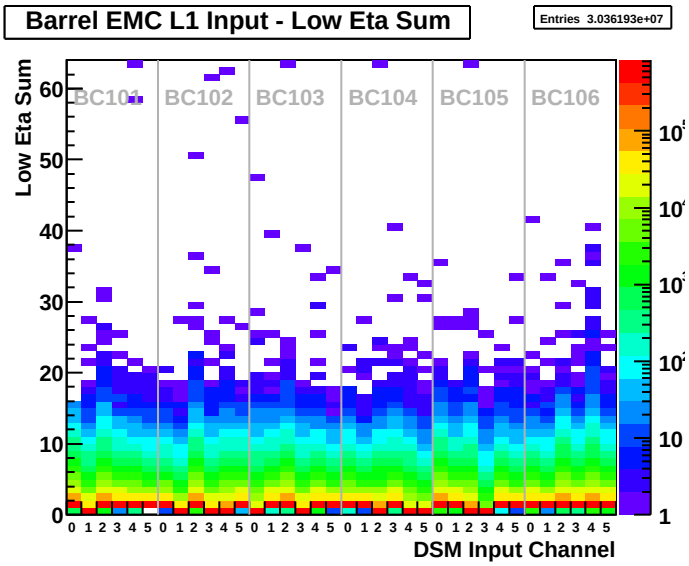
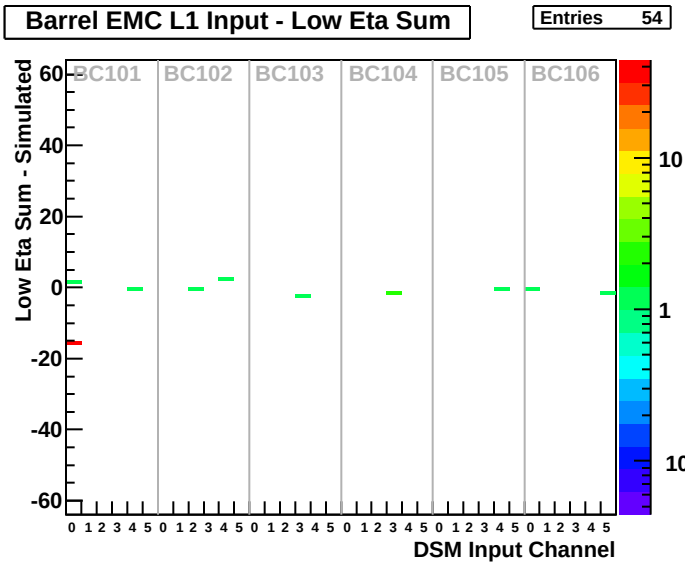
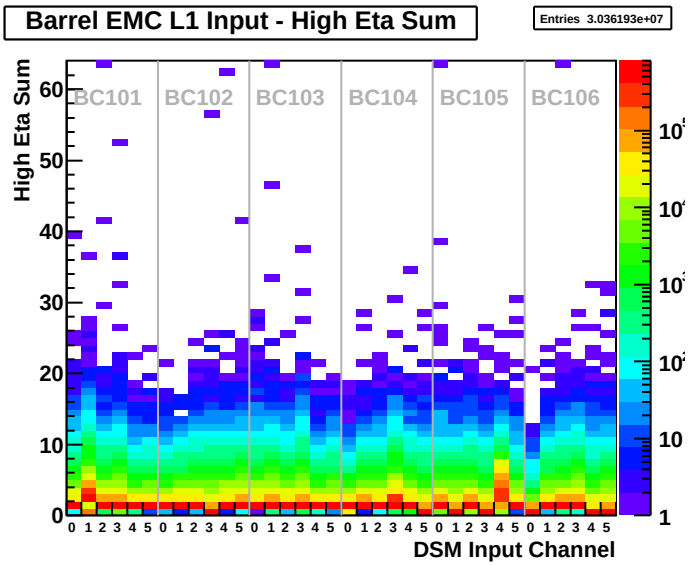
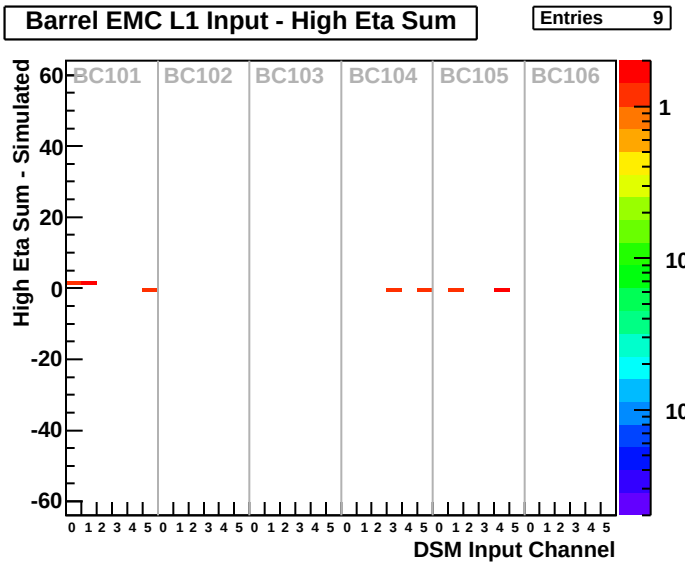
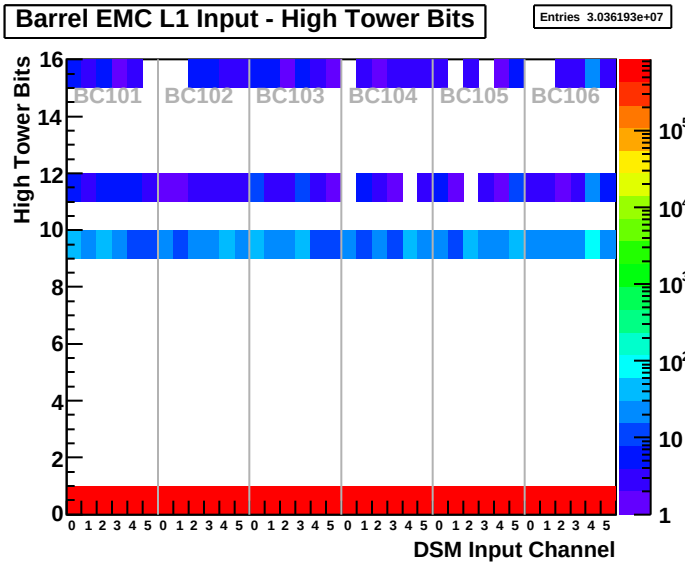
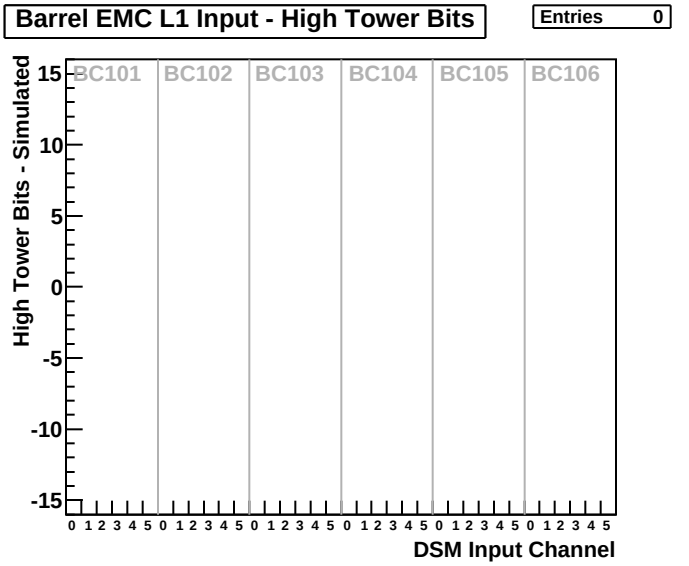

Barrel EMC L1 Input - Low Eta Sum
Entries 3.036193e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

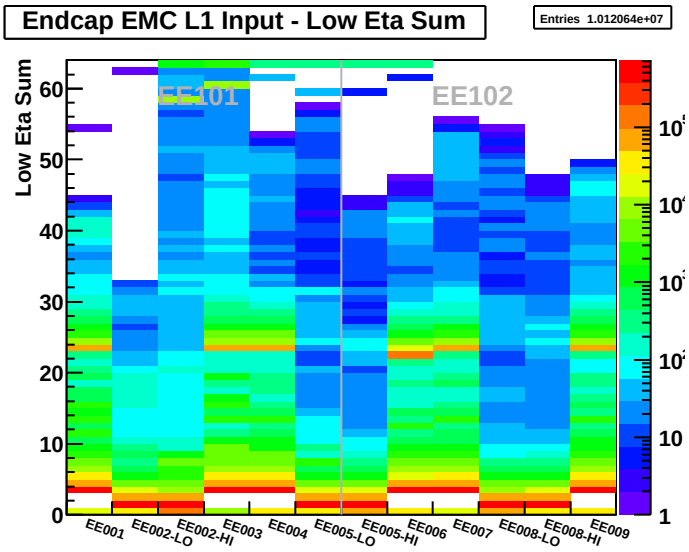

Barrel EMC L1 Input - Low Eta Sum
Entries 54
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

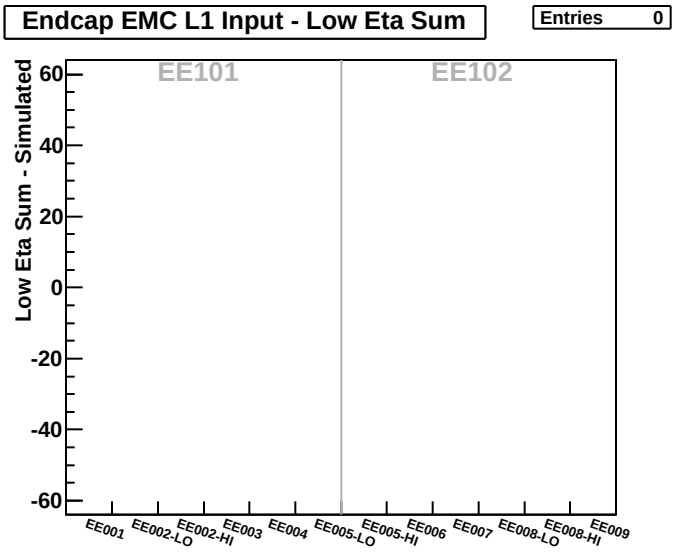

Barrel EMC L1 Input - High Eta Sum
Entries 3.036193e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

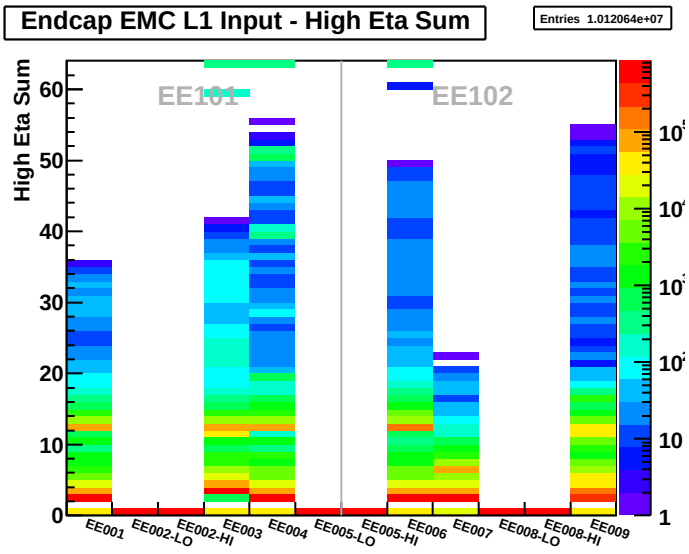

Barrel EMC L1 Input - High Eta Sum
Entries 9
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

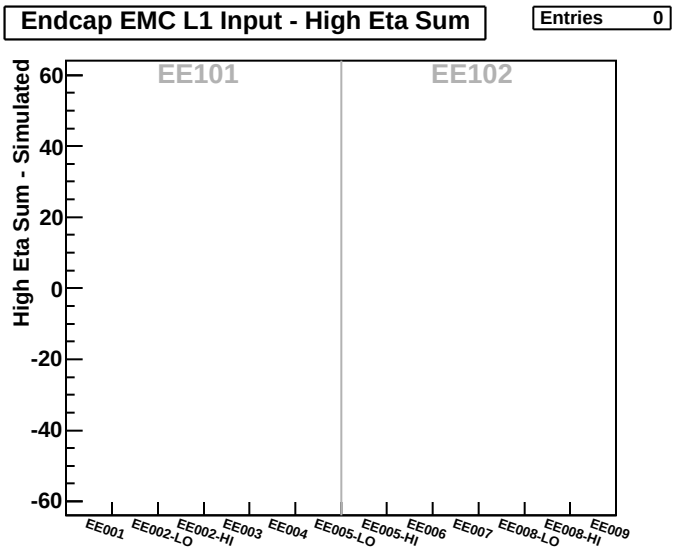

Barrel EMC L1 Input - High Tower Bits
Entries 3.036193e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

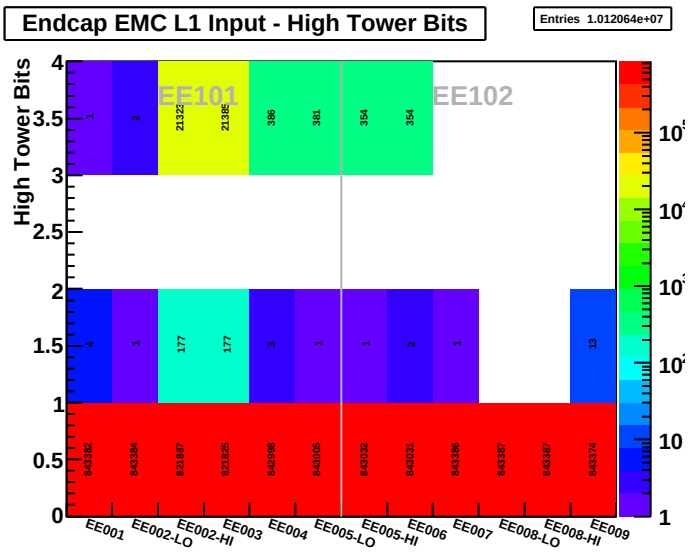

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

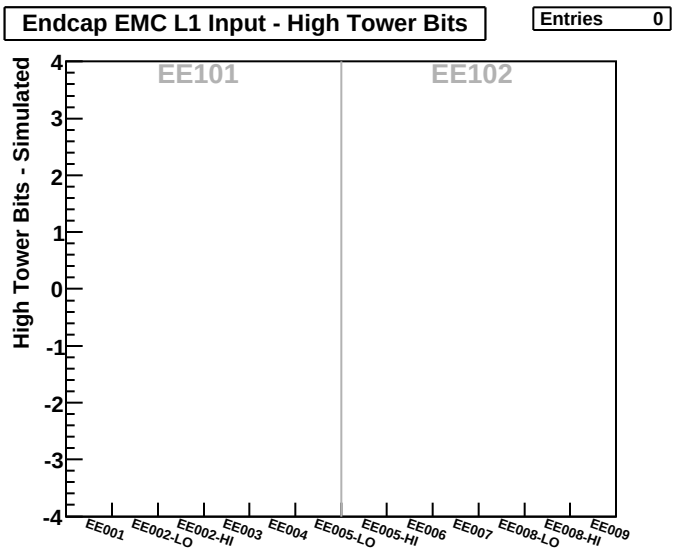

Endcap EMC L1 Input - Low Eta Sum
Entries 1.012064e+07
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

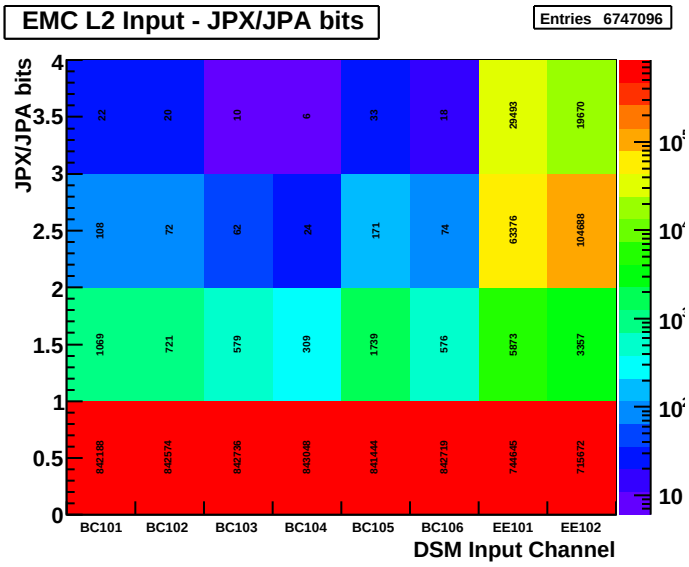

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

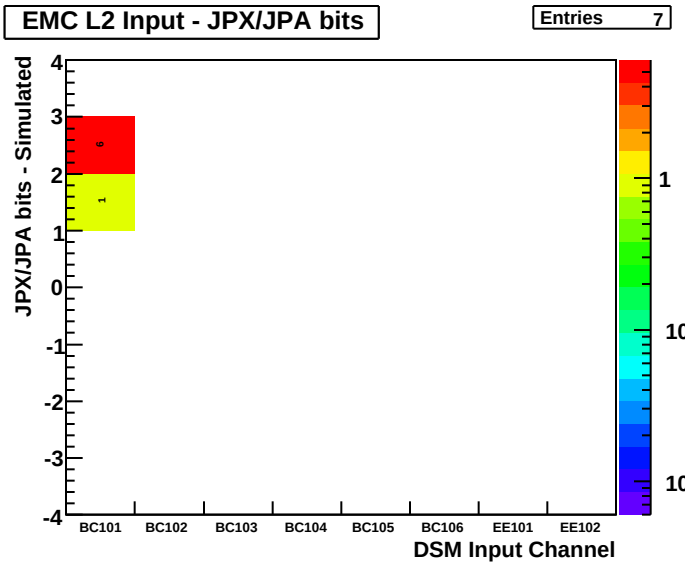

Endcap EMC L1 Input - High Eta Sum
Entries 1.012064e+07
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

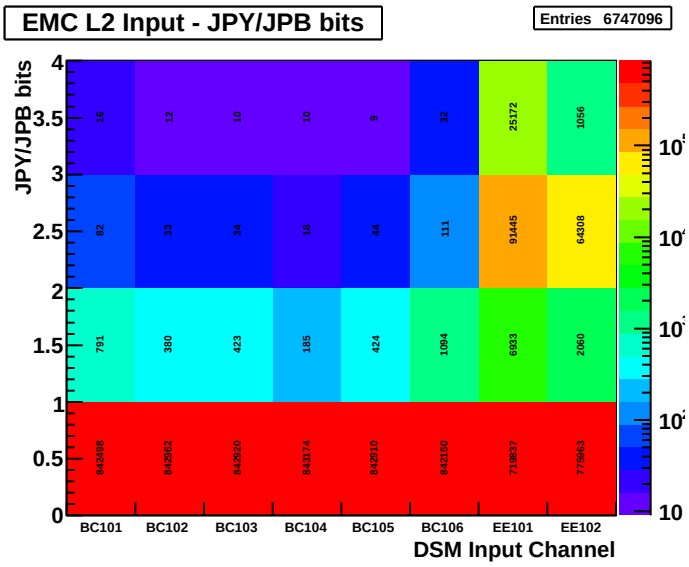

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

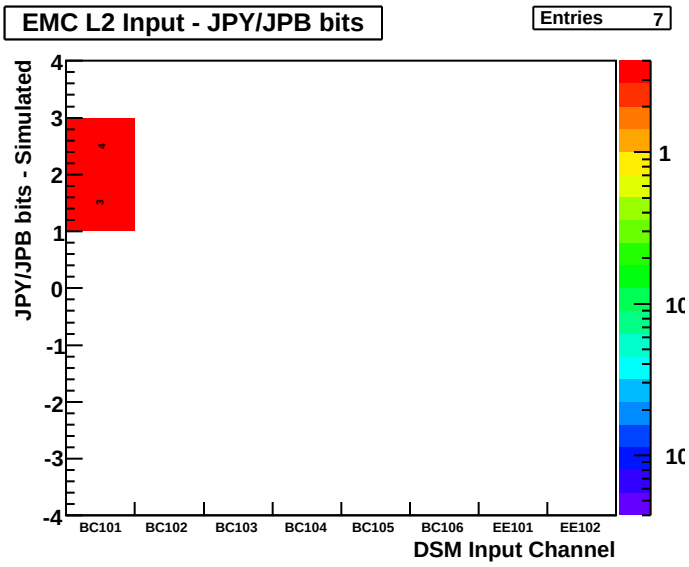

Endcap EMC L1 Input - High Tower Bits
Entries 1.012064e+07
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

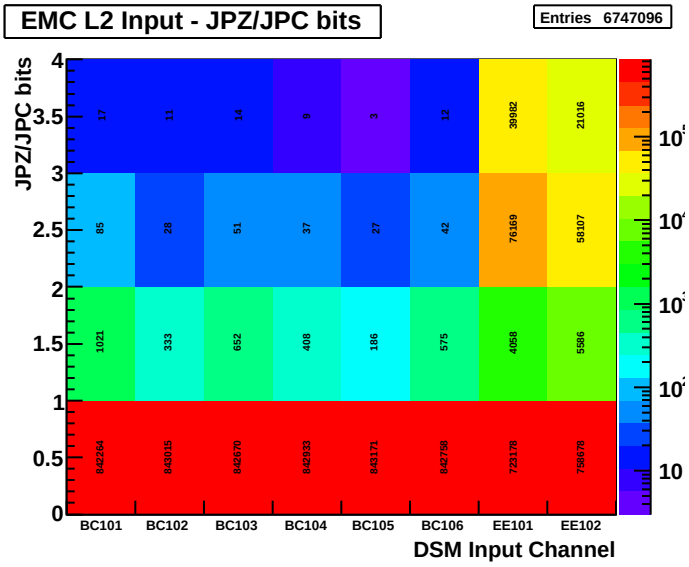

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

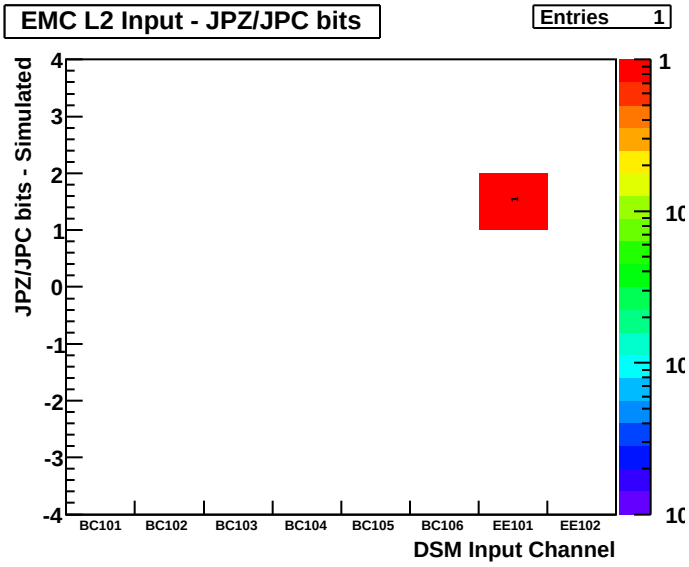

EMC L2 Input - JPX/JPA bits
Entries 6747096
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
22 20 10 6 33 18 29493 19670
108 72 62 24 171 74 63376 104688
1069 721 579 309 1739 576 5873 3357
842168 842574 842736 843048 841444 842719 746645 715672

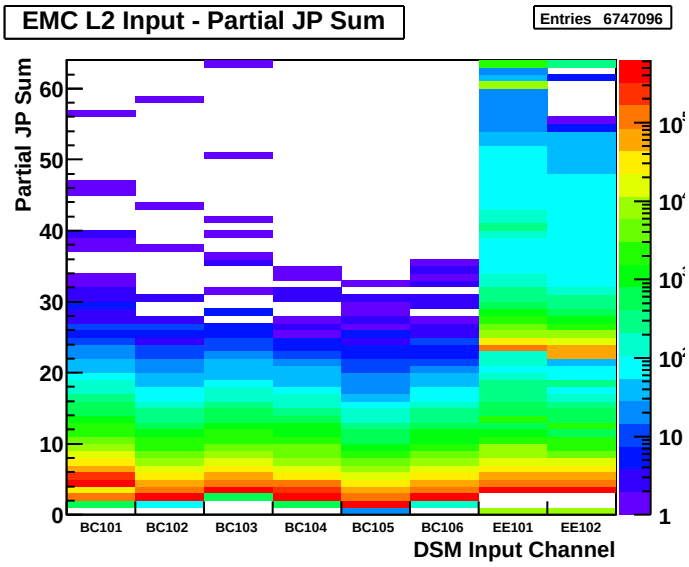

EMC L2 Input - JPX/JPA bits
Entries 7
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
6
1

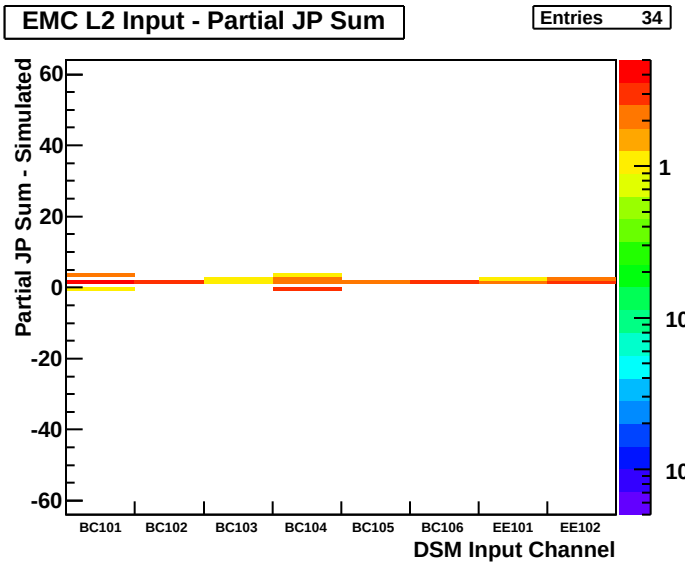

EMC L2 Input - JPY/JPB bits
Entries 6747096
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
16 12 10 10 9 32 25172 1056
82 33 34 18 44 111 91445 64308
791 380 423 185 424 1094 6933 2060
842498 842362 842320 843174 842910 842150 719837 775963

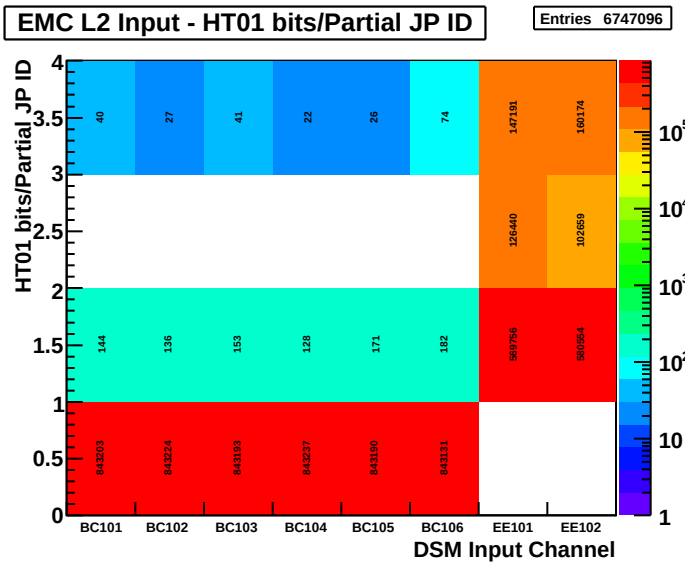

EMC L2 Input - JPY/JPB bits
Entries 7
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
4
3

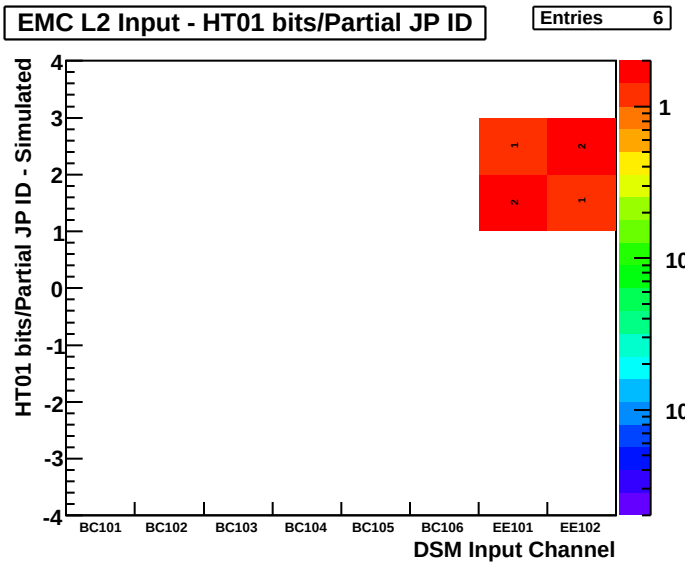

EMC L2 Input - JPZ/JPC bits
Entries 6747096
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
17 11 14 9 3 12 39982 21016
85 28 51 37 27 42 76169 58107
1021 333 652 408 186 575 4058 5586
842264 843015 842670 842933 843171 842758 723178 758678

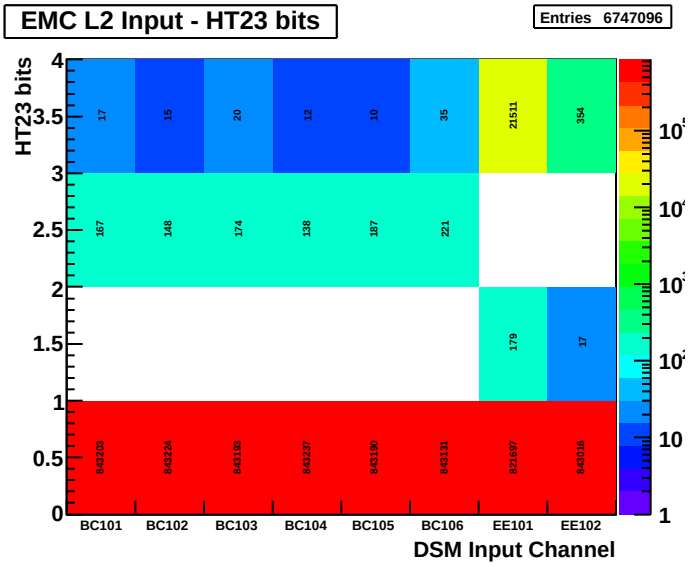

EMC L2 Input - JPZ/JPC bits
Entries 1
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1

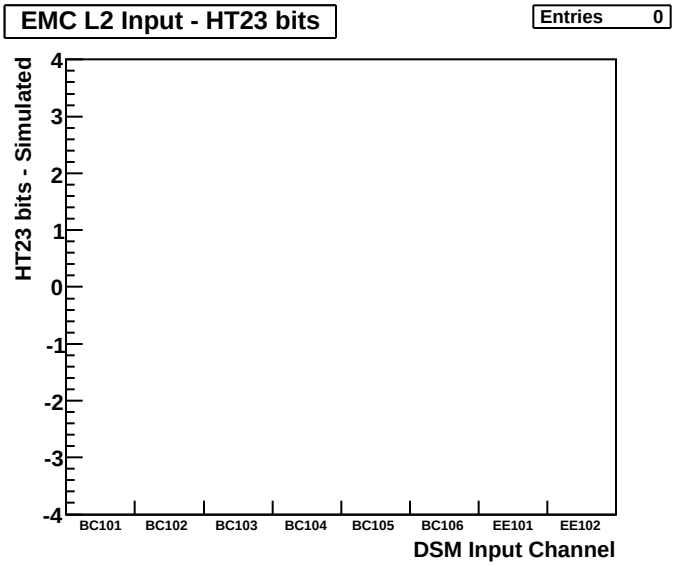

EMC L2 Input - Partial JP Sum
Entries 6747096
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

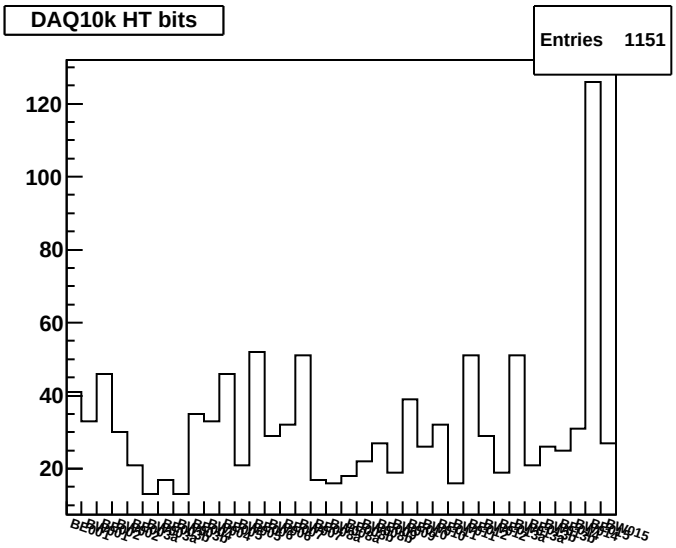

EMC L2 Input - Partial JP Sum
Entries 34
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

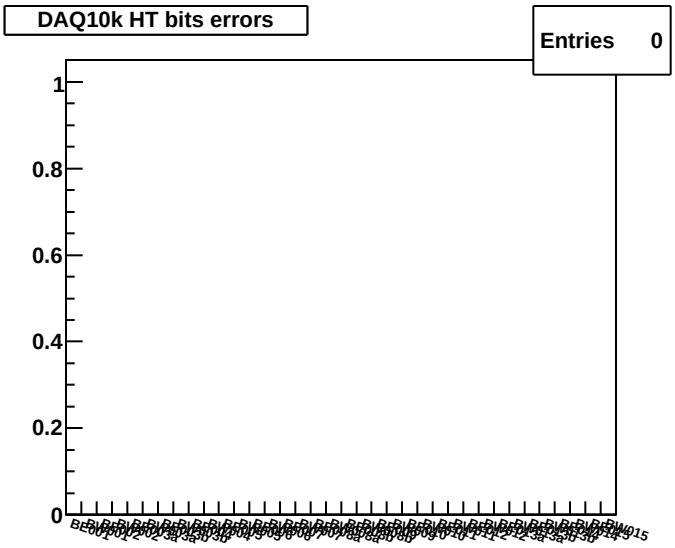

EMC L2 Input - HT01 bits/Partial JP ID
Entries 6747096
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

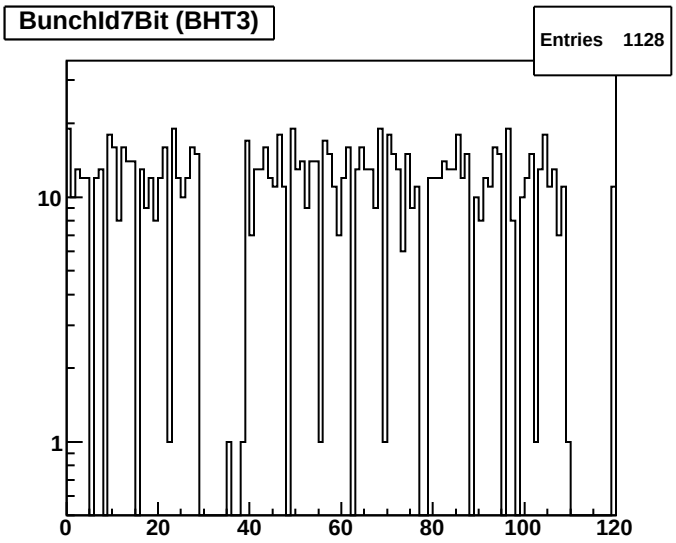

EMC L2 Input - HT01 bits/Partial JP ID
Entries 6
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

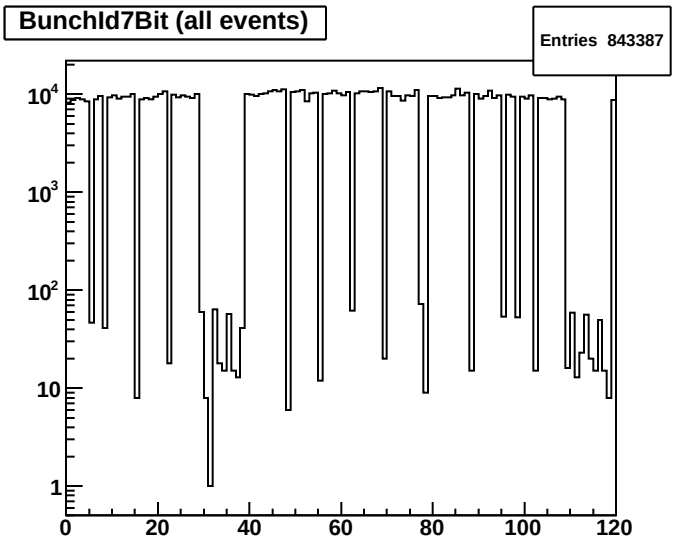

EMC L2 Input - HT23 bits
Entries 6747096
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

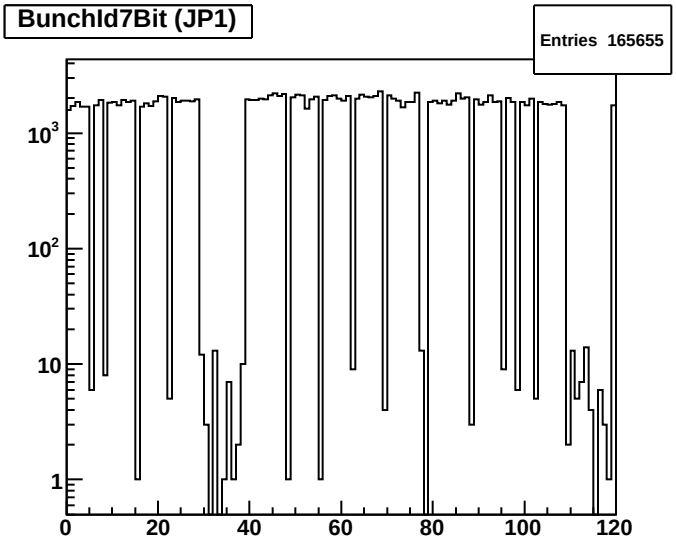

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

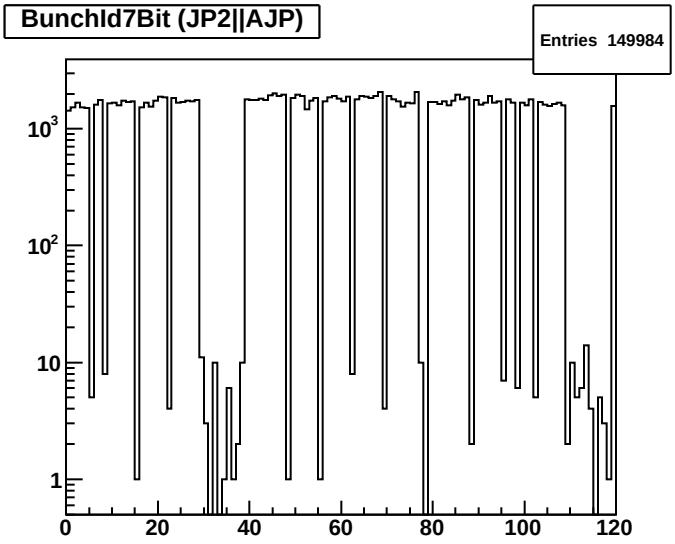

DAQ10k HT bits
Entries 1151
120
100
80
60
40
20

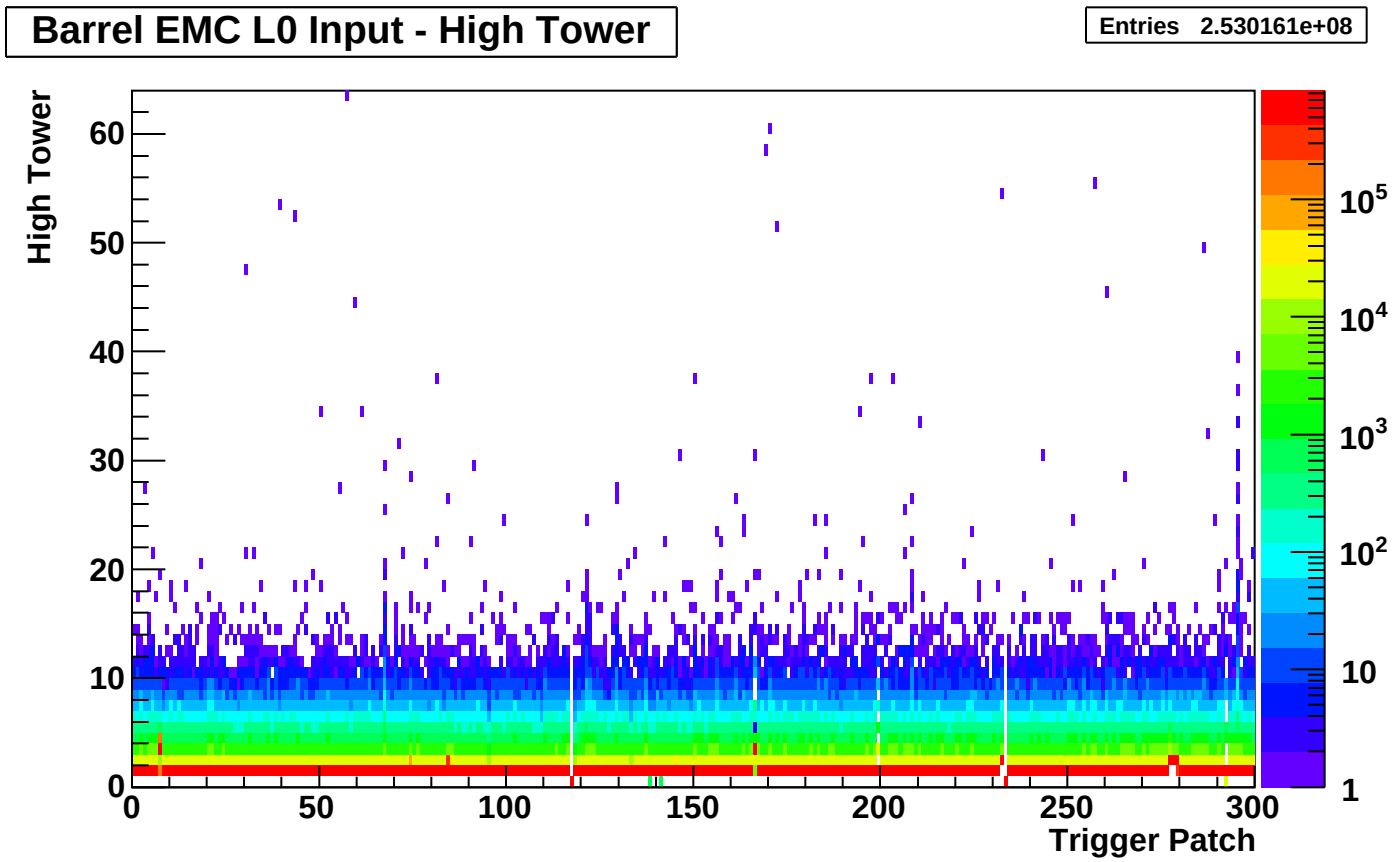

DAQ10k HT bits errors
Entries 0
1
0.8
0.6
0.4
0.2
0

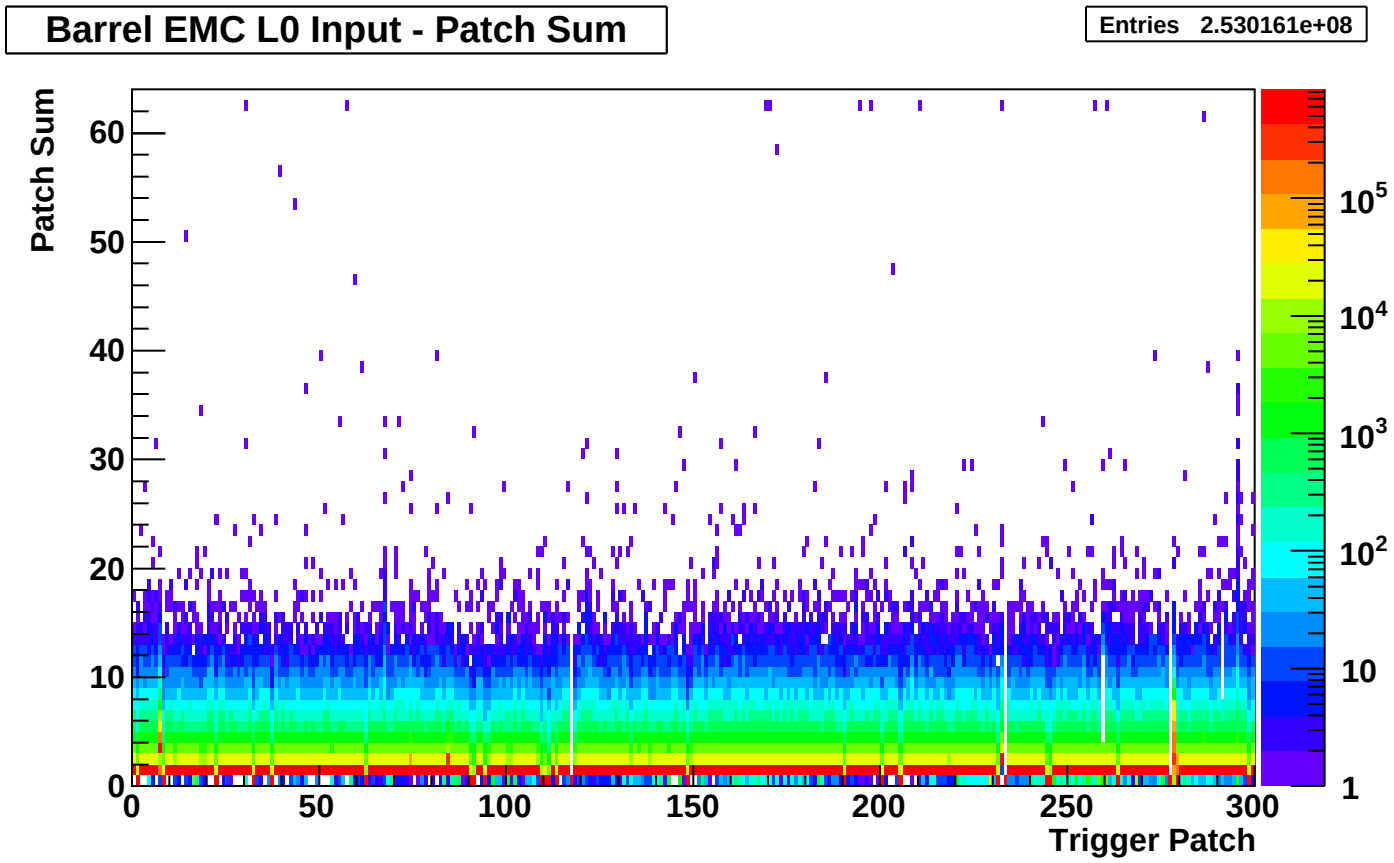

BunchId7Bit (BHT3)
Entries 1128
10
1
0
20
40
60
80
100
120

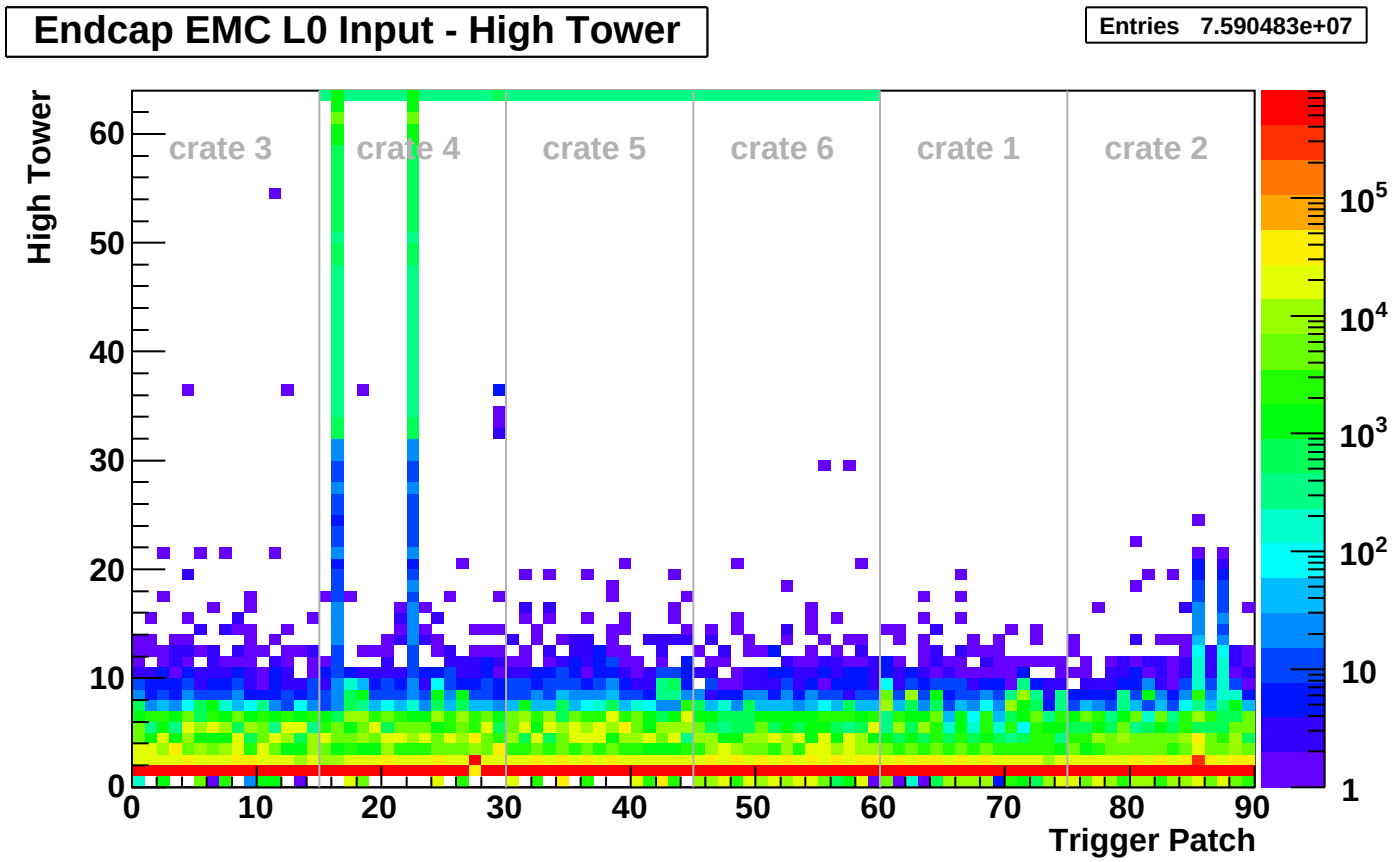

BunchId7Bit (all events)
Entries 843387
10^4
10^3
10^2
10
1
0
20
40
60
80
100
120

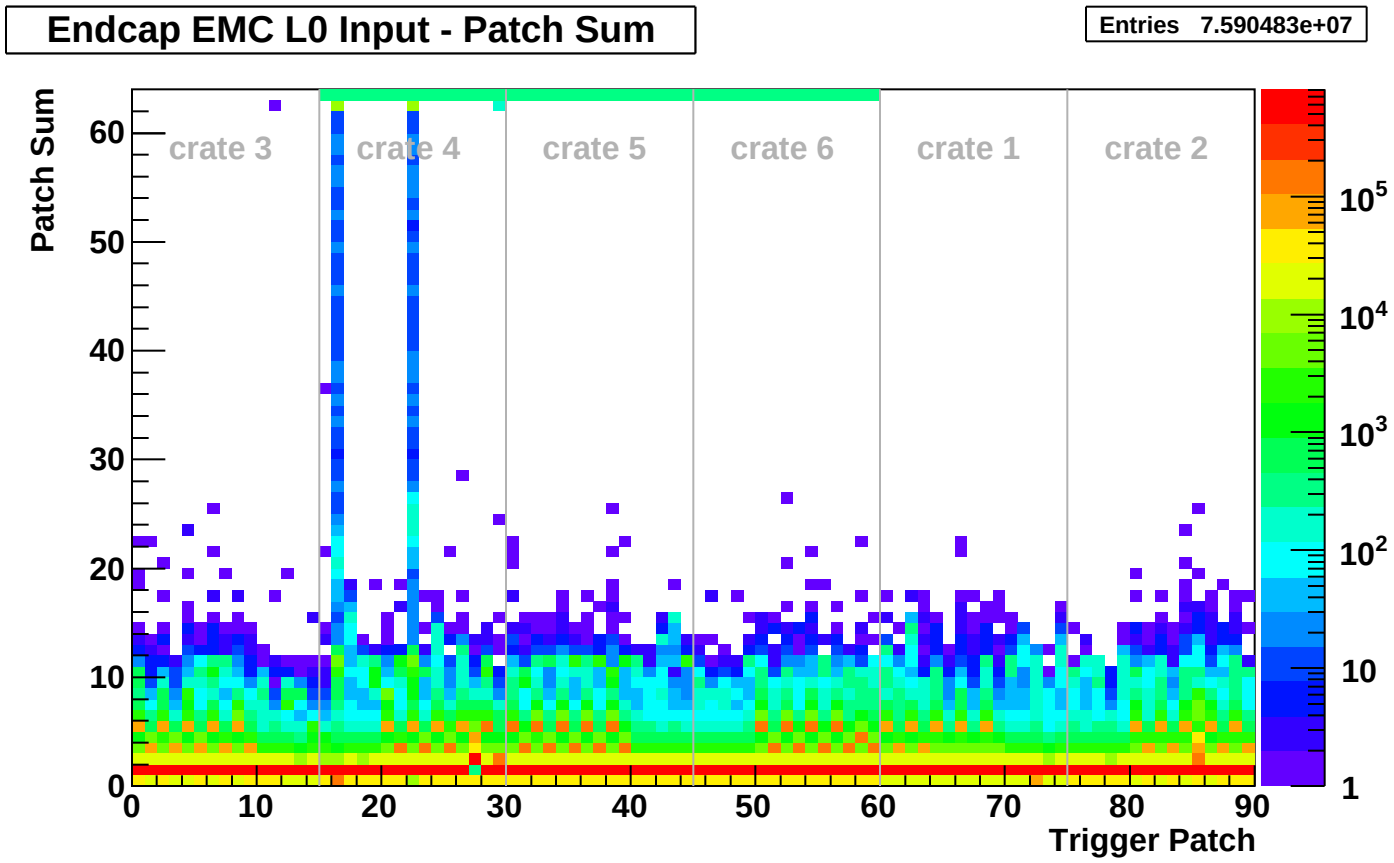

BunchId7Bit (JP1)
Entries 165655
10^3
10^2
10
1
0
20
40
60
80
100
120

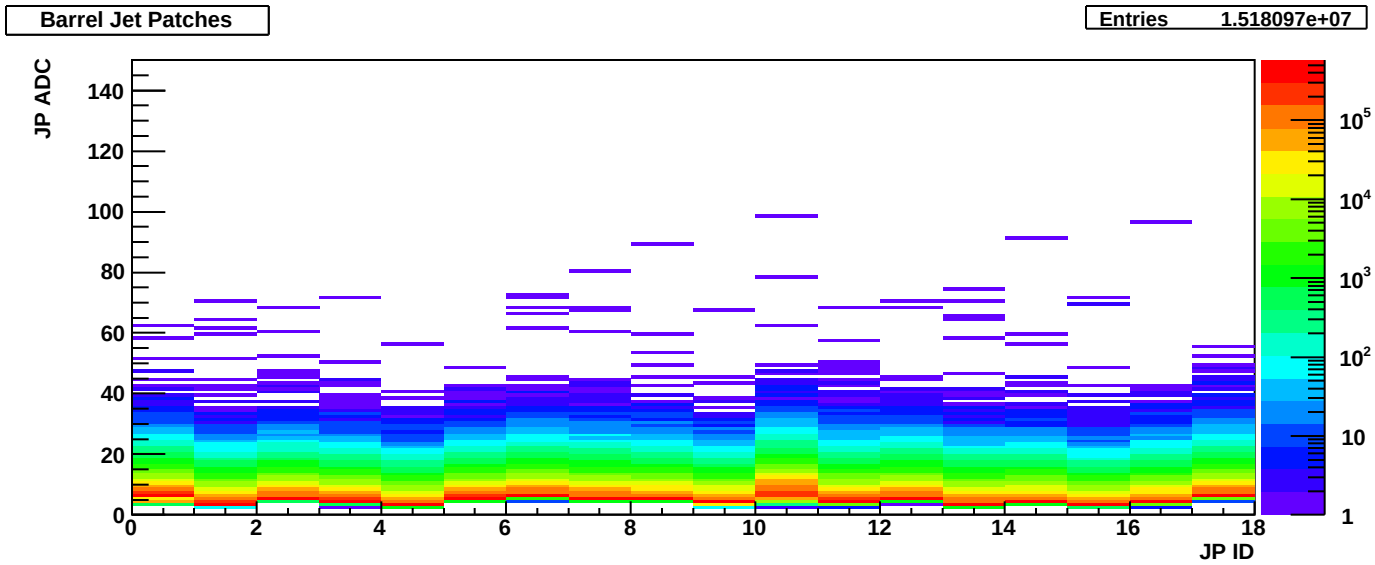

BunchId7Bit (JP2||AJP)
Entries 149984
10^3
10^2
10
1
0
20
40
60
80
100
120

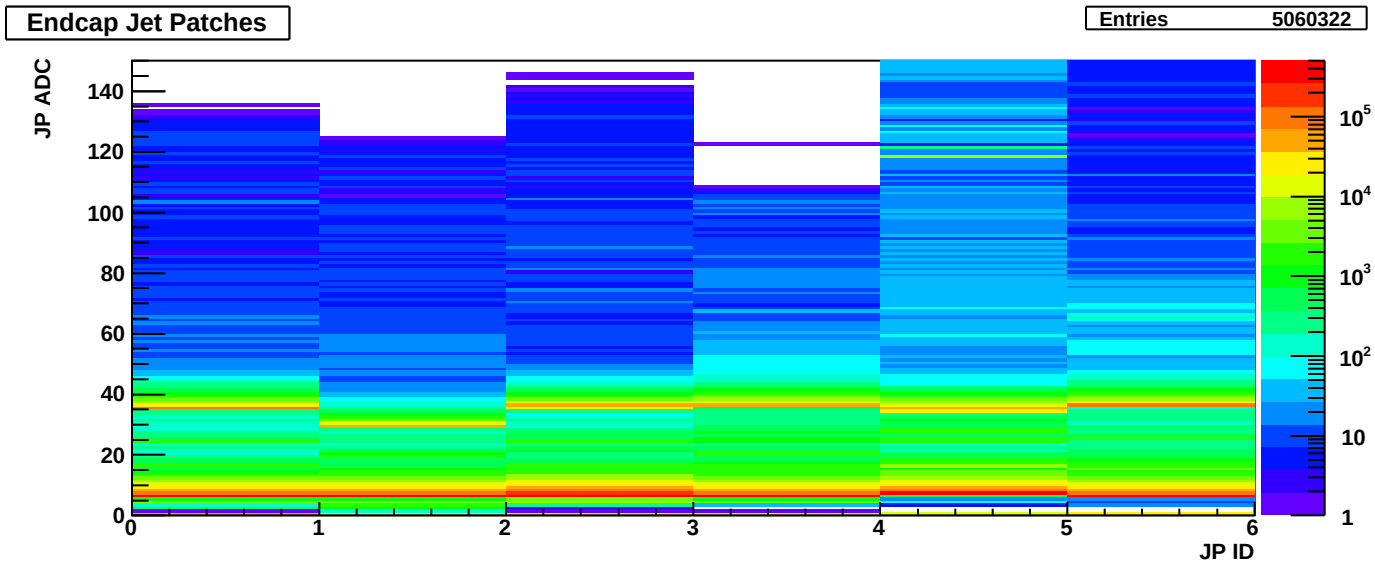

Barrel EMC L0 Input - High Tower
Entries 2.530161e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

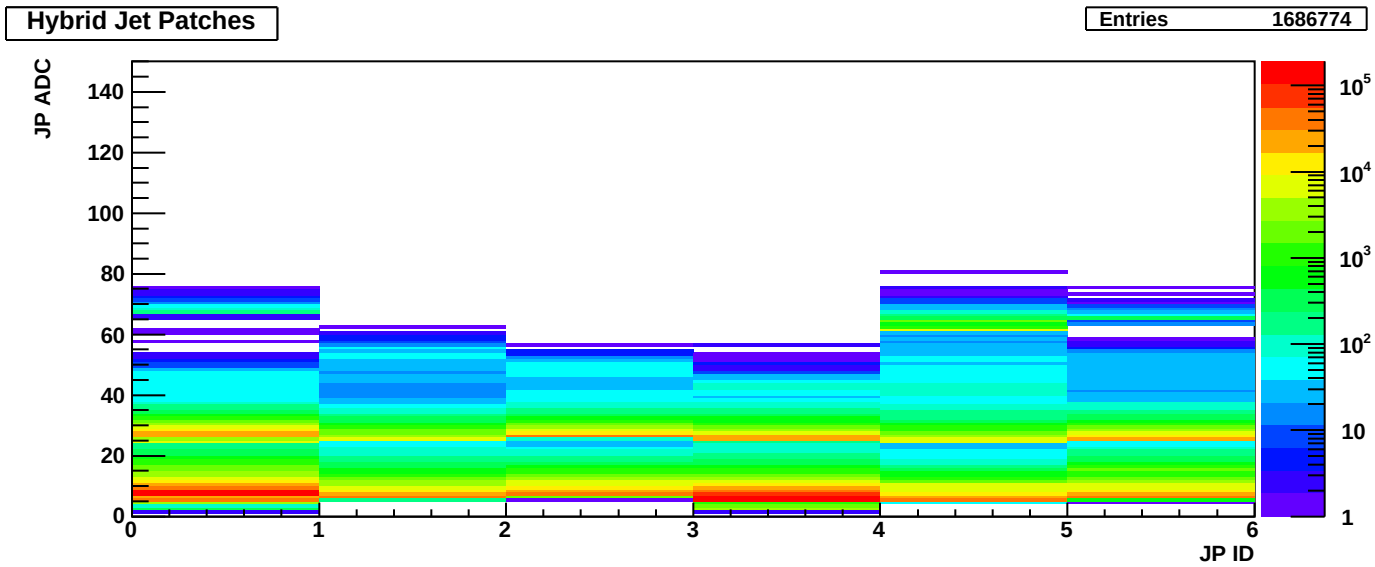

Barrel EMC L0 Input - Patch Sum
Entries 2.530161e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

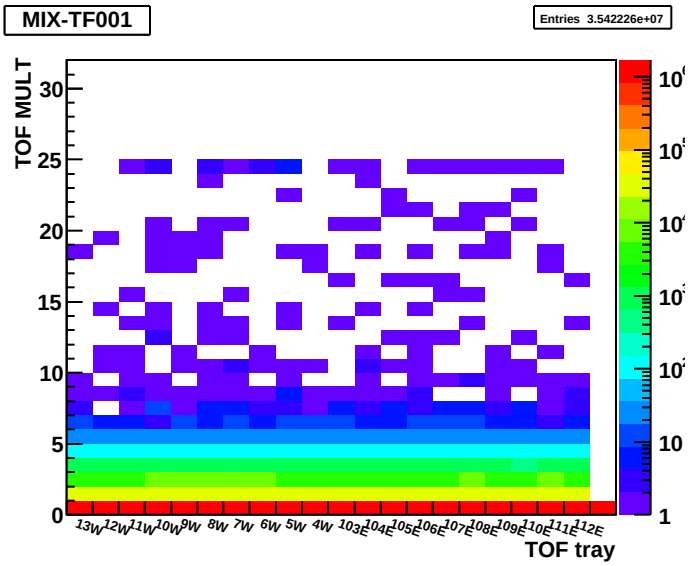

Endcap EMC L0 Input - High Tower
Entries 7.590483e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

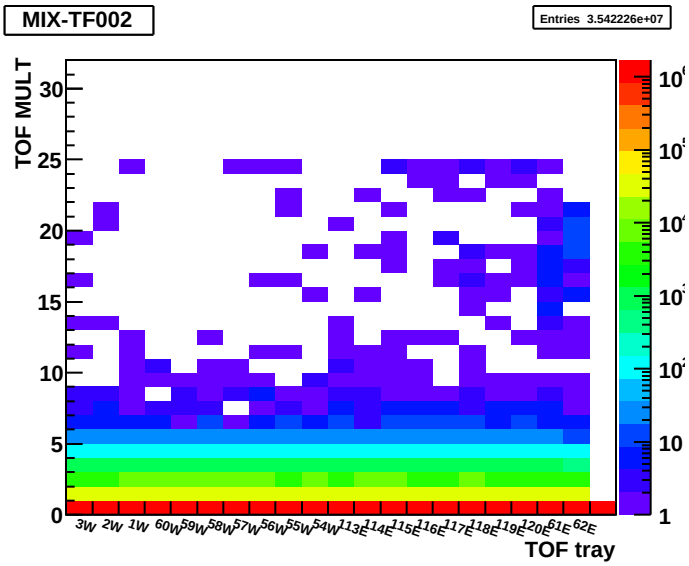

Endcap EMC L0 Input - Patch Sum
Entries 7.590483e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

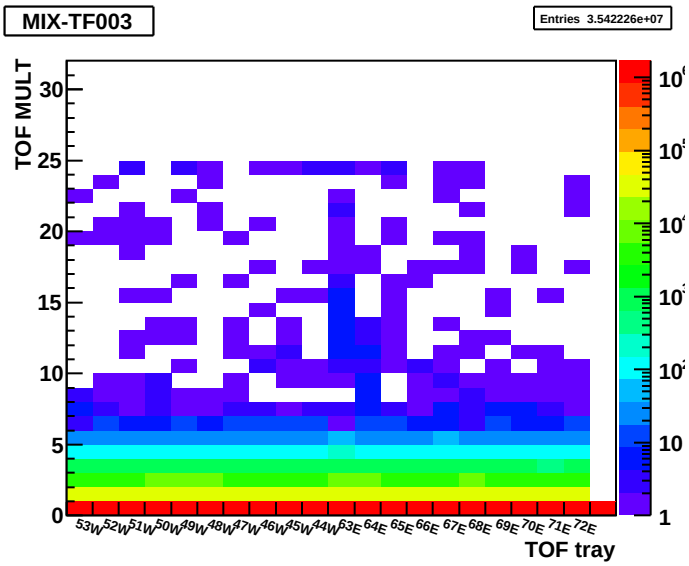

Barrel Jet Patches
Entries 1.518097e+07
JP ADC
JP ID

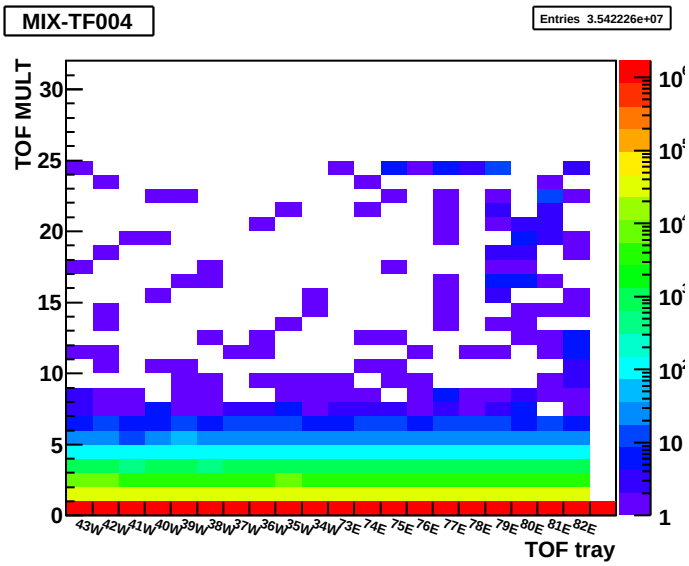

Endcap Jet Patches
Entries 5060322
JP ADC
JP ID

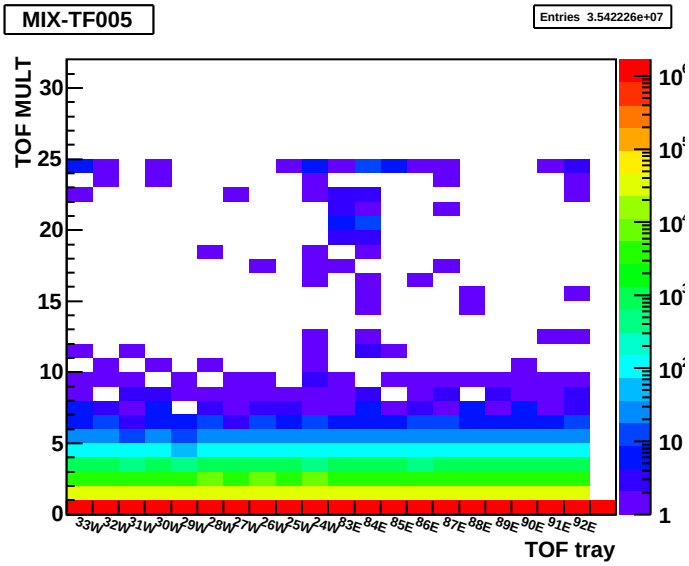

Hybrid Jet Patches
Entries 1686774
JP ADC
JP ID

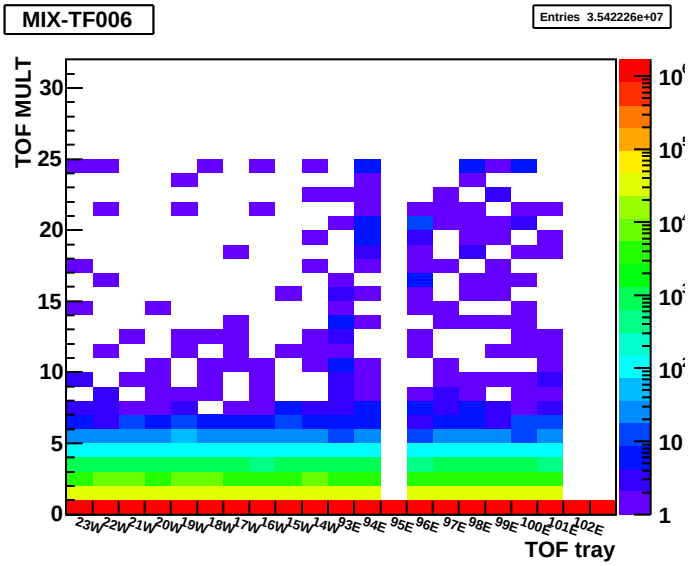

MIX-TF001
Entries 3.542226e+07
TOF MULT
TOF tray

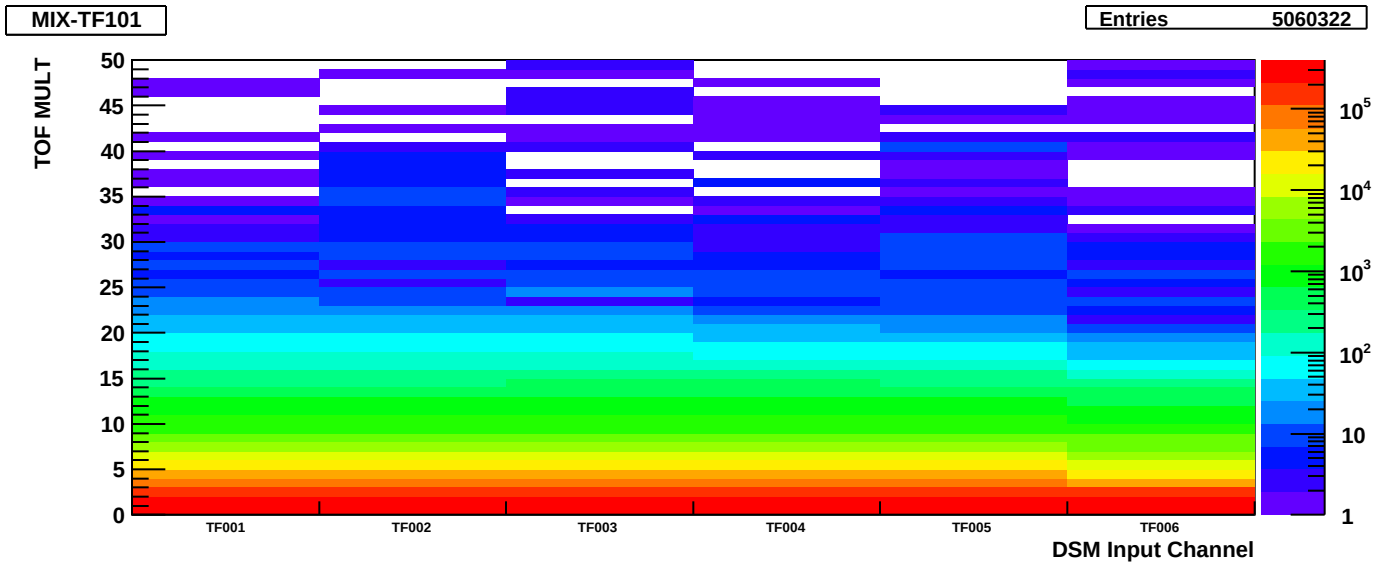

MIX-TF002
Entries 3.542226e+07
TOF MULT
TOF tray

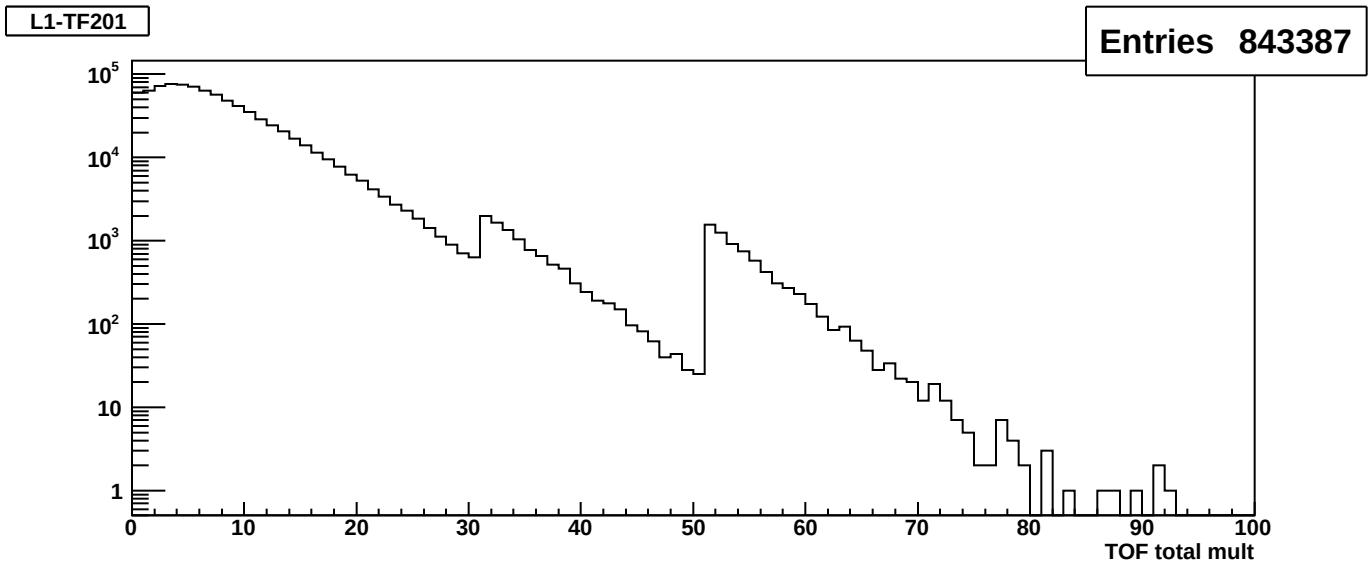

MIX-TF003
Entries 3.542226e+07
TOF MULT
TOF tray

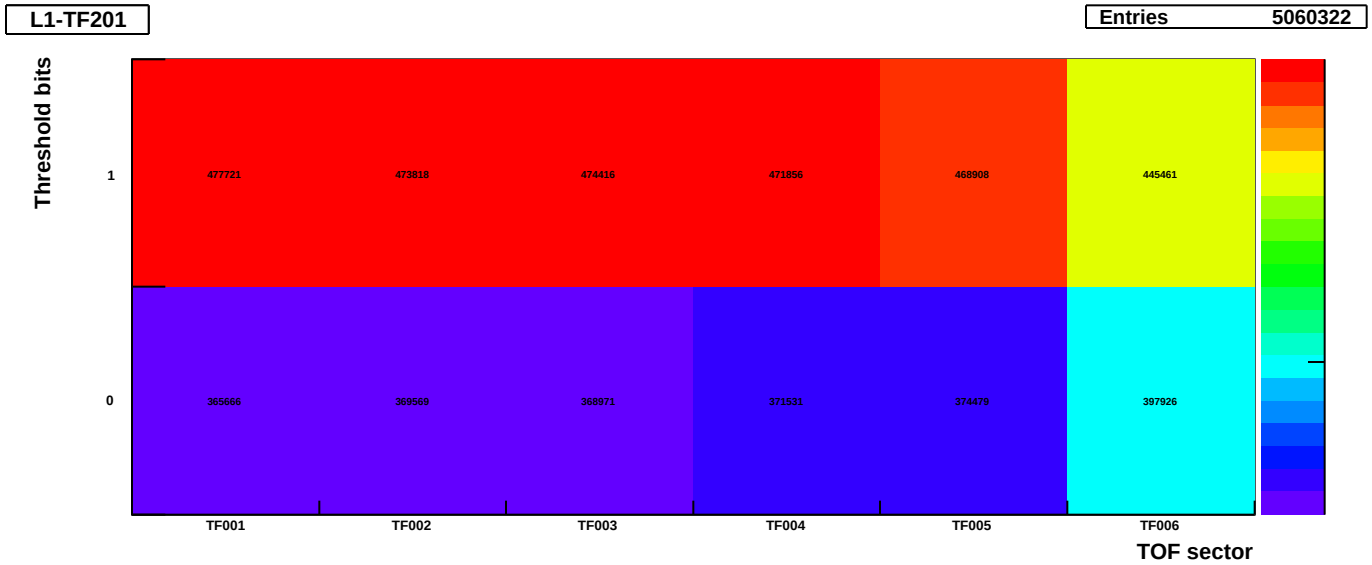

MIX-TF004
Entries 3.542226e+07
TOF MULT
TOF tray

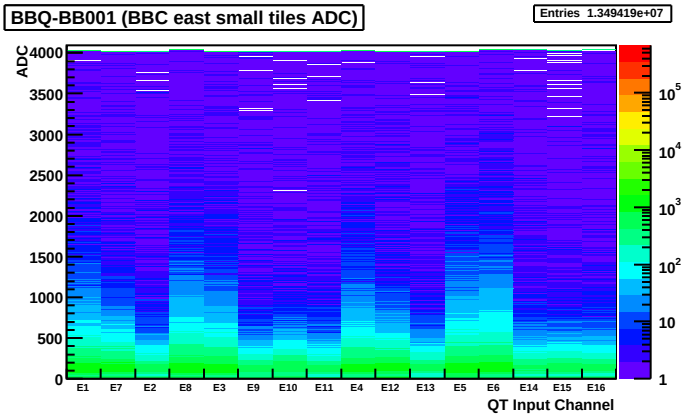

MIX-TF005
Entries 3.542226e+07
TOF MULT
TOF tray

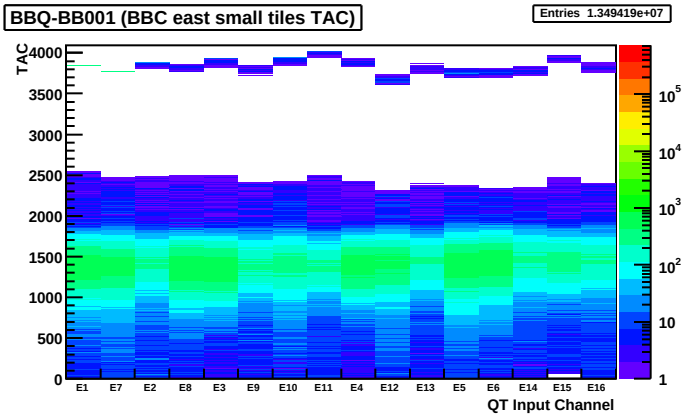

MIX-TF006
Entries 3.542226e+07
TOF MULT
TOF tray

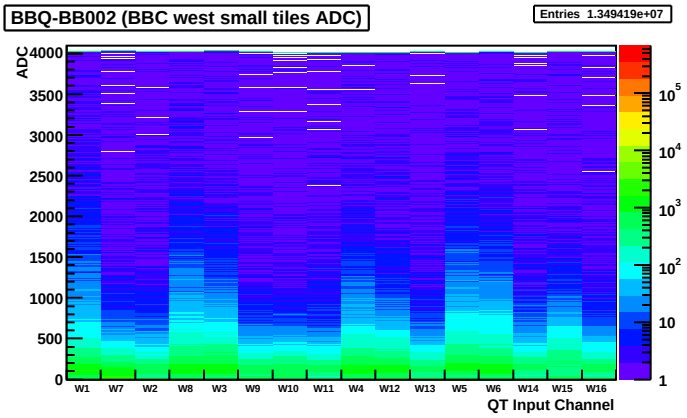

MIX-TF101
Entries 5060322
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

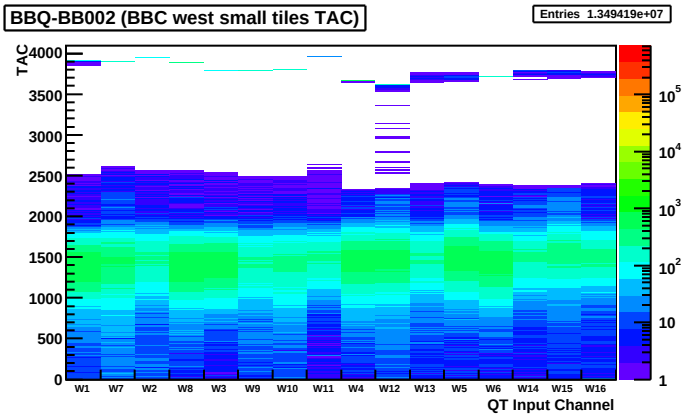

L1-TF201
Entries 843387
TOF total mult

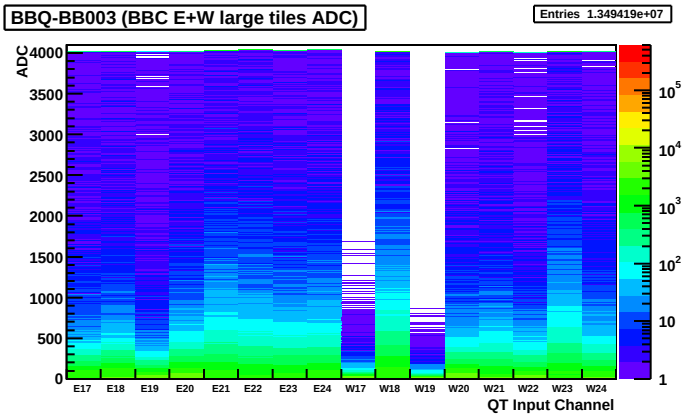

L1-TF201
Entries 5060322
Threshold bits
477721
473818
474416
471856
468908
445461
365666
369569
368971
371531
374479
397926
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

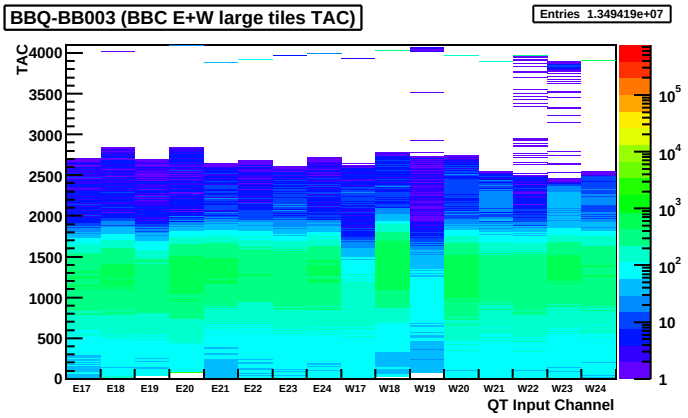

BBQ-BB001 (BBC east small tiles ADC)
Entries 1.349419e+07
ADC
QT Input Channel

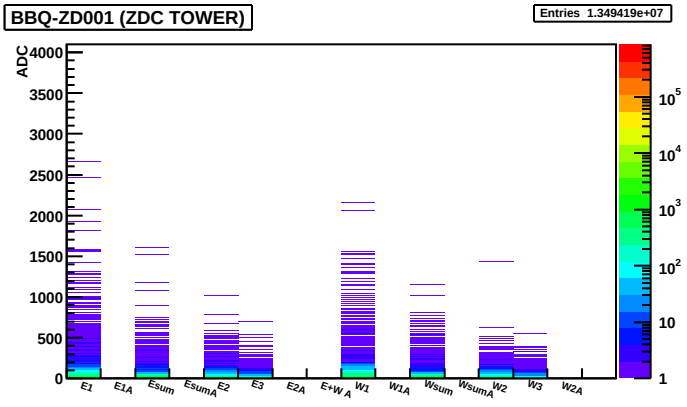

BBQ-BB001 (BBC east small tiles TAC)
Entries 1.349419e+07
TAC
QT Input Channel

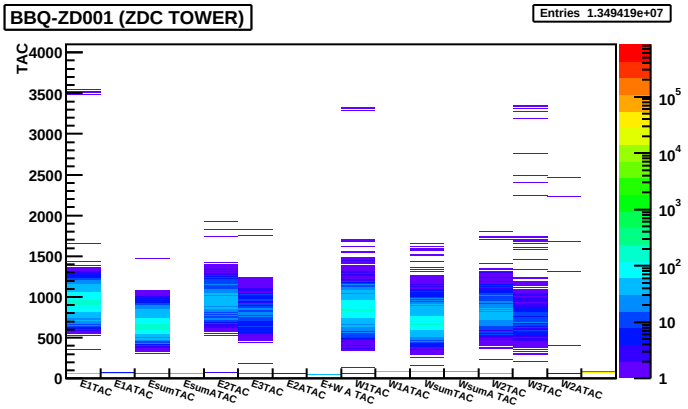

BBQ-BB002 (BBC west small tiles ADC)
Entries 1.349419e+07
ADC
QT Input Channel

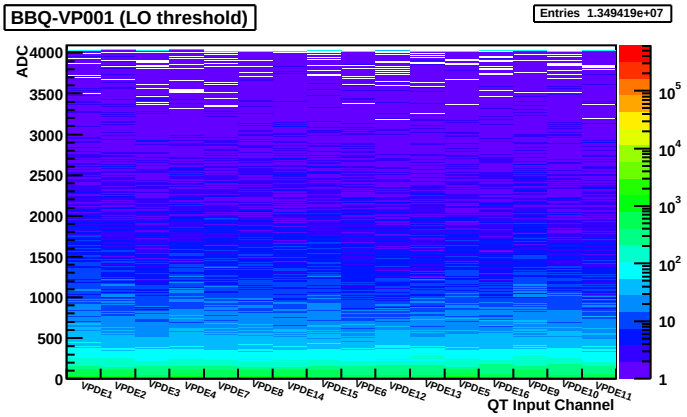

BBQ-BB002 (BBC west small tiles TAC)
Entries 1.349419e+07
TAC
QT Input Channel

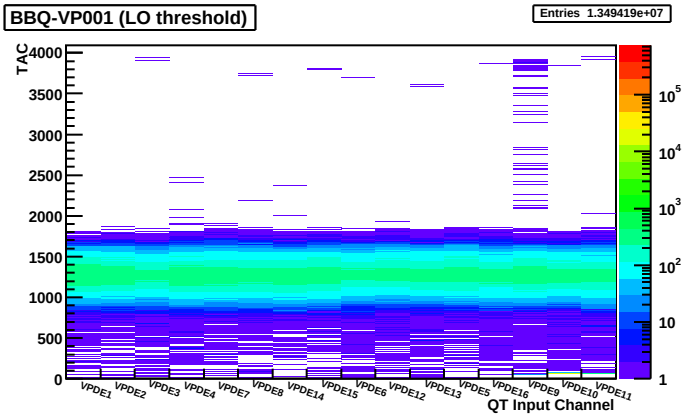

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1.349419e+07
ADC
QT Input Channel

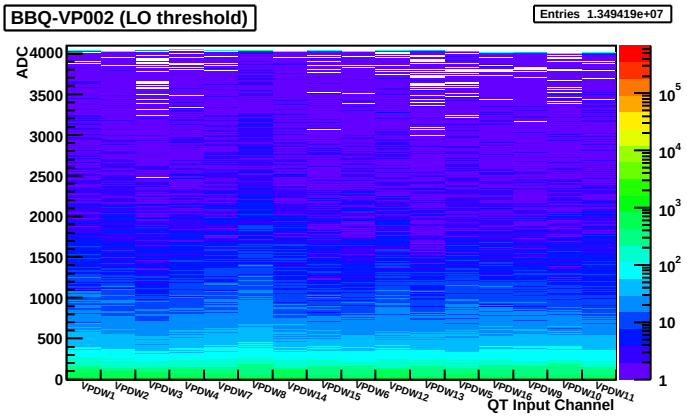

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1.349419e+07
TAC
QT Input Channel

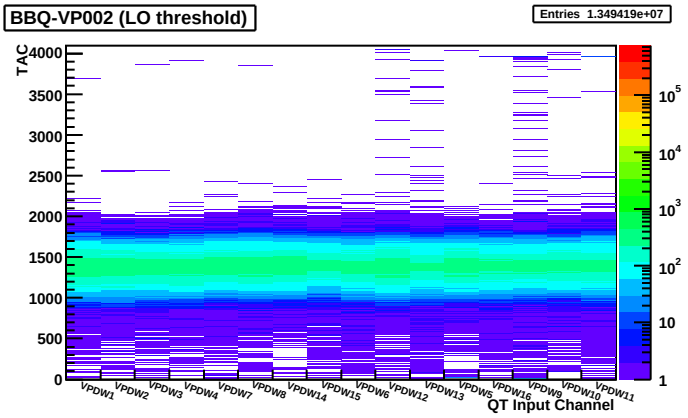

BBQ-ZD001 (ZDC TOWER)
Entries 1.349419e+07
ADC

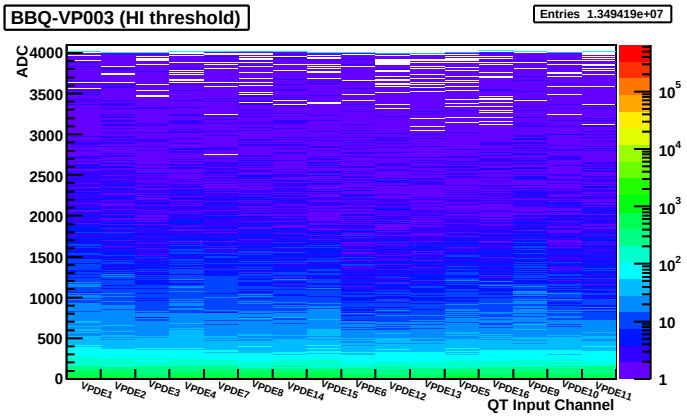

BBQ-ZD001 (ZDC TOWER)
Entries 1.349419e+07
TAC

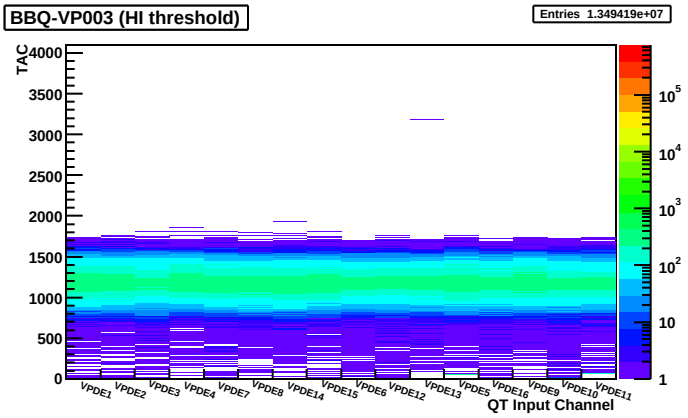

BBQ-VP001 (LO threshold)
Entries 1.349419e+07
ADC
QT Input Channel

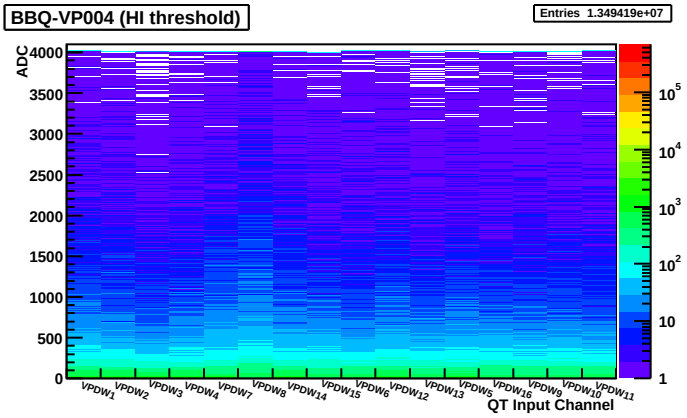

BBQ-VP001 (LO threshold)
Entries 1.349419e+07
TAC
QT Input Channel

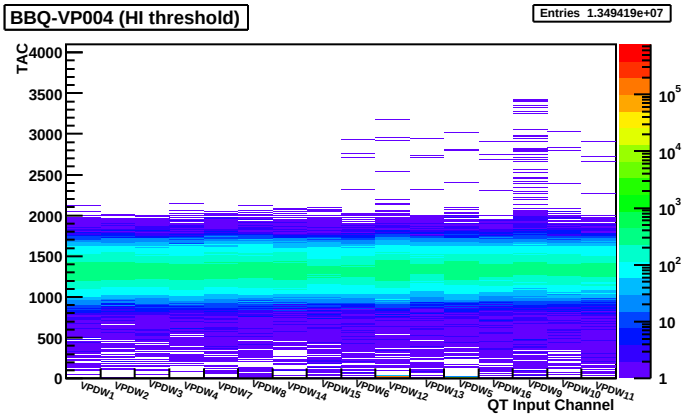

BBQ-VP002 (LO threshold)
Entries 1.349419e+07
ADC
QT Input Channel

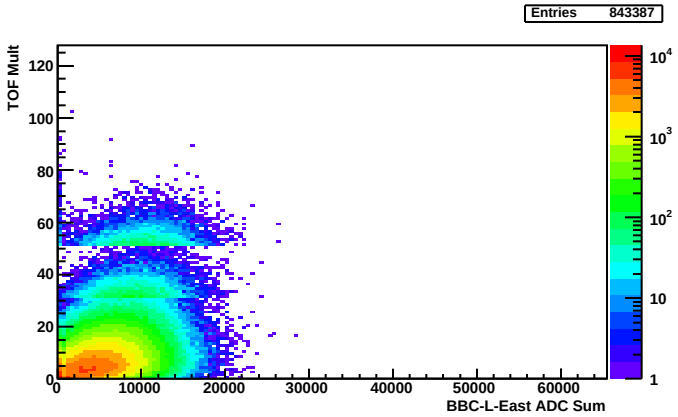

BBQ-VP002 (LO threshold)
Entries 1.349419e+07
TAC
QT Input Channel

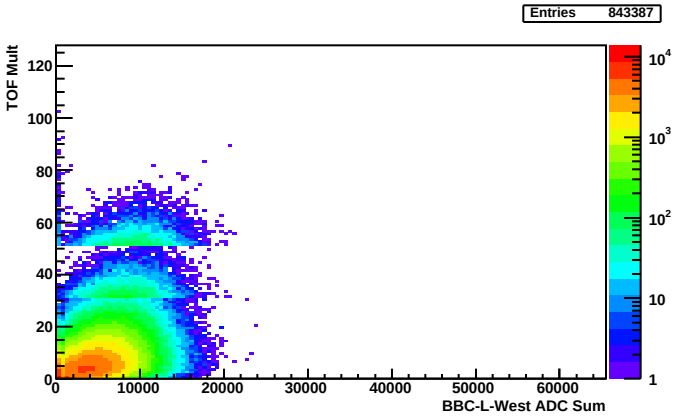

BBQ-VP003 (HI threshold)
Entries 1.349419e+07
ADC
QT Input Channel

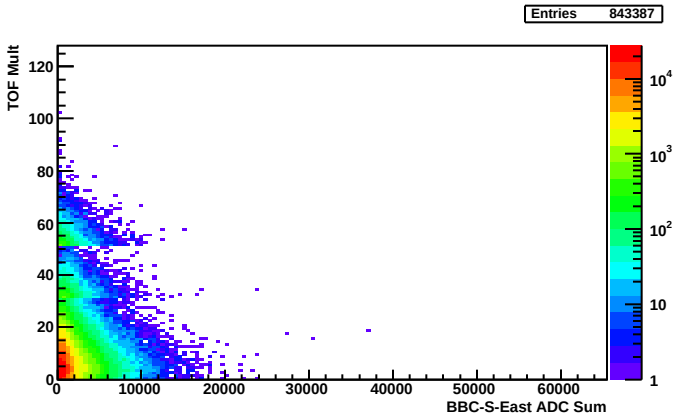

BBQ-VP003 (HI threshold)
Entries 1.349419e+07
TAC
QT Input Channel

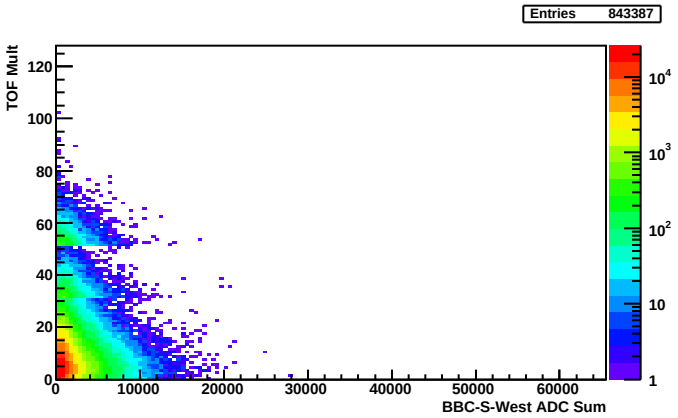

BBQ-VP004 (HI threshold)
Entries 1.349419e+07
ADC
QT Input Channel

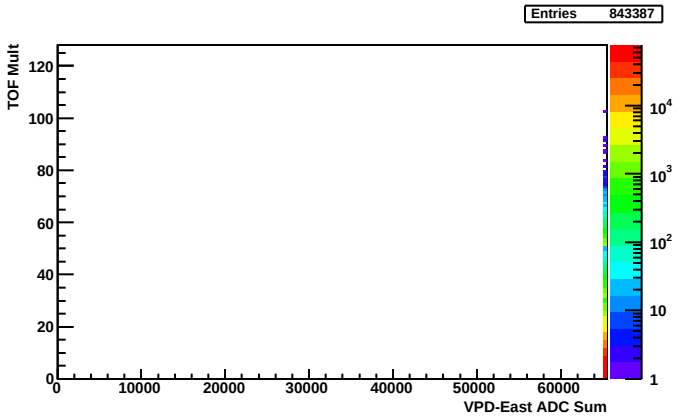

BBQ-VP004 (HI threshold)
Entries 1.349419e+07
TAC
QT Input Channel

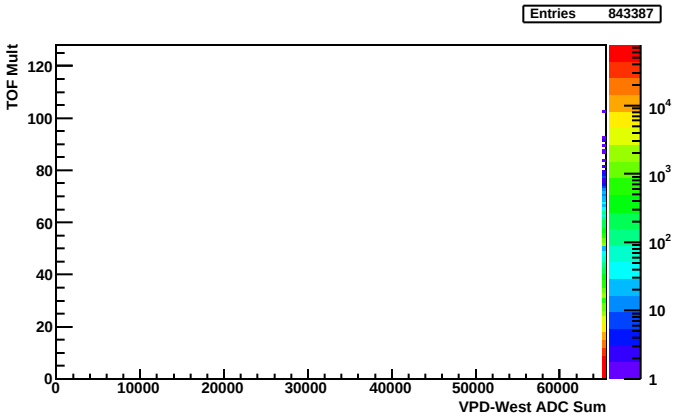

Entries 843387
TOF Mult
BBC-L-East ADC Sum

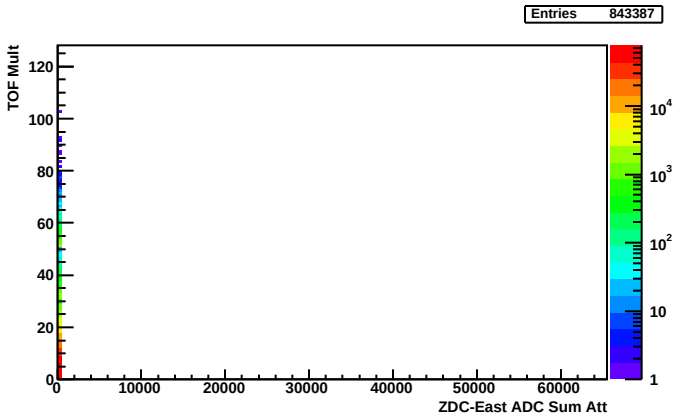

Entries 843387
TOF Mult
BBC-L-West ADC Sum

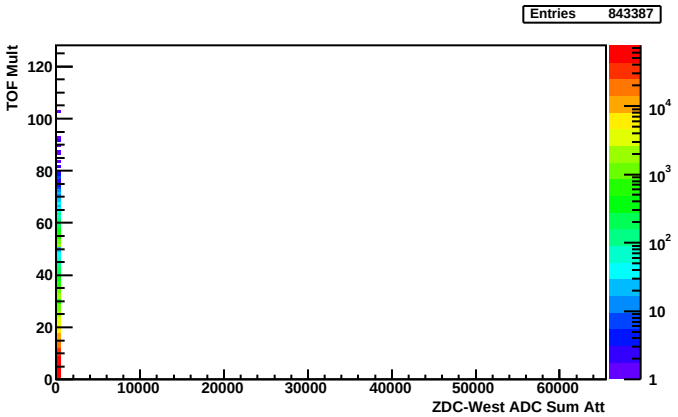

Entries 843387
TOF Mult
BBC-S-East ADC Sum

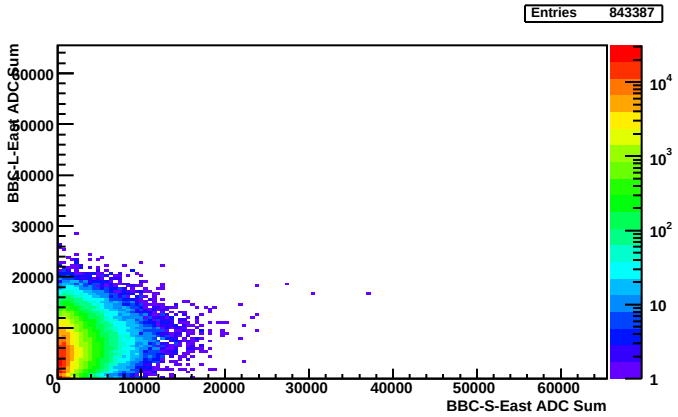

Entries 843387
TOF Mult
BBC-S-West ADC Sum

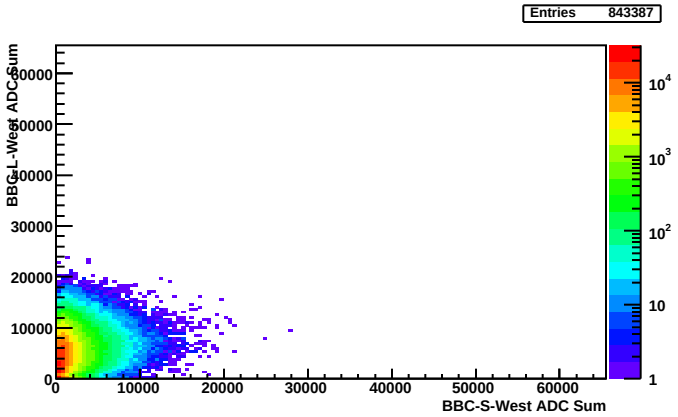

Entries 843387
TOF Mult
VPD-East ADC Sum

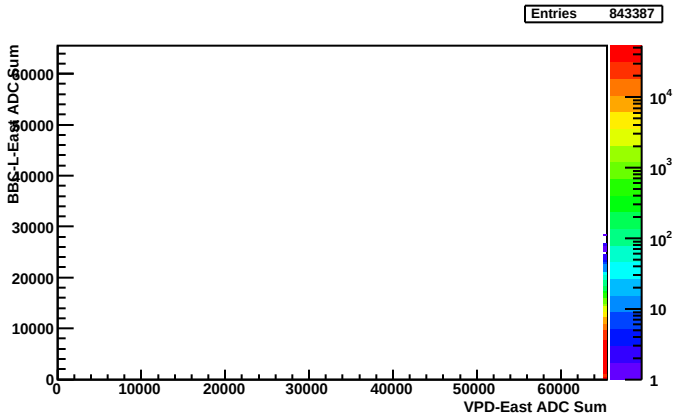

Entries 843387
TOF Mult
VPD-West ADC Sum

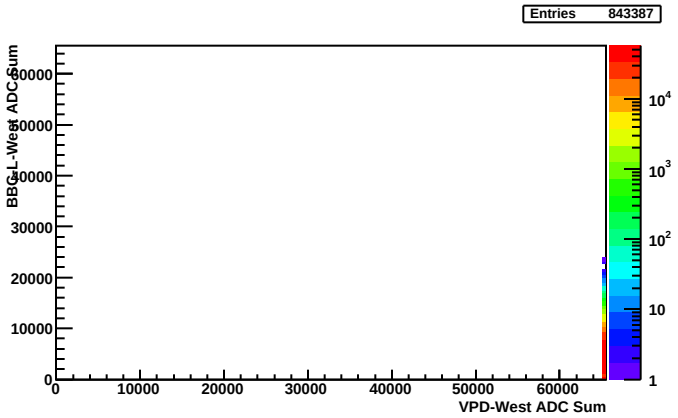

Entries 843387
TOF Mult
ZDC-East ADC Sum Att

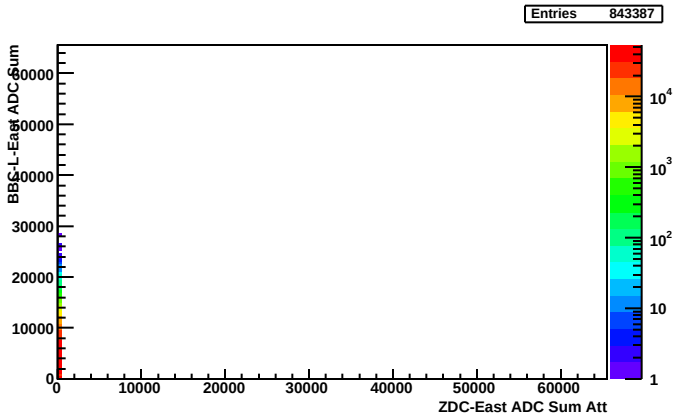

Entries 843387
TOF Mult
ZDC-West ADC Sum Att

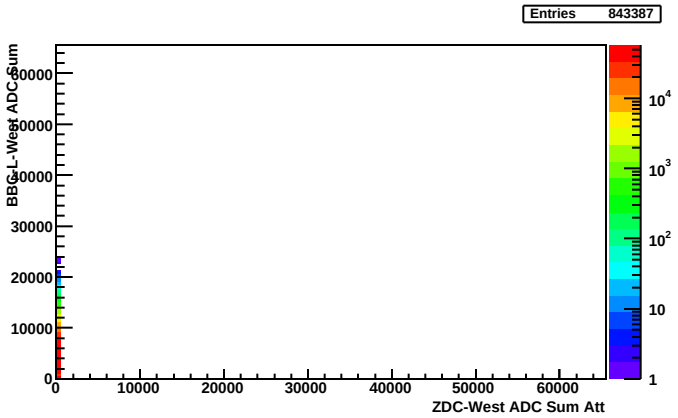

Entries 843387
BBC-L-East ADC Sum
BBC-S-East ADC Sum

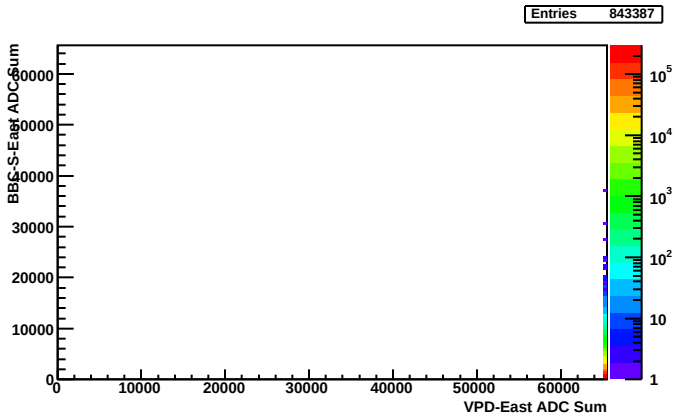

Entries 843387
BBC-L-West ADC Sum
BBC-S-West ADC Sum

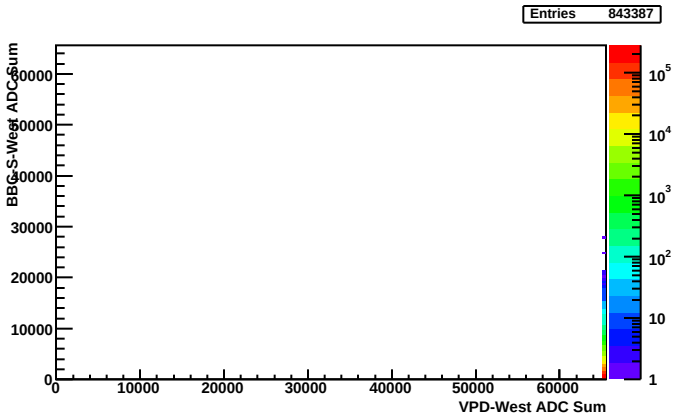

Entries 843387
BBC-L-East ADC Sum
VPD-East ADC Sum

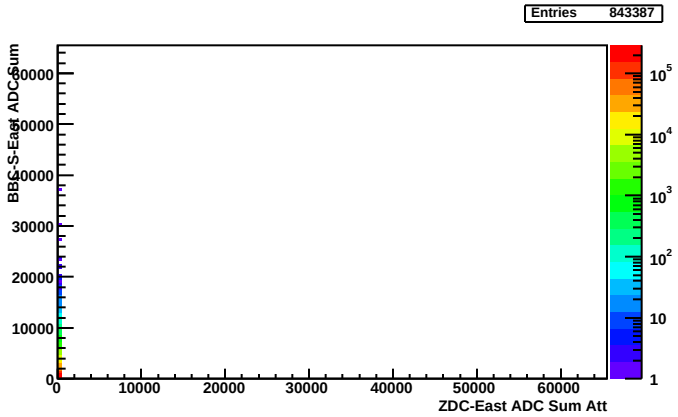

Entries 843387
BBC-L-West ADC Sum
VPD-West ADC Sum

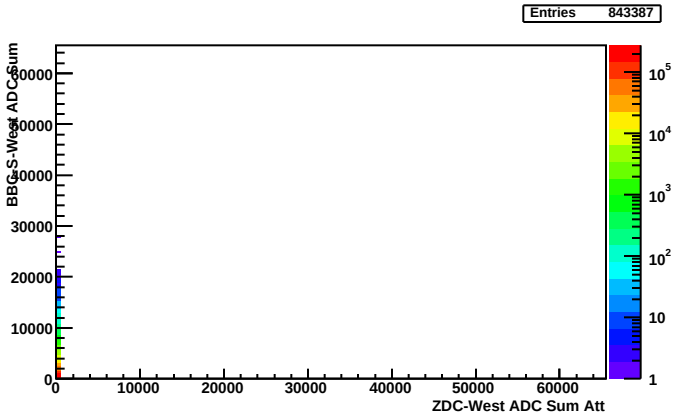

Entries 843387
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

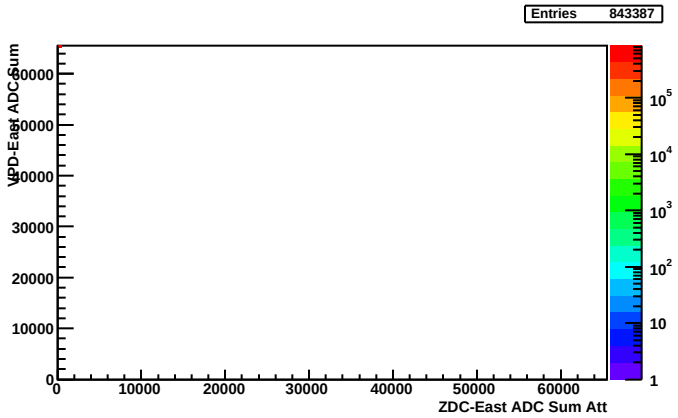

Entries 843387
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

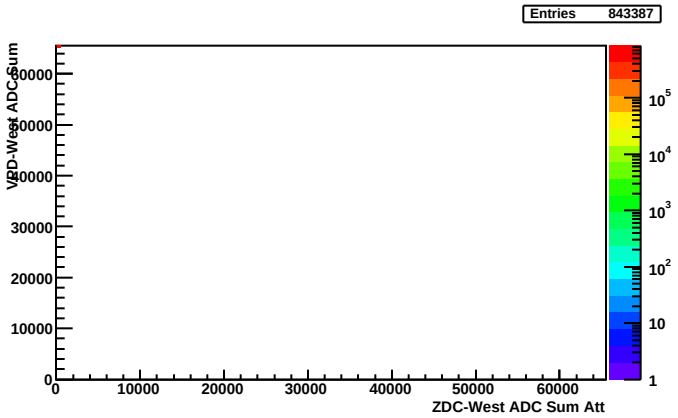

Entries 843387
BBC-S-East ADC Sum
VPD-East ADC Sum

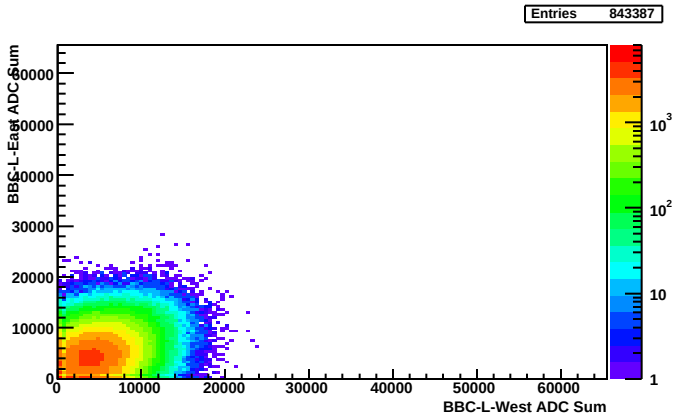

Entries 843387
BBC-S-West ADC Sum
VPD-West ADC Sum

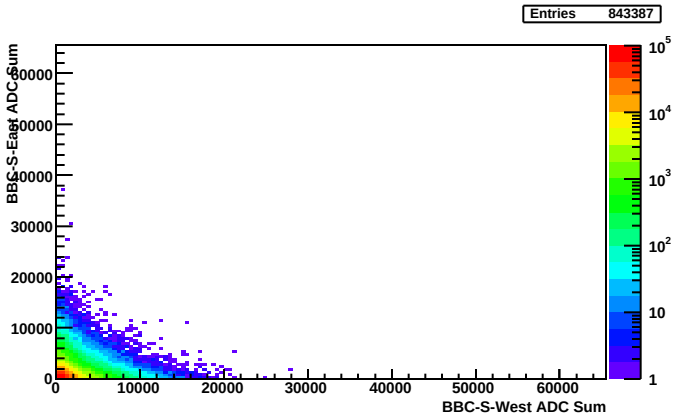

Entries 843387
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

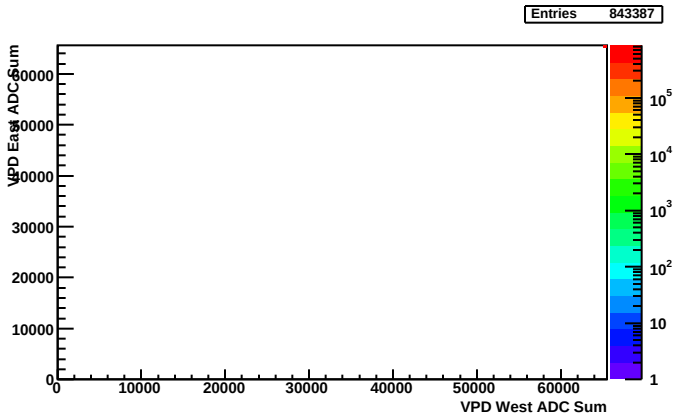

Entries 843387
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

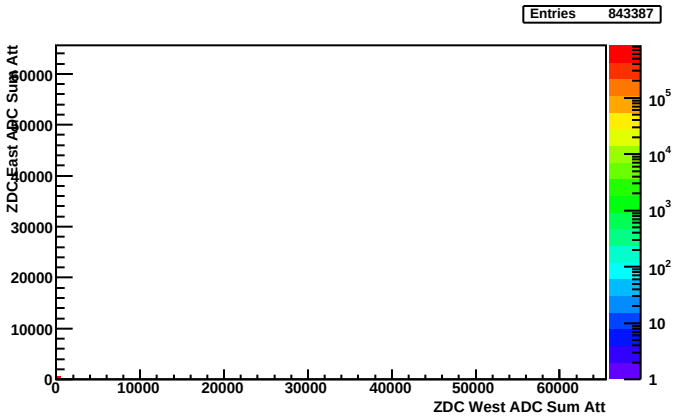

Entries 843387
VPD-East ADC Sum
ZDC-East ADC Sum Att

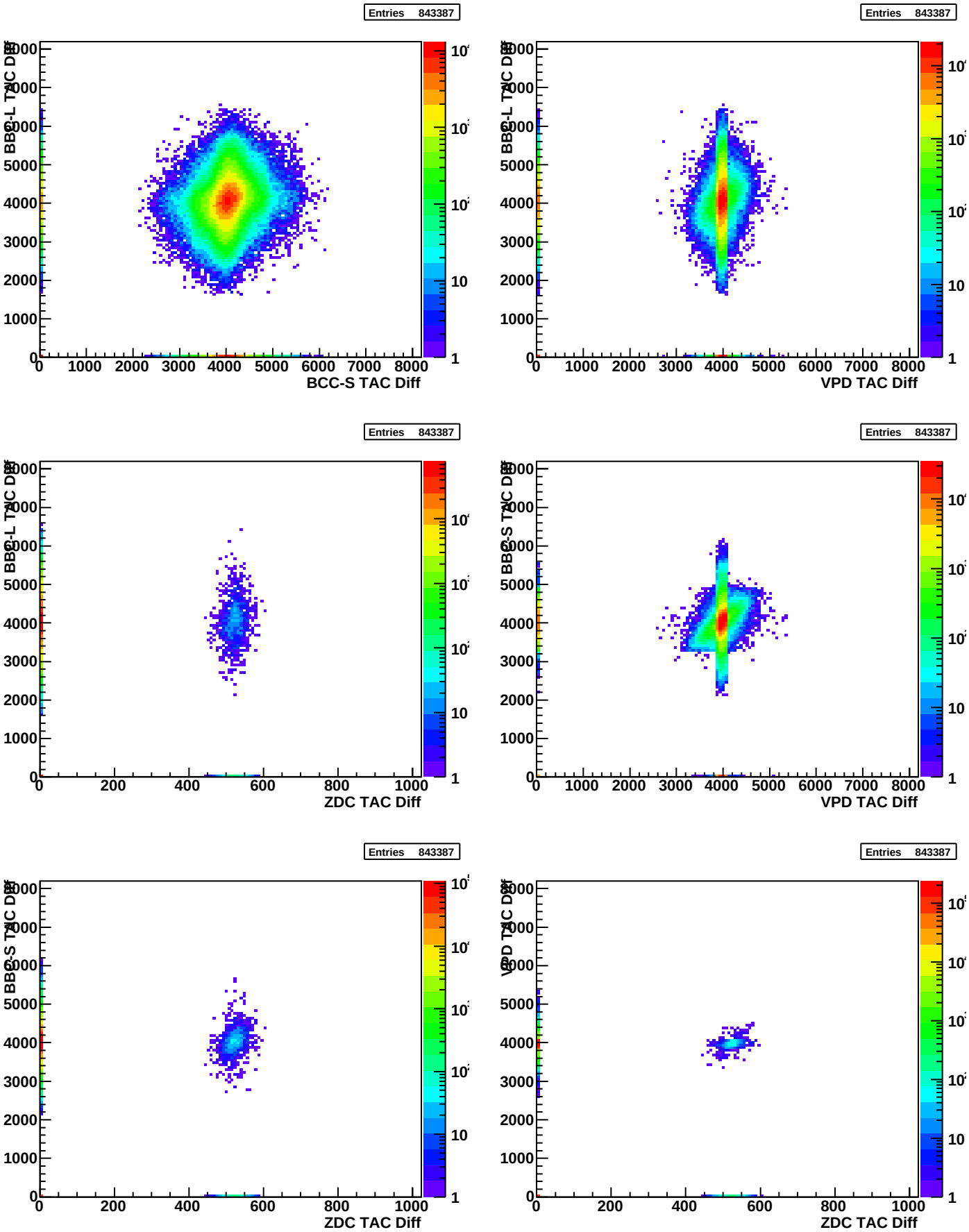

Entries 843387
VPD-West ADC Sum
ZDC-West ADC Sum Att

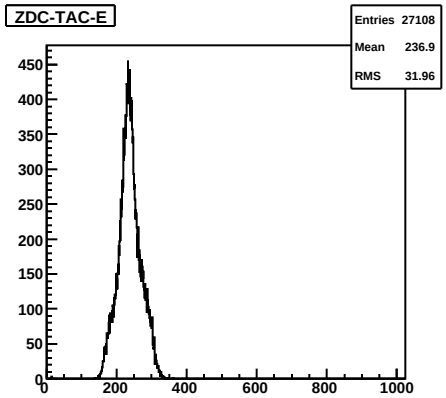

Entries 843387
BBC-L-East ADC Sum
BBC-L-West ADC Sum

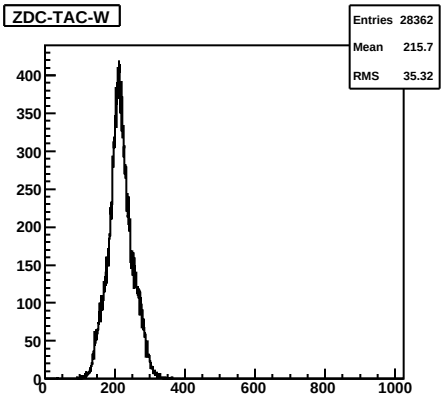

Entries 843387
BBC-S-East ADC Sum
BBC-S-West ADC Sum

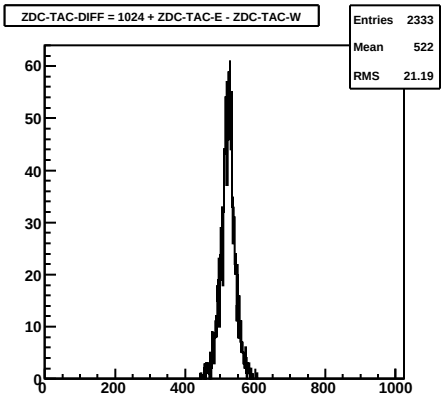

Entries 843387
VPD East ADC Sum
VPD West ADC Sum

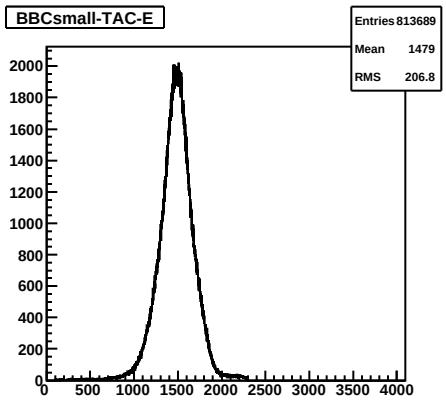

Entries 843387
ZDC East ADC Sum Att
ZDC West ADC Sum Att

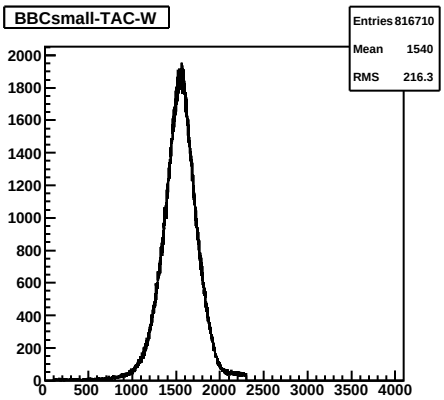

Entries 843387
BBC-L TAC Diff
BCC-S TAC Diff
Entries 843387
BBC-L TAC Diff
VPD TAC Diff
Entries 843387
BBC-L TAC Diff
ZDC TAC Diff
Entries 843387
BBC-S TAC Diff
VPD TAC Diff
Entries 843387
BBC-S TAC Diff
ZDC TAC Diff
Entries 843387
VPD TAC Diff
ZDC TAC Diff

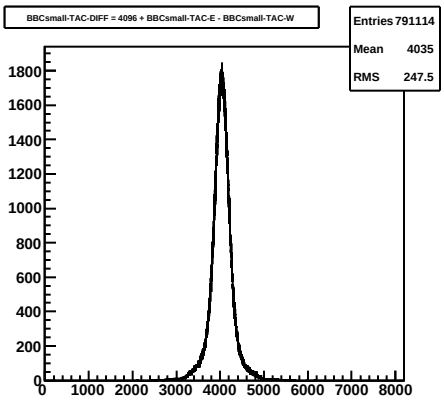

ZDC-TAC-E
Entries 27108
Mean 236.9
RMS 31.96

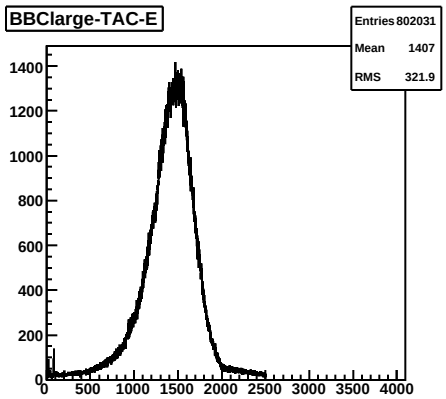

ZDC-TAC-W
Entries 28362
Mean 215.7
RMS 35.32

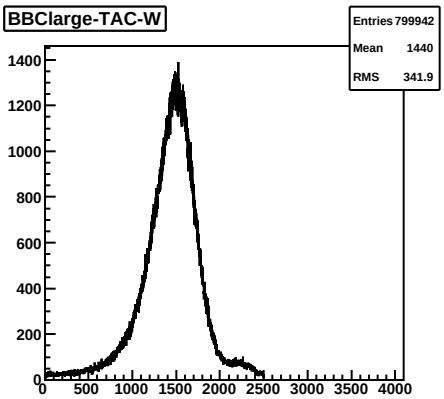

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 2333
Mean 522
RMS 21.19

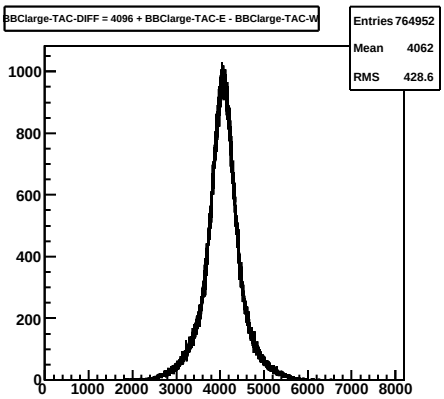

BBCsmall-TAC-E
Entries 813689
Mean 1479
RMS 206.8

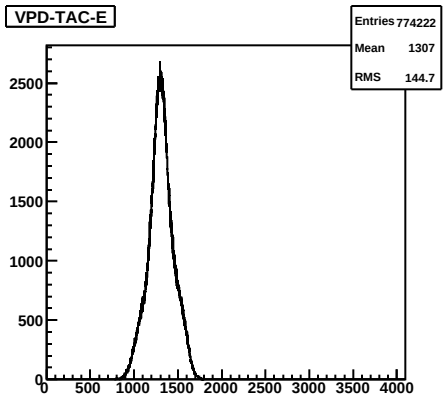

BBCsmall-TAC-W
Entries 816710
Mean 1540
RMS 216.3

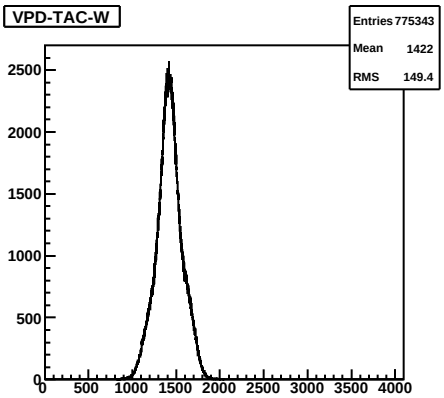

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 791114
Mean 4035
RMS 247.5

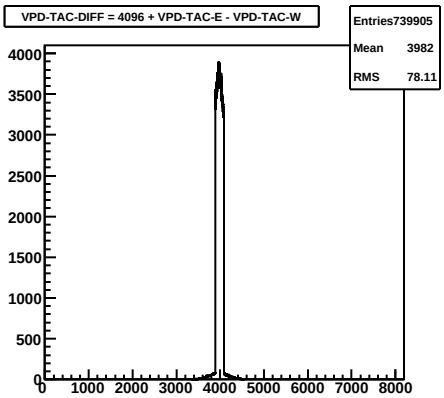

BBClarge-TAC-E
Entries 802031
Mean 1407
RMS 321.9

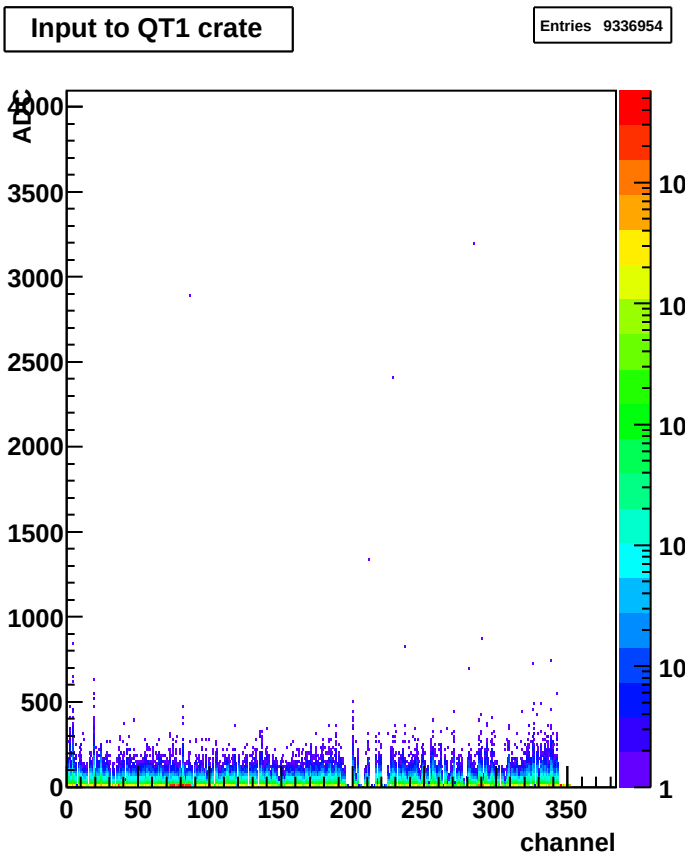

BBClarge-TAC-W
Entries 799942
Mean 1440
RMS 341.9

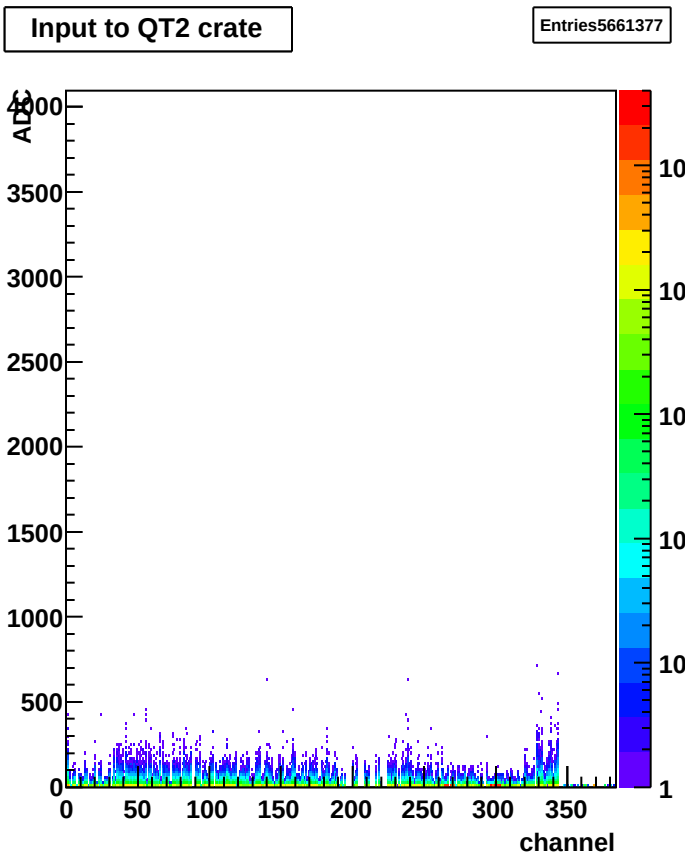

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 764952
Mean 4062
RMS 428.6

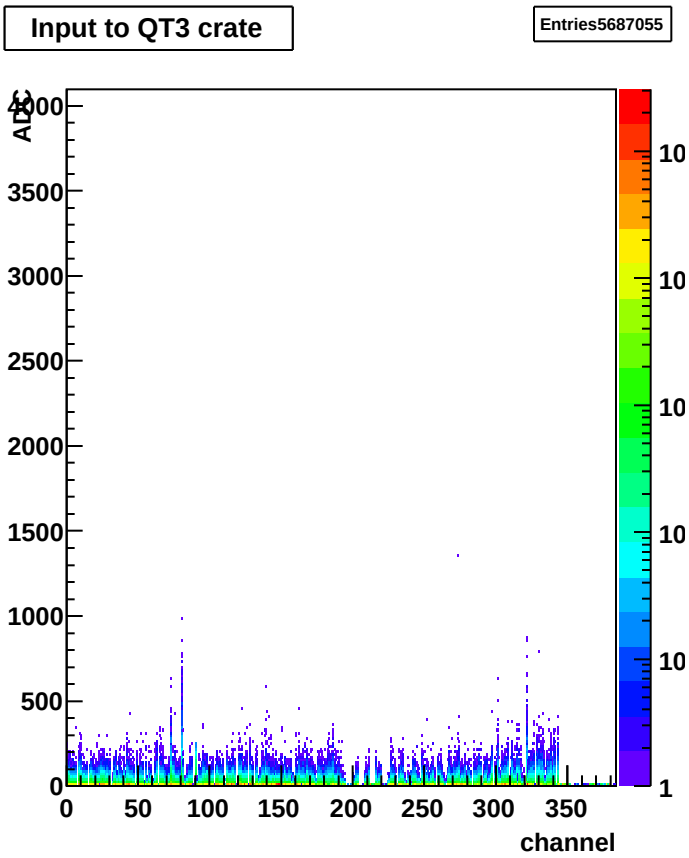

VPD-TAC-E
Entries 774222
Mean 1307
RMS 144.7

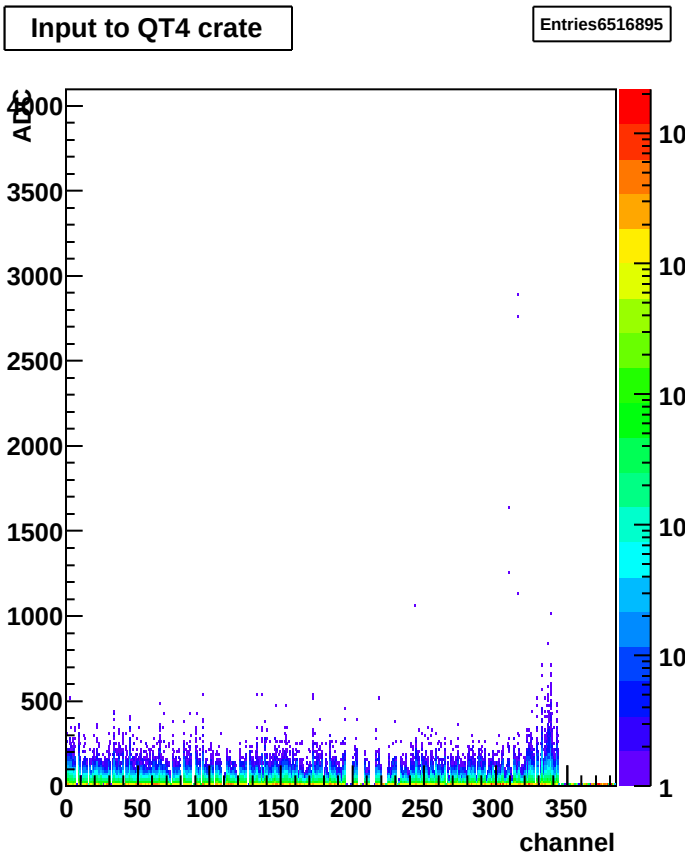

VPD-TAC-W
Entries 775343
Mean 1422
RMS 149.4

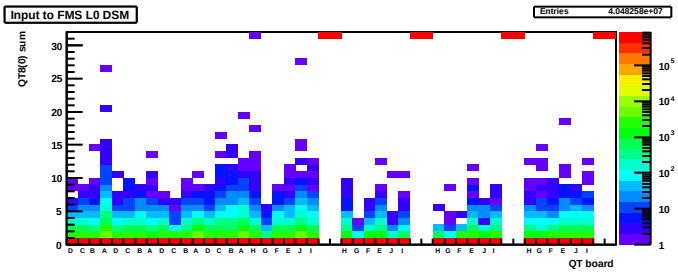

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 739905
Mean 3982
RMS 78.11

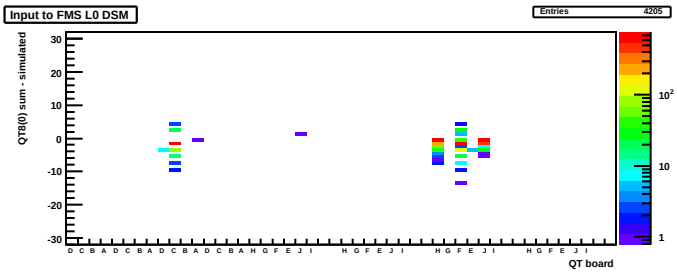

Input to QT1 crate
Entries 9336954
ADC
channel

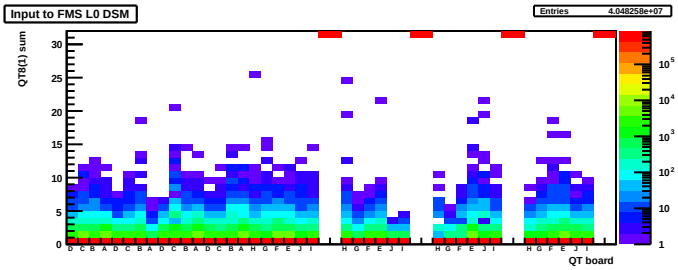

Input to QT2 crate
Entries5661377
ADC
channel

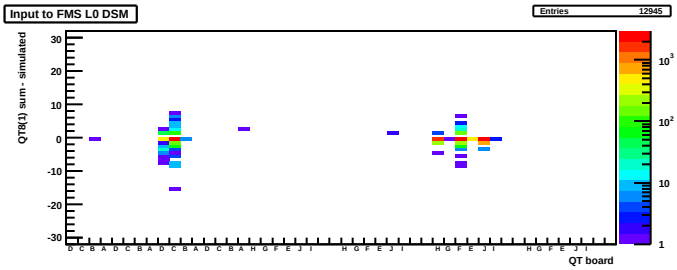

Input to QT3 crate
Entries5687055
ADC
channel

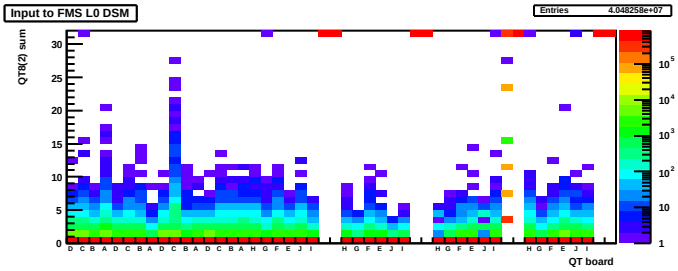

Input to QT4 crate
Entries6516895
ADC
channel

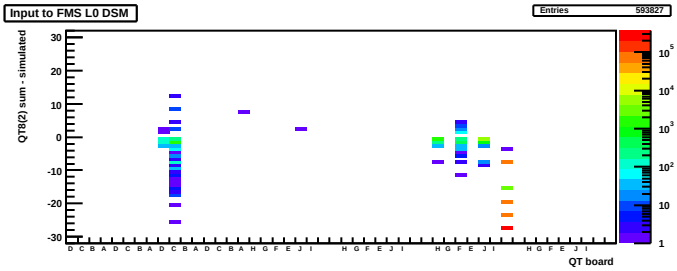

Input to FMS L0 DSM
Entries 4.048258e+07
QT8(0) sum
QT board

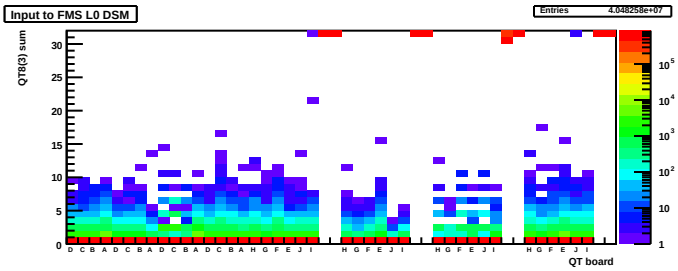

Input to FMS L0 DSM
Entries 4205
QT8(0) sum - simulated
QT board

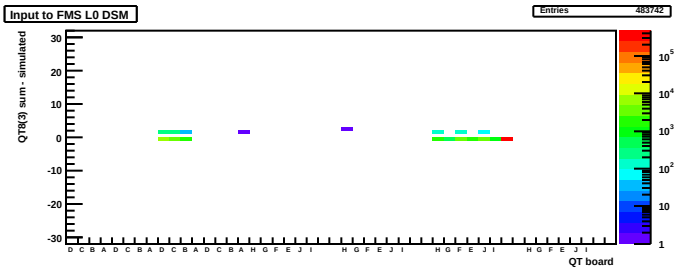

Input to FMS L0 DSM
Entries 4.048258e+07
QT8(1) sum
QT board

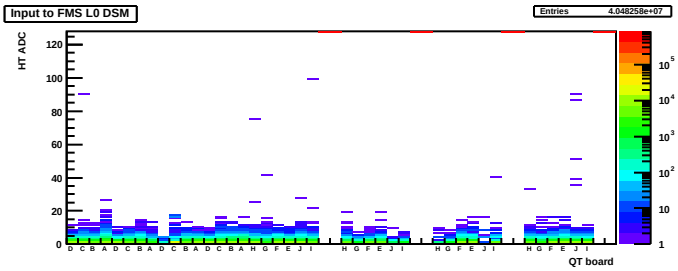

Input to FMS L0 DSM
Entries 12945
QT8(1) sum - simulated
QT board

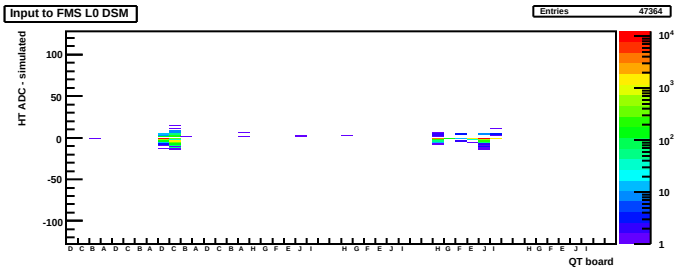

Input to FMS L0 DSM
Entries 4.048258e+07
QT8(2) sum
QT board

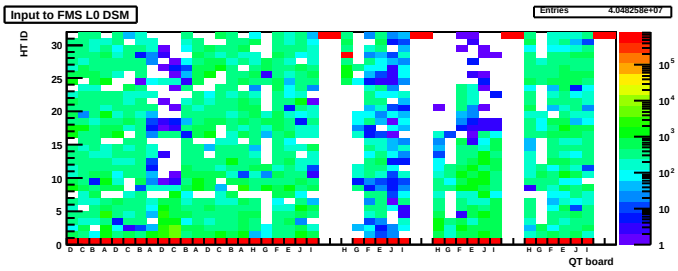

Input to FMS L0 DSM
Entries 593827
QT8(2) sum - simulated
QT board

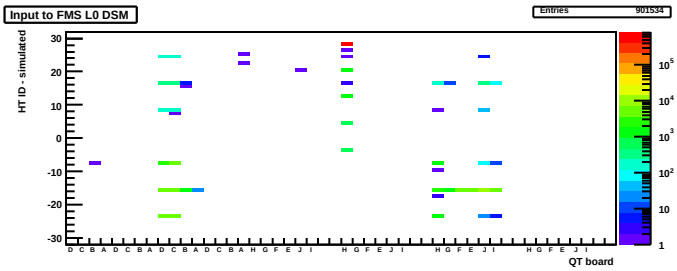

Input to FMS L0 DSM
Entries 4.048258e+07
QT8(3) sum
QT board

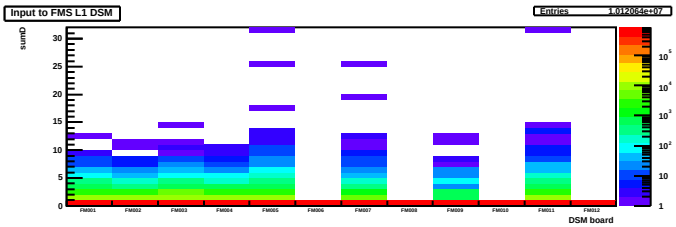

Input to FMS L0 DSM
Entries 483742
QT8(3) sum - simulated
QT board

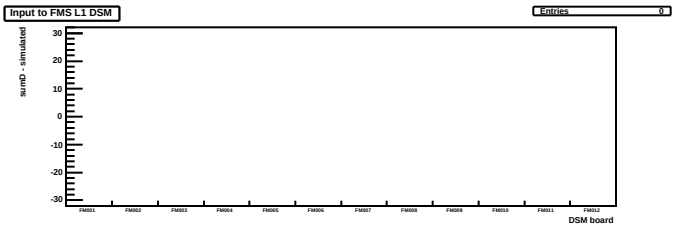

Input to FMS L0 DSM
Entries 4.048258e+07
HT ADC
QT board

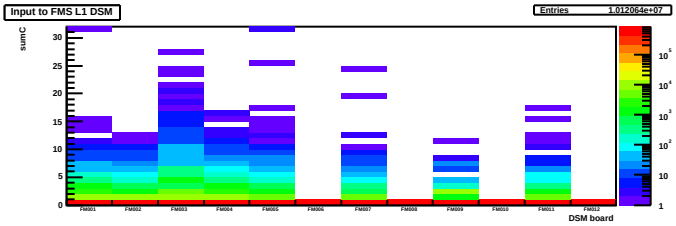

Input to FMS L0 DSM
Entries 47364
HT ADC - simulated
QT board

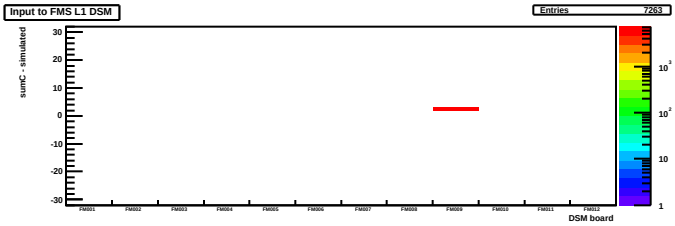

Input to FMS L0 DSM
Entries 4.048258e+07
HT ID
QT board

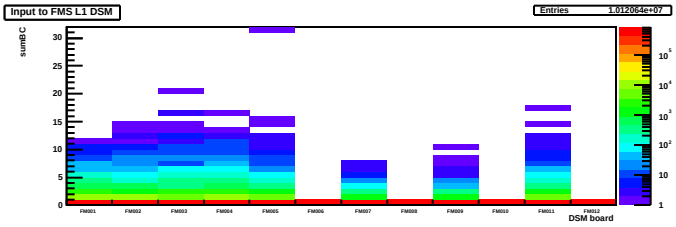

Input to FMS L0 DSM
Entries 901534
HT ID - simulated
QT board

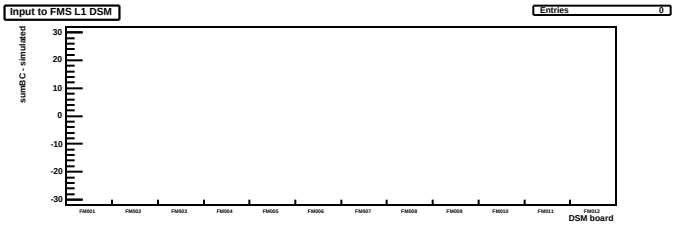

Input to FMS L1 DSM
Entries 1.012064e+07
sumD
DSM board

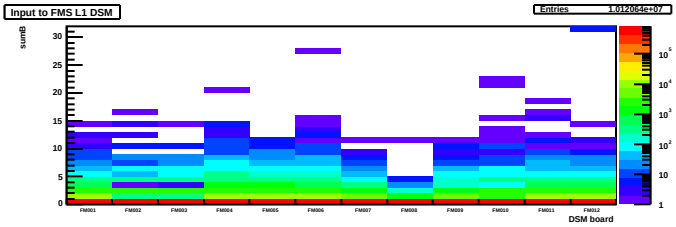

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

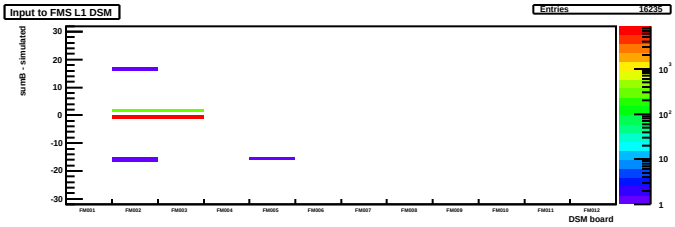

Input to FMS L1 DSM
Entries 1.012064e+07
sumC
DSM board

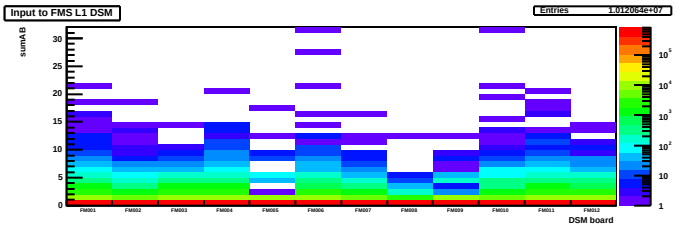

Input to FMS L1 DSM
Entries 7263
sumC - simulated
DSM board

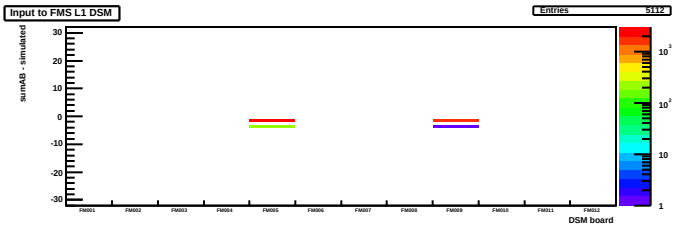

Input to FMS L1 DSM
Entries 1.012064e+07
sumBC
DSM board

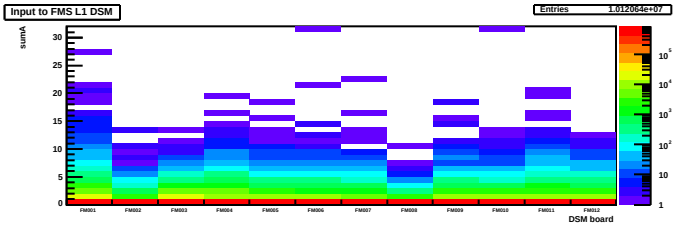

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

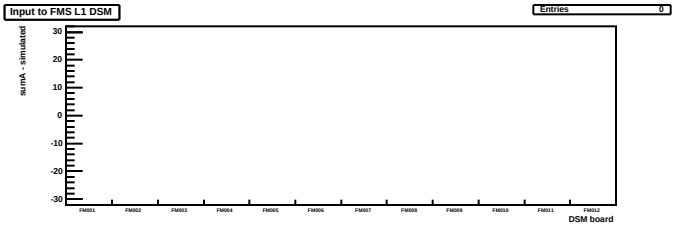

Input to FMS L1 DSM
Entries 1.012064e+07
sumB
DSM board

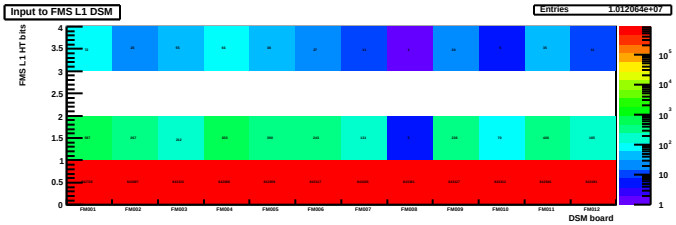

Input to FMS L1 DSM
Entries 16235
sumB - simulated
DSM board

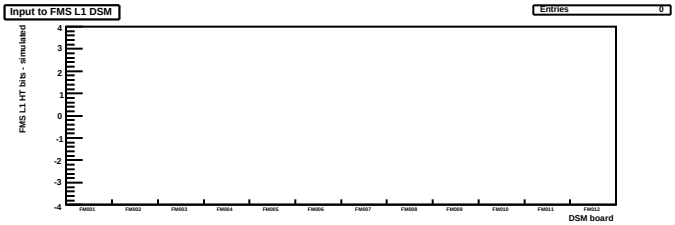

Input to FMS L1 DSM
Entries 1.012064e+07
sumAB
DSM board

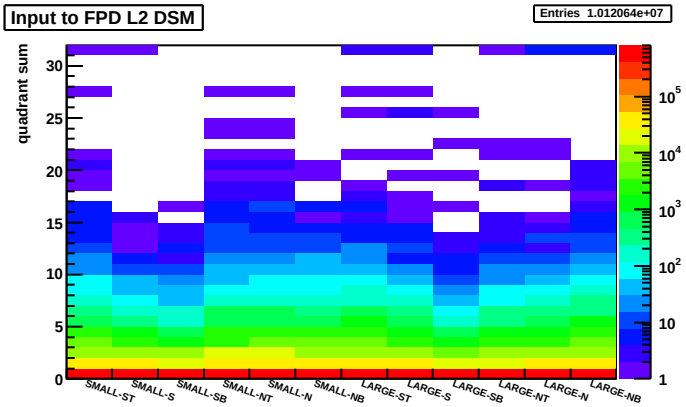

Input to FMS L1 DSM
Entries 5112
sumAB - simulated
DSM board

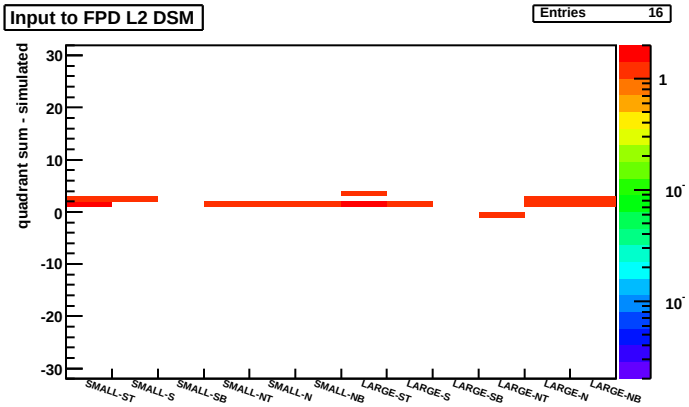

Input to FMS L1 DSM
Entries 1.012064e+07
sumA
DSM board

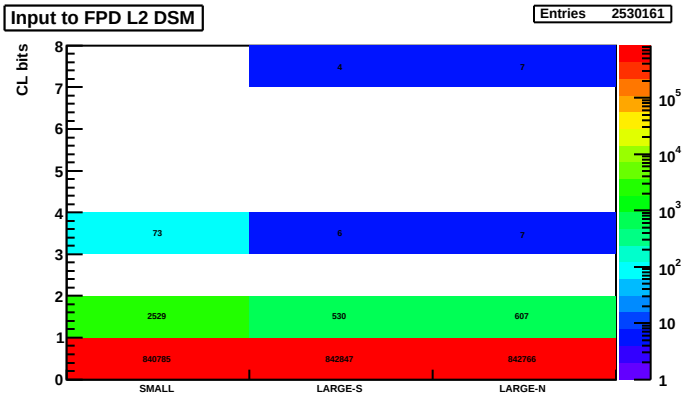

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

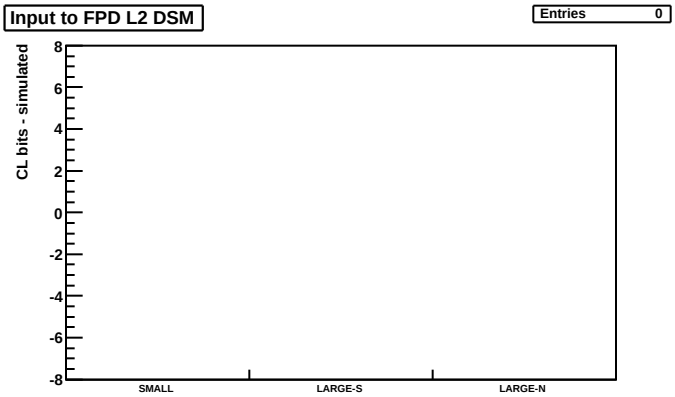

Input to FMS L1 DSM
Entries 1.012064e+07
FMS L1 HT bits
DSM board

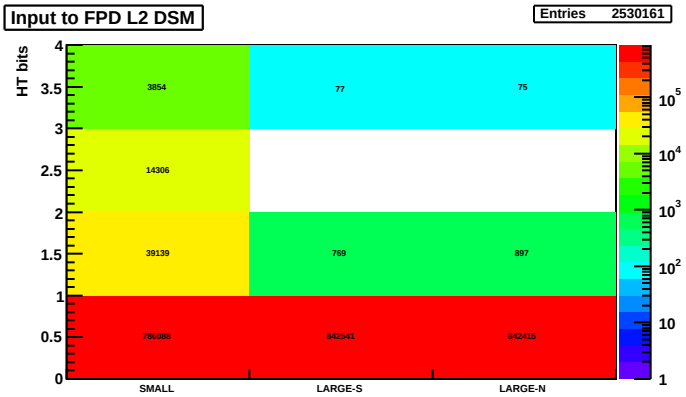

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

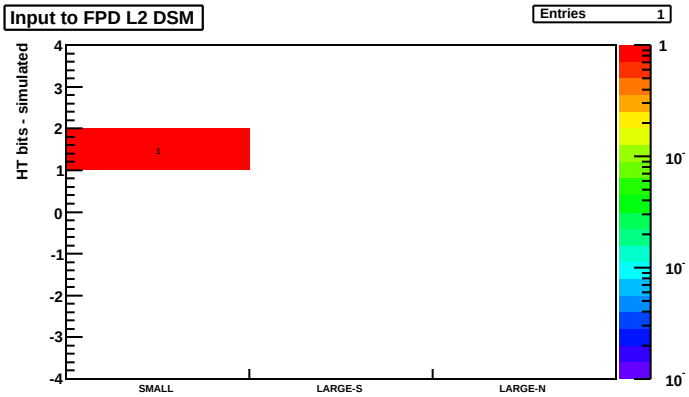

Input to FPD L2 DSM
Entries 1.012064e+07
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

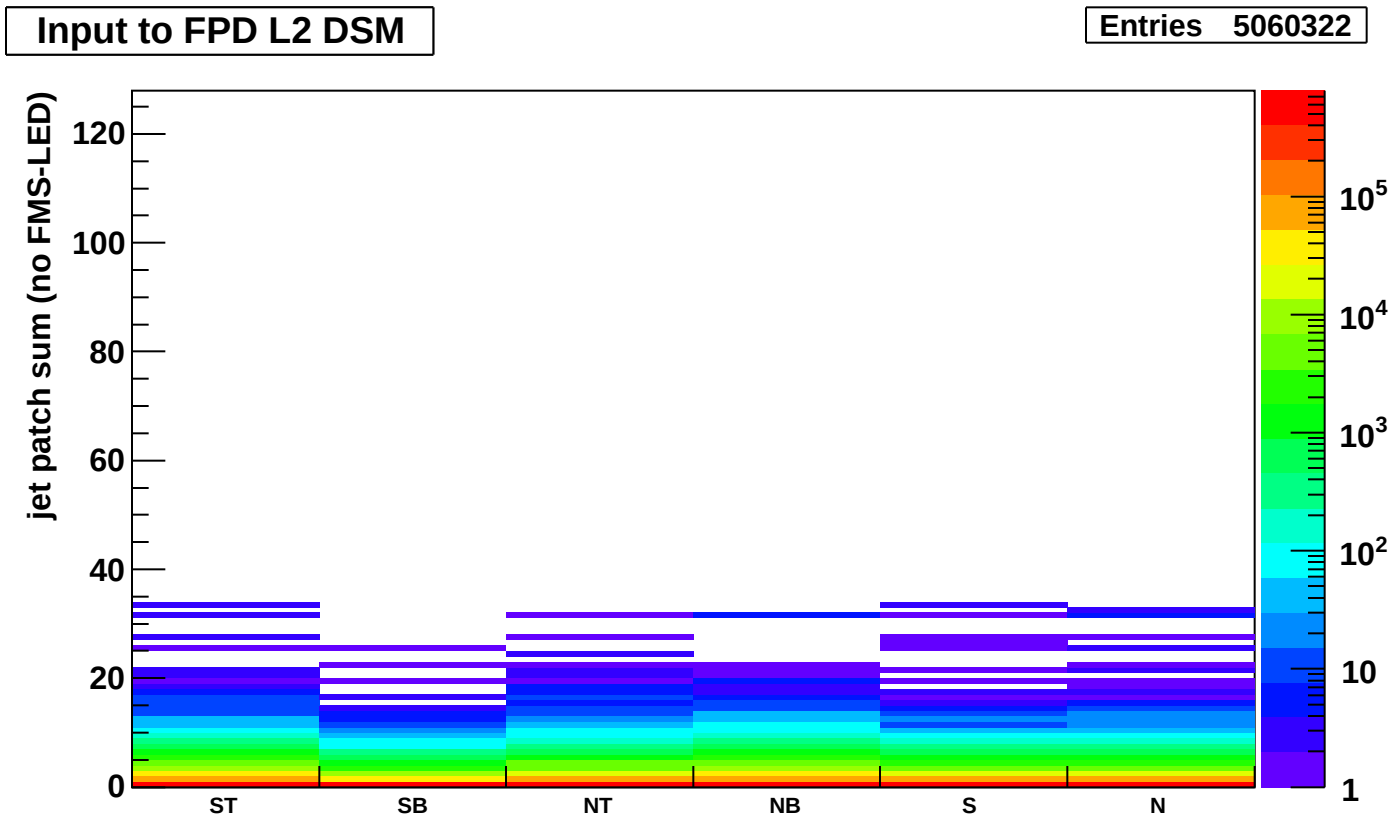

Input to FPD L2 DSM
Entries 16
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

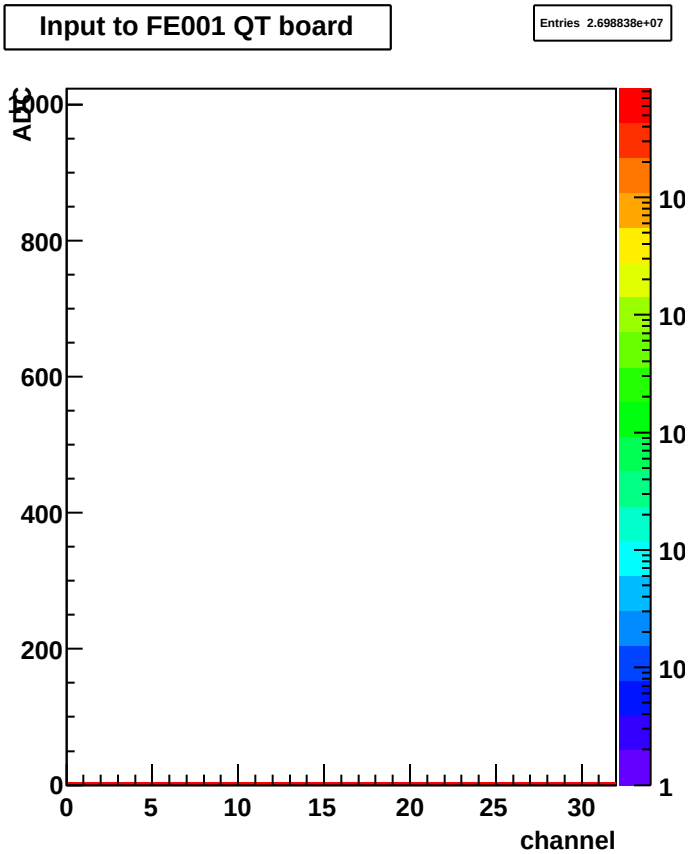

Input to FPD L2 DSM
Entries 2530161
CL bits
4
7
73
6
7
2529
530
607
840785
842847
842766
SMALL
LARGE-S
LARGE-N

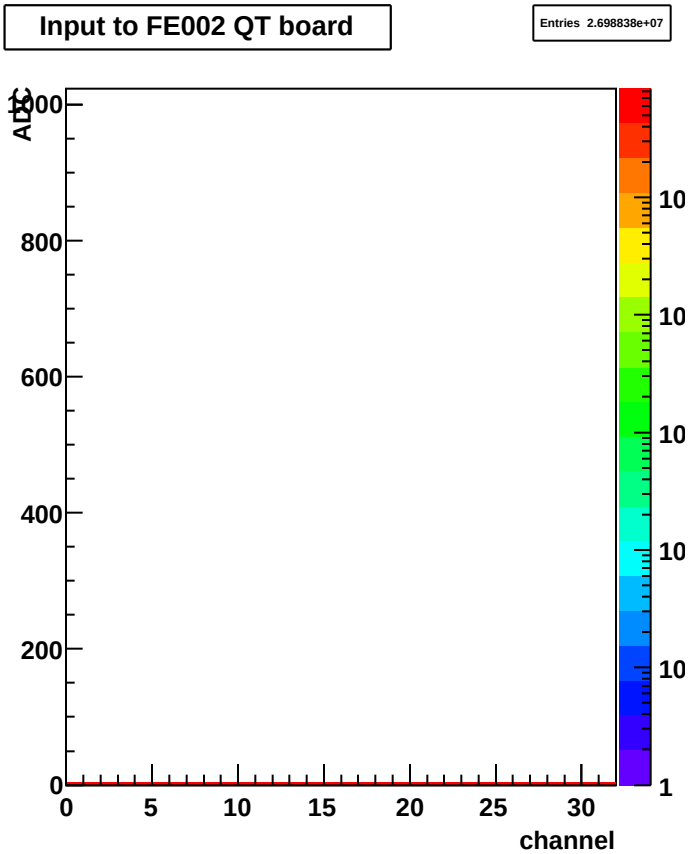

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL
LARGE-S
LARGE-N

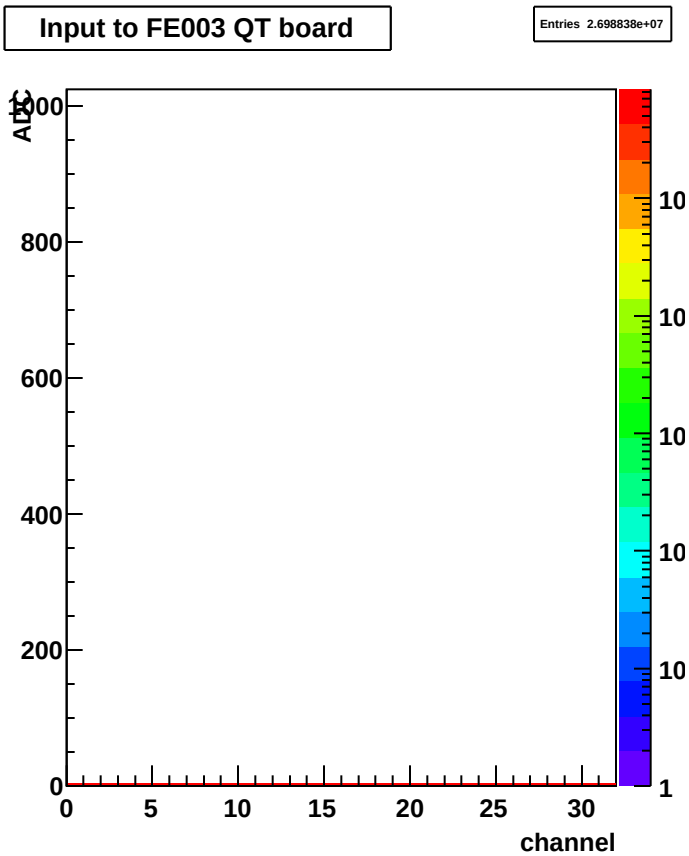

Input to FPD L2 DSM
Entries 2530161
HT bits
3854
77
75
14306
39139
769
897
786088
842541
842415
SMALL
LARGE-S
LARGE-N

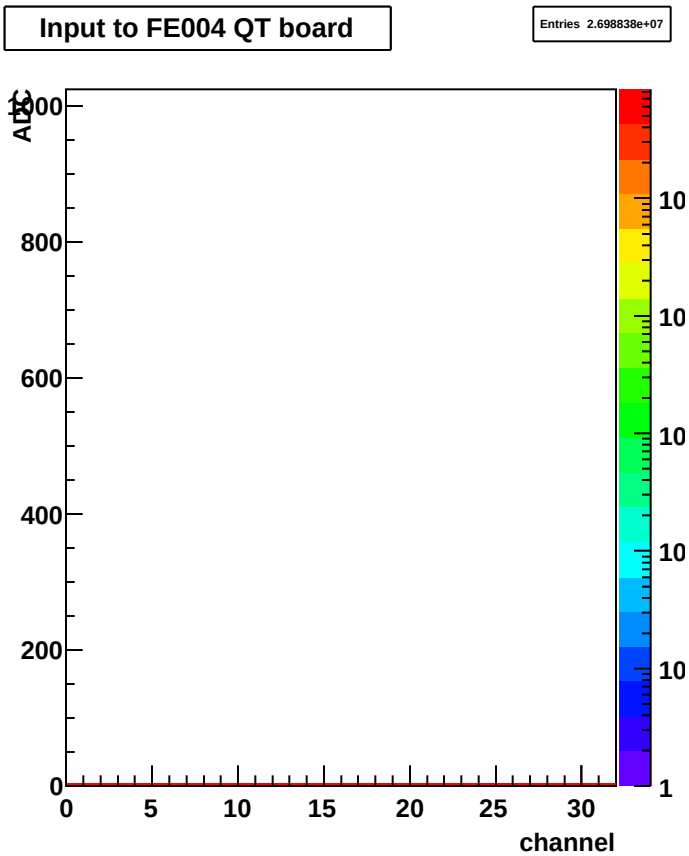

Input to FPD L2 DSM
Entries 1
HT bits - simulated
1
SMALL
LARGE-S
LARGE-N

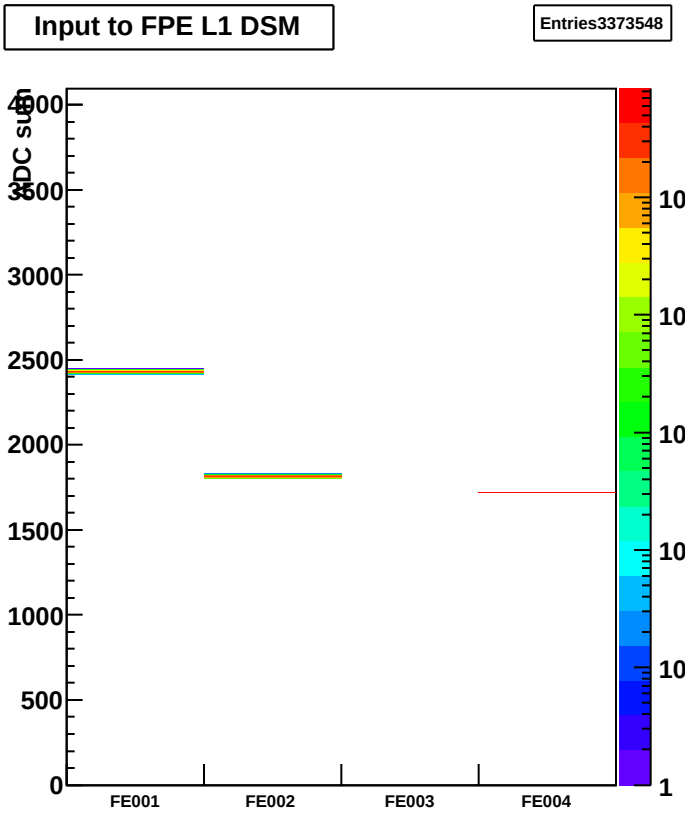

Input to FPD L2 DSM
Entries 5060322
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

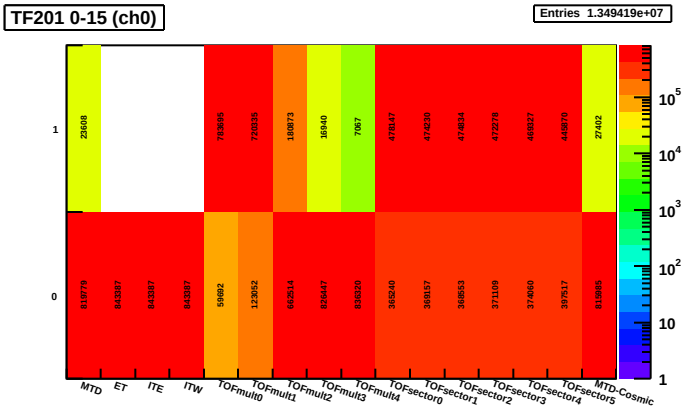

Input to FE001 QT board
Entries 2.698838e+07
ADC
channel

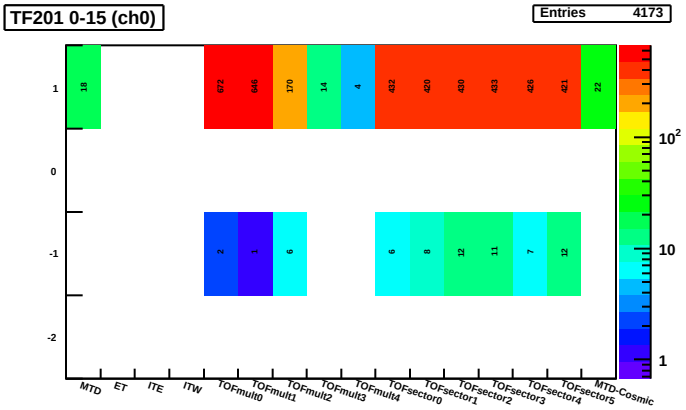

Input to FE002 QT board
Entries 2.698838e+07
ADC
channel

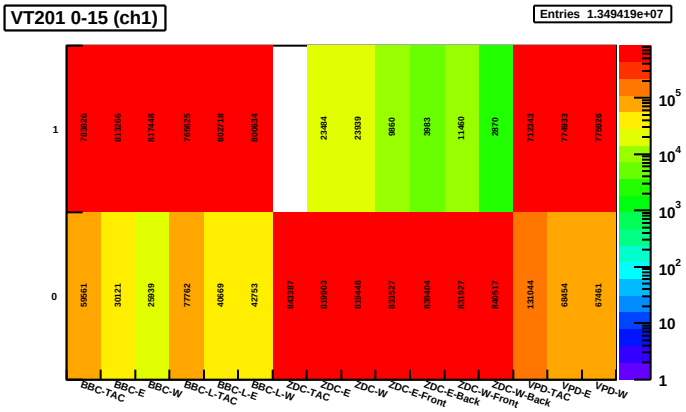

Input to FE003 QT board
Entries 2.698838e+07
ADC
channel

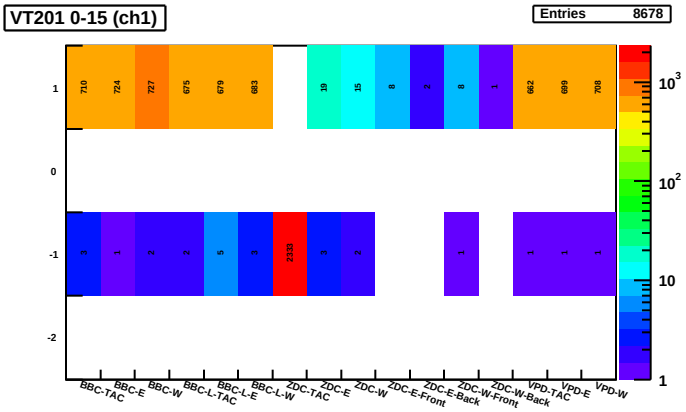

Input to FE004 QT board
Entries 2.698838e+07
ADC
channel

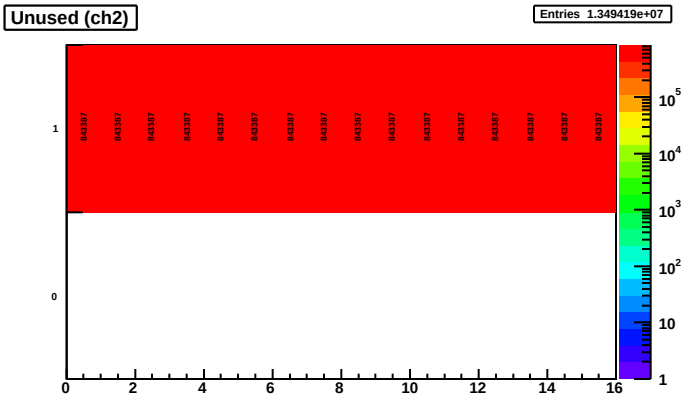

Input to FPE L1 DSM
Entries3373548
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1

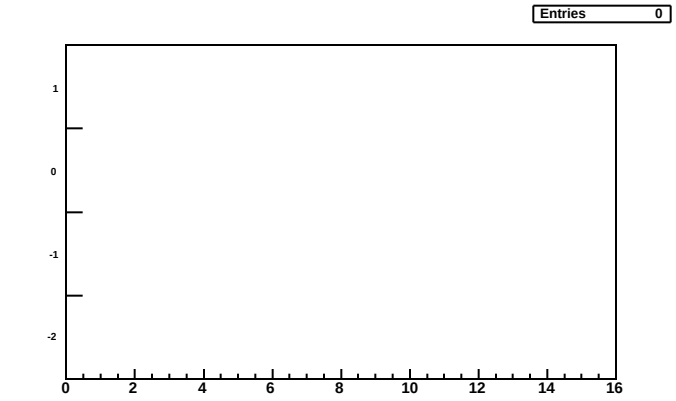

TF201 0-15 (ch0)
Entries 1.349419e+07
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

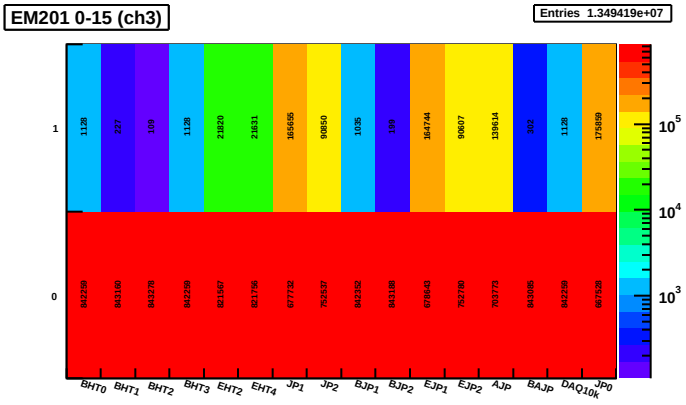

TF201 0-15 (ch0)
Entries 4173
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

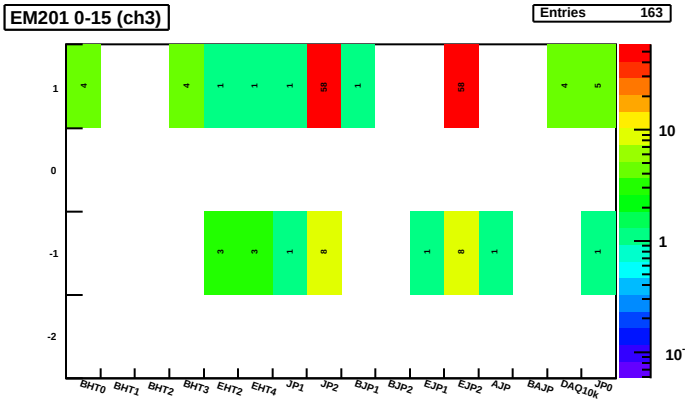

VT201 0-15 (ch1)
Entries 1.349419e+07
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

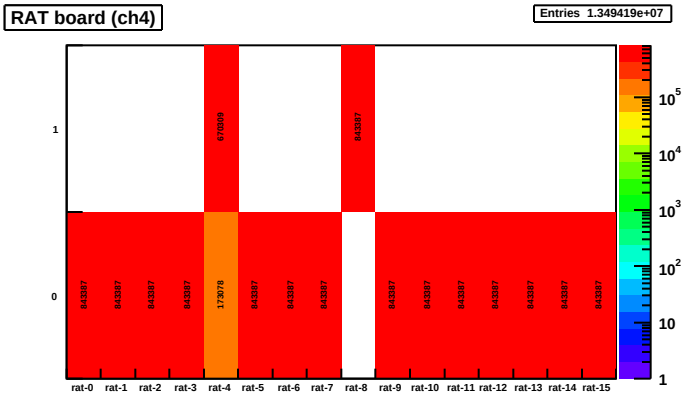

VT201 0-15 (ch1)
Entries 8678
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

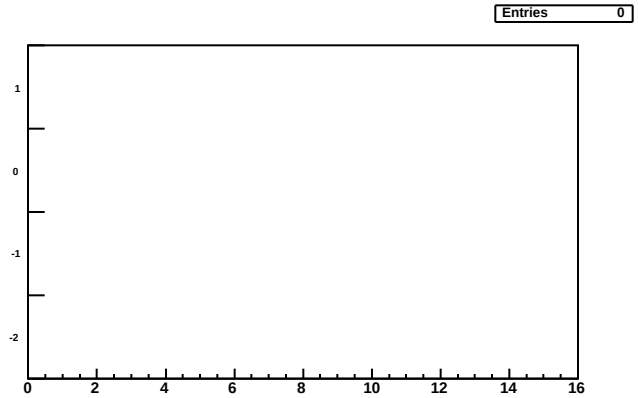

Unused (ch2)
Entries 1.349419e+07

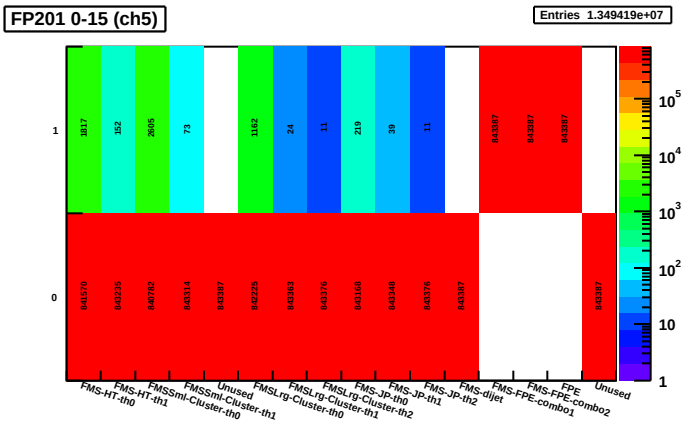

Entries 0

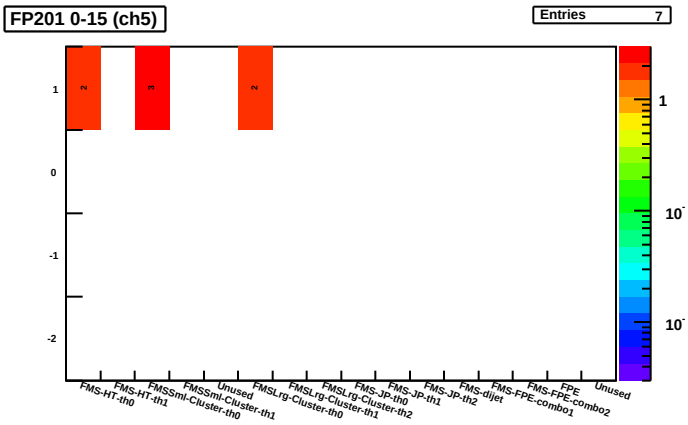

EM201 0-15 (ch3)
Entries 1.349419e+07
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

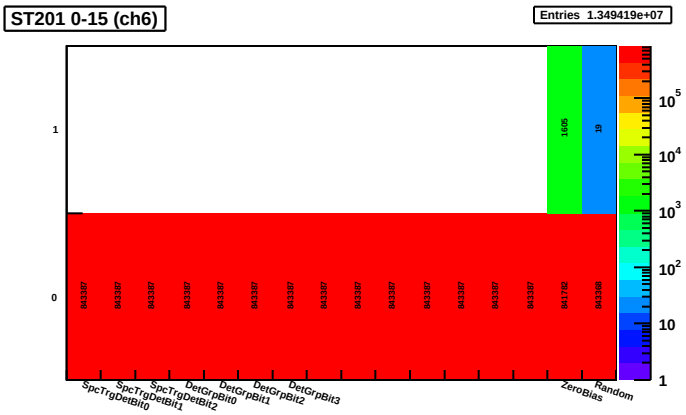

EM201 0-15 (ch3)
Entries 163
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

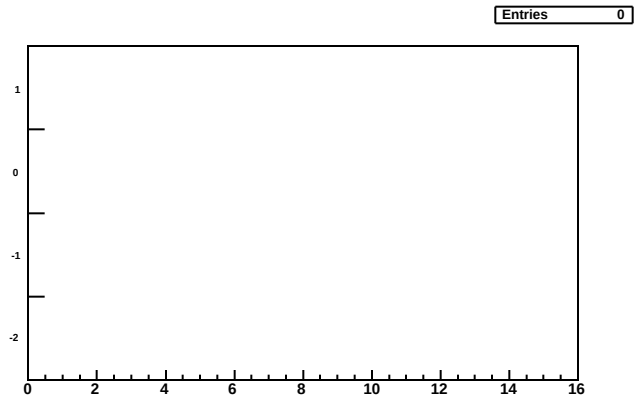

RAT board (ch4)
Entries 1.349419e+07
rat-0 rat-1 rat-2 rat-3 rat-4 rat-5 rat-6 rat-7 rat-8 rat-9 rat-10 rat-11 rat-12 rat-13 rat-14 rat-15

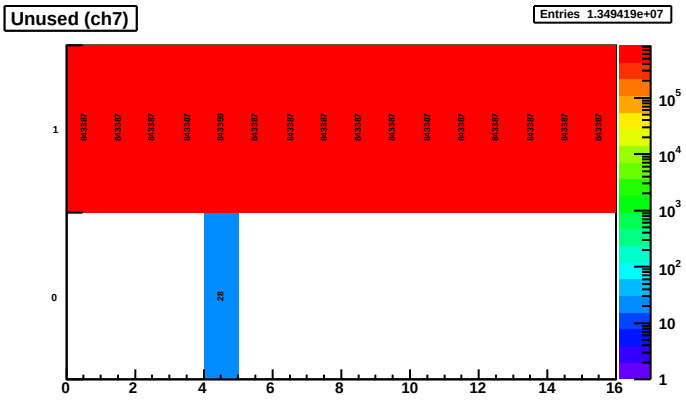

Entries 0

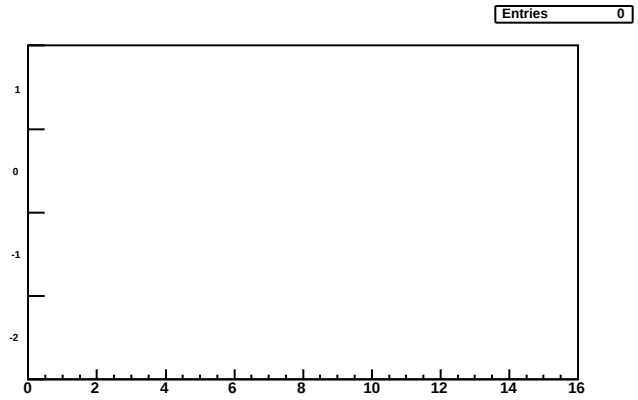

FP201 0-15 (ch5)
Entries 1.349419e+07
FMS-HT-th0 FMS-HT-th1 FMSSml-Cluster-th0 FMSSml-Cluster-th1 Unused FMSLrg-Cluster-th0 FMSLrg-Cluster-th1 FMSLrg-Cluster-th2 FMS-JP-th0 FMS-JP-th1 FMS-JP-th2 FMS-diJet FMS-FPE-combo1 FMS-FPE-combo2 FPE Unused


FP201 0-15 (ch5)
Entries 7
FMS-HT-th0 FMS-HT-th1 FMSSml-Cluster-th0 FMSSml-Cluster-th1 Unused FMSLrg-Cluster-th0 FMSLrg-Cluster-th1 FMSLrg-Cluster-th2 FMS-JP-th0 FMS-JP-th1 FMS-JP-th2 FMS-diJet FMS-FPE-combo1 FMS-FPE-combo2 FPE Unused


ST201 0-15 (ch6)
Entries 1.349419e+07
SpcTrgDetBit0 SpcTrgDetBit1 SpcTrgDetBit2 DetGrpBit0 DetGrpBit1 DetGrpBit2 DetGrpBit3 ZeroBias Random


Entries 0


Unused (ch7)
Entries 1.349419e+07


Entries 0