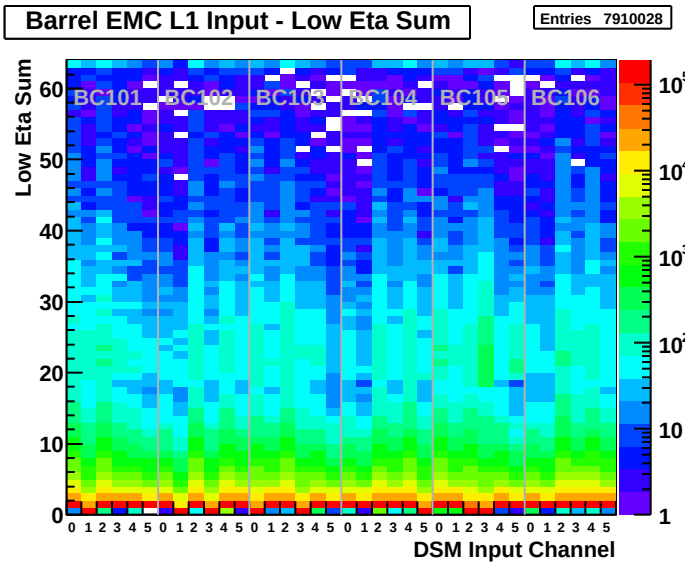
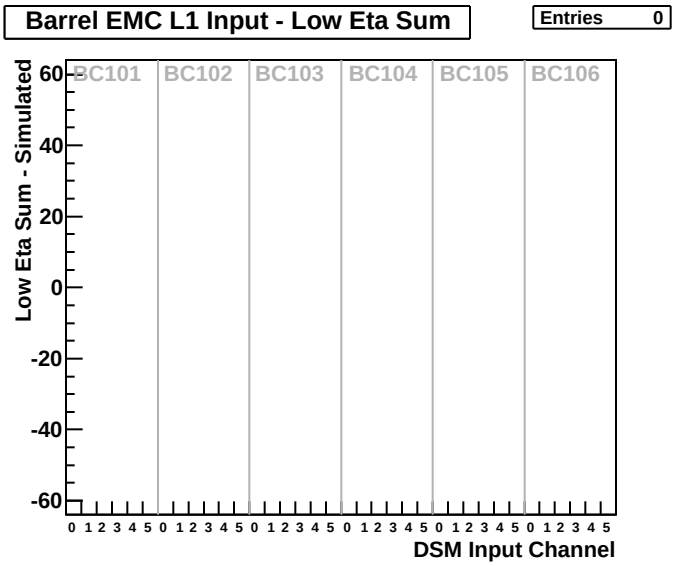
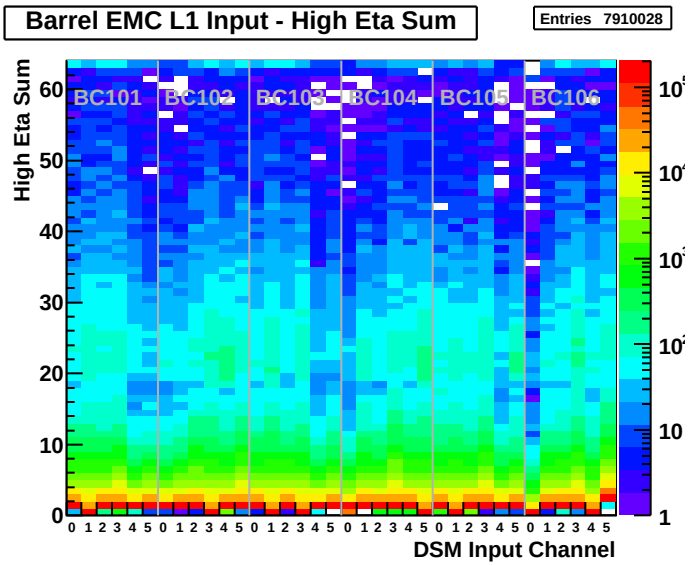
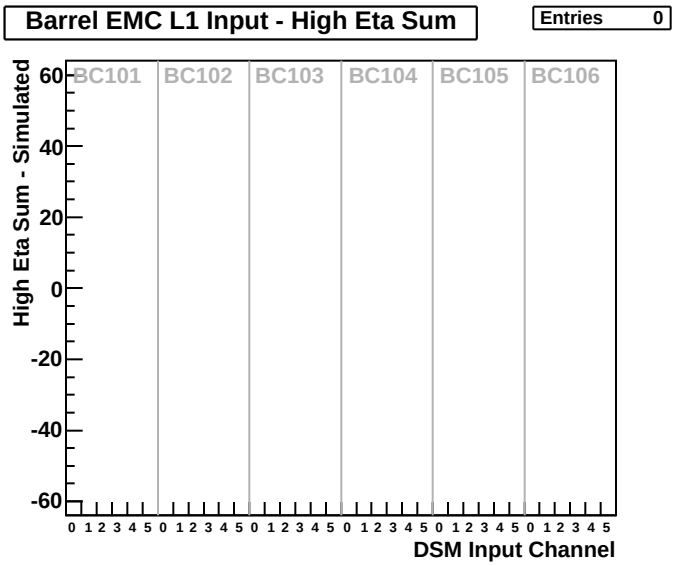
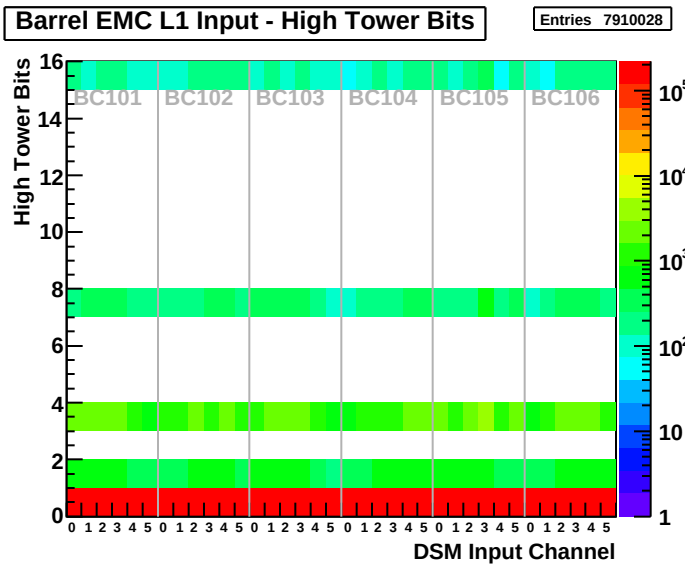
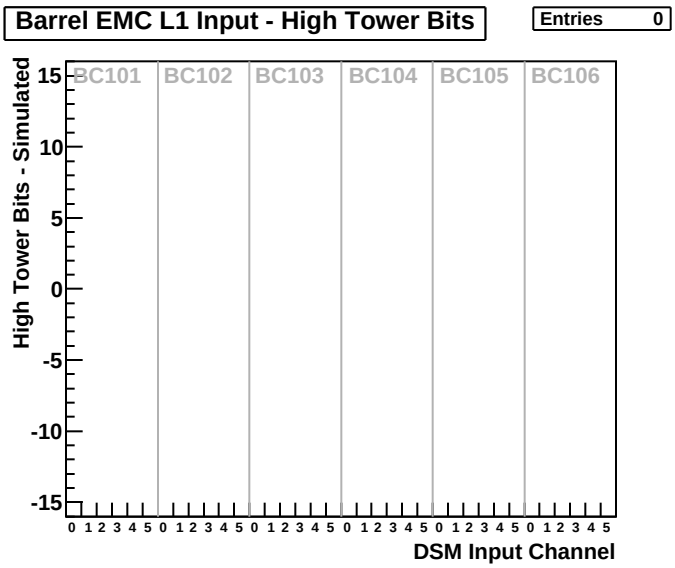

Barrel EMC L1 Input - Low Eta Sum
Entries 7910028
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

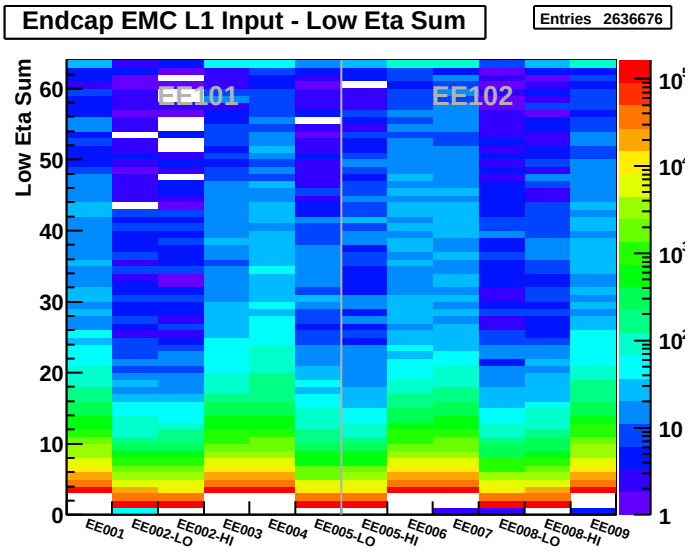

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

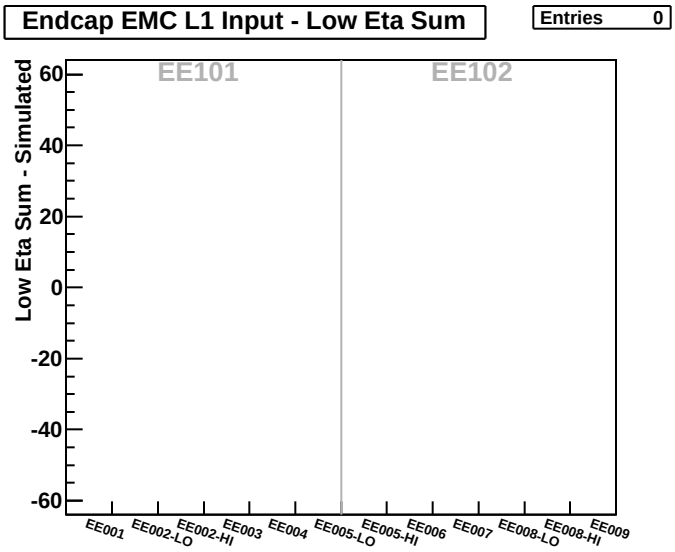

Barrel EMC L1 Input - High Eta Sum
Entries 7910028
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

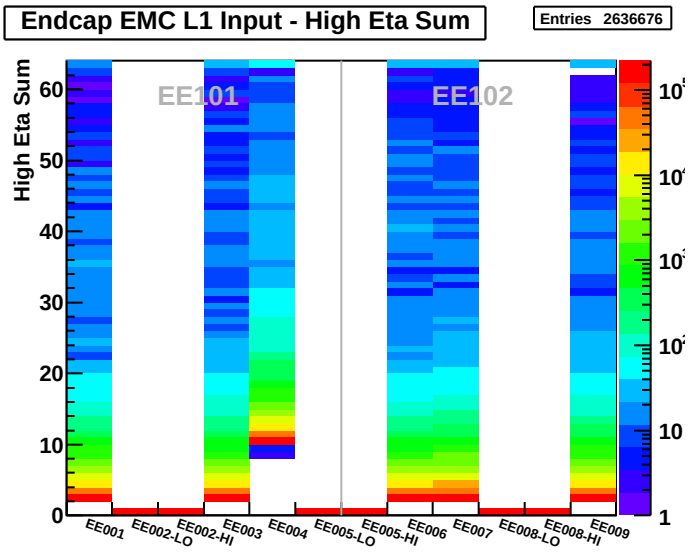

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

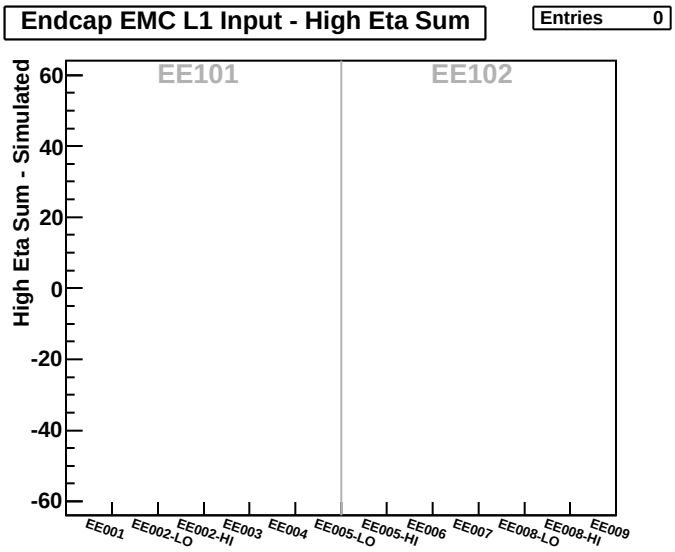

Barrel EMC L1 Input - High Tower Bits
Entries 7910028
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

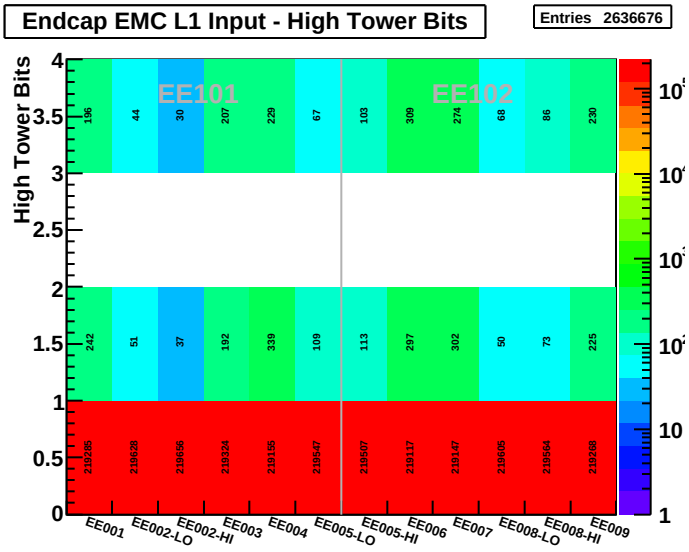

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

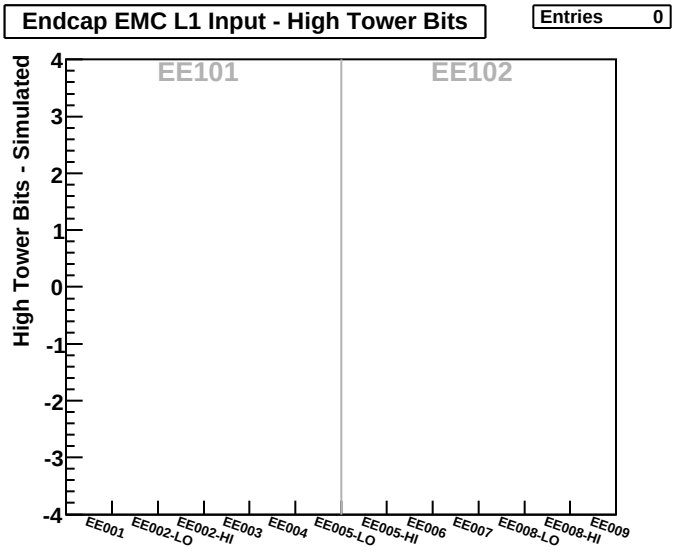

Endcap EMC L1 Input - Low Eta Sum
Entries 2636676
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

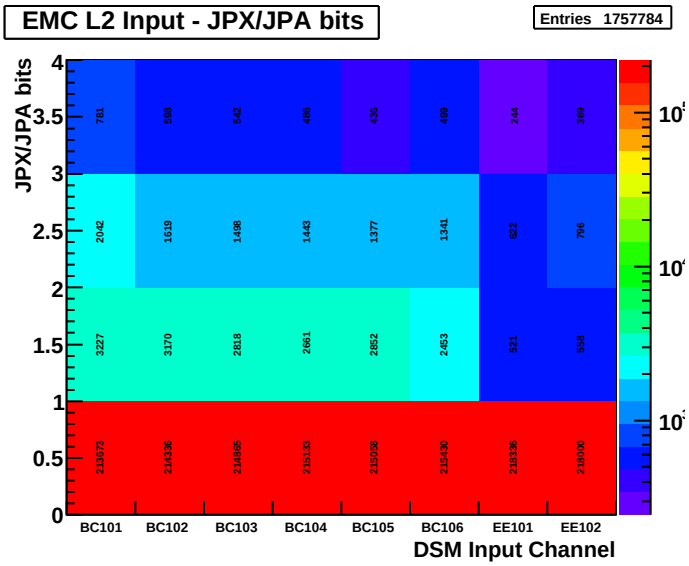

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

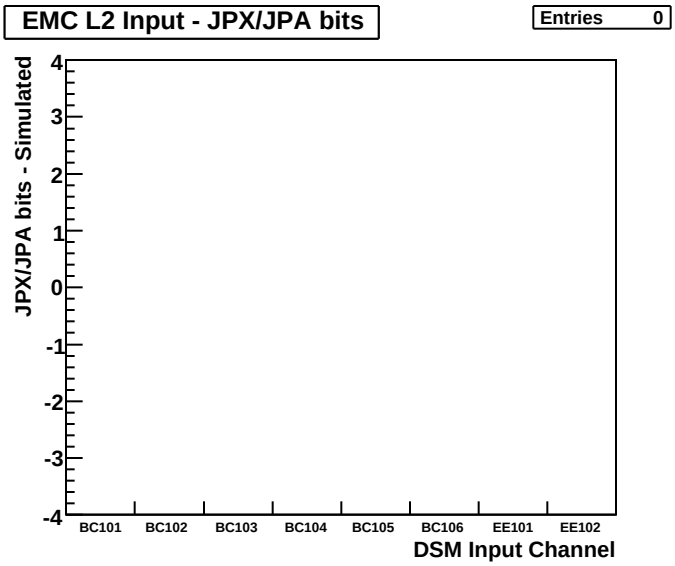

Endcap EMC L1 Input - High Eta Sum
Entries 2636676
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

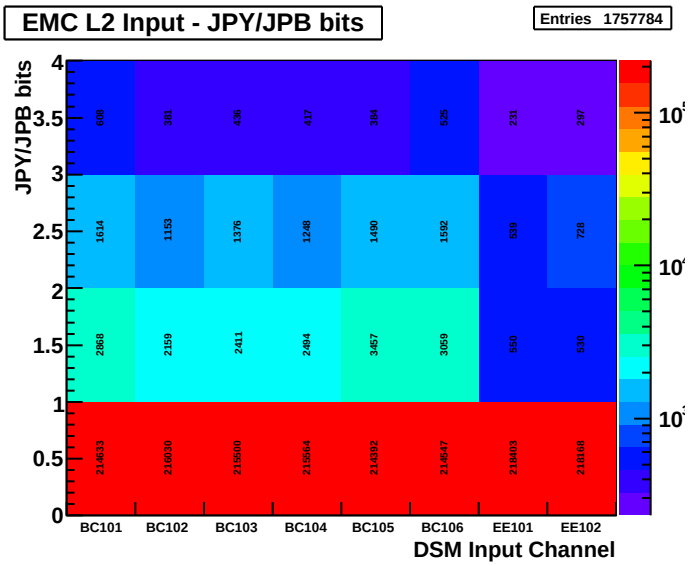

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

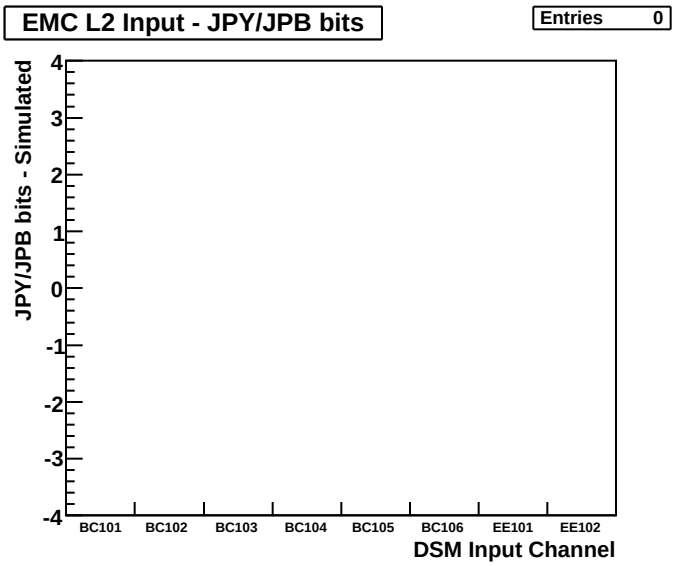

Endcap EMC L1 Input - High Tower Bits
Entries 2636676
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

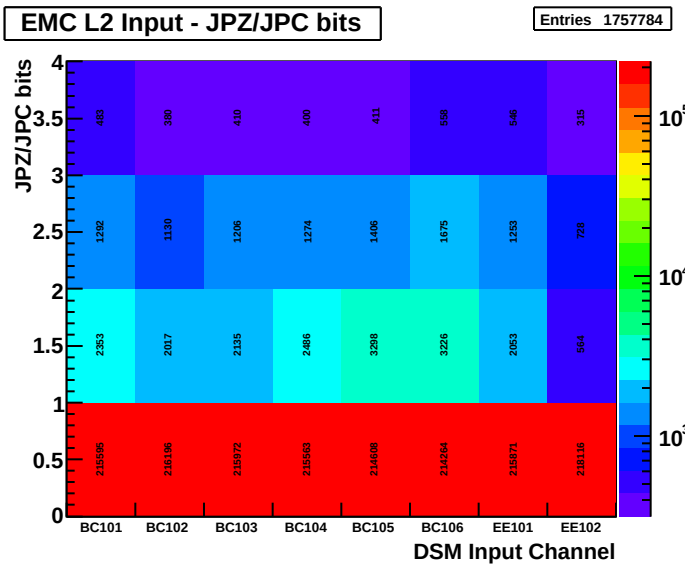

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

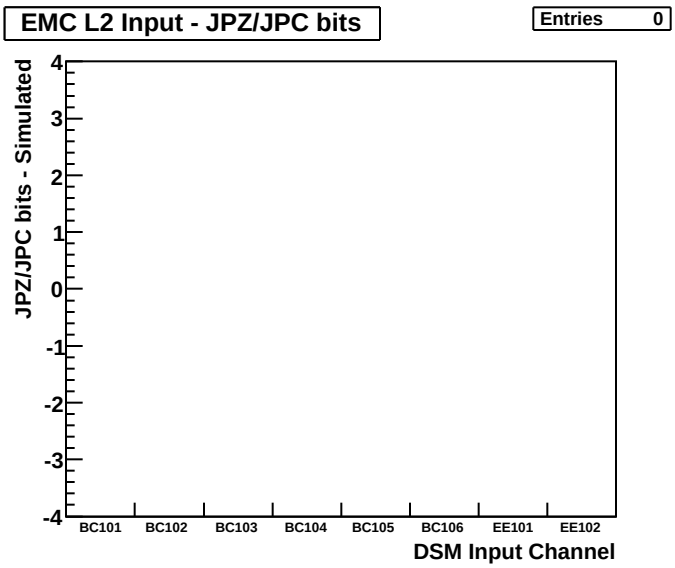

EMC L2 Input - JPX/JPA bits
Entries 1757784
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
781 598 542 486 436 499 244 369
2042 1619 1498 1443 1377 1341 622 796
3227 3170 2818 2661 2852 2453 521 538
213673 214336 214865 215133 215058 215430 218336 219000

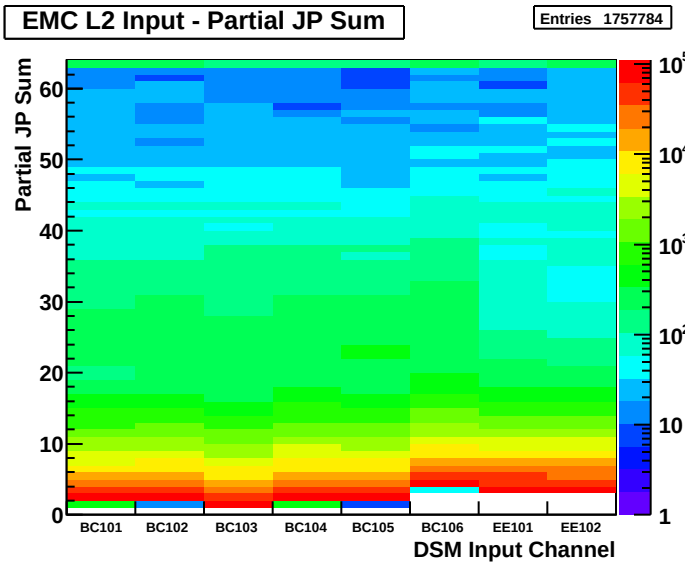

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

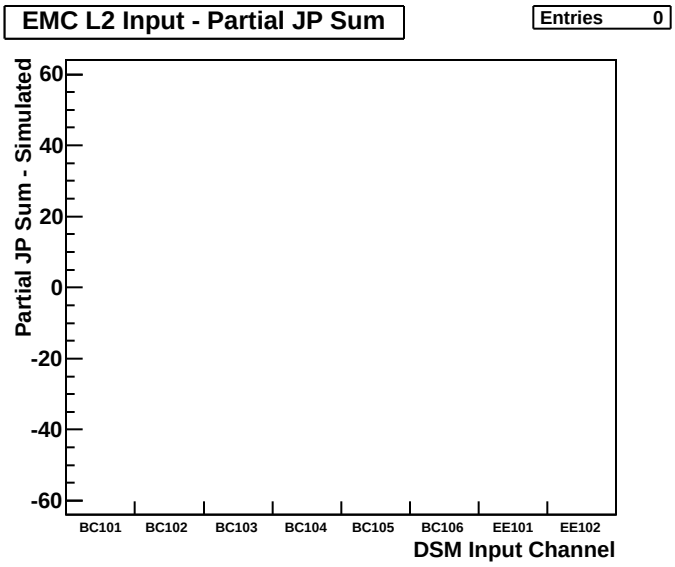

EMC L2 Input - JPY/JPB bits
Entries 1757784
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
606 381 436 417 384 525 231 297
1614 1153 1376 1248 1490 1592 539 728
2868 2159 2411 2494 3457 3059 550 530
214633 216030 215500 215564 214392 214547 219403 218168

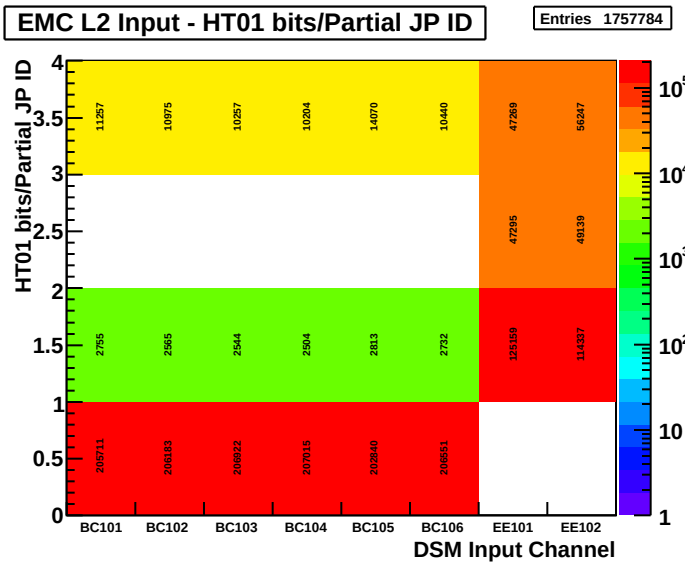

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

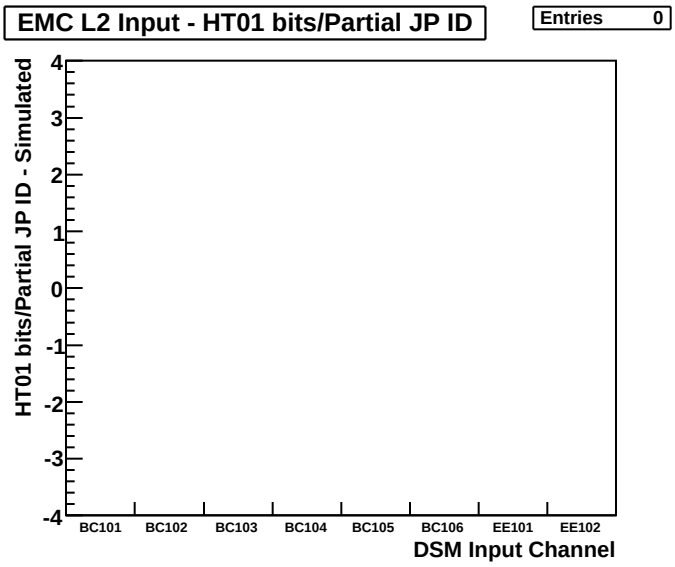

EMC L2 Input - JPZ/JPC bits
Entries 1757784
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
433 380 410 400 411 558 546 315
1292 1130 1206 1274 1406 1675 1253 728
2353 2017 2135 2486 3298 3226 2053 554
215565 216196 215972 215563 214608 214264 215971 218116

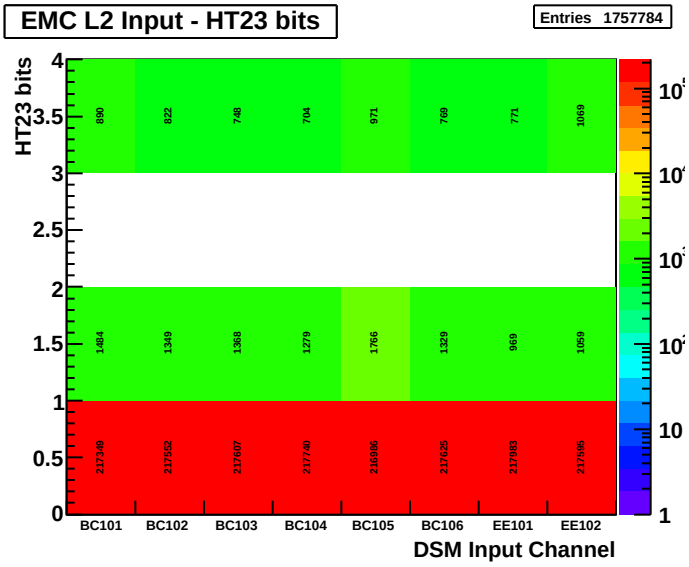

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

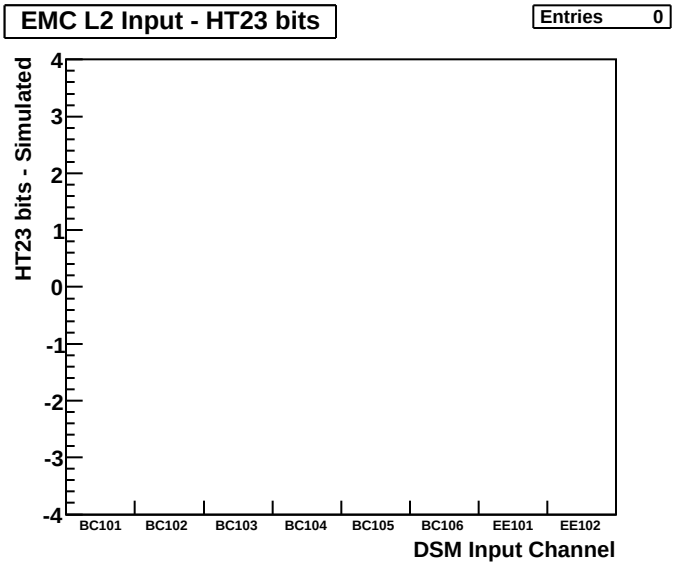

EMC L2 Input - Partial JP Sum
Entries 1757784
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

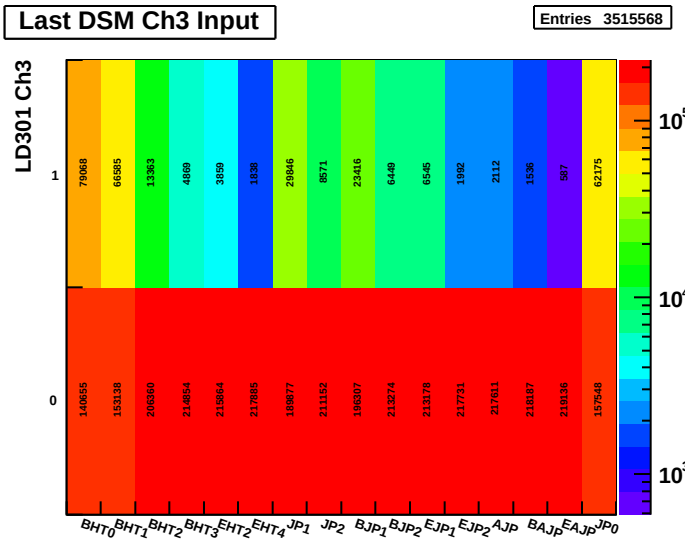

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

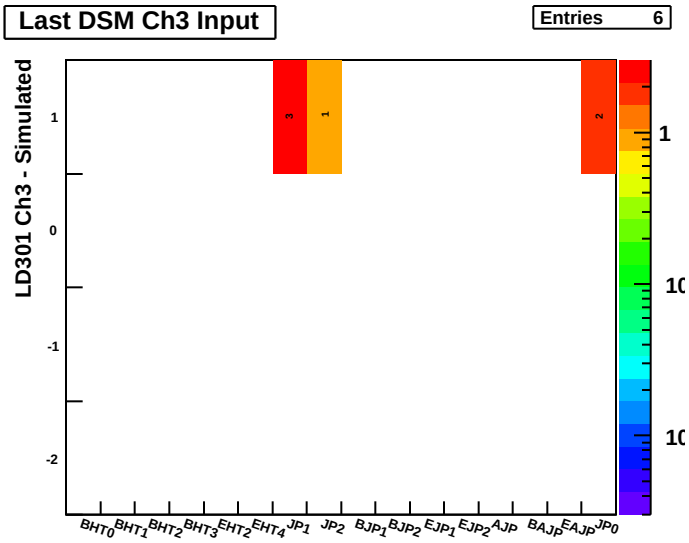

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1757784
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

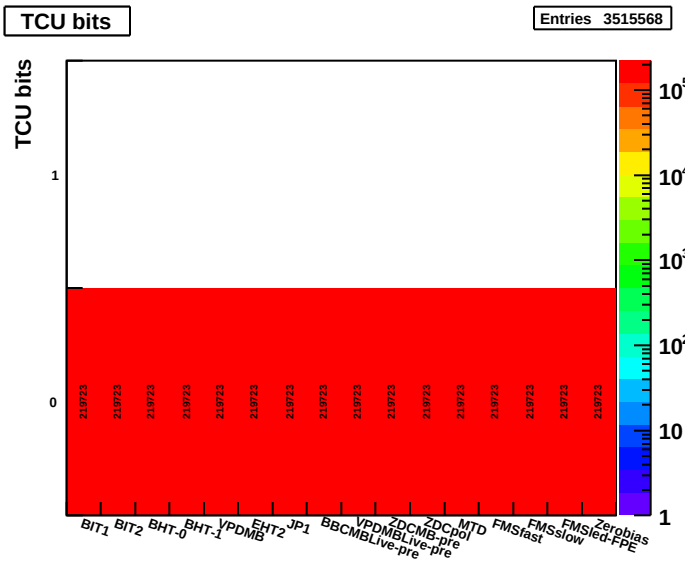

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

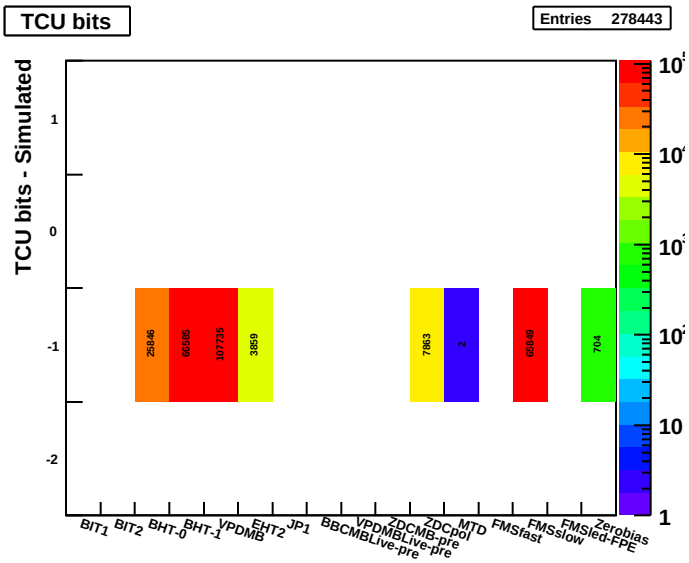

EMC L2 Input - HT23 bits
Entries 1757784
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

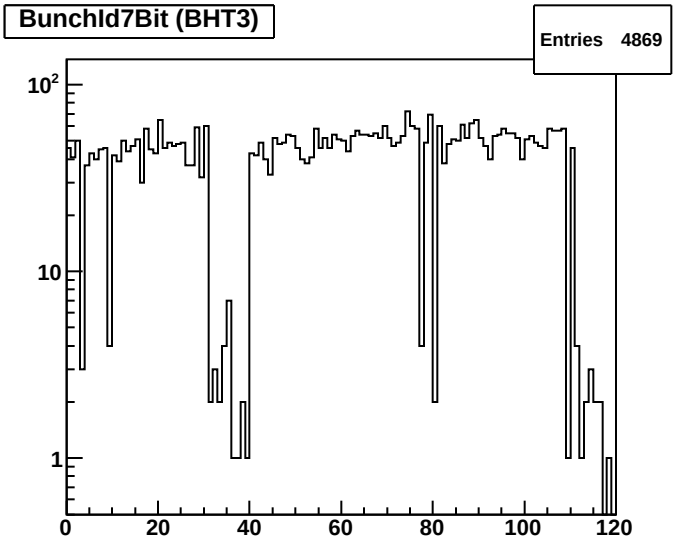

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

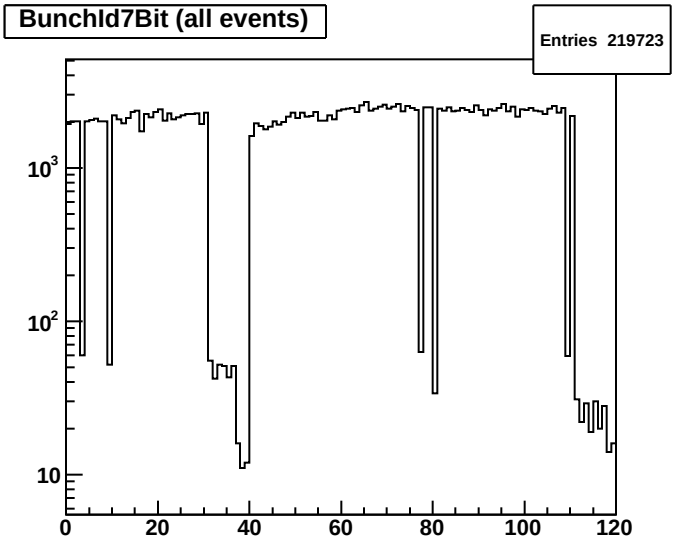

Last DSM Ch3 Input
Entries 3515568
LD301 Ch3
1
0
79068 66585 13353 4869 3859 1838 29846 8571 23416 6449 6545 1992 2112 1536 587 62175
140655 153138 206360 214854 215864 217685 189877 211152 196307 213274 213178 217731 217611 218187 219136 157548
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

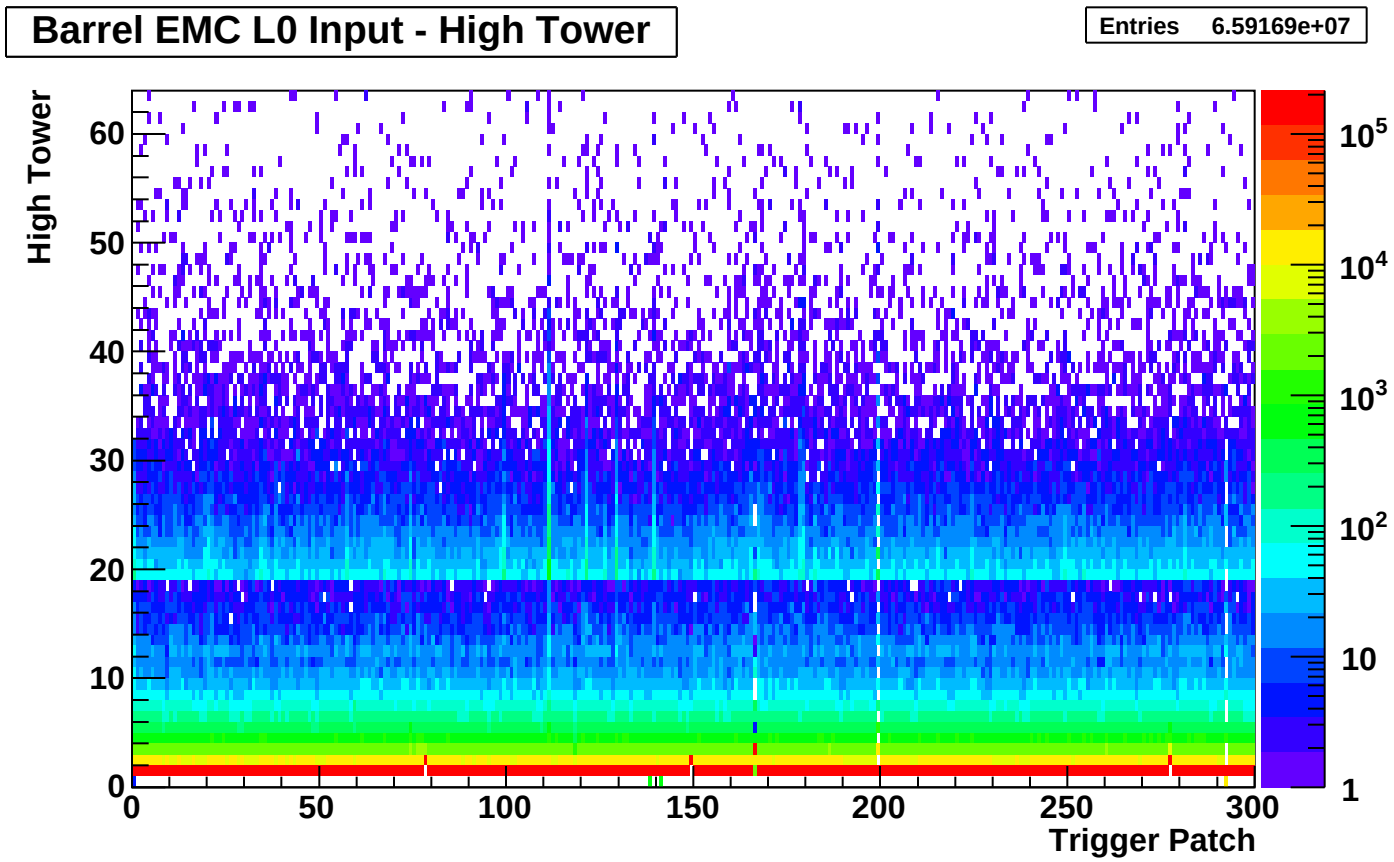

Last DSM Ch3 Input
Entries 6
LD301 Ch3 - Simulated
1
0
-1
-2
3 1 2
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

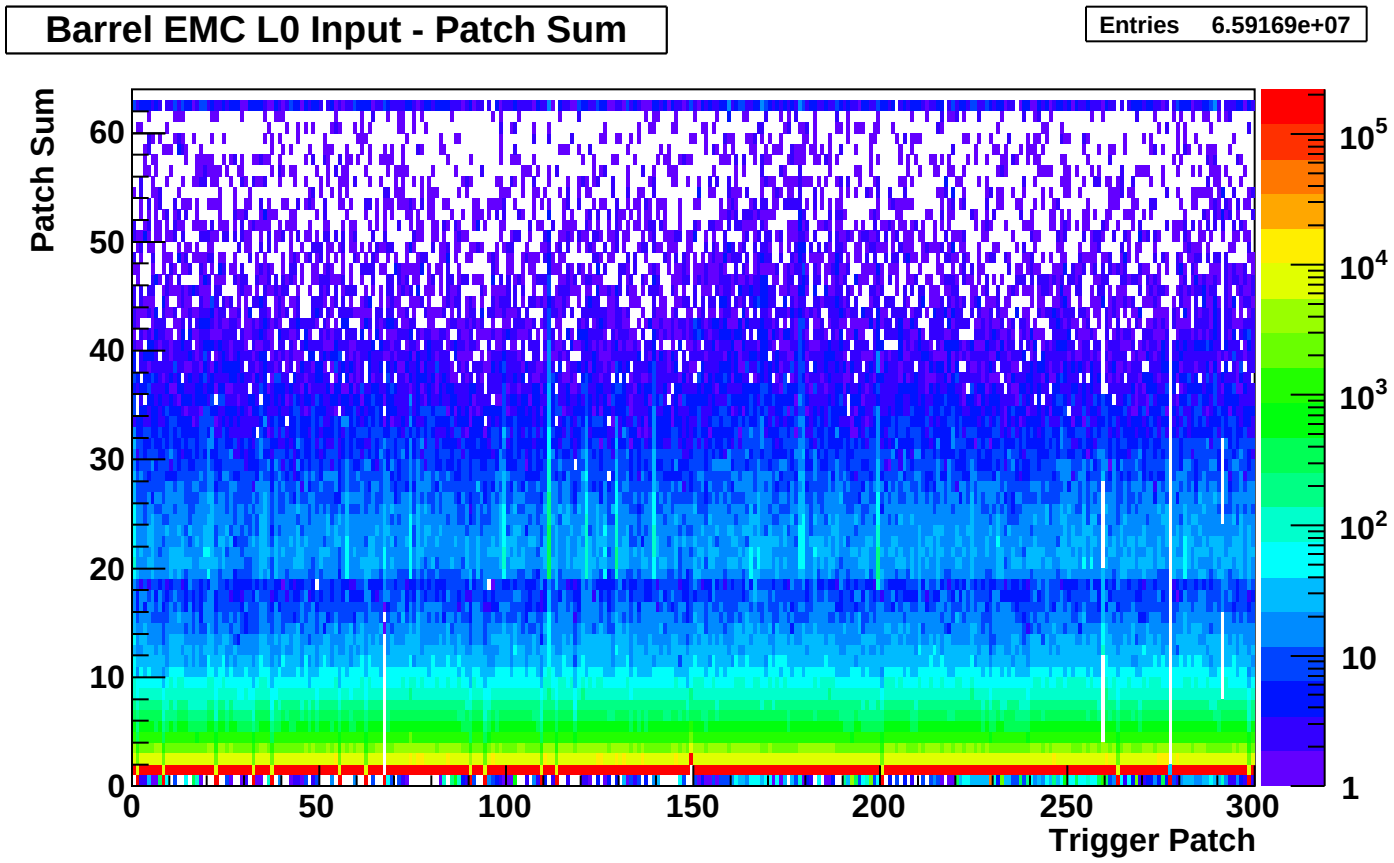

TCU bits
Entries 3515568
TCU bits
1
0
219723 219723 219723 219723 219723 219723 219723 219723 219723 219723 219723 219723 219723 219723 219723 219723
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

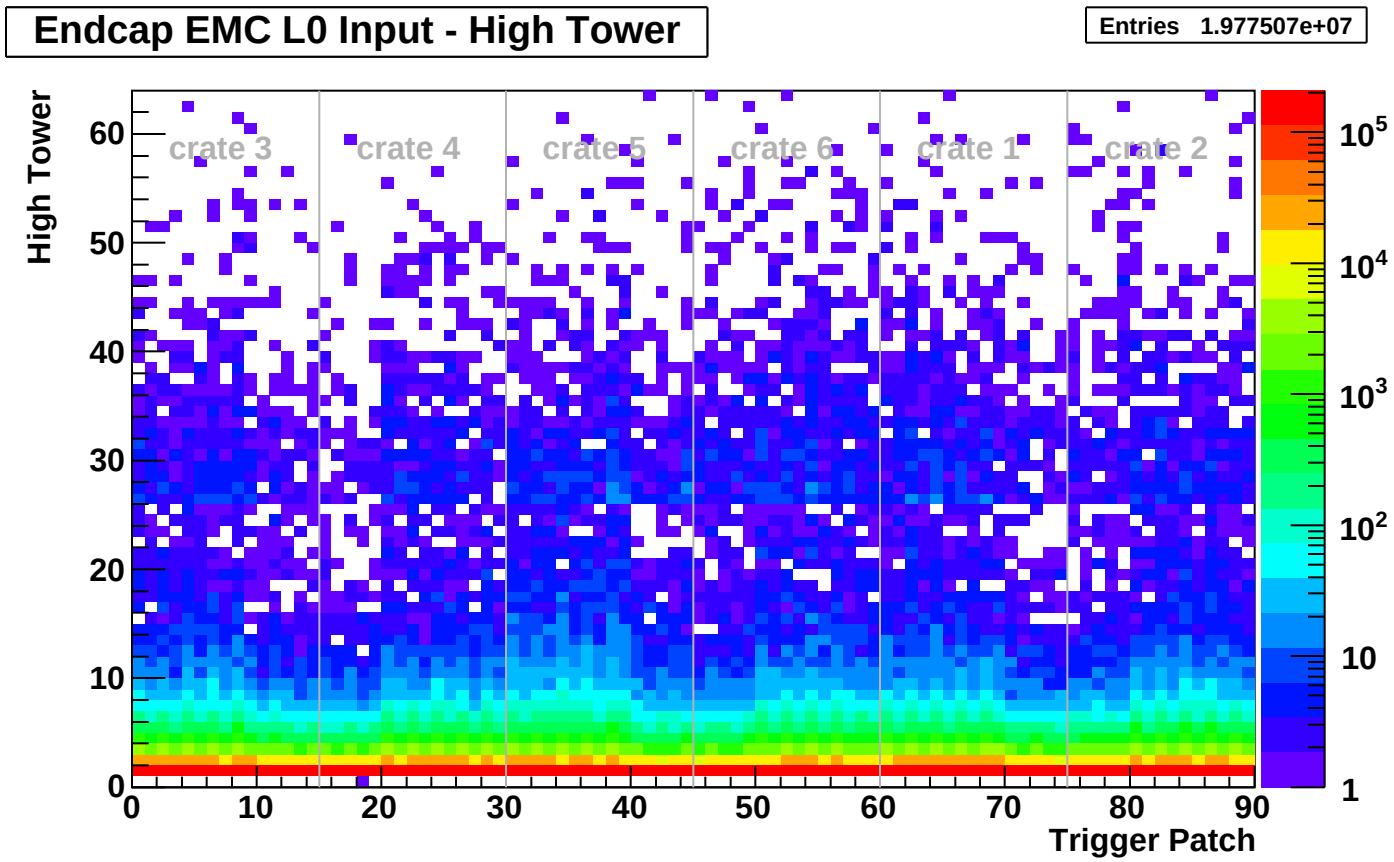

TCU bits
Entries 278443
TCU bits - Simulated
1
0
-1
-2
25846 66585 107735 3859 7863 2 65849 704
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

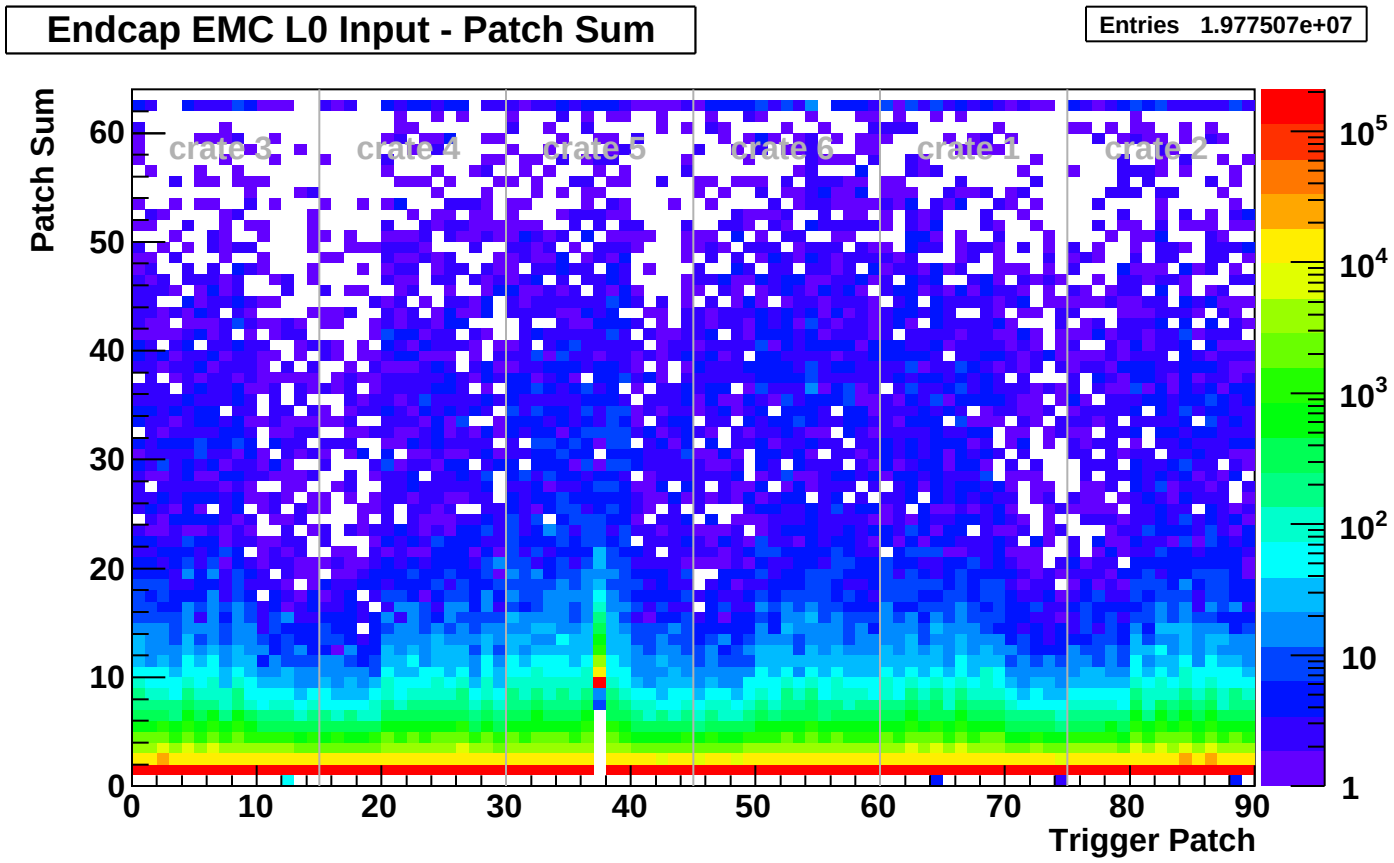

BunchId7Bit (BHT3)
Entries 4869
10²
10
1
0 20 40 60 80 100 120

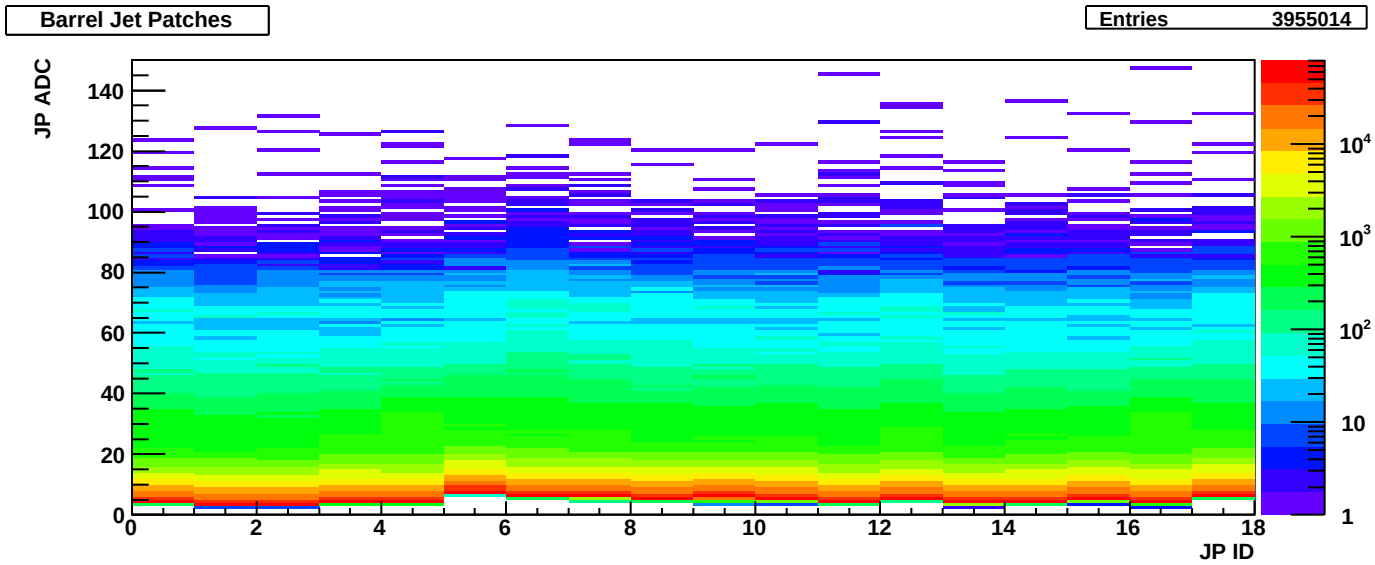

BunchId7Bit (all events)
Entries 219723
10³
10²
10
0 20 40 60 80 100 120

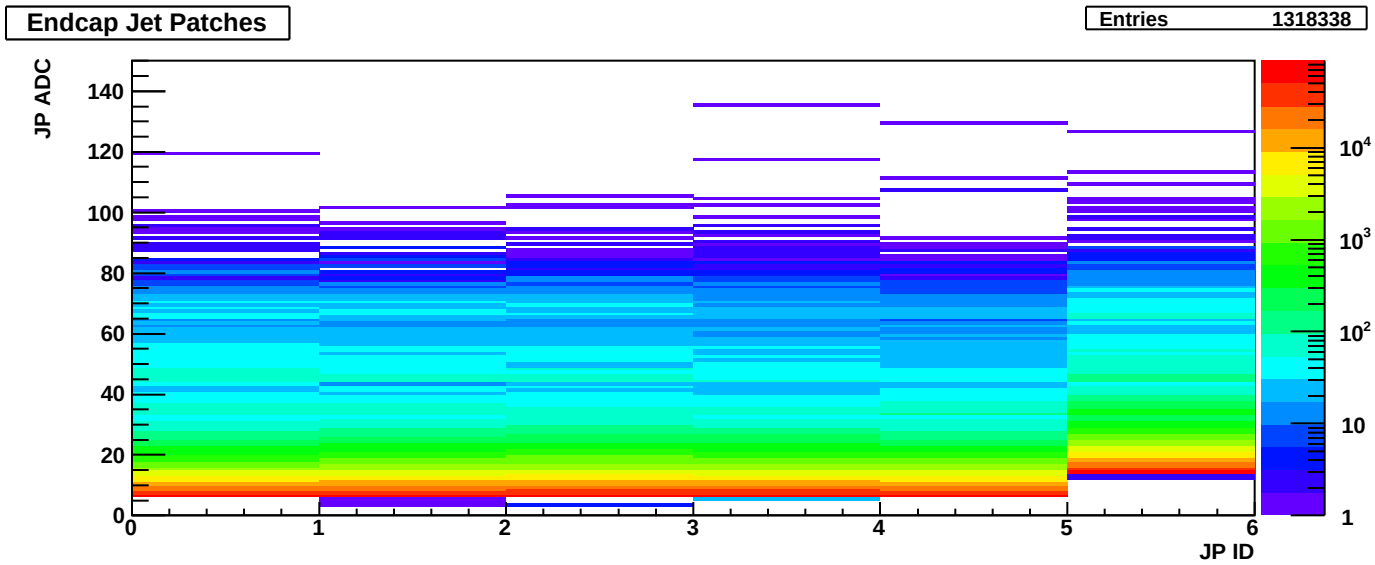

Barrel EMC L0 Input - High Tower
Entries 6.59169e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

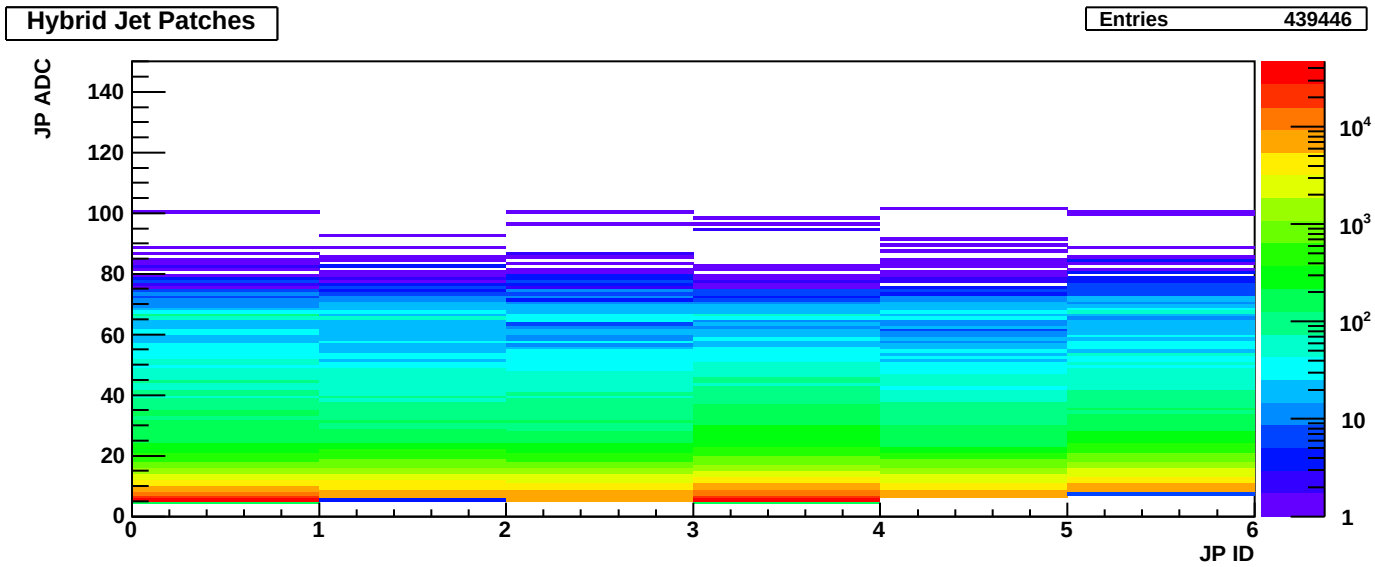

Barrel EMC L0 Input - Patch Sum
Entries 6.59169e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

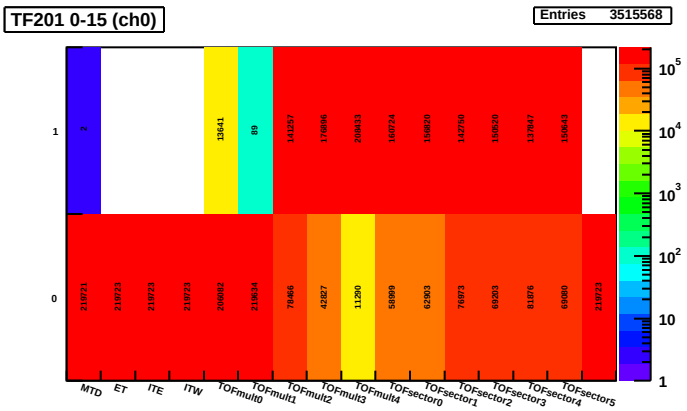

Endcap EMC L0 Input - High Tower
Entries 1.977507e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

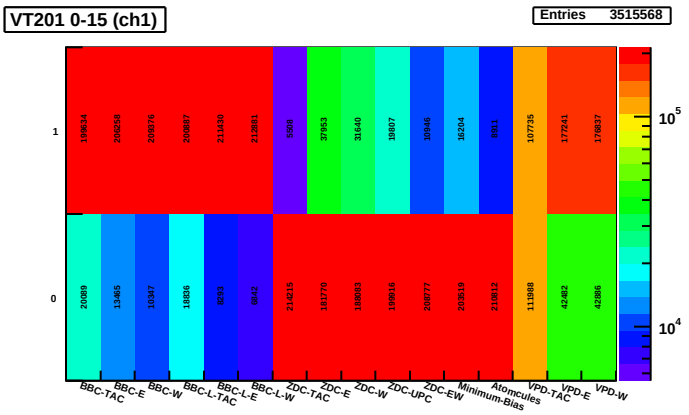

Endcap EMC L0 Input - Patch Sum
Entries 1.977507e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

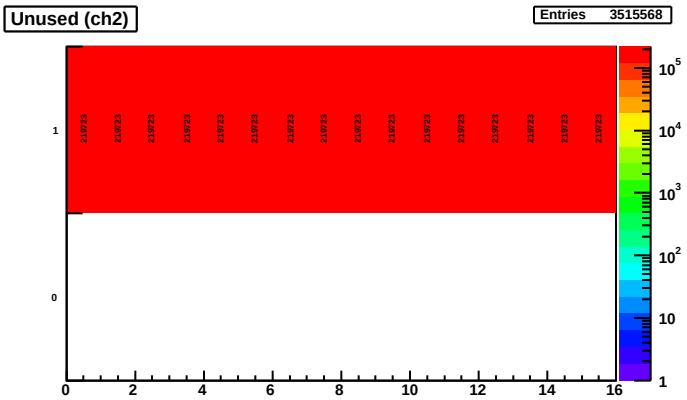

Barrel Jet Patches
Entries 3955014
JP ADC
JP ID

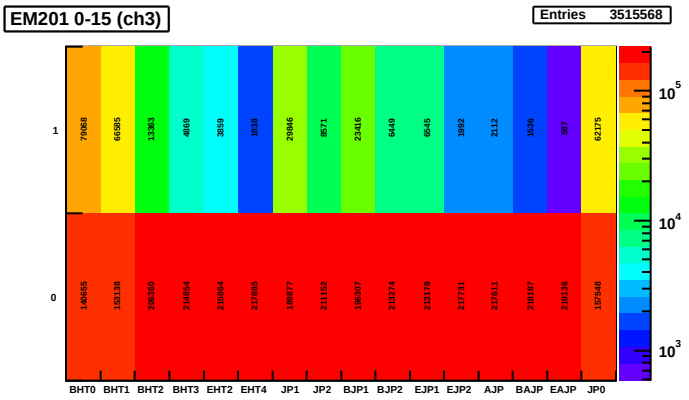

Endcap Jet Patches
Entries 1318338
JP ADC
JP ID

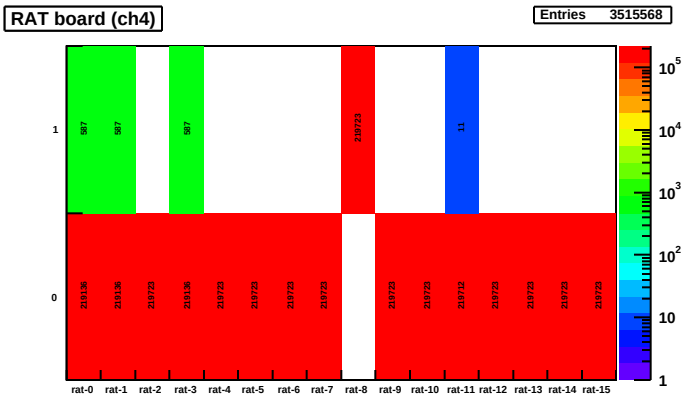

Hybrid Jet Patches
Entries 439446
JP ADC
JP ID

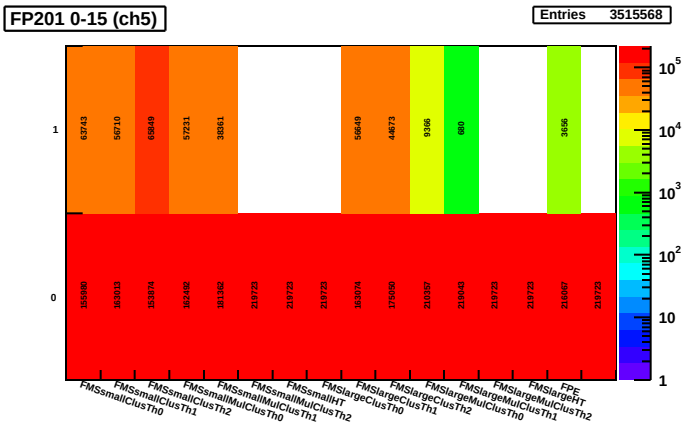

TF201 0-15 (ch0)
Entries 3515568
MTD
ET
ITE
ITW
TOFmult0
TOFmult1
TOFmult2
TOFmult3
TOFmult4
TOFsector0
TOFsector1
TOFsector2
TOFsector3
TOFsector4
TOFsector5

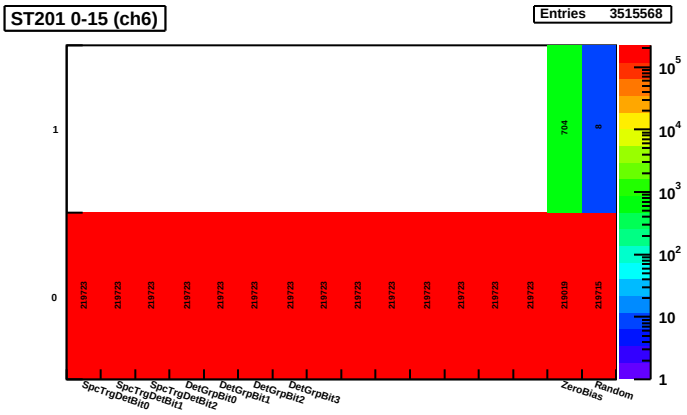

VT201 0-15 (ch1)
Entries 3515568
BBC-TAC
BBC-E
BBC-W
BBC-L-TAC
BBC-L-E
BBC-L-W
ZDC-TAC
ZDC-E
ZDC-W
ZDC-UPC
ZDC-EW
Minimum-Bias
Atomcules
VPD-TAC
VPD-E
VPD-W

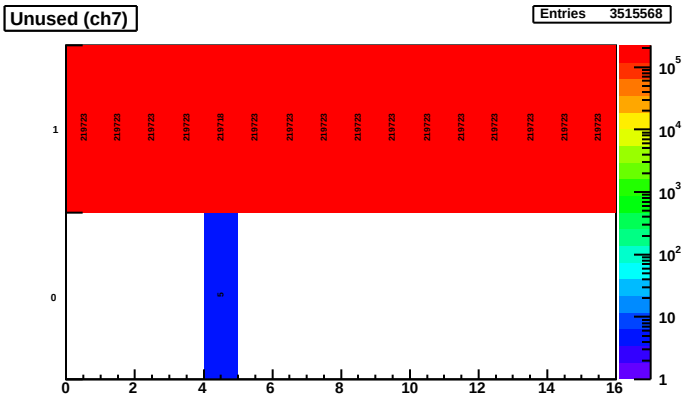

Unused (ch2)
Entries 3515568

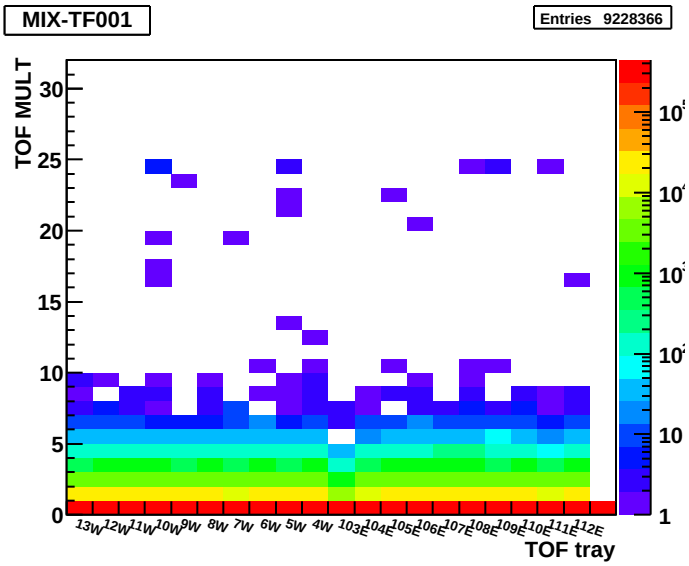

EM201 0-15 (ch3)
Entries 3515568
BHT0
BHT1
BHT2
BHT3
EHT2
EHT4
JP1
JP2
BJP1
BJP2
EJP1
EJP2
AJP
BAJP
EAJP
JP0

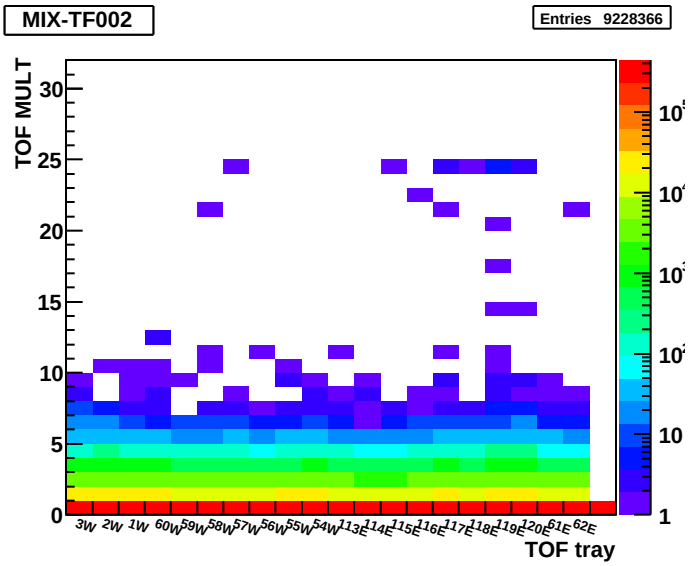

RAT board (ch4)
Entries 3515568
rat-0
rat-1
rat-2
rat-3
rat-4
rat-5
rat-6
rat-7
rat-8
rat-9
rat-10
rat-11
rat-12
rat-13
rat-14
rat-15

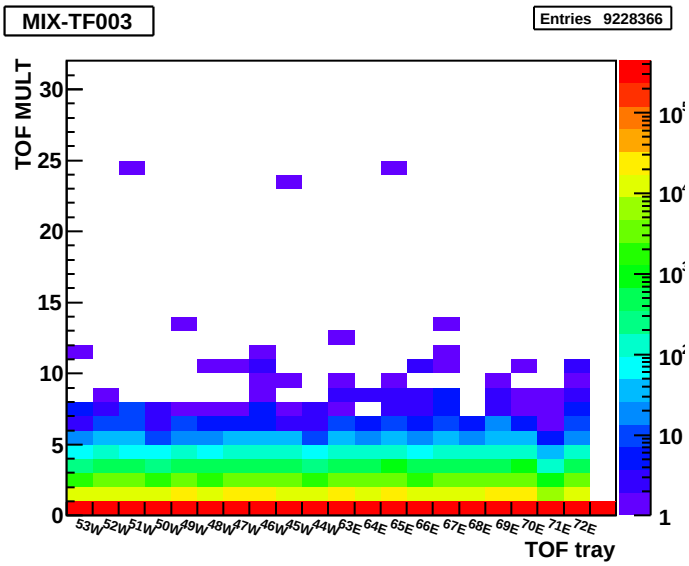

FP201 0-15 (ch5)
Entries 3515568
FMSsmallClusTh0
FMSsmallClusTh1
FMSsmallClusTh2
FMSsmallMulClusTh0
FMSsmallMulClusTh1
FMSsmallMulClusTh2
FMSsmallHT
FMSlargeClusTh0
FMSlargeClusTh1
FMSlargeClusTh2
FMSlargeMulClusTh0
FMSlargeMulClusTh1
FMSlargeMulClusTh2
FMSlargeHT
FPE

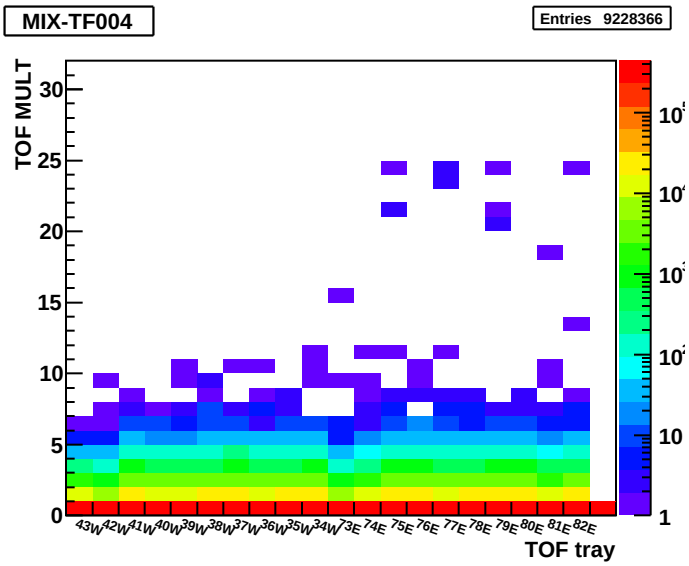

ST201 0-15 (ch6)
Entries 3515568
SpcTrgDetBit0
SpcTrgDetBit1
SpcTrgDetBit2
DetGrpBit0
DetGrpBit1
DetGrpBit2
DetGrpBit3
ZeroBias
Random

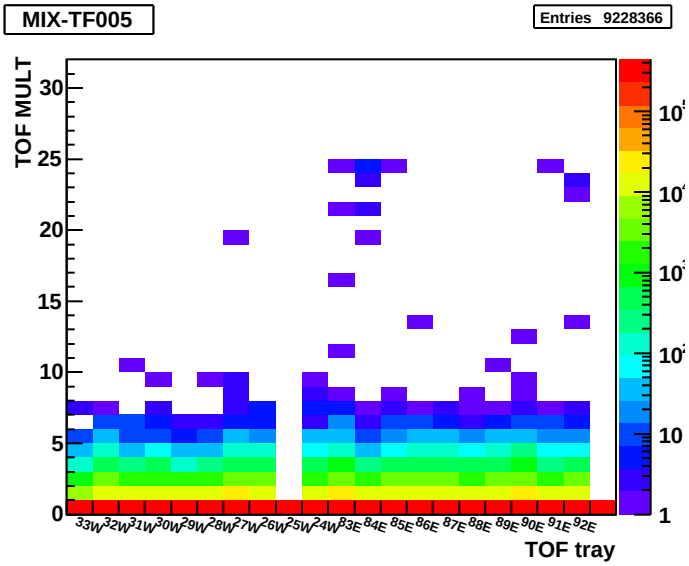

Unused (ch7)
Entries 3515568

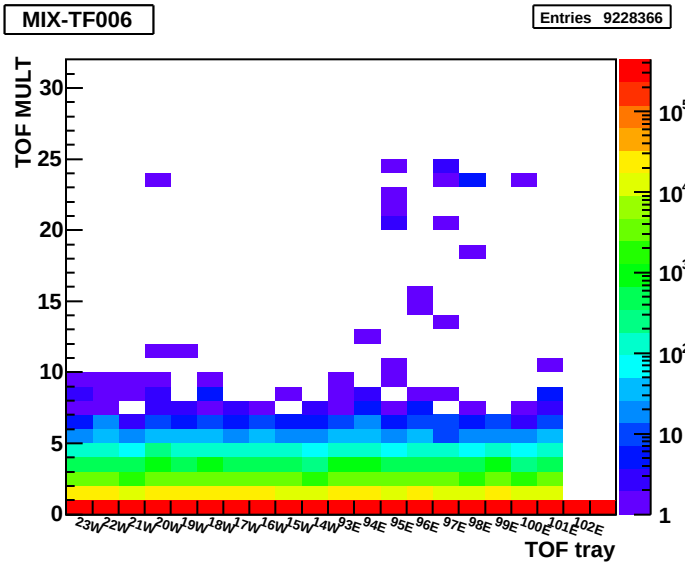

MIX-TF001
Entries 9228366
TOF MULT
TOF tray

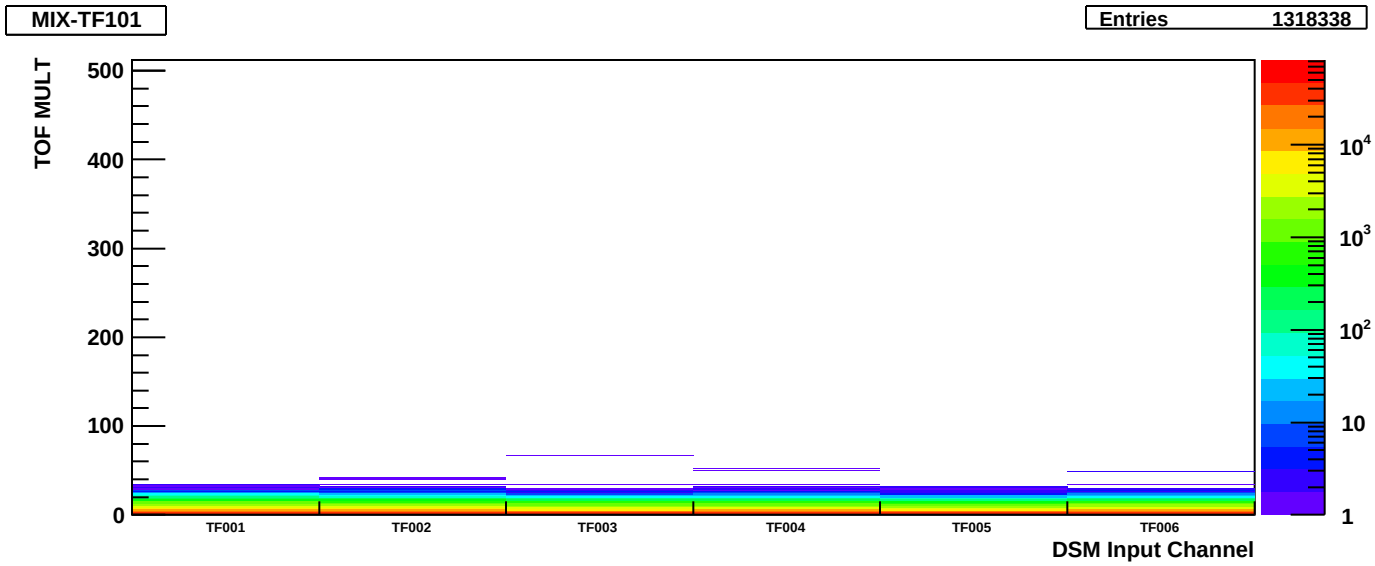

MIX-TF002
Entries 9228366
TOF MULT
TOF tray

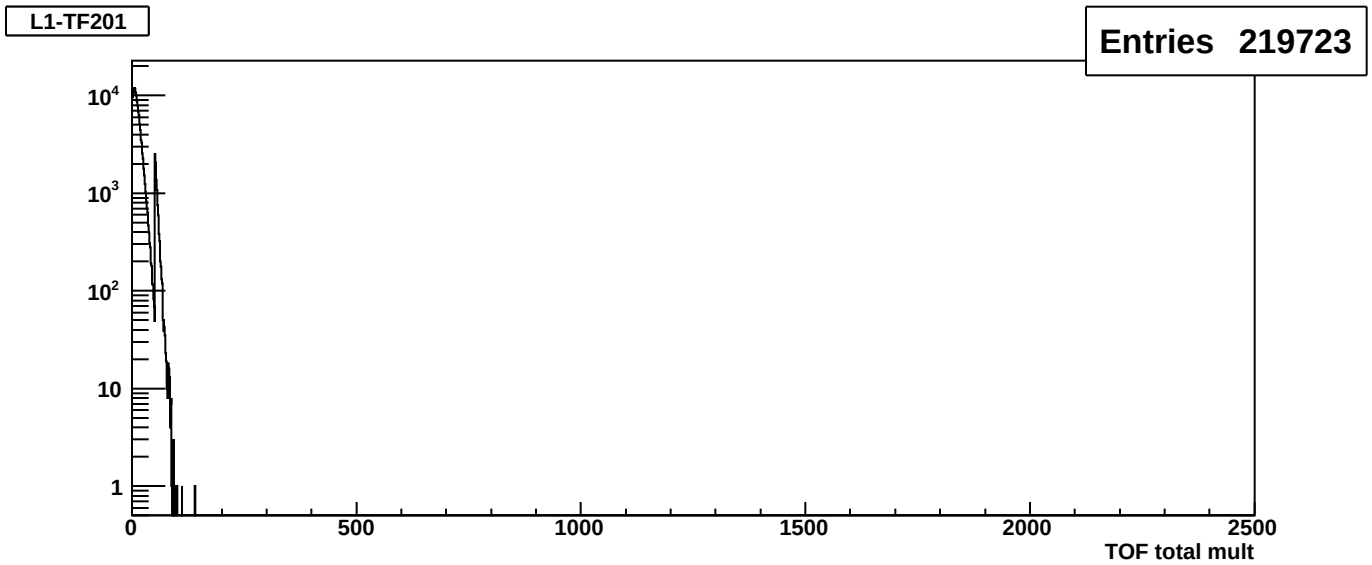

MIX-TF003
Entries 9228366
TOF MULT
TOF tray

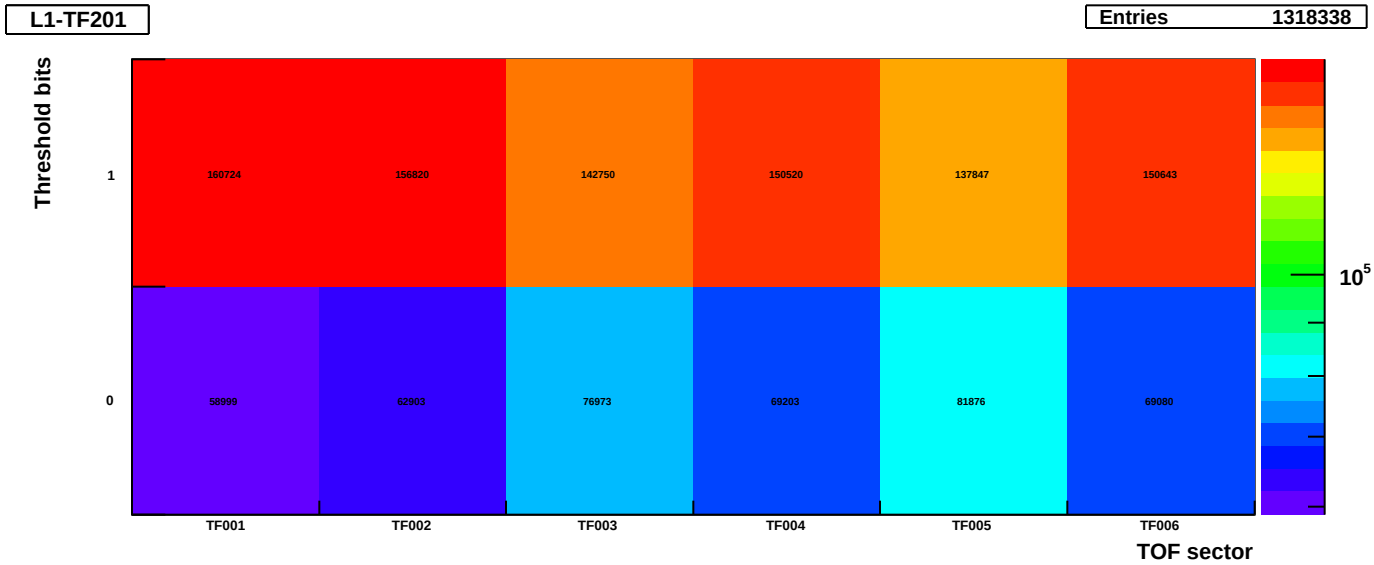

MIX-TF004
Entries 9228366
TOF MULT
TOF tray

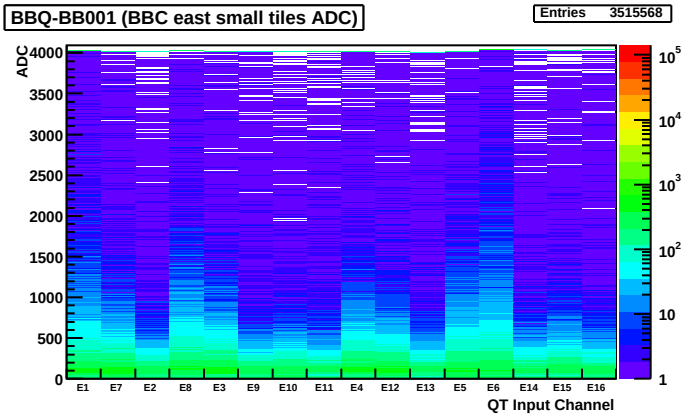

MIX-TF005
Entries 9228366
TOF MULT
TOF tray

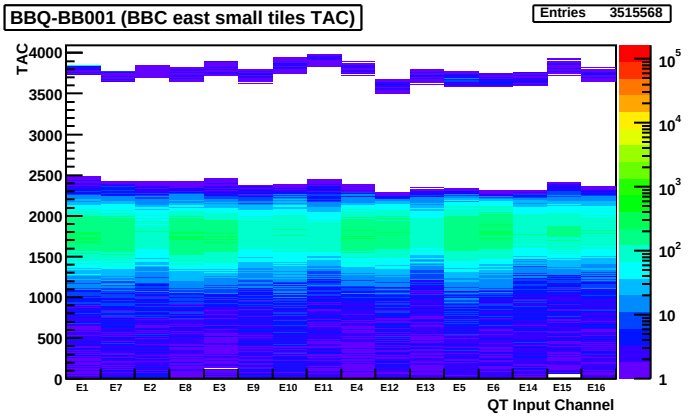

MIX-TF006
Entries 9228366
TOF MULT
TOF tray

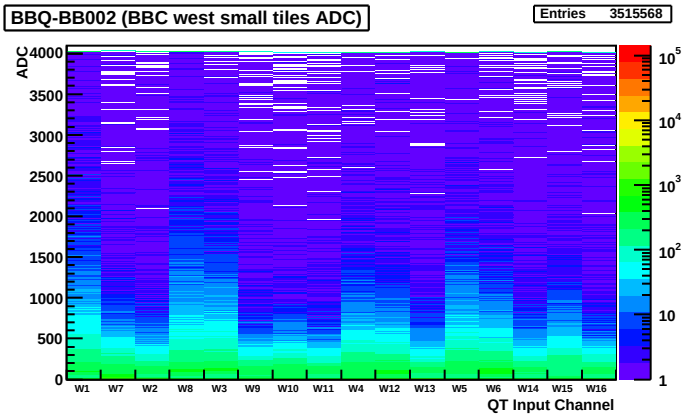

MIX-TF101
Entries 1318338
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

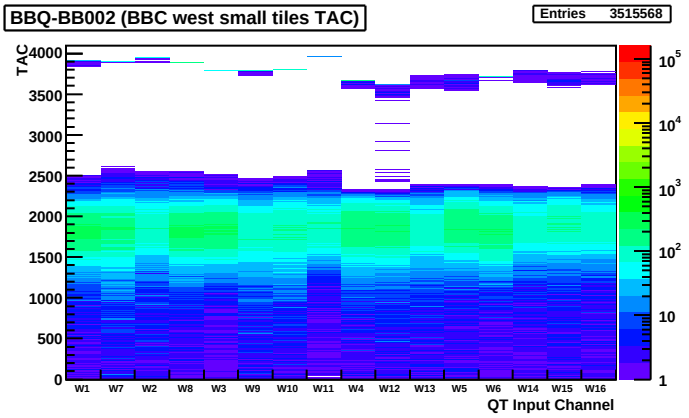

L1-TF201
Entries 219723
10^4
10^3
10^2
10
1
0
500
1000
1500
2000
2500
TOF total mult

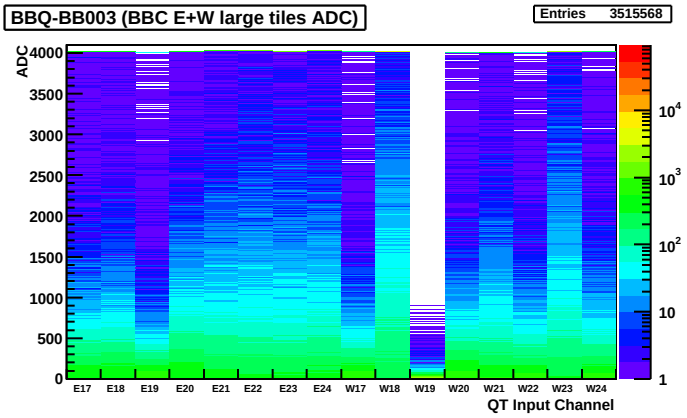

L1-TF201
Entries 1318338
Threshold bits
1
0
160724
156820
142750
150520
137847
150643
58999
62903
76973
69203
81876
69080
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5

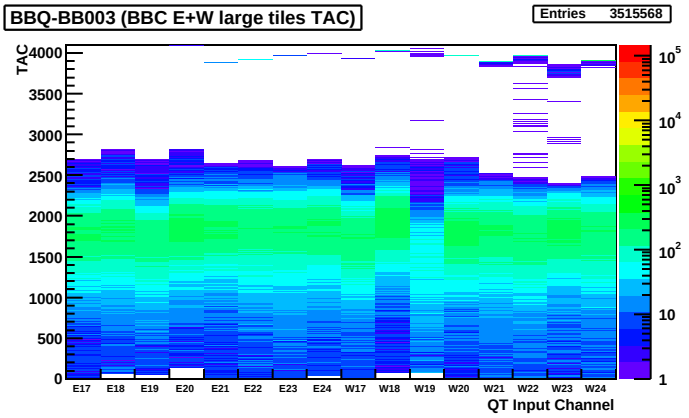

BBQ-BB001 (BBC east small tiles ADC)
Entries 3515568
ADC
QT Input Channel

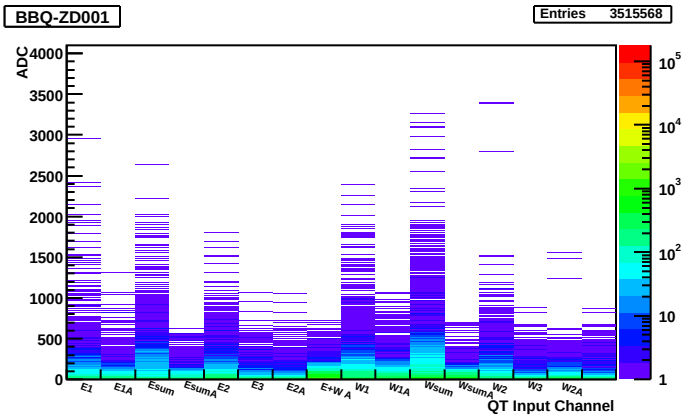

BBQ-BB001 (BBC east small tiles TAC)
Entries 3515568
TAC
QT Input Channel

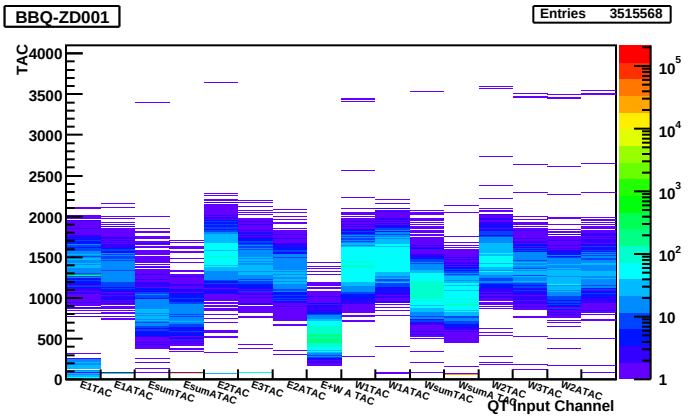

BBQ-BB002 (BBC west small tiles ADC)
Entries 3515568
ADC
QT Input Channel

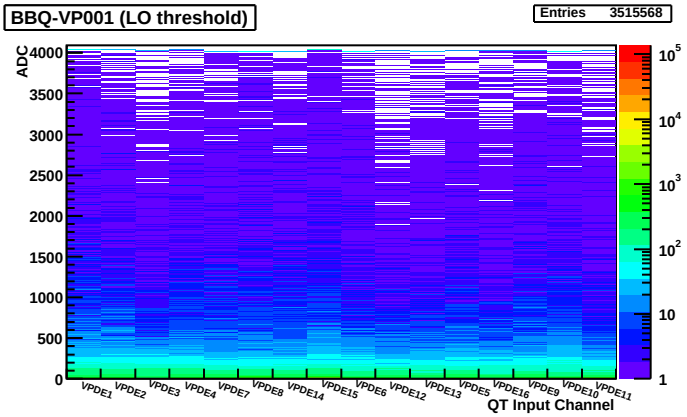

BBQ-BB002 (BBC west small tiles TAC)
Entries 3515568
TAC
QT Input Channel

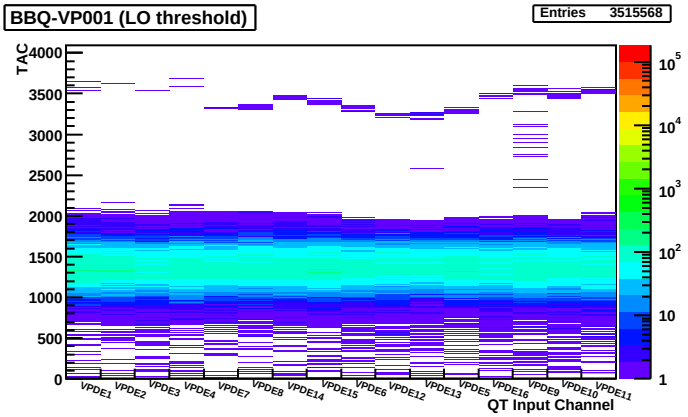

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 3515568
ADC
QT Input Channel

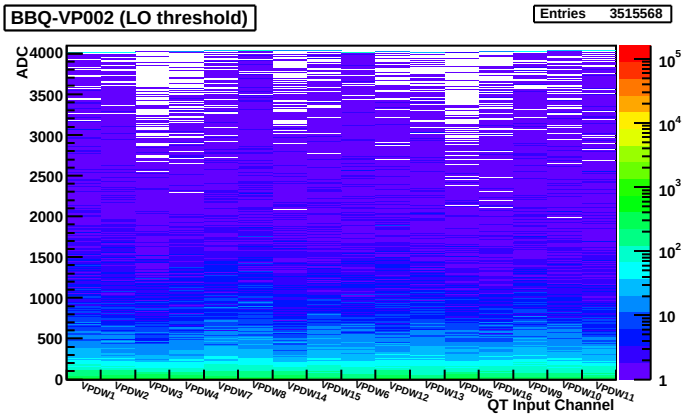

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 3515568
TAC
QT Input Channel

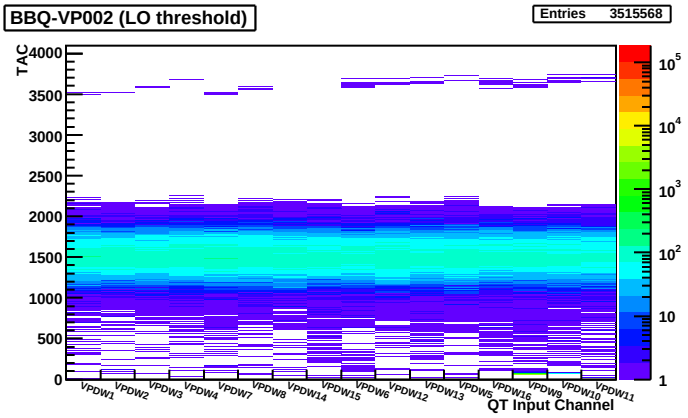

BBQ-ZD001
Entries 3515568
ADC
QT Input Channel

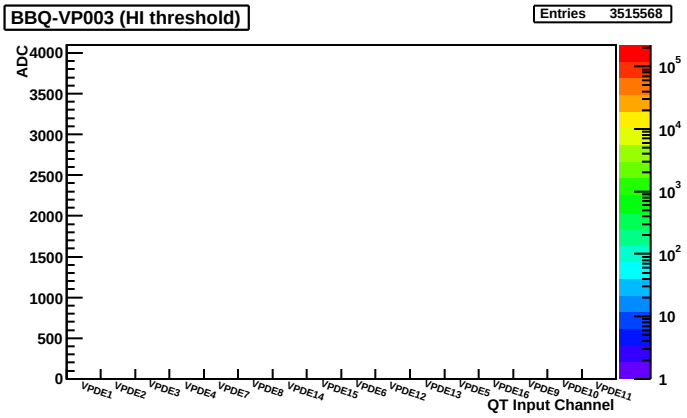

BBQ-ZD001
Entries 3515568
TAC
QT Input Channel

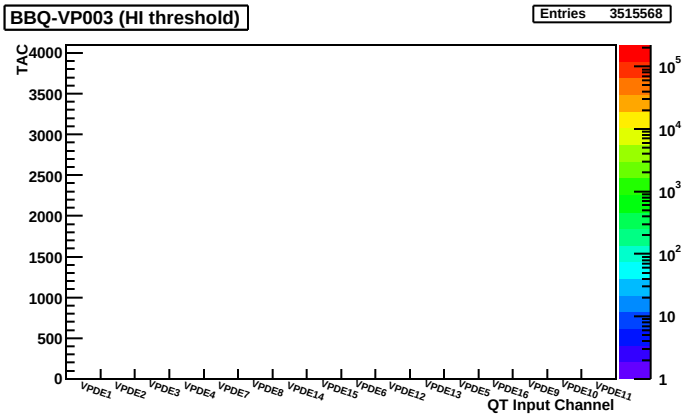

BBQ-VP001 (LO threshold)
Entries 3515568
ADC
QT Input Channel

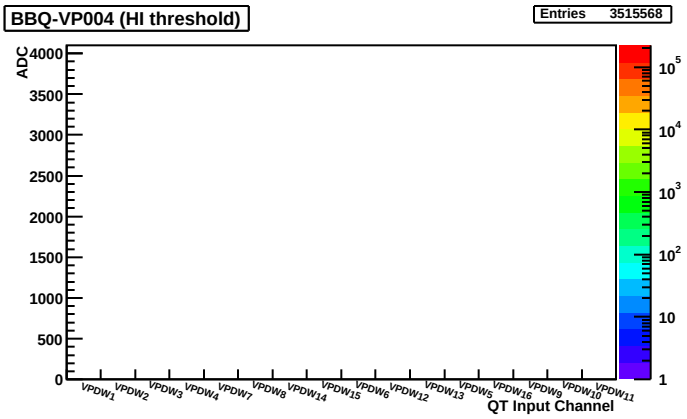

BBQ-VP001 (LO threshold)
Entries 3515568
TAC
QT Input Channel

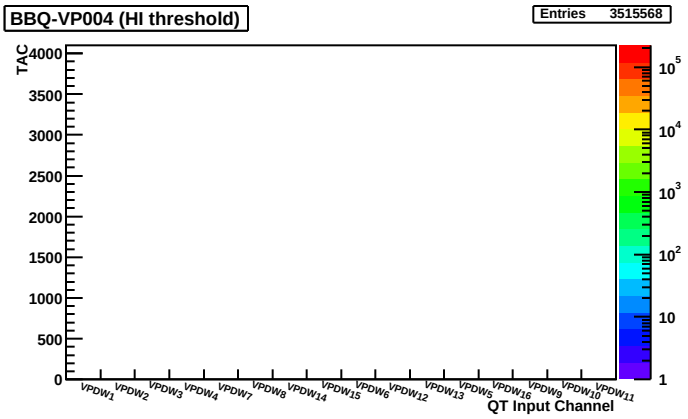

BBQ-VP002 (LO threshold)
Entries 3515568
ADC
QT Input Channel

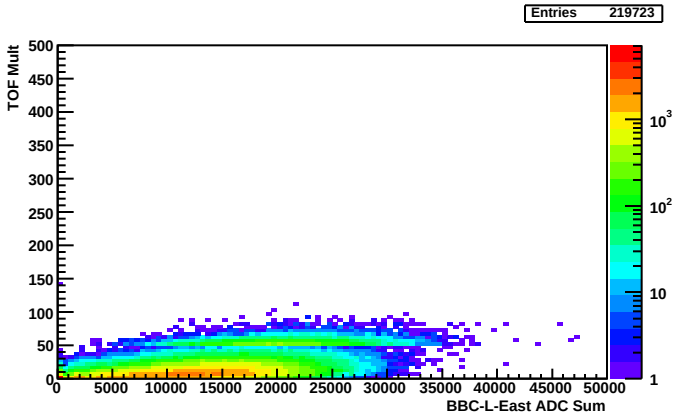

BBQ-VP002 (LO threshold)
Entries 3515568
TAC
QT Input Channel

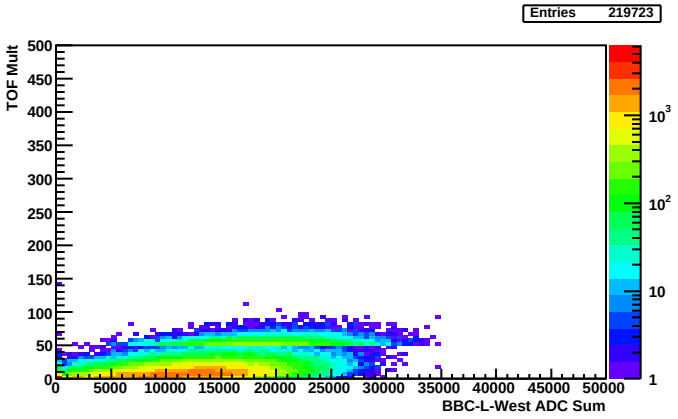

BBQ-VP003 (HI threshold)
Entries 3515568
ADC
QT Input Channel

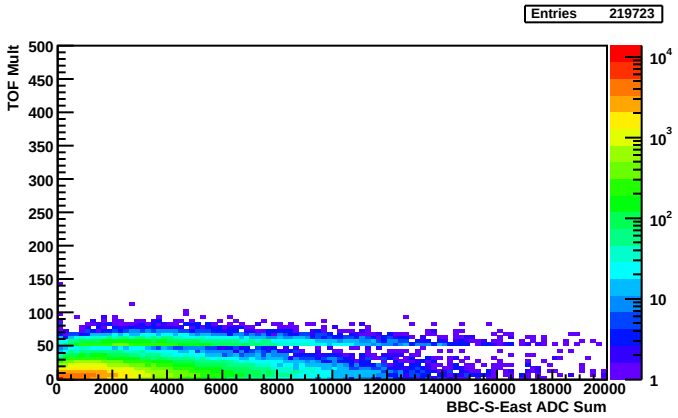

BBQ-VP003 (HI threshold)
Entries 3515568
TAC
QT Input Channel

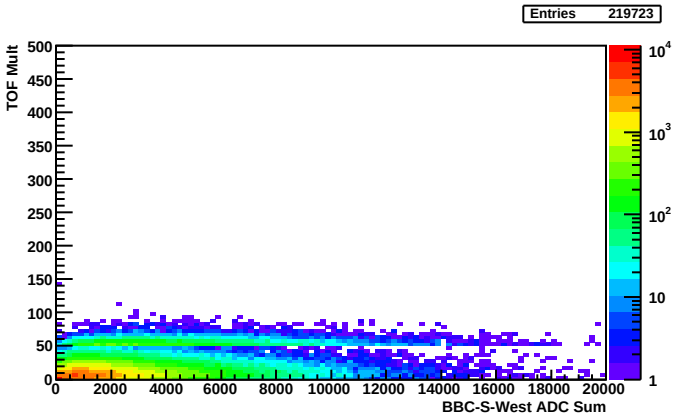

BBQ-VP004 (HI threshold)
Entries 3515568
ADC
QT Input Channel

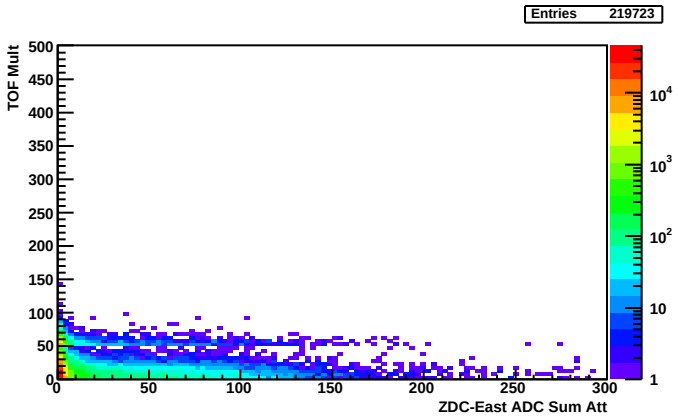

BBQ-VP004 (HI threshold)
Entries 3515568
TAC
QT Input Channel

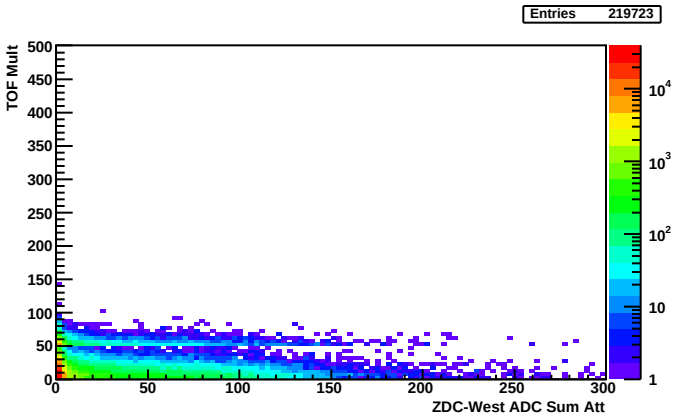

Entries 219723
TOF Mult
BBC-L-East ADC Sum

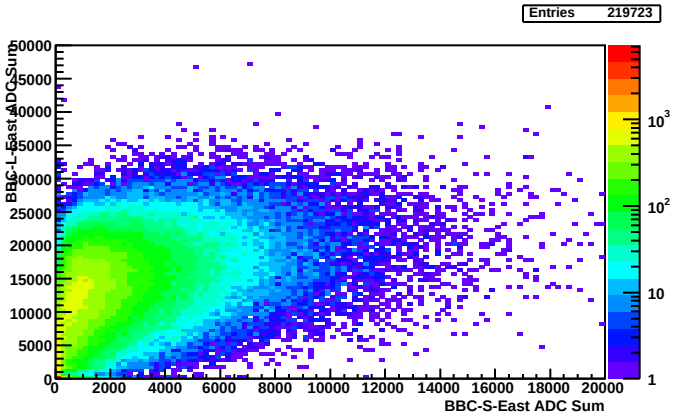

Entries 219723
TOF Mult
BBC-L-West ADC Sum

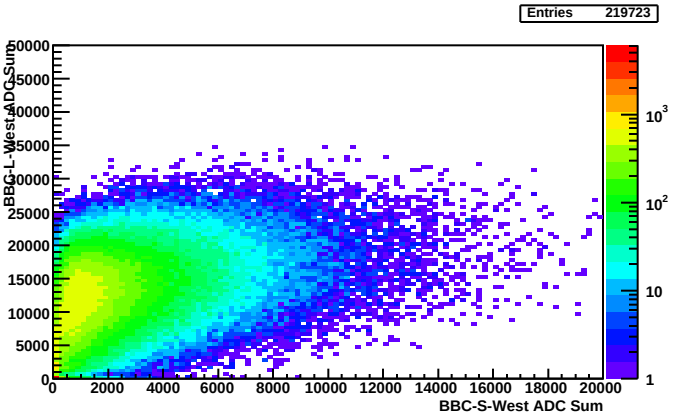

Entries 219723
TOF Mult
BBC-S-East ADC Sum

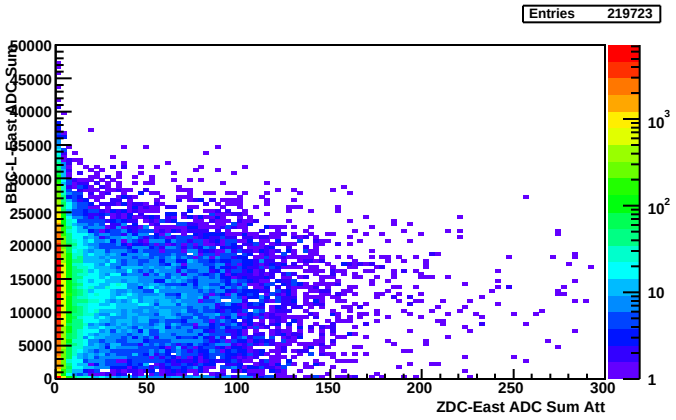

Entries 219723
TOF Mult
BBC-S-West ADC Sum

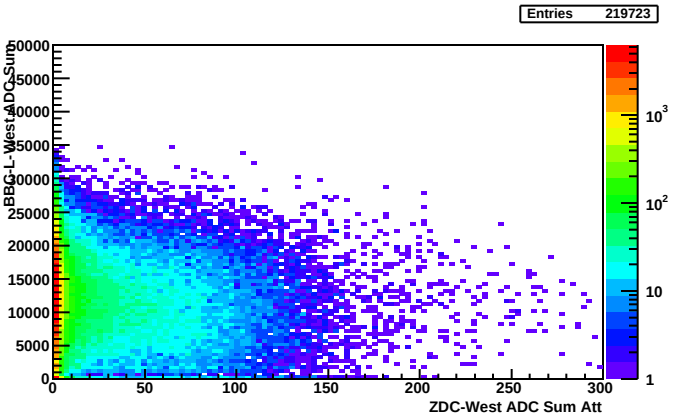

Entries 219723
TOF Mult
ZDC-East ADC Sum Att

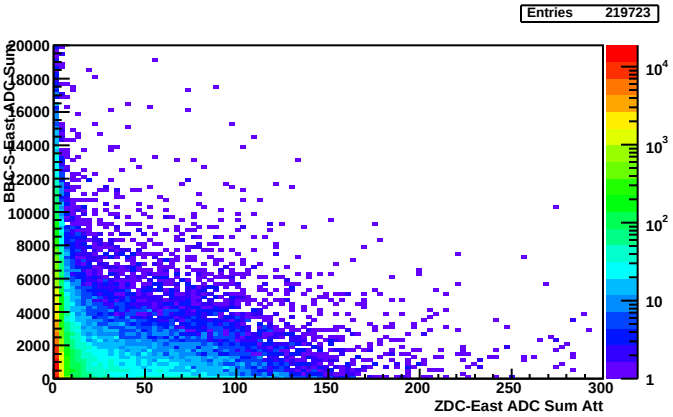

Entries 219723
TOF Mult
ZDC-West ADC Sum Att

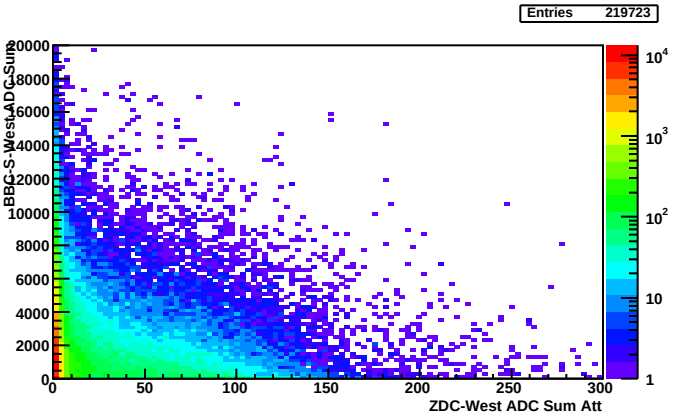

Entries 219723
BBC-L-East ADC Sum
BBC-S-East ADC Sum

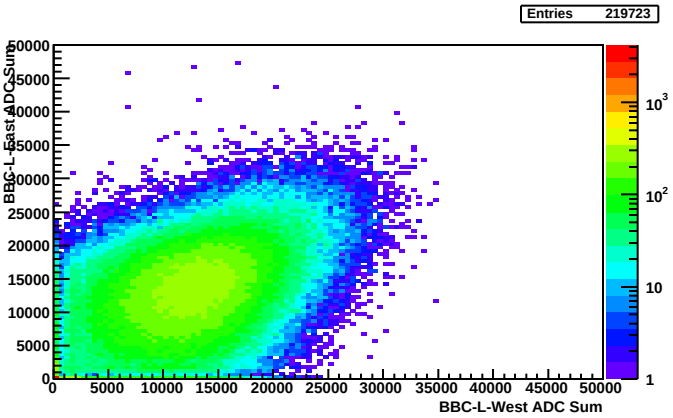

Entries 219723
BBC-L-West ADC Sum
BBC-S-West ADC Sum

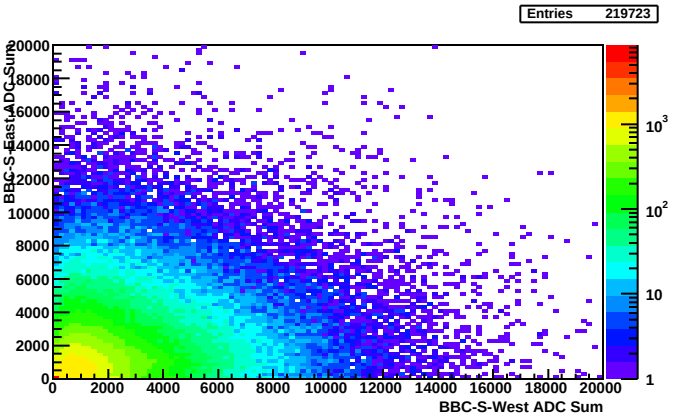

Entries 219723
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

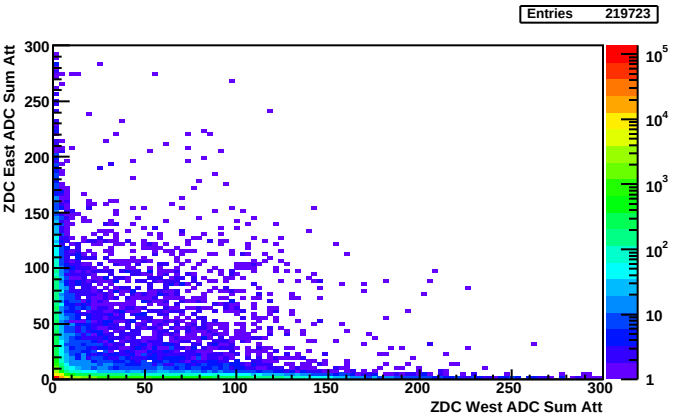

Entries 219723
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

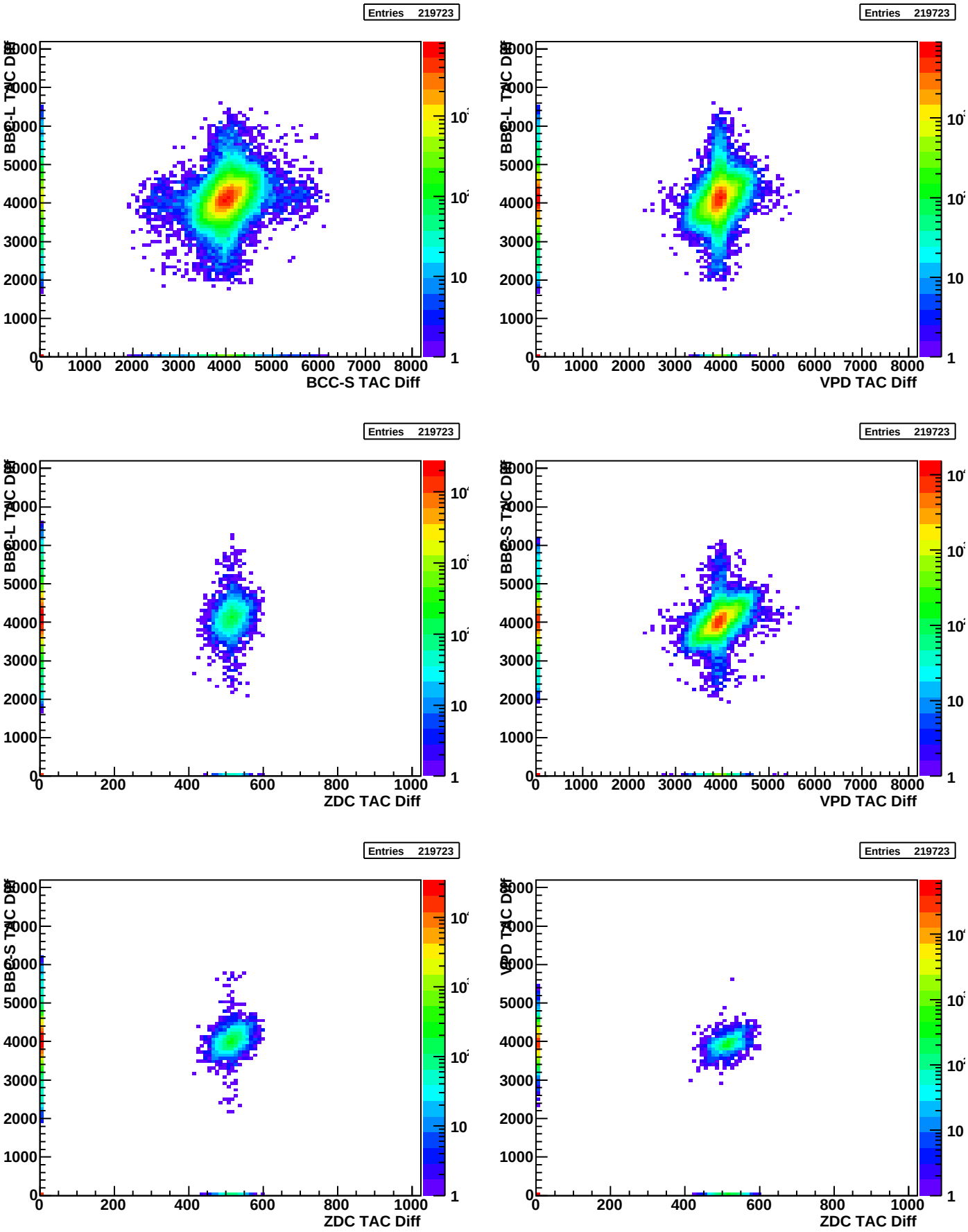

Entries 219723
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

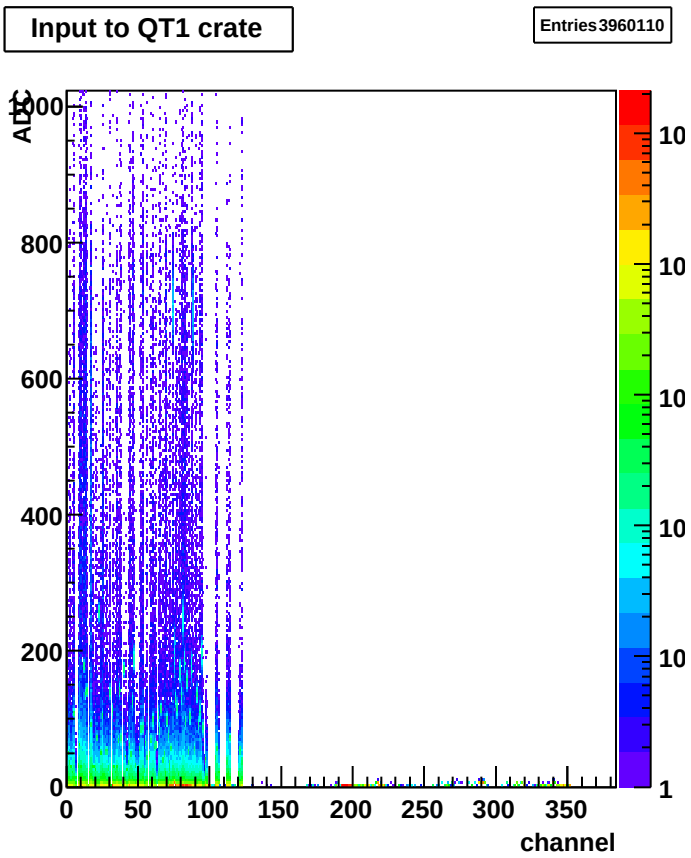

Entries 219723
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

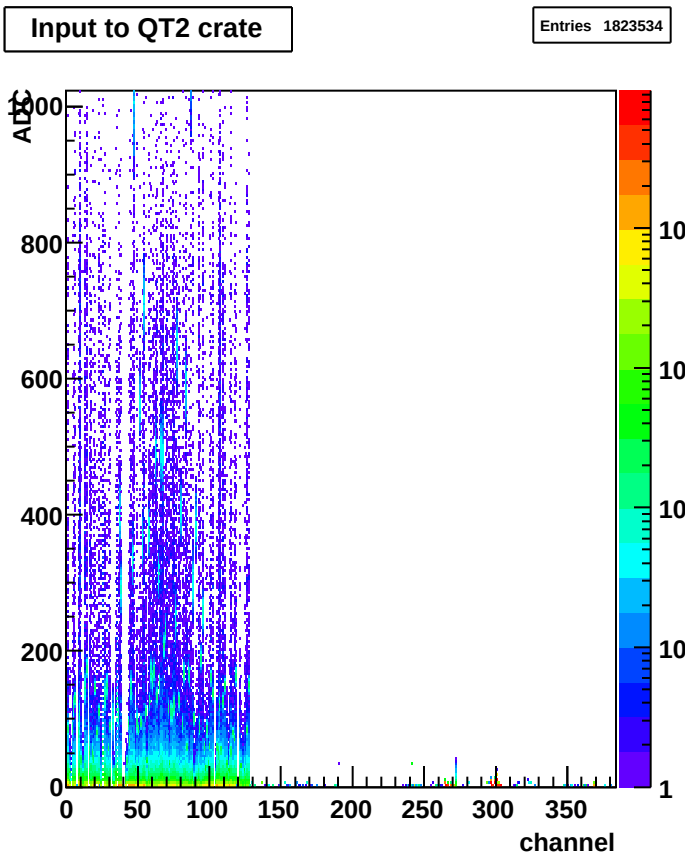

Entries 219723
BBC-L-East ADC Sum
BBC-L-West ADC Sum

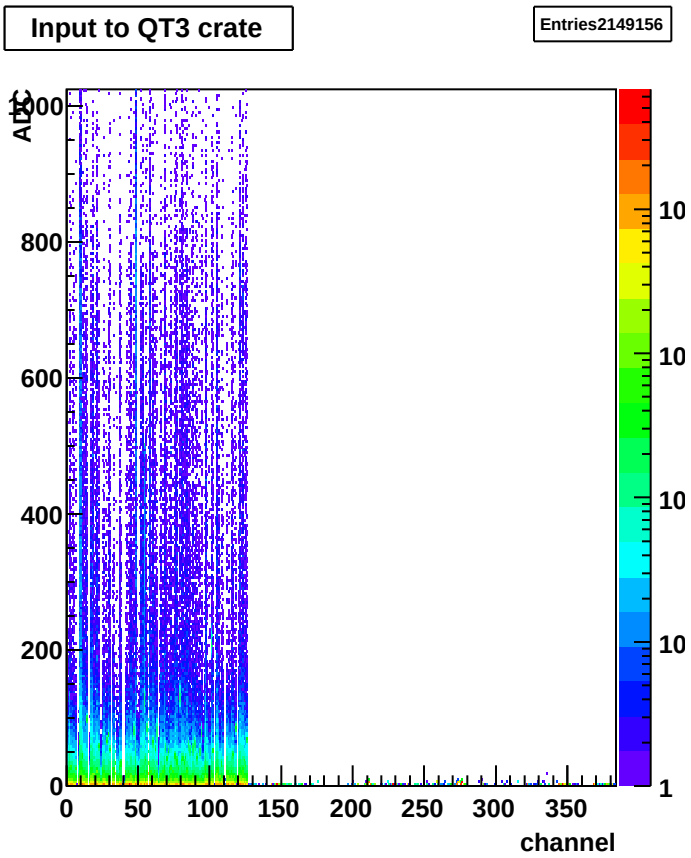

Entries 219723
BBC-S-East ADC Sum
BBC-S-West ADC Sum

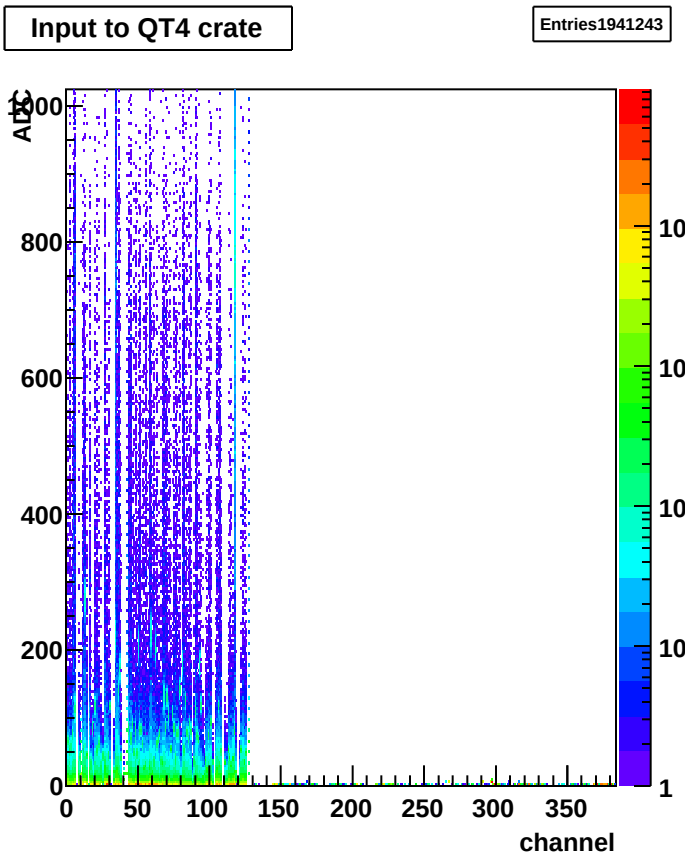

Entries 219723
ZDC East ADC Sum Att
ZDC West ADC Sum Att

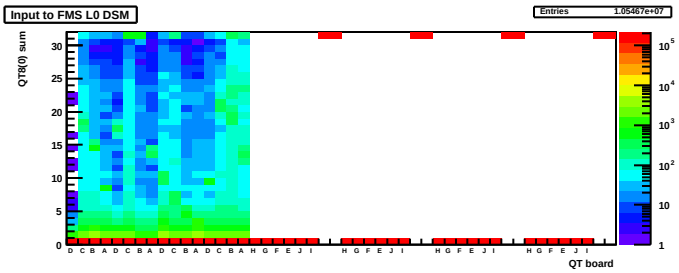

Entries 219723
BBC-L TAC Diff
BCC-S TAC Diff
Entries 219723
BBC-L TAC Diff
VPD TAC Diff
Entries 219723
BBC-L TAC Diff
ZDC TAC Diff
Entries 219723
BBC-S TAC Diff
VPD TAC Diff
Entries 219723
BBC-S TAC Diff
ZDC TAC Diff
Entries 219723
VPD TAC Diff
ZDC TAC Diff

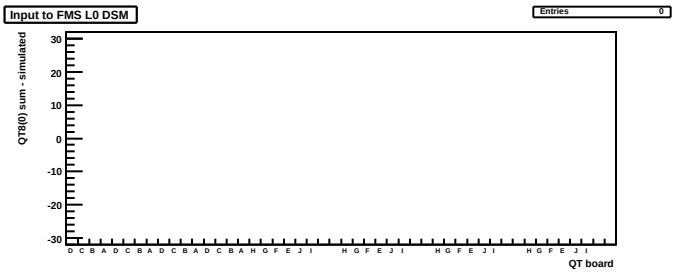

Input to QT1 crate
Entries 3960110
ADC
channel

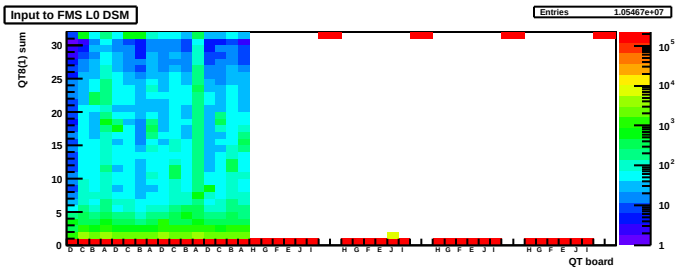

Input to QT2 crate
Entries 1823534
ADC
channel

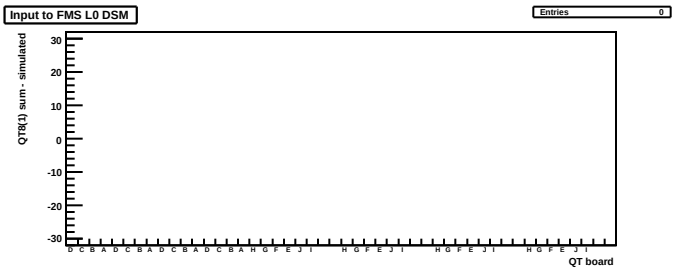

Input to QT3 crate
Entries 2149156
ADC
channel

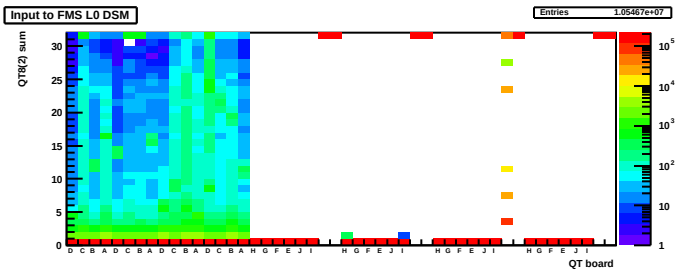

Input to QT4 crate
Entries 1941243
ADC
channel

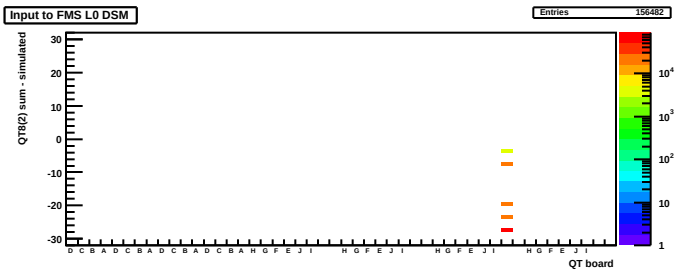

Input to FMS L0 DSM
Entries 1.05467e+07
QT8(0) sum
QT board

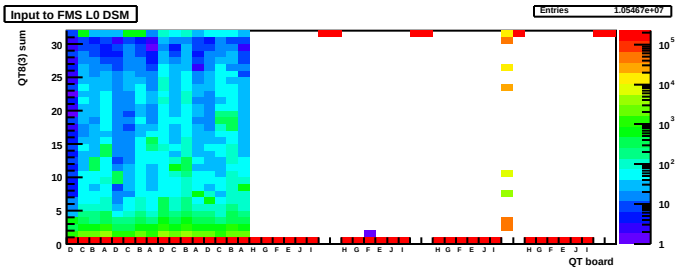

Input to FMS L0 DSM
Entries 0
QT8(0) sum - simulated
QT board

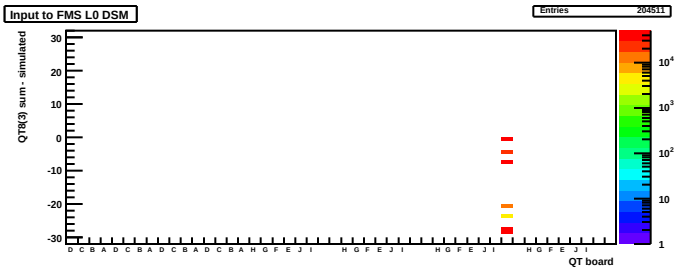

Input to FMS L0 DSM
Entries 1.05467e+07
QT8(1) sum
QT board

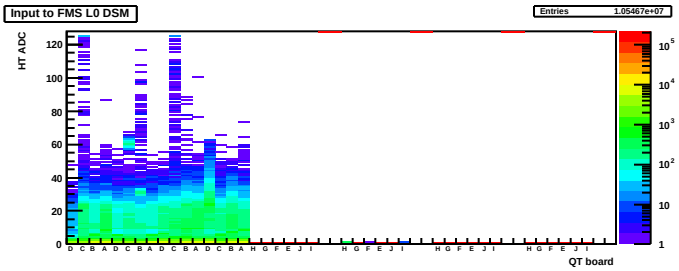

Input to FMS L0 DSM
Entries 0
QT8(1) sum - simulated
QT board

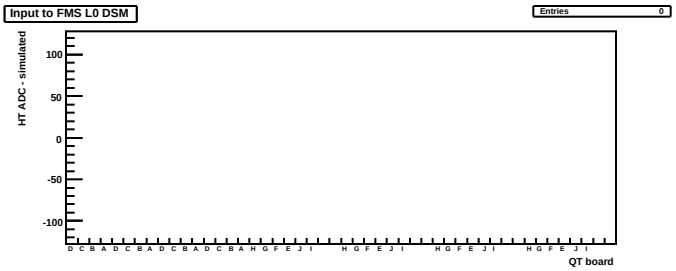

Input to FMS L0 DSM
Entries 1.05467e+07
QT8(2) sum
QT board

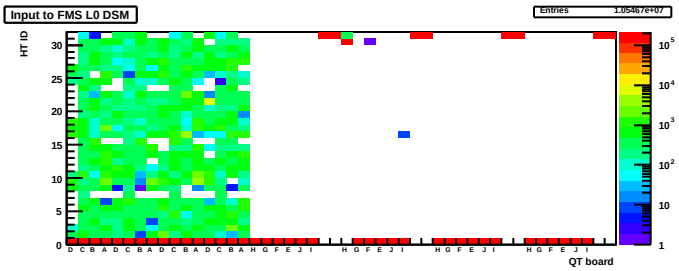

Input to FMS L0 DSM
Entries 156482
QT8(2) sum - simulated
QT board

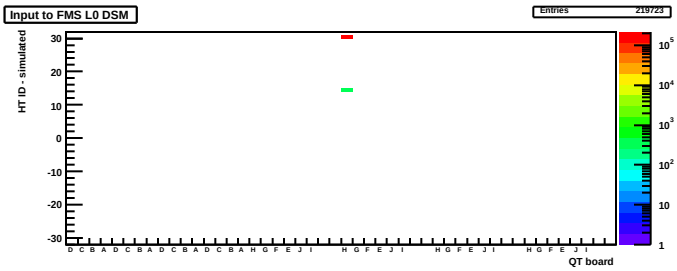

Input to FMS L0 DSM
Entries 1.05467e+07
QT8(3) sum
QT board

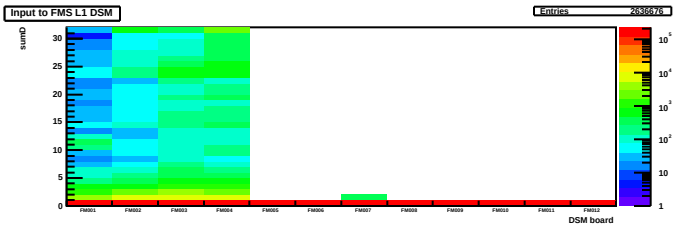

Input to FMS L0 DSM
Entries 204511
QT8(3) sum - simulated
QT board

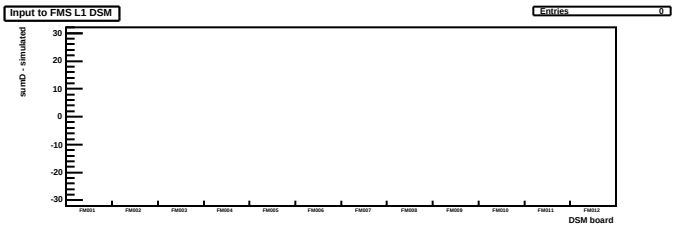

Input to FMS L0 DSM
Entries 1.05467e+07
HT ADC
QT board

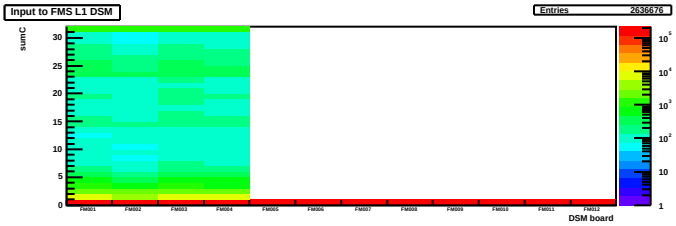

Input to FMS L0 DSM
Entries 0
HT ADC - simulated
QT board

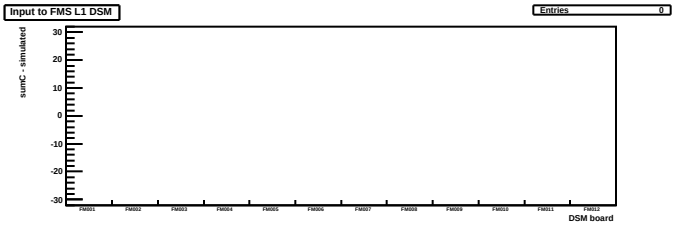

Input to FMS L0 DSM
Entries 1.05467e+07
HT ID
QT board

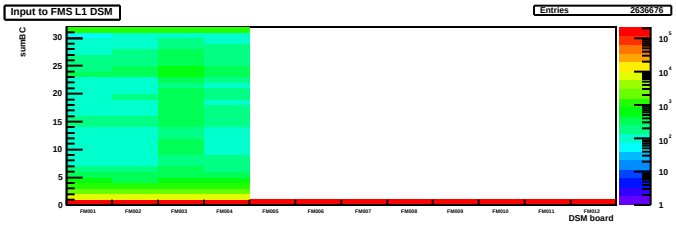

Input to FMS L0 DSM
Entries 219723
HT ID - simulated
QT board

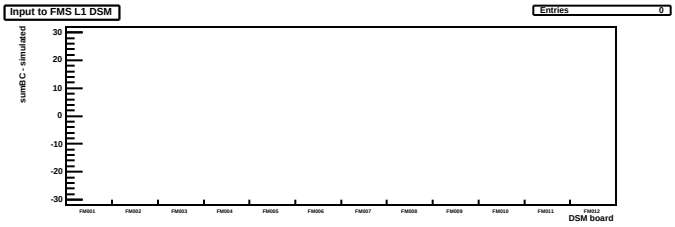

Input to FMS L1 DSM
Entries 2636676
sumD
DSM board

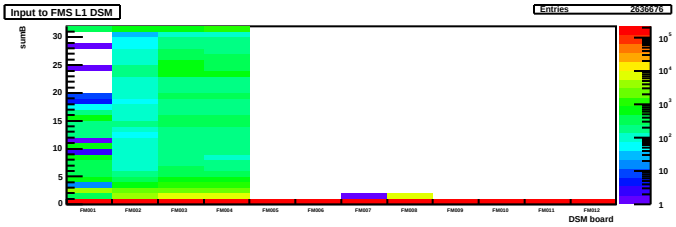

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

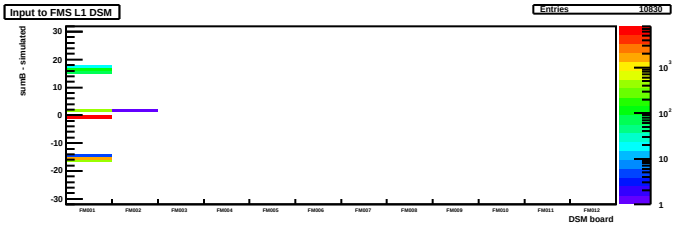

Input to FMS L1 DSM
Entries 2636676
sumC
DSM board

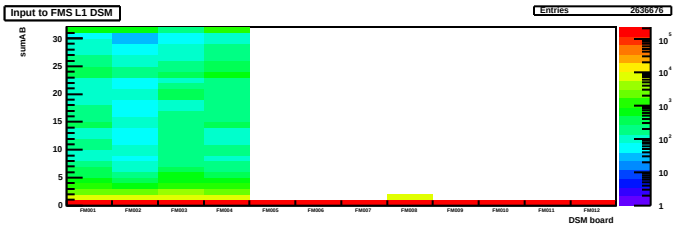

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

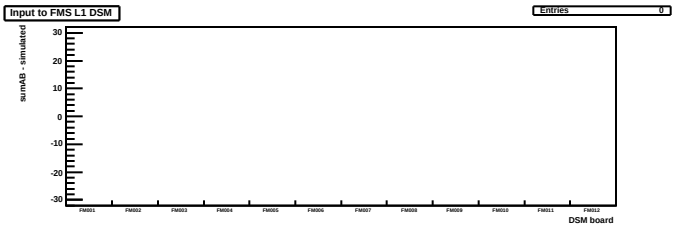

Input to FMS L1 DSM
Entries 2636676
sumBC
DSM board

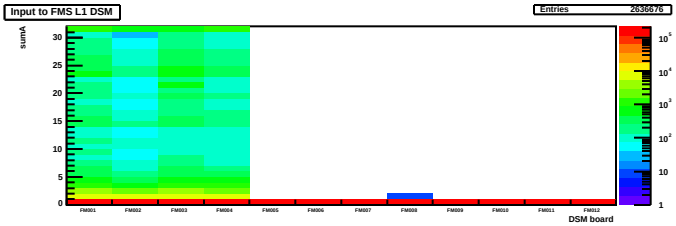

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

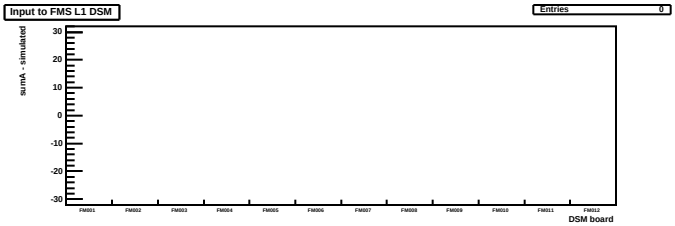

Input to FMS L1 DSM
Entries 2636676
sumB
DSM board

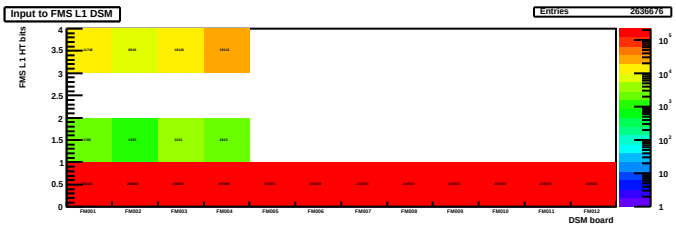

Input to FMS L1 DSM
Entries 10830
sumB - simulated
DSM board

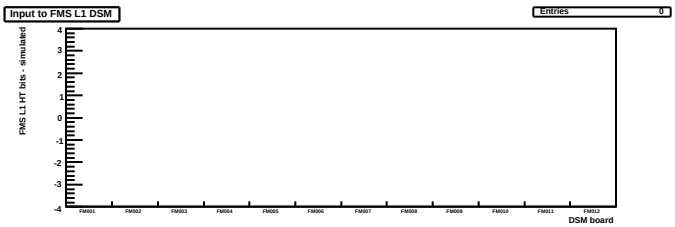

Input to FMS L1 DSM
Entries 2636676
sumAB
DSM board

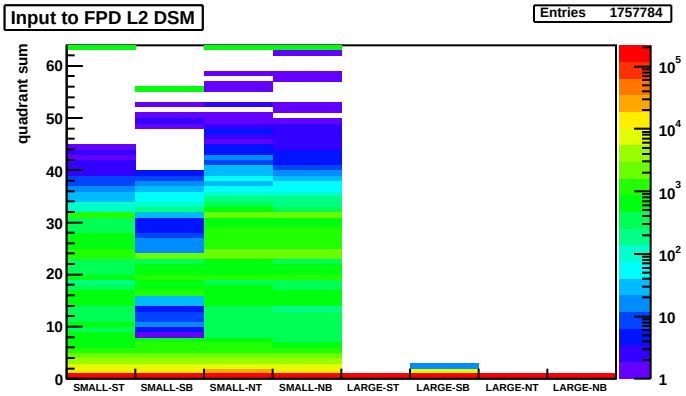

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

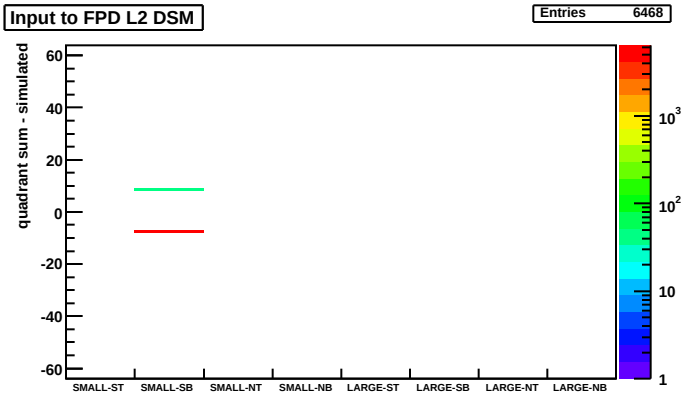

Input to FMS L1 DSM
Entries 2636676
sumA
DSM board

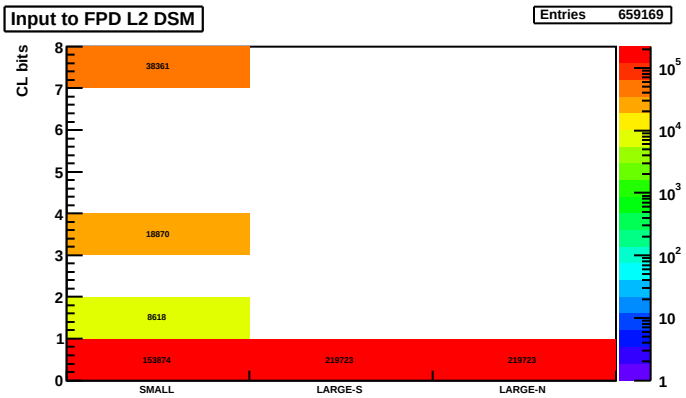

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

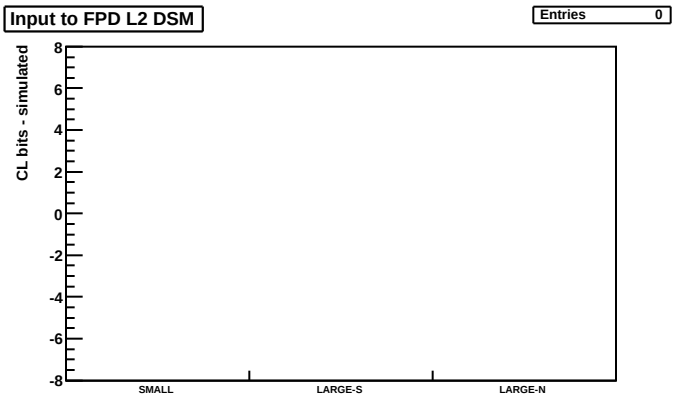

Input to FMS L1 DSM
Entries 2636676
FMS L1 HT bits
DSM board

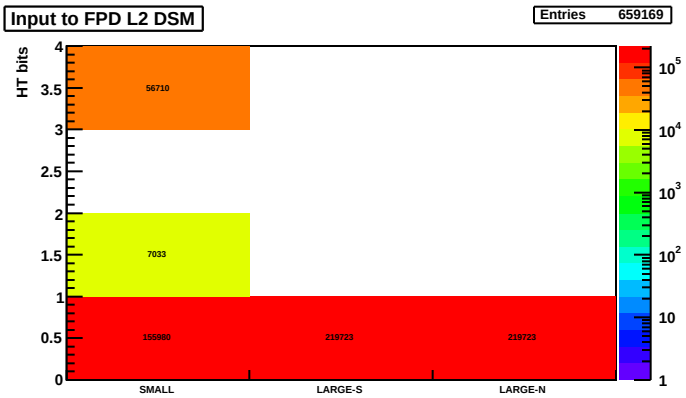

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

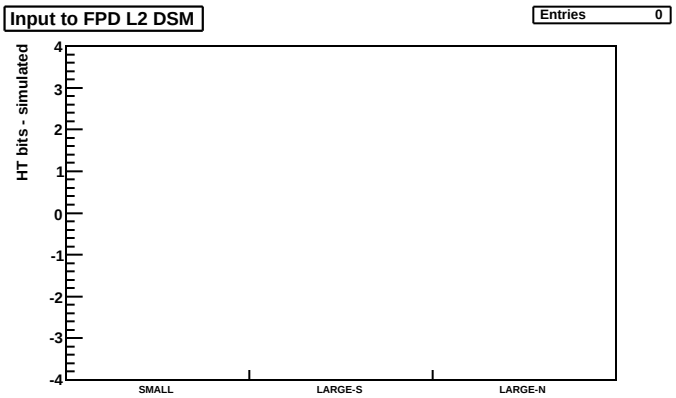

Input to FPD L2 DSM
Entries 1757784
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

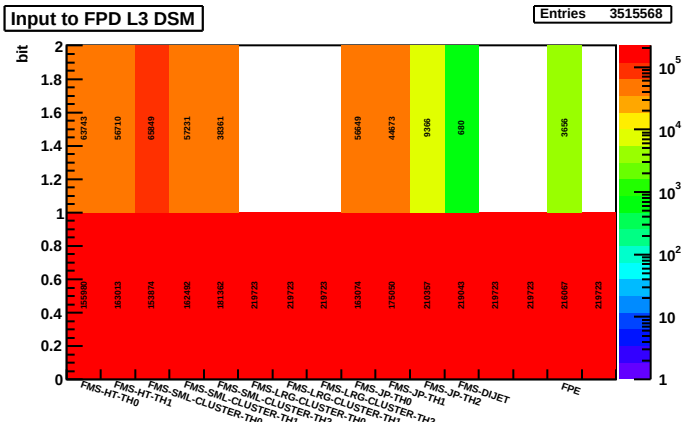

Input to FPD L2 DSM
Entries 6468
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

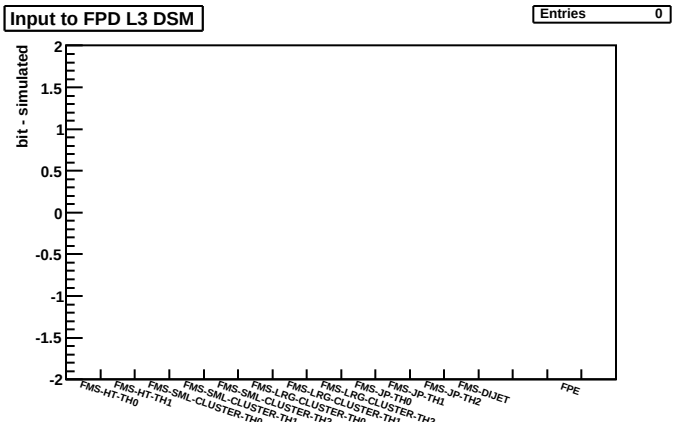

Input to FPD L2 DSM
Entries 659169
CL bits
38361
18870
8618
153874
219723
219723
SMALL
LARGE-S
LARGE-N

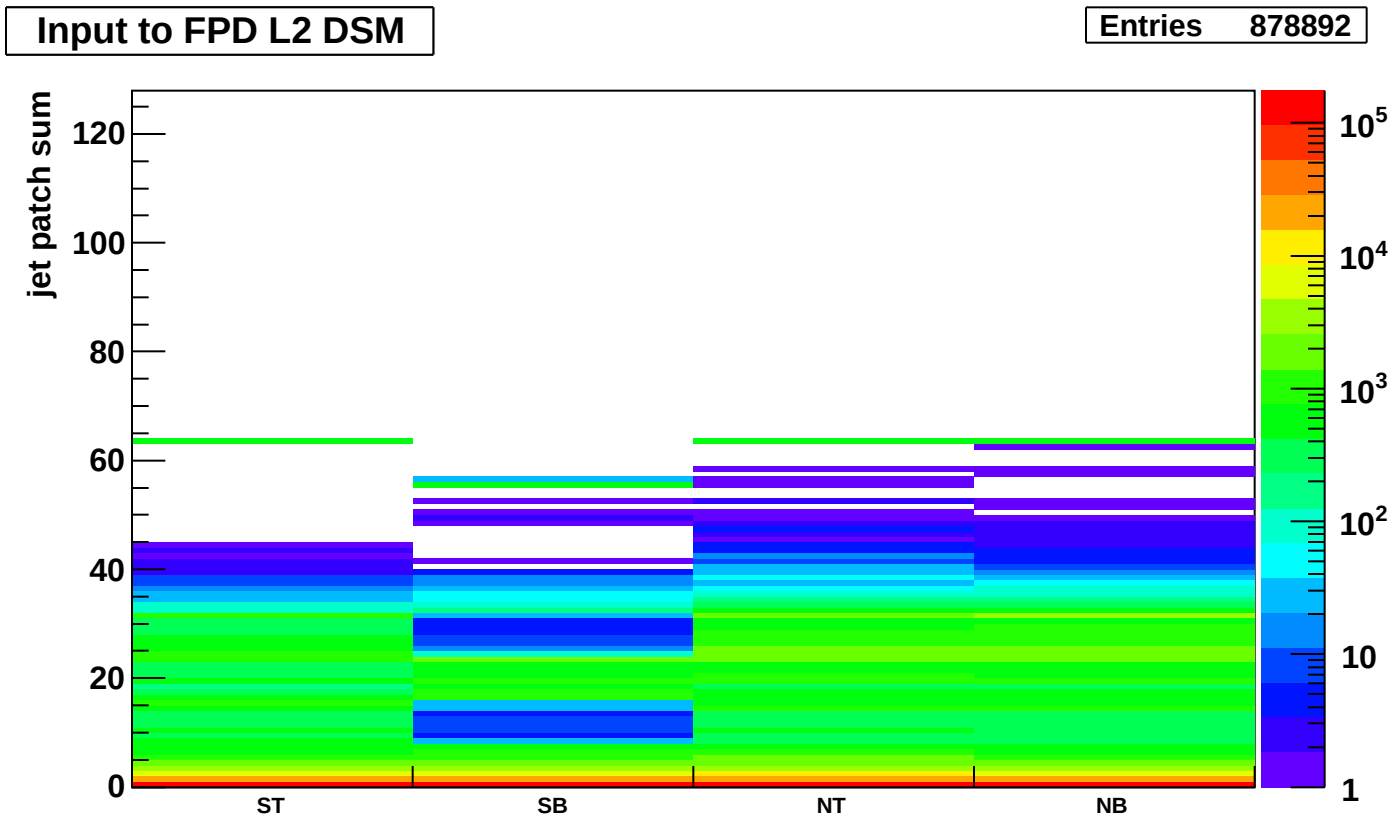

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL
LARGE-S
LARGE-N

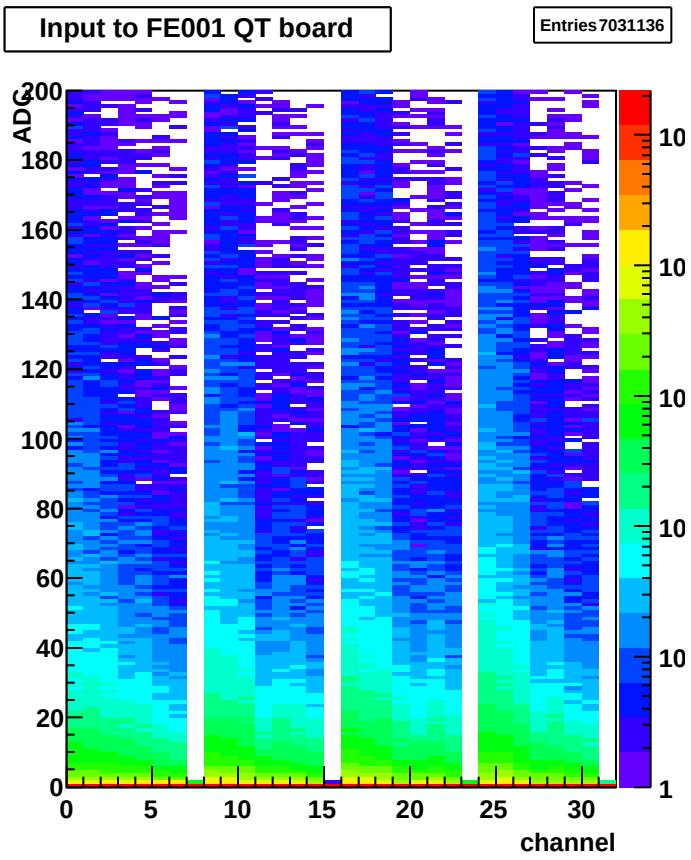

Input to FPD L2 DSM
Entries 659169
HT bits
56710
7033
155980
219723
219723
SMALL
LARGE-S
LARGE-N

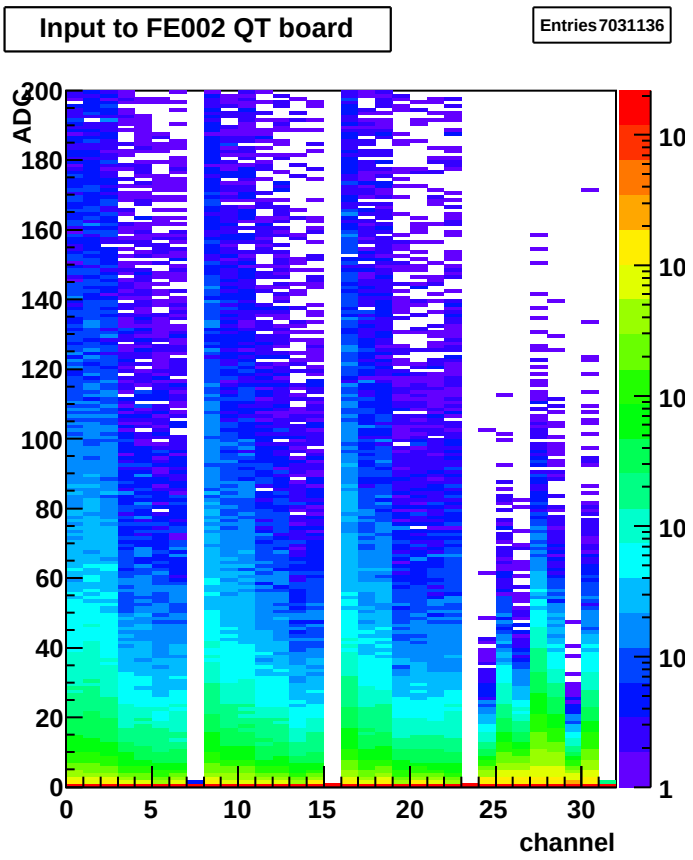

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

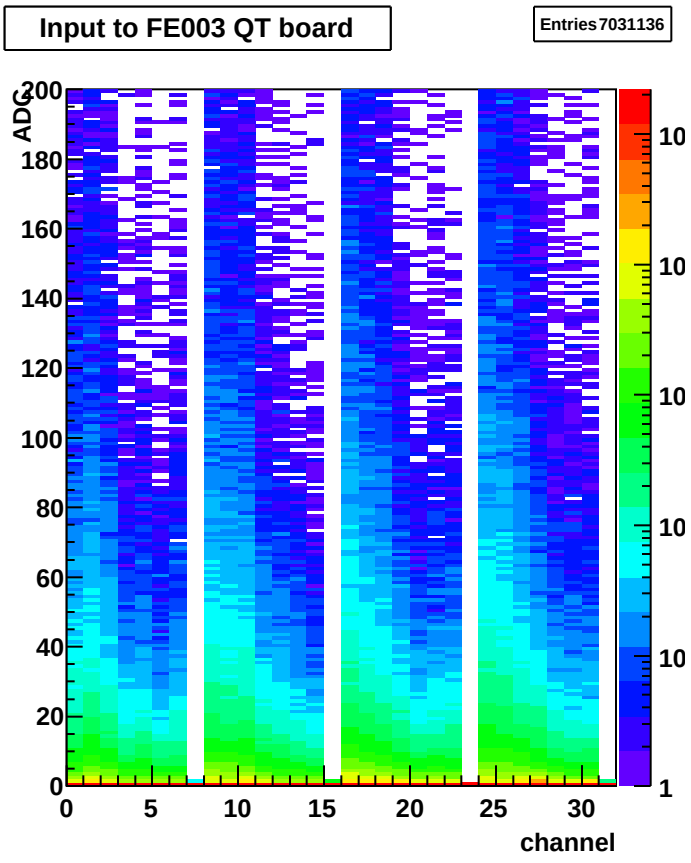

Input to FPD L3 DSM
Entries 3515568
bit
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

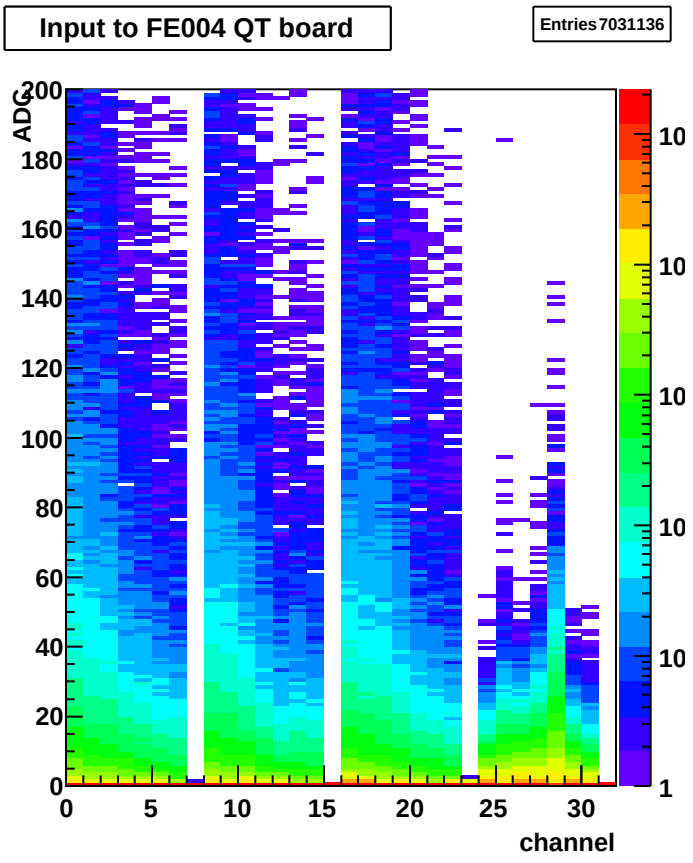

Input to FPD L3 DSM
Entries 0
bit - simulated
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

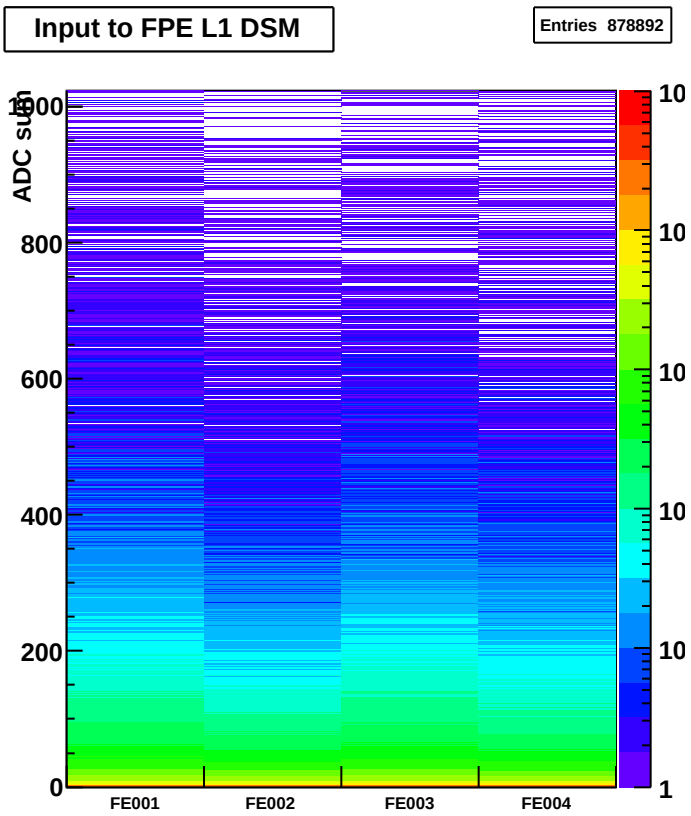

Input to FPD L2 DSM
Entries 878892
jet patch sum
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
10^2
10^3
10^4
10^5

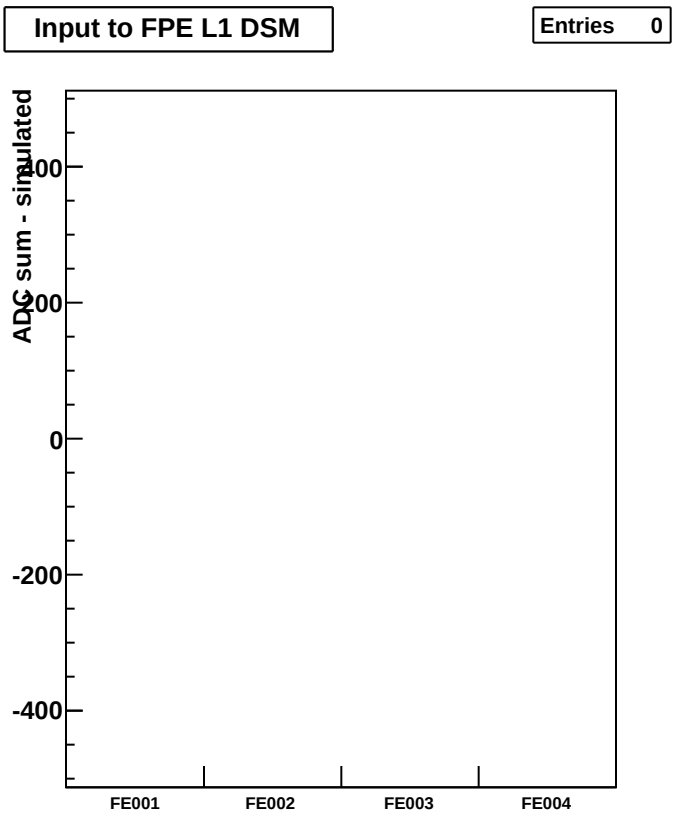

Input to FE001 QT board
Entries 7031136
ADC
channel

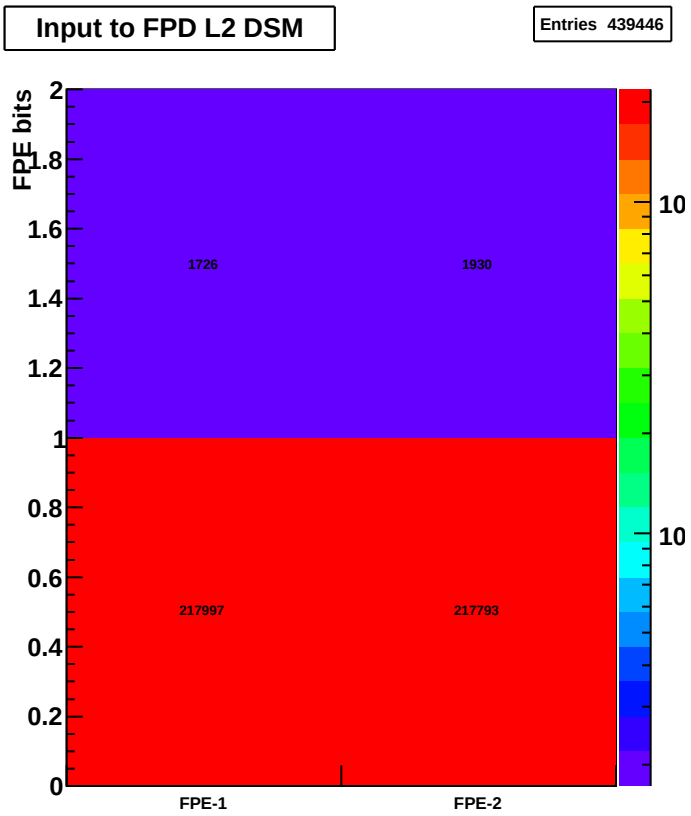

Input to FE002 QT board
Entries 7031136
ADC
channel

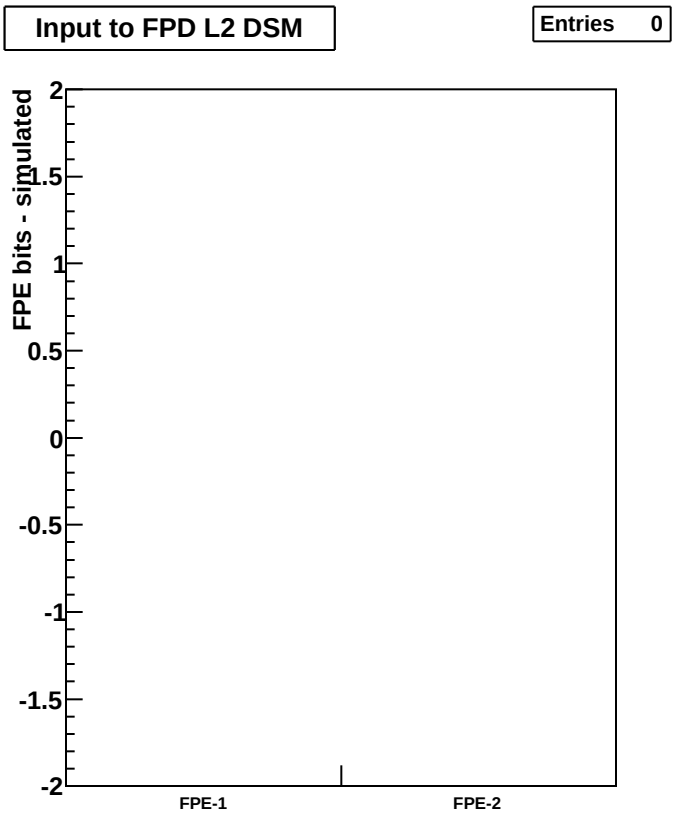

Input to FE003 QT board
Entries 7031136
ADC
channel


Input to FE004 QT board
Entries 7031136
ADC
channel


Input to FPE L1 DSM
Entries 878892
ADC sum
1000
800
600
400
200
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1


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


Input to FPD L2 DSM
Entries 439446
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
1726
1930
217997
217793
FPE-1
FPE-2
10
10


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