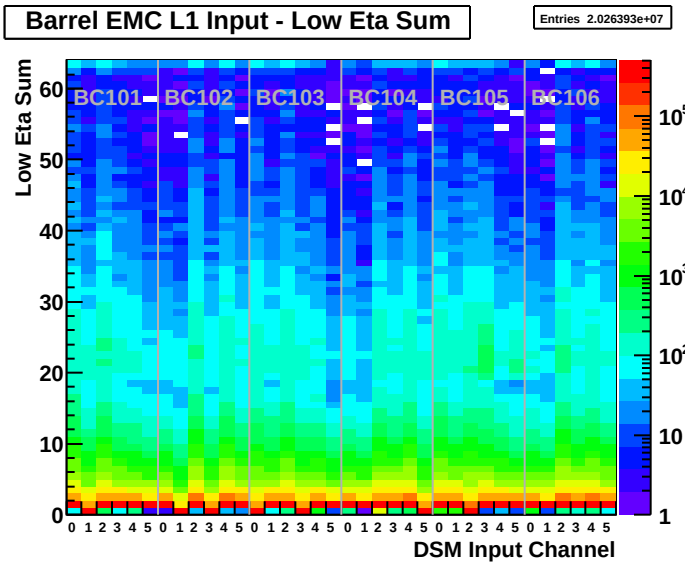
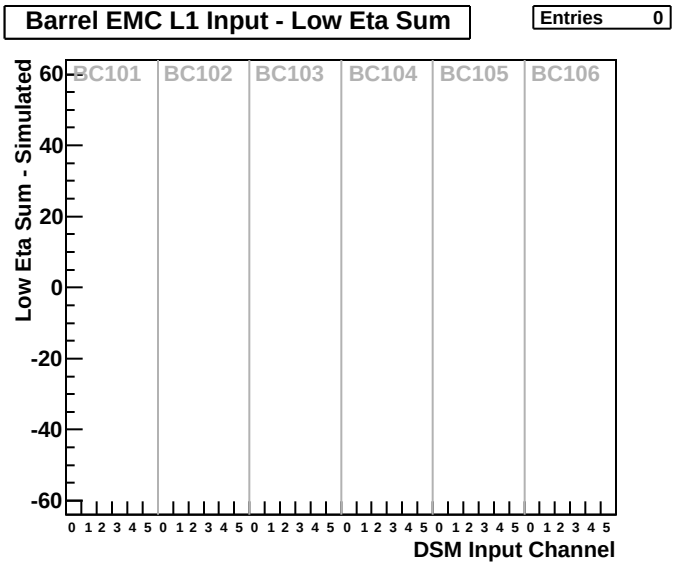
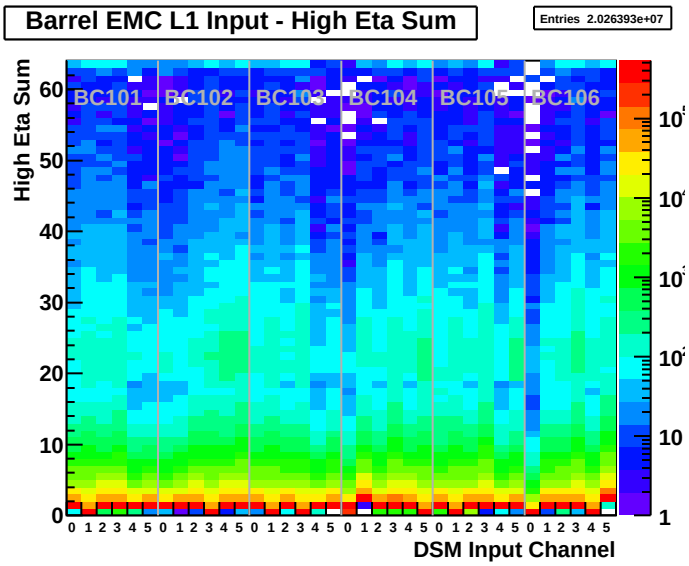
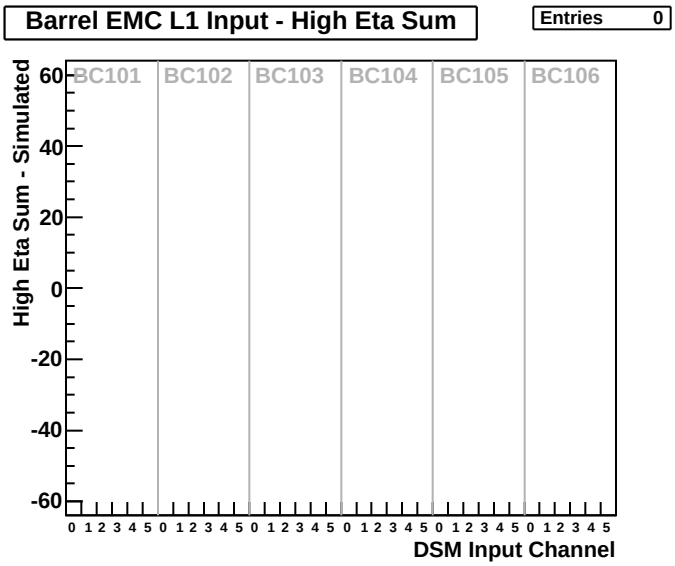
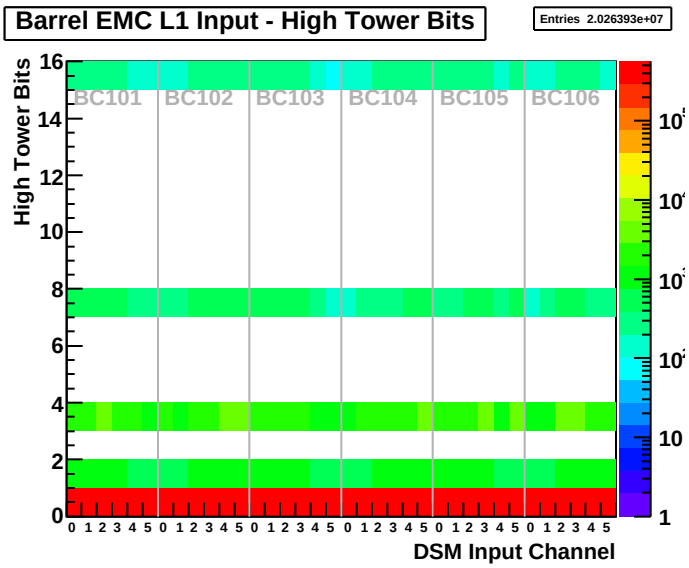
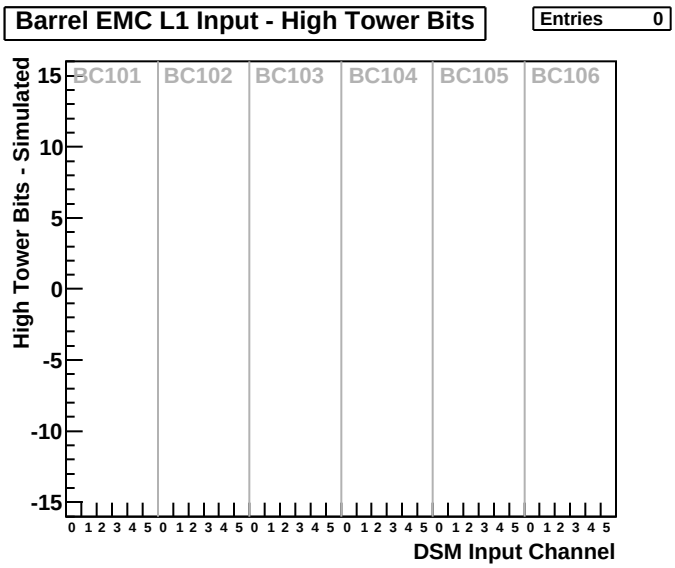

Barrel EMC L1 Input - Low Eta Sum
Entries 2.026393e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

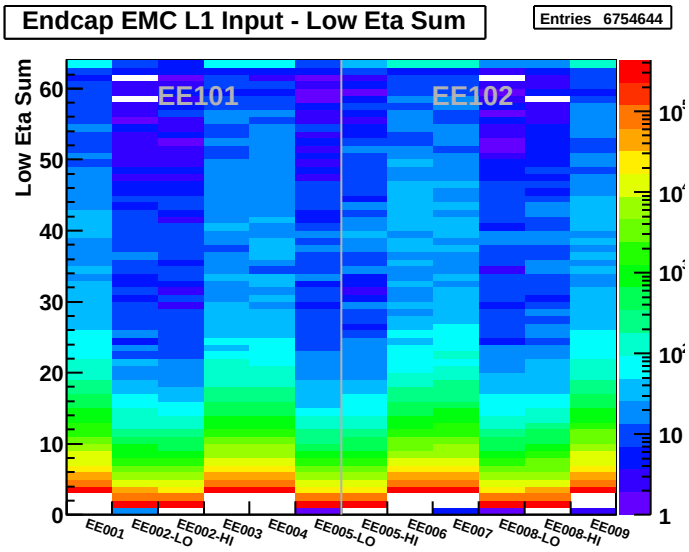

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

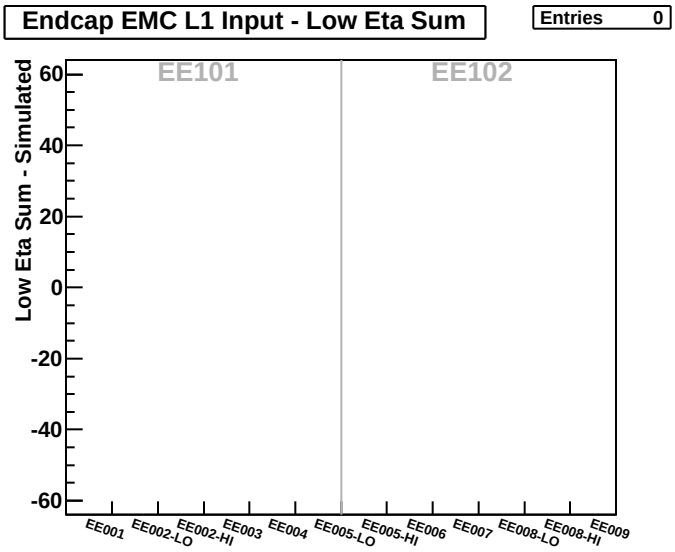

Barrel EMC L1 Input - High Eta Sum
Entries 2.026393e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

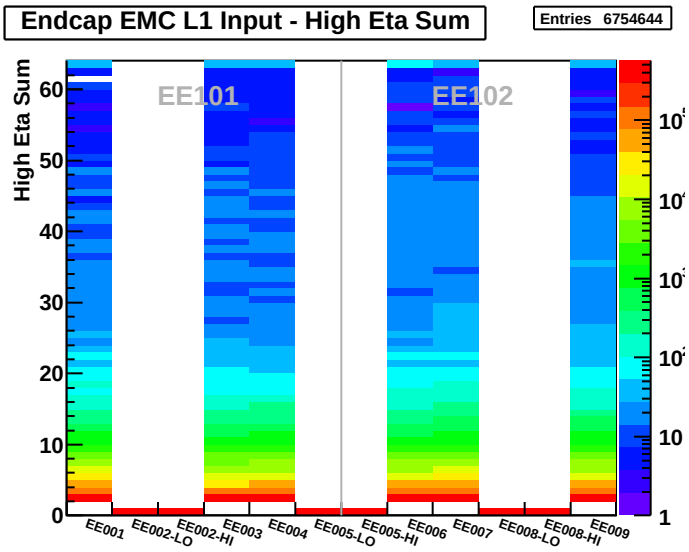

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

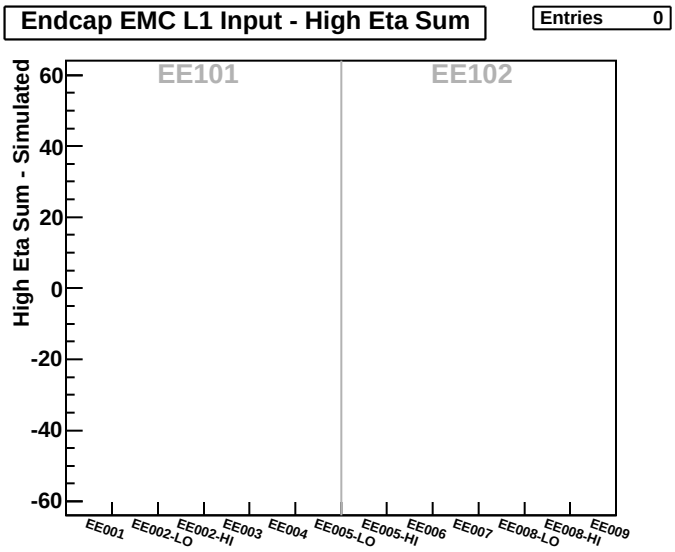

Barrel EMC L1 Input - High Tower Bits
Entries 2.026393e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

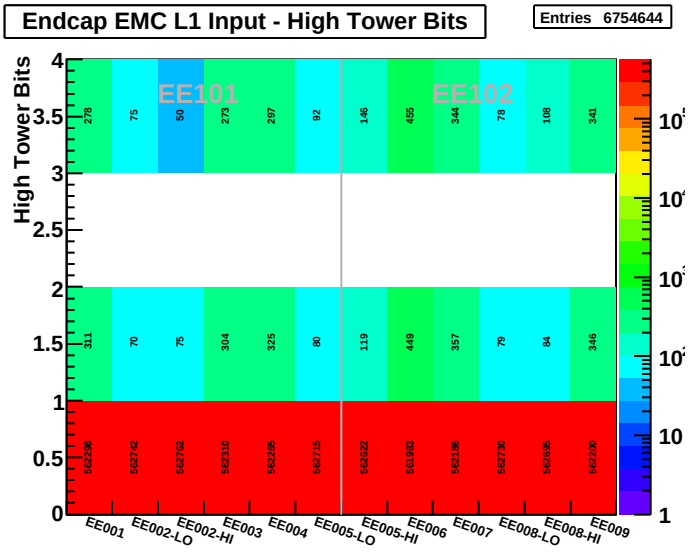

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

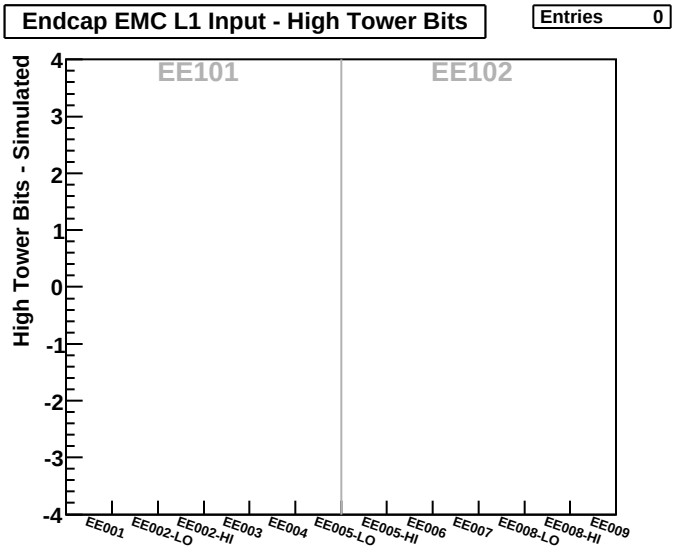

Endcap EMC L1 Input - Low Eta Sum
Entries 6754644
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

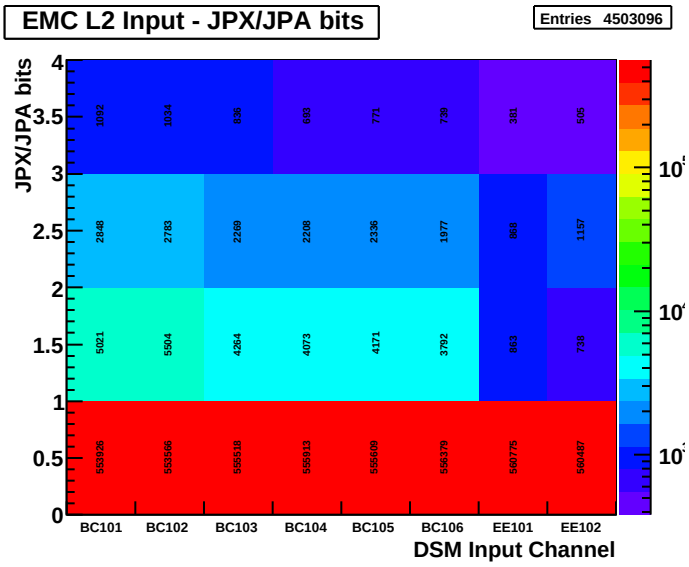

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

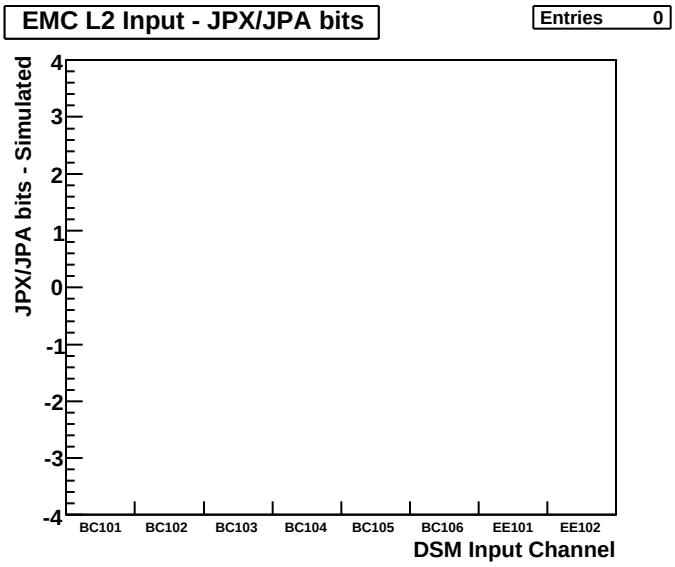

Endcap EMC L1 Input - High Eta Sum
Entries 6754644
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

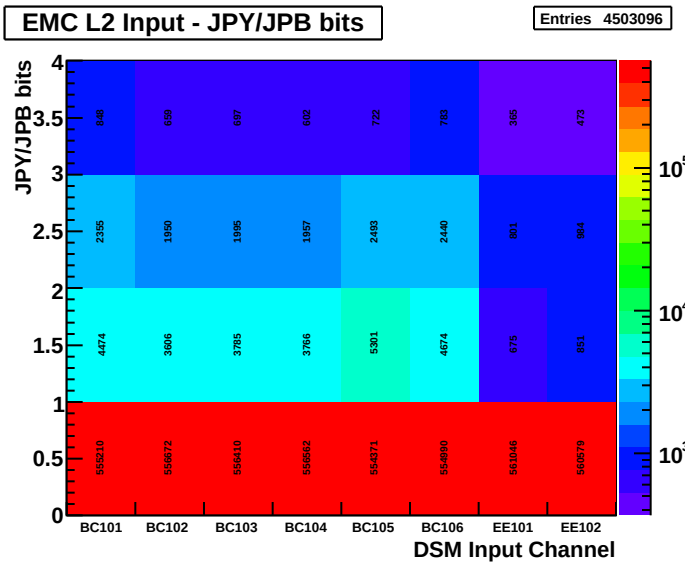

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

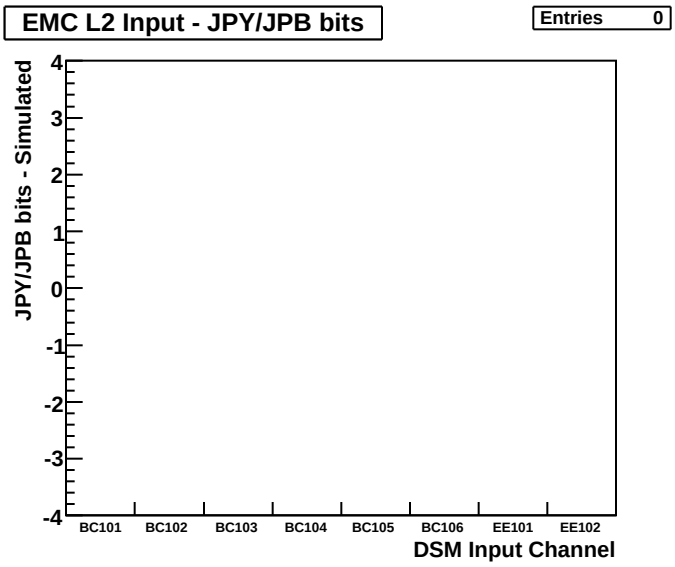

Endcap EMC L1 Input - High Tower Bits
Entries 6754644
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

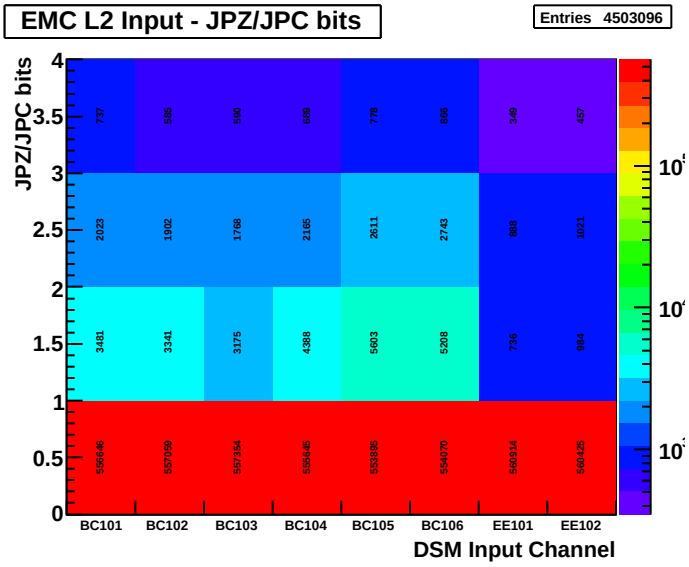

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

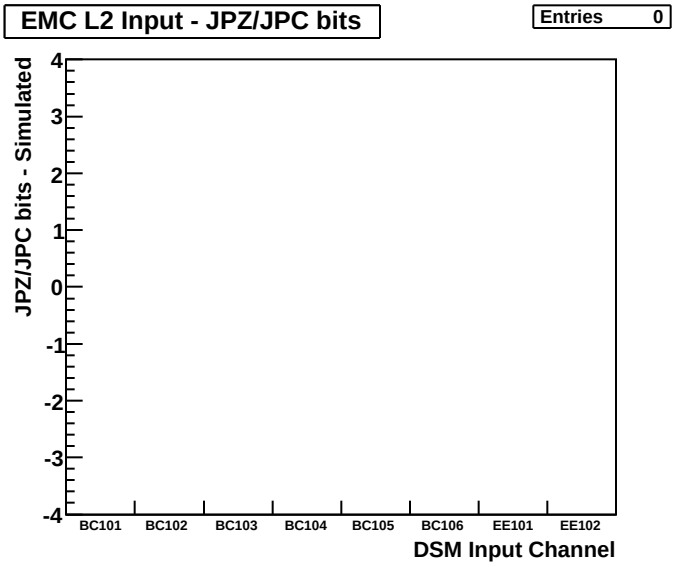

EMC L2 Input - JPX/JPA bits
Entries 4503096
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1092 1034 836 693 771 739 381 505
2848 2783 2289 2208 2336 1977 888 1157
5021 5504 4264 4073 4171 3792 863 738
553926 553566 555518 555913 555609 556379 560775 560487

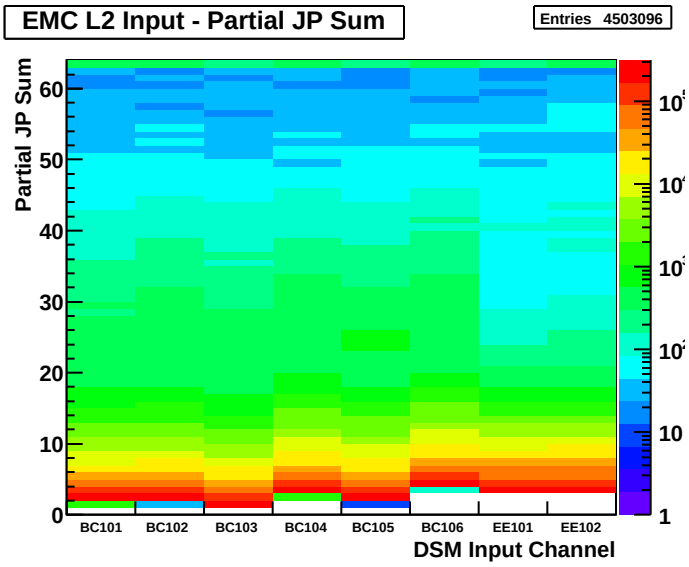

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

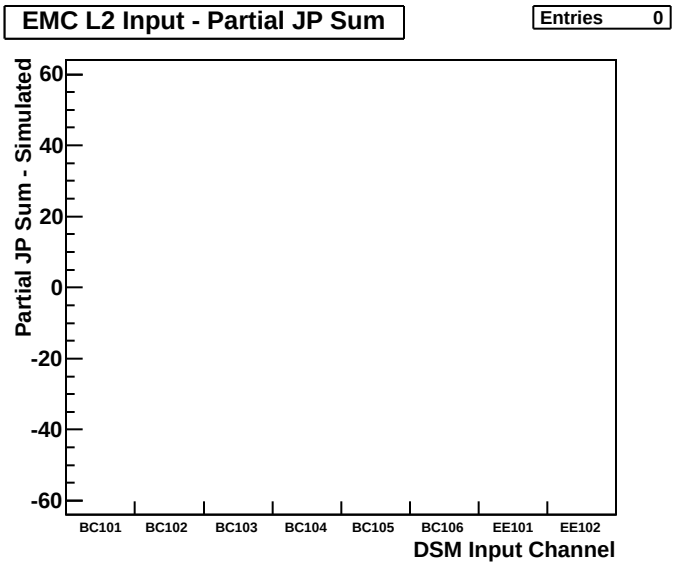

EMC L2 Input - JPY/JPB bits
Entries 4503096
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
846 699 697 602 722 783 365 473
2355 1950 1995 1957 2493 2440 801 984
4474 3606 3765 3766 5301 4674 675 851
555210 556672 556410 556562 554371 554990 561046 560579

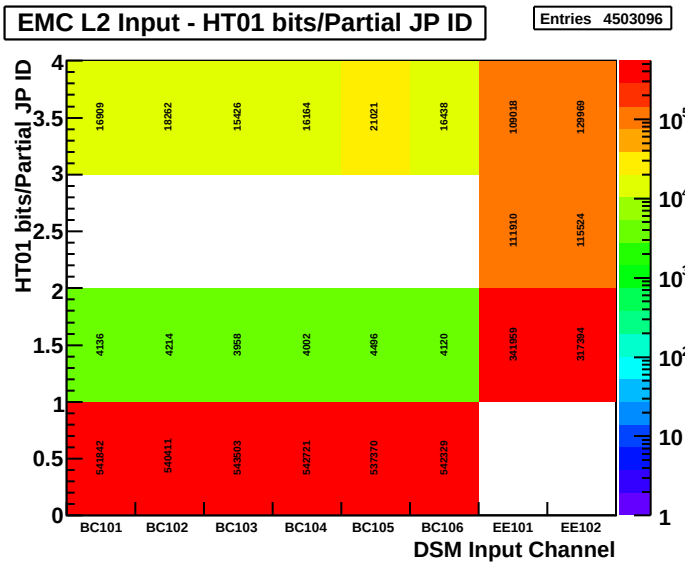

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

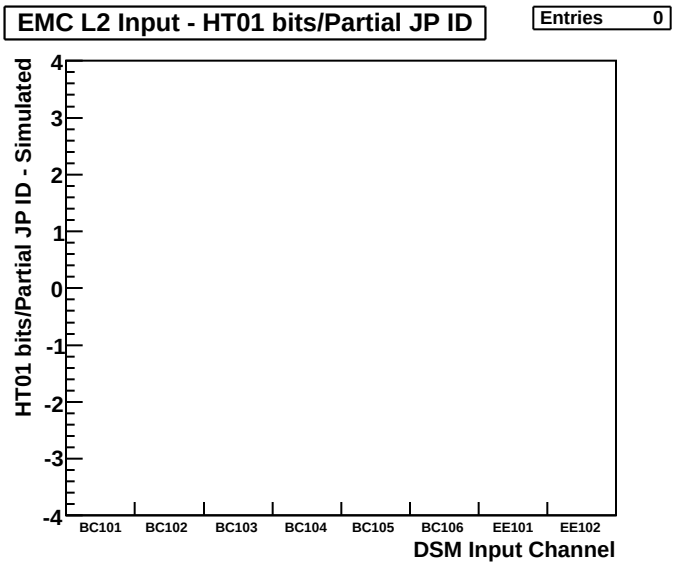

EMC L2 Input - JPZ/JPC bits
Entries 4503096
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
737 585 590 689 778 866 349 457
2023 1902 1768 2165 2611 2743 888 1021
3481 3341 3175 4388 5603 5208 736 934
556546 557059 557354 555546 553895 554070 560914 560425

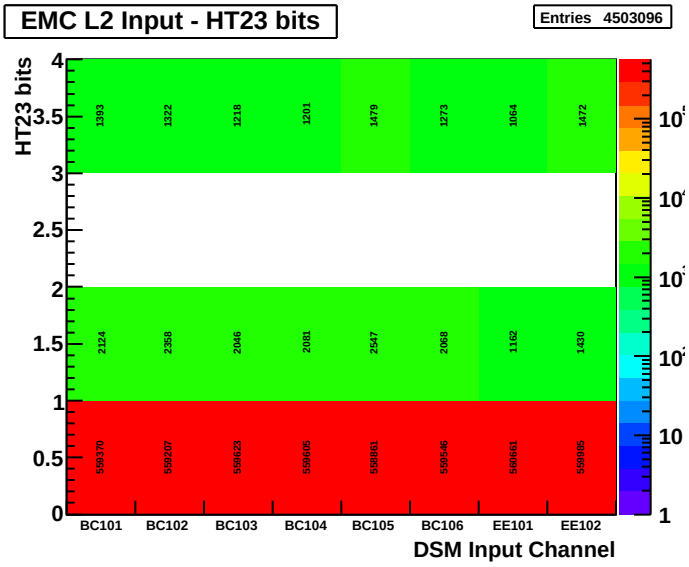

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

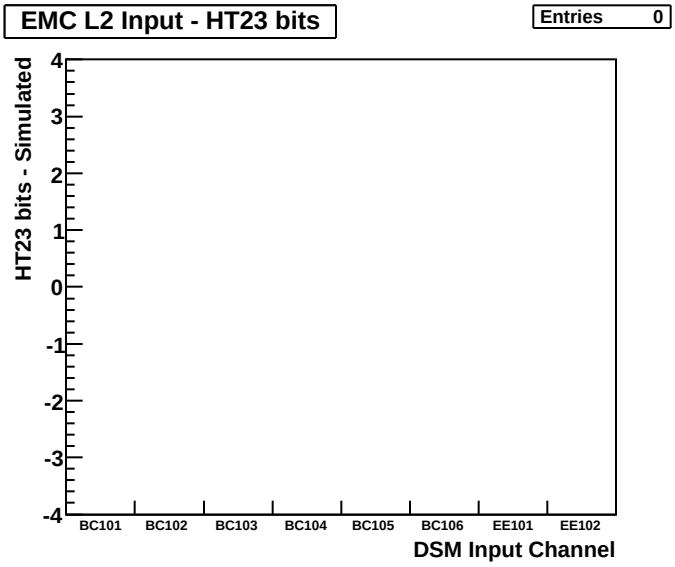

EMC L2 Input - Partial JP Sum
Entries 4503096
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

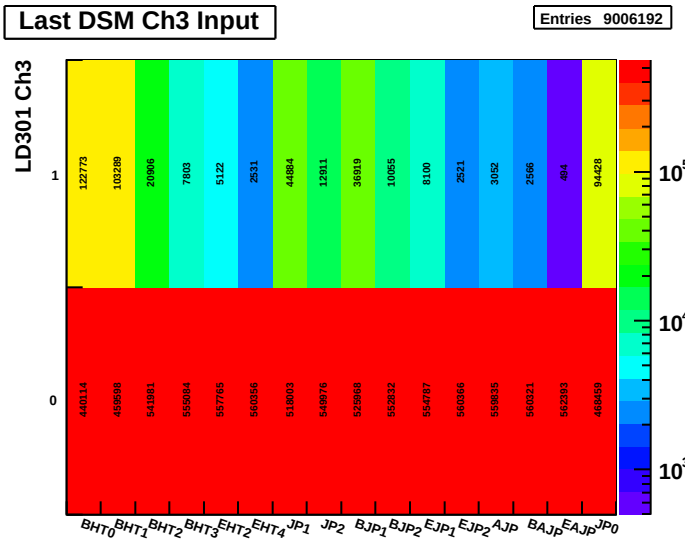

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

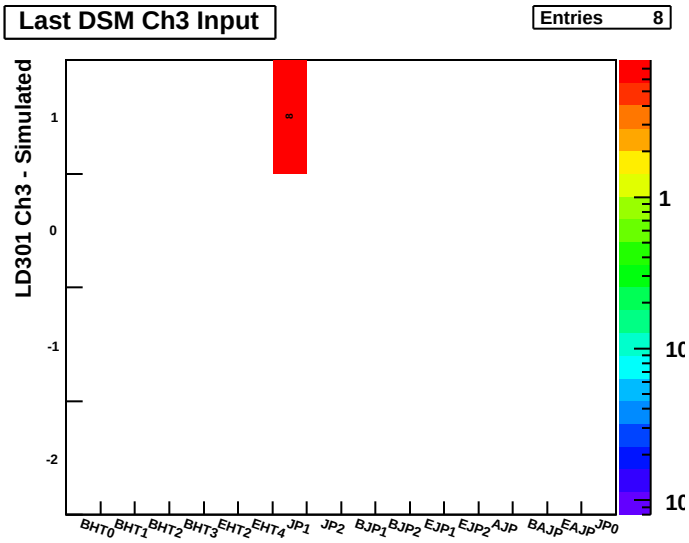

EMC L2 Input - HT01 bits/Partial JP ID
Entries 4503096
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

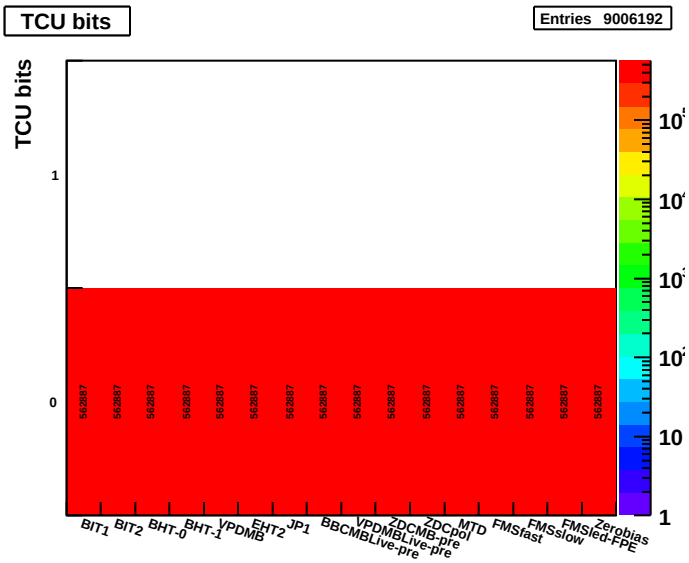

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

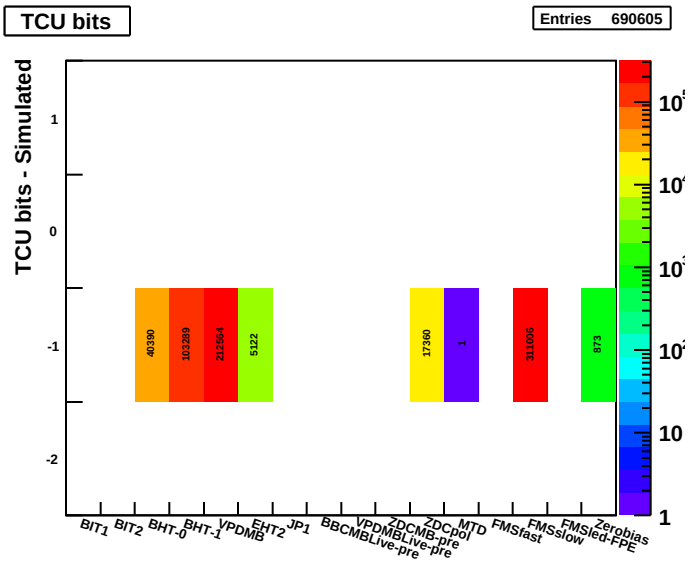

EMC L2 Input - HT23 bits
Entries 4503096
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

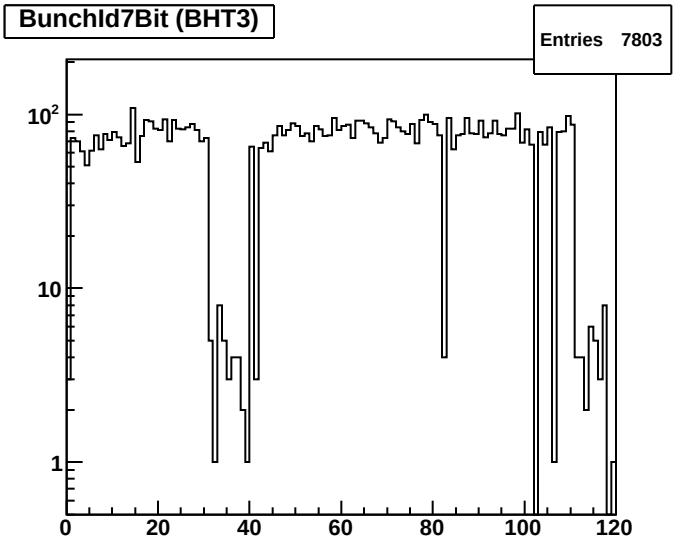

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

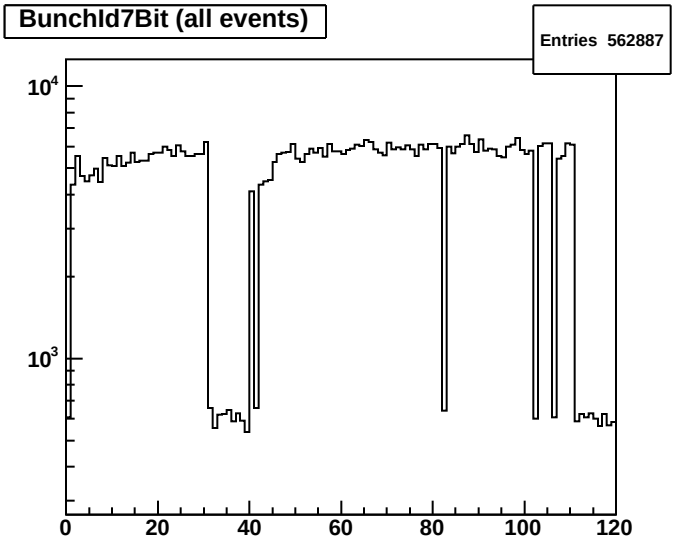

Last DSM Ch3 Input
Entries 9006192
LD301 Ch3
122773 103289 20906 7803 5122 2531 44984 12911 36919 10055 8100 2521 3052 2566 494 94428
440114 459598 541981 555084 557765 560356 518003 549976 525968 552832 554787 560366 559835 560321 562393 468459
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

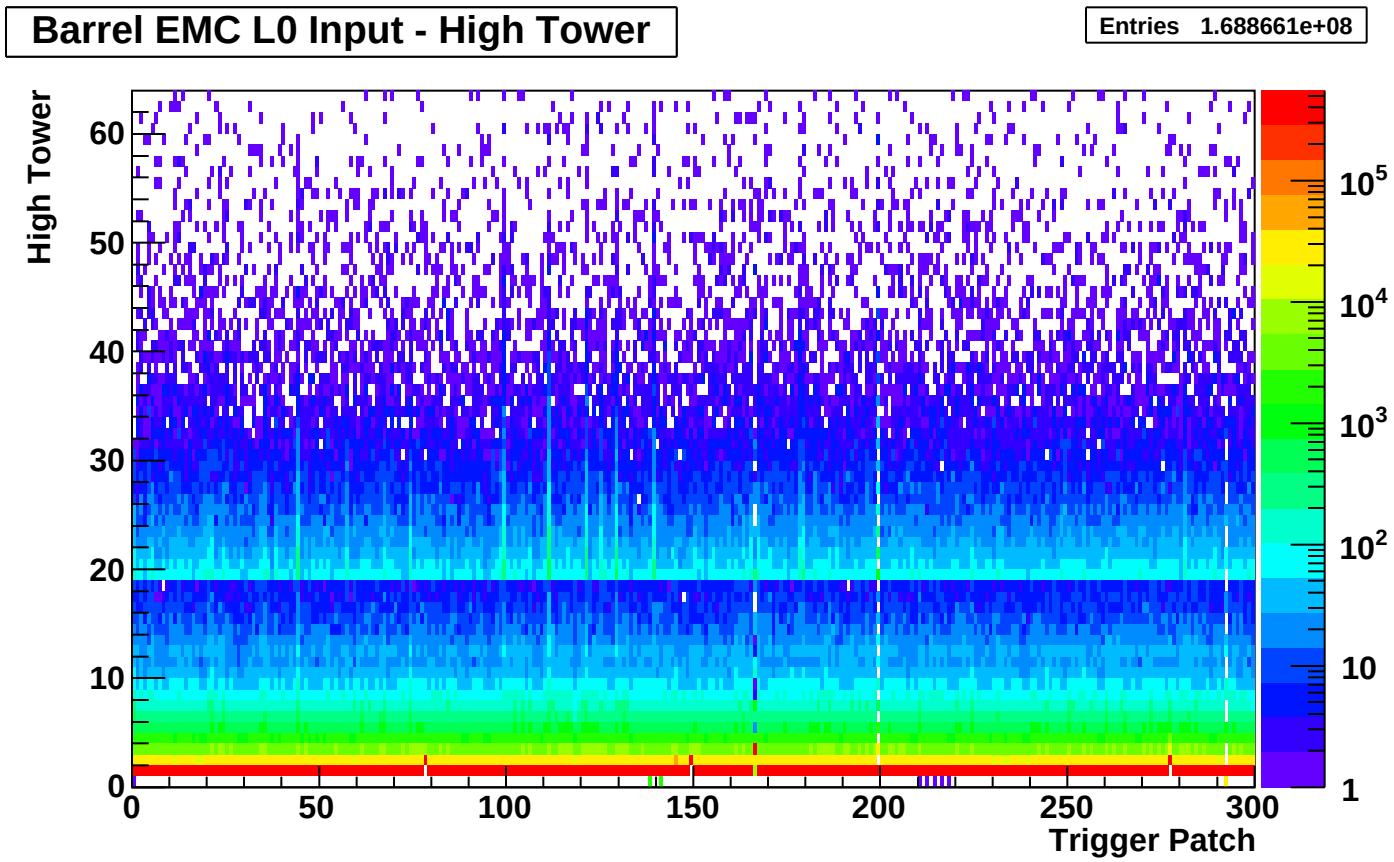

Last DSM Ch3 Input
Entries 8
LD301 Ch3 - Simulated
8
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

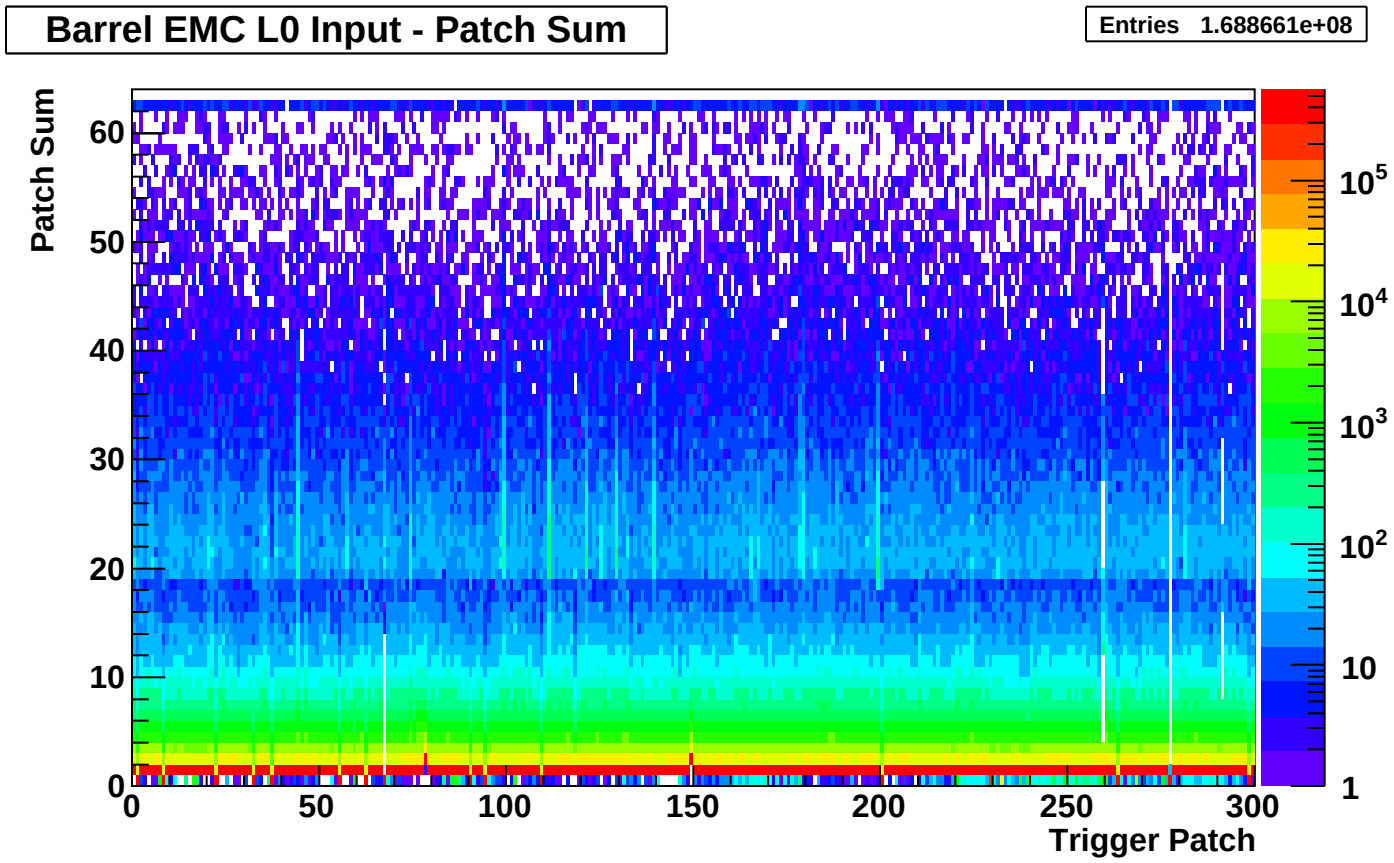

TCU bits
Entries 9006192
TCU bits
562387 562387 562387 562387 562387 562387 562387 562387 562387 562387 562387 562387 562387 562387 562387 562387
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

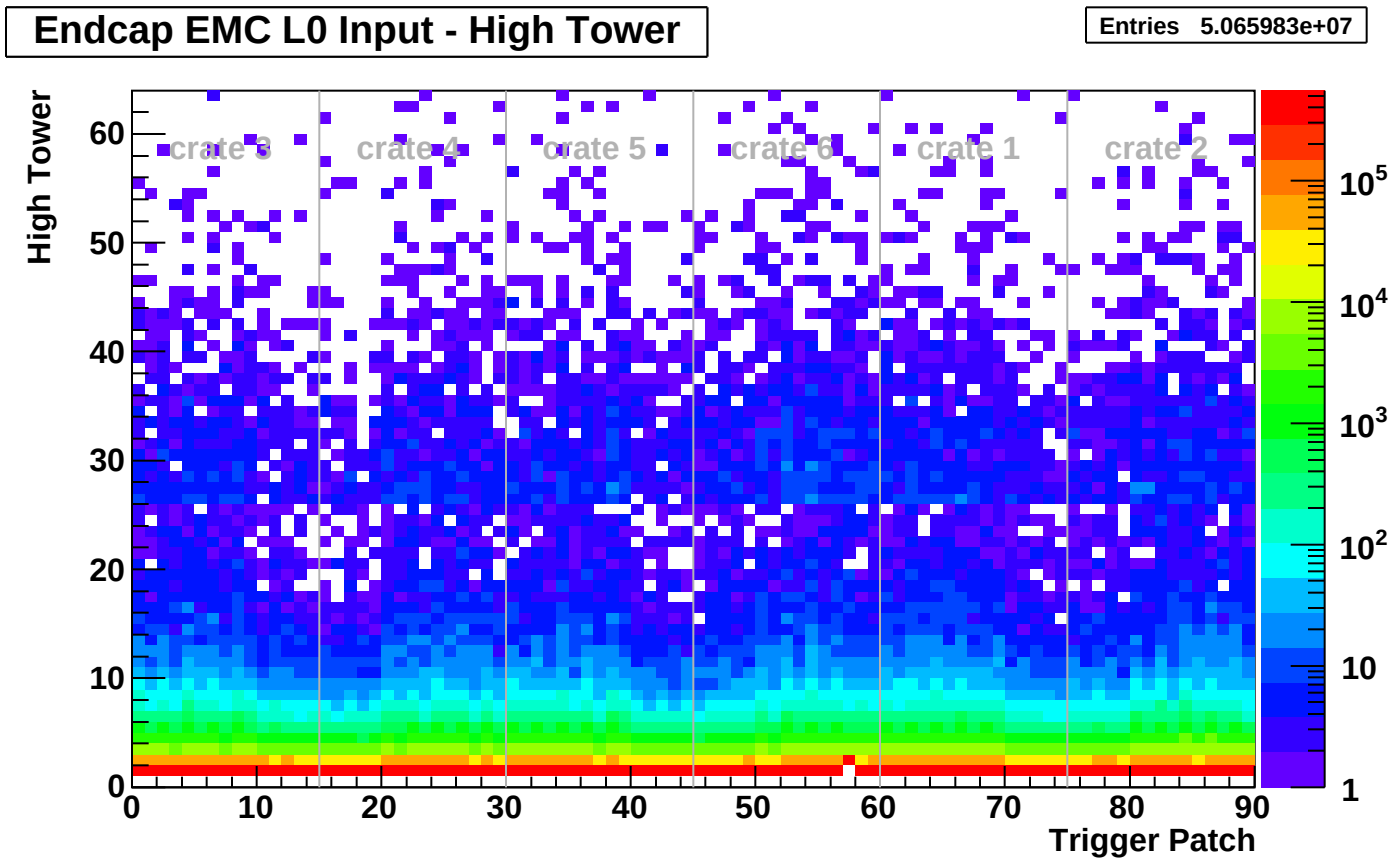

TCU bits
Entries 690605
TCU bits - Simulated
40390 103289 212564 5122 17360 1 311006 873
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

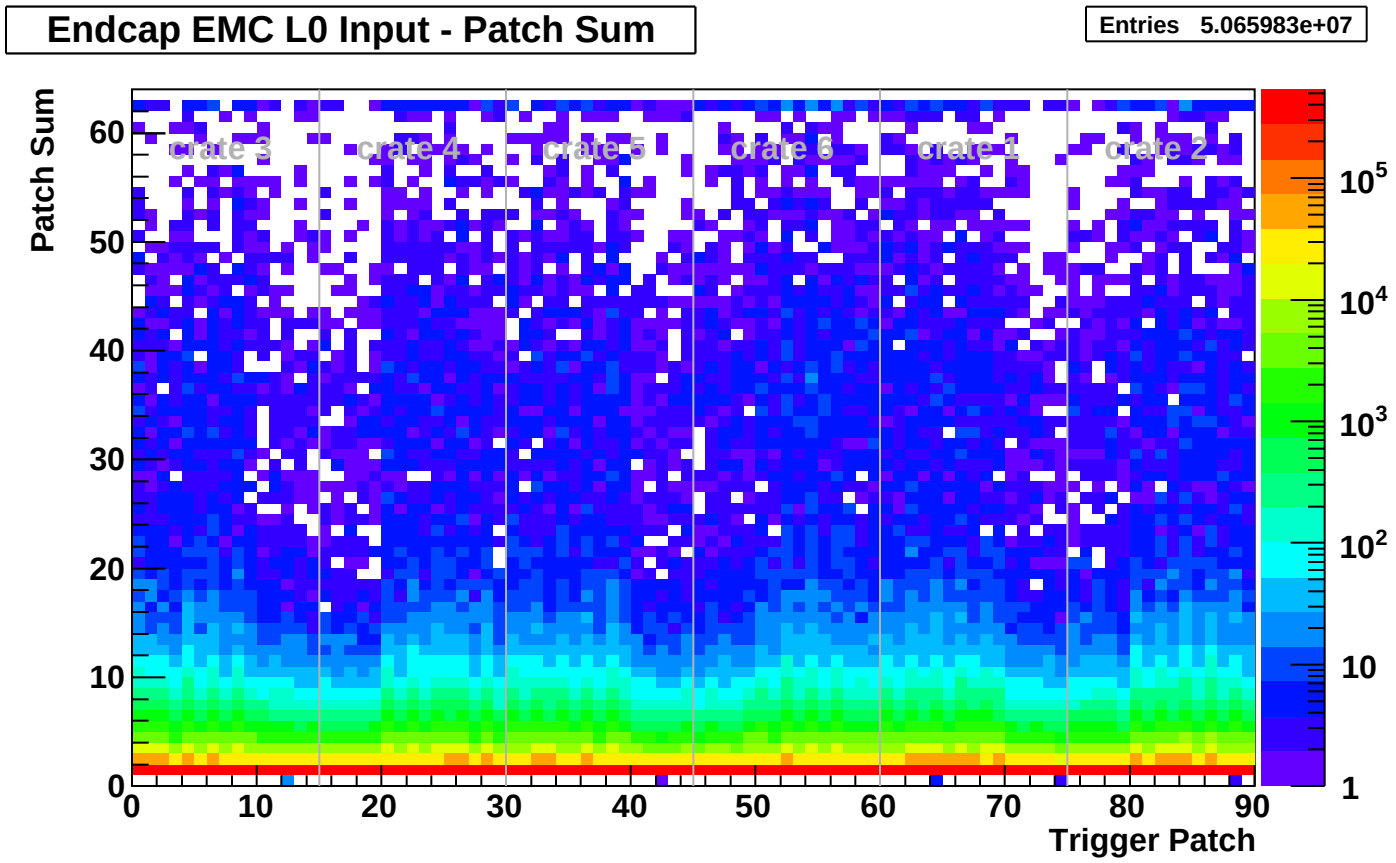

BunchId7Bit (BHT3)
Entries 7803

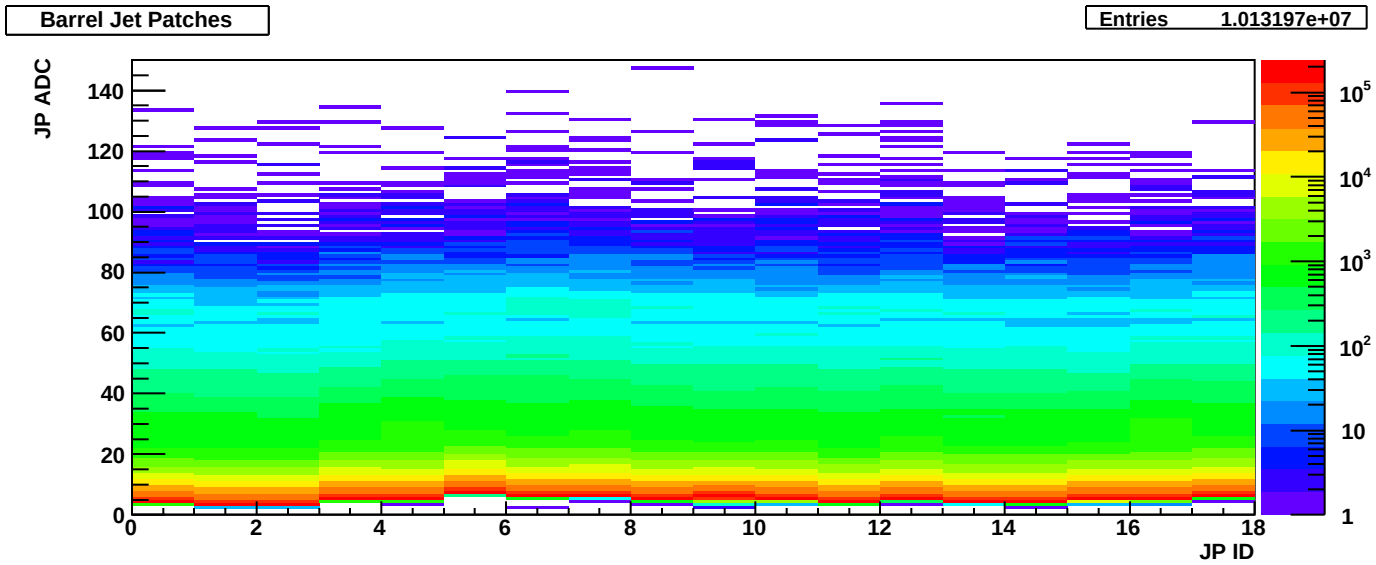

BunchId7Bit (all events)
Entries 562887

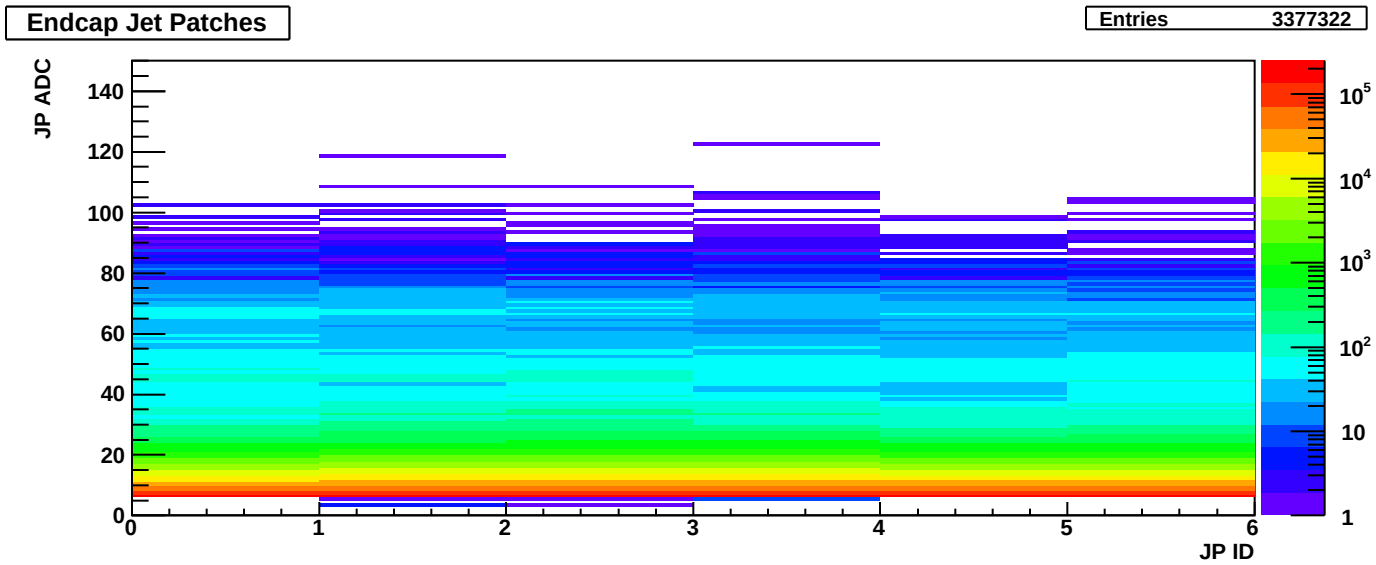

Barrel EMC L0 Input - High Tower
Entries 1.688661e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

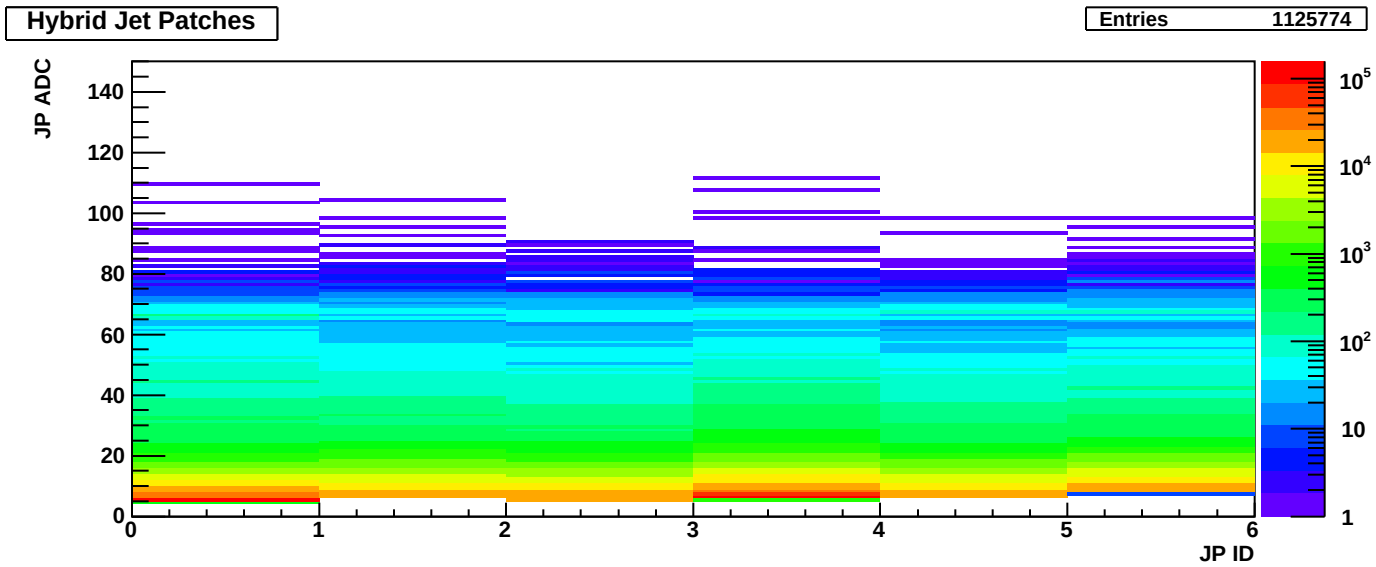

Barrel EMC L0 Input - Patch Sum
Entries 1.688661e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

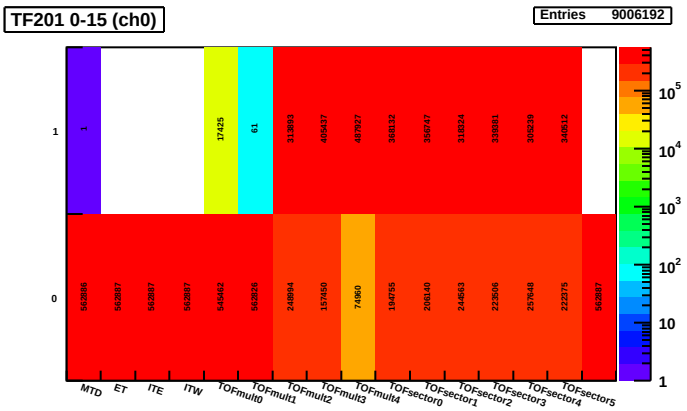

Endcap EMC L0 Input - High Tower
Entries 5.065983e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

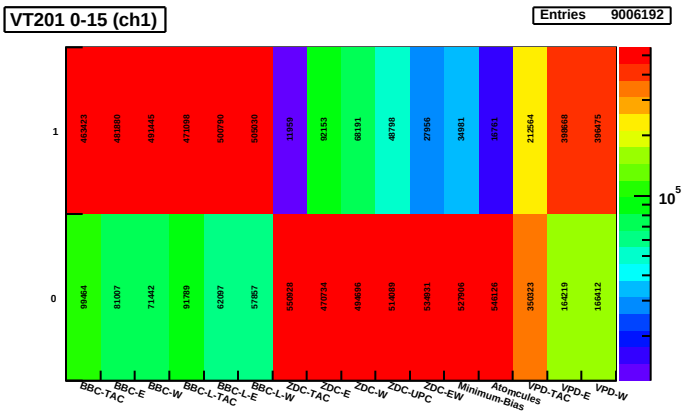

Endcap EMC L0 Input - Patch Sum
Entries 5.065983e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

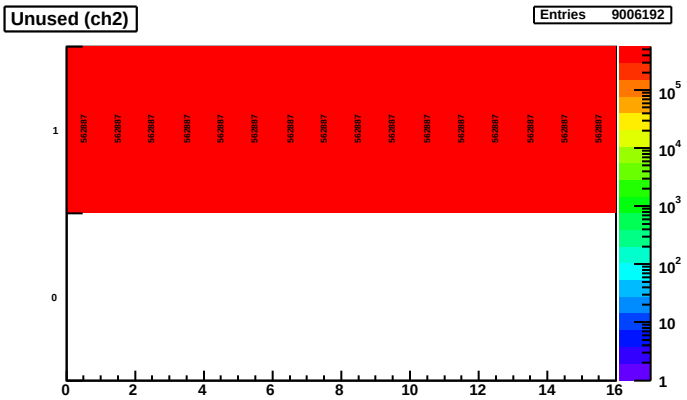

Barrel Jet Patches
Entries 1.013197e+07
JP ADC
JP ID

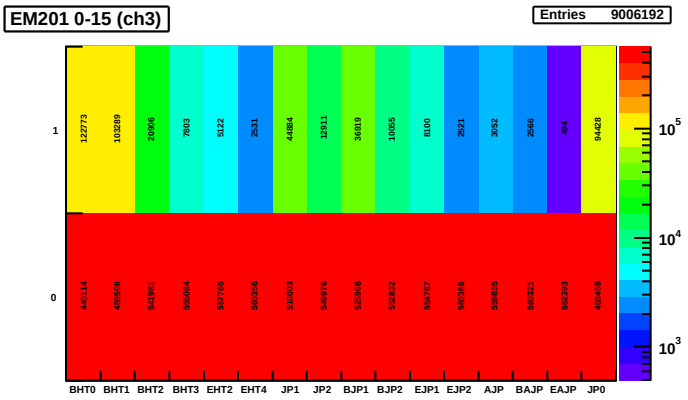

Endcap Jet Patches
Entries 3377322
JP ADC
JP ID

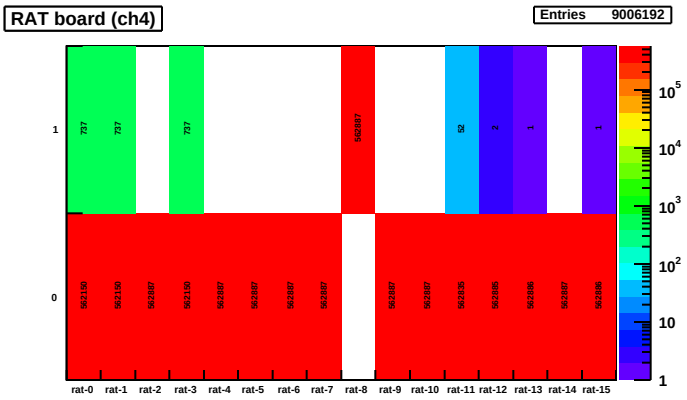

Hybrid Jet Patches
Entries 1125774
JP ADC
JP ID

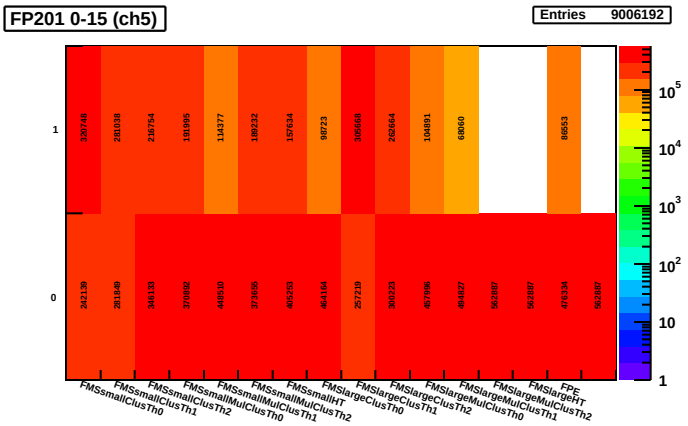

TF201 0-15 (ch0)
Entries 9006192
MTD
ET
ITE
ITW
TOFmult0
TOFmult1
TOFmult2
TOFmult3
TOFmult4
TOFsector0
TOFsector1
TOFsector2
TOFsector3
TOFsector4
TOFsector5

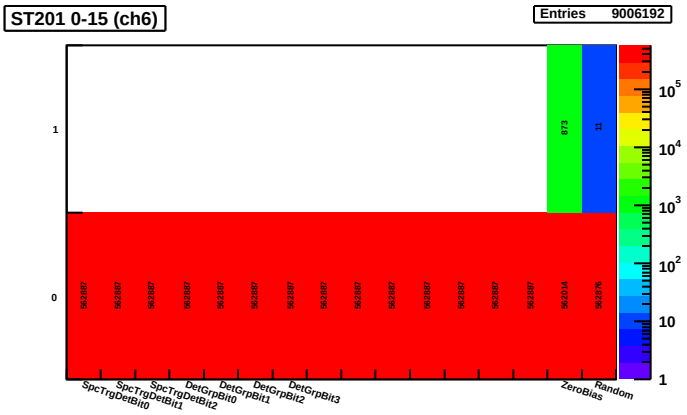

VT201 0-15 (ch1)
Entries 9006192
BBC-TAC
BBC-E
BBC-W
BBC-L-TAC
BBC-L-E
BBC-L-W
ZDC-TAC
ZDC-E
ZDC-W
ZDC-UPC
ZDC-EW
Minimum-Bias
Atomcules
VPD-TAC
VPD-E
VPD-W

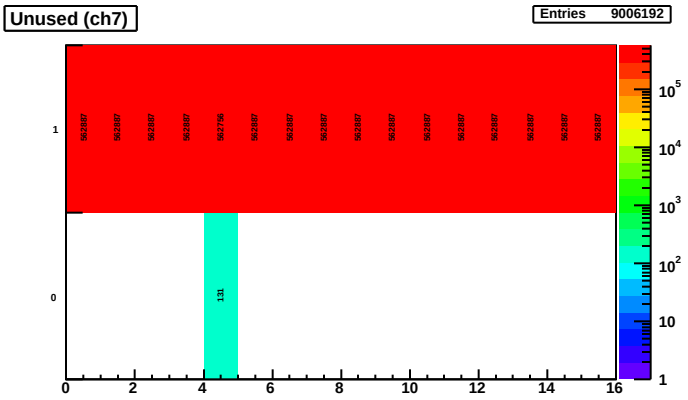

Unused (ch2)
Entries 9006192

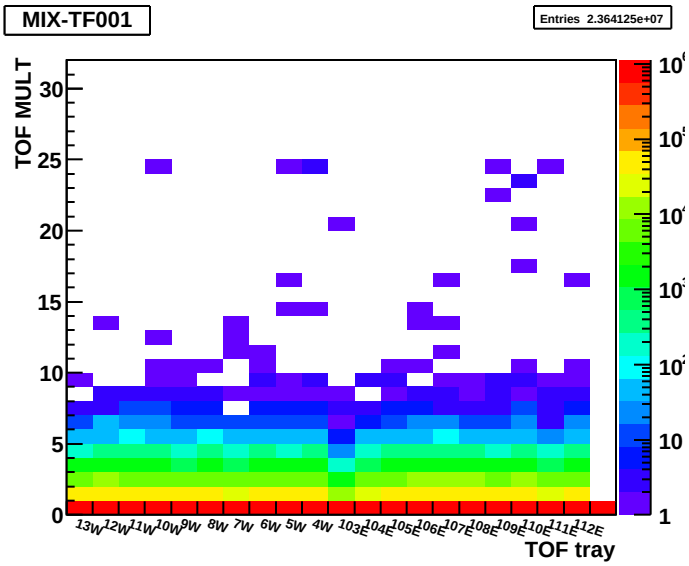

EM201 0-15 (ch3)
Entries 9006192
BHT0
BHT1
BHT2
BHT3
EHT2
EHT4
JP1
JP2
BJP1
BJP2
EJP1
EJP2
AJP
BAJP
EAJP
JP0

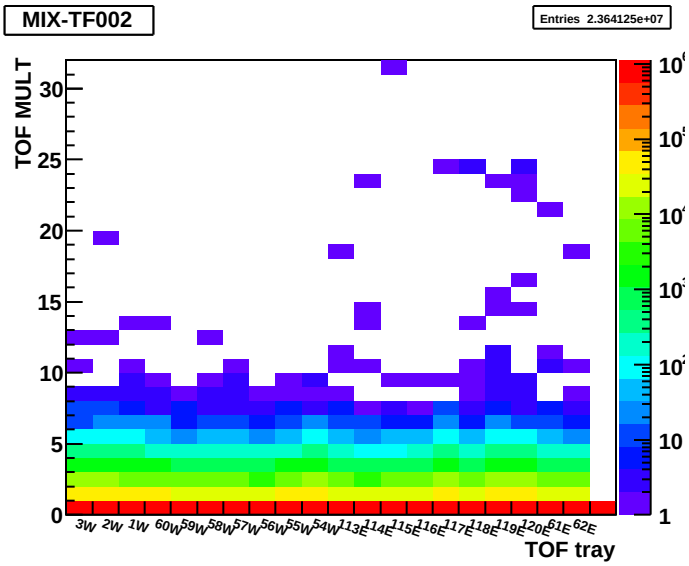

RAT board (ch4)
Entries 9006192
rat-0
rat-1
rat-2
rat-3
rat-4
rat-5
rat-6
rat-7
rat-8
rat-9
rat-10
rat-11
rat-12
rat-13
rat-14
rat-15

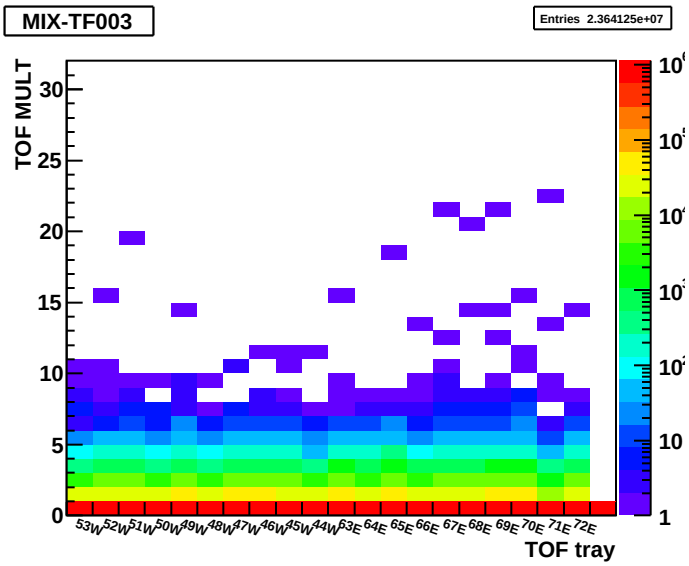

FP201 0-15 (ch5)
Entries 9006192
FMSsmallClusTh0
FMSsmallClusTh1
FMSsmallClusTh2
FMSsmallMulClusTh0
FMSsmallMulClusTh1
FMSsmallMulClusTh2
FMSsmallHT
FMSlargeClusTh0
FMSlargeClusTh1
FMSlargeClusTh2
FMSlargeMulClusTh0
FMSlargeMulClusTh1
FMSlargeMulClusTh2
FMSlargeHT
FPE

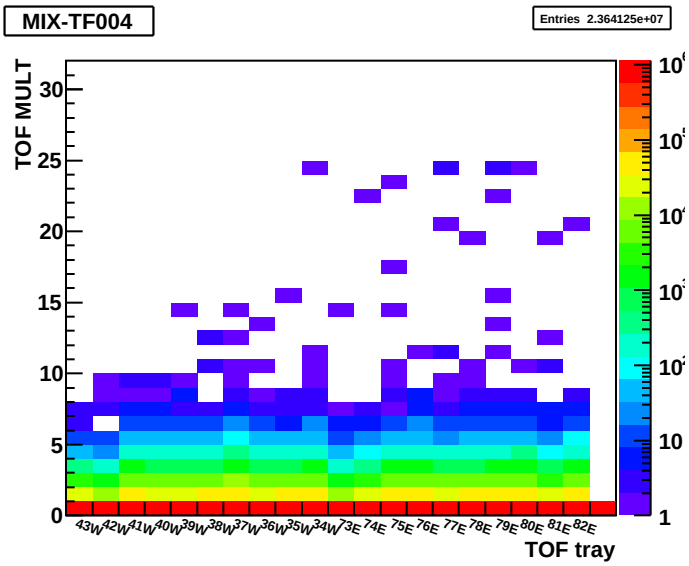

ST201 0-15 (ch6)
Entries 9006192
SpcTrgDetBit0
SpcTrgDetBit1
SpcTrgDetBit2
DetCrpBit0
DetCrpBit1
DetCrpBit2
DetCrpBit3
ZeroBias
Random

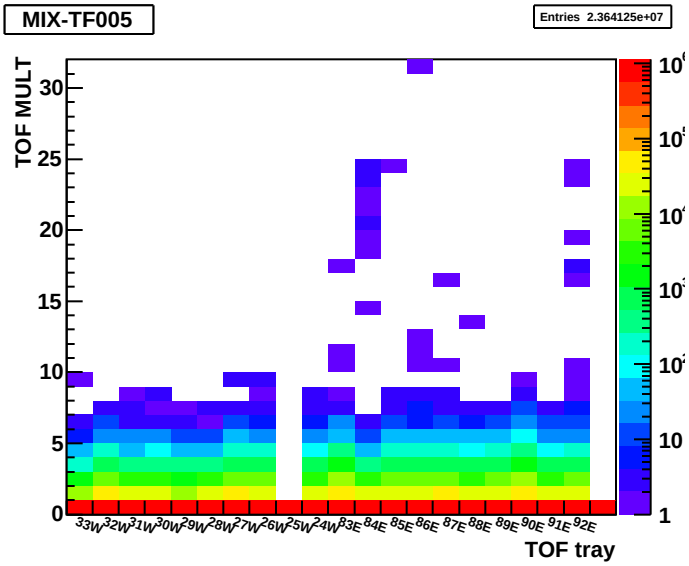

Unused (ch7)
Entries 9006192

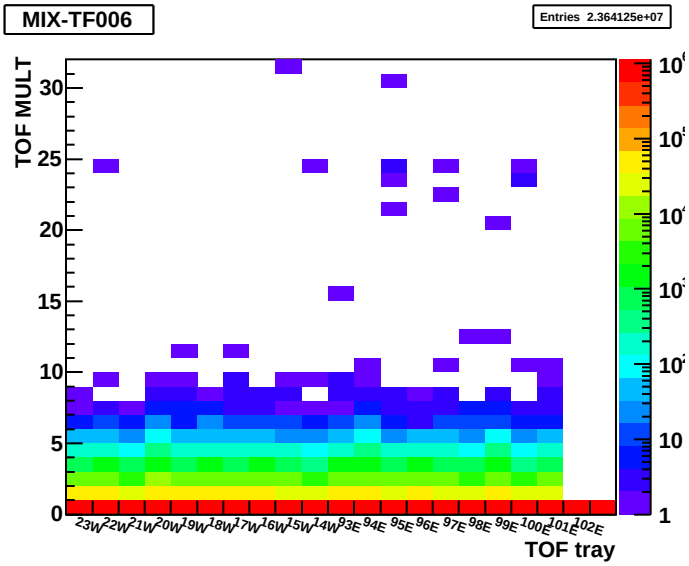

MIX-TF001
Entries 2.364125e+07
TOF MULT
TOF tray

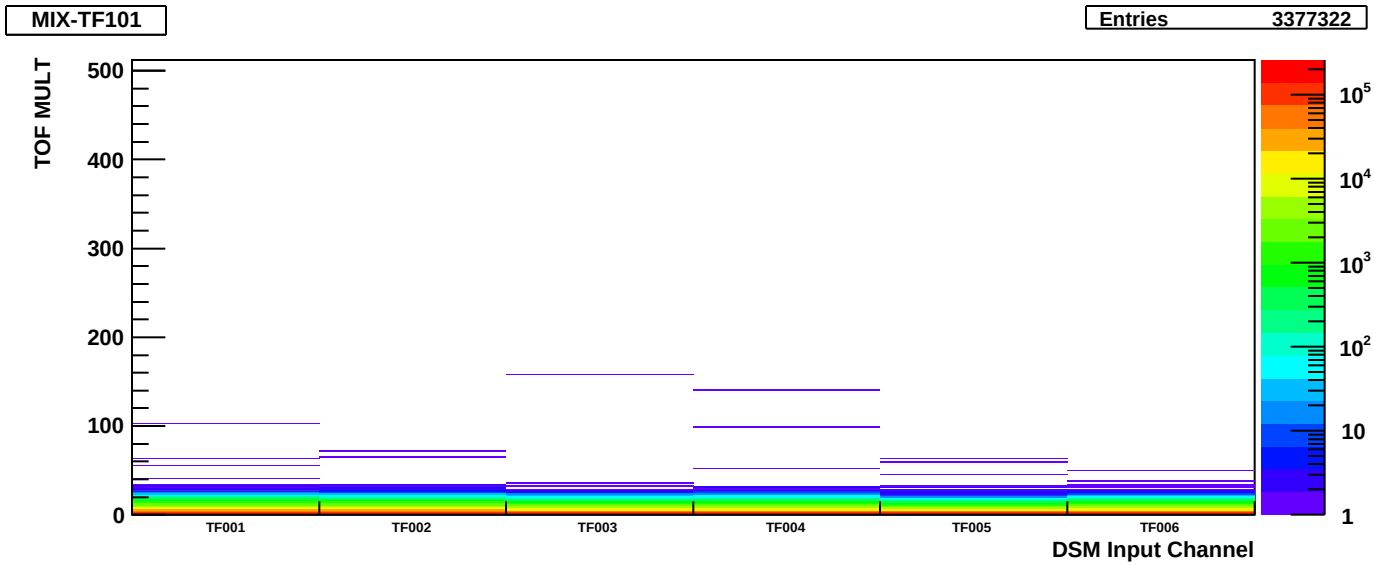

MIX-TF002
Entries 2.364125e+07
TOF MULT
TOF tray

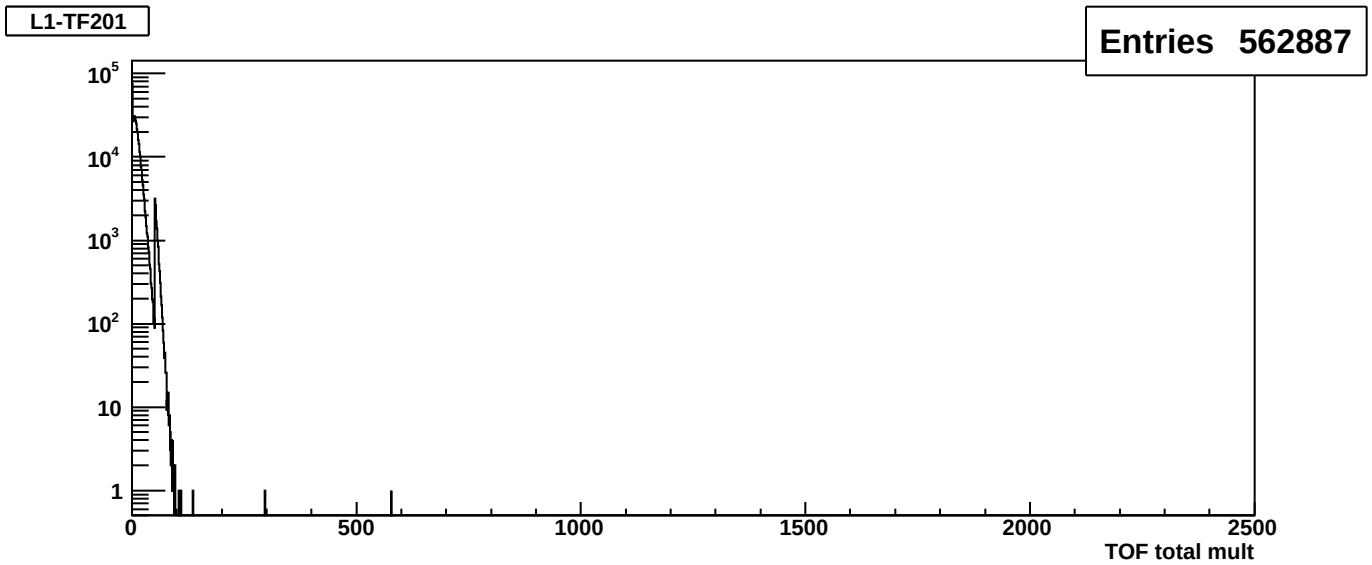

MIX-TF003
Entries 2.364125e+07
TOF MULT
TOF tray

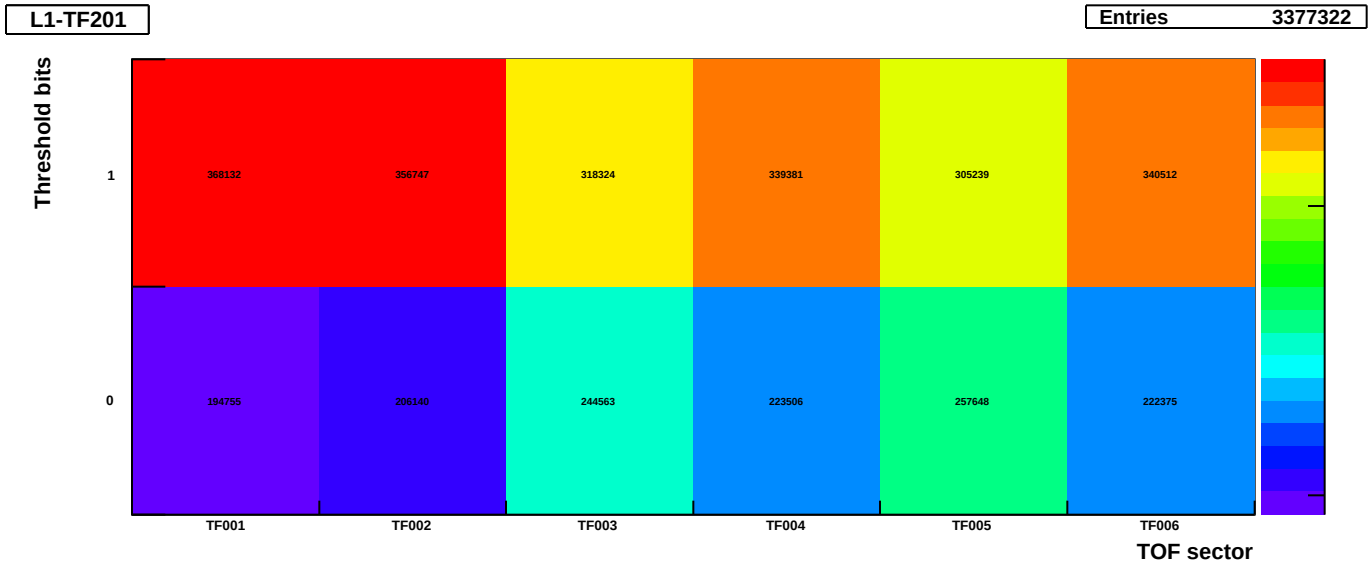

MIX-TF004
Entries 2.364125e+07
TOF MULT
TOF tray

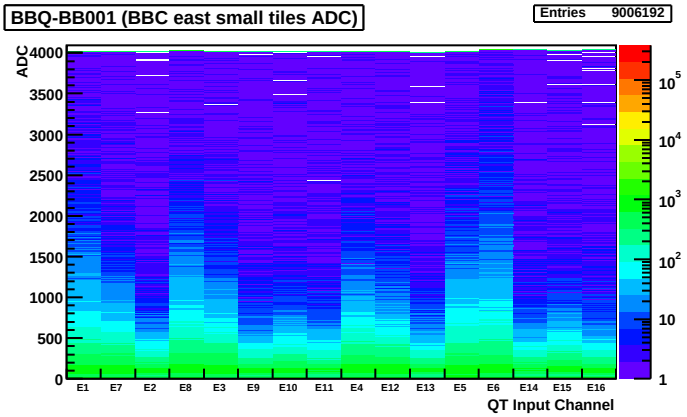

MIX-TF005
Entries 2.364125e+07
TOF MULT
TOF tray

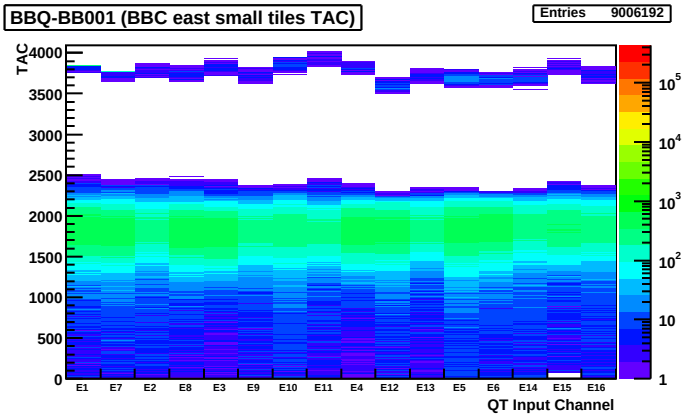

MIX-TF006
Entries 2.364125e+07
TOF MULT
TOF tray

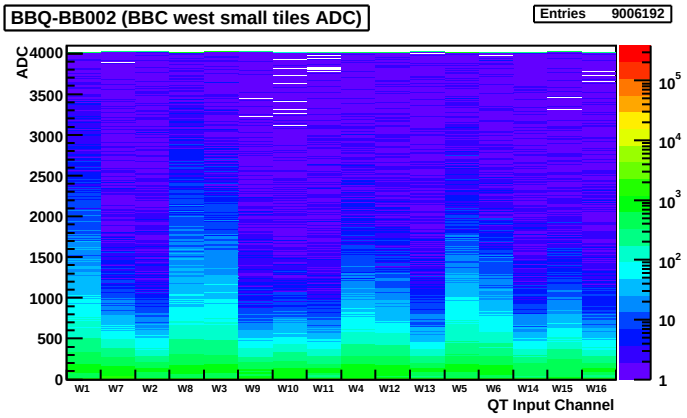

MIX-TF101
Entries 3377322
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

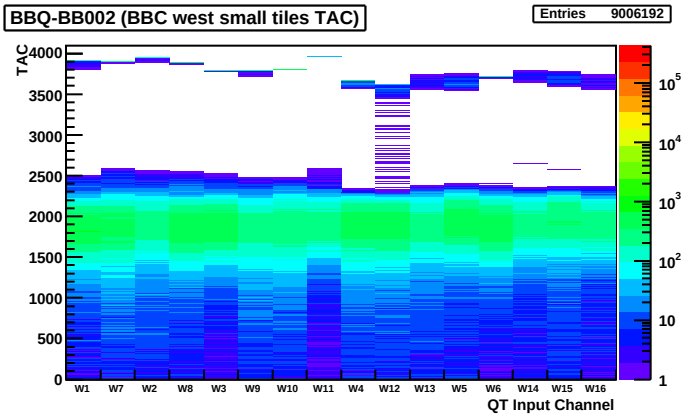

L1-TF201
Entries 562887
10^5
10^4
10^3
10^2
10
1
0
500
1000
1500
2000
2500
TOF total mult

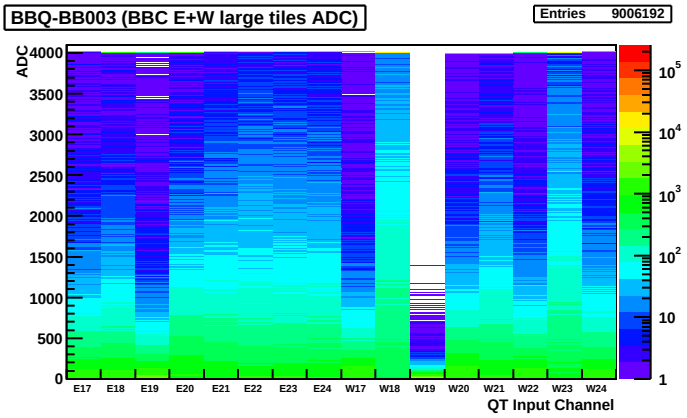

L1-TF201
Entries 3377322
Threshold bits
1
0
368132
356747
318324
339381
305239
340512
194755
206140
244563
223506
257648
222375
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

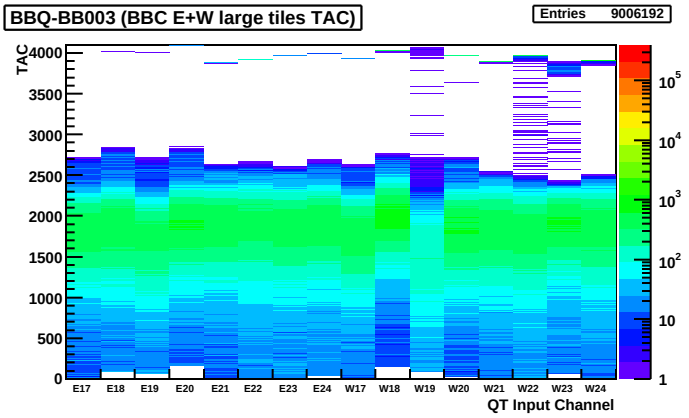

BBQ-BB001 (BBC east small tiles ADC)
Entries 9006192
ADC
QT Input Channel

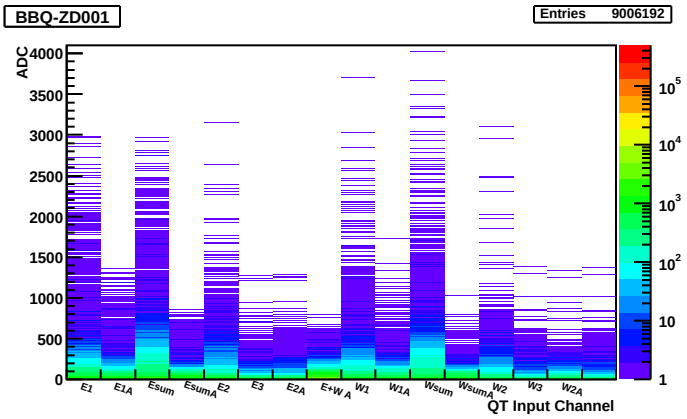

BBQ-BB001 (BBC east small tiles TAC)
Entries 9006192
TAC
QT Input Channel

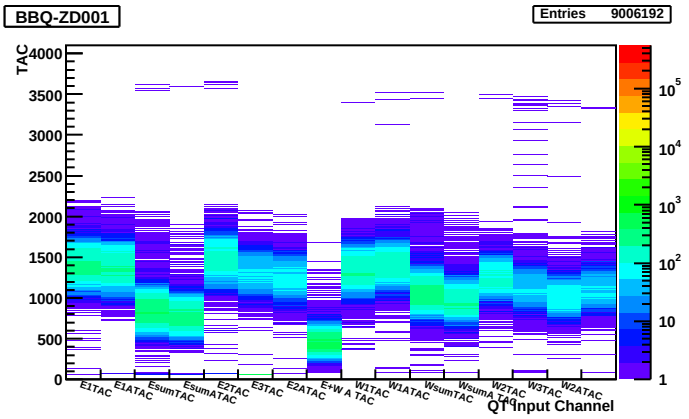

BBQ-BB002 (BBC west small tiles ADC)
Entries 9006192
ADC
QT Input Channel

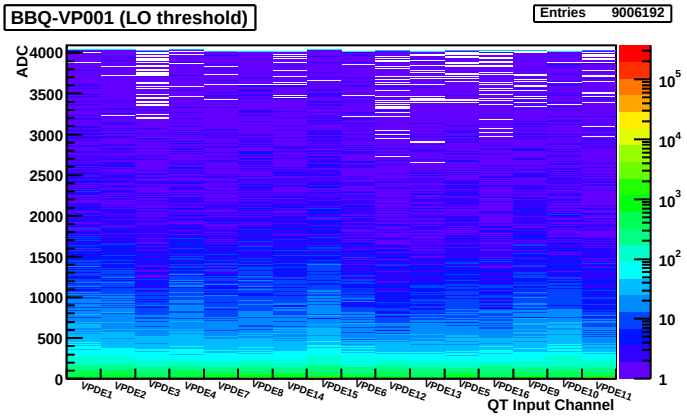

BBQ-BB002 (BBC west small tiles TAC)
Entries 9006192
TAC
QT Input Channel

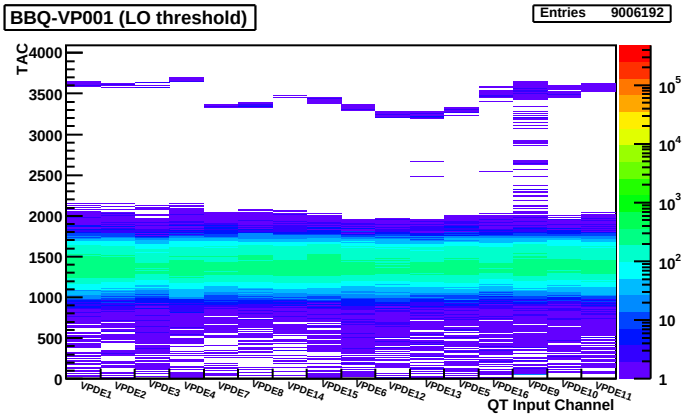

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 9006192
ADC
QT Input Channel

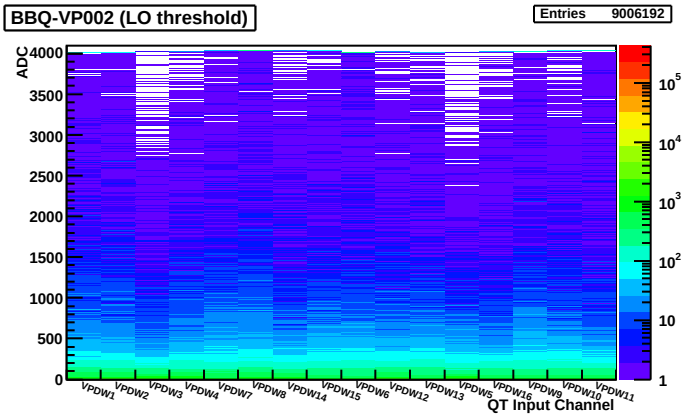

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 9006192
TAC
QT Input Channel

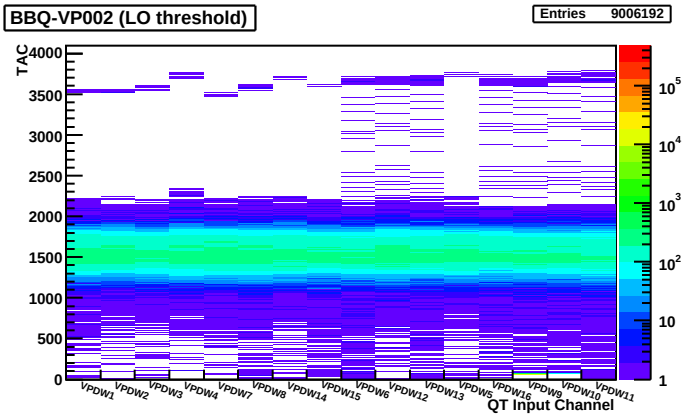

BBQ-ZD001
Entries 9006192
ADC
QT Input Channel

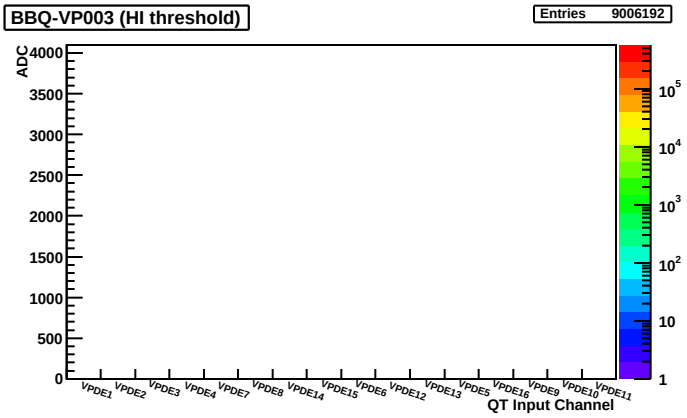

BBQ-ZD001
Entries 9006192
TAC
QT Input Channel

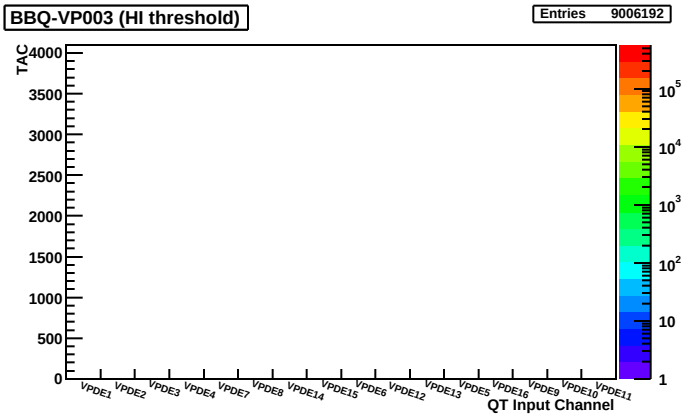

BBQ-VP001 (LO threshold)
Entries 9006192
ADC
QT Input Channel

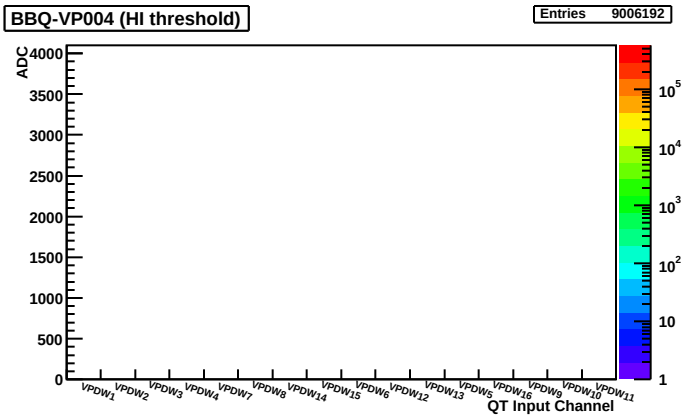

BBQ-VP001 (LO threshold)
Entries 9006192
TAC
QT Input Channel

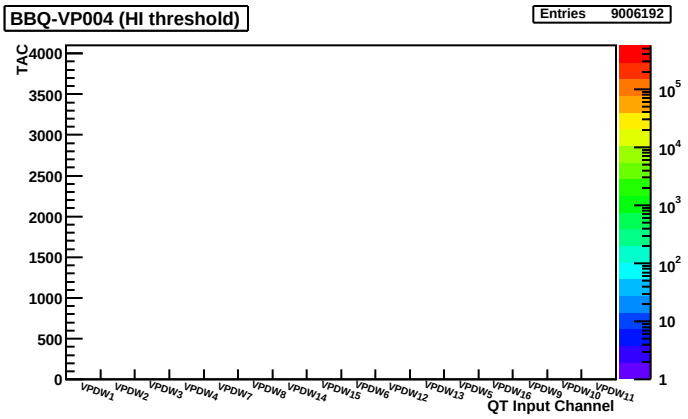

BBQ-VP002 (LO threshold)
Entries 9006192
ADC
QT Input Channel

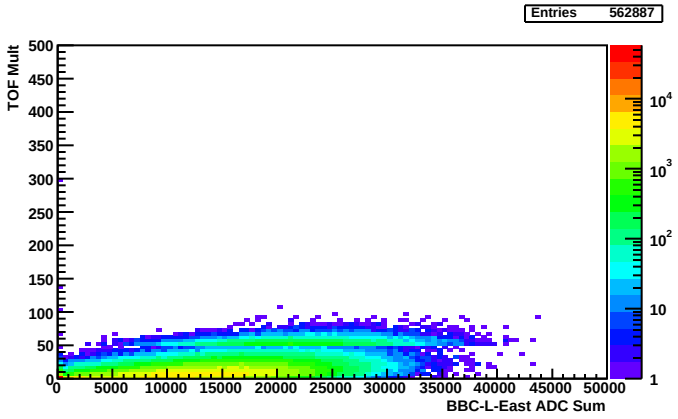

BBQ-VP002 (LO threshold)
Entries 9006192
TAC
QT Input Channel

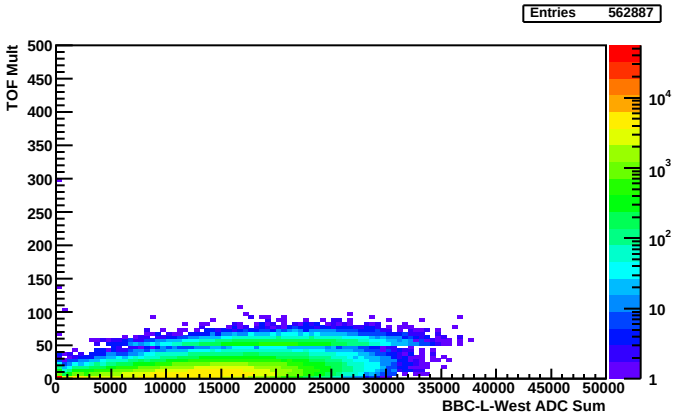

BBQ-VP003 (HI threshold)
Entries 9006192
ADC
QT Input Channel

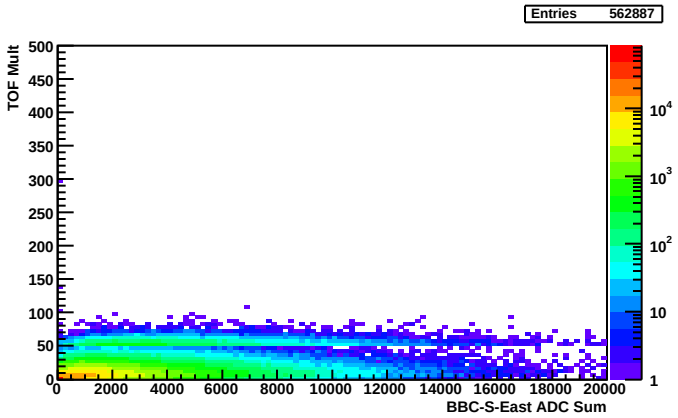

BBQ-VP003 (HI threshold)
Entries 9006192
TAC
QT Input Channel

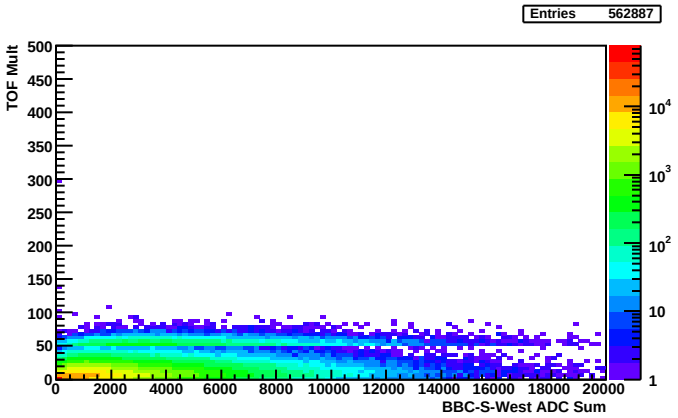

BBQ-VP004 (HI threshold)
Entries 9006192
ADC
QT Input Channel

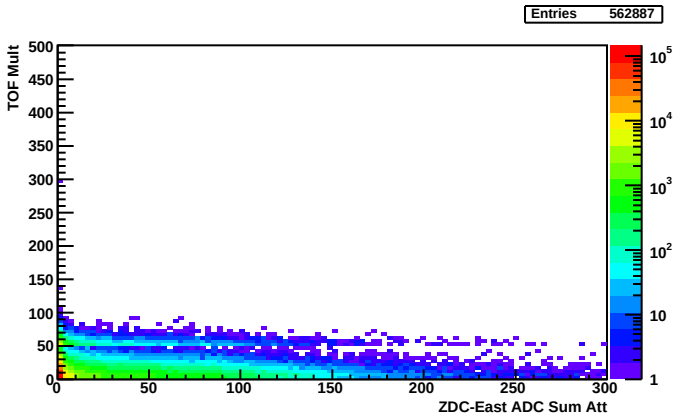

BBQ-VP004 (HI threshold)
Entries 9006192
TAC
QT Input Channel

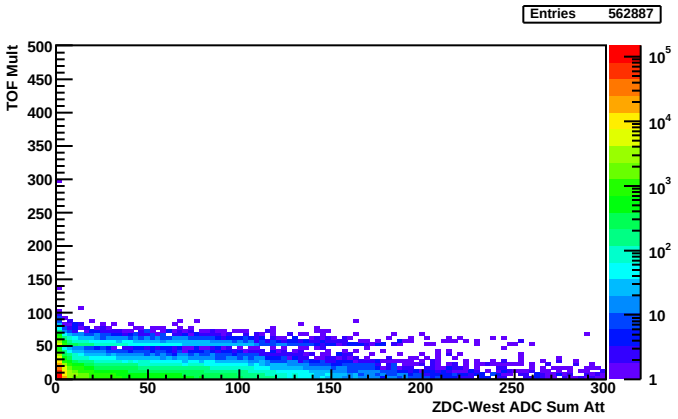

Entries 562887
TOF Mult
BBC-L-East ADC Sum

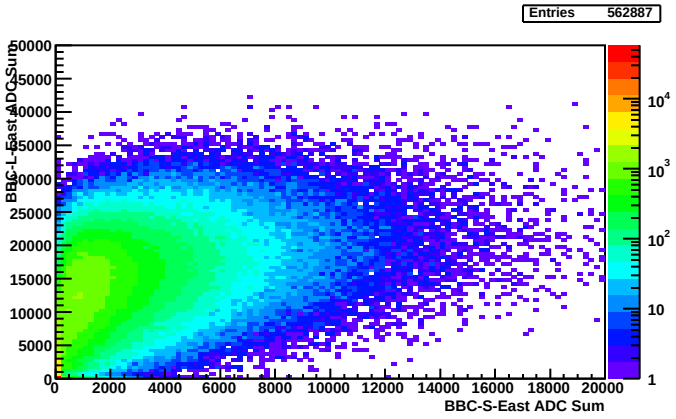

Entries 562887
TOF Mult
BBC-L-West ADC Sum

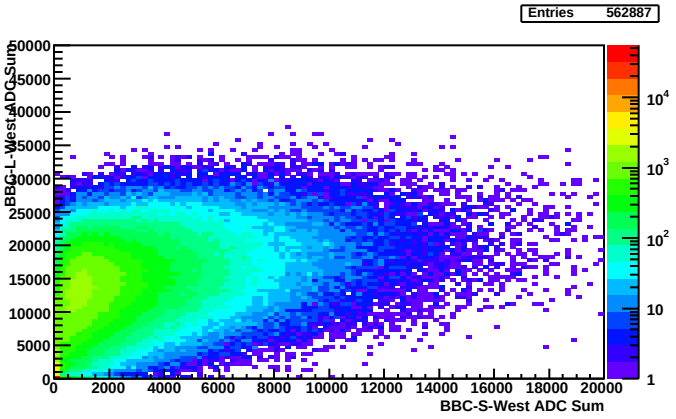

Entries 562887
TOF Mult
BBC-S-East ADC Sum

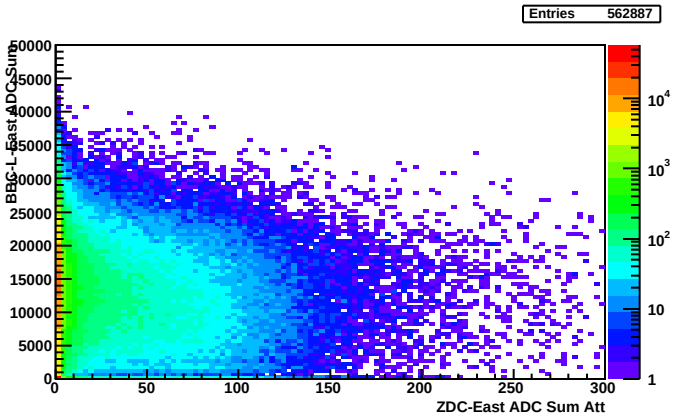

Entries 562887
TOF Mult
BBC-S-West ADC Sum

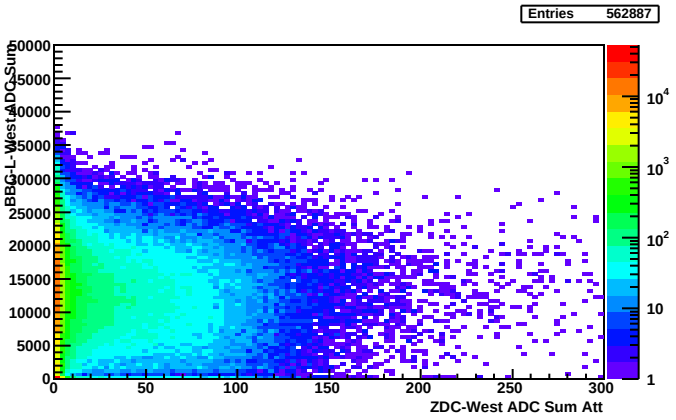

Entries 562887
TOF Mult
ZDC-East ADC Sum Att

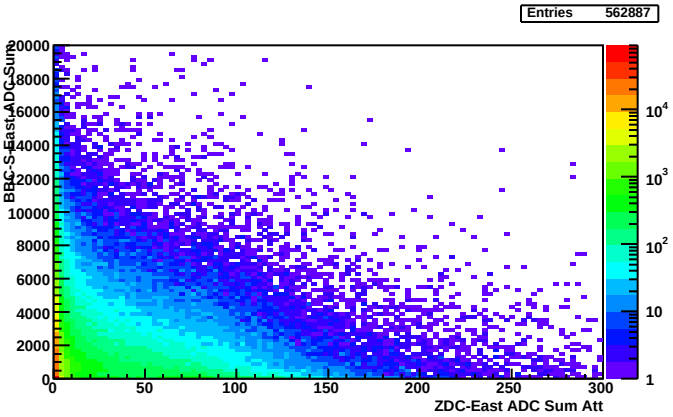

Entries 562887
TOF Mult
ZDC-West ADC Sum Att

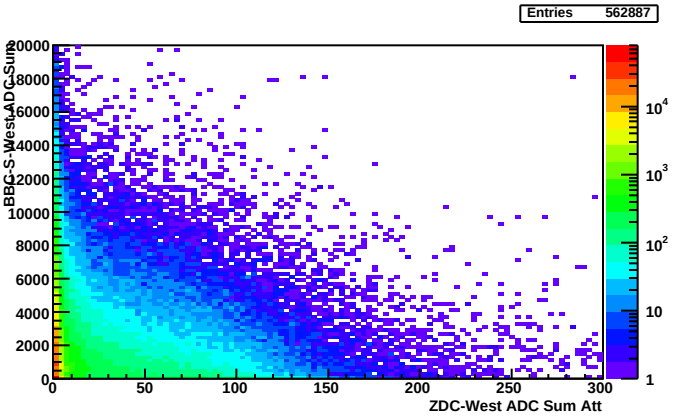

Entries 562887
BBC-L-East ADC Sum
BBC-S-East ADC Sum

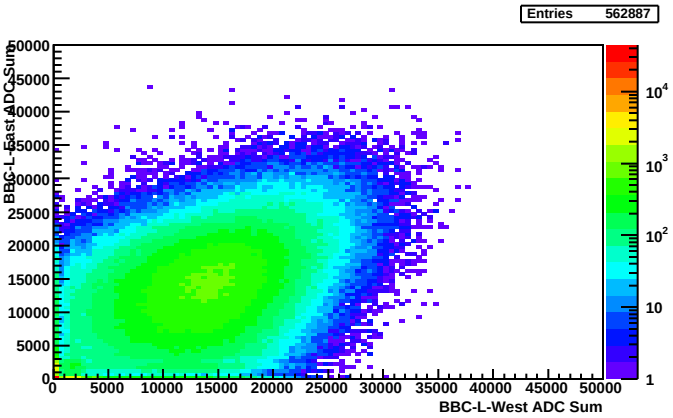

Entries 562887
BBC-L-West ADC Sum
BBC-S-West ADC Sum

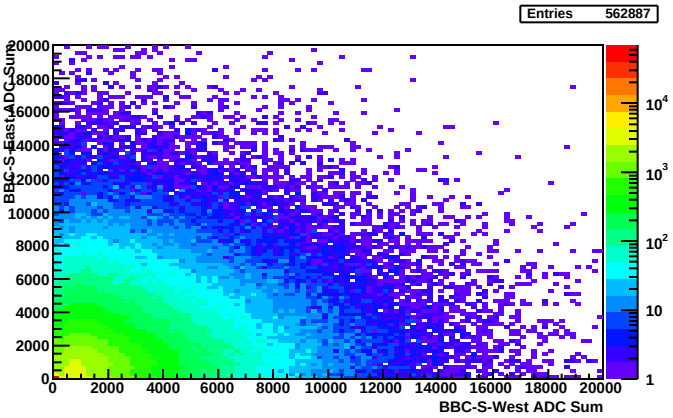

Entries 562887
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

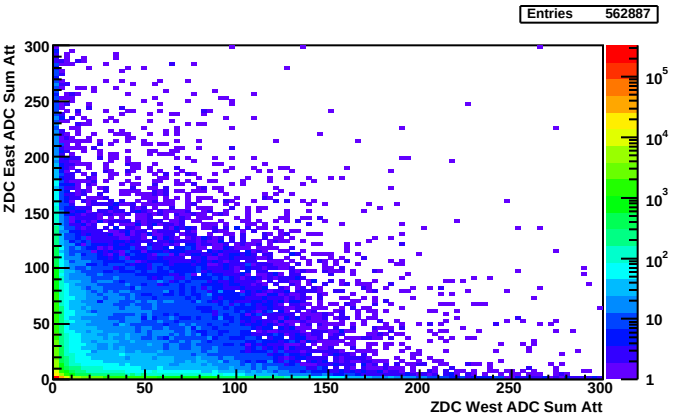

Entries 562887
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

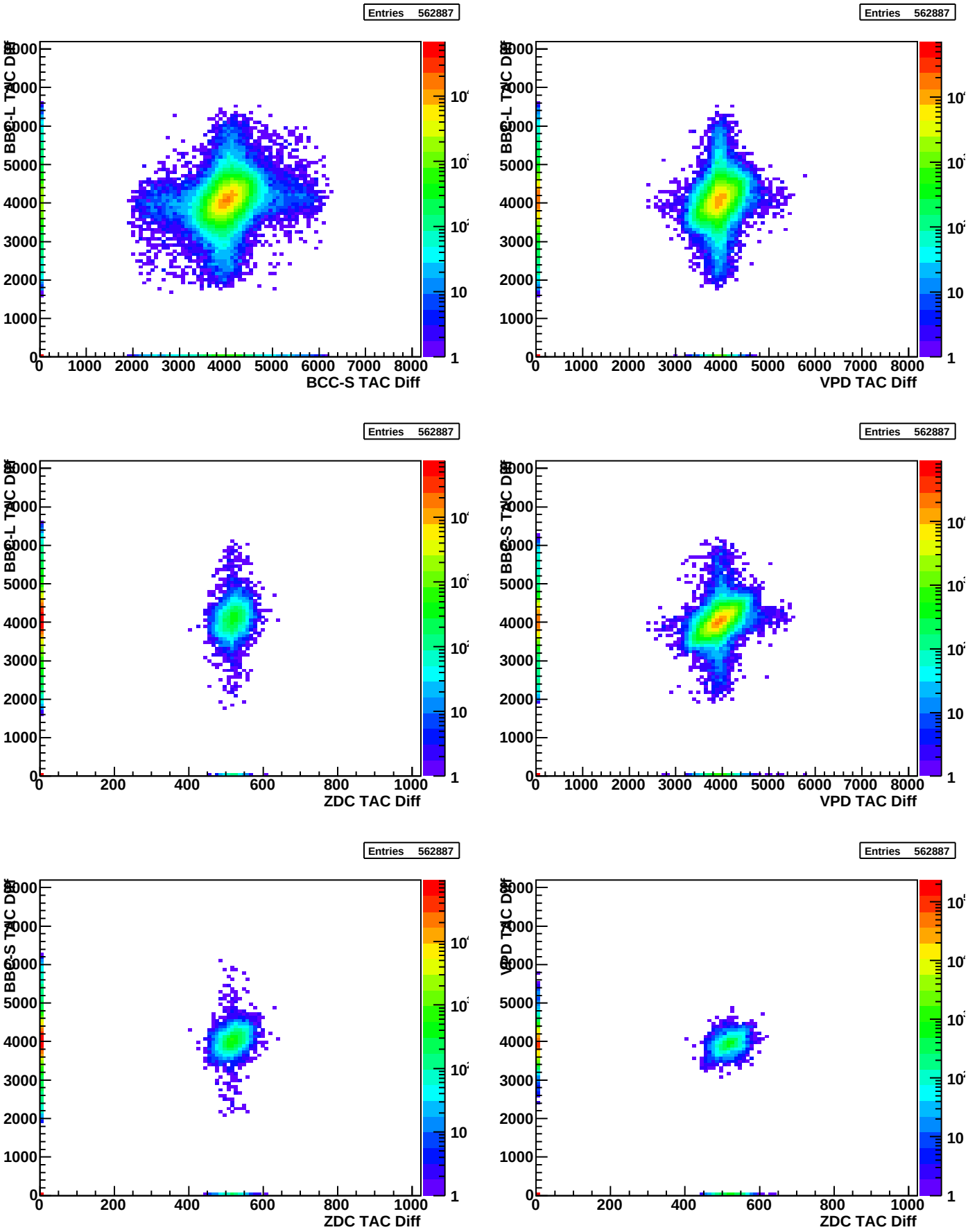

Entries 562887
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

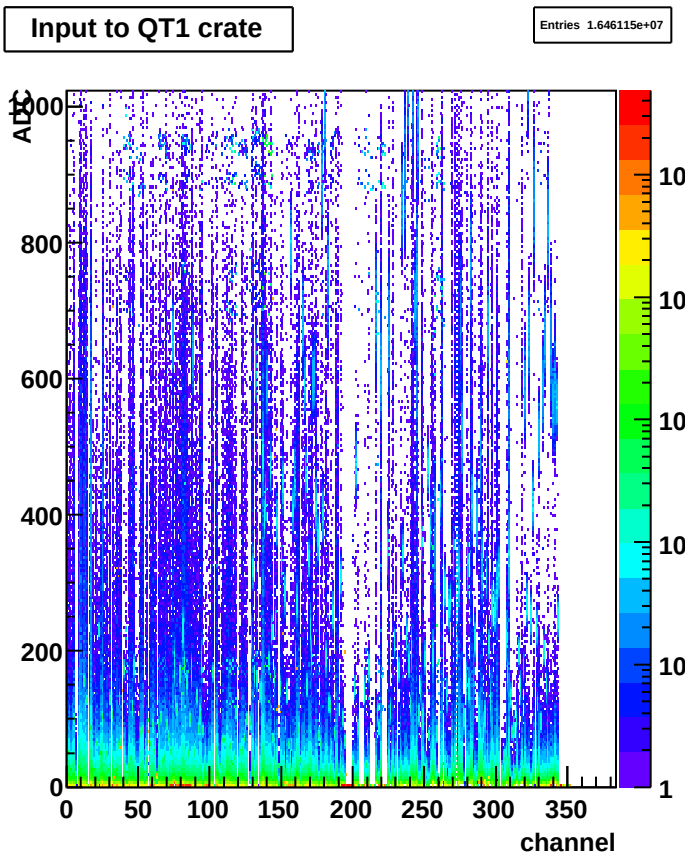

Entries 562887
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

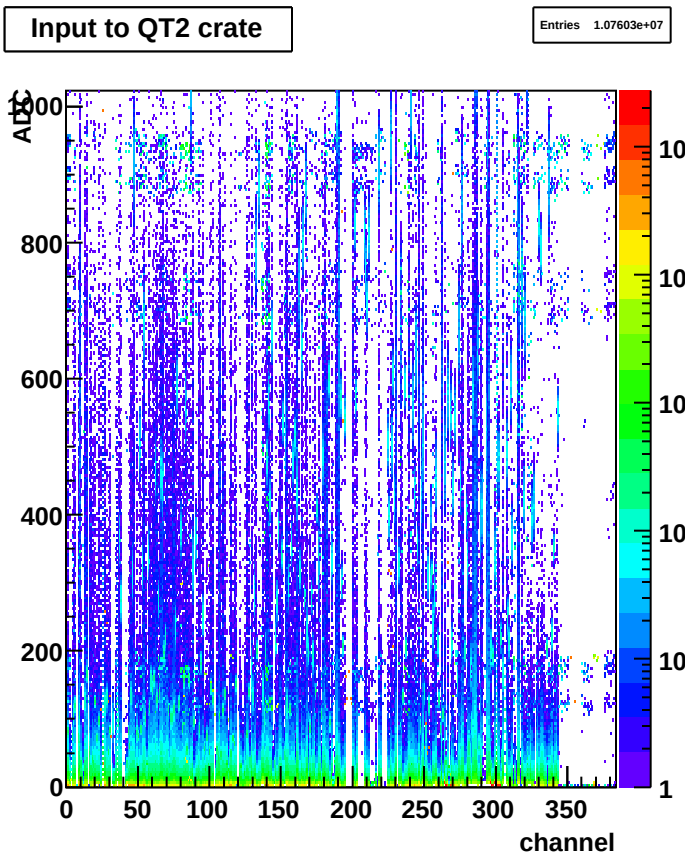

Entries 562887
BBC-L-East ADC Sum
BBC-L-West ADC Sum

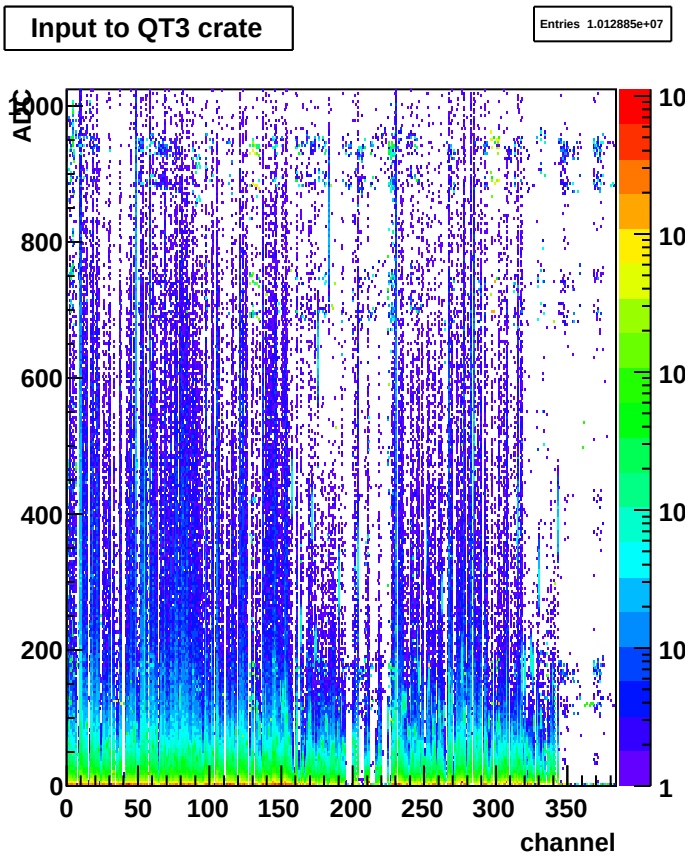

Entries 562887
BBC-S-East ADC Sum
BBC-S-West ADC Sum

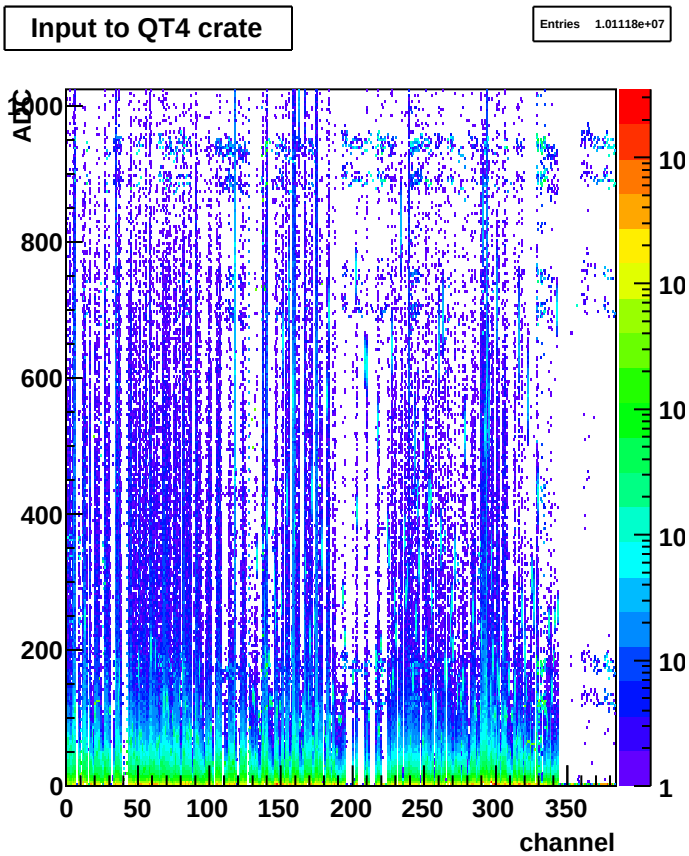

Entries 562887
ZDC East ADC Sum Att
ZDC West ADC Sum Att

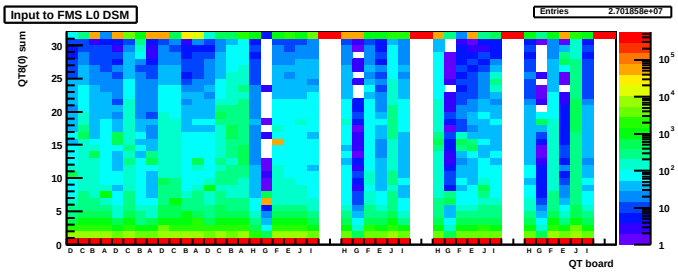

Entries 562887
BBC-L TAC Diff
BCC-S TAC Diff
Entries 562887
BBC-L TAC Diff
VPD TAC Diff
Entries 562887
BBC-L TAC Diff
ZDC TAC Diff
Entries 562887
BBC-S TAC Diff
VPD TAC Diff
Entries 562887
BBC-S TAC Diff
ZDC TAC Diff
Entries 562887
VPD TAC Diff
ZDC TAC Diff

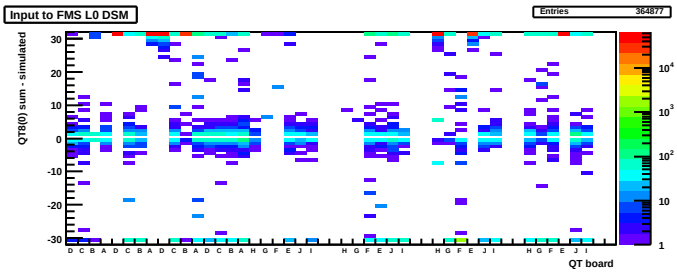

Input to QT1 crate
Entries 1.646115e+07
ADC
channel

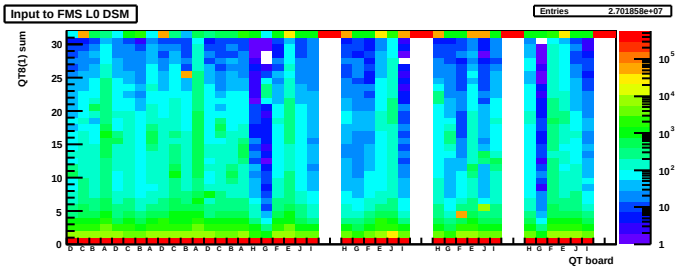

Input to QT2 crate
Entries 1.07603e+07
ADC
channel

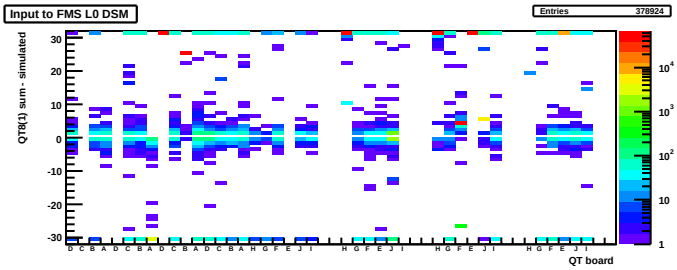

Input to QT3 crate
Entries 1.012885e+07
ADC
channel

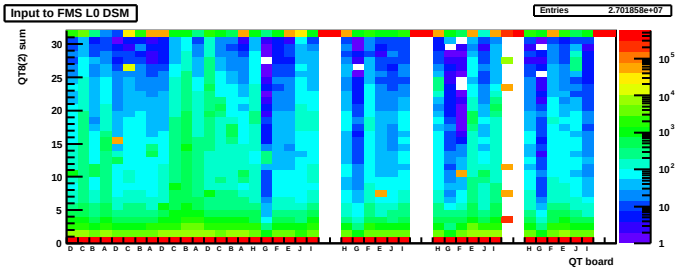

Input to QT4 crate
Entries 1.01118e+07
ADC
channel

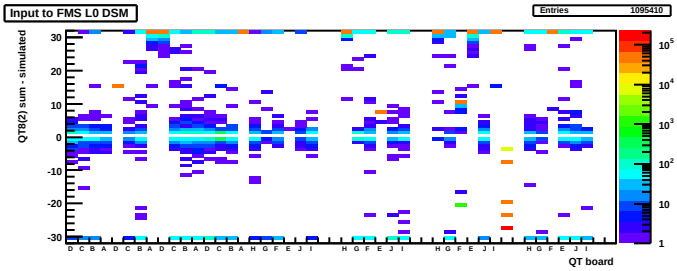

Input to FMS L0 DSM
Entries 2.701858e+07
QT8(0) sum
QT board

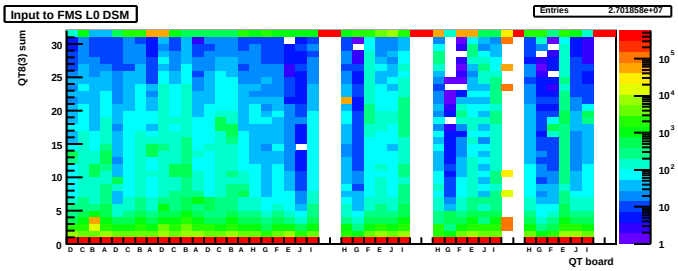

Input to FMS L0 DSM
Entries 364877
QT8(0) sum - simulated
QT board

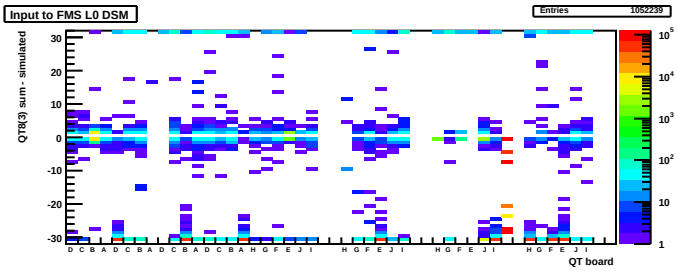

Input to FMS L0 DSM
Entries 2.701858e+07
QT8(1) sum
QT board

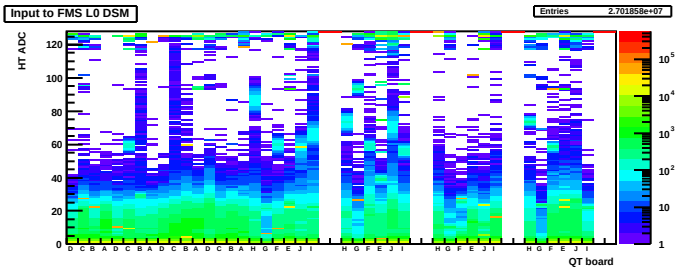

Input to FMS L0 DSM
Entries 378924
QT8(1) sum - simulated
QT board

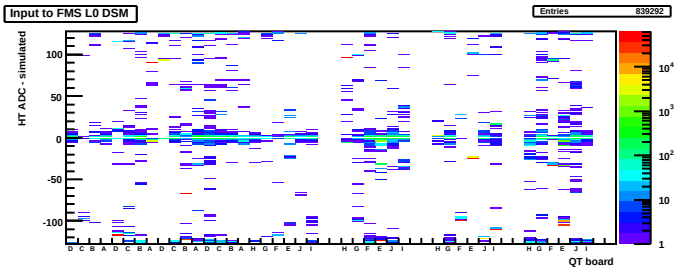

Input to FMS L0 DSM
Entries 2.701858e+07
QT8(2) sum
QT board

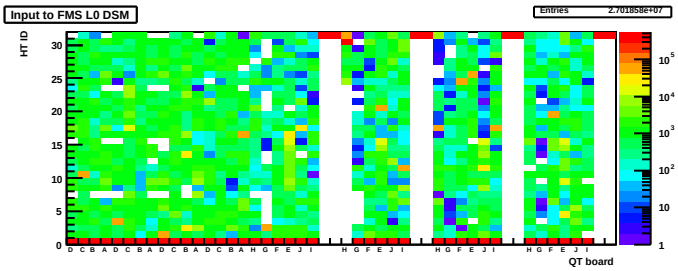

Input to FMS L0 DSM
Entries 1095410
QT8(2) sum - simulated
QT board

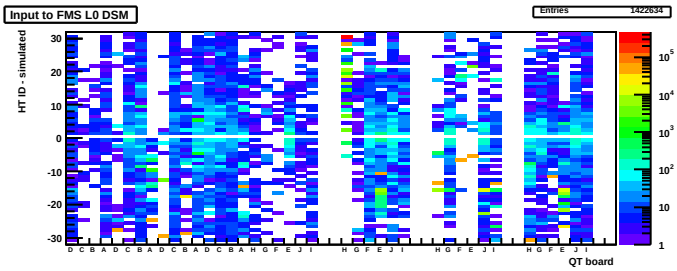

Input to FMS L0 DSM
Entries 2.701858e+07
QT8(3) sum
QT board

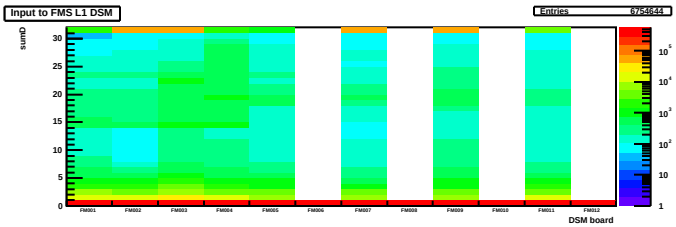

Input to FMS L0 DSM
Entries 1052239
QT8(3) sum - simulated
QT board

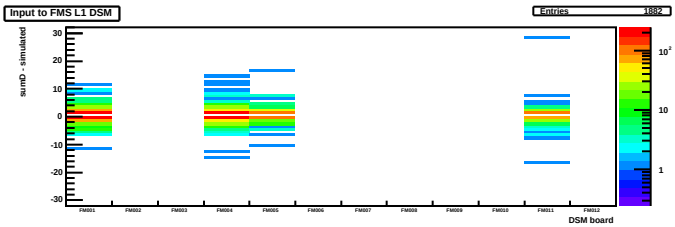

Input to FMS L0 DSM
Entries 2.701858e+07
HT ADC
QT board

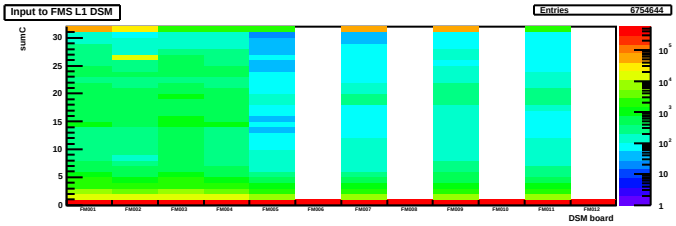

Input to FMS L0 DSM
Entries 839292
HT ADC - simulated
QT board

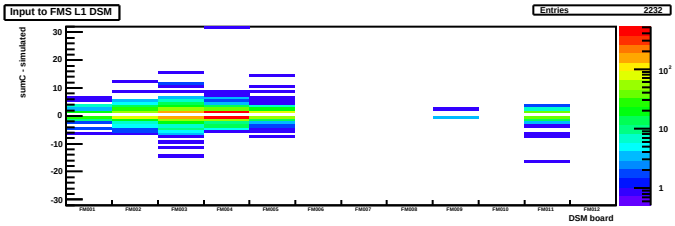

Input to FMS L0 DSM
Entries 2.701858e+07
HT ID
QT board

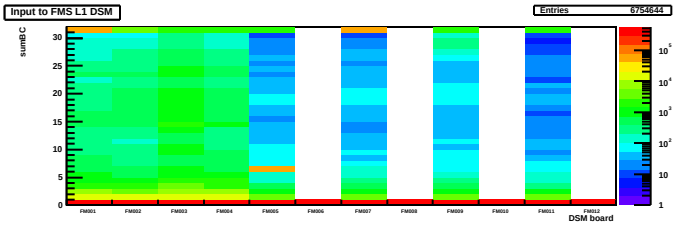

Input to FMS L0 DSM
Entries 1422634
HT ID - simulated
QT board

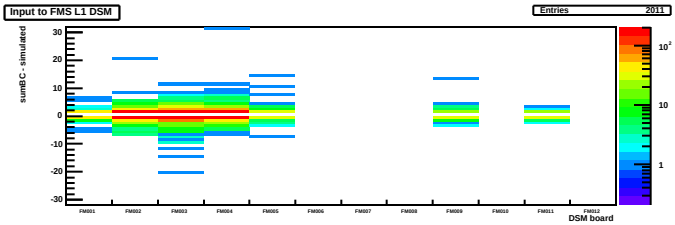

Input to FMS L1 DSM
Entries 6754644
sumD
DSM board

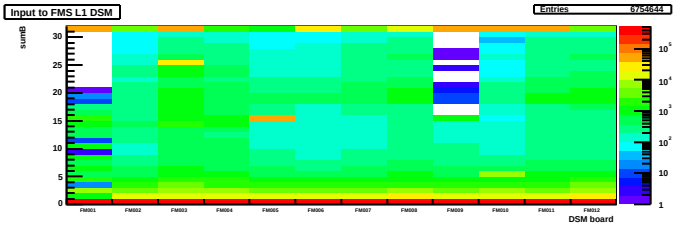

Input to FMS L1 DSM
Entries 1882
sumD - simulated
DSM board

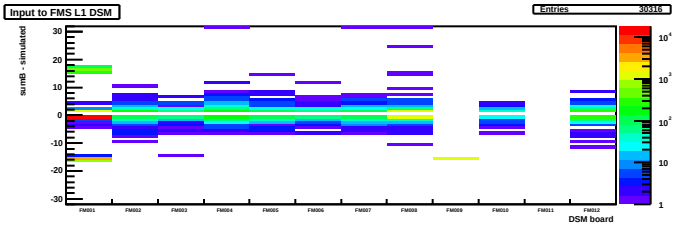

Input to FMS L1 DSM
Entries 6754644
sumC
DSM board

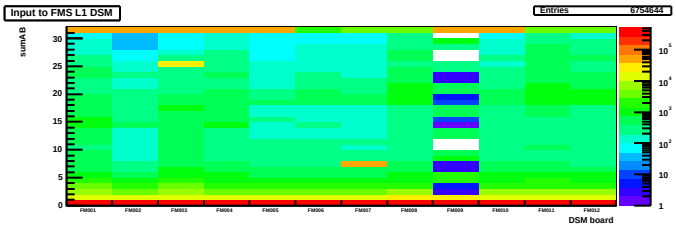

Input to FMS L1 DSM
Entries 2232
sumC - simulated
DSM board

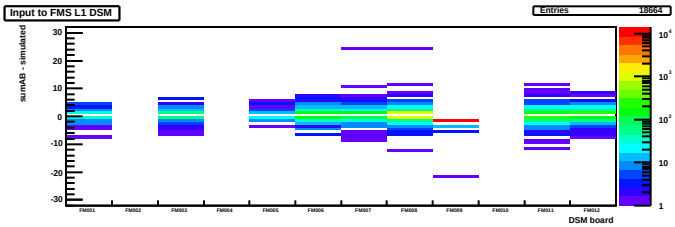

Input to FMS L1 DSM
Entries 6754644
sumBC
DSM board

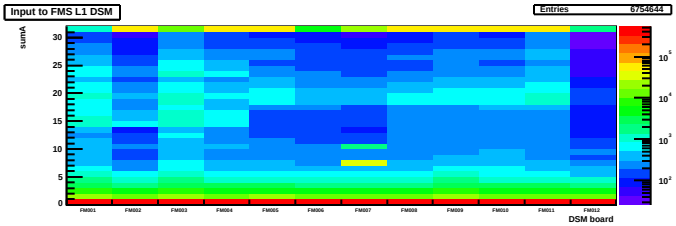

Input to FMS L1 DSM
Entries 2011
sumBC - simulated
DSM board

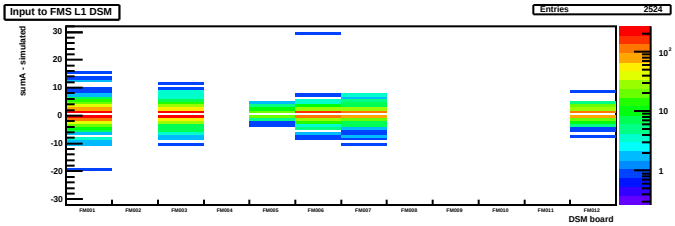

Input to FMS L1 DSM
Entries 6754644
sumB
DSM board

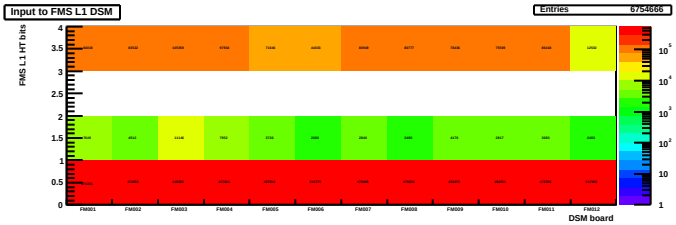

Input to FMS L1 DSM
Entries 30316
sumB - simulated
DSM board

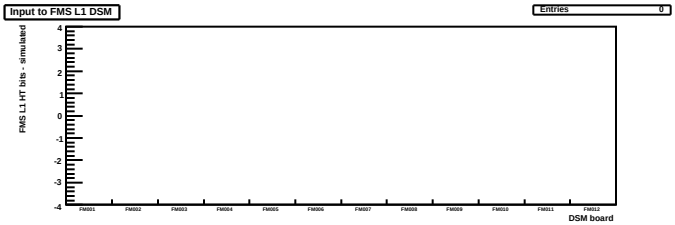

Input to FMS L1 DSM
Entries 6754644
sumAB
DSM board

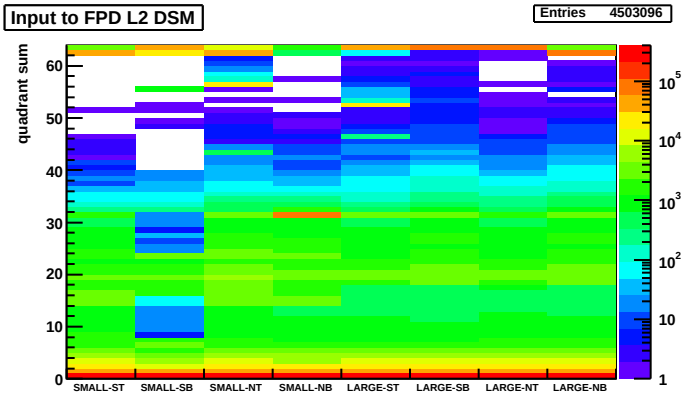

Input to FMS L1 DSM
Entries 18664
sumAB - simulated
DSM board

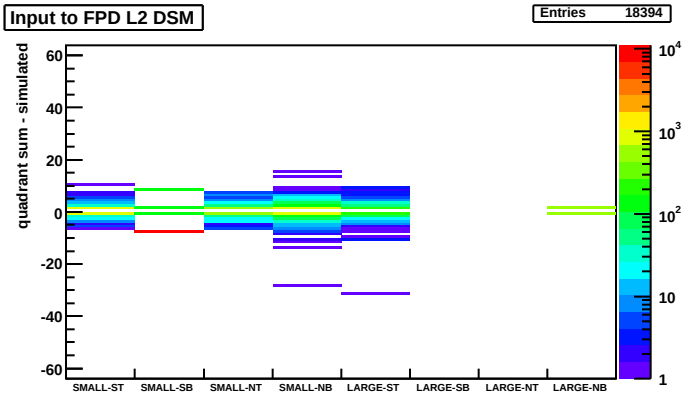

Input to FMS L1 DSM
Entries 6754644
sumA
DSM board

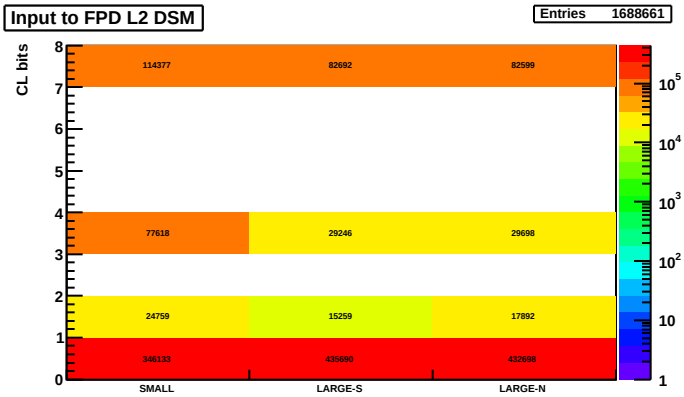

Input to FMS L1 DSM
Entries 2524
sumA - simulated
DSM board

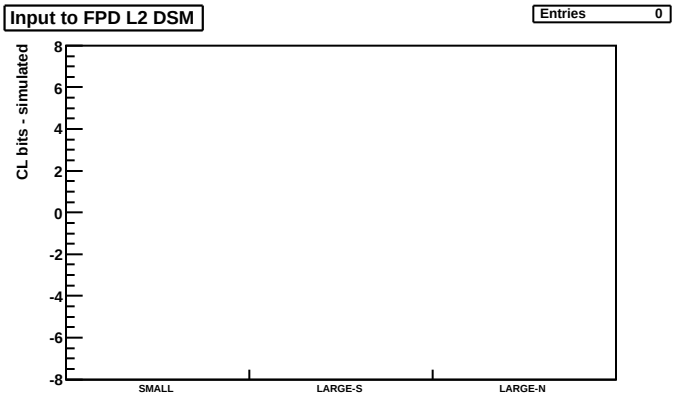

Input to FMS L1 DSM
Entries 6754666
FMS L1 HT bits
DSM board

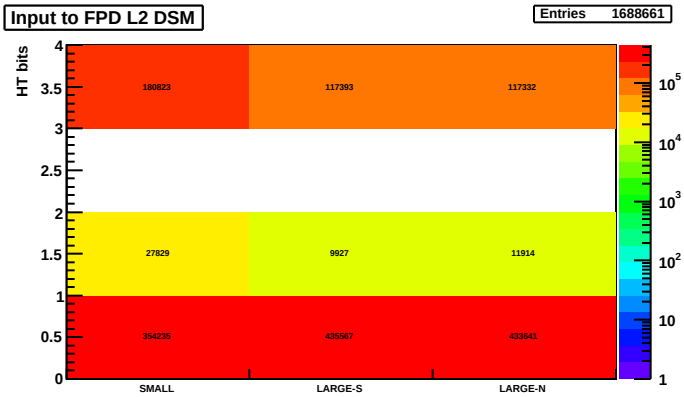

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

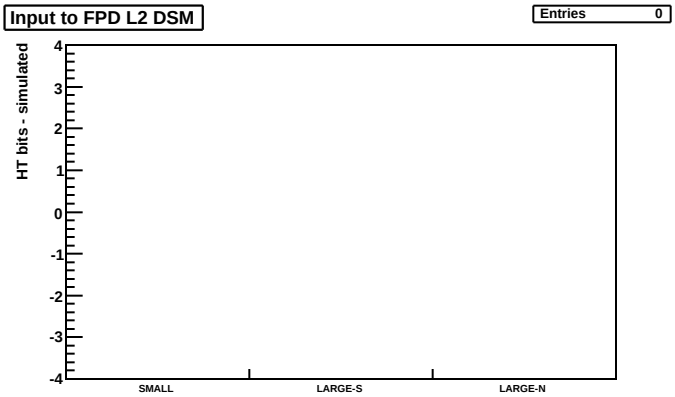

Input to FPD L2 DSM
Entries 4503096
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

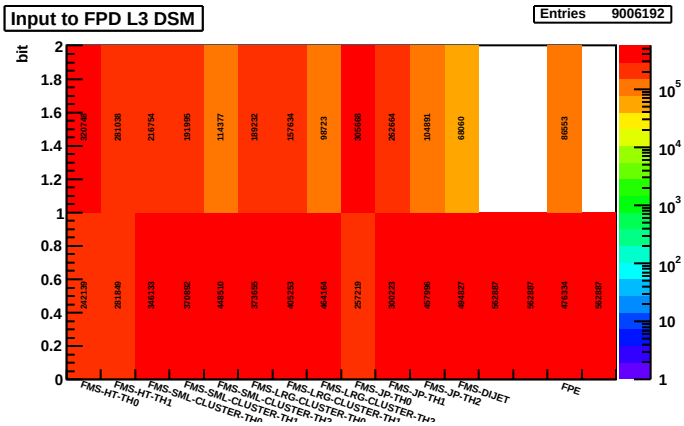

Input to FPD L2 DSM
Entries 18394
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

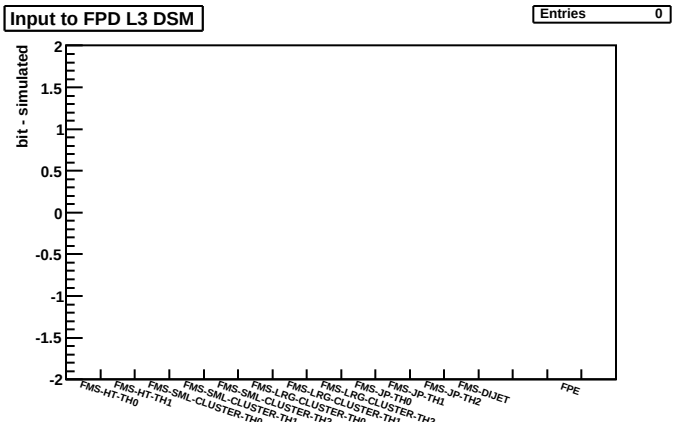

Input to FPD L2 DSM
Entries 1688661
CL bits
114377
82692
82599
77618
29246
29698
24759
15259
17892
346133
435690
432698
SMALL
LARGE-S
LARGE-N

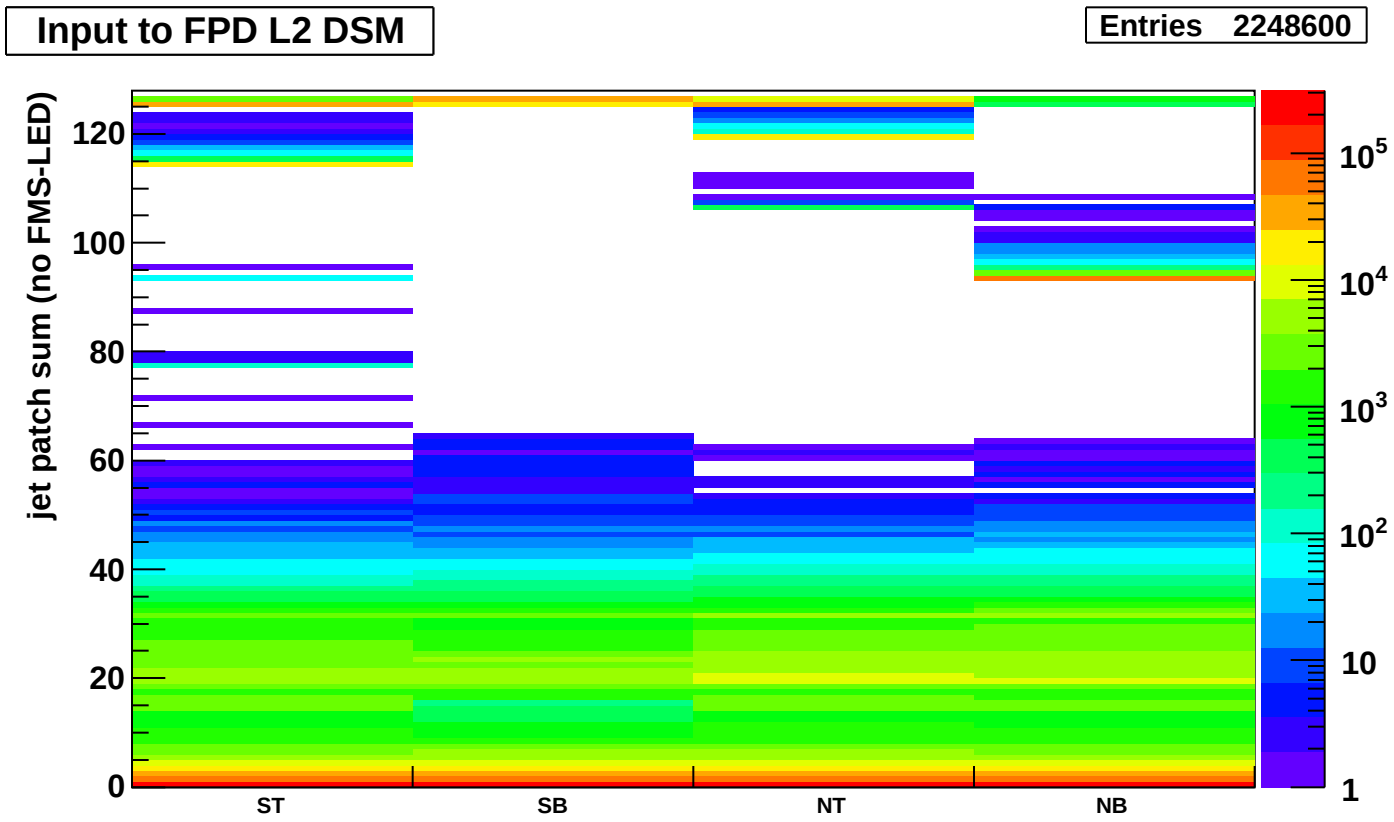

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL
LARGE-S
LARGE-N

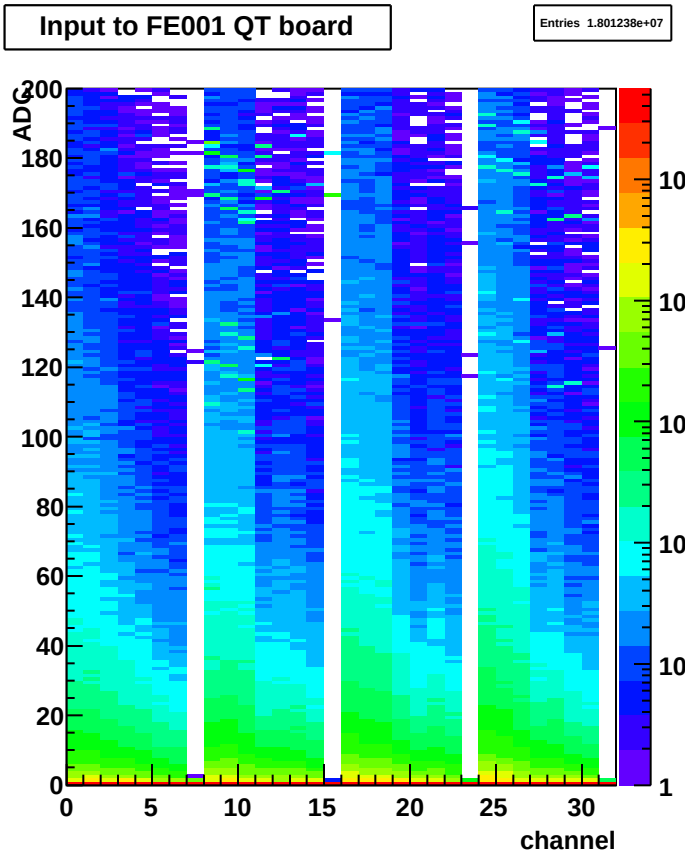

Input to FPD L2 DSM
Entries 1688661
HT bits
180823
117393
117332
27829
9927
11914
354235
435567
433641
SMALL
LARGE-S
LARGE-N

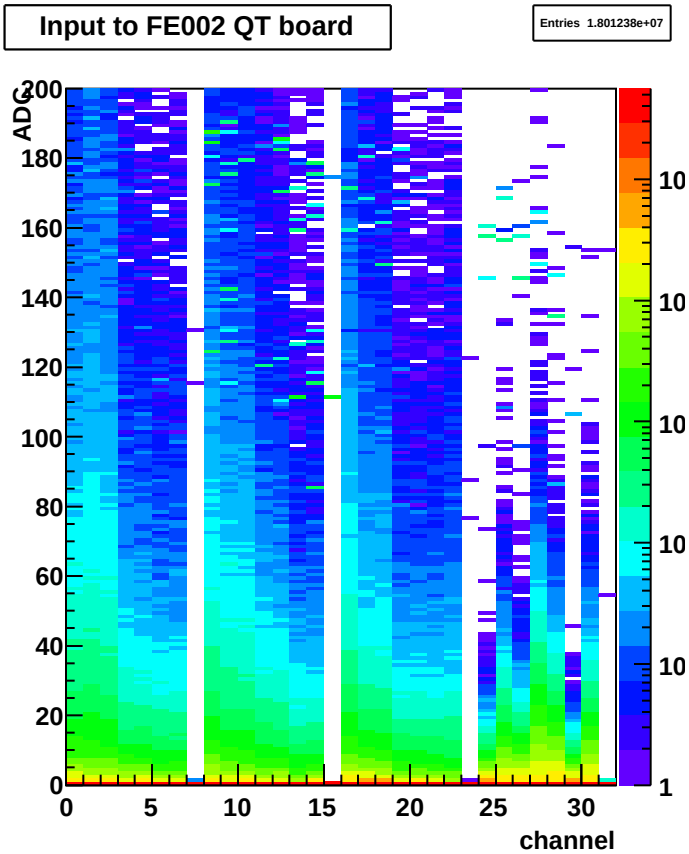

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

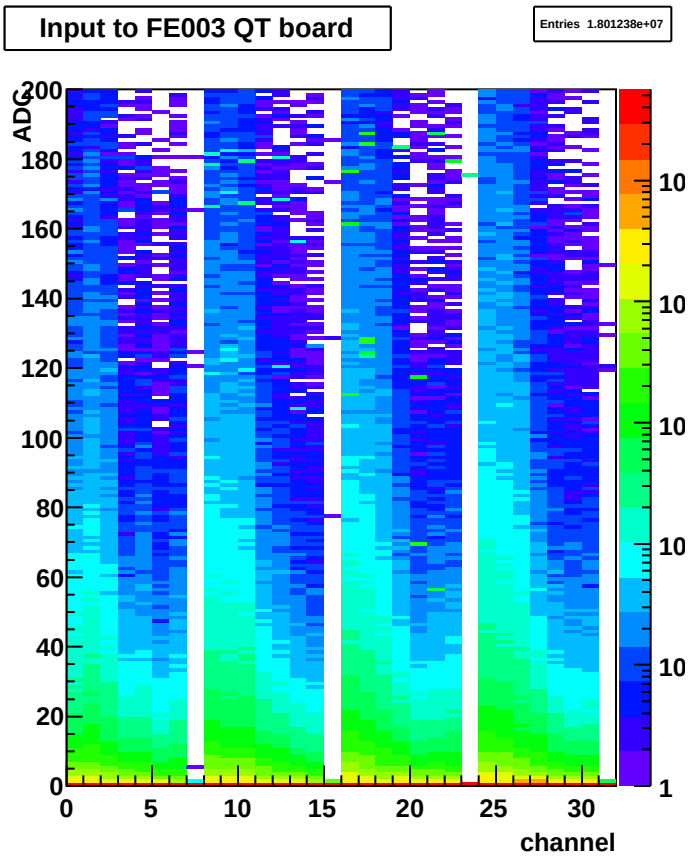

Input to FPD L3 DSM
Entries 9006192
bit
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

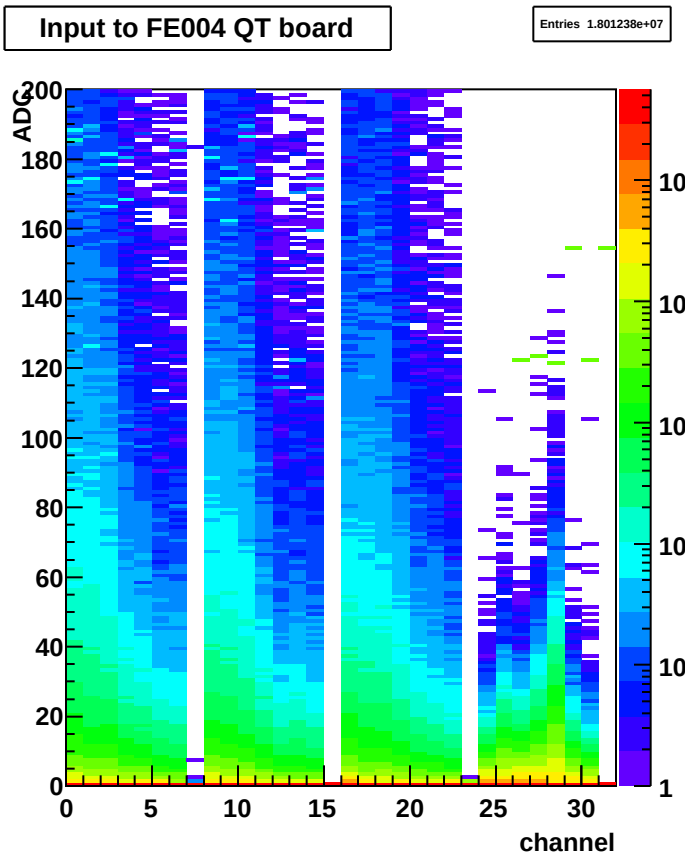

Input to FPD L3 DSM
Entries 0
bit - simulated
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

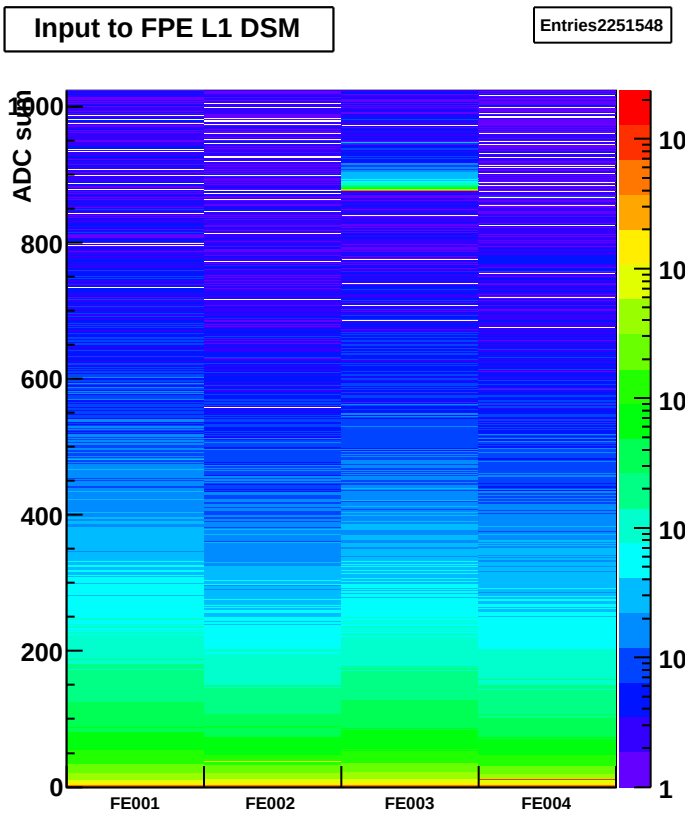

Input to FPD L2 DSM
Entries 2248600
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3
10^4
10^5

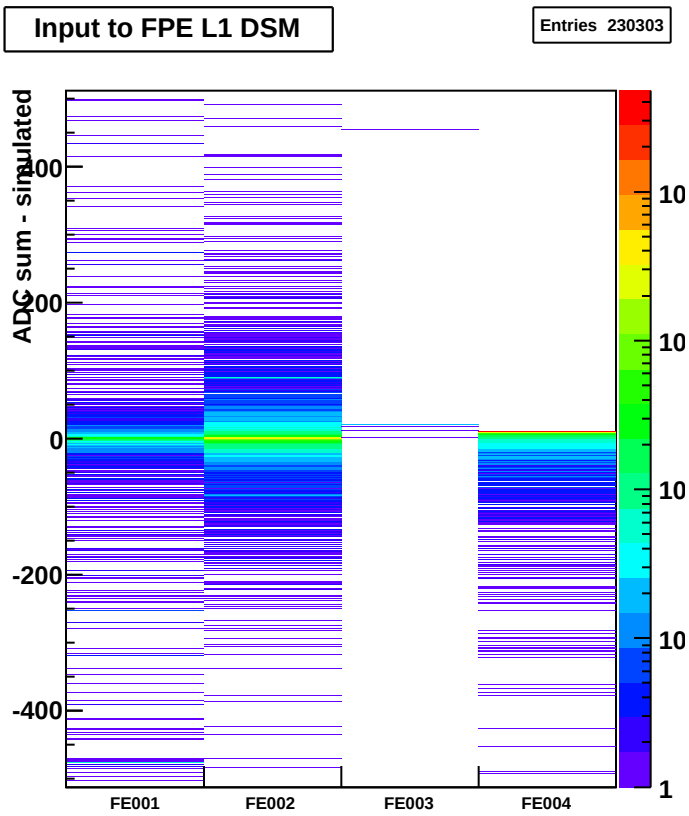

Input to FE001 QT board
Entries 1.801238e+07
ADC
channel

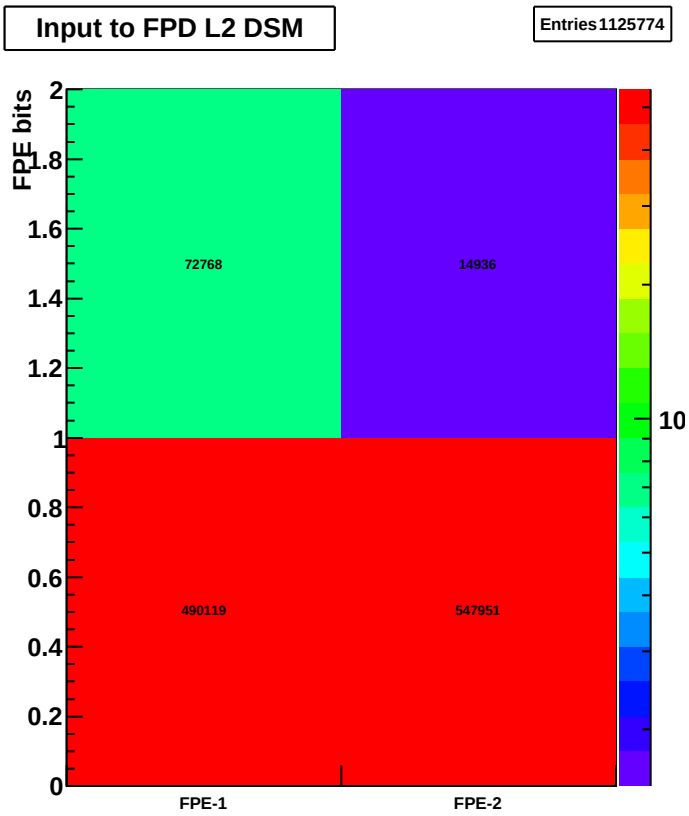

Input to FE002 QT board
Entries 1.801238e+07
ADC
channel

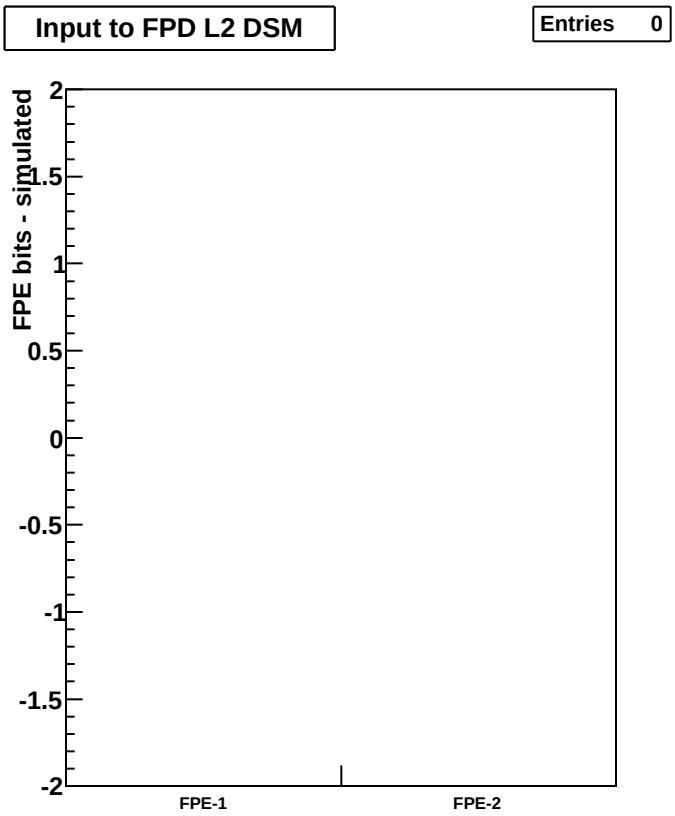

Input to FE003 QT board
Entries 1.801238e+07
ADC
channel


Input to FE004 QT board
Entries 1.801238e+07
ADC
channel


Input to FPE L1 DSM
Entries2251548
ADC sum
1000
800
600
400
200
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1


Input to FPE L1 DSM
Entries 230303
ADC sum - simulated
400
200
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1


Input to FPD L2 DSM
Entries1125774
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
72768
14936
490119
547951
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