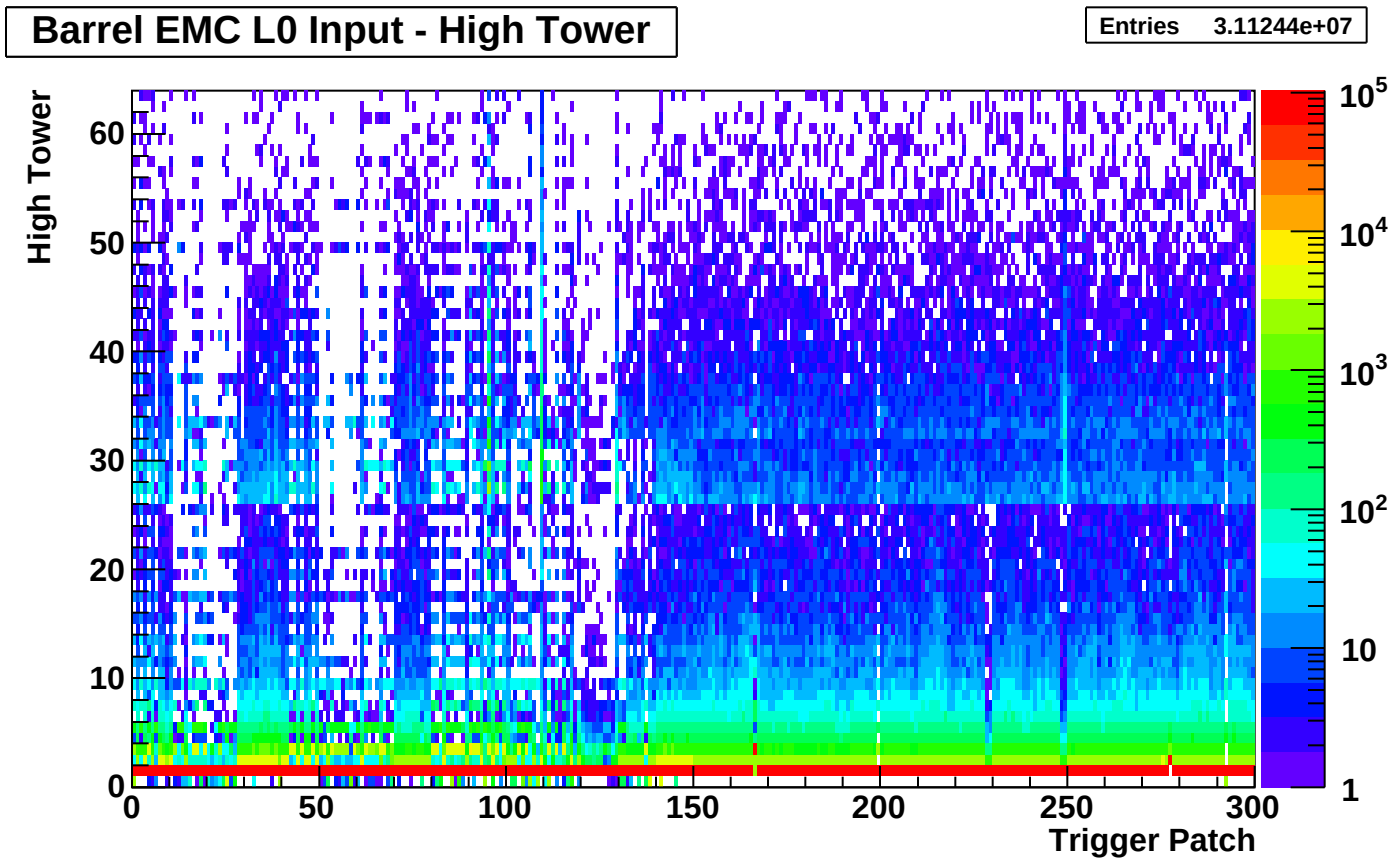
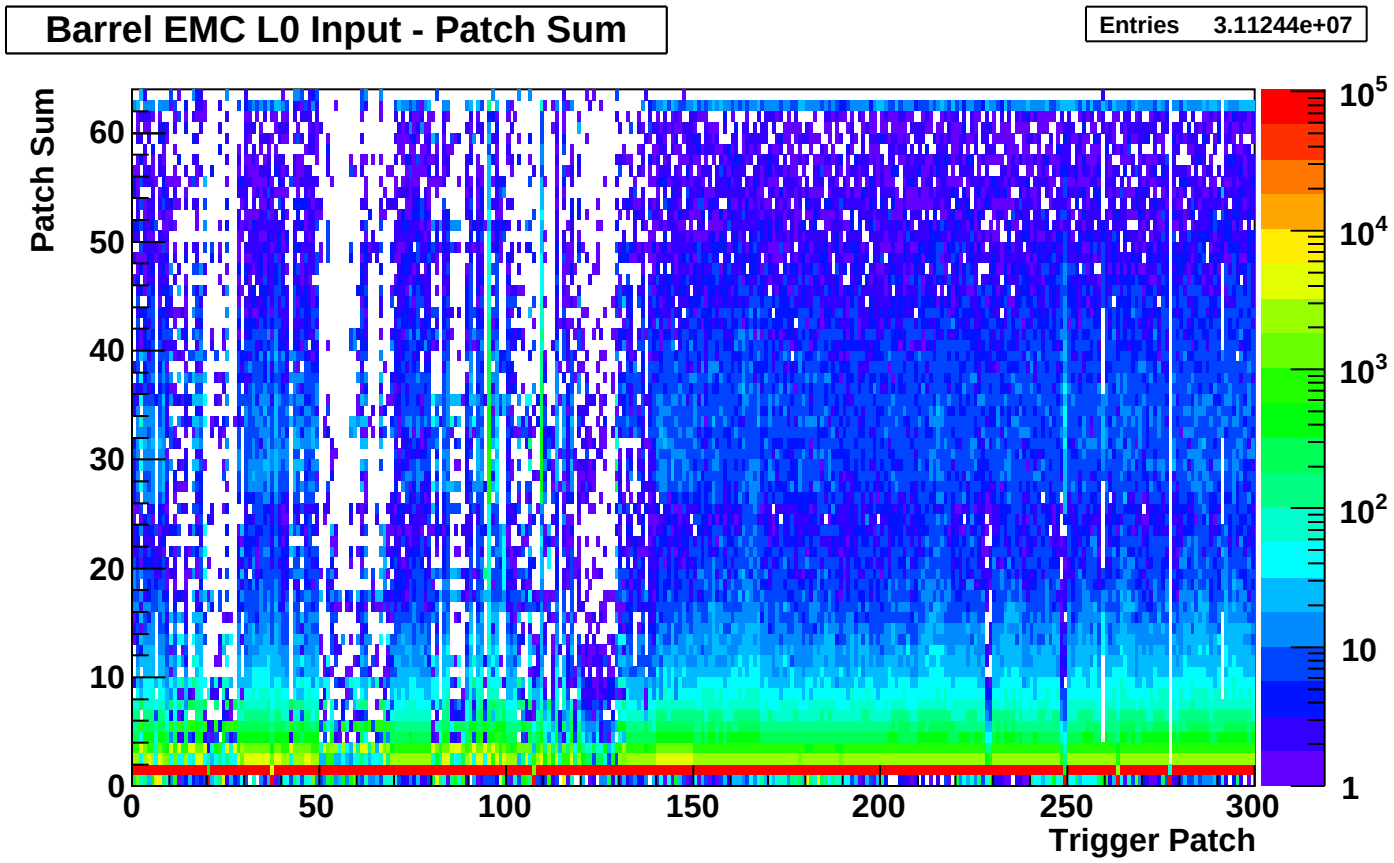
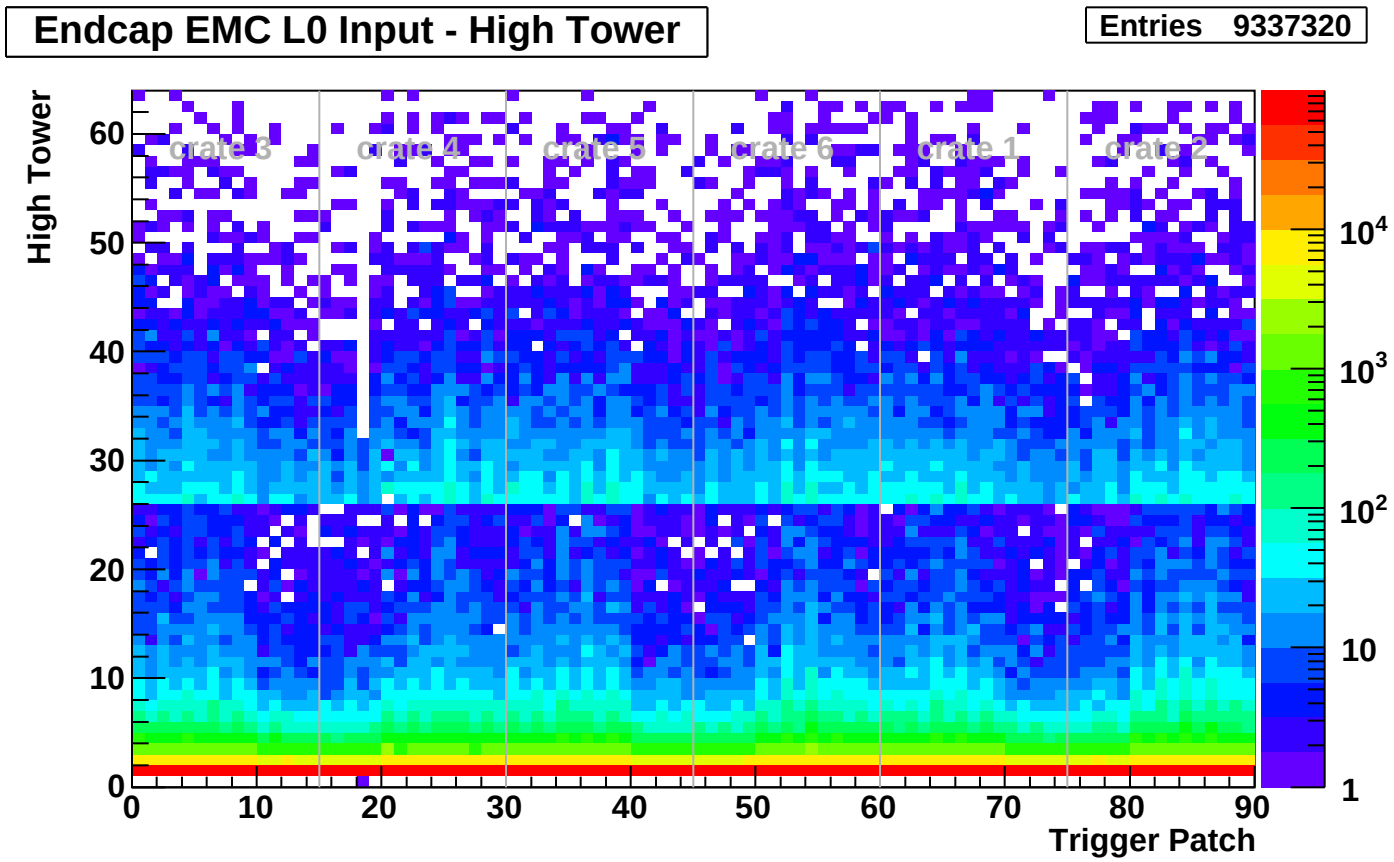
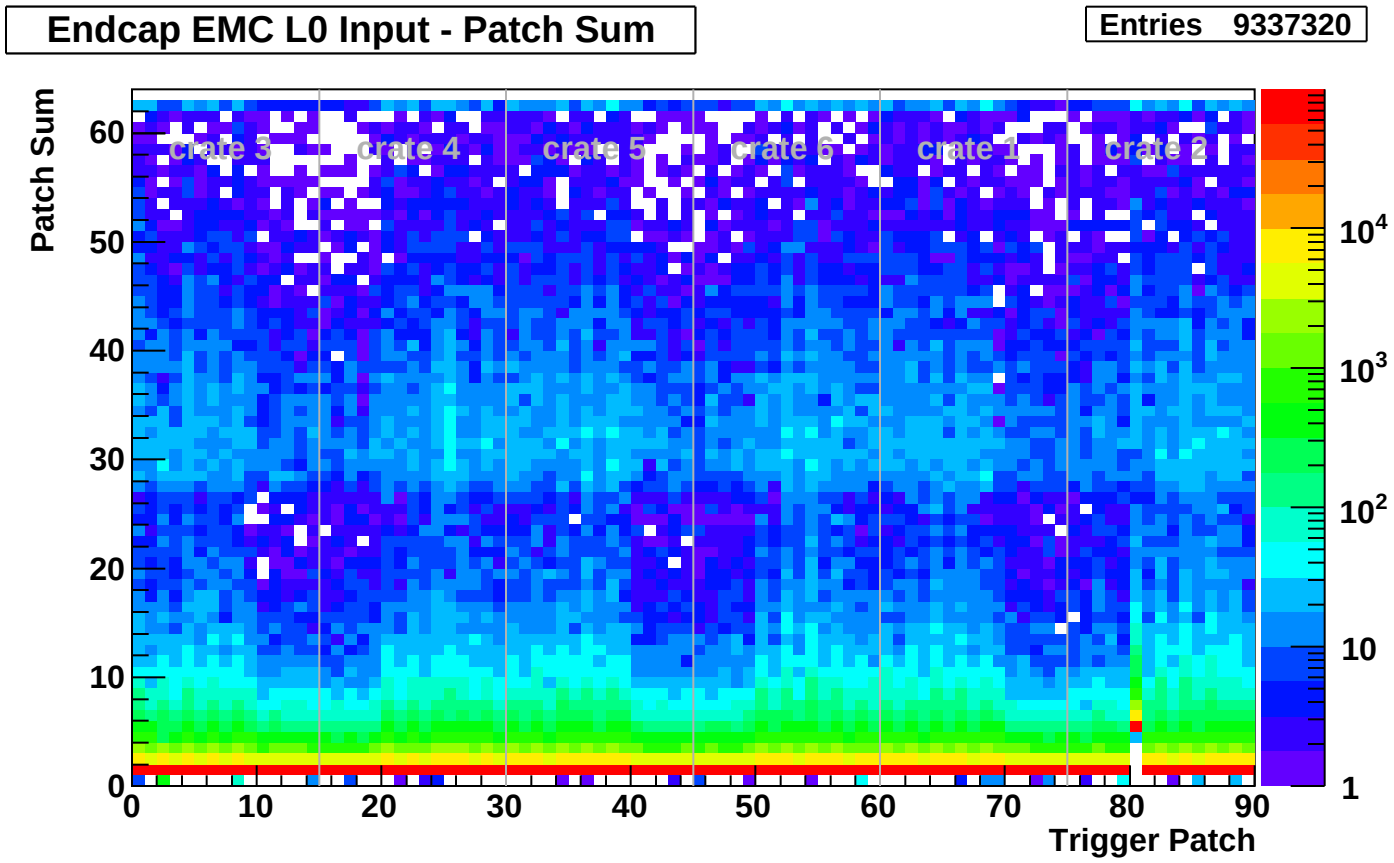
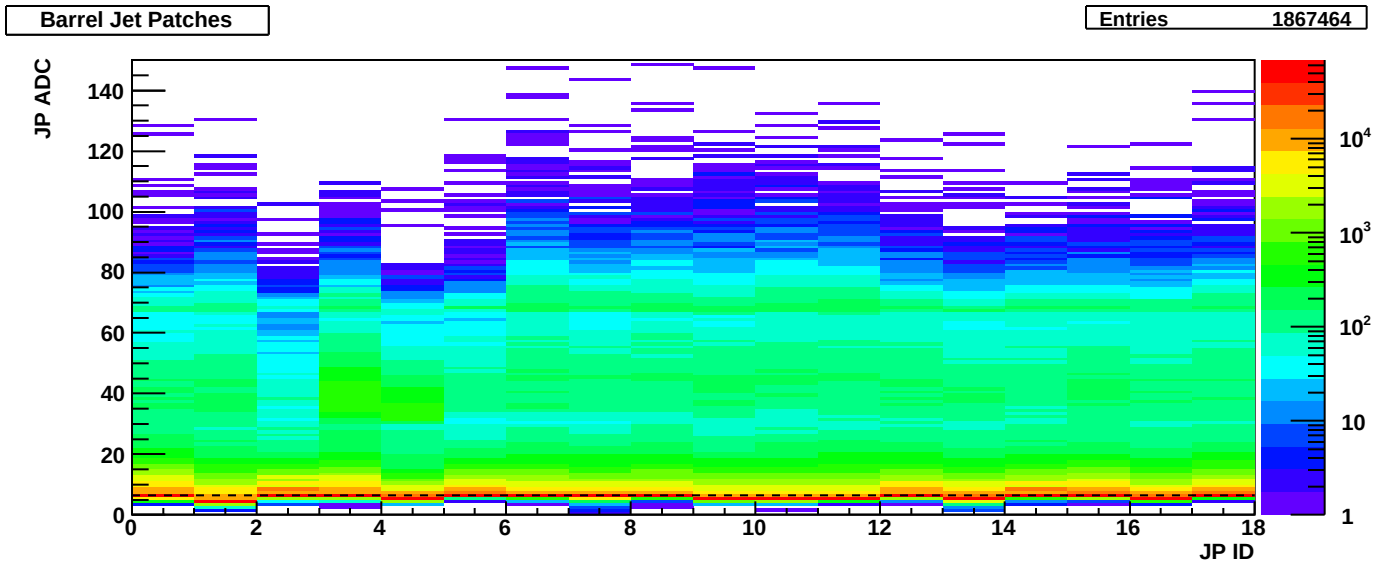
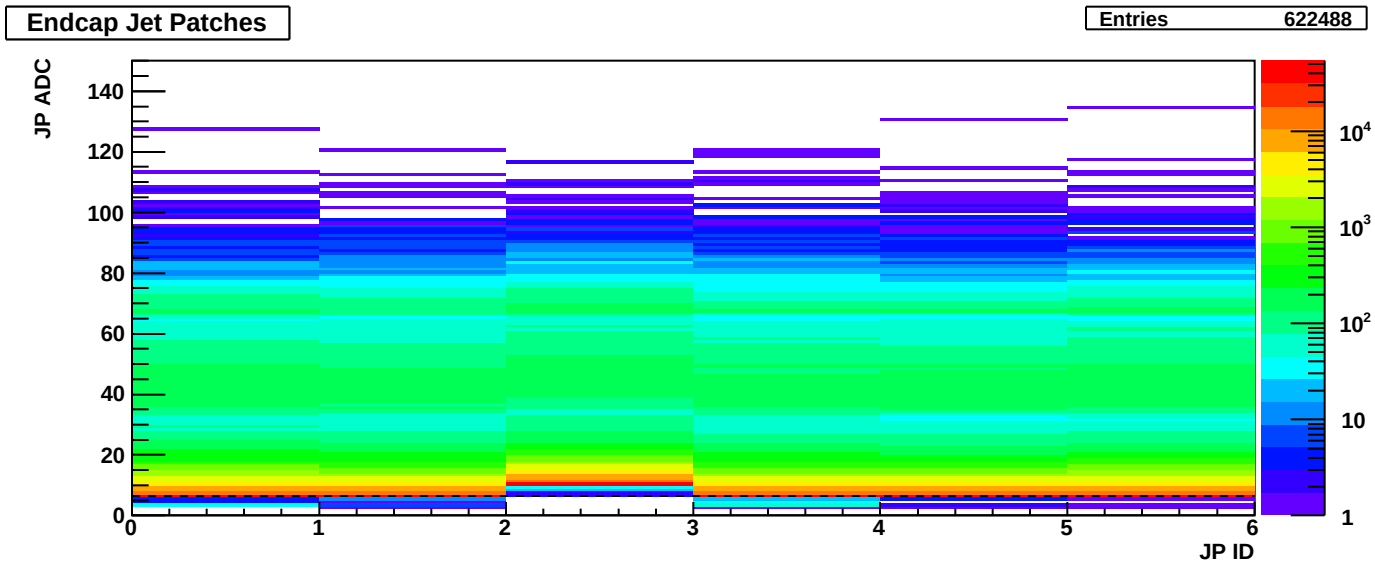

Barrel EMC L0 Input - High Tower
Entries 3.11244e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

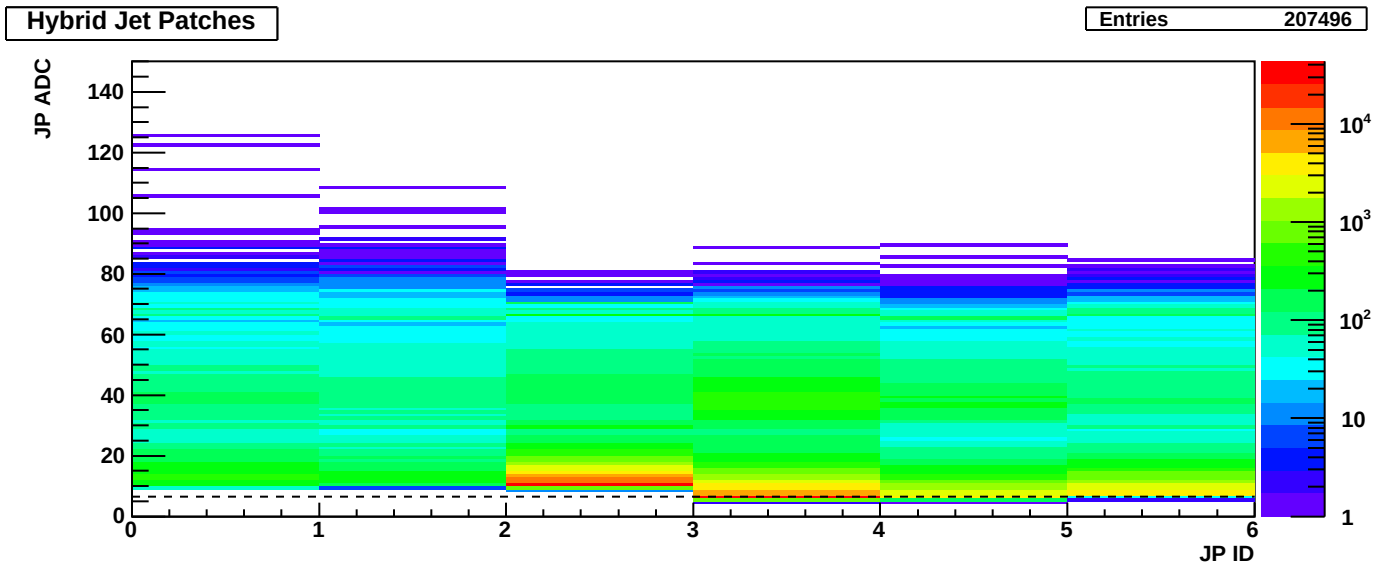

Barrel EMC L0 Input - Patch Sum
Entries 3.11244e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

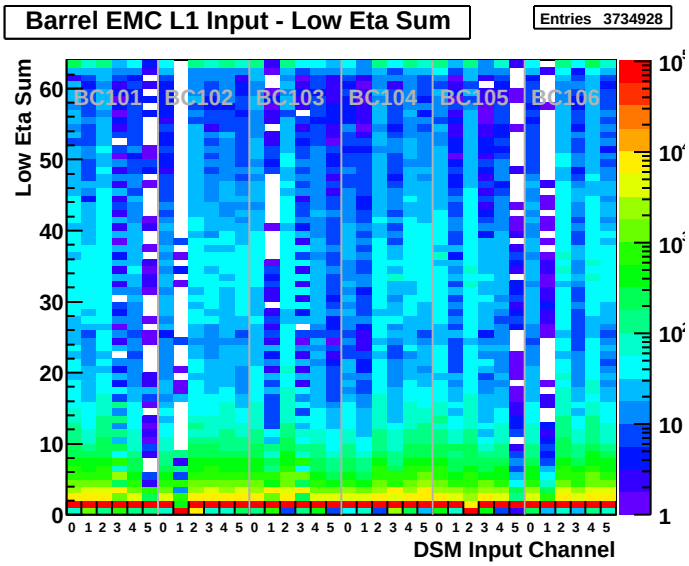

Endcap EMC L0 Input - High Tower
Entries 9337320
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

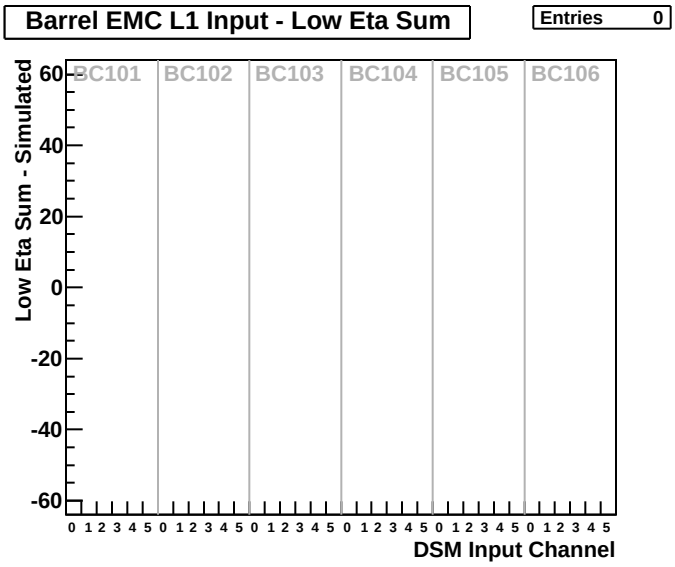

Endcap EMC L0 Input - Patch Sum
Entries 9337320
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

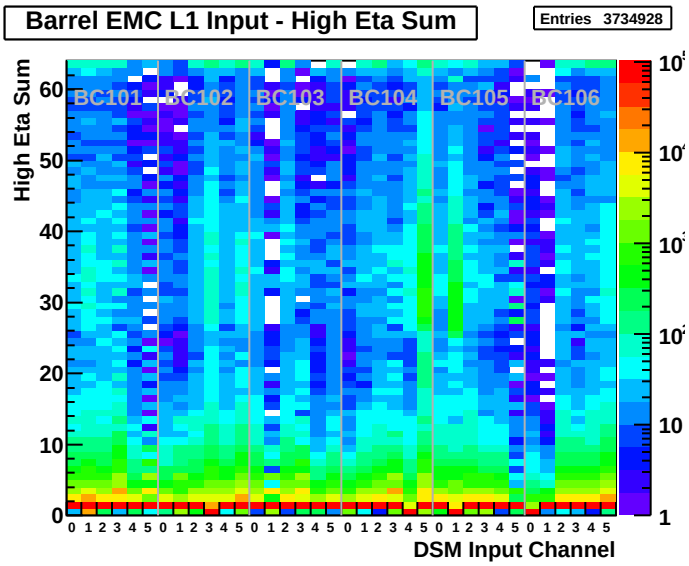

Barrel Jet Patches
Entries 1867464
JP ADC
JP ID

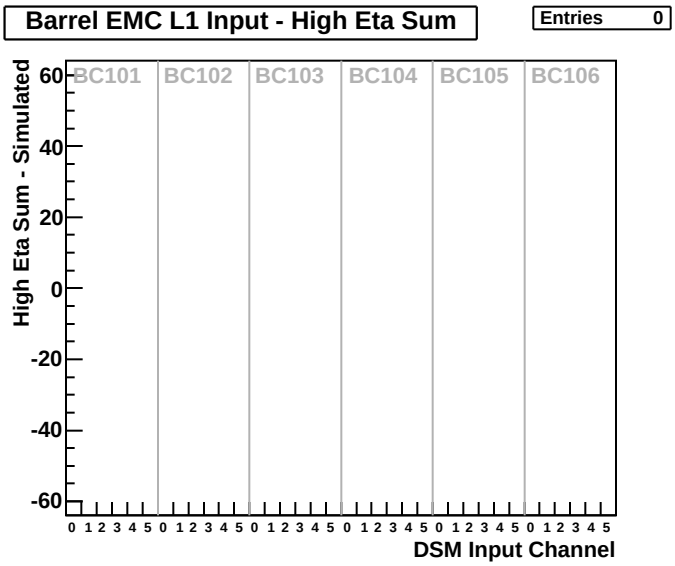

Endcap Jet Patches
Entries 622488
JP ADC
JP ID

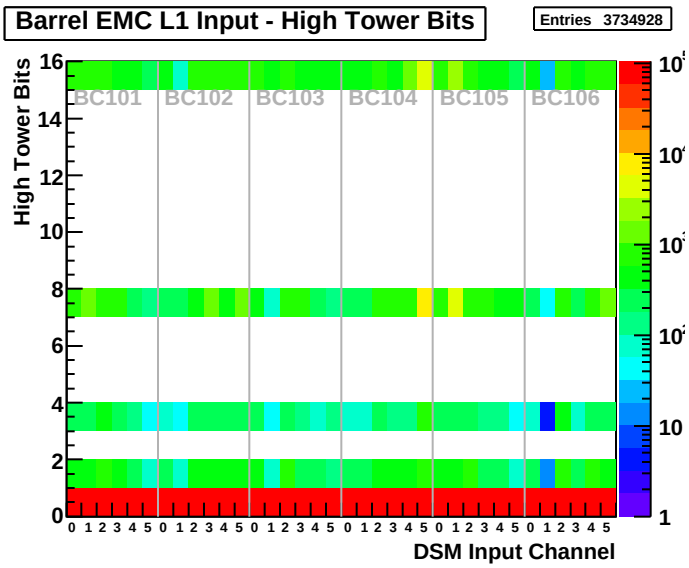

Hybrid Jet Patches
Entries 207496
JP ADC
JP ID

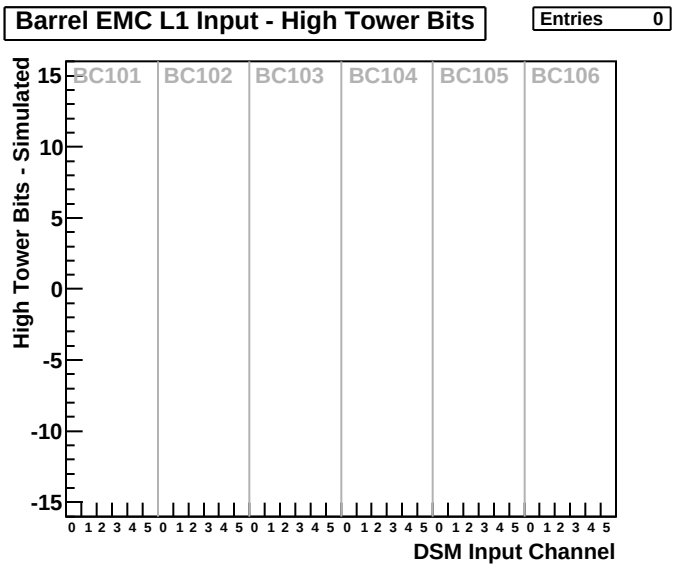

Barrel EMC L1 Input - Low Eta Sum
Entries 3734928
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

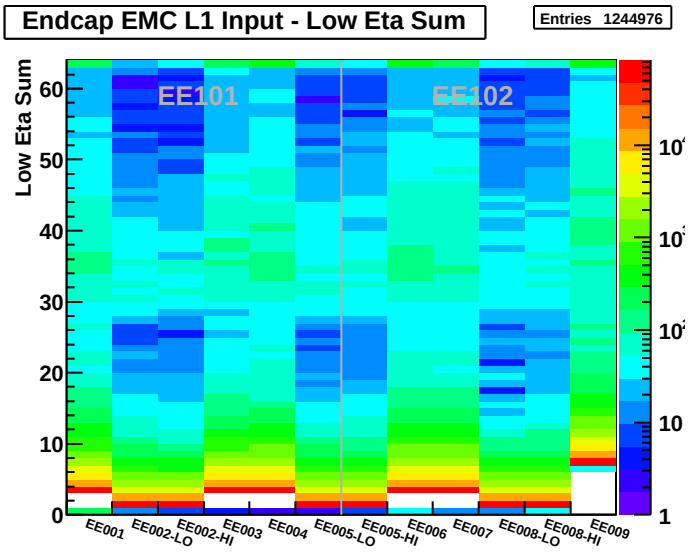

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

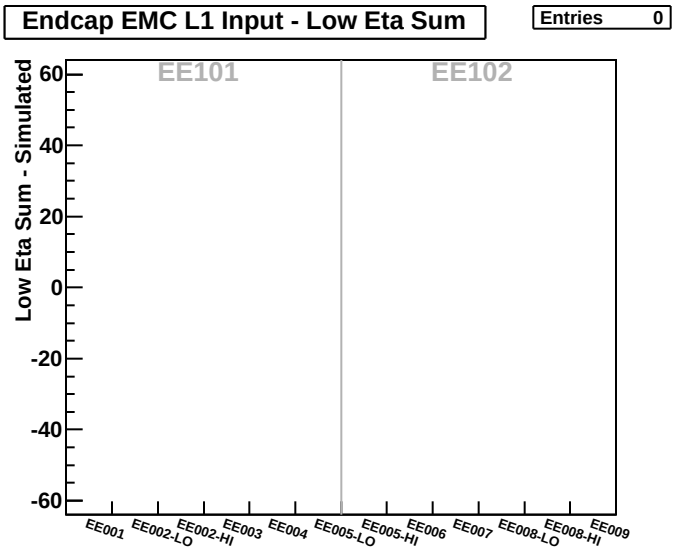

Barrel EMC L1 Input - High Eta Sum
Entries 3734928
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

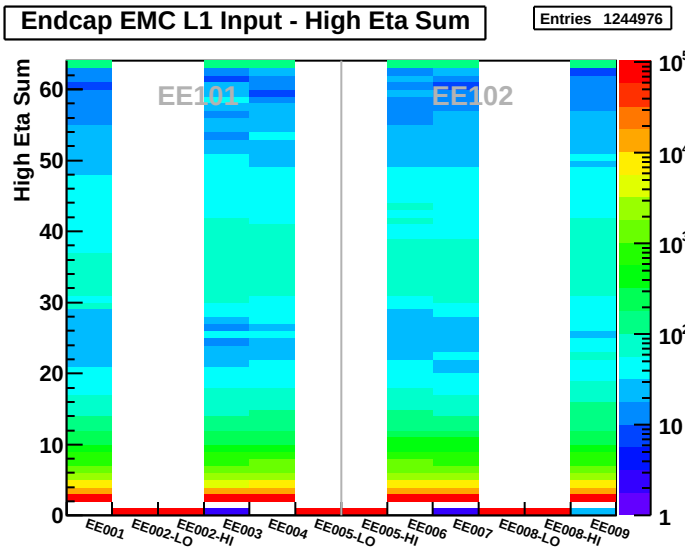

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

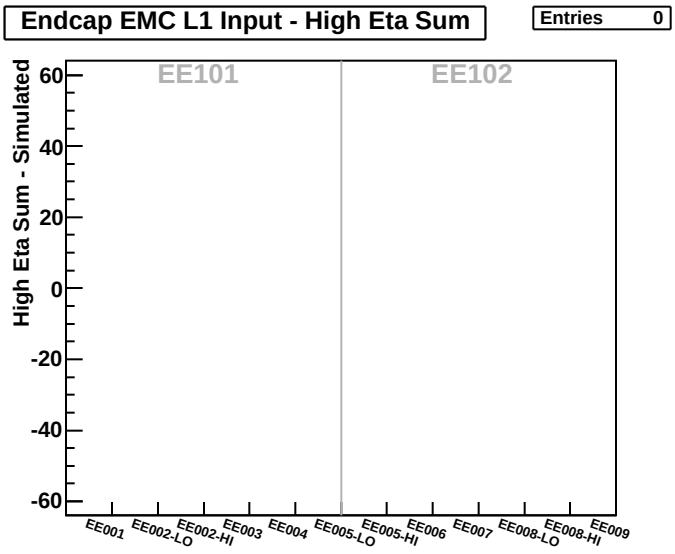

Barrel EMC L1 Input - High Tower Bits
Entries 3734928
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

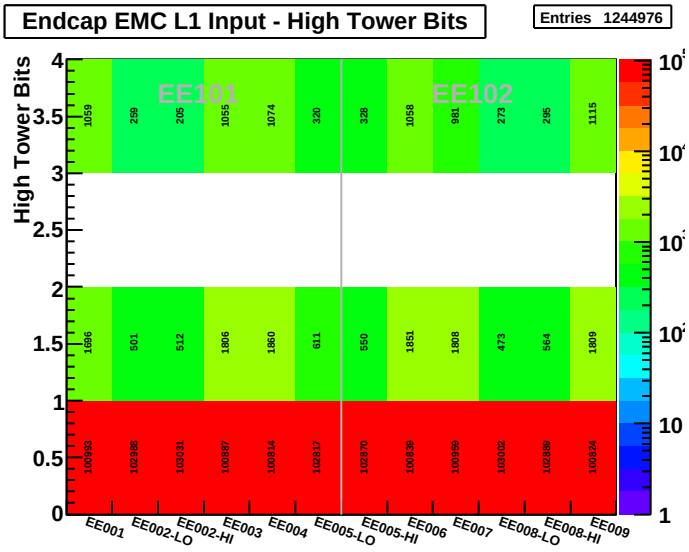

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

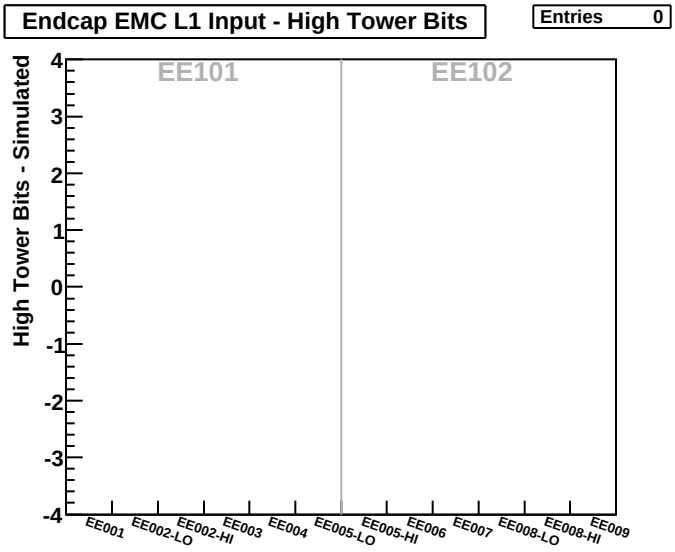

Endcap EMC L1 Input - Low Eta Sum
Entries 1244976
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

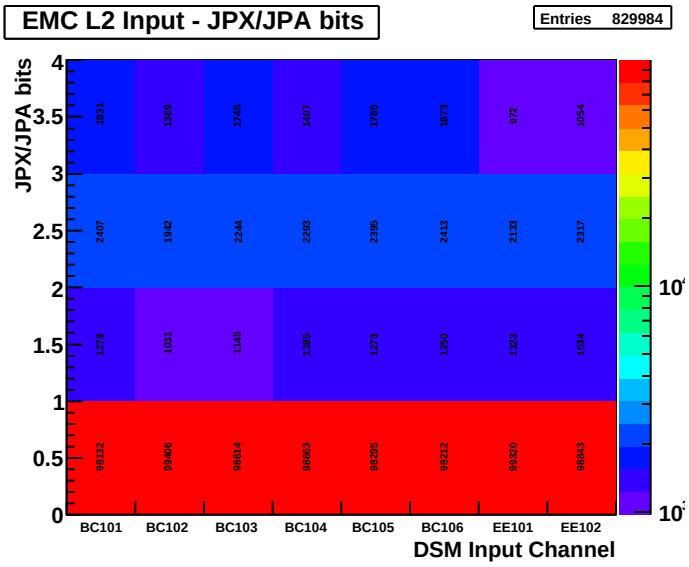

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

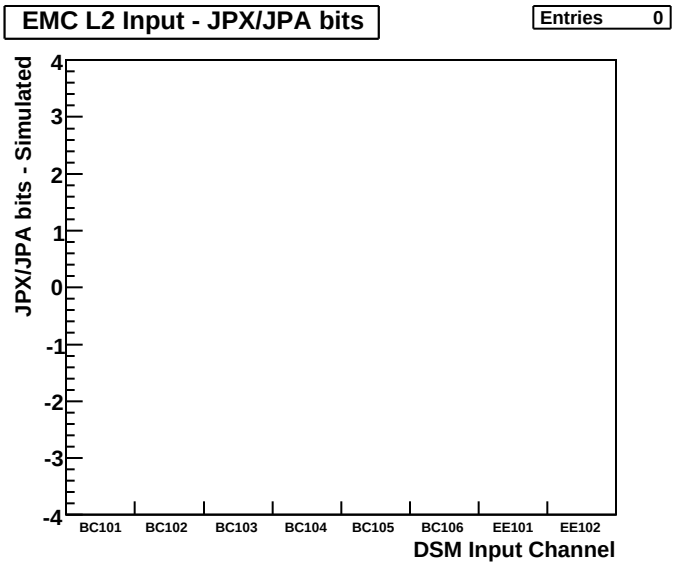

Endcap EMC L1 Input - High Eta Sum
Entries 1244976
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

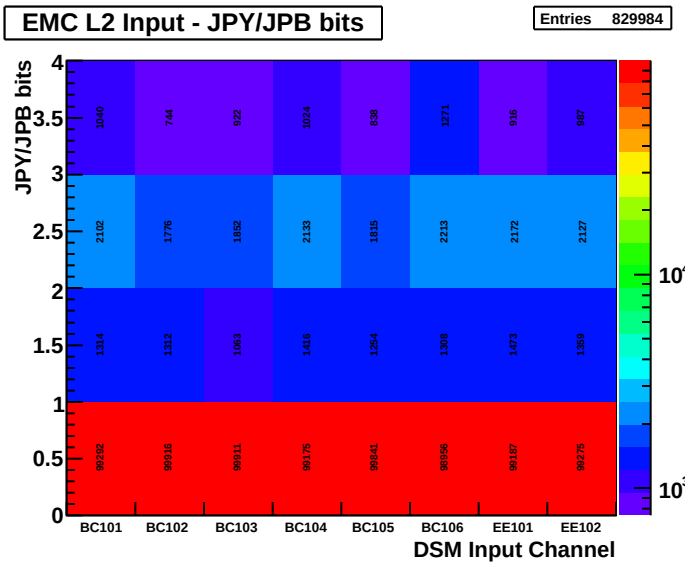

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

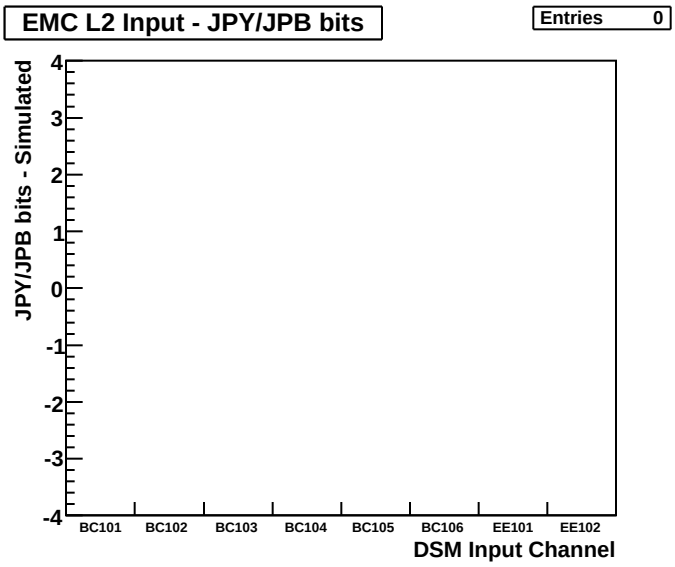

Endcap EMC L1 Input - High Tower Bits
Entries 1244976
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

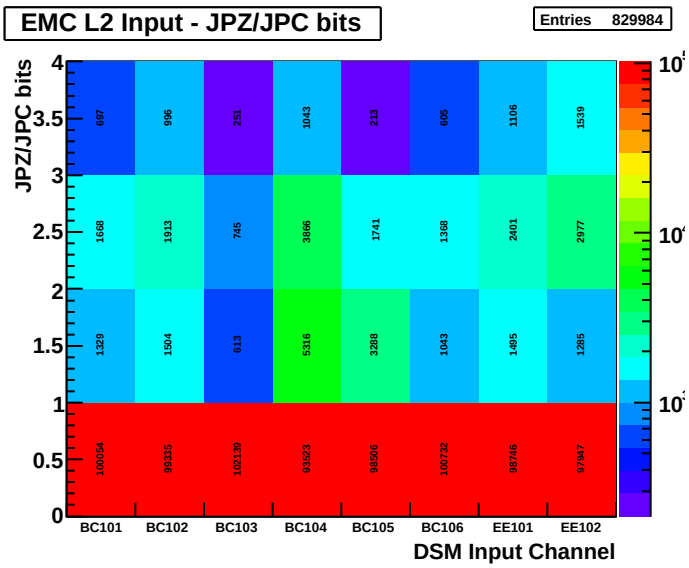

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

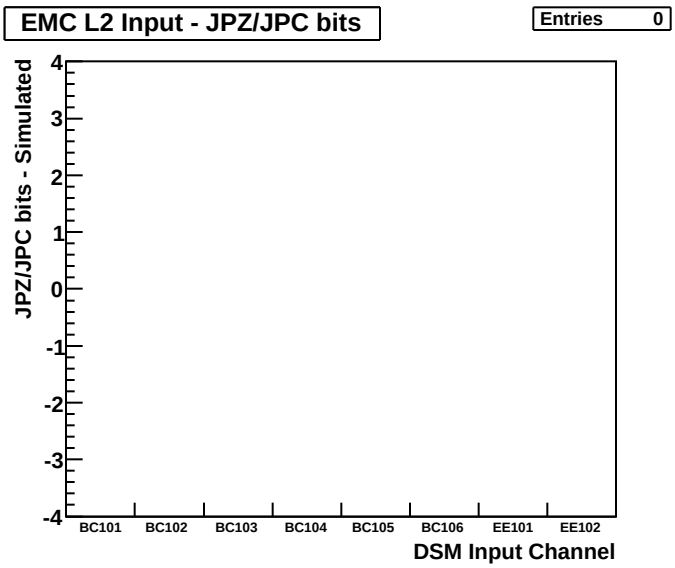

EMC L2 Input - JPX/JPA bits
Entries 829984
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1931 1369 1745 1407 1785 1873 972 1054
2407 1942 2244 2293 2395 2413 2133 2317
1276 1031 1145 1385 1273 1250 1323 1534
99132 99406 98614 98663 99295 99212 99320 98843

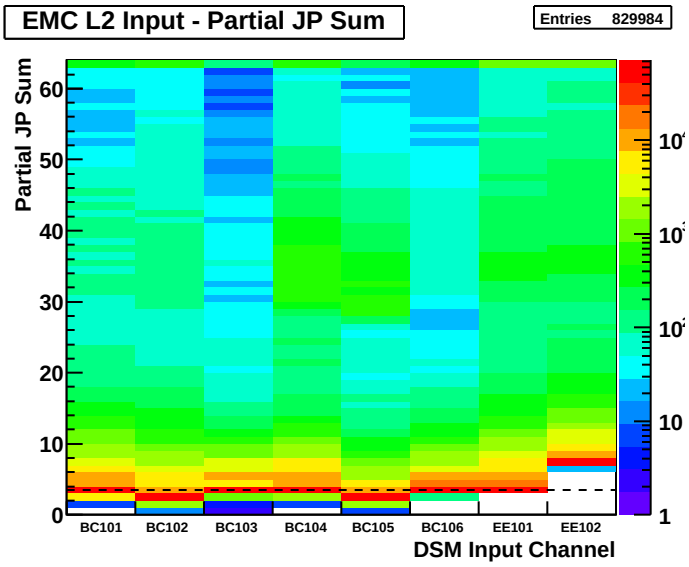

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

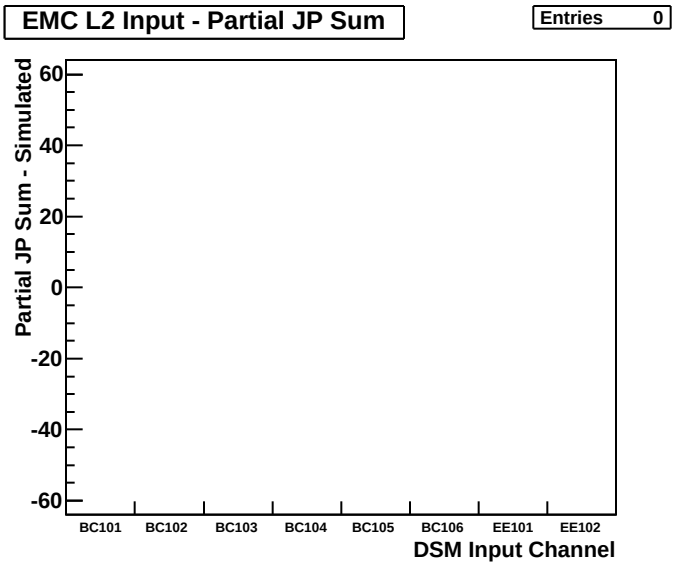

EMC L2 Input - JPY/JPB bits
Entries 829984
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1040 744 922 1024 838 1271 916 987
2102 1776 1652 2133 1815 2213 2172 2127
1314 1312 1063 1416 1254 1306 1473 1359
99292 99916 99911 99175 99841 98956 99187 99275

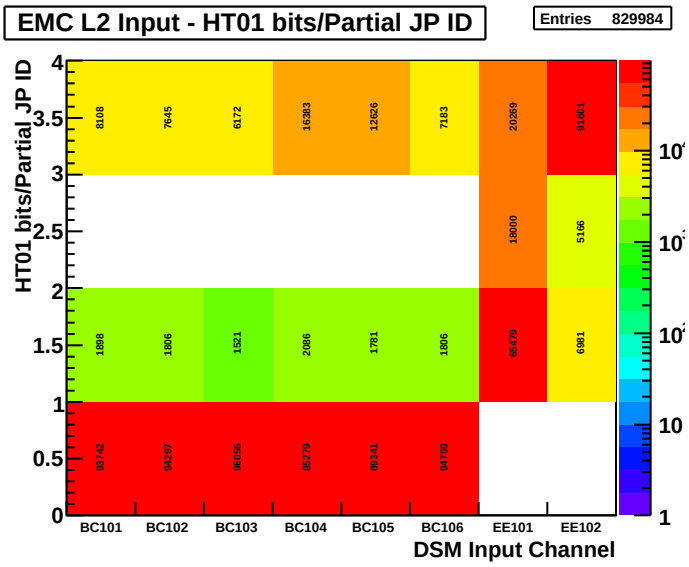

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

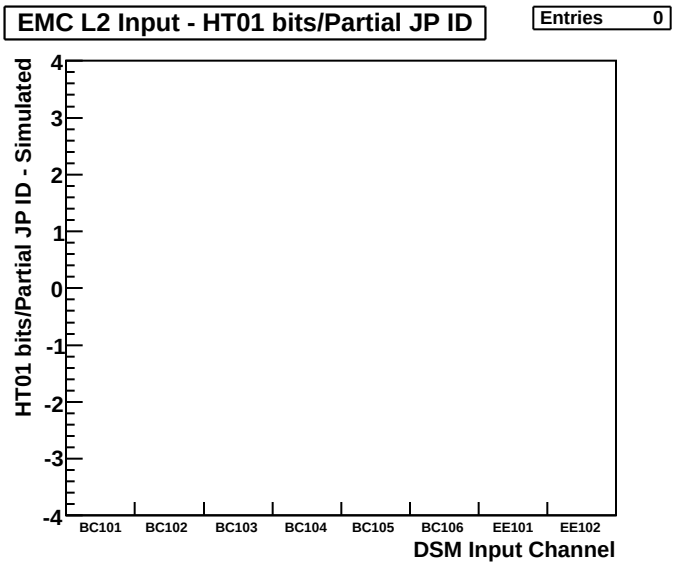

EMC L2 Input - JPZ/JPC bits
Entries 829984
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
697 996 251 1043 213 605 1106 1539
1668 1913 745 3866 1741 1368 2401 2977
1329 1504 613 5316 3288 1043 1495 1285
100054 99335 102139 93523 98506 100732 98746 97547

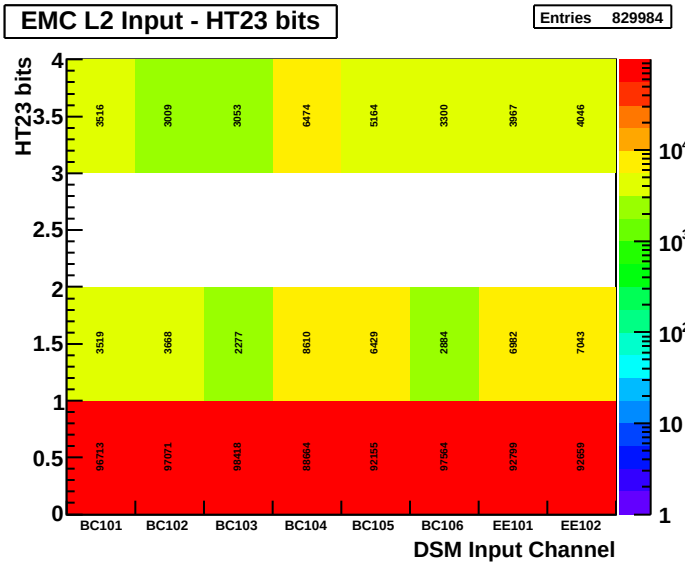

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

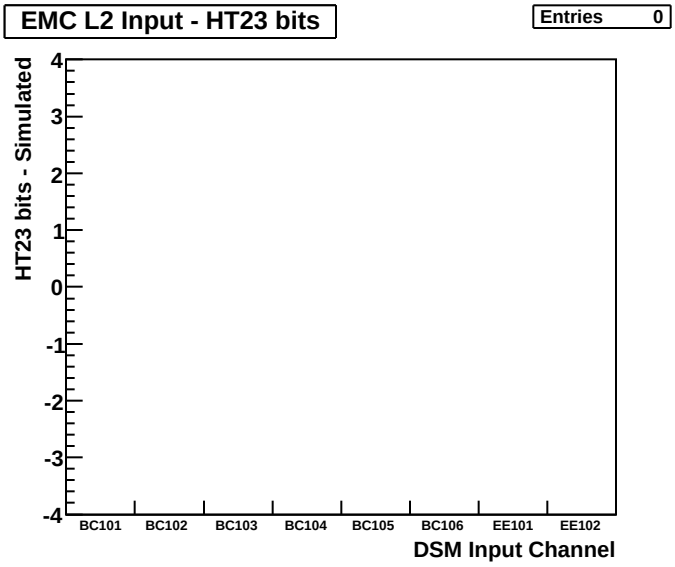

EMC L2 Input - Partial JP Sum
Entries 829984
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

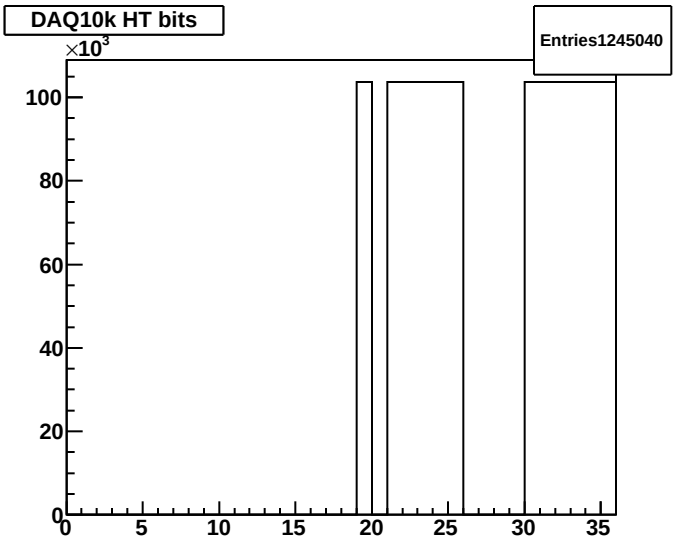

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

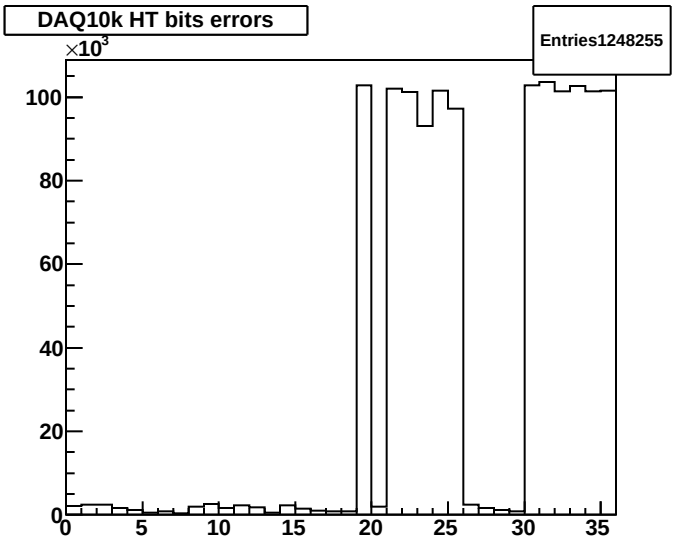

EMC L2 Input - HT01 bits/Partial JP ID
Entries 829984
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

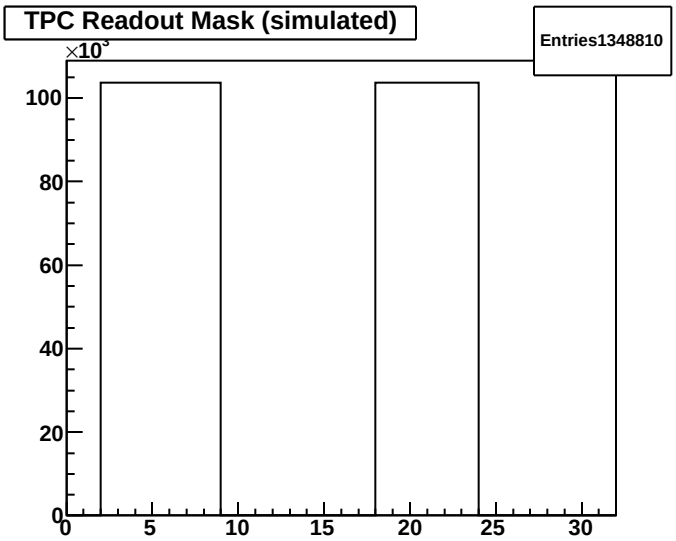

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

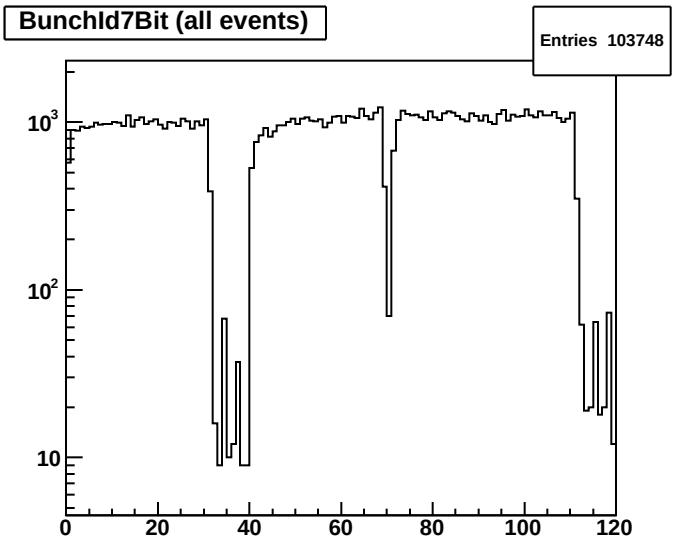

EMC L2 Input - HT23 bits
Entries 829984
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

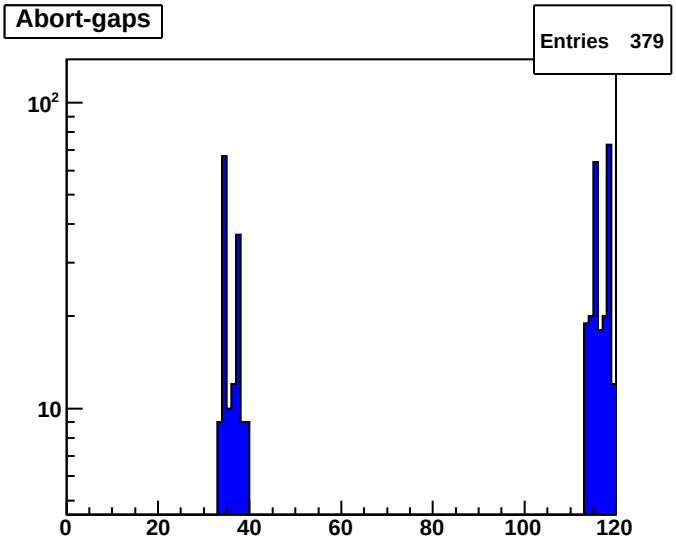

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

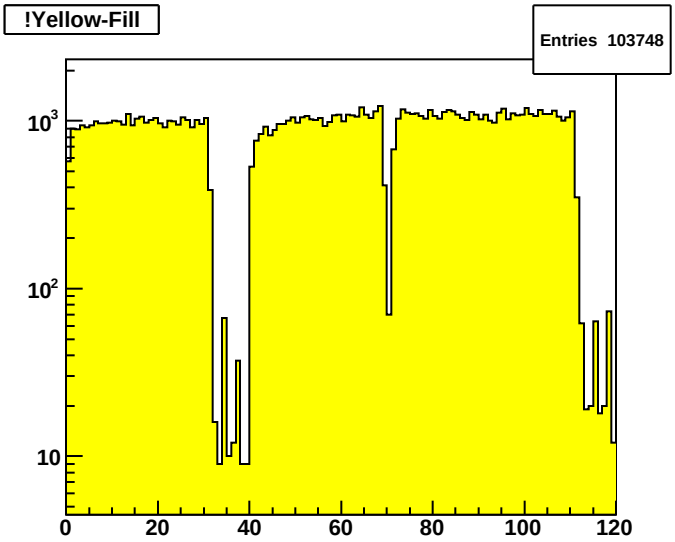

DAQ10k HT bits
Entries1245040
×10^3
100
80
60
40
20
0
0 5 10 15 20 25 30 35

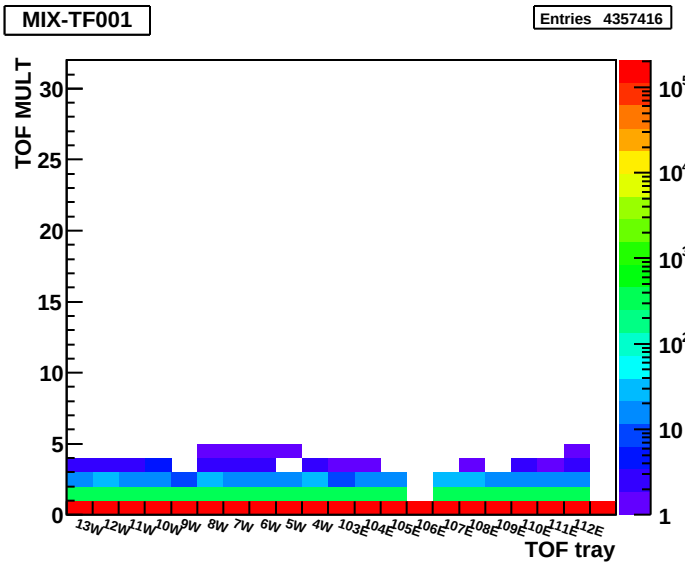

DAQ10k HT bits errors
Entries1248255
×10^3
100
80
60
40
20
0
0 5 10 15 20 25 30 35

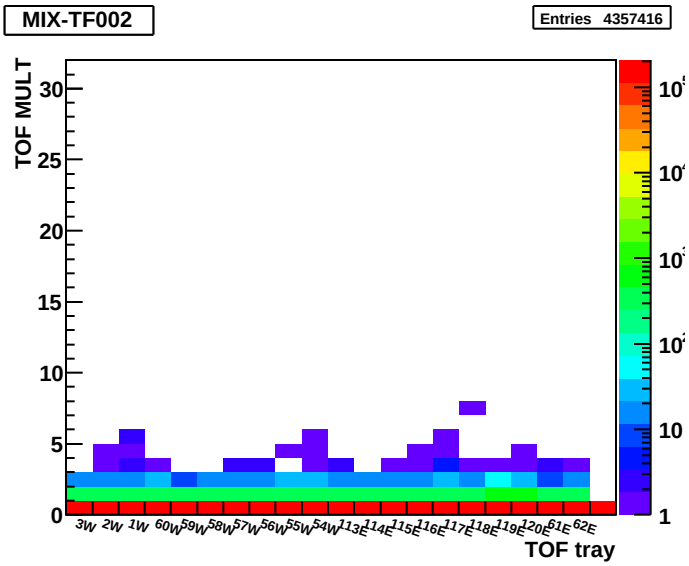

TPC Readout Mask (simulated)
Entries1348810
×10^3
100
80
60
40
20
0
0 5 10 15 20 25 30

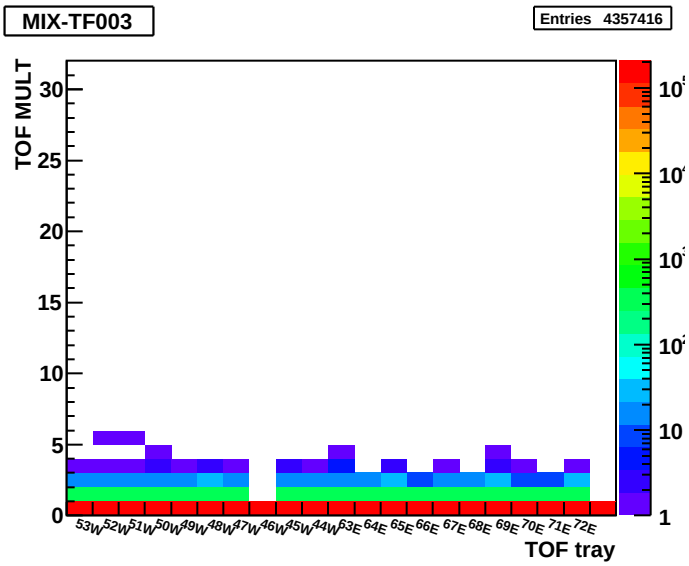

BunchId7Bit (all events)
Entries 103748
10^3
10^2
10
0 20 40 60 80 100 120

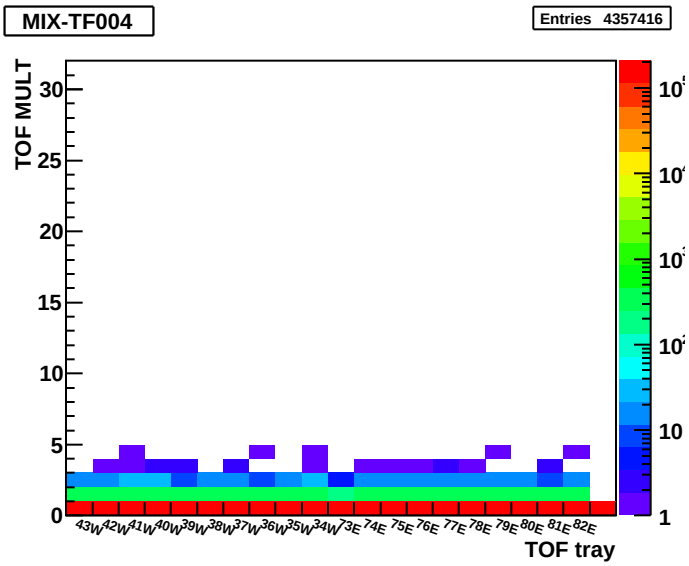

Abort-gaps
Entries 379
10^2
10
0 20 40 60 80 100 120

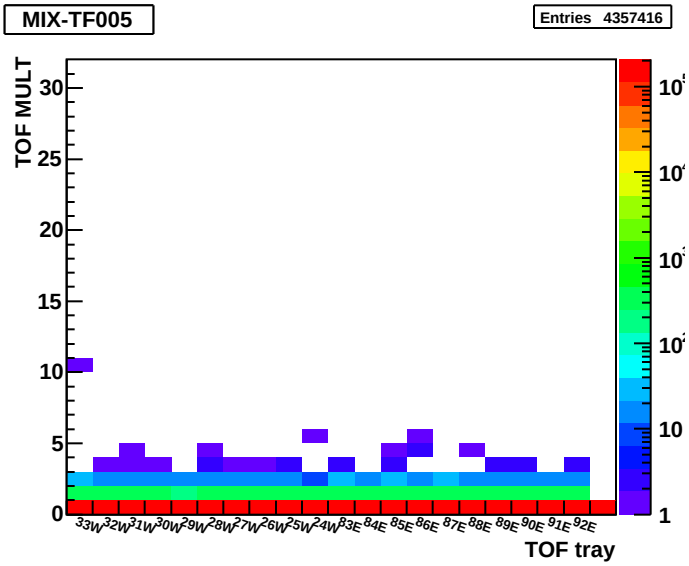

!Yellow-Fill
Entries 103748
10^3
10^2
10
0 20 40 60 80 100 120

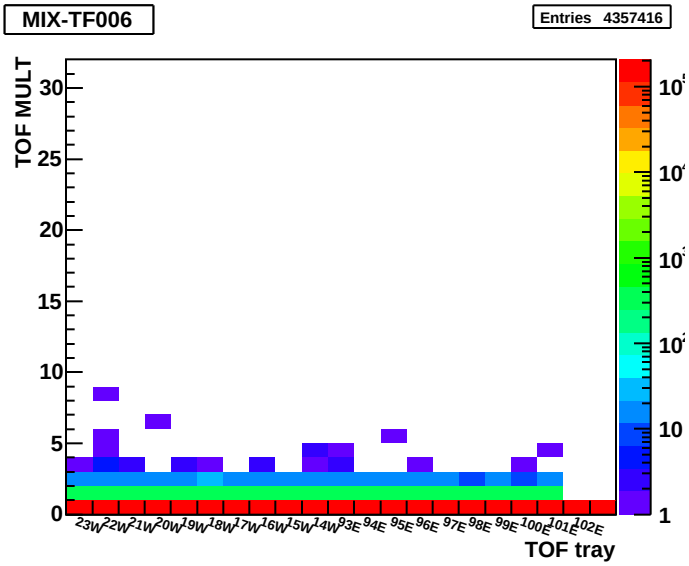

MIX-TF001
Entries 4357416
TOF MULT
TOF tray

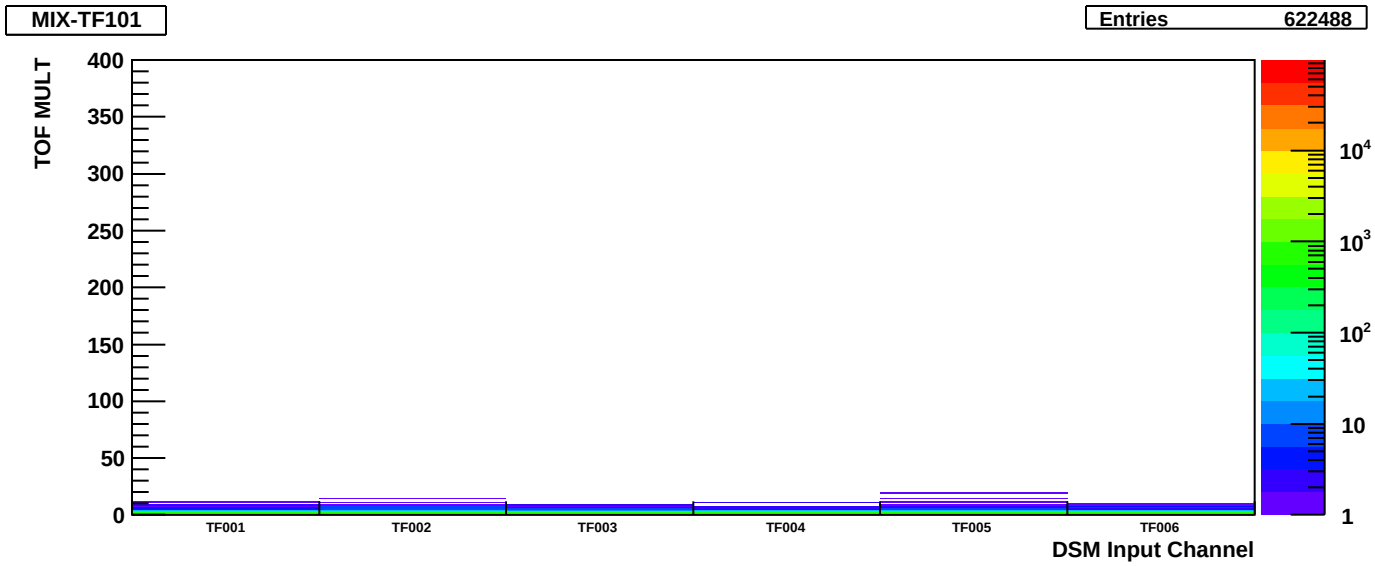

MIX-TF002
Entries 4357416
TOF MULT
TOF tray

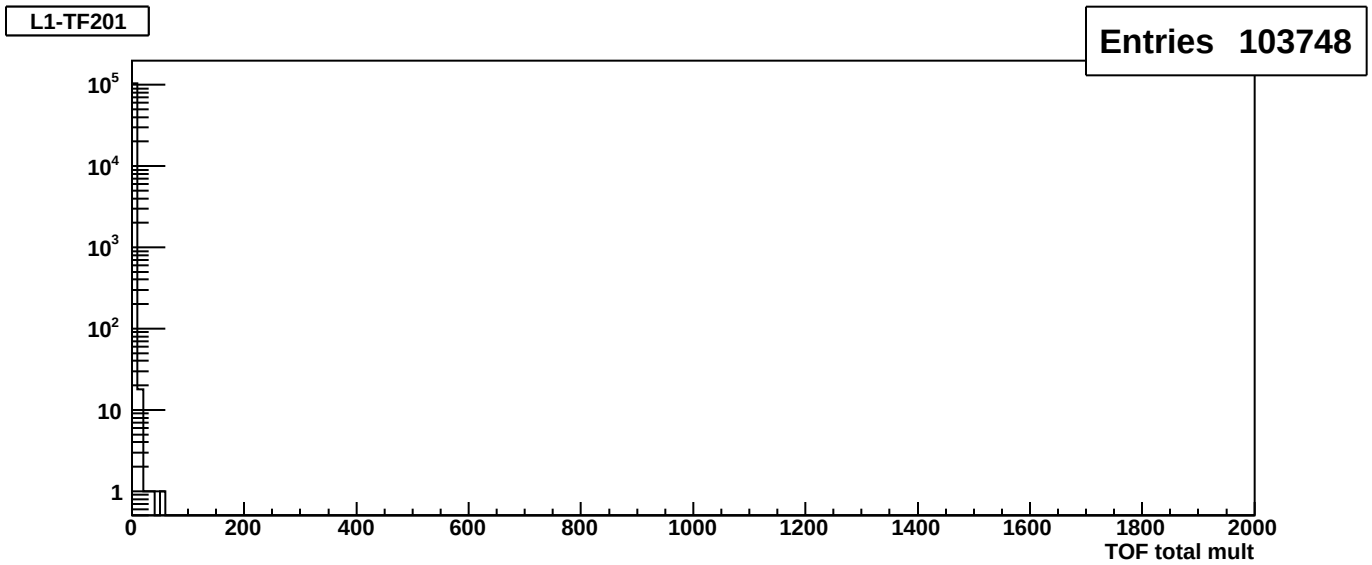

MIX-TF003
Entries 4357416
TOF MULT
TOF tray

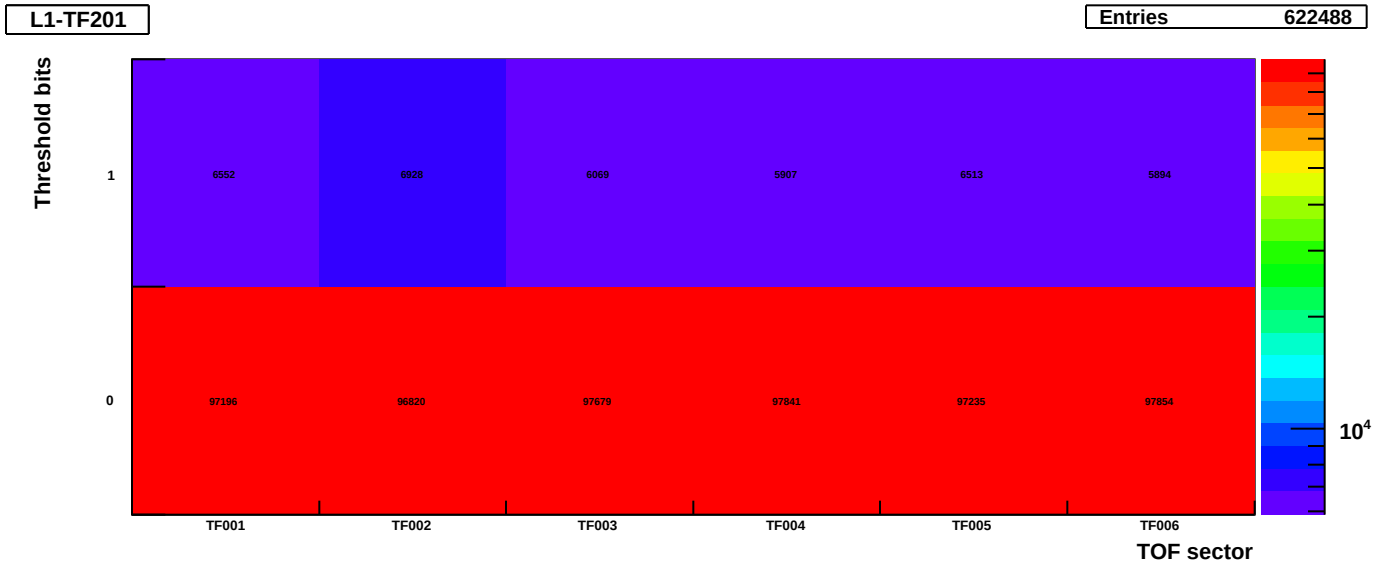

MIX-TF004
Entries 4357416
TOF MULT
TOF tray

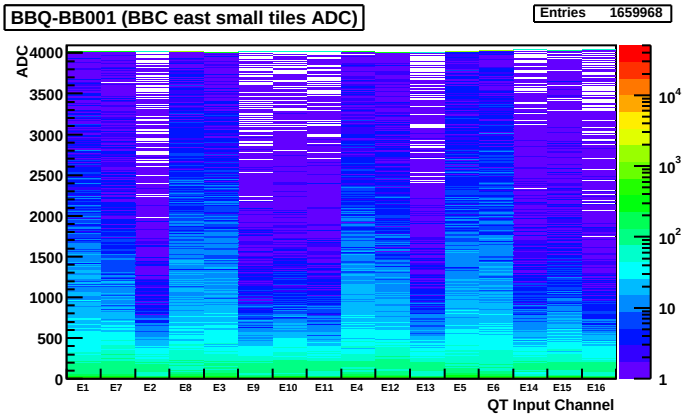

MIX-TF005
Entries 4357416
TOF MULT
TOF tray

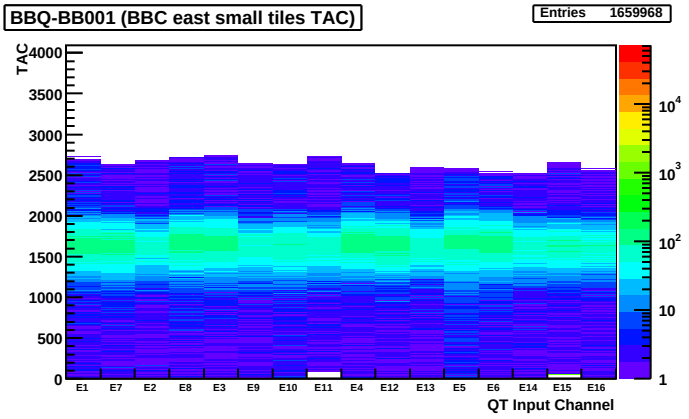

MIX-TF006
Entries 4357416
TOF MULT
TOF tray

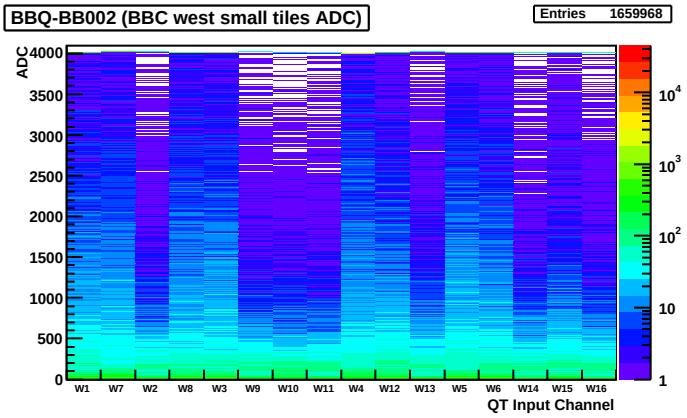

MIX-TF101
Entries 622488
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

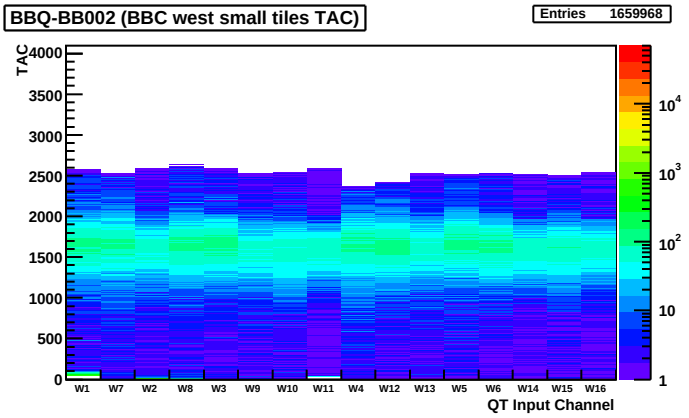

L1-TF201
Entries 103748
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

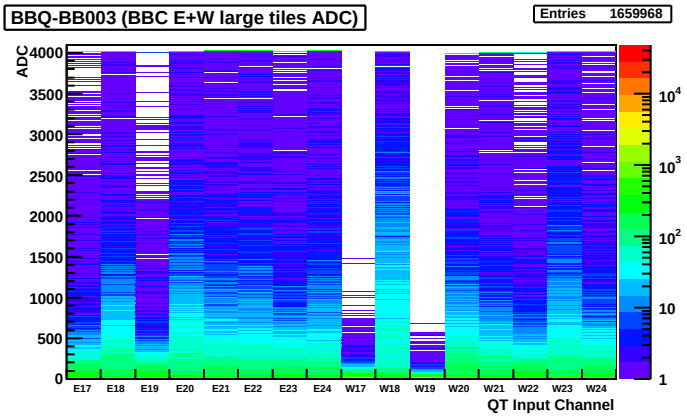

L1-TF201
Entries 622488
Threshold bits
1
0
6552
6928
6069
5907
6513
5894
97196
96820
97679
97841
97235
97854
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

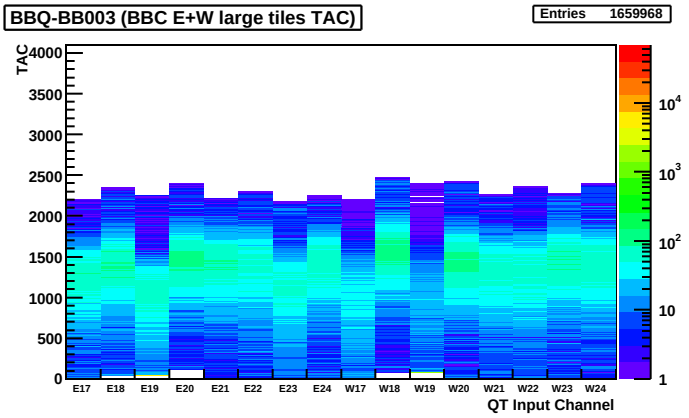

BBQ-BB001 (BBC east small tiles ADC)
Entries 1659968
ADC
QT Input Channel

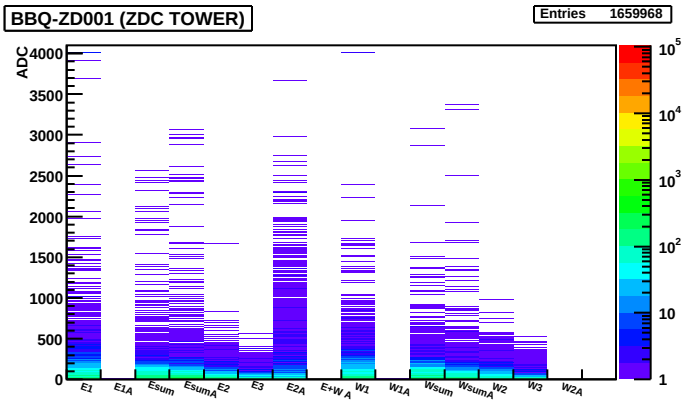

BBQ-BB001 (BBC east small tiles TAC)
Entries 1659968
TAC
QT Input Channel

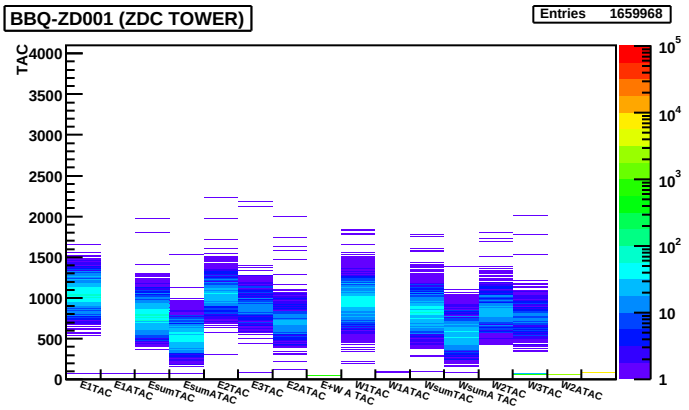

BBQ-BB002 (BBC west small tiles ADC)
Entries 1659968
ADC
QT Input Channel

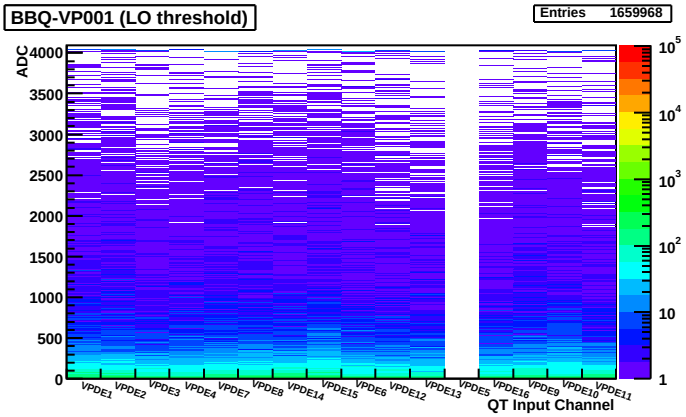

BBQ-BB002 (BBC west small tiles TAC)
Entries 1659968
TAC
QT Input Channel

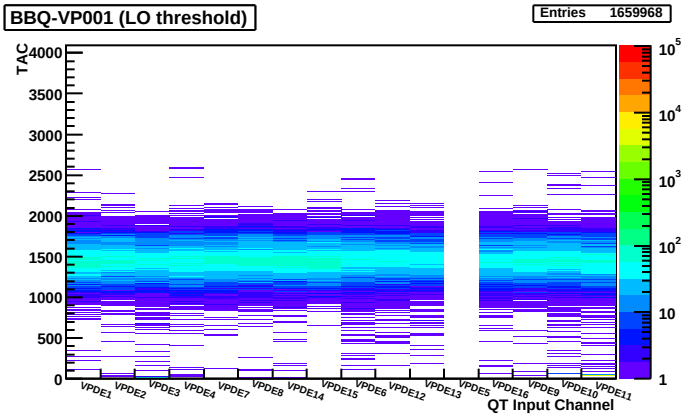

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1659968
ADC
QT Input Channel

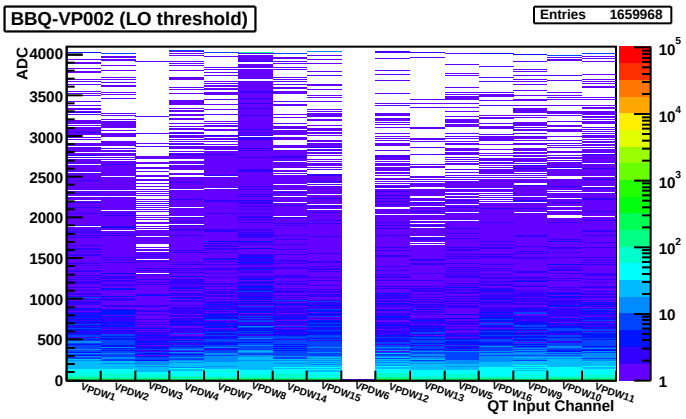

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1659968
TAC
QT Input Channel

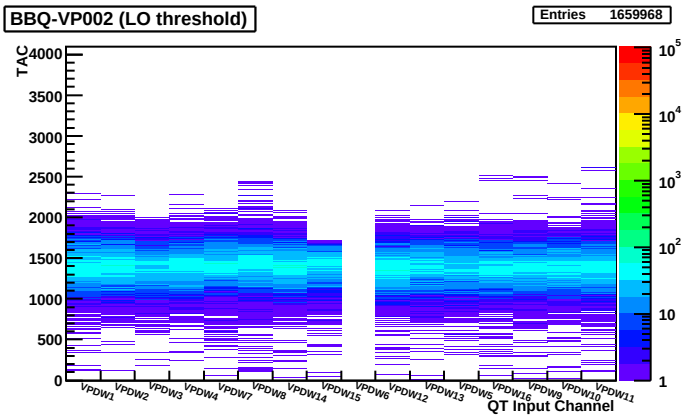

BBQ-ZD001 (ZDC TOWER)
Entries 1659968
ADC

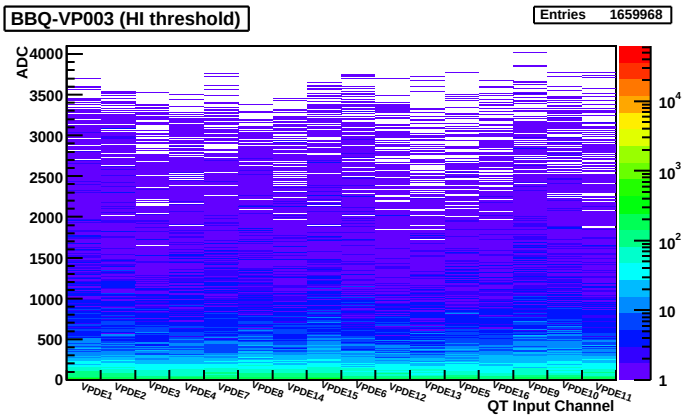

BBQ-ZD001 (ZDC TOWER)
Entries 1659968
TAC

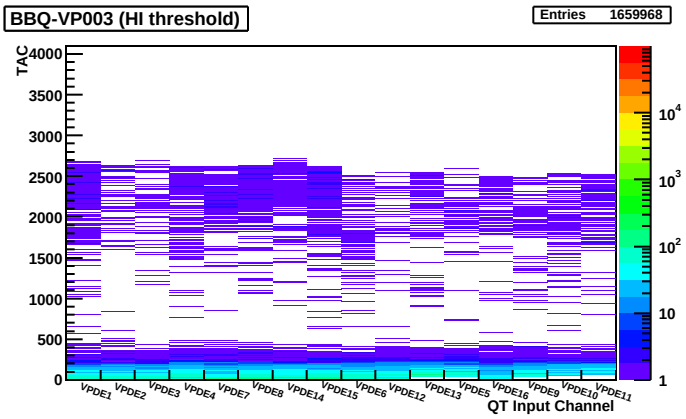

BBQ-VP001 (LO threshold)
Entries 1659968
ADC
QT Input Channel

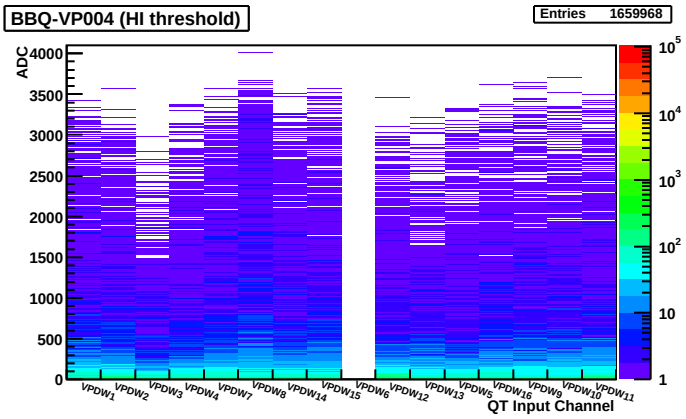

BBQ-VP001 (LO threshold)
Entries 1659968
TAC
QT Input Channel

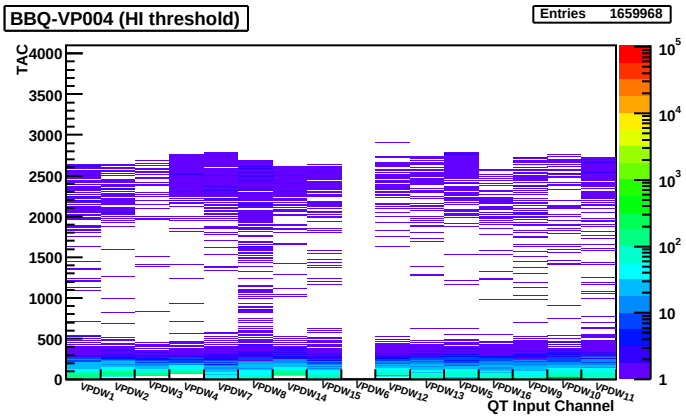

BBQ-VP002 (LO threshold)
Entries 1659968
ADC
QT Input Channel

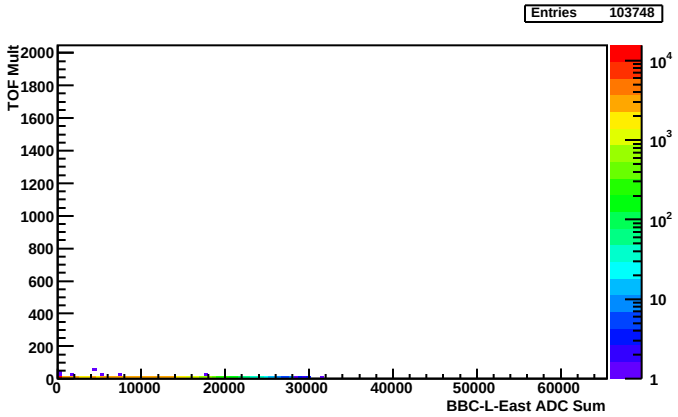

BBQ-VP002 (LO threshold)
Entries 1659968
TAC
QT Input Channel

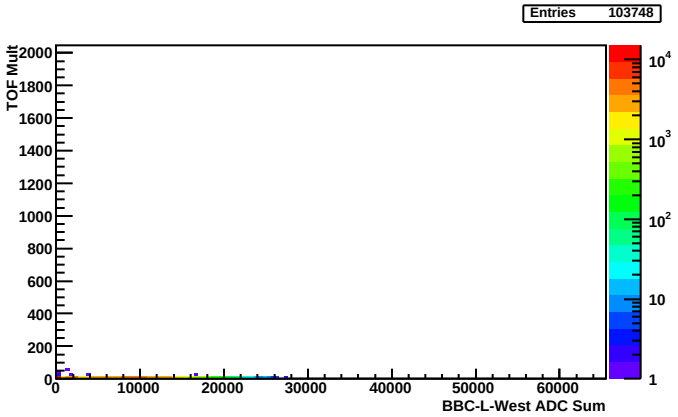

BBQ-VP003 (HI threshold)
Entries 1659968
ADC
QT Input Channel

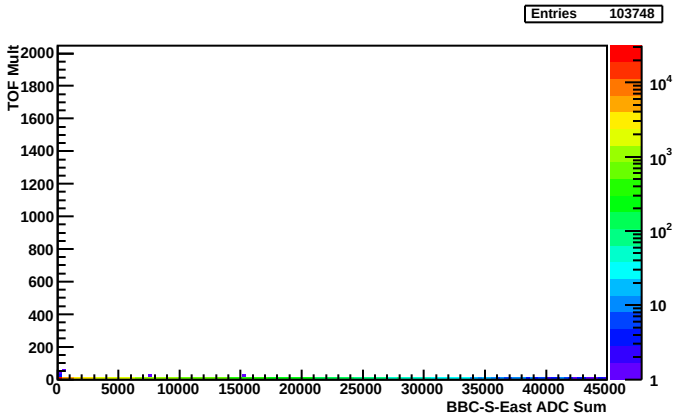

BBQ-VP003 (HI threshold)
Entries 1659968
TAC
QT Input Channel

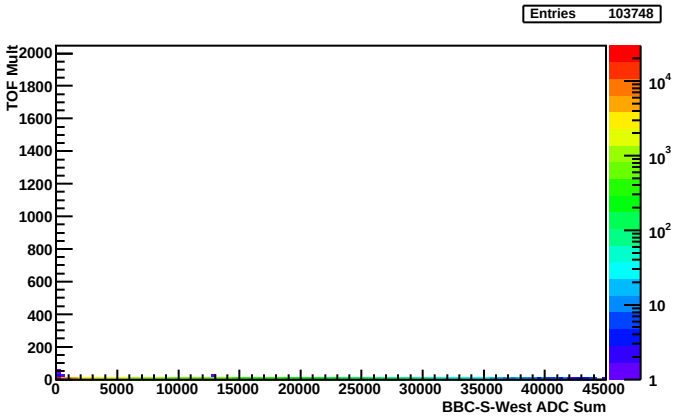

BBQ-VP004 (HI threshold)
Entries 1659968
ADC
QT Input Channel

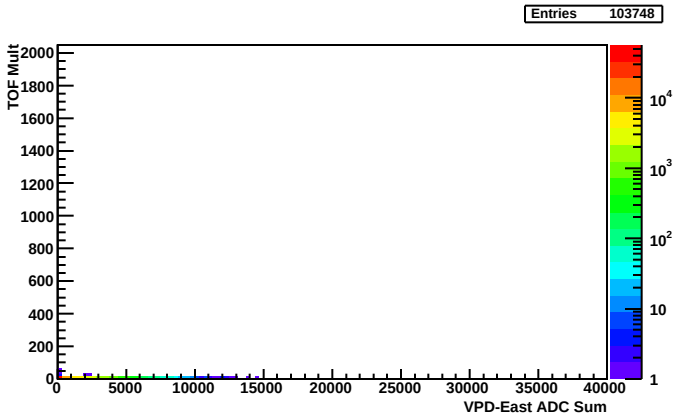

BBQ-VP004 (HI threshold)
Entries 1659968
TAC
QT Input Channel

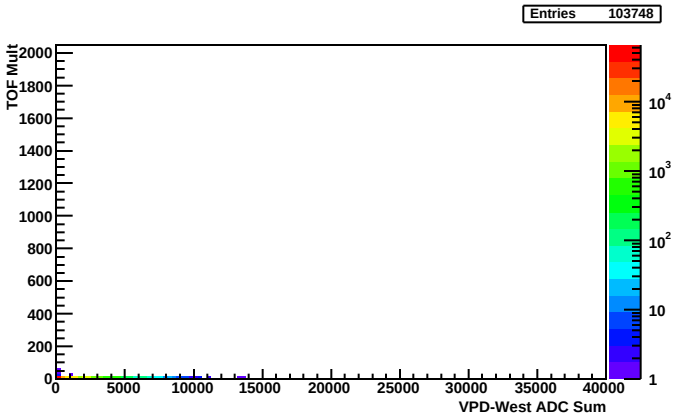

Entries 103748
TOF Mult
BBC-L-East ADC Sum

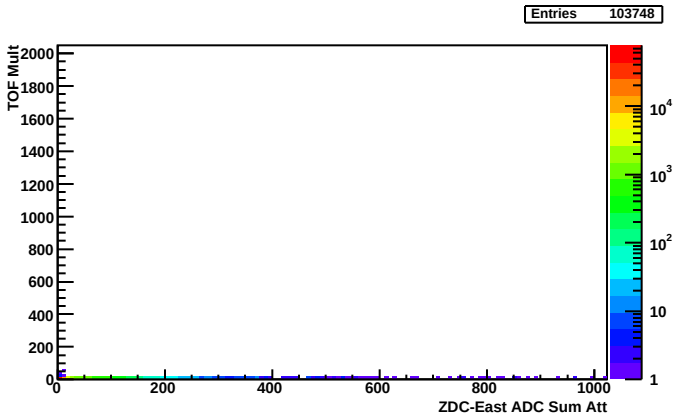

Entries 103748
TOF Mult
BBC-L-West ADC Sum

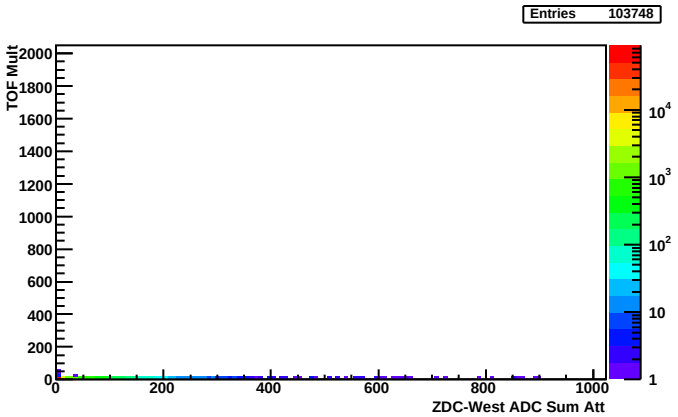

Entries 103748
TOF Mult
BBC-S-East ADC Sum

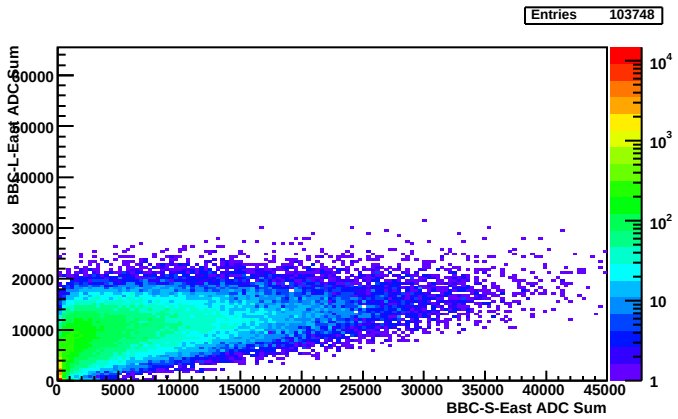

Entries 103748
TOF Mult
BBC-S-West ADC Sum

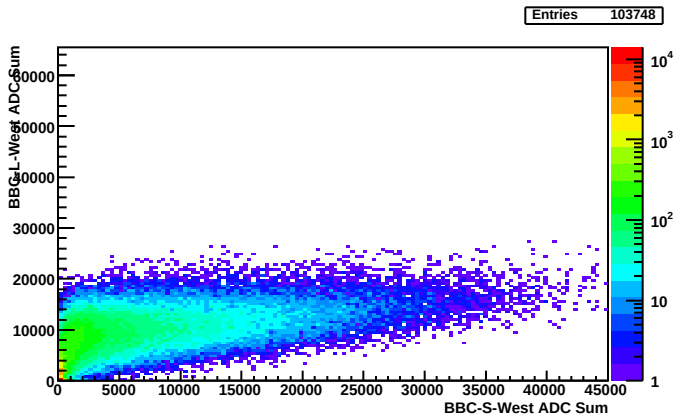

Entries 103748
TOF Mult
VPD-East ADC Sum

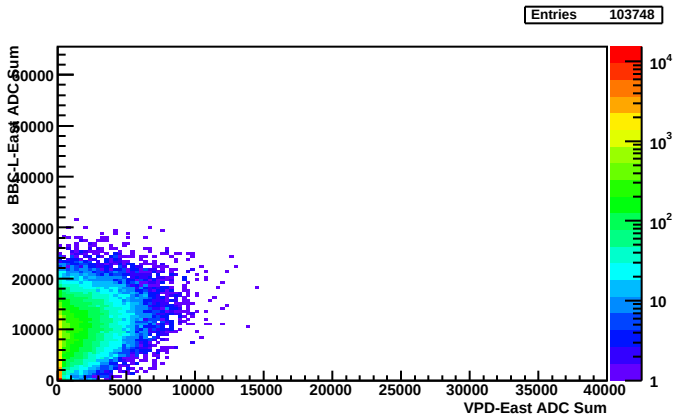

Entries 103748
TOF Mult
VPD-West ADC Sum

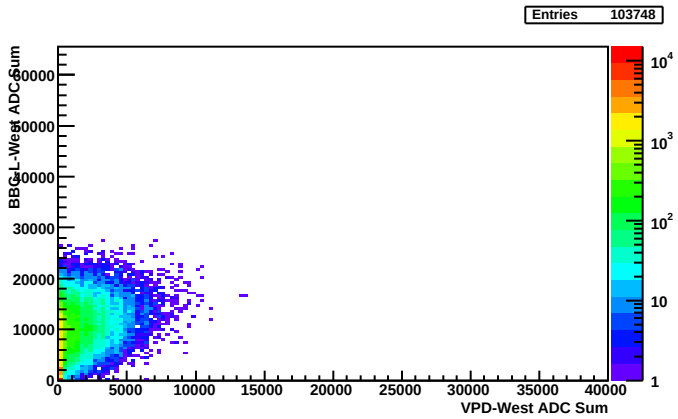

Entries 103748
TOF Mult
ZDC-East ADC Sum Att

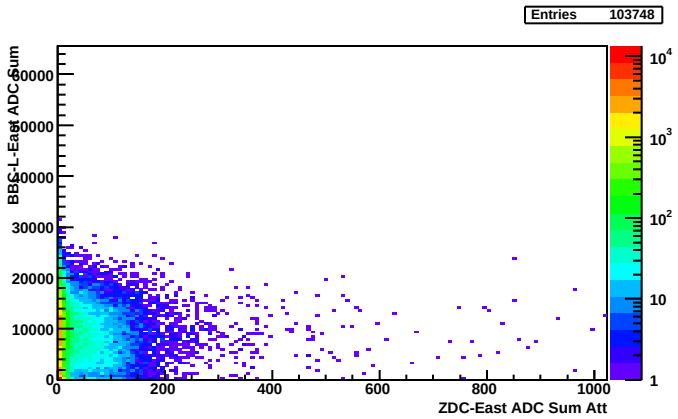

Entries 103748
TOF Mult
ZDC-West ADC Sum Att

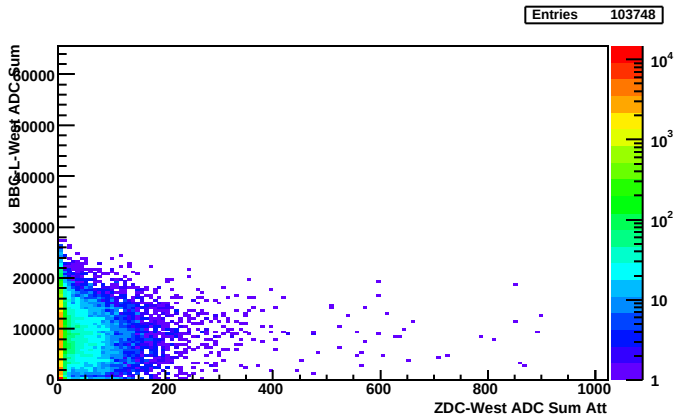

Entries 103748
BBC-L-East ADC Sum
BBC-S-East ADC Sum

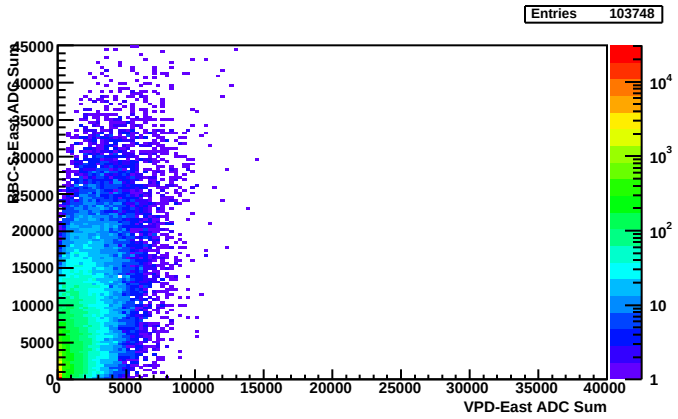

Entries 103748
BBC-L-West ADC Sum
BBC-S-West ADC Sum

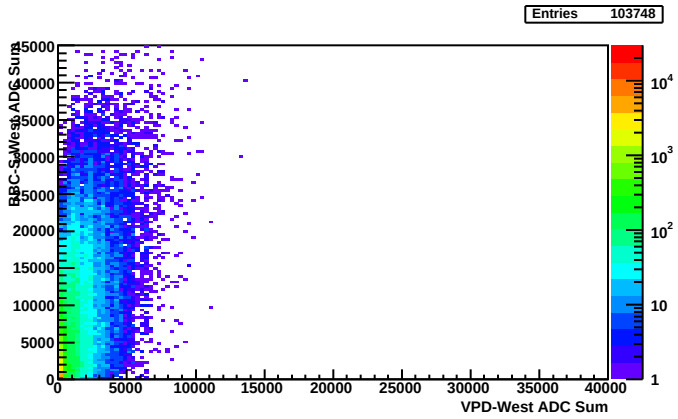

Entries 103748
BBC-L-East ADC Sum
VPD-East ADC Sum

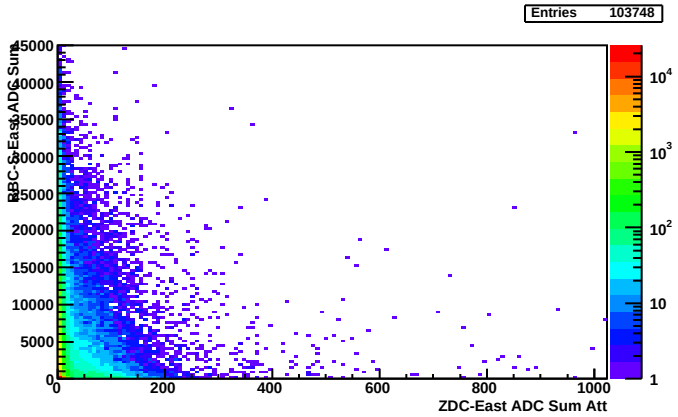

Entries 103748
BBC-L-West ADC Sum
VPD-West ADC Sum

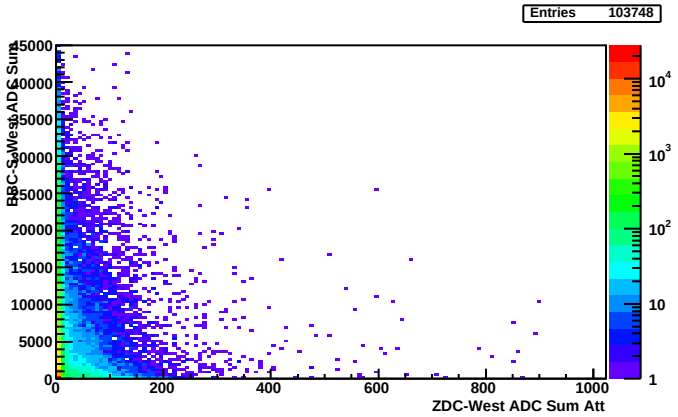

Entries 103748
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

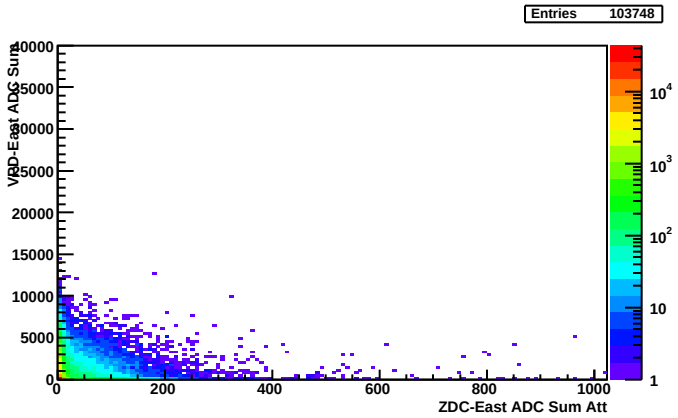

Entries 103748
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

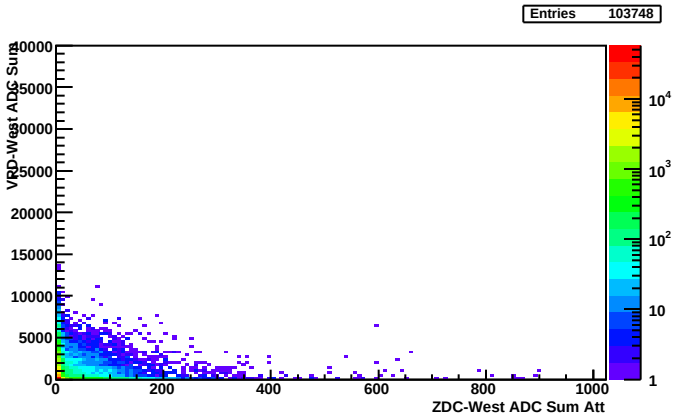

Entries 103748
BBC-S-East ADC Sum
VPD-East ADC Sum

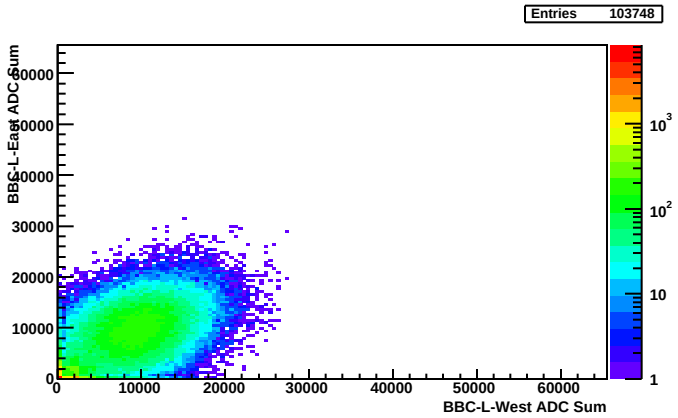

Entries 103748
BBC-S-West ADC Sum
VPD-West ADC Sum

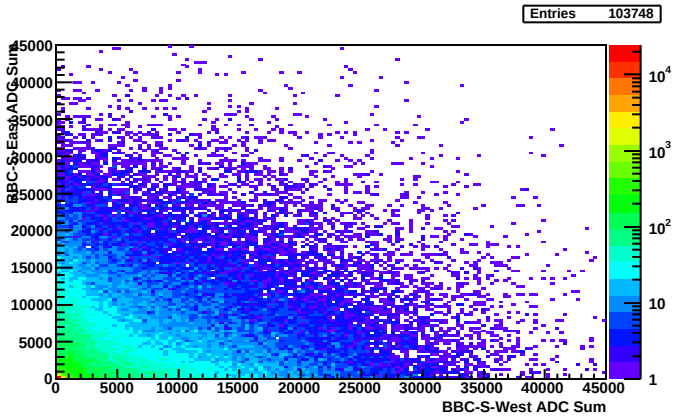

Entries 103748
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

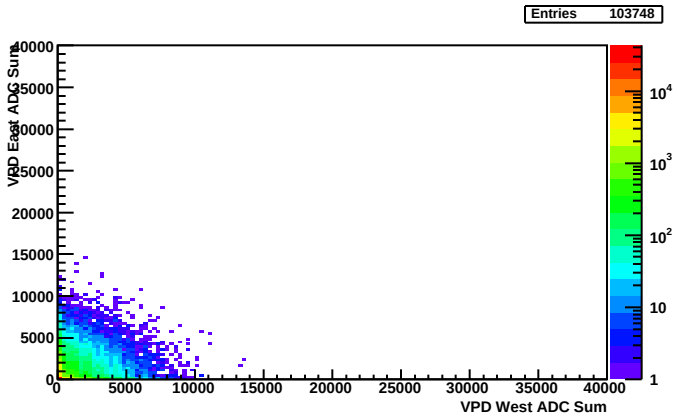

Entries 103748
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

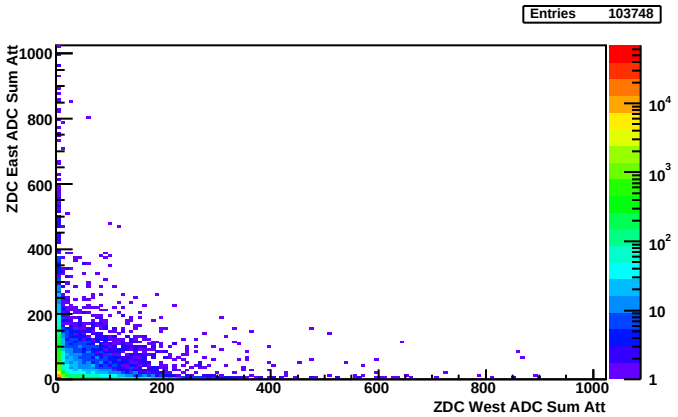

Entries 103748
VPD-East ADC Sum
ZDC-East ADC Sum Att

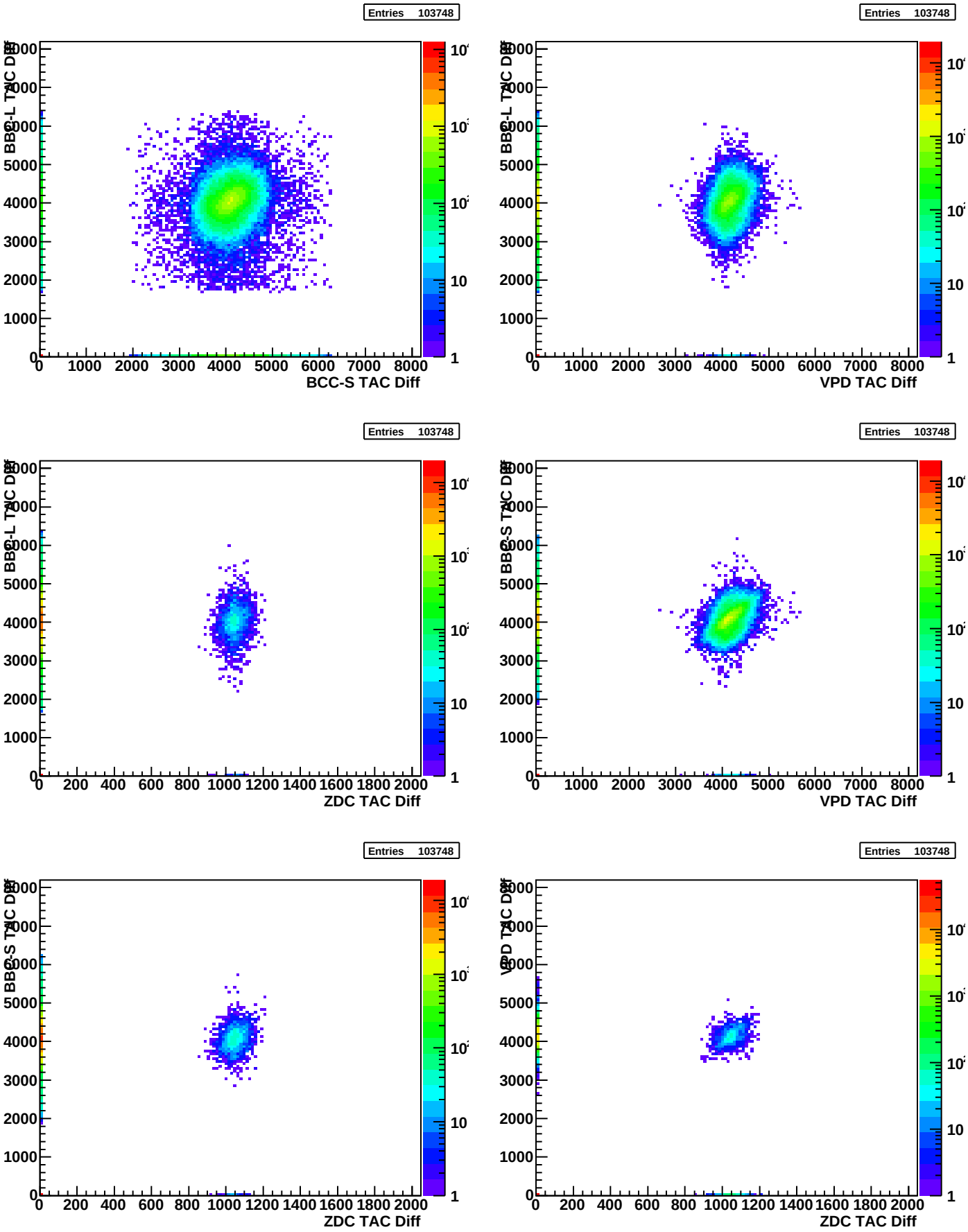

Entries 103748
VPD-West ADC Sum
ZDC-West ADC Sum Att

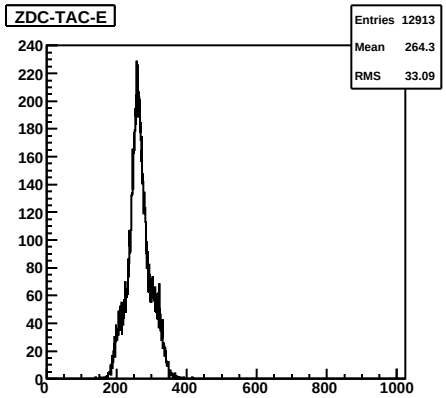

Entries 103748
BBC-L-East ADC Sum
BBC-L-West ADC Sum

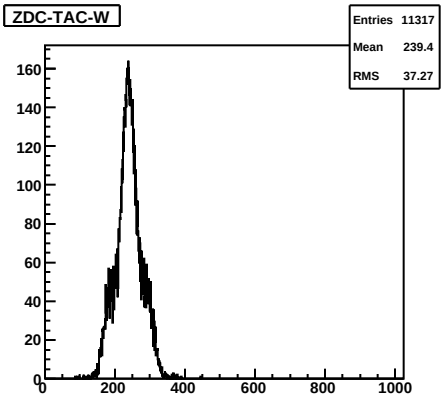

Entries 103748
BBC-S-East ADC Sum
BBC-S-West ADC Sum

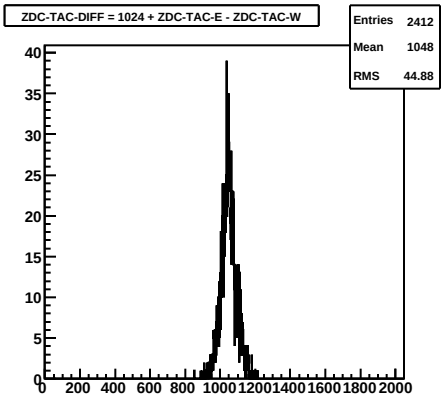

Entries 103748
VPD East ADC Sum
VPD West ADC Sum

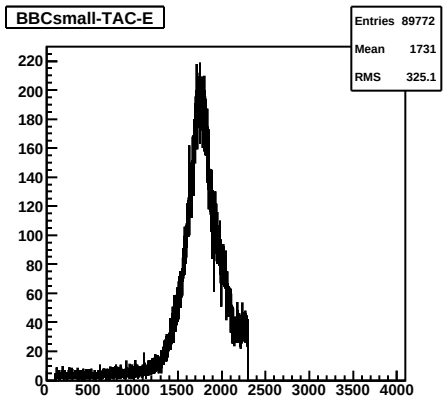

Entries 103748
ZDC East ADC Sum Att
ZDC West ADC Sum Att

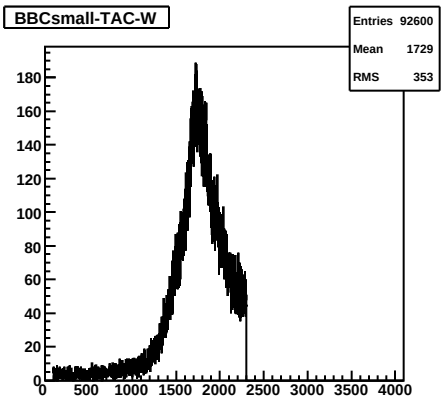

Entries 103748
BBC-L TAC Diff
BCC-S TAC Diff
Entries 103748
BBC-L TAC Diff
VPD TAC Diff
Entries 103748
BBC-L TAC Diff
ZDC TAC Diff
Entries 103748
BBC-S TAC Diff
VPD TAC Diff
Entries 103748
BBC-S TAC Diff
ZDC TAC Diff
Entries 103748
VPD TAC Diff
ZDC TAC Diff

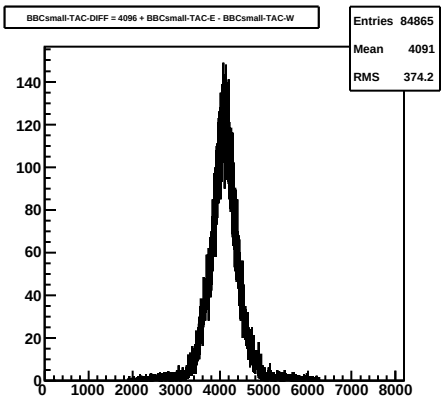

ZDC-TAC-E
Entries 12913
Mean 264.3
RMS 33.09

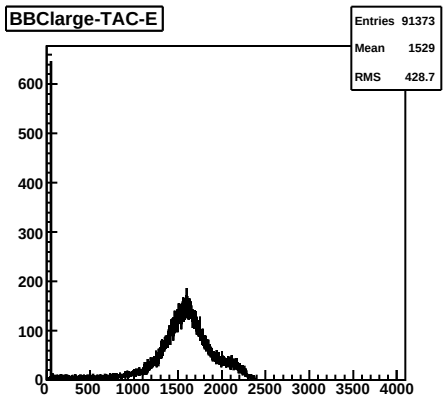

ZDC-TAC-W
Entries 11317
Mean 239.4
RMS 37.27

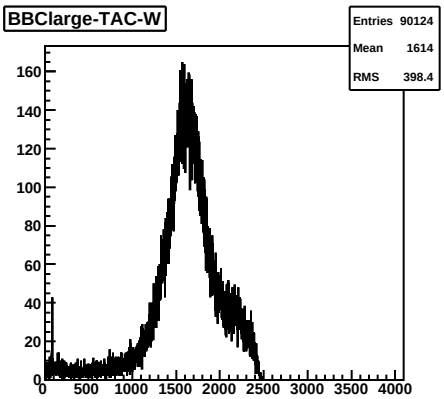

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 2412
Mean 1048
RMS 44.88

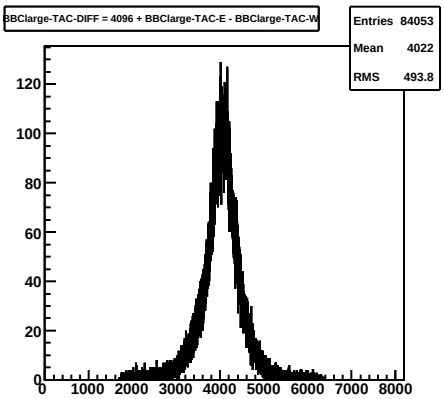

BBCsmall-TAC-E
Entries 89772
Mean 1731
RMS 325.1

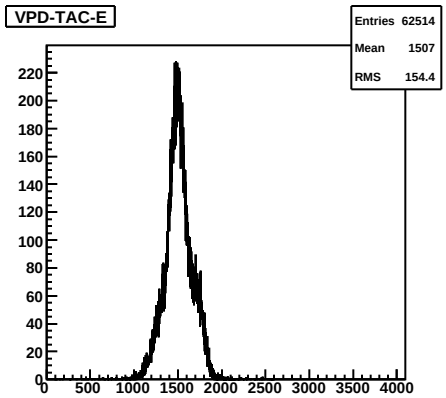

BBCsmall-TAC-W
Entries 92600
Mean 1729
RMS 353

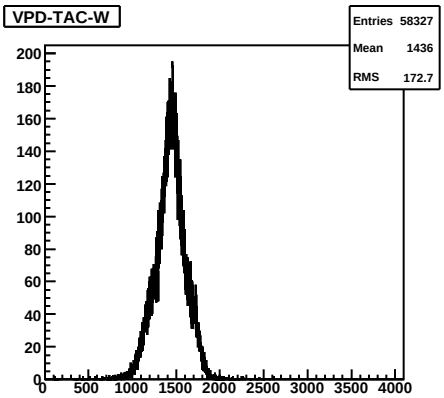

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 84865
Mean 4091
RMS 374.2

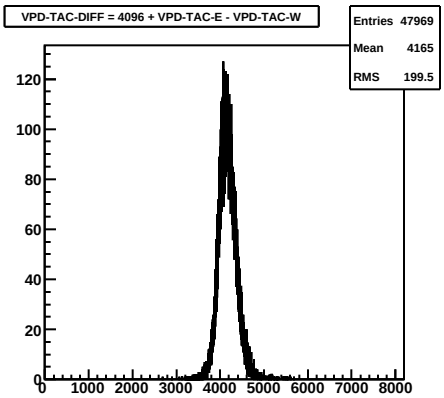

BBClarge-TAC-E
Entries 91373
Mean 1529
RMS 428.7

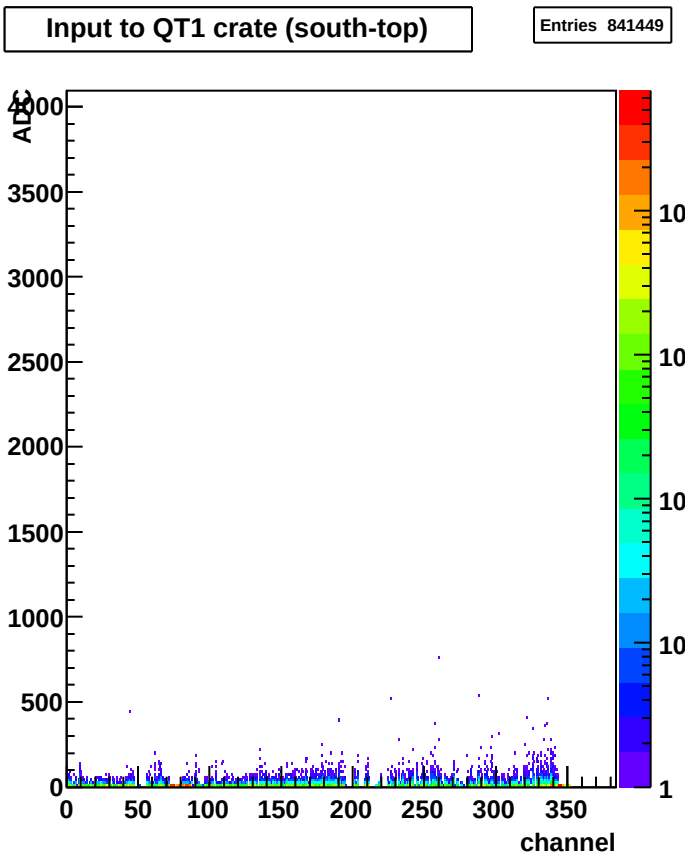

BBClarge-TAC-W
Entries 90124
Mean 1614
RMS 398.4

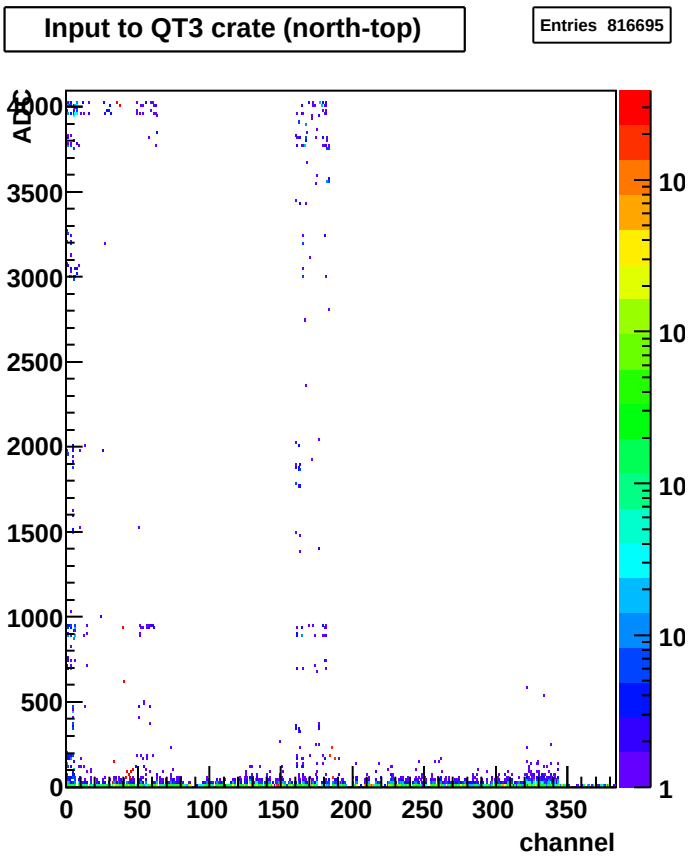

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 84053
Mean 4022
RMS 493.8

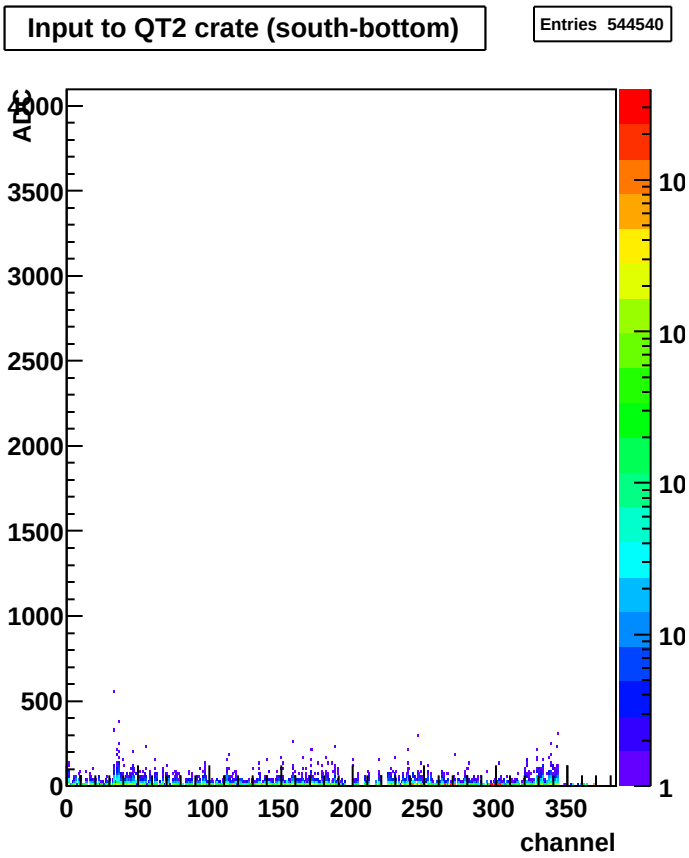

VPD-TAC-E
Entries 62514
Mean 1507
RMS 154.4

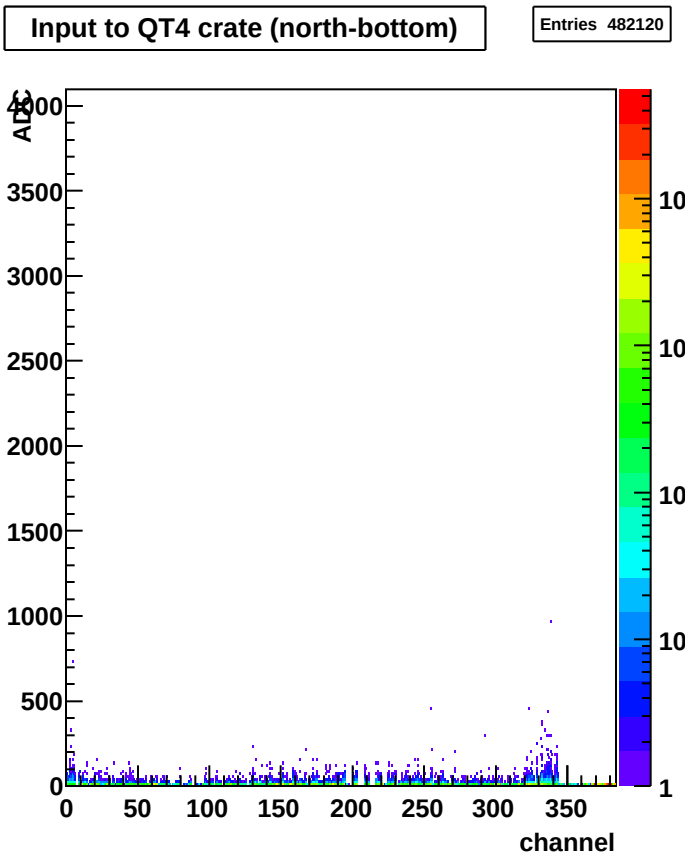

VPD-TAC-W
Entries 58327
Mean 1436
RMS 172.7

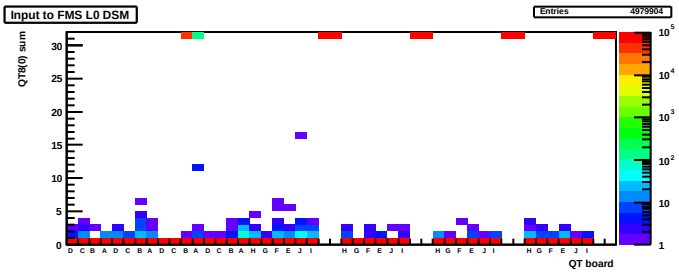

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 47969
Mean 4165
RMS 199.5

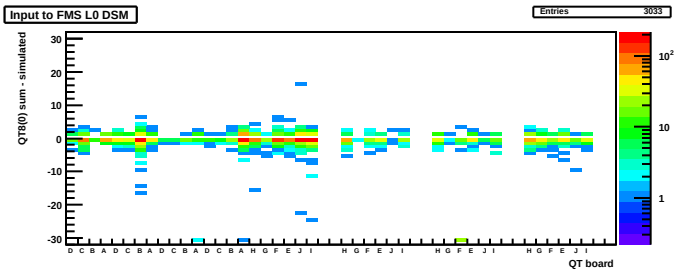

Input to QT1 crate (south-top)
Entries 841449
ADC
channel

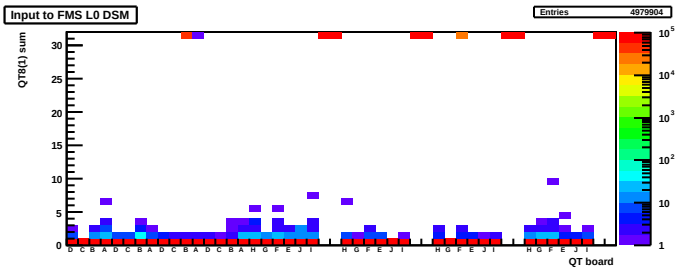

Input to QT3 crate (north-top)
Entries 816695
ADC
channel

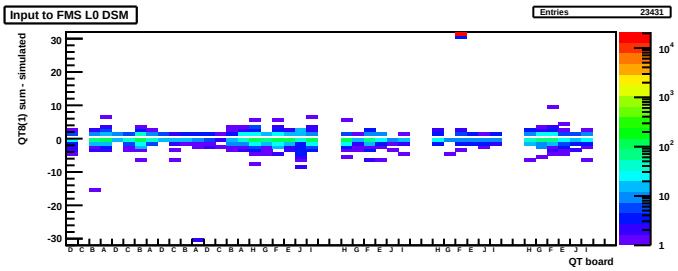

Input to QT2 crate (south-bottom)
Entries 544540
ADC
channel

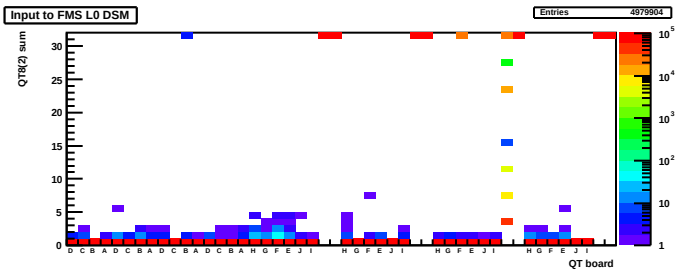

Input to QT4 crate (north-bottom)
Entries 482120
ADC
channel

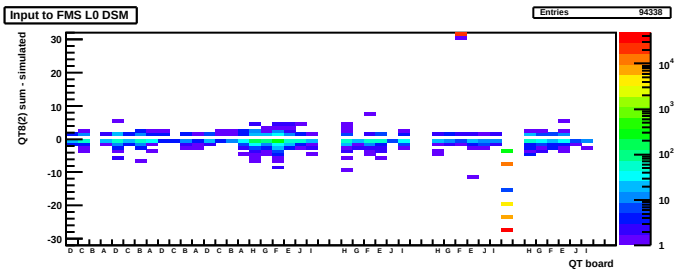

Input to FMS L0 DSM
Entries 4979904
QT8(0) sum
QT board

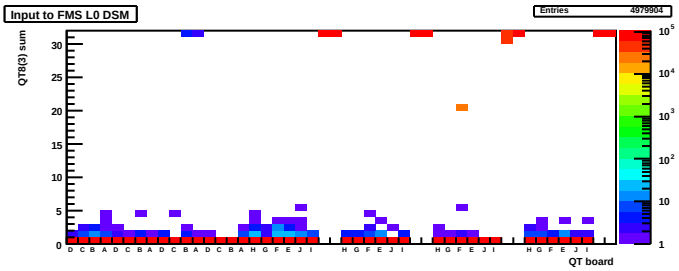

Input to FMS L0 DSM
Entries 3033
QT8(0) sum - simulated
QT board

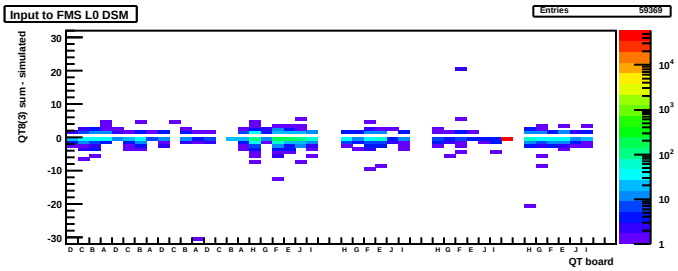

Input to FMS L0 DSM
Entries 4979904
QT8(1) sum
QT board

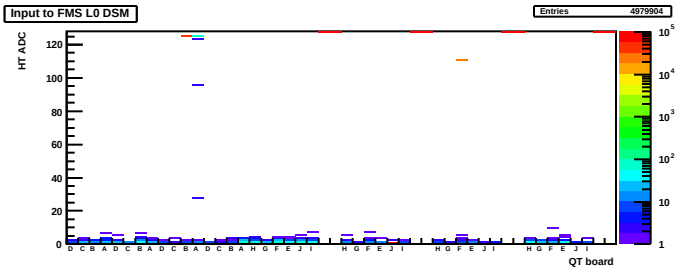

Input to FMS L0 DSM
Entries 23431
QT8(1) sum - simulated
QT board

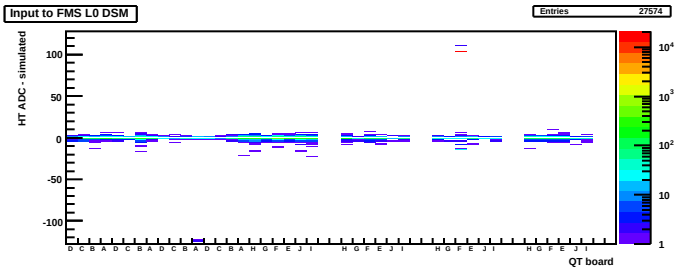

Input to FMS L0 DSM
Entries 4979904
QT8(2) sum
QT board

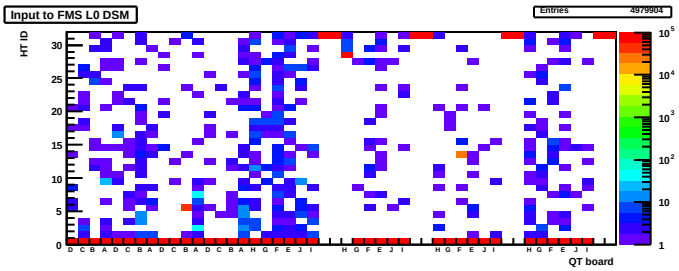

Input to FMS L0 DSM
Entries 94338
QT8(2) sum - simulated
QT board

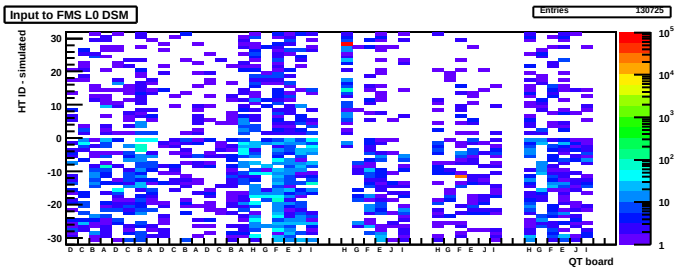

Input to FMS L0 DSM
Entries 4979904
QT8(3) sum
QT board

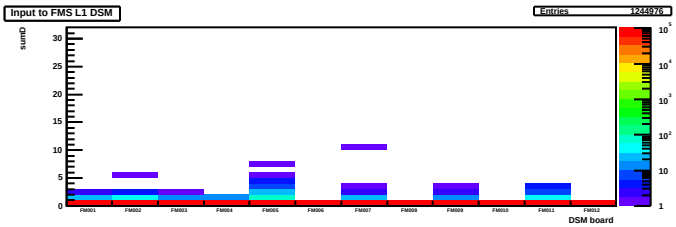

Input to FMS L0 DSM
Entries 59369
QT8(3) sum - simulated
QT board

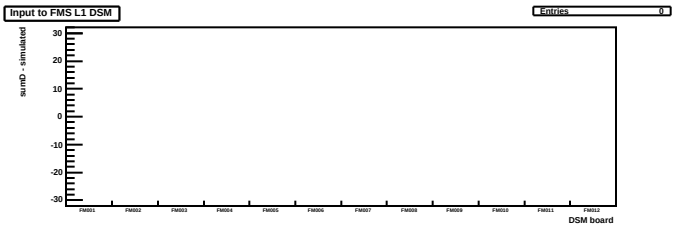

Input to FMS L0 DSM
Entries 4979904
HT ADC
QT board

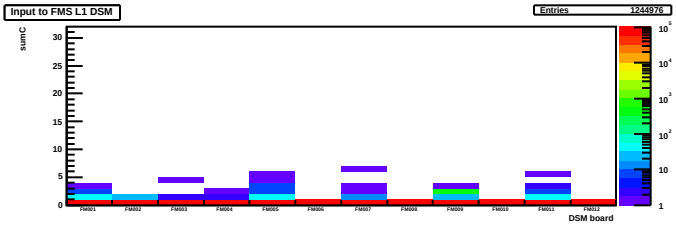

Input to FMS L0 DSM
Entries 27574
HT ADC - simulated
QT board

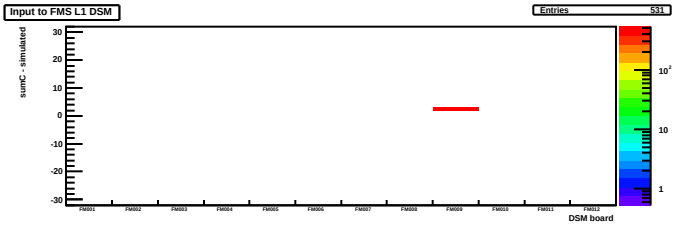

Input to FMS L0 DSM
Entries 4979904
HT ID
QT board

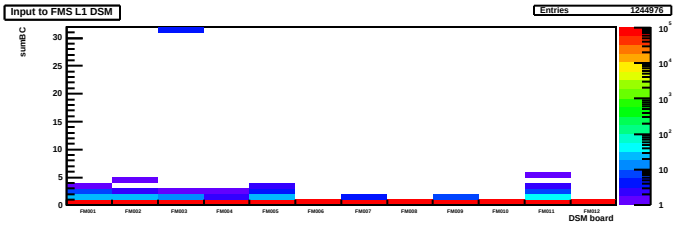

Input to FMS L0 DSM
Entries 130725
HT ID - simulated
QT board

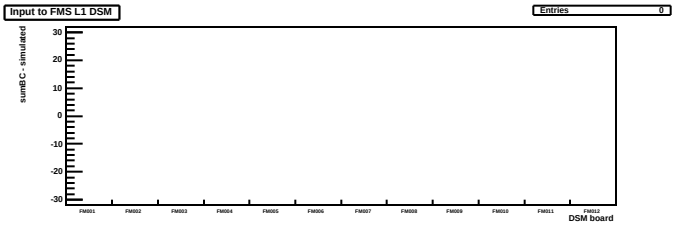

Input to FMS L1 DSM
Entries 1244976
sumD
DSM board

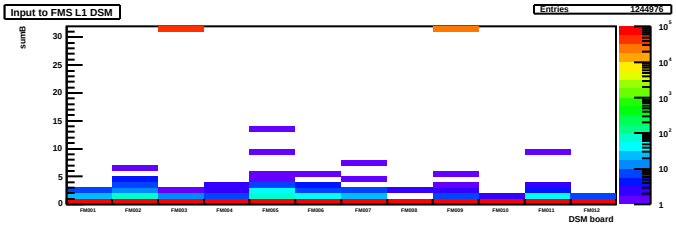

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

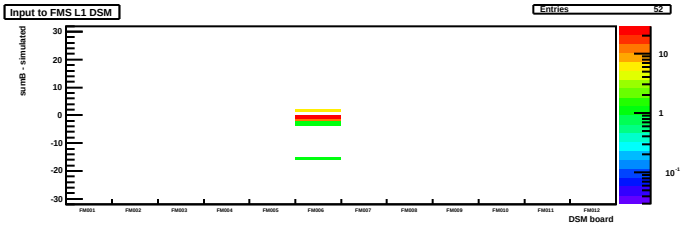

Input to FMS L1 DSM
Entries 1244976
sumC
DSM board

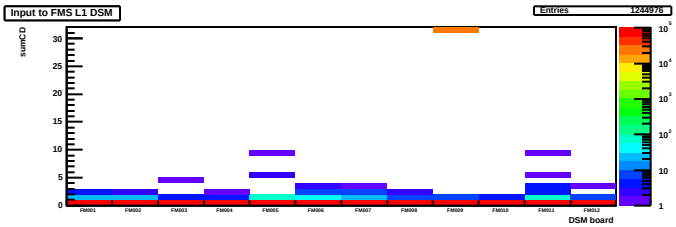

Input to FMS L1 DSM
Entries 531
sumC - simulated
DSM board

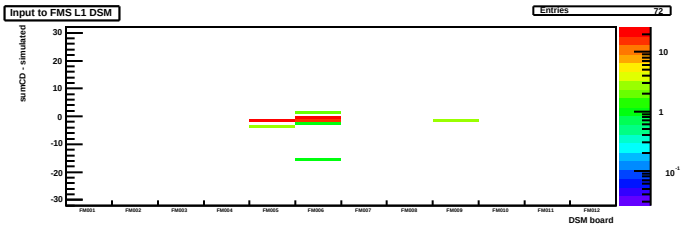

Input to FMS L1 DSM
Entries 1244976
sumBC
DSM board

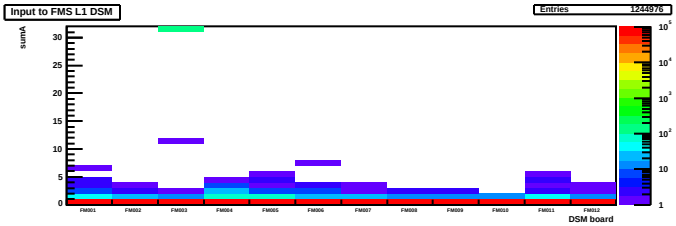

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

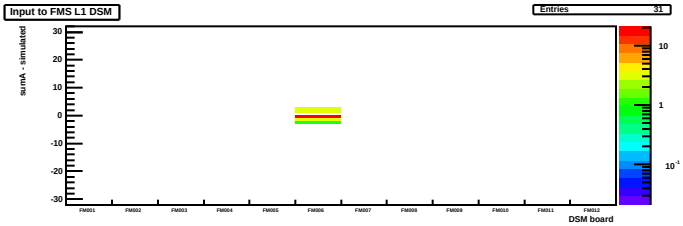

Input to FMS L1 DSM
Entries 1244976
sumB
DSM board

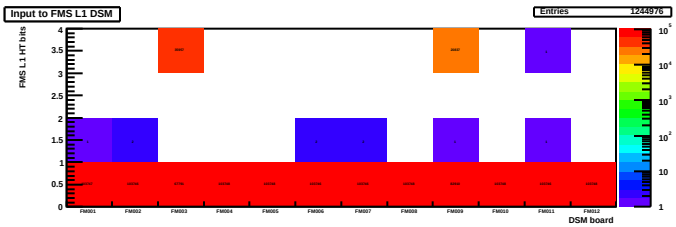

Input to FMS L1 DSM
Entries 52
sumB - simulated
DSM board

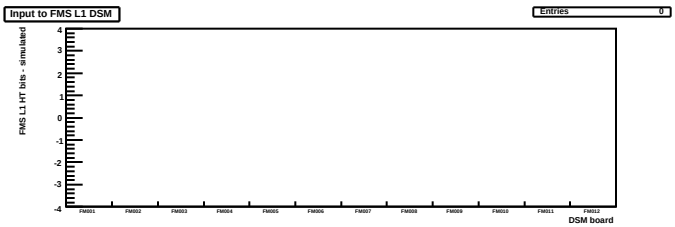

Input to FMS L1 DSM
Entries 1244976
sumCD
DSM board

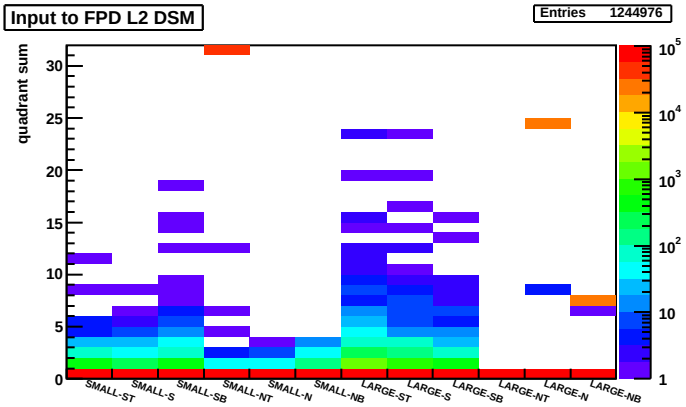

Input to FMS L1 DSM
Entries 72
sumCD - simulated
DSM board

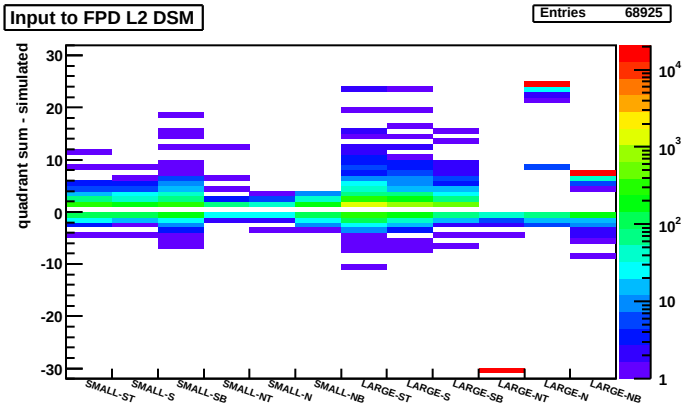

Input to FMS L1 DSM
Entries 1244976
sumA
DSM board

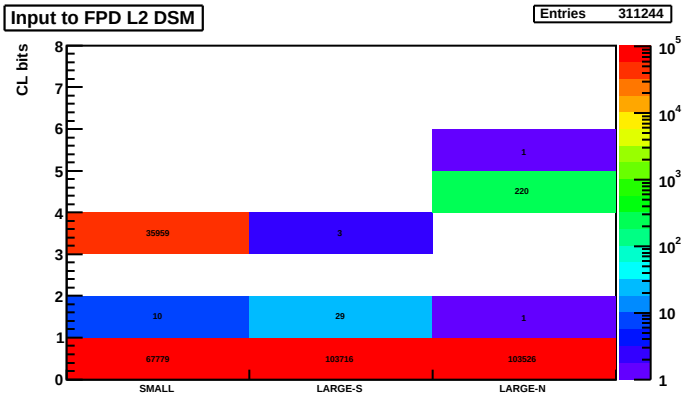

Input to FMS L1 DSM
Entries 31
sumA - simulated
DSM board

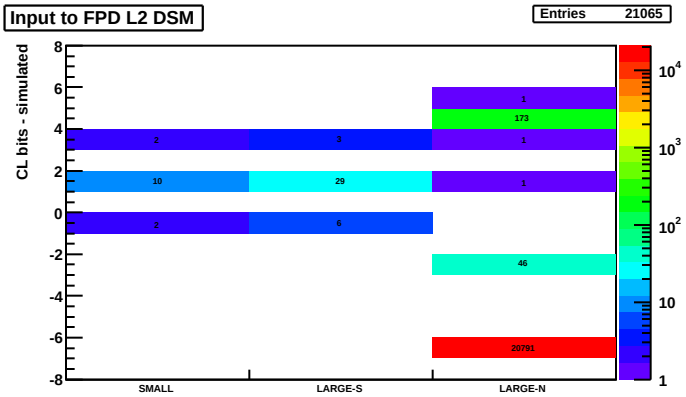

Input to FMS L1 DSM
Entries 1244976
FMS L1 HT bits
DSM board

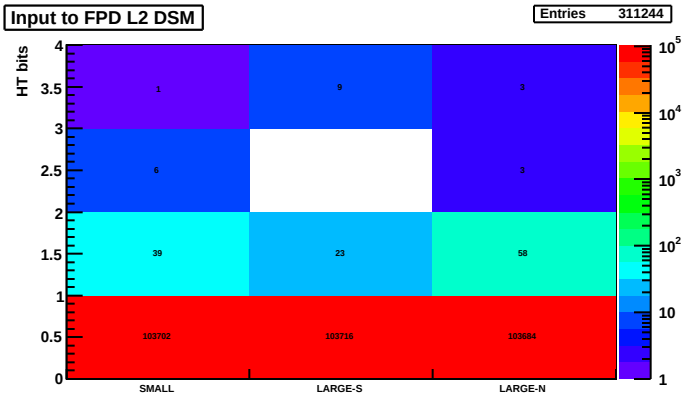

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

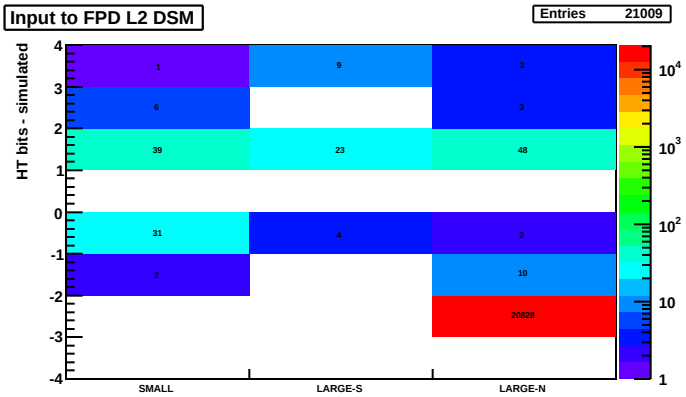

Input to FPD L2 DSM
Entries 1244976
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

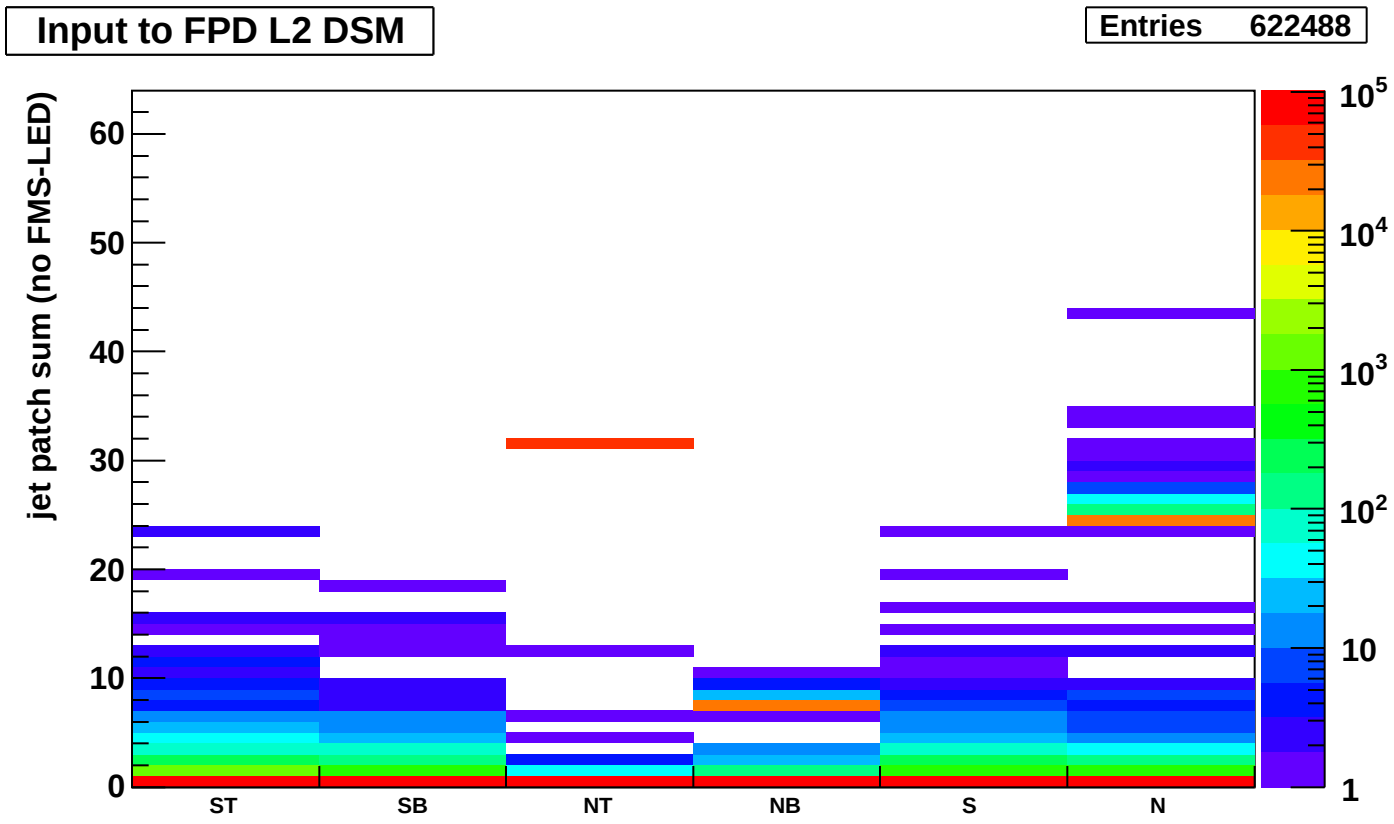

Input to FPD L2 DSM
Entries 68925
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

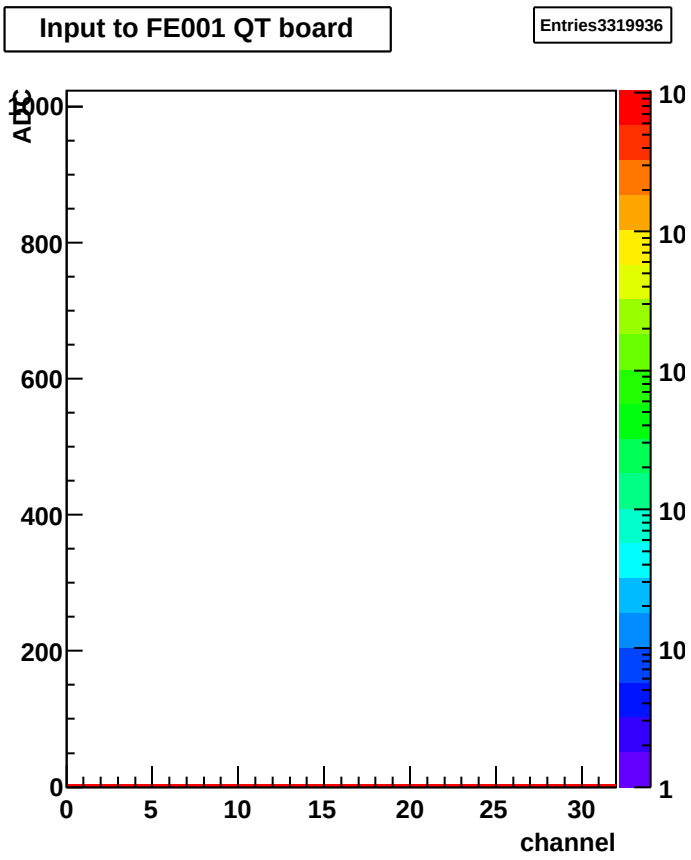

Input to FPD L2 DSM
Entries 311244
CL bits
35959
3
1
220
10
29
1
67779
103716
103526
SMALL
LARGE-S
LARGE-N

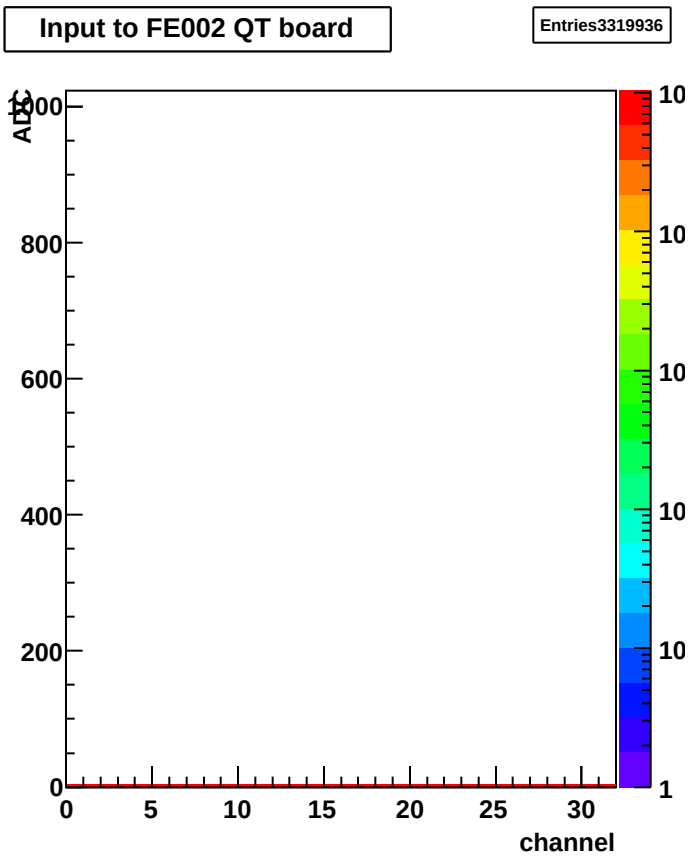

Input to FPD L2 DSM
Entries 21065
CL bits - simulated
1
173
2
3
1
10
29
1
2
6
46
20791
SMALL
LARGE-S
LARGE-N

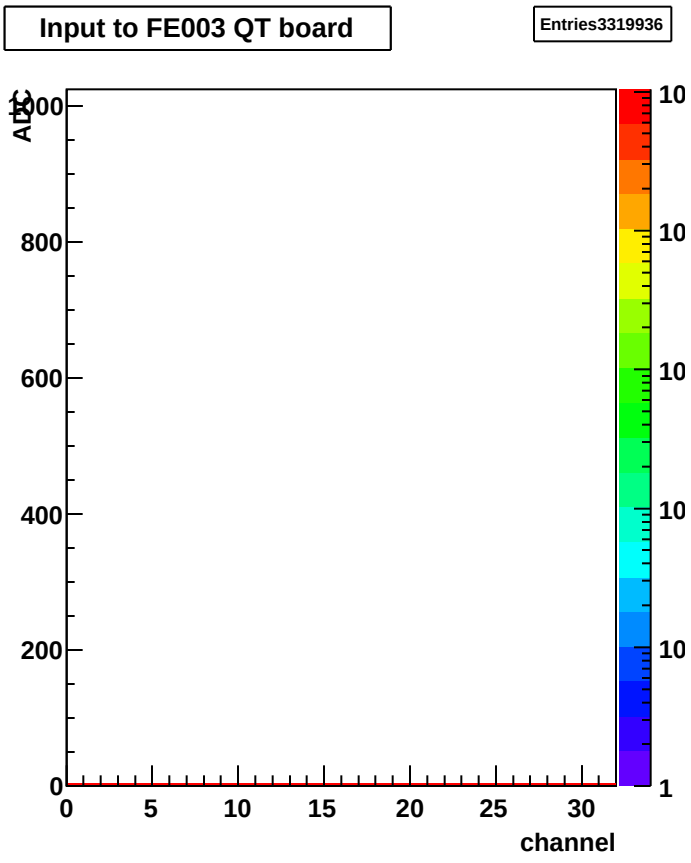

Input to FPD L2 DSM
Entries 311244
HT bits
1
9
3
6
3
39
23
58
103702
103716
103684
SMALL
LARGE-S
LARGE-N

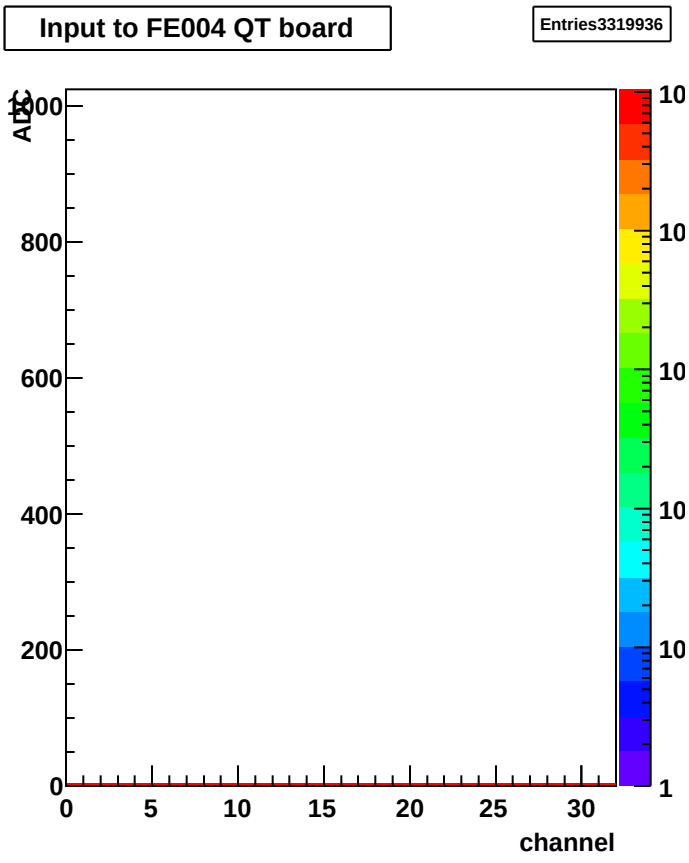

Input to FPD L2 DSM
Entries 21009
HT bits - simulated
1
9
3
6
3
39
23
48
31
4
2
2
10
20828
SMALL
LARGE-S
LARGE-N

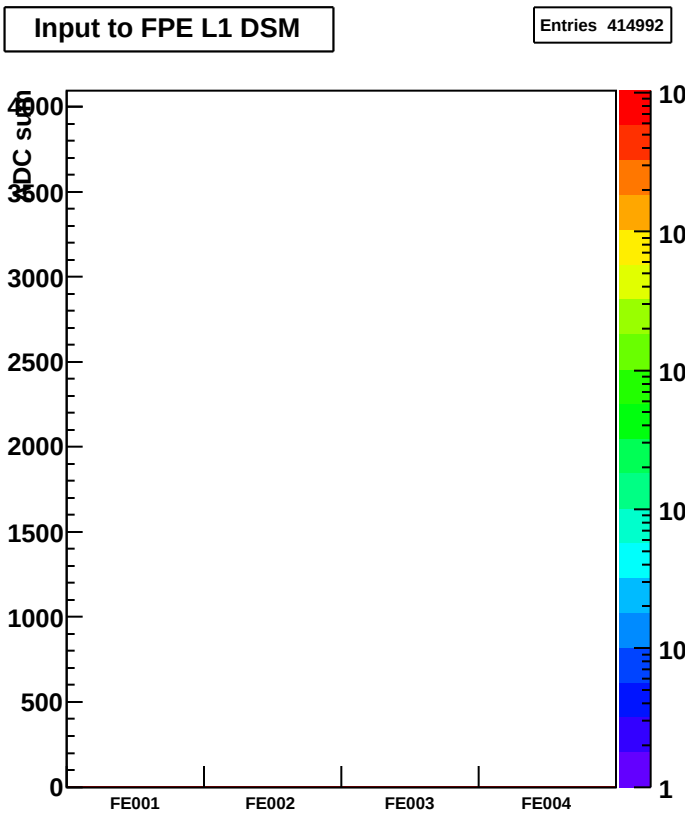

Input to FPD L2 DSM
Entries 622488
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

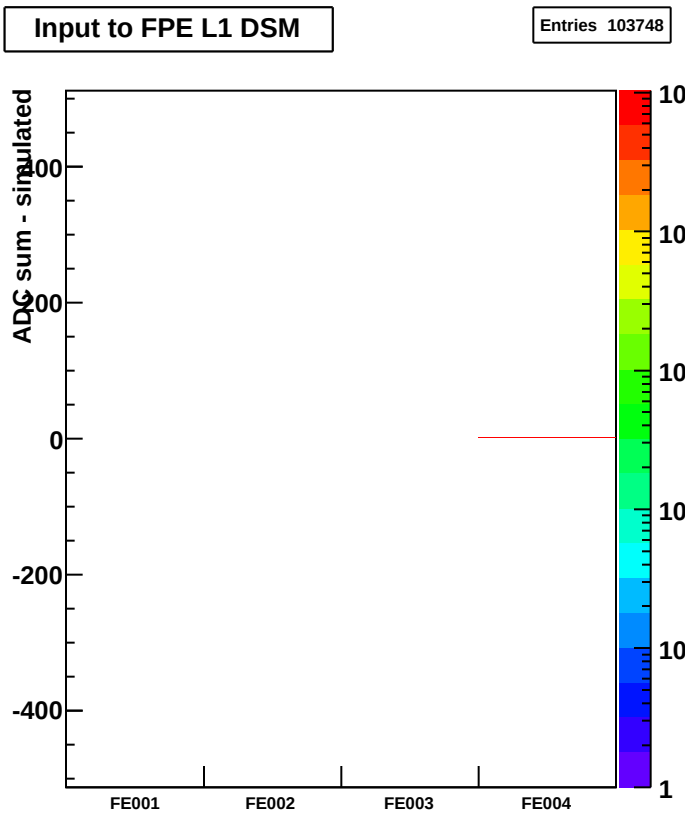

Input to FE001 QT board
Entries3319936
ADC
channel

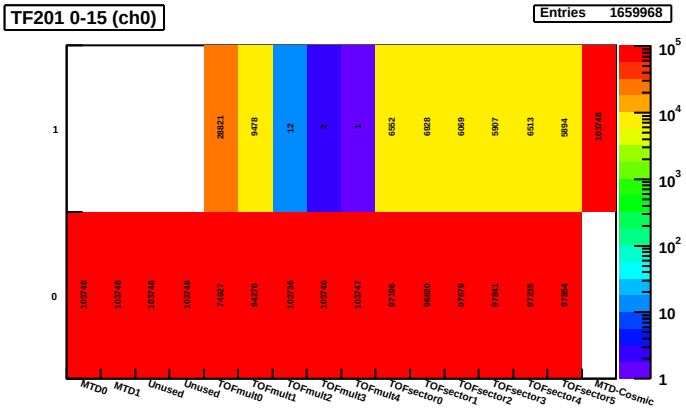

Input to FE002 QT board
Entries3319936
ADC
channel

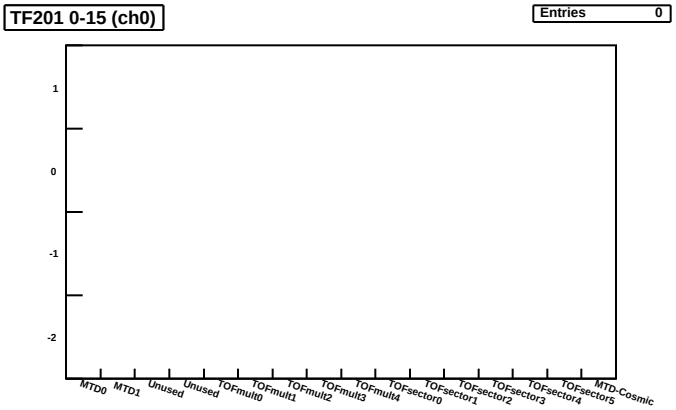

Input to FE003 QT board
Entries3319936
ADC
channel

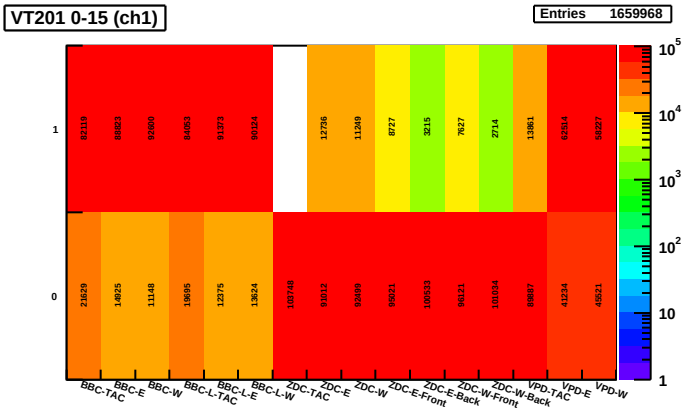

Input to FE004 QT board
Entries3319936
ADC
channel

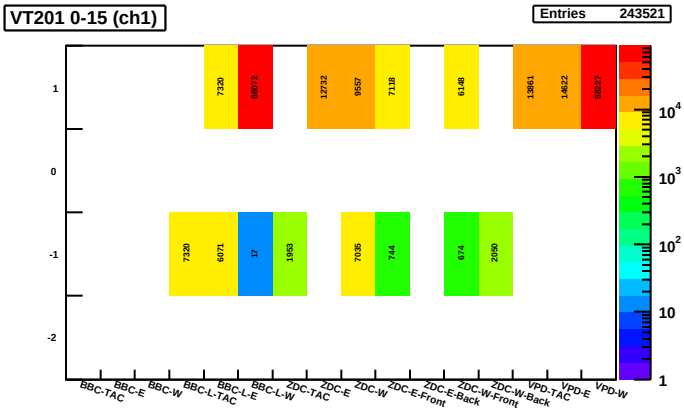

Input to FPE L1 DSM
Entries 414992
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1

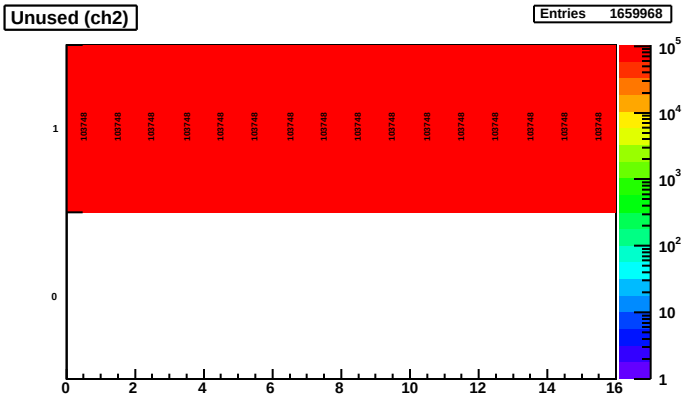

Input to FPE L1 DSM
Entries 103748
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1

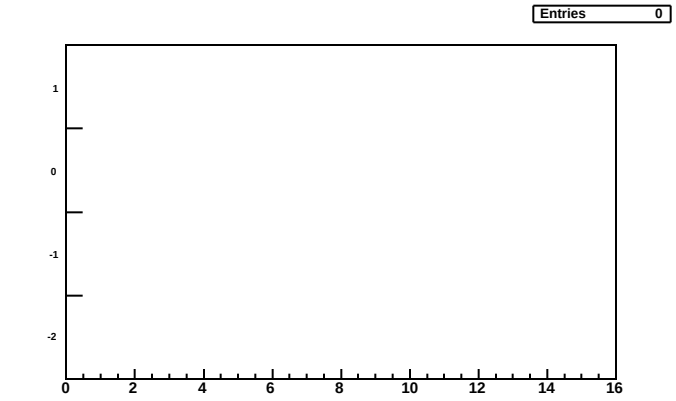

TF201 0-15 (ch0)
Entries 1659968
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

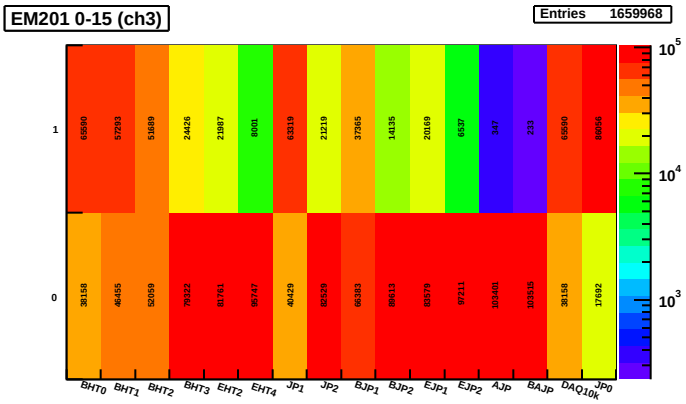

TF201 0-15 (ch0)
Entries 0
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

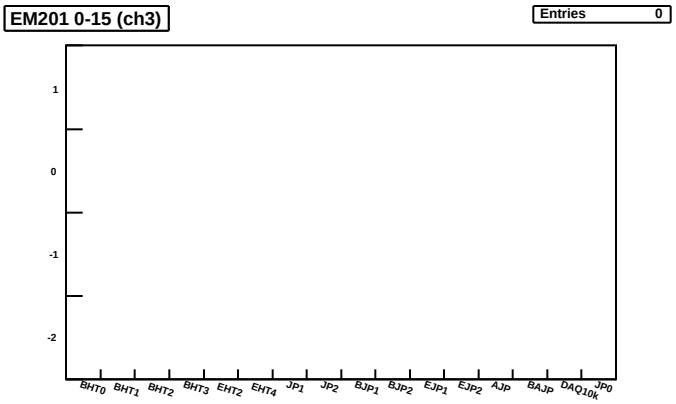

VT201 0-15 (ch1)
Entries 1659968
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

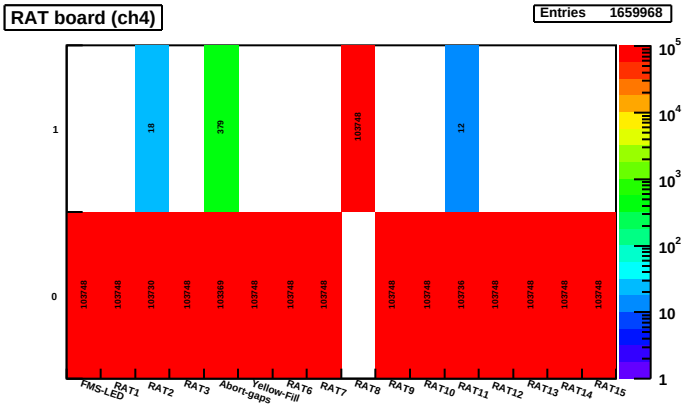

VT201 0-15 (ch1)
Entries 243521
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

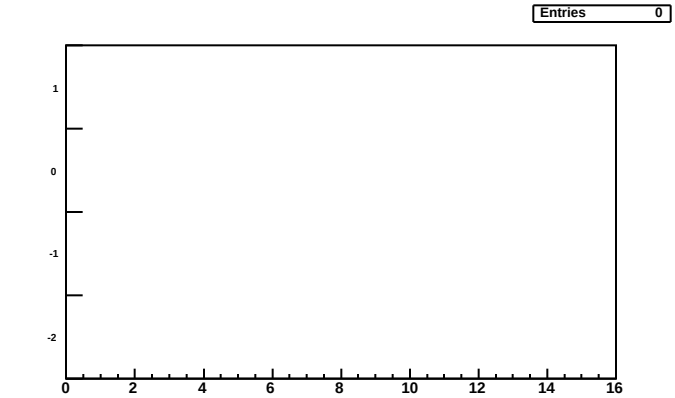

Unused (ch2)
Entries 1659968

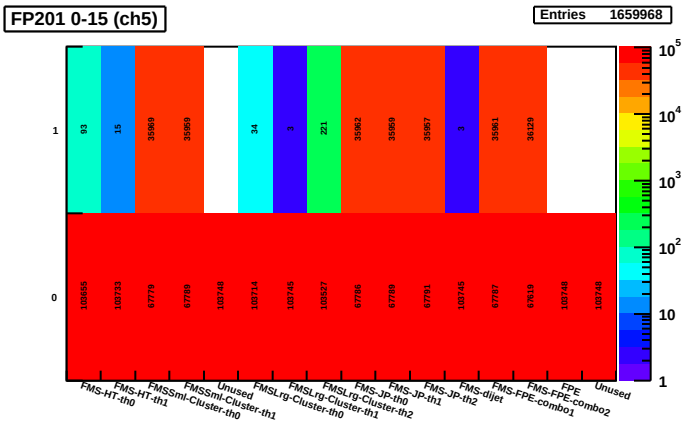

Entries 0

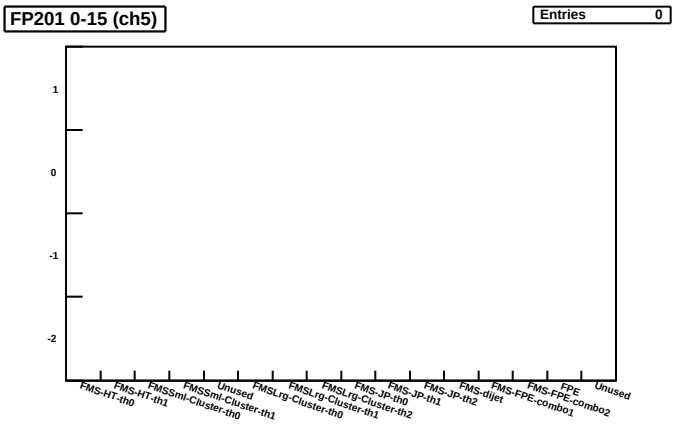

EM201 0-15 (ch3)
Entries 1659968
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

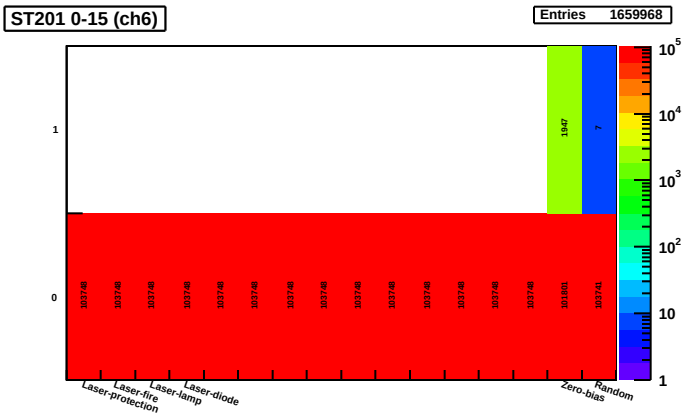

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

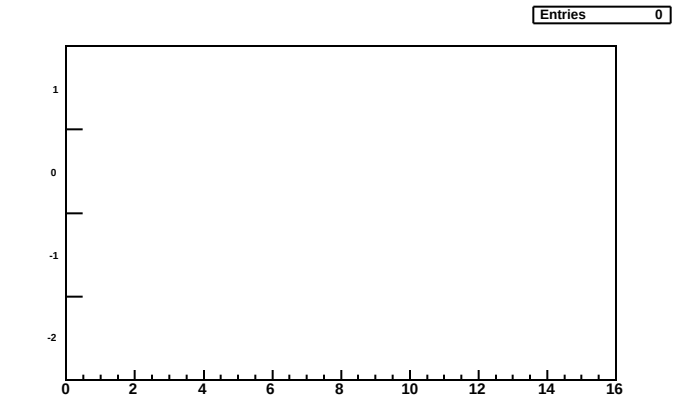

RAT board (ch4)
Entries 1659968
FMS-LED
RAT1
RAT2
RAT3
Abort-gaps
Yellow-Fill
RAT6
RAT7
RAT8
RAT9
RAT10
RAT11
RAT12
RAT13
RAT14
RAT15

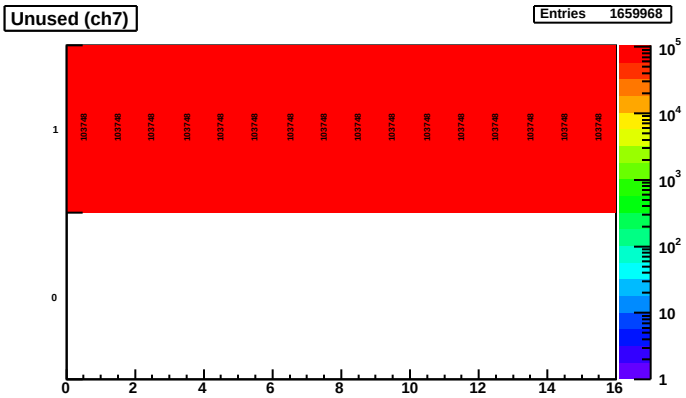

Entries 0

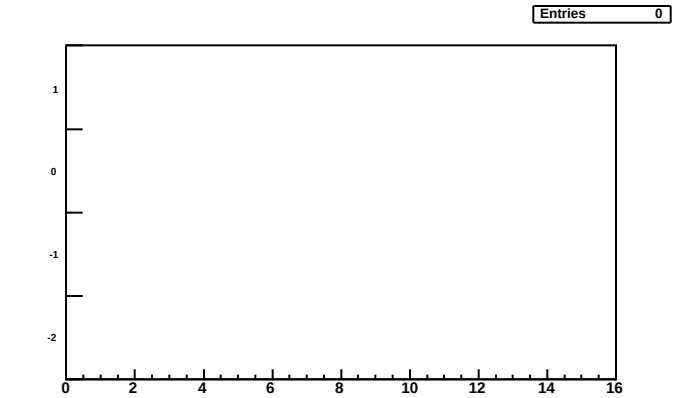

FP201 0-15 (ch5)
Entries 1659968
FMS-HT-th0
FMS-HT-th1
FMSSml-Cluster-th0
FMSSml-Cluster-th1
Unused
FMSLrg-Cluster-th0
FMSLrg-Cluster-th1
FMSLrg-Cluster-th2
FMS-JP-th0
FMS-JP-th1
FMS-JP-th2
FMS-diijet
FMS-FPE-combo1
FPE
FMS-FPE-combo2
Unused


FP201 0-15 (ch5)
Entries 0


ST201 0-15 (ch6)
Entries 1659968
Laser-protection
Laser-fire
Laser-lamp
Laser-diode
Zero-bias
Random


Entries 0


Unused (ch7)
Entries 1659968


Entries 0