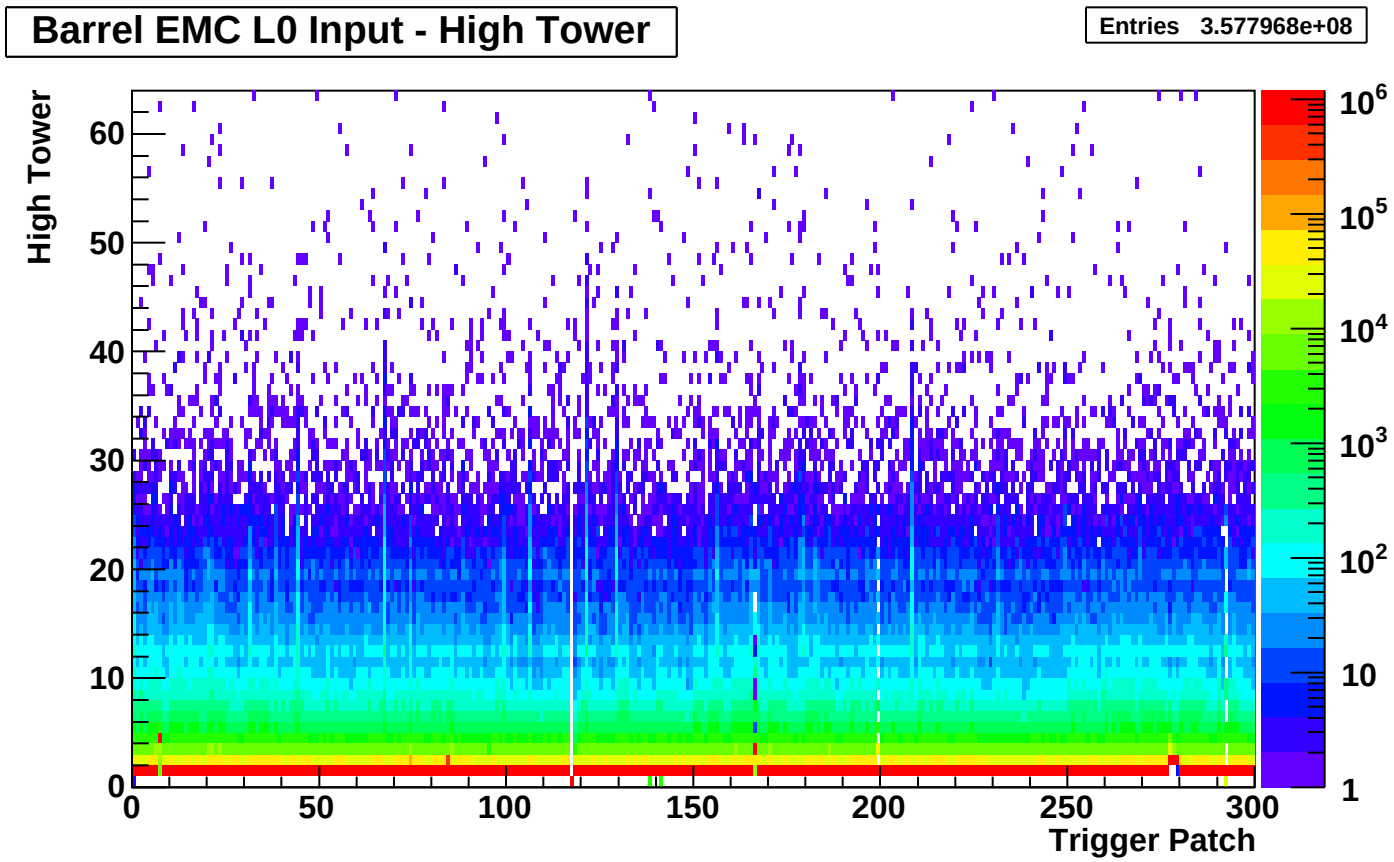
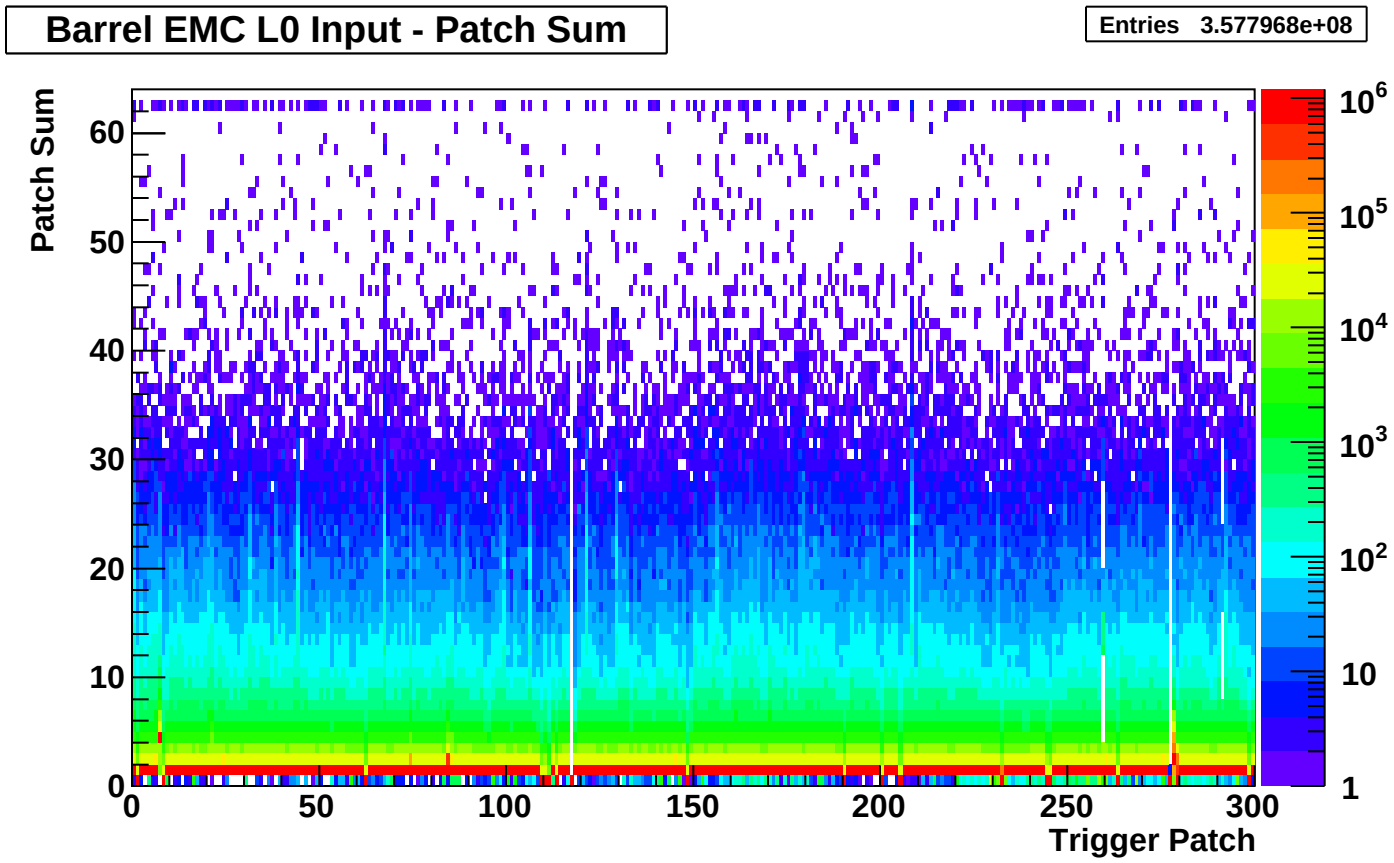
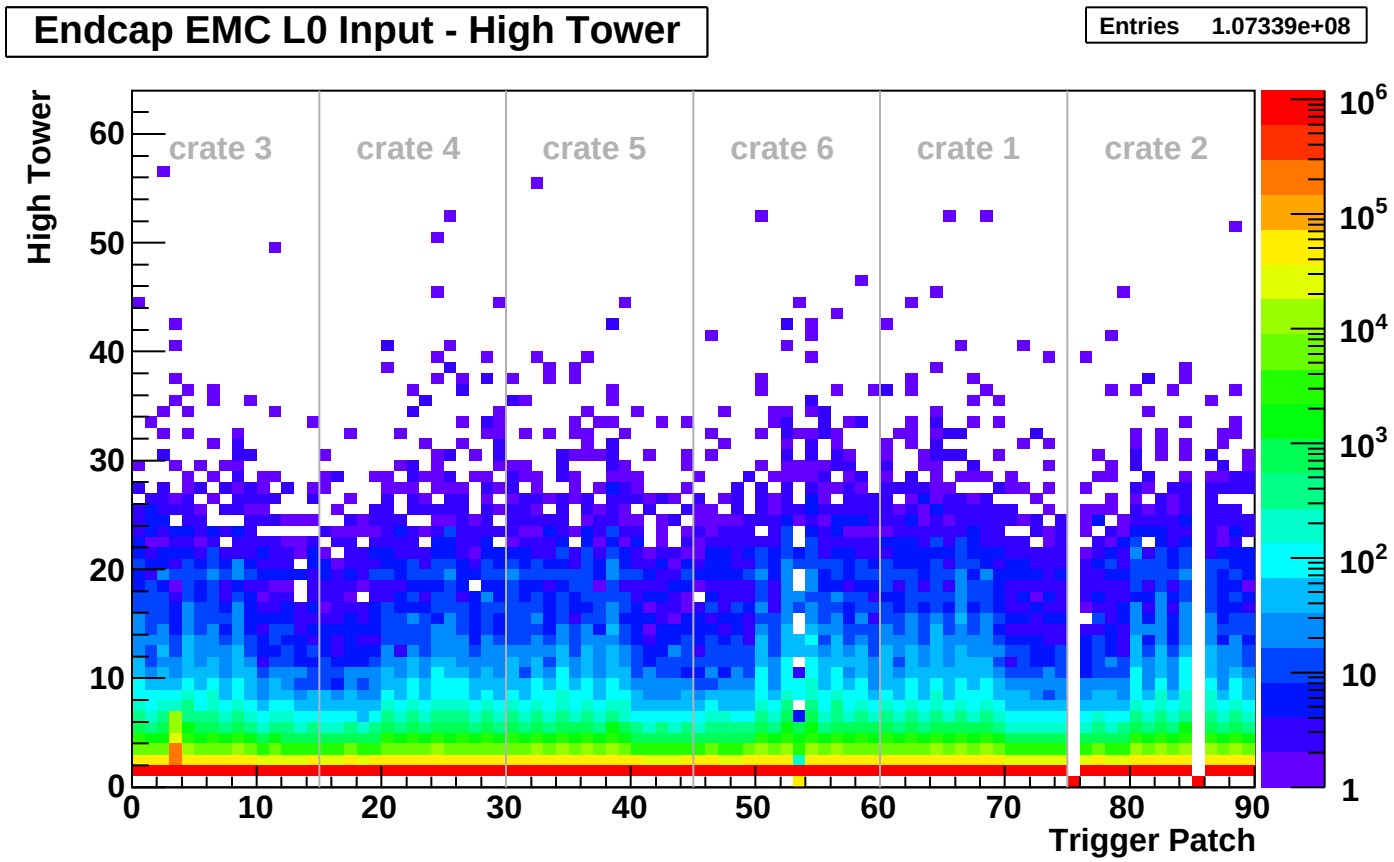
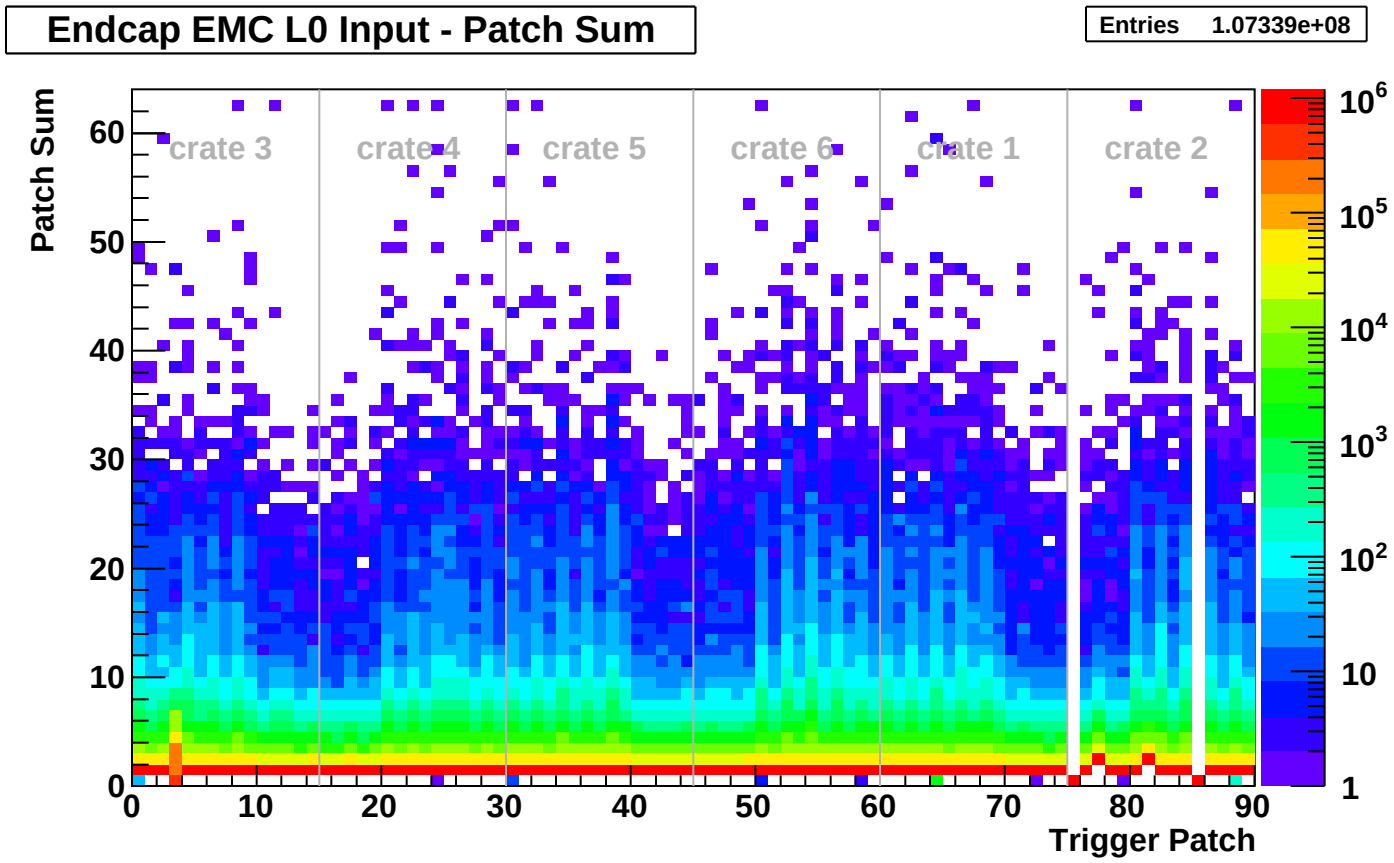
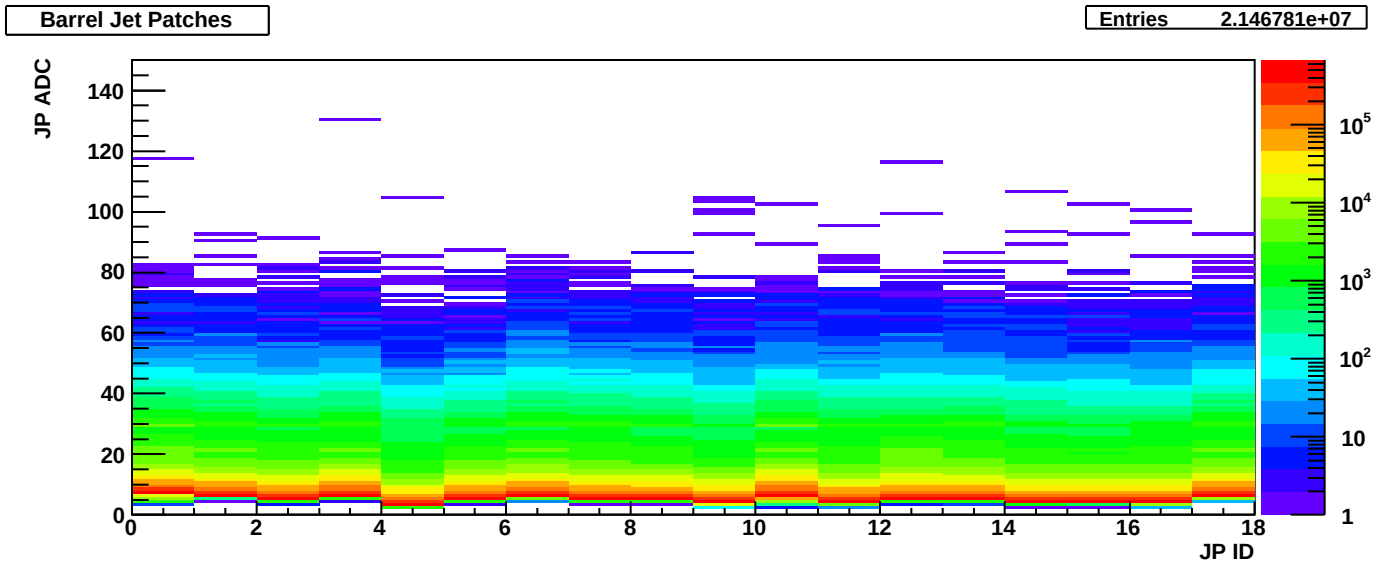
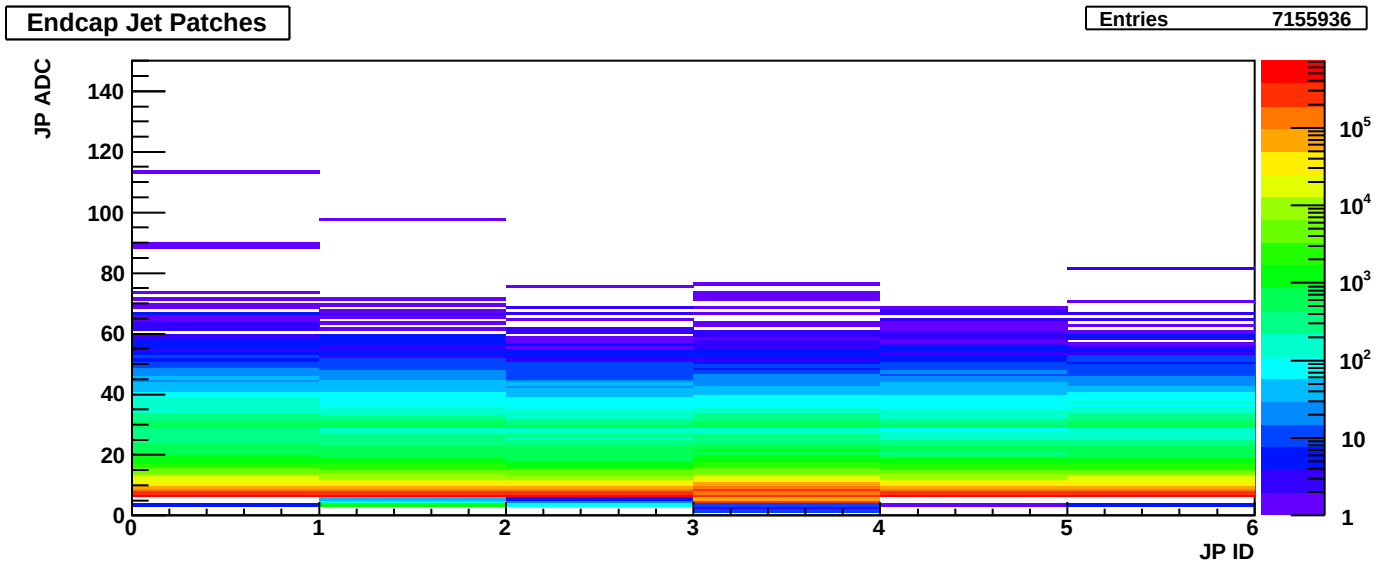

Barrel EMC L0 Input - High Tower
Entries 3.577968e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

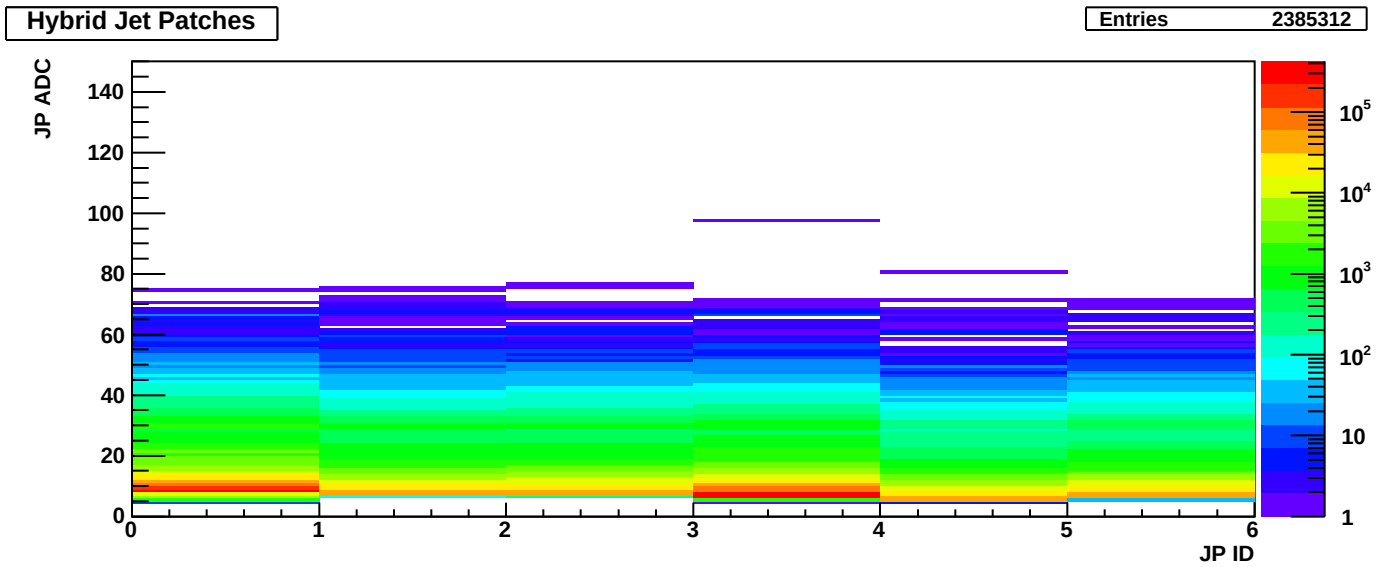

Barrel EMC L0 Input - Patch Sum
Entries 3.577968e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

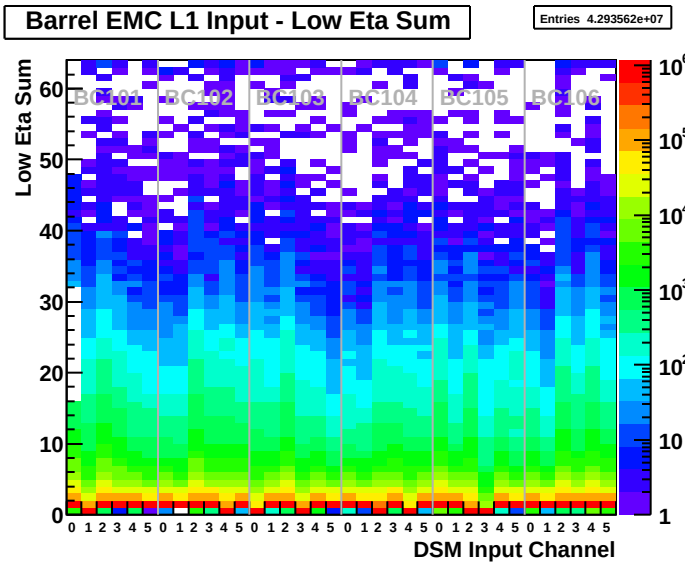

Endcap EMC L0 Input - High Tower
Entries 1.07339e+08
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

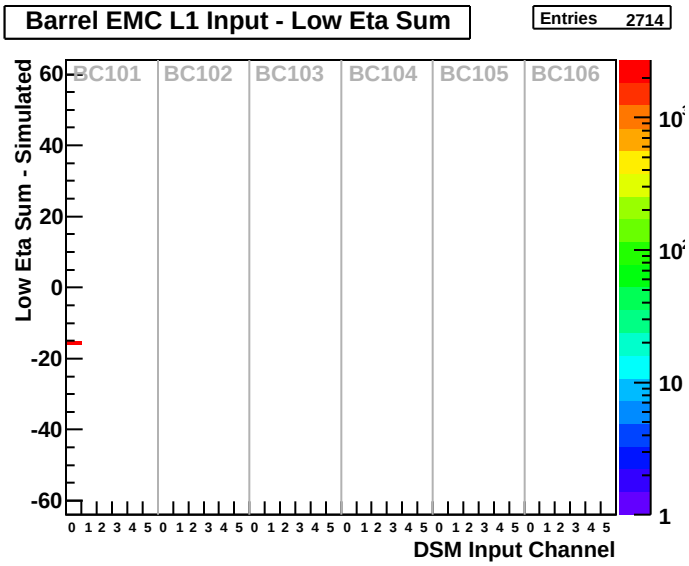

Endcap EMC L0 Input - Patch Sum
Entries 1.07339e+08
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

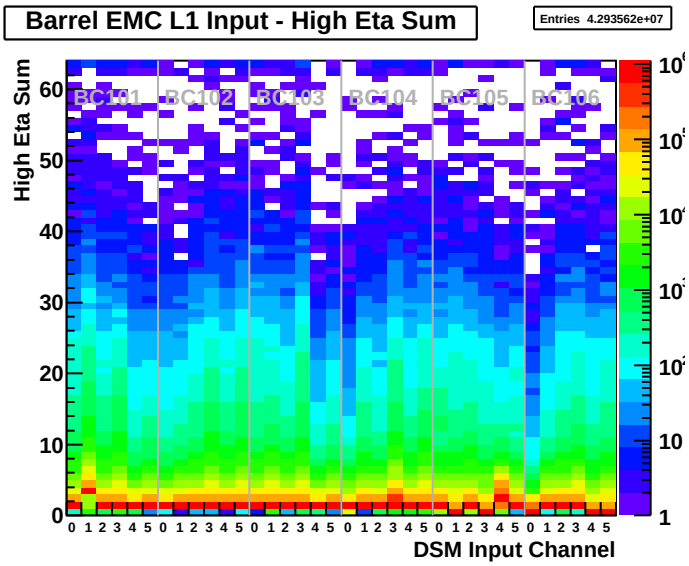

Barrel Jet Patches
Entries 2.146781e+07
JP ADC
JP ID

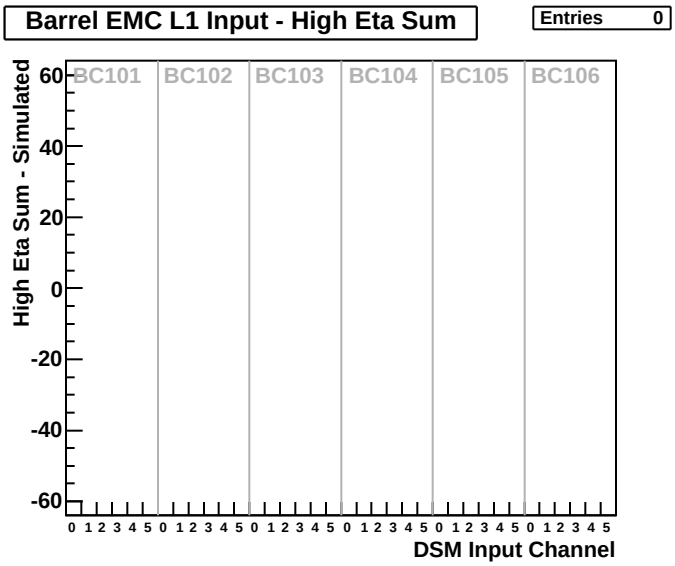

Endcap Jet Patches
Entries 7155936
JP ADC
JP ID

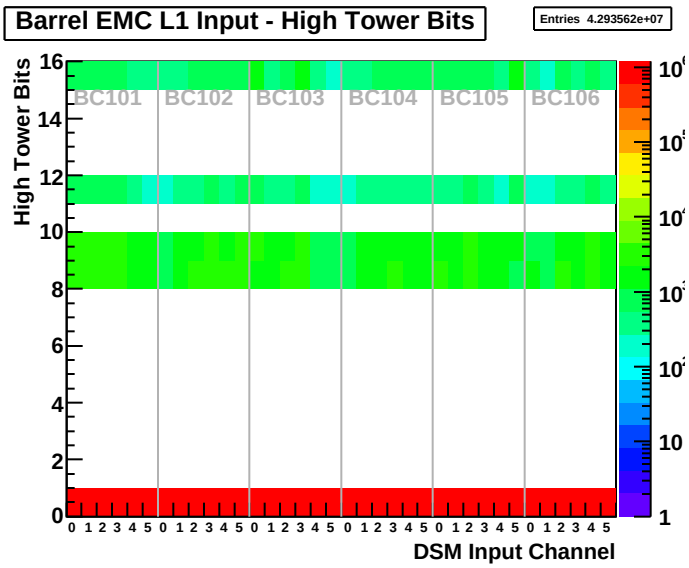

Hybrid Jet Patches
Entries 2385312
JP ADC
JP ID

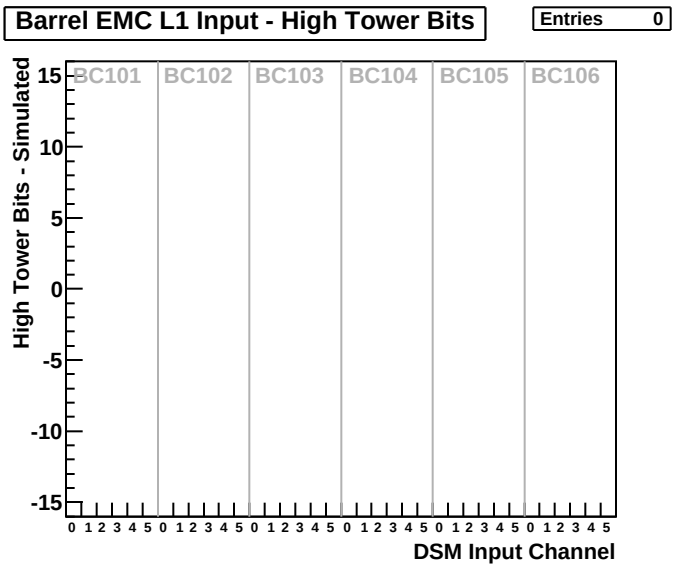

Barrel EMC L1 Input - Low Eta Sum
Entries 4.293562e+07
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

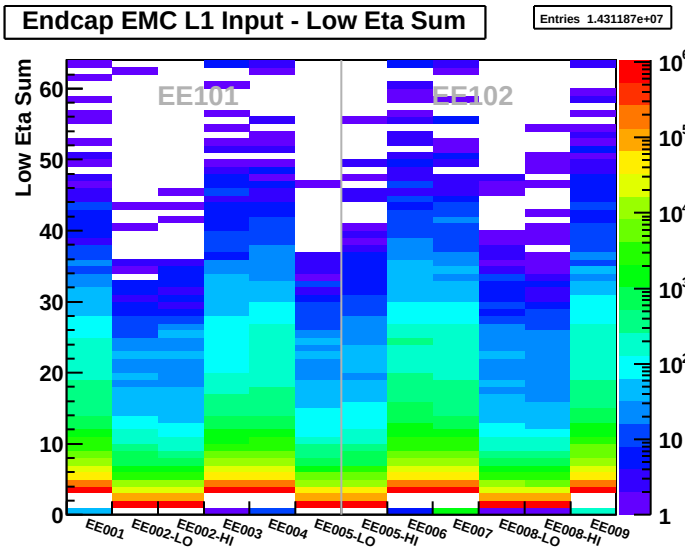

Barrel EMC L1 Input - Low Eta Sum
Entries 2714
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

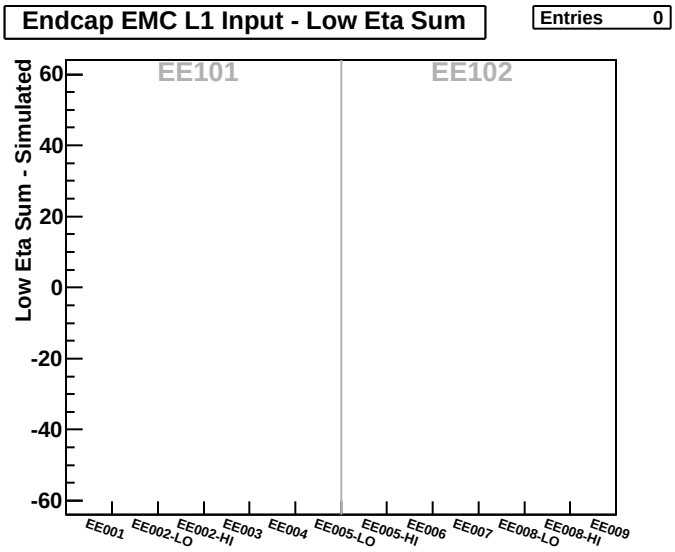

Barrel EMC L1 Input - High Eta Sum
Entries 4.293562e+07
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

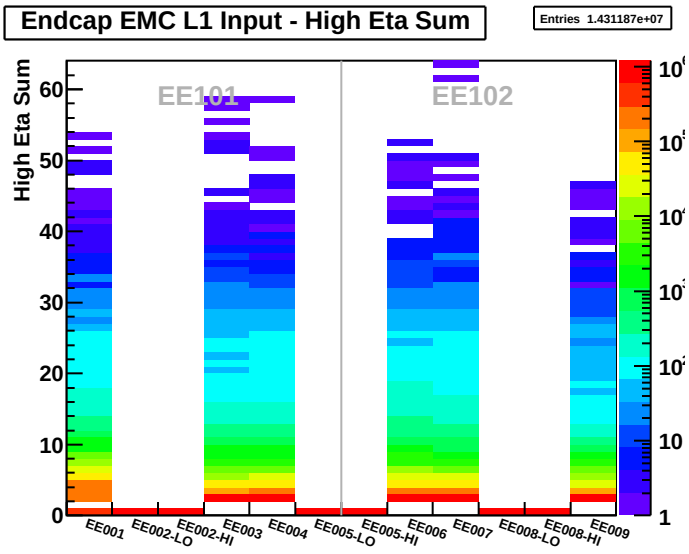

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

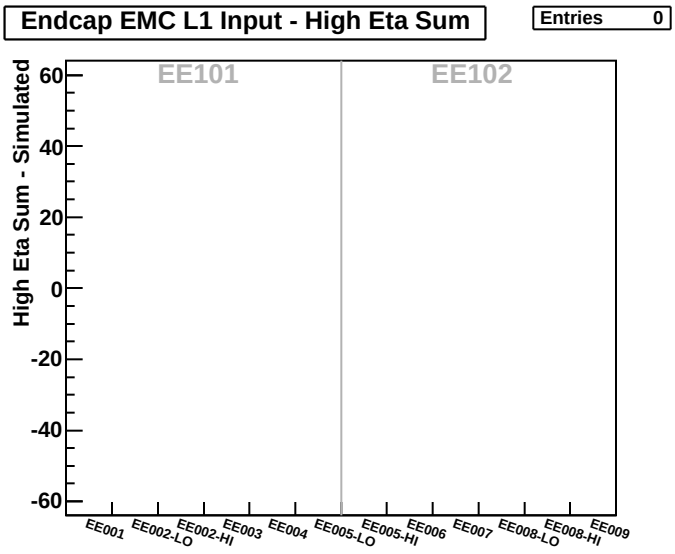

Barrel EMC L1 Input - High Tower Bits
Entries 4.293562e+07
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

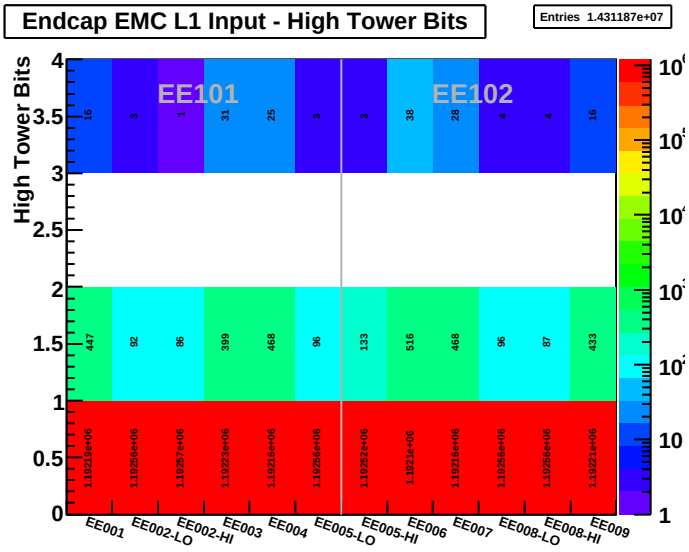

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

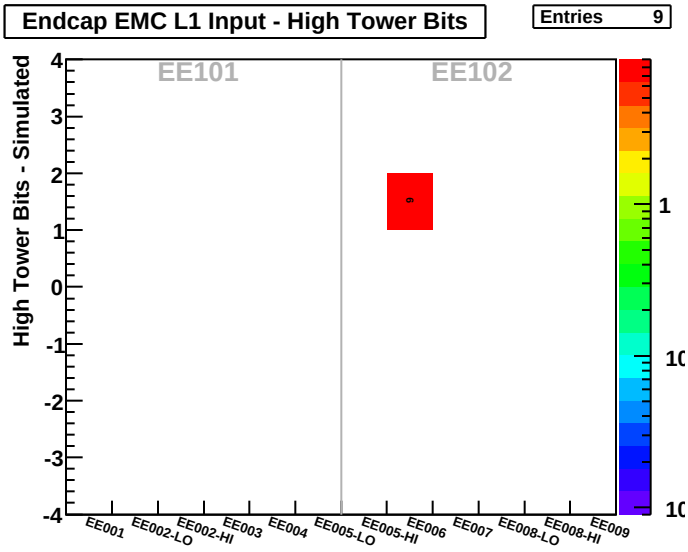

Endcap EMC L1 Input - Low Eta Sum
Entries 1.431187e+07
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

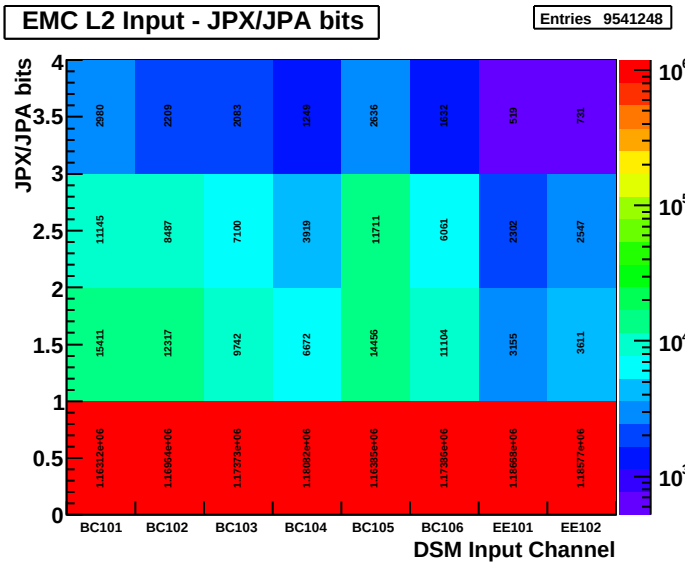

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

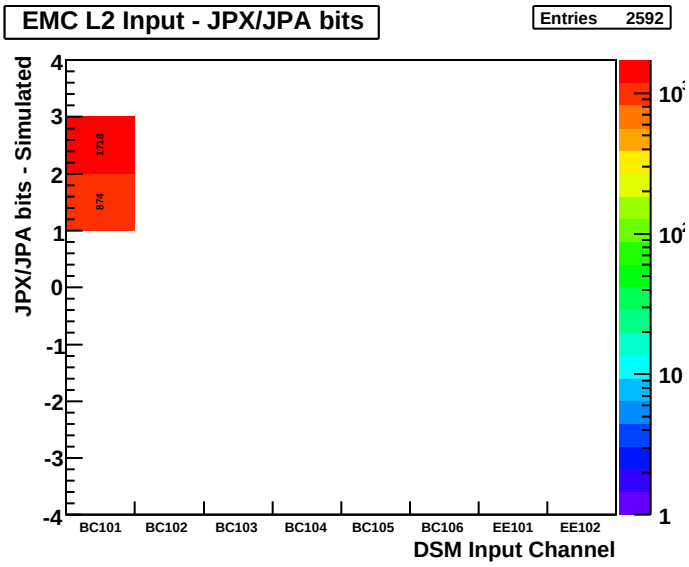

Endcap EMC L1 Input - High Eta Sum
Entries 1.431187e+07
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

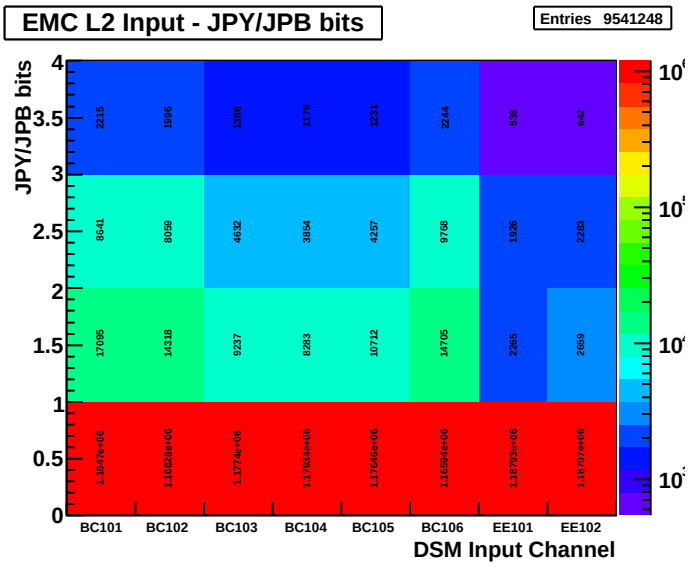

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

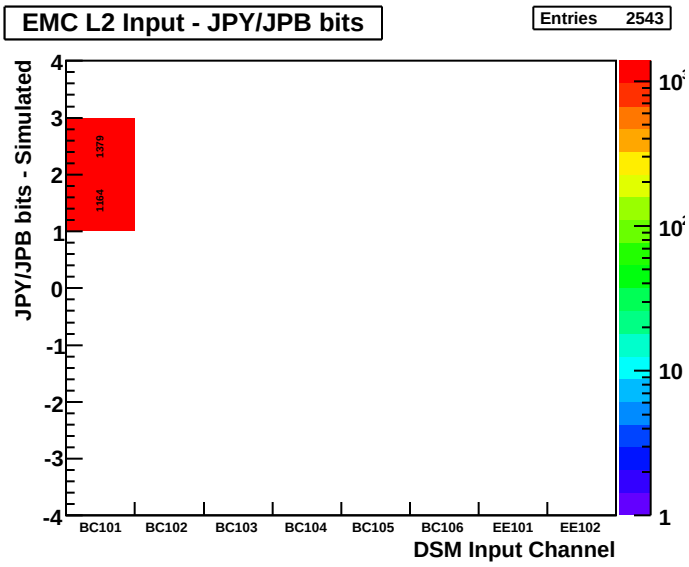

Endcap EMC L1 Input - High Tower Bits
Entries 1.431187e+07
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

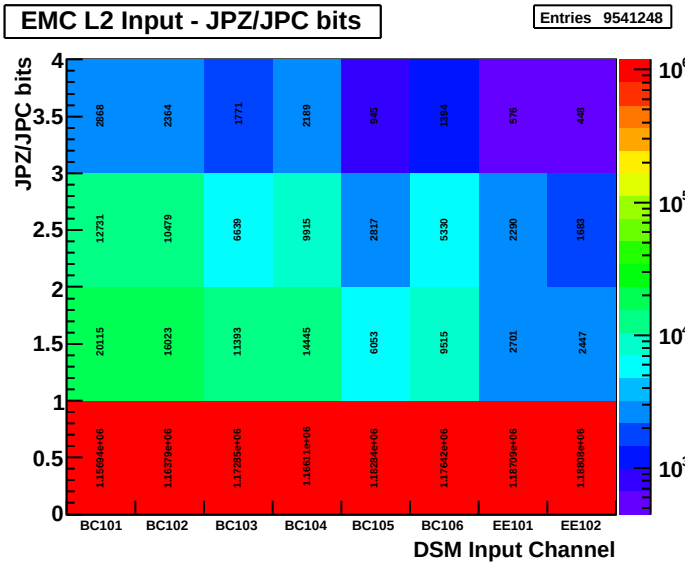

Endcap EMC L1 Input - High Tower Bits
Entries 9
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

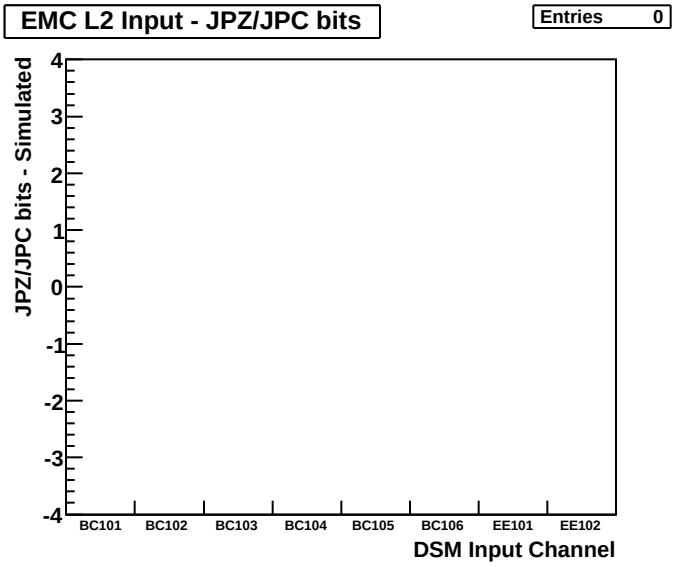

EMC L2 Input - JPX/JPA bits
Entries 9541248
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
2980 2209 2083 1249 2636 1632 519 731
11145 8487 7100 3919 11711 6061 2302 2547
15411 12317 9742 6672 14456 11104 3155 3611
1.16312e+06 1.16934e+06 1.17373e+06 1.18082e+06 1.16385e+06 1.17386e+06 1.18668e+06 1.18577e+06

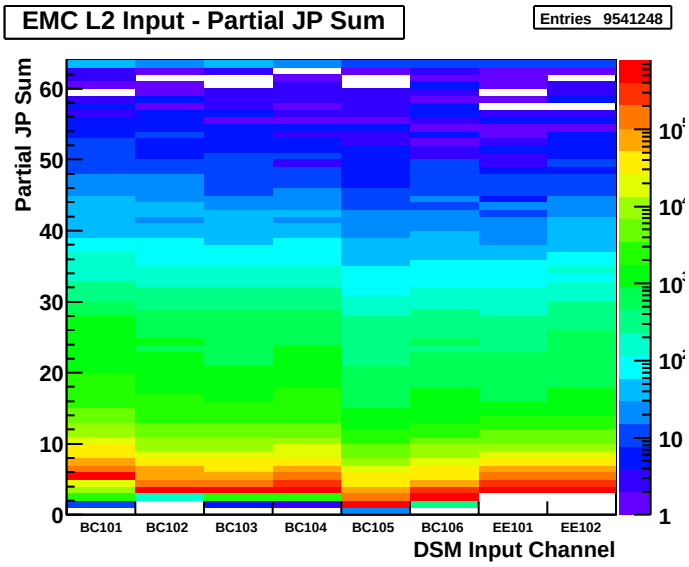

EMC L2 Input - JPX/JPA bits
Entries 2592
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1718
874

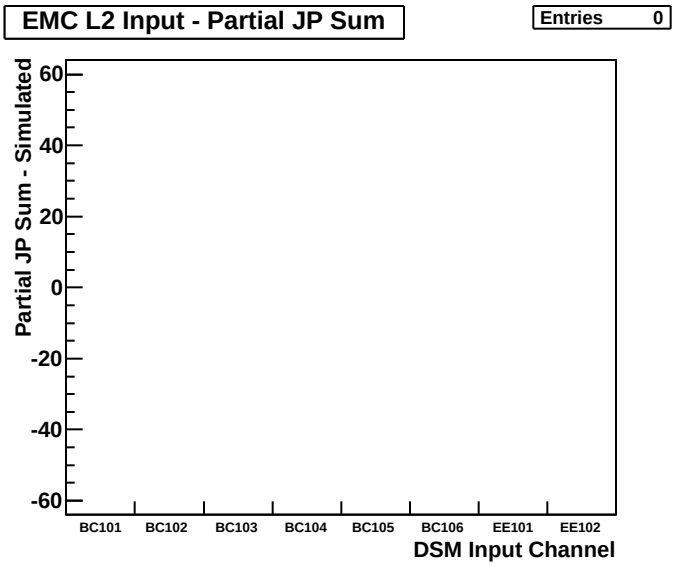

EMC L2 Input - JPY/JPB bits
Entries 9541248
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
2215 1996 1386 1179 1231 2244 538 642
8641 8059 4632 3854 4257 9768 1926 2283
17095 14318 9237 8283 10712 14705 2265 2659
1.16472e+06 1.16828e+06 1.17744e+06 1.17934e+06 1.17646e+06 1.16594e+06 1.18793e+06 1.18707e+06

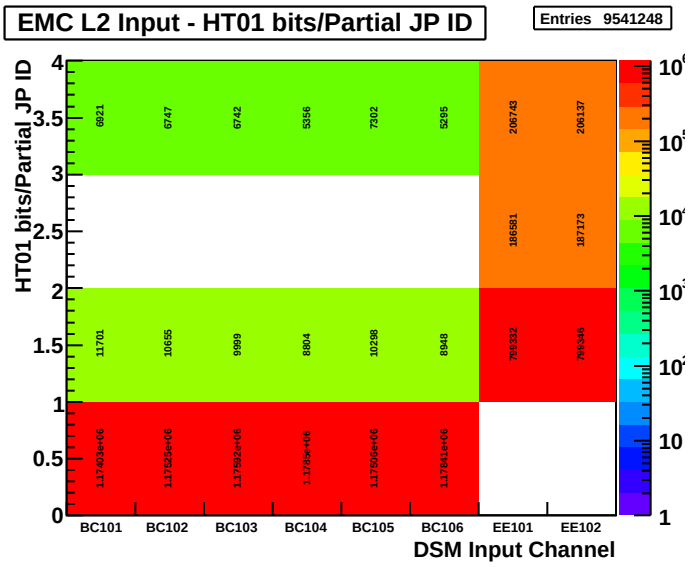

EMC L2 Input - JPY/JPB bits
Entries 2543
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1379
1164

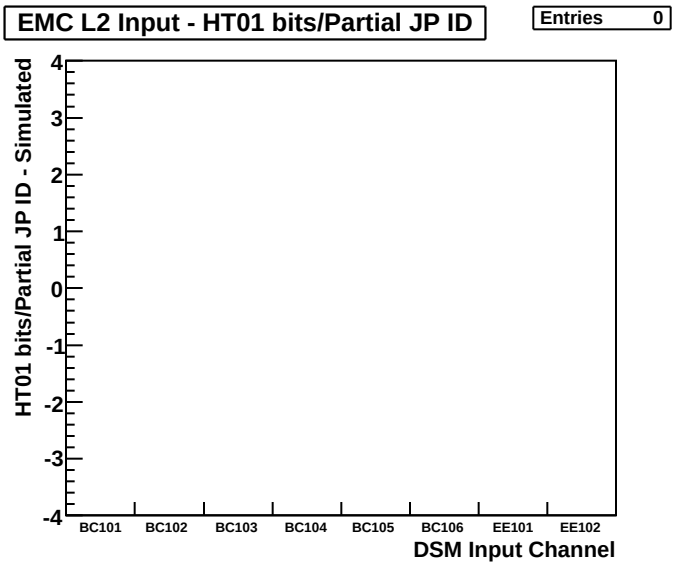

EMC L2 Input - JPZ/JPC bits
Entries 9541248
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
2868 2364 1771 2189 945 1394 576 448
12731 10479 6639 9915 2817 5330 2290 1683
20115 16023 11393 14445 6053 9515 2701 2447
1.15694e+06 1.16379e+06 1.17285e+06 1.16611e+06 1.18284e+06 1.17642e+06 1.18709e+06 1.18808e+06

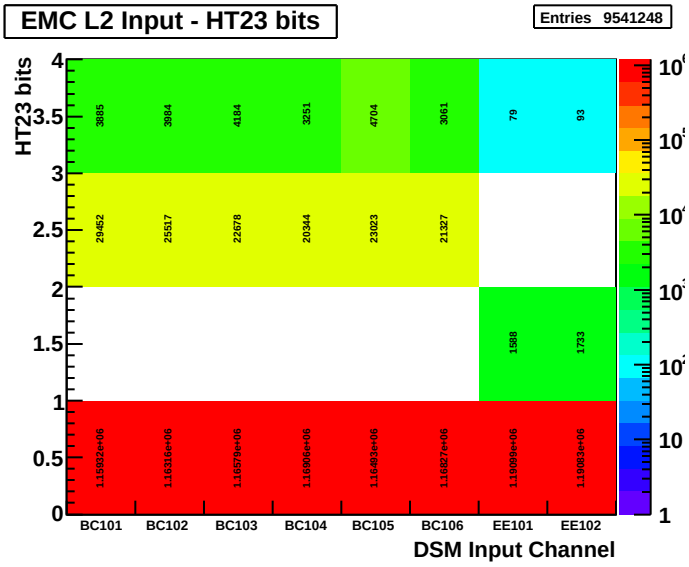

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

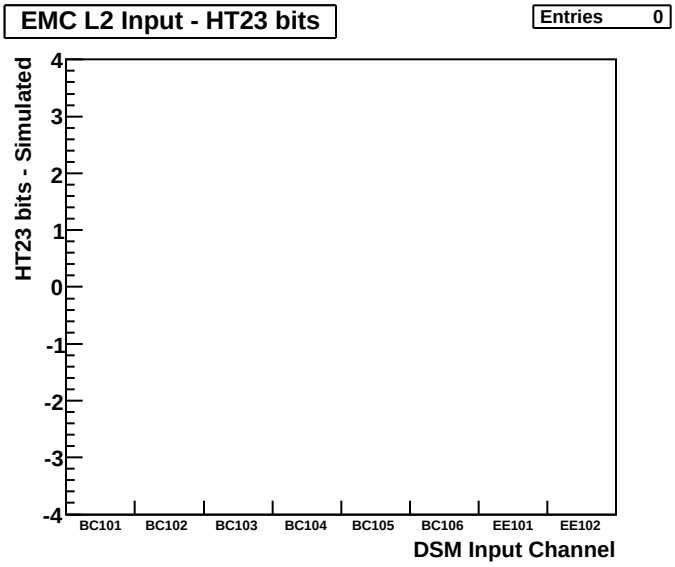

EMC L2 Input - Partial JP Sum
Entries 9541248
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

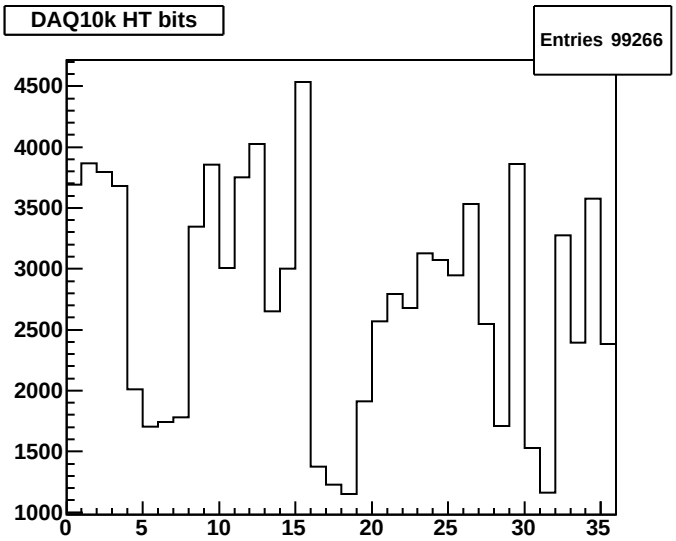

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

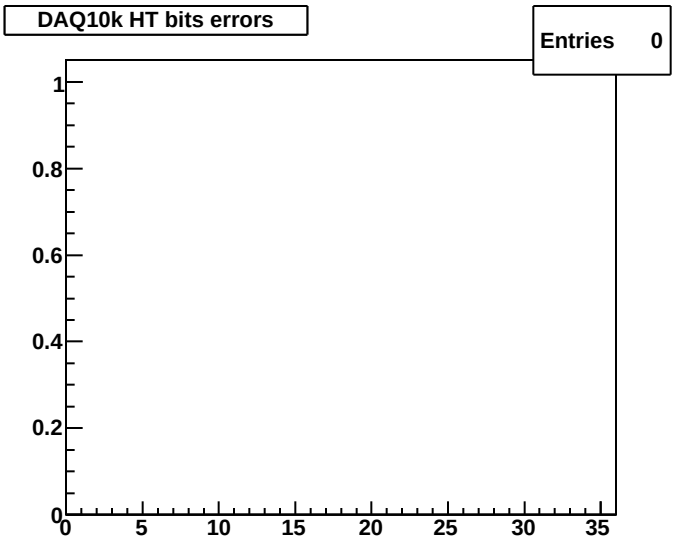

EMC L2 Input - HT01 bits/Partial JP ID
Entries 9541248
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

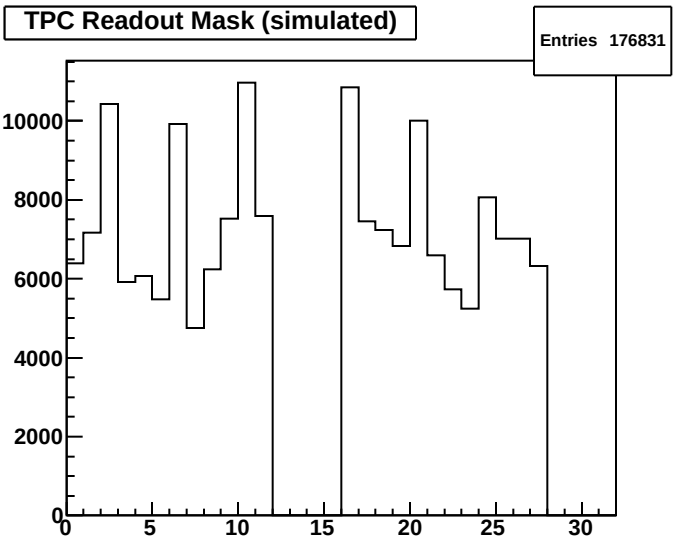

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

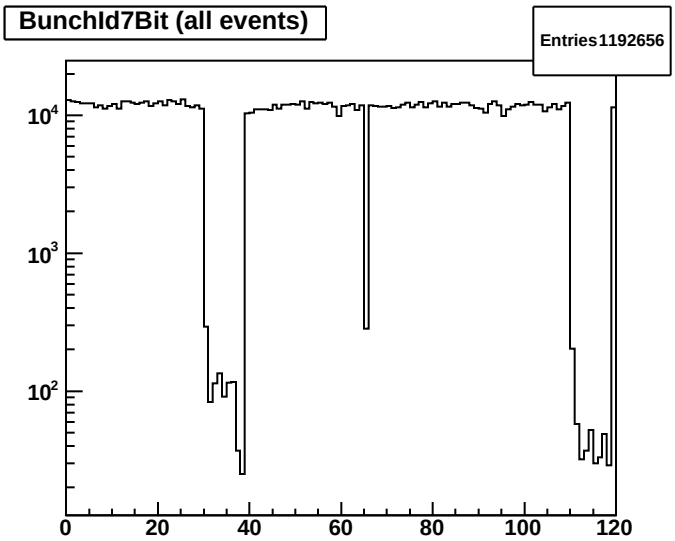

EMC L2 Input - HT23 bits
Entries 9541248
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

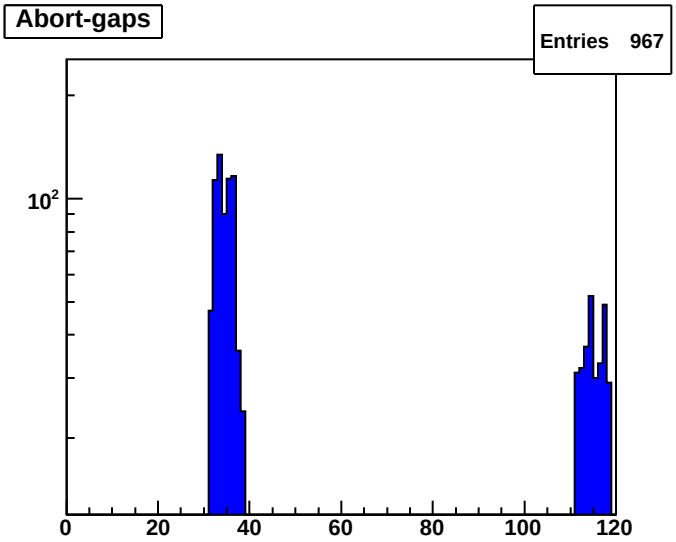

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

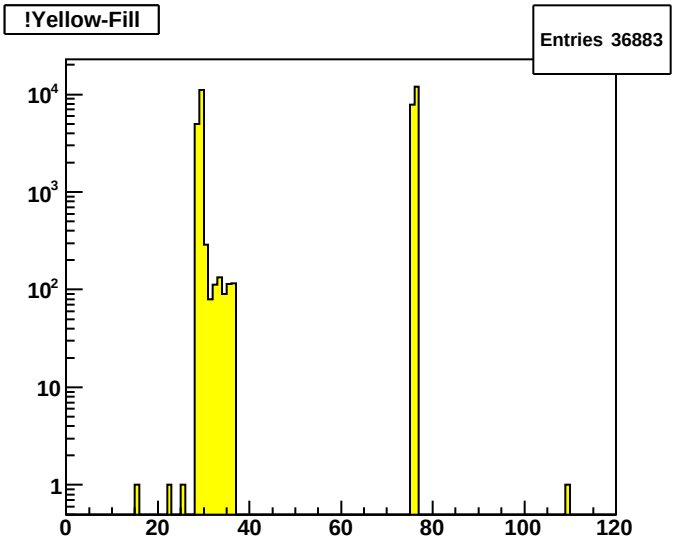

DAQ10k HT bits
Entries 99266
4500
4000
3500
3000
2500
2000
1500
1000
0
5
10
15
20
25
30
35

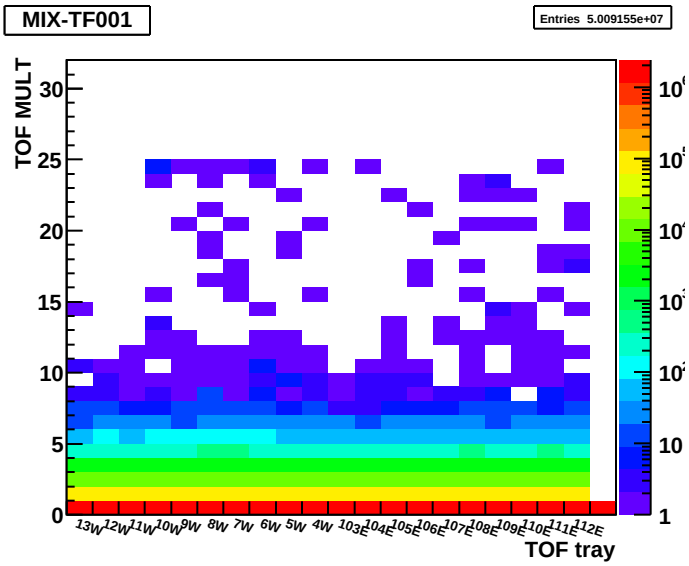

DAQ10k HT bits errors
Entries 0
1
0.8
0.6
0.4
0.2
0
0
5
10
15
20
25
30
35

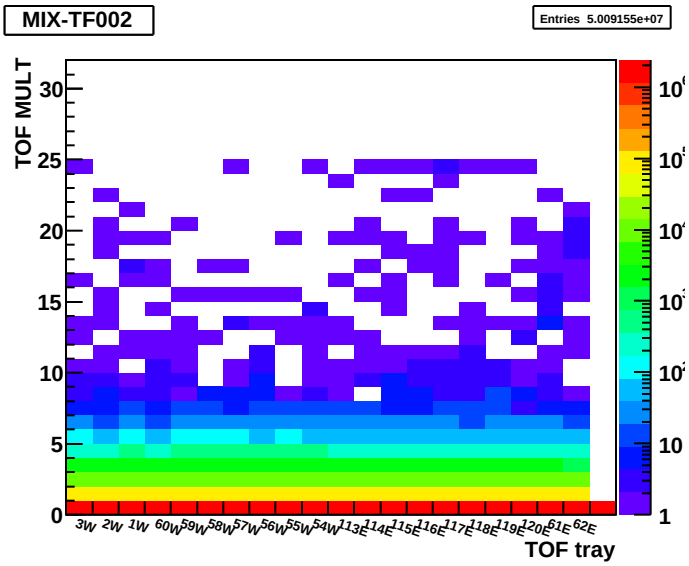

TPC Readout Mask (simulated)
Entries 176831
10000
8000
6000
4000
2000
0
0
5
10
15
20
25
30

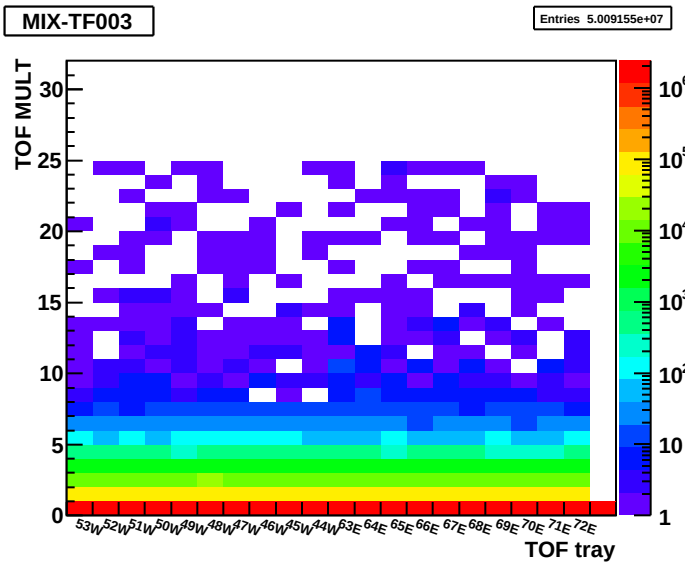

BunchId7Bit (all events)
Entries 1192656
10^4
10^3
10^2
0
20
40
60
80
100
120

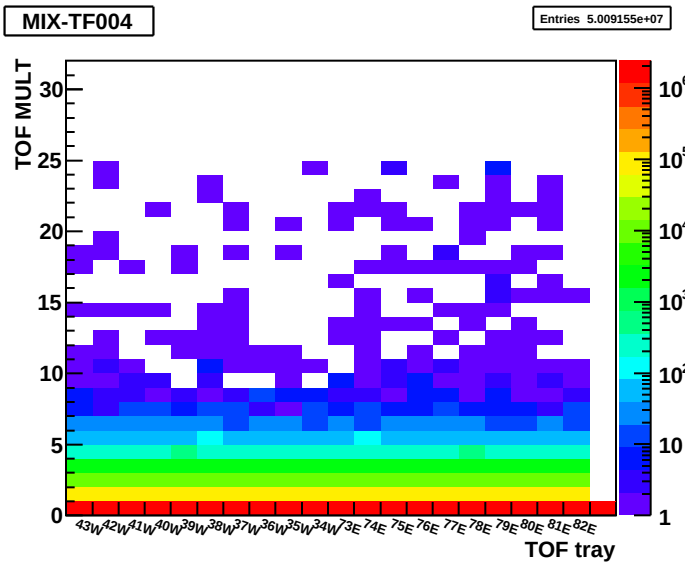

Abort-gaps
Entries 967
10^2
0
20
40
60
80
100
120

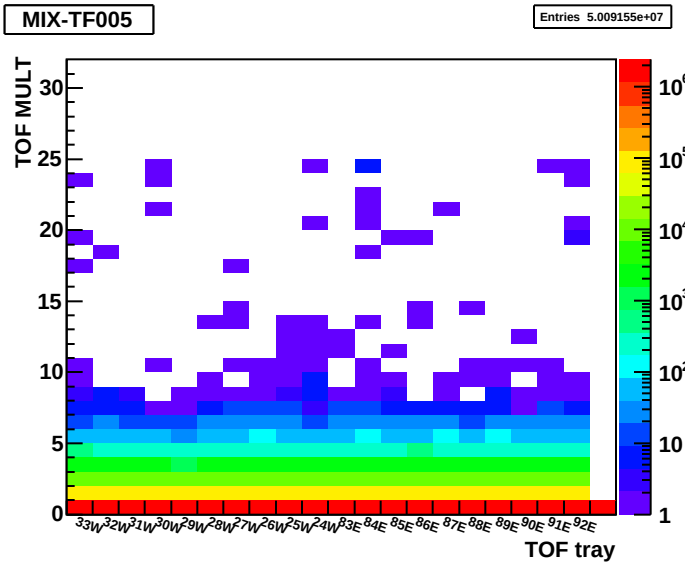

!Yellow-Fill
Entries 36883
10^4
10^3
10^2
10
1
0
20
40
60
80
100
120

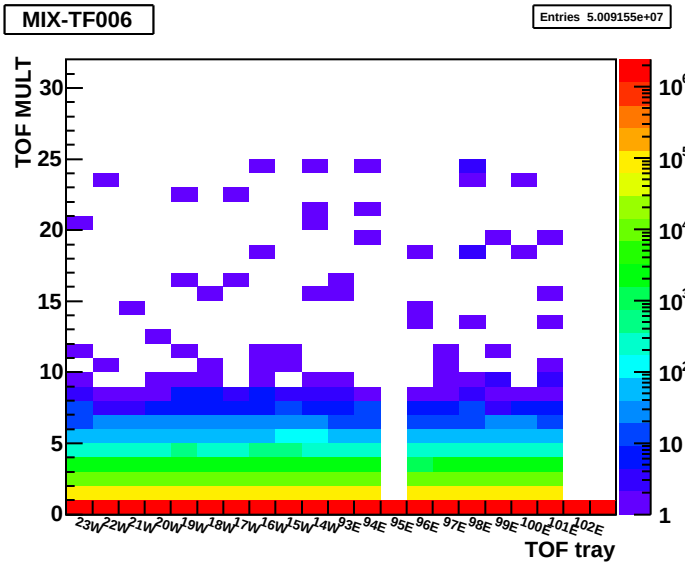

MIX-TF001
Entries 5.009155e+07
TOF MULT
TOF tray

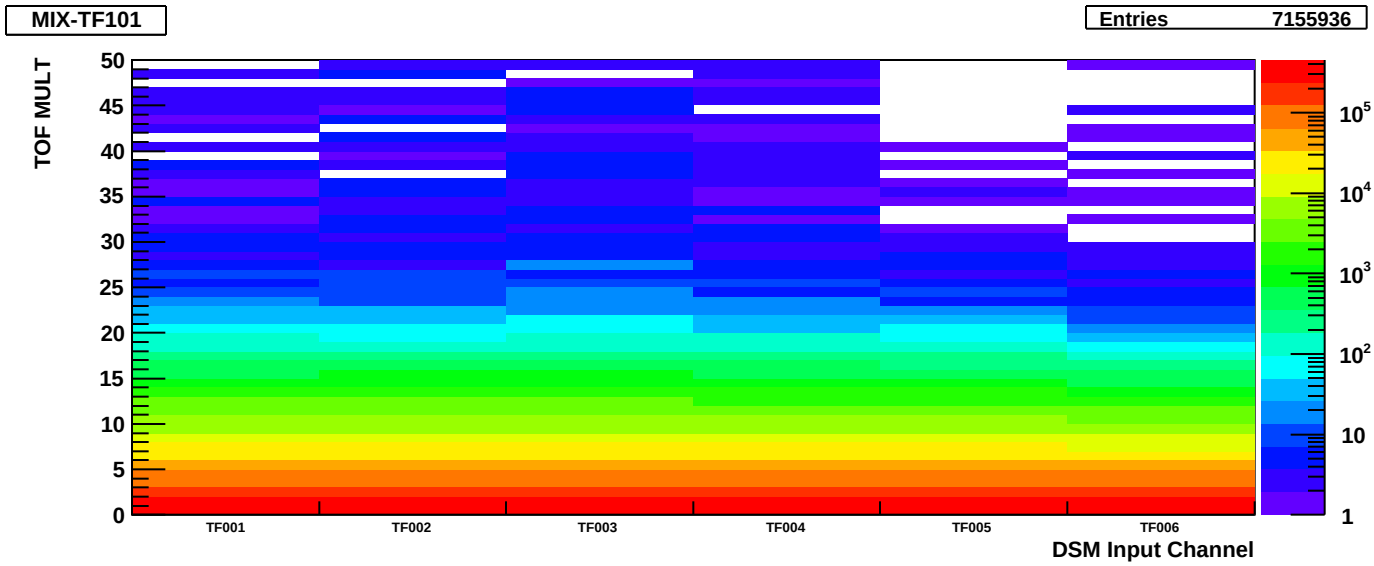

MIX-TF002
Entries 5.009155e+07
TOF MULT
TOF tray

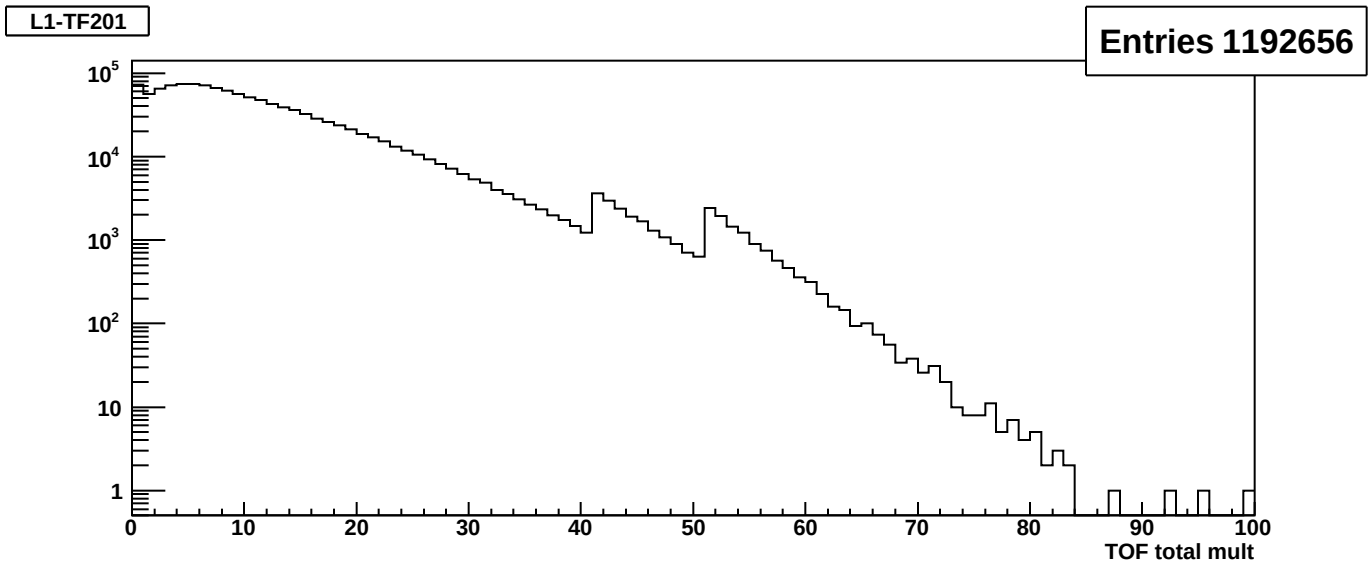

MIX-TF003
Entries 5.009155e+07
TOF MULT
TOF tray

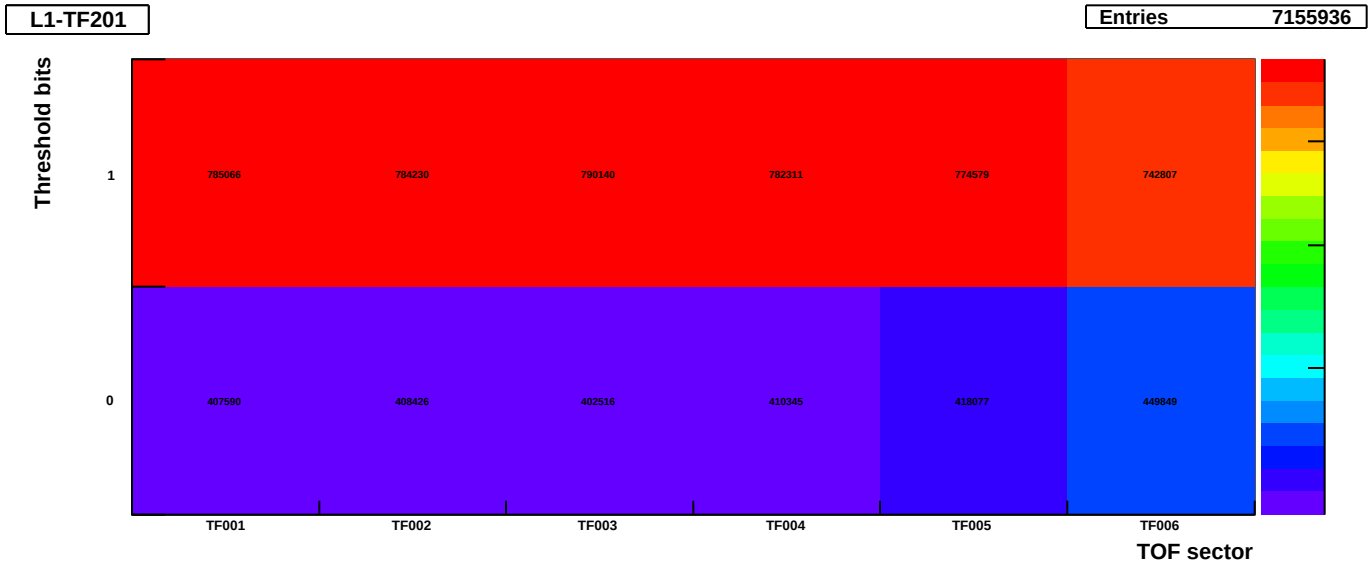

MIX-TF004
Entries 5.009155e+07
TOF MULT
TOF tray

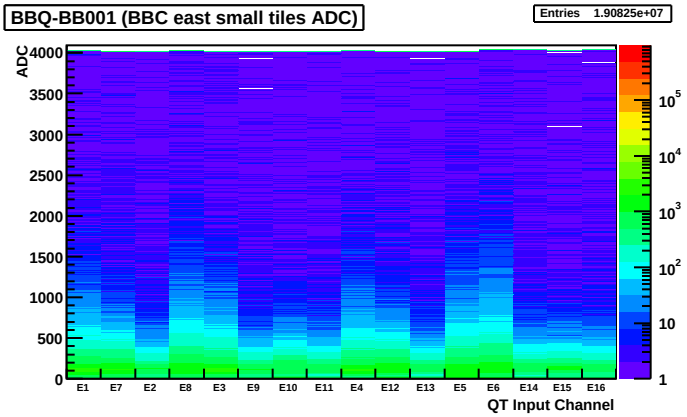

MIX-TF005
Entries 5.009155e+07
TOF MULT
TOF tray

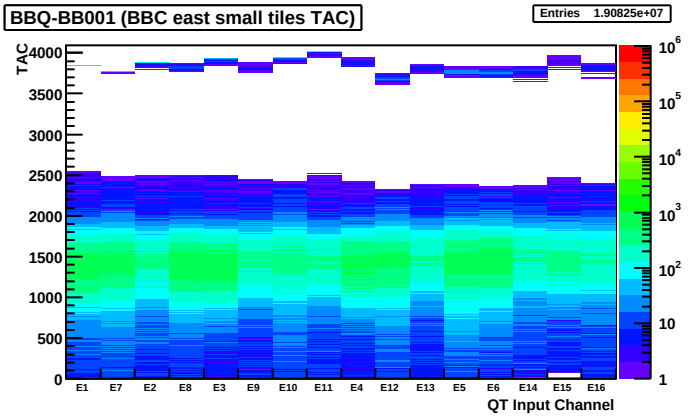

MIX-TF006
Entries 5.009155e+07
TOF MULT
TOF tray

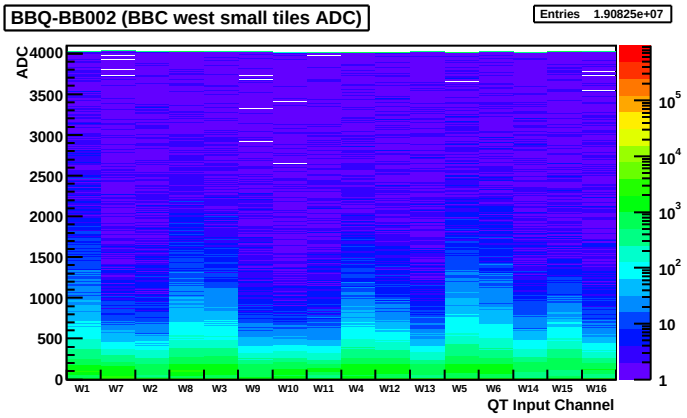

MIX-TF101
Entries 7155936
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

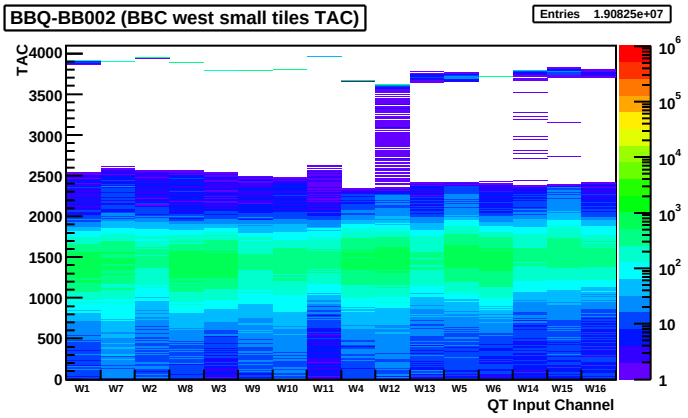

L1-TF201
Entries 1192656
TOF total mult

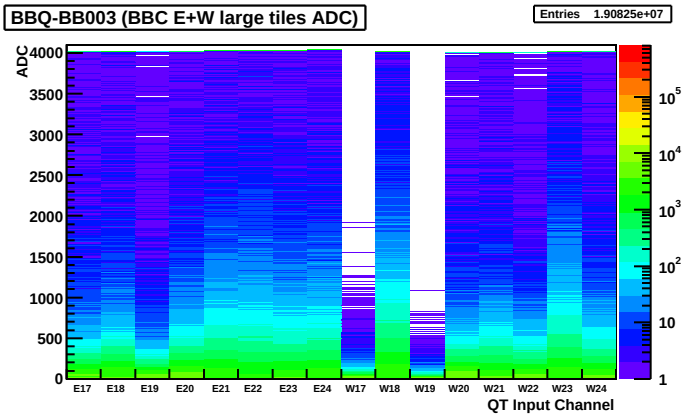

L1-TF201
Entries 7155936
Threshold bits
785066
784230
790140
782311
774579
742807
407590
408426
402516
410345
418077
449849
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

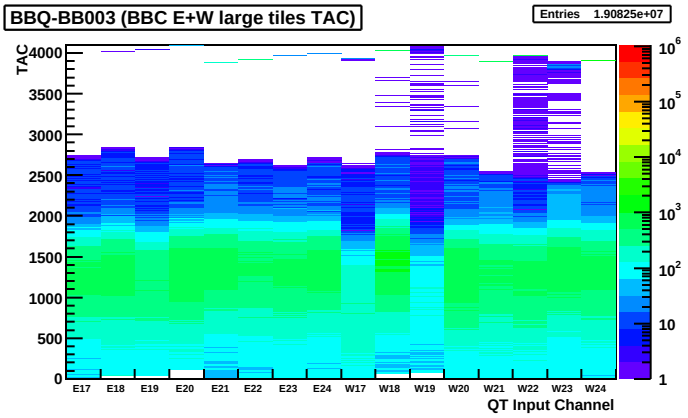

BBQ-BB001 (BBC east small tiles ADC)
Entries 1.90825e+07
ADC
QT Input Channel

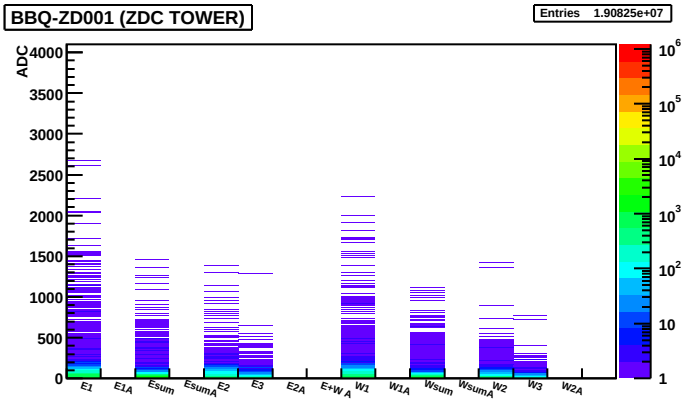

BBQ-BB001 (BBC east small tiles TAC)
Entries 1.90825e+07
TAC
QT Input Channel

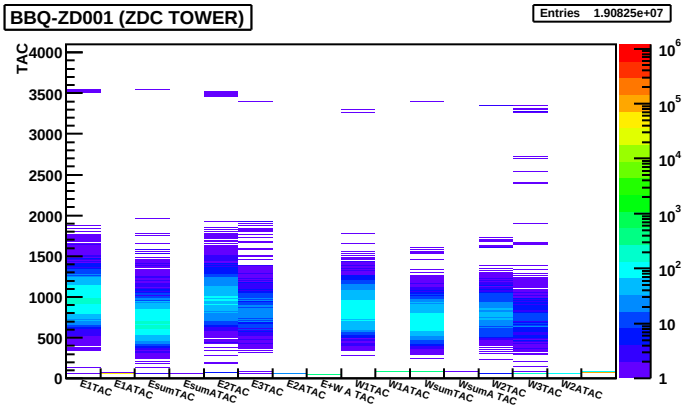

BBQ-BB002 (BBC west small tiles ADC)
Entries 1.90825e+07
ADC
QT Input Channel

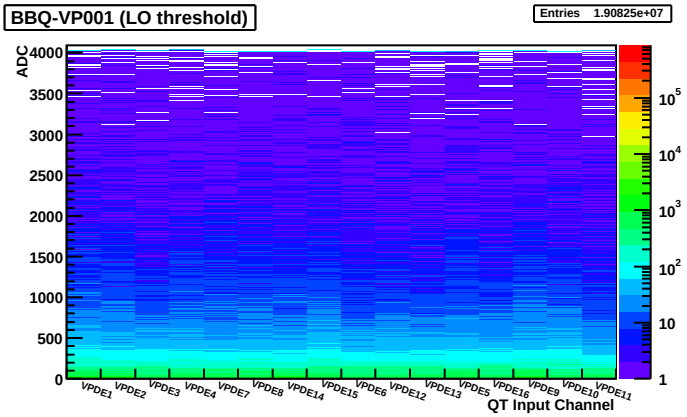

BBQ-BB002 (BBC west small tiles TAC)
Entries 1.90825e+07
TAC
QT Input Channel

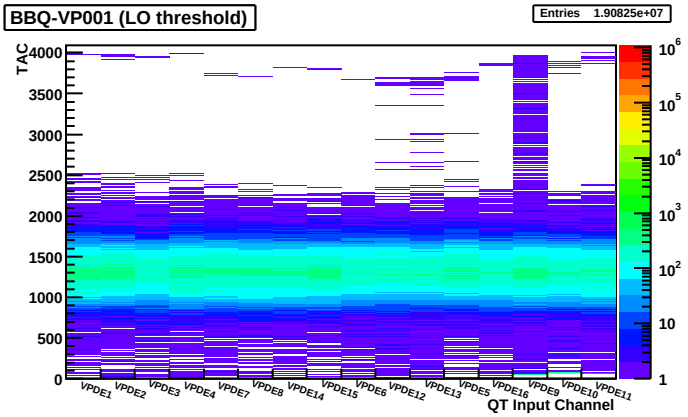

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1.90825e+07
ADC
QT Input Channel

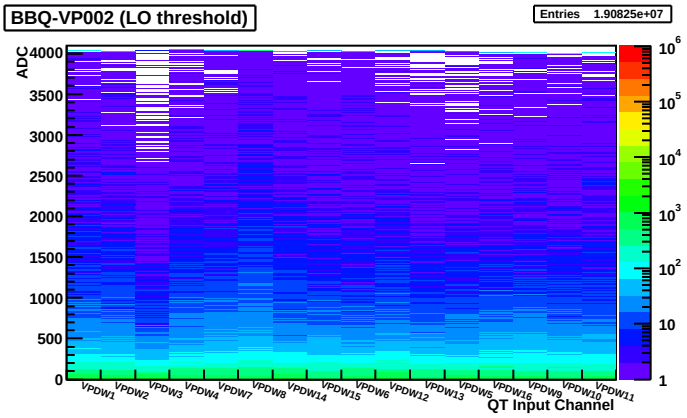

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1.90825e+07
TAC
QT Input Channel

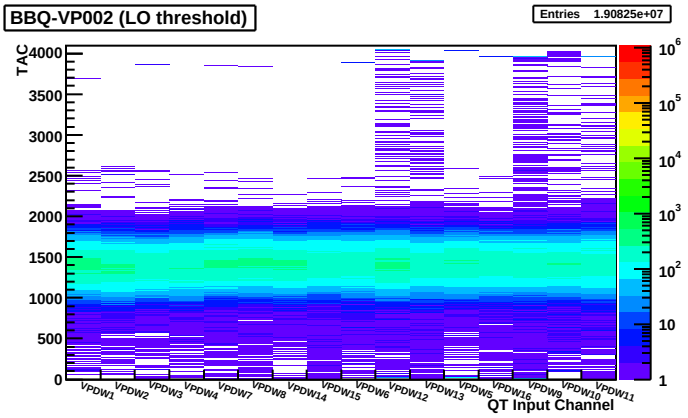

BBQ-ZD001 (ZDC TOWER)
Entries 1.90825e+07
ADC

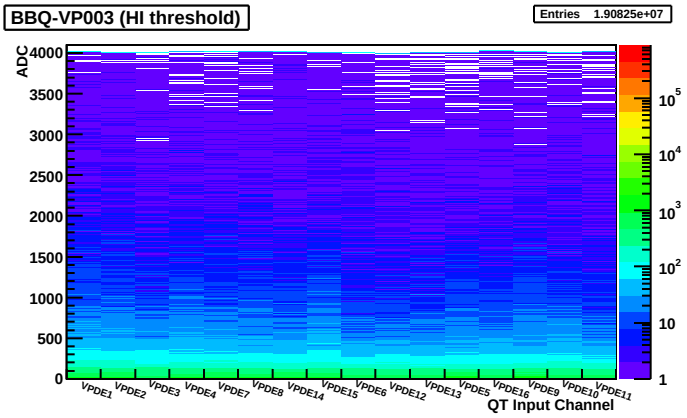

BBQ-ZD001 (ZDC TOWER)
Entries 1.90825e+07
TAC

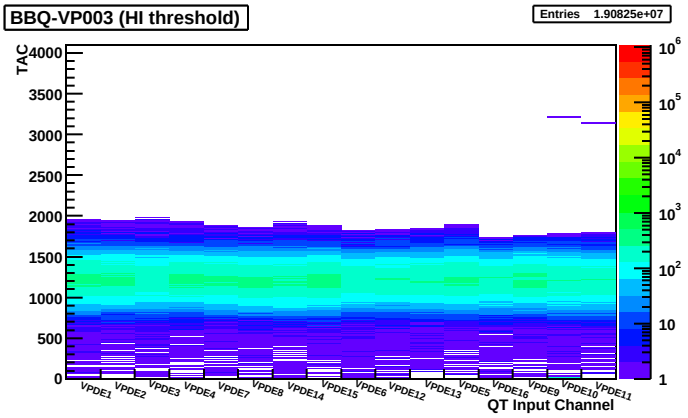

BBQ-VP001 (LO threshold)
Entries 1.90825e+07
ADC
QT Input Channel

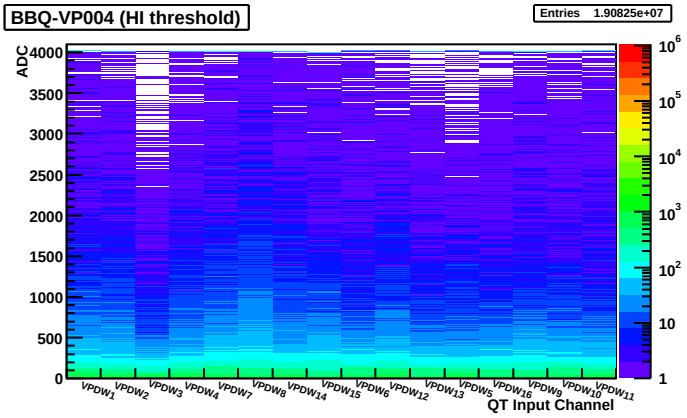

BBQ-VP001 (LO threshold)
Entries 1.90825e+07
TAC
QT Input Channel

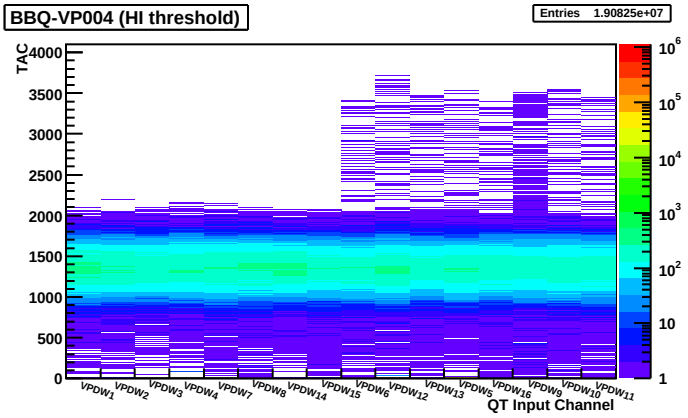

BBQ-VP002 (LO threshold)
Entries 1.90825e+07
ADC
QT Input Channel

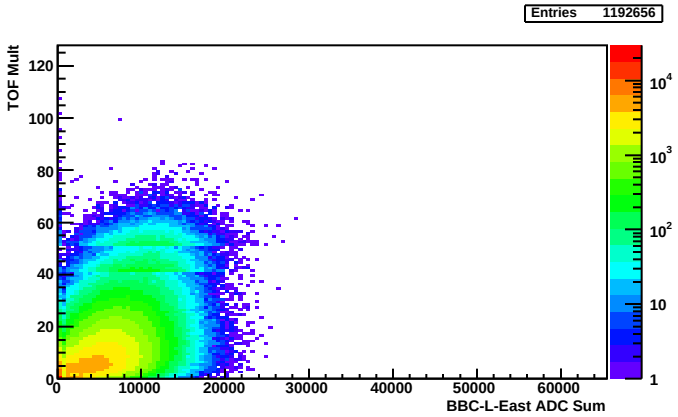

BBQ-VP002 (LO threshold)
Entries 1.90825e+07
TAC
QT Input Channel

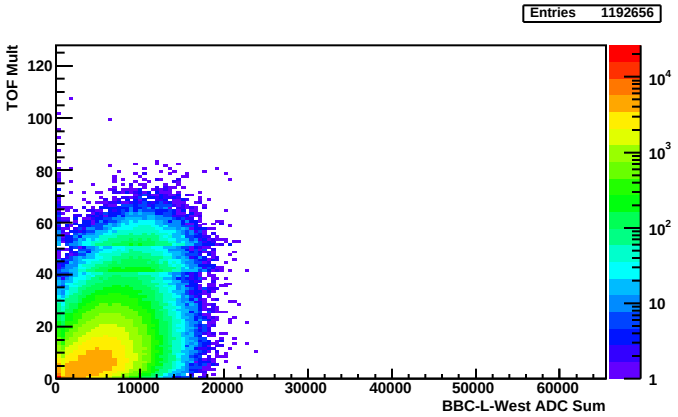

BBQ-VP003 (HI threshold)
Entries 1.90825e+07
ADC
QT Input Channel

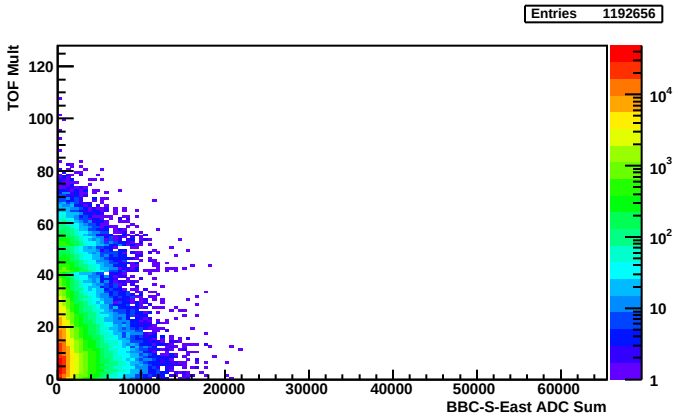

BBQ-VP003 (HI threshold)
Entries 1.90825e+07
TAC
QT Input Channel

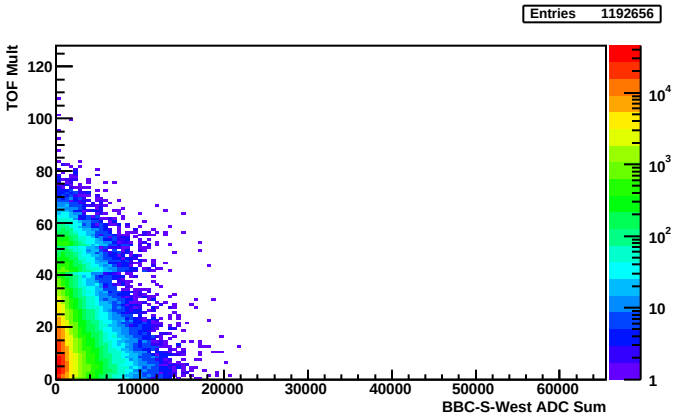

BBQ-VP004 (HI threshold)
Entries 1.90825e+07
ADC
QT Input Channel

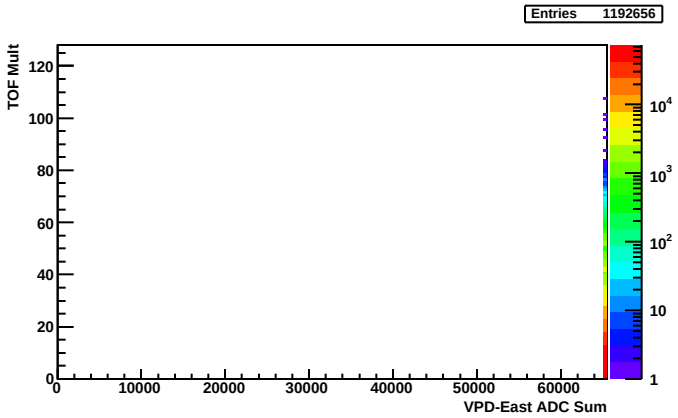

BBQ-VP004 (HI threshold)
Entries 1.90825e+07
TAC
QT Input Channel

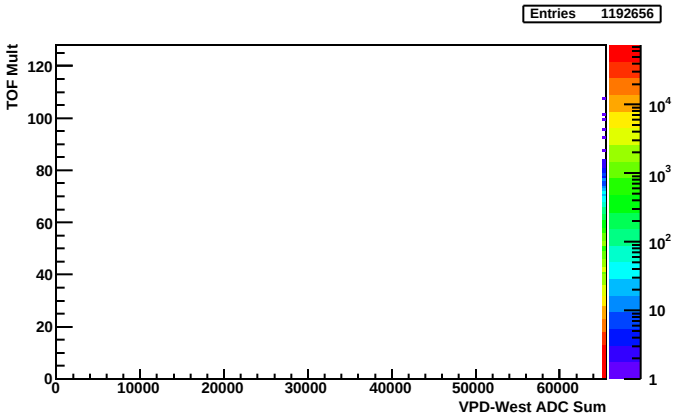

Entries 1192656
TOF Mult
BBC-L-East ADC Sum

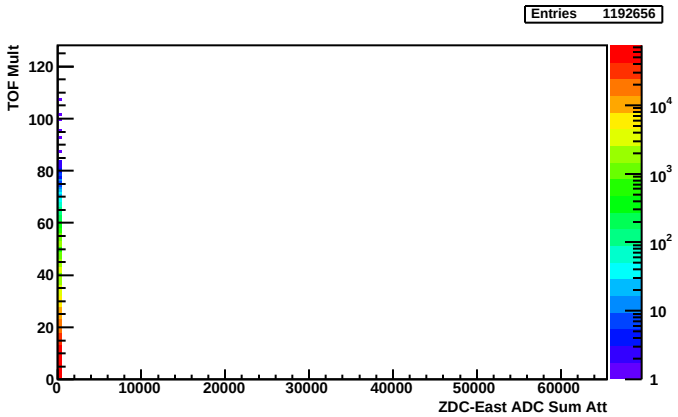

Entries 1192656
TOF Mult
BBC-L-West ADC Sum

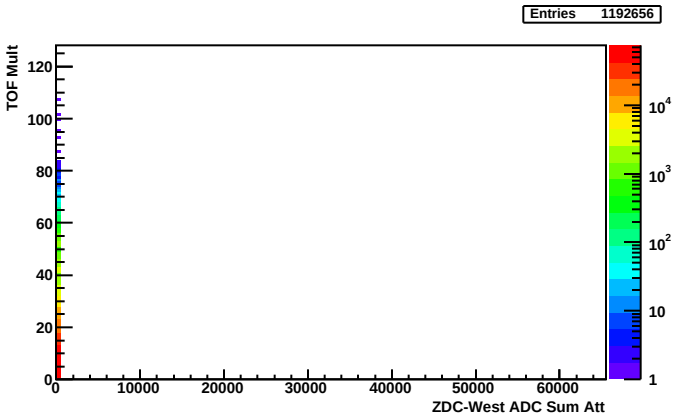

Entries 1192656
TOF Mult
BBC-S-East ADC Sum

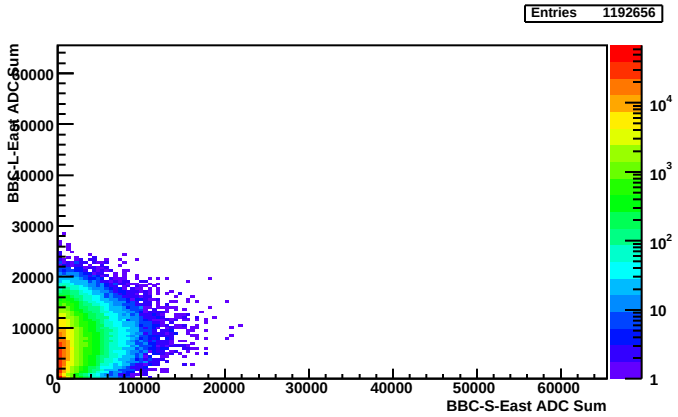

Entries 1192656
TOF Mult
BBC-S-West ADC Sum

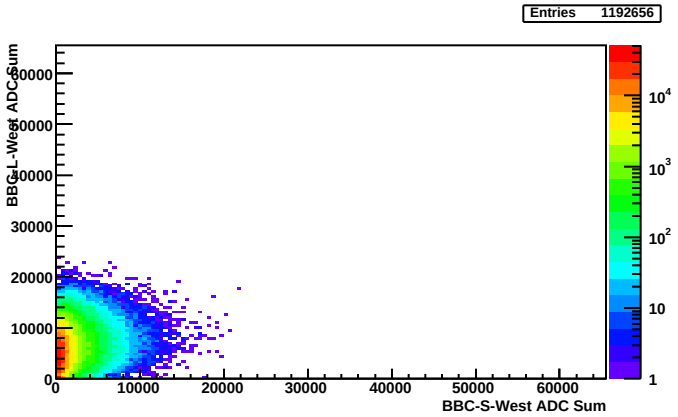

Entries 1192656
TOF Mult
VPD-East ADC Sum

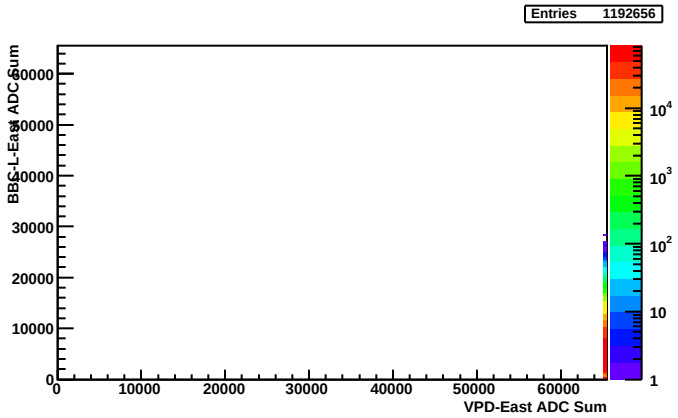

Entries 1192656
TOF Mult
VPD-West ADC Sum

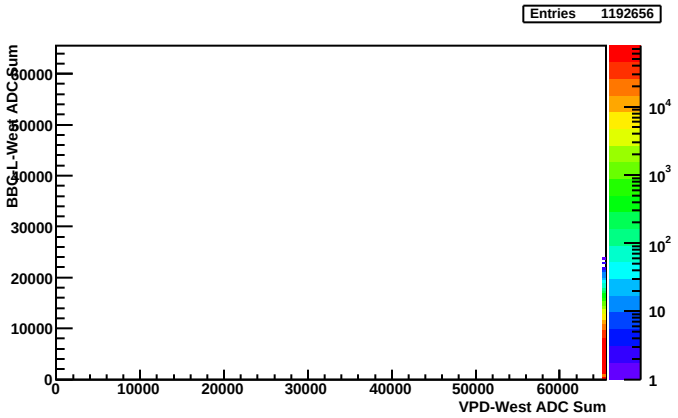

Entries 1192656
TOF Mult
ZDC-East ADC Sum Att

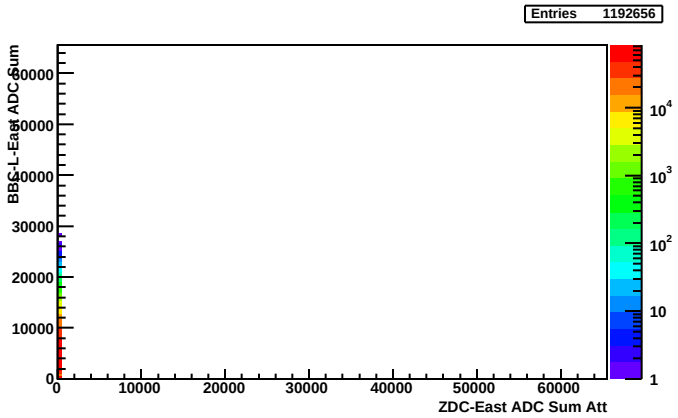

Entries 1192656
TOF Mult
ZDC-West ADC Sum Att

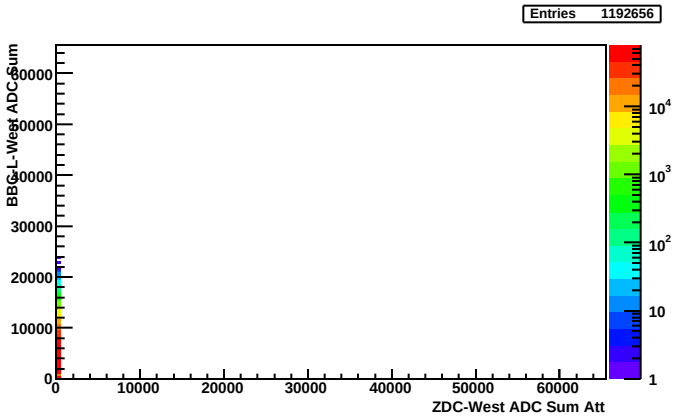

Entries 1192656
BBC-L-East ADC Sum
BBC-S-East ADC Sum

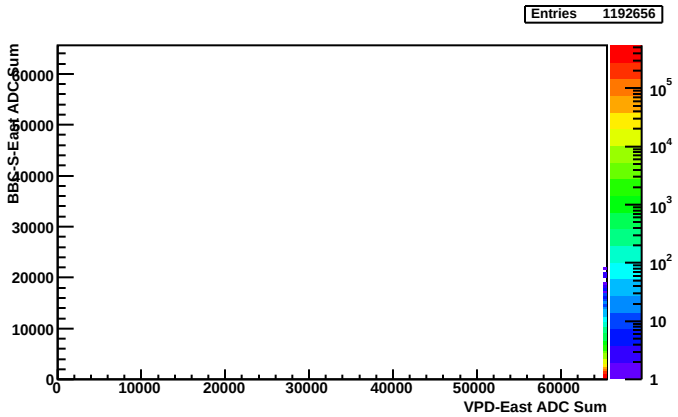

Entries 1192656
BBC-L-West ADC Sum
BBC-S-West ADC Sum

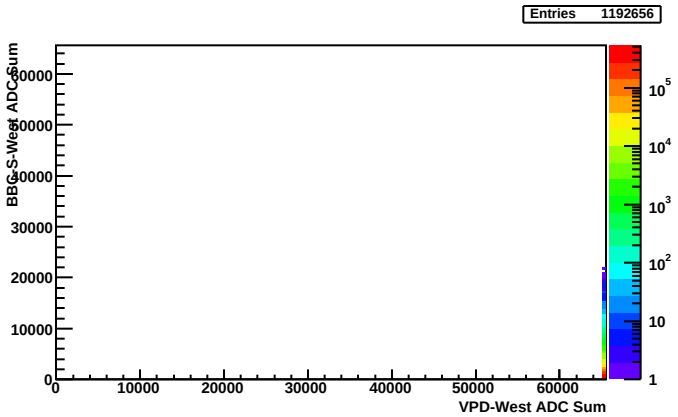

Entries 1192656
BBC-L-East ADC Sum
VPD-East ADC Sum

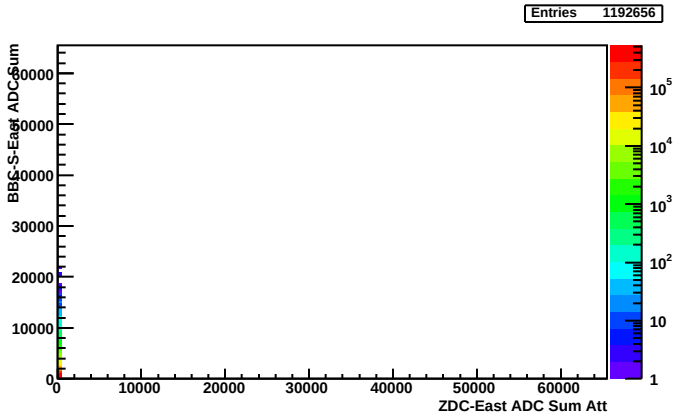

Entries 1192656
BBC-L-West ADC Sum
VPD-West ADC Sum

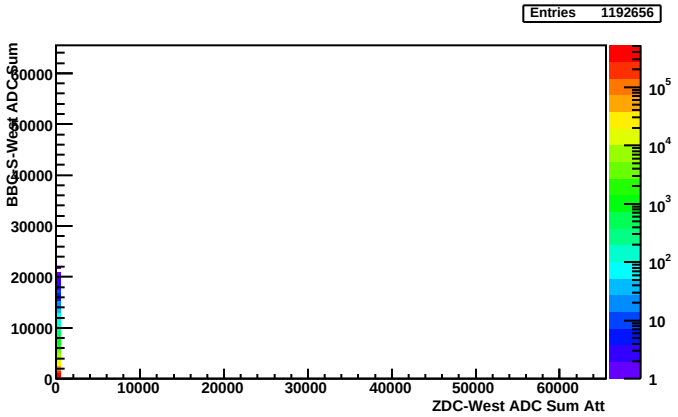

Entries 1192656
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

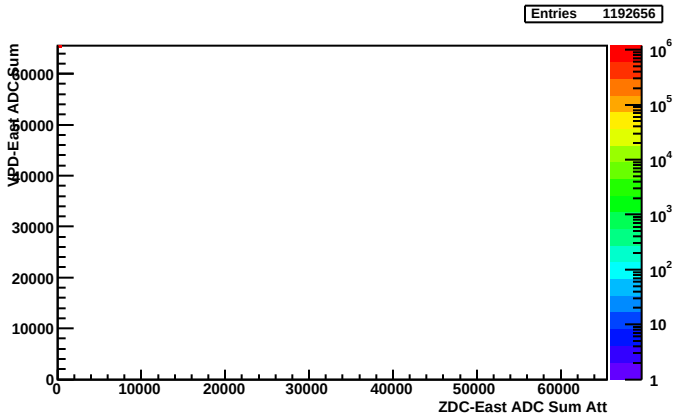

Entries 1192656
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

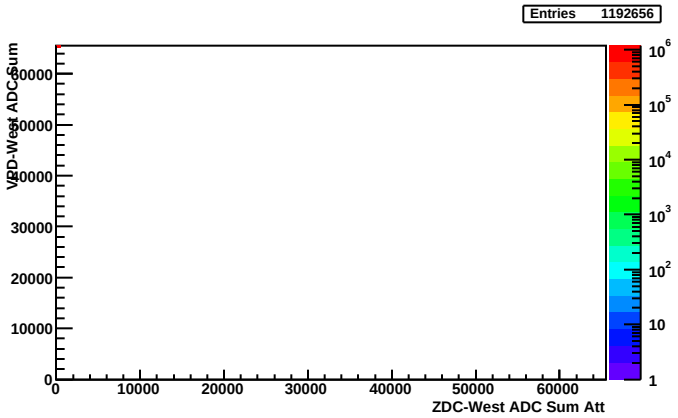

Entries 1192656
BBC-S-East ADC Sum
VPD-East ADC Sum

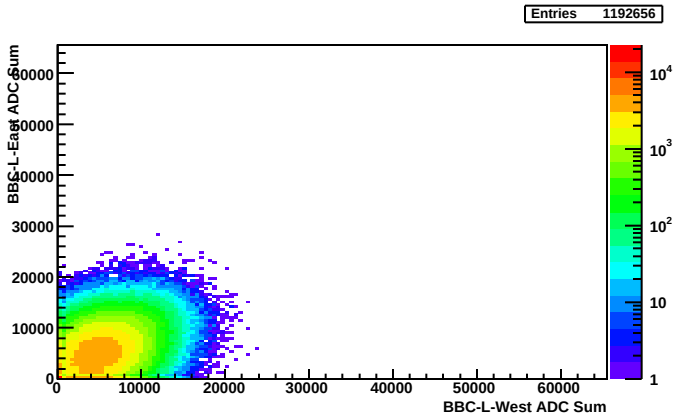

Entries 1192656
BBC-S-West ADC Sum
VPD-West ADC Sum

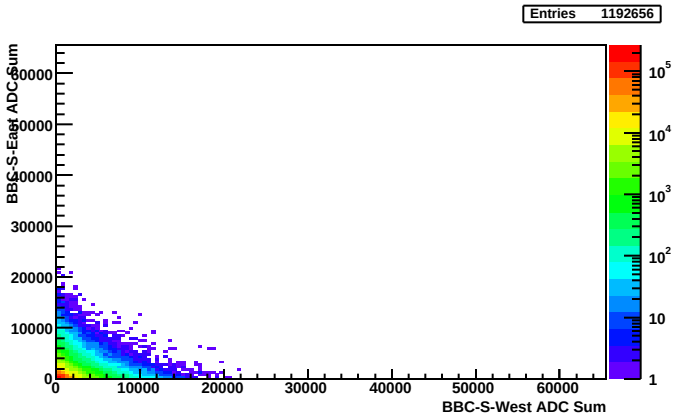

Entries 1192656
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

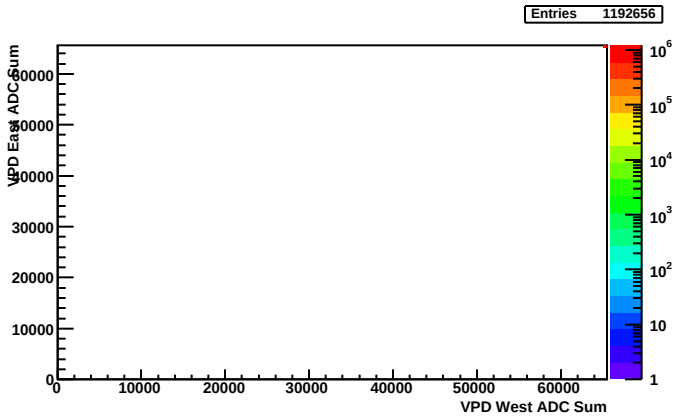

Entries 1192656
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

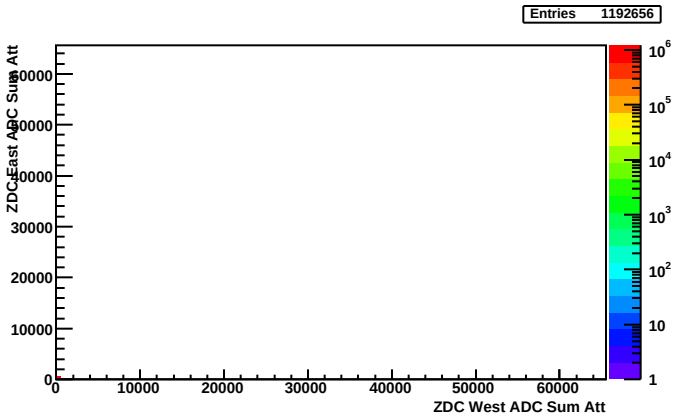

Entries 1192656
VPD-East ADC Sum
ZDC-East ADC Sum Att

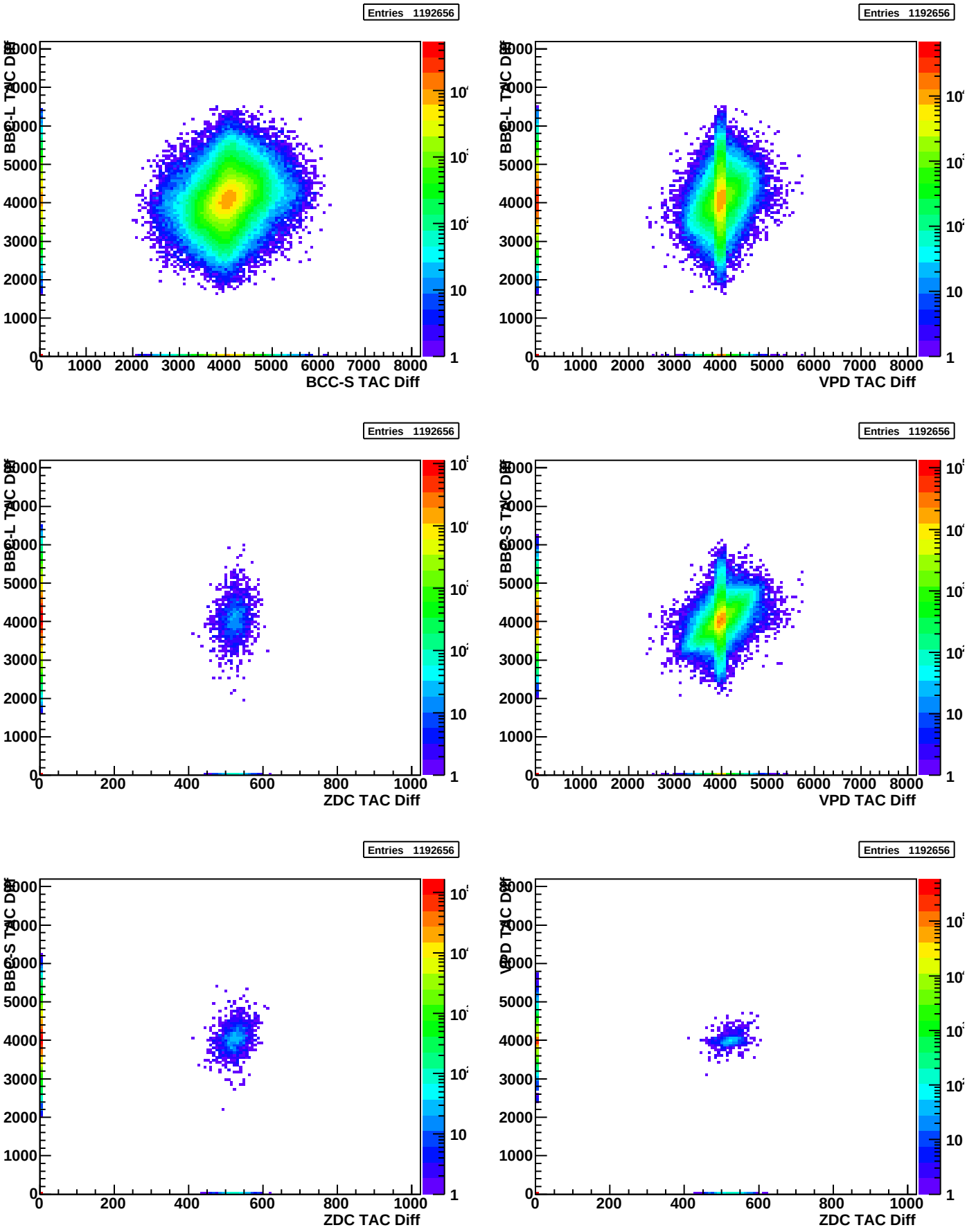

Entries 1192656
VPD-West ADC Sum
ZDC-West ADC Sum Att

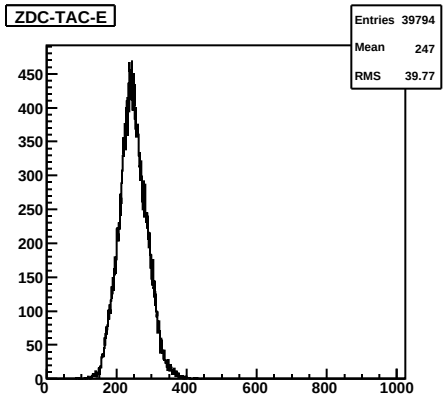

Entries 1192656
BBC-L-East ADC Sum
BBC-L-West ADC Sum

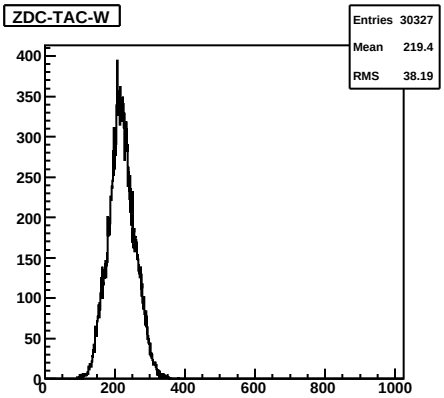

Entries 1192656
BBC-S-East ADC Sum
BBC-S-West ADC Sum

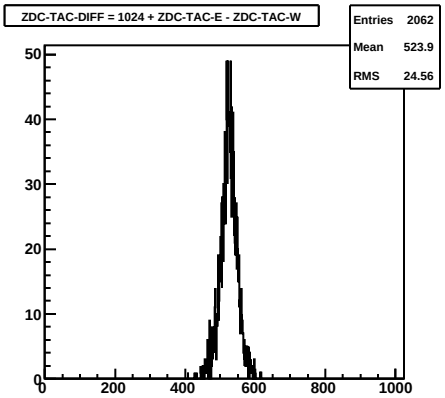

Entries 1192656
VPD East ADC Sum
VPD West ADC Sum

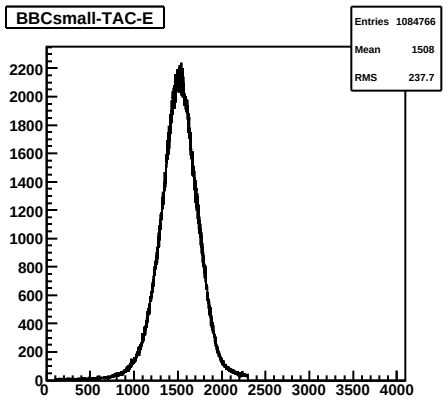

Entries 1192656
ZDC East ADC Sum Att
ZDC West ADC Sum Att

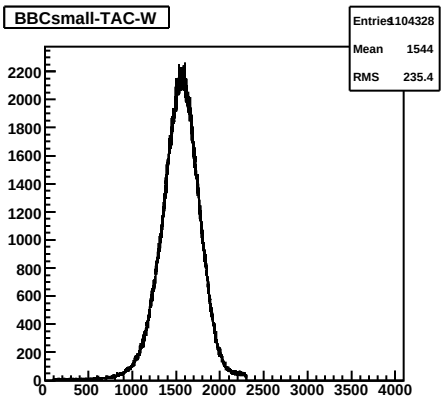

Entries 1192656
BBC-L TAC Diff
BCC-S TAC Diff
Entries 1192656
BBC-L TAC Diff
VPD TAC Diff
Entries 1192656
BBC-L TAC Diff
ZDC TAC Diff
Entries 1192656
BBC-S TAC Diff
VPD TAC Diff
Entries 1192656
BBC-S TAC Diff
ZDC TAC Diff
Entries 1192656
VPD TAC Diff
ZDC TAC Diff

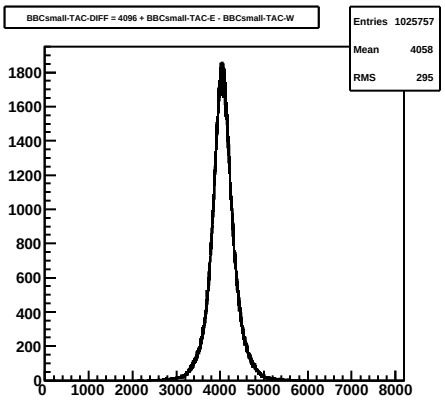

ZDC-TAC-E
Entries 39794
Mean 247
RMS 39.77

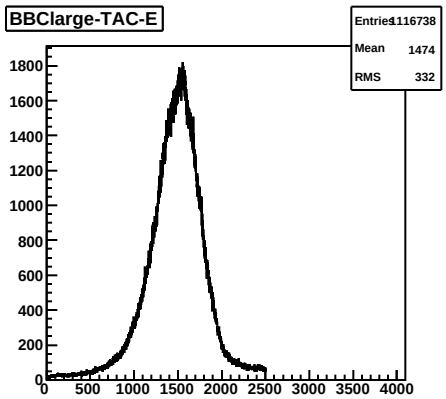

ZDC-TAC-W
Entries 30327
Mean 219.4
RMS 38.19

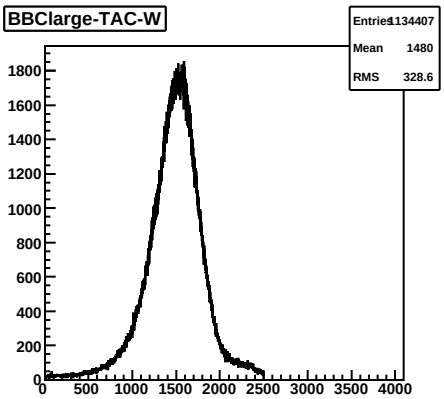

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 2062
Mean 523.9
RMS 24.56

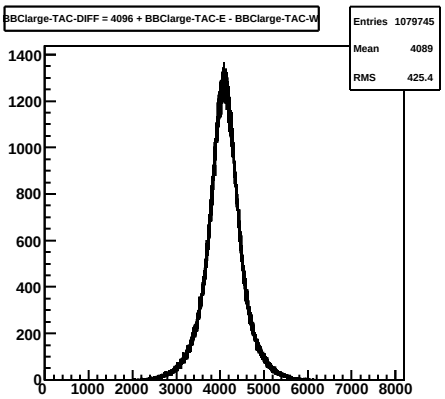

BBCsmall-TAC-E
Entries 1084766
Mean 1508
RMS 237.7

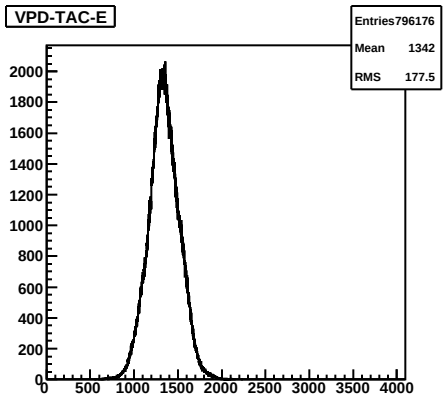

BBCsmall-TAC-W
Entries 1104328
Mean 1544
RMS 235.4

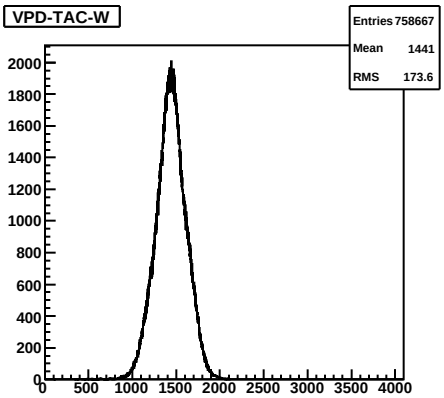

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 1025757
Mean 4058
RMS 295

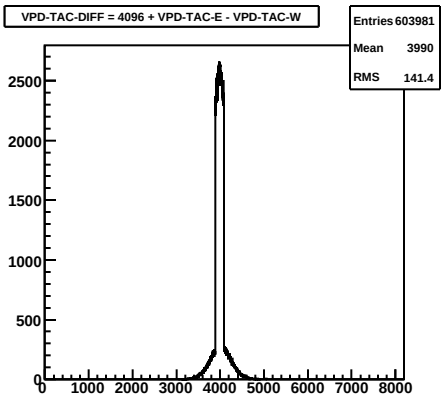

BBClarge-TAC-E
Entries 1116738
Mean 1474
RMS 332

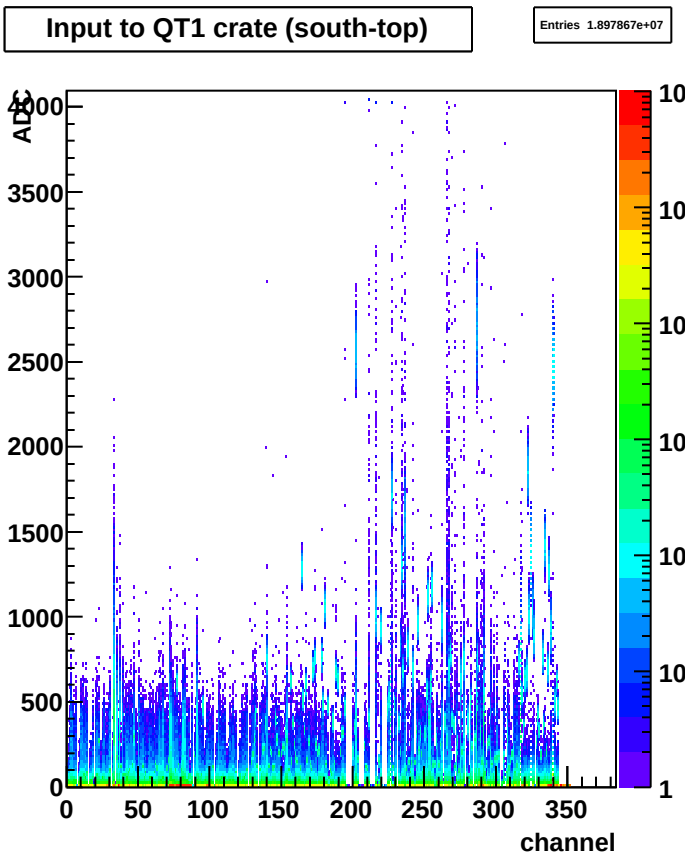

BBClarge-TAC-W
Entries 1134407
Mean 1480
RMS 328.6

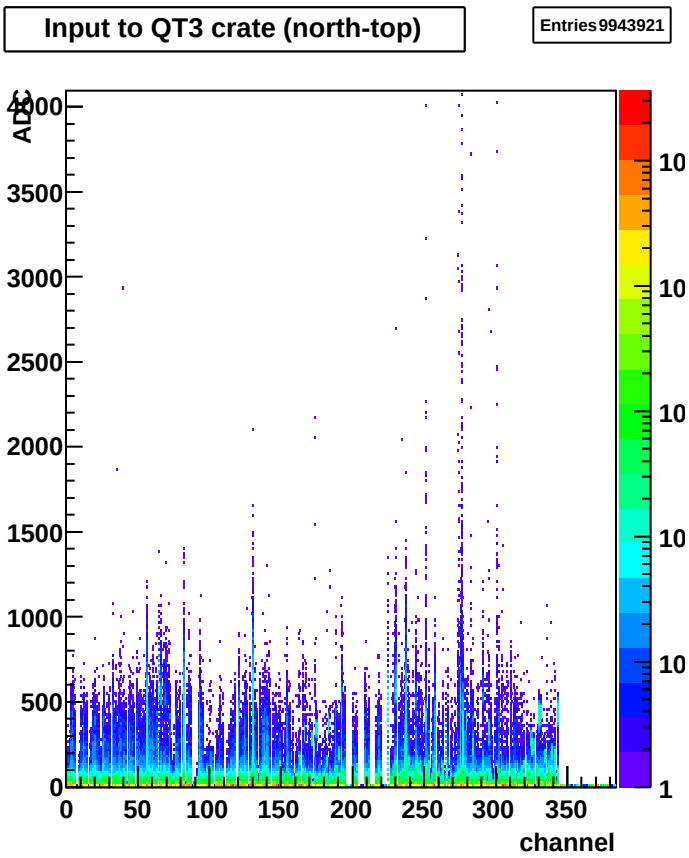

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 1079745
Mean 4089
RMS 425.4

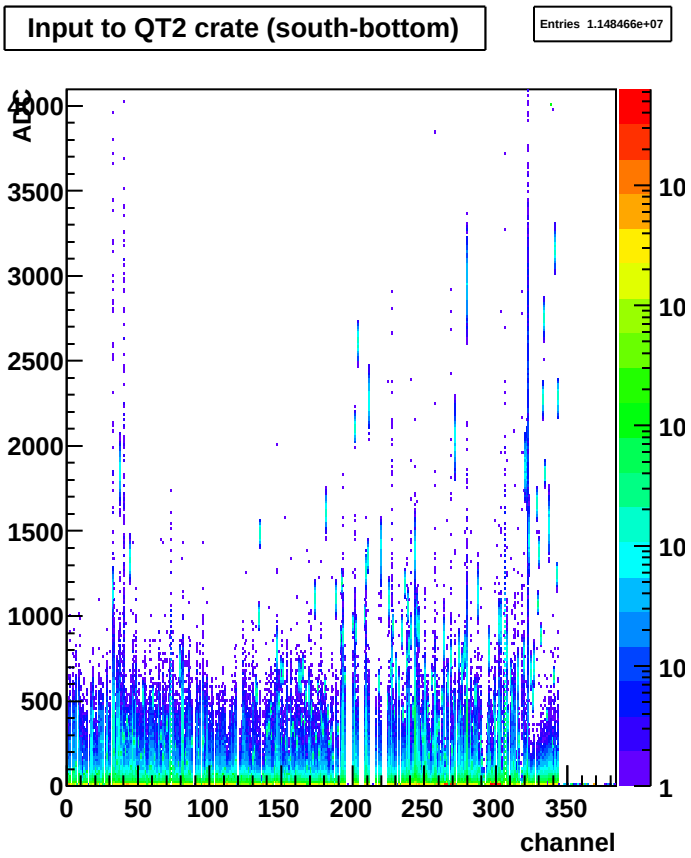

VPD-TAC-E
Entries 796176
Mean 1342
RMS 177.5

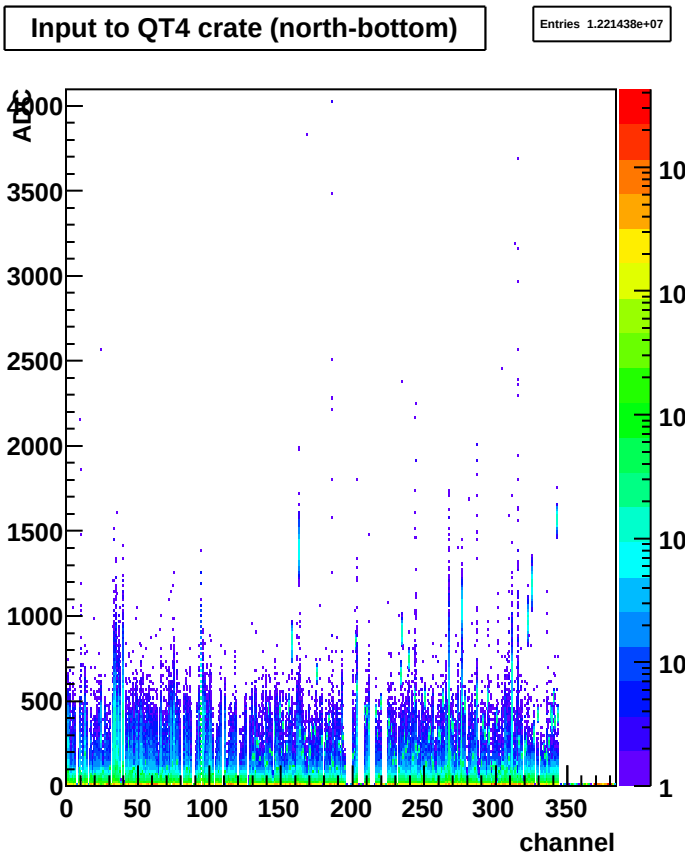

VPD-TAC-W
Entries 758667
Mean 1441
RMS 173.6

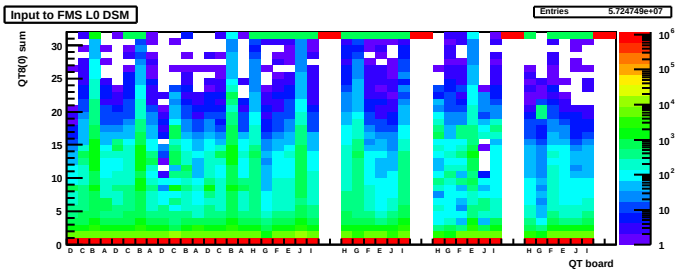

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 603981
Mean 3990
RMS 141.4

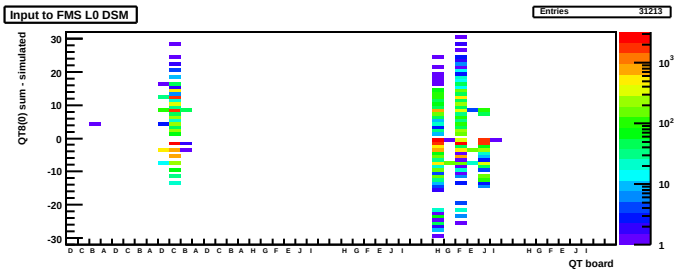

Input to QT1 crate (south-top)
Entries 1.897867e+07
ADC
channel

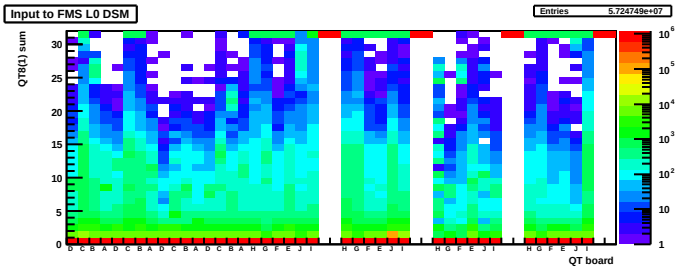

Input to QT3 crate (north-top)
Entries 9943921
ADC
channel

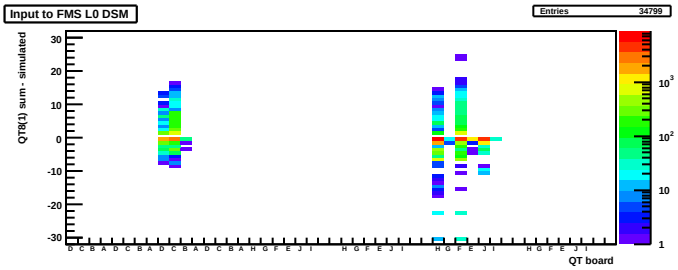

Input to QT2 crate (south-bottom)
Entries 1.148466e+07
ADC
channel

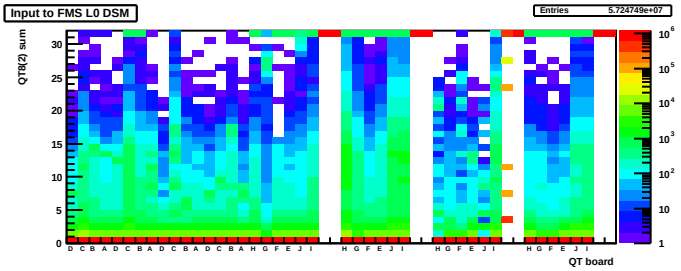

Input to QT4 crate (north-bottom)
Entries 1.221438e+07
ADC
channel

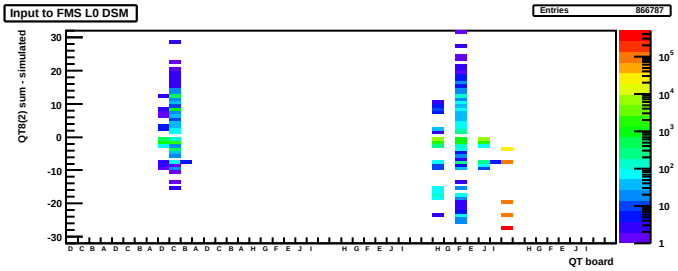

Input to FMS L0 DSM
Entries 5.724749e+07
QT8(0) sum
QT board

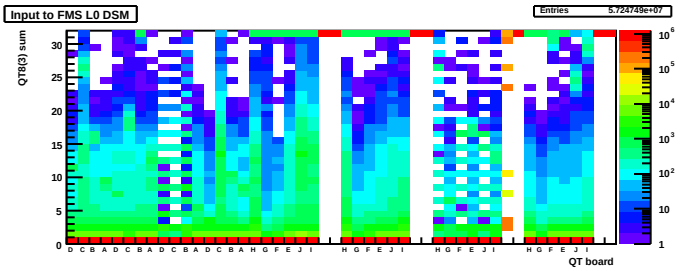

Input to FMS L0 DSM
Entries 31213
QT8(0) sum - simulated
QT board

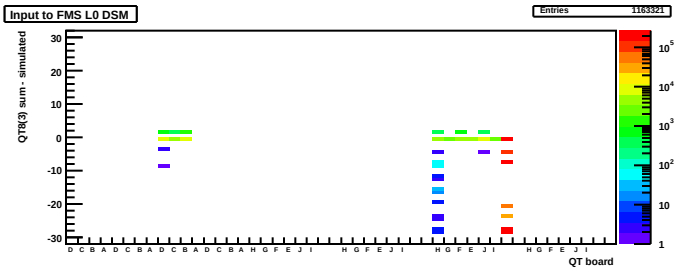

Input to FMS L0 DSM
Entries 5.724749e+07
QT8(1) sum
QT board

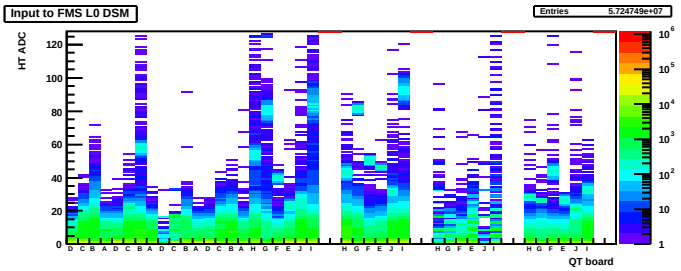

Input to FMS L0 DSM
Entries 34799
QT8(1) sum - simulated
QT board

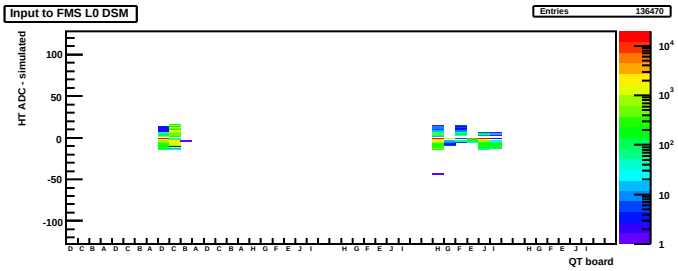

Input to FMS L0 DSM
Entries 5.724749e+07
QT8(2) sum
QT board

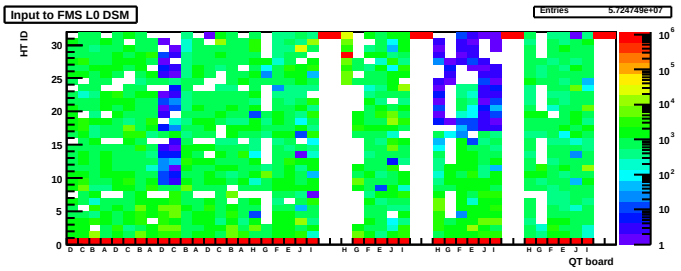

Input to FMS L0 DSM
Entries 866787
QT8(2) sum - simulated
QT board

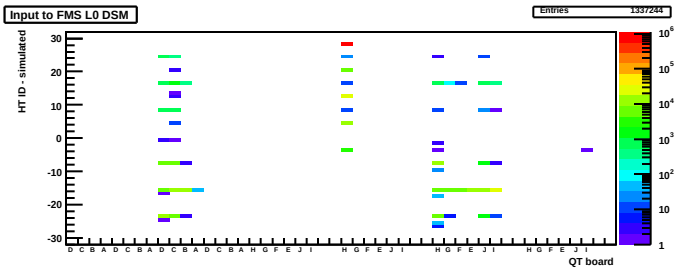

Input to FMS L0 DSM
Entries 5.724749e+07
QT8(3) sum
QT board

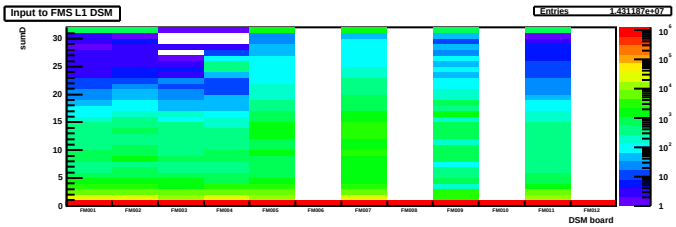

Input to FMS L0 DSM
Entries 1163321
QT8(3) sum - simulated
QT board

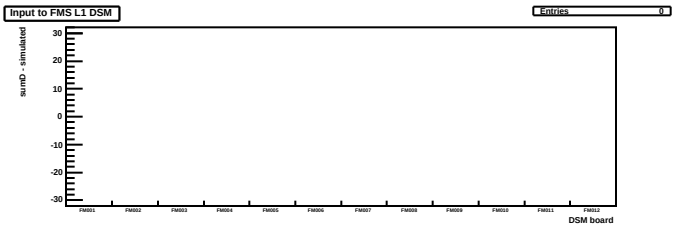

Input to FMS L0 DSM
Entries 5.724749e+07
HT ADC
QT board

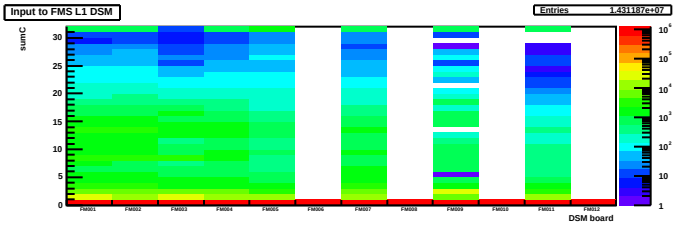

Input to FMS L0 DSM
Entries 136470
HT ADC - simulated
QT board

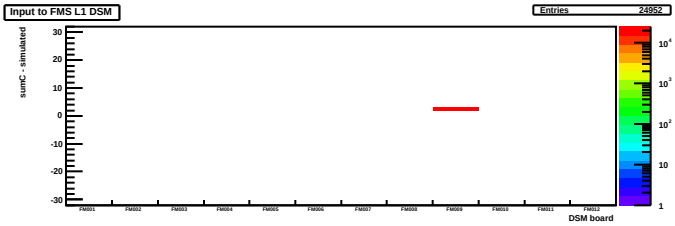

Input to FMS L0 DSM
Entries 5.724749e+07
HT ID
QT board

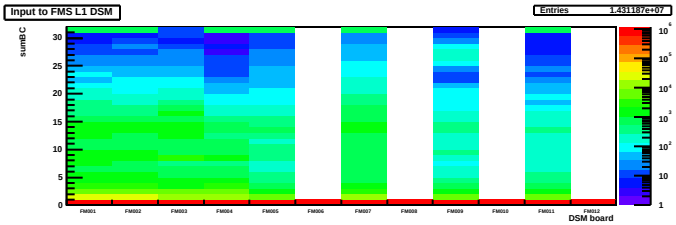

Input to FMS L0 DSM
Entries 1337244
HT ID - simulated
QT board

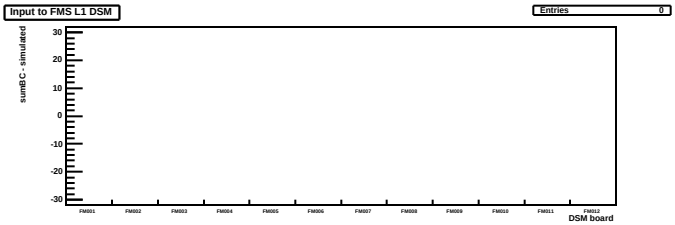

Input to FMS L1 DSM
Entries 1.431187e+07
sumD
DSM board

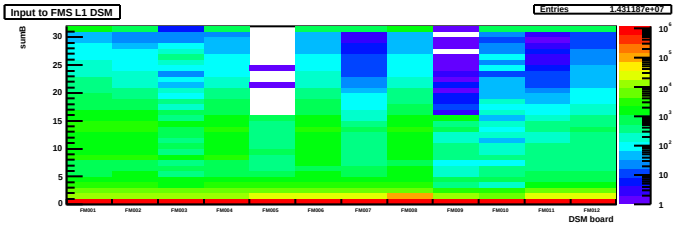

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

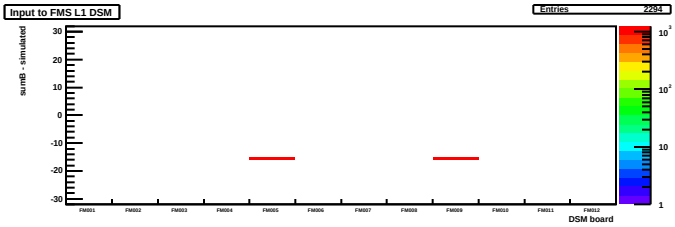

Input to FMS L1 DSM
Entries 1.431187e+07
sumC
DSM board

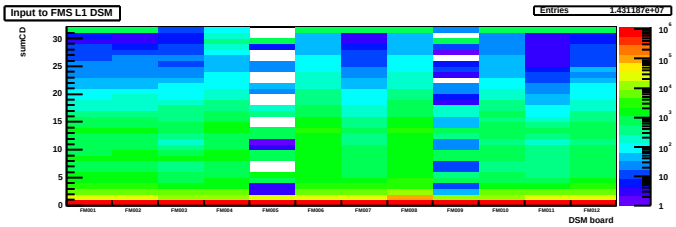

Input to FMS L1 DSM
Entries 24952
sumC - simulated
DSM board

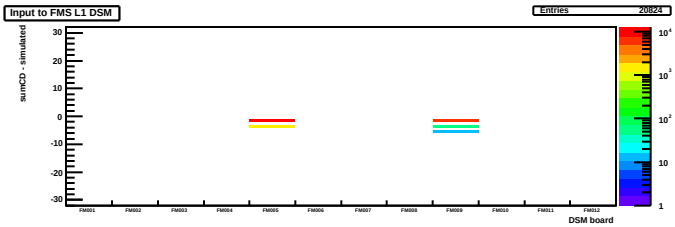

Input to FMS L1 DSM
Entries 1.431187e+07
sumBC
DSM board

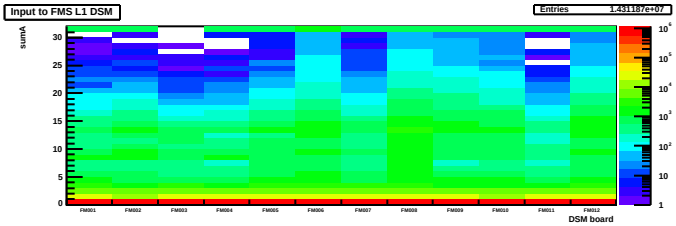

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

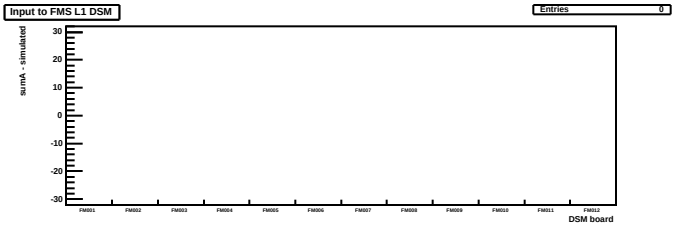

Input to FMS L1 DSM
Entries 1.431187e+07
sumB
DSM board

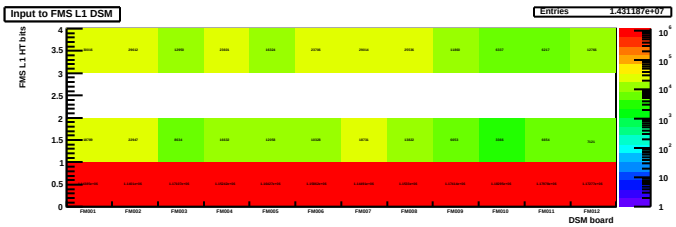

Input to FMS L1 DSM
Entries 2294
sumB - simulated
DSM board

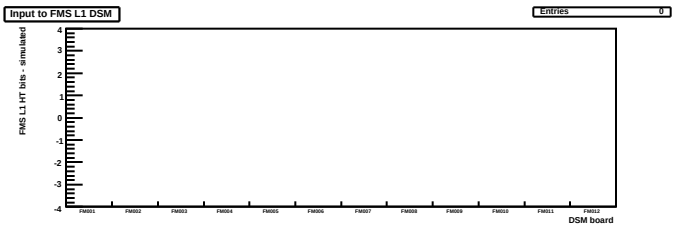

Input to FMS L1 DSM
Entries 1.431187e+07
sumCD
DSM board

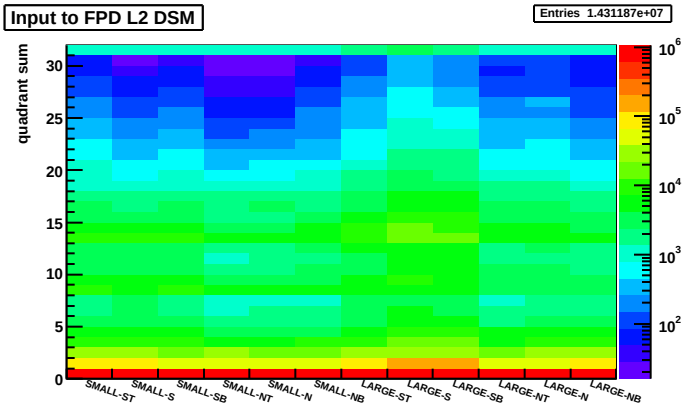

Input to FMS L1 DSM
Entries 20824
sumCD - simulated
DSM board

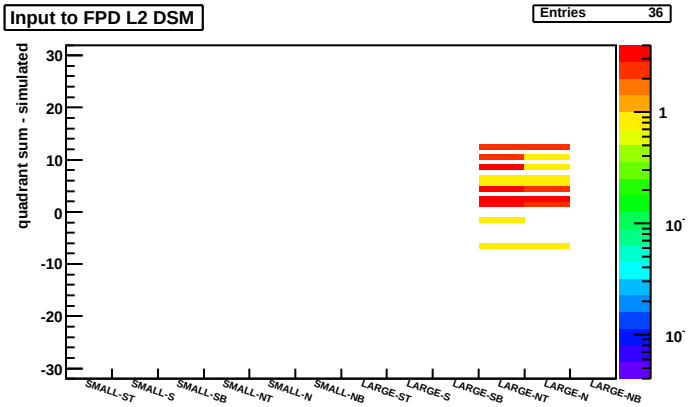

Input to FMS L1 DSM
Entries 1.431187e+07
sumA
DSM board

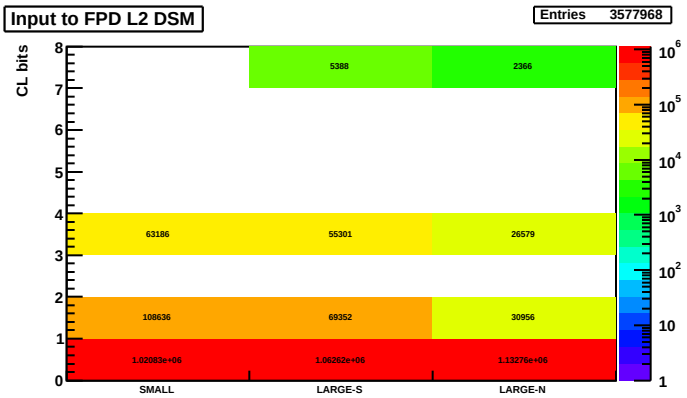

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

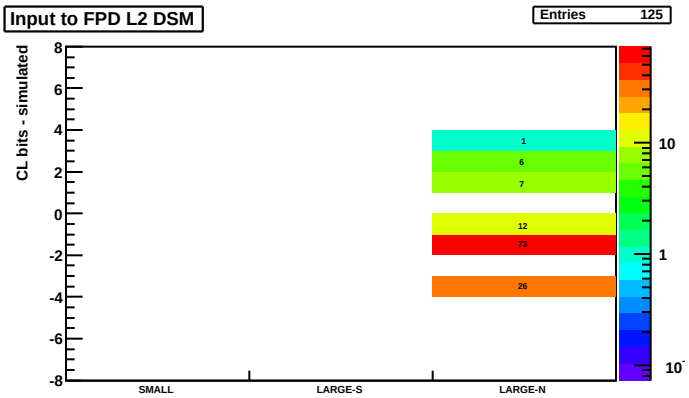

Input to FMS L1 DSM
Entries 1.431187e+07
FMS L1 HT bits
DSM board

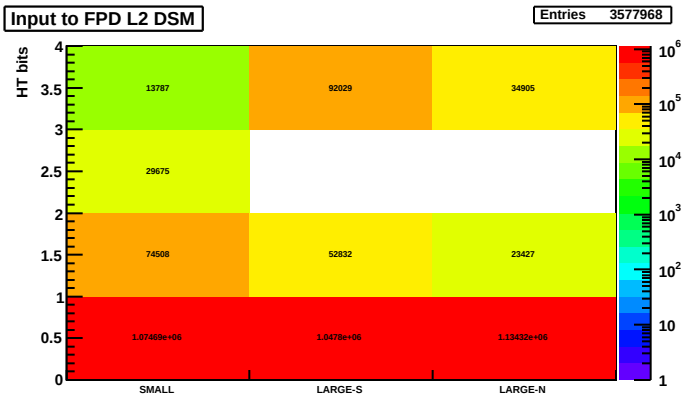

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

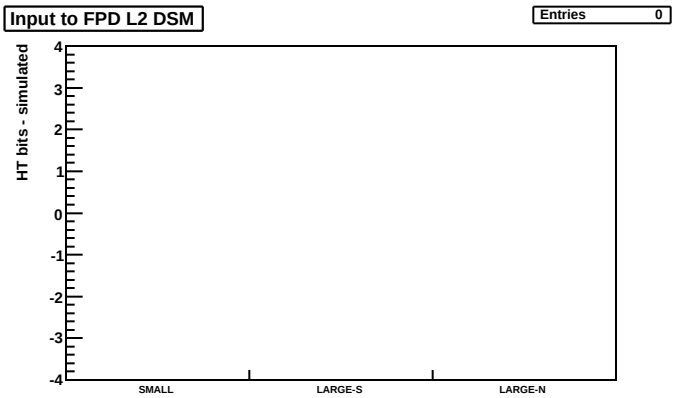

Input to FPD L2 DSM
Entries 1.431187e+07
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

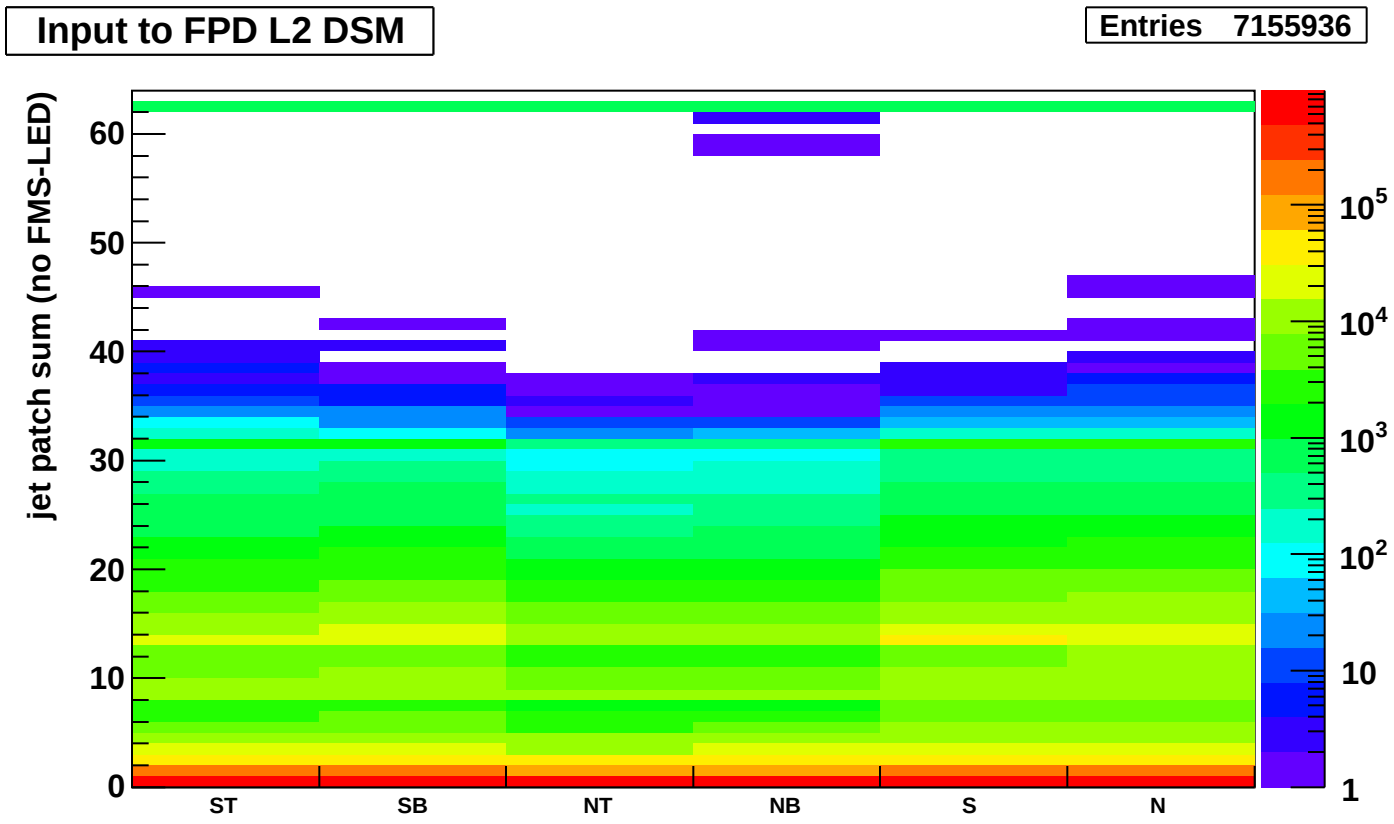

Input to FPD L2 DSM
Entries 36
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

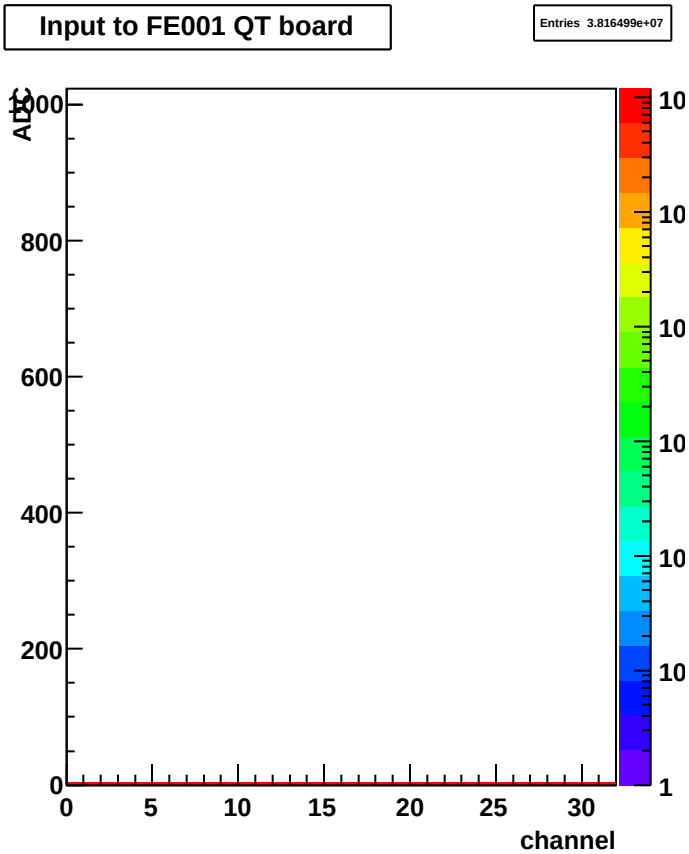

Input to FPD L2 DSM
Entries 3577968
CL bits
5388
2366
63186
55301
26579
108636
69352
30956
1.02083e+06
1.06262e+06
1.13276e+06
SMALL
LARGE-S
LARGE-N

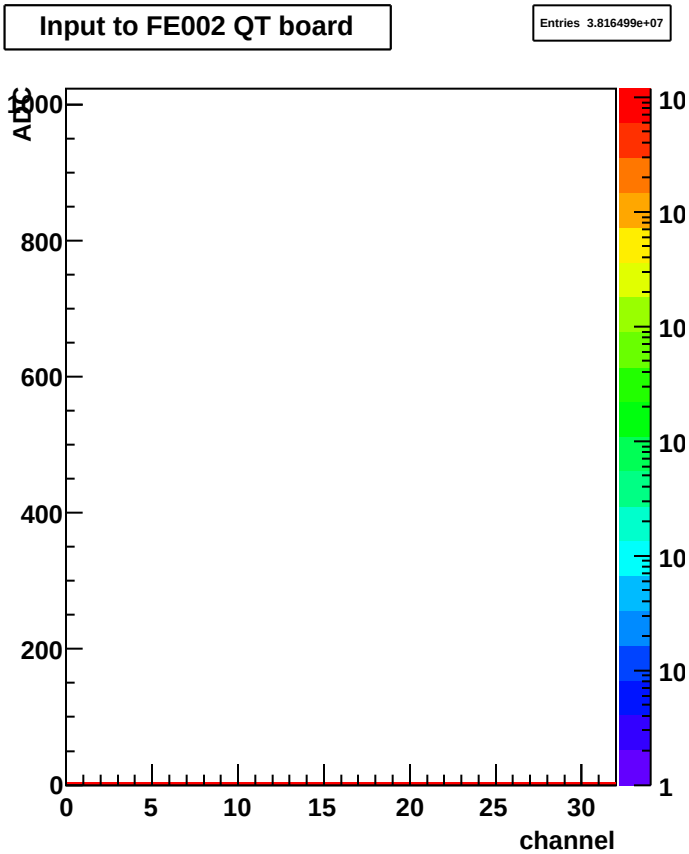

Input to FPD L2 DSM
Entries 125
CL bits - simulated
1
6
7
12
73
26
SMALL
LARGE-S
LARGE-N

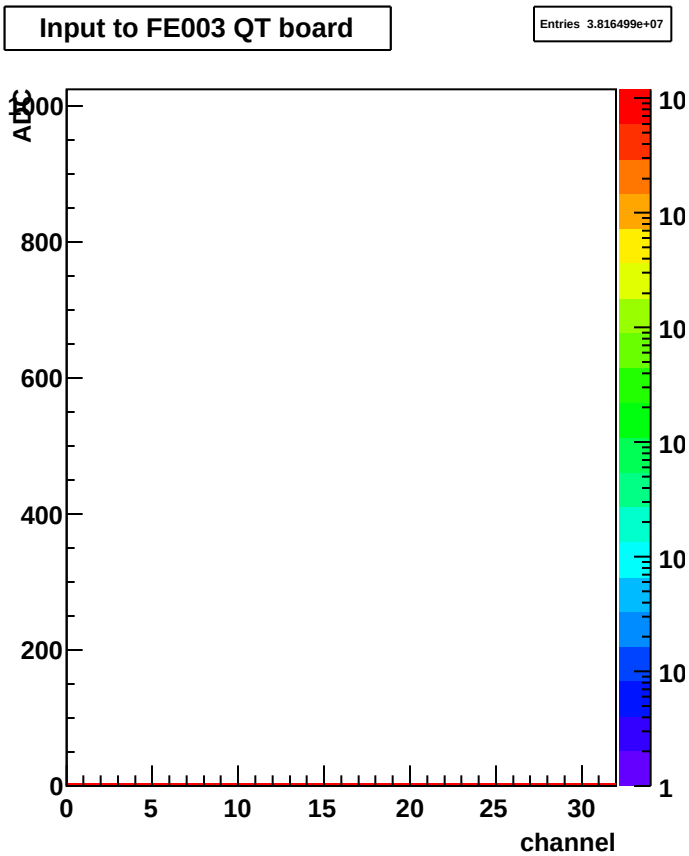

Input to FPD L2 DSM
Entries 3577968
HT bits
13787
92029
34905
29675
74508
52832
23427
1.07469e+06
1.0478e+06
1.13432e+06
SMALL
LARGE-S
LARGE-N

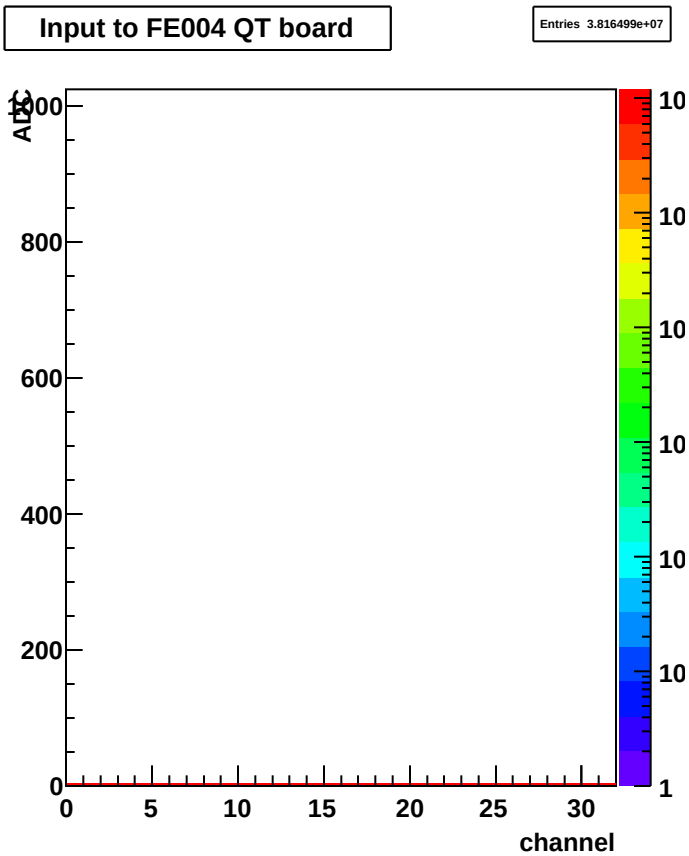

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

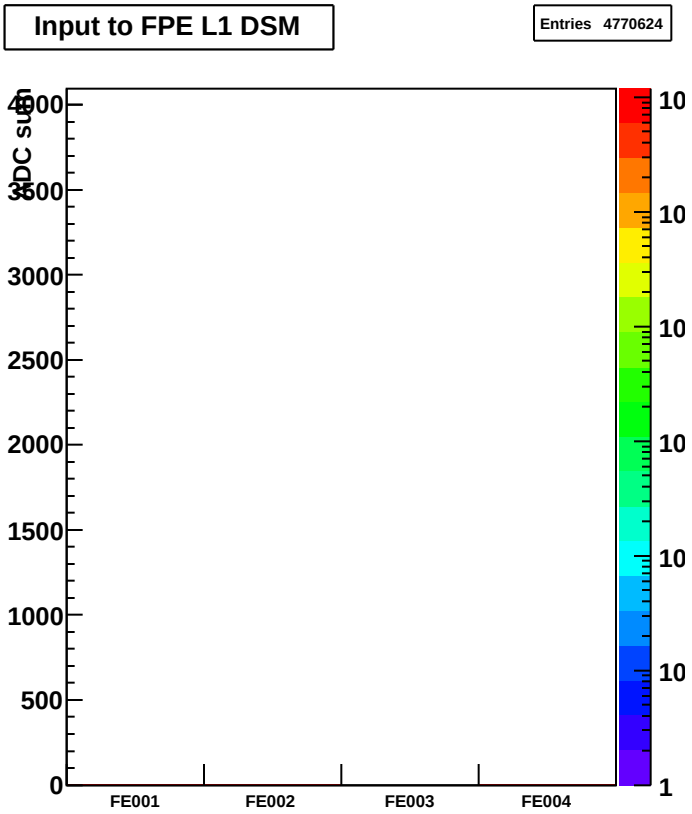

Input to FPD L2 DSM
Entries 7155936
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

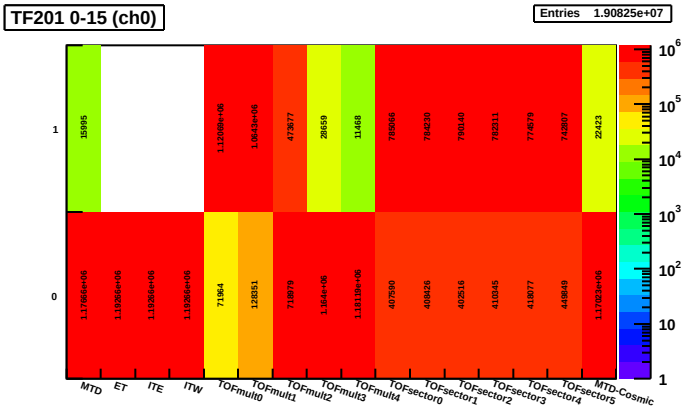

Input to FE001 QT board
Entries 3.816499e+07
ADC
channel

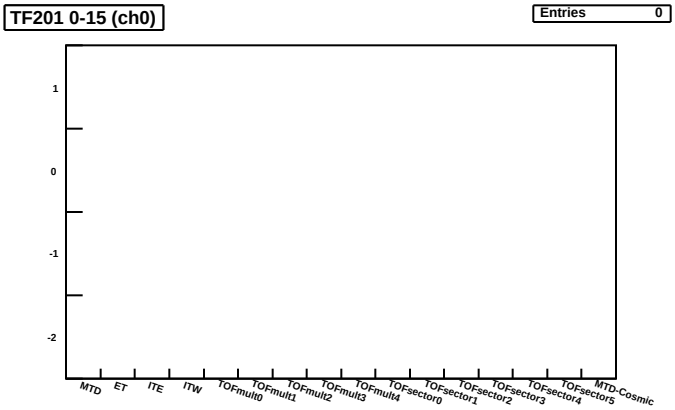

Input to FE002 QT board
Entries 3.816499e+07
ADC
channel

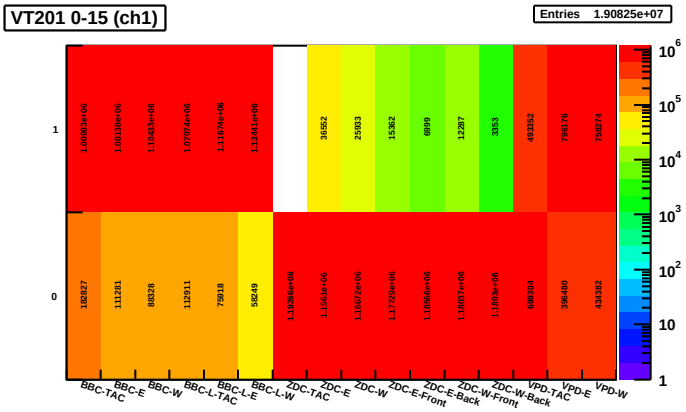

Input to FE003 QT board
Entries 3.816499e+07
ADC
channel

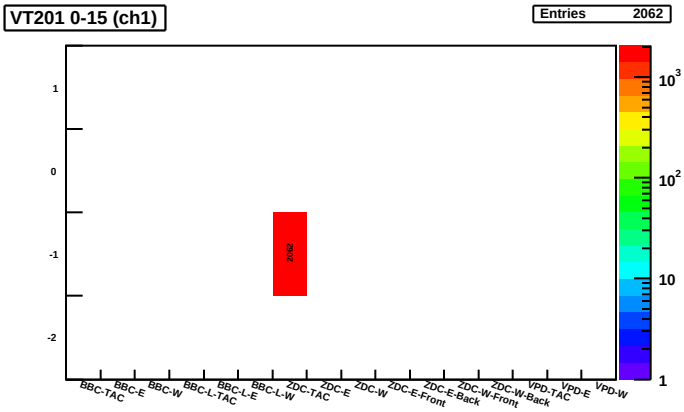

Input to FE004 QT board
Entries 3.816499e+07
ADC
channel

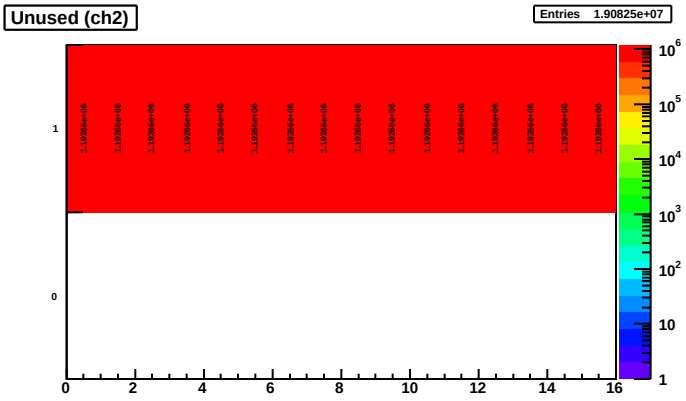

Input to FPE L1 DSM
Entries 4770624
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
10
1

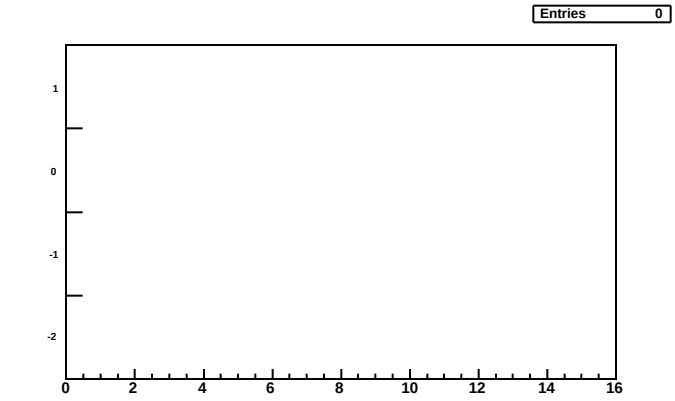

TF201 0-15 (ch0)
Entries 1.90825e+07
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

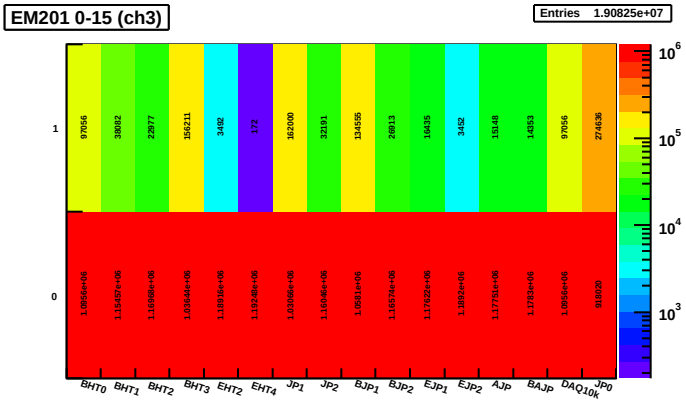

TF201 0-15 (ch0)
Entries 0
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

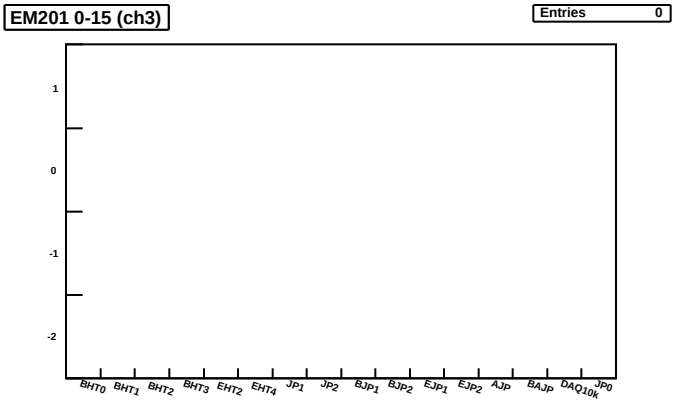

VT201 0-15 (ch1)
Entries 1.90825e+07
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

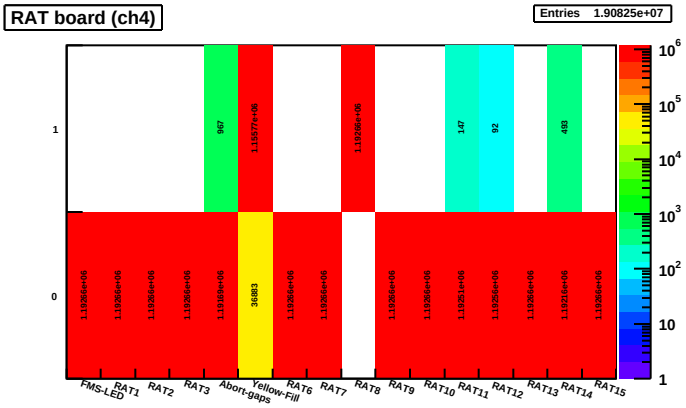

VT201 0-15 (ch1)
Entries 2062
2062
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

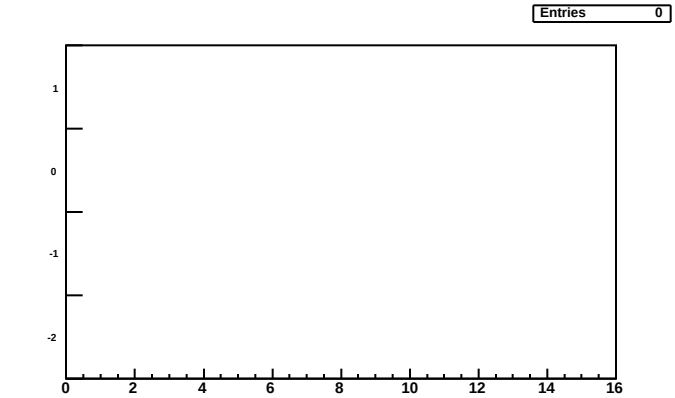

Unused (ch2)
Entries 1.90825e+07

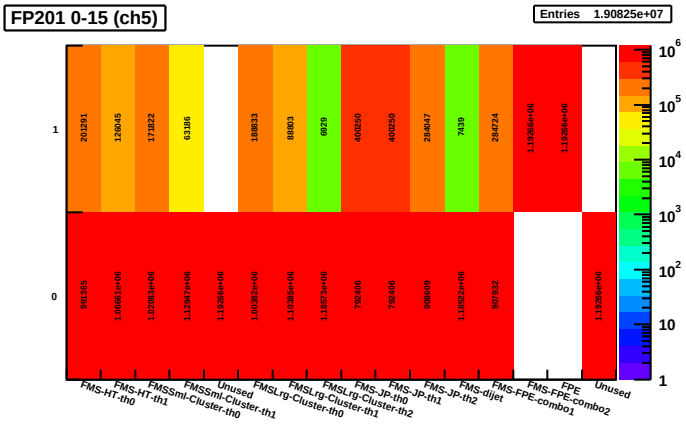

Entries 0

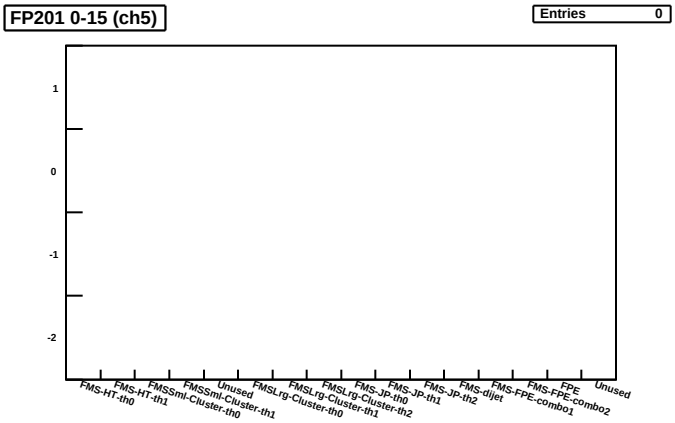

EM201 0-15 (ch3)
Entries 1.90825e+07
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

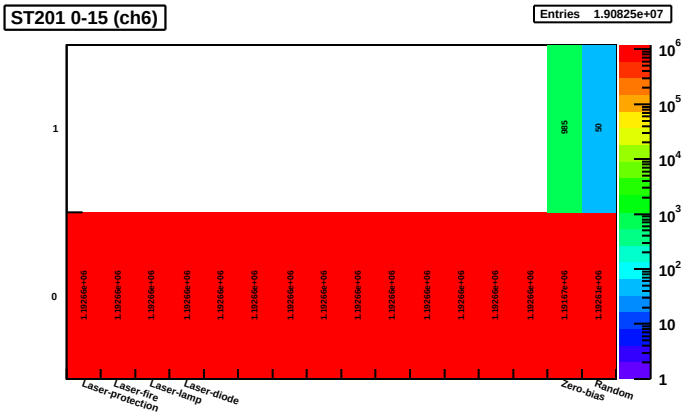

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

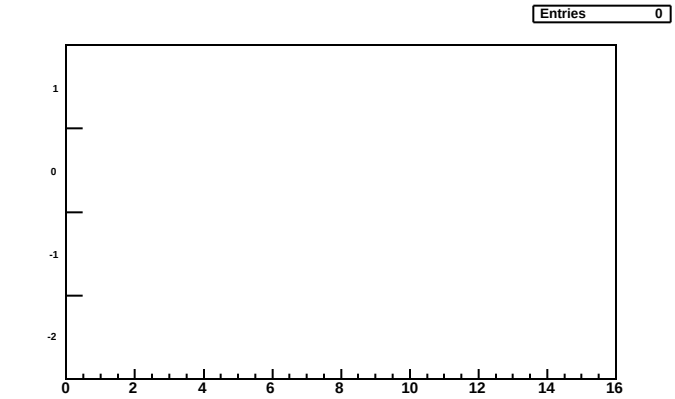

RAT board (ch4)
Entries 1.90825e+07
967
1.19577e+06
1.19266e+06
147
92
493
1.19266e+06
1.19266e+06
1.19266e+06
1.19266e+06
1.19159e+06
36883
1.19266e+06
1.19266e+06
1.19266e+06
1.19266e+06
1.19251e+06
1.19266e+06
1.19266e+06
1.19216e+06
1.19266e+06
FMS-LED
RAT1
RAT2
RAT3
Abort-gaps
Yellow-Fill
RAT6
RAT7
RAT8
RAT9
RAT10
RAT11
RAT12
RAT13
RAT14
RAT15

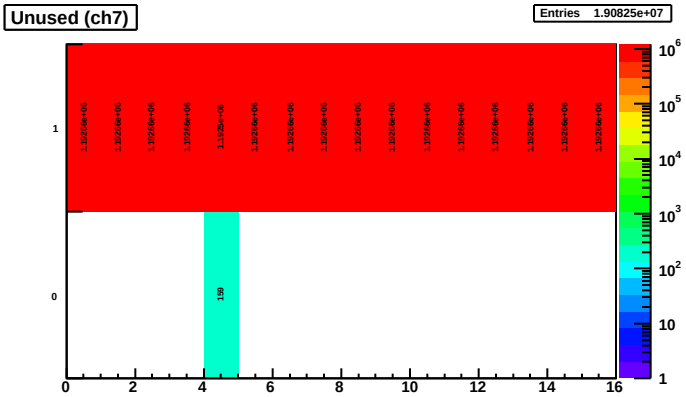

Entries 0


FP201 0-15 (ch5)
Entries 1.90825e+07
201291
126045
171822
63186
188833
88903
6929
400250
400250
284047
7439
294724
1.19266e+06
1.19266e+06
991365
1.06661e+06
1.02003e+06
1.12947e+06
1.19266e+06
1.00382e+06
1.10395e+06
1.18573e+06
782406
782406
908609
1.18822e+06
907932
1.19266e+06
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-diJet
FMS-FPE-combo1
FPE
FMS-FPE-combo2
Unused


FP201 0-15 (ch5)
Entries 0
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-diJet
FMS-FPE-combo1
FPE
FMS-FPE-combo2
Unused


ST201 0-15 (ch6)
Entries 1.90825e+07
985
50
1.19266e+06
1.19266e+06
1.19266e+06
1.19266e+06
1.19266e+06
1.19266e+06
1.19266e+06
1.19266e+06
1.19266e+06
1.19266e+06
1.19266e+06
1.19266e+06
1.19266e+06
1.19266e+06
1.19266e+06
1.19170e+06
1.19251e+06
Laser-protection
Laser-fire
Laser-lamp
Laser-diode
Zero-bias
Random


Entries 0


Unused (ch7)
Entries 1.90825e+07
1.19266e+06
1.19266e+06
1.19266e+06
1.19266e+06
1.19251e+06
1.19266e+06
1.19266e+06
1.19266e+06
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1.19266e+06
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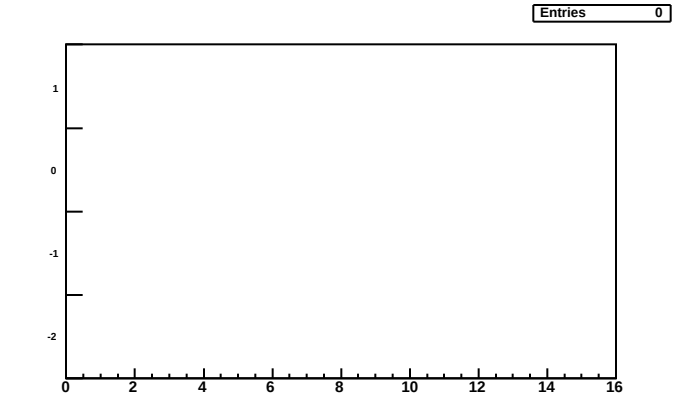
1.19266e+06
1.19266e+06
159


Entries 0