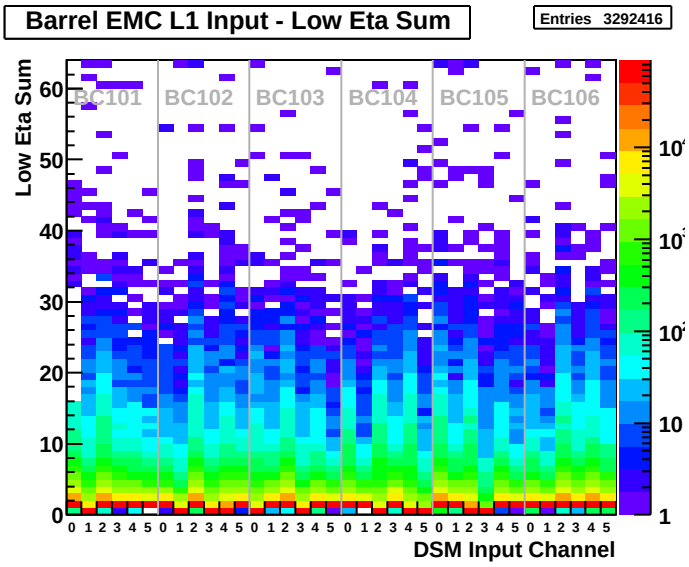
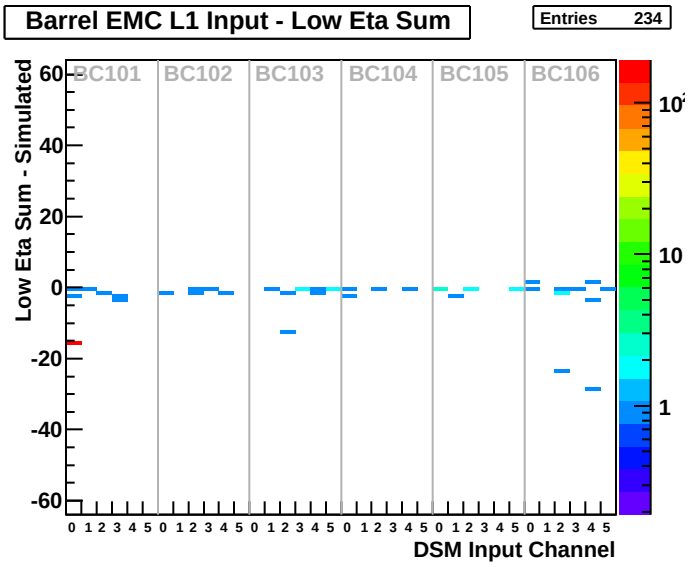
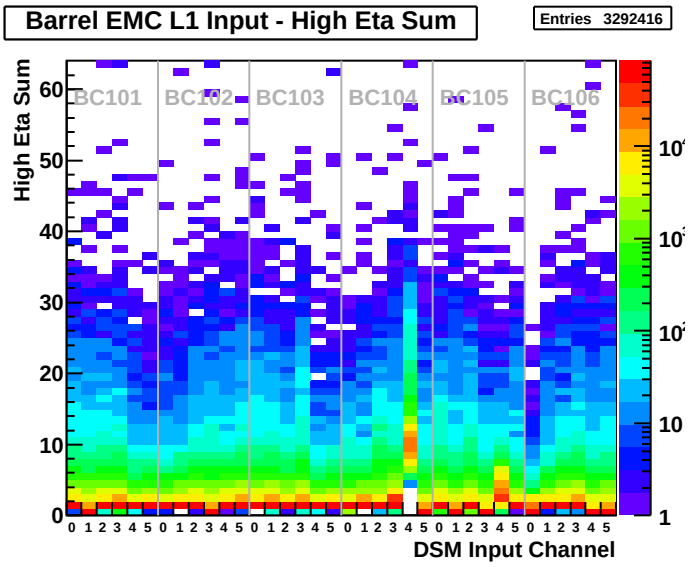
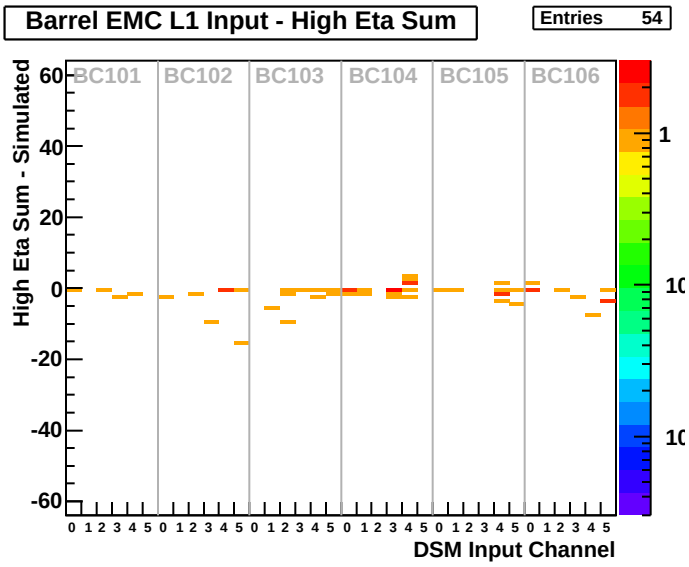
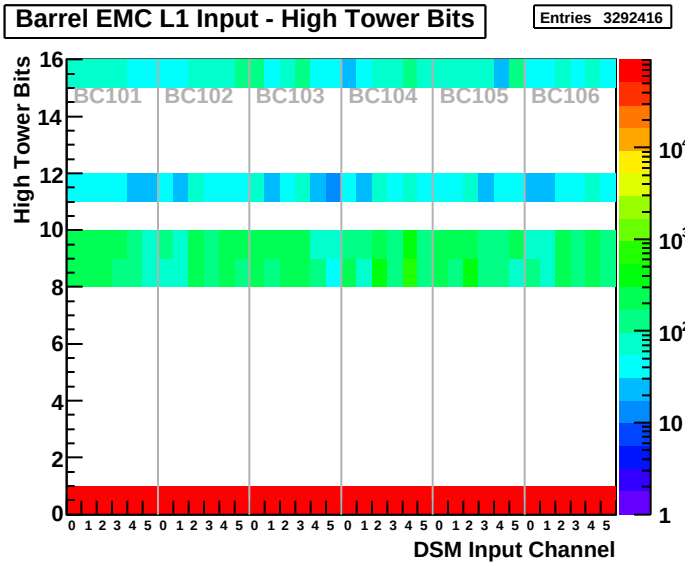
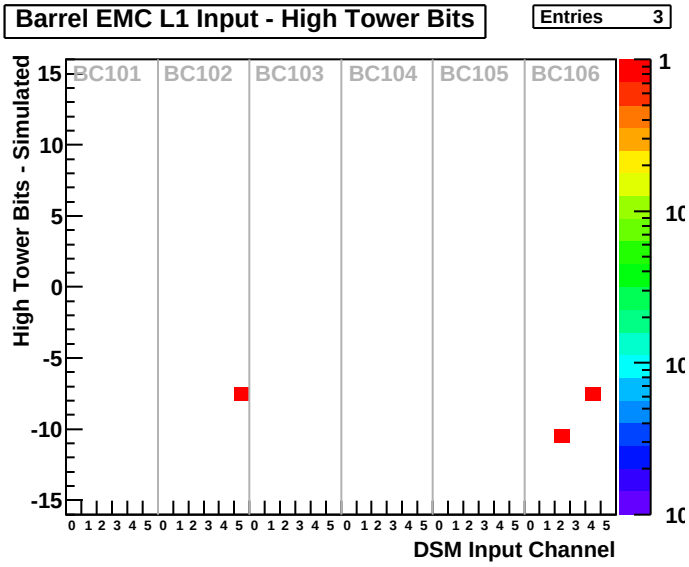

Barrel EMC L1 Input - Low Eta Sum
Entries 3292416
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

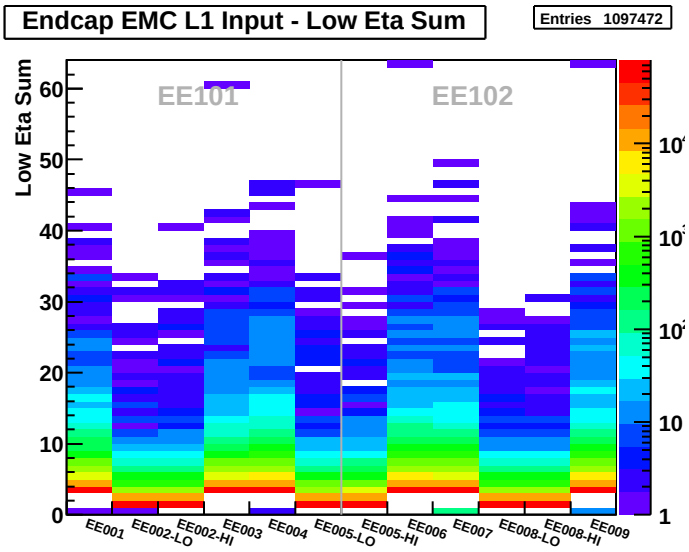

Barrel EMC L1 Input - Low Eta Sum
Entries 234
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

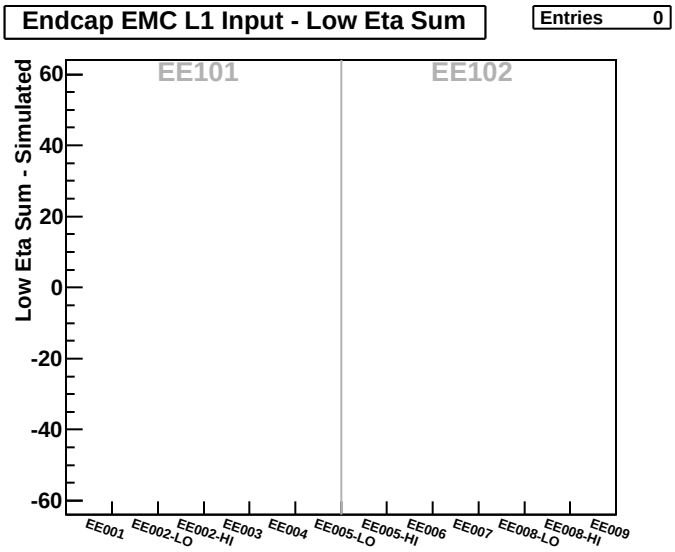

Barrel EMC L1 Input - High Eta Sum
Entries 3292416
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

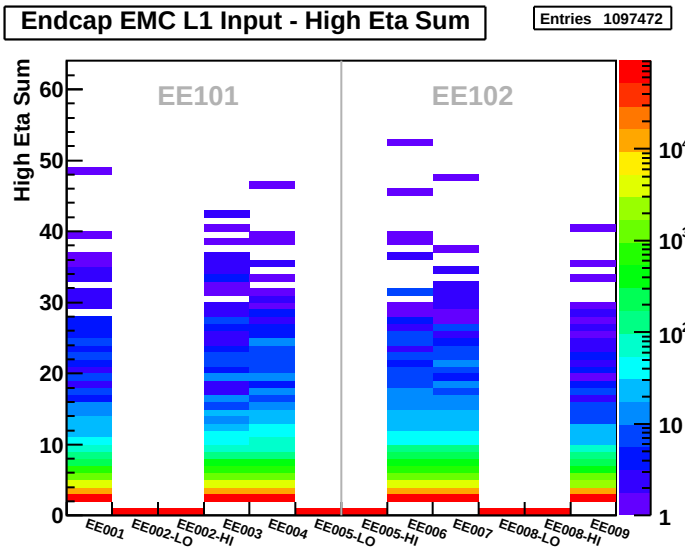

Barrel EMC L1 Input - High Eta Sum
Entries 54
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

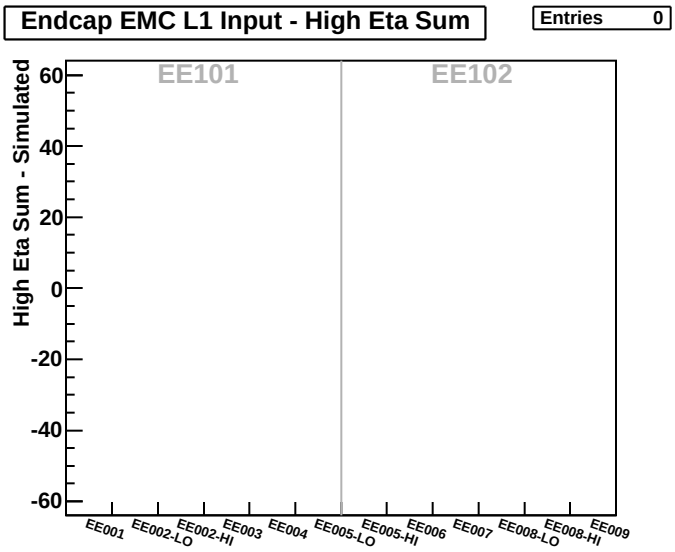

Barrel EMC L1 Input - High Tower Bits
Entries 3292416
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

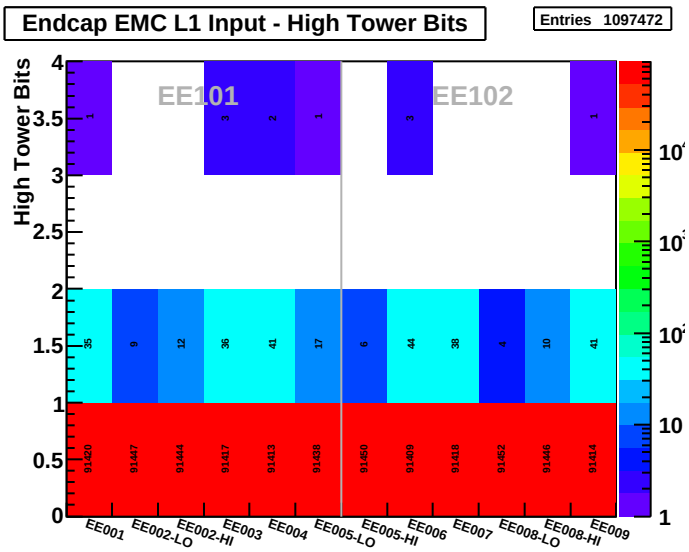

Barrel EMC L1 Input - High Tower Bits
Entries 3
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

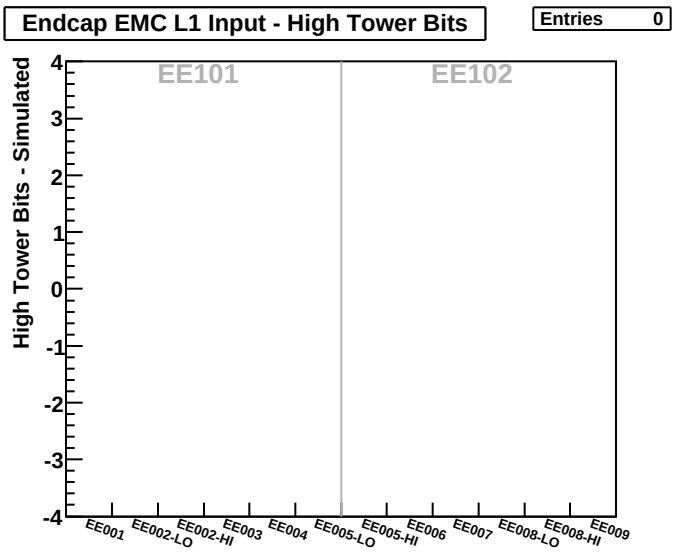

Endcap EMC L1 Input - Low Eta Sum
Entries 1097472
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

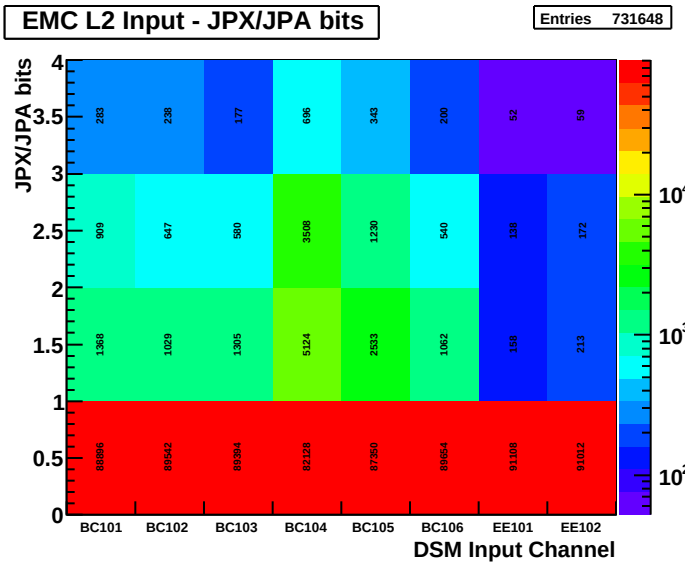

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

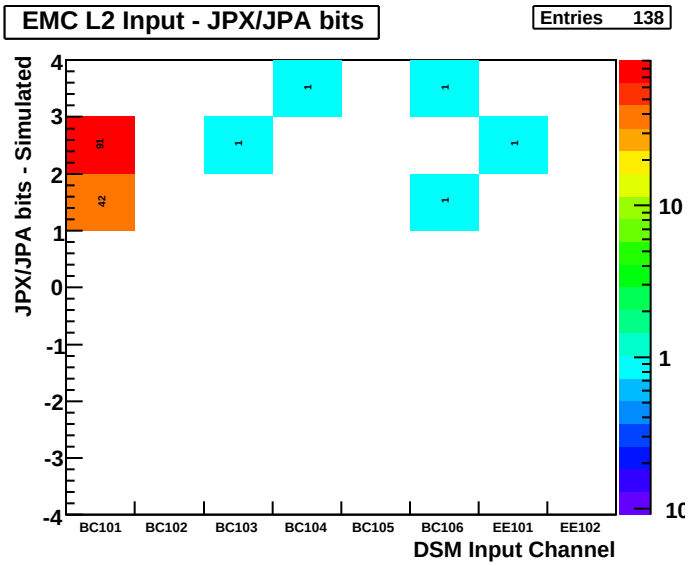

Endcap EMC L1 Input - High Eta Sum
Entries 1097472
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

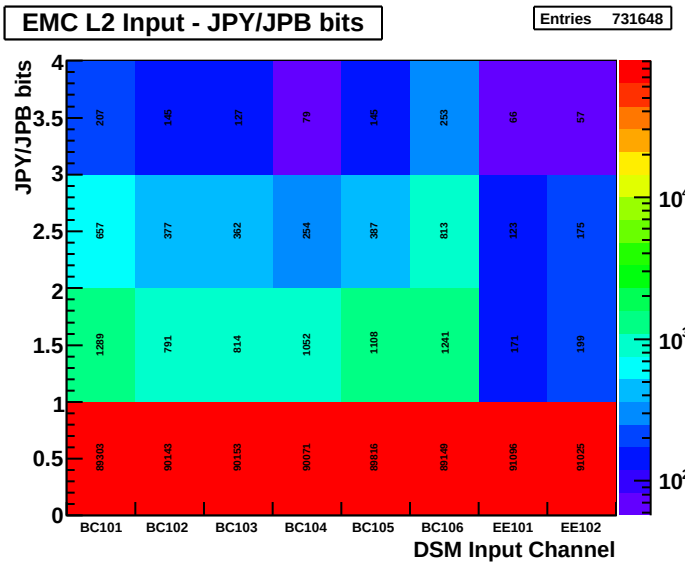

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

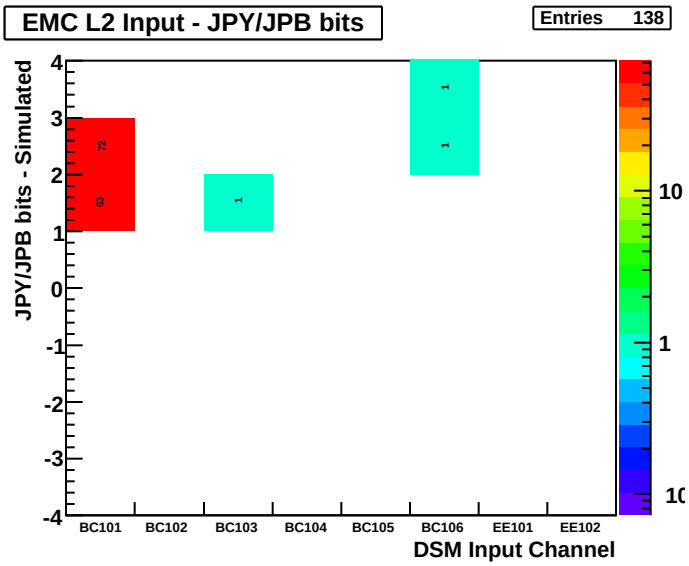

Endcap EMC L1 Input - High Tower Bits
Entries 1097472
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

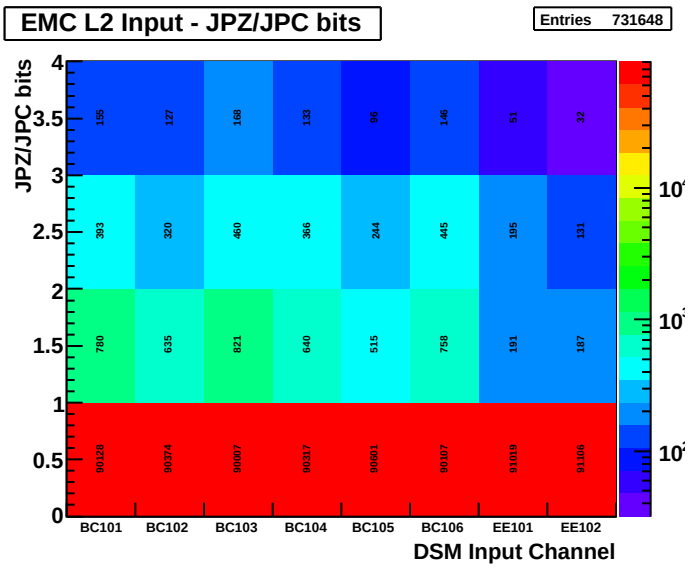

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

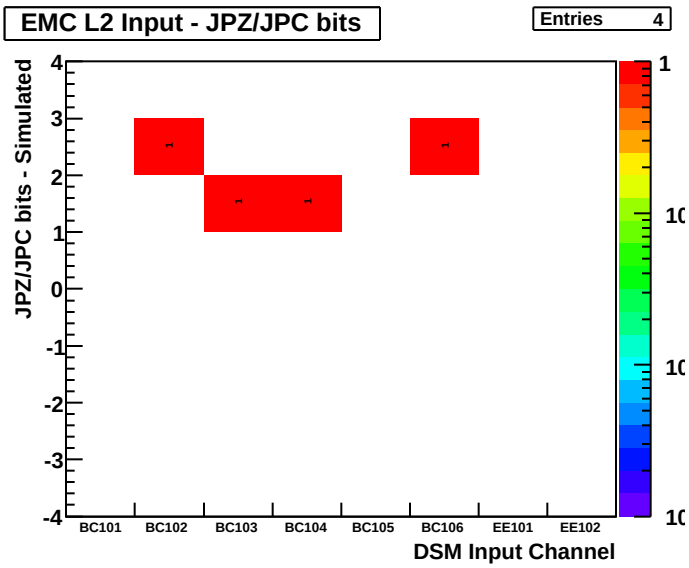

EMC L2 Input - JPX/JPA bits
Entries 731648
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
283 238 177 696 343 200 52 59
909 647 580 3508 1230 540 138 172
1368 1029 1305 5124 2533 1062 158 213
88896 89542 89394 82128 87350 89654 91108 91012

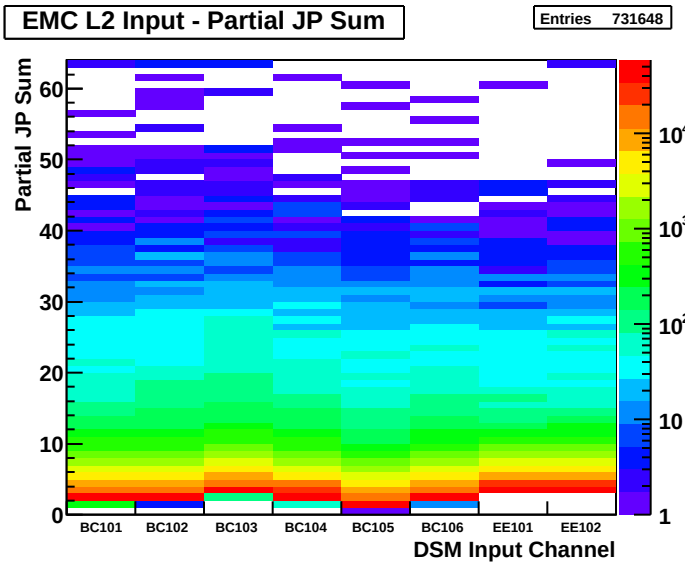

EMC L2 Input - JPX/JPA bits
Entries 138
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
91
42
1
1
1
1
1

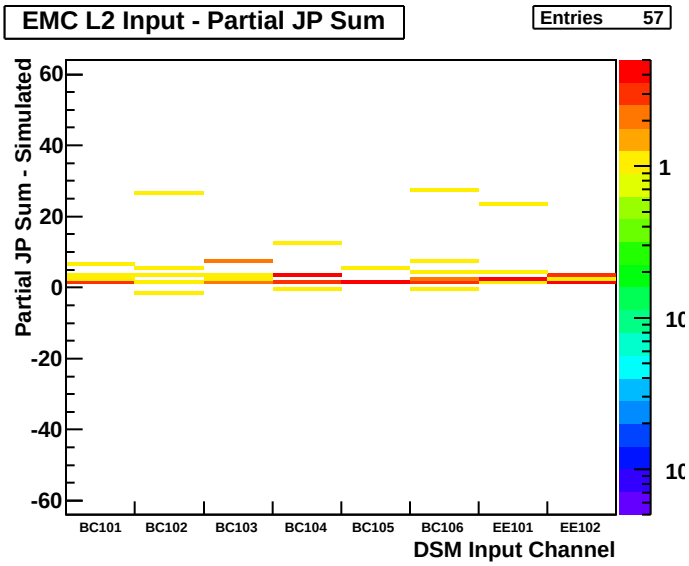

EMC L2 Input - JPY/JPB bits
Entries 731648
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
207 145 127 79 145 253 66 57
657 377 362 254 387 813 123 175
1289 791 814 1052 1108 1241 171 199
89303 90143 90153 90071 89816 89149 91096 91025

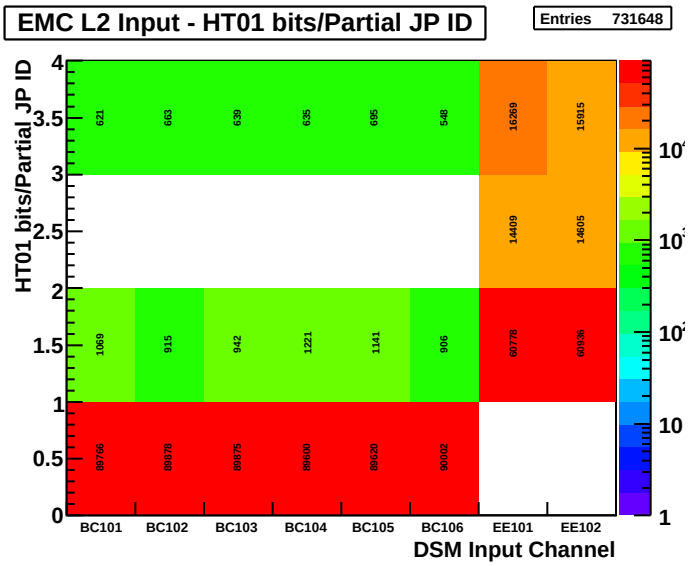

EMC L2 Input - JPY/JPB bits
Entries 138
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
72
63
1
1
1

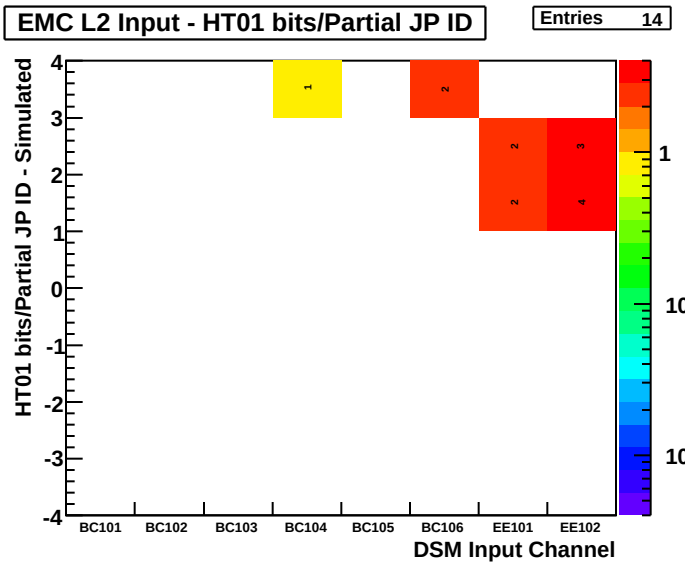

EMC L2 Input - JPZ/JPC bits
Entries 731648
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
155 127 168 133 96 146 51 32
393 320 460 366 244 445 195 131
780 635 821 640 515 758 191 187
90128 90374 90007 90317 90601 90107 91019 91106

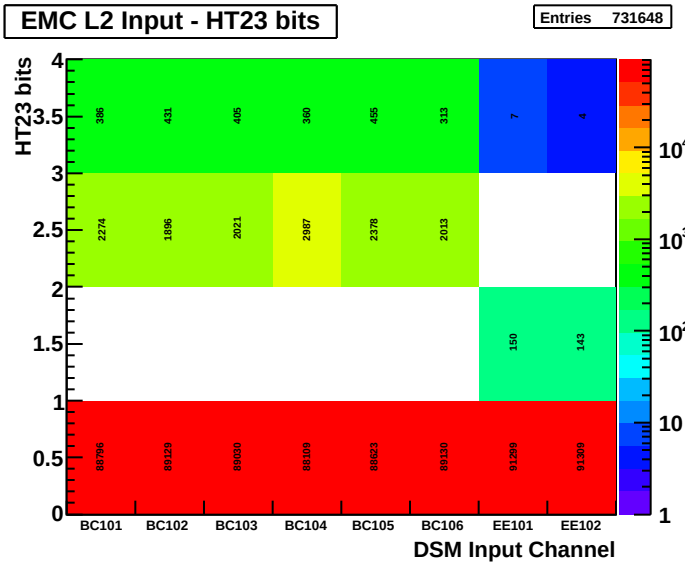

EMC L2 Input - JPZ/JPC bits
Entries 4
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1
1
1
1

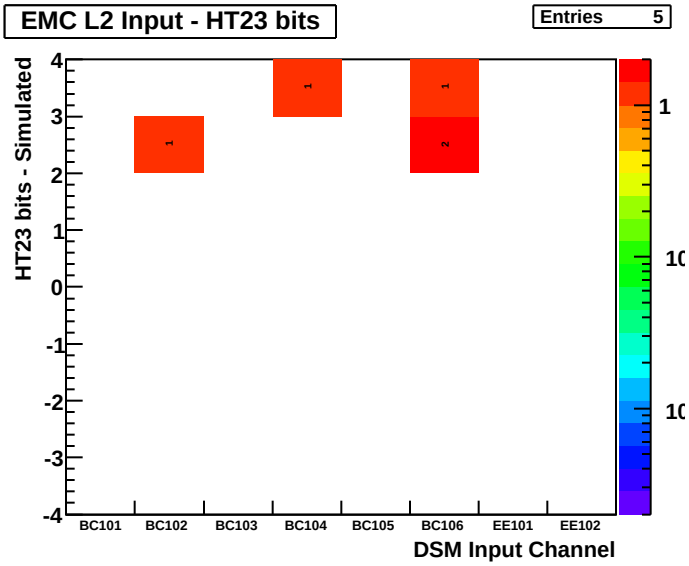

EMC L2 Input - Partial JP Sum
Entries 731648
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

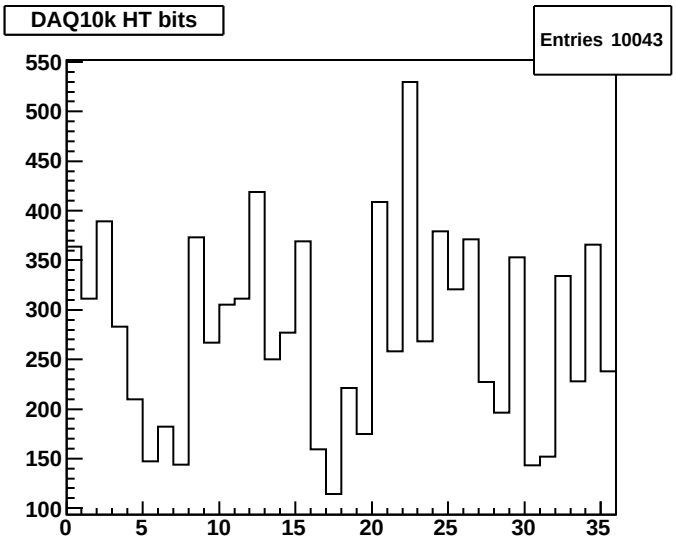

EMC L2 Input - Partial JP Sum
Entries 57
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

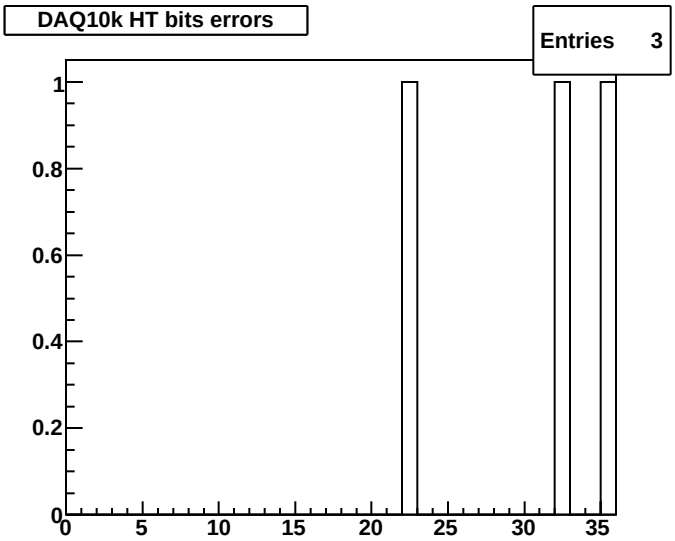

EMC L2 Input - HT01 bits/Partial JP ID
Entries 731648
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

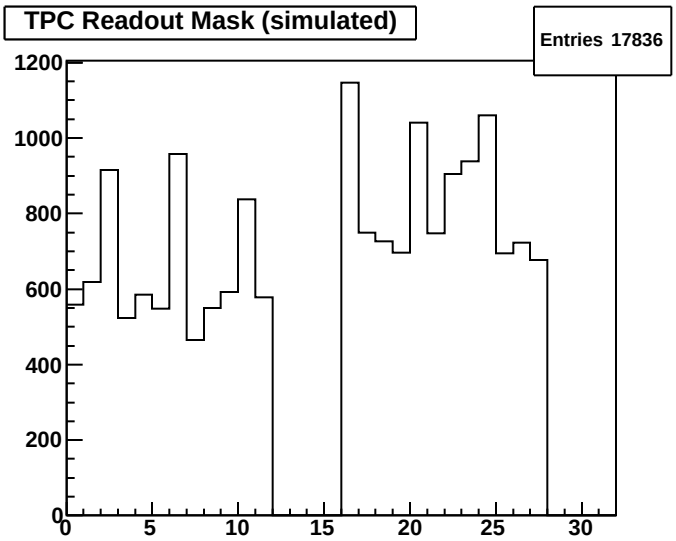

EMC L2 Input - HT01 bits/Partial JP ID
Entries 14
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

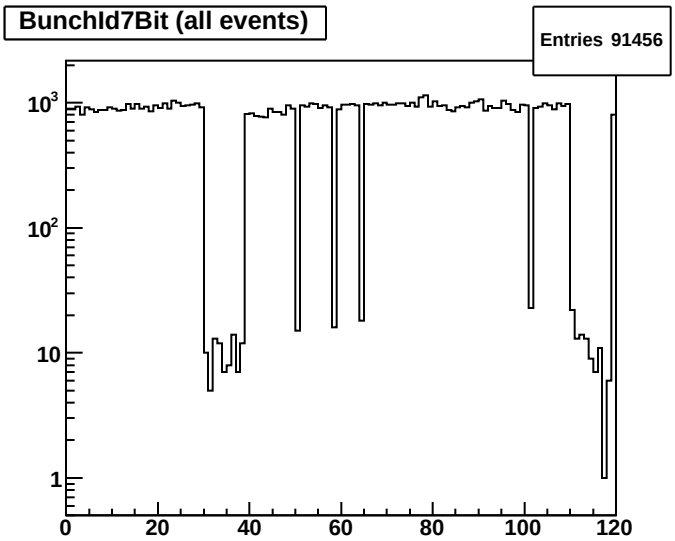

EMC L2 Input - HT23 bits
Entries 731648
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

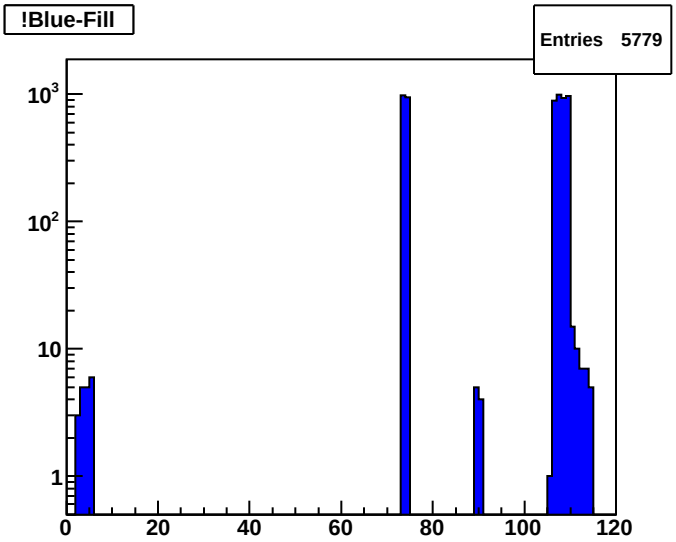

EMC L2 Input - HT23 bits
Entries 5
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

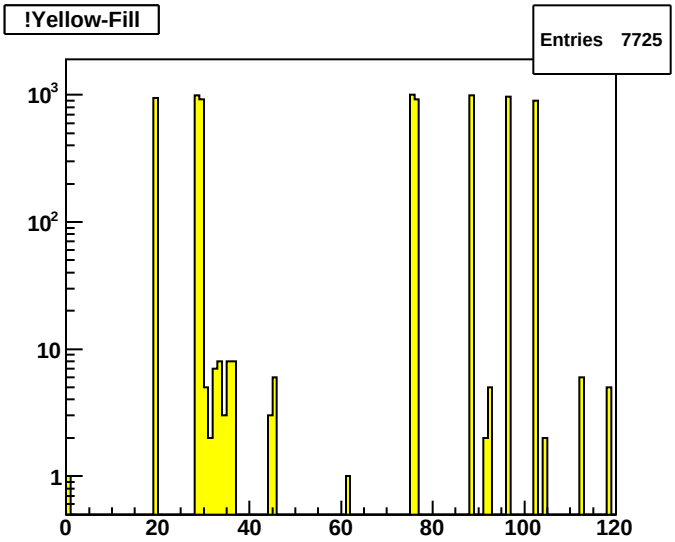

DAQ10k HT bits
Entries 10043

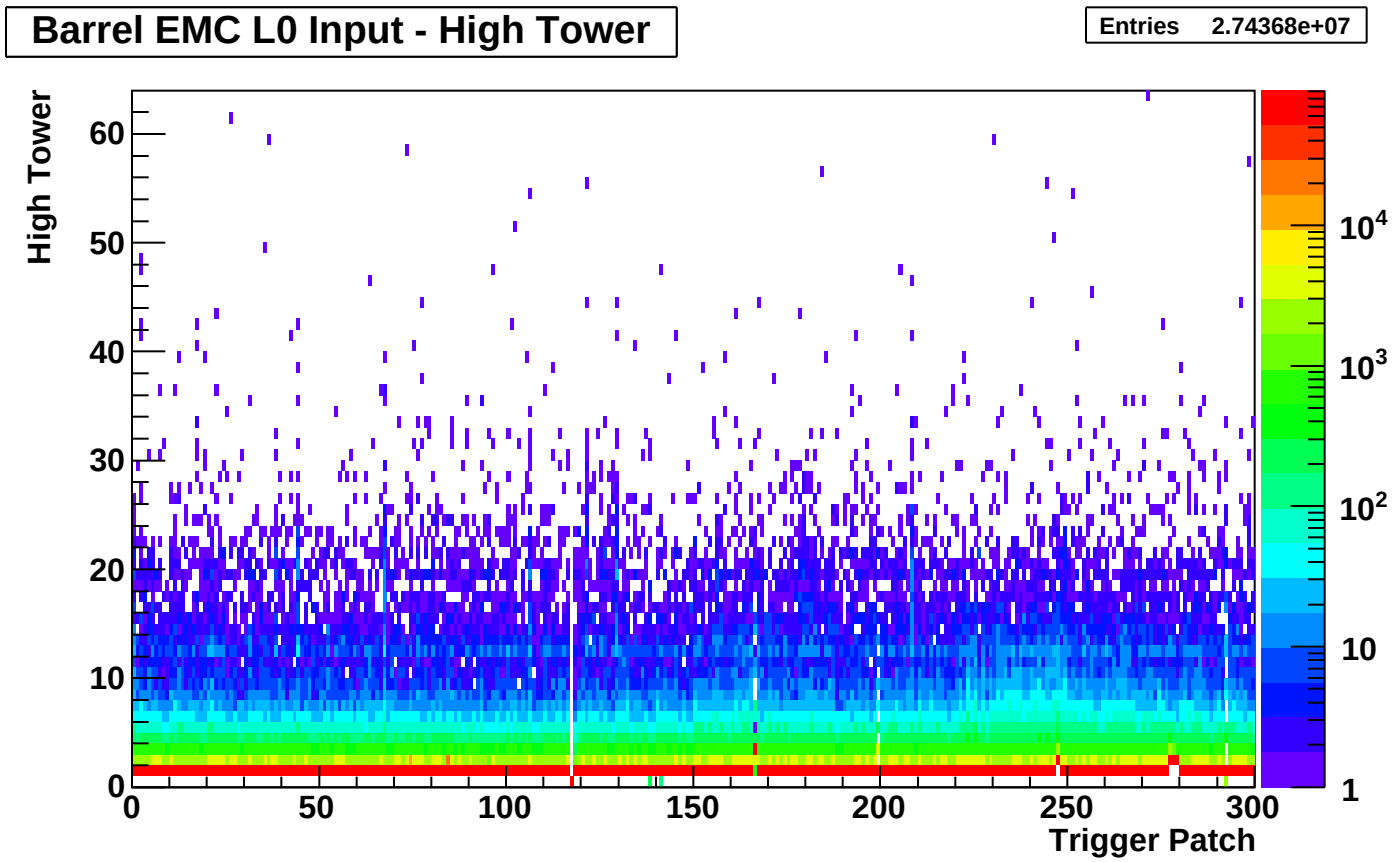

DAQ10k HT bits errors
Entries 3

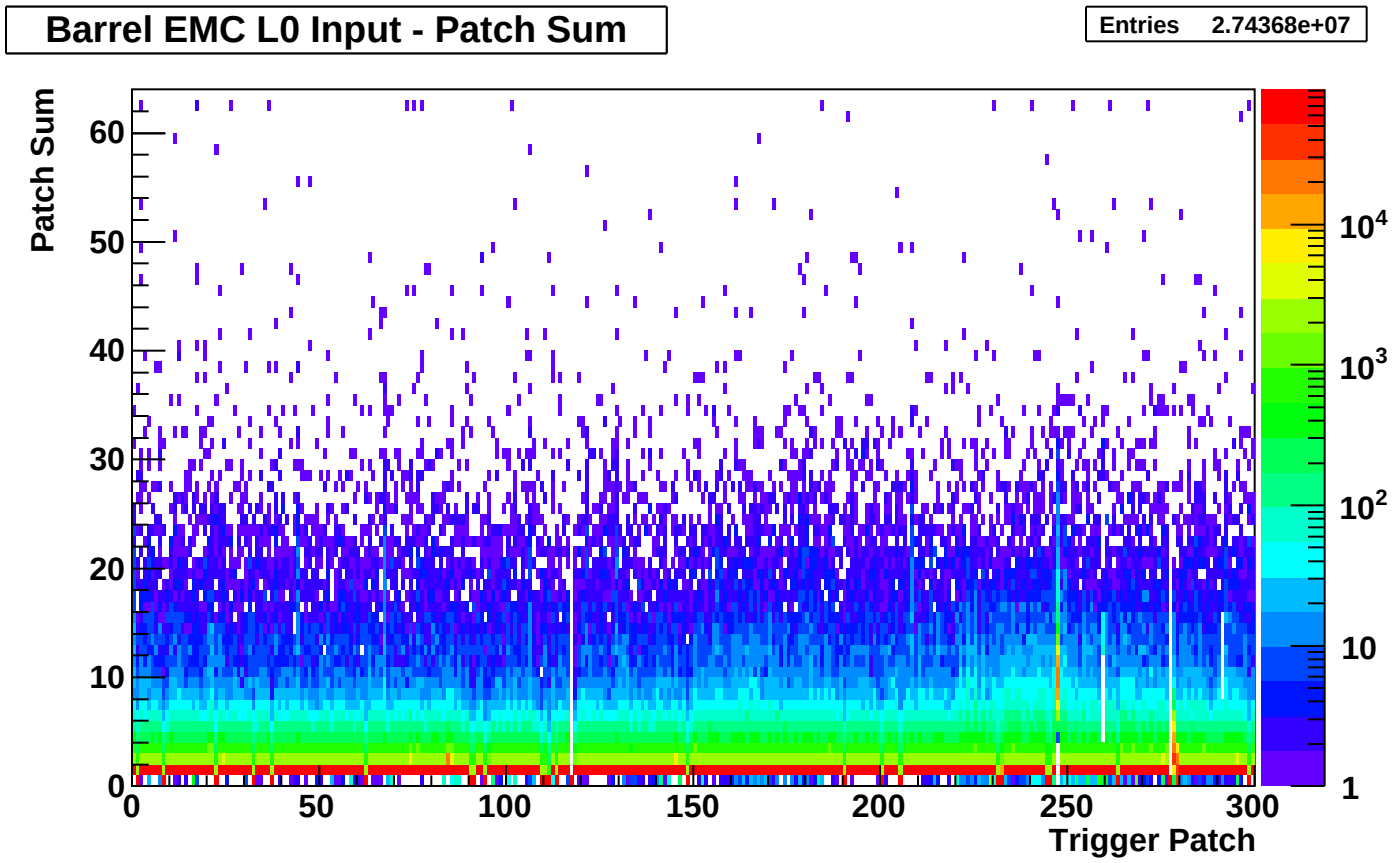

TPC Readout Mask (simulated)
Entries 17836

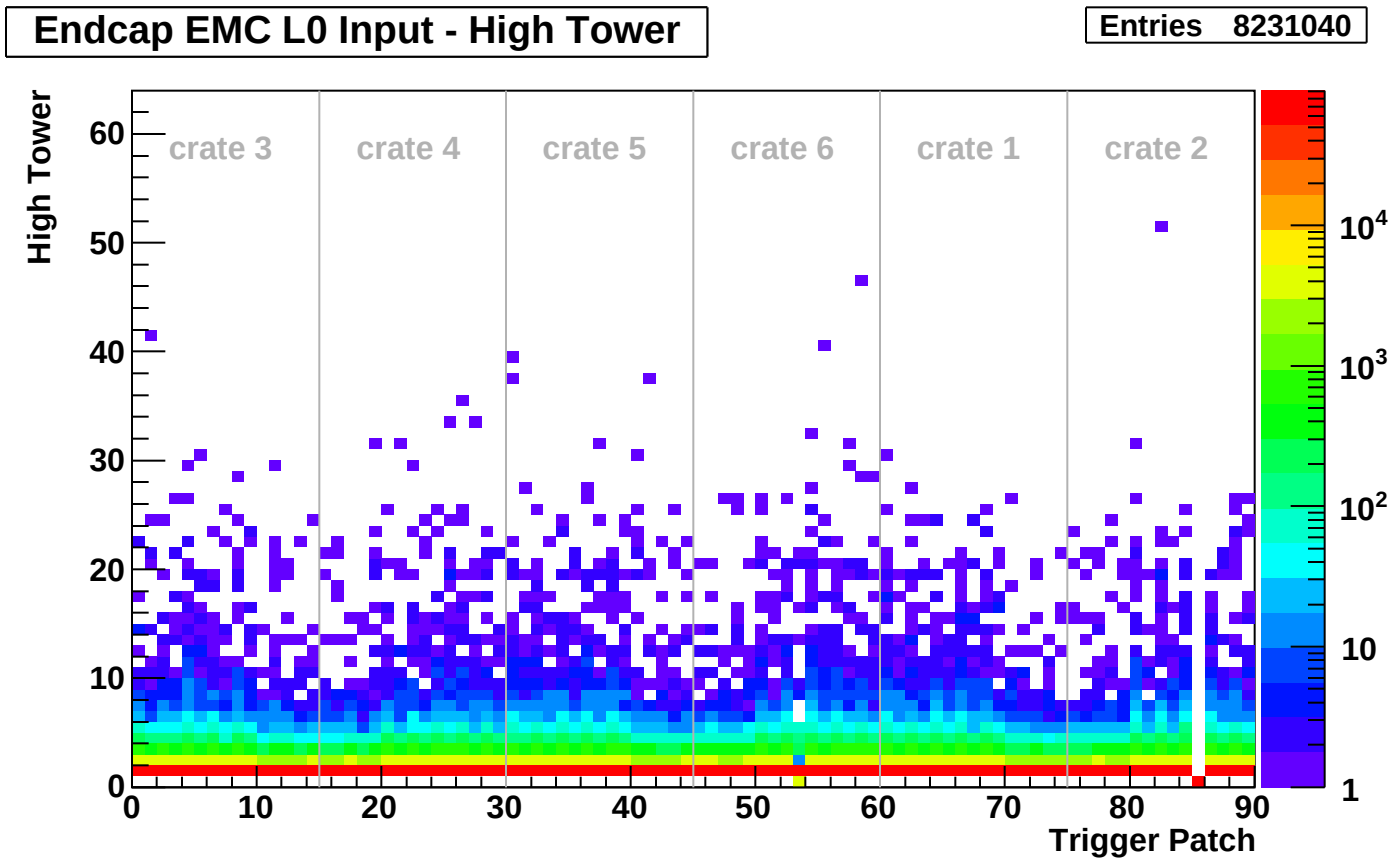

BunchId7Bit (all events)
Entries 91456

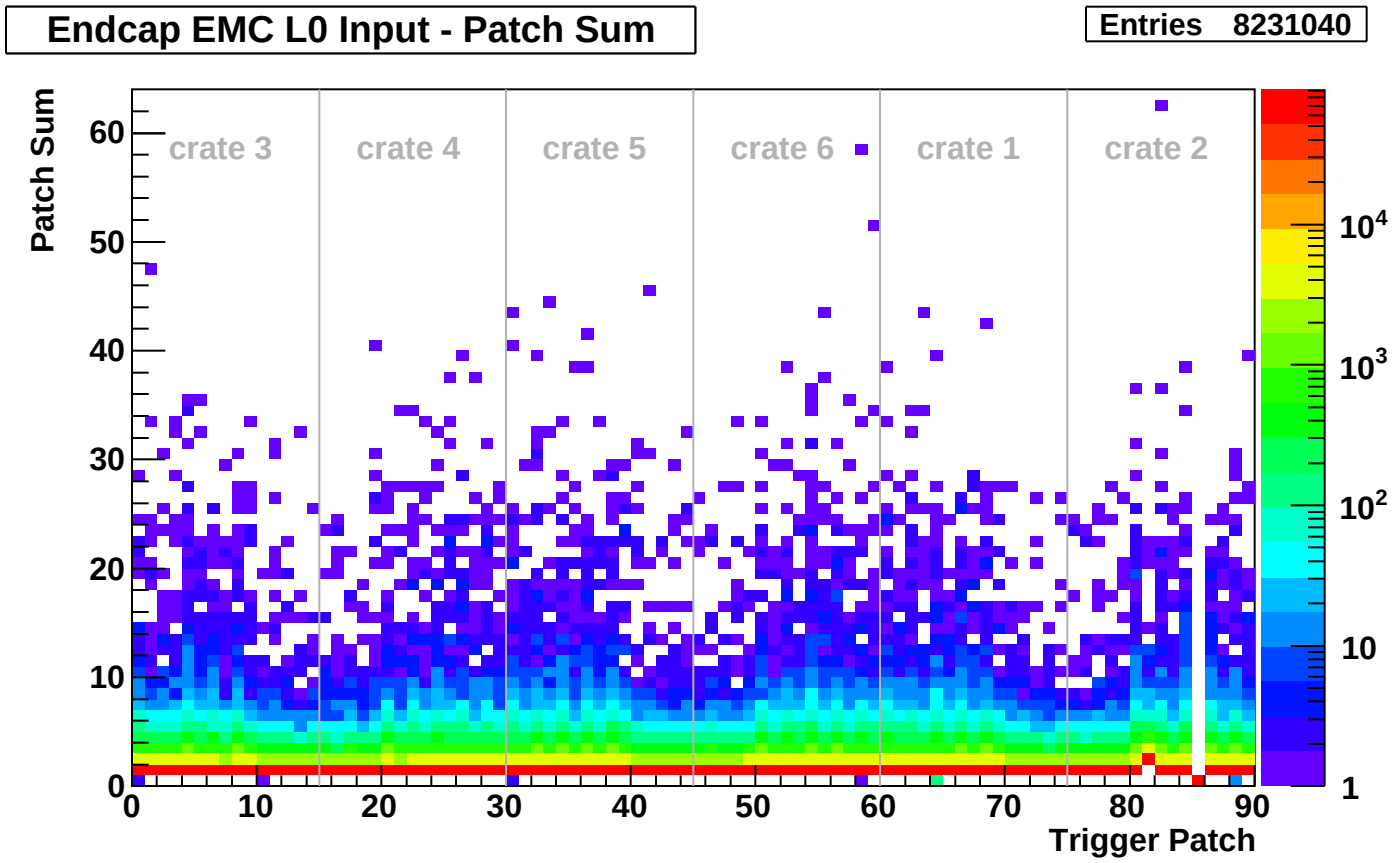

!Blue-Fill
Entries 5779

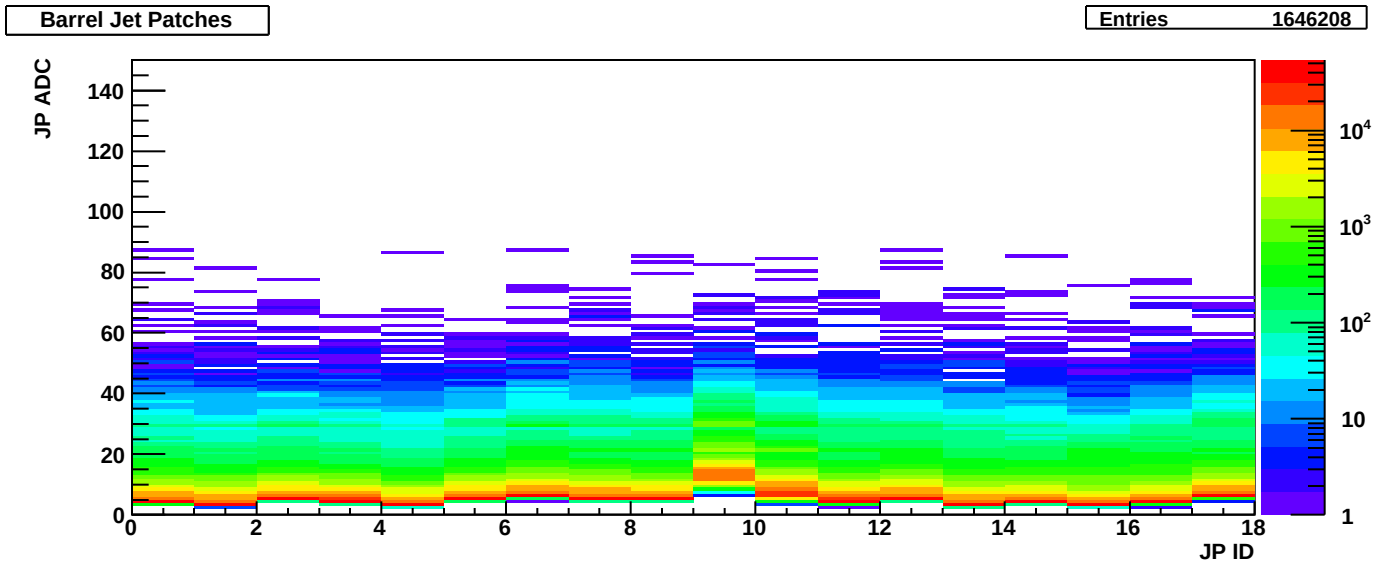

!Yellow-Fill
Entries 7725

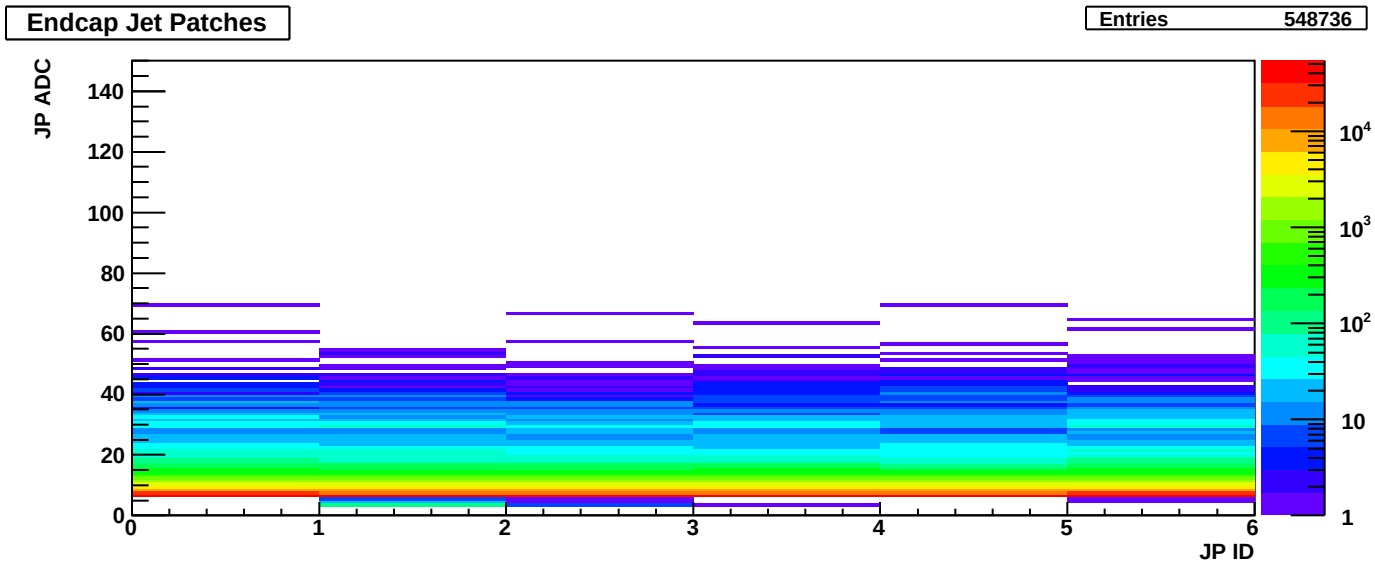

Barrel EMC L0 Input - High Tower
Entries 2.74368e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
$10^2$
$10^3$
$10^4$

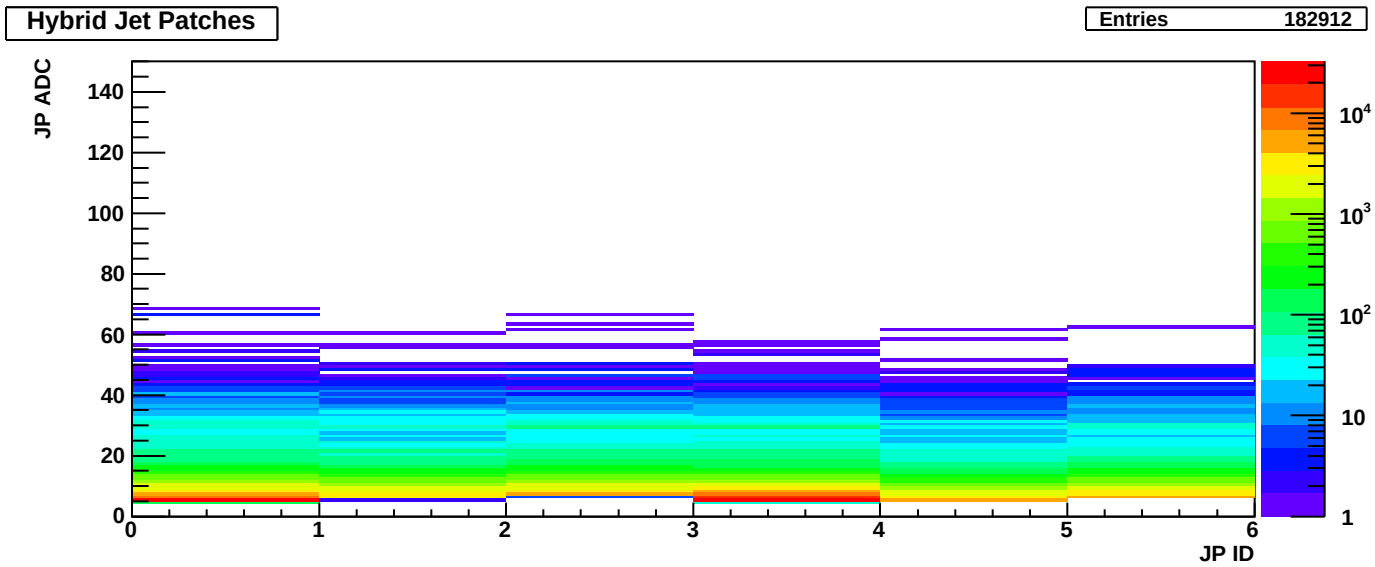

Barrel EMC L0 Input - Patch Sum
Entries 2.74368e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
$10^2$
$10^3$
$10^4$

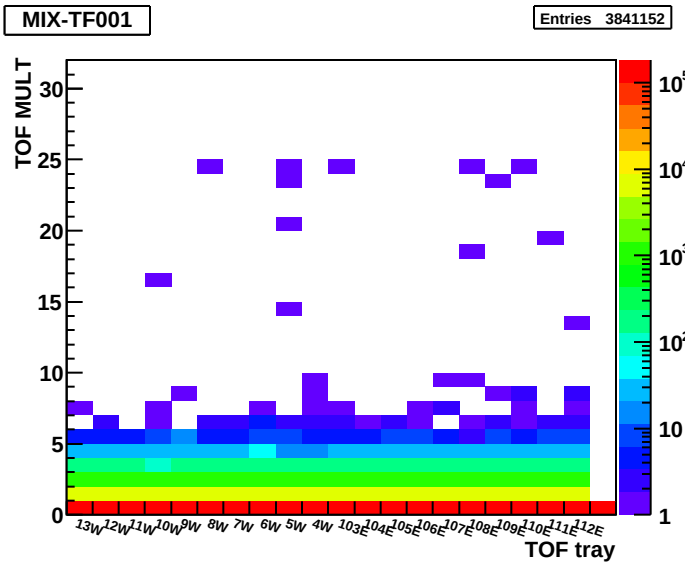

Endcap EMC L0 Input - High Tower
Entries 8231040
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

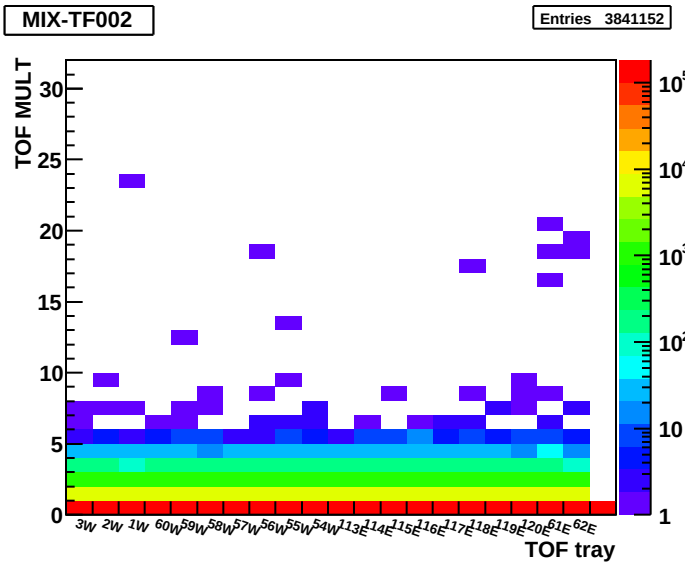

Endcap EMC L0 Input - Patch Sum
Entries 8231040
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

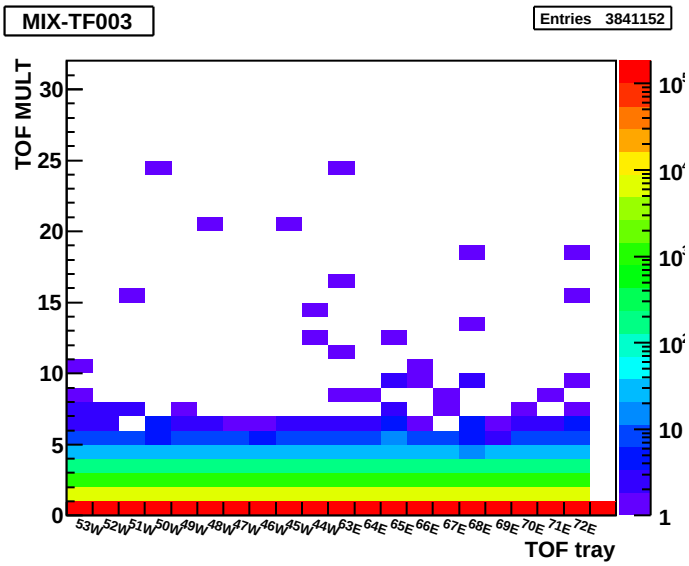

Barrel Jet Patches
Entries 1646208
JP ADC
JP ID

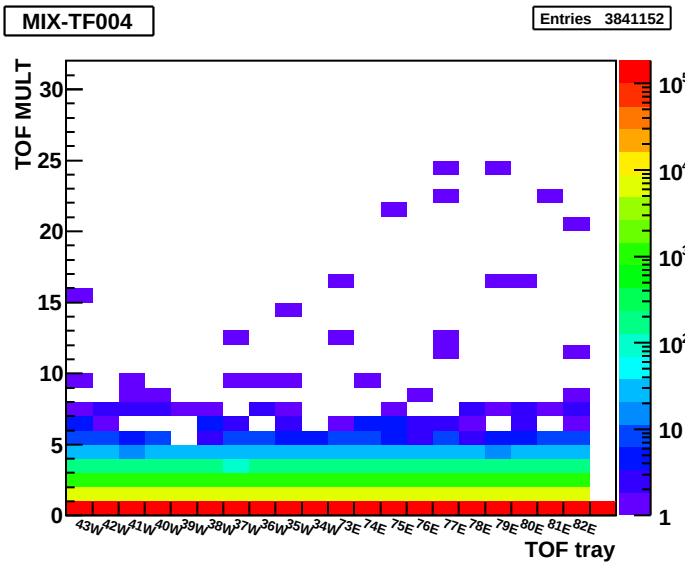

Endcap Jet Patches
Entries 548736
JP ADC
JP ID

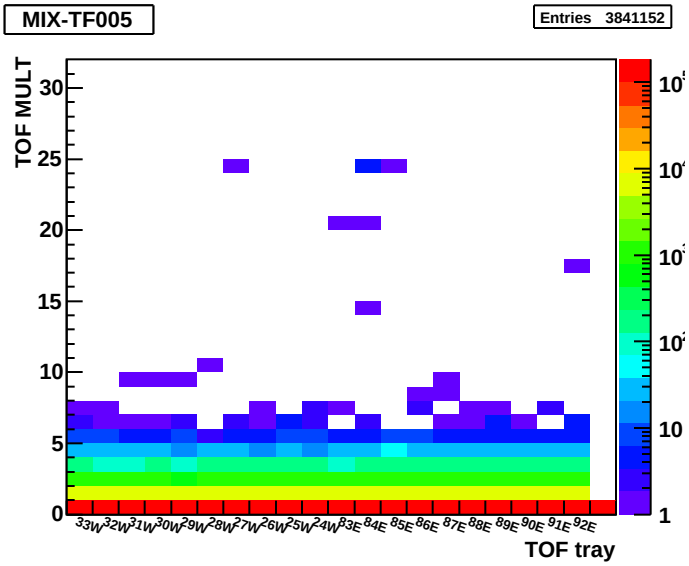

Hybrid Jet Patches
Entries 182912
JP ADC
JP ID

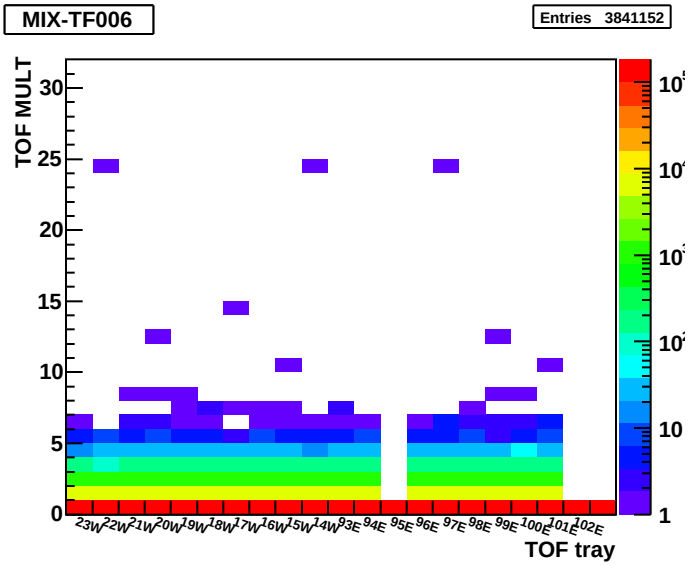

MIX-TF001
Entries 3841152
TOF MULT
TOF tray

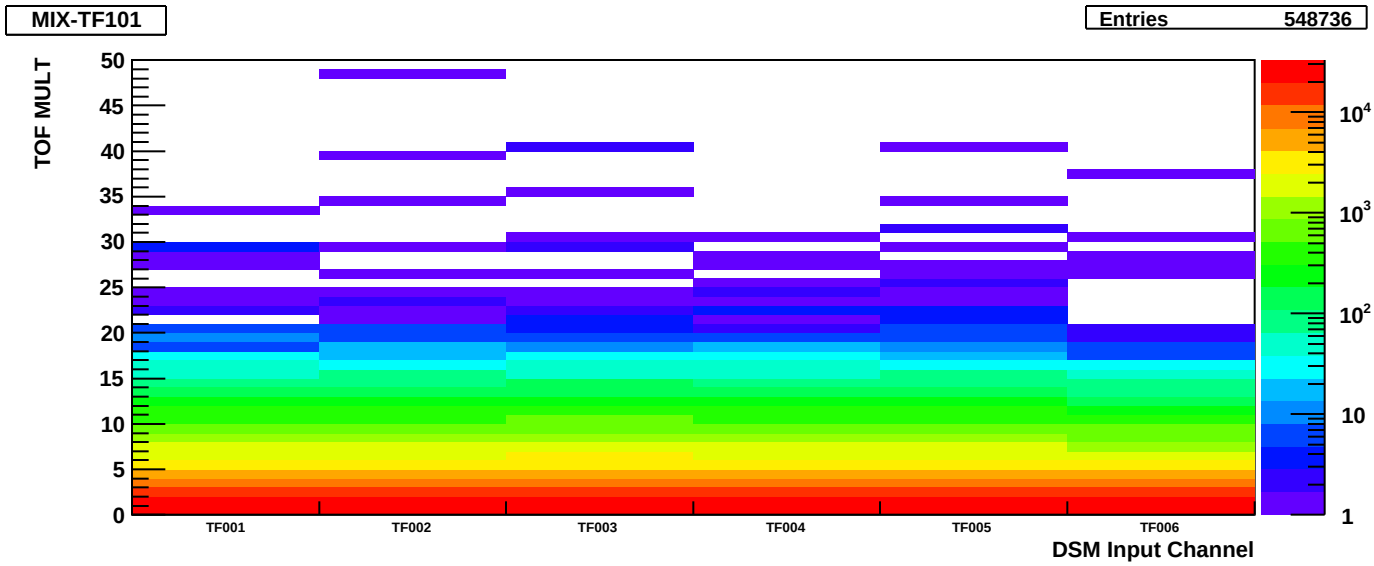

MIX-TF002
Entries 3841152
TOF MULT
TOF tray

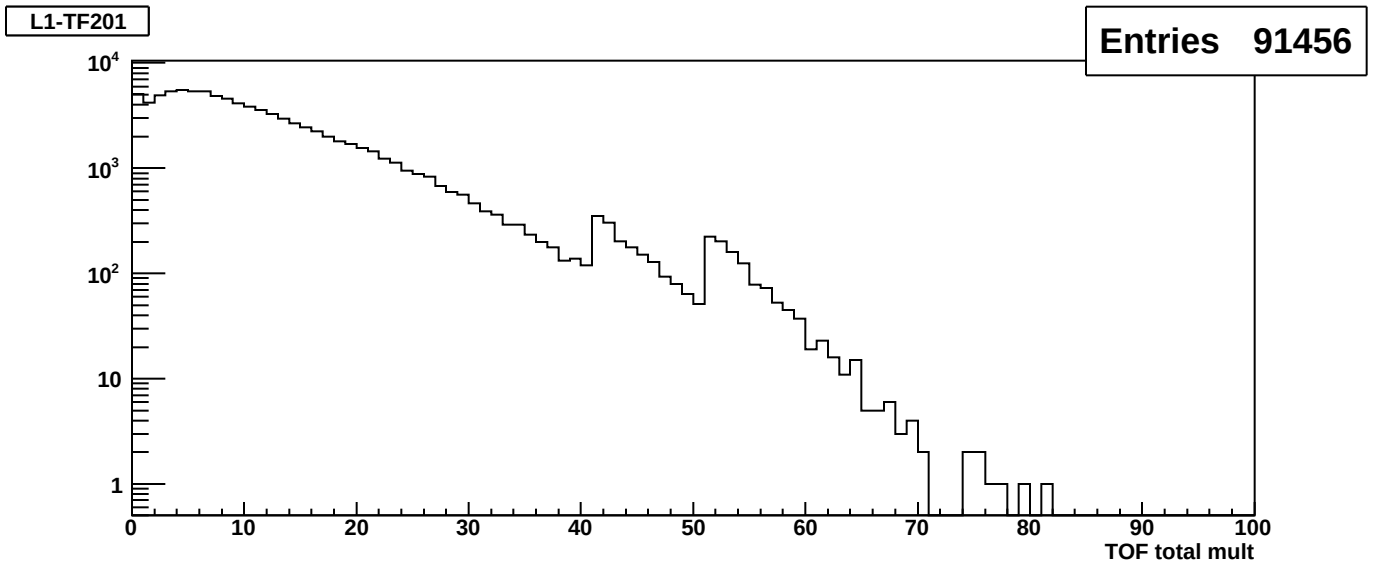

MIX-TF003
Entries 3841152
TOF MULT
TOF tray

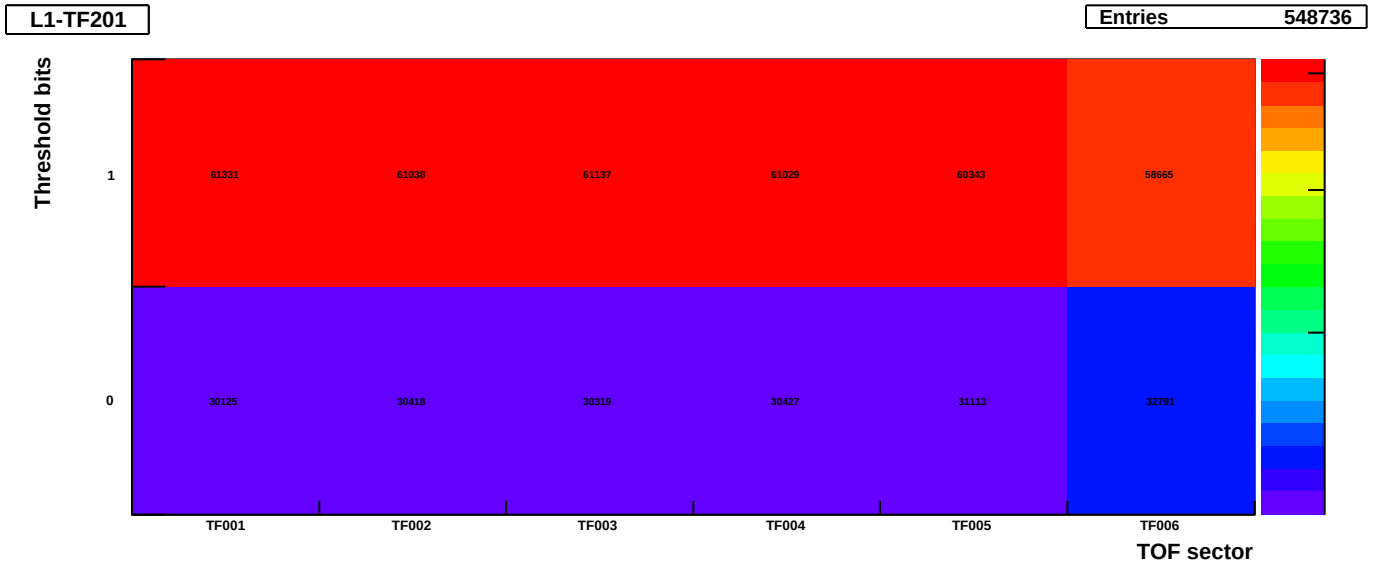

MIX-TF004
Entries 3841152
TOF MULT
TOF tray

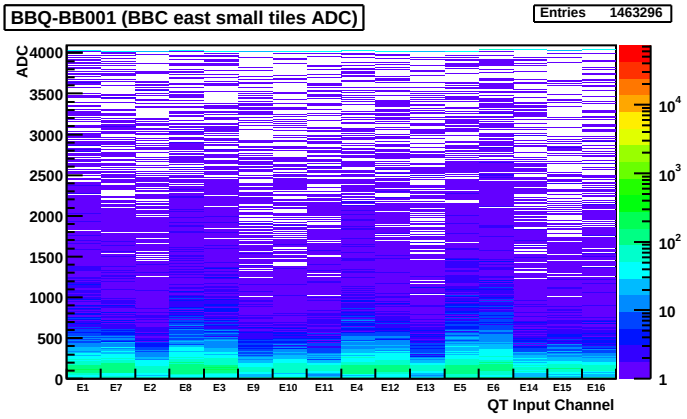

MIX-TF005
Entries 3841152
TOF MULT
TOF tray

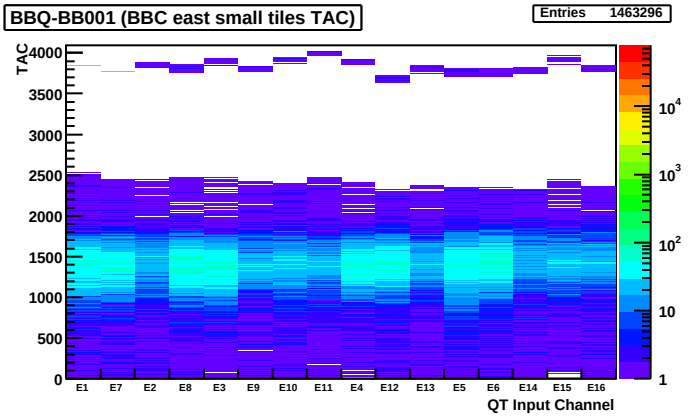

MIX-TF006
Entries 3841152
TOF MULT
TOF tray

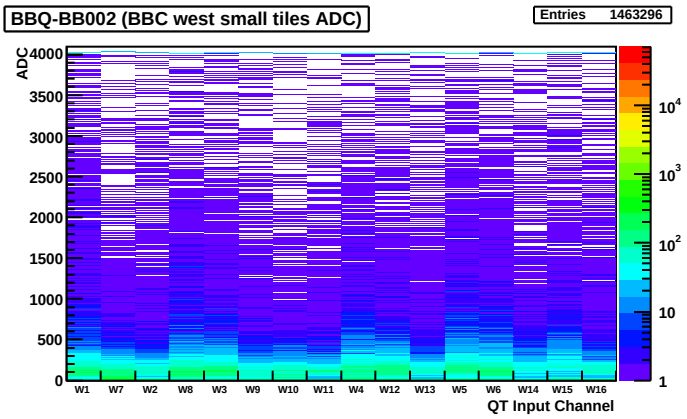

MIX-TF101
Entries 548736
TOF MULT
50
45
40
35
30
25
20
15
10
5
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
$10^4$
$10^3$
$10^2$
10
1

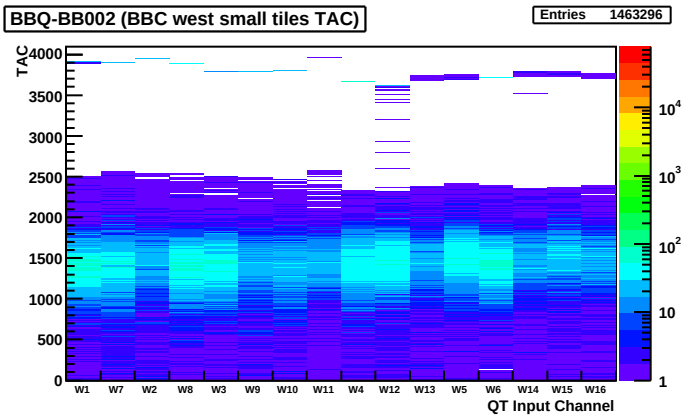

L1-TF201
Entries 91456
$10^4$
$10^3$
$10^2$
10
1
0
10
20
30
40
50
60
70
80
90
100
TOF total mult

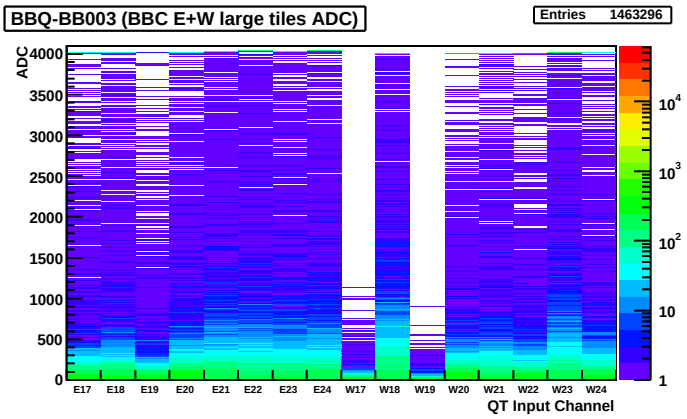

L1-TF201
Entries 548736
Threshold bits
1
0
61331
61038
61137
61029
60343
58665
30125
30418
30319
30427
31113
32791
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

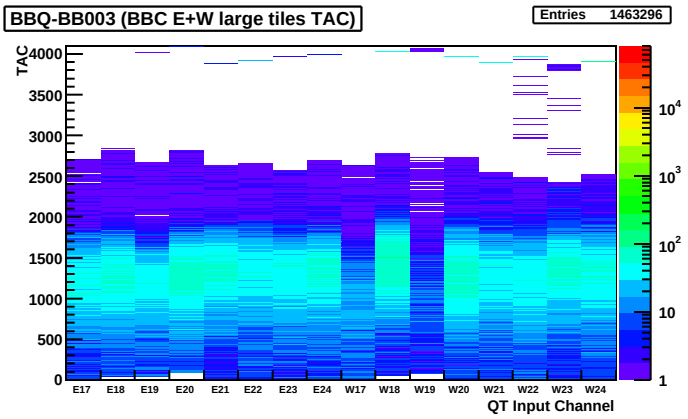

BBQ-BB001 (BBC east small tiles ADC)
Entries 1463296
ADC
QT Input Channel

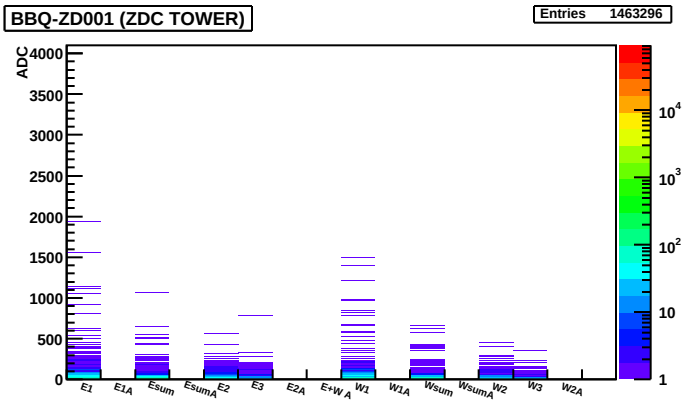

BBQ-BB001 (BBC east small tiles TAC)
Entries 1463296
TAC
QT Input Channel

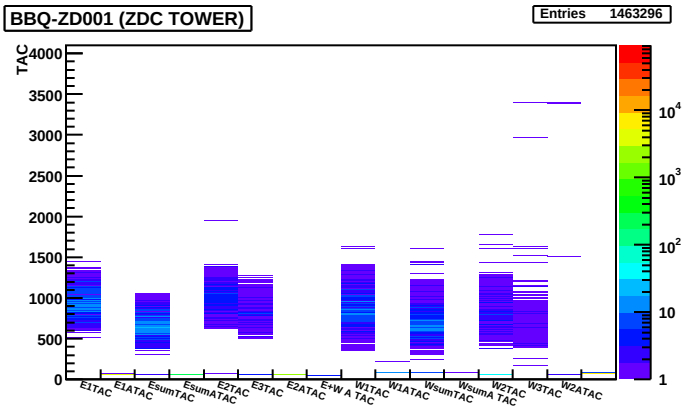

BBQ-BB002 (BBC west small tiles ADC)
Entries 1463296
ADC
QT Input Channel

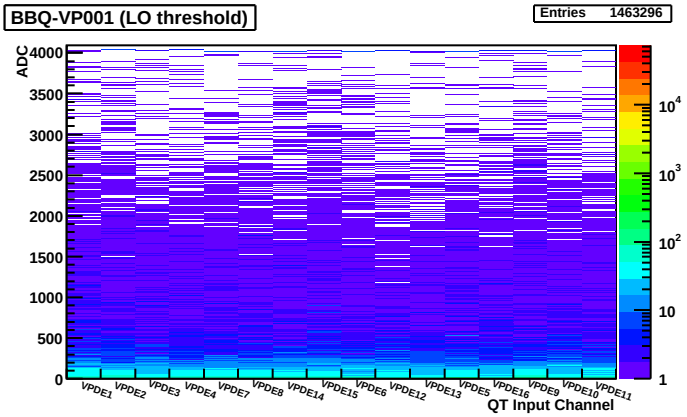

BBQ-BB002 (BBC west small tiles TAC)
Entries 1463296
TAC
QT Input Channel

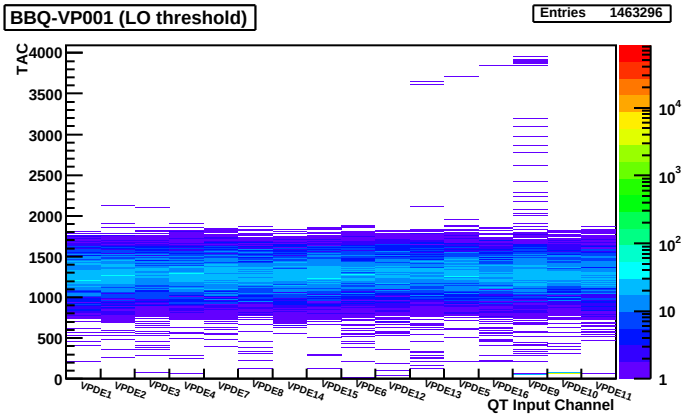

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1463296
ADC
QT Input Channel

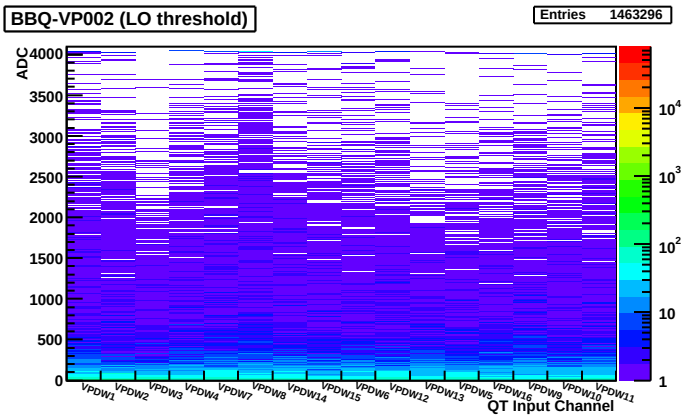

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1463296
TAC
QT Input Channel

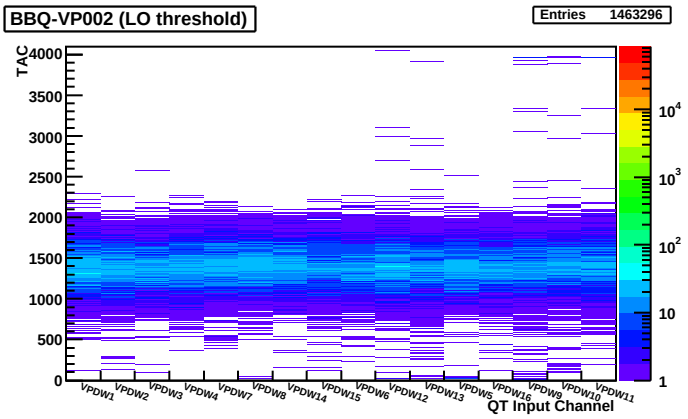

BBQ-ZD001 (ZDC TOWER)
Entries 1463296
ADC

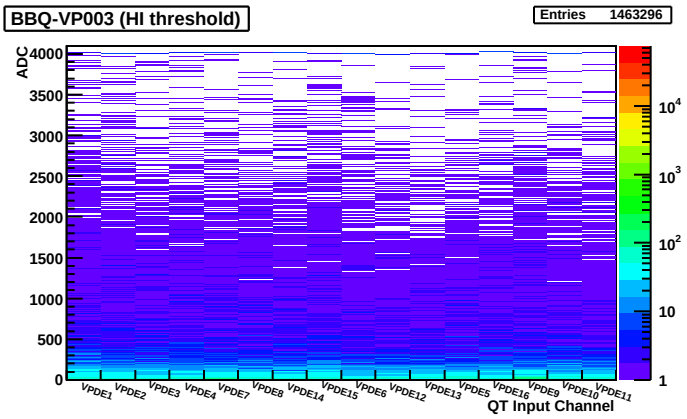

BBQ-ZD001 (ZDC TOWER)
Entries 1463296
TAC

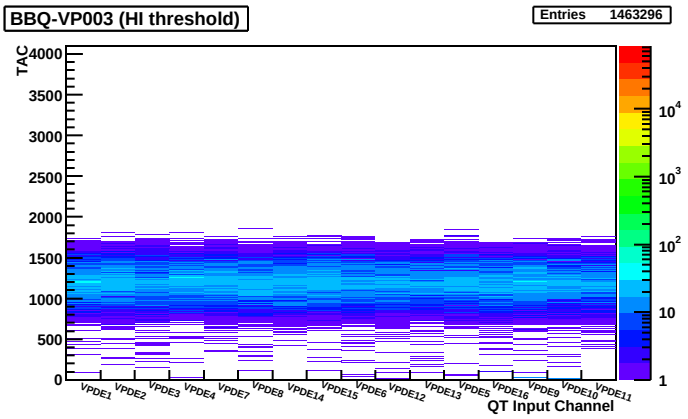

BBQ-VP001 (LO threshold)
Entries 1463296
ADC
QT Input Channel

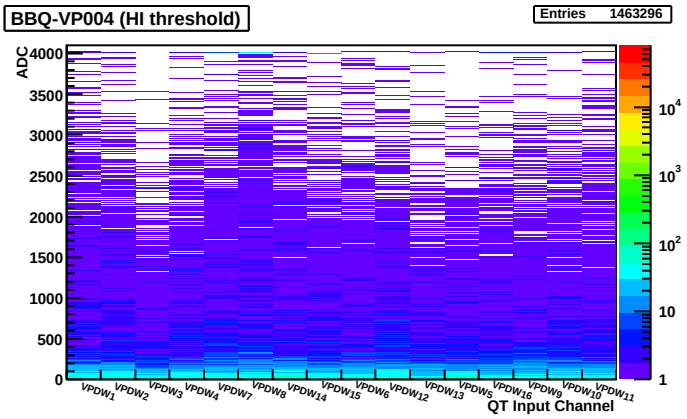

BBQ-VP001 (LO threshold)
Entries 1463296
TAC
QT Input Channel

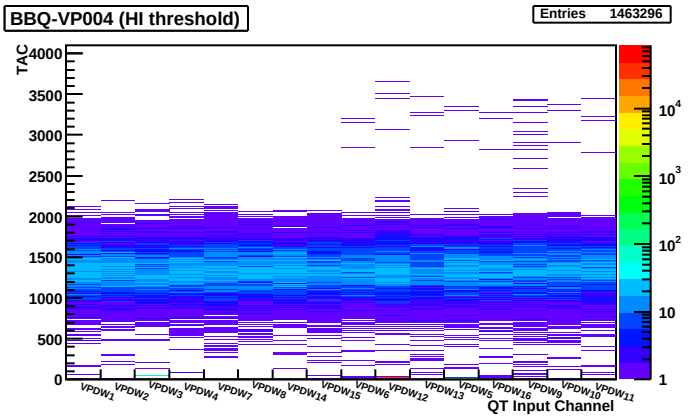

BBQ-VP002 (LO threshold)
Entries 1463296
ADC
QT Input Channel

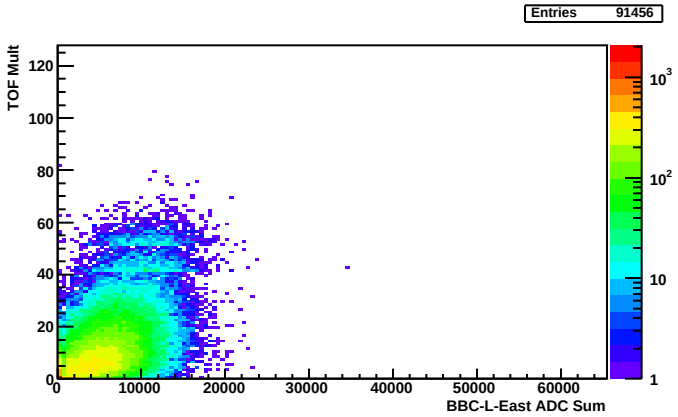

BBQ-VP002 (LO threshold)
Entries 1463296
TAC
QT Input Channel

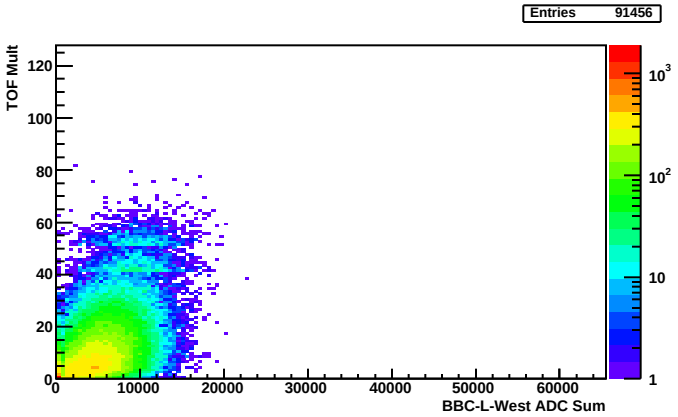

BBQ-VP003 (HI threshold)
Entries 1463296
ADC
QT Input Channel

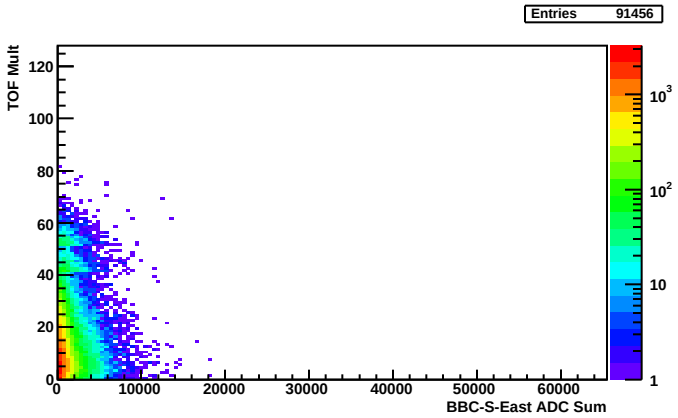

BBQ-VP003 (HI threshold)
Entries 1463296
TAC
QT Input Channel

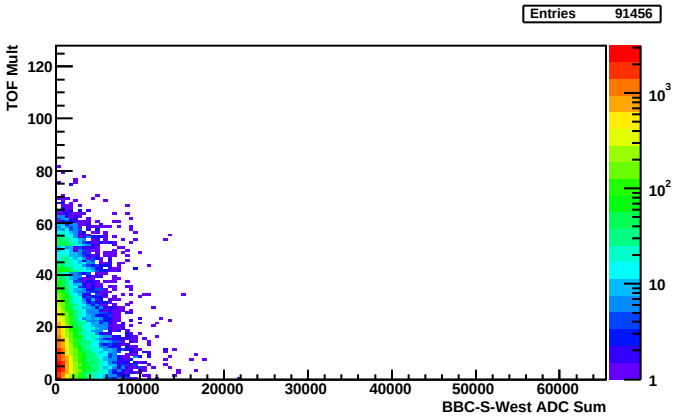

BBQ-VP004 (HI threshold)
Entries 1463296
ADC
QT Input Channel

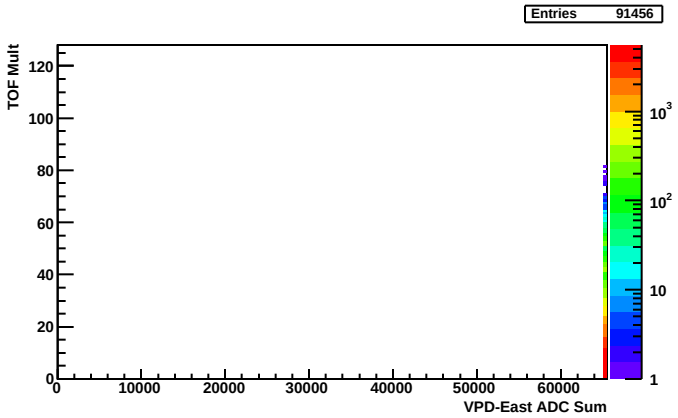

BBQ-VP004 (HI threshold)
Entries 1463296
TAC
QT Input Channel

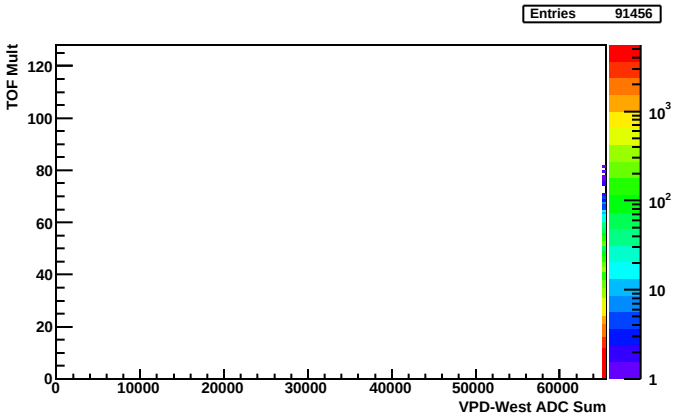

Entries 91456
TOF Mult
BBC-L-East ADC Sum

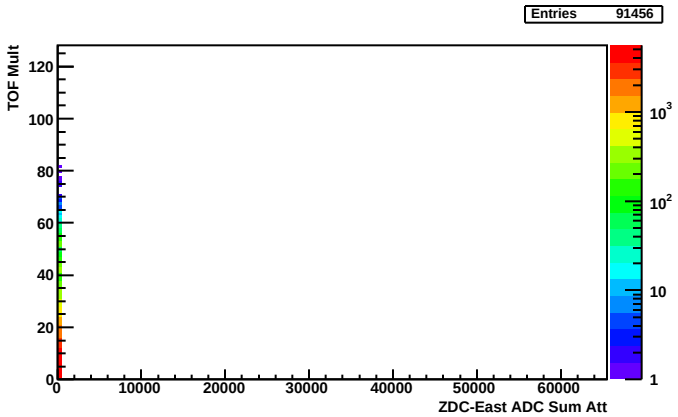

Entries 91456
TOF Mult
BBC-L-West ADC Sum

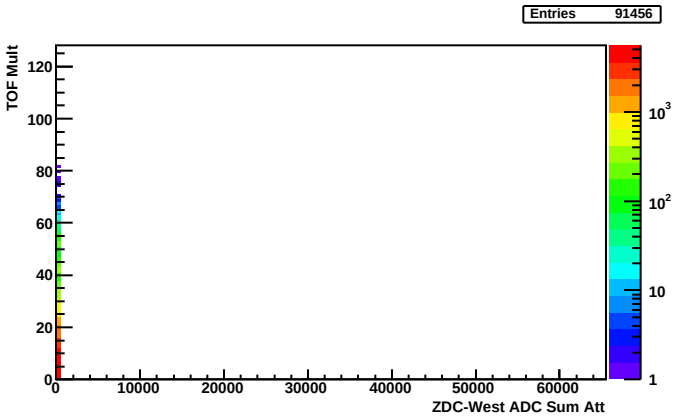

Entries 91456
TOF Mult
BBC-S-East ADC Sum

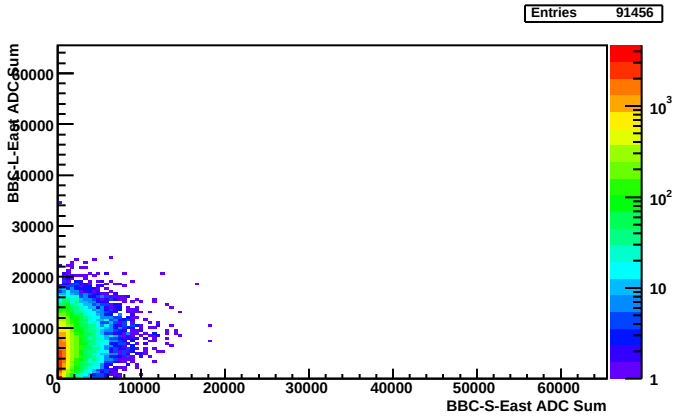

Entries 91456
TOF Mult
BBC-S-West ADC Sum

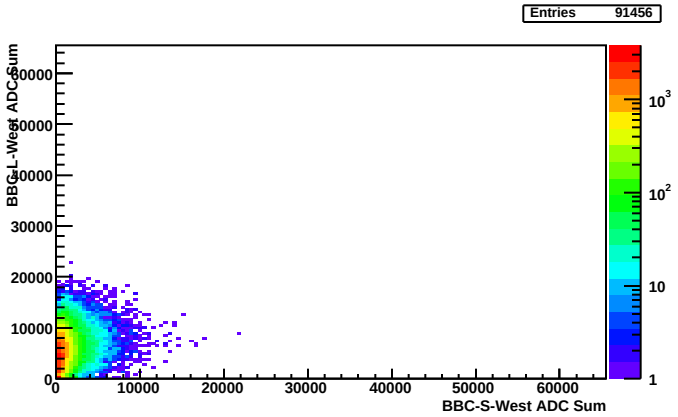

Entries 91456
TOF Mult
VPD-East ADC Sum

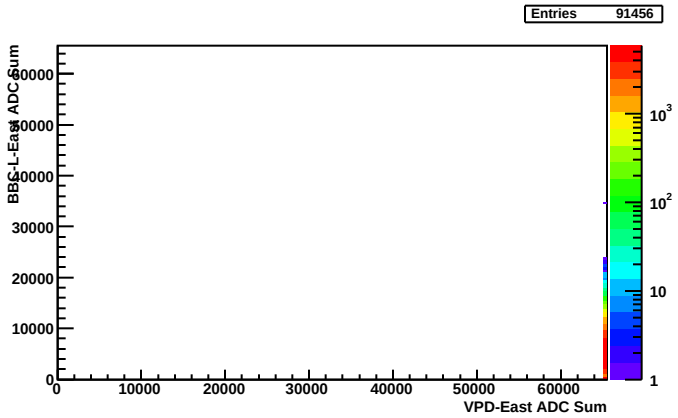

Entries 91456
TOF Mult
VPD-West ADC Sum

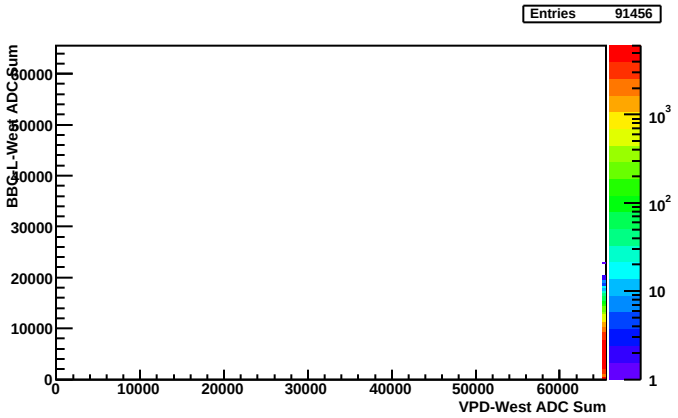

Entries 91456
TOF Mult
ZDC-East ADC Sum Att

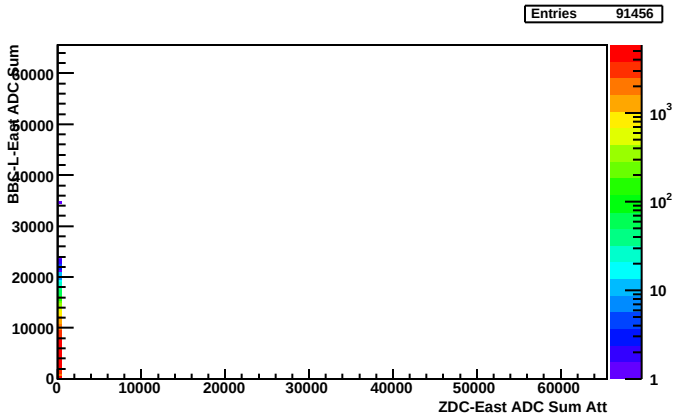

Entries 91456
TOF Mult
ZDC-West ADC Sum Att

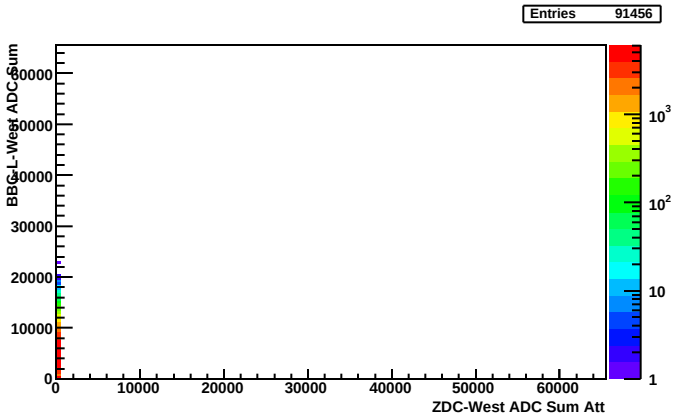

Entries 91456
BBC-L-East ADC Sum
BBC-S-East ADC Sum


Entries 91456
BBC-L-West ADC Sum
BBC-S-West ADC Sum


Entries 91456
BBC-L-East ADC Sum
VPD-East ADC Sum


Entries 91456
BBC-L-West ADC Sum
VPD-West ADC Sum


Entries 91456
BBC-L-East ADC Sum
ZDC-East ADC Sum Att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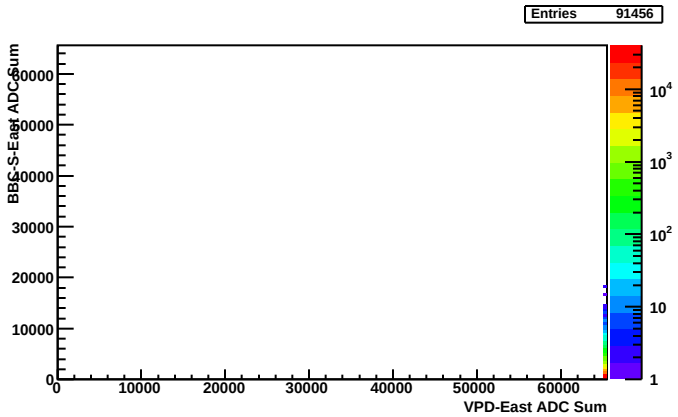
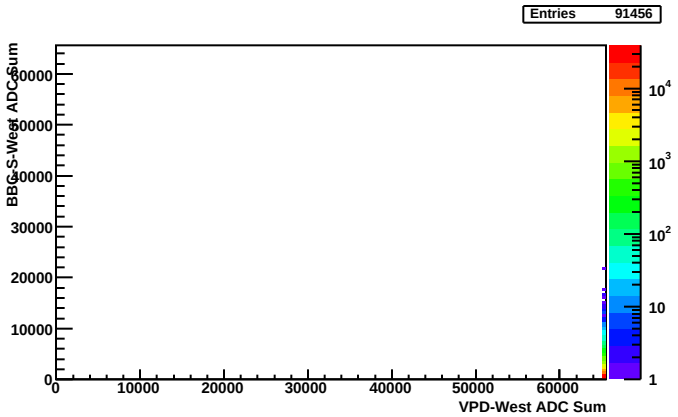
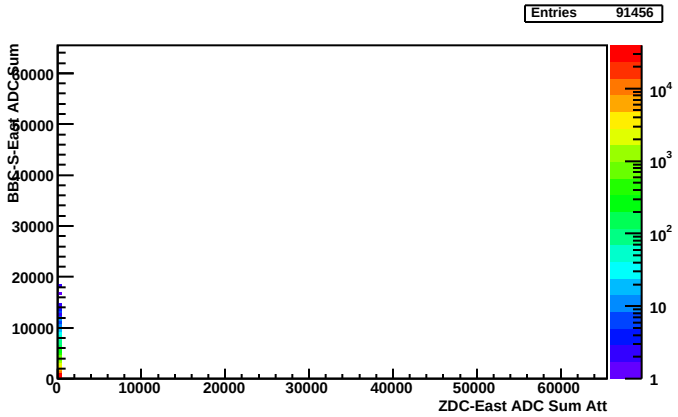
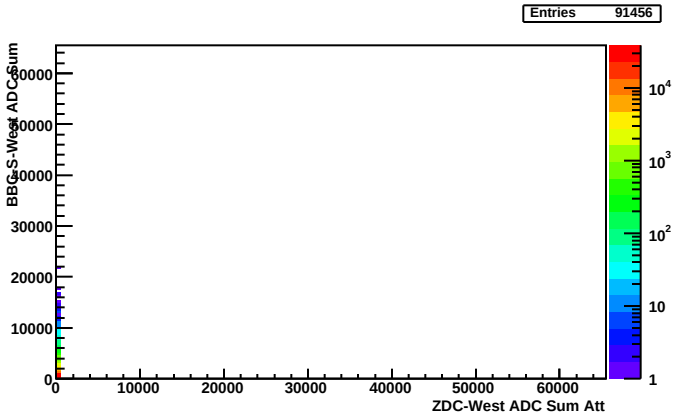
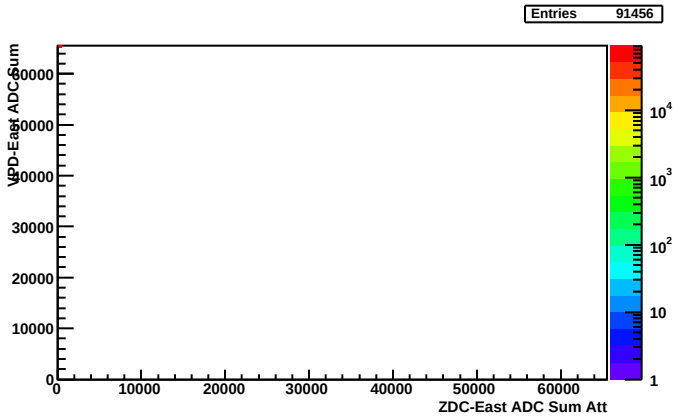
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

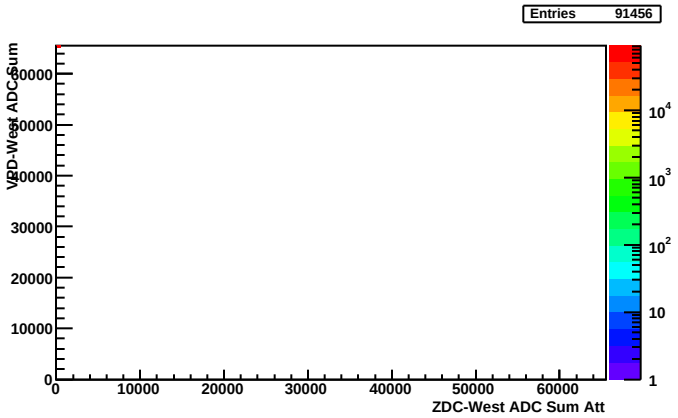

Entries 91456
BBC-S-East ADC Sum
VPD-East ADC Sum


Entries 91456
BBC-S-West ADC Sum
VPD-West ADC Sum


Entries 91456
BBC-S-East ADC Sum
ZDC-East ADC Sum Att


Entries 91456
BBC-S-West ADC Sum
ZDC-West ADC Sum Att


Entries 91456
VPD-East ADC Sum
ZDC-East ADC Sum Att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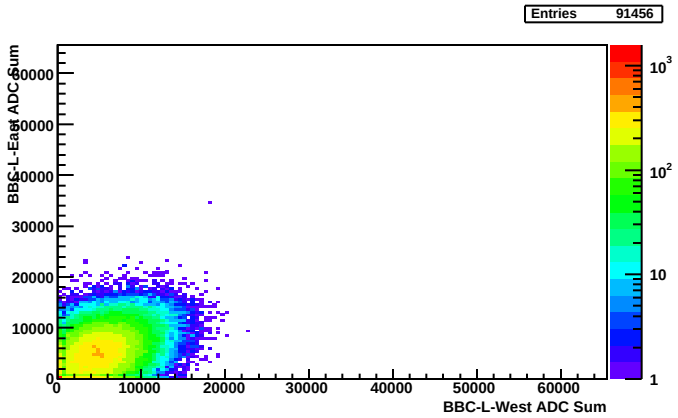
VPD-West ADC Sum
ZDC-West ADC Sum Att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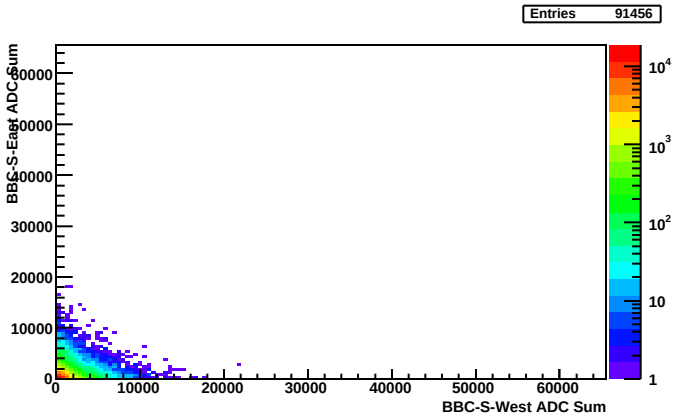
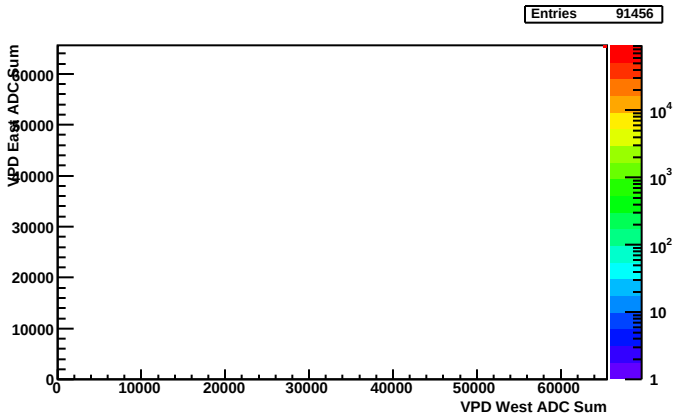
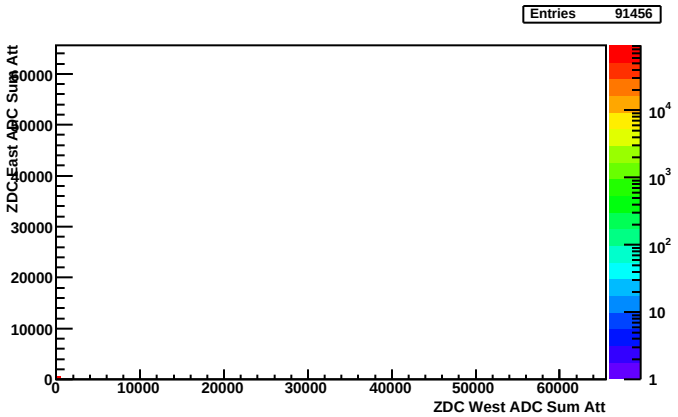
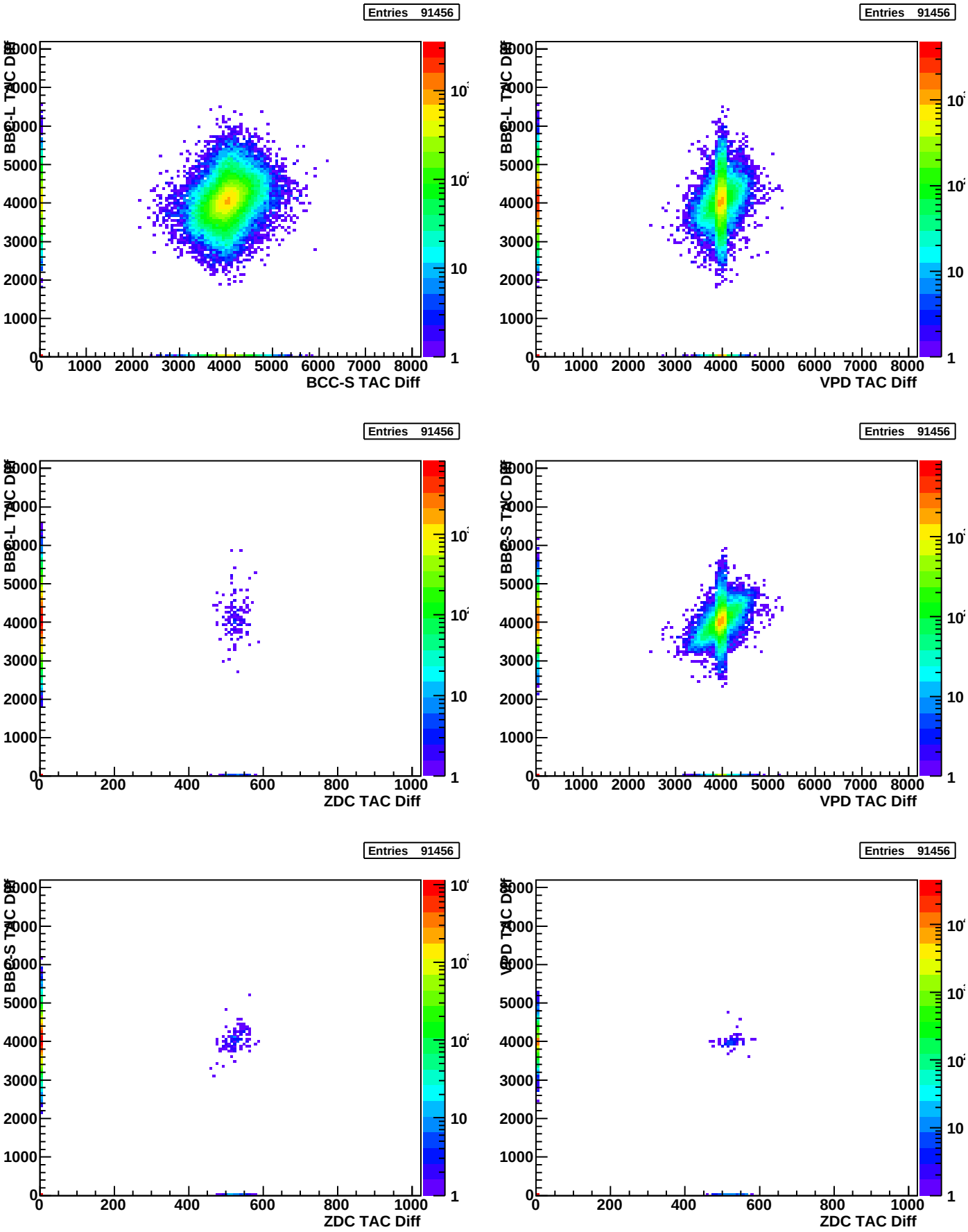
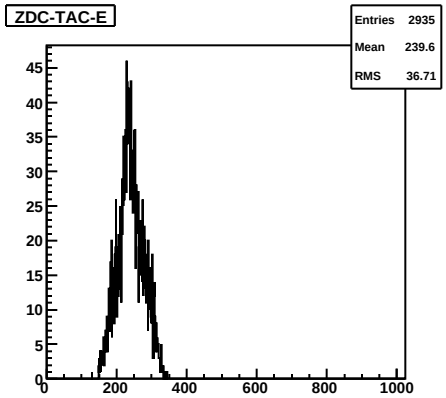
BBC-L-East ADC Sum
BBC-L-West ADC Sum

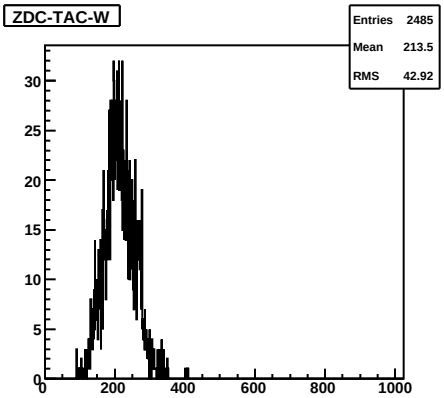

Entries 91456
BBC-S-East ADC Sum
BBC-S-West ADC Sum

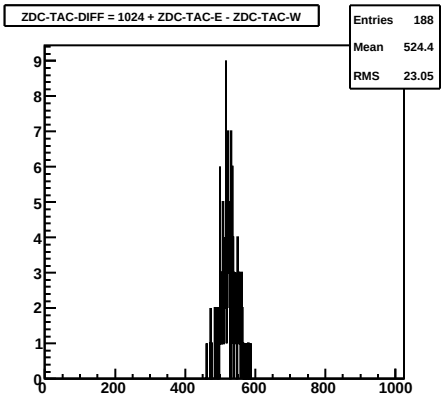

Entries 91456
VPD East ADC Sum
VPD West ADC Sum

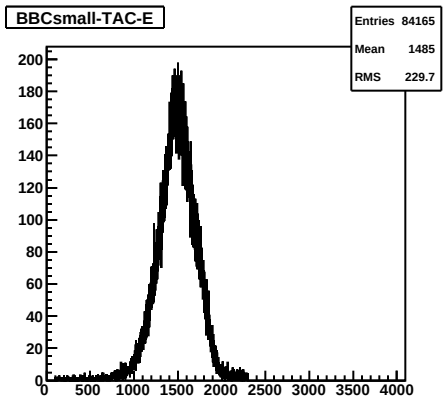

Entries 91456
ZDC East ADC Sum Att
ZDC West ADC Sum Att

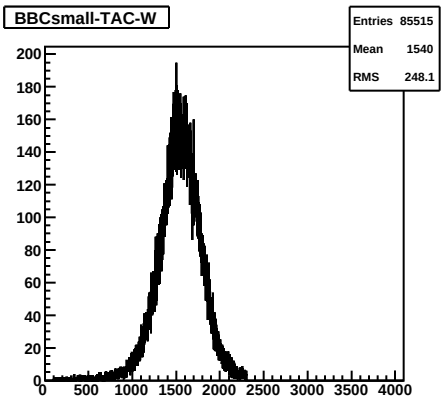

Entries 91456
BBC-L TAC Diff
BCC-S TAC Diff
Entries 91456
BBC-L TAC Diff
VPD TAC Diff
Entries 91456
BBC-L TAC Diff
ZDC TAC Diff
Entries 91456
BBC-S TAC Diff
VPD TAC Diff
Entries 91456
BBC-S TAC Diff
ZDC TAC Diff
Entries 91456
VPD TAC Diff
ZDC TAC Diff

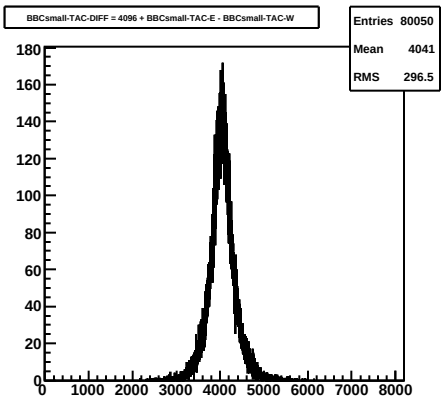

ZDC-TAC-E
Entries 2935
Mean 239.6
RMS 36.71

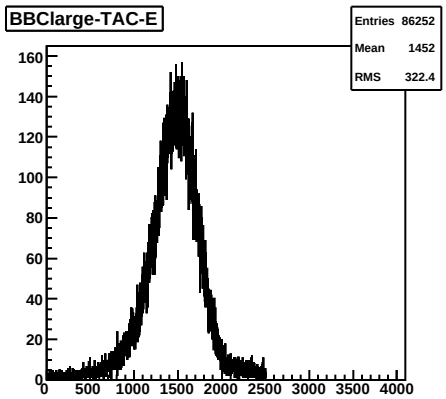

ZDC-TAC-W
Entries 2485
Mean 213.5
RMS 42.92

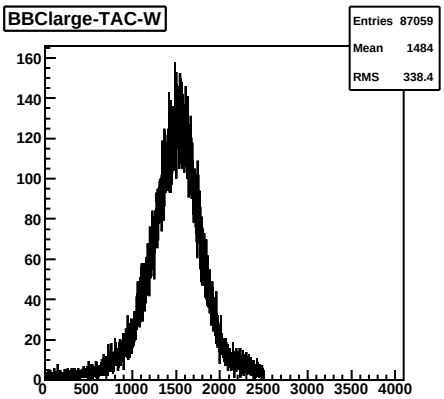

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 188
Mean 524.4
RMS 23.05

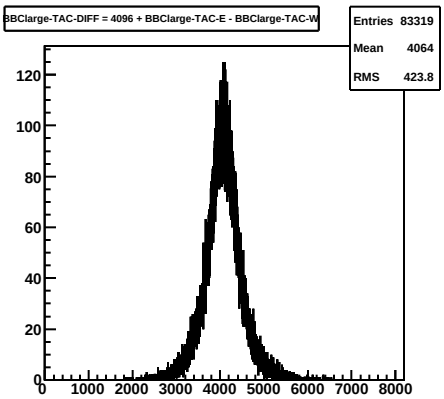

BBCsmall-TAC-E
Entries 84165
Mean 1485
RMS 229.7

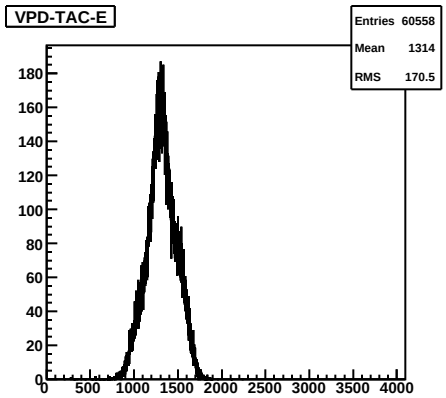

BBCsmall-TAC-W
Entries 85515
Mean 1540
RMS 248.1

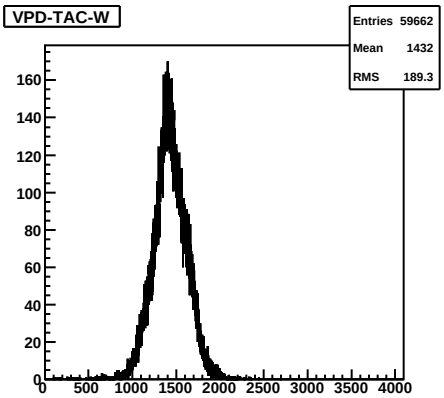

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 80050
Mean 4041
RMS 296.5

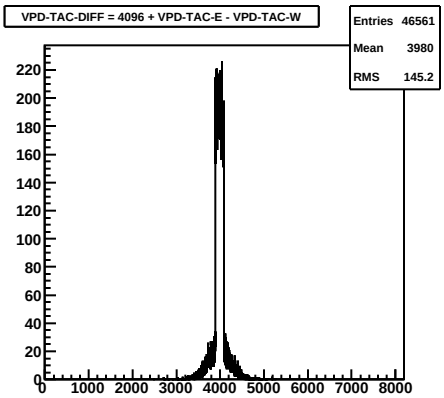

BBClarge-TAC-E
Entries 86252
Mean 1452
RMS 322.4

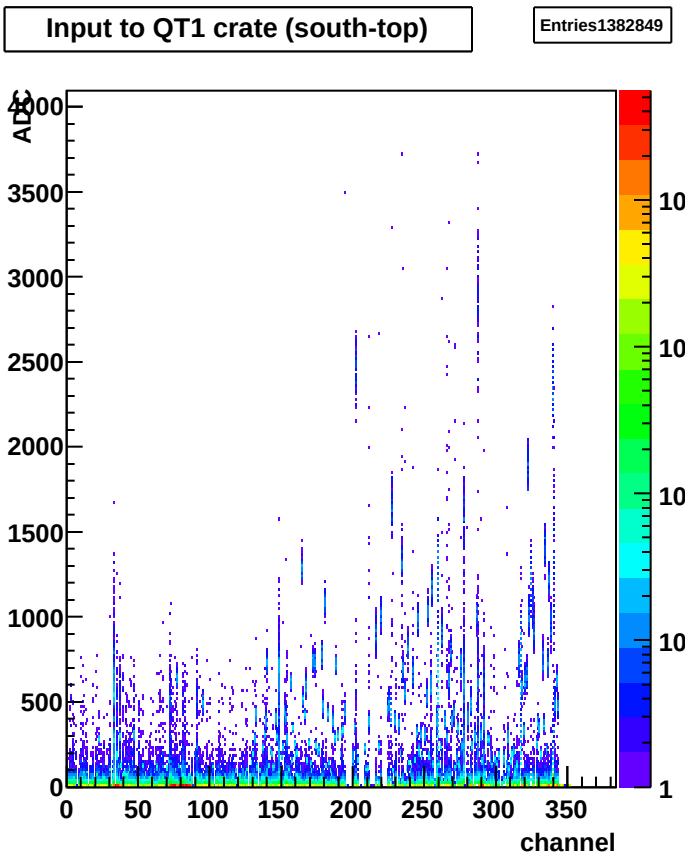

BBClarge-TAC-W
Entries 87059
Mean 1484
RMS 338.4

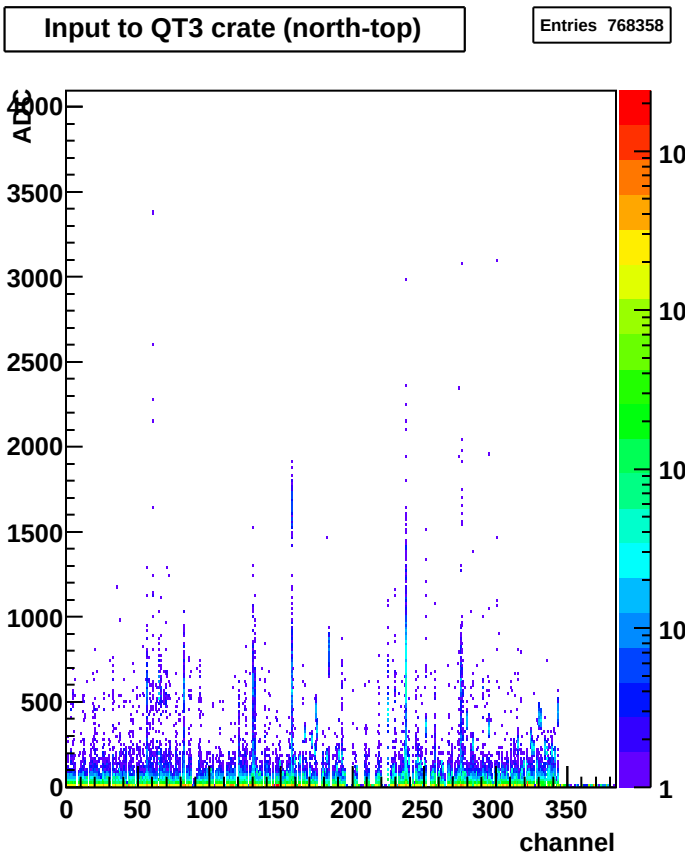

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 83319
Mean 4064
RMS 423.8

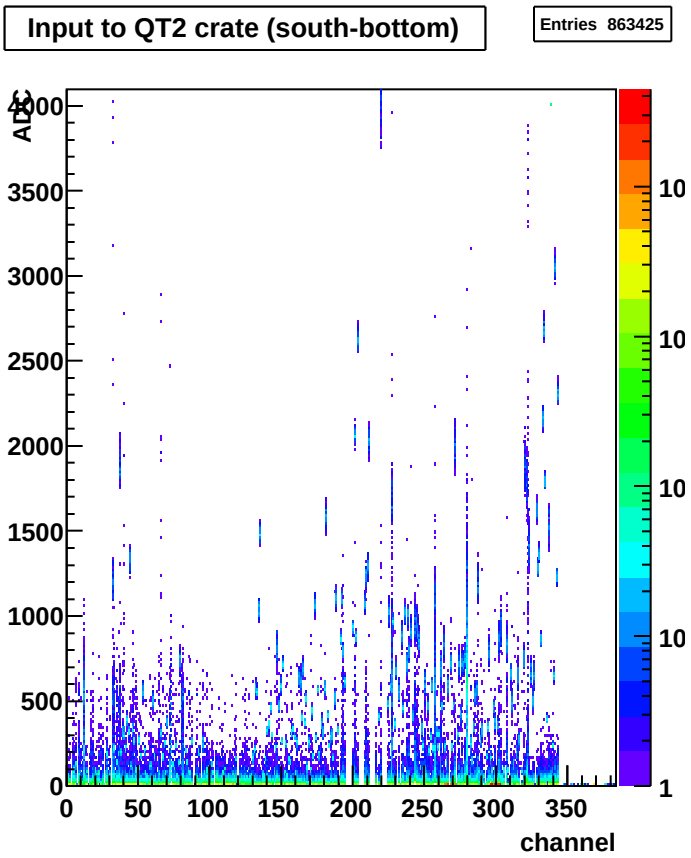

VPD-TAC-E
Entries 60558
Mean 1314
RMS 170.5

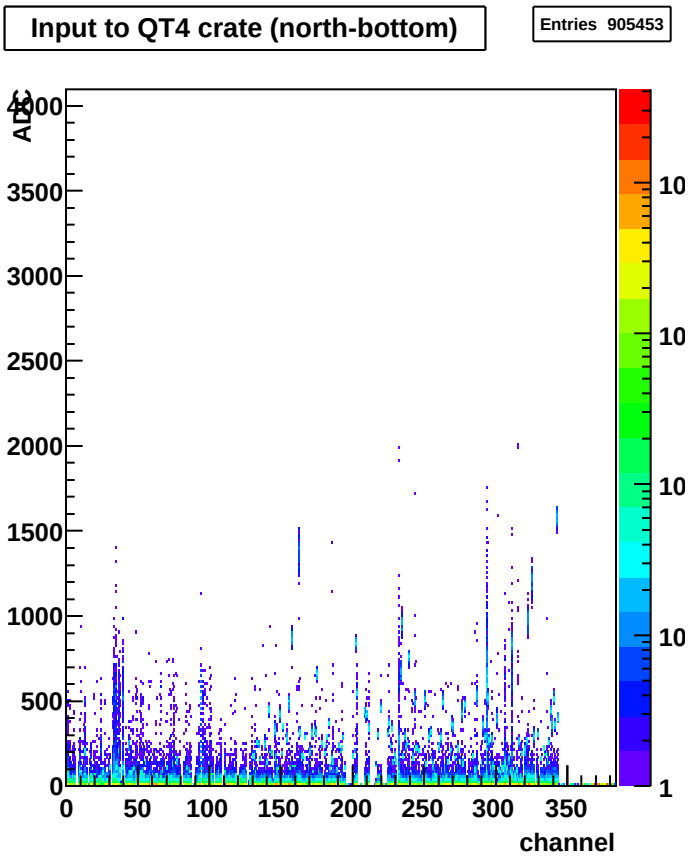

VPD-TAC-W
Entries 59662
Mean 1432
RMS 189.3

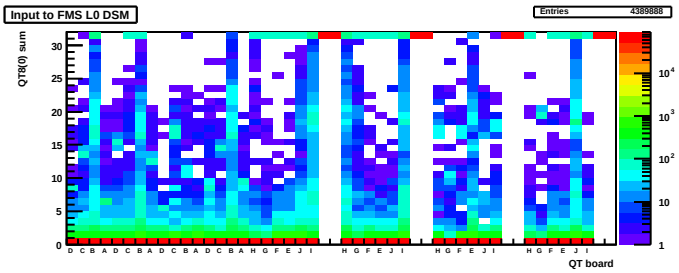

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 46561
Mean 3980
RMS 145.2

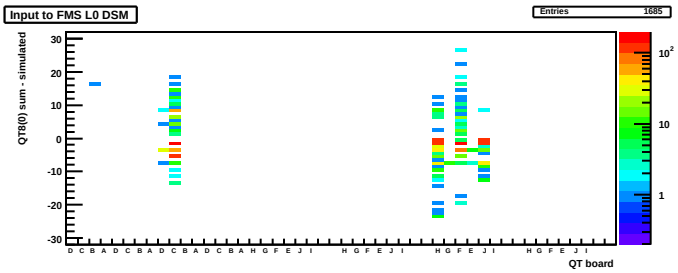

Input to QT1 crate (south-top)
Entries1382849
ADC
channel

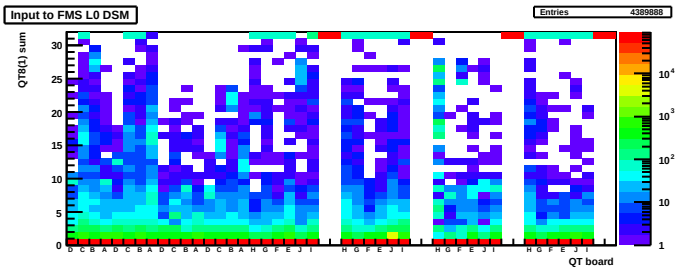

Input to QT3 crate (north-top)
Entries 768358
ADC
channel

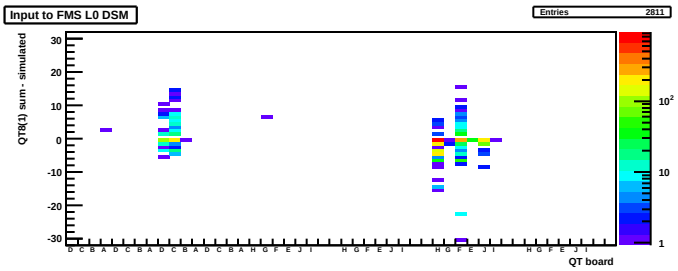

Input to QT2 crate (south-bottom)
Entries 863425
ADC
channel

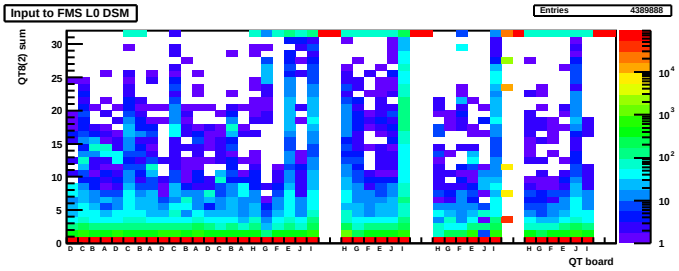

Input to QT4 crate (north-bottom)
Entries 905453
ADC
channel

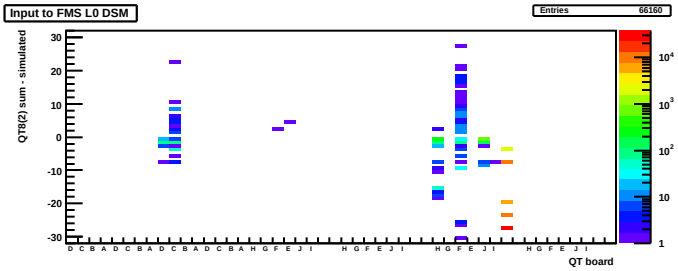

Input to FMS L0 DSM
Entries 4389888
QT8(0) sum
QT board

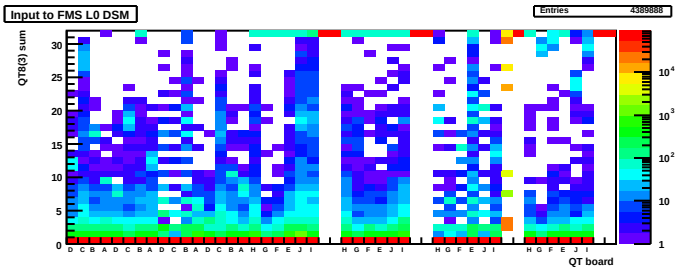

Input to FMS L0 DSM
Entries 1685
QT8(0) sum - simulated
QT board

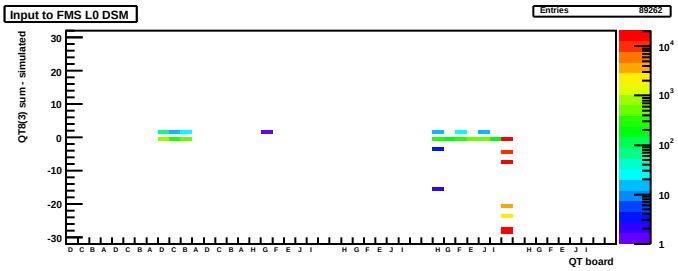

Input to FMS L0 DSM
Entries 4389888
QT8(1) sum
QT board

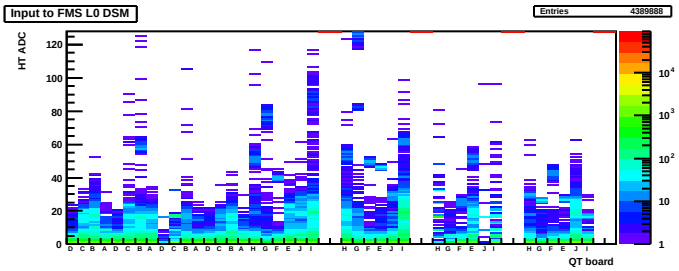

Input to FMS L0 DSM
Entries 2811
QT8(1) sum - simulated
QT board

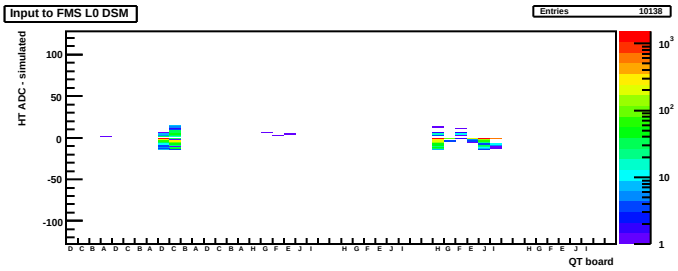

Input to FMS L0 DSM
Entries 4389888
QT8(2) sum
QT board

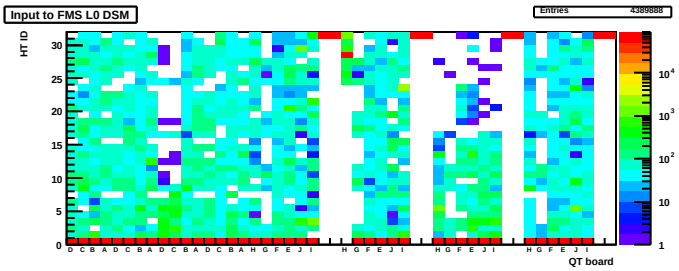

Input to FMS L0 DSM
Entries 66160
QT8(2) sum - simulated
QT board

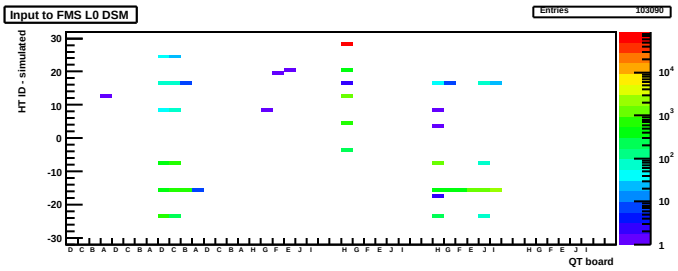

Input to FMS L0 DSM
Entries 4389888
QT8(3) sum
QT board

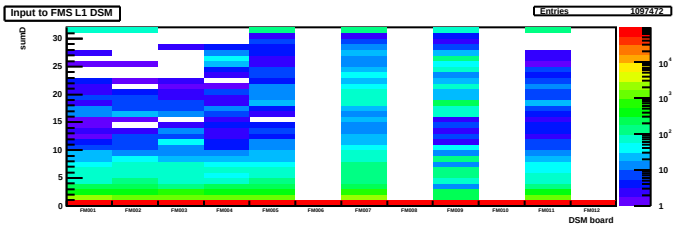

Input to FMS L0 DSM
Entries 89262
QT8(3) sum - simulated
QT board

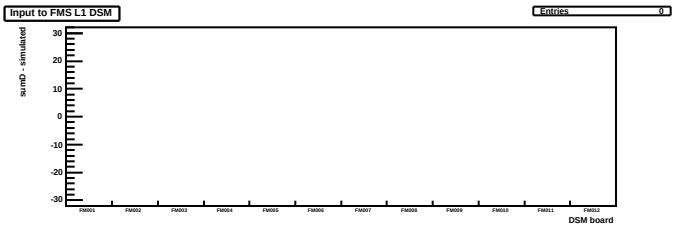

Input to FMS L0 DSM
Entries 4389888
HT ADC
QT board

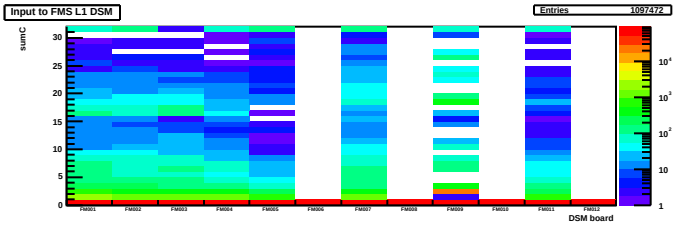

Input to FMS L0 DSM
Entries 10138
HT ADC - simulated
QT board

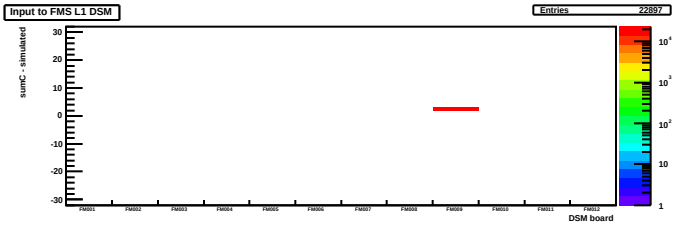

Input to FMS L0 DSM
Entries 4389888
HT ID
QT board

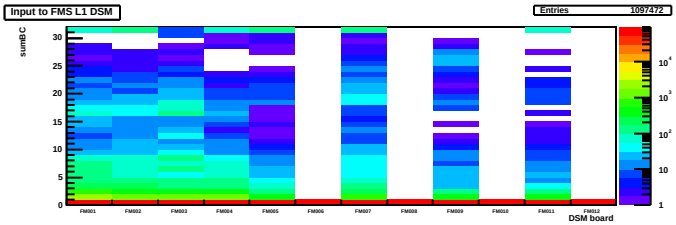

Input to FMS L0 DSM
Entries 103090
HT ID - simulated
QT board

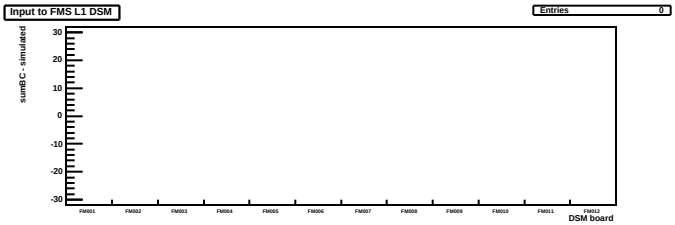

Input to FMS L1 DSM
Entries 1097472
sumD
DSM board

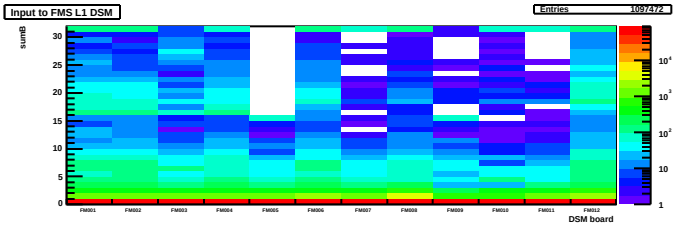

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

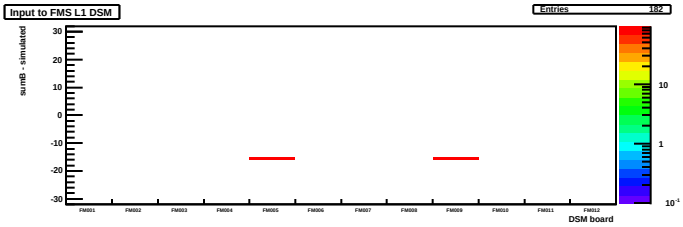

Input to FMS L1 DSM
Entries 1097472
sumC
DSM board

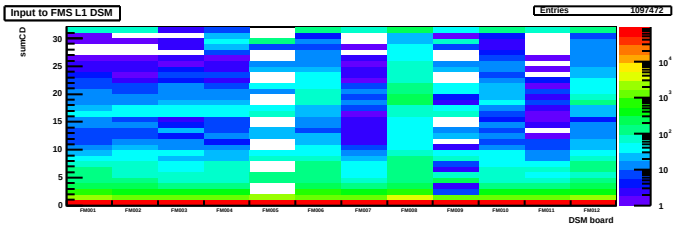

Input to FMS L1 DSM
Entries 22897
sumC - simulated
DSM board

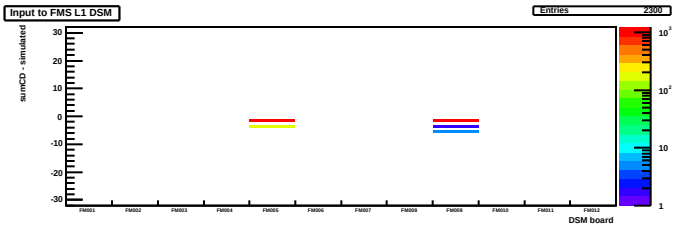

Input to FMS L1 DSM
Entries 1097472
sumBC
DSM board

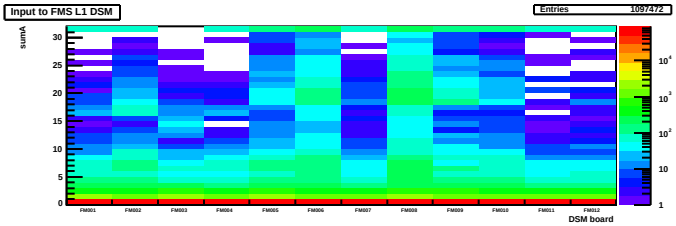

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

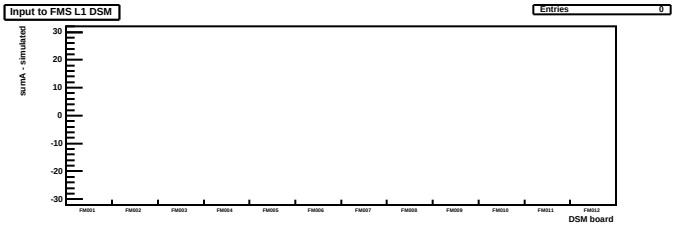

Input to FMS L1 DSM
Entries 1097472
sumB
DSM board

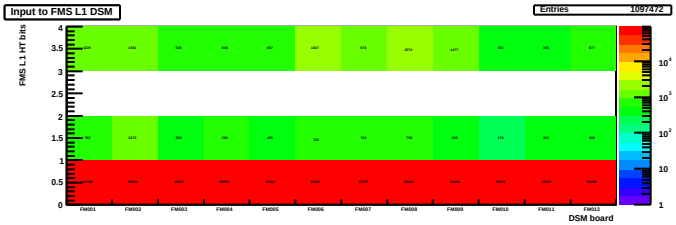

Input to FMS L1 DSM
Entries 182
sumB - simulated
DSM board

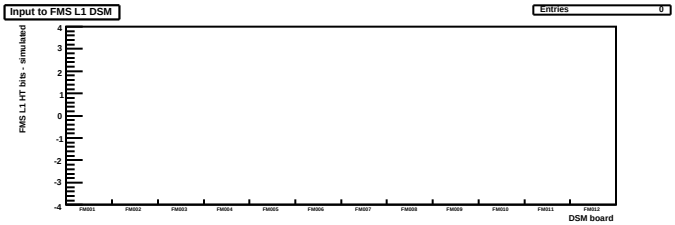

Input to FMS L1 DSM
Entries 1097472
sumCD
DSM board

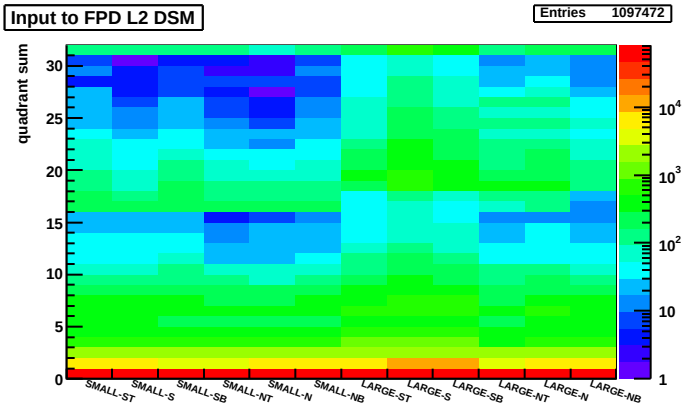

Input to FMS L1 DSM
Entries 2300
sumCD - simulated
DSM board

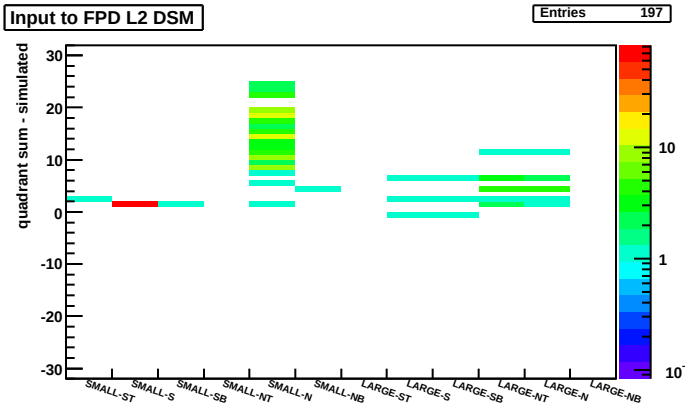

Input to FMS L1 DSM
Entries 1097472
sumA
DSM board

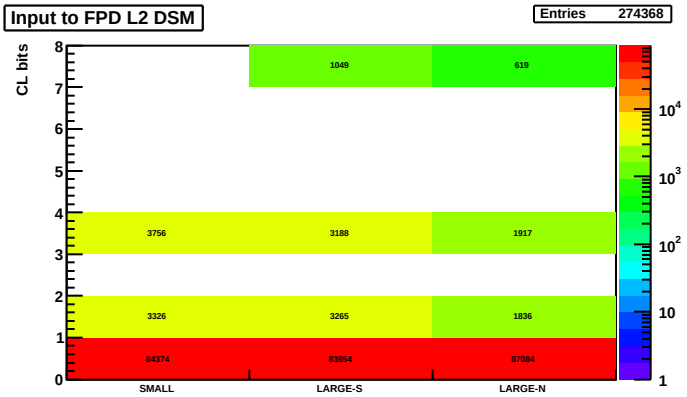

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

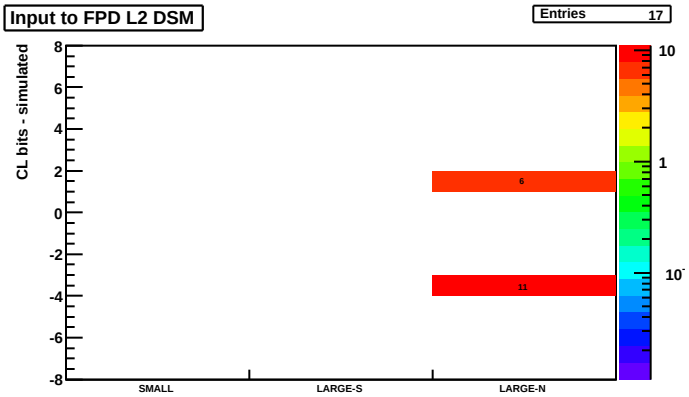

Input to FMS L1 DSM
Entries 1097472
FMS L1 HT bits
DSM board

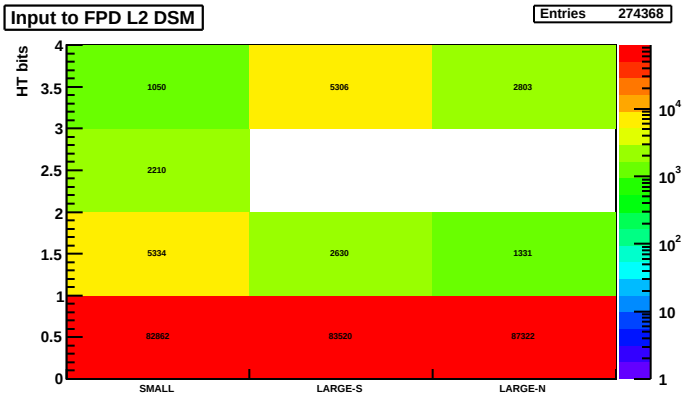

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

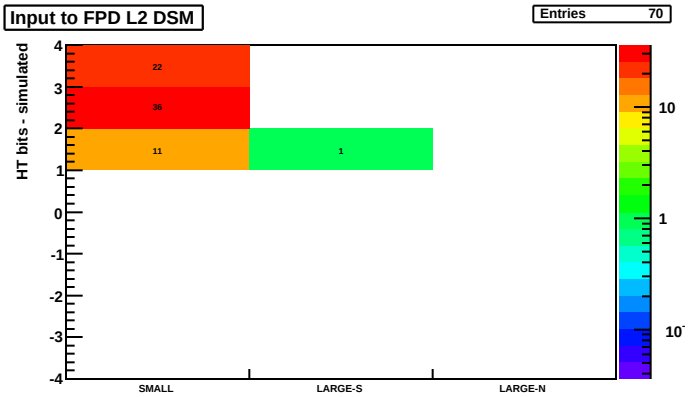

Input to FPD L2 DSM
Entries 1097472
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

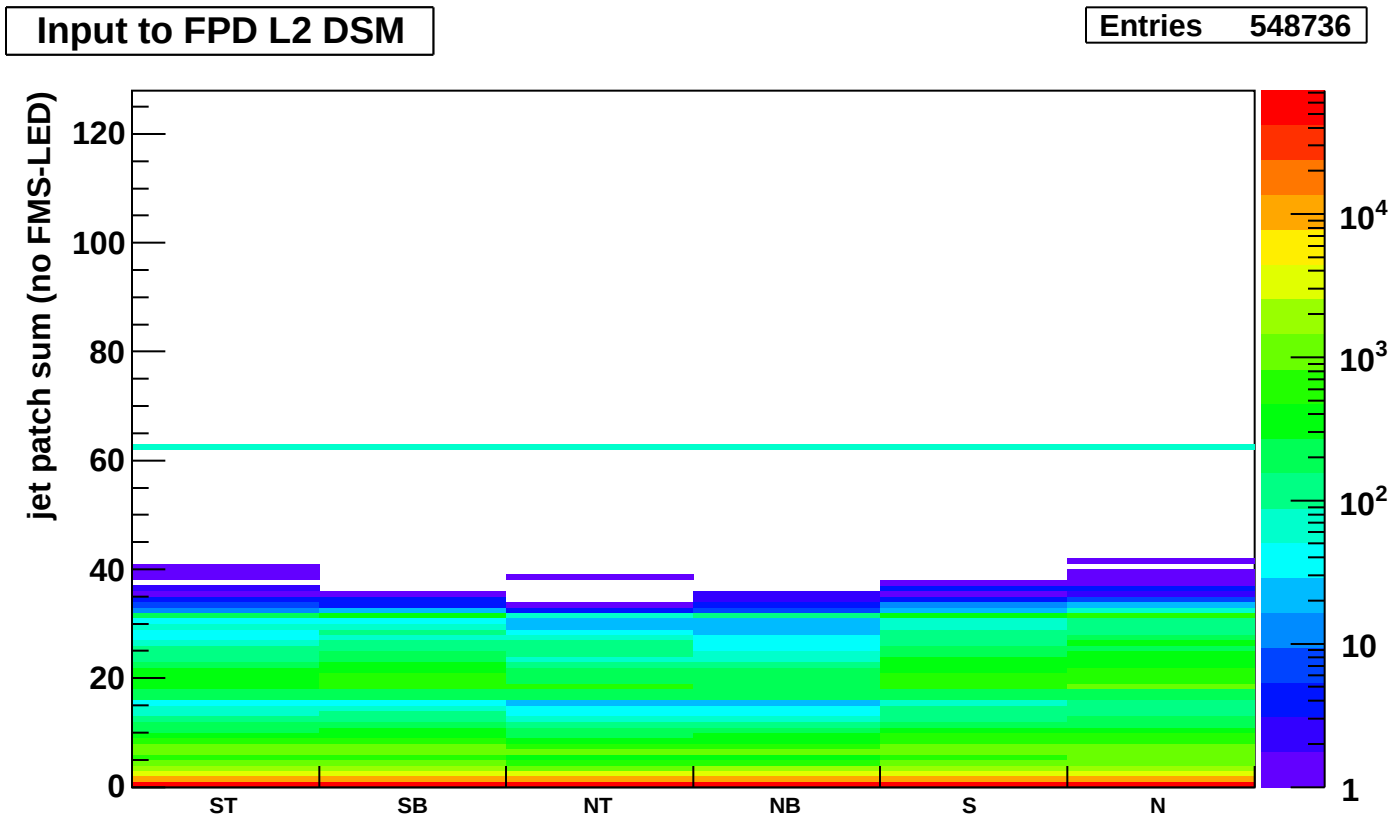

Input to FPD L2 DSM
Entries 197
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

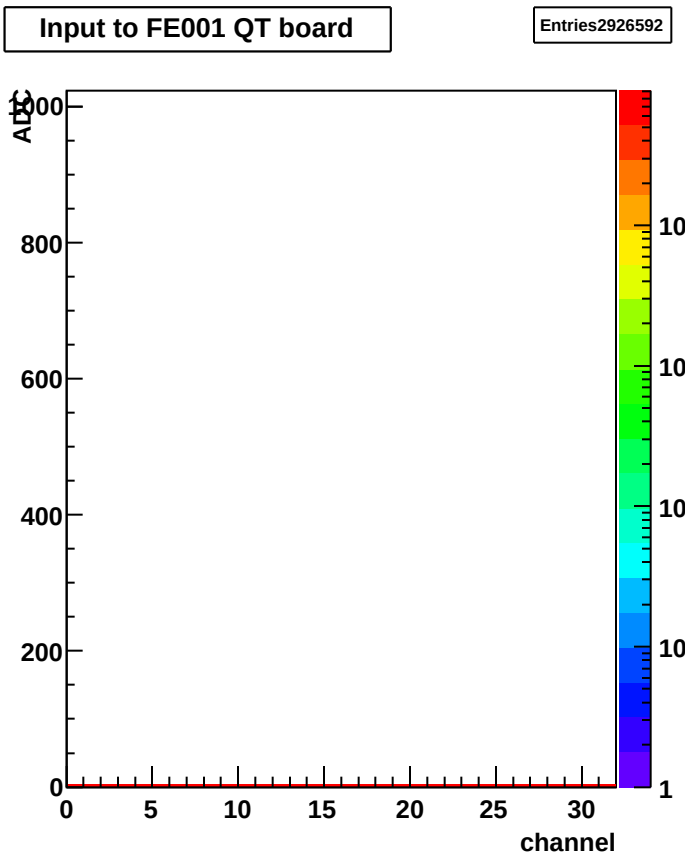

Input to FPD L2 DSM
Entries 274368
CL bits
1049
619
3756
3188
1917
3326
3265
1836
84374
83954
87084
SMALL
LARGE-S
LARGE-N

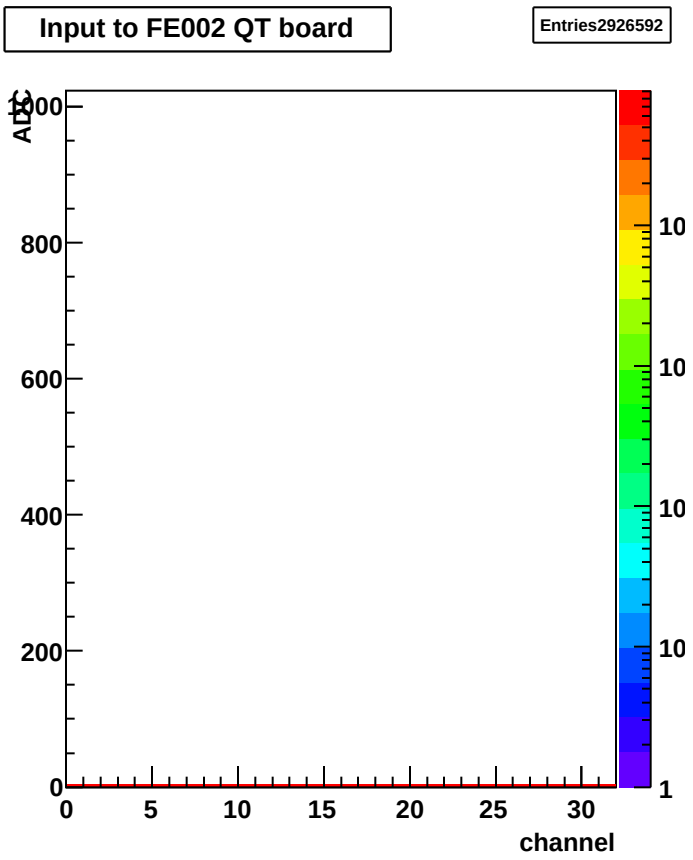

Input to FPD L2 DSM
Entries 17
CL bits - simulated
6
11
SMALL
LARGE-S
LARGE-N

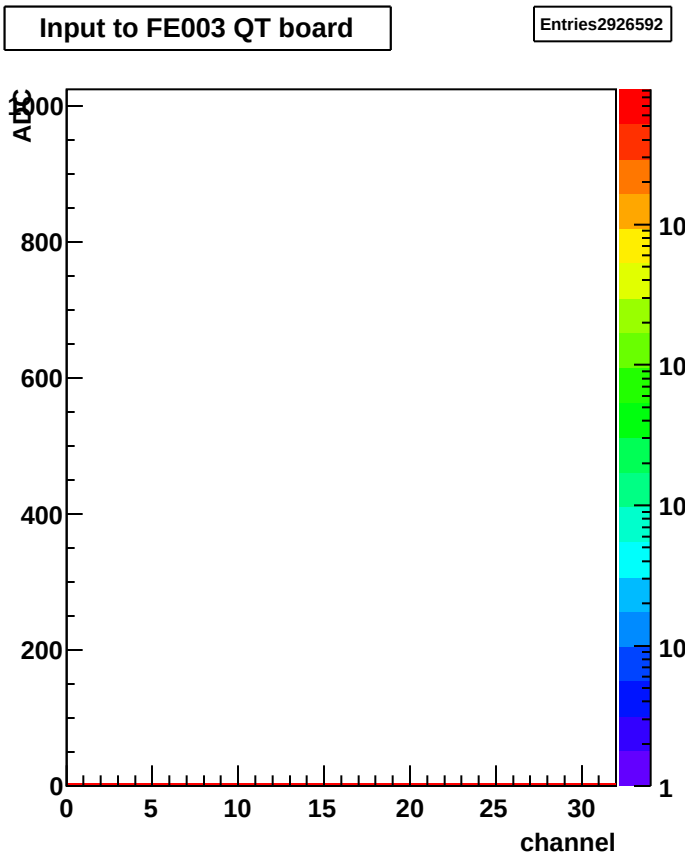

Input to FPD L2 DSM
Entries 274368
HT bits
1050
5306
2803
2210
5334
2630
1331
82862
83520
87322
SMALL
LARGE-S
LARGE-N

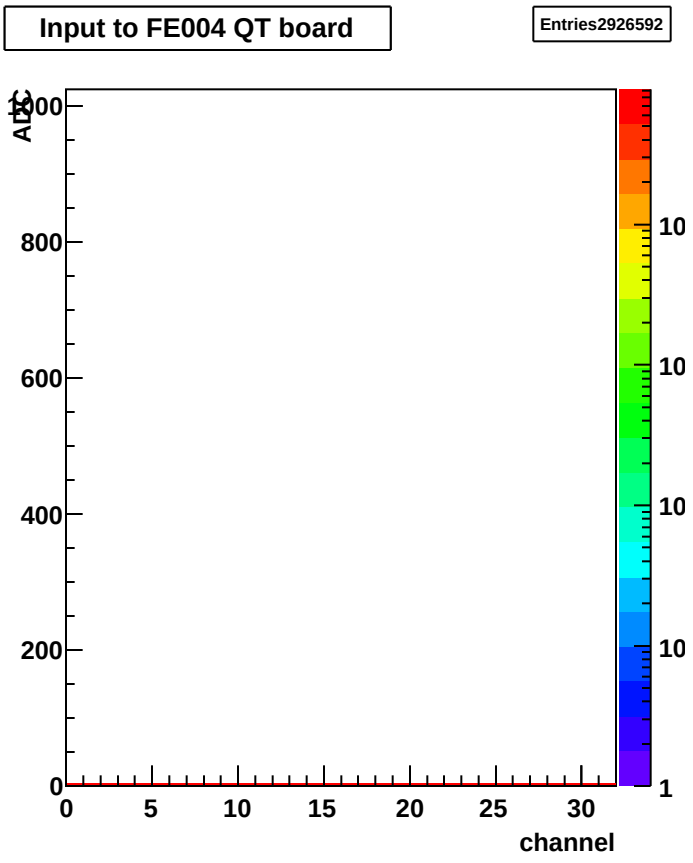

Input to FPD L2 DSM
Entries 70
HT bits - simulated
22
36
11
1
SMALL
LARGE-S
LARGE-N

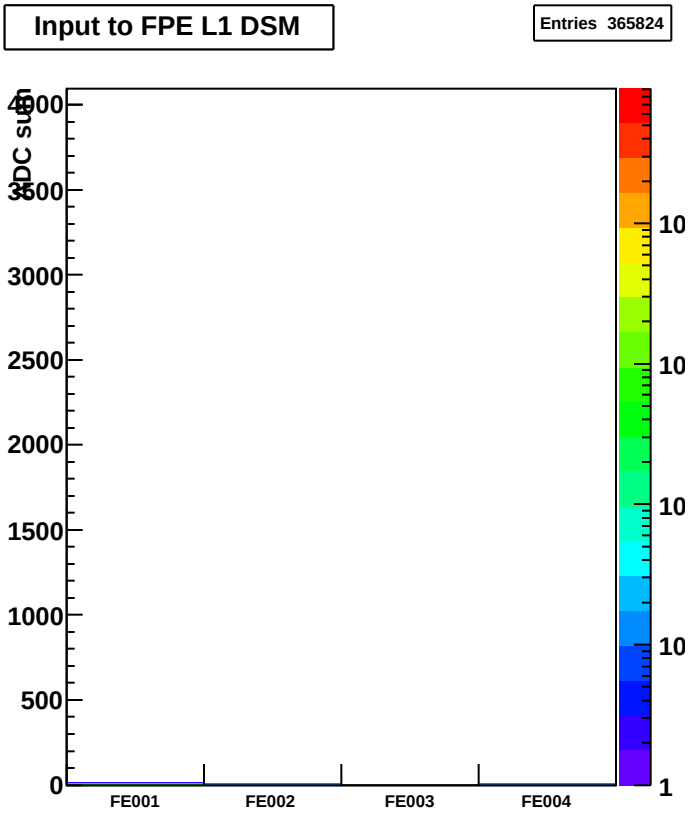

Input to FPD L2 DSM
Entries 548736
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
S
N
1
10
$10^2$
$10^3$
$10^4$

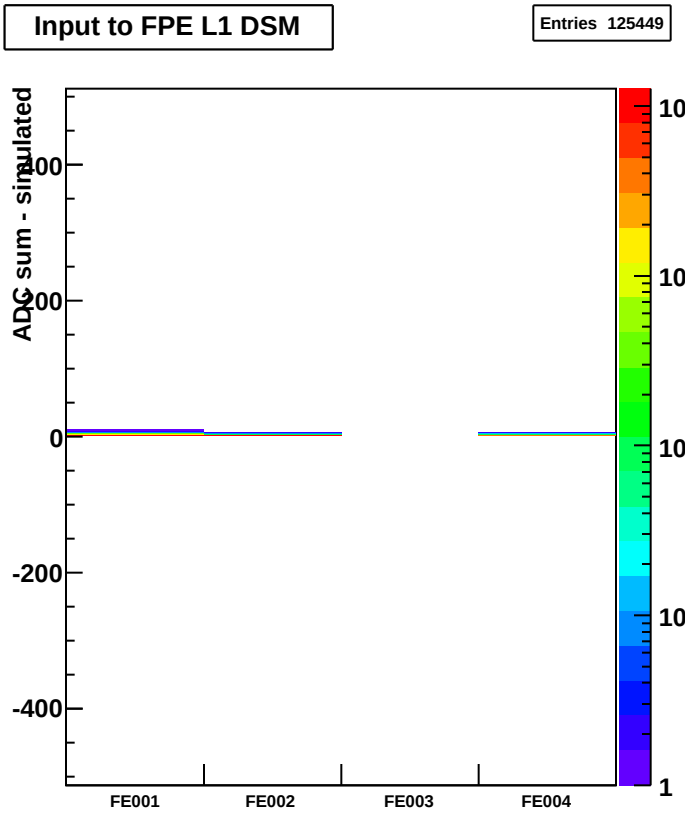

Input to FE001 QT board
Entries2926592
ADC
channel

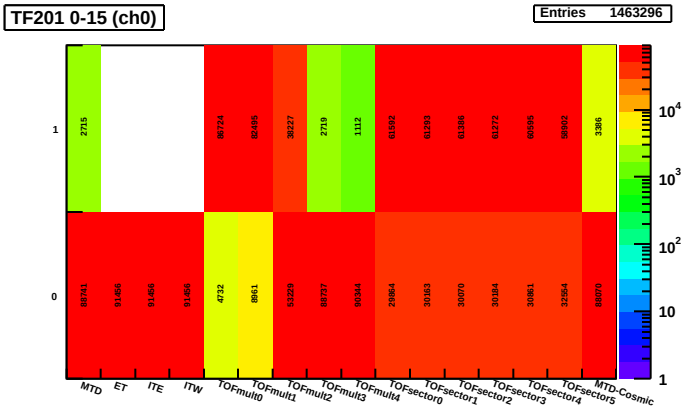

Input to FE002 QT board
Entries2926592
ADC
channel

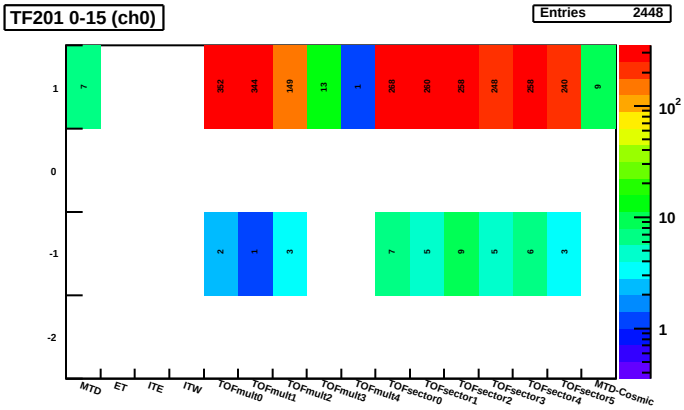

Input to FE003 QT board
Entries2926592
ADC
channel

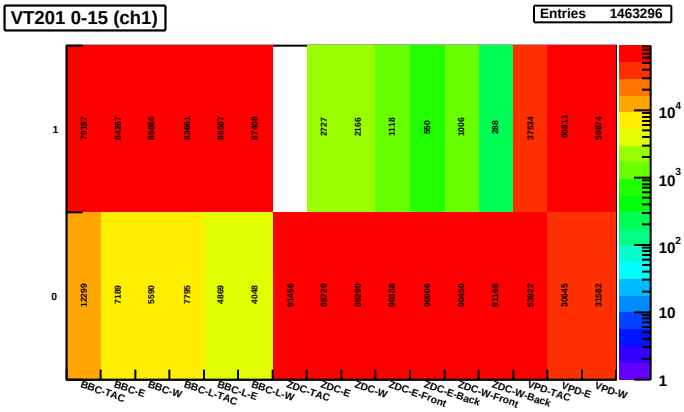

Input to FE004 QT board
Entries2926592
ADC
channel

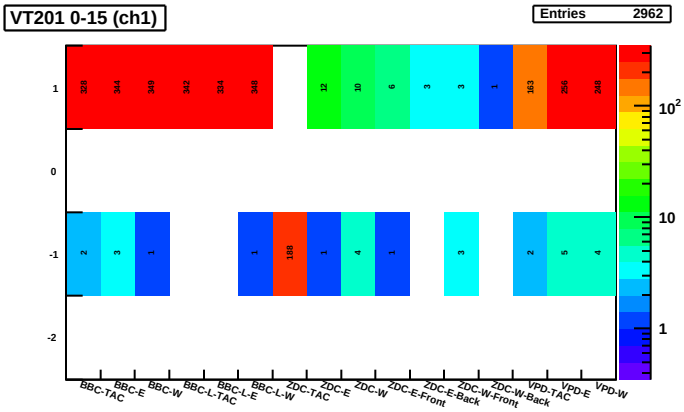

Input to FPE L1 DSM
Entries 365824
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

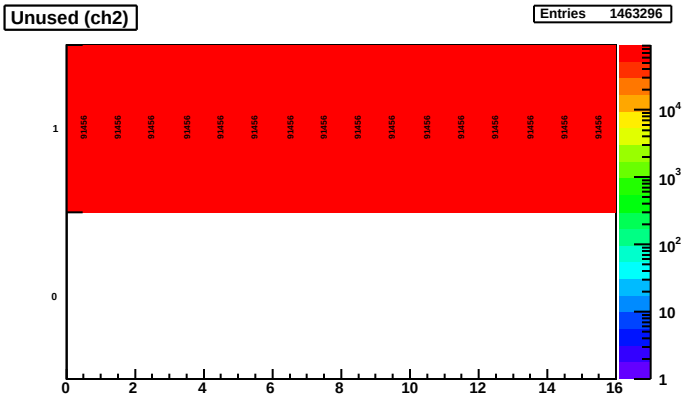

Input to FPE L1 DSM
Entries 125449
ADC sum - simulated
200
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1

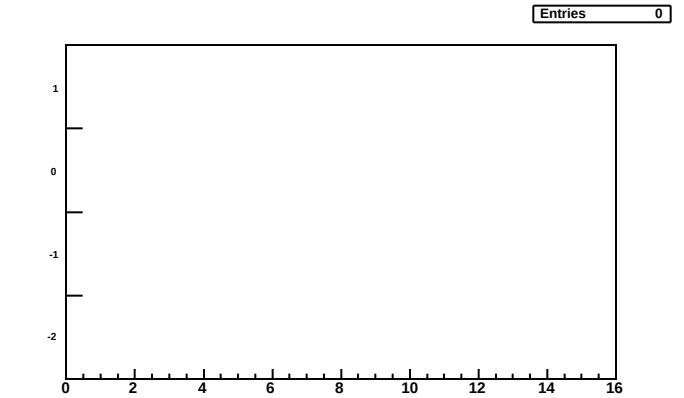

TF201 0-15 (ch0)
Entries 1463296
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

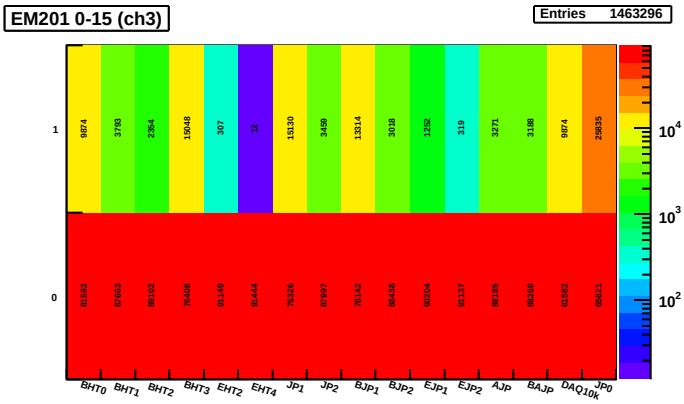

TF201 0-15 (ch0)
Entries 2448
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

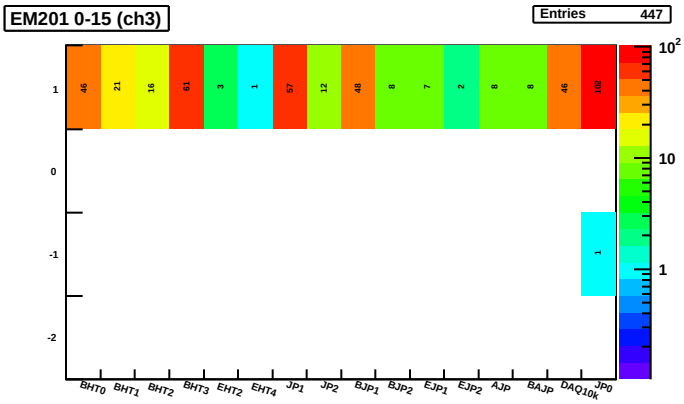

VT201 0-15 (ch1)
Entries 1463296
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 2962
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

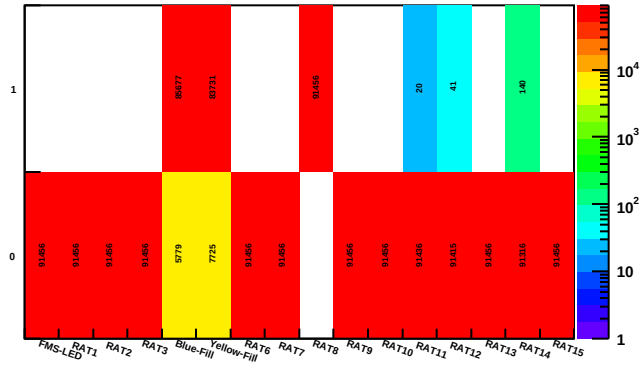

Unused (ch2)
Entries 1463296

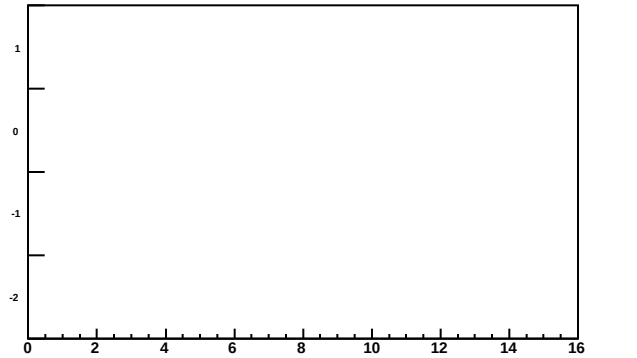

Entries 0


EM201 0-15 (ch3)
Entries 1463296
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

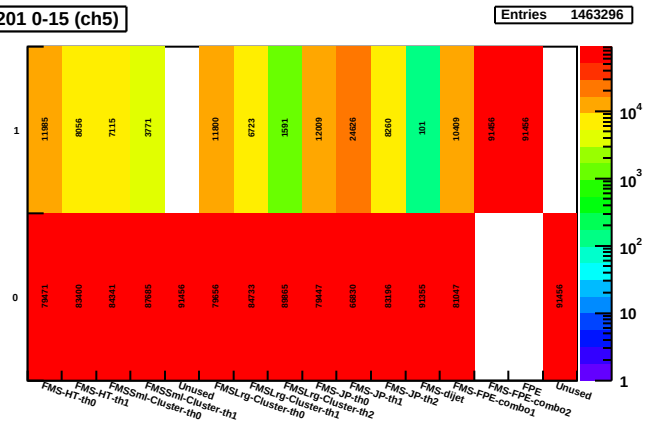

EM201 0-15 (ch3)
Entries 447
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

**RAT board (ch4)**

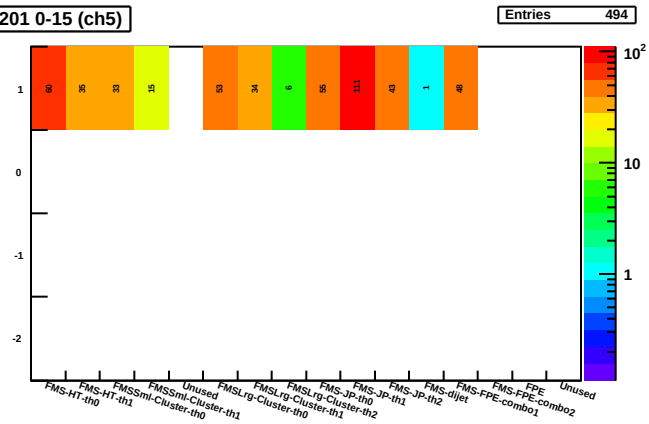


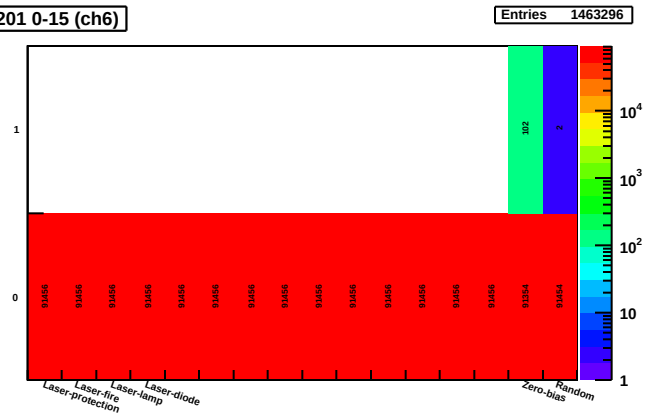

**FP201 0-15 (ch5)**

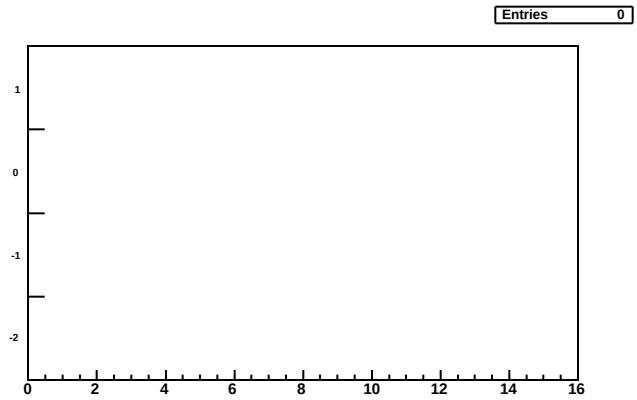


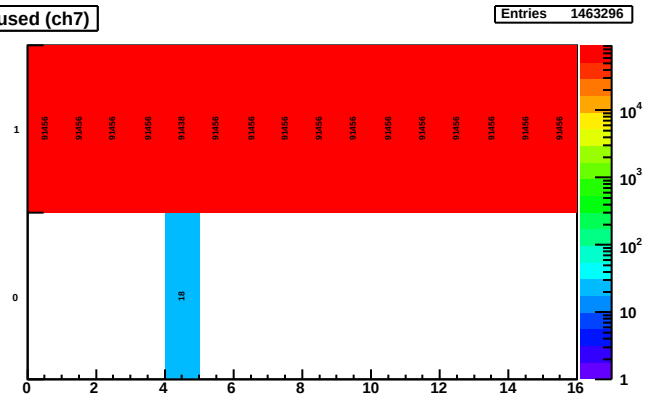
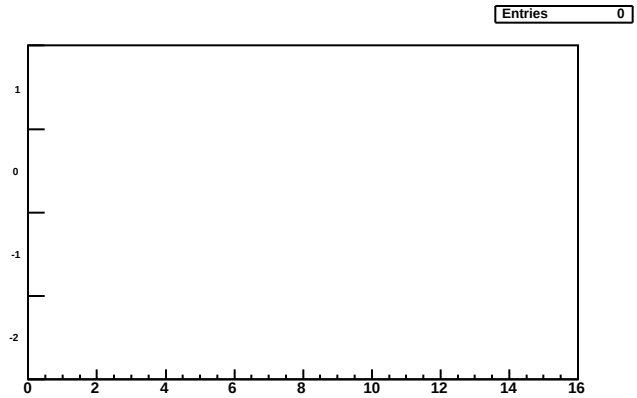

**FP201 0-15 (ch5)**




**ST201 0-15 (ch6)**




**Unused (ch7)**