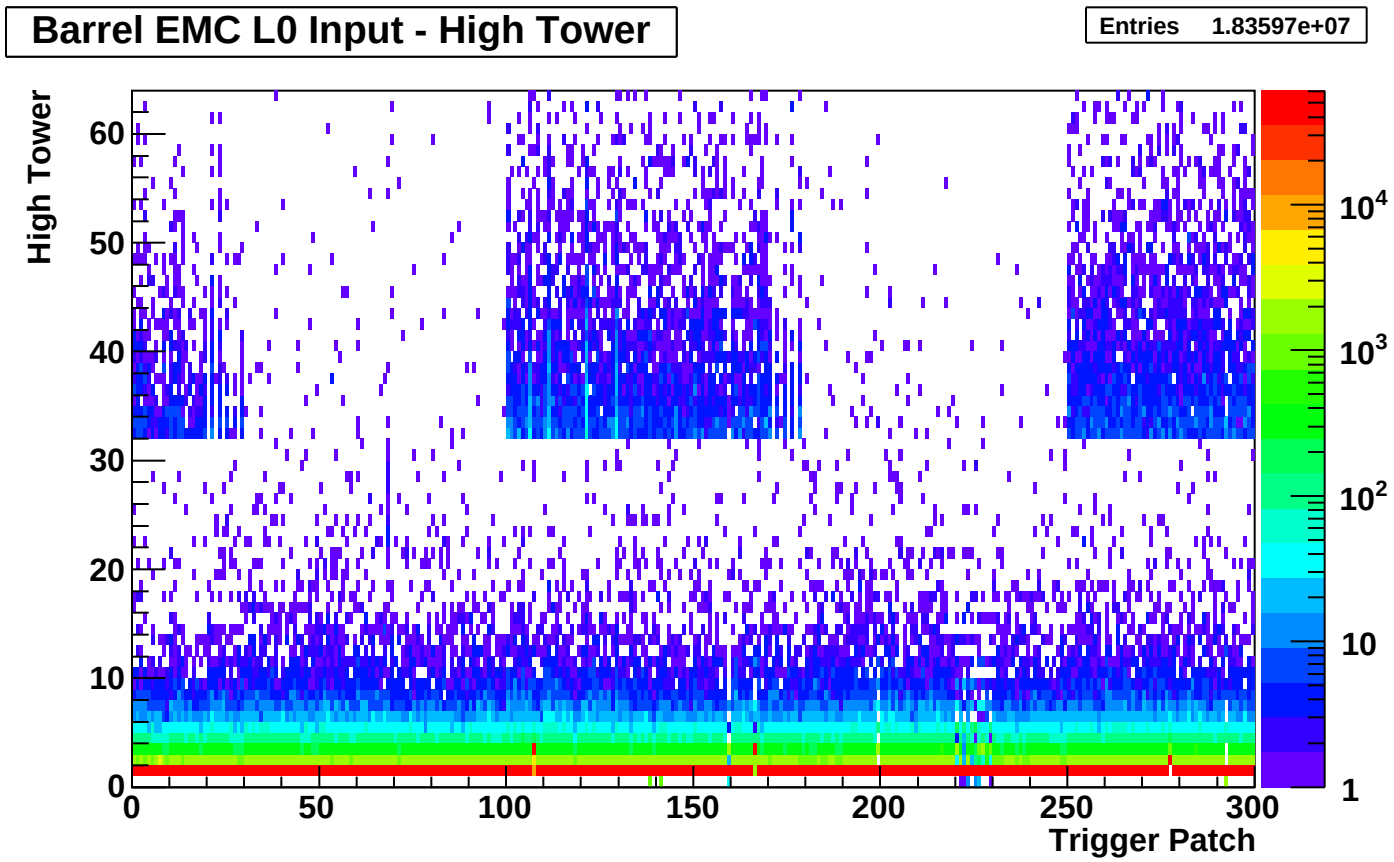
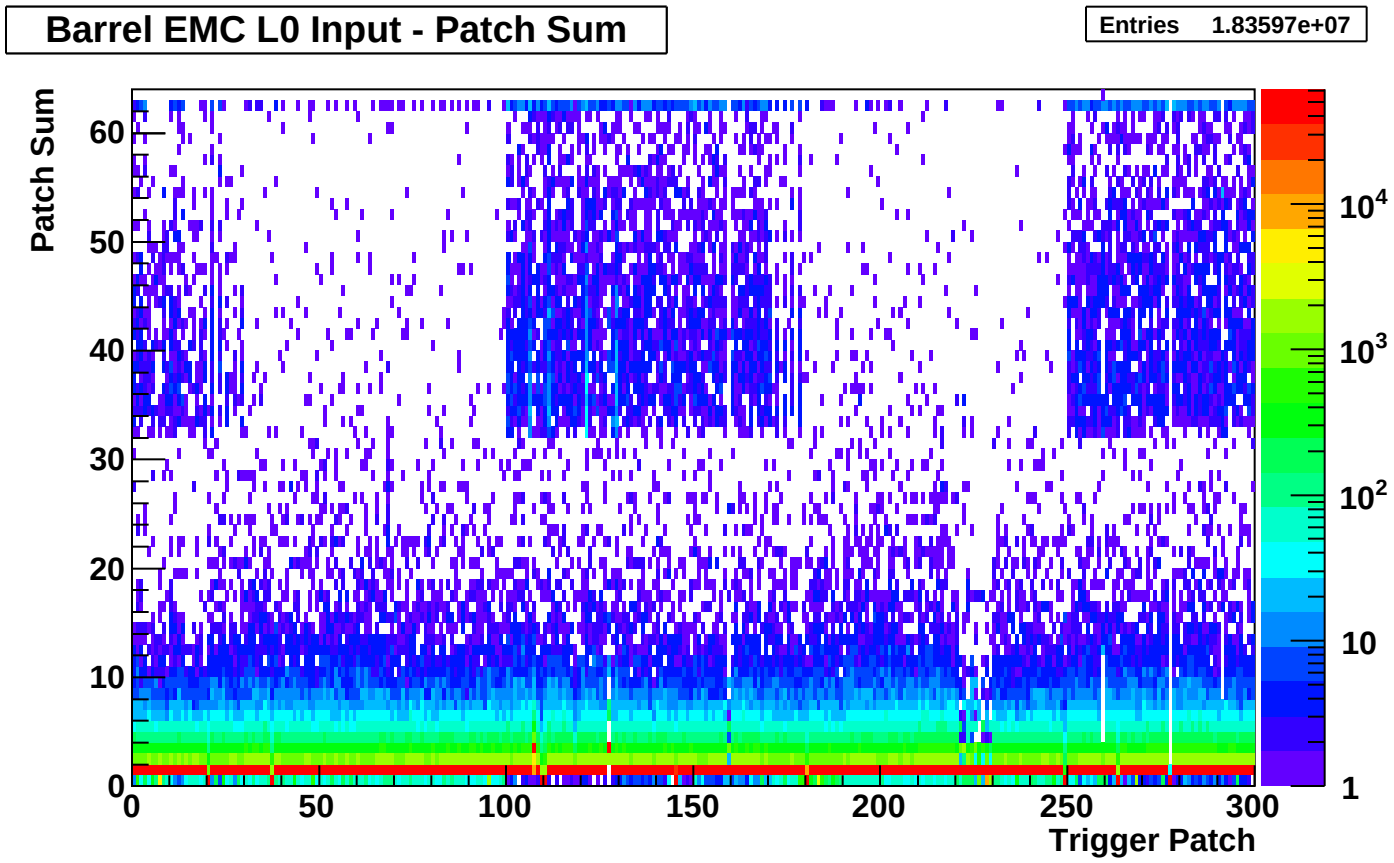
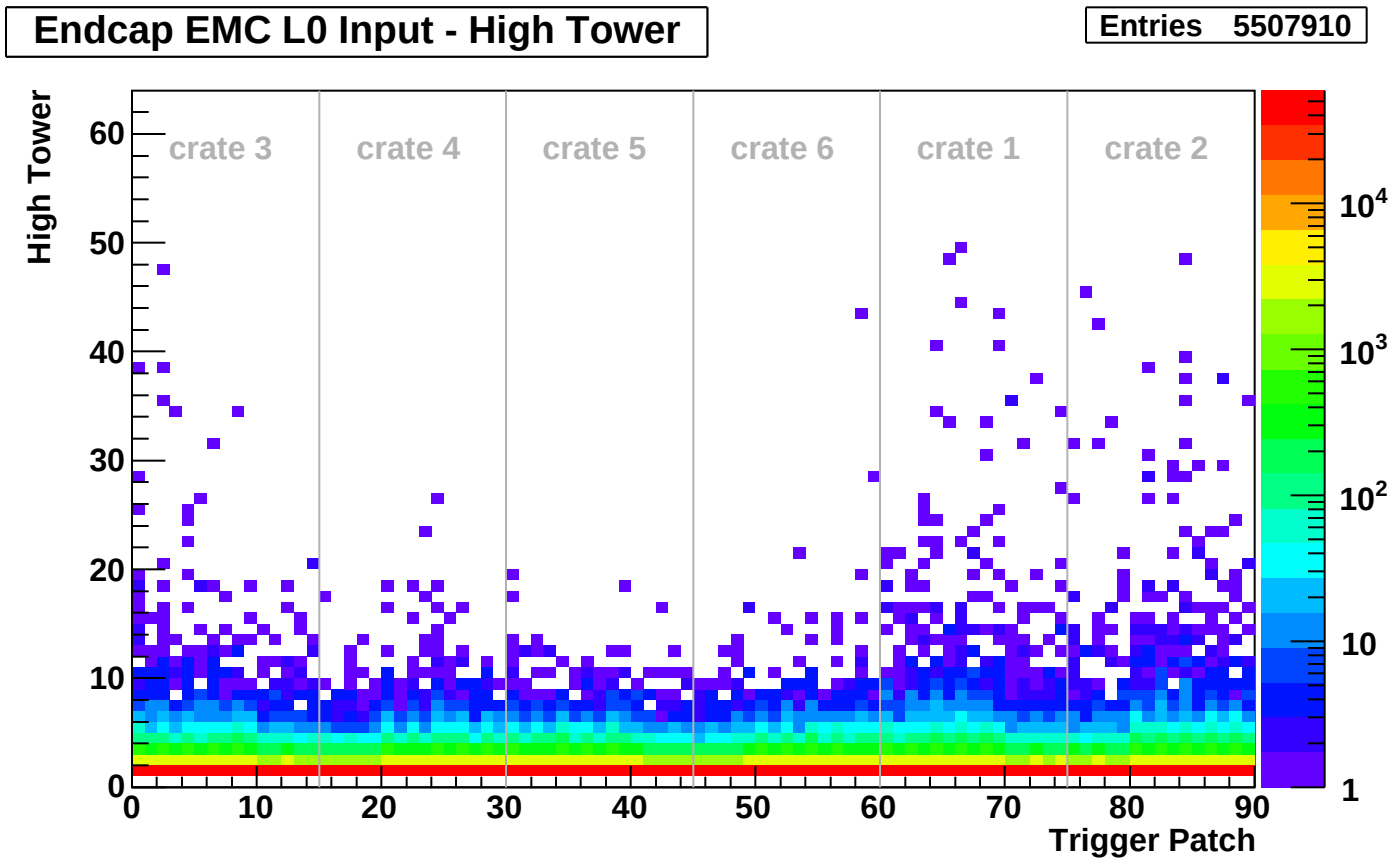
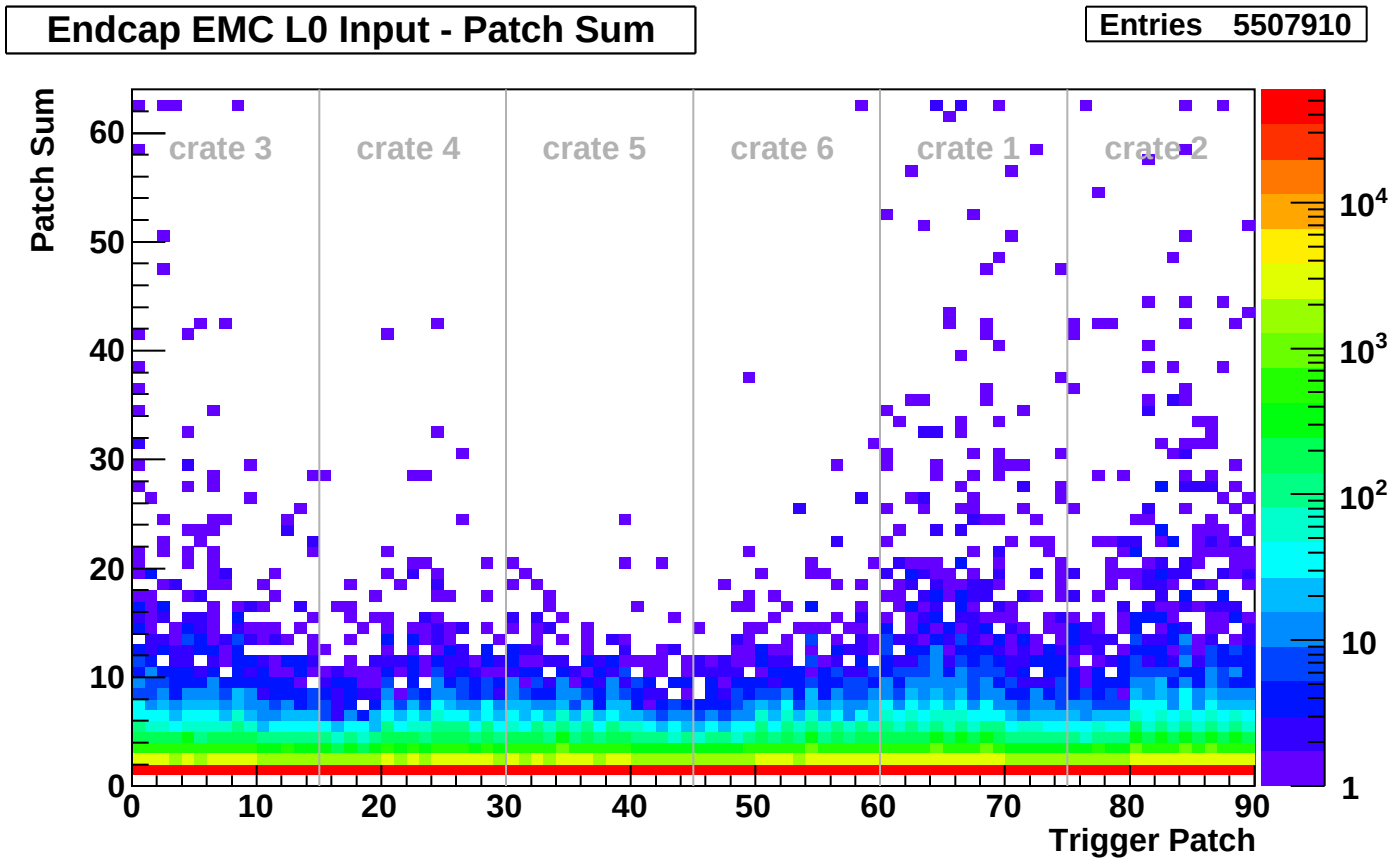
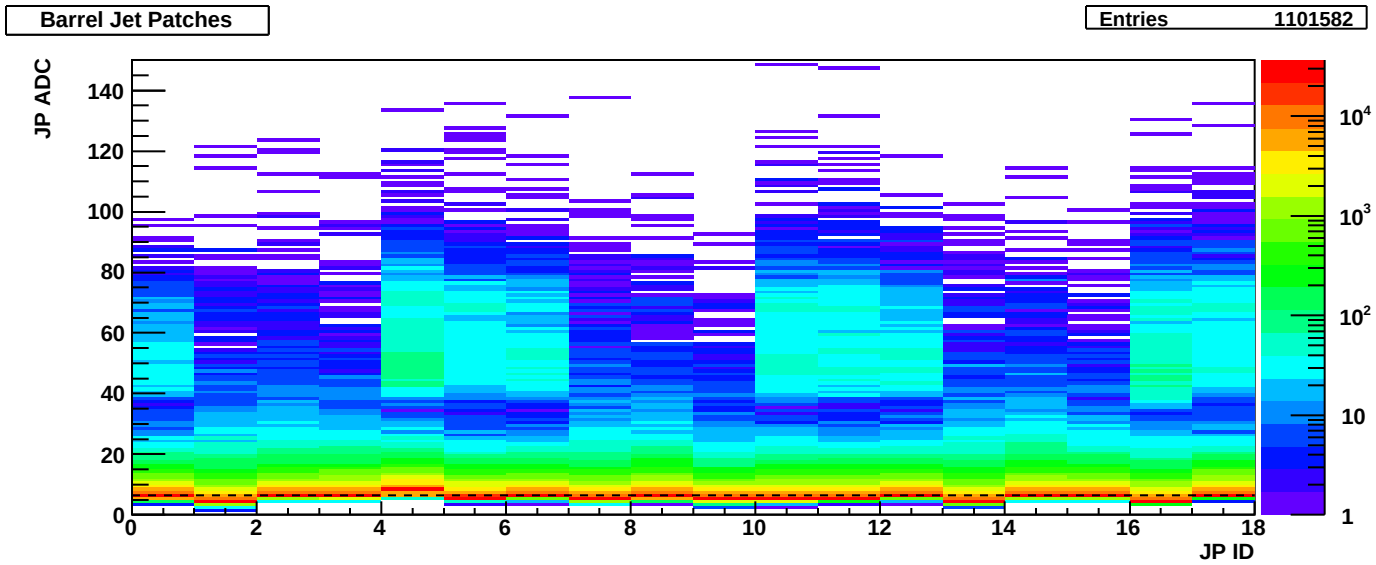
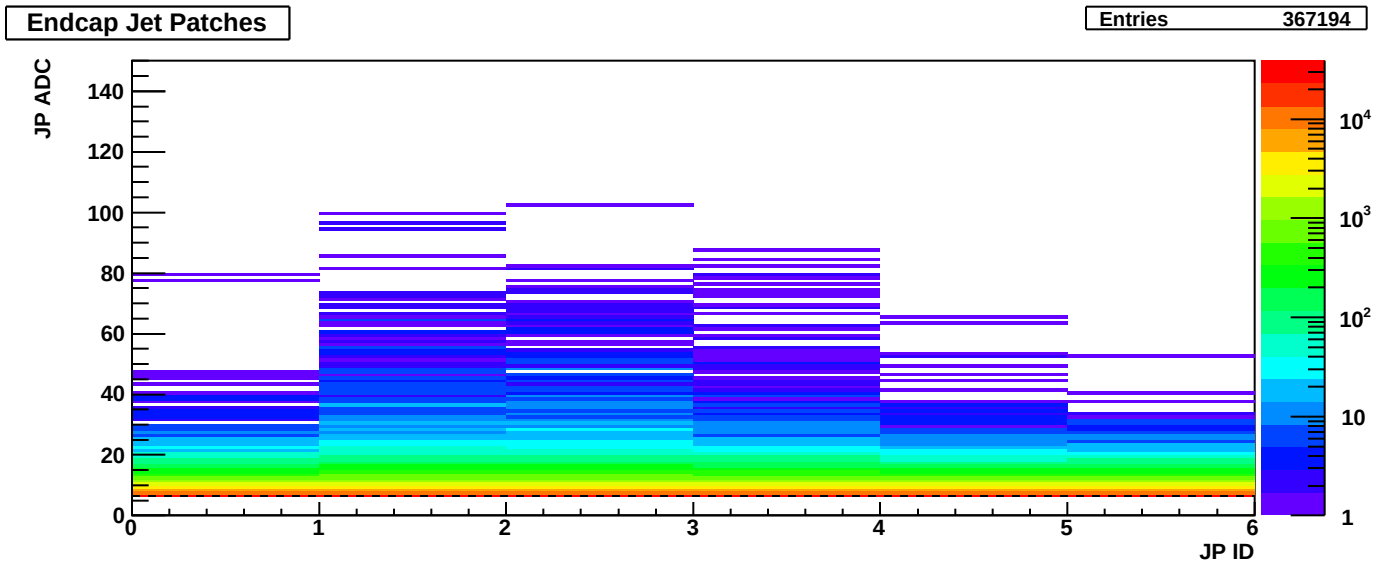

Barrel EMC L0 Input - High Tower
Entries 1.83597e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

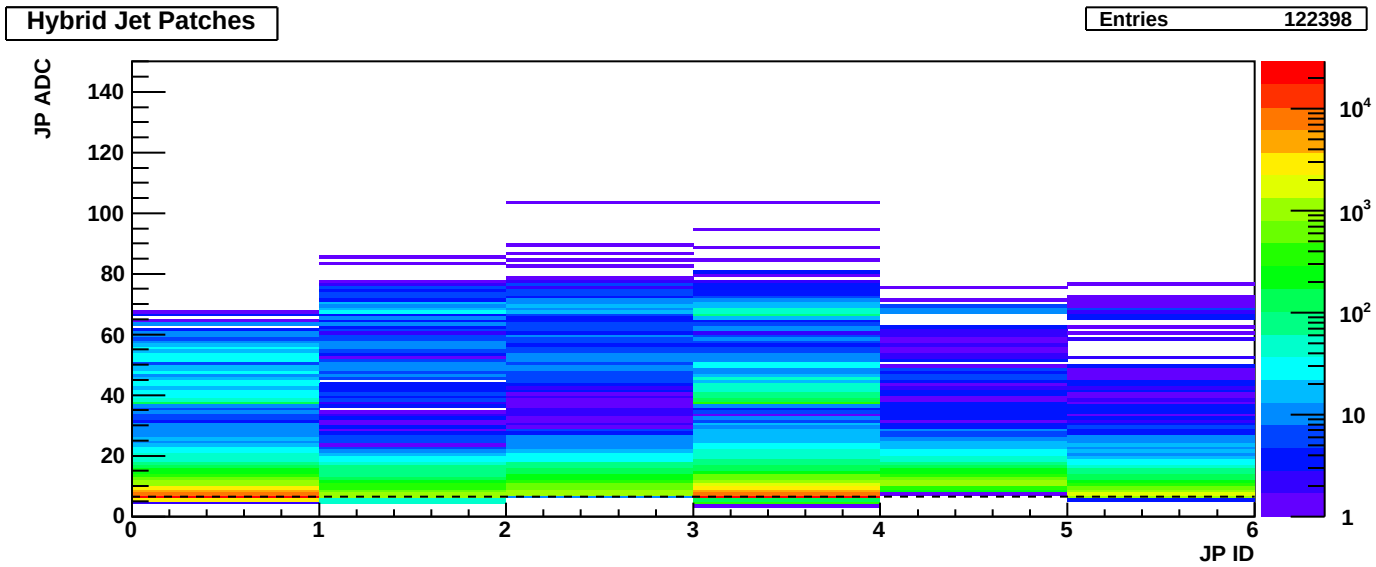

Barrel EMC L0 Input - Patch Sum
Entries 1.83597e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

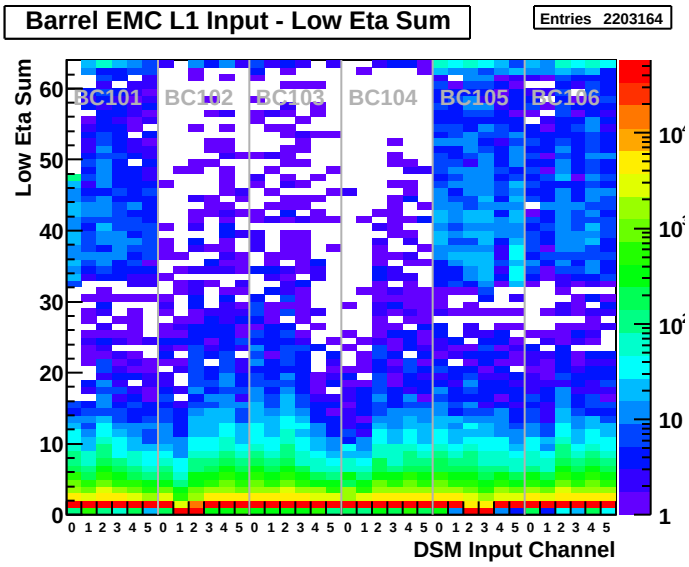

Endcap EMC L0 Input - High Tower
Entries 5507910
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

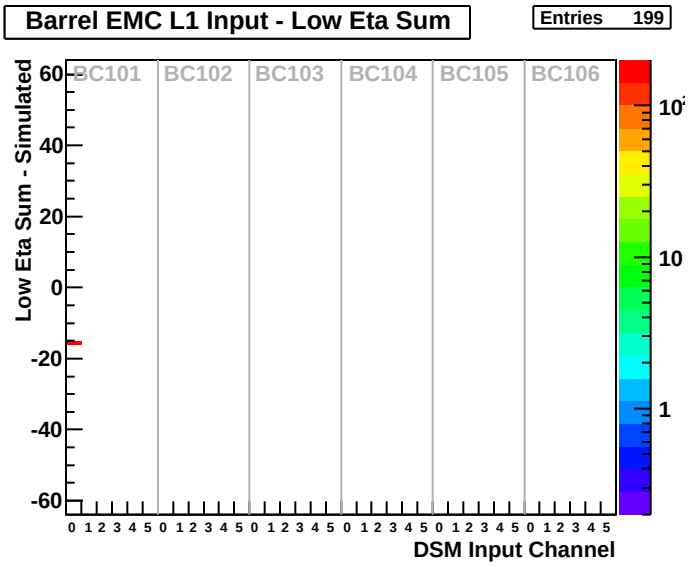

Endcap EMC L0 Input - Patch Sum
Entries 5507910
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

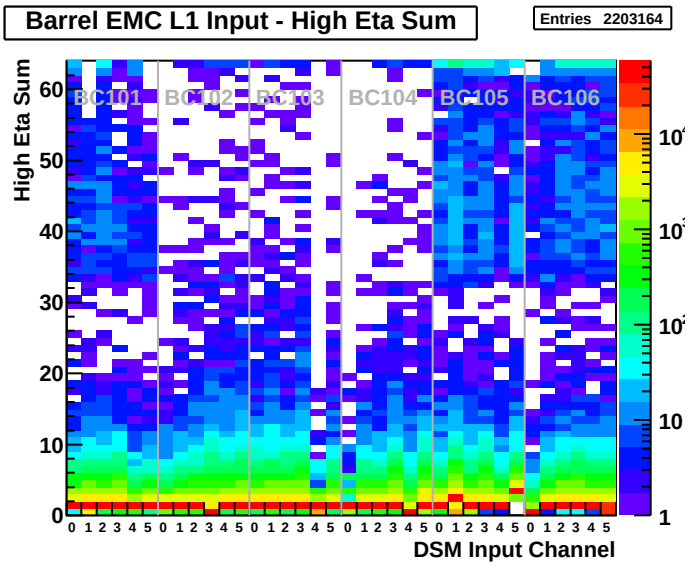

Barrel Jet Patches
Entries 1101582
JP ADC
JP ID

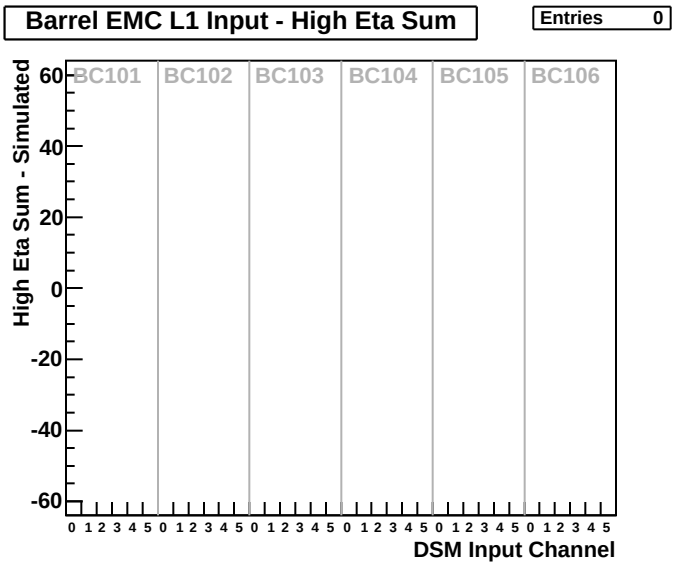

Endcap Jet Patches
Entries 367194
JP ADC
JP ID

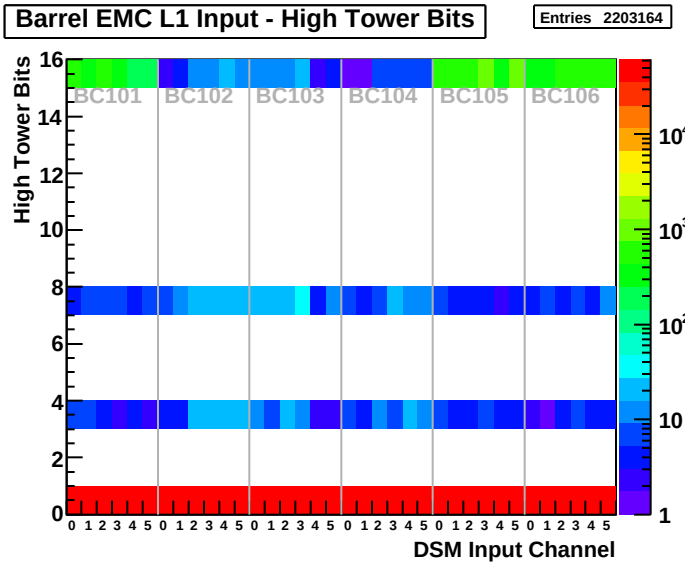

Hybrid Jet Patches
Entries 122398
JP ADC
JP ID

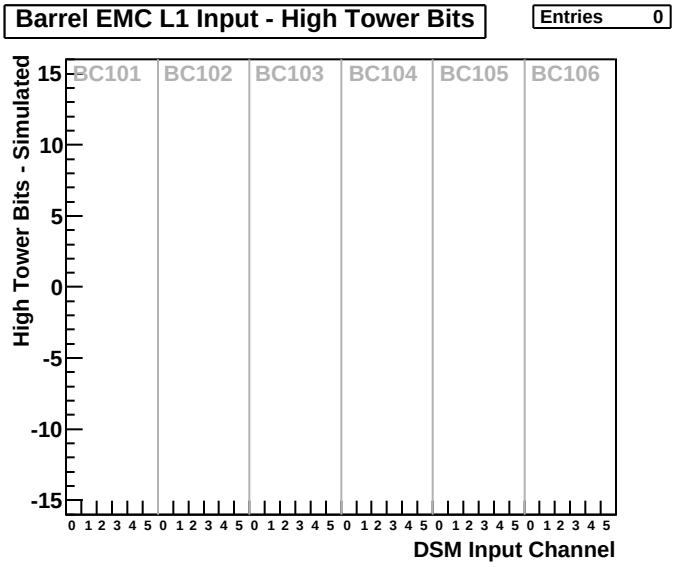

Barrel EMC L1 Input - Low Eta Sum
Entries 2203164
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

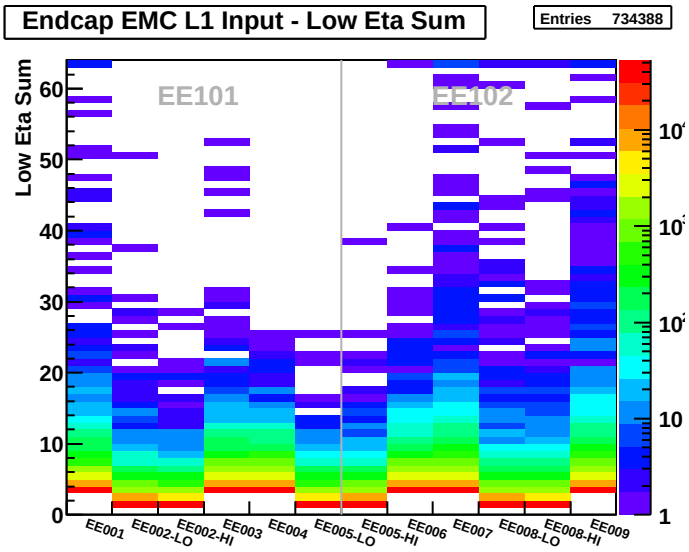

Barrel EMC L1 Input - Low Eta Sum
Entries 199
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

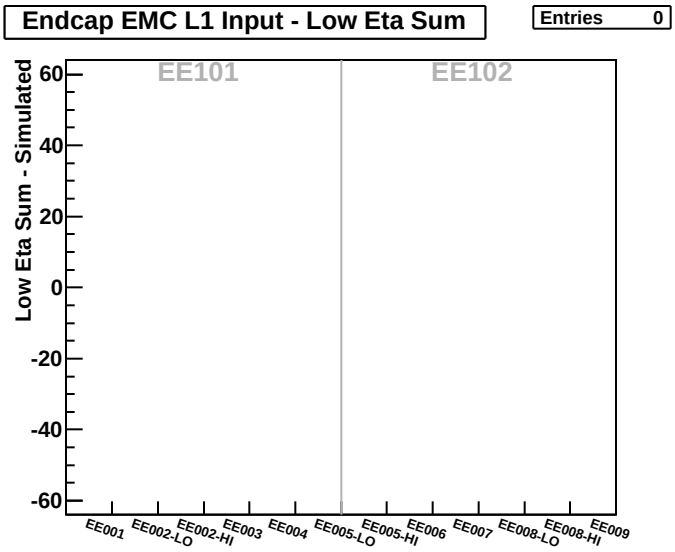

Barrel EMC L1 Input - High Eta Sum
Entries 2203164
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

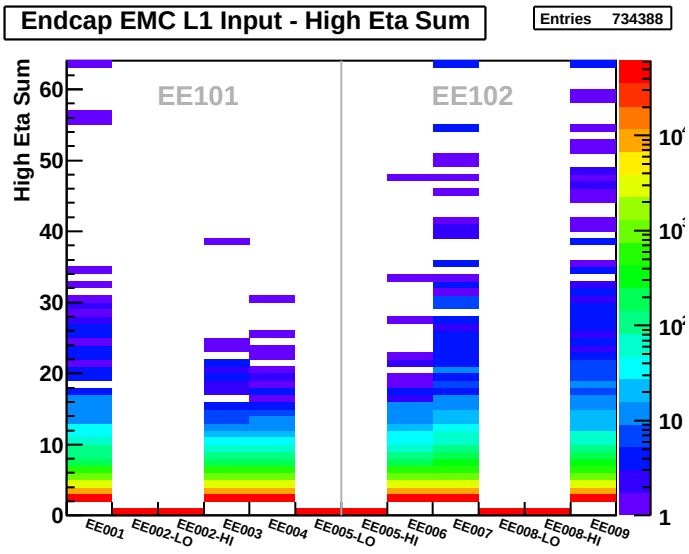

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

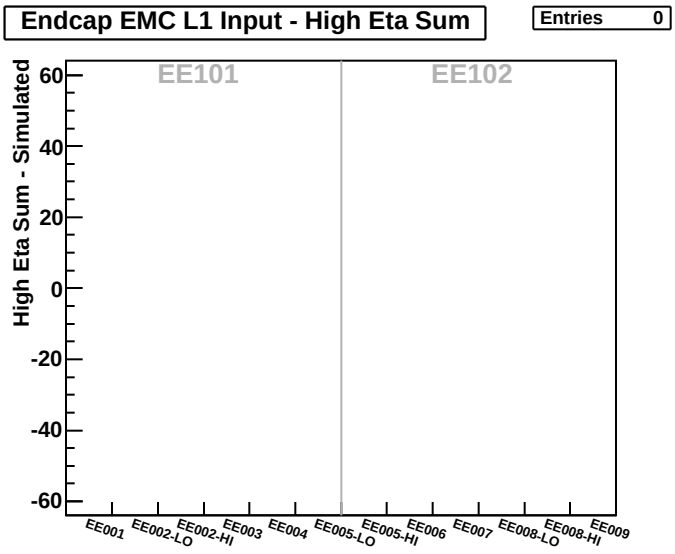

Barrel EMC L1 Input - High Tower Bits
Entries 2203164
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

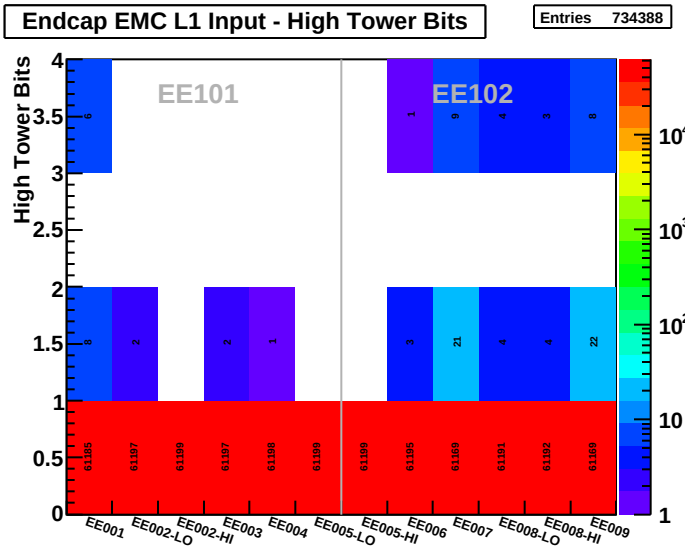

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

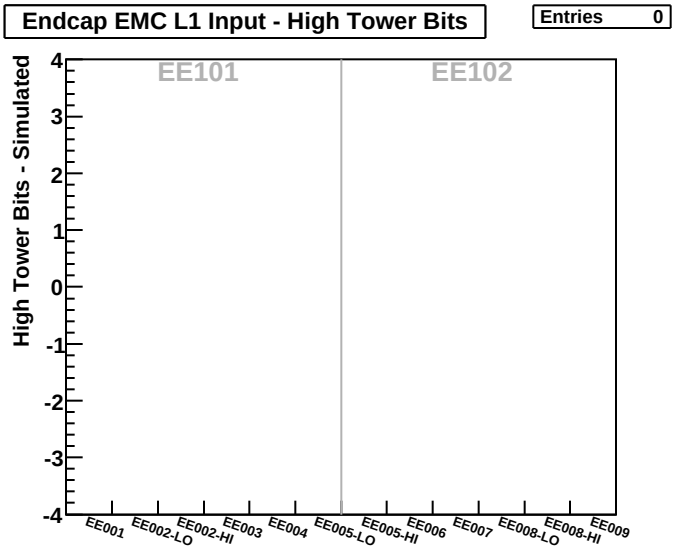

Endcap EMC L1 Input - Low Eta Sum
Entries 734388
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

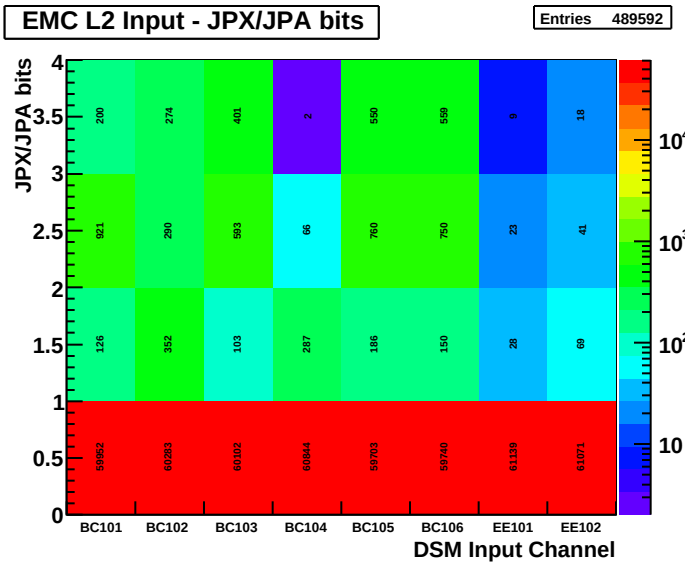

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

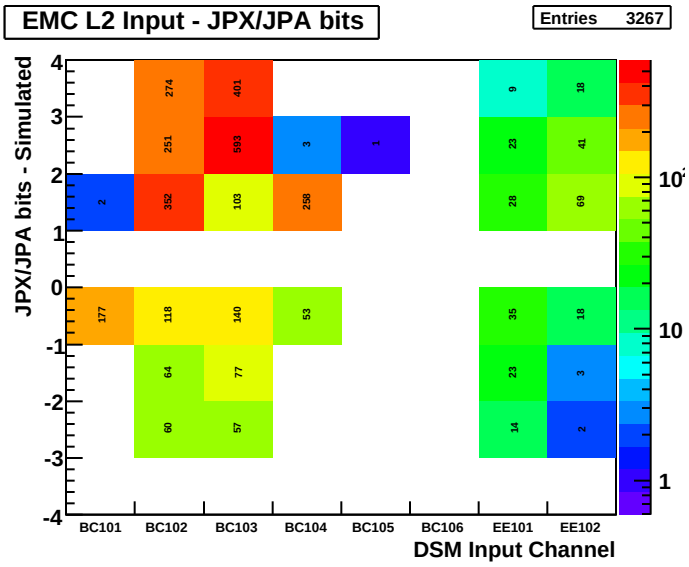

Endcap EMC L1 Input - High Eta Sum
Entries 734388
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

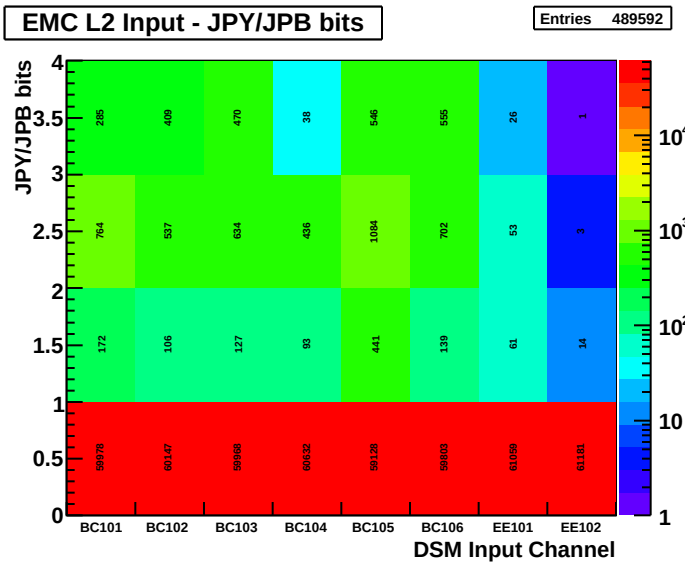

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

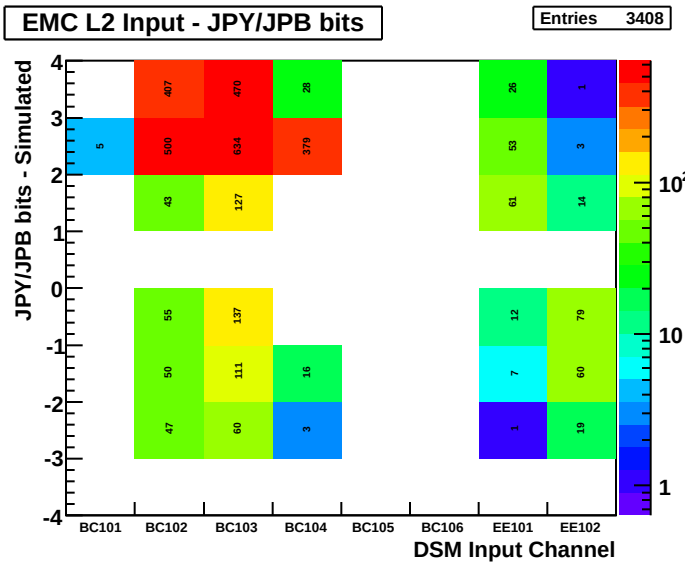

Endcap EMC L1 Input - High Tower Bits
Entries 734388
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

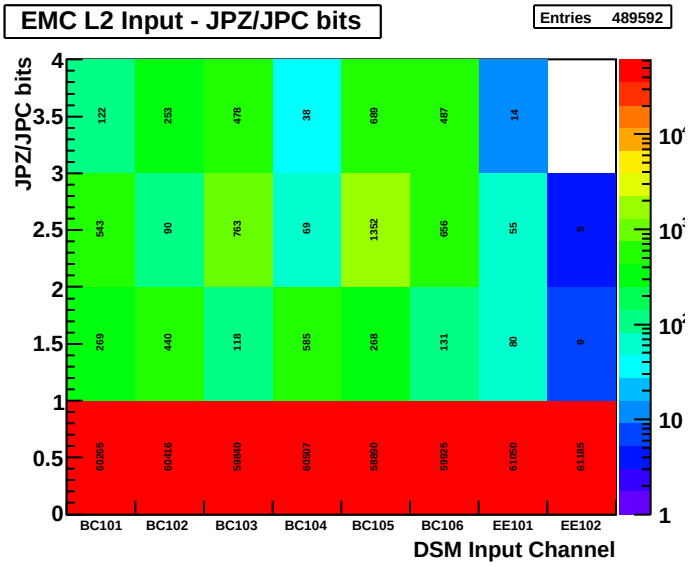

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

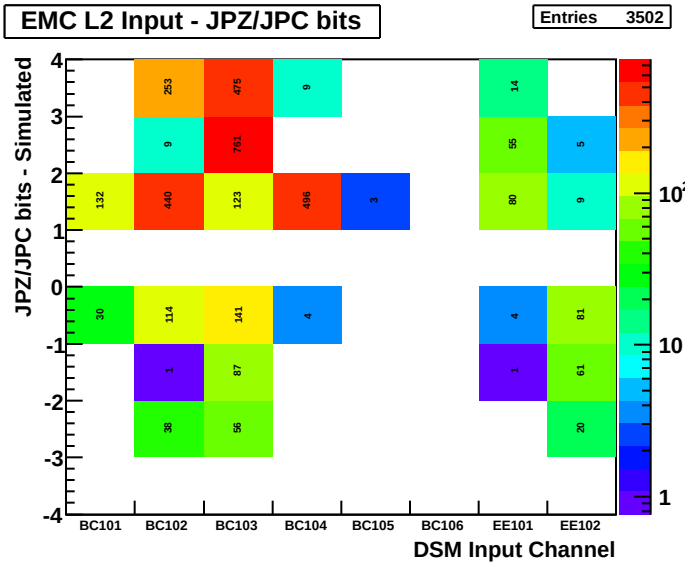

EMC L2 Input - JPX/JPA bits
Entries 489592
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
200 274 401 2 550 559 9 18
921 290 593 66 760 750 23 41
126 352 103 287 186 150 28 69
59952 60283 60102 60344 59703 59740 61139 61071

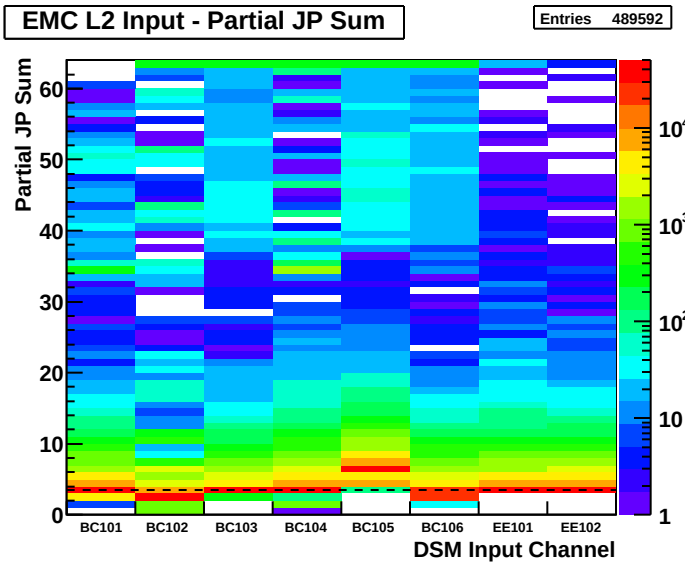

EMC L2 Input - JPX/JPA bits
Entries 3267
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
274 401 9 18
251 593 3 1 23 41
2 352 103 258 28 69
177 118 140 53 35 18
64 77 23 3
60 57 14 2

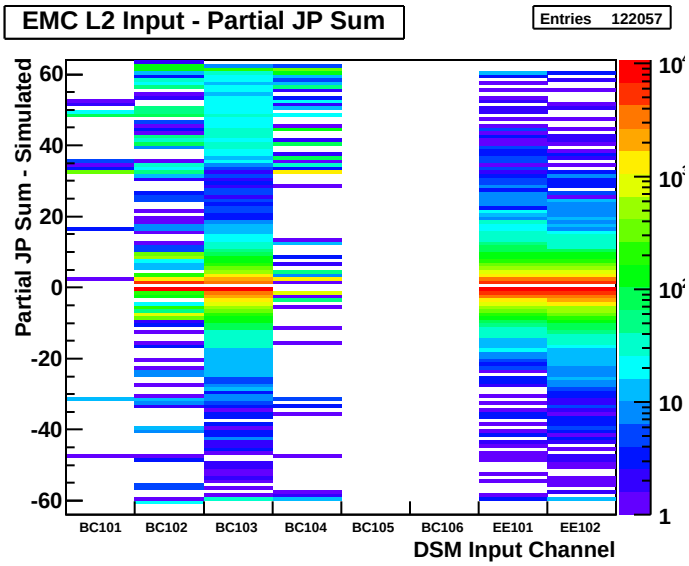

EMC L2 Input - JPY/JPB bits
Entries 489592
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
285 409 470 38 546 555 26 1
764 537 634 436 1084 702 53 3
172 106 127 93 441 139 61 14
59978 60147 59968 60532 59128 59803 61059 61181

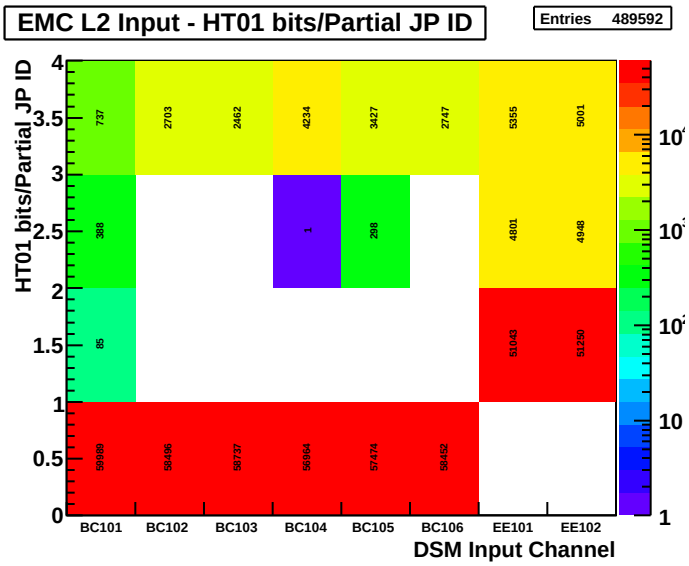

EMC L2 Input - JPY/JPB bits
Entries 3408
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
407 470 28 26 1
5 500 634 379 53 3
43 127 61 14
55 137 12 79
50 111 16 7 60
47 60 3 1 19

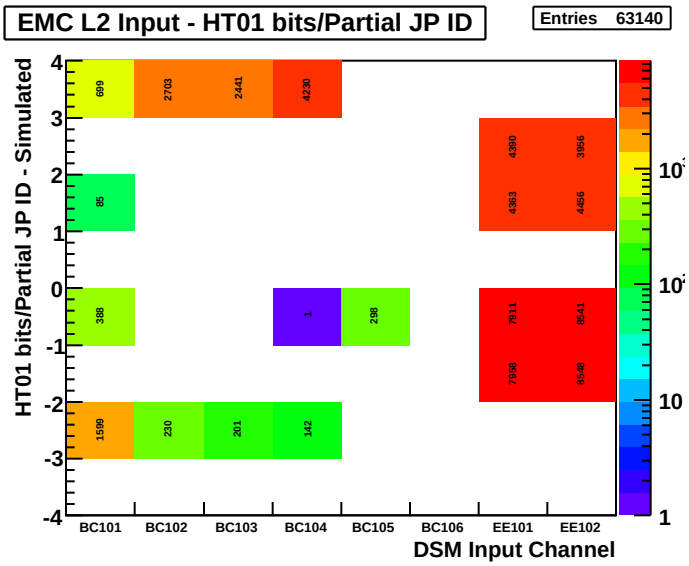

EMC L2 Input - JPZ/JPC bits
Entries 489592
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
122 253 478 38 689 487 14
543 90 763 69 1352 656 55 5
269 440 118 585 268 131 80 9
60365 60416 59840 60507 58890 59925 61050 61185

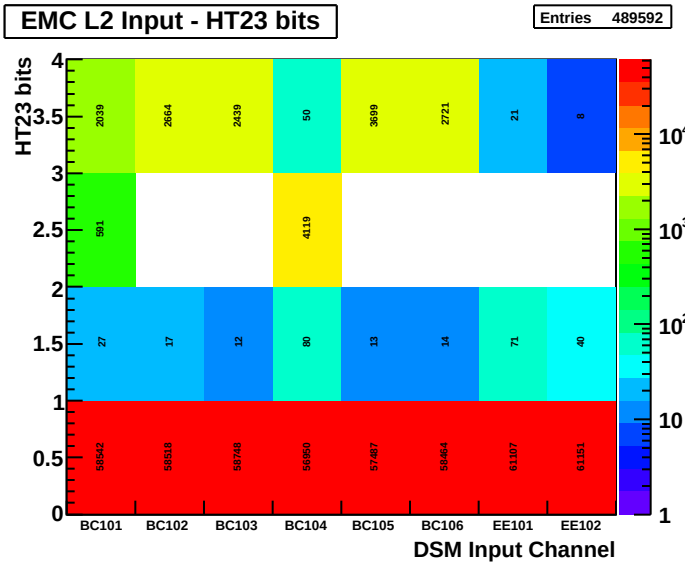

EMC L2 Input - JPZ/JPC bits
Entries 3502
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
253 475 9 14
9 761 55 5
132 440 123 496 3 80 9
30 114 141 4 4 81
1 87 1 61
38 56 20

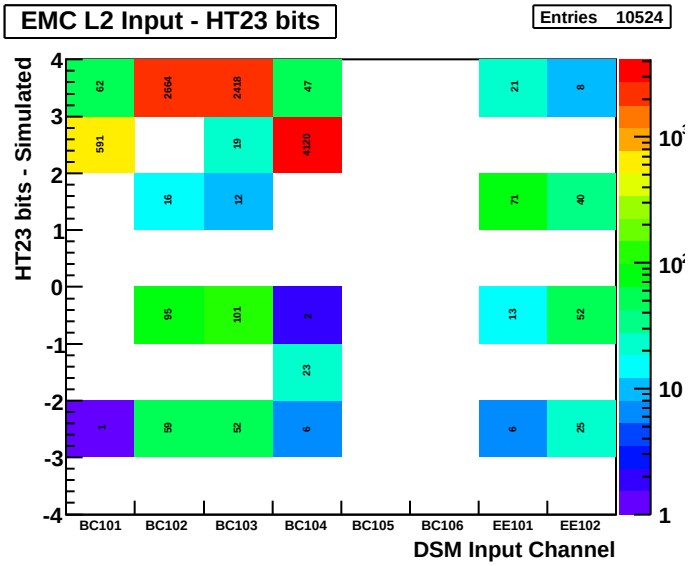

EMC L2 Input - Partial JP Sum
Entries 489592
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

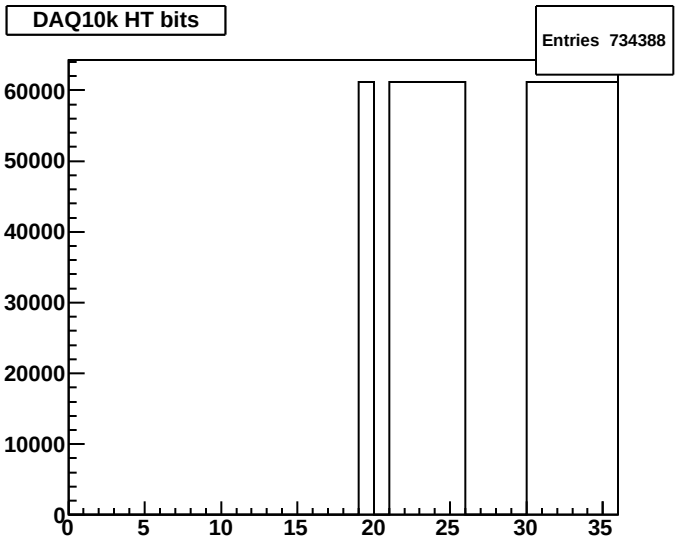

EMC L2 Input - Partial JP Sum
Entries 122057
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

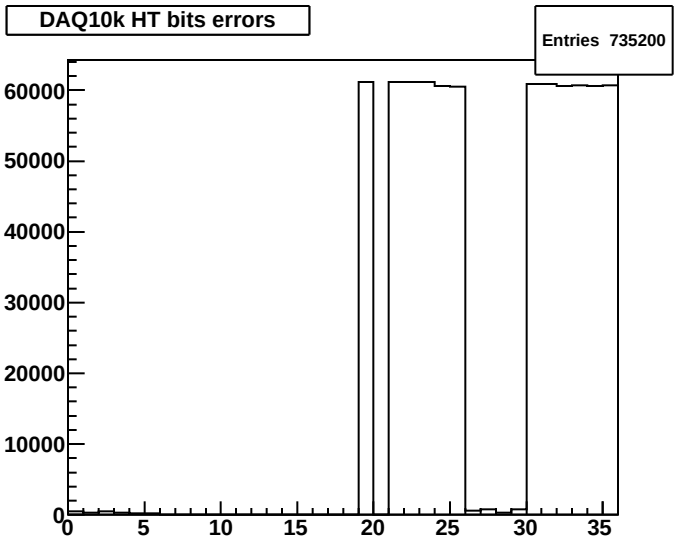

EMC L2 Input - HT01 bits/Partial JP ID
Entries 489592
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

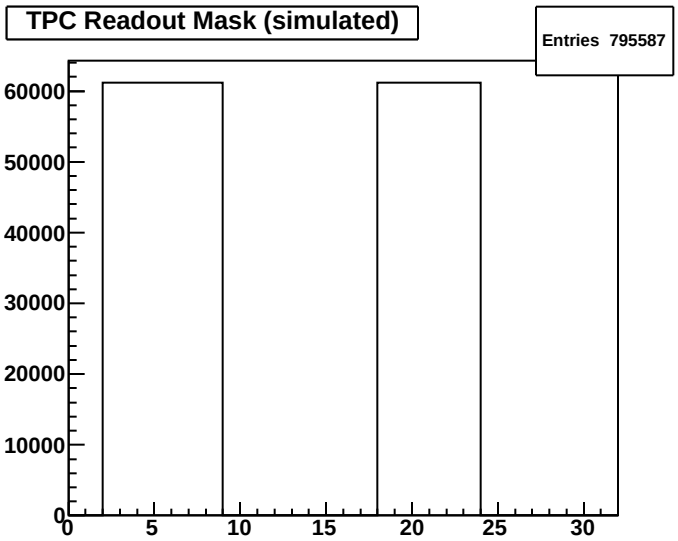

EMC L2 Input - HT01 bits/Partial JP ID
Entries 63140
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

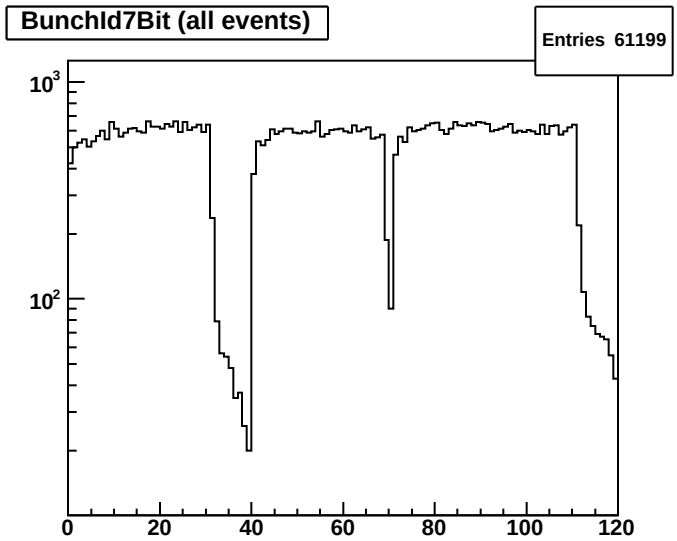

EMC L2 Input - HT23 bits
Entries 489592
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

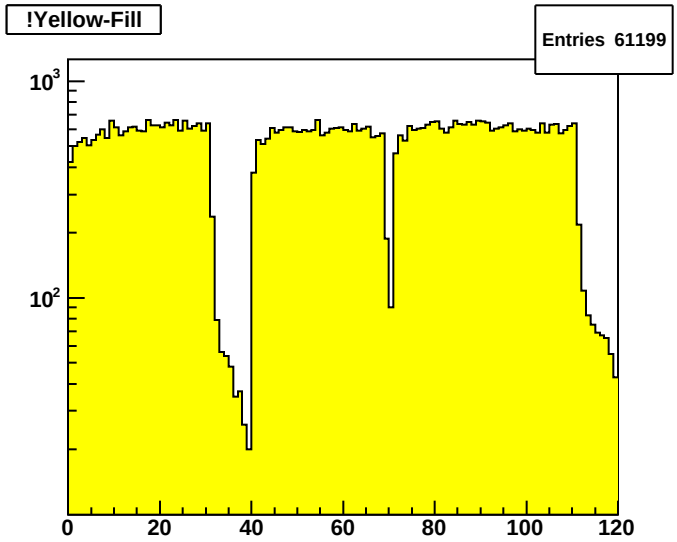

EMC L2 Input - HT23 bits
Entries 10524
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

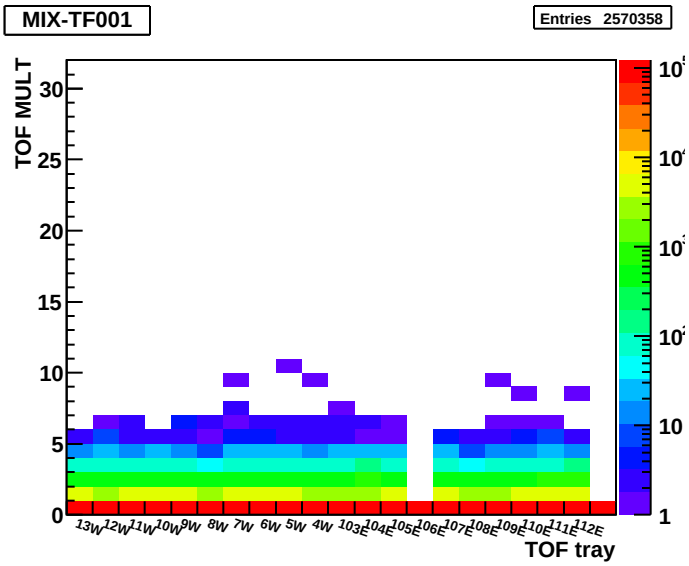

DAQ10k HT bits
Entries 734388
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

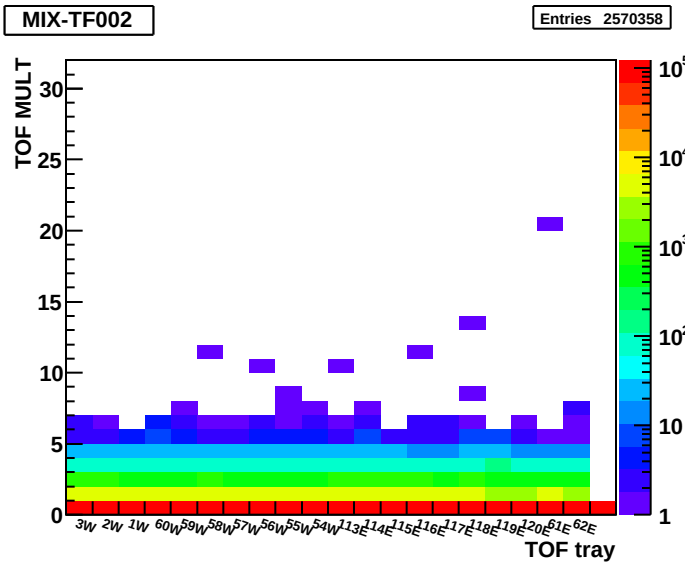

DAQ10k HT bits errors
Entries 735200
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

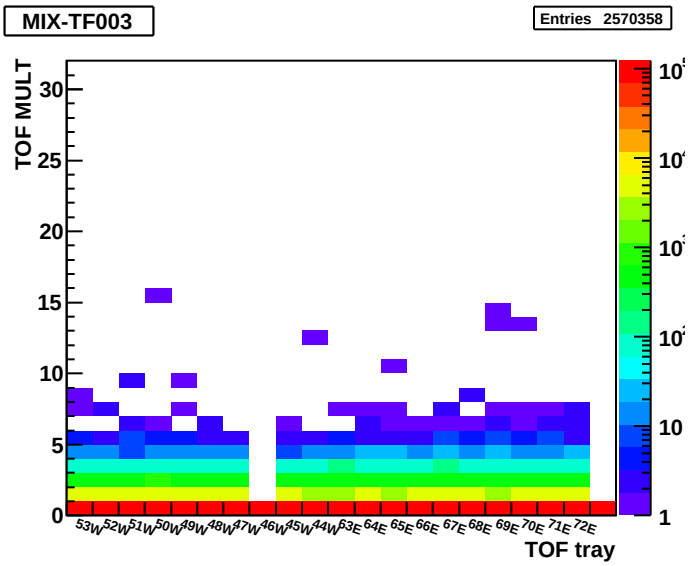

TPC Readout Mask (simulated)
Entries 795587
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30

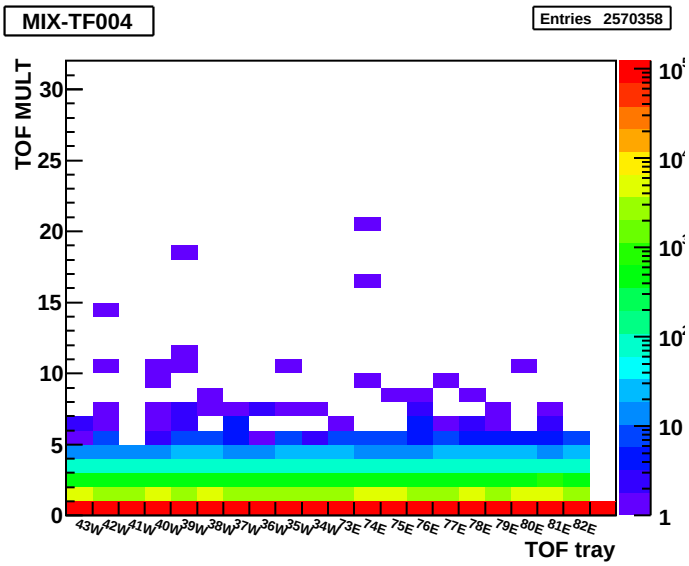

BunchId7Bit (all events)
Entries 61199
10^3
10^2
0 20 40 60 80 100 120

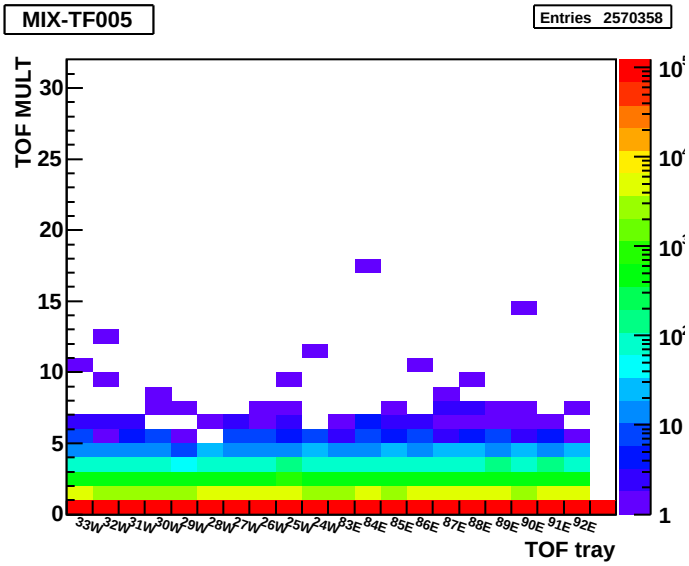

!Yellow-Fill
Entries 61199
10^3
10^2
0 20 40 60 80 100 120

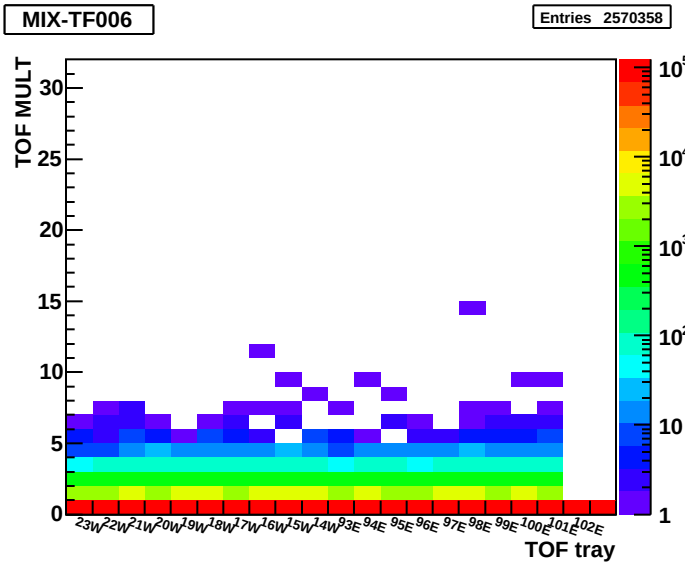

MIX-TF001
Entries 2570358
TOF MULT
TOF tray

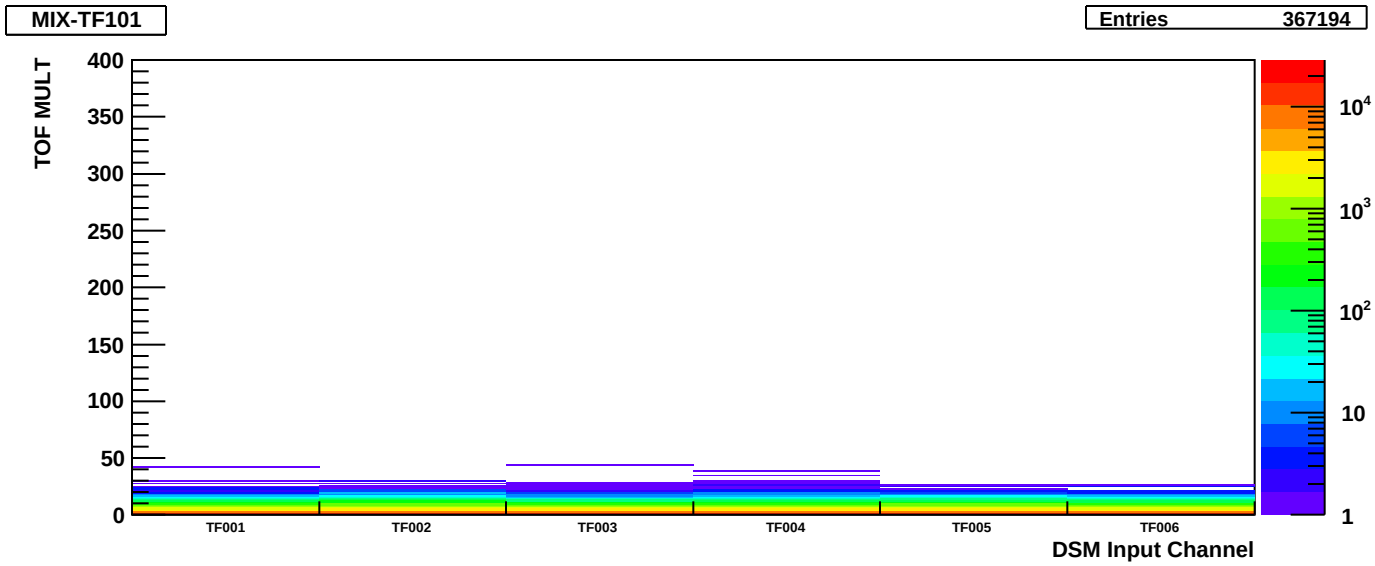

MIX-TF002
Entries 2570358
TOF MULT
TOF tray

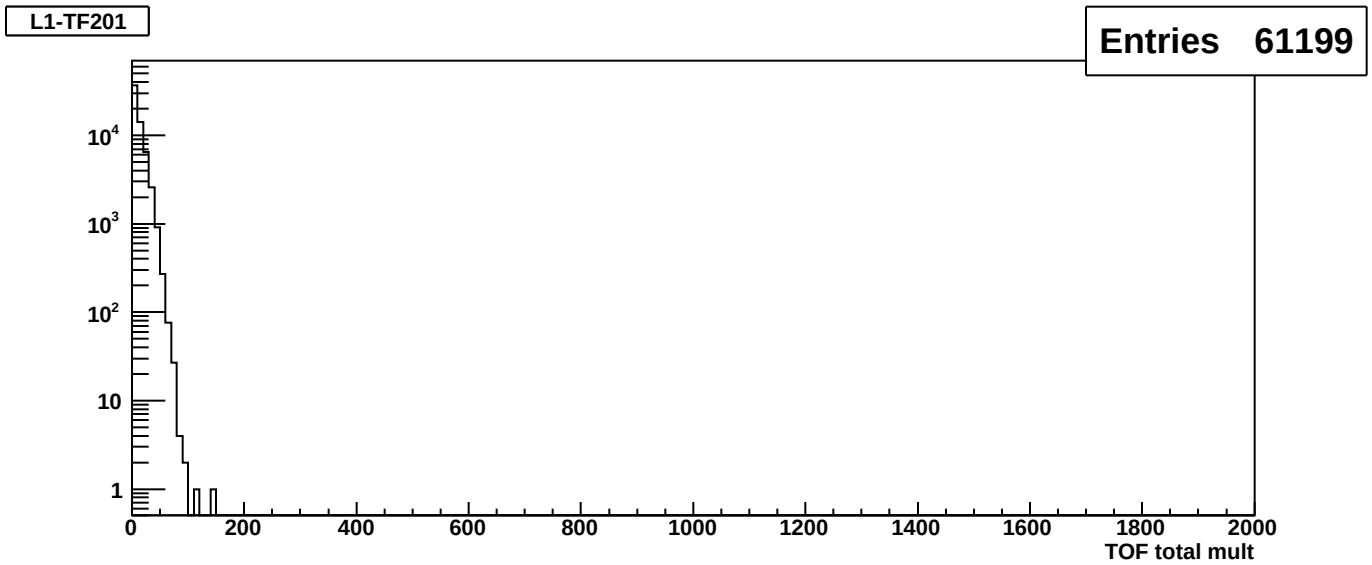

MIX-TF003
Entries 2570358
TOF MULT
TOF tray

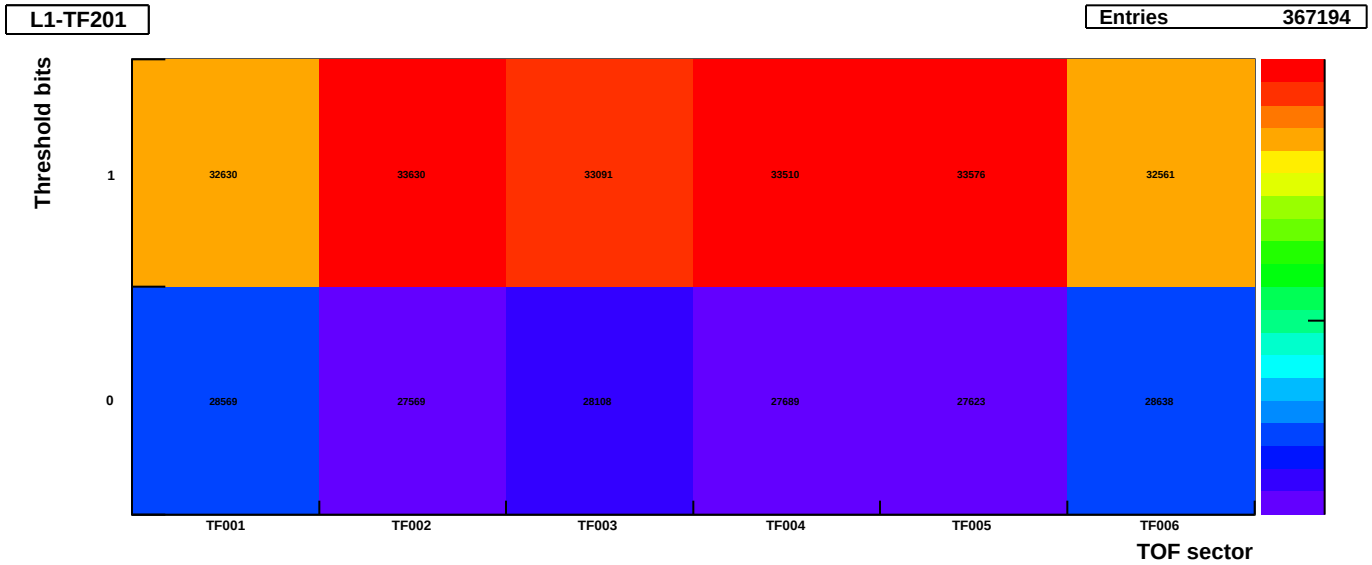

MIX-TF004
Entries 2570358
TOF MULT
TOF tray

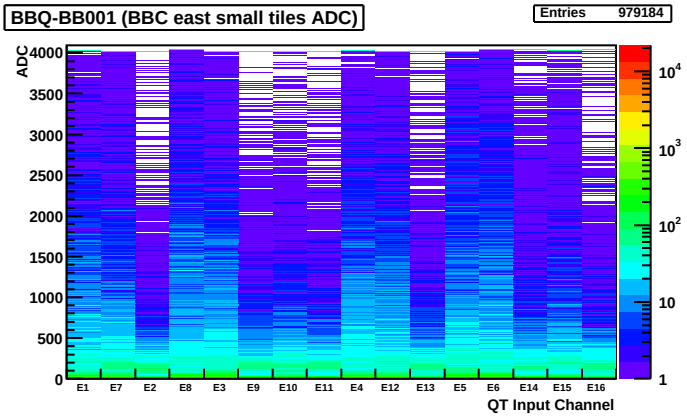

MIX-TF005
Entries 2570358
TOF MULT
TOF tray

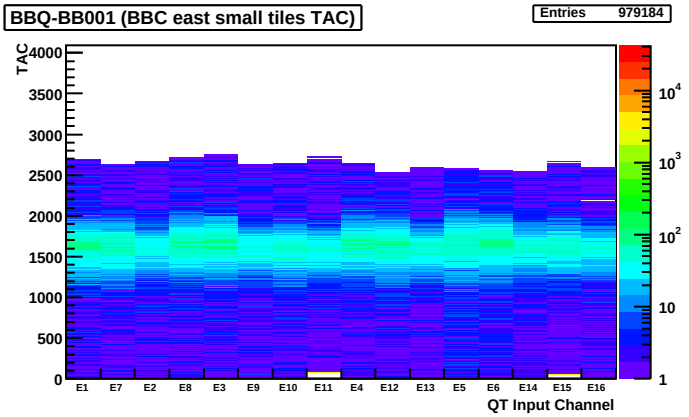

MIX-TF006
Entries 2570358
TOF MULT
TOF tray

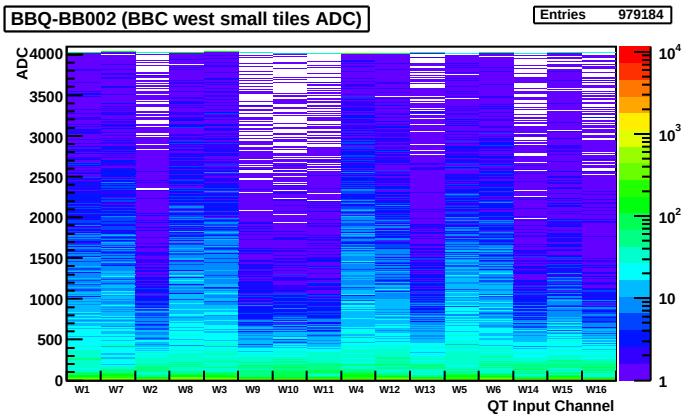

MIX-TF101
Entries 367194
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

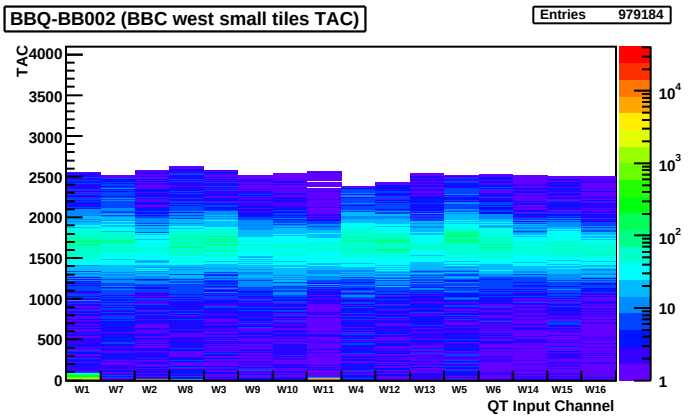

L1-TF201
Entries 61199
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

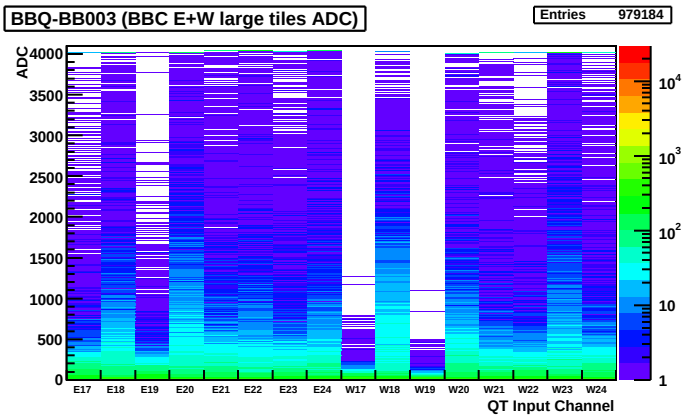

L1-TF201
Entries 367194
Threshold bits
1
0
32630
33630
33091
33510
33576
32561
28569
27569
28108
27689
27623
28638
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

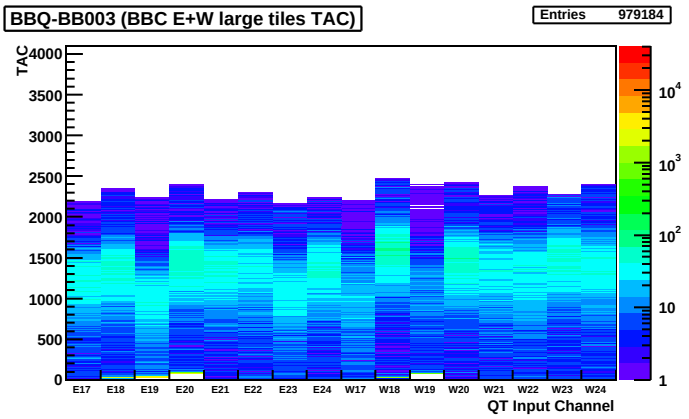

BBQ-BB001 (BBC east small tiles ADC)
Entries 979184
ADC
QT Input Channel

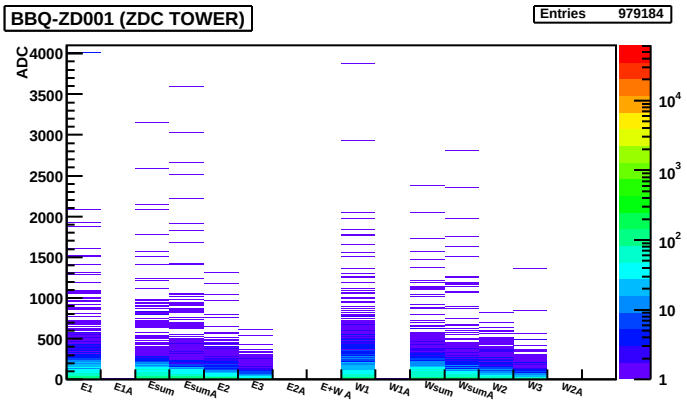

BBQ-BB001 (BBC east small tiles TAC)
Entries 979184
TAC
QT Input Channel

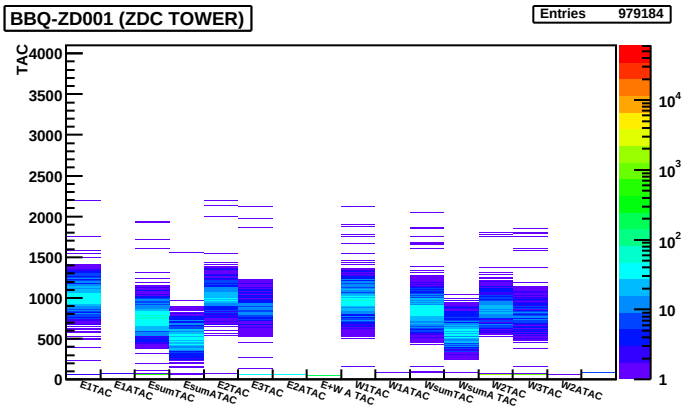

BBQ-BB002 (BBC west small tiles ADC)
Entries 979184
ADC
QT Input Channel

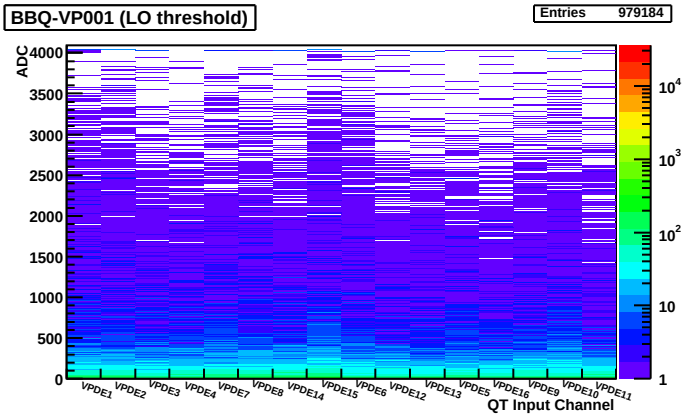

BBQ-BB002 (BBC west small tiles TAC)
Entries 979184
TAC
QT Input Channel

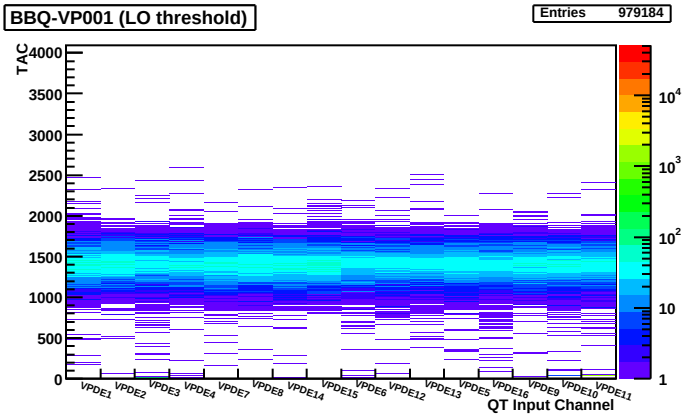

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 979184
ADC
QT Input Channel

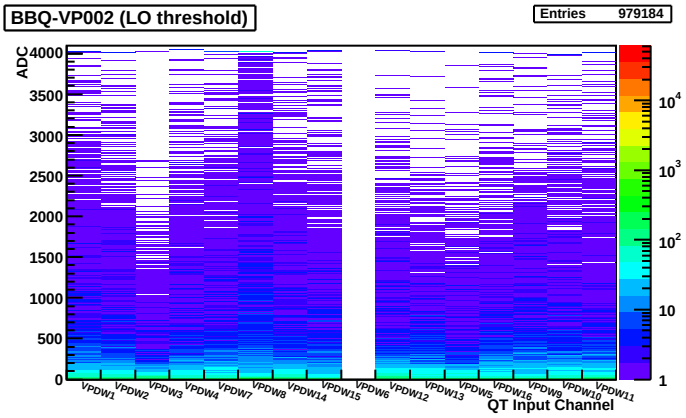

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 979184
TAC
QT Input Channel

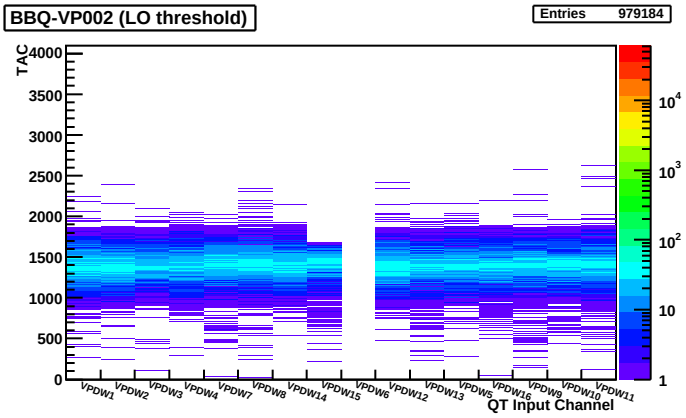

BBQ-ZD001 (ZDC TOWER)
Entries 979184
ADC

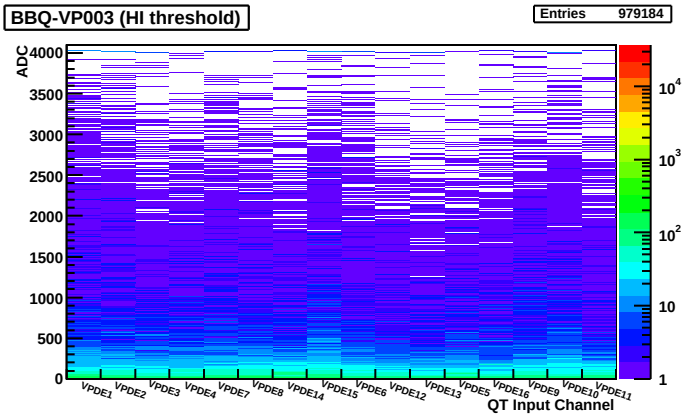

BBQ-ZD001 (ZDC TOWER)
Entries 979184
TAC

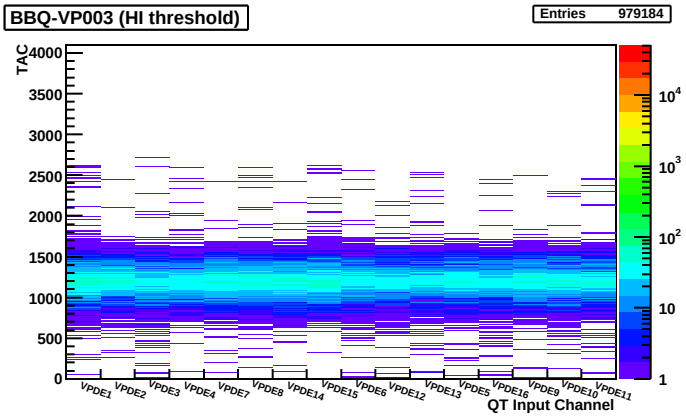

BBQ-VP001 (LO threshold)
Entries 979184
ADC
QT Input Channel

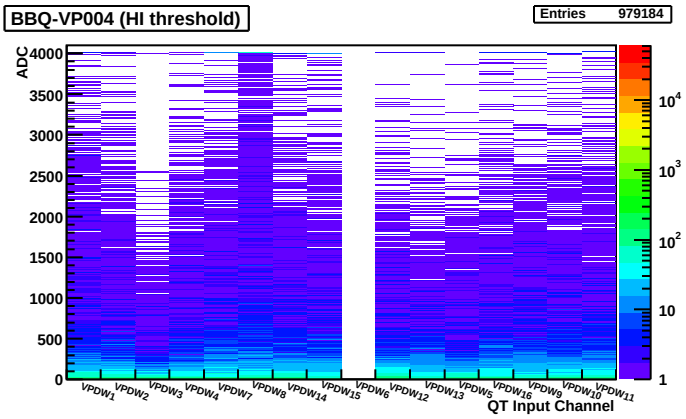

BBQ-VP001 (LO threshold)
Entries 979184
TAC
QT Input Channel

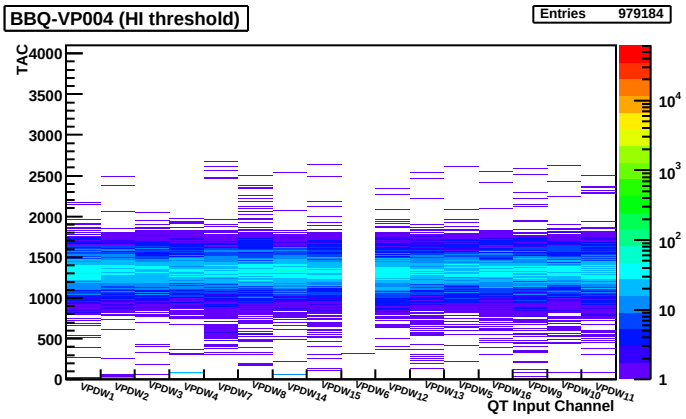

BBQ-VP002 (LO threshold)
Entries 979184
ADC
QT Input Channel

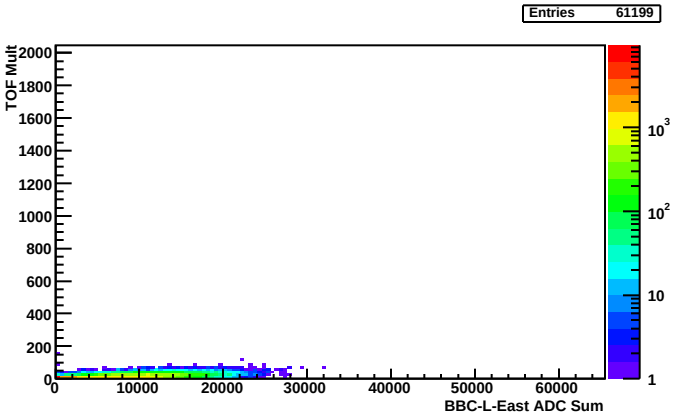

BBQ-VP002 (LO threshold)
Entries 979184
TAC
QT Input Channel

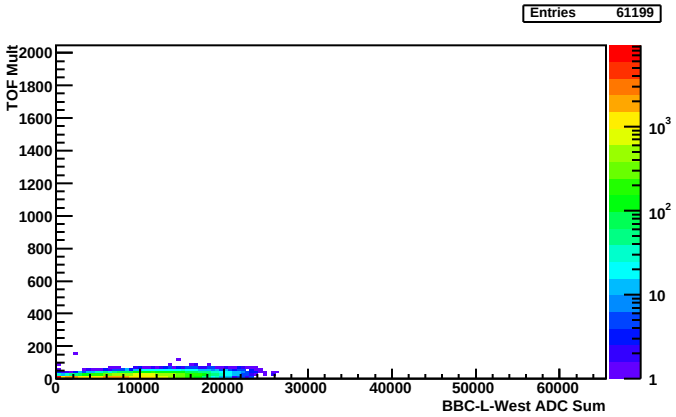

BBQ-VP003 (HI threshold)
Entries 979184
ADC
QT Input Channel

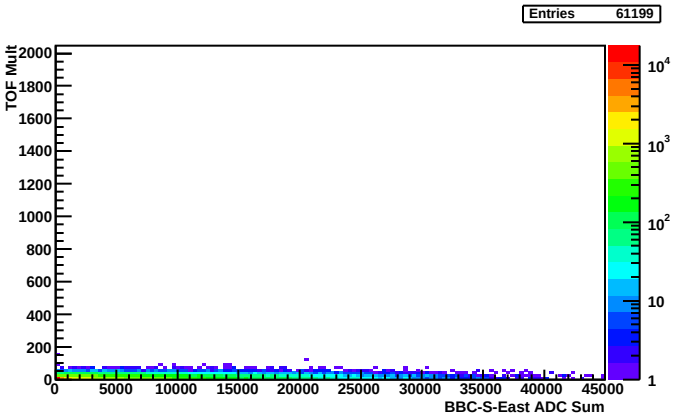

BBQ-VP003 (HI threshold)
Entries 979184
TAC
QT Input Channel

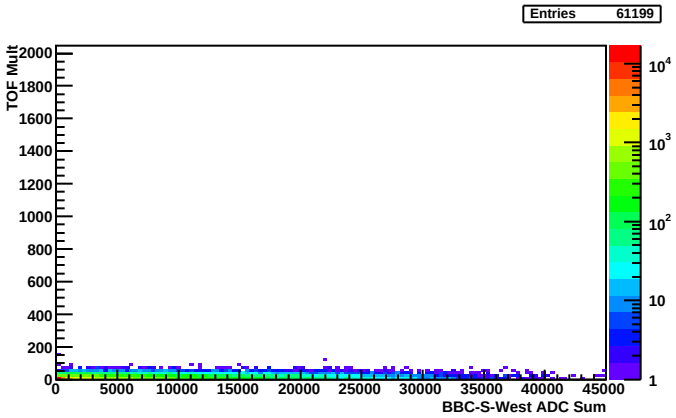

BBQ-VP004 (HI threshold)
Entries 979184
ADC
QT Input Channel

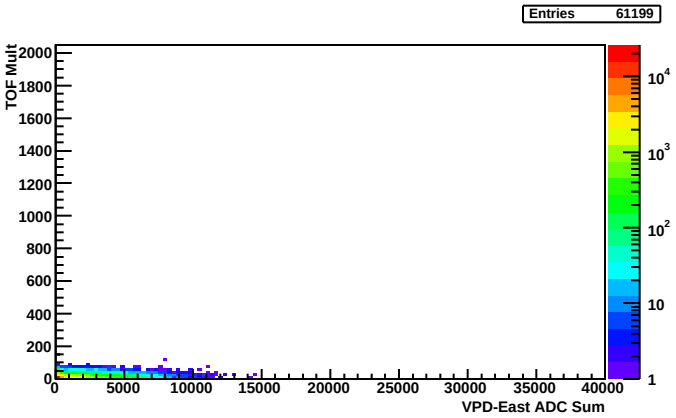

BBQ-VP004 (HI threshold)
Entries 979184
TAC
QT Input Channel

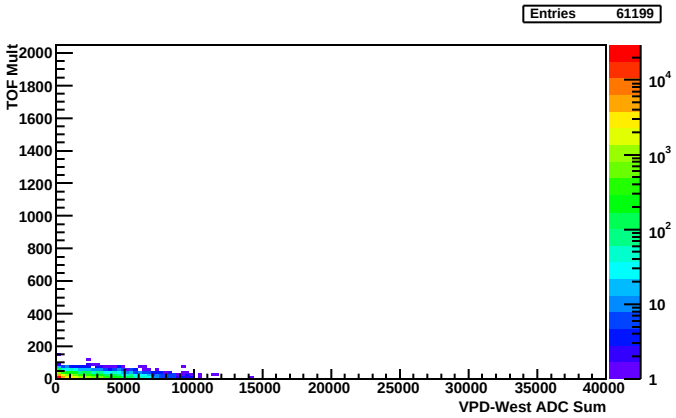

Entries 61199
TOF Mult
BBC-L-East ADC Sum

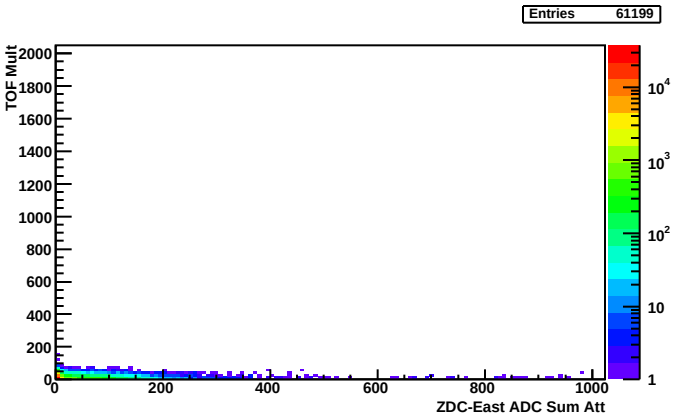

Entries 61199
TOF Mult
BBC-L-West ADC Sum

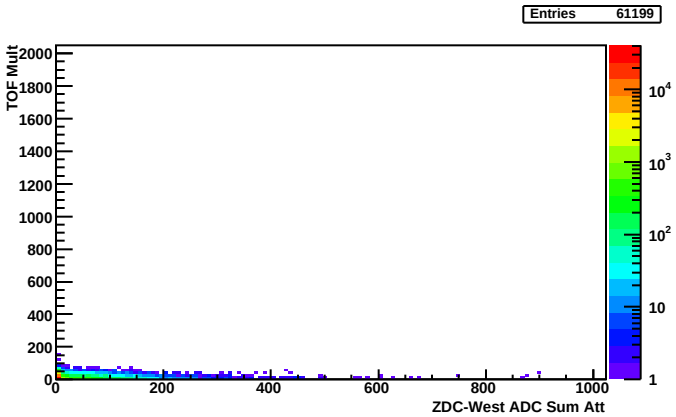

Entries 61199
TOF Mult
BBC-S-East ADC Sum

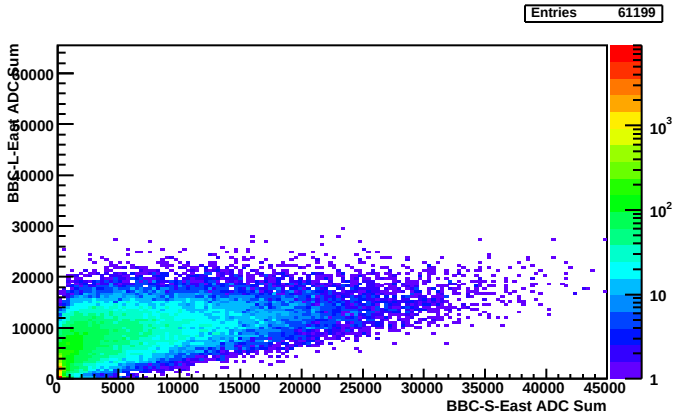

Entries 61199
TOF Mult
BBC-S-West ADC Sum

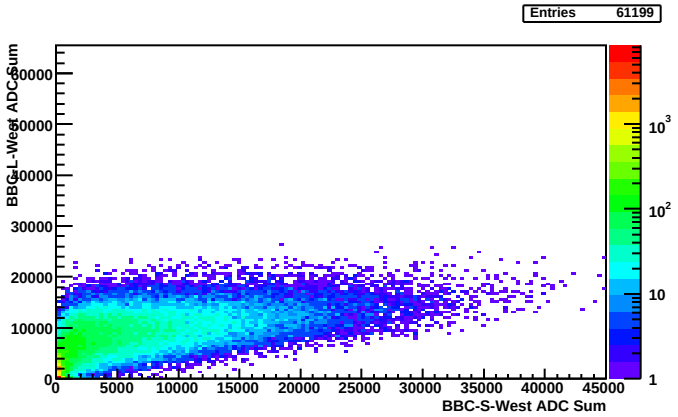

Entries 61199
TOF Mult
VPD-East ADC Sum

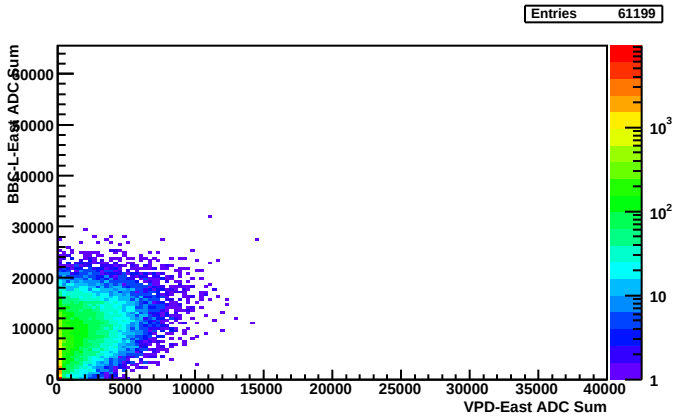

Entries 61199
TOF Mult
VPD-West ADC Sum

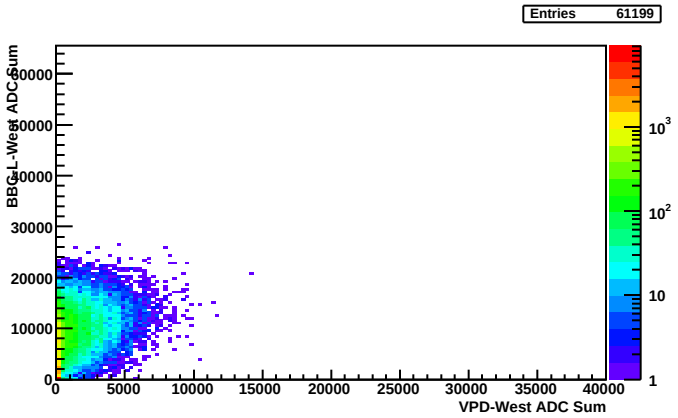

Entries 61199
TOF Mult
ZDC-East ADC Sum Att

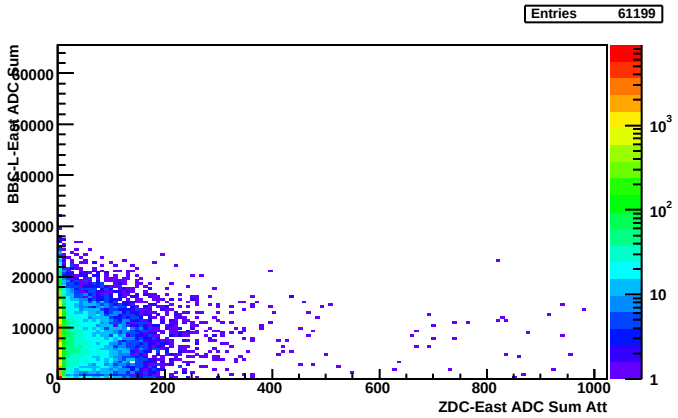

Entries 61199
TOF Mult
ZDC-West ADC Sum Att

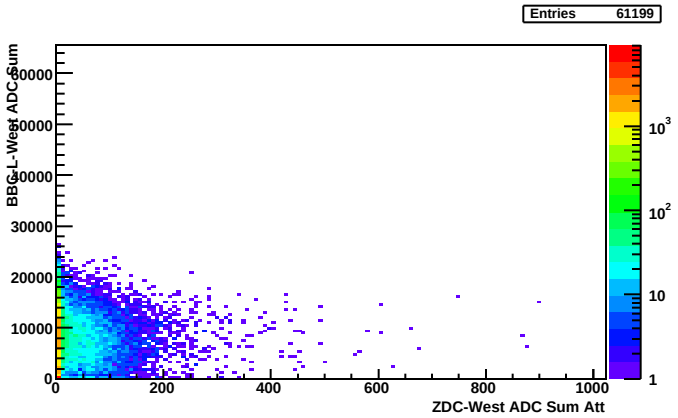

Entries 61199
BBC-L-East ADC Sum
BBC-S-East ADC Sum

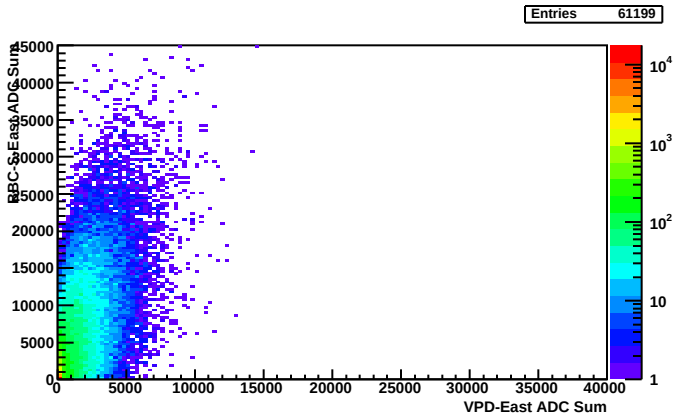

Entries 61199
BBC-L-West ADC Sum
BBC-S-West ADC Sum

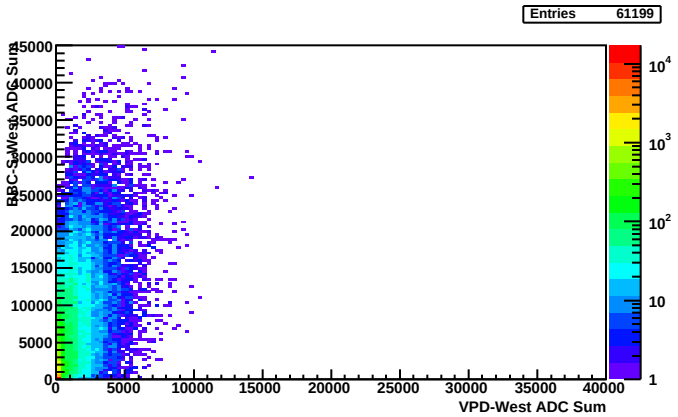

Entries 61199
BBC-L-East ADC Sum
VPD-East ADC Sum

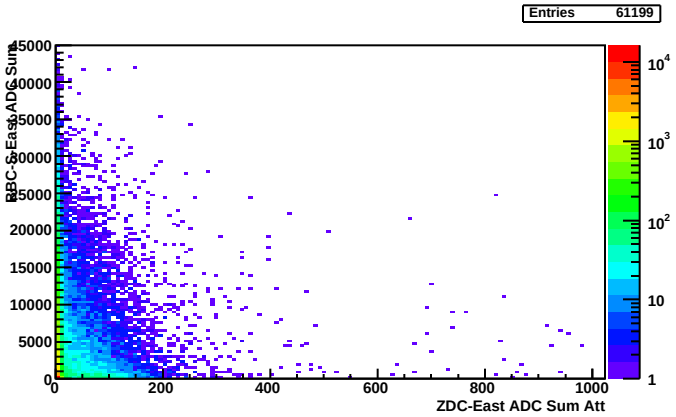

Entries 61199
BBC-L-West ADC Sum
VPD-West ADC Sum

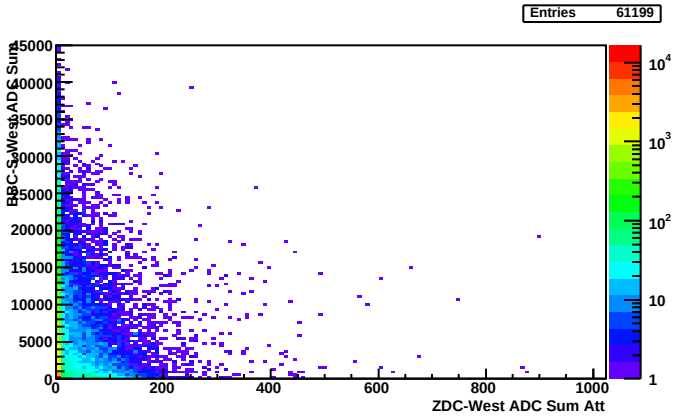

Entries 61199
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

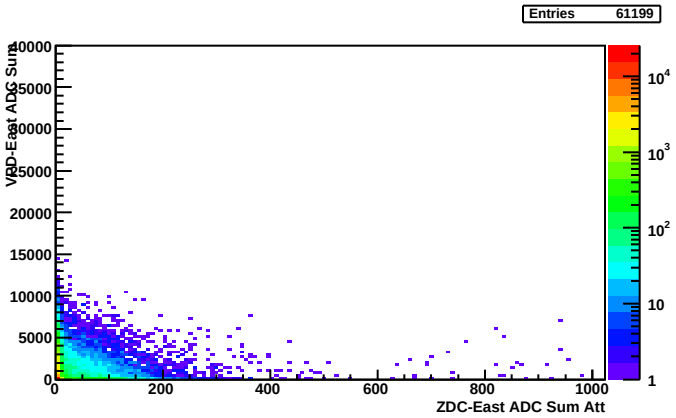

Entries 61199
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

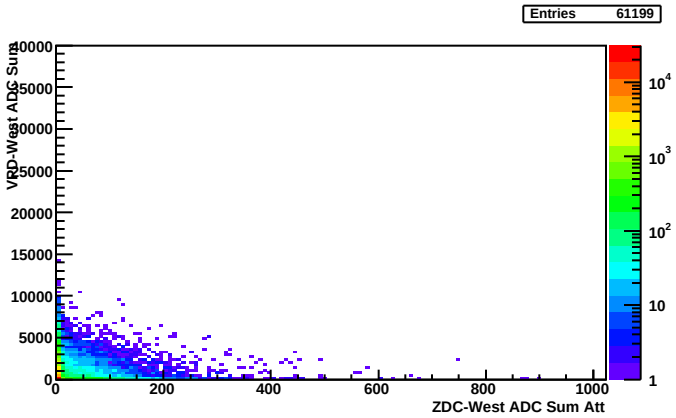

Entries 61199
BBC-S-East ADC Sum
VPD-East ADC Sum

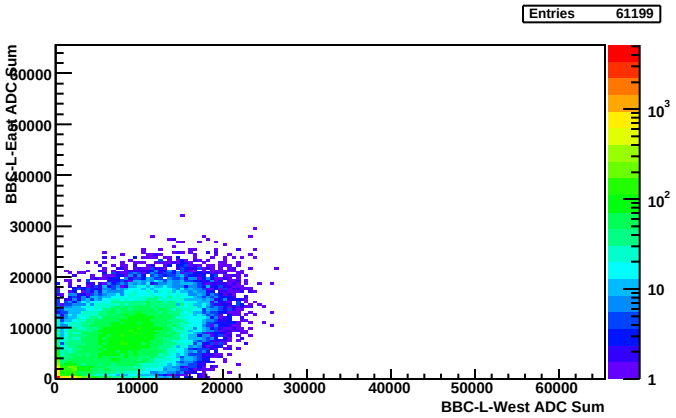

Entries 61199
BBC-S-West ADC Sum
VPD-West ADC Sum

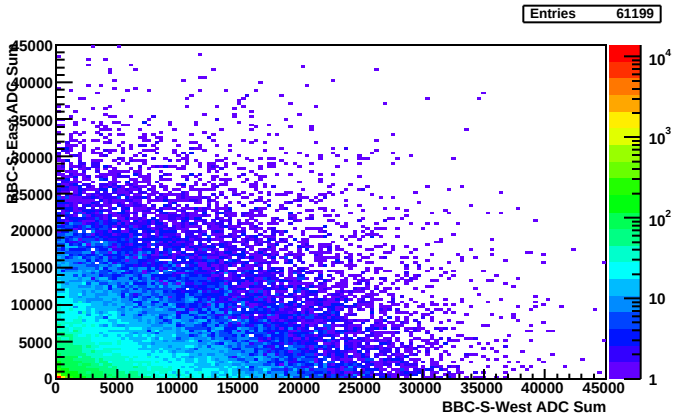

Entries 61199
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

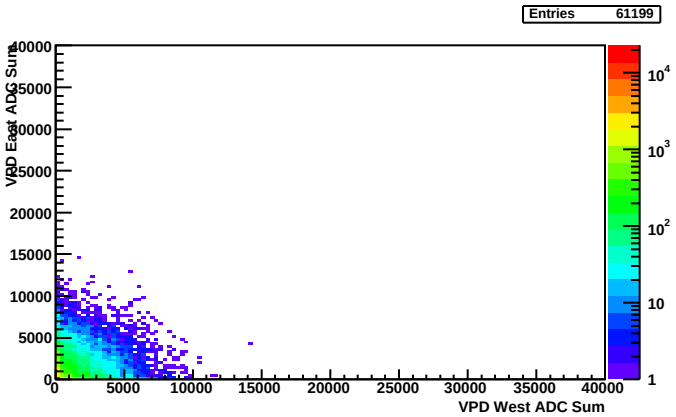

Entries 61199
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

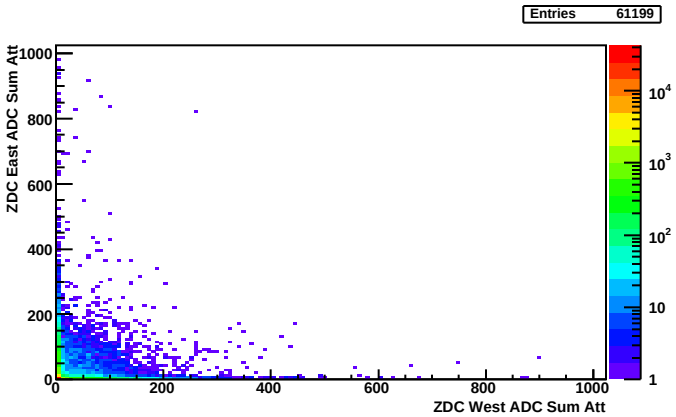

Entries 61199
VPD-East ADC Sum
ZDC-East ADC Sum Att

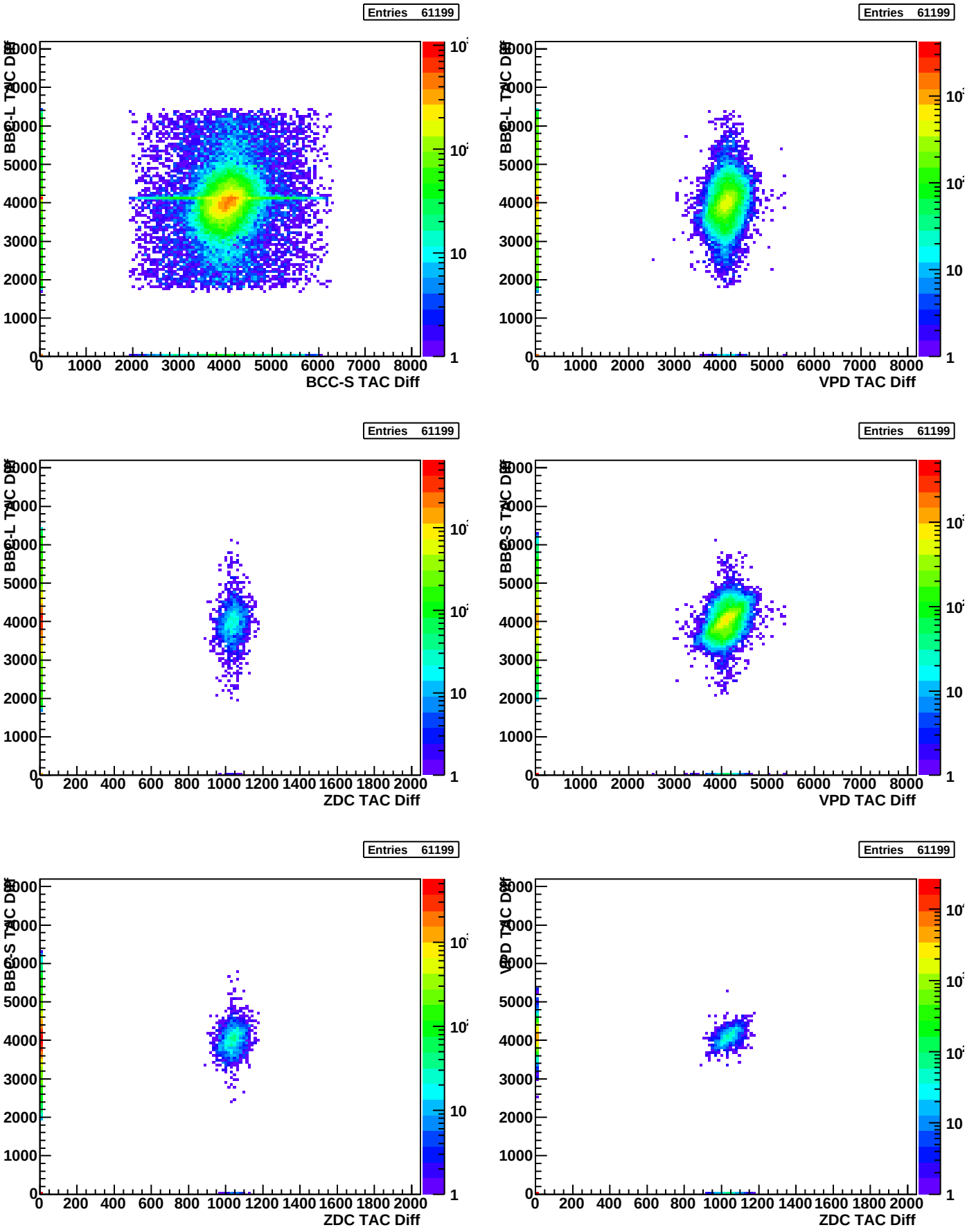

Entries 61199
VPD-West ADC Sum
ZDC-West ADC Sum Att

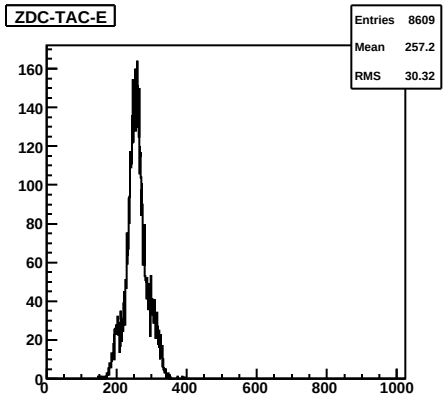

Entries 61199
BBC-L-East ADC Sum
BBC-L-West ADC Sum

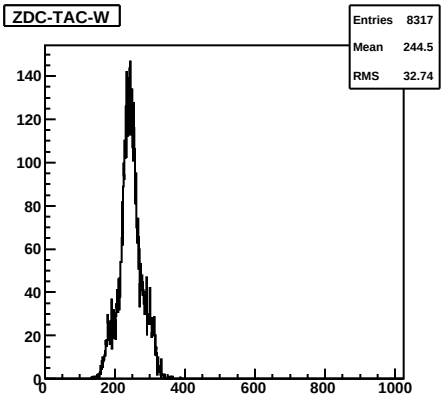

Entries 61199
BBC-S-East ADC Sum
BBC-S-West ADC Sum

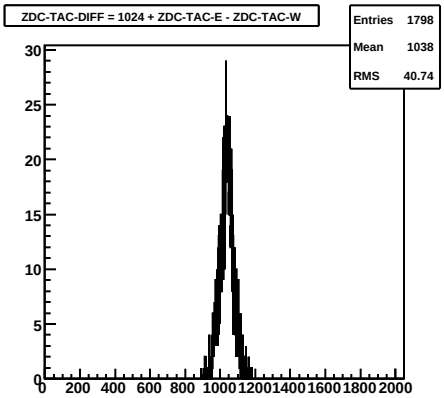

Entries 61199
VPD East ADC Sum
VPD West ADC Sum

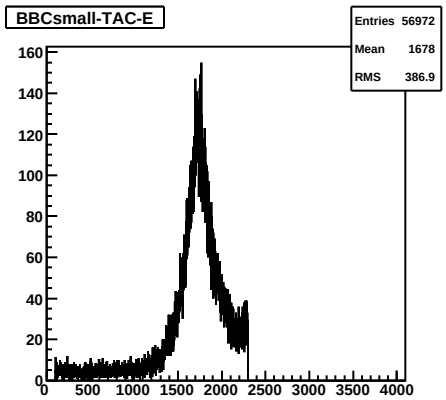

Entries 61199
ZDC East ADC Sum Att
ZDC West ADC Sum Att

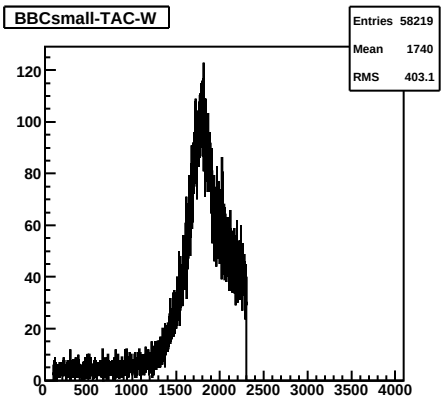

Entries 61199
BBC-L TAC Diff
BCC-S TAC Diff
Entries 61199
BBC-L TAC Diff
VPD TAC Diff
Entries 61199
BBC-L TAC Diff
ZDC TAC Diff
Entries 61199
BBC-S TAC Diff
VPD TAC Diff
Entries 61199
BBC-S TAC Diff
ZDC TAC Diff
Entries 61199
VPD TAC Diff
ZDC TAC Diff

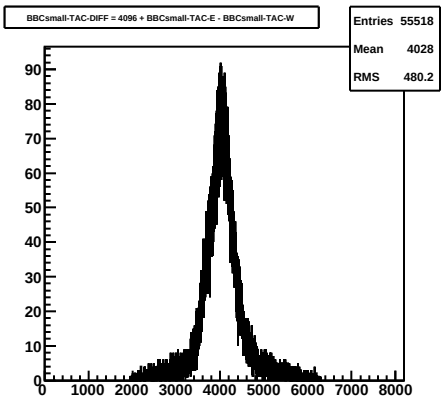

ZDC-TAC-E
Entries 8609
Mean 257.2
RMS 30.32

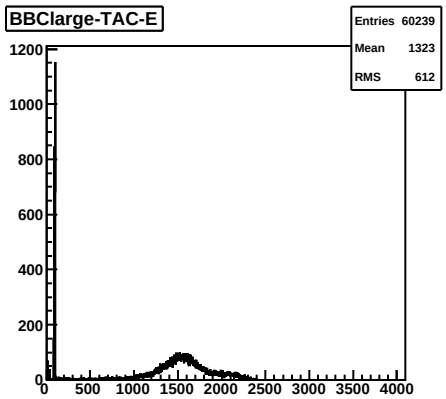

ZDC-TAC-W
Entries 8317
Mean 244.5
RMS 32.74

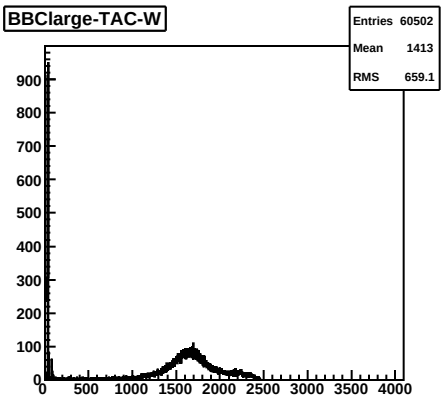

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 1798
Mean 1038
RMS 40.74

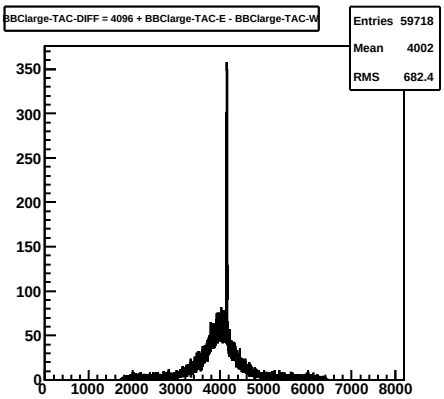

BBCsmall-TAC-E
Entries 56972
Mean 1678
RMS 386.9

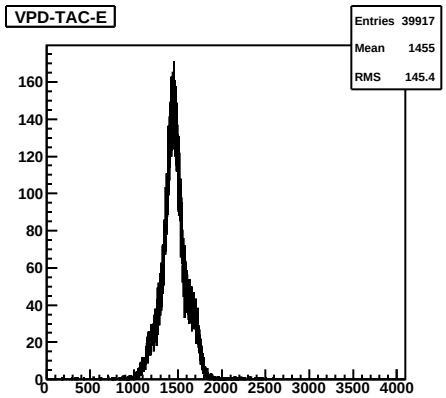

BBCsmall-TAC-W
Entries 58219
Mean 1740
RMS 403.1

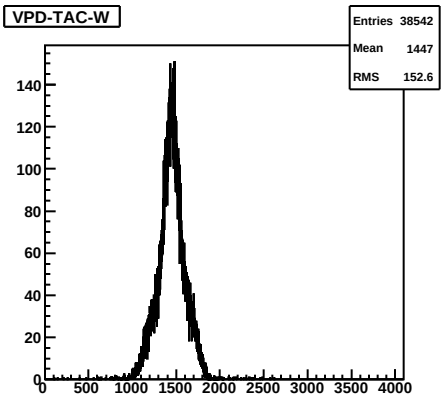

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 55518
Mean 4028
RMS 480.2

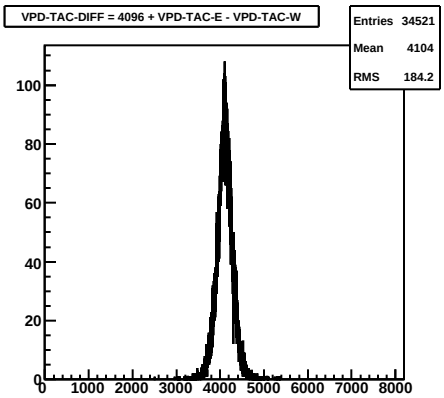

BBClarge-TAC-E
Entries 60239
Mean 1323
RMS 612

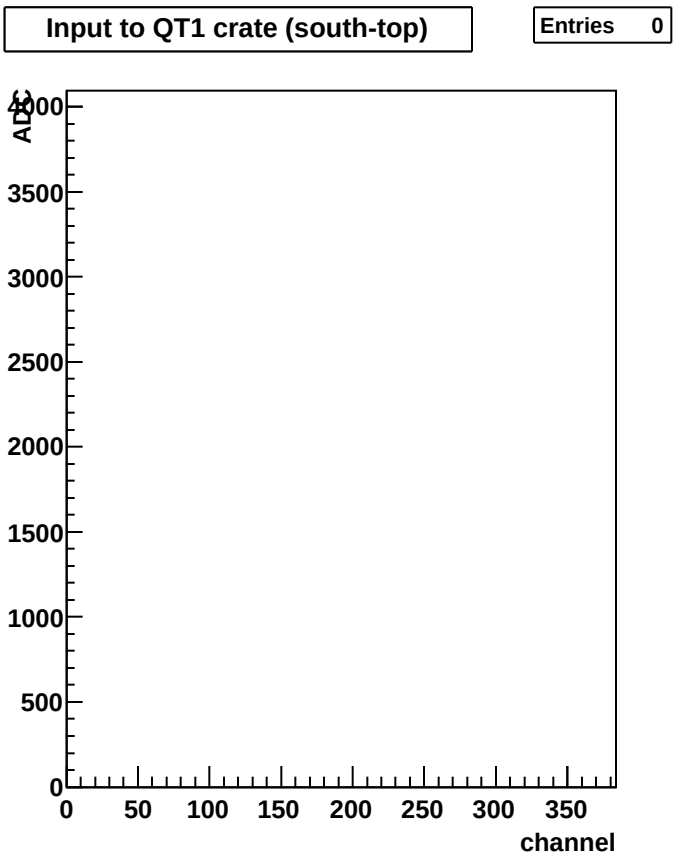

BBClarge-TAC-W
Entries 60502
Mean 1413
RMS 659.1

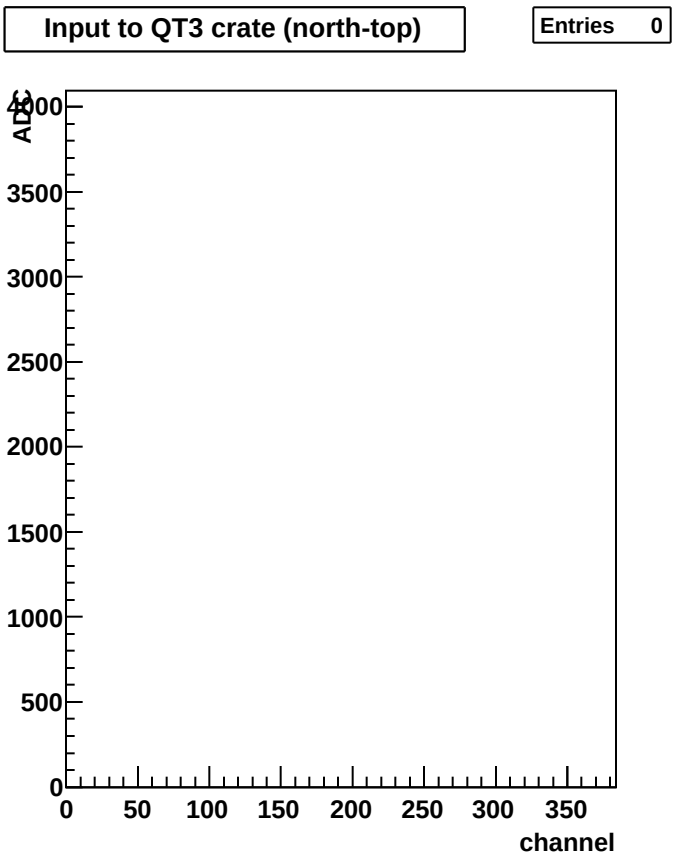

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 59718
Mean 4002
RMS 682.4

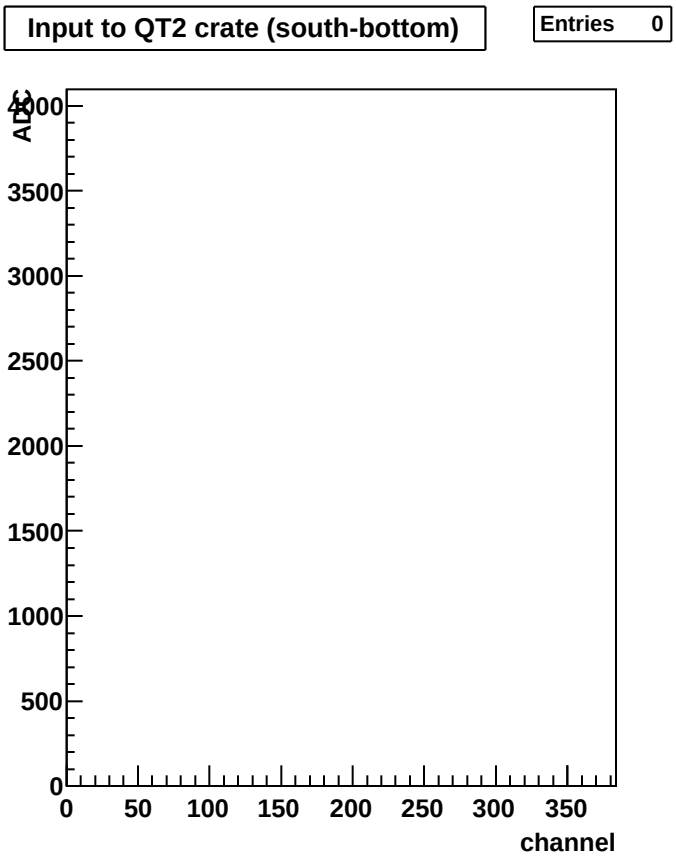

VPD-TAC-E
Entries 39917
Mean 1455
RMS 145.4

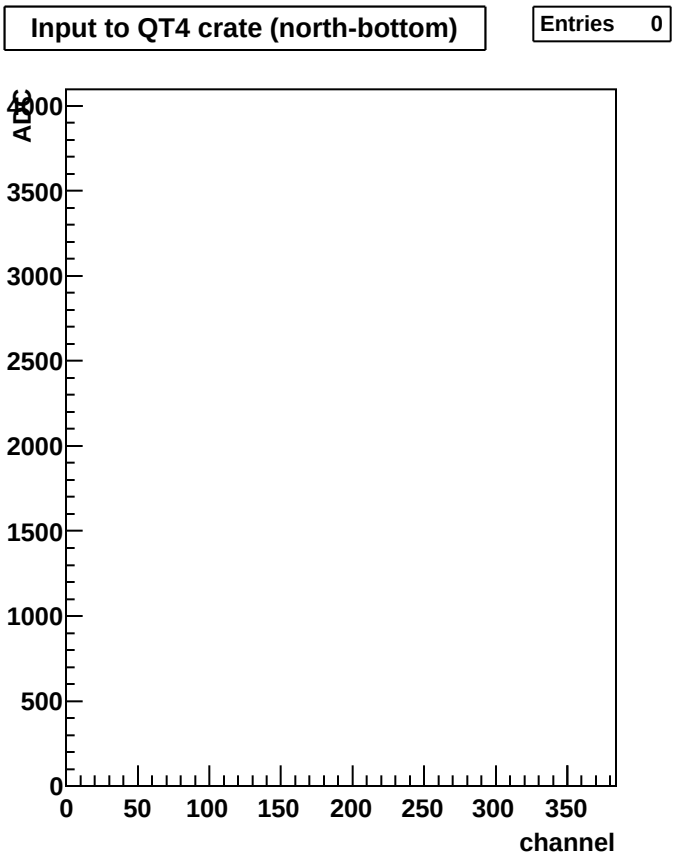

VPD-TAC-W
Entries 38542
Mean 1447
RMS 152.6

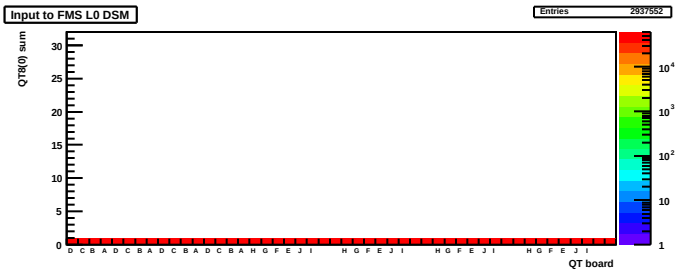

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 34521
Mean 4104
RMS 184.2

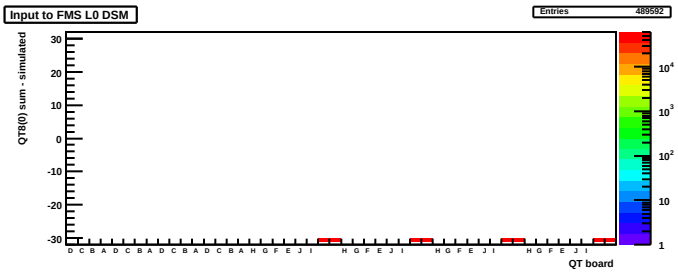

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

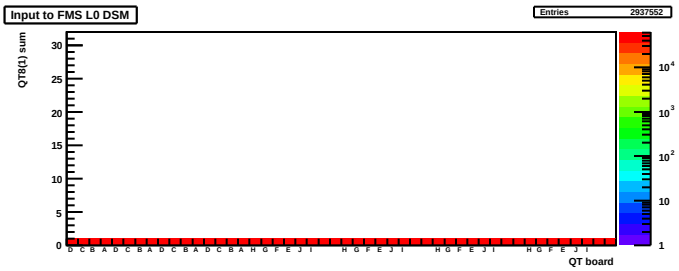

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

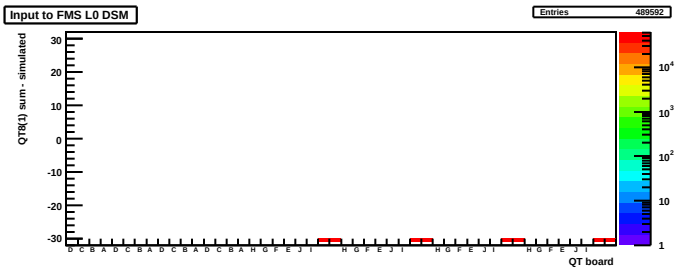

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

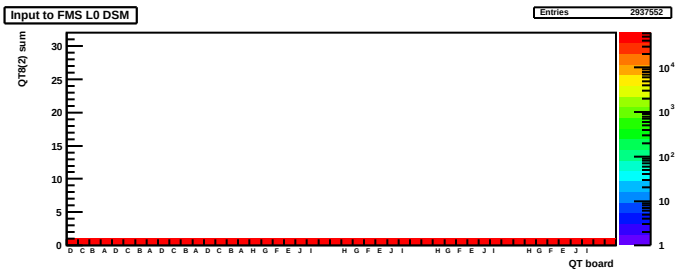

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

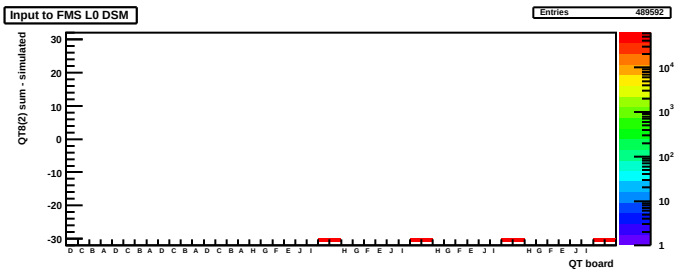

Input to FMS L0 DSM
Entries 2937552
QT8(0) sum
QT board

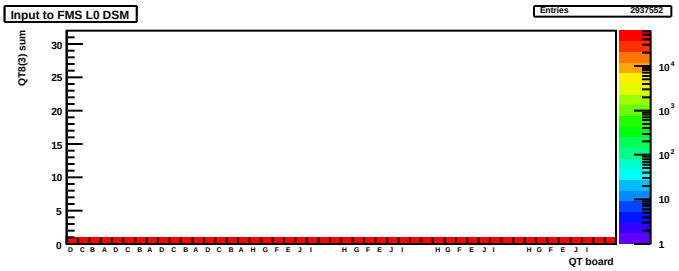

Input to FMS L0 DSM
Entries 489592
QT8(0) sum - simulated
QT board

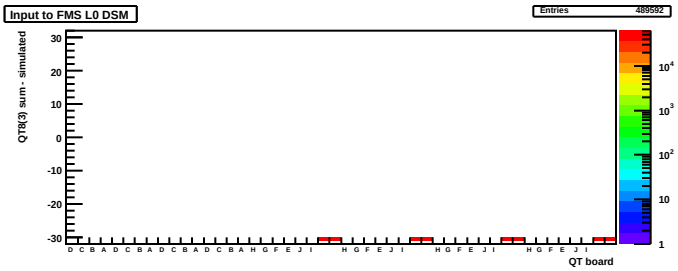

Input to FMS L0 DSM
Entries 2937552
QT8(1) sum
QT board

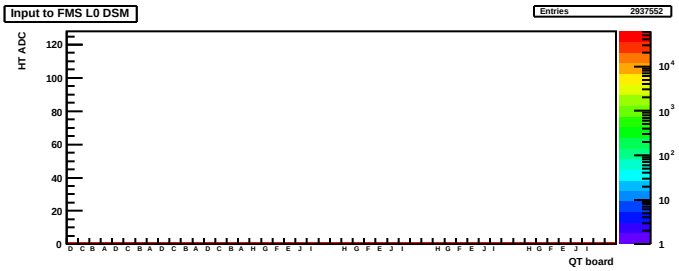

Input to FMS L0 DSM
Entries 489592
QT8(1) sum - simulated
QT board

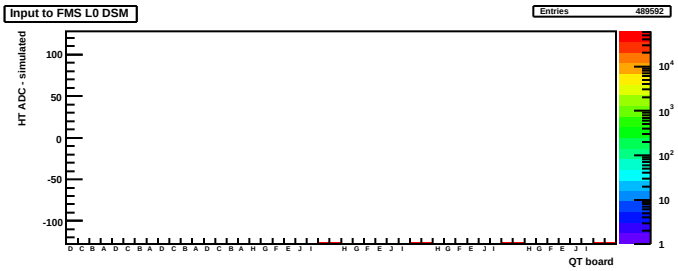

Input to FMS L0 DSM
Entries 2937552
QT8(2) sum
QT board

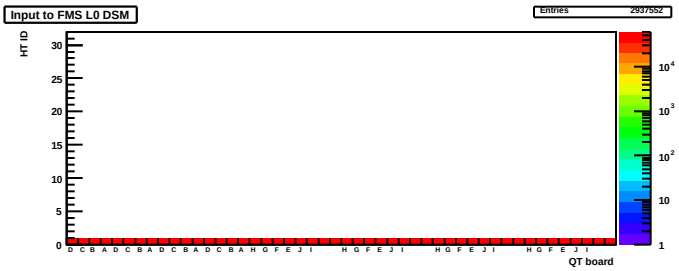

Input to FMS L0 DSM
Entries 489592
QT8(2) sum - simulated
QT board

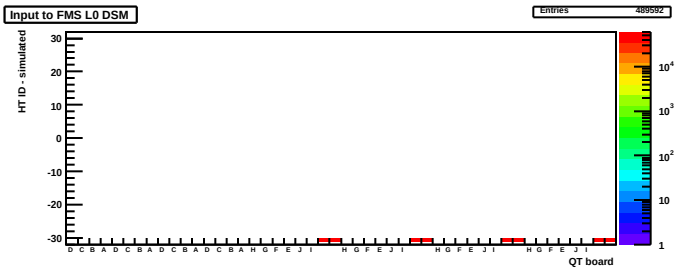

Input to FMS L0 DSM
Entries 2937552
QT8(3) sum
QT board

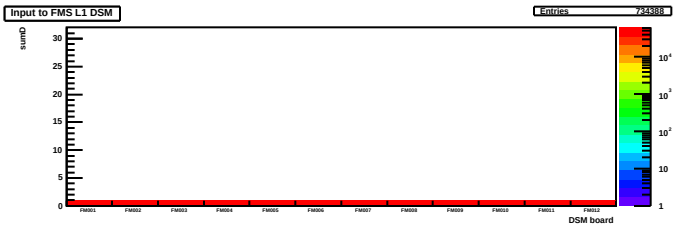

Input to FMS L0 DSM
Entries 489592
QT8(3) sum - simulated
QT board

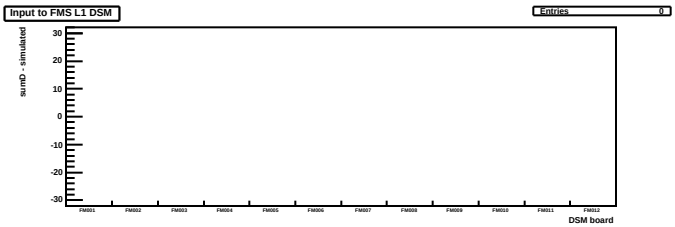

Input to FMS L0 DSM
Entries 2937552
HT ADC
QT board

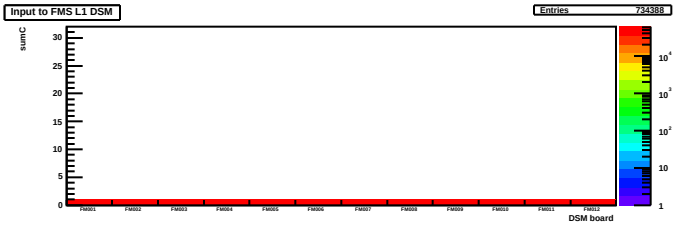

Input to FMS L0 DSM
Entries 489592
HT ADC - simulated
QT board

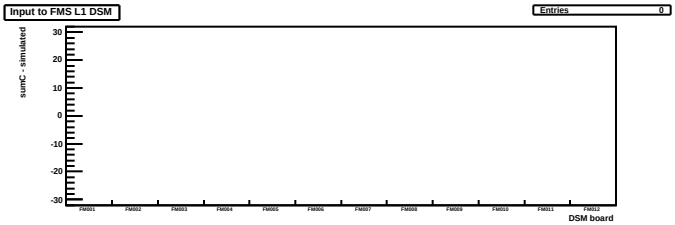

Input to FMS L0 DSM
Entries 2937552
HT ID
QT board

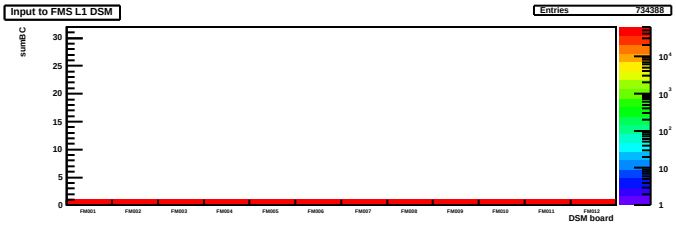

Input to FMS L0 DSM
Entries 489592
HT ID - simulated
QT board

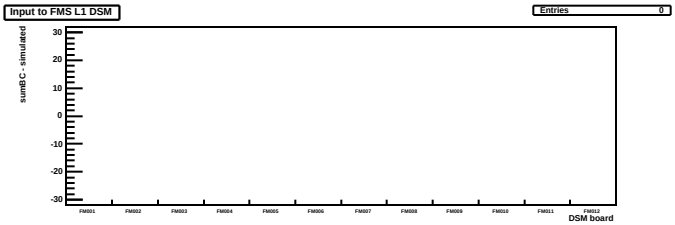

Input to FMS L1 DSM
Entries 734388
sumD
DSM board

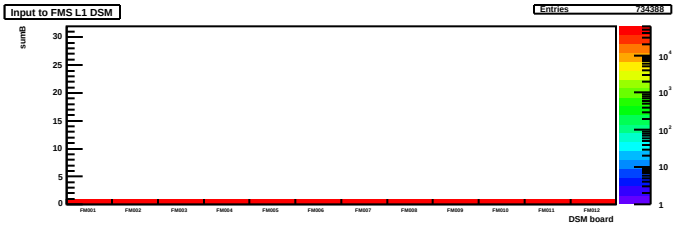

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

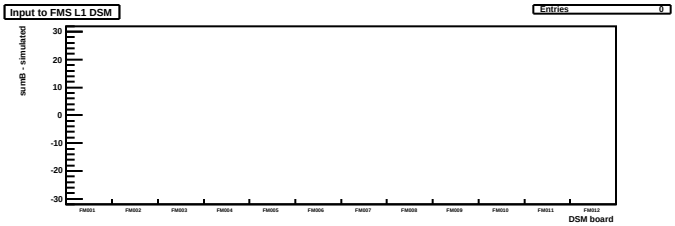

Input to FMS L1 DSM
Entries 734388
sumC
DSM board

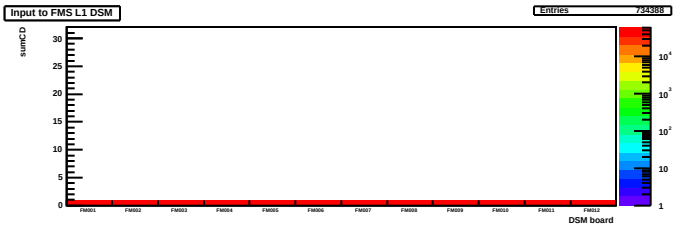

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

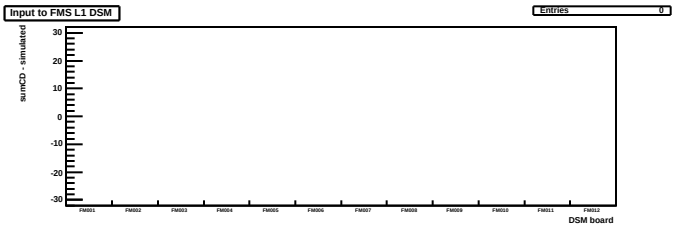

Input to FMS L1 DSM
Entries 734388
sumBC
DSM board

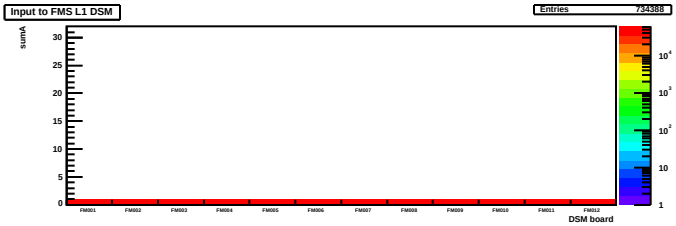

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

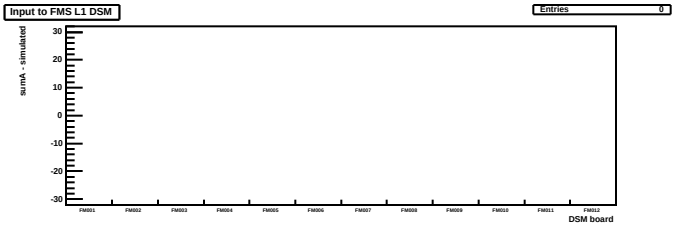

Input to FMS L1 DSM
Entries 734388
sumB
DSM board

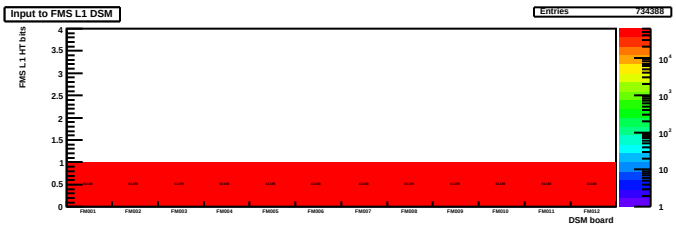

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

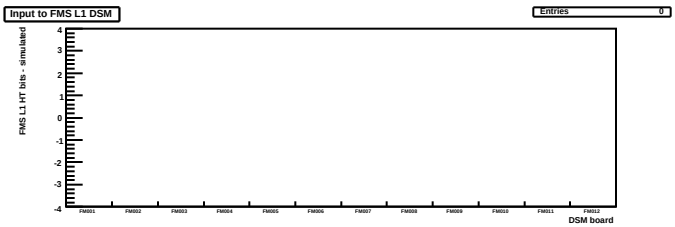

Input to FMS L1 DSM
Entries 734388
sumCD
DSM board

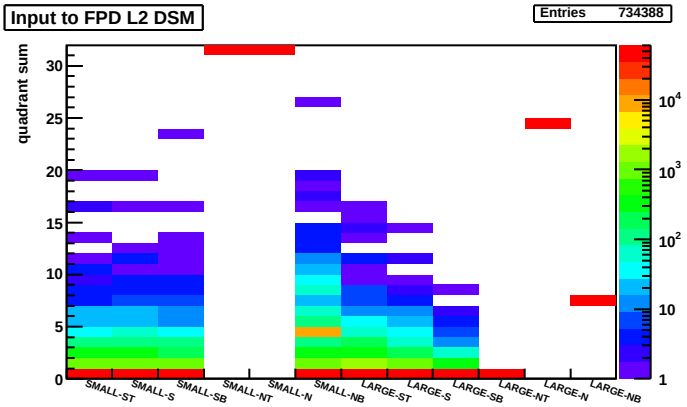

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

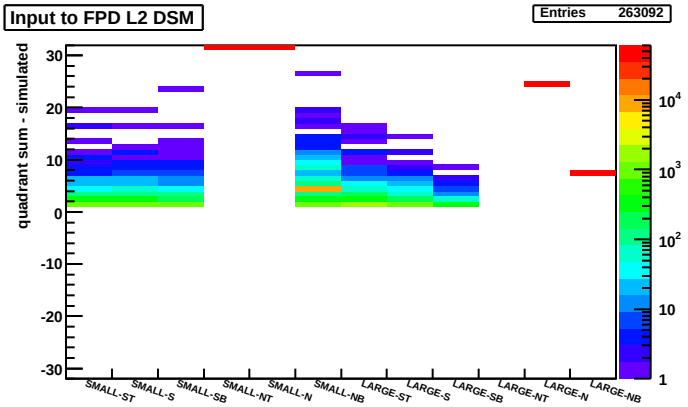

Input to FMS L1 DSM
Entries 734388
sumA
DSM board

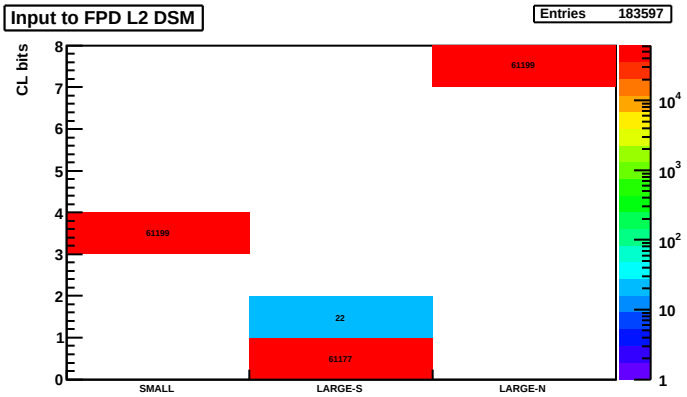

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

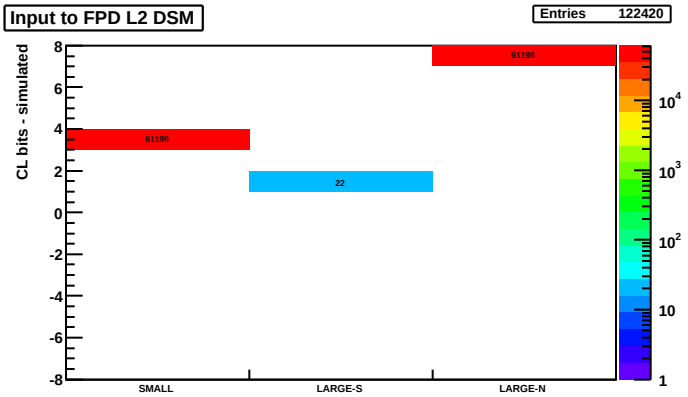

Input to FMS L1 DSM
Entries 734388
FMS L1 HT bits
DSM board

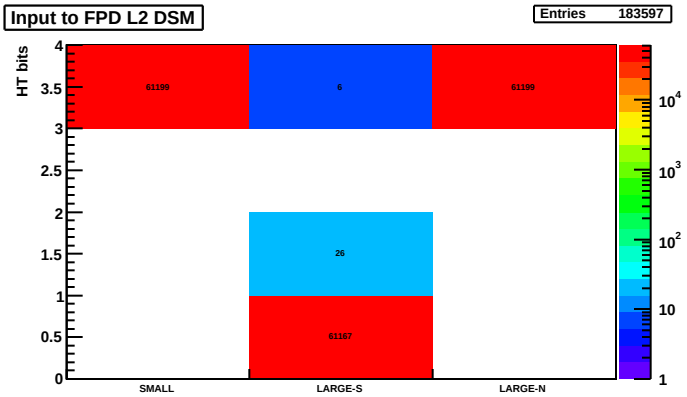

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

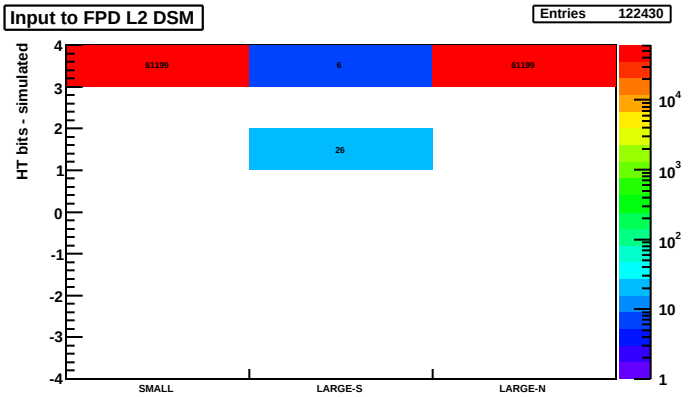

Input to FPD L2 DSM
Entries 734388
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

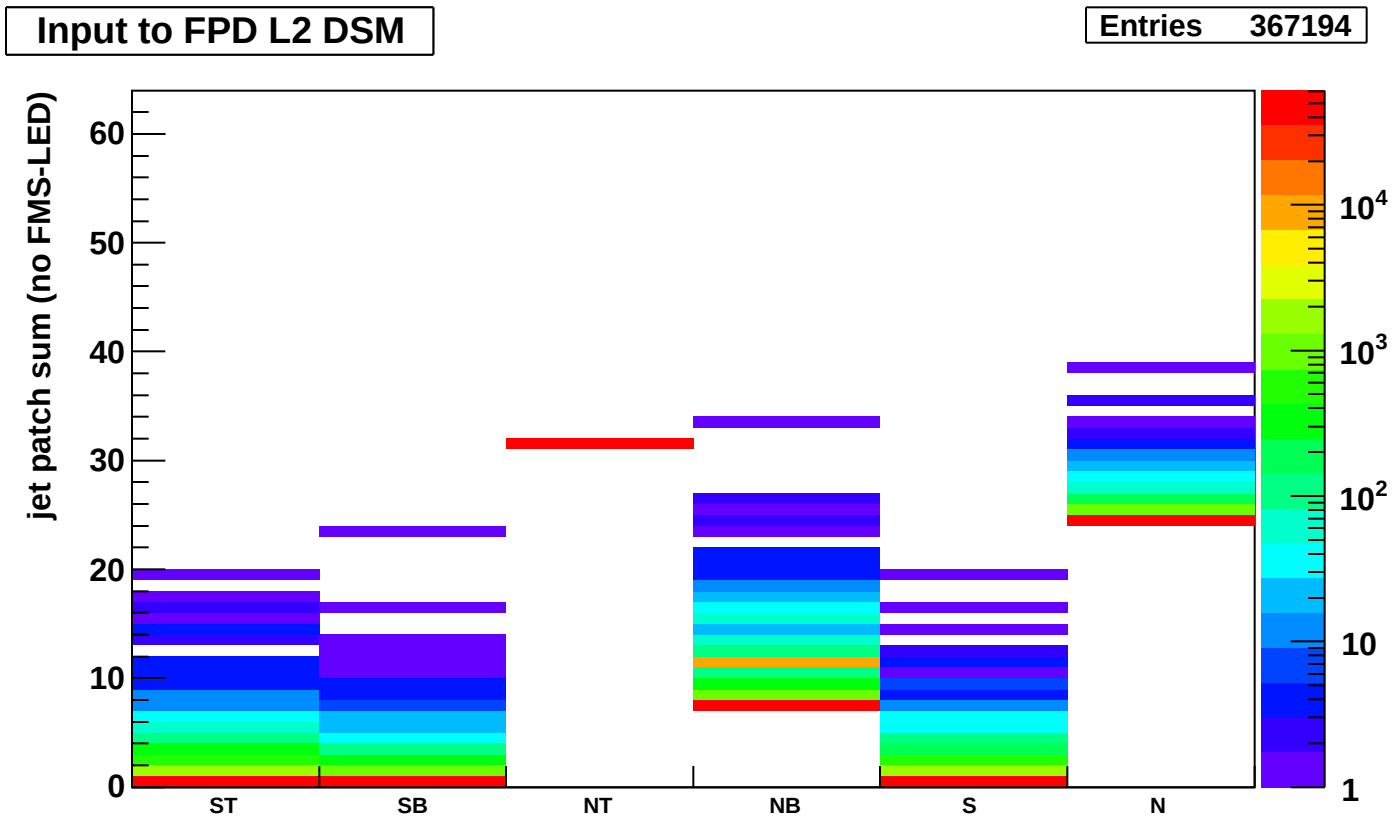

Input to FPD L2 DSM
Entries 263092
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

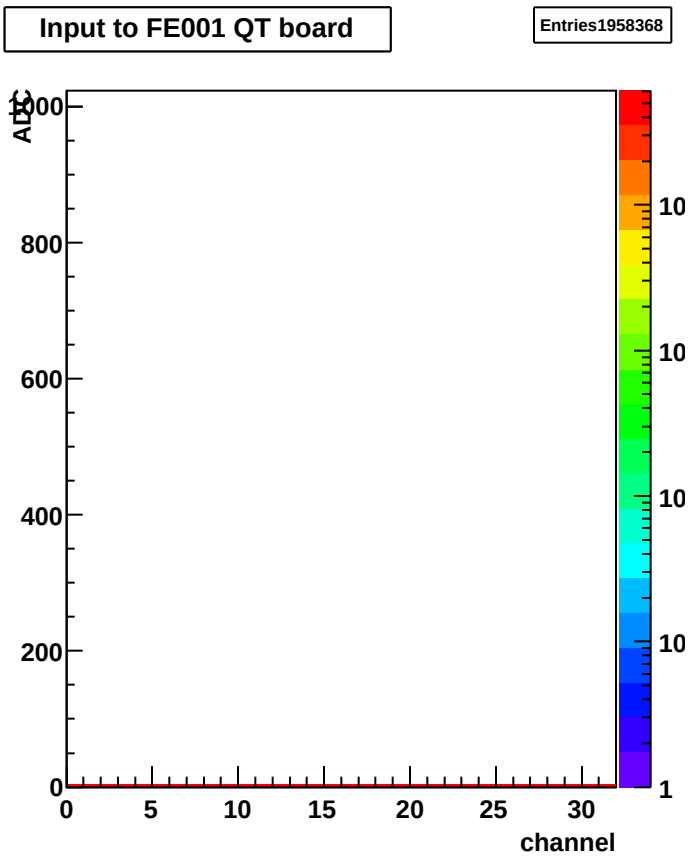

Input to FPD L2 DSM
Entries 183597
CL bits
61199
22
61177
SMALL
LARGE-S
LARGE-N

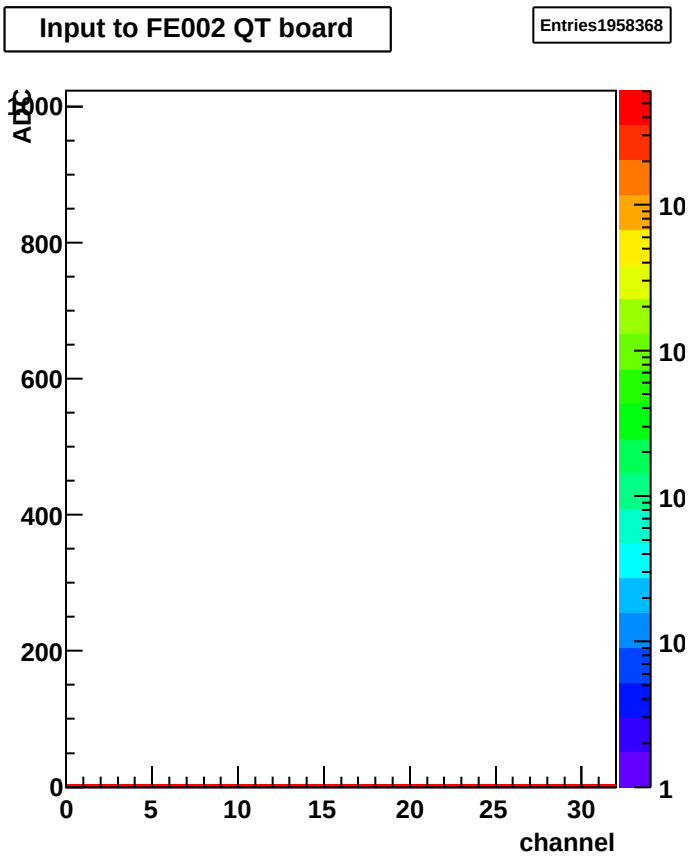

Input to FPD L2 DSM
Entries 122420
CL bits - simulated
61199
22
61199
SMALL
LARGE-S
LARGE-N

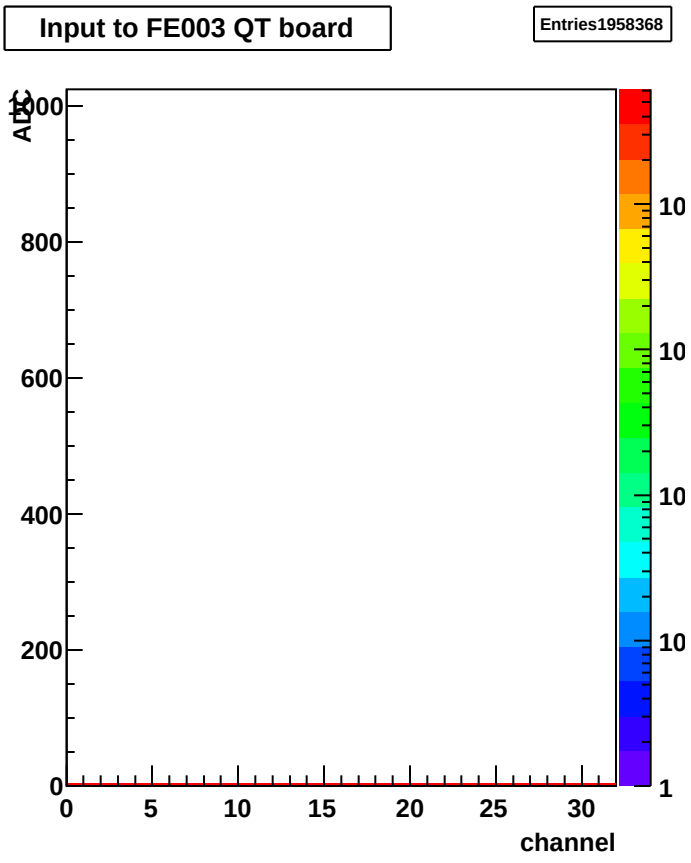

Input to FPD L2 DSM
Entries 183597
HT bits
61199
6
61199
26
61167
SMALL
LARGE-S
LARGE-N

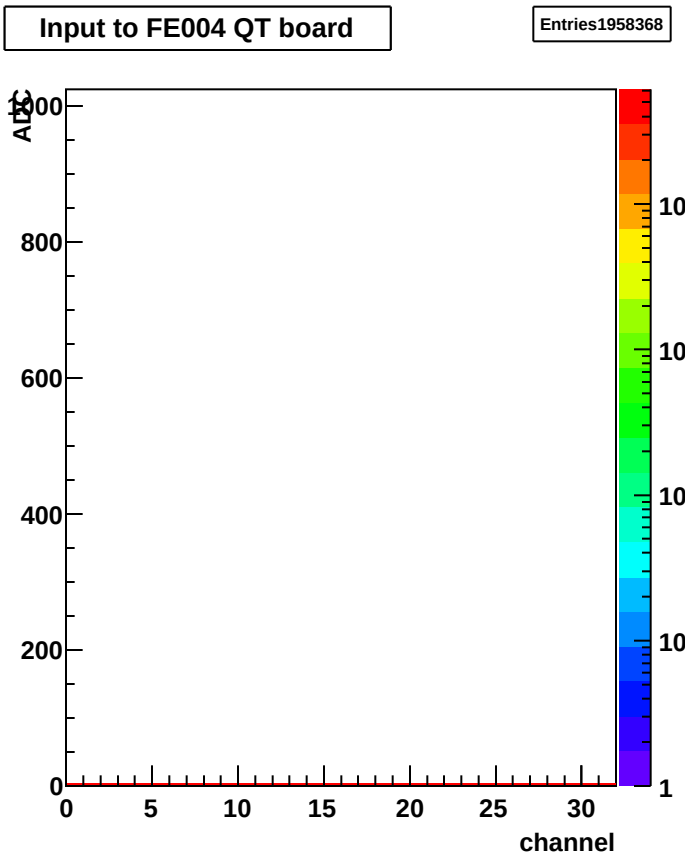

Input to FPD L2 DSM
Entries 122430
HT bits - simulated
61199
6
61199
26
SMALL
LARGE-S
LARGE-N

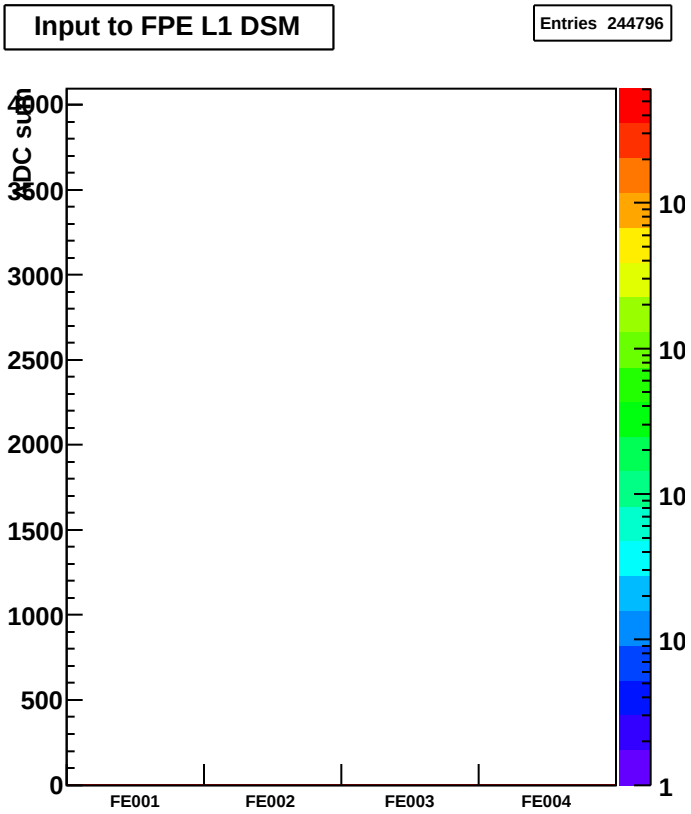

Input to FPD L2 DSM
Entries 367194
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

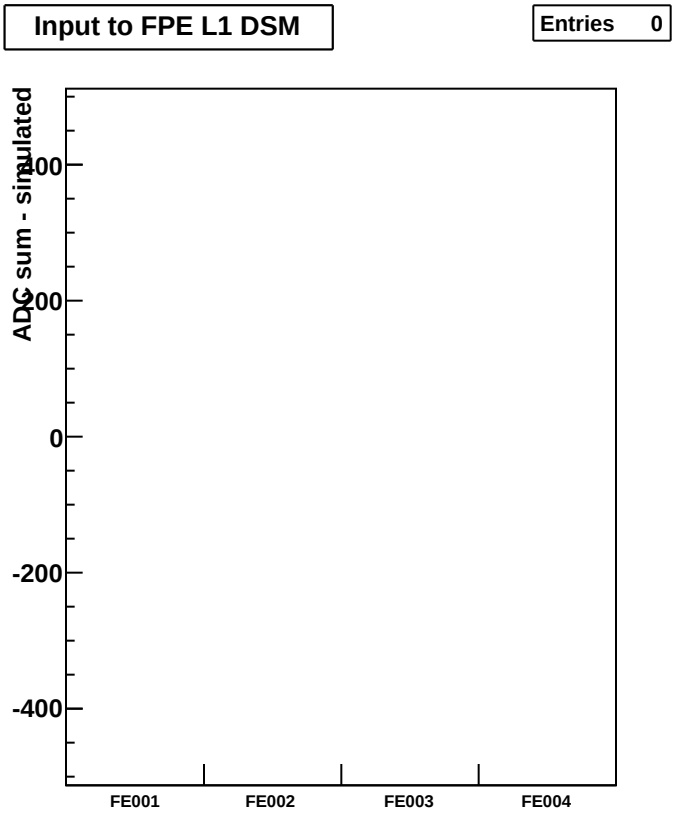

Input to FE001 QT board
Entries1958368
ADC
channel

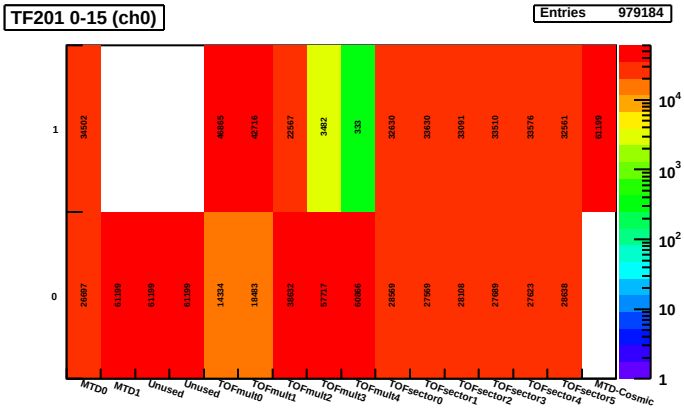

Input to FE002 QT board
Entries1958368
ADC
channel

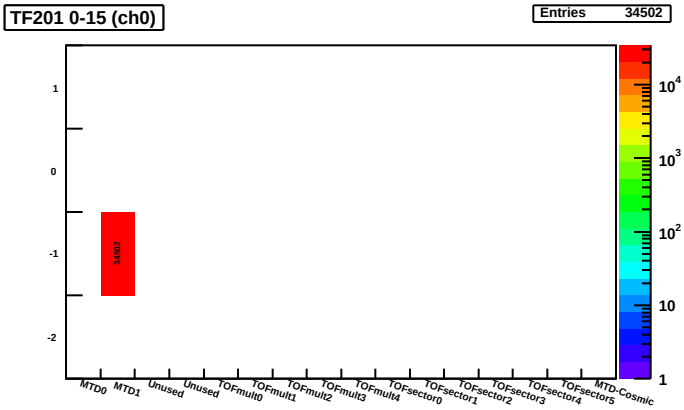

Input to FE003 QT board
Entries1958368
ADC
channel

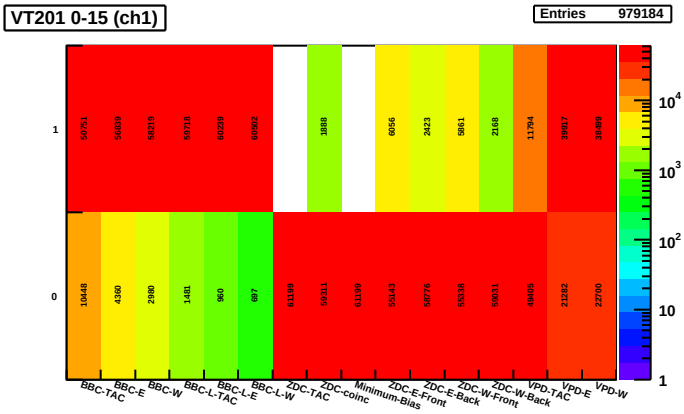

Input to FE004 QT board
Entries1958368
ADC
channel

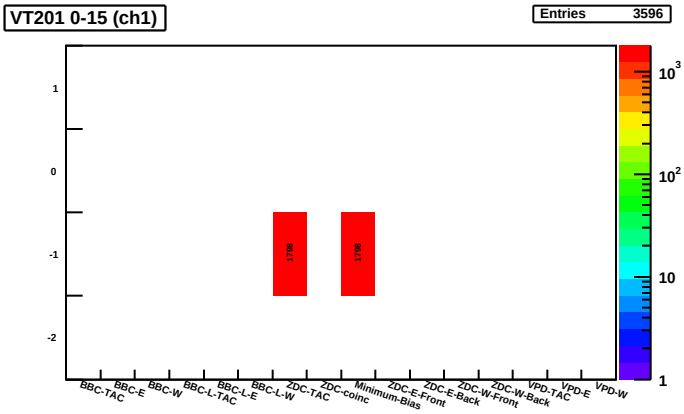

Input to FPE L1 DSM
Entries 244796
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

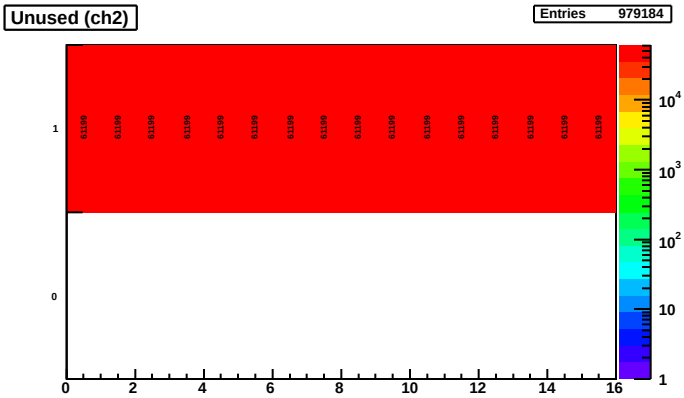

Input to FPE L1 DSM
Entries 0
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004

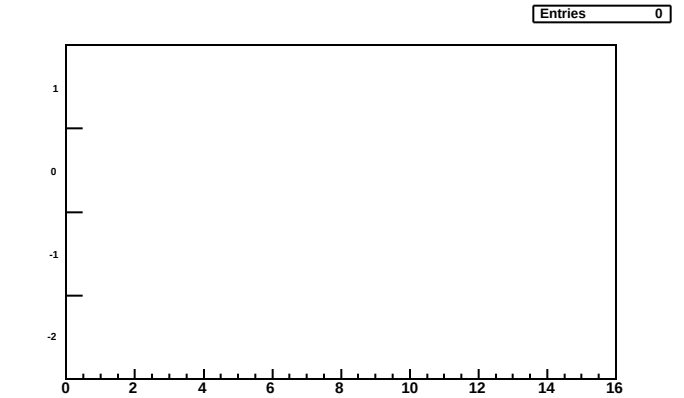

TF201 0-15 (ch0)
Entries 979184
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

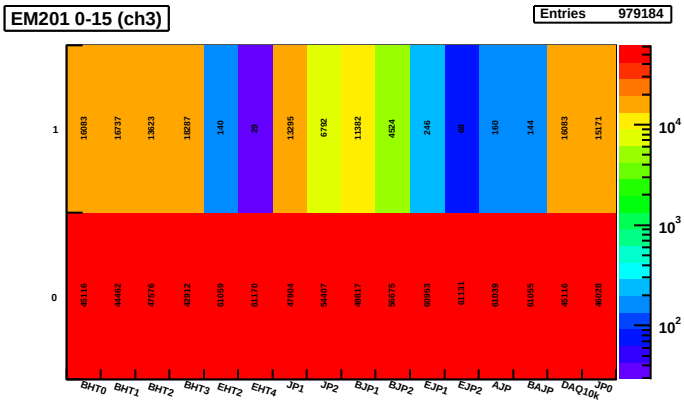

TF201 0-15 (ch0)
Entries 34502
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

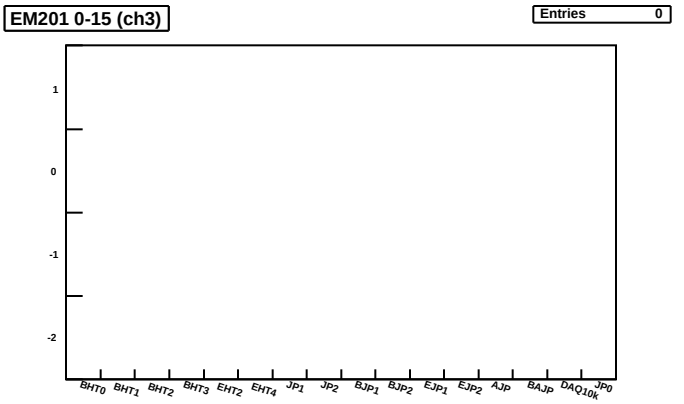

VT201 0-15 (ch1)
Entries 979184
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-coinc Minimum-Bias ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 3596
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

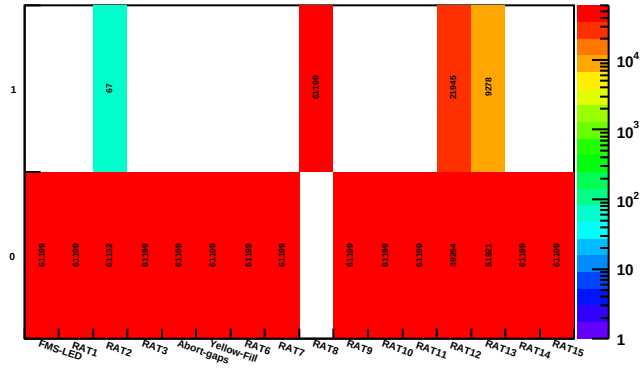

Unused (ch2)
Entries 979184

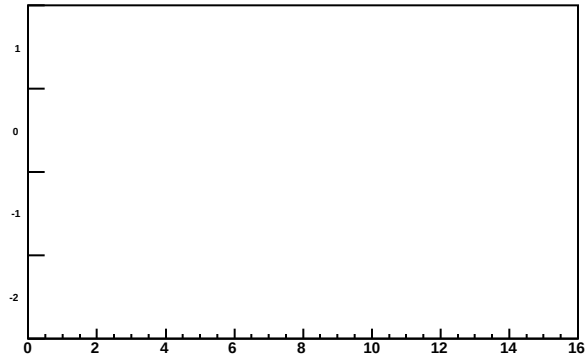

Entries 0


EM201 0-15 (ch3)
Entries 979184
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

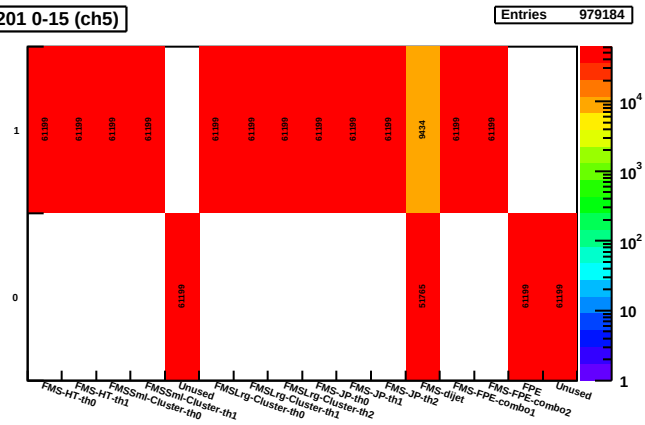

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

RAT board (ch4)

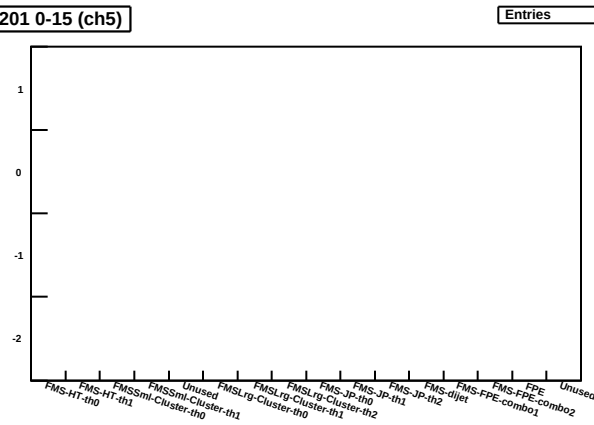




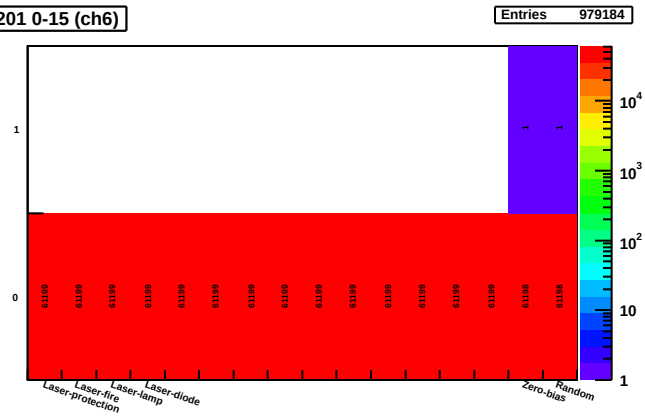
FP201 0-15 (ch5)

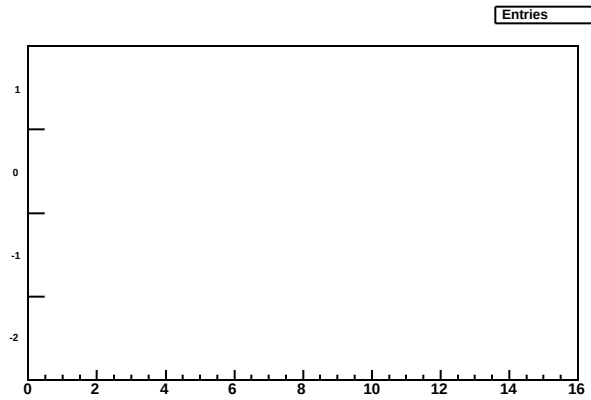
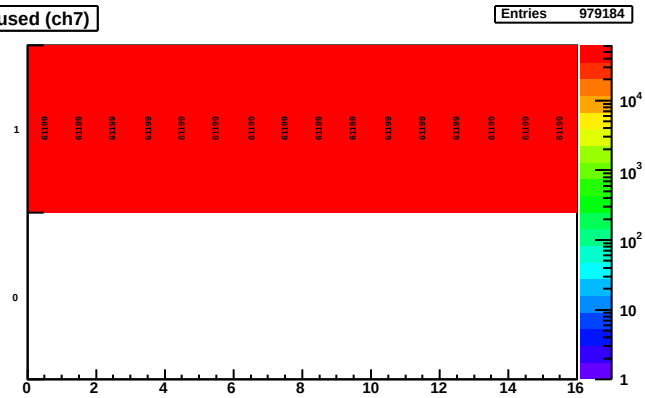
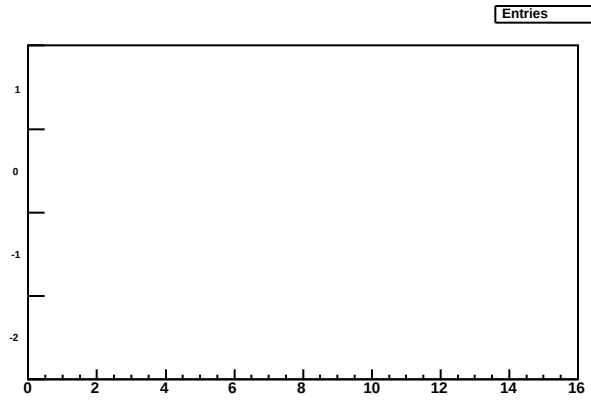


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)