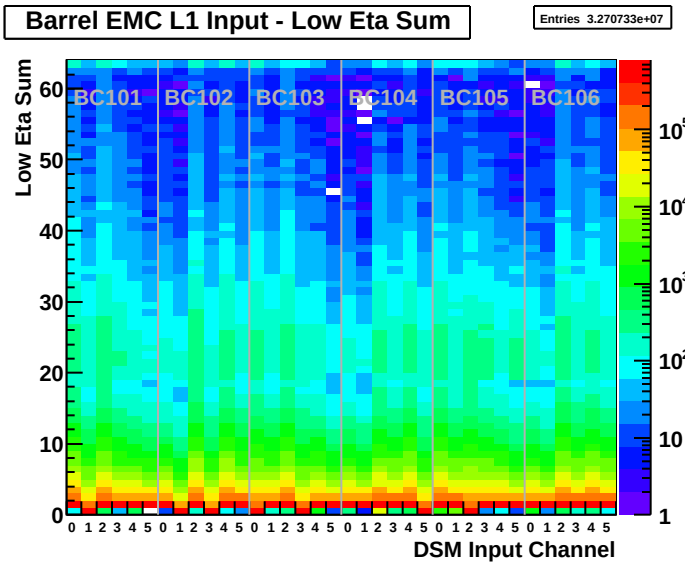
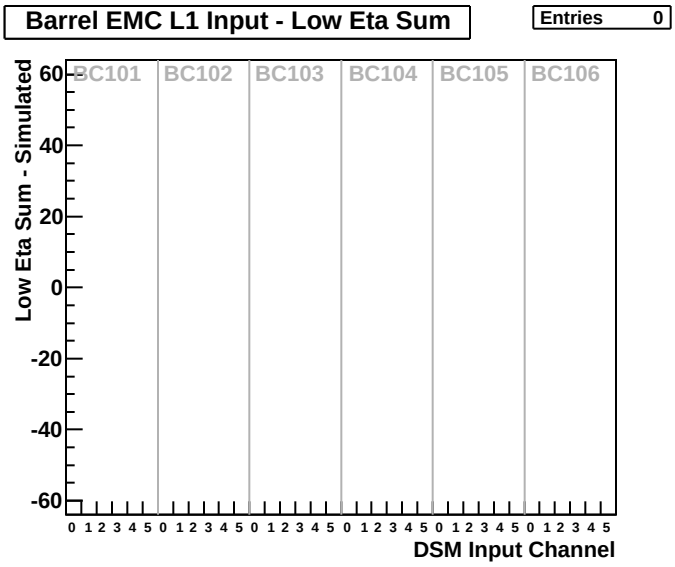
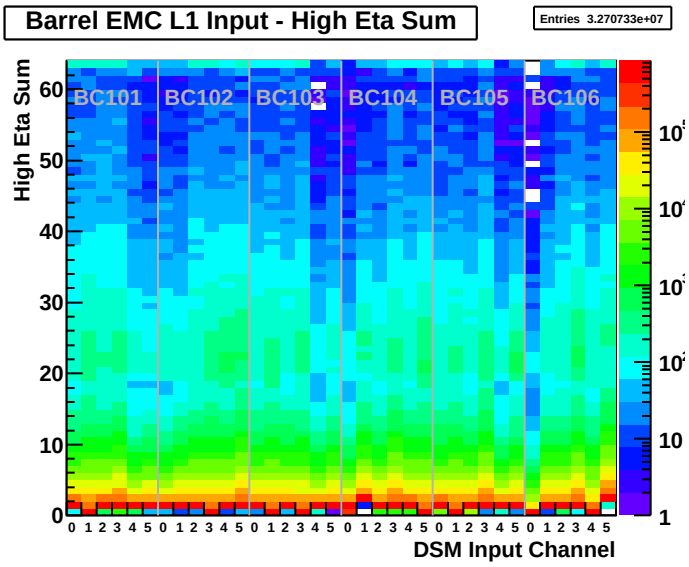
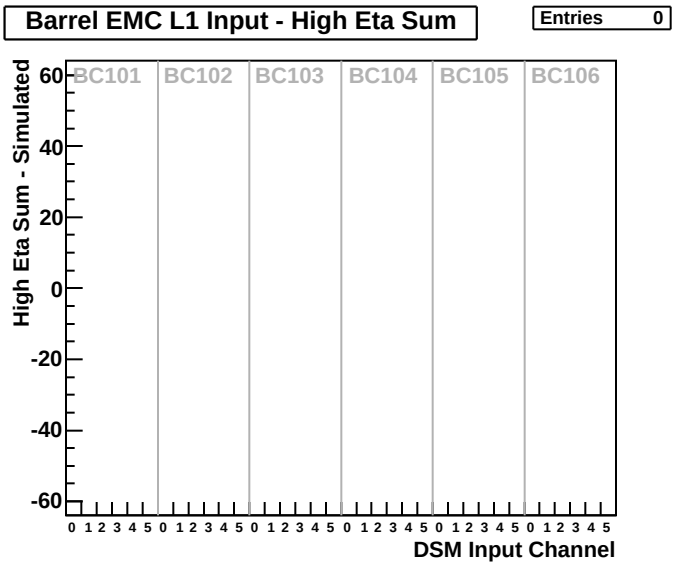
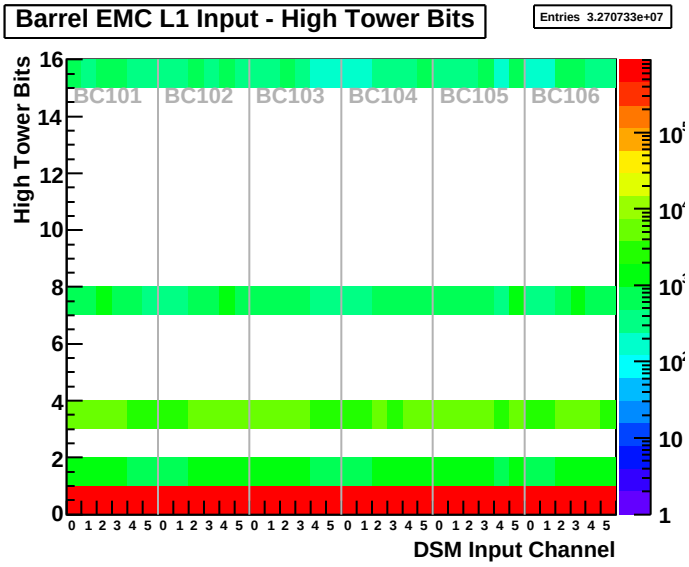
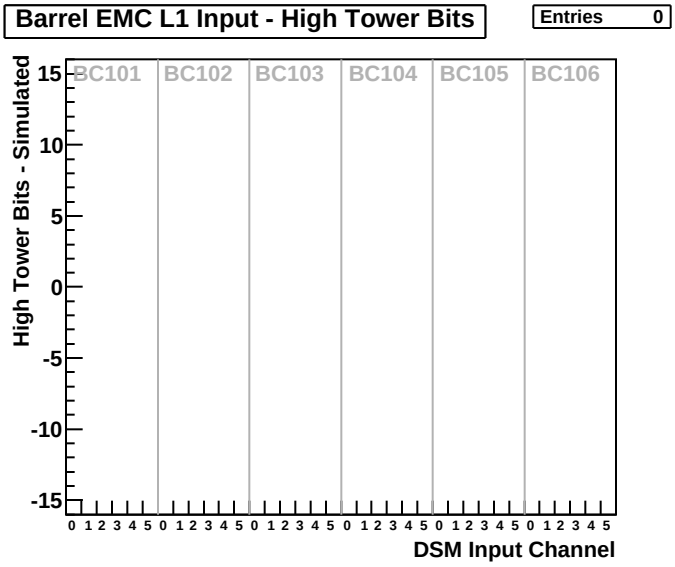

Barrel EMC L1 Input - Low Eta Sum
Entries 3.270733e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

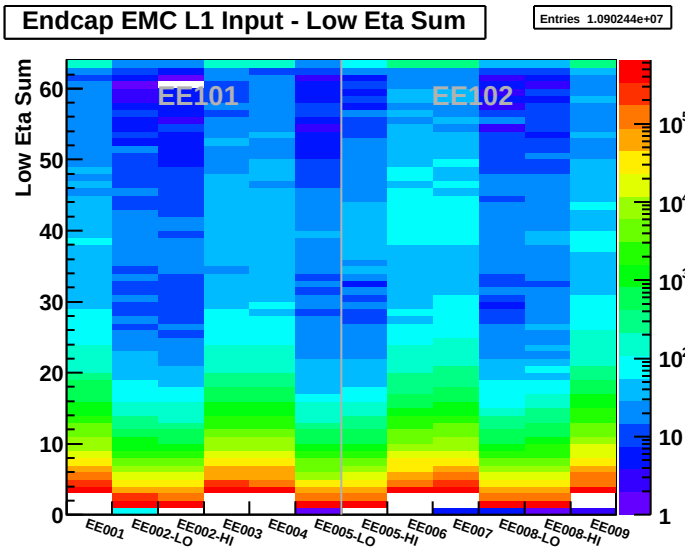

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

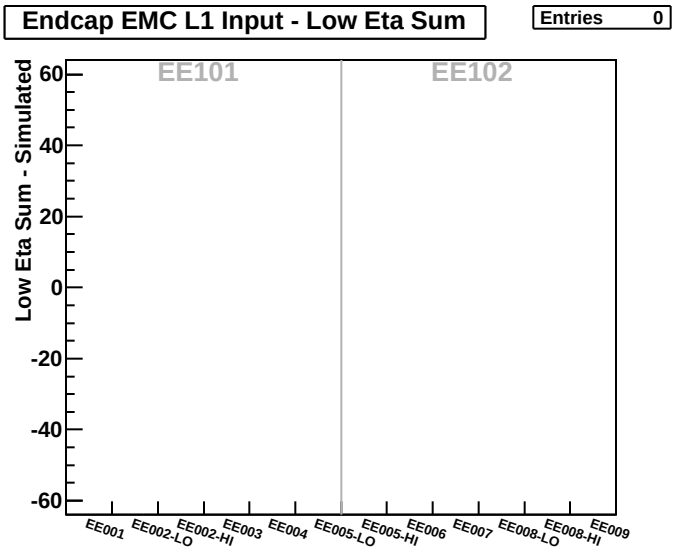

Barrel EMC L1 Input - High Eta Sum
Entries 3.270733e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

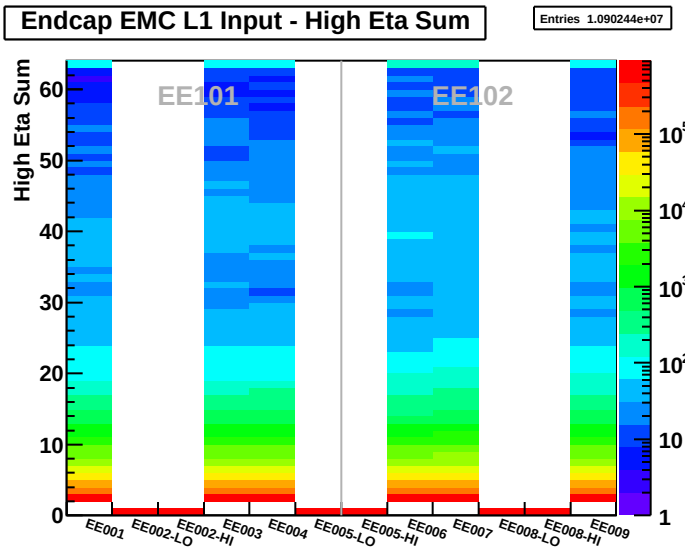

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

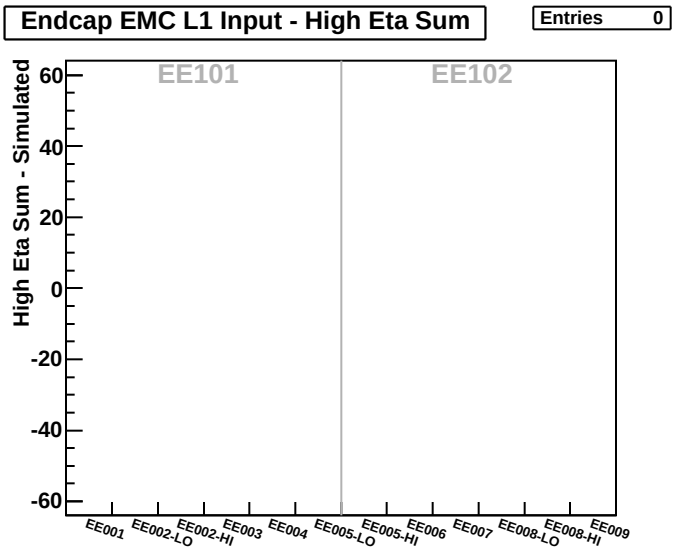

Barrel EMC L1 Input - High Tower Bits
Entries 3.270733e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

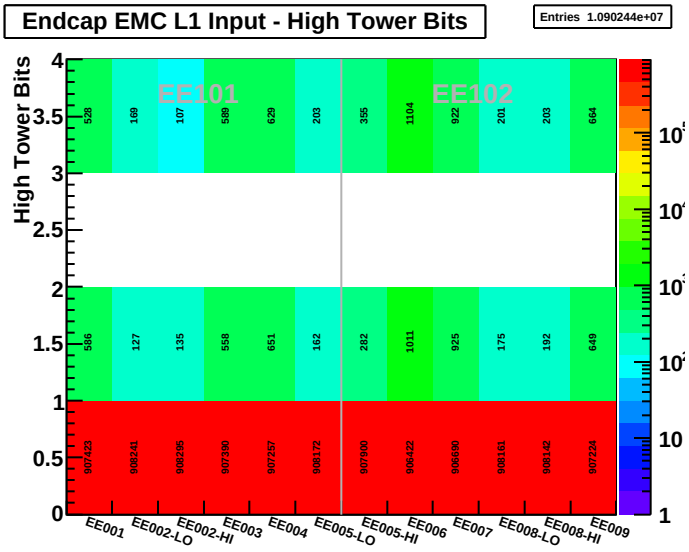

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

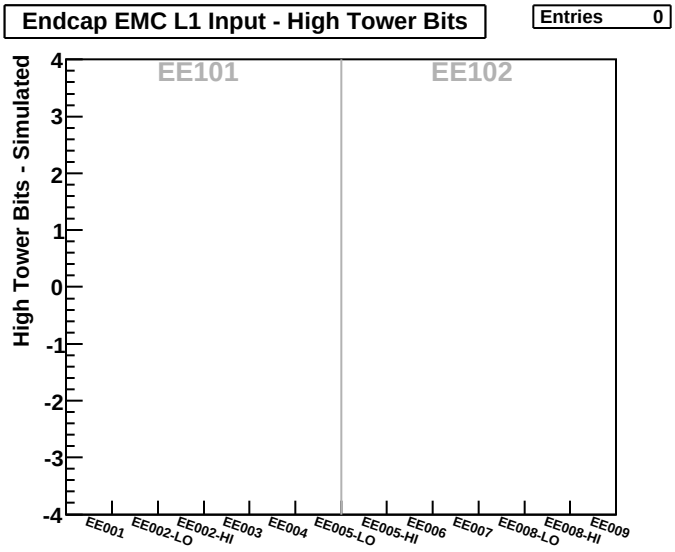

Endcap EMC L1 Input - Low Eta Sum
Entries 1.090244e+07
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

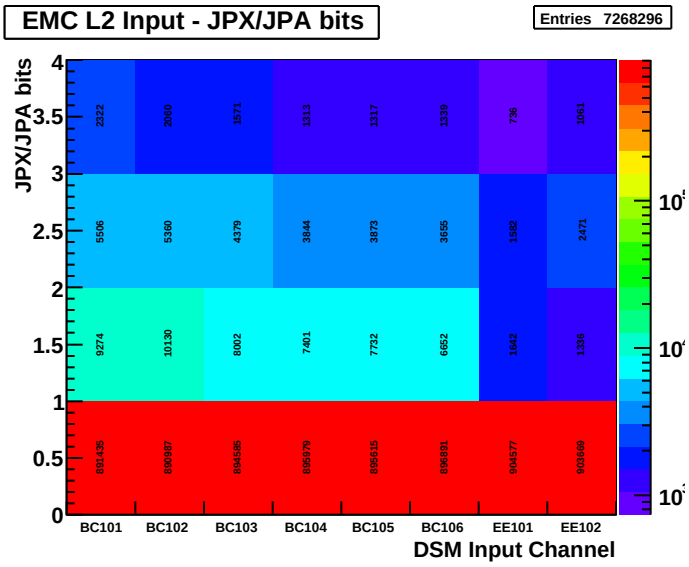

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

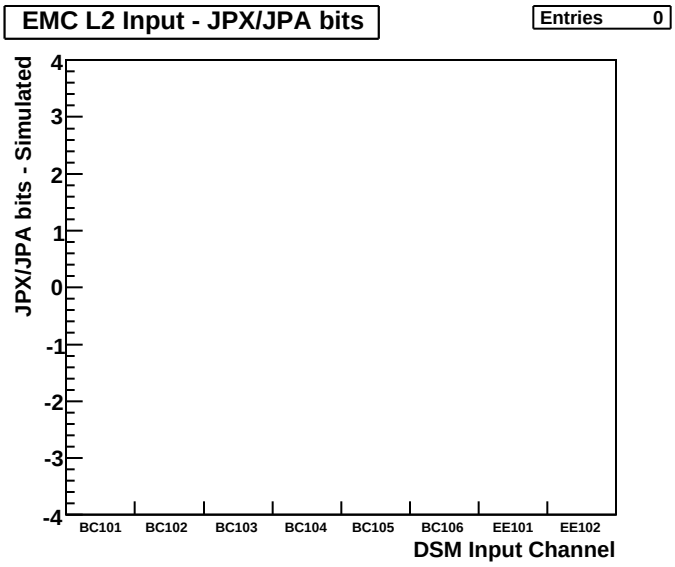

Endcap EMC L1 Input - High Eta Sum
Entries 1.090244e+07
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

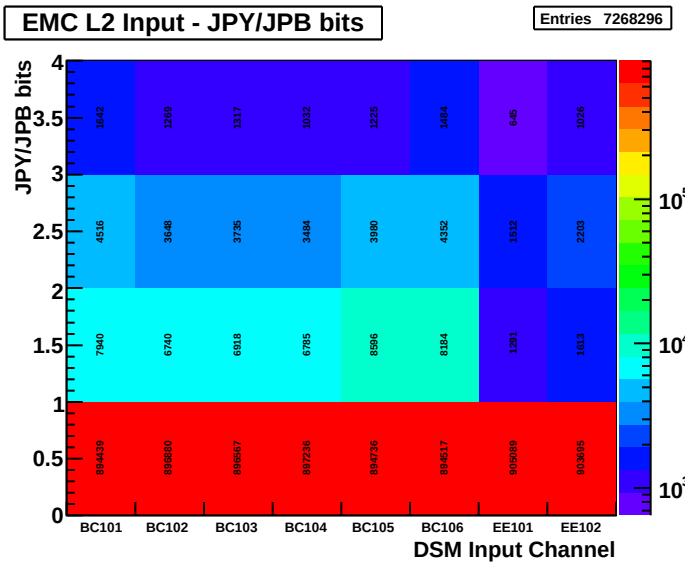

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

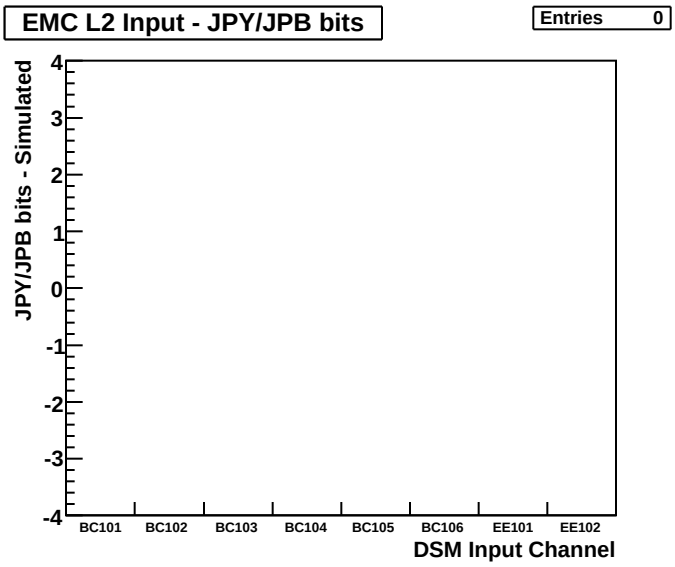

Endcap EMC L1 Input - High Tower Bits
Entries 1.090244e+07
High Tower Bits
EE101
EE102
528 169 107 589 629 203 355 1104 922 201 203 664
586 127 135 558 651 162 282 1011 925 175 192 648
907423 908241 908295 907390 907257 908172 907300 906422 906590 908161 908142 907224
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

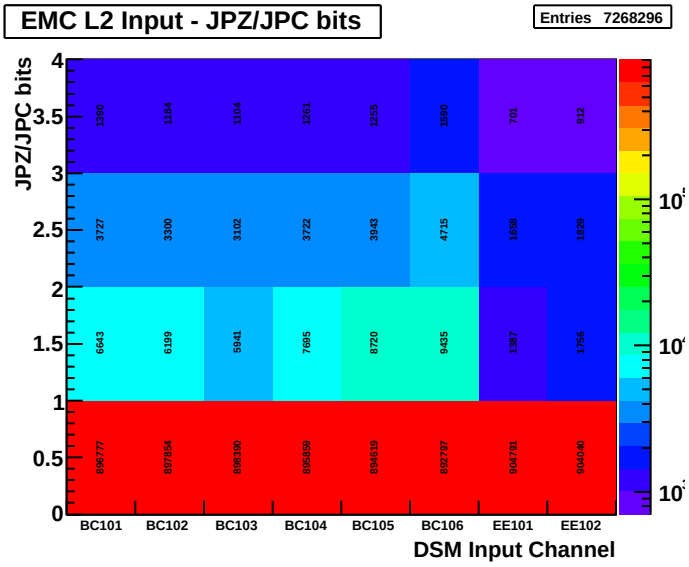

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

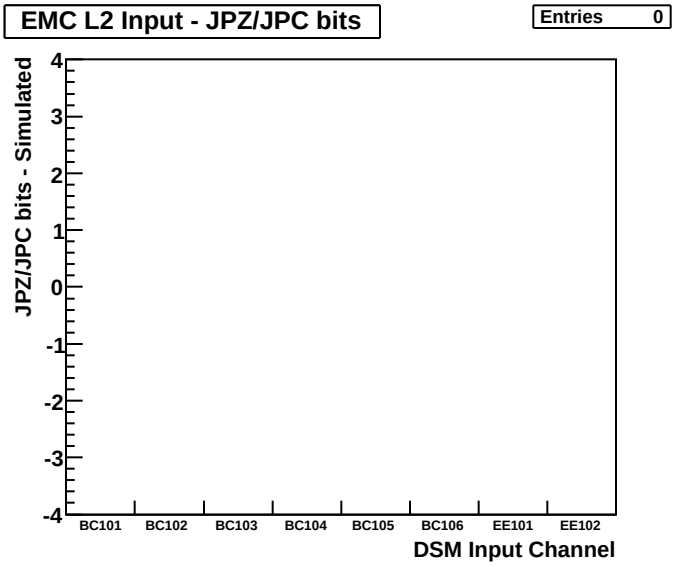

EMC L2 Input - JPX/JPA bits
Entries 7268296
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
2322 2060 1571 1313 1317 1339 736 1061
5506 5360 4379 3844 3873 3655 1582 2471
9274 10130 8002 7401 7732 6652 1642 1336
891435 890987 894585 895979 895615 896891 904577 903669

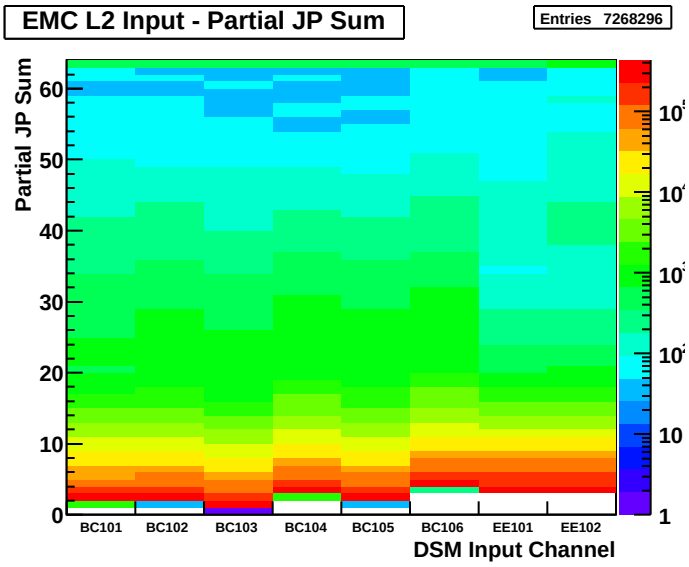

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

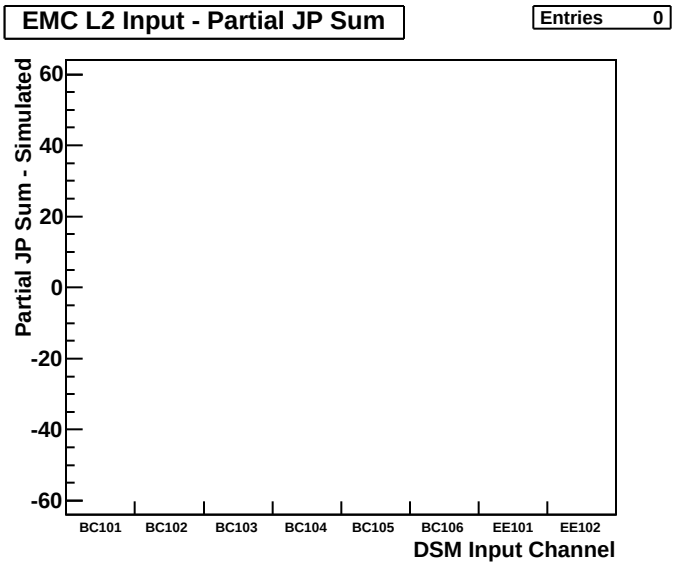

EMC L2 Input - JPY/JPB bits
Entries 7268296
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1842 1269 1317 1032 1225 1484 645 1026
4516 3648 3735 3484 3980 4352 1512 2203
7940 6740 6918 6785 8596 8184 1291 1613
894439 896880 896567 897236 894736 894517 905089 903695

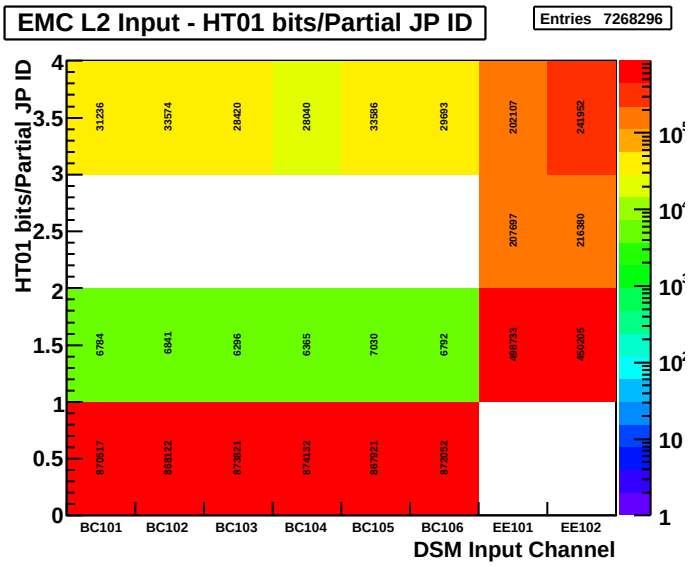

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

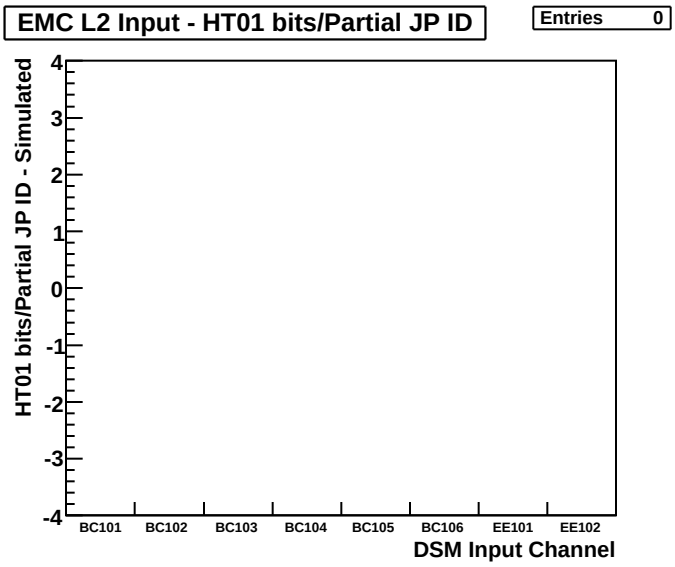

EMC L2 Input - JPZ/JPC bits
Entries 7268296
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1390 1184 1104 1261 1255 1590 701 912
3727 3300 3102 3722 3943 4715 1658 1829
6643 6199 5941 7695 8720 9435 1387 1756
896777 897854 898390 895859 894619 892797 904791 904040

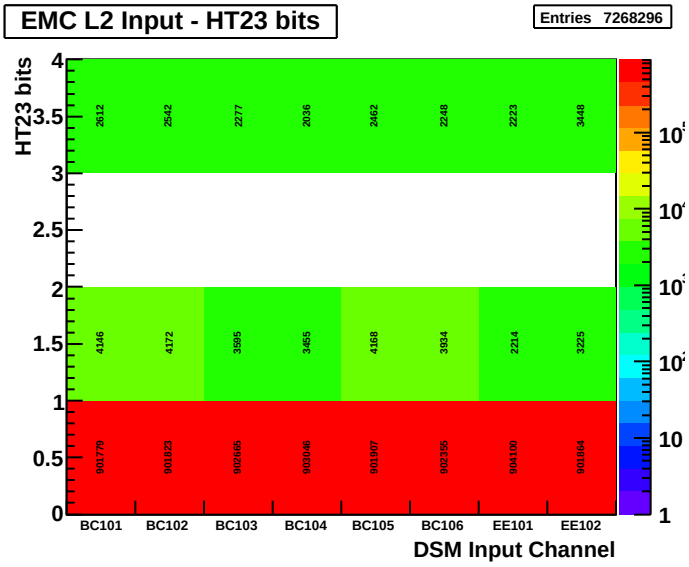

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

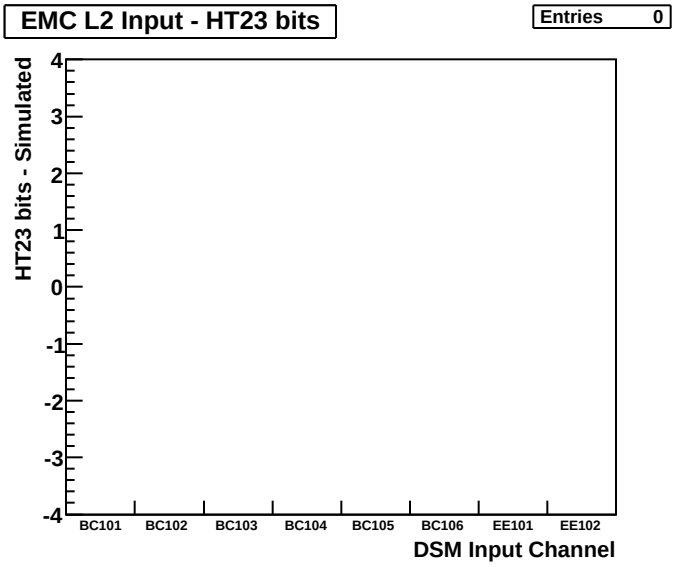

EMC L2 Input - Partial JP Sum
Entries 7268296
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

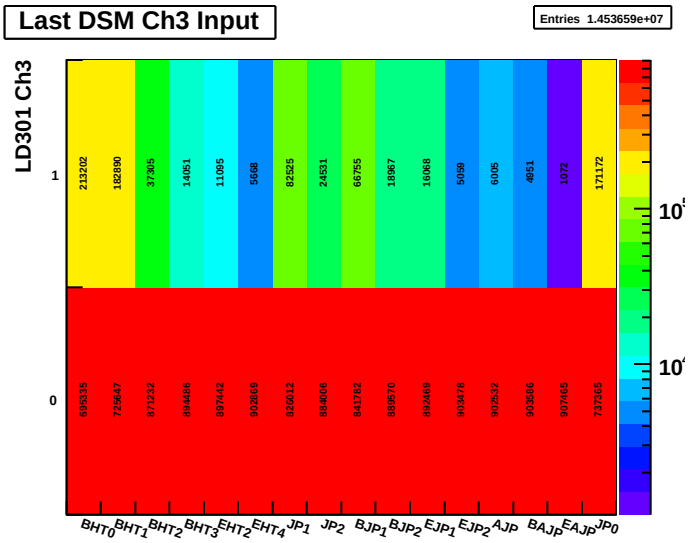

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

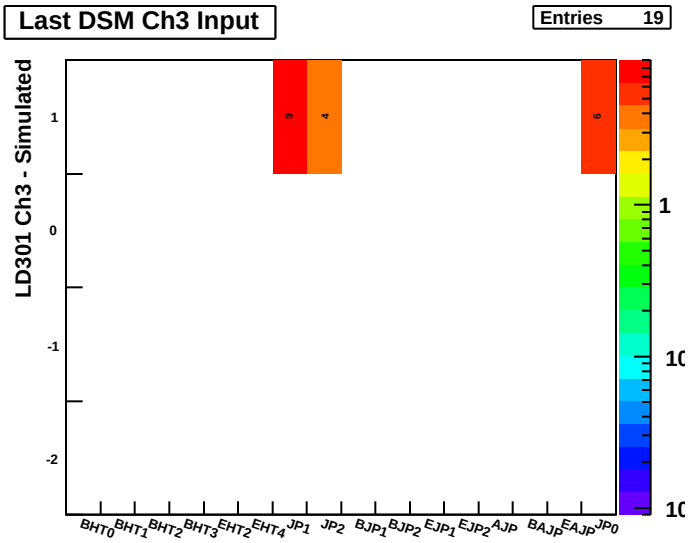

EMC L2 Input - HT01 bits/Partial JP ID
Entries 7268296
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

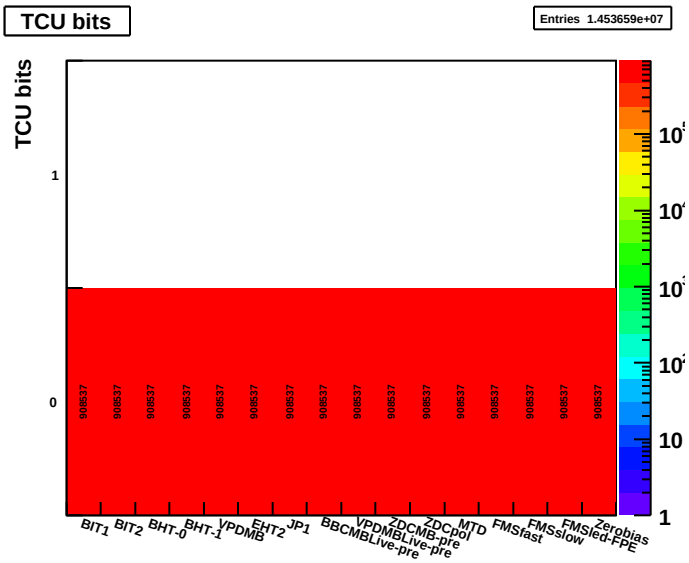

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

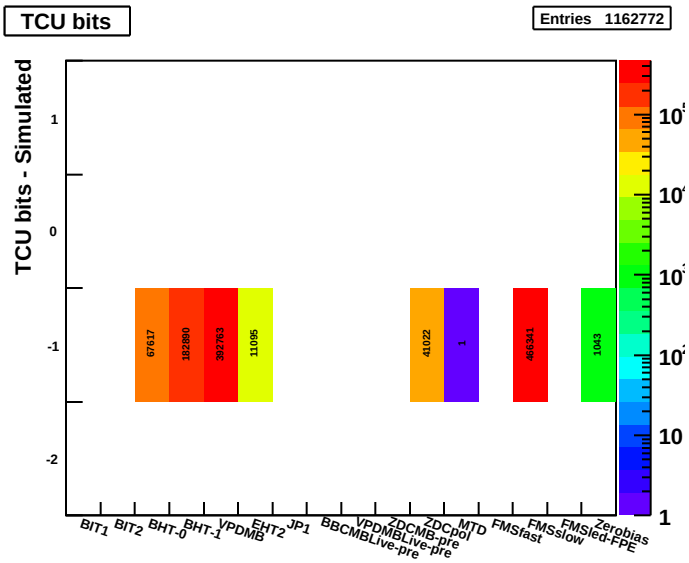

EMC L2 Input - HT23 bits
Entries 7268296
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

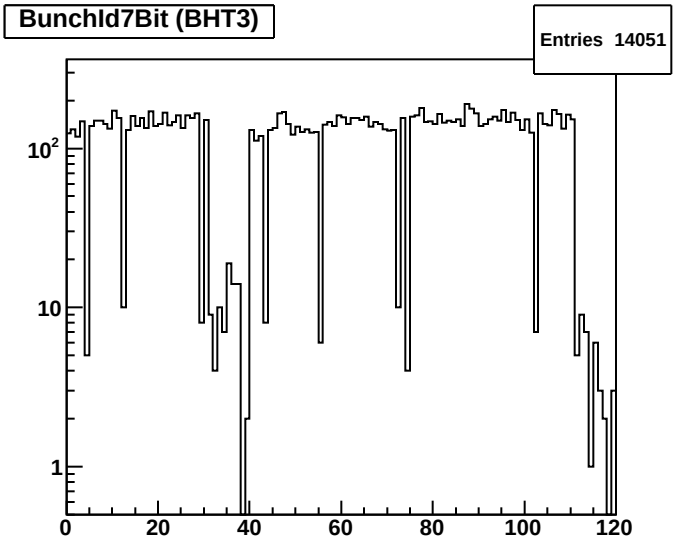

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

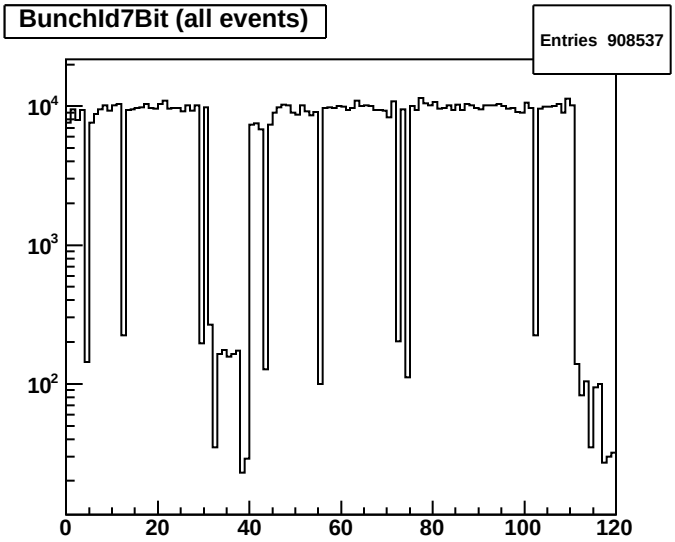

Last DSM Ch3 Input
Entries 1.453659e+07
LD301 Ch3
213202 182890 37305 14051 11095 5668 82525 24531 66755 18967 16068 5059 6005 4951 1072 171172
695335 725647 871232 894486 897442 902869 826012 884006 841782 889570 892469 903478 902532 903586 907455 737365
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

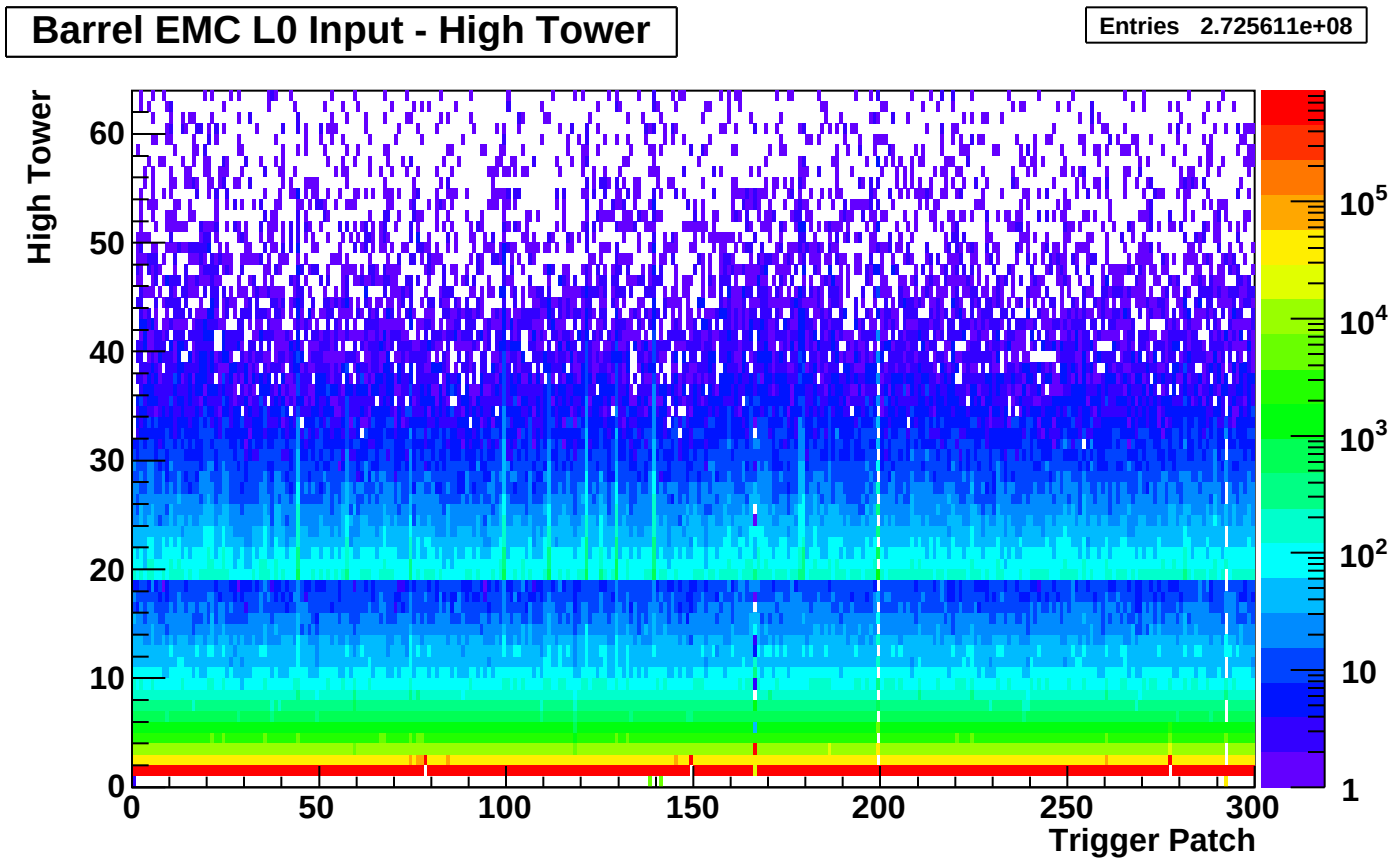

Last DSM Ch3 Input
Entries 19
LD301 Ch3 - Simulated
9 4 6
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP EAJP JP0

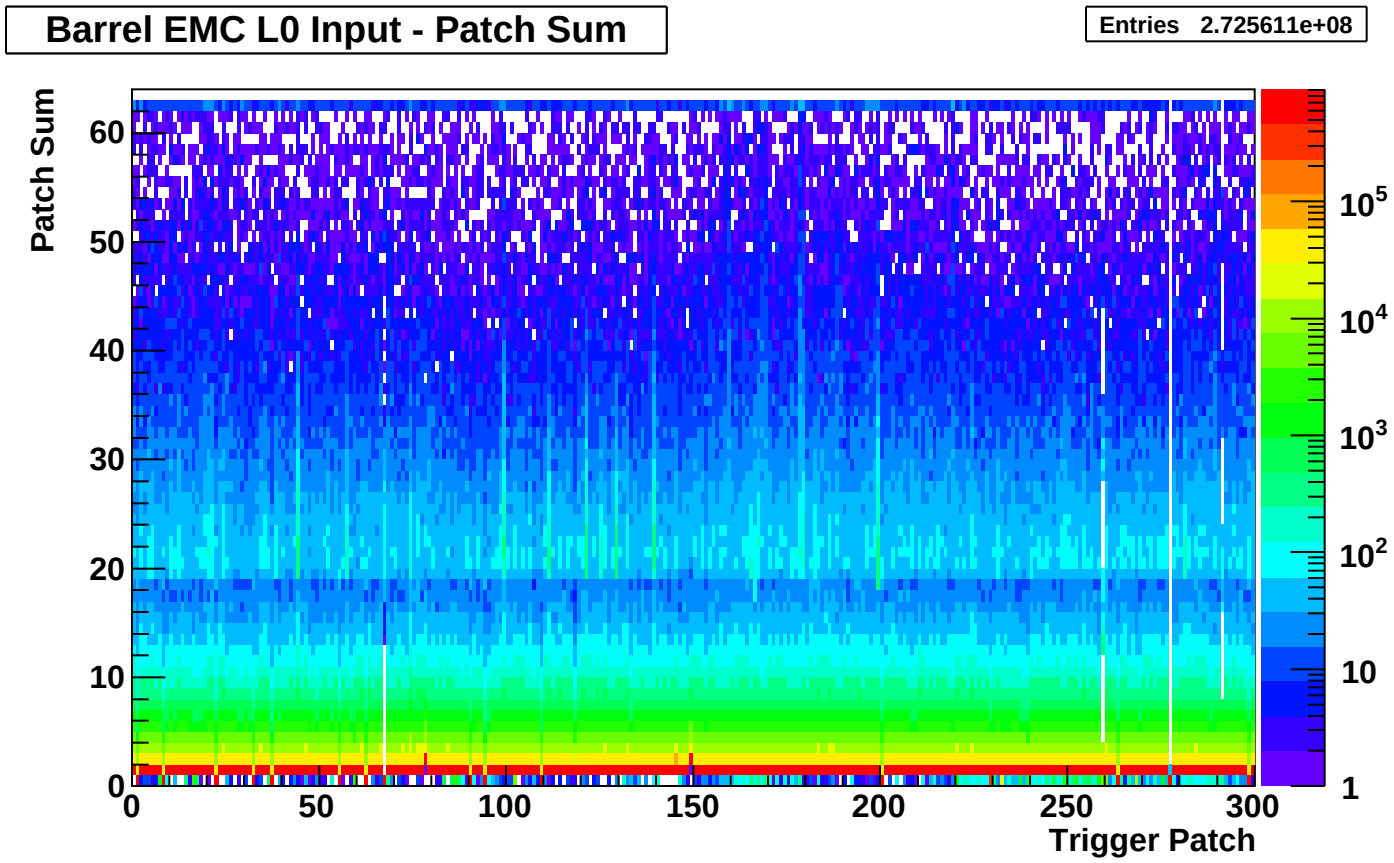

TCU bits
Entries 1.453659e+07
TCU bits
908537
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

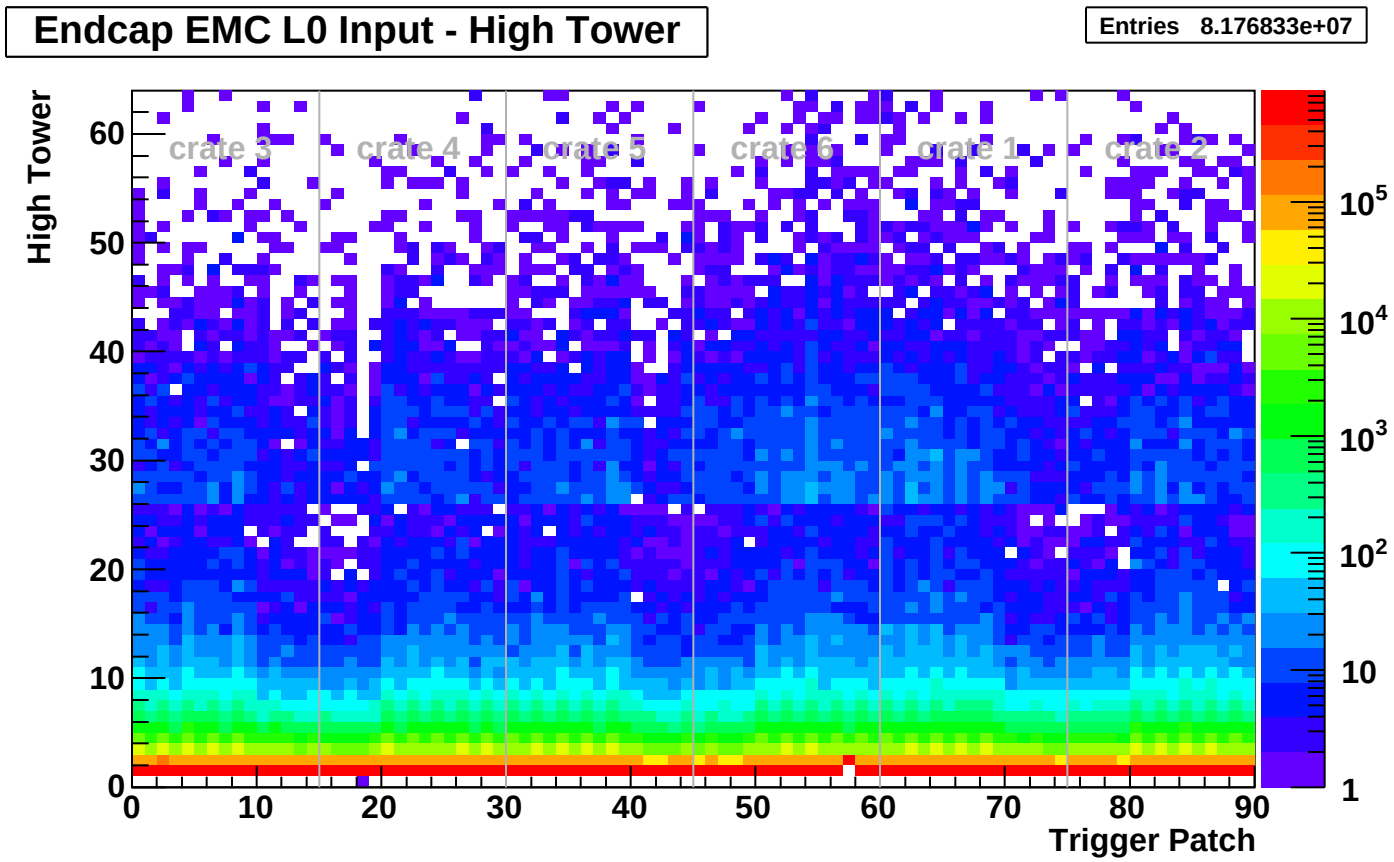

TCU bits
Entries 1162772
TCU bits - Simulated
67617 182890 392763 11095 41022 1 465341 1043
BIT1 BIT2 BHT-0 BHT-1 VPDMB EHT2 JP1 BBCMBLive-pre VPDMBLive-pre ZDCMB-pre ZDCpol MTD FMSfast FMSslow FMSled-FPE Zerobias

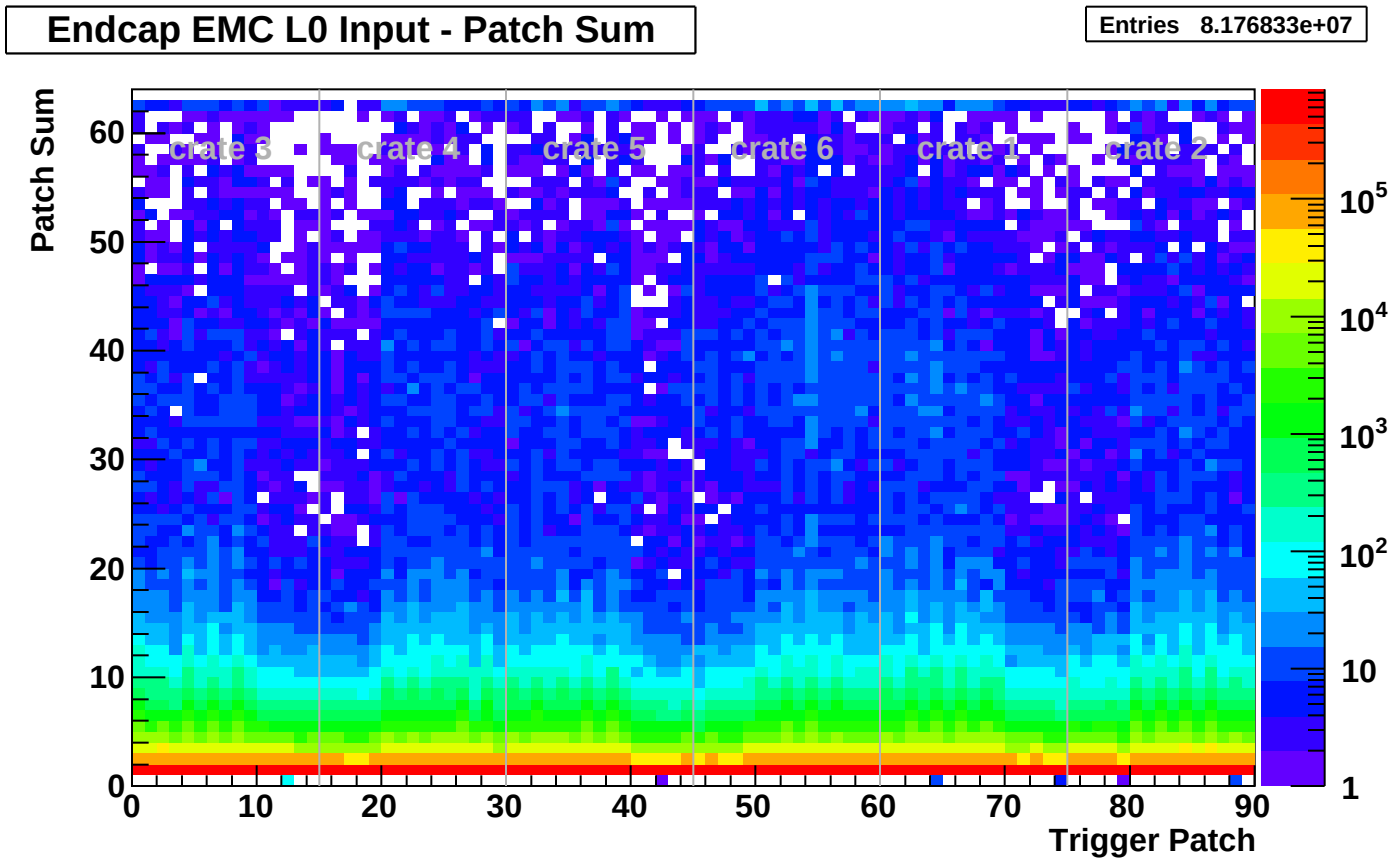

BunchId7Bit (BHT3)
Entries 14051

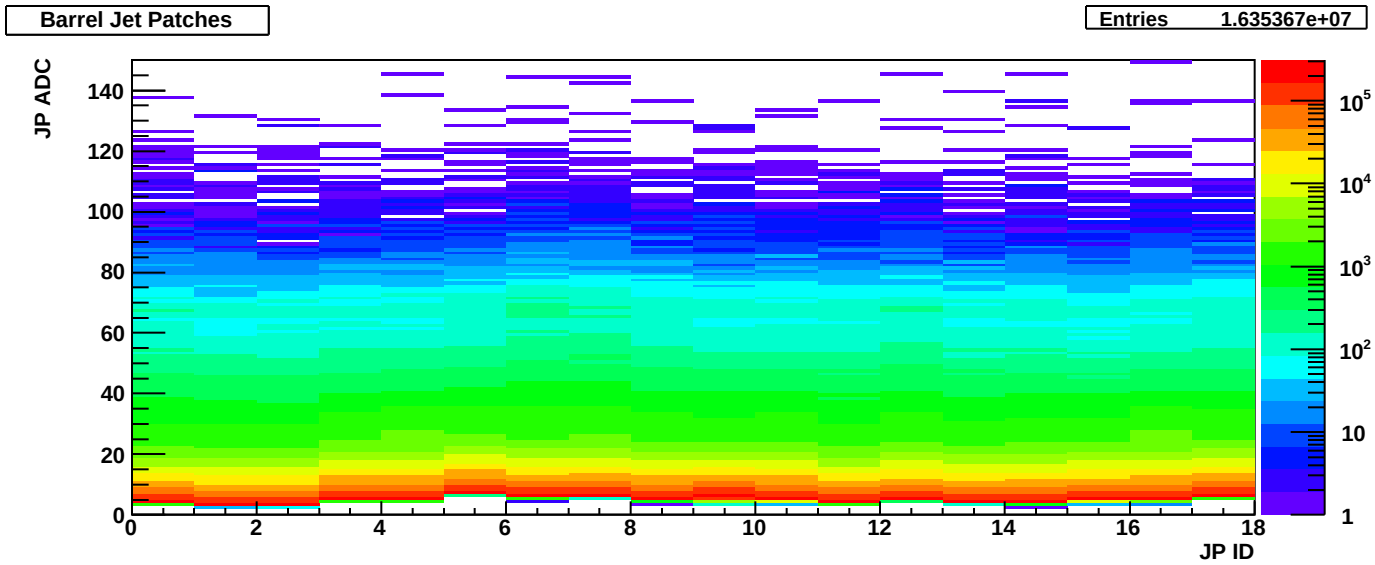

BunchId7Bit (all events)
Entries 908537

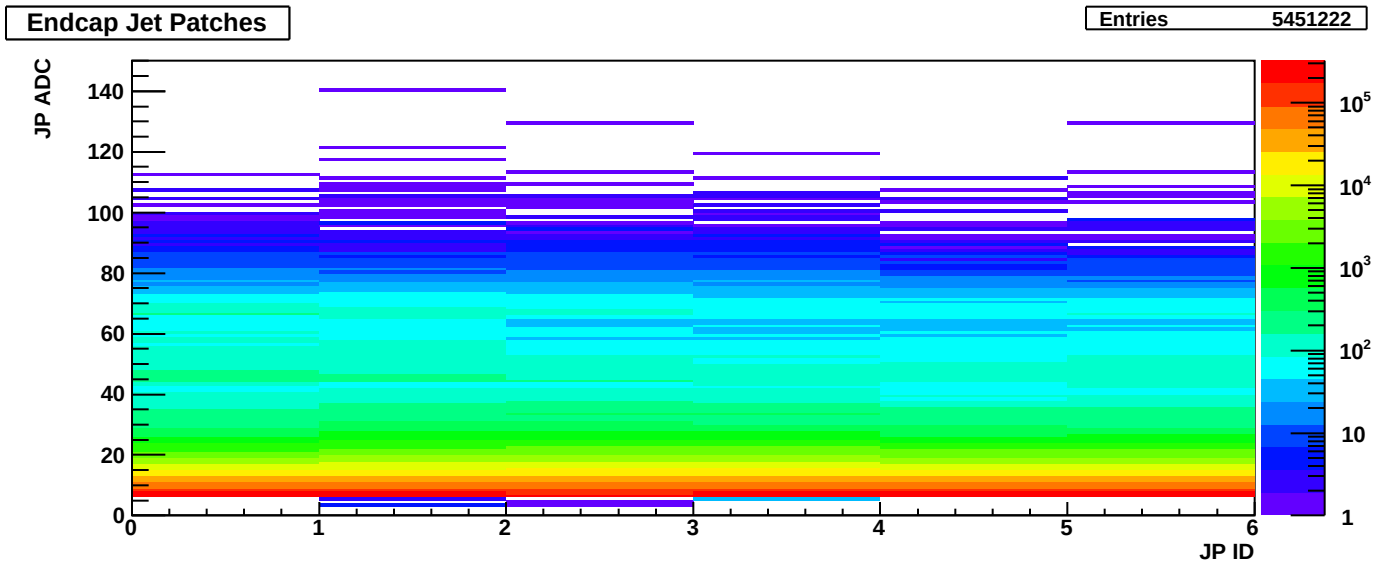

Barrel EMC L0 Input - High Tower
Entries 2.725611e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
$10^2$
$10^3$
$10^4$
$10^5$

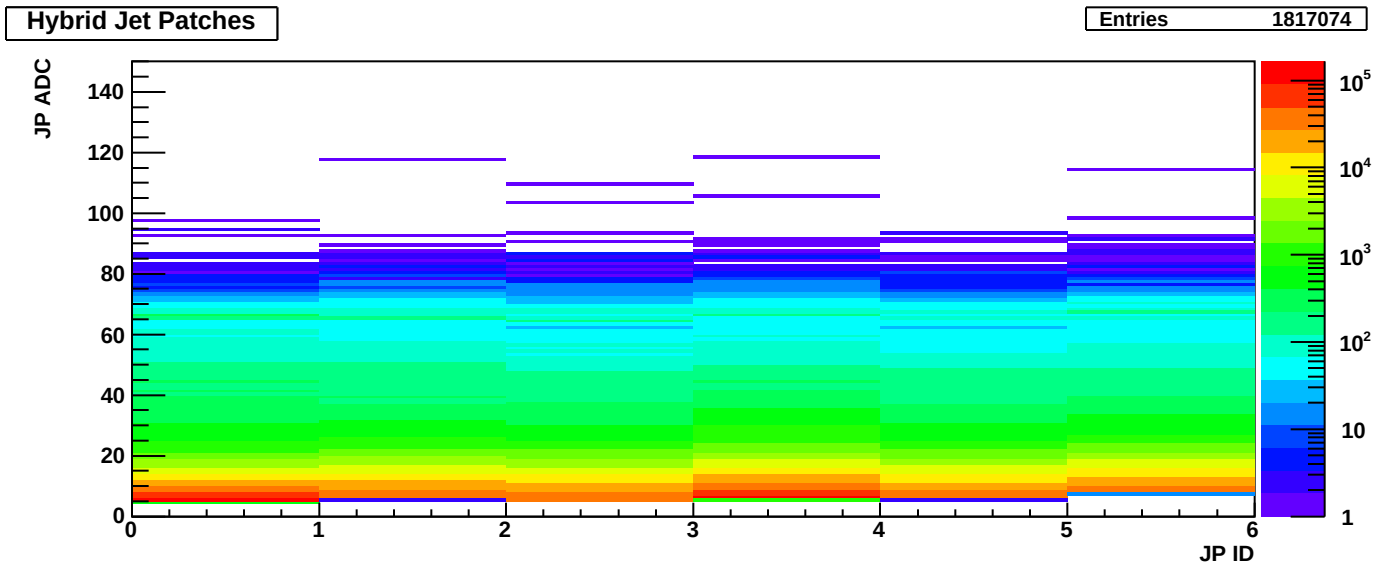

Barrel EMC L0 Input - Patch Sum
Entries 2.725611e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
$10^2$
$10^3$
$10^4$
$10^5$


Endcap EMC L0 Input - High Tower
Entries 8.176833e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2


Endcap EMC L0 Input - Patch Sum
Entries 8.176833e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

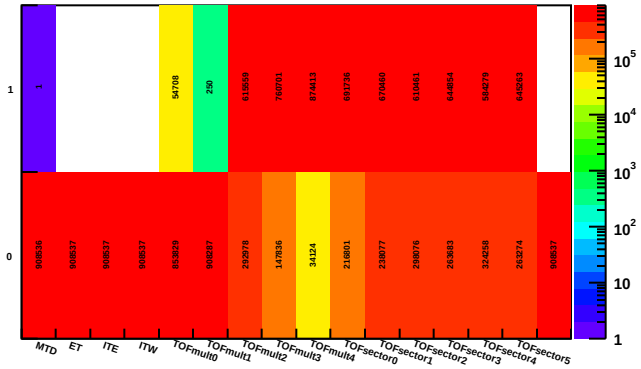

Barrel Jet Patches
Entries 1.635367e+07
JP ADC
JP ID


Endcap Jet Patches
Entries 5451222
JP ADC
JP ID


Hybrid Jet Patches
Entries 1817074
JP ADC
JP ID

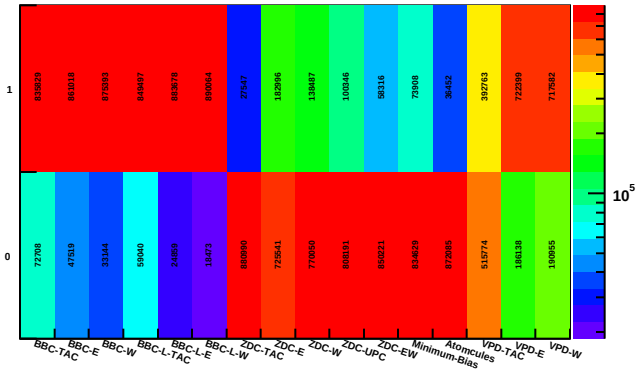
## TF201 0-15 (ch0)

Entries 1.453659e+07



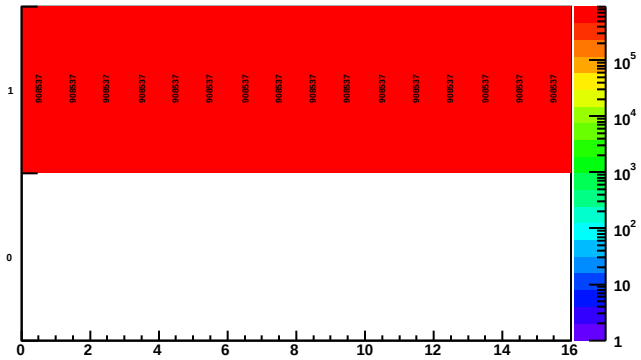

## VT201 0-15 (ch1)

Entries 1.453659e+07



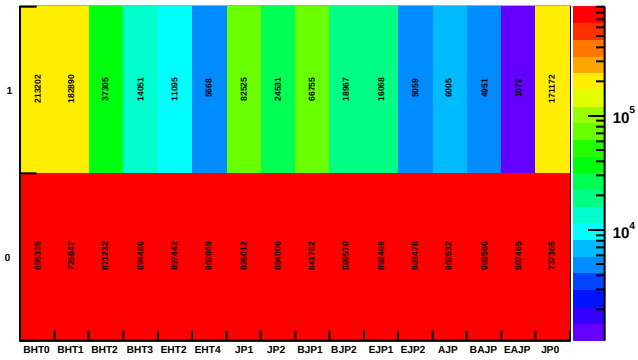

## Unused (ch2)

Entries 1.453659e+07



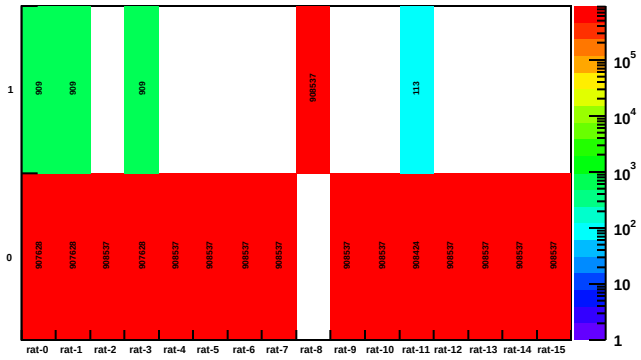

## EM201 0-15 (ch3)

Entries 1.453659e+07



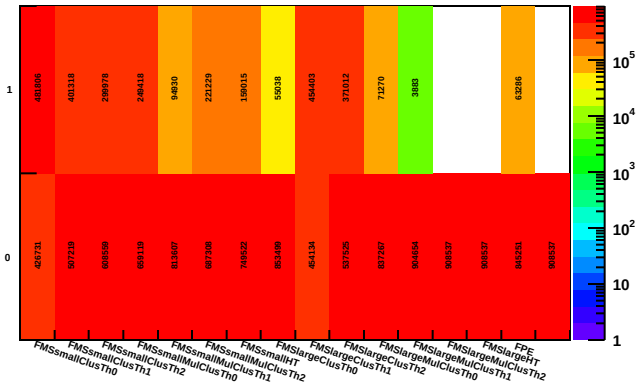

## RAT board (ch4)

Entries 1.453659e+07



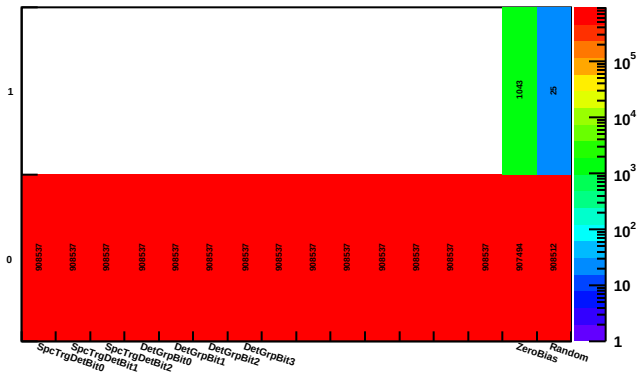

## FP201 0-15 (ch5)

Entries 1.453659e+07



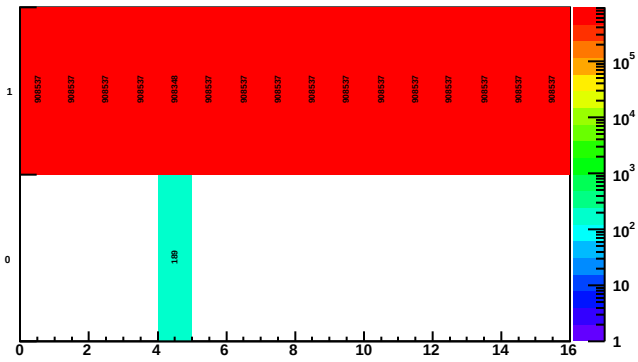

## ST201 0-15 (ch6)

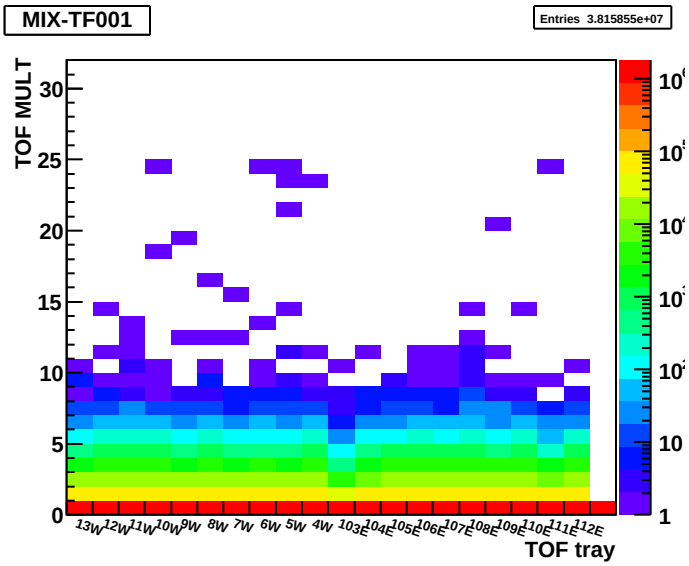
Entries 1.453659e+07

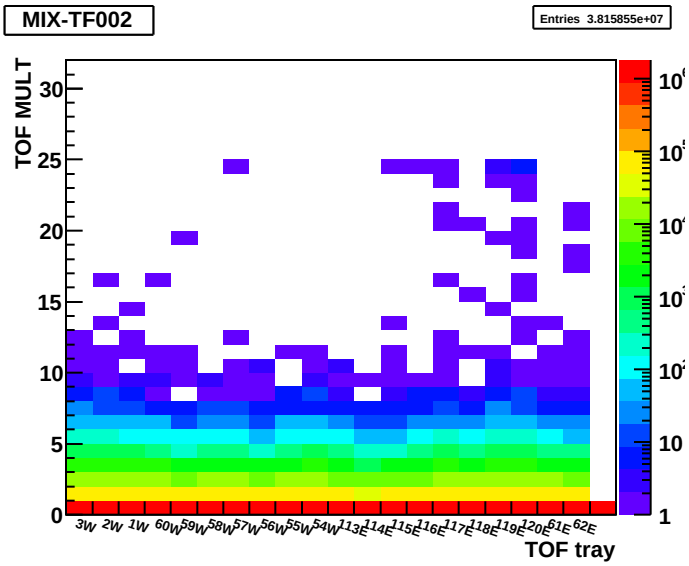


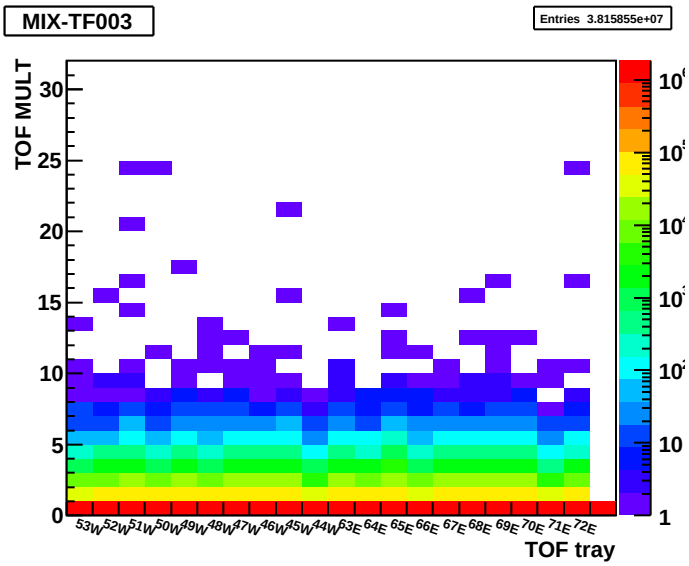

## Unused (ch7)

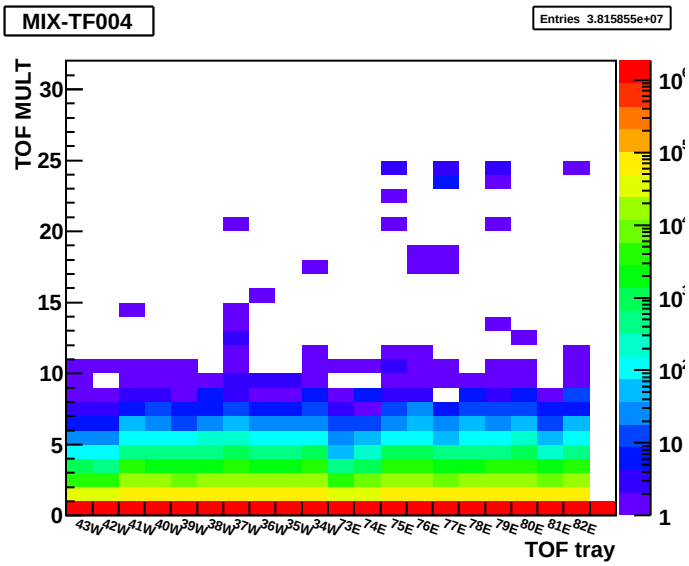
Entries 1.453659e+07

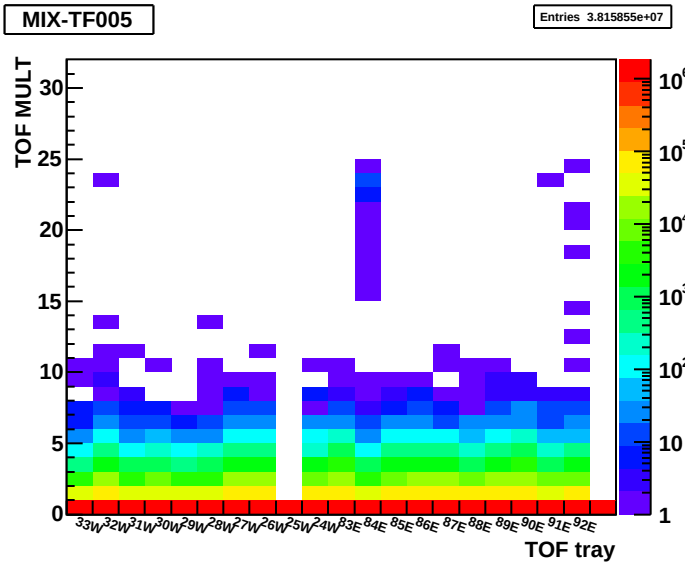


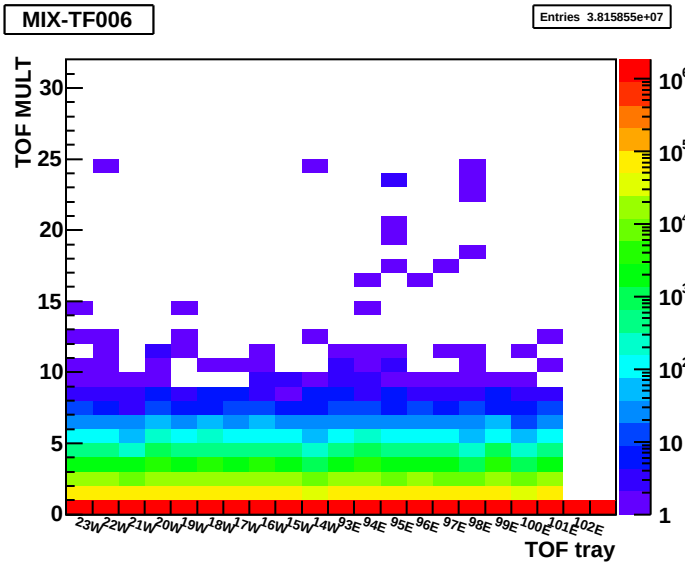

MIX-TF001
Entries 3.815855e+07
TOF MULT
TOF tray

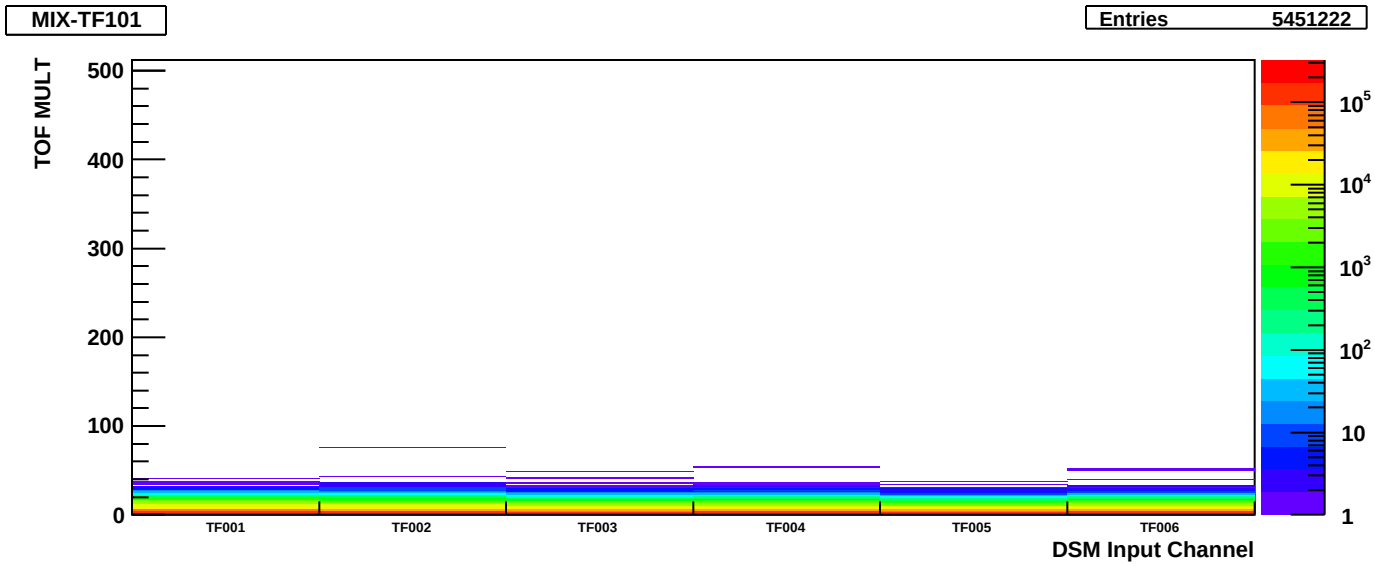

MIX-TF002
Entries 3.815855e+07
TOF MULT
TOF tray

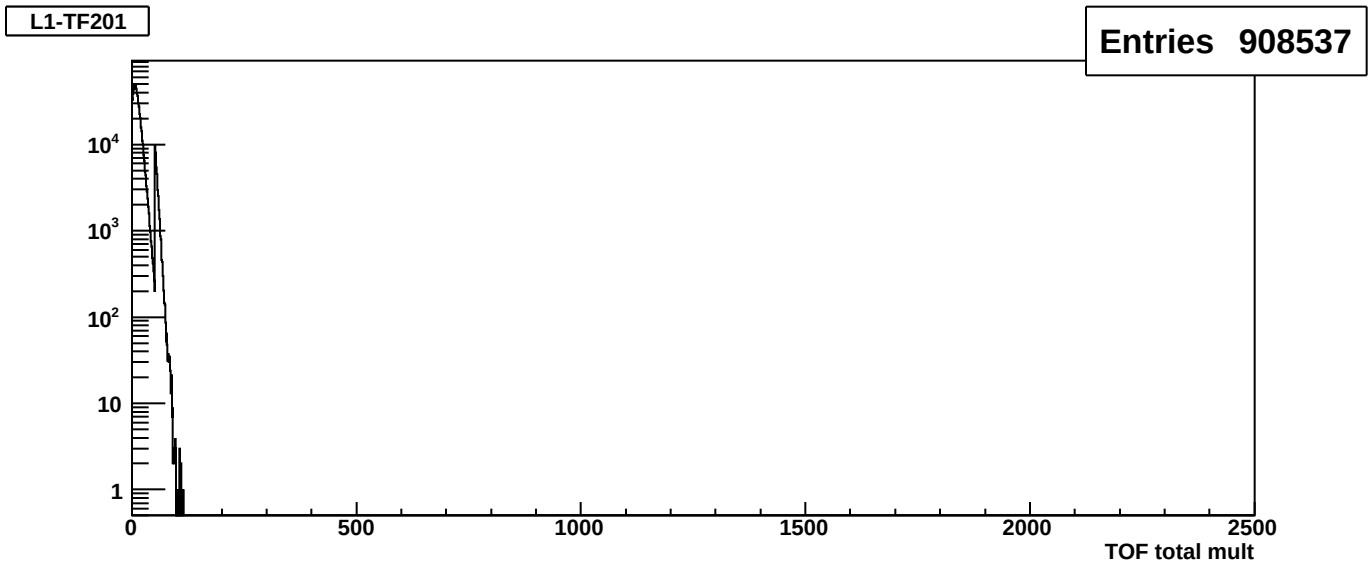

MIX-TF003
Entries 3.815855e+07
TOF MULT
TOF tray

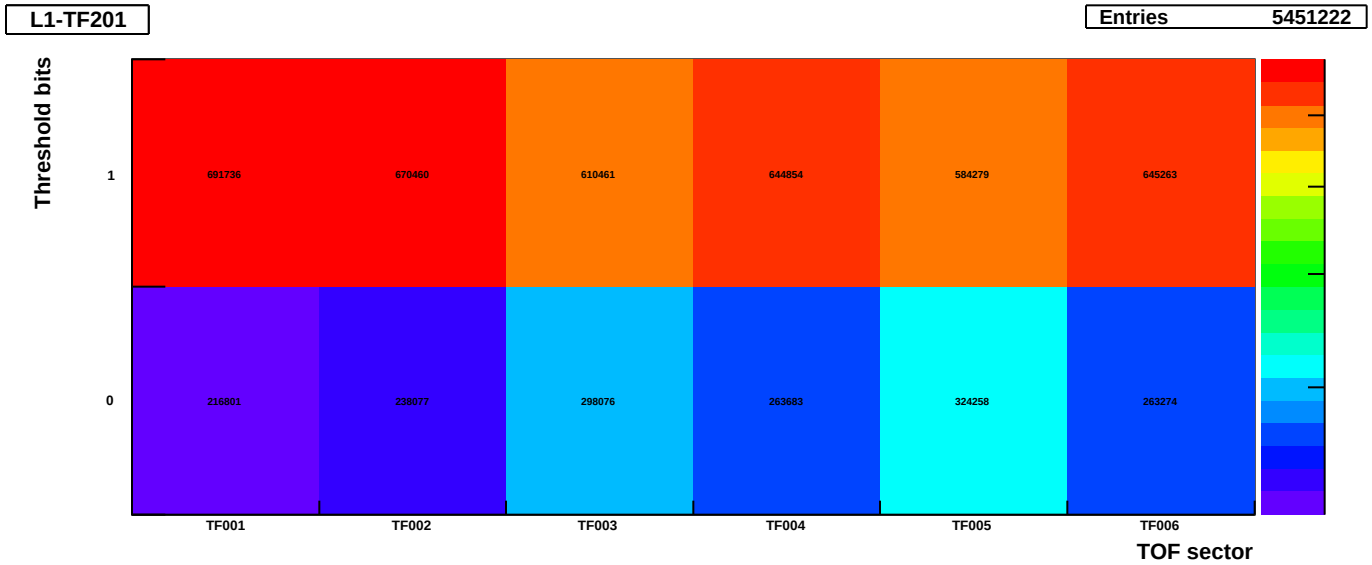

MIX-TF004
Entries 3.815855e+07
TOF MULT
TOF tray

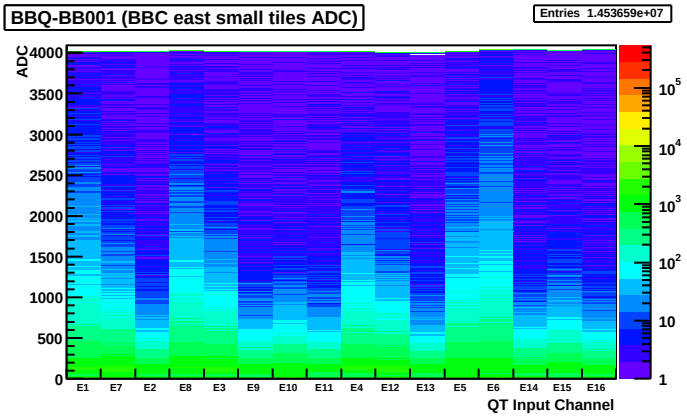

MIX-TF005
Entries 3.815855e+07
TOF MULT
TOF tray

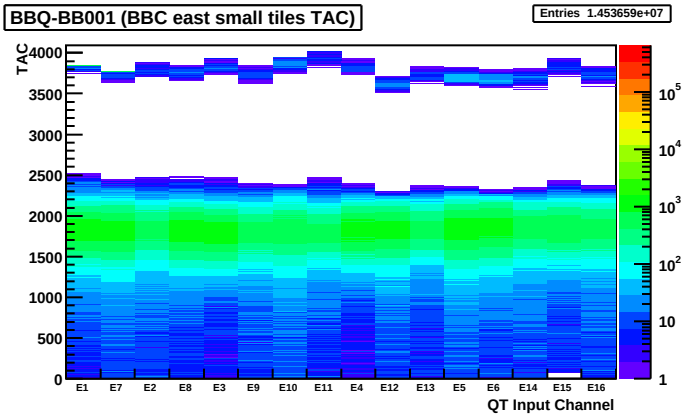

MIX-TF006
Entries 3.815855e+07
TOF MULT
TOF tray

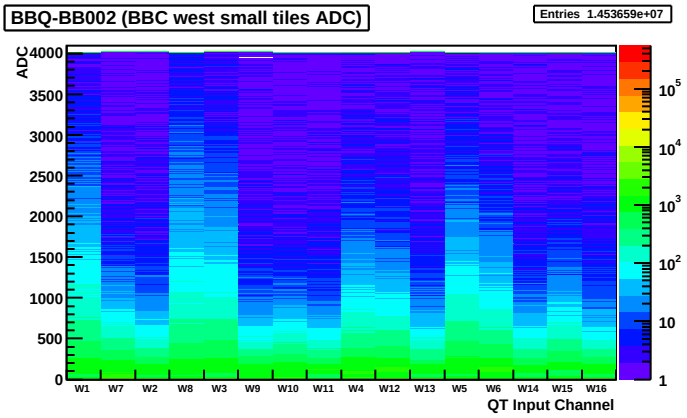

MIX-TF101
Entries 5451222
TOF MULT
500
400
300
200
100
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
$10^5$
$10^4$
$10^3$
$10^2$
10
1

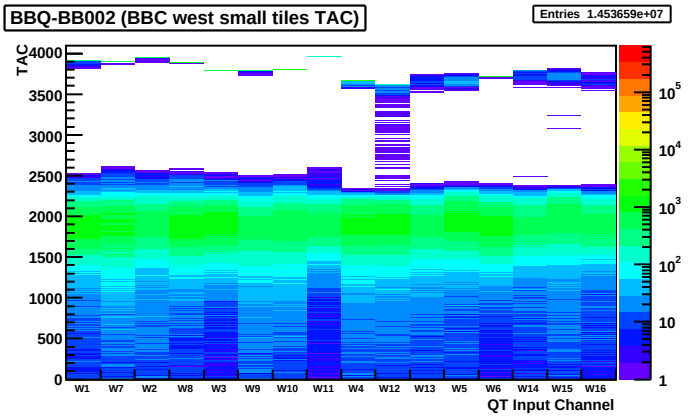

L1-TF201
Entries 908537
$10^4$
$10^3$
$10^2$
10
1
0
500
1000
1500
2000
2500
TOF total mult

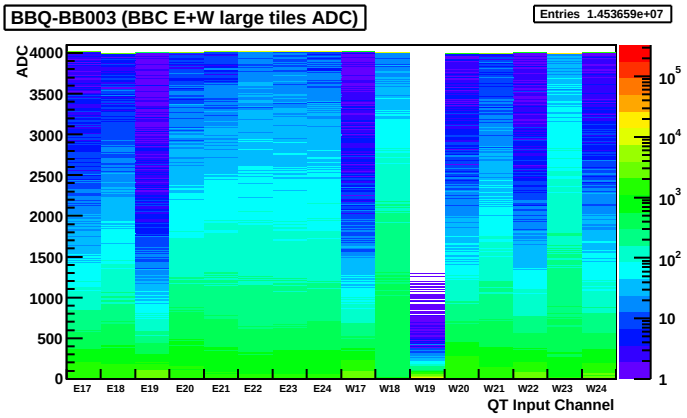

L1-TF201
Entries 5451222
Threshold bits
1
0
691736
670460
610461
644854
584279
645263
216801
238077
298076
263683
324258
263274
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

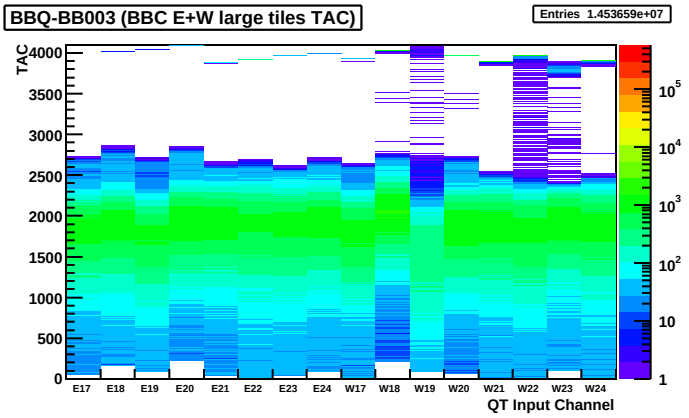

BBQ-BB001 (BBC east small tiles ADC)
Entries 1.453659e+07
ADC
QT Input Channel

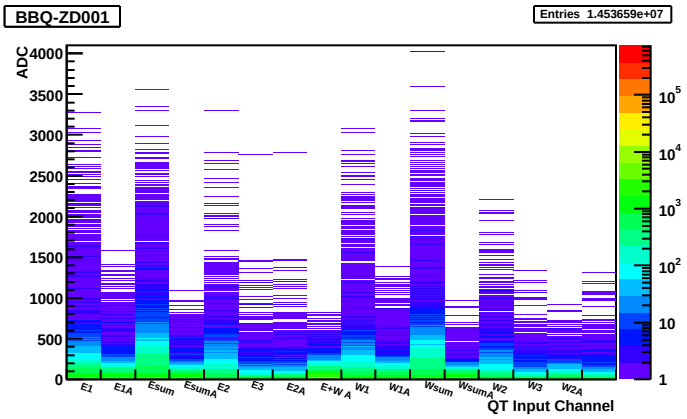

BBQ-BB001 (BBC east small tiles TAC)
Entries 1.453659e+07
TAC
QT Input Channel

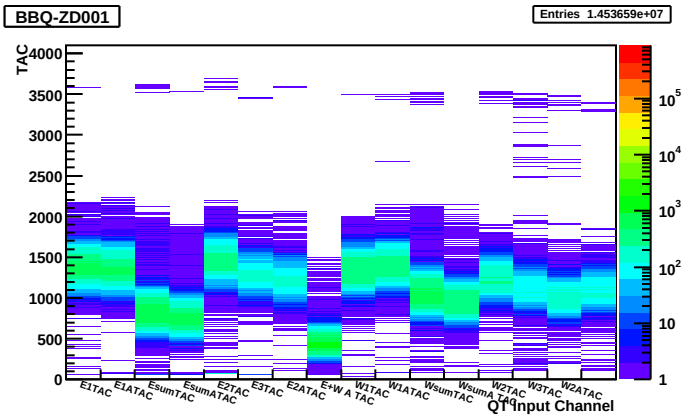

BBQ-BB002 (BBC west small tiles ADC)
Entries 1.453659e+07
ADC
QT Input Channel

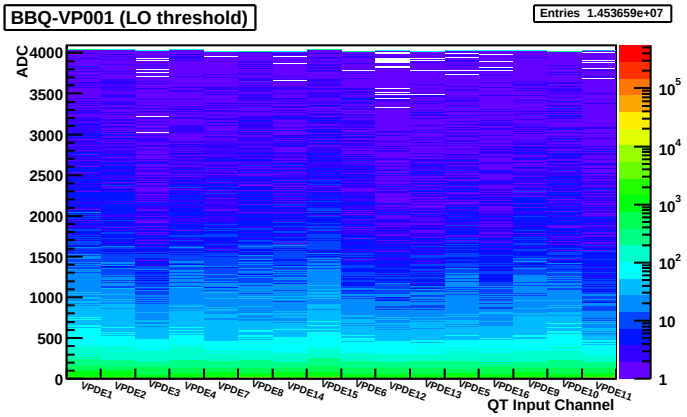

BBQ-BB002 (BBC west small tiles TAC)
Entries 1.453659e+07
TAC
QT Input Channel

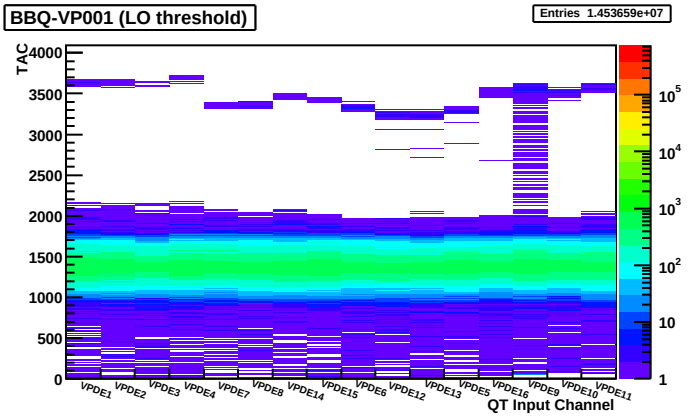

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1.453659e+07
ADC
QT Input Channel

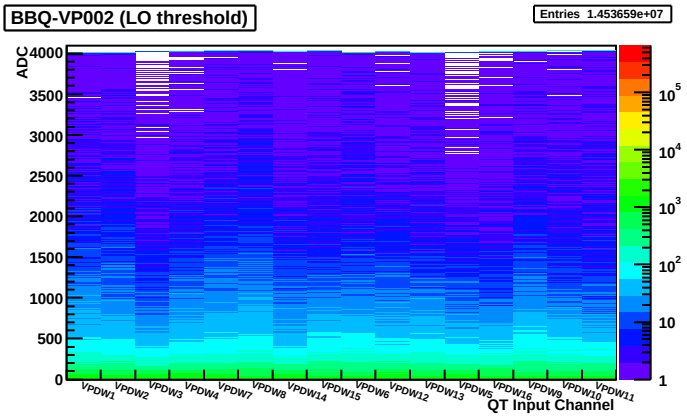

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1.453659e+07
TAC
QT Input Channel

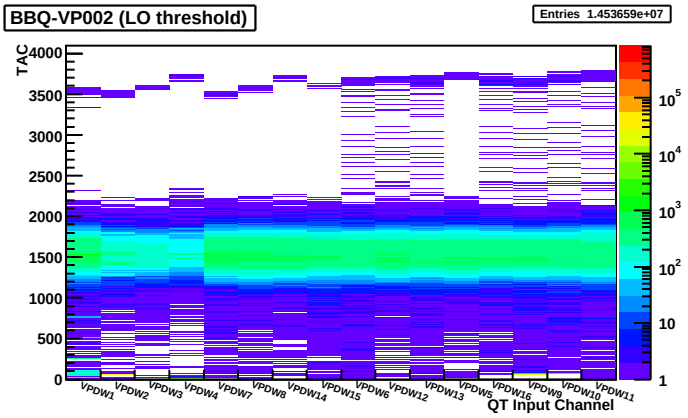

BBQ-ZD001
Entries 1.453659e+07
ADC
QT Input Channel

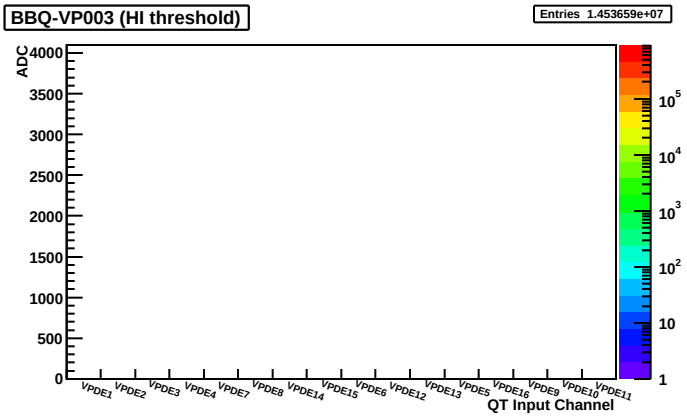

BBQ-ZD001
Entries 1.453659e+07
TAC
QT Input Channel

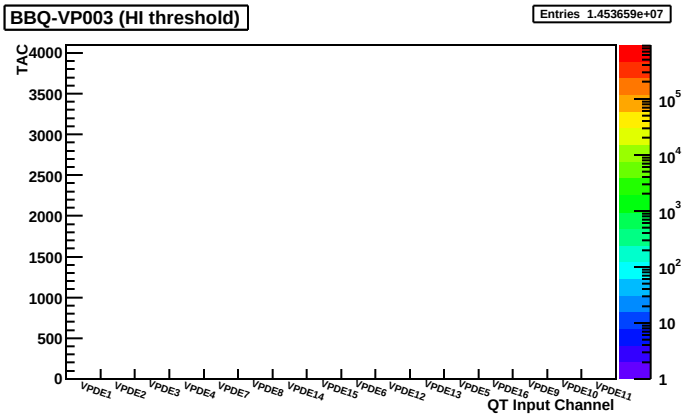

BBQ-VP001 (LO threshold)
Entries 1.453659e+07
ADC
QT Input Channel

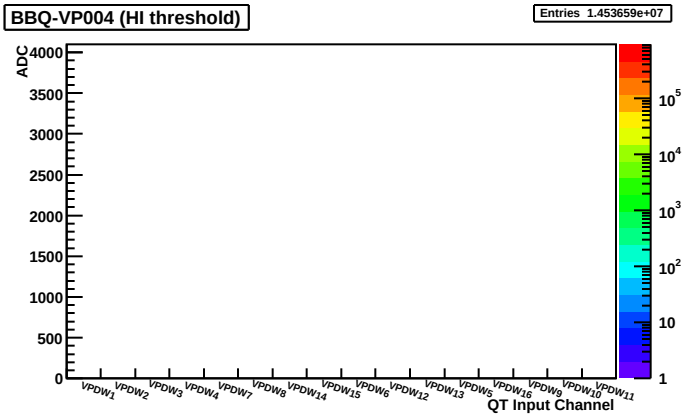

BBQ-VP001 (LO threshold)
Entries 1.453659e+07
TAC
QT Input Channel

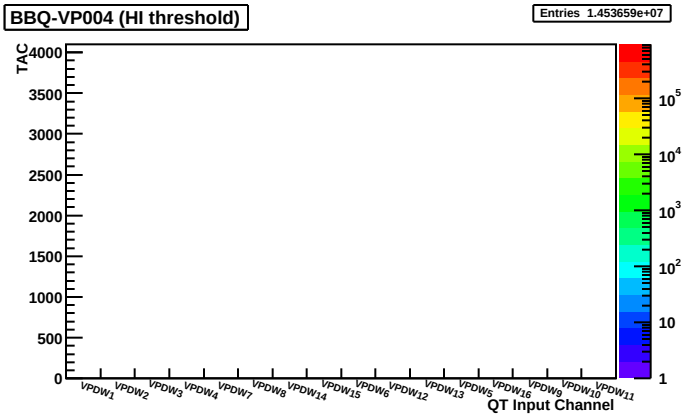

BBQ-VP002 (LO threshold)
Entries 1.453659e+07
ADC
QT Input Channel

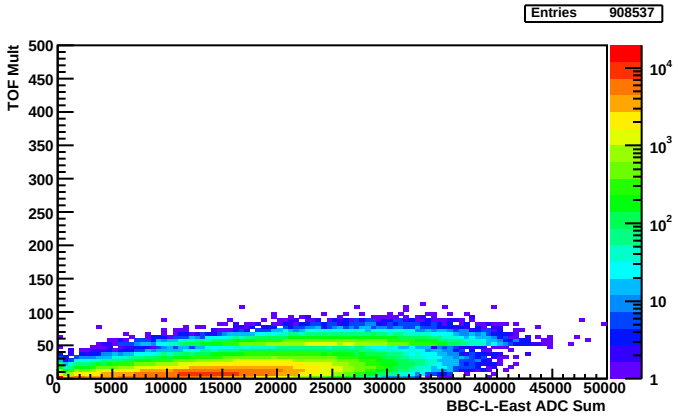

BBQ-VP002 (LO threshold)
Entries 1.453659e+07
TAC
QT Input Channel

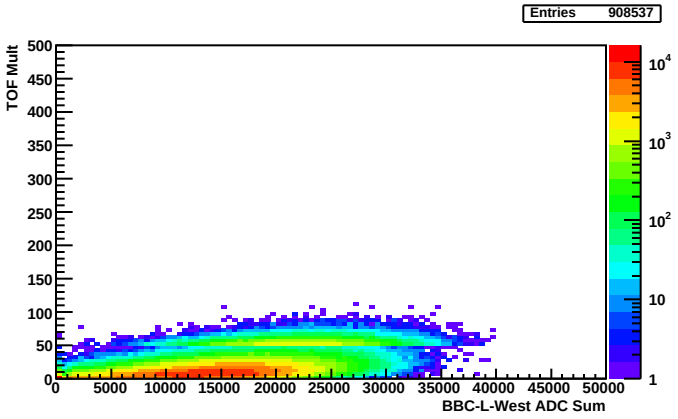

BBQ-VP003 (HI threshold)
Entries 1.453659e+07
ADC
QT Input Channel

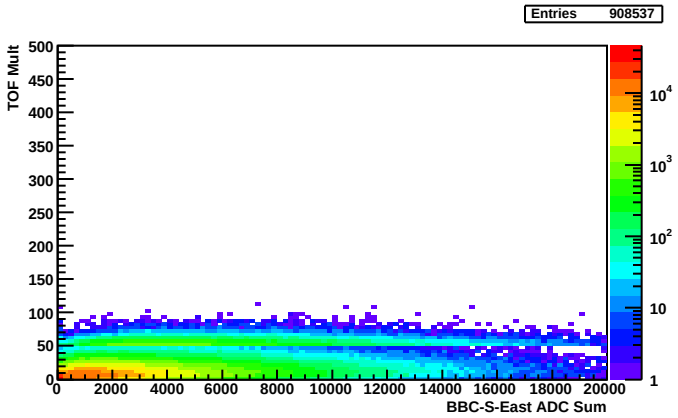

BBQ-VP003 (HI threshold)
Entries 1.453659e+07
TAC
QT Input Channel

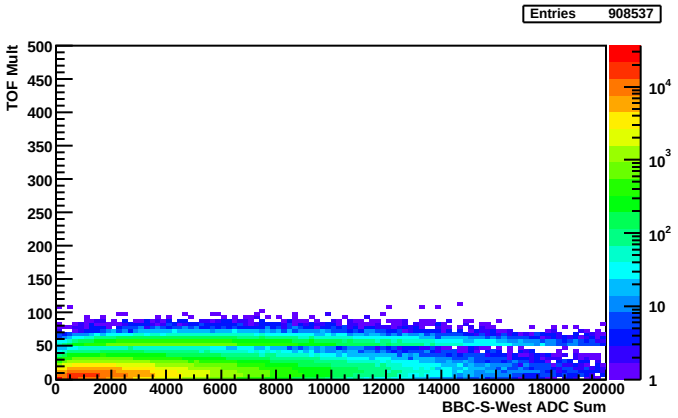

BBQ-VP004 (HI threshold)
Entries 1.453659e+07
ADC
QT Input Channel

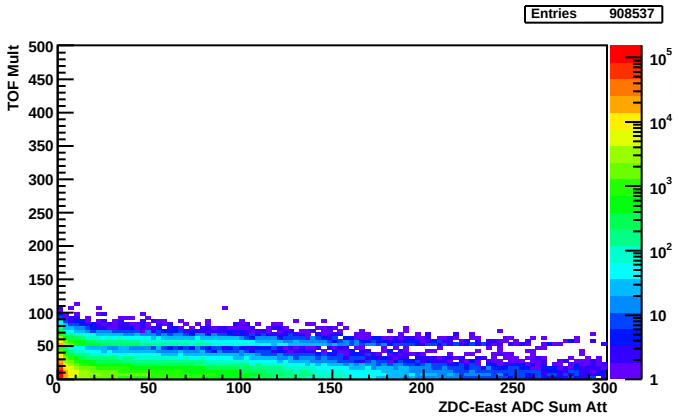

BBQ-VP004 (HI threshold)
Entries 1.453659e+07
TAC
QT Input Channel

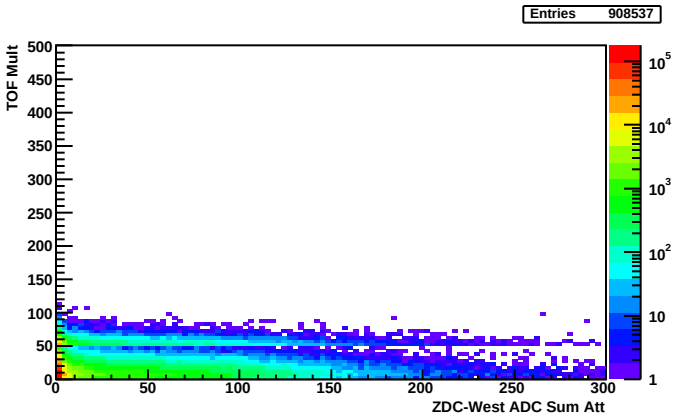

Entries 908537
TOF Mult
BBC-L-East ADC Sum

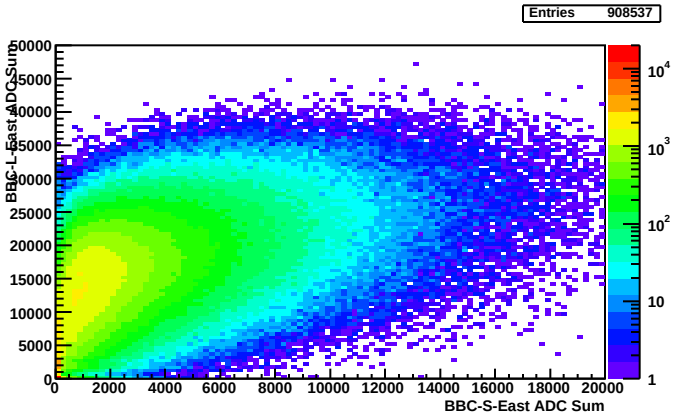

Entries 908537
TOF Mult
BBC-L-West ADC Sum

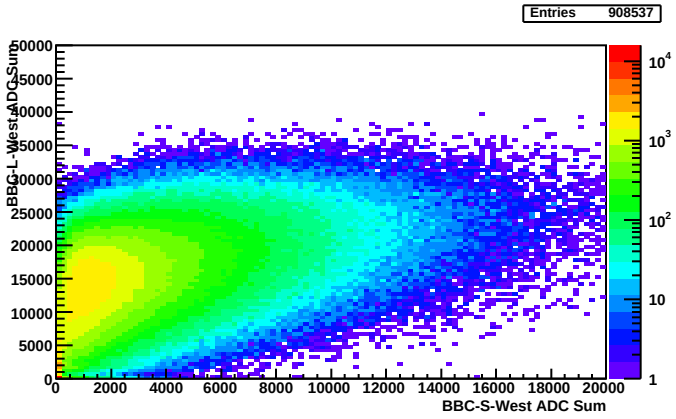

Entries 908537
TOF Mult
BBC-S-East ADC Sum

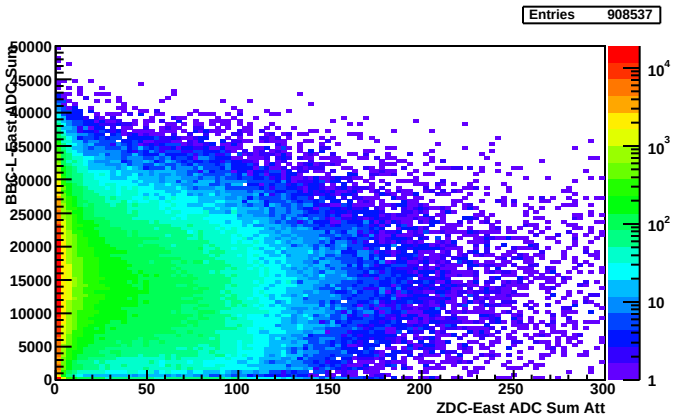

Entries 908537
TOF Mult
BBC-S-West ADC Sum

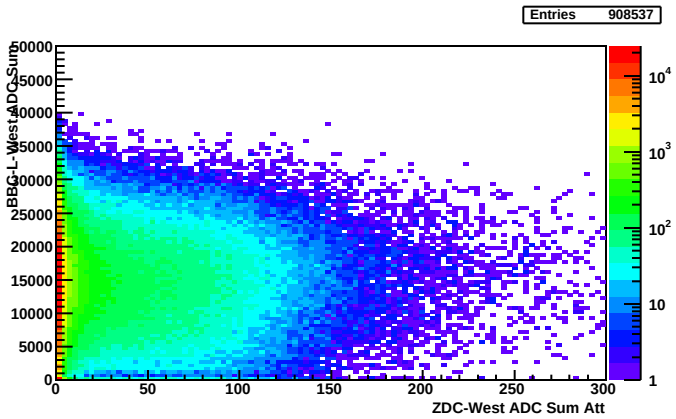

Entries 908537
TOF Mult
ZDC-East ADC Sum Att

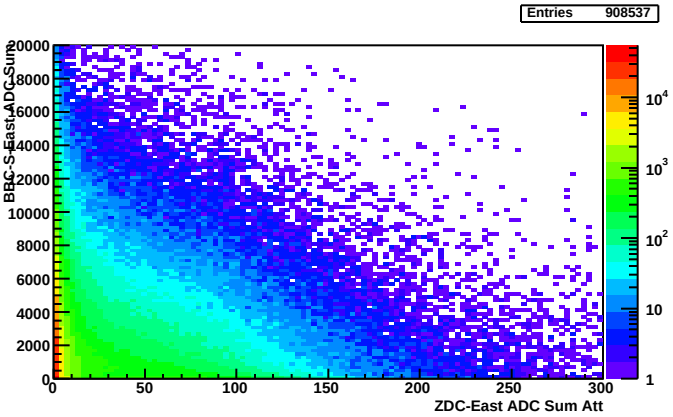

Entries 908537
TOF Mult
ZDC-West ADC Sum Att

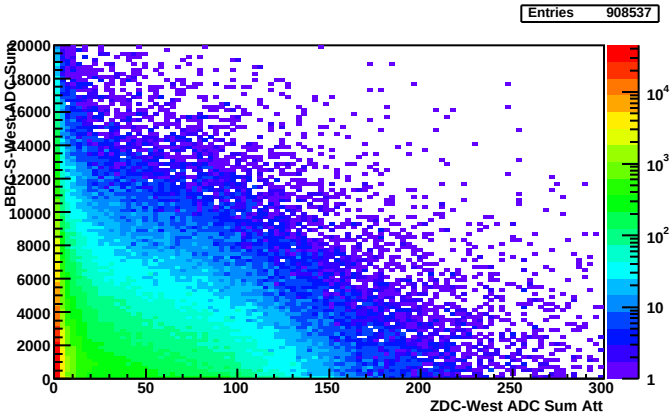

Entries 908537
BBC-L-East ADC Sum
BBC-S-East ADC Sum

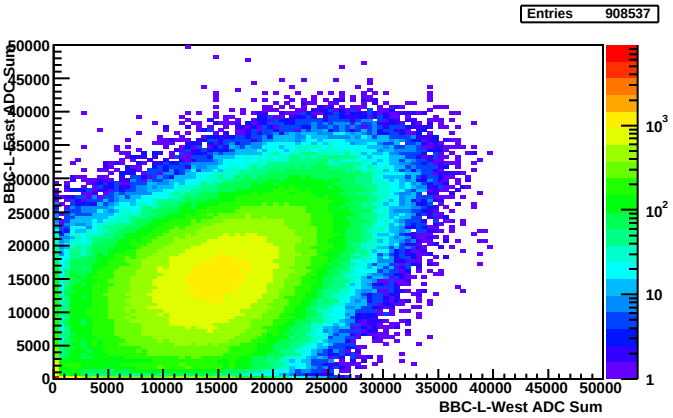

Entries 908537
BBC-L-West ADC Sum
BBC-S-West ADC Sum

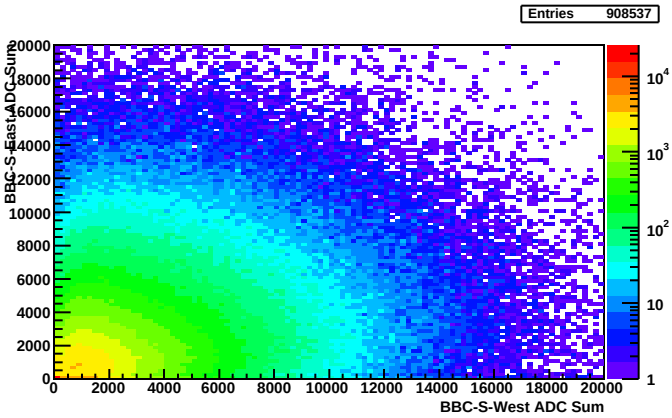

Entries 908537
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

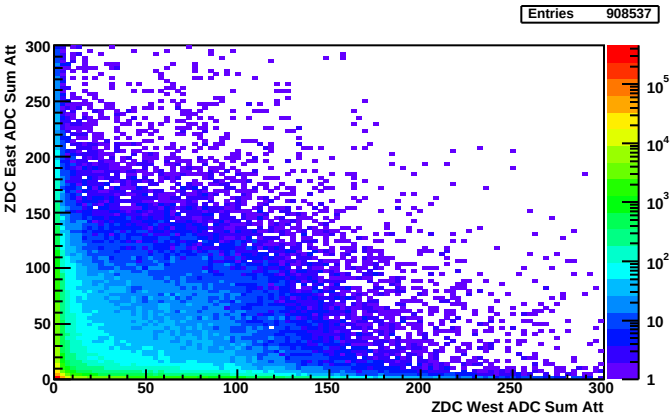

Entries 908537
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

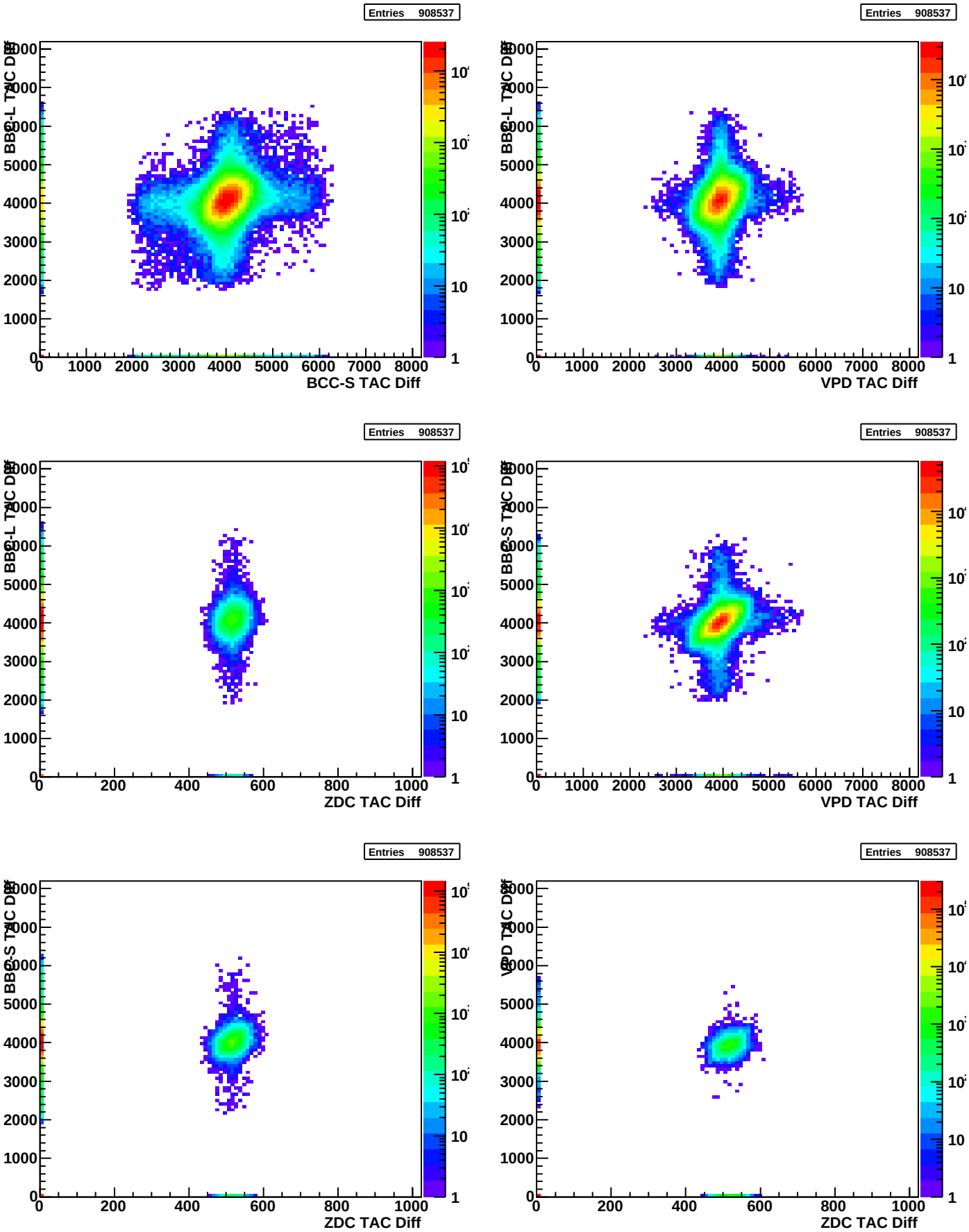

Entries 908537
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

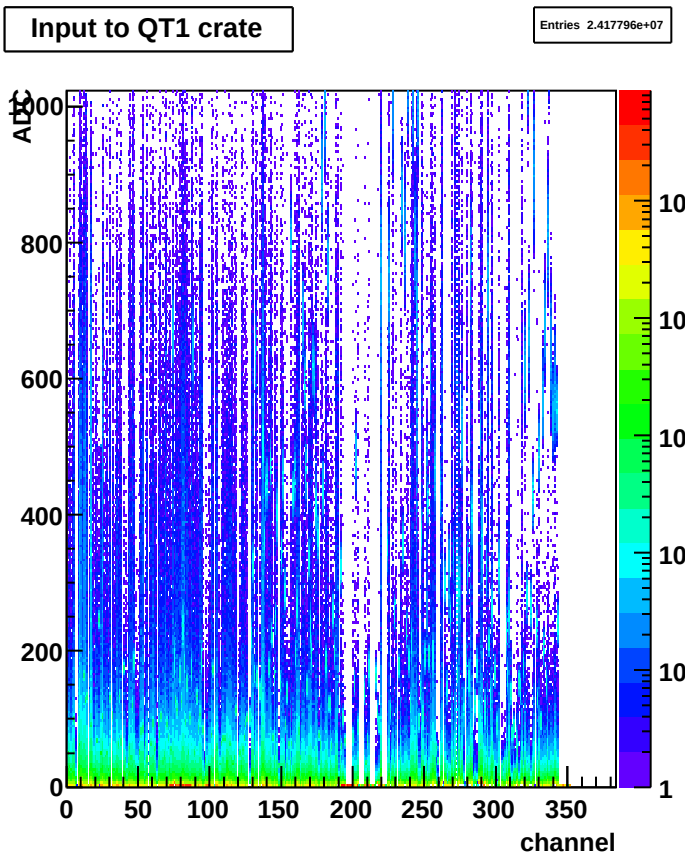

Entries 908537
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

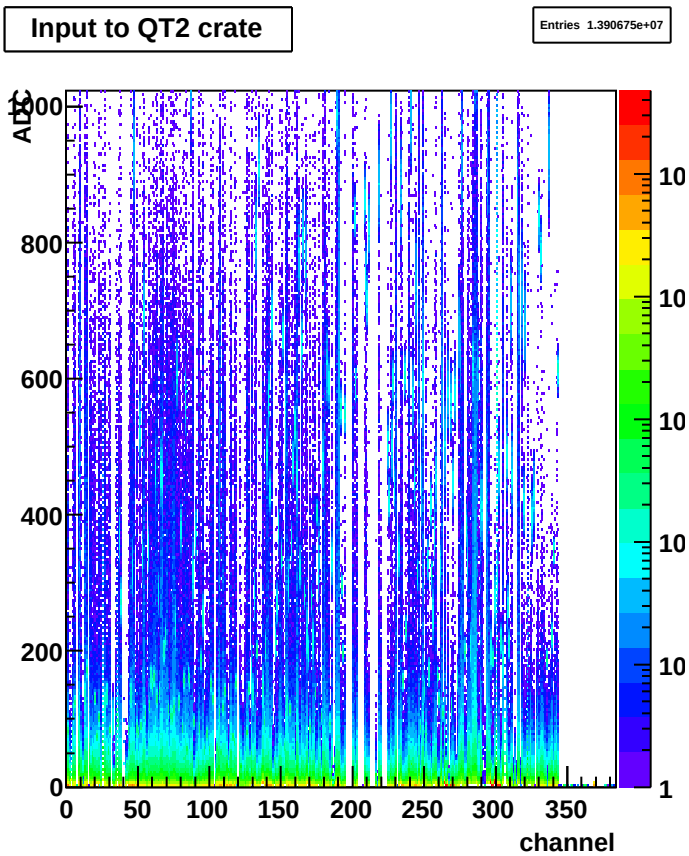

Entries 908537
BBC-L-East ADC Sum
BBC-L-West ADC Sum

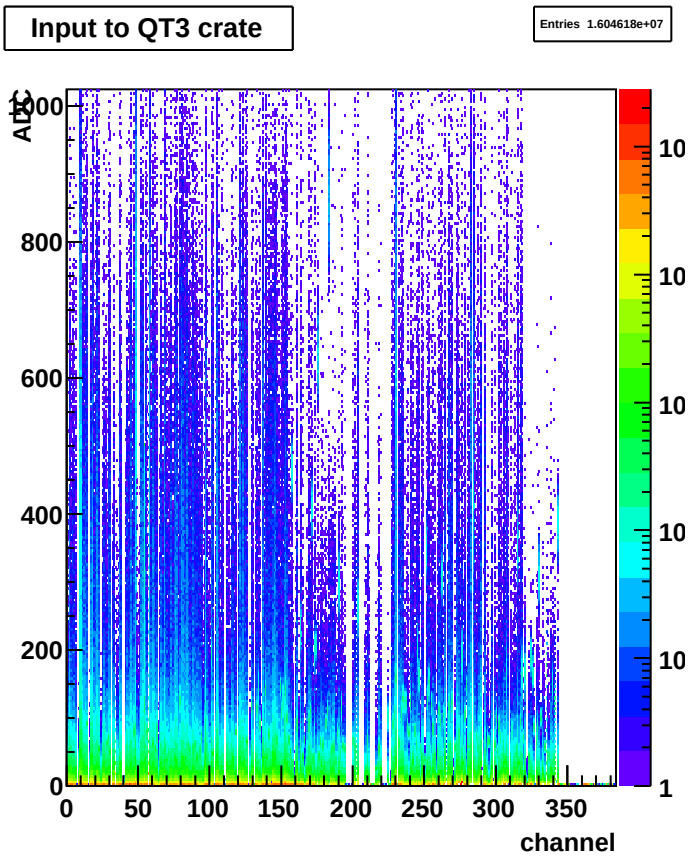

Entries 908537
BBC-S-East ADC Sum
BBC-S-West ADC Sum

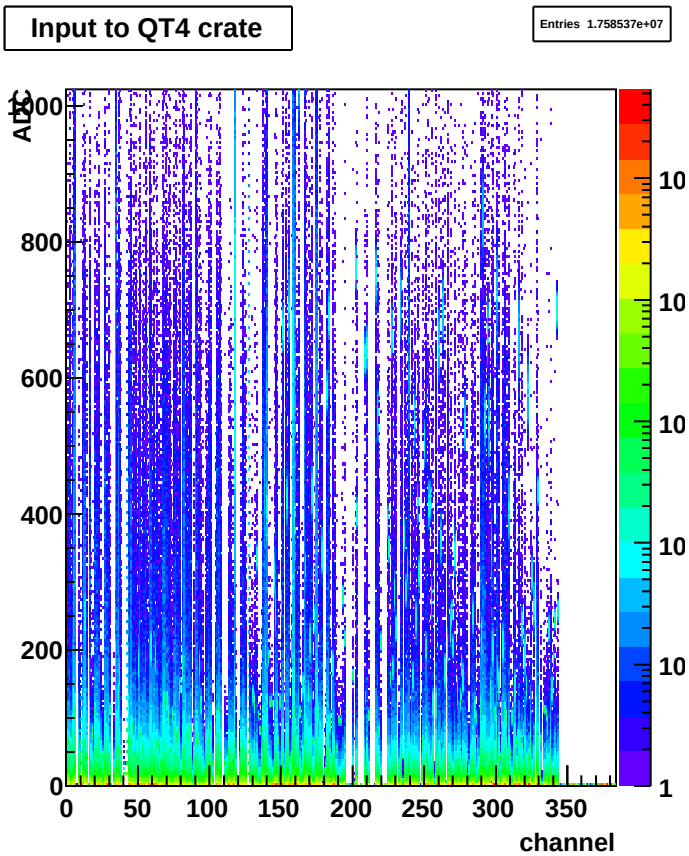

Entries 908537
ZDC East ADC Sum Att
ZDC West ADC Sum Att

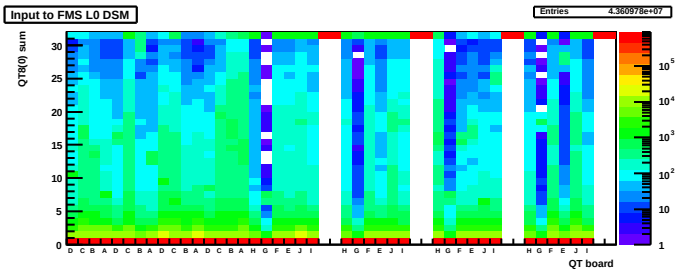

Entries 908537
BBC-L TAC Diff
BCC-S TAC Diff
Entries 908537
BBC-L TAC Diff
VPD TAC Diff
Entries 908537
BBC-L TAC Diff
ZDC TAC Diff
Entries 908537
BBC-S TAC Diff
VPD TAC Diff
Entries 908537
BBC-S TAC Diff
ZDC TAC Diff
Entries 908537
VPD TAC Diff
ZDC TAC Diff

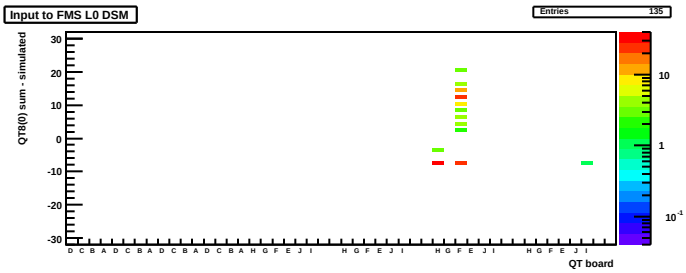

Input to QT1 crate
Entries 2.417796e+07
ADC
channel

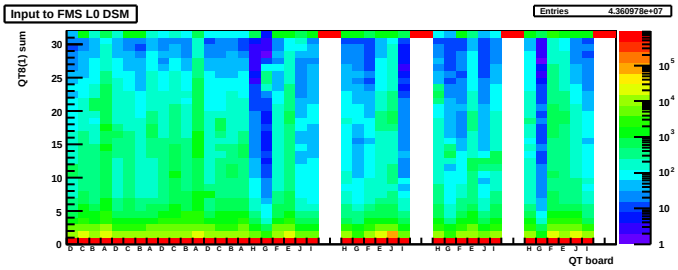

Input to QT2 crate
Entries 1.390675e+07
ADC
channel

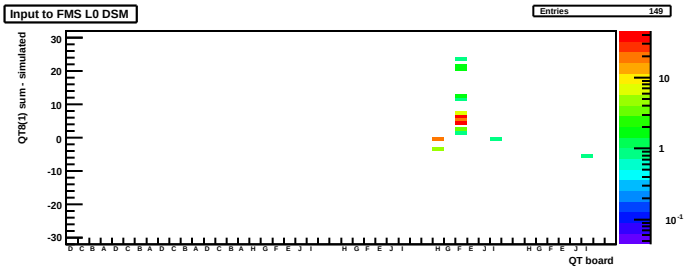

Input to QT3 crate
Entries 1.604618e+07
ADC
channel

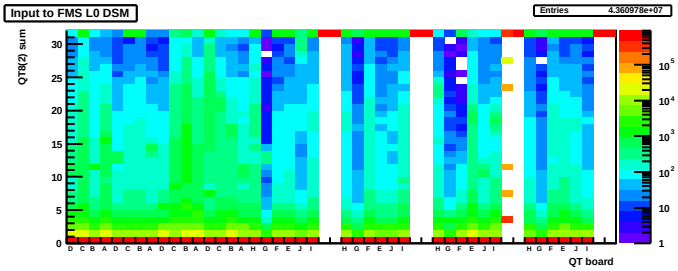

Input to QT4 crate
Entries 1.758537e+07
ADC
channel

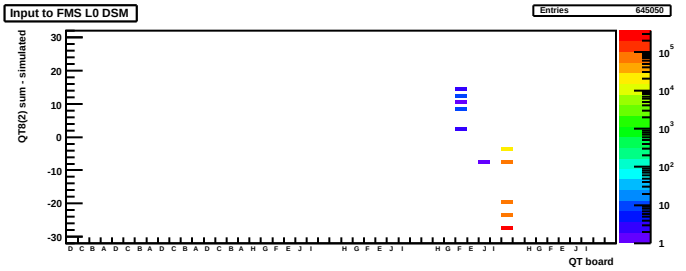

Input to FMS L0 DSM
Entries 4.360978e+07
QT8(0) sum
QT board

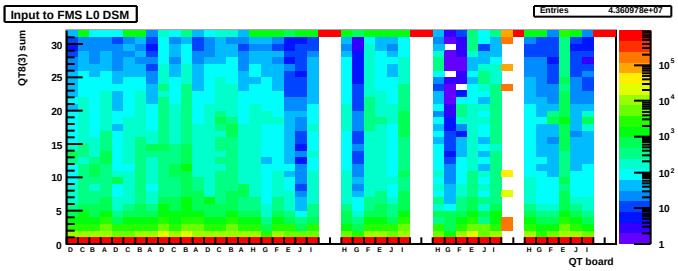

Input to FMS L0 DSM
Entries 135
QT8(0) sum - simulated
QT board

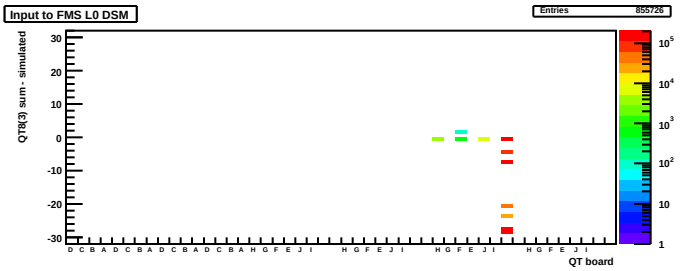

Input to FMS L0 DSM
Entries 4.360978e+07
QT8(1) sum
QT board

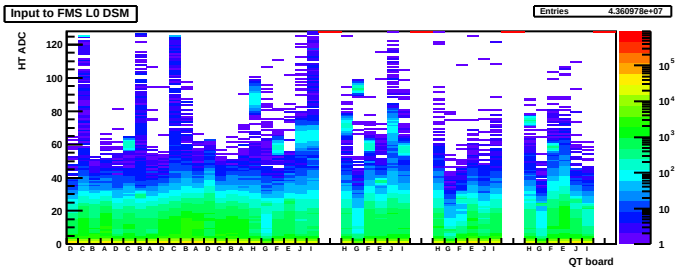

Input to FMS L0 DSM
Entries 149
QT8(1) sum - simulated
QT board

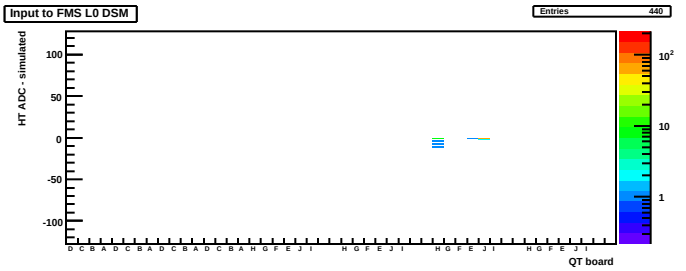

Input to FMS L0 DSM
Entries 4.360978e+07
QT8(2) sum
QT board

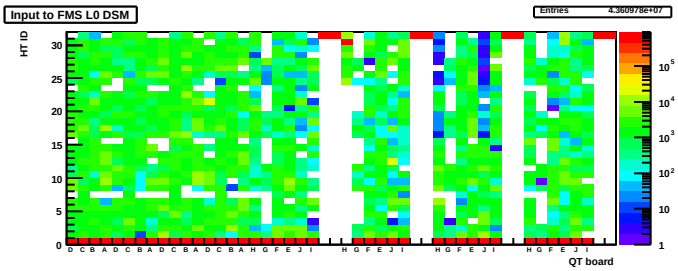

Input to FMS L0 DSM
Entries 645050
QT8(2) sum - simulated
QT board

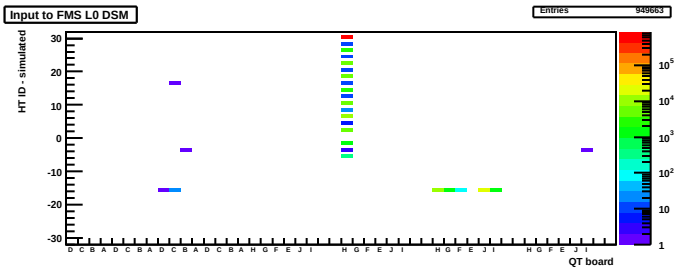

Input to FMS L0 DSM
Entries 4.360978e+07
QT8(3) sum
QT board

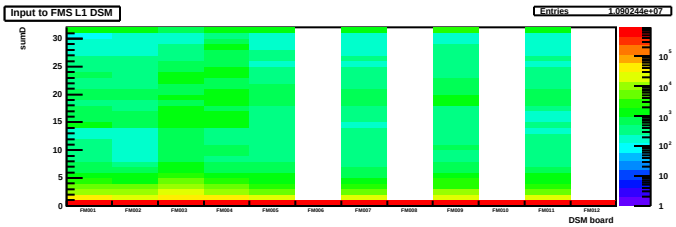

Input to FMS L0 DSM
Entries 855726
QT8(3) sum - simulated
QT board

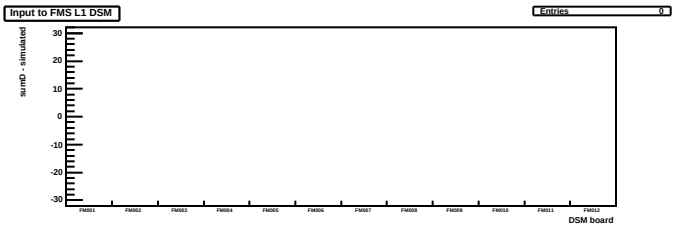

Input to FMS L0 DSM
Entries 4.360978e+07
HT ADC
QT board

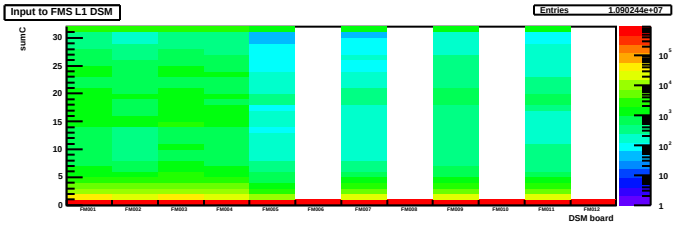

Input to FMS L0 DSM
Entries 440
HT ADC - simulated
QT board

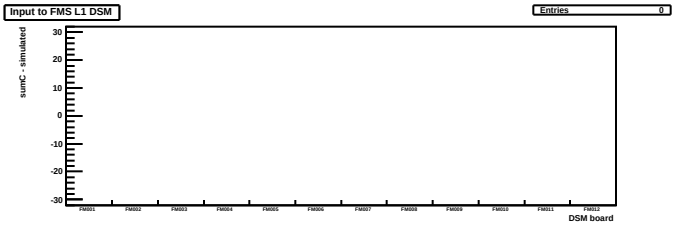

Input to FMS L0 DSM
Entries 4.360978e+07
HT ID
QT board

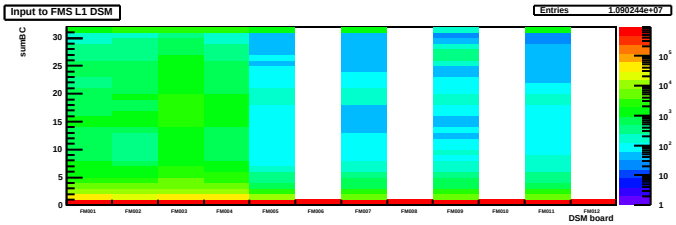

Input to FMS L0 DSM
Entries 949663
HT ID - simulated
QT board

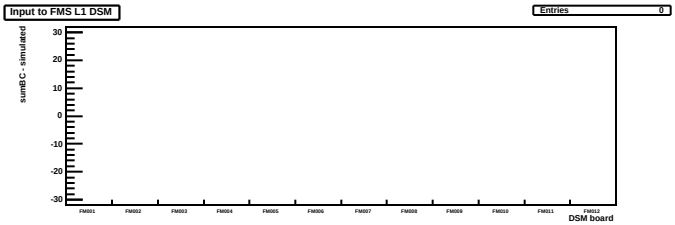

Input to FMS L1 DSM
Entries 1.090244e+07
sumD
DSM board

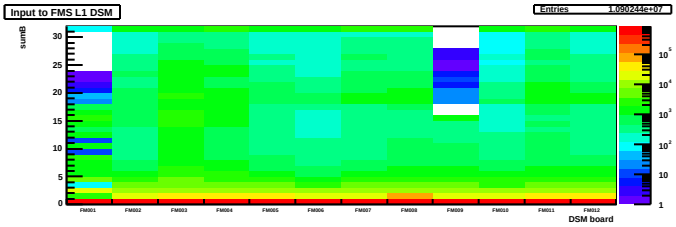

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

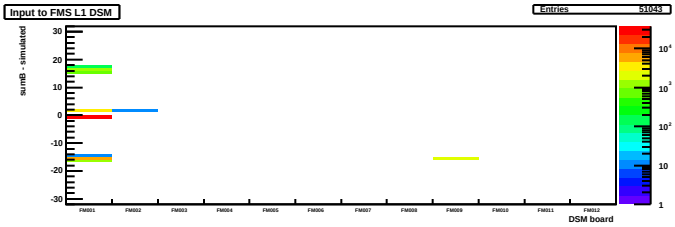

Input to FMS L1 DSM
Entries 1.090244e+07
sumC
DSM board

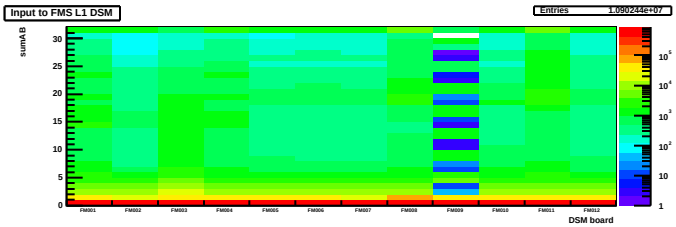

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

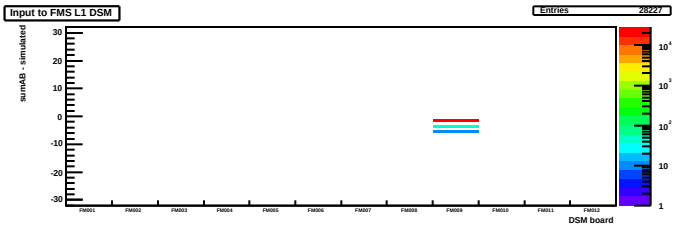

Input to FMS L1 DSM
Entries 1.090244e+07
sumBC
DSM board

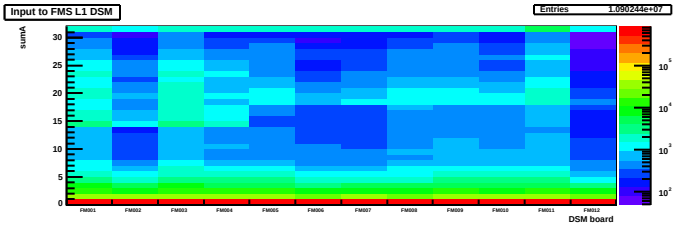

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

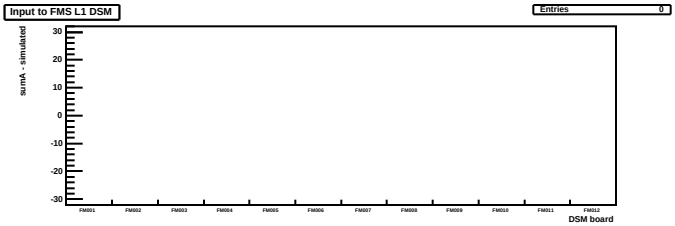

Input to FMS L1 DSM
Entries 1.090244e+07
sumB
DSM board

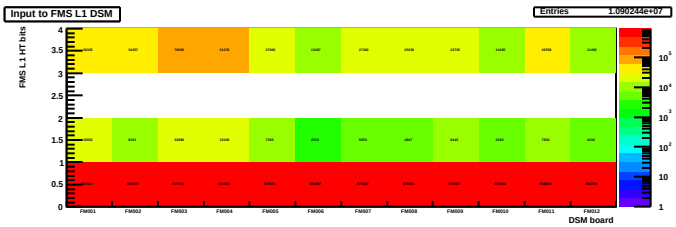

Input to FMS L1 DSM
Entries 51043
sumB - simulated
DSM board

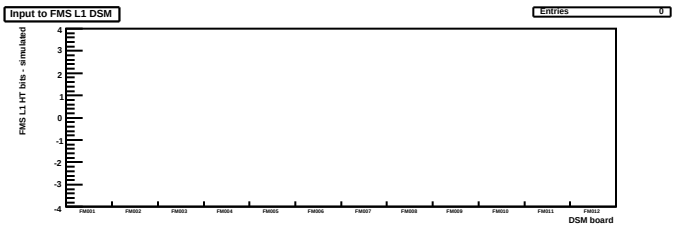

Input to FMS L1 DSM
Entries 1.090244e+07
sumAB
DSM board

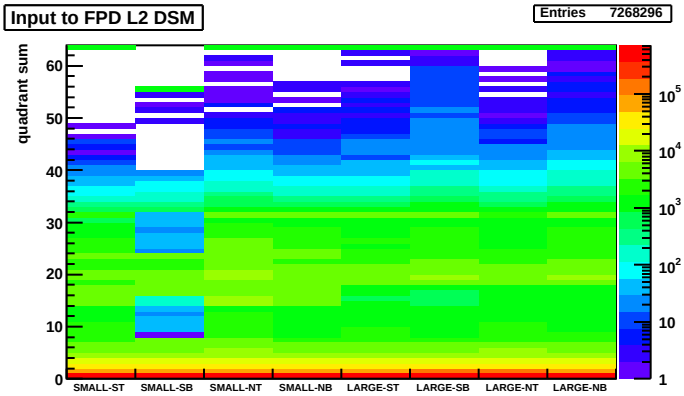

Input to FMS L1 DSM
Entries 28227
sumAB - simulated
DSM board

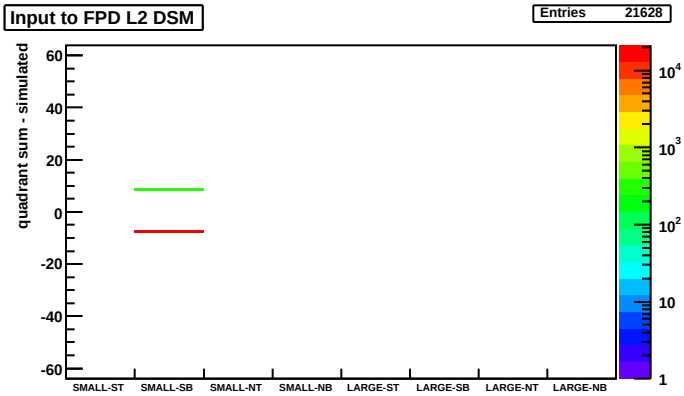

Input to FMS L1 DSM
Entries 1.090244e+07
sumA
DSM board

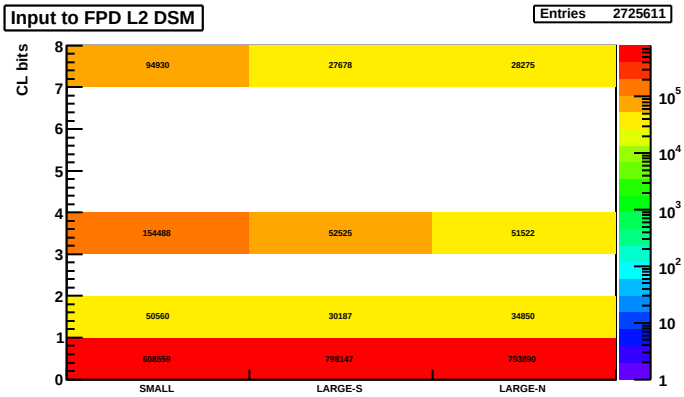

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

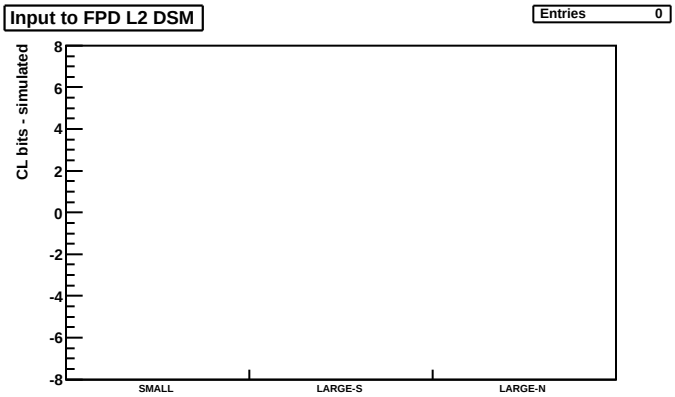

Input to FMS L1 DSM
Entries 1.090244e+07
FMS L1 HT bits
DSM board

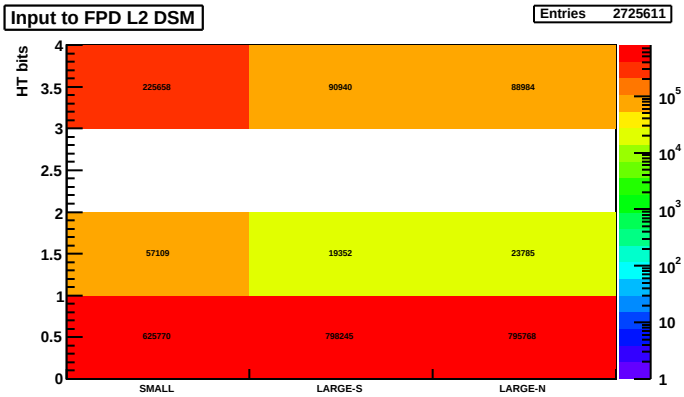

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

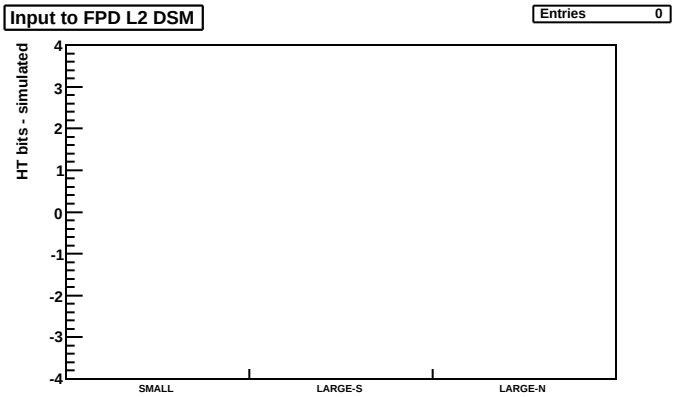

Input to FPD L2 DSM
Entries 7268296
quadrant sum
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

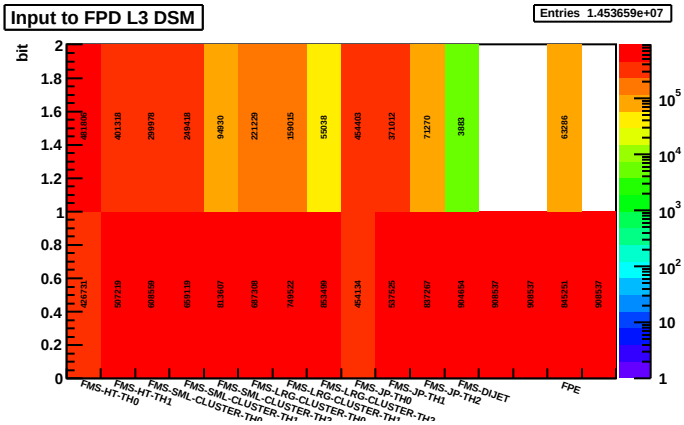

Input to FPD L2 DSM
Entries 21628
quadrant sum - simulated
SMALL-ST
SMALL-SB
SMALL-NT
SMALL-NB
LARGE-ST
LARGE-SB
LARGE-NT
LARGE-NB

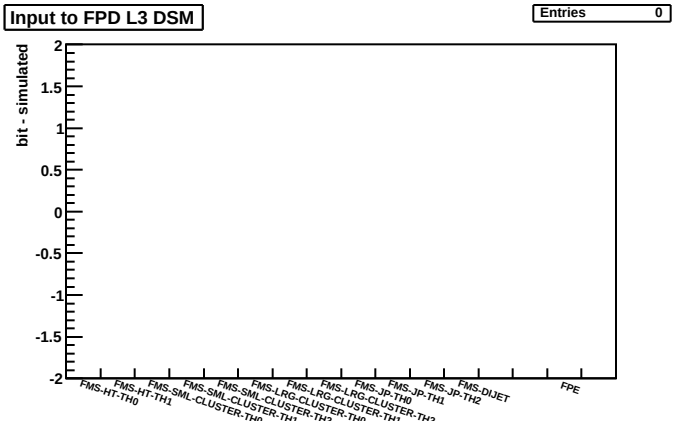

Input to FPD L2 DSM
Entries 2725611
CL bits
94930
27678
28275
154488
52525
51522
50560
30187
34850
608559
798147
793890
SMALL
LARGE-S
LARGE-N

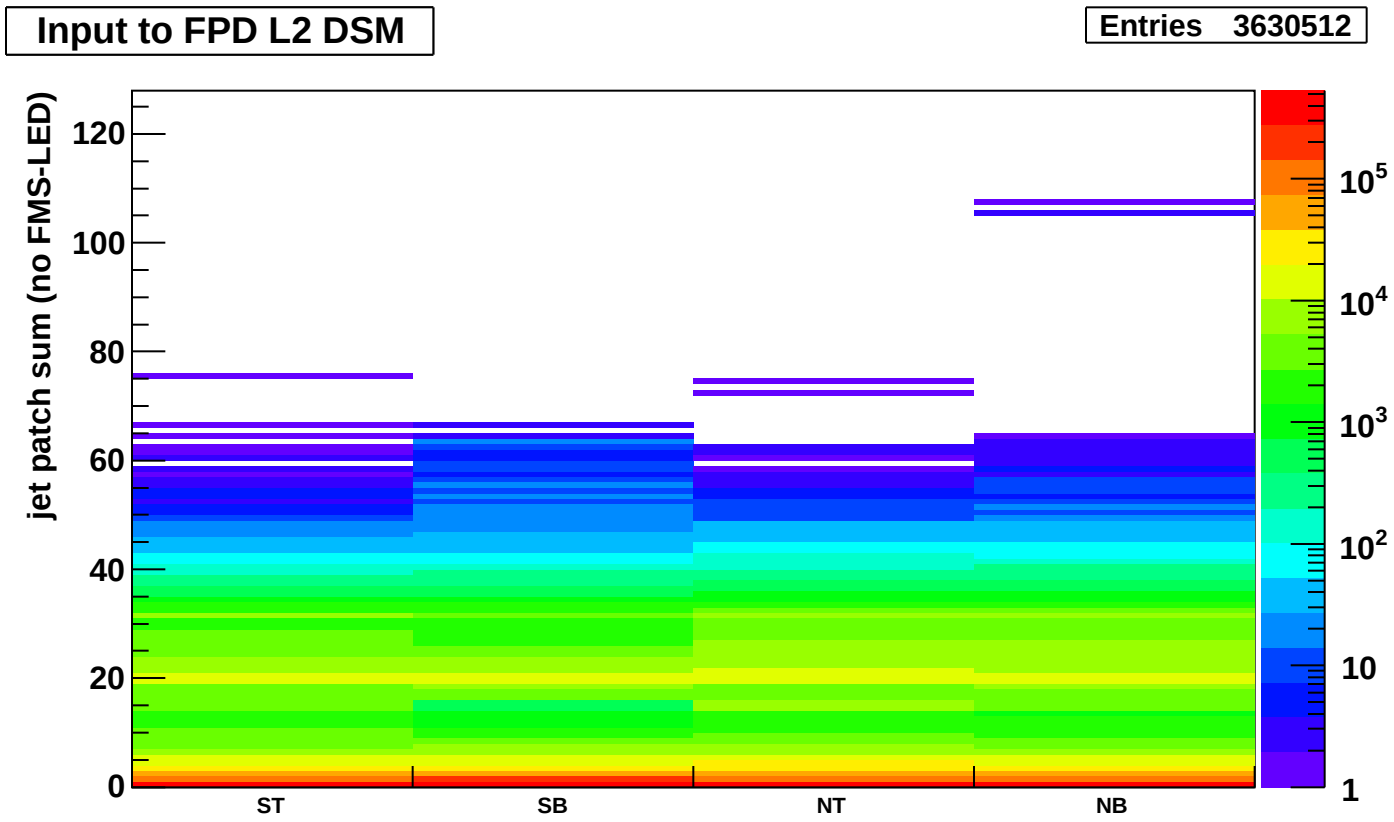

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL
LARGE-S
LARGE-N

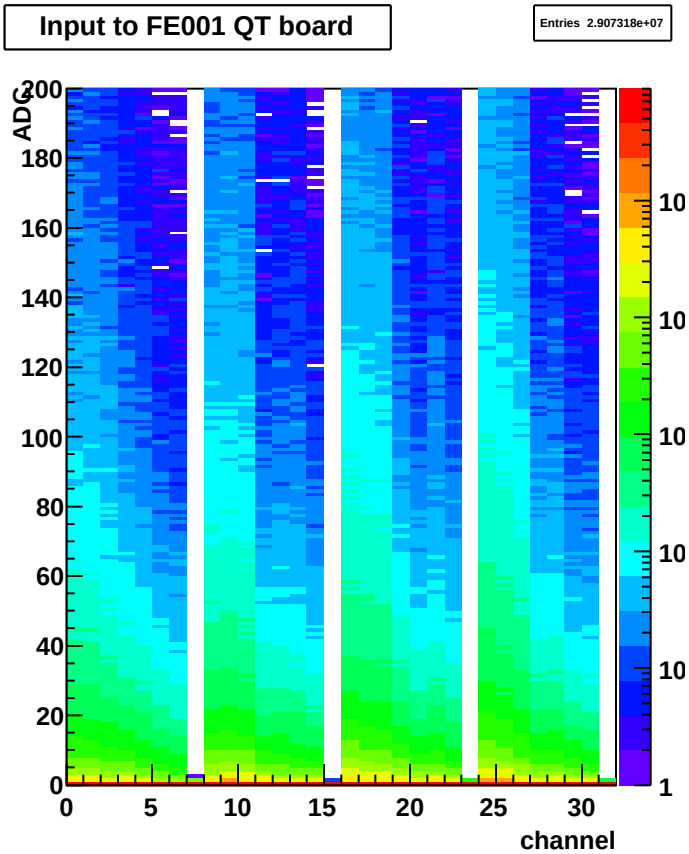

Input to FPD L2 DSM
Entries 2725611
HT bits
225658
90940
88984
57109
19352
23785
625770
798245
795768
SMALL
LARGE-S
LARGE-N

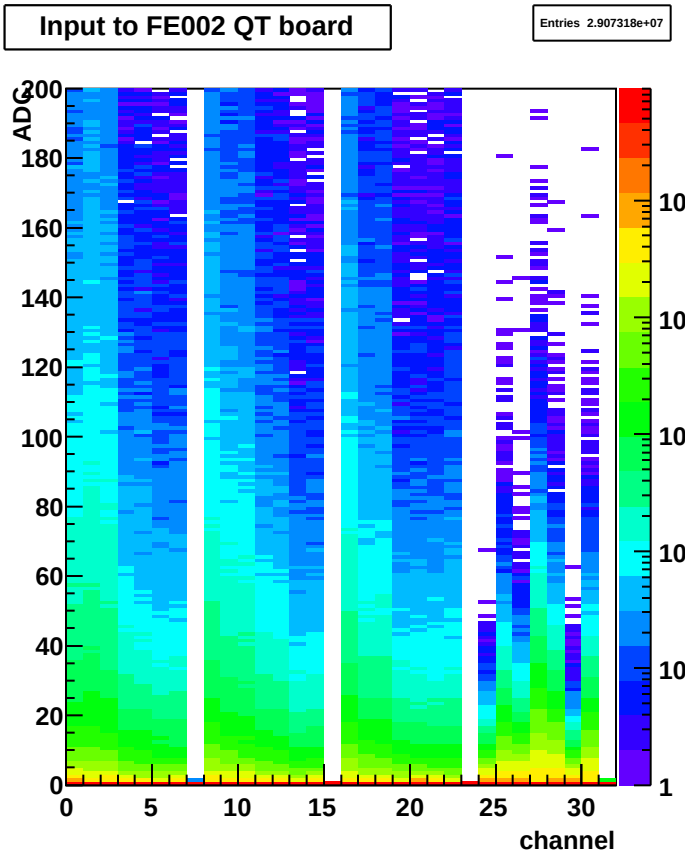

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

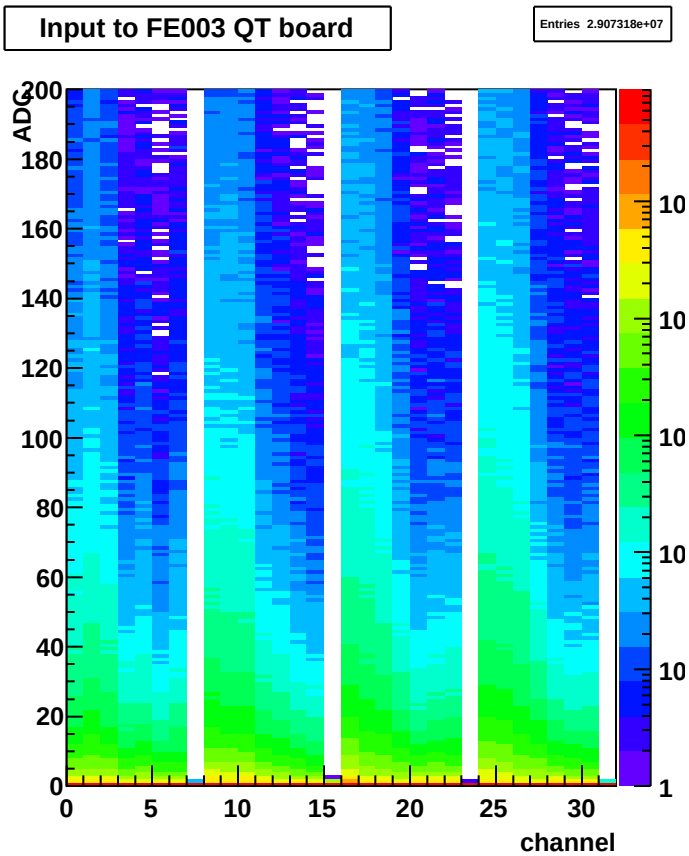

Input to FPD L3 DSM
Entries 1.453659e+07
bit
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

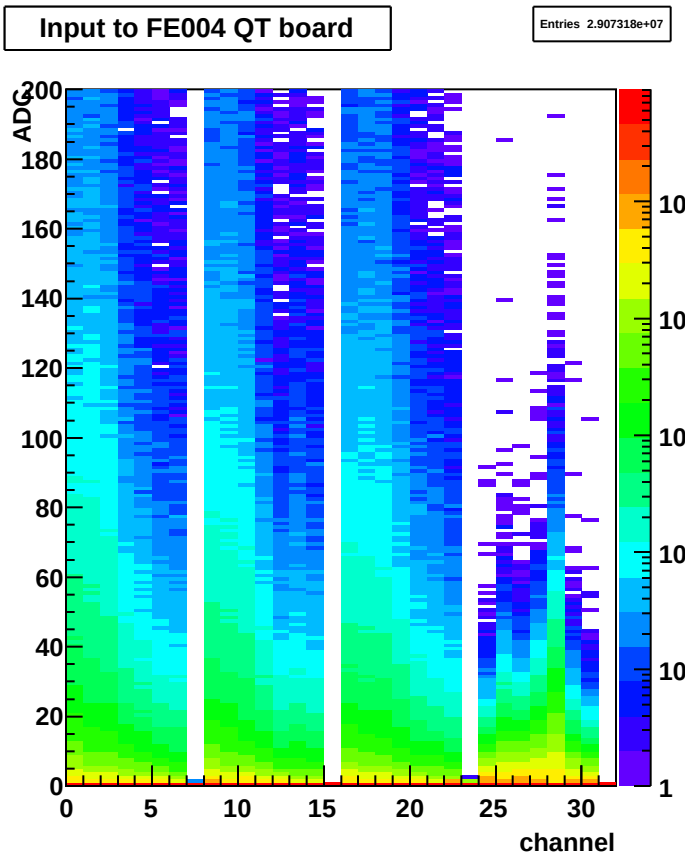

Input to FPD L3 DSM
Entries 0
bit - simulated
FMS-HT-TH0
FMS-HT-TH1
FMS-SML-CLUSTER-TH0
FMS-SML-CLUSTER-TH1
FMS-SML-CLUSTER-TH2
FMS-LRG-CLUSTER-TH0
FMS-LRG-CLUSTER-TH1
FMS-LRG-CLUSTER-TH2
FMS-JP-TH0
FMS-JP-TH1
FMS-JP-TH2
FMS-DIJET
FPE

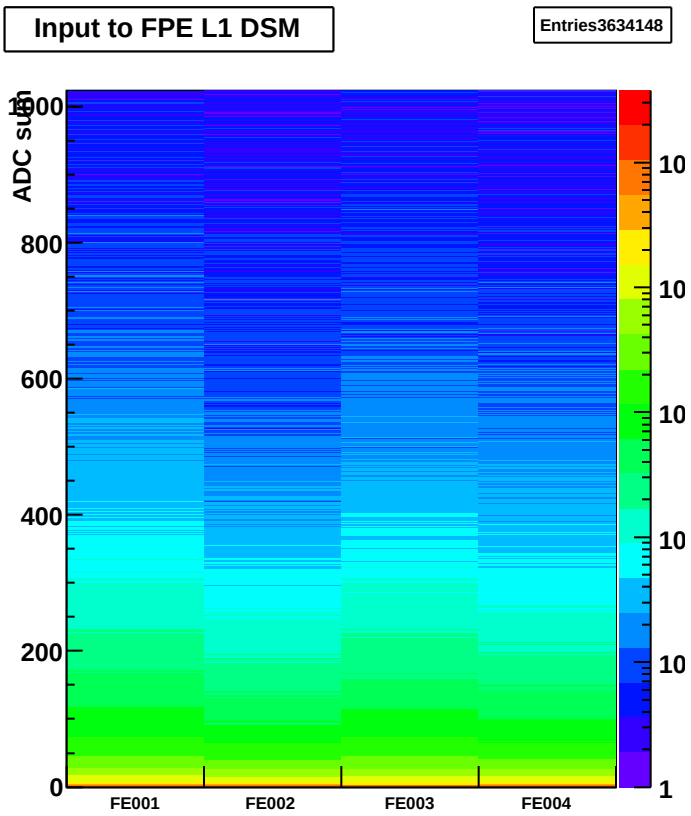

Input to FPD L2 DSM
Entries 3630512
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
1
10
$10^2$
$10^3$
$10^4$
$10^5$

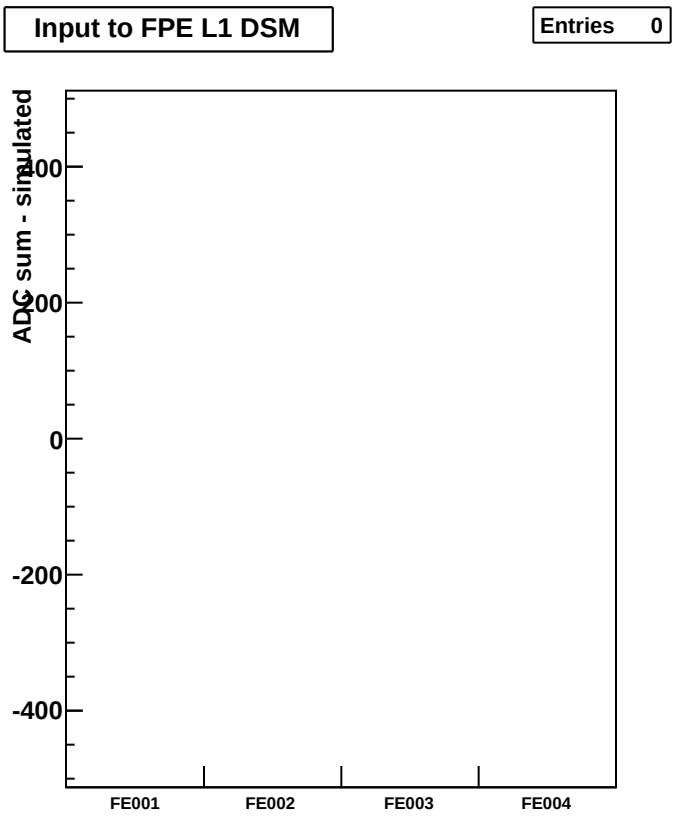

Input to FE001 QT board
Entries 2.907318e+07
ADC
channel

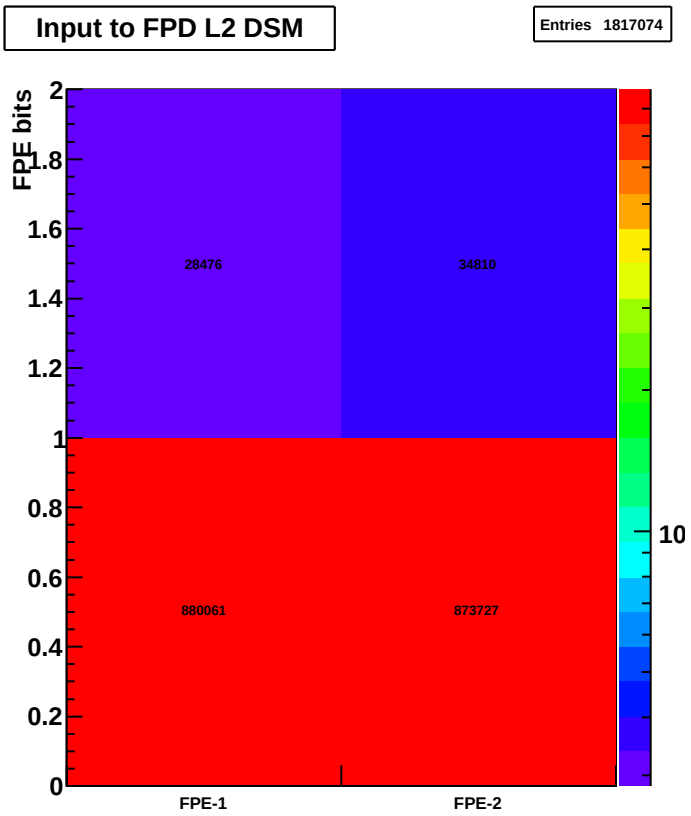

Input to FE002 QT board
Entries 2.907318e+07
ADC
channel

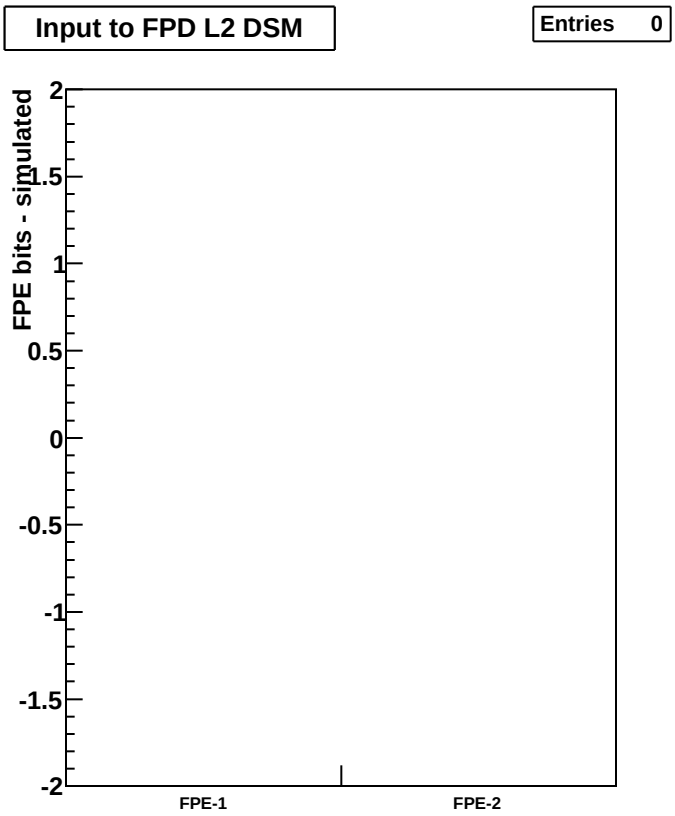

Input to FE003 QT board
Entries 2.907318e+07
ADC
channel


Input to FE004 QT board
Entries 2.907318e+07
ADC
channel


Input to FPE L1 DSM
Entries3634148
ADC sum
1000
800
600
400
200
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1


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


Input to FPD L2 DSM
Entries 1817074
FPE bits
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
28476
34810
880061
873727
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