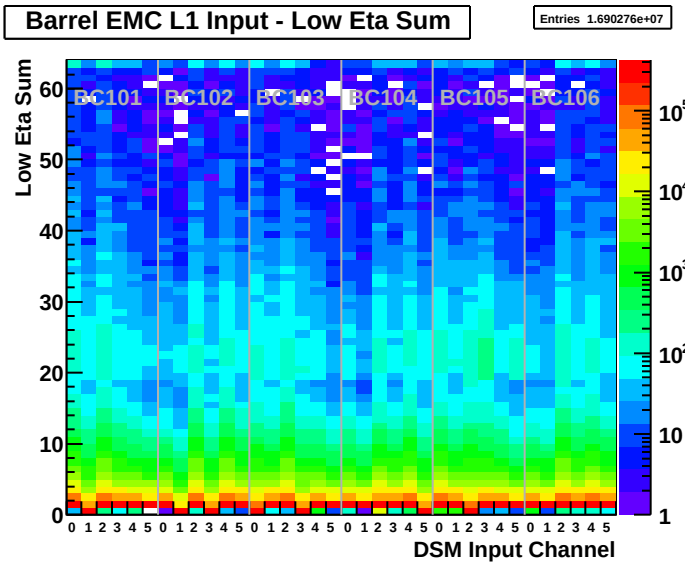
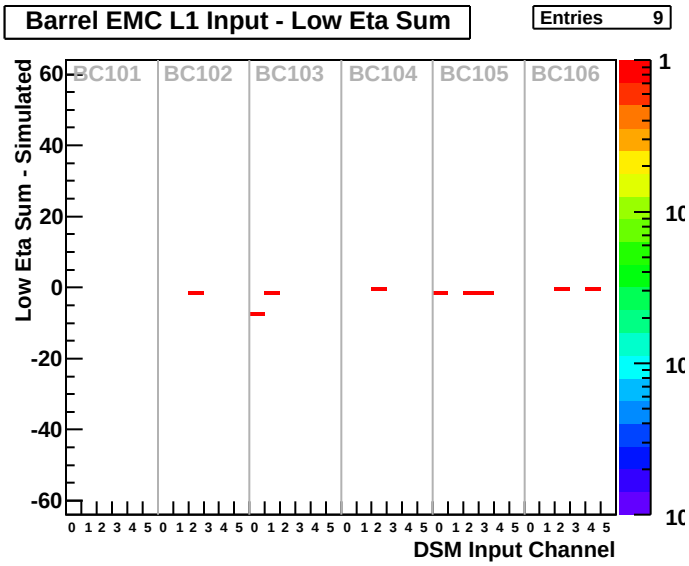
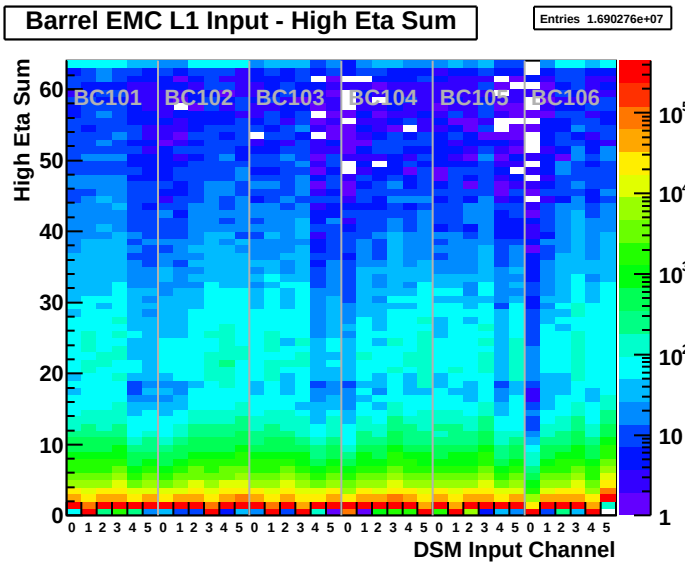
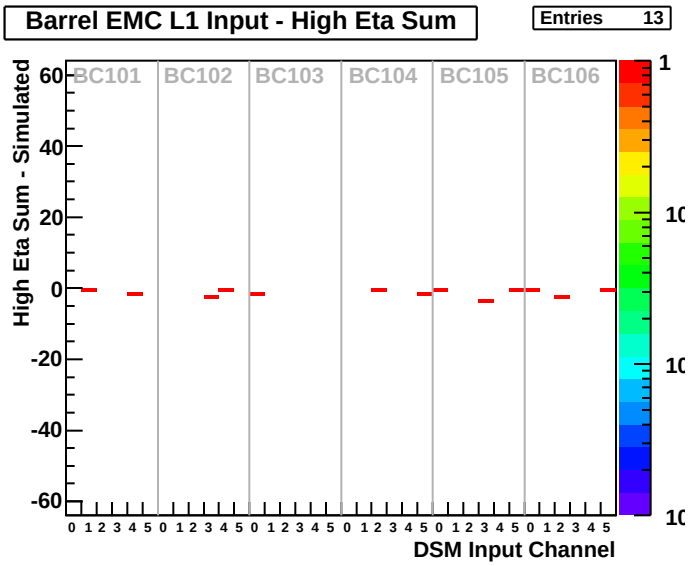
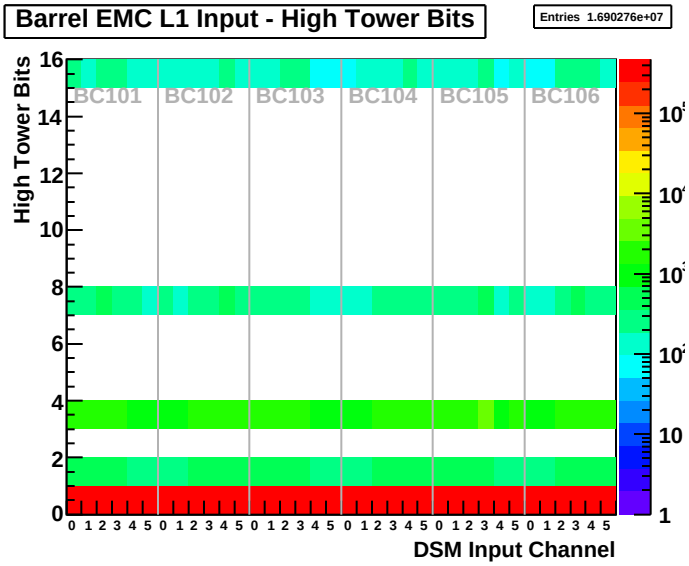
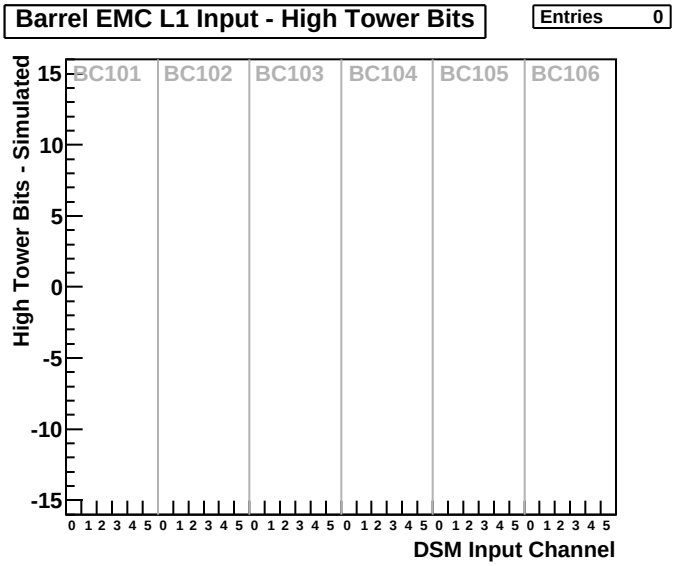

Barrel EMC L1 Input - Low Eta Sum
Entries 1.690276e+07
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

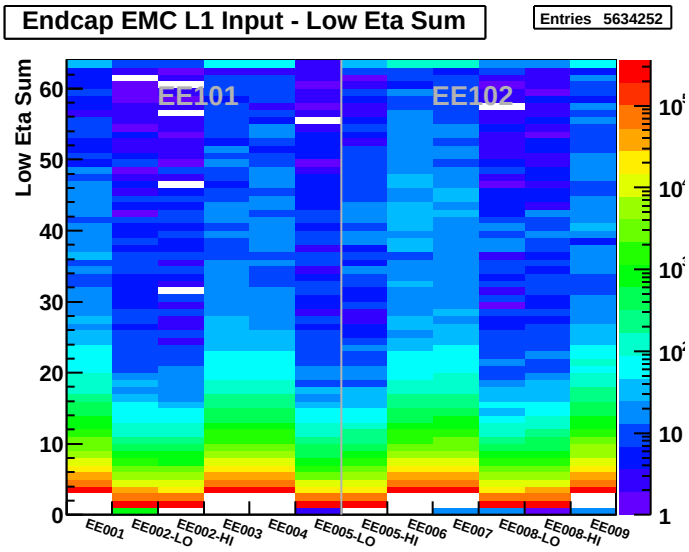

Barrel EMC L1 Input - Low Eta Sum
Entries 9
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

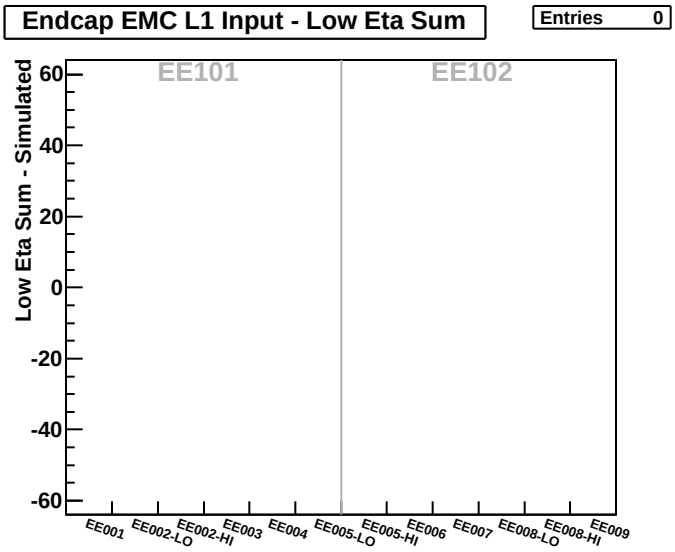

Barrel EMC L1 Input - High Eta Sum
Entries 1.690276e+07
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

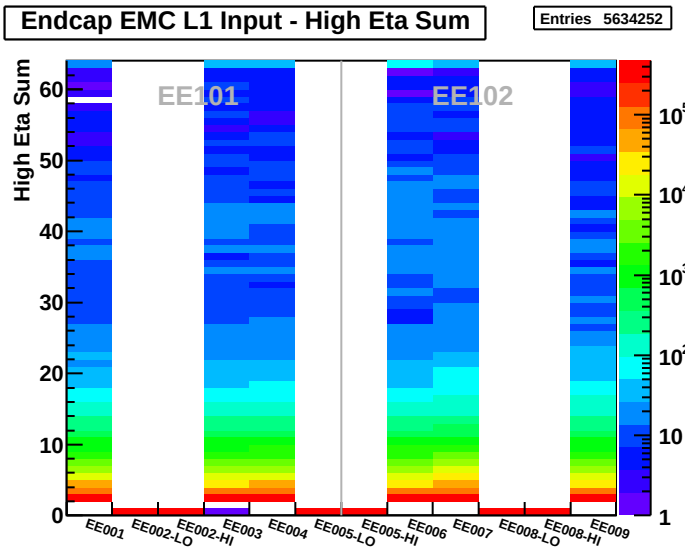

Barrel EMC L1 Input - High Eta Sum
Entries 13
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

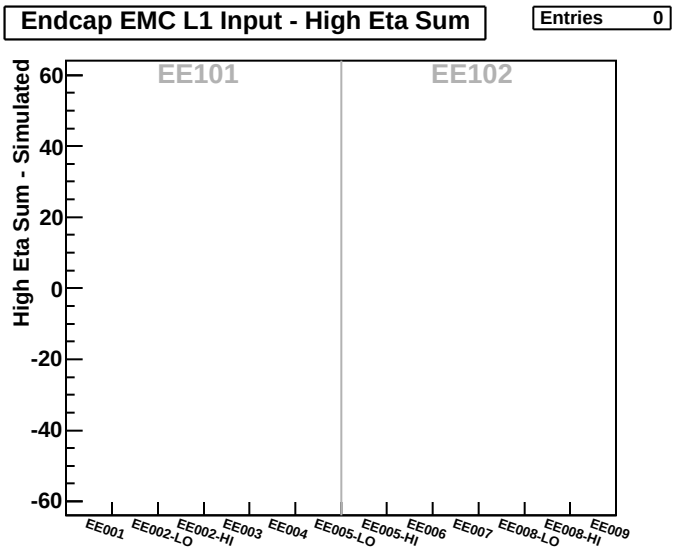

Barrel EMC L1 Input - High Tower Bits
Entries 1.690276e+07
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

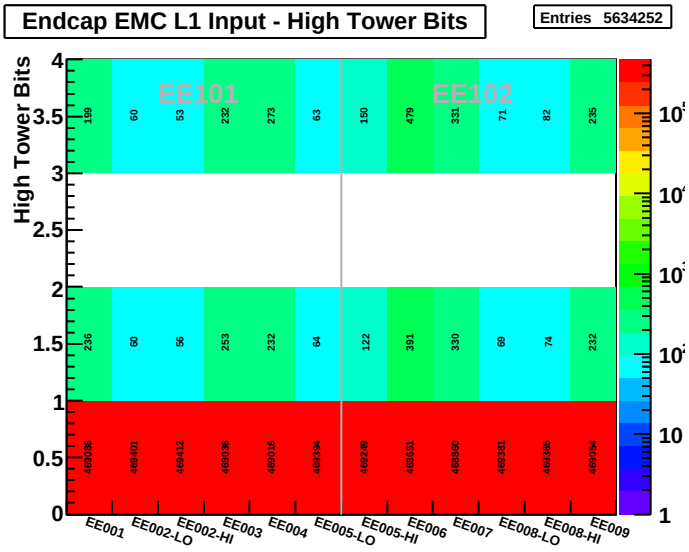

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

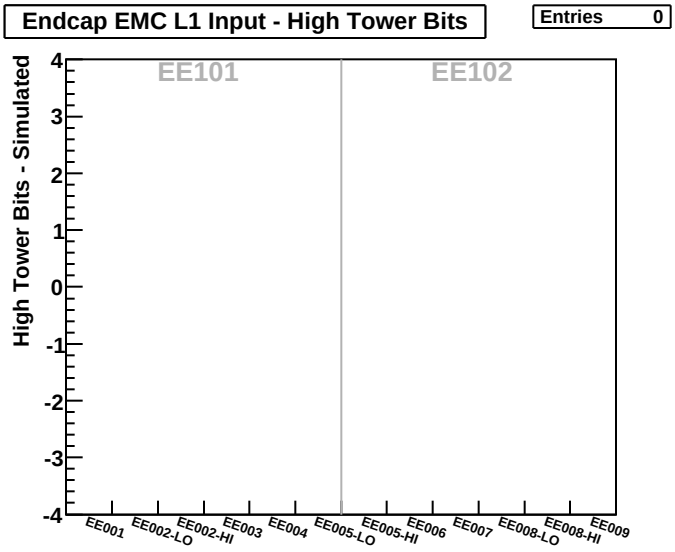

Endcap EMC L1 Input - Low Eta Sum
Entries 5634252
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

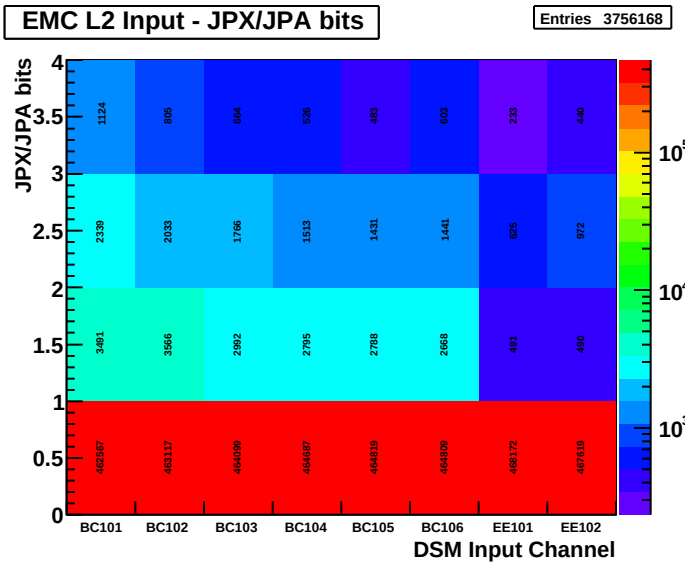

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

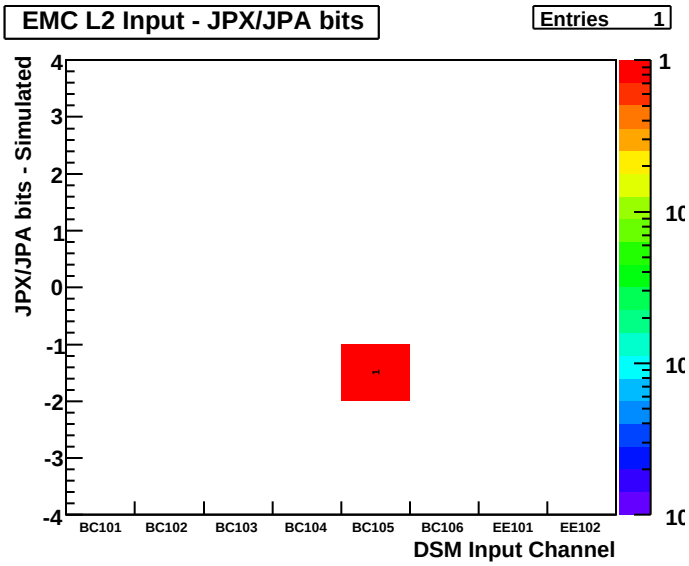

Endcap EMC L1 Input - High Eta Sum
Entries 5634252
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

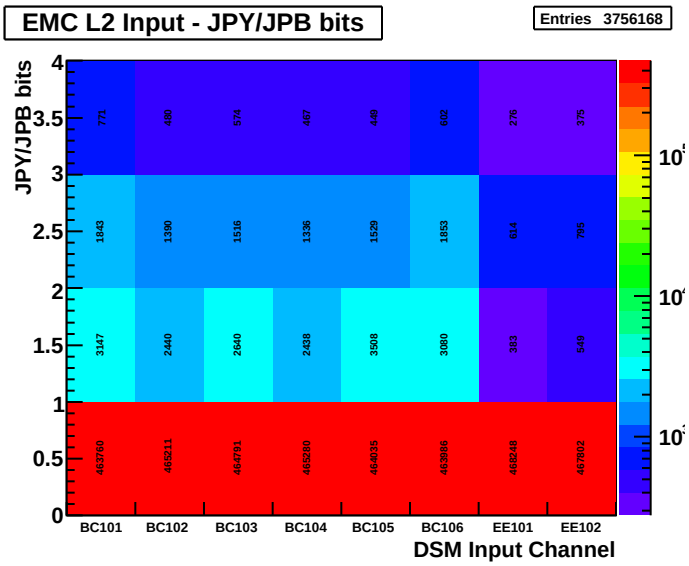

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

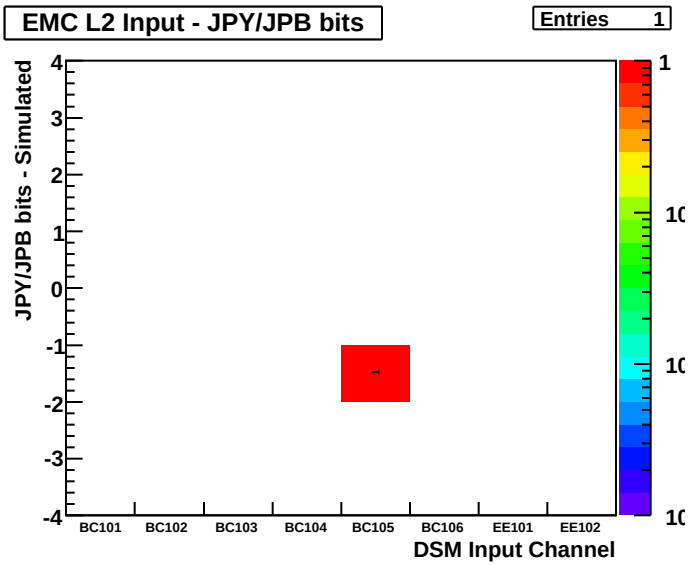

Endcap EMC L1 Input - High Tower Bits
Entries 5634252
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

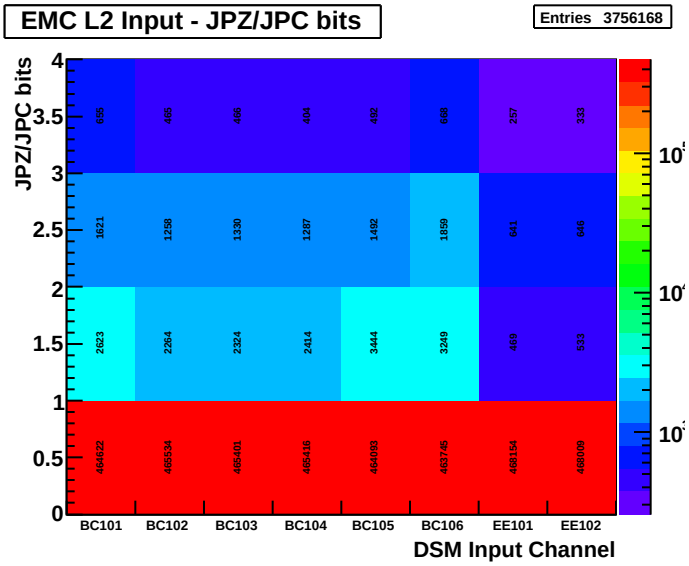

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

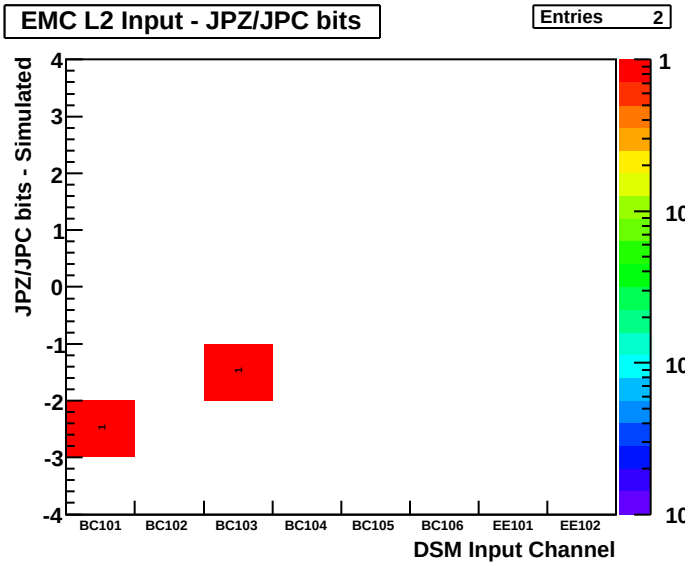

EMC L2 Input - JPX/JPA bits
Entries 3756168
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1124 805 664 526 483 603 233 440
2339 2033 1766 1513 1431 1441 625 972
3491 3566 2992 2795 2788 2668 491 490
462567 463117 464099 464687 464819 464809 468172 467619

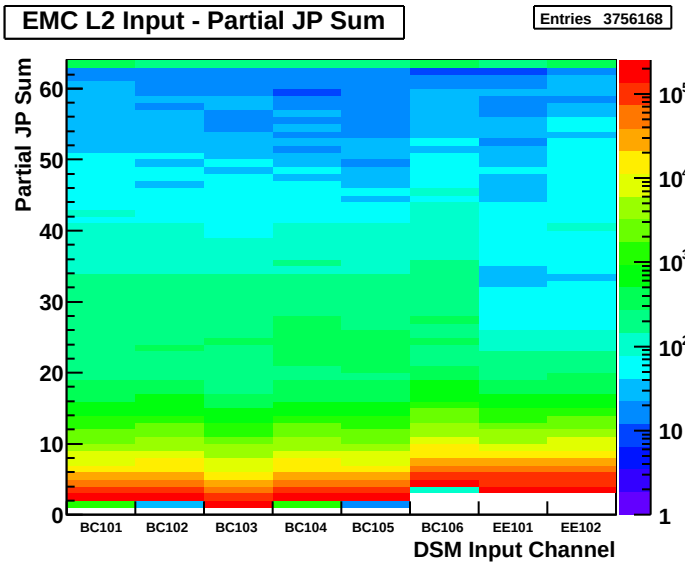

EMC L2 Input - JPX/JPA bits
Entries 1
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1

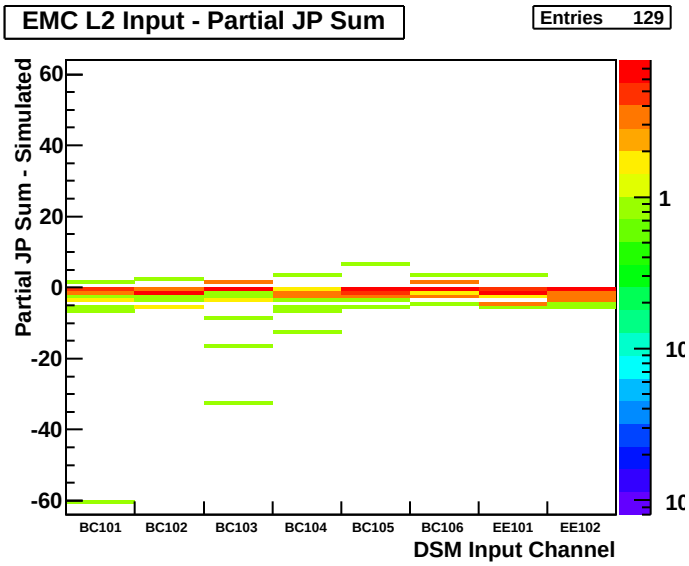

EMC L2 Input - JPY/JPB bits
Entries 3756168
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
771 480 574 467 449 602 276 375
1843 1390 1516 1336 1529 1853 614 795
3147 2440 2640 2438 3508 3080 383 549
463760 463211 464791 465280 464035 463986 468248 467802

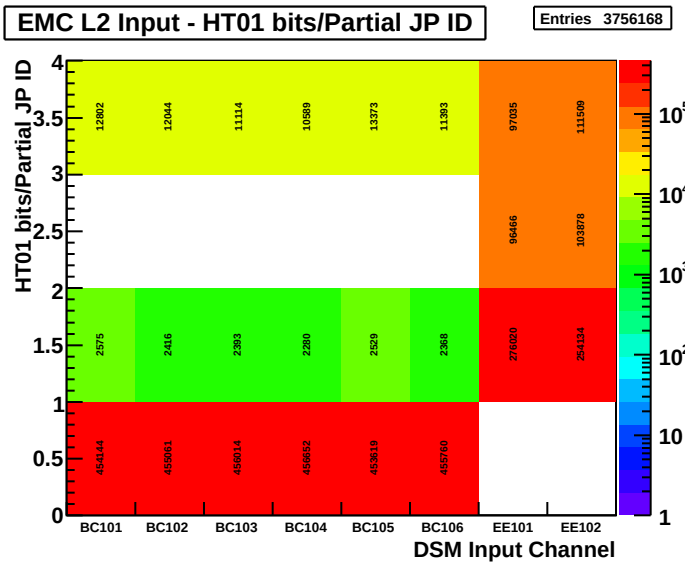

EMC L2 Input - JPY/JPB bits
Entries 1
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1

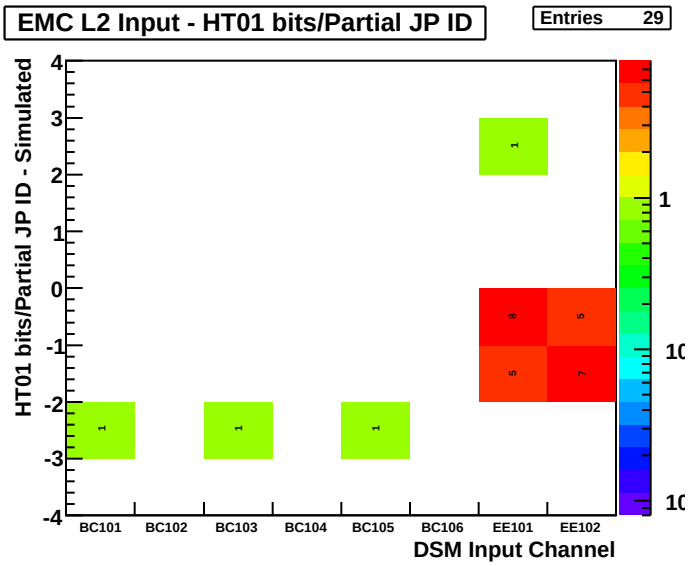

EMC L2 Input - JPZ/JPC bits
Entries 3756168
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
655 465 466 404 492 668 257 333
1621 1258 1330 1287 1492 1859 641 646
2623 2264 2324 2414 3444 3249 469 533
464622 465534 465401 465416 464093 463745 468154 468009

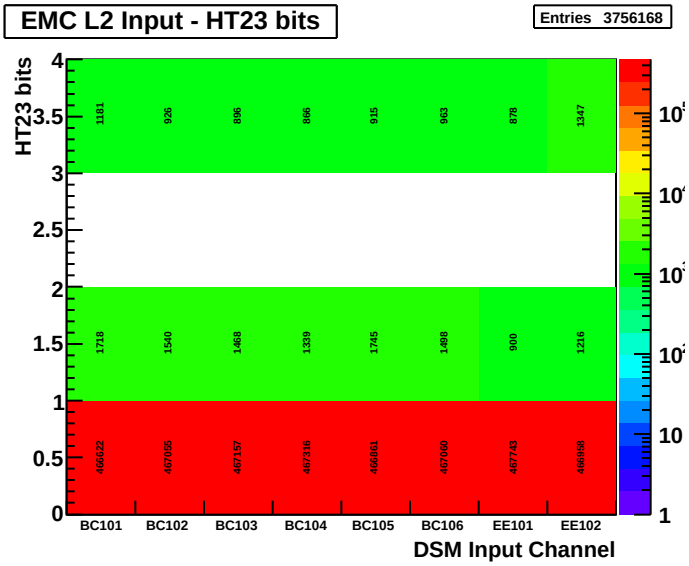

EMC L2 Input - JPZ/JPC bits
Entries 2
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1
1

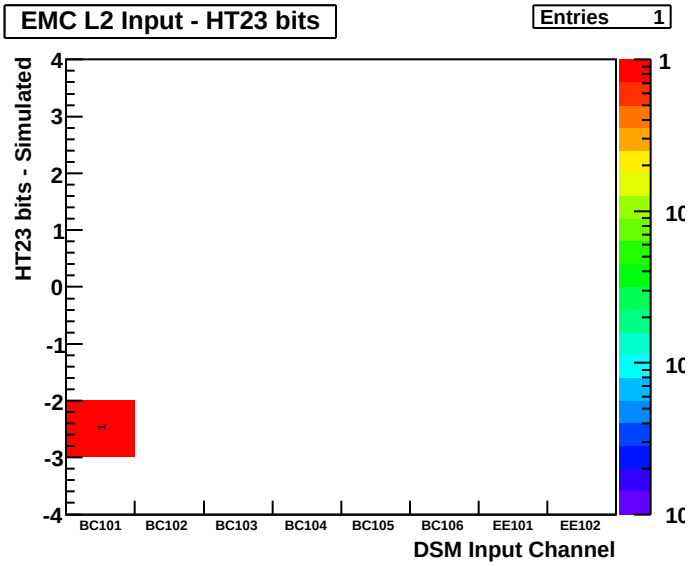

EMC L2 Input - Partial JP Sum
Entries 3756168
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

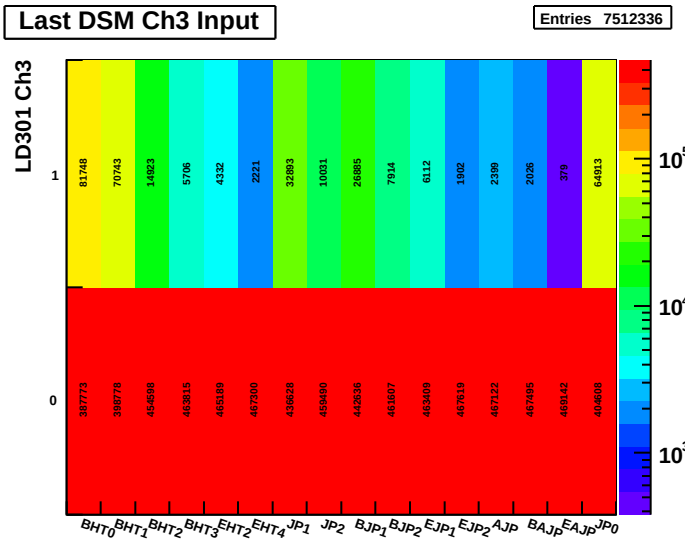

EMC L2 Input - Partial JP Sum
Entries 129
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

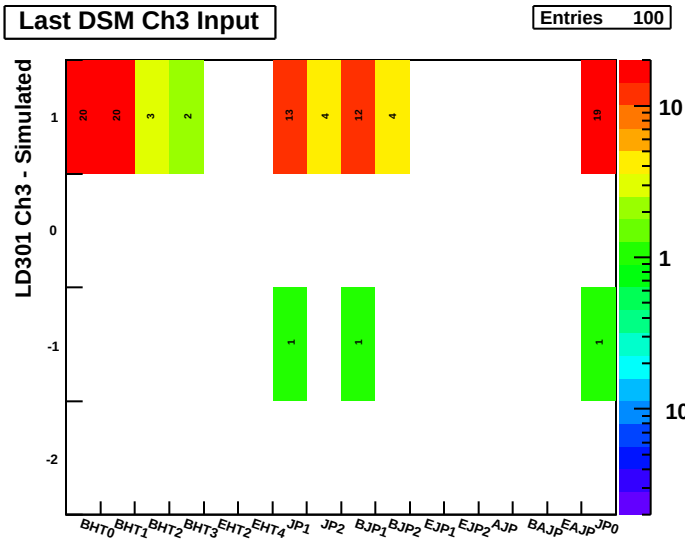

EMC L2 Input - HT01 bits/Partial JP ID
Entries 3756168
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

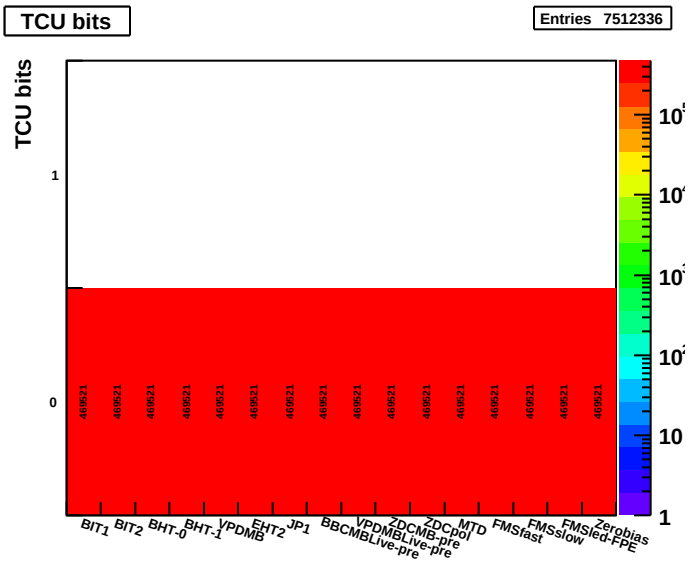

EMC L2 Input - HT01 bits/Partial JP ID
Entries 29
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

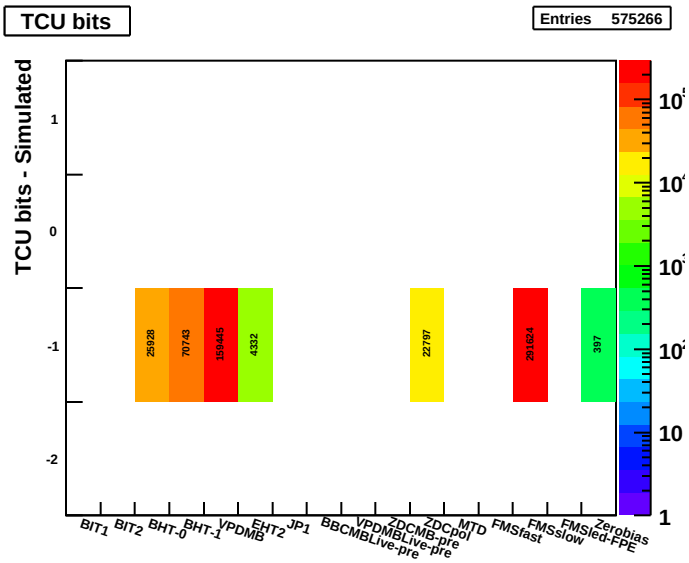

EMC L2 Input - HT23 bits
Entries 3756168
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

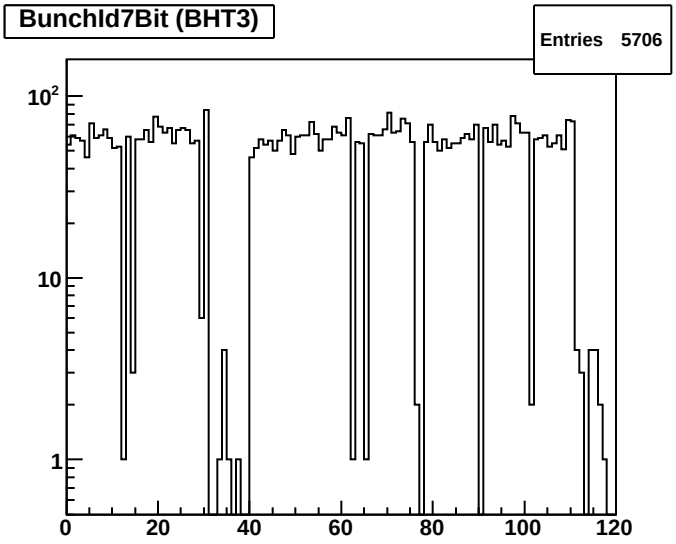

EMC L2 Input - HT23 bits
Entries 1
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

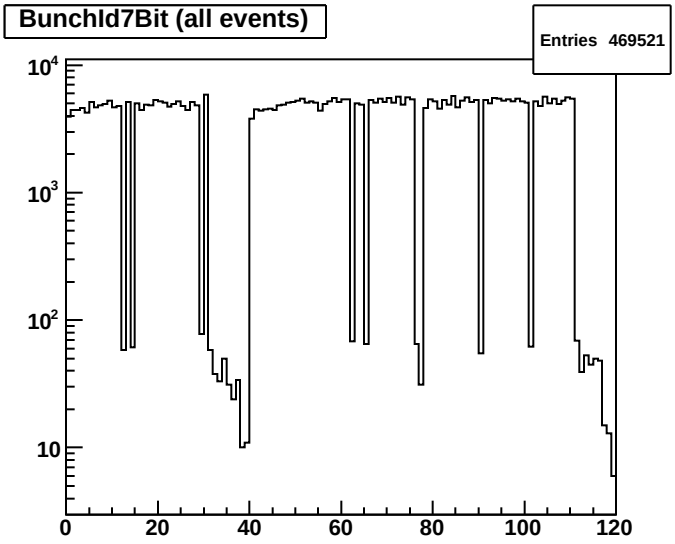

Last DSM Ch3 Input
Entries 7512336
LD301 Ch3
1
0
81748 70743 14923 5706 4332 2221 32893 10031 26885 7914 6112 1902 2399 2026 379 64913
387773 398778 454598 463815 465189 467300 436628 458490 442636 461607 463409 467619 467122 467495 469142 404608
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

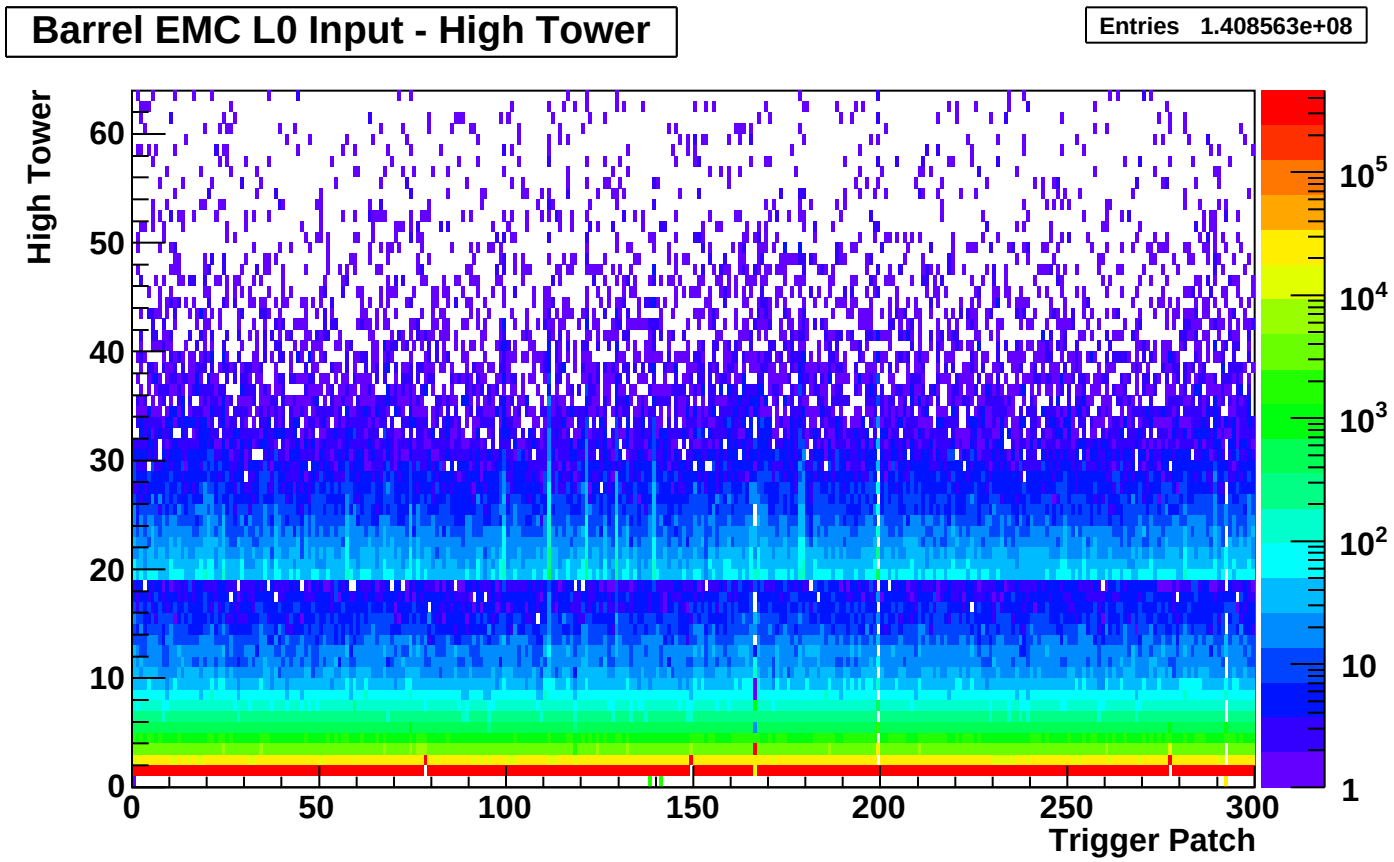

Last DSM Ch3 Input
Entries 100
LD301 Ch3 - Simulated
1
0
-1
-2
20 20 3 2 13 4 12 4 19
1 1 1
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

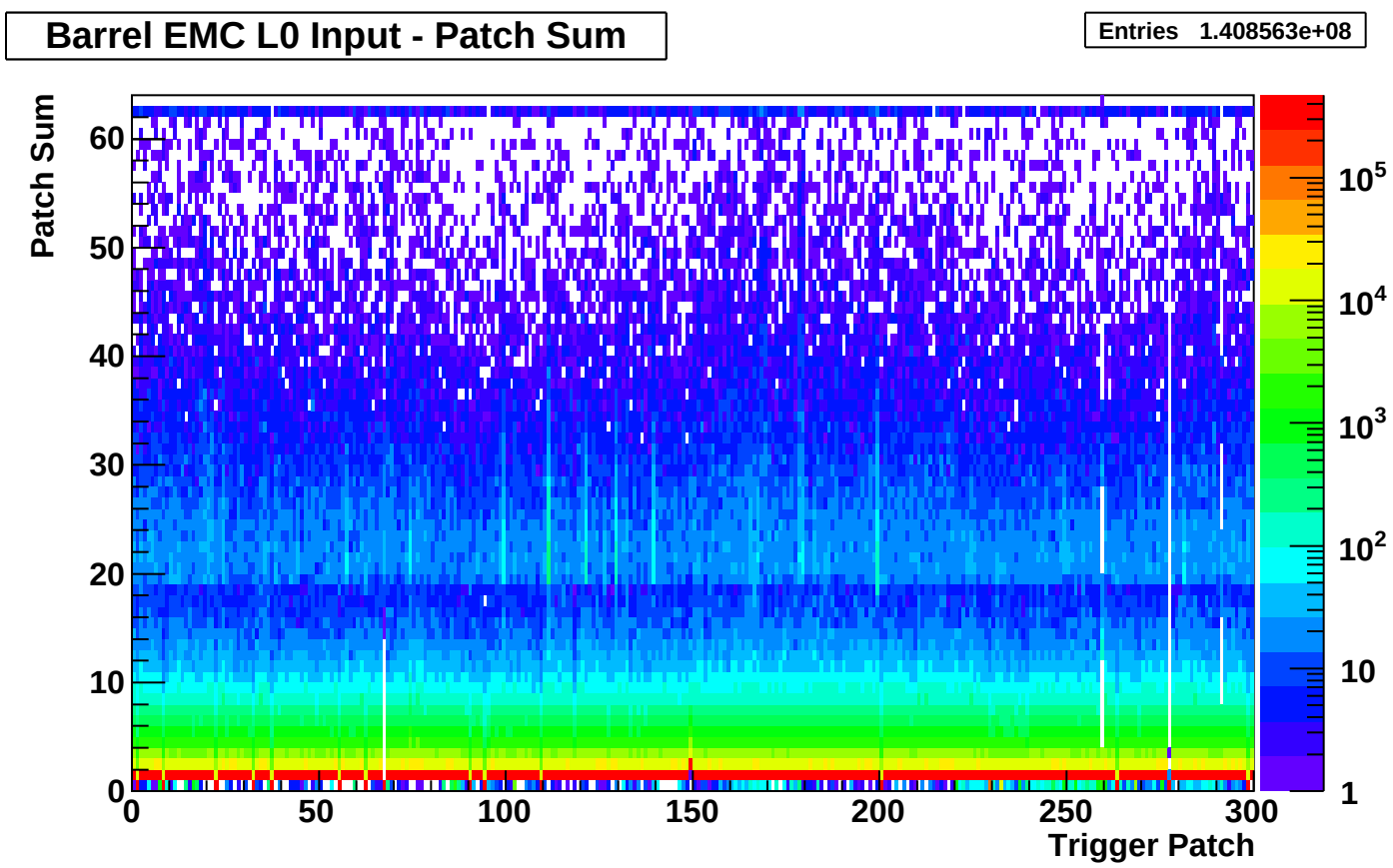

TCU bits
Entries 7512336
TCU bits
1
0
469521 469521 469521 469521 469521 469521 469521 469521 469521 469521 469521 469521 469521 469521 469521
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

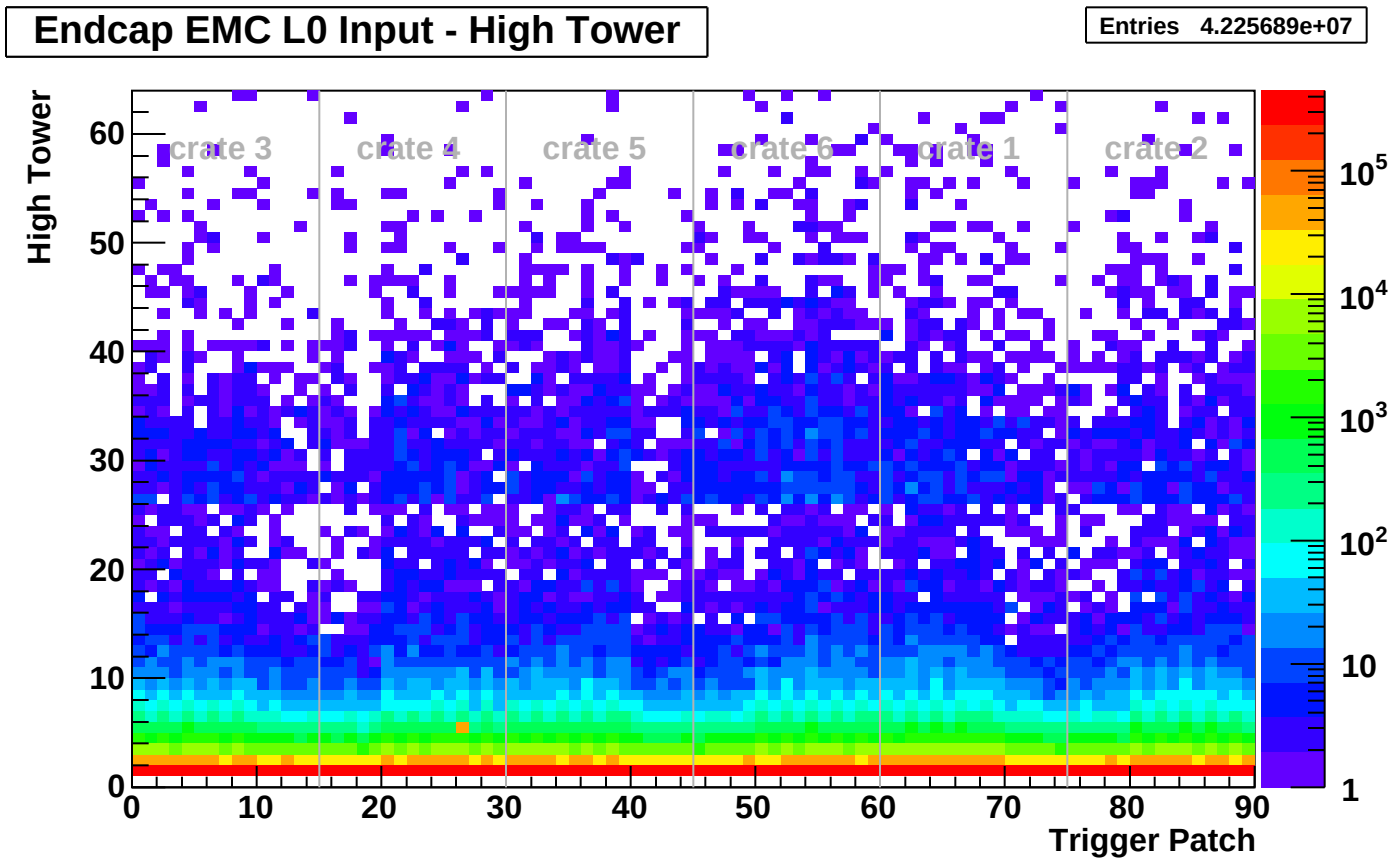

TCU bits
Entries 575266
TCU bits - Simulated
1
0
-1
-2
25928 70743 150445 4332 22797 291624 397
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

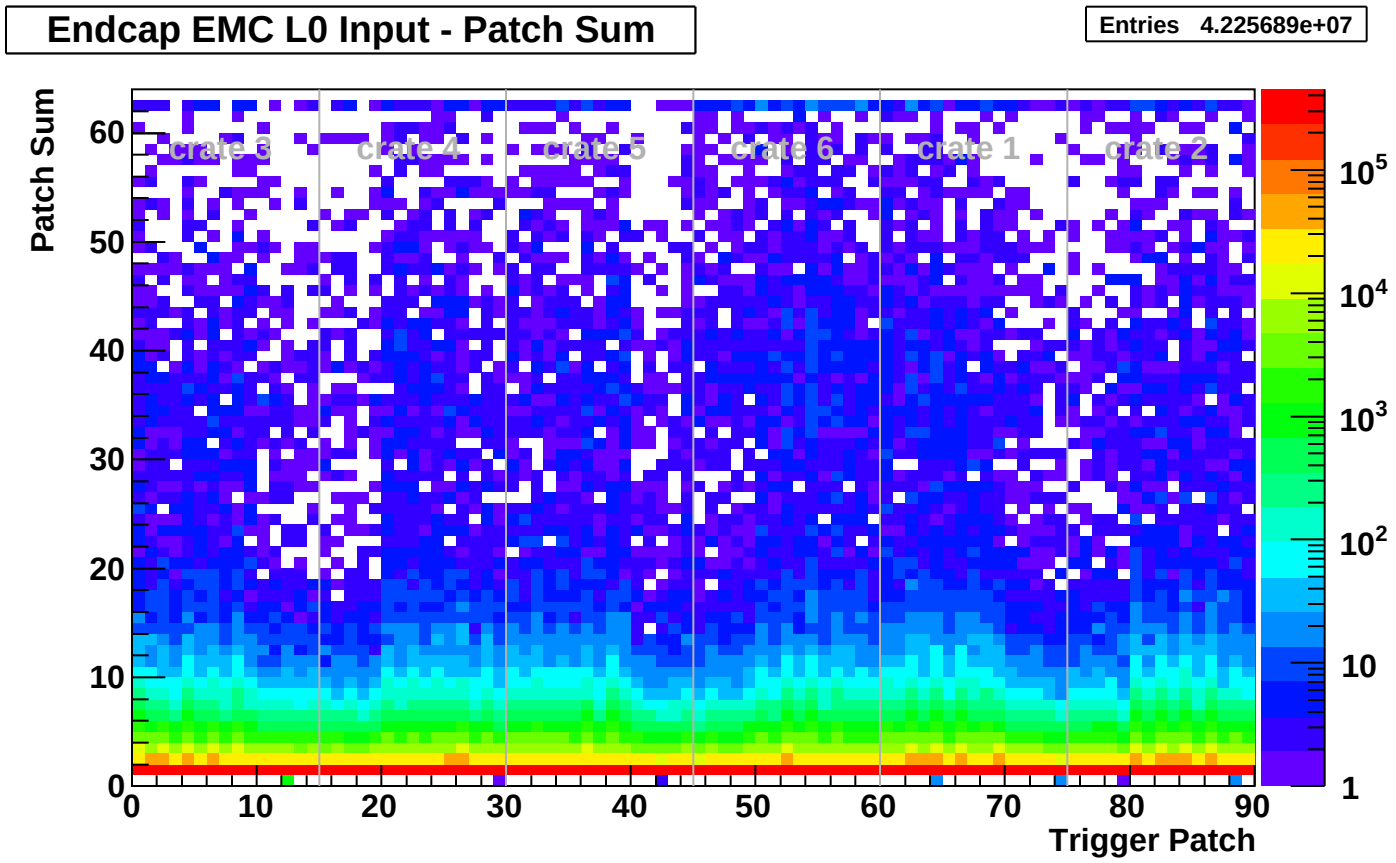

BunchId7Bit (BHT3)
Entries 5706
10²
10
1
0 20 40 60 80 100 120

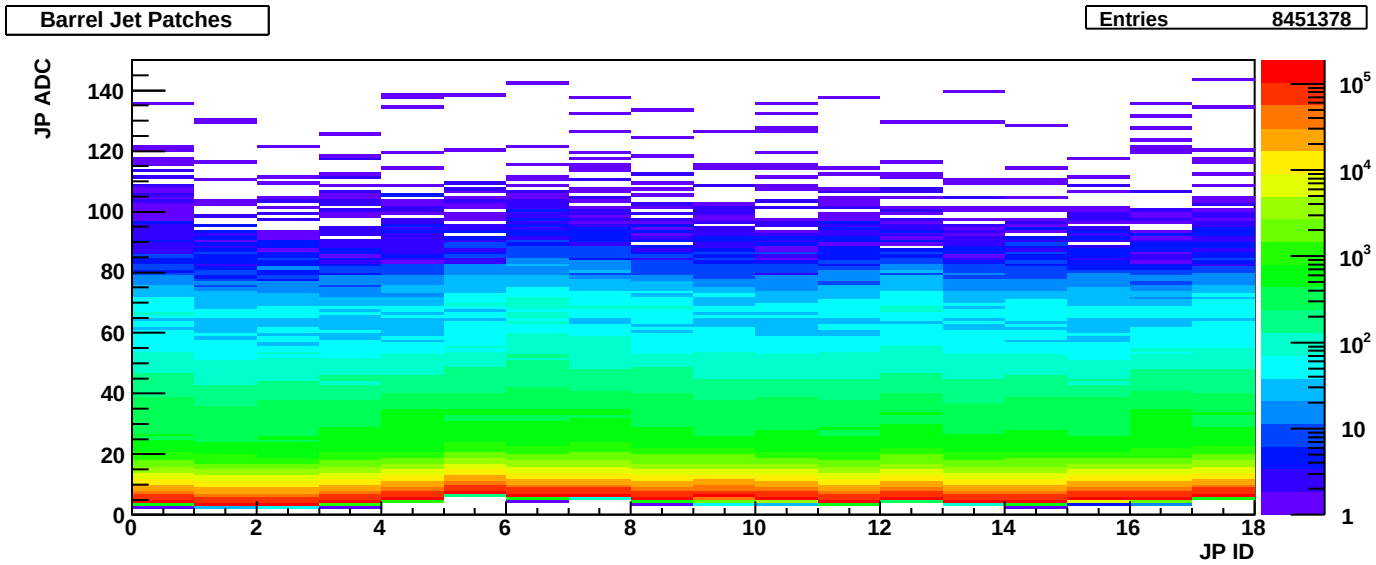

BunchId7Bit (all events)
Entries 469521
10⁴
10³
10²
10
0 20 40 60 80 100 120

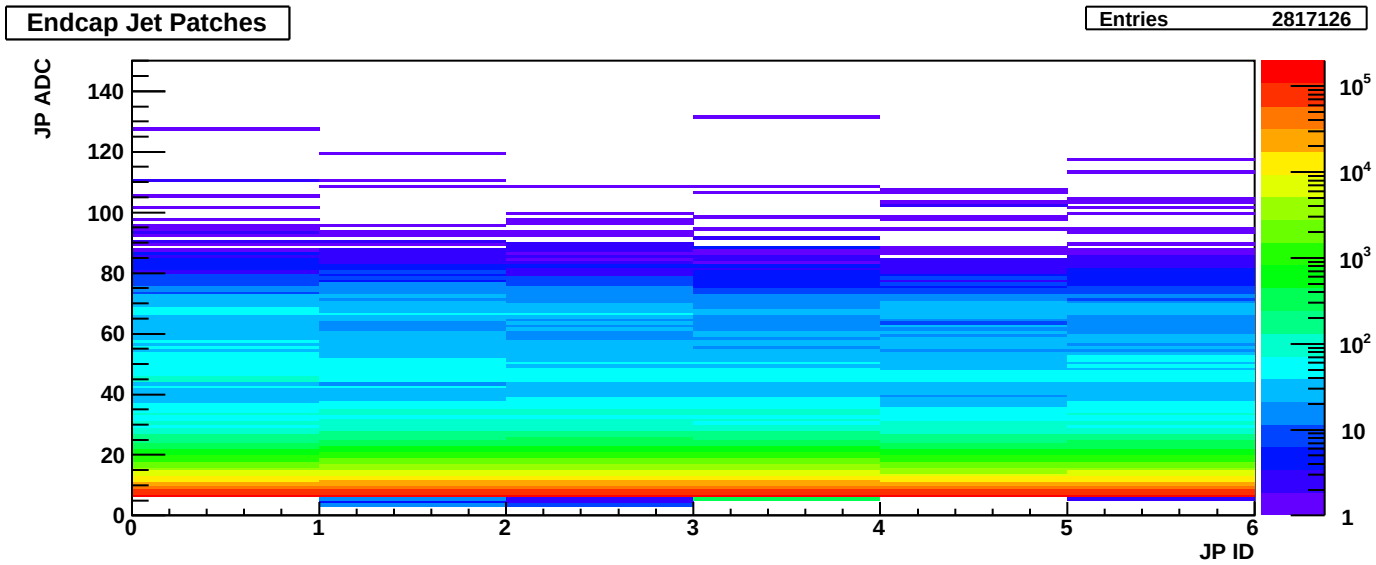

Barrel EMC L0 Input - High Tower
Entries 1.408563e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

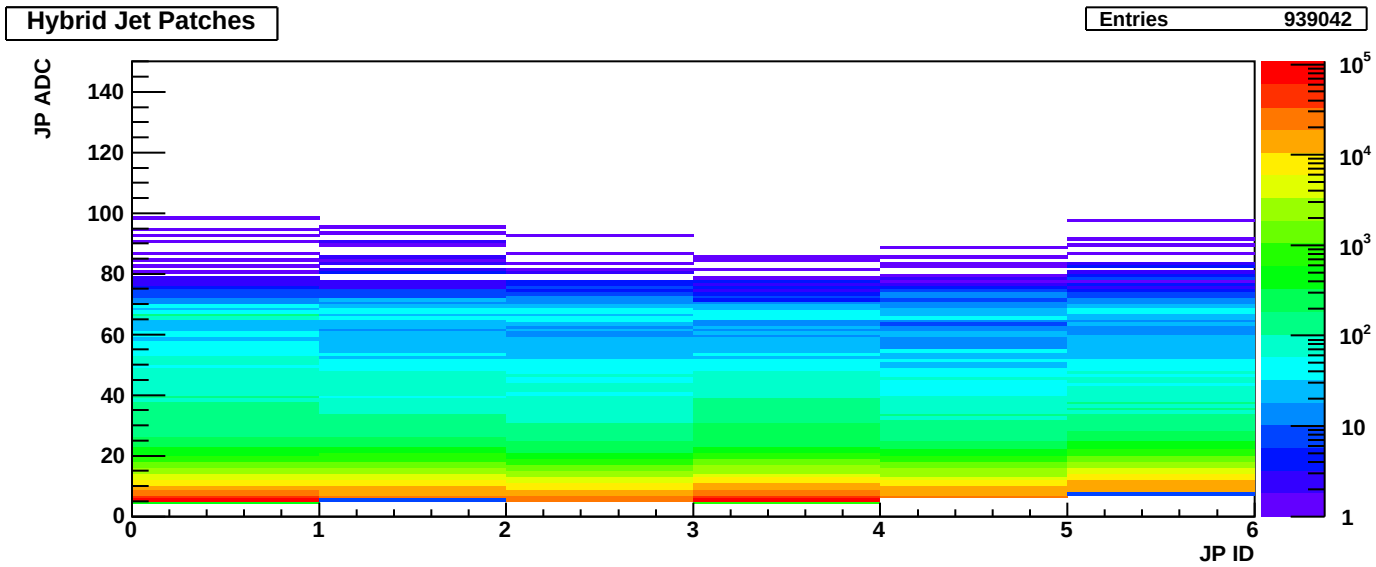

Barrel EMC L0 Input - Patch Sum
Entries 1.408563e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

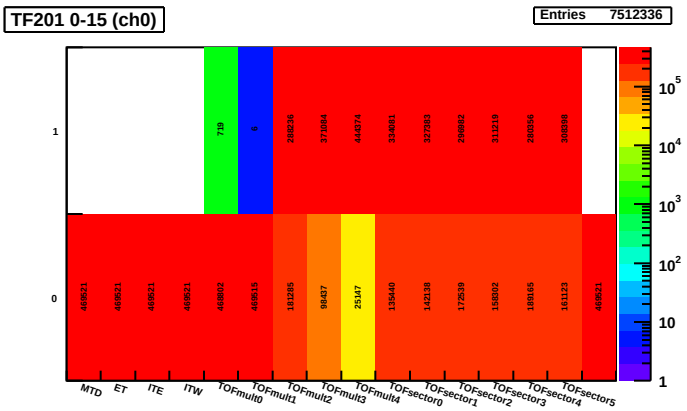

Endcap EMC L0 Input - High Tower
Entries 4.225689e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

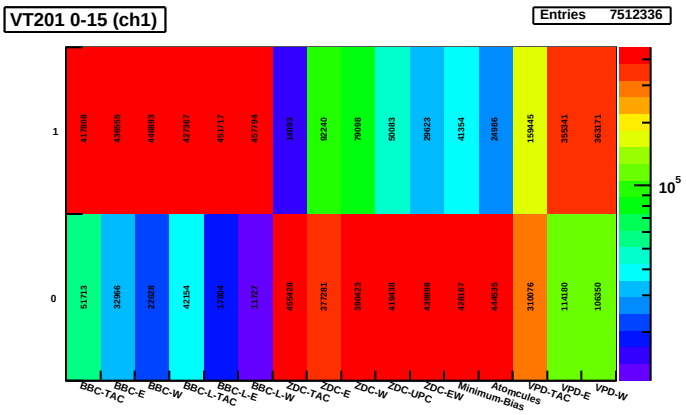

Endcap EMC L0 Input - Patch Sum
Entries 4.225689e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

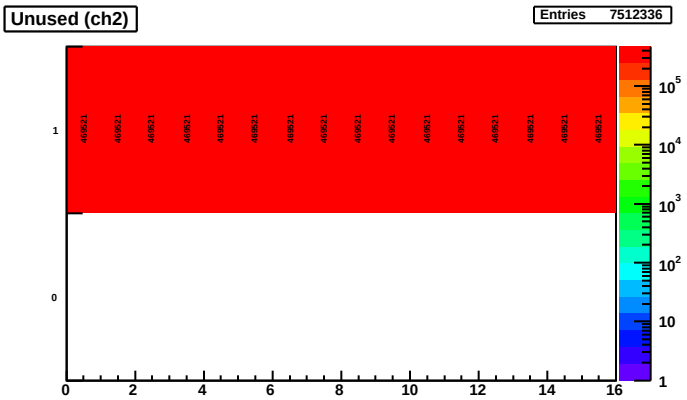

Barrel Jet Patches
Entries 8451378
JP ADC
JP ID

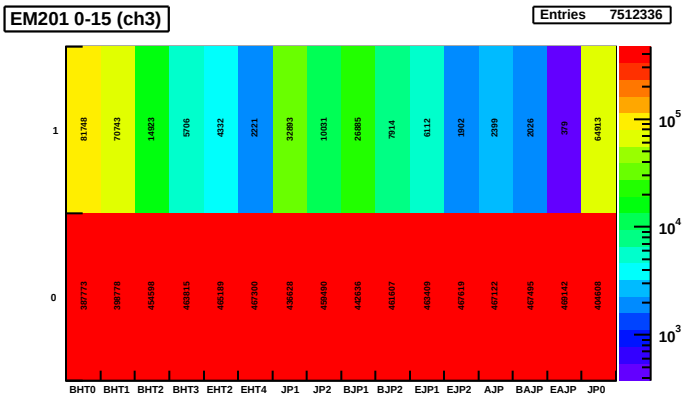

Endcap Jet Patches
Entries 2817126
JP ADC
JP ID

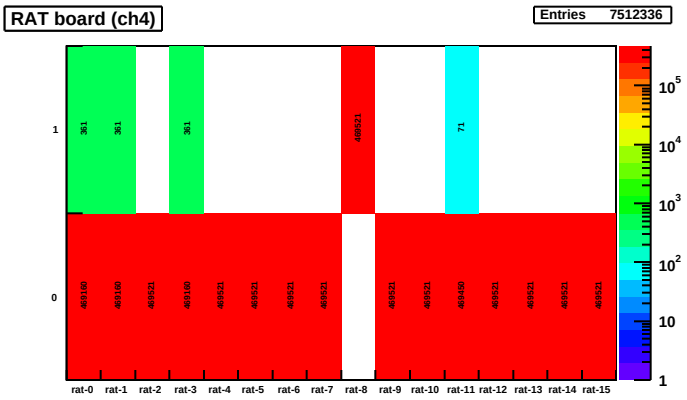

Hybrid Jet Patches
Entries 939042
JP ADC
JP ID

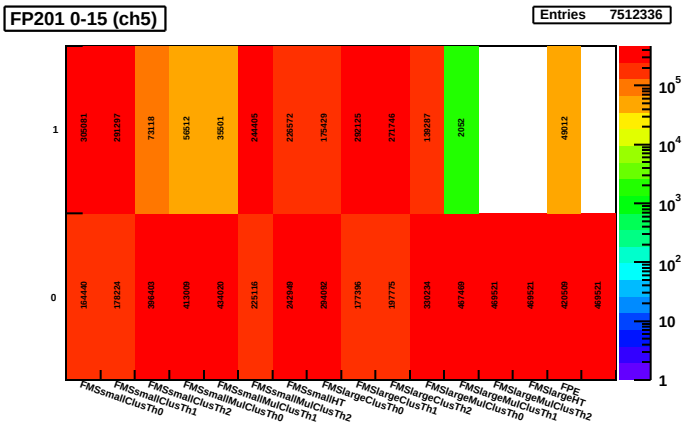

TF201 0-15 (ch0)
Entries 7512336
MTD
ET
ITE
ITW
TOFmult0
TOFmult1
TOFmult2
TOFmult3
TOFmult4
TOFsector0
TOFsector1
TOFsector2
TOFsector3
TOFsector4
TOFsector5

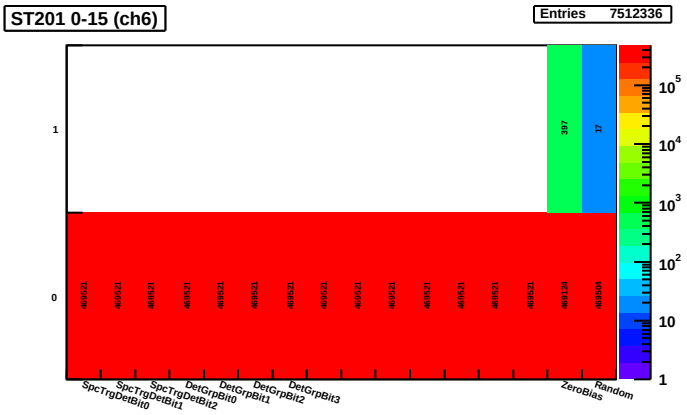

VT201 0-15 (ch1)
Entries 7512336
BBC-TAC
BBC-E
BBC-W
BBC-L-TAC
BBC-L-E
BBC-L-W
ZDC-TAC
ZDC-E
ZDC-W
ZDC-UPC
ZDC-EW
Minimum-Bias
Atomcules
VPD-TAC
VPD-E
VPD-W

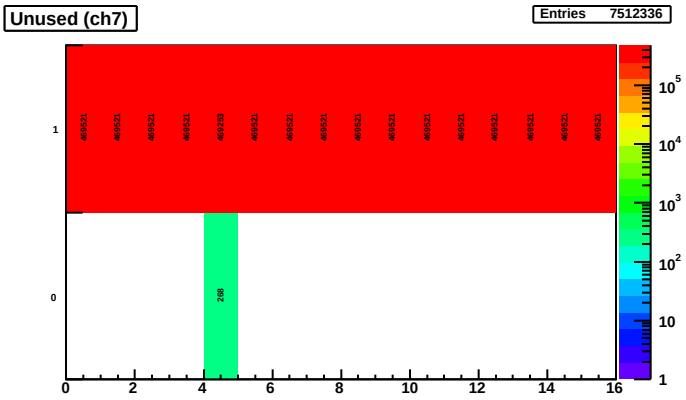

Unused (ch2)
Entries 7512336

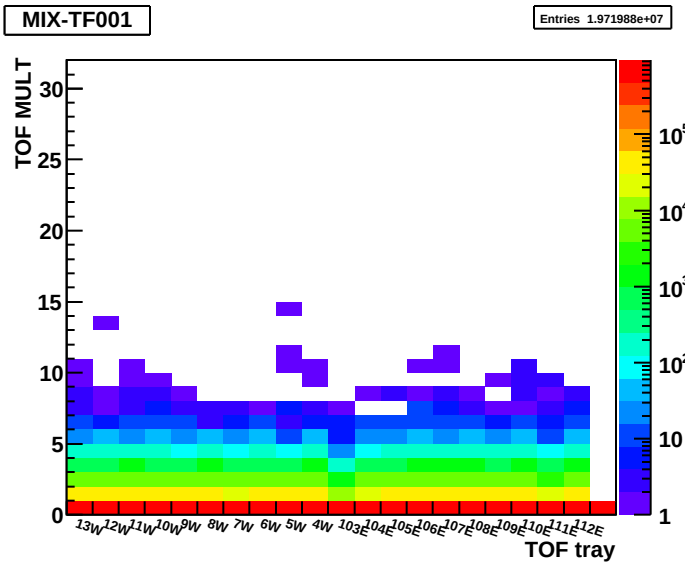

EM201 0-15 (ch3)
Entries 7512336
BHT0
BHT1
BHT2
BHT3
EHT2
EHT4
JP1
JP2
BJP1
BJP2
EJP1
EJP2
AJP
BAJP
EAJP
JP0

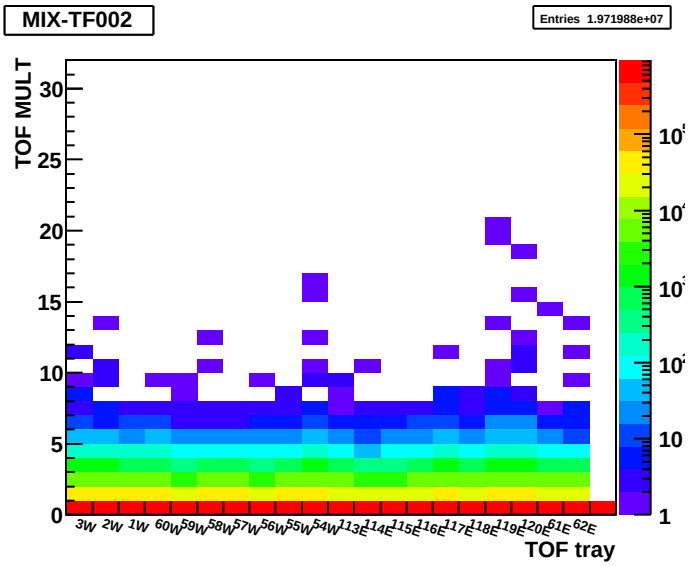

RAT board (ch4)
Entries 7512336
rat-0
rat-1
rat-2
rat-3
rat-4
rat-5
rat-6
rat-7
rat-8
rat-9
rat-10
rat-11
rat-12
rat-13
rat-14
rat-15

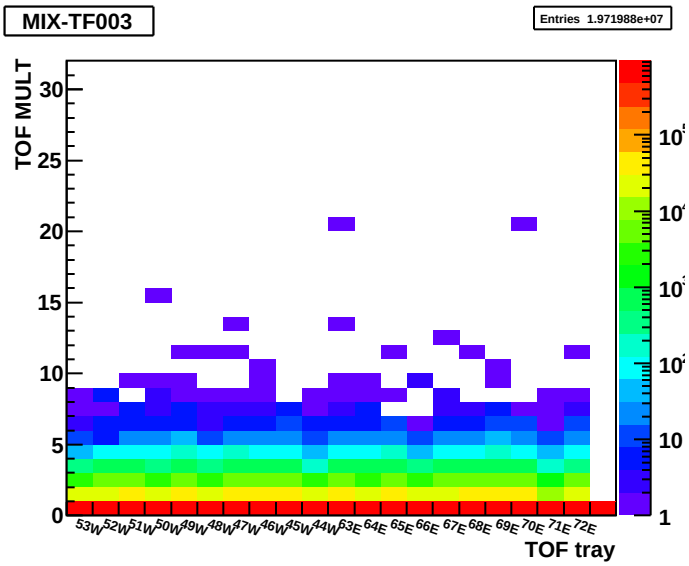

FP201 0-15 (ch5)
Entries 7512336
FMSsmallClusTh0
FMSsmallClusTh1
FMSsmallClusTh2
FMSsmallMulClusTh0
FMSsmallMulClusTh1
FMSsmallMulClusTh2
FMSsmallHT
FMSlargeClusTh0
FMSlargeClusTh1
FMSlargeClusTh2
FMSlargeMulClusTh0
FMSlargeMulClusTh1
FMSlargeMulClusTh2
FMSlargeHT
FPE

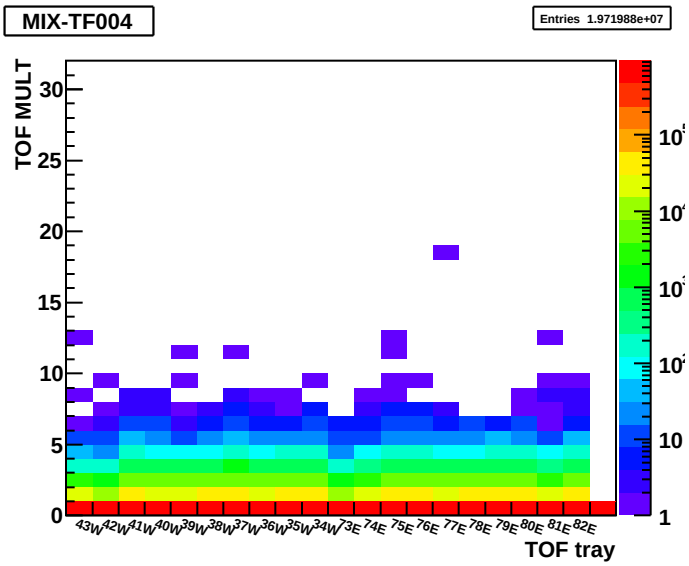

ST201 0-15 (ch6)
Entries 7512336
SpcTrgDetBit0
SpcTrgDetBit1
SpcTrgDetBit2
DetGrpBit0
DetGrpBit1
DetGrpBit2
DetGrpBit3
ZeroBias
Random

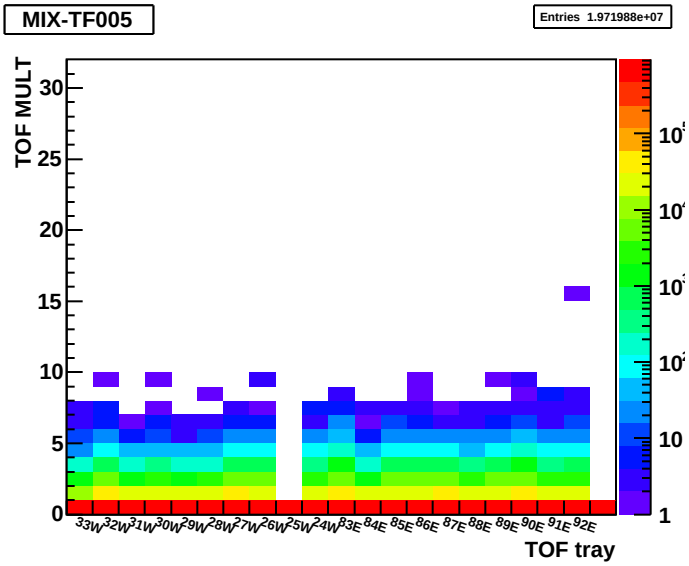

Unused (ch7)
Entries 7512336

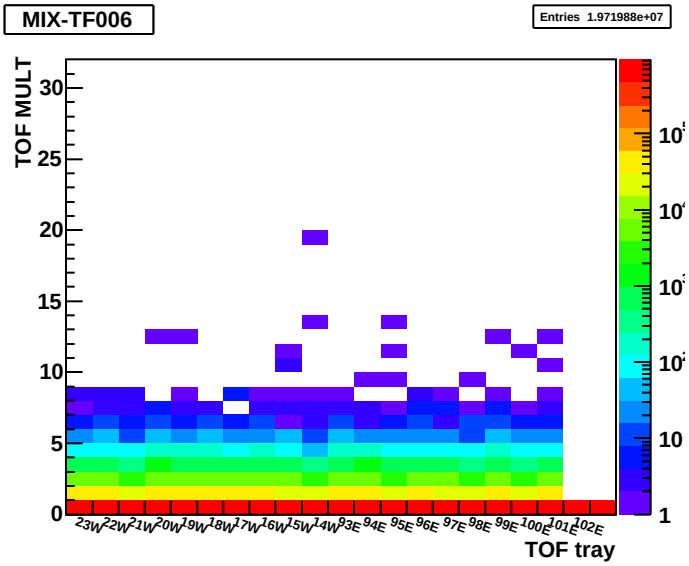

MIX-TF001
Entries 1.971988e+07
TOF MULT
TOF tray

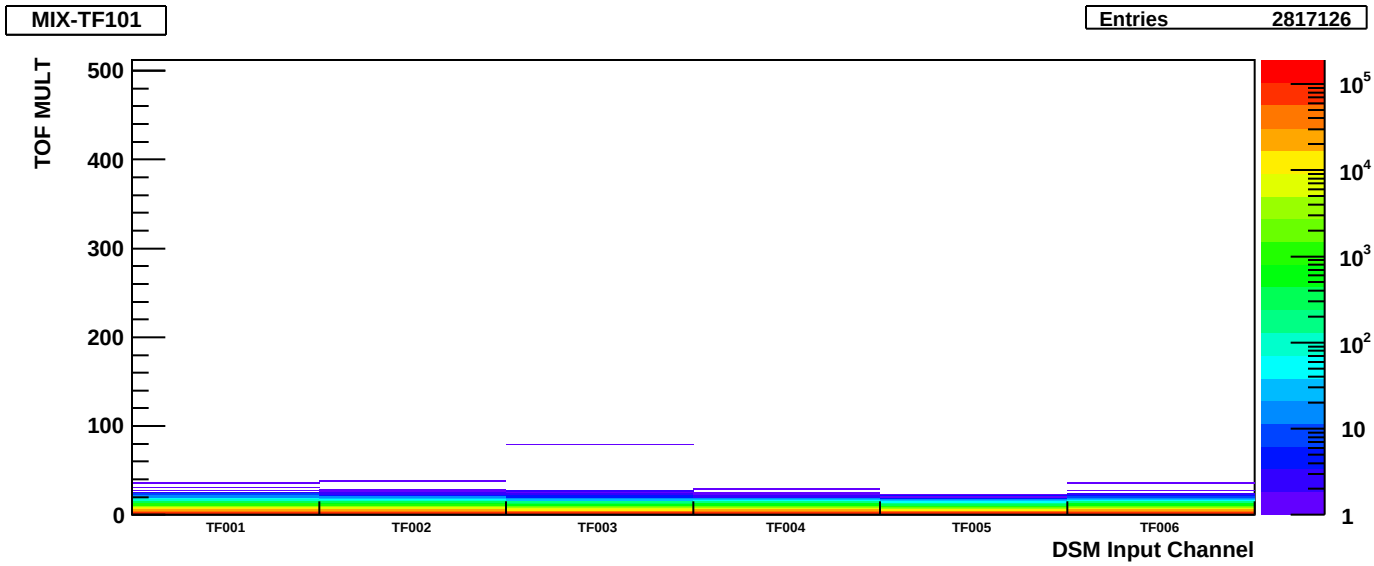

MIX-TF002
Entries 1.971988e+07
TOF MULT
TOF tray

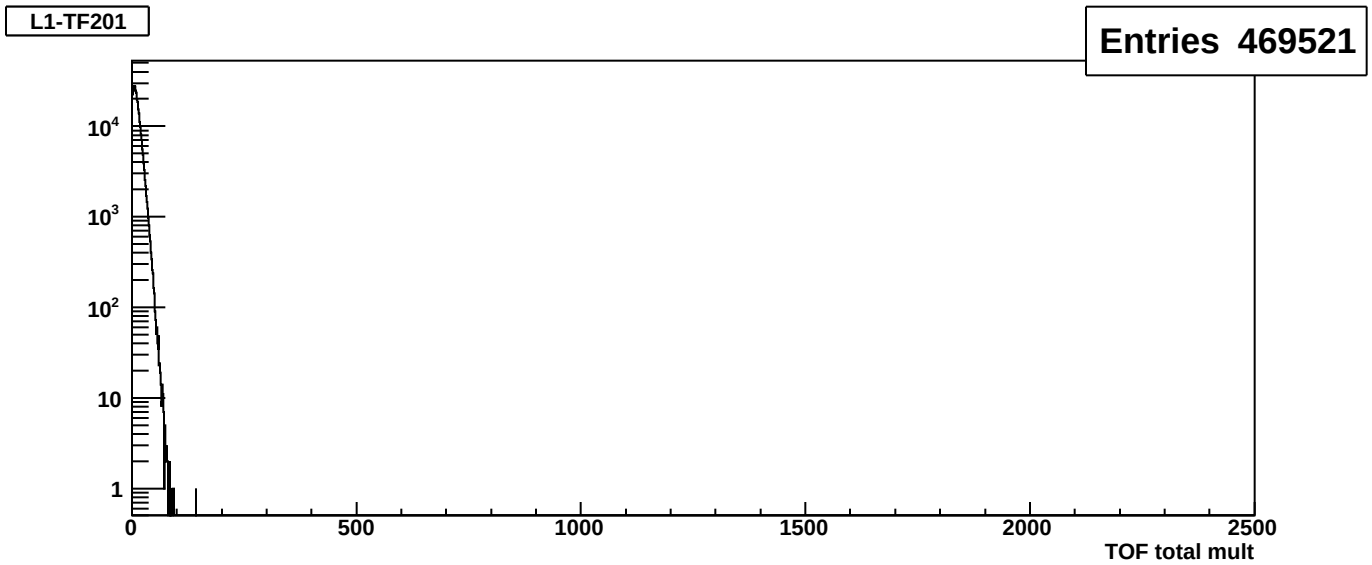

MIX-TF003
Entries 1.971988e+07
TOF MULT
TOF tray

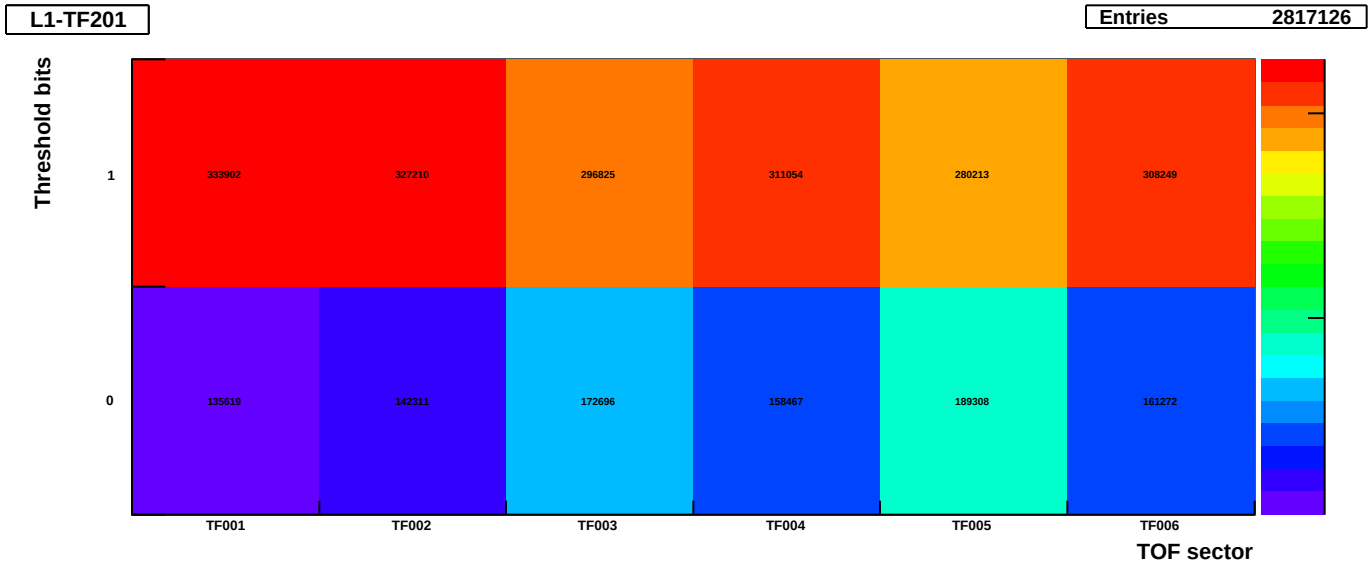

MIX-TF004
Entries 1.971988e+07
TOF MULT
TOF tray

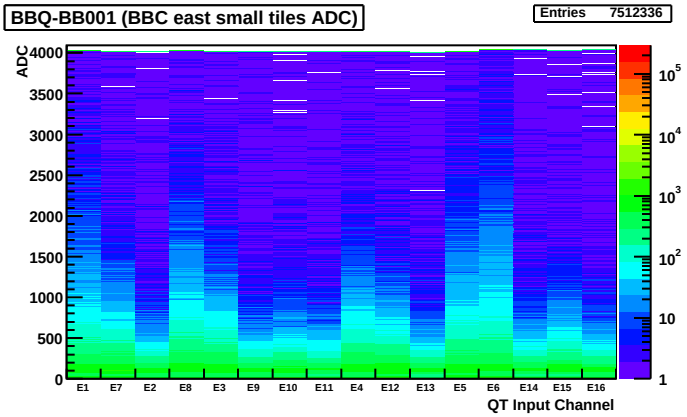

MIX-TF005
Entries 1.971988e+07
TOF MULT
TOF tray

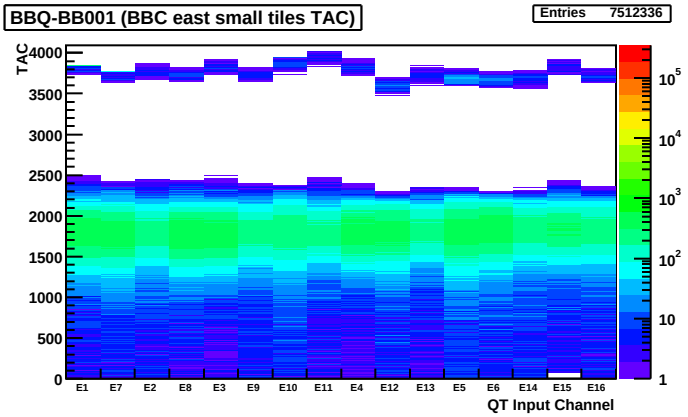

MIX-TF006
Entries 1.971988e+07
TOF MULT
TOF tray

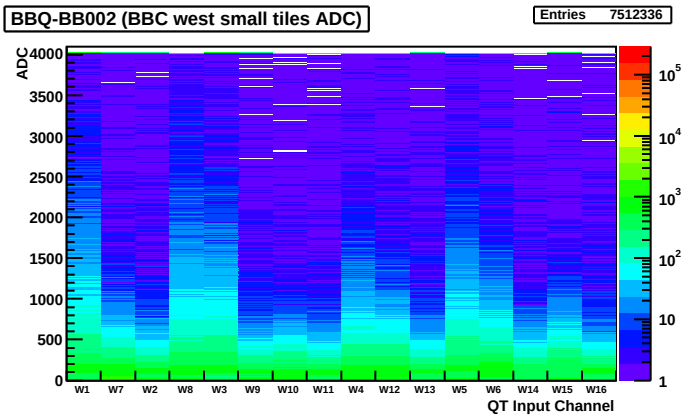

MIX-TF101
Entries 2817126
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

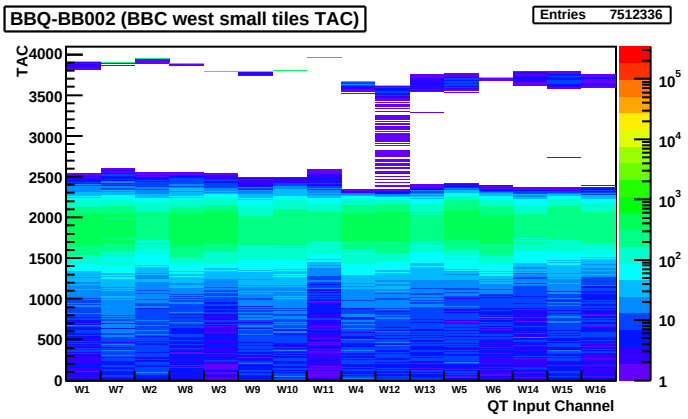

L1-TF201
Entries 469521
10^4
10^3
10^2
10
1
0
500
1000
1500
2000
2500
TOF total mult

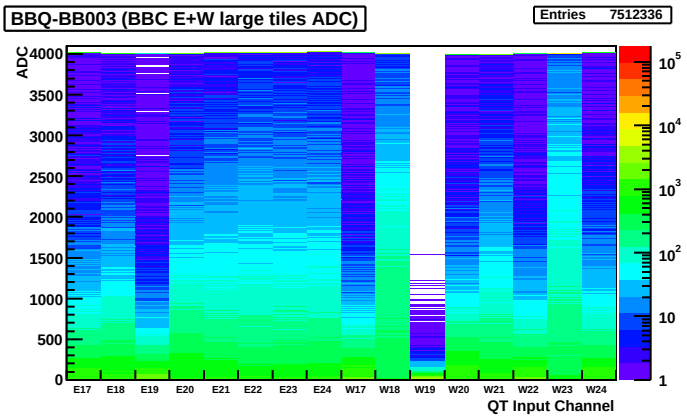

L1-TF201
Entries 2817126
Threshold bits
1
0
333902
327210
296825
311054
280213
308249
135619
142311
172696
158467
189308
161272
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

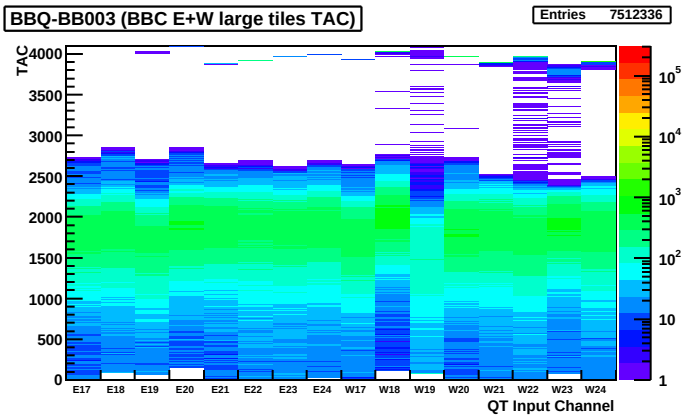

BBQ-BB001 (BBC east small tiles ADC)
Entries 7512336
ADC
QT Input Channel

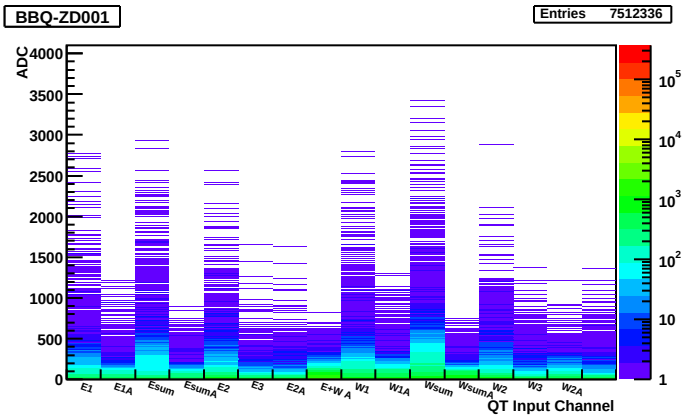

BBQ-BB001 (BBC east small tiles TAC)
Entries 7512336
TAC
QT Input Channel

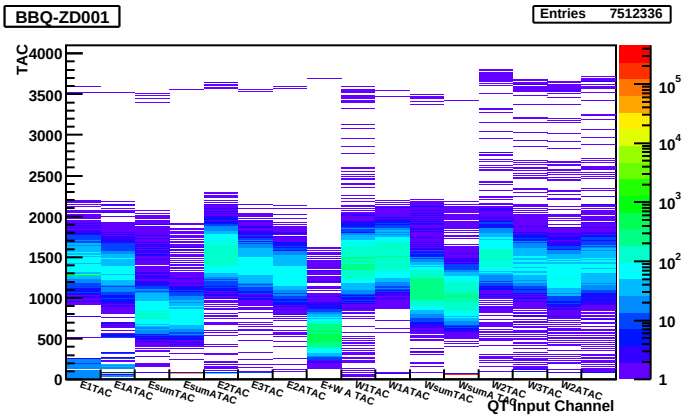

BBQ-BB002 (BBC west small tiles ADC)
Entries 7512336
ADC
QT Input Channel

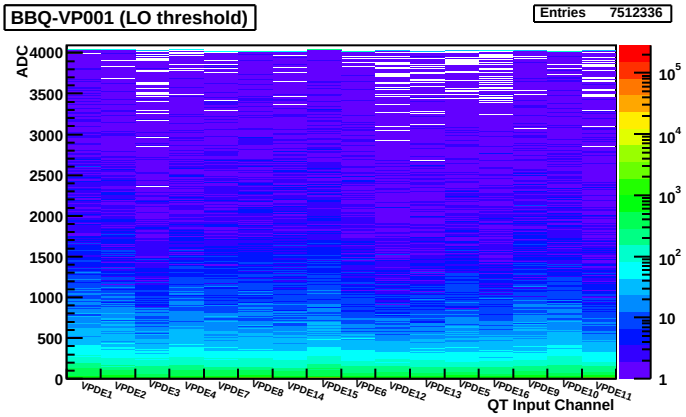

BBQ-BB002 (BBC west small tiles TAC)
Entries 7512336
TAC
QT Input Channel

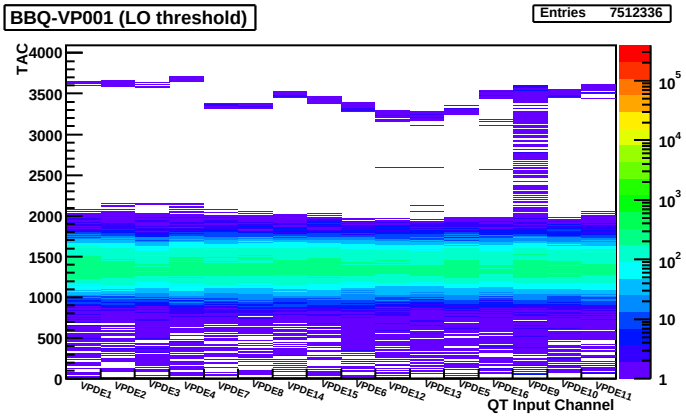

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 7512336
ADC
QT Input Channel

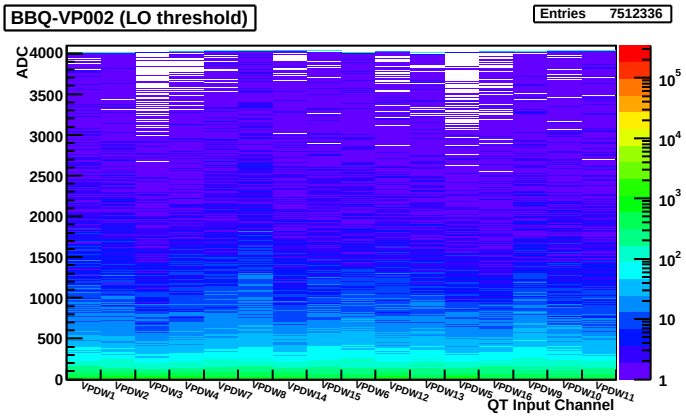

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 7512336
TAC
QT Input Channel

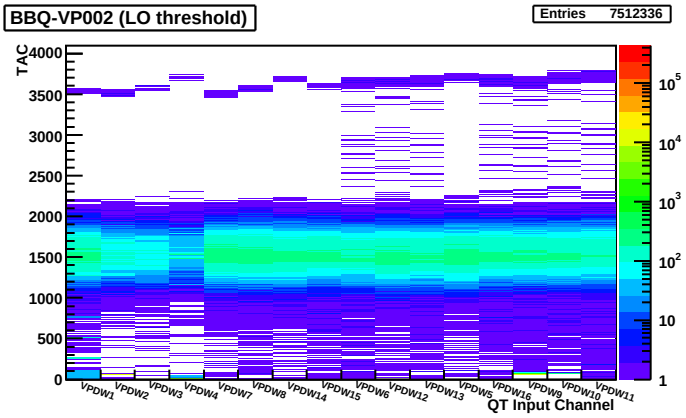

BBQ-ZD001
Entries 7512336
ADC
QT Input Channel

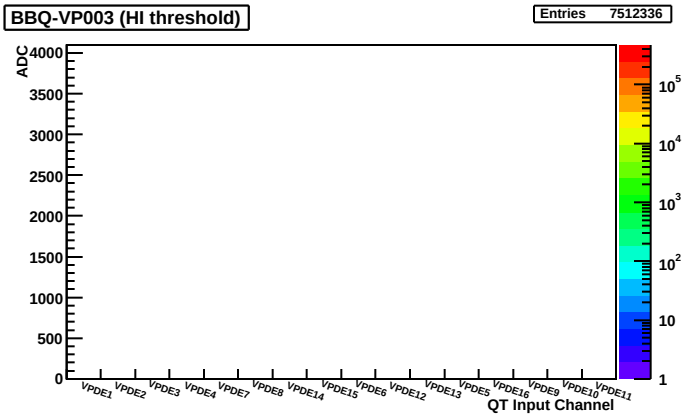

BBQ-ZD001
Entries 7512336
TAC
QT Input Channel

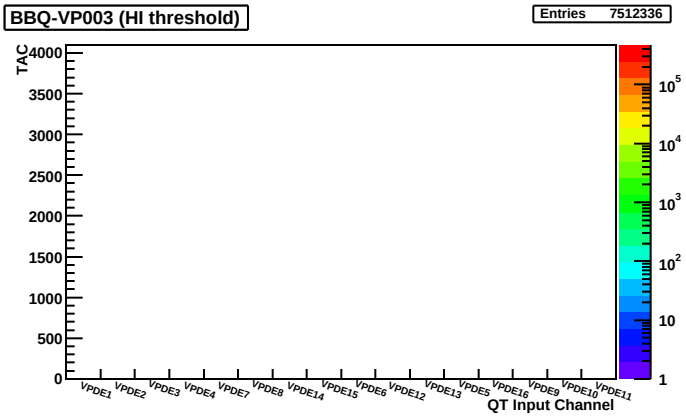

BBQ-VP001 (LO threshold)
Entries 7512336
ADC
QT Input Channel

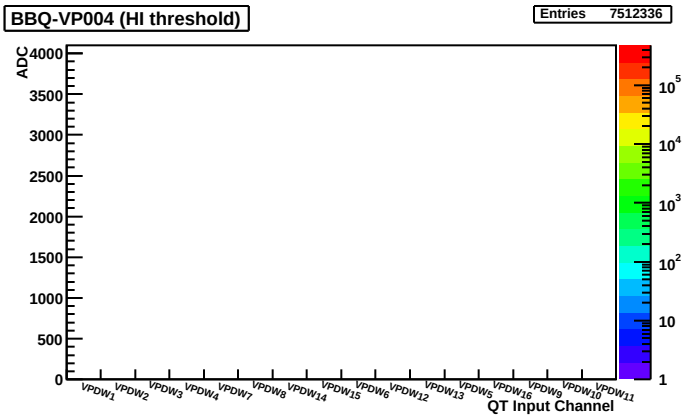

BBQ-VP001 (LO threshold)
Entries 7512336
TAC
QT Input Channel

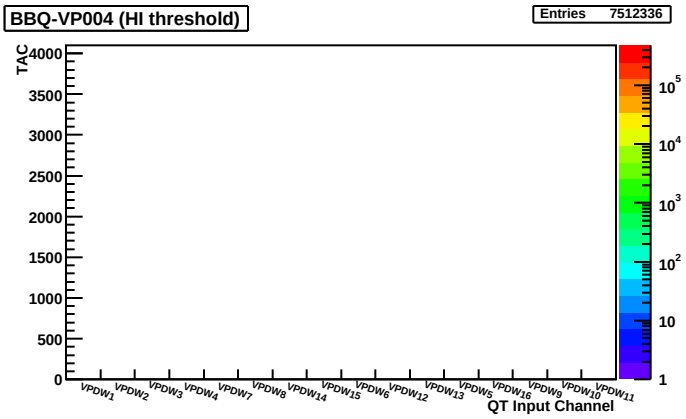

BBQ-VP002 (LO threshold)
Entries 7512336
ADC
QT Input Channel

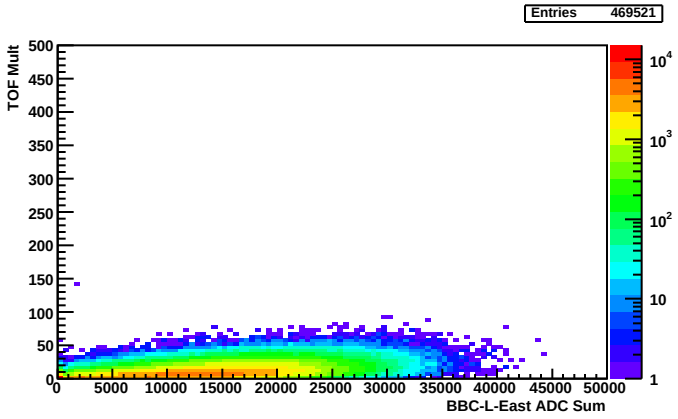

BBQ-VP002 (LO threshold)
Entries 7512336
TAC
QT Input Channel

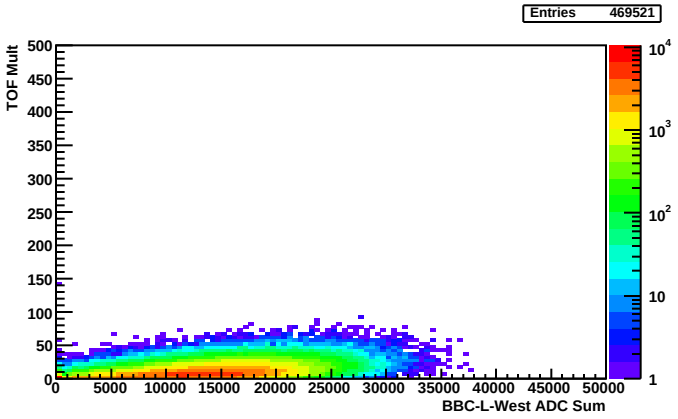

BBQ-VP003 (HI threshold)
Entries 7512336
ADC
QT Input Channel

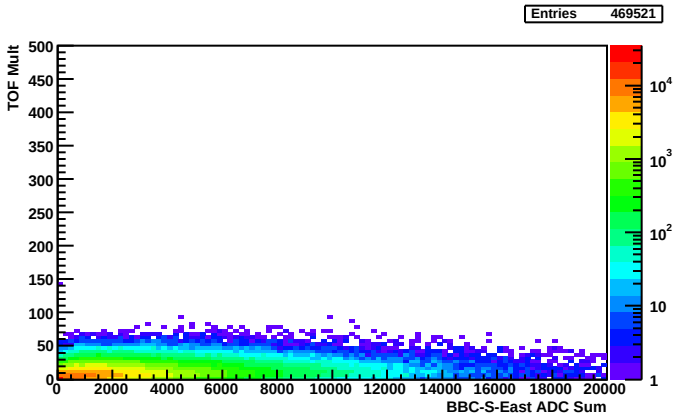

BBQ-VP003 (HI threshold)
Entries 7512336
TAC
QT Input Channel

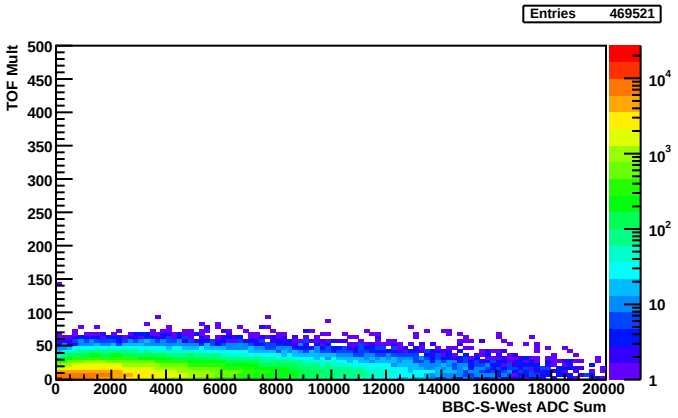

BBQ-VP004 (HI threshold)
Entries 7512336
ADC
QT Input Channel

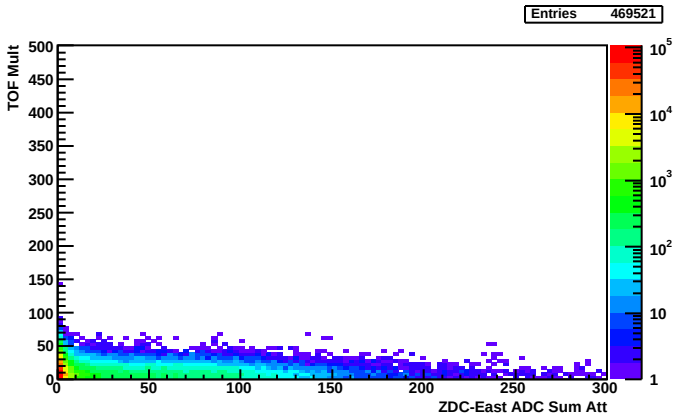

BBQ-VP004 (HI threshold)
Entries 7512336
TAC
QT Input Channel

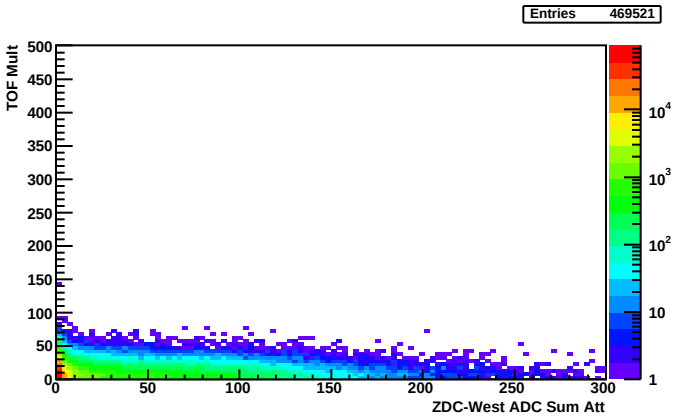

Entries 469521
TOF Mult
BBC-L-East ADC Sum

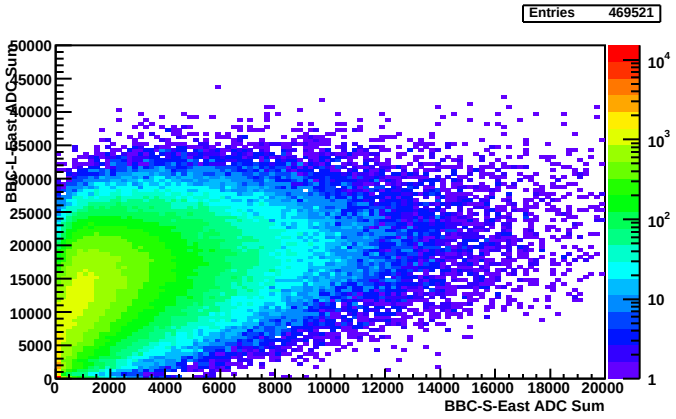

Entries 469521
TOF Mult
BBC-L-West ADC Sum

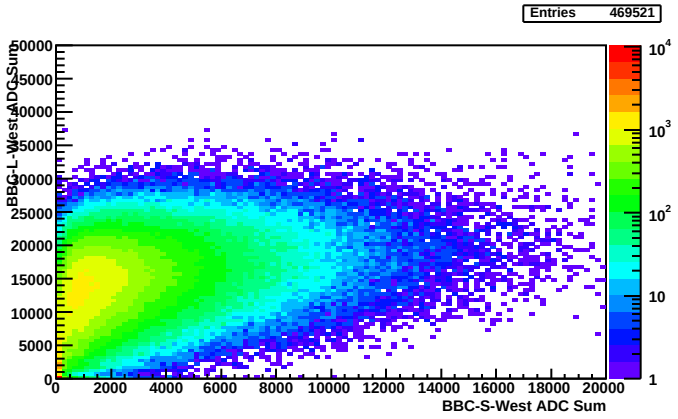

Entries 469521
TOF Mult
BBC-S-East ADC Sum

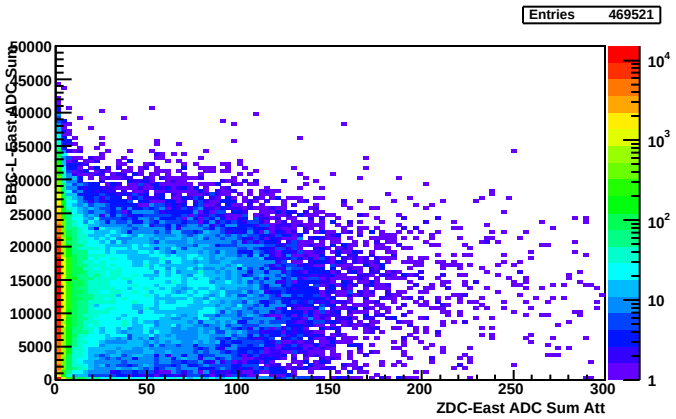

Entries 469521
TOF Mult
BBC-S-West ADC Sum

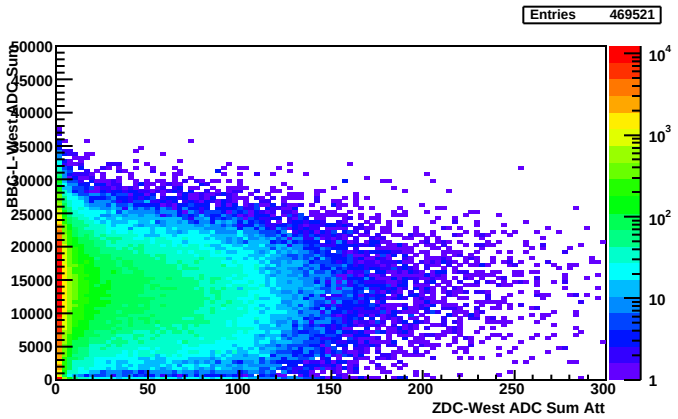

Entries 469521
TOF Mult
ZDC-East ADC Sum Att

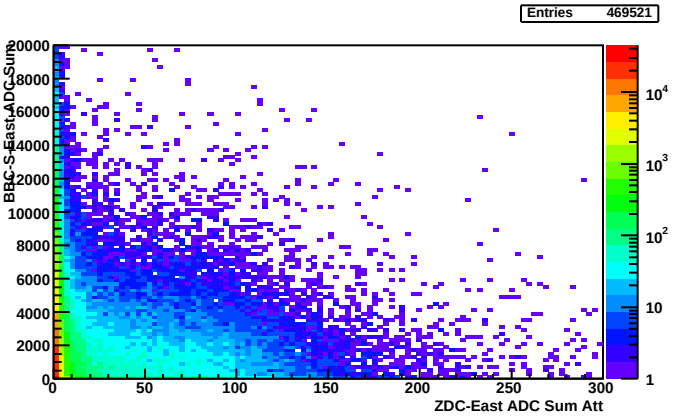

Entries 469521
TOF Mult
ZDC-West ADC Sum Att

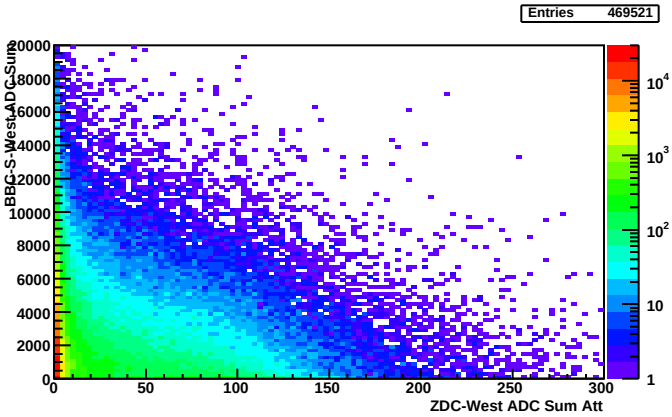

Entries 469521
BBC-L-East ADC Sum
BBC-S-East ADC Sum

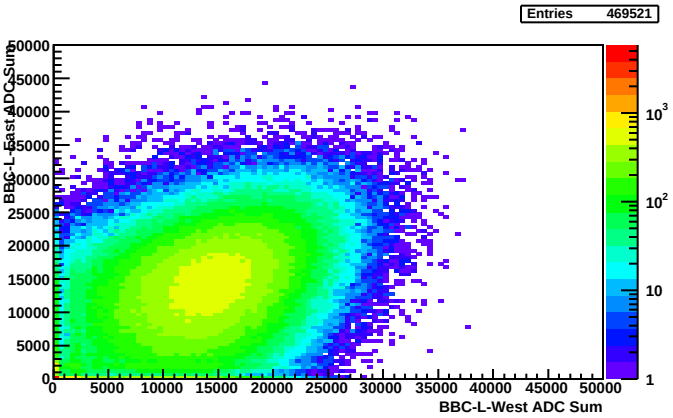

Entries 469521
BBC-L-West ADC Sum
BBC-S-West ADC Sum

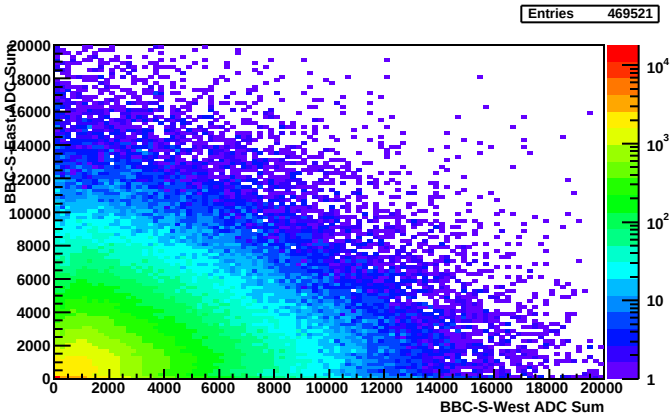

Entries 469521
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

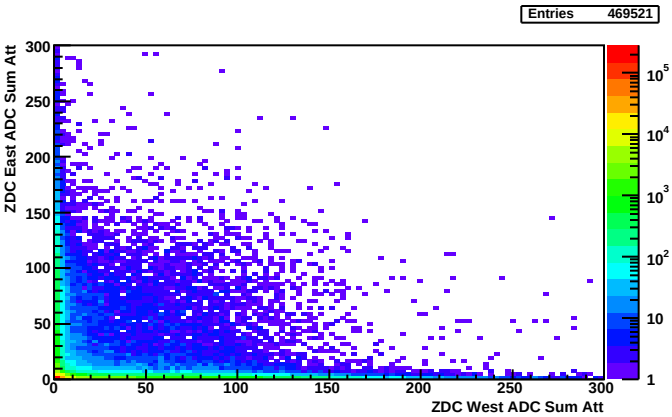

Entries 469521
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

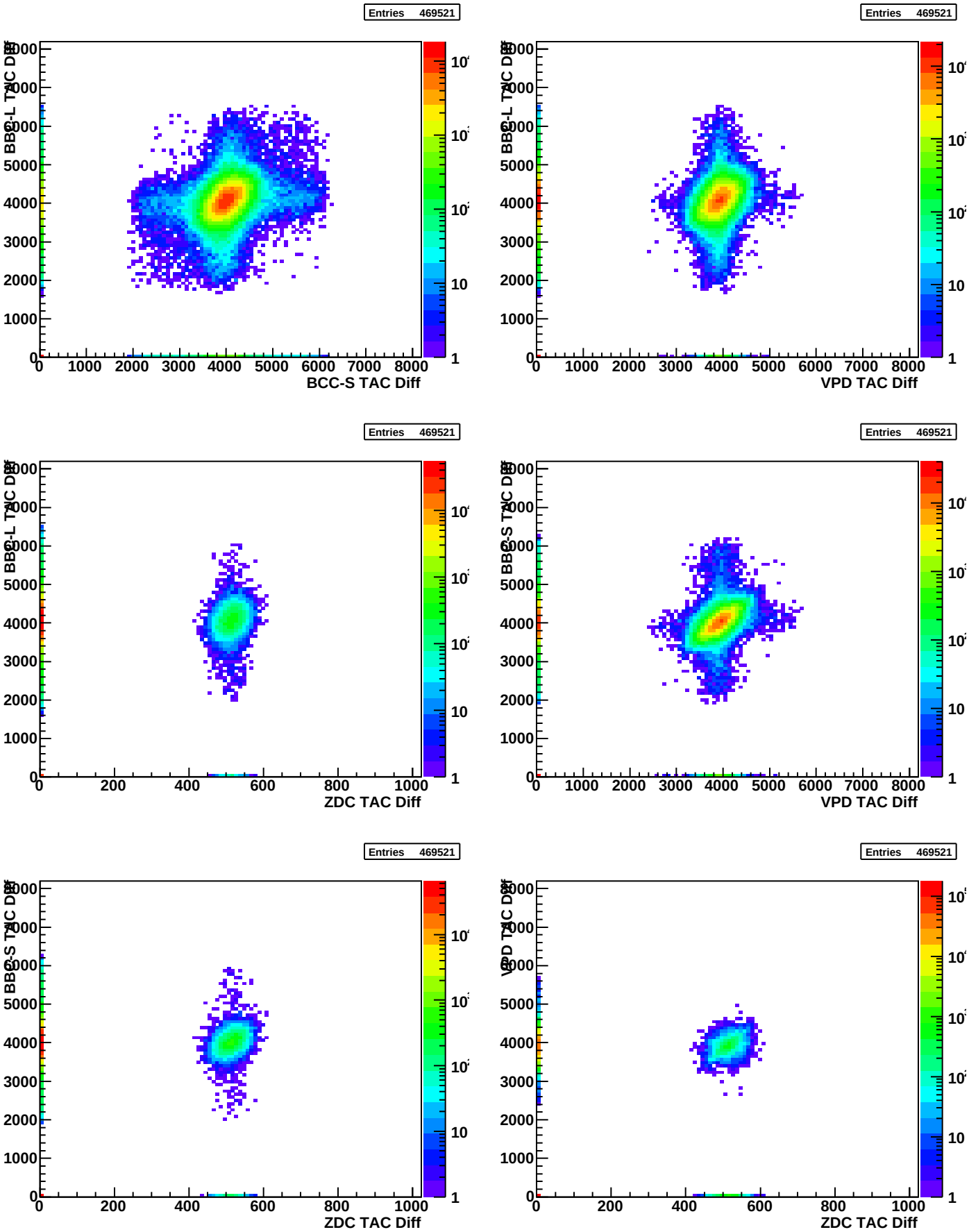

Entries 469521
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

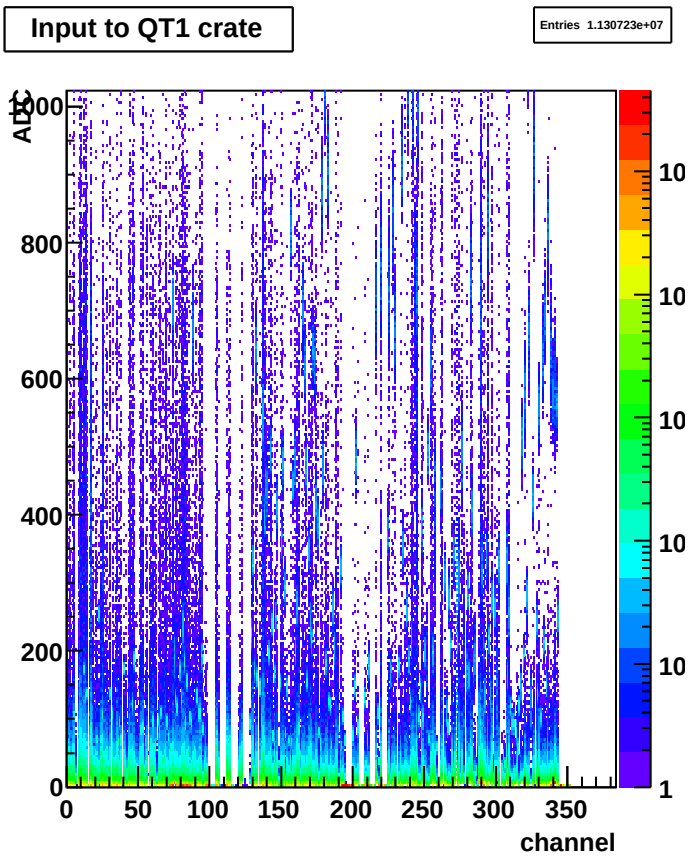

Entries 469521
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

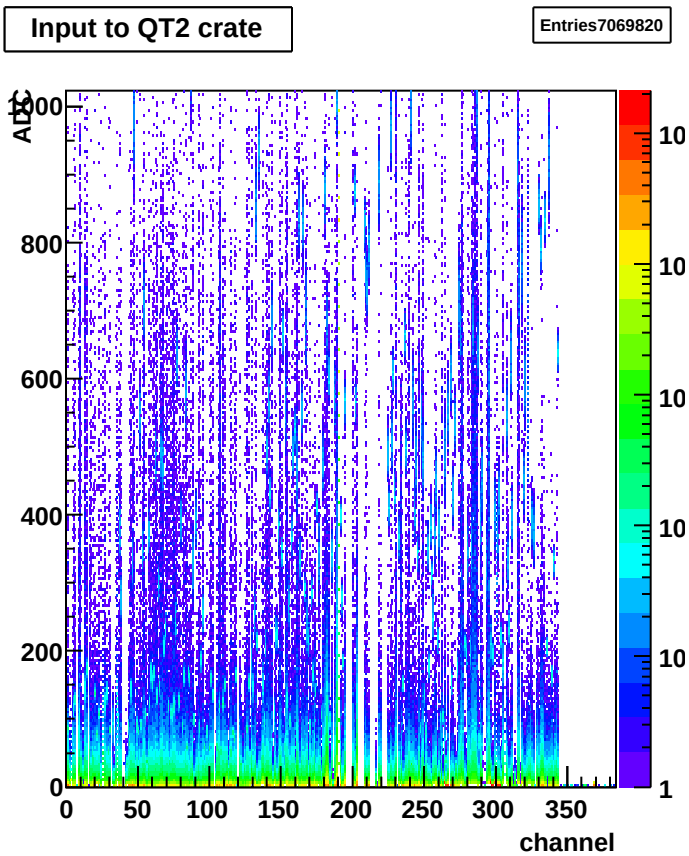

Entries 469521
BBC-L-East ADC Sum
BBC-L-West ADC Sum

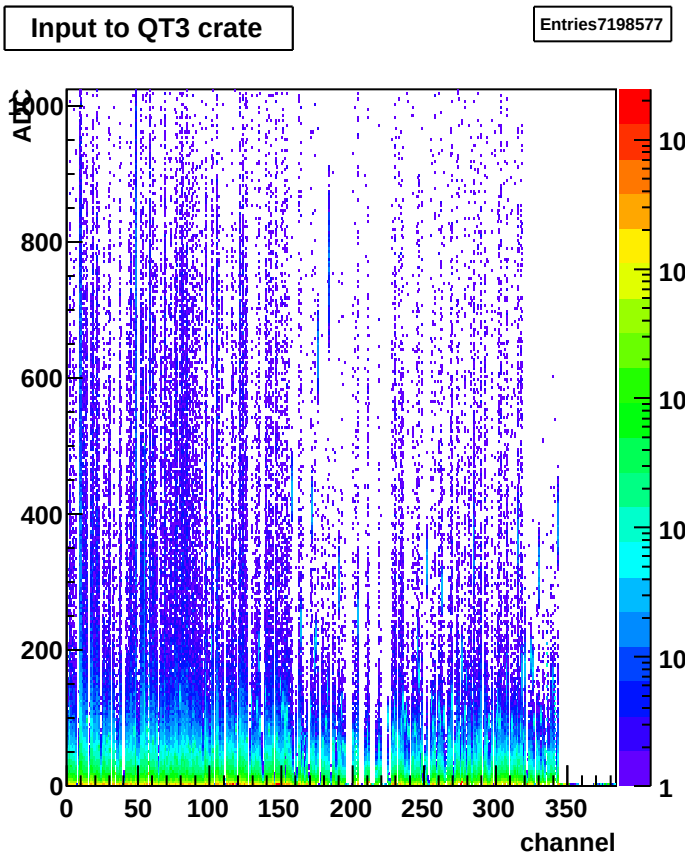

Entries 469521
BBC-S-East ADC Sum
BBC-S-West ADC Sum

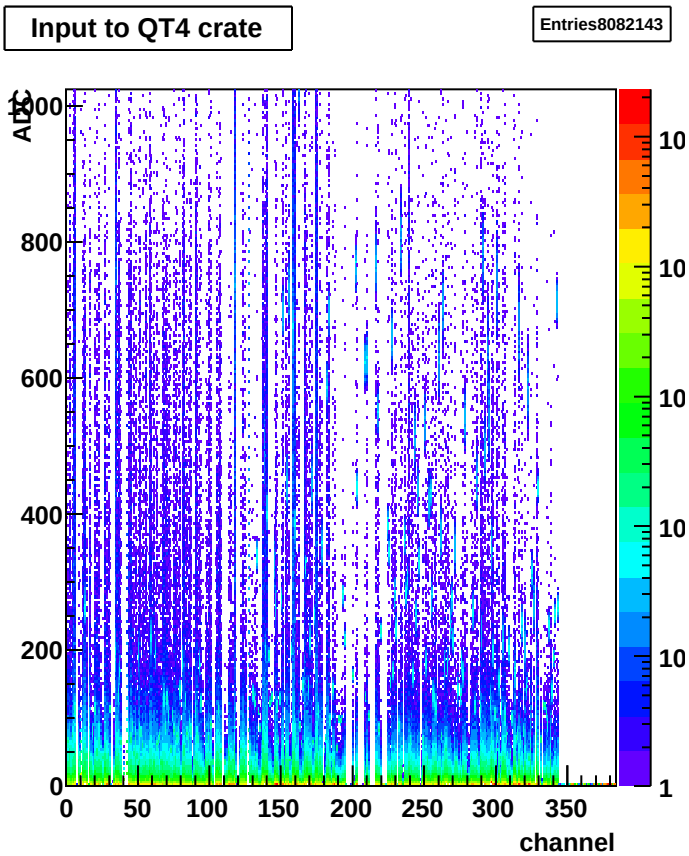

Entries 469521
ZDC East ADC Sum Att
ZDC West ADC Sum Att

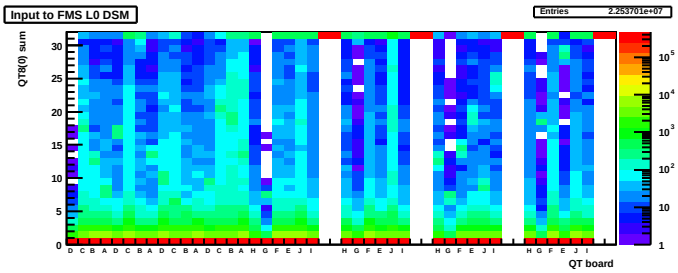

Entries 469521
BBC-L TAC Diff
BCC-S TAC Diff
Entries 469521
BBC-L TAC Diff
VPD TAC Diff
Entries 469521
BBC-L TAC Diff
ZDC TAC Diff
Entries 469521
BBC-S TAC Diff
VPD TAC Diff
Entries 469521
BBC-S TAC Diff
ZDC TAC Diff
Entries 469521
VPD TAC Diff
ZDC TAC Diff

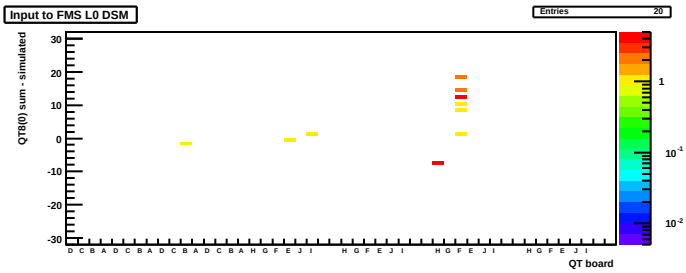

Input to QT1 crate
Entries 1.130723e+07
ADC
channel

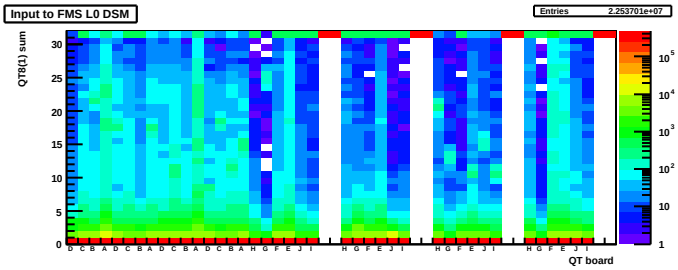

Input to QT2 crate
Entries7069820
ADC
channel

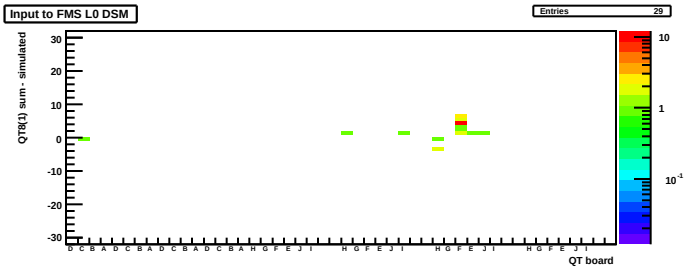

Input to QT3 crate
Entries7198577
ADC
channel

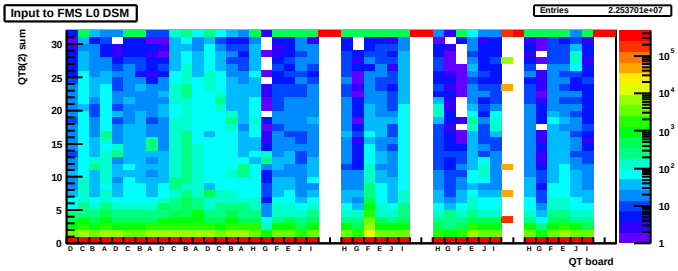

Input to QT4 crate
Entries8082143
ADC
channel

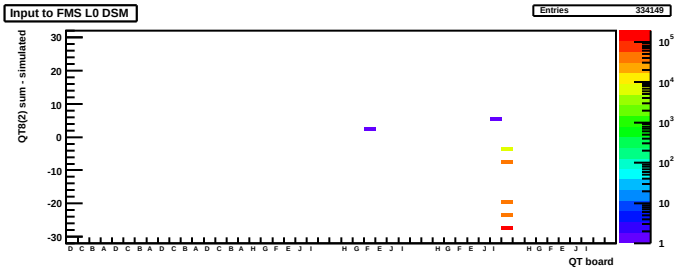

Input to FMS L0 DSM
Entries 2.253701e+07
QT8(0) sum
QT board

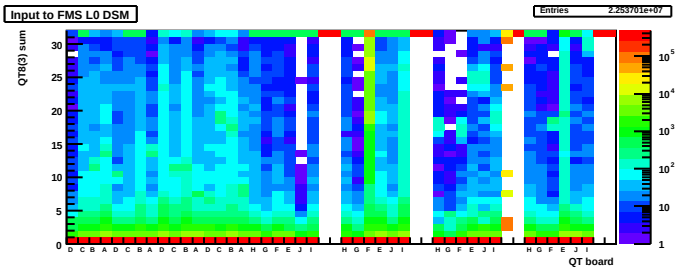

Input to FMS L0 DSM
Entries 20
QT8(0) sum - simulated
QT board

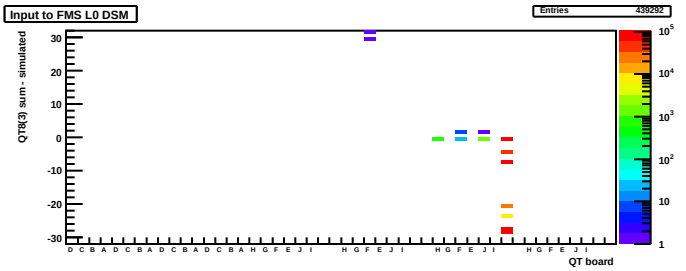

Input to FMS L0 DSM
Entries 2.253701e+07
QT8(1) sum
QT board

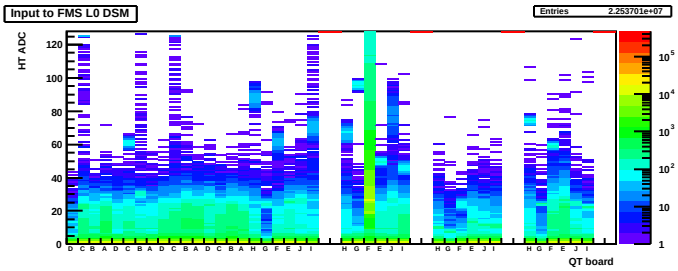

Input to FMS L0 DSM
Entries 29
QT8(1) sum - simulated
QT board

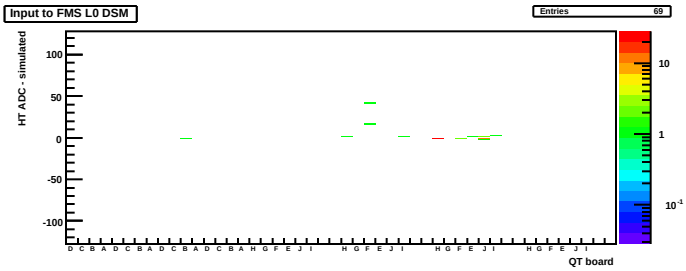

Input to FMS L0 DSM
Entries 2.253701e+07
QT8(2) sum
QT board

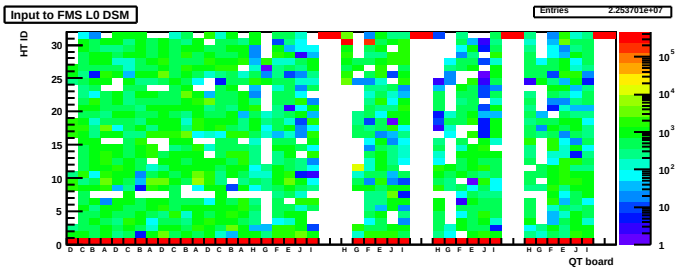

Input to FMS L0 DSM
Entries 334149
QT8(2) sum - simulated
QT board

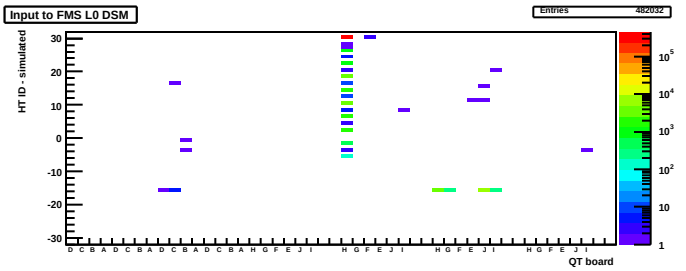

Input to FMS L0 DSM
Entries 2.253701e+07
QT8(3) sum
QT board

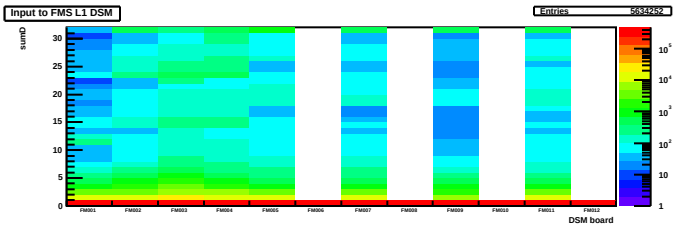

Input to FMS L0 DSM
Entries 439292
QT8(3) sum - simulated
QT board

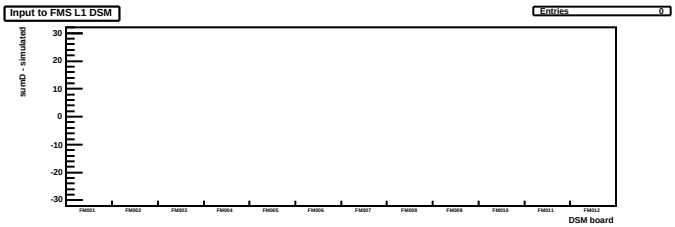

Input to FMS L0 DSM
Entries 2.253701e+07
HT ADC
QT board

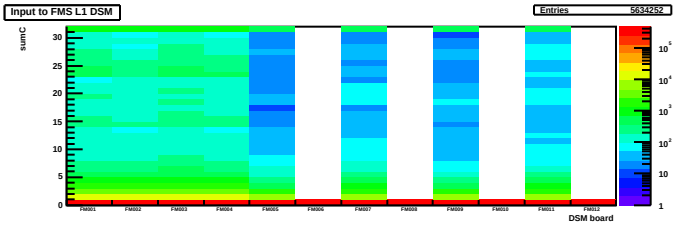

Input to FMS L0 DSM
Entries 69
HT ADC - simulated
QT board

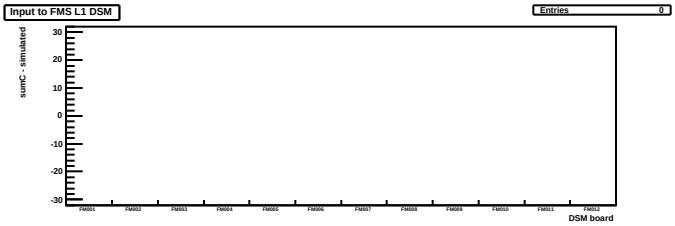

Input to FMS L0 DSM
Entries 2.253701e+07
HT ID
QT board

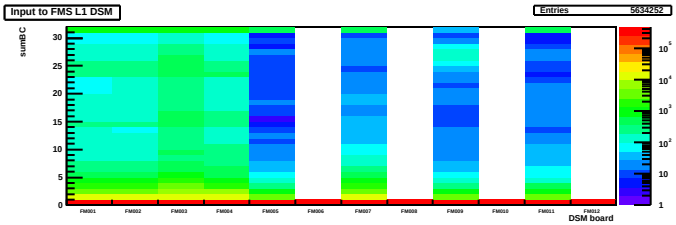

Input to FMS L0 DSM
Entries 482032
HT ID - simulated
QT board

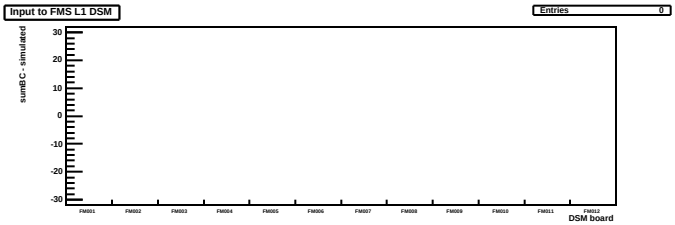

Input to FMS L1 DSM
Entries 5634252
sumD
DSM board

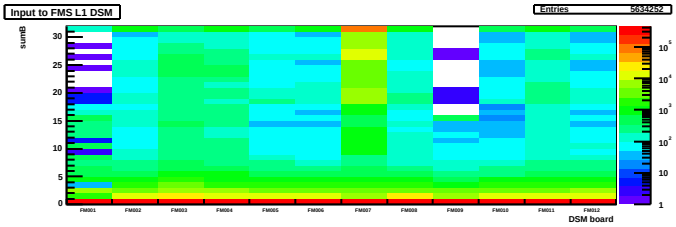

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

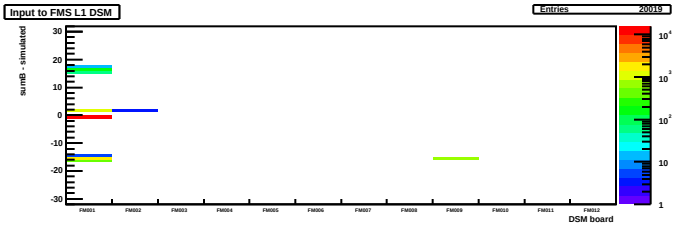

Input to FMS L1 DSM
Entries 5634252
sumC
DSM board

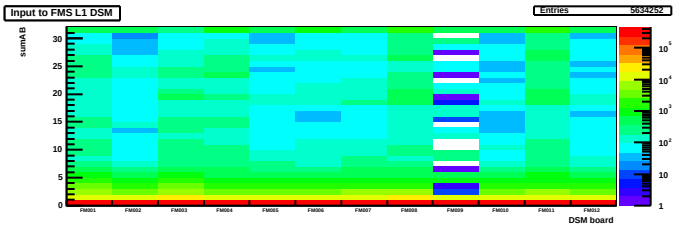

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

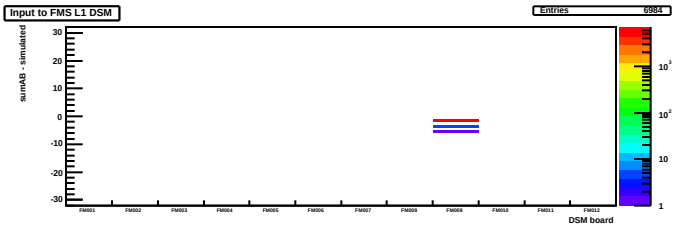

Input to FMS L1 DSM
Entries 5634252
sumBC
DSM board

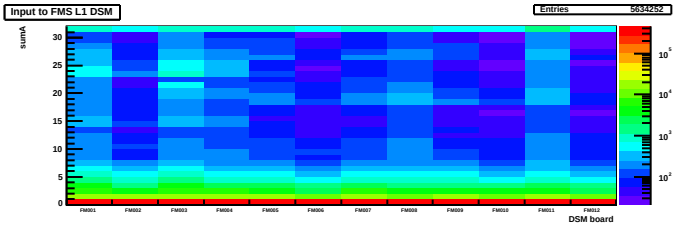

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

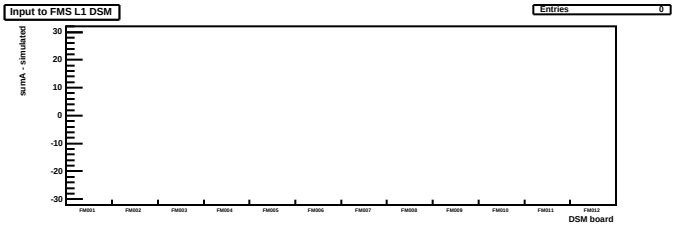

Input to FMS L1 DSM
Entries 5634252
sumB
DSM board

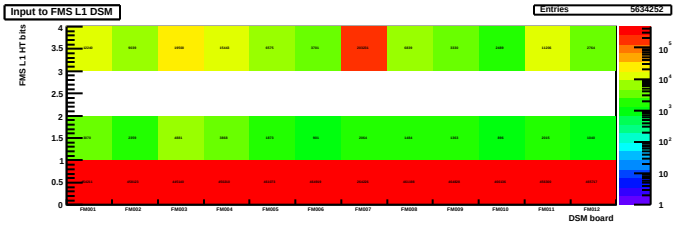

Input to FMS L1 DSM
Entries 20019
sumB - simulated
DSM board

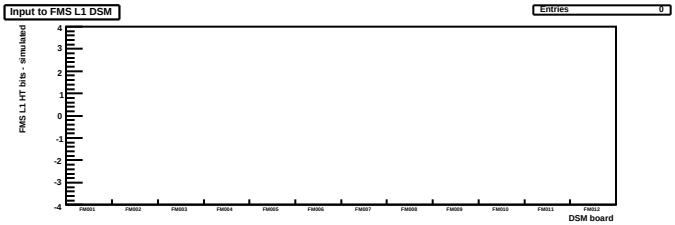

Input to FMS L1 DSM
Entries 5634252
sumAB
DSM board

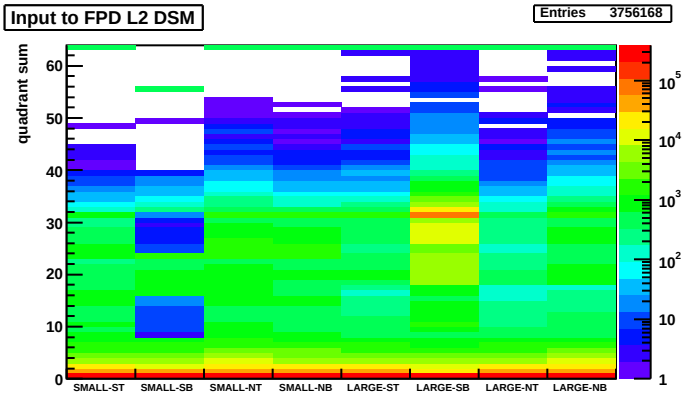

Input to FMS L1 DSM
Entries 6984
sumAB - simulated
DSM board

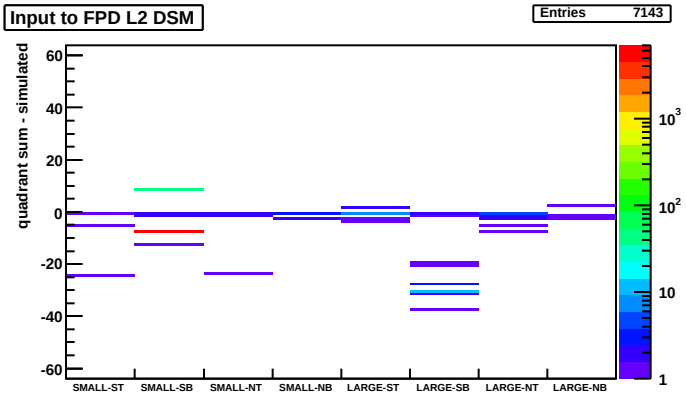

Input to FMS L1 DSM
Entries 5634252
sumA
DSM board

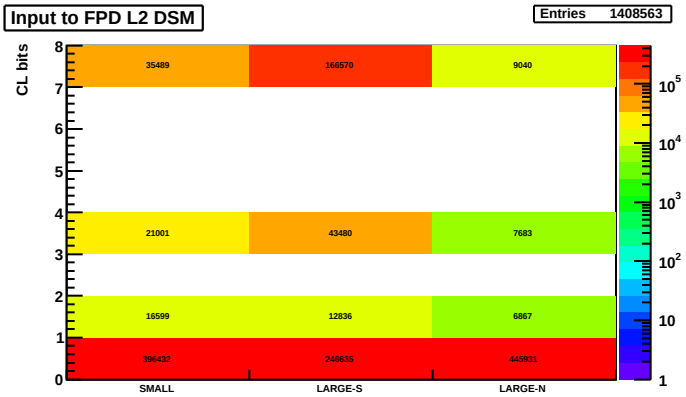

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

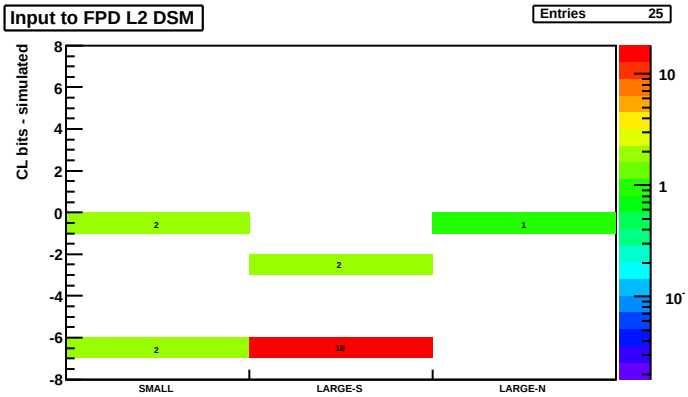

Input to FMS L1 DSM
Entries 5634252
FMS L1 HT bits
DSM board

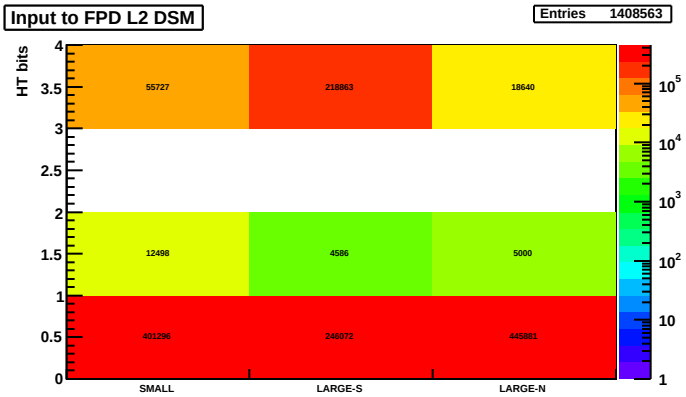

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

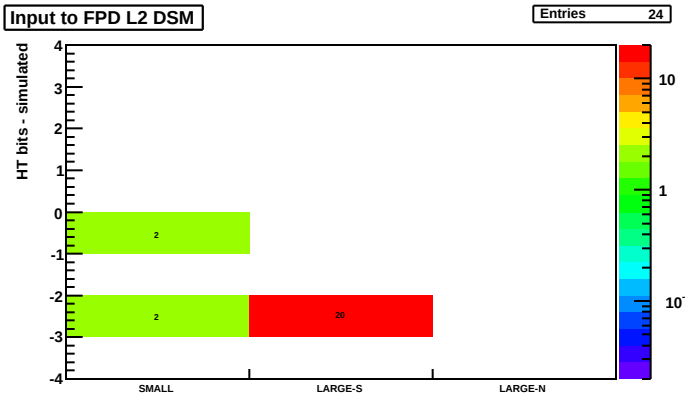

Input to FPD L2 DSM
Entries 3756168
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

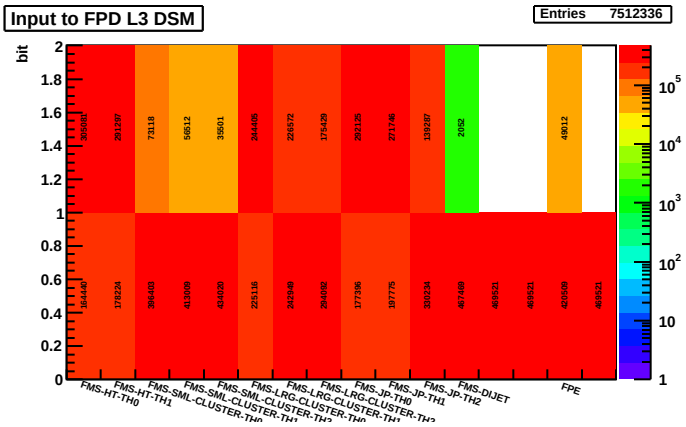

Input to FPD L2 DSM
Entries 7143
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

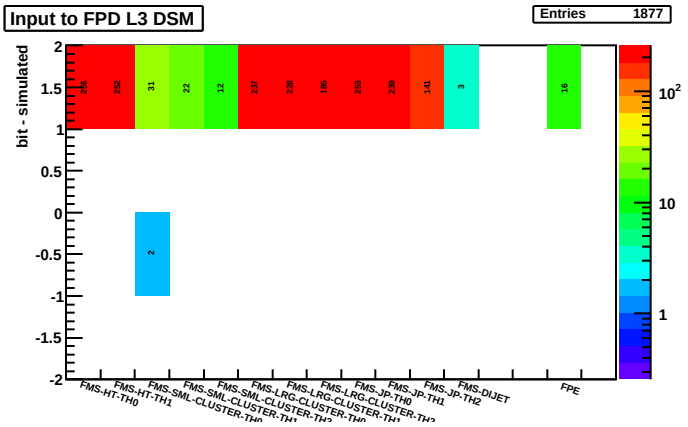

Input to FPD L2 DSM
Entries 1408563
CL bits
35489
166570
9040
21001
43480
7683
16599
12836
6867
396432
246635
445931
SMALL
LARGE-S
LARGE-N

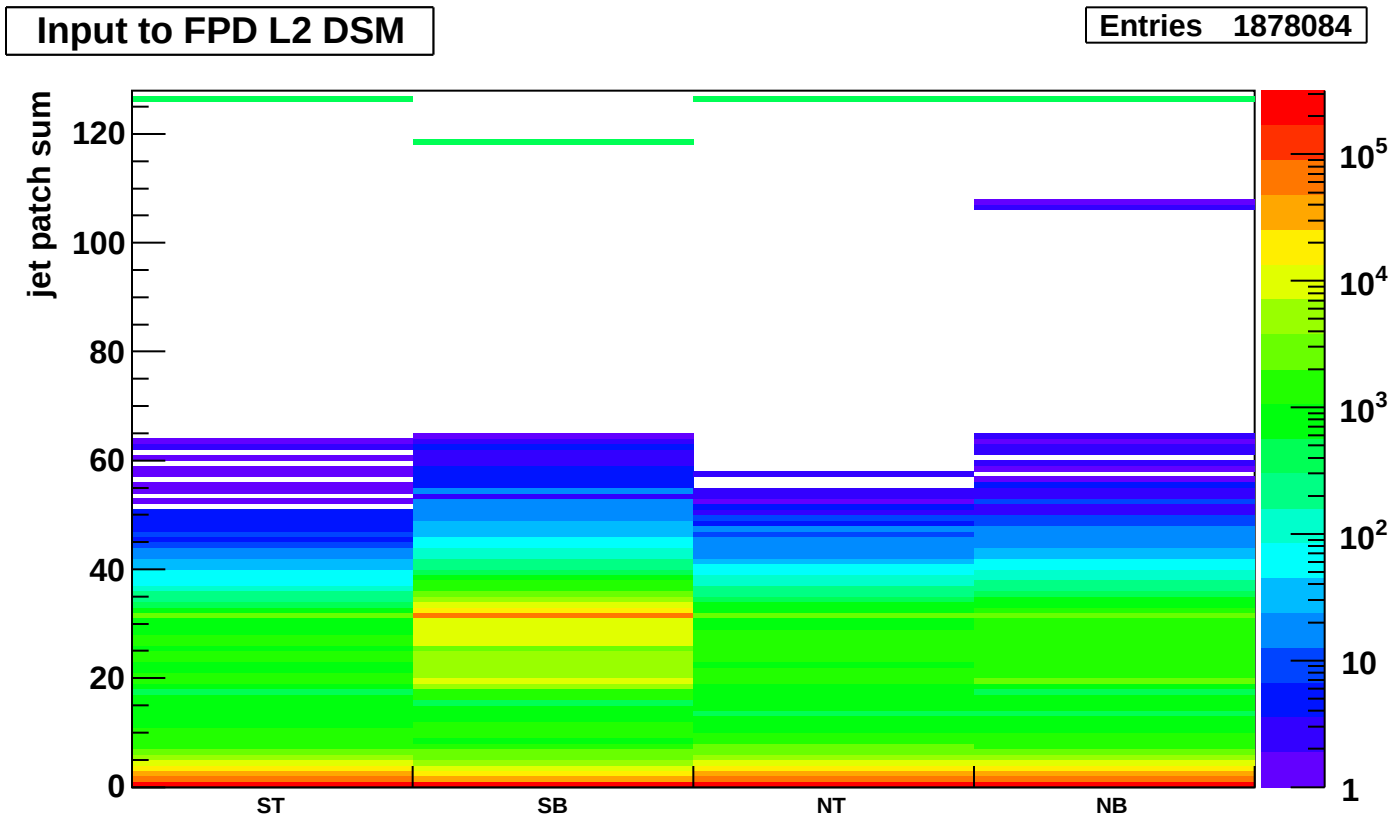

Input to FPD L2 DSM
Entries 25
CL bits - simulated
2
1
2
2
18
SMALL
LARGE-S
LARGE-N

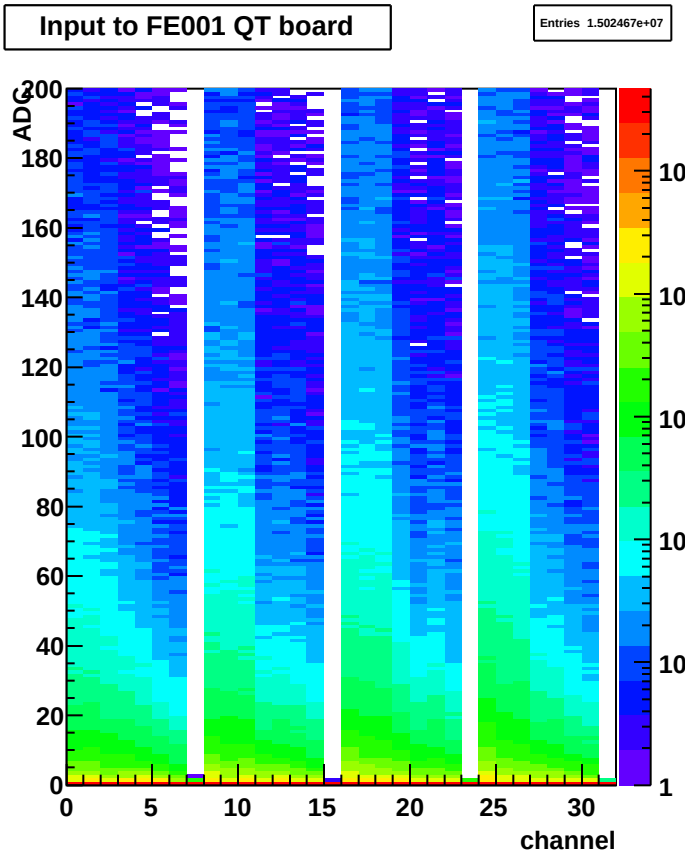

Input to FPD L2 DSM
Entries 1408563
HT bits
55727
218863
18640
12498
4586
5000
401296
246072
445881
SMALL
LARGE-S
LARGE-N

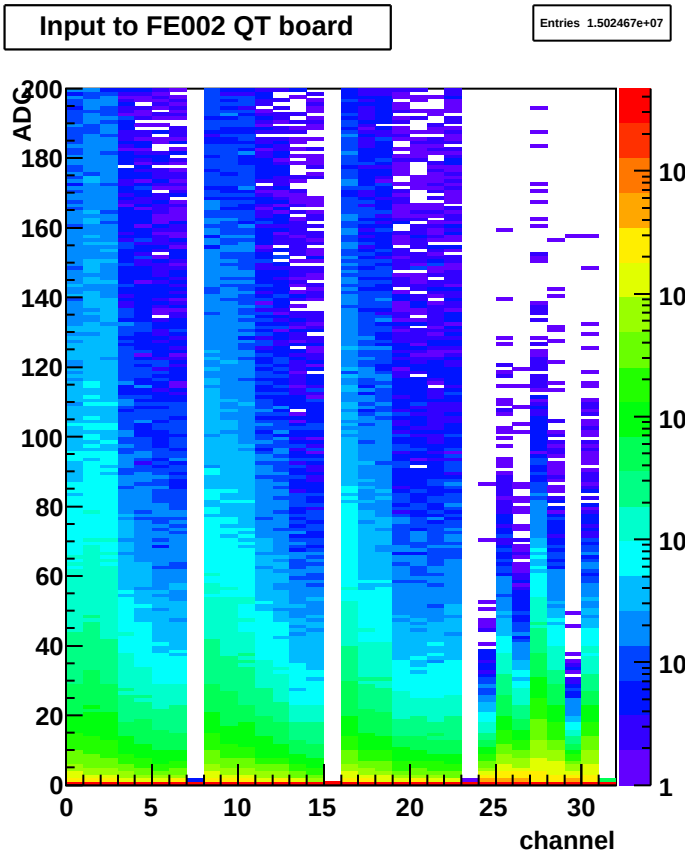

Input to FPD L2 DSM
Entries 24
HT bits - simulated
2
2
20
SMALL
LARGE-S
LARGE-N

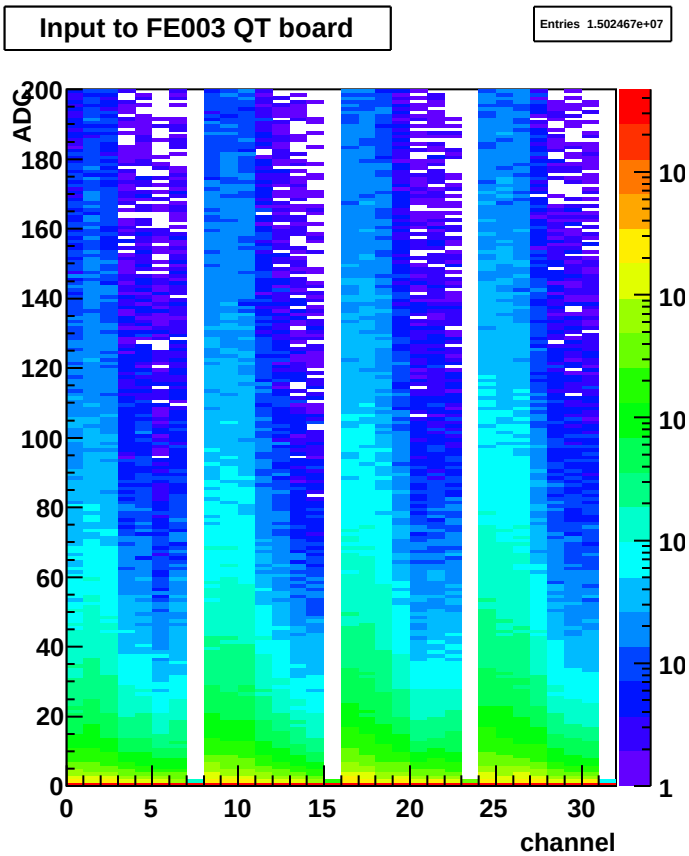

Input to FPD L3 DSM
Entries 7512336
bit
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

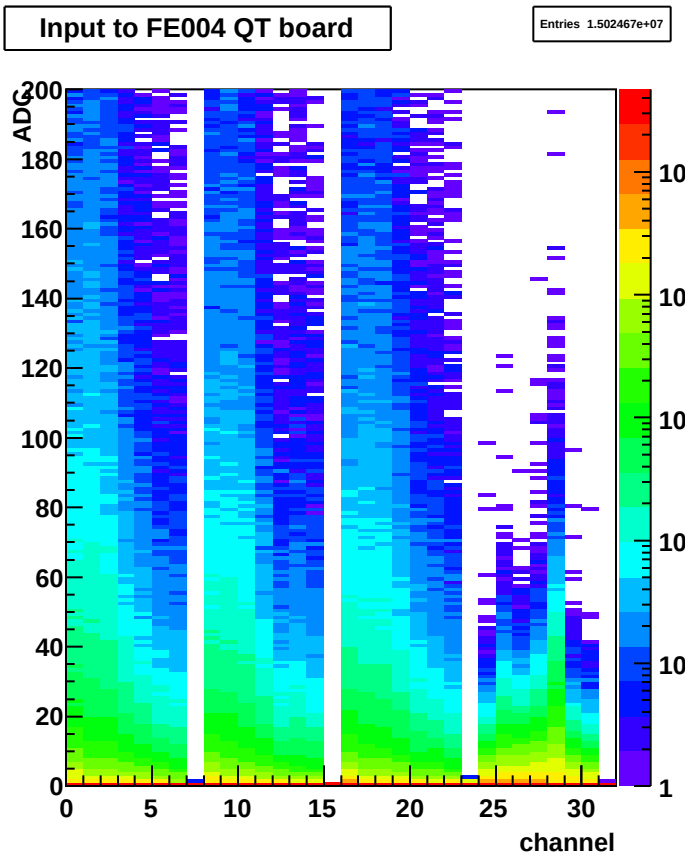

Input to FPD L3 DSM
Entries 1877
bit - simulated
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

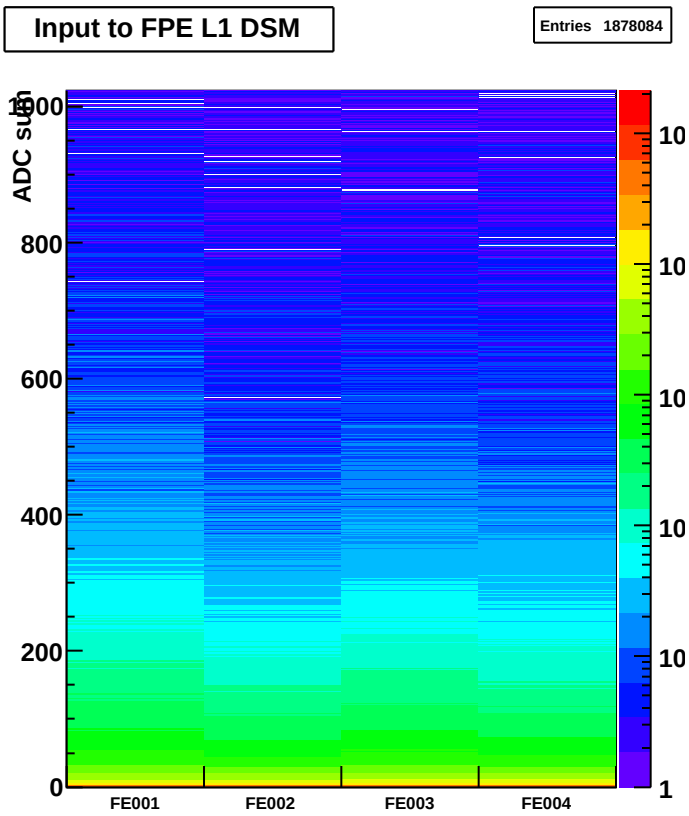

Input to FPD L2 DSM
Entries 1878084
jet patch sum
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3
10^4
10^5

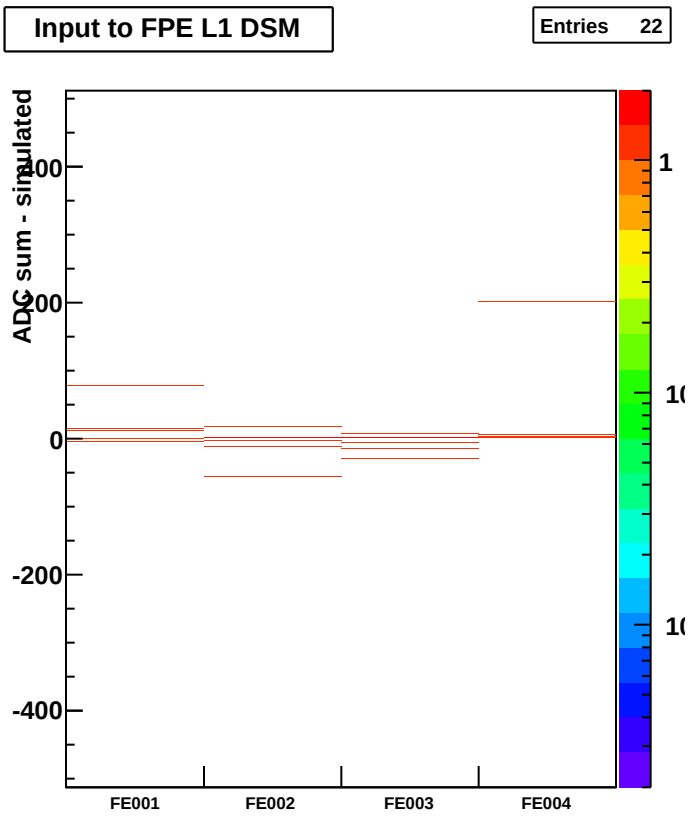

Input to FE001 QT board
Entries 1.502467e+07
ADC
channel

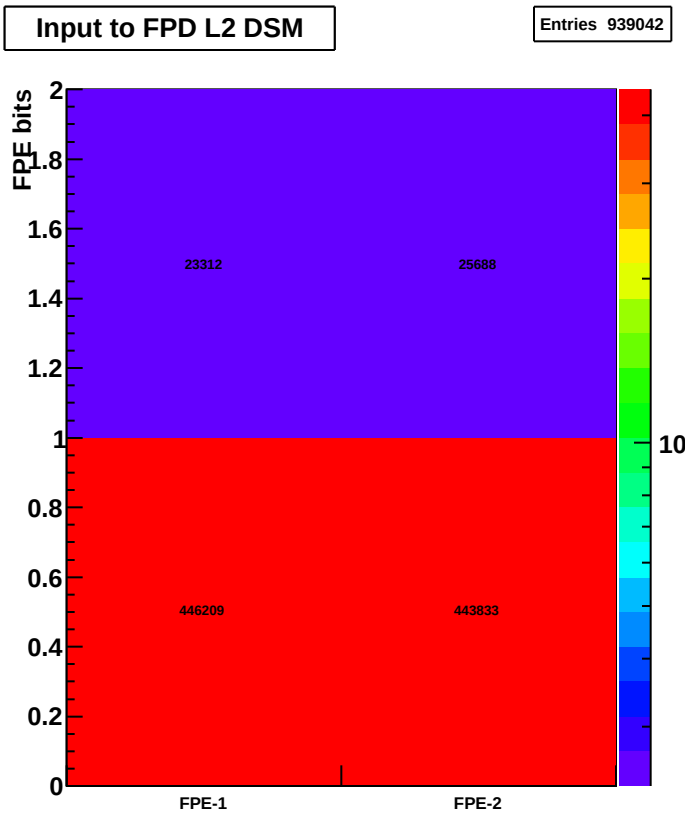

Input to FE002 QT board
Entries 1.502467e+07
ADC
channel

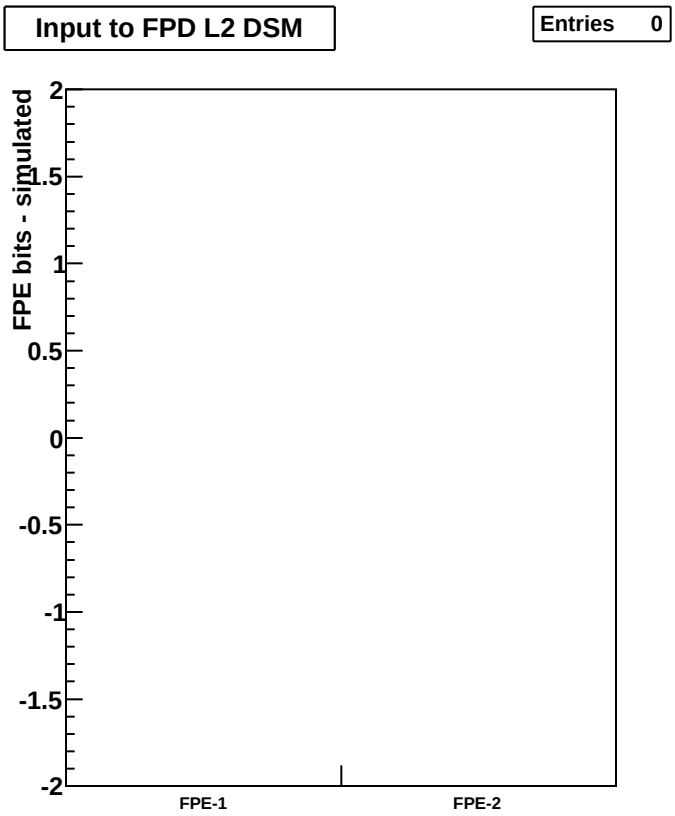

Input to FE003 QT board
Entries 1.502467e+07
ADC
channel


Input to FE004 QT board
Entries 1.502467e+07
ADC
channel


Input to FPE L1 DSM
Entries 1878084
ADC sum
1000
800
600
400
200
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1


Input to FPE L1 DSM
Entries 22
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004


Input to FPD L2 DSM
Entries 939042
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
23312
25688
446209
443833
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