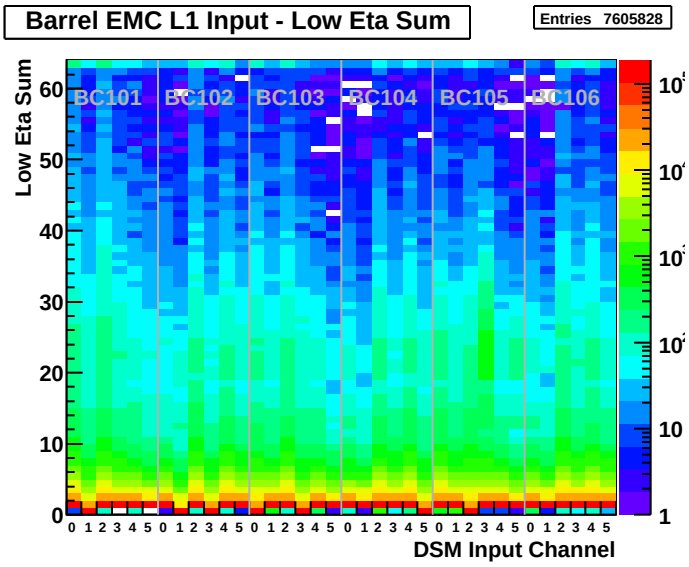
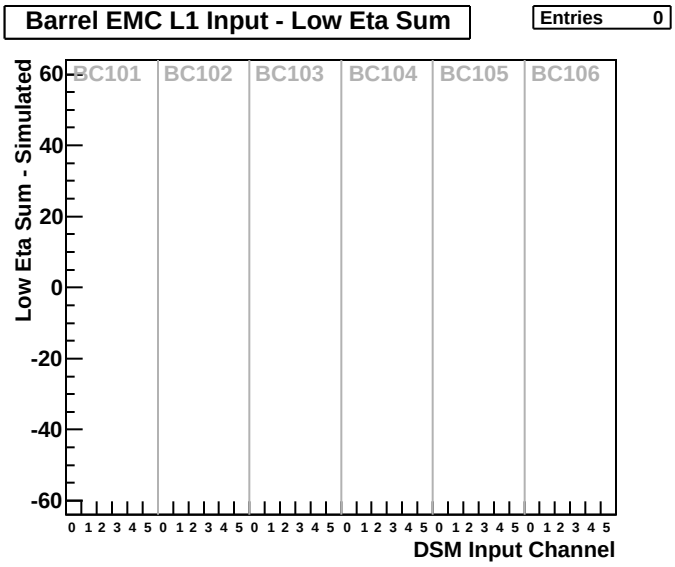
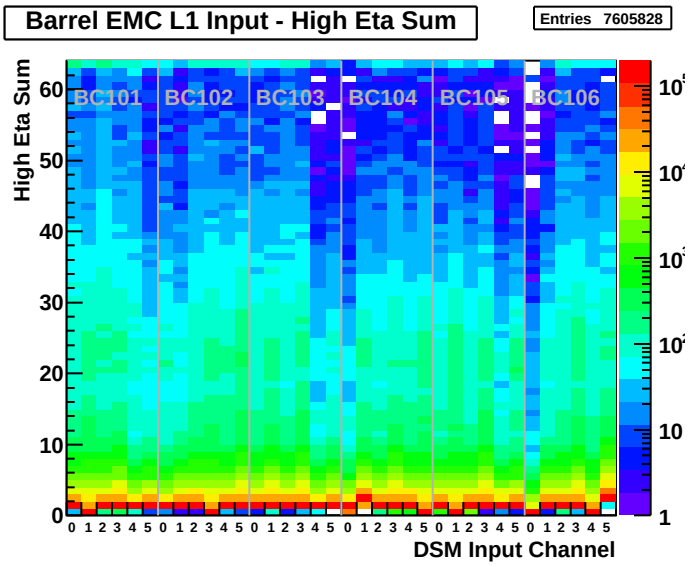
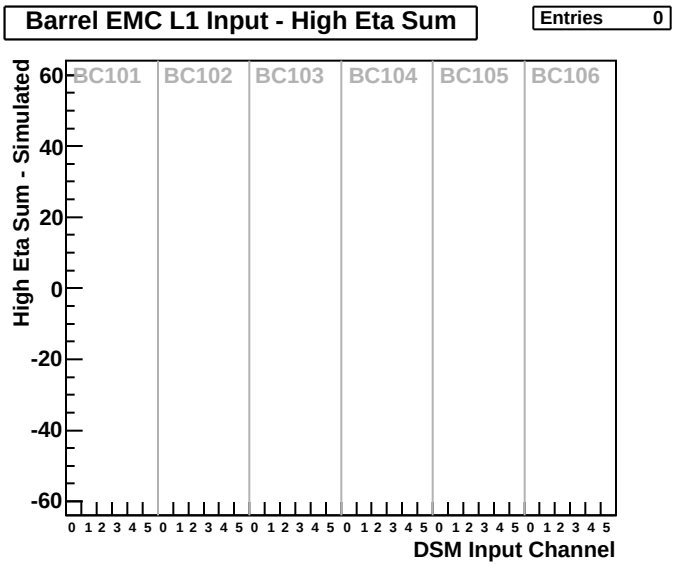
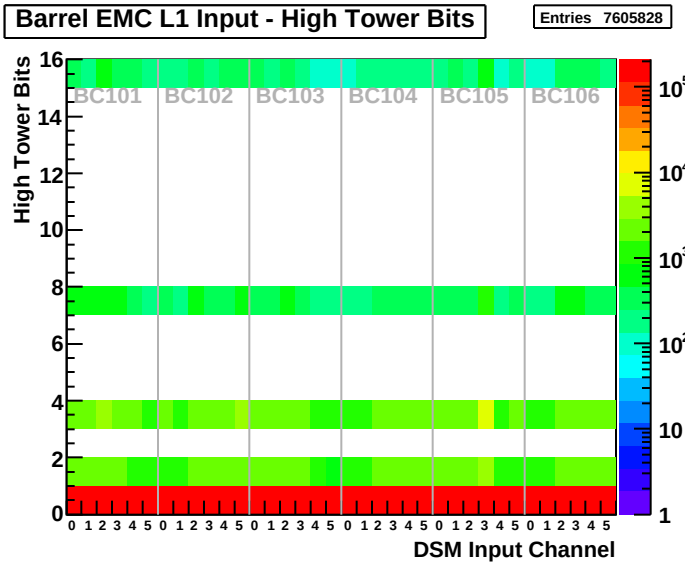
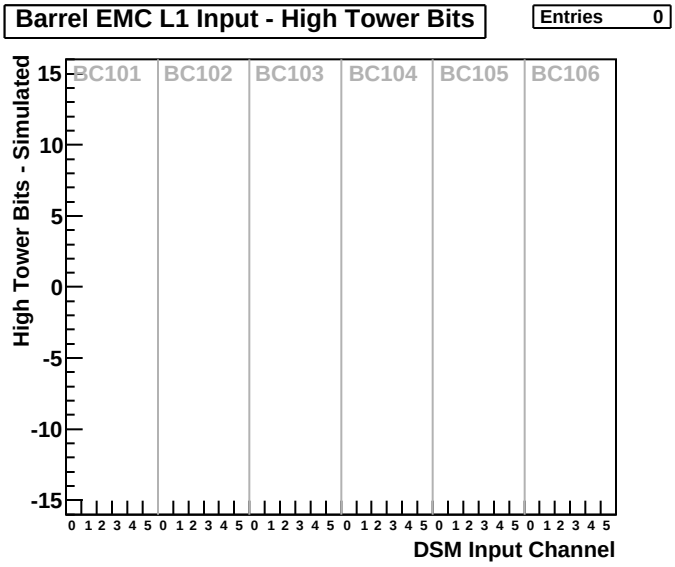

Barrel EMC L1 Input - Low Eta Sum
Entries 7605828
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

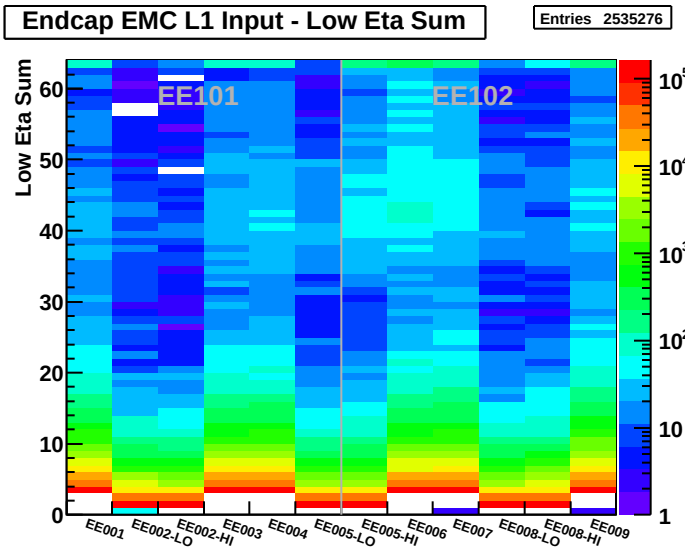

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

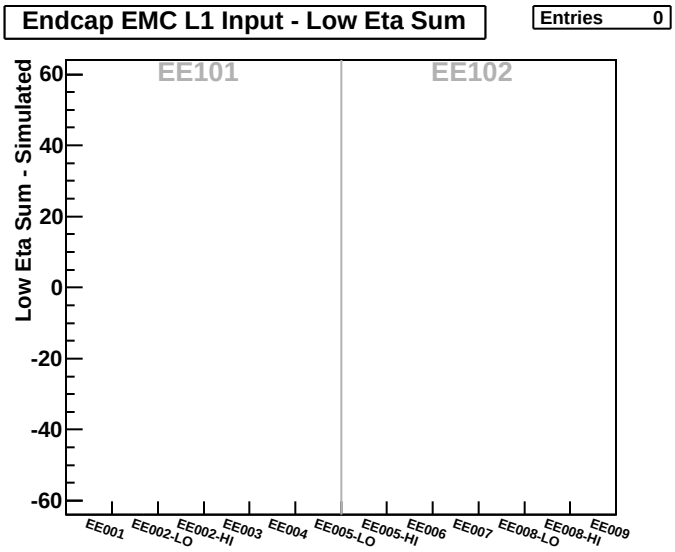

Barrel EMC L1 Input - High Eta Sum
Entries 7605828
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

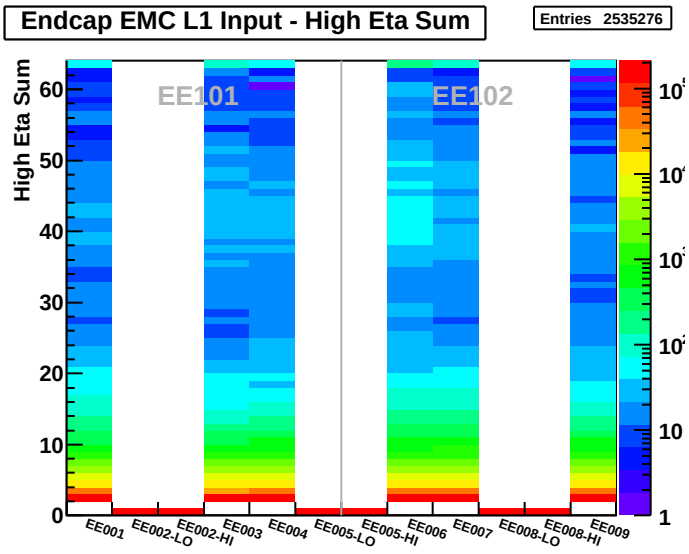

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

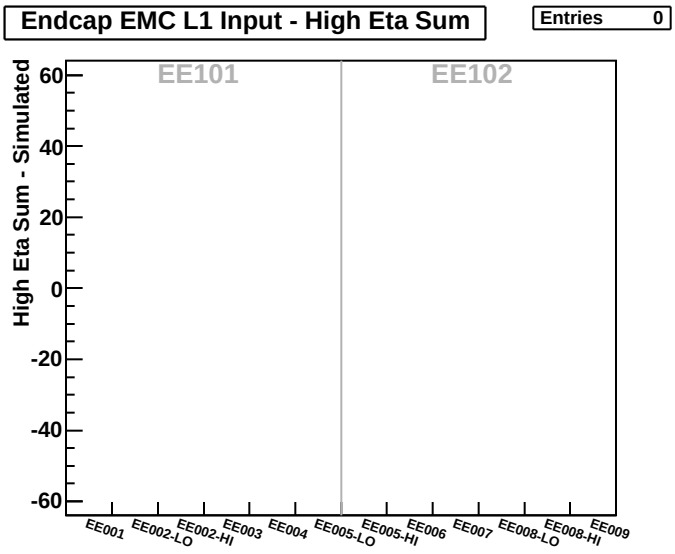

Barrel EMC L1 Input - High Tower Bits
Entries 7605828
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

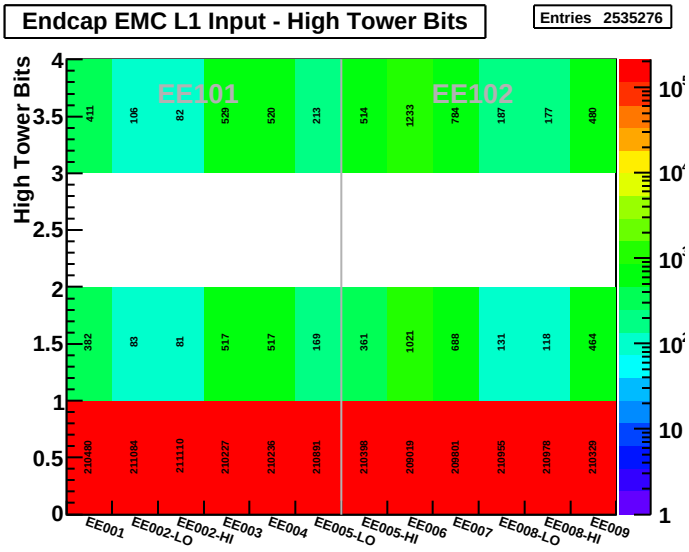

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

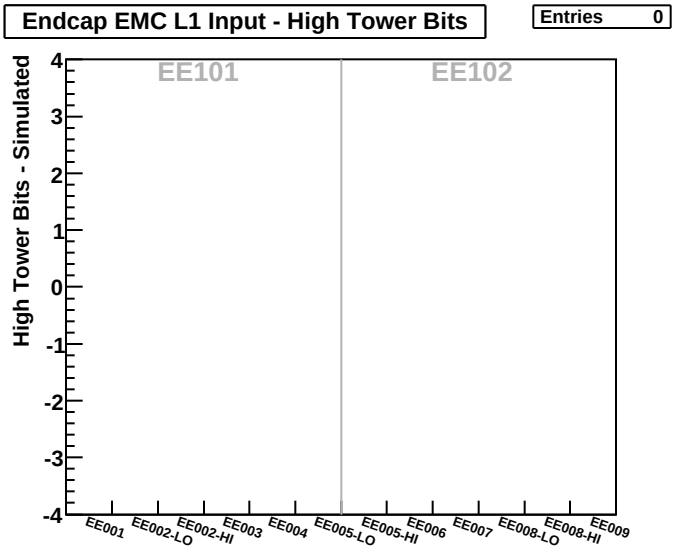

Endcap EMC L1 Input - Low Eta Sum
Entries 2535276
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

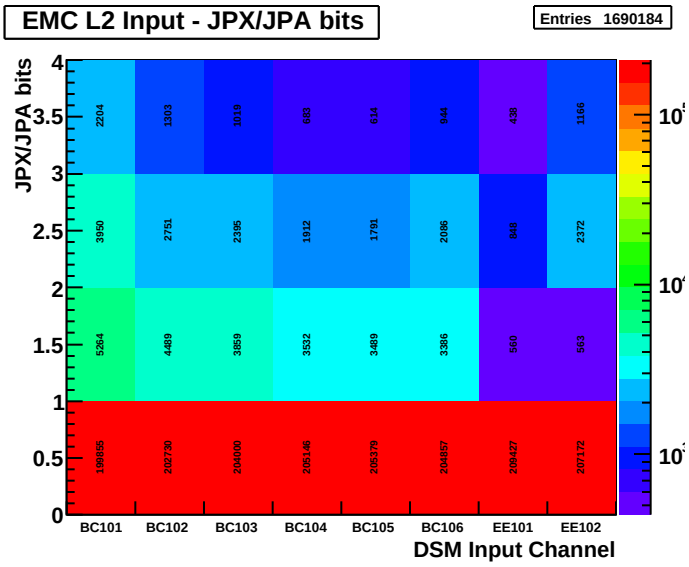

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

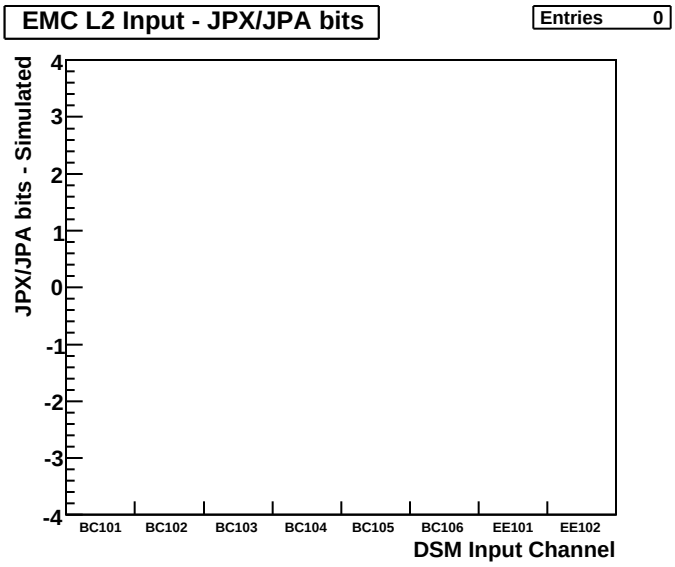

Endcap EMC L1 Input - High Eta Sum
Entries 2535276
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

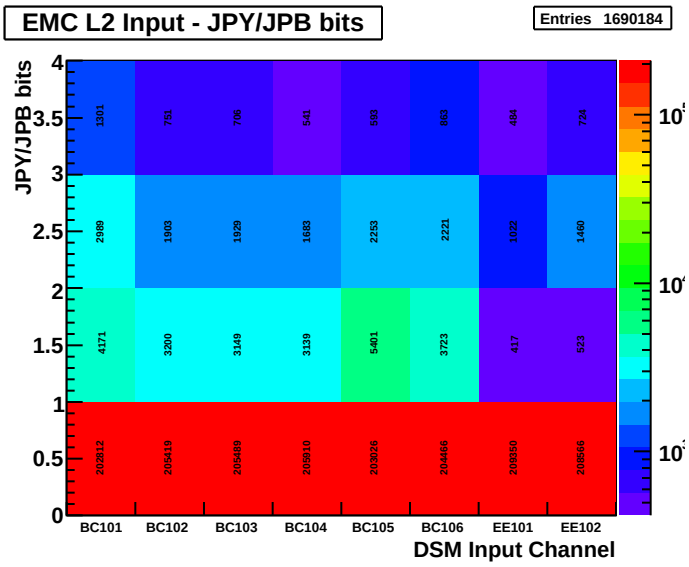

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

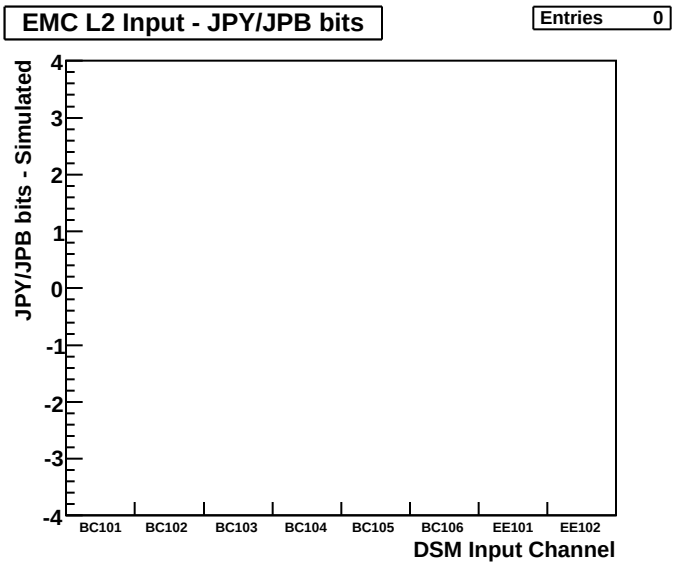

Endcap EMC L1 Input - High Tower Bits
Entries 2535276
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

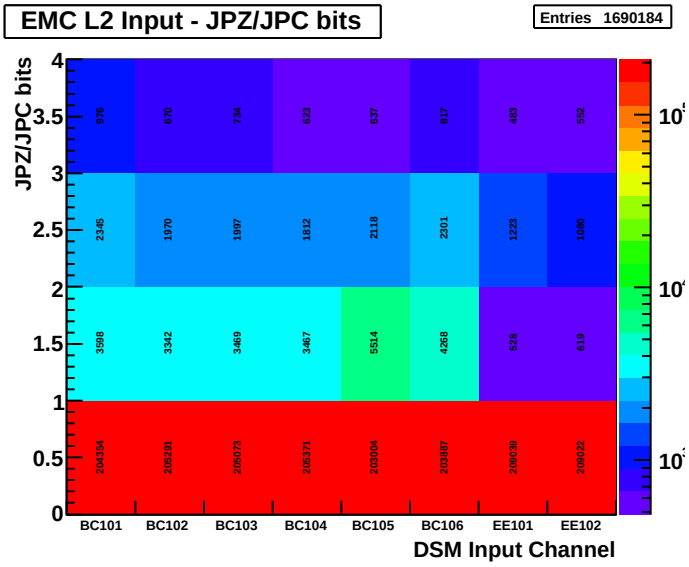

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

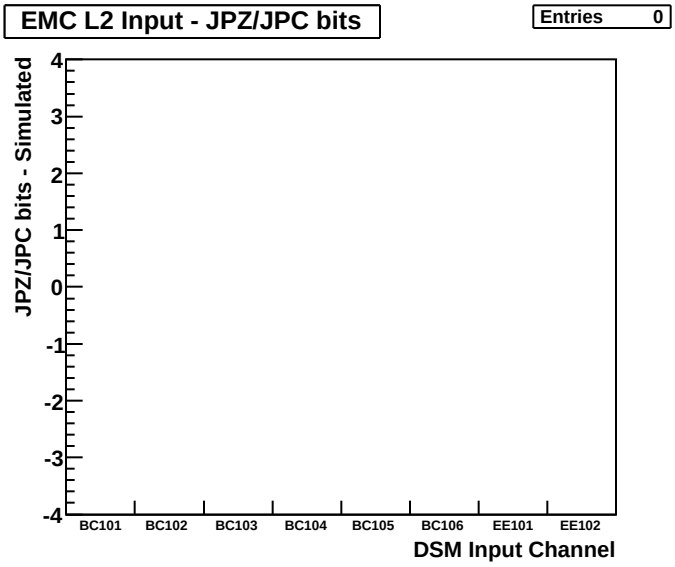

EMC L2 Input - JPX/JPA bits
Entries 1690184
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
2204 1303 1019 683 614 944 438 1166
3950 2751 2395 1912 1791 2086 848 2372
5264 4489 3859 3532 3489 3386 560 583
199855 202730 204000 205146 205379 204857 209427 207172

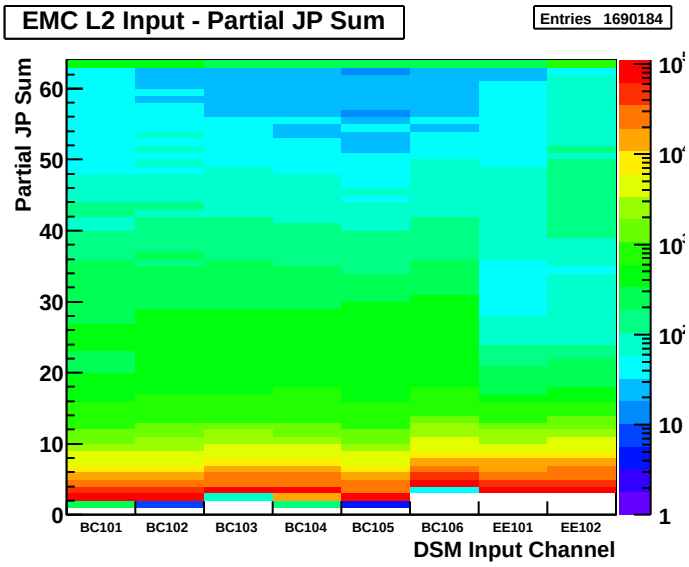

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

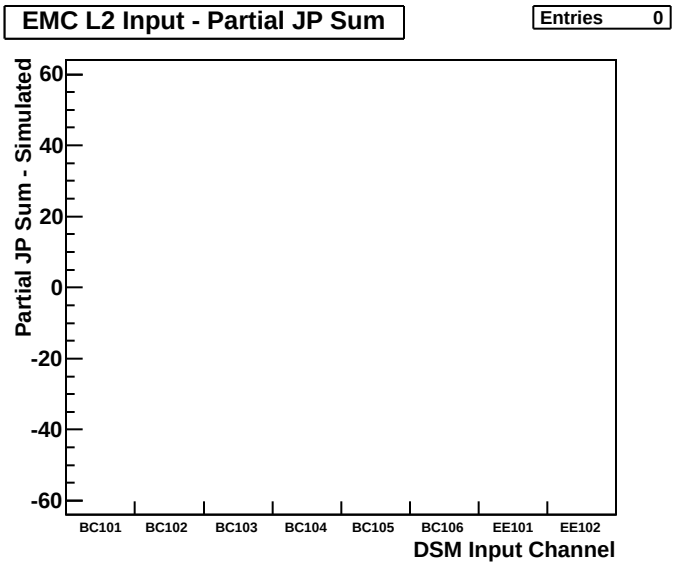

EMC L2 Input - JPY/JPB bits
Entries 1690184
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1301 751 706 541 593 853 484 724
2989 1903 1929 1683 2253 2221 1022 1460
4171 3200 3149 3139 5401 3723 417 523
202812 205419 205489 205910 203026 204466 209350 208566

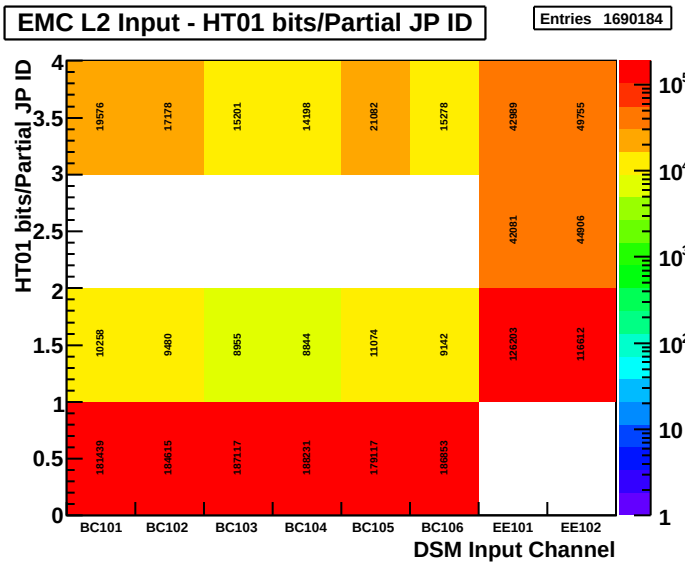

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

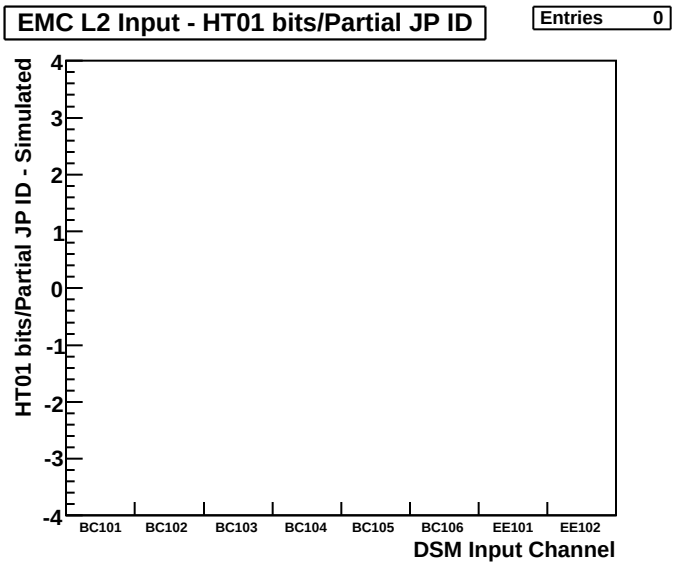

EMC L2 Input - JPZ/JPC bits
Entries 1690184
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
976 670 724 623 637 817 483 552
2345 1970 1997 1812 2118 2301 1223 1080
3598 3342 3469 3467 5514 4268 528 619
204354 205291 205073 205371 203004 203887 209039 209022

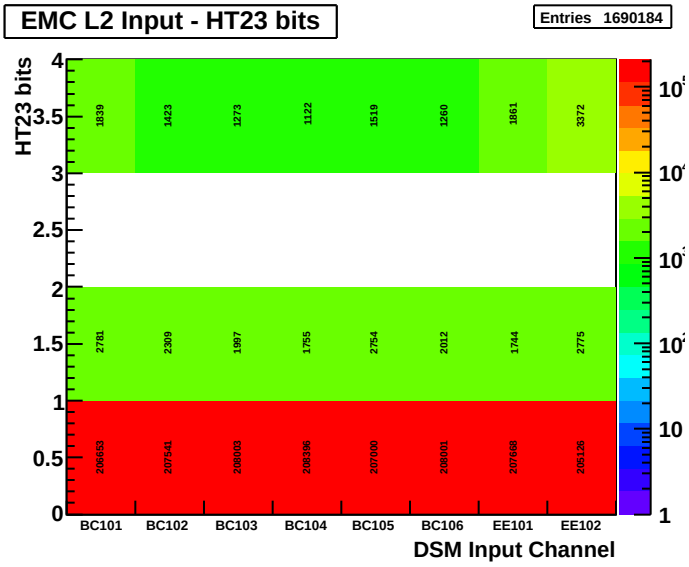

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

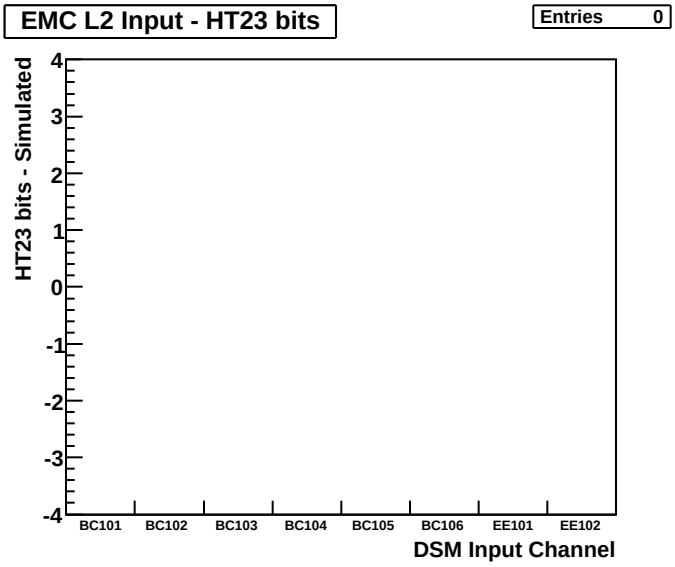

EMC L2 Input - Partial JP Sum
Entries 1690184
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

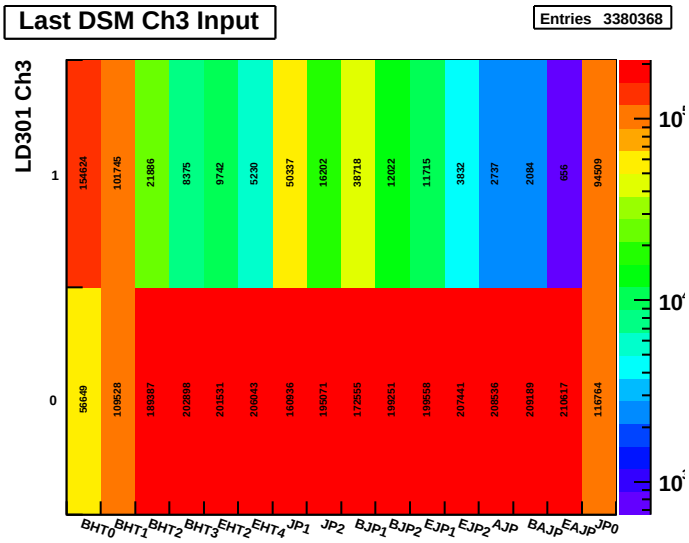

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

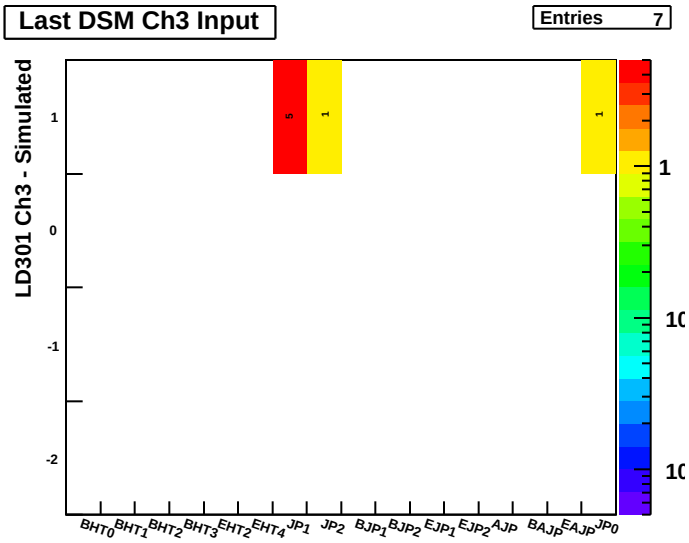

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1690184
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

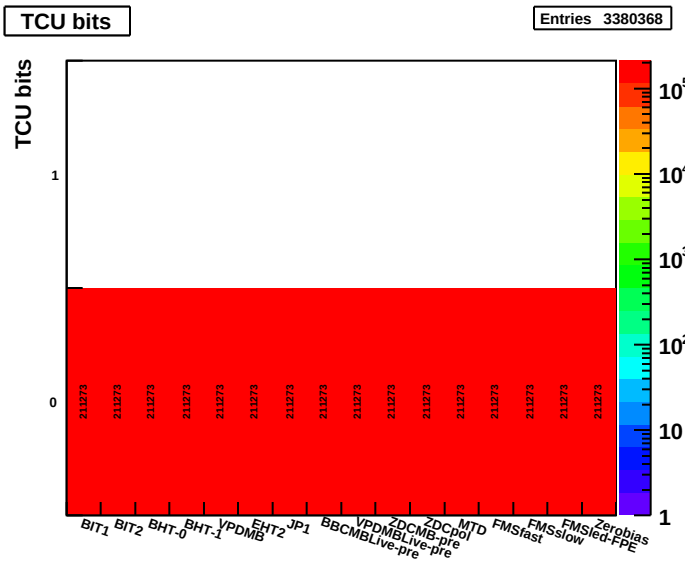

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

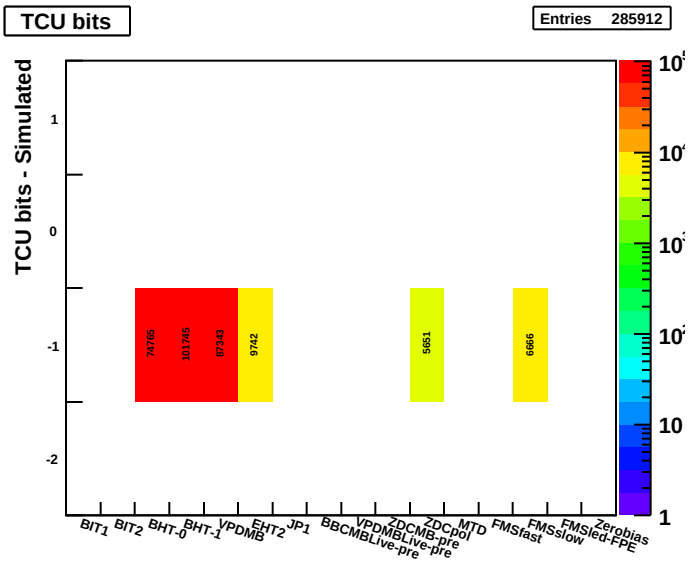

EMC L2 Input - HT23 bits
Entries 1690184
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

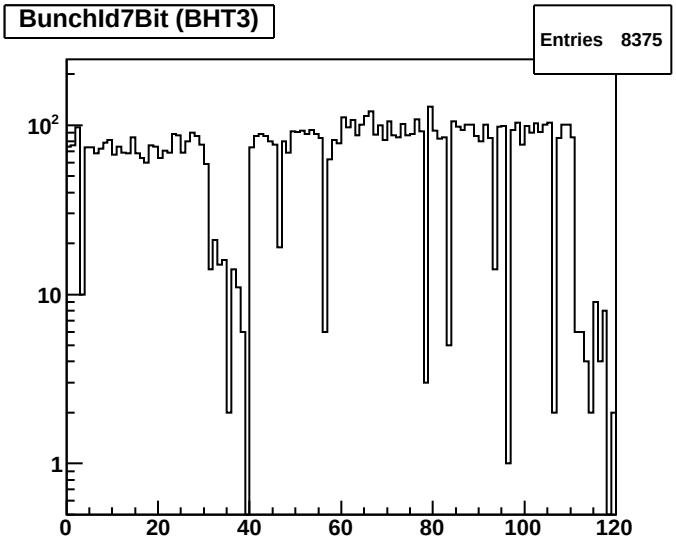

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

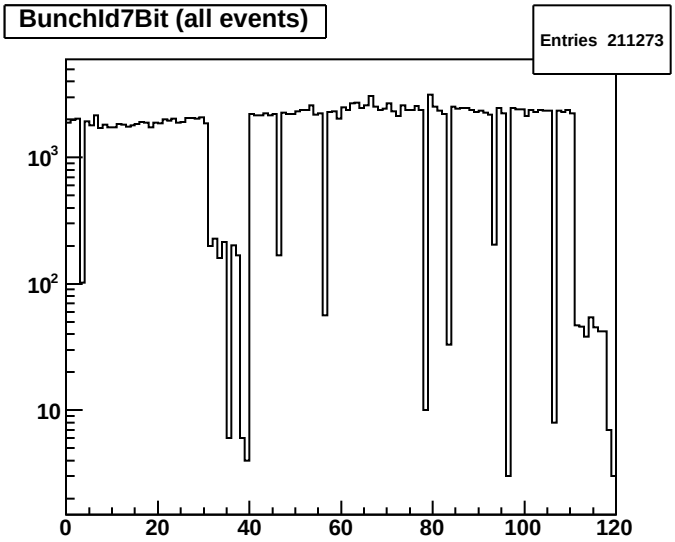

Last DSM Ch3 Input
Entries 3380368
LD301 Ch3
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

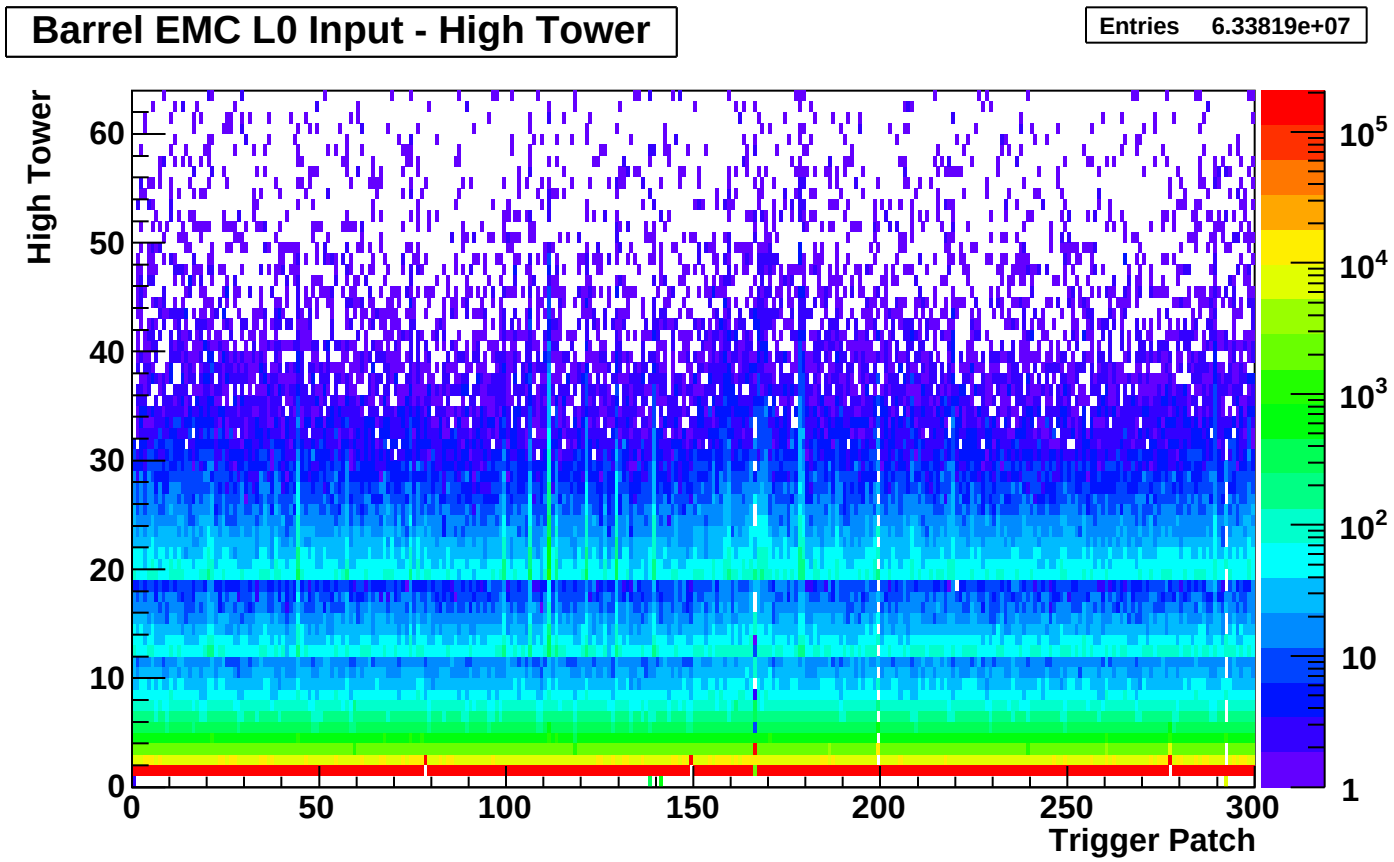

Last DSM Ch3 Input
Entries 7
LD301 Ch3 - Simulated
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

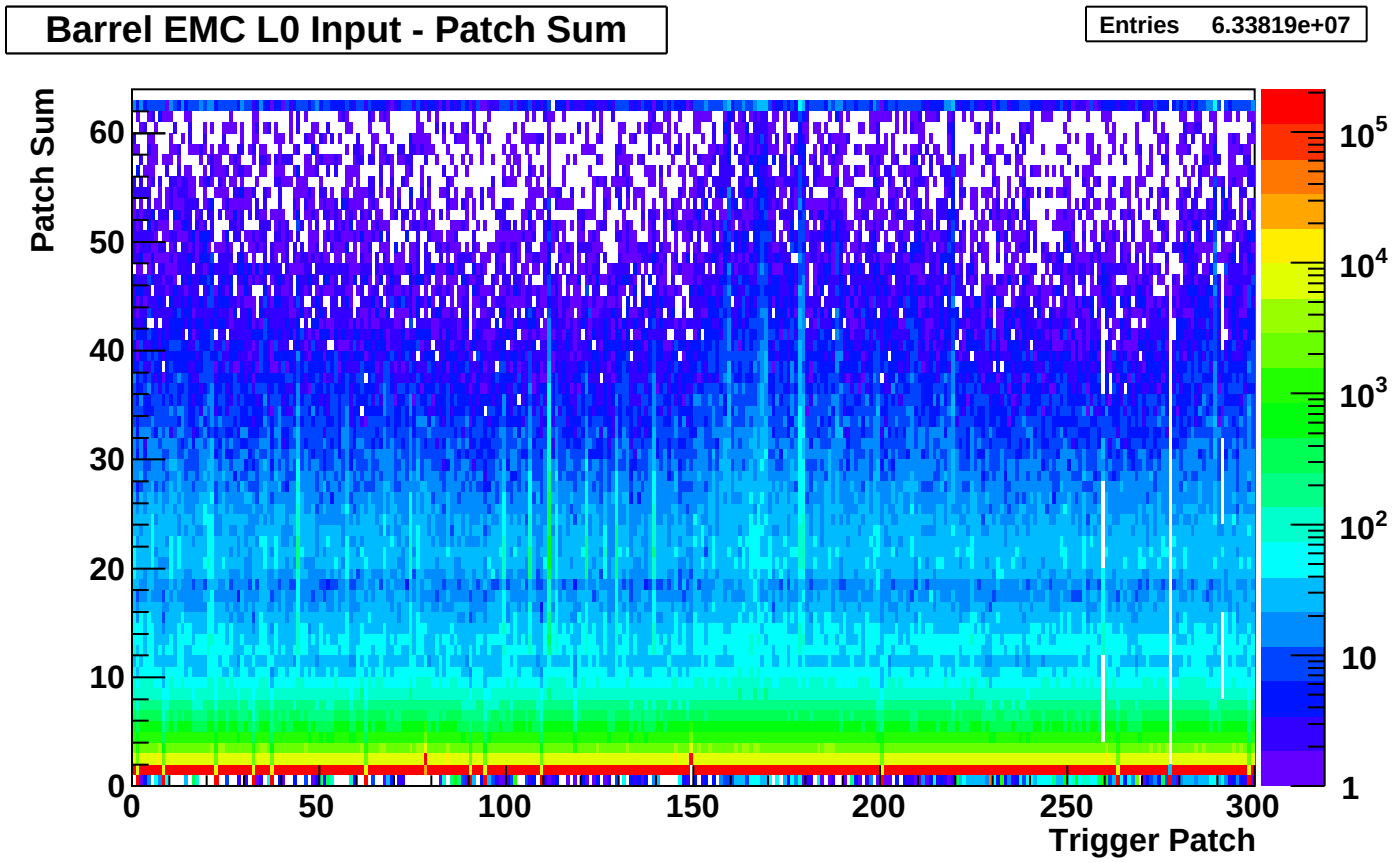

TCU bits
Entries 3380368
TCU bits
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

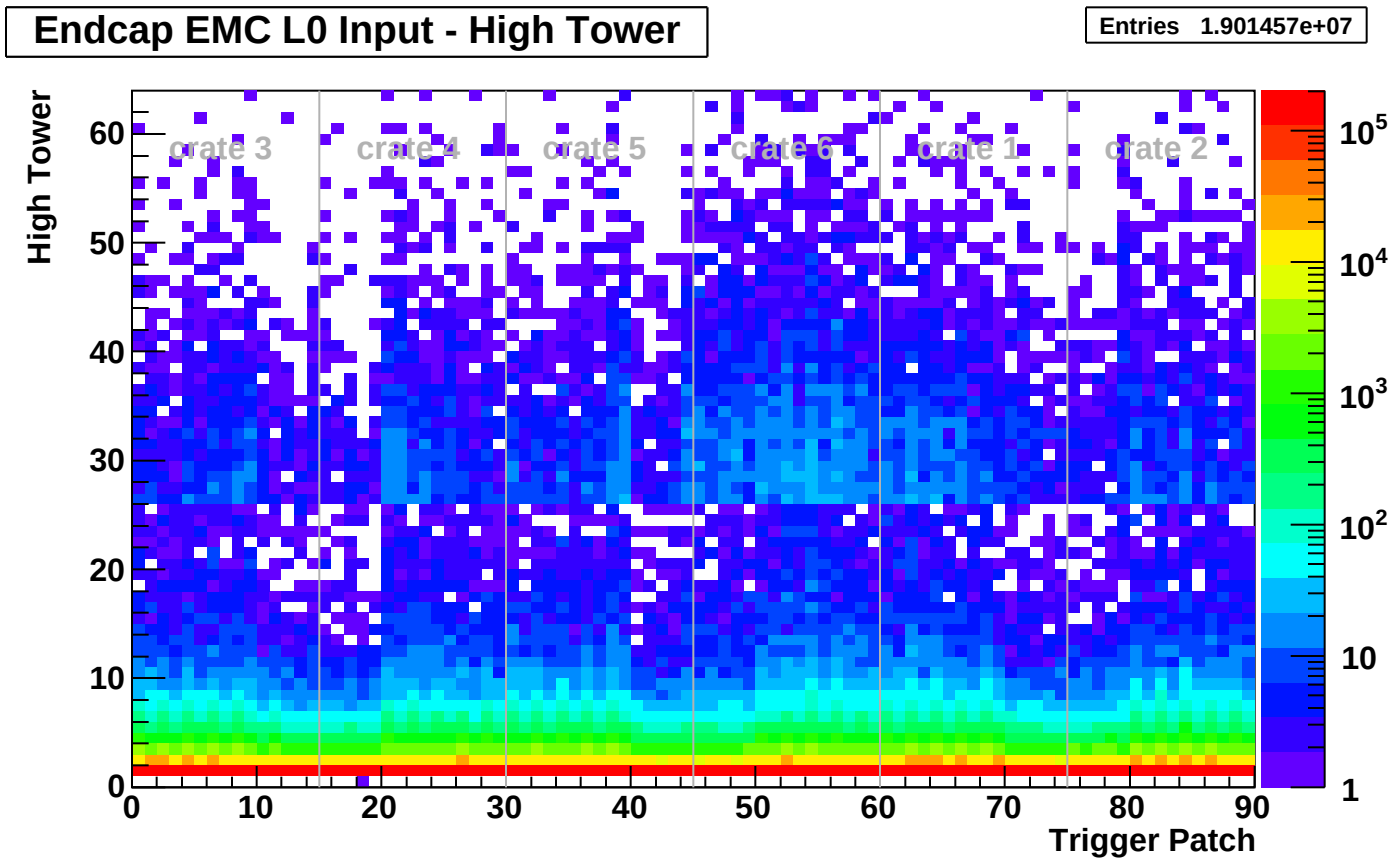

TCU bits
Entries 285912
TCU bits - Simulated
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

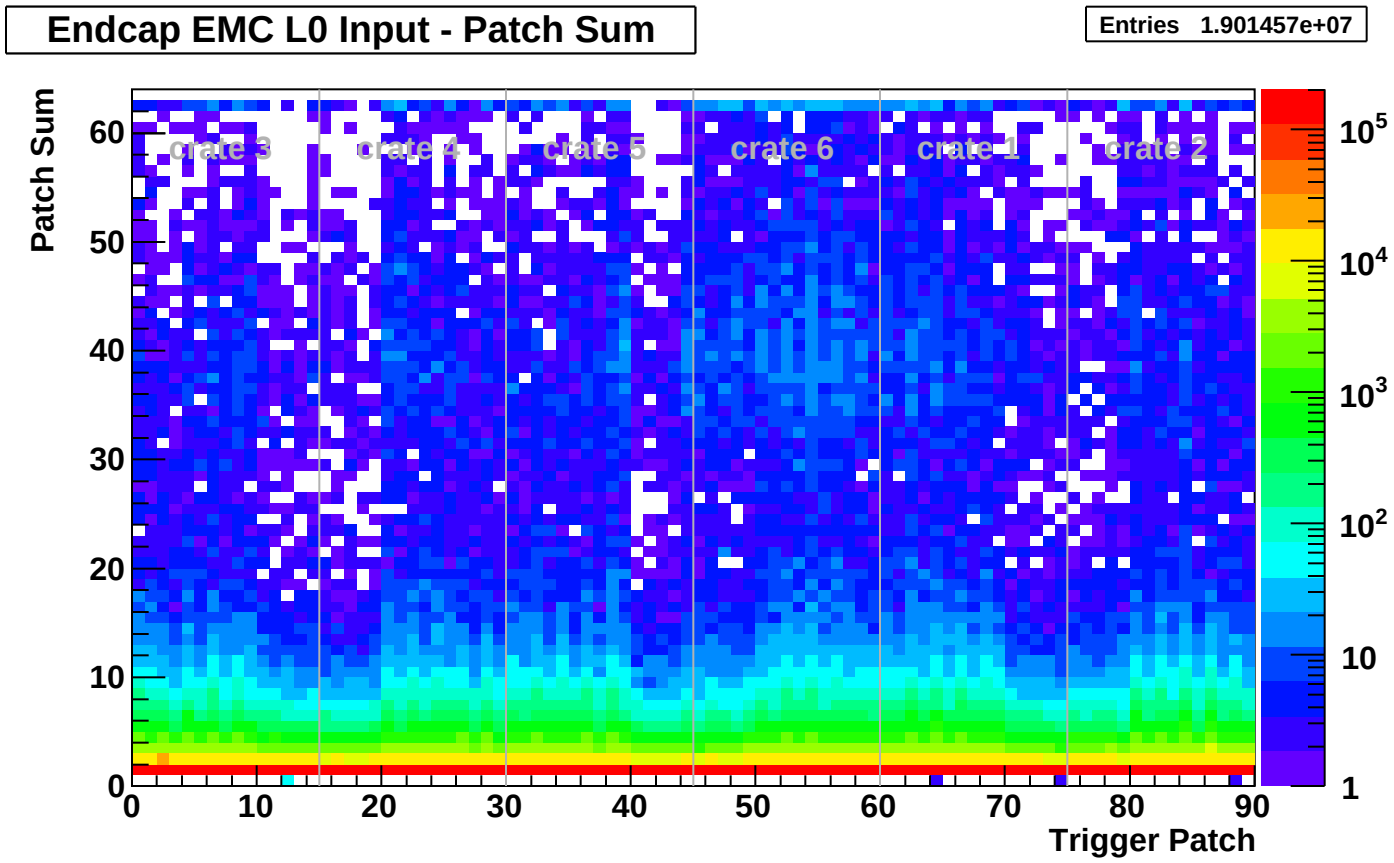

BunchId7Bit (BHT3)
Entries 8375

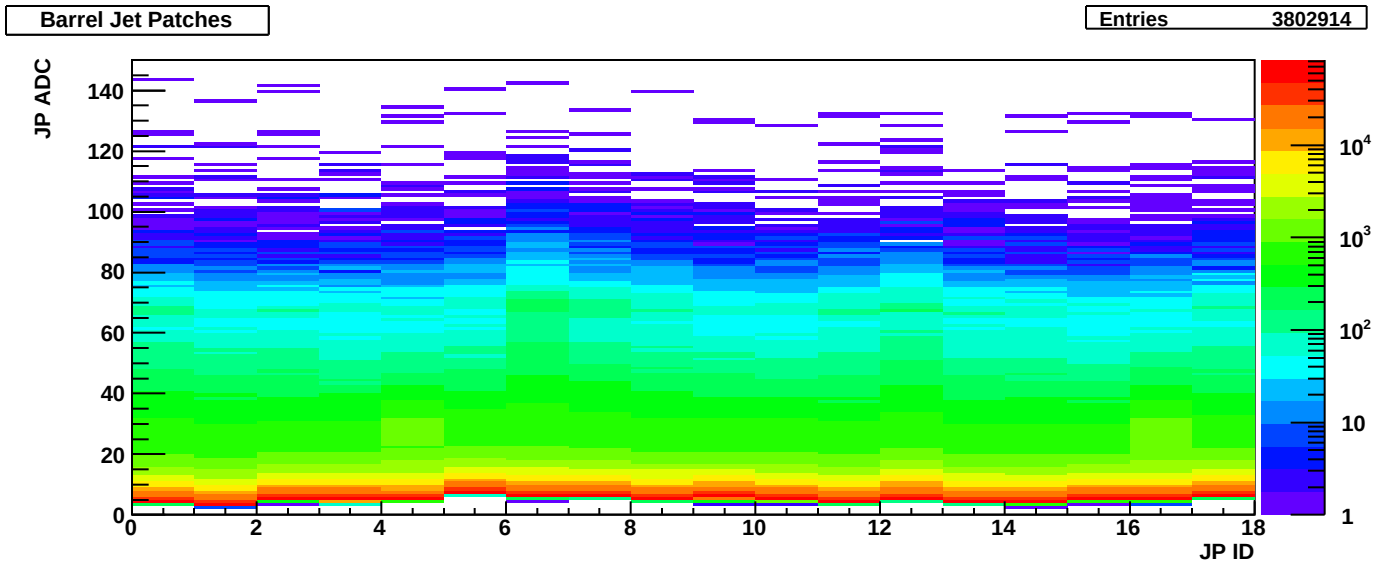

BunchId7Bit (all events)
Entries 211273

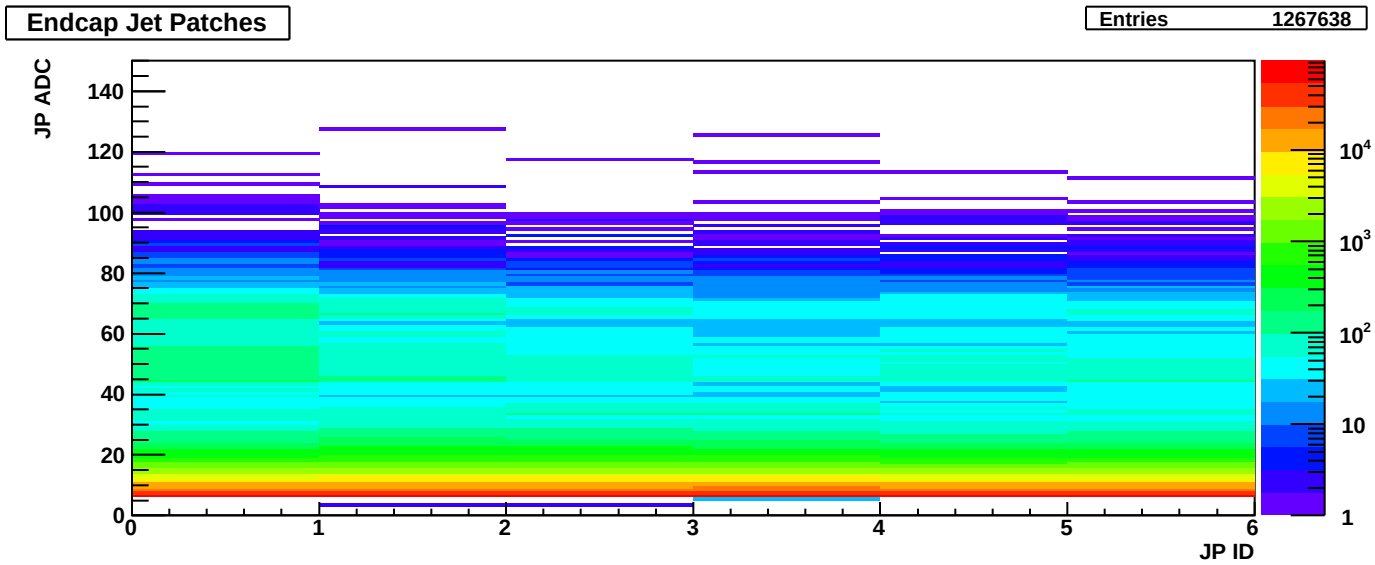

Barrel EMC L0 Input - High Tower
Entries 6.33819e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
$10^2$
$10^3$
$10^4$
$10^5$

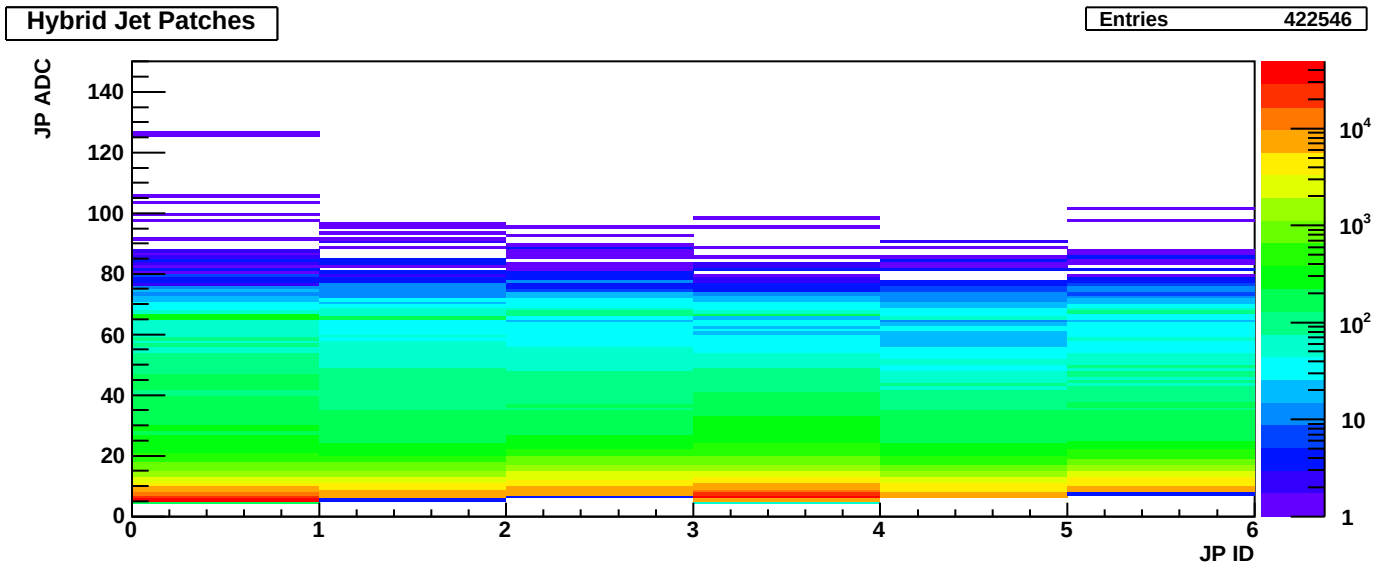

Barrel EMC L0 Input - Patch Sum
Entries 6.33819e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
$10^2$
$10^3$
$10^4$
$10^5$

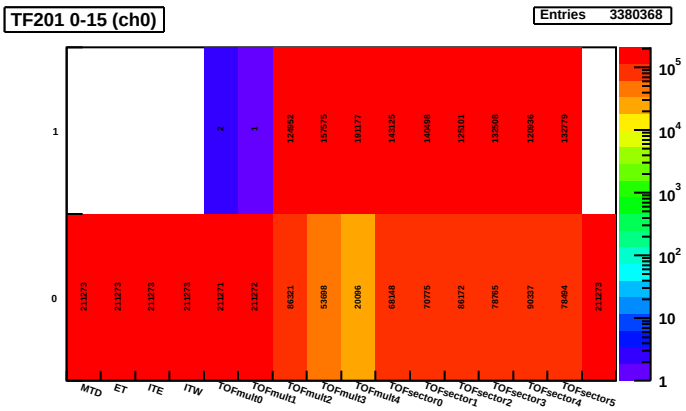

Endcap EMC L0 Input - High Tower
Entries 1.901457e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

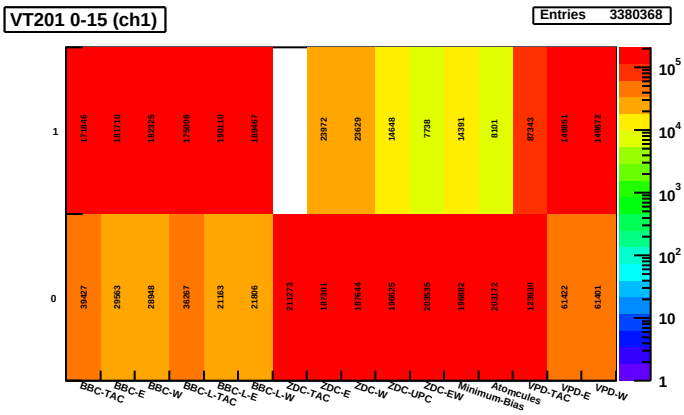

Endcap EMC L0 Input - Patch Sum
Entries 1.901457e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

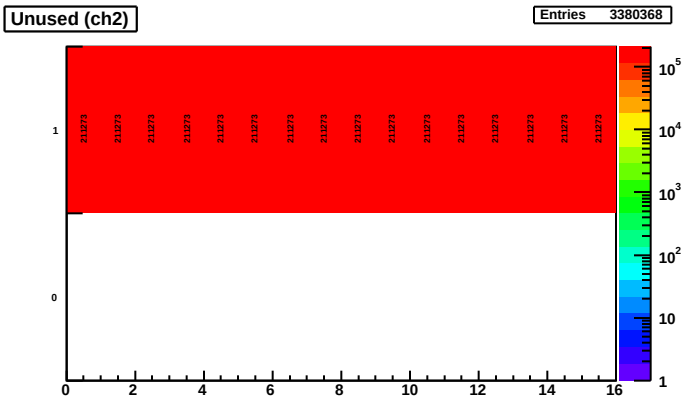

Barrel Jet Patches
Entries 3802914
JP ADC
JP ID

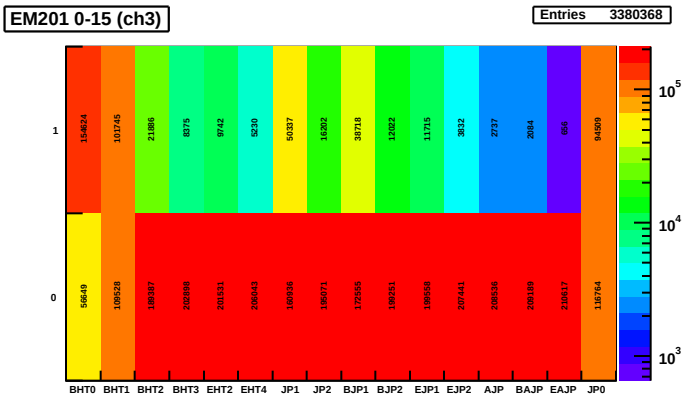

Endcap Jet Patches
Entries 1267638
JP ADC
JP ID

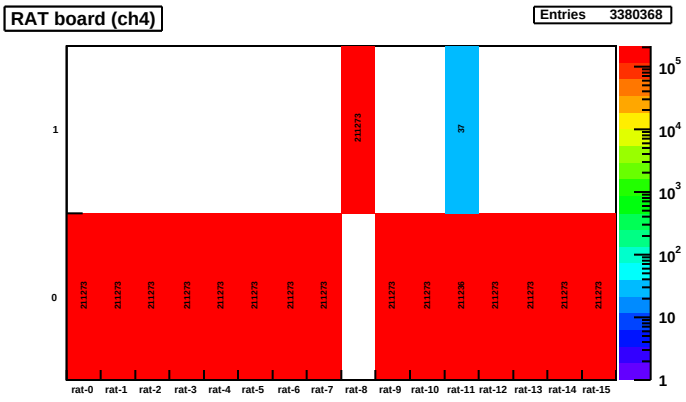

Hybrid Jet Patches
Entries 422546
JP ADC
JP ID

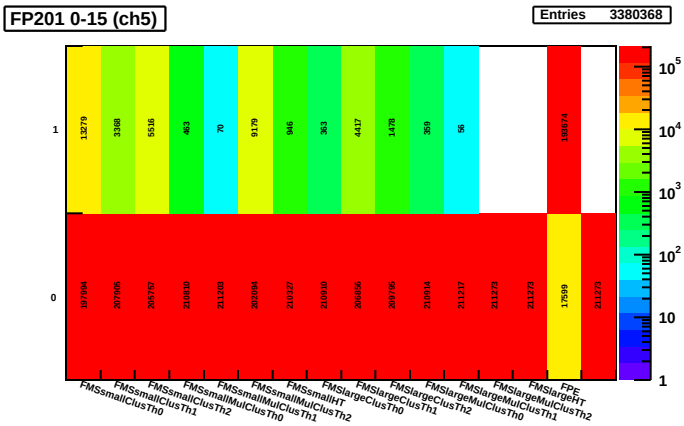

TF201 0-15 (ch0)
Entries 3380368
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5

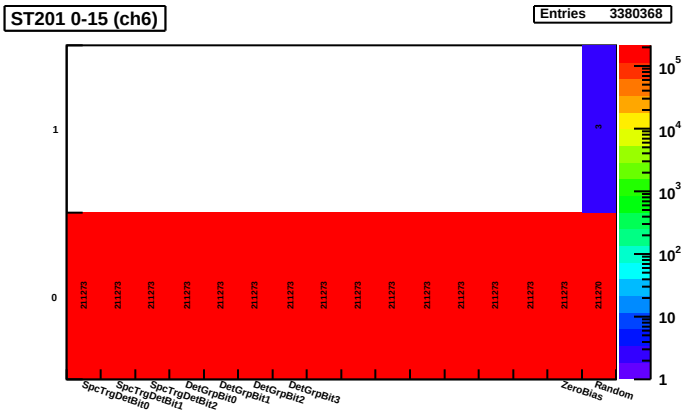

VT201 0-15 (ch1)
Entries 3380368
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-UPC ZDC-EW Minimum-Bias Atomcules VPD-TAC VPD-E VPD-W

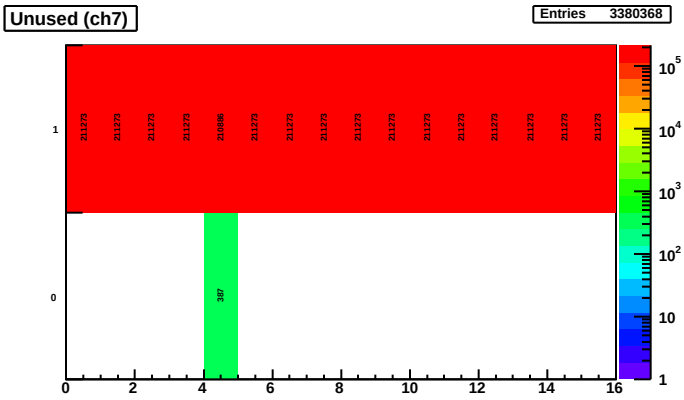

Unused (ch2)
Entries 3380368

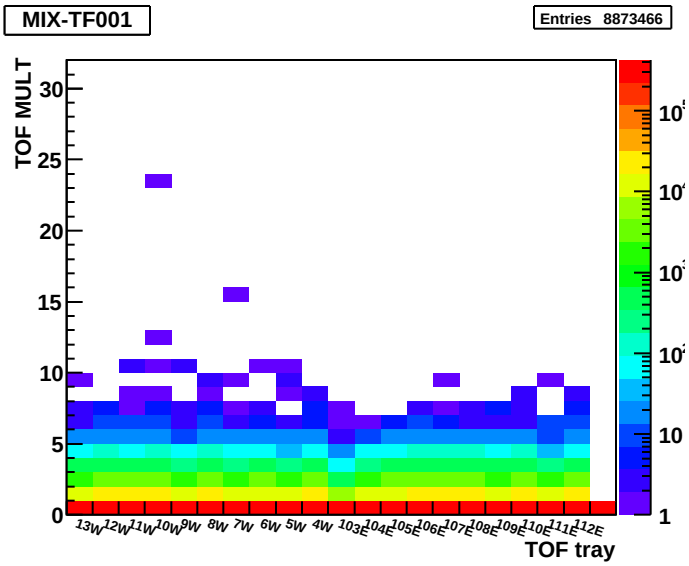

EM201 0-15 (ch3)
Entries 3380368
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

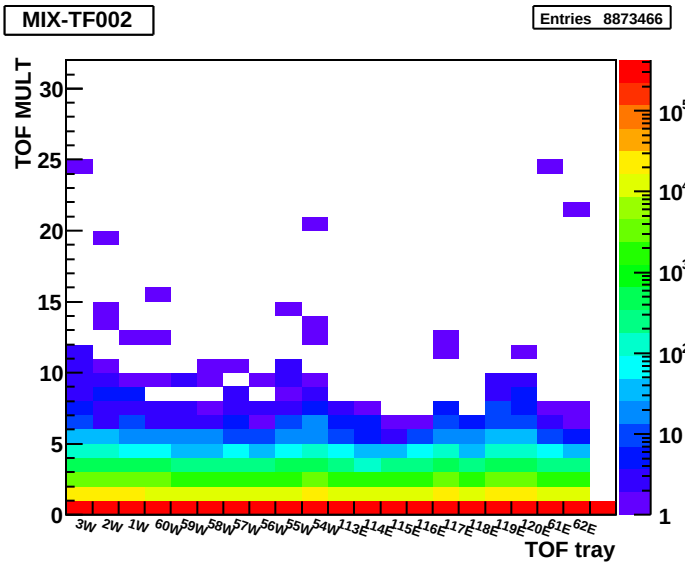

RAT board (ch4)
Entries 3380368
rat-0 rat-1 rat-2 rat-3 rat-4 rat-5 rat-6 rat-7 rat-8 rat-9 rat-10 rat-11 rat-12 rat-13 rat-14 rat-15

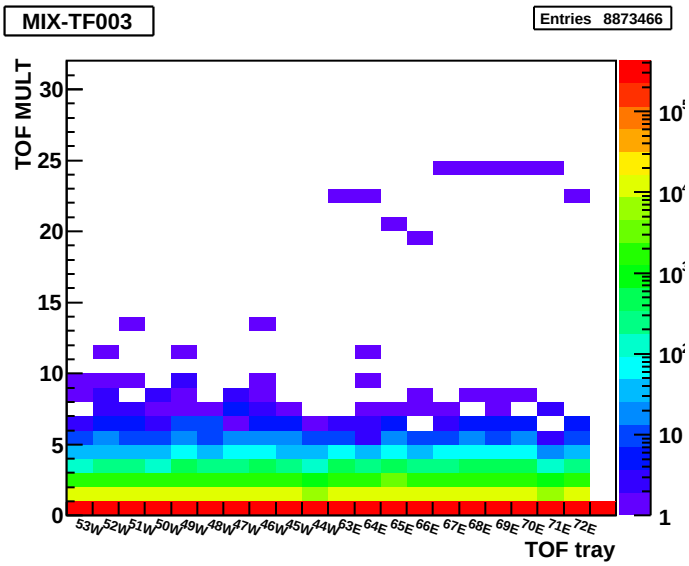

FP201 0-15 (ch5)
Entries 3380368
FMSsmallClusTh0 FMSsmallClusTh1 FMSsmallClusTh2 FMSsmallMulClusTh0 FMSsmallMulClusTh1 FMSsmallMulClusTh2 FMSsmallHT FMSlargeClusTh0 FMSlargeClusTh1 FMSlargeClusTh2 FMSlargeMulClusTh0 FMSlargeMulClusTh1 FMSlargeMulClusTh2 FMSlargeHT FPE

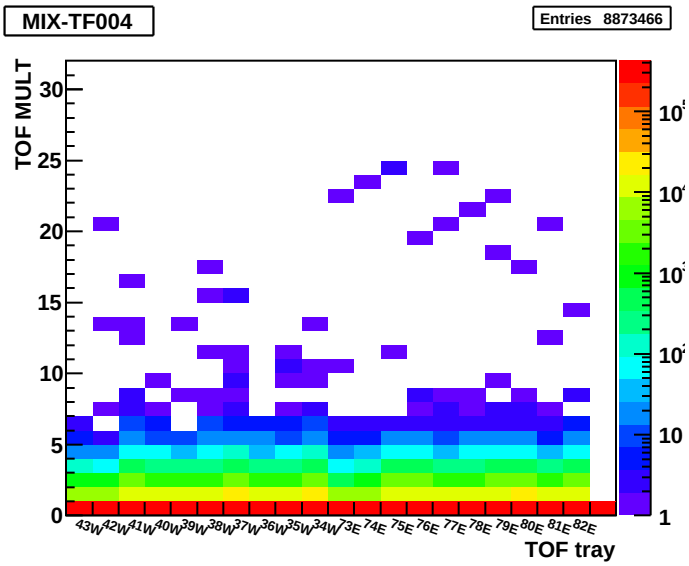

ST201 0-15 (ch6)
Entries 3380368
SpcTrgDetBit0 SpcTrgDetBit1 SpcTrgDetBit2 DetGrpBit0 DetGrpBit1 DetGrpBit2 DetGrpBit3 ZeroBias Random

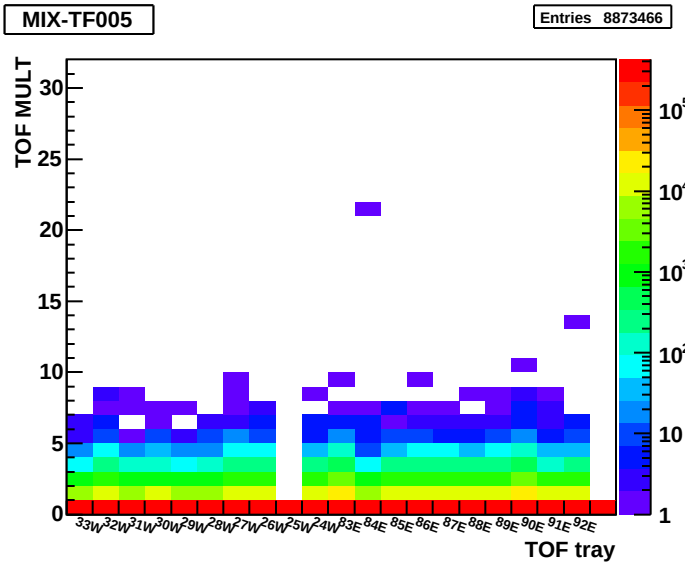

Unused (ch7)
Entries 3380368

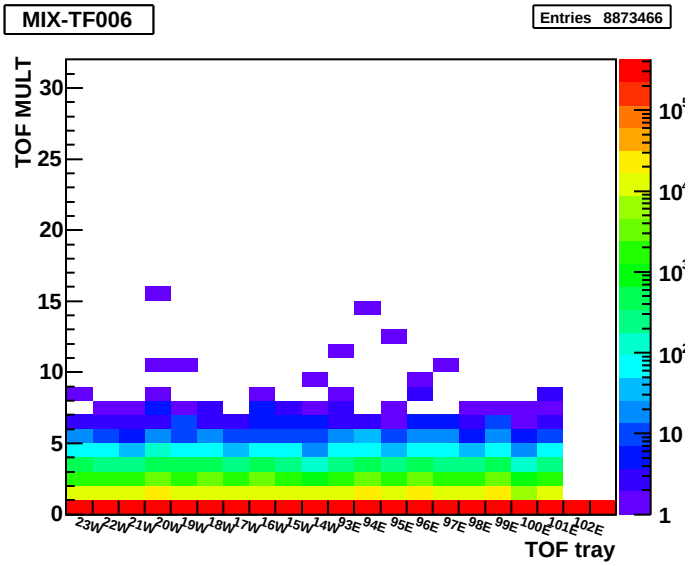

MIX-TF001
Entries 8873466
TOF MULT
TOF tray

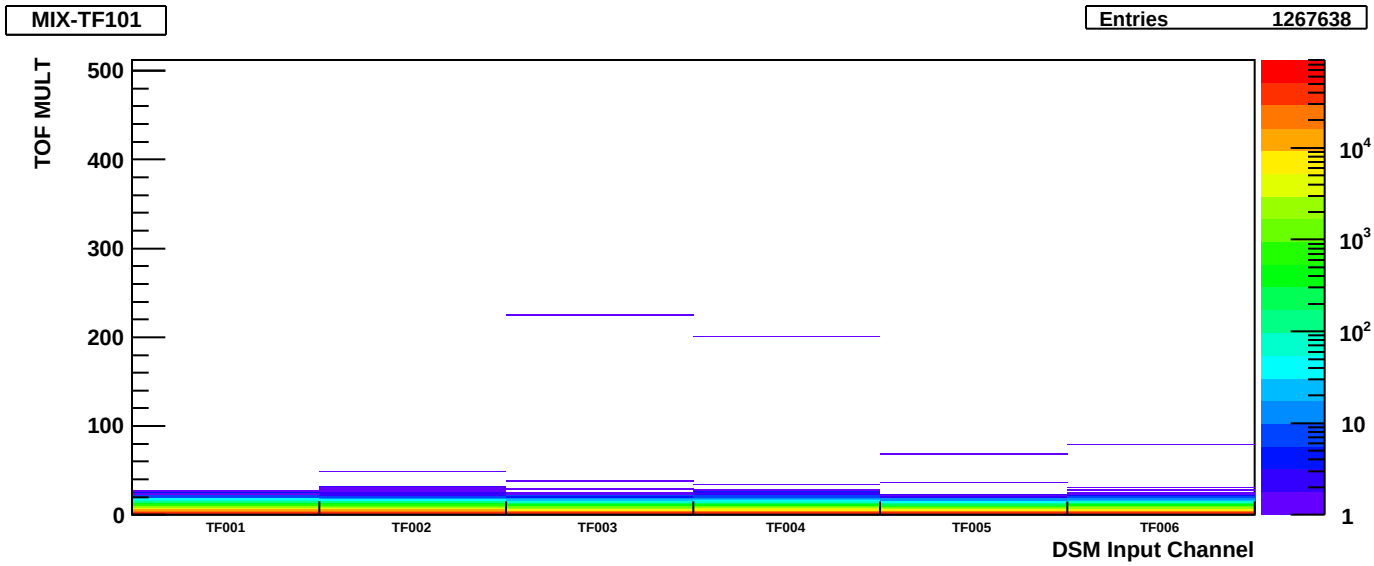

MIX-TF002
Entries 8873466
TOF MULT
TOF tray

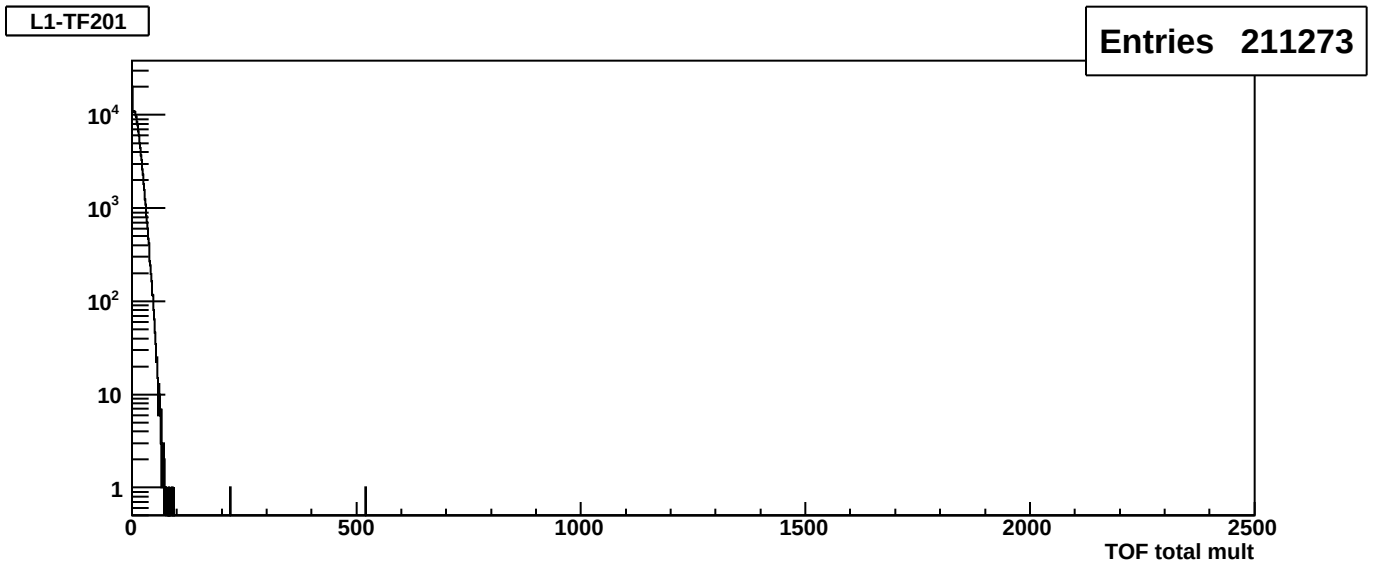

MIX-TF003
Entries 8873466
TOF MULT
TOF tray

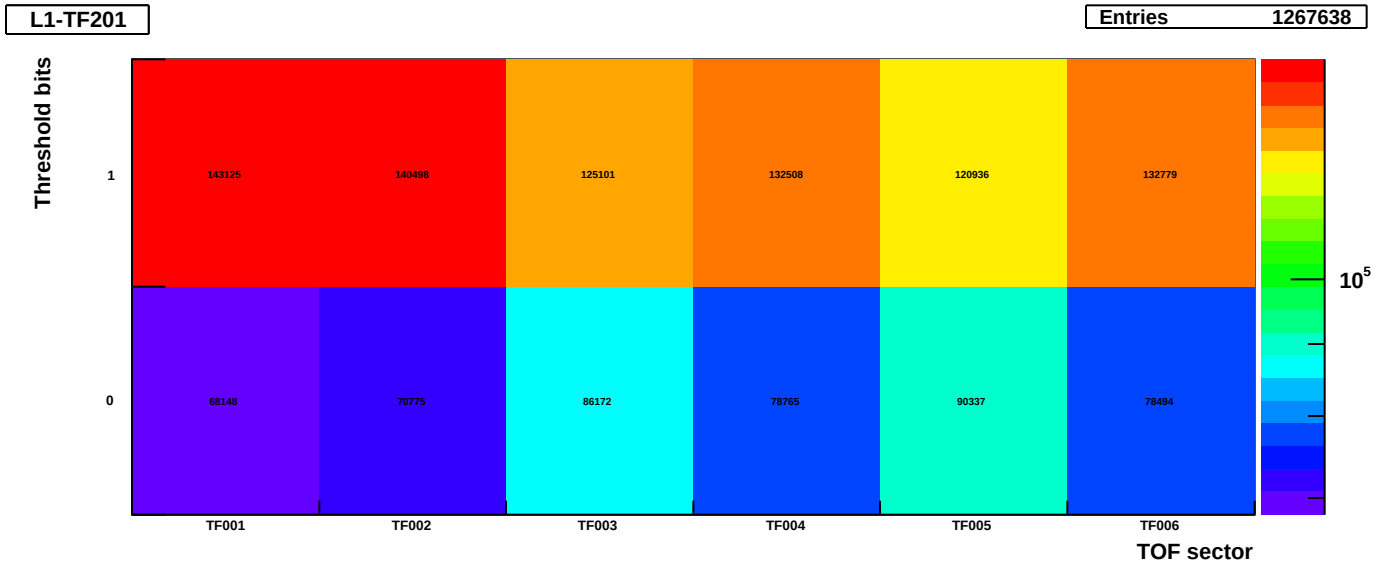

MIX-TF004
Entries 8873466
TOF MULT
TOF tray

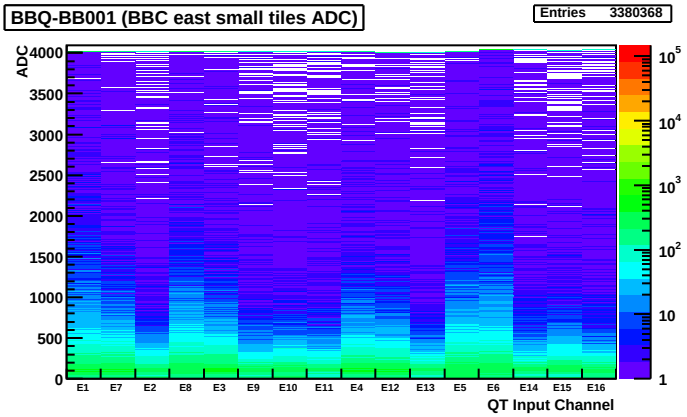

MIX-TF005
Entries 8873466
TOF MULT
TOF tray

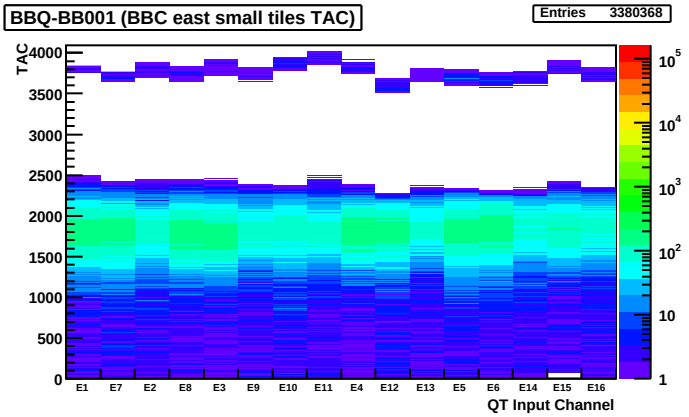

MIX-TF006
Entries 8873466
TOF MULT
TOF tray

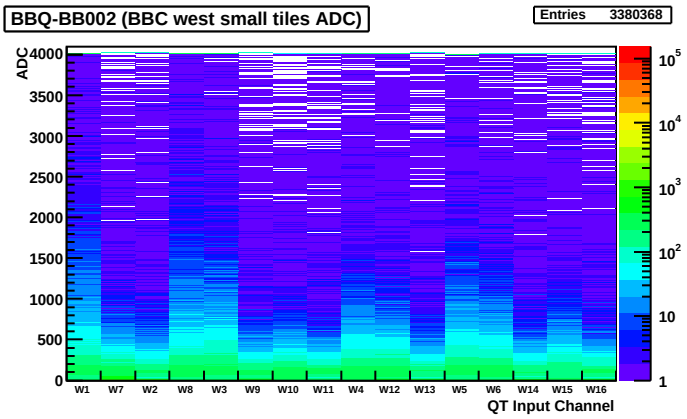

MIX-TF101
Entries 1267638
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
$10^4$
$10^3$
$10^2$
10
1

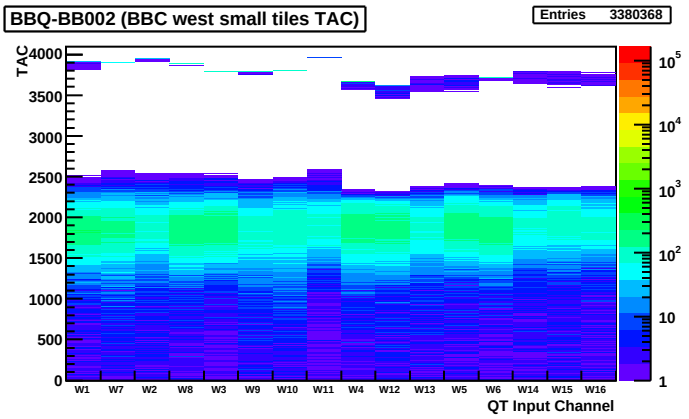

L1-TF201
Entries 211273
$10^4$
$10^3$
$10^2$
10
1
0
500
1000
1500
2000
2500
TOF total mult

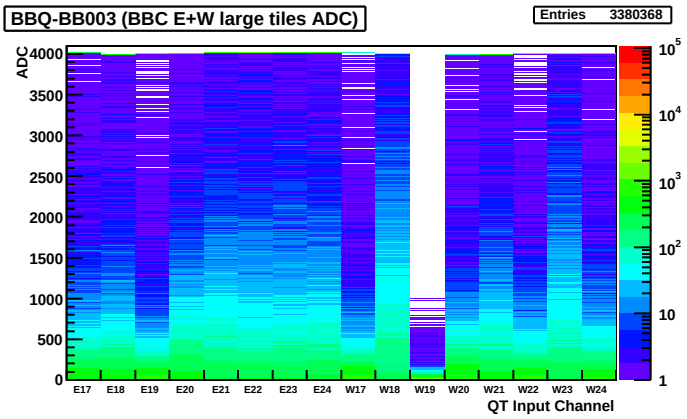

L1-TF201
Entries 1267638
Threshold bits
1
0
143125
140498
125101
132508
120936
132779
68148
70775
86172
78765
90337
78494
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
$10^5$

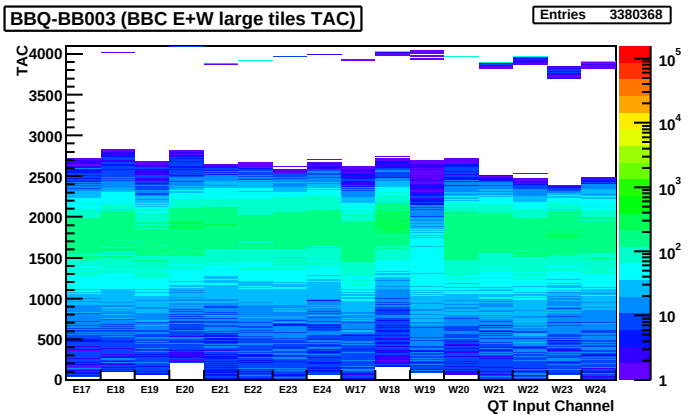

BBQ-BB001 (BBC east small tiles ADC)
Entries 3380368
ADC
QT Input Channel

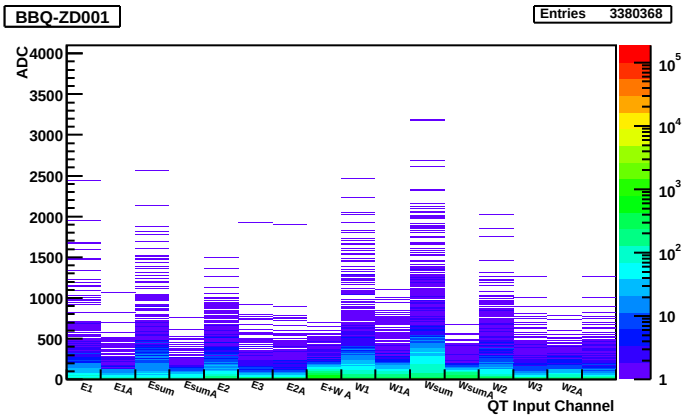

BBQ-BB001 (BBC east small tiles TAC)
Entries 3380368
TAC
QT Input Channel

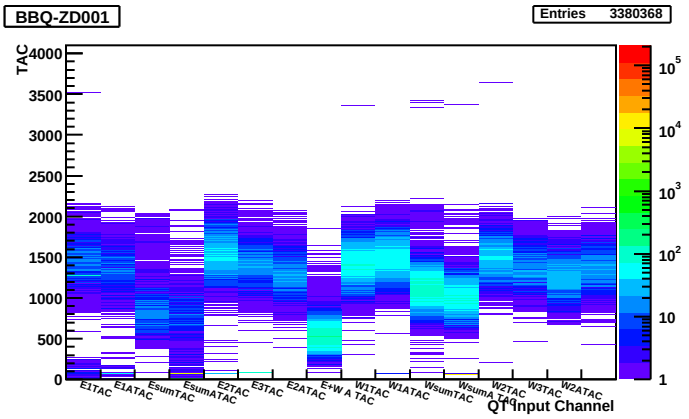

BBQ-BB002 (BBC west small tiles ADC)
Entries 3380368
ADC
QT Input Channel

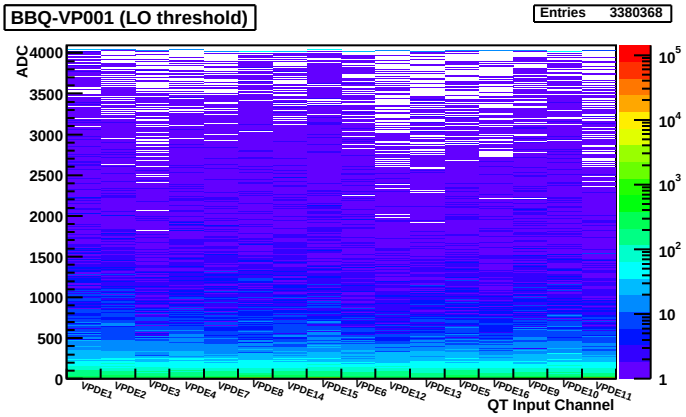

BBQ-BB002 (BBC west small tiles TAC)
Entries 3380368
TAC
QT Input Channel

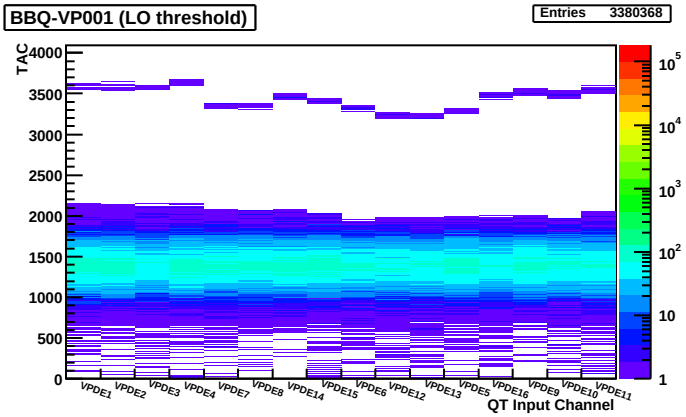

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 3380368
ADC
QT Input Channel

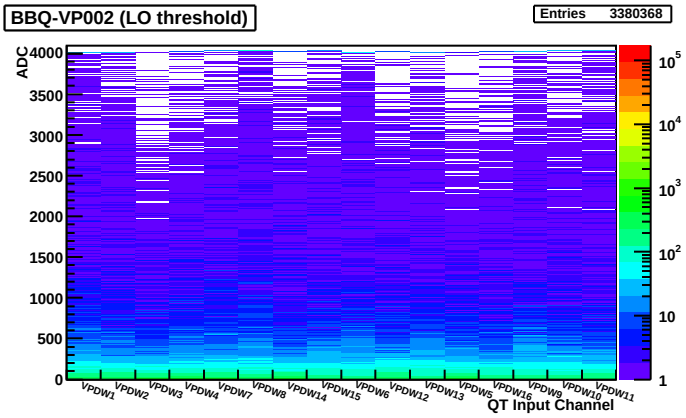

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 3380368
TAC
QT Input Channel

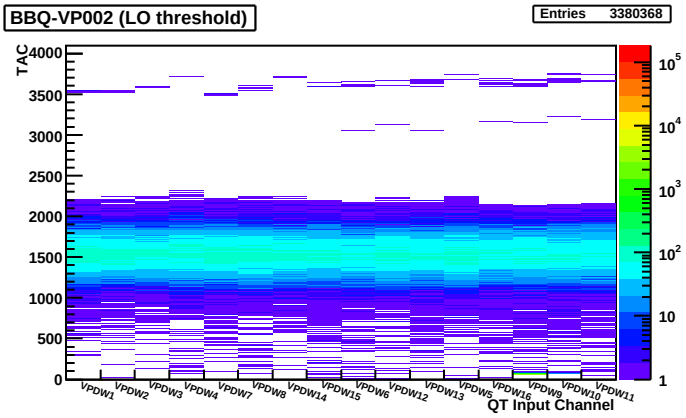

BBQ-ZD001
Entries 3380368
ADC
QT Input Channel

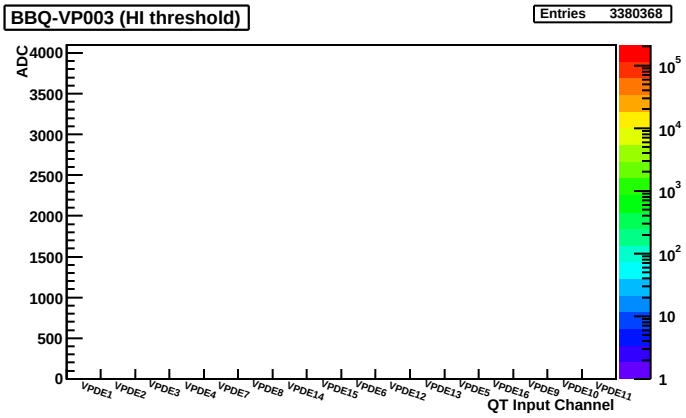

BBQ-ZD001
Entries 3380368
TAC
QT Input Channel

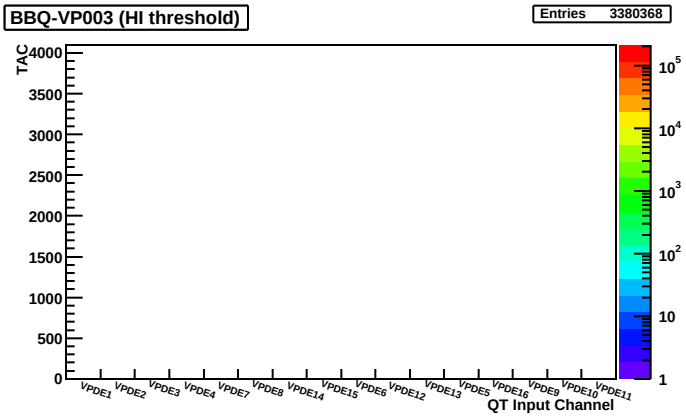

BBQ-VP001 (LO threshold)
Entries 3380368
ADC
QT Input Channel

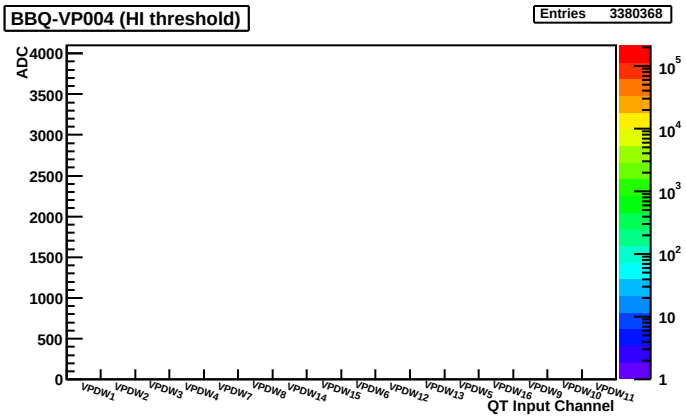

BBQ-VP001 (LO threshold)
Entries 3380368
TAC
QT Input Channel

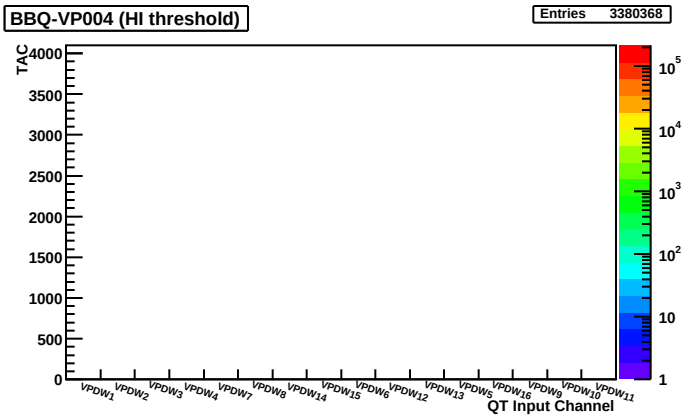

BBQ-VP002 (LO threshold)
Entries 3380368
ADC
QT Input Channel

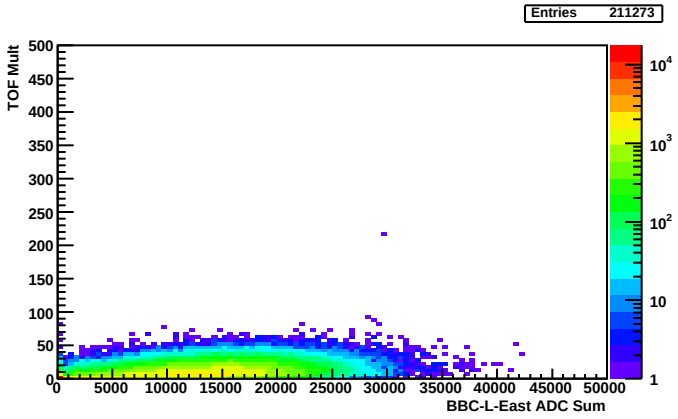

BBQ-VP002 (LO threshold)
Entries 3380368
TAC
QT Input Channel

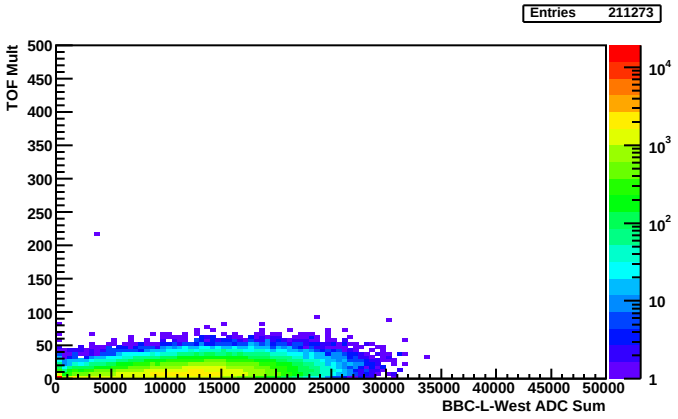

BBQ-VP003 (HI threshold)
Entries 3380368
ADC
QT Input Channel

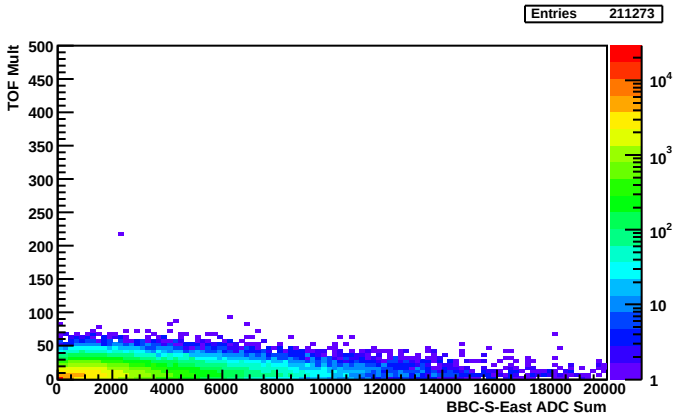

BBQ-VP003 (HI threshold)
Entries 3380368
TAC
QT Input Channel

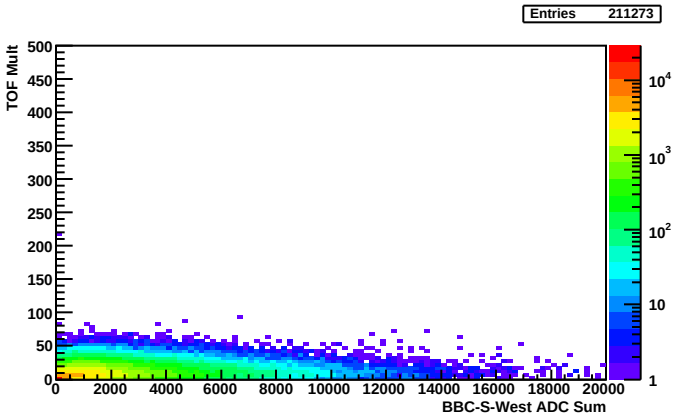

BBQ-VP004 (HI threshold)
Entries 3380368
ADC
QT Input Channel

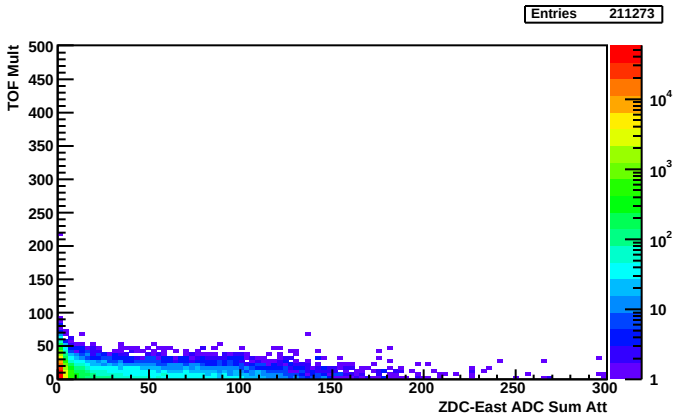

BBQ-VP004 (HI threshold)
Entries 3380368
TAC
QT Input Channel

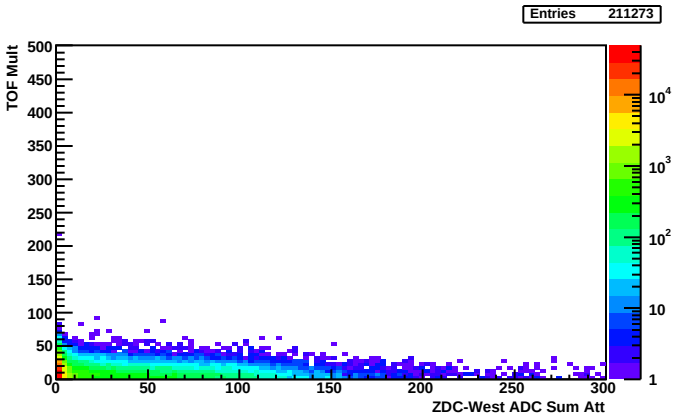

Entries 211273
TOF Mult
BBC-L-East ADC Sum

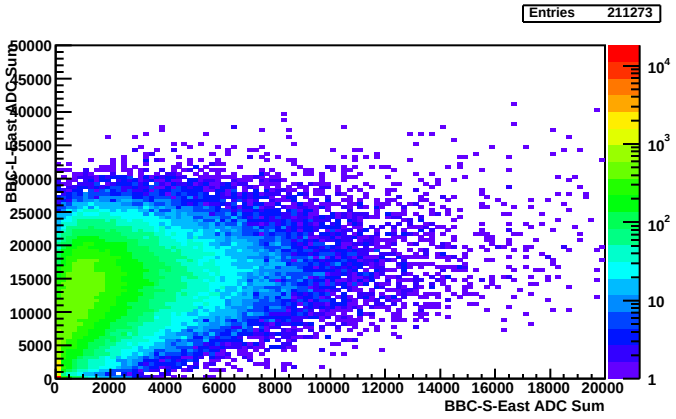

Entries 211273
TOF Mult
BBC-L-West ADC Sum

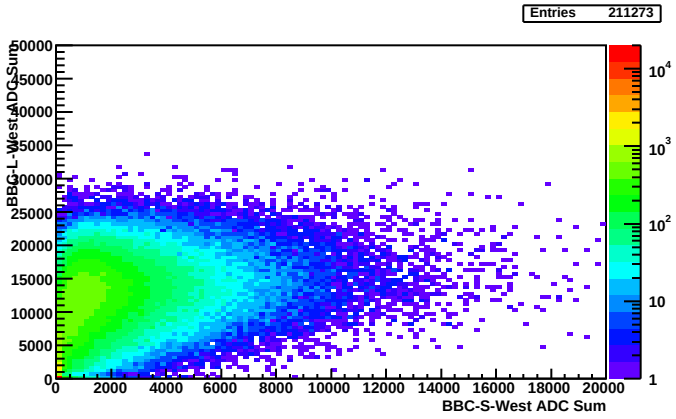

Entries 211273
TOF Mult
BBC-S-East ADC Sum

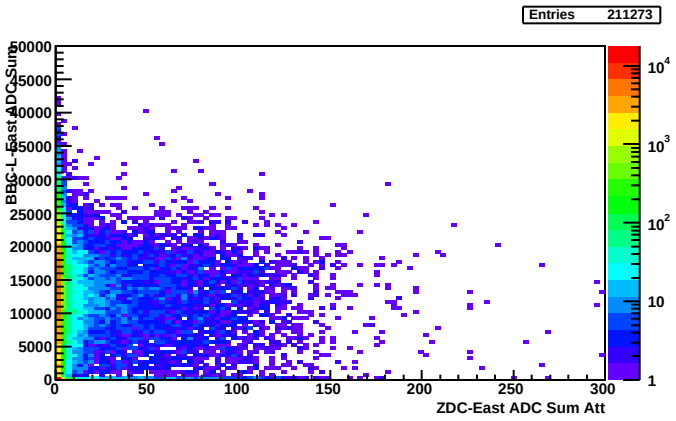

Entries 211273
TOF Mult
BBC-S-West ADC Sum

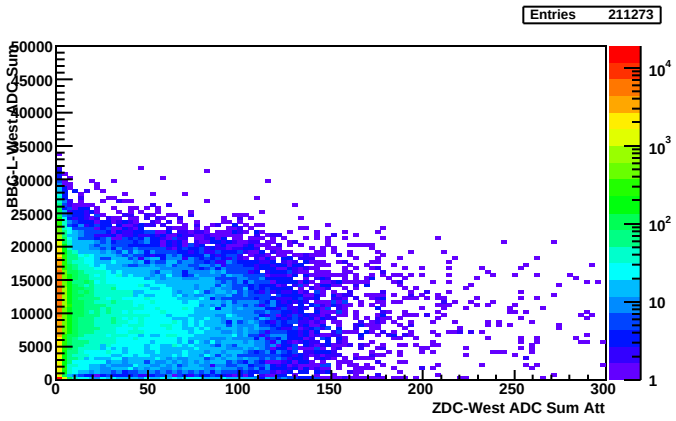

Entries 211273
TOF Mult
ZDC-East ADC Sum Att

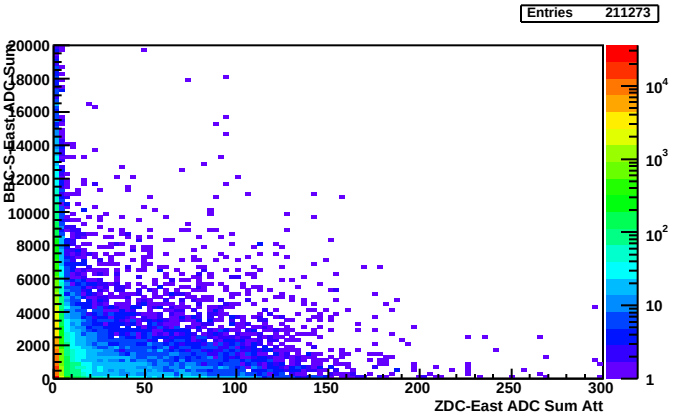

Entries 211273
TOF Mult
ZDC-West ADC Sum Att

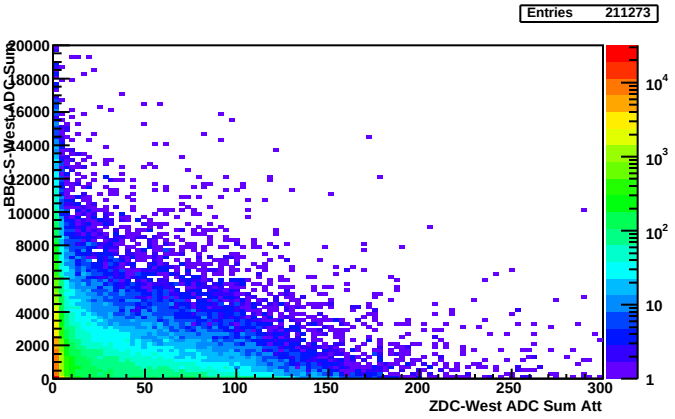

Entries 211273
BBC-L-East ADC Sum
BBC-S-East ADC Sum

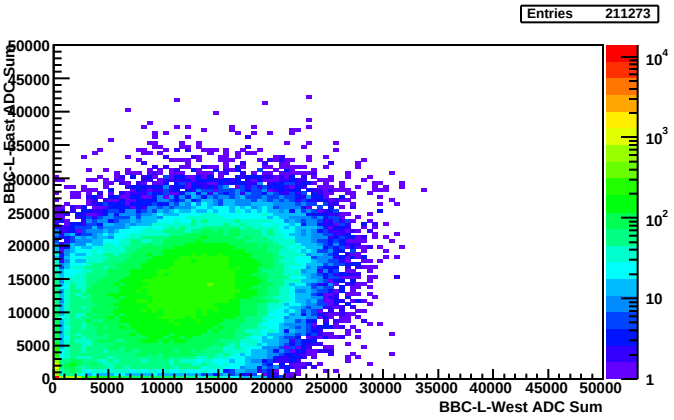

Entries 211273
BBC-L-West ADC Sum
BBC-S-West ADC Sum

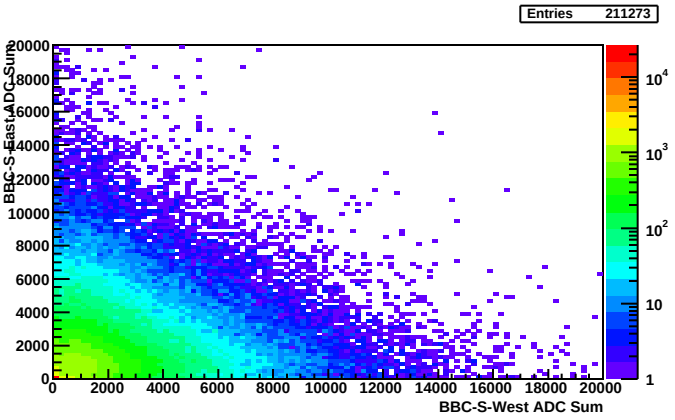

Entries 211273
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

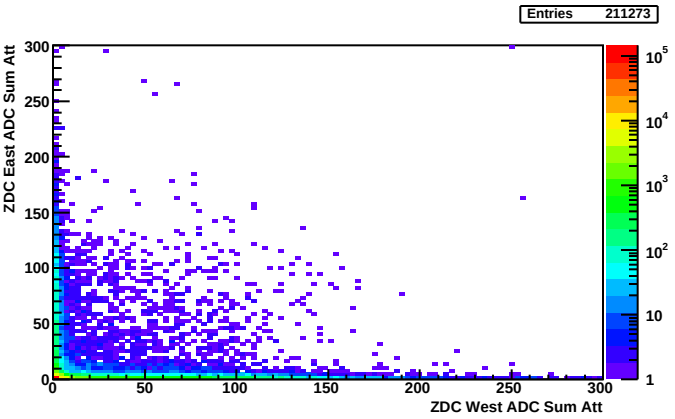

Entries 211273
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

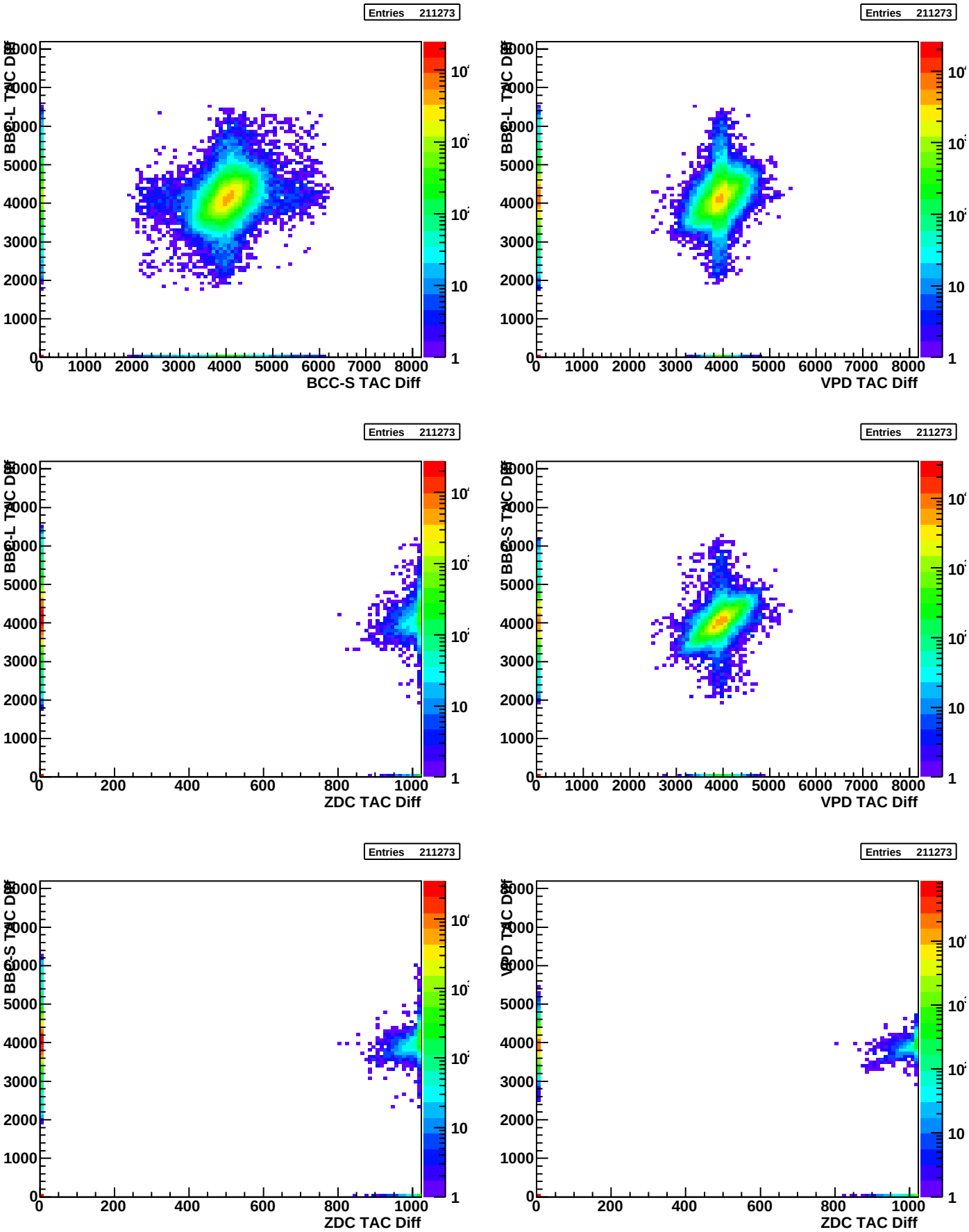

Entries 211273
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

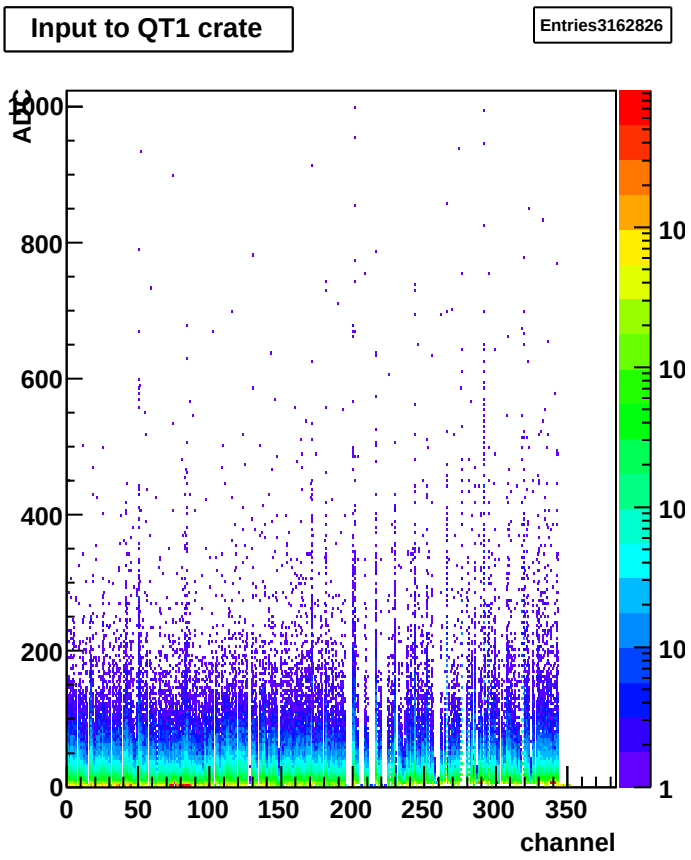

Entries 211273
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

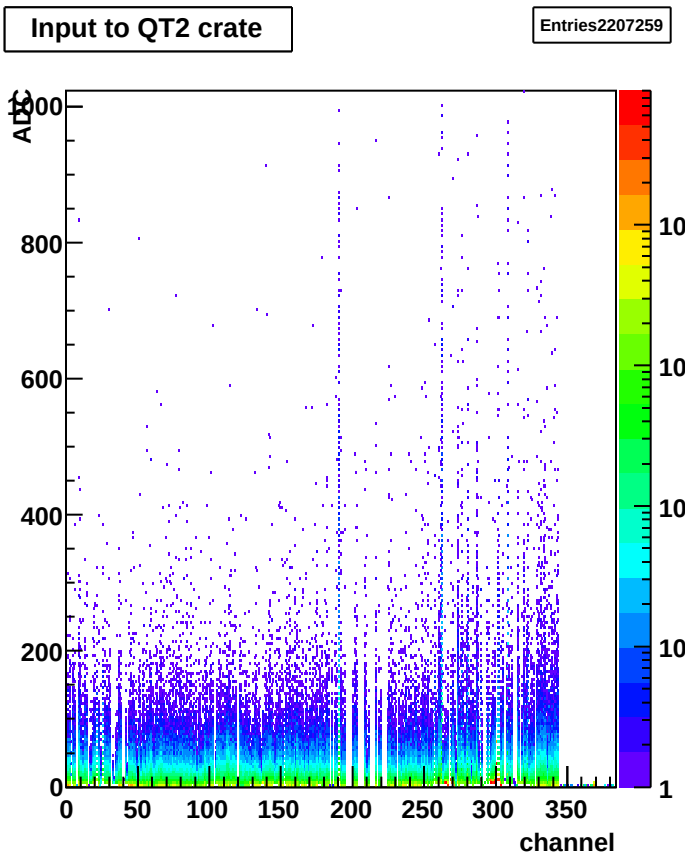

Entries 211273
BBC-L-East ADC Sum
BBC-L-West ADC Sum

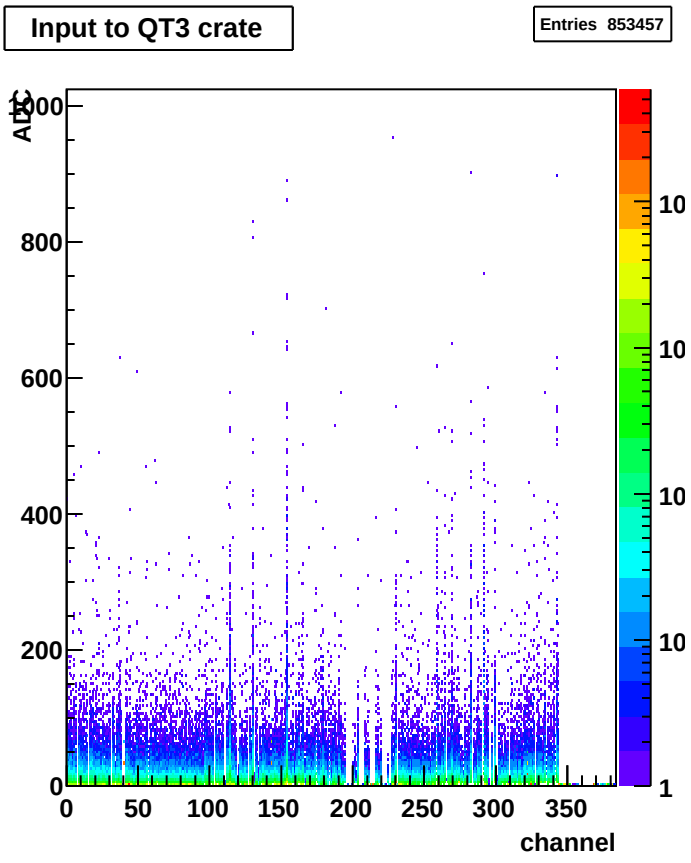

Entries 211273
BBC-S-East ADC Sum
BBC-S-West ADC Sum

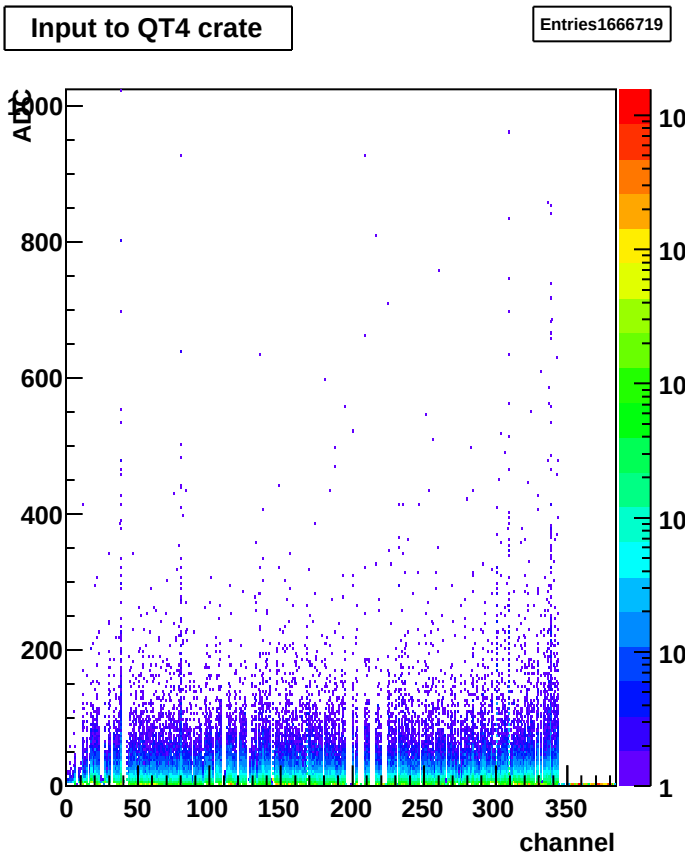

Entries 211273
ZDC East ADC Sum Att
ZDC West ADC Sum Att

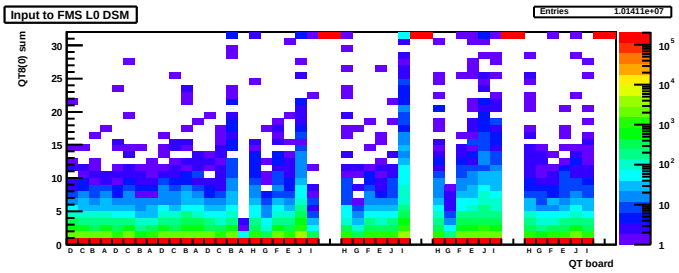

Entries 211273
BBC-L TAC Diff
BCC-S TAC Diff
Entries 211273
BBC-L TAC Diff
VPD TAC Diff
Entries 211273
BBC-L TAC Diff
ZDC TAC Diff
Entries 211273
BBC-S TAC Diff
VPD TAC Diff
Entries 211273
BBC-S TAC Diff
ZDC TAC Diff
Entries 211273
VPD TAC Diff
ZDC TAC Diff

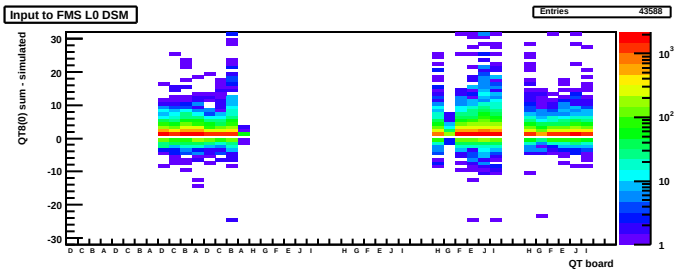

Input to QT1 crate
Entries3162826
ADC
channel

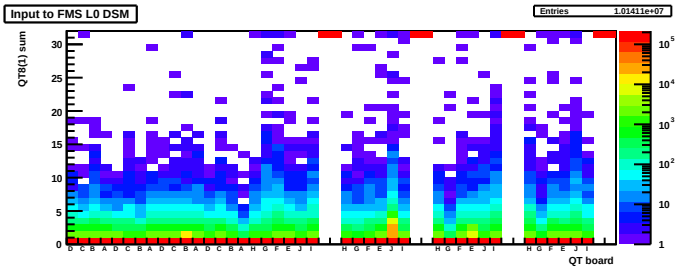

Input to QT2 crate
Entries2207259
ADC
channel

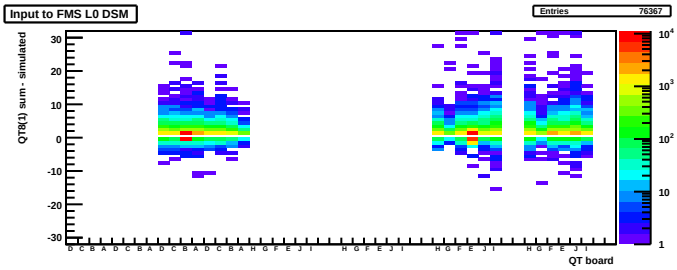

Input to QT3 crate
Entries 853457
ADC
channel

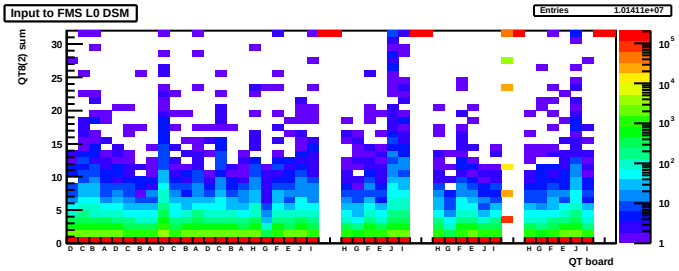

Input to QT4 crate
Entries1666719
ADC
channel

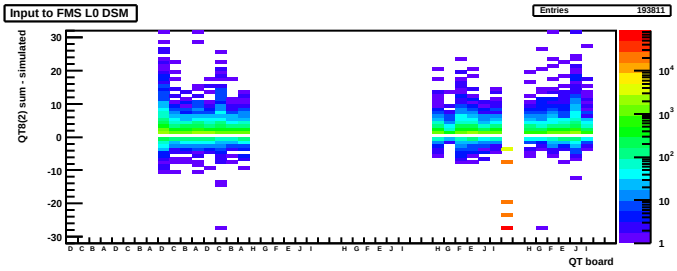

Input to FMS L0 DSM
Entries 1.01411e+07
QT8(0) sum
QT board

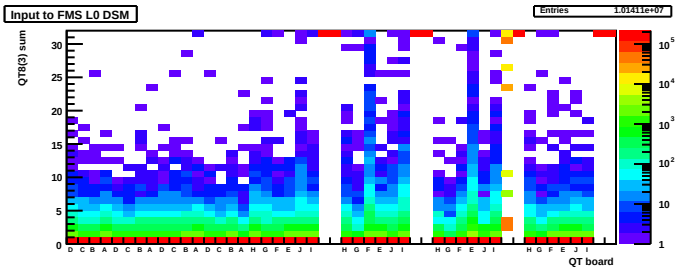

Input to FMS L0 DSM
Entries 43588
QT8(0) sum - simulated
QT board

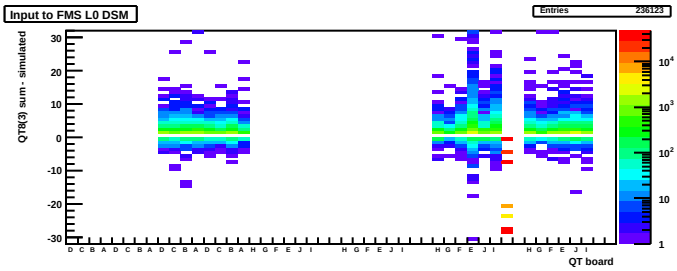

Input to FMS L0 DSM
Entries 1.01411e+07
QT8(1) sum
QT board

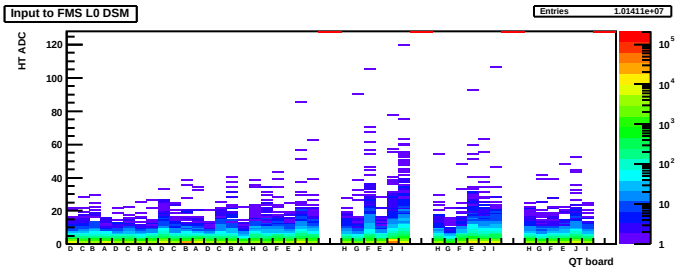

Input to FMS L0 DSM
Entries 76367
QT8(1) sum - simulated
QT board

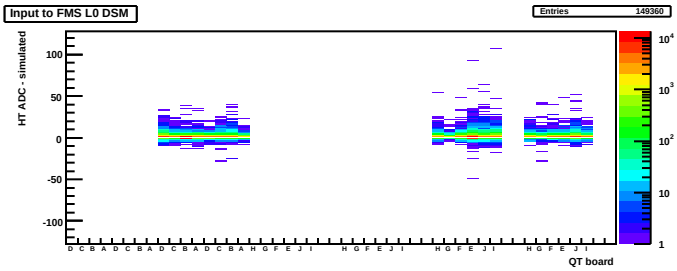

Input to FMS L0 DSM
Entries 1.01411e+07
QT8(2) sum
QT board

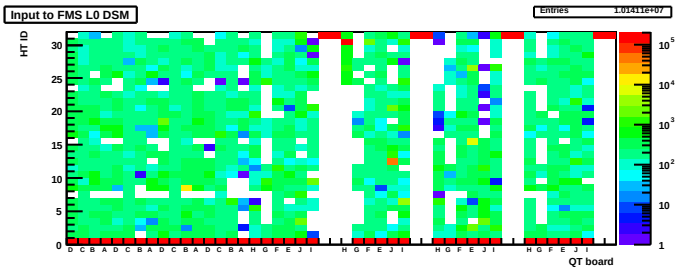

Input to FMS L0 DSM
Entries 193811
QT8(2) sum - simulated
QT board

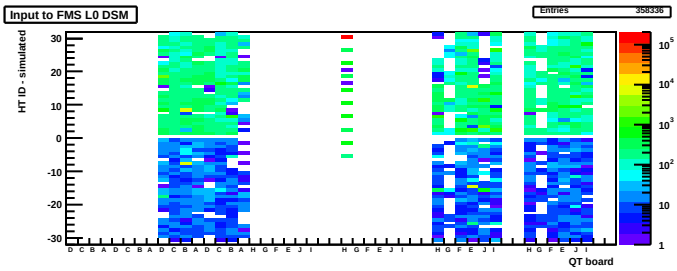

Input to FMS L0 DSM
Entries 1.01411e+07
QT8(3) sum
QT board

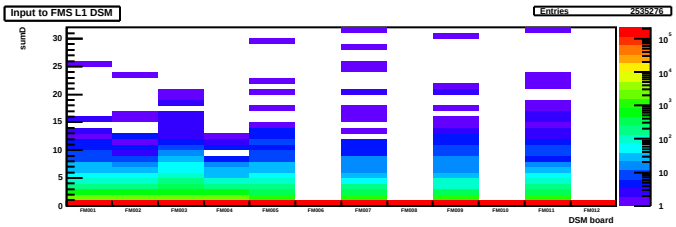

Input to FMS L0 DSM
Entries 236123
QT8(3) sum - simulated
QT board

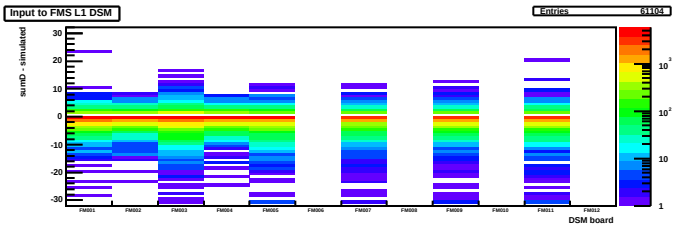

Input to FMS L0 DSM
Entries 1.01411e+07
HT ADC
QT board

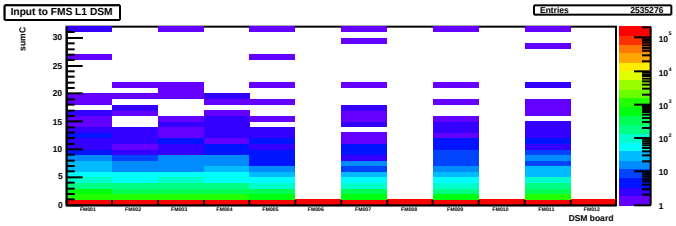

Input to FMS L0 DSM
Entries 149360
HT ADC - simulated
QT board

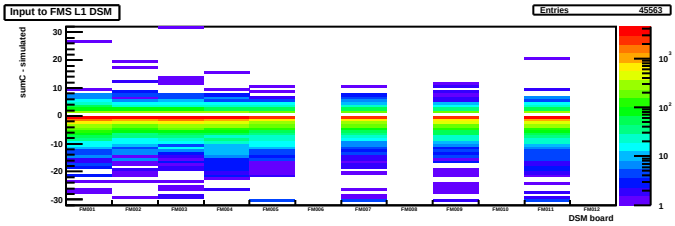

Input to FMS L0 DSM
Entries 1.01411e+07
HT ID
QT board

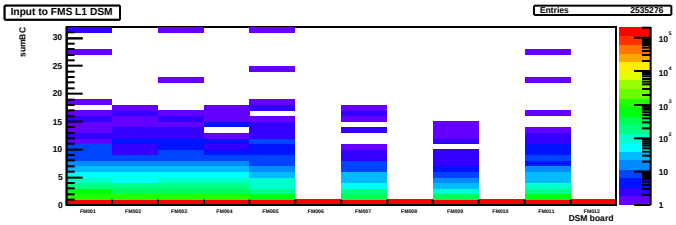

Input to FMS L0 DSM
Entries 358336
HT ID - simulated
QT board

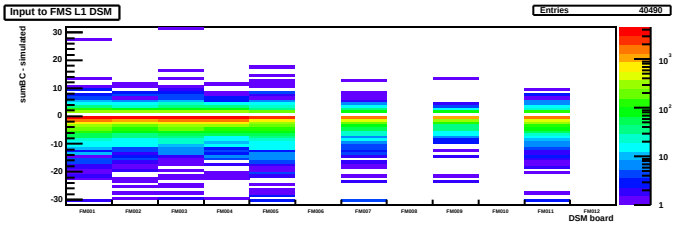

Input to FMS L1 DSM
Entries 2535276
sumD
DSM board

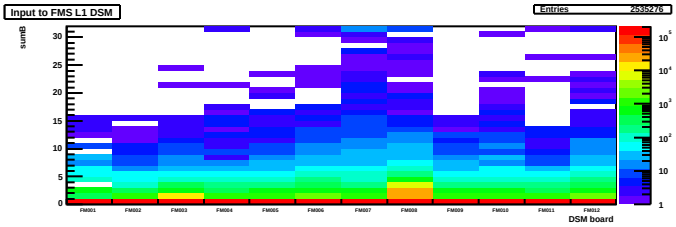

Input to FMS L1 DSM
Entries 61104
sumD - simulated
DSM board

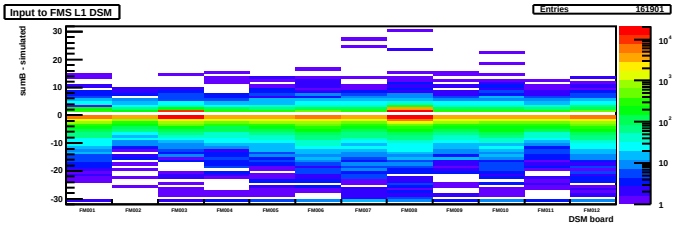

Input to FMS L1 DSM
Entries 2535276
sumC
DSM board

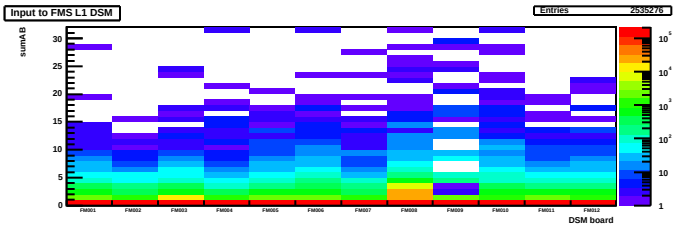

Input to FMS L1 DSM
Entries 45563
sumC - simulated
DSM board

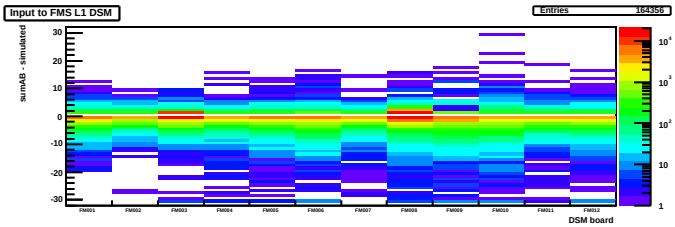

Input to FMS L1 DSM
Entries 2535276
sumBC
DSM board

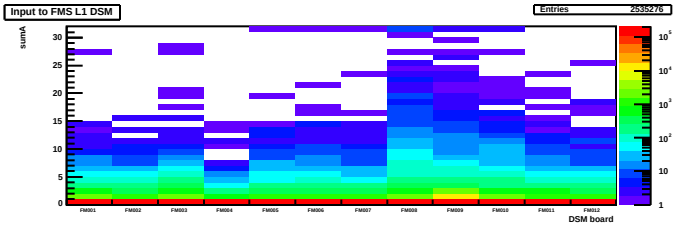

Input to FMS L1 DSM
Entries 40490
sumBC - simulated
DSM board

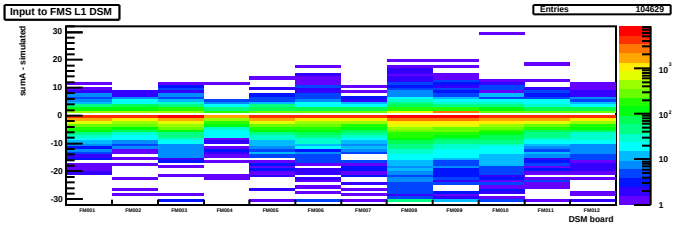

Input to FMS L1 DSM
Entries 2535276
sumB
DSM board

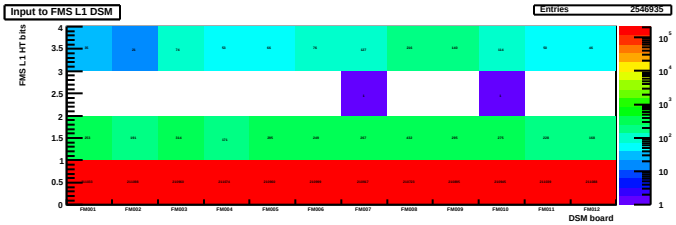

Input to FMS L1 DSM
Entries 161901
sumB - simulated
DSM board

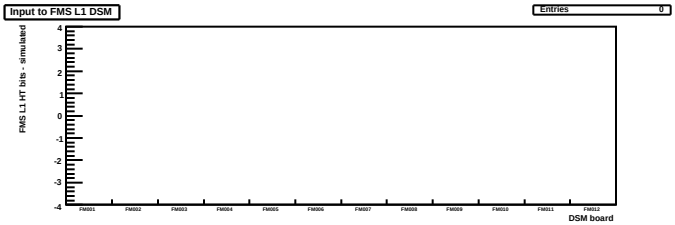

Input to FMS L1 DSM
Entries 2535276
sumAB
DSM board

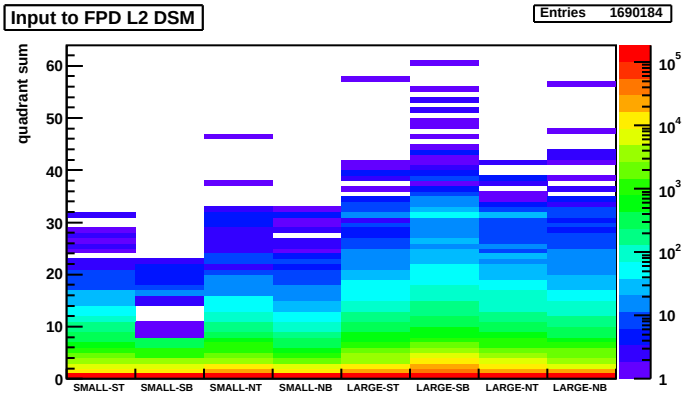

Input to FMS L1 DSM
Entries 164356
sumAB - simulated
DSM board

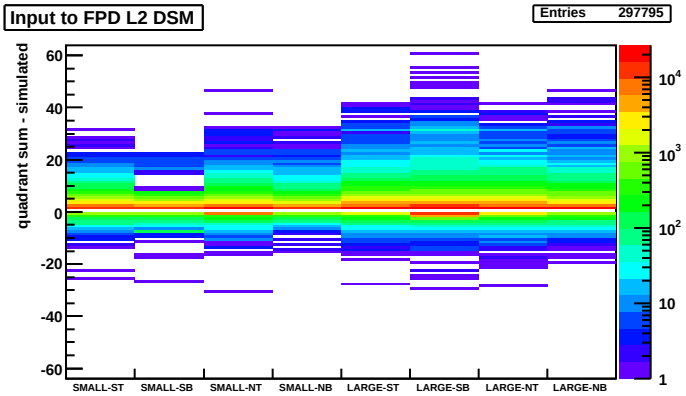

Input to FMS L1 DSM
Entries 2535276
sumA
DSM board

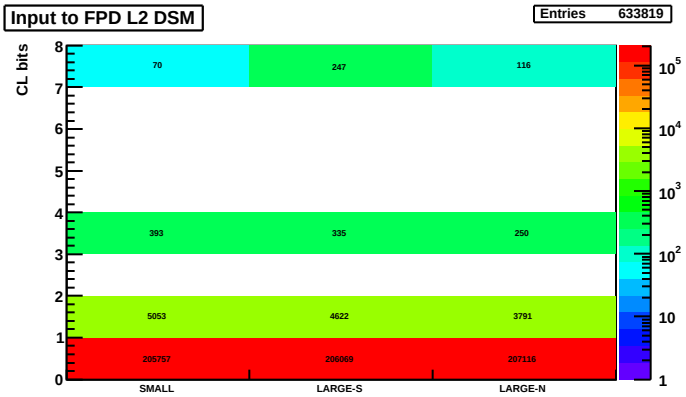

Input to FMS L1 DSM
Entries 104629
sumA - simulated
DSM board

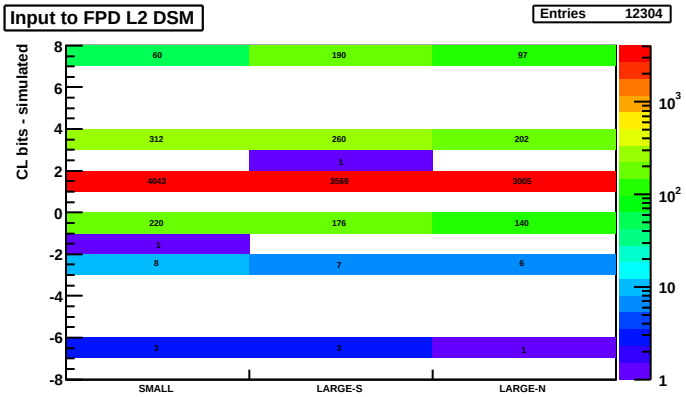

Input to FMS L1 DSM
Entries 2546935
FMS L1 HT bits
DSM board

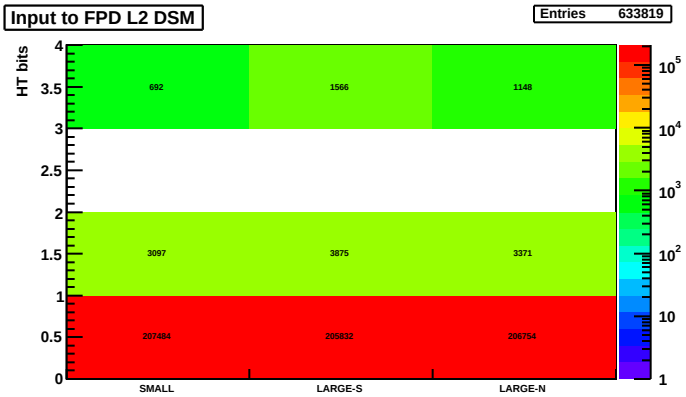

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

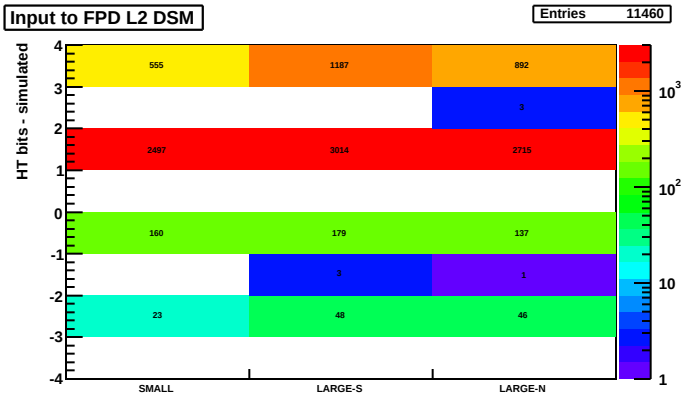

Input to FPD L2 DSM
Entries 1690184
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

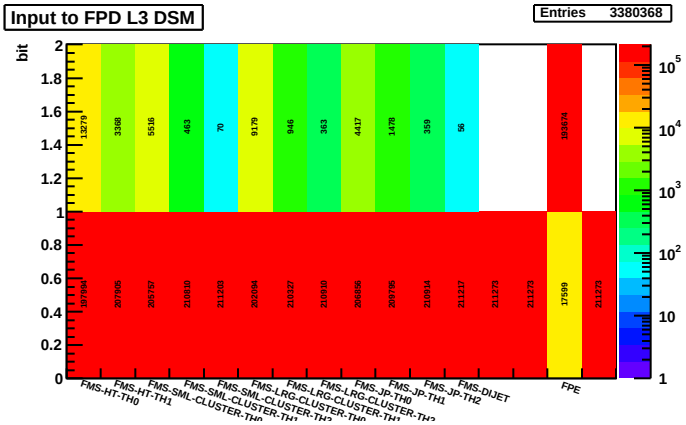

Input to FPD L2 DSM
Entries 297795
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

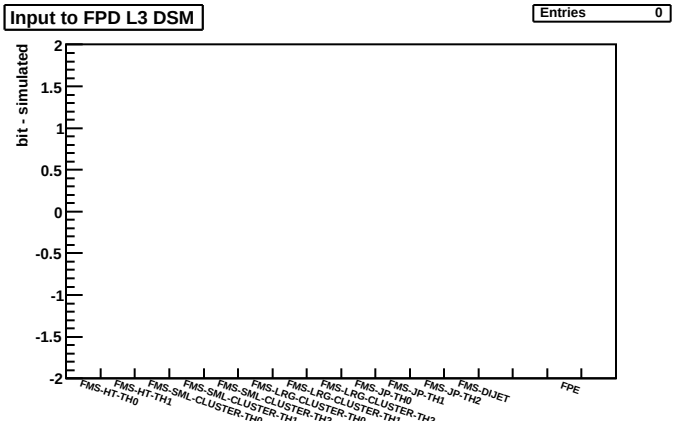

Input to FPD L2 DSM
Entries 633819
CL bits
70
247
116
393
335
250
5053
4622
3791
205757
206069
207116
SMALL
LARGE-S
LARGE-N

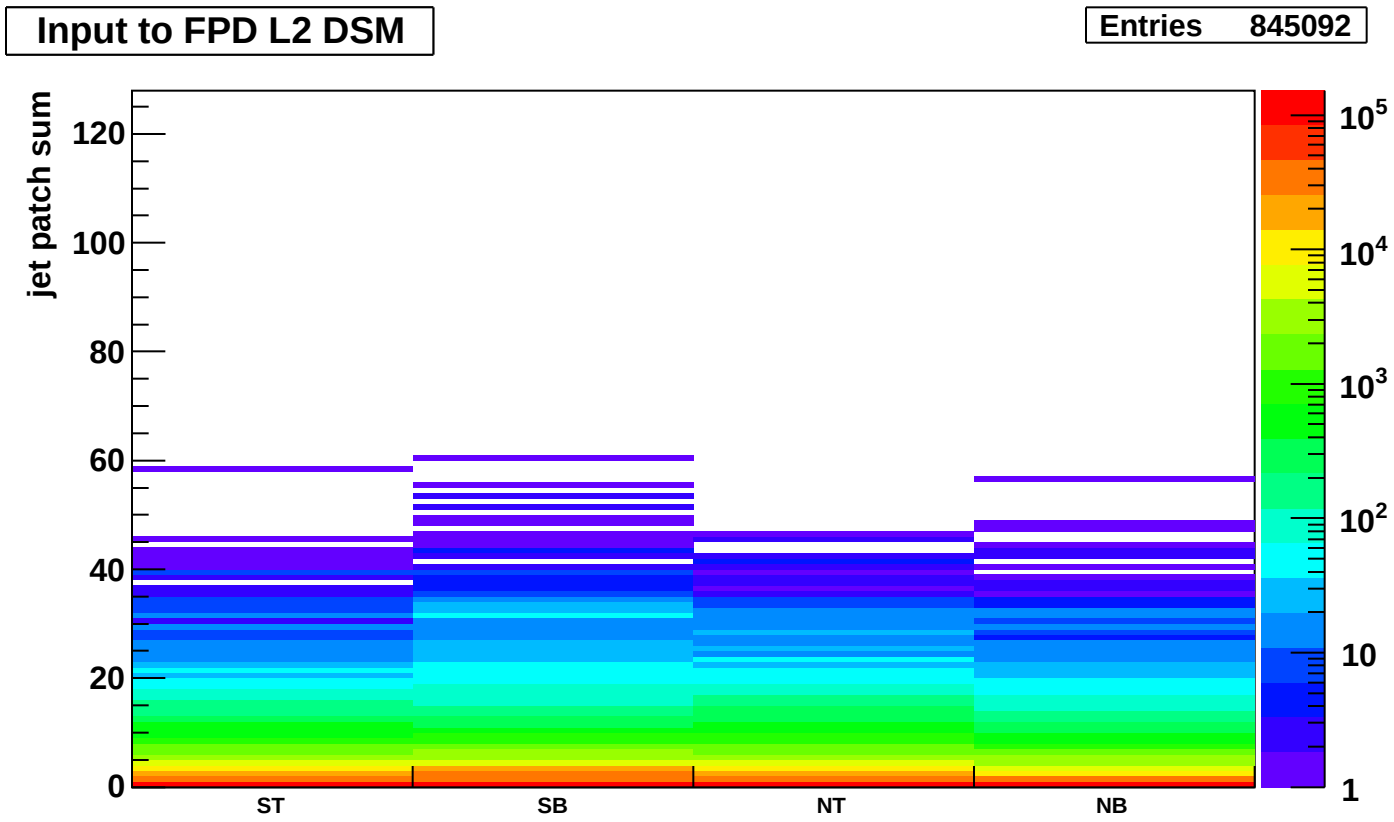

Input to FPD L2 DSM
Entries 12304
CL bits - simulated
60
190
97
312
260
202
1
4043
3569
3005
220
176
140
1
8
7
6
3
3
1
SMALL
LARGE-S
LARGE-N

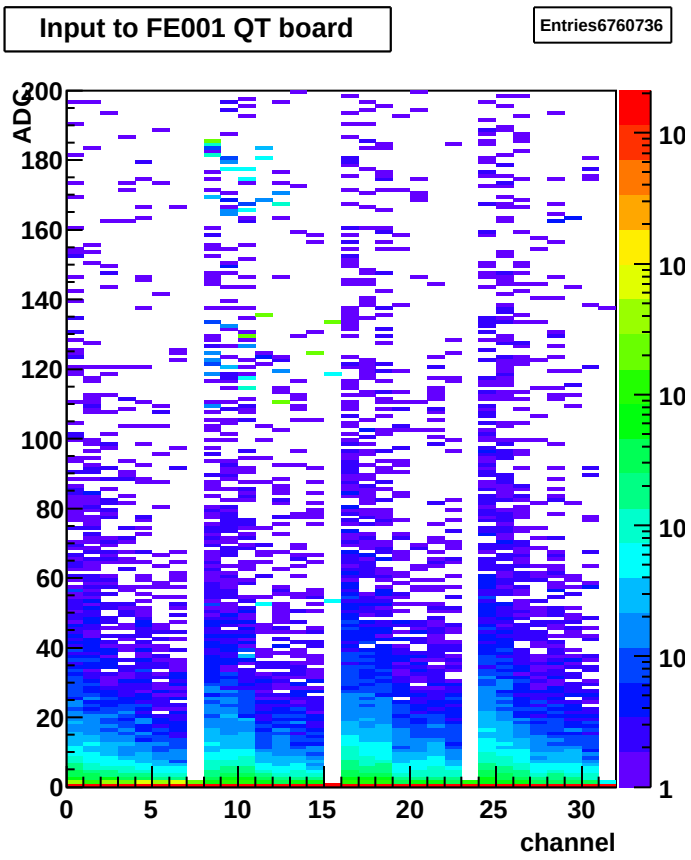

Input to FPD L2 DSM
Entries 633819
HT bits
692
1566
1148
3097
3875
3371
207484
205832
206754
SMALL
LARGE-S
LARGE-N

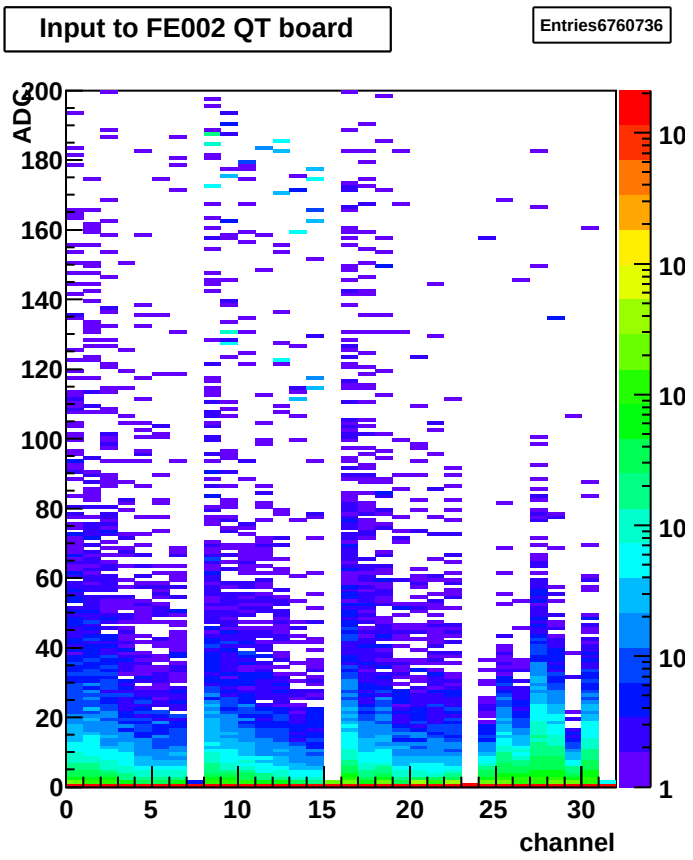

Input to FPD L2 DSM
Entries 11460
HT bits - simulated
555
1187
892
3
2497
3014
2715
160
179
137
3
1
23
48
46
SMALL
LARGE-S
LARGE-N

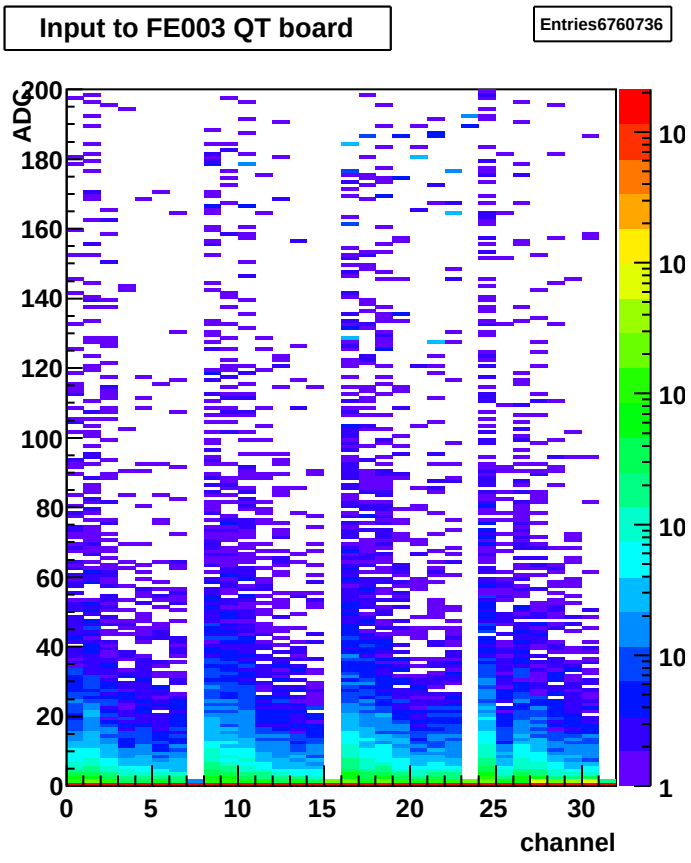

Input to FPD L3 DSM
Entries 3380368
bit
12279
3368
5516
463
70
9179
946
363
4417
1478
359
56
153674
197984
207905
205757
210810
211203
202084
210327
210910
206656
209795
210914
211217
211273
211273
17599
211273
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

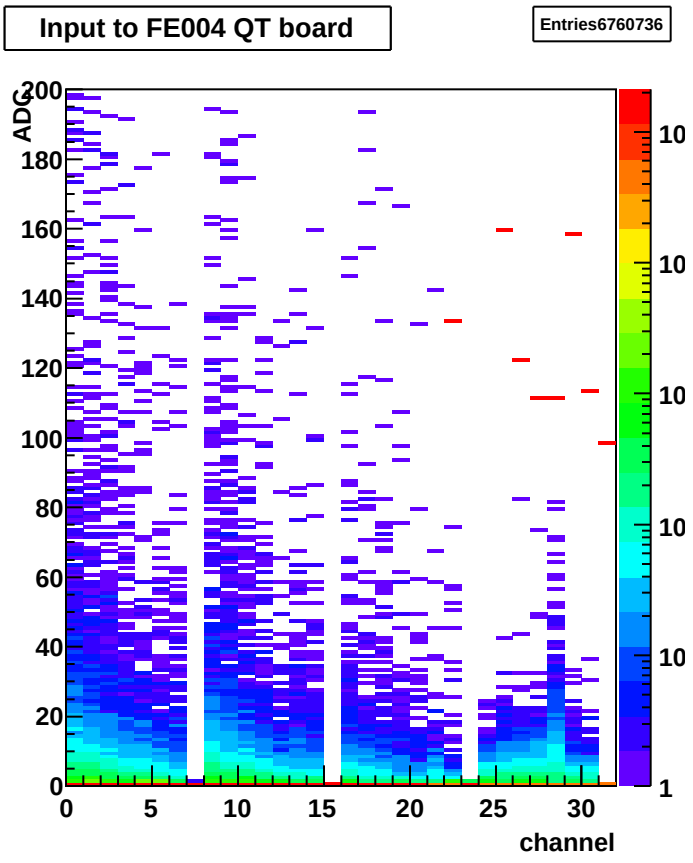

Input to FPD L3 DSM
Entries 0
bit - simulated
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

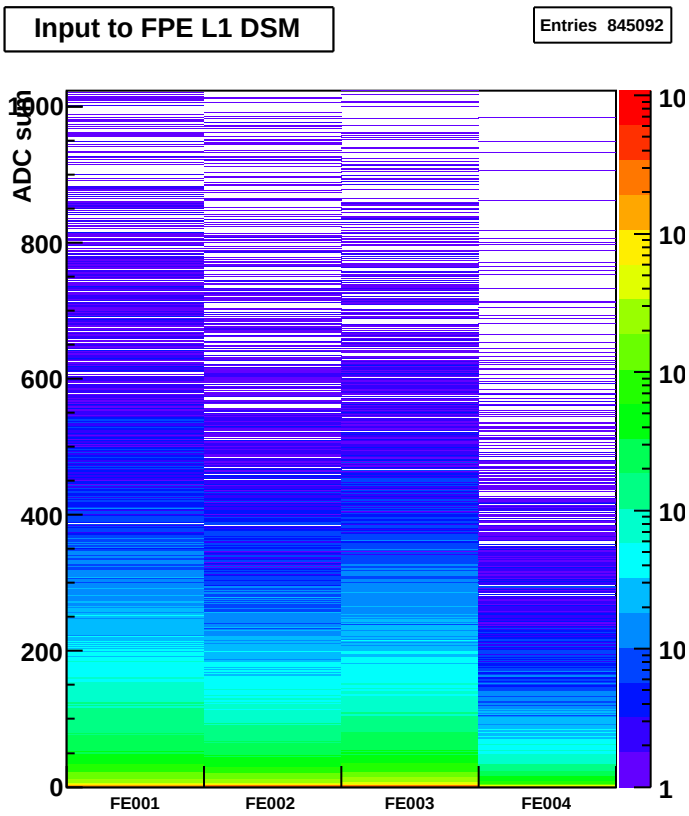

Input to FPD L2 DSM
Entries 845092
jet patch sum
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
$10^2$
$10^3$
$10^4$
$10^5$

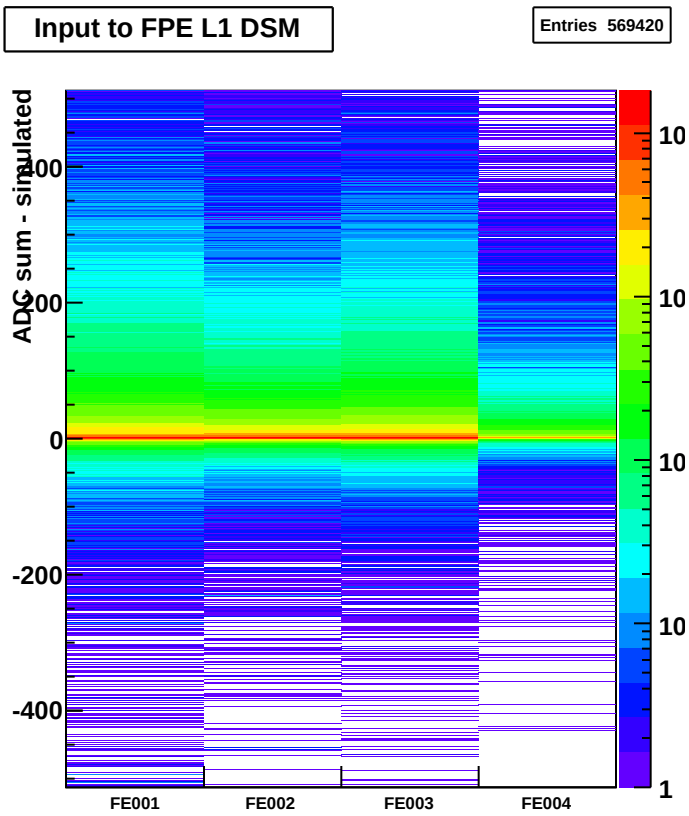

Input to FE001 QT board
Entries6760736
ADC
channel

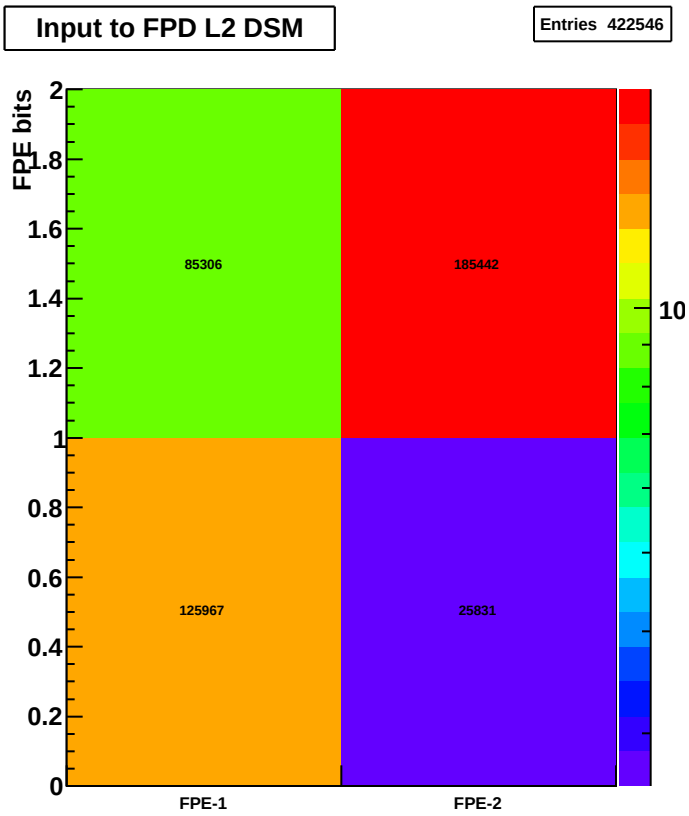

Input to FE002 QT board
Entries6760736
ADC
channel

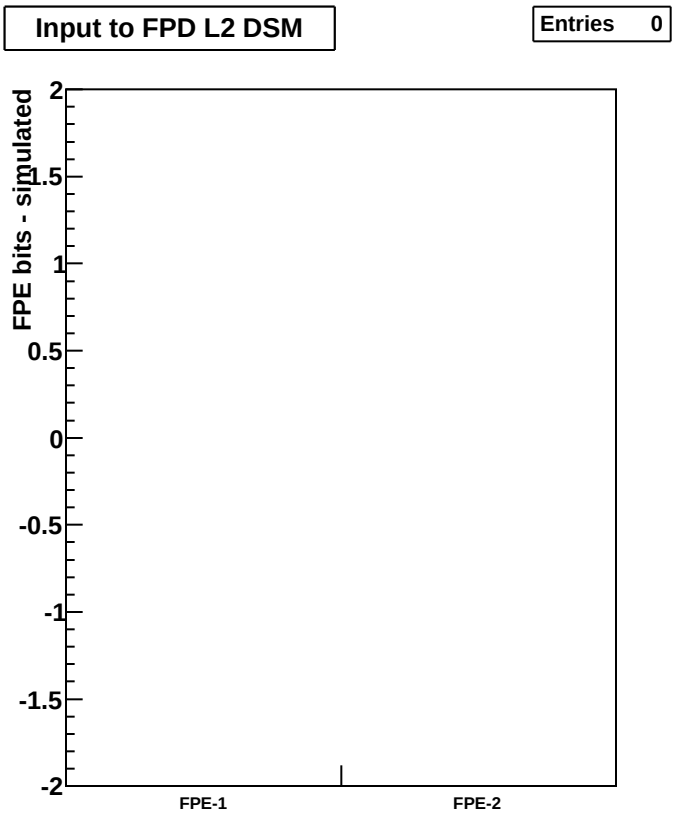

Input to FE003 QT board
Entries6760736
ADC
channel


Input to FE004 QT board
Entries6760736
ADC
channel


Input to FPE L1 DSM
Entries 845092
ADC sum
1000
800
600
400
200
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1


Input to FPE L1 DSM
Entries 569420
ADC sum - simulated
400
200
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1


Input to FPD L2 DSM
Entries 422546
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
85306
185442
125967
25831
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