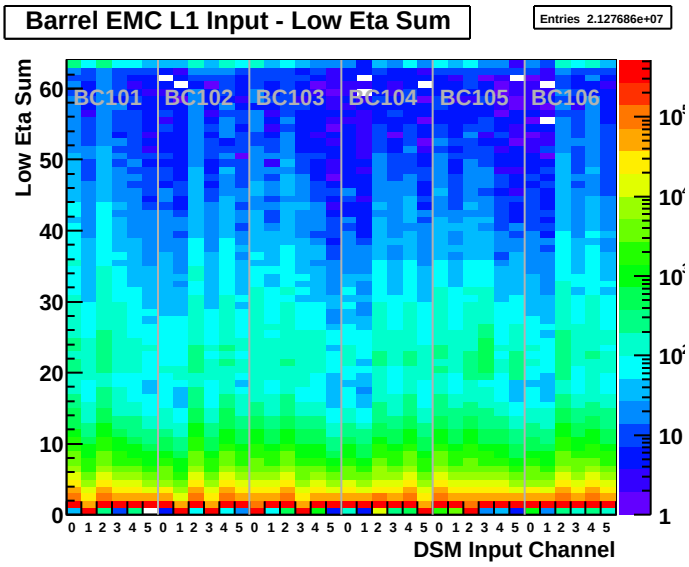
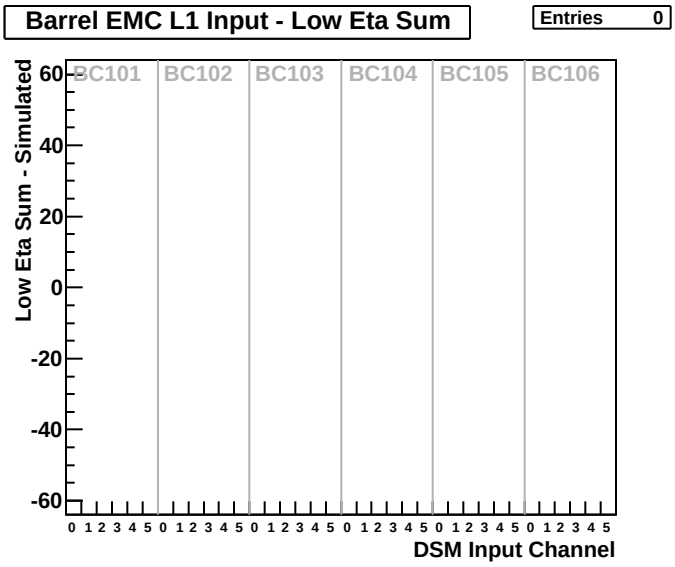
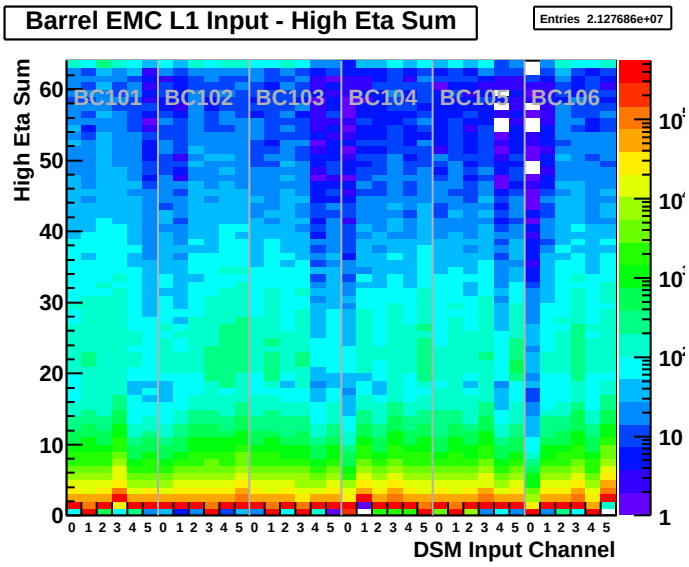
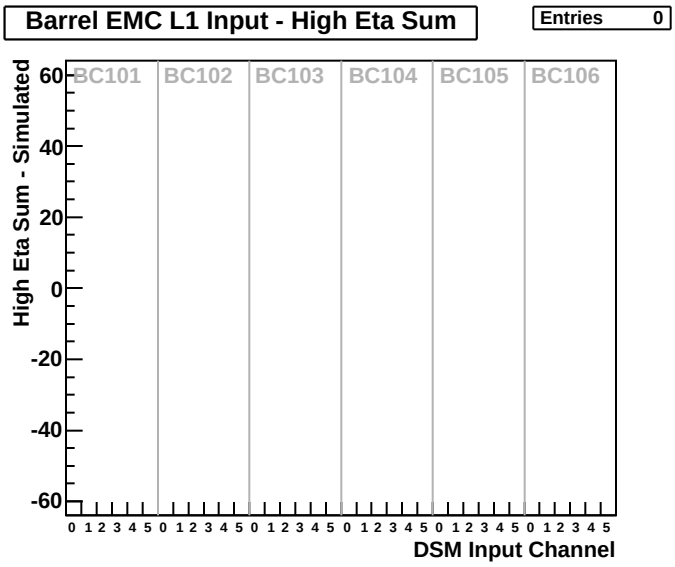
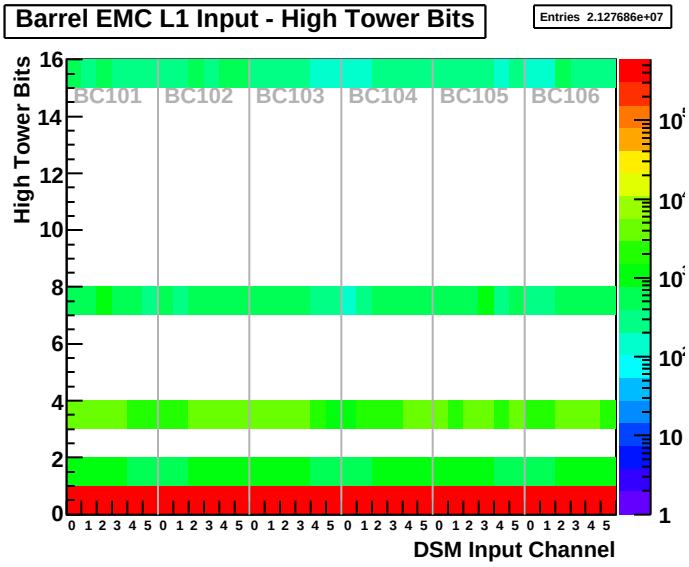
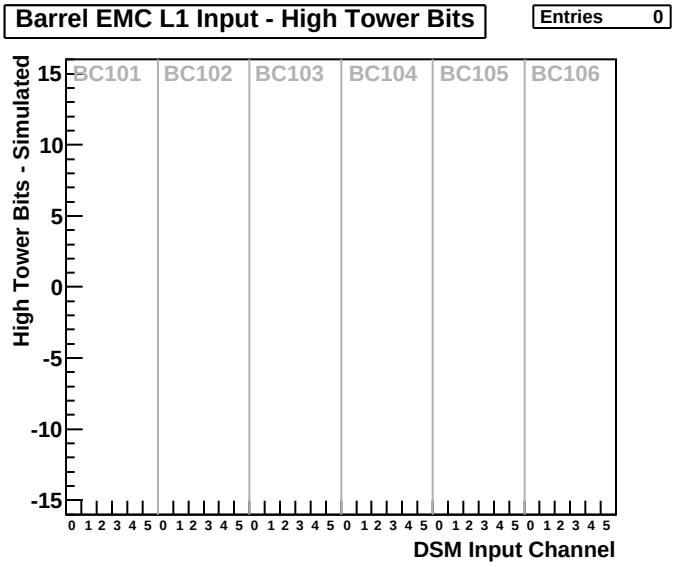

Barrel EMC L1 Input - Low Eta Sum
Entries 2.127686e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

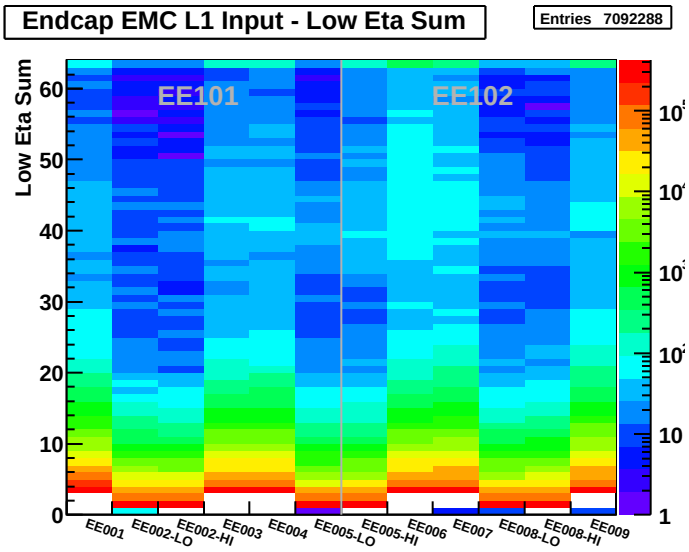

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

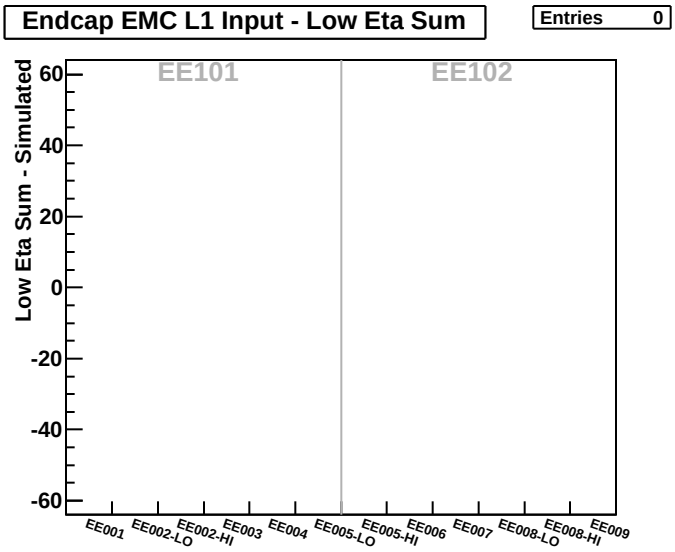

Barrel EMC L1 Input - High Eta Sum
Entries 2.127686e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

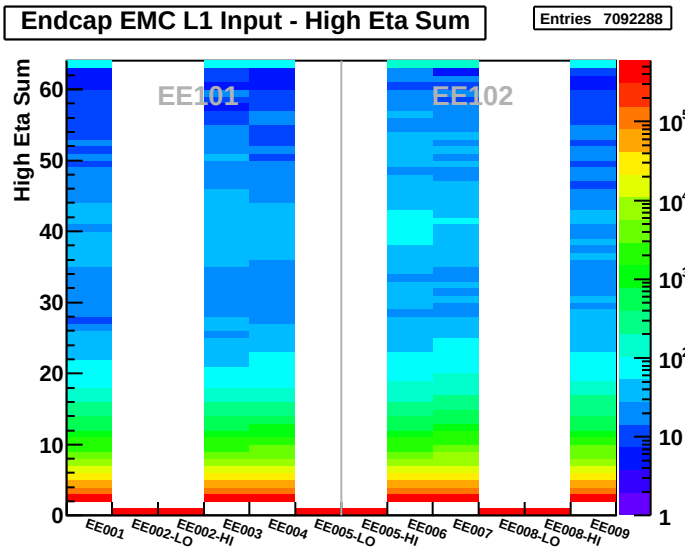

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

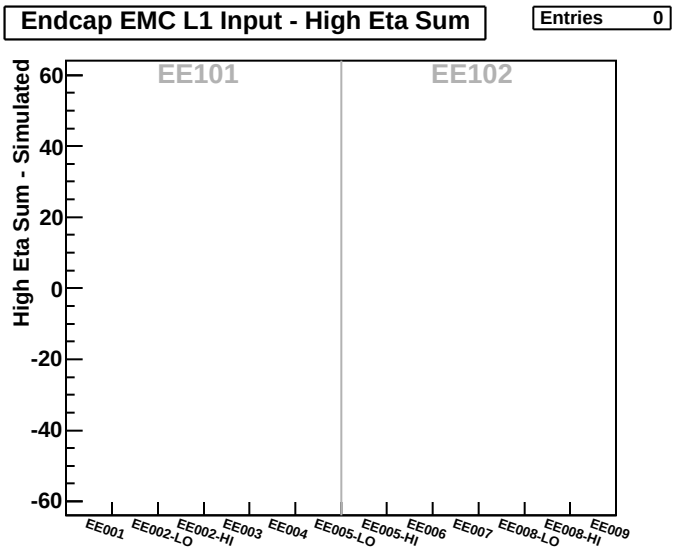

Barrel EMC L1 Input - High Tower Bits
Entries 2.127686e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

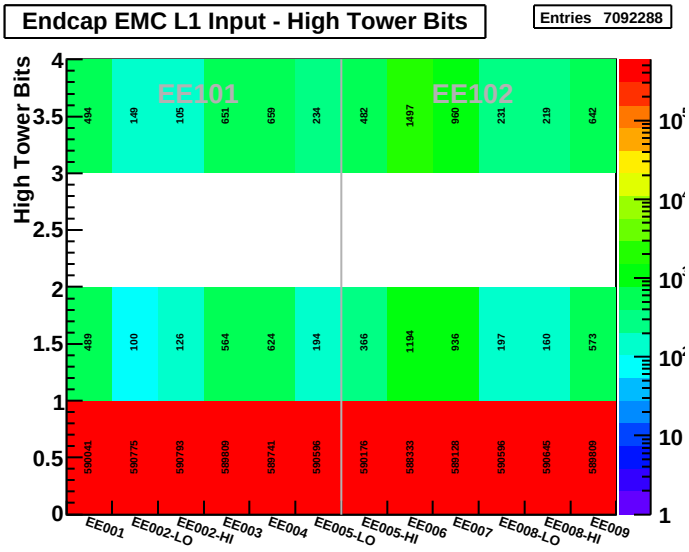

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

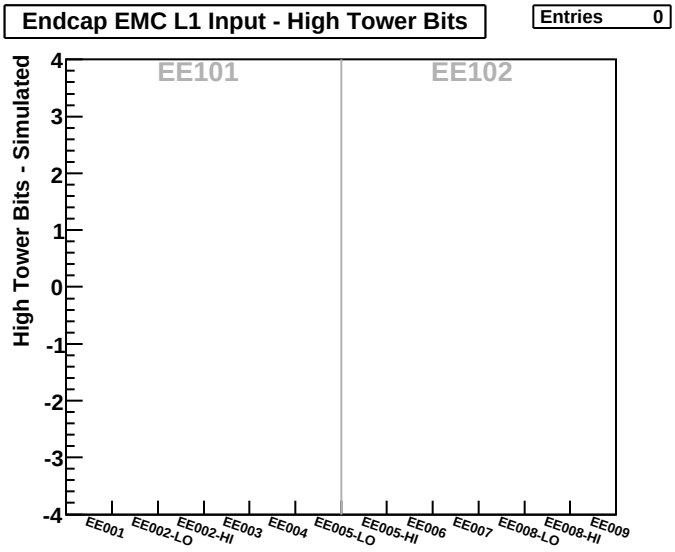

Endcap EMC L1 Input - Low Eta Sum
Entries 7092288
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

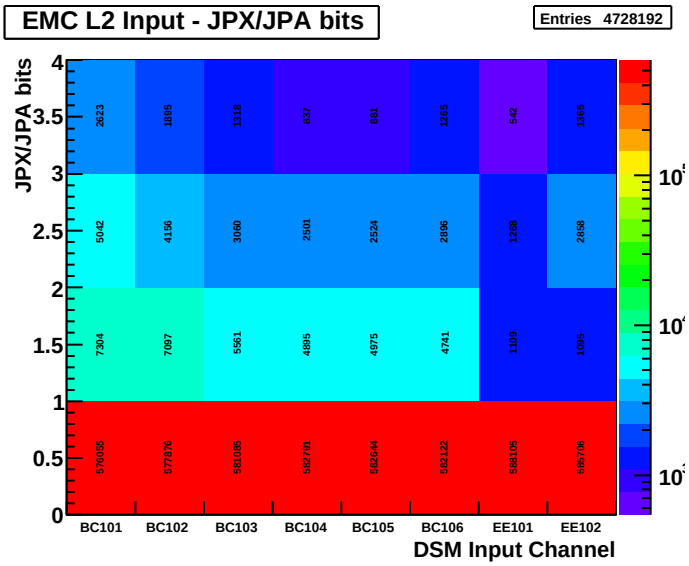

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

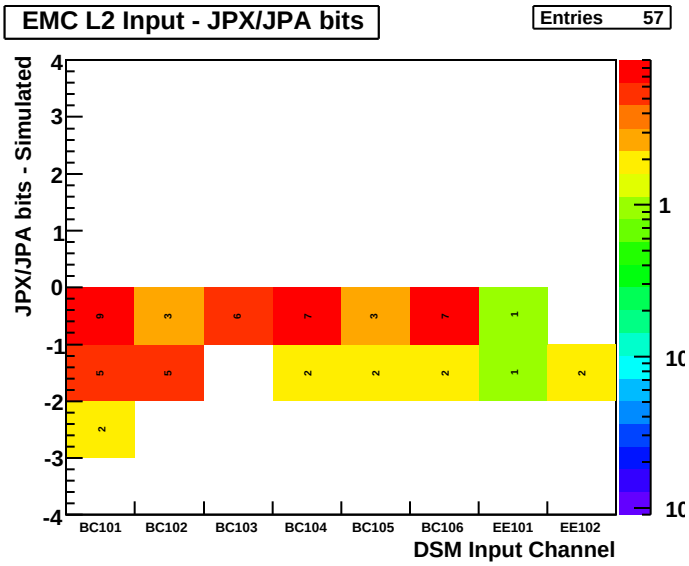

Endcap EMC L1 Input - High Eta Sum
Entries 7092288
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

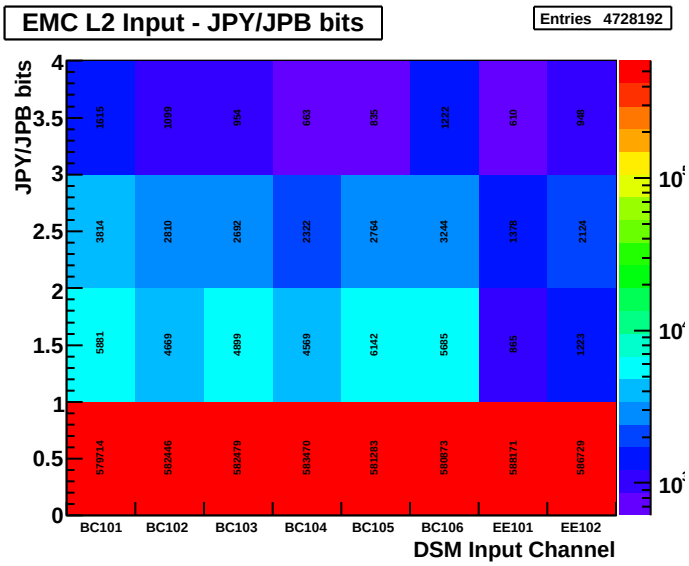

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

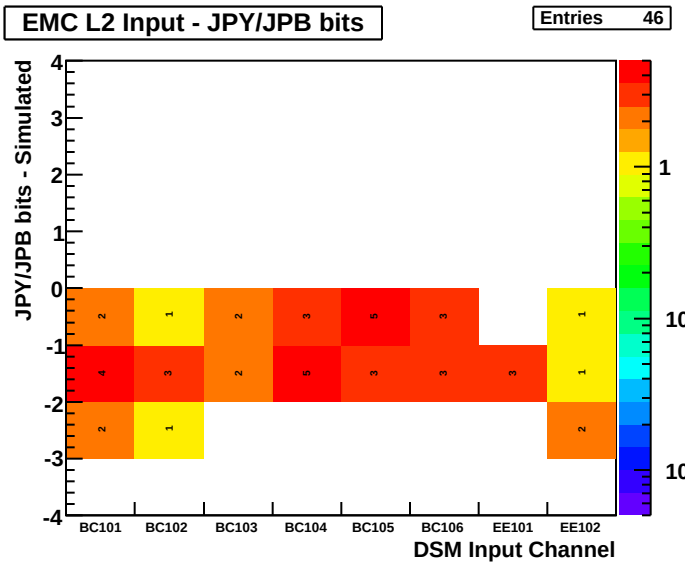

Endcap EMC L1 Input - High Tower Bits
Entries 7092288
High Tower Bits
EE101
EE102
494 149 105 651 659 234 482 1497 960 231 219 642
489 100 126 564 624 194 366 1194 936 197 160 573
590041 590775 590793 589809 589741 590596 590176 588333 589128 590596 590645 589809
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

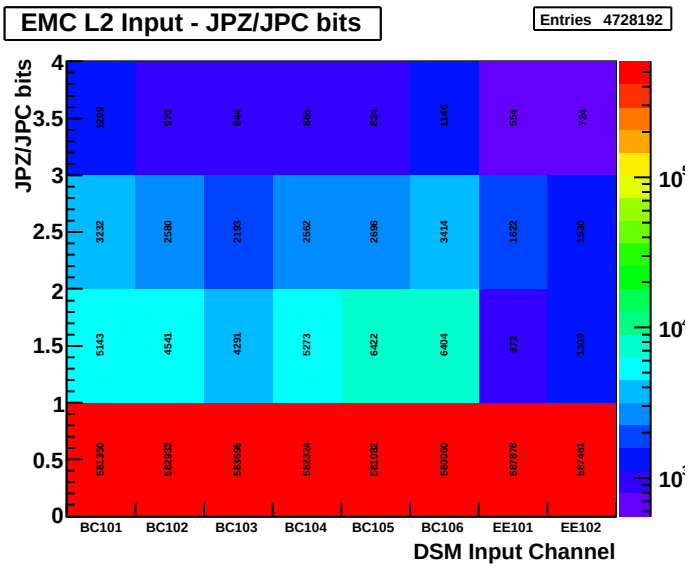

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

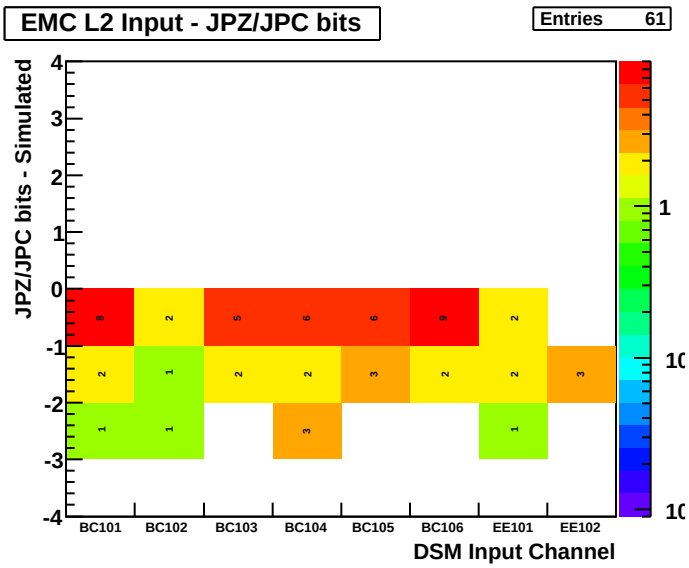

EMC L2 Input - JPX/JPA bits
Entries 4728192
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
2623 1895 1318 837 881 1265 542 1365
5042 4156 3060 2501 2524 2896 1268 2858
7304 7097 5561 4895 4975 4741 1109 1095
576055 577876 581085 582701 582644 582122 588105 588706

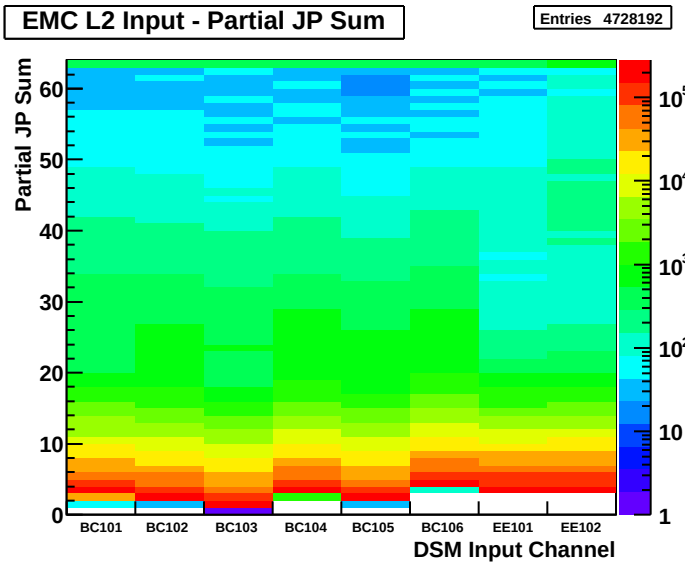

EMC L2 Input - JPX/JPA bits
Entries 57
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
9 3 6 7 3 7 1
5 5 2 2 2 1 2
2

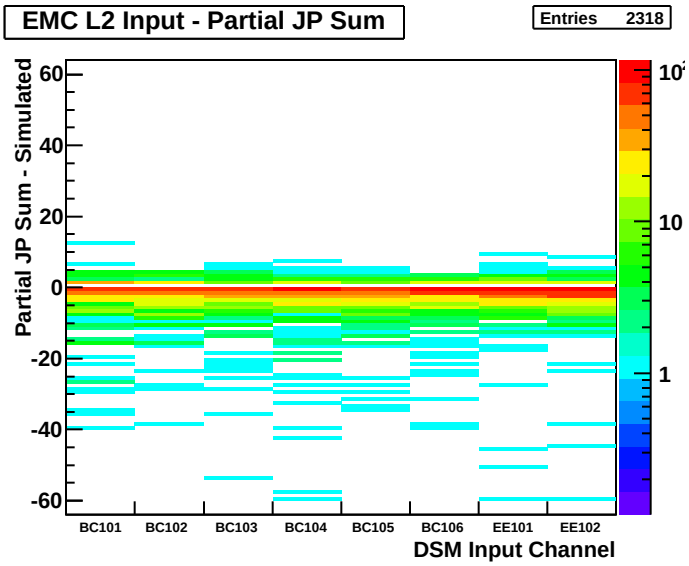

EMC L2 Input - JPY/JPB bits
Entries 4728192
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1615 1099 954 663 835 1222 610 948
3814 2810 2692 2322 2764 3244 1378 2124
5881 4669 4899 4569 6142 5685 865 1225
579714 582446 582479 583470 581283 580873 588171 586729

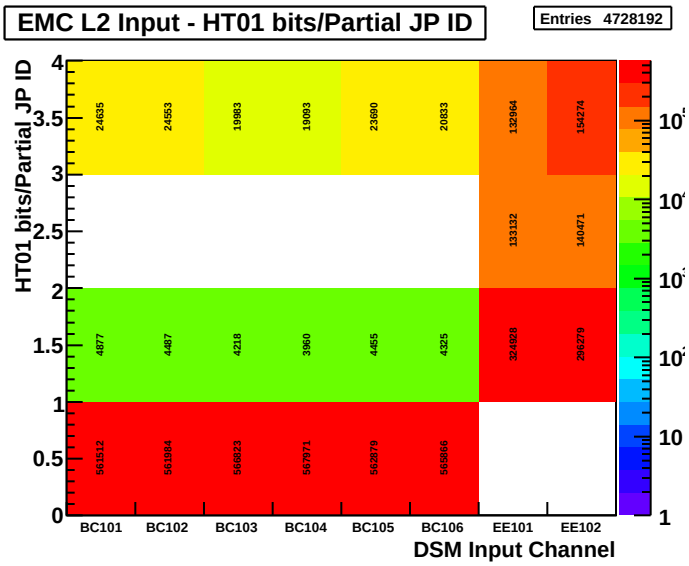

EMC L2 Input - JPY/JPB bits
Entries 46
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
2 1 2 3 5 3 1
4 3 2 5 3 3 3 1
2 1 2

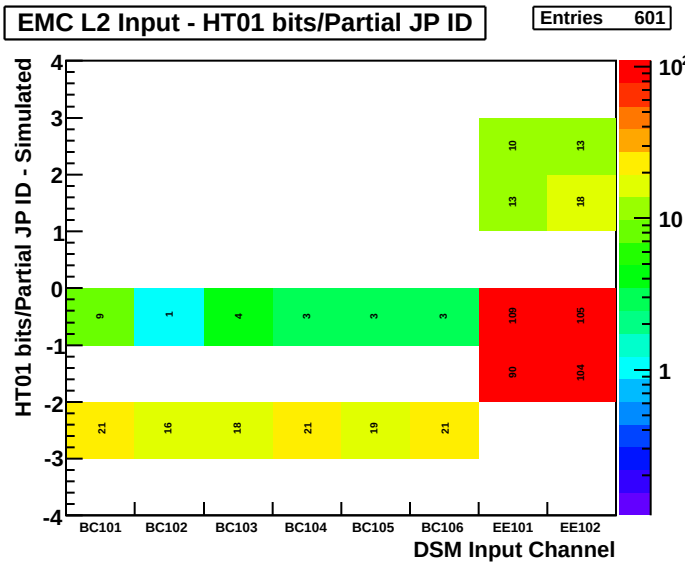

EMC L2 Input - JPZ/JPC bits
Entries 4728192
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1299 970 844 865 824 1146 554 724
3232 2580 2193 2562 2696 3414 1622 1530
5143 4541 4291 5273 6422 6404 972 1309
581350 582333 583696 582324 581082 580060 587876 587461

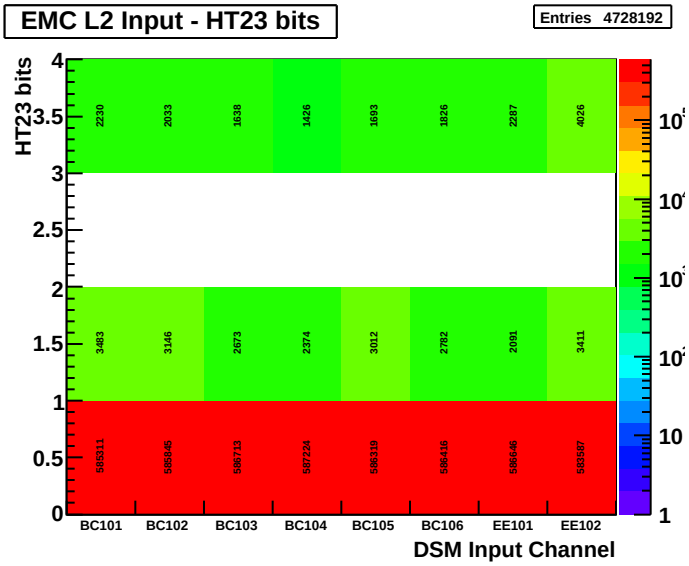

EMC L2 Input - JPZ/JPC bits
Entries 61
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
8 2 5 6 6 9 2
2 1 2 2 3 2 2 3
1 1 3 1

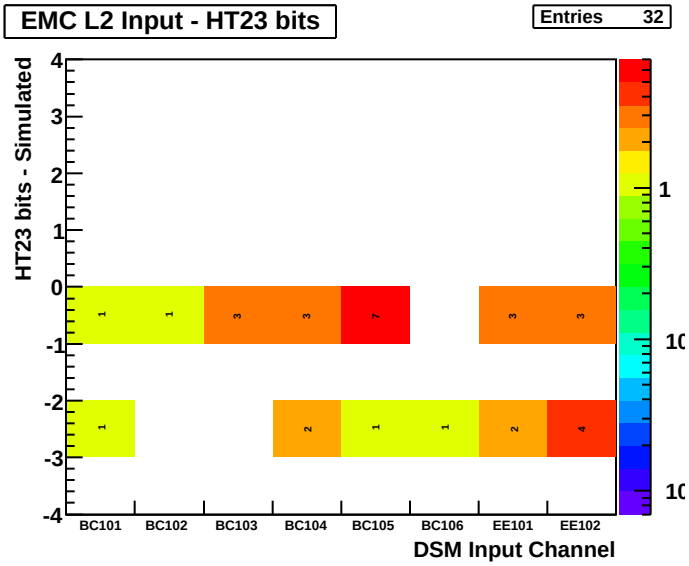

EMC L2 Input - Partial JP Sum
Entries 4728192
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

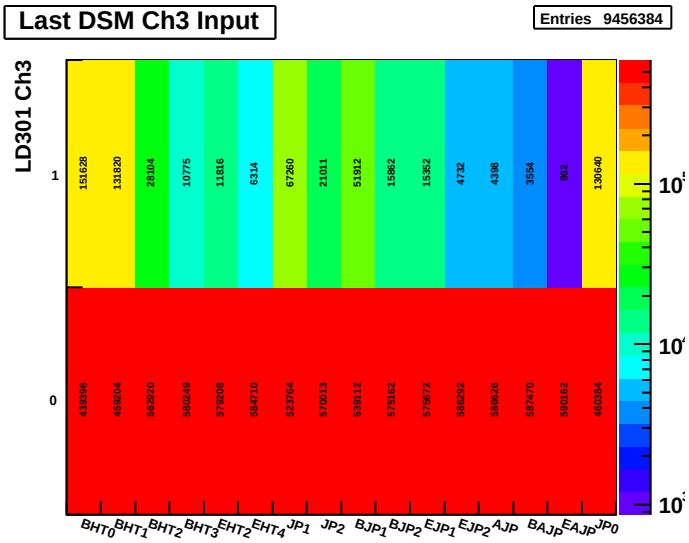

EMC L2 Input - Partial JP Sum
Entries 2318
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

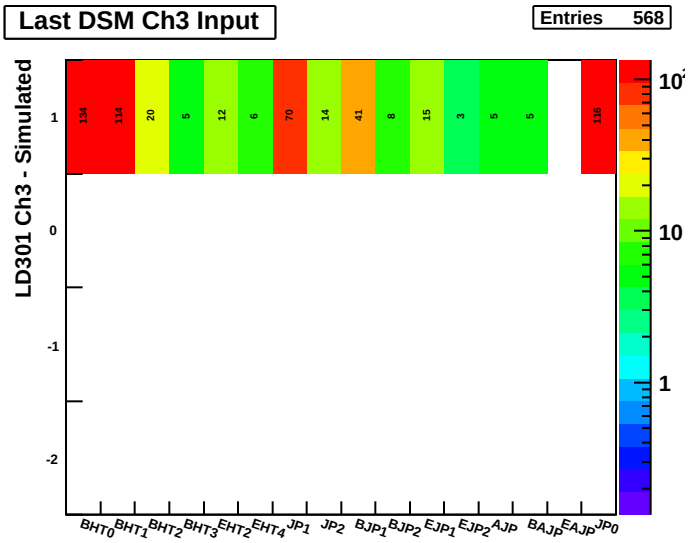

EMC L2 Input - HT01 bits/Partial JP ID
Entries 4728192
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

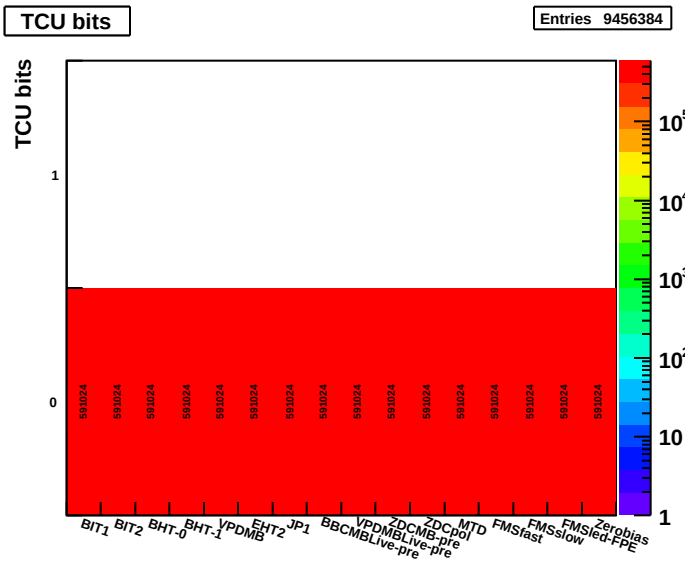

EMC L2 Input - HT01 bits/Partial JP ID
Entries 601
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

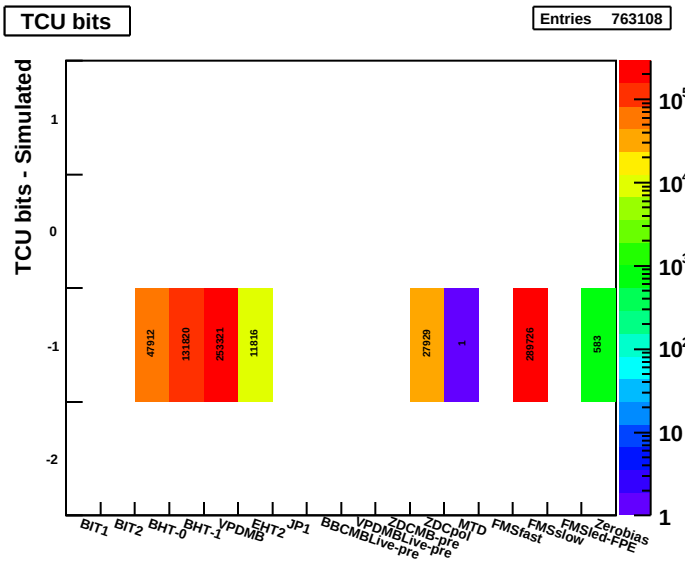

EMC L2 Input - HT23 bits
Entries 4728192
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

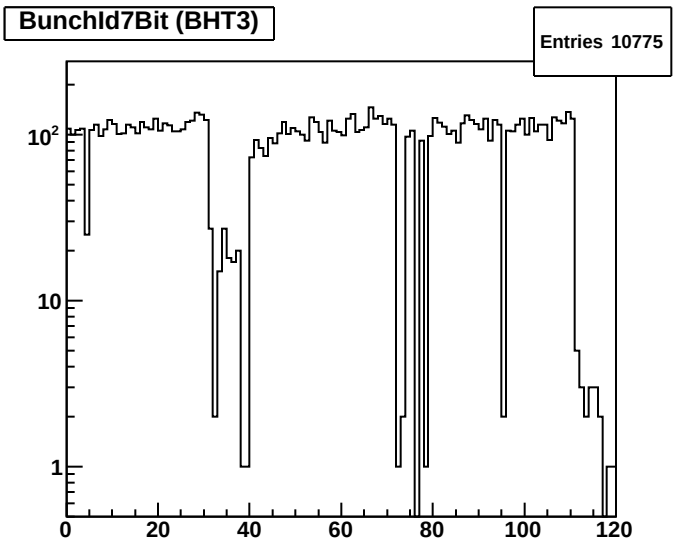

EMC L2 Input - HT23 bits
Entries 32
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

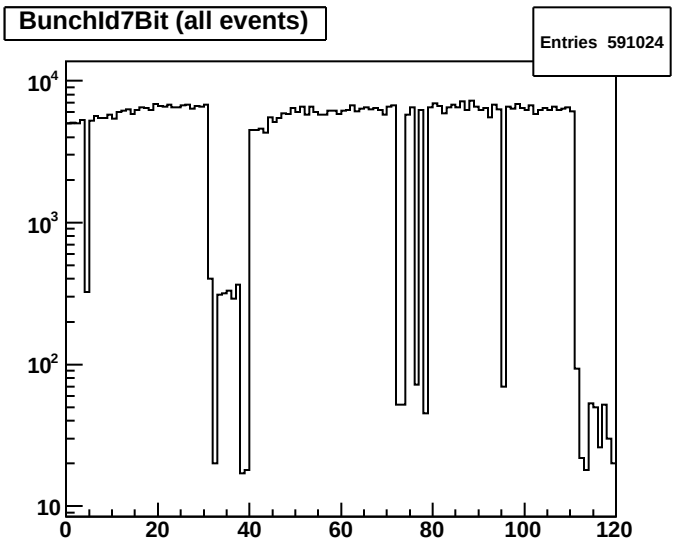

Last DSM Ch3 Input
Entries 9456384
LD301 Ch3
1
0
151628 131820 26104 10775 11816 6314 67260 21011 51912 15862 15352 4732 4398 3554 862 130640
439396 459204 562920 580249 579208 584710 523764 570013 539112 575162 575672 586292 586626 587470 590162 460384
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

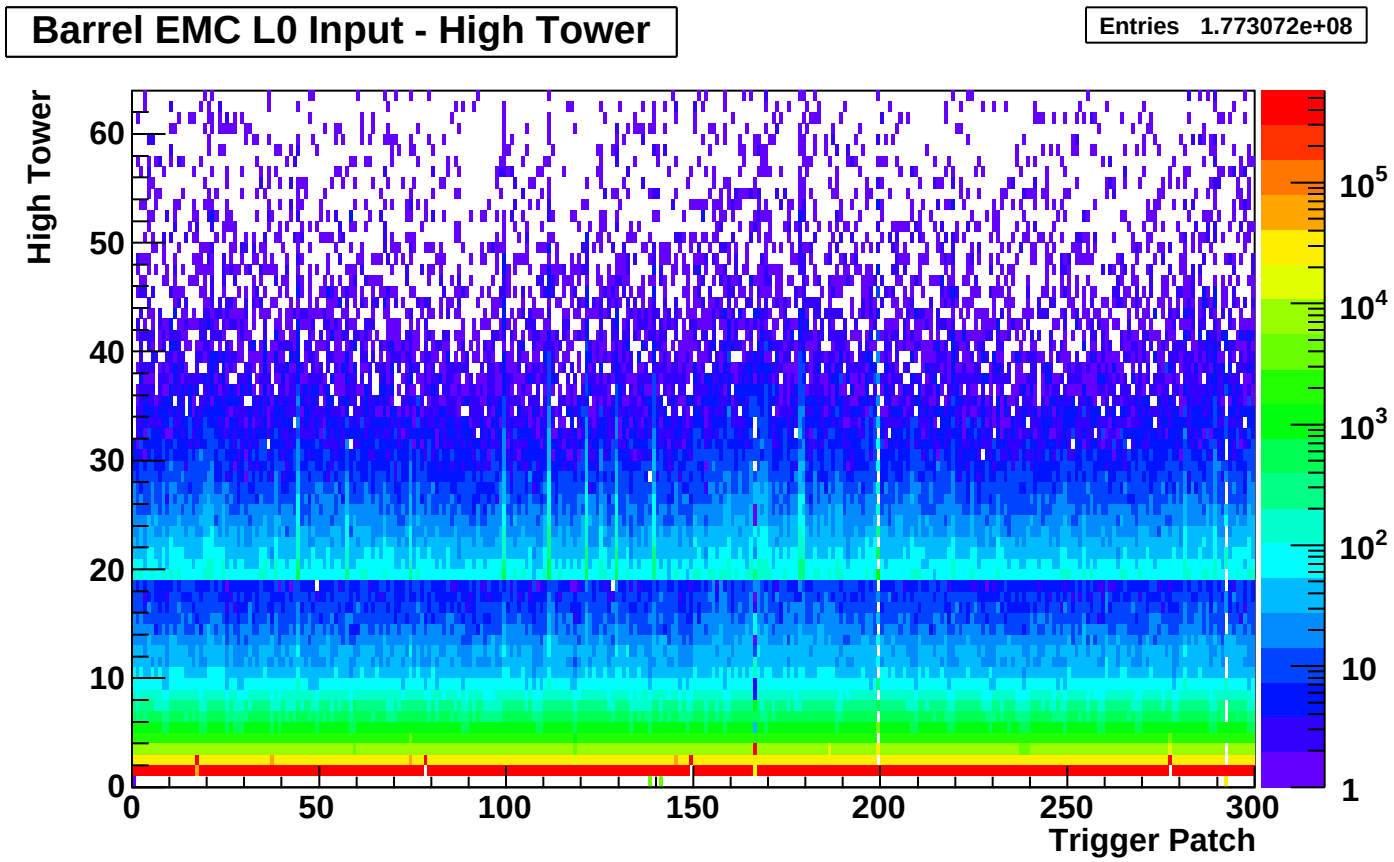

Last DSM Ch3 Input
Entries 568
LD301 Ch3 - Simulated
1
0
-1
-2
134 114 20 5 12 6 70 14 41 8 15 3 5 5 116
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

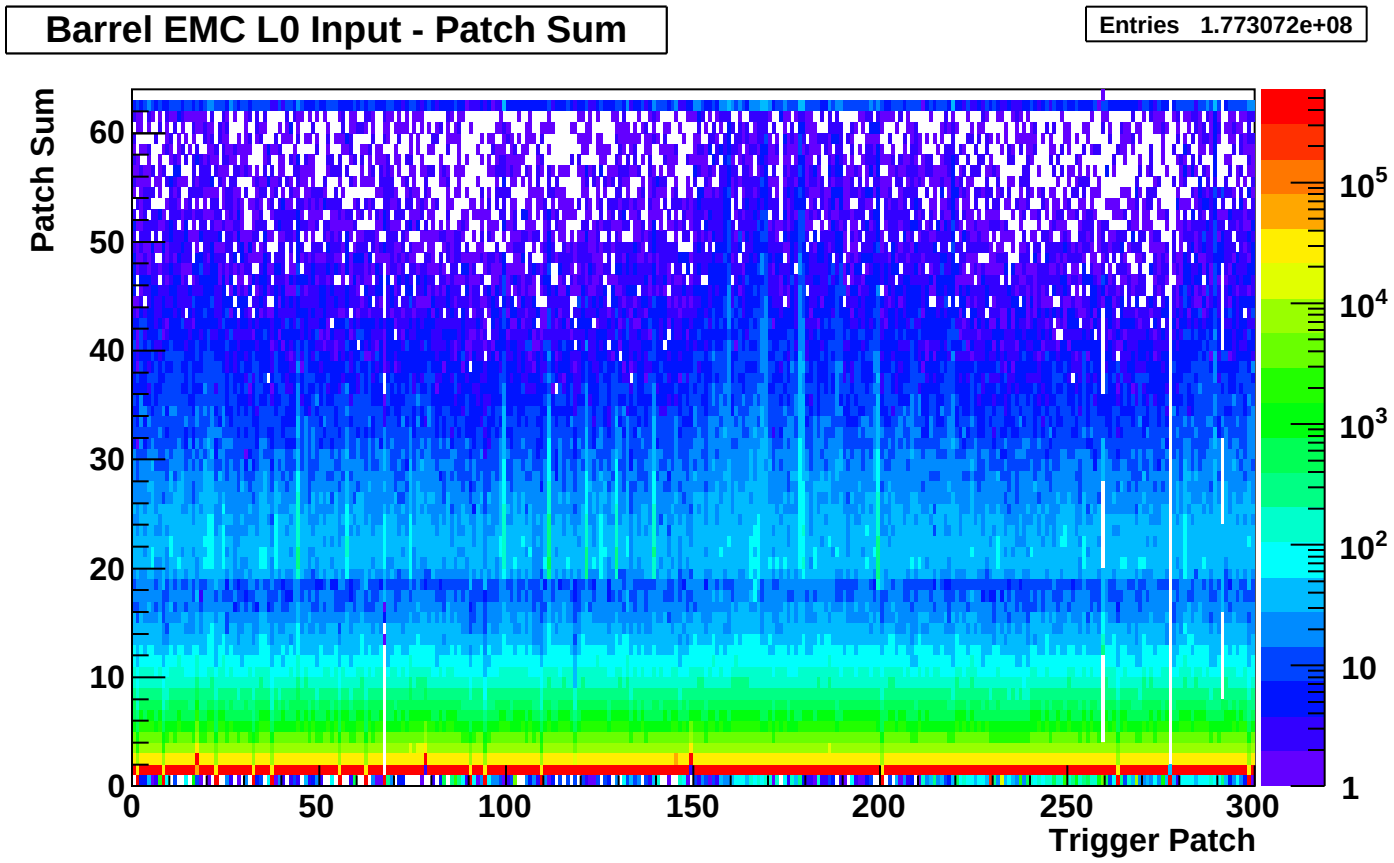

TCU bits
Entries 9456384
TCU bits
1
0
591024 591024 591024 591024 591024 591024 591024 591024 591024 591024 591024 591024 591024 591024 591024 591024
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

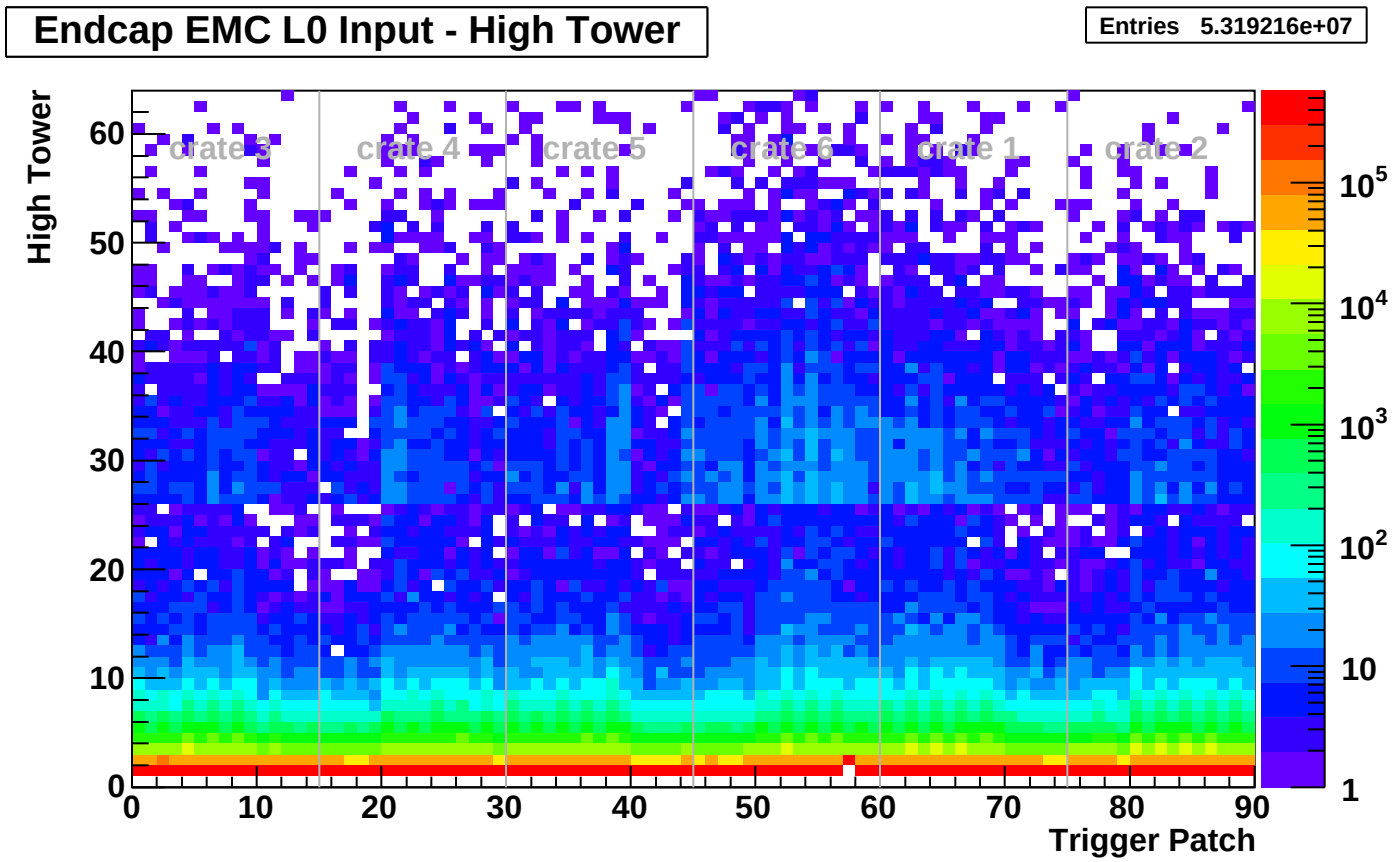

TCU bits
Entries 763108
TCU bits - Simulated
1
0
-1
-2
47912 131820 263321 11816 27929 1 289726 583
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

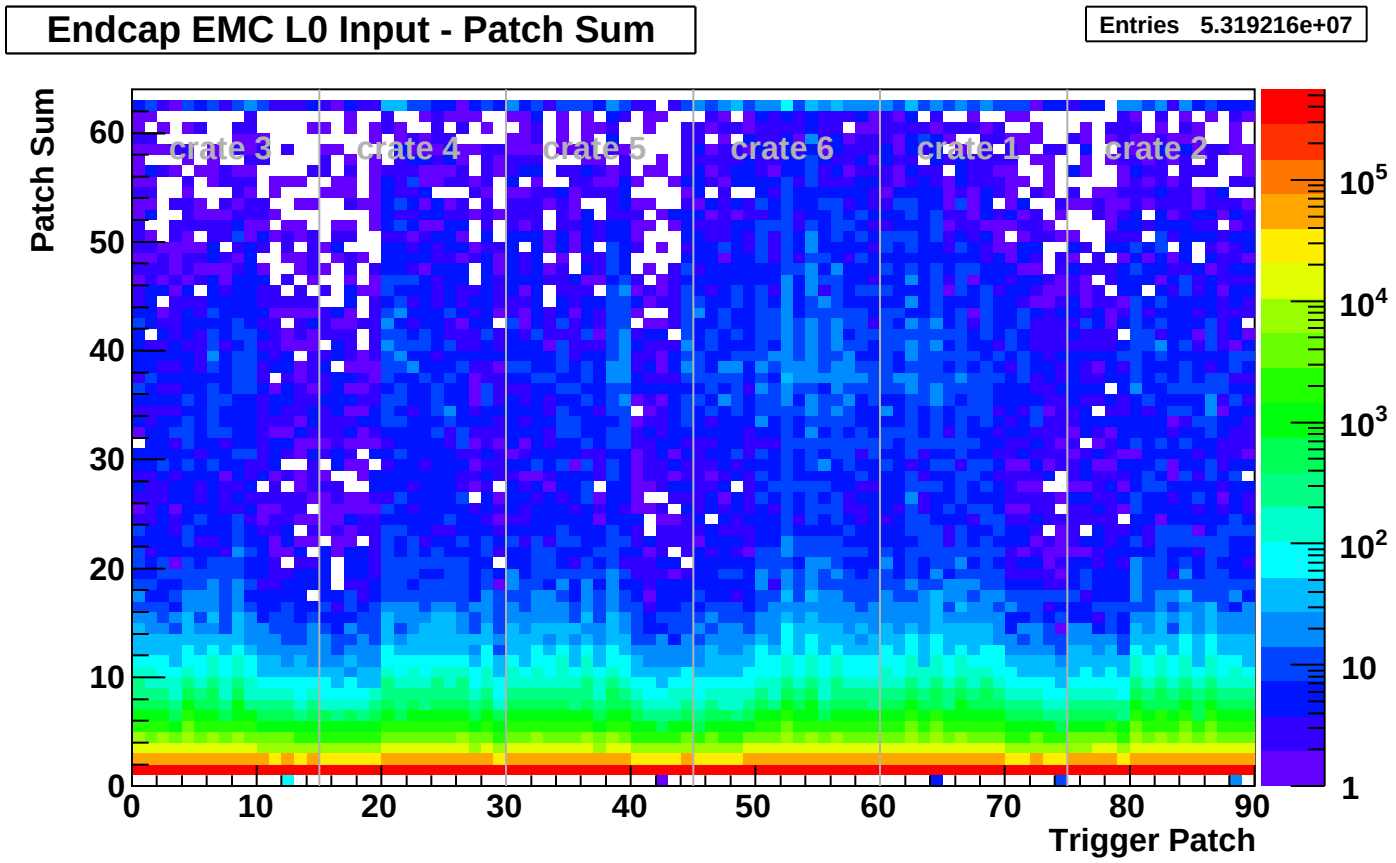

BunchId7Bit (BHT3)
Entries 10775
0 20 40 60 80 100 120

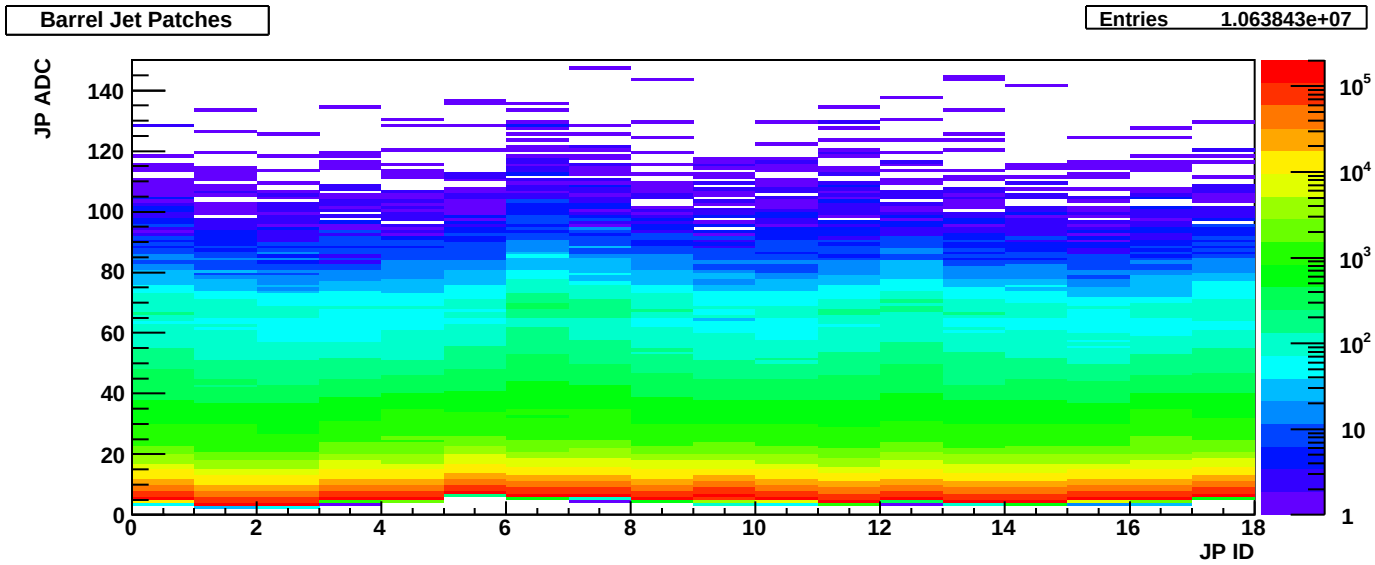

BunchId7Bit (all events)
Entries 591024
0 20 40 60 80 100 120

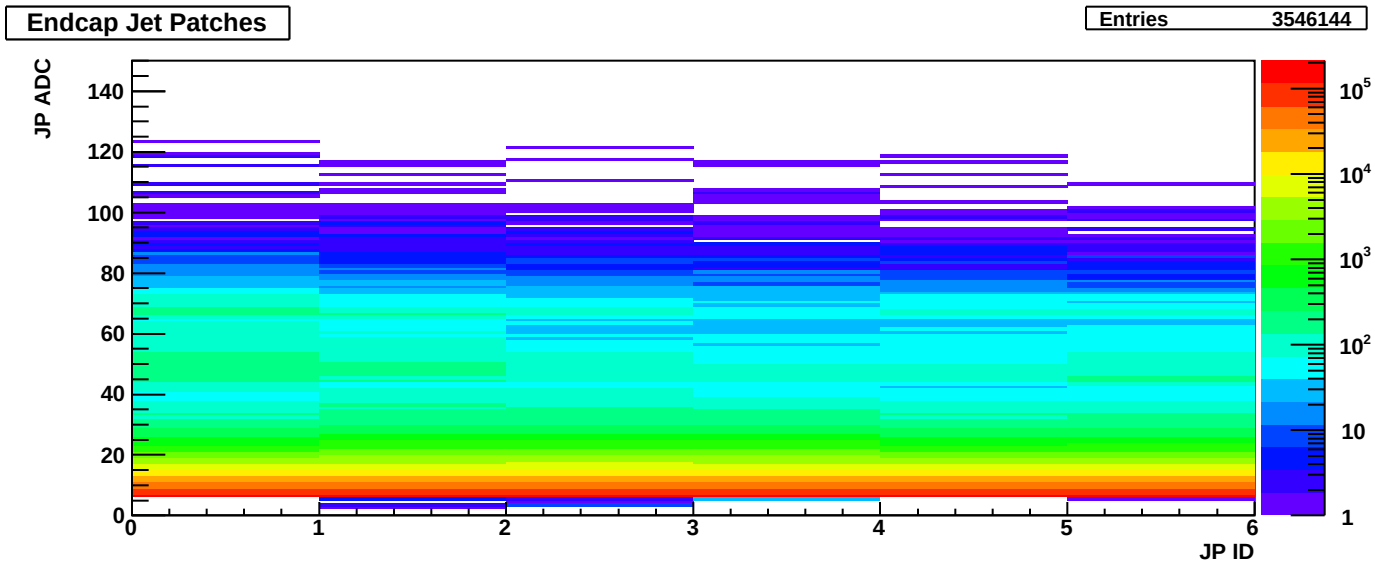

Barrel EMC L0 Input - High Tower
Entries 1.773072e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

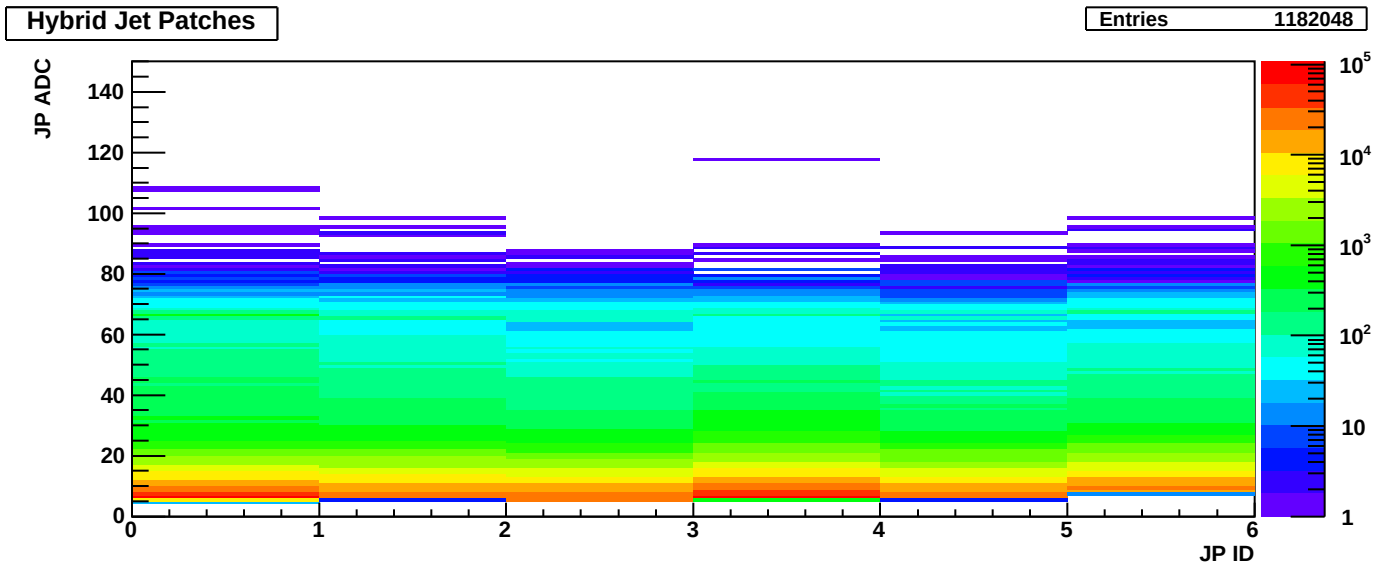

Barrel EMC L0 Input - Patch Sum
Entries 1.773072e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

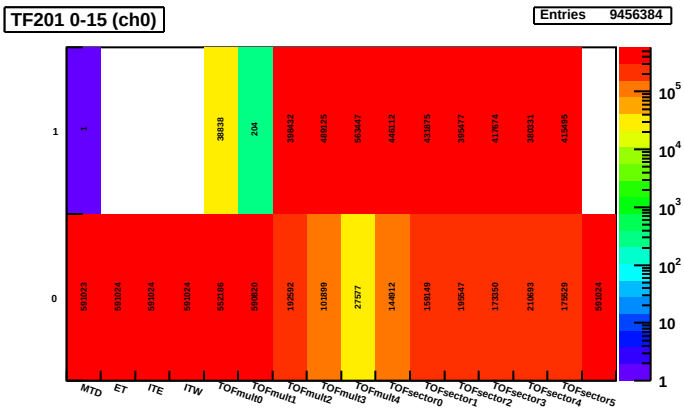

Endcap EMC L0 Input - High Tower
Entries 5.319216e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

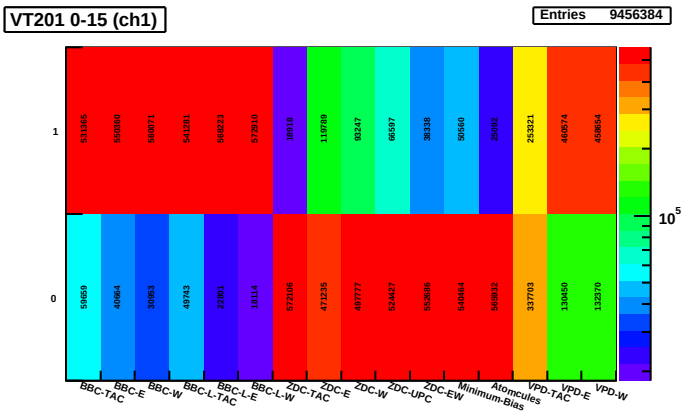

Endcap EMC L0 Input - Patch Sum
Entries 5.319216e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

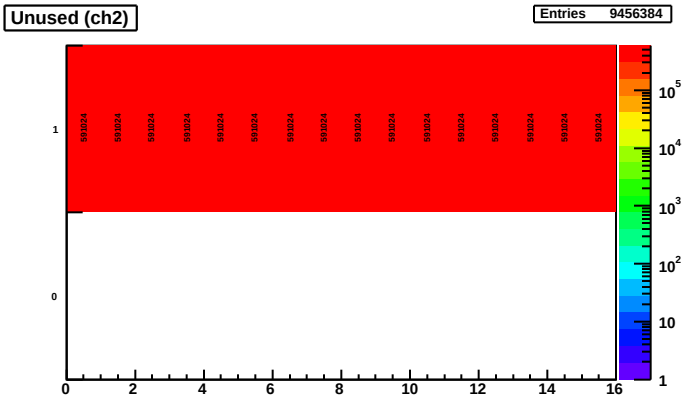

Barrel Jet Patches
Entries 1.063843e+07
JP ADC
JP ID

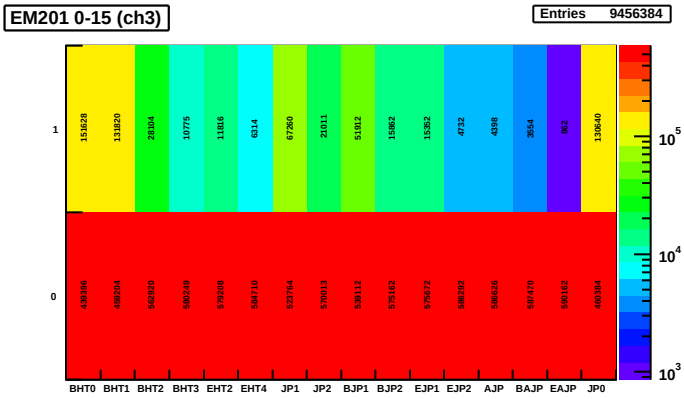

Endcap Jet Patches
Entries 3546144
JP ADC
JP ID

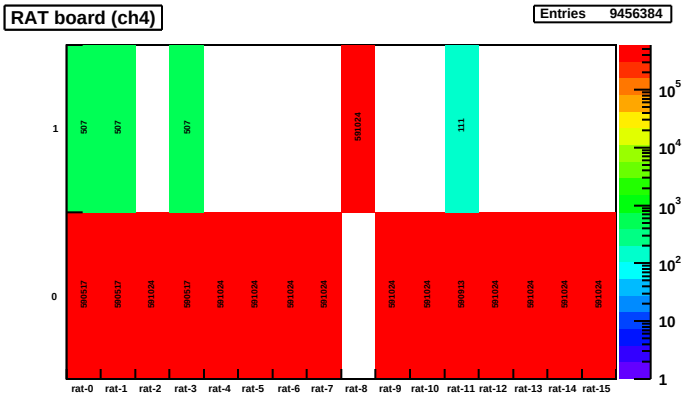

Hybrid Jet Patches
Entries 1182048
JP ADC
JP ID

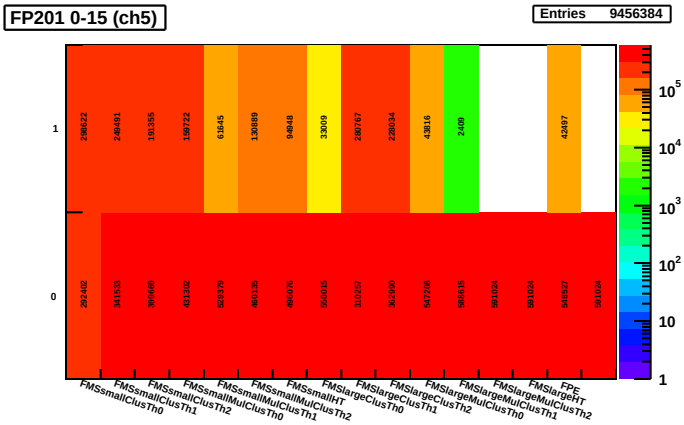

TF201 0-15 (ch0)
Entries 9456384
MTD
ET
ITE
ITW
TOFmult0
TOFmult1
TOFmult2
TOFmult3
TOFmult4
TOFsector0
TOFsector1
TOFsector2
TOFsector3
TOFsector4
TOFsector5

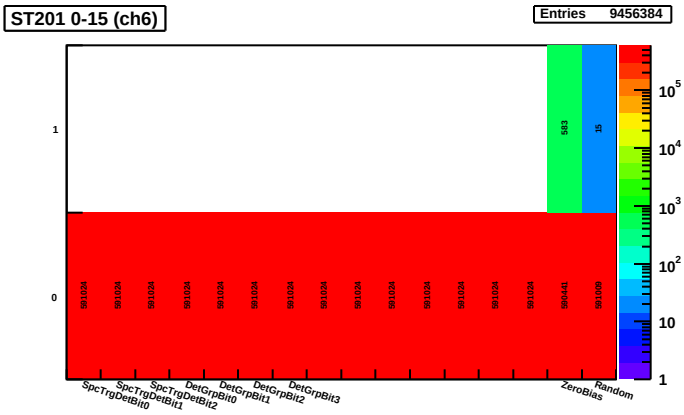

VT201 0-15 (ch1)
Entries 9456384
BBC-TAC
BBC-E
BBC-W
BBC-L-TAC
BBC-L-E
BBC-L-W
ZDC-TAC
ZDC-E
ZDC-W
ZDC-UPC
ZDC-EW
Minimum-Bias
Atomcules
VPD-TAC
VPD-E
VPD-W

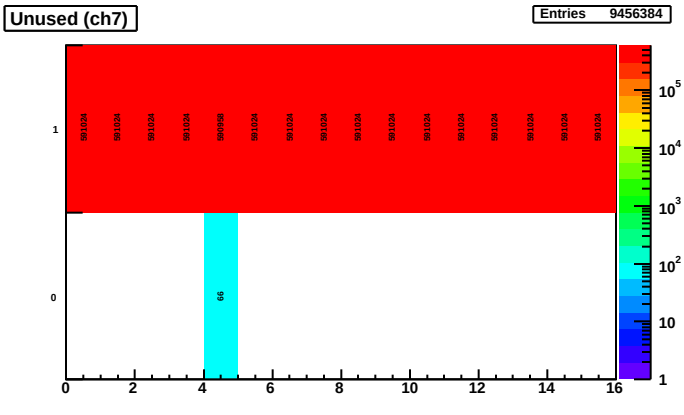

Unused (ch2)
Entries 9456384

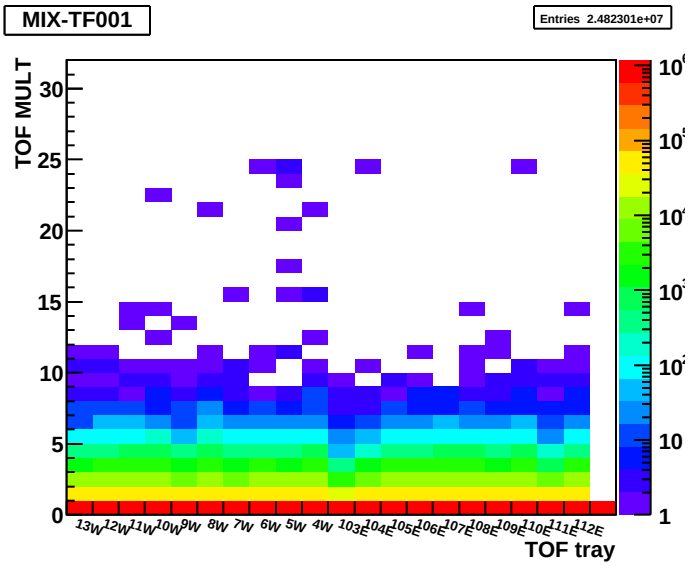

EM201 0-15 (ch3)
Entries 9456384
BHT0
BHT1
BHT2
BHT3
EHT2
EHT4
JP1
JP2
BJP1
BJP2
EJP1
EJP2
AJP
BAJP
EAJP
JP0

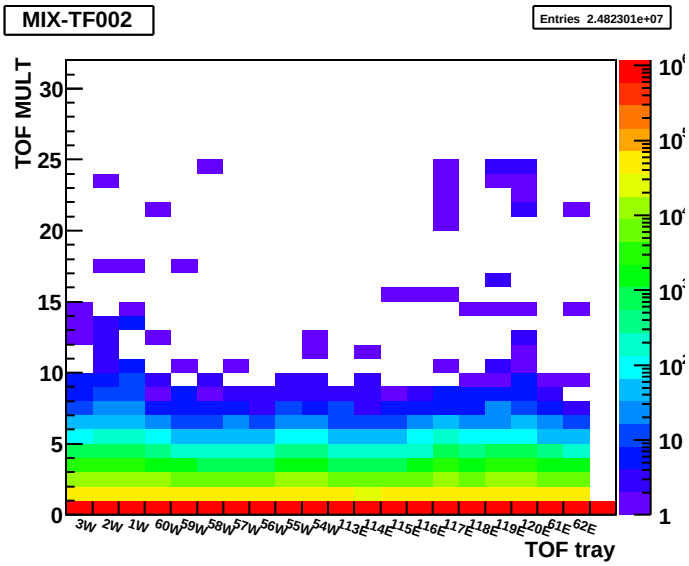

RAT board (ch4)
Entries 9456384
rat-0
rat-1
rat-2
rat-3
rat-4
rat-5
rat-6
rat-7
rat-8
rat-9
rat-10
rat-11
rat-12
rat-13
rat-14
rat-15

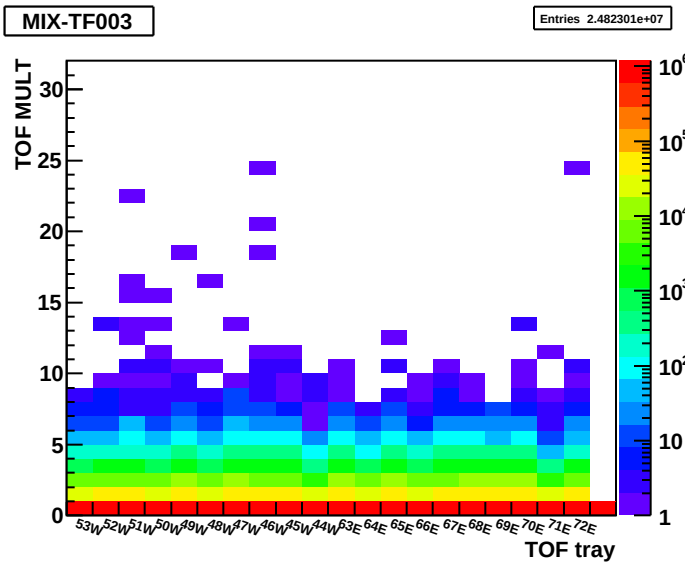

FP201 0-15 (ch5)
Entries 9456384
FMSsmallClusTh0
FMSsmallClusTh1
FMSsmallClusTh2
FMSsmallMulClusTh0
FMSsmallMulClusTh1
FMSsmallMulClusTh2
FMSsmallHT
FMSlargeClusTh0
FMSlargeClusTh1
FMSlargeClusTh2
FMSlargeMulClusTh0
FMSlargeMulClusTh1
FMSlargeMulClusTh2
FMSlargeHT
FPE

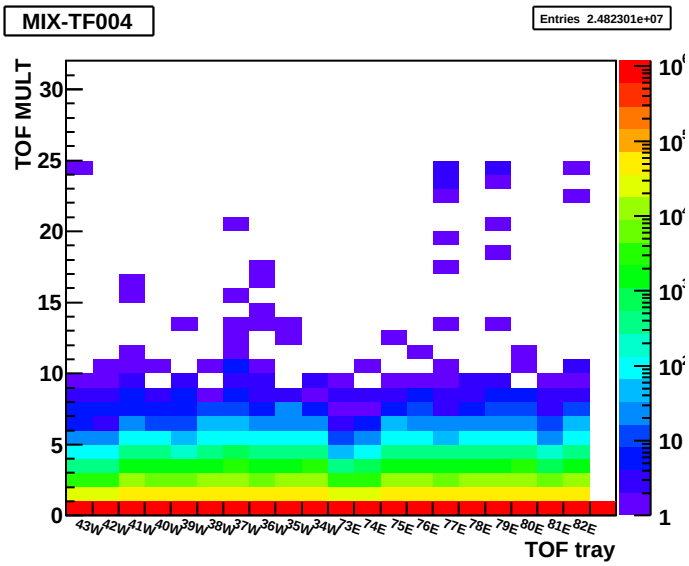

ST201 0-15 (ch6)
Entries 9456384
SpcTrgDetBit0
SpcTrgDetBit1
SpcTrgDetBit2
DetGrpBit0
DetGrpBit1
DetGrpBit2
DetGrpBit3
ZeroBias
Random

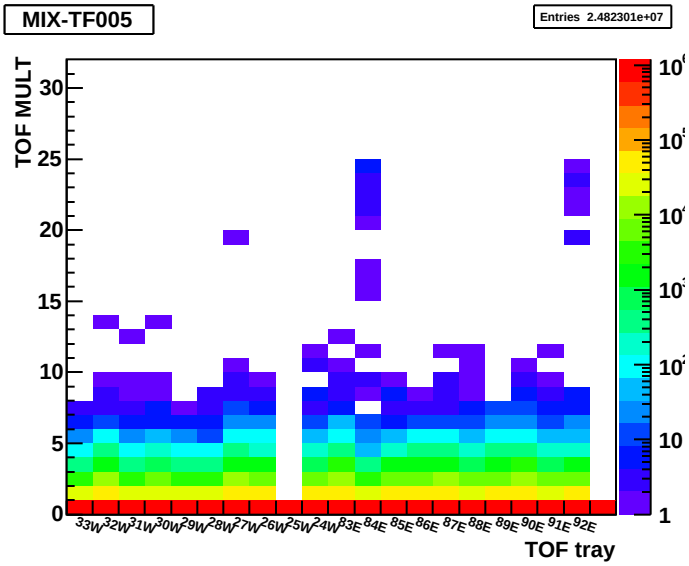

Unused (ch7)
Entries 9456384

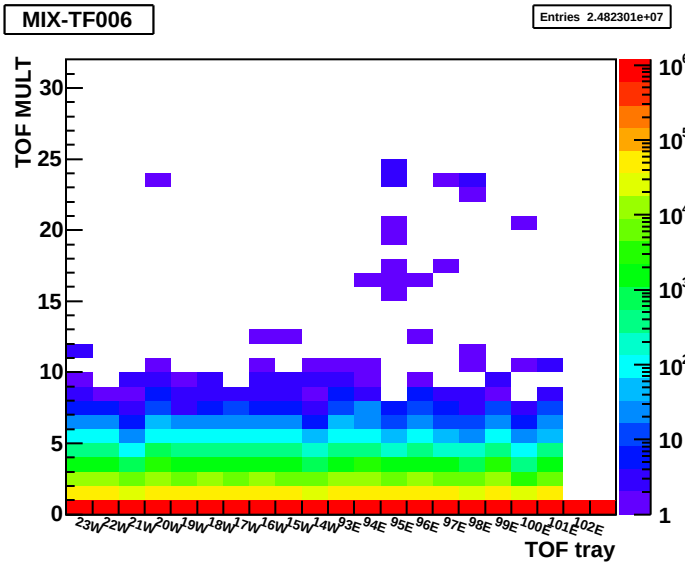

MIX-TF001
Entries 2.482301e+07
TOF MULT
TOF tray

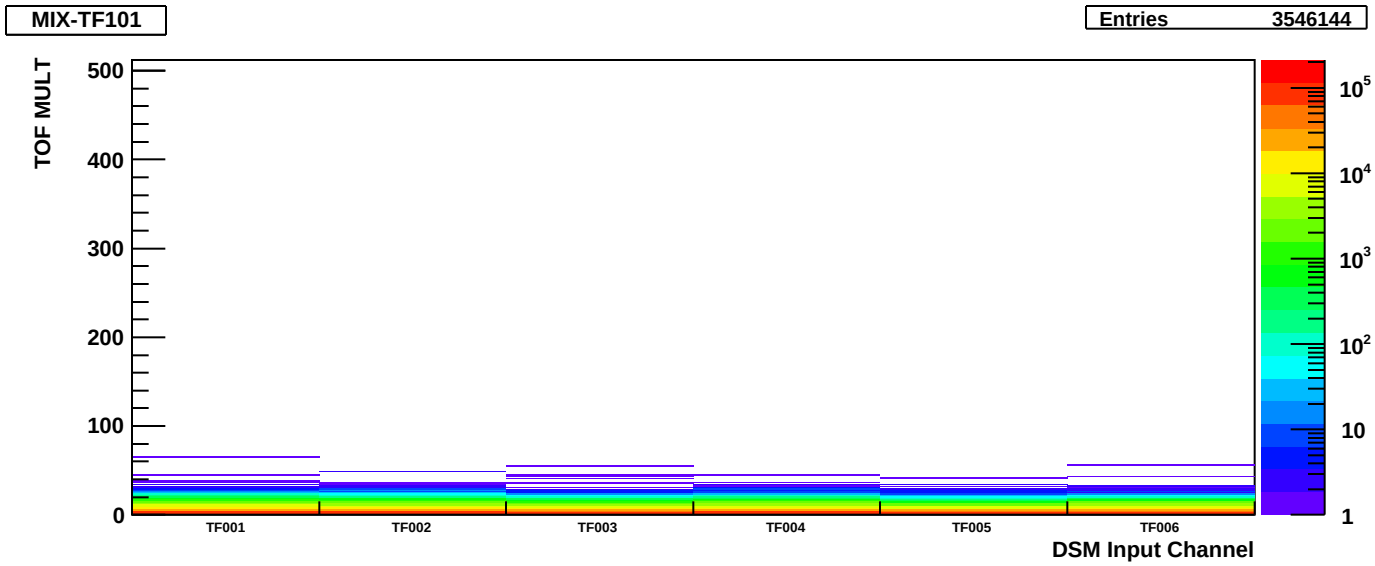

MIX-TF002
Entries 2.482301e+07
TOF MULT
TOF tray

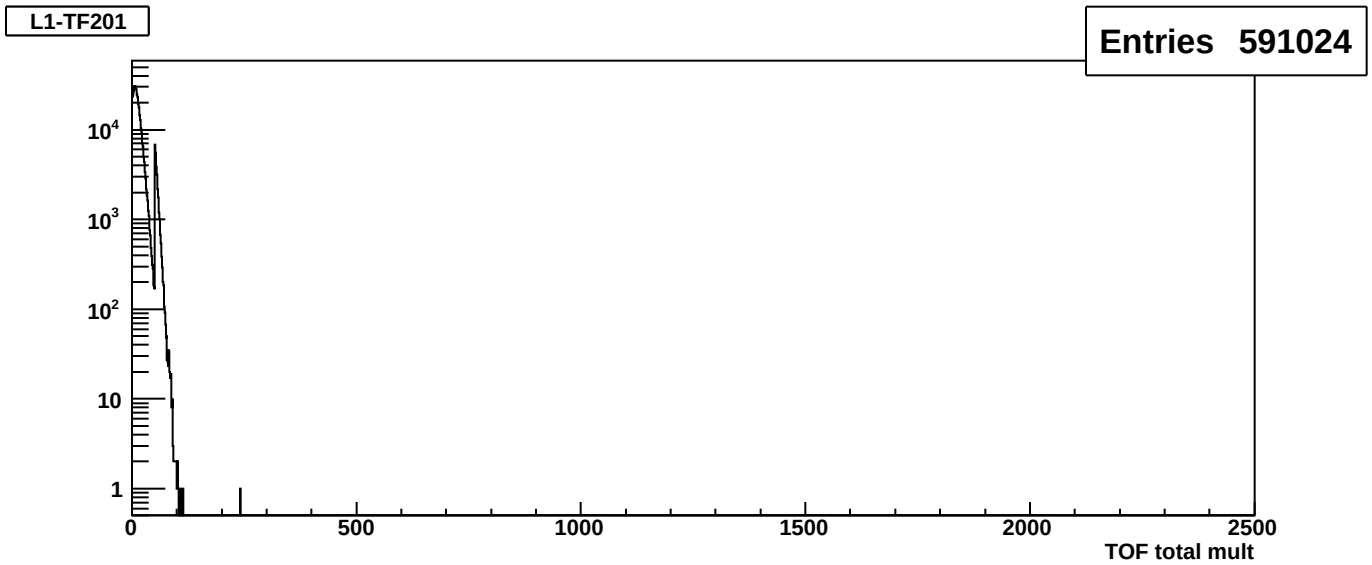

MIX-TF003
Entries 2.482301e+07
TOF MULT
TOF tray

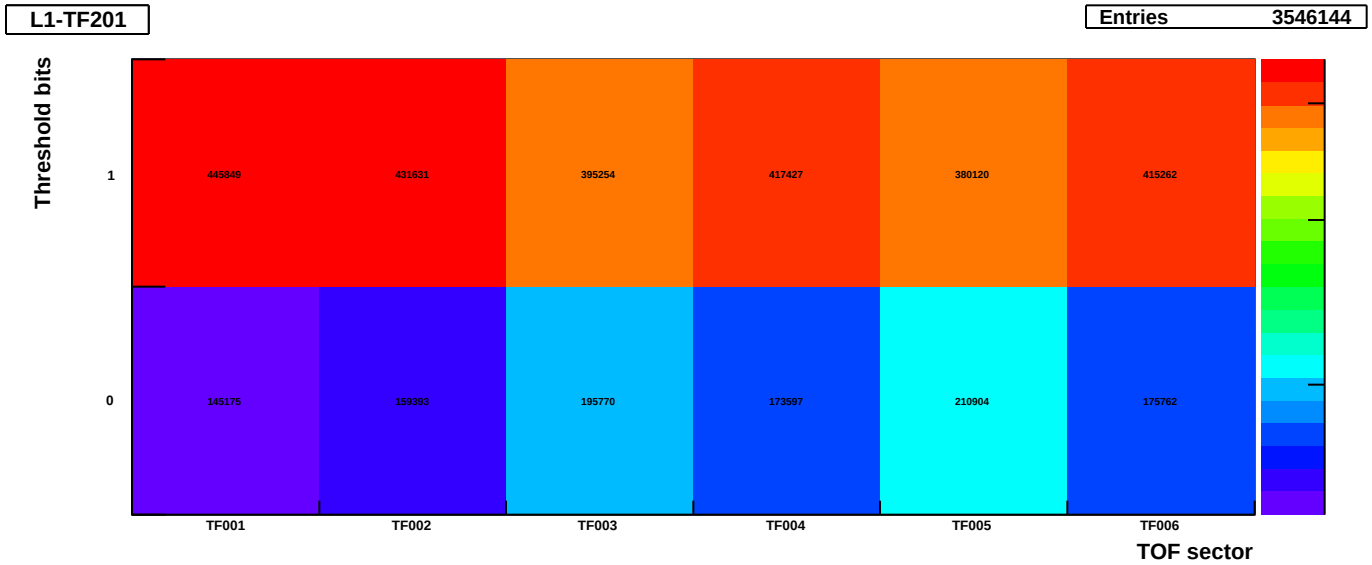

MIX-TF004
Entries 2.482301e+07
TOF MULT
TOF tray

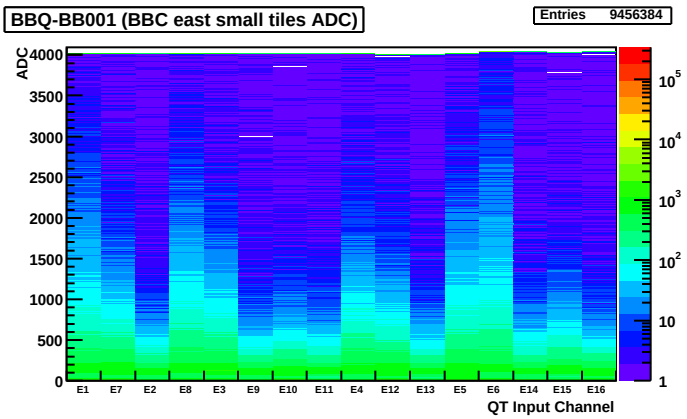

MIX-TF005
Entries 2.482301e+07
TOF MULT
TOF tray

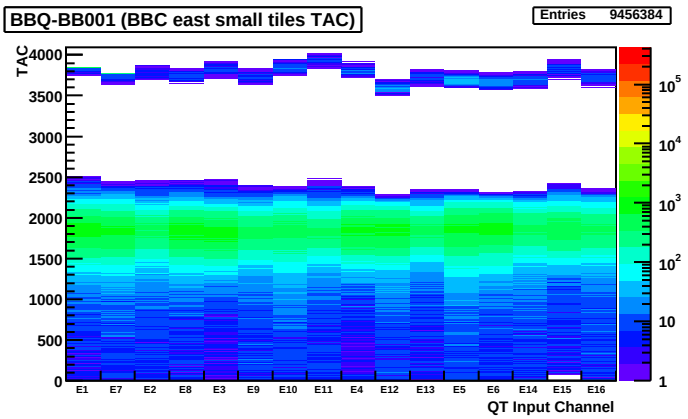

MIX-TF006
Entries 2.482301e+07
TOF MULT
TOF tray

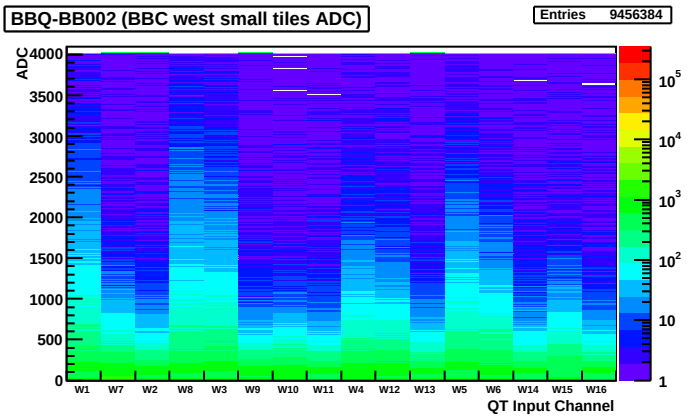

MIX-TF101
Entries 3546144
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

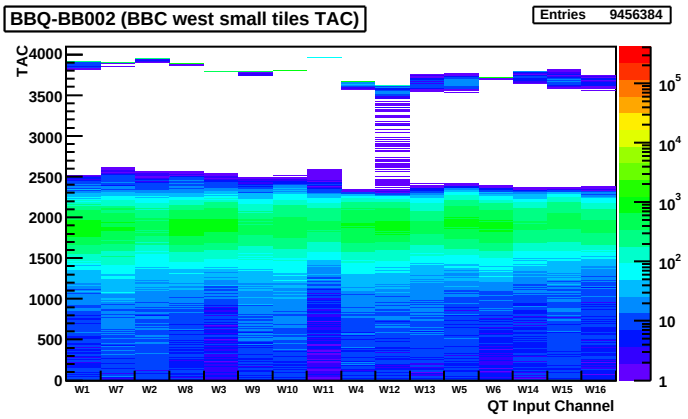

L1-TF201
Entries 591024
10^4
10^3
10^2
10
1
0
500
1000
1500
2000
2500
TOF total mult

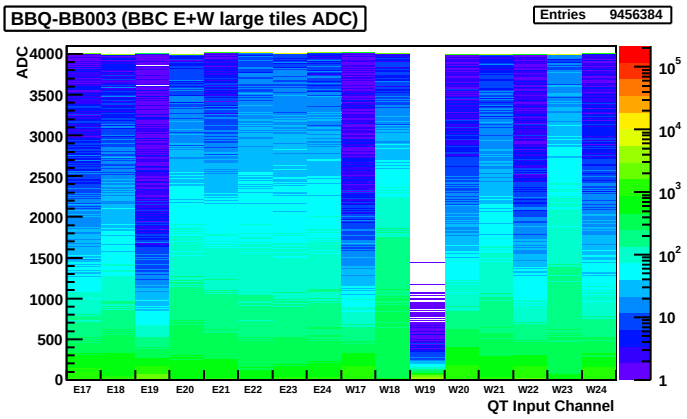

L1-TF201
Entries 3546144
Threshold bits
1
0
445849
431631
395254
417427
380120
415262
145175
159393
195770
173597
210904
175762
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

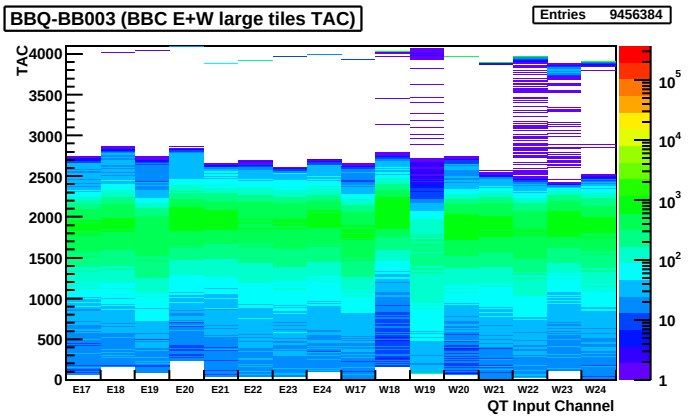

BBQ-BB001 (BBC east small tiles ADC)
Entries 9456384
ADC
QT Input Channel

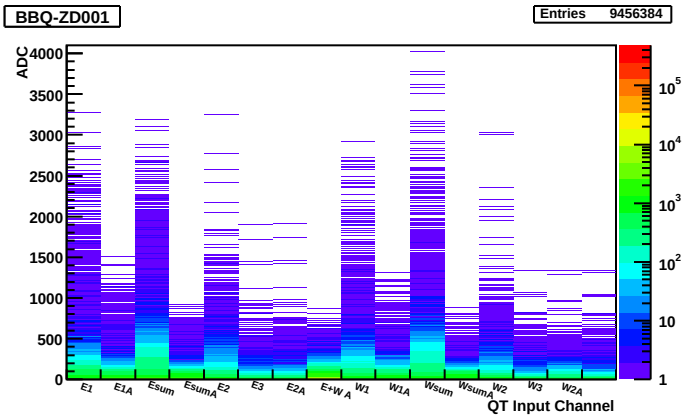

BBQ-BB001 (BBC east small tiles TAC)
Entries 9456384
TAC
QT Input Channel

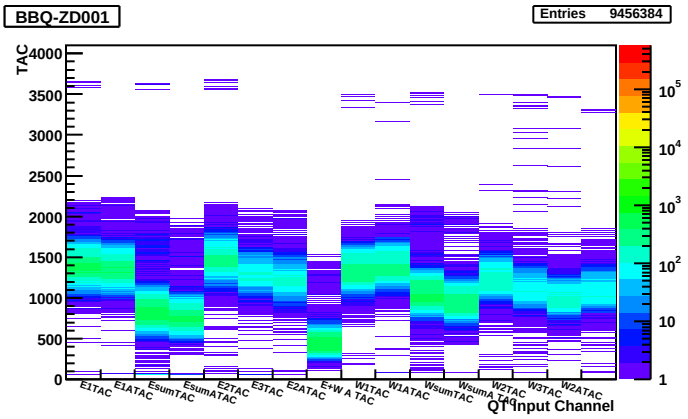

BBQ-BB002 (BBC west small tiles ADC)
Entries 9456384
ADC
QT Input Channel

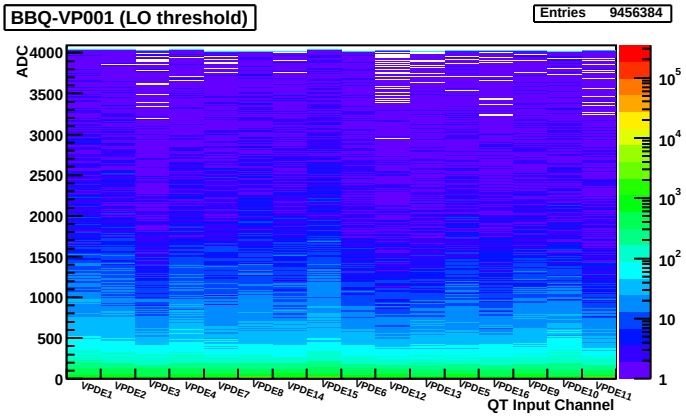

BBQ-BB002 (BBC west small tiles TAC)
Entries 9456384
TAC
QT Input Channel

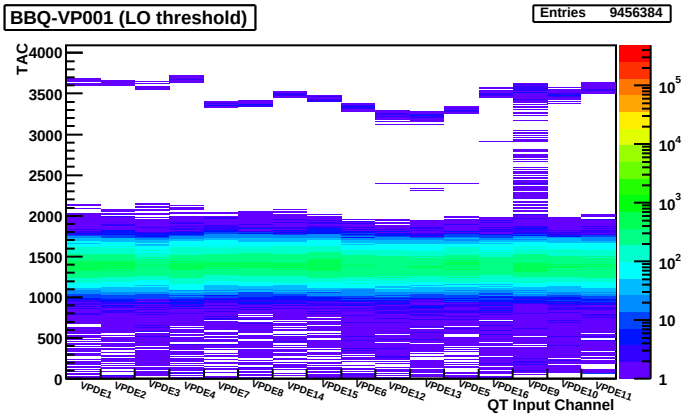

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 9456384
ADC
QT Input Channel

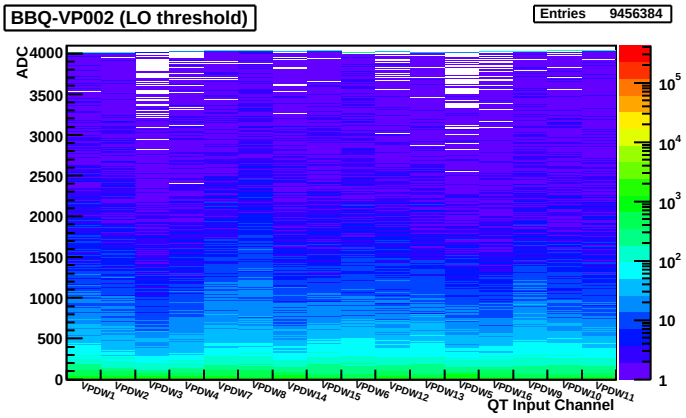

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 9456384
TAC
QT Input Channel

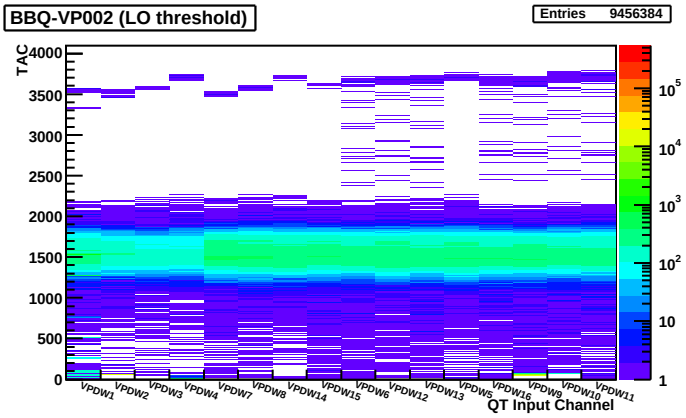

BBQ-ZD001
Entries 9456384
ADC
QT Input Channel

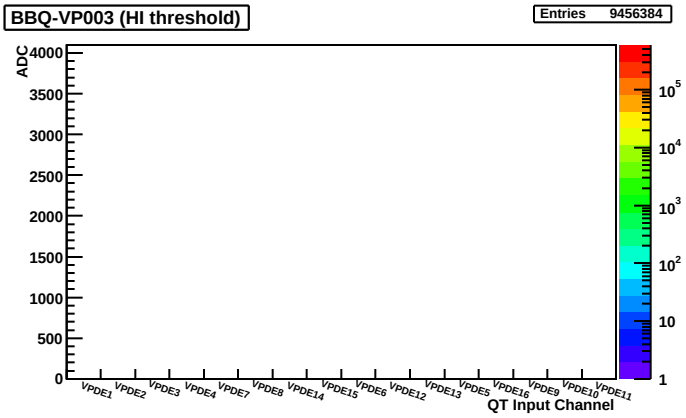

BBQ-ZD001
Entries 9456384
TAC
QT Input Channel

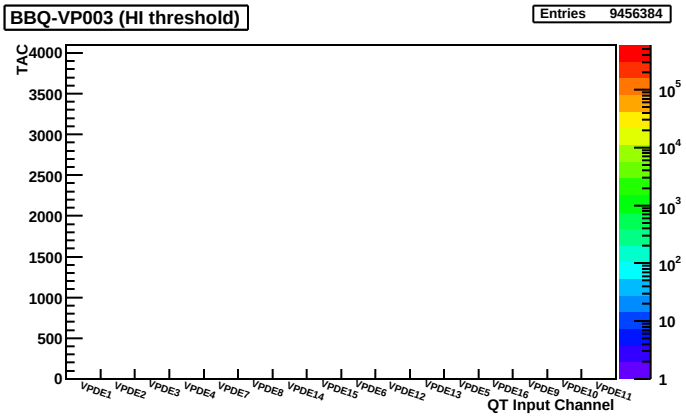

BBQ-VP001 (LO threshold)
Entries 9456384
ADC
QT Input Channel

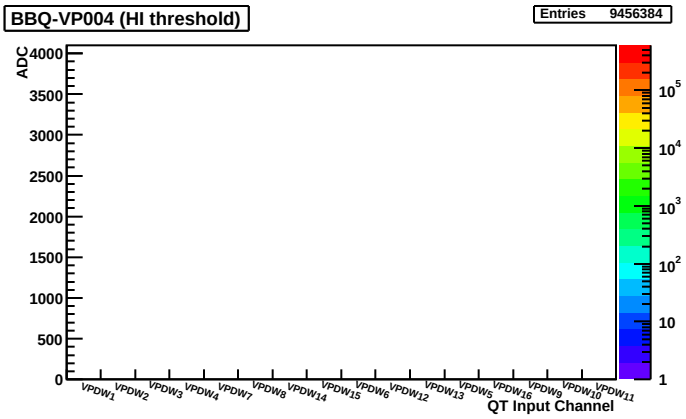

BBQ-VP001 (LO threshold)
Entries 9456384
TAC
QT Input Channel

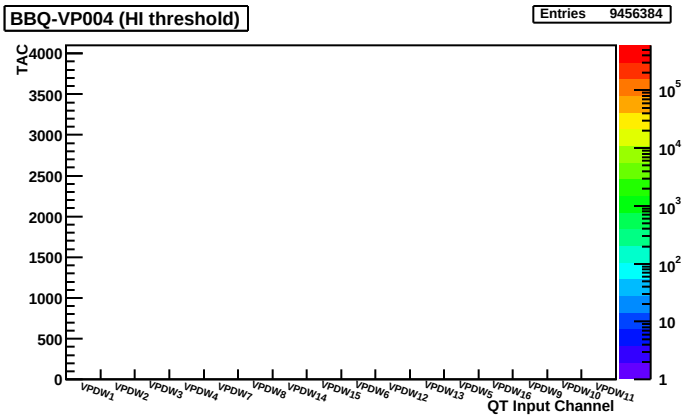

BBQ-VP002 (LO threshold)
Entries 9456384
ADC
QT Input Channel

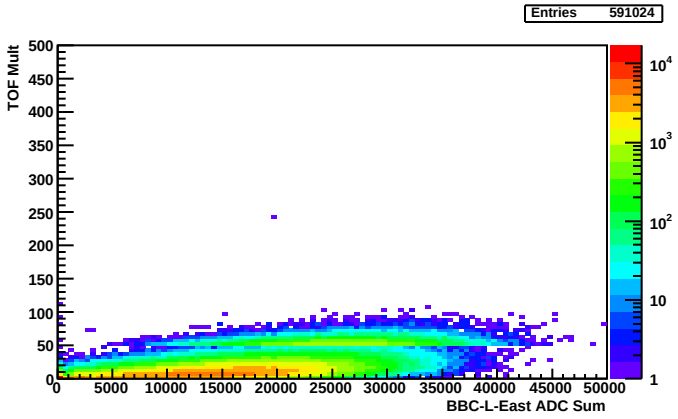

BBQ-VP002 (LO threshold)
Entries 9456384
TAC
QT Input Channel

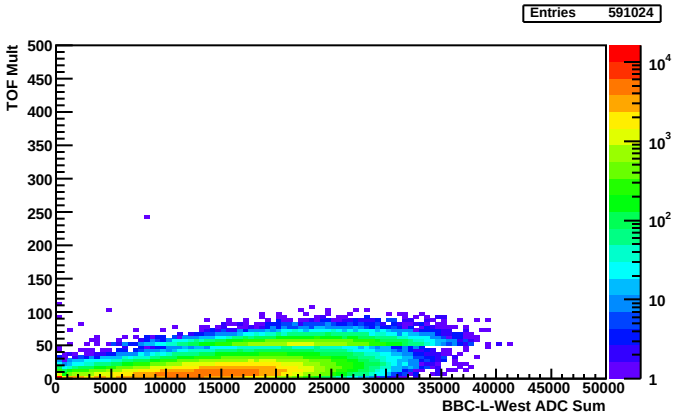

BBQ-VP003 (HI threshold)
Entries 9456384
ADC
QT Input Channel

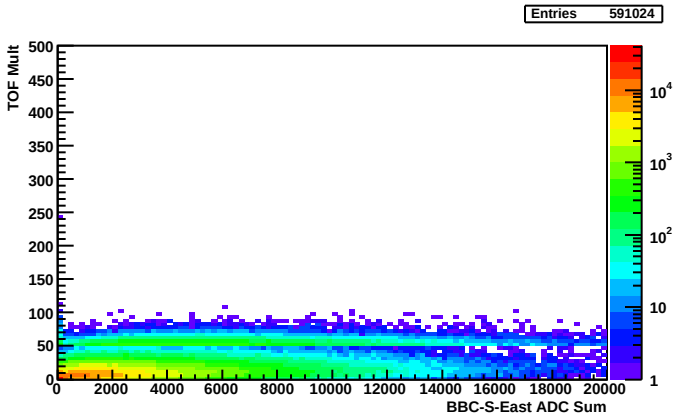

BBQ-VP003 (HI threshold)
Entries 9456384
TAC
QT Input Channel

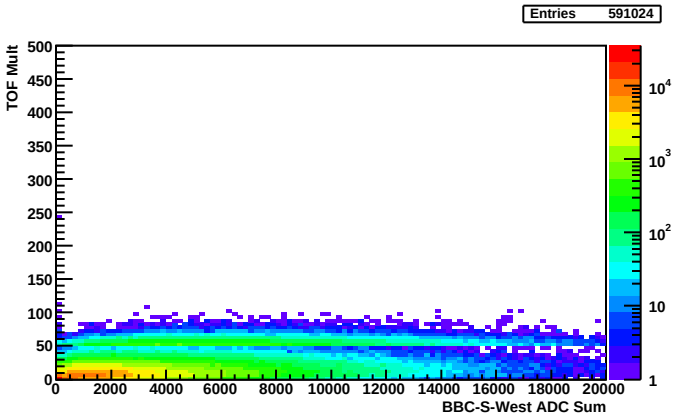

BBQ-VP004 (HI threshold)
Entries 9456384
ADC
QT Input Channel

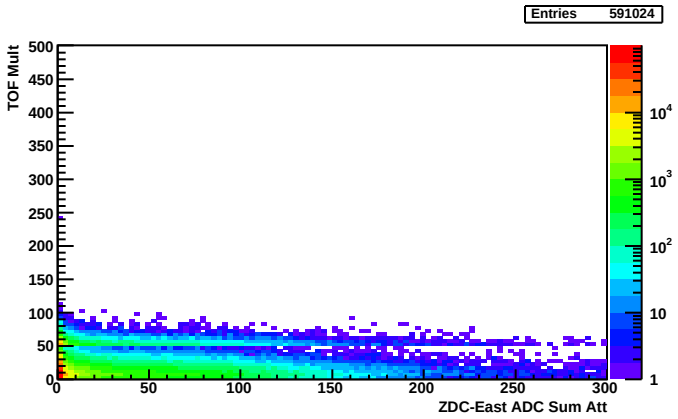

BBQ-VP004 (HI threshold)
Entries 9456384
TAC
QT Input Channel

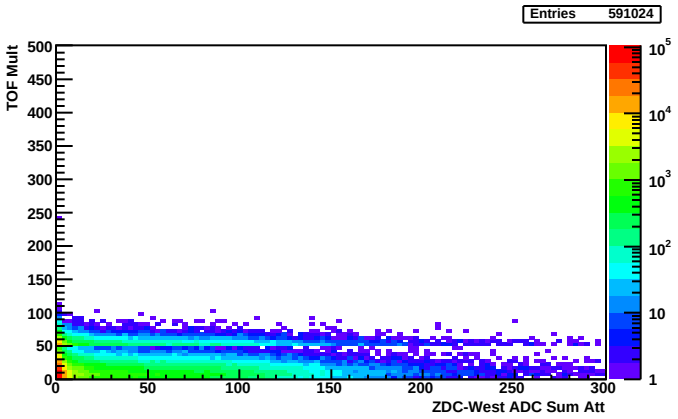

Entries 591024
TOF Mult
BBC-L-East ADC Sum

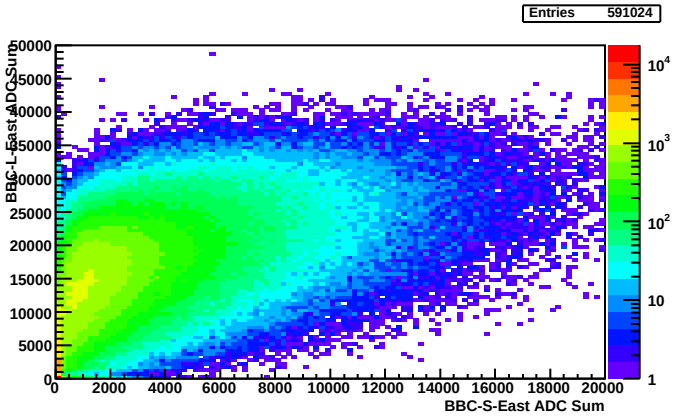

Entries 591024
TOF Mult
BBC-L-West ADC Sum

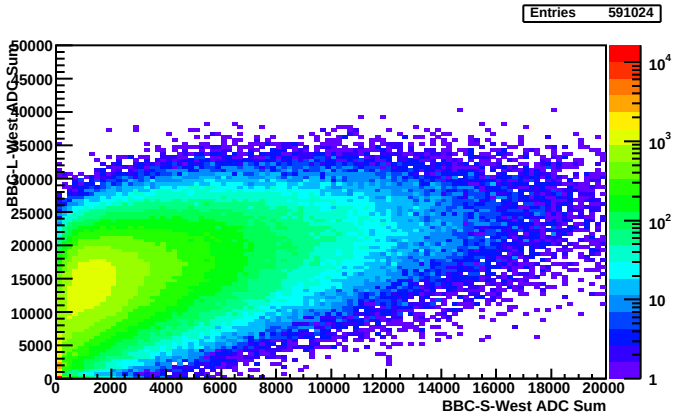

Entries 591024
TOF Mult
BBC-S-East ADC Sum

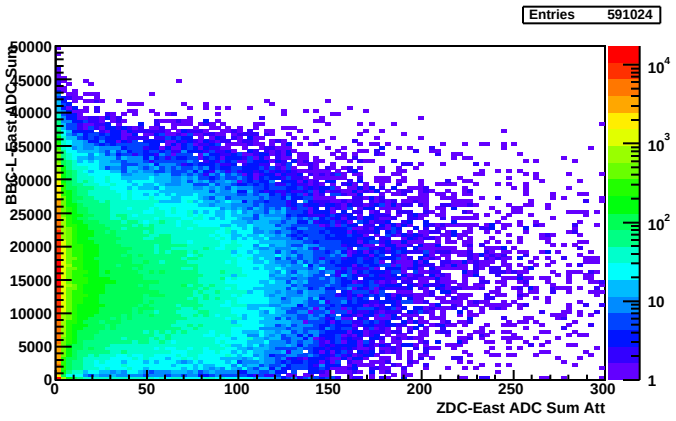

Entries 591024
TOF Mult
BBC-S-West ADC Sum

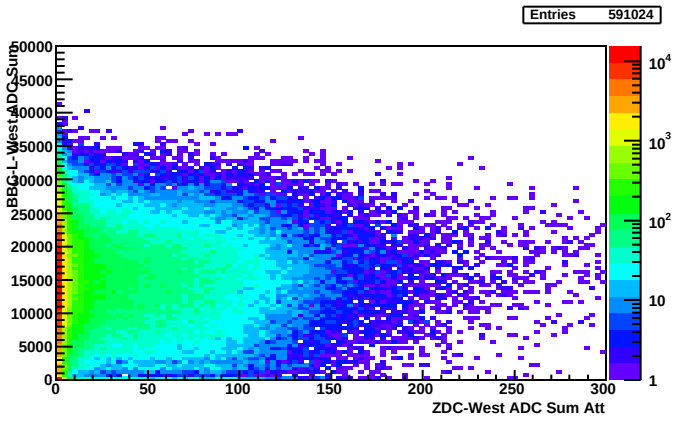

Entries 591024
TOF Mult
ZDC-East ADC Sum Att

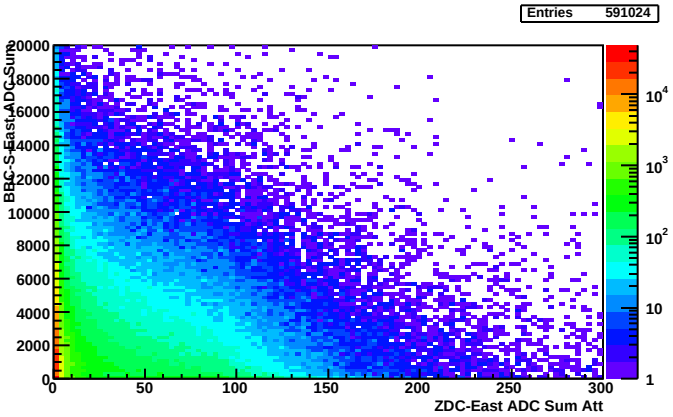

Entries 591024
TOF Mult
ZDC-West ADC Sum Att

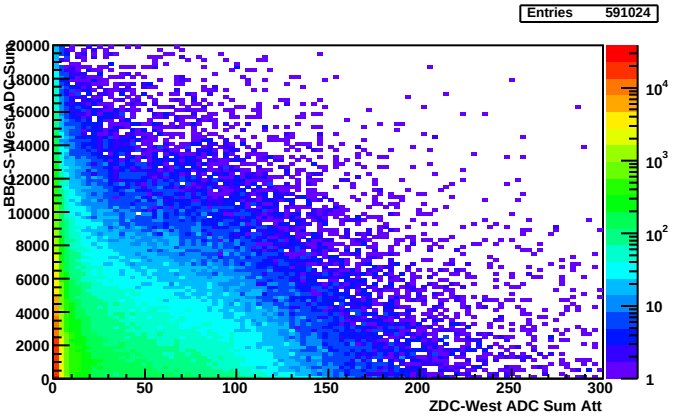

Entries 591024
BBC-L-East ADC Sum
BBC-S-East ADC Sum

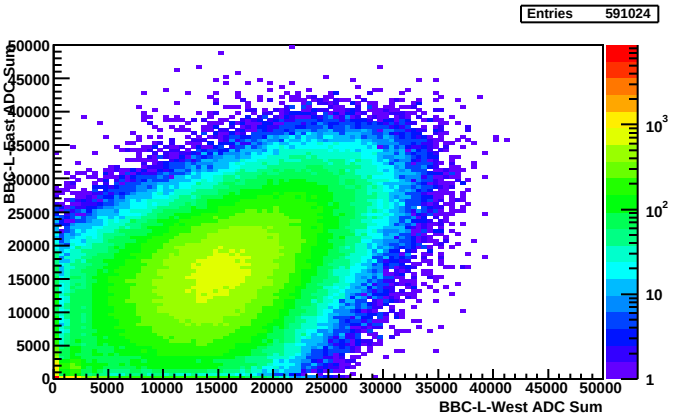

Entries 591024
BBC-L-West ADC Sum
BBC-S-West ADC Sum

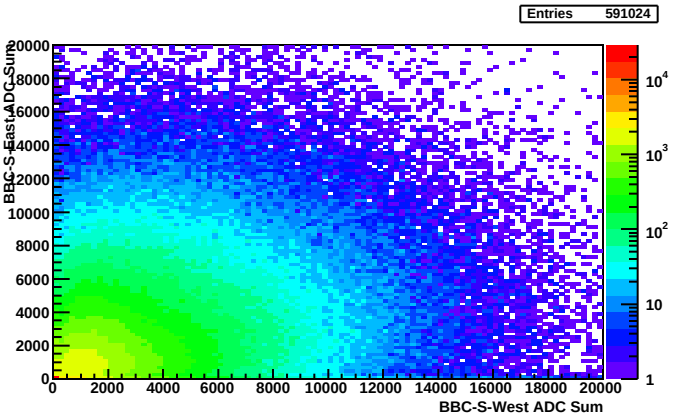

Entries 591024
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

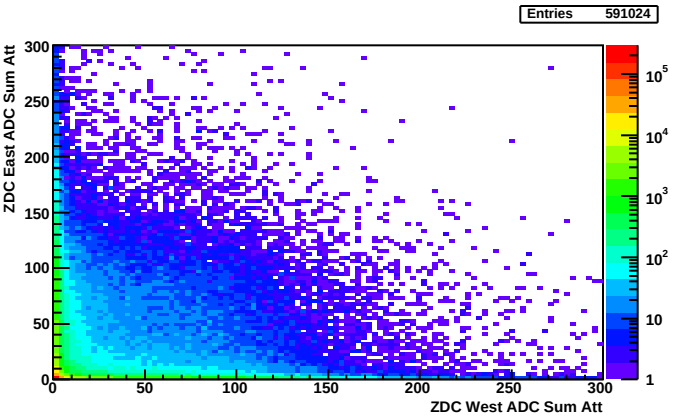

Entries 591024
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

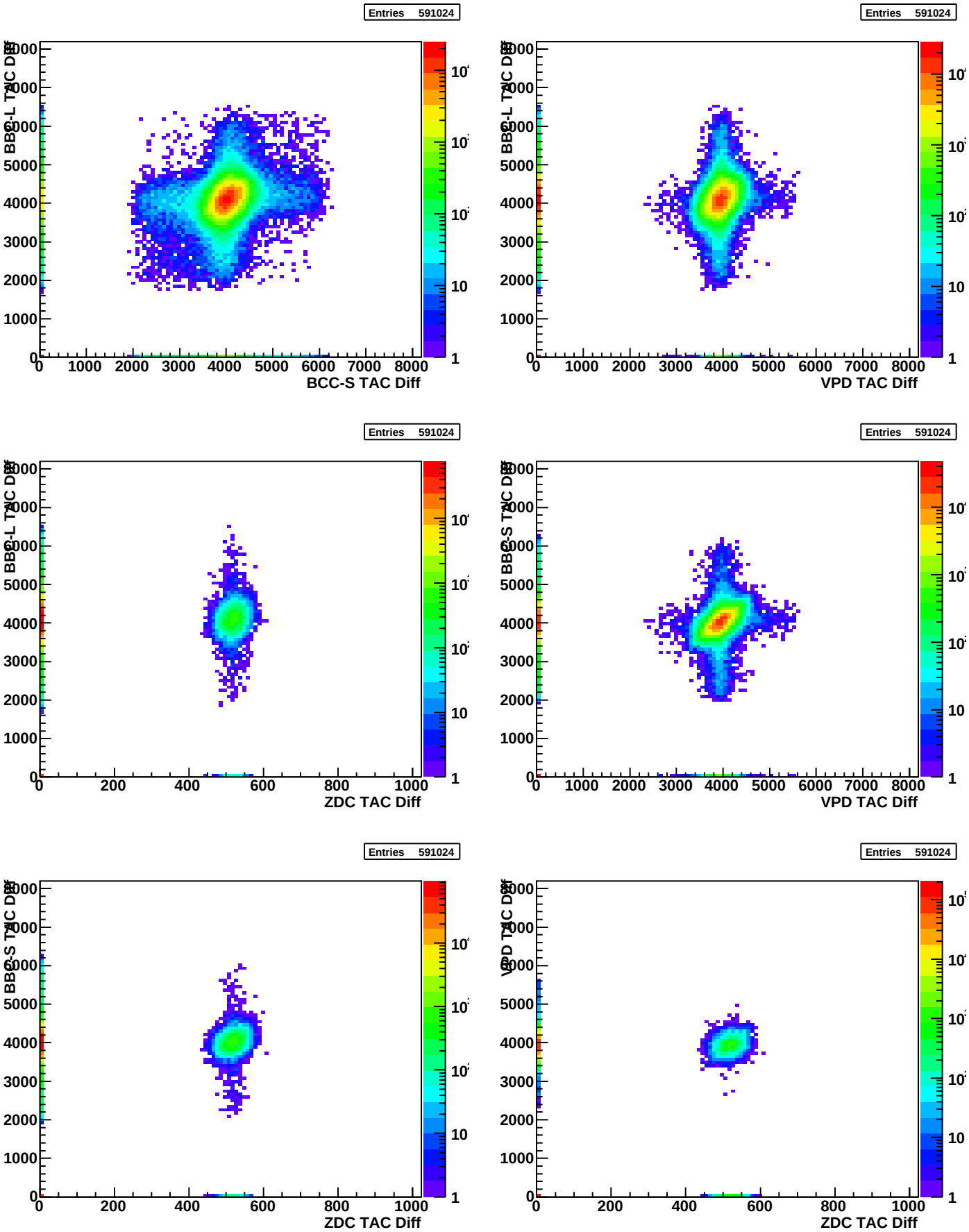

Entries 591024
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

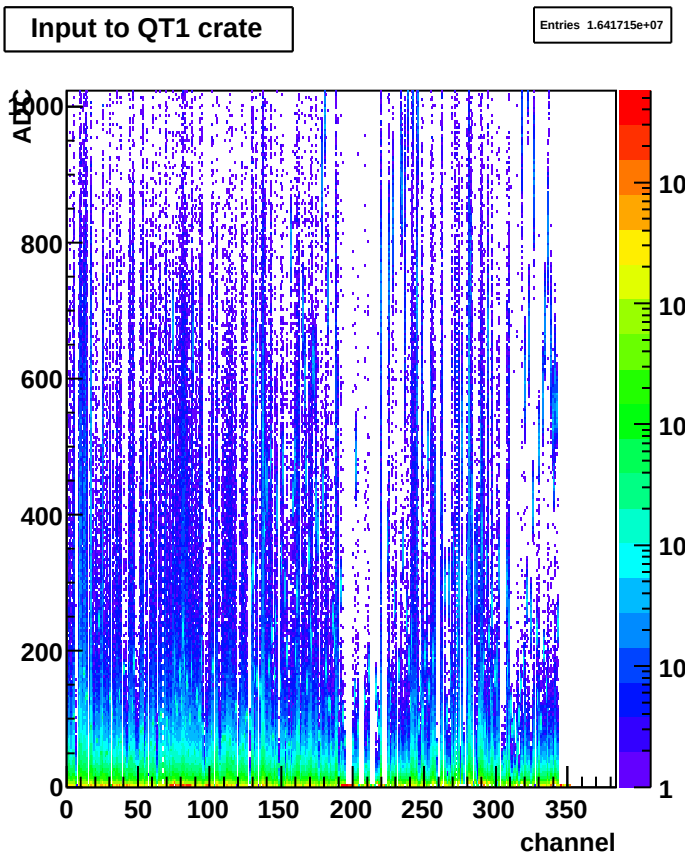

Entries 591024
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

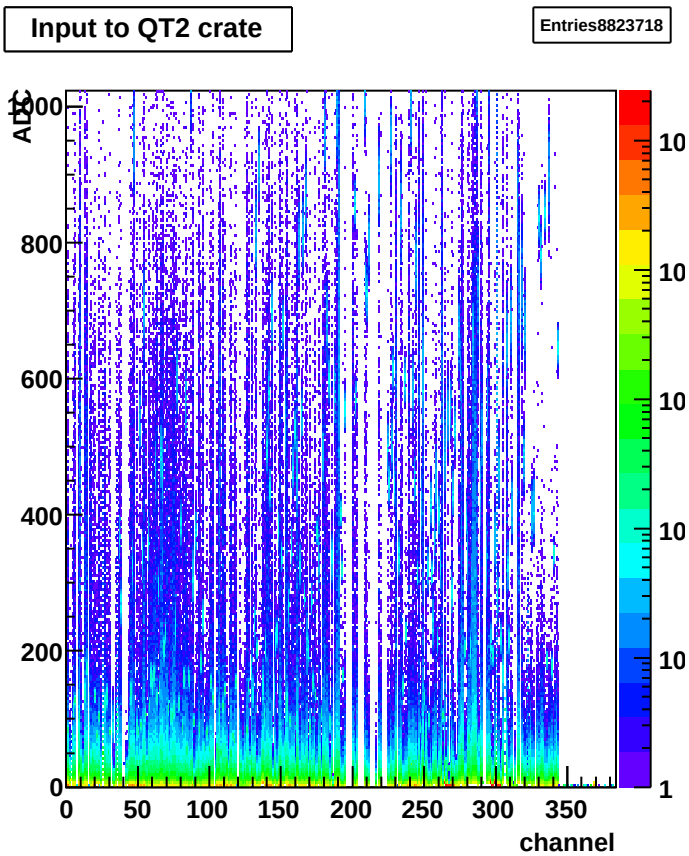

Entries 591024
BBC-L-East ADC Sum
BBC-L-West ADC Sum

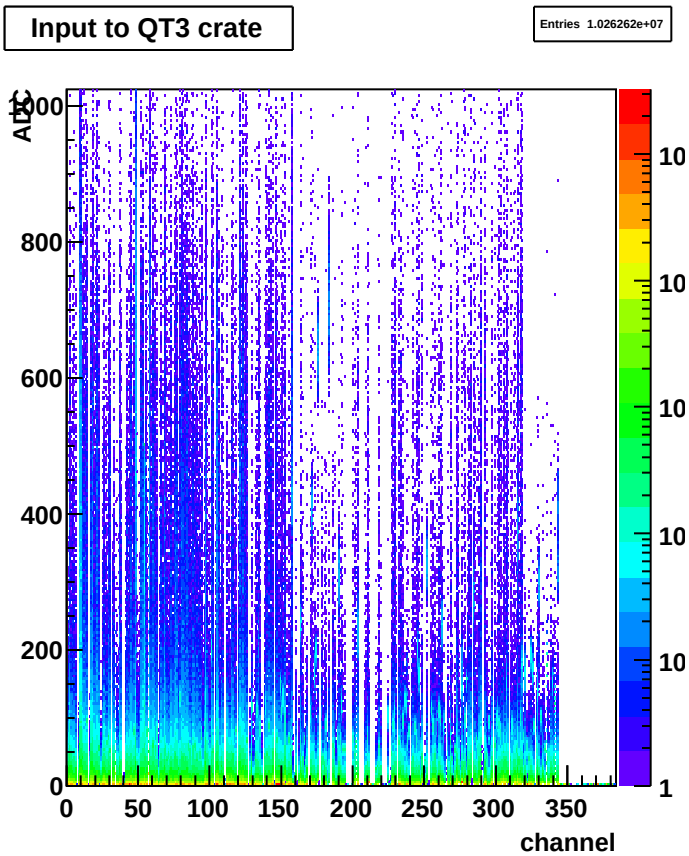

Entries 591024
BBC-S-East ADC Sum
BBC-S-West ADC Sum

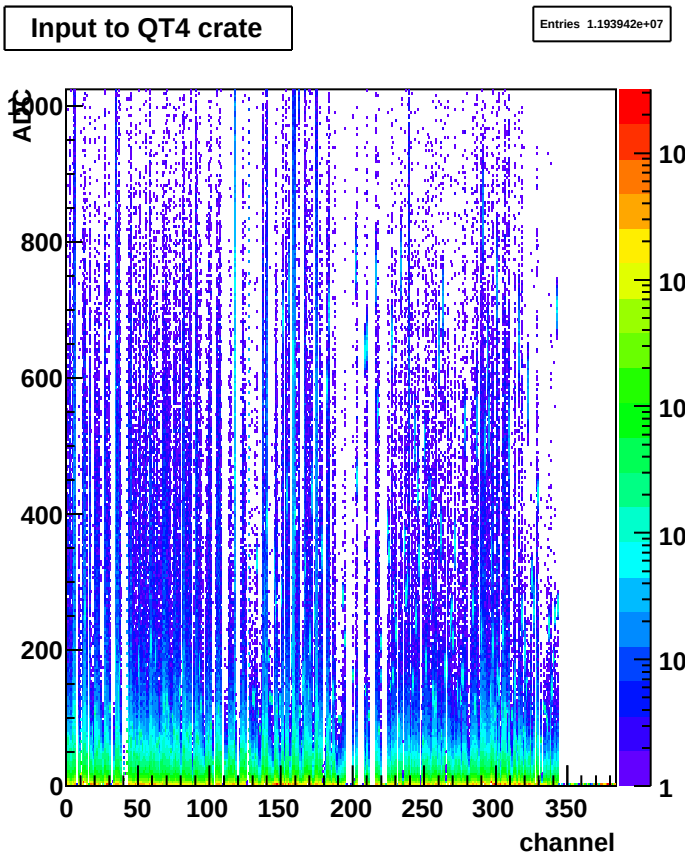

Entries 591024
ZDC East ADC Sum Att
ZDC West ADC Sum Att

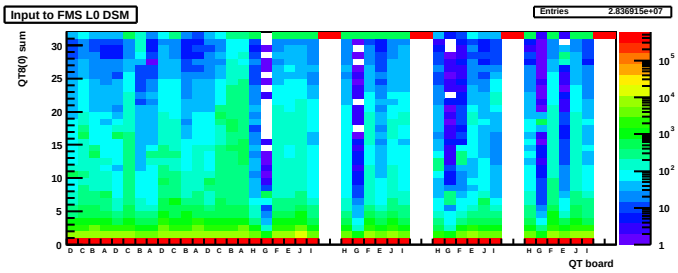

Entries 591024
BBC-L TAC Diff
BCC-S TAC Diff
Entries 591024
BBC-L TAC Diff
VPD TAC Diff
Entries 591024
BBC-L TAC Diff
ZDC TAC Diff
Entries 591024
BBC-S TAC Diff
VPD TAC Diff
Entries 591024
BBC-S TAC Diff
ZDC TAC Diff
Entries 591024
VPD TAC Diff
ZDC TAC Diff

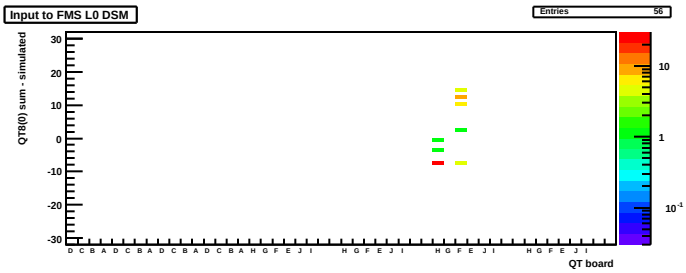

Input to QT1 crate
Entries 1.641715e+07
ADC
channel

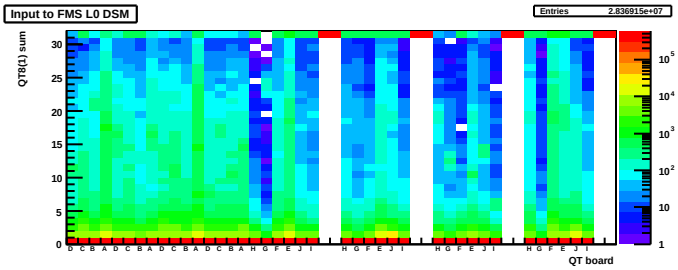

Input to QT2 crate
Entries8823718
ADC
channel

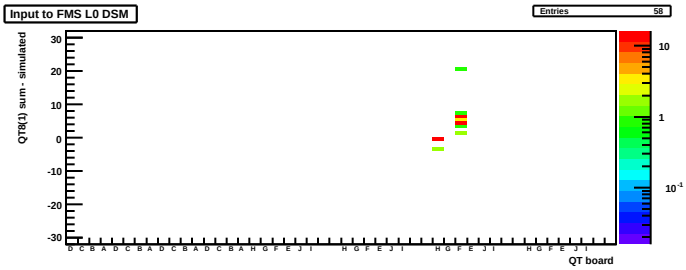

Input to QT3 crate
Entries 1.026262e+07
ADC
channel

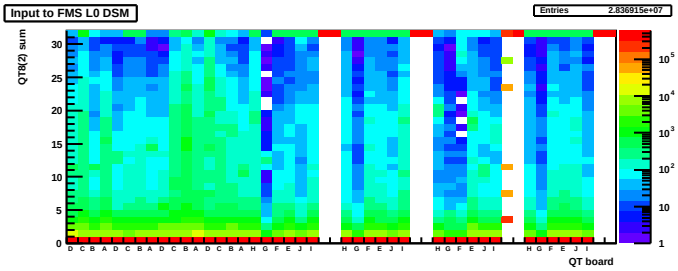

Input to QT4 crate
Entries 1.193942e+07
ADC
channel

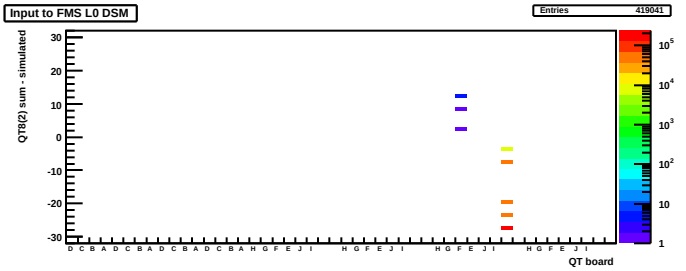

Input to FMS L0 DSM
Entries 2.836915e+07
QT8(0) sum
QT board

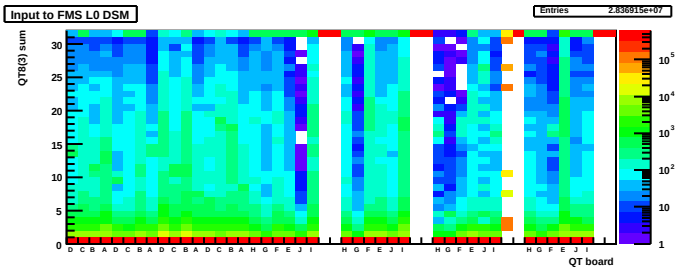

Input to FMS L0 DSM
Entries 56
QT8(0) sum - simulated
QT board

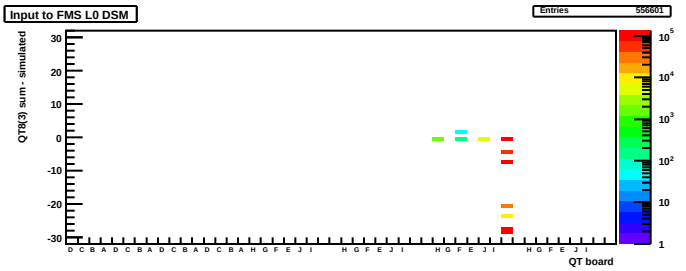

Input to FMS L0 DSM
Entries 2.836915e+07
QT8(1) sum
QT board

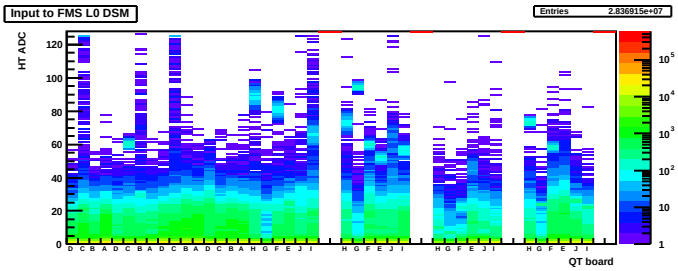

Input to FMS L0 DSM
Entries 58
QT8(1) sum - simulated
QT board

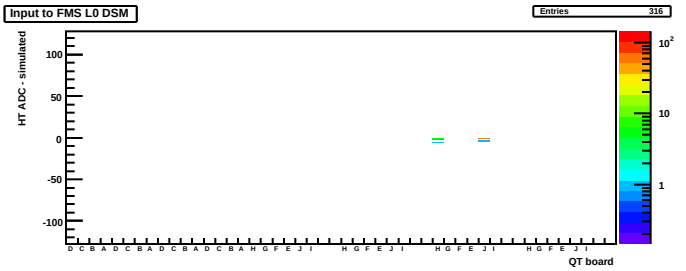

Input to FMS L0 DSM
Entries 2.836915e+07
QT8(2) sum
QT board

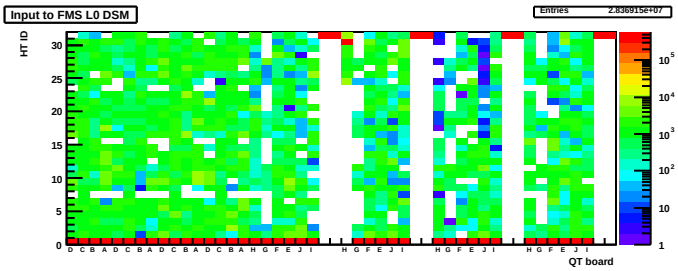

Input to FMS L0 DSM
Entries 419041
QT8(2) sum - simulated
QT board

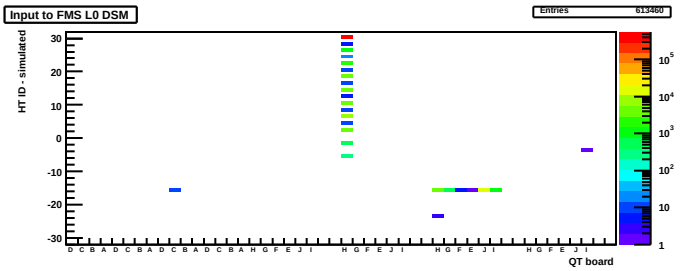

Input to FMS L0 DSM
Entries 2.836915e+07
QT8(3) sum
QT board

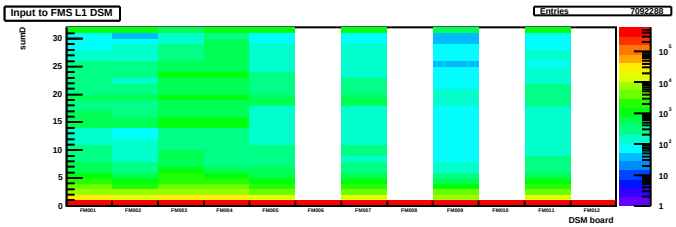

Input to FMS L0 DSM
Entries 556601
QT8(3) sum - simulated
QT board

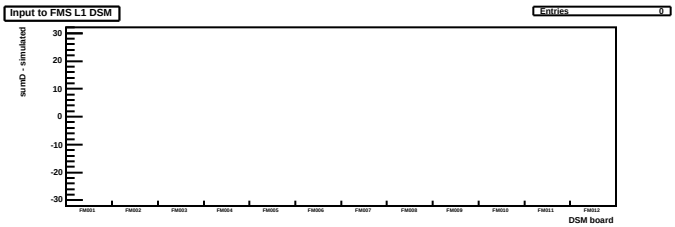

Input to FMS L0 DSM
Entries 2.836915e+07
HT ADC
QT board

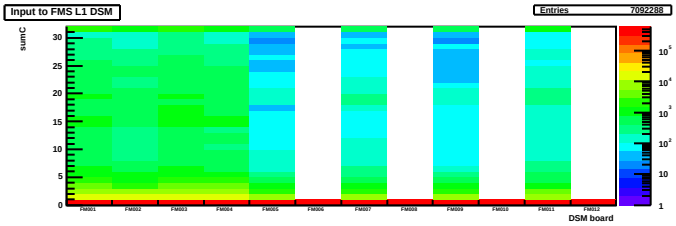

Input to FMS L0 DSM
Entries 316
HT ADC - simulated
QT board

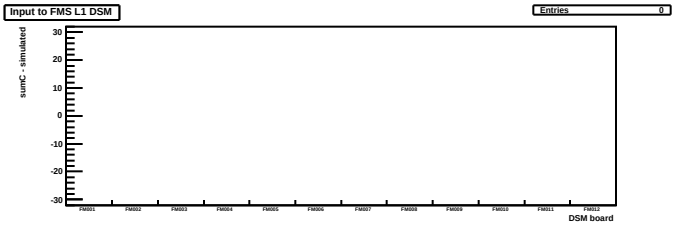

Input to FMS L0 DSM
Entries 2.836915e+07
HT ID
QT board

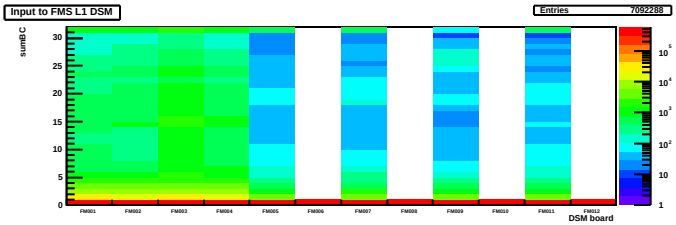

Input to FMS L0 DSM
Entries 613460
HT ID - simulated
QT board

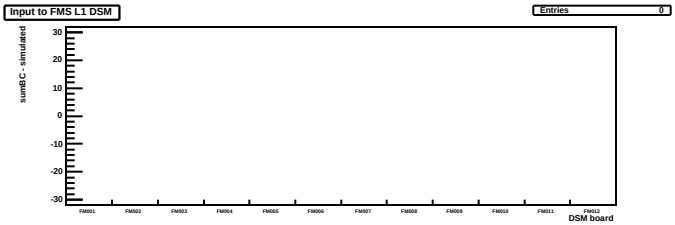

Input to FMS L1 DSM
Entries 7092288
sumD
DSM board

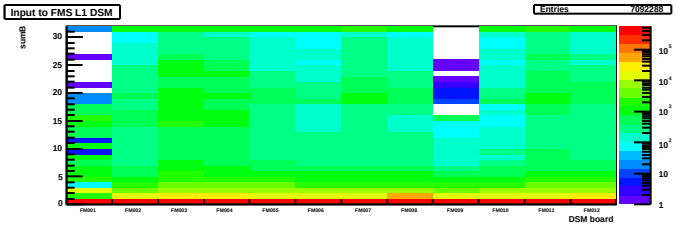

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

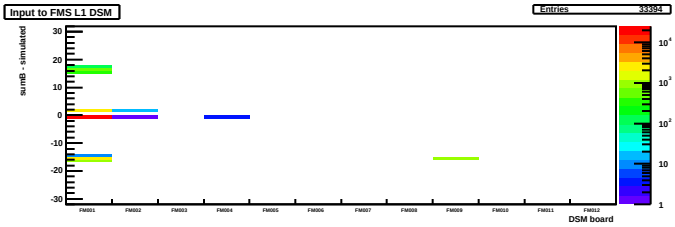

Input to FMS L1 DSM
Entries 7092288
sumC
DSM board

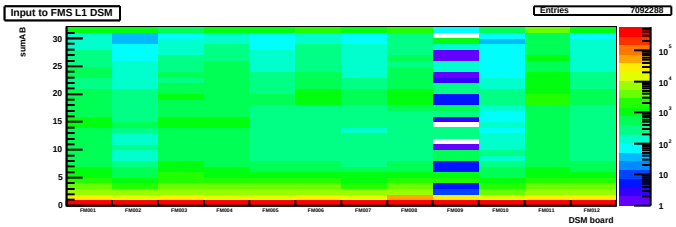

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

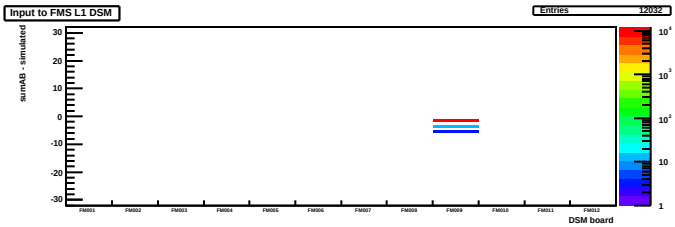

Input to FMS L1 DSM
Entries 7092288
sumBC
DSM board

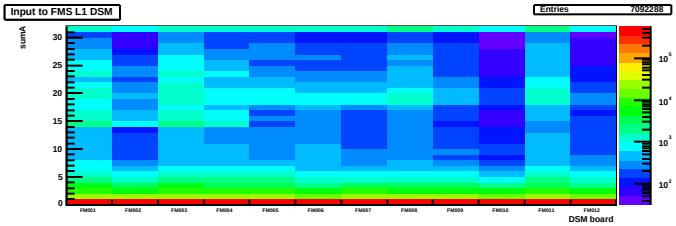

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

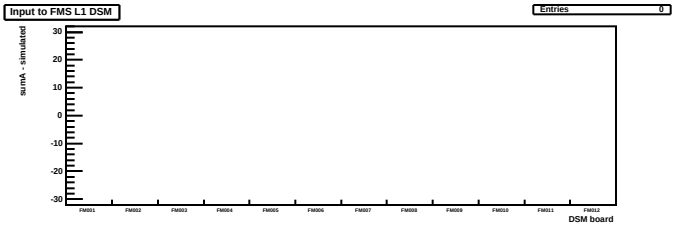

Input to FMS L1 DSM
Entries 7092288
sumB
DSM board

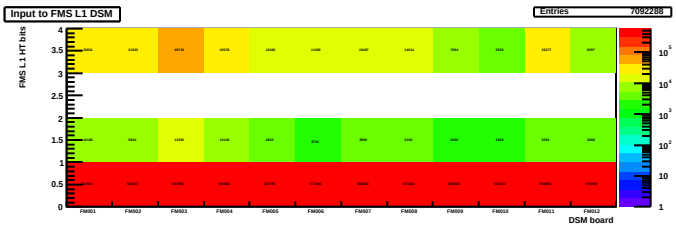

Input to FMS L1 DSM
Entries 33394
sumB - simulated
DSM board

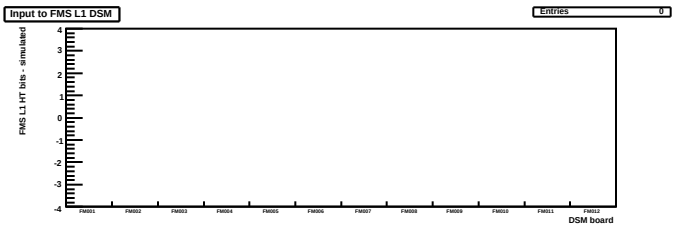

Input to FMS L1 DSM
Entries 7092288
sumAB
DSM board

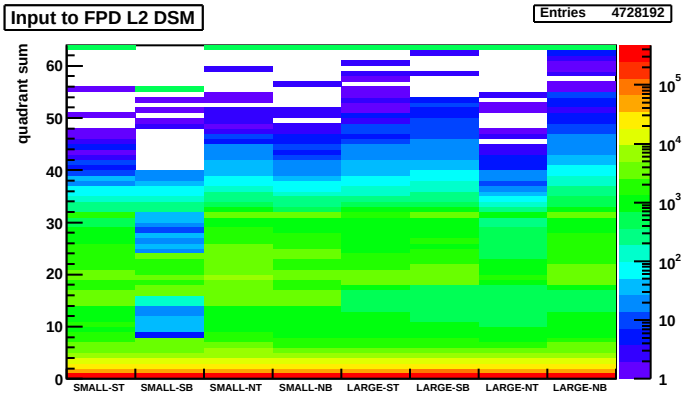

Input to FMS L1 DSM
Entries 12032
sumAB - simulated
DSM board

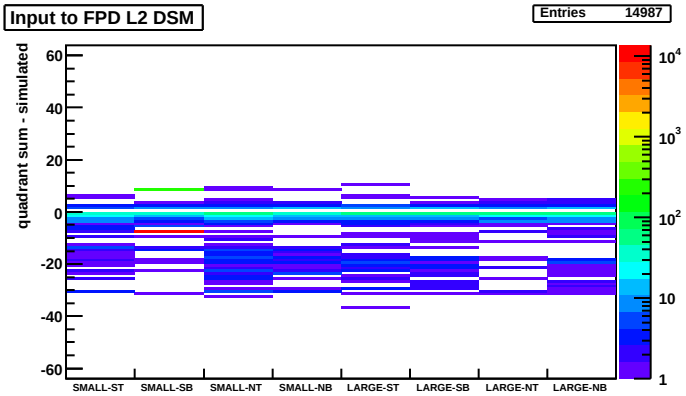

Input to FMS L1 DSM
Entries 7092288
sumA
DSM board

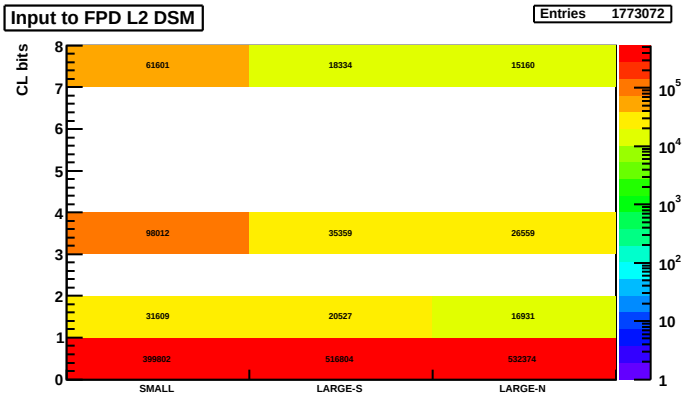

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

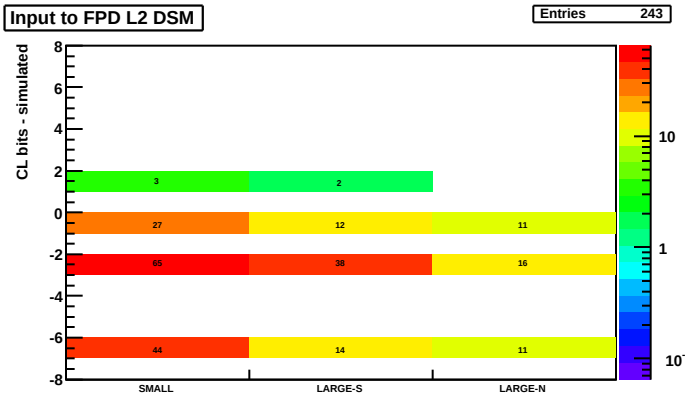

Input to FMS L1 DSM
Entries 7092288
FMS L1 HT bits
DSM board

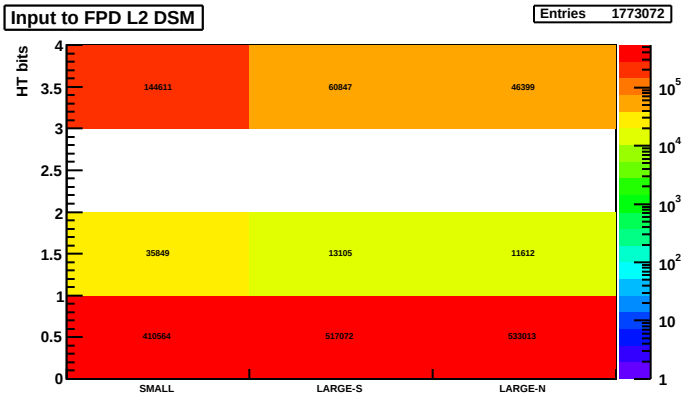

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

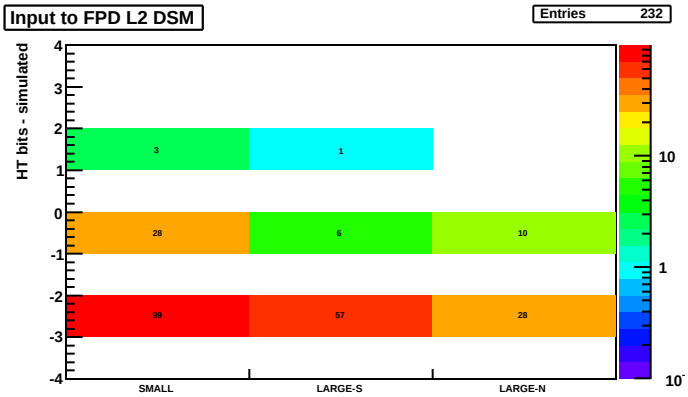

Input to FPD L2 DSM
Entries 4728192
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

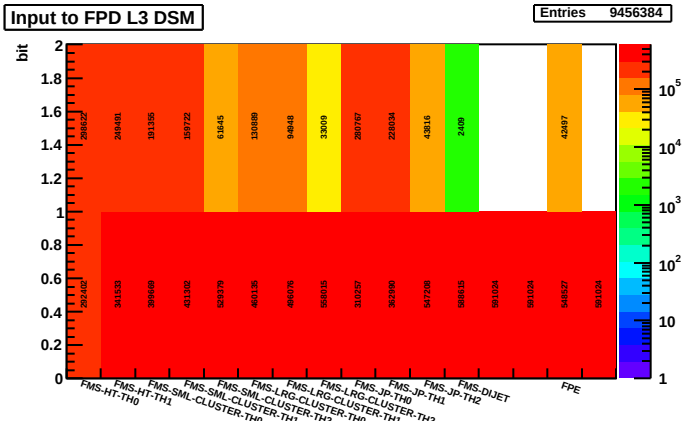

Input to FPD L2 DSM
Entries 14987
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

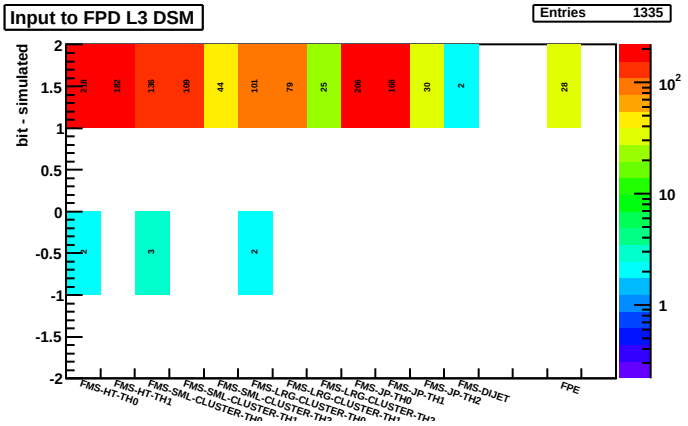

Input to FPD L2 DSM
Entries 1773072
CL bits
61601
18334
15160
98012
35359
26559
31609
20527
16931
399802
516804
532374
SMALL
LARGE-S
LARGE-N

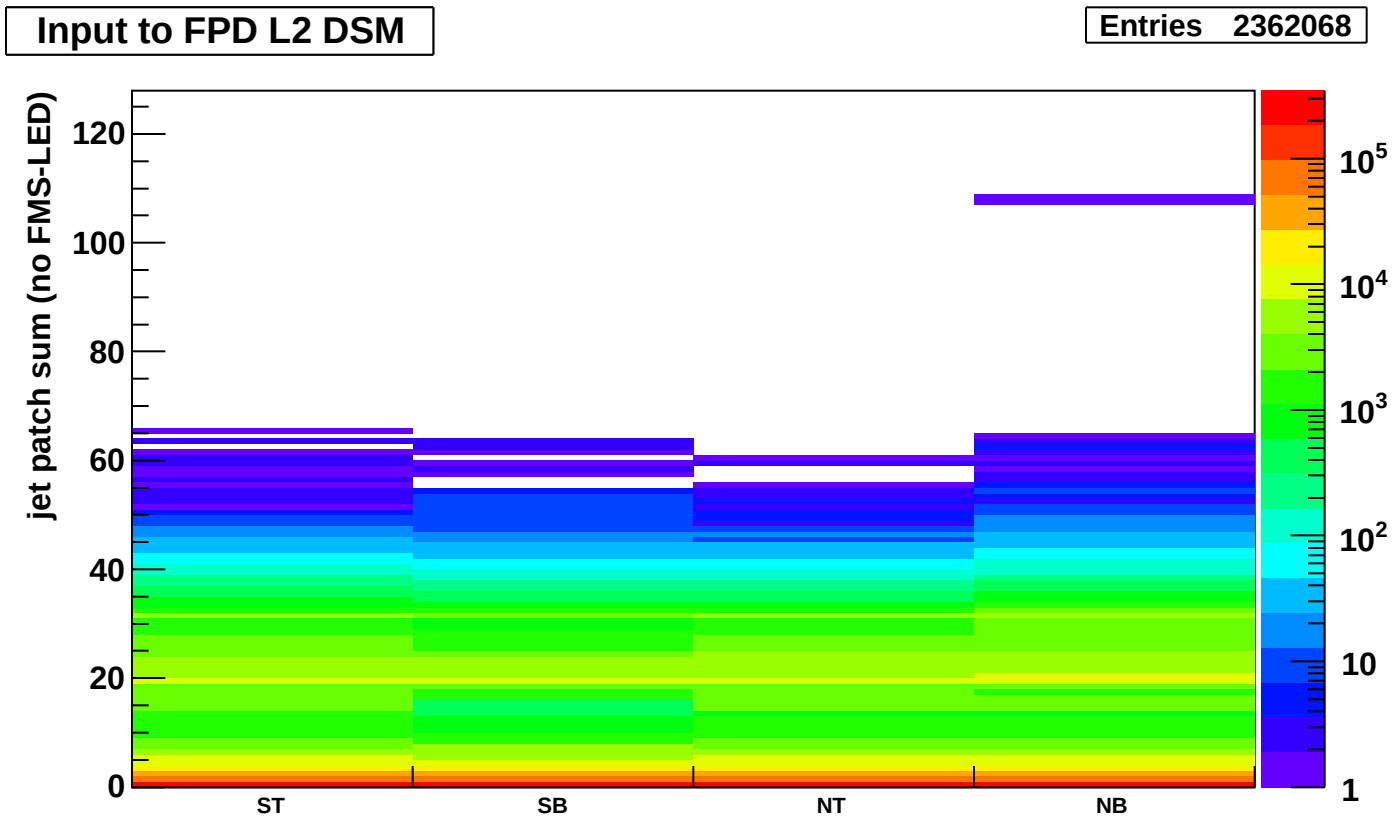

Input to FPD L2 DSM
Entries 243
CL bits - simulated
3
2
27
12
11
65
38
16
44
14
11
SMALL
LARGE-S
LARGE-N

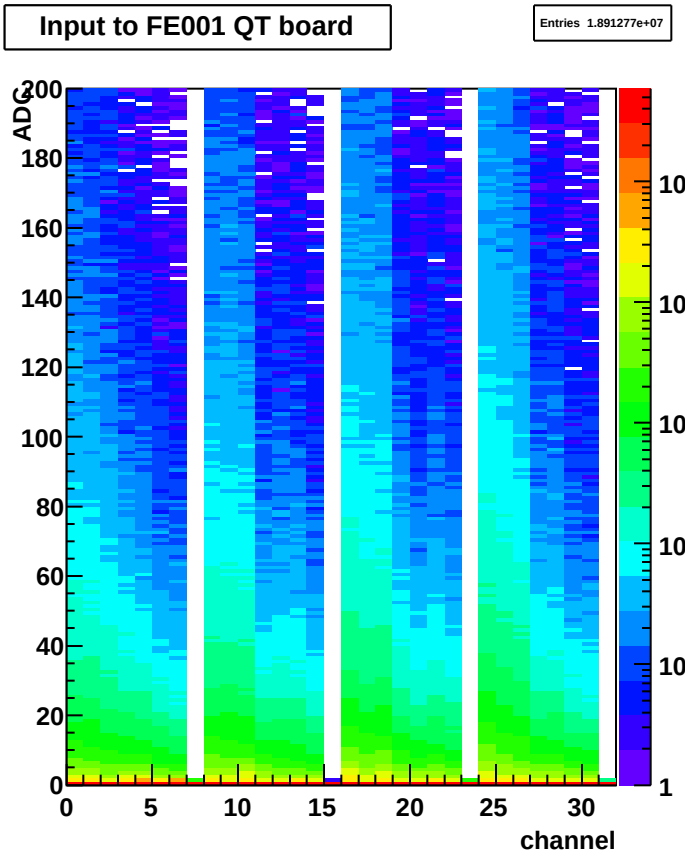

Input to FPD L2 DSM
Entries 1773072
HT bits
144611
60847
46399
35849
13105
11612
410564
517072
533013
SMALL
LARGE-S
LARGE-N

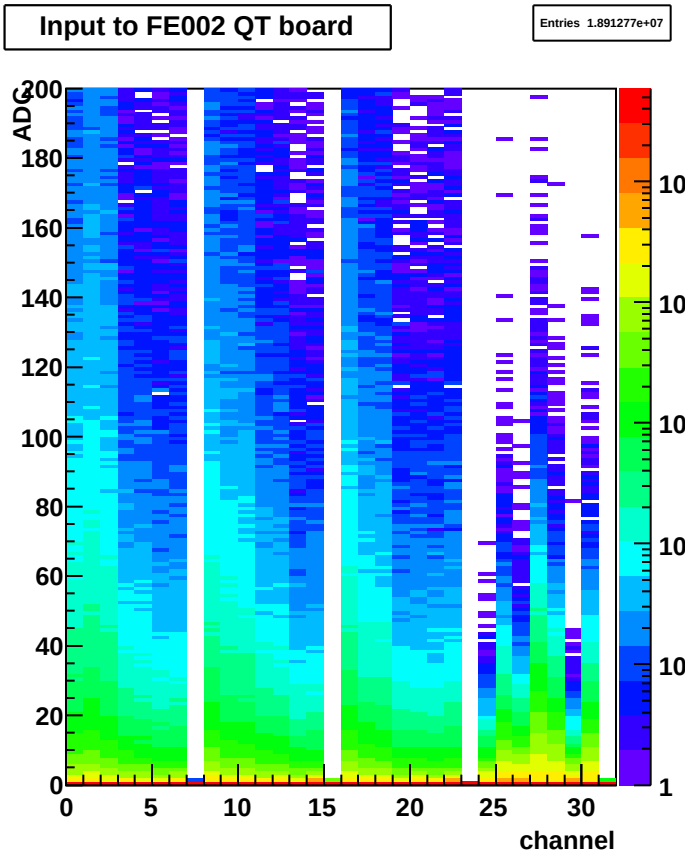

Input to FPD L2 DSM
Entries 232
HT bits - simulated
3
1
28
6
10
99
57
28
SMALL
LARGE-S
LARGE-N

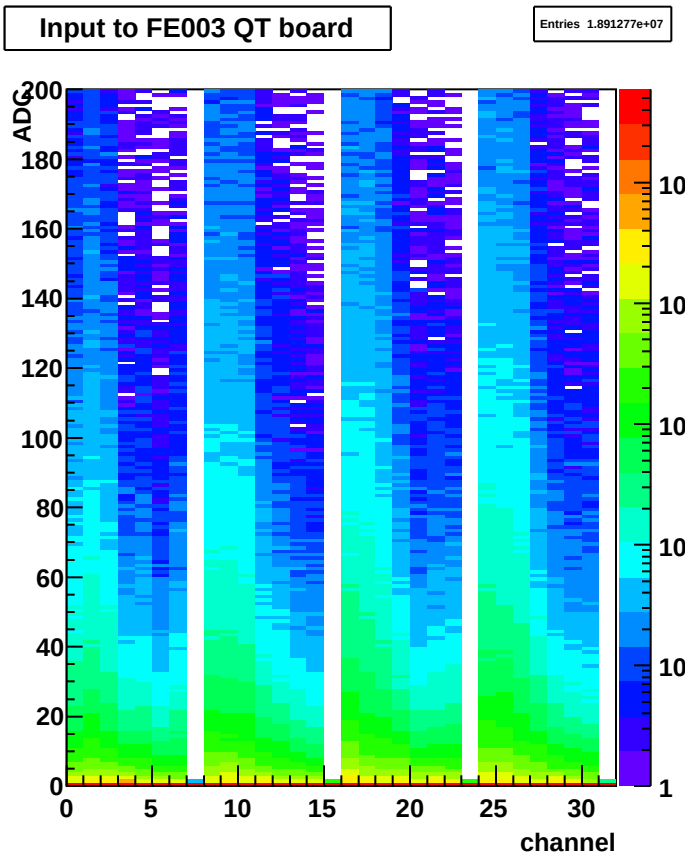

Input to FPD L3 DSM
Entries 9456384
bit
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

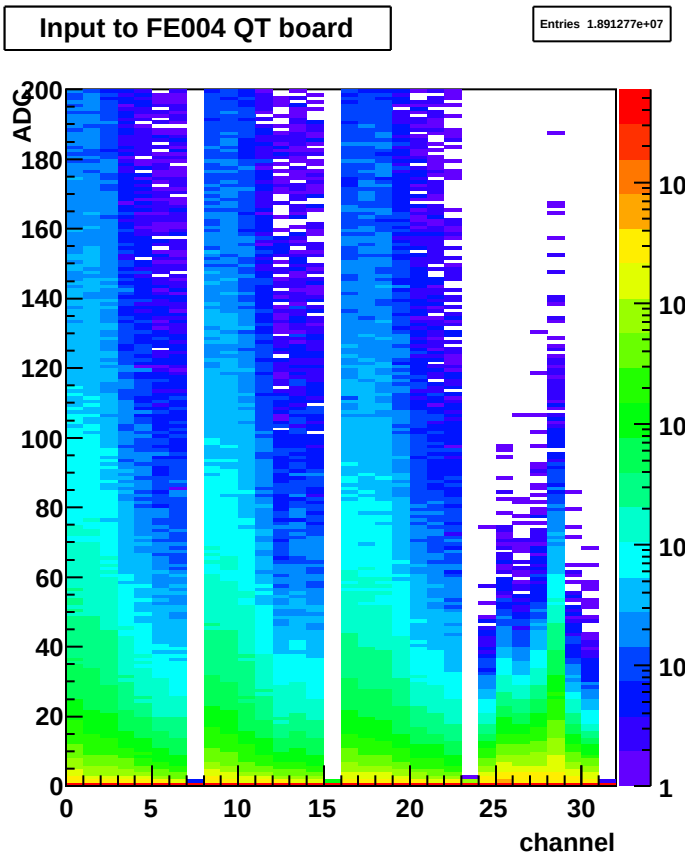

Input to FPD L3 DSM
Entries 1335
bit - simulated
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

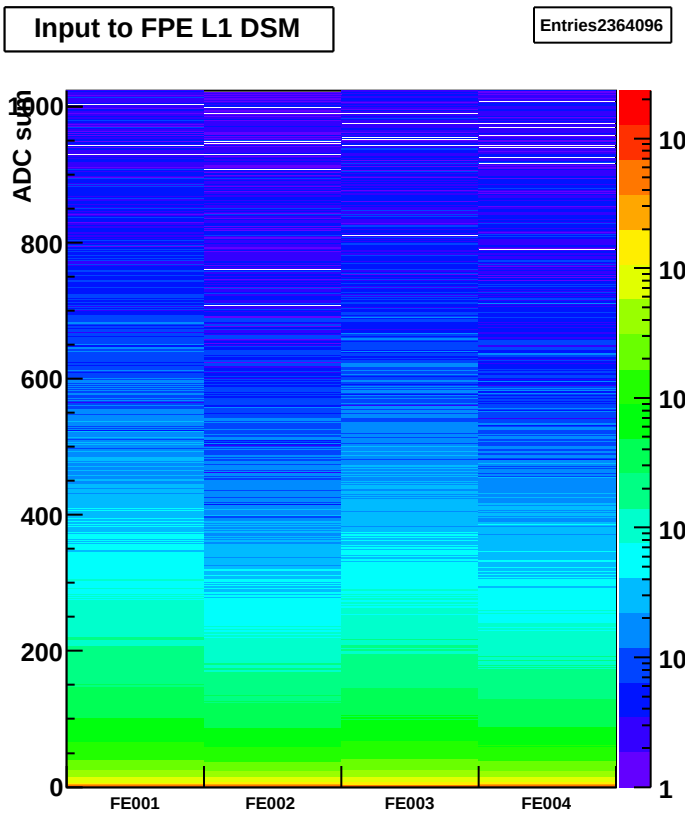

Input to FPD L2 DSM
Entries 2362068
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3
10^4
10^5

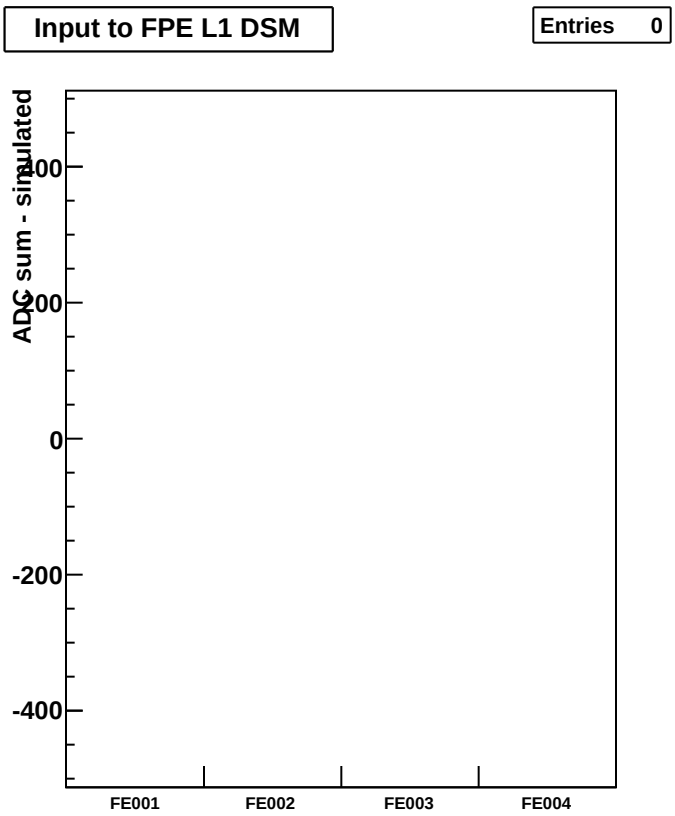

Input to FE001 QT board
Entries 1.891277e+07
ADC
channel

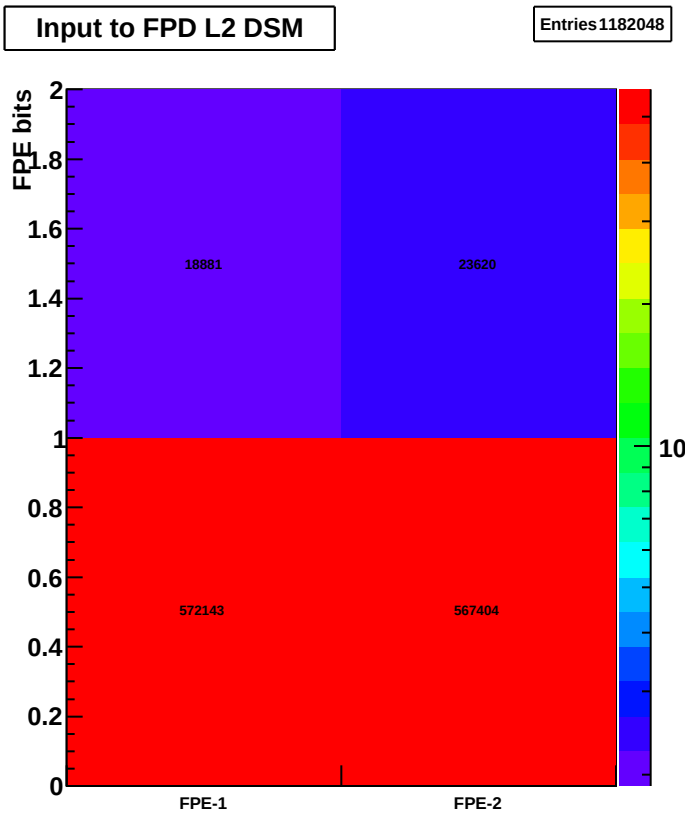

Input to FE002 QT board
Entries 1.891277e+07
ADC
channel

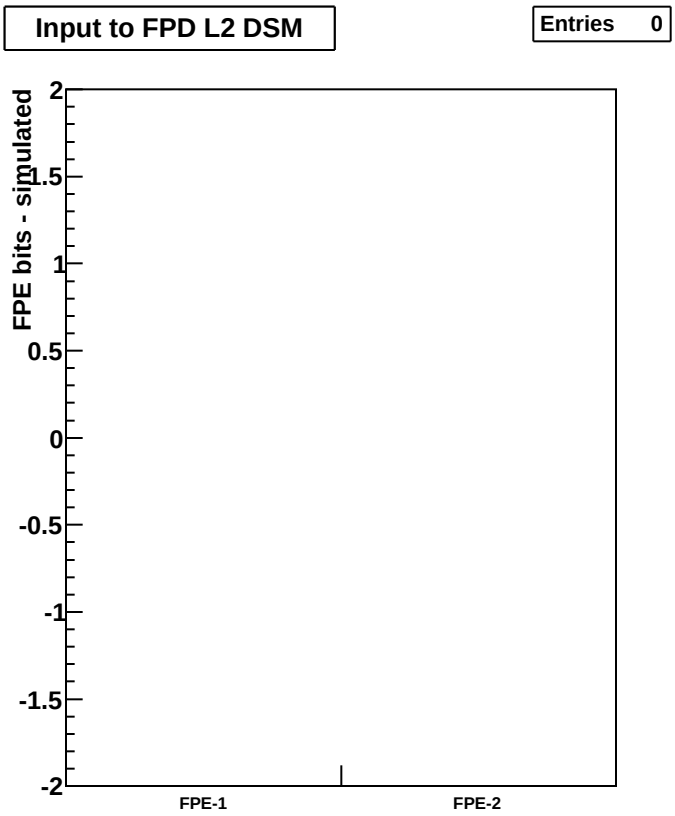

Input to FE003 QT board
Entries 1.891277e+07
ADC
channel


Input to FE004 QT board
Entries 1.891277e+07
ADC
channel


Input to FPE L1 DSM
Entries2364096
ADC sum
1000
800
600
400
200
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1


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


Input to FPD L2 DSM
Entries1182048
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
18881
23620
572143
567404
FPE-1
FPE-2
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