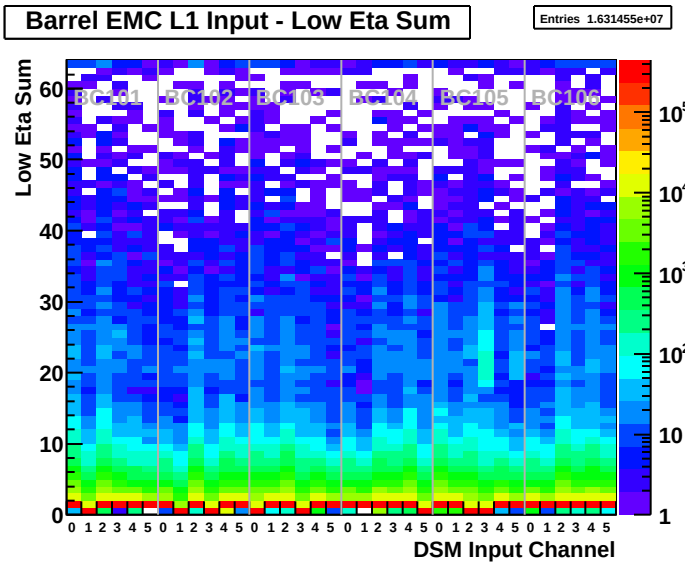
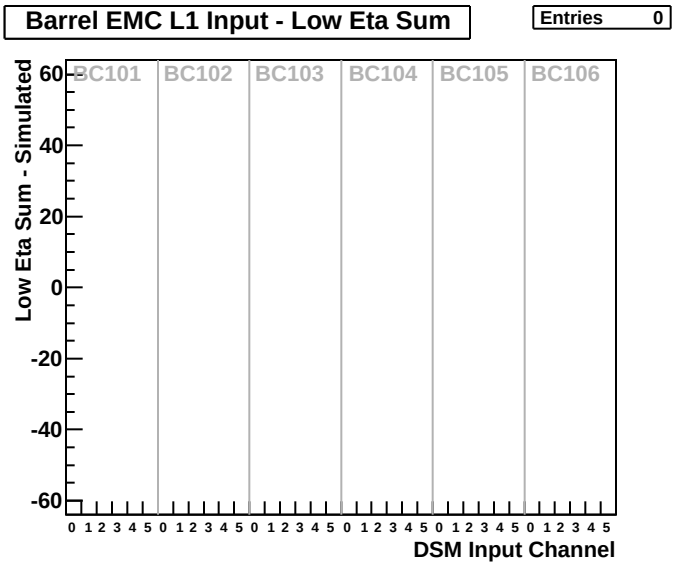
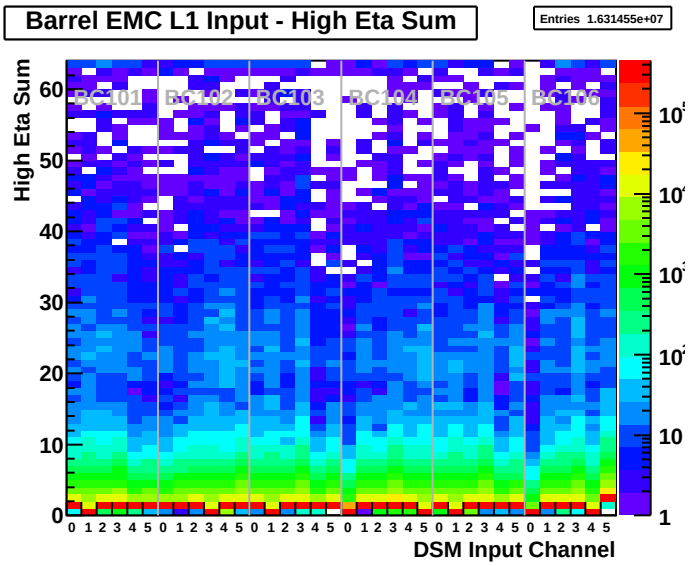
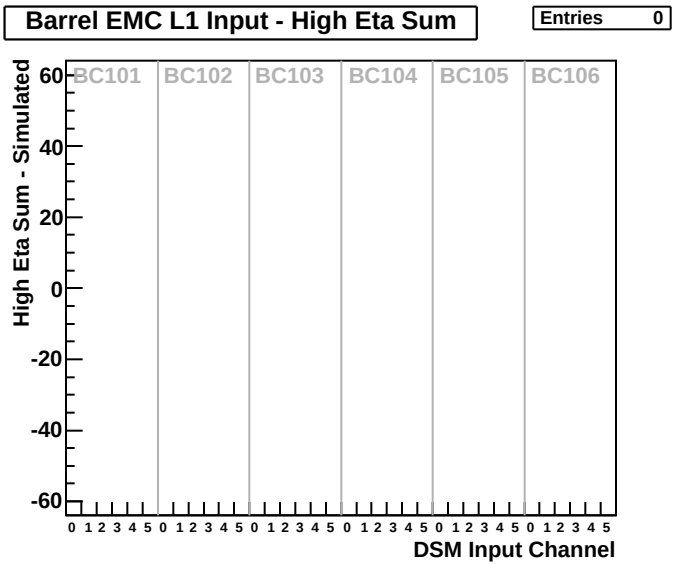
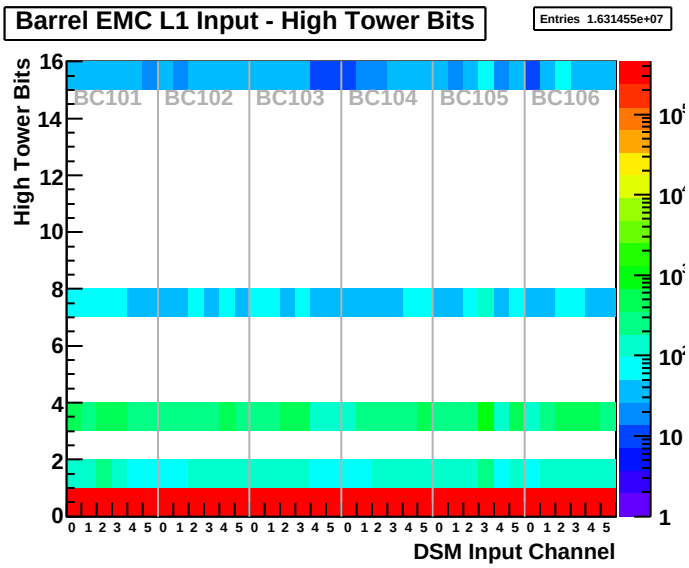
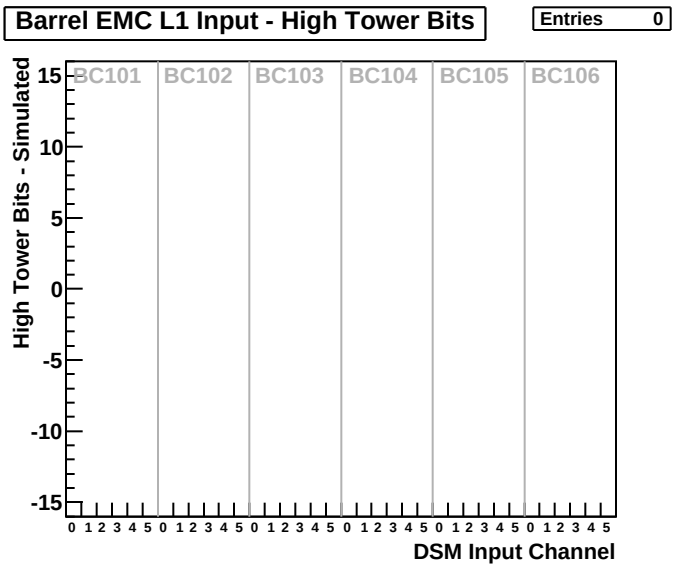

Barrel EMC L1 Input - Low Eta Sum
Entries 1.631455e+07
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

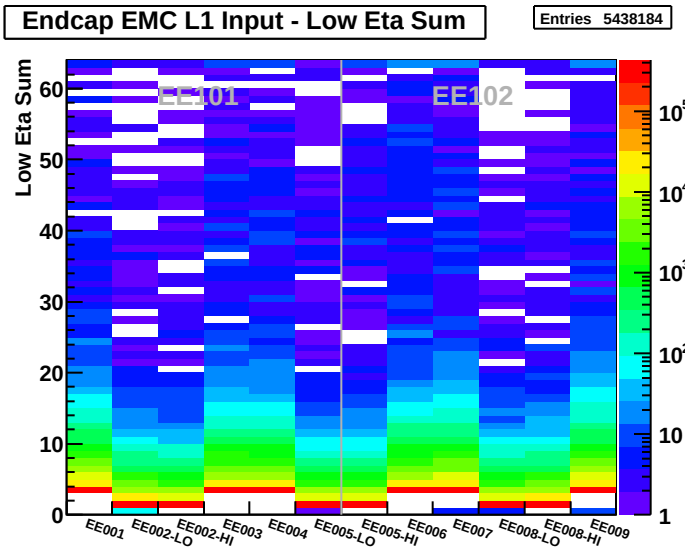

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

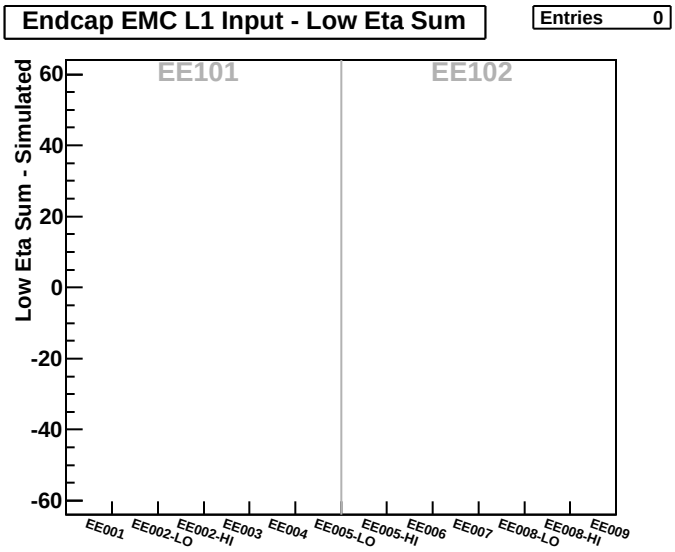

Barrel EMC L1 Input - High Eta Sum
Entries 1.631455e+07
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

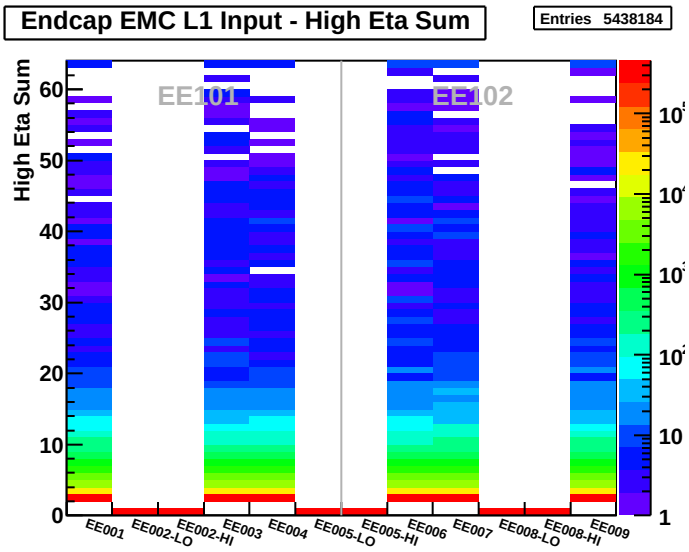

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

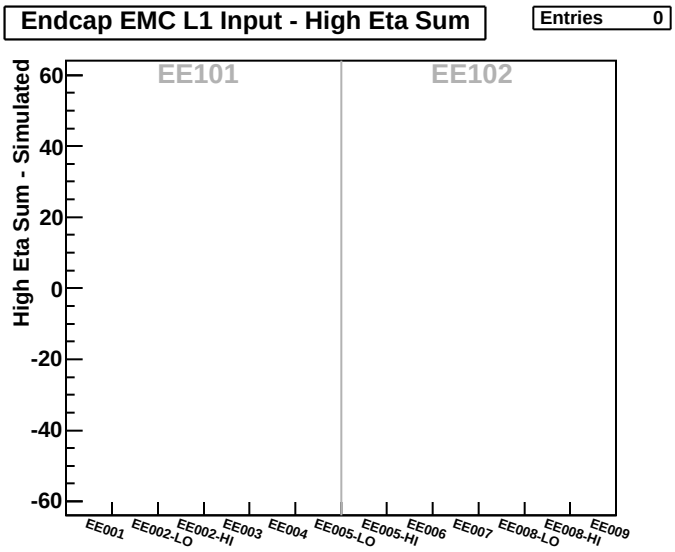

Barrel EMC L1 Input - High Tower Bits
Entries 1.631455e+07
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

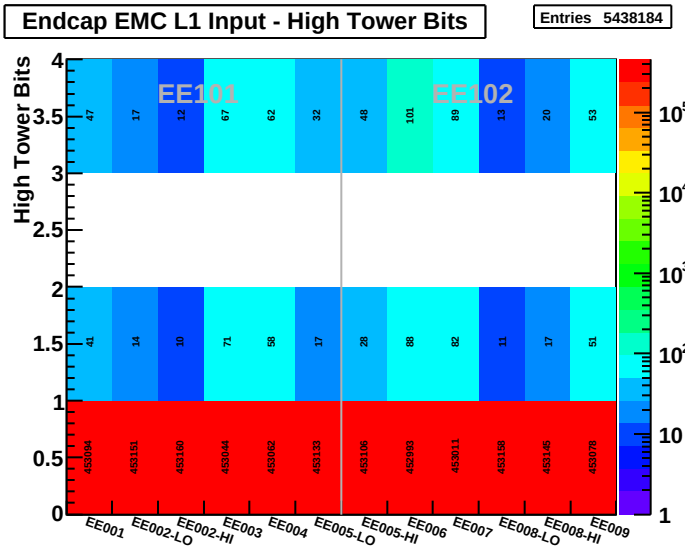

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

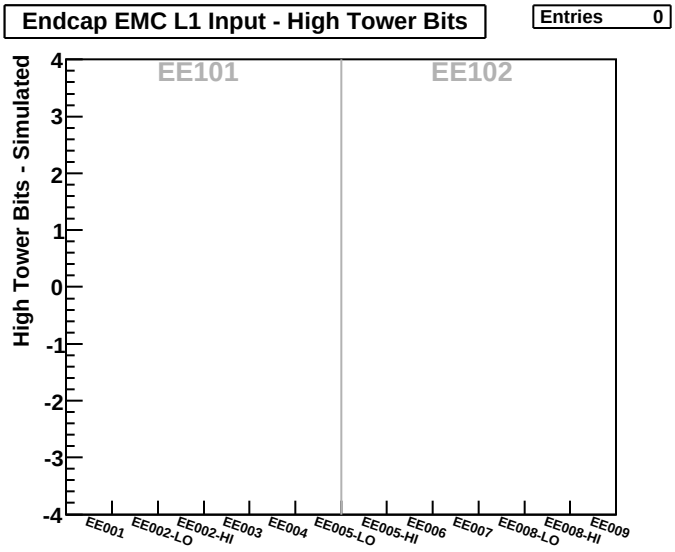

Endcap EMC L1 Input - Low Eta Sum
Entries 5438184
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

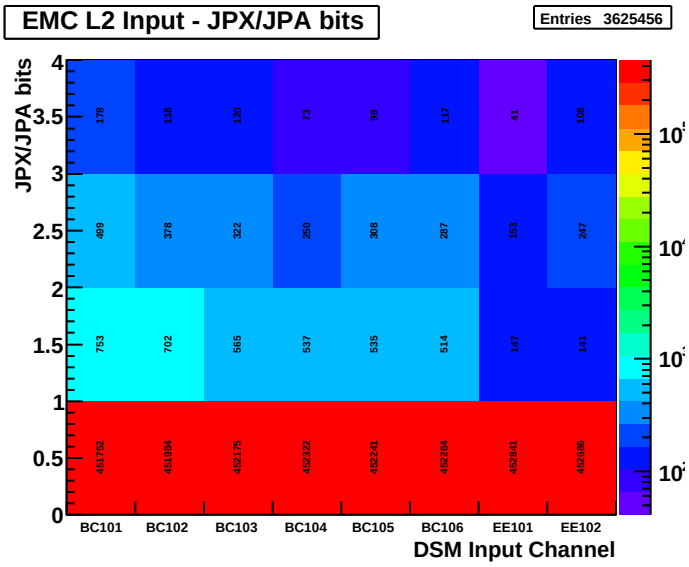

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

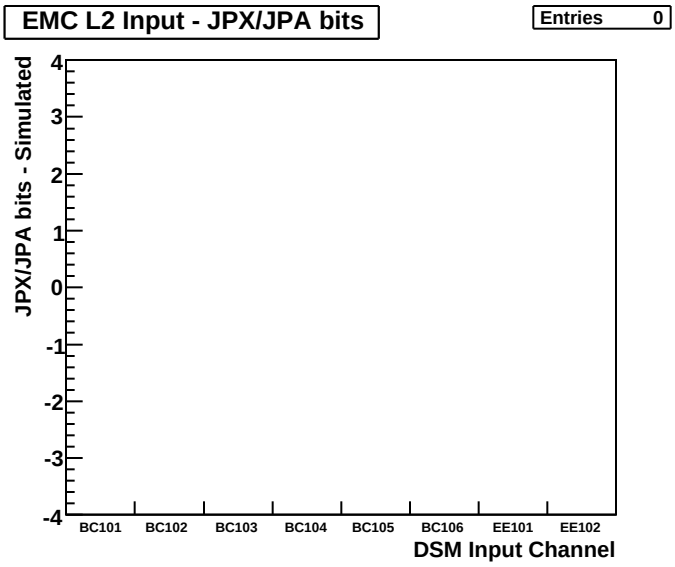

Endcap EMC L1 Input - High Eta Sum
Entries 5438184
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

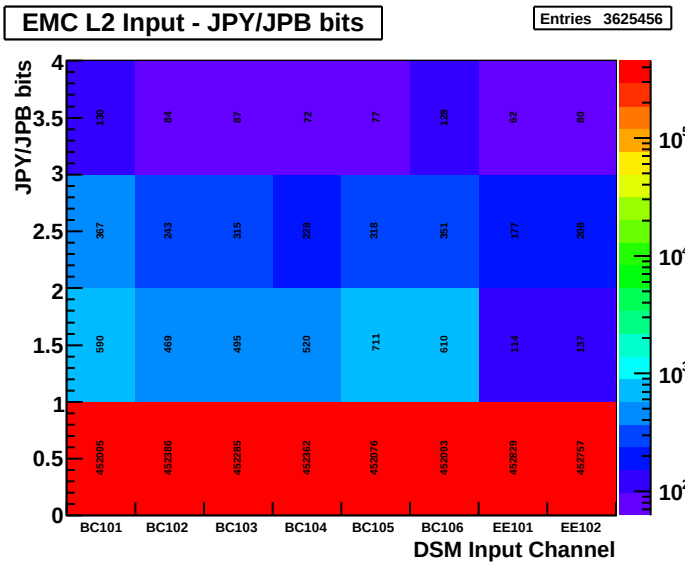

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

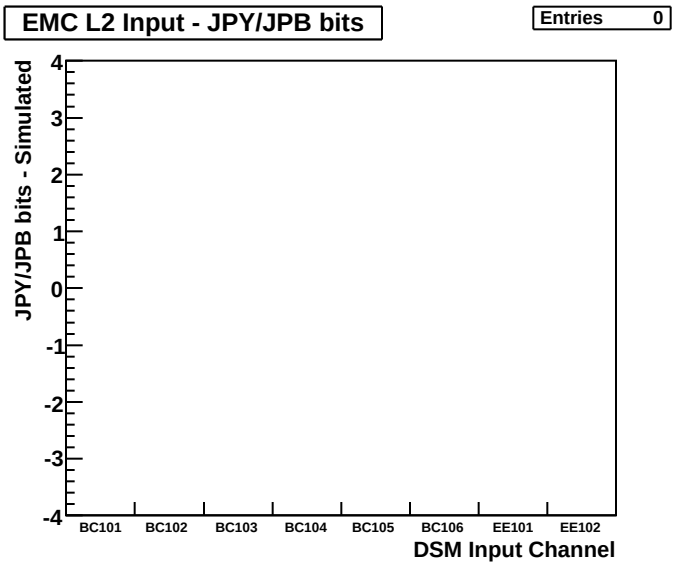

Endcap EMC L1 Input - High Tower Bits
Entries 5438184
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

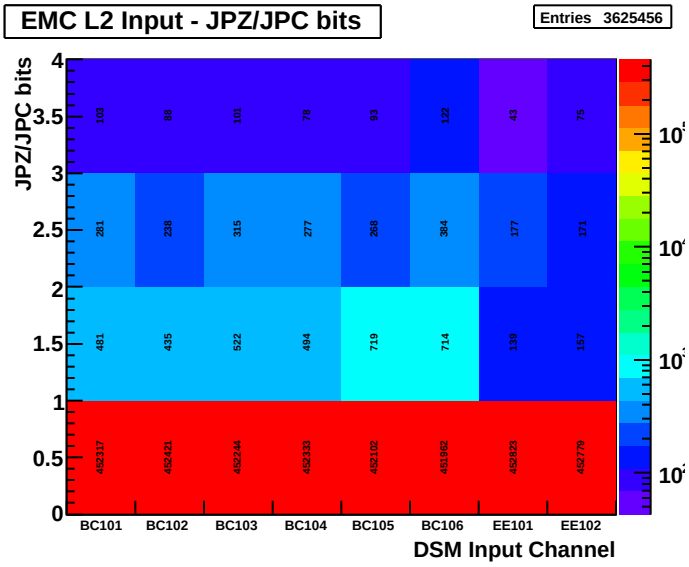

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

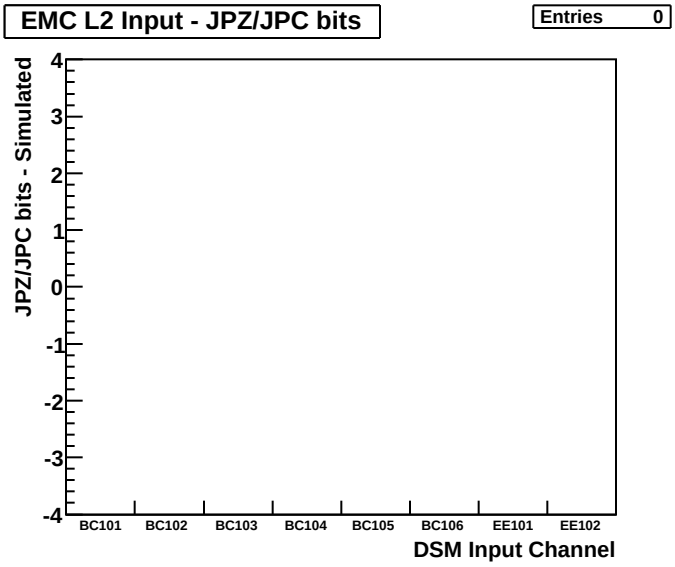

EMC L2 Input - JPX/JPA bits
Entries 3625456
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
178 118 120 73 98 117 41 108
499 378 322 250 308 287 153 247
753 702 565 537 535 514 147 141
451752 451984 452175 452322 452241 452264 452841 452686

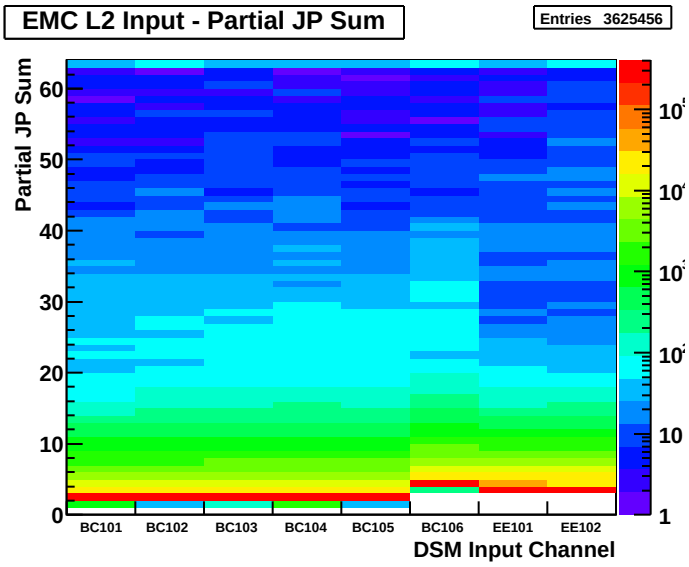

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

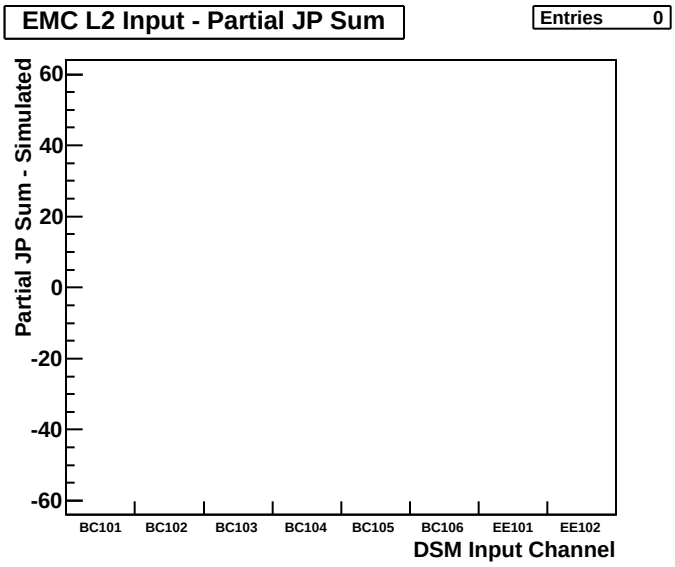

EMC L2 Input - JPY/JPB bits
Entries 3625456
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
130 84 87 72 77 128 62 80
387 243 315 228 318 351 177 208
590 469 495 520 711 610 114 137
452095 452286 452285 452362 452076 452093 452829 452757

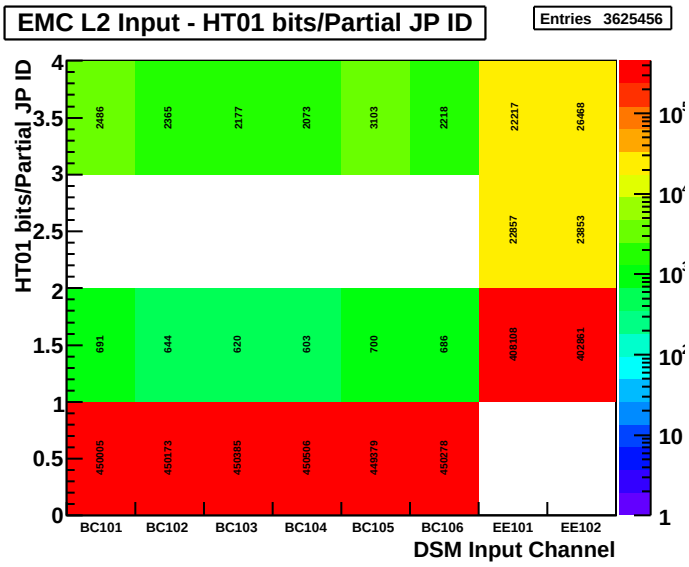

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

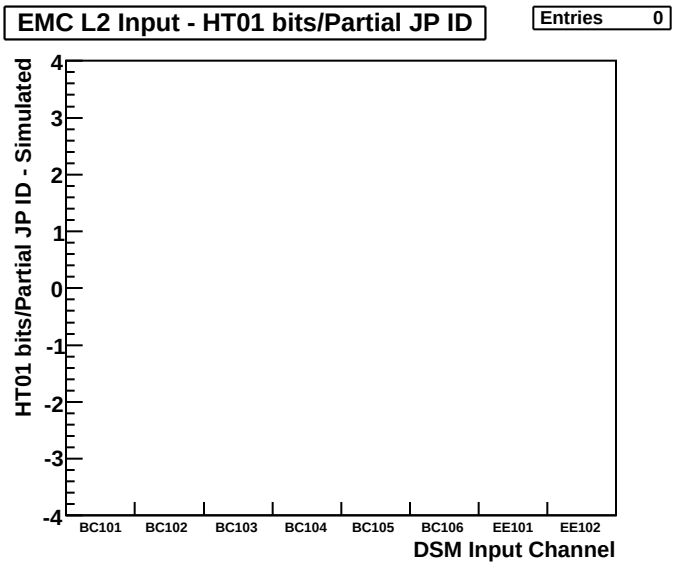

EMC L2 Input - JPZ/JPC bits
Entries 3625456
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
103 88 101 78 93 122 43 75
281 238 315 277 268 384 177 171
481 435 522 494 719 714 139 157
452317 452421 452244 452333 452102 451962 452823 452779

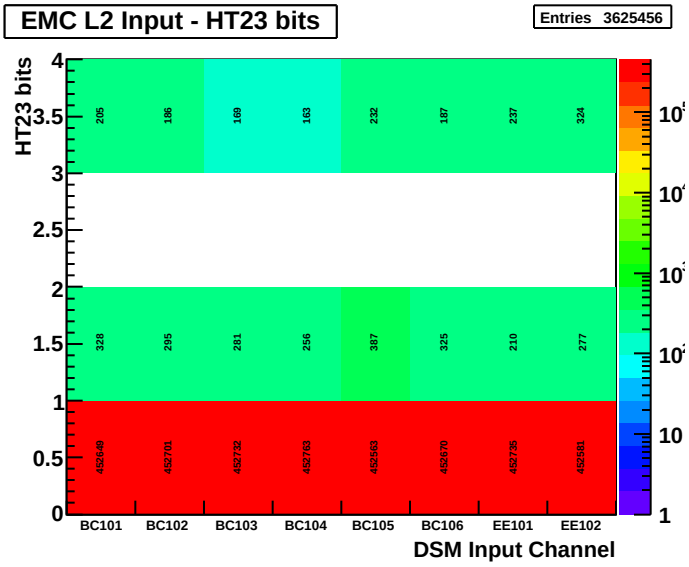

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

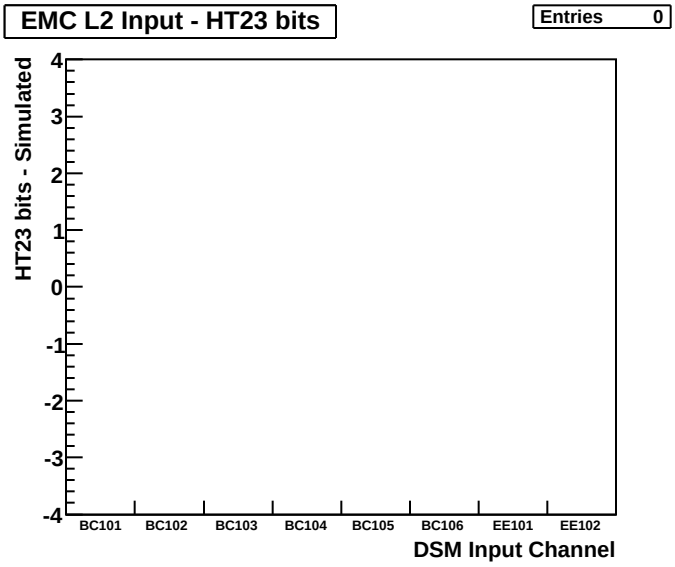

EMC L2 Input - Partial JP Sum
Entries 3625456
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

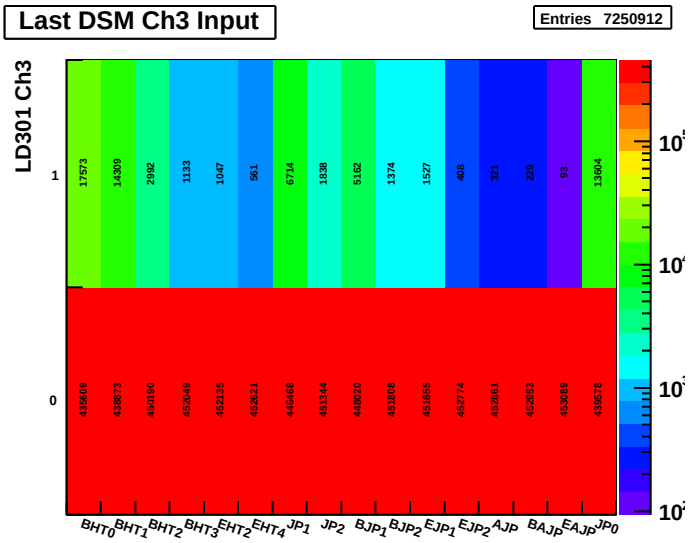

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

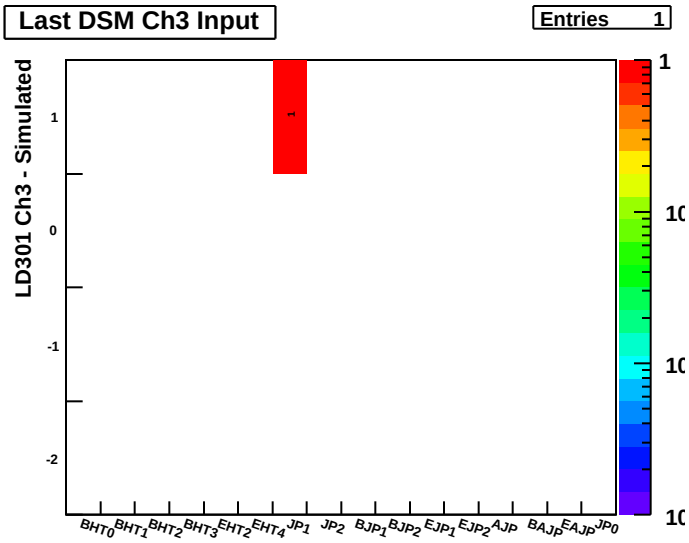

EMC L2 Input - HT01 bits/Partial JP ID
Entries 3625456
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

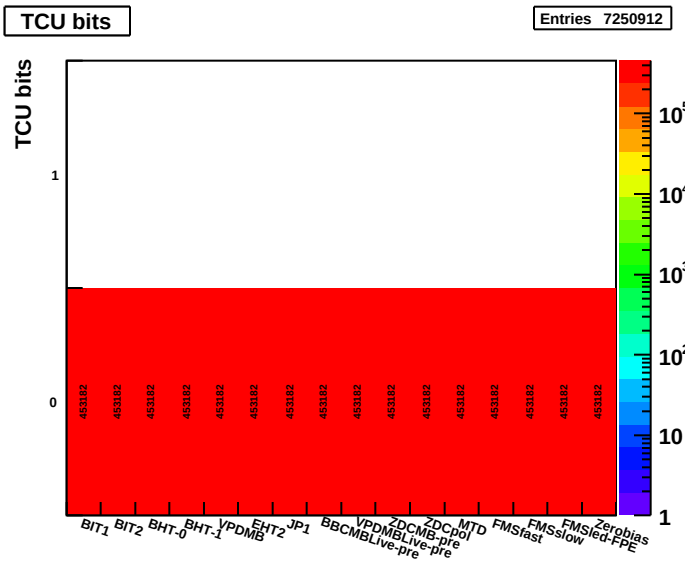

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

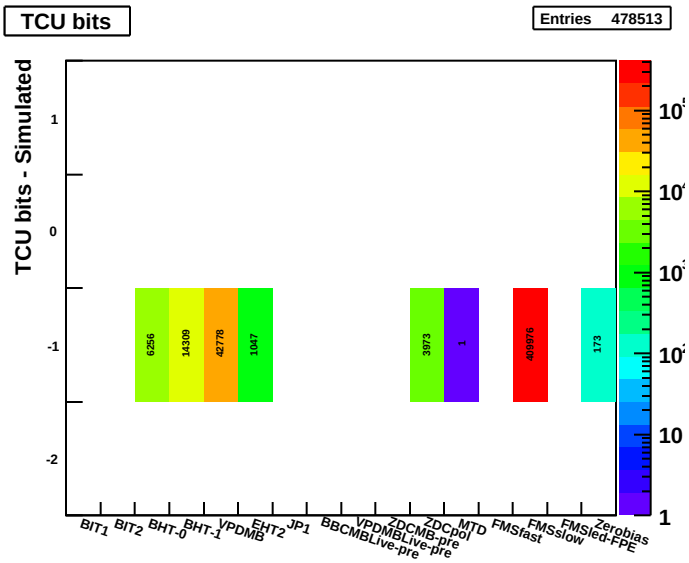

EMC L2 Input - HT23 bits
Entries 3625456
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

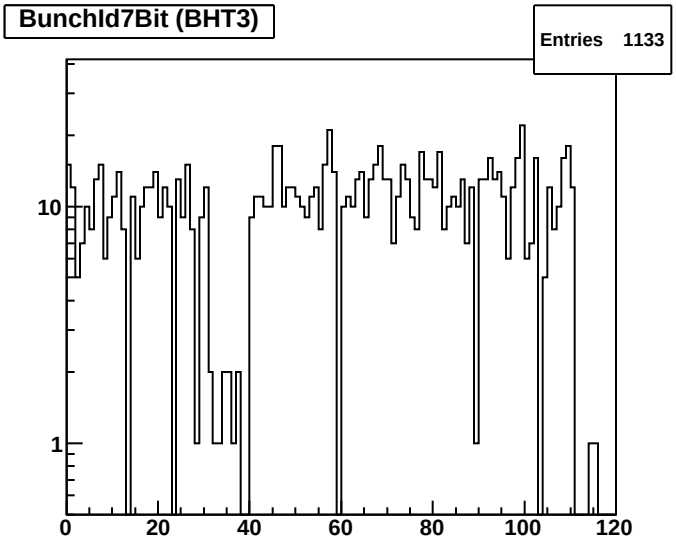

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

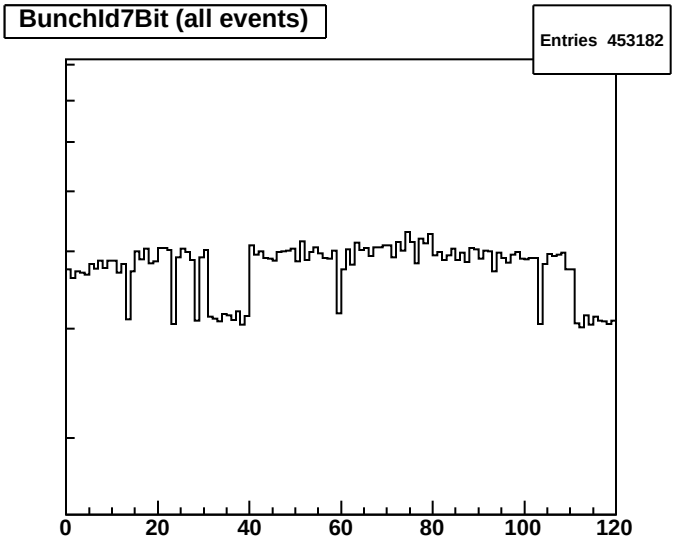

Last DSM Ch3 Input
Entries 7250912
LD301 Ch3
17573 14309 2992 1133 1047 561 6714 1838 5162 1374 1527 408 321 229 93 13604
435609 438873 450190 452049 452135 452621 446468 451344 448020 451808 451655 452774 452861 452853 453069 439578
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

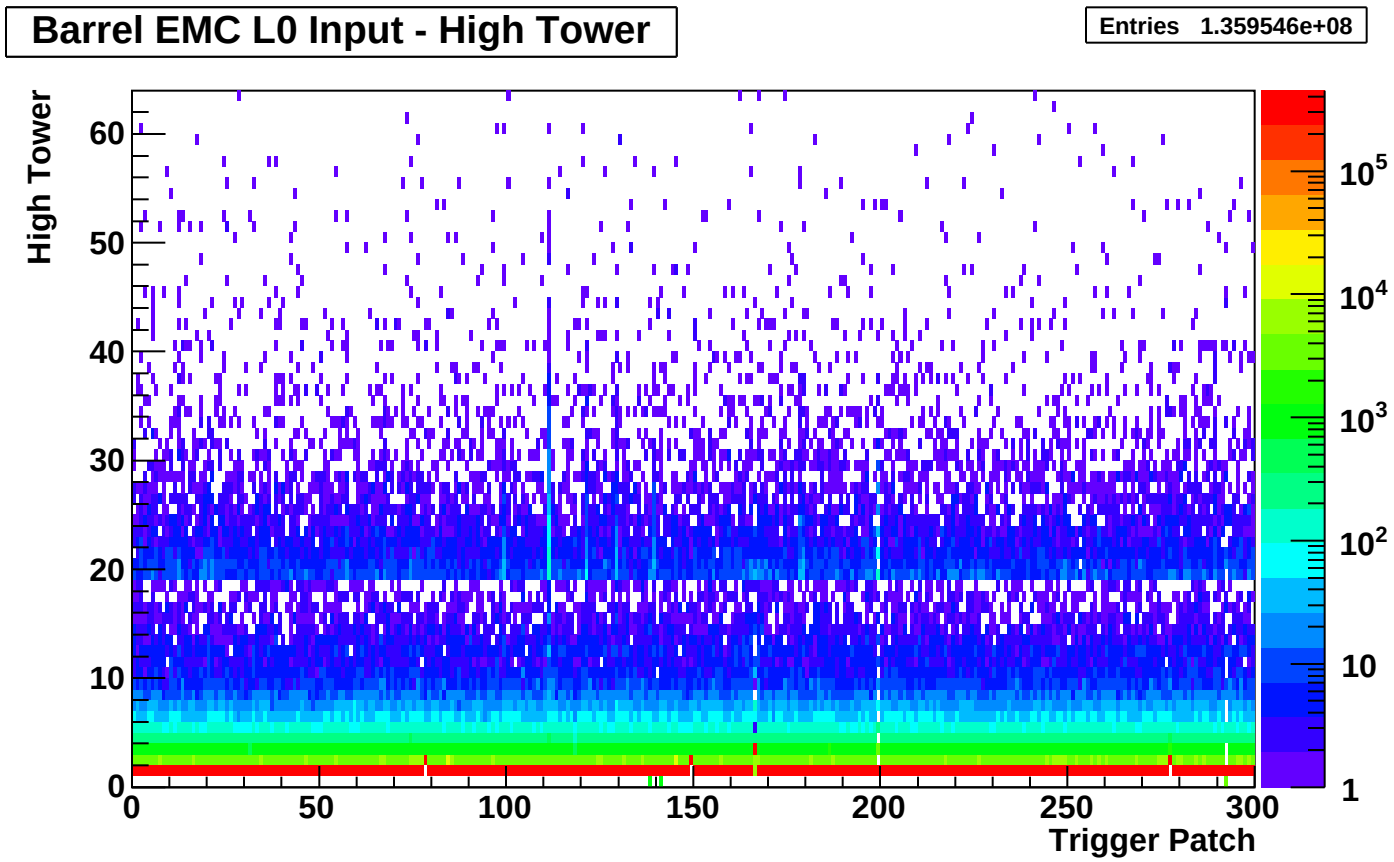

Last DSM Ch3 Input
Entries 1
LD301 Ch3 - Simulated
1
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

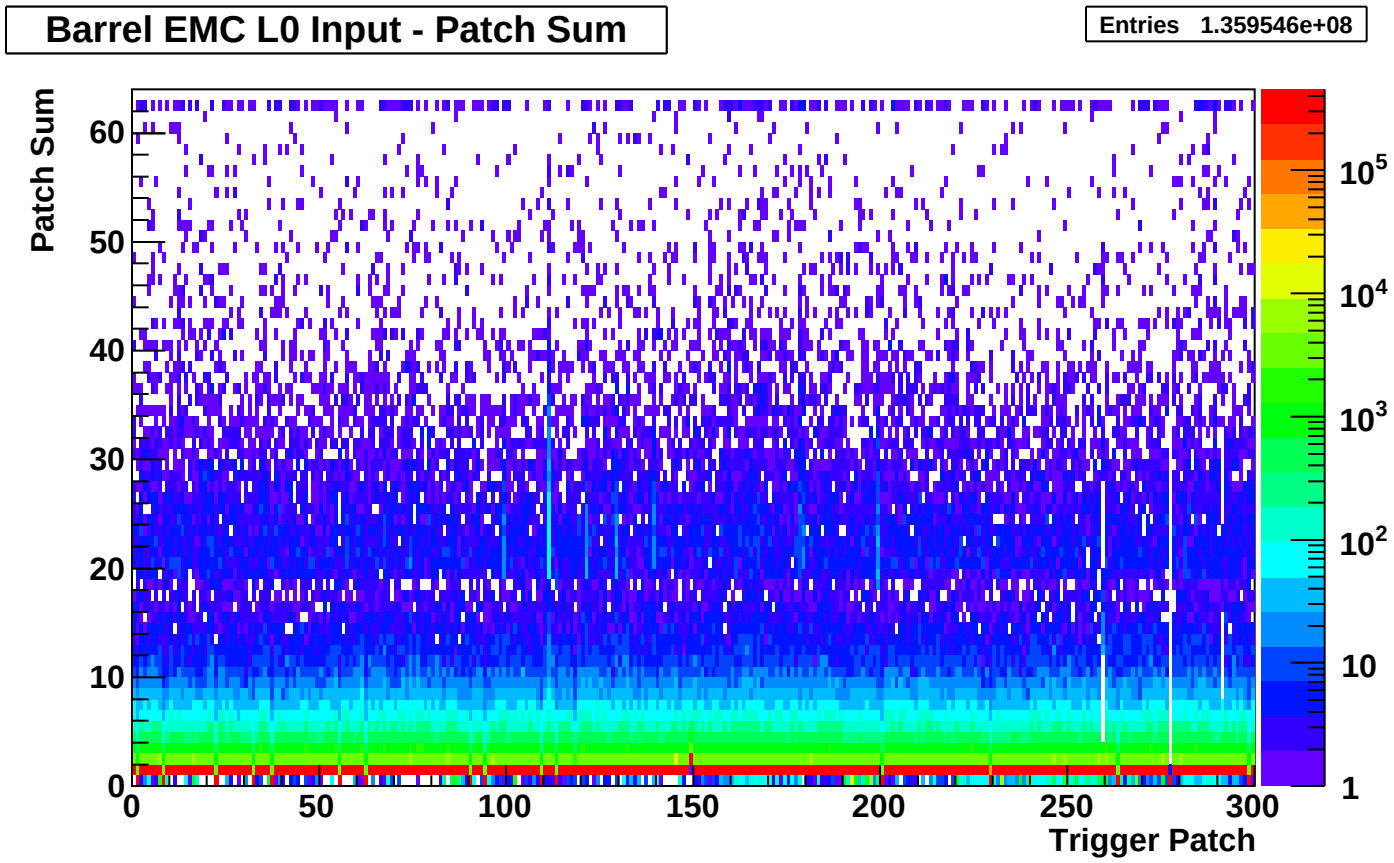

TCU bits
Entries 7250912
TCU bits
453182
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

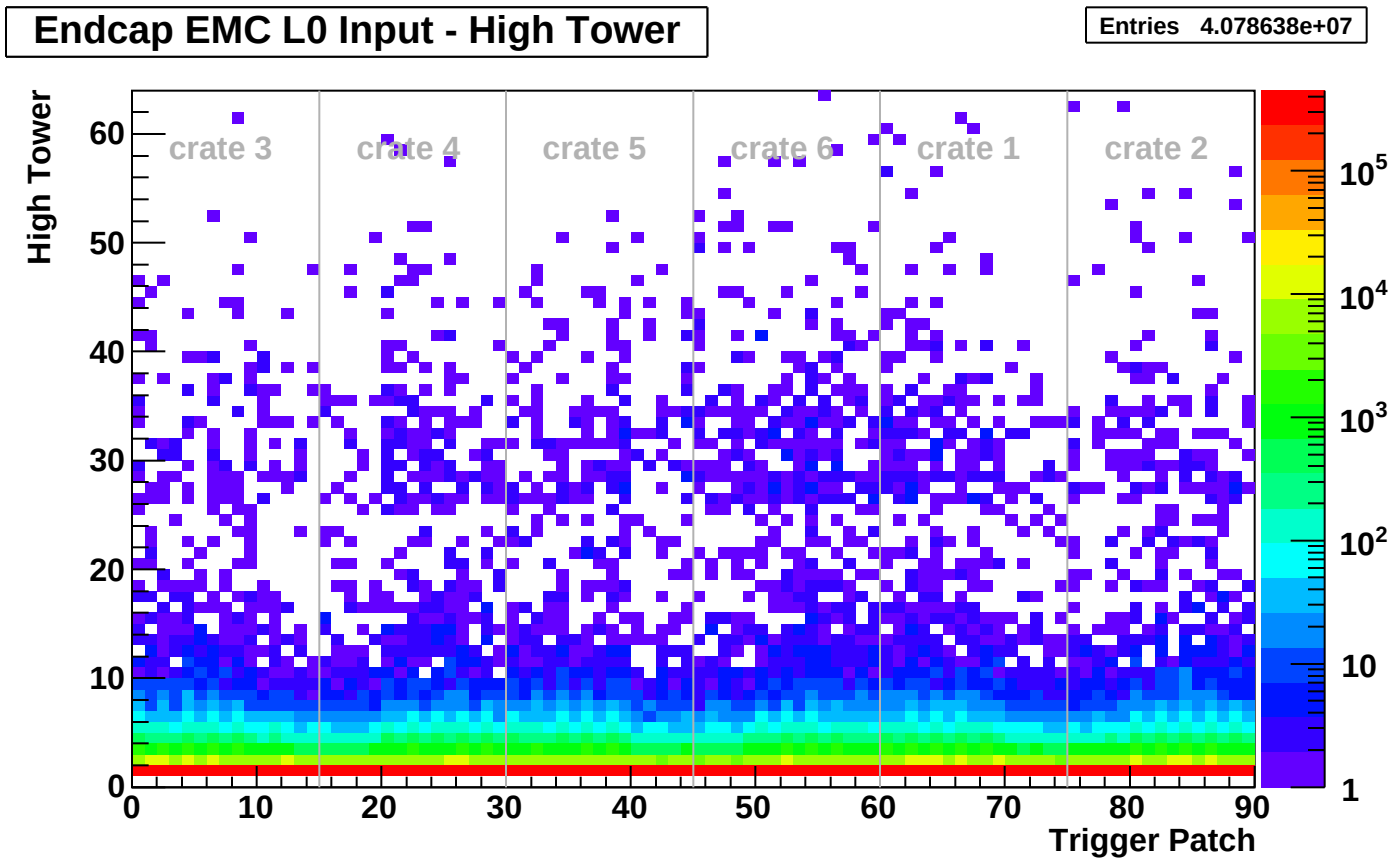

TCU bits
Entries 478513
TCU bits - Simulated
6256 14309 42778 1047 3973 1 409976 173
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

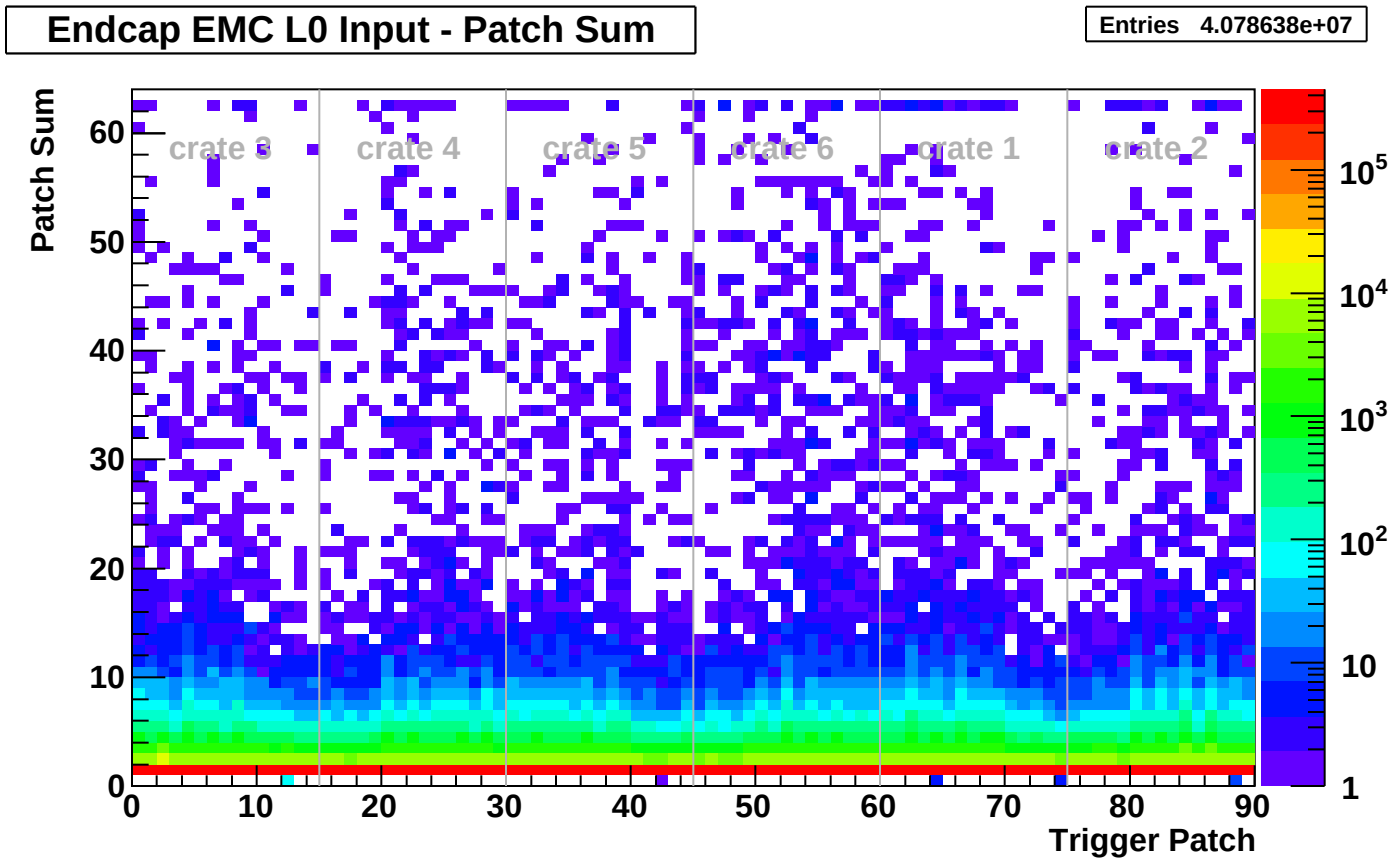

BunchId7Bit (BHT3)
Entries 1133
0 20 40 60 80 100 120

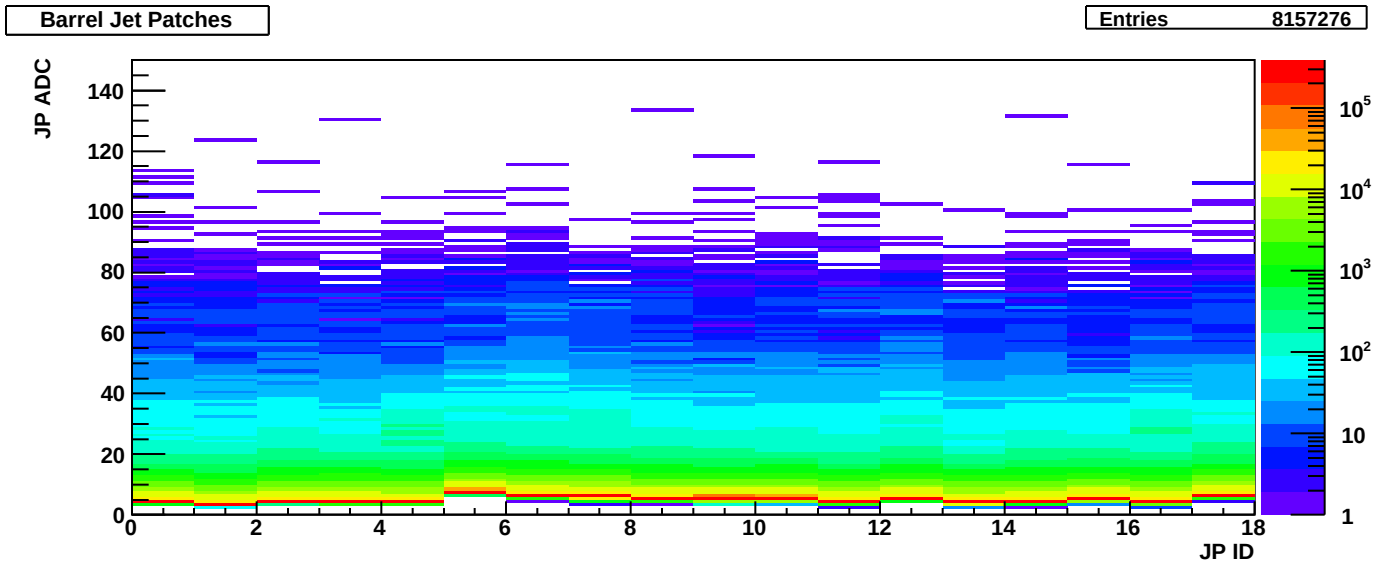

BunchId7Bit (all events)
Entries 453182
0 20 40 60 80 100 120

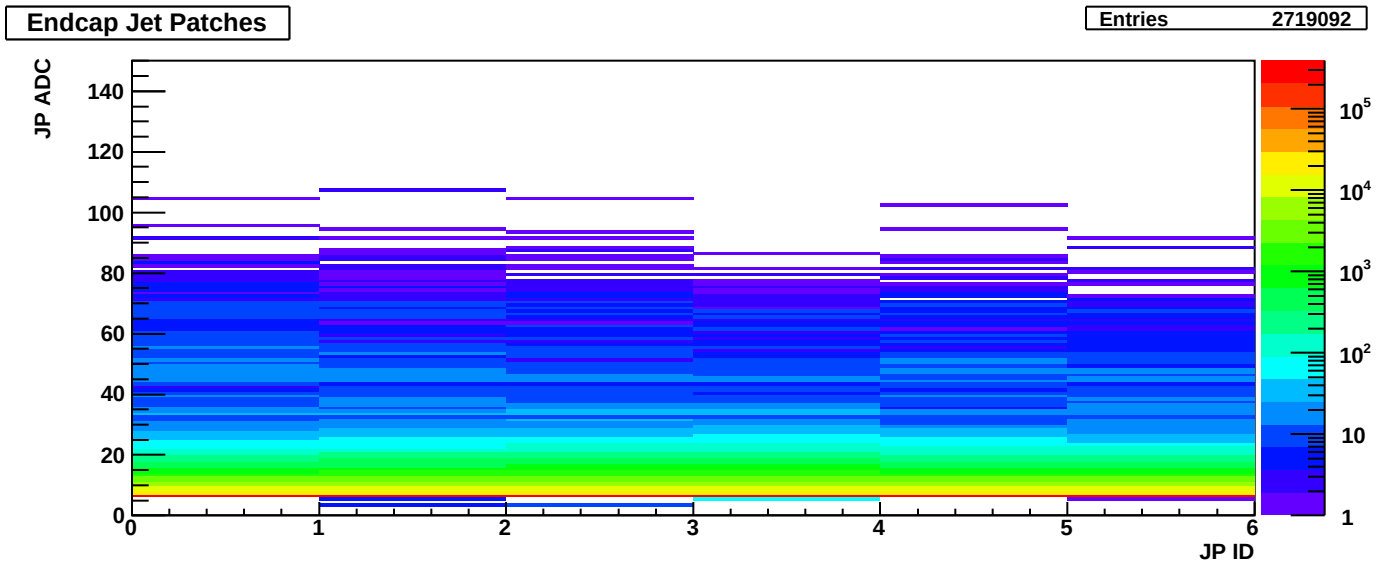

Barrel EMC L0 Input - High Tower
Entries 1.359546e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

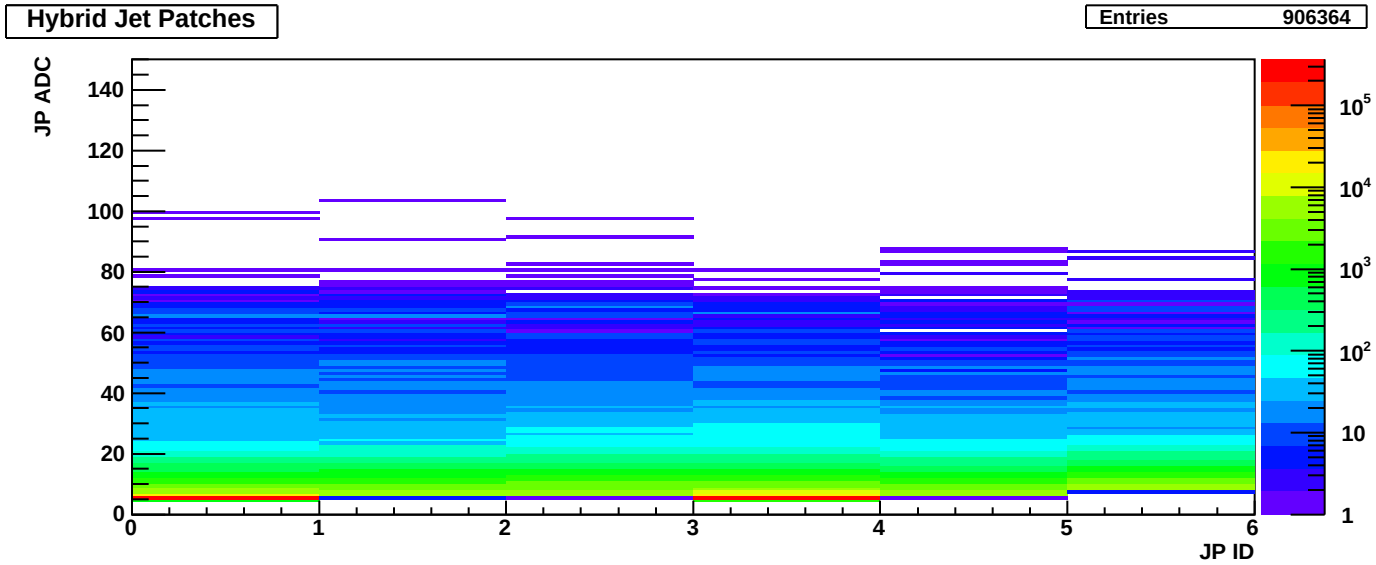

Barrel EMC L0 Input - Patch Sum
Entries 1.359546e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

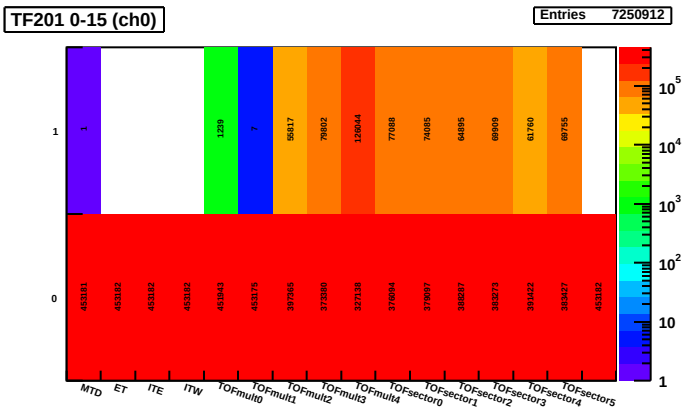

Endcap EMC L0 Input - High Tower
Entries 4.078638e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

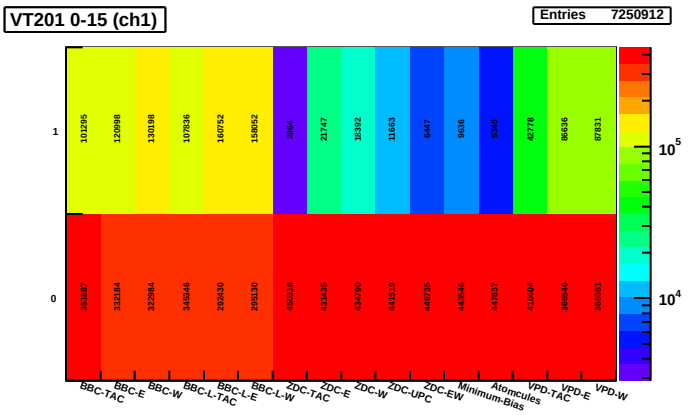

Endcap EMC L0 Input - Patch Sum
Entries 4.078638e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

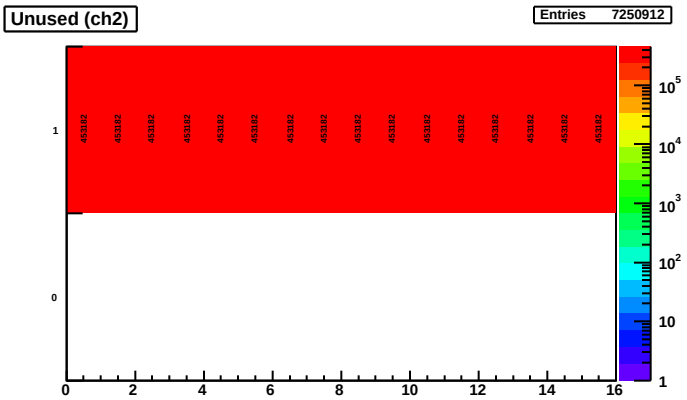

Barrel Jet Patches
Entries 8157276
JP ADC
JP ID

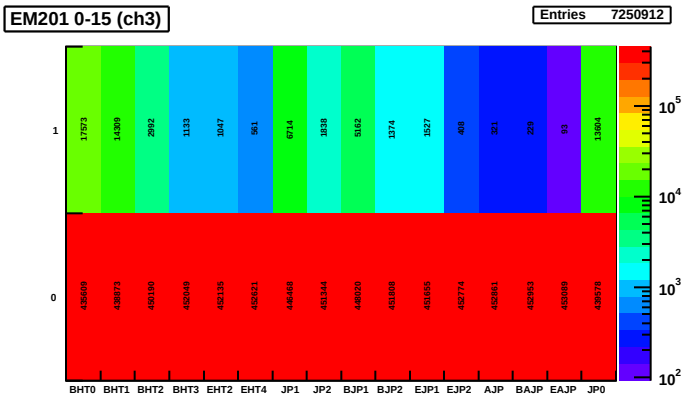

Endcap Jet Patches
Entries 2719092
JP ADC
JP ID

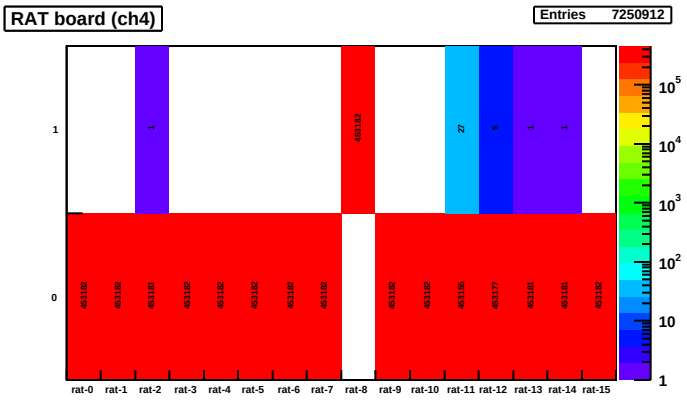

Hybrid Jet Patches
Entries 906364
JP ADC
JP ID

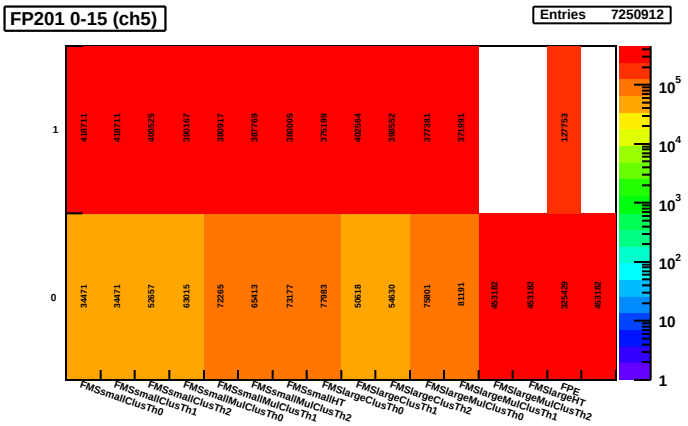

TF201 0-15 (ch0)
Entries 7250912
MTD
ET
ITE
ITW
TOFmult0
TOFmult1
TOFmult2
TOFmult3
TOFmult4
TOFsector0
TOFsector1
TOFsector2
TOFsector3
TOFsector4
TOFsector5

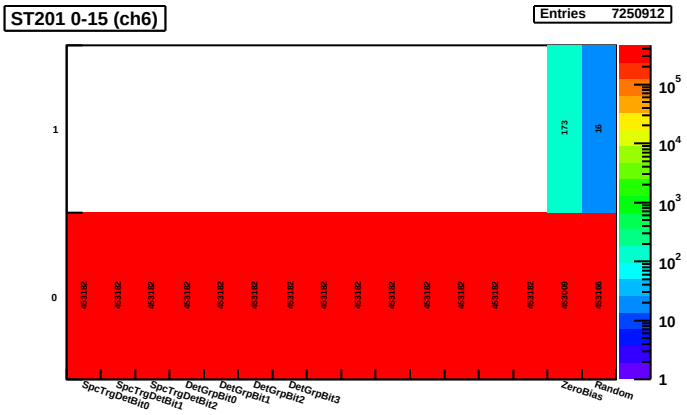

VT201 0-15 (ch1)
Entries 7250912
BBC-TAC
BBC-E
BBC-W
BBC-L-TAC
BBC-L-E
BBC-L-W
ZDC-TAC
ZDC-E
ZDC-W
ZDC-UPC
ZDC-EW
Minimum-Bias
Atomcules
VPD-TAC
VPD-E
VPD-W

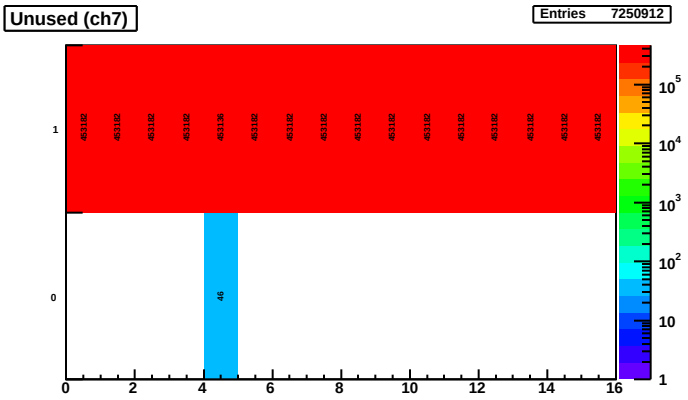

Unused (ch2)
Entries 7250912

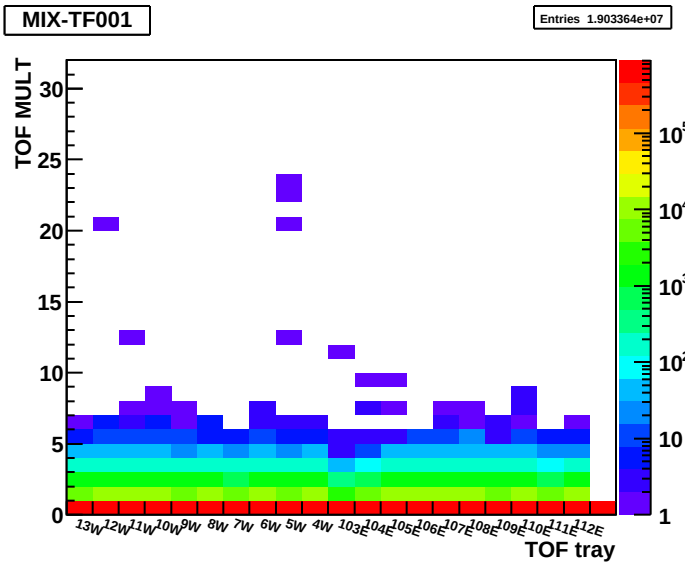

EM201 0-15 (ch3)
Entries 7250912
BHT0
BHT1
BHT2
BHT3
EHT2
EHT4
JP1
JP2
BJP1
BJP2
EJP1
EJP2
AJP
BAJP
EAJP
JP0

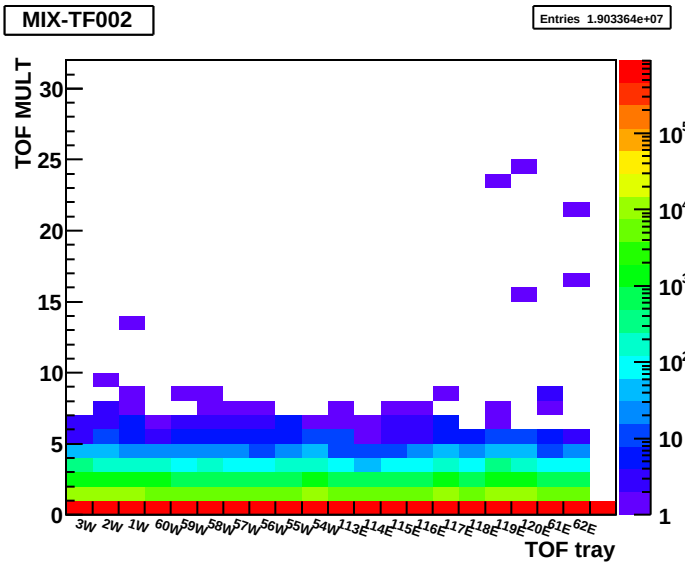

RAT board (ch4)
Entries 7250912
rat-0
rat-1
rat-2
rat-3
rat-4
rat-5
rat-6
rat-7
rat-8
rat-9
rat-10
rat-11
rat-12
rat-13
rat-14
rat-15

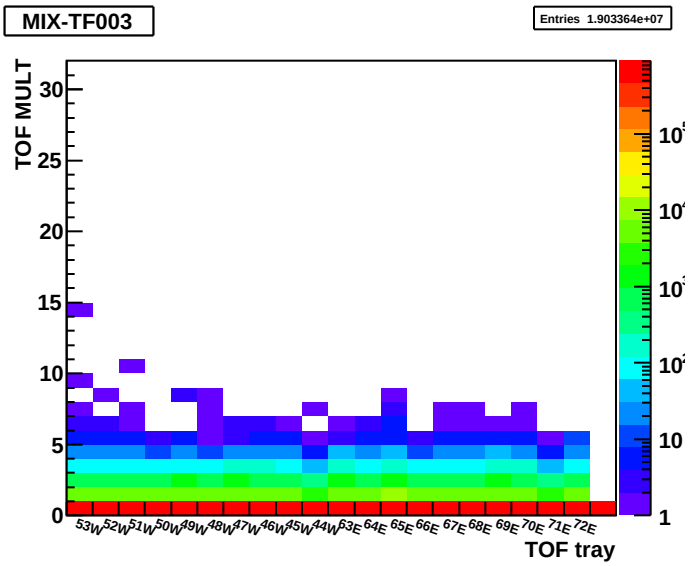

FP201 0-15 (ch5)
Entries 7250912
FMSsmallClusTh0
FMSsmallClusTh1
FMSsmallClusTh2
FMSsmallMulClusTh0
FMSsmallMulClusTh1
FMSsmallMulClusTh2
FMSsmallHT
FMSlargeClusTh0
FMSlargeClusTh1
FMSlargeClusTh2
FMSlargeMulClusTh0
FMSlargeMulClusTh1
FMSlargeMulClusTh2
FMSlargeHT
FPE

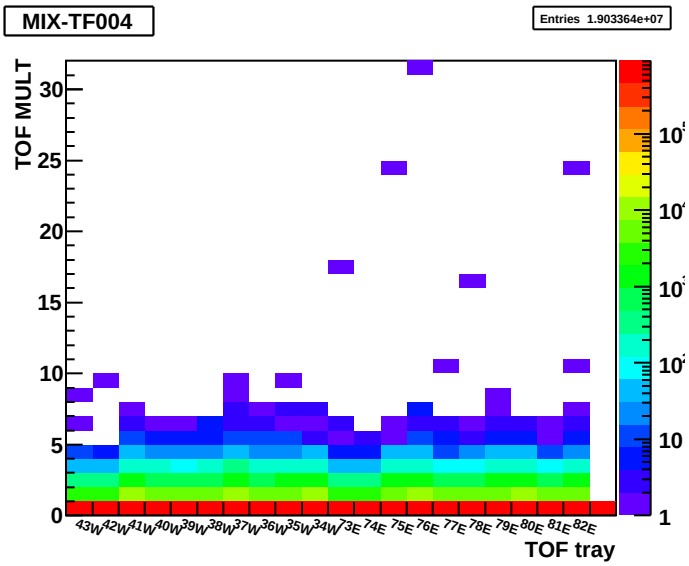

ST201 0-15 (ch6)
Entries 7250912
SpcTrgDetBit0
SpcTrgDetBit1
SpcTrgDetBit2
DetGrpBit0
DetGrpBit1
DetGrpBit2
DetGrpBit3
ZeroBias
Random

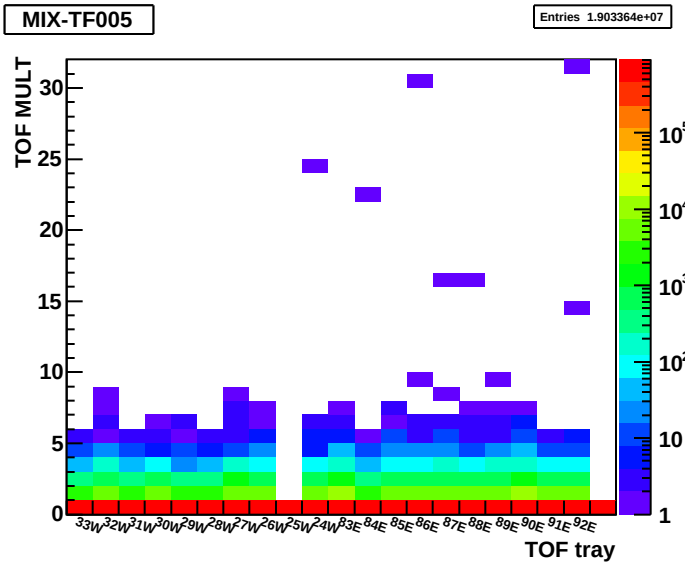

Unused (ch7)
Entries 7250912

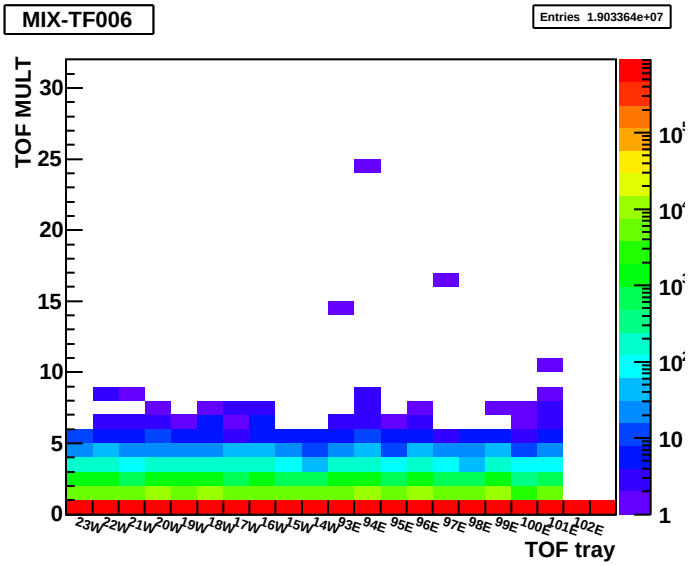

MIX-TF001
Entries 1.903364e+07
TOF MULT
TOF tray

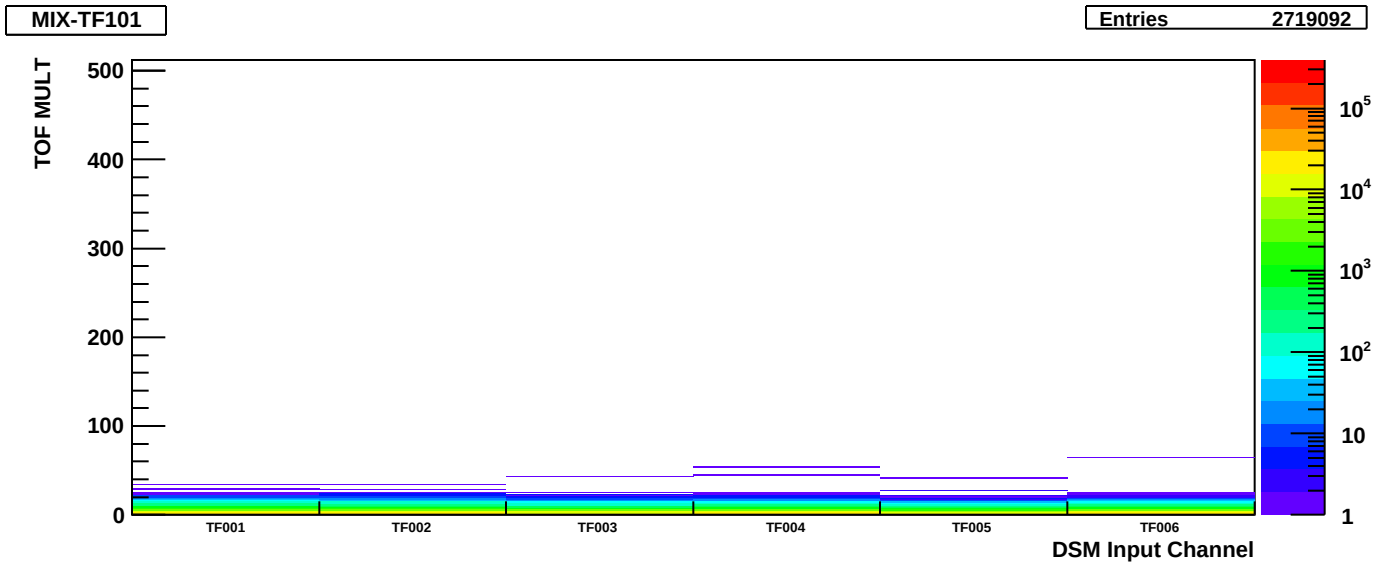

MIX-TF002
Entries 1.903364e+07
TOF MULT
TOF tray

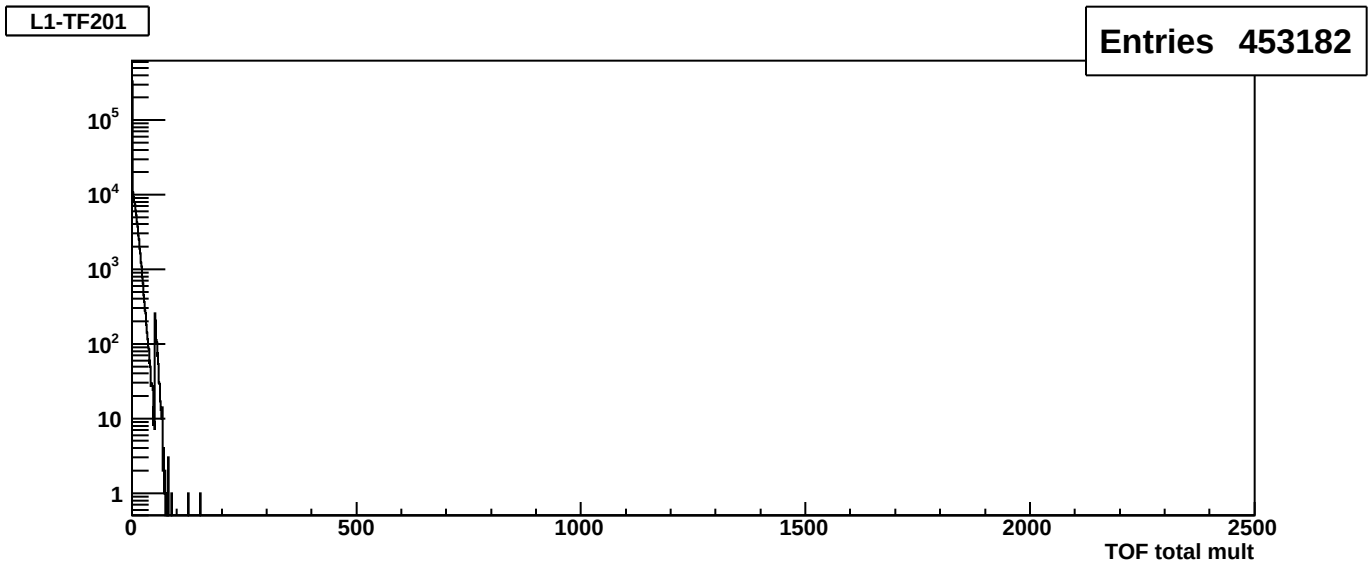

MIX-TF003
Entries 1.903364e+07
TOF MULT
TOF tray

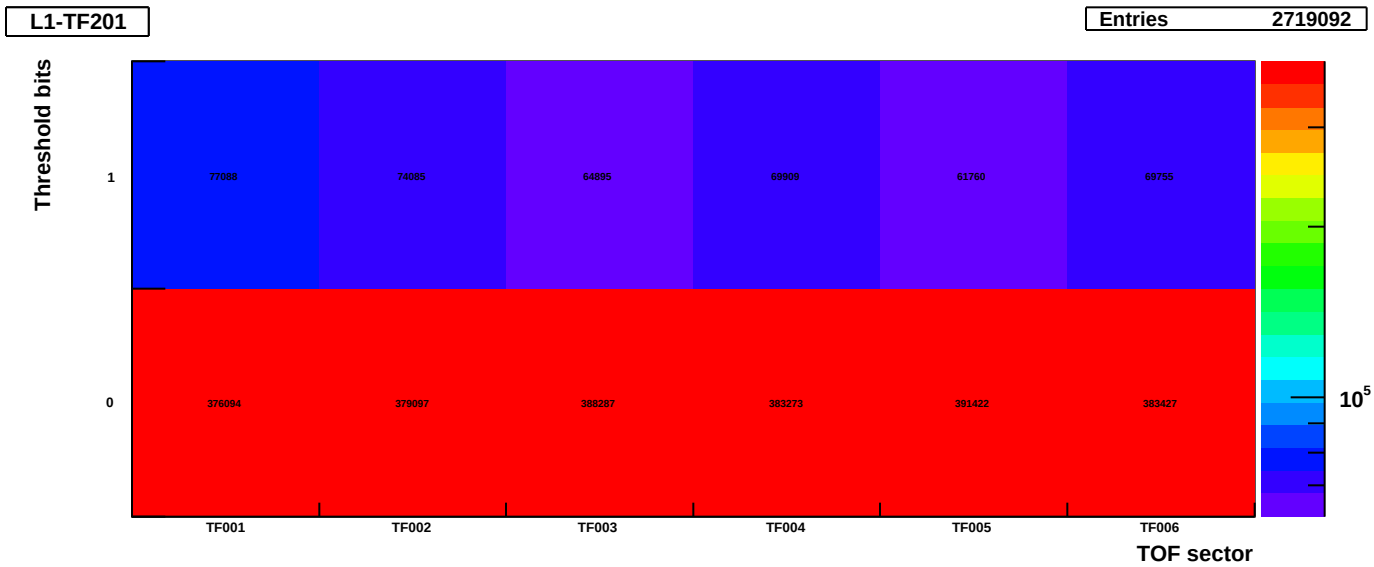

MIX-TF004
Entries 1.903364e+07
TOF MULT
TOF tray

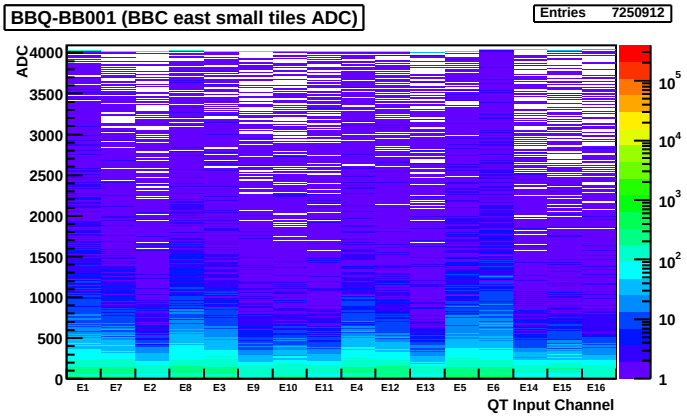

MIX-TF005
Entries 1.903364e+07
TOF MULT
TOF tray

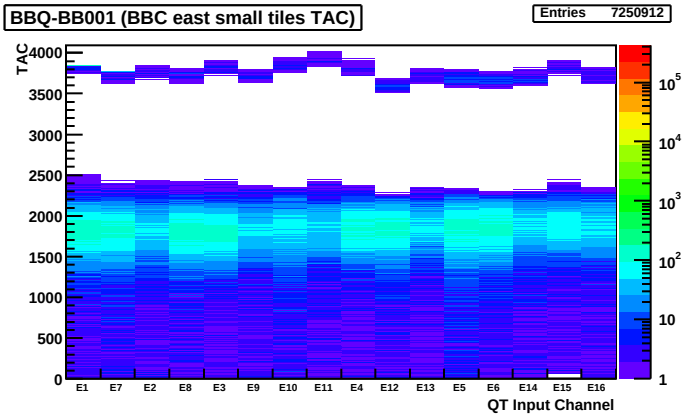

MIX-TF006
Entries 1.903364e+07
TOF MULT
TOF tray

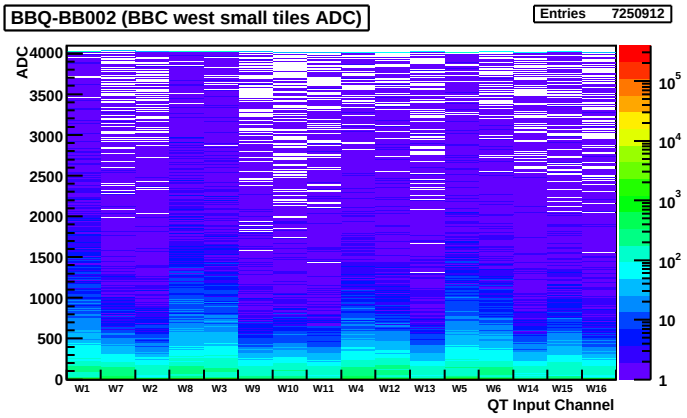

MIX-TF101
Entries 2719092
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

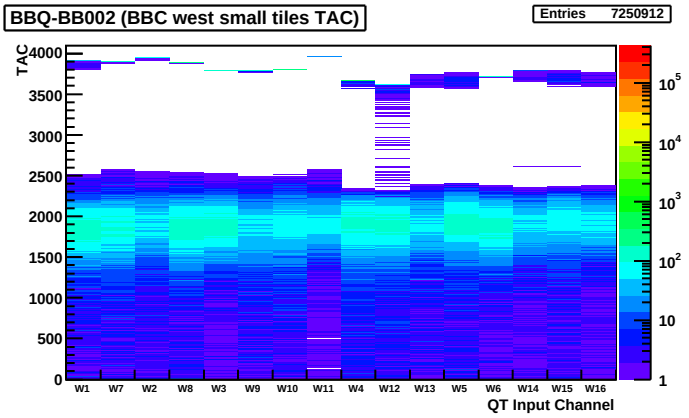

L1-TF201
Entries 453182
10^5
10^4
10^3
10^2
10
1
0
500
1000
1500
2000
2500
TOF total mult

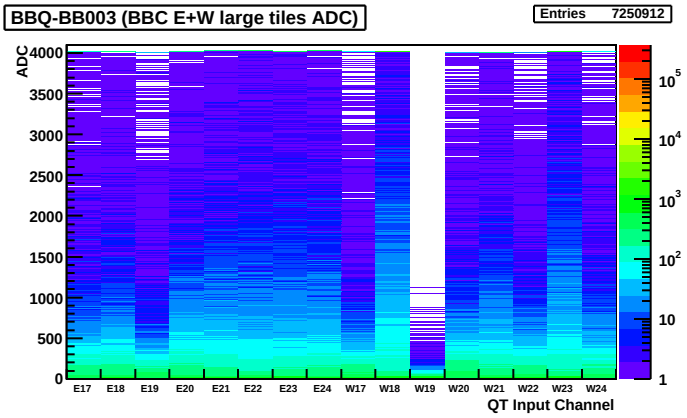

L1-TF201
Entries 2719092
Threshold bits
1
0
77088
74085
64895
69909
61760
69755
376094
379097
388287
383273
391422
383427
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5

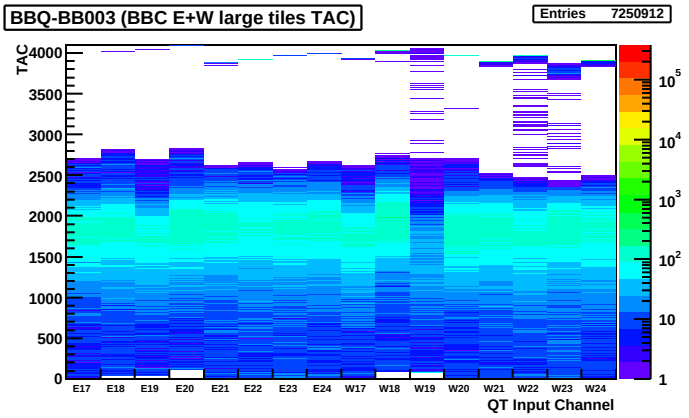

BBQ-BB001 (BBC east small tiles ADC)
Entries 7250912
ADC
QT Input Channel

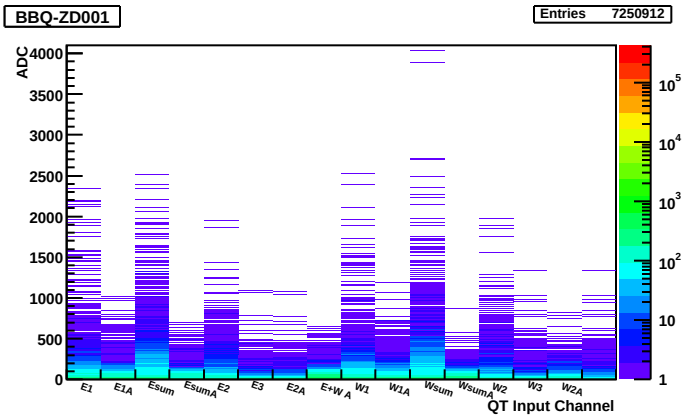

BBQ-BB001 (BBC east small tiles TAC)
Entries 7250912
TAC
QT Input Channel

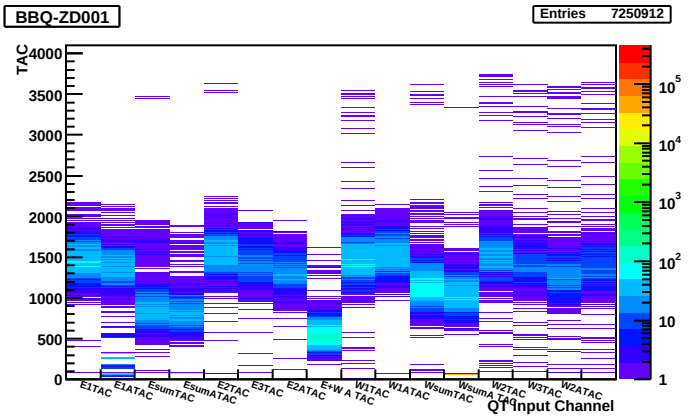

BBQ-BB002 (BBC west small tiles ADC)
Entries 7250912
ADC
QT Input Channel

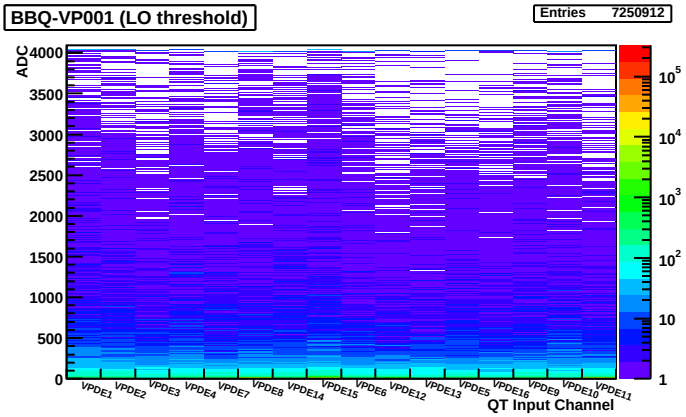

BBQ-BB002 (BBC west small tiles TAC)
Entries 7250912
TAC
QT Input Channel

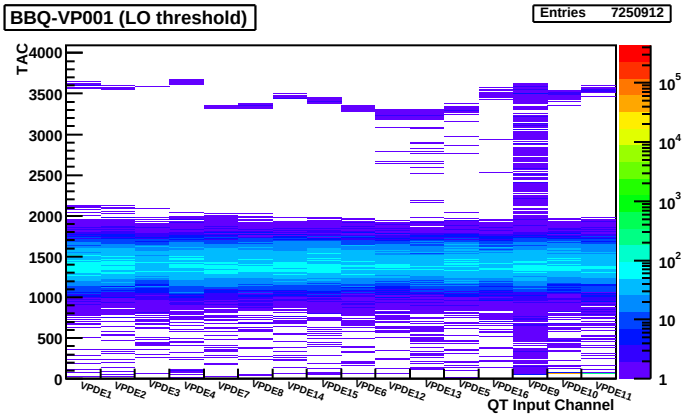

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 7250912
ADC
QT Input Channel

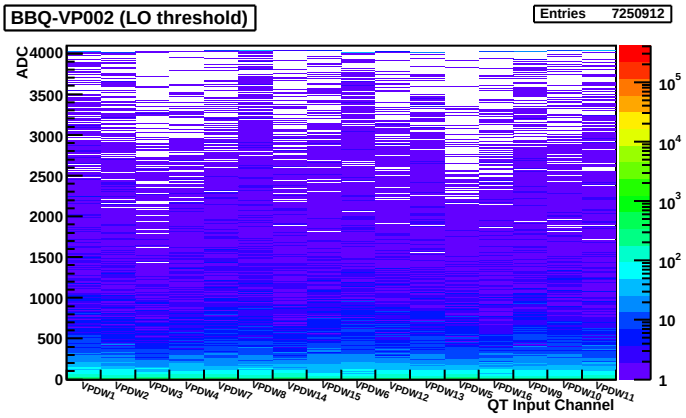

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 7250912
TAC
QT Input Channel

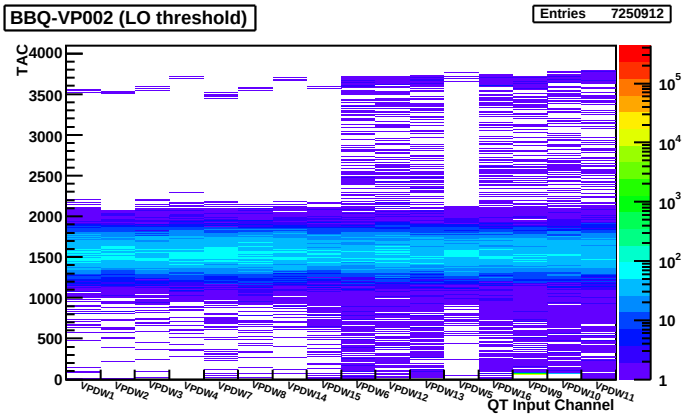

BBQ-ZD001
Entries 7250912
ADC
QT Input Channel

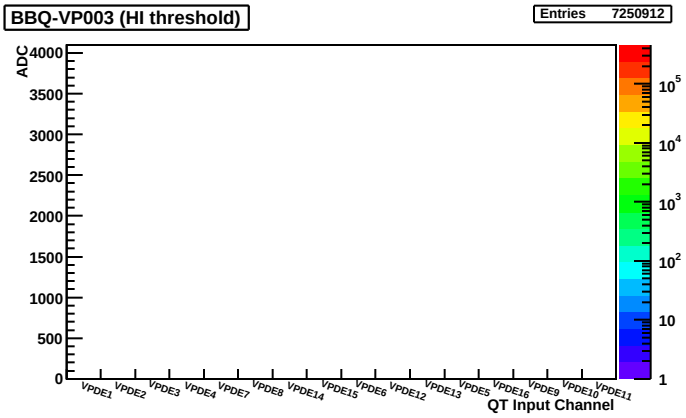

BBQ-ZD001
Entries 7250912
TAC
QT Input Channel

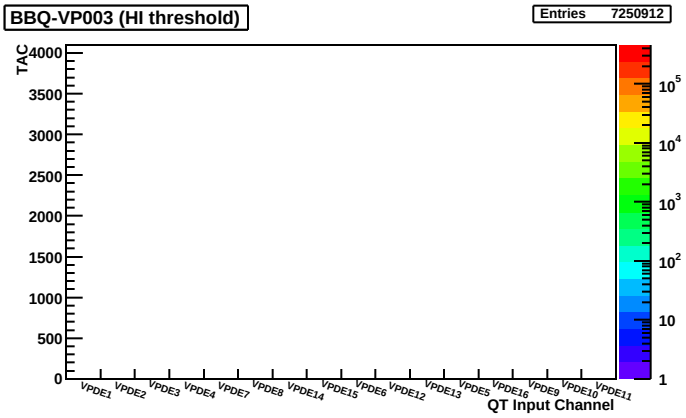

BBQ-VP001 (LO threshold)
Entries 7250912
ADC
QT Input Channel

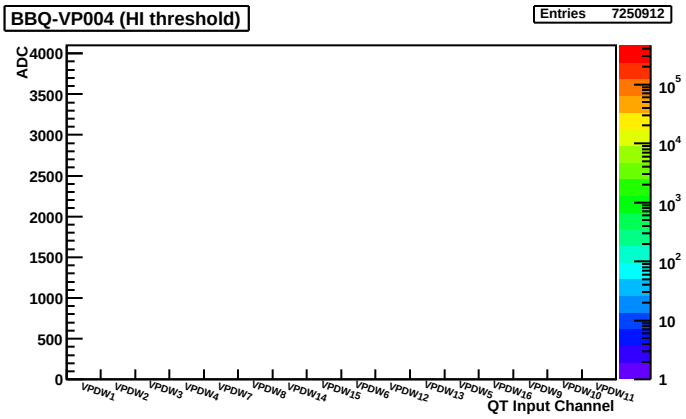

BBQ-VP001 (LO threshold)
Entries 7250912
TAC
QT Input Channel

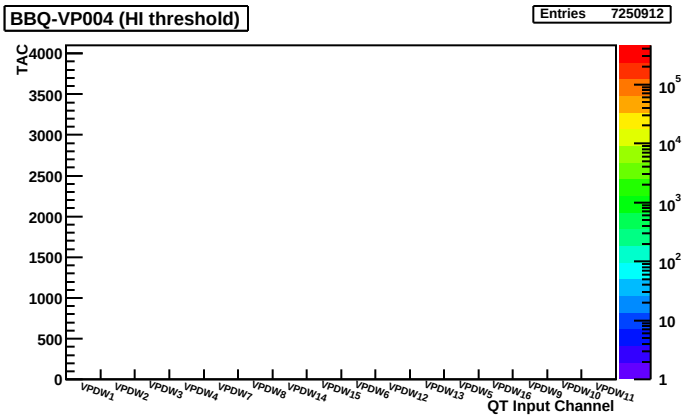

BBQ-VP002 (LO threshold)
Entries 7250912
ADC
QT Input Channel

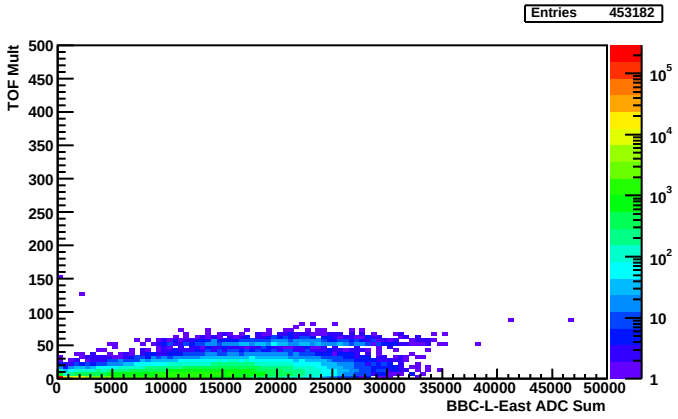

BBQ-VP002 (LO threshold)
Entries 7250912
TAC
QT Input Channel

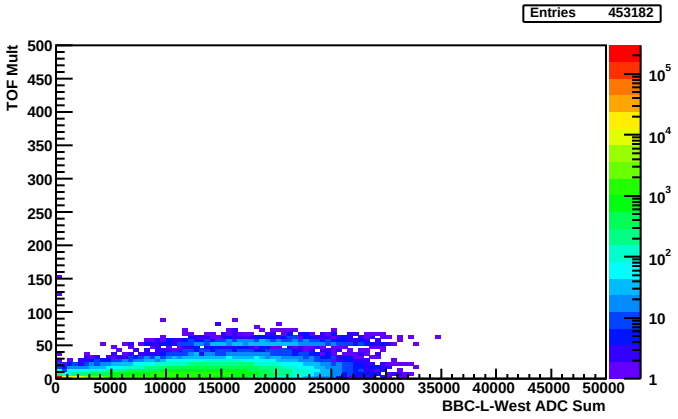

BBQ-VP003 (HI threshold)
Entries 7250912
ADC
QT Input Channel

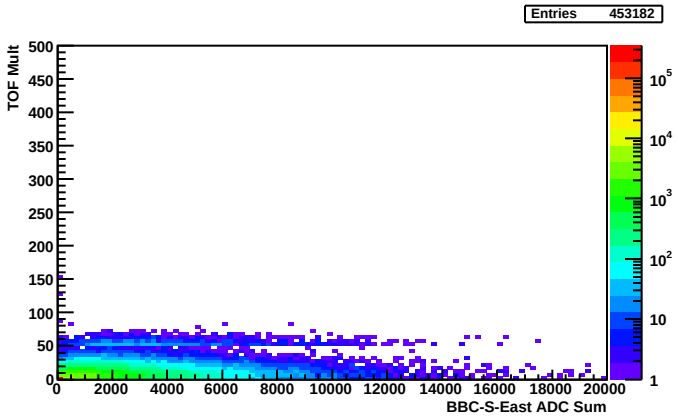

BBQ-VP003 (HI threshold)
Entries 7250912
TAC
QT Input Channel

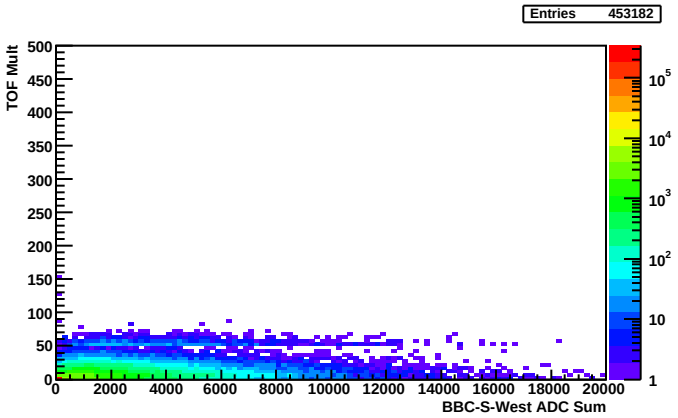

BBQ-VP004 (HI threshold)
Entries 7250912
ADC
QT Input Channel

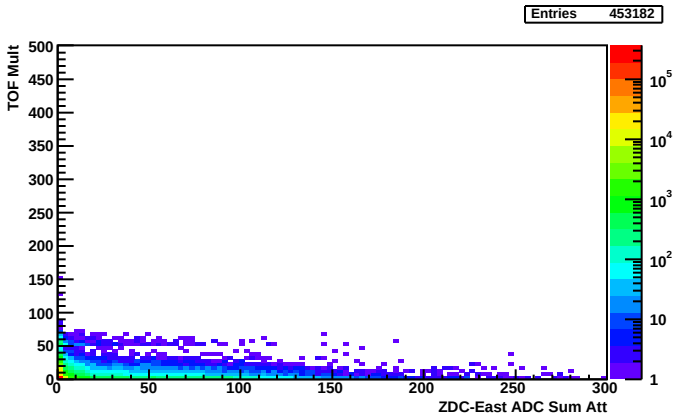

BBQ-VP004 (HI threshold)
Entries 7250912
TAC
QT Input Channel

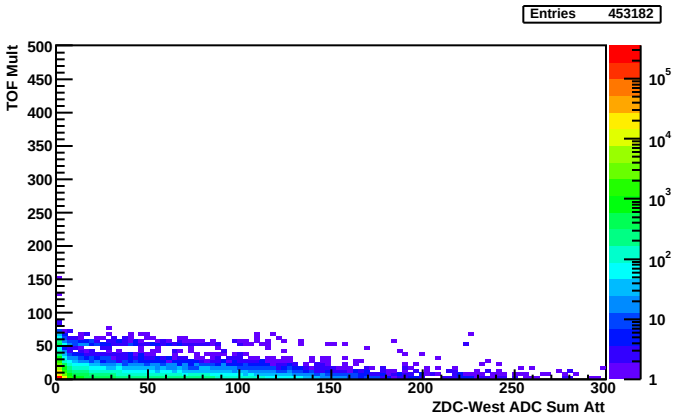

Entries 453182
TOF Mult
BBC-L-East ADC Sum

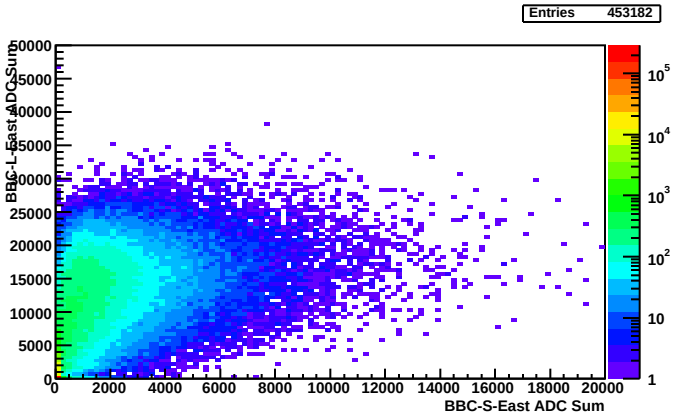

Entries 453182
TOF Mult
BBC-L-West ADC Sum

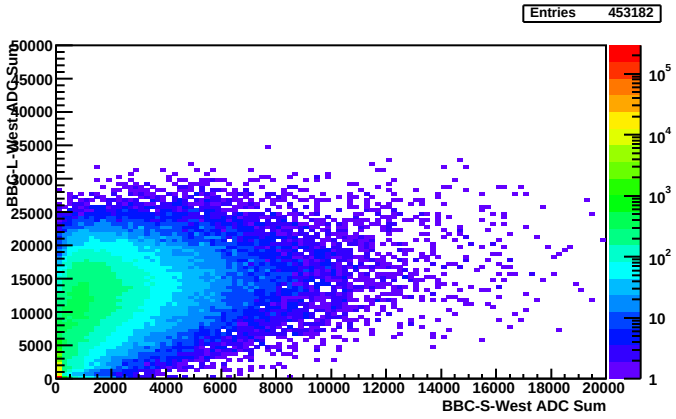

Entries 453182
TOF Mult
BBC-S-East ADC Sum

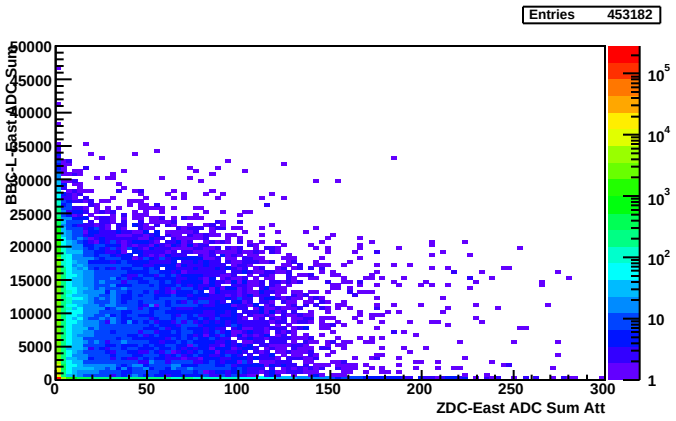

Entries 453182
TOF Mult
BBC-S-West ADC Sum

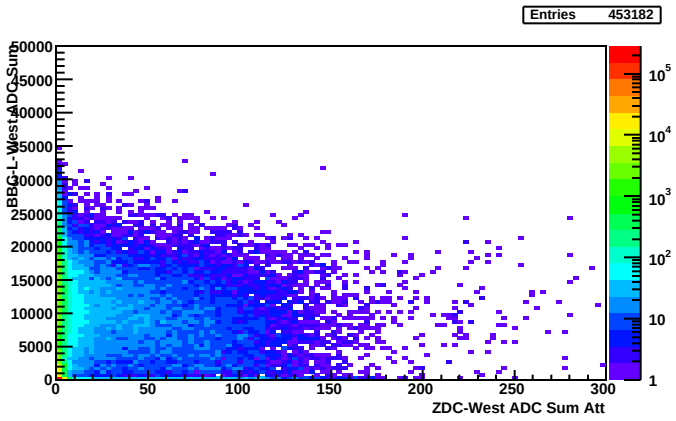

Entries 453182
TOF Mult
ZDC-East ADC Sum Att

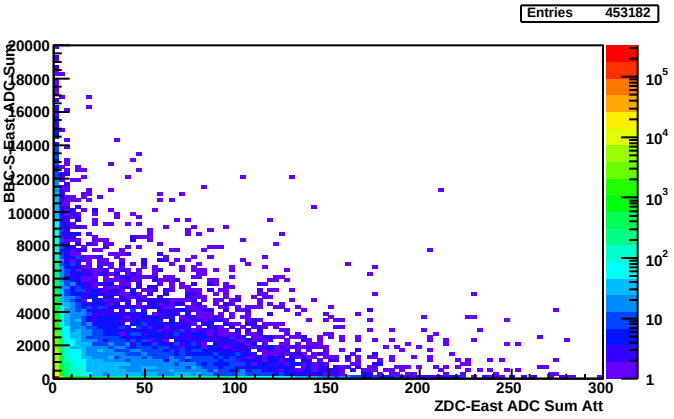

Entries 453182
TOF Mult
ZDC-West ADC Sum Att

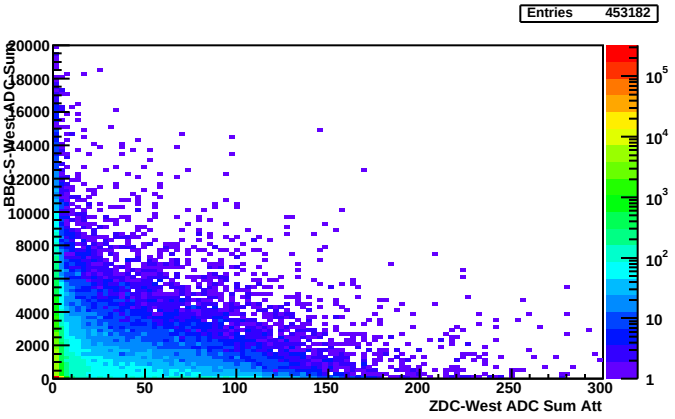

Entries 453182
BBC-L-East ADC Sum
BBC-S-East ADC Sum

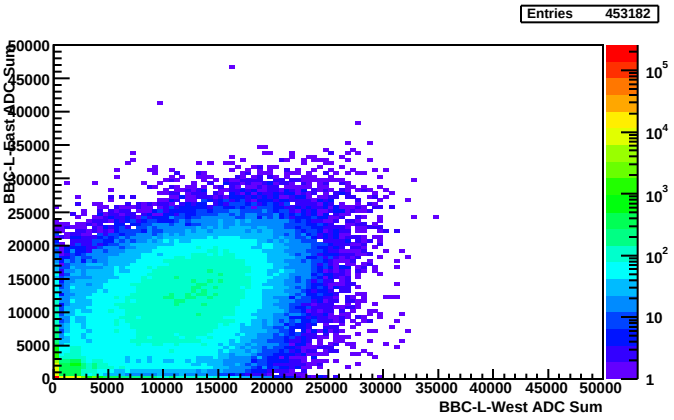

Entries 453182
BBC-L-West ADC Sum
BBC-S-West ADC Sum

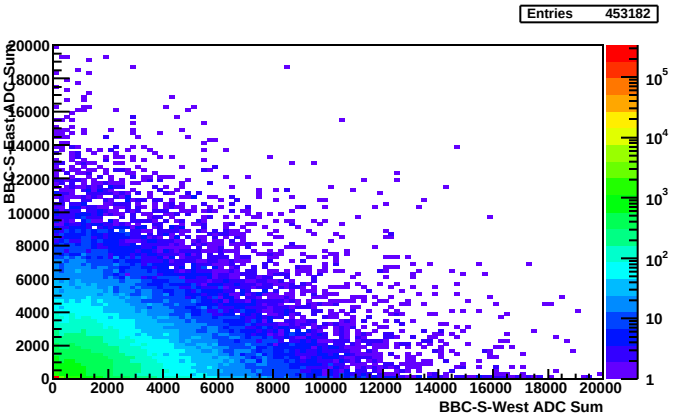

Entries 453182
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

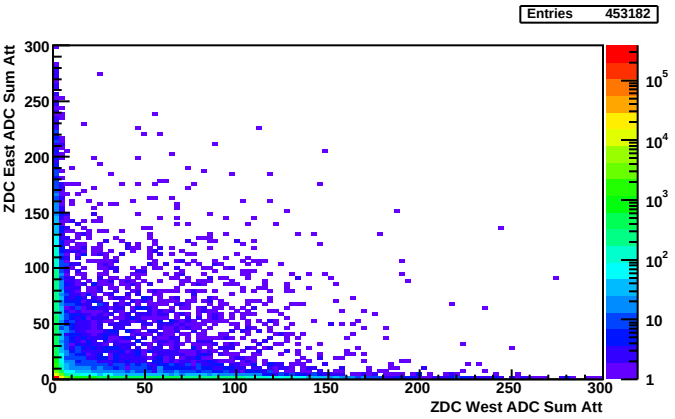

Entries 453182
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

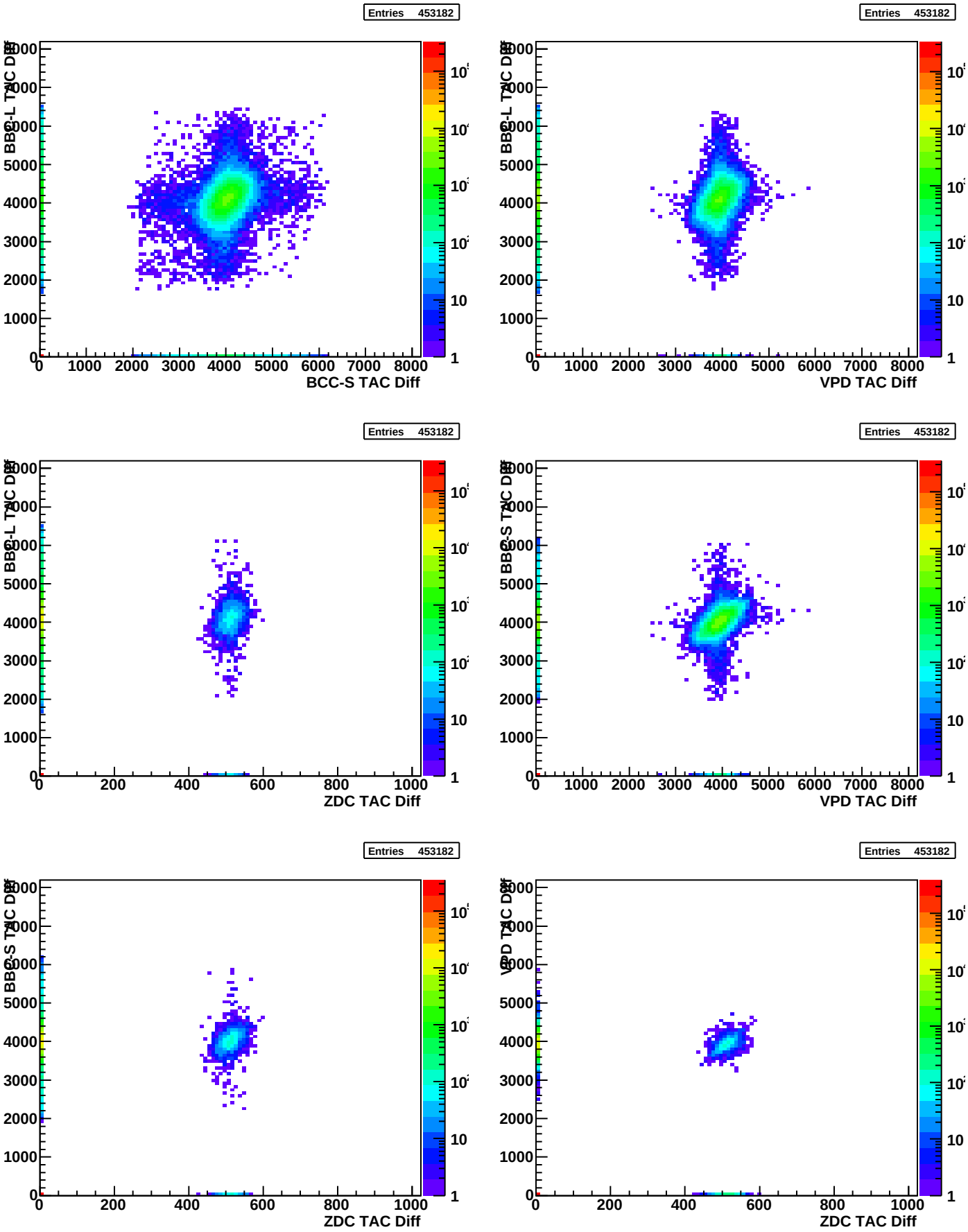

Entries 453182
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

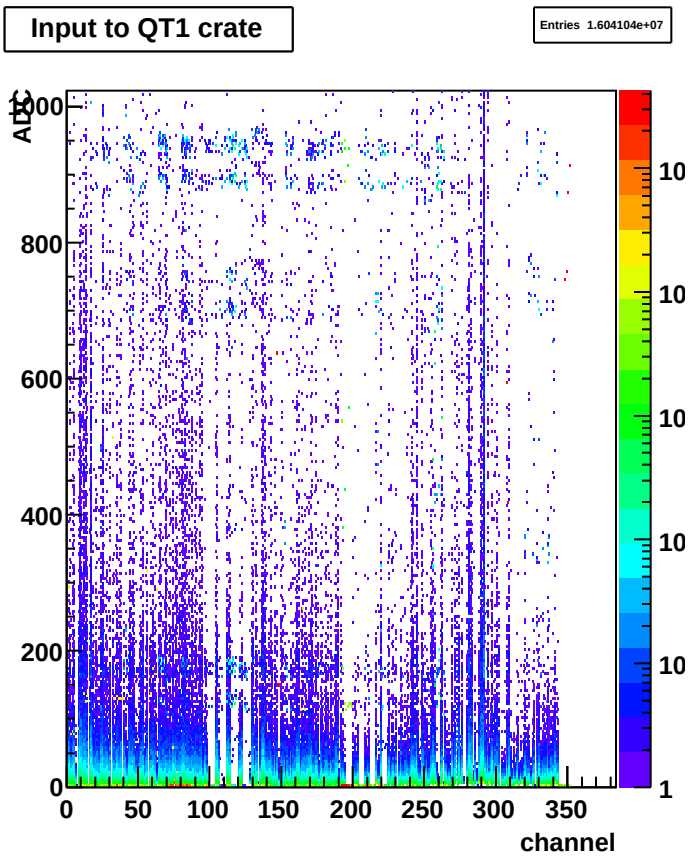

Entries 453182
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

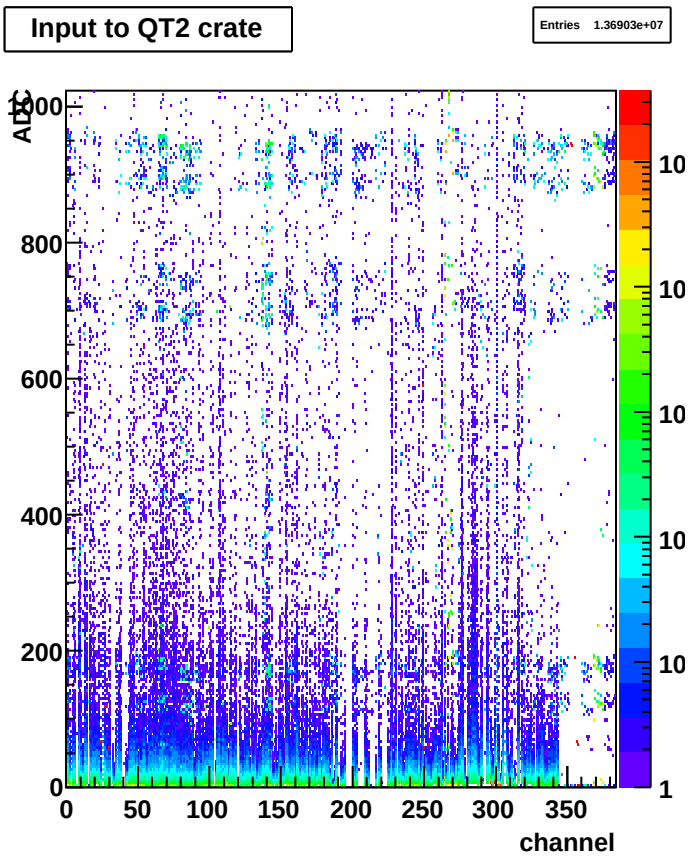

Entries 453182
BBC-L-East ADC Sum
BBC-L-West ADC Sum

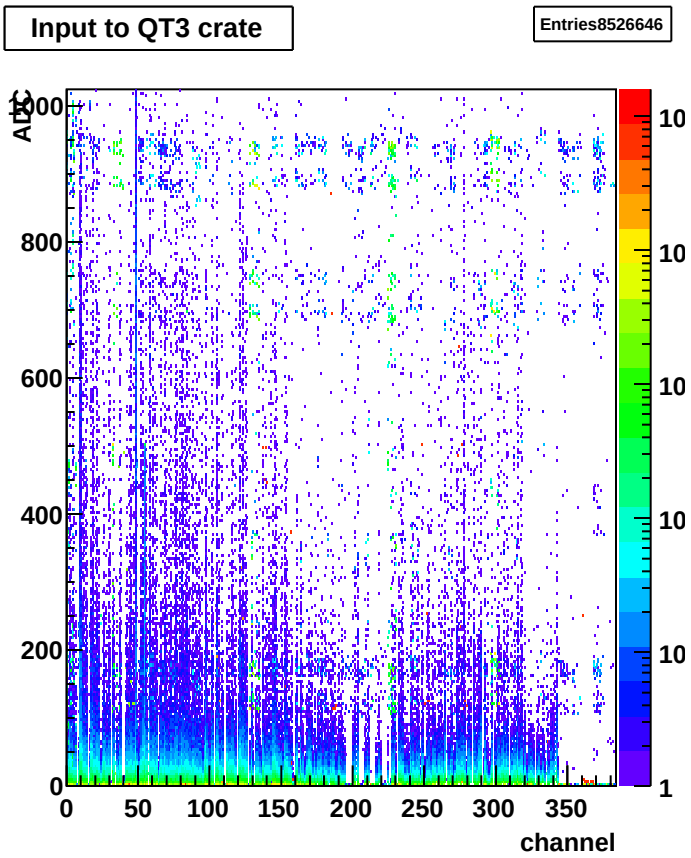

Entries 453182
BBC-S-East ADC Sum
BBC-S-West ADC Sum

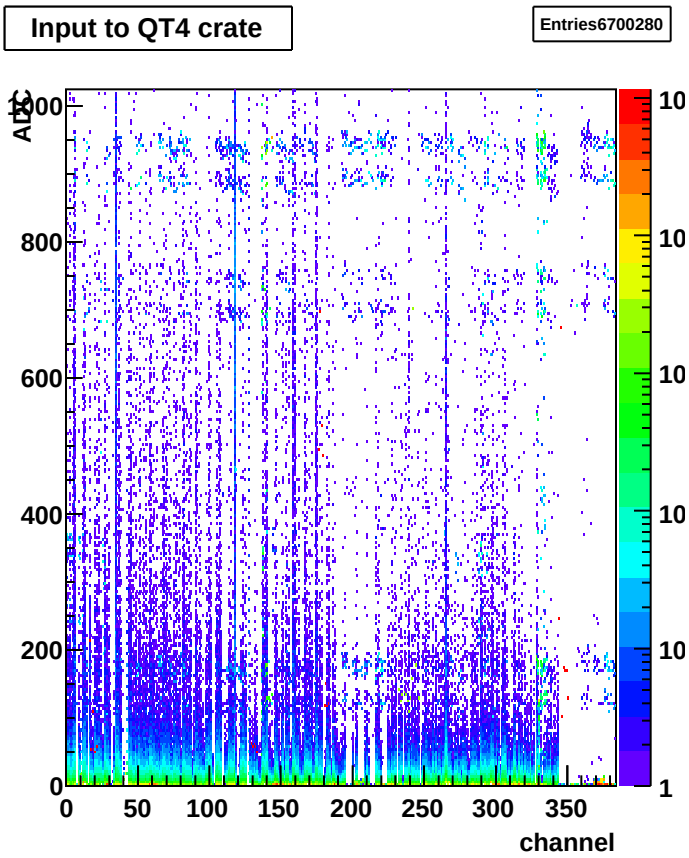

Entries 453182
ZDC East ADC Sum Att
ZDC West ADC Sum Att

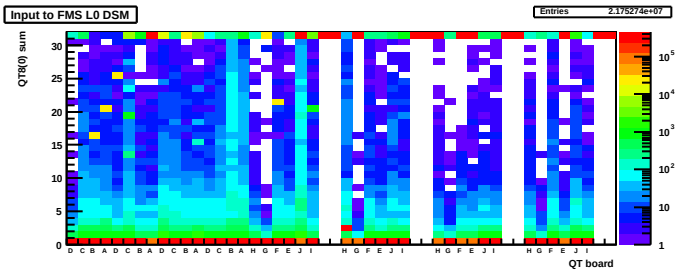

Entries 453182
BBC-L TAC Diff
BCC-S TAC Diff
Entries 453182
BBC-L TAC Diff
VPD TAC Diff
Entries 453182
BBC-L TAC Diff
ZDC TAC Diff
Entries 453182
BBC-S TAC Diff
VPD TAC Diff
Entries 453182
BBC-S TAC Diff
ZDC TAC Diff
Entries 453182
VPD TAC Diff
ZDC TAC Diff

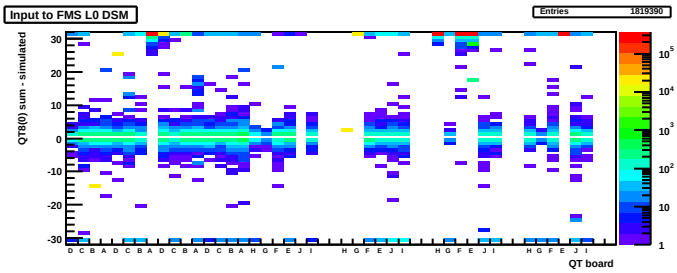

Input to QT1 crate
Entries 1.604104e+07
ADC
channel

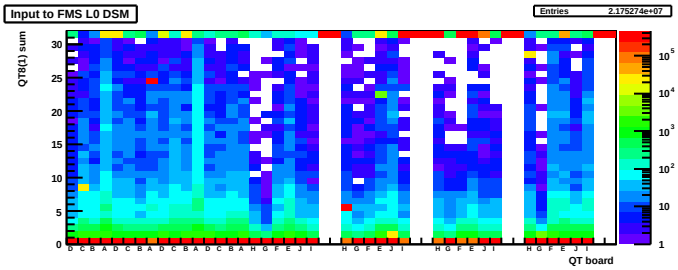

Input to QT2 crate
Entries 1.36903e+07
ADC
channel

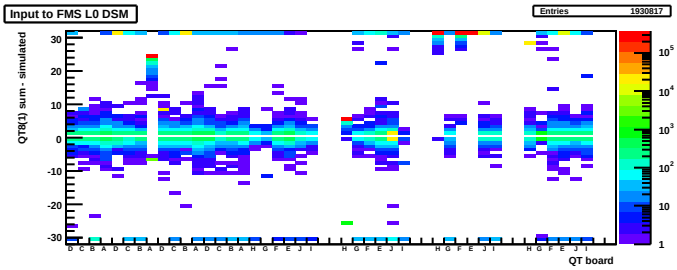

Input to QT3 crate
Entries8526646
ADC
channel

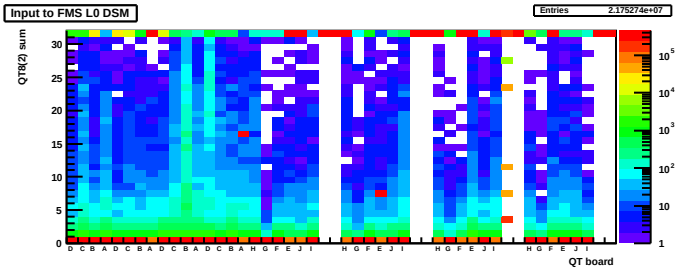

Input to QT4 crate
Entries6700280
ADC
channel

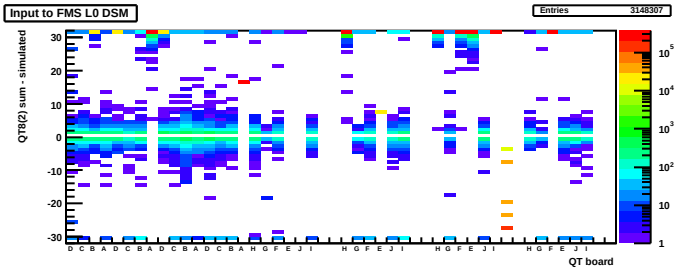

Input to FMS L0 DSM
Entries 2.175274e+07
QT8(0) sum
QT board

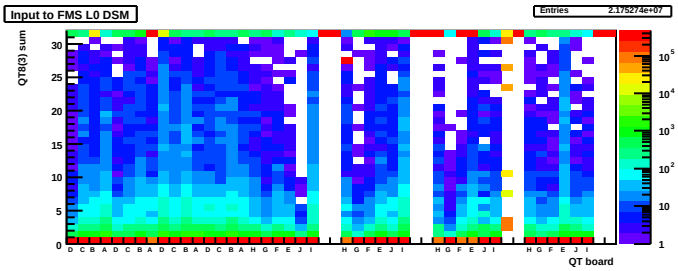

Input to FMS L0 DSM
Entries 1819390
QT8(0) sum - simulated
QT board

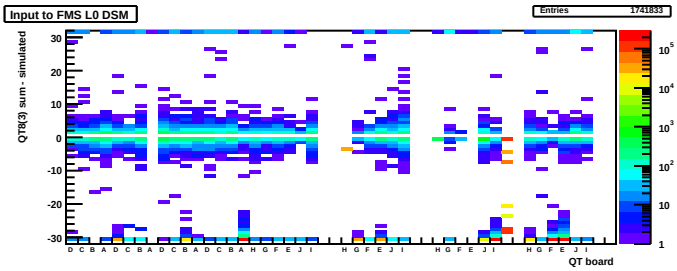

Input to FMS L0 DSM
Entries 2.175274e+07
QT8(1) sum
QT board

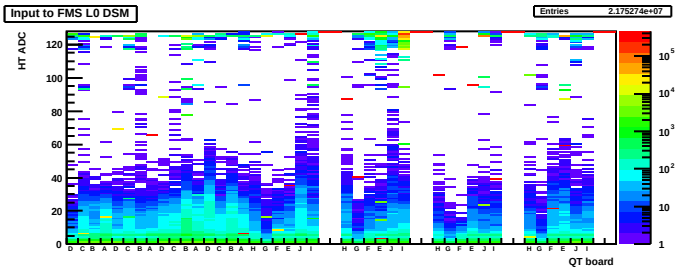

Input to FMS L0 DSM
Entries 1930817
QT8(1) sum - simulated
QT board

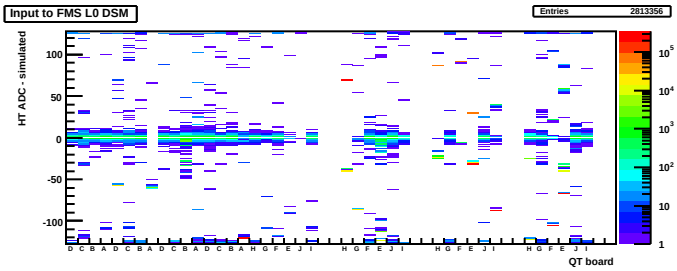

Input to FMS L0 DSM
Entries 2.175274e+07
QT8(2) sum
QT board

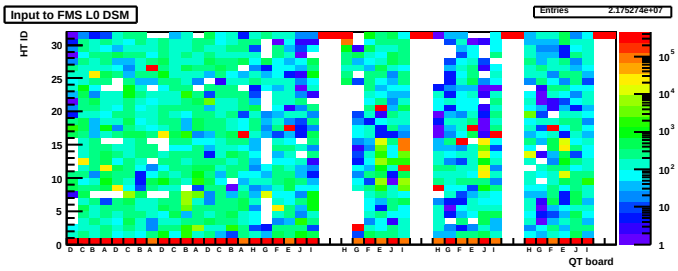

Input to FMS L0 DSM
Entries 3148307
QT8(2) sum - simulated
QT board

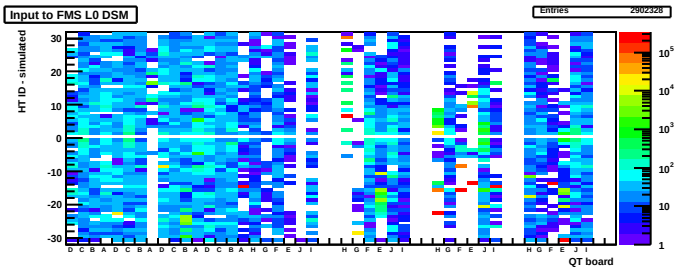

Input to FMS L0 DSM
Entries 2.175274e+07
QT8(3) sum
QT board

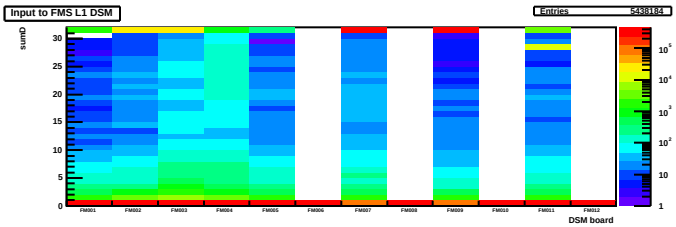

Input to FMS L0 DSM
Entries 1741833
QT8(3) sum - simulated
QT board

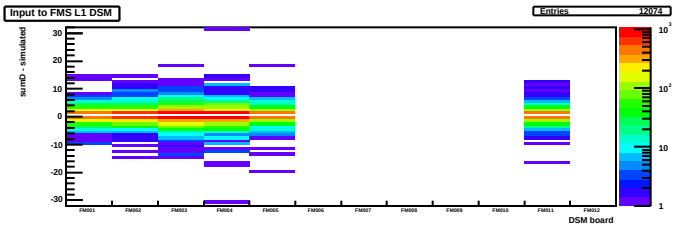

Input to FMS L0 DSM
Entries 2.175274e+07
HT ADC
QT board

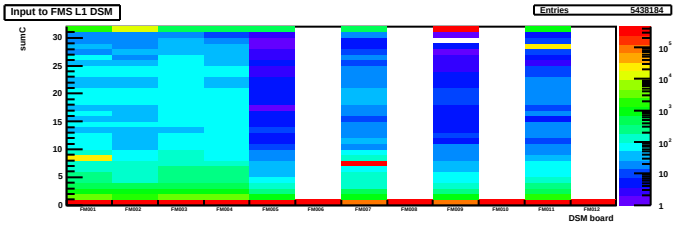

Input to FMS L0 DSM
Entries 2813356
HT ADC - simulated
QT board

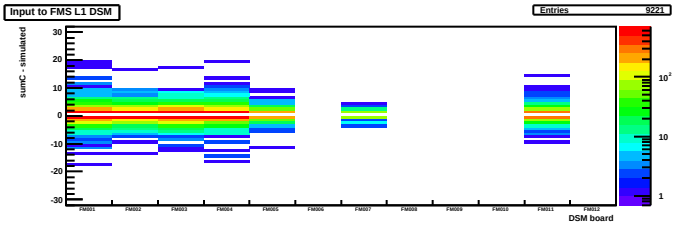

Input to FMS L0 DSM
Entries 2.175274e+07
HT ID
QT board

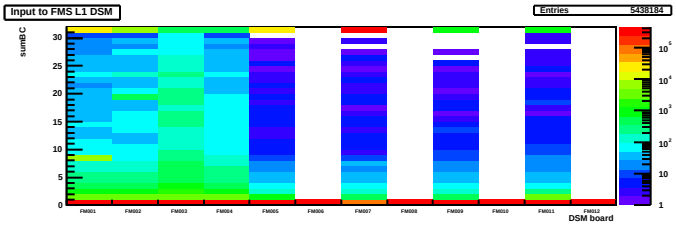

Input to FMS L0 DSM
Entries 2902328
HT ID - simulated
QT board

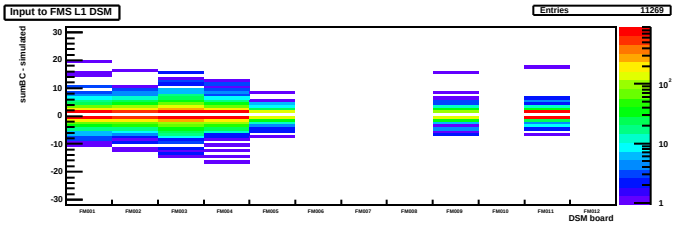

Input to FMS L1 DSM
Entries 5438184
sumD
DSM board

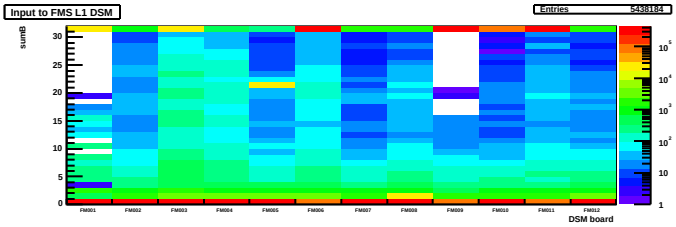

Input to FMS L1 DSM
Entries 12074
sumD - simulated
DSM board

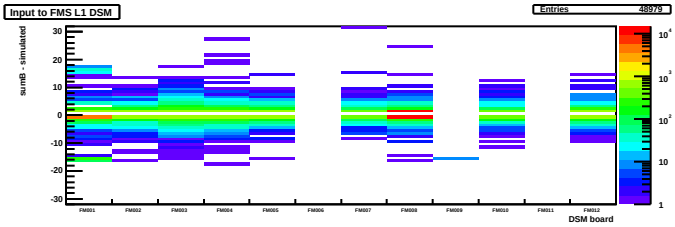

Input to FMS L1 DSM
Entries 5438184
sumC
DSM board

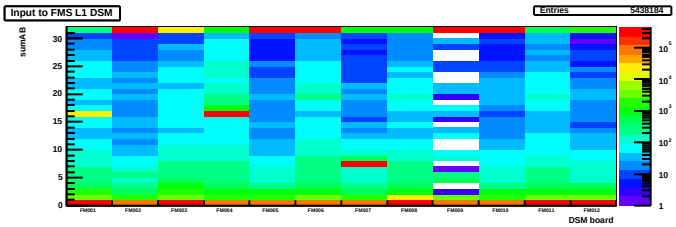

Input to FMS L1 DSM
Entries 9221
sumC - simulated
DSM board

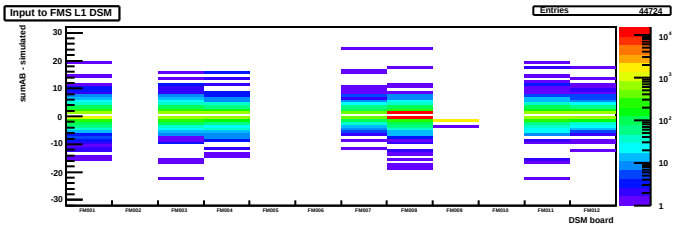

Input to FMS L1 DSM
Entries 5438184
sumBC
DSM board

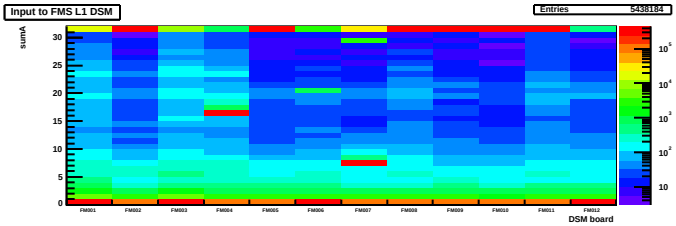

Input to FMS L1 DSM
Entries 11269
sumBC - simulated
DSM board

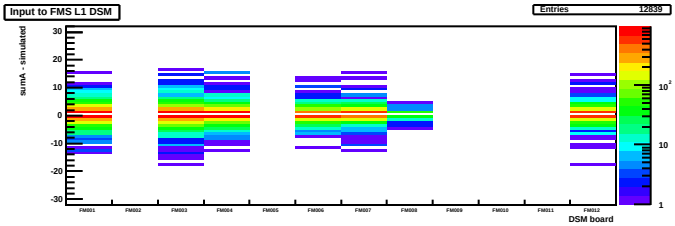

Input to FMS L1 DSM
Entries 5438184
sumB
DSM board

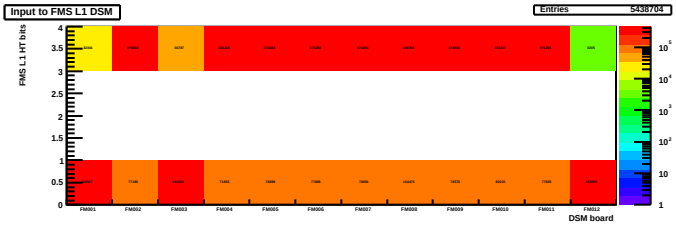

Input to FMS L1 DSM
Entries 48979
sumB - simulated
DSM board

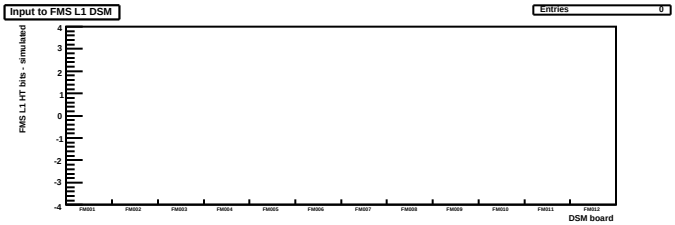

Input to FMS L1 DSM
Entries 5438184
sumAB
DSM board

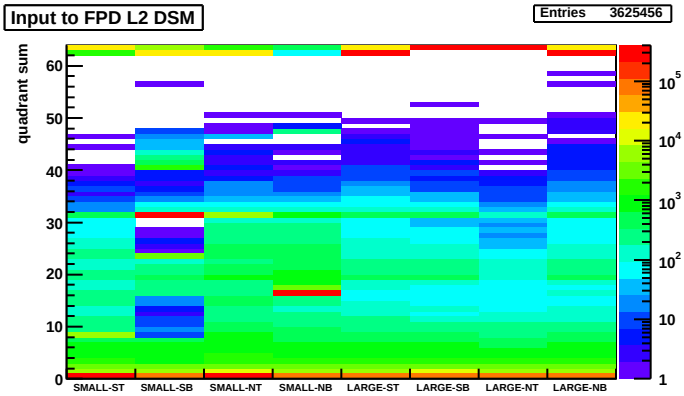

Input to FMS L1 DSM
Entries 44724
sumAB - simulated
DSM board

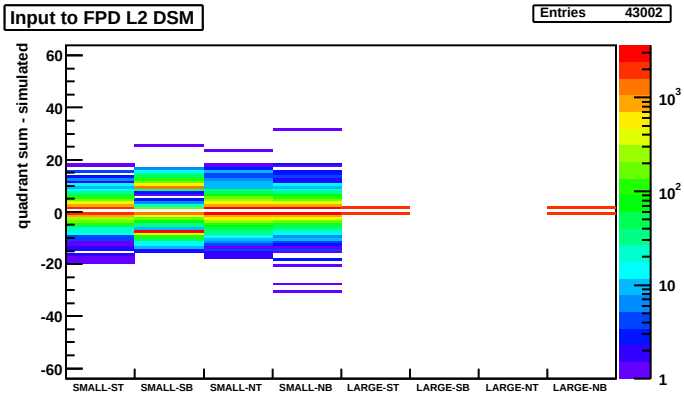

Input to FMS L1 DSM
Entries 5438184
sumA
DSM board

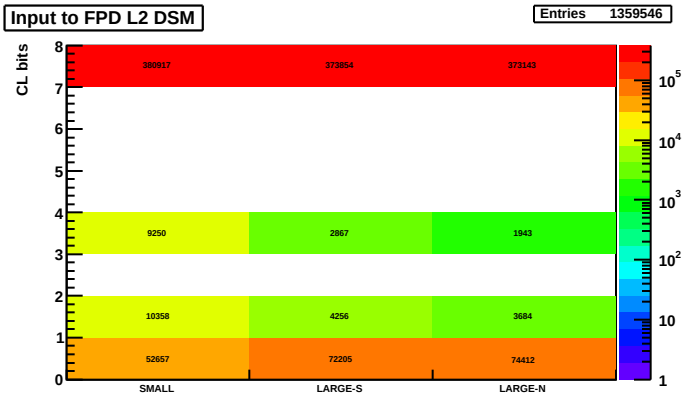

Input to FMS L1 DSM
Entries 12839
sumA - simulated
DSM board

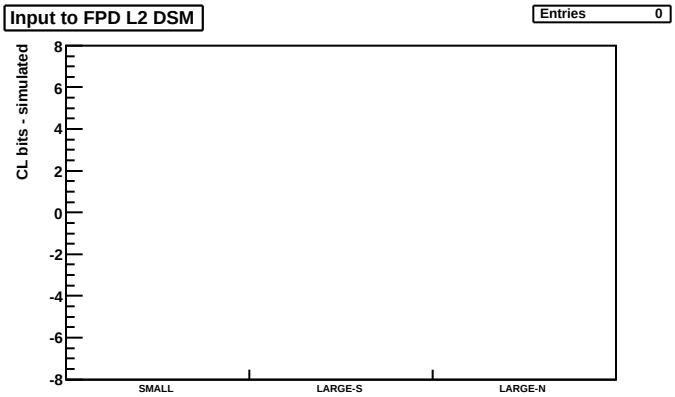

Input to FMS L1 DSM
Entries 5438704
FMS L1 HT bits
DSM board

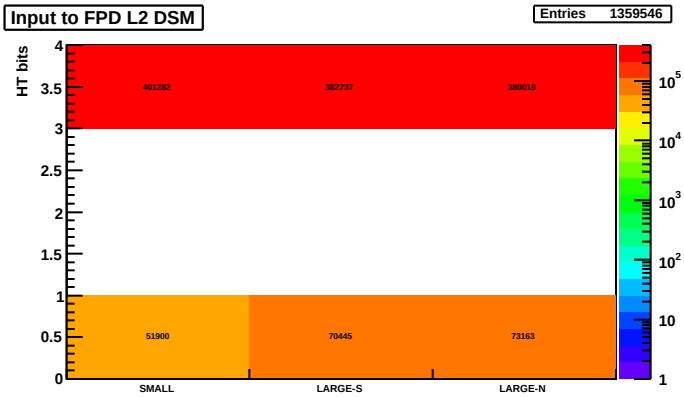

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

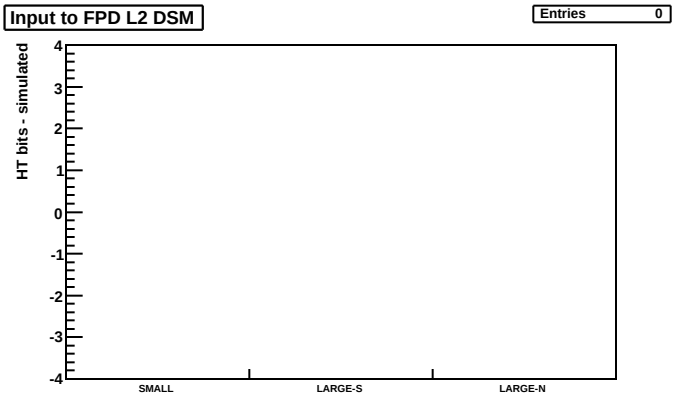

Input to FPD L2 DSM
Entries 3625456
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

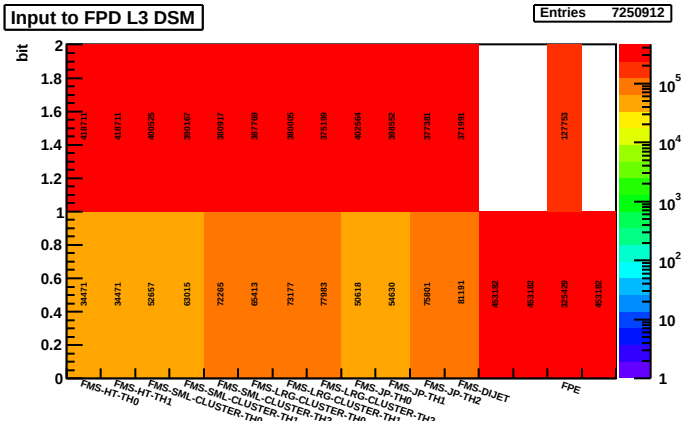

Input to FPD L2 DSM
Entries 43002
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

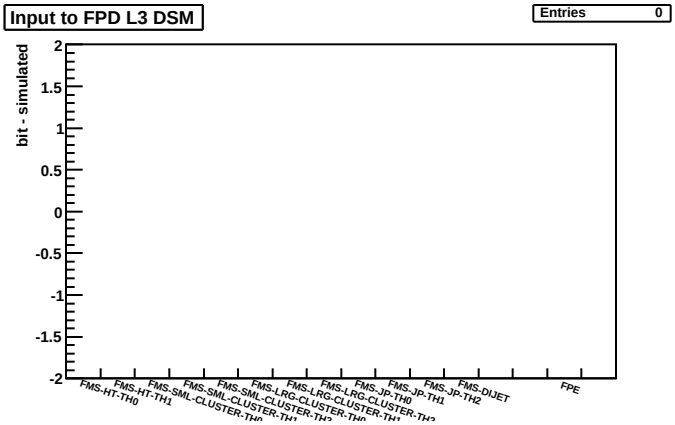

Input to FPD L2 DSM
Entries 1359546
CL bits
380917
373854
373143
9250
2867
1943
10358
4256
3684
52657
72205
74412
SMALL
LARGE-S
LARGE-N

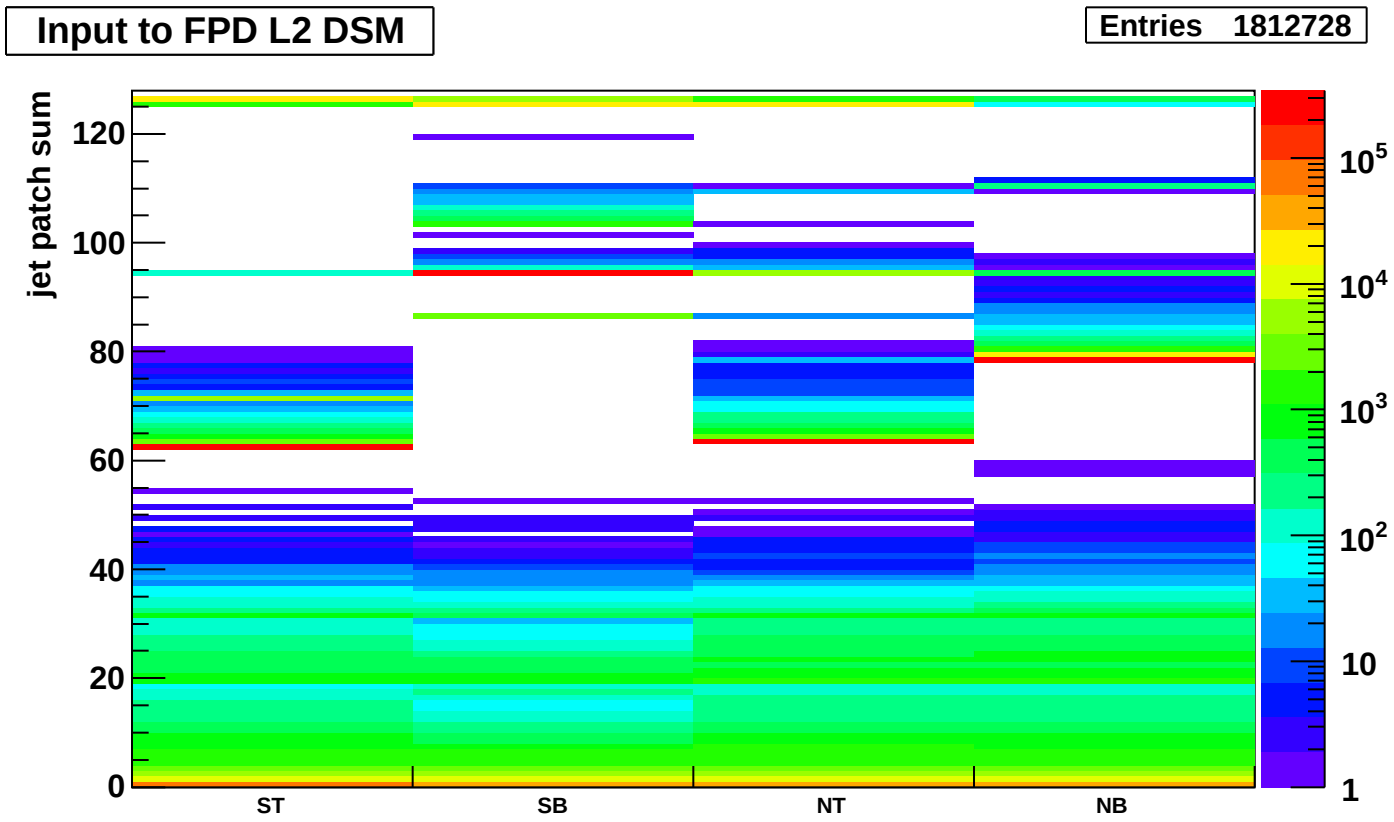

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL
LARGE-S
LARGE-N

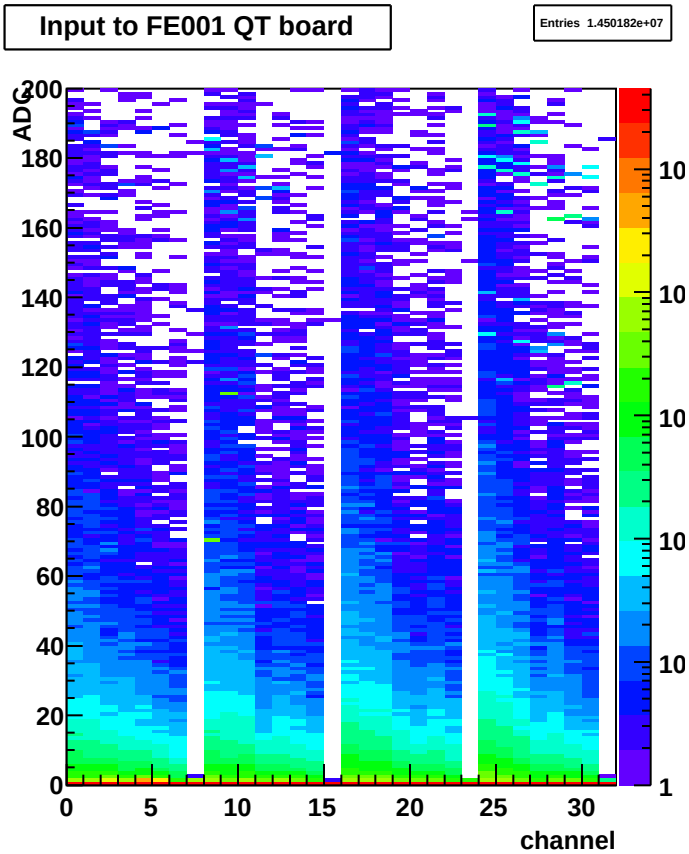

Input to FPD L2 DSM
Entries 1359546
HT bits
401282
382737
380019
51900
70445
73163
SMALL
LARGE-S
LARGE-N

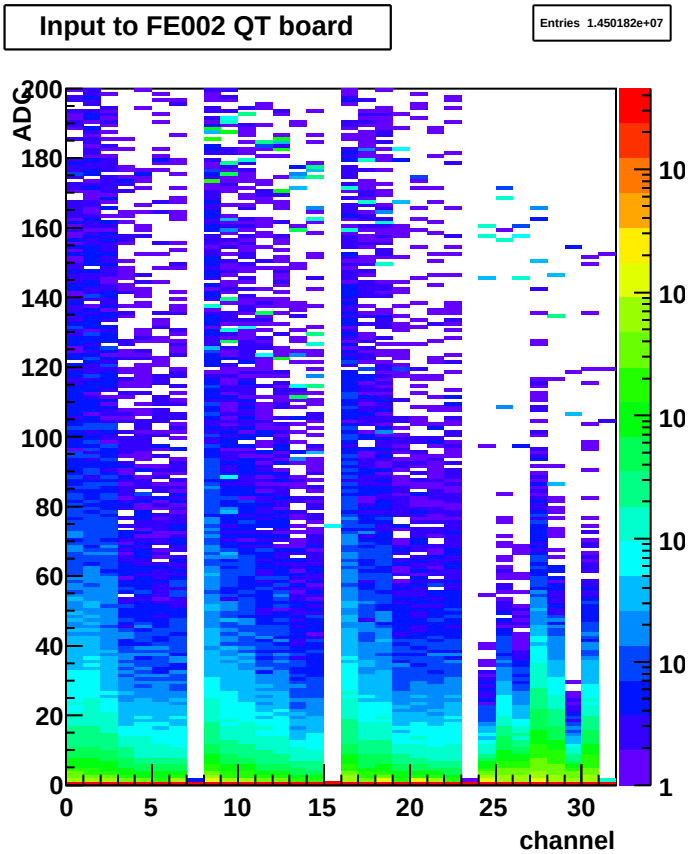

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

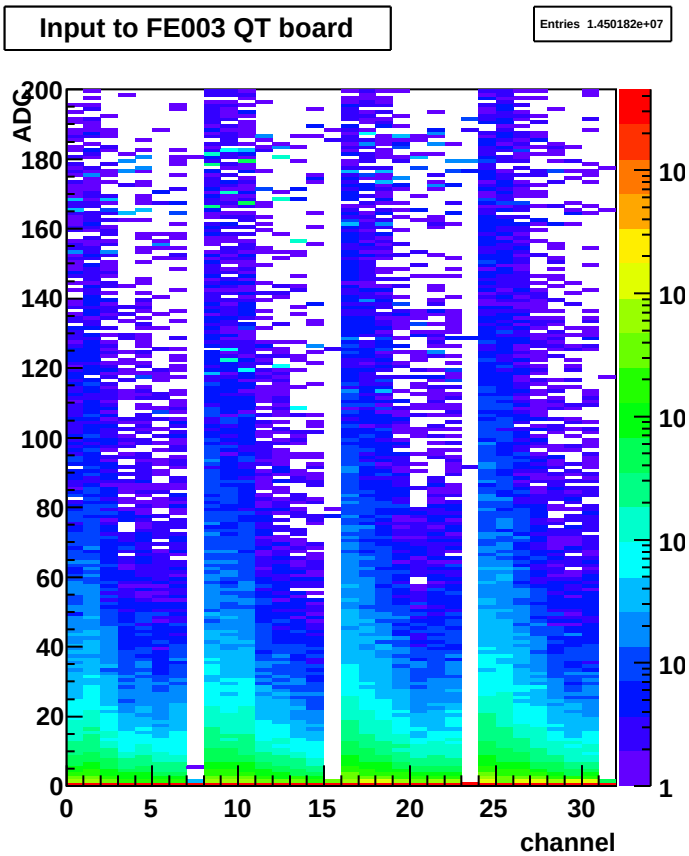

Input to FPD L3 DSM
Entries 7250912
bit
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

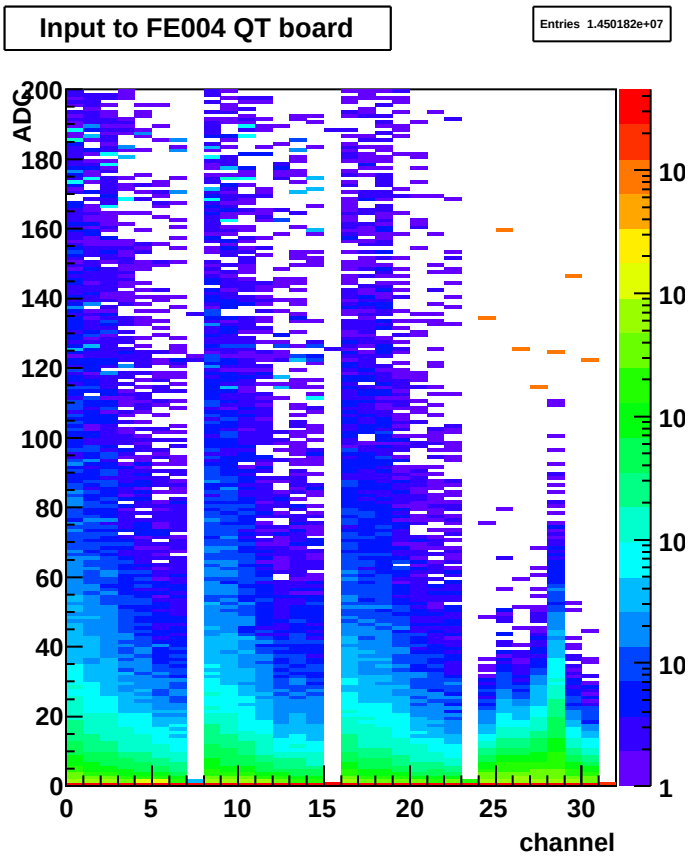

Input to FPD L3 DSM
Entries 0
bit - simulated
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

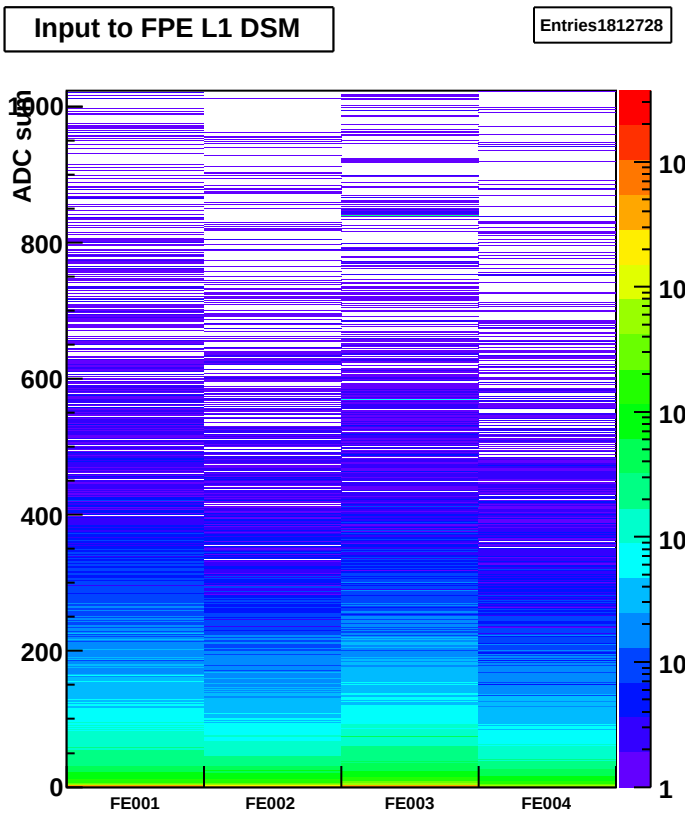

Input to FPD L2 DSM
Entries 1812728
jet patch sum
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3
10^4
10^5

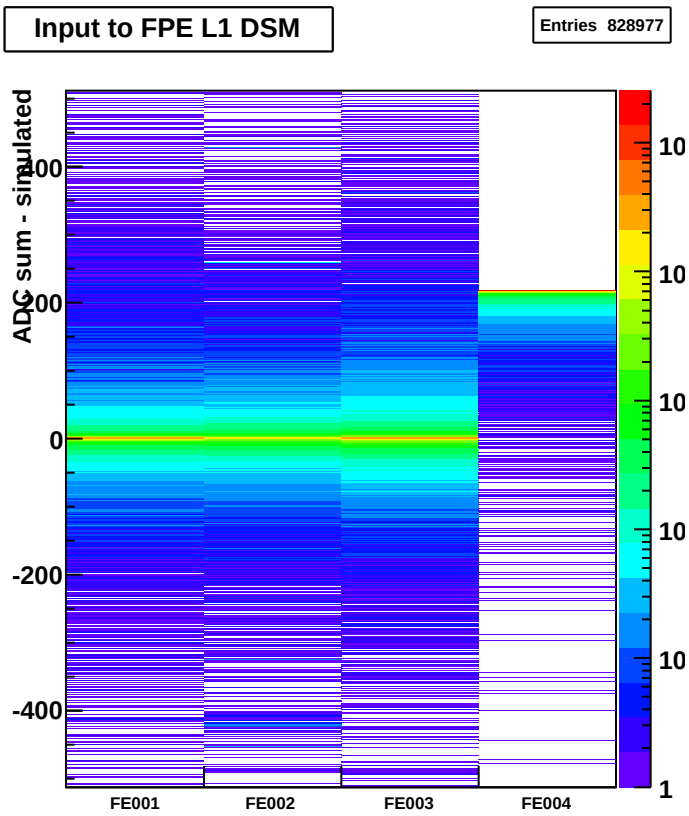

Input to FE001 QT board
Entries 1.450182e+07
ADC
channel

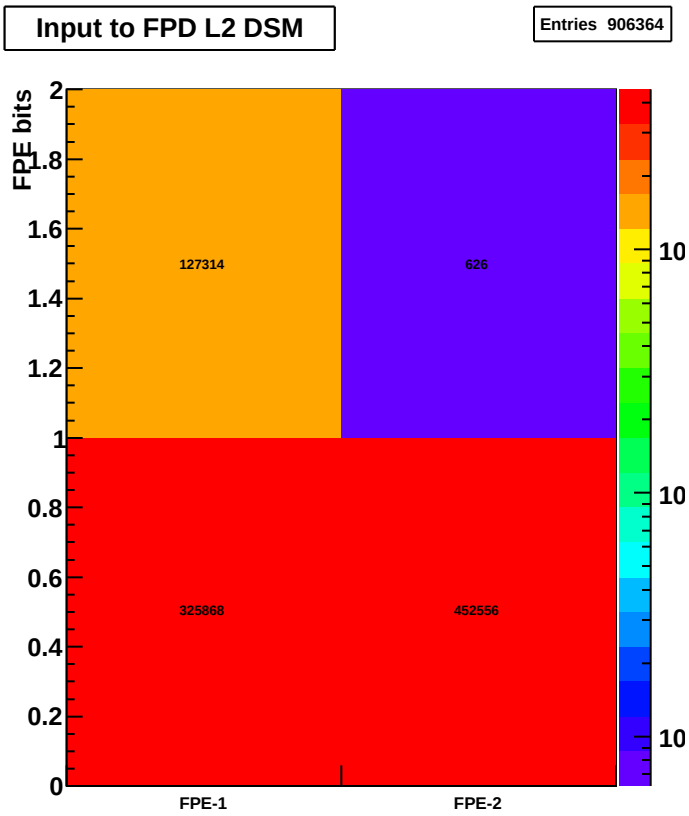

Input to FE002 QT board
Entries 1.450182e+07
ADC
channel

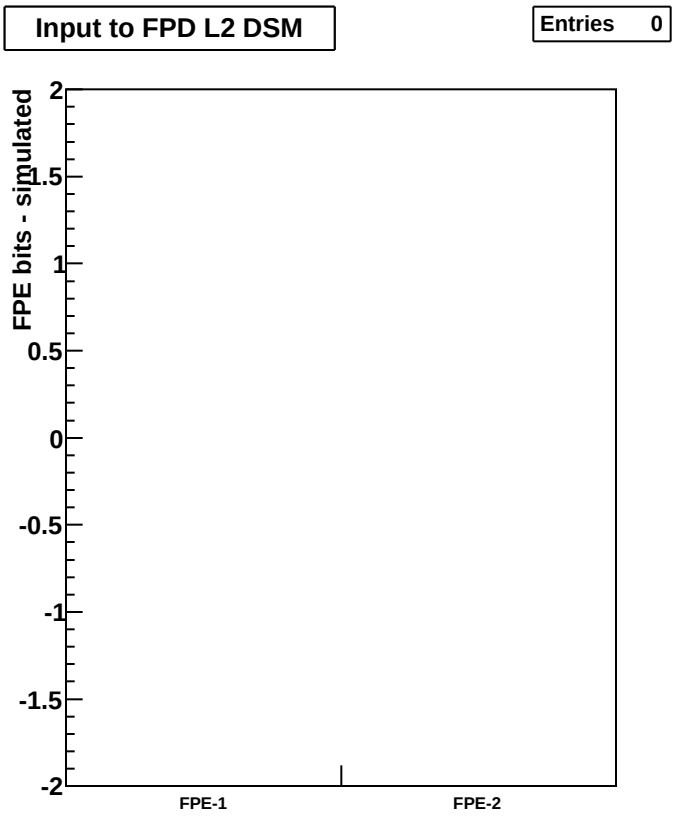

Input to FE003 QT board
Entries 1.450182e+07
ADC
channel


Input to FE004 QT board
Entries 1.450182e+07
ADC
channel


Input to FPE L1 DSM
Entries1812728
ADC sum
1000
800
600
400
200
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1


Input to FPE L1 DSM
Entries 828977
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1


Input to FPD L2 DSM
Entries 906364
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
127314
626
325868
452556
FPE-1
FPE-2
10
10
10


Input to FPD L2 DSM
Entries 0
FPE bits - simulated
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
FPE-1
FPE-2