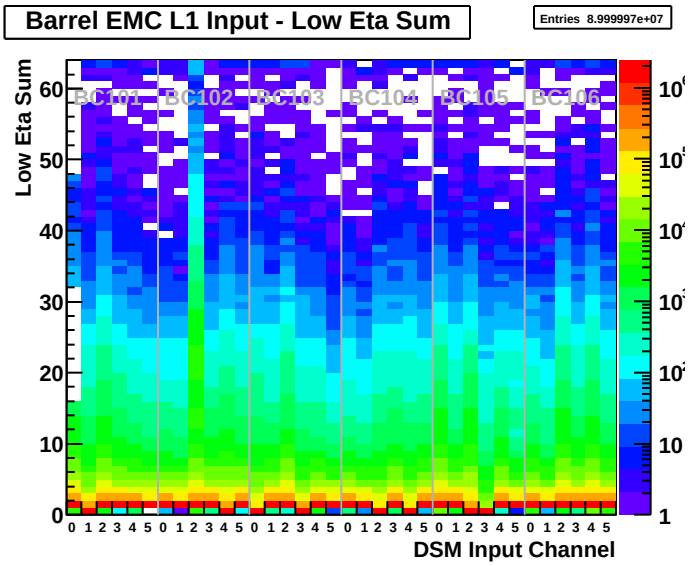
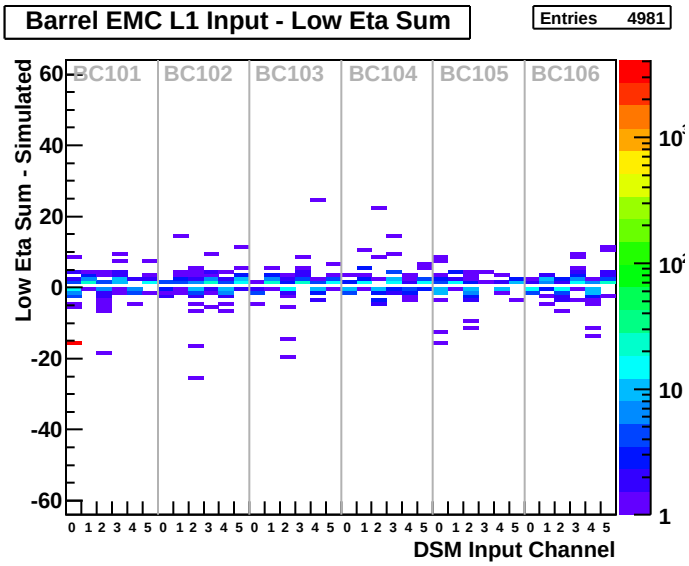
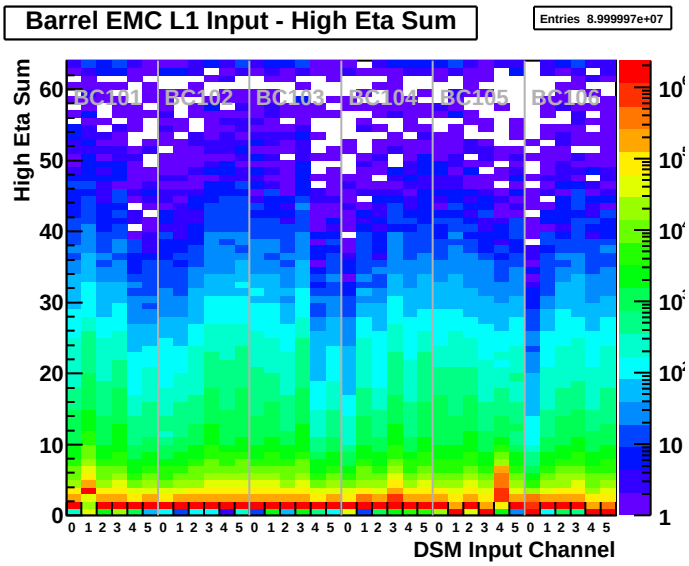
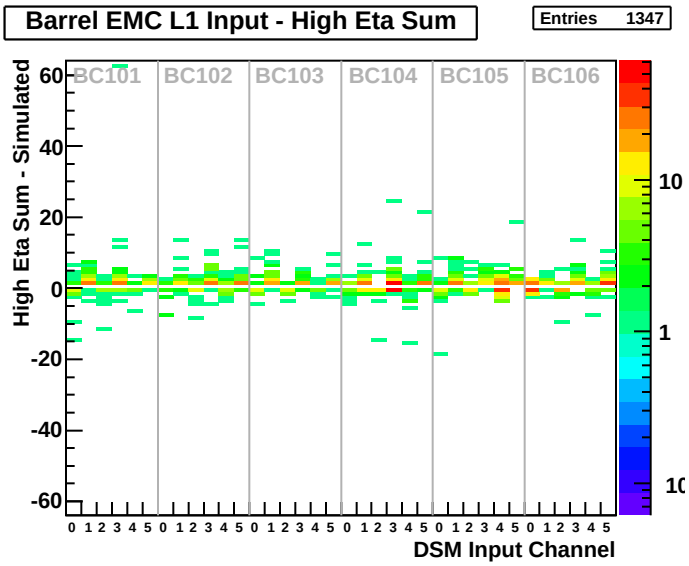
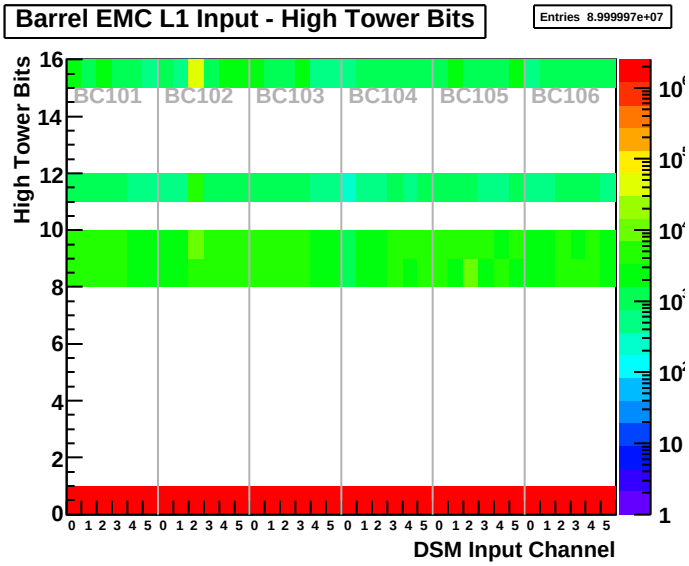
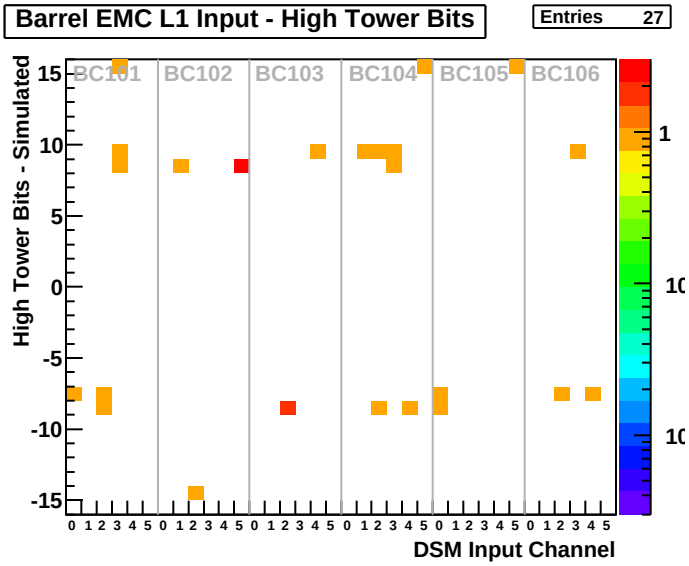

Barrel EMC L1 Input - Low Eta Sum
Entries 8.999997e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

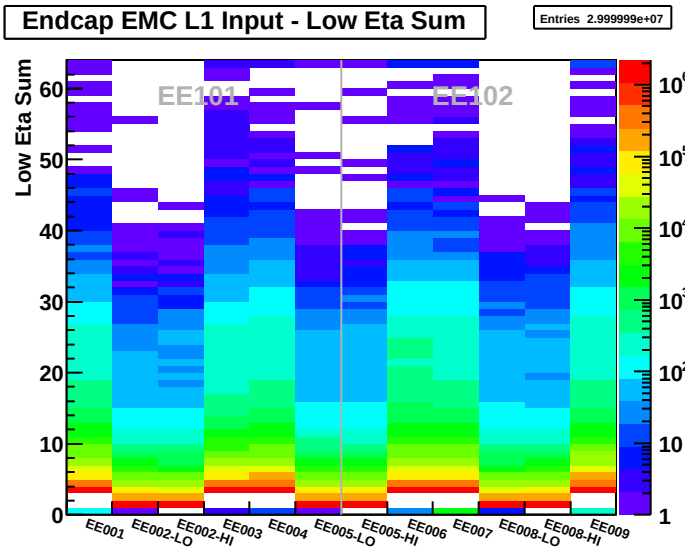

Barrel EMC L1 Input - Low Eta Sum
Entries 4981
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

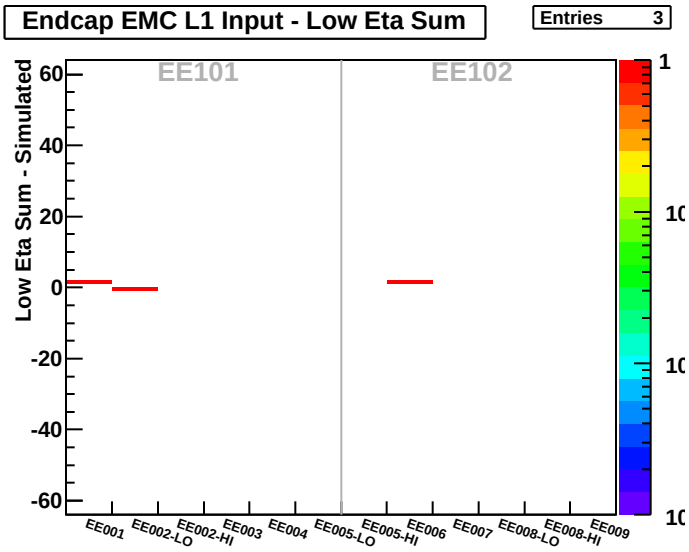

Barrel EMC L1 Input - High Eta Sum
Entries 8.999997e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

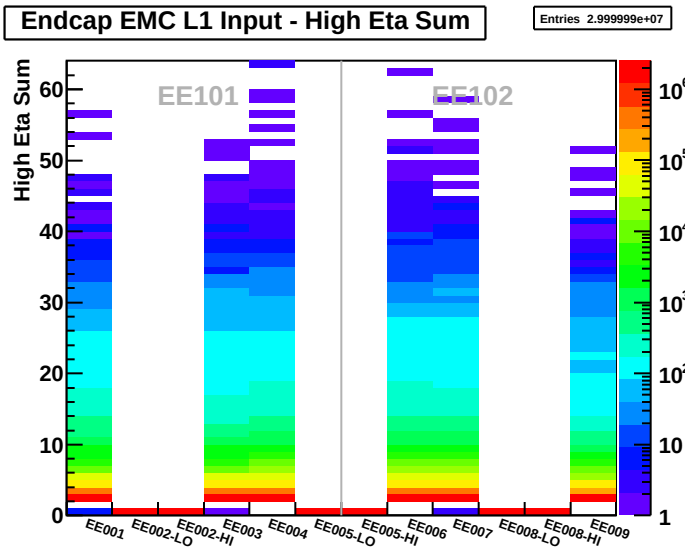

Barrel EMC L1 Input - High Eta Sum
Entries 1347
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

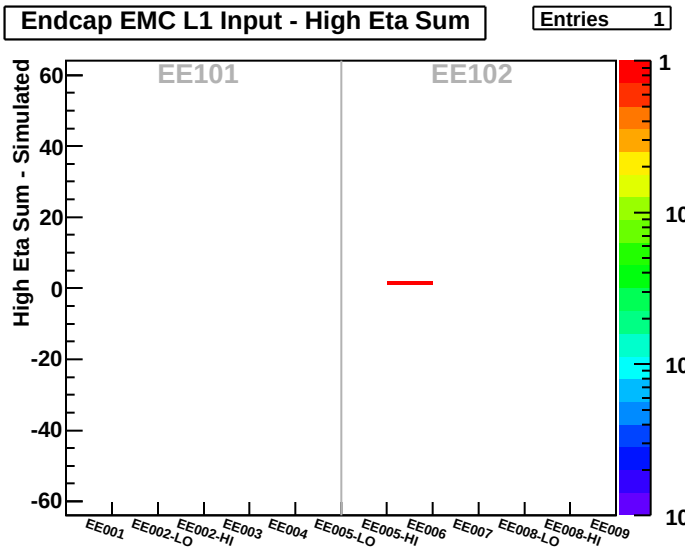

Barrel EMC L1 Input - High Tower Bits
Entries 8.999997e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

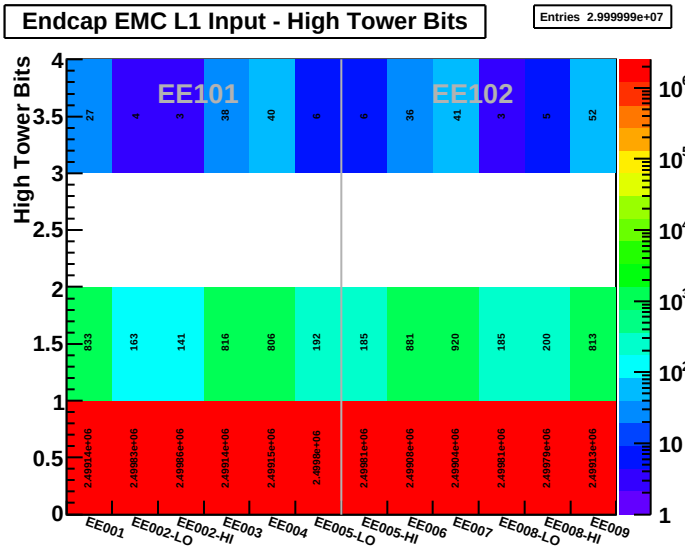

Barrel EMC L1 Input - High Tower Bits
Entries 27
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

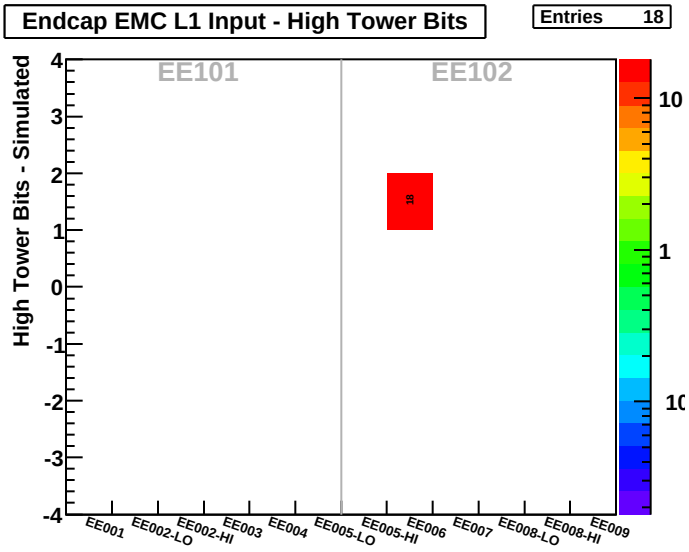

Endcap EMC L1 Input - Low Eta Sum
Entries 2.999999e+07
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

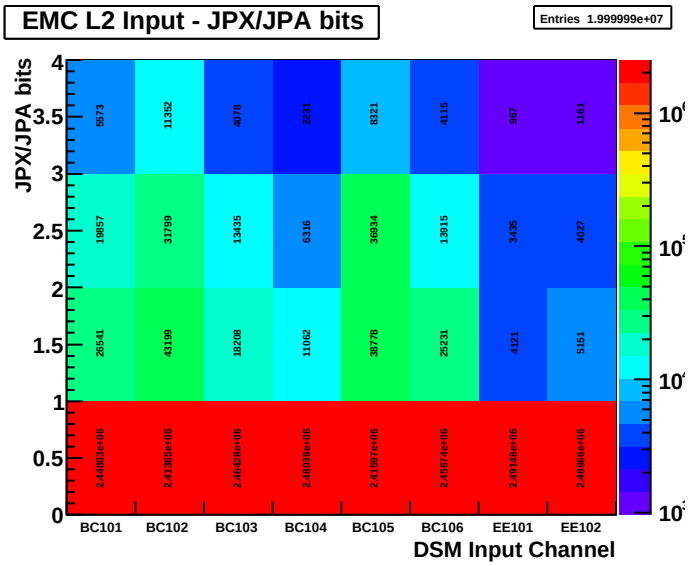

Endcap EMC L1 Input - Low Eta Sum
Entries 3
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

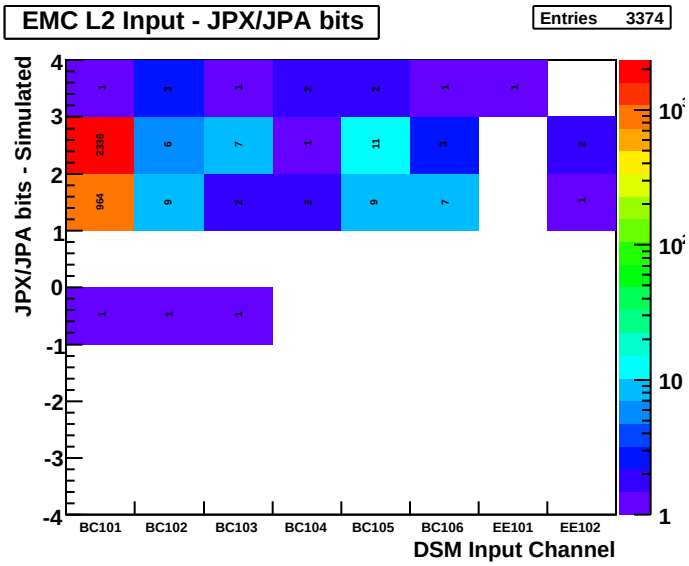

Endcap EMC L1 Input - High Eta Sum
Entries 2.999999e+07
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

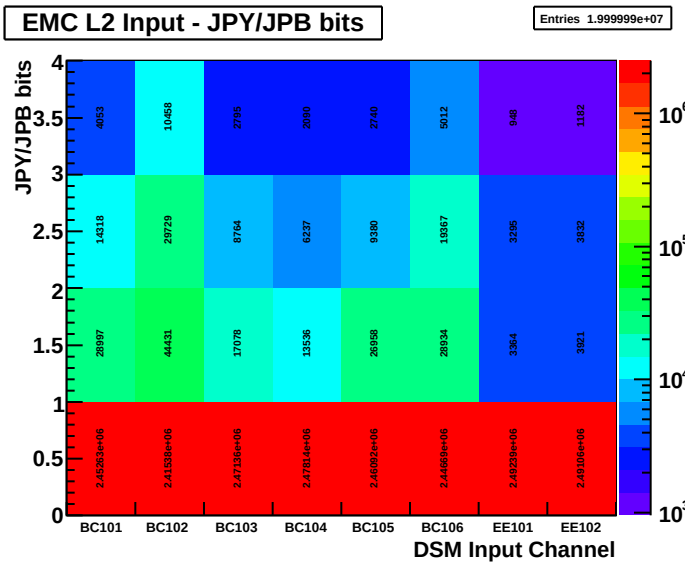

Endcap EMC L1 Input - High Eta Sum
Entries 1
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

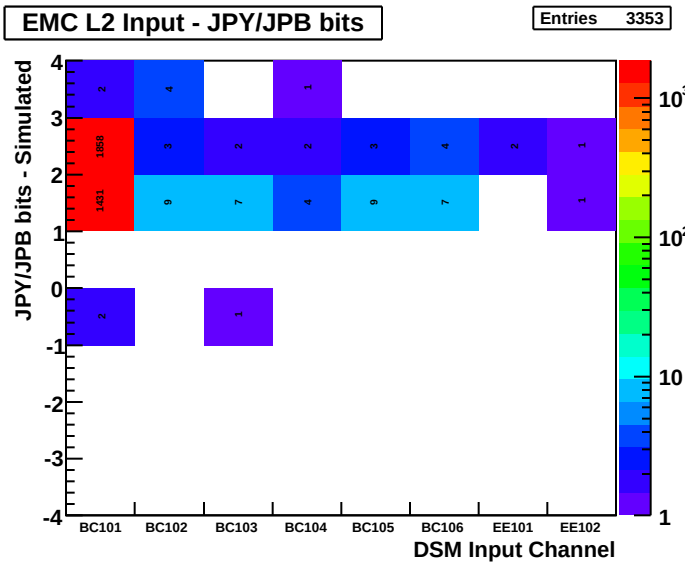

Endcap EMC L1 Input - High Tower Bits
Entries 2.999999e+07
High Tower Bits
EE101
EE102
27 4 3 38 40 6 6 36 41 3 5 52
833 163 141 816 806 192 185 881 920 185 200 813
2.49914e+06 2.49932e+06 2.49936e+06 2.49914e+06 2.49915e+06 2.4998e+06 2.49981e+06 2.49908e+06 2.49904e+06 2.49981e+06 2.49979e+06 2.49913e+06
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

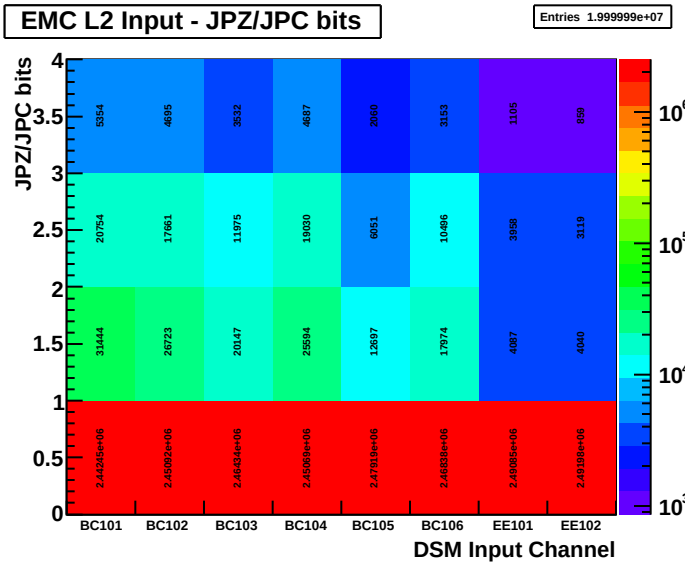

Endcap EMC L1 Input - High Tower Bits
Entries 18
High Tower Bits - Simulated
EE101
EE102
18
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

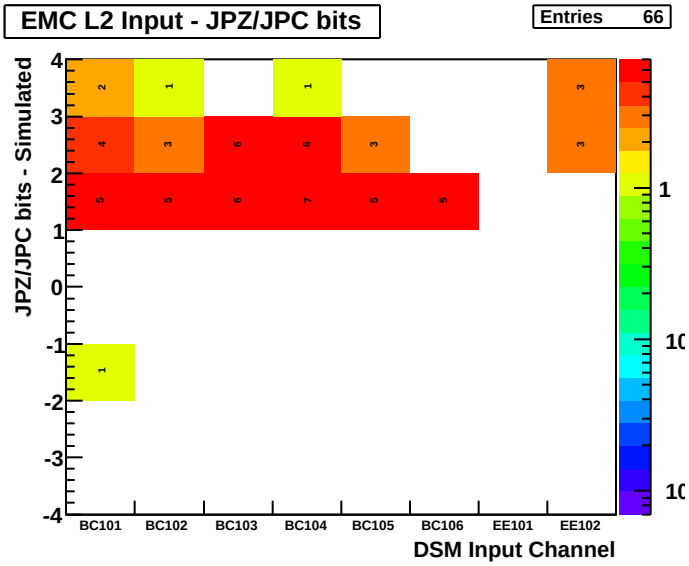

EMC L2 Input - JPX/JPA bits
Entries 1.999999e+07
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

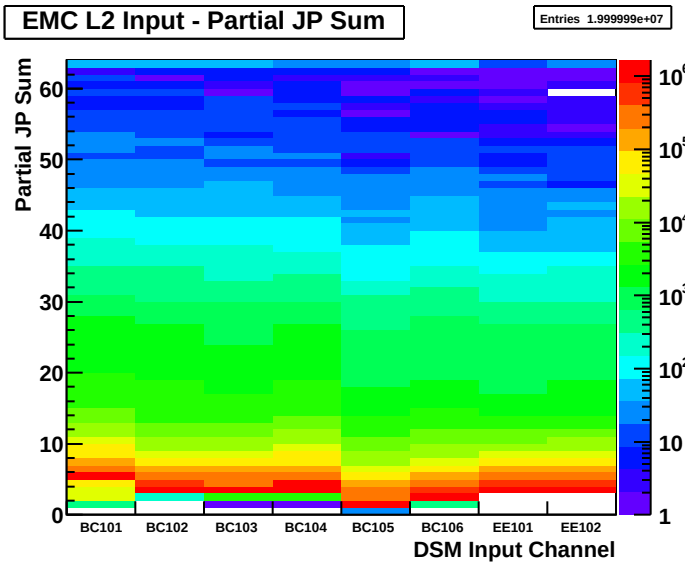

EMC L2 Input - JPX/JPA bits
Entries 3374
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

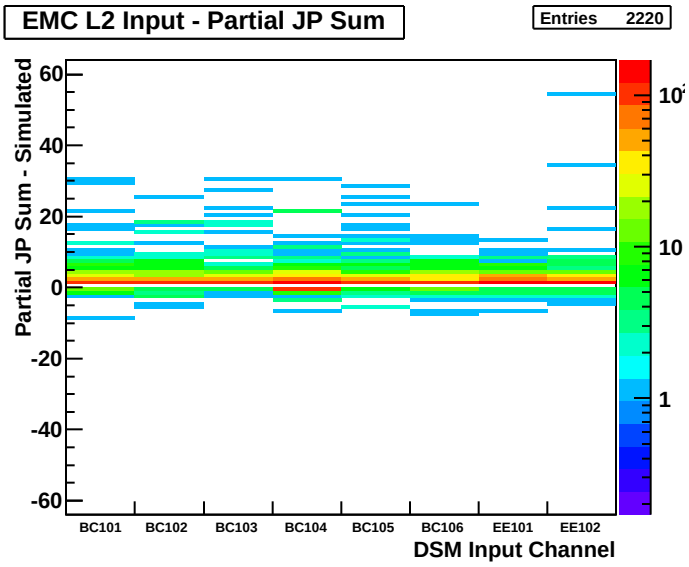

EMC L2 Input - JPY/JPB bits
Entries 1.999999e+07
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

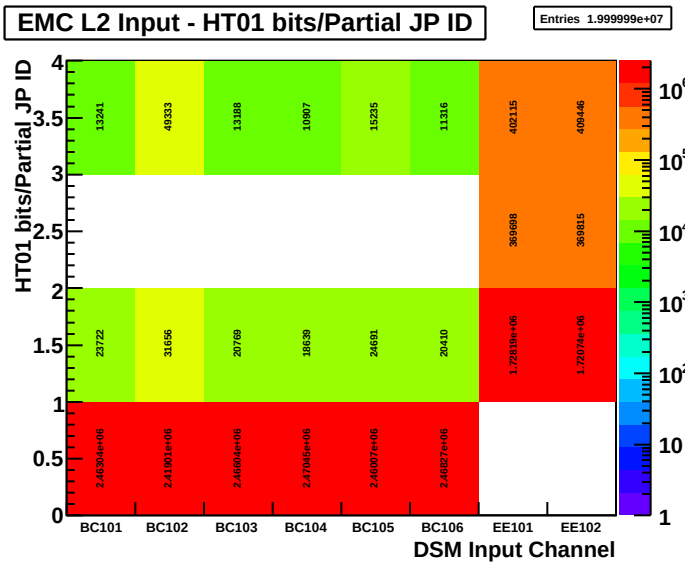

EMC L2 Input - JPY/JPB bits
Entries 3353
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

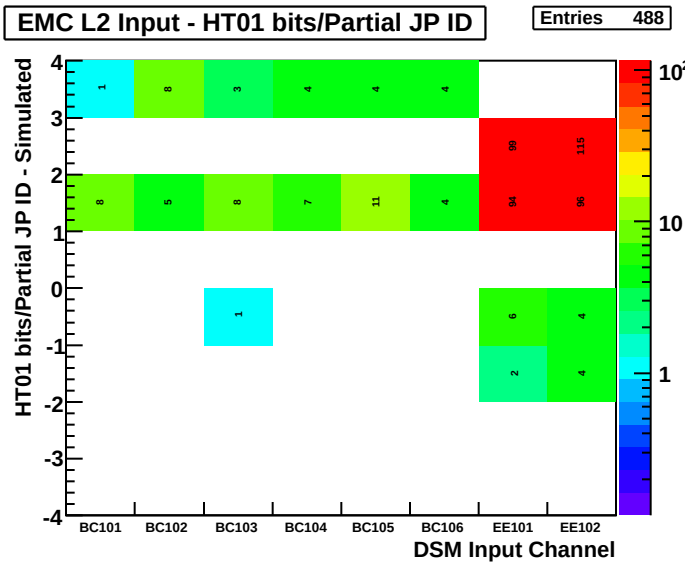

EMC L2 Input - JPZ/JPC bits
Entries 1.999999e+07
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

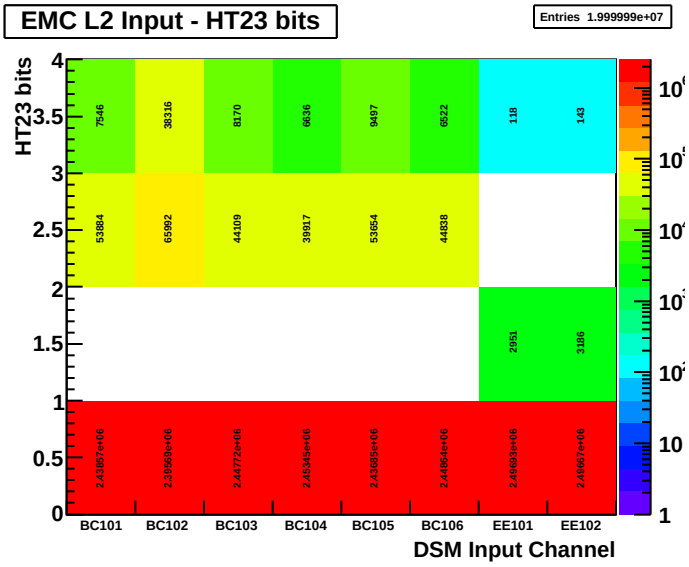

EMC L2 Input - JPZ/JPC bits
Entries 66
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

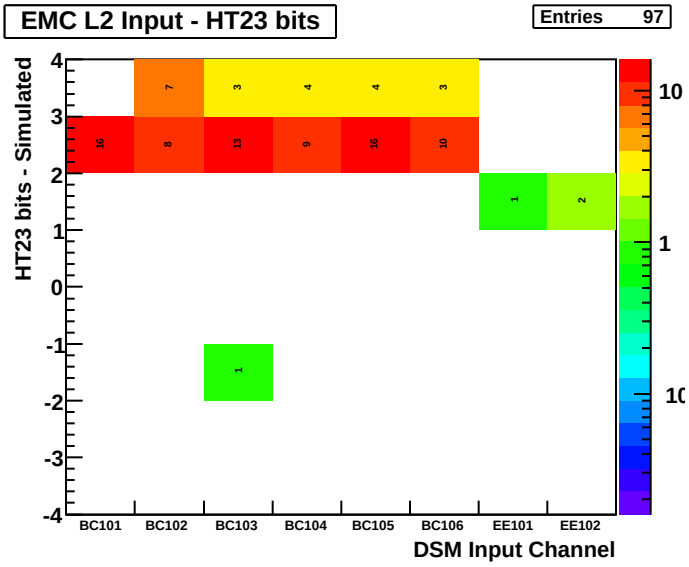

EMC L2 Input - Partial JP Sum
Entries 1.999999e+07
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

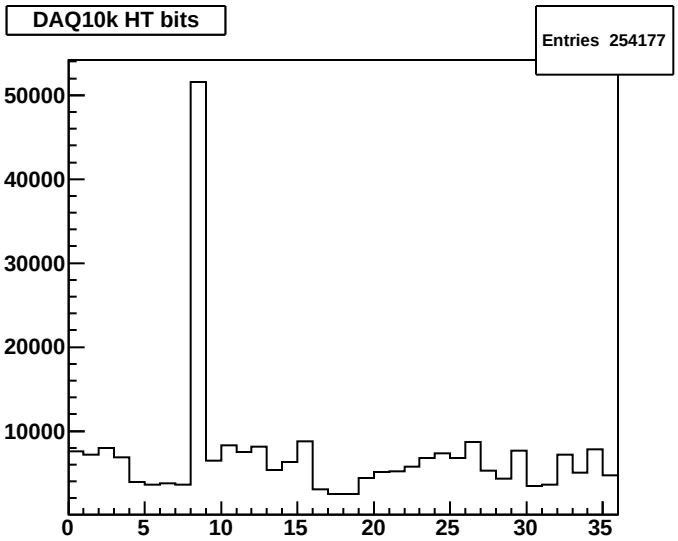

EMC L2 Input - Partial JP Sum
Entries 2220
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

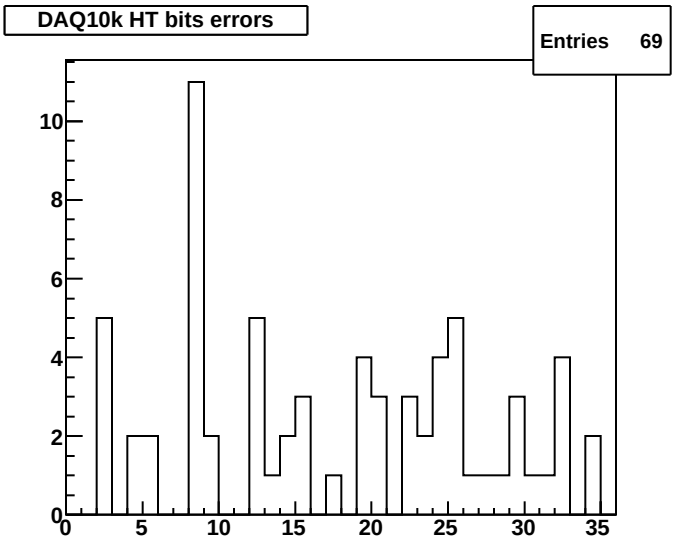

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1.999999e+07
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

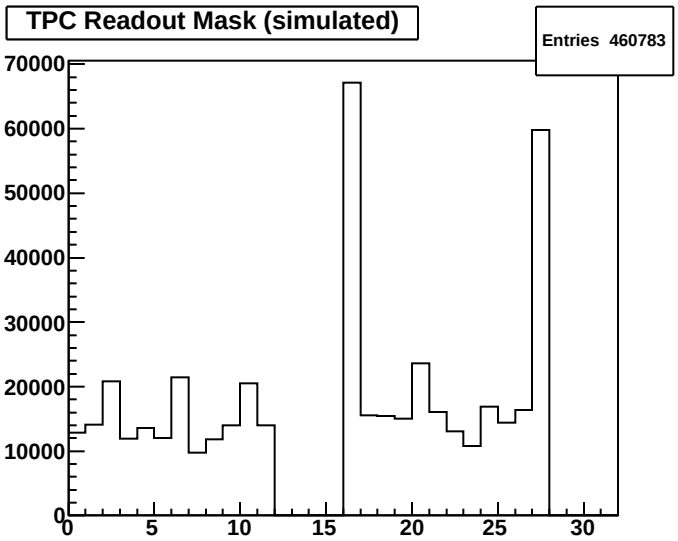

EMC L2 Input - HT01 bits/Partial JP ID
Entries 488
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

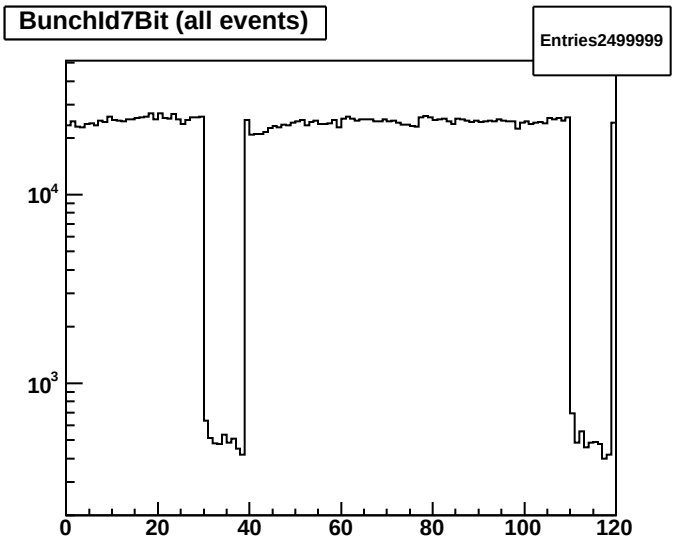

EMC L2 Input - HT23 bits
Entries 1.999999e+07
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

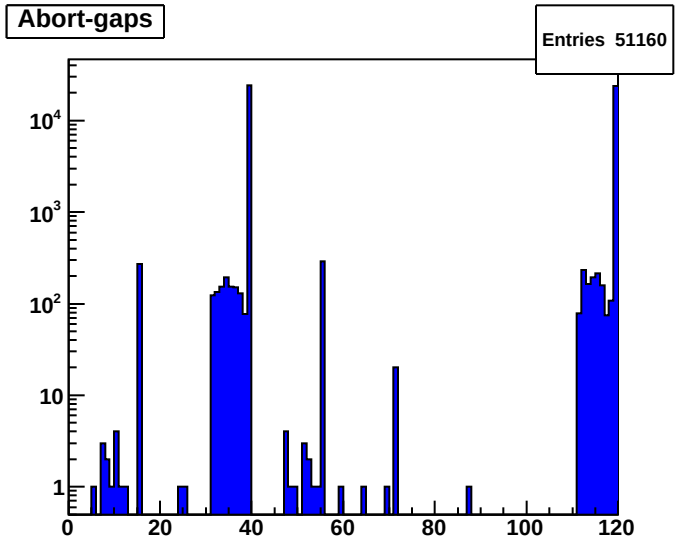

EMC L2 Input - HT23 bits
Entries 97
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

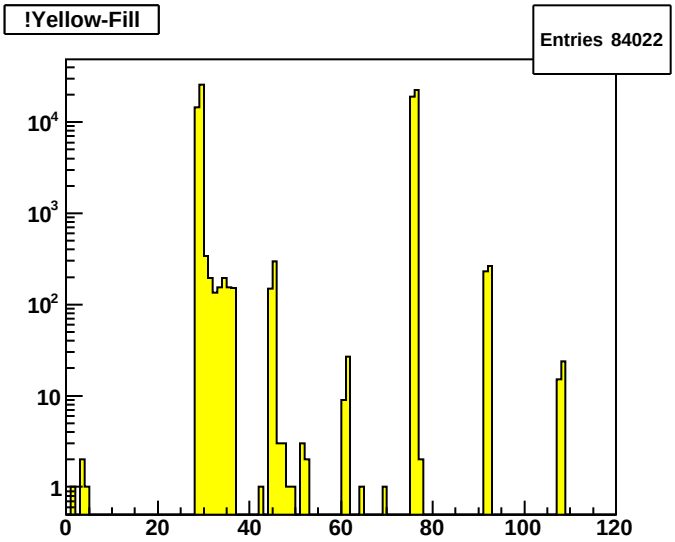

DAQ10k HT bits
Entries 254177
50000
40000
30000
20000
10000
0
5
10
15
20
25
30
35

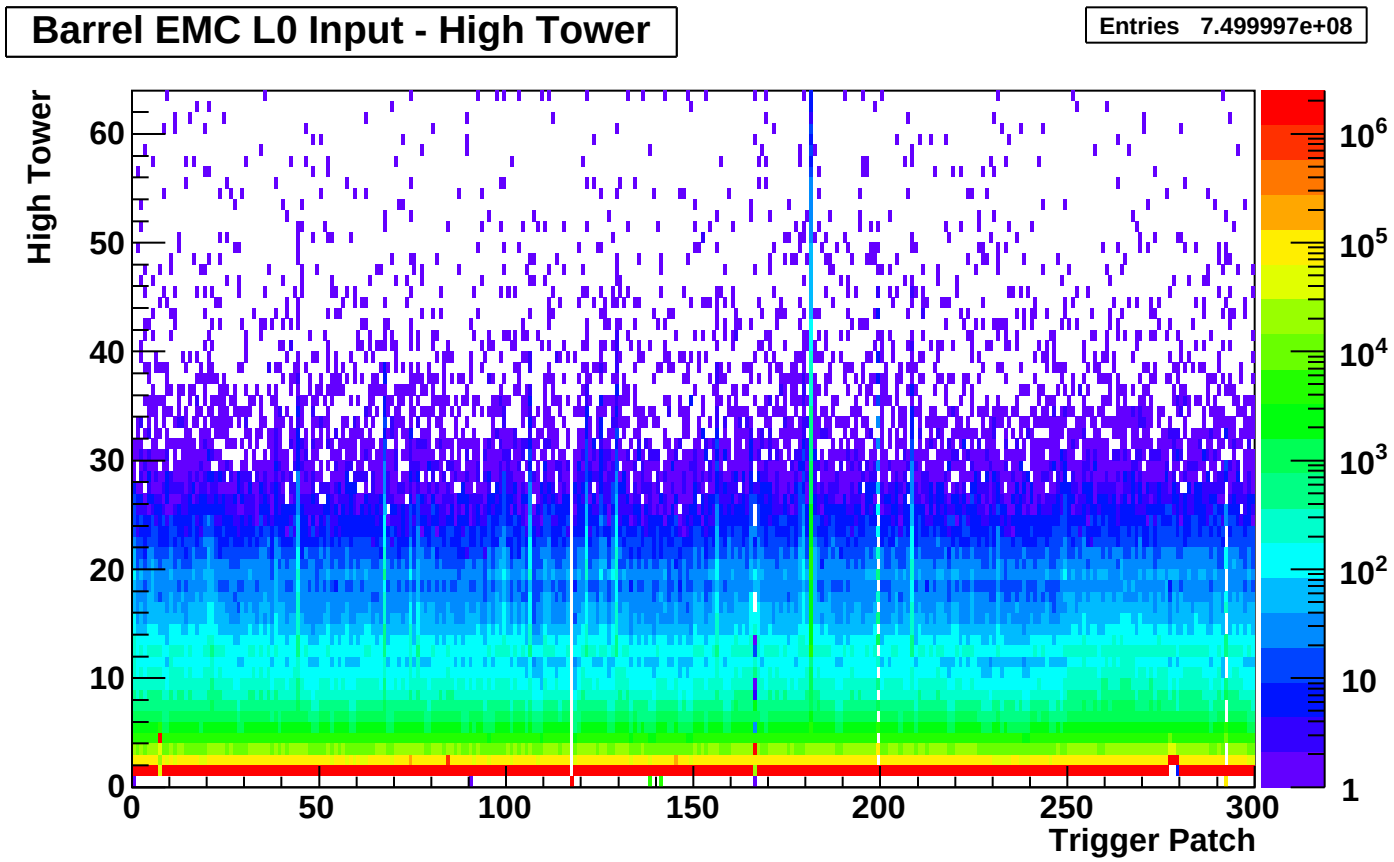

DAQ10k HT bits errors
Entries 69
10
8
6
4
2
0
5
10
15
20
25
30
35

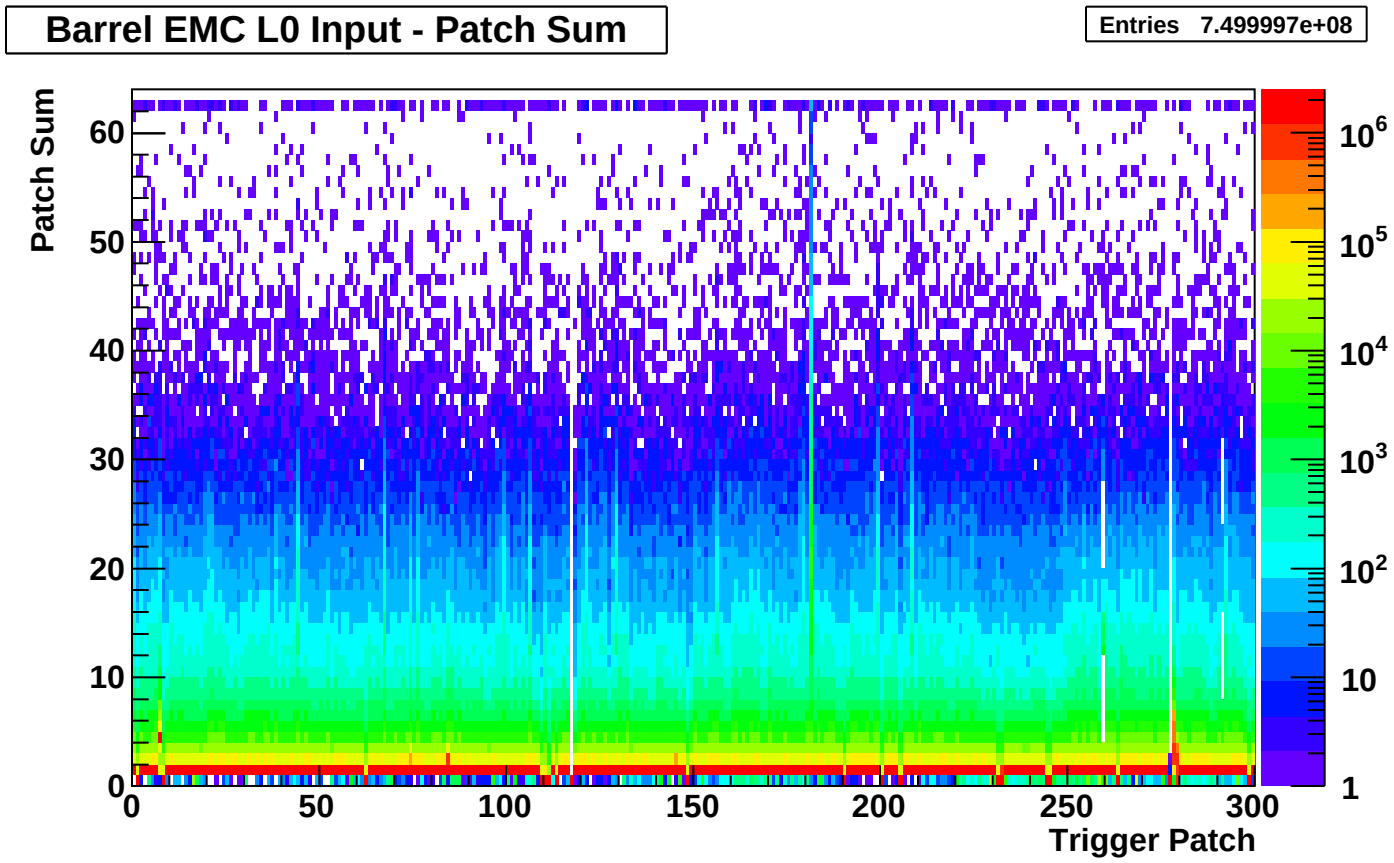

TPC Readout Mask (simulated)
Entries 460783
70000
60000
50000
40000
30000
20000
10000
0
5
10
15
20
25
30

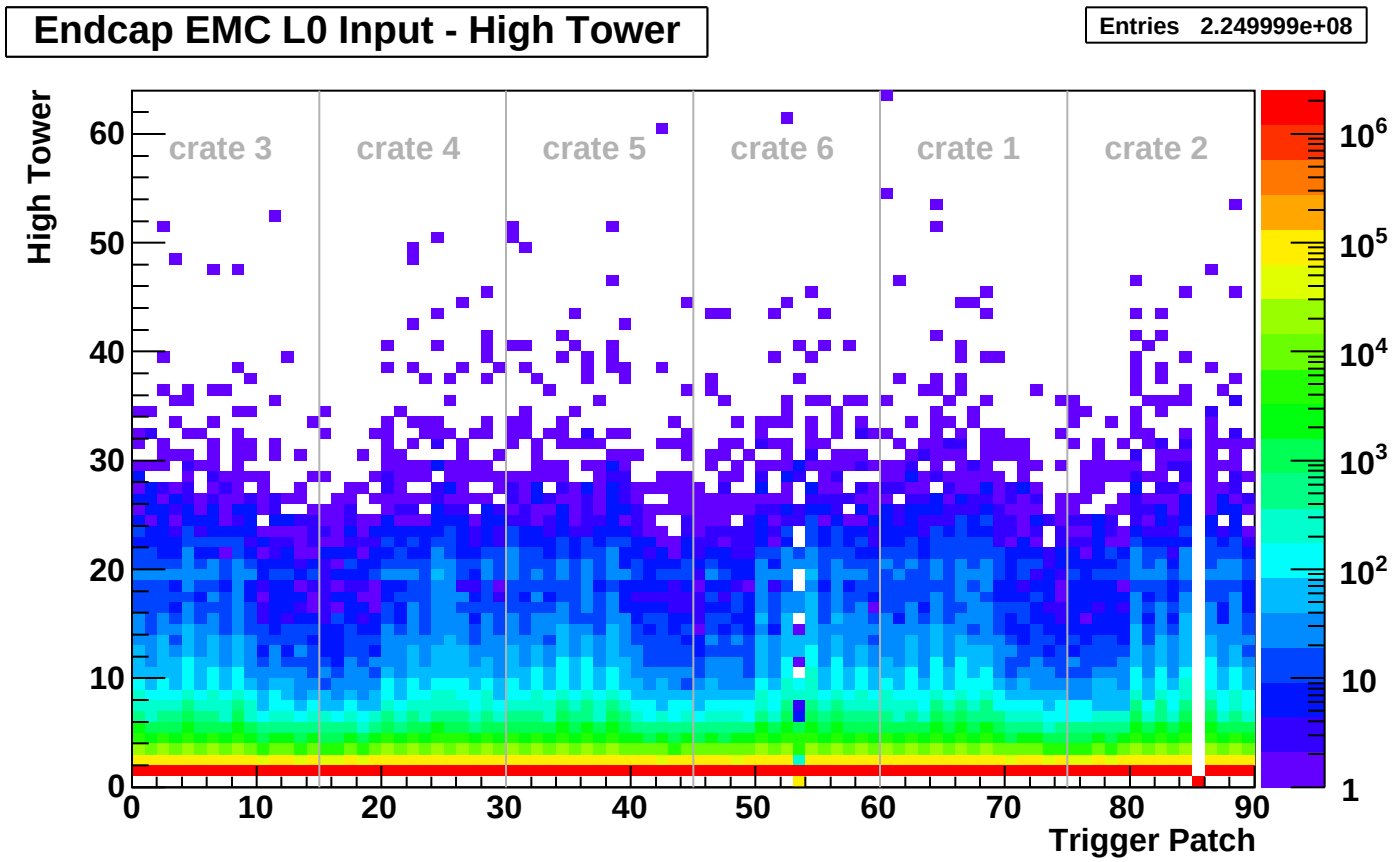

BunchId7Bit (all events)
Entries2499999
10^4
10^3
0
20
40
60
80
100
120

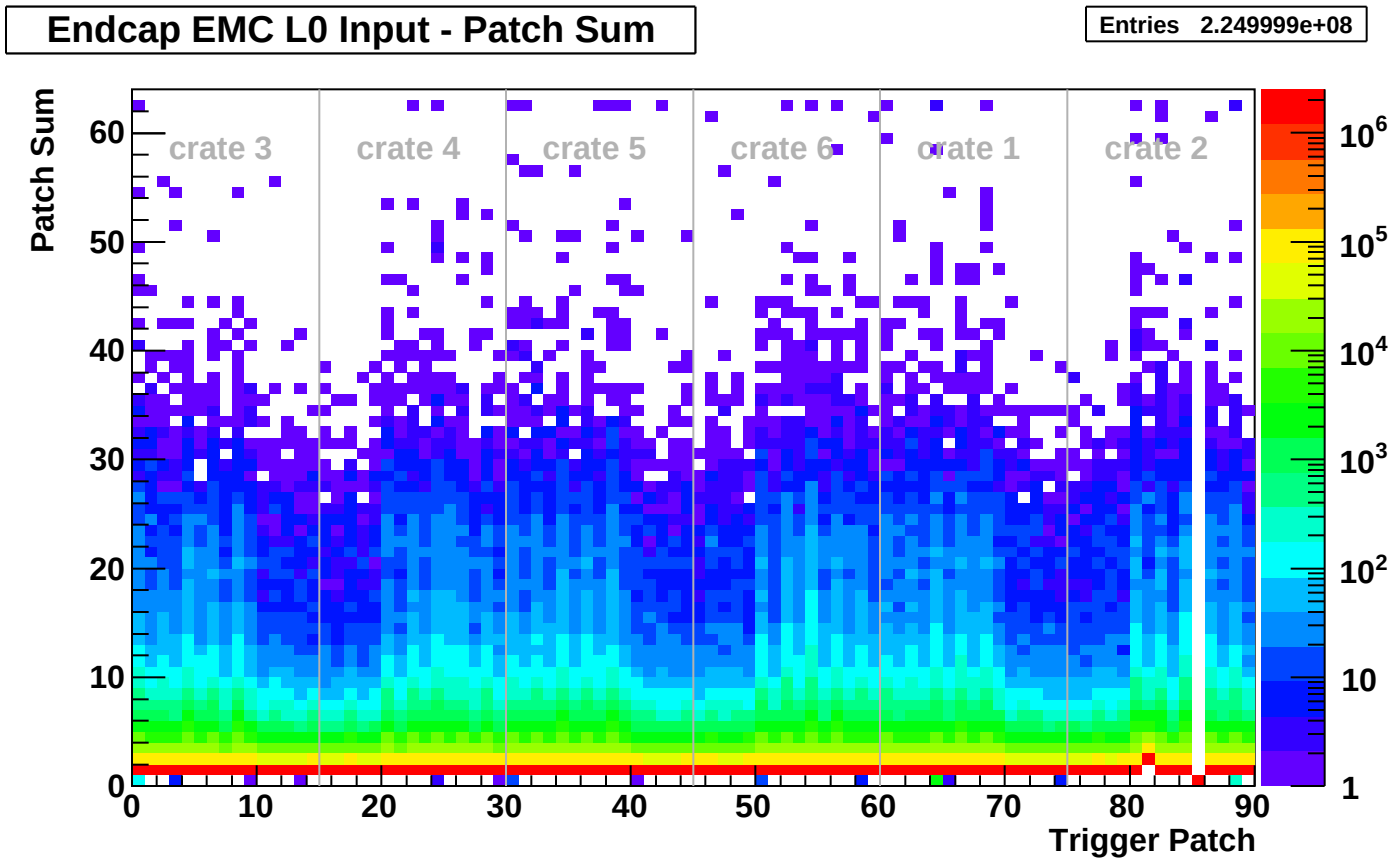

Abort-gaps
Entries 51160
10^4
10^3
10^2
10
1
0
20
40
60
80
100
120

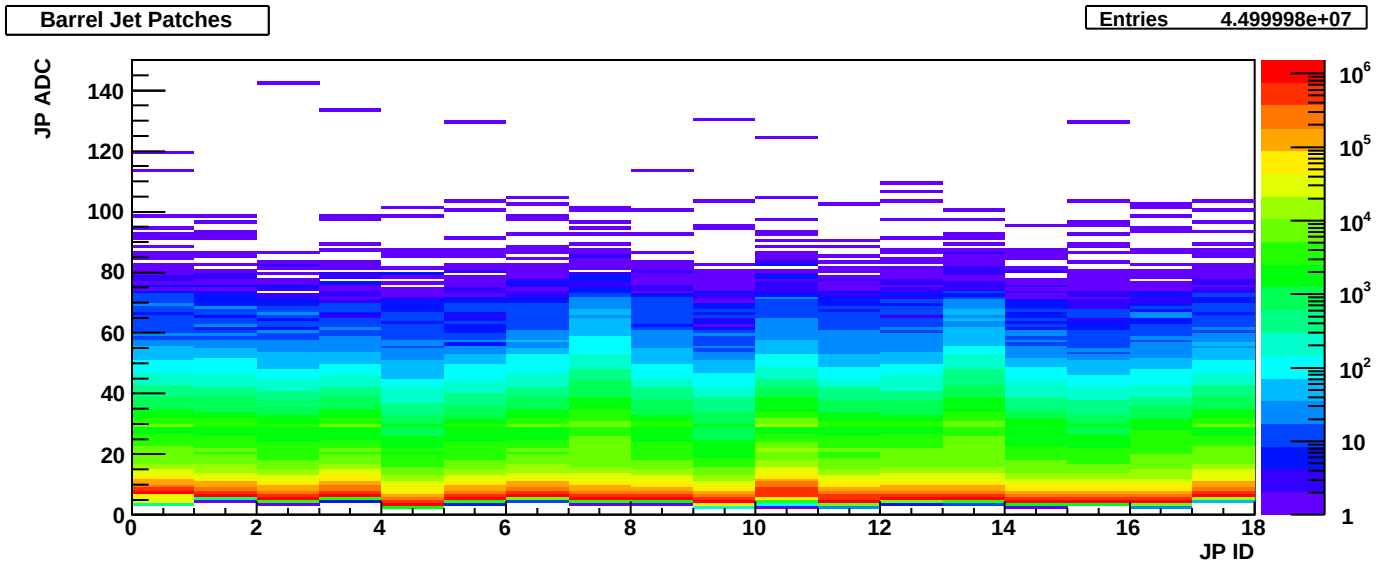

!Yellow-Fill
Entries 84022
10^4
10^3
10^2
10
1
0
20
40
60
80
100
120

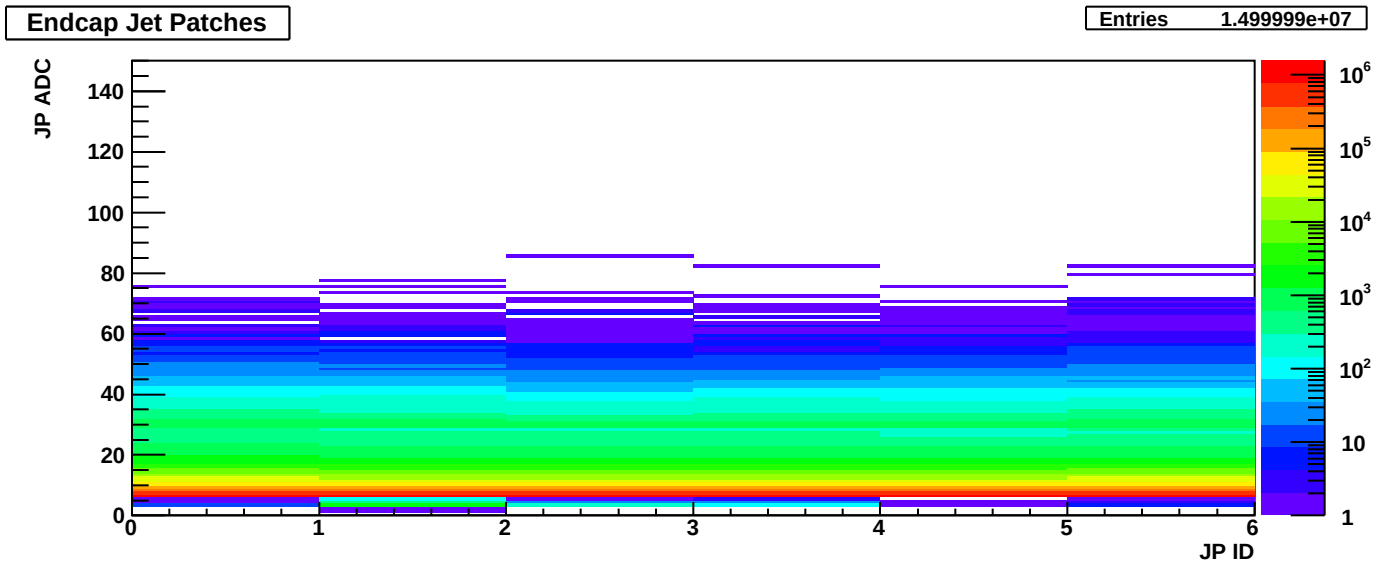

Barrel EMC L0 Input - High Tower
Entries 7.499997e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

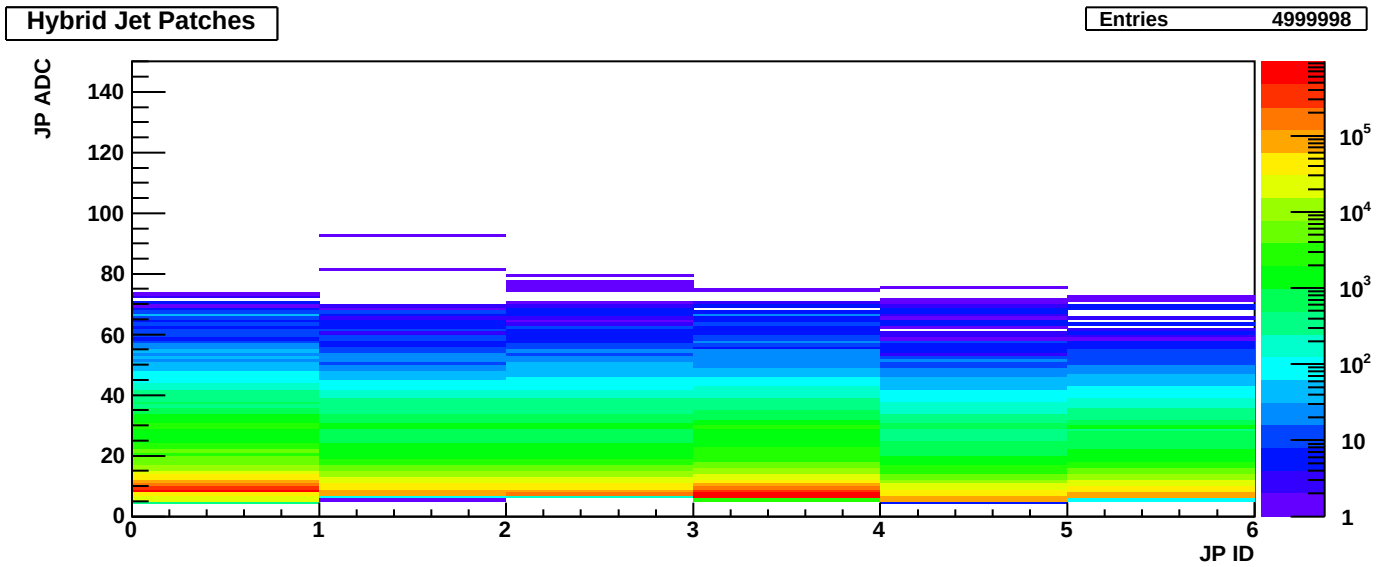

Barrel EMC L0 Input - Patch Sum
Entries 7.499997e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

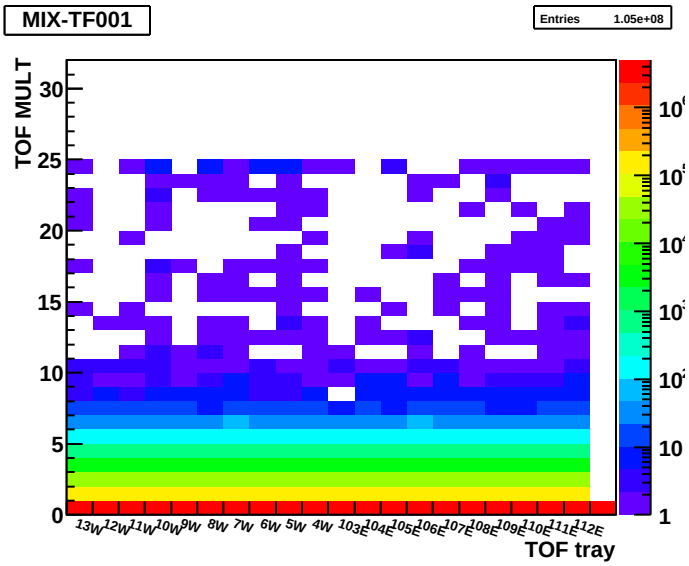

Endcap EMC L0 Input - High Tower
Entries 2.249999e+08
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

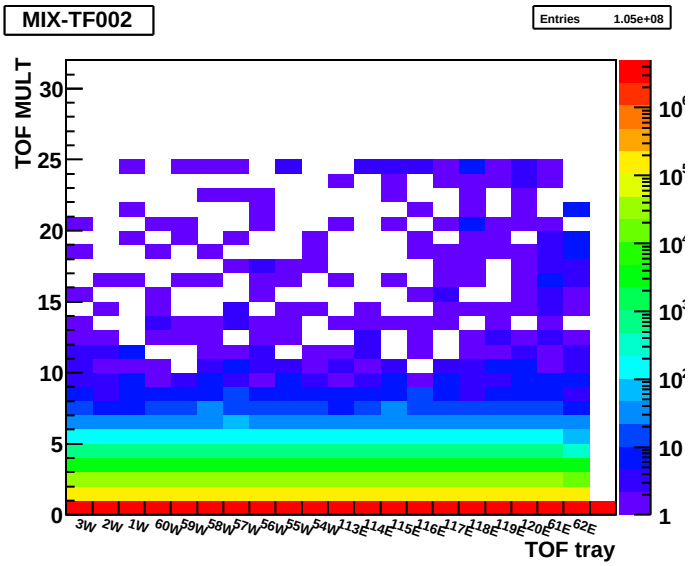

Endcap EMC L0 Input - Patch Sum
Entries 2.249999e+08
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

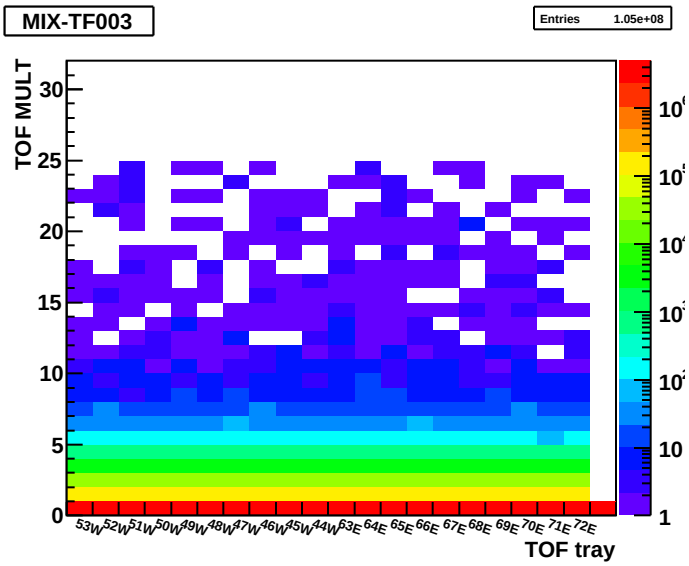

Barrel Jet Patches
Entries 4.499998e+07
JP ADC
JP ID

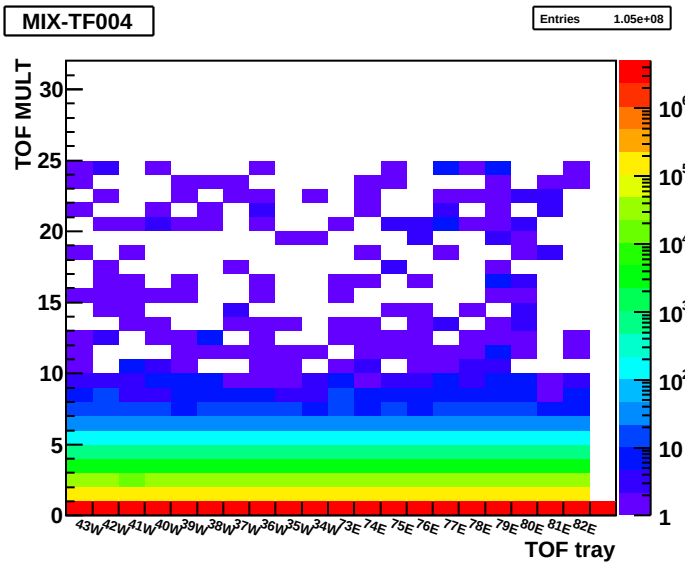

Endcap Jet Patches
Entries 1.499999e+07
JP ADC
JP ID

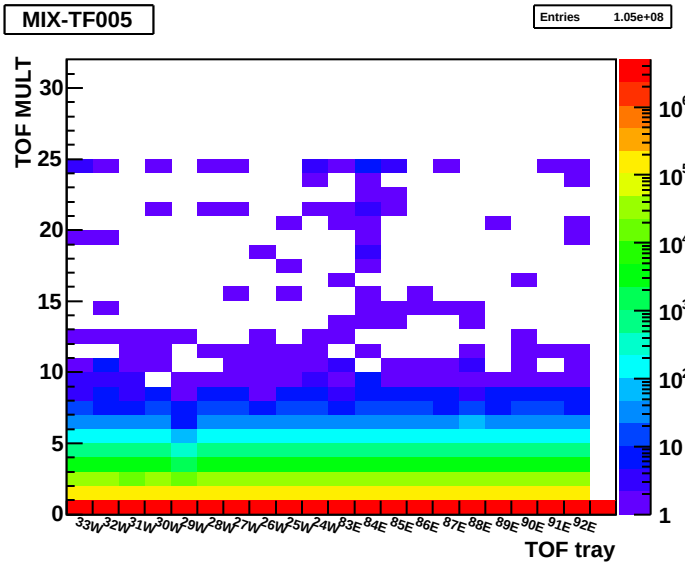

Hybrid Jet Patches
Entries 4999998
JP ADC
JP ID

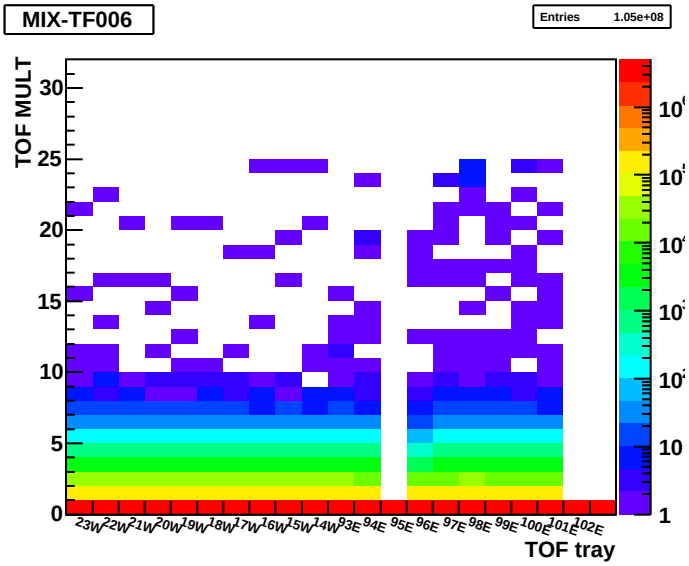

MIX-TF001
Entries 1.05e+08
TOF MULT
TOF tray

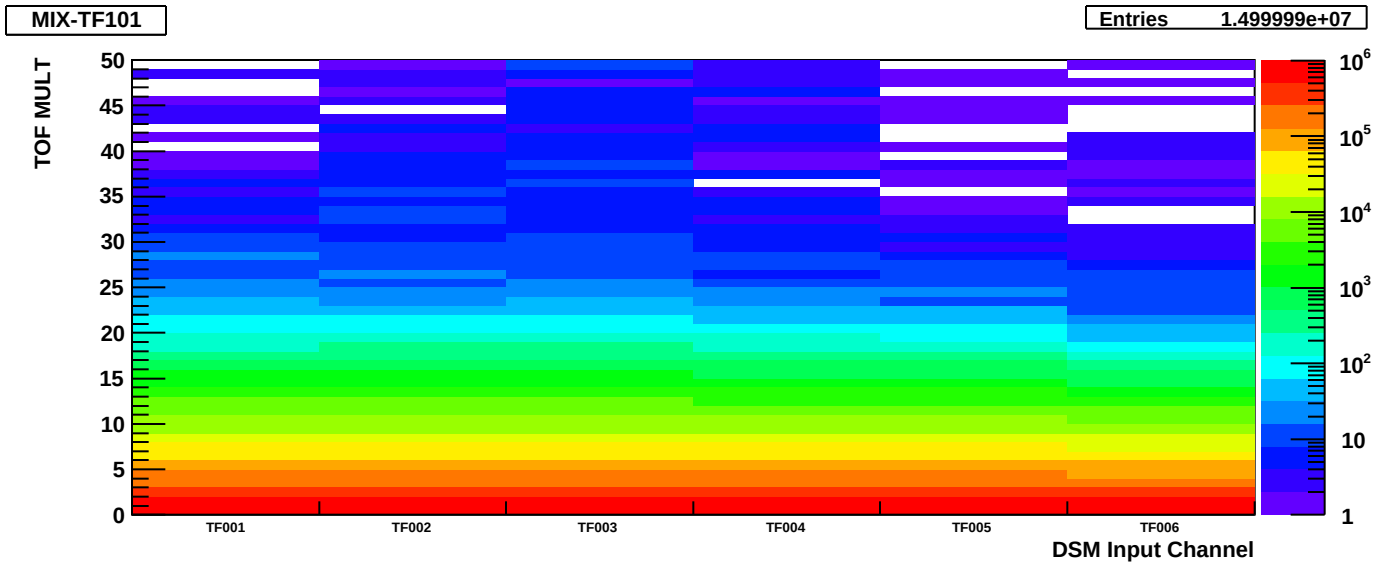

MIX-TF002
Entries 1.05e+08
TOF MULT
TOF tray

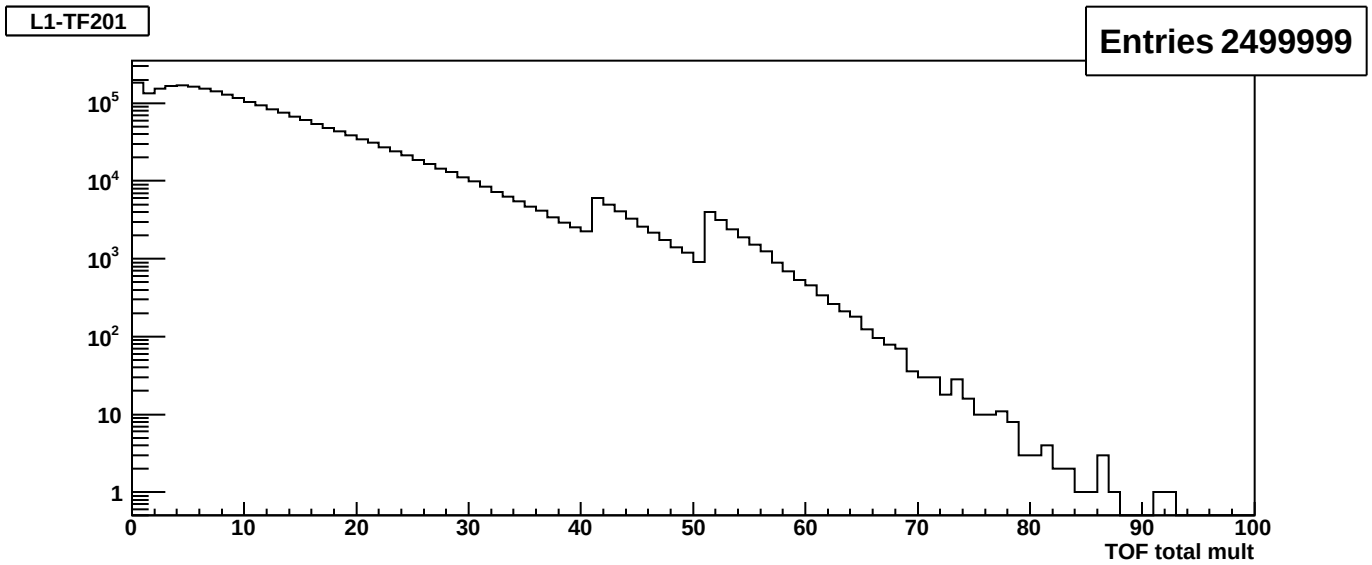

MIX-TF003
Entries 1.05e+08
TOF MULT
TOF tray

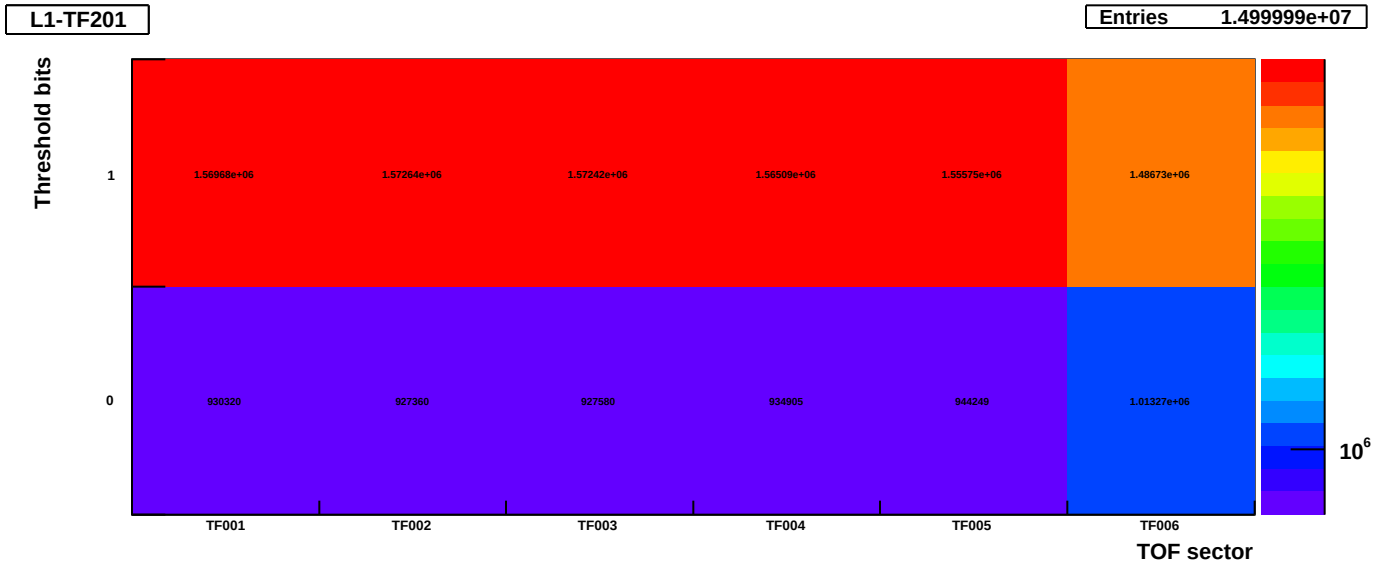

MIX-TF004
Entries 1.05e+08
TOF MULT
TOF tray

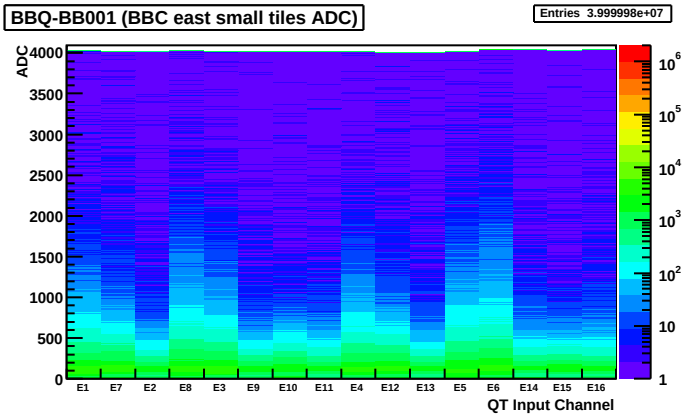

MIX-TF005
Entries 1.05e+08
TOF MULT
TOF tray

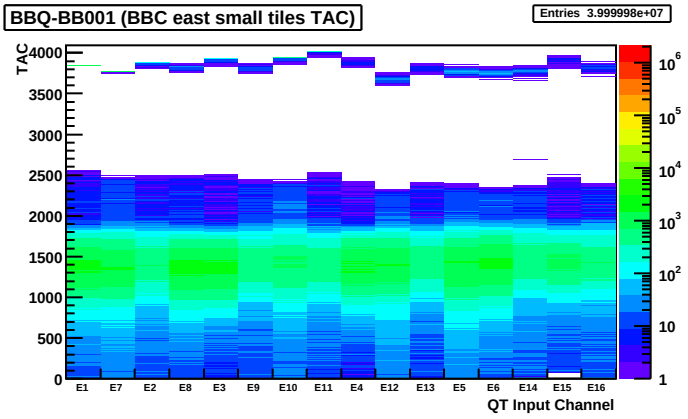

MIX-TF006
Entries 1.05e+08
TOF MULT
TOF tray

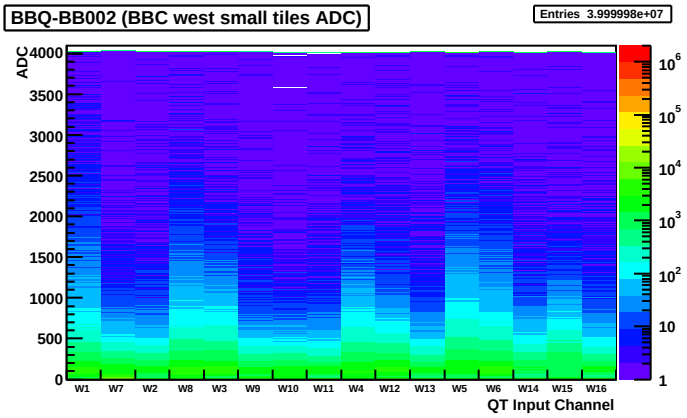

MIX-TF101
Entries 1.499999e+07
TOF MULT
50
45
40
35
30
25
20
15
10
5
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^6
10^5
10^4
10^3
10^2
10
1

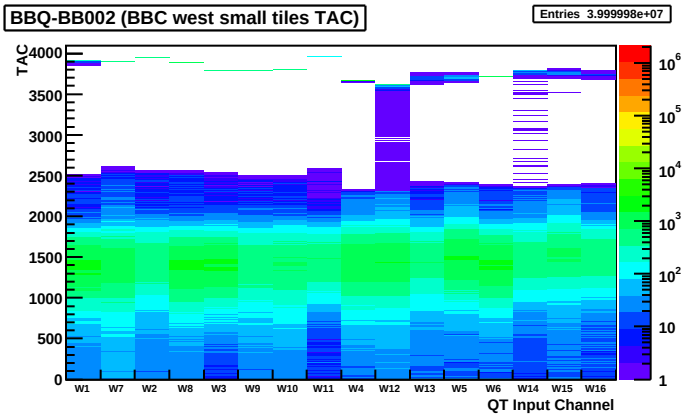

L1-TF201
Entries 2499999
10^5
10^4
10^3
10^2
10
1
0
10
20
30
40
50
60
70
80
90
100
TOF total mult

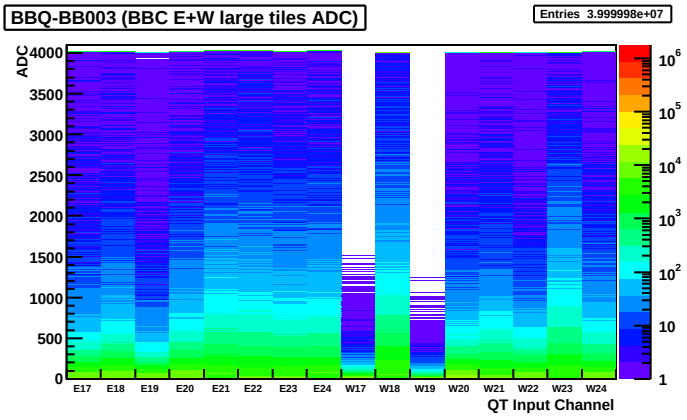

L1-TF201
Entries 1.499999e+07
Threshold bits
1
0
1.56968e+06
1.57264e+06
1.57242e+06
1.56509e+06
1.55575e+06
1.48673e+06
930320
927360
927580
934905
944249
1.01327e+06
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^6

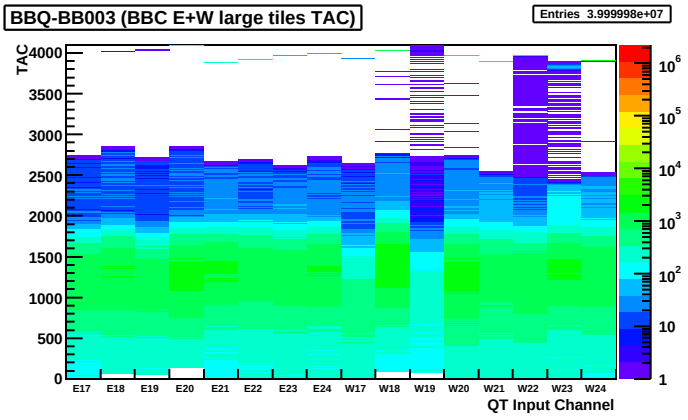

BBQ-BB001 (BBC east small tiles ADC)
Entries 3.999998e+07
ADC
QT Input Channel

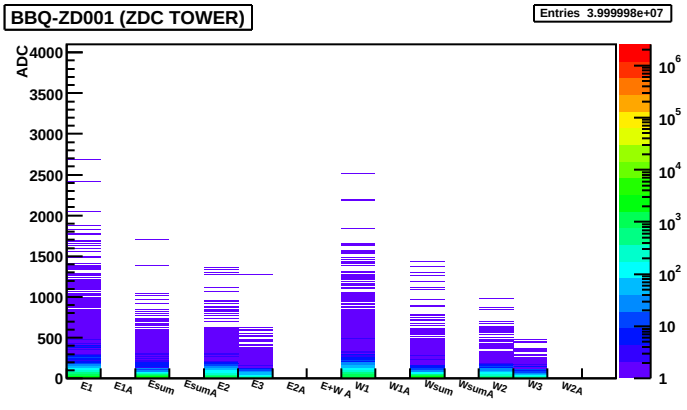

BBQ-BB001 (BBC east small tiles TAC)
Entries 3.999998e+07
TAC
QT Input Channel

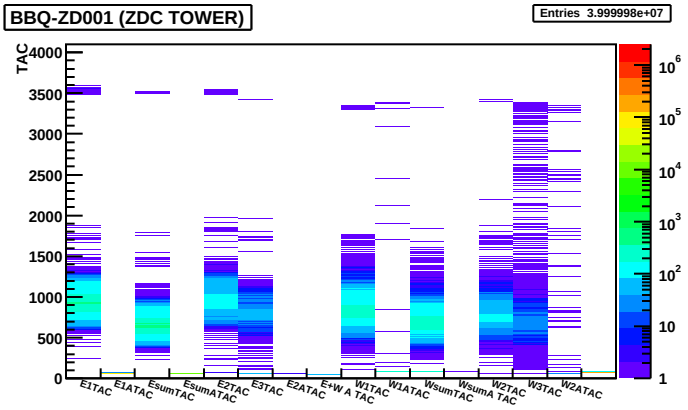

BBQ-BB002 (BBC west small tiles ADC)
Entries 3.999998e+07
ADC
QT Input Channel

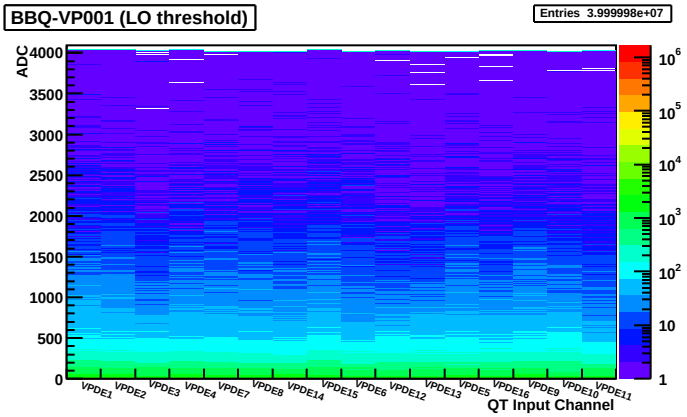

BBQ-BB002 (BBC west small tiles TAC)
Entries 3.999998e+07
TAC
QT Input Channel

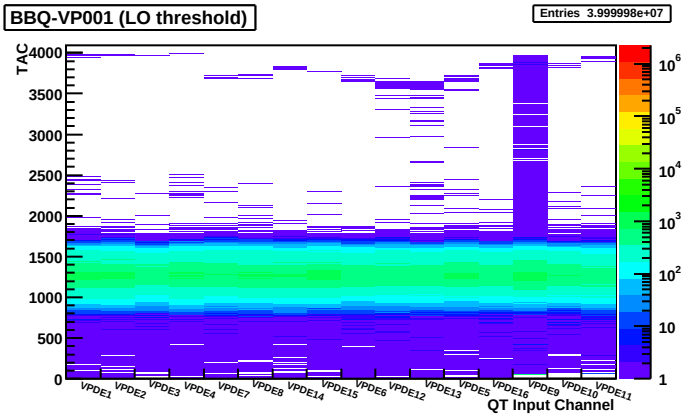

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 3.999998e+07
ADC
QT Input Channel

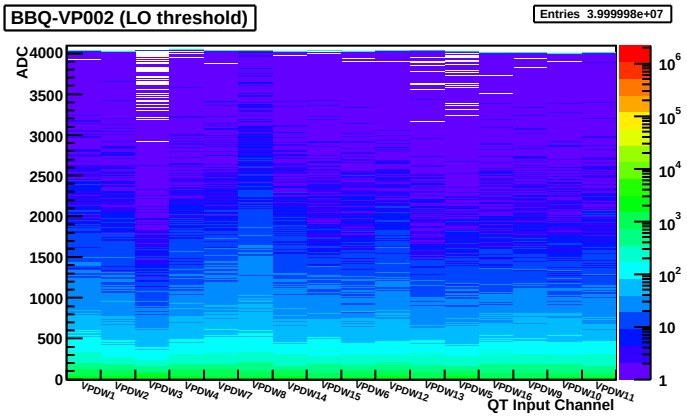

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 3.999998e+07
TAC
QT Input Channel

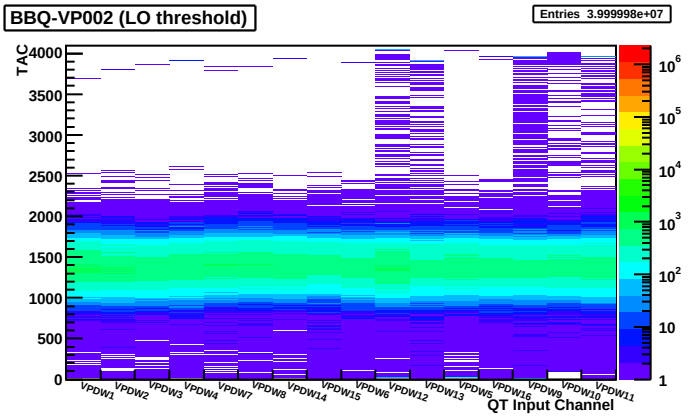

BBQ-ZD001 (ZDC TOWER)
Entries 3.999998e+07
ADC

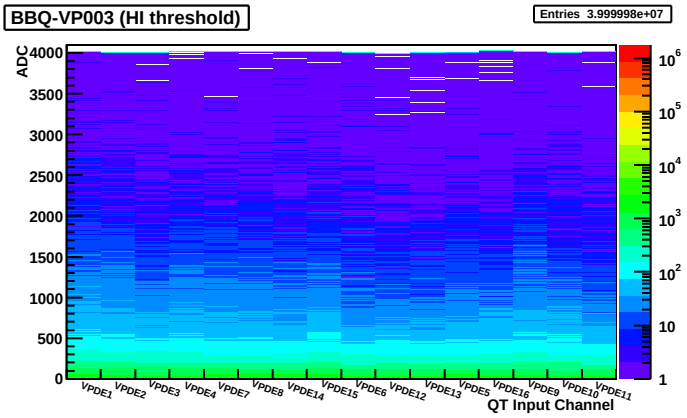

BBQ-ZD001 (ZDC TOWER)
Entries 3.999998e+07
TAC

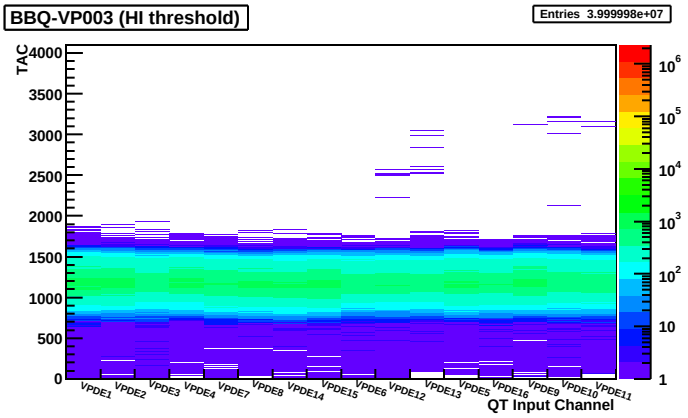

BBQ-VP001 (LO threshold)
Entries 3.999998e+07
ADC
QT Input Channel

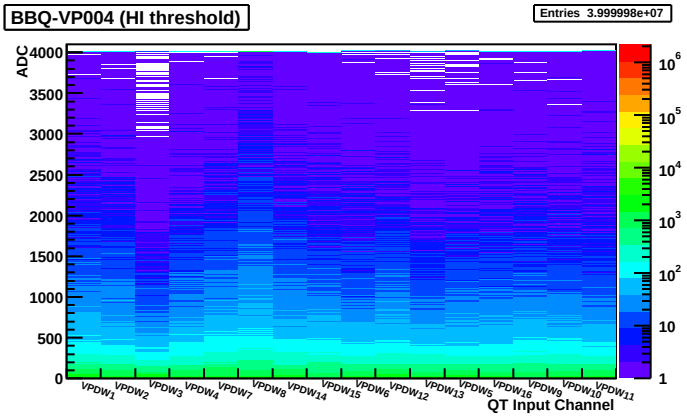

BBQ-VP001 (LO threshold)
Entries 3.999998e+07
TAC
QT Input Channel

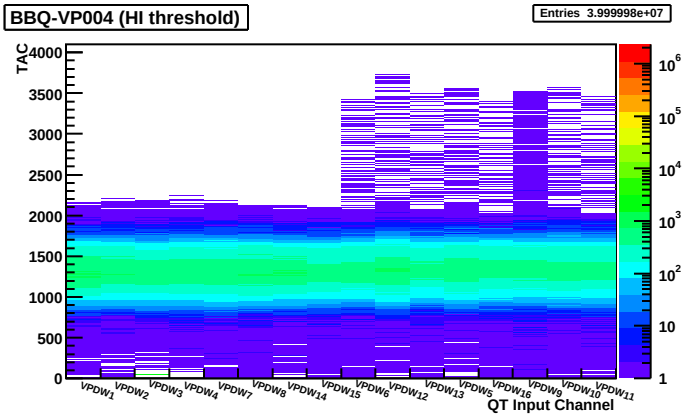

BBQ-VP002 (LO threshold)
Entries 3.999998e+07
ADC
QT Input Channel

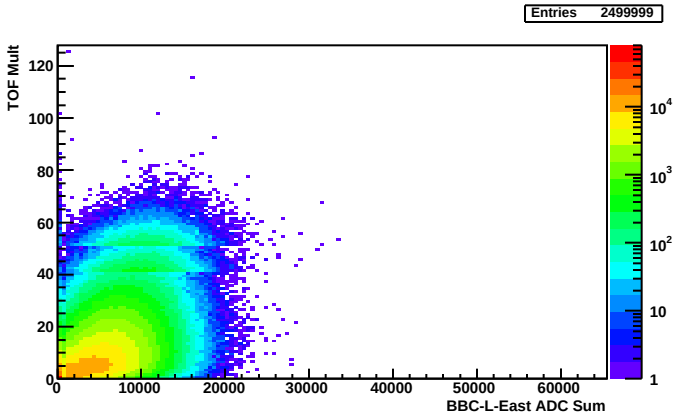

BBQ-VP002 (LO threshold)
Entries 3.999998e+07
TAC
QT Input Channel

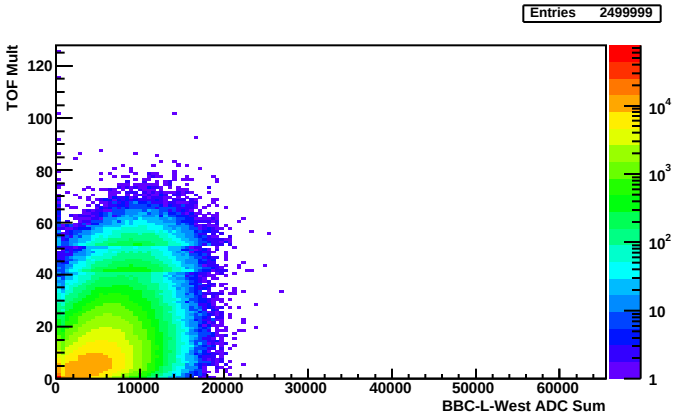

BBQ-VP003 (HI threshold)
Entries 3.999998e+07
ADC
QT Input Channel

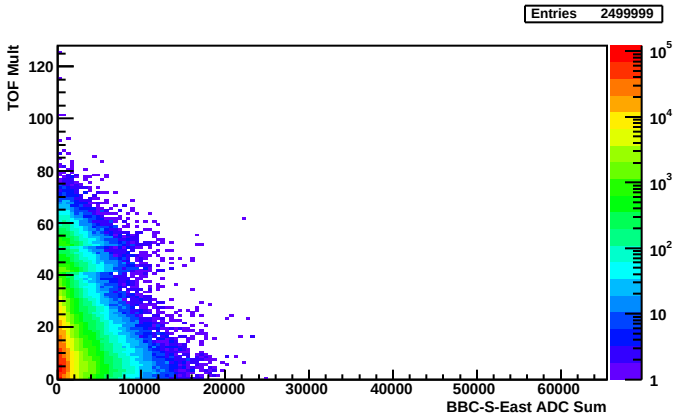

BBQ-VP003 (HI threshold)
Entries 3.999998e+07
TAC
QT Input Channel

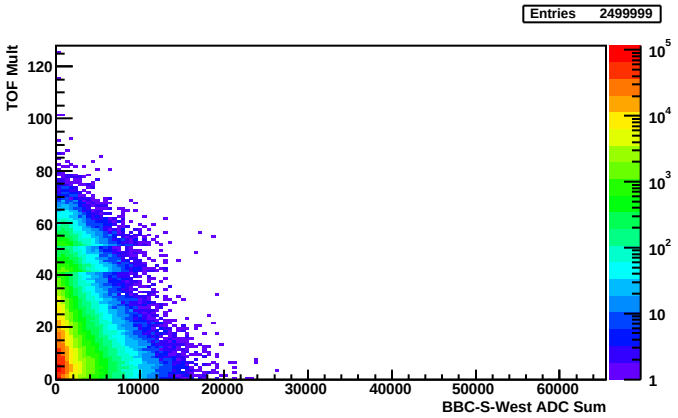

BBQ-VP004 (HI threshold)
Entries 3.999998e+07
ADC
QT Input Channel

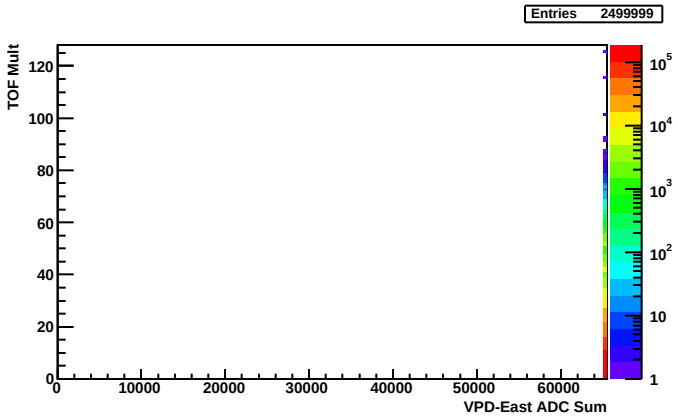

BBQ-VP004 (HI threshold)
Entries 3.999998e+07
TAC
QT Input Channel

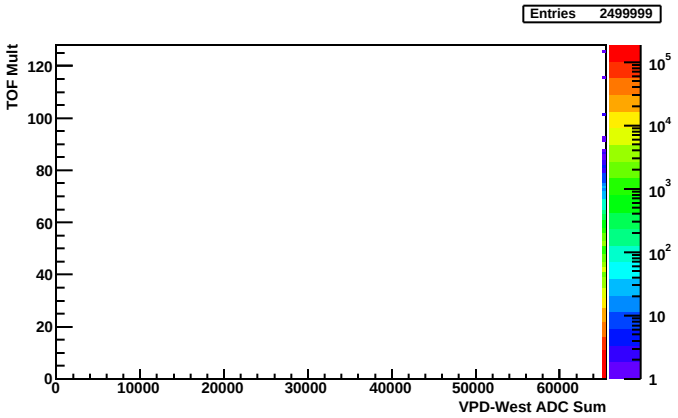

Entries 2499999
TOF Mult
BBC-L-East ADC Sum

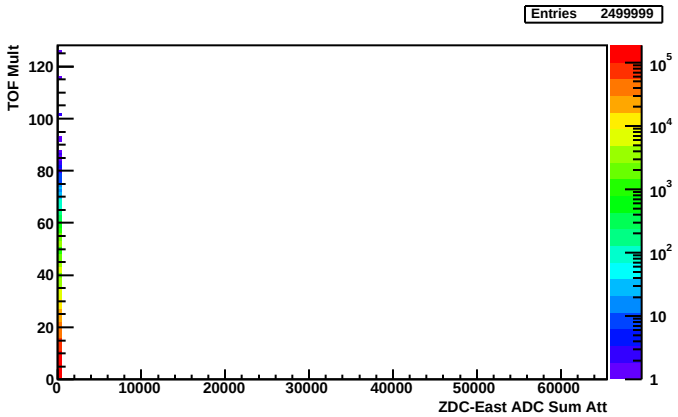

Entries 2499999
TOF Mult
BBC-L-West ADC Sum

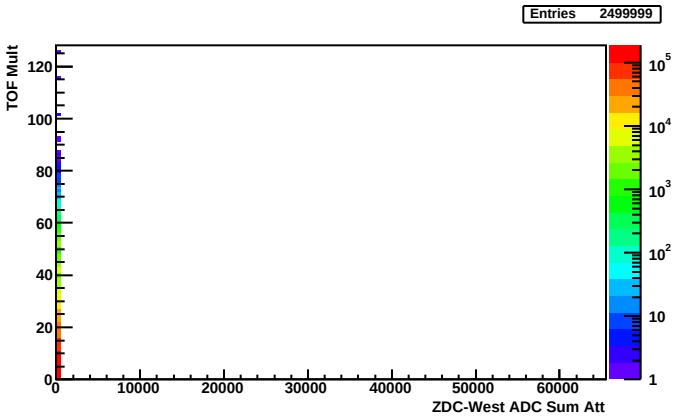

Entries 2499999
TOF Mult
BBC-S-East ADC Sum

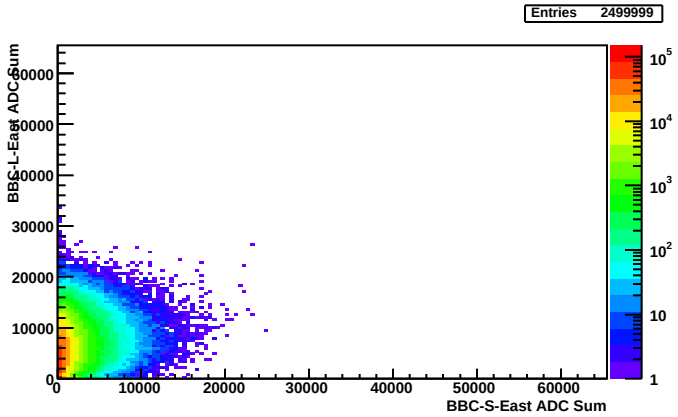

Entries 2499999
TOF Mult
BBC-S-West ADC Sum

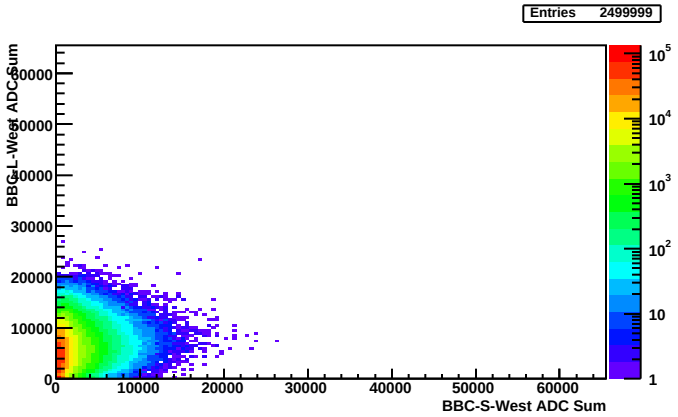

Entries 2499999
TOF Mult
VPD-East ADC Sum

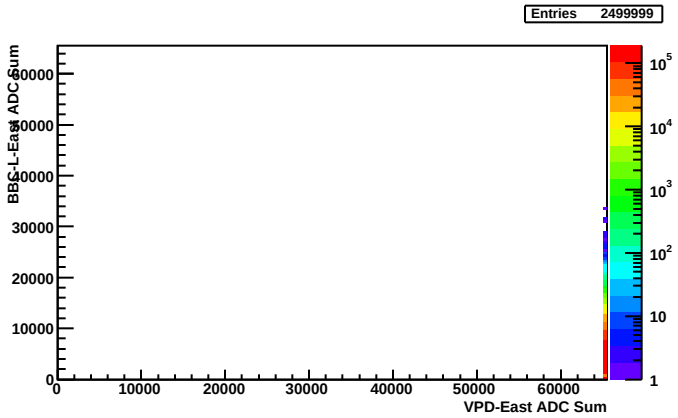

Entries 2499999
TOF Mult
VPD-West ADC Sum

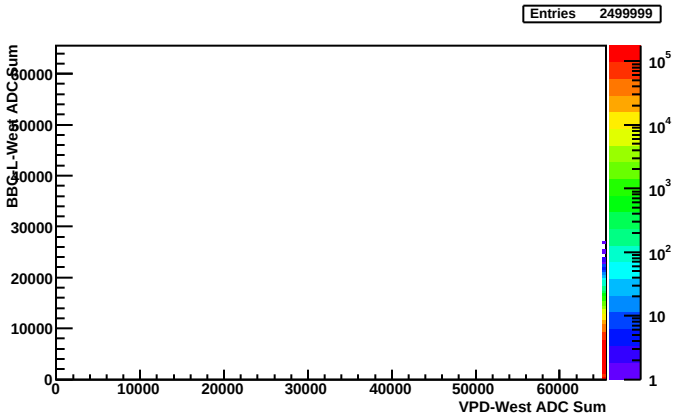

Entries 2499999
TOF Mult
ZDC-East ADC Sum Att

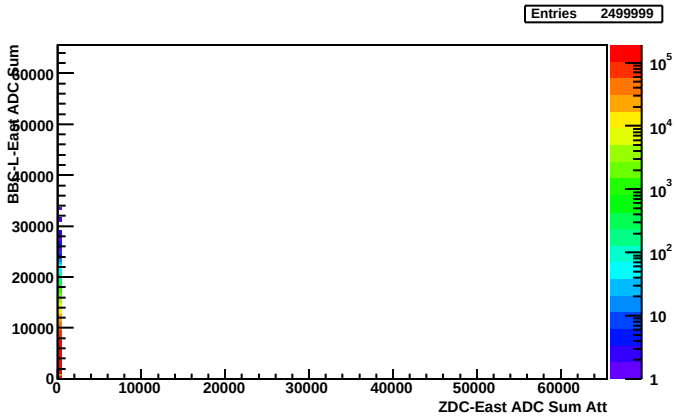

Entries 2499999
TOF Mult
ZDC-West ADC Sum Att

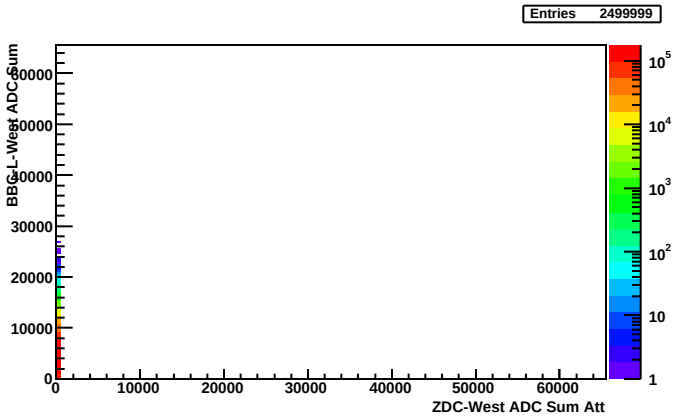

Entries 2499999
BBC-L-East ADC Sum
BBC-S-East ADC Sum

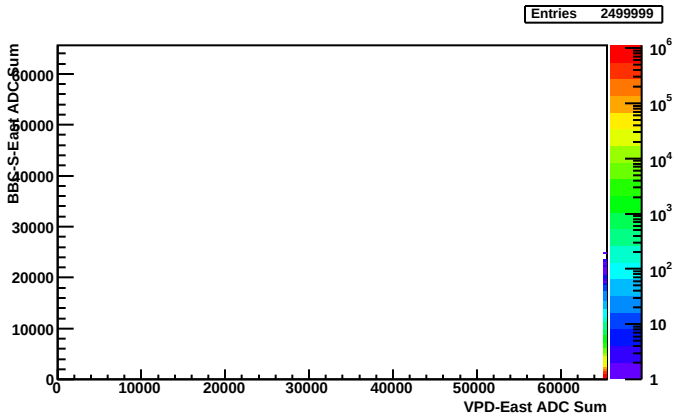

Entries 2499999
BBC-L-West ADC Sum
BBC-S-West ADC Sum

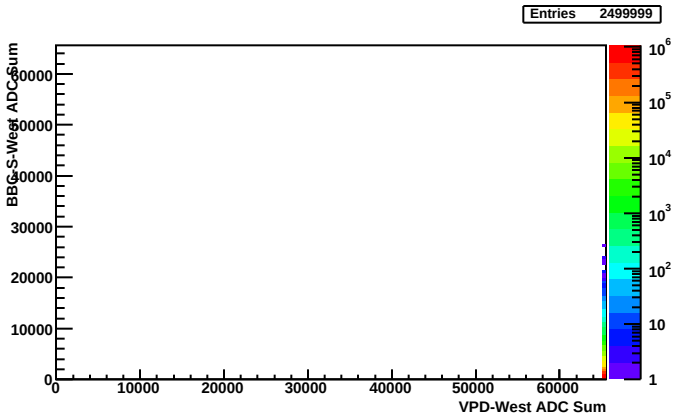

Entries 2499999
BBC-L-East ADC Sum
VPD-East ADC Sum

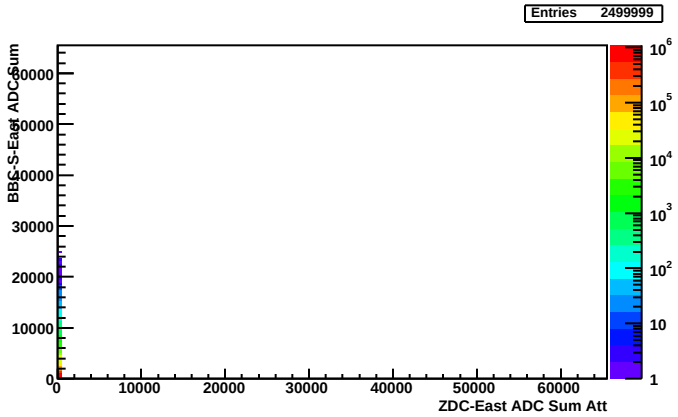

Entries 2499999
BBC-L-West ADC Sum
VPD-West ADC Sum

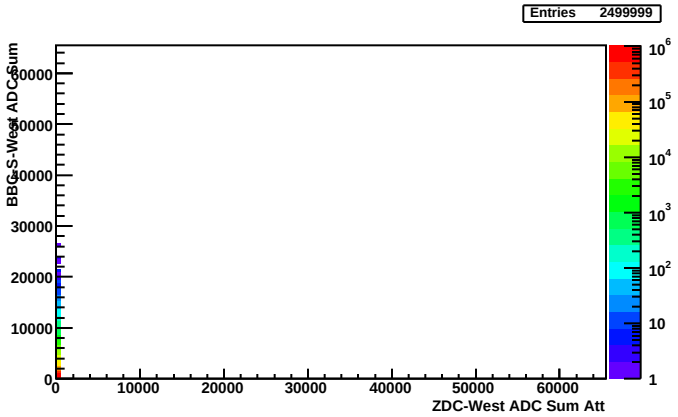

Entries 2499999
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

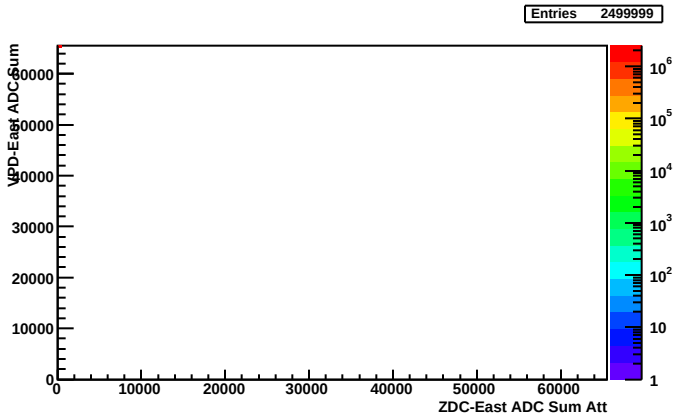

Entries 2499999
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

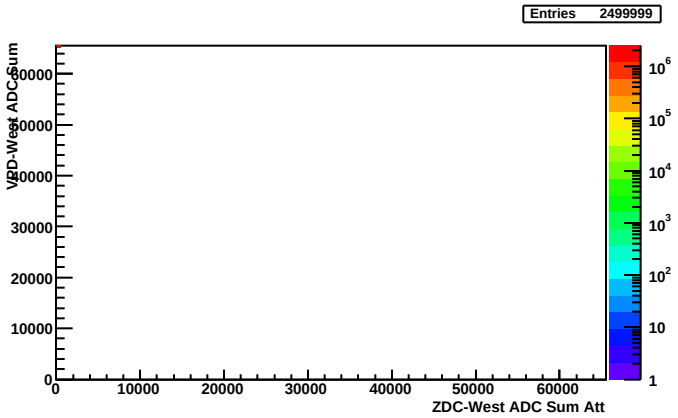

Entries 2499999
BBC-S-East ADC Sum
VPD-East ADC Sum

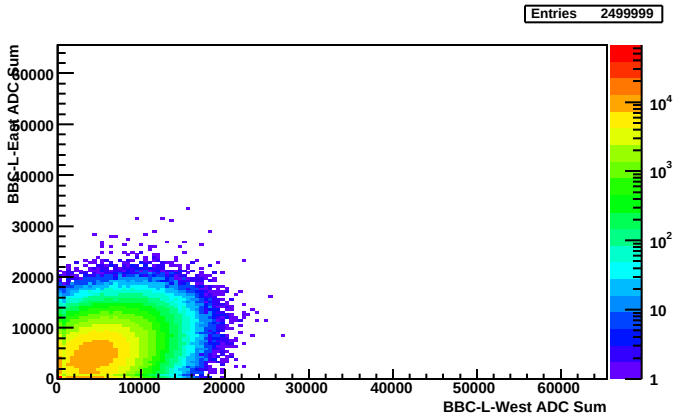

Entries 2499999
BBC-S-West ADC Sum
VPD-West ADC Sum

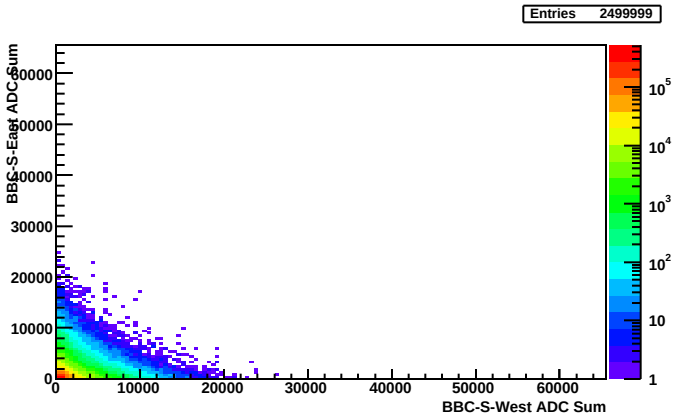

Entries 2499999
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

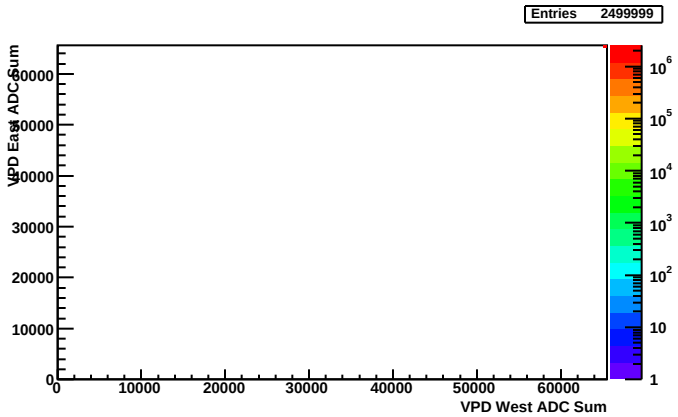

Entries 2499999
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

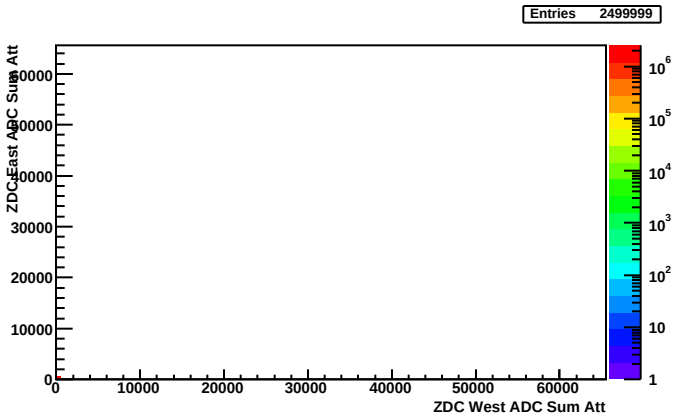

Entries 2499999
VPD-East ADC Sum
ZDC-East ADC Sum Att

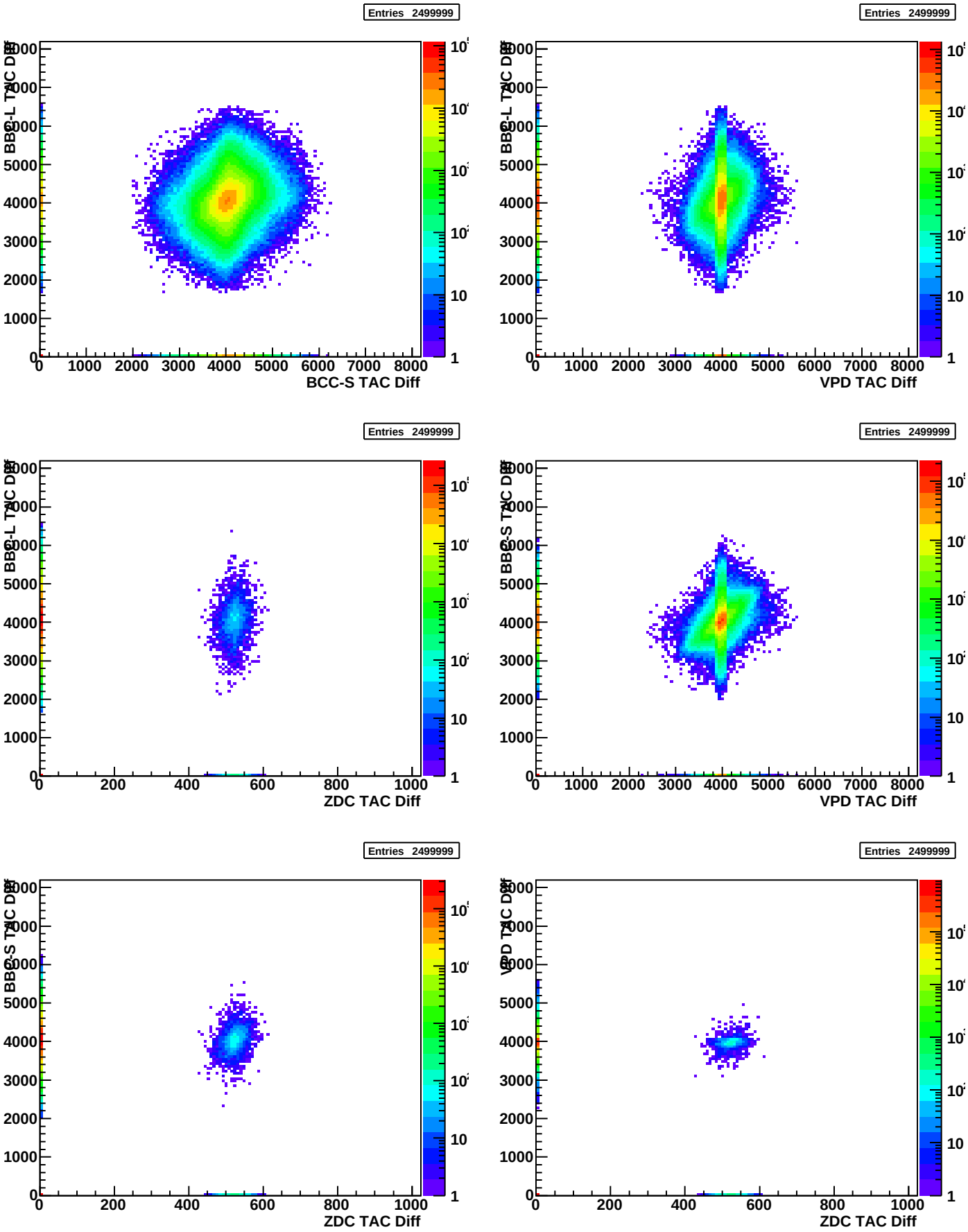

Entries 2499999
VPD-West ADC Sum
ZDC-West ADC Sum Att

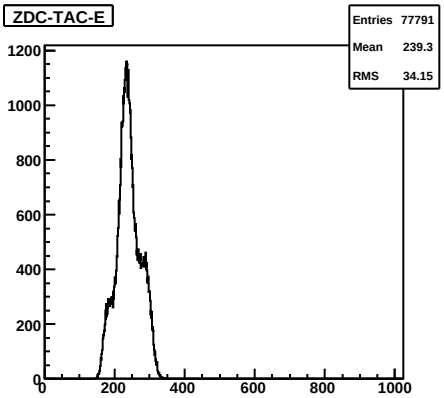

Entries 2499999
BBC-L-East ADC Sum
BBC-L-West ADC Sum

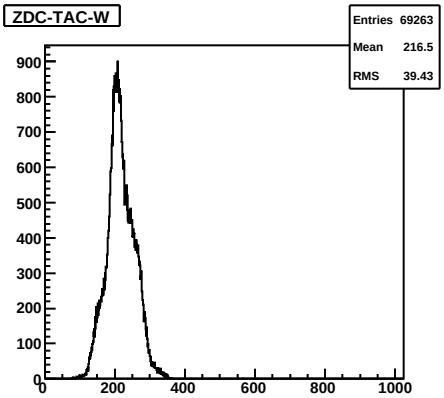

Entries 2499999
BBC-S-East ADC Sum
BBC-S-West ADC Sum

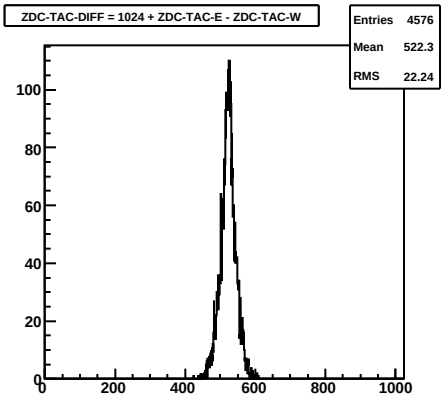

Entries 2499999
VPD East ADC Sum
VPD West ADC Sum

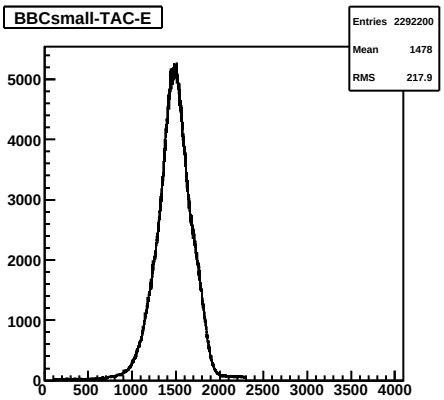

Entries 2499999
ZDC East ADC Sum Att
ZDC West ADC Sum Att

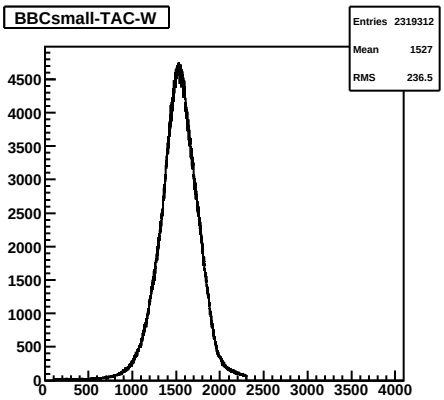

Entries 2499999
BBC-L TAC Diff
BCC-S TAC Diff
Entries 2499999
BBC-L TAC Diff
VPD TAC Diff
Entries 2499999
BBC-L TAC Diff
ZDC TAC Diff
Entries 2499999
BBC-S TAC Diff
VPD TAC Diff
Entries 2499999
BBC-S TAC Diff
ZDC TAC Diff
Entries 2499999
VPD TAC Diff
ZDC TAC Diff

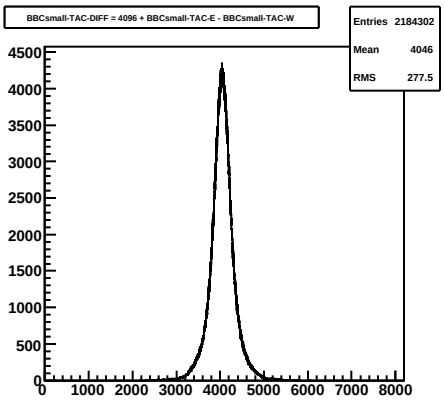

ZDC-TAC-E
Entries 77791
Mean 239.3
RMS 34.15

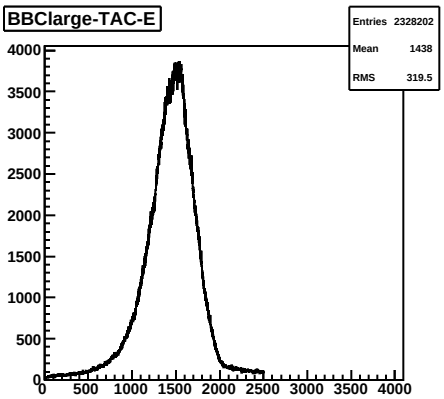

ZDC-TAC-W
Entries 69263
Mean 216.5
RMS 39.43

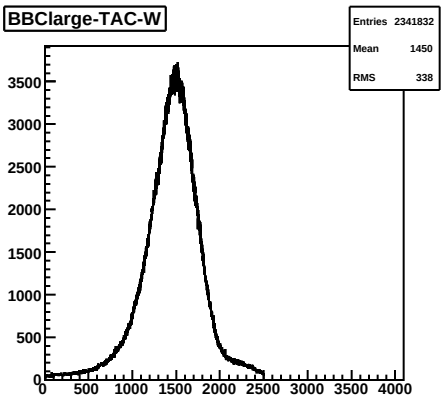

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 4576
Mean 522.3
RMS 22.24

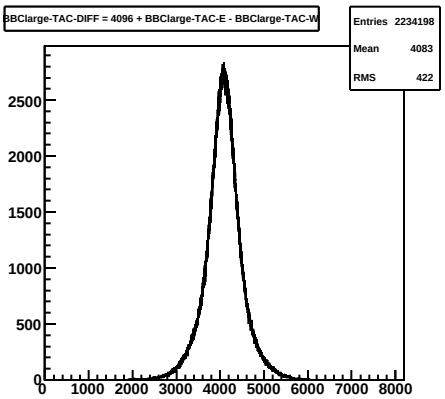

BBCsmall-TAC-E
Entries 2292200
Mean 1478
RMS 217.9

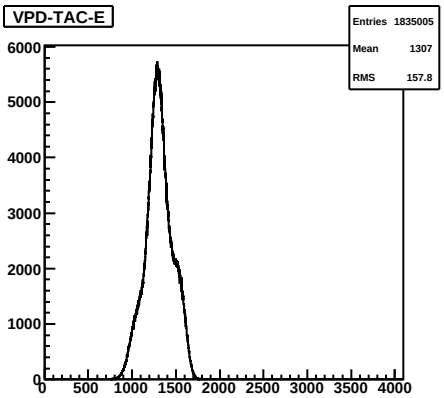

BBCsmall-TAC-W
Entries 2319312
Mean 1527
RMS 236.5

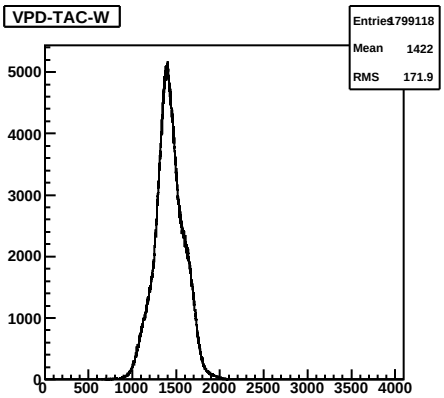

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 2184302
Mean 4046
RMS 277.5

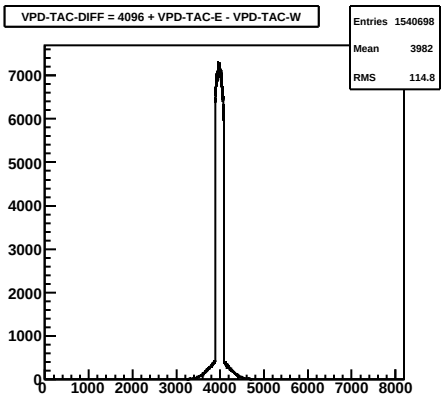

BBClarge-TAC-E
Entries 2328202
Mean 1438
RMS 319.5

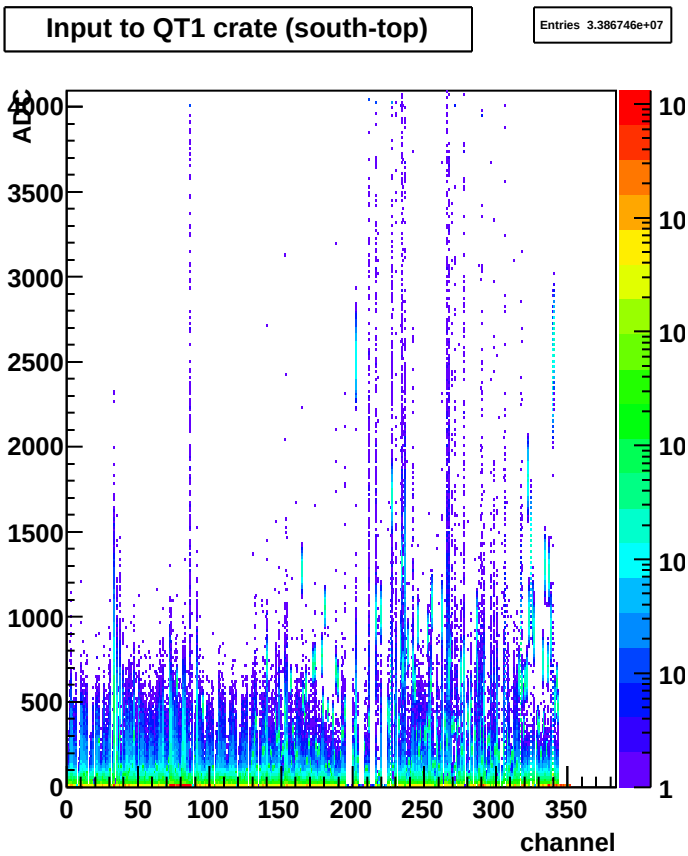

BBClarge-TAC-W
Entries 2341832
Mean 1450
RMS 338

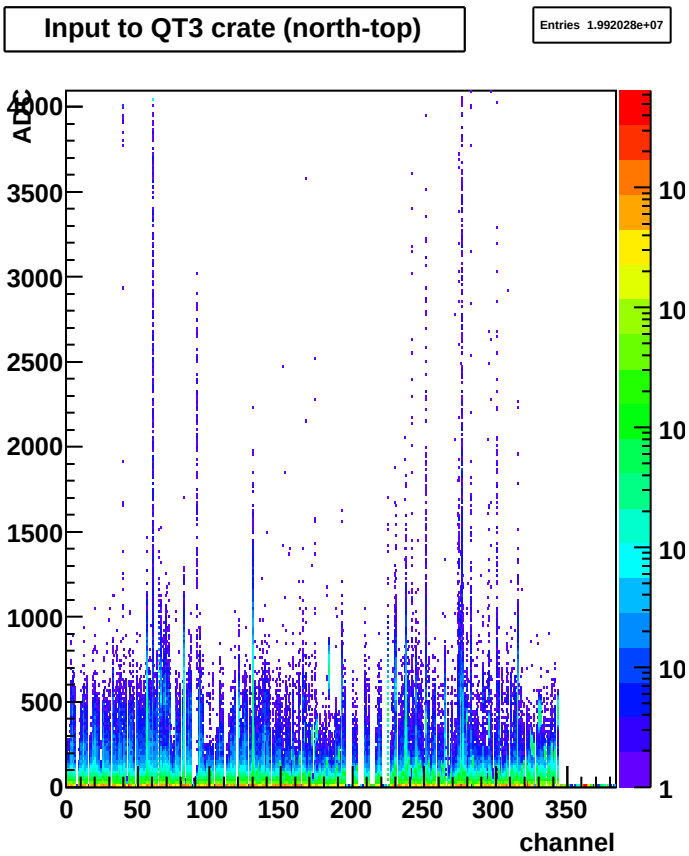

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 2234198
Mean 4083
RMS 422

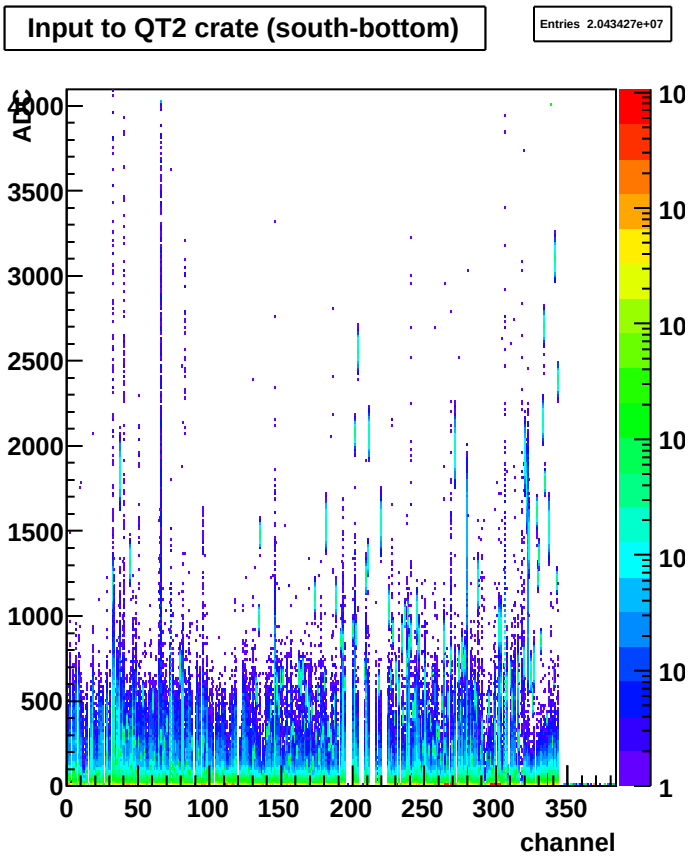

VPD-TAC-E
Entries 1835005
Mean 1307
RMS 157.8

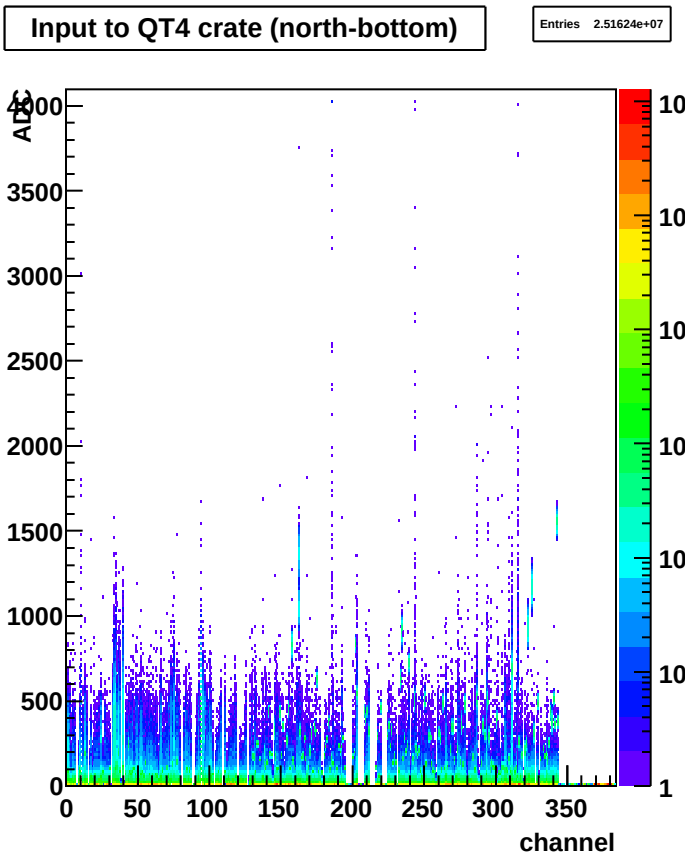

VPD-TAC-W
Entries 1799118
Mean 1422
RMS 171.9

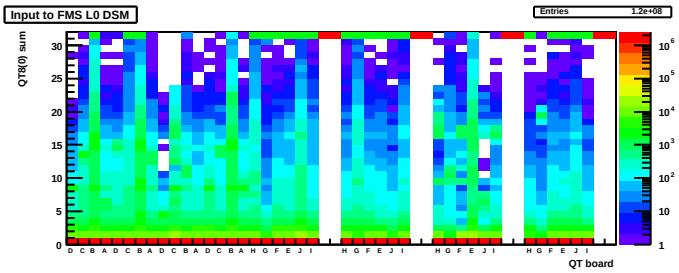

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 1540698
Mean 3982
RMS 114.8

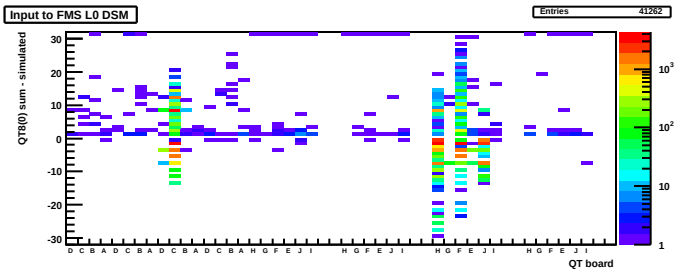

Input to QT1 crate (south-top)
Entries 3.386746e+07
ADC
channel

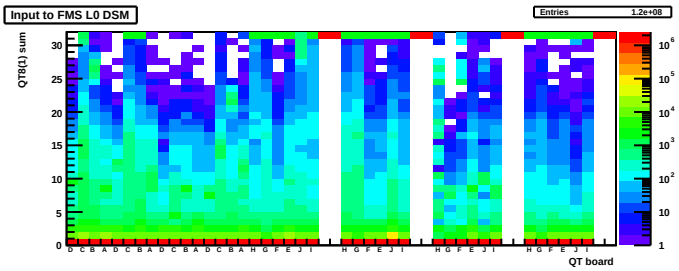

Input to QT3 crate (north-top)
Entries 1.992028e+07
ADC
channel

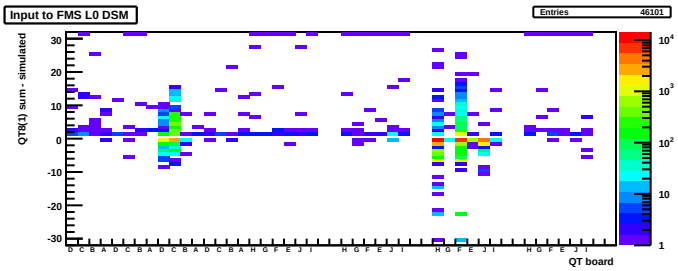

Input to QT2 crate (south-bottom)
Entries 2.043427e+07
ADC
channel

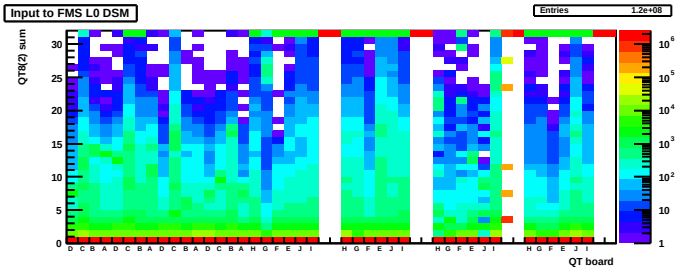

Input to QT4 crate (north-bottom)
Entries 2.51624e+07
ADC
channel

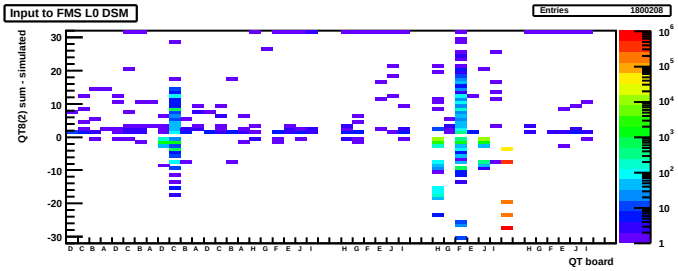

Input to FMS L0 DSM
Entries 1.2e+08
QT8(0) sum
QT board

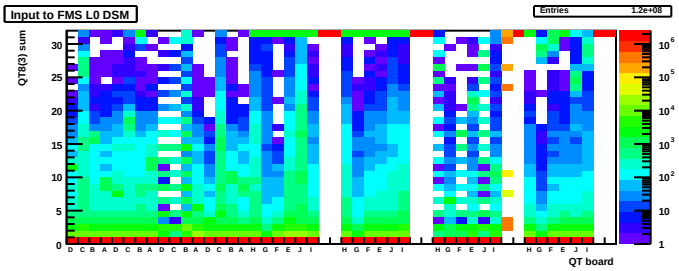

Input to FMS L0 DSM
Entries 41282
QT8(0) sum - simulated
QT board

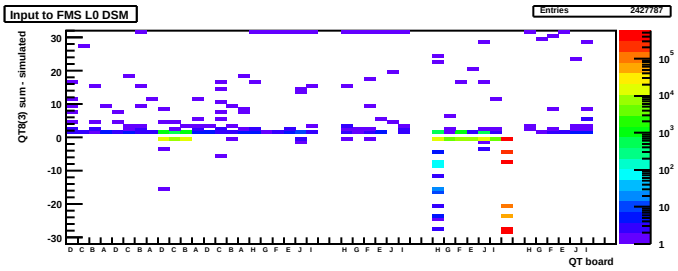

Input to FMS L0 DSM
Entries 1.2e+08
QT8(1) sum
QT board

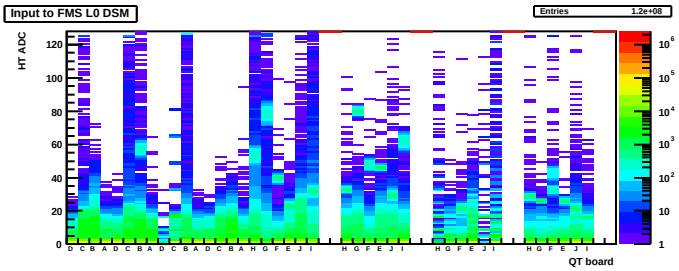

Input to FMS L0 DSM
Entries 46101
QT8(1) sum - simulated
QT board

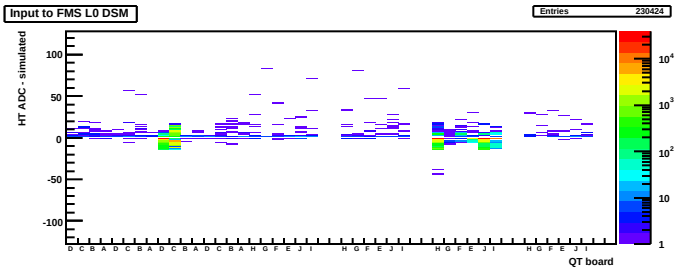

Input to FMS L0 DSM
Entries 1.2e+08
QT8(2) sum
QT board

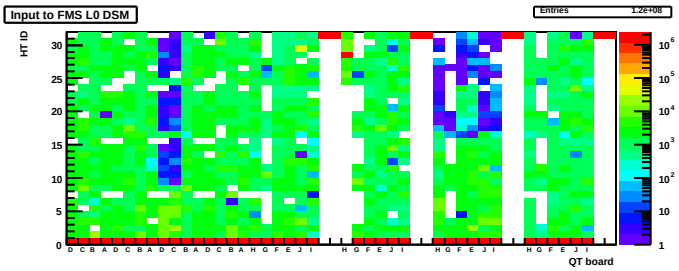

Input to FMS L0 DSM
Entries 1800208
QT8(2) sum - simulated
QT board

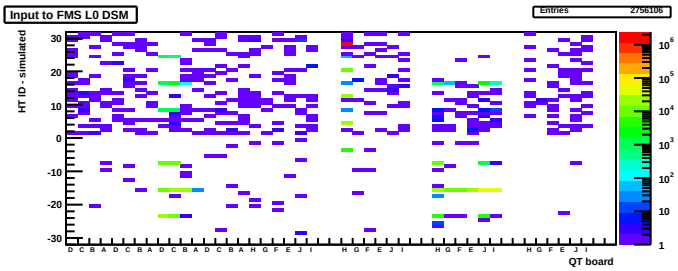

Input to FMS L0 DSM
Entries 1.2e+08
QT8(3) sum
QT board

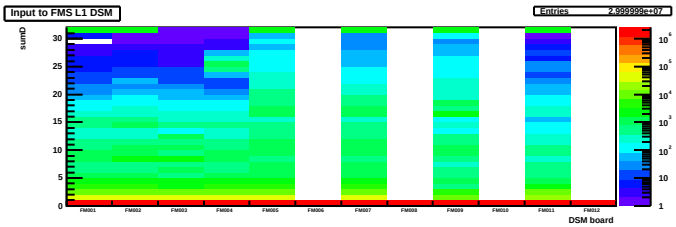

Input to FMS L0 DSM
Entries 2427787
QT8(3) sum - simulated
QT board

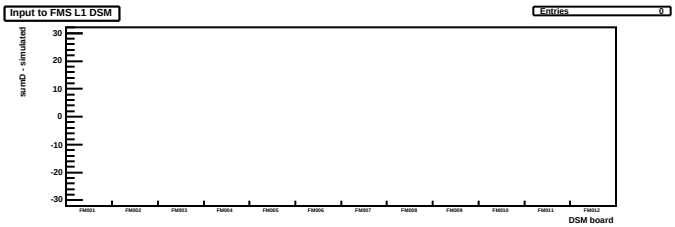

Input to FMS L0 DSM
Entries 1.2e+08
HT ADC
QT board

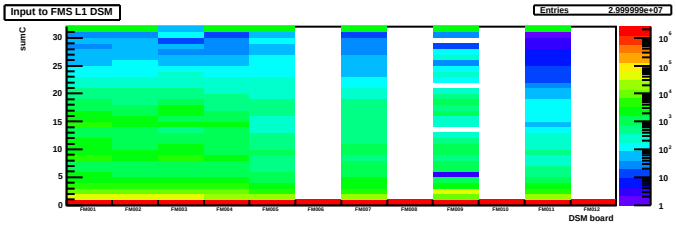

Input to FMS L0 DSM
Entries 230424
HT ADC - simulated
QT board

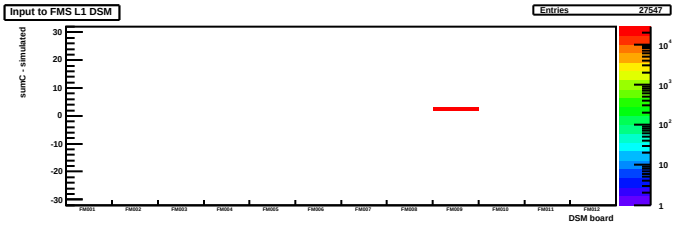

Input to FMS L0 DSM
Entries 1.2e+08
HT ID
QT board

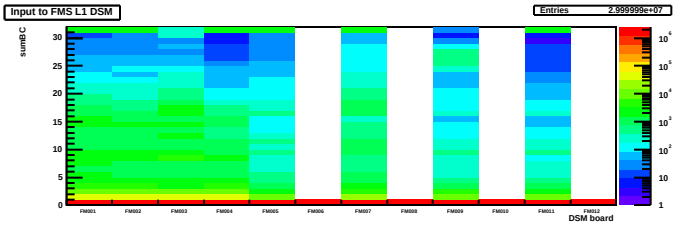

Input to FMS L0 DSM
Entries 2756106
HT ID - simulated
QT board

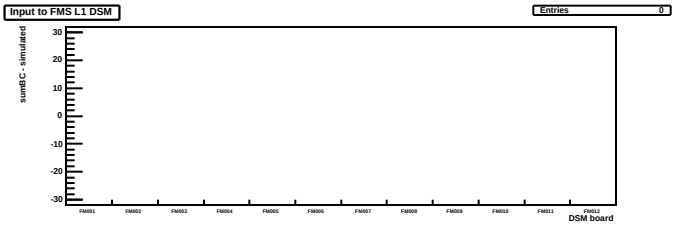

Input to FMS L1 DSM
Entries 2.999999e+07
sumD
DSM board

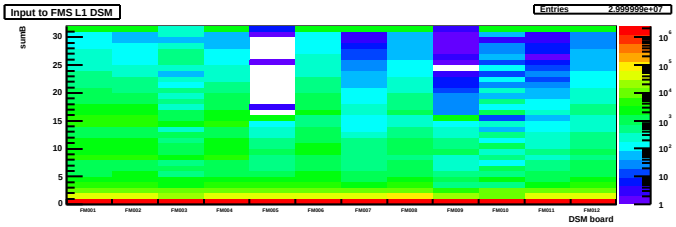

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

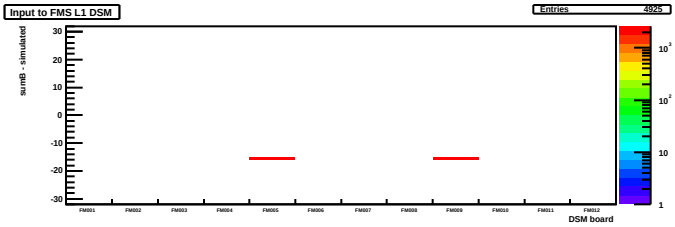

Input to FMS L1 DSM
Entries 2.999999e+07
sumC
DSM board

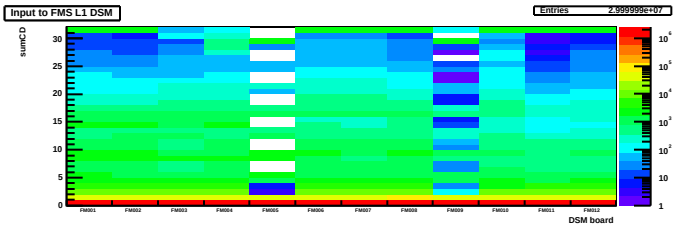

Input to FMS L1 DSM
Entries 27547
sumC - simulated
DSM board

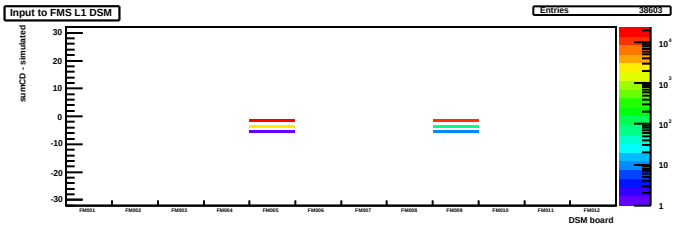

Input to FMS L1 DSM
Entries 2.999999e+07
sumBC
DSM board

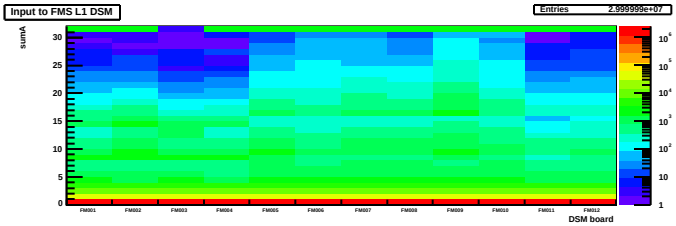

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

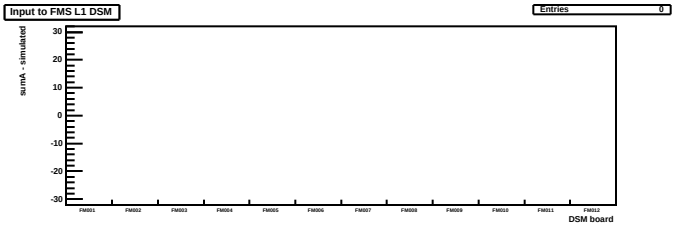

Input to FMS L1 DSM
Entries 2.999999e+07
sumB
DSM board

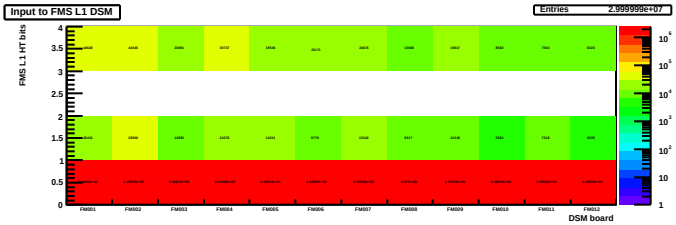

Input to FMS L1 DSM
Entries 4925
sumB - simulated
DSM board

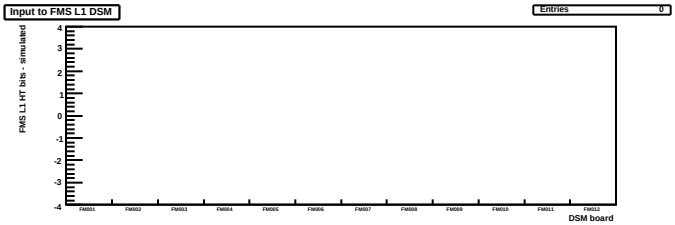

Input to FMS L1 DSM
Entries 2.999999e+07
sumCD
DSM board

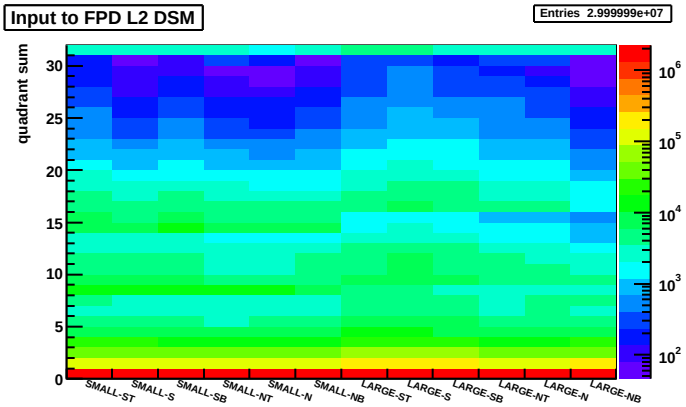

Input to FMS L1 DSM
Entries 38603
sumCD - simulated
DSM board

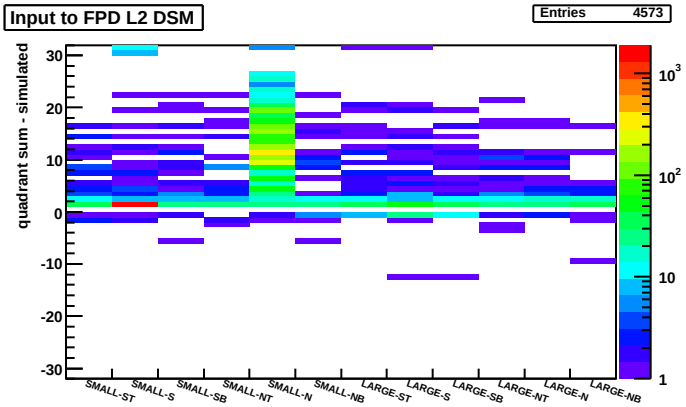

Input to FMS L1 DSM
Entries 2.999999e+07
sumA
DSM board

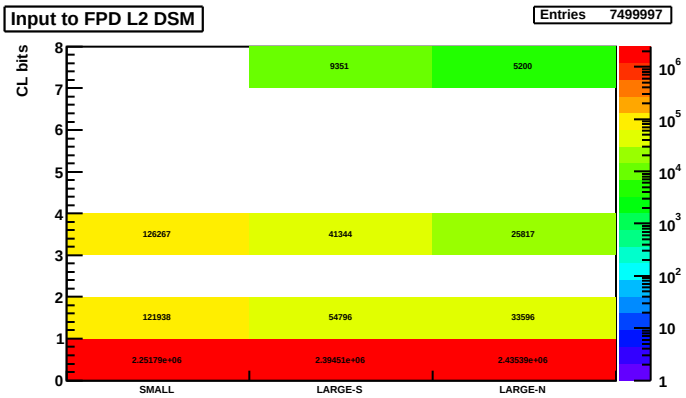

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

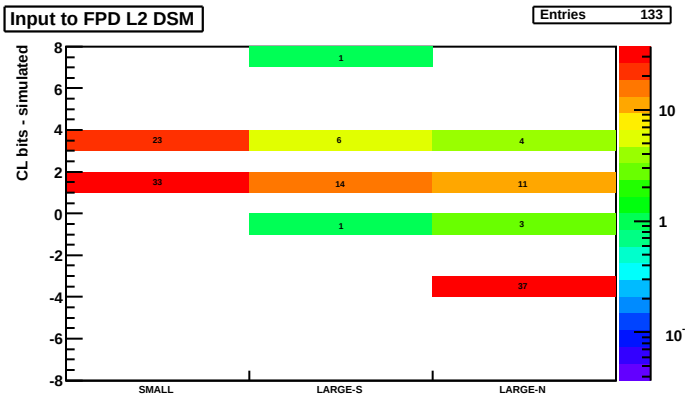

Input to FMS L1 DSM
Entries 2.999999e+07
FMS L1 HT bits
DSM board

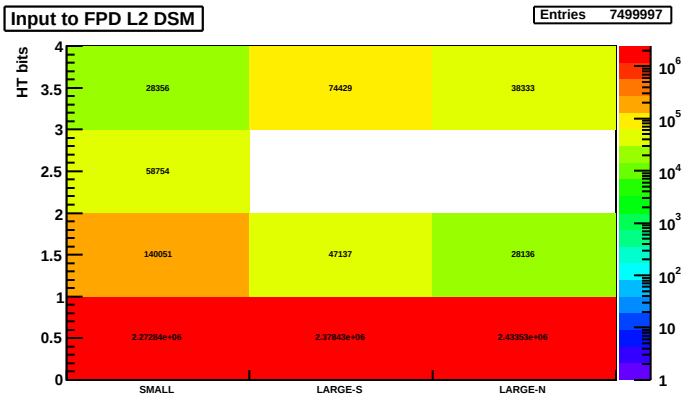

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

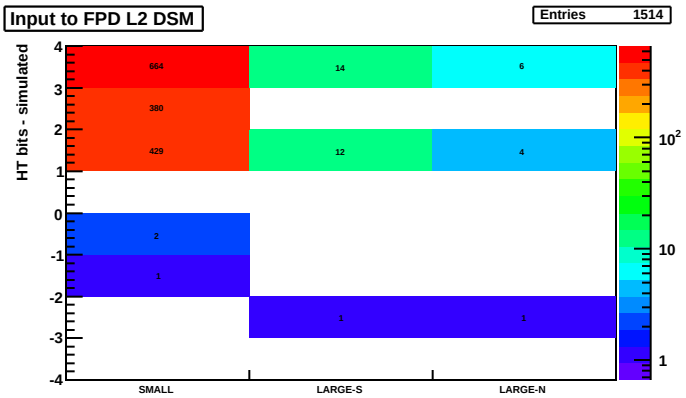

Input to FPD L2 DSM
Entries 2.999999e+07
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

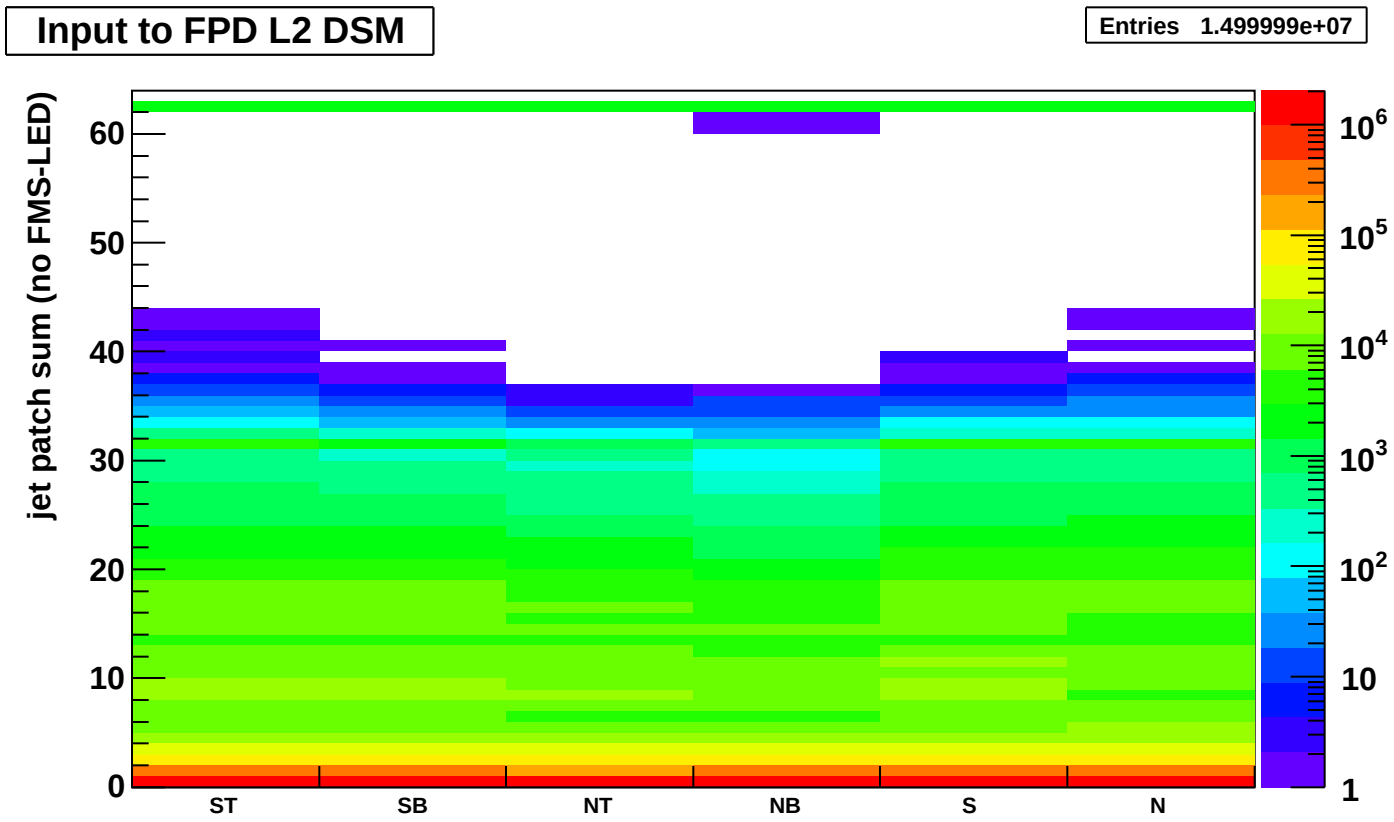

Input to FPD L2 DSM
Entries 4573
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

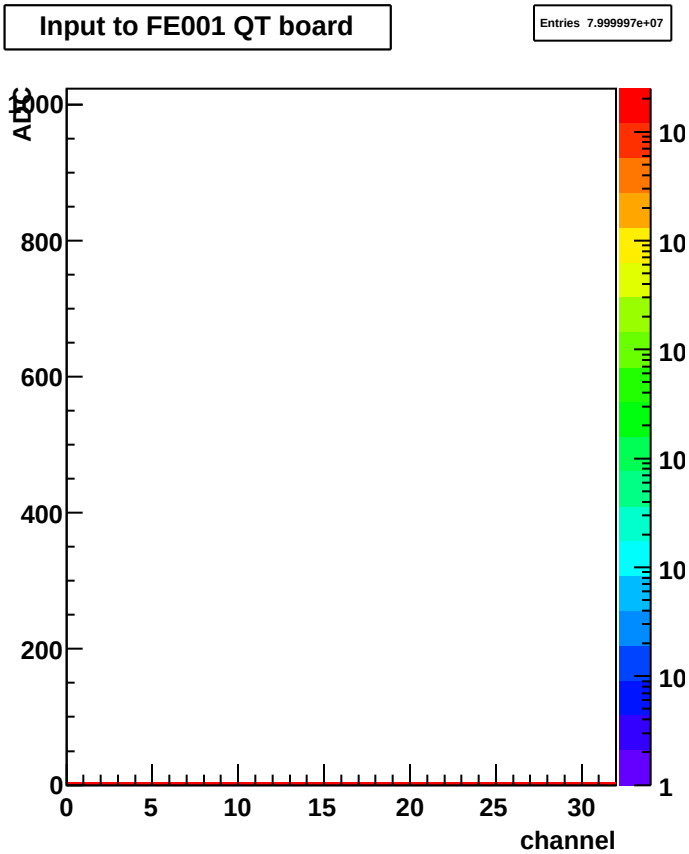

Input to FPD L2 DSM
Entries 7499997
CL bits
9351
5200
126267
41344
25817
121938
54796
33596
2.25179e+06
2.39451e+06
2.43539e+06
SMALL
LARGE-S
LARGE-N

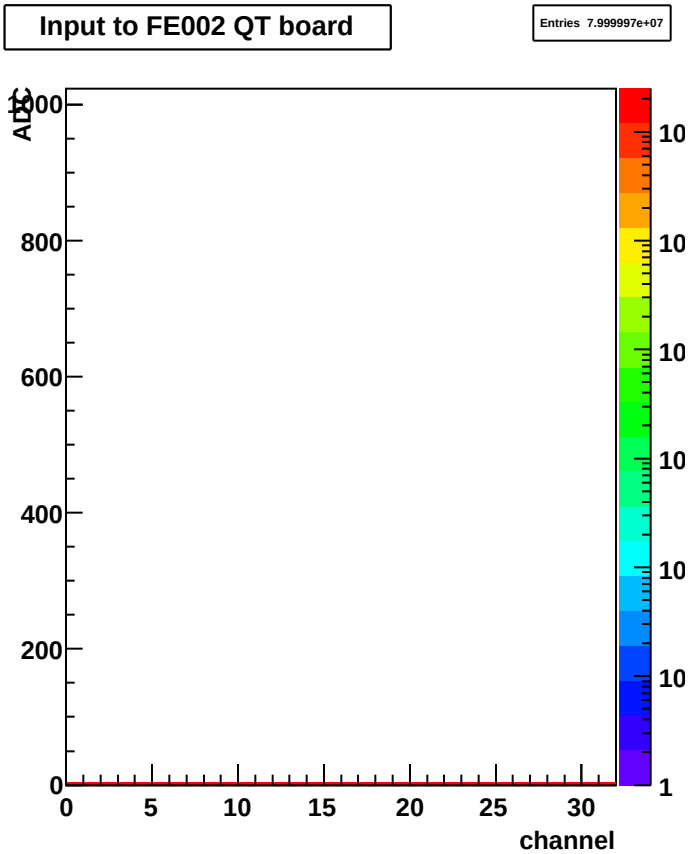

Input to FPD L2 DSM
Entries 133
CL bits - simulated
1
23
6
4
33
14
11
1
3
37
SMALL
LARGE-S
LARGE-N

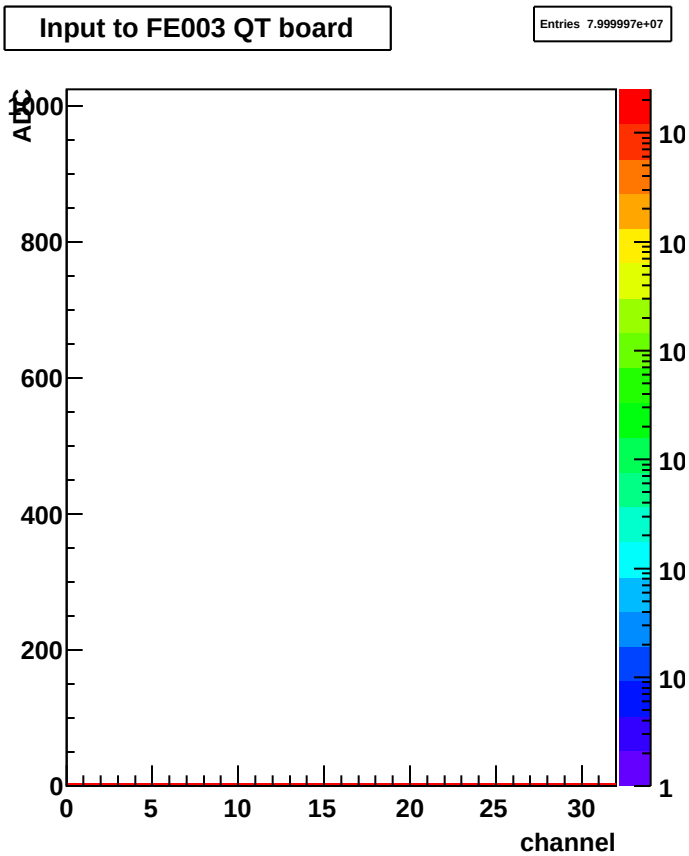

Input to FPD L2 DSM
Entries 7499997
HT bits
28356
74429
38333
58754
140051
47137
28136
2.27284e+06
2.37843e+06
2.43353e+06
SMALL
LARGE-S
LARGE-N

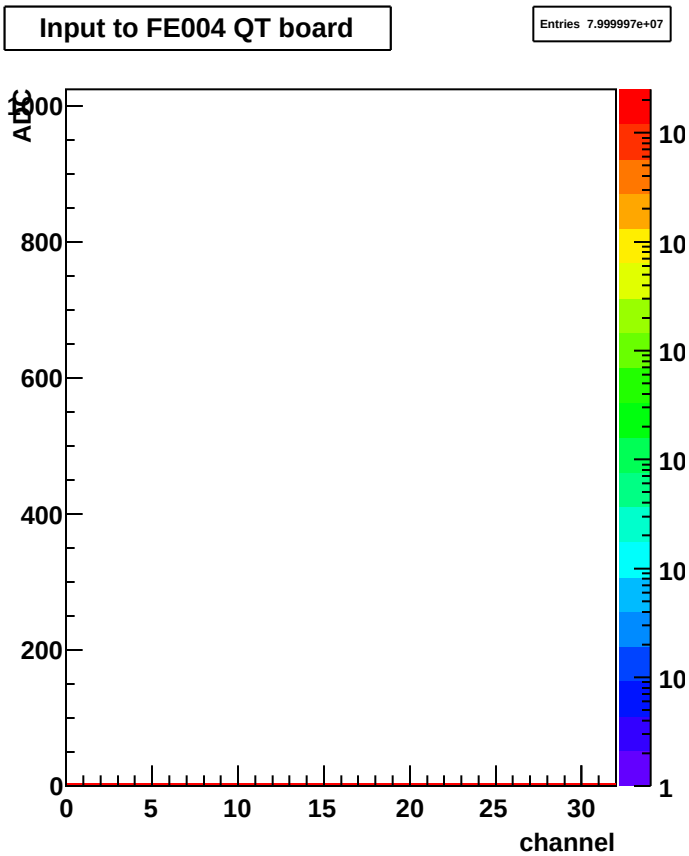

Input to FPD L2 DSM
Entries 1514
HT bits - simulated
664
14
6
380
429
12
4
2
1
1
1
SMALL
LARGE-S
LARGE-N

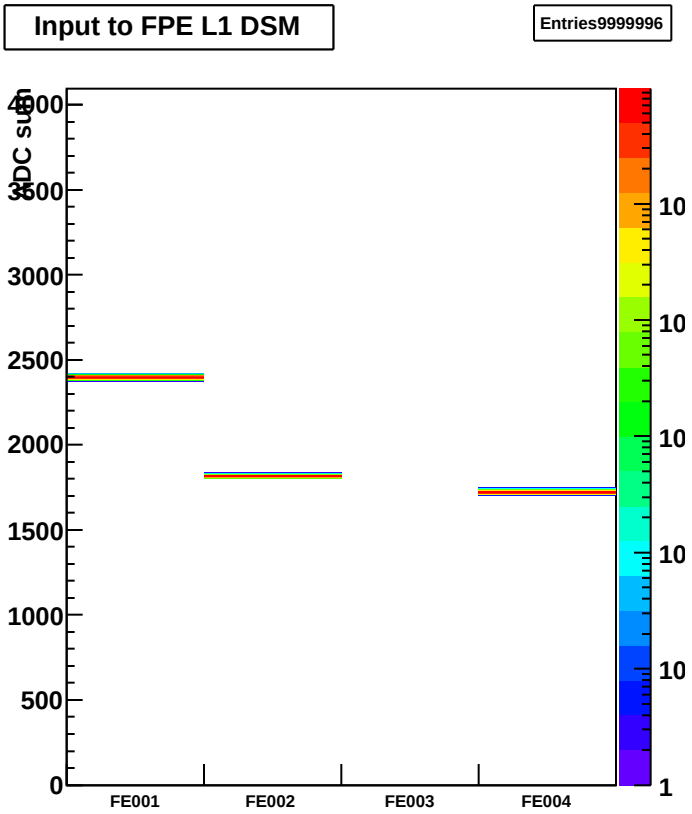

Input to FPD L2 DSM
Entries 1.499999e+07
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5
10^6


Input to FE001 QT board
Entries 7.999997e+07
ADC
channel

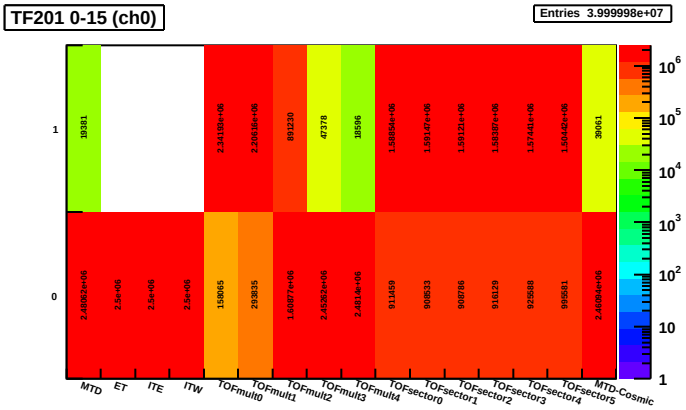

Input to FE002 QT board
Entries 7.999997e+07
ADC
channel


Input to FE003 QT board
Entries 7.999997e+07
ADC
channel

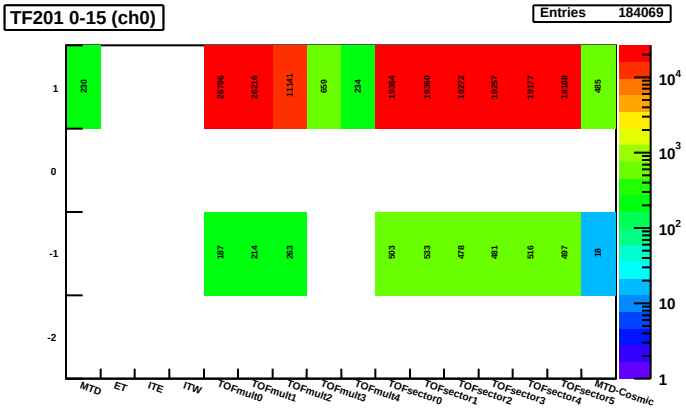

Input to FE004 QT board
Entries 7.999997e+07
ADC
channel


Input to FPE L1 DSM
Entries9999996
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1

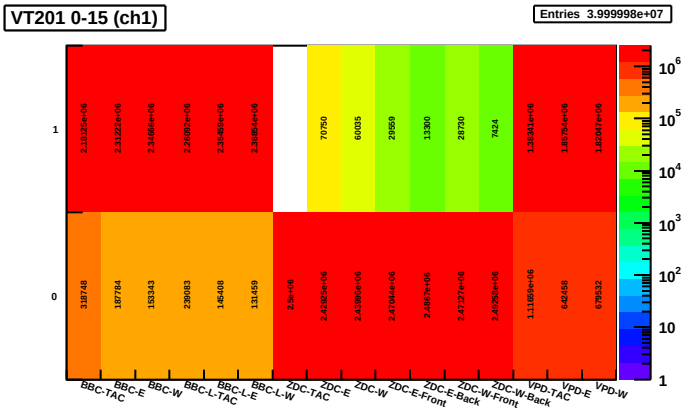
TF201 0-15 (ch0)



TF201 0-15 (ch0)



VT201 0-15 (ch1)



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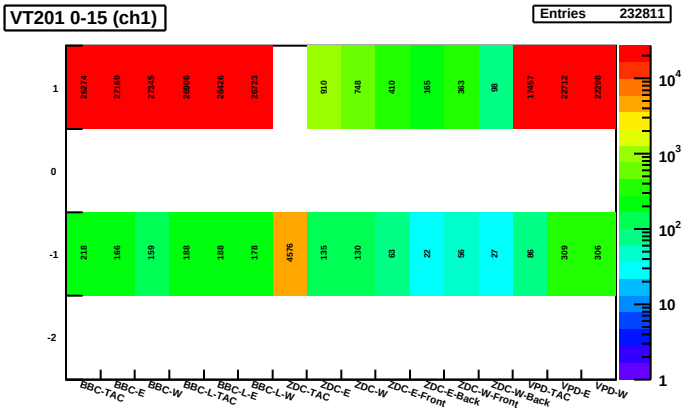

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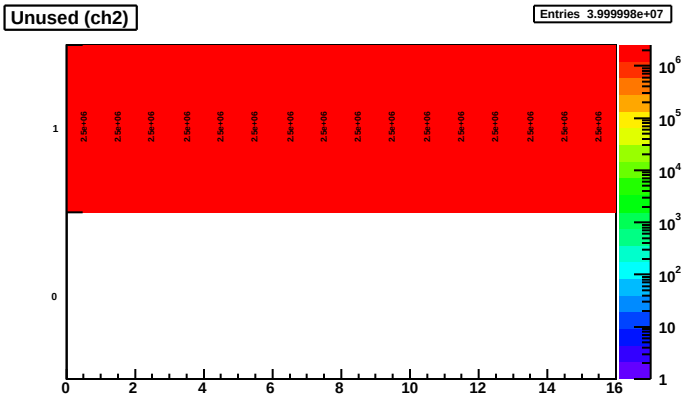

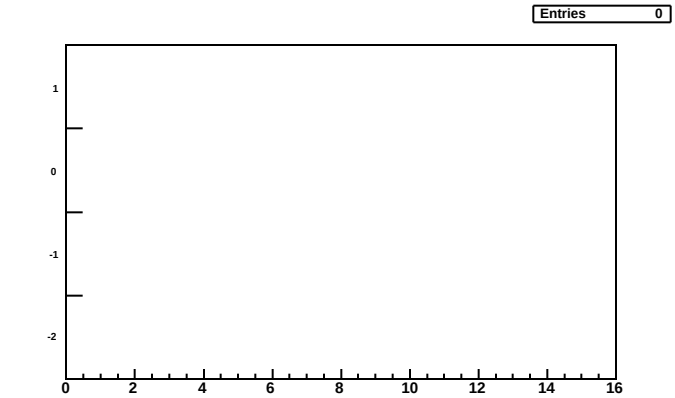

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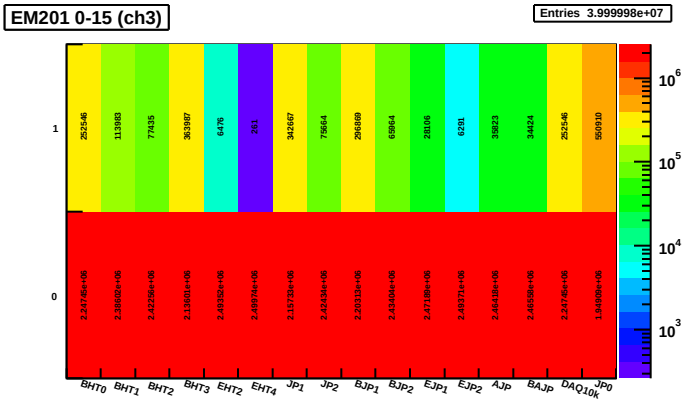

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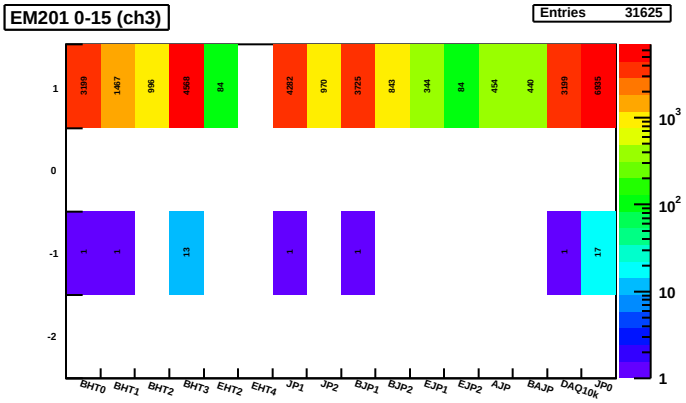
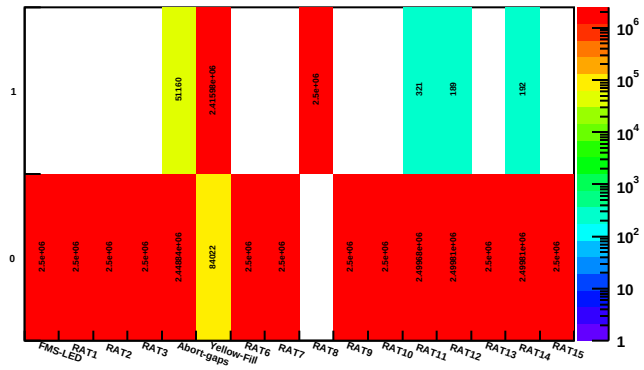
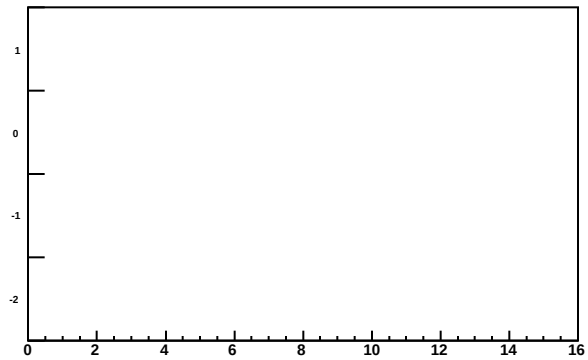


RAT board (ch4)





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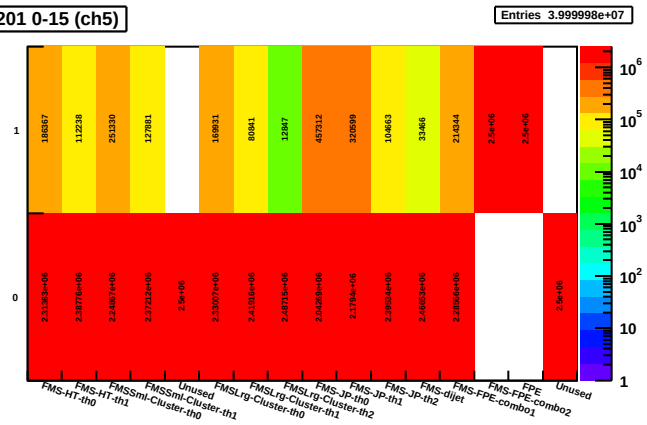

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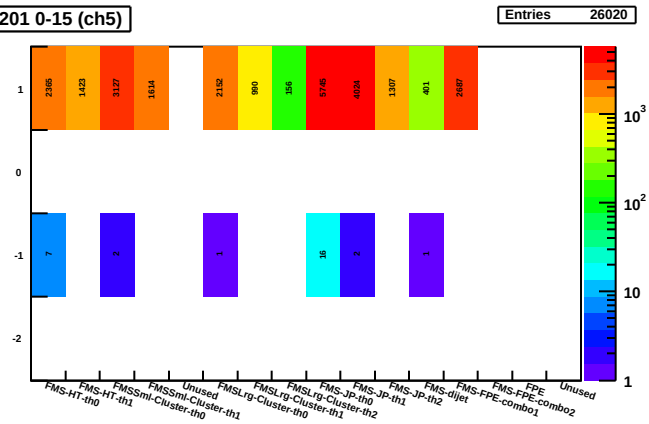

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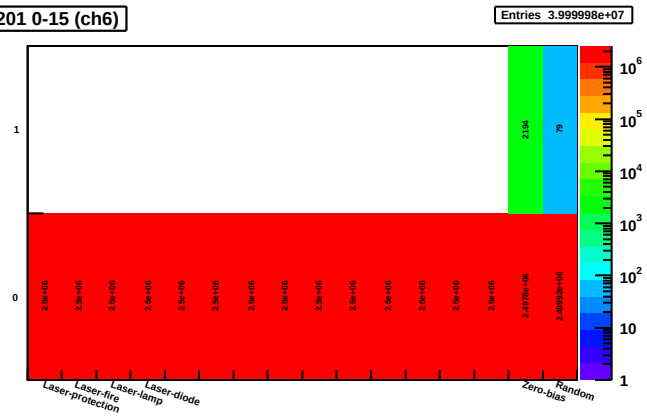

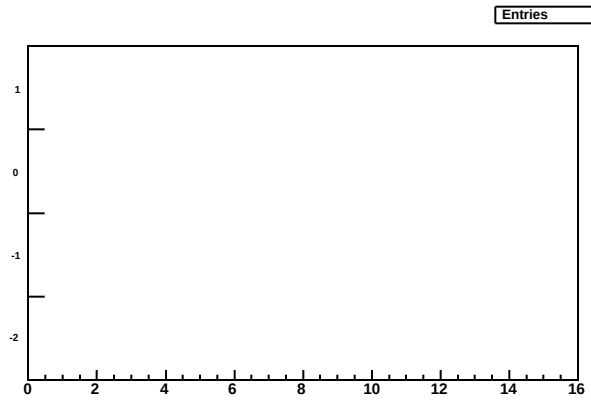
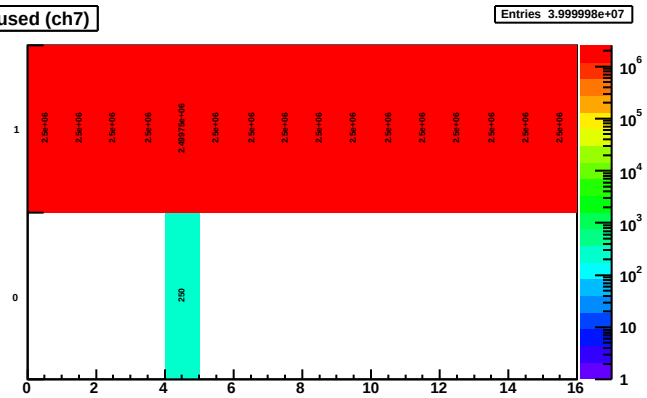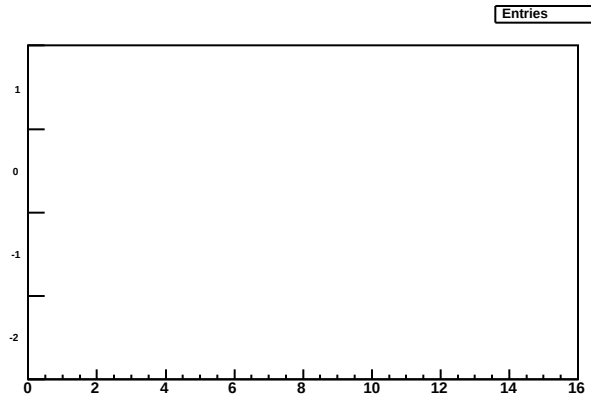
Unused (ch7)