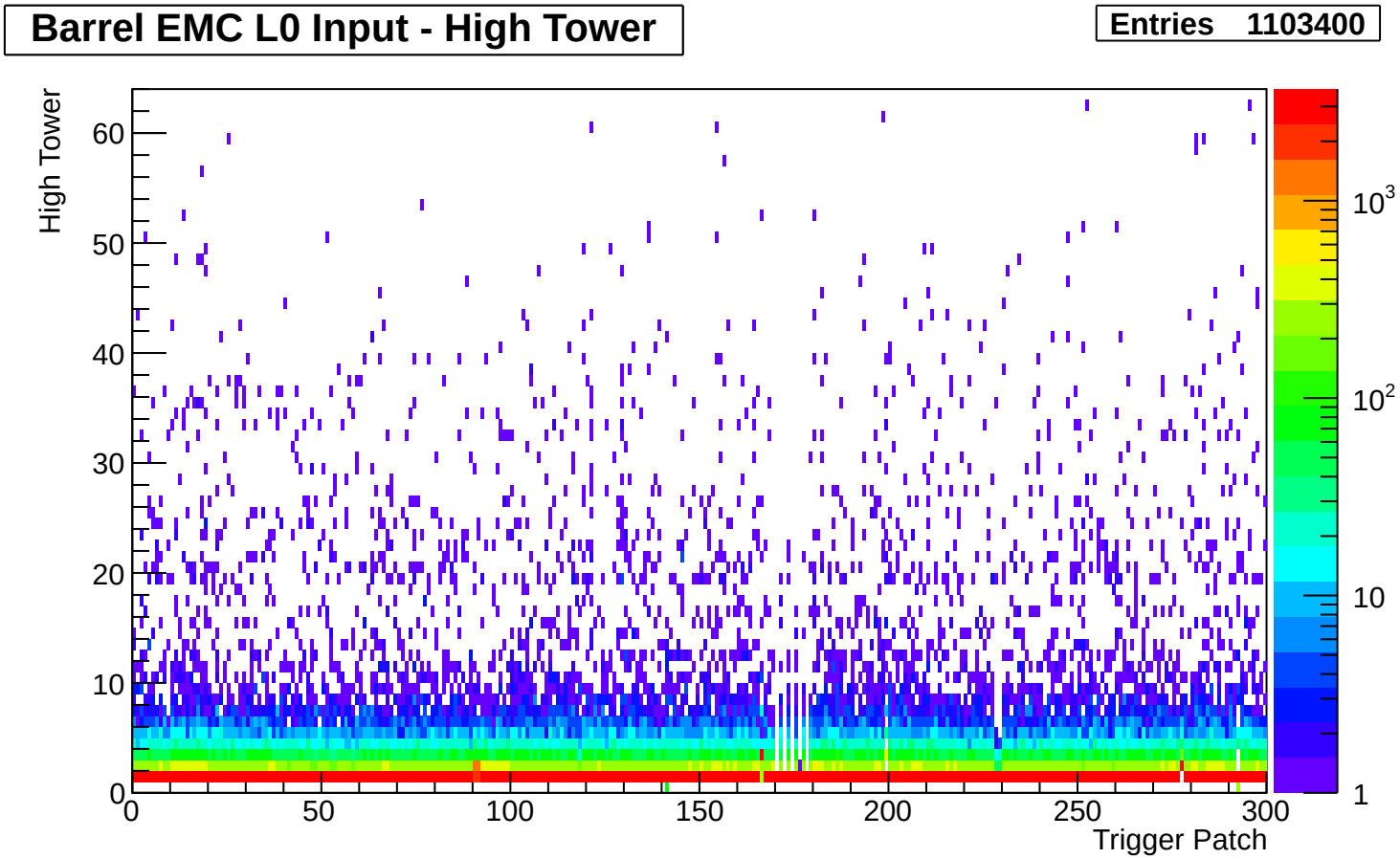
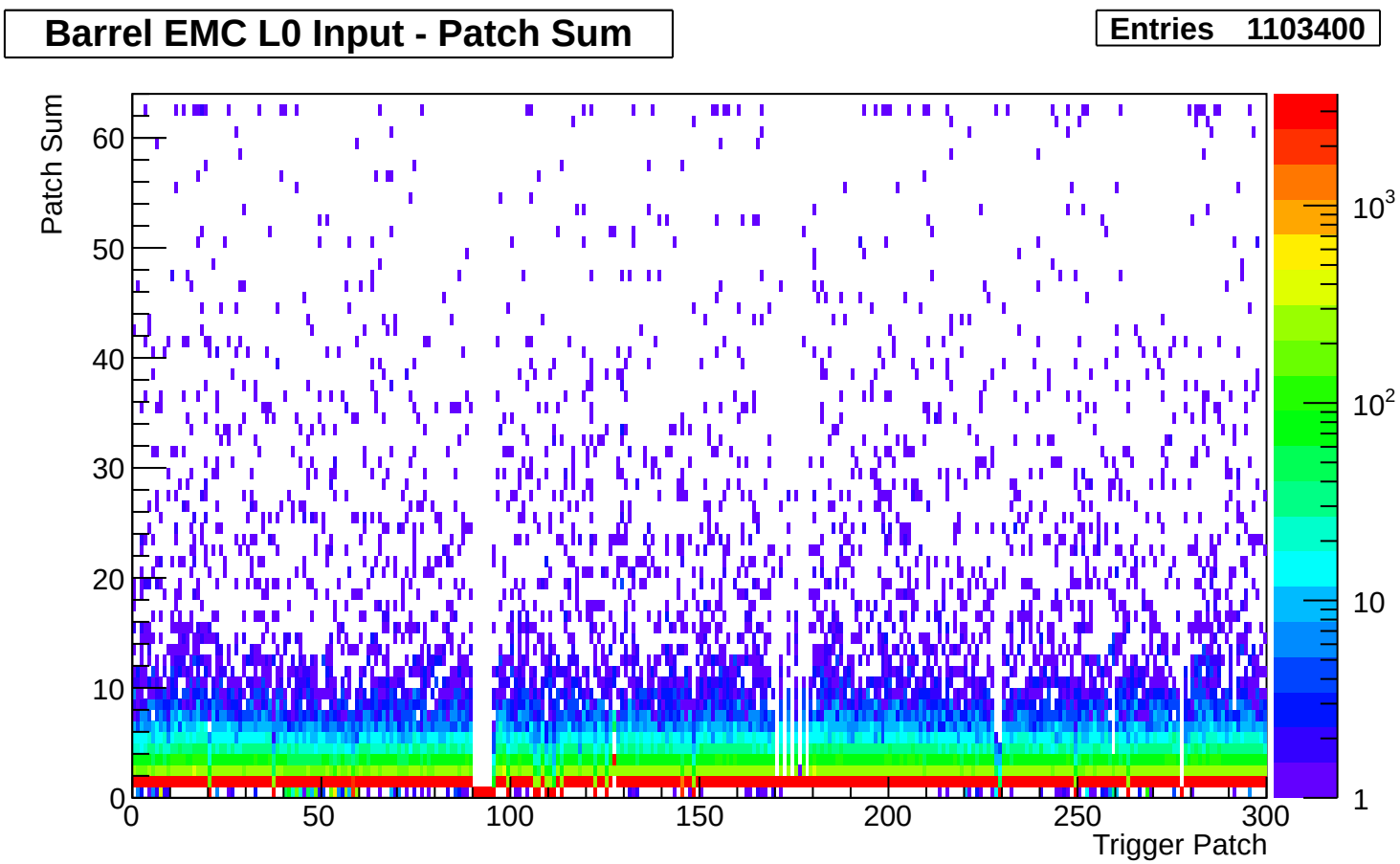
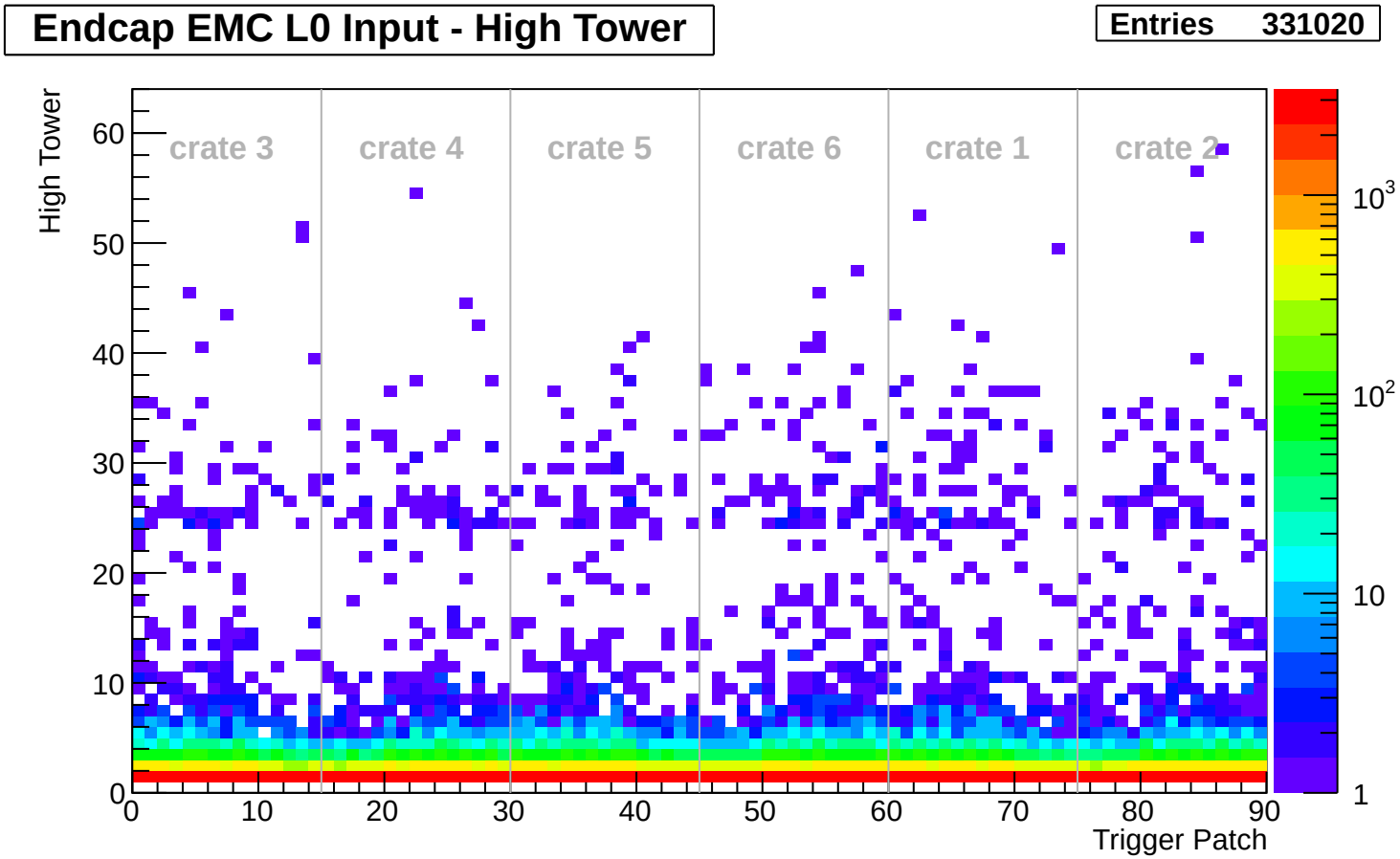
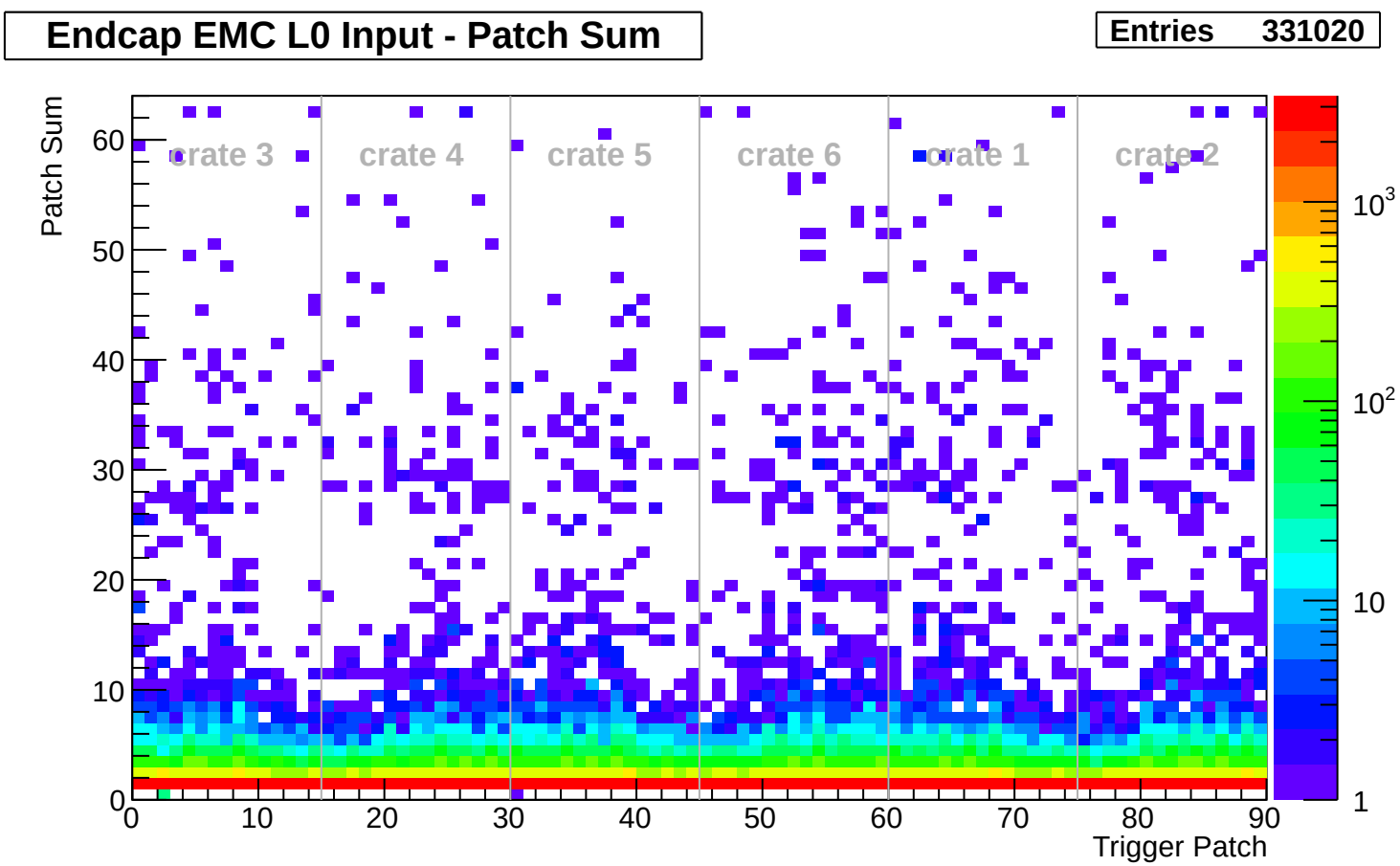
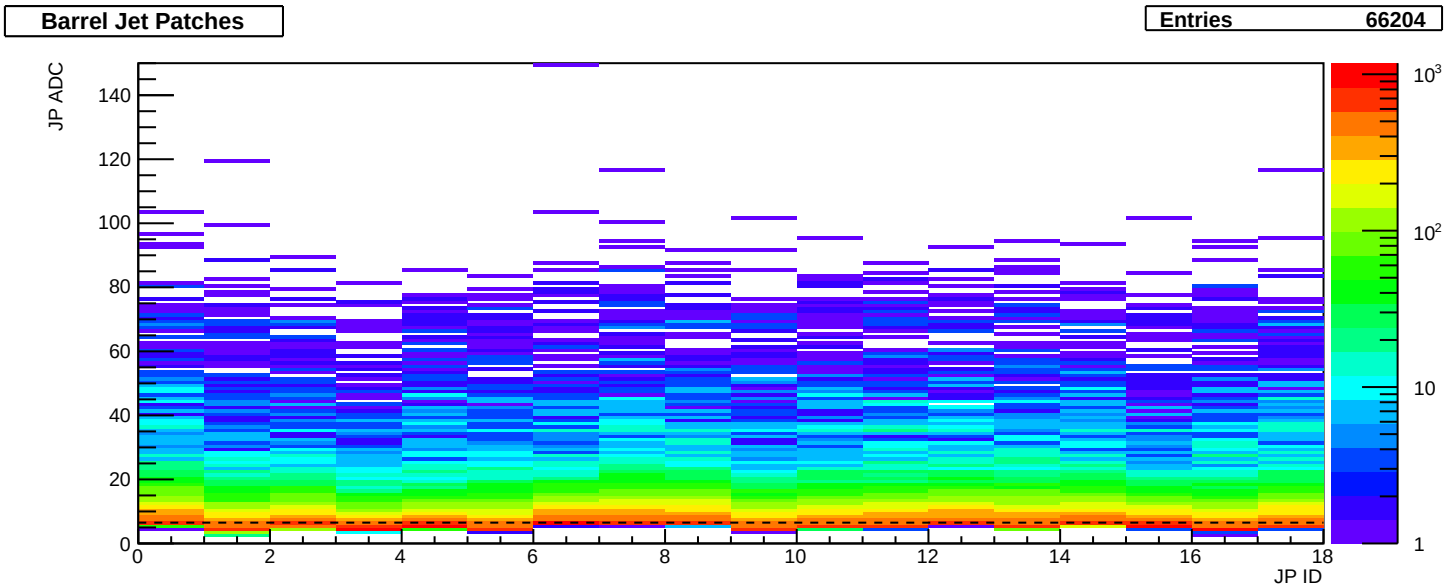
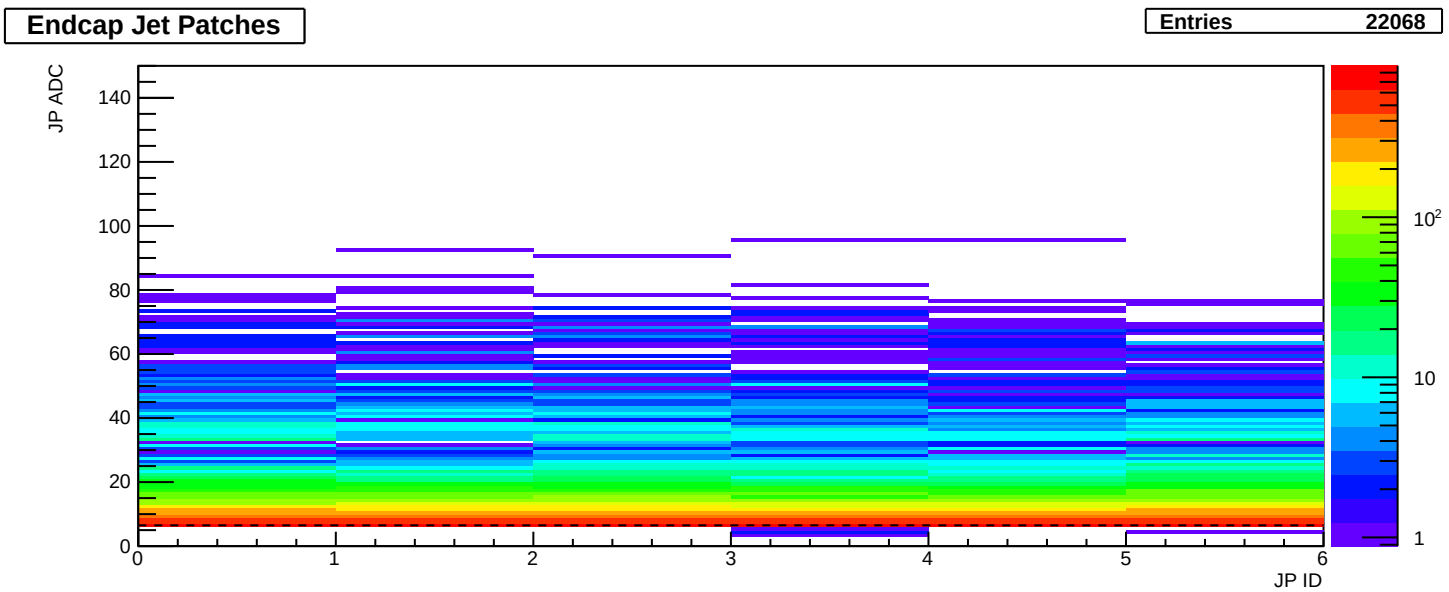

Barrel EMC L0 Input - High Tower
Entries 1103400
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3

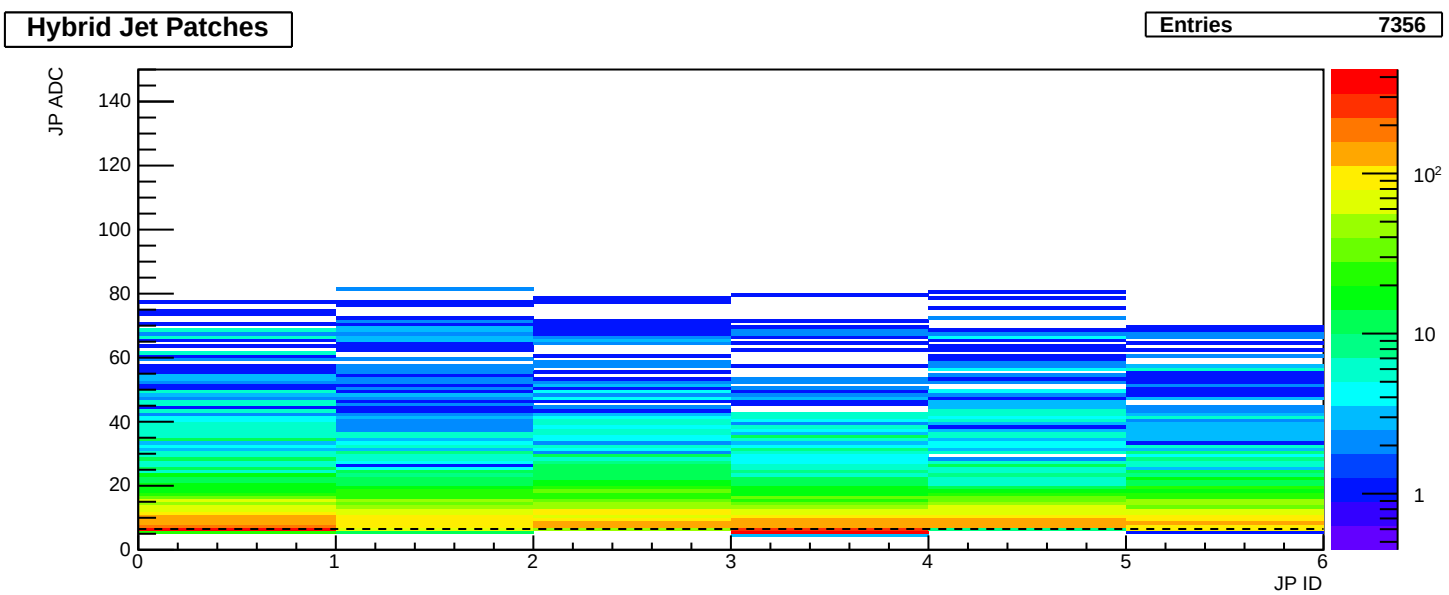

Barrel EMC L0 Input - Patch Sum
Entries 1103400
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3

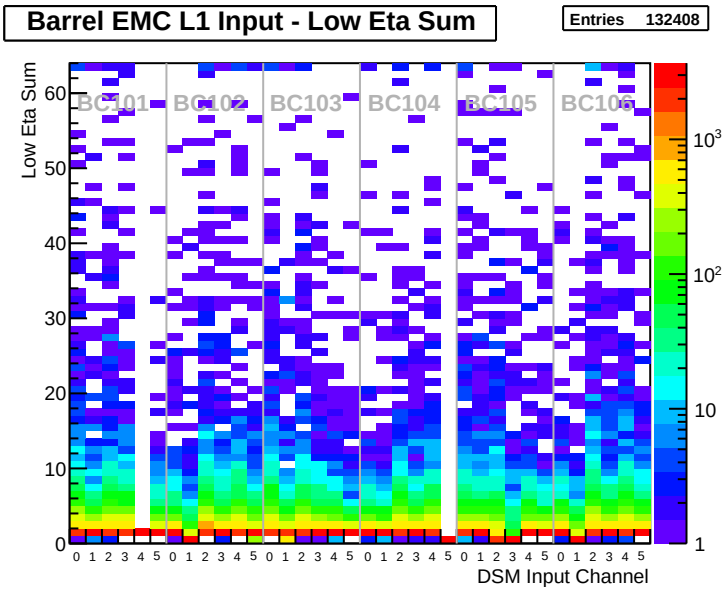

Endcap EMC L0 Input - High Tower
Entries 331020
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
10^2
10^3

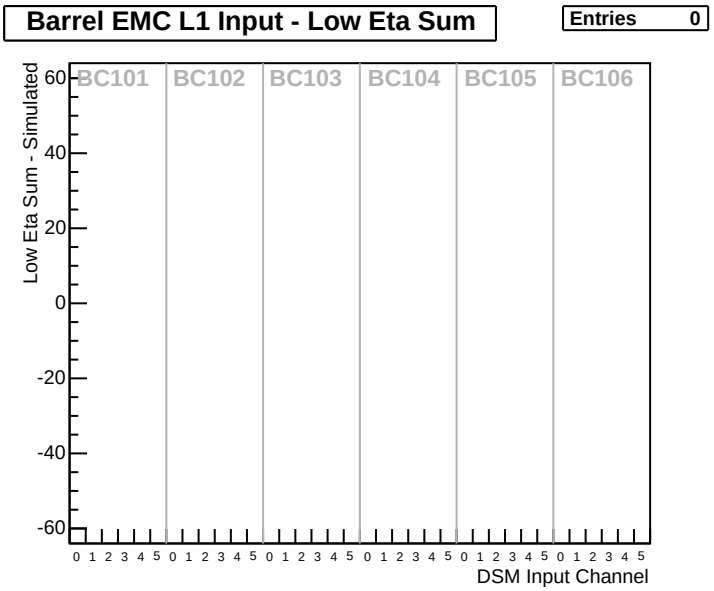

Endcap EMC L0 Input - Patch Sum
Entries 331020
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
10^2
10^3

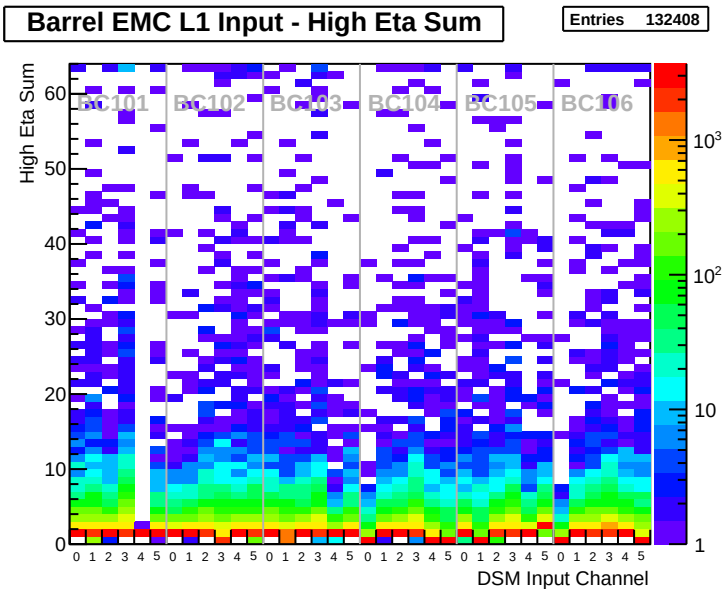

Barrel Jet Patches
Entries 66204
JP ADC
JP ID

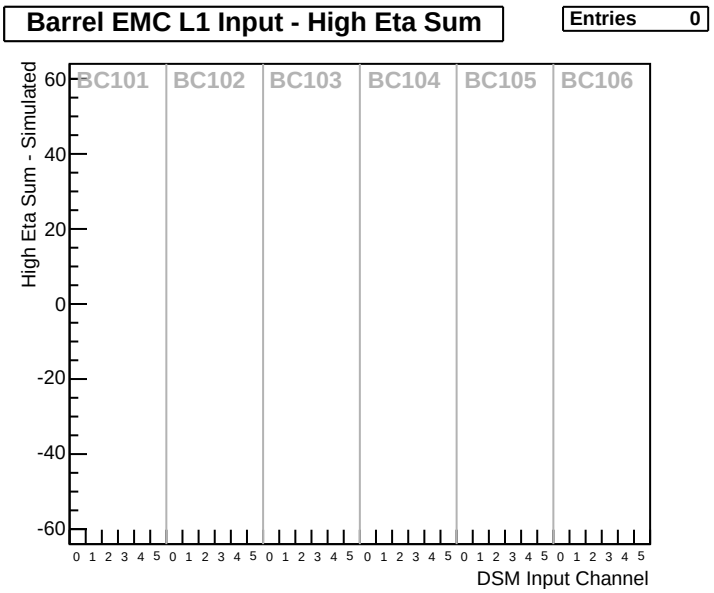

Endcap Jet Patches
Entries 22068
JP ADC
JP ID

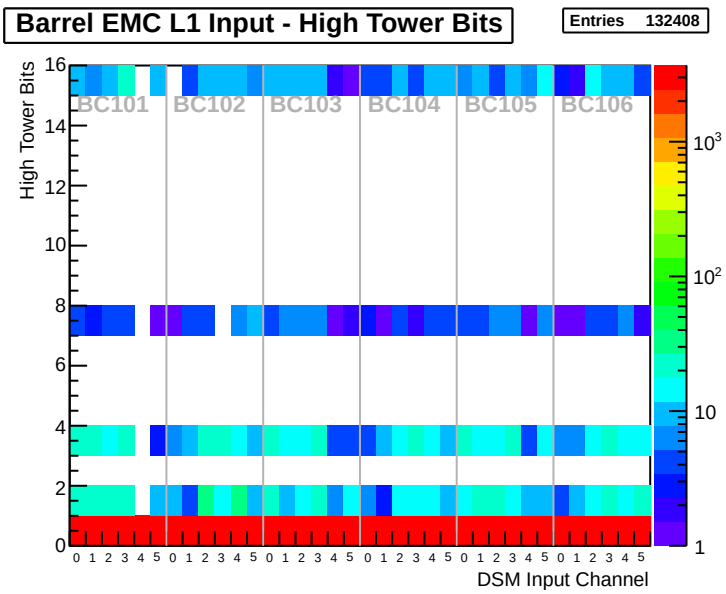

Hybrid Jet Patches
Entries 7356
JP ADC
JP ID

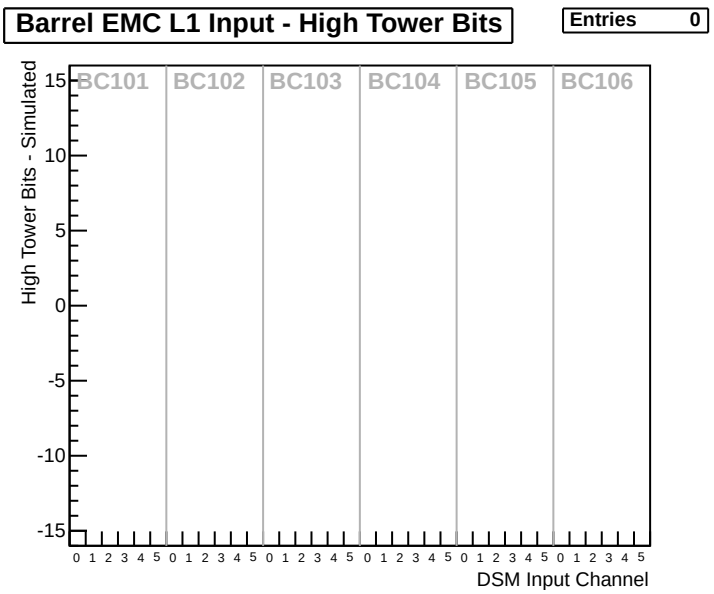

Barrel EMC L1 Input - Low Eta Sum
Entries 132408
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

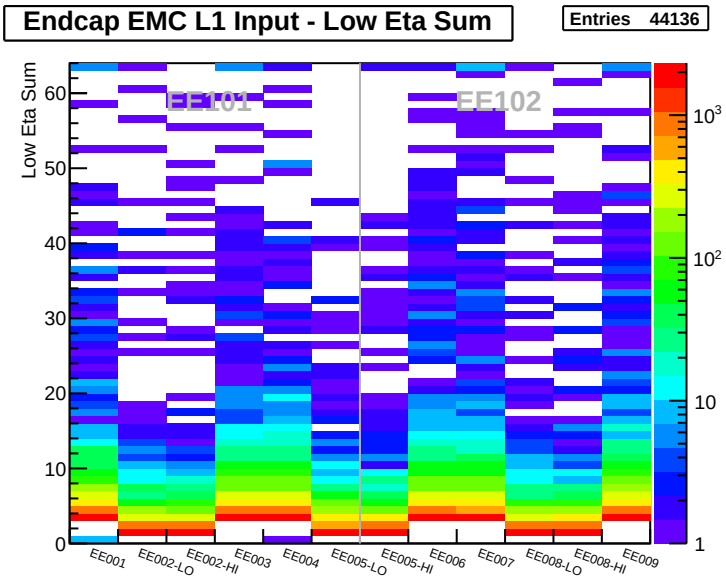

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

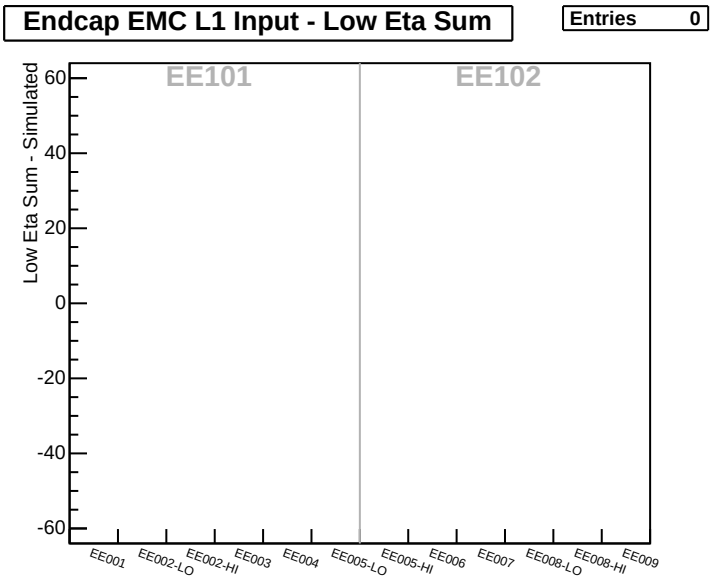

Barrel EMC L1 Input - High Eta Sum
Entries 132408
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

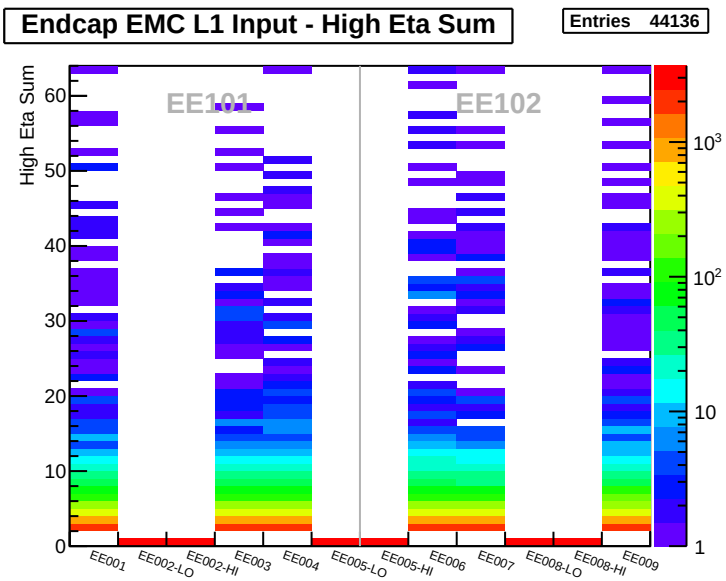

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

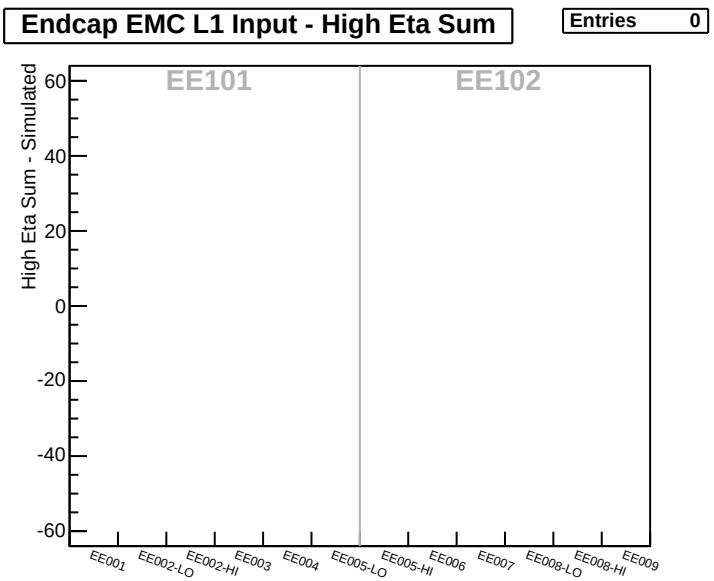

Barrel EMC L1 Input - High Tower Bits
Entries 132408
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

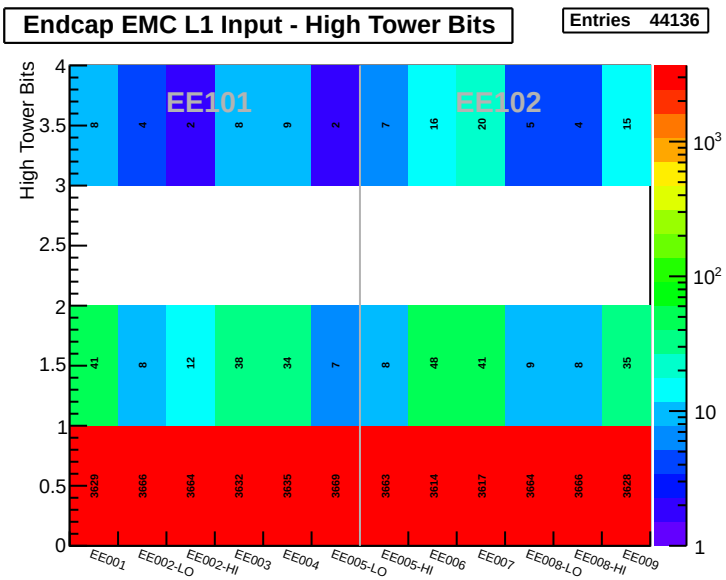

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

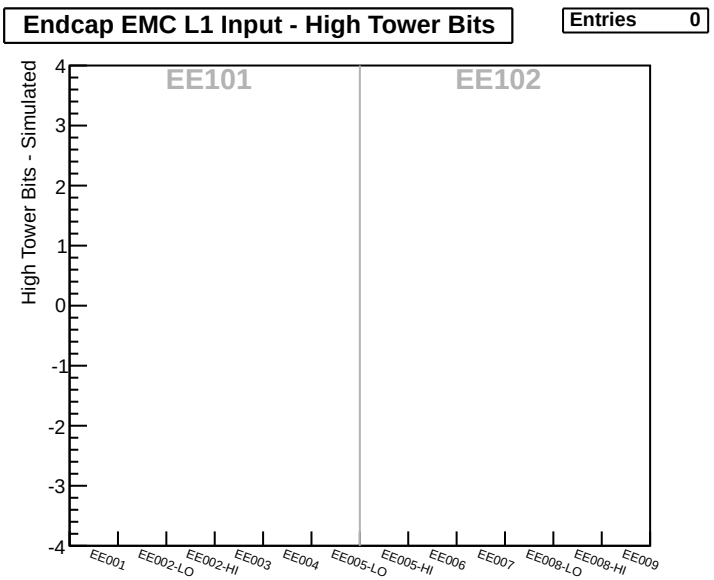

Endcap EMC L1 Input - Low Eta Sum
Entries 44136
Low Eta Sum
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

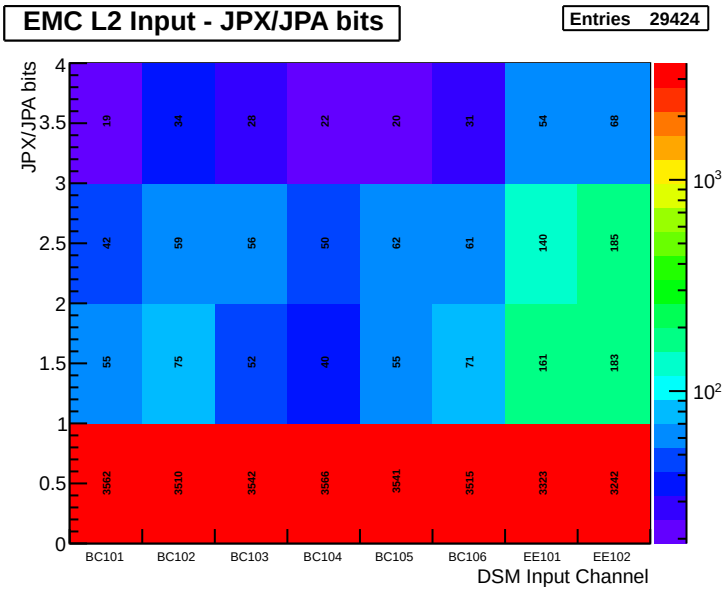

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102

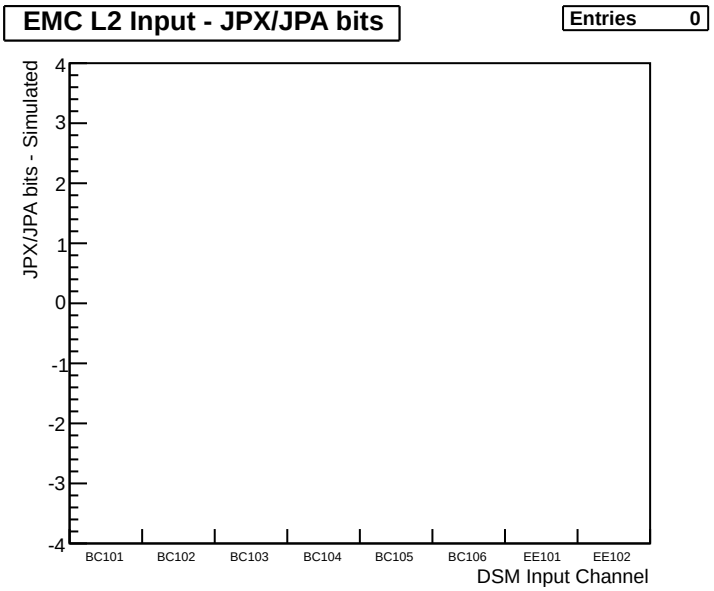

Endcap EMC L1 Input - High Eta Sum
Entries 44136
High Eta Sum
EE101
EE102

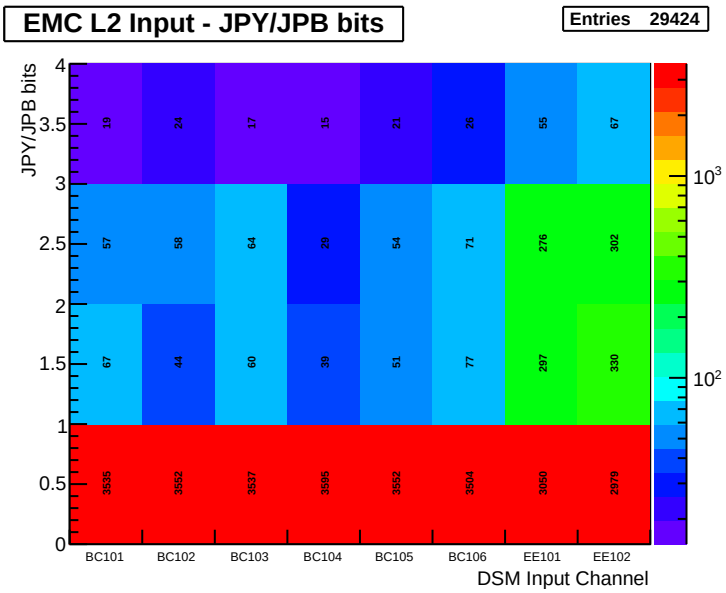

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102

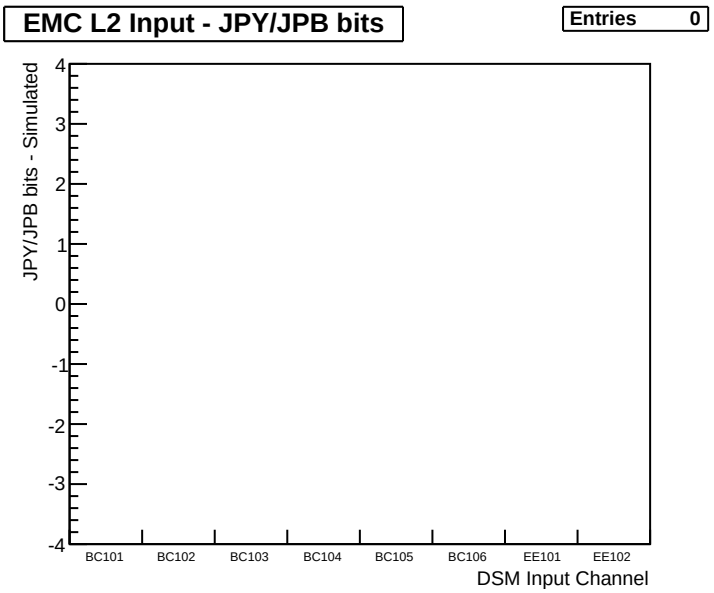

Endcap EMC L1 Input - High Tower Bits
Entries 44136
High Tower Bits
EE101
EE102

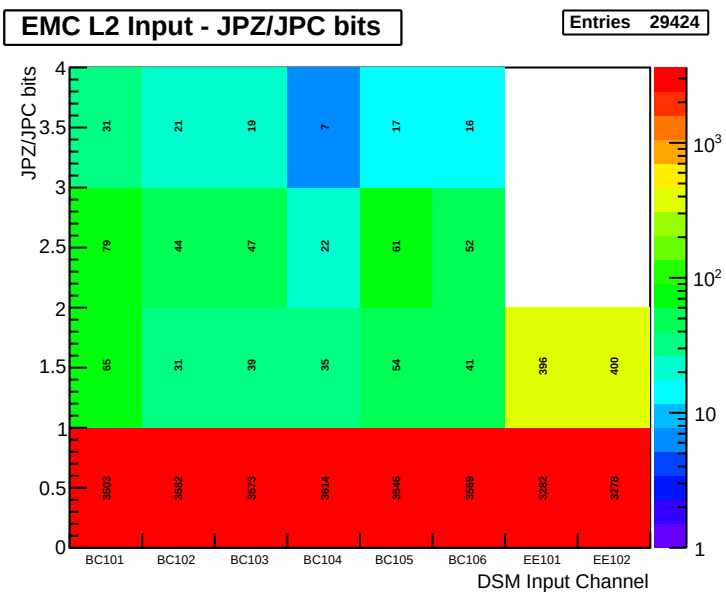

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102

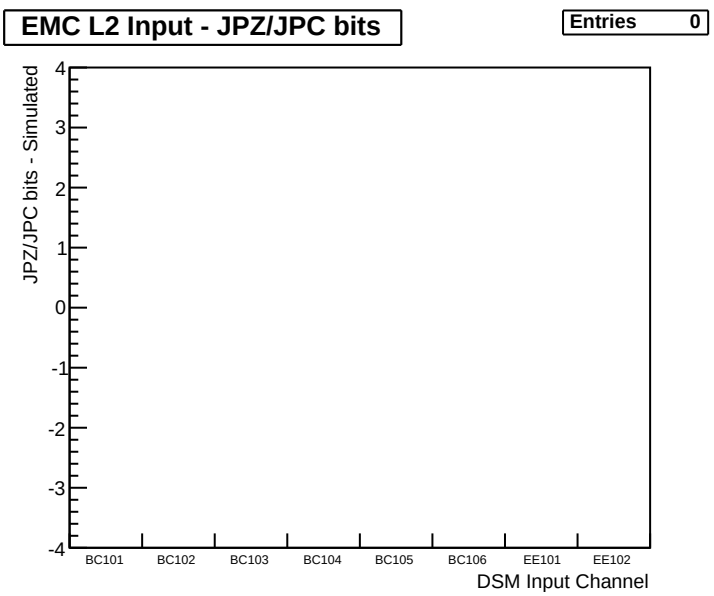

EMC L2 Input - JPX/JPA bits
Entries 29424
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
19 34 28 22 20 31 54 68
42 59 56 50 62 61 140 185
55 75 52 40 55 71 161 183
3562 3510 3542 3566 3541 3515 3323 3242

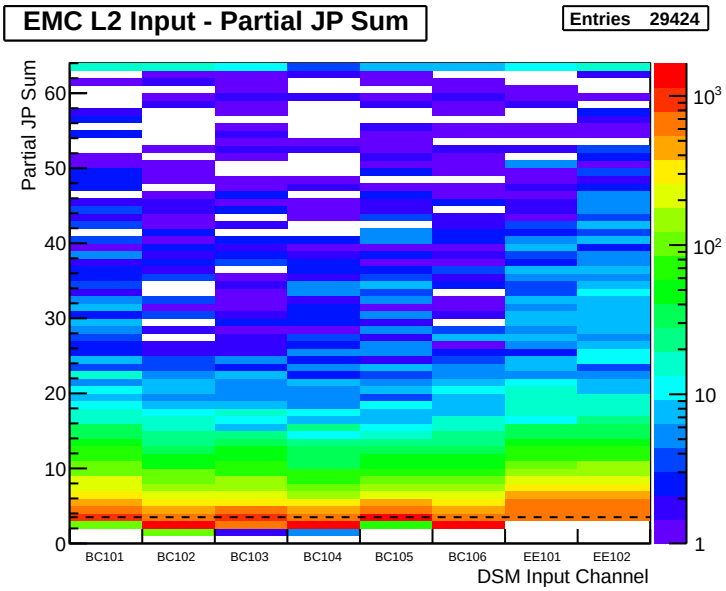

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

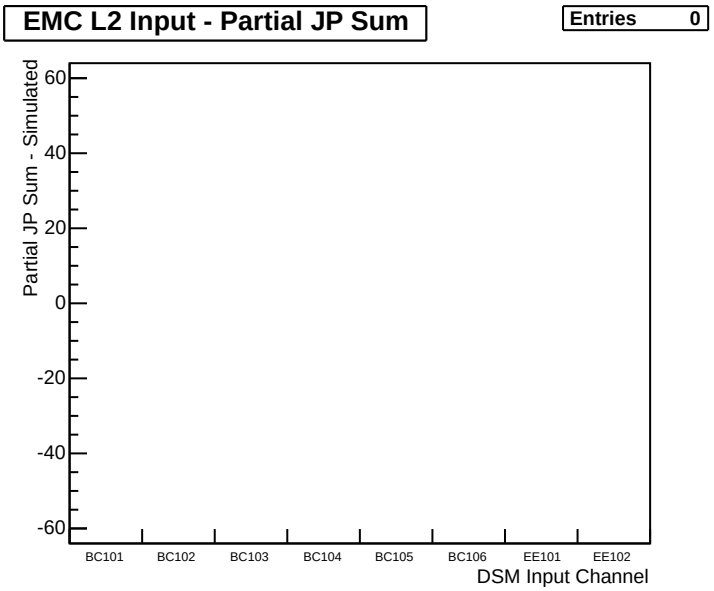

EMC L2 Input - JPY/JPB bits
Entries 29424
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
19 24 17 15 21 26 55 67
57 58 64 29 54 71 276 302
67 44 60 39 51 77 297 330
3535 3552 3537 3595 3552 3504 3050 2979

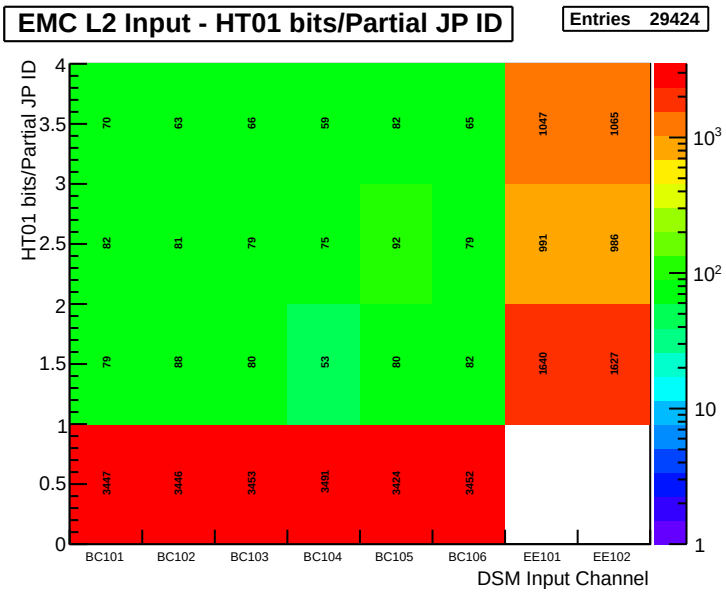

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

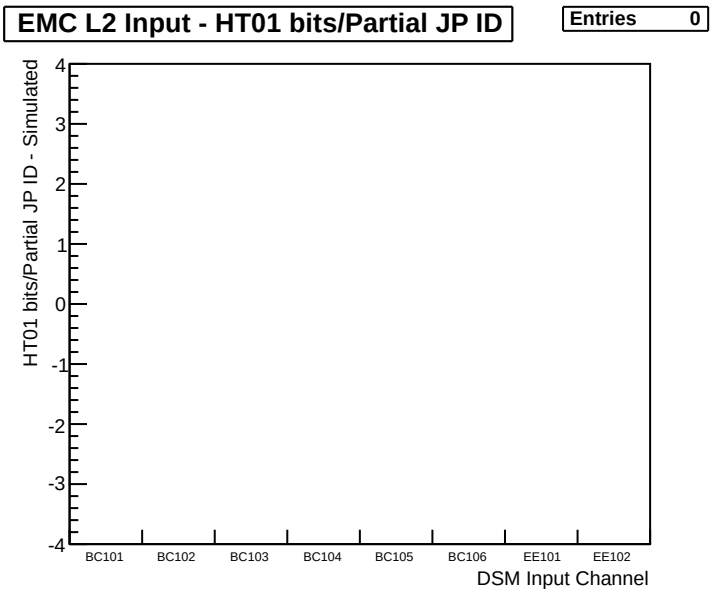

EMC L2 Input - JPZ/JPC bits
Entries 29424
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
31 21 19 7 17 16
79 44 47 22 61 52
65 31 39 35 54 41 396 400
3503 3582 3573 3614 3546 3569 3282 3278

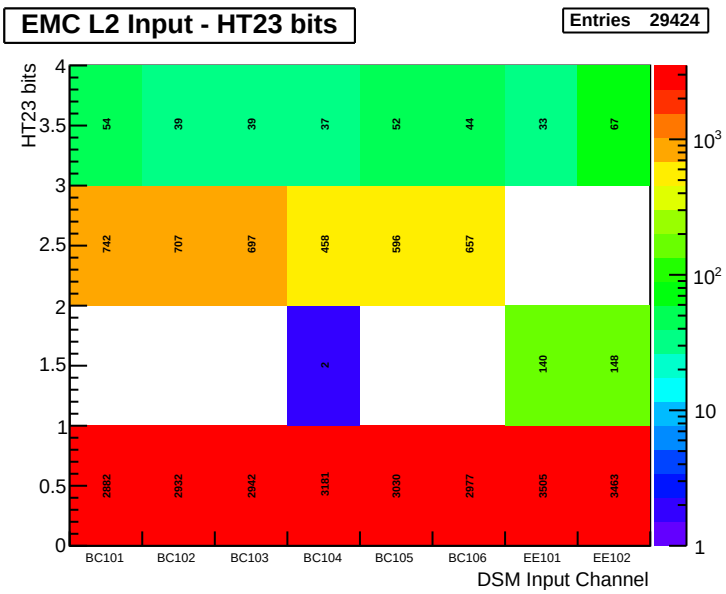

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

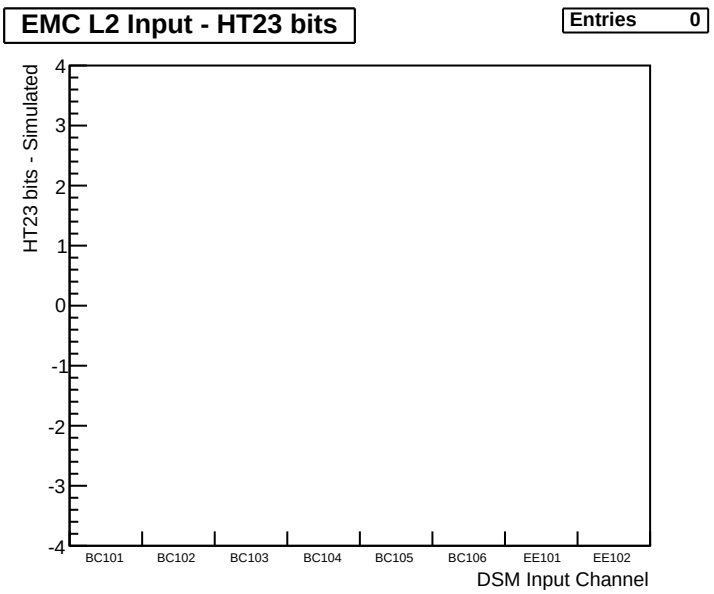

EMC L2 Input - Partial JP Sum
Entries 29424
Partial JP Sum
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

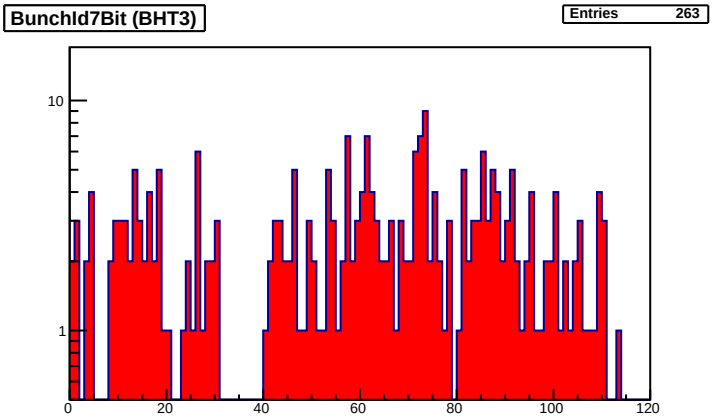

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

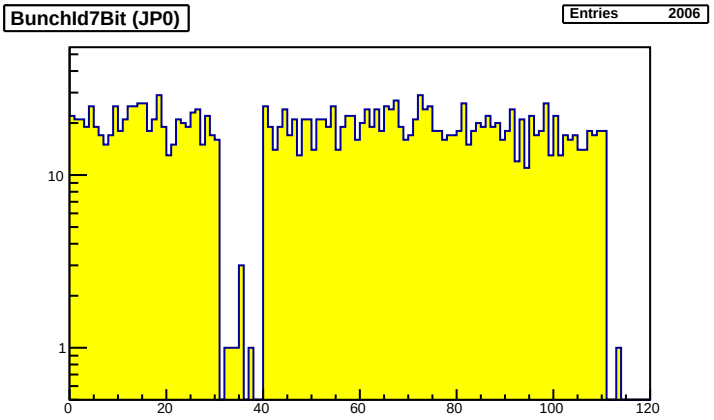

EMC L2 Input - HT01 bits/Partial JP ID
Entries 29424
HT01 bits/Partial JP ID
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

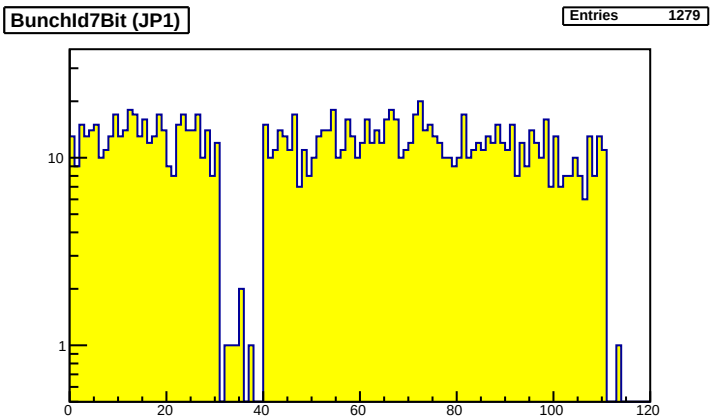

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

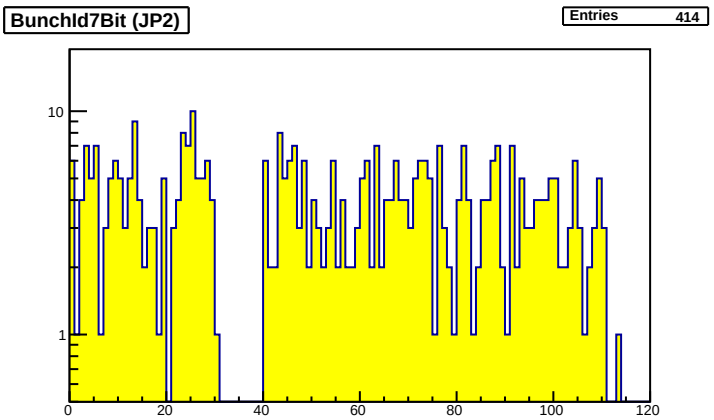

EMC L2 Input - HT23 bits
Entries 29424
HT23 bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

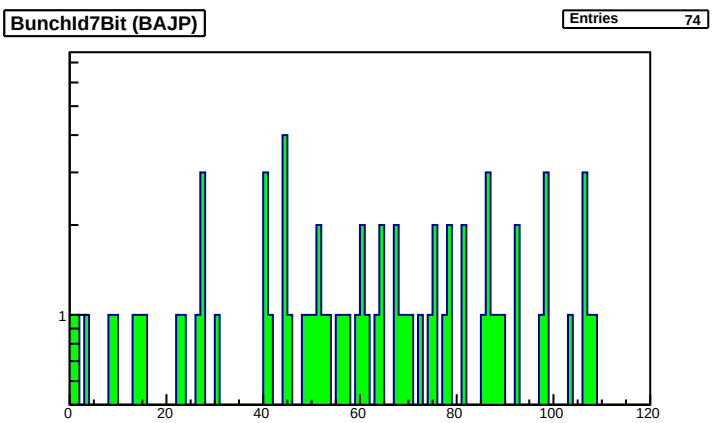

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

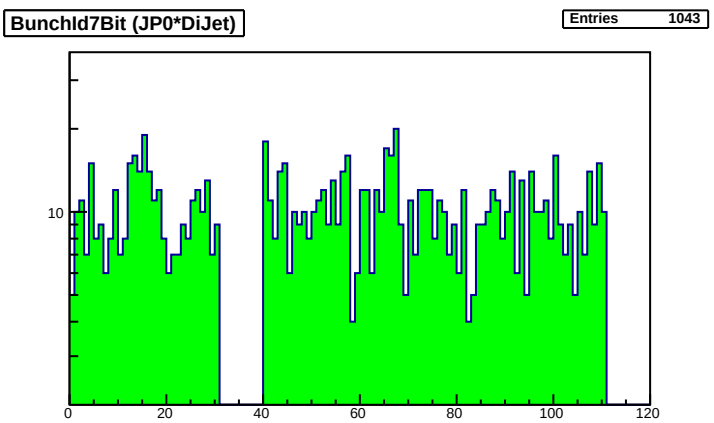

BunchId7Bit (BHT3)
Entries 263

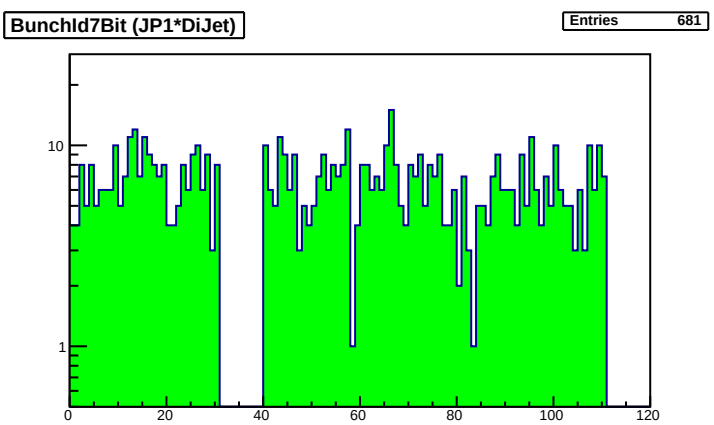

BunchId7Bit (JP0)
Entries 2006

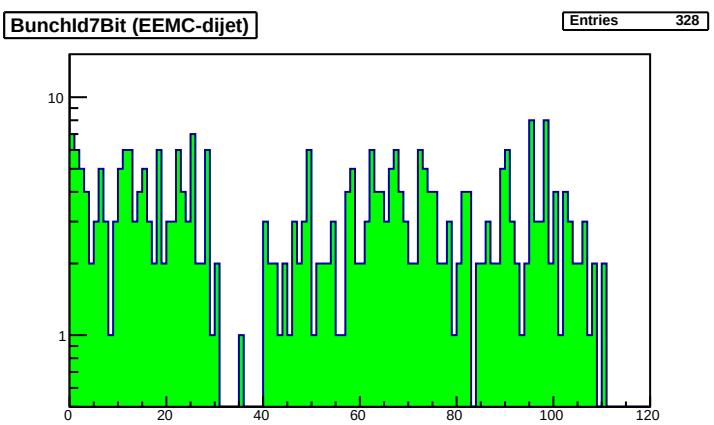

BunchId7Bit (JP1)
Entries 1279

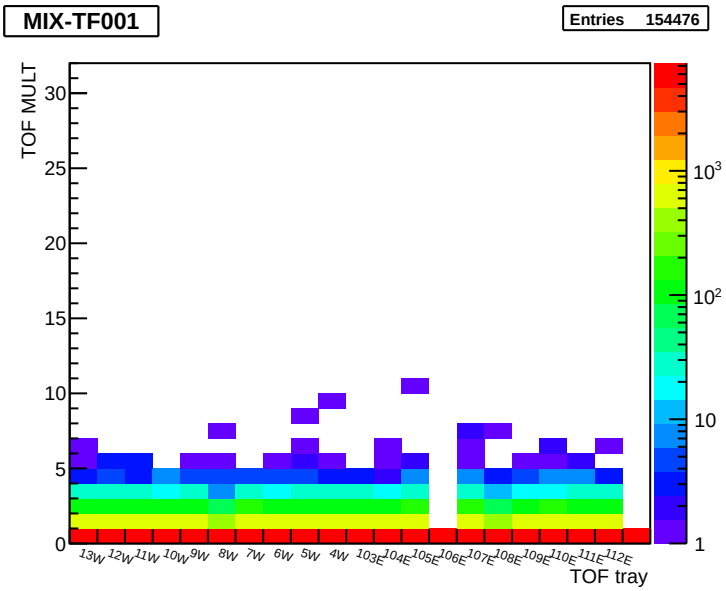

BunchId7Bit (JP2)
Entries 414

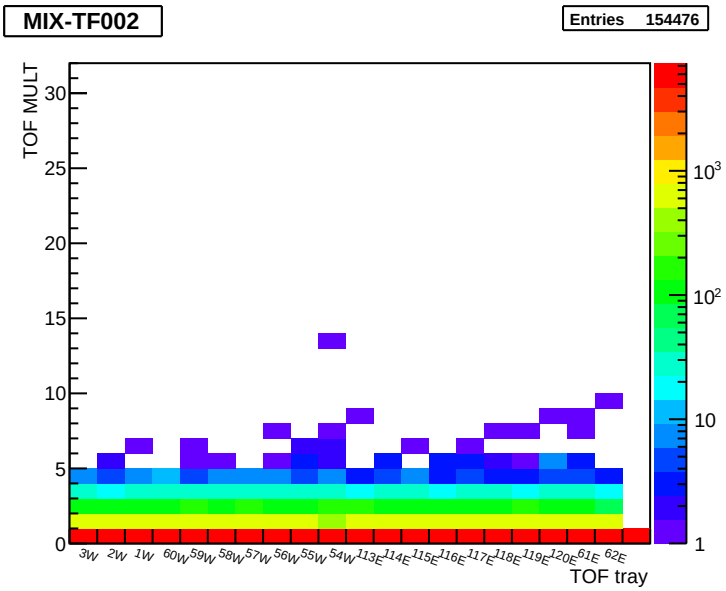

BunchId7Bit (BAJP)
Entries 74

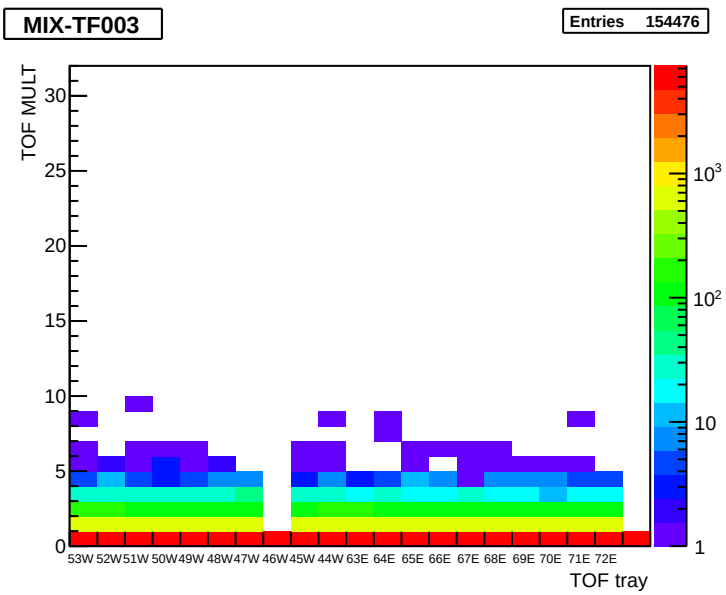

BunchId7Bit (JP0*DiJet)
Entries 1043

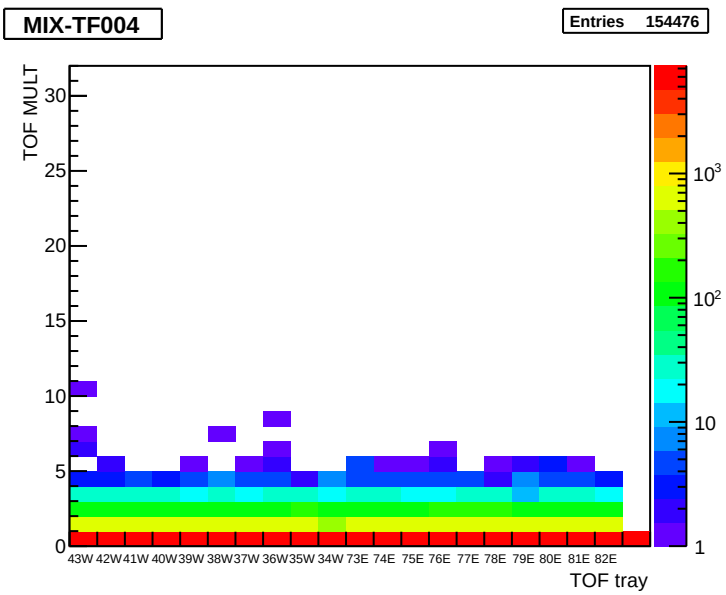

BunchId7Bit (JP1*DiJet)
Entries 681

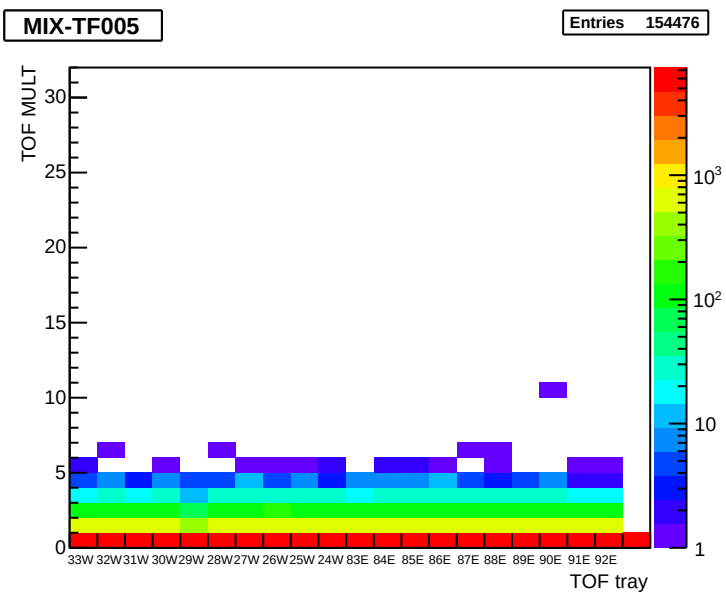

BunchId7Bit (EEMC-dijet)
Entries 328

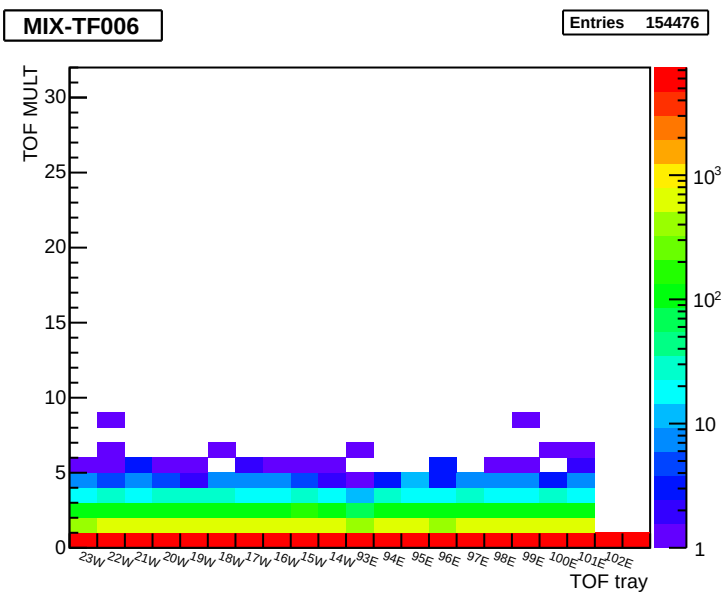

MIX-TF001
Entries 154476
TOF MULT
TOF tray

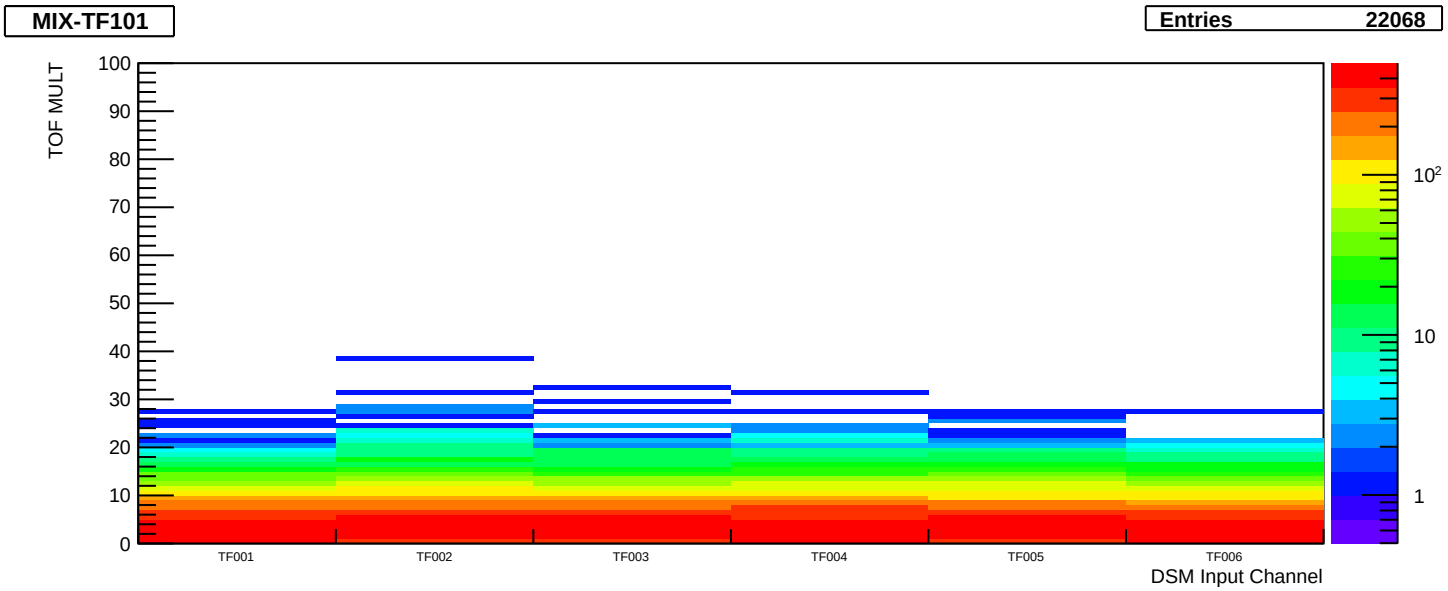

MIX-TF002
Entries 154476
TOF MULT
TOF tray

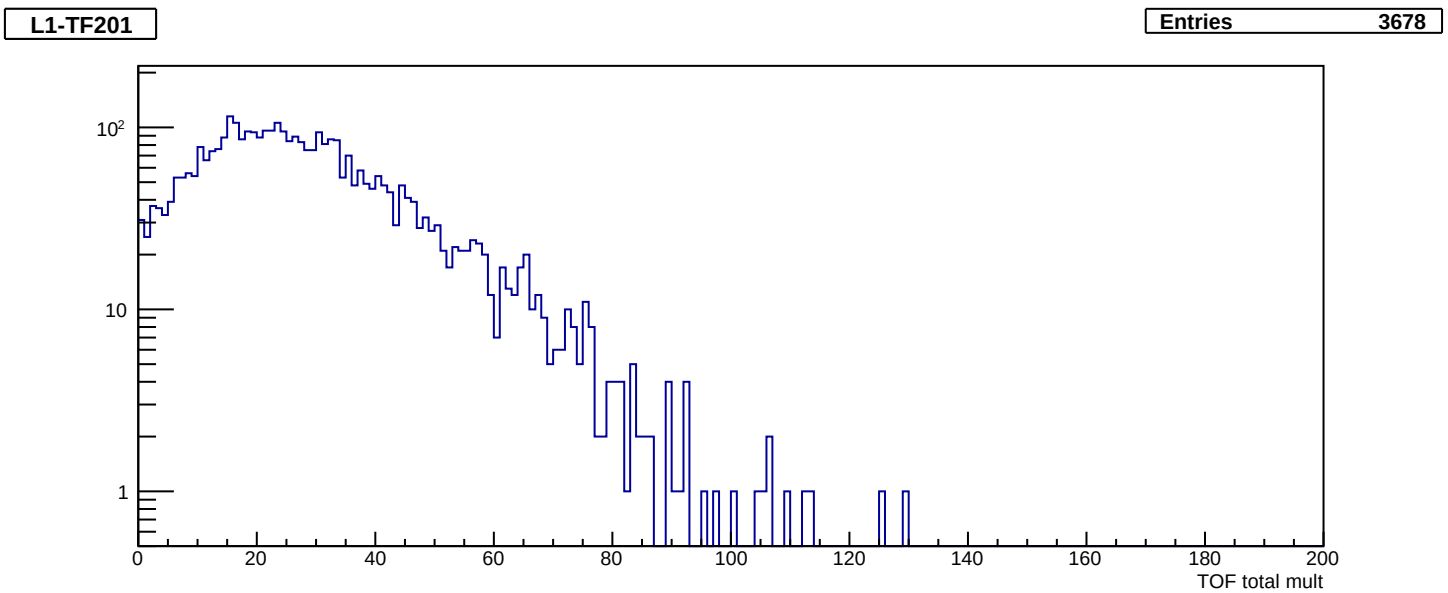

MIX-TF003
Entries 154476
TOF MULT
TOF tray

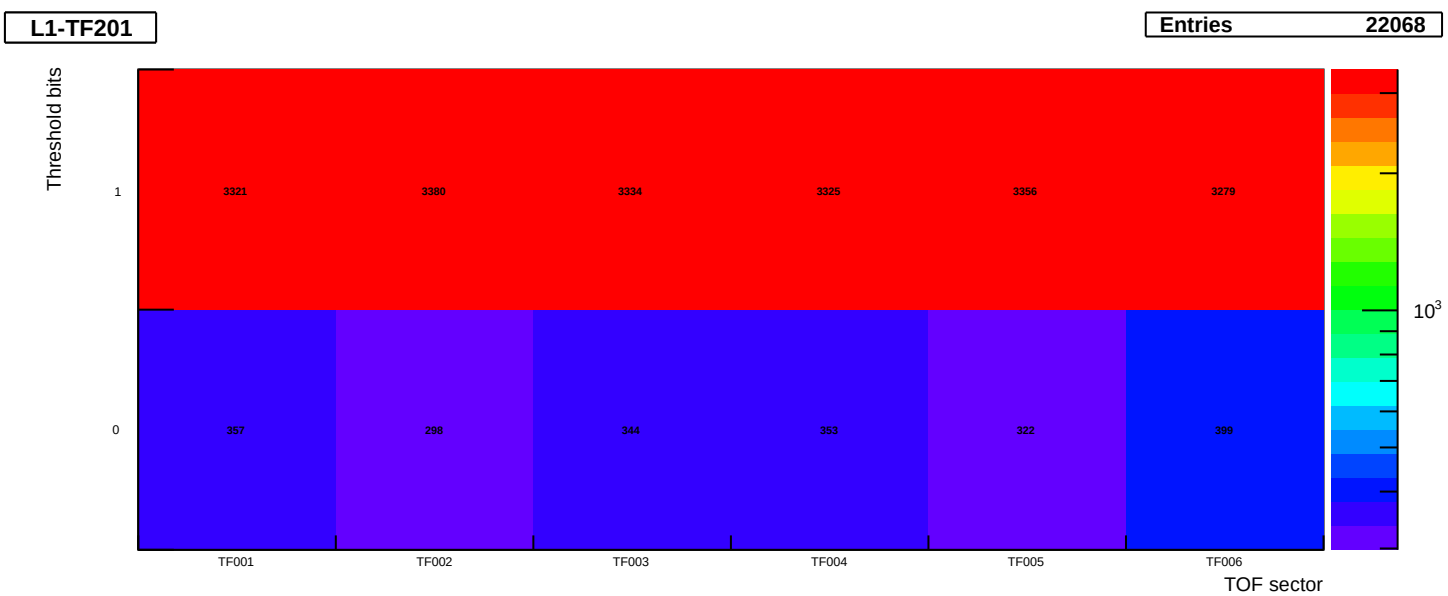

MIX-TF004
Entries 154476
TOF MULT
TOF tray

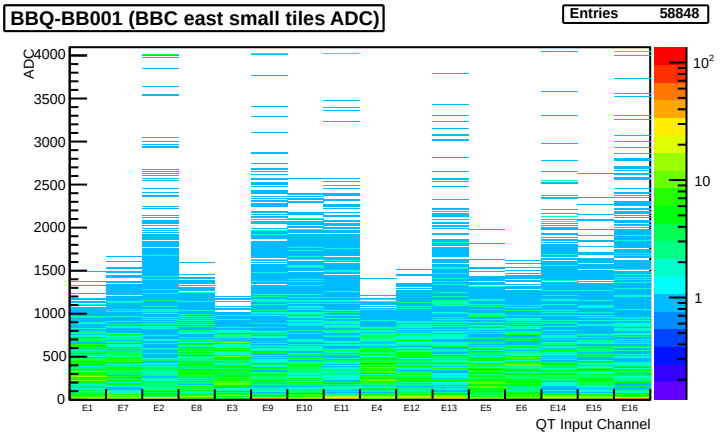

MIX-TF005
Entries 154476
TOF MULT
TOF tray

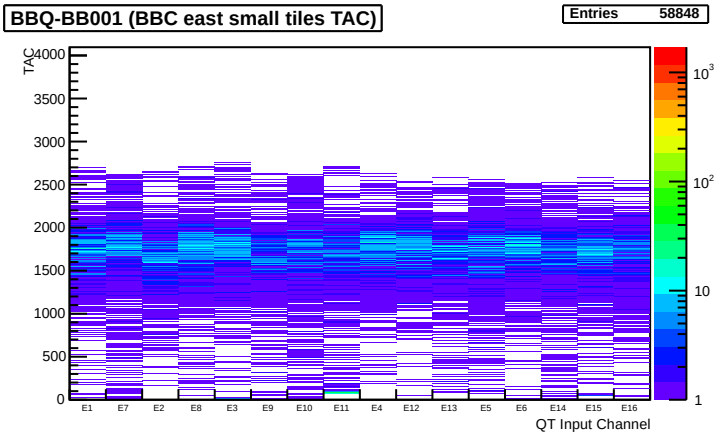

MIX-TF006
Entries 154476
TOF MULT
TOF tray

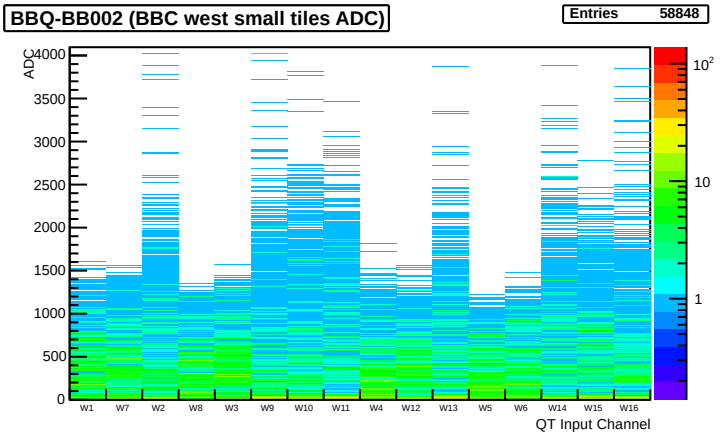

MIX-TF101
Entries 22068
TOF MULT
100
90
80
70
60
50
40
30
20
10
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^2
10
1

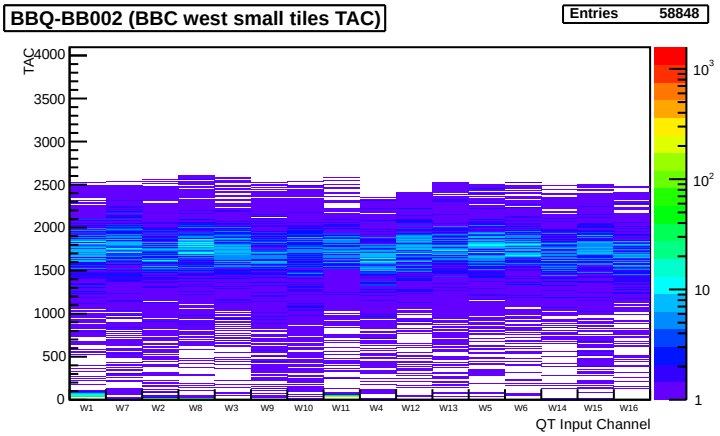

L1-TF201
Entries 3678
10^2
10
1
0
20
40
60
80
100
120
140
160
180
200
TOF total mult

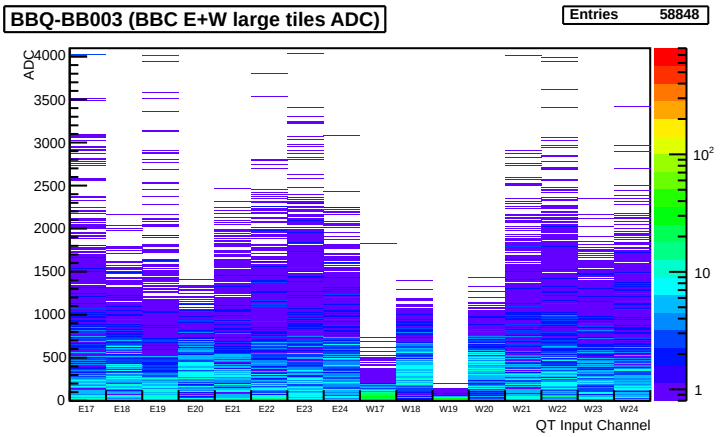

L1-TF201
Entries 22068
Threshold bits
1
0
3321
3380
3334
3325
3356
3279
357
298
344
353
322
399
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^3

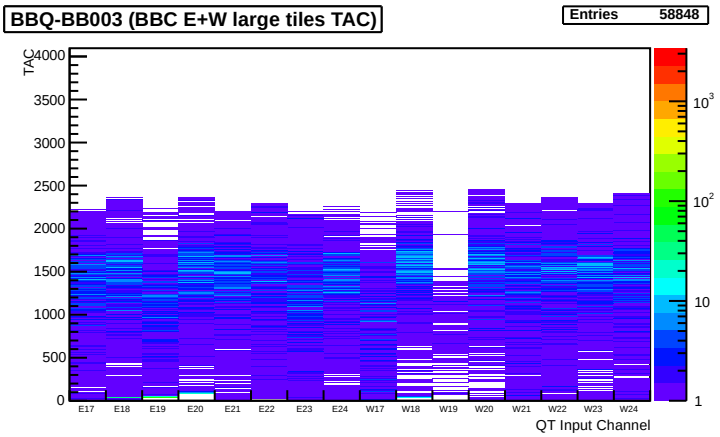

BBQ-BB001 (BBC east small tiles ADC)
Entries 58848
ADC
QT Input Channel

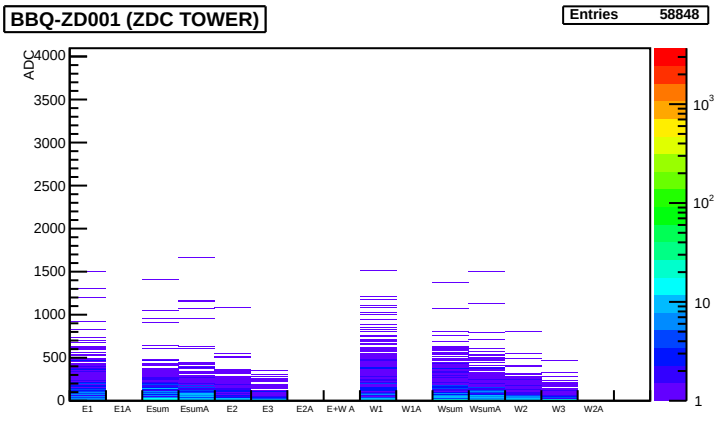

BBQ-BB001 (BBC east small tiles TAC)
Entries 58848
TAC
QT Input Channel

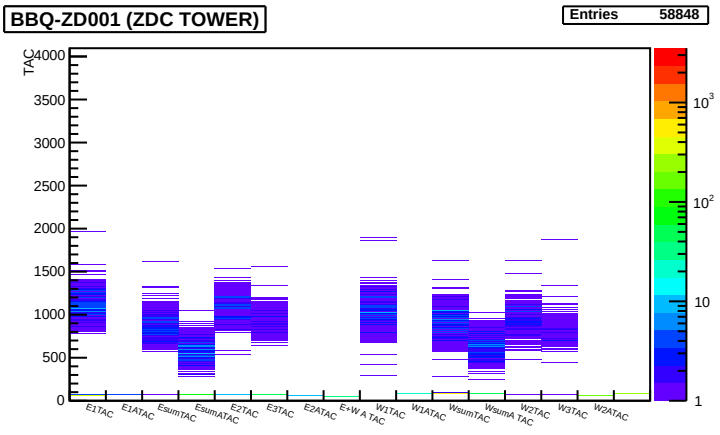

BBQ-BB002 (BBC west small tiles ADC)
Entries 58848
ADC
QT Input Channel

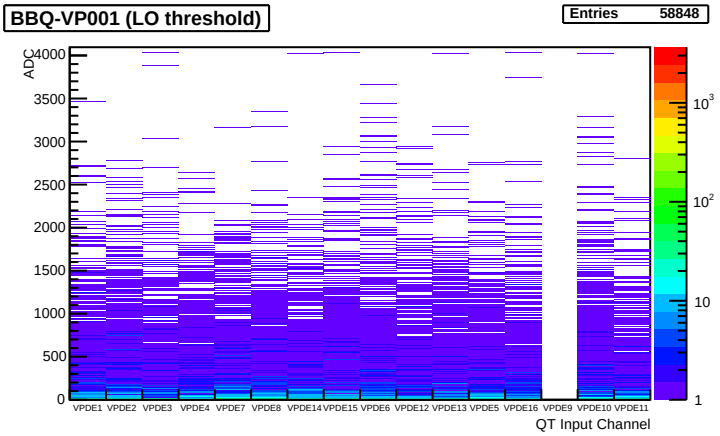

BBQ-BB002 (BBC west small tiles TAC)
Entries 58848
TAC
QT Input Channel

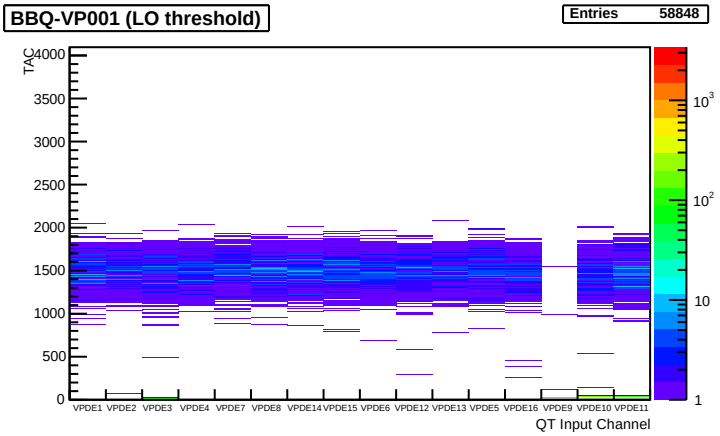

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 58848
ADC
QT Input Channel

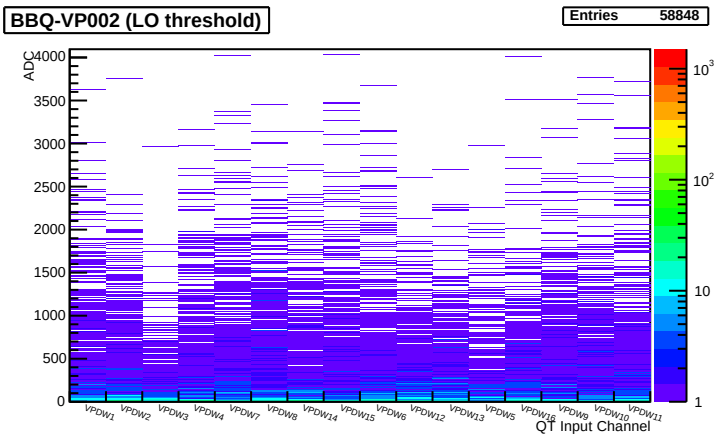

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 58848
TAC
QT Input Channel

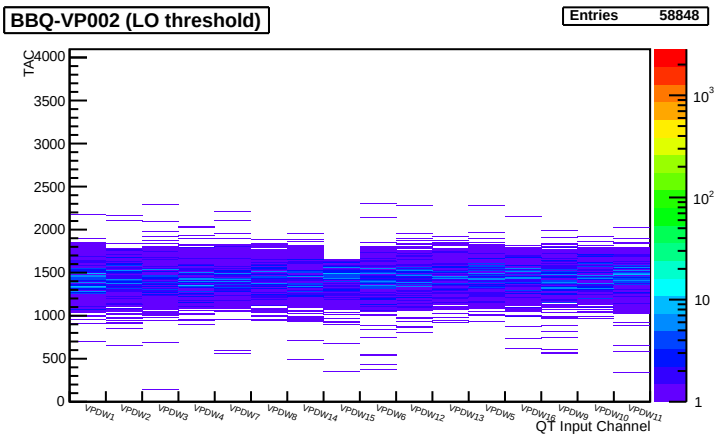

BBQ-ZD001 (ZDC TOWER)
Entries 58848
ADC

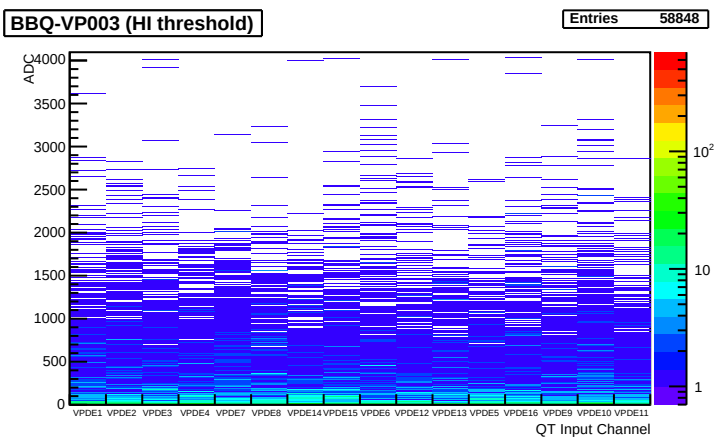

BBQ-ZD001 (ZDC TOWER)
Entries 58848
TAC

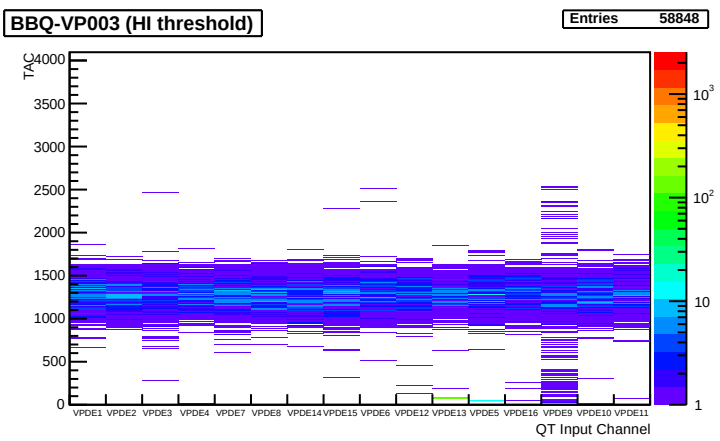

BBQ-VP001 (LO threshold)
Entries 58848
ADC
QT Input Channel

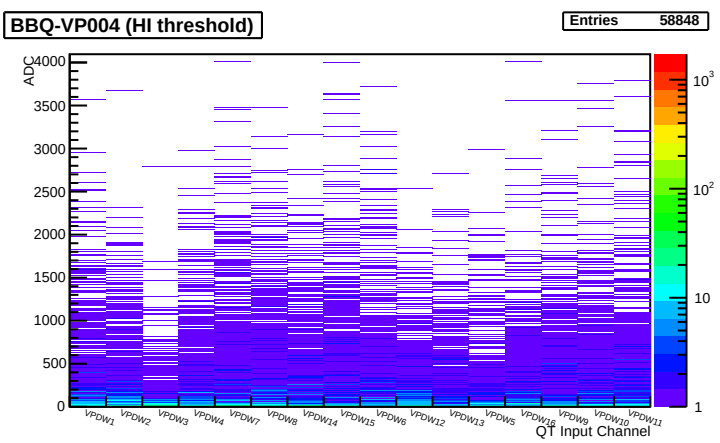

BBQ-VP001 (LO threshold)
Entries 58848
TAC
QT Input Channel

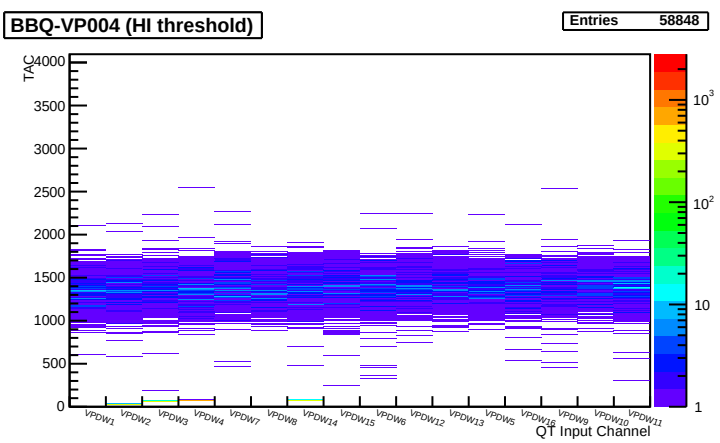

BBQ-VP002 (LO threshold)
Entries 58848
ADC
QT Input Channel

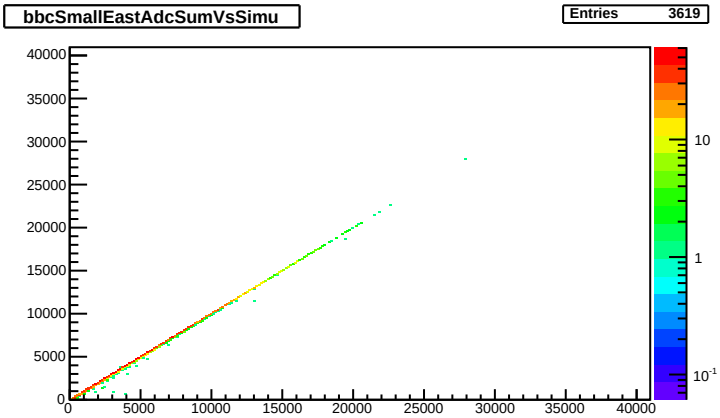

BBQ-VP002 (LO threshold)
Entries 58848
TAC
QT Input Channel

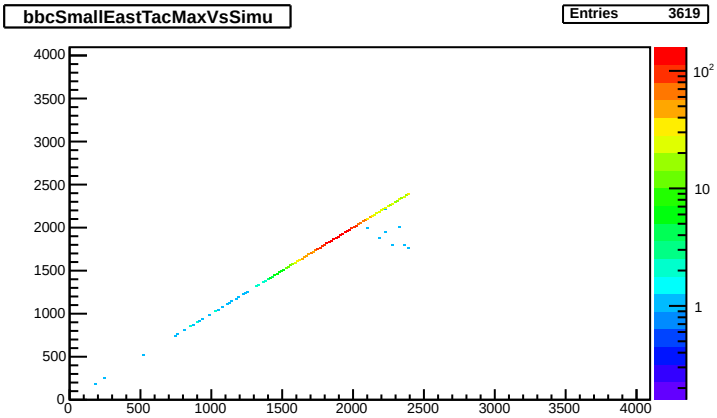

BBQ-VP003 (HI threshold)
Entries 58848
ADC
QT Input Channel

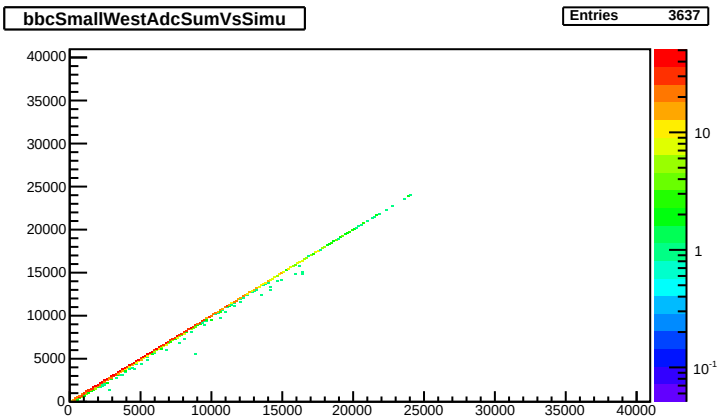

BBQ-VP003 (HI threshold)
Entries 58848
TAC
QT Input Channel

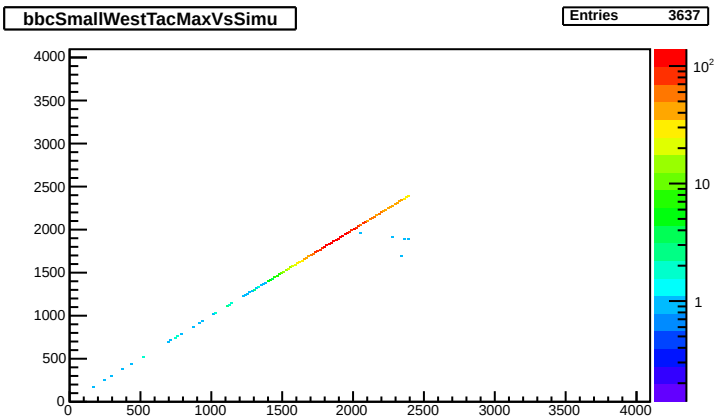

BBQ-VP004 (HI threshold)
Entries 58848
ADC
QT Input Channel

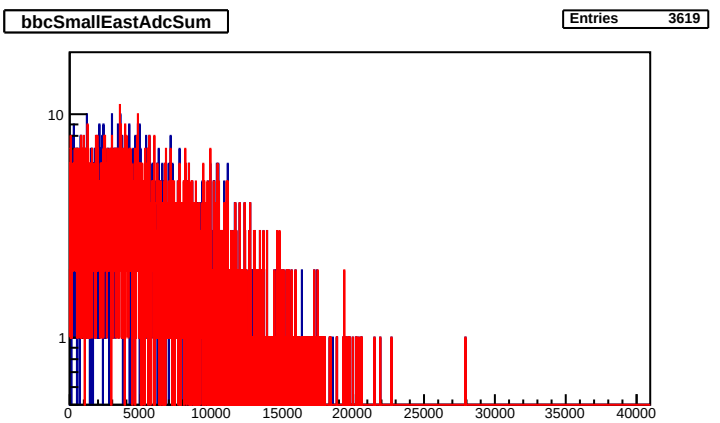

BBQ-VP004 (HI threshold)
Entries 58848
TAC
QT Input Channel

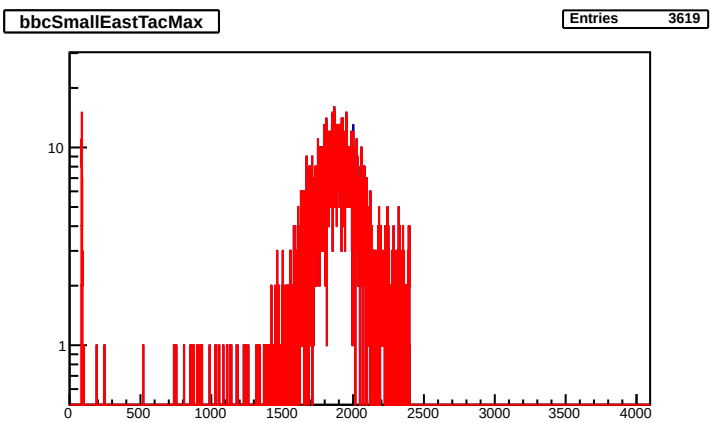

bbcSmallEastAdcSumVsSimu
Entries 3619

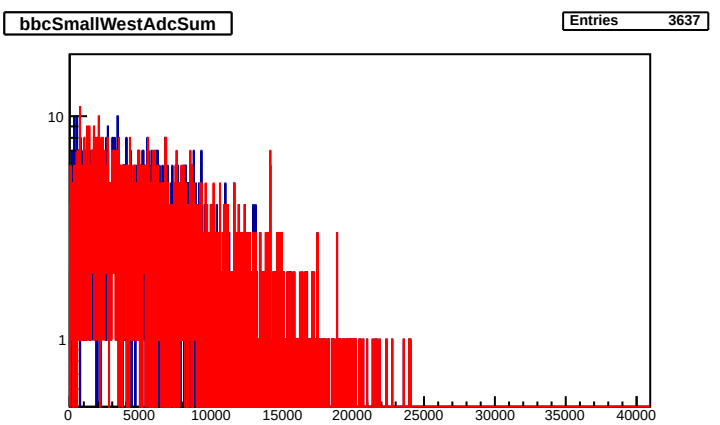

bbcSmallEastTacMaxVsSimu
Entries 3619

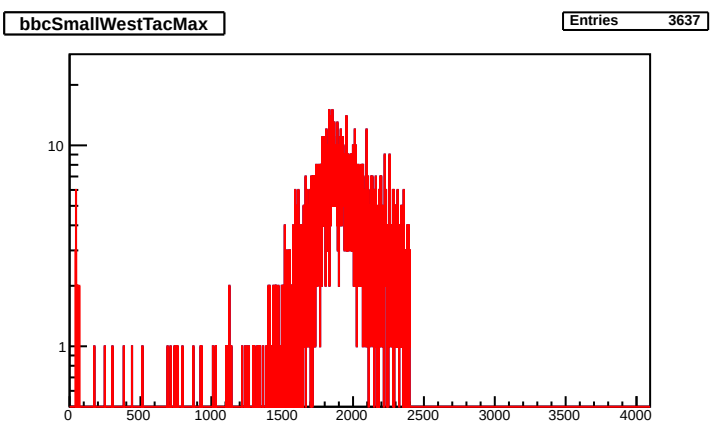

bbcSmallWestAdcSumVsSimu
Entries 3637

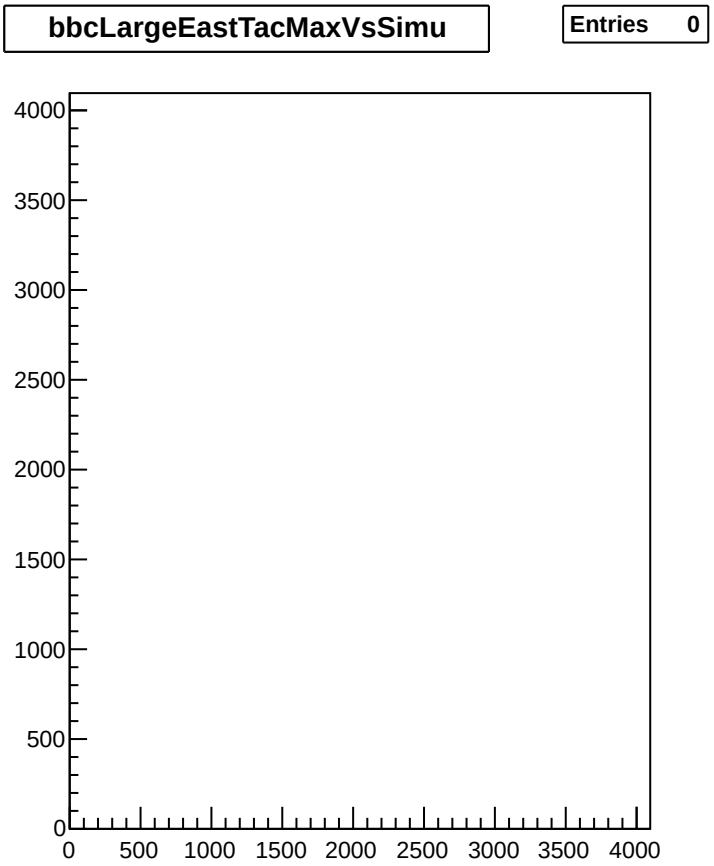

bbcSmallWestTacMaxVsSimu
Entries 3637

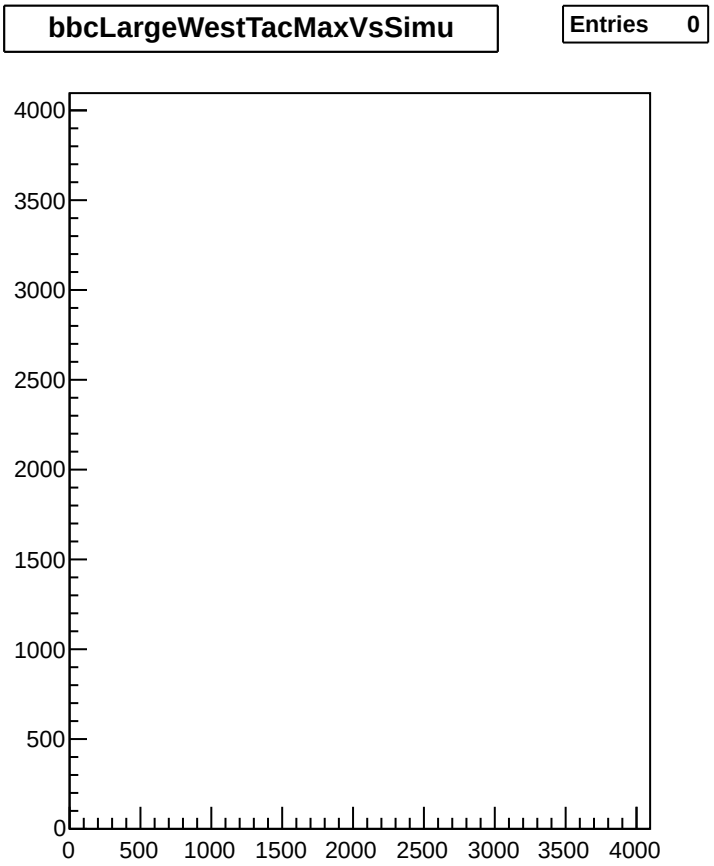

bbcSmallEastAdcSum
Entries 3619

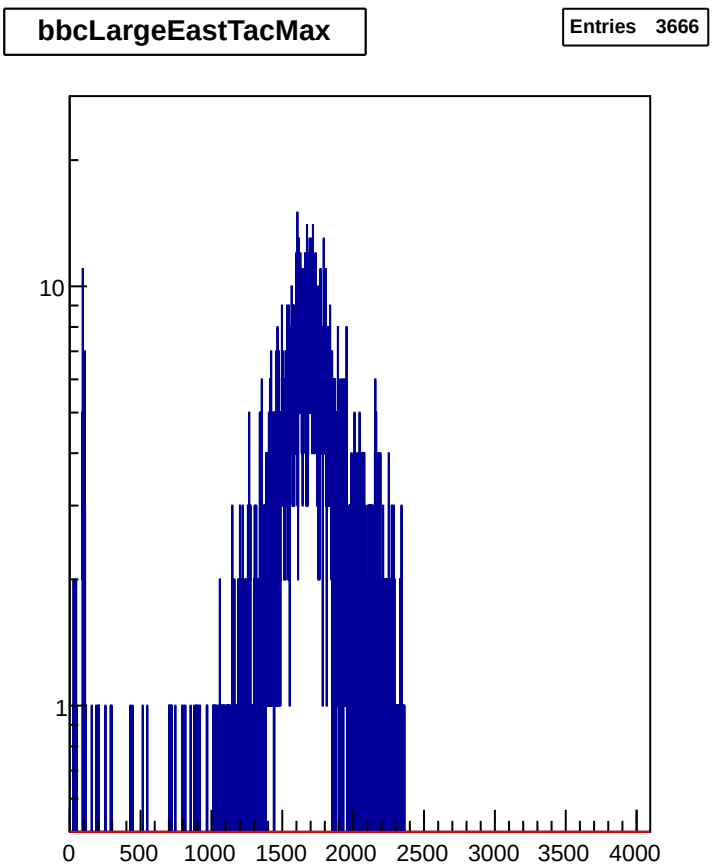

bbcSmallEastTacMax
Entries 3619

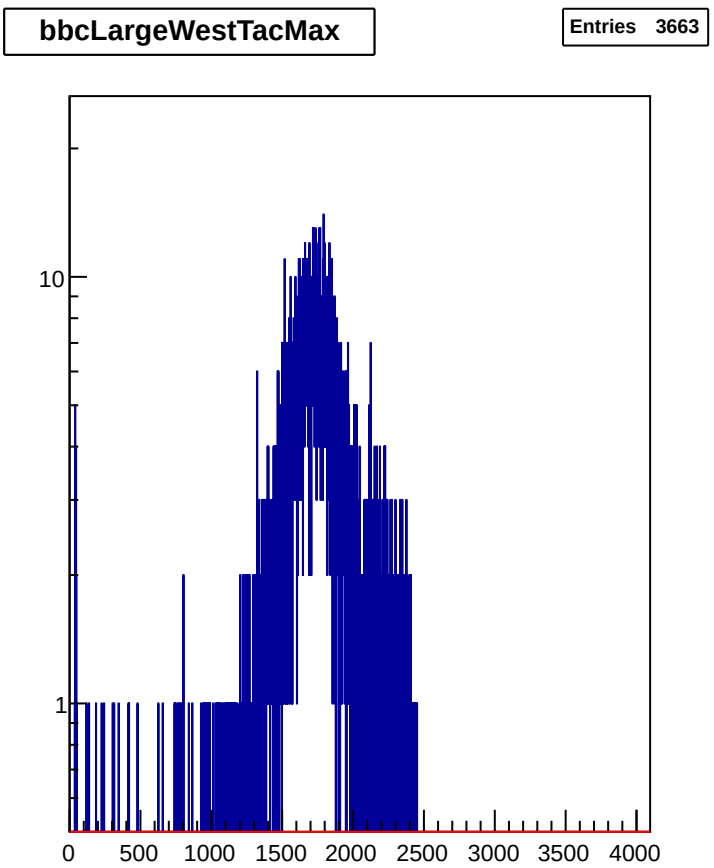

bbcSmallWestAdcSum
Entries 3637

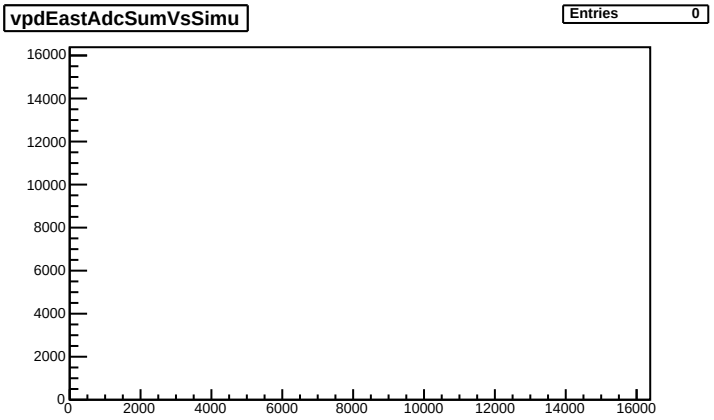

bbcSmallWestTacMax
Entries 3637

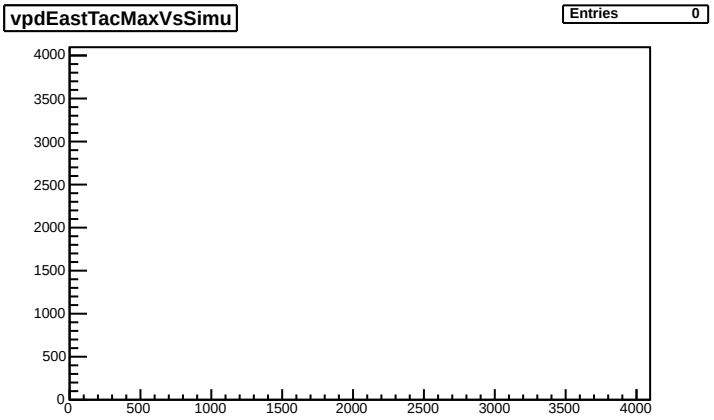

bbcLargeEastTacMaxVsSimu
Entries 0
4000
3500
3000
2500
2000
1500
1000
500
0
0 500 1000 1500 2000 2500 3000 3500 4000

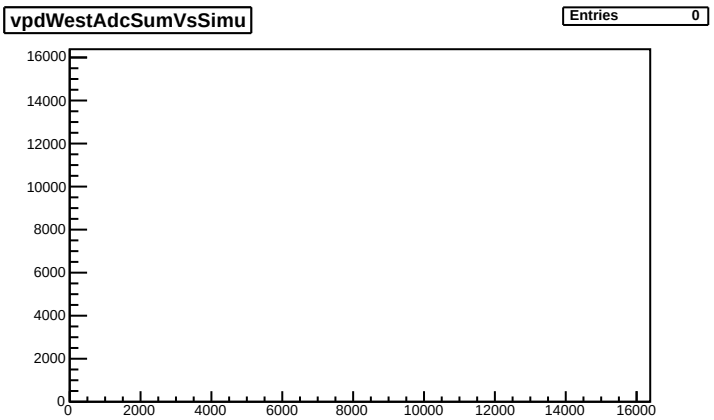

bbcLargeWestTacMaxVsSimu
Entries 0
4000
3500
3000
2500
2000
1500
1000
500
0
0 500 1000 1500 2000 2500 3000 3500 4000

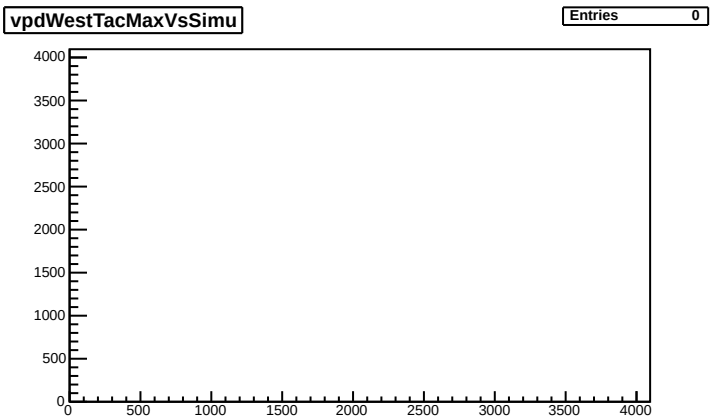

bbcLargeEastTacMax
Entries 3666
10
1
0 500 1000 1500 2000 2500 3000 3500 4000

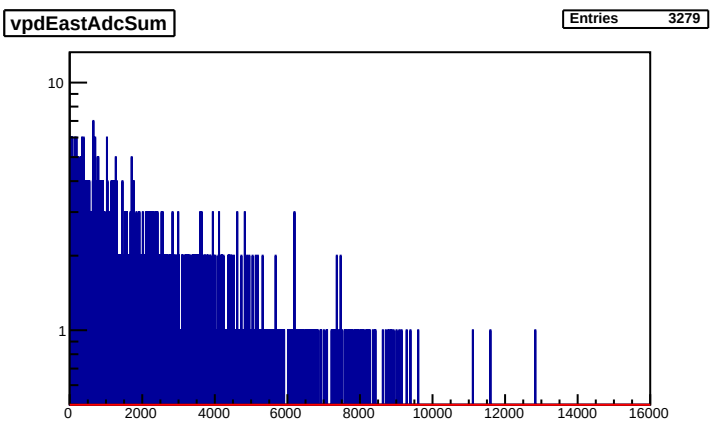

bbcLargeWestTacMax
Entries 3663
10
1
0 500 1000 1500 2000 2500 3000 3500 4000

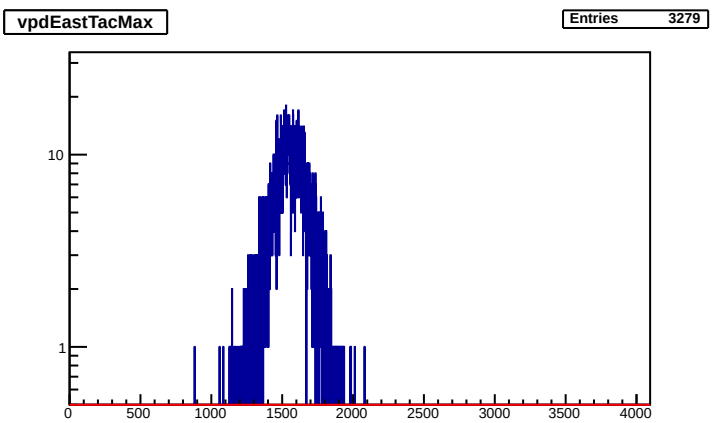

vpdEastAdcSumVsSimu
Entries 0

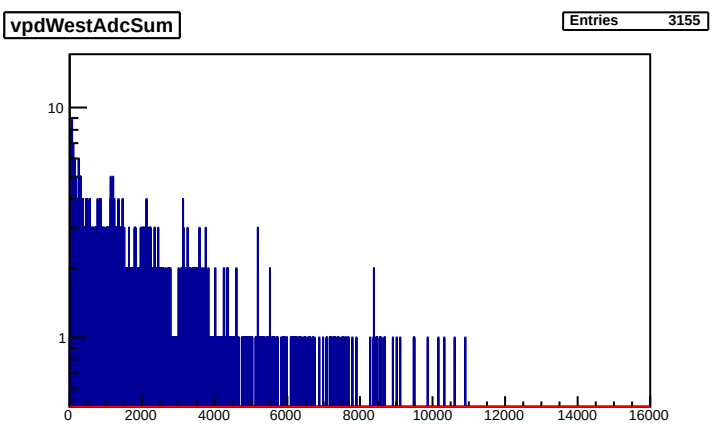

vpdEastTacMaxVsSimu
Entries 0

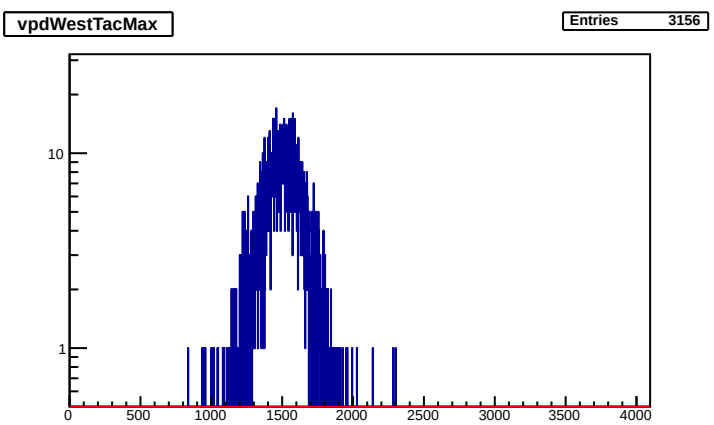

vpdWestAdcSumVsSimu
Entries 0

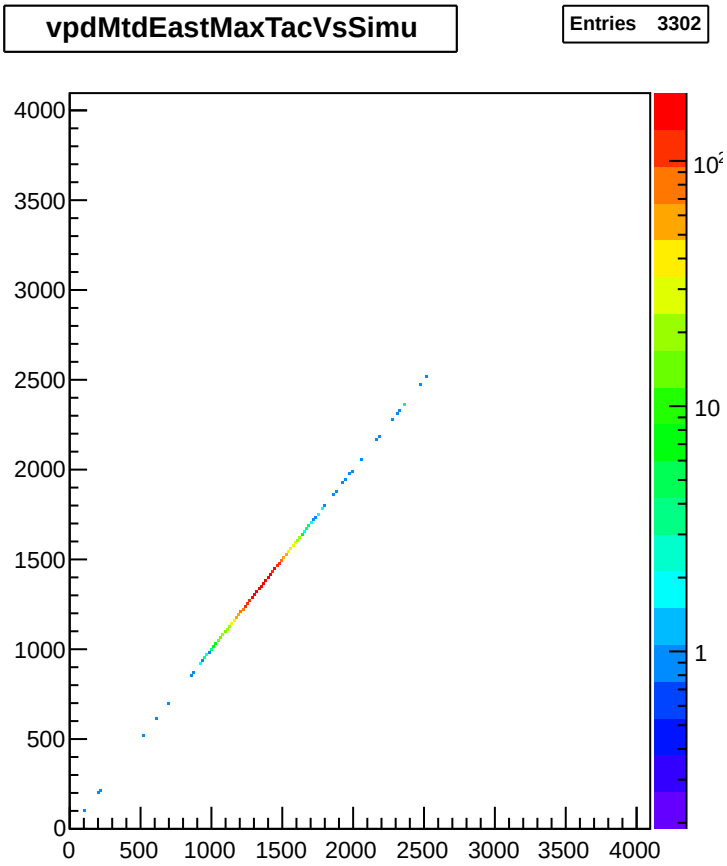

vpdWestTacMaxVsSimu
Entries 0

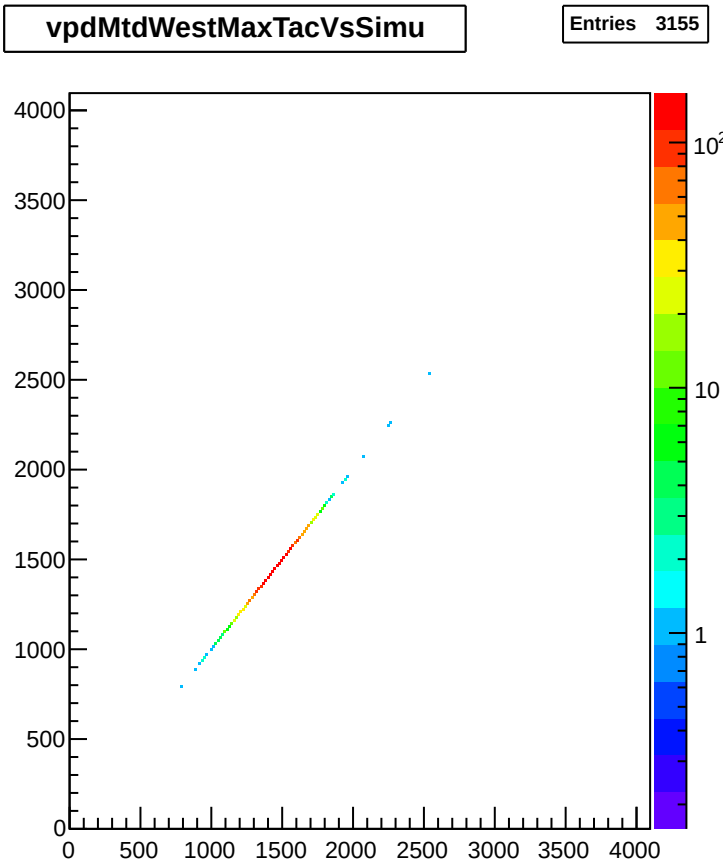

vpdEastAdcSum
Entries 3279

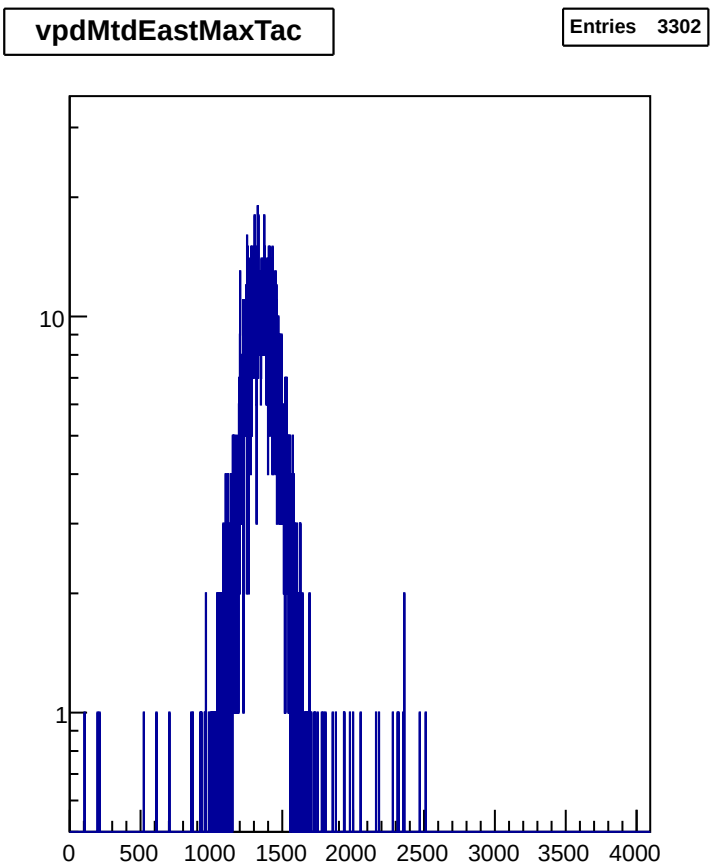

vpdEastTacMax
Entries 3279

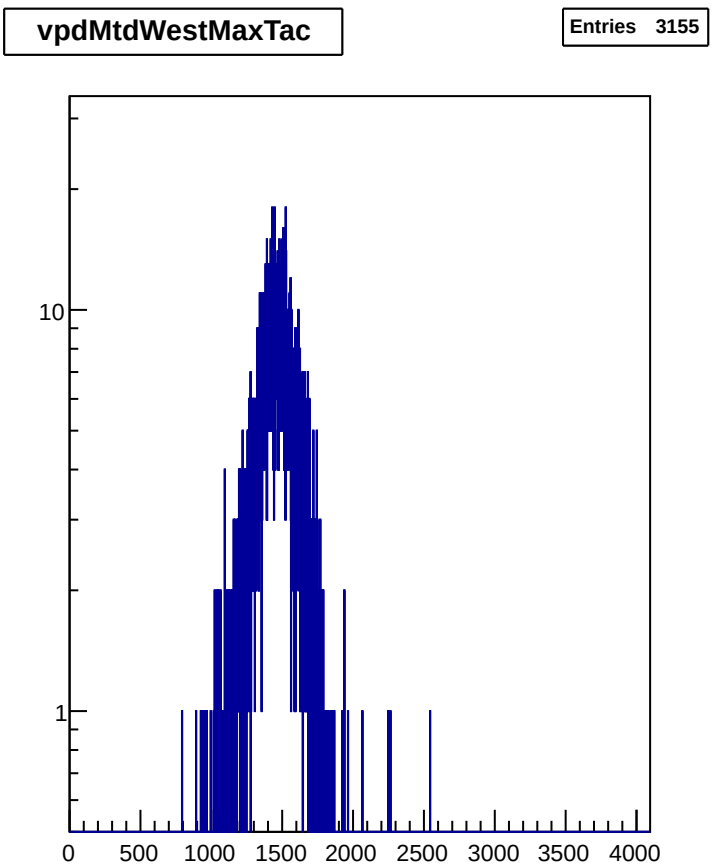

vpdWestAdcSum
Entries 3155

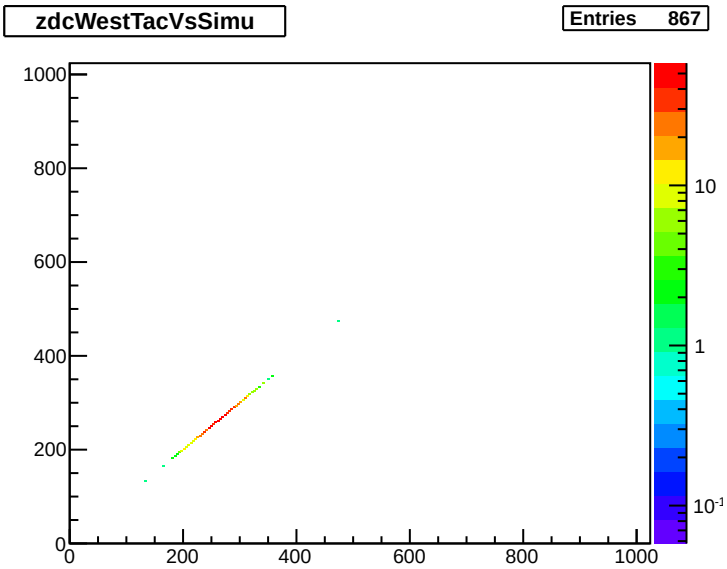

vpdWestTacMax
Entries 3156

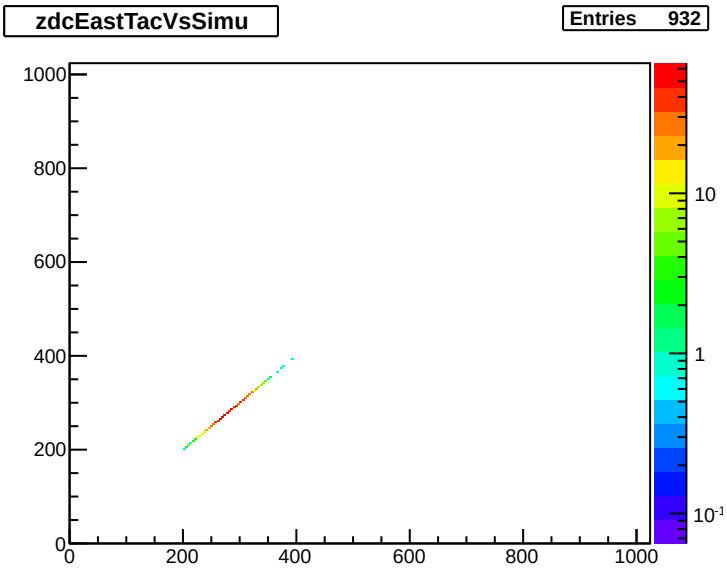

vpdMtdEastMaxTacVsSimu
Entries 3302
4000
3500
3000
2500
2000
1500
1000
500
0
0 500 1000 1500 2000 2500 3000 3500 4000
10
1

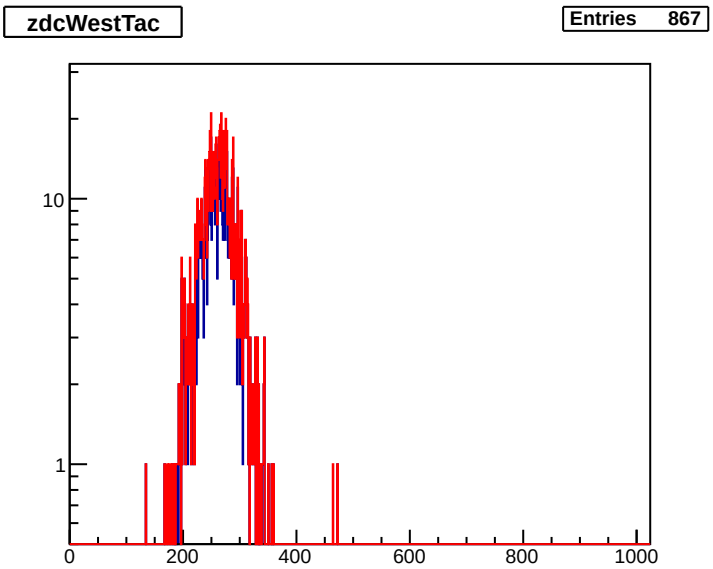

vpdMtdWestMaxTacVsSimu
Entries 3155
4000
3500
3000
2500
2000
1500
1000
500
0
0 500 1000 1500 2000 2500 3000 3500 4000
10
1

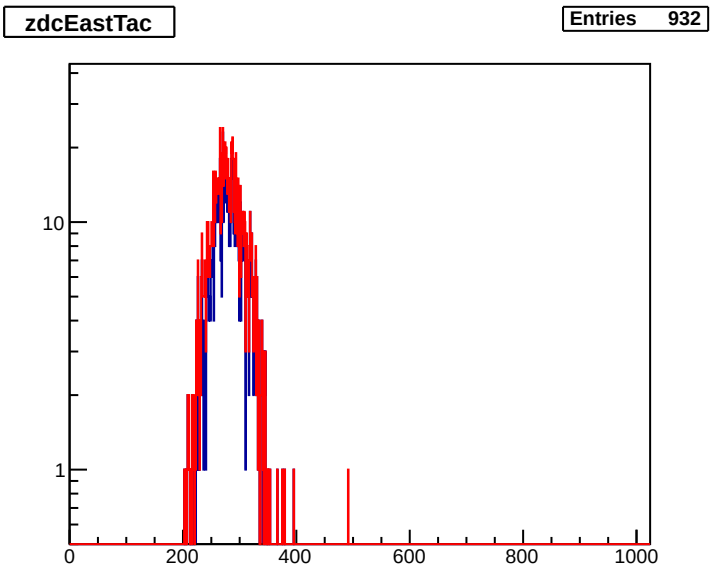

vpdMtdEastMaxTac
Entries 3302
10
1
0 500 1000 1500 2000 2500 3000 3500 4000

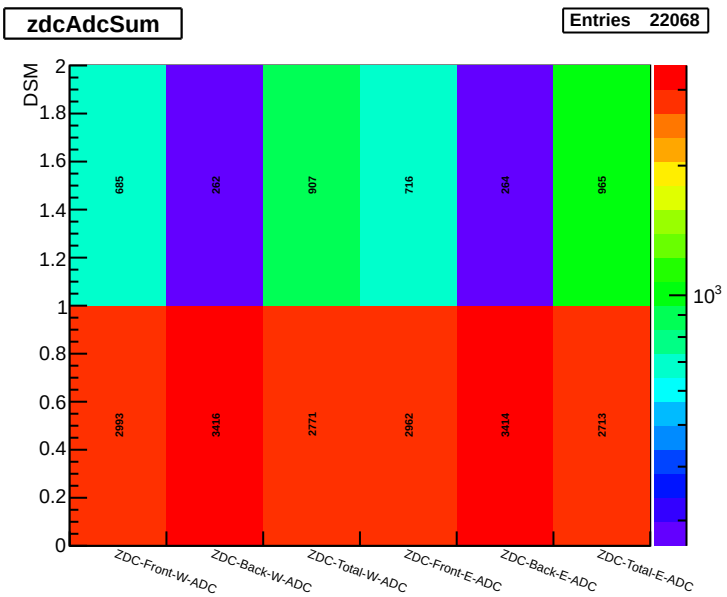

vpdMtdWestMaxTac
Entries 3155
10
1
0 500 1000 1500 2000 2500 3000 3500 4000

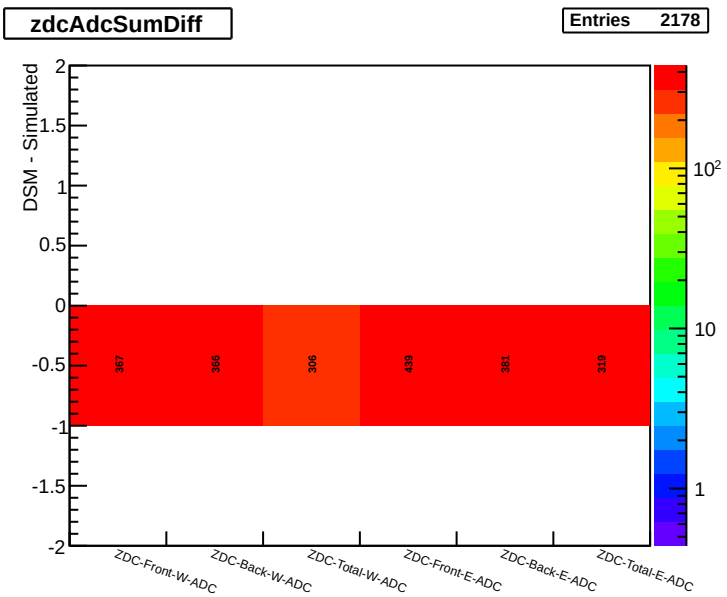

zdcWestTacVsSimu
Entries 867

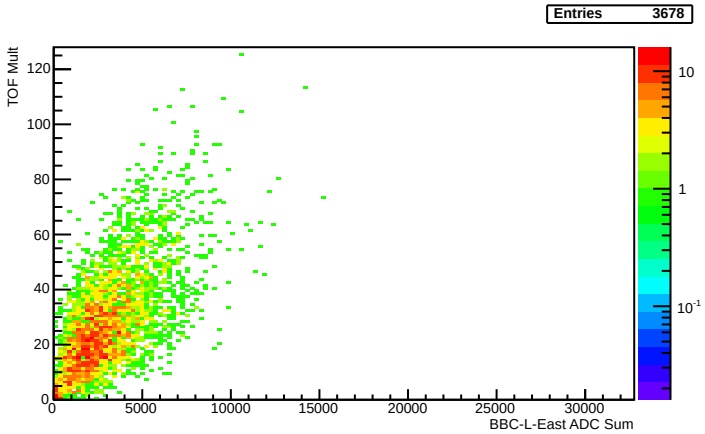

zdcEastTacVsSimu
Entries 932

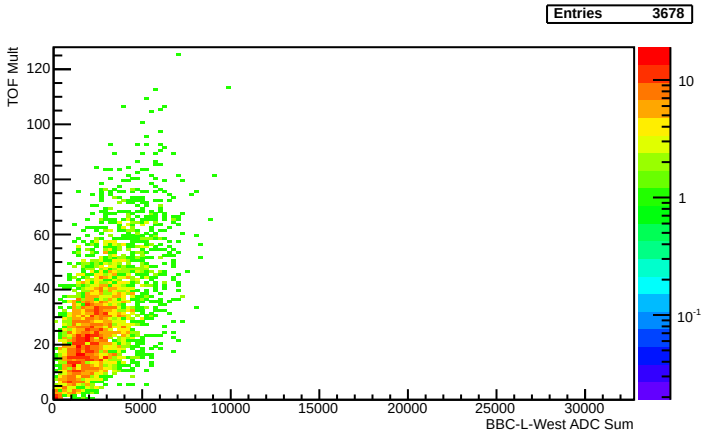

zdcWestTac
Entries 867

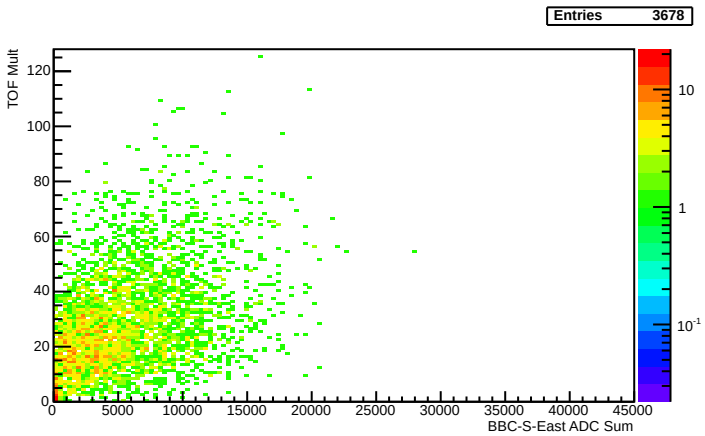

zdcEastTac
Entries 932

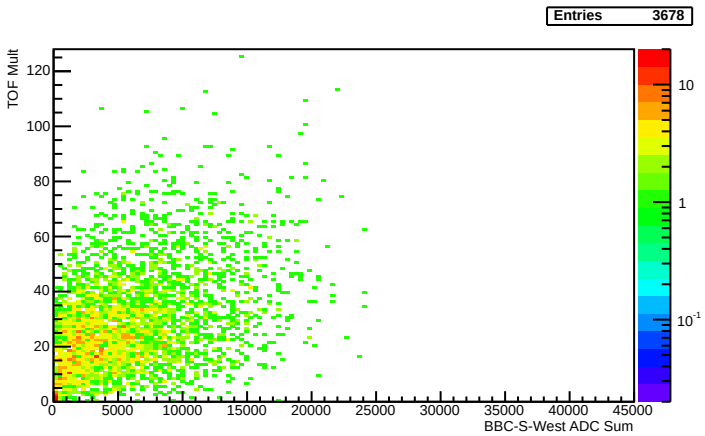

zdcAdcSum
Entries 22068
DSM
685
262
907
716
264
965
2993
3416
2771
2962
3414
2713
ZDC-Front-W-ADC
ZDC-Back-W-ADC
ZDC-Total-W-ADC
ZDC-Front-E-ADC
ZDC-Back-E-ADC
ZDC-Total-E-ADC

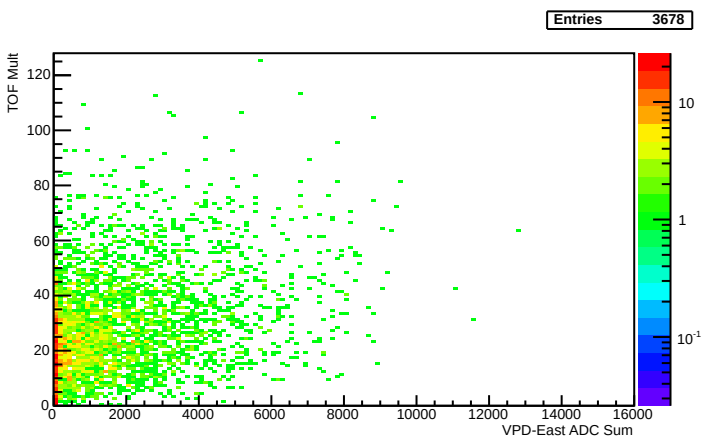

zdcAdcSumDiff
Entries 2178
DSM - Simulated
367
366
306
439
381
319
ZDC-Front-W-ADC
ZDC-Back-W-ADC
ZDC-Total-W-ADC
ZDC-Front-E-ADC
ZDC-Back-E-ADC
ZDC-Total-E-ADC

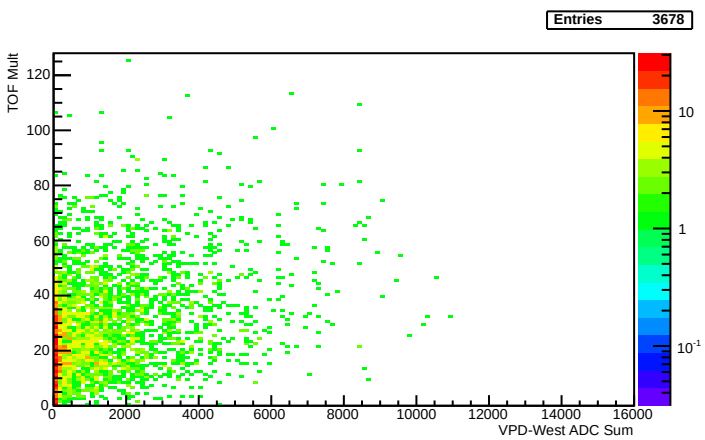

Entries 3678
TOF Mult
BBC-L-East ADC Sum

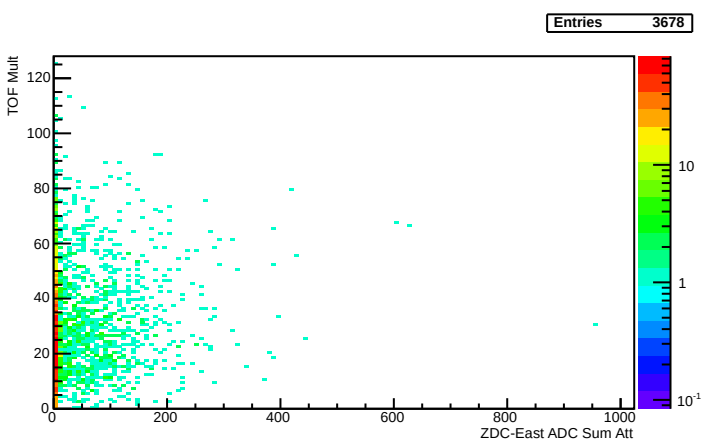

Entries 3678
TOF Mult
BBC-L-West ADC Sum

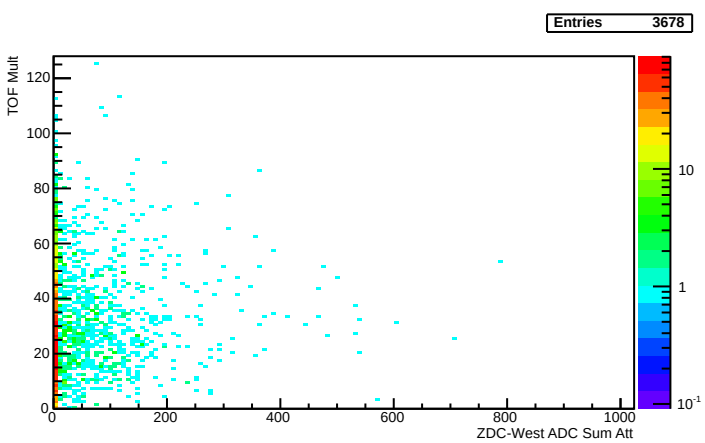

Entries 3678
TOF Mult
BBC-S-East ADC Sum

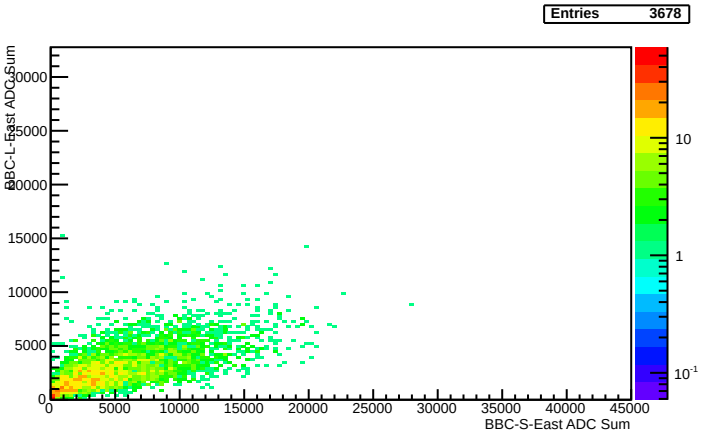

Entries 3678
TOF Mult
BBC-S-West ADC Sum

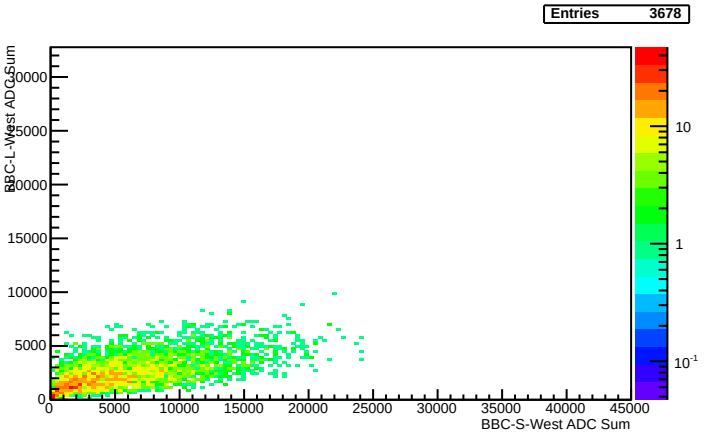

Entries 3678
TOF Mult
VPD-East ADC Sum

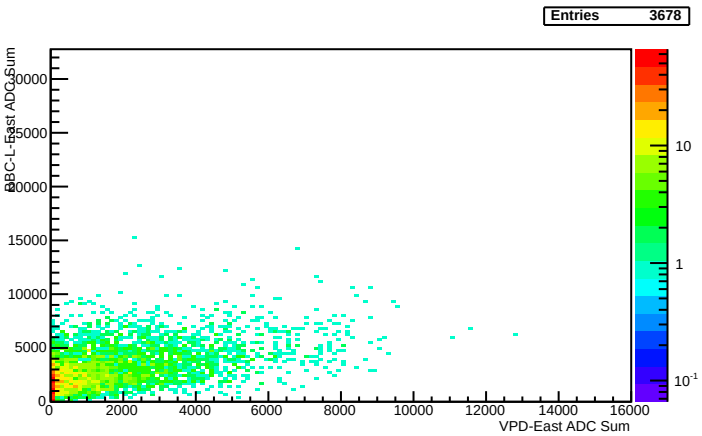

Entries 3678
TOF Mult
VPD-West ADC Sum

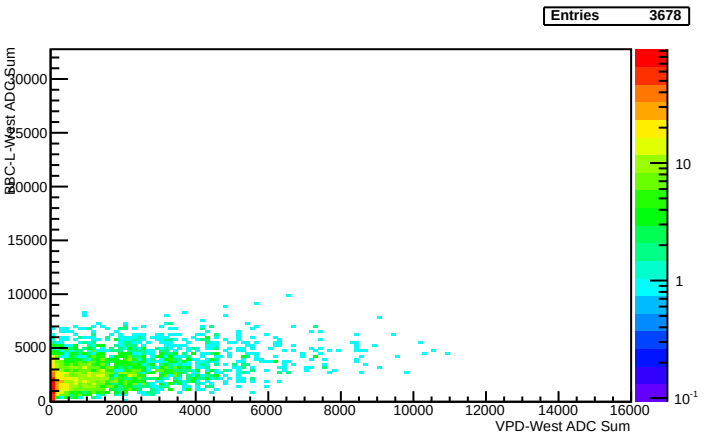

Entries 3678
TOF Mult
ZDC-East ADC Sum Att

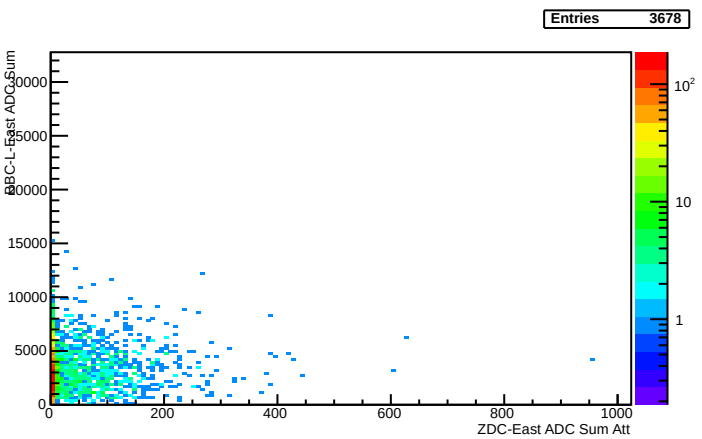

Entries 3678
TOF Mult
ZDC-West ADC Sum Att

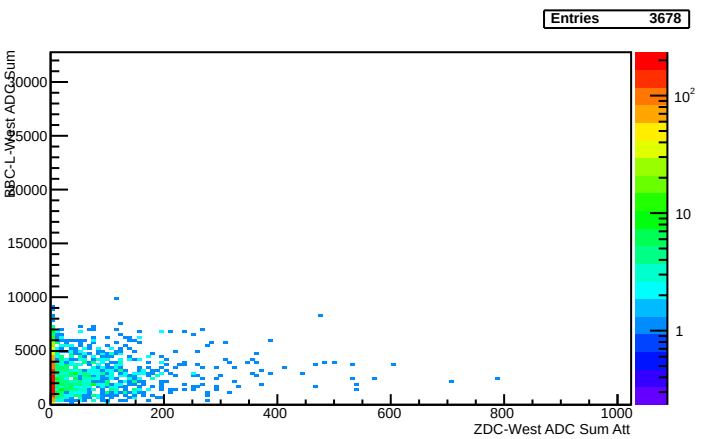

Entries 3678
BBC-L-East ADC Sum
BBC-S-East ADC Sum

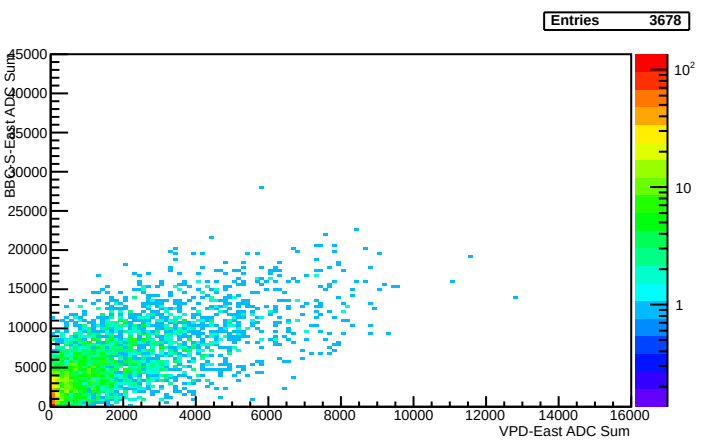

Entries 3678
BBC-L-West ADC Sum
BBC-S-West ADC Sum

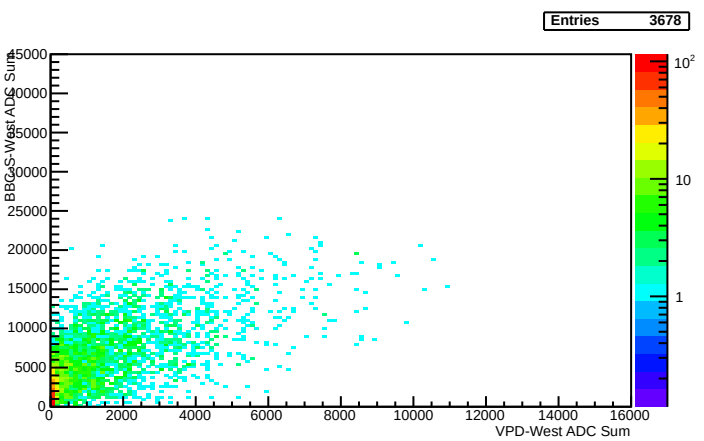

Entries 3678
BBC-L-East ADC Sum
VPD-East ADC Sum

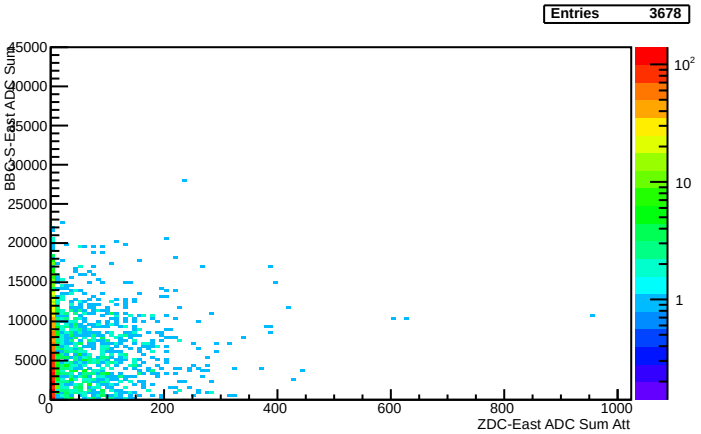

Entries 3678
BBC-L-West ADC Sum
VPD-West ADC Sum

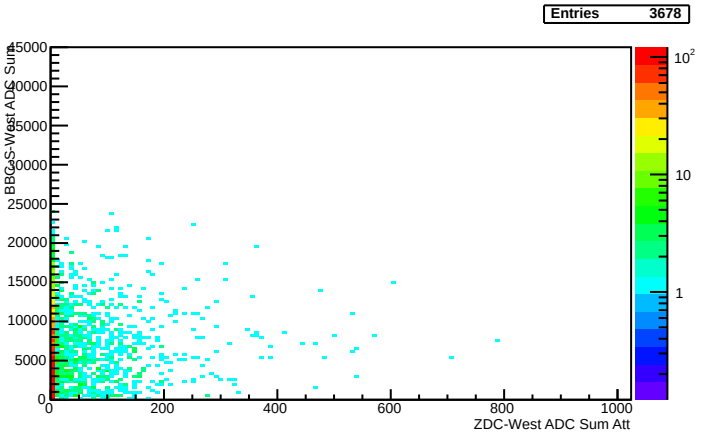

Entries 3678
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

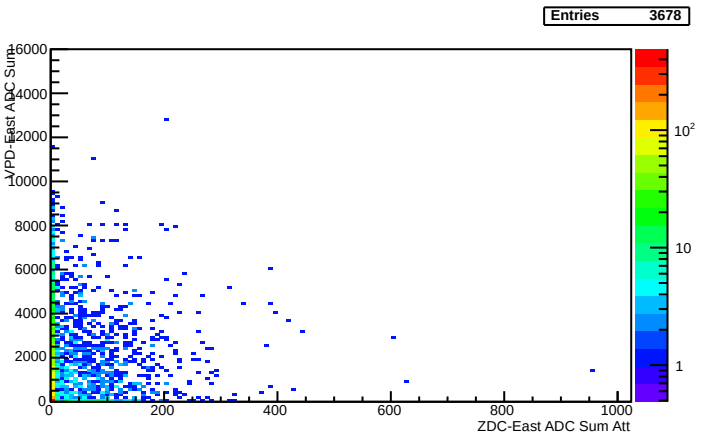

Entries 3678
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

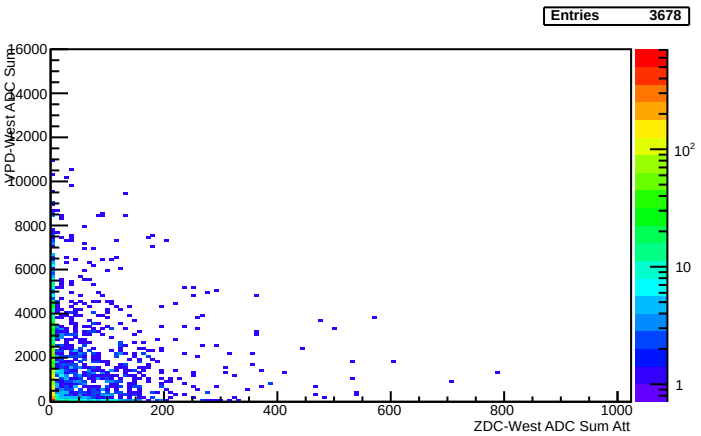

Entries 3678
BBC-S-East ADC Sum
VPD-East ADC Sum

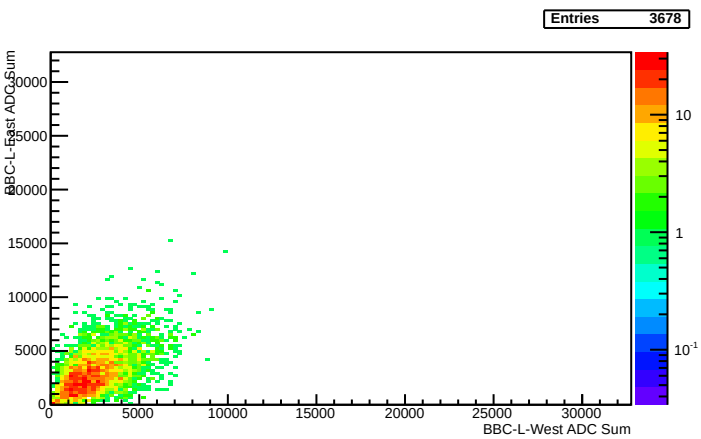

Entries 3678
BBC-S-West ADC Sum
VPD-West ADC Sum

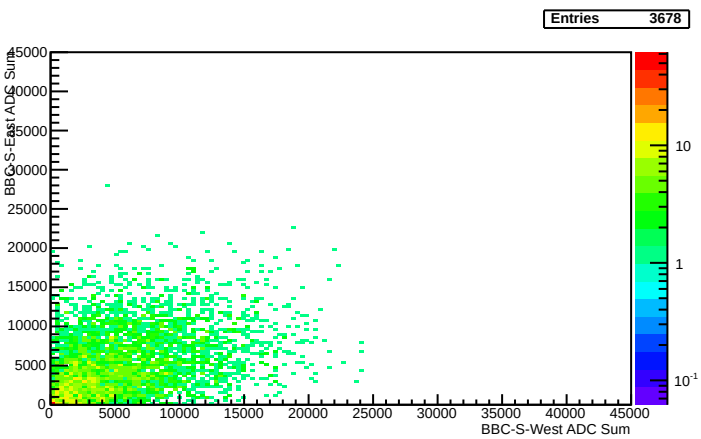

Entries 3678
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

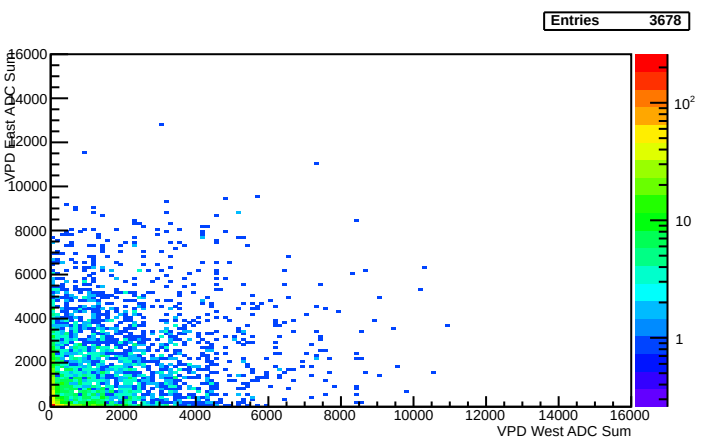

Entries 3678
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

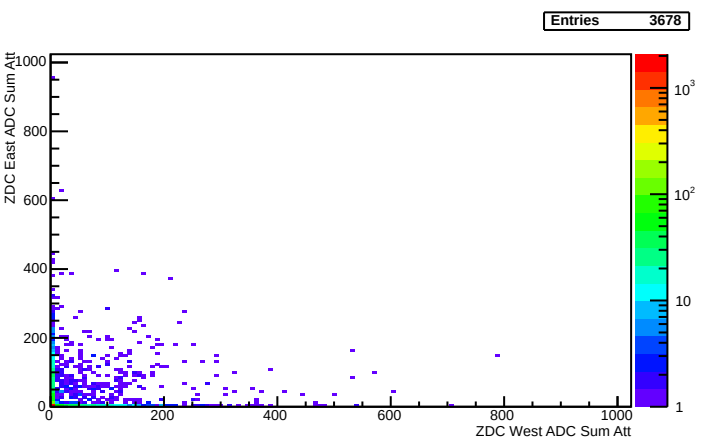

Entries 3678
VPD-East ADC Sum
ZDC-East ADC Sum Att

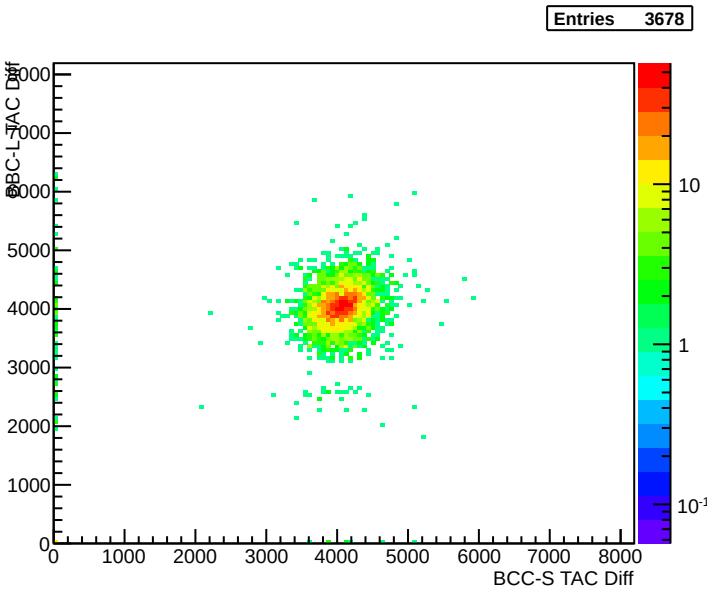

Entries 3678
VPD-West ADC Sum
ZDC-West ADC Sum Att

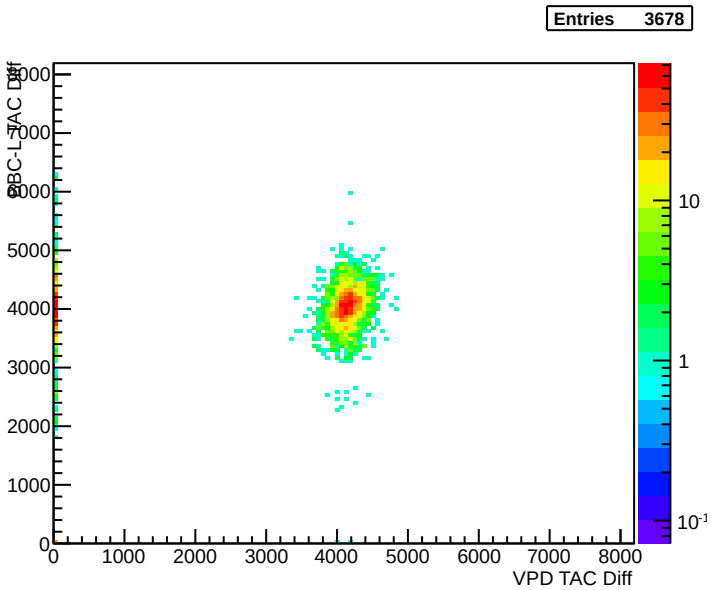

Entries 3678
BBC-L-East ADC Sum
BBC-L-West ADC Sum

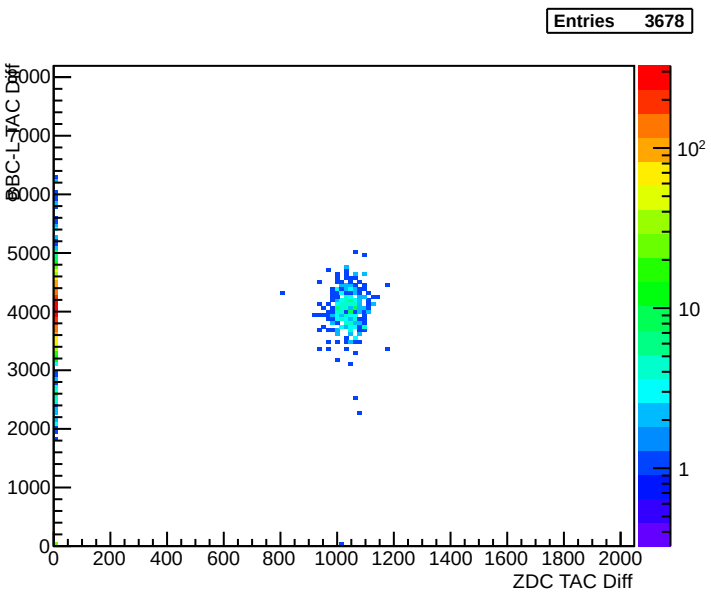

Entries 3678
BBC-S-East ADC Sum
BBC-S-West ADC Sum

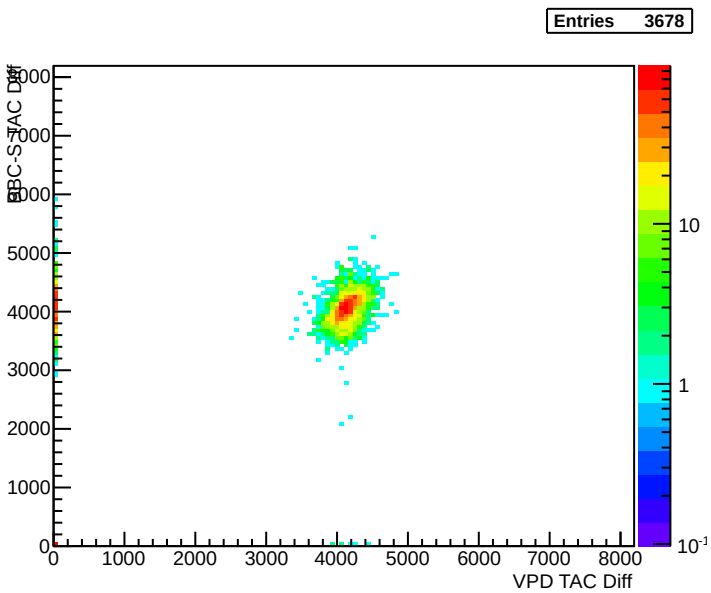

Entries 3678
VPD East ADC Sum
VPD West ADC Sum

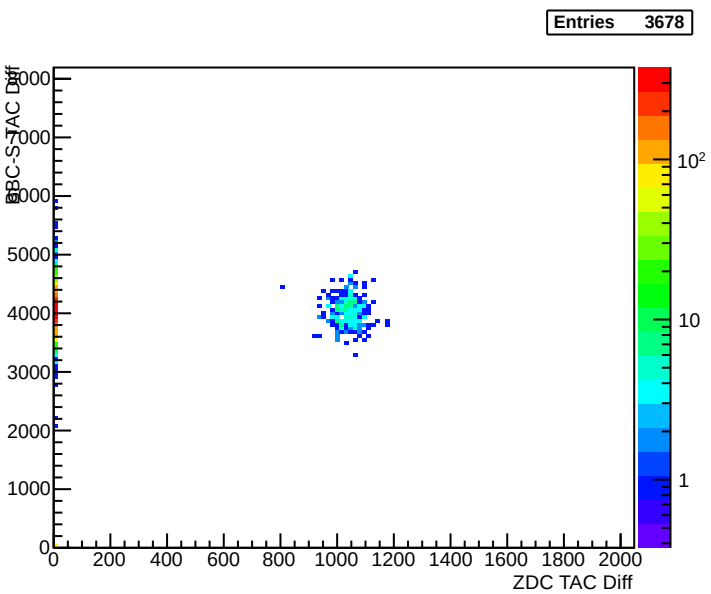

Entries 3678
ZDC East ADC Sum Att
ZDC West ADC Sum Att

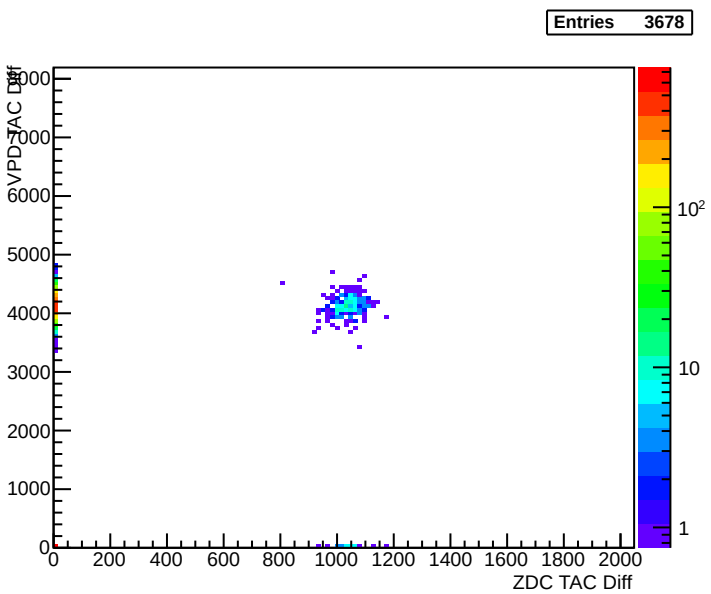

Entries 3678
BBC-L TAC Diff
BCC-S TAC Diff

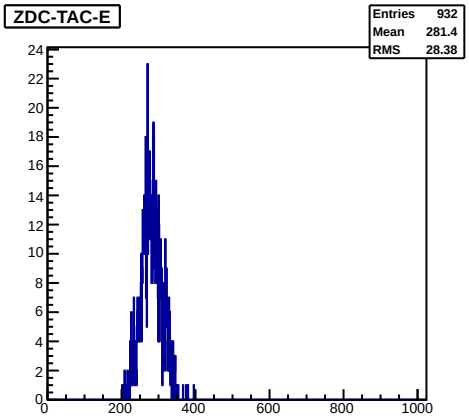

Entries 3678
BBC-L TAC Diff
VPD TAC Diff

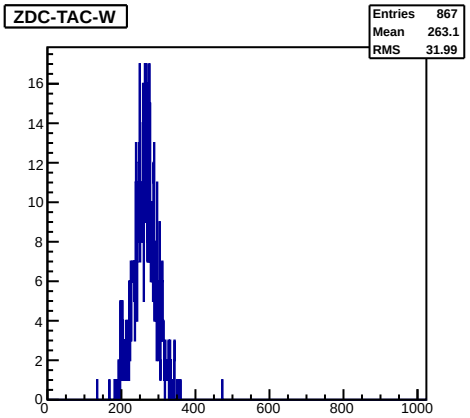

Entries 3678
BBC-L TAC Diff
ZDC TAC Diff

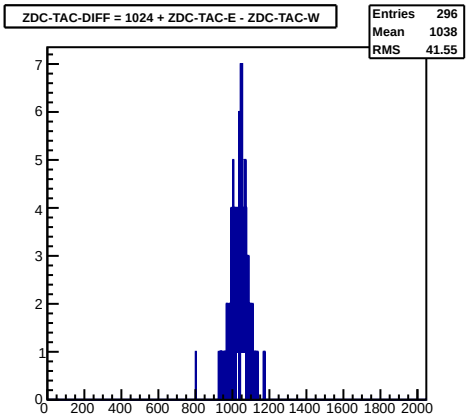

Entries 3678
BBC-S TAC Diff
VPD TAC Diff

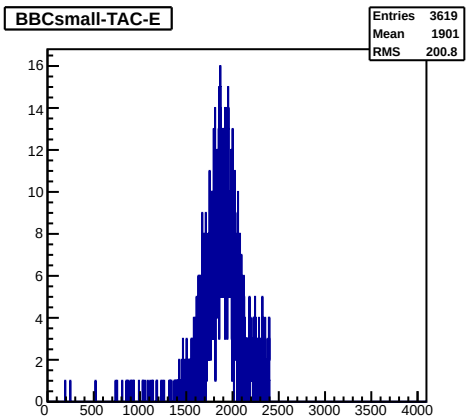

Entries 3678
BBC-S TAC Diff
ZDC TAC Diff

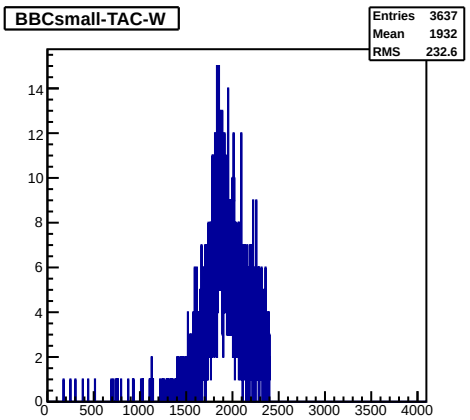

Entries 3678
VPD TAC Diff
ZDC TAC Diff

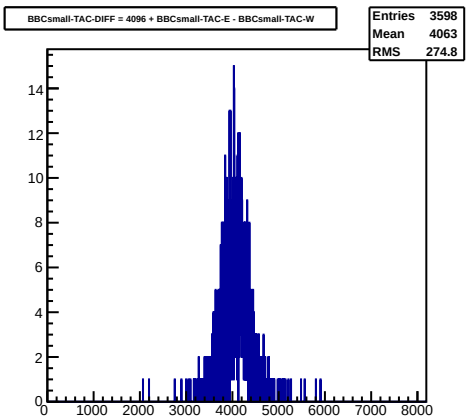

ZDC-TAC-E
Entries 932
Mean 281.4
RMS 28.38

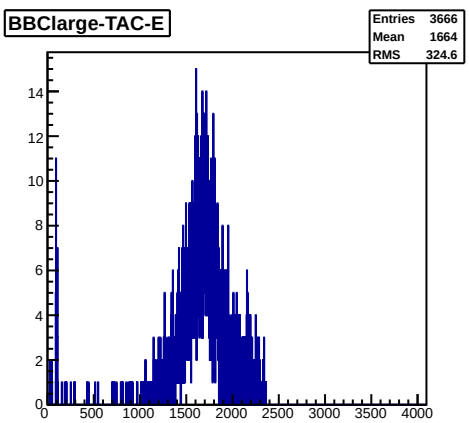

ZDC-TAC-W
Entries 867
Mean 263.1
RMS 31.99

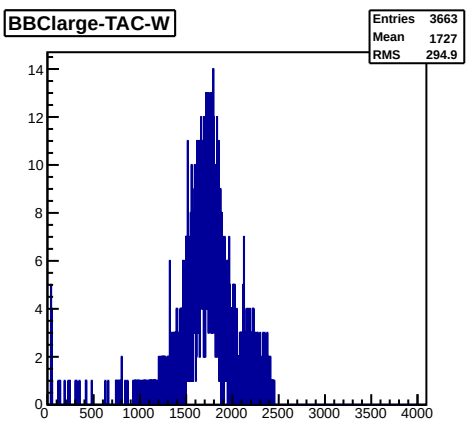

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 296
Mean 1038
RMS 41.55

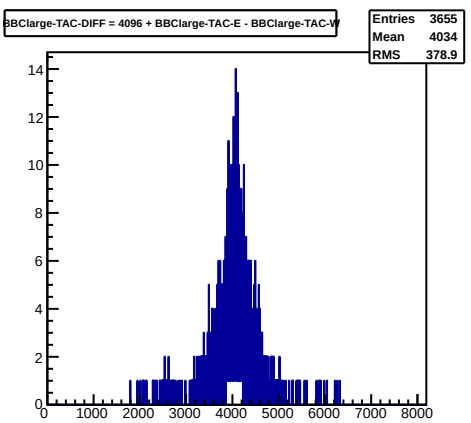

BBCsmall-TAC-E
Entries 3619
Mean 1901
RMS 200.8

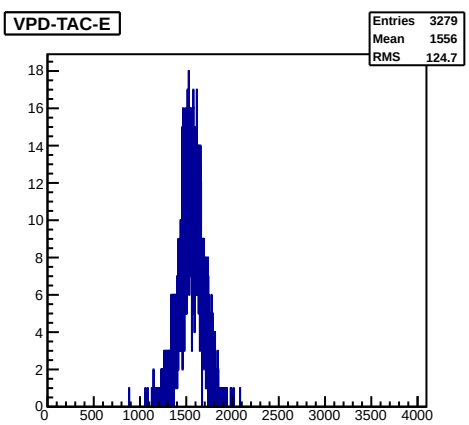

BBCsmall-TAC-W
Entries 3637
Mean 1932
RMS 232.6

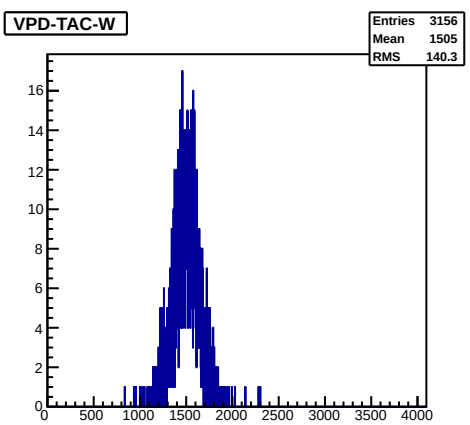

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 3598
Mean 4063
RMS 274.8

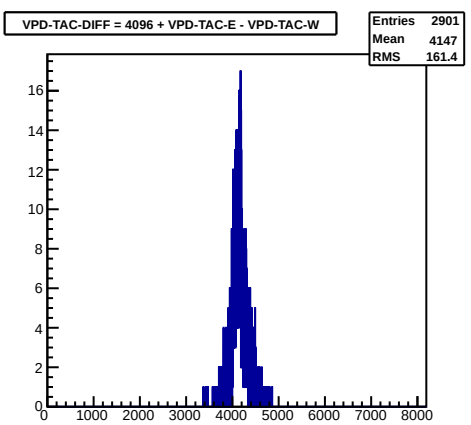

BBClarge-TAC-E
Entries 3666
Mean 1664
RMS 324.6

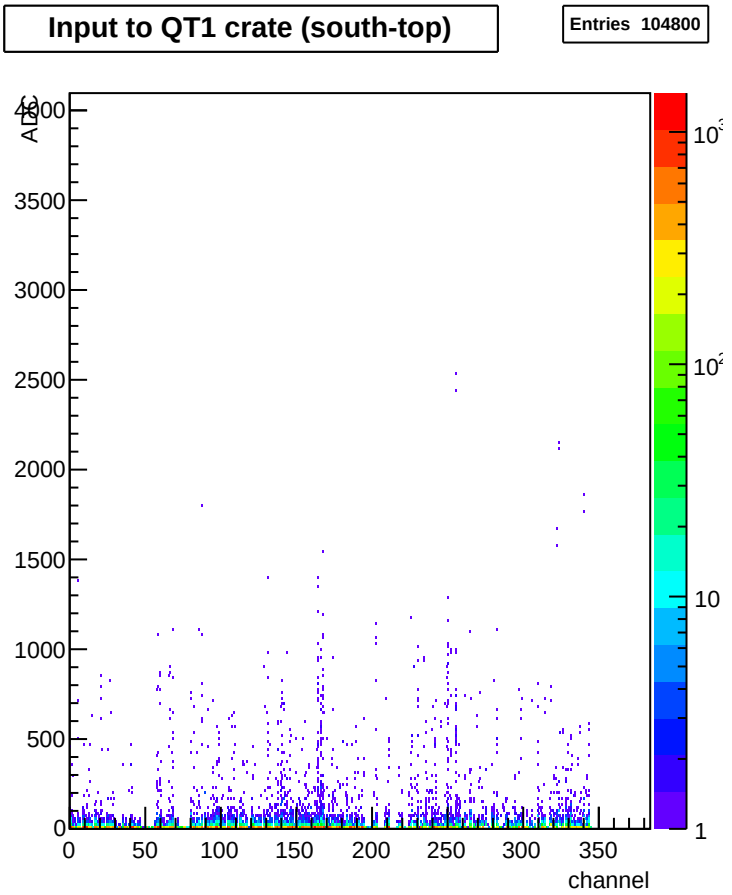

BBClarge-TAC-W
Entries 3663
Mean 1727
RMS 294.9

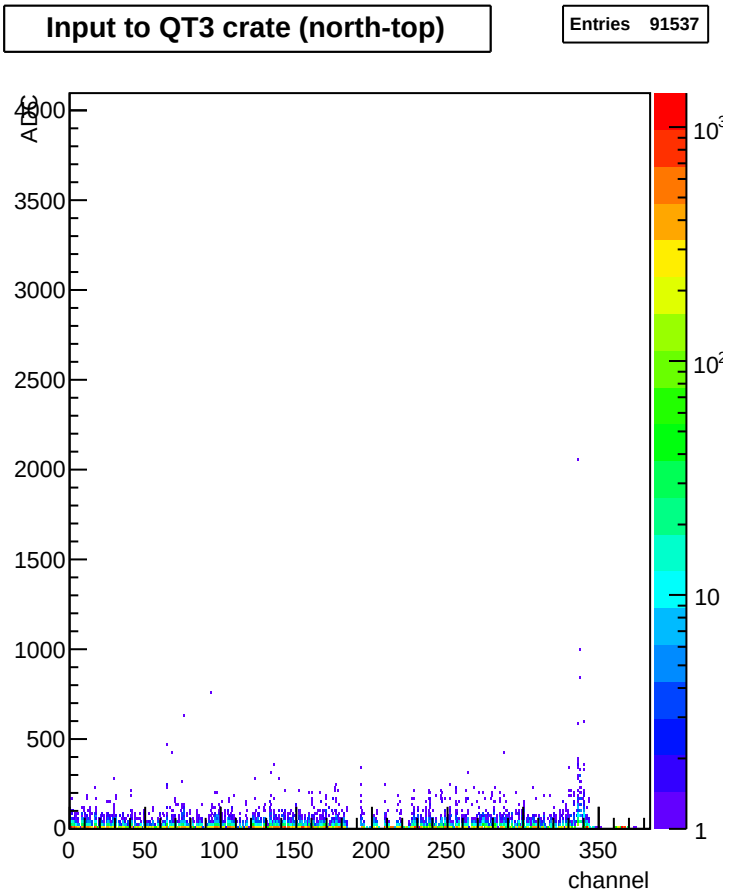

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 3655
Mean 4034
RMS 378.9

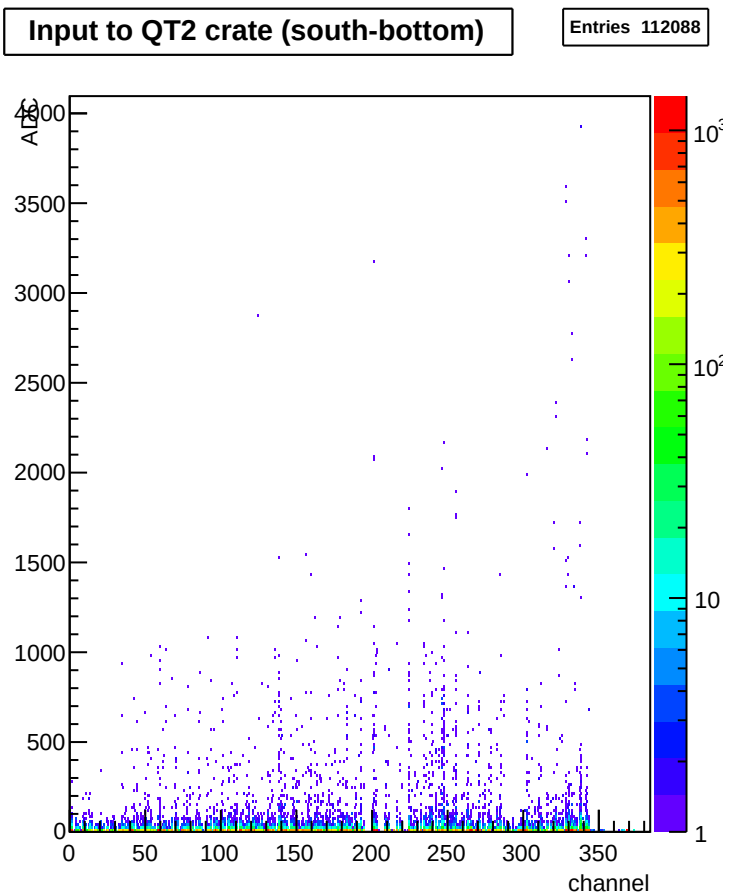

VPD-TAC-E
Entries 3279
Mean 1556
RMS 124.7

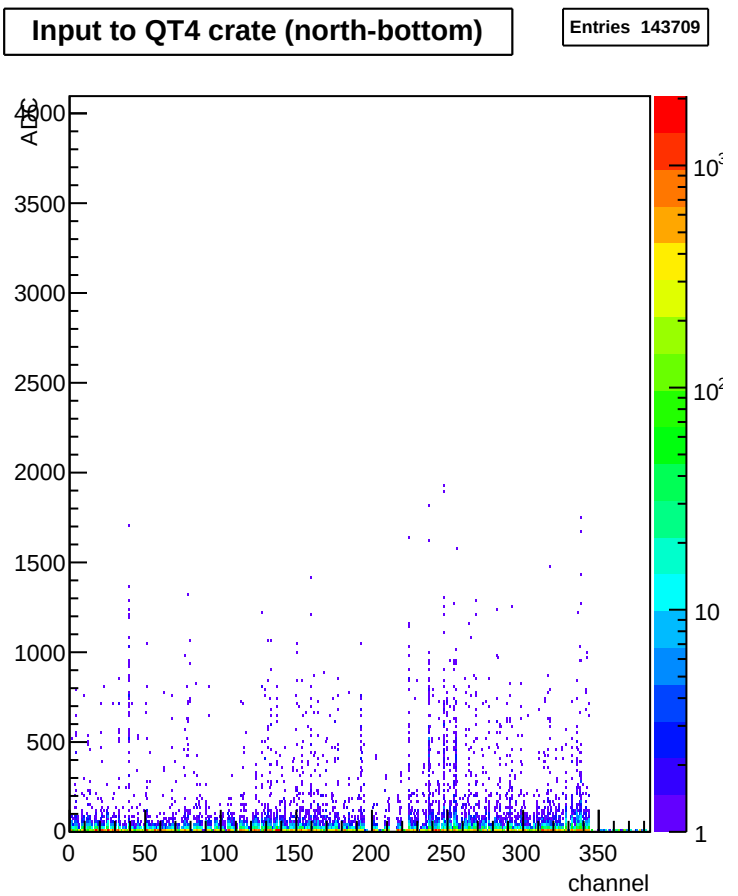

VPD-TAC-W
Entries 3156
Mean 1505
RMS 140.3

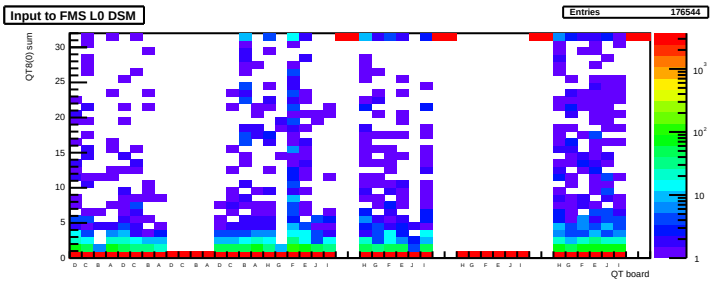

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 2901
Mean 4147
RMS 161.4

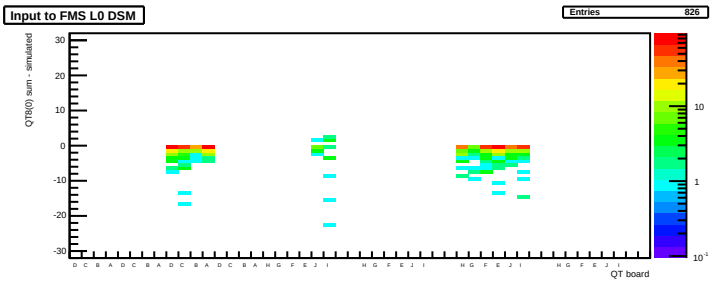

Input to QT1 crate (south-top)
Entries 104800
ADC
channel

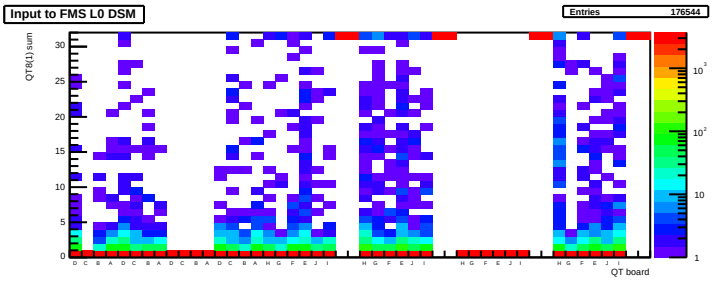

Input to QT3 crate (north-top)
Entries 91537
ADC
channel

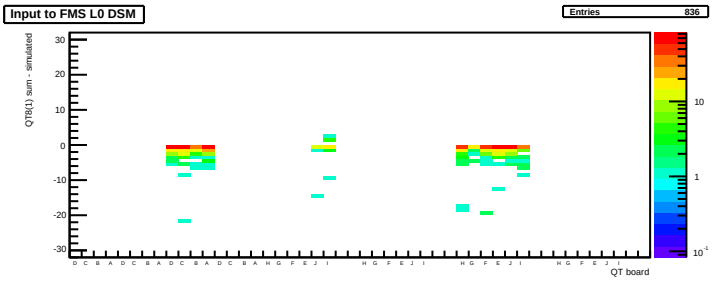

Input to QT2 crate (south-bottom)
Entries 112088
ADC
channel

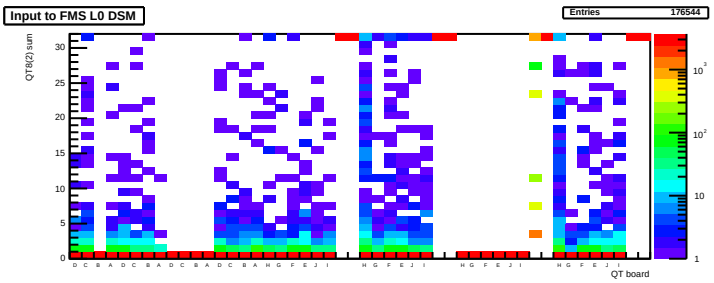

Input to QT4 crate (north-bottom)
Entries 143709
ADC
channel

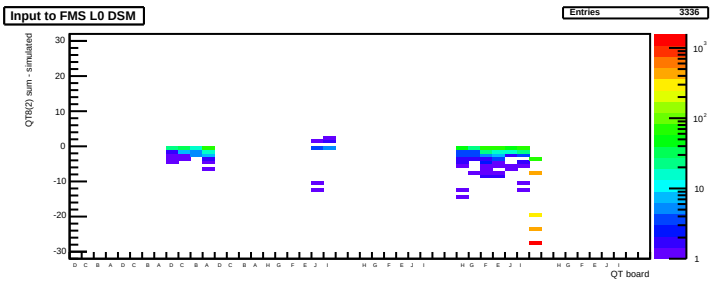

Input to FMS L0 DSM
Entries 176544
QT8(0) sum
QT board

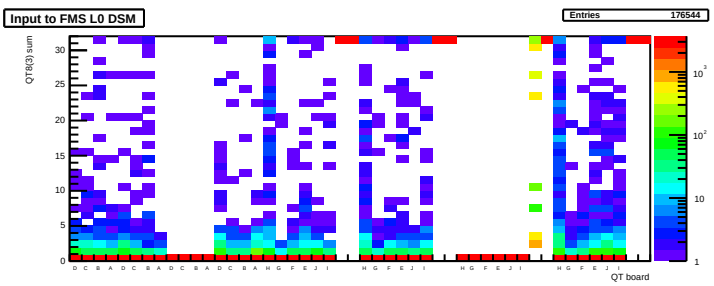

Input to FMS L0 DSM
Entries 826
QT8(0) sum - simulated
QT board

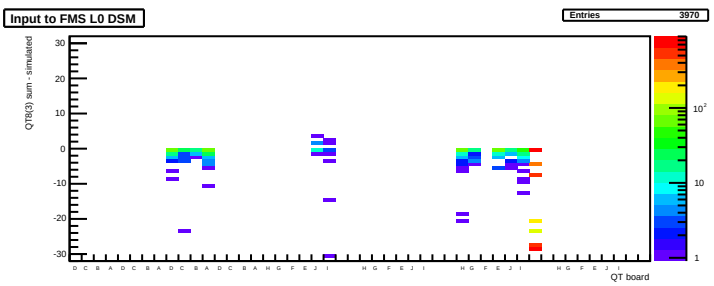

Input to FMS L0 DSM
Entries 176544
QT8(1) sum
QT board

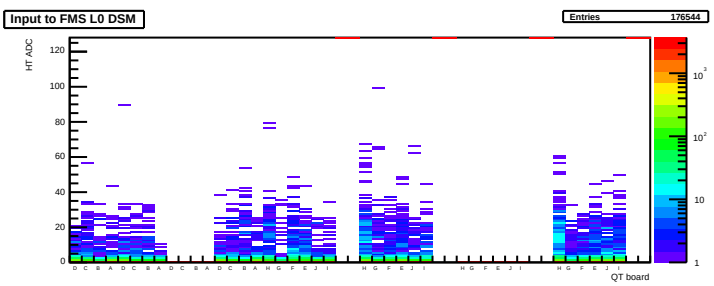

Input to FMS L0 DSM
Entries 836
QT8(1) sum - simulated
QT board

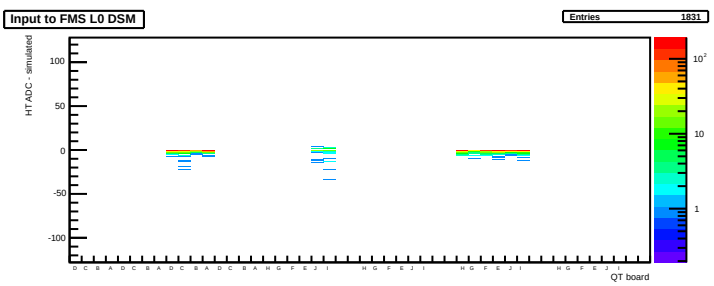

Input to FMS L0 DSM
Entries 176544
QT8(2) sum
QT board

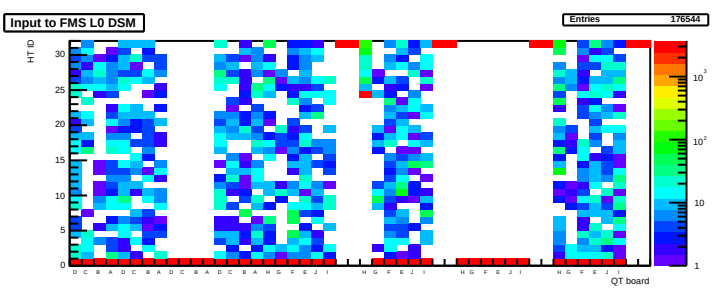

Input to FMS L0 DSM
Entries 3336
QT8(2) sum - simulated
QT board

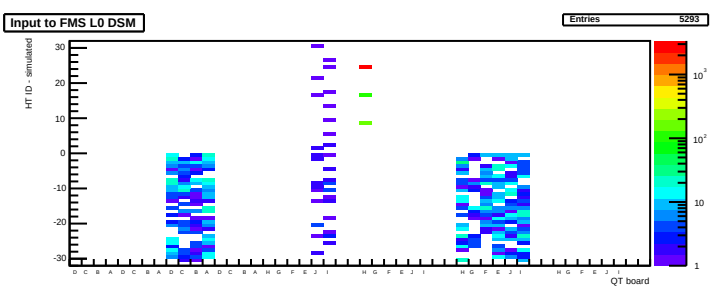

Input to FMS L0 DSM
Entries 176544
QT8(3) sum
QT board

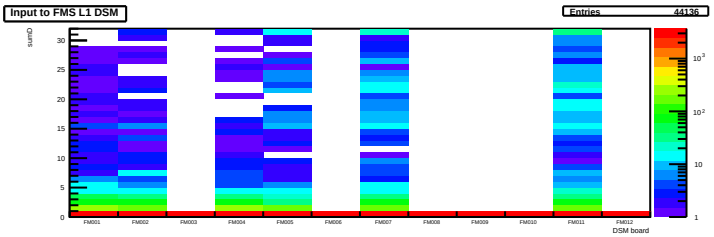

Input to FMS L0 DSM
Entries 3970
QT8(3) sum - simulated
QT board

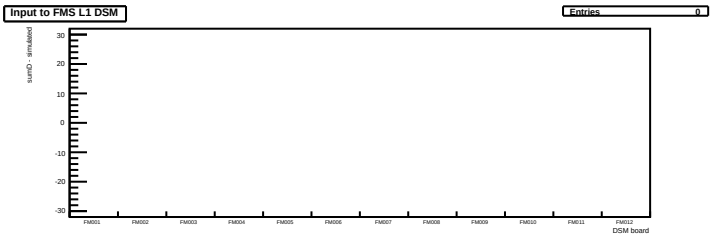

Input to FMS L0 DSM
Entries 176544
HT ADC
QT board

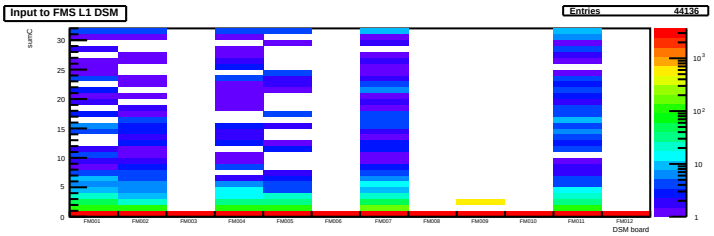

Input to FMS L0 DSM
Entries 1831
HT ADC - simulated
QT board

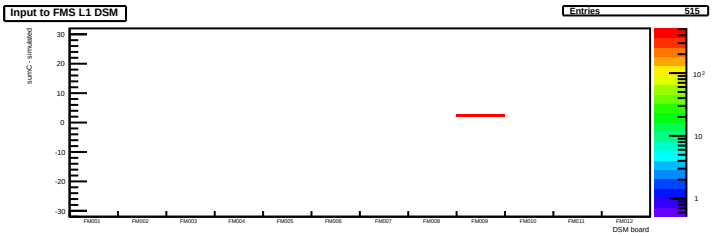

Input to FMS L0 DSM
Entries 176544
HT ID
QT board

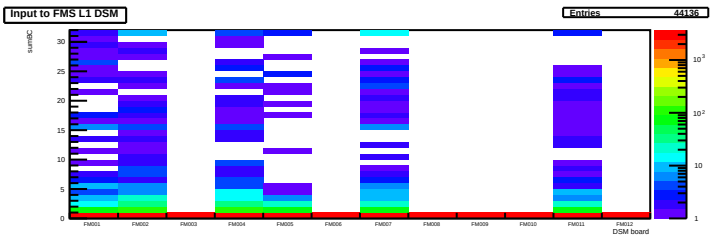

Input to FMS L0 DSM
Entries 5293
HT ID - simulated
QT board

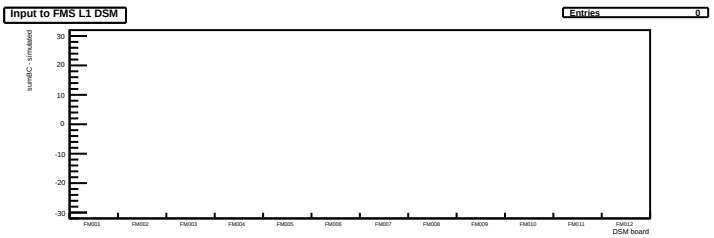

Input to FMS L1 DSM
Entries 44136
sumD
DSM board

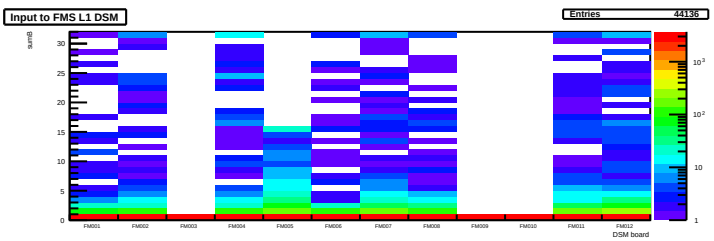

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

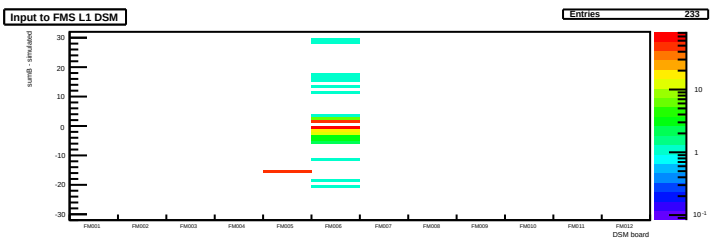

Input to FMS L1 DSM
Entries 44136
sumC
DSM board

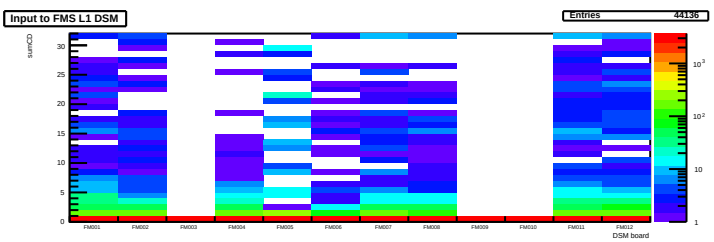

Input to FMS L1 DSM
Entries 515
sumC - simulated
DSM board

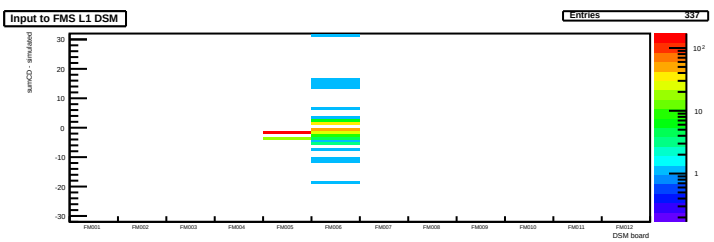

Input to FMS L1 DSM
Entries 44136
sumBC
DSM board

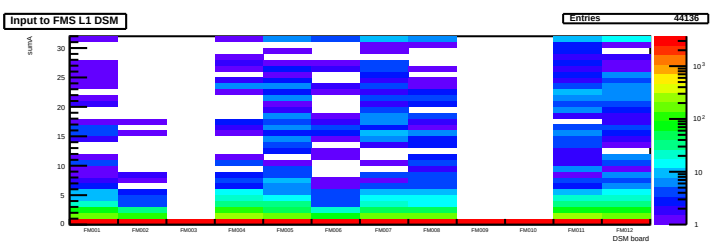

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

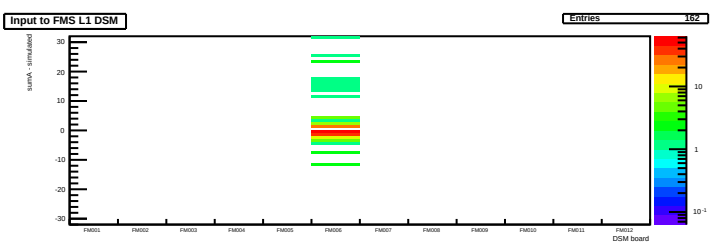

Input to FMS L1 DSM
Entries 44136
sumB
DSM board

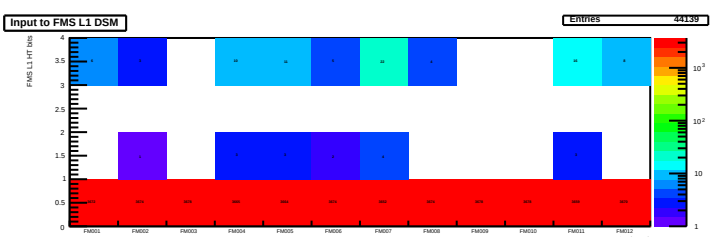

Input to FMS L1 DSM
Entries 233
sumB - simulated
DSM board

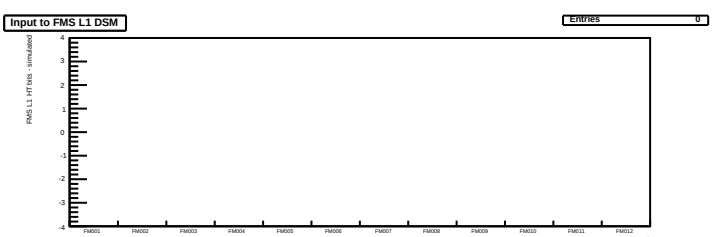

Input to FMS L1 DSM
Entries 44136
sumCD
DSM board

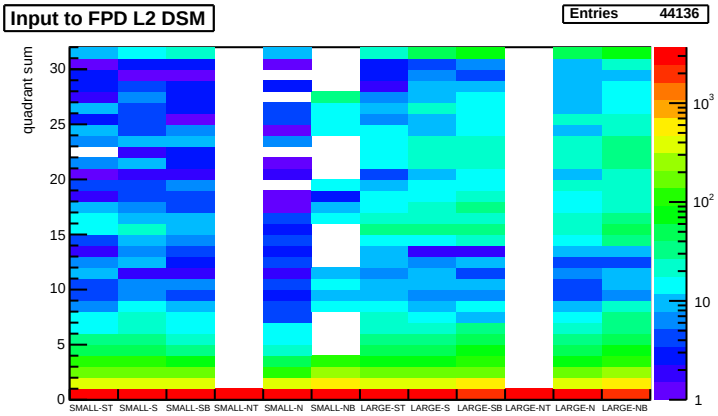

Input to FMS L1 DSM
Entries 337
sumCD - simulated
DSM board

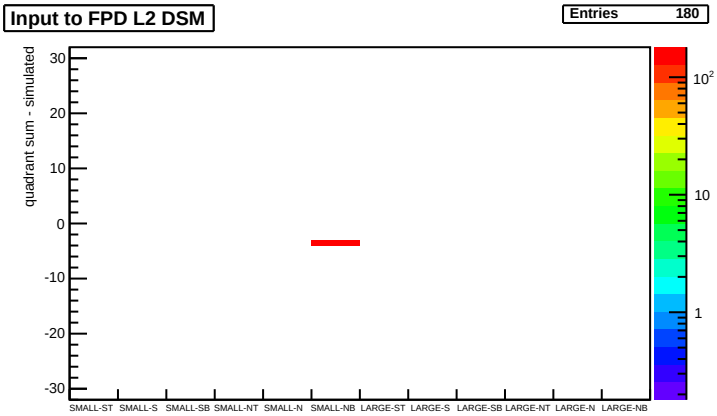

Input to FMS L1 DSM
Entries 44136
sumA
DSM board

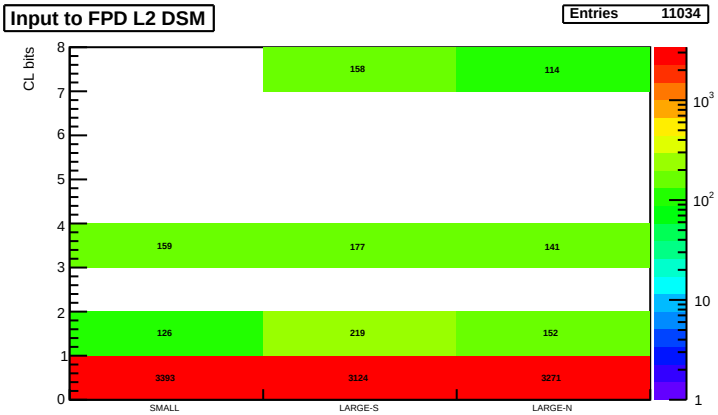

Input to FMS L1 DSM
Entries 162
sumA - simulated
DSM board

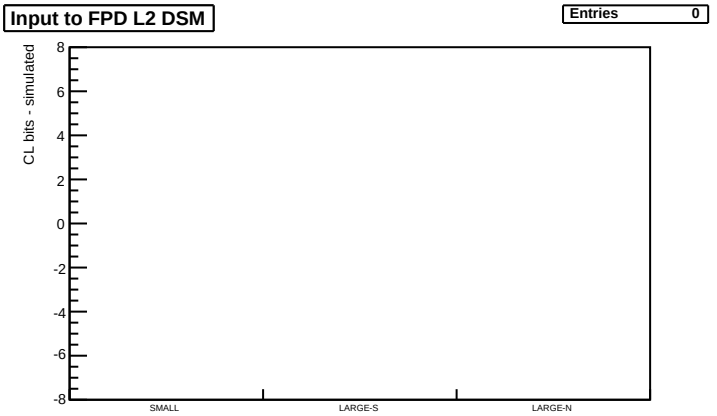

Input to FMS L1 DSM
Entries 44139
FMS L1 HT bits
DSM board

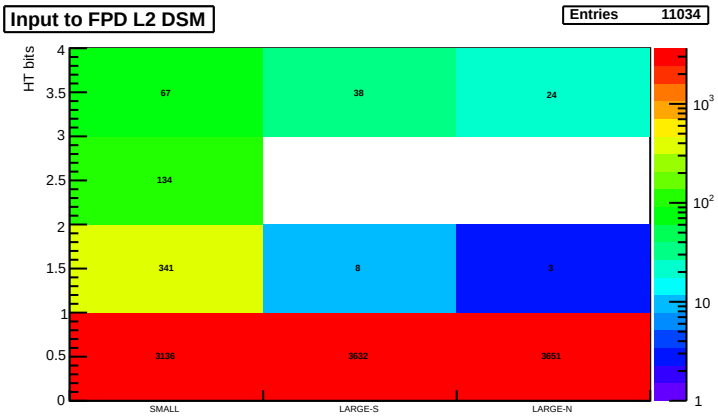

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

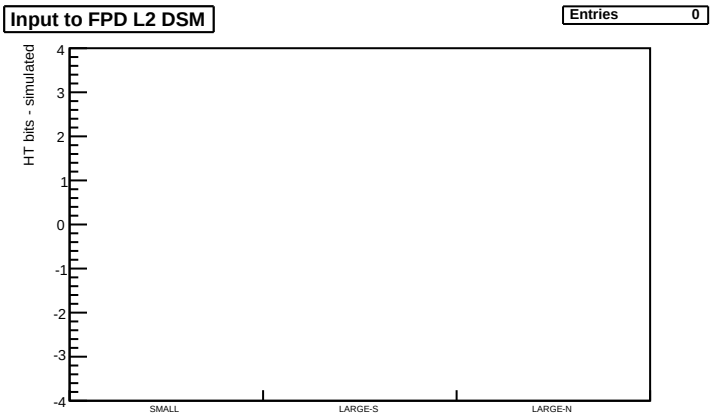

Input to FPD L2 DSM
Entries 44136
quadrant sum
SMALL-ST SMALL-S SMALL-SB SMALL-NT SMALL-N SMALL-NB LARGE-ST LARGE-S LARGE-SB LARGE-NT LARGE-N LARGE-NB

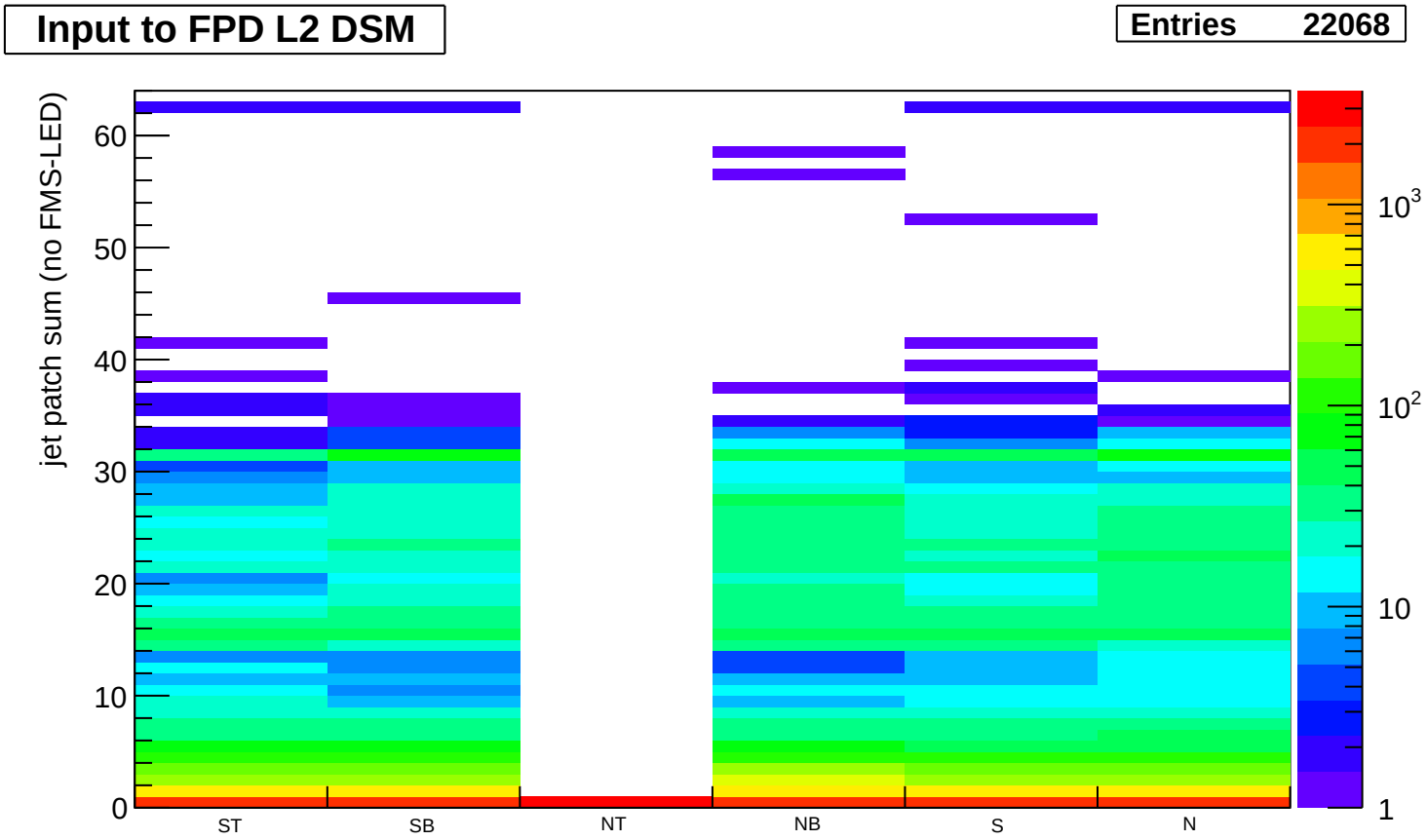

Input to FPD L2 DSM
Entries 180
quadrant sum - simulated
SMALL-ST SMALL-S SMALL-SB SMALL-NT SMALL-N SMALL-NB LARGE-ST LARGE-S LARGE-SB LARGE-NT LARGE-N LARGE-NB

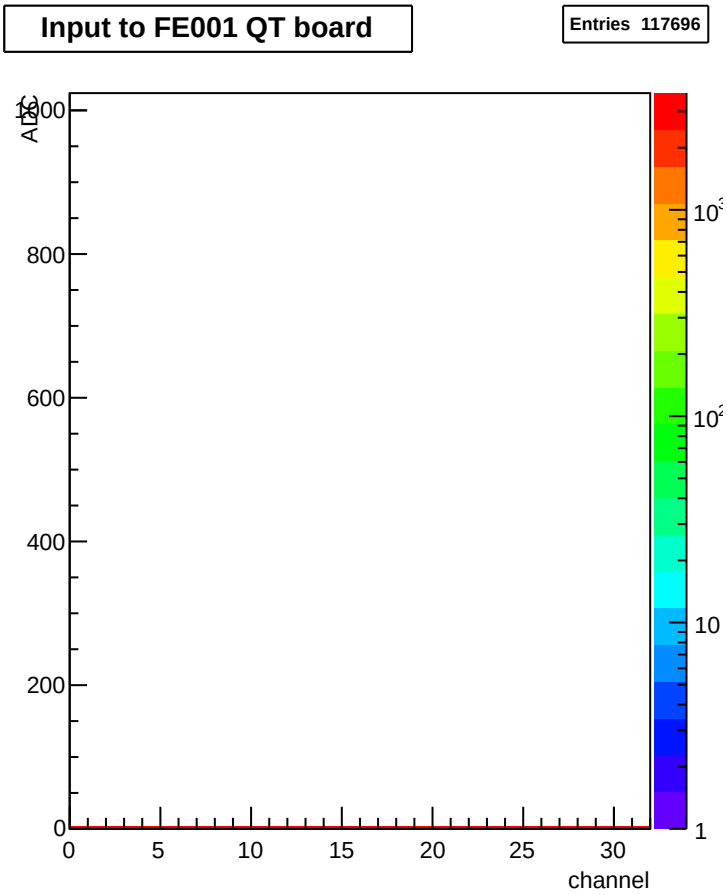

Input to FPD L2 DSM
Entries 11034
CL bits
158
114
159
177
141
126
219
152
3393
3124
3271
SMALL
LARGE-S
LARGE-N

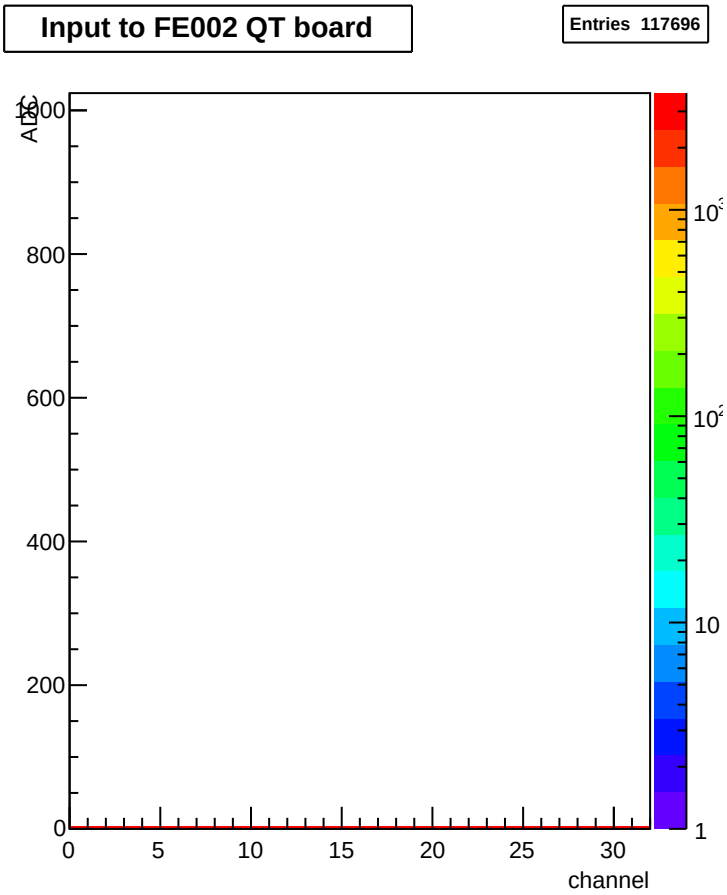

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL
LARGE-S
LARGE-N

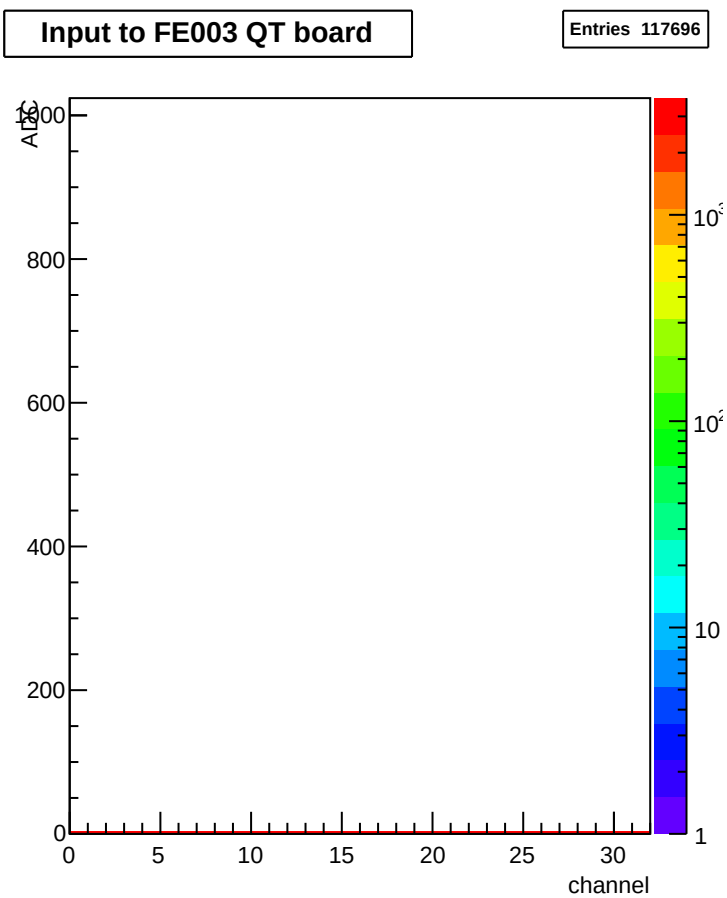

Input to FPD L2 DSM
Entries 11034
HT bits
67
38
24
134
341
8
3
3136
3632
3651
SMALL
LARGE-S
LARGE-N

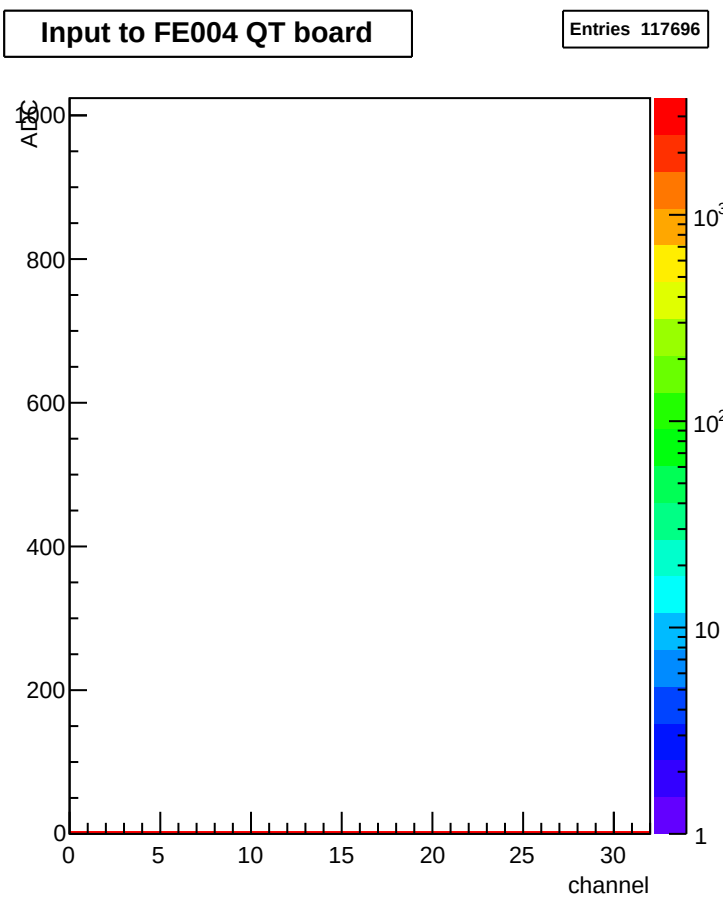

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

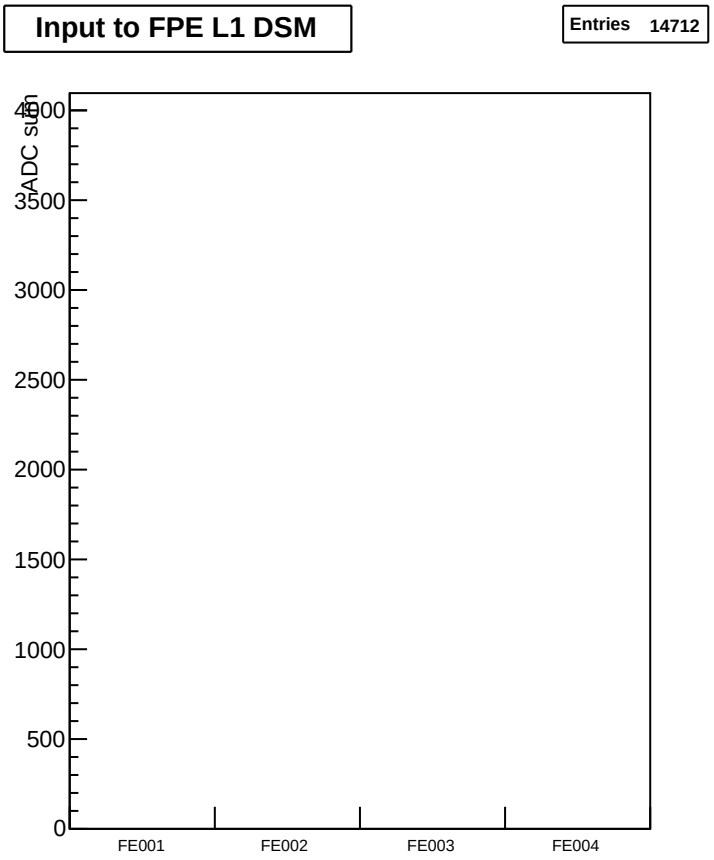

Input to FPD L2 DSM
Entries 22068
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3

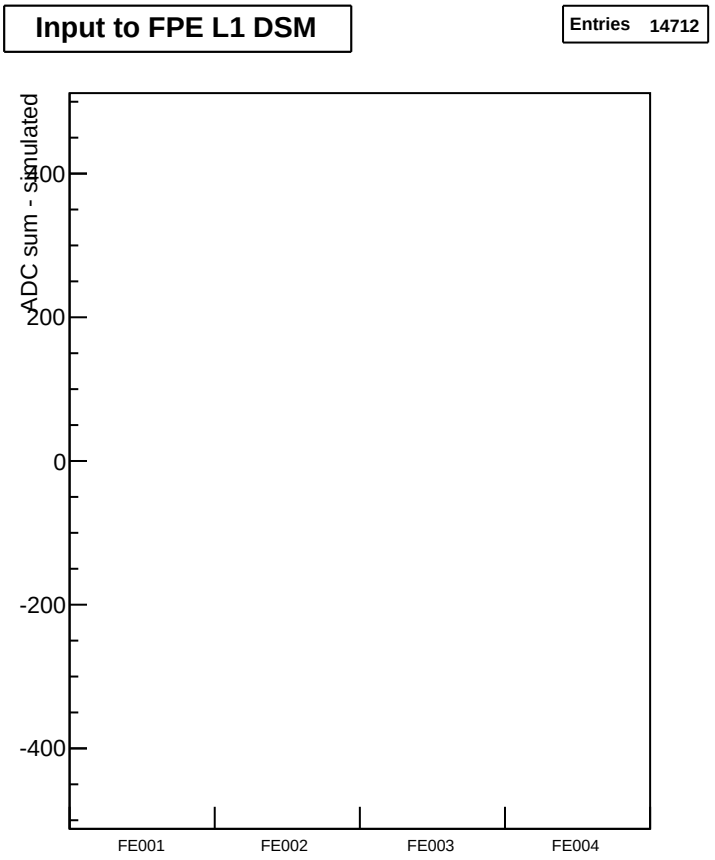

Input to FE001 QT board
Entries 117696
ADC
channel

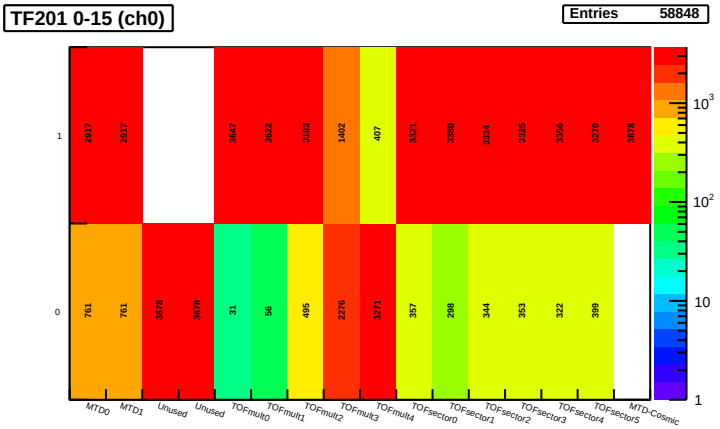

Input to FE002 QT board
Entries 117696
ADC
channel

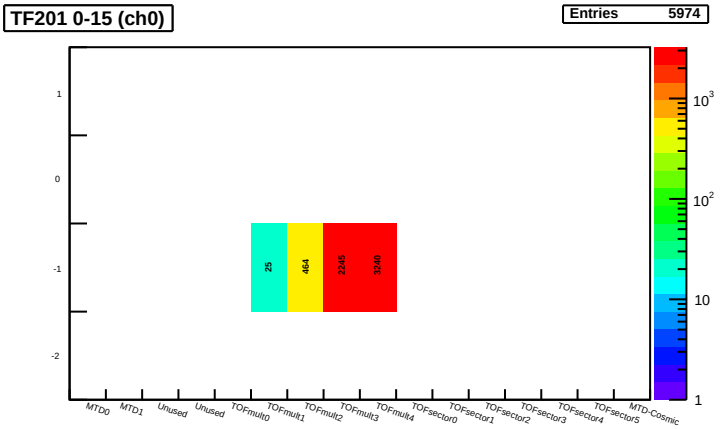

Input to FE003 QT board
Entries 117696
ADC
channel

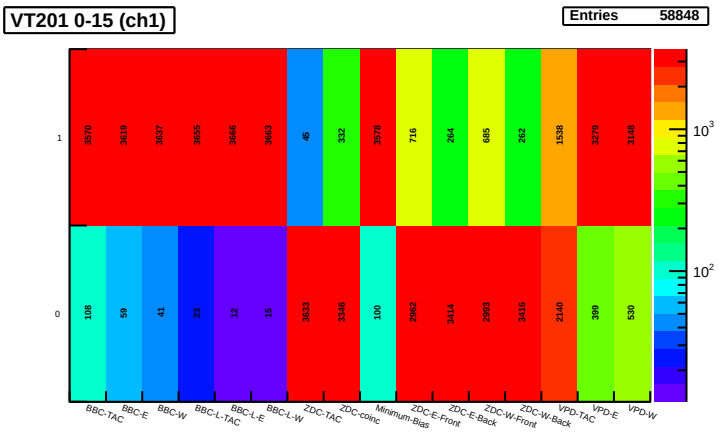

Input to FE004 QT board
Entries 117696
ADC
channel

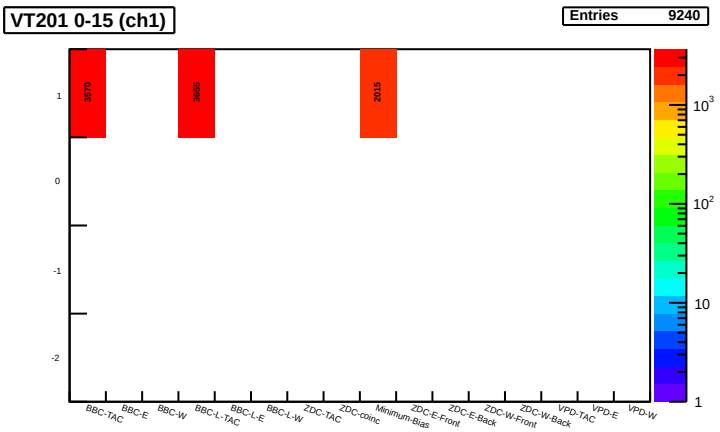

Input to FPE L1 DSM
Entries 14712
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004

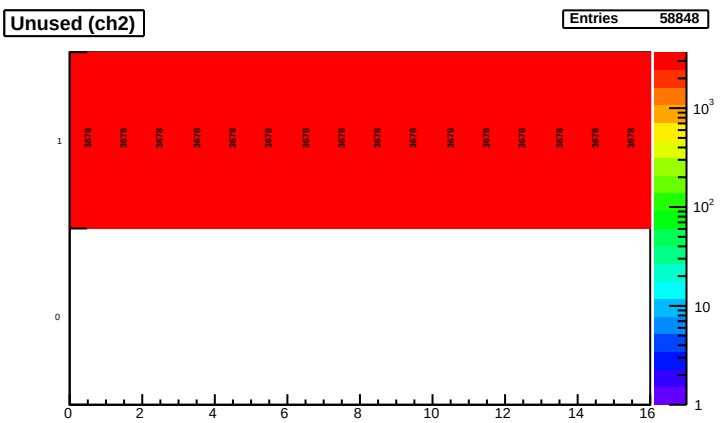

Input to FPE L1 DSM
Entries 14712
ADC sum - simulated
400
200
0
-200
-400
FE001
FE002
FE003
FE004

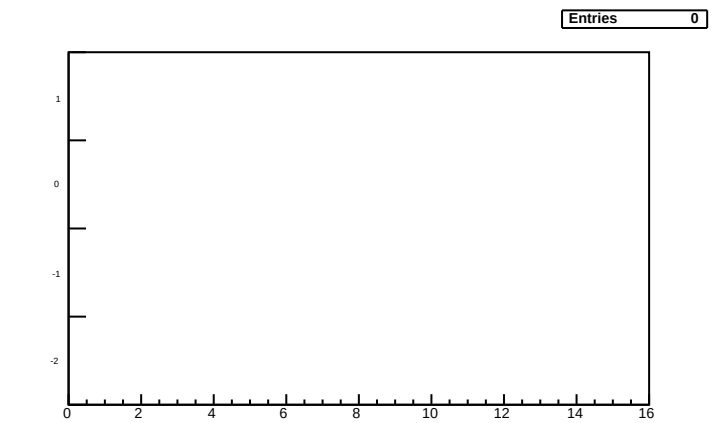

TF201 0-15 (ch0)
Entries 58848
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

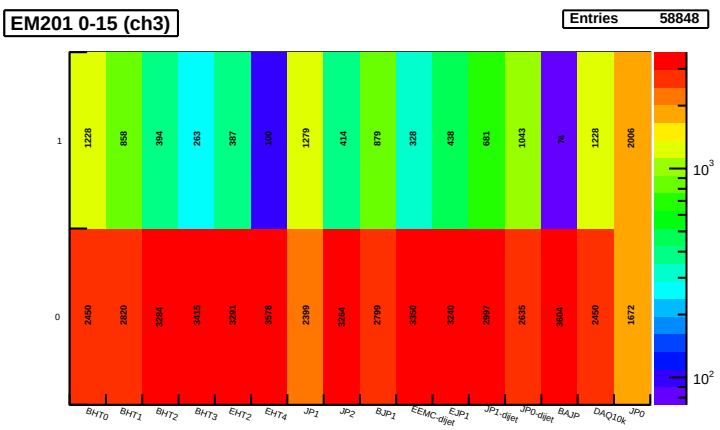

TF201 0-15 (ch0)
Entries 5974
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

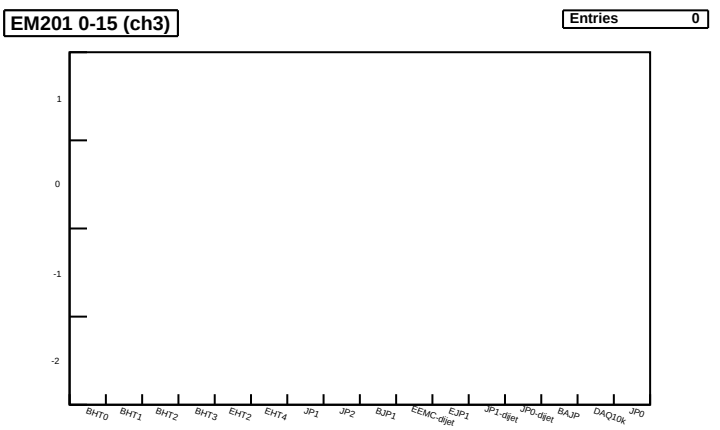

VT201 0-15 (ch1)
Entries 58848
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-coinc Minimum-Bias ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 9240
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

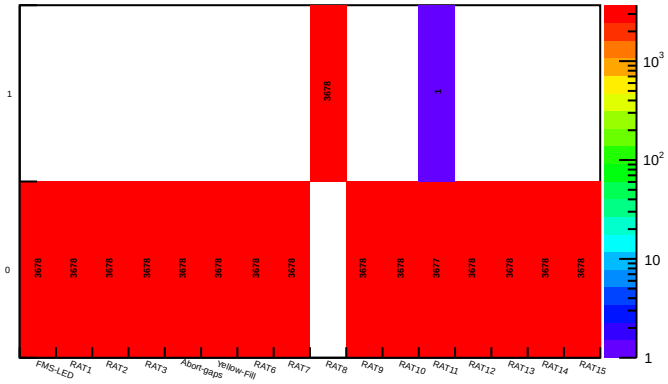

Unused (ch2)
Entries 58848

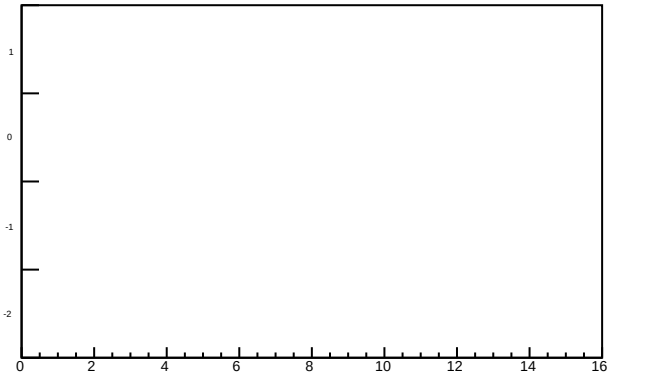

Entries 0


EM201 0-15 (ch3)
Entries 58848
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 EEMC-dijet EJP1 JP1-dijet JP0-dijet BAJP DAQ10k JP0

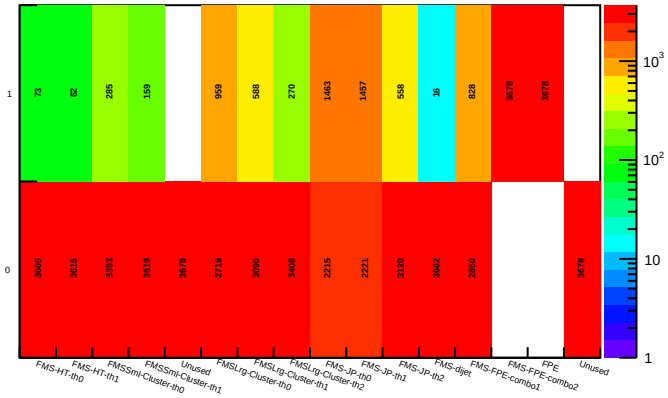

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 EEMC-dijet EJP1 JP1-dijet JP0-dijet BAJP DAQ10k JP0

RAT board (ch4)

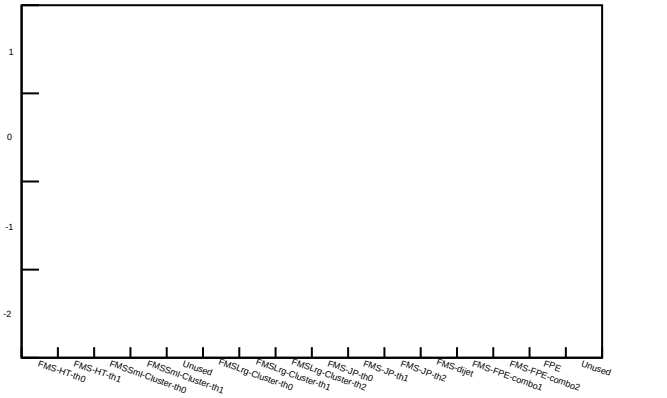




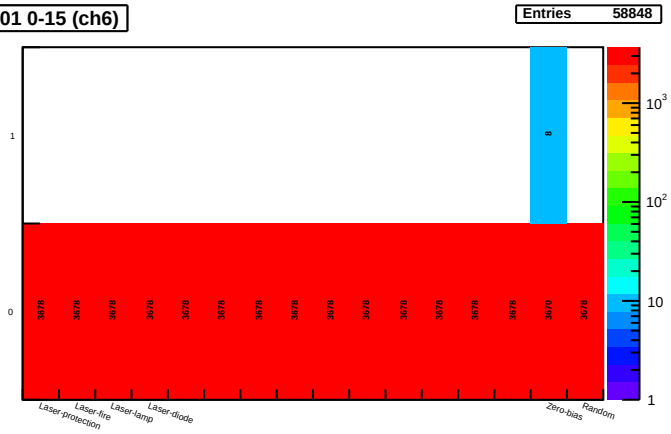
FP201 0-15 (ch5)

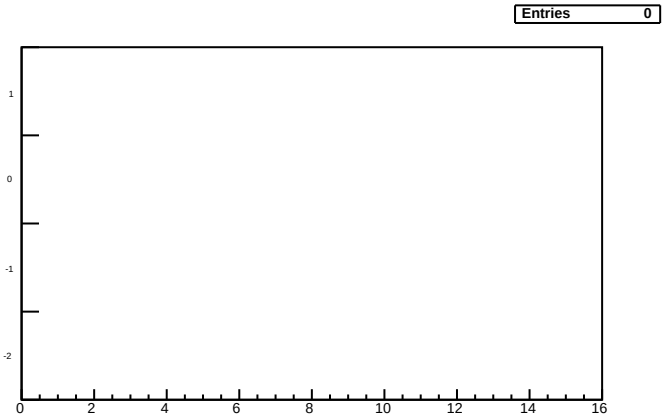
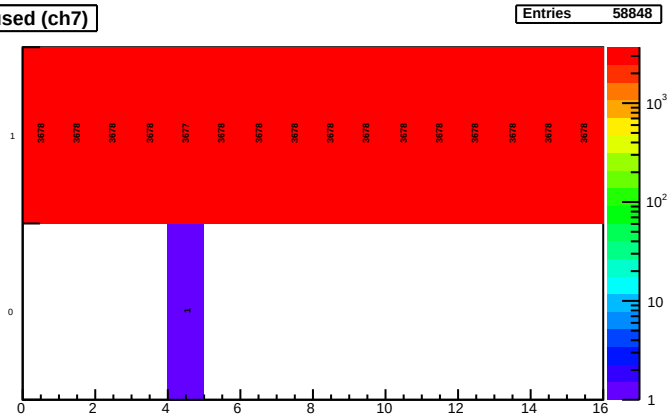
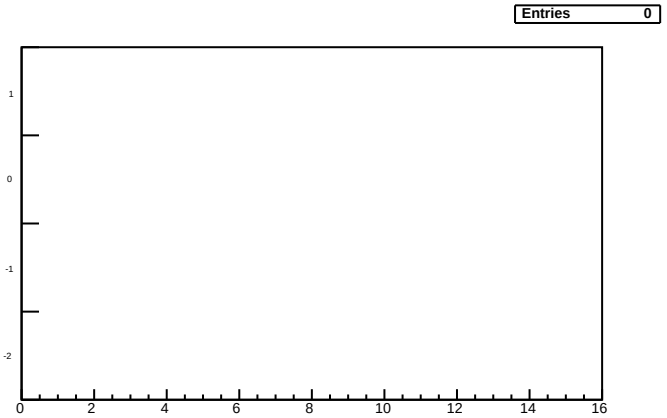


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)