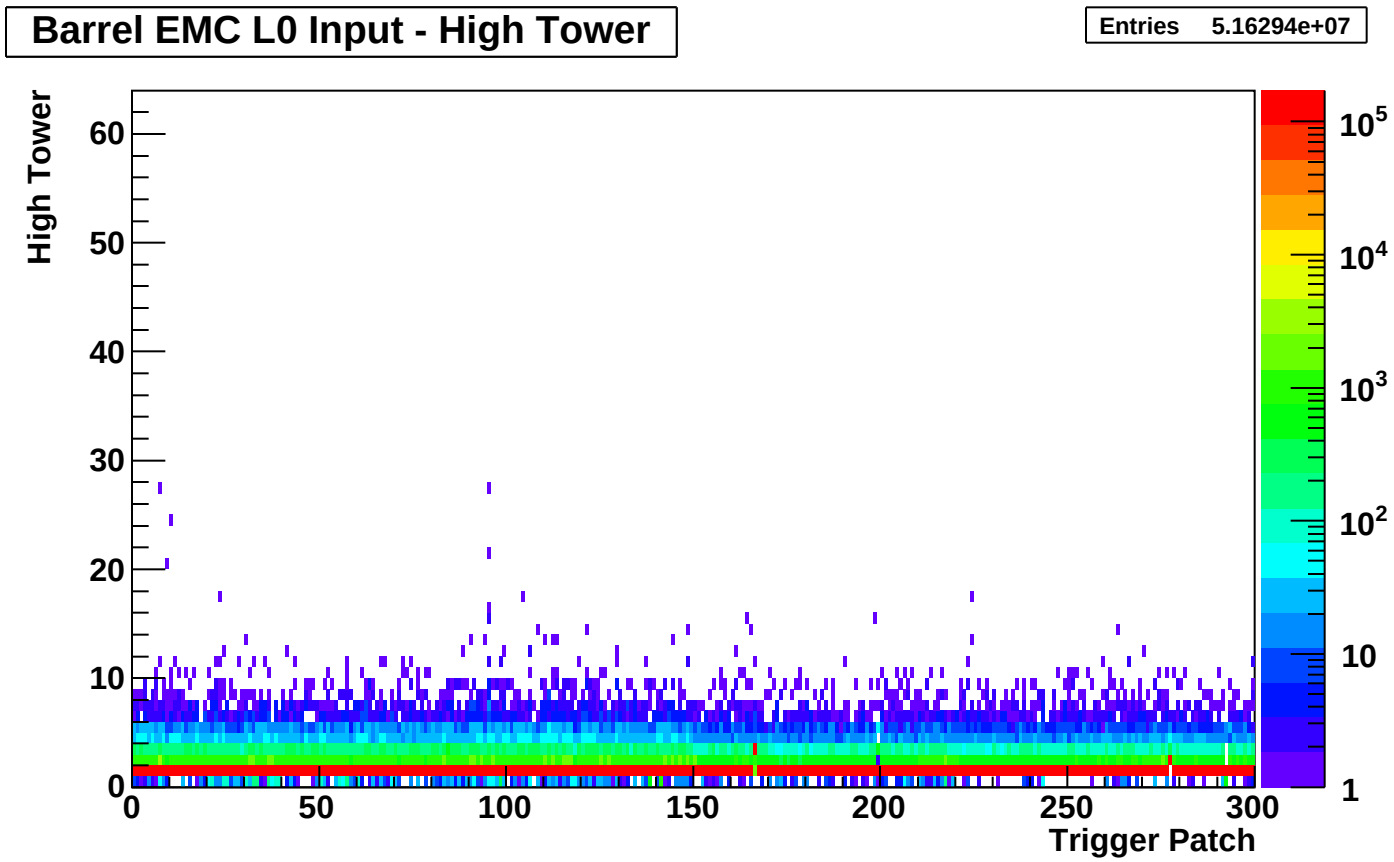
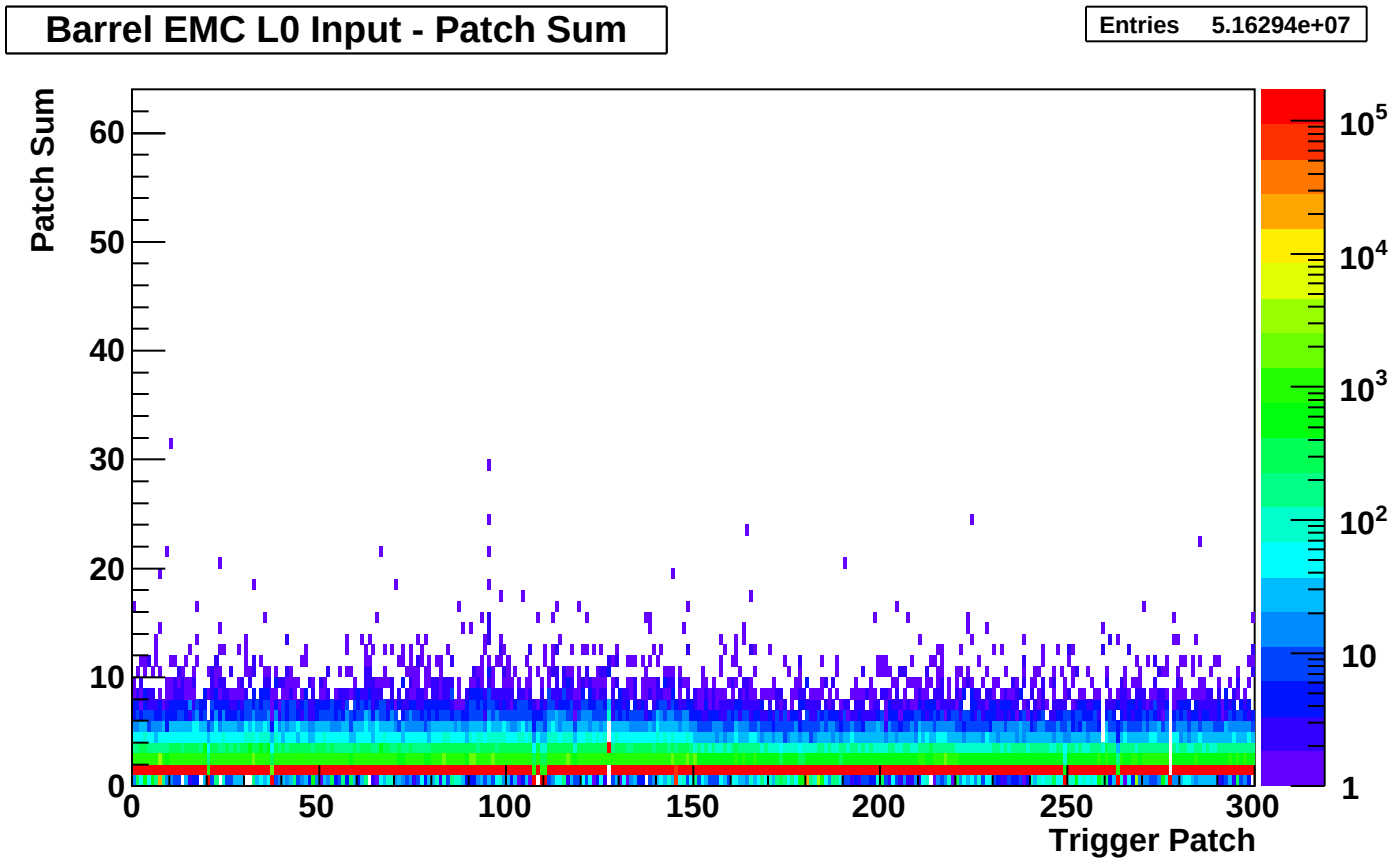
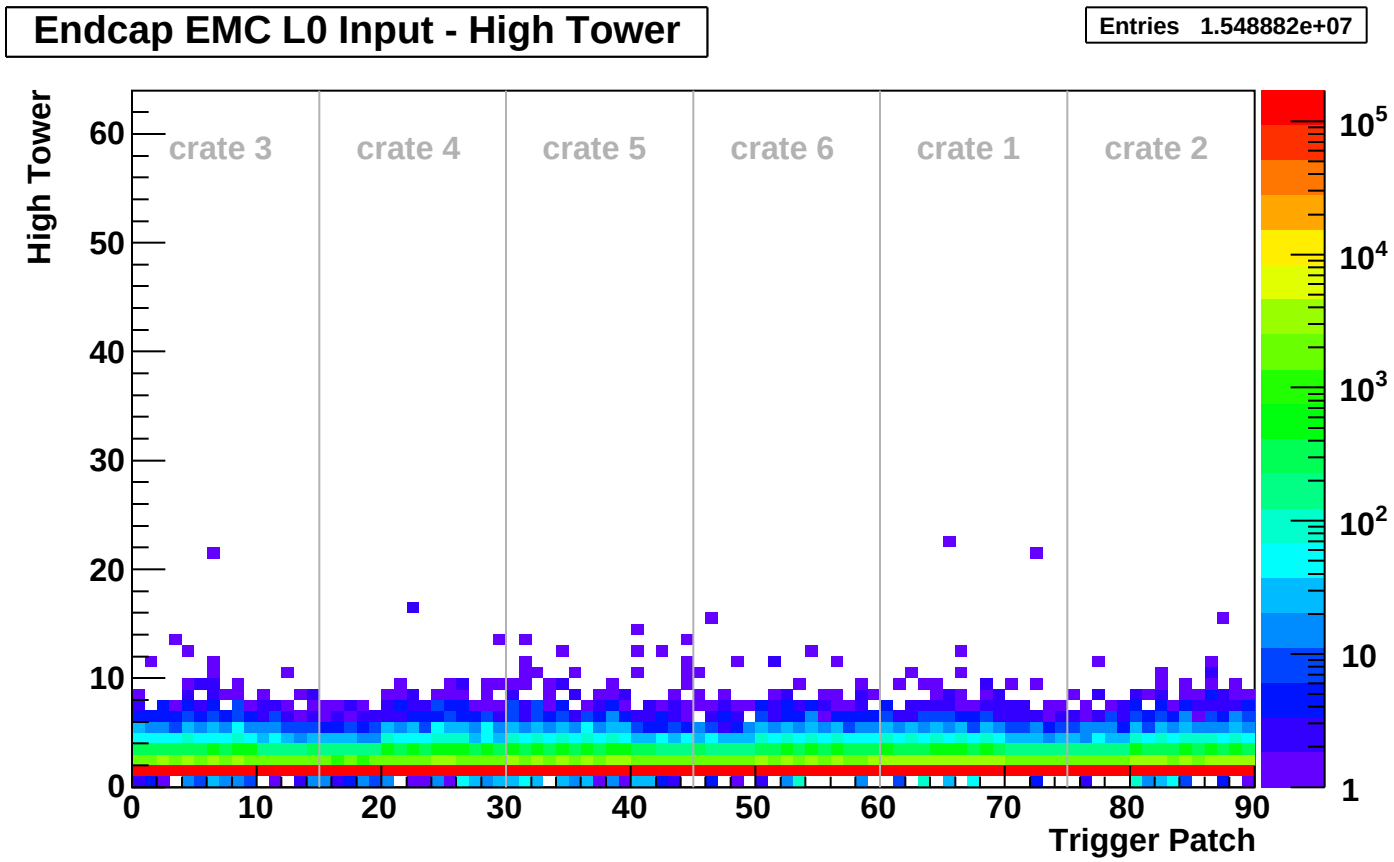
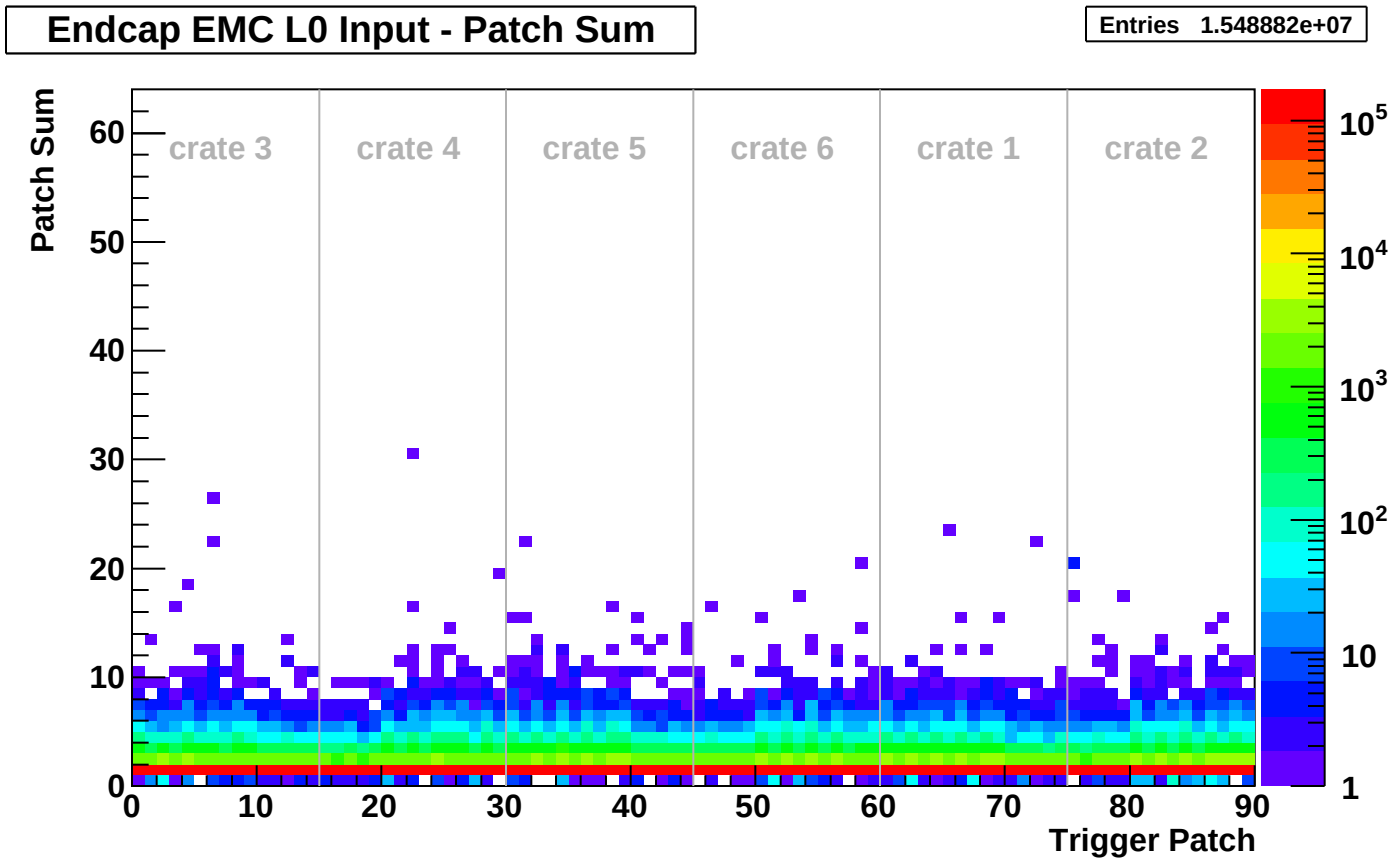
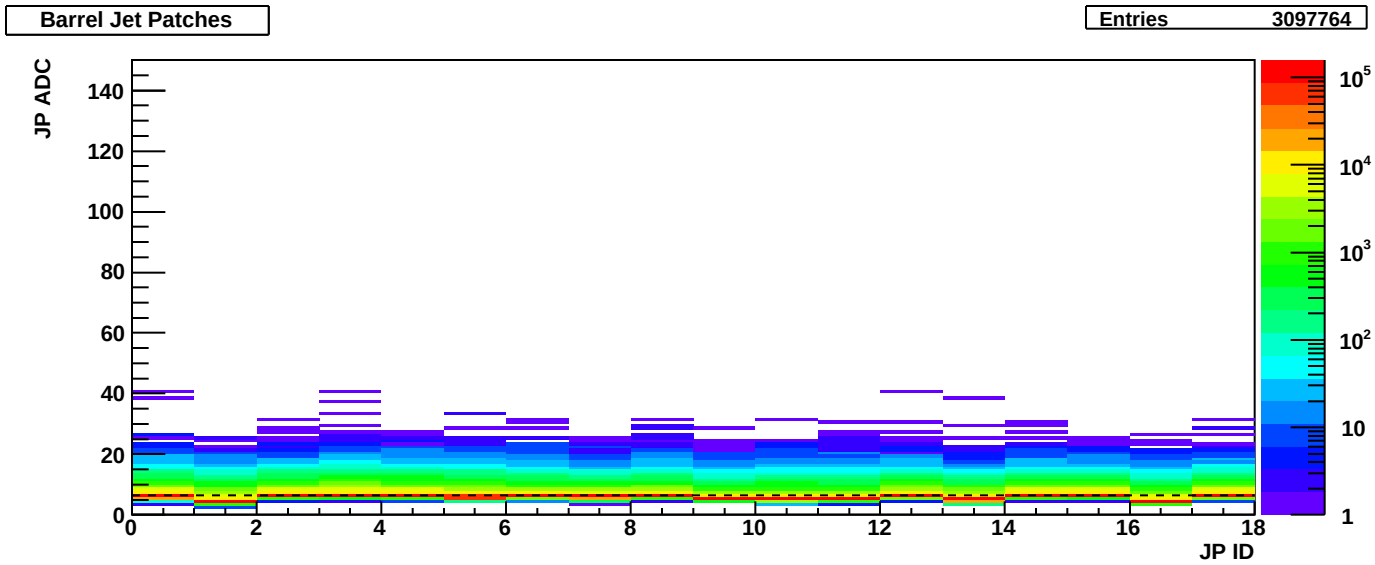
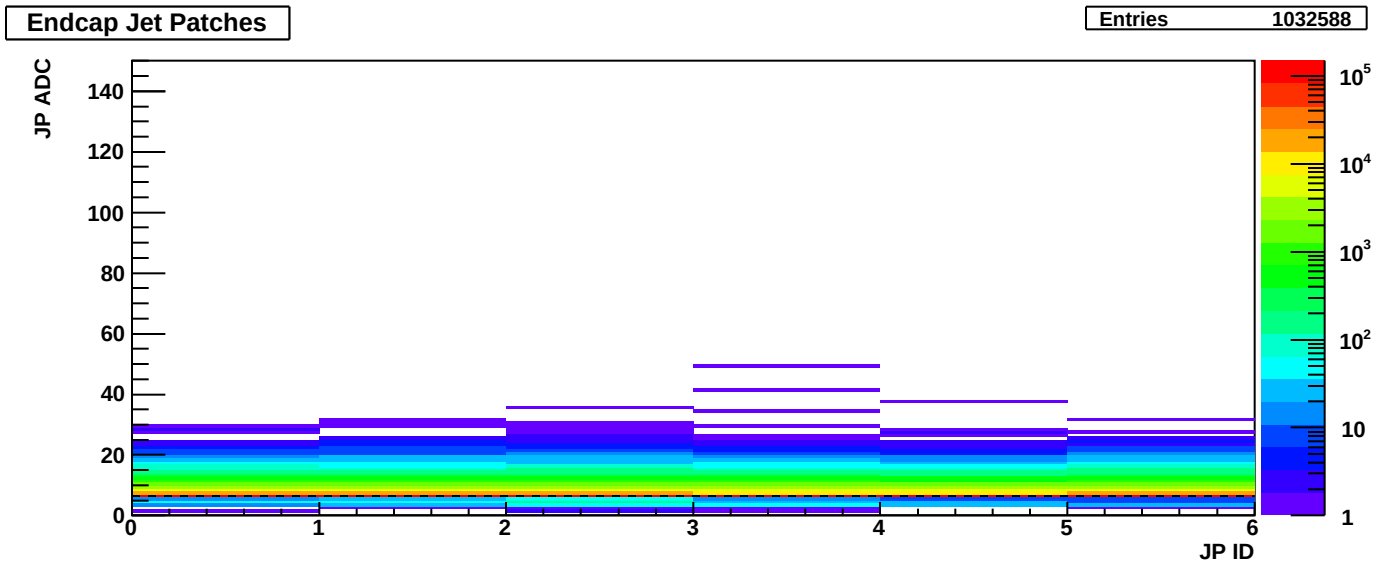

Barrel EMC L0 Input - High Tower
Entries 5.16294e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

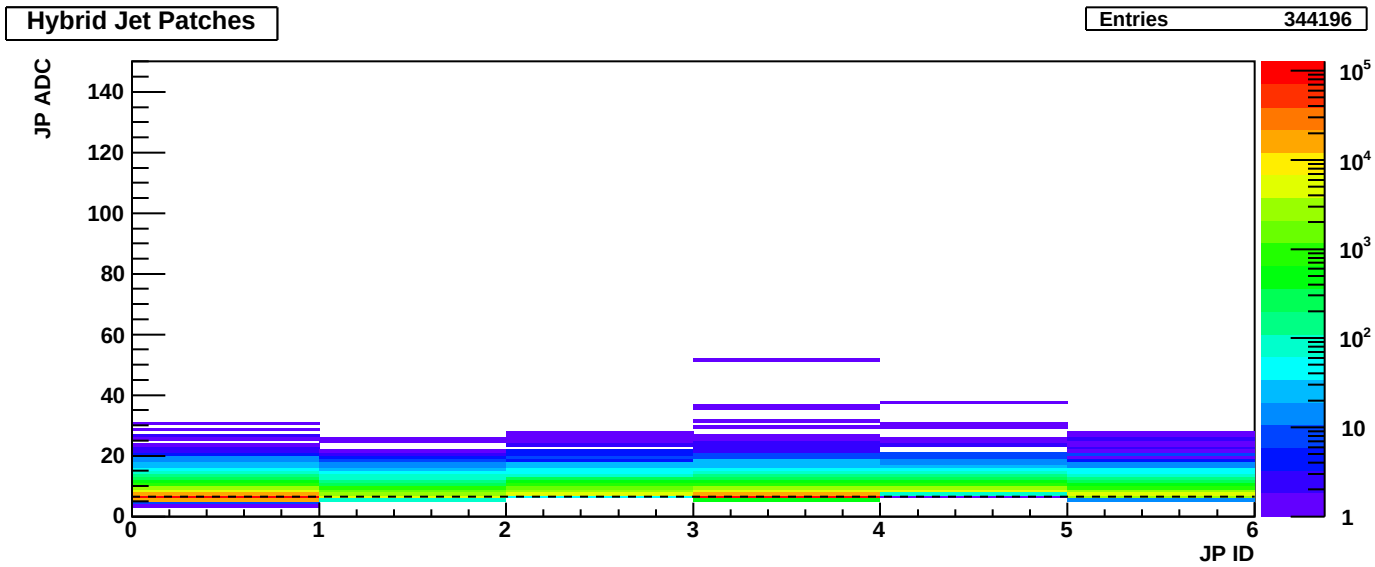

Barrel EMC L0 Input - Patch Sum
Entries 5.16294e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

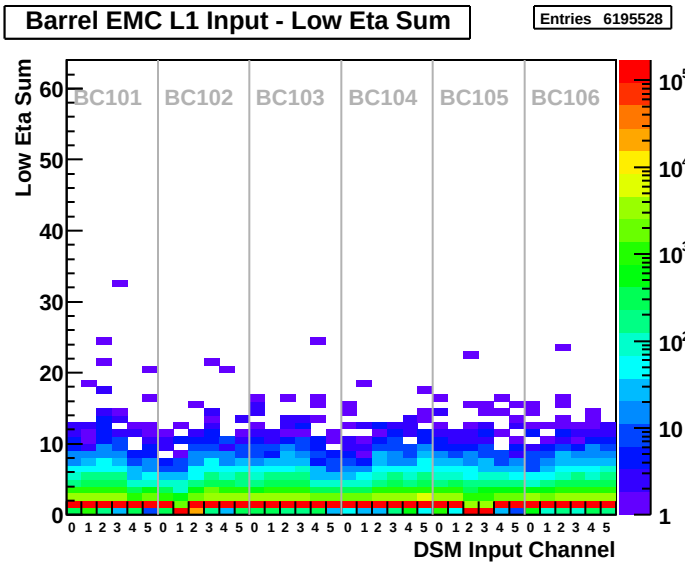

Endcap EMC L0 Input - High Tower
Entries 1.548882e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

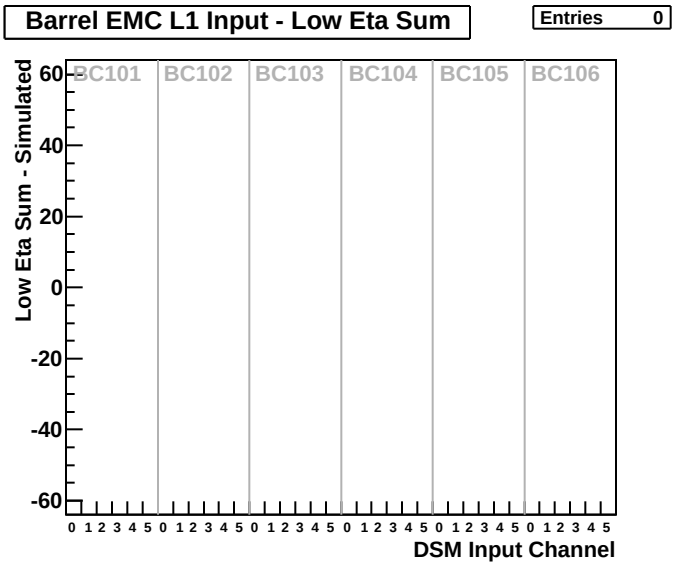

Endcap EMC L0 Input - Patch Sum
Entries 1.548882e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

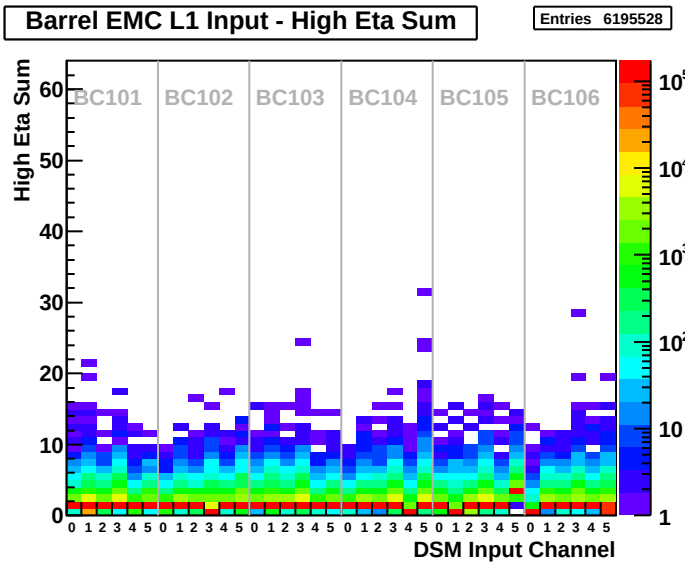

Barrel Jet Patches
Entries 3097764
JP ADC
JP ID

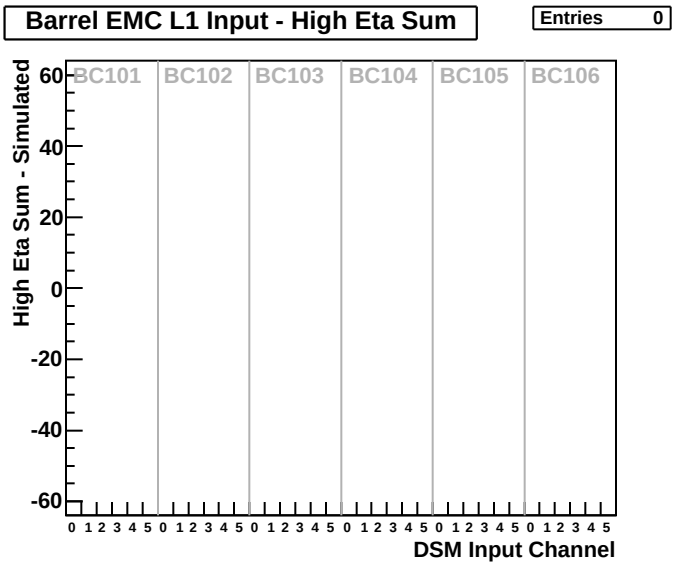

Endcap Jet Patches
Entries 1032588
JP ADC
JP ID

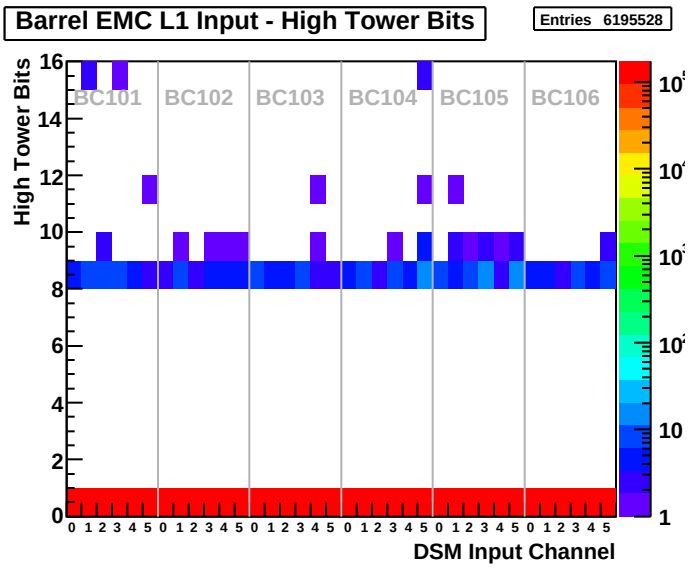

Hybrid Jet Patches
Entries 344196
JP ADC
JP ID

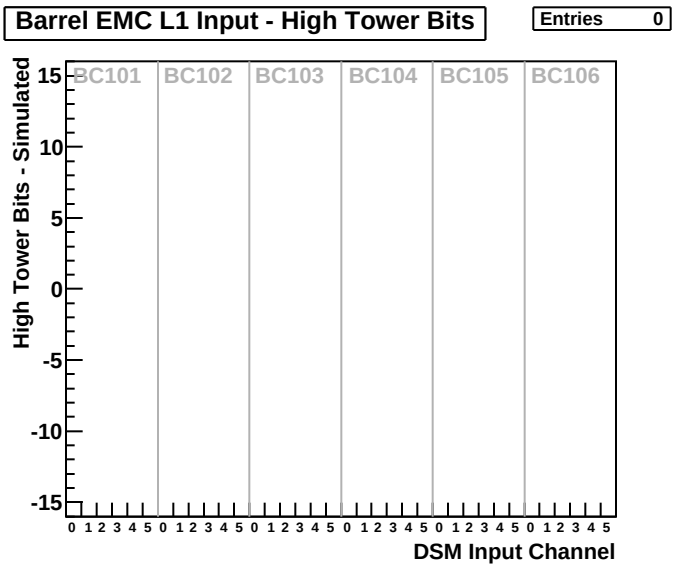

Barrel EMC L1 Input - Low Eta Sum
Entries 6195528
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

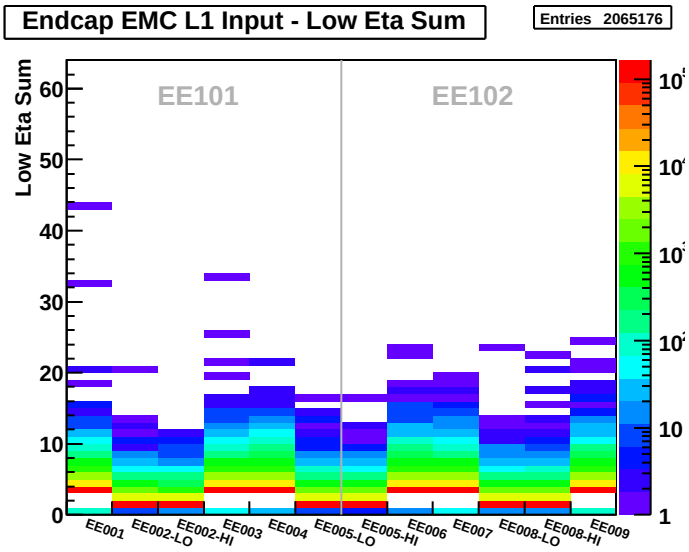

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

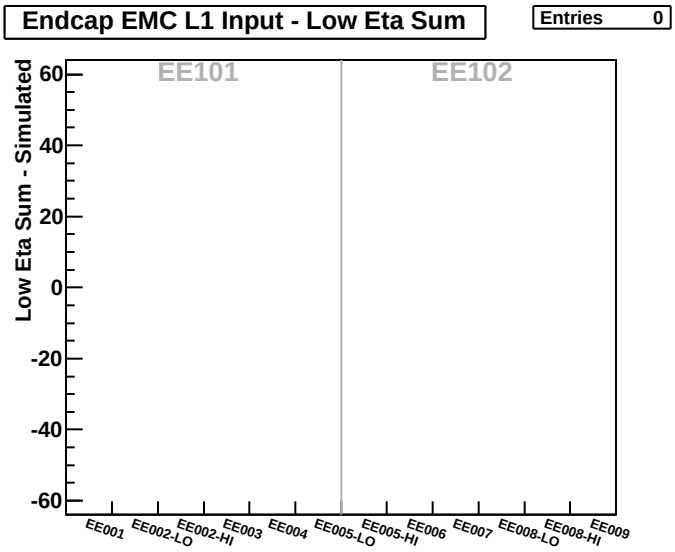

Barrel EMC L1 Input - High Eta Sum
Entries 6195528
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

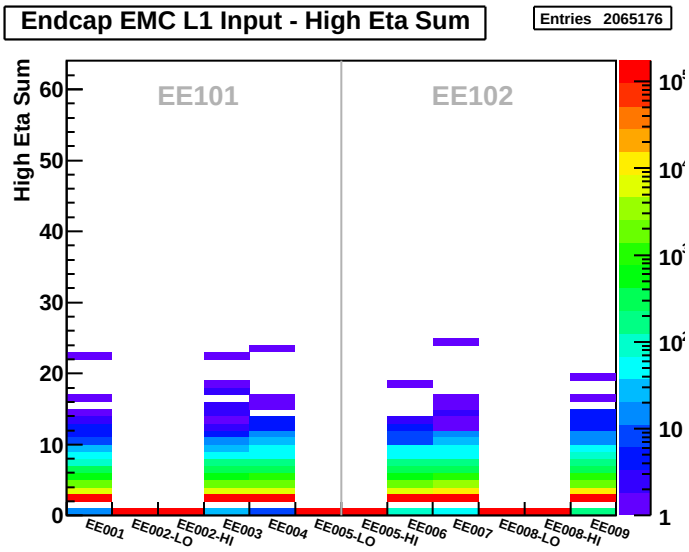

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

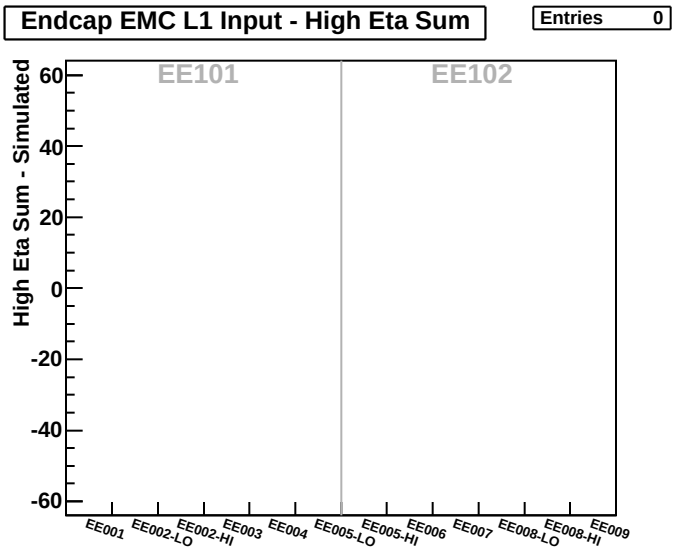

Barrel EMC L1 Input - High Tower Bits
Entries 6195528
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

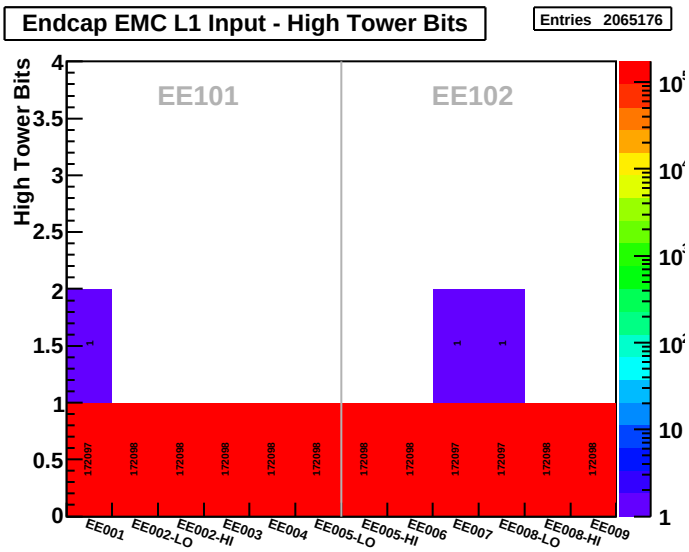

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

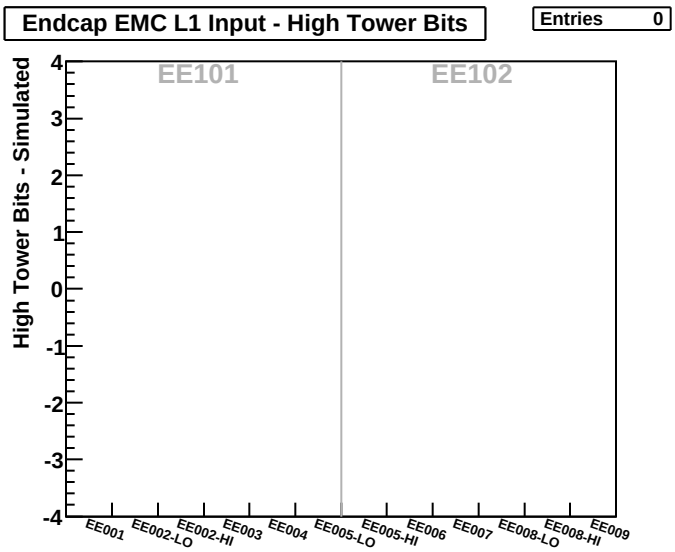

Endcap EMC L1 Input - Low Eta Sum
Entries 2065176
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

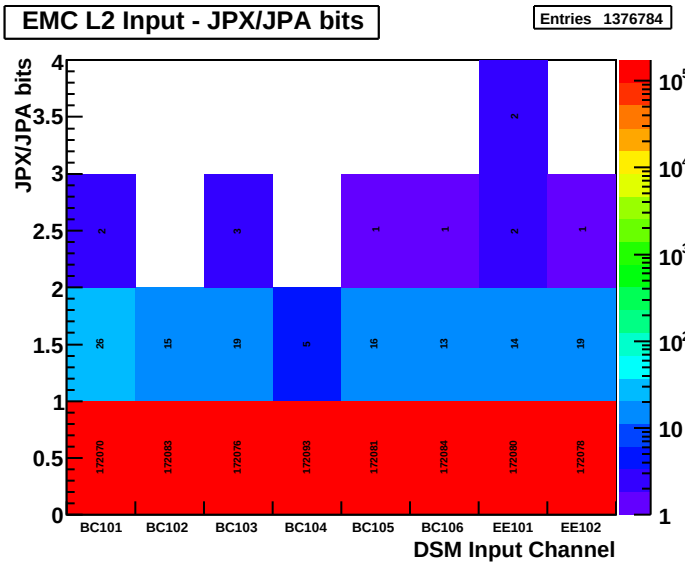

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

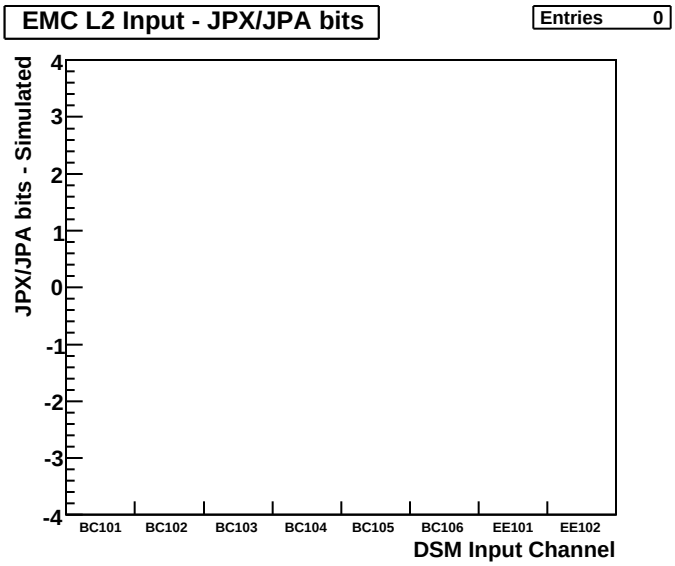

Endcap EMC L1 Input - High Eta Sum
Entries 2065176
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

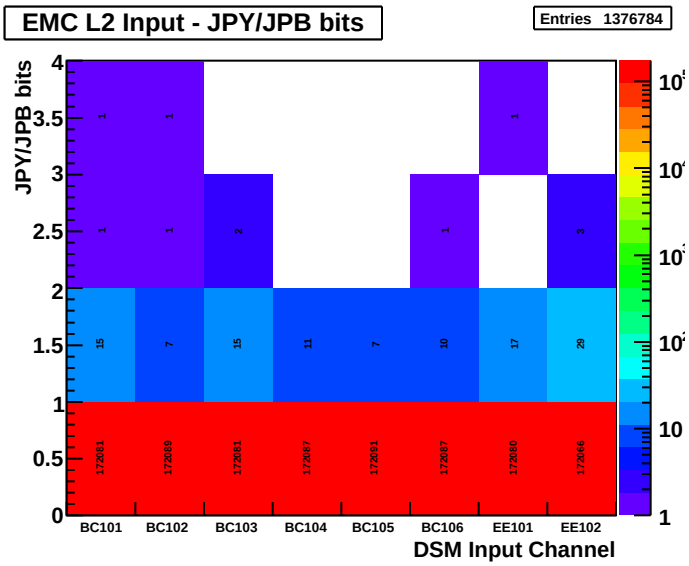

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

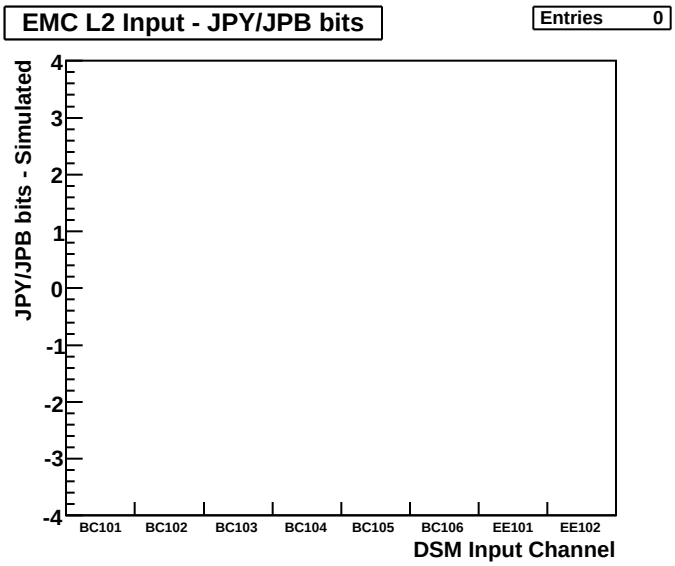

Endcap EMC L1 Input - High Tower Bits
Entries 2065176
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

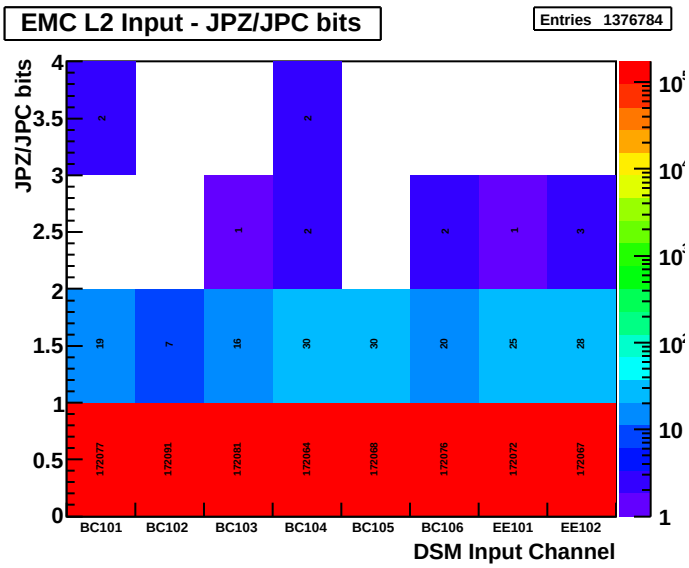

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

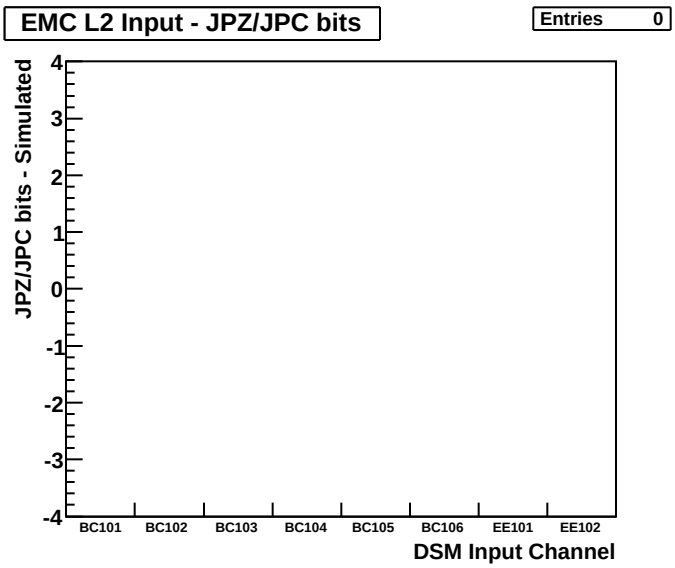

EMC L2 Input - JPX/JPA bits
Entries 1376784
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

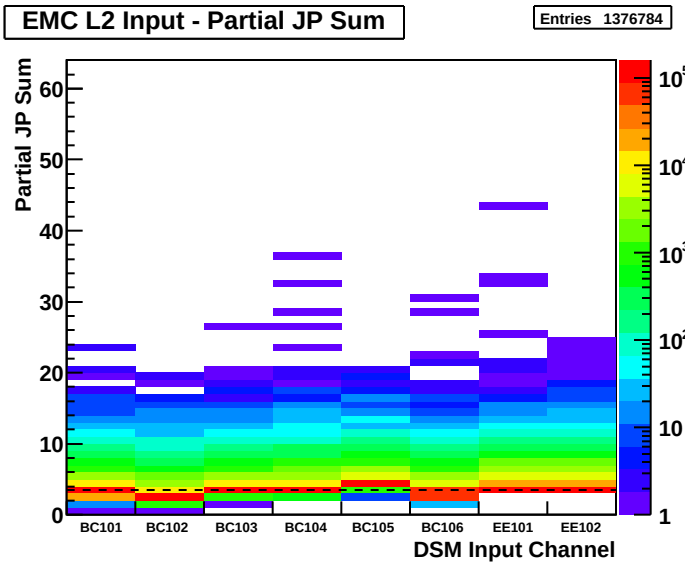

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

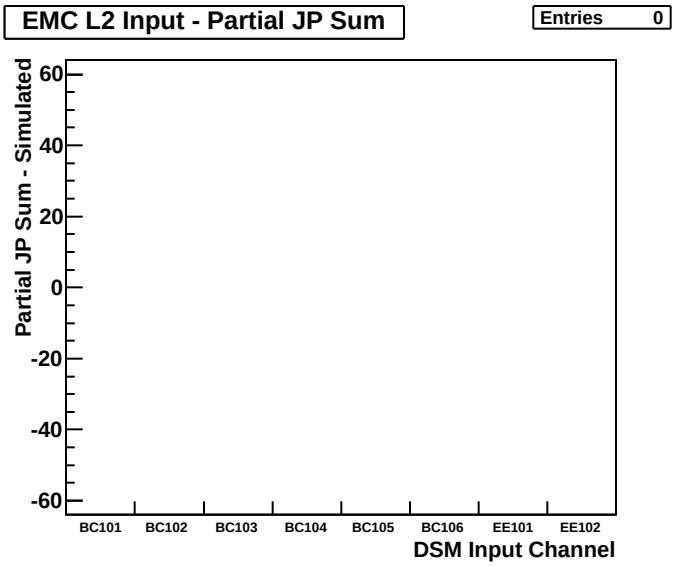

EMC L2 Input - JPY/JPB bits
Entries 1376784
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

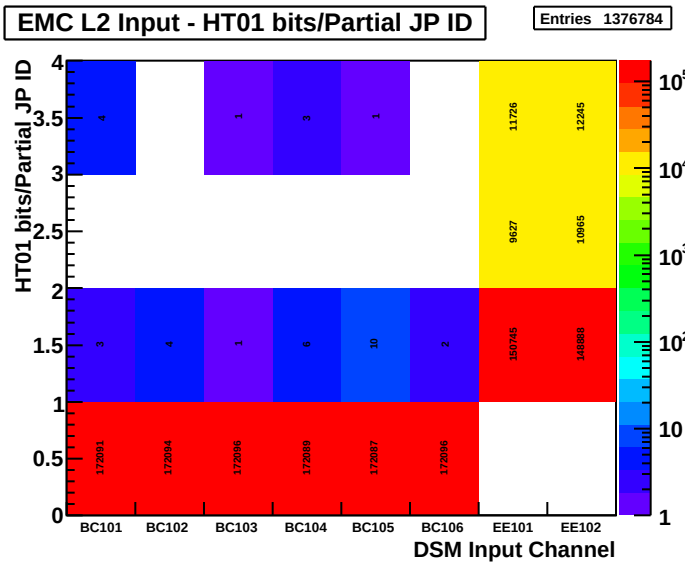

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

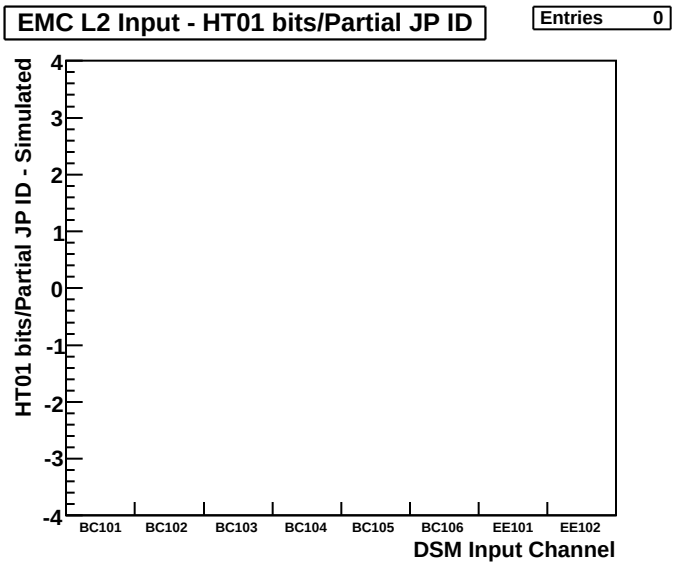

EMC L2 Input - JPZ/JPC bits
Entries 1376784
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

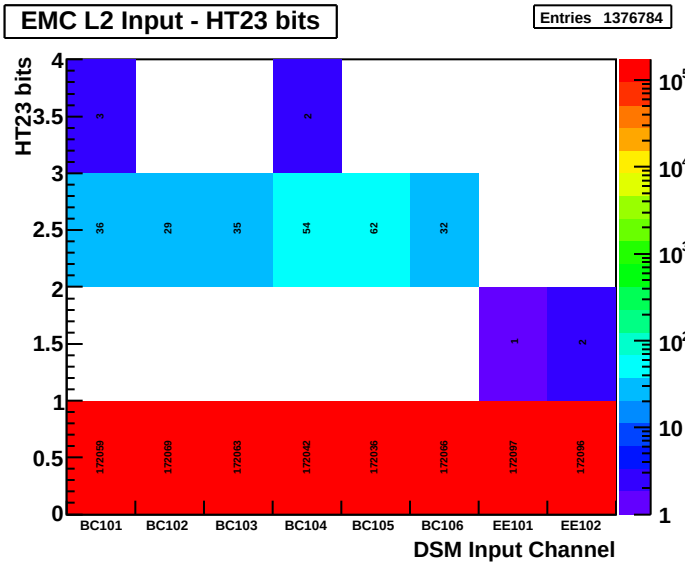

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

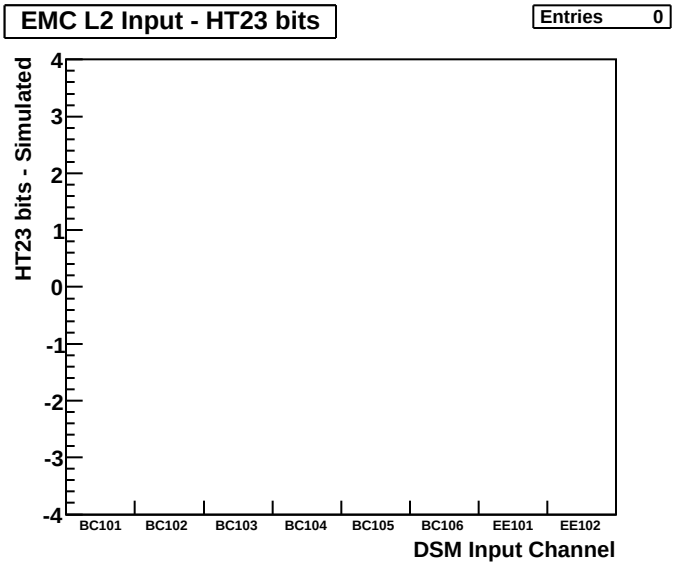

EMC L2 Input - Partial JP Sum
Entries 1376784
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

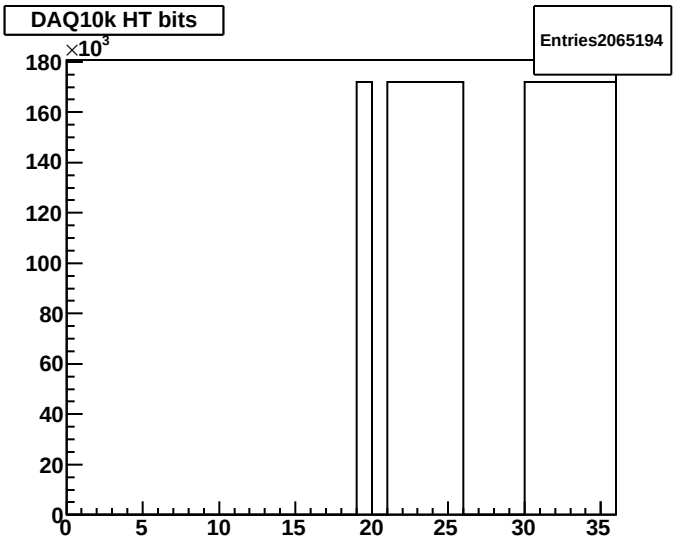

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

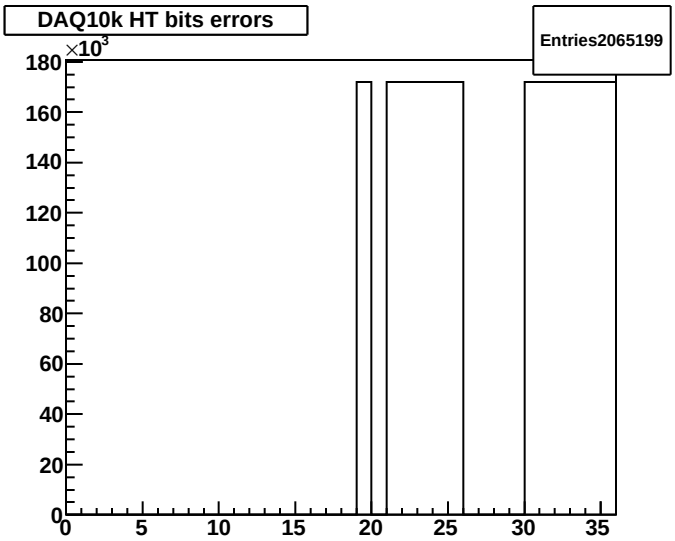

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1376784
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

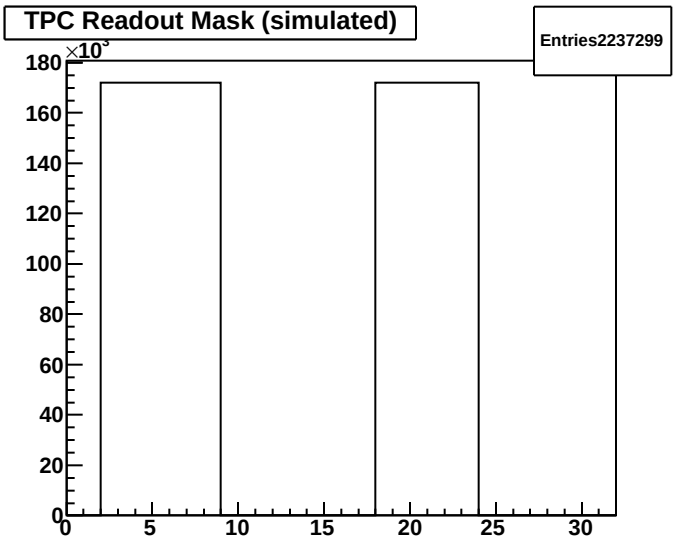

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

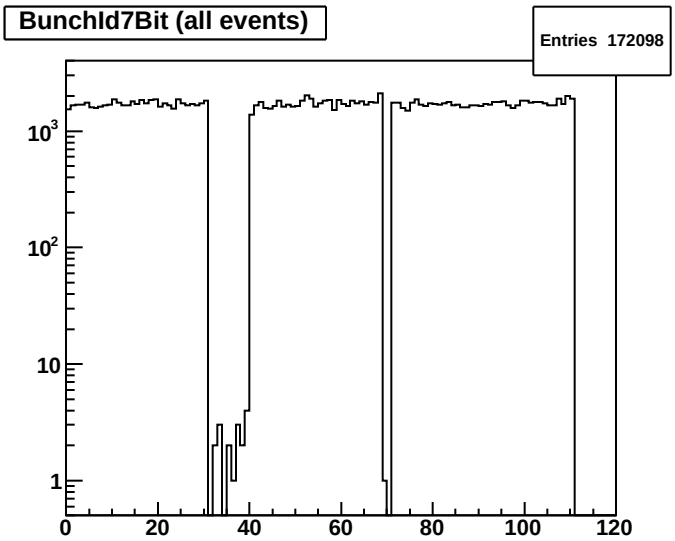

EMC L2 Input - HT23 bits
Entries 1376784
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

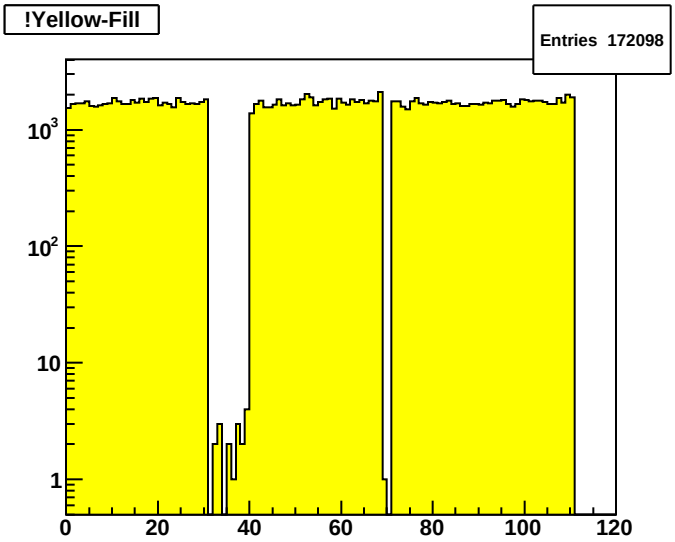

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

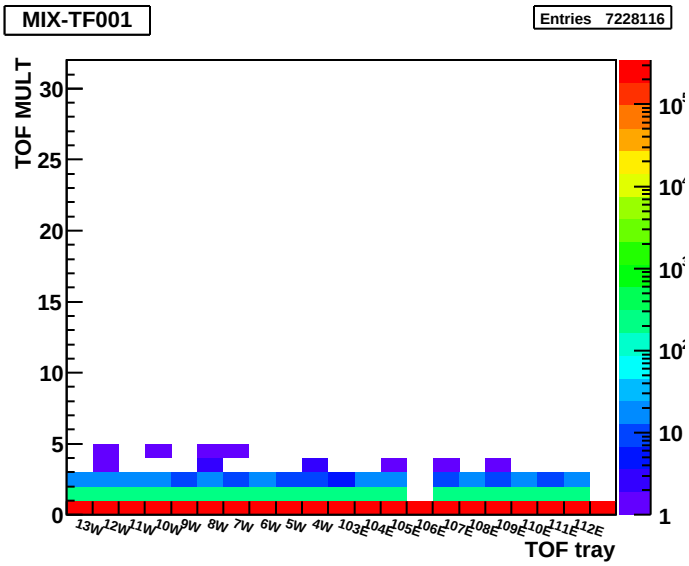

DAQ10k HT bits
Entries2065194
×10^3
180
160
140
120
100
80
60
40
20
0
0
5
10
15
20
25
30
35

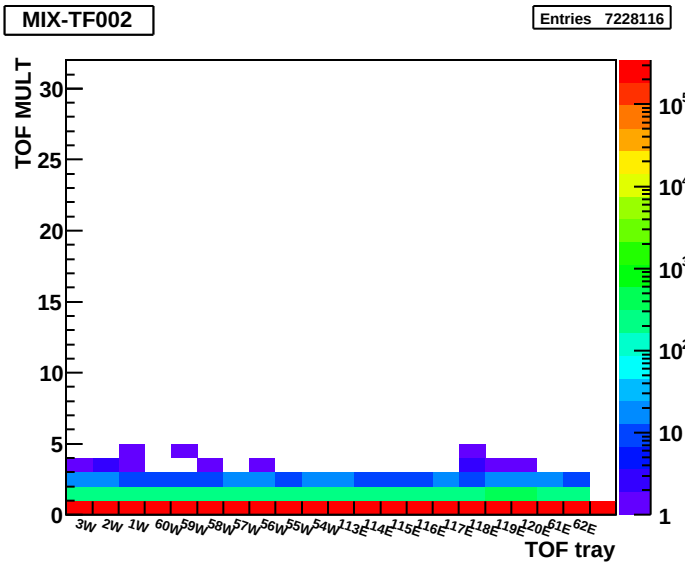

DAQ10k HT bits errors
Entries2065199
×10^3
180
160
140
120
100
80
60
40
20
0
0
5
10
15
20
25
30
35

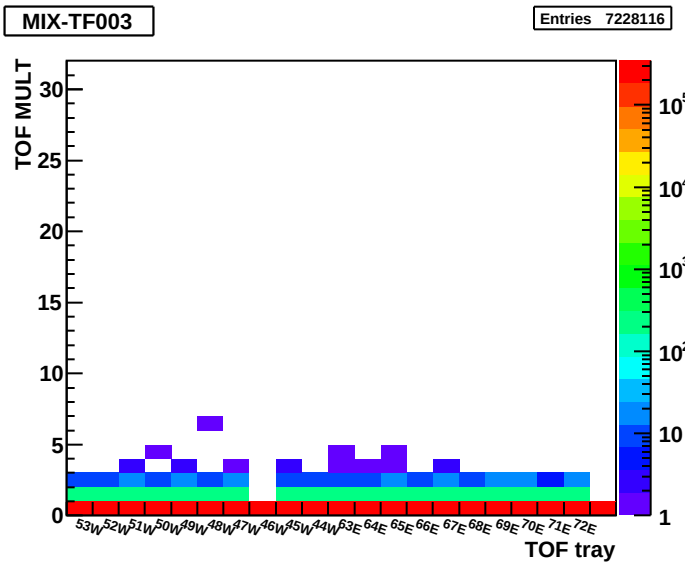

TPC Readout Mask (simulated)
Entries2237299
×10^3
180
160
140
120
100
80
60
40
20
0
0
5
10
15
20
25
30

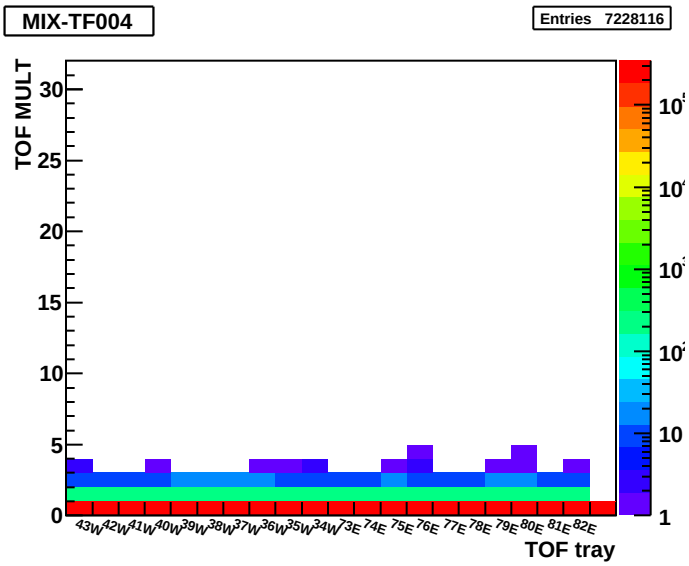

BunchId7Bit (all events)
Entries 172098
10^3
10^2
10
1
0
20
40
60
80
100
120

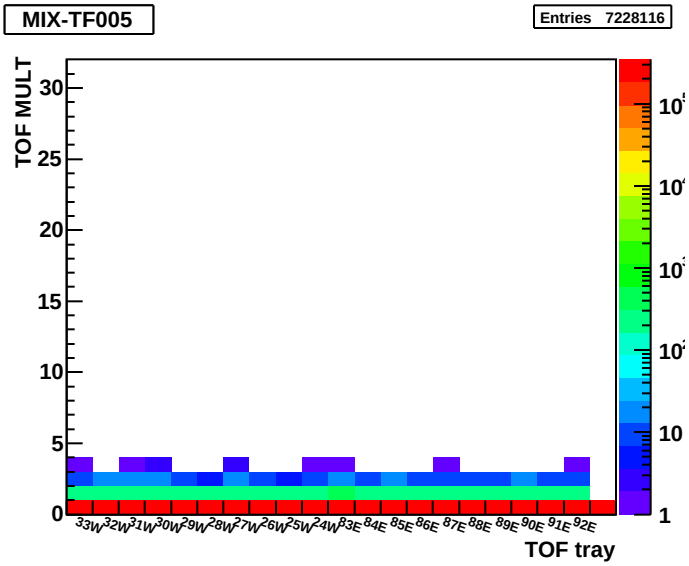

!Yellow-Fill
Entries 172098
10^3
10^2
10
1
0
20
40
60
80
100
120

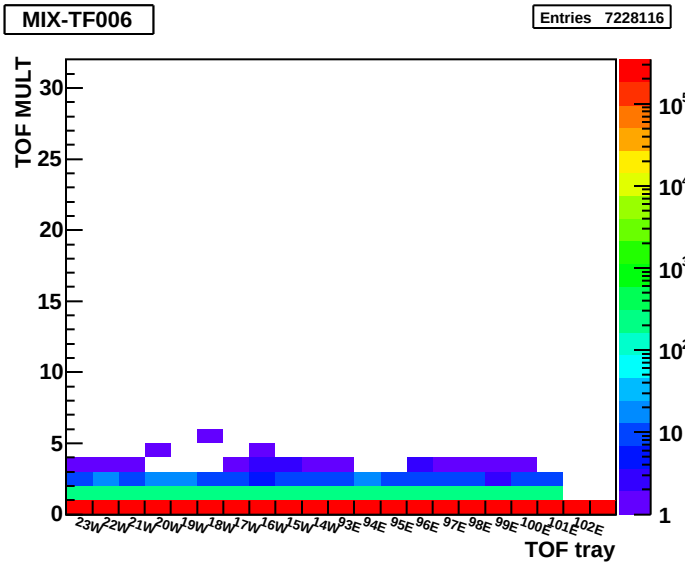

MIX-TF001
Entries 7228116
TOF MULT
TOF tray

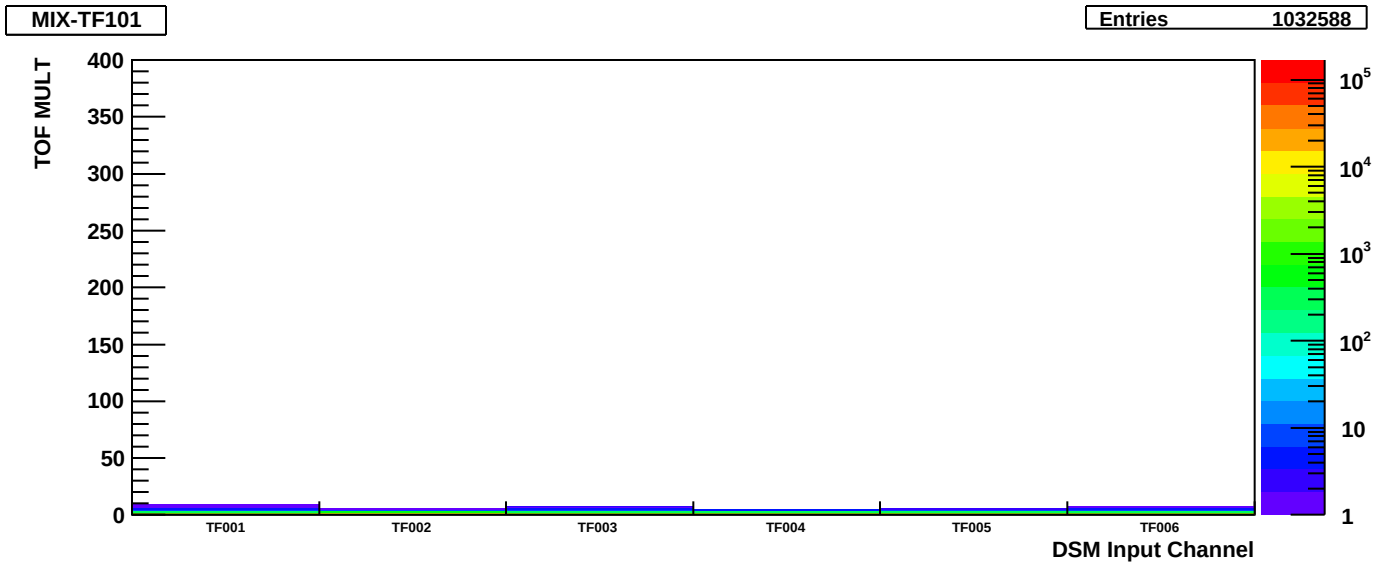

MIX-TF002
Entries 7228116
TOF MULT
TOF tray

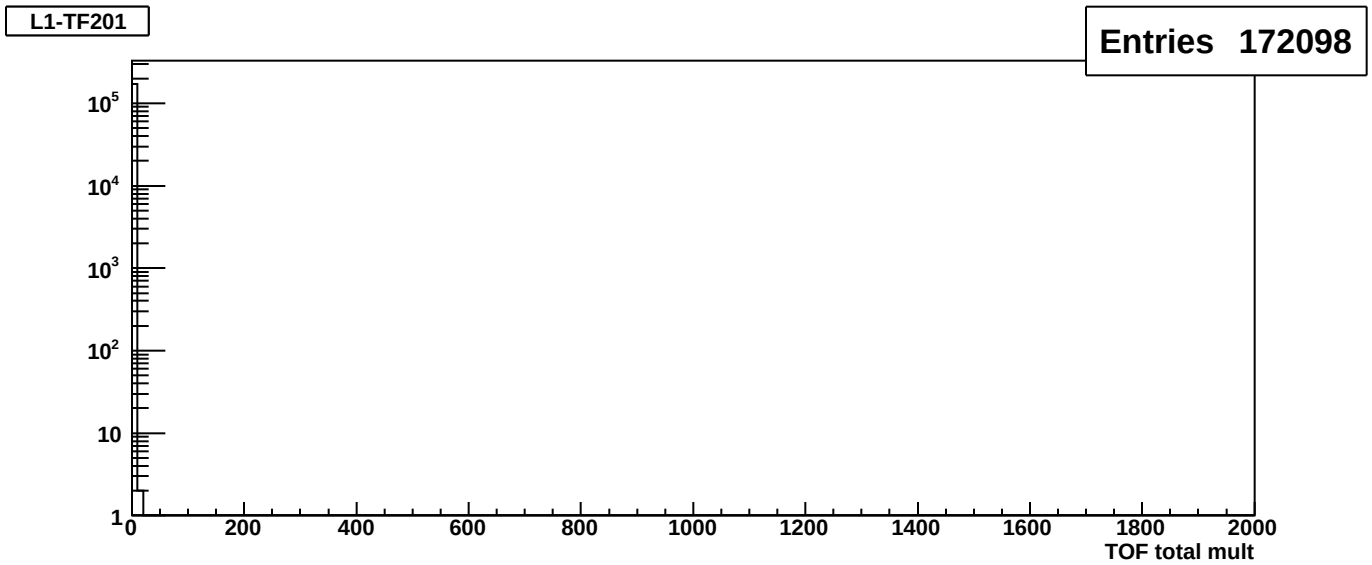

MIX-TF003
Entries 7228116
TOF MULT
TOF tray

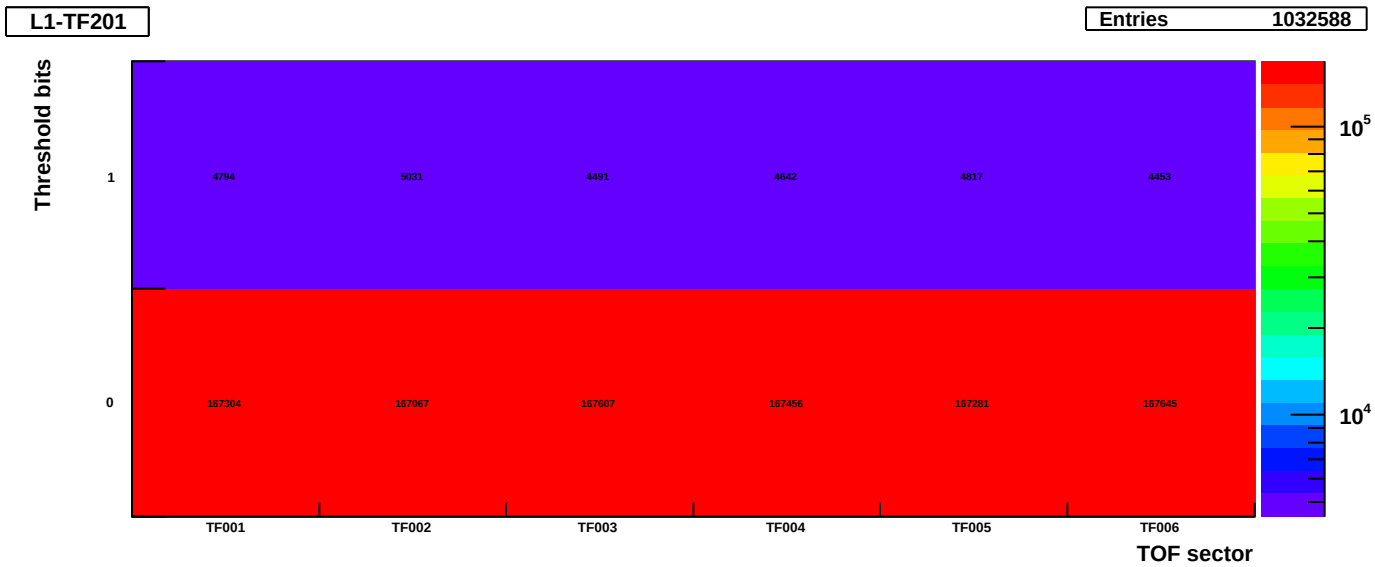

MIX-TF004
Entries 7228116
TOF MULT
TOF tray

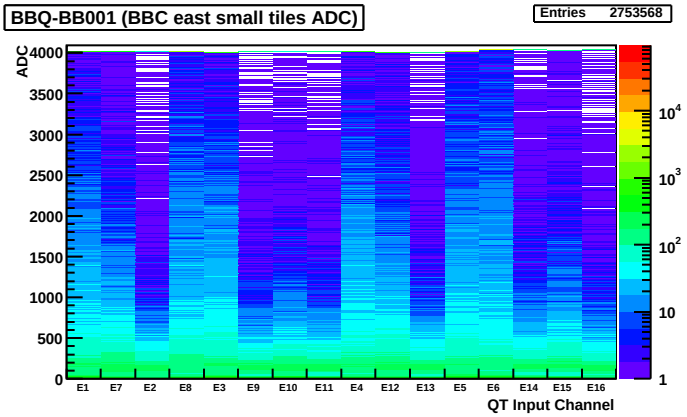

MIX-TF005
Entries 7228116
TOF MULT
TOF tray

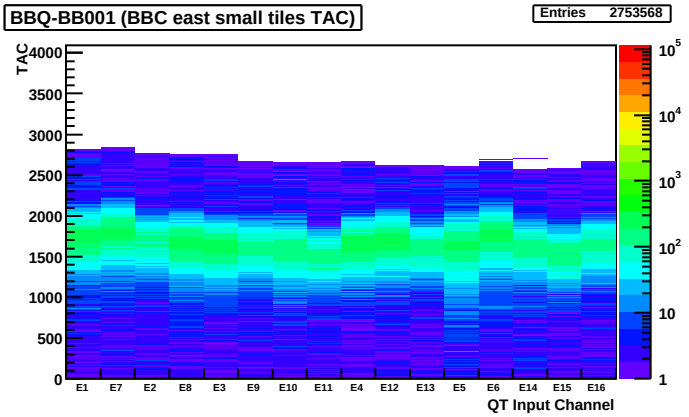

MIX-TF006
Entries 7228116
TOF MULT
TOF tray

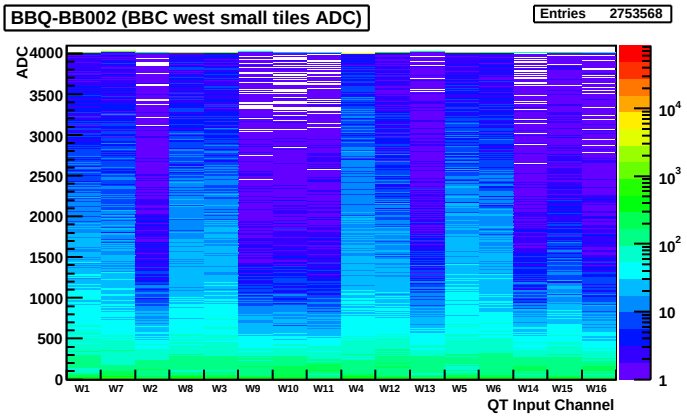

MIX-TF101
Entries 1032588
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

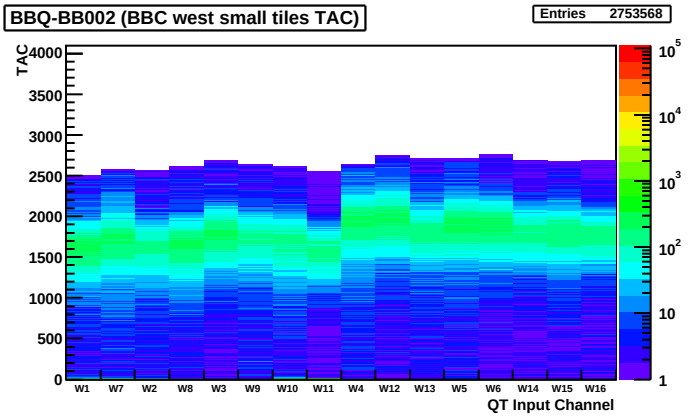

L1-TF201
Entries 172098
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

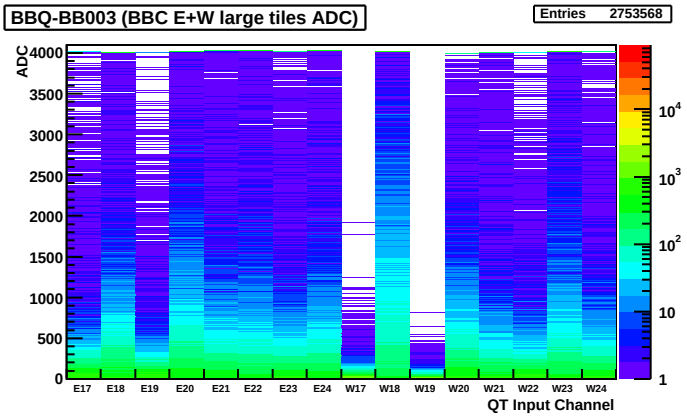

L1-TF201
Entries 1032588
Threshold bits
1
0
4794
5031
4491
4642
4817
4453
167304
167067
167607
167456
167281
167645
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5
10^4

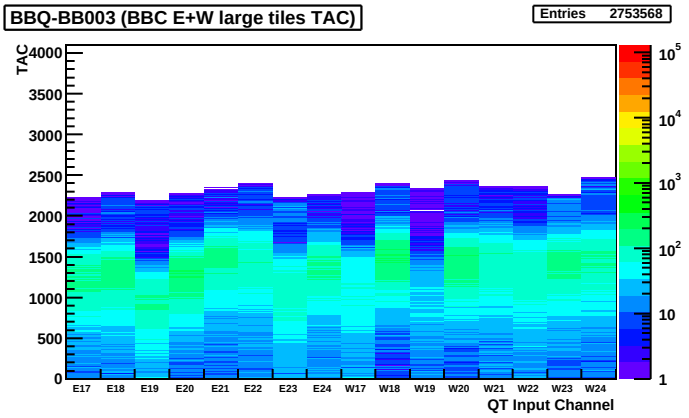

BBQ-BB001 (BBC east small tiles ADC)
Entries 2753568
ADC
QT Input Channel

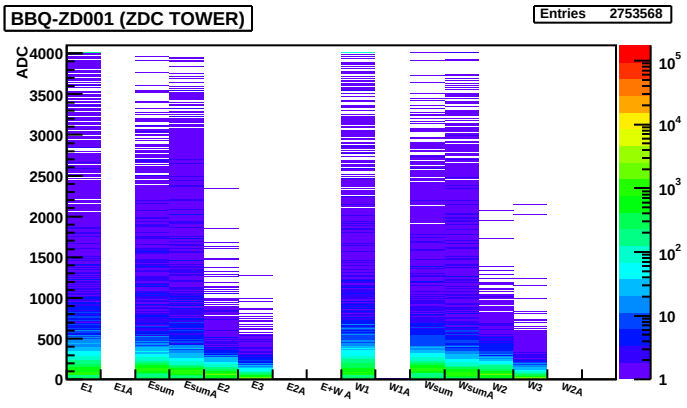

BBQ-BB001 (BBC east small tiles TAC)
Entries 2753568
TAC
QT Input Channel

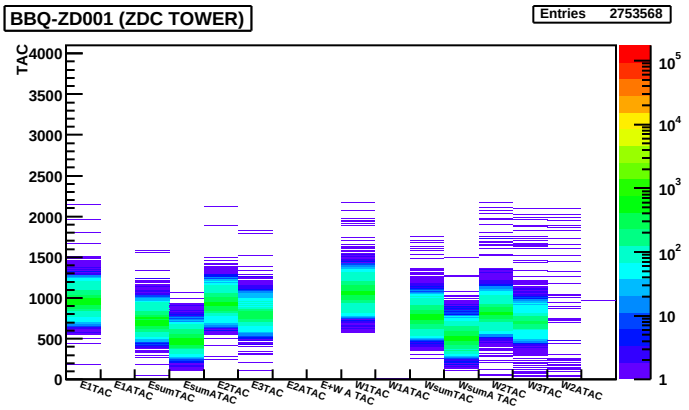

BBQ-BB002 (BBC west small tiles ADC)
Entries 2753568
ADC
QT Input Channel

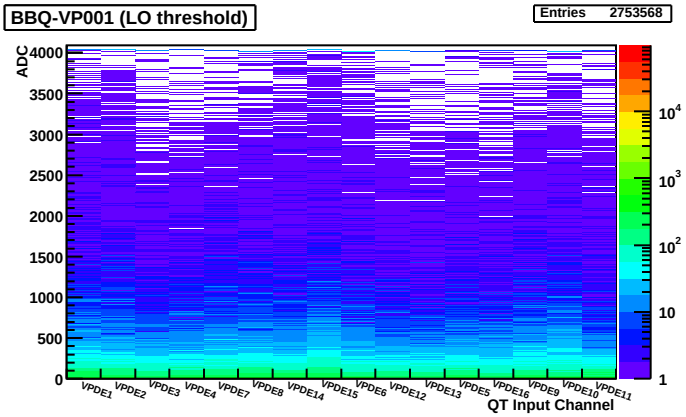

BBQ-BB002 (BBC west small tiles TAC)
Entries 2753568
TAC
QT Input Channel

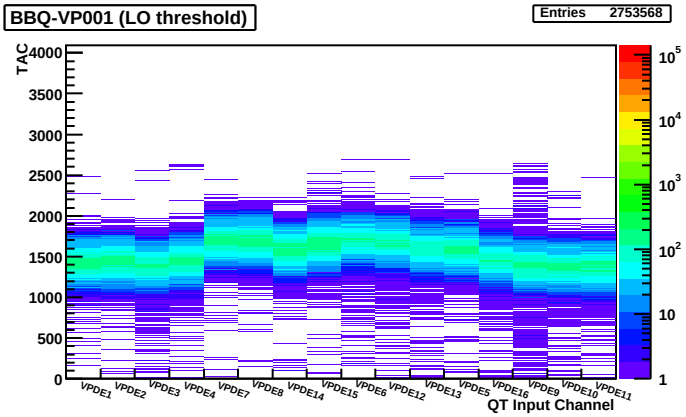

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 2753568
ADC
QT Input Channel

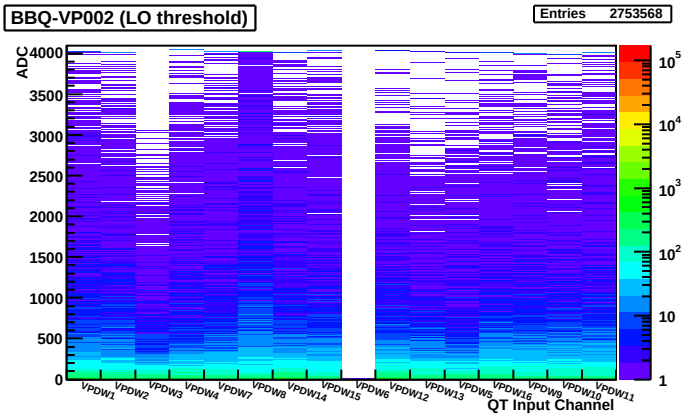

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 2753568
TAC
QT Input Channel

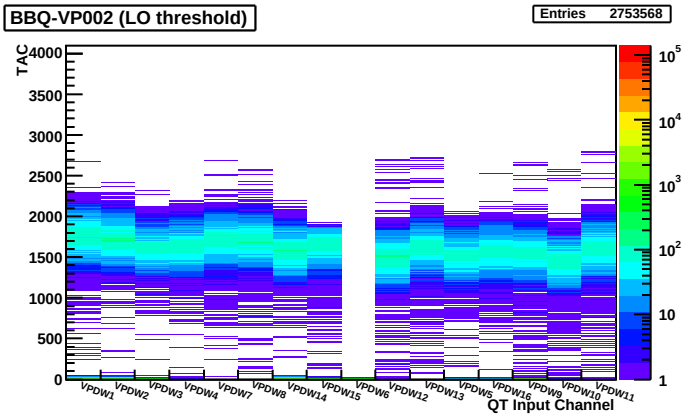

BBQ-ZD001 (ZDC TOWER)
Entries 2753568
ADC

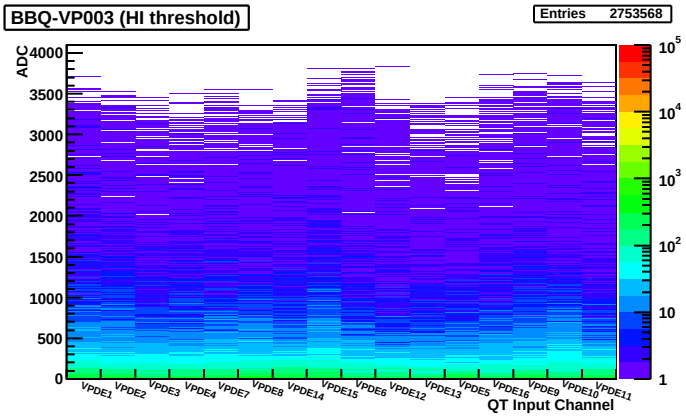

BBQ-ZD001 (ZDC TOWER)
Entries 2753568
TAC

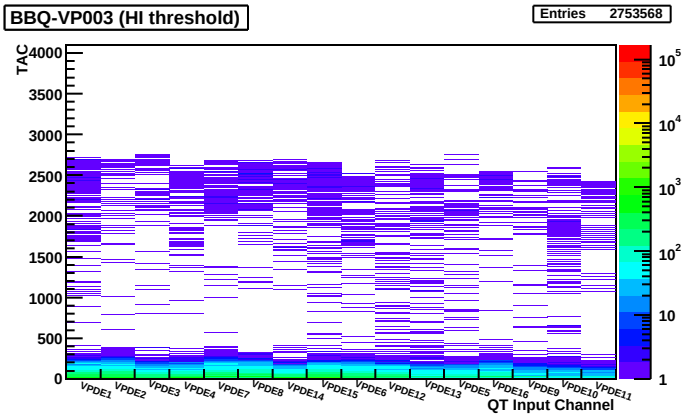

BBQ-VP001 (LO threshold)
Entries 2753568
ADC
QT Input Channel

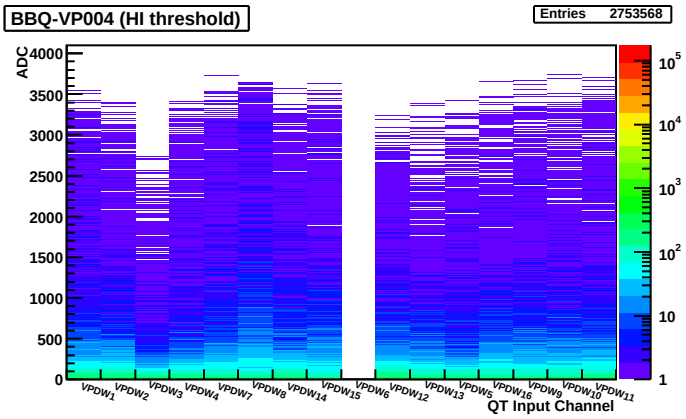

BBQ-VP001 (LO threshold)
Entries 2753568
TAC
QT Input Channel

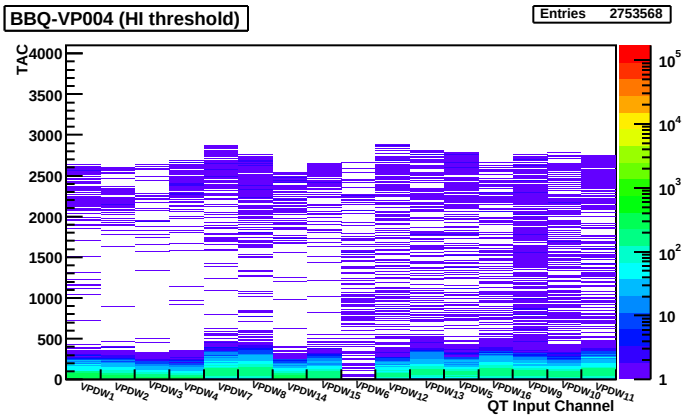

BBQ-VP002 (LO threshold)
Entries 2753568
ADC
QT Input Channel

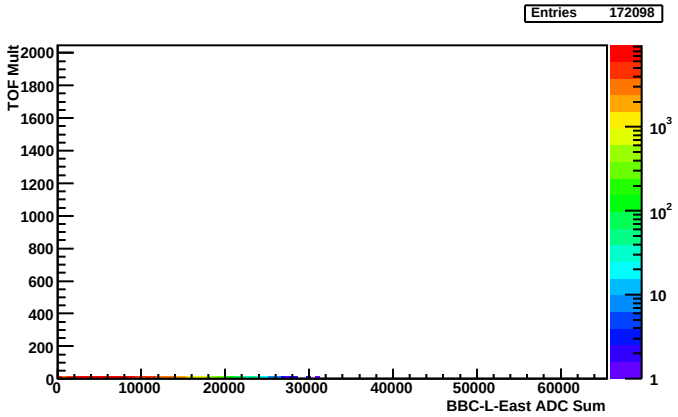

BBQ-VP002 (LO threshold)
Entries 2753568
TAC
QT Input Channel

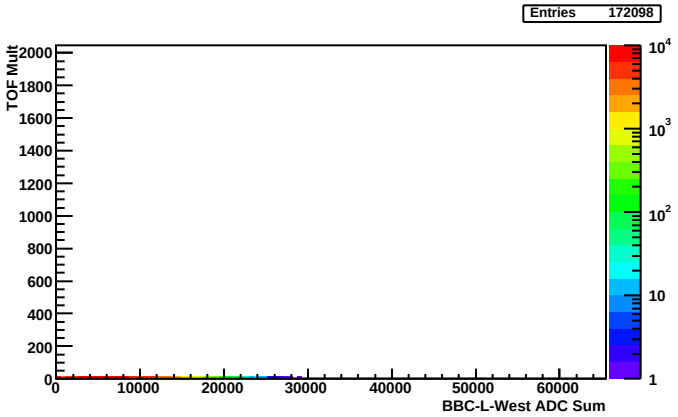

BBQ-VP003 (HI threshold)
Entries 2753568
ADC
QT Input Channel

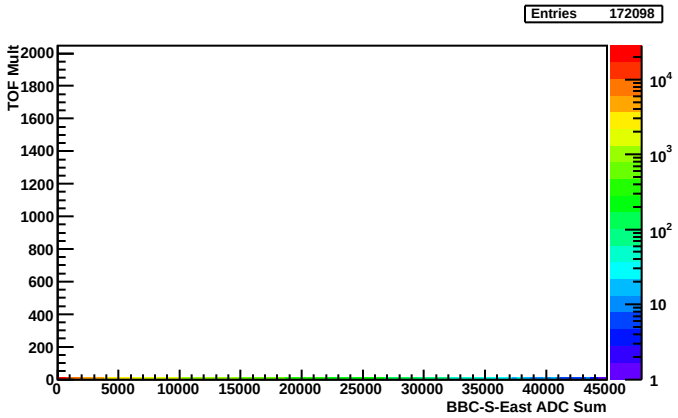

BBQ-VP003 (HI threshold)
Entries 2753568
TAC
QT Input Channel

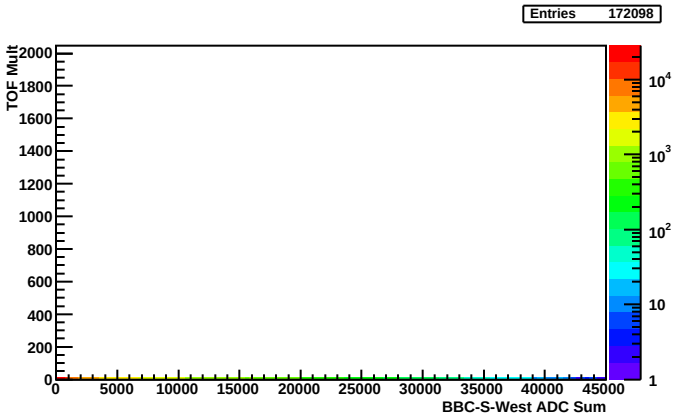

BBQ-VP004 (HI threshold)
Entries 2753568
ADC
QT Input Channel

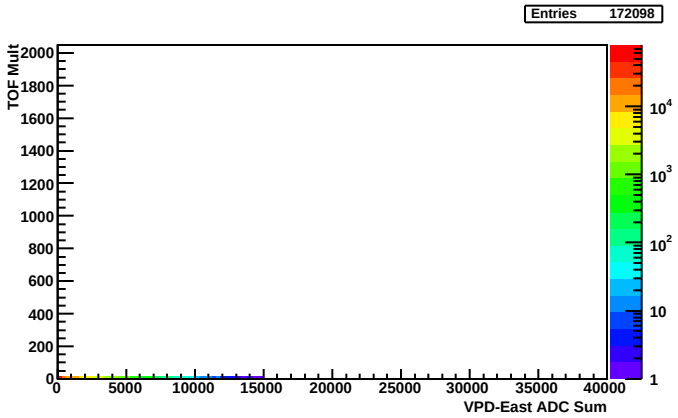

BBQ-VP004 (HI threshold)
Entries 2753568
TAC
QT Input Channel

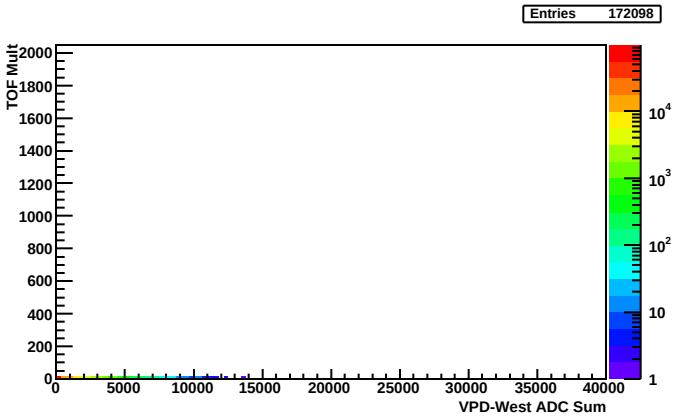

Entries 172098
TOF Mult
BBC-L-East ADC Sum

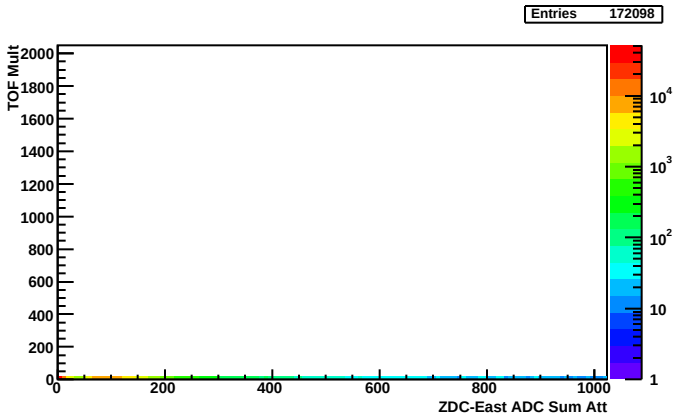

Entries 172098
TOF Mult
BBC-L-West ADC Sum

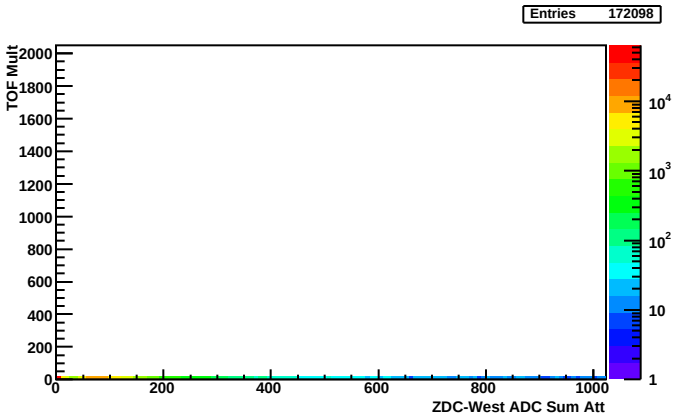

Entries 172098
TOF Mult
BBC-S-East ADC Sum

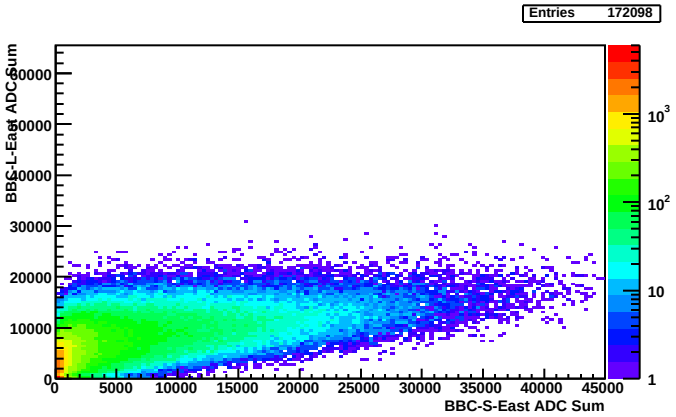

Entries 172098
TOF Mult
BBC-S-West ADC Sum

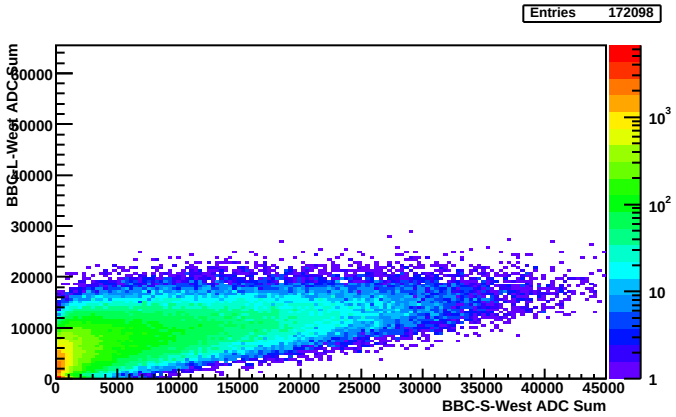

Entries 172098
TOF Mult
VPD-East ADC Sum

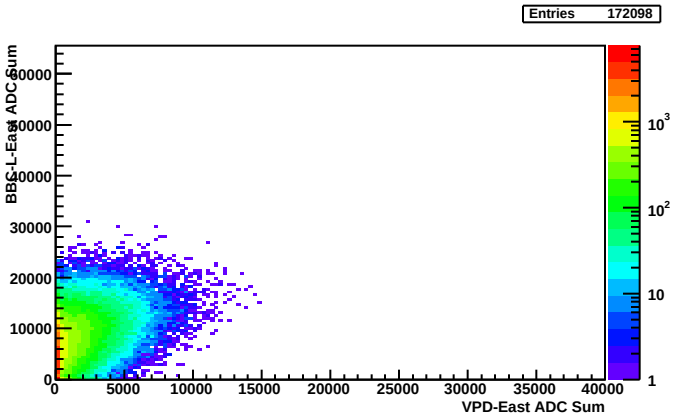

Entries 172098
TOF Mult
VPD-West ADC Sum

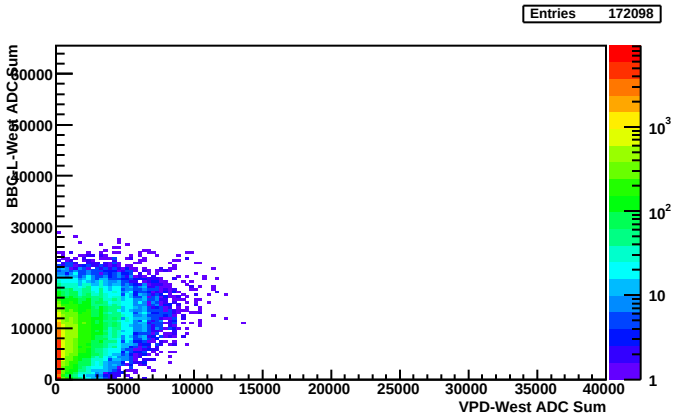

Entries 172098
TOF Mult
ZDC-East ADC Sum Att

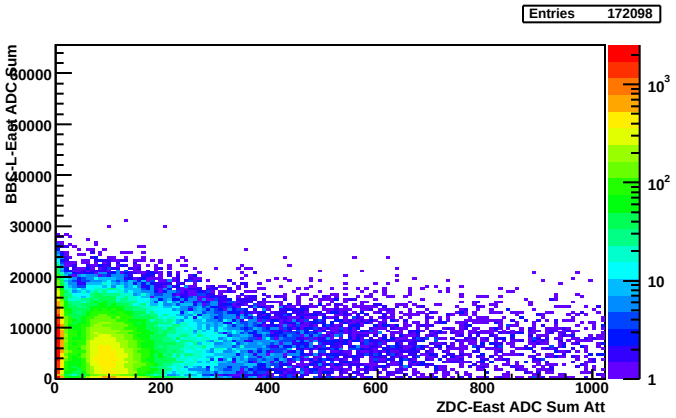

Entries 172098
TOF Mult
ZDC-West ADC Sum Att

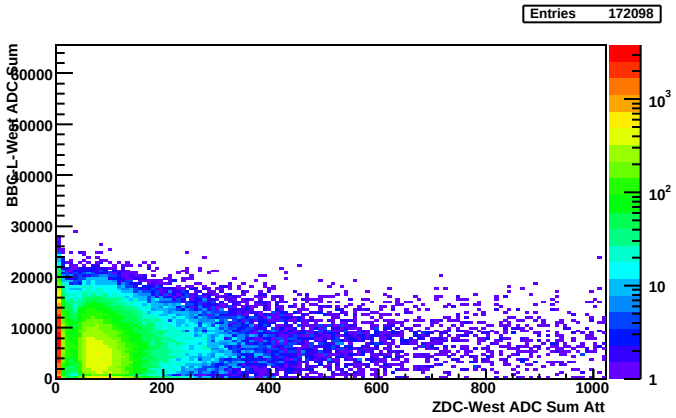

Entries 172098
BBC-L-East ADC Sum
BBC-S-East ADC Sum

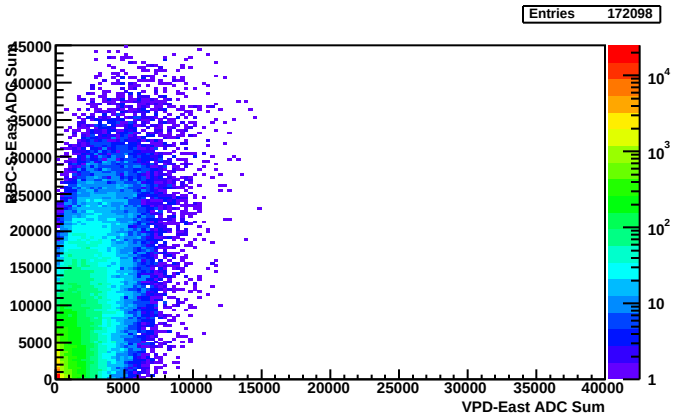

Entries 172098
BBC-L-West ADC Sum
BBC-S-West ADC Sum

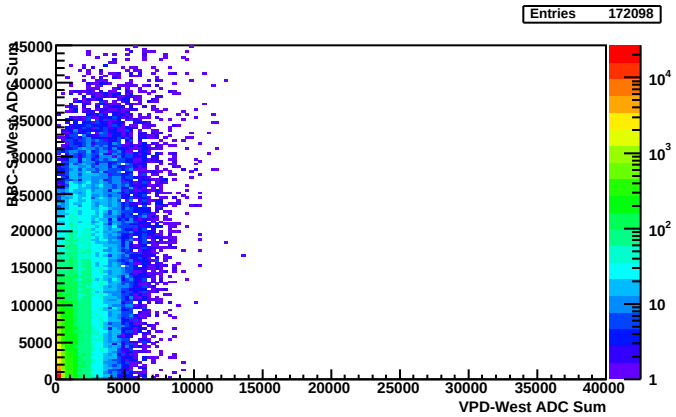

Entries 172098
BBC-L-East ADC Sum
VPD-East ADC Sum

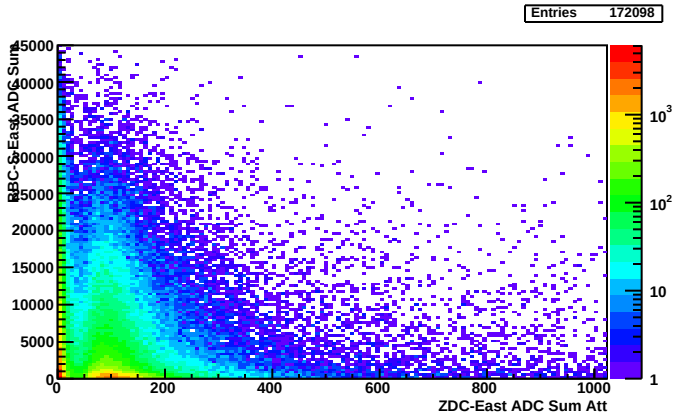

Entries 172098
BBC-L-West ADC Sum
VPD-West ADC Sum

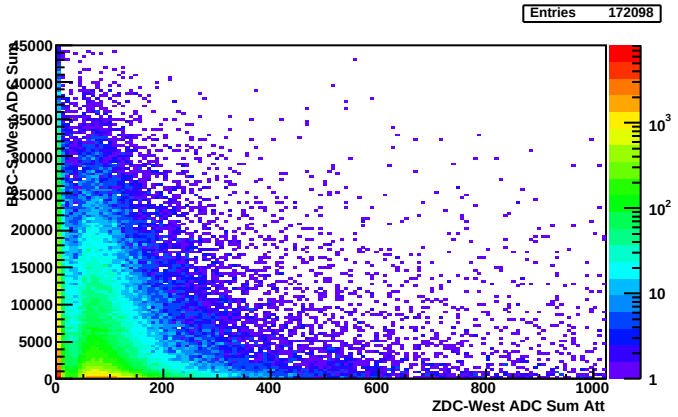

Entries 172098
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

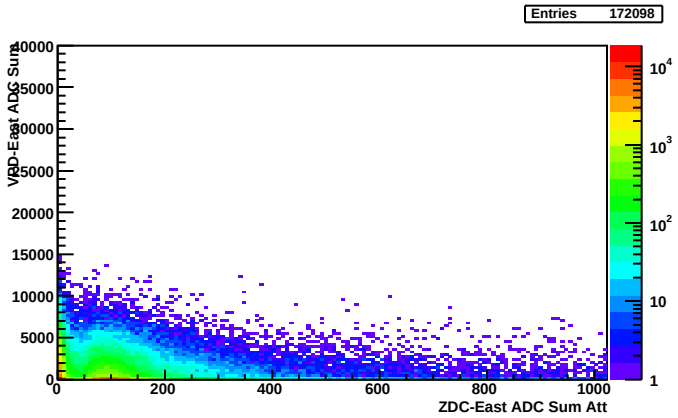

Entries 172098
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

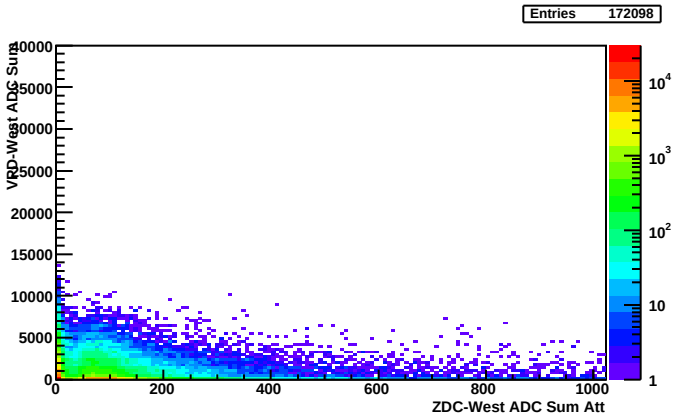

Entries 172098
BBC-S-East ADC Sum
VPD-East ADC Sum

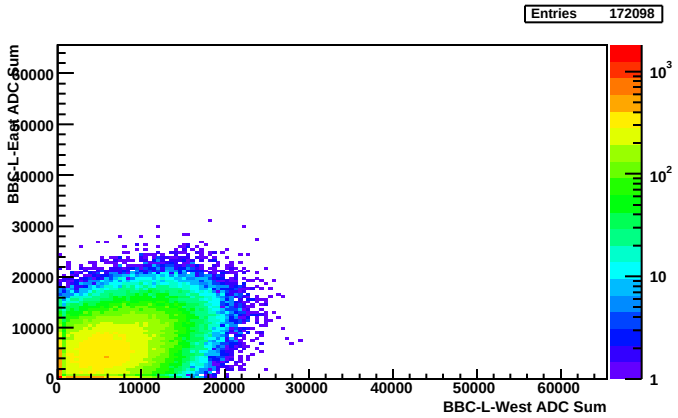

Entries 172098
BBC-S-West ADC Sum
VPD-West ADC Sum

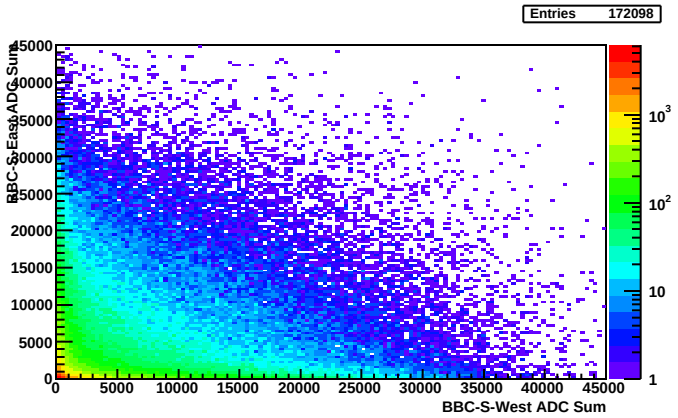

Entries 172098
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

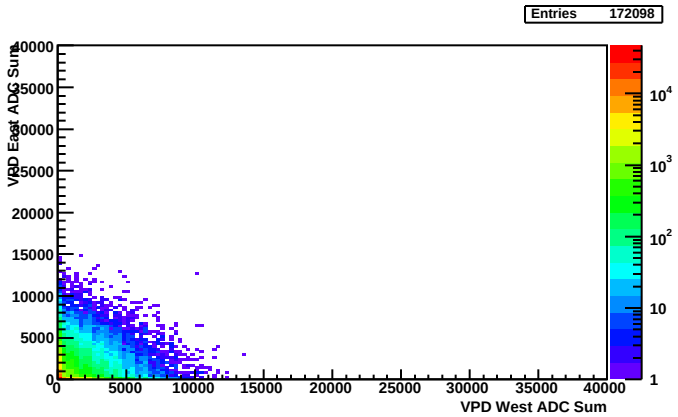

Entries 172098
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

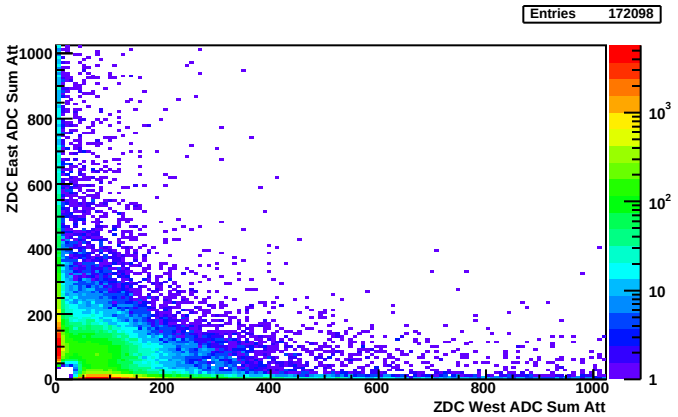

Entries 172098
VPD-East ADC Sum
ZDC-East ADC Sum Att

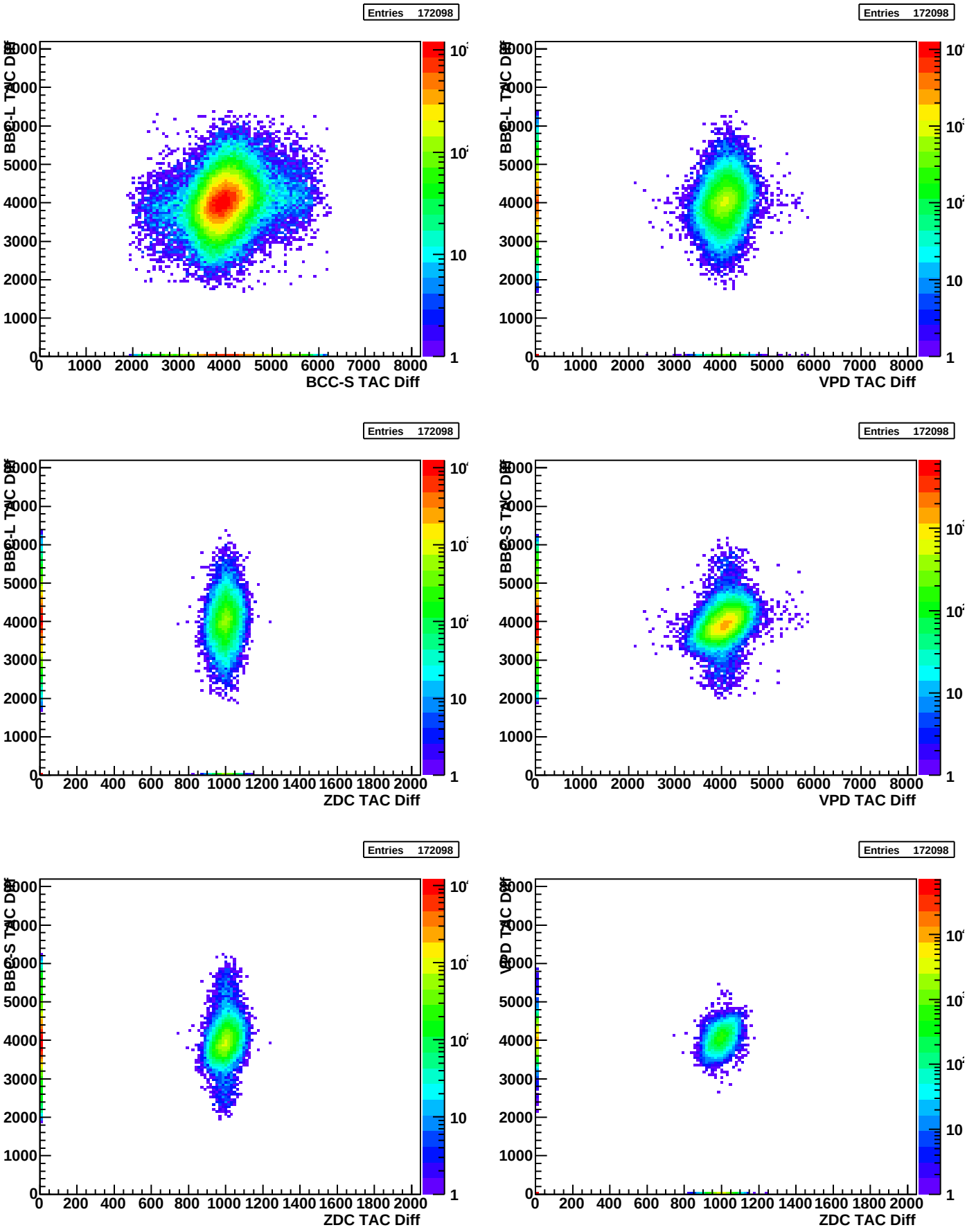

Entries 172098
VPD-West ADC Sum
ZDC-West ADC Sum Att

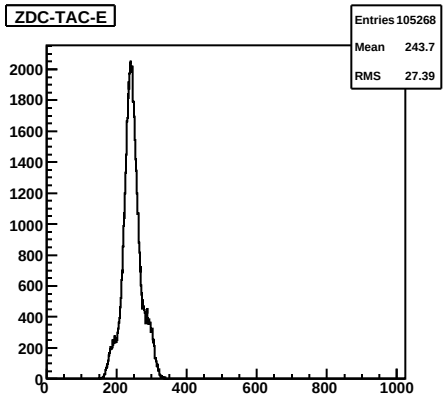

Entries 172098
BBC-L-East ADC Sum
BBC-L-West ADC Sum

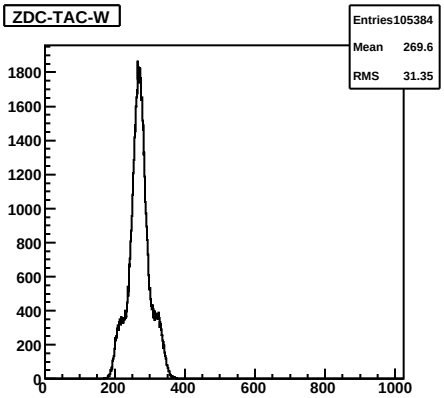

Entries 172098
BBC-S-East ADC Sum
BBC-S-West ADC Sum

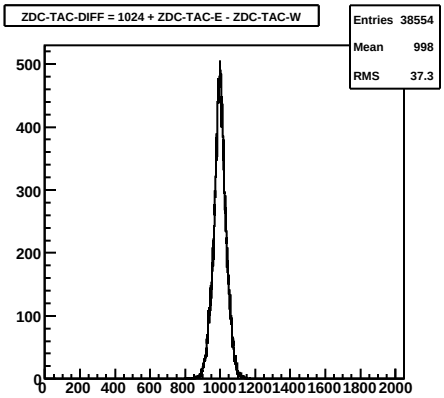

Entries 172098
VPD East ADC Sum
VPD West ADC Sum

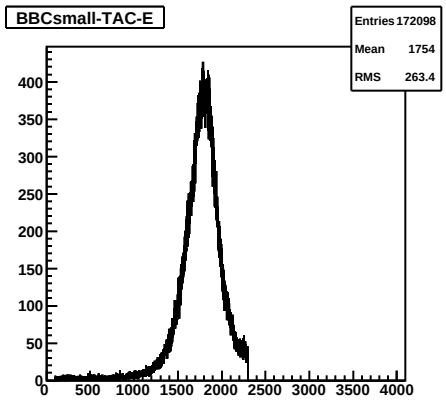

Entries 172098
ZDC East ADC Sum Att
ZDC West ADC Sum Att

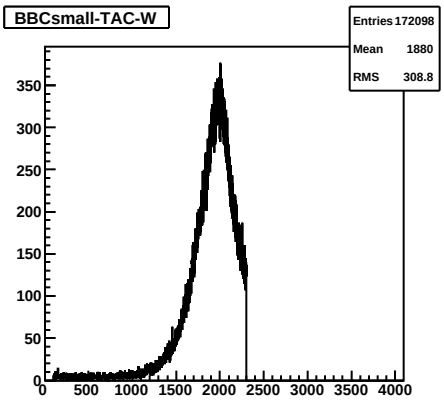

Entries 172098
BBC-L TAC Diff
BCC-S TAC Diff
Entries 172098
BBC-L TAC Diff
VPD TAC Diff
Entries 172098
BBC-L TAC Diff
ZDC TAC Diff
Entries 172098
BBC-S TAC Diff
VPD TAC Diff
Entries 172098
BBC-S TAC Diff
ZDC TAC Diff
Entries 172098
VPD TAC Diff
ZDC TAC Diff

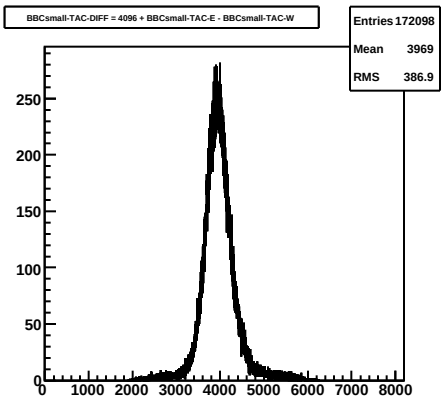

ZDC-TAC-E
Entries 105268
Mean 243.7
RMS 27.39

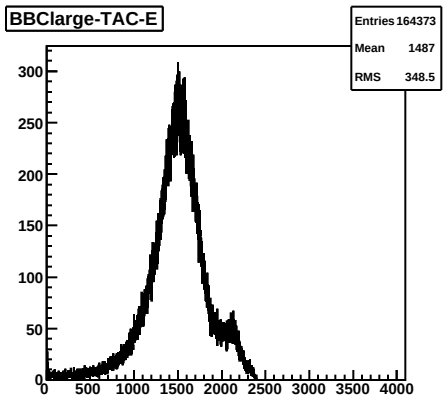

ZDC-TAC-W
Entries 105384
Mean 269.6
RMS 31.35

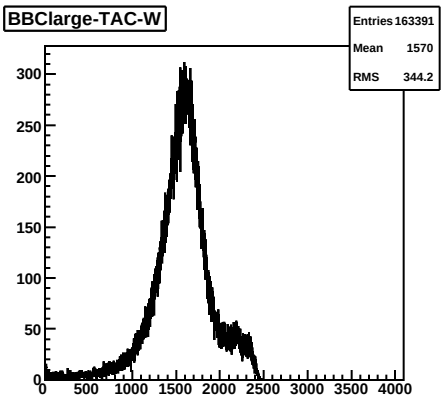

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 38554
Mean 998
RMS 37.3

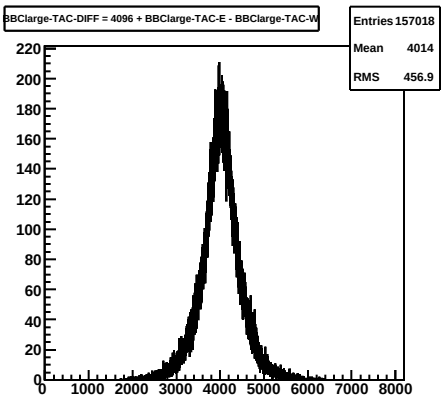

BBCsmall-TAC-E
Entries 172098
Mean 1754
RMS 263.4

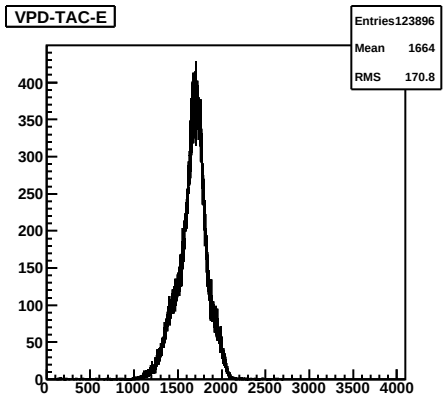

BBCsmall-TAC-W
Entries 172098
Mean 1880
RMS 308.8

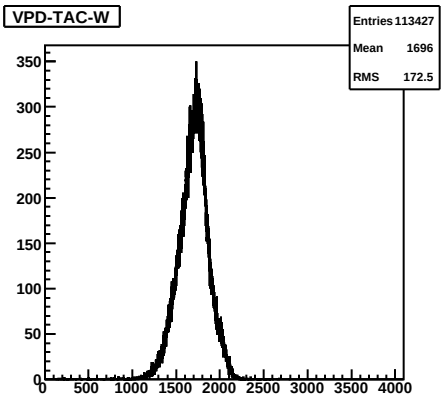

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 172098
Mean 3969
RMS 386.9

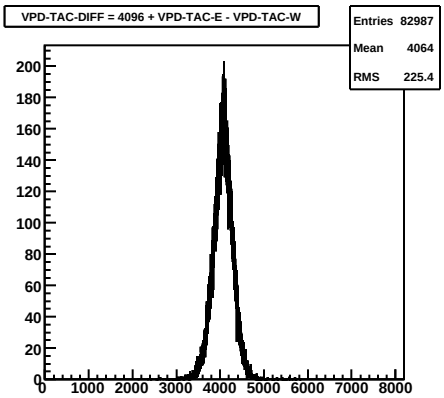

BBClarge-TAC-E
Entries 164373
Mean 1487
RMS 348.5

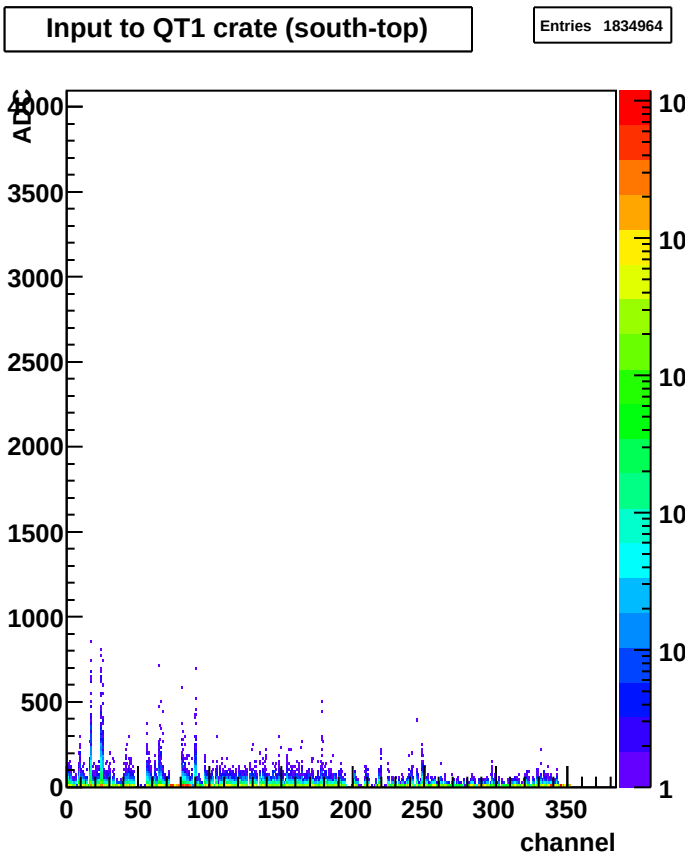

BBClarge-TAC-W
Entries 163391
Mean 1570
RMS 344.2

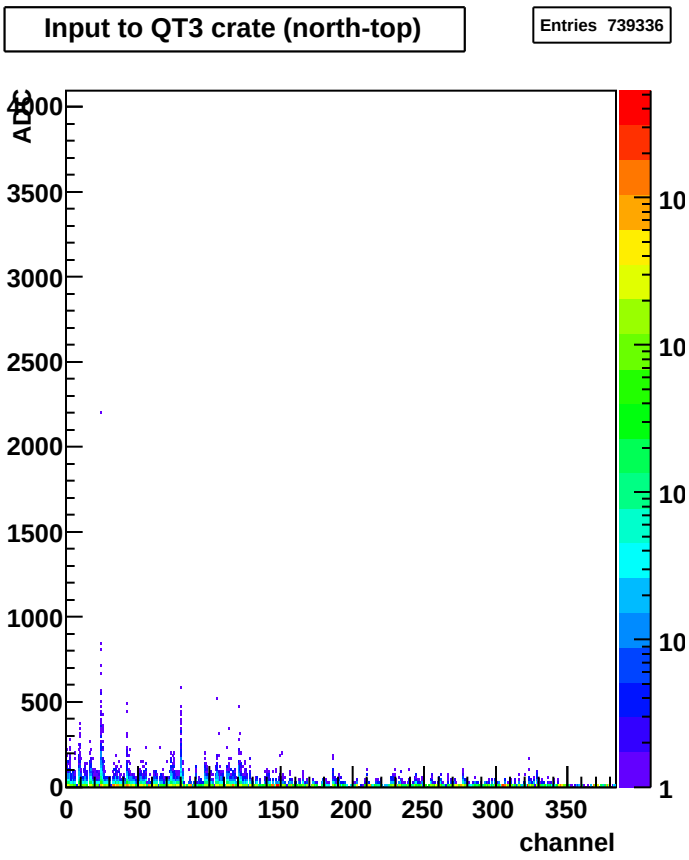

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 157018
Mean 4014
RMS 456.9

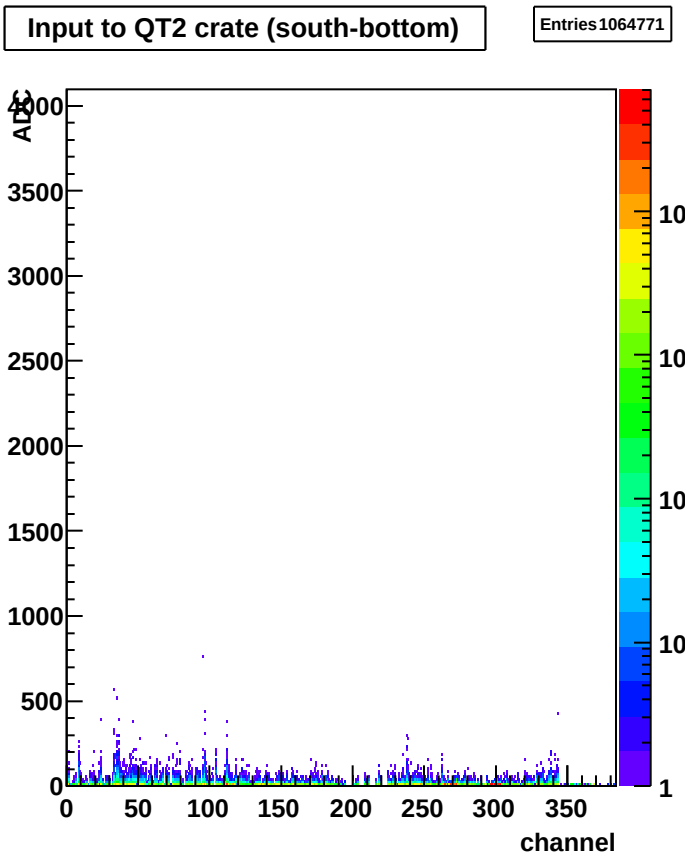

VPD-TAC-E
Entries 123896
Mean 1664
RMS 170.8

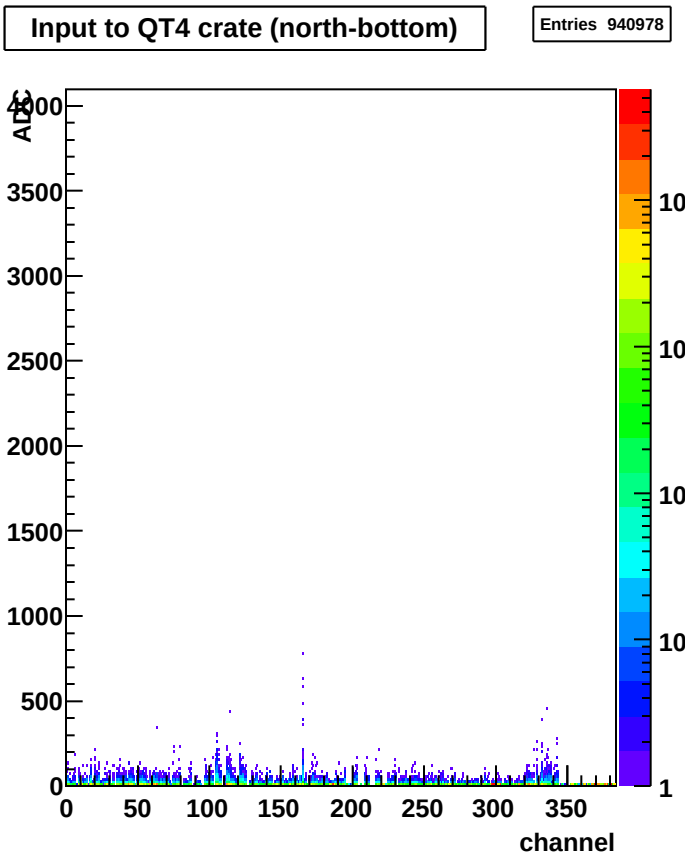

VPD-TAC-W
Entries 113427
Mean 1696
RMS 172.5

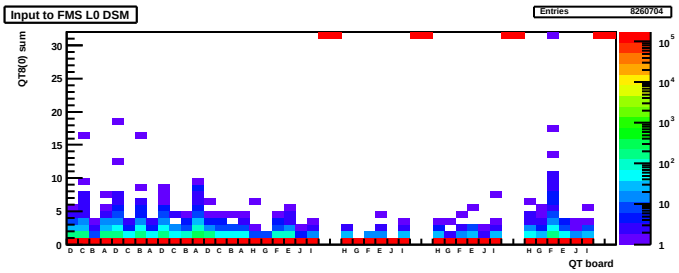

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 82987
Mean 4064
RMS 225.4

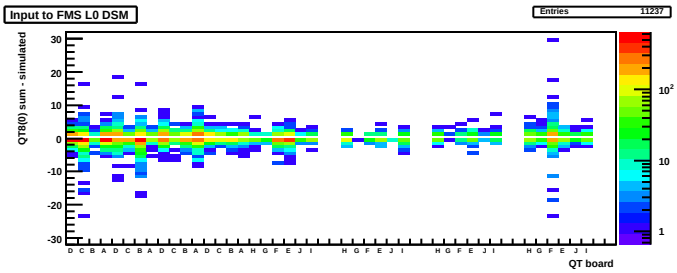

Input to QT1 crate (south-top)
Entries 1834964
ADC
channel

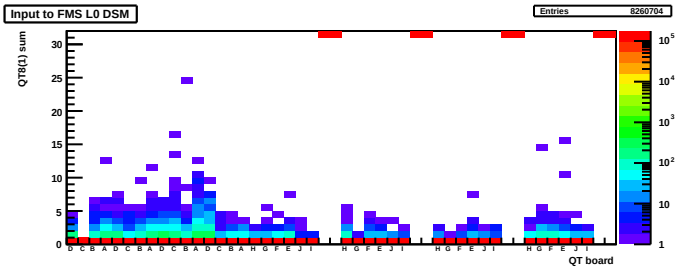

Input to QT3 crate (north-top)
Entries 739336
ADC
channel

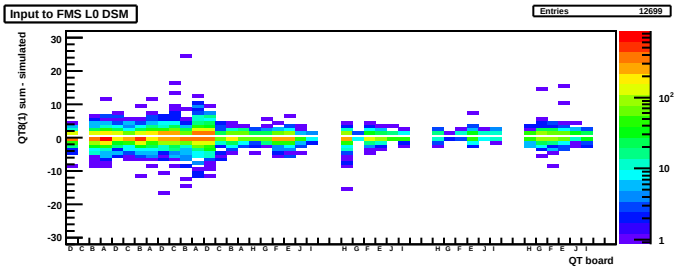

Input to QT2 crate (south-bottom)
Entries 1064771
ADC
channel

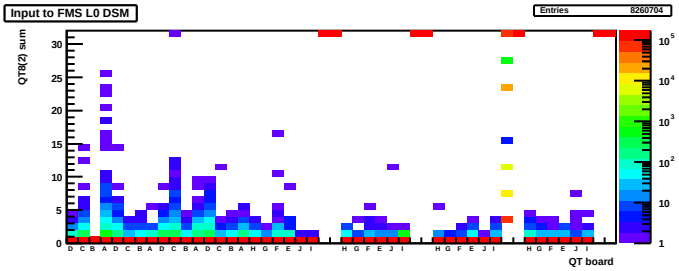

Input to QT4 crate (north-bottom)
Entries 940978
ADC
channel

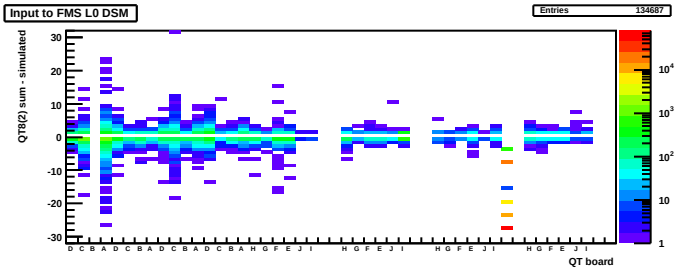

Input to FMS L0 DSM
Entries 8260704
QT8(0) sum
QT board

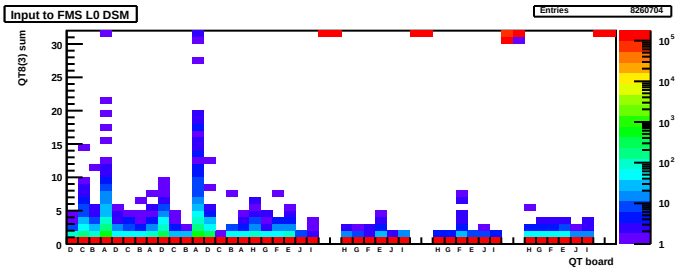

Input to FMS L0 DSM
Entries 11237
QT8(0) sum - simulated
QT board

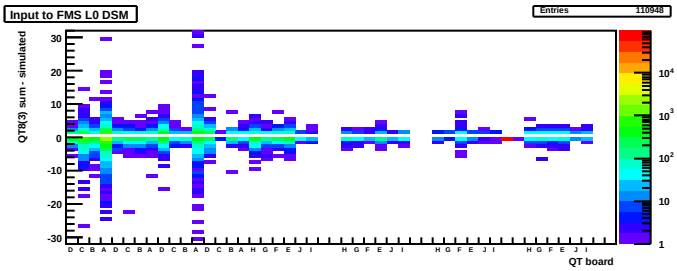

Input to FMS L0 DSM
Entries 8260704
QT8(1) sum
QT board

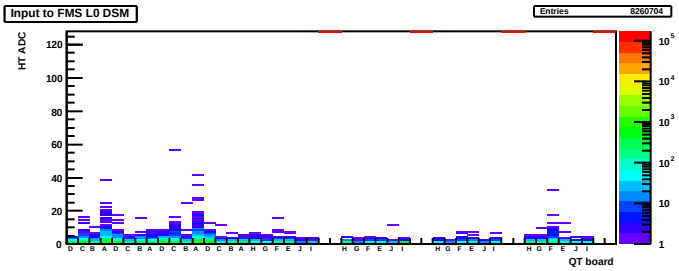

Input to FMS L0 DSM
Entries 12699
QT8(1) sum - simulated
QT board

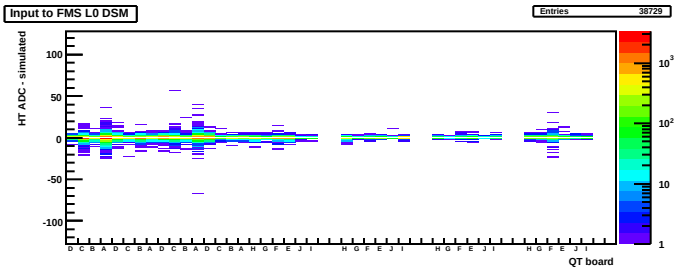

Input to FMS L0 DSM
Entries 8260704
QT8(2) sum
QT board

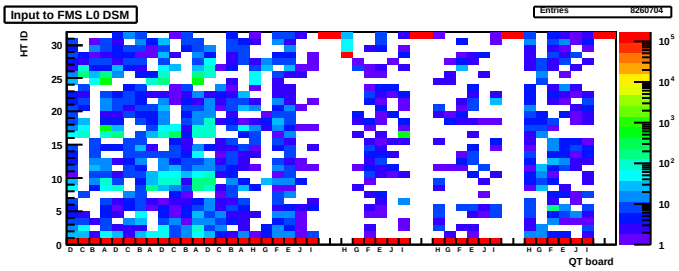

Input to FMS L0 DSM
Entries 134687
QT8(2) sum - simulated
QT board

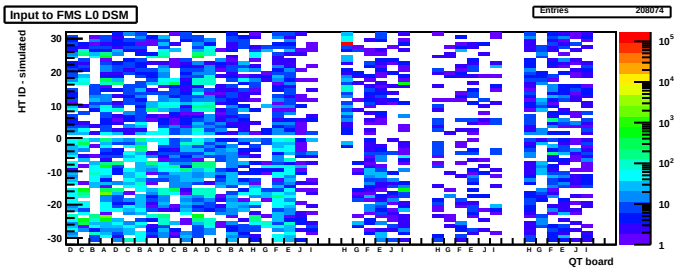

Input to FMS L0 DSM
Entries 8260704
QT8(3) sum
QT board

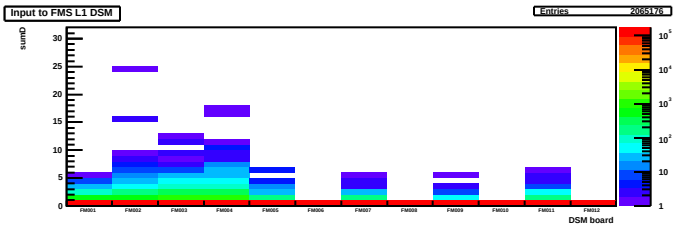

Input to FMS L0 DSM
Entries 110948
QT8(3) sum - simulated
QT board

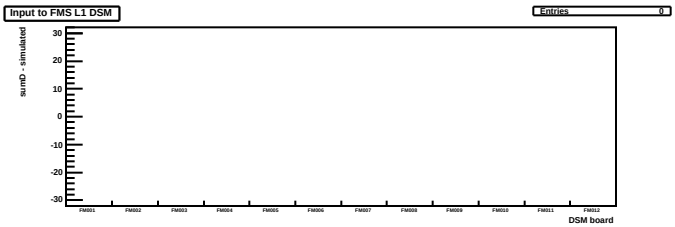

Input to FMS L0 DSM
Entries 8260704
HT ADC
QT board

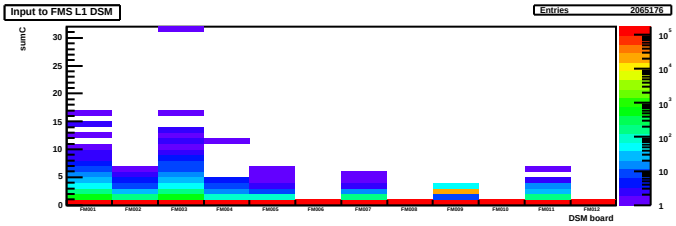

Input to FMS L0 DSM
Entries 38729
HT ADC - simulated
QT board

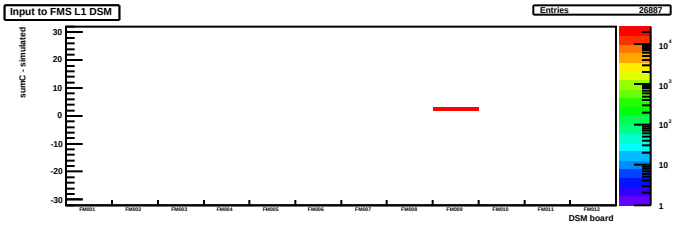

Input to FMS L0 DSM
Entries 8260704
HT ID
QT board

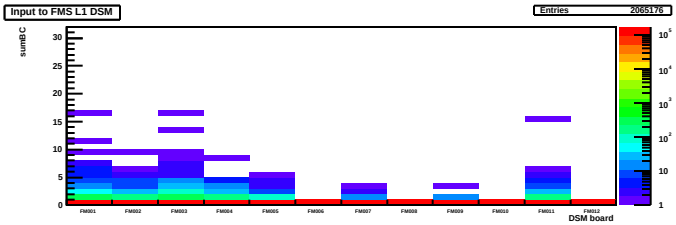

Input to FMS L0 DSM
Entries 208074
HT ID - simulated
QT board

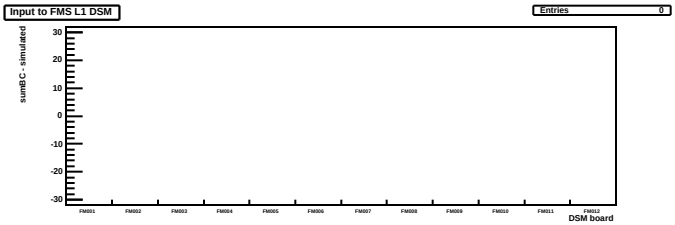

Input to FMS L1 DSM
Entries 2065176
sumD
DSM board

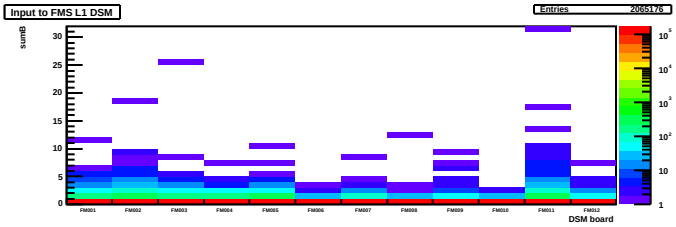

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

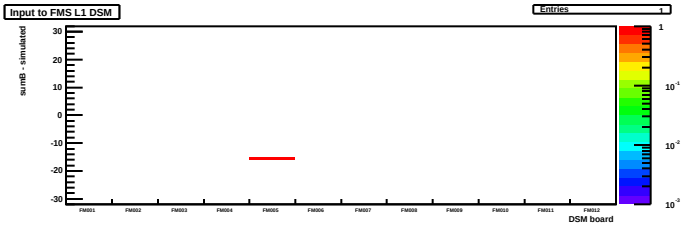

Input to FMS L1 DSM
Entries 2065176
sumC
DSM board

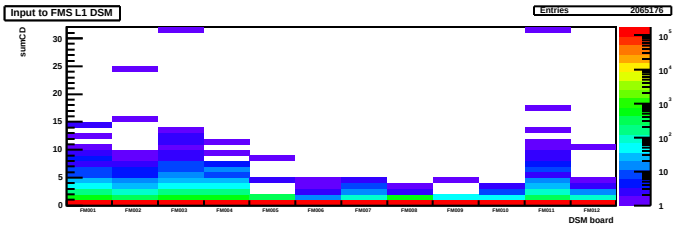

Input to FMS L1 DSM
Entries 26887
sumC - simulated
DSM board

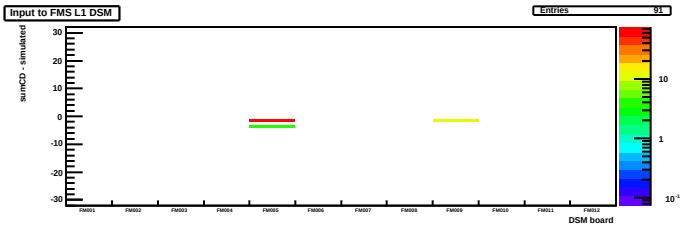

Input to FMS L1 DSM
Entries 2065176
sumBC
DSM board

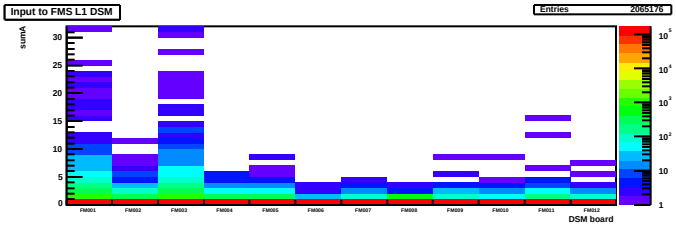

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

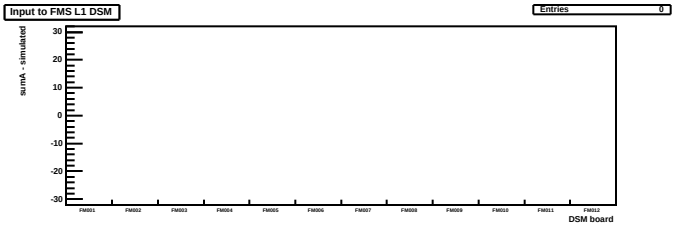

Input to FMS L1 DSM
Entries 2065176
sumB
DSM board

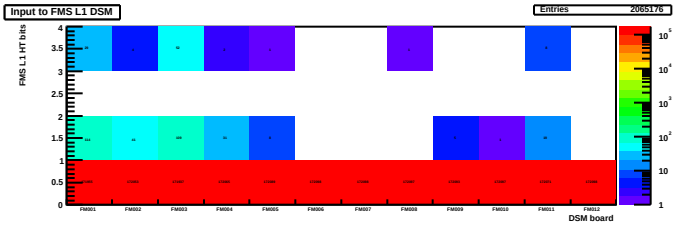

Input to FMS L1 DSM
Entries 1
sumB - simulated
DSM board

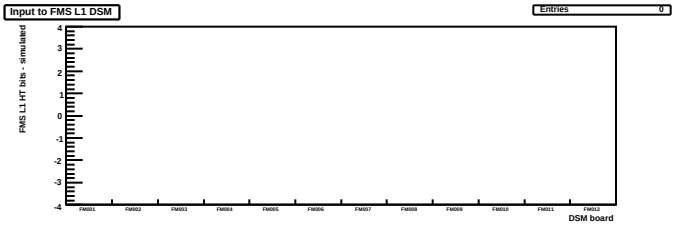

Input to FMS L1 DSM
Entries 2065176
sumCD
DSM board

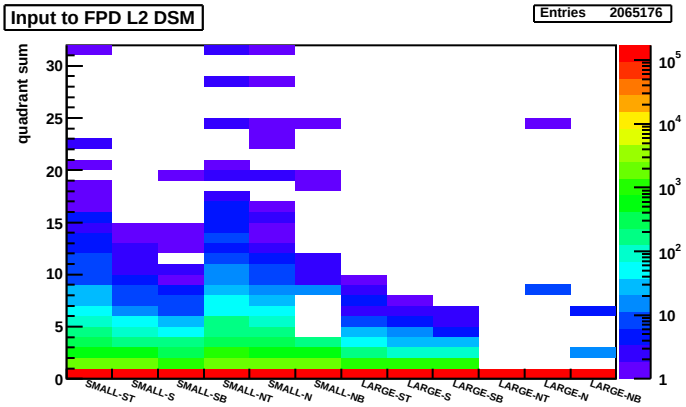

Input to FMS L1 DSM
Entries 91
sumCD - simulated
DSM board

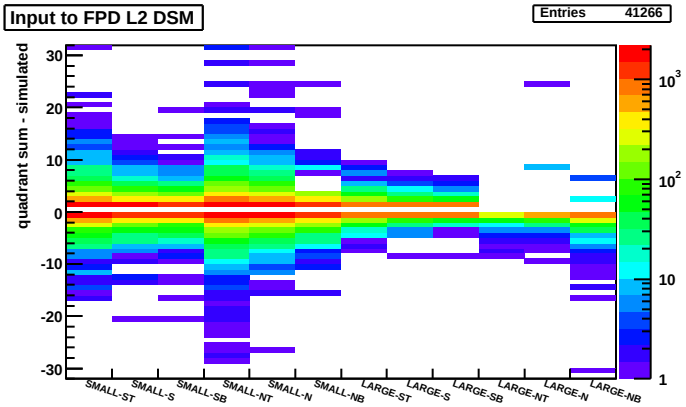

Input to FMS L1 DSM
Entries 2065176
sumA
DSM board

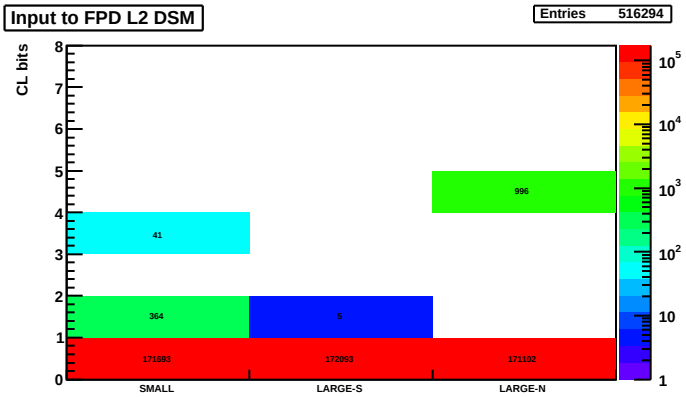

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

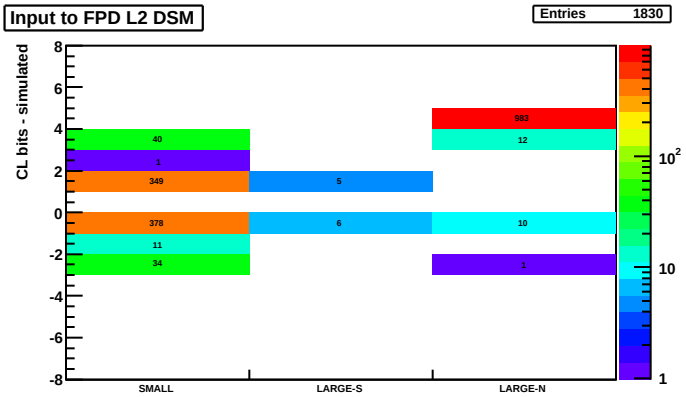

Input to FMS L1 DSM
Entries 2065176
FMS L1 HT bits
DSM board

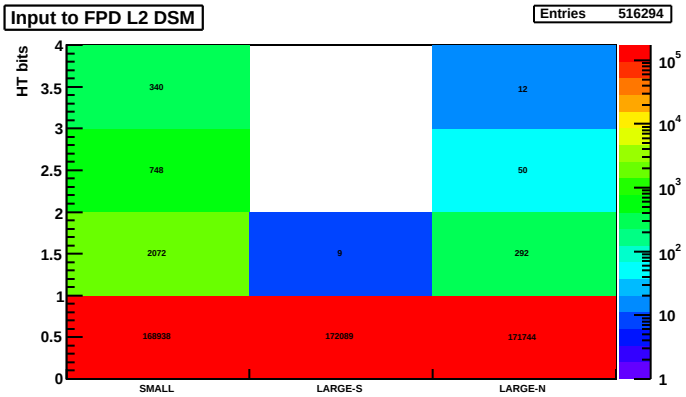

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

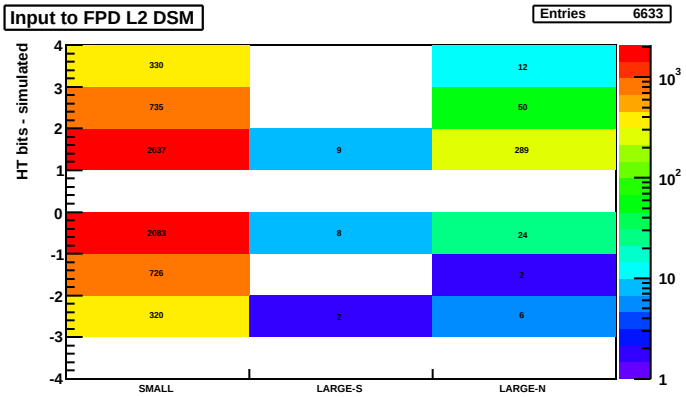

Input to FPD L2 DSM
Entries 2065176
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

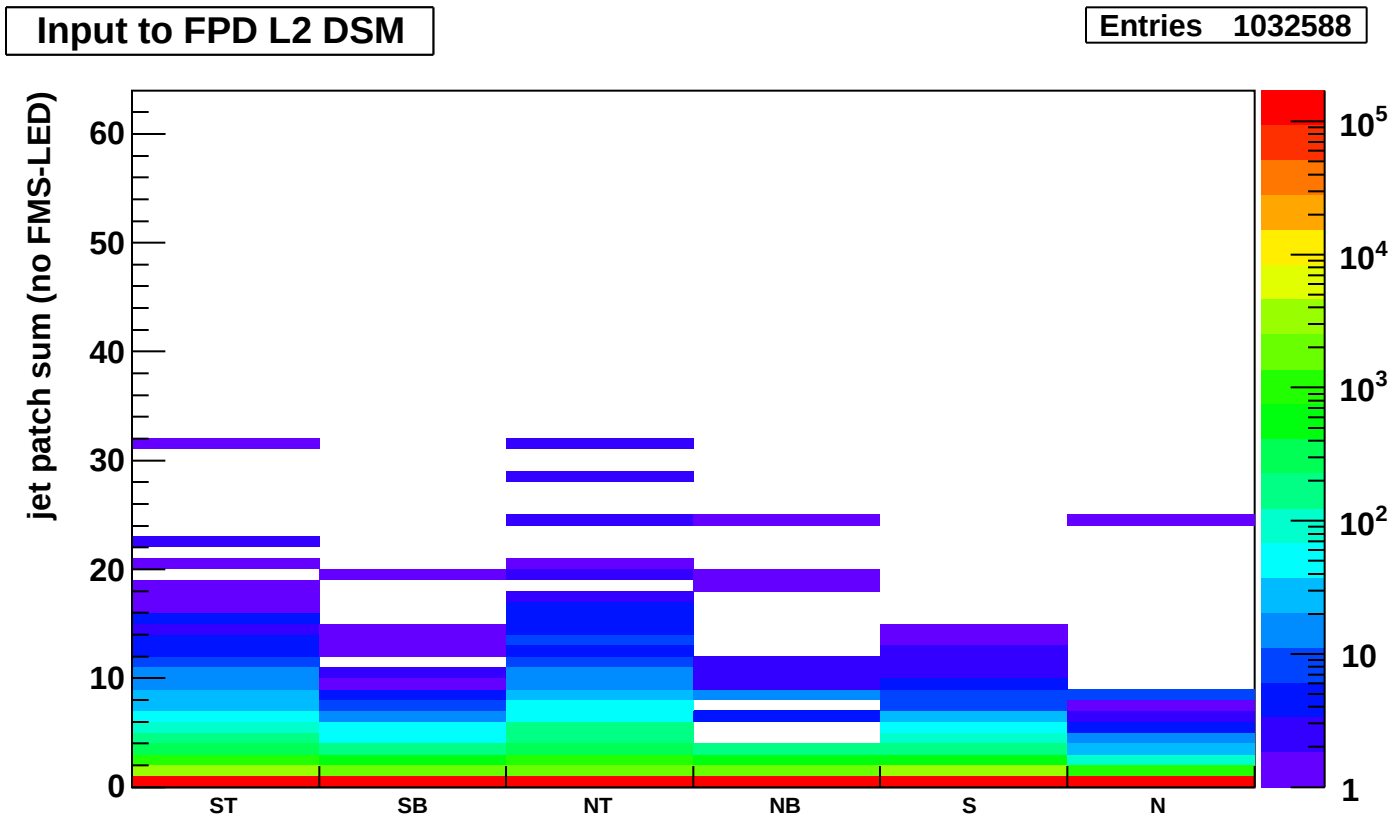

Input to FPD L2 DSM
Entries 41266
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

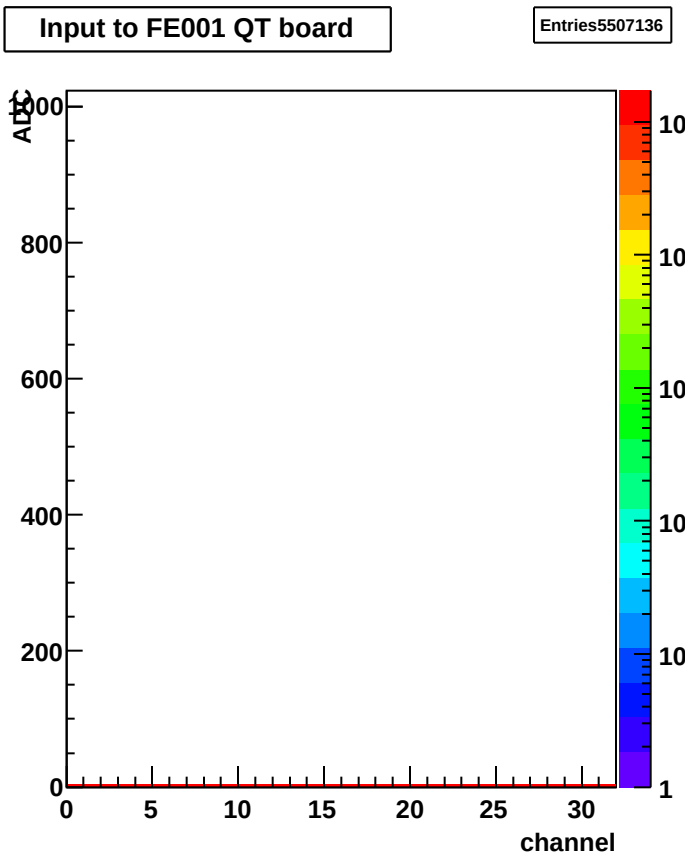

Input to FPD L2 DSM
Entries 516294
CL bits
41
364
171693
5
172093
996
171102
SMALL
LARGE-S
LARGE-N

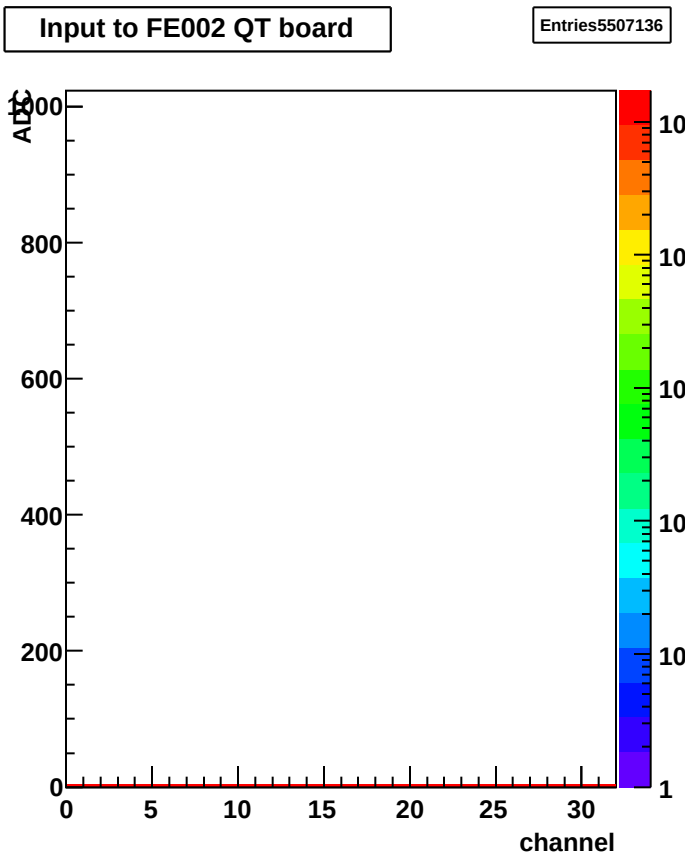

Input to FPD L2 DSM
Entries 1830
CL bits - simulated
40
1
349
378
11
34
5
6
983
12
10
1
SMALL
LARGE-S
LARGE-N

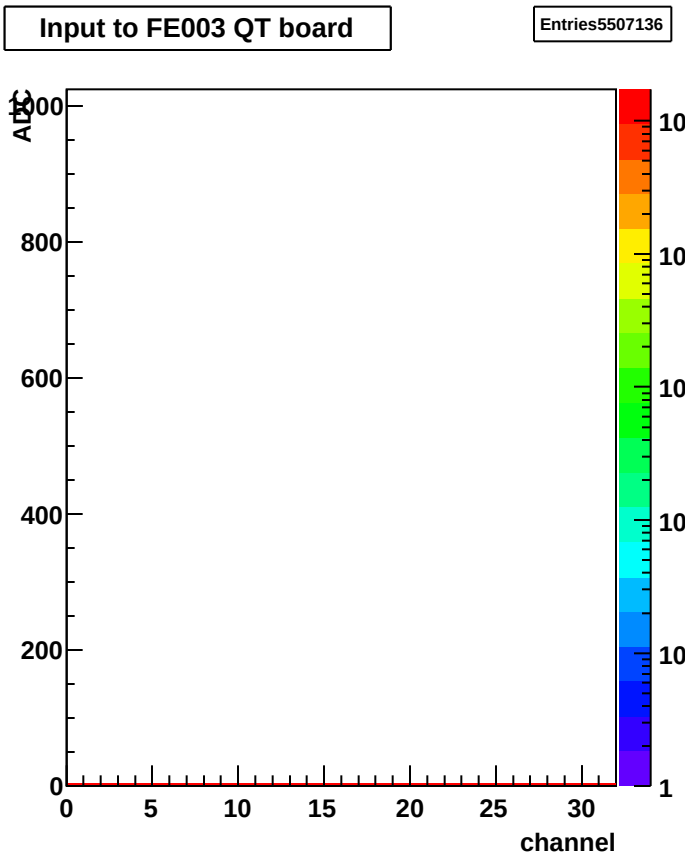

Input to FPD L2 DSM
Entries 516294
HT bits
340
748
2072
160938
9
172089
12
50
292
171744
SMALL
LARGE-S
LARGE-N

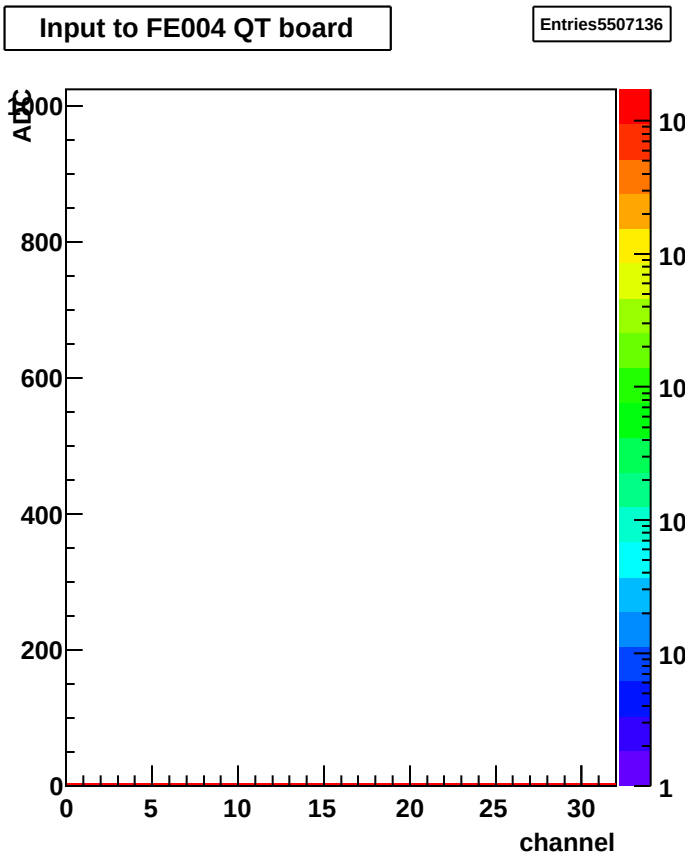

Input to FPD L2 DSM
Entries 6633
HT bits - simulated
330
735
2037
2083
726
320
9
8
2
2
12
50
289
24
2
6
SMALL
LARGE-S
LARGE-N

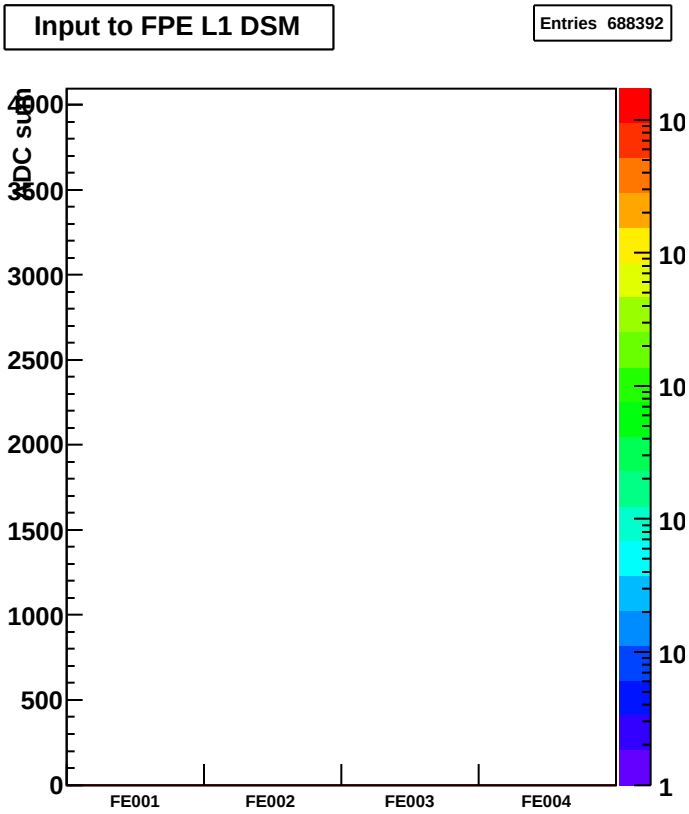

Input to FPD L2 DSM
Entries 1032588
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

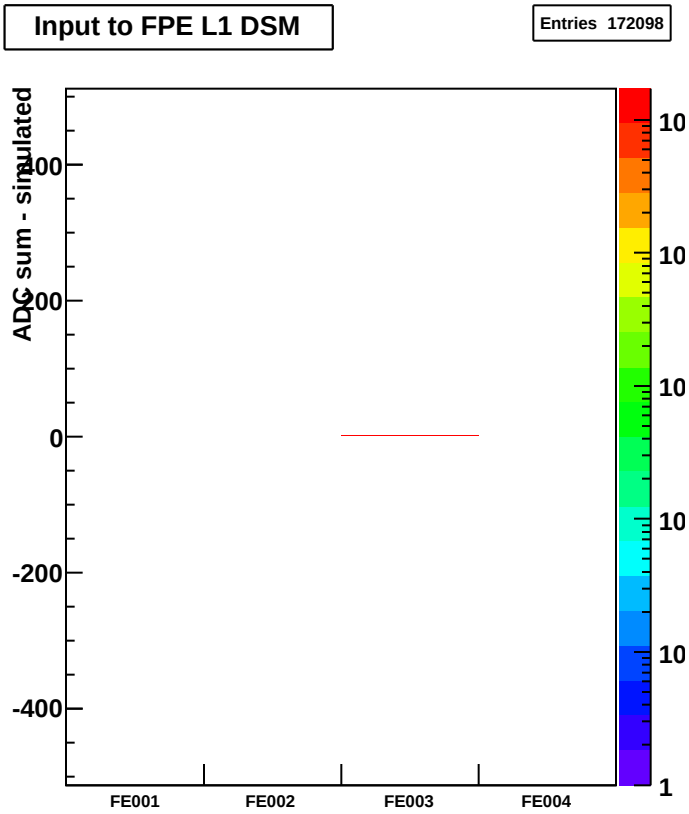

Input to FE001 QT board
Entries5507136
ADC
channel


Input to FE002 QT board
Entries5507136
ADC
channel

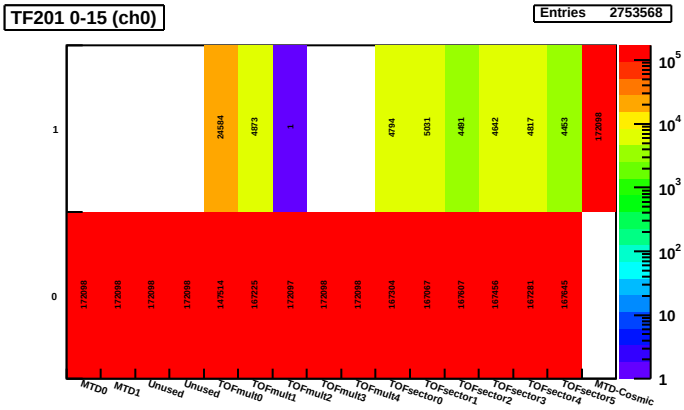

Input to FE003 QT board
Entries5507136
ADC
channel


Input to FE004 QT board
Entries5507136
ADC
channel

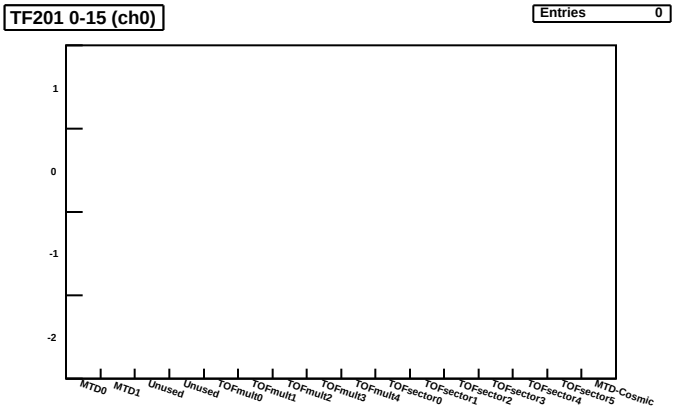

Input to FPE L1 DSM
Entries 688392
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1


Input to FPE L1 DSM
Entries 172098
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1

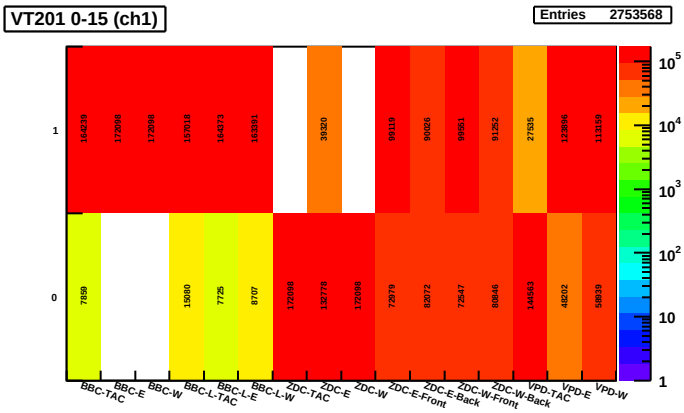
TF201 0-15 (ch0)



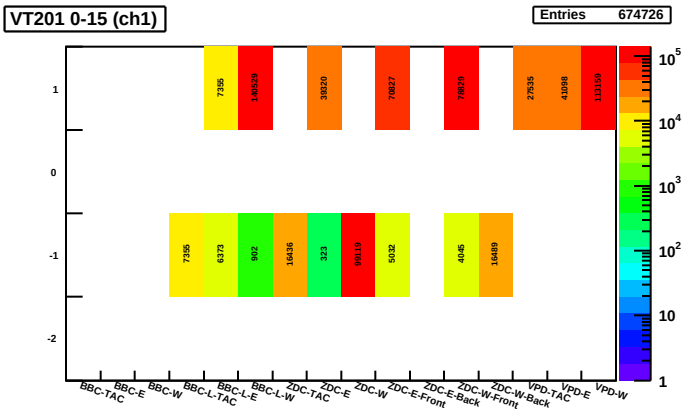
TF201 0-15 (ch0)



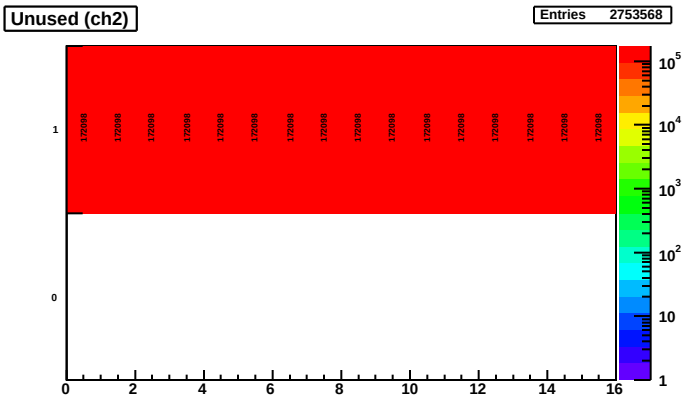
VT201 0-15 (ch1)

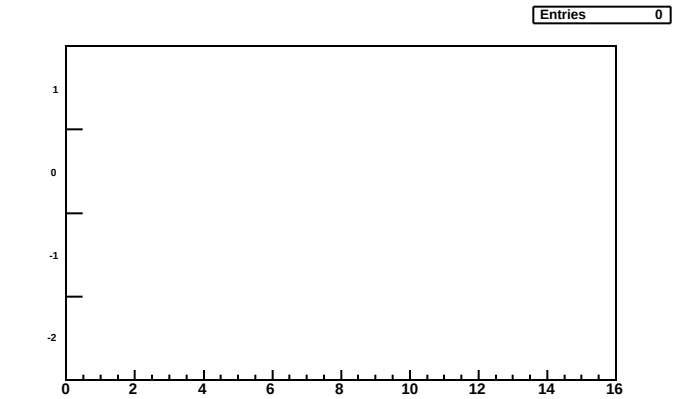


VT201 0-15 (ch1)

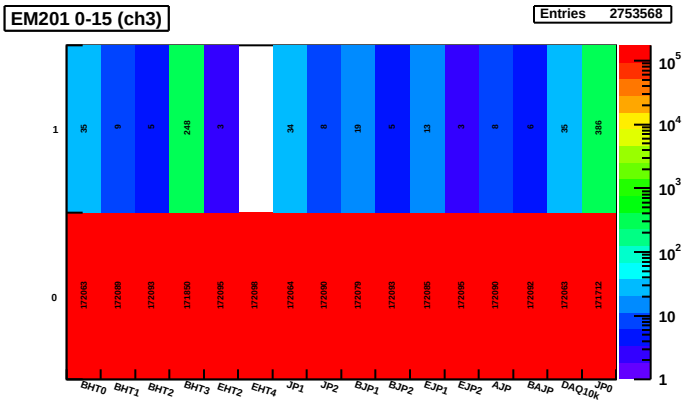


Unused (ch2)

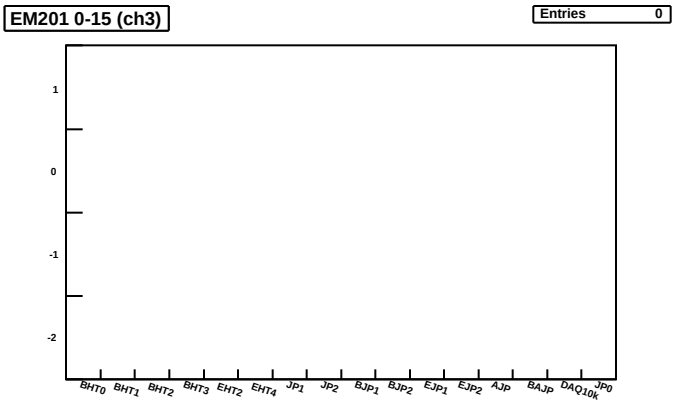




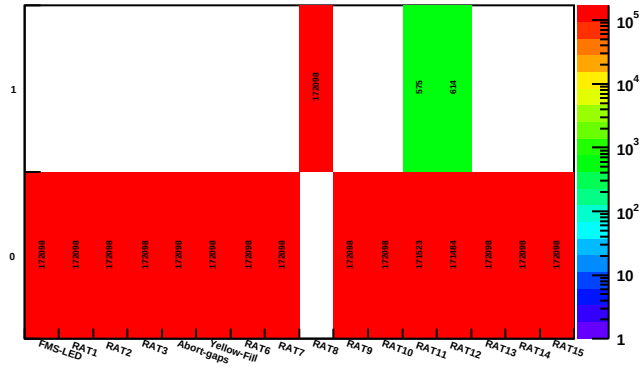
EM201 0-15 (ch3)

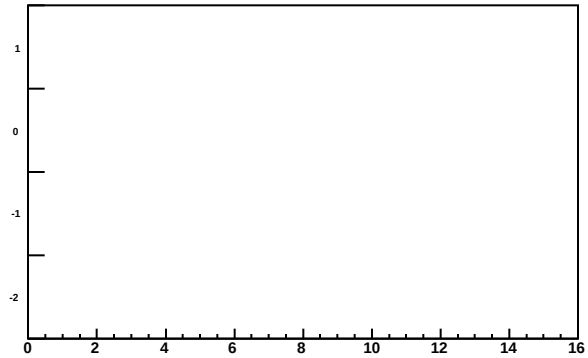


EM201 0-15 (ch3)

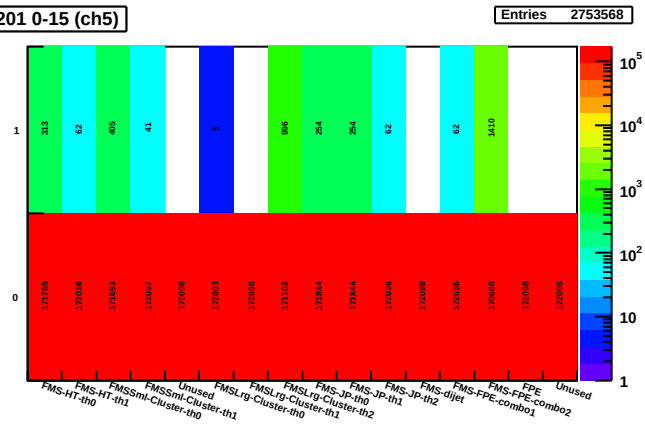


RAT board (ch4)

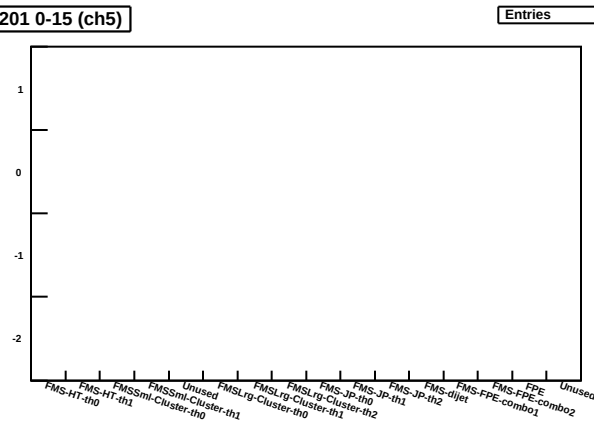




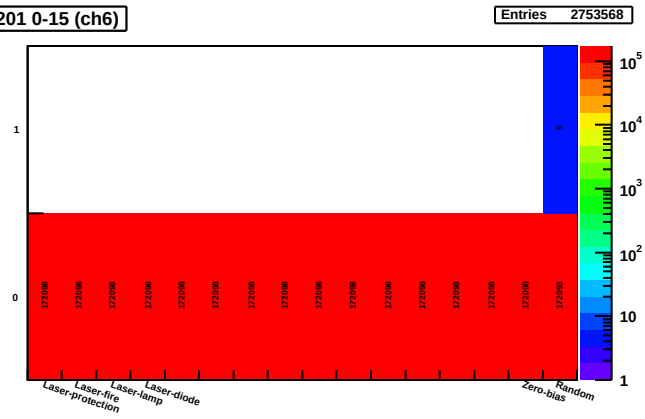
FP201 0-15 (ch5)

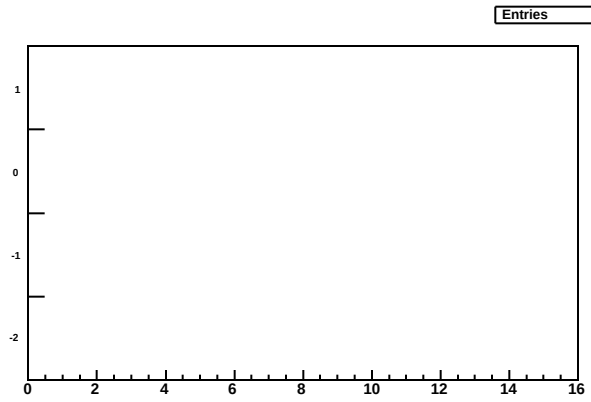
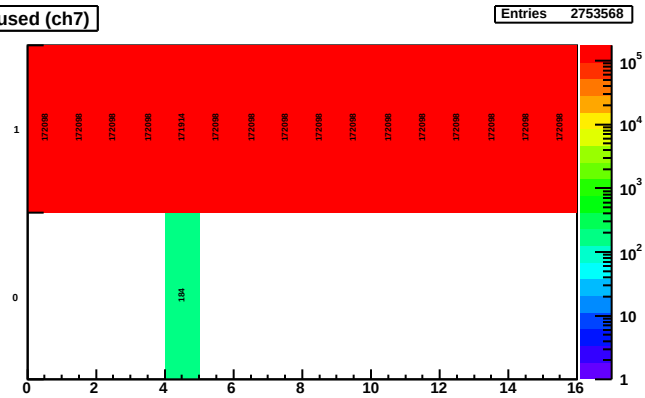
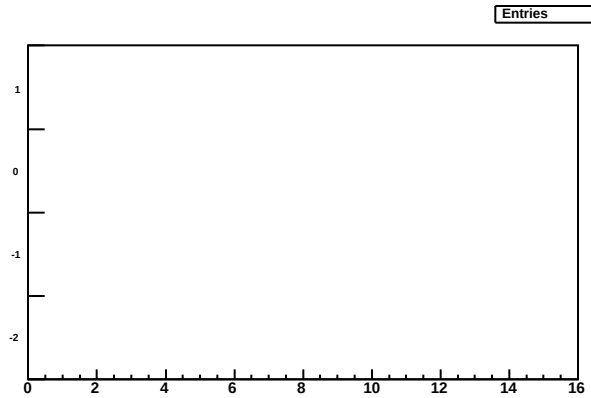


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)