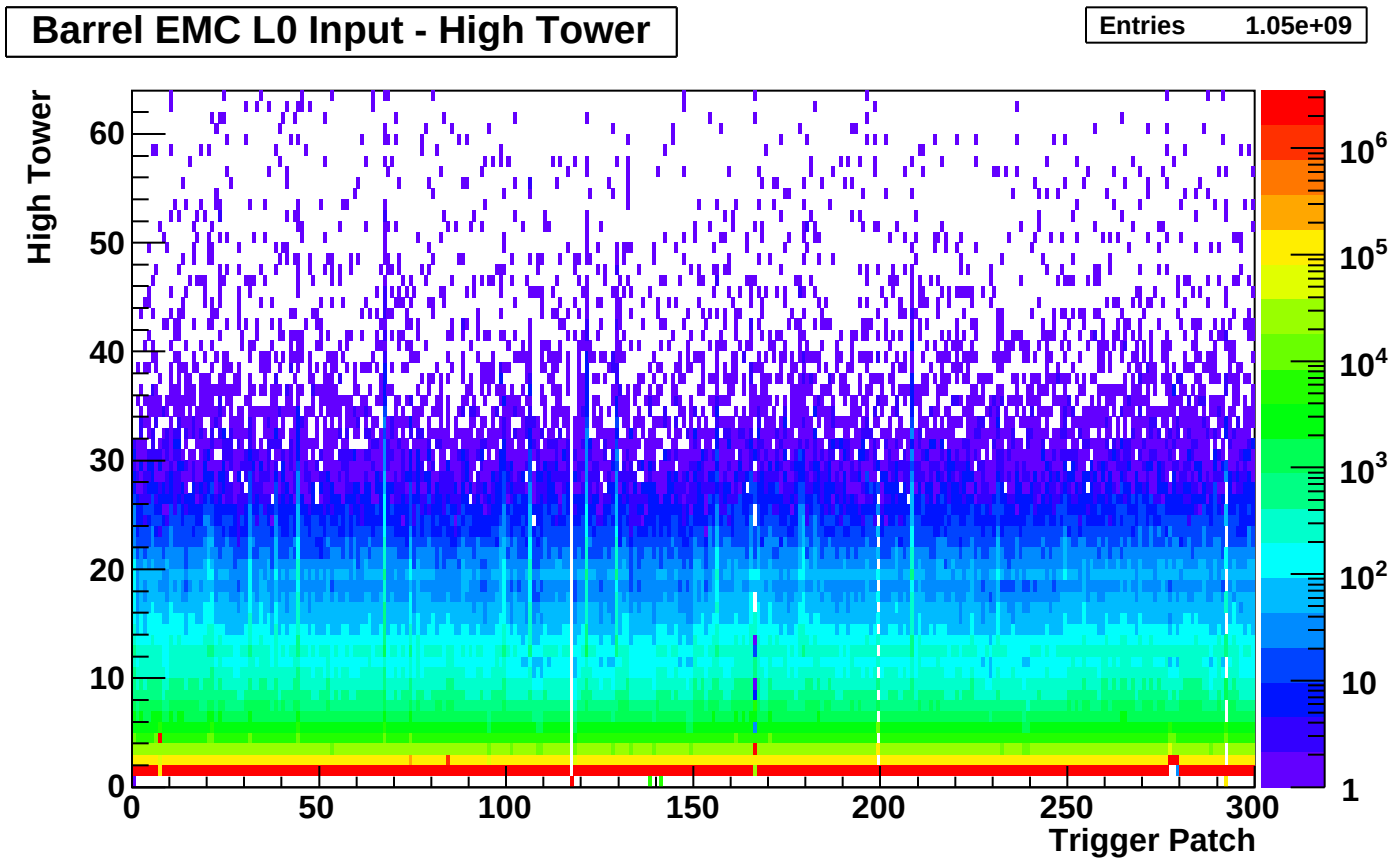
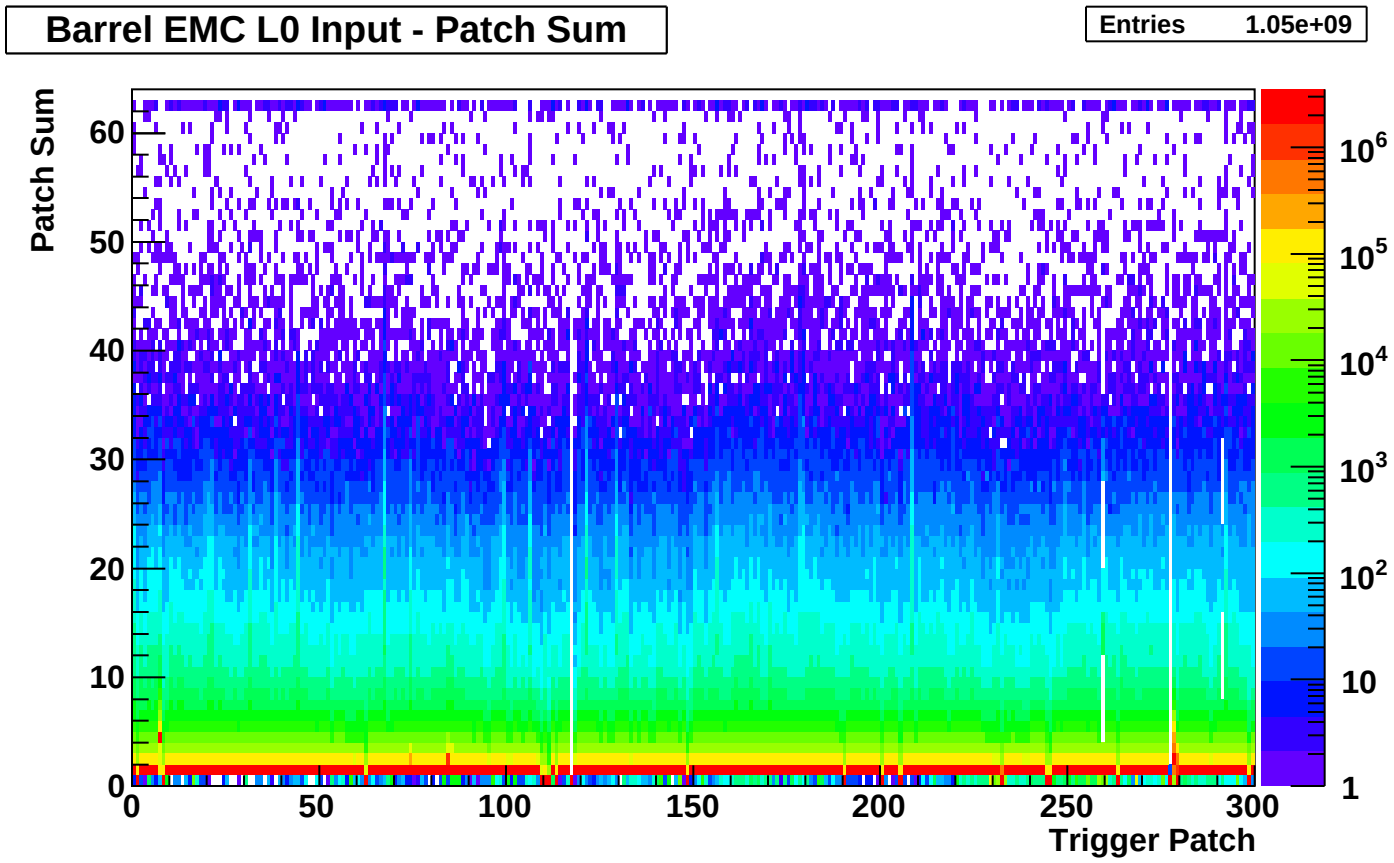
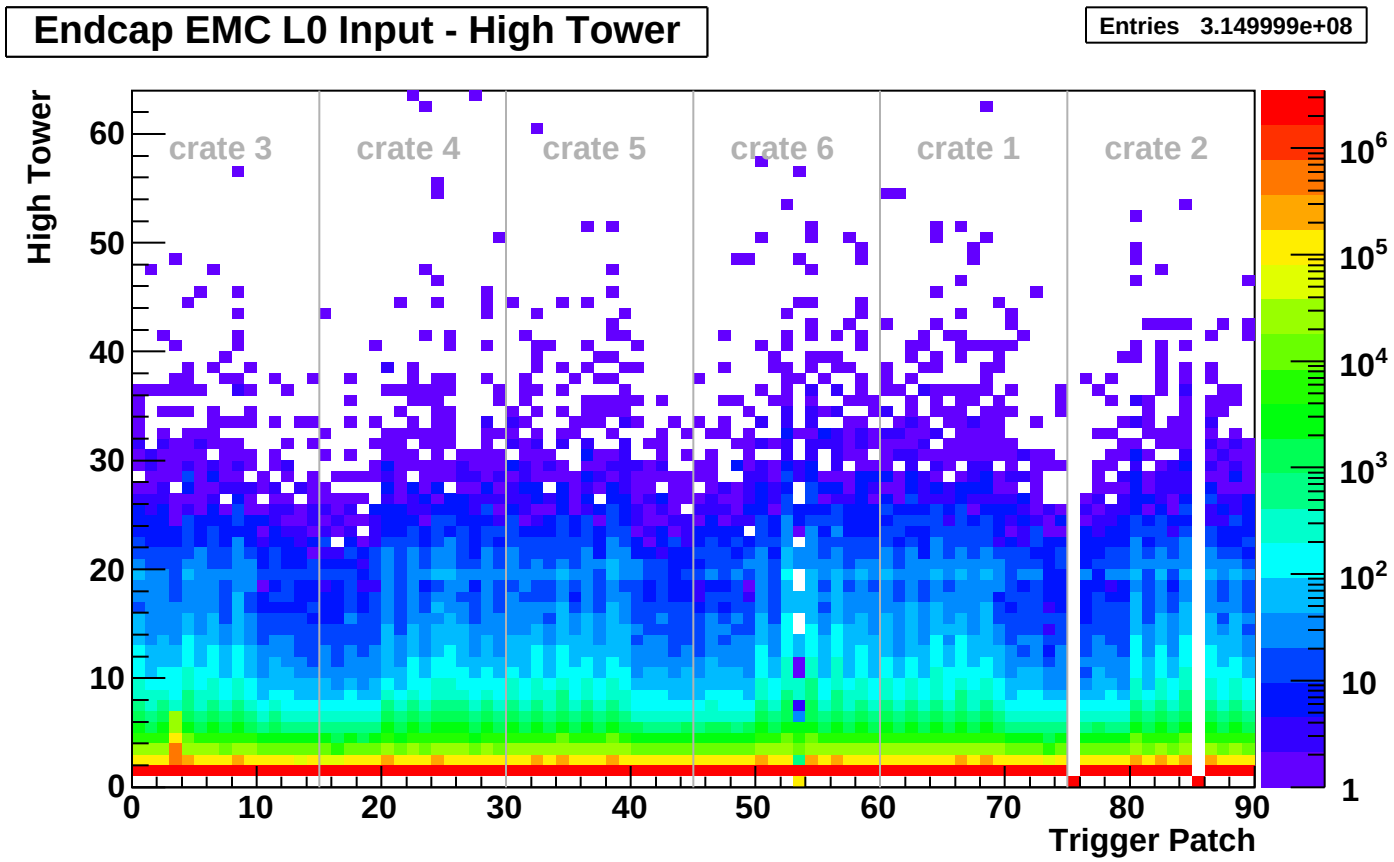
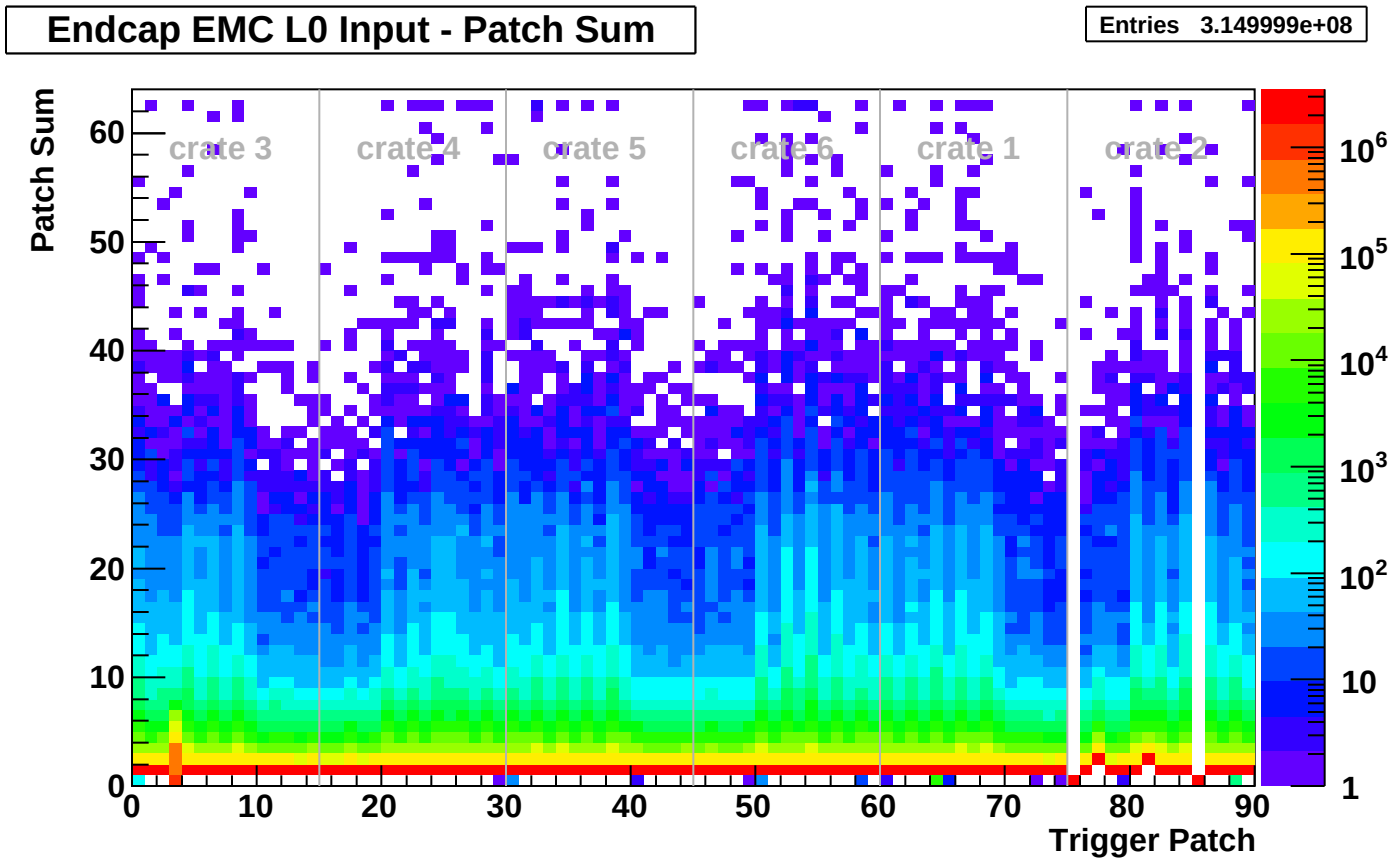
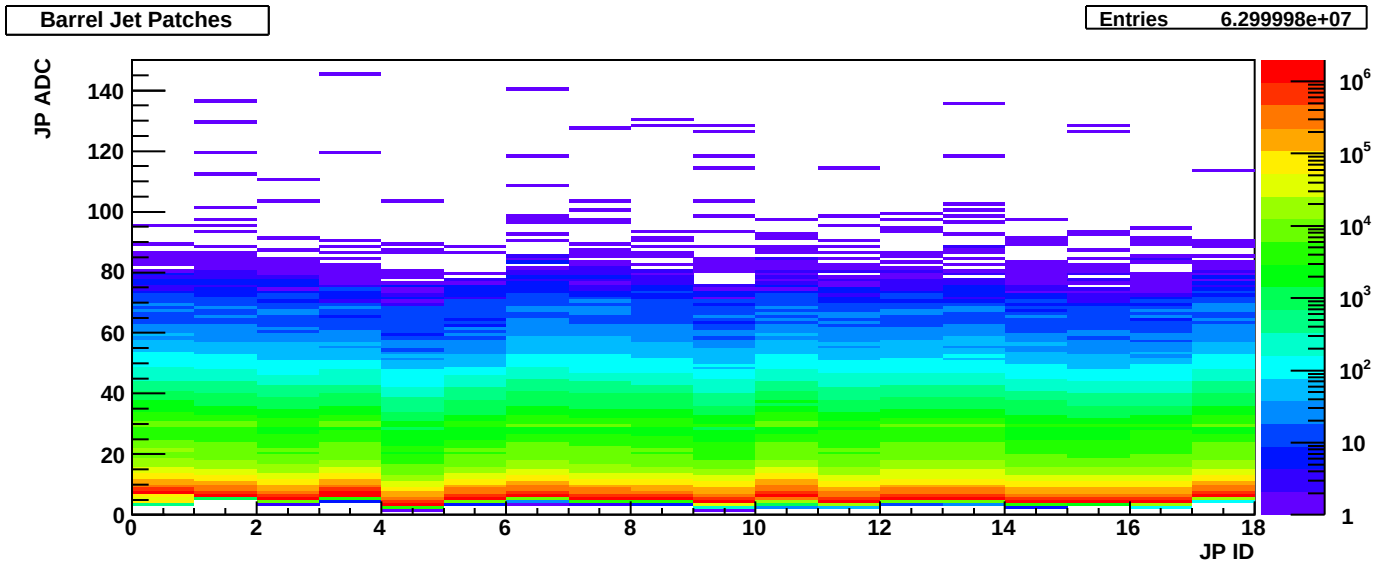
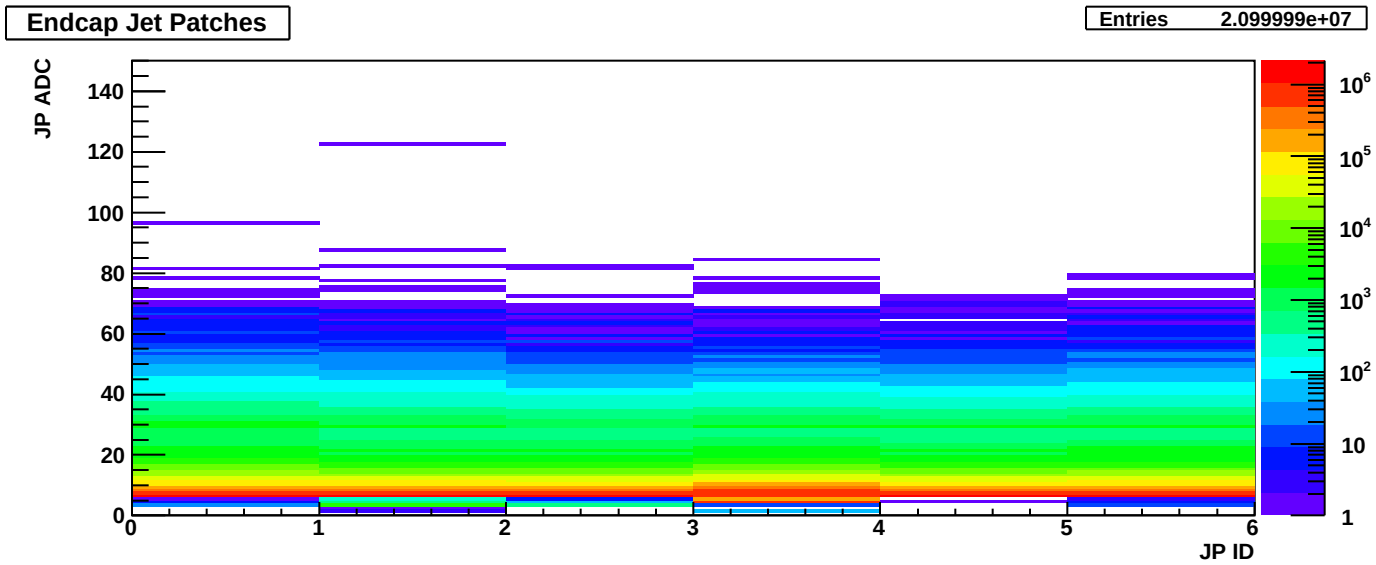

Barrel EMC L0 Input - High Tower
Entries 1.05e+09
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

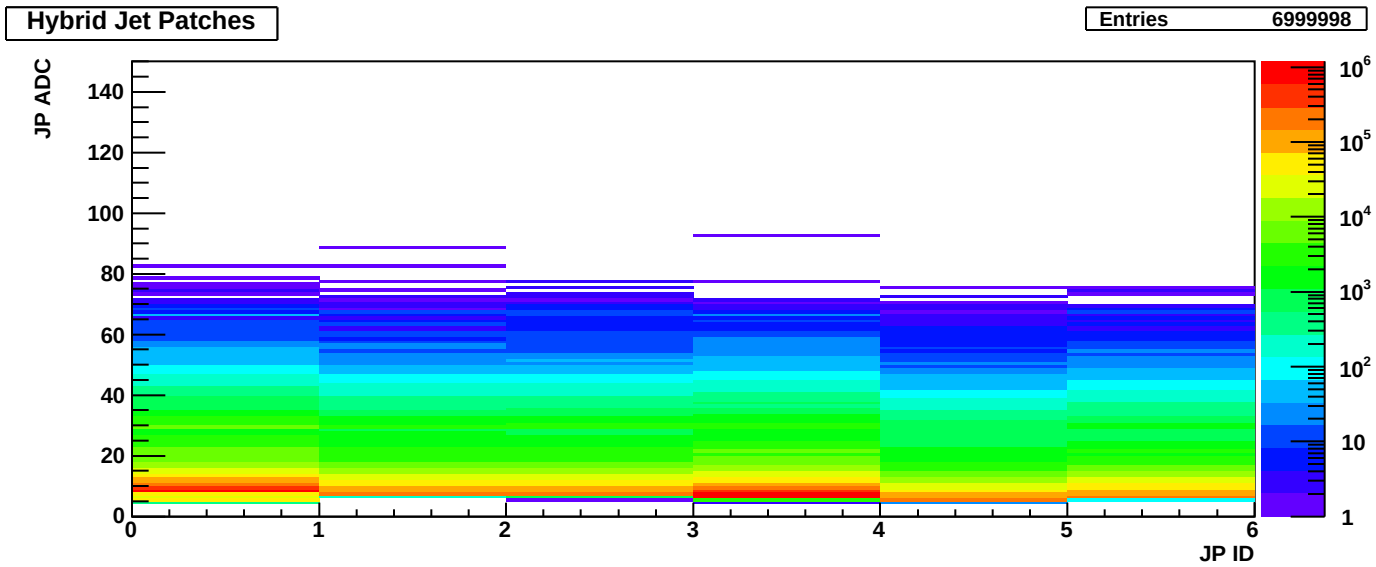

Barrel EMC L0 Input - Patch Sum
Entries 1.05e+09
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

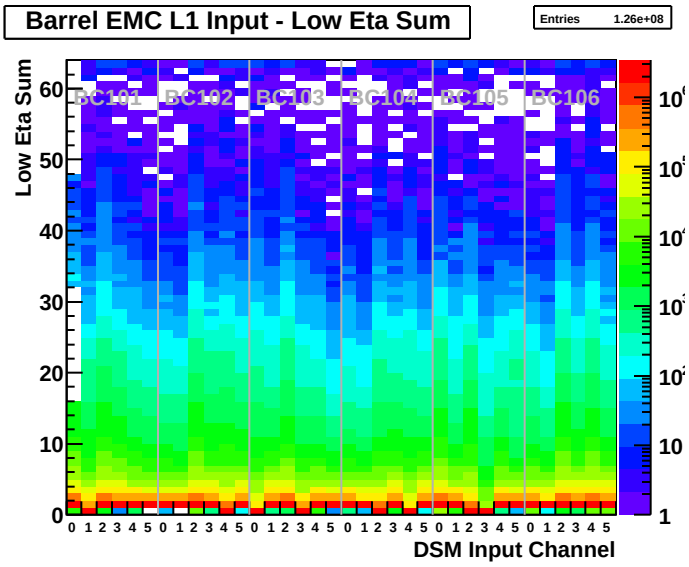

Endcap EMC L0 Input - High Tower
Entries 3.149999e+08
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

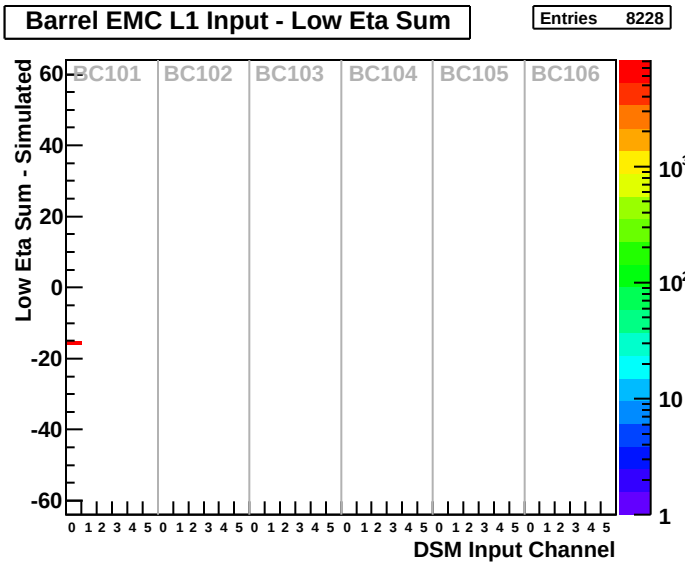

Endcap EMC L0 Input - Patch Sum
Entries 3.149999e+08
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

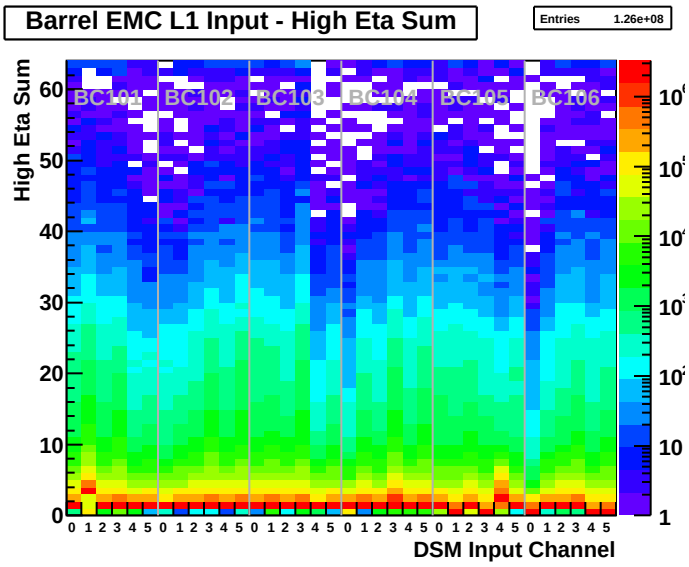

Barrel Jet Patches
Entries 6.299998e+07
JP ADC
JP ID

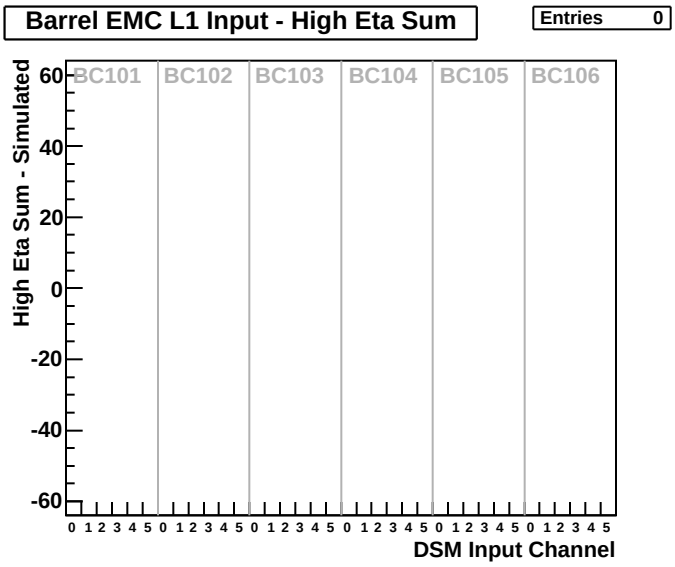

Endcap Jet Patches
Entries 2.099999e+07
JP ADC
JP ID

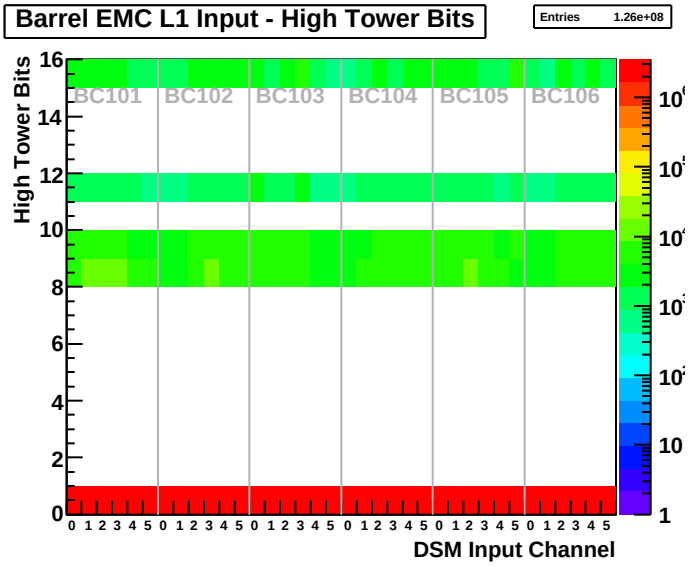

Hybrid Jet Patches
Entries 6999998
JP ADC
JP ID

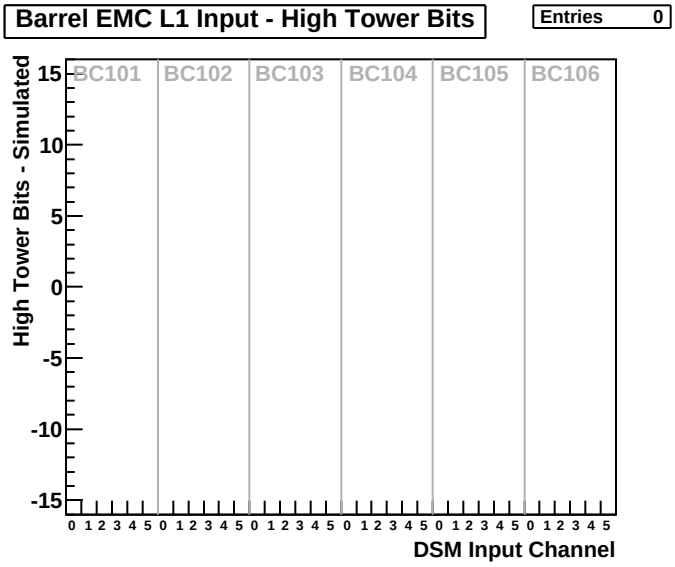

Barrel EMC L1 Input - Low Eta Sum
Entries 1.26e+08
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

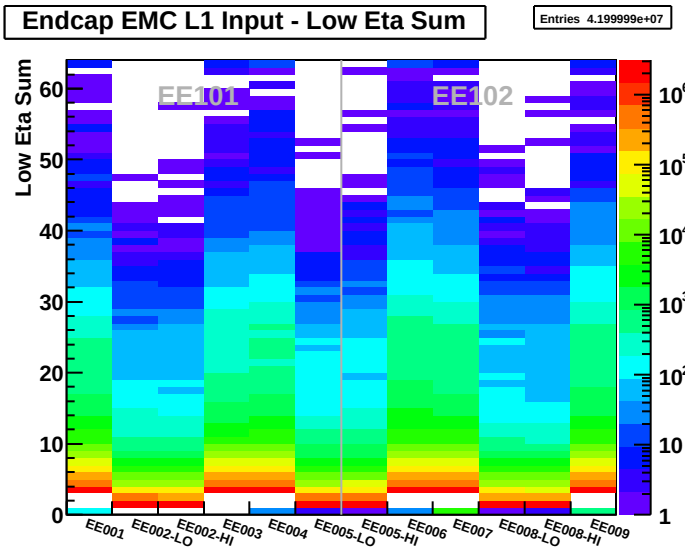

Barrel EMC L1 Input - Low Eta Sum
Entries 8228
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

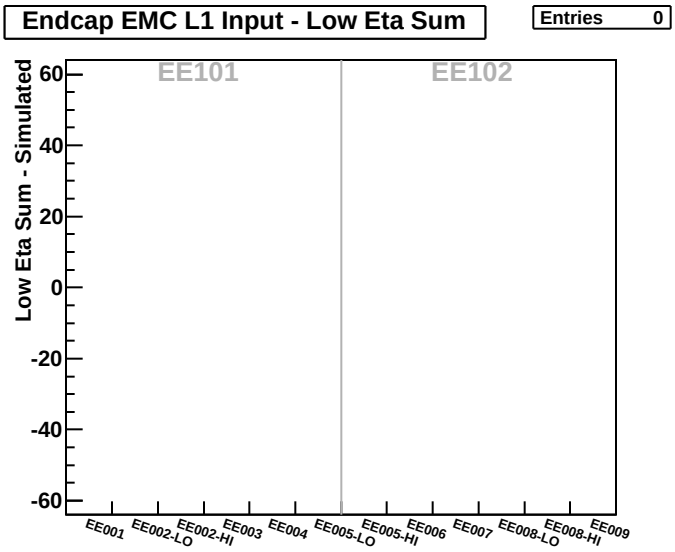

Barrel EMC L1 Input - High Eta Sum
Entries 1.26e+08
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

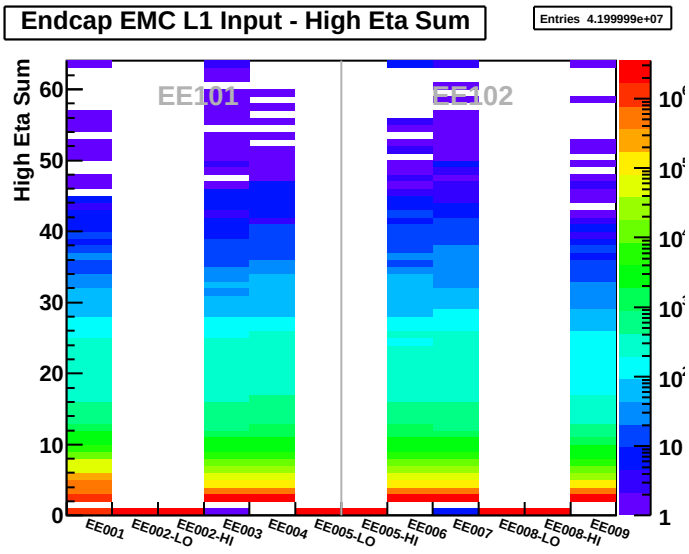

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

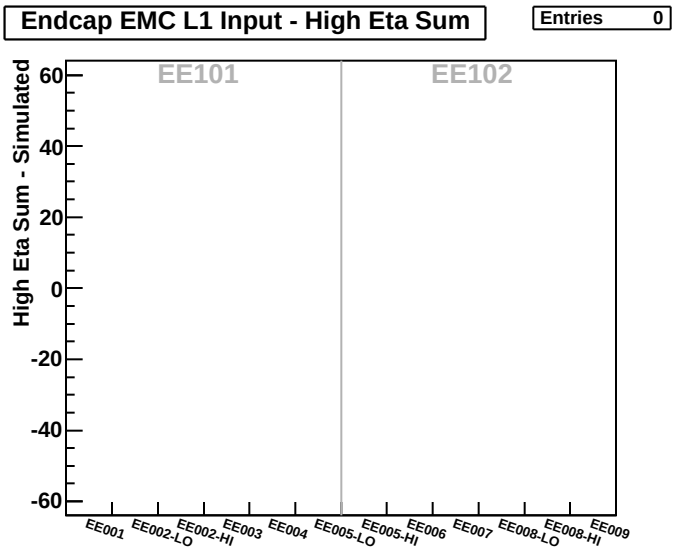

Barrel EMC L1 Input - High Tower Bits
Entries 1.26e+08
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

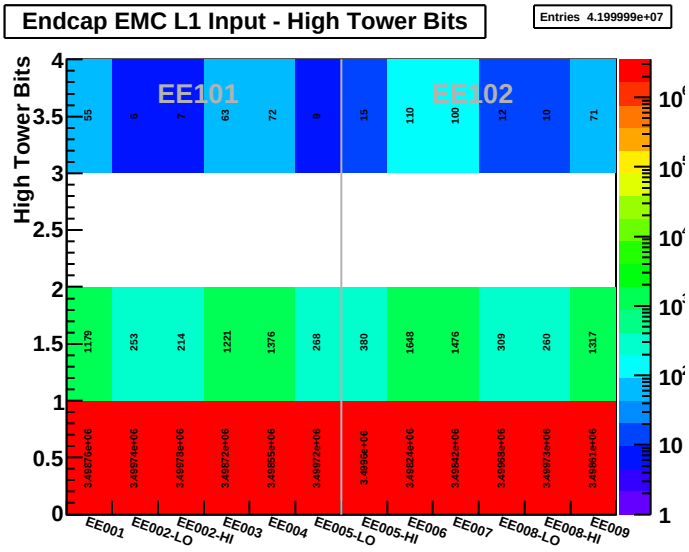

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

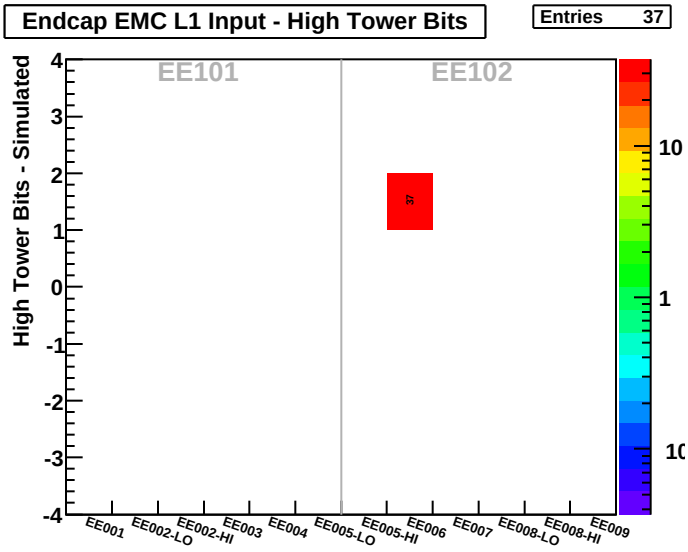

Endcap EMC L1 Input - Low Eta Sum
Entries 4.199999e+07
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

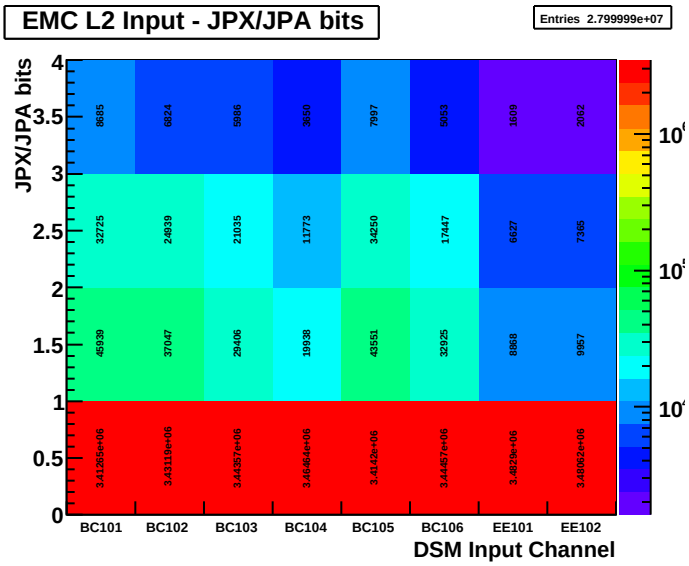

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

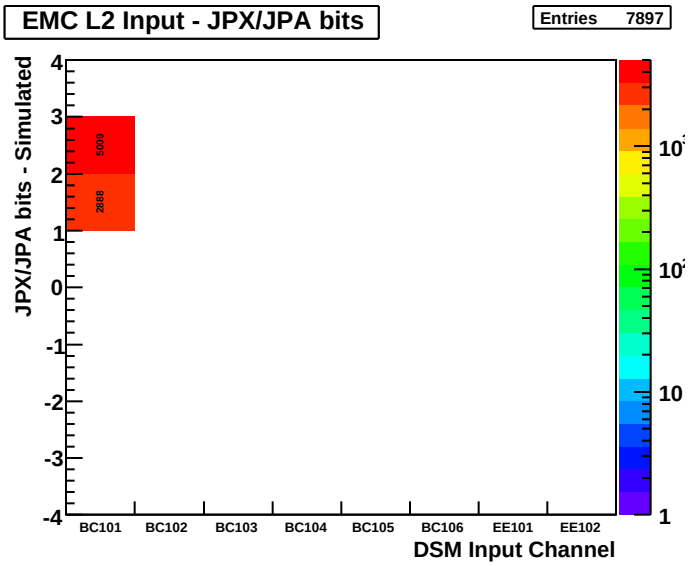

Endcap EMC L1 Input - High Eta Sum
Entries 4.199999e+07
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

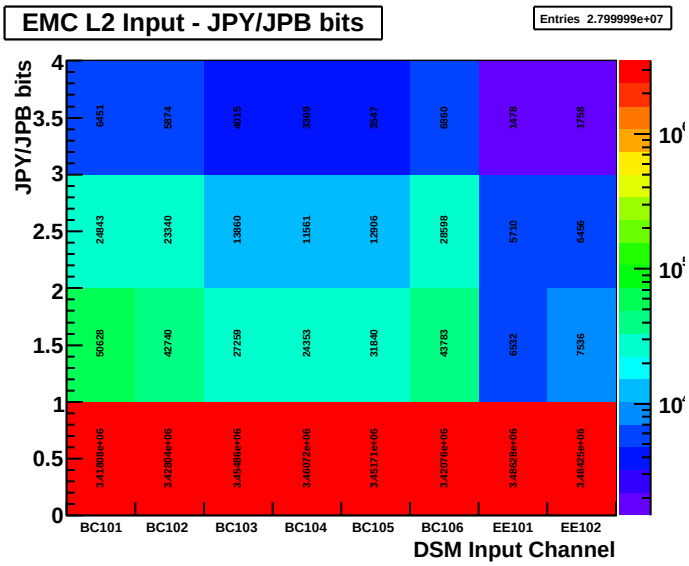

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

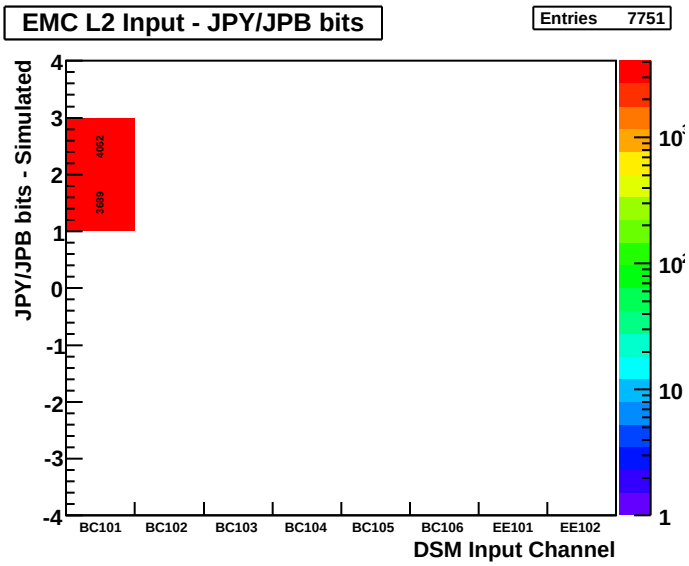

Endcap EMC L1 Input - High Tower Bits
Entries 4.199999e+07
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

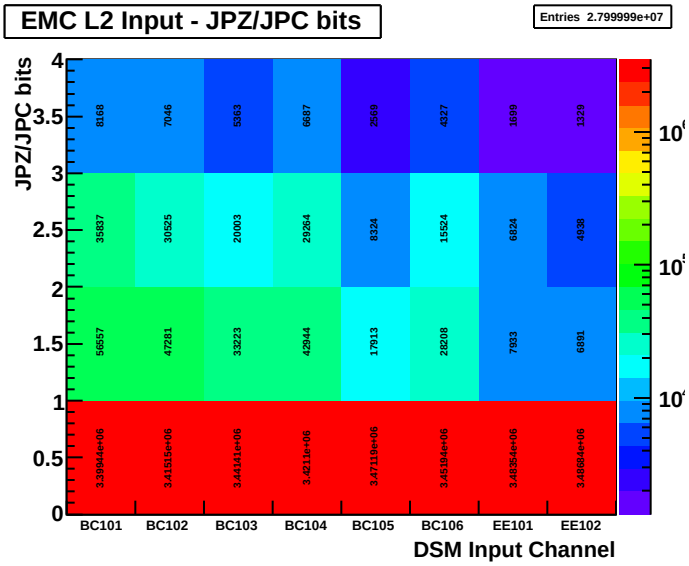

Endcap EMC L1 Input - High Tower Bits
Entries 37
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

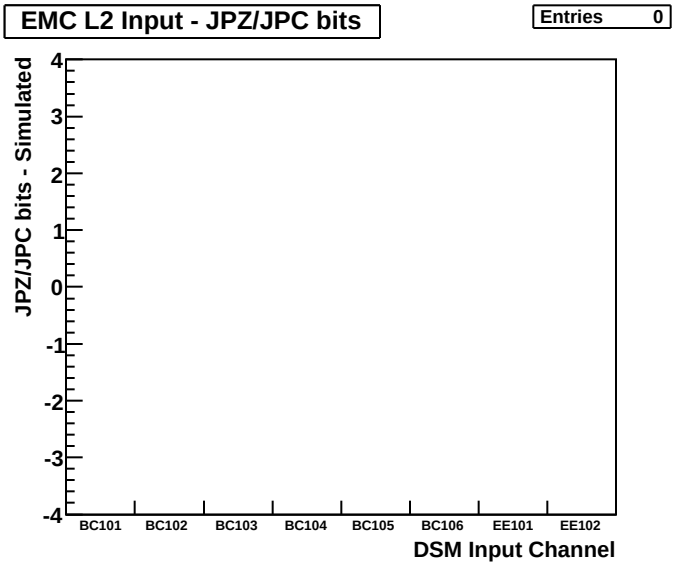

EMC L2 Input - JPX/JPA bits
Entries 2.799999e+07
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
8685 6824 5986 3850 7097 5053 1609 2062
32725 24939 21035 11773 34250 17447 6627 7365
45939 37047 29406 19938 43551 32925 8868 9957
3.41265e+06 3.43119e+06 3.44357e+06 3.46464e+06 3.4142e+06 3.44457e+06 3.4829e+06 3.48062e+06

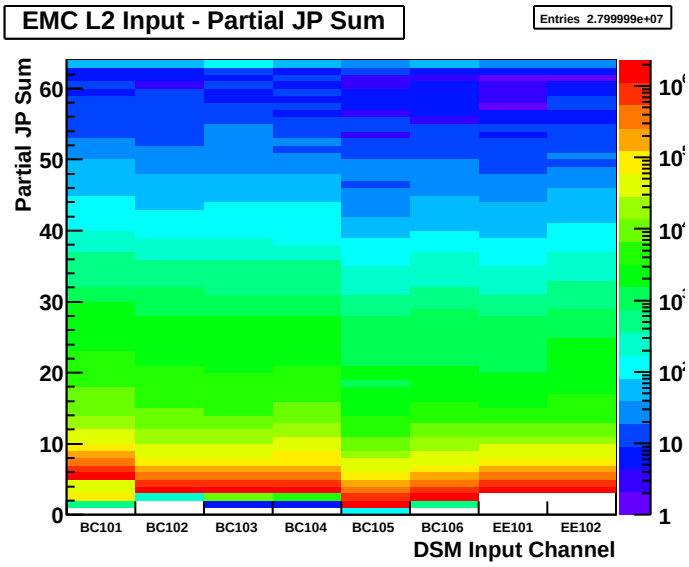

EMC L2 Input - JPX/JPA bits
Entries 7897
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
5009
2888

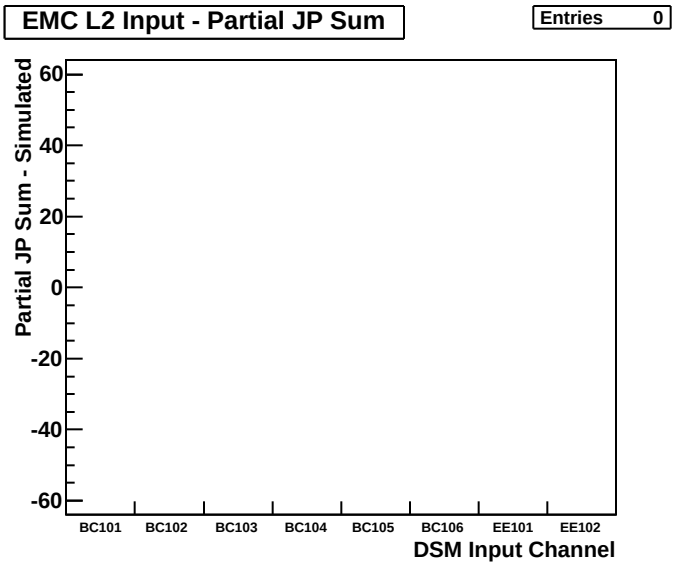

EMC L2 Input - JPY/JPB bits
Entries 2.799999e+07
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
6451 5874 4015 3369 3547 6860 1478 1758
24843 23340 13860 11561 12906 26598 5710 6456
50628 42740 27259 24353 31840 43783 6532 7536
3.41608e+06 3.42804e+06 3.45486e+06 3.46072e+06 3.45171e+06 3.42076e+06 3.48628e+06 3.48425e+06

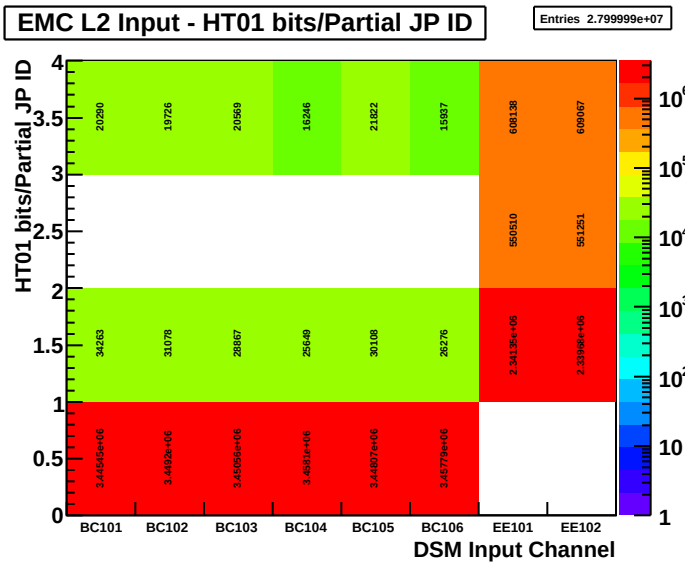

EMC L2 Input - JPY/JPB bits
Entries 7751
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
4062
3689

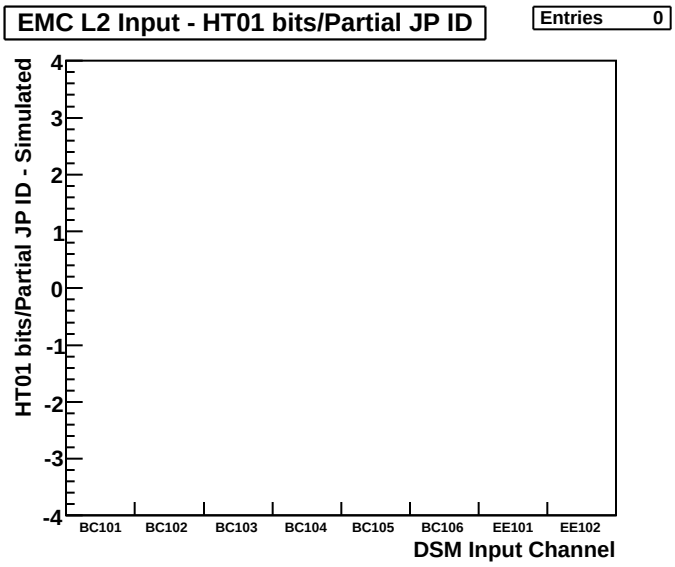

EMC L2 Input - JPZ/JPC bits
Entries 2.799999e+07
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
8168 7046 5363 6687 2569 4327 1699 1329
35837 30525 20003 29264 8324 15524 6824 4938
56557 47281 33223 42944 17913 28208 7933 6891
3.39944e+06 3.41515e+06 3.44141e+06 3.4211e+06 3.47119e+06 3.45194e+06 3.48354e+06 3.48684e+06

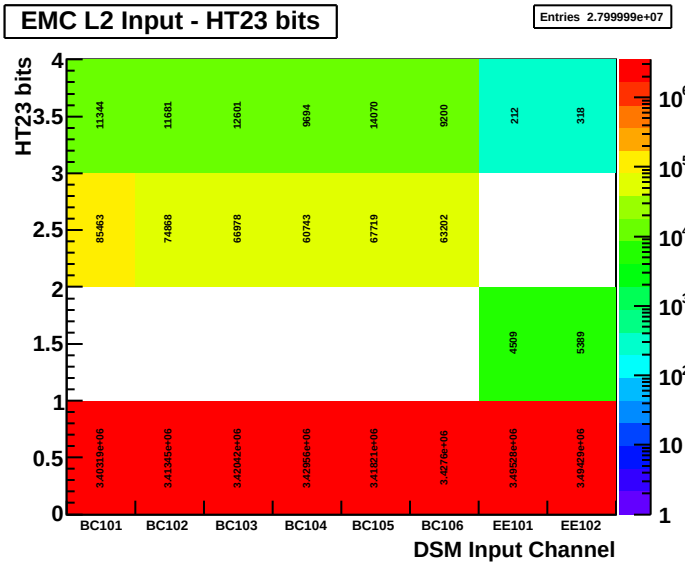

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

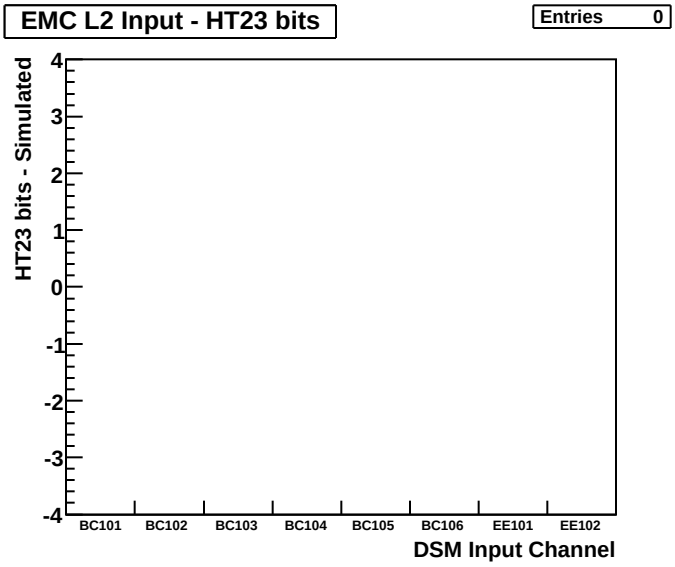

EMC L2 Input - Partial JP Sum
Entries 2.799999e+07
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

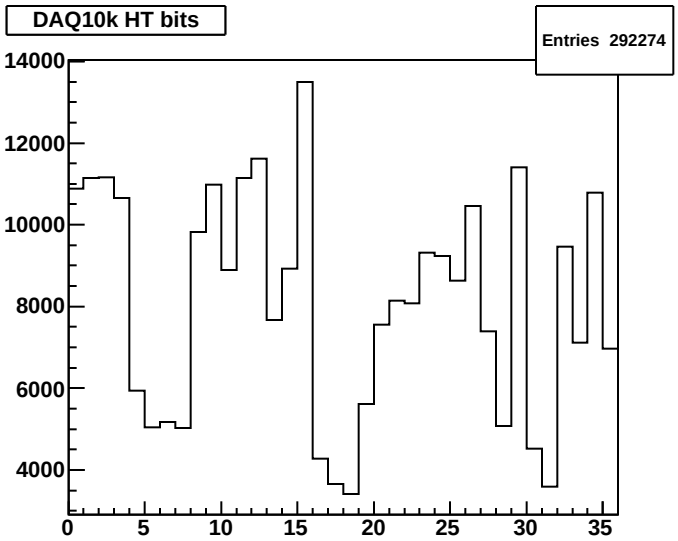

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

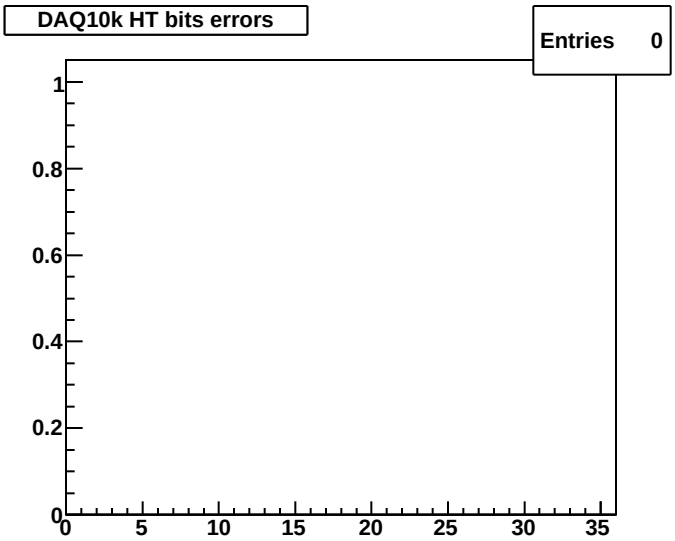

EMC L2 Input - HT01 bits/Partial JP ID
Entries 2.799999e+07
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

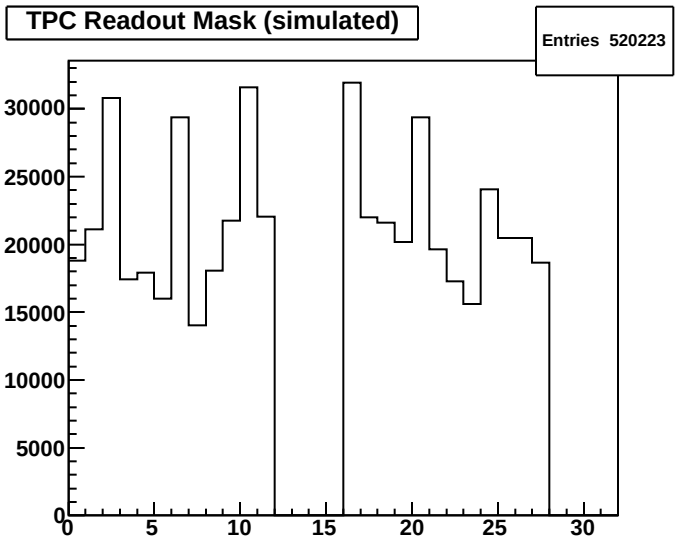

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

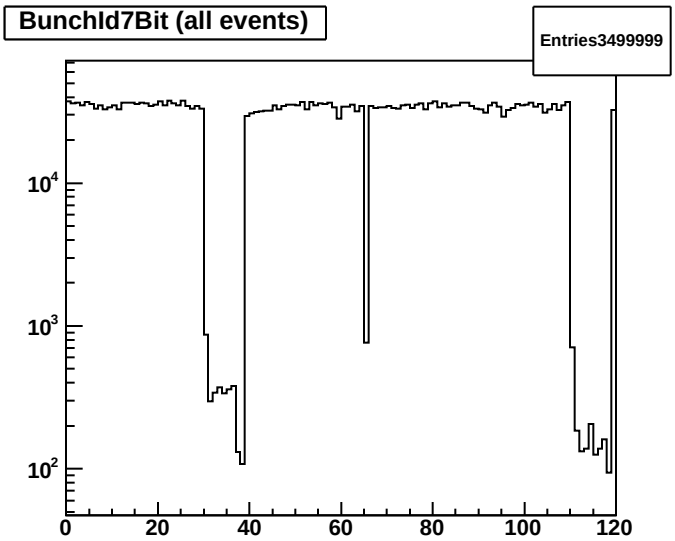

EMC L2 Input - HT23 bits
Entries 2.799999e+07
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

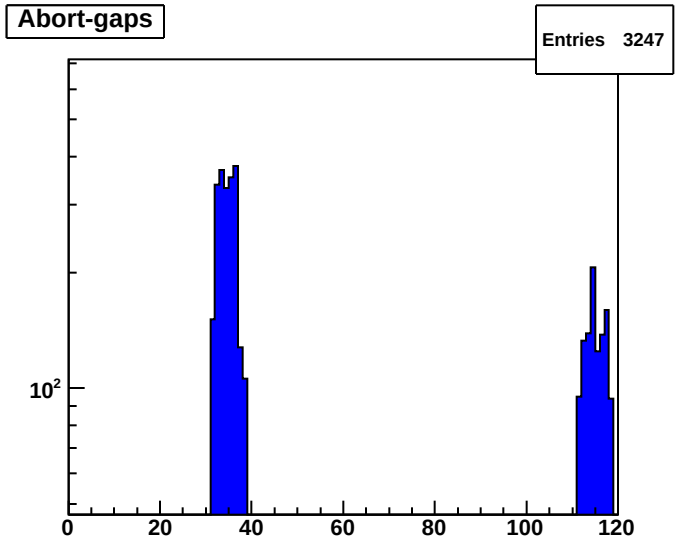

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

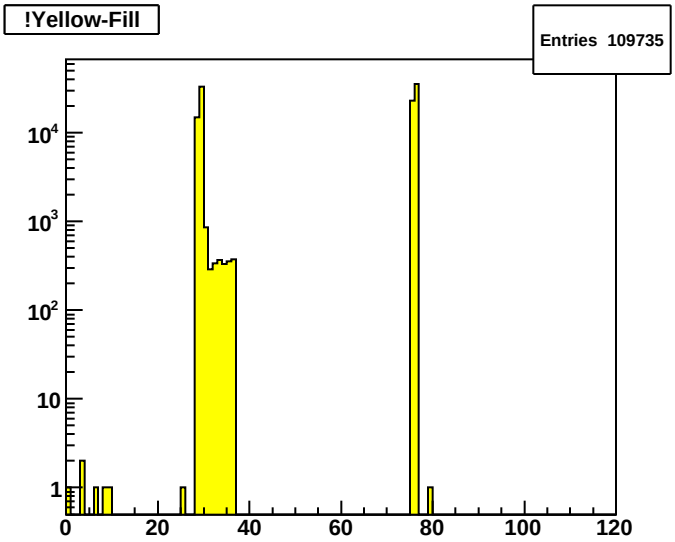

DAQ10k HT bits
Entries 292274
14000
12000
10000
8000
6000
4000
0 5 10 15 20 25 30 35

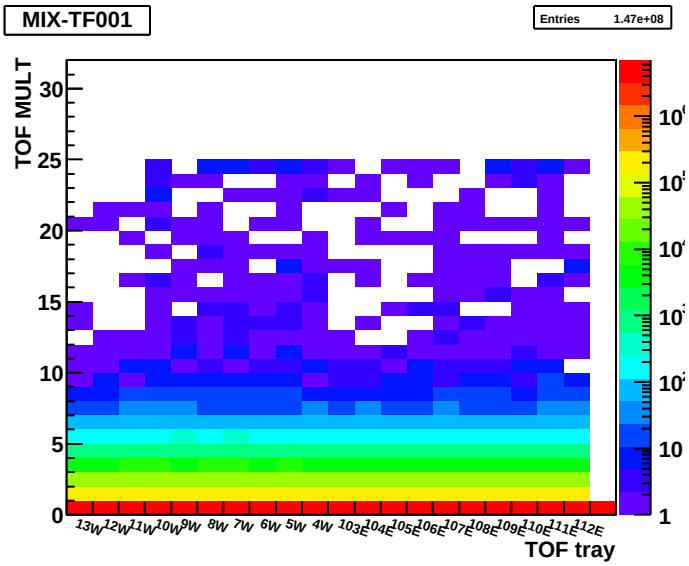

DAQ10k HT bits errors
Entries 0
1
0.8
0.6
0.4
0.2
0
0 5 10 15 20 25 30 35

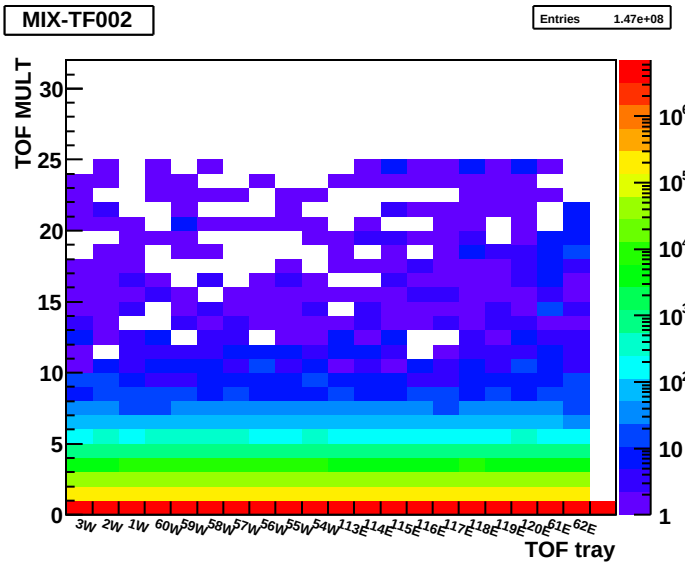

TPC Readout Mask (simulated)
Entries 520223
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

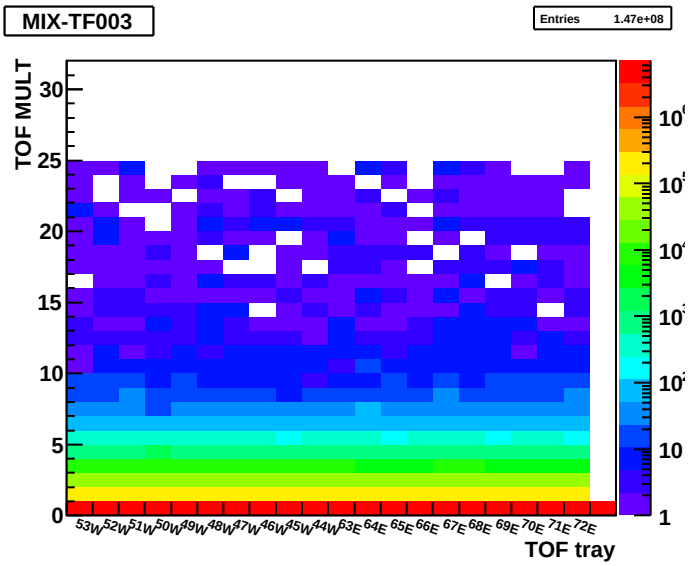

BunchId7Bit (all events)
Entries3499999
10^4
10^3
10^2
0 20 40 60 80 100 120

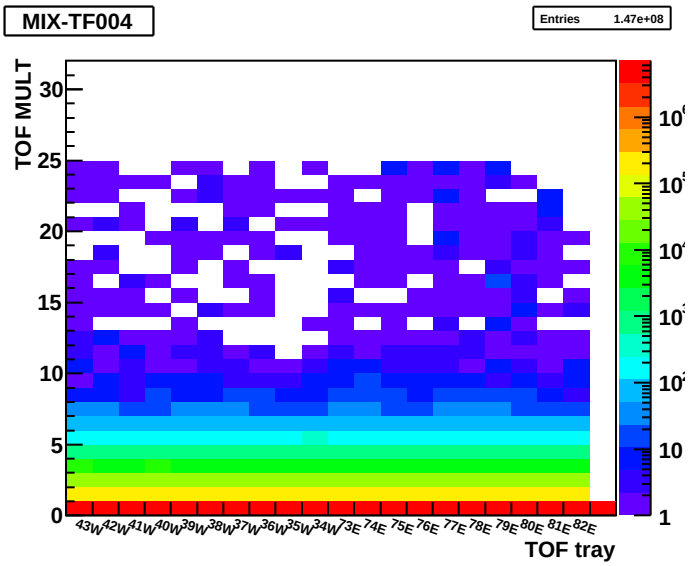

Abort-gaps
Entries 3247
10^2
0 20 40 60 80 100 120

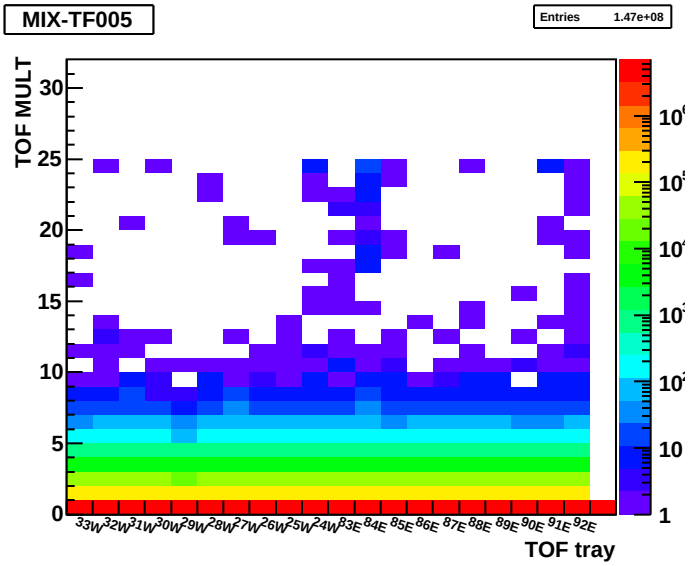

!Yellow-Fill
Entries 109735
10^4
10^3
10^2
10
1
0 20 40 60 80 100 120

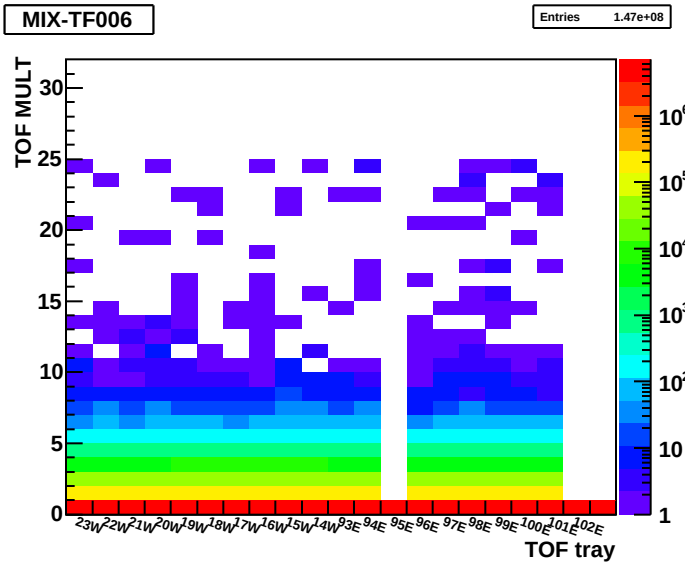

MIX-TF001
Entries 1.47e+08
TOF MULT
TOF tray

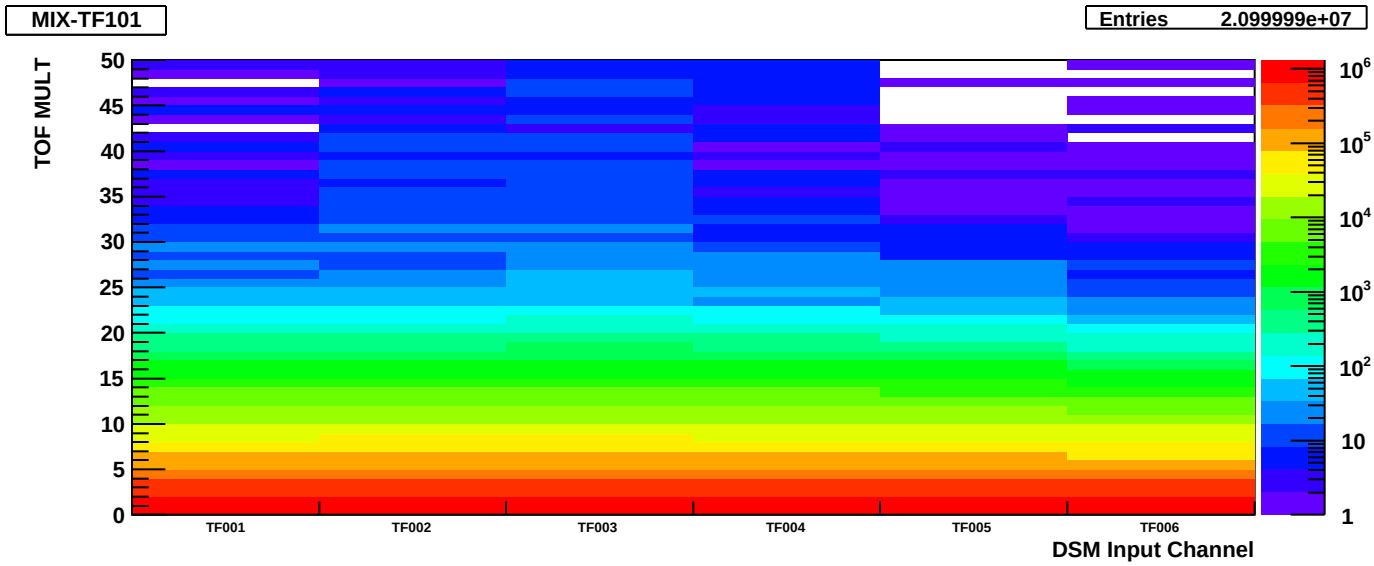

MIX-TF002
Entries 1.47e+08
TOF MULT
TOF tray

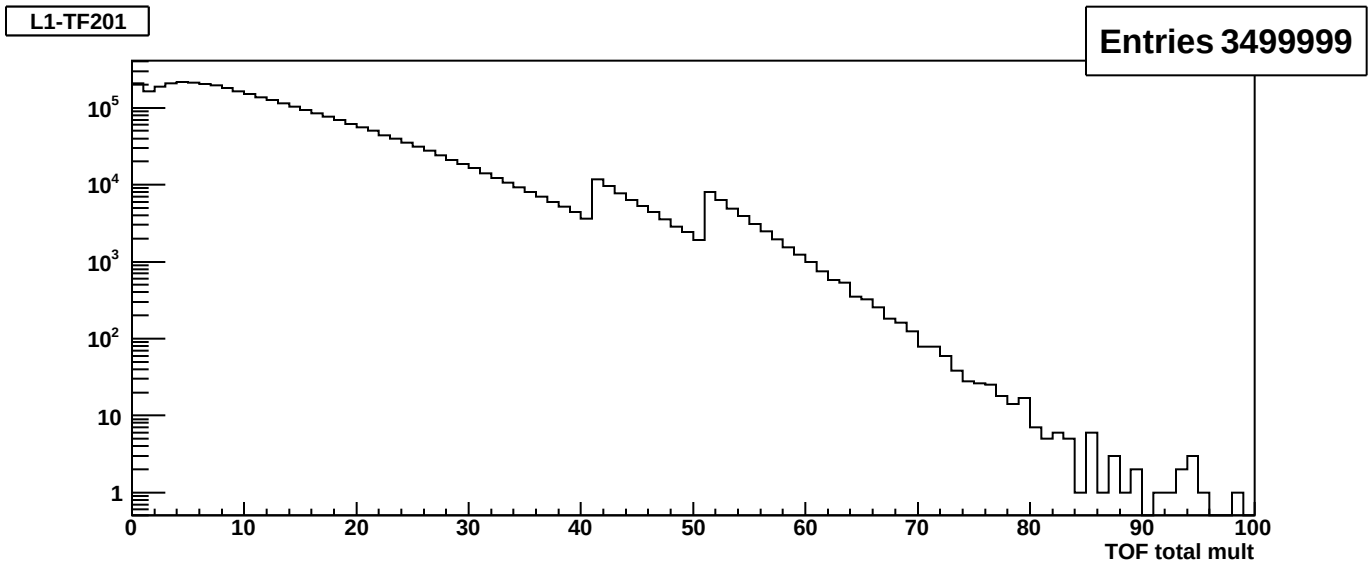

MIX-TF003
Entries 1.47e+08
TOF MULT
TOF tray

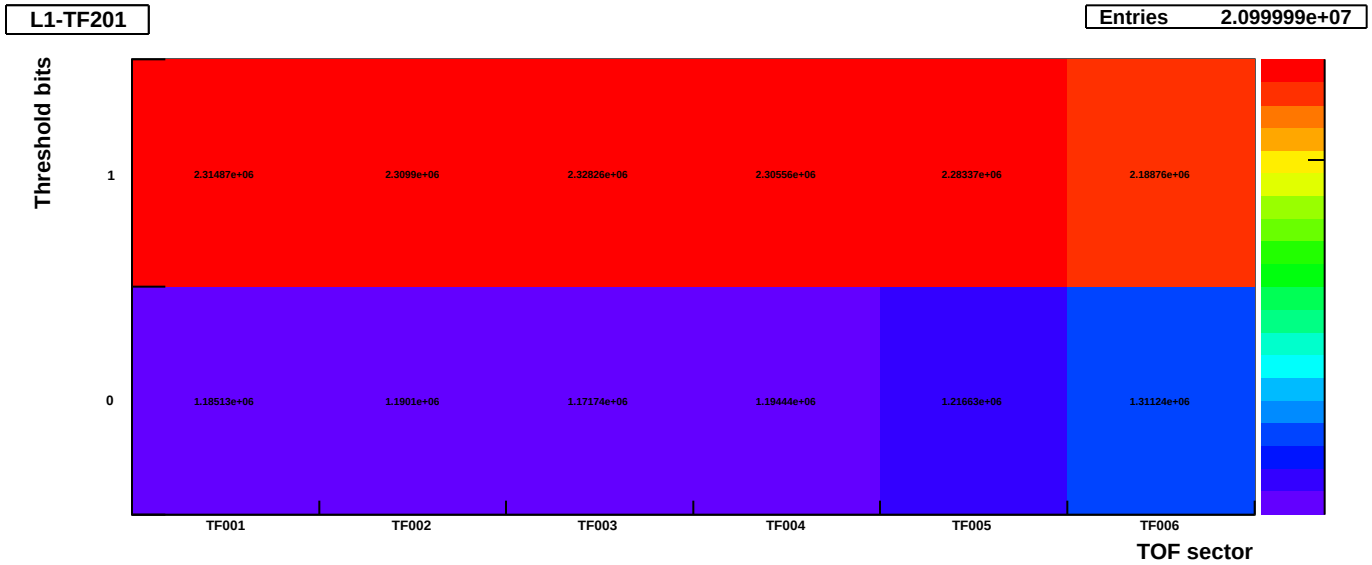

MIX-TF004
Entries 1.47e+08
TOF MULT
TOF tray

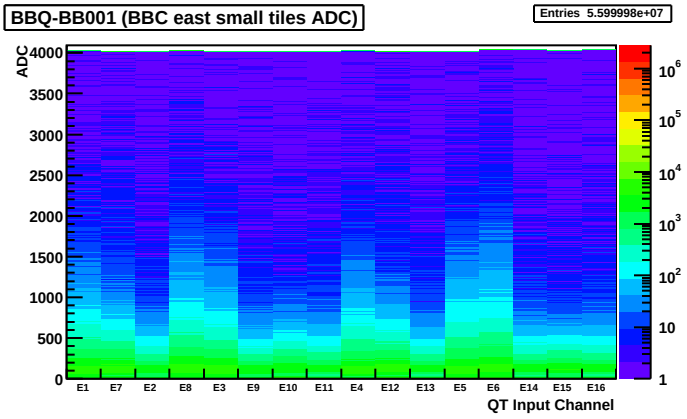

MIX-TF005
Entries 1.47e+08
TOF MULT
TOF tray

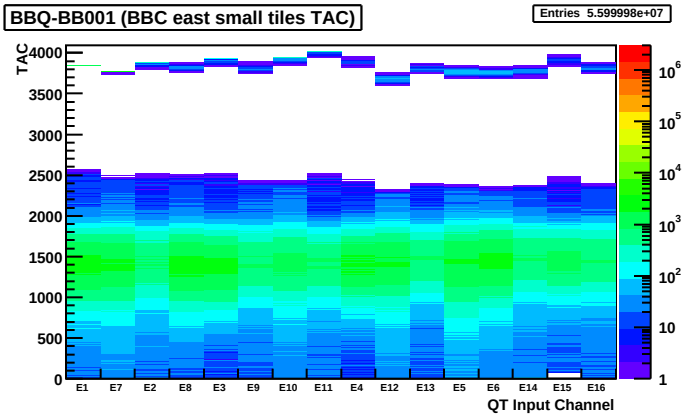

MIX-TF006
Entries 1.47e+08
TOF MULT
TOF tray

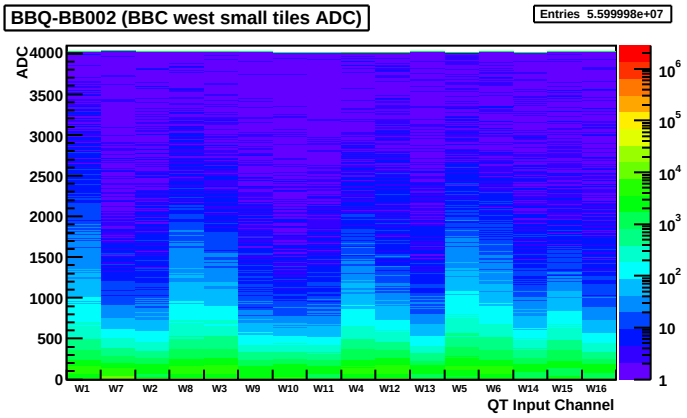

MIX-TF101
Entries 2.099999e+07
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

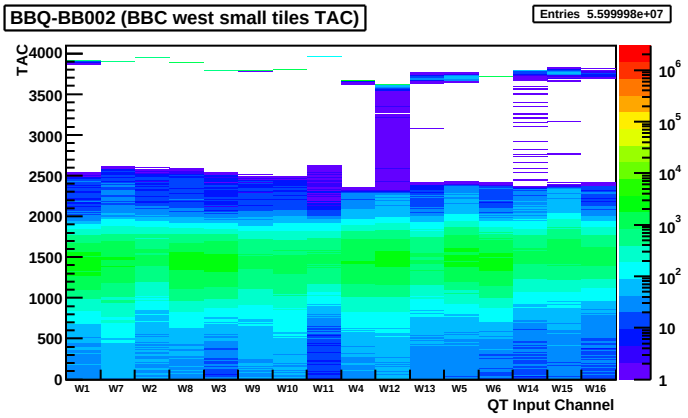

L1-TF201
Entries 3499999
TOF total mult

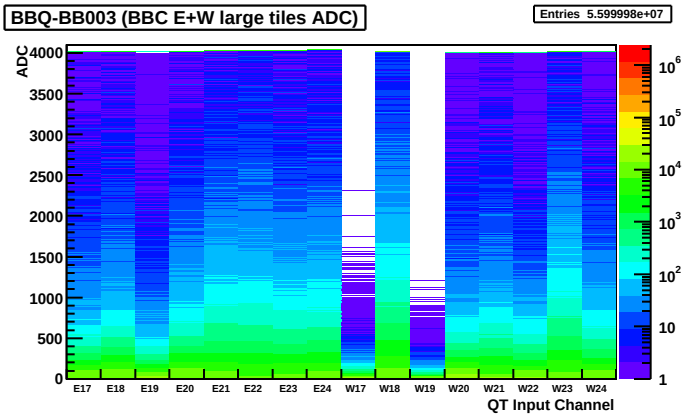

L1-TF201
Entries 2.099999e+07
Threshold bits
2.31487e+06
2.3099e+06
2.32826e+06
2.30556e+06
2.28337e+06
2.18876e+06
1.18513e+06
1.1901e+06
1.17174e+06
1.19444e+06
1.21663e+06
1.31124e+06
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

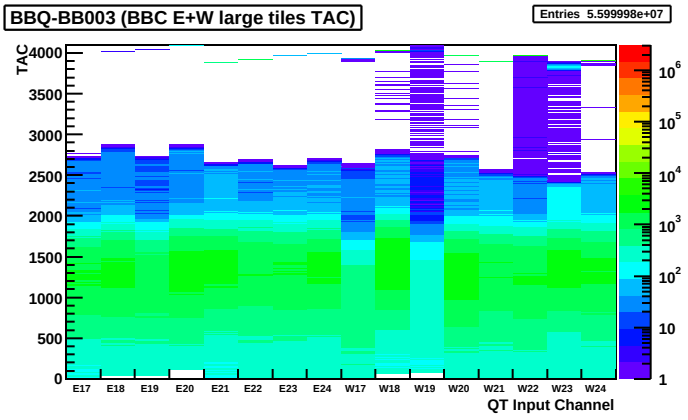

BBQ-BB001 (BBC east small tiles ADC)
Entries 5.599998e+07
ADC
QT Input Channel

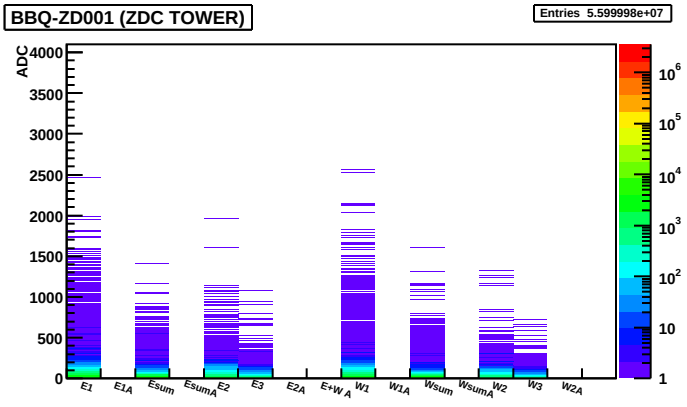

BBQ-BB001 (BBC east small tiles TAC)
Entries 5.599998e+07
TAC
QT Input Channel

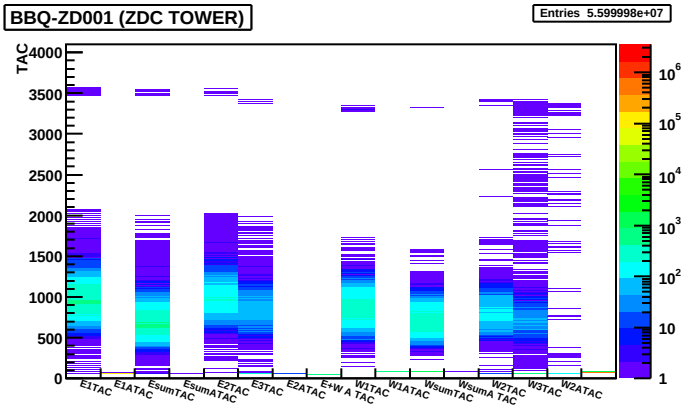

BBQ-BB002 (BBC west small tiles ADC)
Entries 5.599998e+07
ADC
QT Input Channel

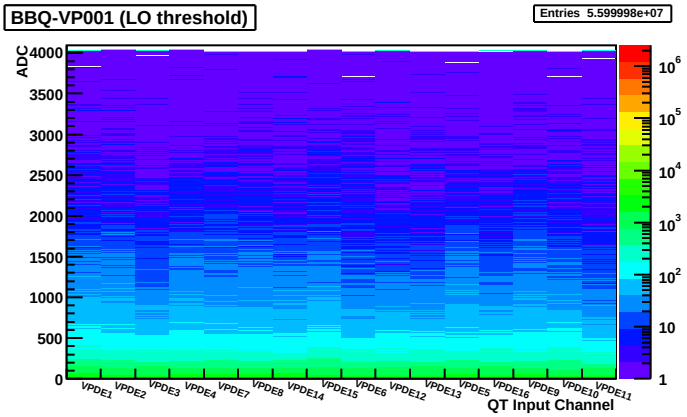

BBQ-BB002 (BBC west small tiles TAC)
Entries 5.599998e+07
TAC
QT Input Channel

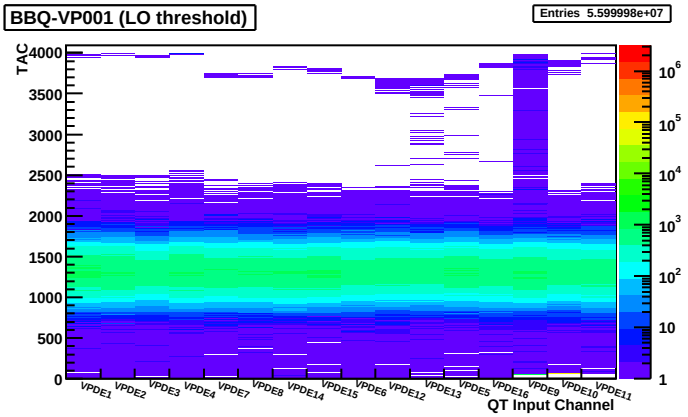

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 5.599998e+07
ADC
QT Input Channel

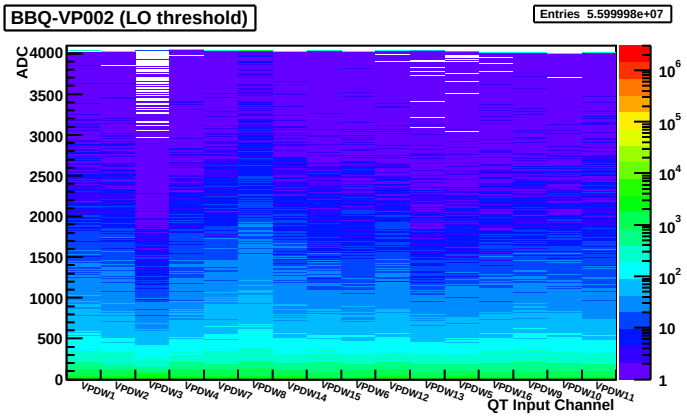

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 5.599998e+07
TAC
QT Input Channel

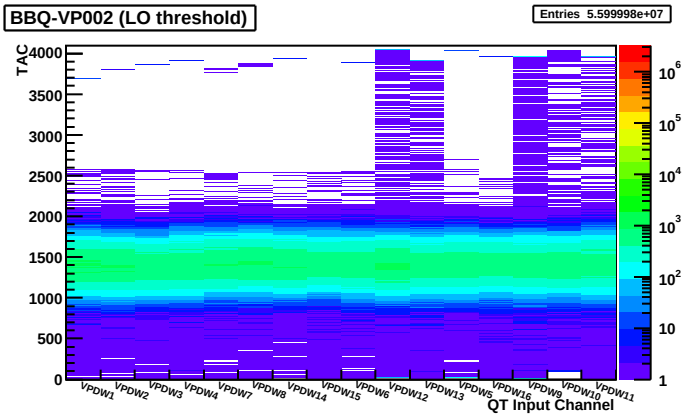

BBQ-ZD001 (ZDC TOWER)
Entries 5.599998e+07
ADC

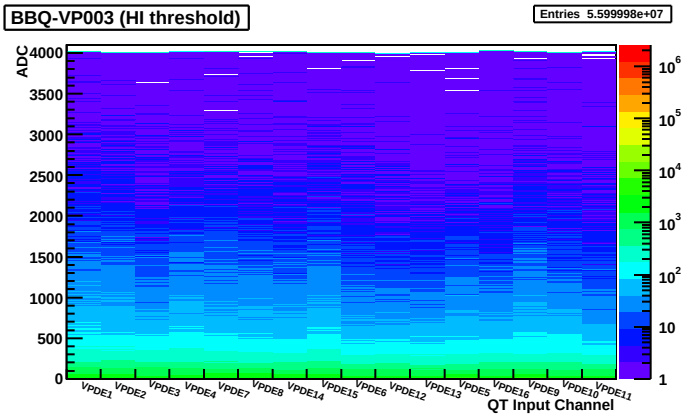

BBQ-ZD001 (ZDC TOWER)
Entries 5.599998e+07
TAC

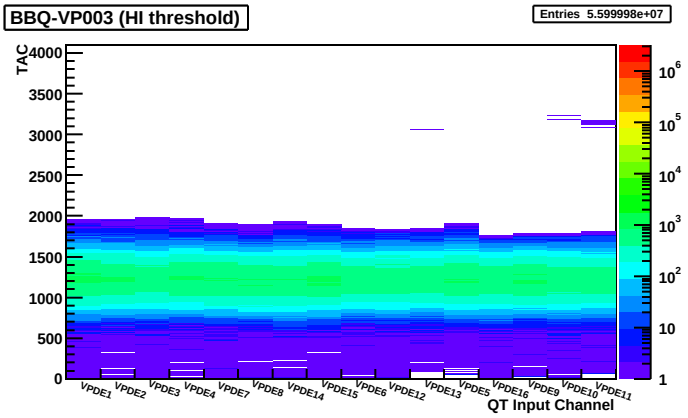

BBQ-VP001 (LO threshold)
Entries 5.599998e+07
ADC
QT Input Channel

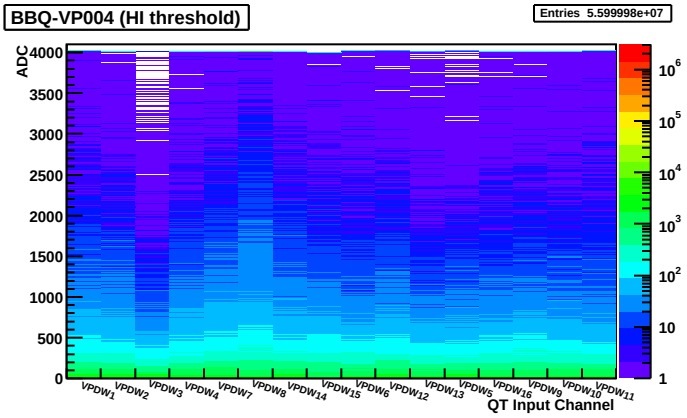

BBQ-VP001 (LO threshold)
Entries 5.599998e+07
TAC
QT Input Channel

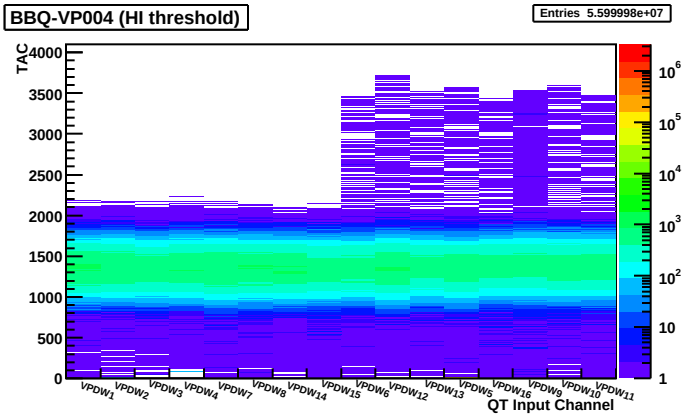

BBQ-VP002 (LO threshold)
Entries 5.599998e+07
ADC
QT Input Channel

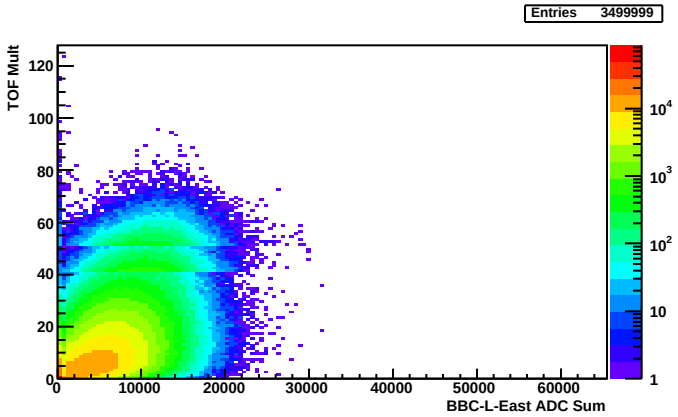

BBQ-VP002 (LO threshold)
Entries 5.599998e+07
TAC
QT Input Channel

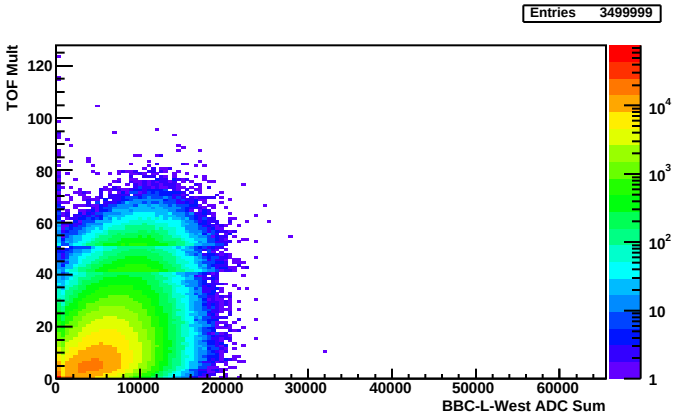

BBQ-VP003 (HI threshold)
Entries 5.599998e+07
ADC
QT Input Channel

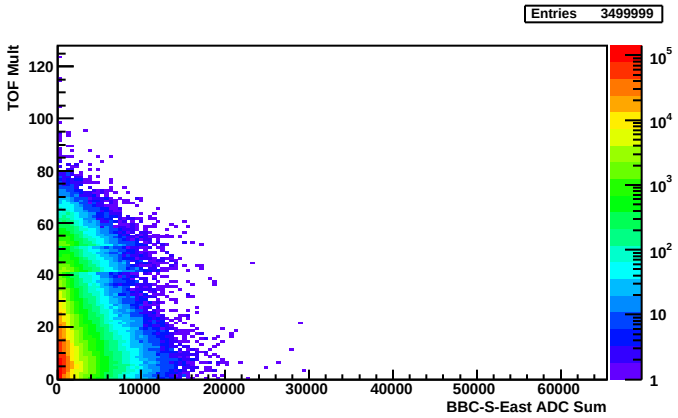

BBQ-VP003 (HI threshold)
Entries 5.599998e+07
TAC
QT Input Channel

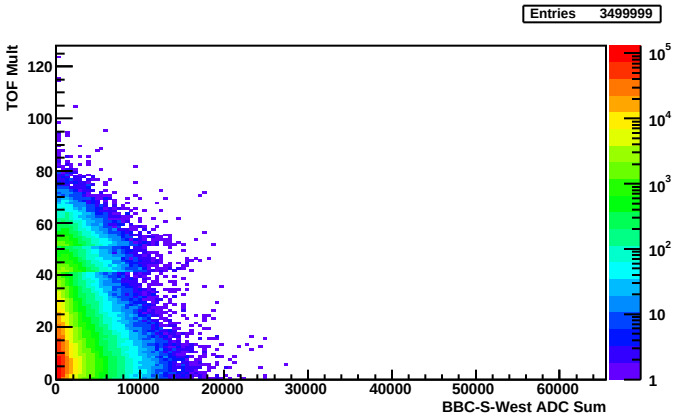

BBQ-VP004 (HI threshold)
Entries 5.599998e+07
ADC
QT Input Channel

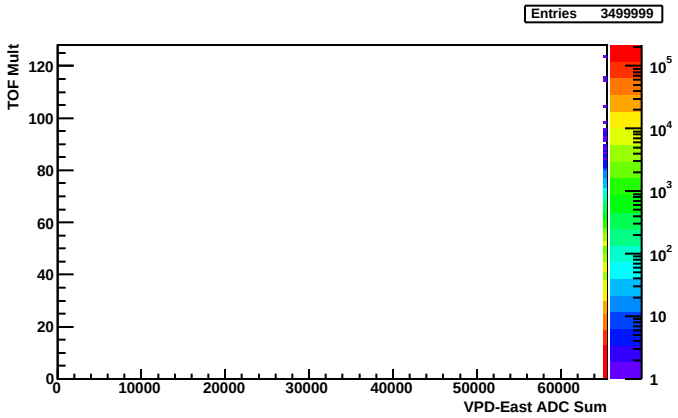

BBQ-VP004 (HI threshold)
Entries 5.599998e+07
TAC
QT Input Channel

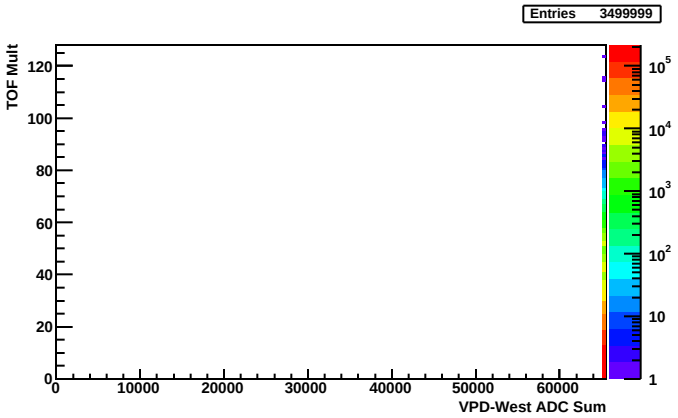

Entries 3499999
TOF Mult
BBC-L-East ADC Sum

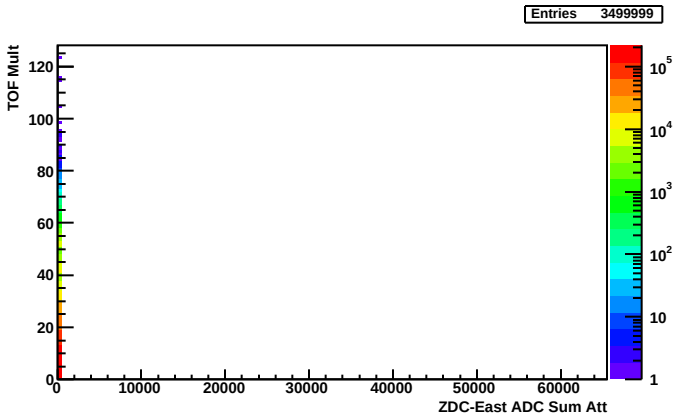

Entries 3499999
TOF Mult
BBC-L-West ADC Sum

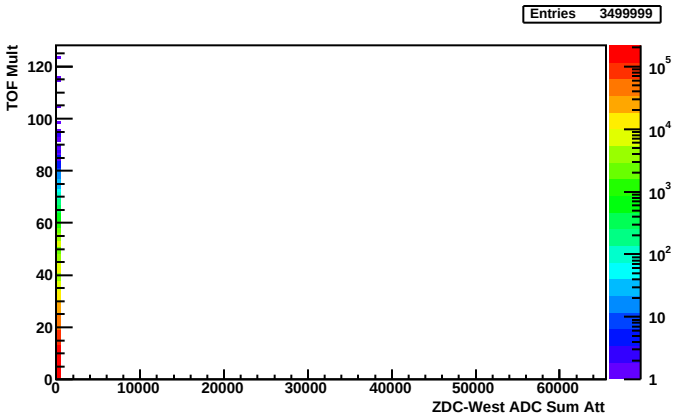

Entries 3499999
TOF Mult
BBC-S-East ADC Sum

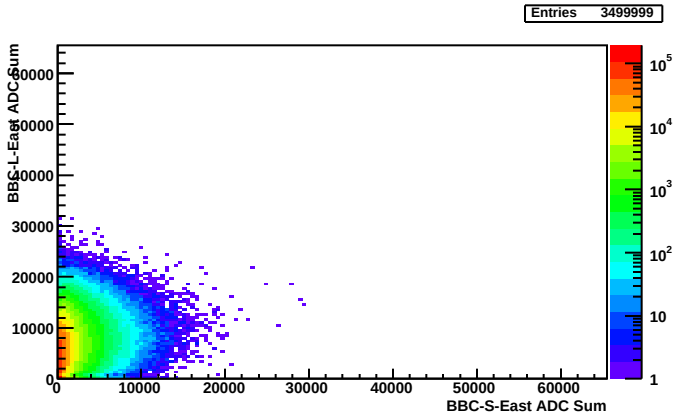

Entries 3499999
TOF Mult
BBC-S-West ADC Sum

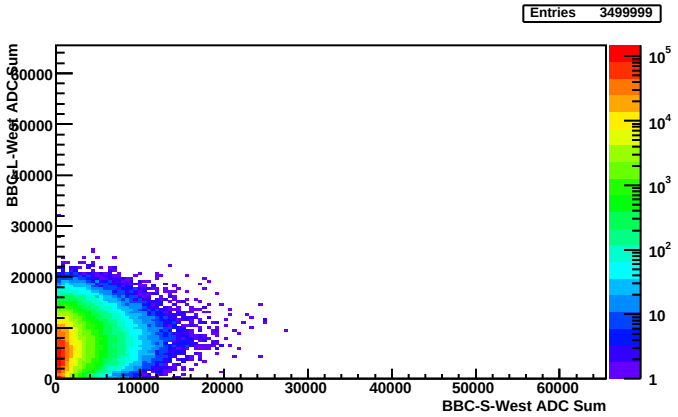

Entries 3499999
TOF Mult
VPD-East ADC Sum

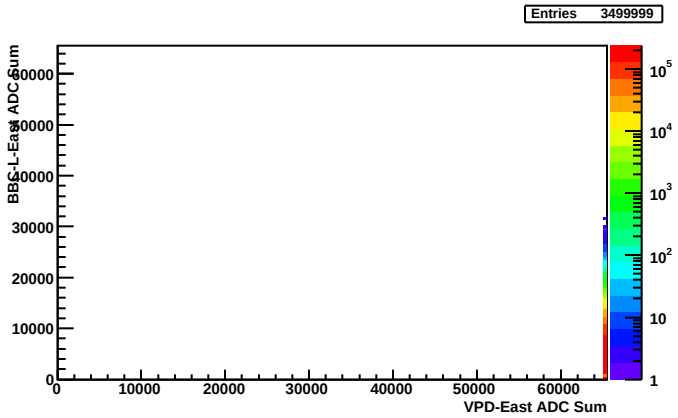

Entries 3499999
TOF Mult
VPD-West ADC Sum

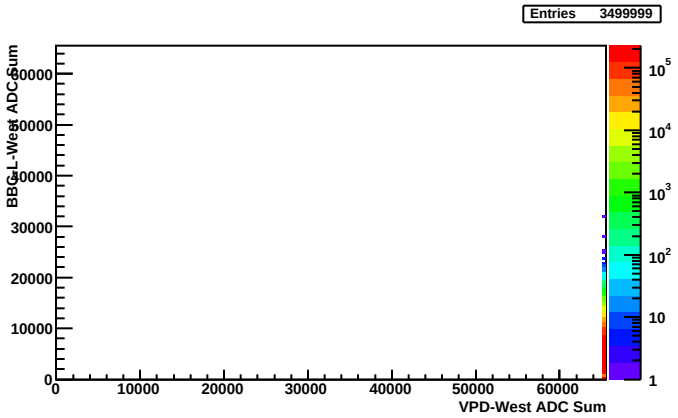

Entries 3499999
TOF Mult
ZDC-East ADC Sum Att

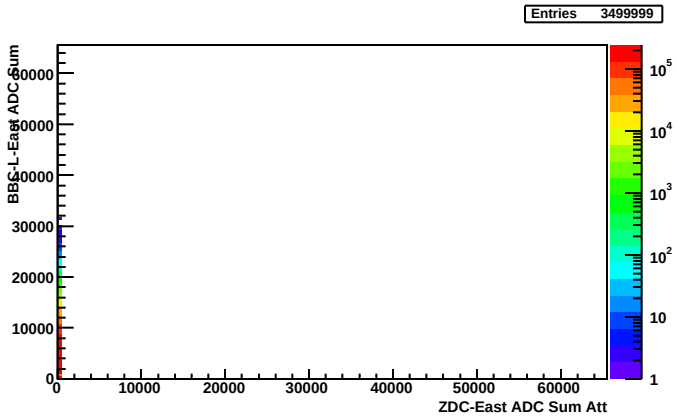

Entries 3499999
TOF Mult
ZDC-West ADC Sum Att

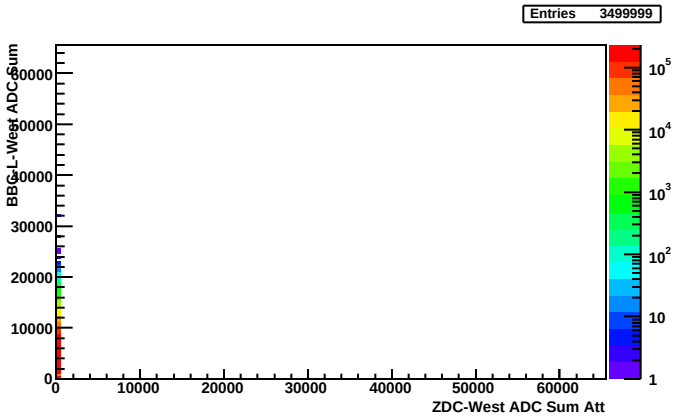

Entries 3499999
BBC-L-East ADC Sum
BBC-S-East ADC Sum

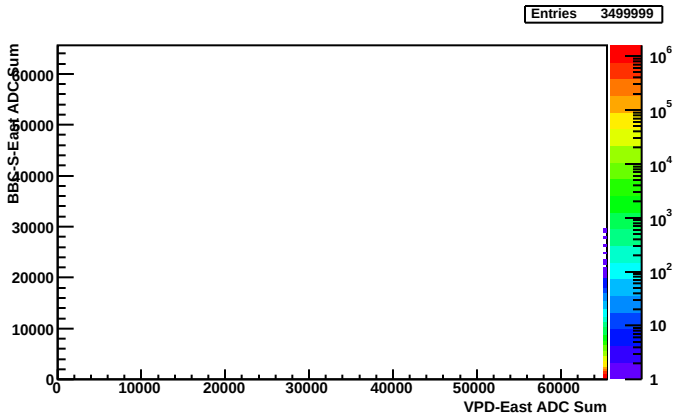

Entries 3499999
BBC-L-West ADC Sum
BBC-S-West ADC Sum

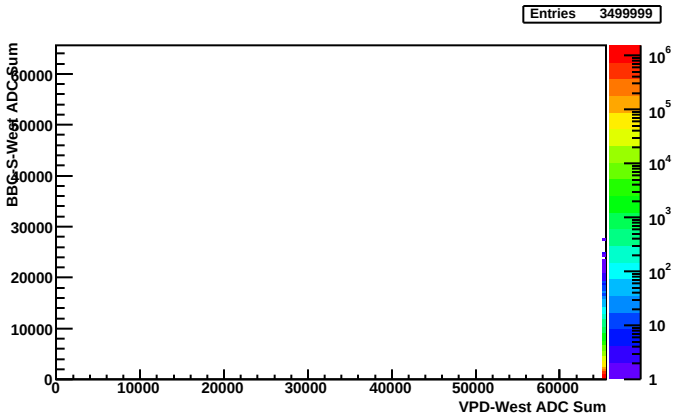

Entries 3499999
BBC-L-East ADC Sum
VPD-East ADC Sum

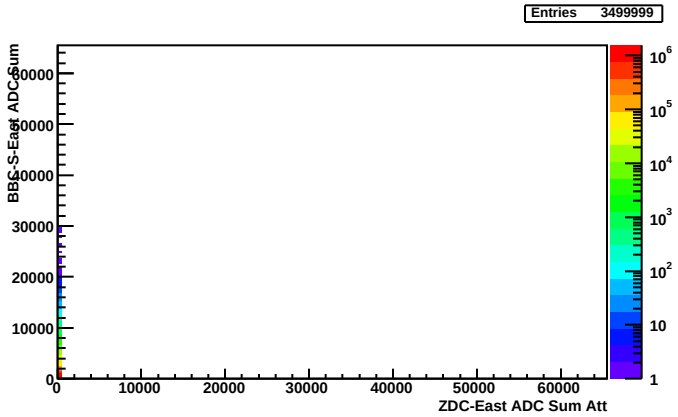

Entries 3499999
BBC-L-West ADC Sum
VPD-West ADC Sum

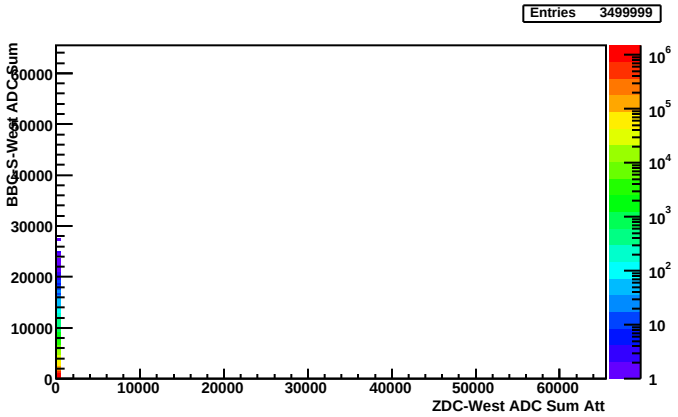

Entries 3499999
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

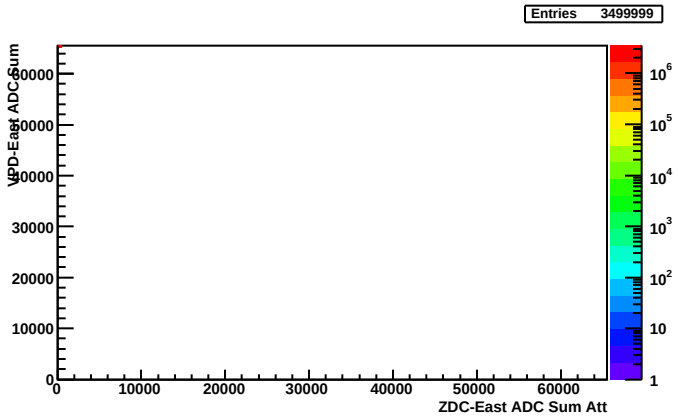

Entries 3499999
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

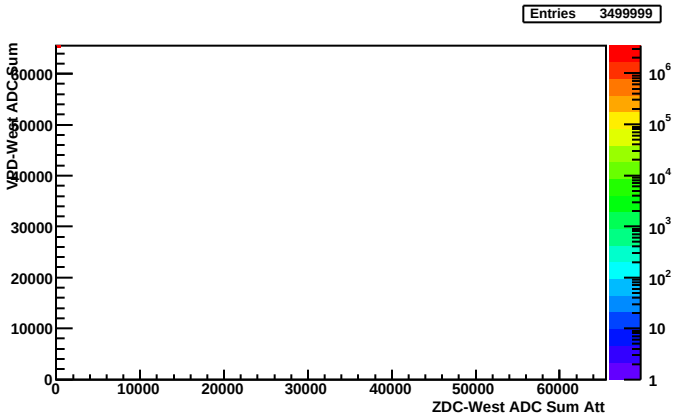

Entries 3499999
BBC-S-East ADC Sum
VPD-East ADC Sum

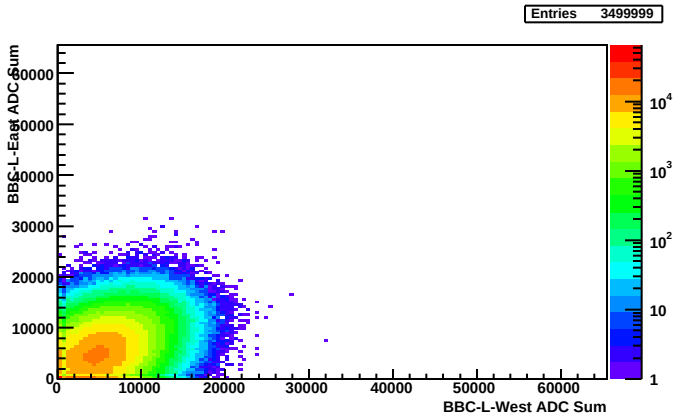

Entries 3499999
BBC-S-West ADC Sum
VPD-West ADC Sum

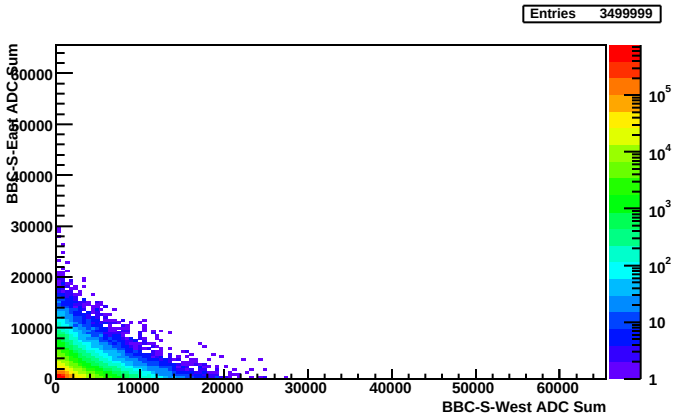

Entries 3499999
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

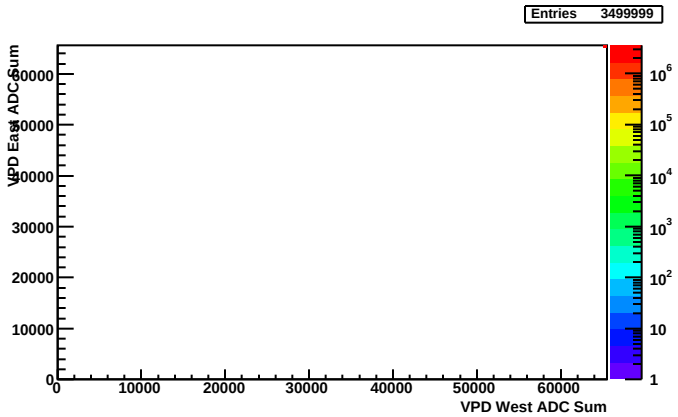

Entries 3499999
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

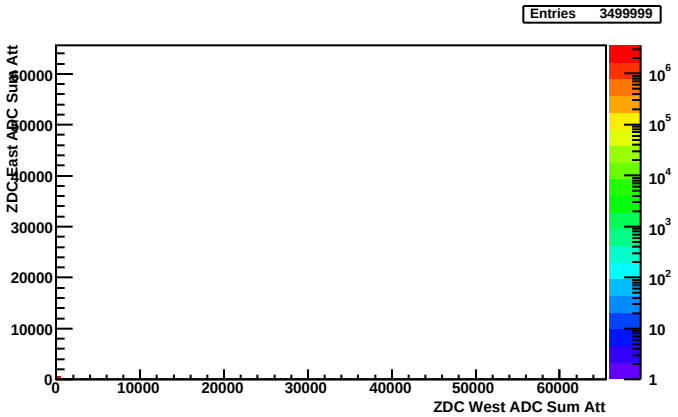

Entries 3499999
VPD-East ADC Sum
ZDC-East ADC Sum Att

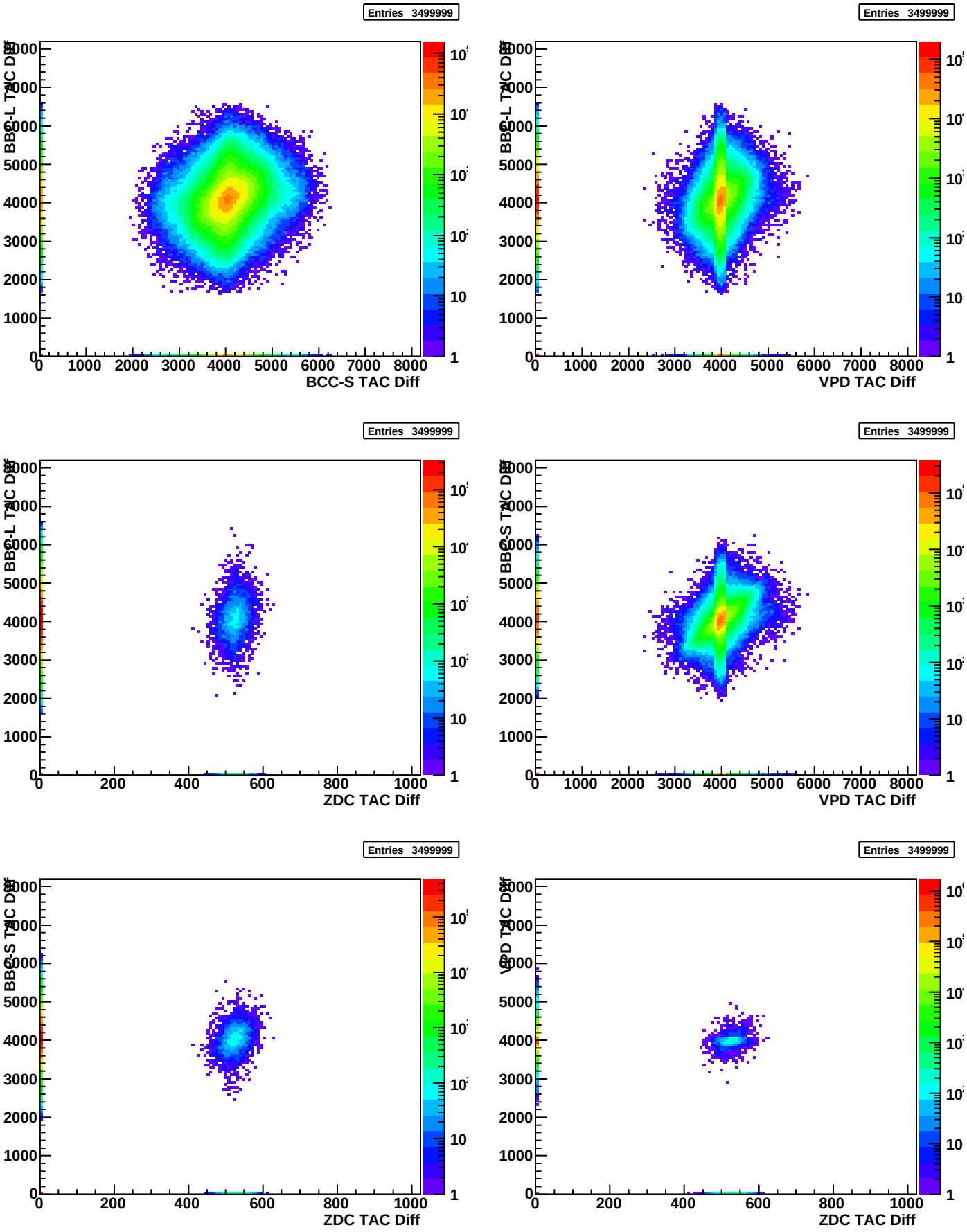

Entries 3499999
VPD-West ADC Sum
ZDC-West ADC Sum Att

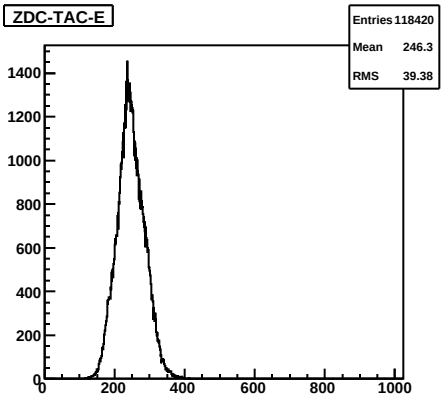

Entries 3499999
BBC-L-East ADC Sum
BBC-L-West ADC Sum

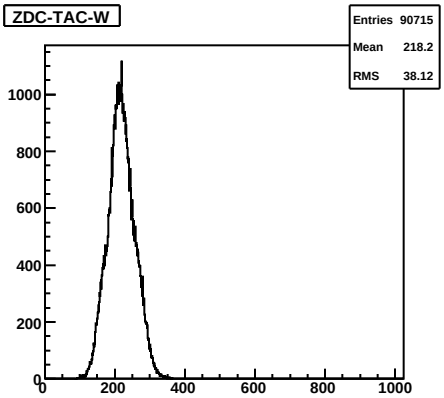

Entries 3499999
BBC-S-East ADC Sum
BBC-S-West ADC Sum

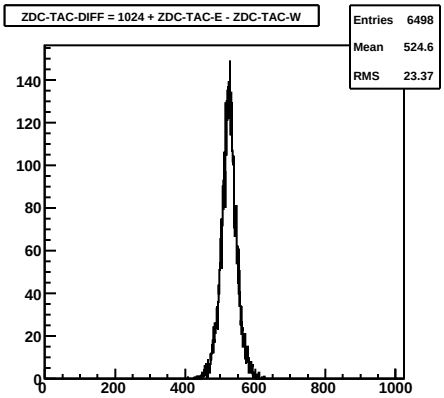

Entries 3499999
VPD East ADC Sum
VPD West ADC Sum

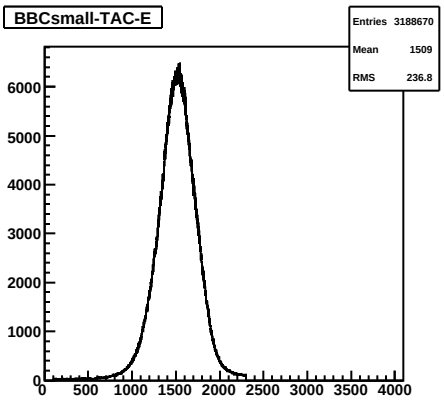

Entries 3499999
ZDC East ADC Sum Att
ZDC West ADC Sum Att

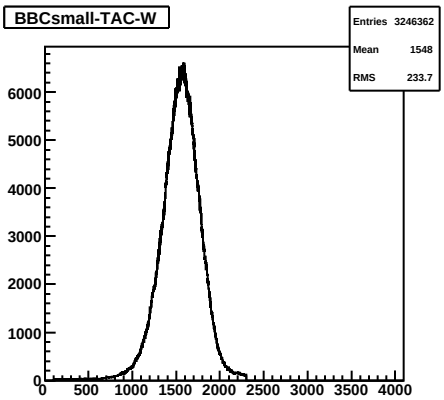

Entries 3499999
BBC-L TAC Diff
BCC-S TAC Diff
Entries 3499999
BBC-L TAC Diff
VPD TAC Diff
Entries 3499999
BBC-L TAC Diff
ZDC TAC Diff
Entries 3499999
BBC-S TAC Diff
VPD TAC Diff
Entries 3499999
BBC-S TAC Diff
ZDC TAC Diff
Entries 3499999
VPD TAC Diff
ZDC TAC Diff

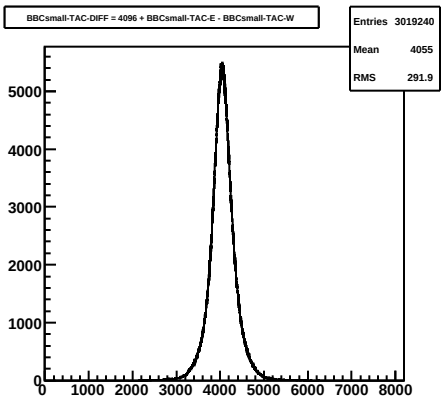

ZDC-TAC-E
Entries 118420
Mean 246.3
RMS 39.38

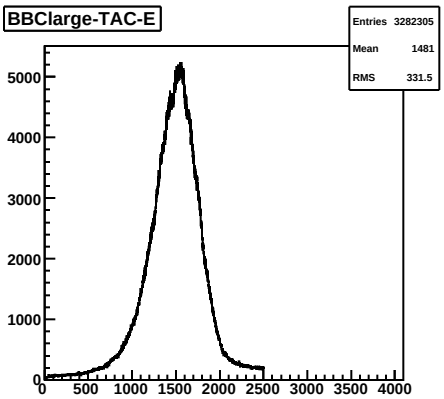

ZDC-TAC-W
Entries 90715
Mean 218.2
RMS 38.12

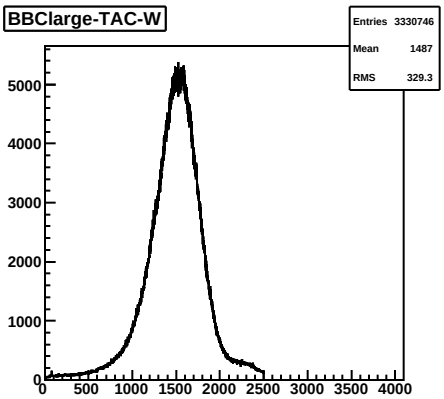

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 6498
Mean 524.6
RMS 23.37

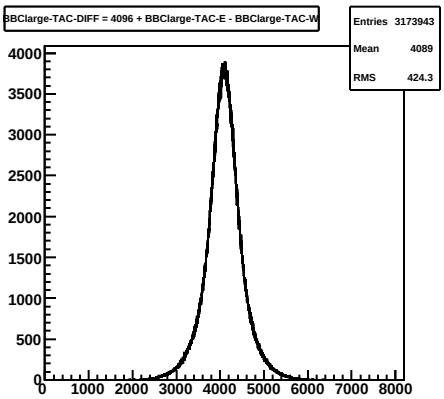

BBCsmall-TAC-E
Entries 3188670
Mean 1509
RMS 236.8

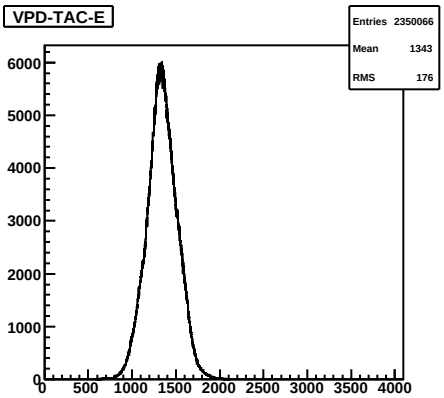

BBCsmall-TAC-W
Entries 3246362
Mean 1548
RMS 233.7

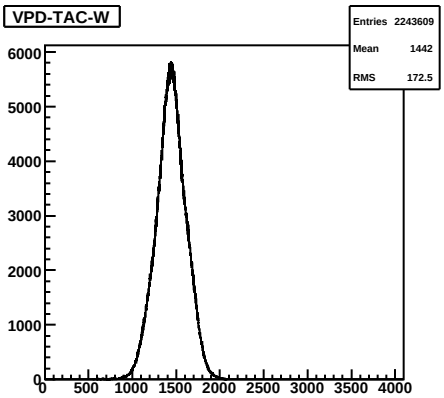

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 3019240
Mean 4055
RMS 291.9

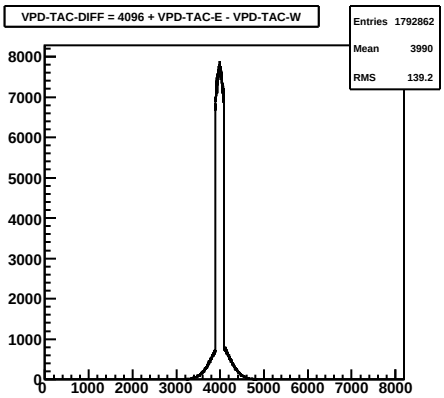

BBClarge-TAC-E
Entries 3282305
Mean 1481
RMS 331.5

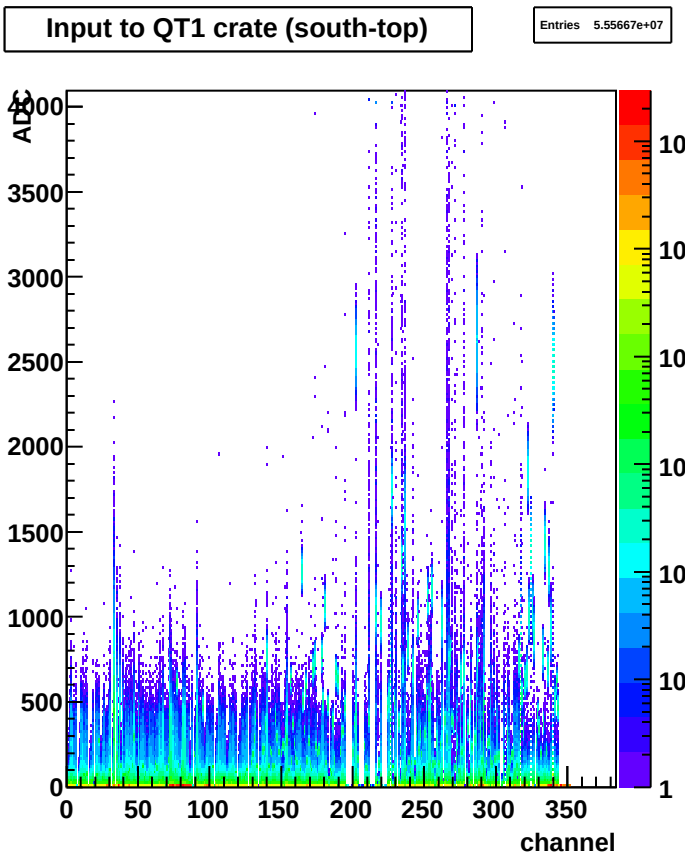

BBClarge-TAC-W
Entries 3330746
Mean 1487
RMS 329.3

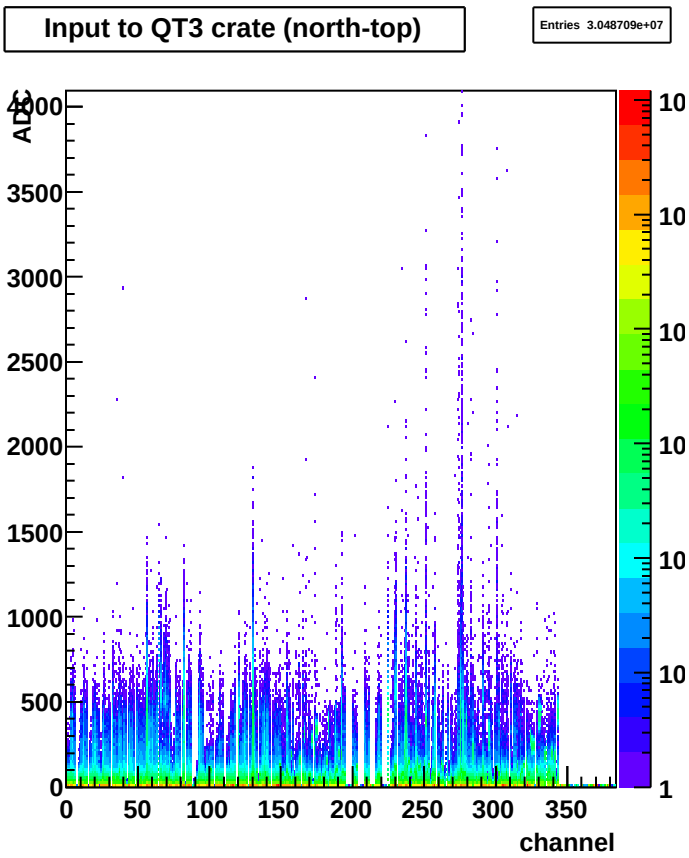

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 3173943
Mean 4089
RMS 424.3

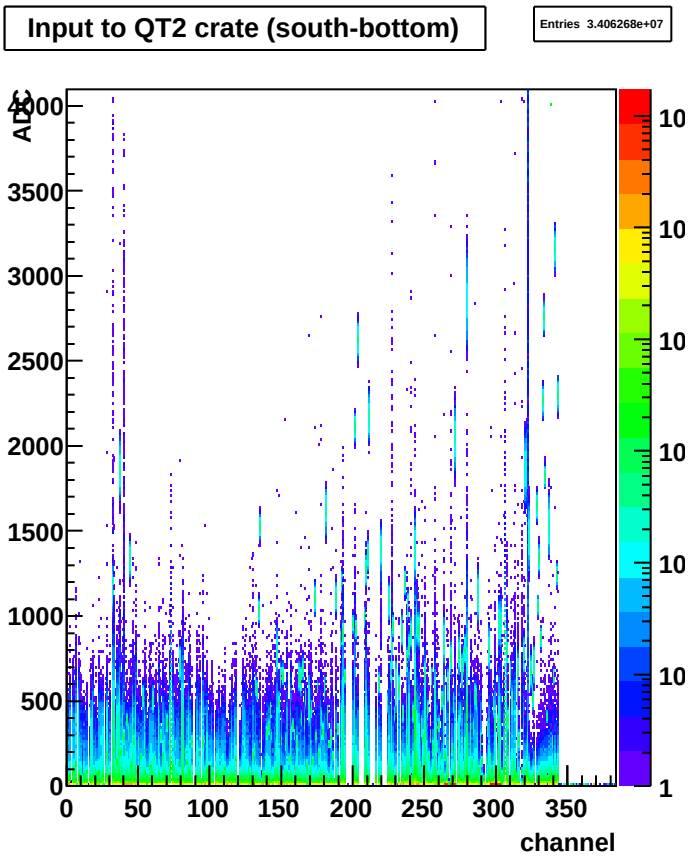

VPD-TAC-E
Entries 2350066
Mean 1343
RMS 176

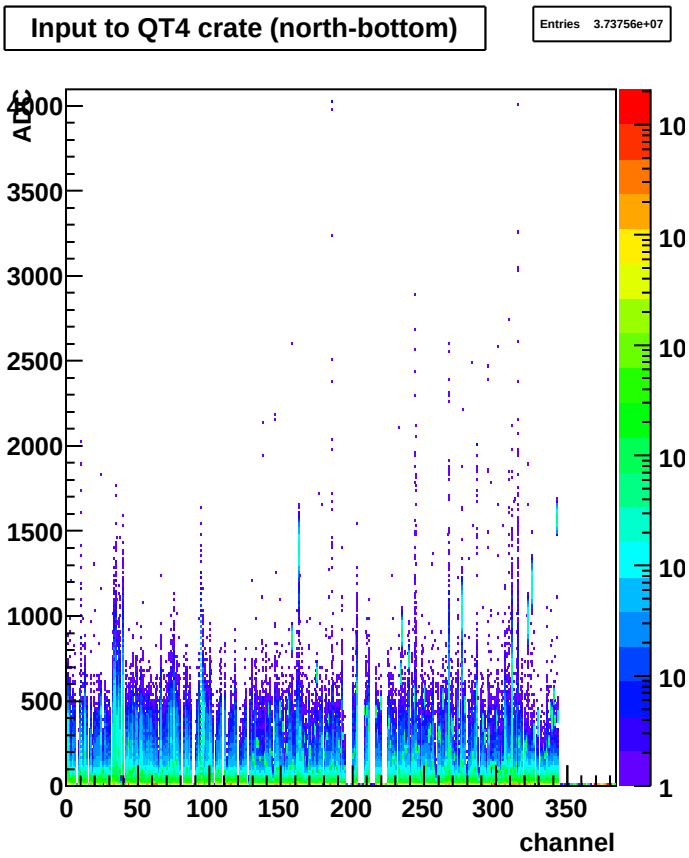

VPD-TAC-W
Entries 2243609
Mean 1442
RMS 172.5

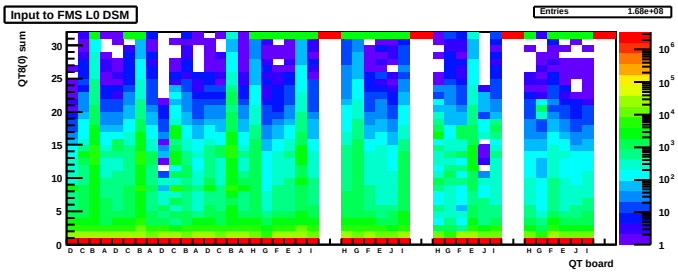

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 1792862
Mean 3990
RMS 139.2

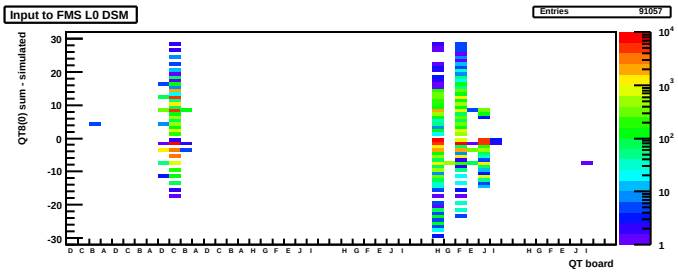

Input to QT1 crate (south-top)
Entries 5.55667e+07
ADC
channel

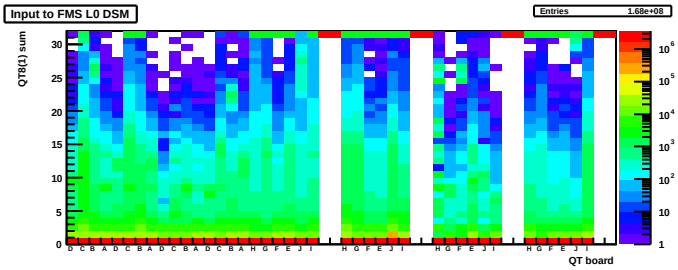

Input to QT3 crate (north-top)
Entries 3.048709e+07
ADC
channel

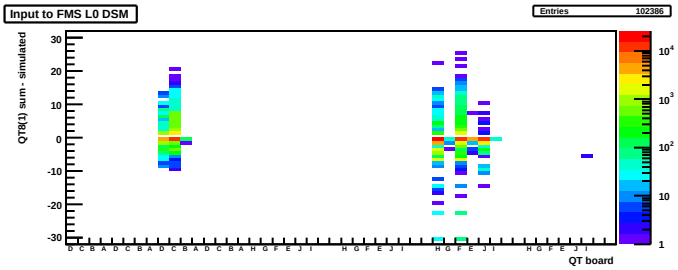

Input to QT2 crate (south-bottom)
Entries 3.406268e+07
ADC
channel

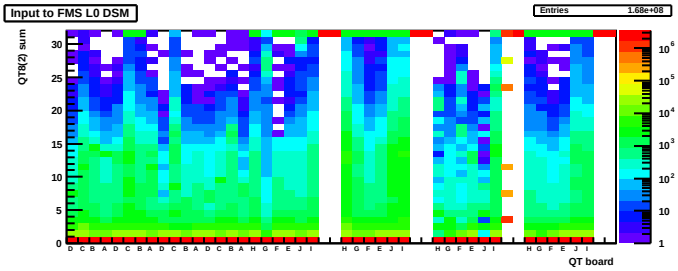

Input to QT4 crate (north-bottom)
Entries 3.73756e+07
ADC
channel

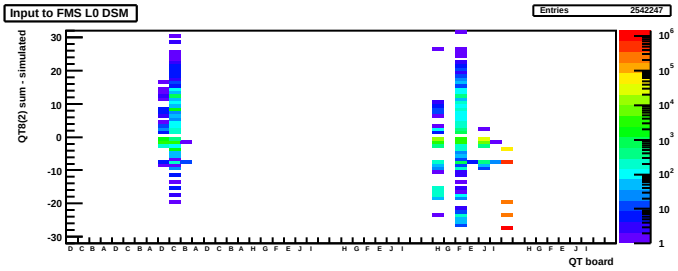

Input to FMS L0 DSM
Entries 1.68e+08
QT8(0) sum
QT board

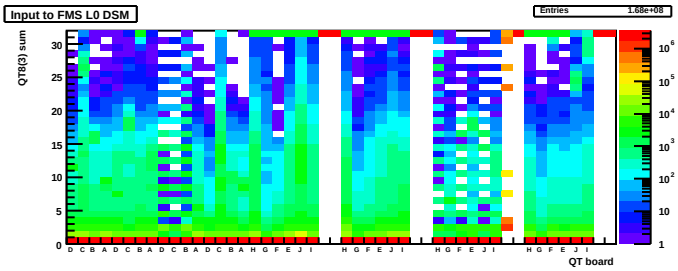

Input to FMS L0 DSM
Entries 91057
QT8(0) sum - simulated
QT board

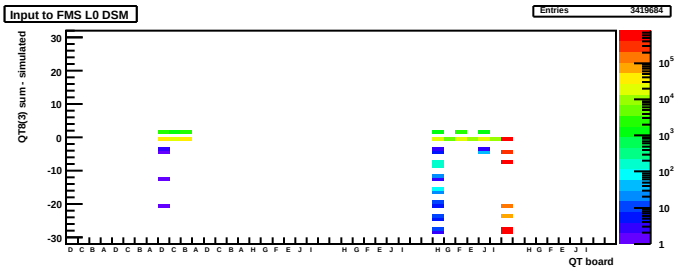

Input to FMS L0 DSM
Entries 1.68e+08
QT8(1) sum
QT board

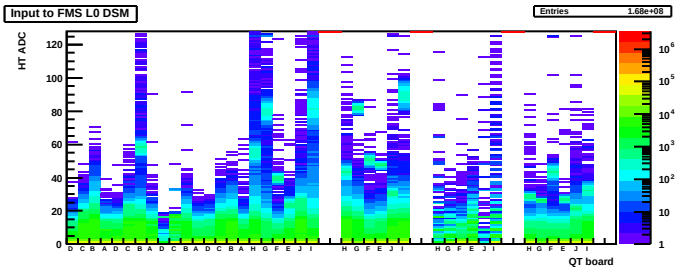

Input to FMS L0 DSM
Entries 102386
QT8(1) sum - simulated
QT board

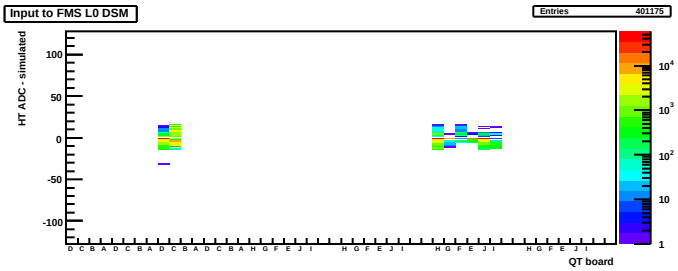

Input to FMS L0 DSM
Entries 1.68e+08
QT8(2) sum
QT board

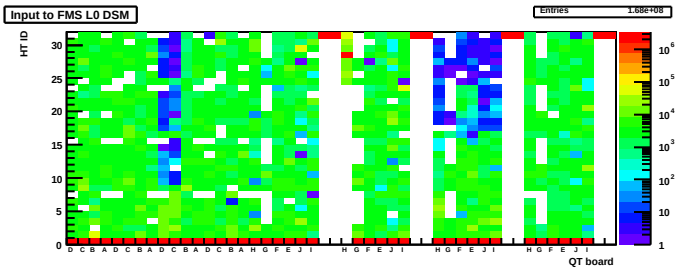

Input to FMS L0 DSM
Entries 2542247
QT8(2) sum - simulated
QT board

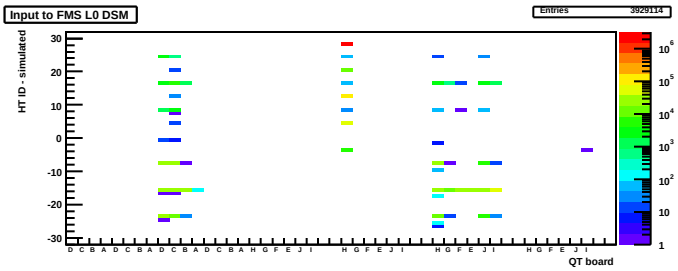

Input to FMS L0 DSM
Entries 1.68e+08
QT8(3) sum
QT board

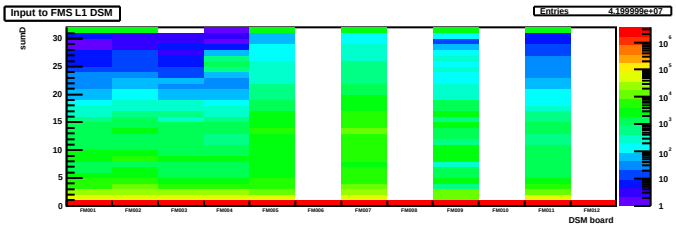

Input to FMS L0 DSM
Entries 3419684
QT8(3) sum - simulated
QT board

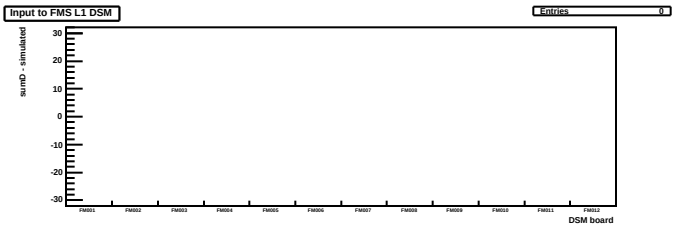

Input to FMS L0 DSM
Entries 1.68e+08
HT ADC
QT board

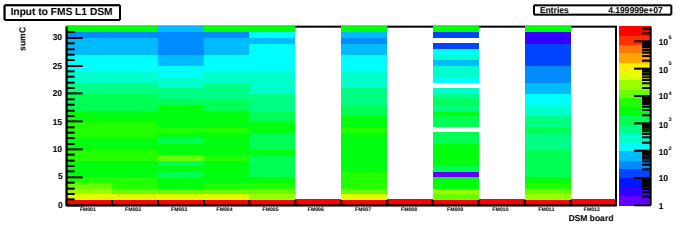

Input to FMS L0 DSM
Entries 401175
HT ADC - simulated
QT board

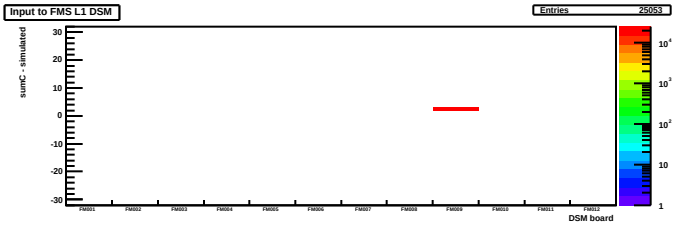

Input to FMS L0 DSM
Entries 1.68e+08
HT ID
QT board

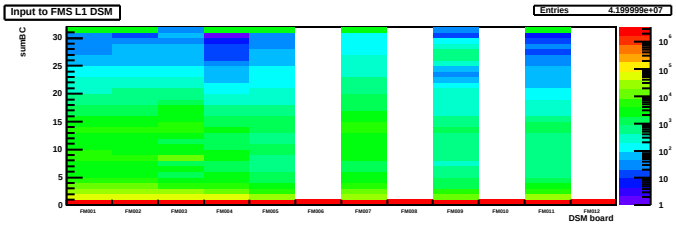

Input to FMS L0 DSM
Entries 3929114
HT ID - simulated
QT board

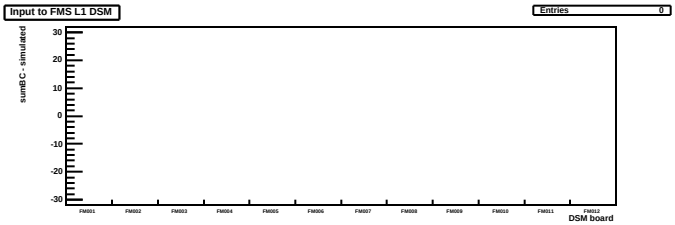

Input to FMS L1 DSM
Entries 4.199999e+07
sumD
DSM board

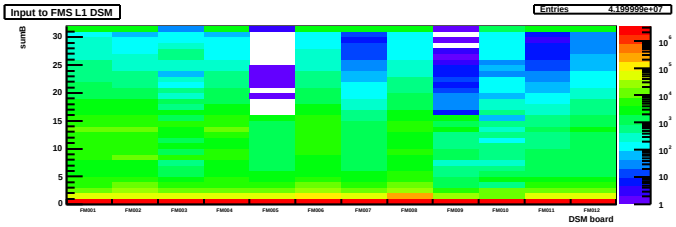

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

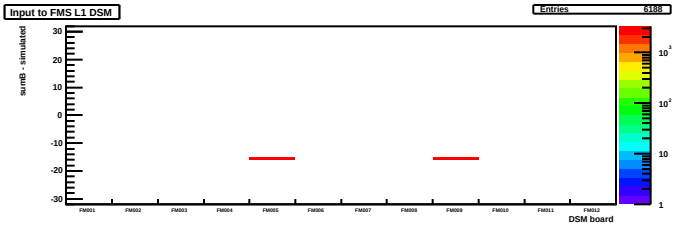

Input to FMS L1 DSM
Entries 4.199999e+07
sumC
DSM board

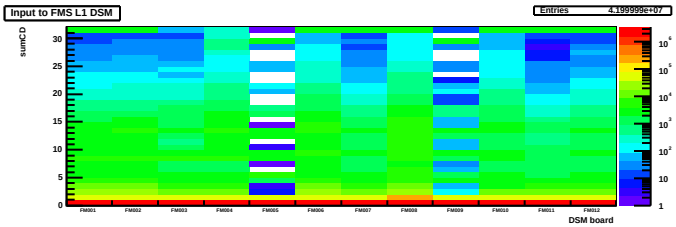

Input to FMS L1 DSM
Entries 25053
sumC - simulated
DSM board

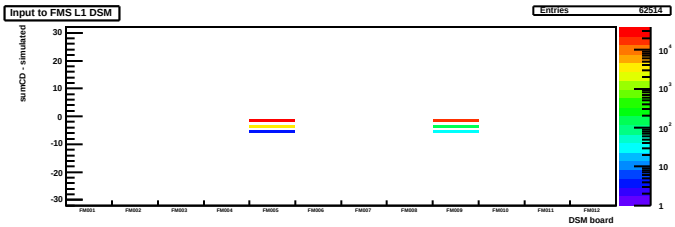

Input to FMS L1 DSM
Entries 4.199999e+07
sumBC
DSM board

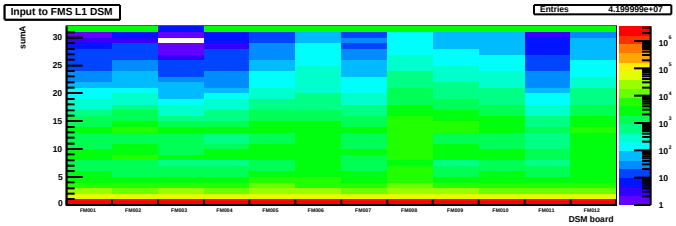

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

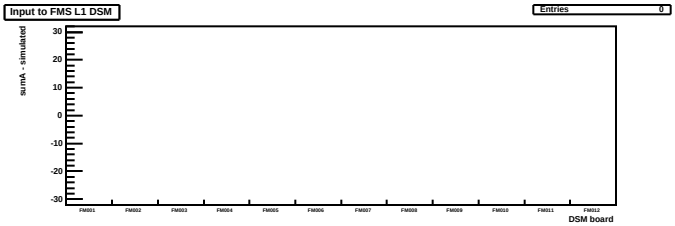

Input to FMS L1 DSM
Entries 4.199999e+07
sumB
DSM board

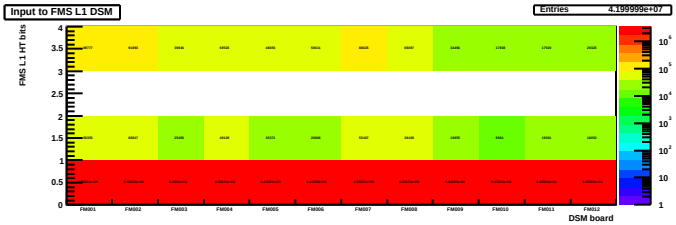

Input to FMS L1 DSM
Entries 6188
sumB - simulated
DSM board

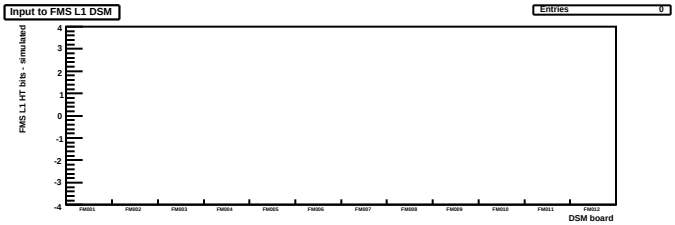

Input to FMS L1 DSM
Entries 4.199999e+07
sumCD
DSM board

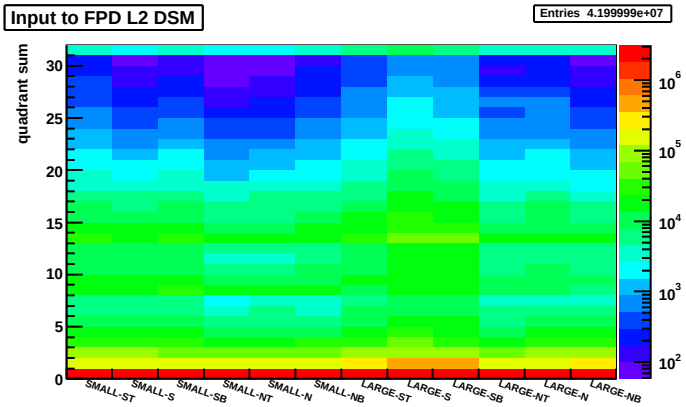

Input to FMS L1 DSM
Entries 62514
sumCD - simulated
DSM board

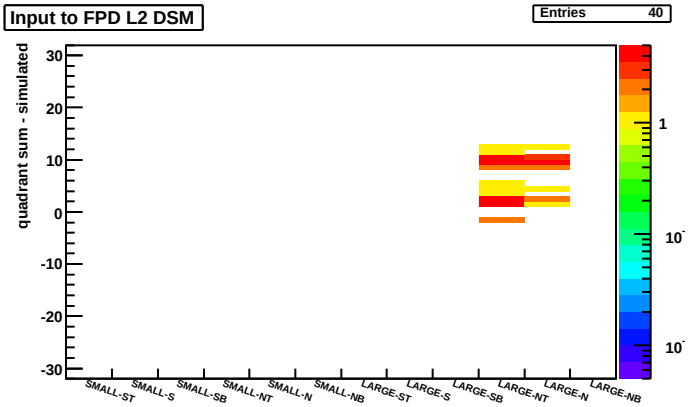

Input to FMS L1 DSM
Entries 4.199999e+07
sumA
DSM board

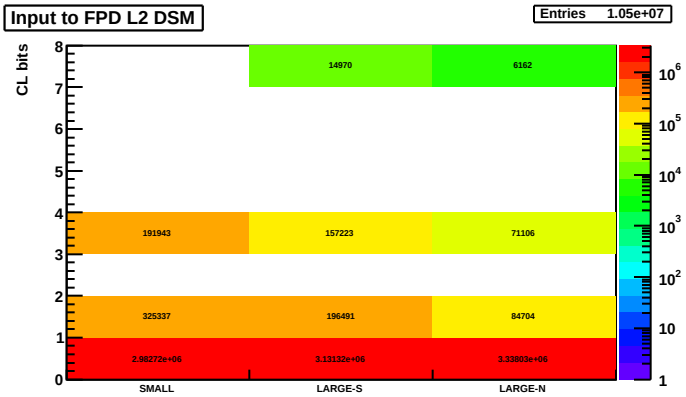

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

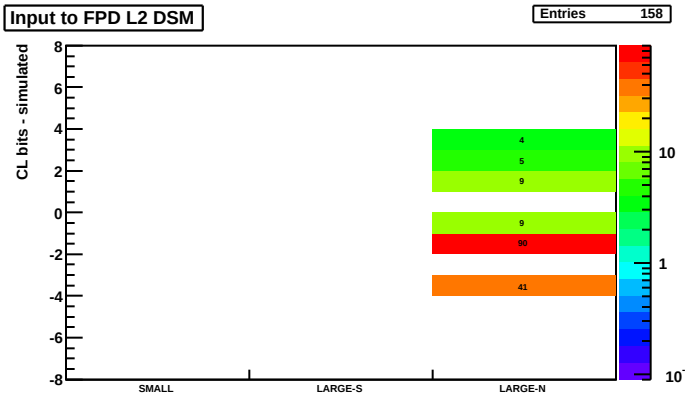

Input to FMS L1 DSM
Entries 4.199999e+07
FMS L1 HT bits
DSM board

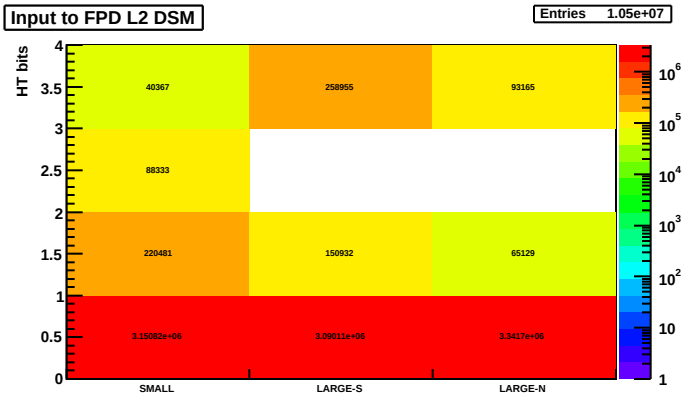

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

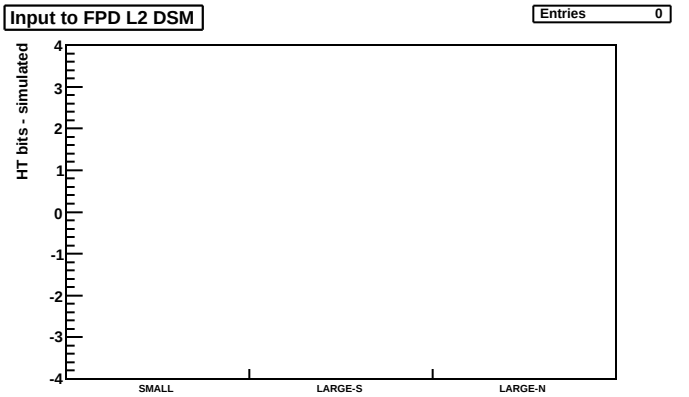

Input to FPD L2 DSM
Entries 4.199999e+07
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

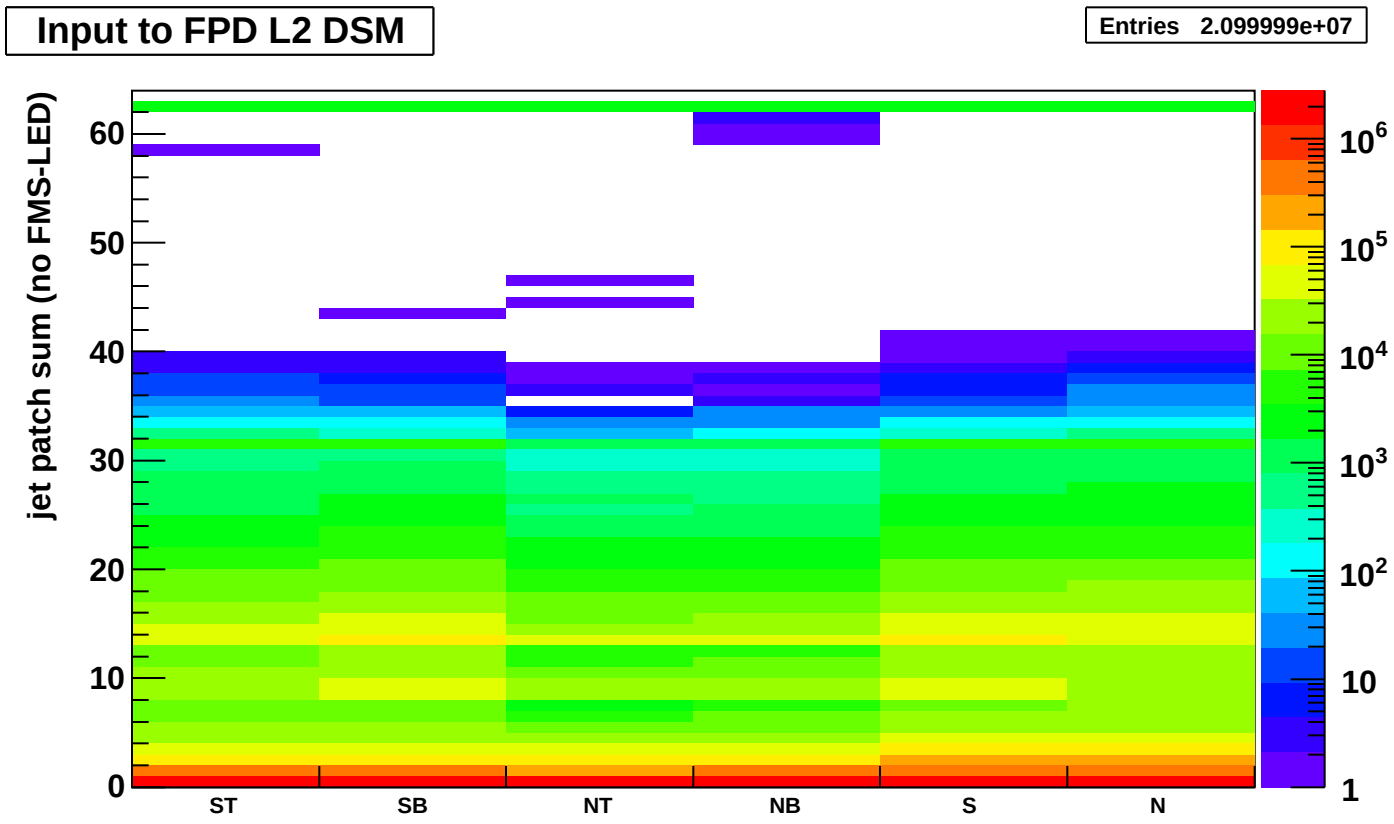

Input to FPD L2 DSM
Entries 40
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

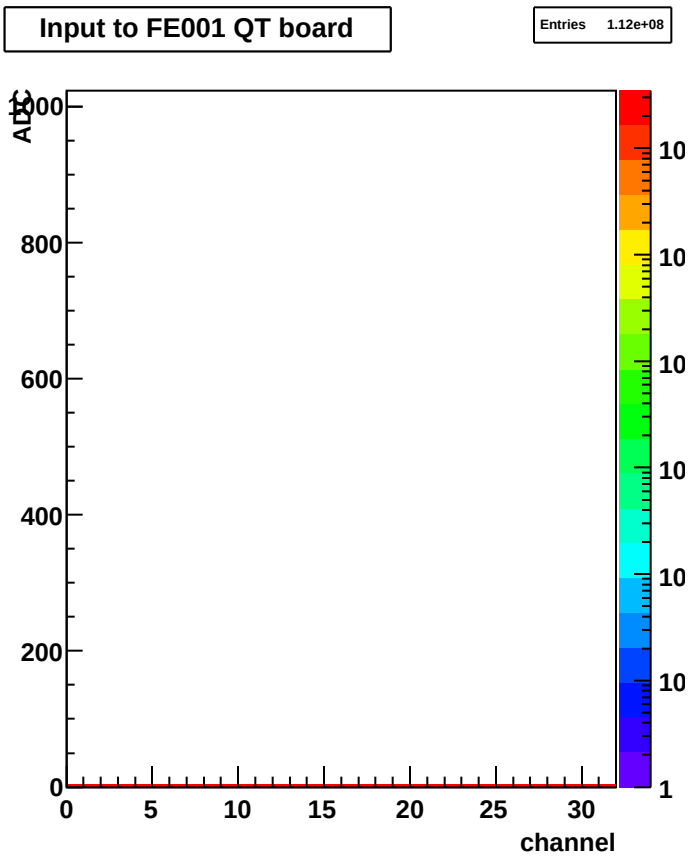

Input to FPD L2 DSM
Entries 1.05e+07
CL bits
14970
6162
191943
157223
71106
325337
196491
84704
2.98272e+06
3.13132e+06
3.33803e+06
SMALL
LARGE-S
LARGE-N

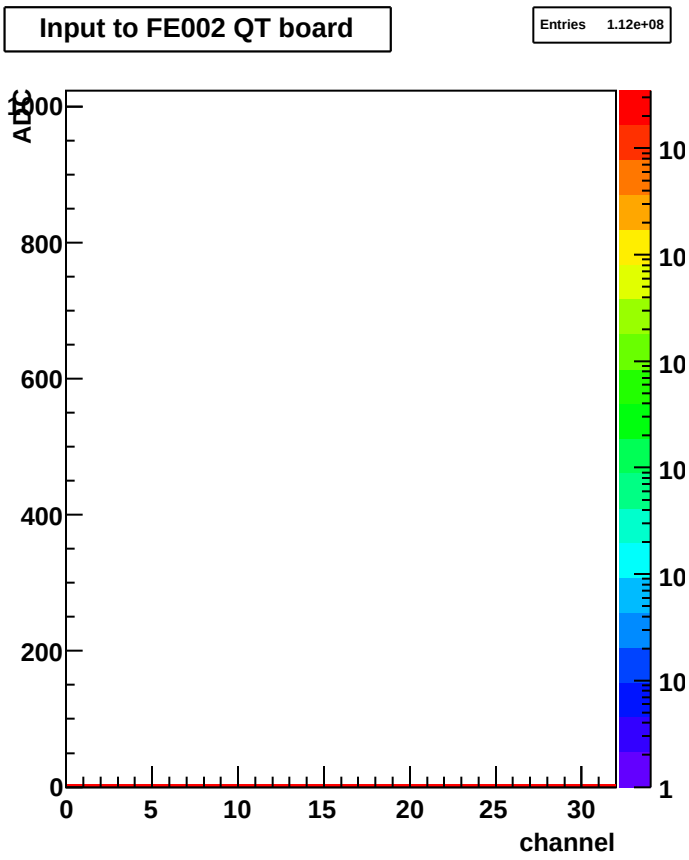

Input to FPD L2 DSM
Entries 158
CL bits - simulated
4
5
9
9
90
41
SMALL
LARGE-S
LARGE-N

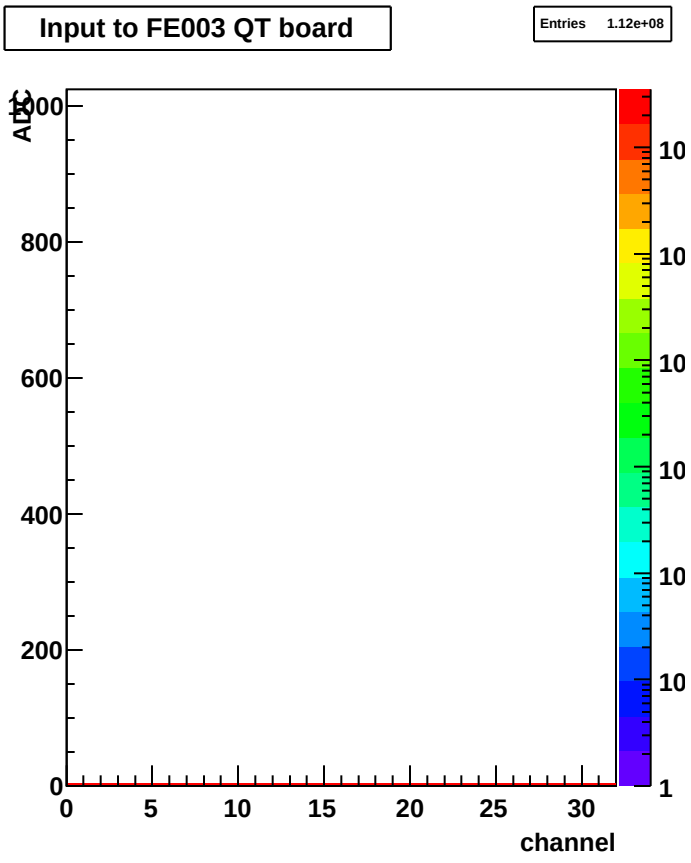

Input to FPD L2 DSM
Entries 1.05e+07
HT bits
40367
258955
93165
88333
220481
150932
65129
3.15082e+06
3.09011e+06
3.3417e+06
SMALL
LARGE-S
LARGE-N

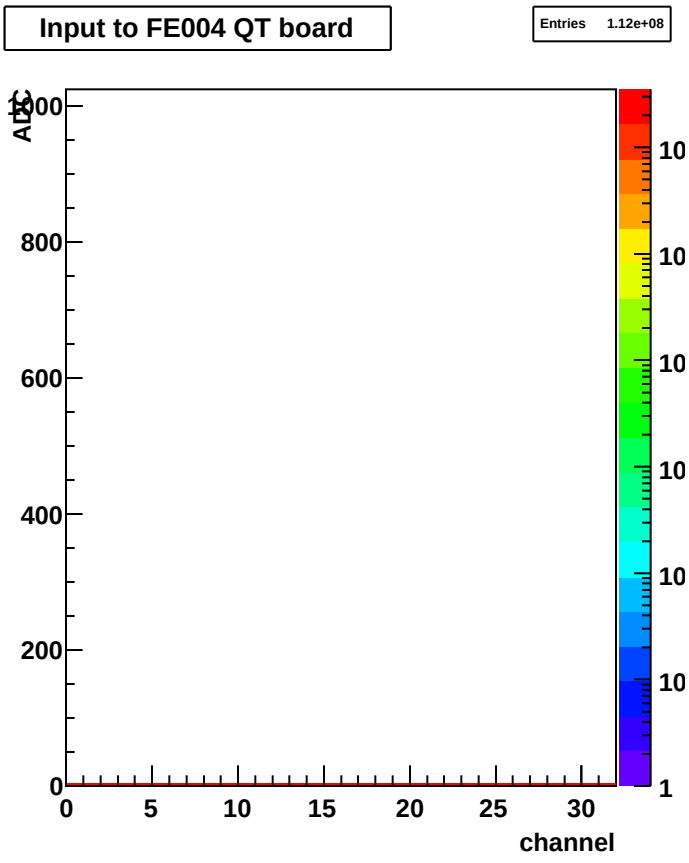

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

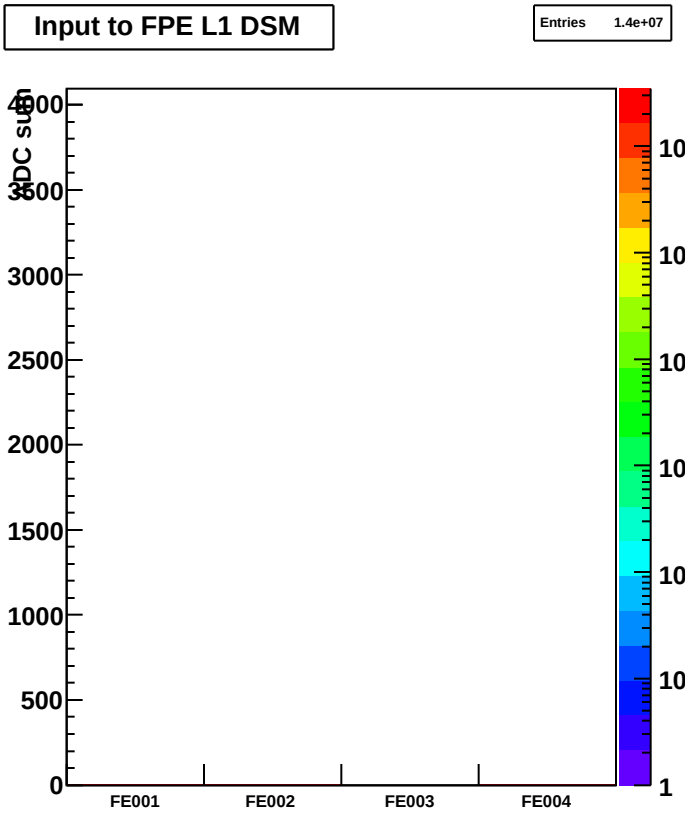

Input to FPD L2 DSM
Entries 2.099999e+07
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5
10^6

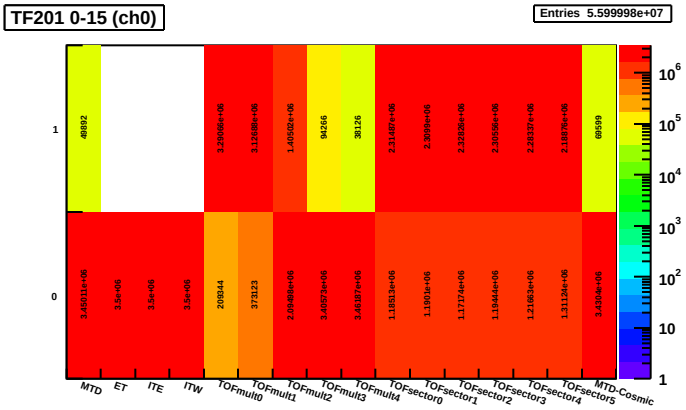

Input to FE001 QT board
Entries 1.12e+08
ADC
channel

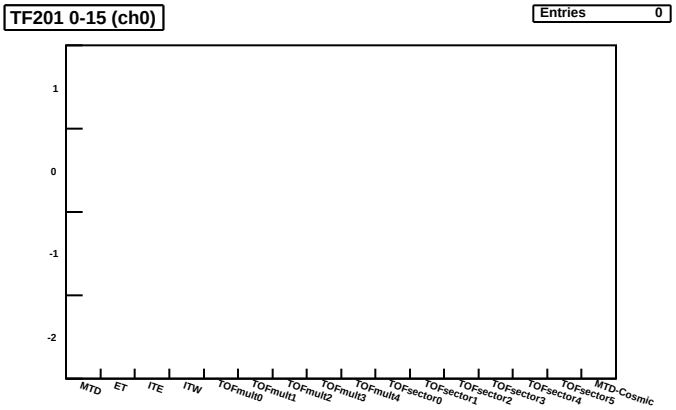

Input to FE002 QT board
Entries 1.12e+08
ADC
channel

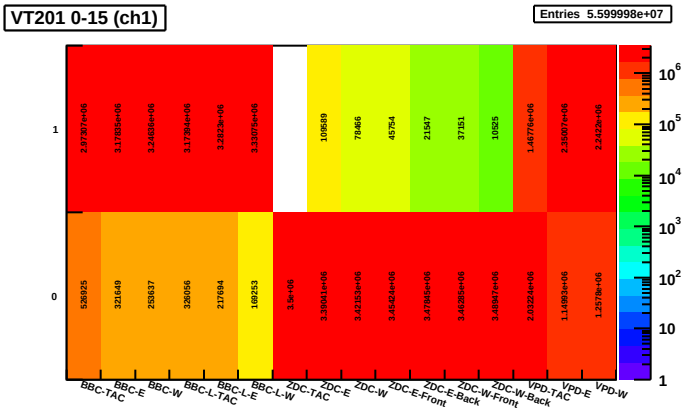

Input to FE003 QT board
Entries 1.12e+08
ADC
channel

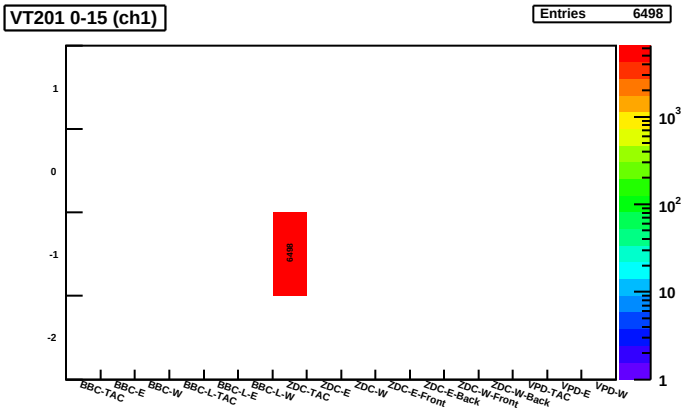

Input to FE004 QT board
Entries 1.12e+08
ADC
channel


Input to FPE L1 DSM
Entries 1.4e+07
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 5.599998e+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 5.599998e+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 6498
6498
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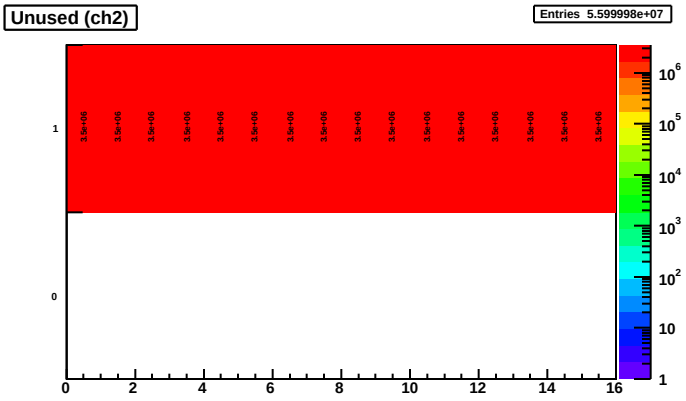
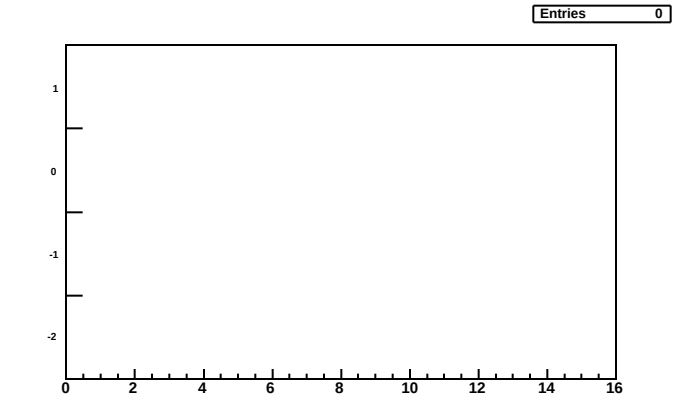
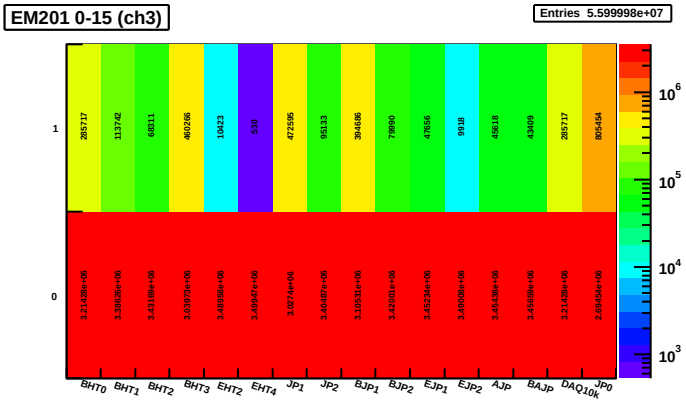
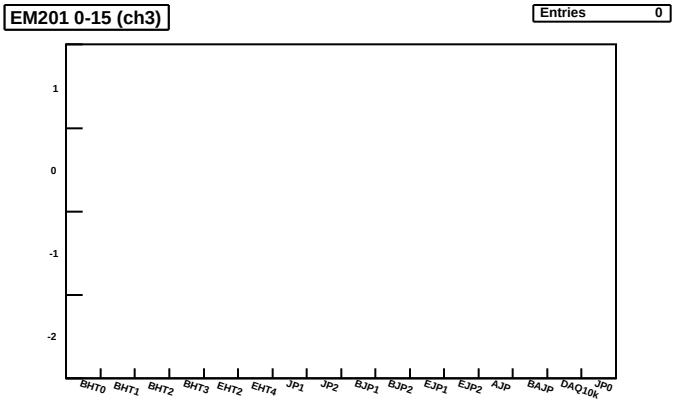
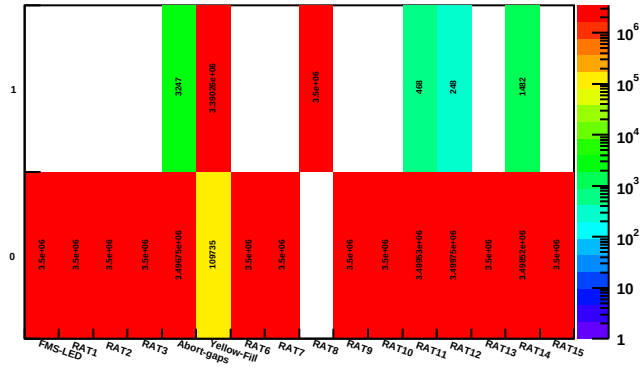

Unused (ch2)
Entries 5.599998e+07

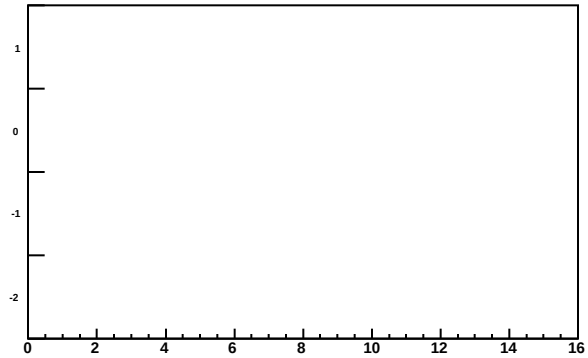

Entries 0


EM201 0-15 (ch3)
Entries 5.599998e+07
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

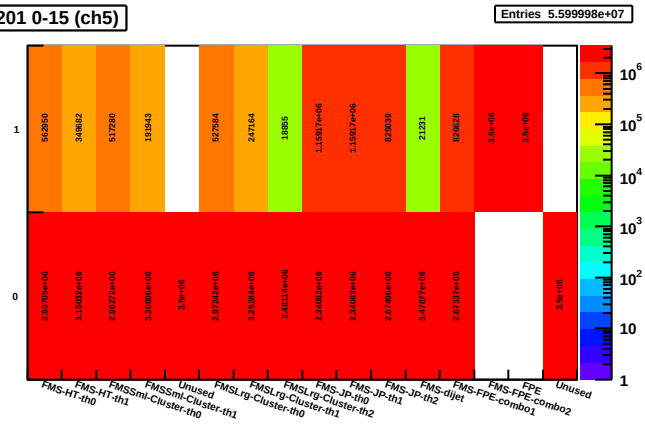

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

RAT board (ch4)





FP201 0-15 (ch5)



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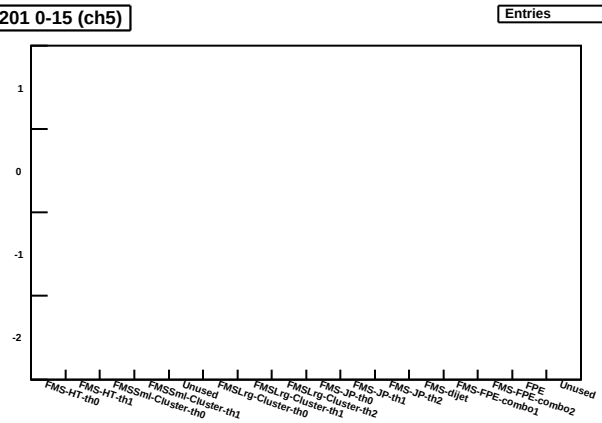
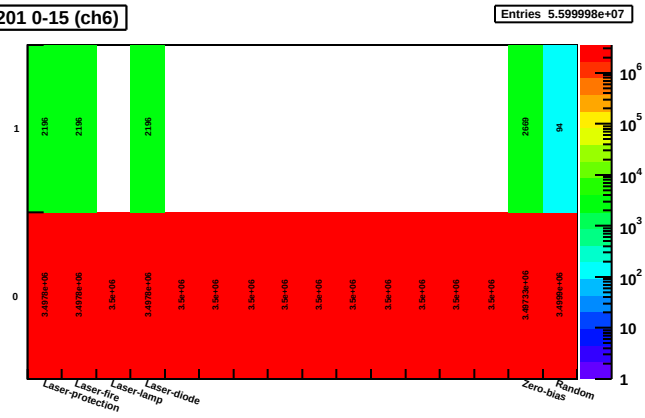
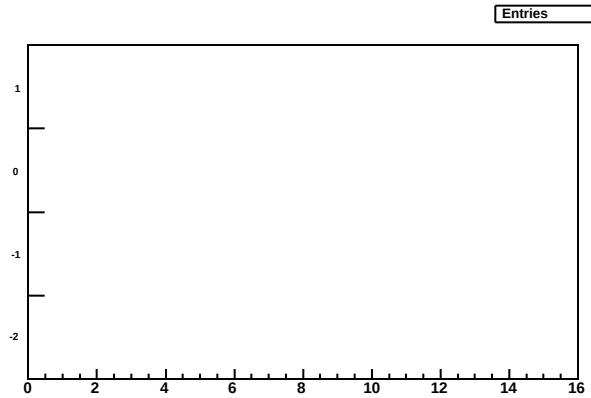
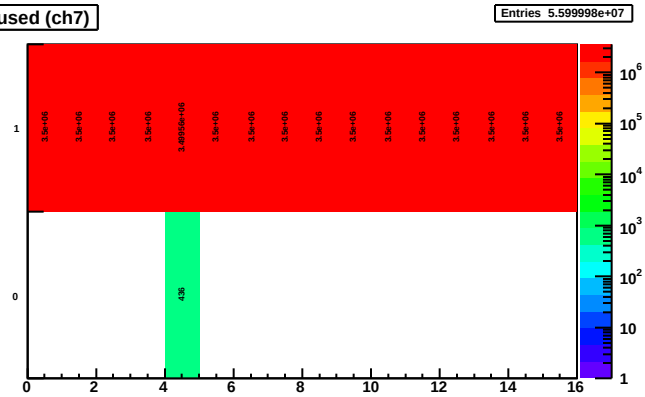
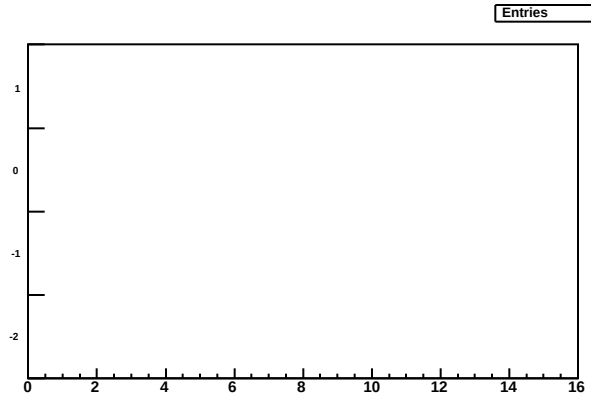


ST201 0-15 (ch6)





Unused (ch7)