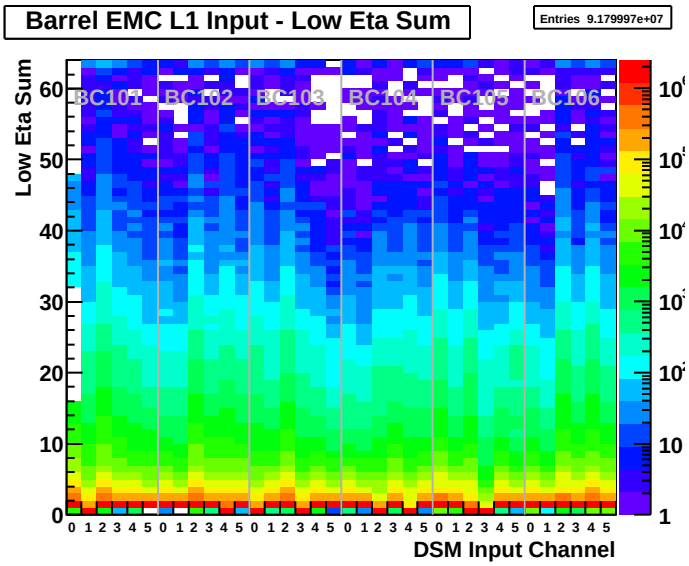
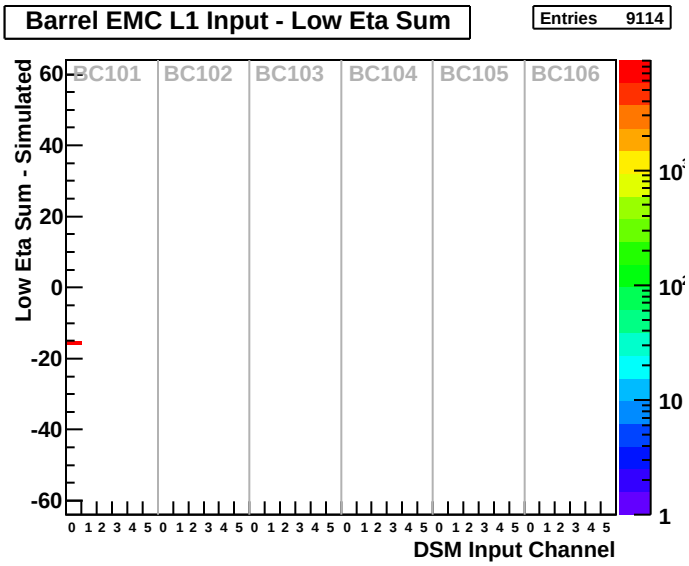
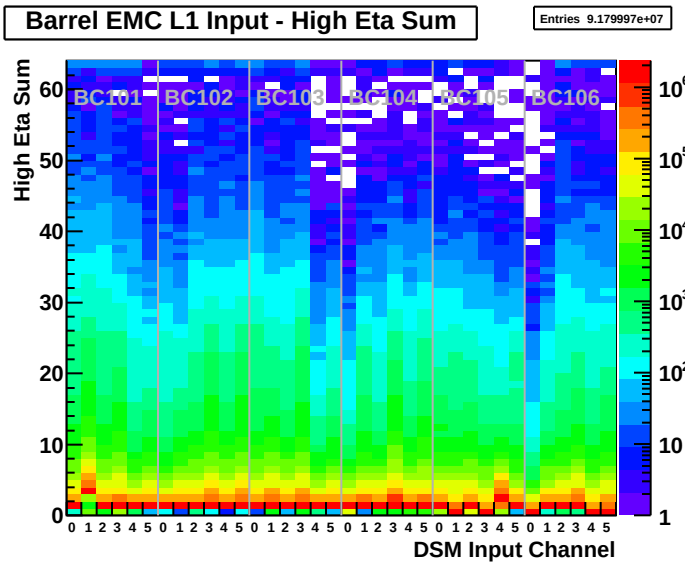
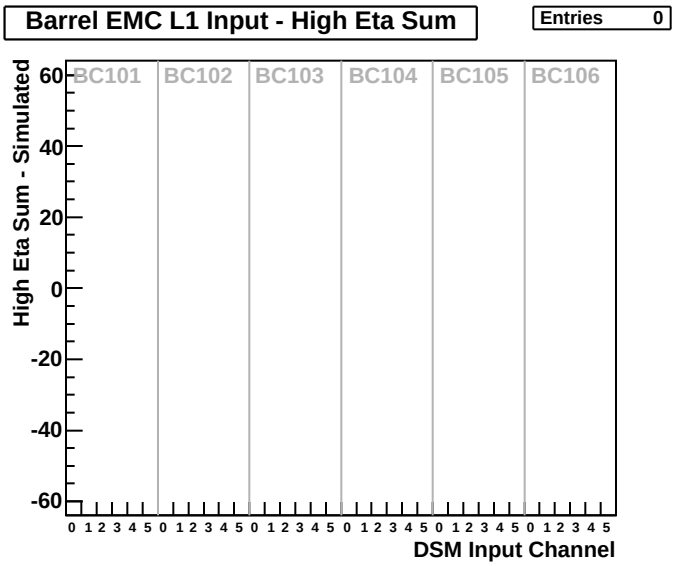
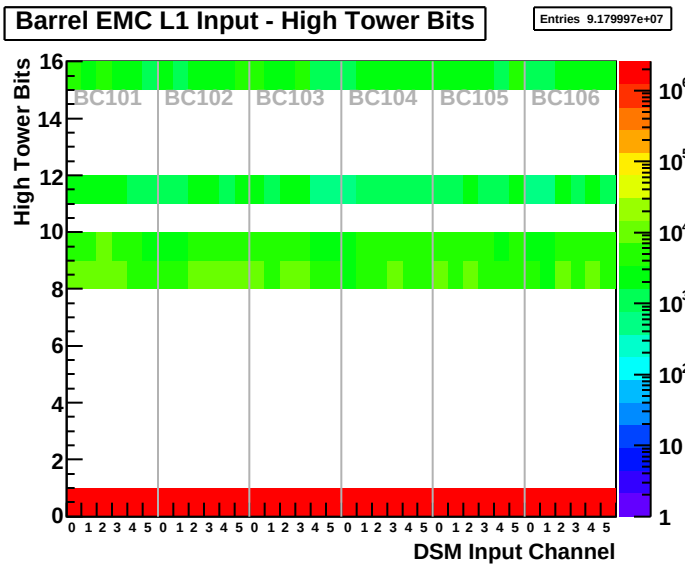
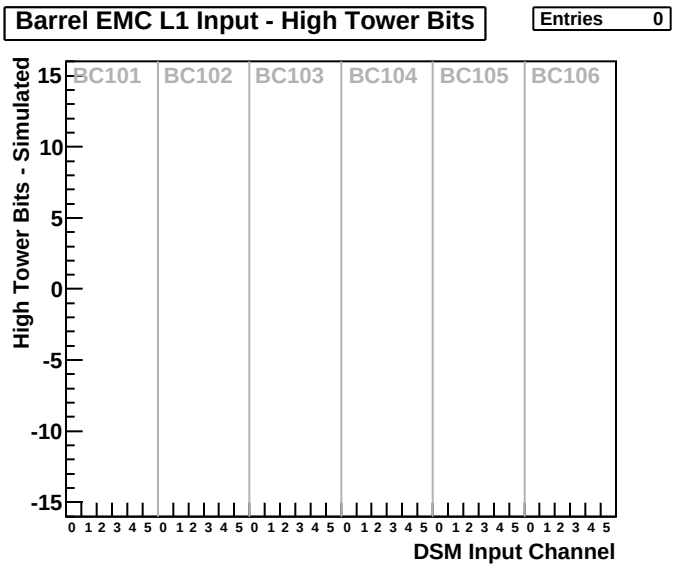

Barrel EMC L1 Input - Low Eta Sum
Entries 9.179997e+07
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

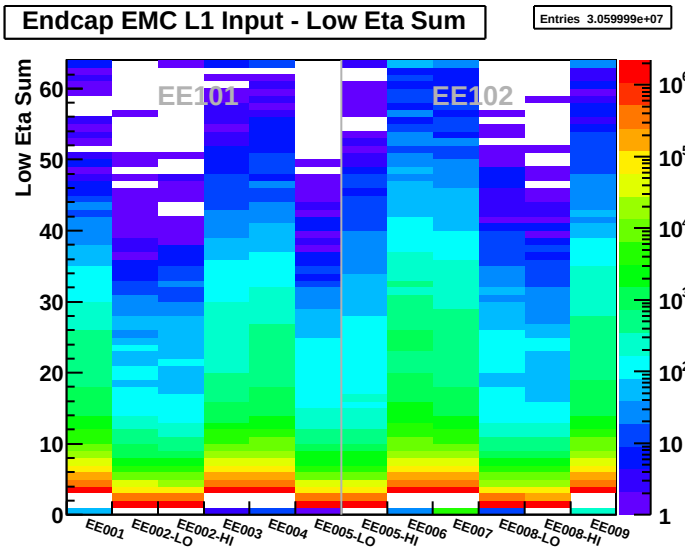

Barrel EMC L1 Input - Low Eta Sum
Entries 9114
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

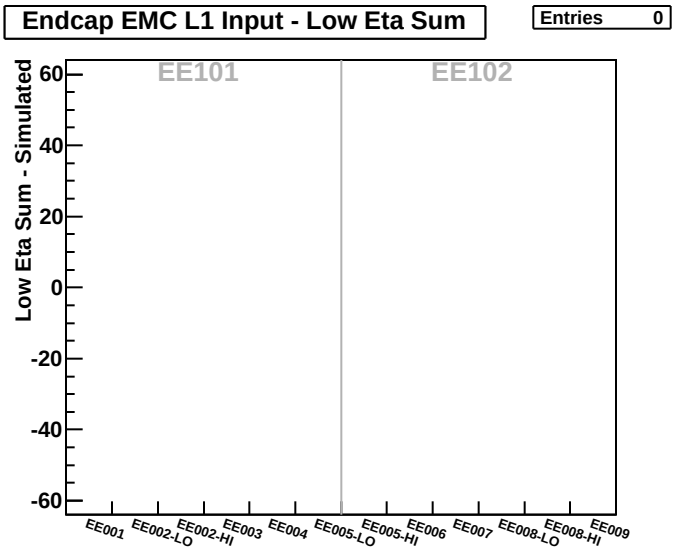

Barrel EMC L1 Input - High Eta Sum
Entries 9.179997e+07
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

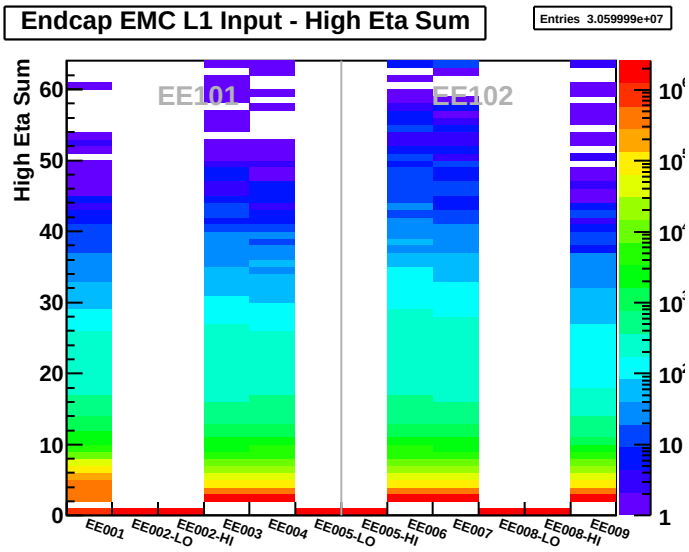

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

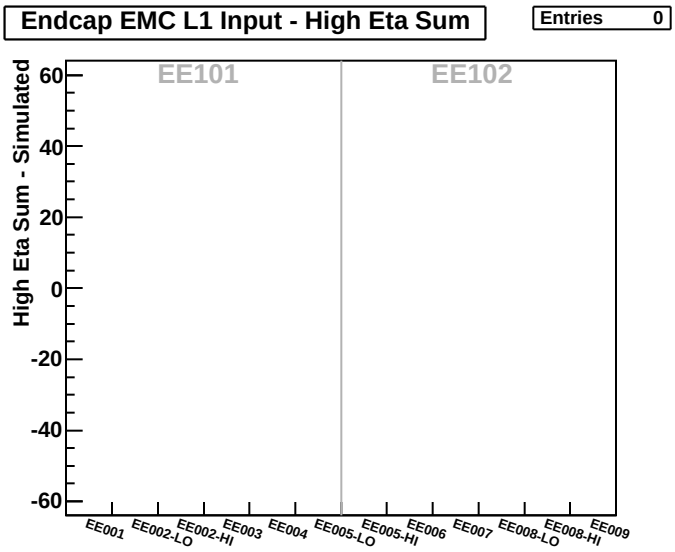

Barrel EMC L1 Input - High Tower Bits
Entries 9.179997e+07
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

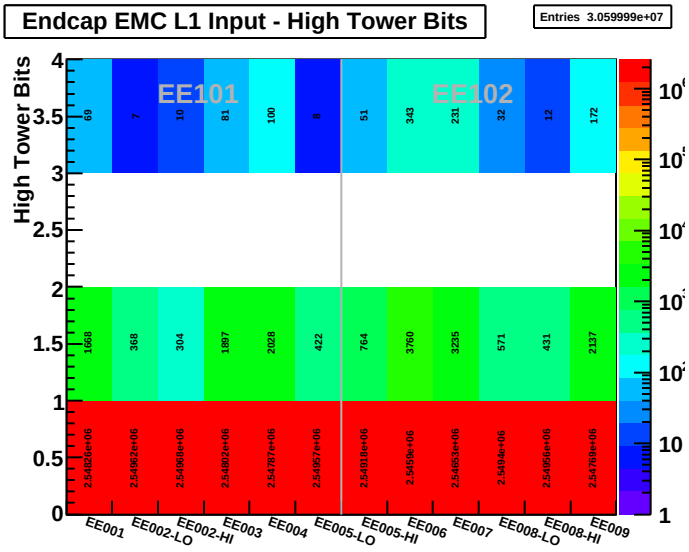

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

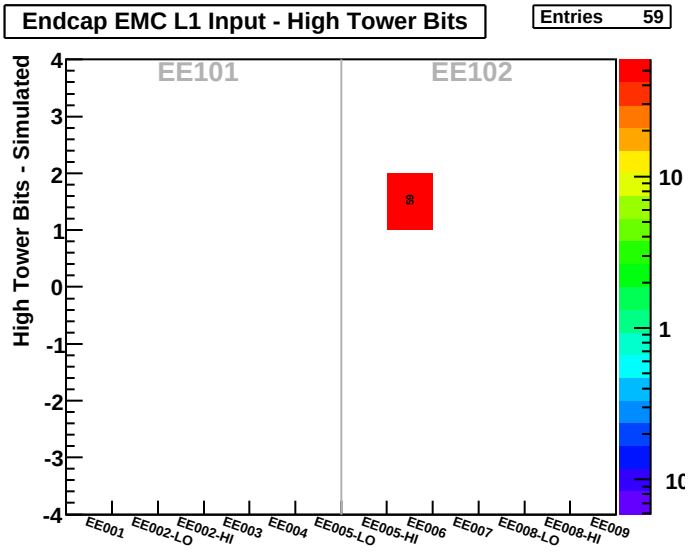

Endcap EMC L1 Input - Low Eta Sum
Entries 3.059999e+07
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

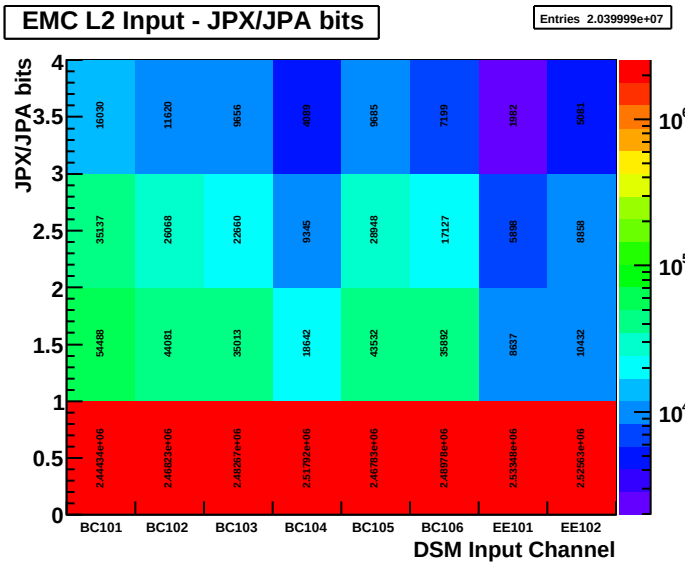

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

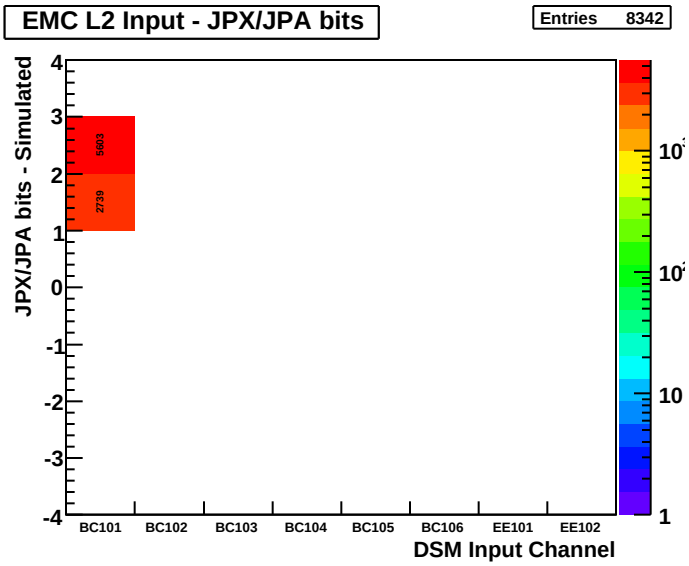

Endcap EMC L1 Input - High Eta Sum
Entries 3.059999e+07
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

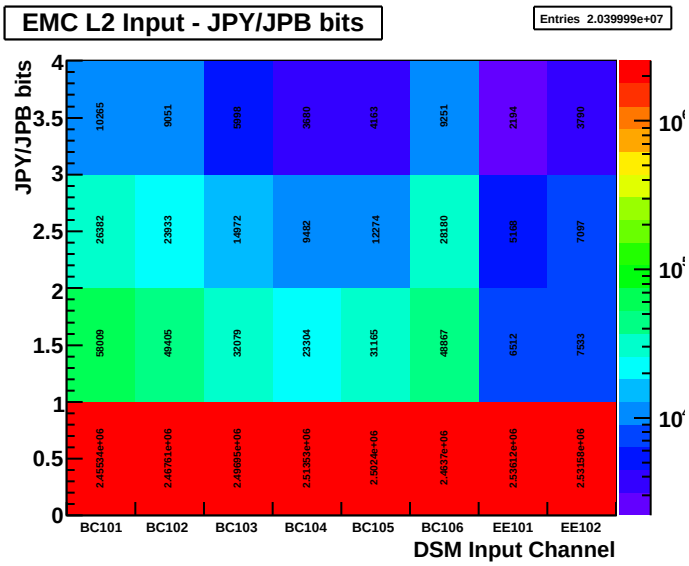

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

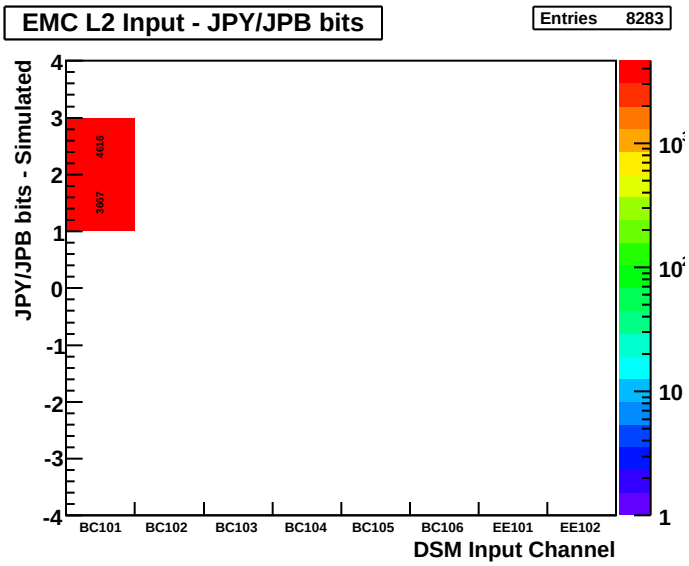

Endcap EMC L1 Input - High Tower Bits
Entries 3.059999e+07
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

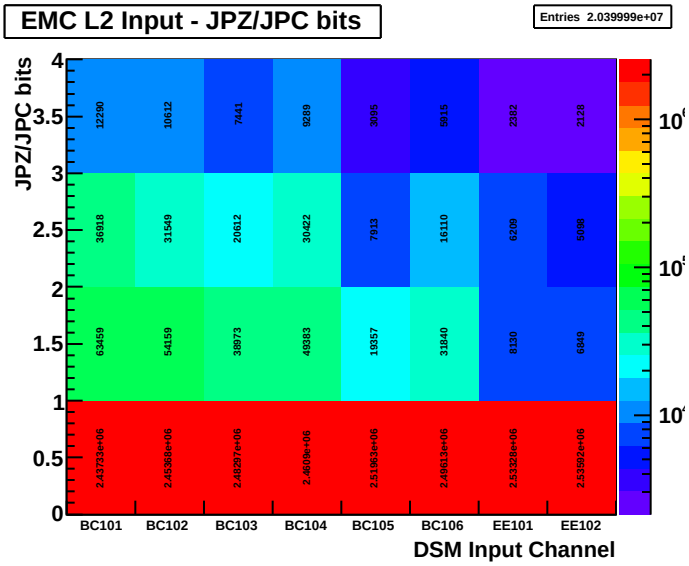

Endcap EMC L1 Input - High Tower Bits
Entries 59
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

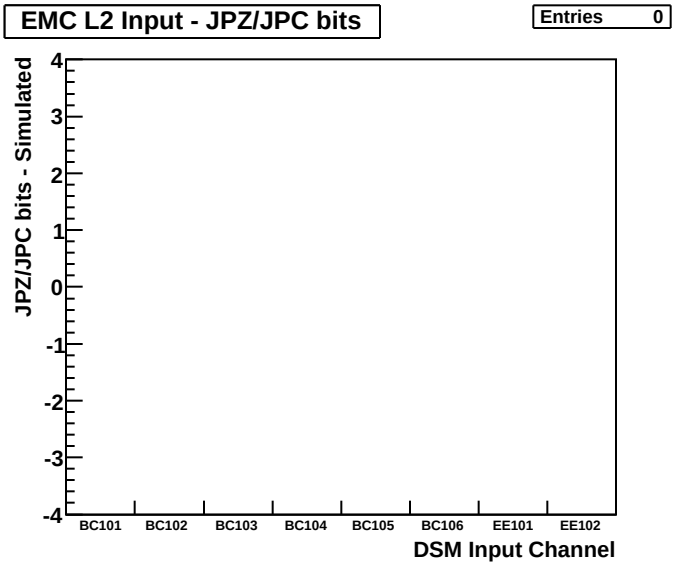

EMC L2 Input - JPX/JPA bits
Entries 2.039999e+07
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
16030 11620 9656 4089 9685 7199 1982 5081
35137 26068 22660 9345 28948 17127 5898 8858
54488 44081 35013 19642 43532 35892 8637 10432
2.44434e+06 2.46823e+06 2.48287e+06 2.51792e+06 2.46783e+06 2.48978e+06 2.53348e+06 2.52953e+06

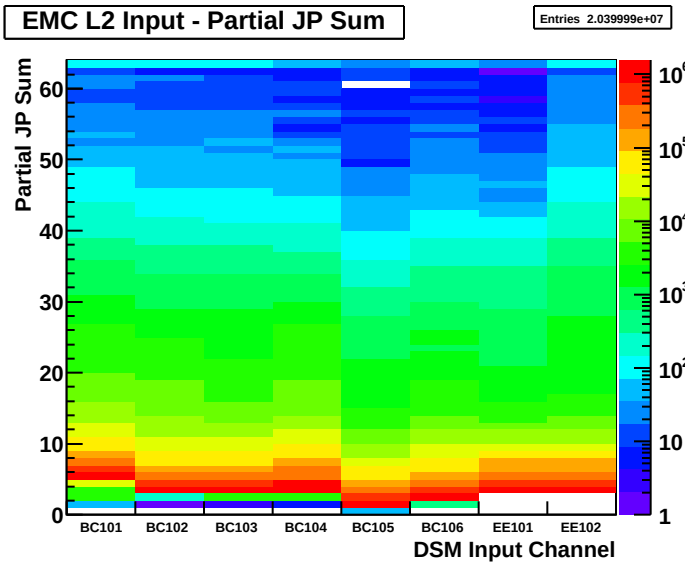

EMC L2 Input - JPX/JPA bits
Entries 8342
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
5603
2739

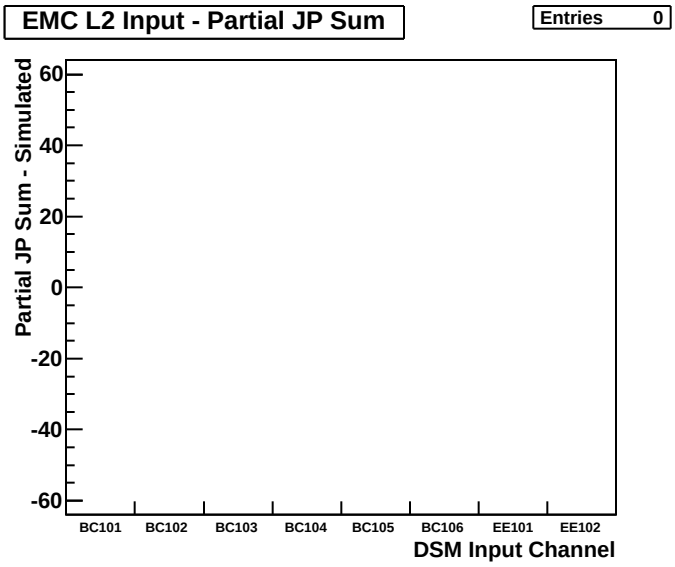

EMC L2 Input - JPY/JPB bits
Entries 2.039999e+07
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
10265 9051 5998 3680 4163 9251 2194 3790
26382 23933 14972 9482 12274 26180 5168 7097
58009 49405 32079 23304 31165 48867 6512 7533
2.45534e+06 2.46781e+06 2.49695e+06 2.51353e+06 2.5024e+06 2.4637e+06 2.53612e+06 2.53158e+06

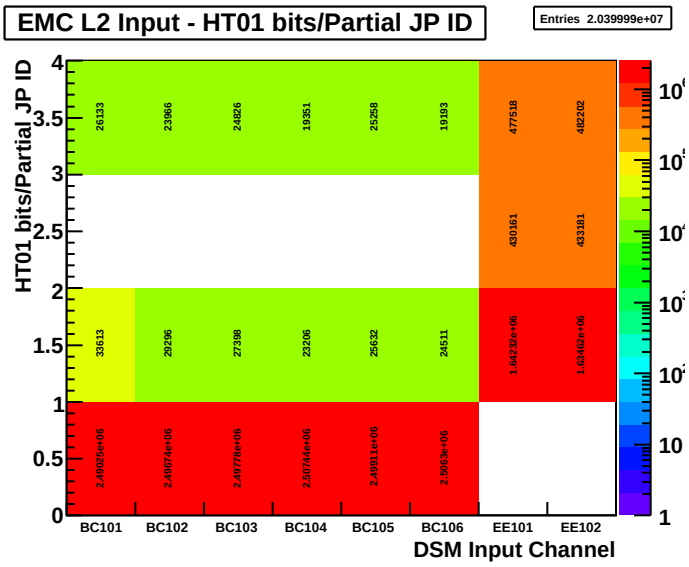

EMC L2 Input - JPY/JPB bits
Entries 8283
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
4616
3667

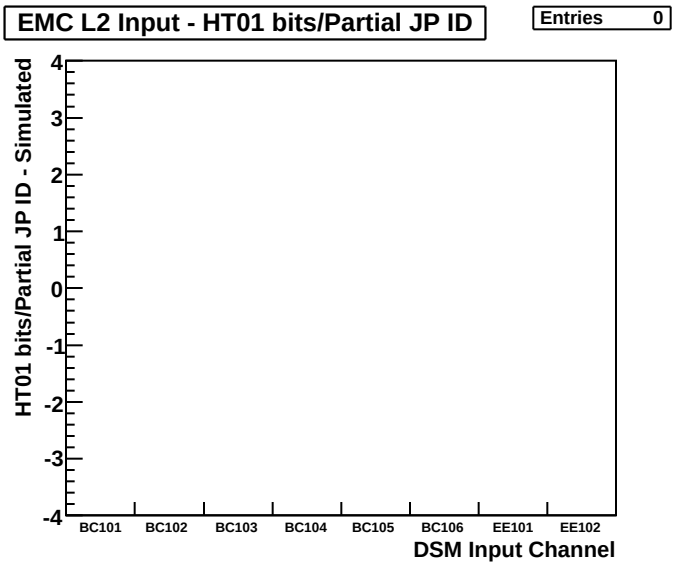

EMC L2 Input - JPZ/JPC bits
Entries 2.039999e+07
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
12290 10612 7441 9289 3095 5915 2382 2128
36918 31549 20612 30422 7913 16110 6209 5088
63459 54159 38973 49383 19557 31840 8130 6849
2.43733e+06 2.45368e+06 2.48297e+06 2.4609e+06 2.51963e+06 2.49613e+06 2.53328e+06 2.53592e+06

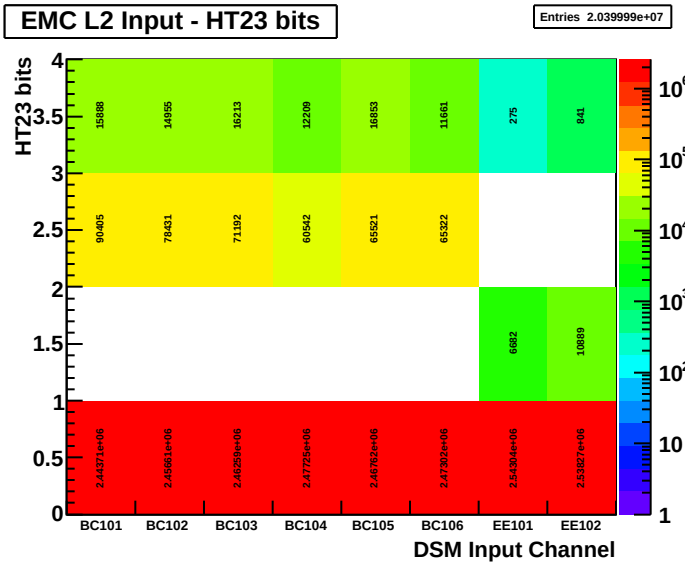

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

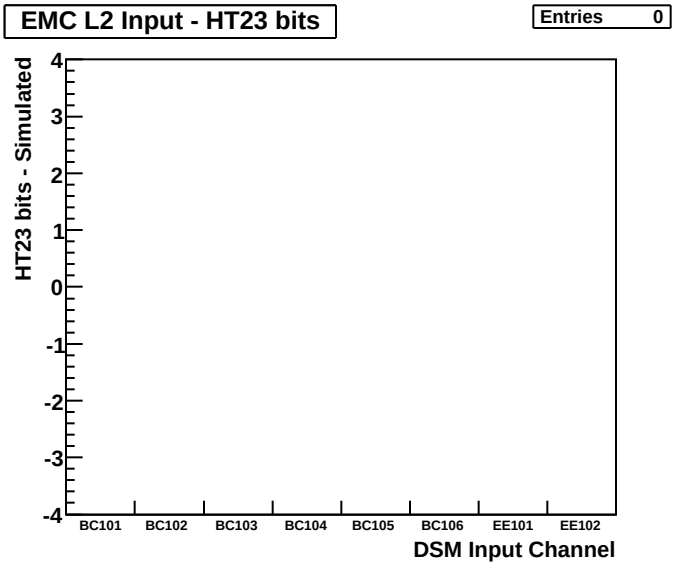

EMC L2 Input - Partial JP Sum
Entries 2.039999e+07
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

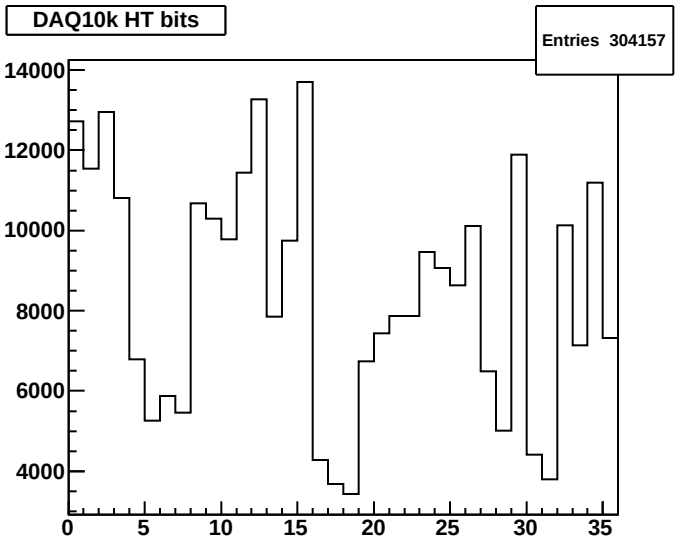

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

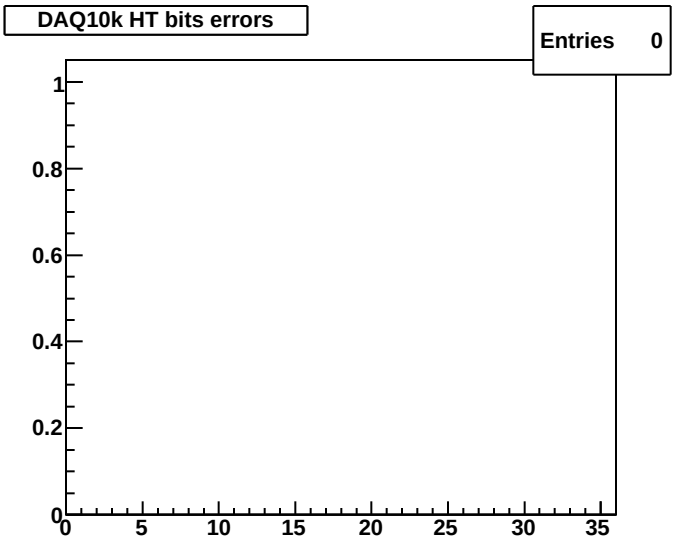

EMC L2 Input - HT01 bits/Partial JP ID
Entries 2.039999e+07
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

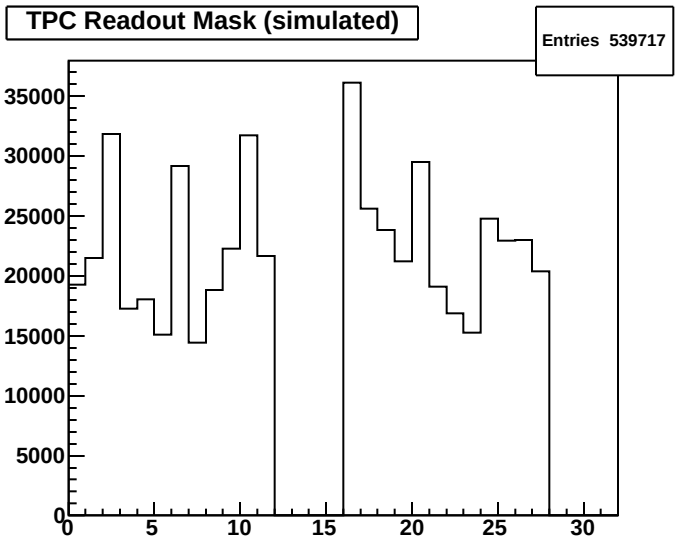

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

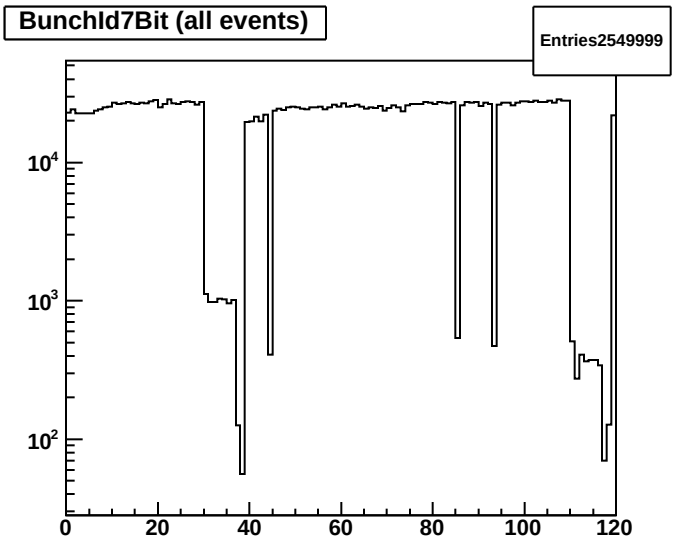

EMC L2 Input - HT23 bits
Entries 2.039999e+07
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

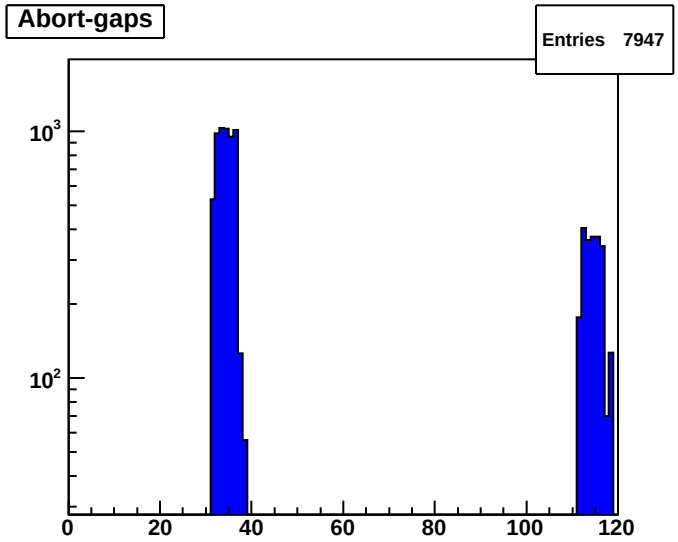

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

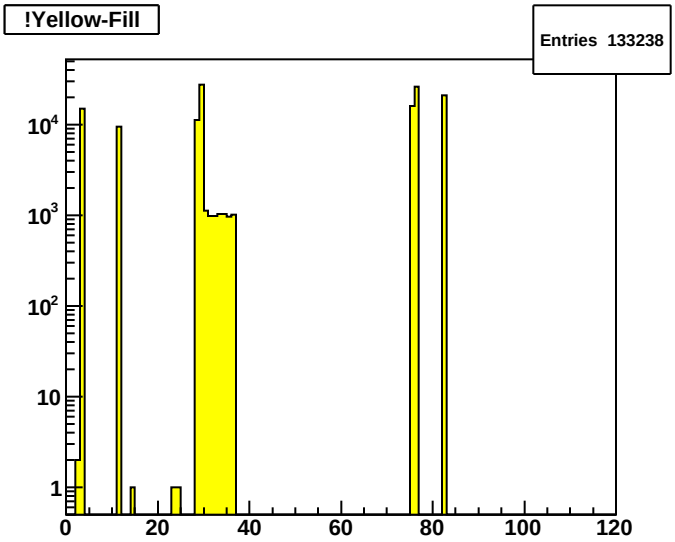

DAQ10k HT bits
Entries 304157
14000
12000
10000
8000
6000
4000
0 5 10 15 20 25 30 35

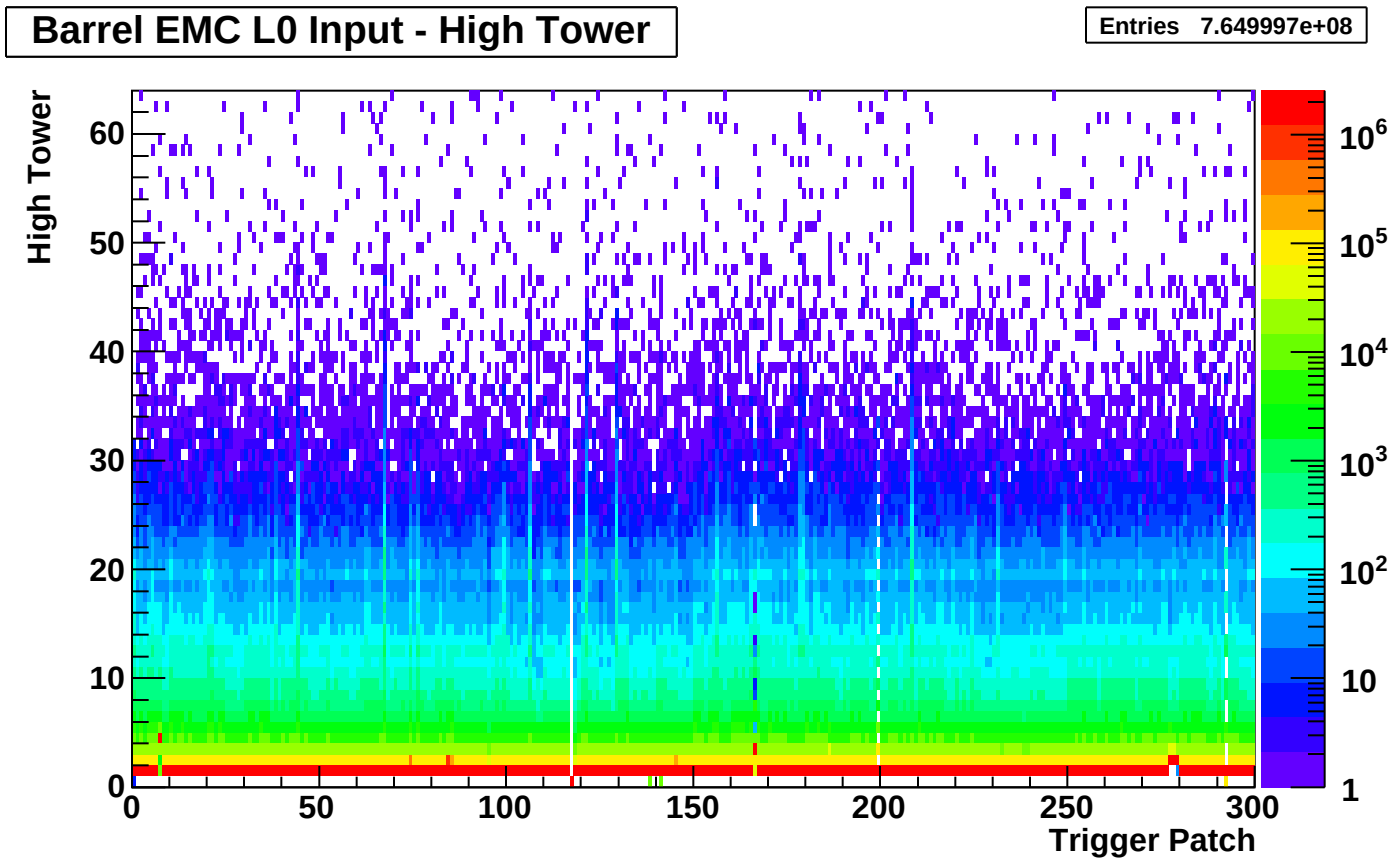

DAQ10k HT bits errors
Entries 0
1
0.8
0.6
0.4
0.2
0
0 5 10 15 20 25 30 35

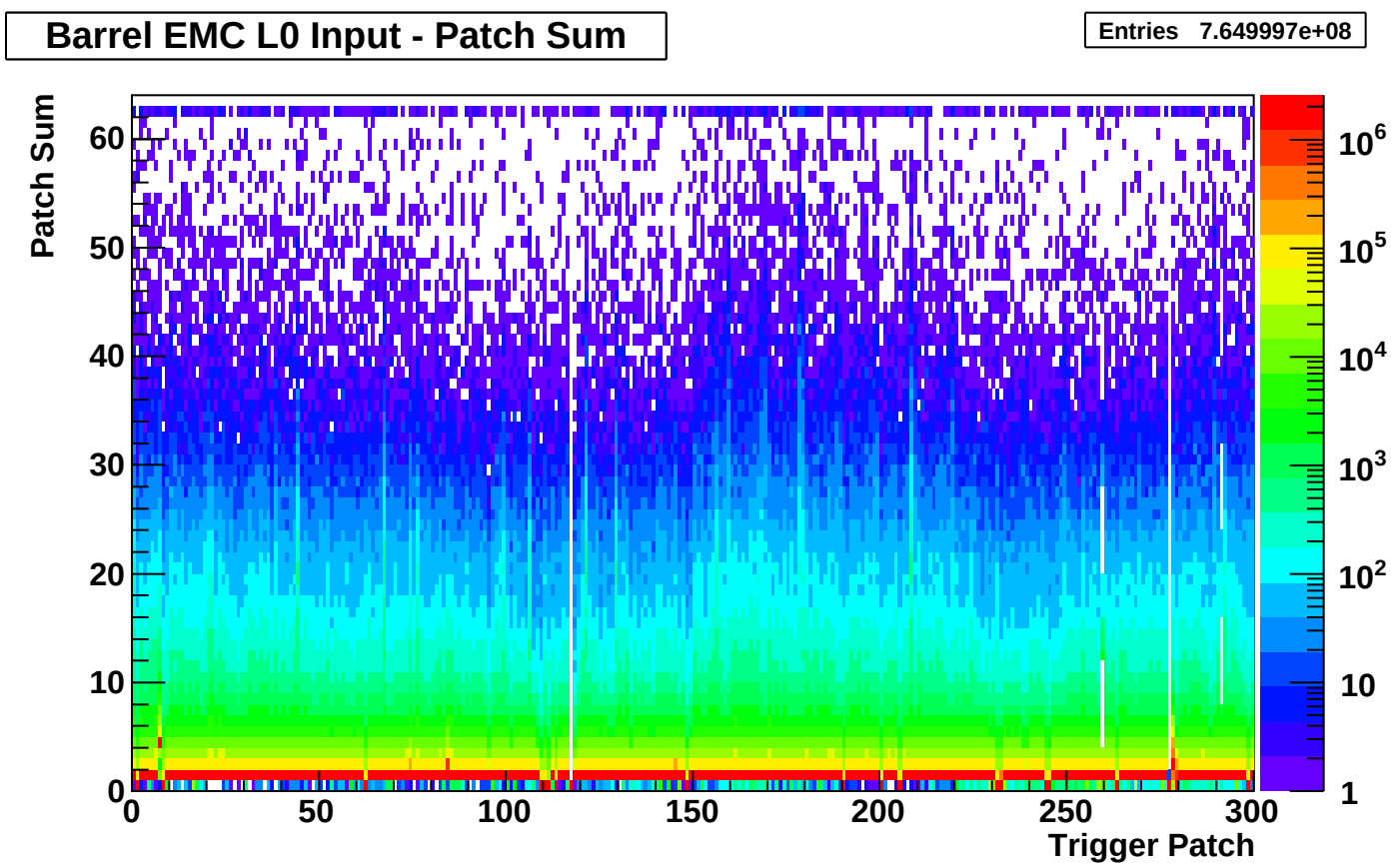

TPC Readout Mask (simulated)
Entries 539717
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

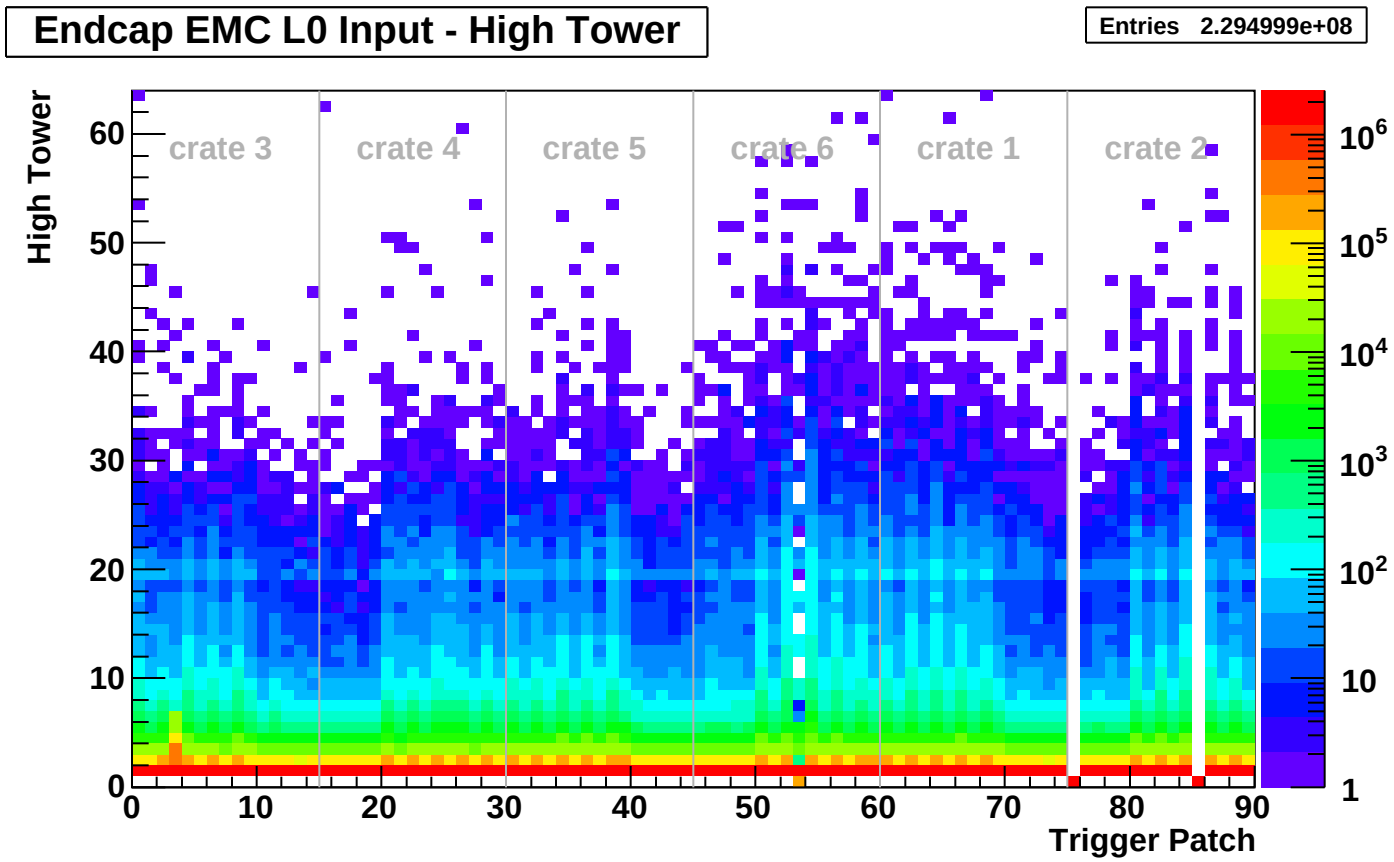

BunchId7Bit (all events)
Entries2549999
10^4
10^3
10^2
0 20 40 60 80 100 120

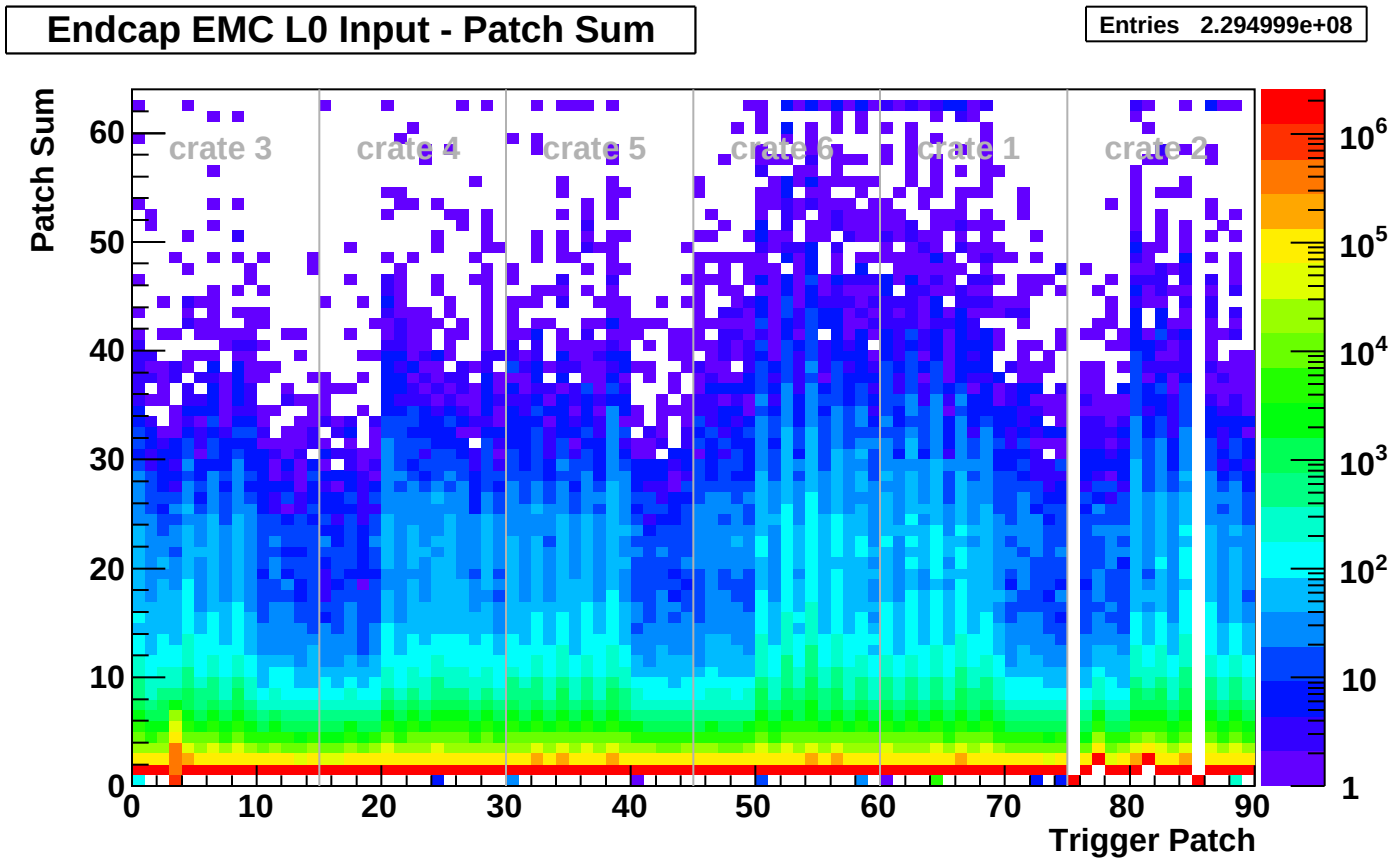

Abort-gaps
Entries 7947
10^3
10^2
0 20 40 60 80 100 120

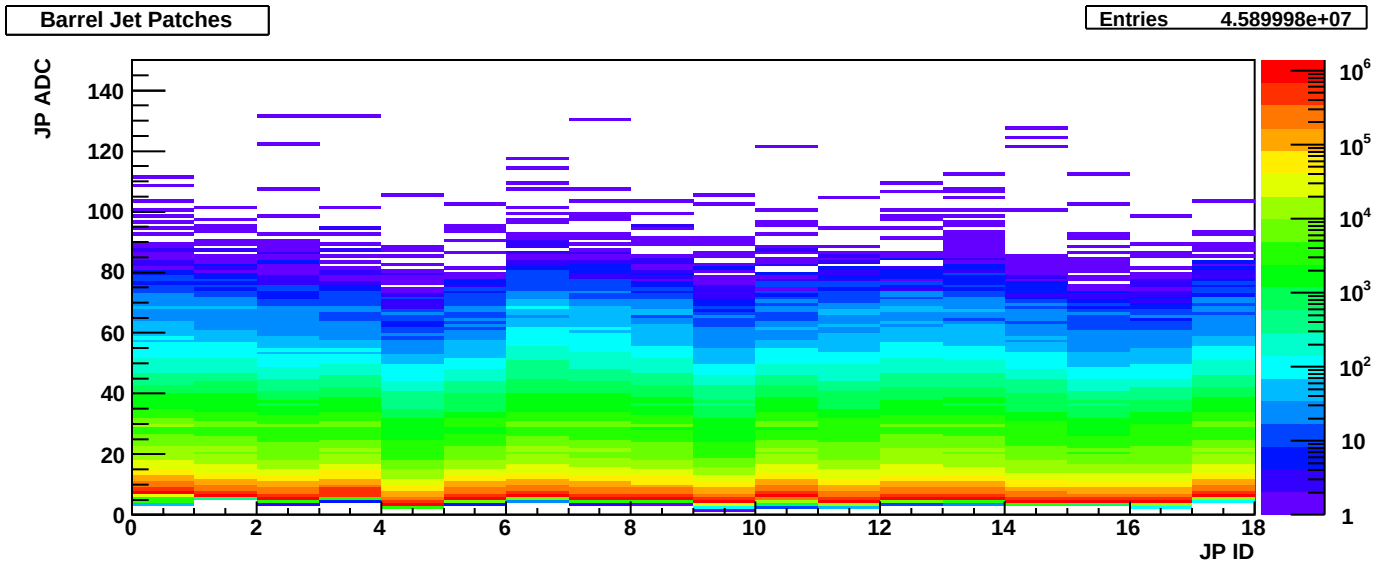

!Yellow-Fill
Entries 133238
10^4
10^3
10^2
10
1
0 20 40 60 80 100 120

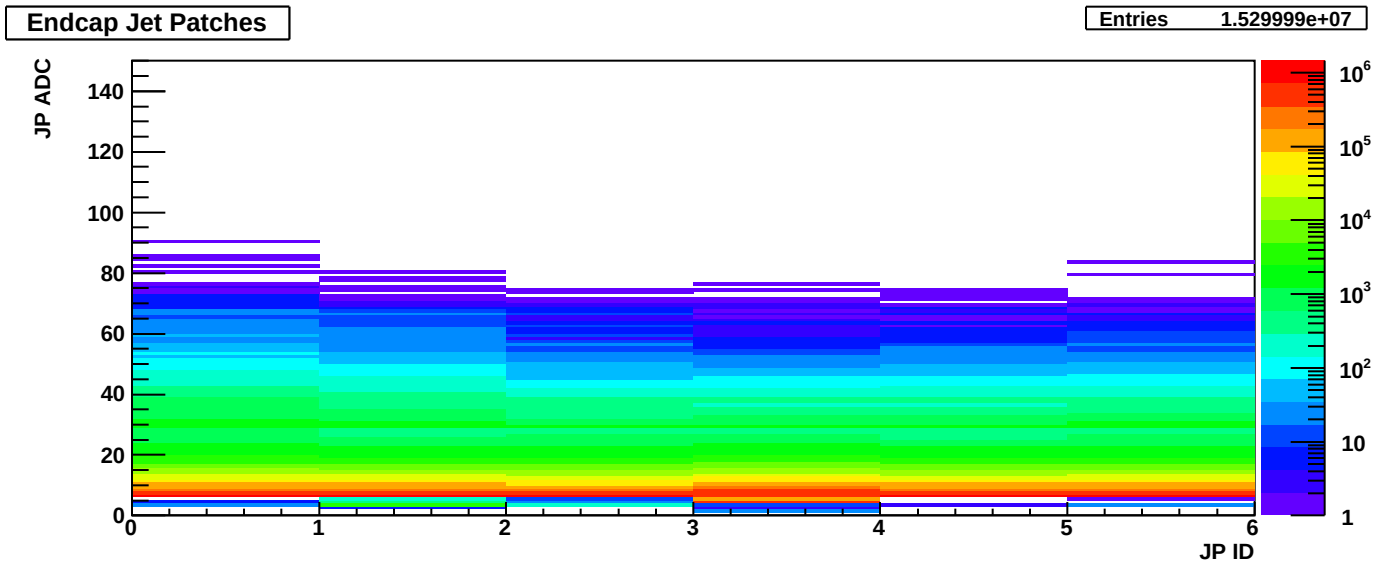

Barrel EMC L0 Input - High Tower
Entries 7.649997e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

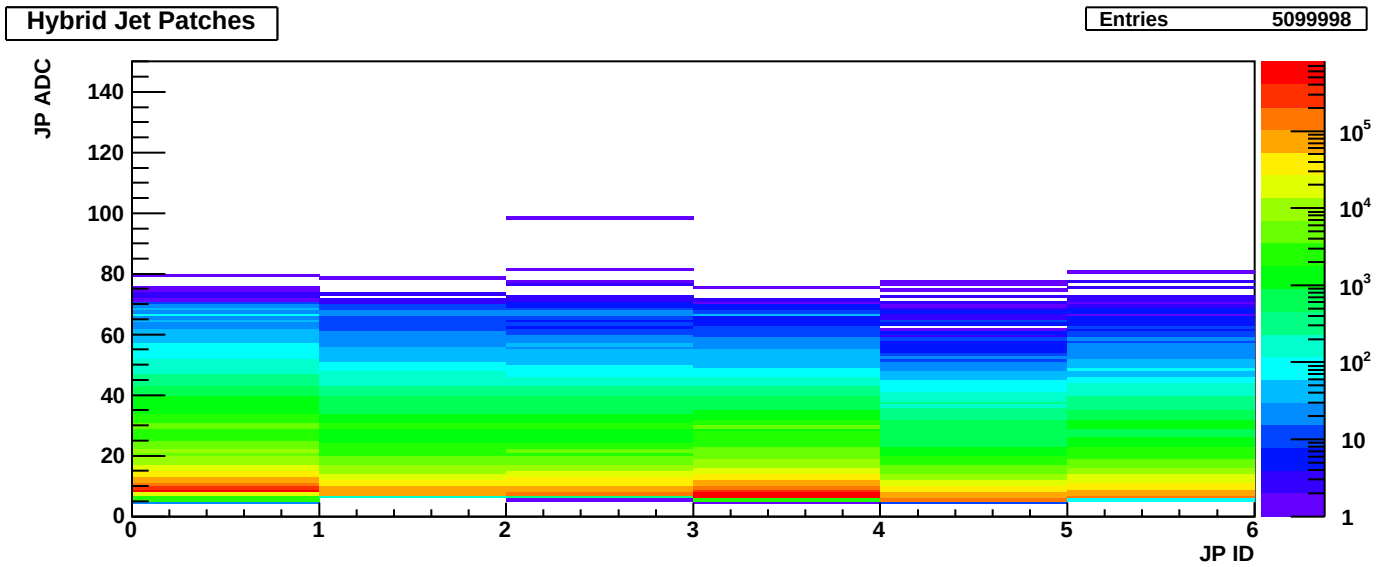

Barrel EMC L0 Input - Patch Sum
Entries 7.649997e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

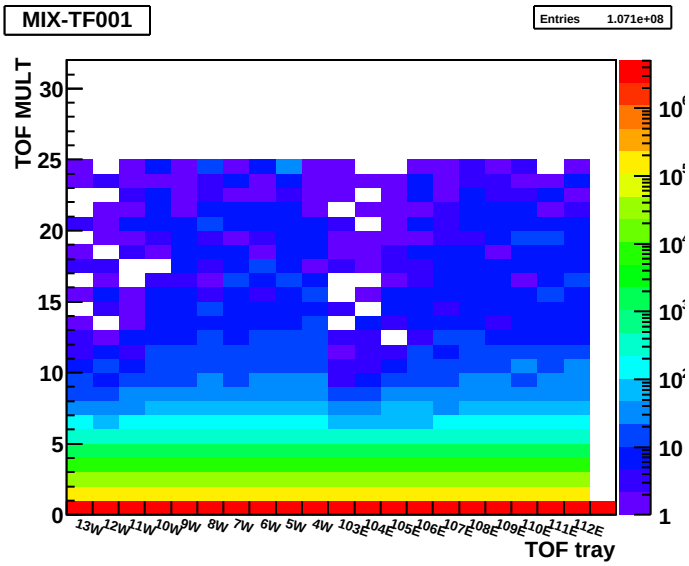

Endcap EMC L0 Input - High Tower
Entries 2.294999e+08
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

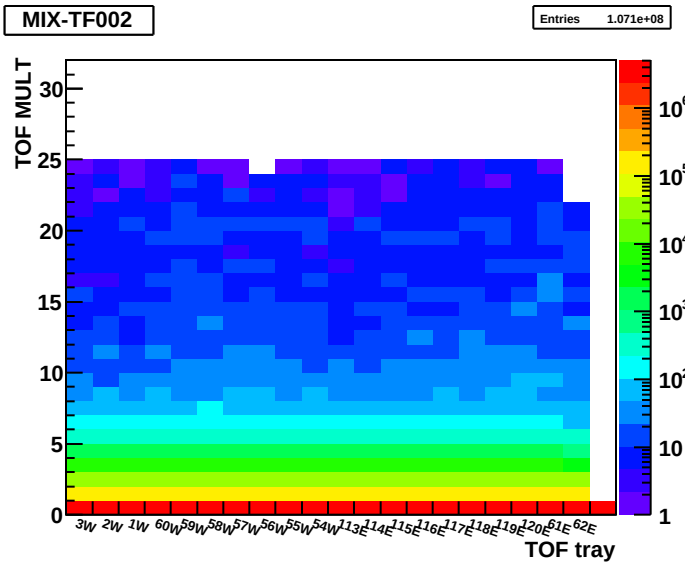

Endcap EMC L0 Input - Patch Sum
Entries 2.294999e+08
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

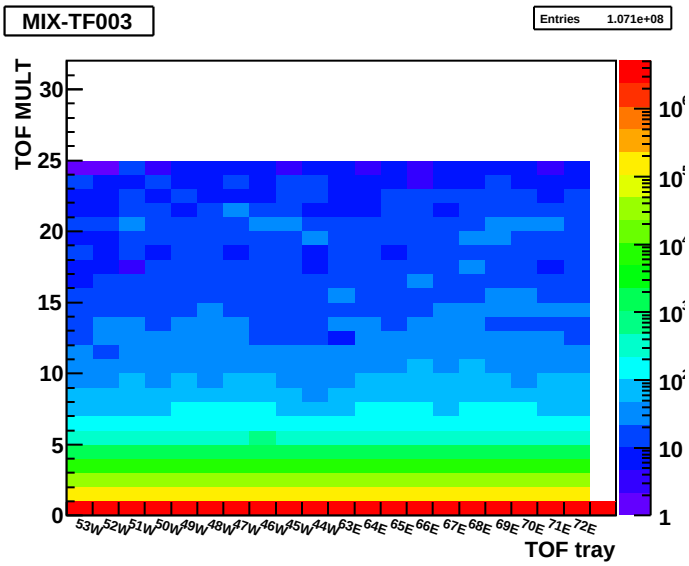

Barrel Jet Patches
Entries 4.589998e+07
JP ADC
JP ID

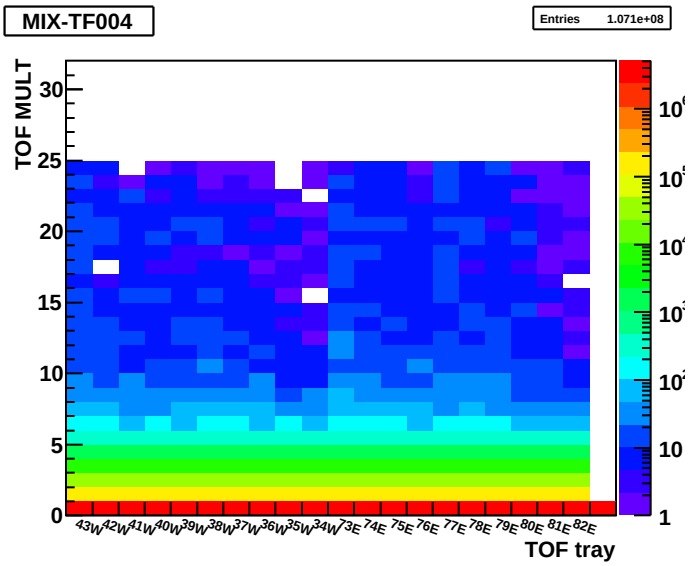

Endcap Jet Patches
Entries 1.529999e+07
JP ADC
JP ID

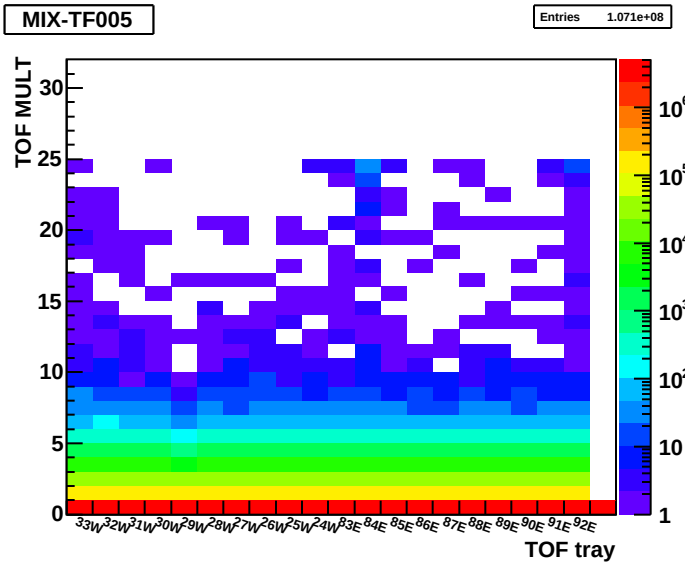

Hybrid Jet Patches
Entries 5099998
JP ADC
JP ID

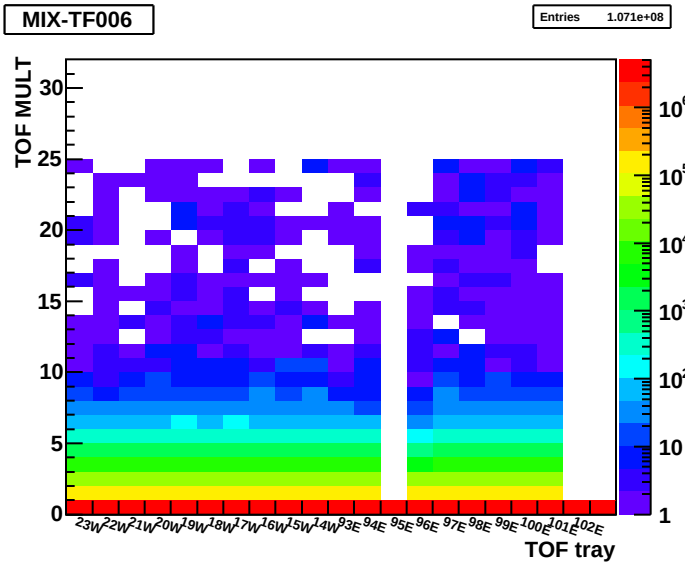

MIX-TF001
Entries 1.071e+08
TOF MULT
TOF tray

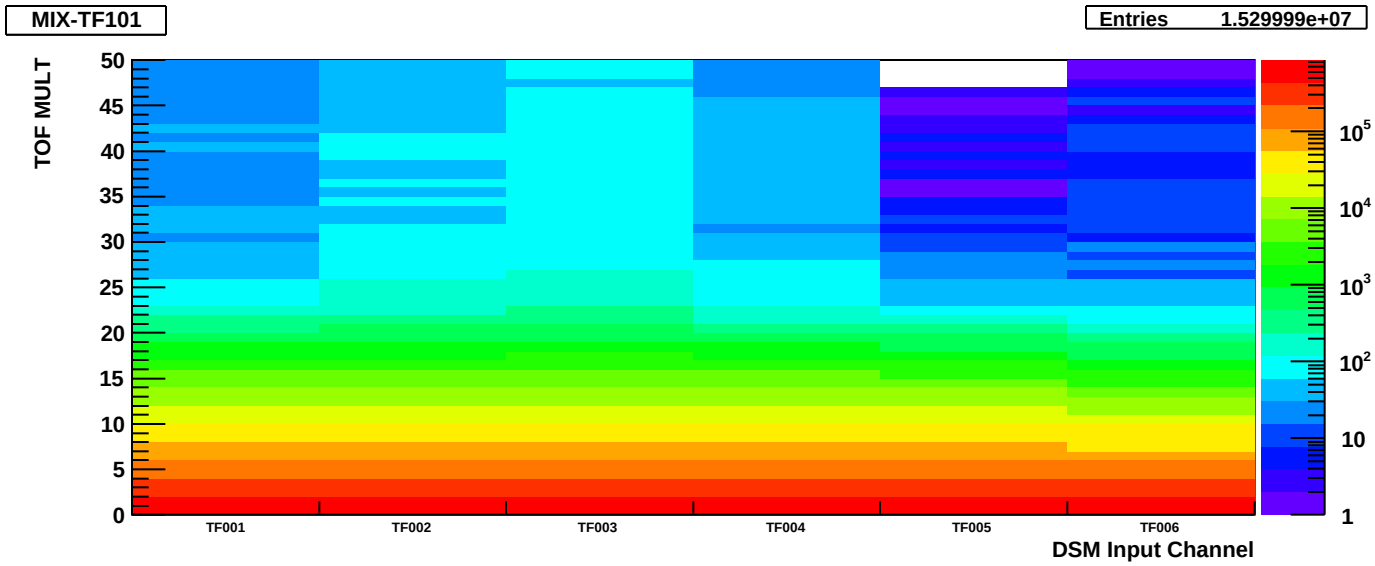

MIX-TF002
Entries 1.071e+08
TOF MULT
TOF tray

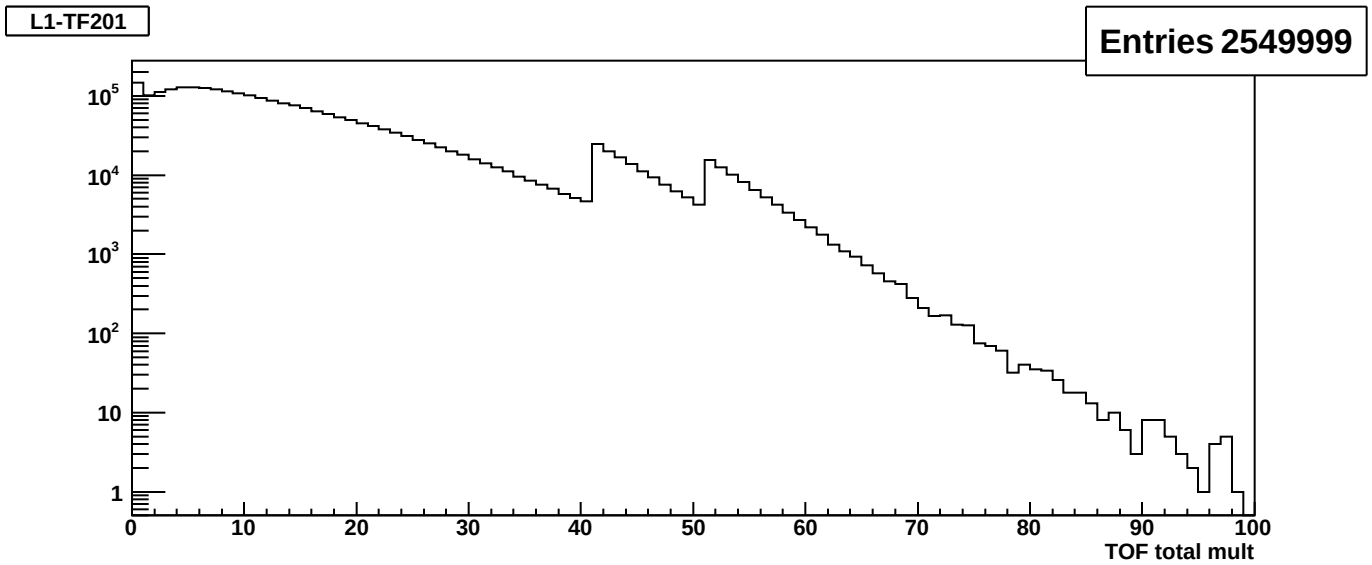

MIX-TF003
Entries 1.071e+08
TOF MULT
TOF tray

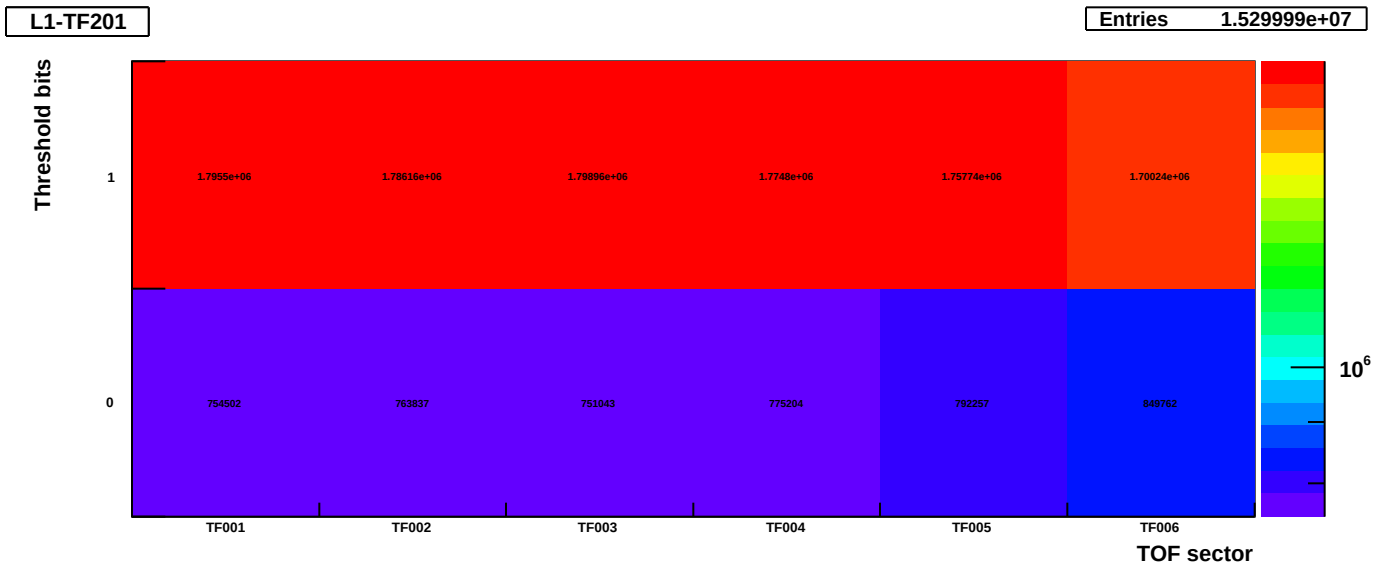

MIX-TF004
Entries 1.071e+08
TOF MULT
TOF tray

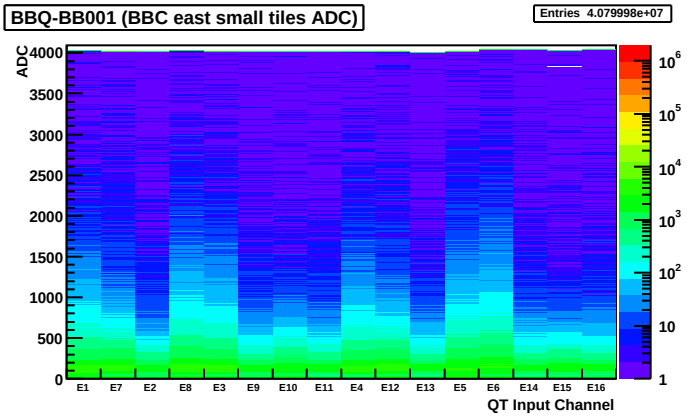

MIX-TF005
Entries 1.071e+08
TOF MULT
TOF tray

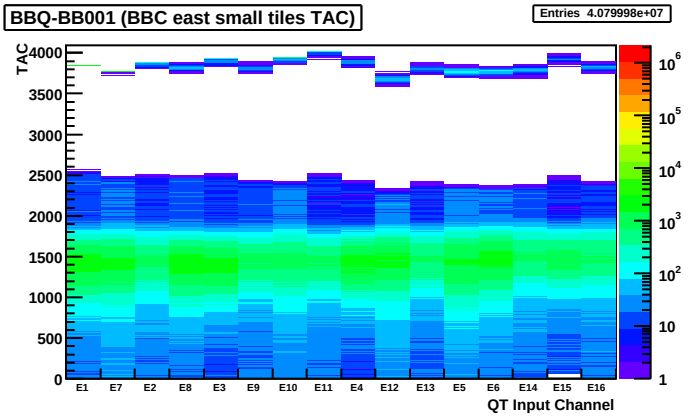

MIX-TF006
Entries 1.071e+08
TOF MULT
TOF tray

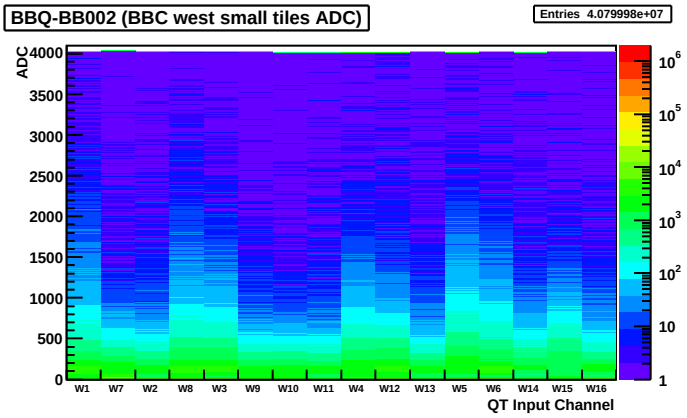

MIX-TF101
Entries 1.529999e+07
TOF MULT
50
45
40
35
30
25
20
15
10
5
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

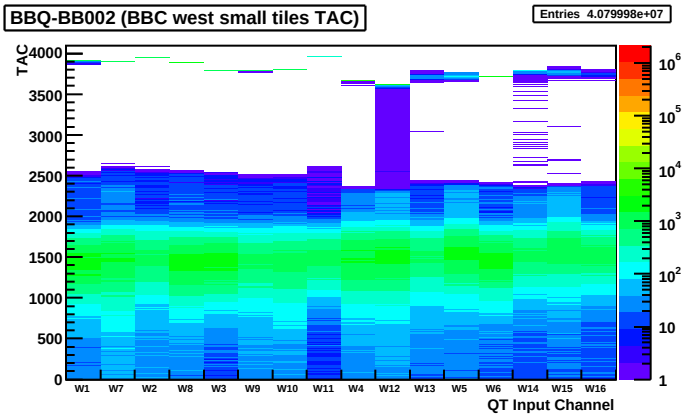

L1-TF201
Entries 2549999
10^5
10^4
10^3
10^2
10
1
0
10
20
30
40
50
60
70
80
90
100
TOF total mult

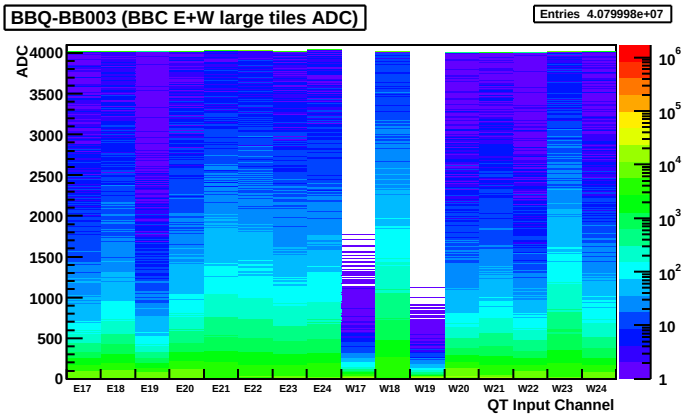

L1-TF201
Entries 1.529999e+07
Threshold bits
1
0
1.7955e+06
1.78616e+06
1.79896e+06
1.7748e+06
1.75774e+06
1.70024e+06
754502
763837
751043
775204
792257
849762
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^6

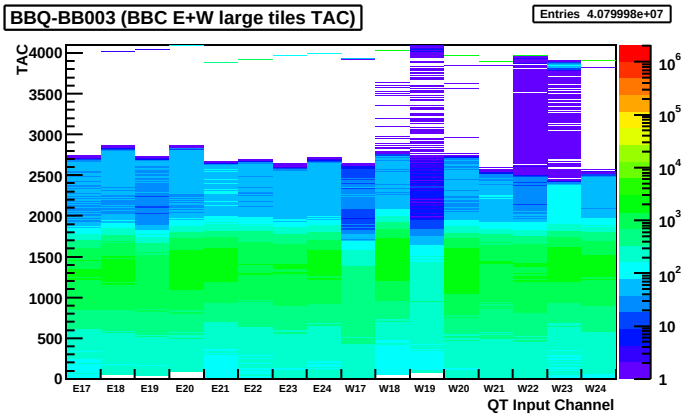

BBQ-BB001 (BBC east small tiles ADC)
Entries 4.079998e+07
ADC
QT Input Channel

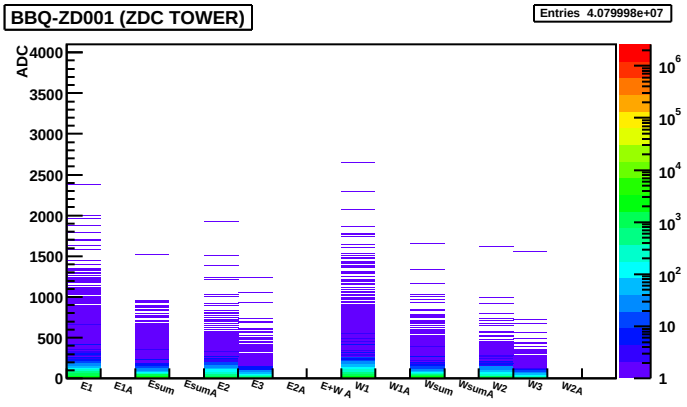

BBQ-BB001 (BBC east small tiles TAC)
Entries 4.079998e+07
TAC
QT Input Channel

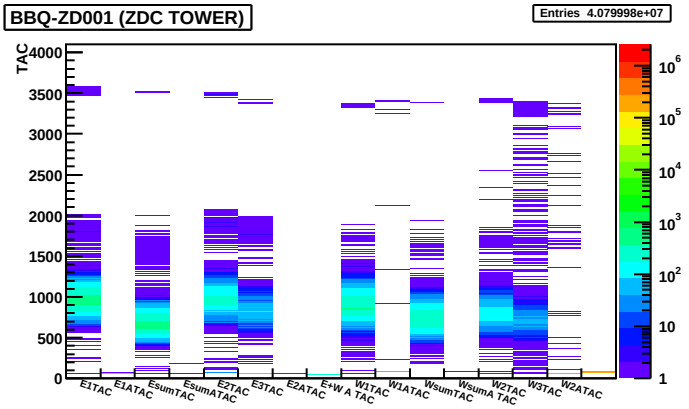

BBQ-BB002 (BBC west small tiles ADC)
Entries 4.079998e+07
ADC
QT Input Channel

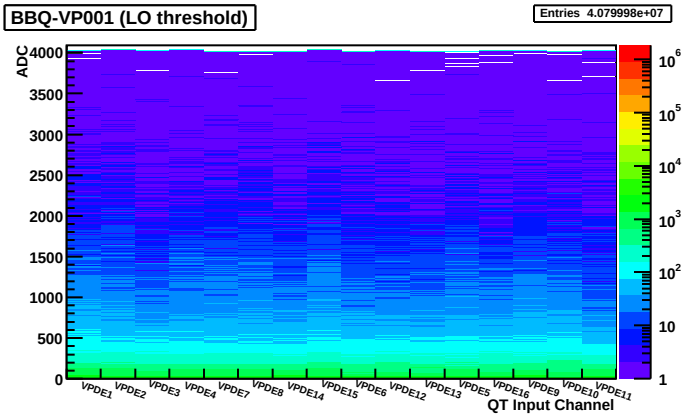

BBQ-BB002 (BBC west small tiles TAC)
Entries 4.079998e+07
TAC
QT Input Channel

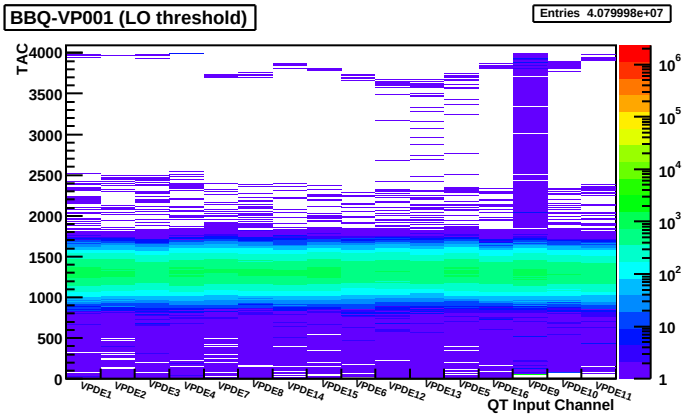

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 4.079998e+07
ADC
QT Input Channel

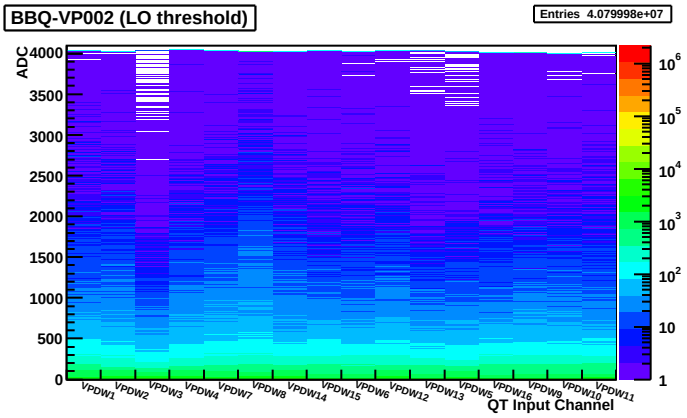

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 4.079998e+07
TAC
QT Input Channel

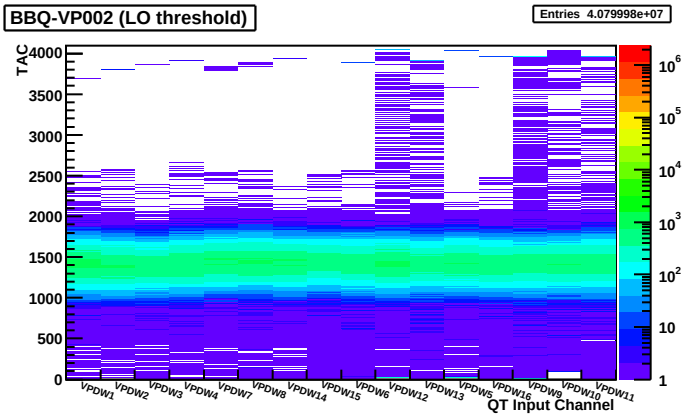

BBQ-ZD001 (ZDC TOWER)
Entries 4.079998e+07
ADC

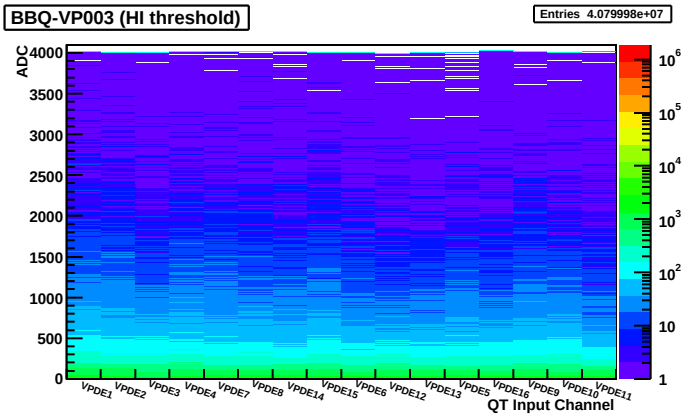

BBQ-ZD001 (ZDC TOWER)
Entries 4.079998e+07
TAC

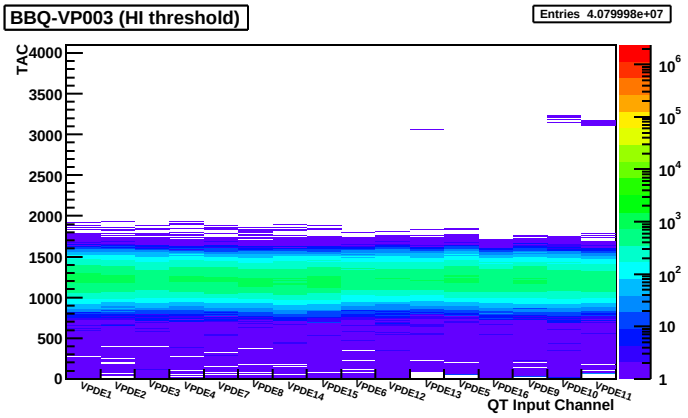

BBQ-VP001 (LO threshold)
Entries 4.079998e+07
ADC
QT Input Channel

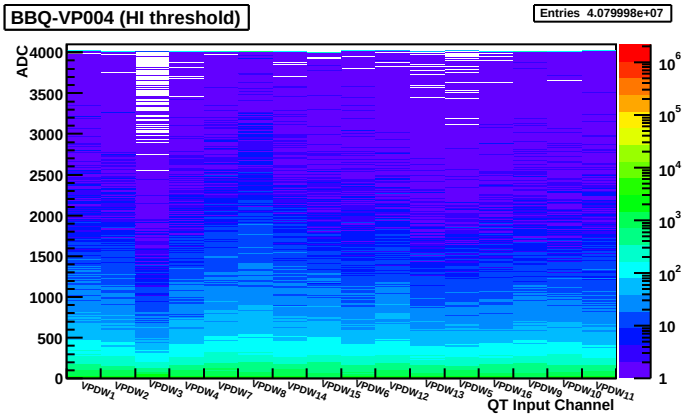

BBQ-VP001 (LO threshold)
Entries 4.079998e+07
TAC
QT Input Channel

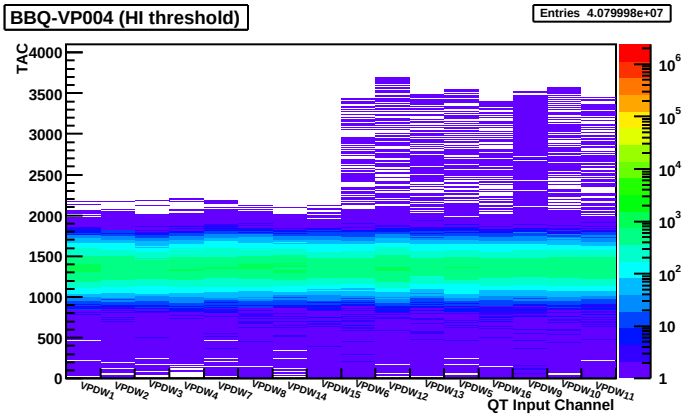

BBQ-VP002 (LO threshold)
Entries 4.079998e+07
ADC
QT Input Channel

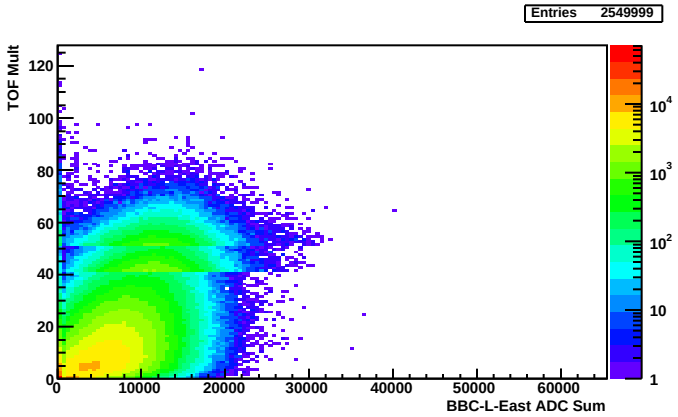

BBQ-VP002 (LO threshold)
Entries 4.079998e+07
TAC
QT Input Channel

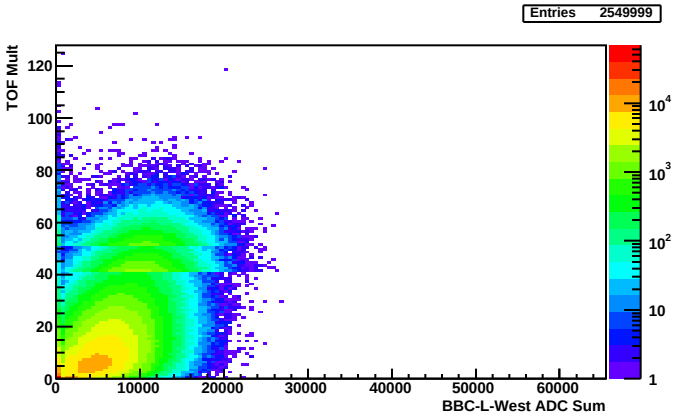

BBQ-VP003 (HI threshold)
Entries 4.079998e+07
ADC
QT Input Channel

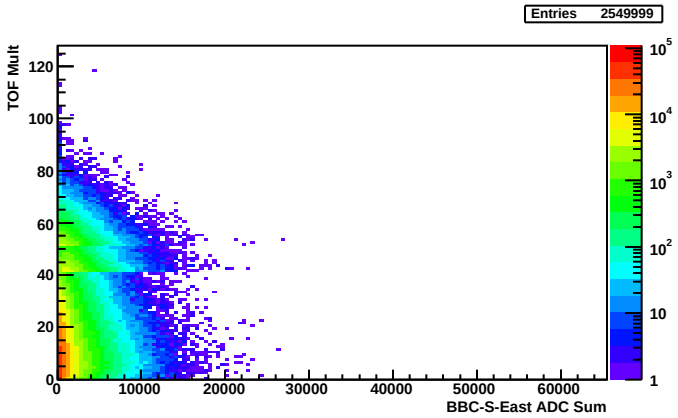

BBQ-VP003 (HI threshold)
Entries 4.079998e+07
TAC
QT Input Channel

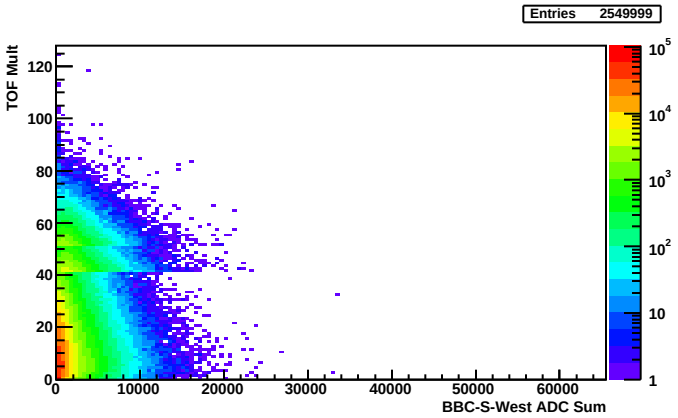

BBQ-VP004 (HI threshold)
Entries 4.079998e+07
ADC
QT Input Channel

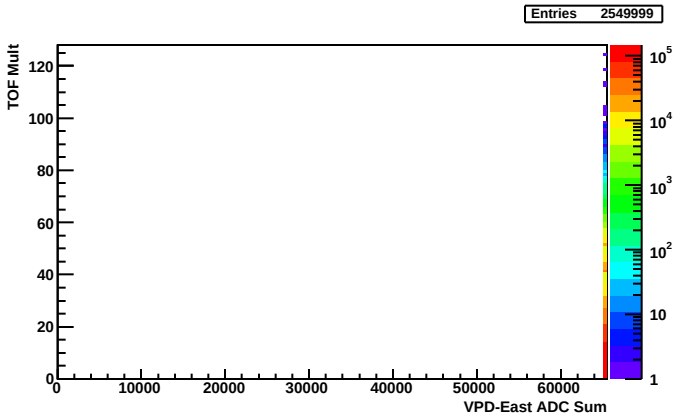

BBQ-VP004 (HI threshold)
Entries 4.079998e+07
TAC
QT Input Channel

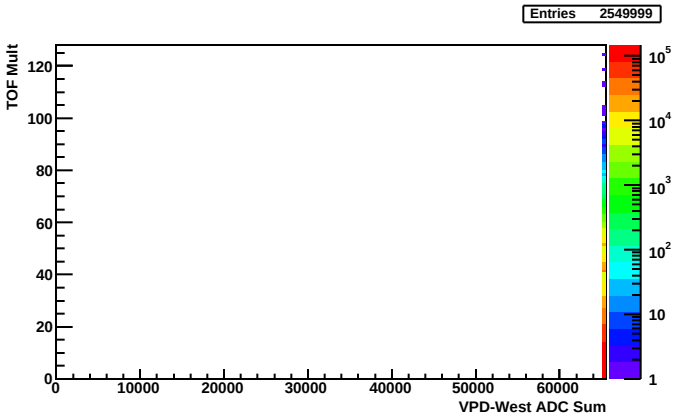

Entries 2549999
TOF Mult
BBC-L-East ADC Sum

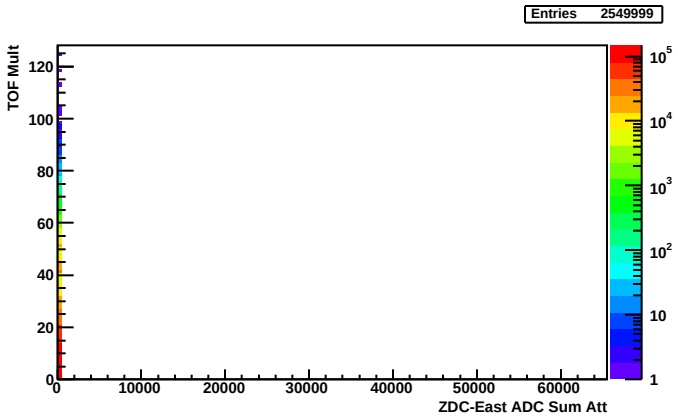

Entries 2549999
TOF Mult
BBC-L-West ADC Sum

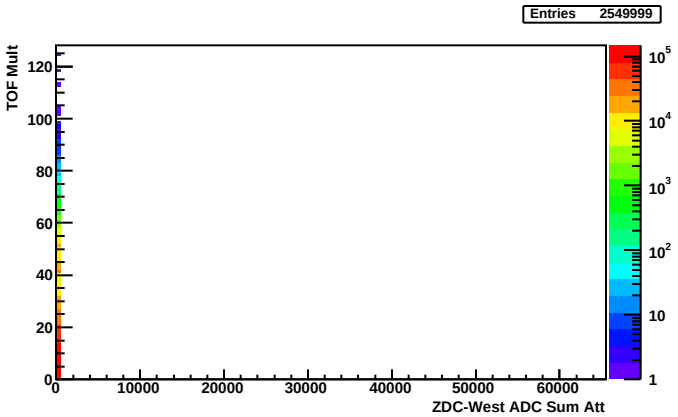

Entries 2549999
TOF Mult
BBC-S-East ADC Sum

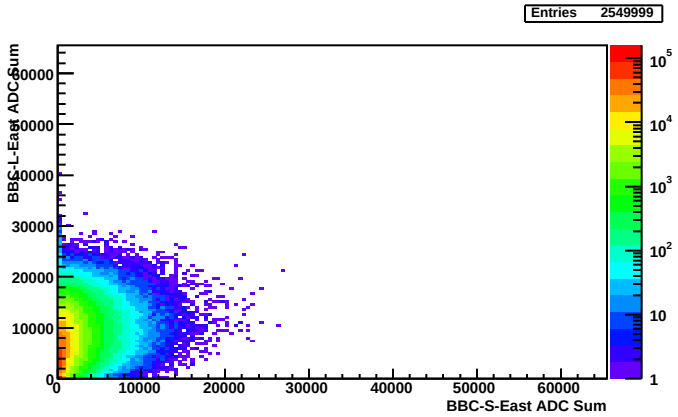

Entries 2549999
TOF Mult
BBC-S-West ADC Sum

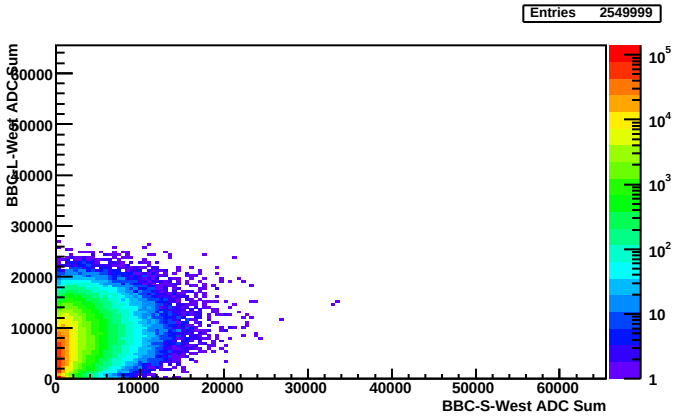

Entries 2549999
TOF Mult
VPD-East ADC Sum

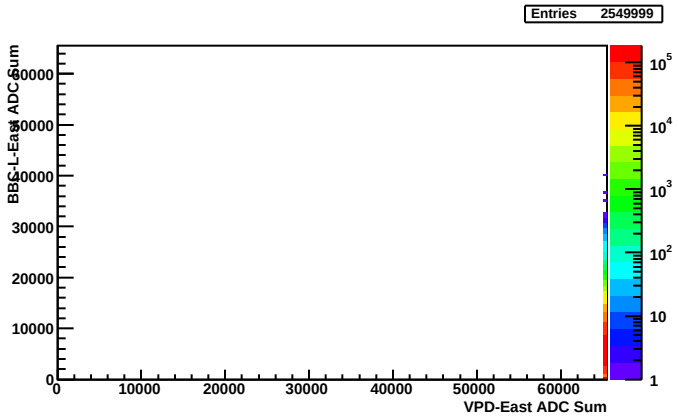

Entries 2549999
TOF Mult
VPD-West ADC Sum

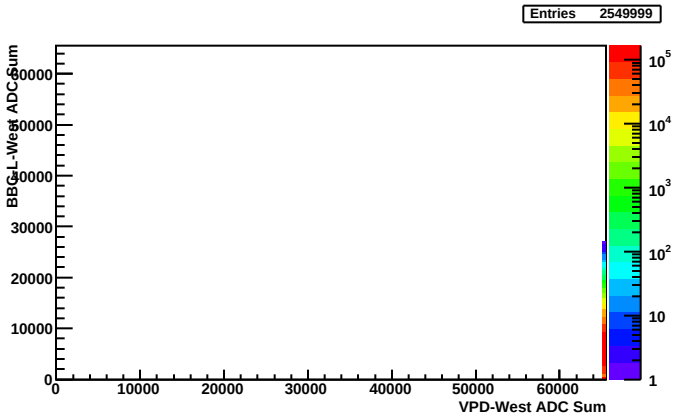

Entries 2549999
TOF Mult
ZDC-East ADC Sum Att

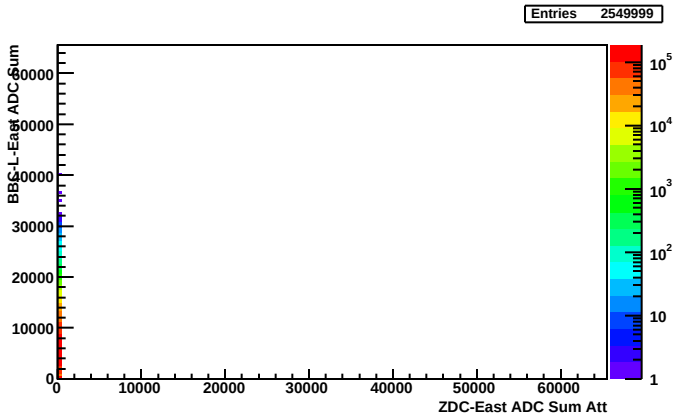

Entries 2549999
TOF Mult
ZDC-West ADC Sum Att

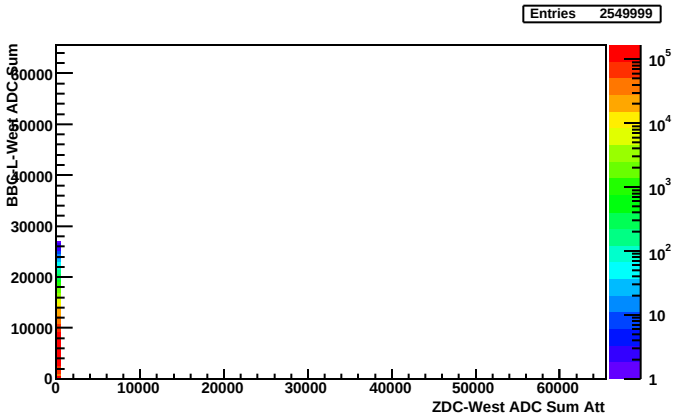

Entries 2549999
BBC-L-East ADC Sum
BBC-S-East ADC Sum

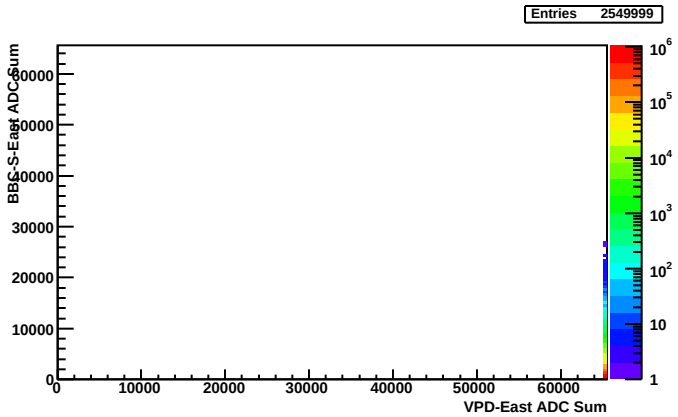

Entries 2549999
BBC-L-West ADC Sum
BBC-S-West ADC Sum

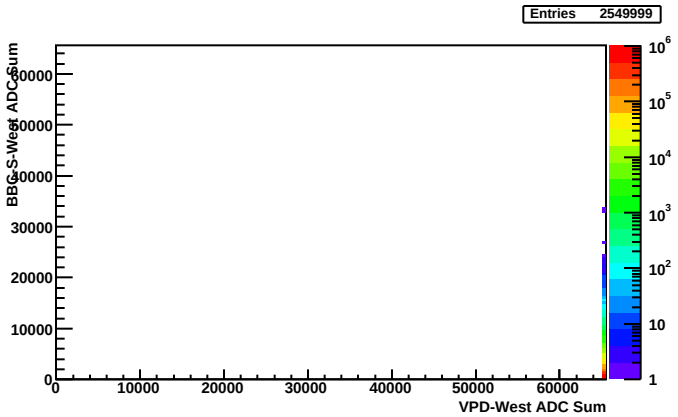

Entries 2549999
BBC-L-East ADC Sum
VPD-East ADC Sum

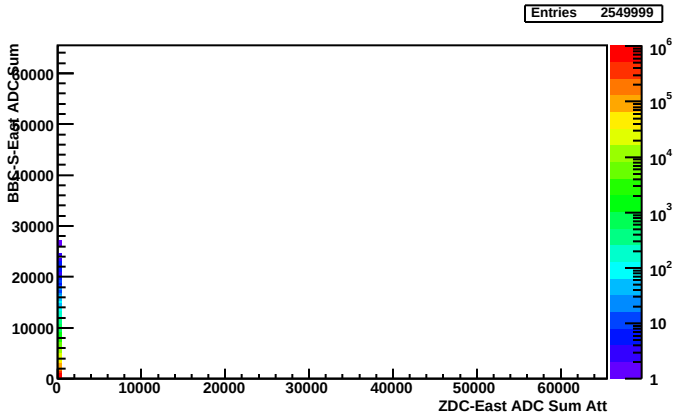

Entries 2549999
BBC-L-West ADC Sum
VPD-West ADC Sum

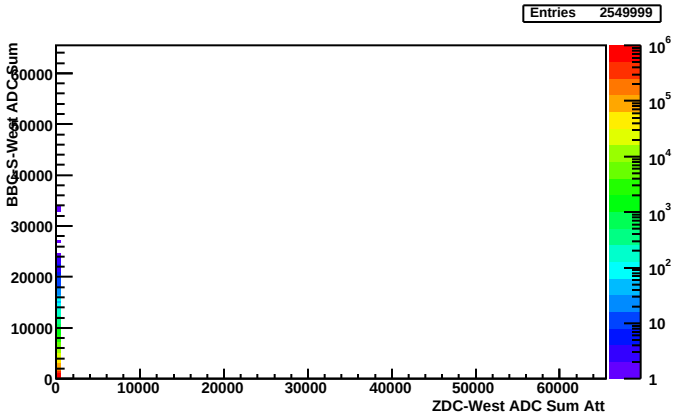

Entries 2549999
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

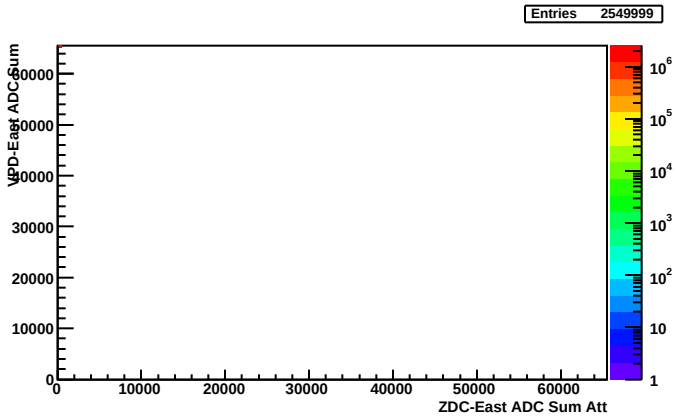

Entries 2549999
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

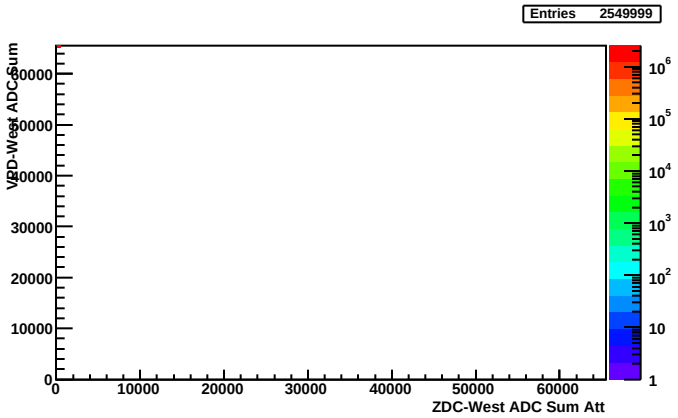

Entries 2549999
BBC-S-East ADC Sum
VPD-East ADC Sum

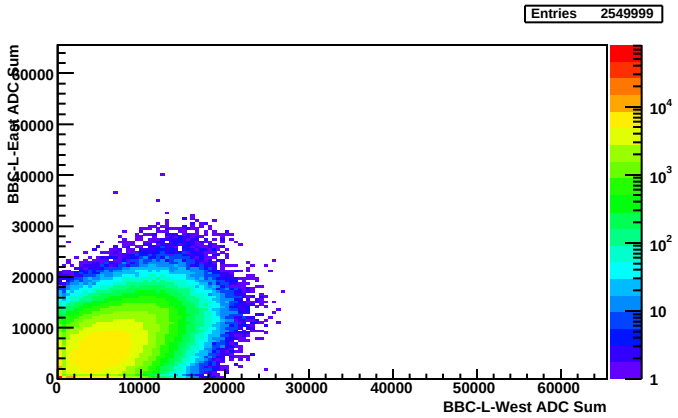

Entries 2549999
BBC-S-West ADC Sum
VPD-West ADC Sum

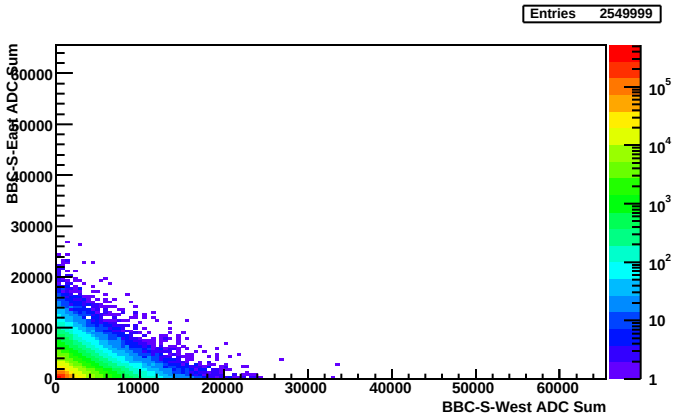

Entries 2549999
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

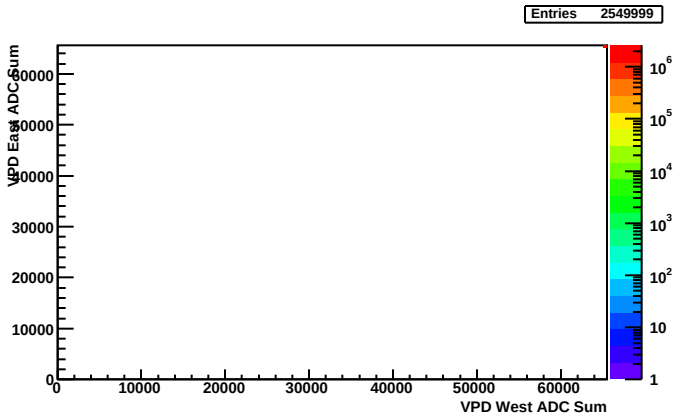

Entries 2549999
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

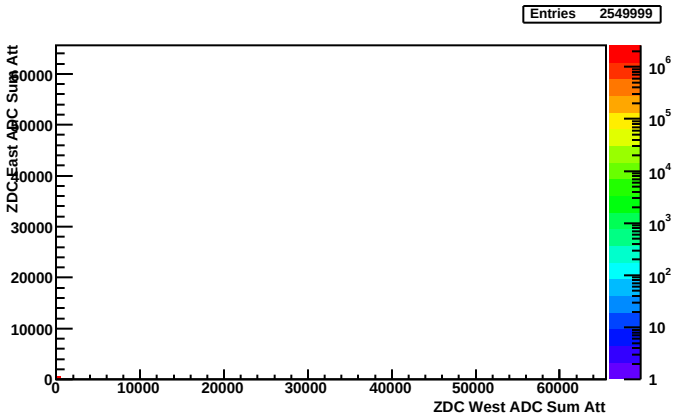

Entries 2549999
VPD-East ADC Sum
ZDC-East ADC Sum Att

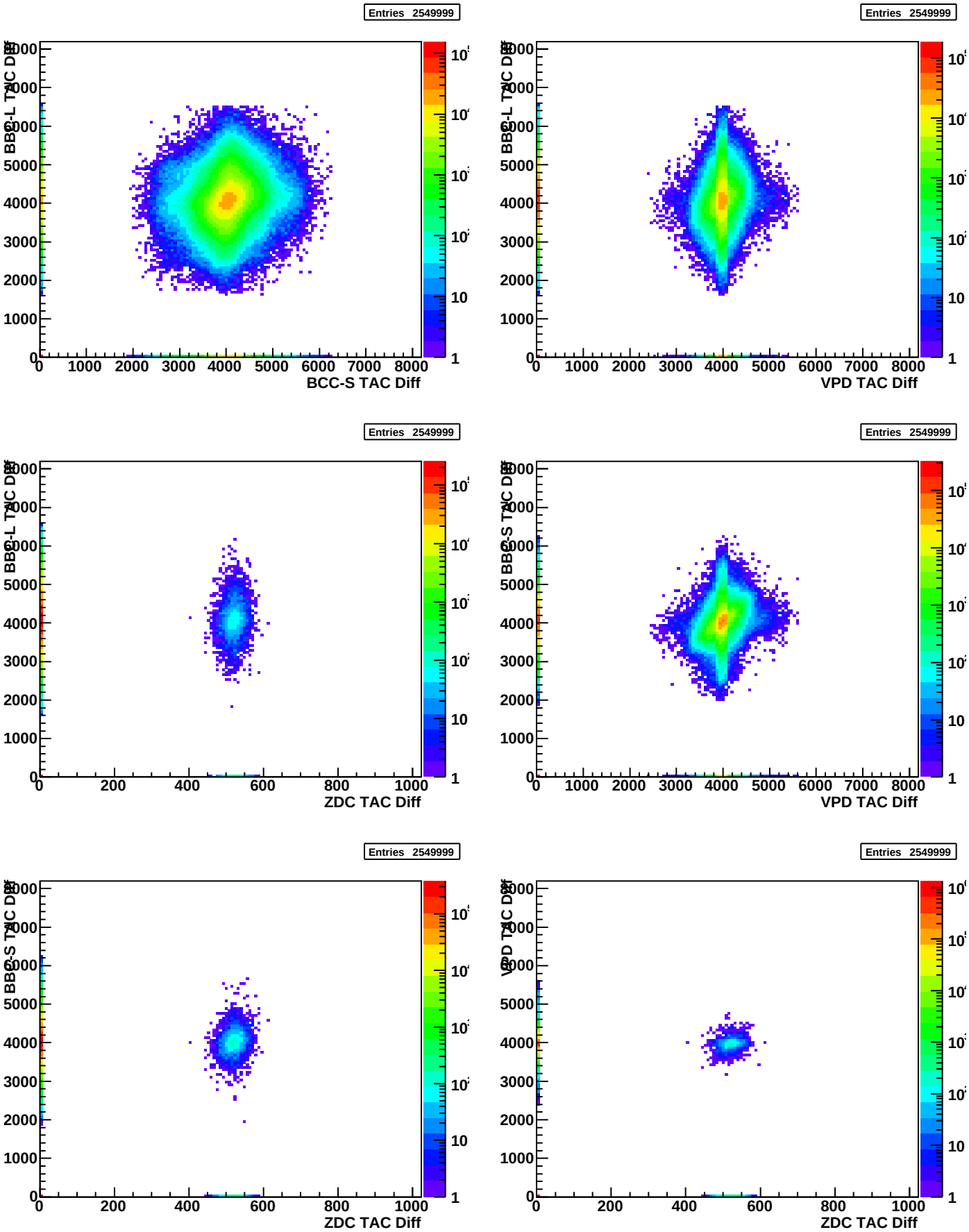

Entries 2549999
VPD-West ADC Sum
ZDC-West ADC Sum Att

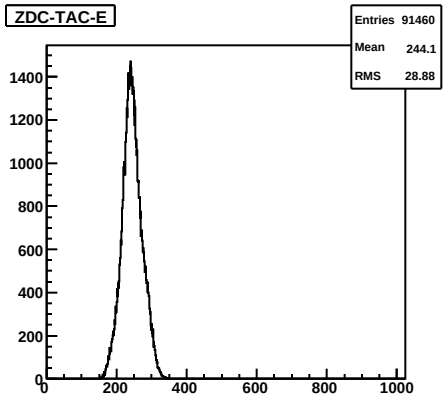

Entries 2549999
BBC-L-East ADC Sum
BBC-L-West ADC Sum

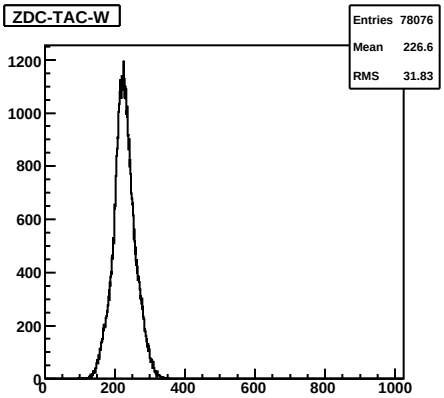

Entries 2549999
BBC-S-East ADC Sum
BBC-S-West ADC Sum

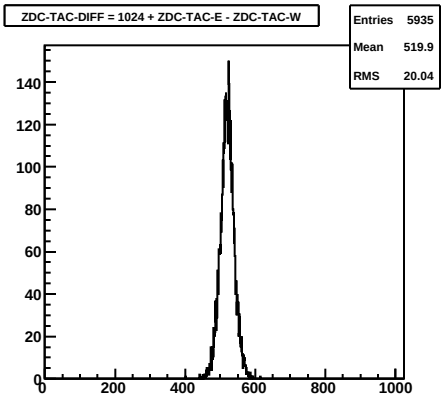

Entries 2549999
VPD East ADC Sum
VPD West ADC Sum

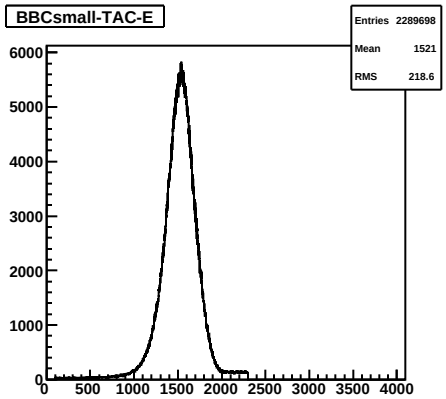

Entries 2549999
ZDC East ADC Sum Att
ZDC West ADC Sum Att

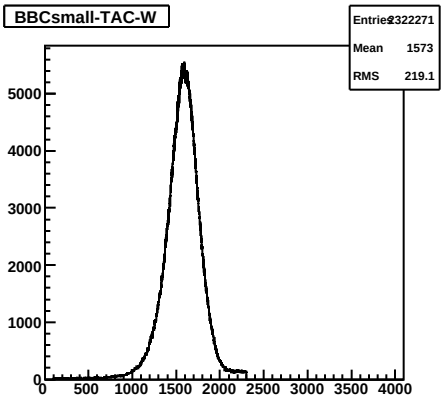

Entries 2549999
BBC-L TAC Diff
BCC-S TAC Diff
Entries 2549999
BBC-L TAC Diff
VPD TAC Diff
Entries 2549999
BBC-L TAC Diff
ZDC TAC Diff
Entries 2549999
BBC-S TAC Diff
VPD TAC Diff
Entries 2549999
BBC-S TAC Diff
ZDC TAC Diff
Entries 2549999
VPD TAC Diff
ZDC TAC Diff

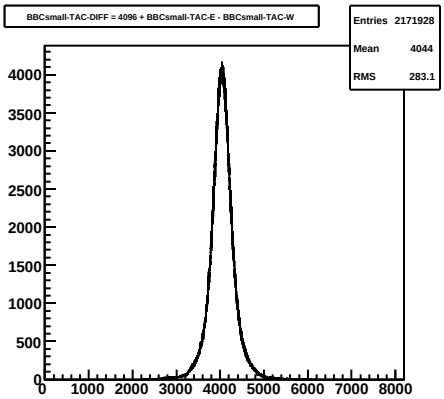

ZDC-TAC-E
Entries 91460
Mean 244.1
RMS 28.88

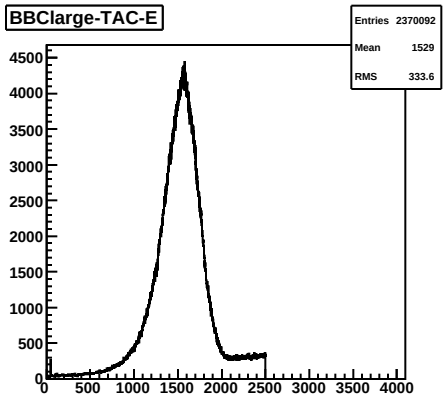

ZDC-TAC-W
Entries 78076
Mean 226.6
RMS 31.83

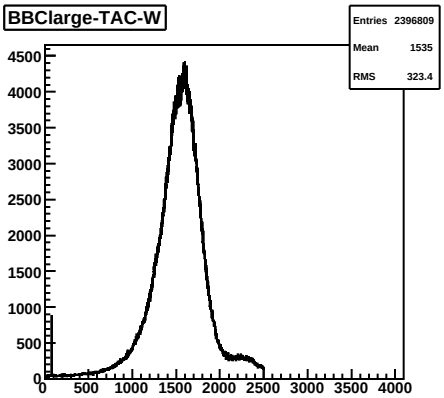

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 5935
Mean 519.9
RMS 20.04

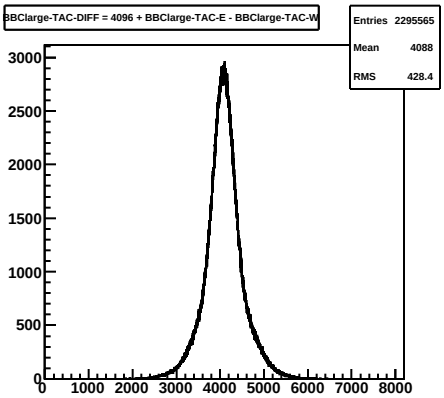

BBCsmall-TAC-E
Entries 2289698
Mean 1521
RMS 218.6

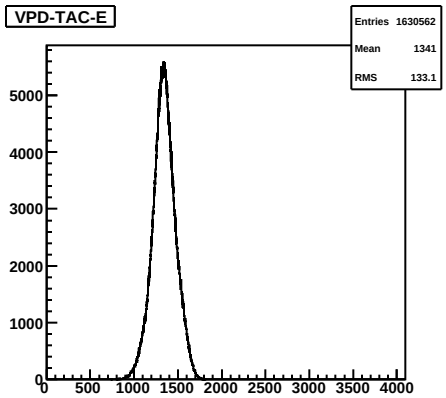

BBCsmall-TAC-W
Entries 2322271
Mean 1573
RMS 219.1

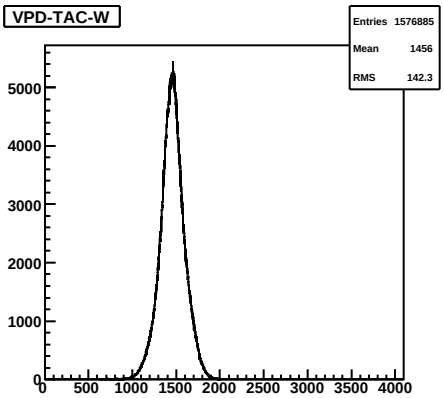

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 2171928
Mean 4044
RMS 283.1

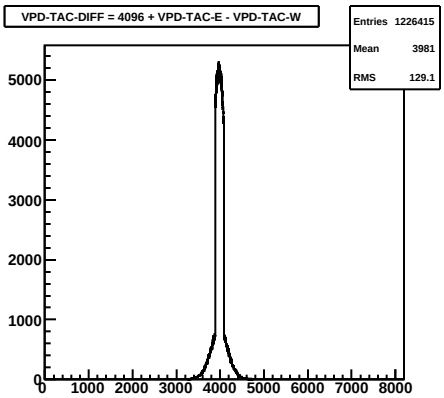

BBClarge-TAC-E
Entries 2370092
Mean 1529
RMS 333.6

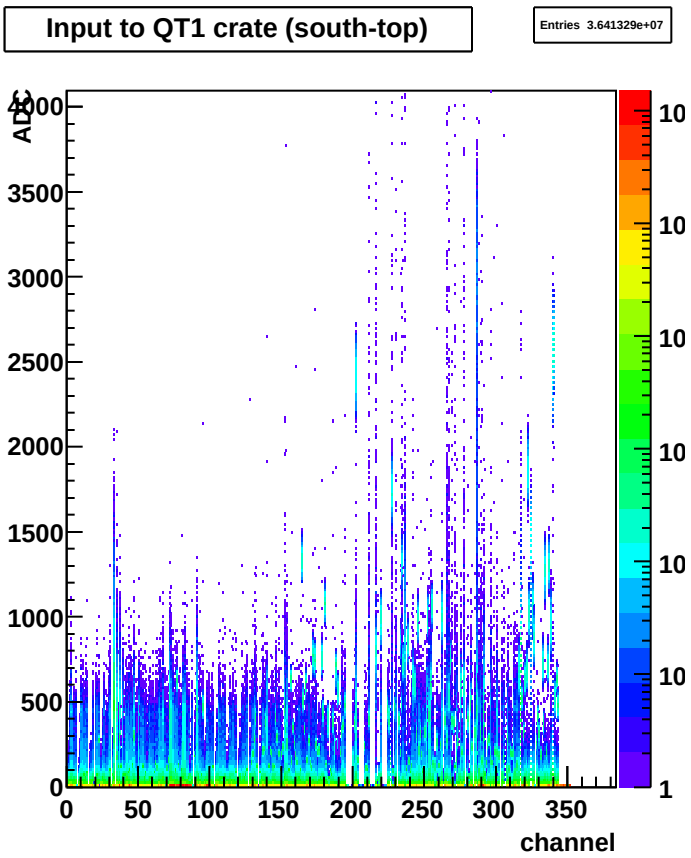

BBClarge-TAC-W
Entries 2396809
Mean 1535
RMS 323.4

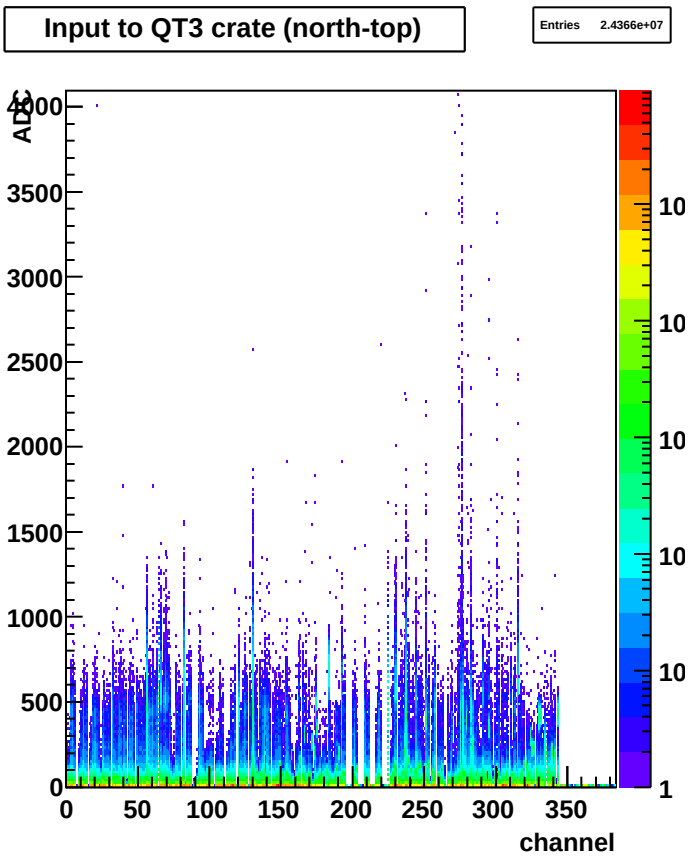

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 2295565
Mean 4088
RMS 428.4

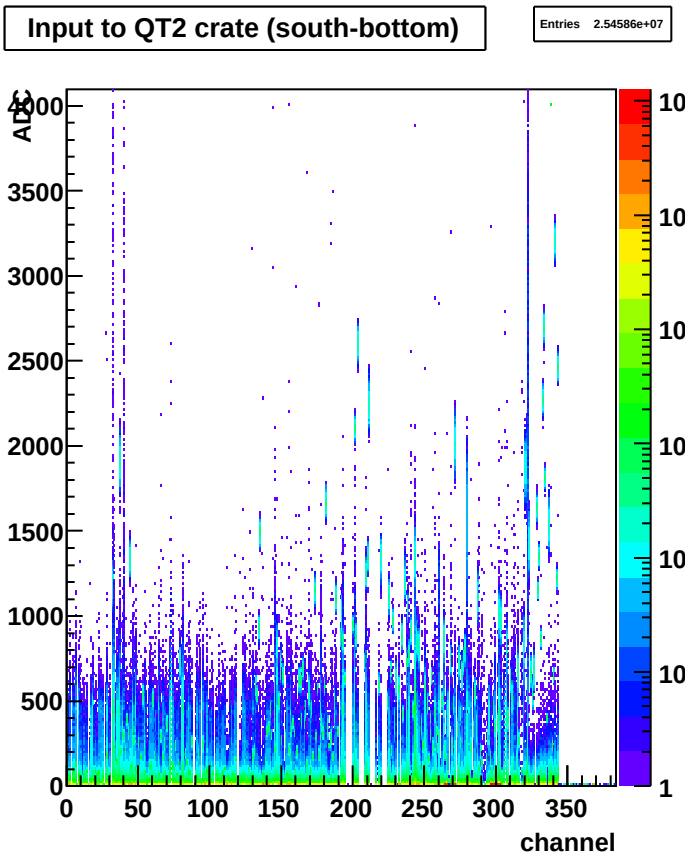

VPD-TAC-E
Entries 1630562
Mean 1341
RMS 133.1

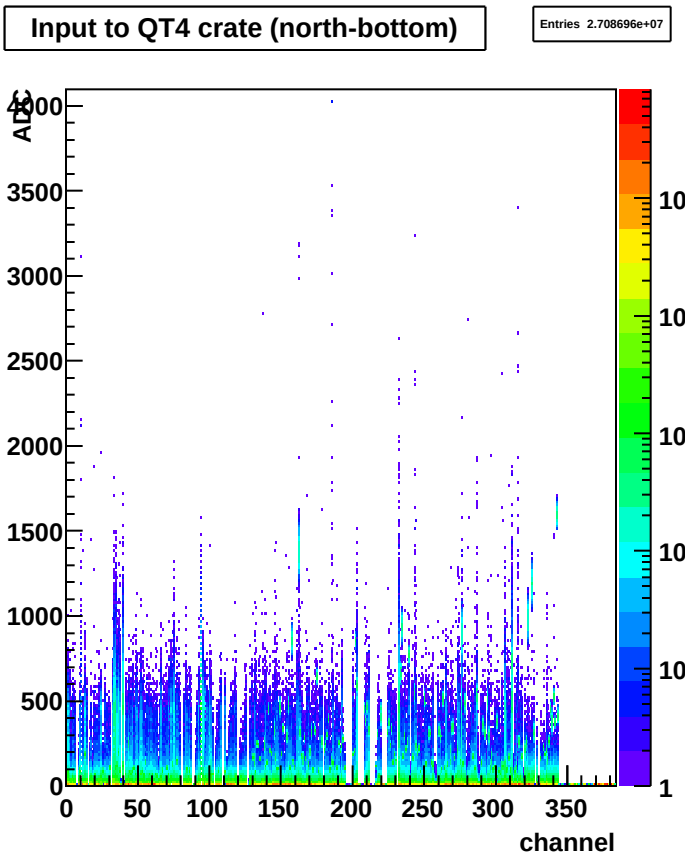

VPD-TAC-W
Entries 1576885
Mean 1456
RMS 142.3

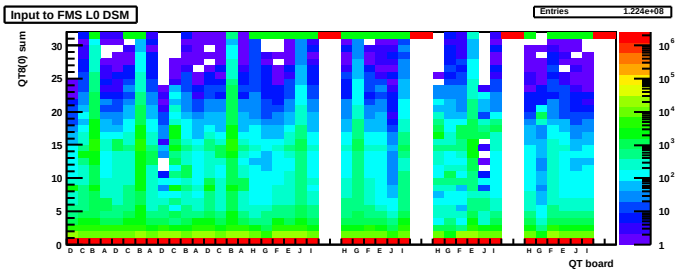

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 1226415
Mean 3981
RMS 129.1

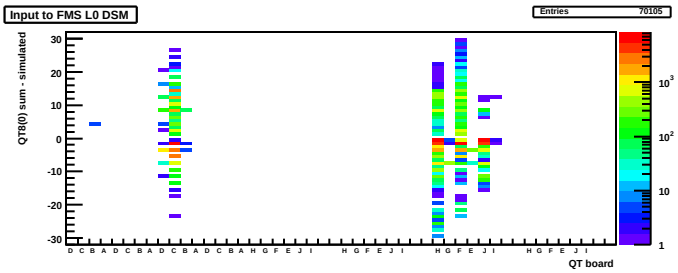

Input to QT1 crate (south-top)
Entries 3.641329e+07
ADC
channel

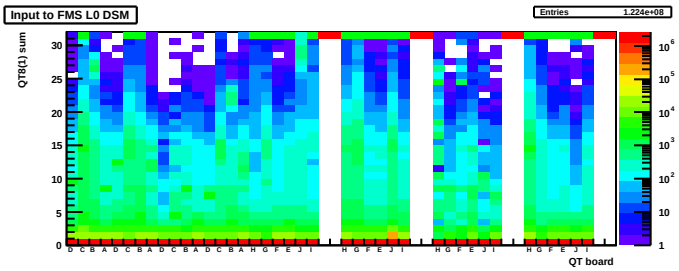

Input to QT3 crate (north-top)
Entries 2.4366e+07
ADC
channel

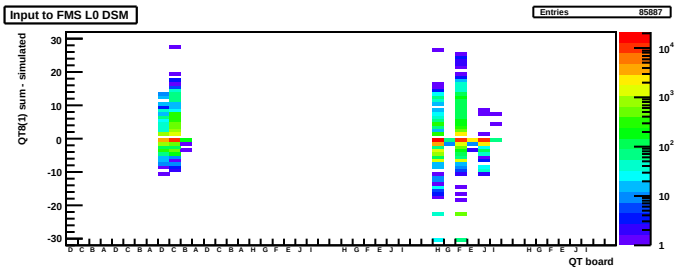

Input to QT2 crate (south-bottom)
Entries 2.54586e+07
ADC
channel

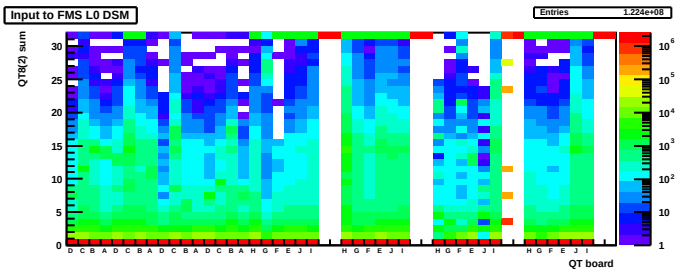

Input to QT4 crate (north-bottom)
Entries 2.708696e+07
ADC
channel

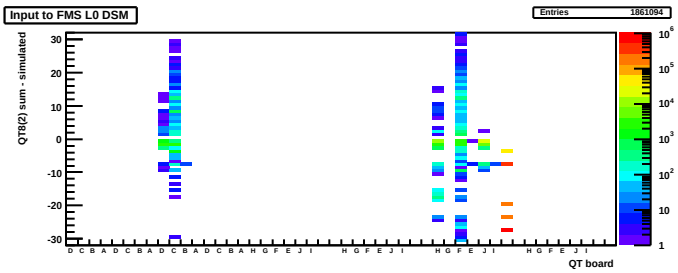

Input to FMS L0 DSM
Entries 1.224e+08
QT8(0) sum
QT board

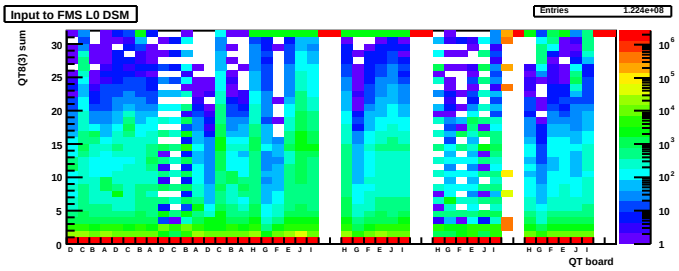

Input to FMS L0 DSM
Entries 70105
QT8(0) sum - simulated
QT board

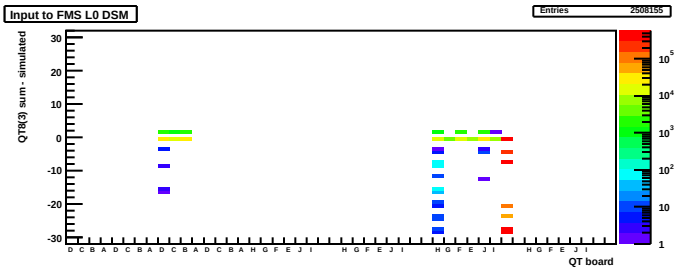

Input to FMS L0 DSM
Entries 1.224e+08
QT8(1) sum
QT board

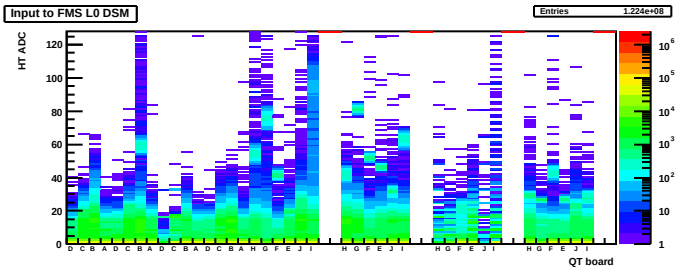

Input to FMS L0 DSM
Entries 85887
QT8(1) sum - simulated
QT board

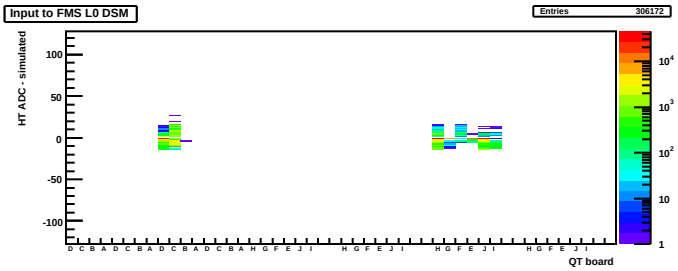

Input to FMS L0 DSM
Entries 1.224e+08
QT8(2) sum
QT board

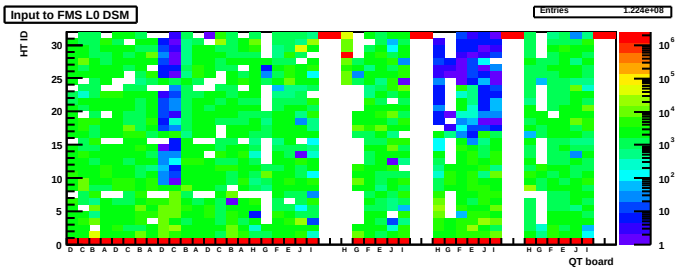

Input to FMS L0 DSM
Entries 1861094
QT8(2) sum - simulated
QT board

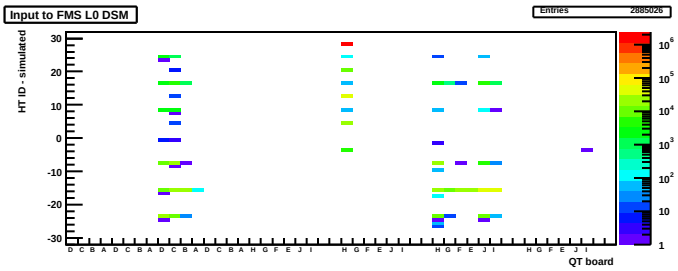

Input to FMS L0 DSM
Entries 1.224e+08
QT8(3) sum
QT board

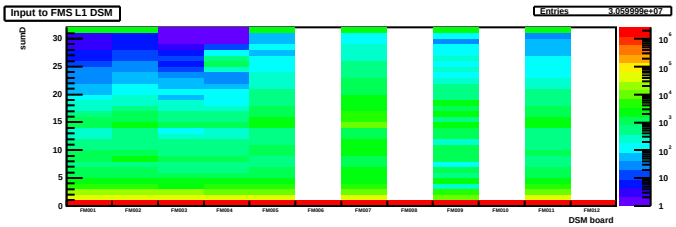

Input to FMS L0 DSM
Entries 2508155
QT8(3) sum - simulated
QT board

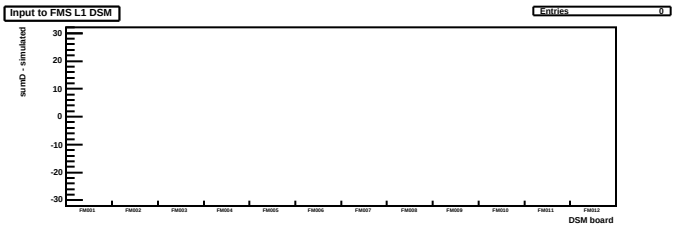

Input to FMS L0 DSM
Entries 1.224e+08
HT ADC
QT board

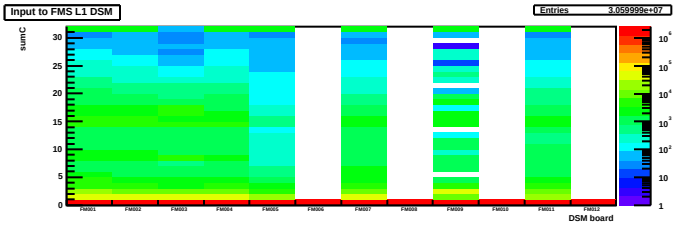

Input to FMS L0 DSM
Entries 306172
HT ADC - simulated
QT board

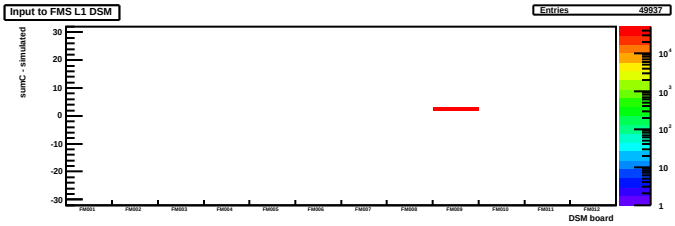

Input to FMS L0 DSM
Entries 1.224e+08
HT ID
QT board

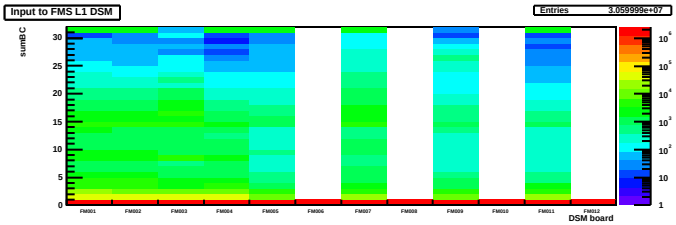

Input to FMS L0 DSM
Entries 2885026
HT ID - simulated
QT board

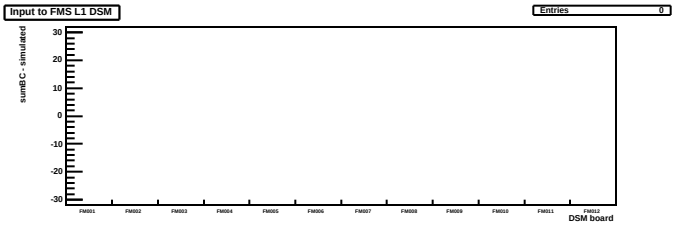

Input to FMS L1 DSM
Entries 3.059999e+07
sumD
DSM board

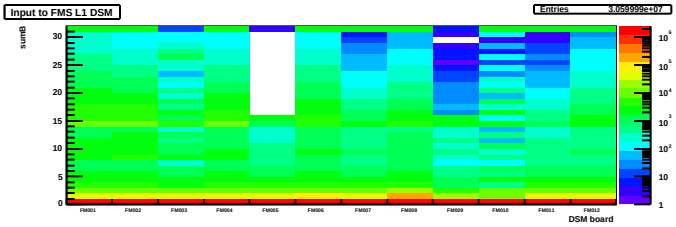

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

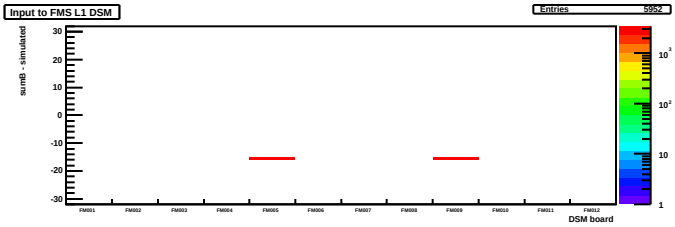

Input to FMS L1 DSM
Entries 3.059999e+07
sumC
DSM board

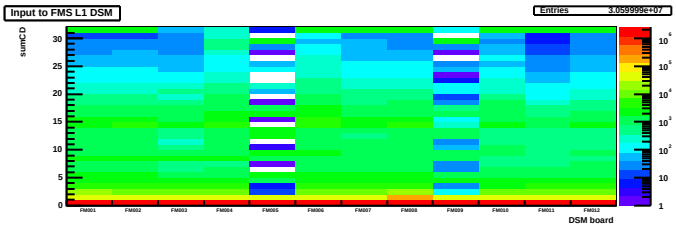

Input to FMS L1 DSM
Entries 49937
sumC - simulated
DSM board

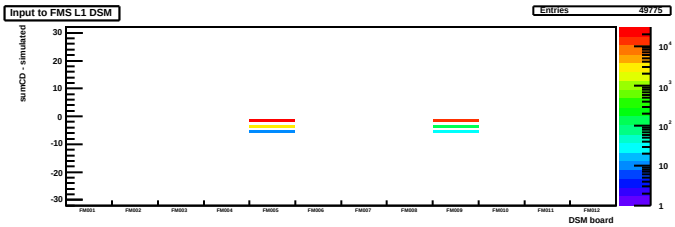

Input to FMS L1 DSM
Entries 3.059999e+07
sumBC
DSM board

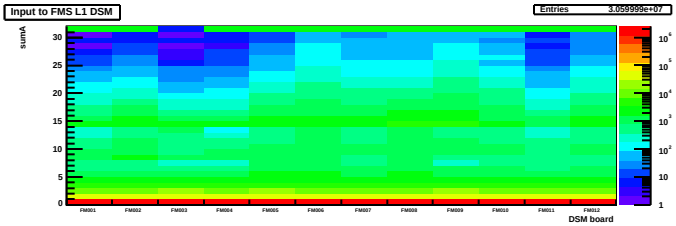

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

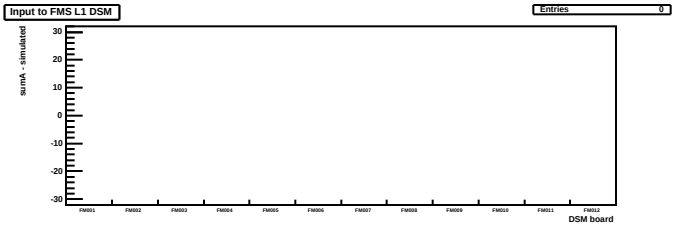

Input to FMS L1 DSM
Entries 3.059999e+07
sumB
DSM board

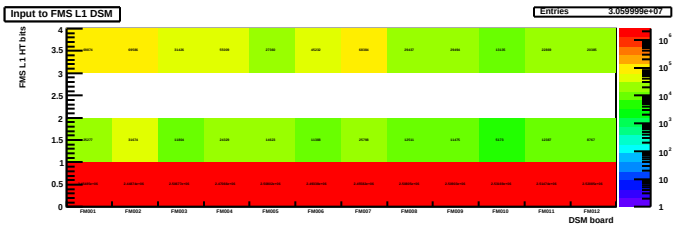

Input to FMS L1 DSM
Entries 5952
sumB - simulated
DSM board

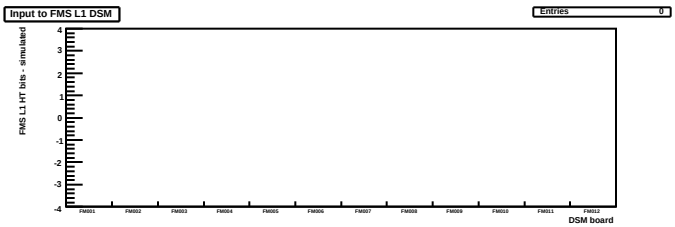

Input to FMS L1 DSM
Entries 3.059999e+07
sumCD
DSM board

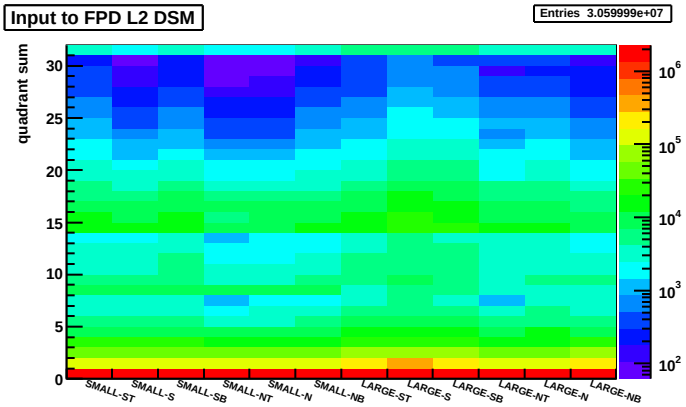

Input to FMS L1 DSM
Entries 49775
sumCD - simulated
DSM board

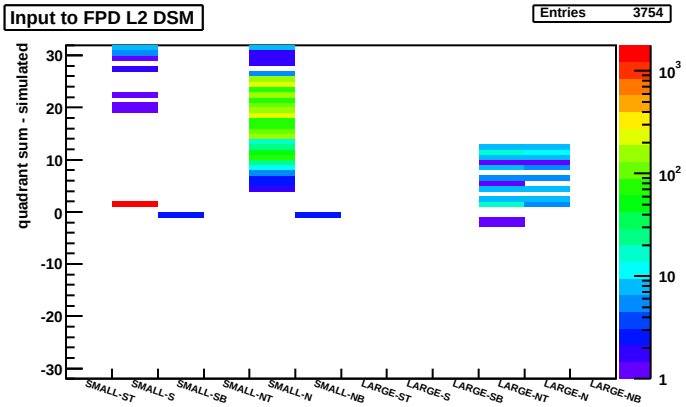

Input to FMS L1 DSM
Entries 3.059999e+07
sumA
DSM board

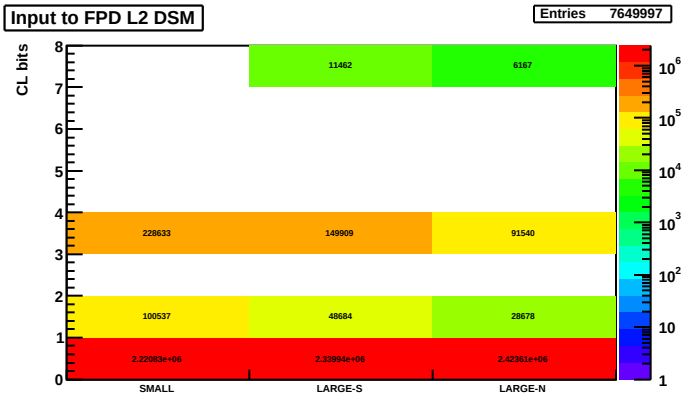

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

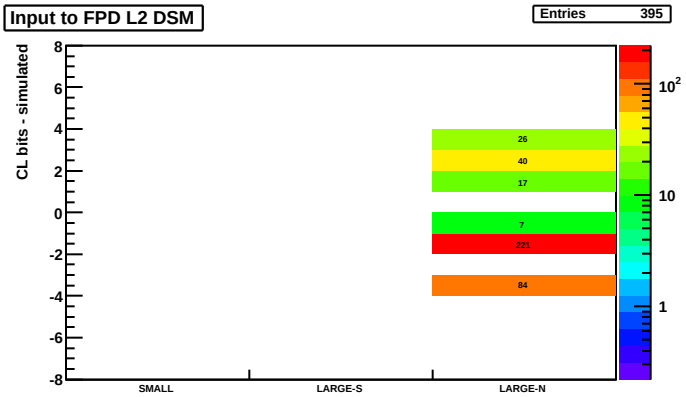

Input to FMS L1 DSM
Entries 3.059999e+07
FMS L1 HT bits
DSM board

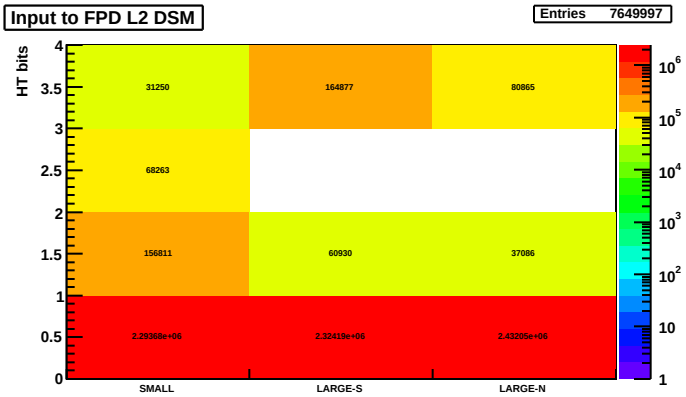

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

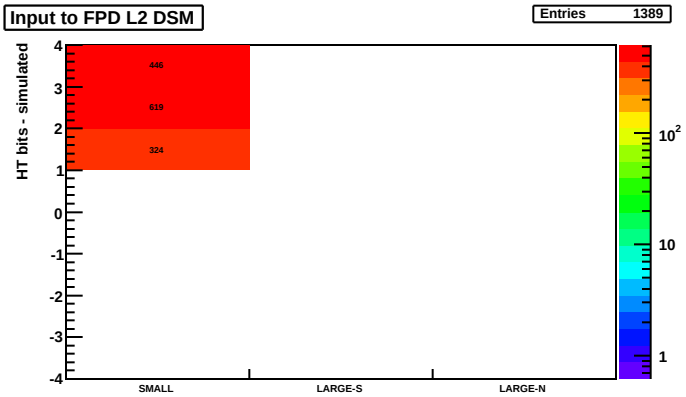

Input to FPD L2 DSM
Entries 3.059999e+07
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

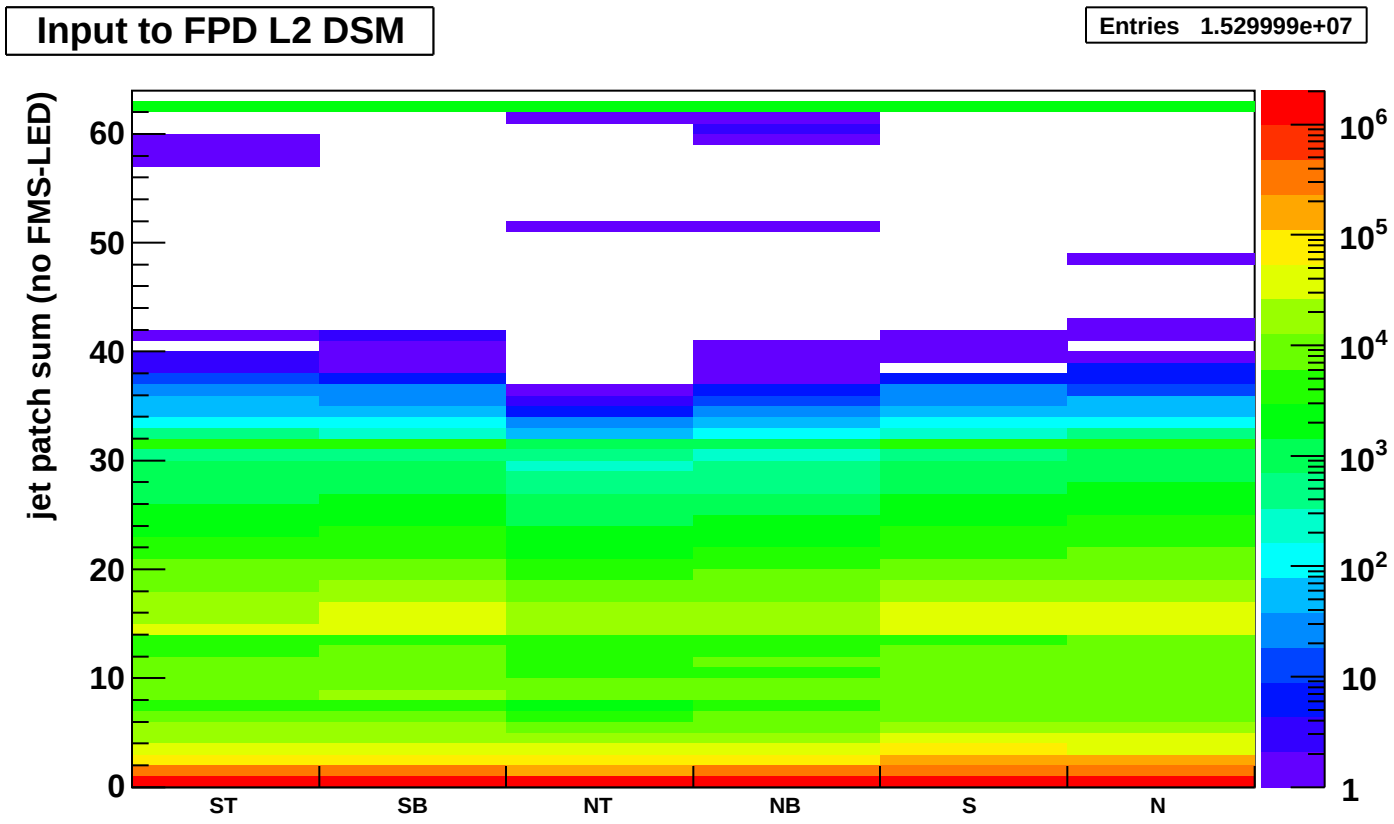

Input to FPD L2 DSM
Entries 3754
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

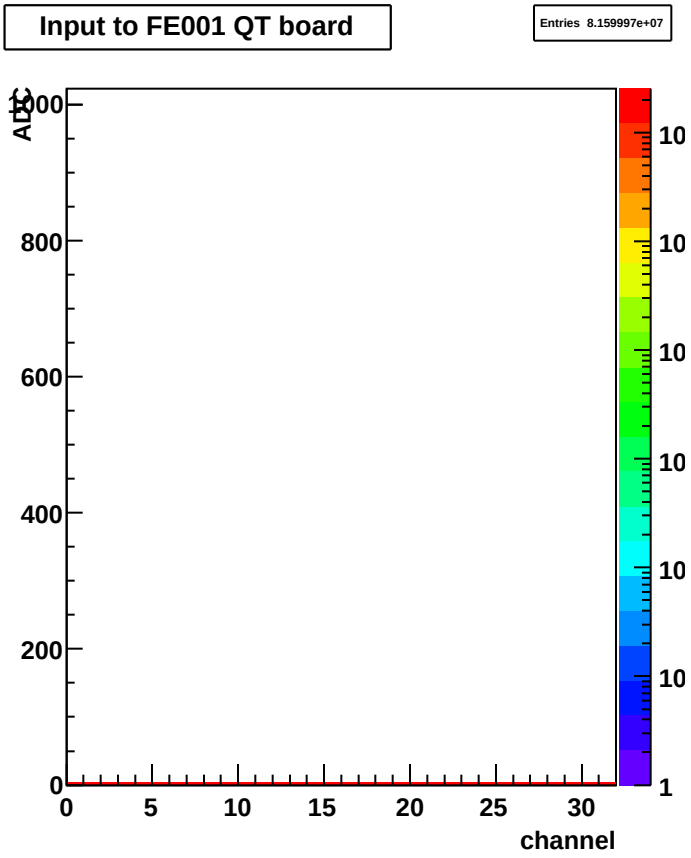

Input to FPD L2 DSM
Entries 7649997
CL bits
11462
6167
228633
149909
91540
100537
48684
28678
2.22083e+06
2.33994e+06
2.42361e+06
SMALL
LARGE-S
LARGE-N

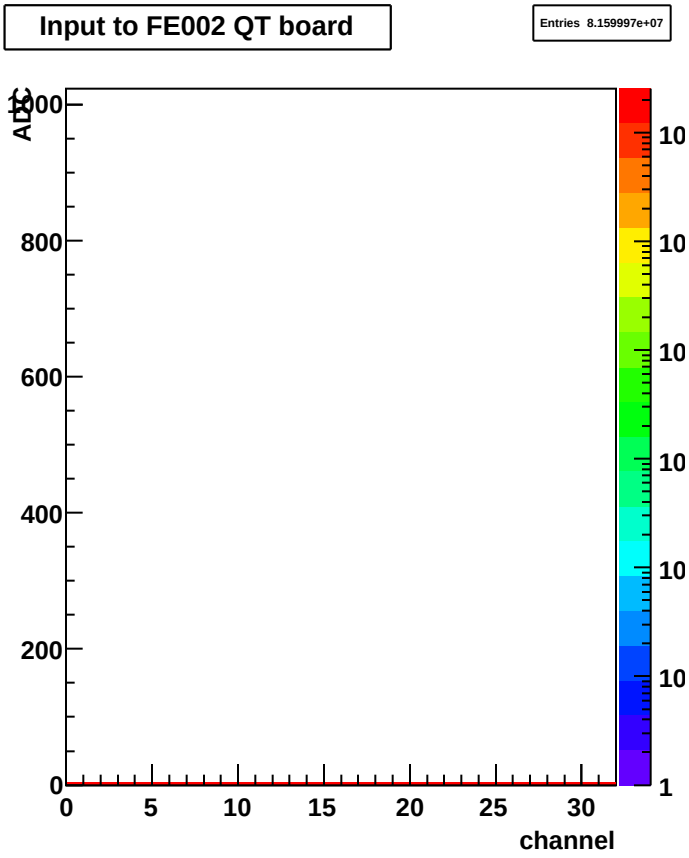

Input to FPD L2 DSM
Entries 395
CL bits - simulated
26
40
17
7
221
84
SMALL
LARGE-S
LARGE-N

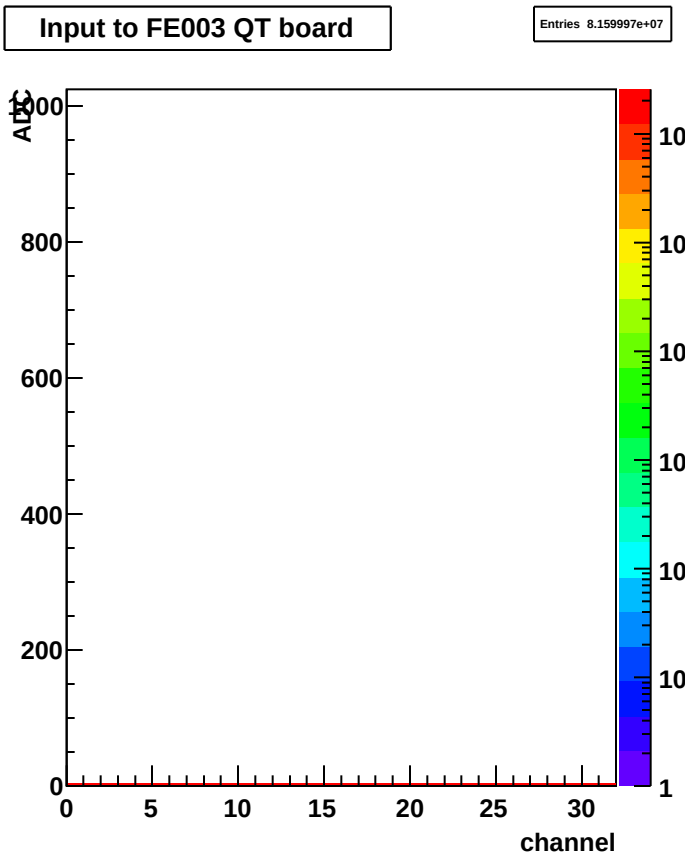

Input to FPD L2 DSM
Entries 7649997
HT bits
31250
164877
80865
68263
156811
60930
37086
2.29368e+06
2.32419e+06
2.43205e+06
SMALL
LARGE-S
LARGE-N

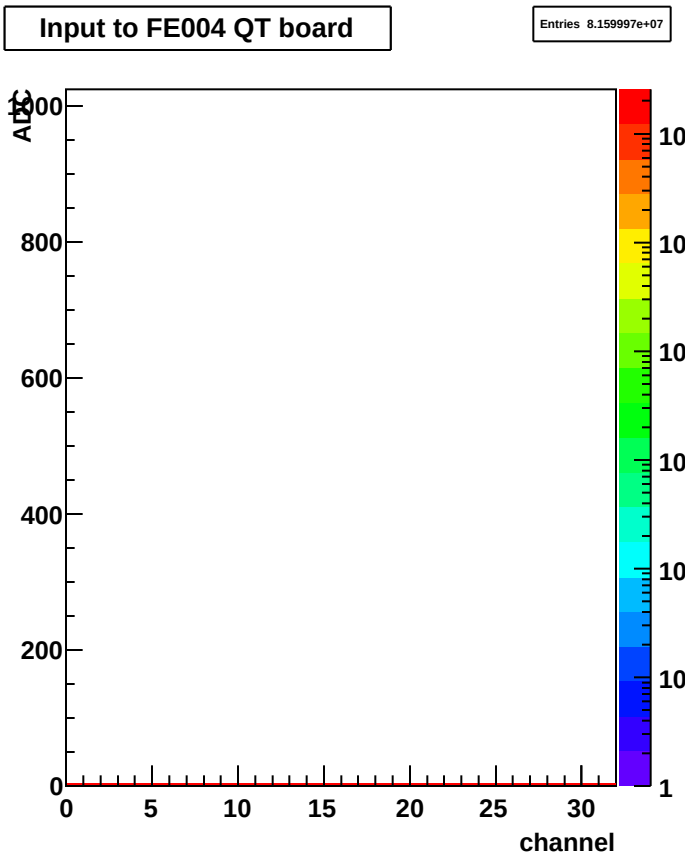

Input to FPD L2 DSM
Entries 1389
HT bits - simulated
446
619
324
SMALL
LARGE-S
LARGE-N

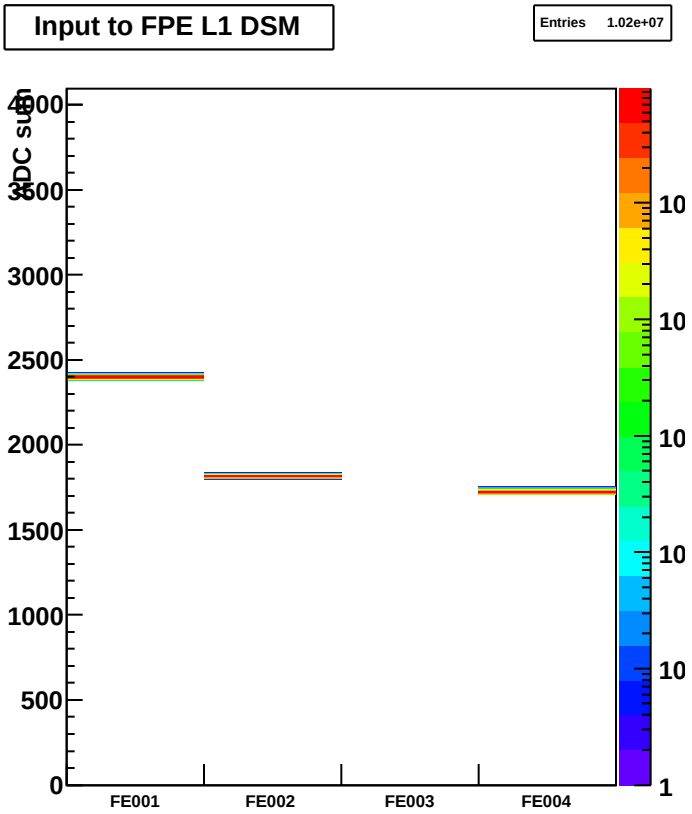

Input to FPD L2 DSM
Entries 1.529999e+07
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5
10^6

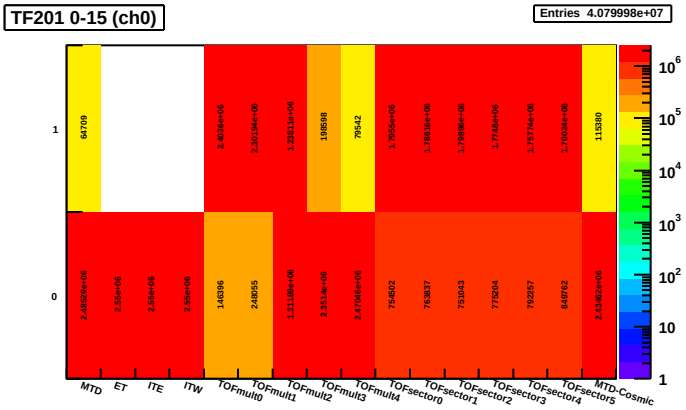

Input to FE001 QT board
Entries 8.159997e+07
ADC
channel

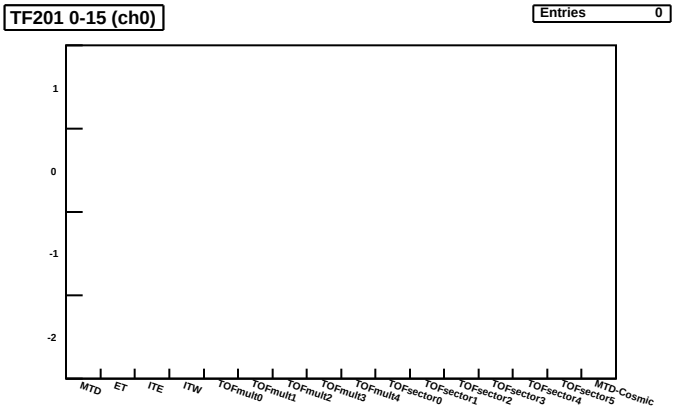

Input to FE002 QT board
Entries 8.159997e+07
ADC
channel

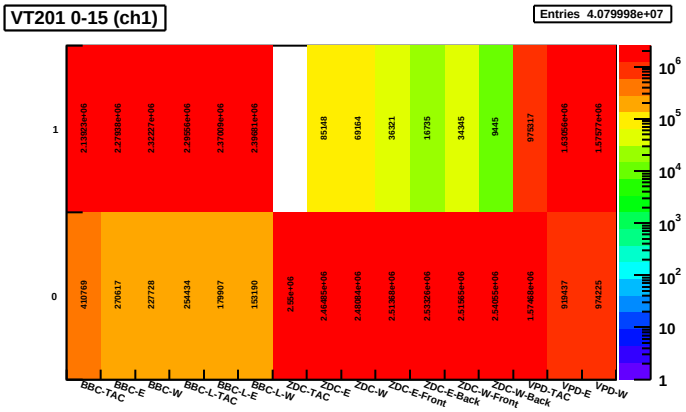

Input to FE003 QT board
Entries 8.159997e+07
ADC
channel

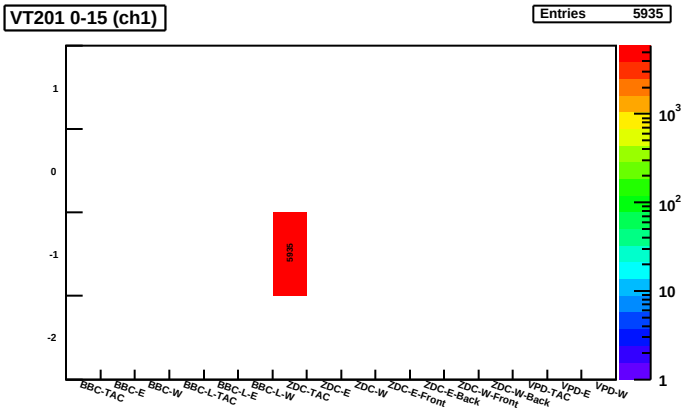

Input to FE004 QT board
Entries 8.159997e+07
ADC
channel

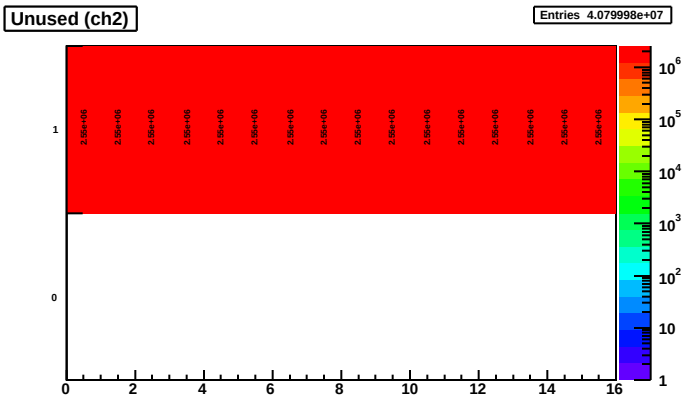

Input to FPE L1 DSM
Entries 1.02e+07
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1

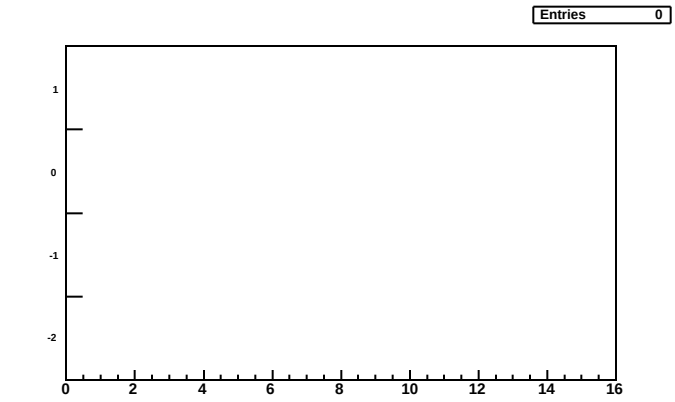

TF201 0-15 (ch0)
Entries 4.079998e+07
MTD
ET
ITE
ITW
TOFmult0
TOFmult1
TOFmult2
TOFmult3
TOFmult4
TOFsector0
TOFsector1
TOFsector2
TOFsector3
TOFsector4
TOFsector5
MTD-Cosmic

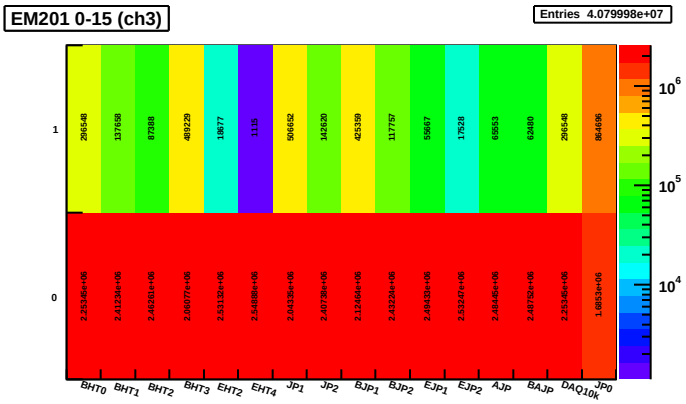

TF201 0-15 (ch0)
Entries 0
MTD
ET
ITE
ITW
TOFmult0
TOFmult1
TOFmult2
TOFmult3
TOFmult4
TOFsector0
TOFsector1
TOFsector2
TOFsector3
TOFsector4
TOFsector5
MTD-Cosmic

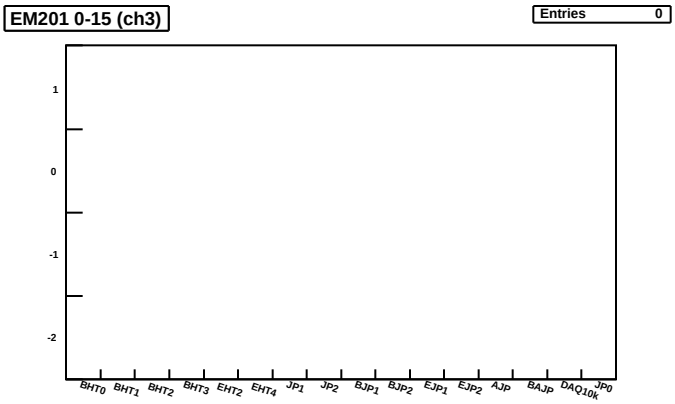

VT201 0-15 (ch1)
Entries 4.079998e+07
BBC-TAC
BBC-E
BBC-W
BBC-L-TAC
BBC-L-E
BBC-L-W
ZDC-TAC
ZDC-E
ZDC-W
ZDC-E-Front
ZDC-E-Back
ZDC-W-Front
ZDC-W-Back
VPD-TAC
VPD-E
VPD-W


VT201 0-15 (ch1)
Entries 5935
5935
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

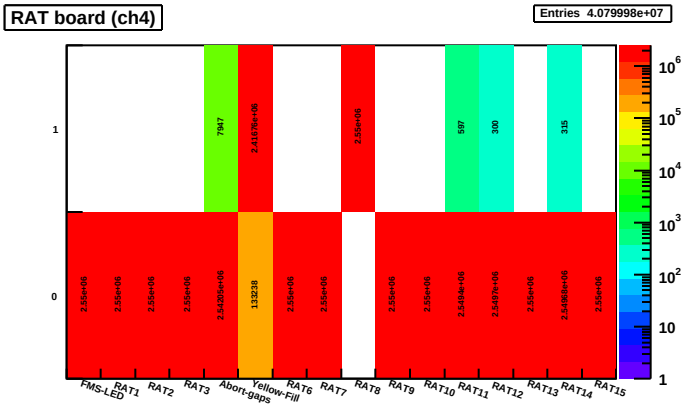

Unused (ch2)
Entries 4.079998e+07

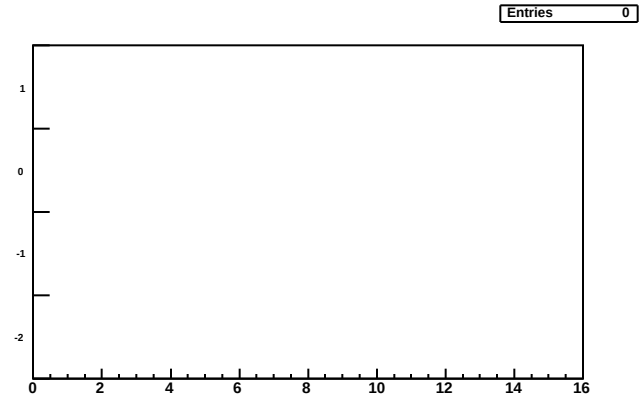

Entries 0


EM201 0-15 (ch3)
Entries 4.079998e+07
BHT0
BHT1
BHT2
BHT3
EHT2
EHT4
JP1
JP2
BJP1
BJP2
EJP1
EJP2
AJP
BAJP
DAQ10k
JP0

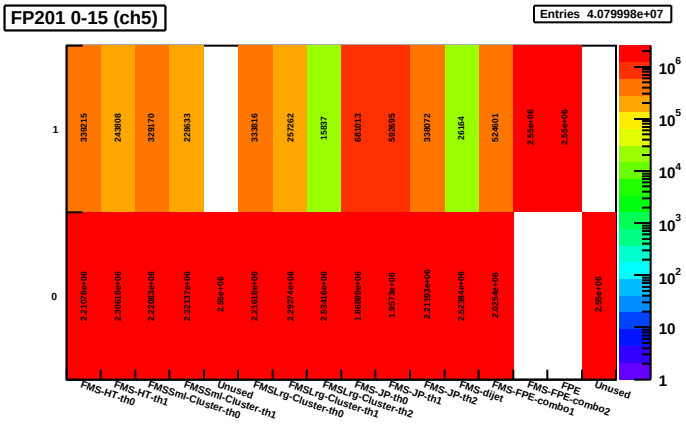

EM201 0-15 (ch3)
Entries 0
BHT0
BHT1
BHT2
BHT3
EHT2
EHT4
JP1
JP2
BJP1
BJP2
EJP1
EJP2
AJP
BAJP
DAQ10k
JP0

RAT board (ch4)

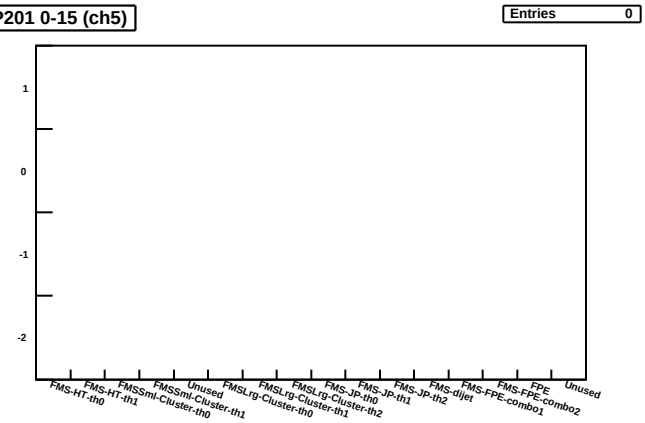




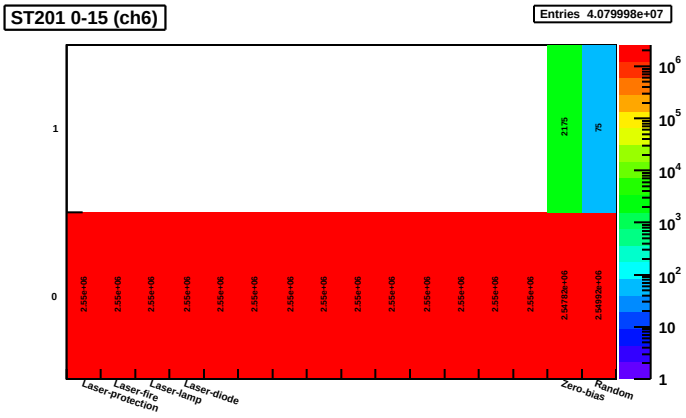
FP201 0-15 (ch5)

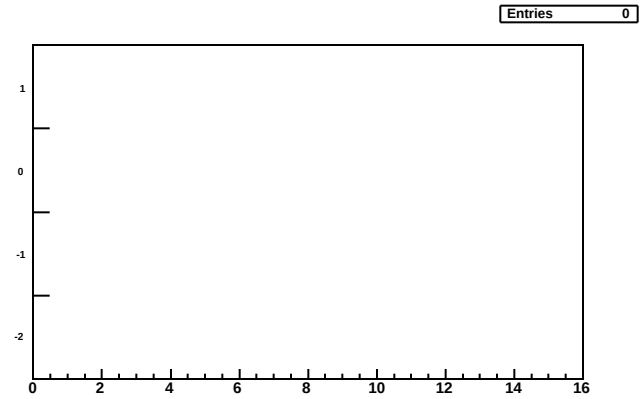
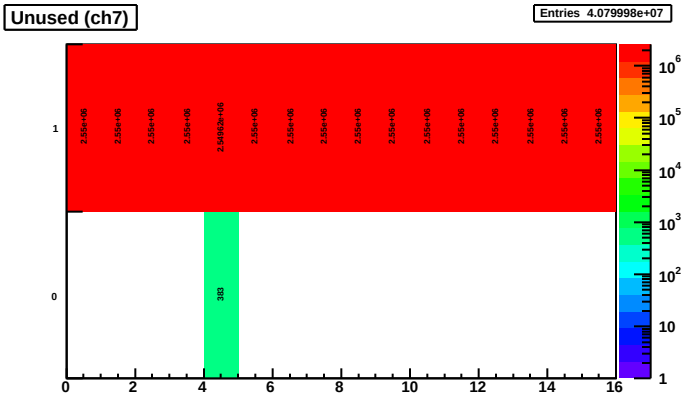
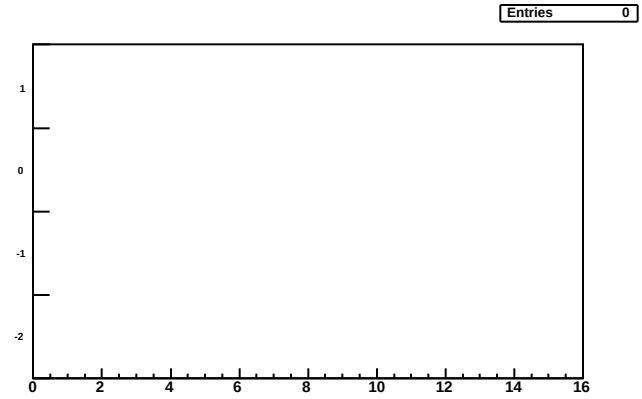


FP201 0-15 (ch5)



ST201 0-15 (ch6)





Unused (ch7)