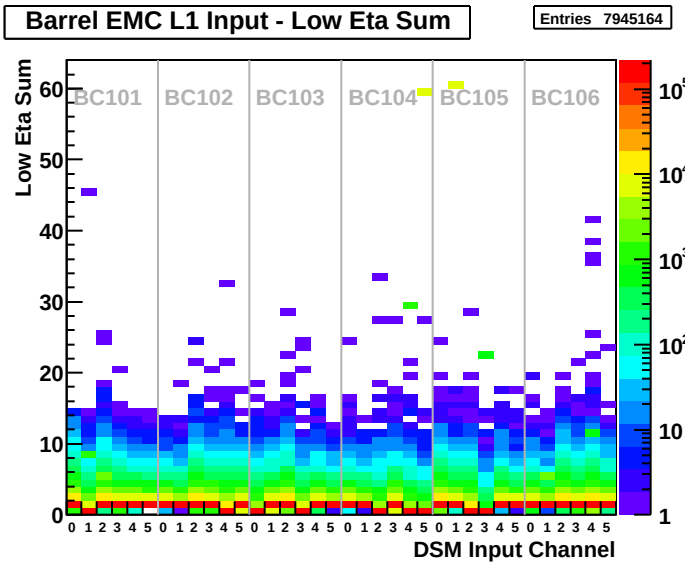
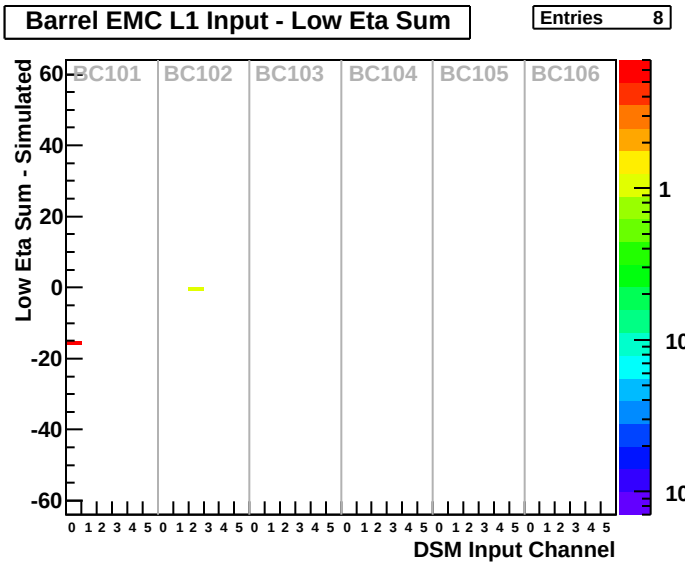
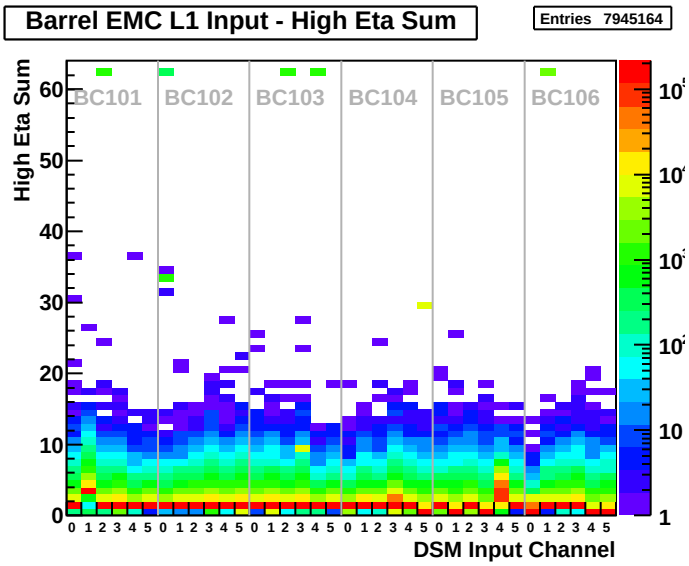
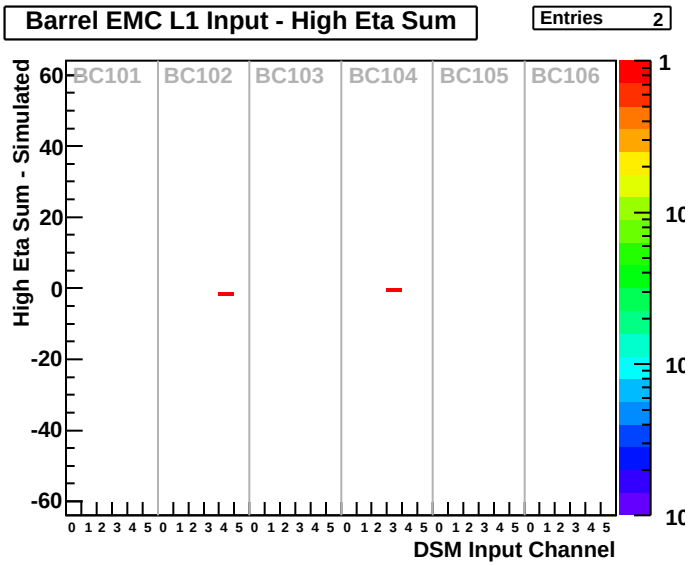
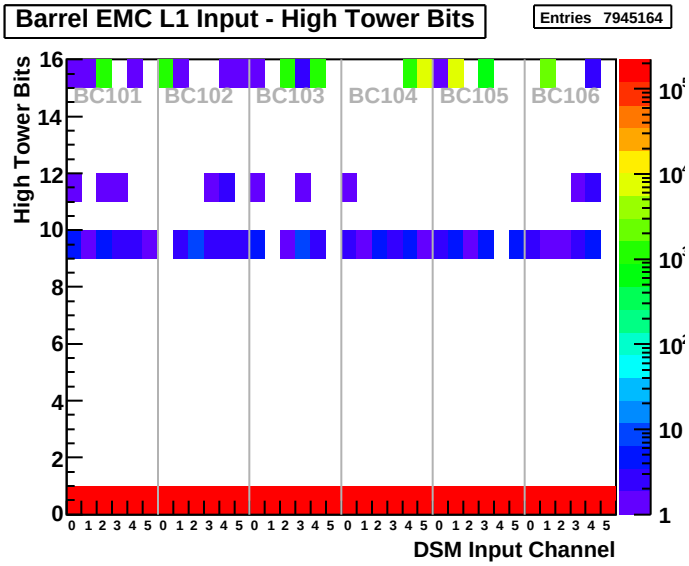
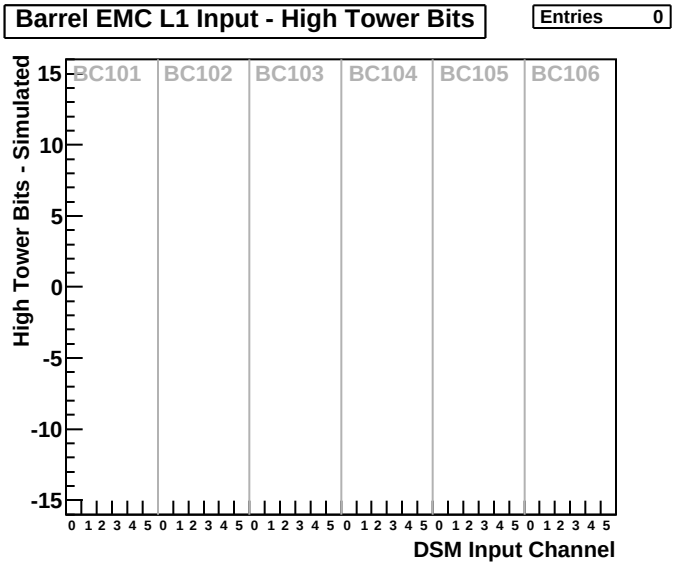

Barrel EMC L1 Input - Low Eta Sum
Entries 7945164
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

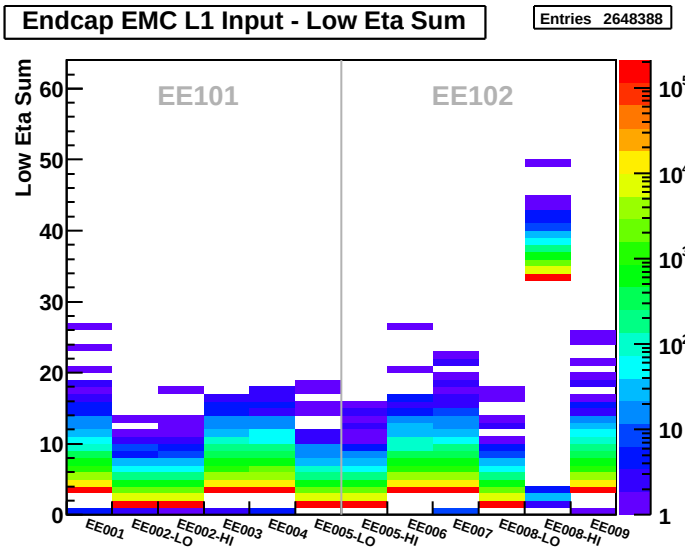

Barrel EMC L1 Input - Low Eta Sum
Entries 8
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

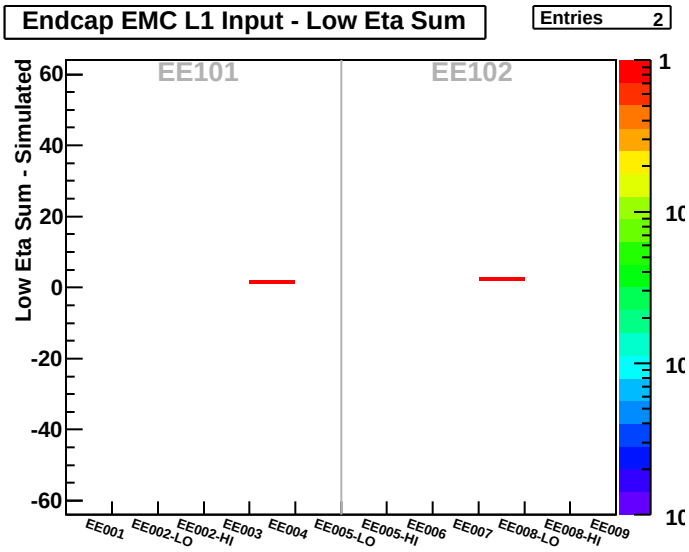

Barrel EMC L1 Input - High Eta Sum
Entries 7945164
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

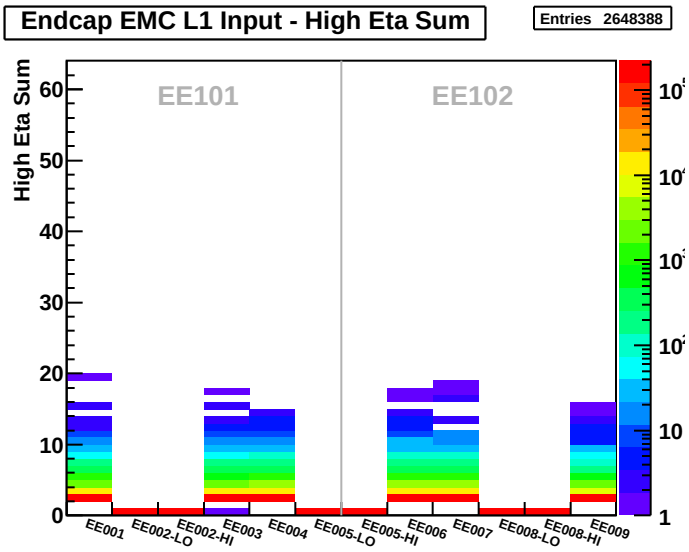

Barrel EMC L1 Input - High Eta Sum
Entries 2
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

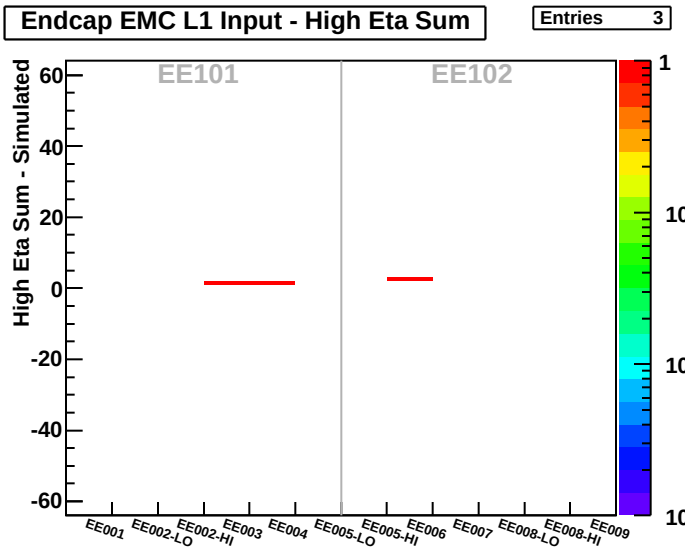

Barrel EMC L1 Input - High Tower Bits
Entries 7945164
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

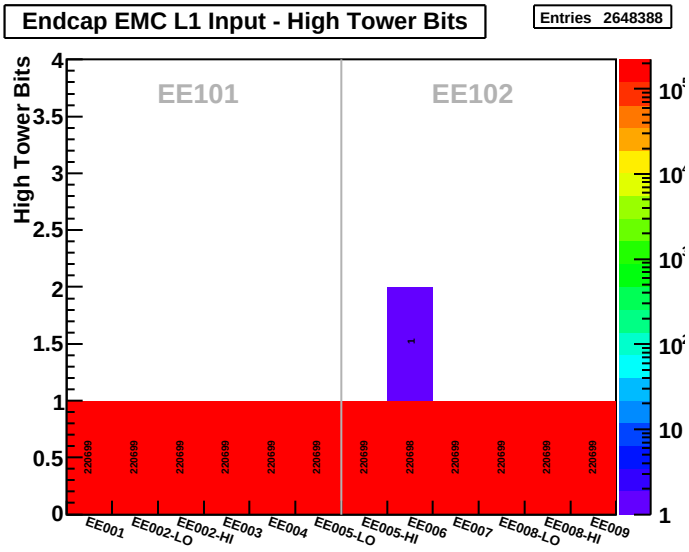

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

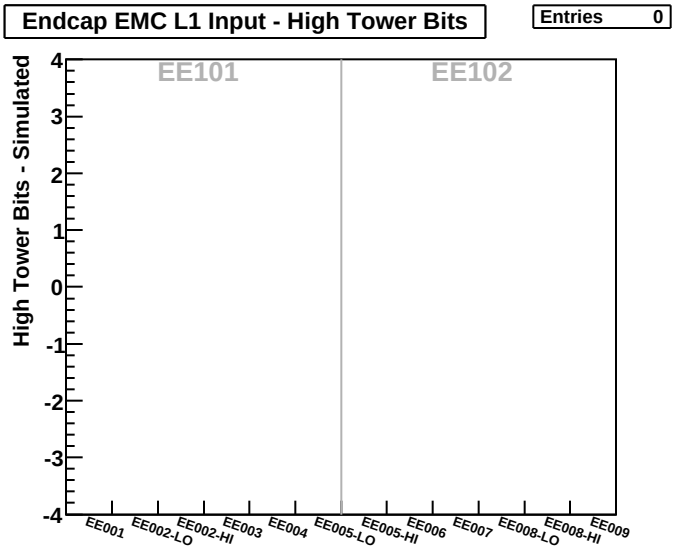

Endcap EMC L1 Input - Low Eta Sum
Entries 2648388
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

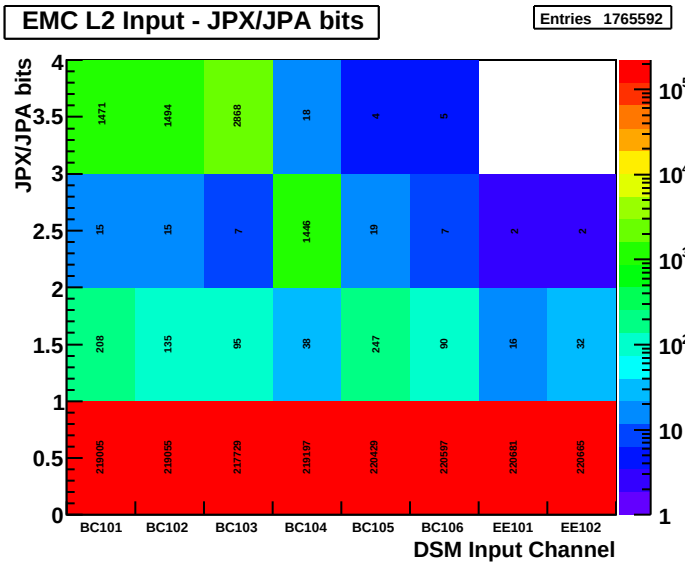

Endcap EMC L1 Input - Low Eta Sum
Entries 2
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

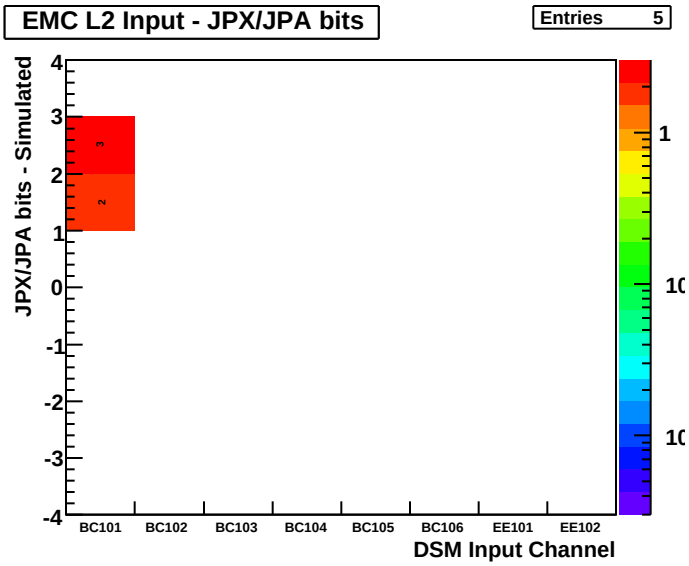

Endcap EMC L1 Input - High Eta Sum
Entries 2648388
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

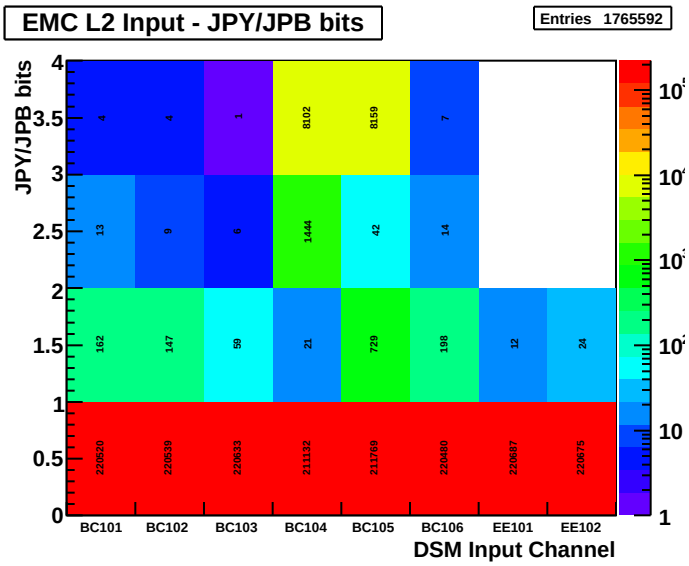

Endcap EMC L1 Input - High Eta Sum
Entries 3
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

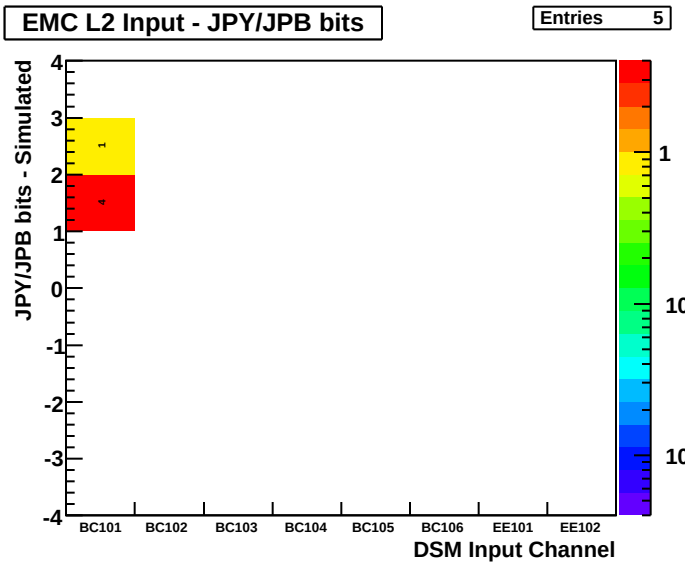

Endcap EMC L1 Input - High Tower Bits
Entries 2648388
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

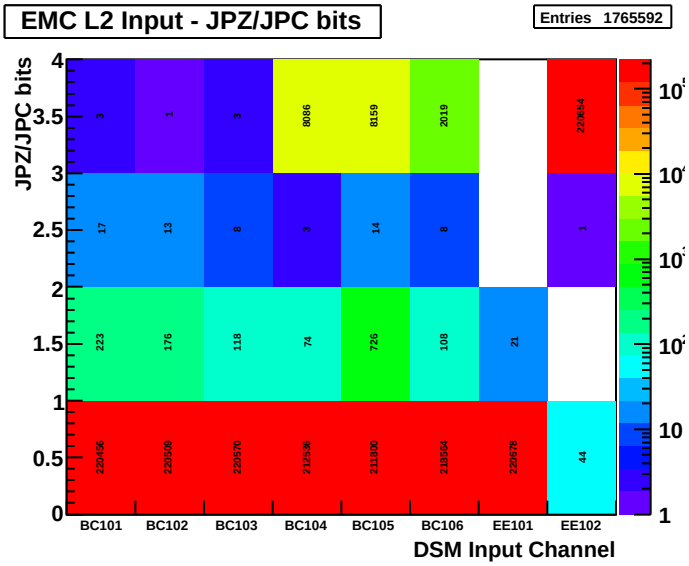

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

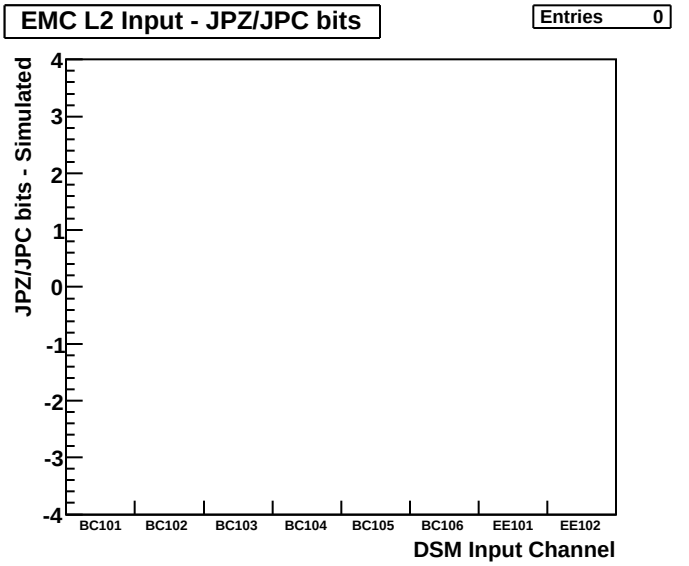

EMC L2 Input - JPX/JPA bits
Entries 1765592
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

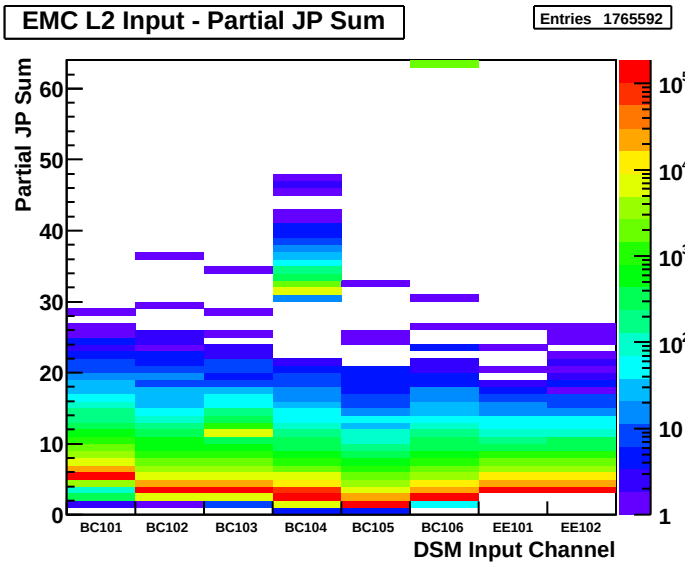

EMC L2 Input - JPX/JPA bits
Entries 5
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

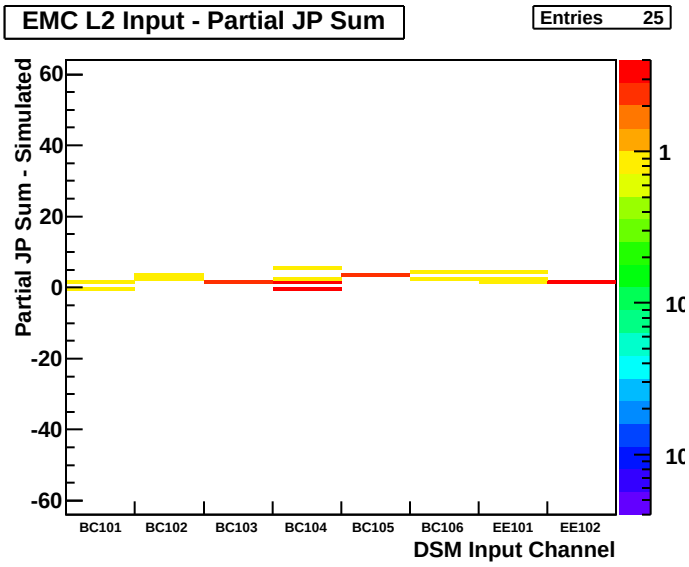

EMC L2 Input - JPY/JPB bits
Entries 1765592
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

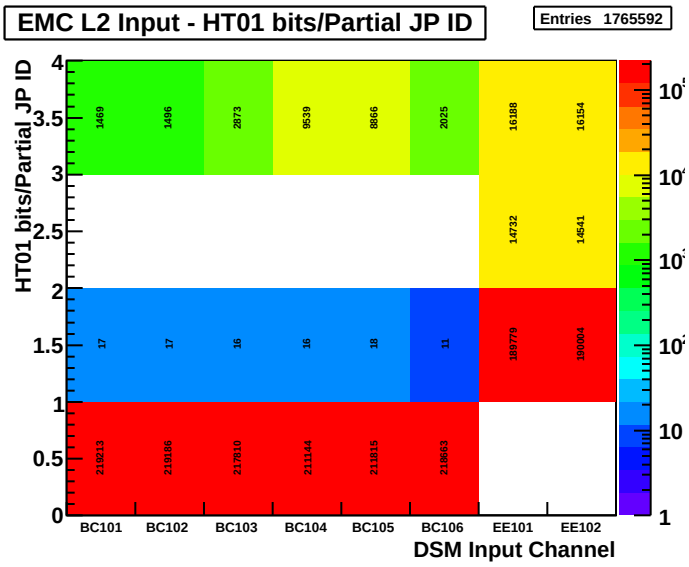

EMC L2 Input - JPY/JPB bits
Entries 5
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

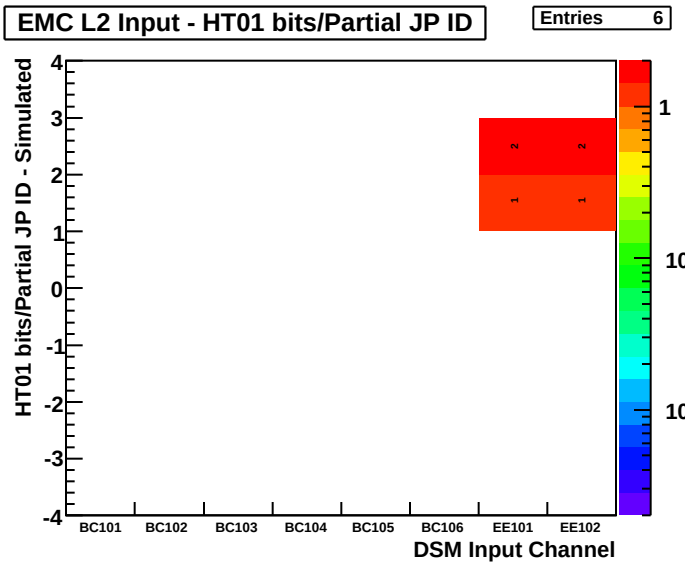

EMC L2 Input - JPZ/JPC bits
Entries 1765592
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

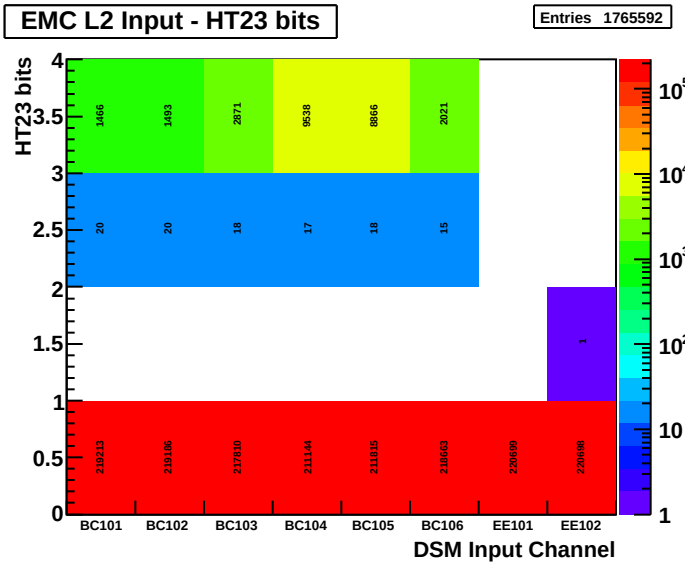

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

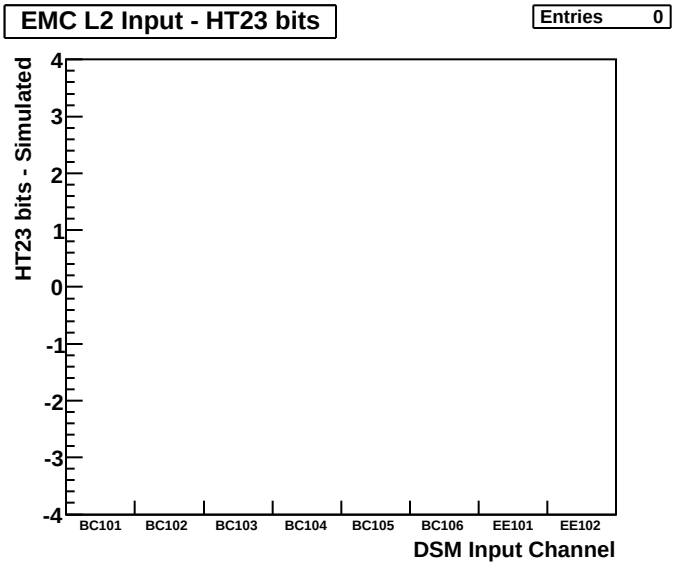

EMC L2 Input - Partial JP Sum
Entries 1765592
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

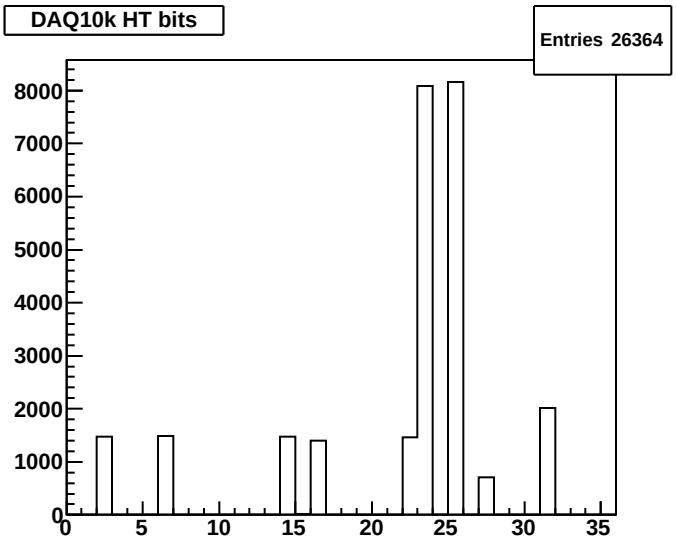

EMC L2 Input - Partial JP Sum
Entries 25
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

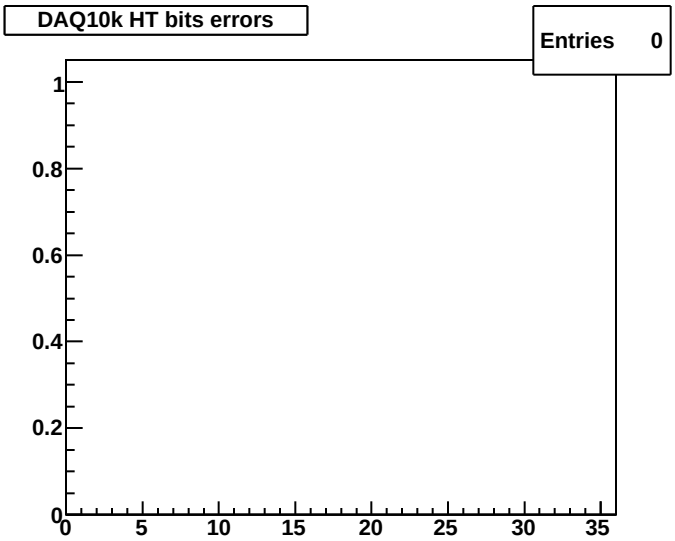

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1765592
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

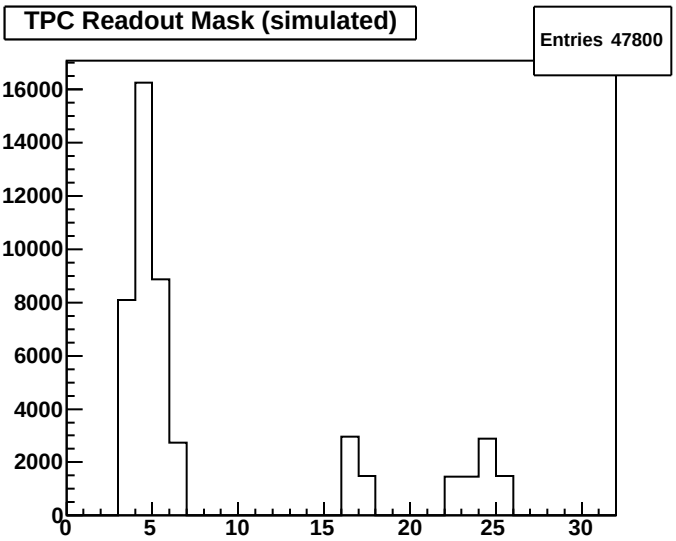

EMC L2 Input - HT01 bits/Partial JP ID
Entries 6
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

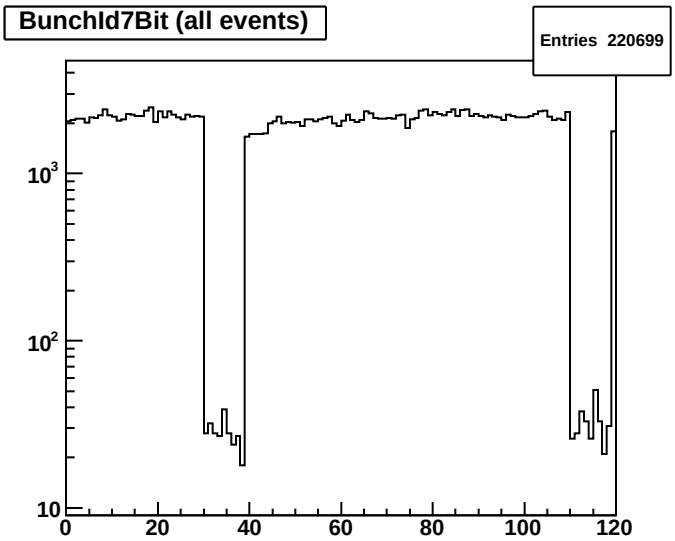

EMC L2 Input - HT23 bits
Entries 1765592
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

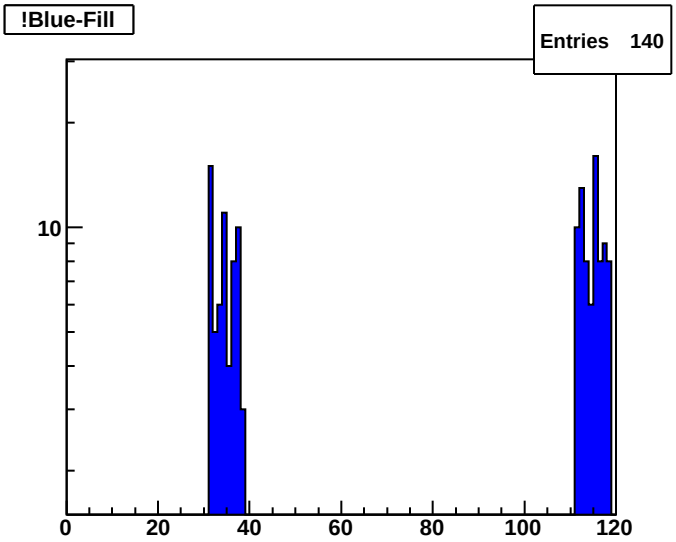

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

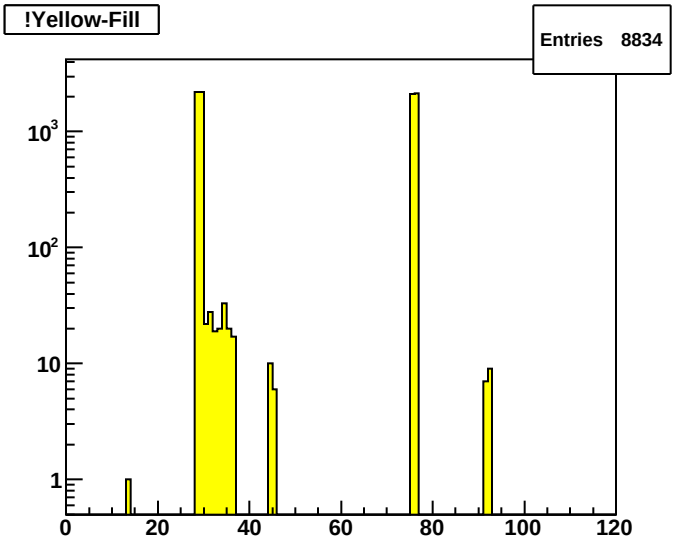

DAQ10k HT bits
Entries 26364
8000
7000
6000
5000
4000
3000
2000
1000
0
0 5 10 15 20 25 30 35

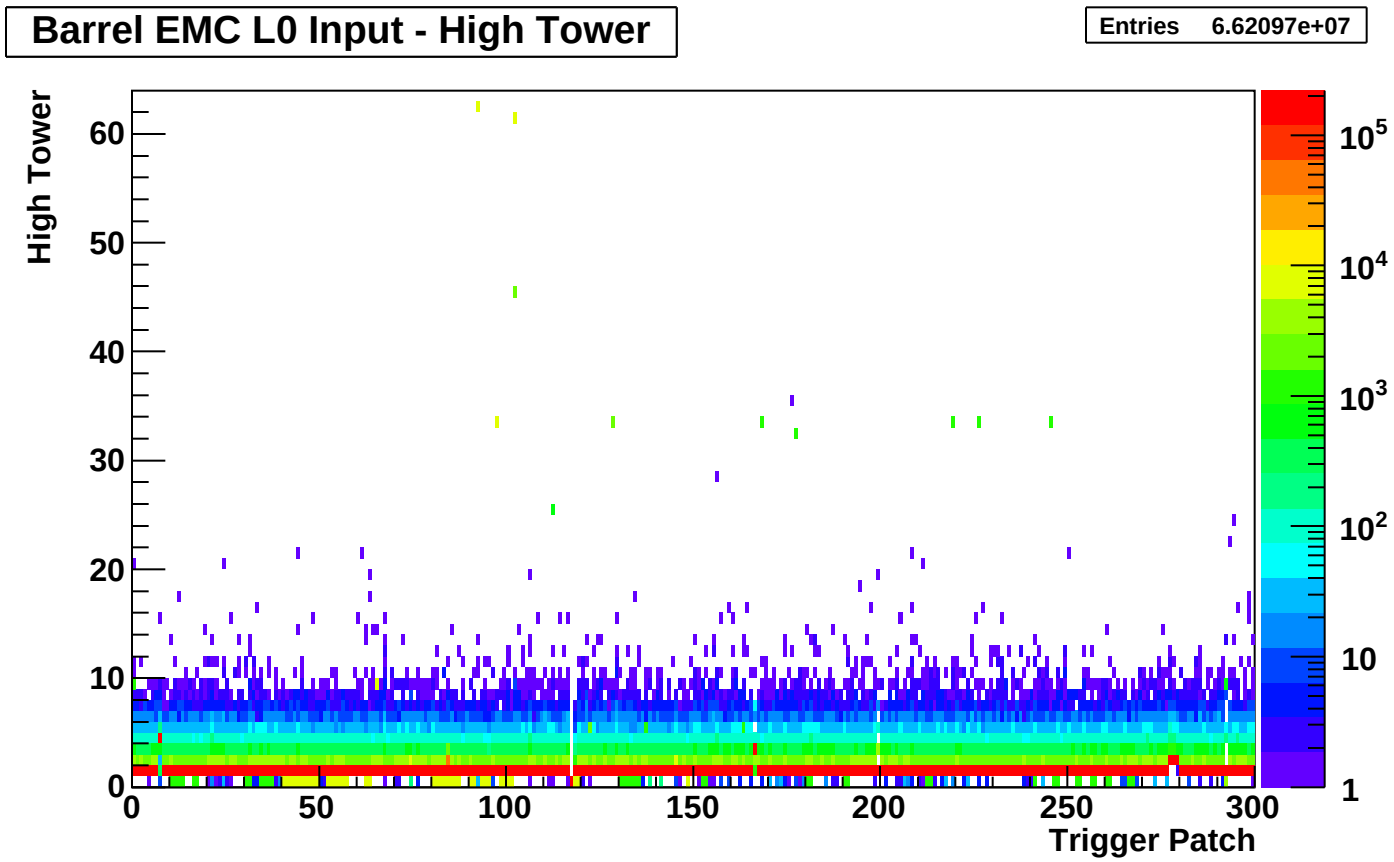

DAQ10k HT bits errors
Entries 0
1
0.8
0.6
0.4
0.2
0
0 5 10 15 20 25 30 35

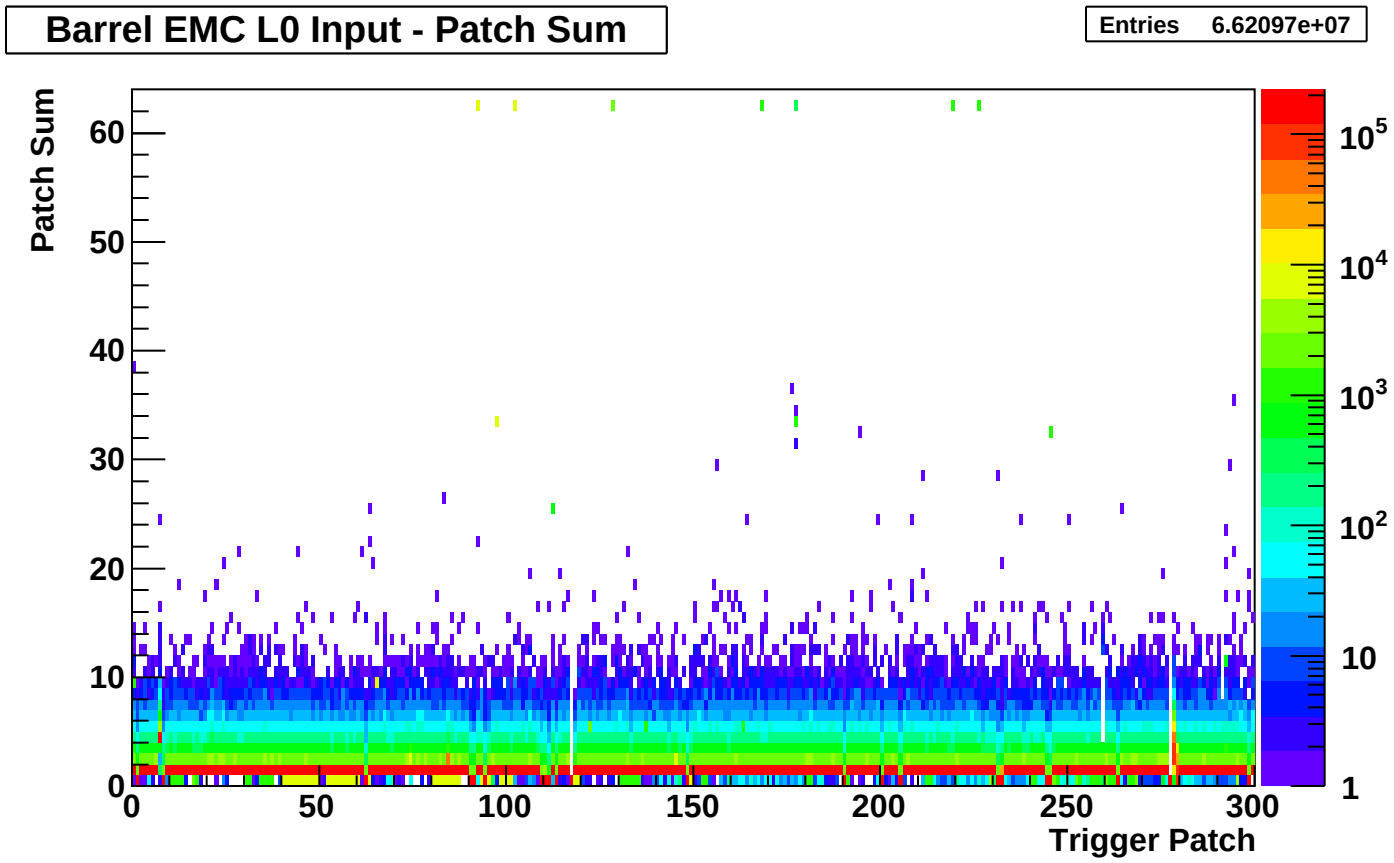

TPC Readout Mask (simulated)
Entries 47800
16000
14000
12000
10000
8000
6000
4000
2000
0
0 5 10 15 20 25 30

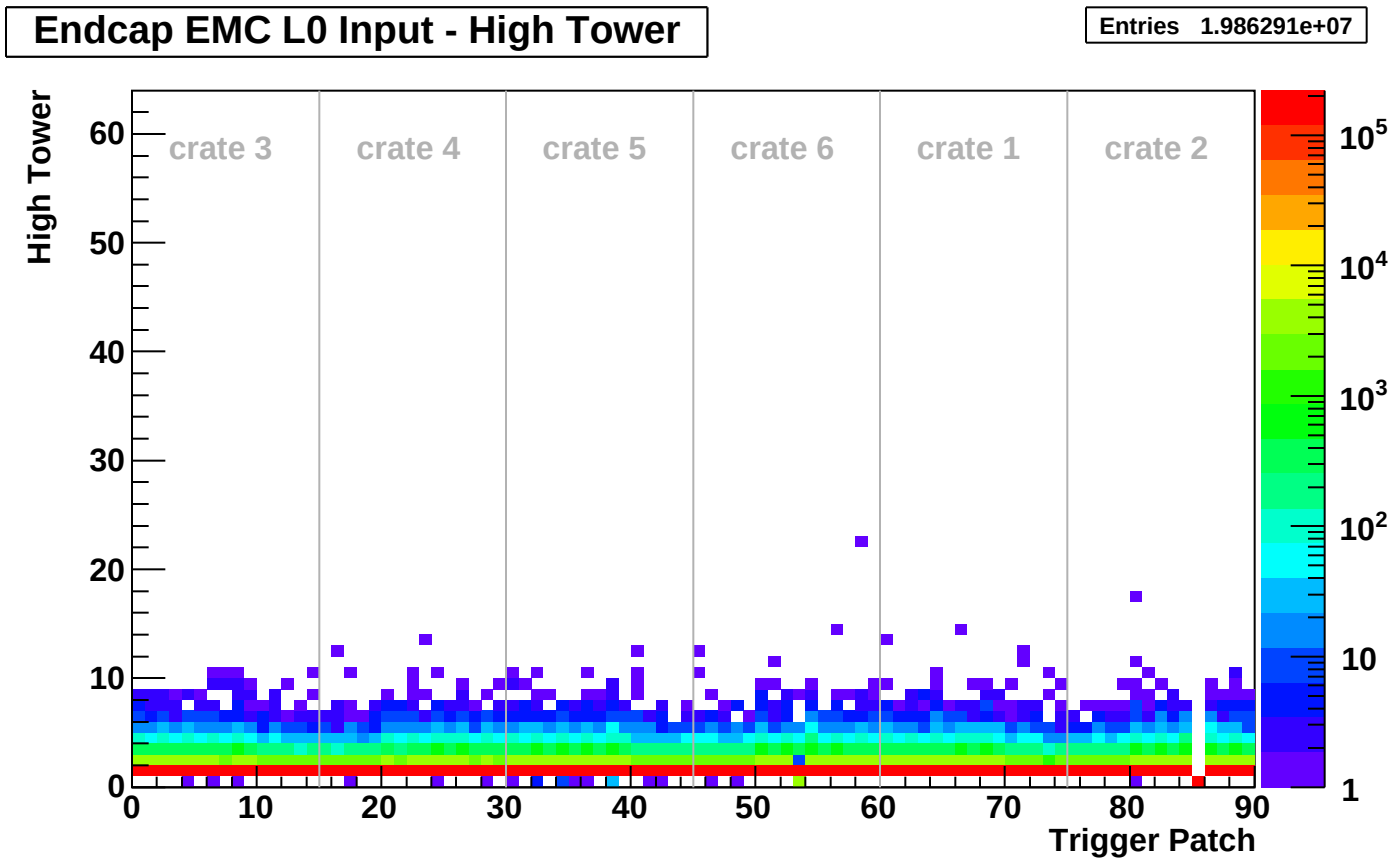

BunchId7Bit (all events)
Entries 220699
10^3
10^2
10
0 20 40 60 80 100 120

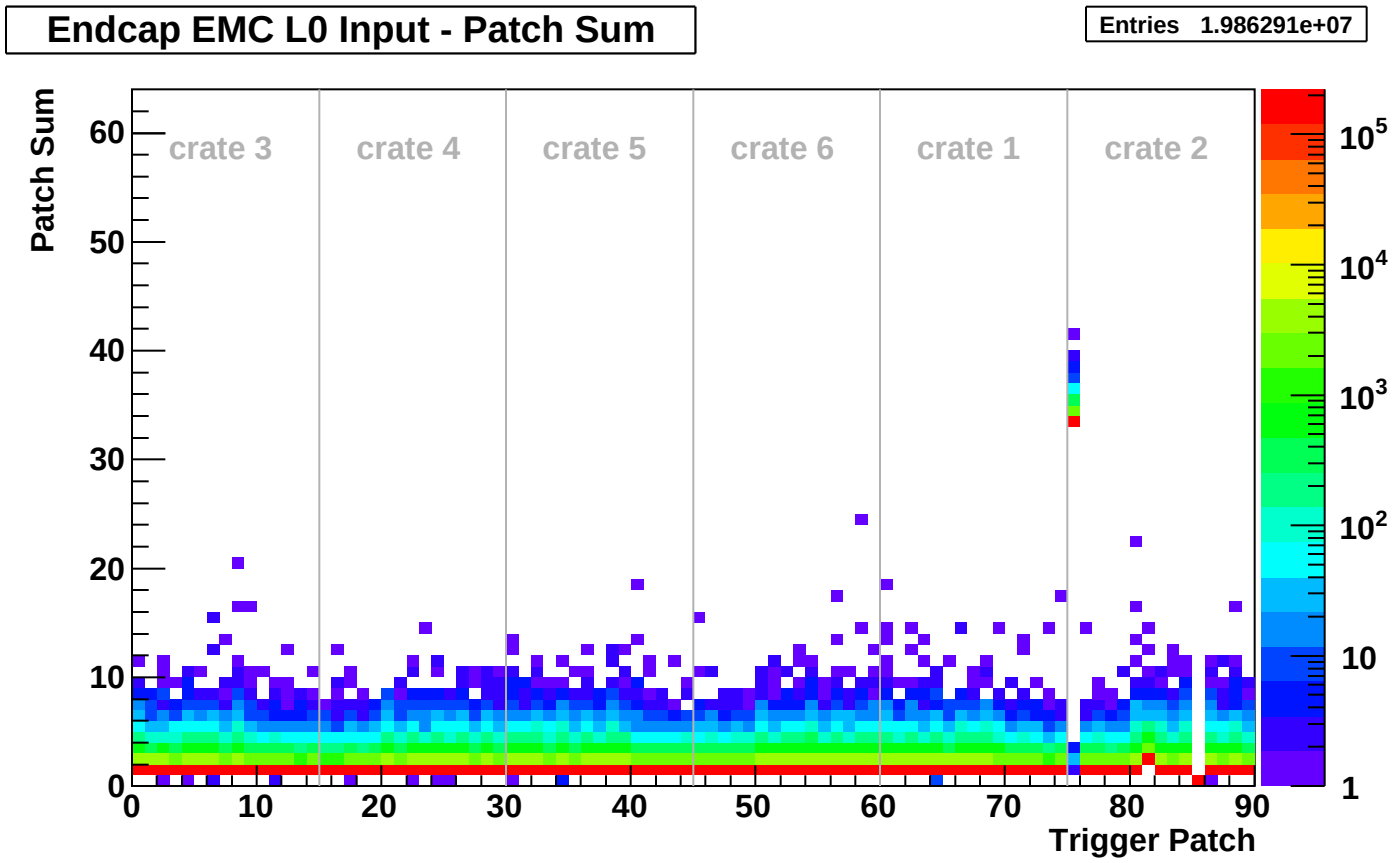

!Blue-Fill
Entries 140
10
0 20 40 60 80 100 120

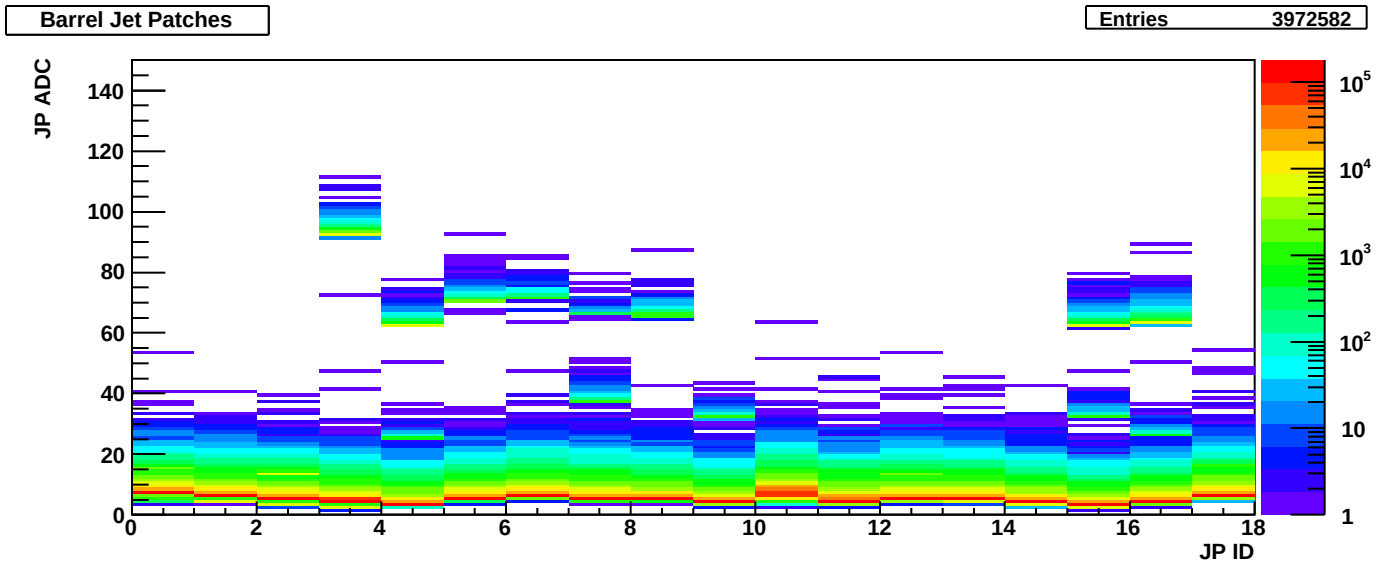

!Yellow-Fill
Entries 8834
10^3
10^2
10
1
0 20 40 60 80 100 120

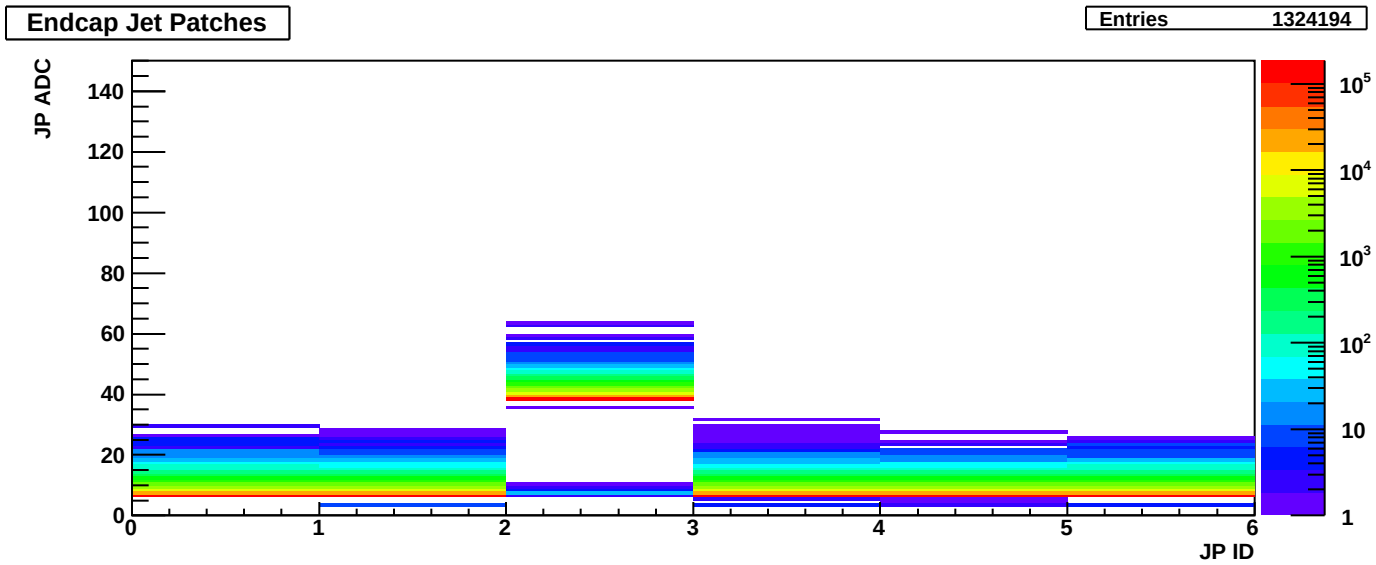

Barrel EMC L0 Input - High Tower
Entries 6.62097e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

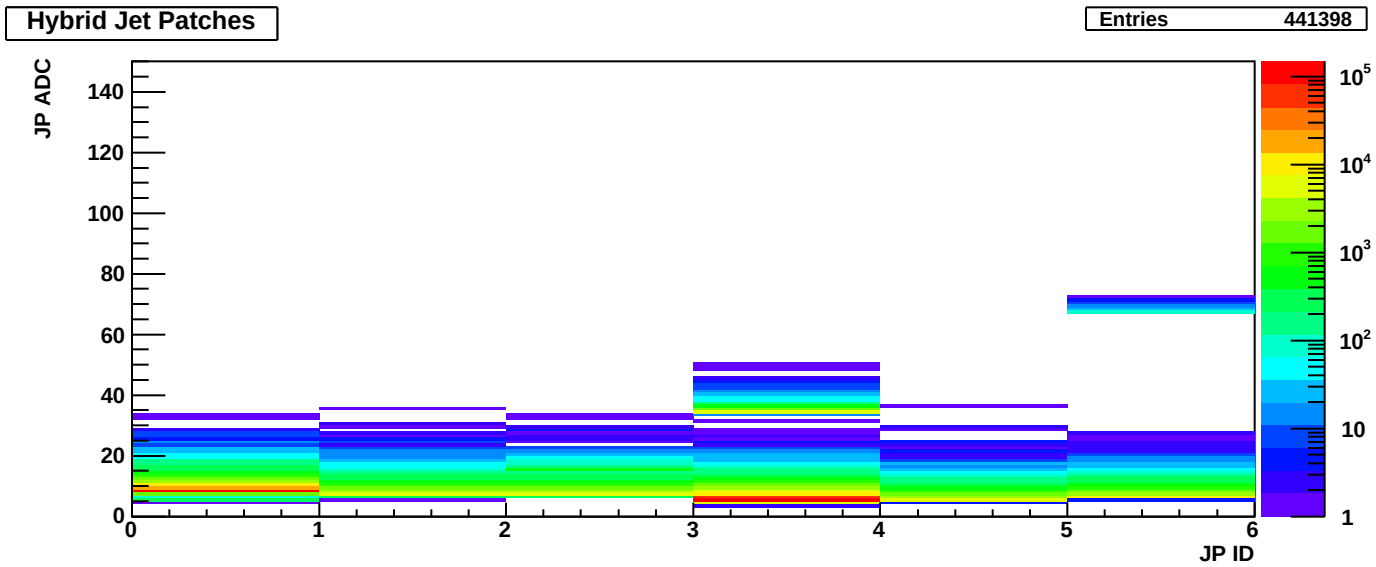

Barrel EMC L0 Input - Patch Sum
Entries 6.62097e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

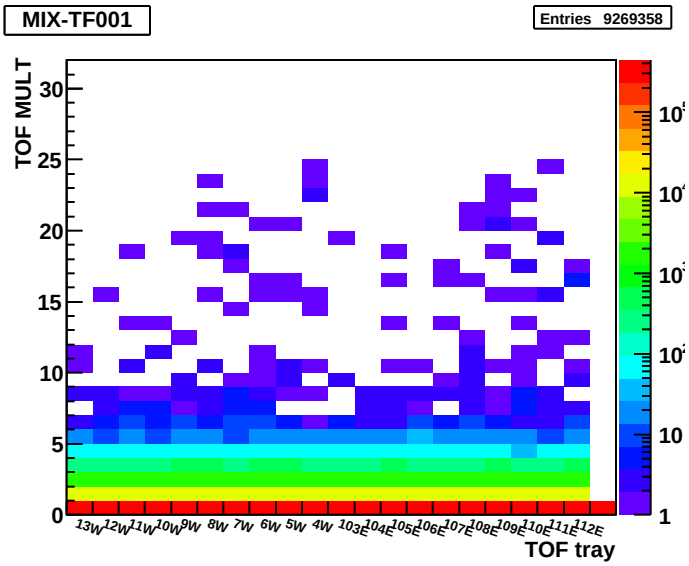

Endcap EMC L0 Input - High Tower
Entries 1.986291e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

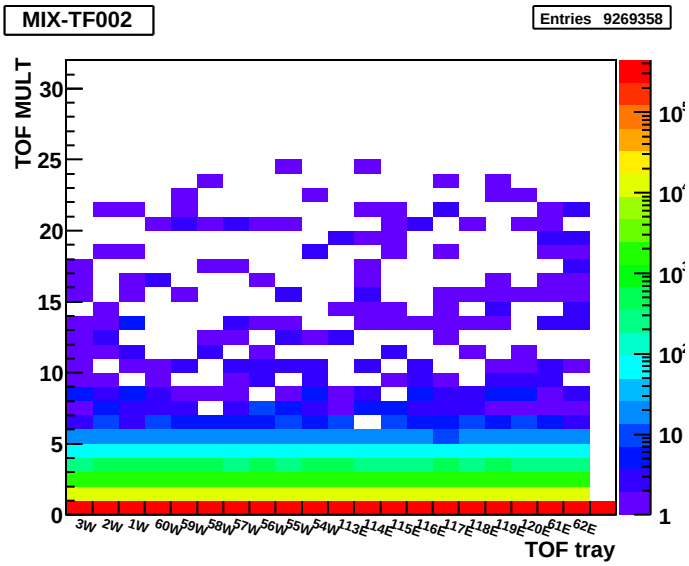

Endcap EMC L0 Input - Patch Sum
Entries 1.986291e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

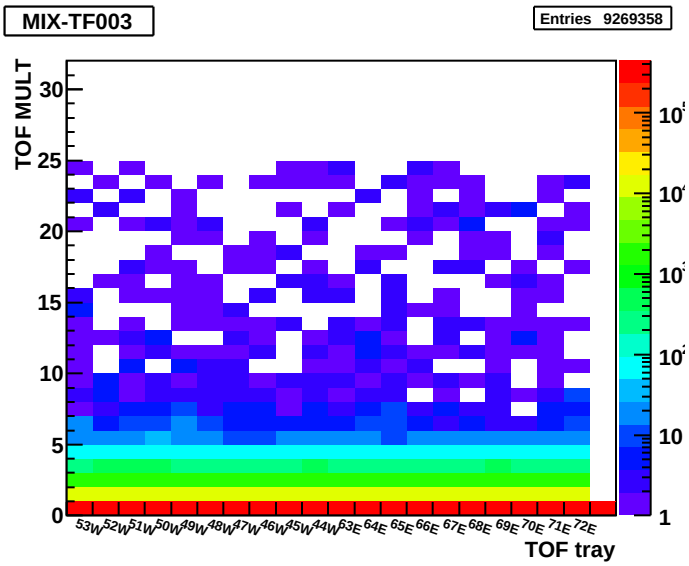

Barrel Jet Patches
Entries 3972582
JP ADC
JP ID

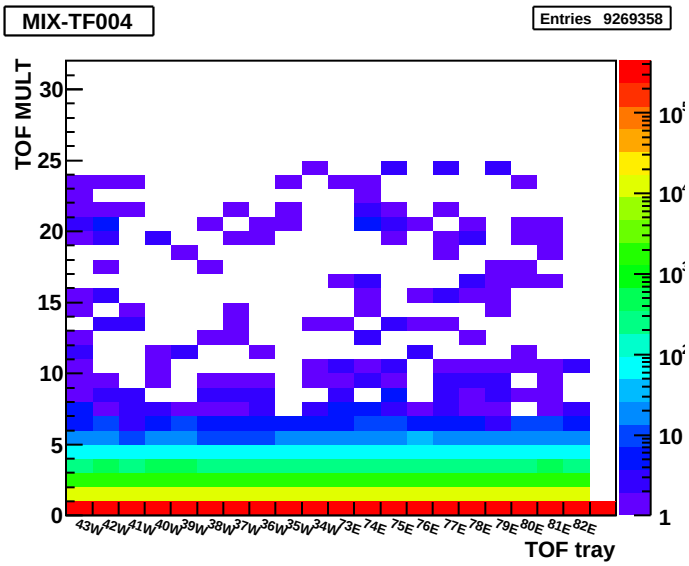

Endcap Jet Patches
Entries 1324194
JP ADC
JP ID

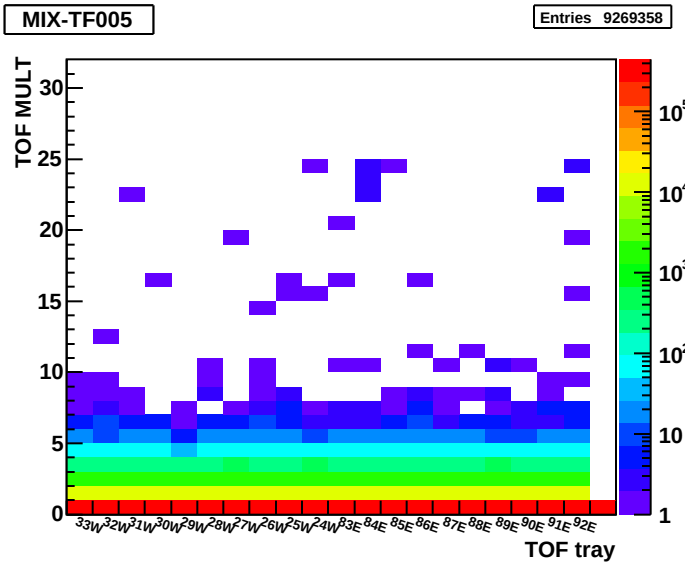

Hybrid Jet Patches
Entries 441398
JP ADC
JP ID

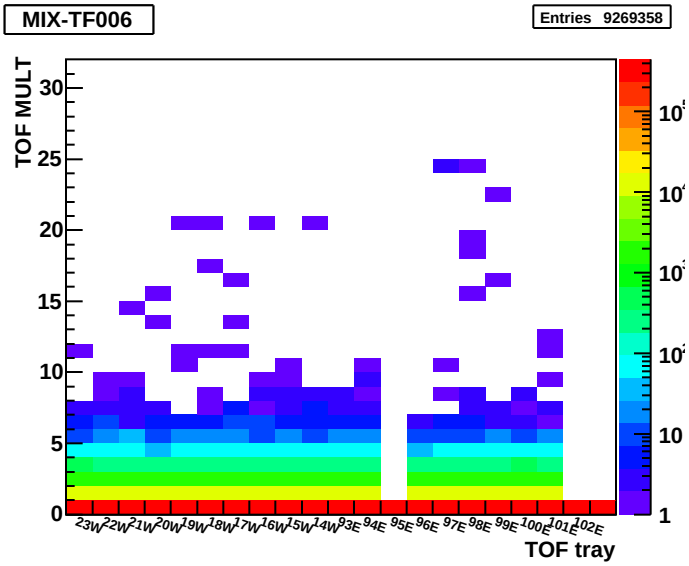

MIX-TF001
Entries 9269358
TOF MULT
TOF tray

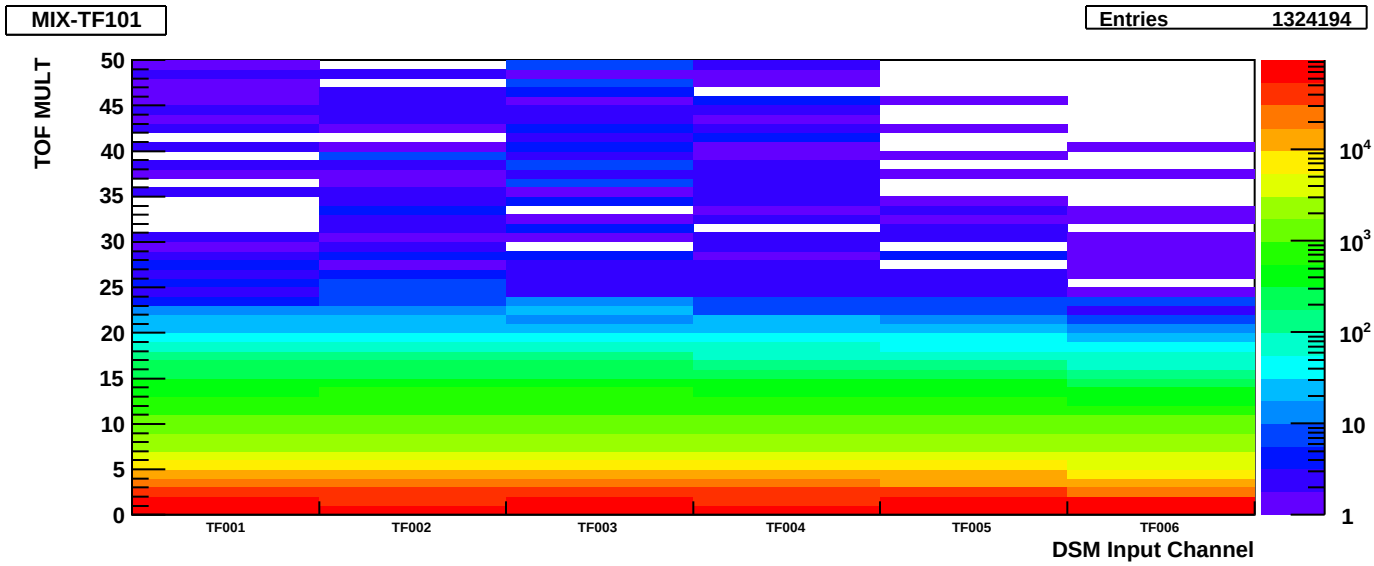

MIX-TF002
Entries 9269358
TOF MULT
TOF tray

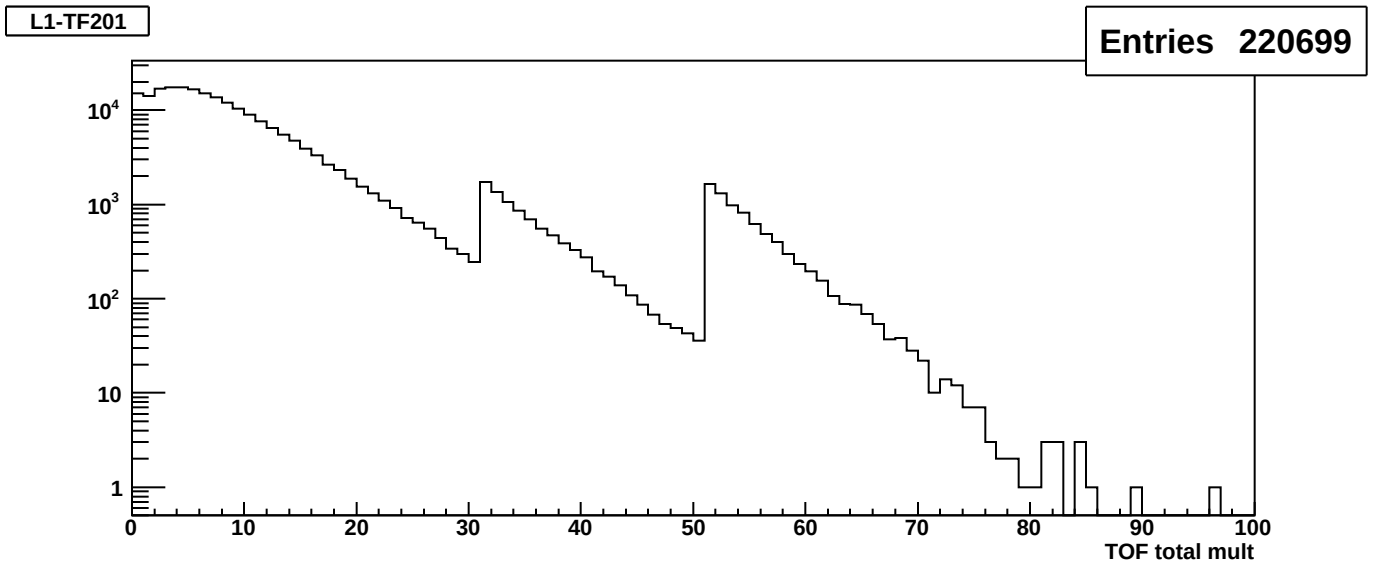

MIX-TF003
Entries 9269358
TOF MULT
TOF tray

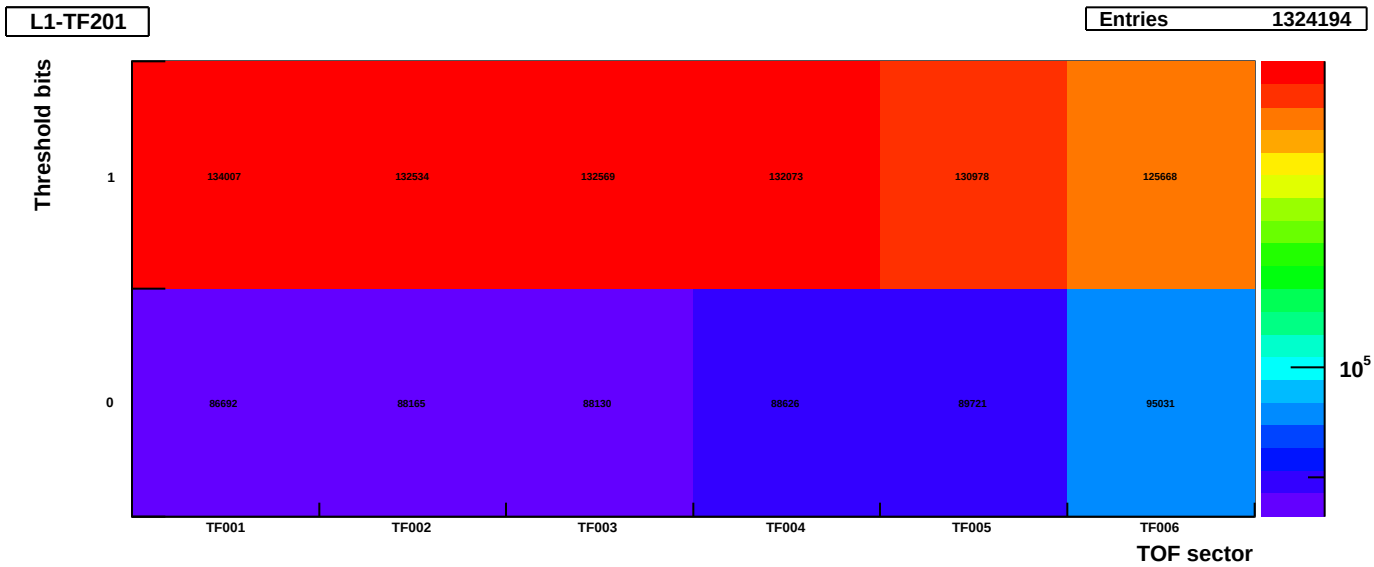

MIX-TF004
Entries 9269358
TOF MULT
TOF tray

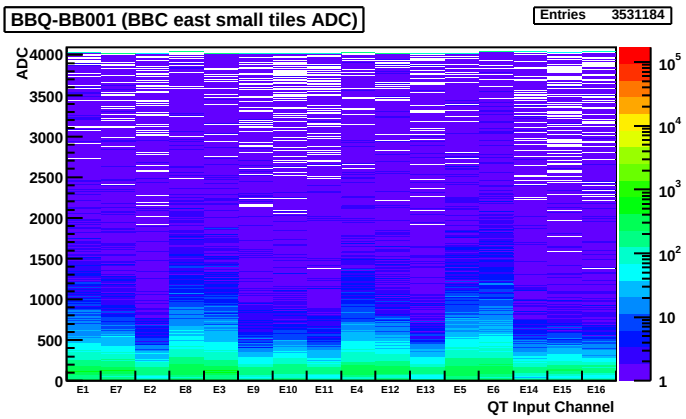

MIX-TF005
Entries 9269358
TOF MULT
TOF tray

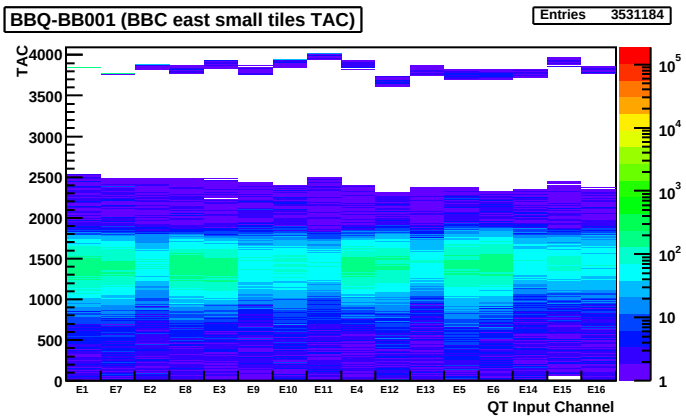

MIX-TF006
Entries 9269358
TOF MULT
TOF tray

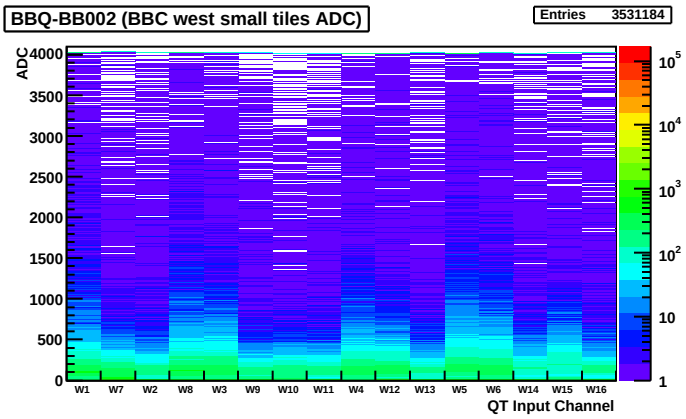

MIX-TF101
Entries 1324194
TOF MULT
50
45
40
35
30
25
20
15
10
5
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

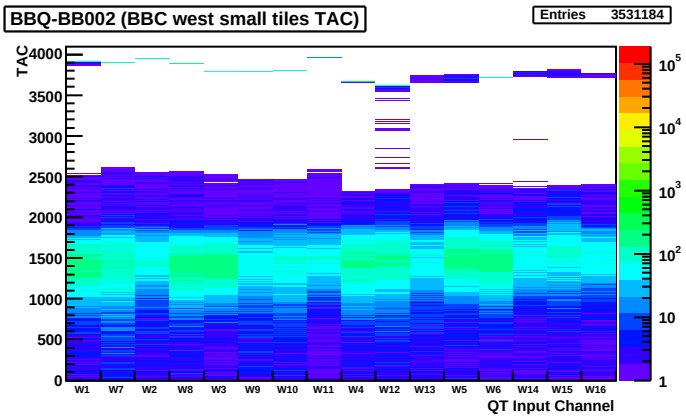

L1-TF201
Entries 220699
10^4
10^3
10^2
10
1
0
10
20
30
40
50
60
70
80
90
100
TOF total mult

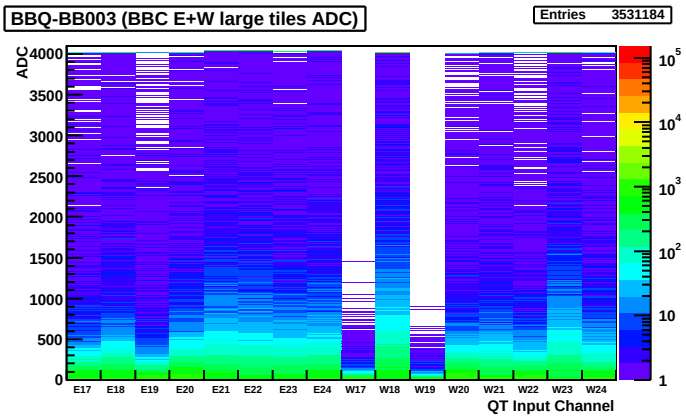

L1-TF201
Entries 1324194
Threshold bits
1
0
134007
132534
132569
132073
130978
125668
86692
88165
88130
88626
89721
95031
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5

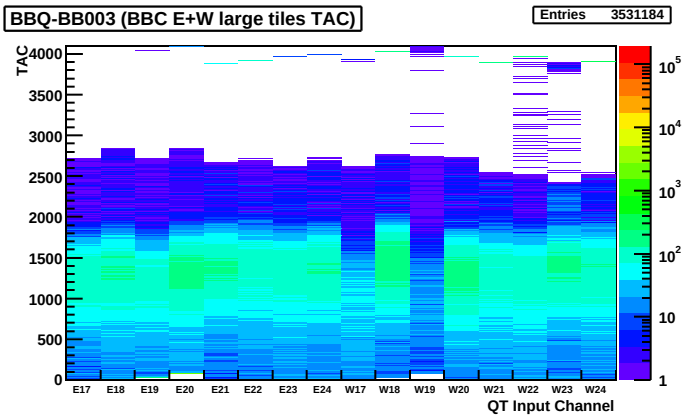

BBQ-BB001 (BBC east small tiles ADC)
Entries 3531184
ADC
QT Input Channel

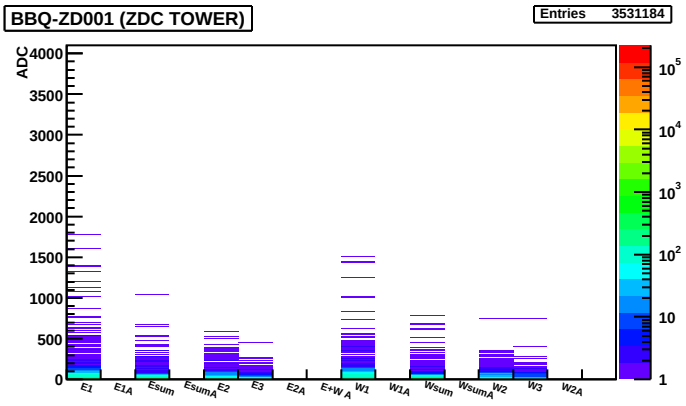

BBQ-BB001 (BBC east small tiles TAC)
Entries 3531184
TAC
QT Input Channel

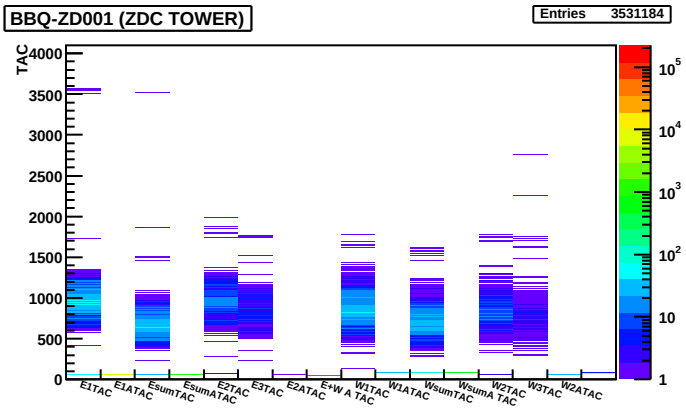

BBQ-BB002 (BBC west small tiles ADC)
Entries 3531184
ADC
QT Input Channel

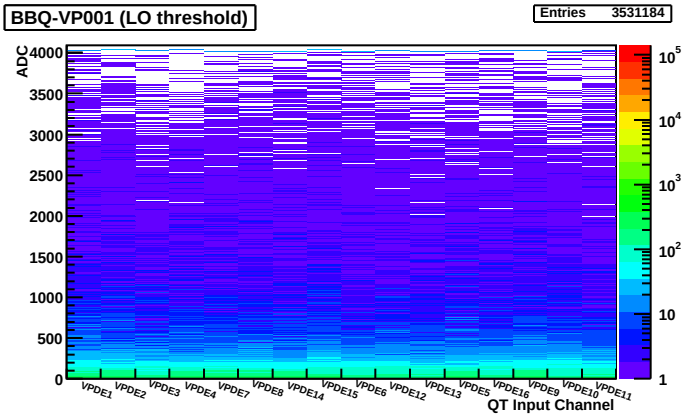

BBQ-BB002 (BBC west small tiles TAC)
Entries 3531184
TAC
QT Input Channel

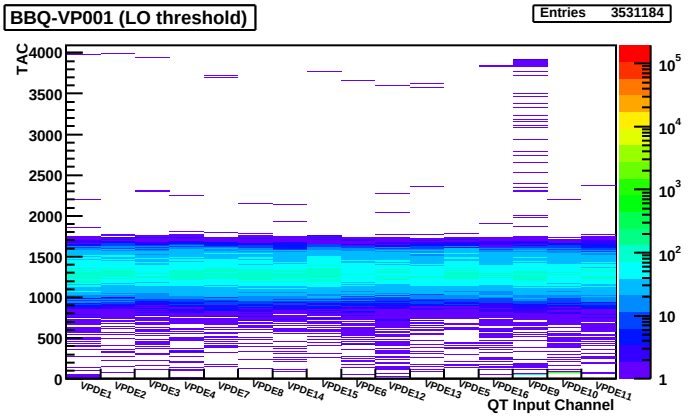

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 3531184
ADC
QT Input Channel

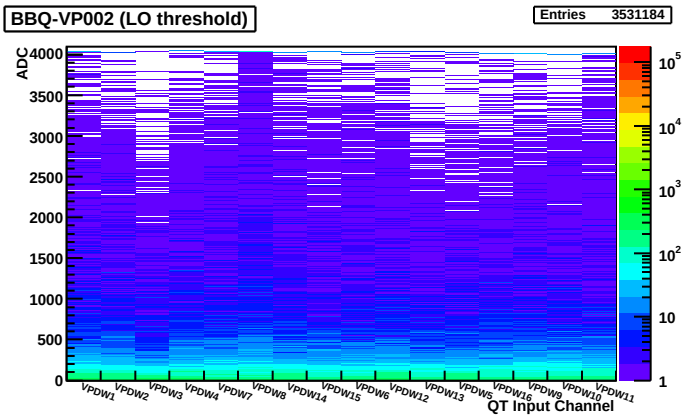

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 3531184
TAC
QT Input Channel

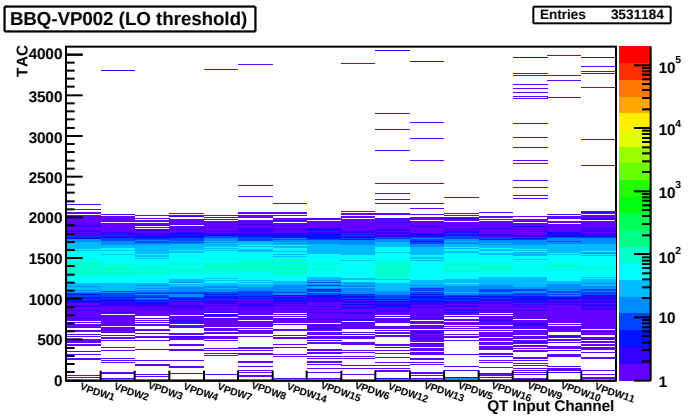

BBQ-ZD001 (ZDC TOWER)
Entries 3531184
ADC

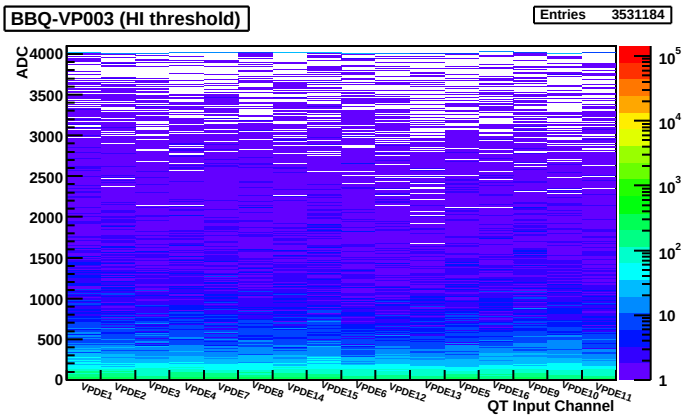

BBQ-ZD001 (ZDC TOWER)
Entries 3531184
TAC

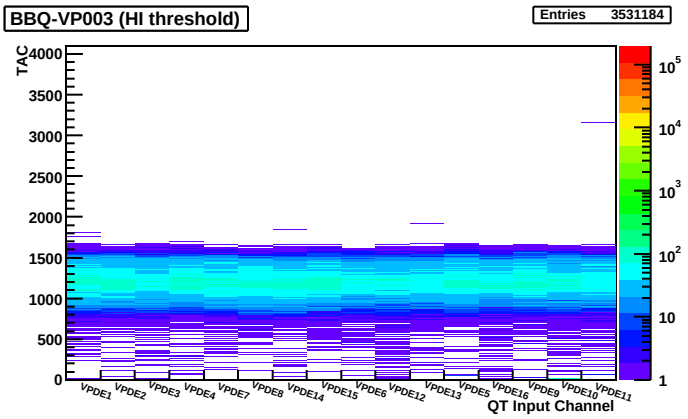

BBQ-VP001 (LO threshold)
Entries 3531184
ADC
QT Input Channel

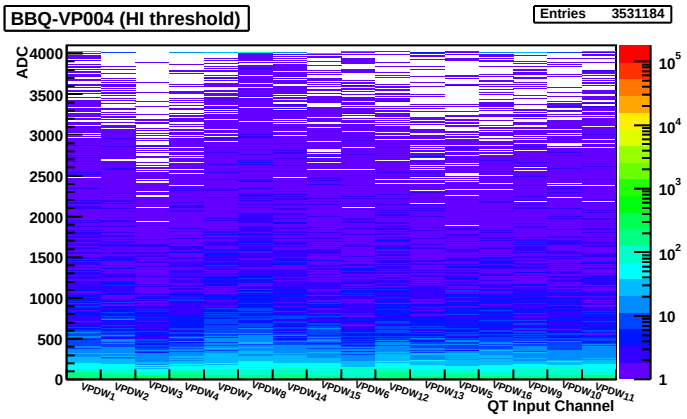

BBQ-VP001 (LO threshold)
Entries 3531184
TAC
QT Input Channel

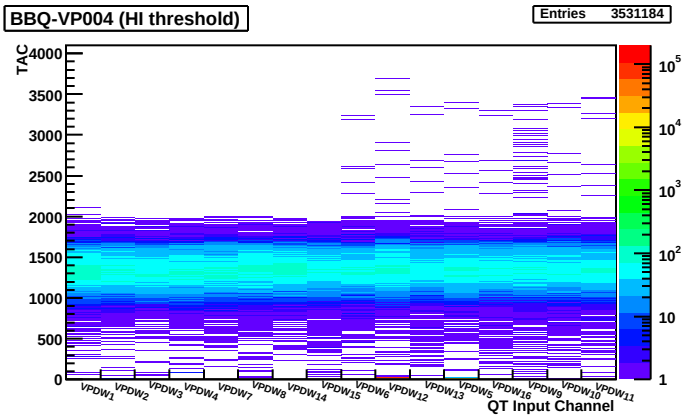

BBQ-VP002 (LO threshold)
Entries 3531184
ADC
QT Input Channel

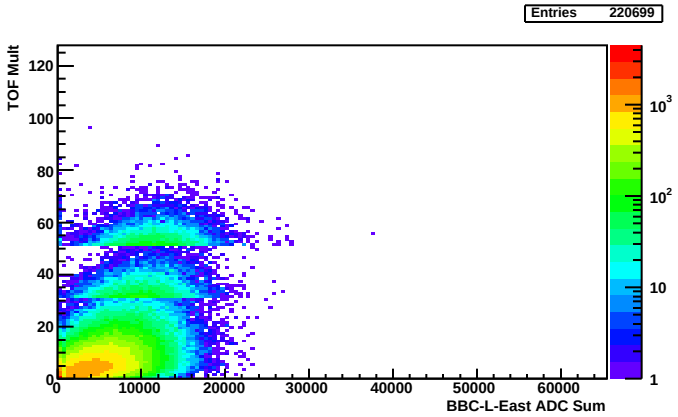

BBQ-VP002 (LO threshold)
Entries 3531184
TAC
QT Input Channel

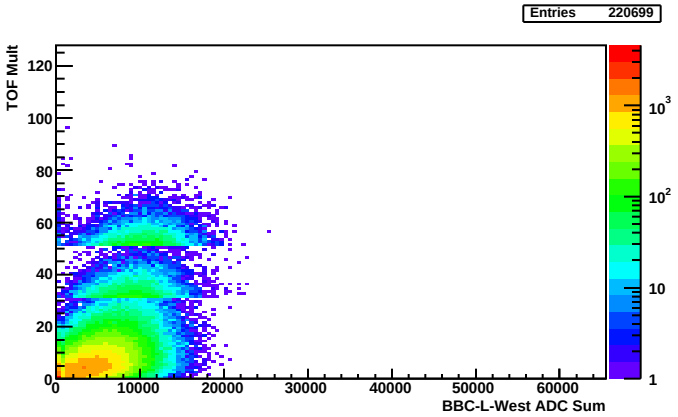

BBQ-VP003 (HI threshold)
Entries 3531184
ADC
QT Input Channel

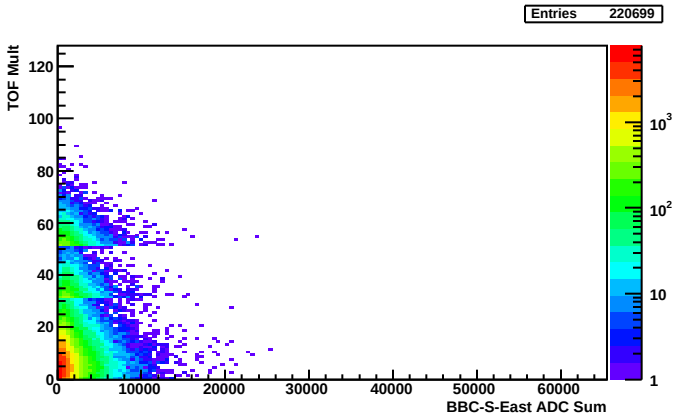

BBQ-VP003 (HI threshold)
Entries 3531184
TAC
QT Input Channel

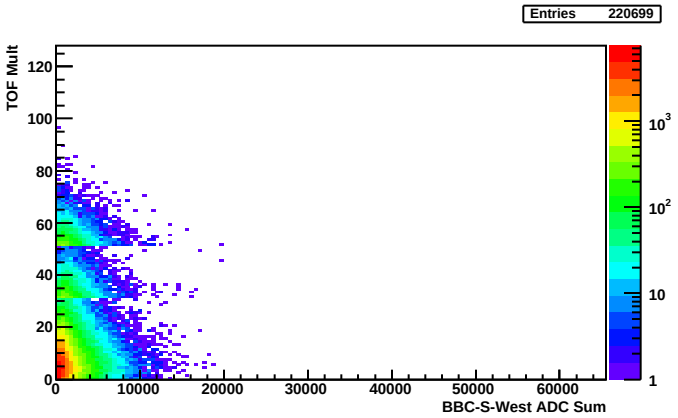

BBQ-VP004 (HI threshold)
Entries 3531184
ADC
QT Input Channel

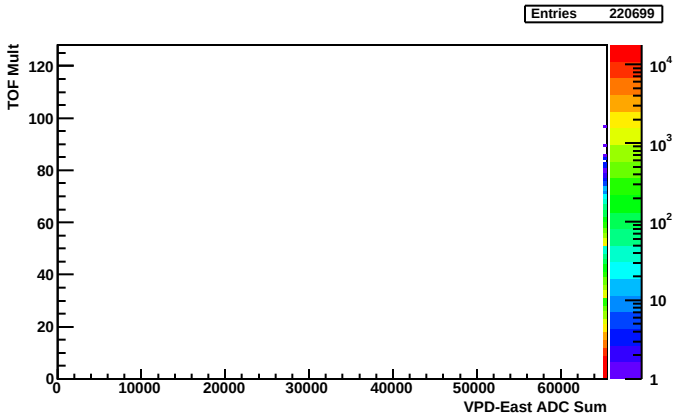

BBQ-VP004 (HI threshold)
Entries 3531184
TAC
QT Input Channel

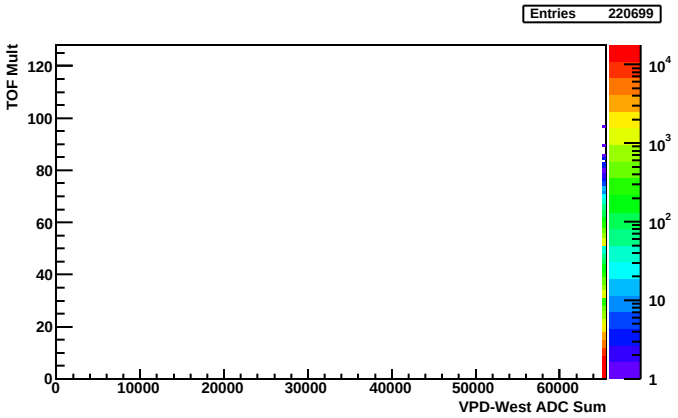

Entries 220699
TOF Mult
BBC-L-East ADC Sum

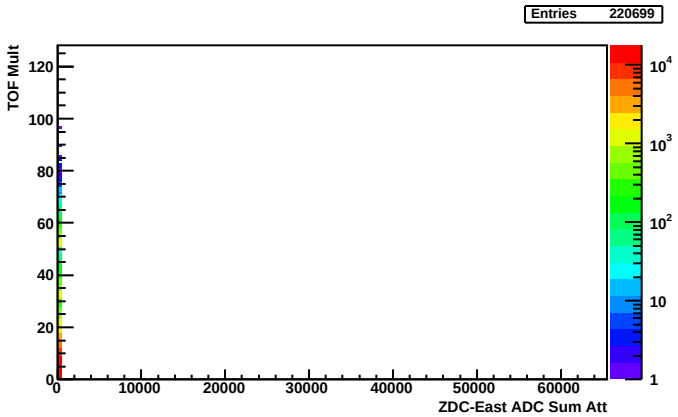

Entries 220699
TOF Mult
BBC-L-West ADC Sum

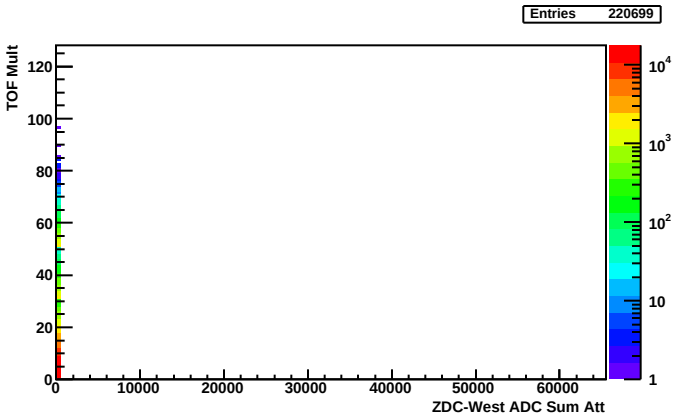

Entries 220699
TOF Mult
BBC-S-East ADC Sum

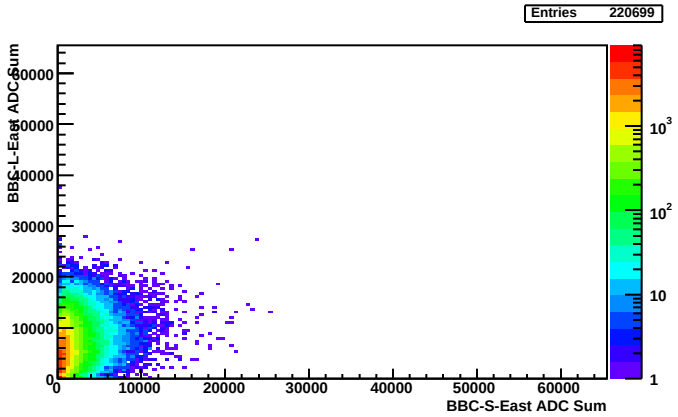

Entries 220699
TOF Mult
BBC-S-West ADC Sum

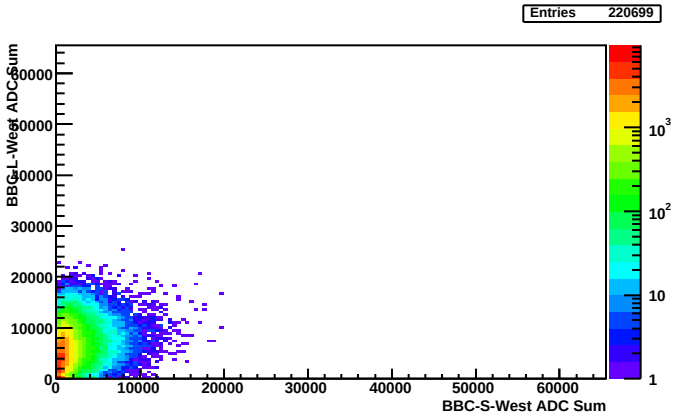

Entries 220699
TOF Mult
VPD-East ADC Sum

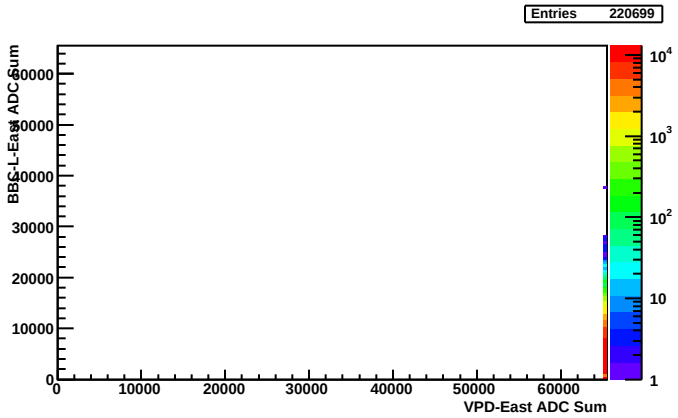

Entries 220699
TOF Mult
VPD-West ADC Sum

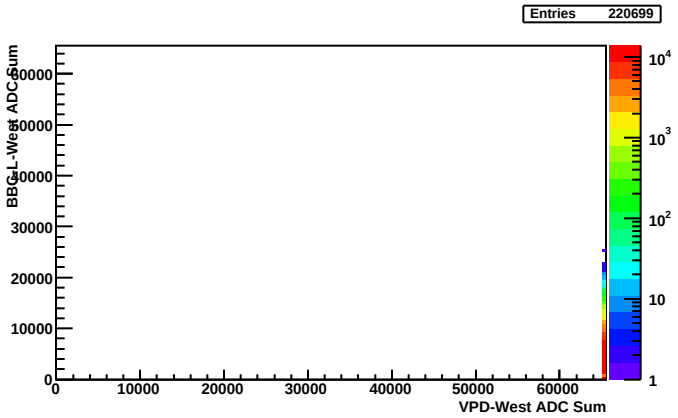

Entries 220699
TOF Mult
ZDC-East ADC Sum Att

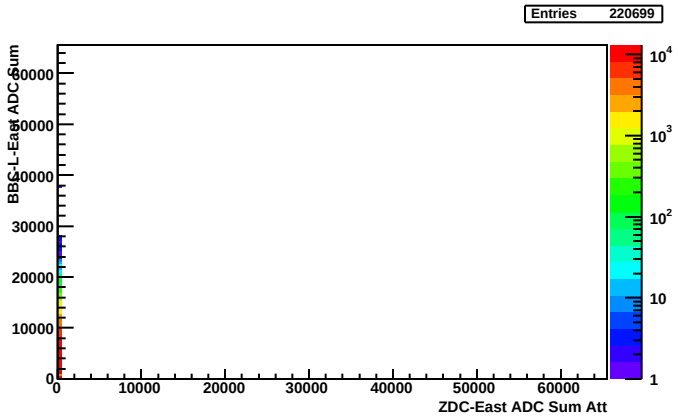

Entries 220699
TOF Mult
ZDC-West ADC Sum Att

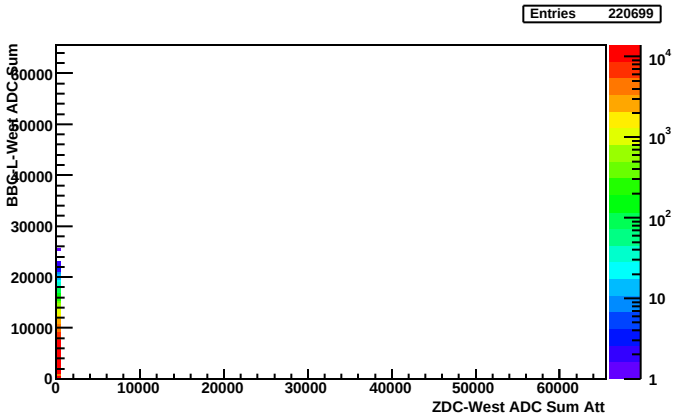

Entries 220699
BBC-L-East ADC Sum
BBC-S-East ADC Sum

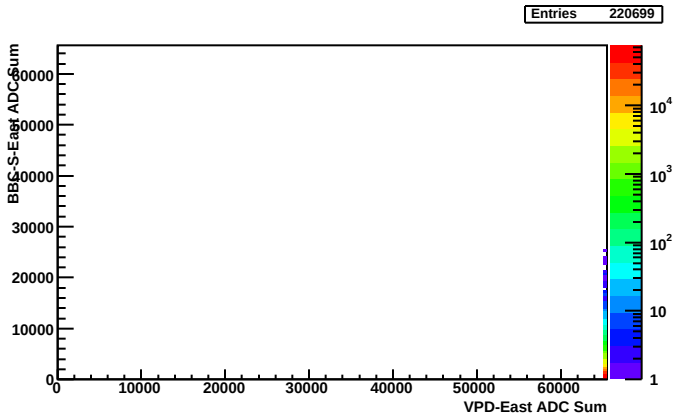

Entries 220699
BBC-L-West ADC Sum
BBC-S-West ADC Sum

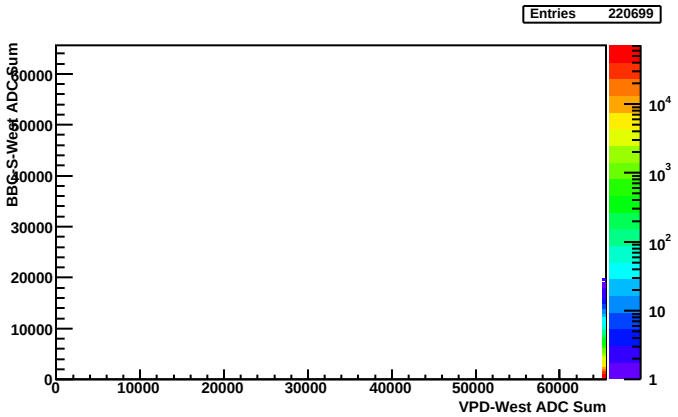

Entries 220699
BBC-L-East ADC Sum
VPD-East ADC Sum

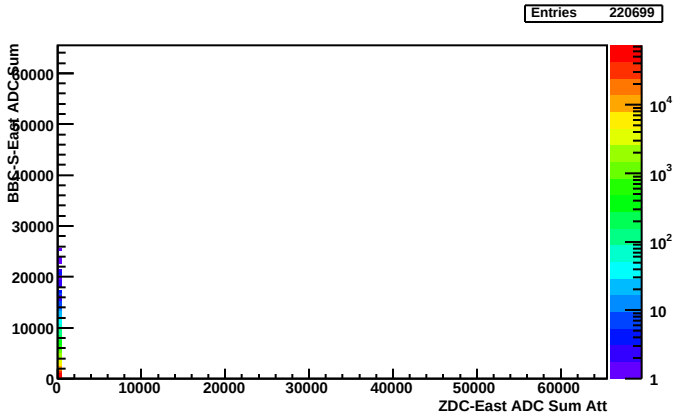

Entries 220699
BBC-L-West ADC Sum
VPD-West ADC Sum

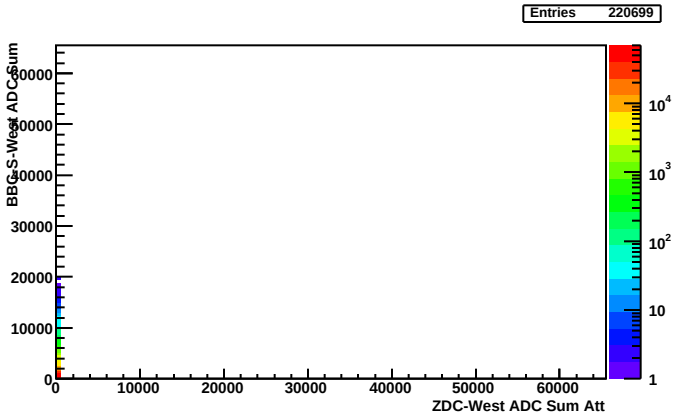

Entries 220699
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

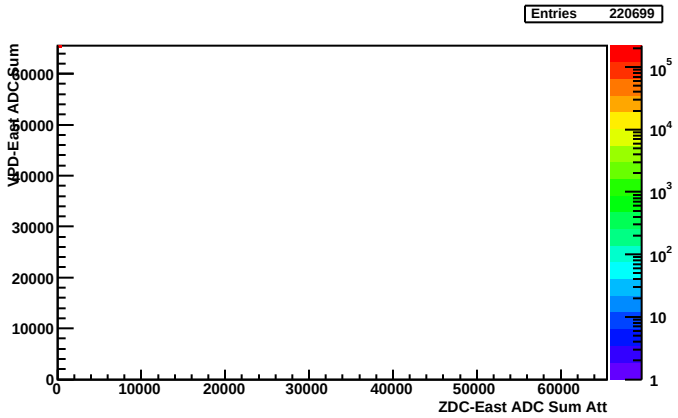

Entries 220699
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

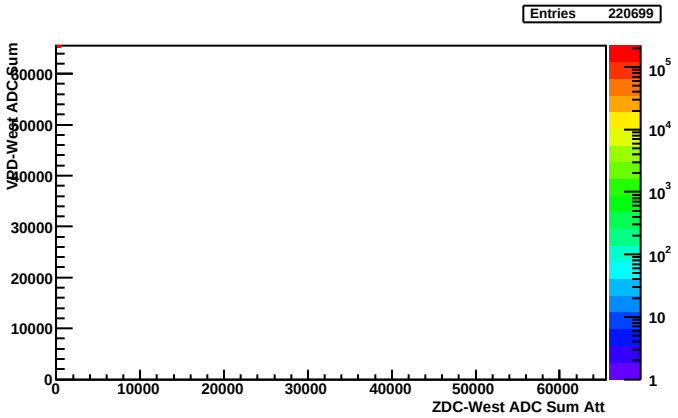

Entries 220699
BBC-S-East ADC Sum
VPD-East ADC Sum

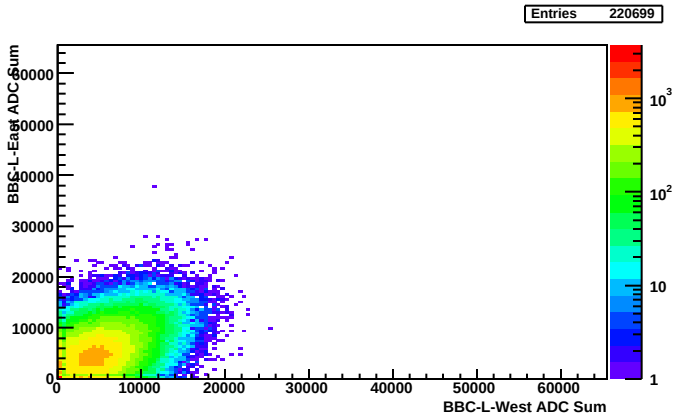

Entries 220699
BBC-S-West ADC Sum
VPD-West ADC Sum

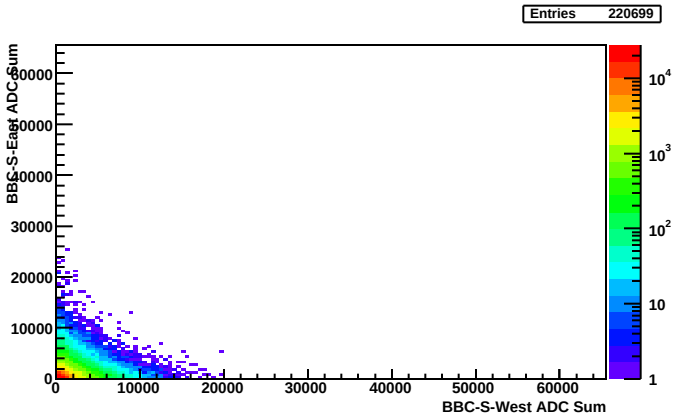

Entries 220699
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

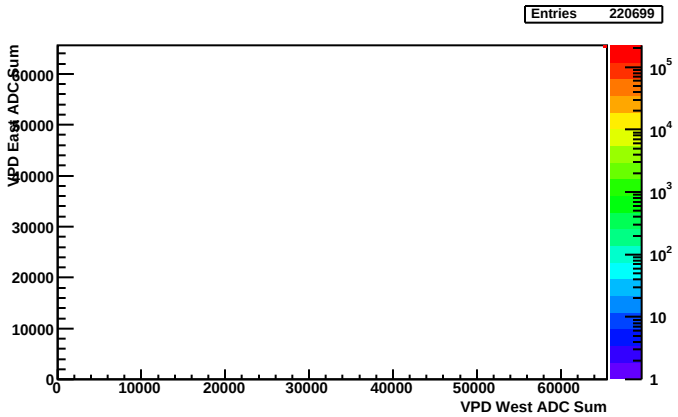

Entries 220699
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

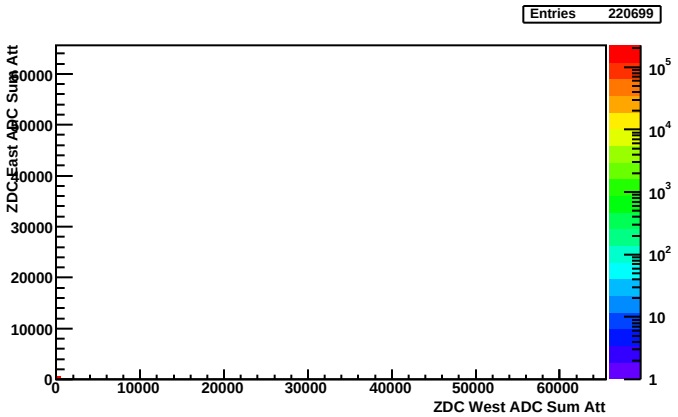

Entries 220699
VPD-East ADC Sum
ZDC-East ADC Sum Att

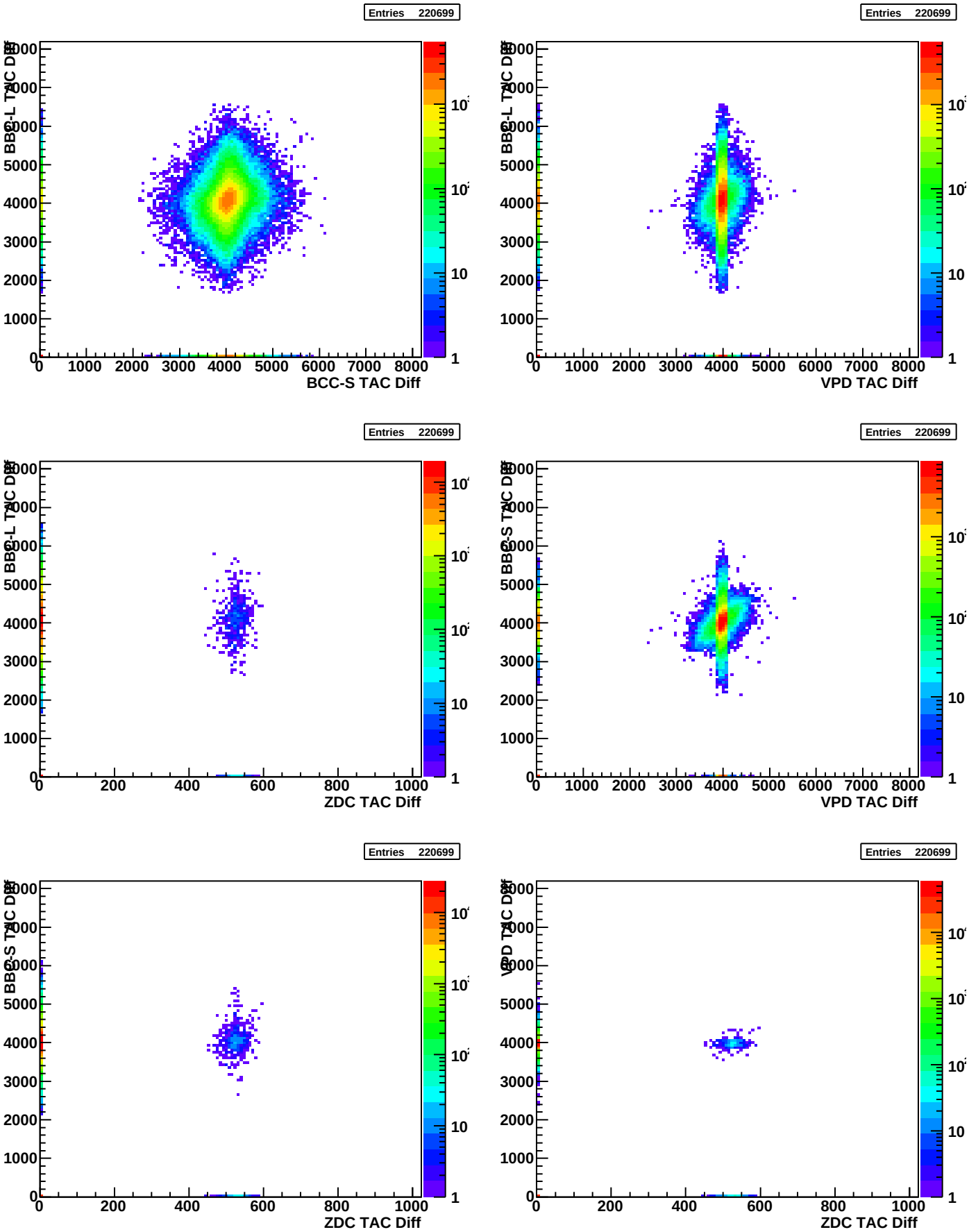

Entries 220699
VPD-West ADC Sum
ZDC-West ADC Sum Att

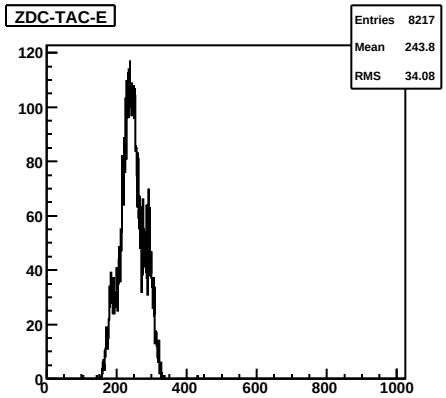

Entries 220699
BBC-L-East ADC Sum
BBC-L-West ADC Sum

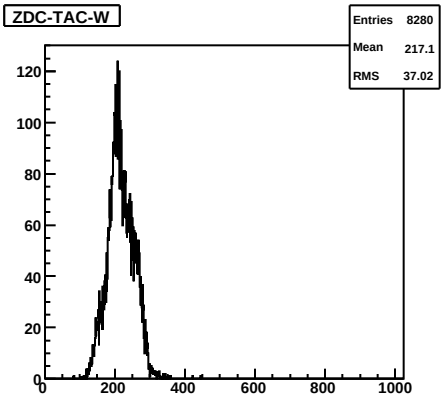

Entries 220699
BBC-S-East ADC Sum
BBC-S-West ADC Sum

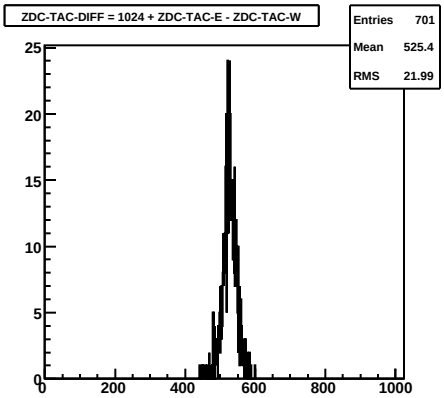

Entries 220699
VPD East ADC Sum
VPD West ADC Sum

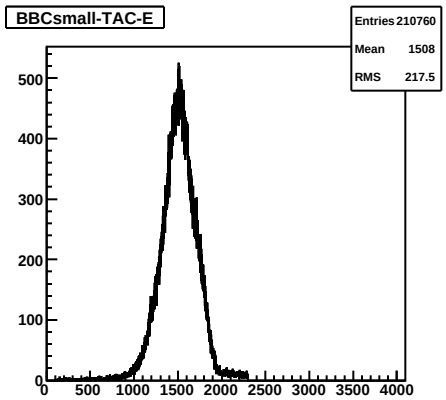

Entries 220699
ZDC East ADC Sum Att
ZDC West ADC Sum Att

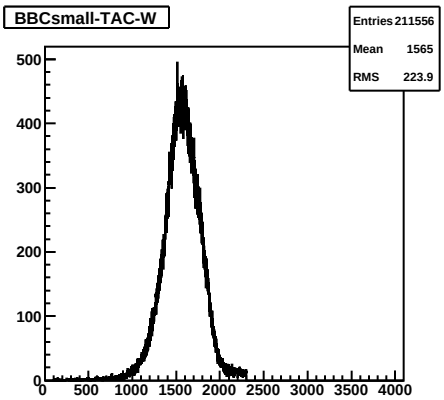

Entries 220699
BBC-L TAC Diff
BCC-S TAC Diff
Entries 220699
BBC-L TAC Diff
VPD TAC Diff
Entries 220699
BBC-L TAC Diff
ZDC TAC Diff
Entries 220699
BBC-S TAC Diff
VPD TAC Diff
Entries 220699
BBC-S TAC Diff
ZDC TAC Diff
Entries 220699
VPD TAC Diff
ZDC TAC Diff

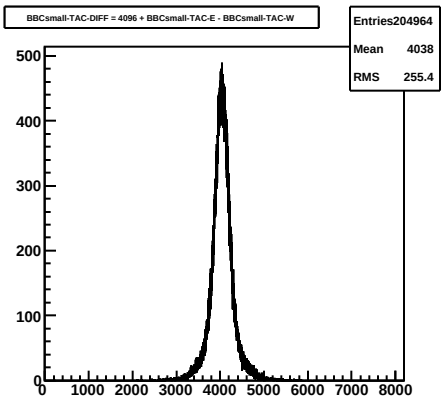

ZDC-TAC-E
Entries 8217
Mean 243.8
RMS 34.08

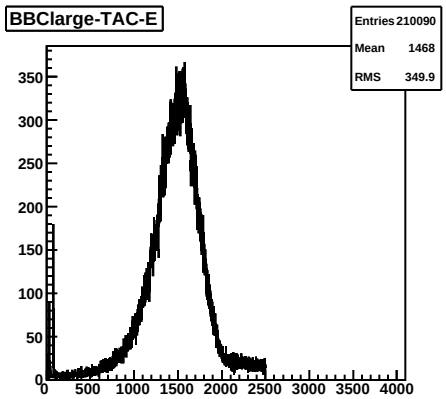

ZDC-TAC-W
Entries 8280
Mean 217.1
RMS 37.02

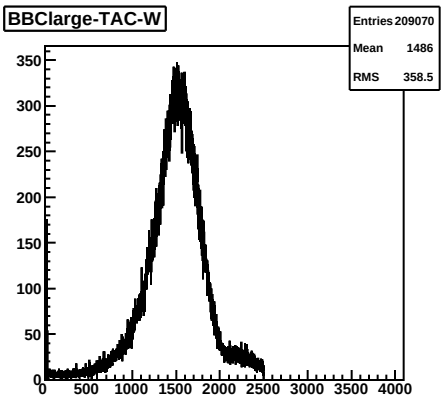

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 701
Mean 525.4
RMS 21.99

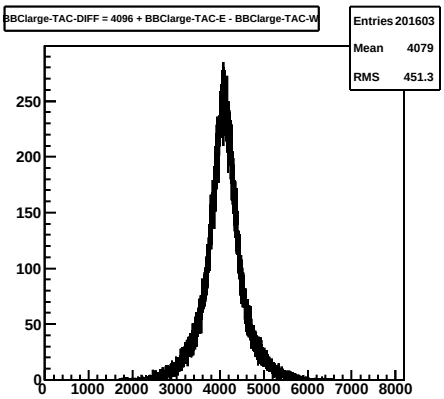

BBCsmall-TAC-E
Entries 210760
Mean 1508
RMS 217.5

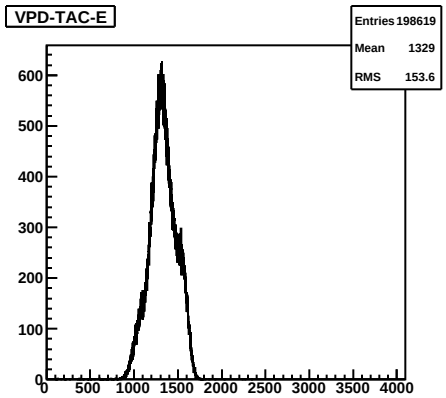

BBCsmall-TAC-W
Entries 211556
Mean 1565
RMS 223.9

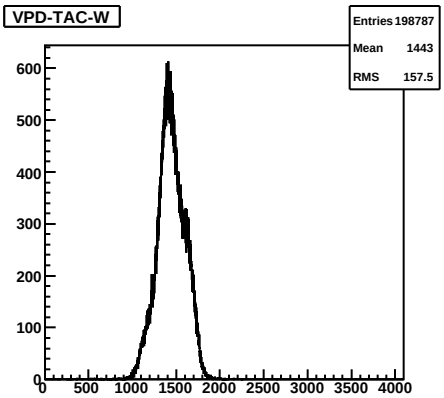

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 204964
Mean 4038
RMS 255.4

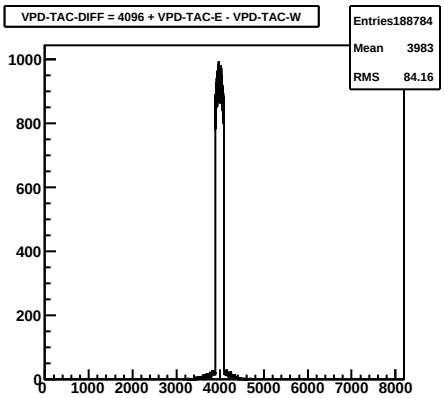

BBClarge-TAC-E
Entries 210090
Mean 1468
RMS 349.9

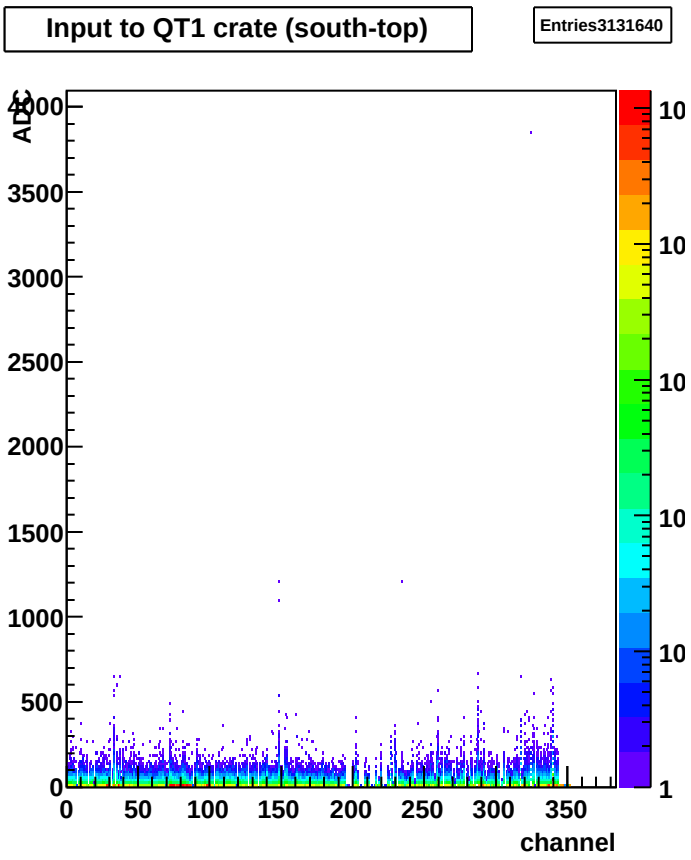

BBClarge-TAC-W
Entries 209070
Mean 1486
RMS 358.5

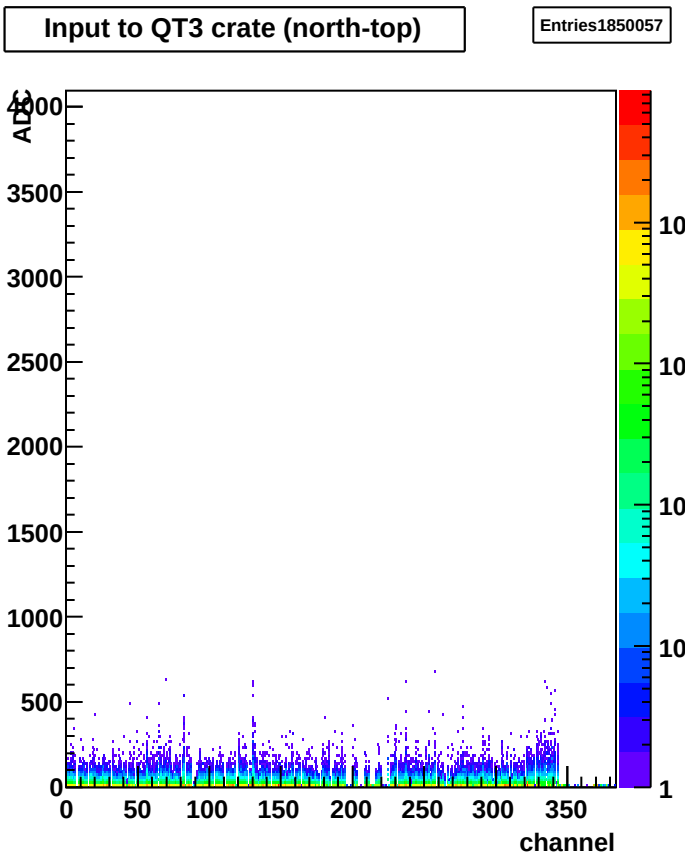

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 201603
Mean 4079
RMS 451.3

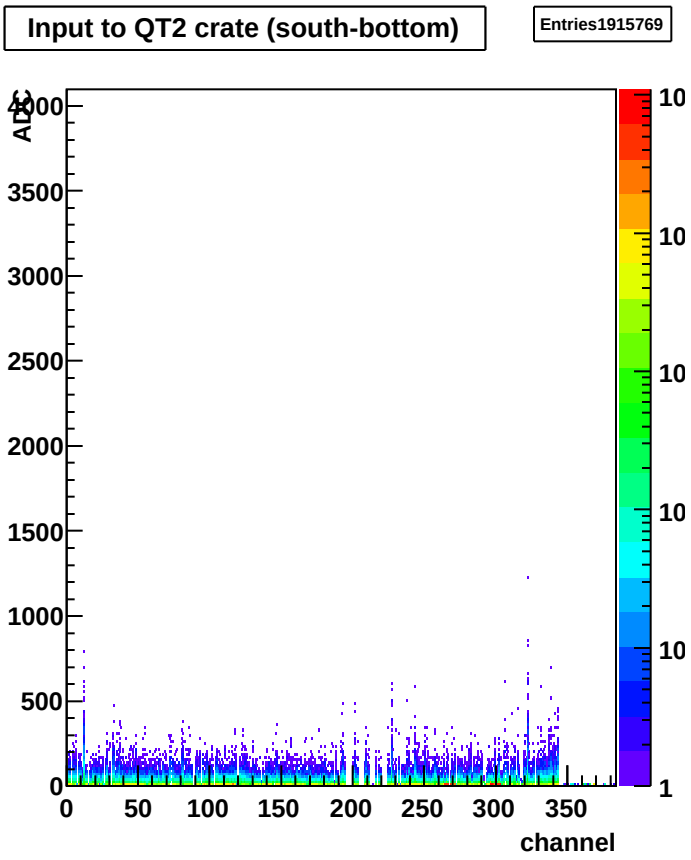

VPD-TAC-E
Entries 198619
Mean 1329
RMS 153.6

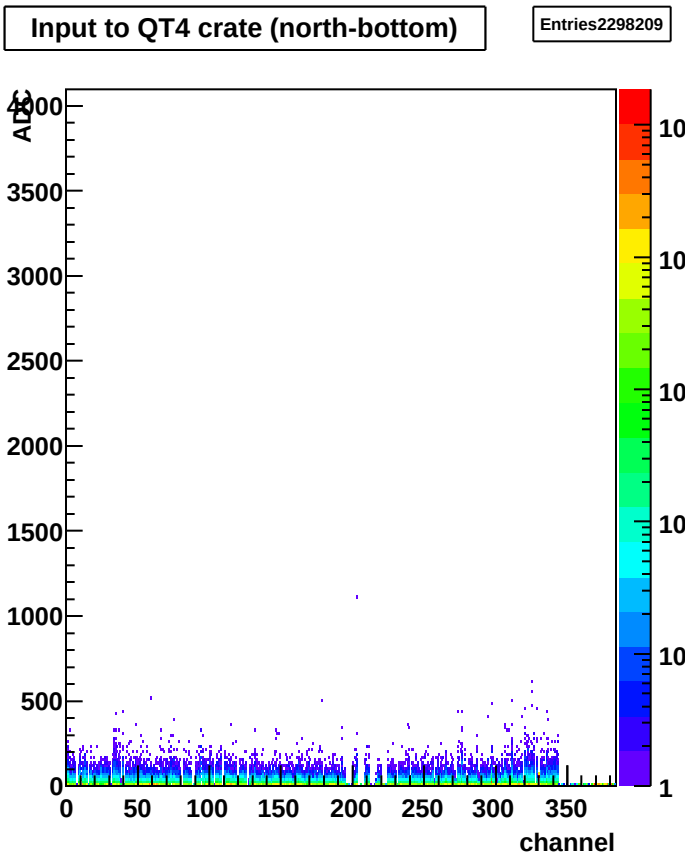

VPD-TAC-W
Entries 198787
Mean 1443
RMS 157.5

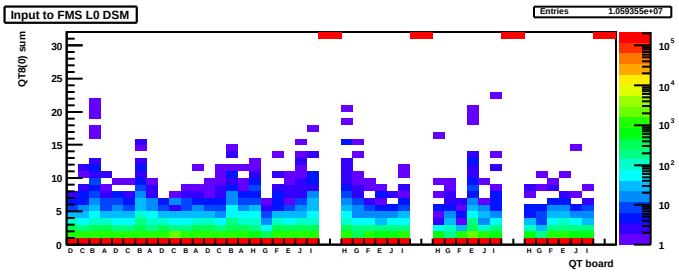

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 188784
Mean 3983
RMS 84.16

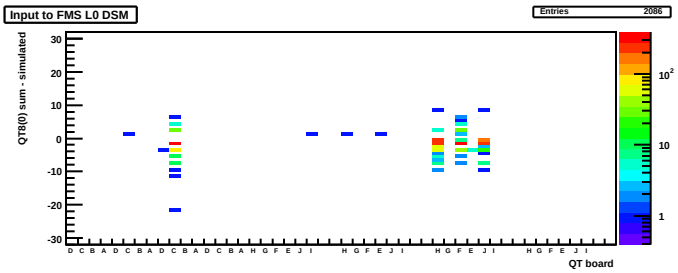

Input to QT1 crate (south-top)
Entries3131640
ADC
channel

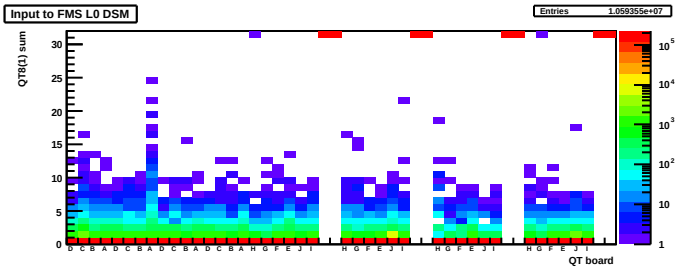

Input to QT3 crate (north-top)
Entries1850057
ADC
channel

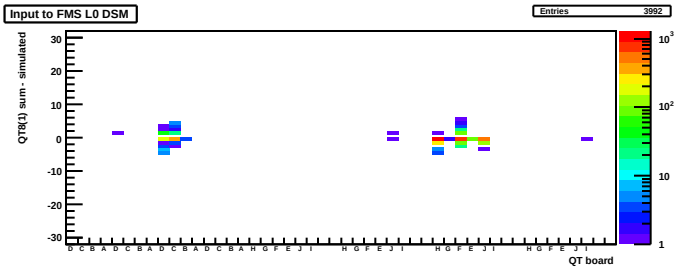

Input to QT2 crate (south-bottom)
Entries1915769
ADC
channel

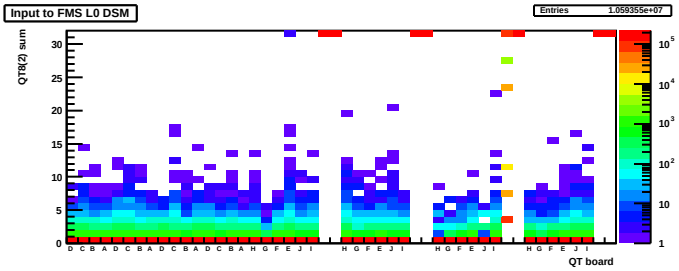

Input to QT4 crate (north-bottom)
Entries2298209
ADC
channel

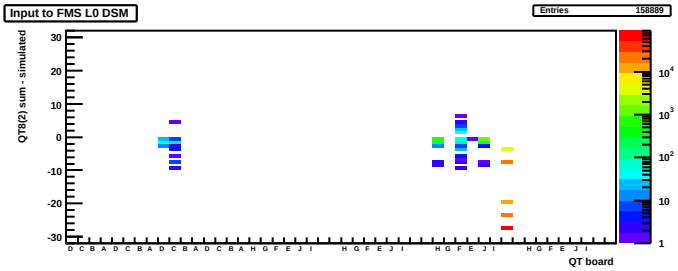

Input to FMS L0 DSM
Entries 1.059355e+07
QT8(0) sum
QT board

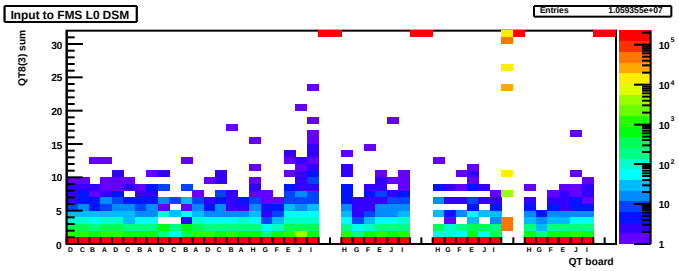

Input to FMS L0 DSM
Entries 2086
QT8(0) sum - simulated
QT board

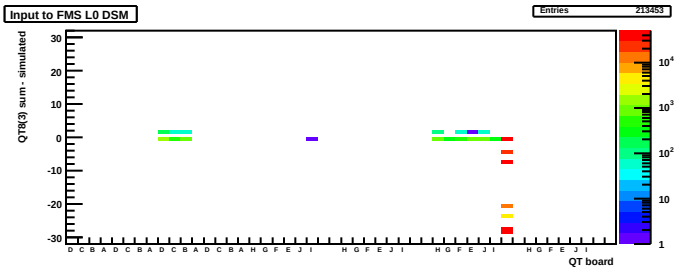

Input to FMS L0 DSM
Entries 1.059355e+07
QT8(1) sum
QT board

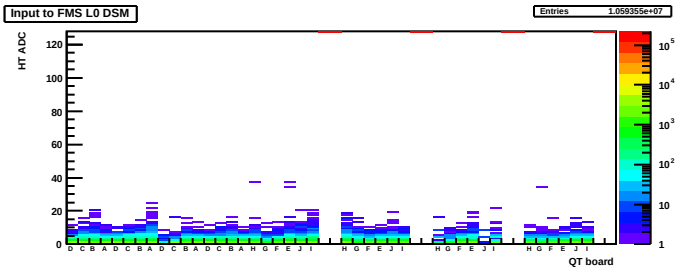

Input to FMS L0 DSM
Entries 3992
QT8(1) sum - simulated
QT board

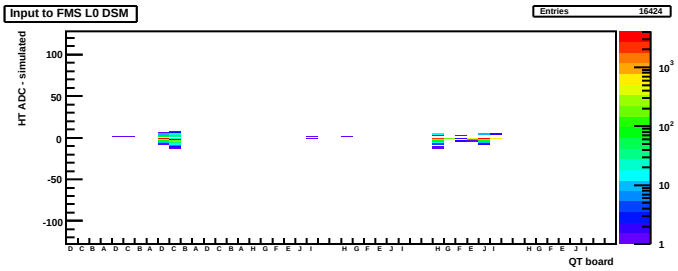

Input to FMS L0 DSM
Entries 1.059355e+07
QT8(2) sum
QT board

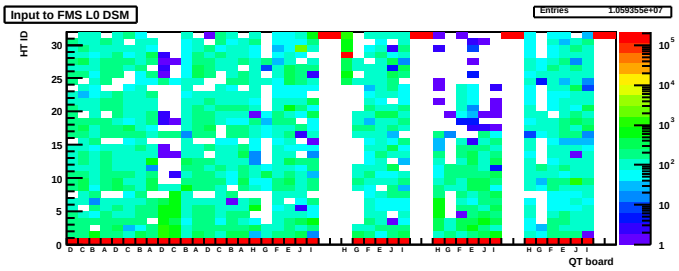

Input to FMS L0 DSM
Entries 158889
QT8(2) sum - simulated
QT board

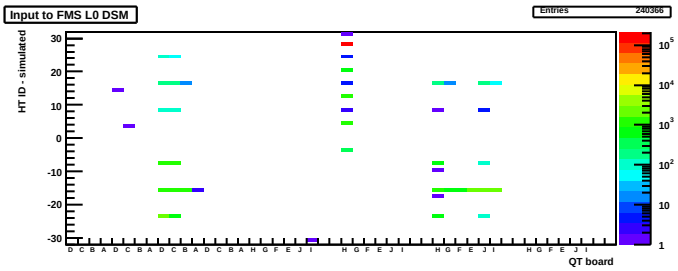

Input to FMS L0 DSM
Entries 1.059355e+07
QT8(3) sum
QT board

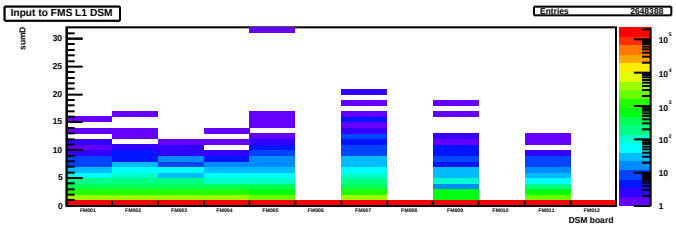

Input to FMS L0 DSM
Entries 213453
QT8(3) sum - simulated
QT board

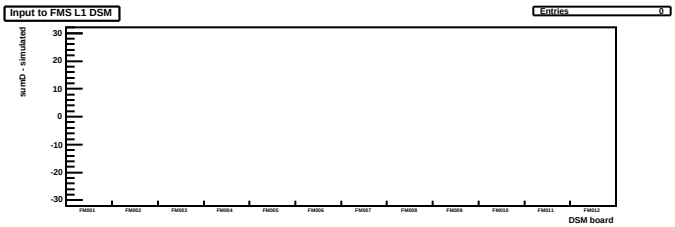

Input to FMS L0 DSM
Entries 1.059355e+07
HT ADC
QT board

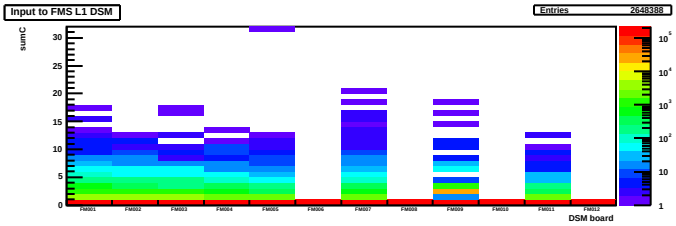

Input to FMS L0 DSM
Entries 16424
HT ADC - simulated
QT board

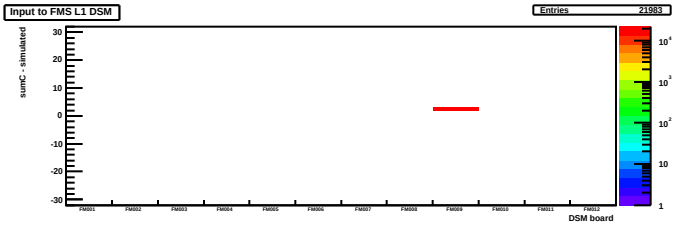

Input to FMS L0 DSM
Entries 1.059355e+07
HT ID
QT board

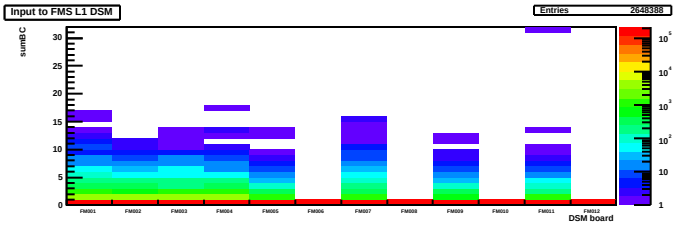

Input to FMS L0 DSM
Entries 240366
HT ID - simulated
QT board

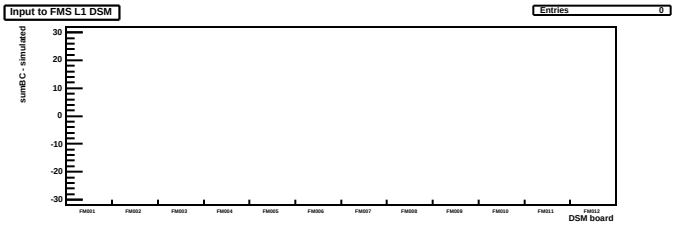

Input to FMS L1 DSM
Entries 2648388
sumD
DSM board

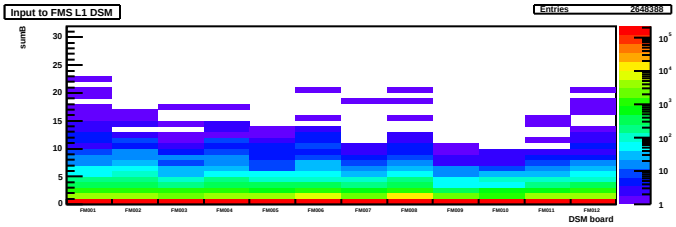

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

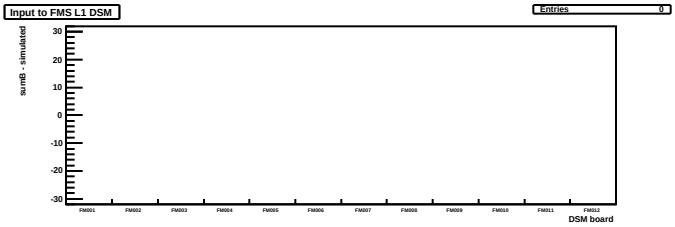

Input to FMS L1 DSM
Entries 2648388
sumC
DSM board

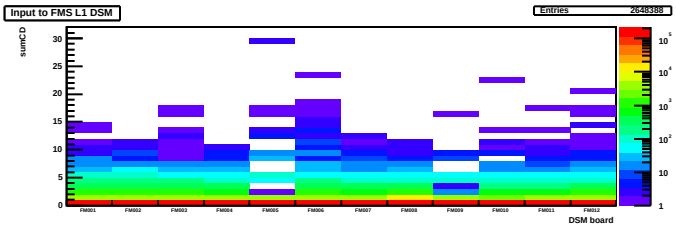

Input to FMS L1 DSM
Entries 21983
sumC - simulated
DSM board

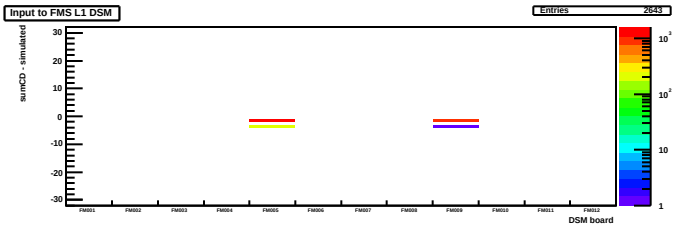

Input to FMS L1 DSM
Entries 2648388
sumBC
DSM board

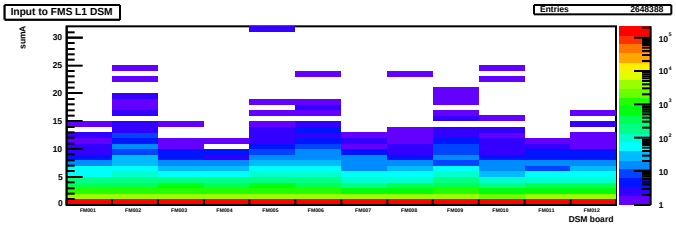

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

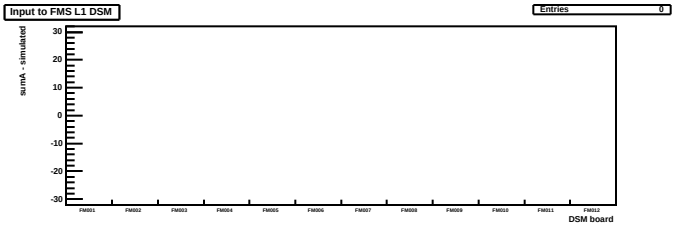

Input to FMS L1 DSM
Entries 2648388
sumB
DSM board

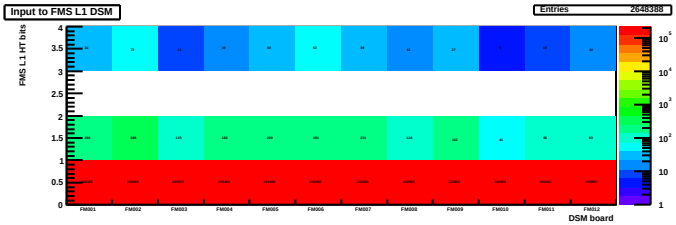

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

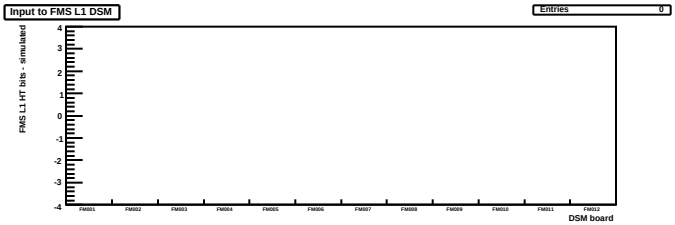

Input to FMS L1 DSM
Entries 2648388
sumCD
DSM board

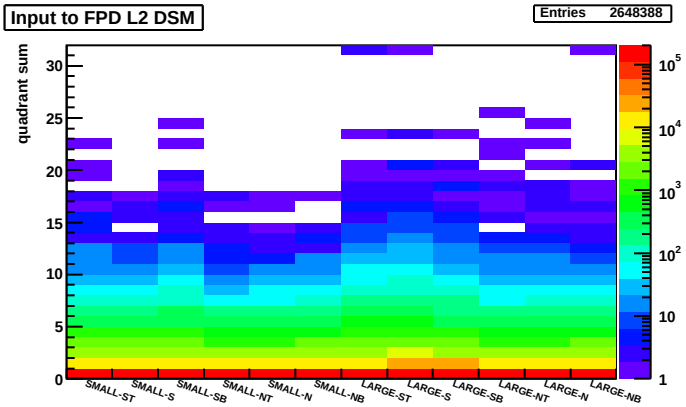

Input to FMS L1 DSM
Entries 2643
sumCD - simulated
DSM board

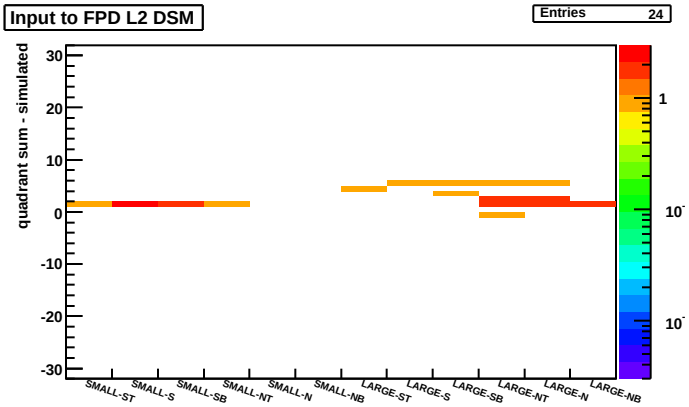

Input to FMS L1 DSM
Entries 2648388
sumA
DSM board

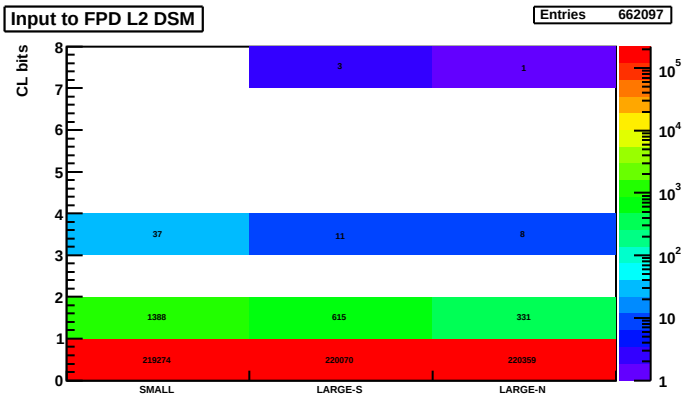

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

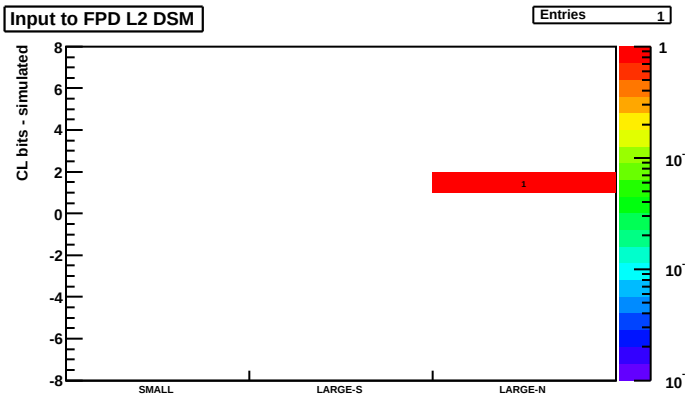

Input to FMS L1 DSM
Entries 2648388
FMS L1 HT bits
DSM board

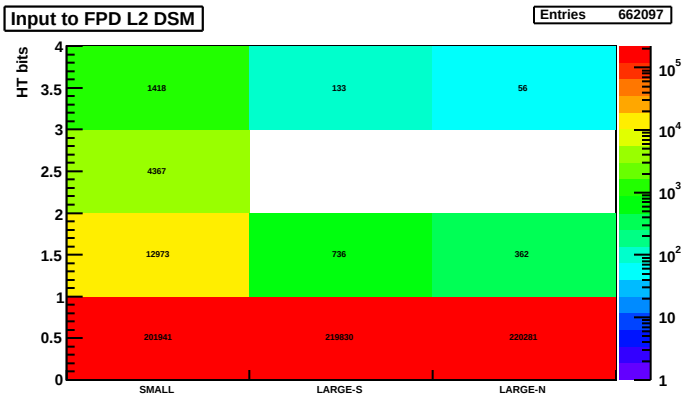

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

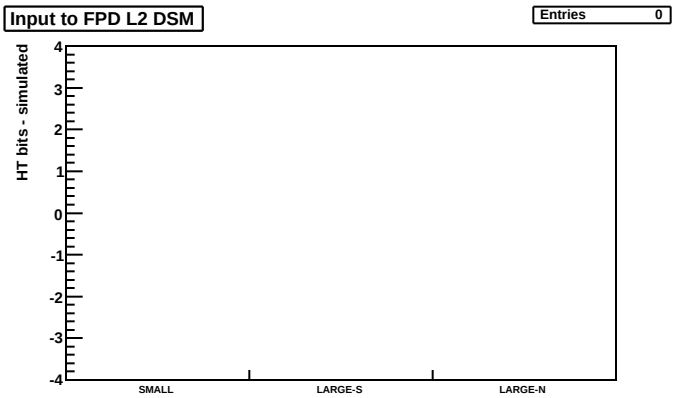

Input to FPD L2 DSM
Entries 2648388
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

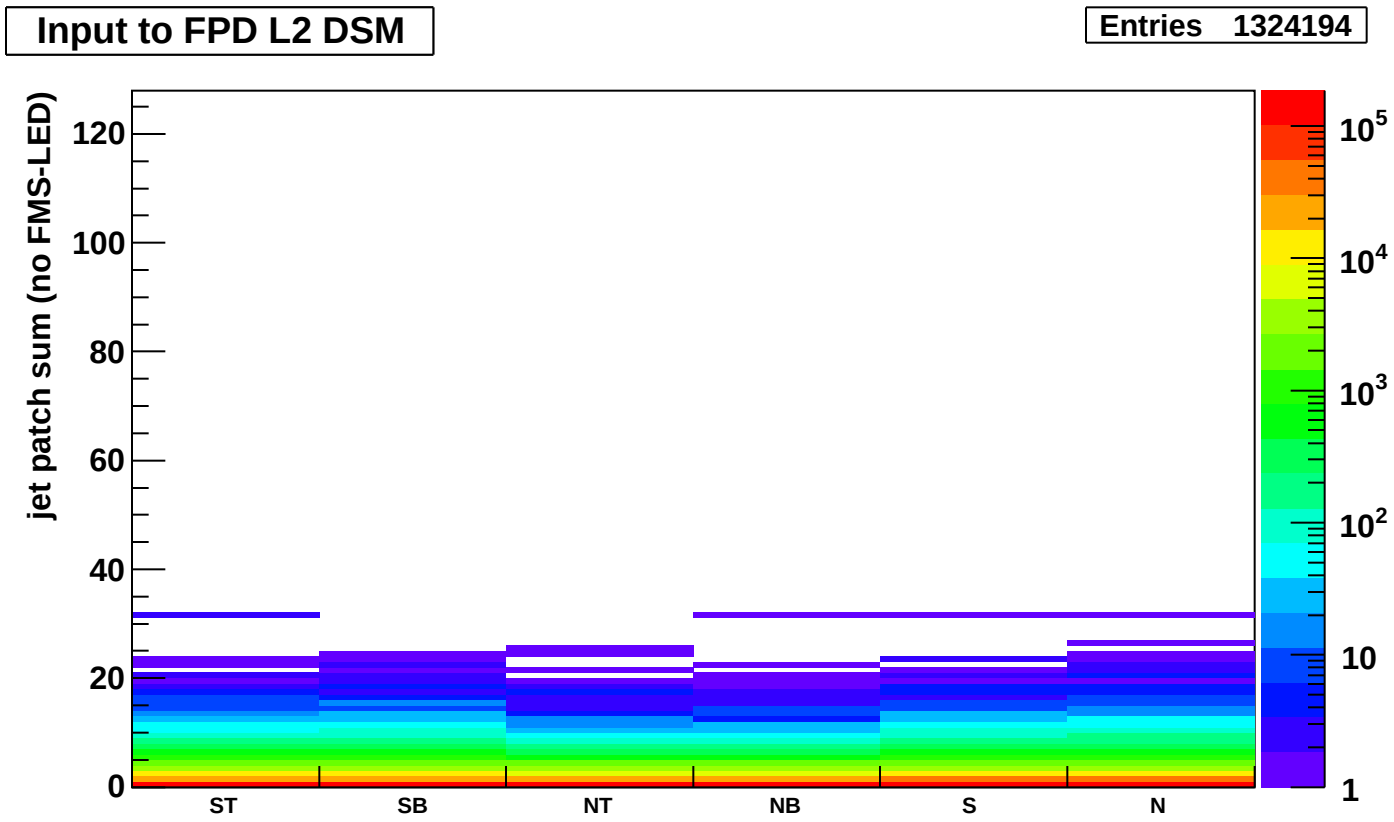

Input to FPD L2 DSM
Entries 24
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

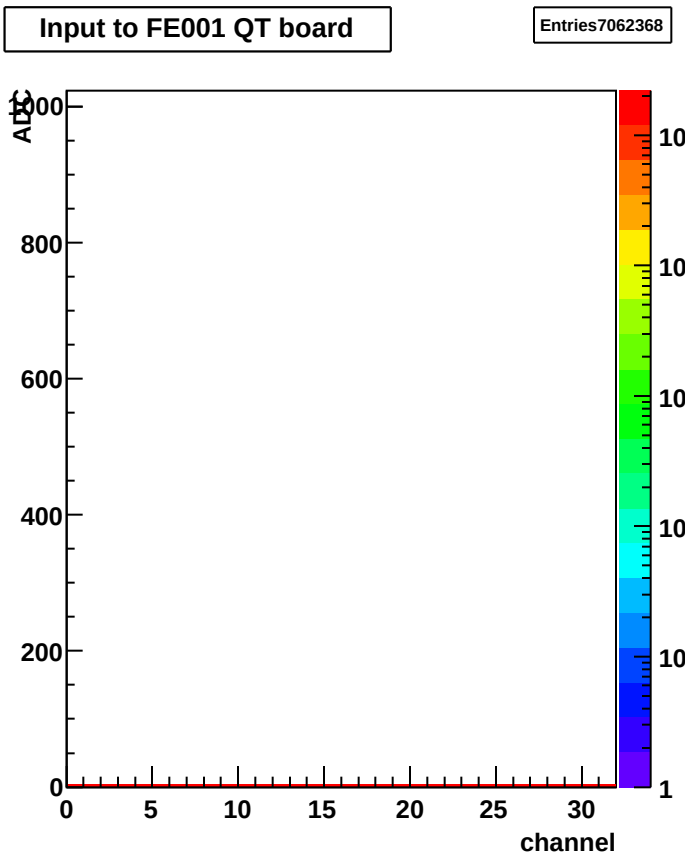

Input to FPD L2 DSM
Entries 662097
CL bits
3
1
37
11
8
1388
615
331
219274
220070
220359
SMALL
LARGE-S
LARGE-N

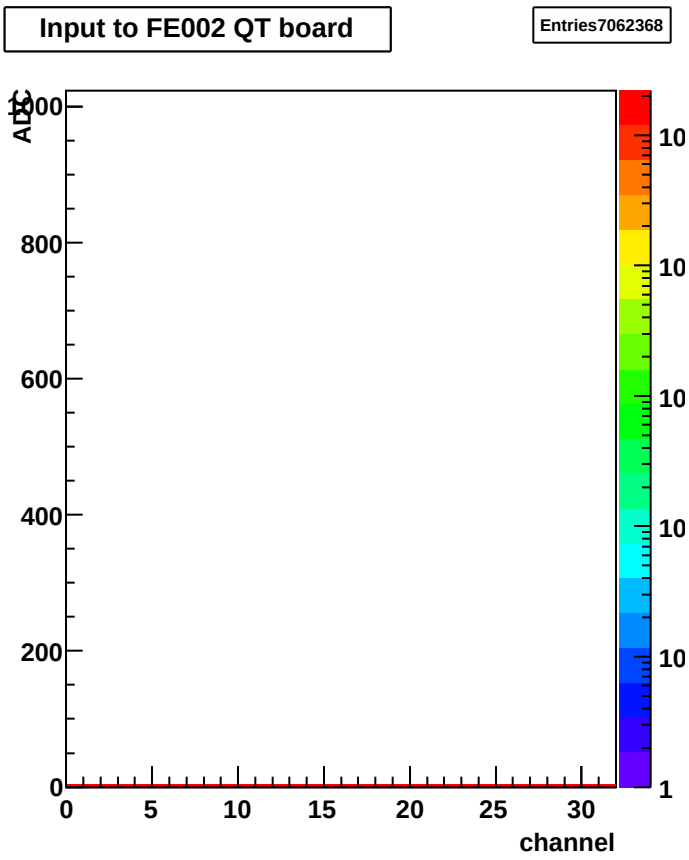

Input to FPD L2 DSM
Entries 1
CL bits - simulated
1
SMALL
LARGE-S
LARGE-N

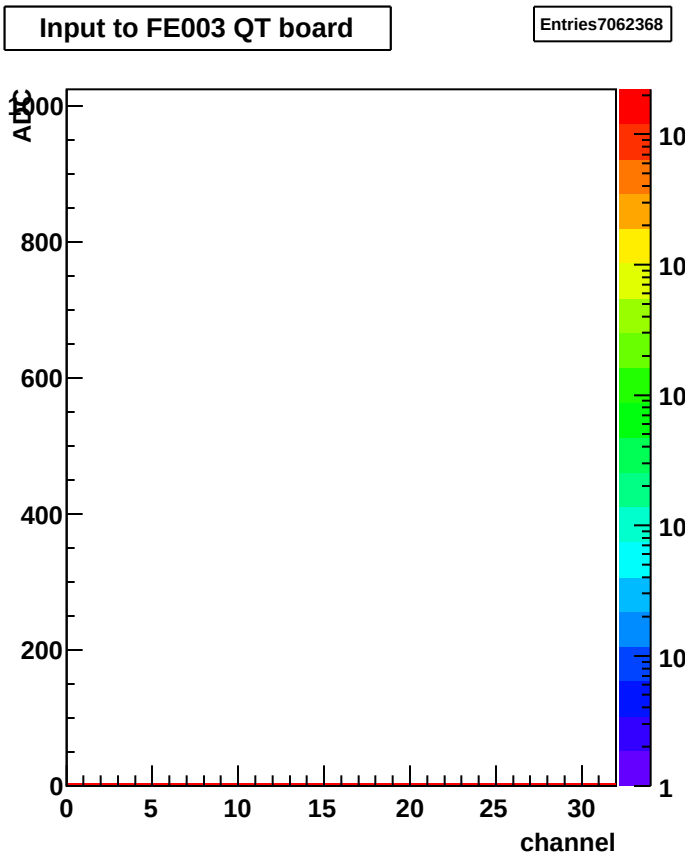

Input to FPD L2 DSM
Entries 662097
HT bits
1418
133
56
4367
12973
736
362
201941
219830
220281
SMALL
LARGE-S
LARGE-N

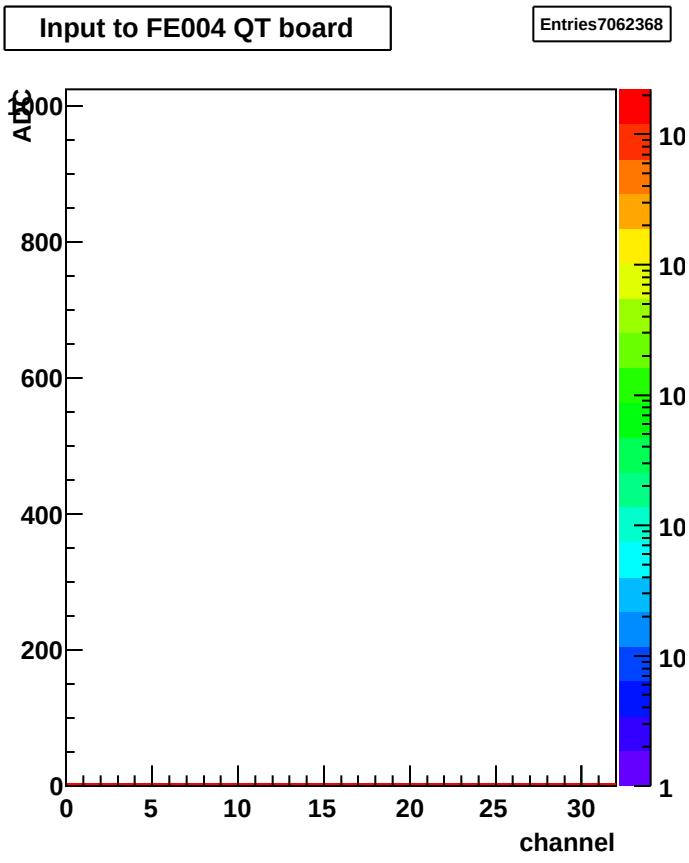

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

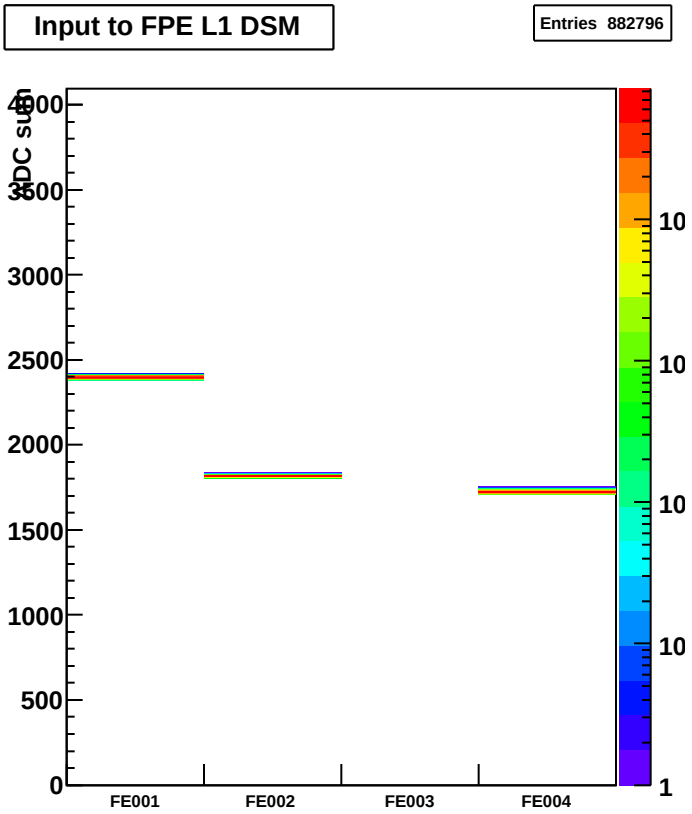

Input to FPD L2 DSM
Entries 1324194
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5


Input to FE001 QT board
Entries7062368
ADC
channel

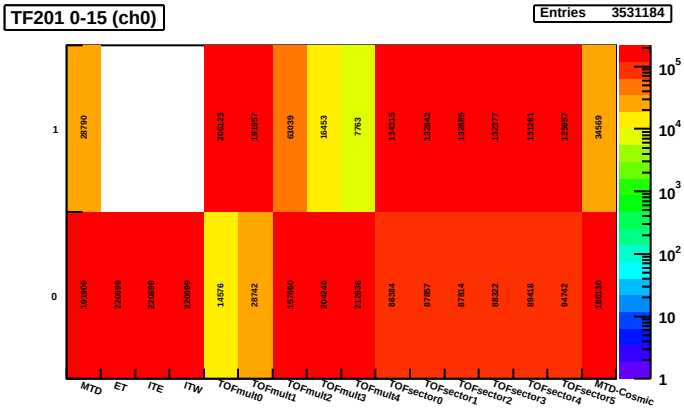

Input to FE002 QT board
Entries7062368
ADC
channel


Input to FE003 QT board
Entries7062368
ADC
channel

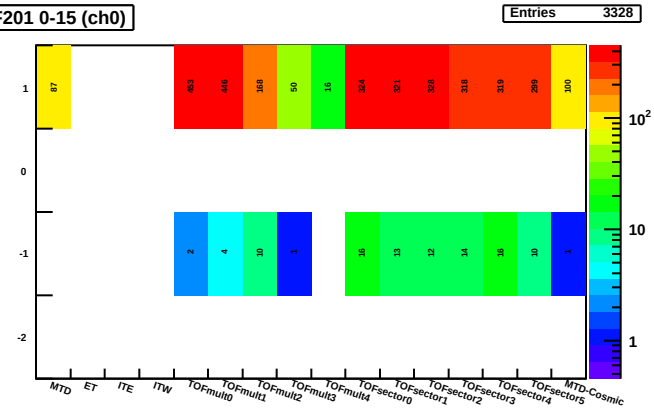

Input to FE004 QT board
Entries7062368
ADC
channel


Input to FPE L1 DSM
Entries 882796
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

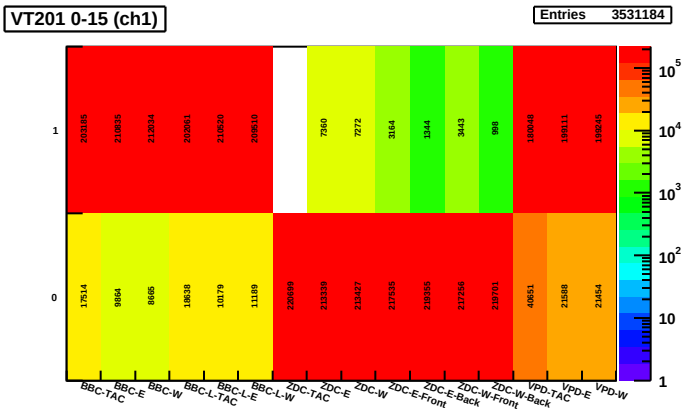
TF201 0-15 (ch0)



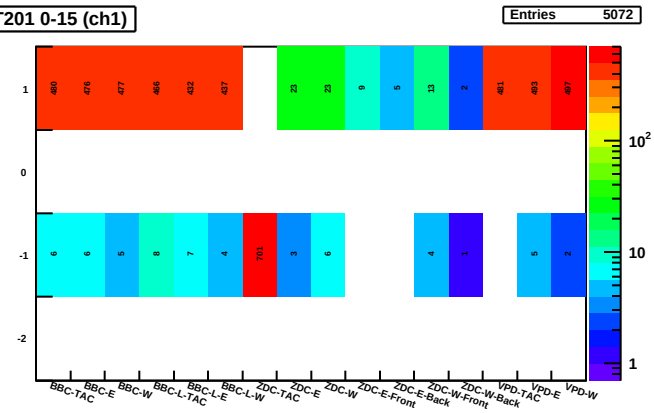
TF201 0-15 (ch0)



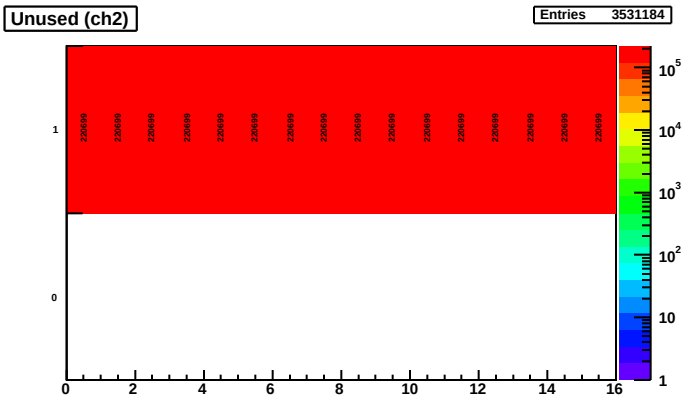
VT201 0-15 (ch1)

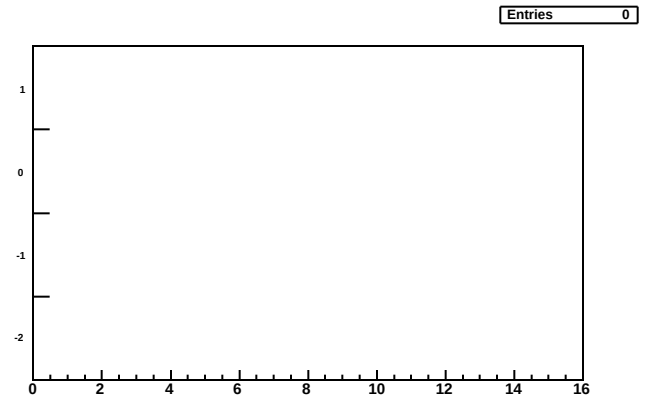


VT201 0-15 (ch1)

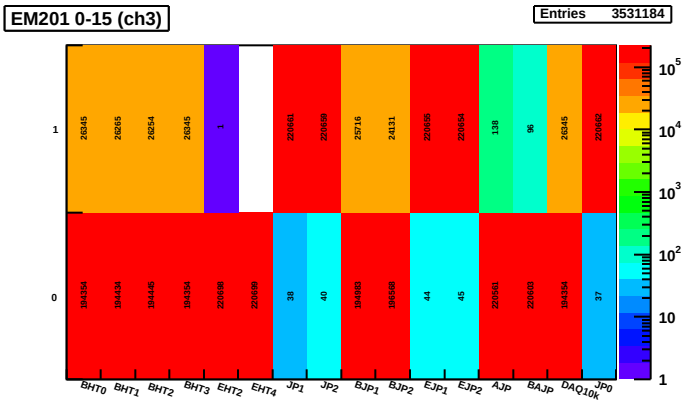


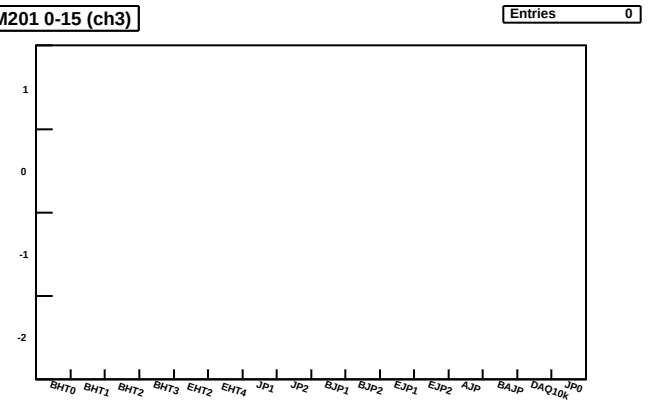
Unused (ch2)



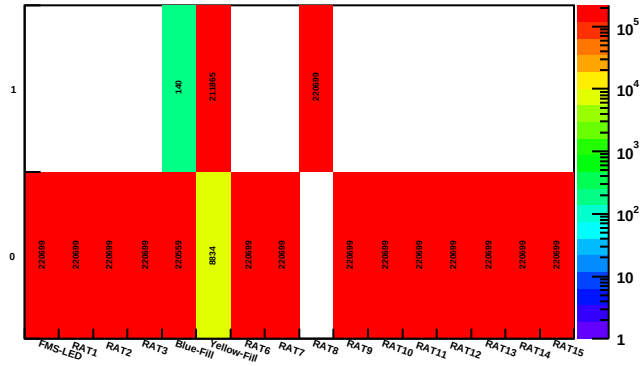


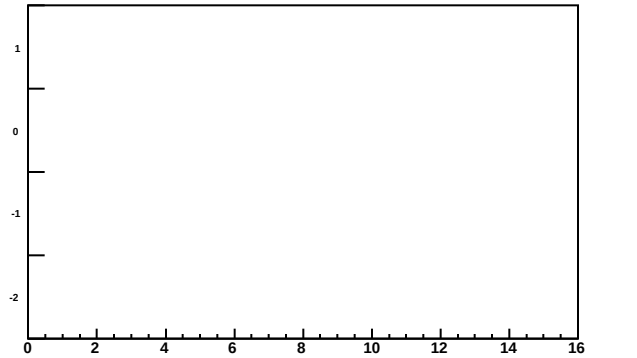
EM201 0-15 (ch3)



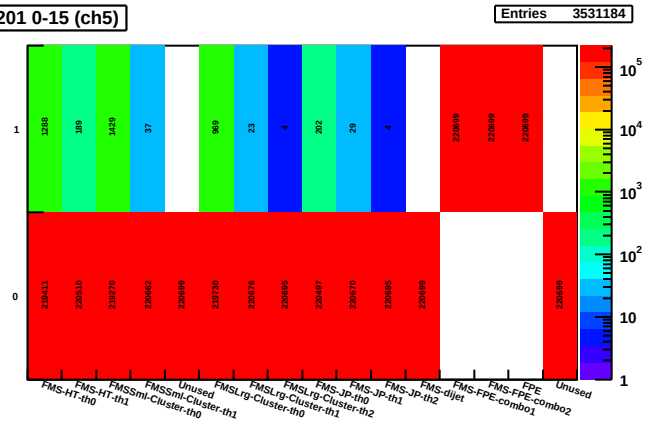


RAT board (ch4)





FP201 0-15 (ch5)



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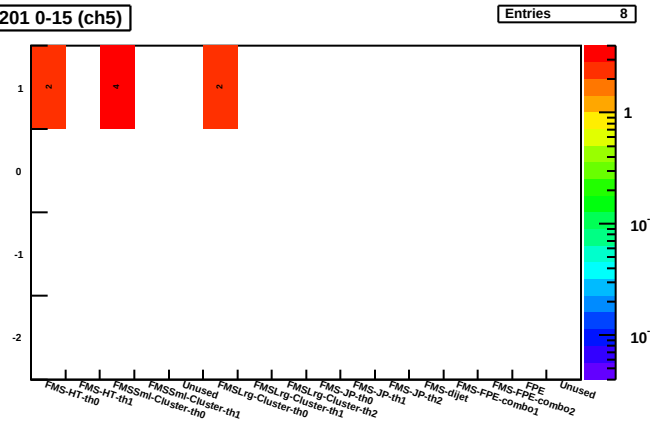
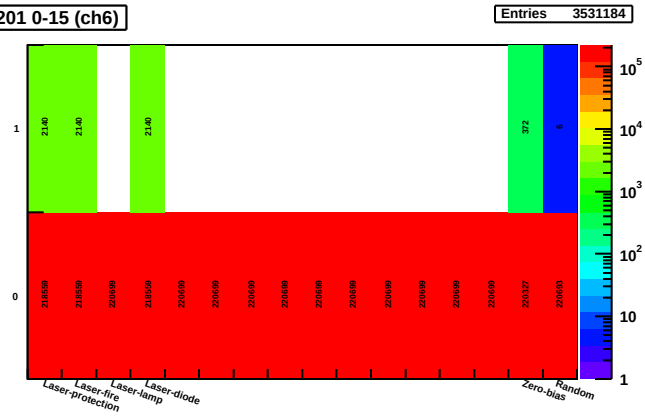
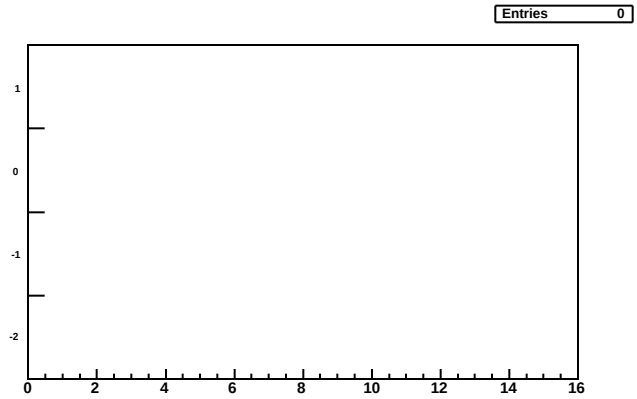
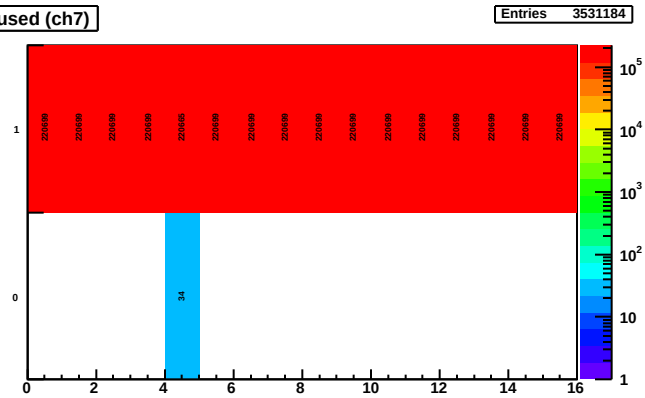
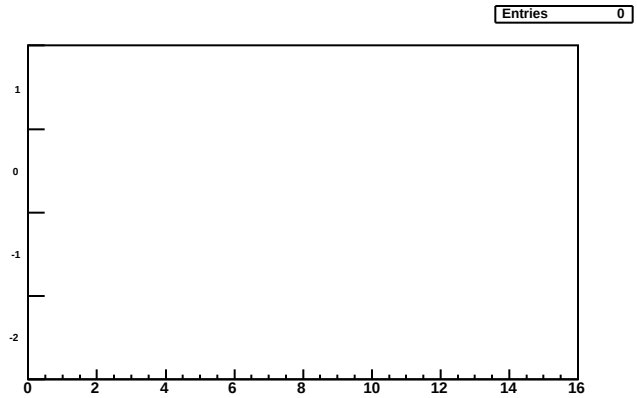


ST201 0-15 (ch6)





Unused (ch7)