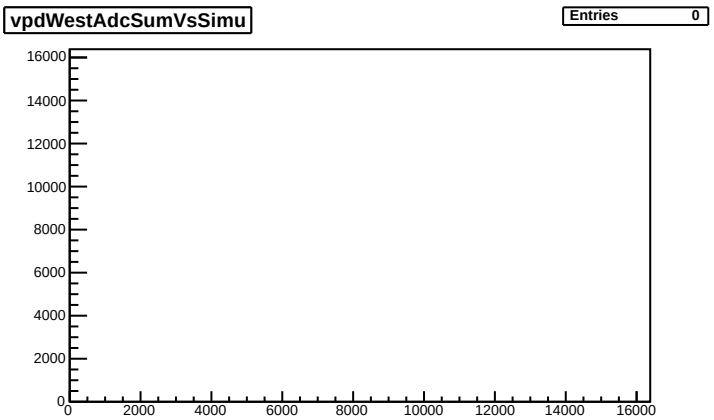

bbcLargeWestTacMaxVsSimu
Entries 0
4000
3500
3000
2500
2000
1500
1000
500
0
0 500 1000 1500 2000 2500 3000 3500 4000

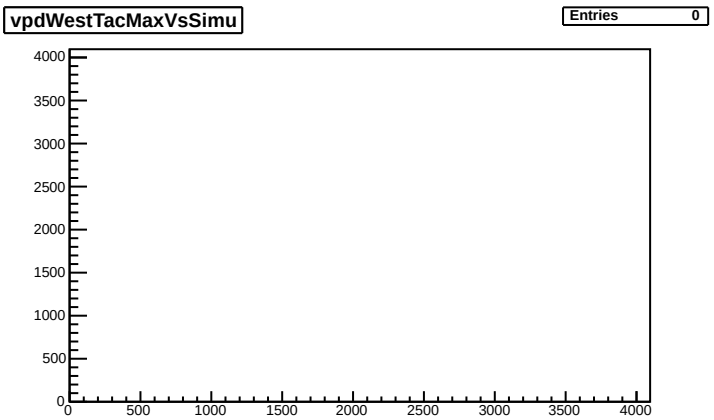

bbcLargeEastTacMax
Entries 1511117
10^3
10^2
10
1
0 500 1000 1500 2000 2500 3000 3500 4000

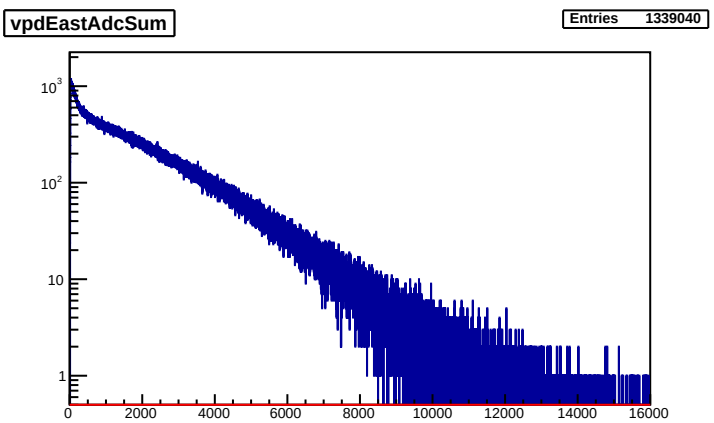

bbcLargeWestTacMax
Entries 1511755
10^3
10^2
10
1
0 500 1000 1500 2000 2500 3000 3500 4000

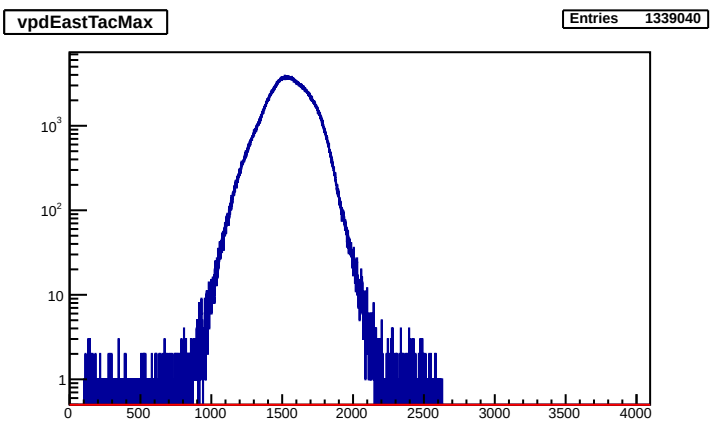

vpdEastAdcSumVsSimu
Entries 0

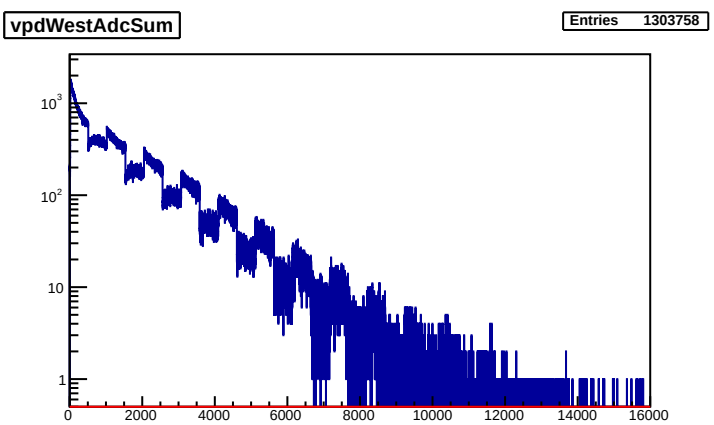

vpdEastTacMaxVsSimu
Entries 0

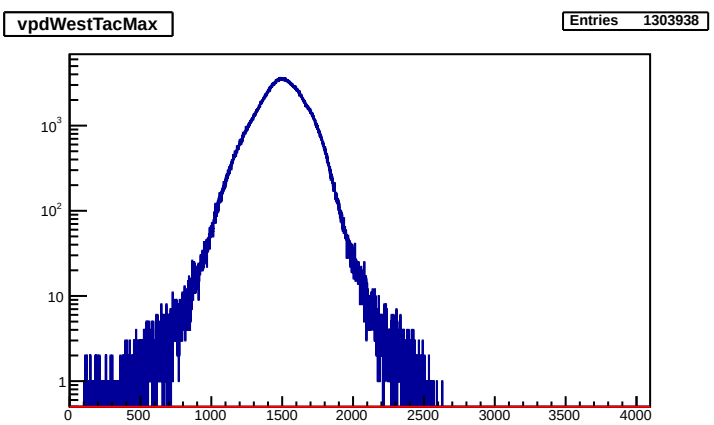

vpdWestAdcSumVsSimu
Entries 0

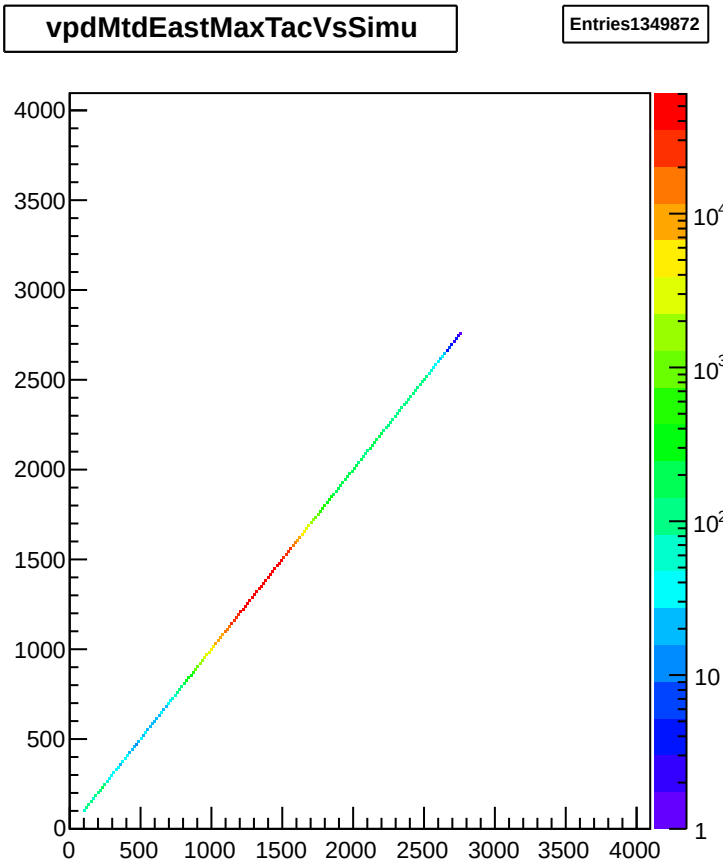

vpdWestTacMaxVsSimu
Entries 0

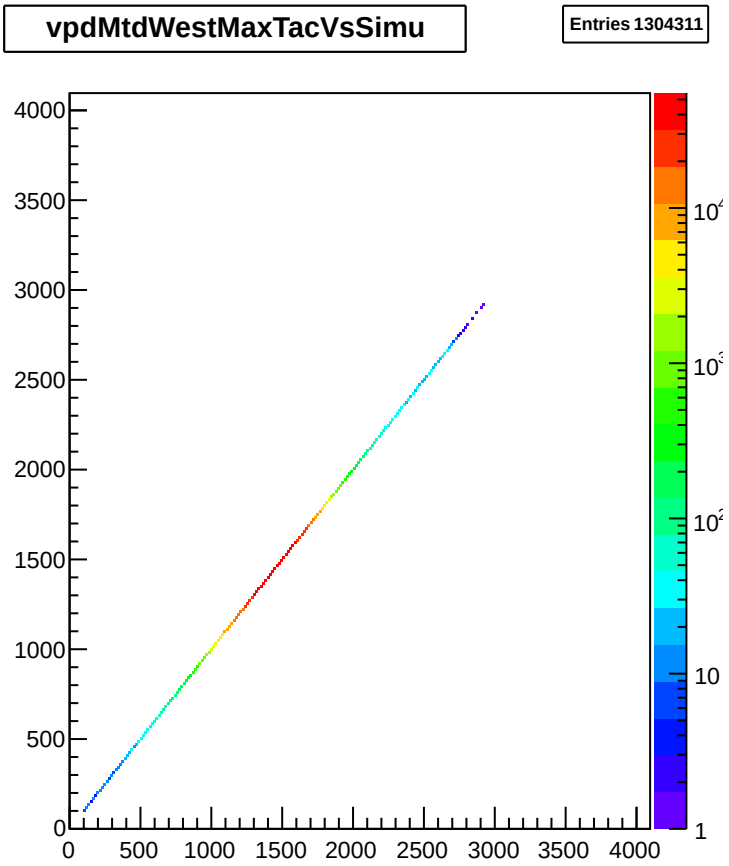

vpdEastAdcSum
Entries 1339040

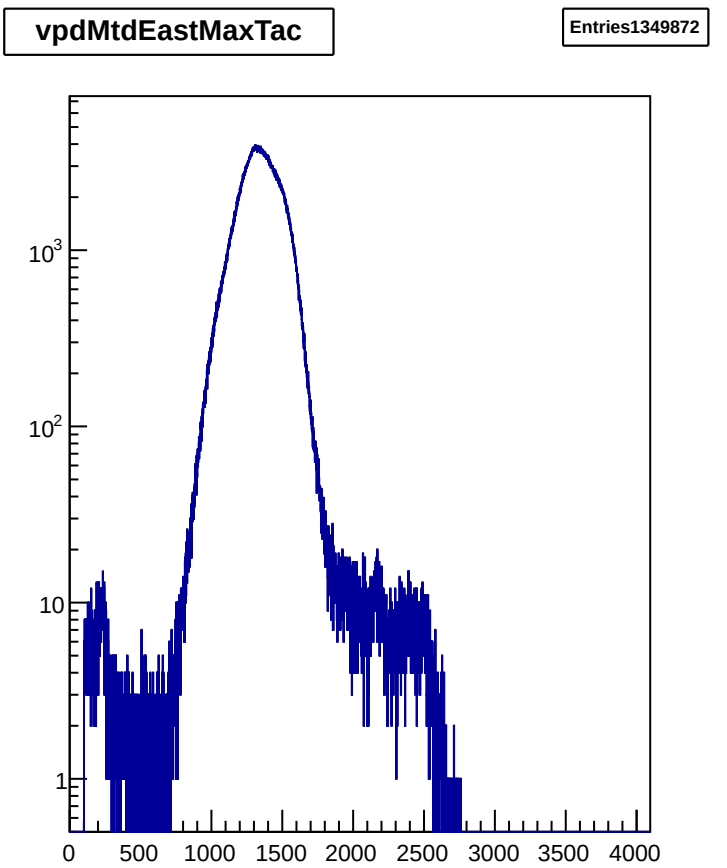

vpdEastTacMax
Entries 1339040

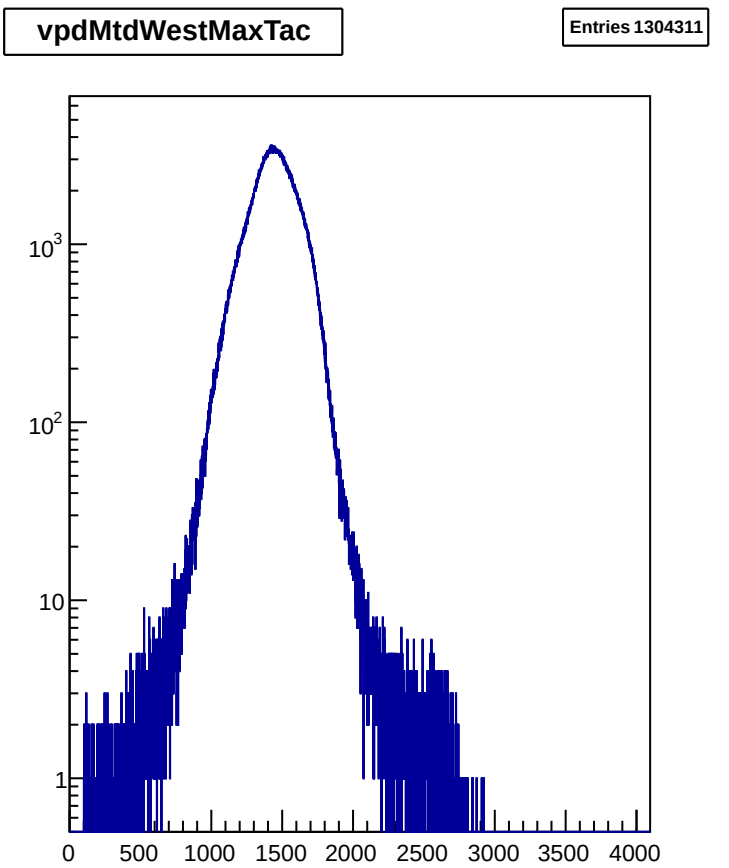

vpdWestAdcSum
Entries 1303758

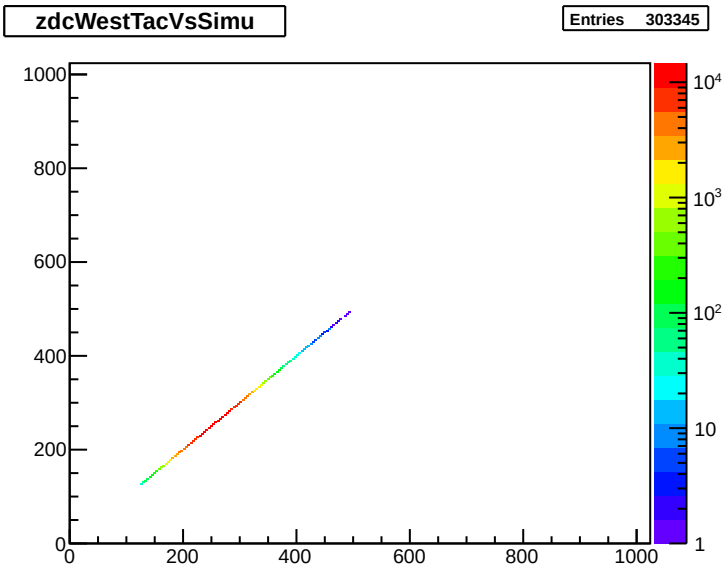

vpdWestTacMax
Entries 1303938

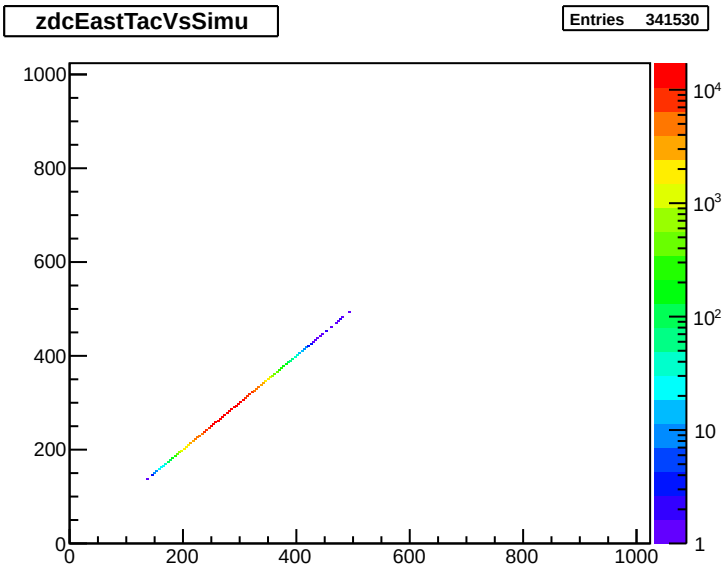

vpdMtdEastMaxTacVsSimu
Entries1349872
0
500
1000
1500
2000
2500
3000
3500
4000
1
10
10²
10³
10⁴

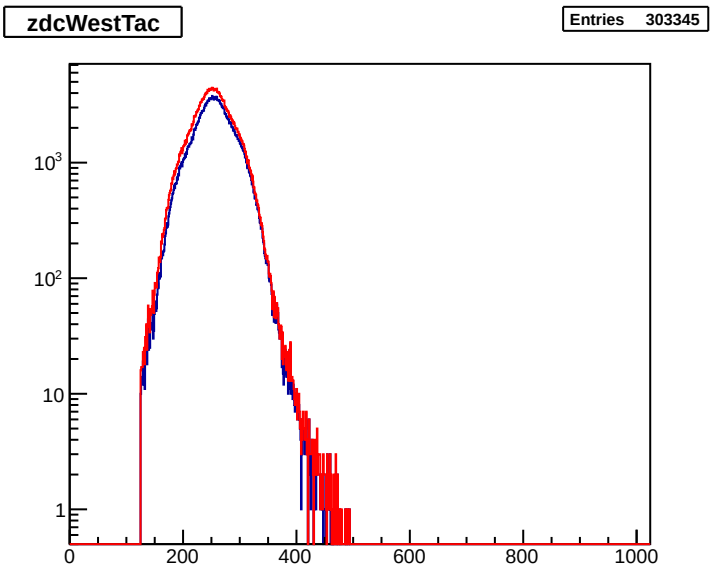

vpdMtdWestMaxTacVsSimu
Entries 1304311
0
500
1000
1500
2000
2500
3000
3500
4000
1
10
10²
10³
10⁴

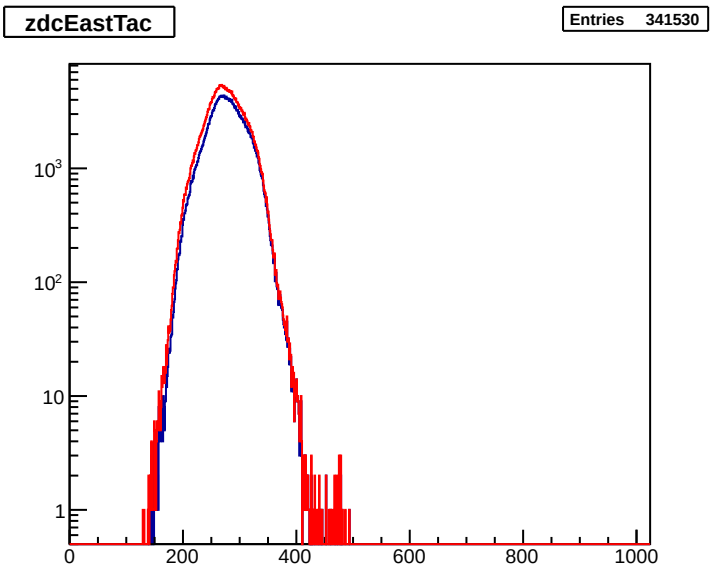

vpdMtdEastMaxTac
Entries1349872
1
10
10²
10³
0
500
1000
1500
2000
2500
3000
3500
4000

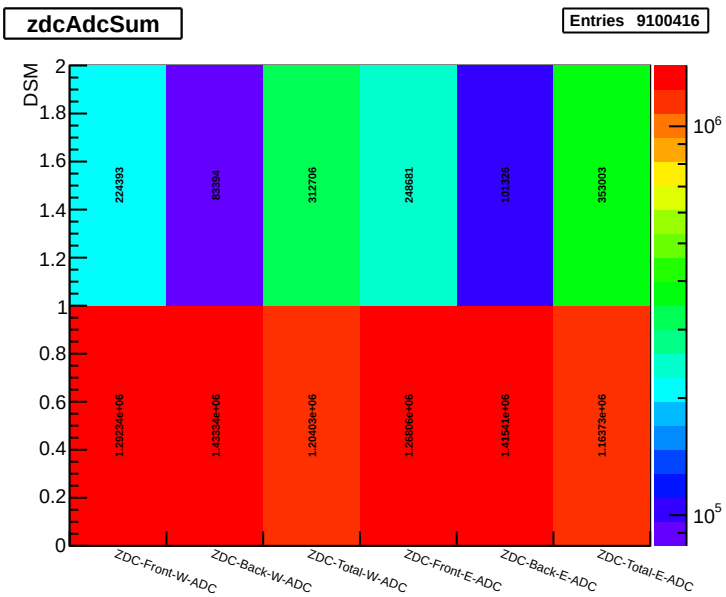

vpdMtdWestMaxTac
Entries 1304311
1
10
10²
10³
0
500
1000
1500
2000
2500
3000
3500
4000

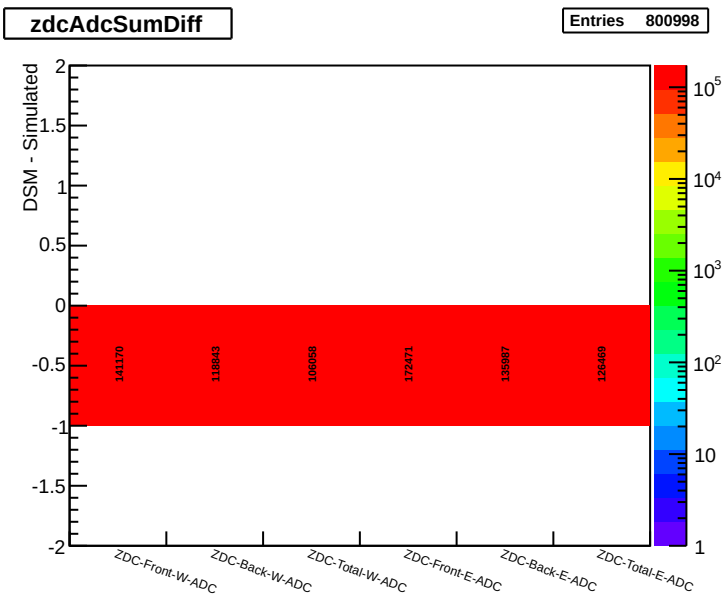

zdcWestTacVsSimu
Entries 303345

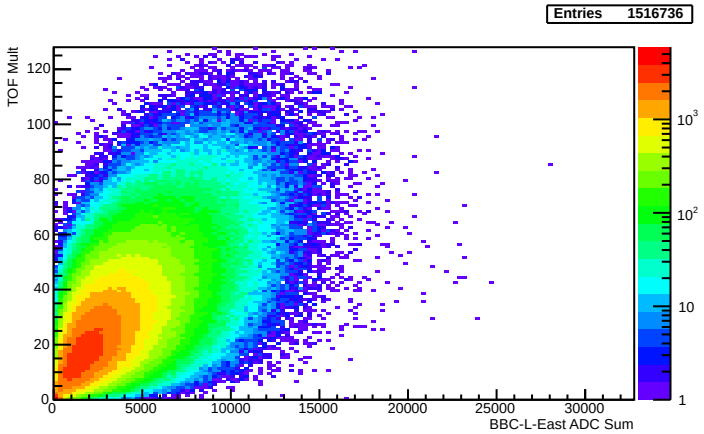

zdcEastTacVsSimu
Entries 341530

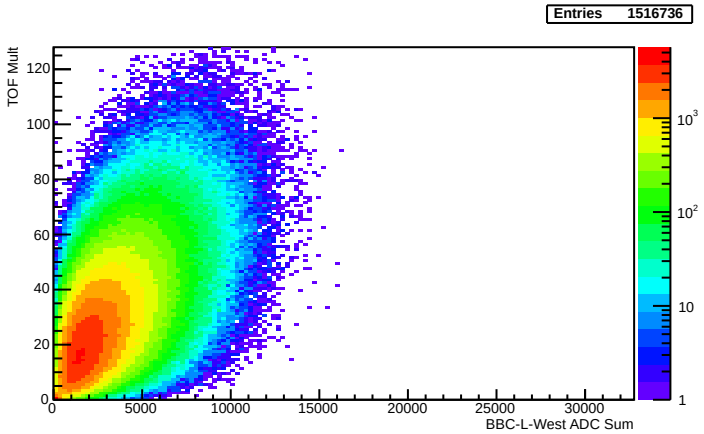

zdcWestTac
Entries 303345

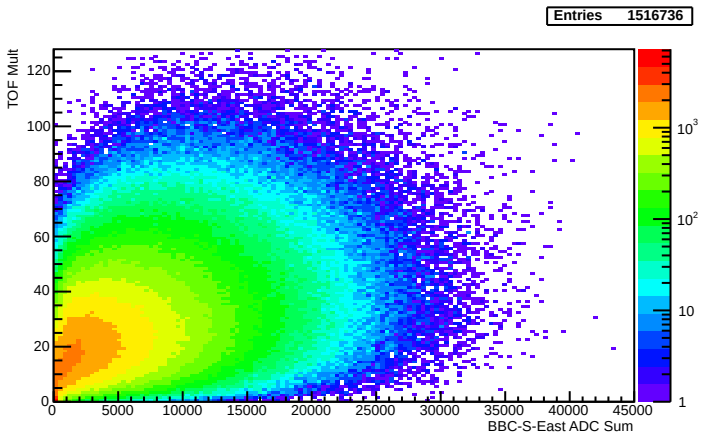

zdcEastTac
Entries 341530

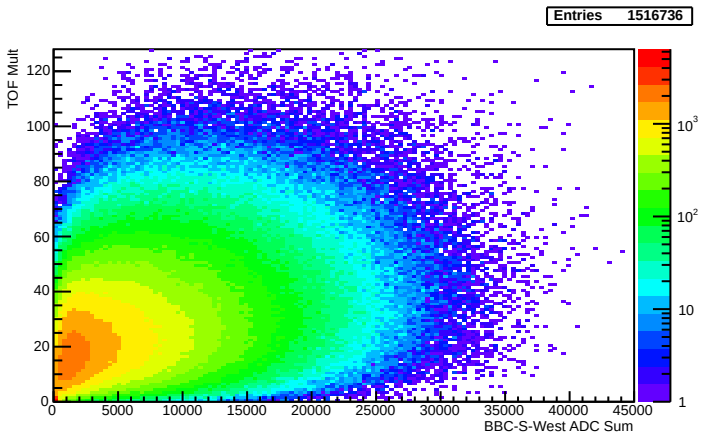

zdcAdcSum
Entries 9100416
DSM
224393
83394
312706
248681
101326
353003
1.29234e+06
1.43334e+06
1.20403e+06
1.26806e+06
1.41541e+06
1.16373e+06
ZDC-Front-W-ADC
ZDC-Back-W-ADC
ZDC-Total-W-ADC
ZDC-Front-E-ADC
ZDC-Back-E-ADC
ZDC-Total-E-ADC

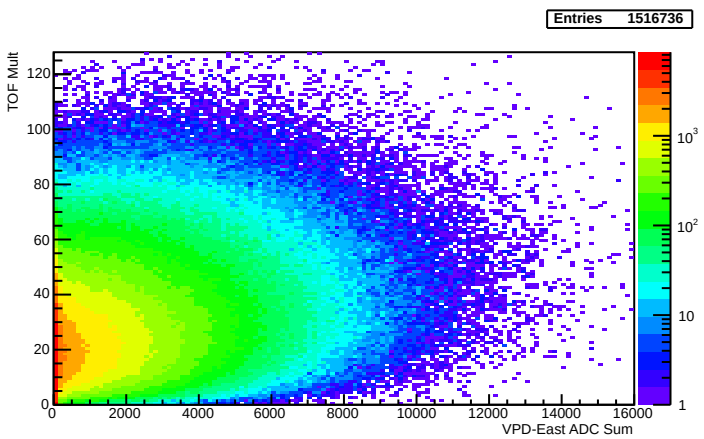

zdcAdcSumDiff
Entries 800998
DSM - Simulated
141170
118943
106058
172471
135987
126469
ZDC-Front-W-ADC
ZDC-Back-W-ADC
ZDC-Total-W-ADC
ZDC-Front-E-ADC
ZDC-Back-E-ADC
ZDC-Total-E-ADC

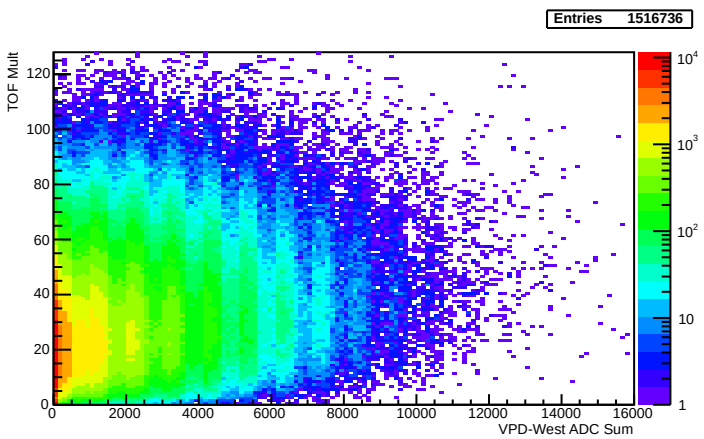

Entries 1516736
TOF Mult
BBC-L-East ADC Sum

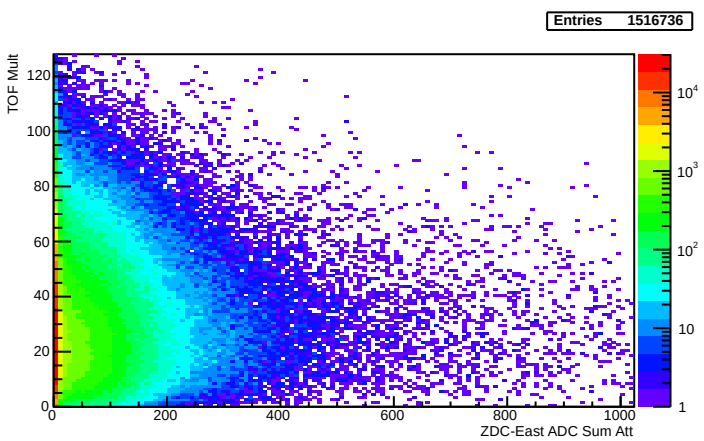

Entries 1516736
TOF Mult
BBC-L-West ADC Sum

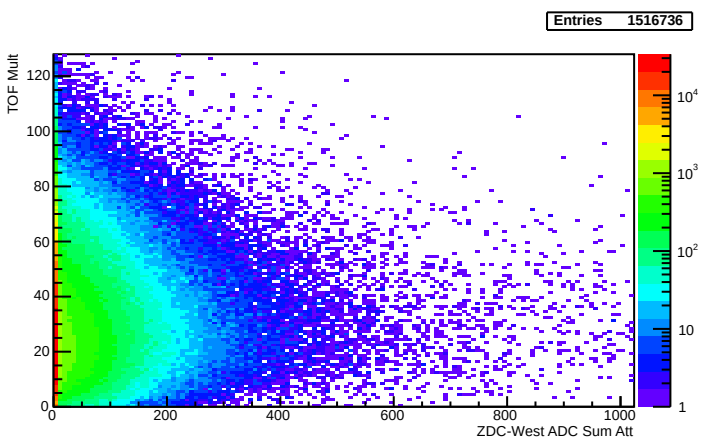

Entries 1516736
TOF Mult
BBC-S-East ADC Sum

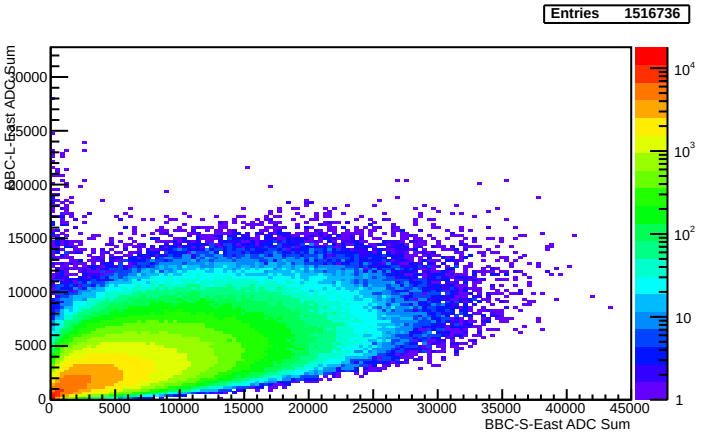

Entries 1516736
TOF Mult
BBC-S-West ADC Sum

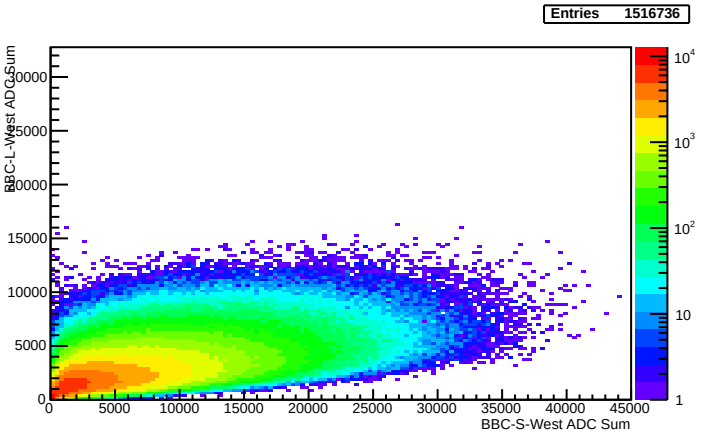

Entries 1516736
TOF Mult
VPD-East ADC Sum

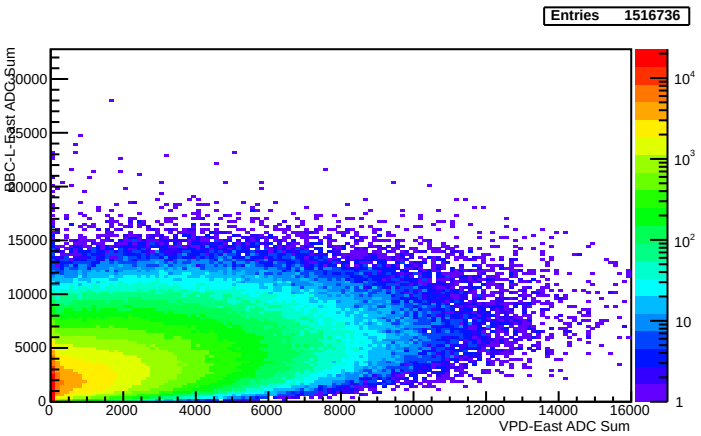

Entries 1516736
TOF Mult
VPD-West ADC Sum

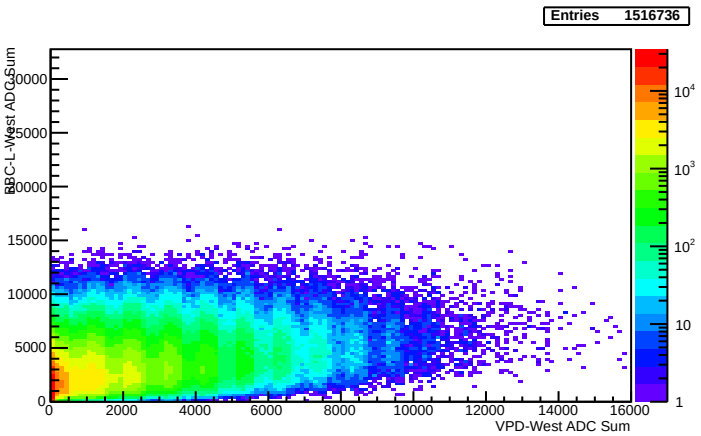

Entries 1516736
TOF Mult
ZDC-East ADC Sum Att

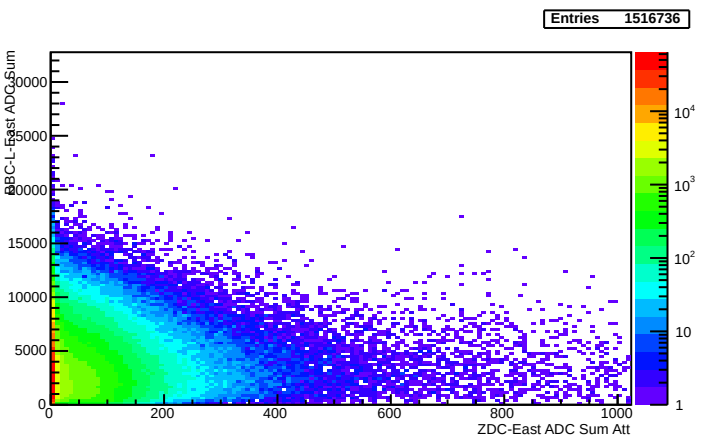

Entries 1516736
TOF Mult
ZDC-West ADC Sum Att

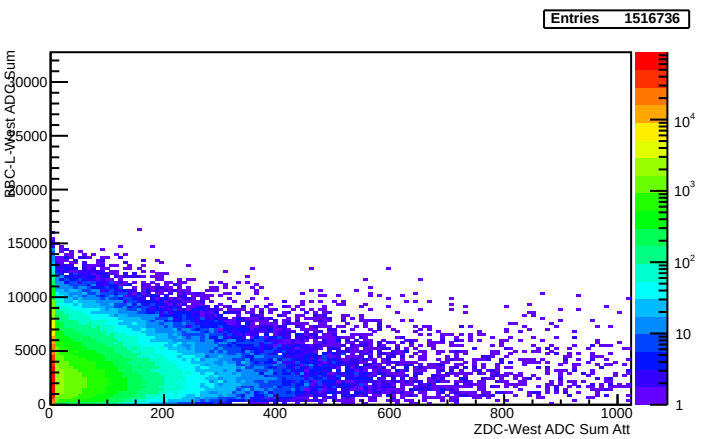

Entries 1516736
BBC-L-East ADC Sum
BBC-S-East ADC Sum

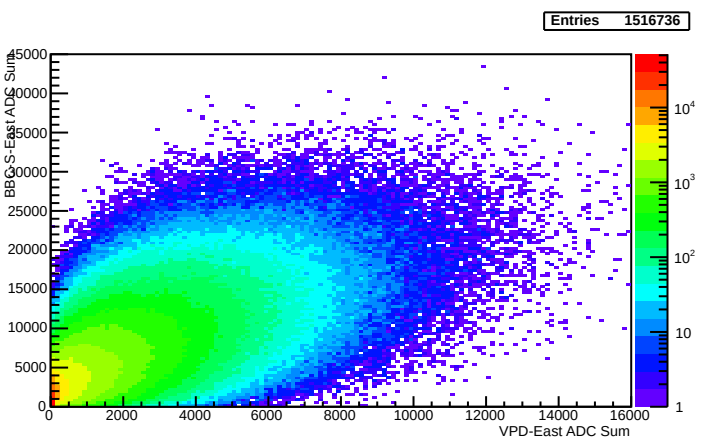

Entries 1516736
BBC-L-West ADC Sum
BBC-S-West ADC Sum

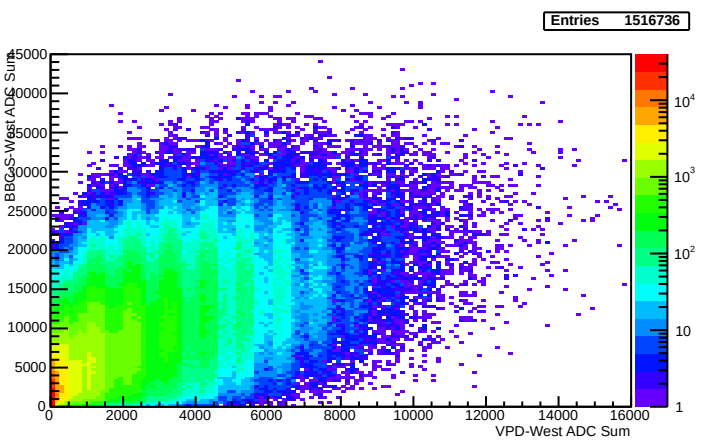

Entries 1516736
BBC-L-East ADC Sum
VPD-East ADC Sum

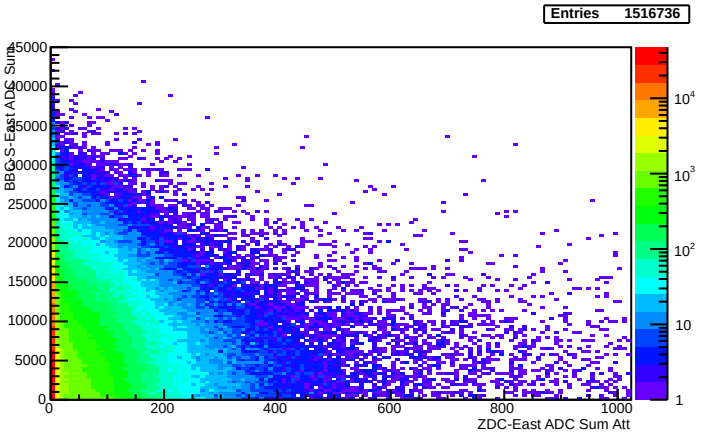

Entries 1516736
BBC-L-West ADC Sum
VPD-West ADC Sum

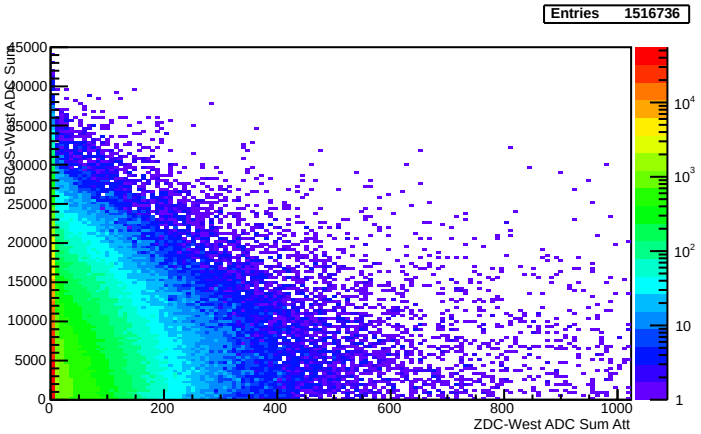

Entries 1516736
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

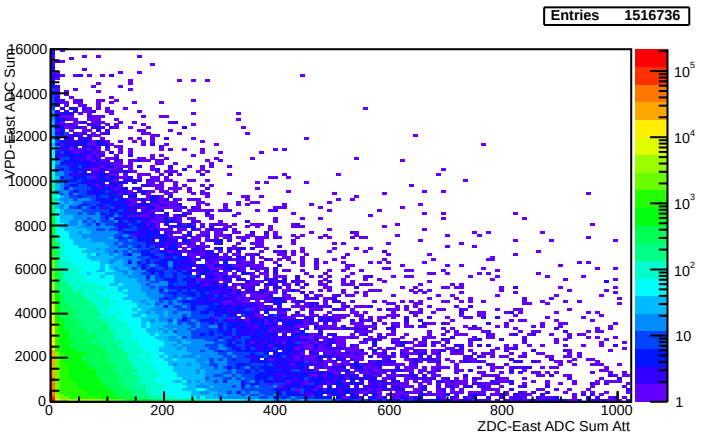

Entries 1516736
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

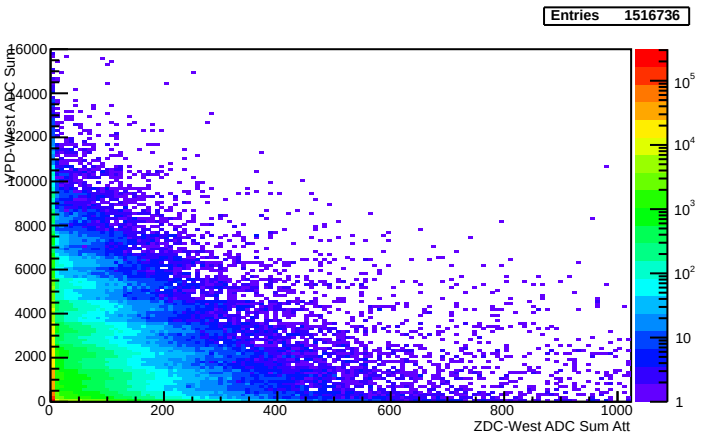

Entries 1516736
BBC-S-East ADC Sum
VPD-East ADC Sum

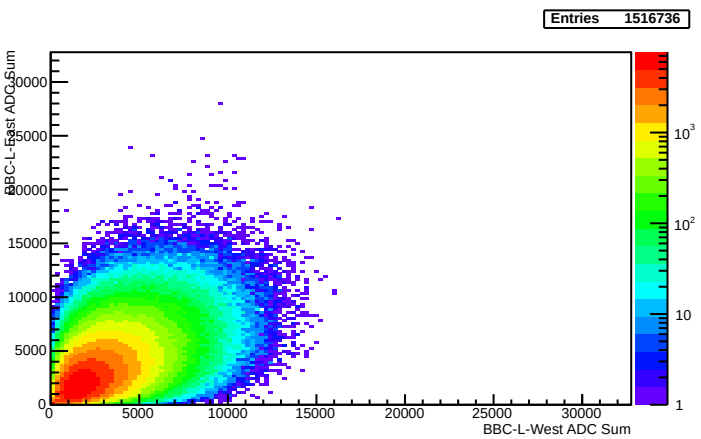

Entries 1516736
BBC-S-West ADC Sum
VPD-West ADC Sum

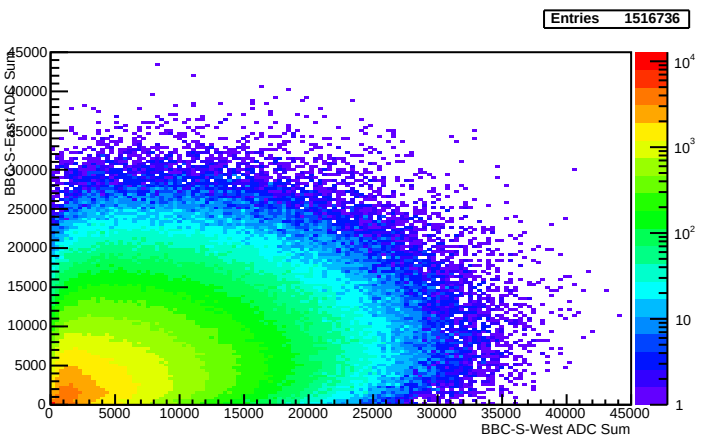

Entries 1516736
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

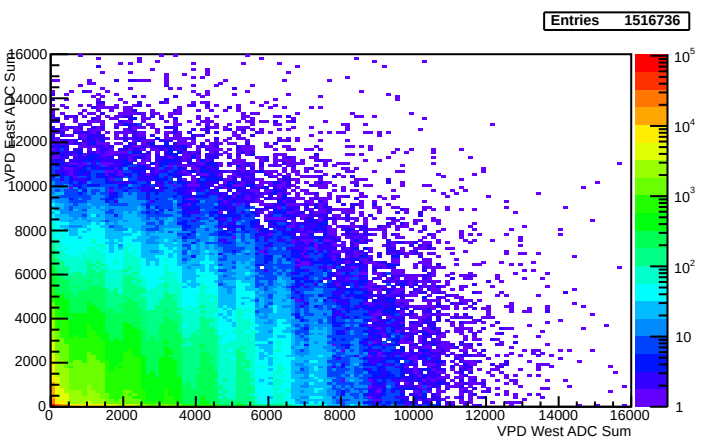

Entries 1516736
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

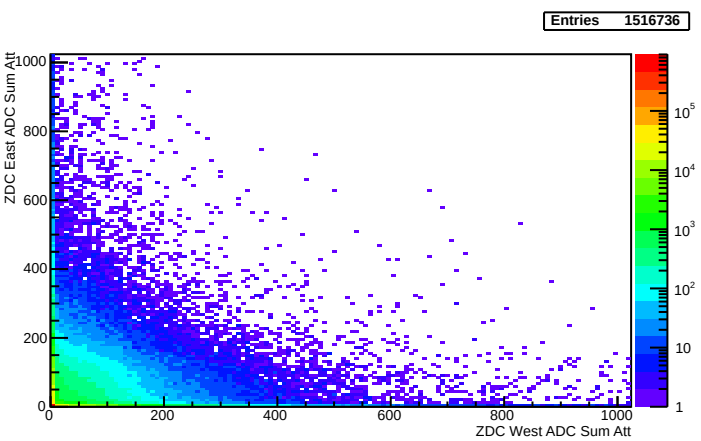

Entries 1516736
VPD-East ADC Sum
ZDC-East ADC Sum Att

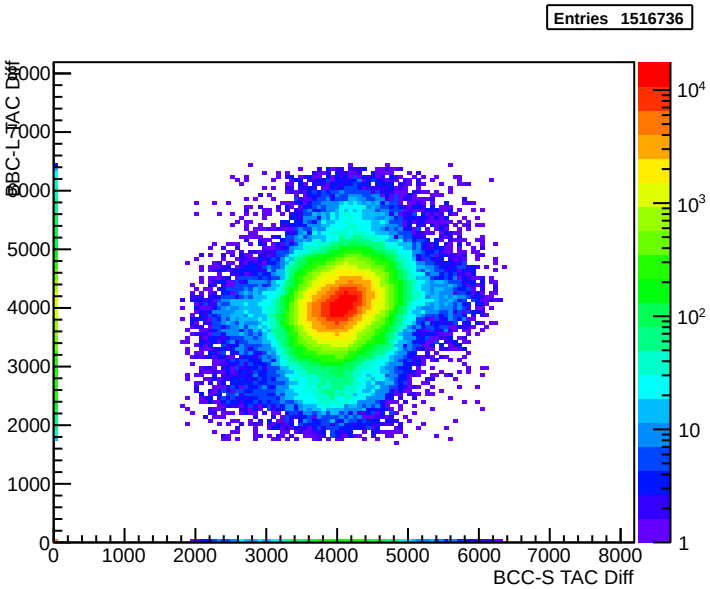

Entries 1516736
VPD-West ADC Sum
ZDC-West ADC Sum Att

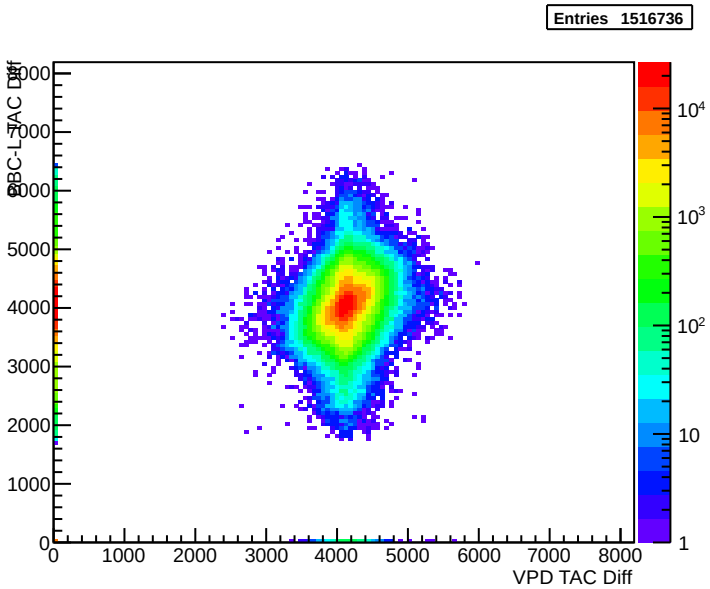

Entries 1516736
BBC-L-East ADC Sum
BBC-L-West ADC Sum

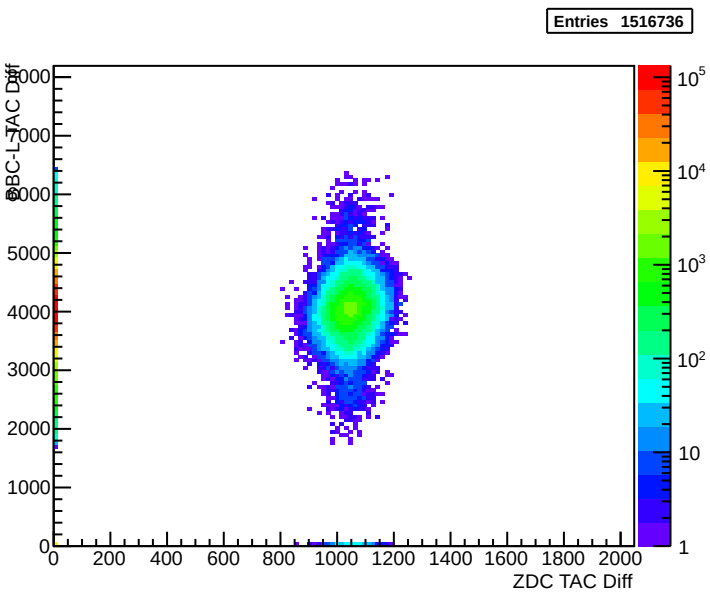

Entries 1516736
BBC-S-East ADC Sum
BBC-S-West ADC Sum

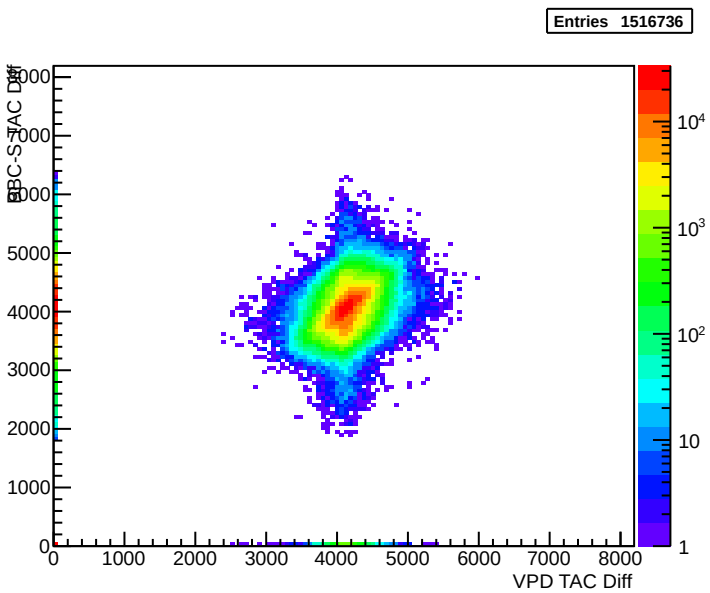

Entries 1516736
VPD East ADC Sum
VPD West ADC Sum

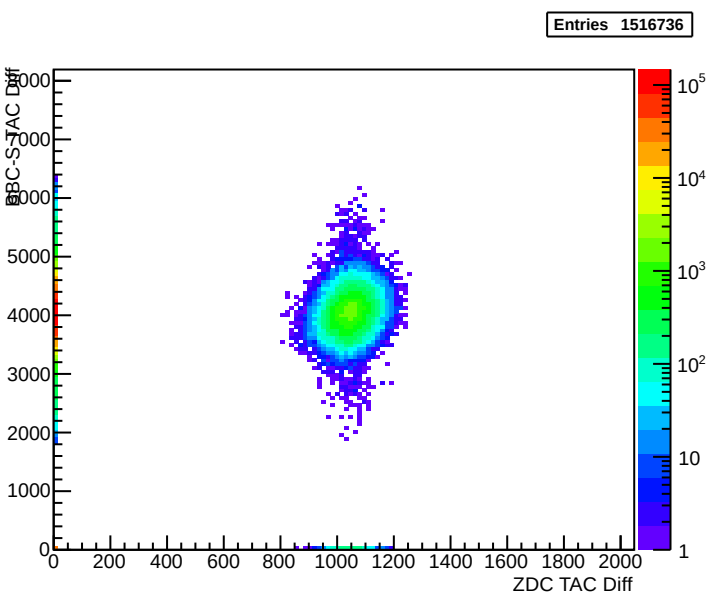

Entries 1516736
ZDC East ADC Sum Att
ZDC West ADC Sum Att

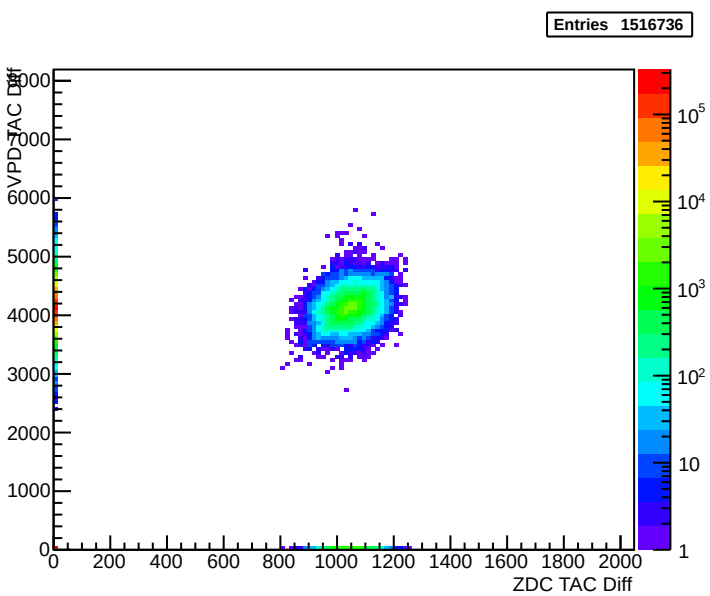

Entries 1516736
BBC-L TAC Diff
BCC-S TAC Diff

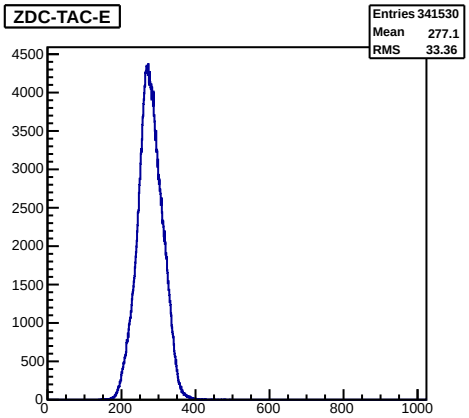

Entries 1516736
BBC-L TAC Diff
VPD TAC Diff

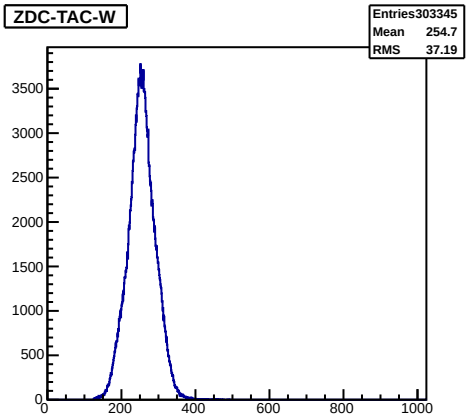

Entries 1516736
BBC-L TAC Diff
ZDC TAC Diff

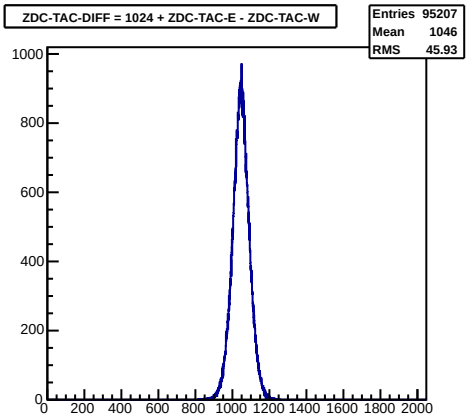

Entries 1516736
BBC-S TAC Diff
VPD TAC Diff

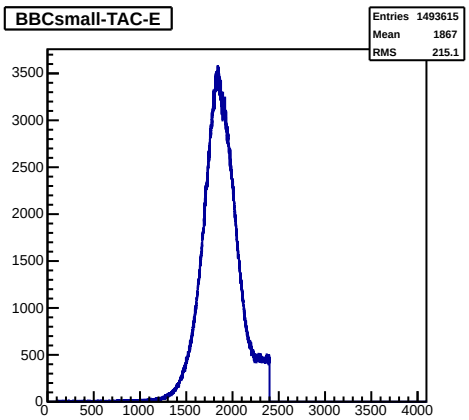

Entries 1516736
BBC-S TAC Diff
ZDC TAC Diff

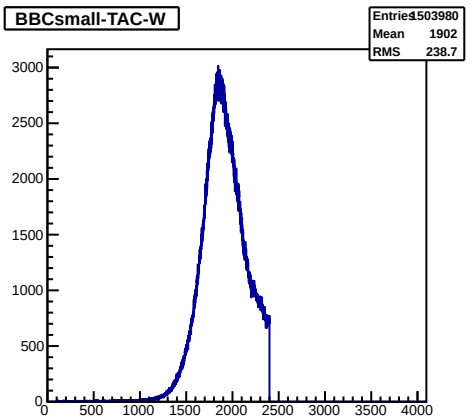

Entries 1516736
VPD TAC Diff
ZDC TAC Diff

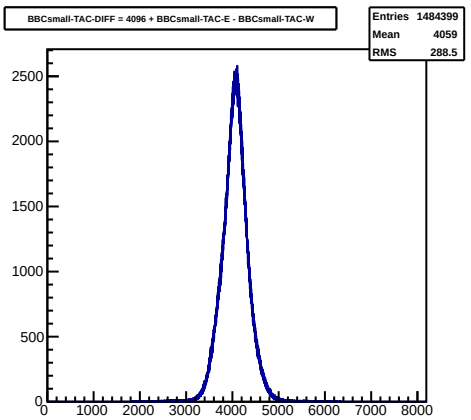

ZDC-TAC-E
Entries 341530
Mean 277.1
RMS 33.36

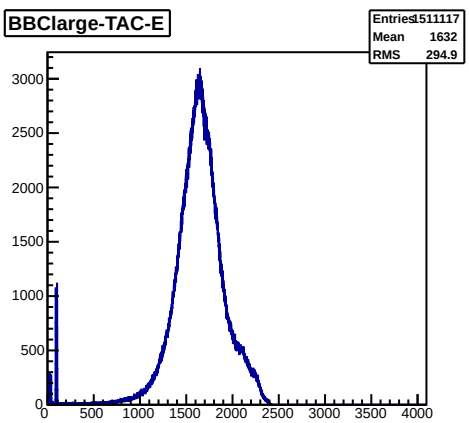

ZDC-TAC-W
Entries 303345
Mean 254.7
RMS 37.19

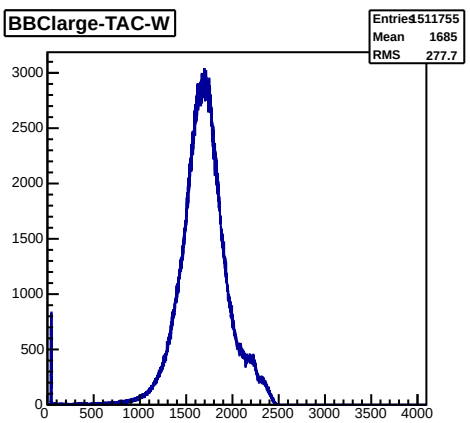

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 95207
Mean 1046
RMS 45.93

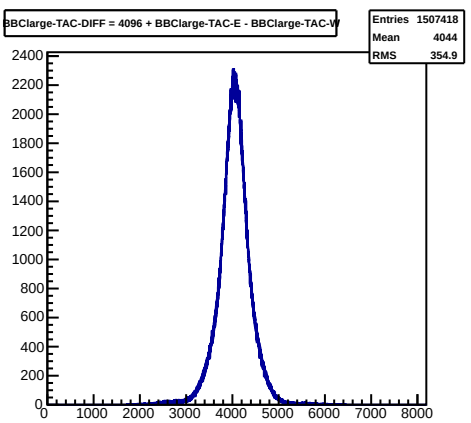

BBCsmall-TAC-E
Entries 1493615
Mean 1867
RMS 215.1

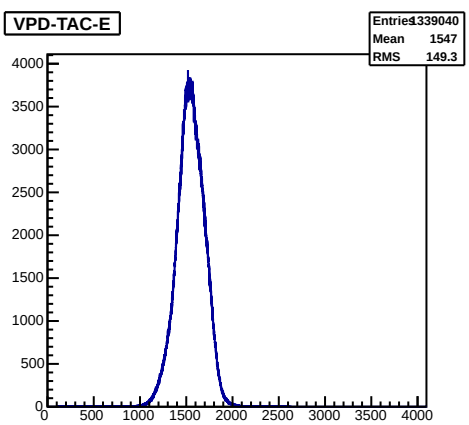

BBCsmall-TAC-W
Entries 1503980
Mean 1902
RMS 238.7

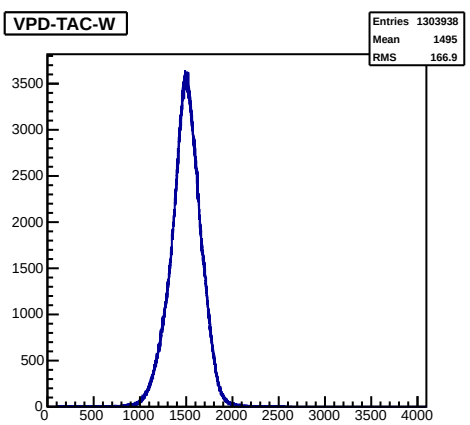

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 1484399
Mean 4059
RMS 288.5

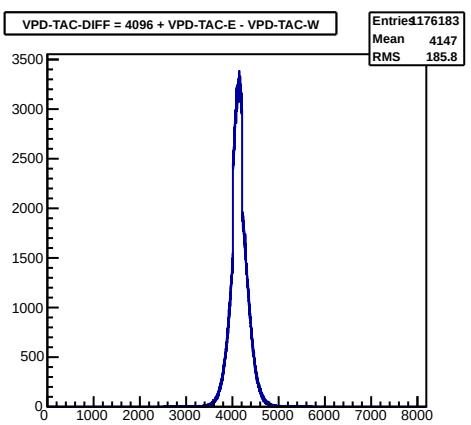

BBClarge-TAC-E
Entries 1511117
Mean 1632
RMS 294.9

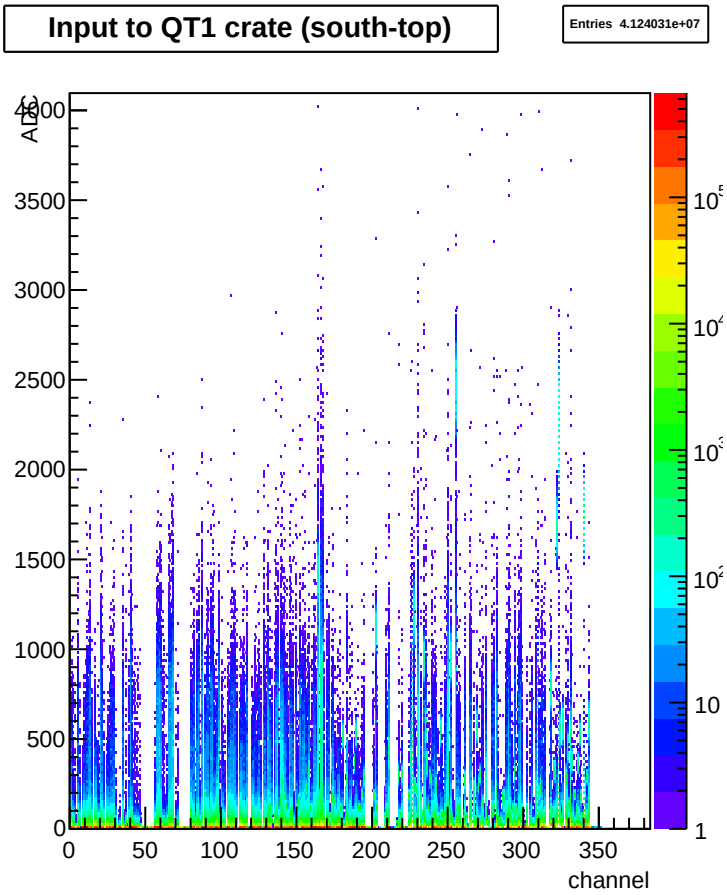

BBClarge-TAC-W
Entries 1511755
Mean 1685
RMS 277.7

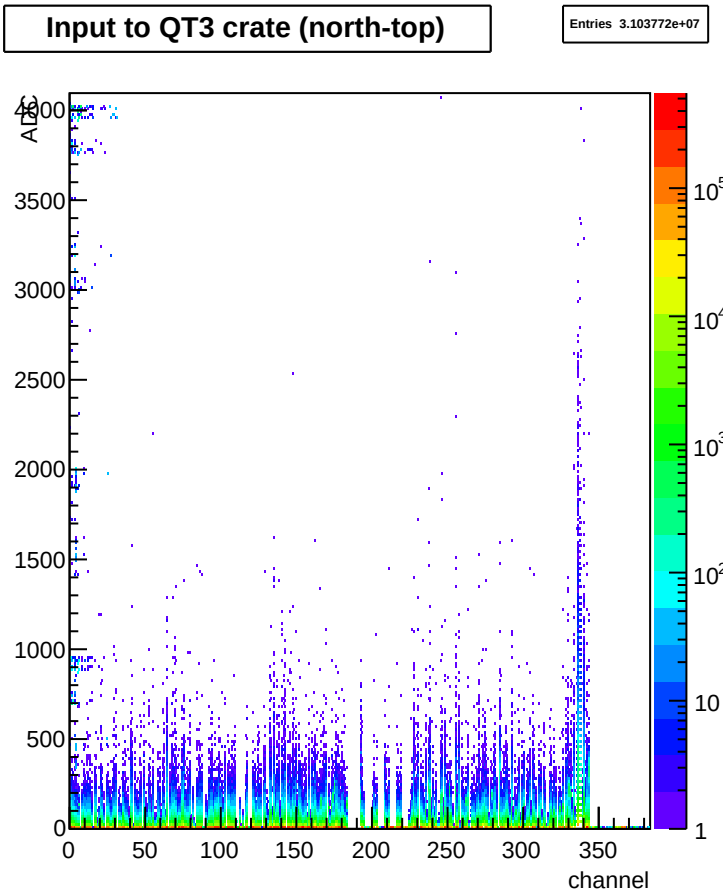

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 1507418
Mean 4044
RMS 354.9

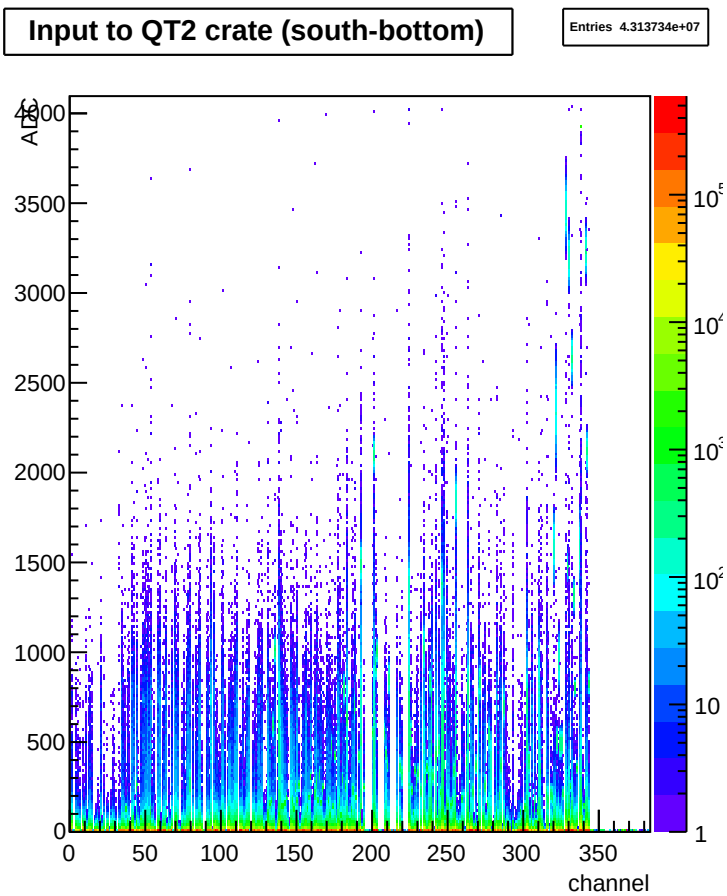

VPD-TAC-E
Entries 1339040
Mean 1547
RMS 149.3

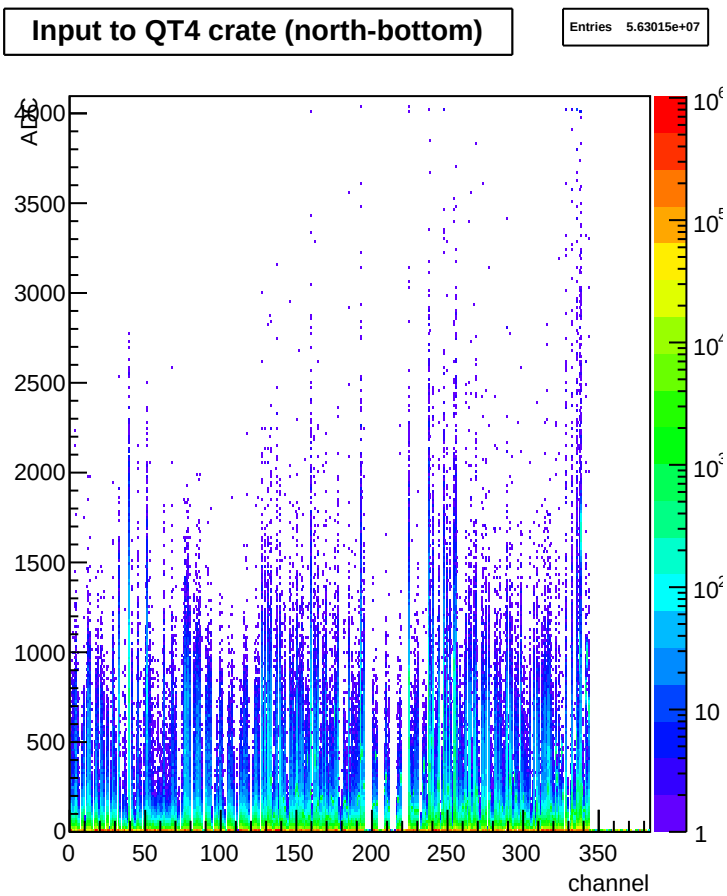

VPD-TAC-W
Entries 1303938
Mean 1495
RMS 166.9

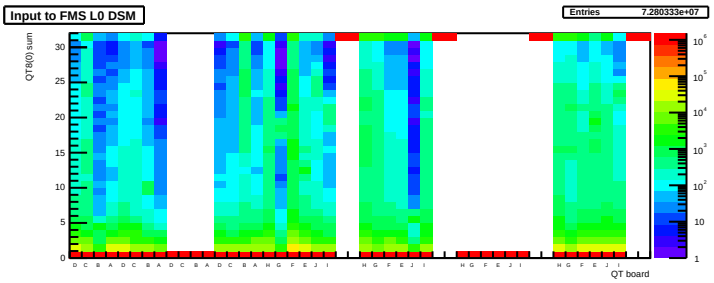

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 1176183
Mean 4147
RMS 185.8

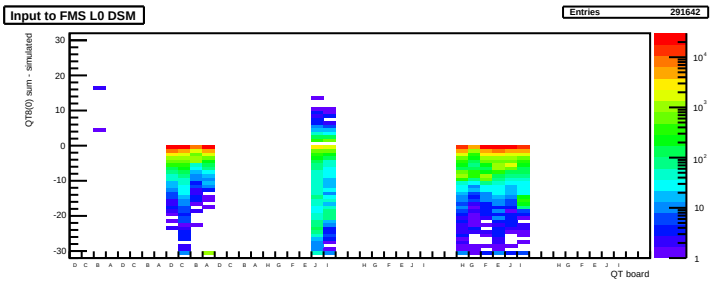

Input to QT1 crate (south-top)
Entries 4.124031e+07
ADC
channel

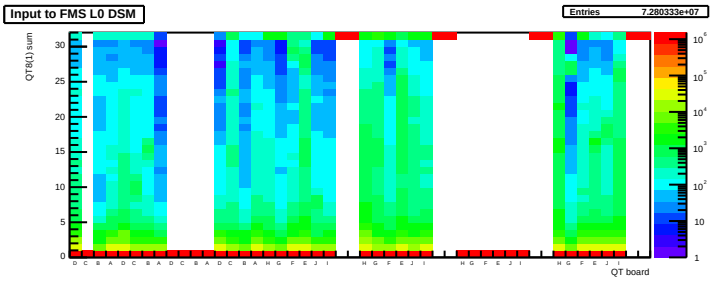

Input to QT3 crate (north-top)
Entries 3.103772e+07
ADC
channel

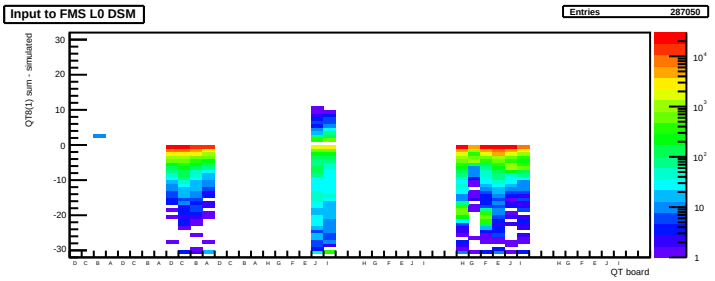

Input to QT2 crate (south-bottom)
Entries 4.313734e+07
ADC
channel

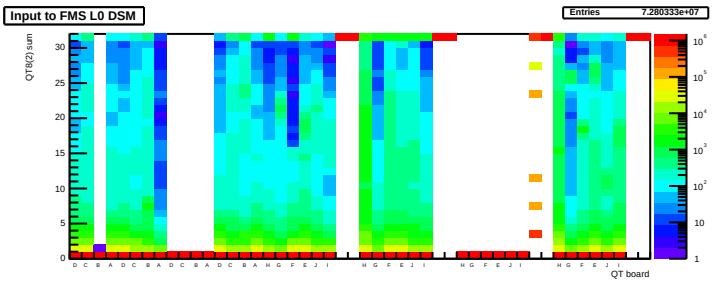

Input to QT4 crate (north-bottom)
Entries 5.63015e+07
ADC
channel

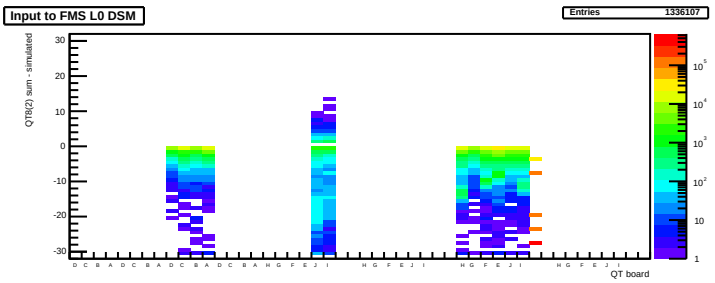

Input to FMS L0 DSM
Entries 7.280333e+07
QT8(0) sum
QT board

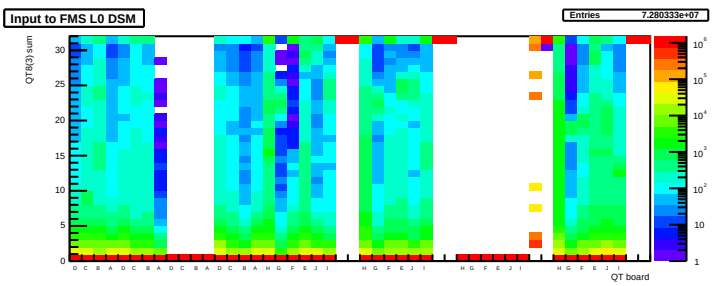

Input to FMS L0 DSM
Entries 291642
QT8(0) sum - simulated
QT board

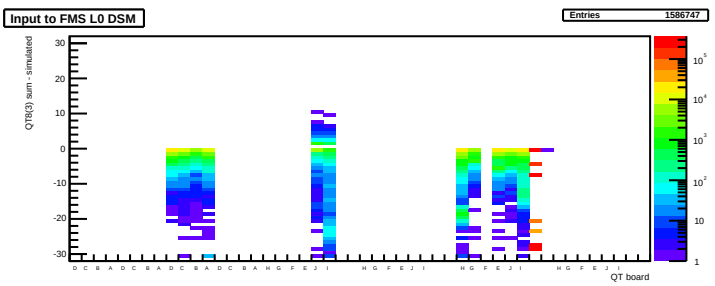

Input to FMS L0 DSM
Entries 7.280333e+07
QT8(1) sum
QT board

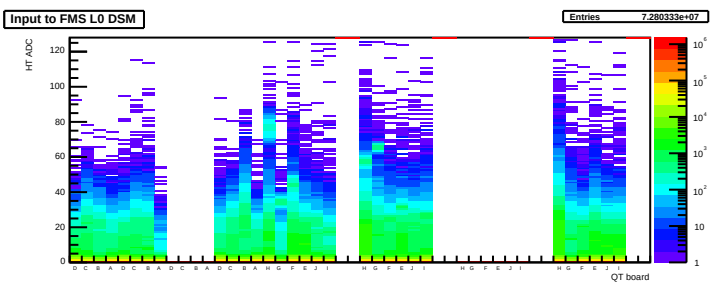

Input to FMS L0 DSM
Entries 287050
QT8(1) sum - simulated
QT board

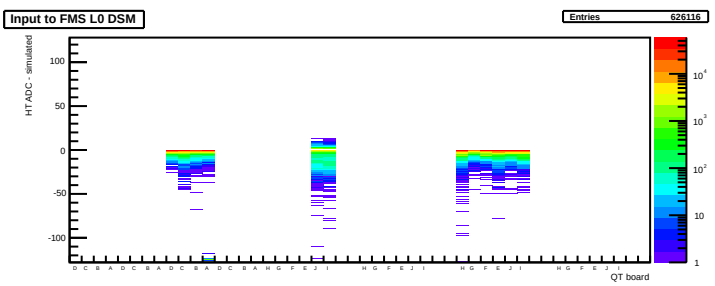

Input to FMS L0 DSM
Entries 7.280333e+07
QT8(2) sum
QT board

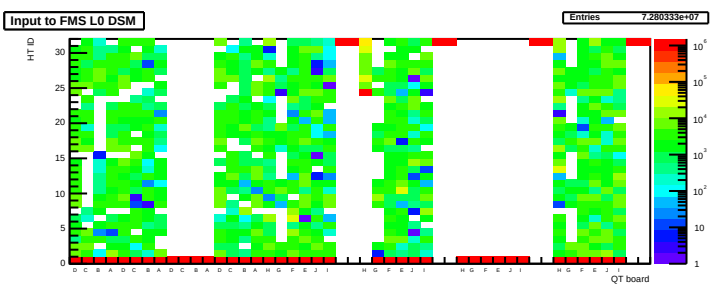

Input to FMS L0 DSM
Entries 1336107
QT8(2) sum - simulated
QT board

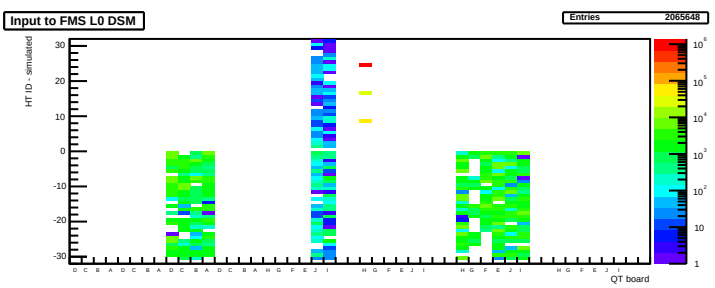

Input to FMS L0 DSM
Entries 7.280333e+07
QT8(3) sum
QT board

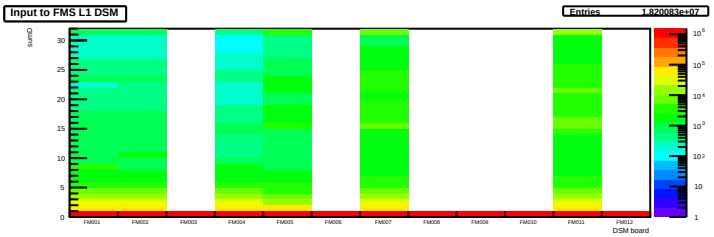

Input to FMS L0 DSM
Entries 1586747
QT8(3) sum - simulated
QT board

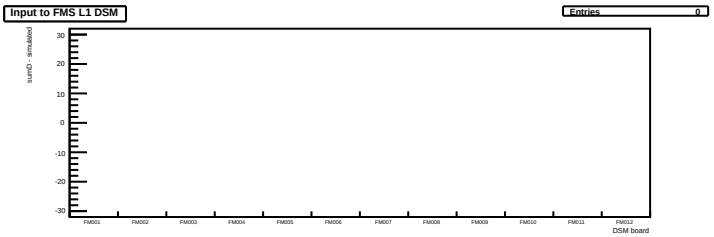

Input to FMS L0 DSM
Entries 7.280333e+07
HT ADC
QT board

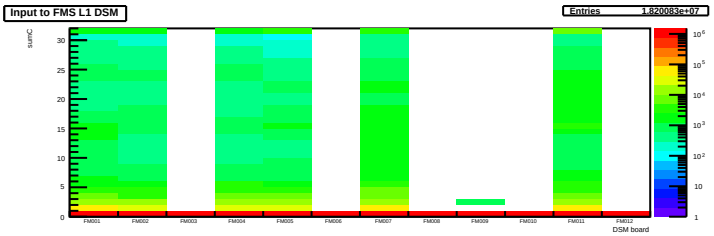

Input to FMS L0 DSM
Entries 626116
HT ADC - simulated
QT board

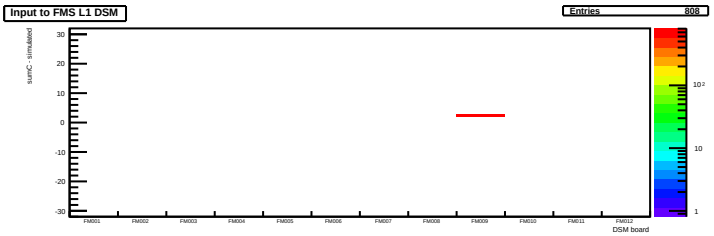

Input to FMS L0 DSM
Entries 7.280333e+07
HT ID
QT board

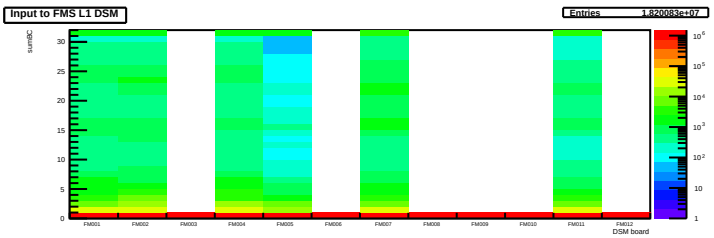

Input to FMS L0 DSM
Entries 2065648
HT ID - simulated
QT board

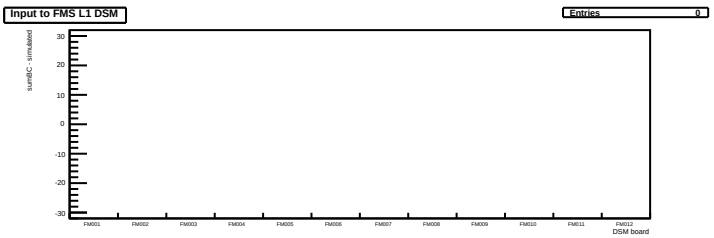

Input to FMS L1 DSM
Entries 1.820083e+07
sumD
DSM board

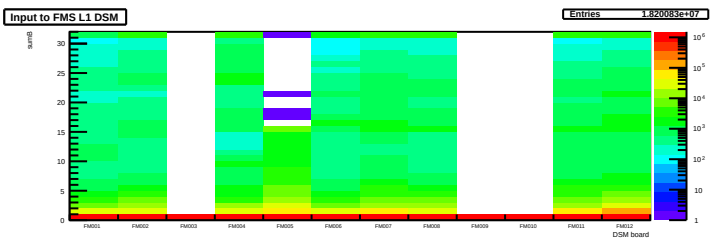

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

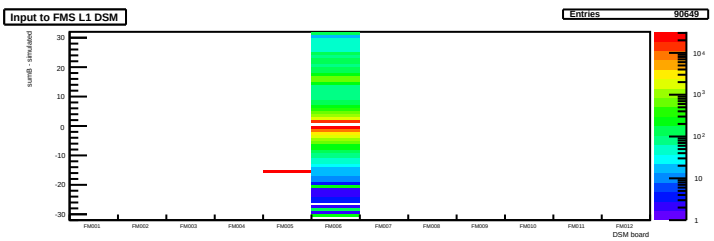

Input to FMS L1 DSM
Entries 1.820083e+07
sumC
DSM board

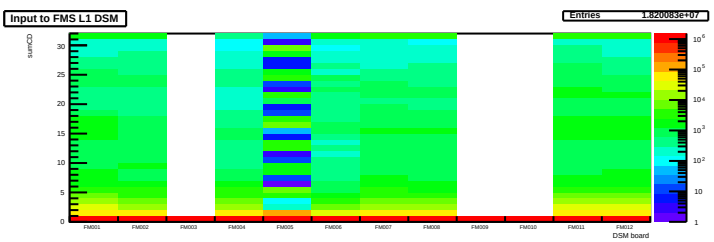

Input to FMS L1 DSM
Entries 808
sumC - simulated
DSM board

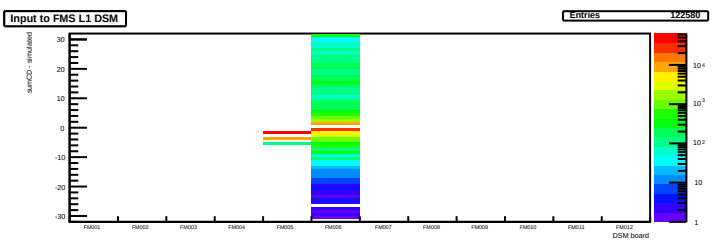

Input to FMS L1 DSM
Entries 1.820083e+07
sumBC
DSM board

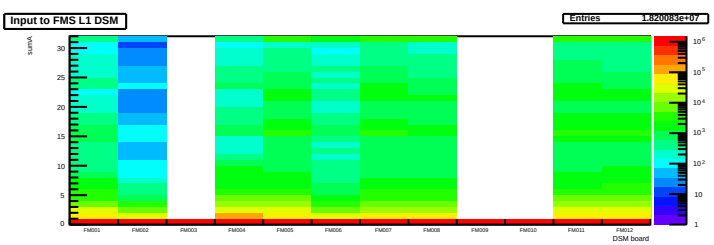

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

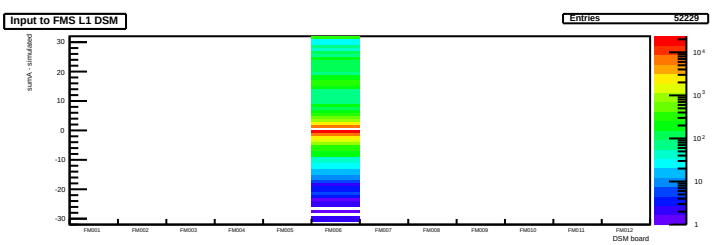

Input to FMS L1 DSM
Entries 1.820083e+07
sumB
DSM board

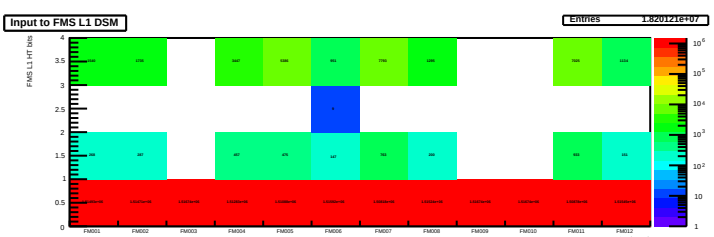

Input to FMS L1 DSM
Entries 90649
sumB - simulated
DSM board

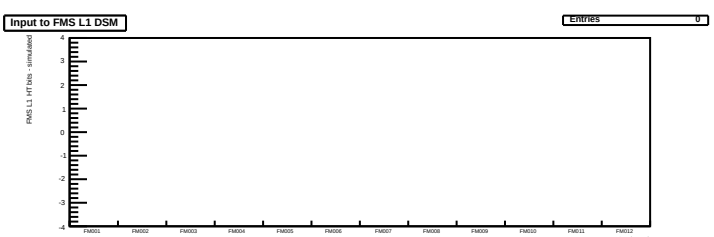

Input to FMS L1 DSM
Entries 1.820083e+07
sumCD
DSM board

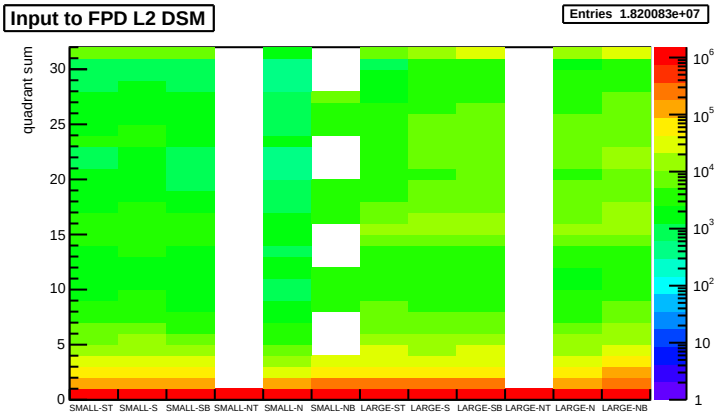

Input to FMS L1 DSM
Entries 122580
sumCD - simulated
DSM board

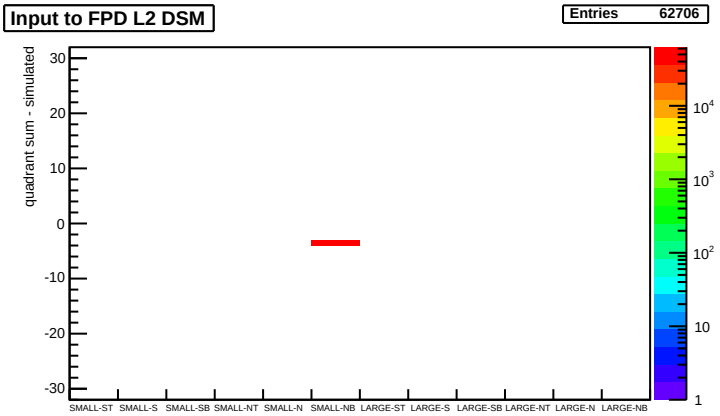

Input to FMS L1 DSM
Entries 1.820083e+07
sumA
DSM board

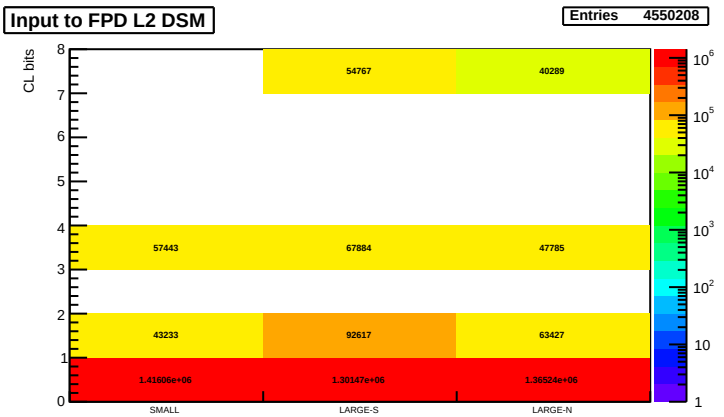

Input to FMS L1 DSM
Entries 52229
sumA - simulated
DSM board

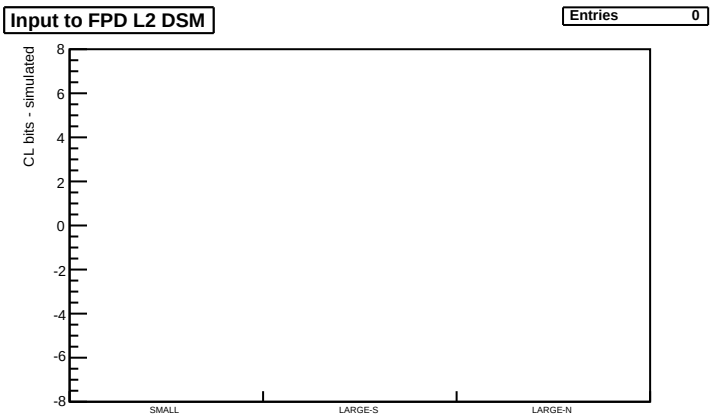

Input to FMS L1 DSM
Entries 1.820121e+07
FMS L1 HT bits
DSM board

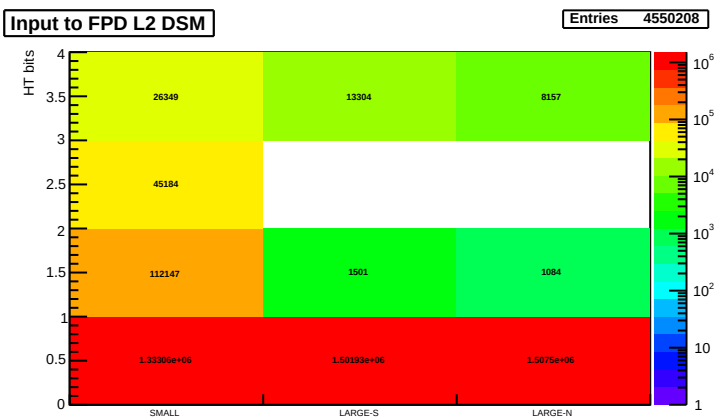

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

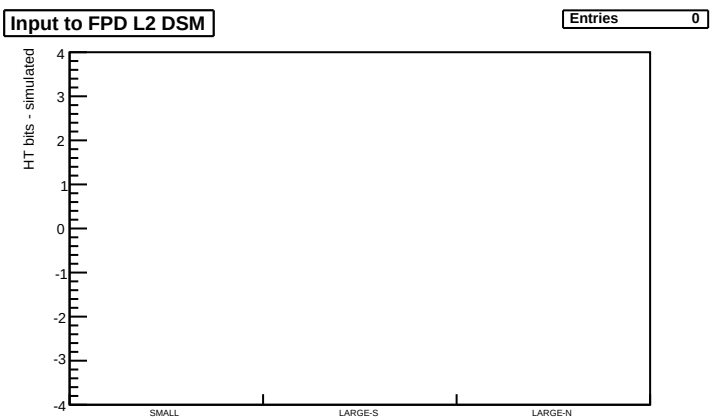

Input to FPD L2 DSM
Entries 1.820083e+07
quadrant sum
SMALL-ST SMALL-S SMALL-SB SMALL-NT SMALL-N SMALL-NB LARGE-ST LARGE-S LARGE-SB LARGE-NT LARGE-N LARGE-NB

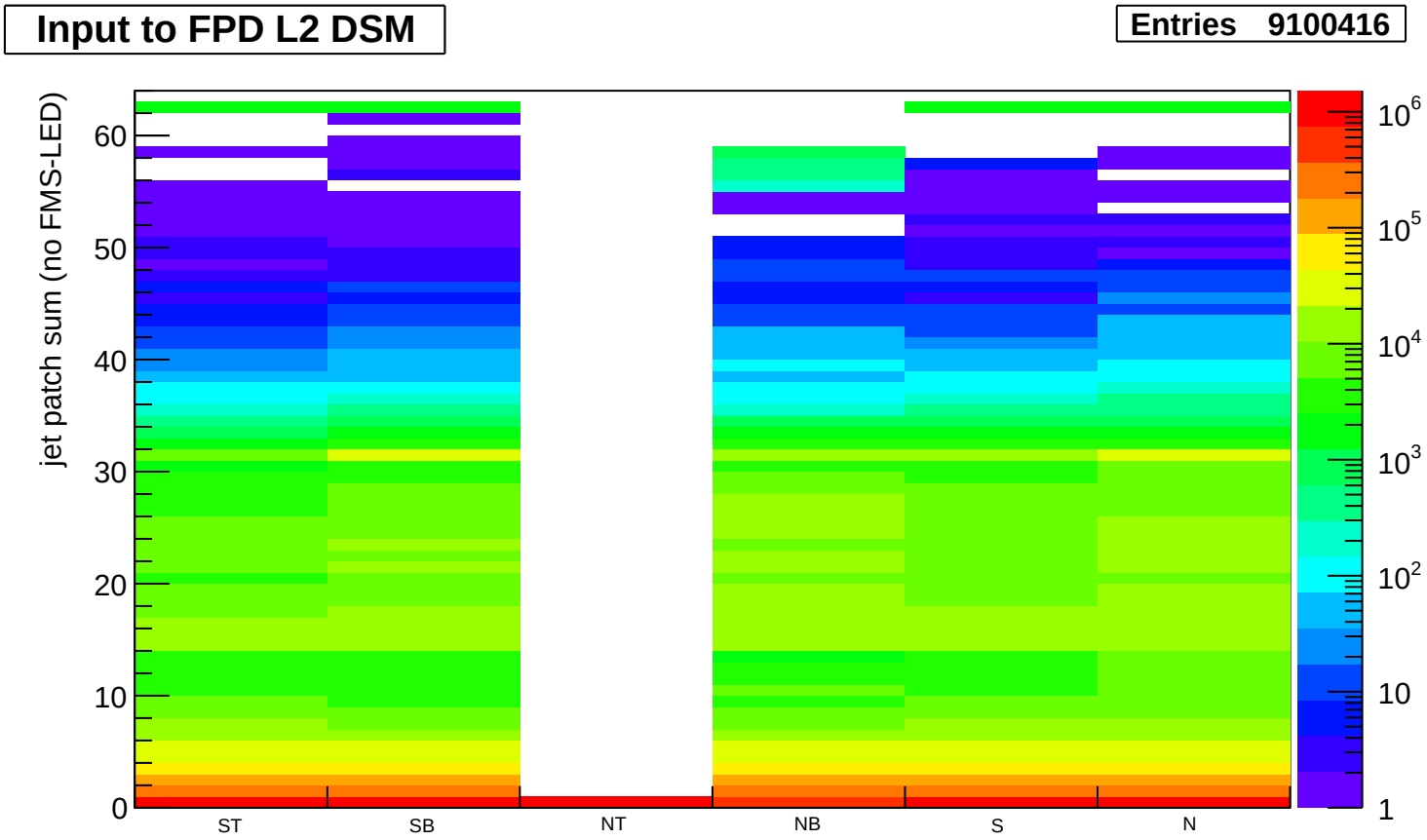

Input to FPD L2 DSM
Entries 62706
quadrant sum - simulated
SMALL-ST SMALL-S SMALL-SB SMALL-NT SMALL-N SMALL-NB LARGE-ST LARGE-S LARGE-SB LARGE-NT LARGE-N LARGE-NB

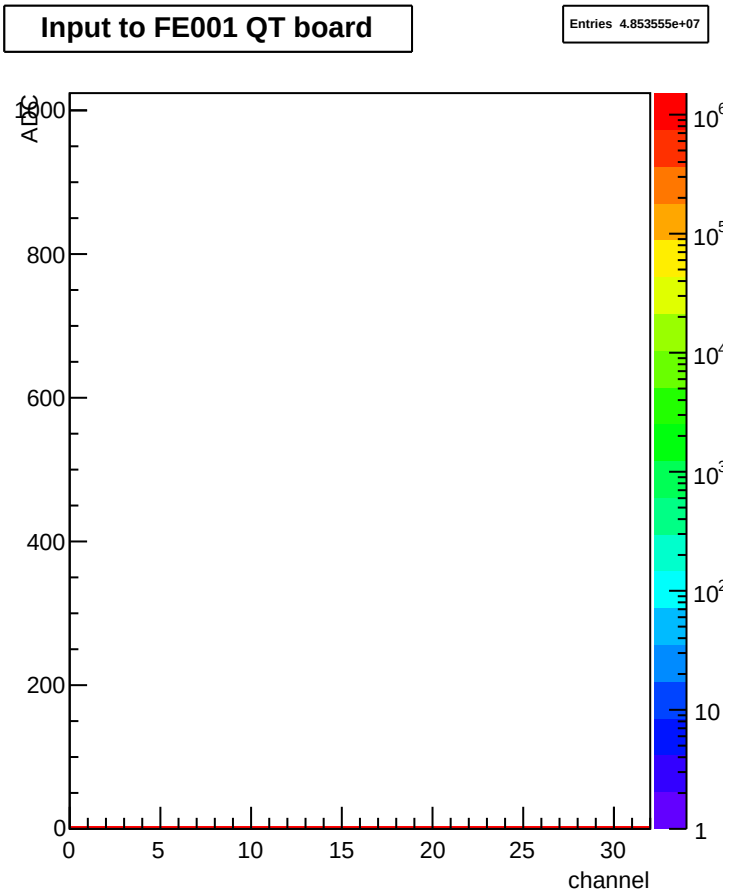

Input to FPD L2 DSM
Entries 4550208
CL bits
54767
40289
57443
67884
47785
43233
92617
63427
1.41606e+06
1.30147e+06
1.36524e+06
SMALL
LARGE-S
LARGE-N

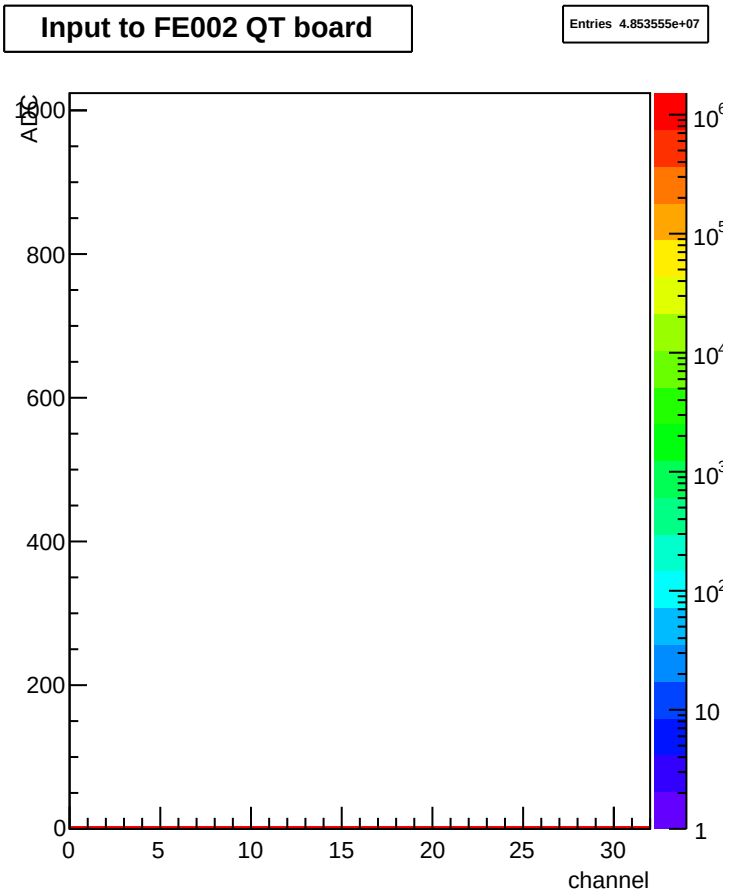

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL
LARGE-S
LARGE-N

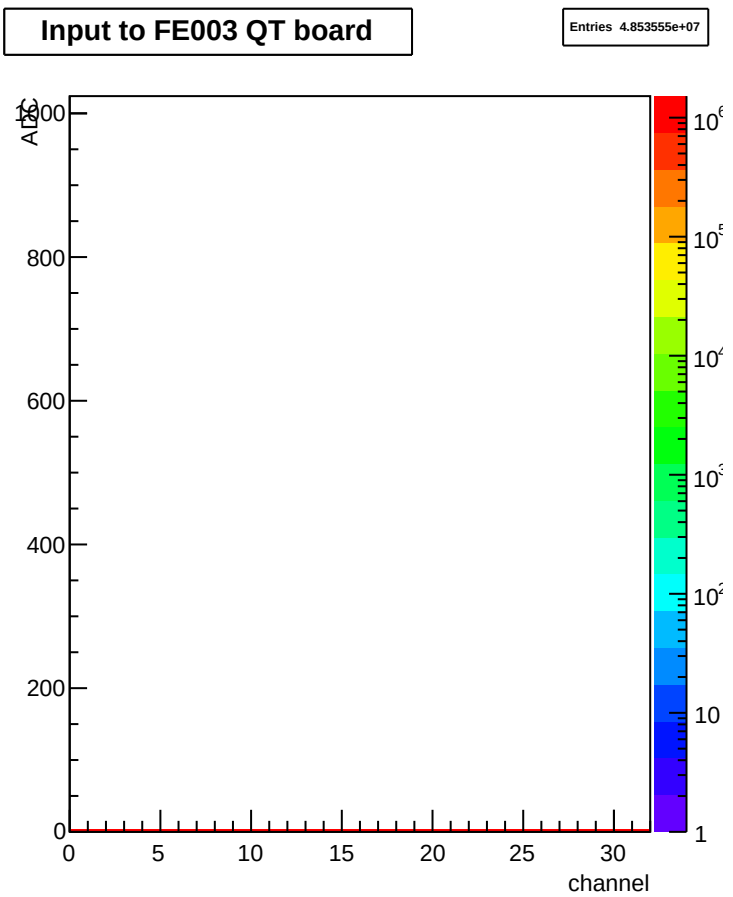

Input to FPD L2 DSM
Entries 4550208
HT bits
26349
13304
8157
45184
112147
1501
1084
1.33306e+06
1.50193e+06
1.5075e+06
SMALL
LARGE-S
LARGE-N

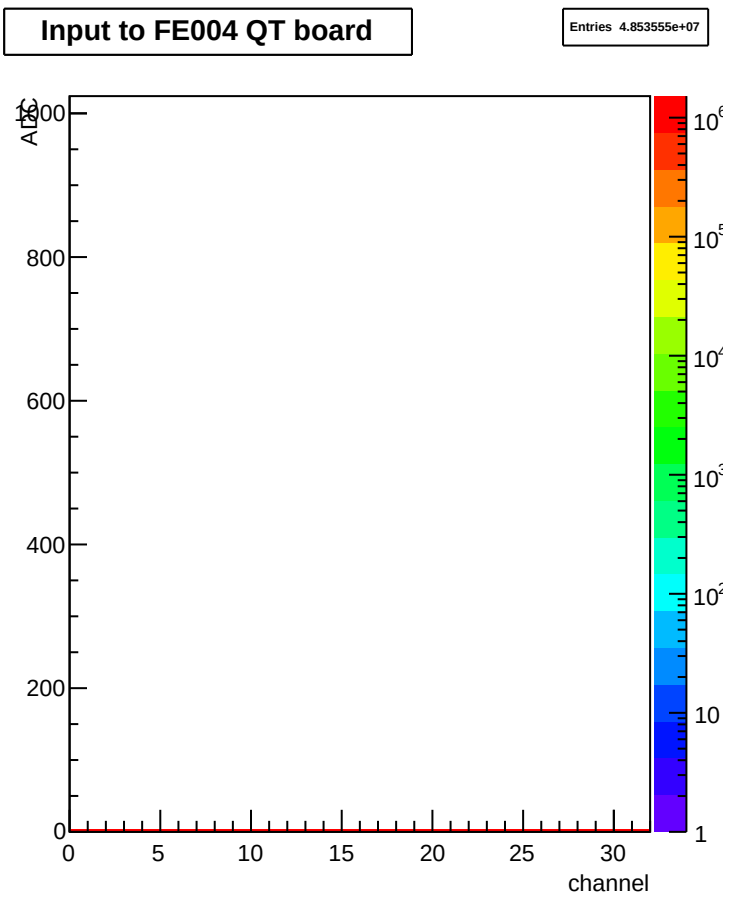

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

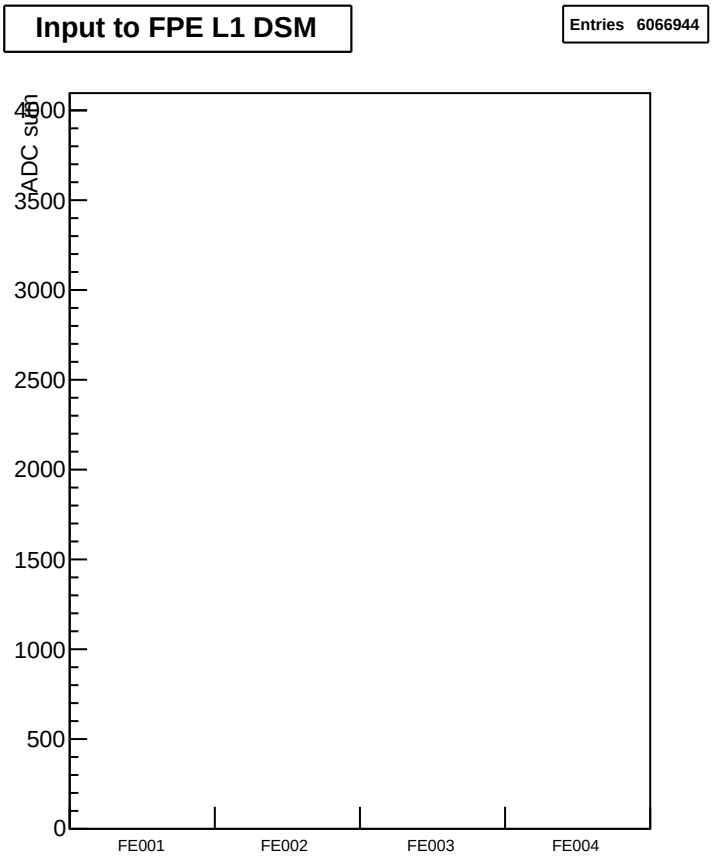

Input to FPD L2 DSM
Entries 9100416
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5
10^6

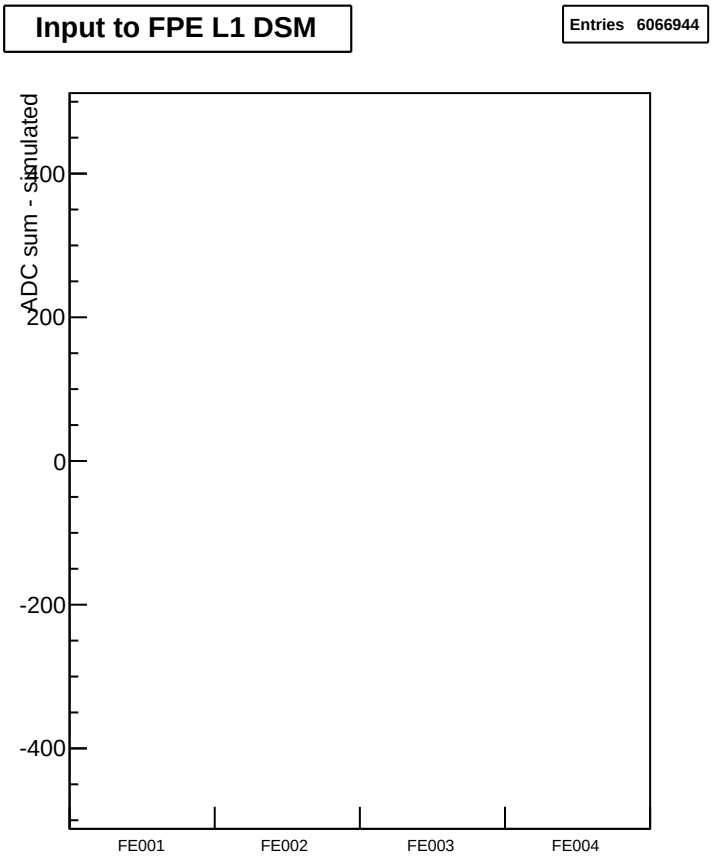

Input to FE001 QT board
Entries 4.853555e+07
ADC
channel

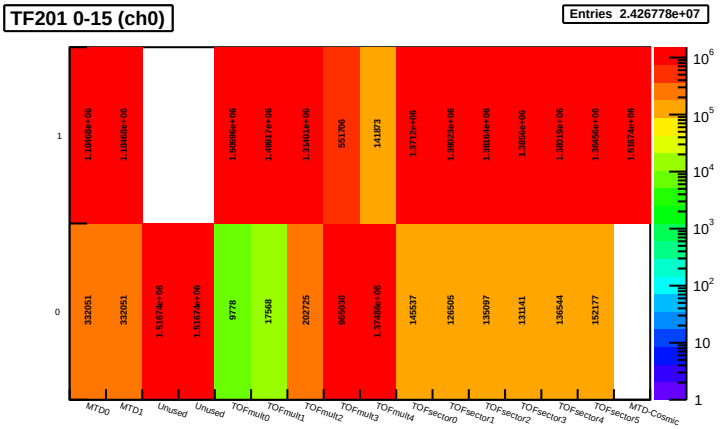

Input to FE002 QT board
Entries 4.853555e+07
ADC
channel

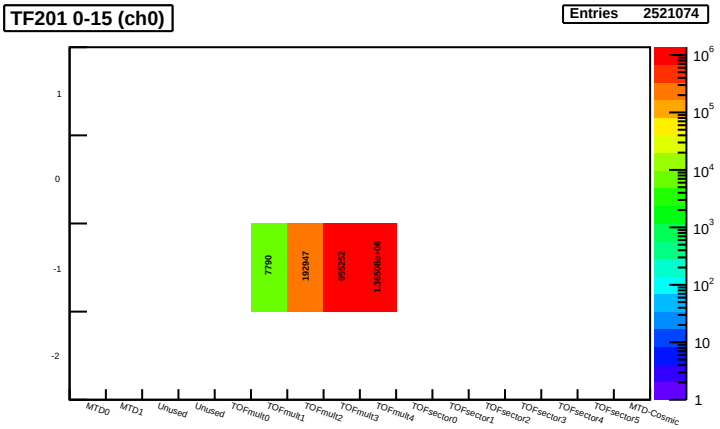

Input to FE003 QT board
Entries 4.853555e+07
ADC
channel

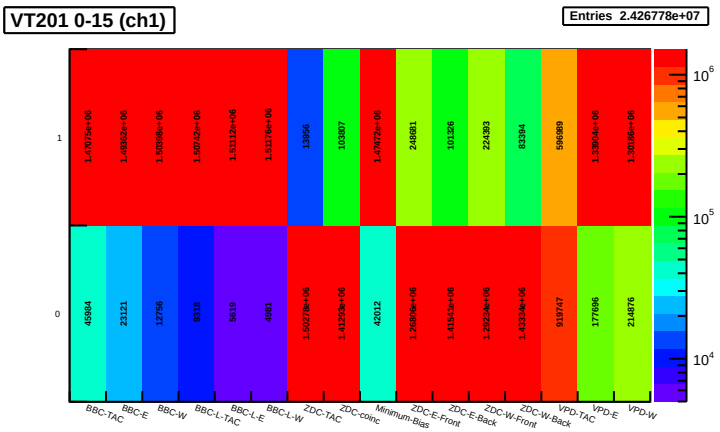

Input to FE004 QT board
Entries 4.853555e+07
ADC
channel

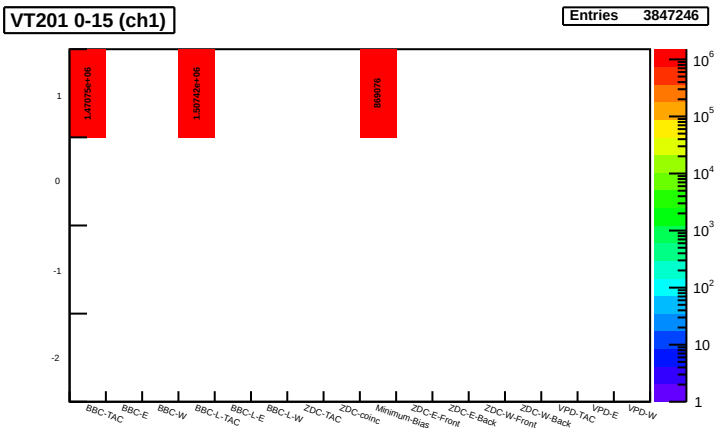

Input to FPE L1 DSM
Entries 6066944
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004

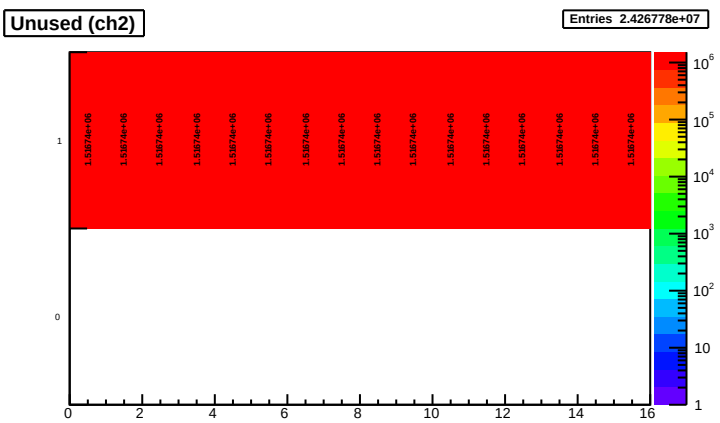

Input to FPE L1 DSM
Entries 6066944
ADC sum - simulated
400
200
0
-200
-400
FE001
FE002
FE003
FE004

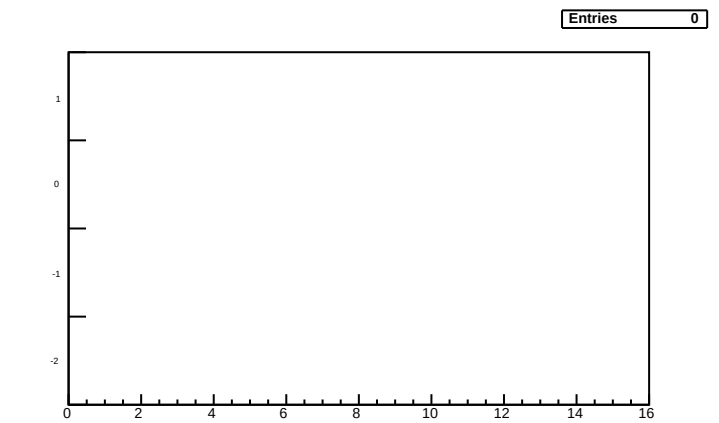

TF201 0-15 (ch0)
Entries 2.426778e+07
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

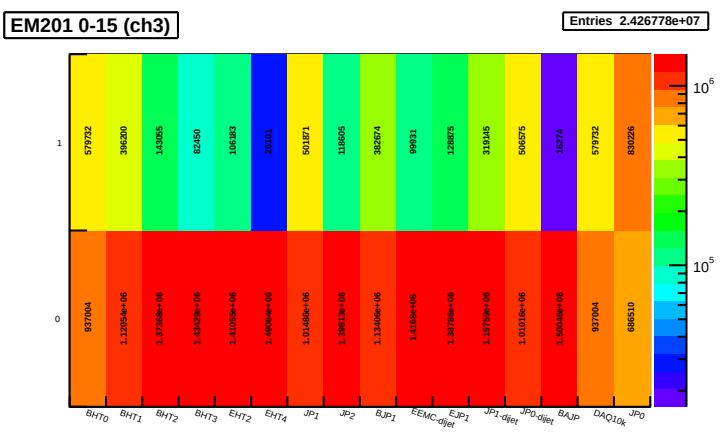

TF201 0-15 (ch0)
Entries 2521074
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

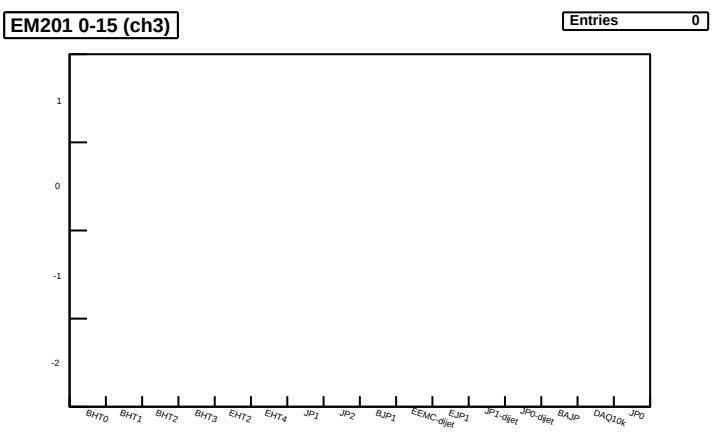

VT201 0-15 (ch1)
Entries 2.426778e+07
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-coinc Minimum-Bias ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 3847246
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

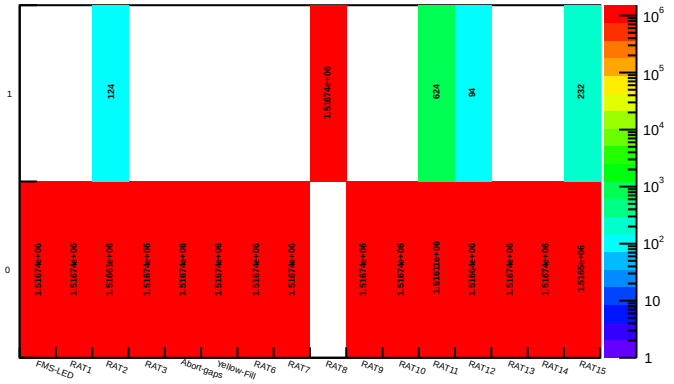

Unused (ch2)
Entries 2.426778e+07

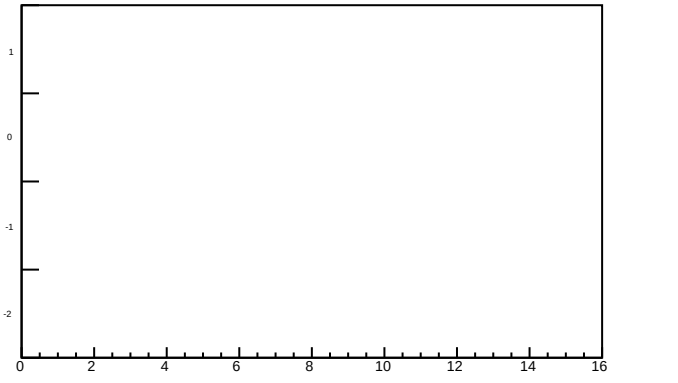

Entries 0


EM201 0-15 (ch3)
Entries 2.426778e+07
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 EEMC-dijet EJP1 JP1-dijet JP0-dijet BAJP DAQ10k JP0

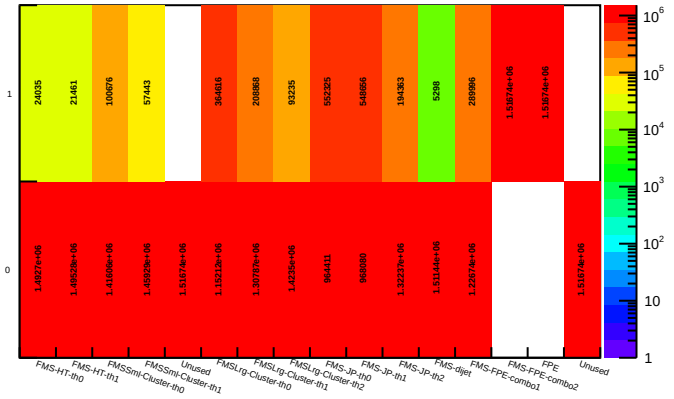

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 EEMC-dijet EJP1 JP1-dijet JP0-dijet BAJP DAQ10k JP0

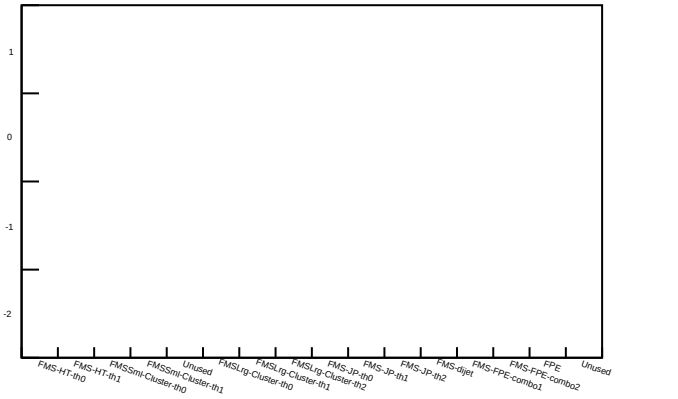
RAT board (ch4)



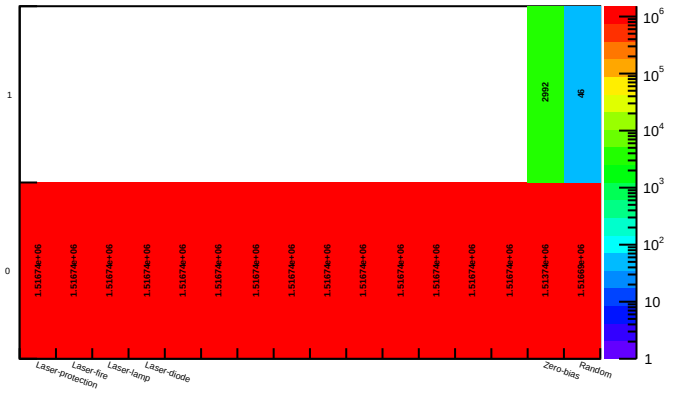


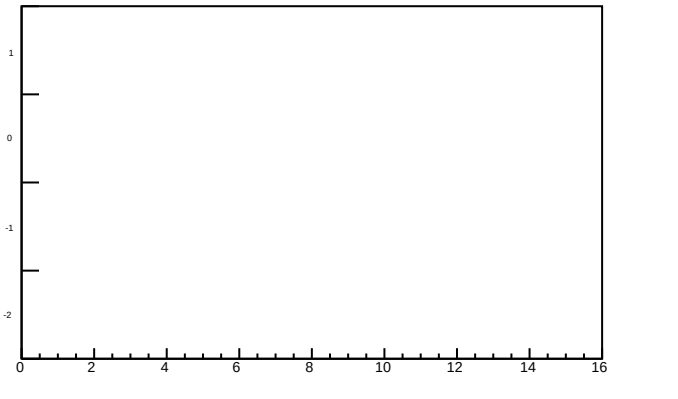
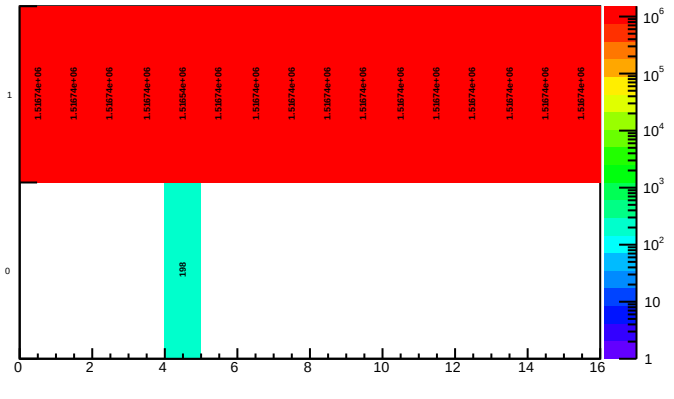
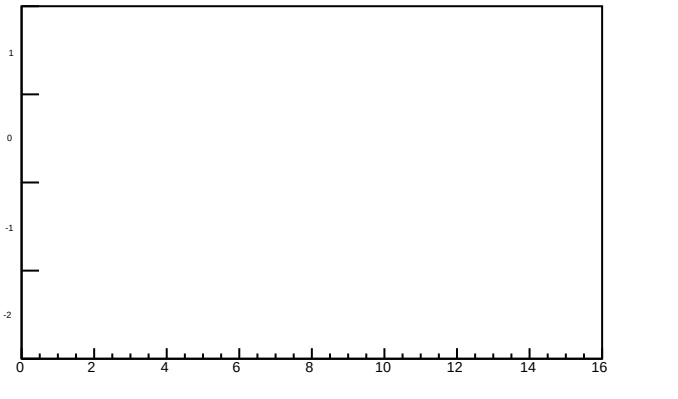
FP201 0-15 (ch5)





ST201 0-15 (ch6)

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