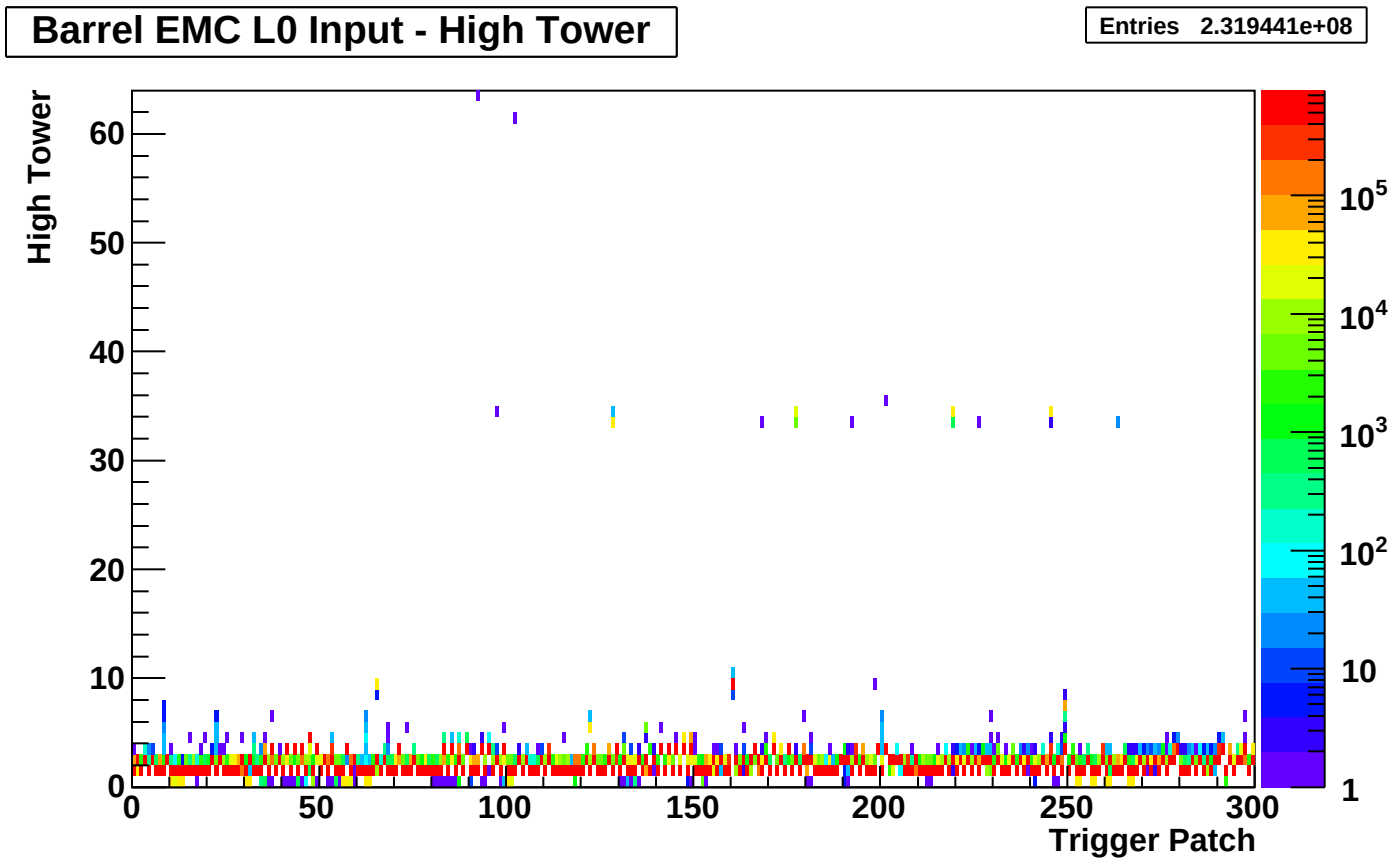
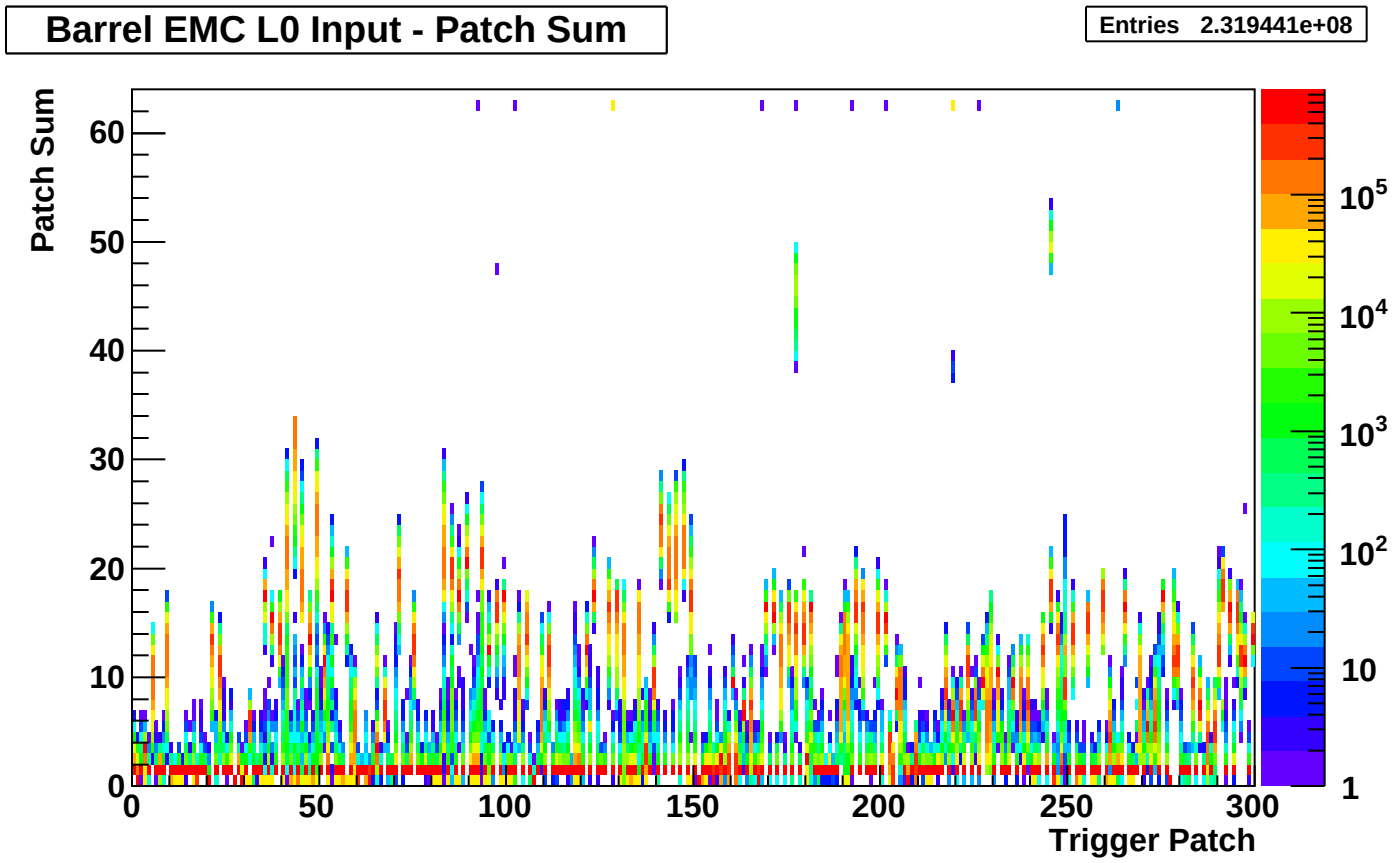
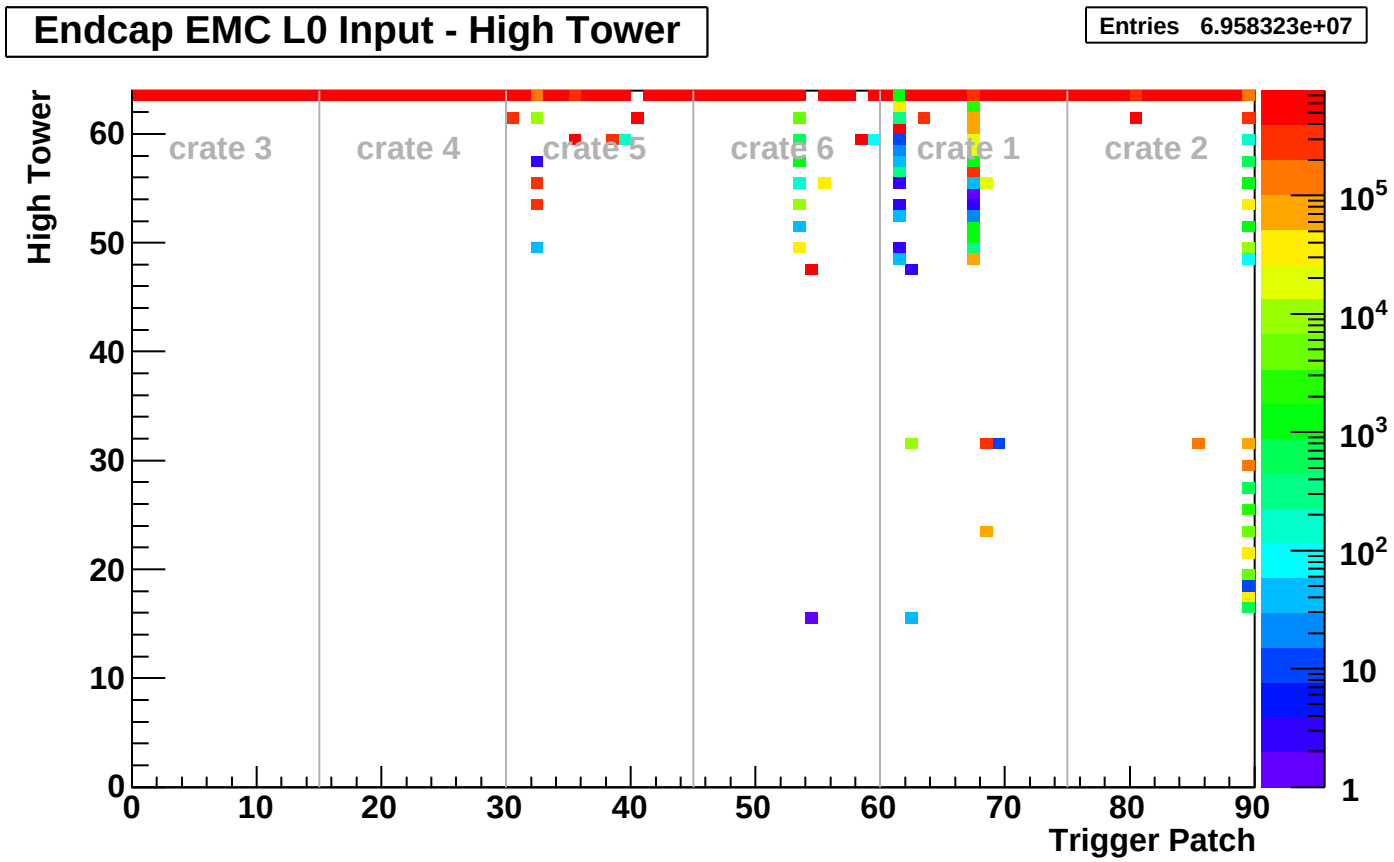
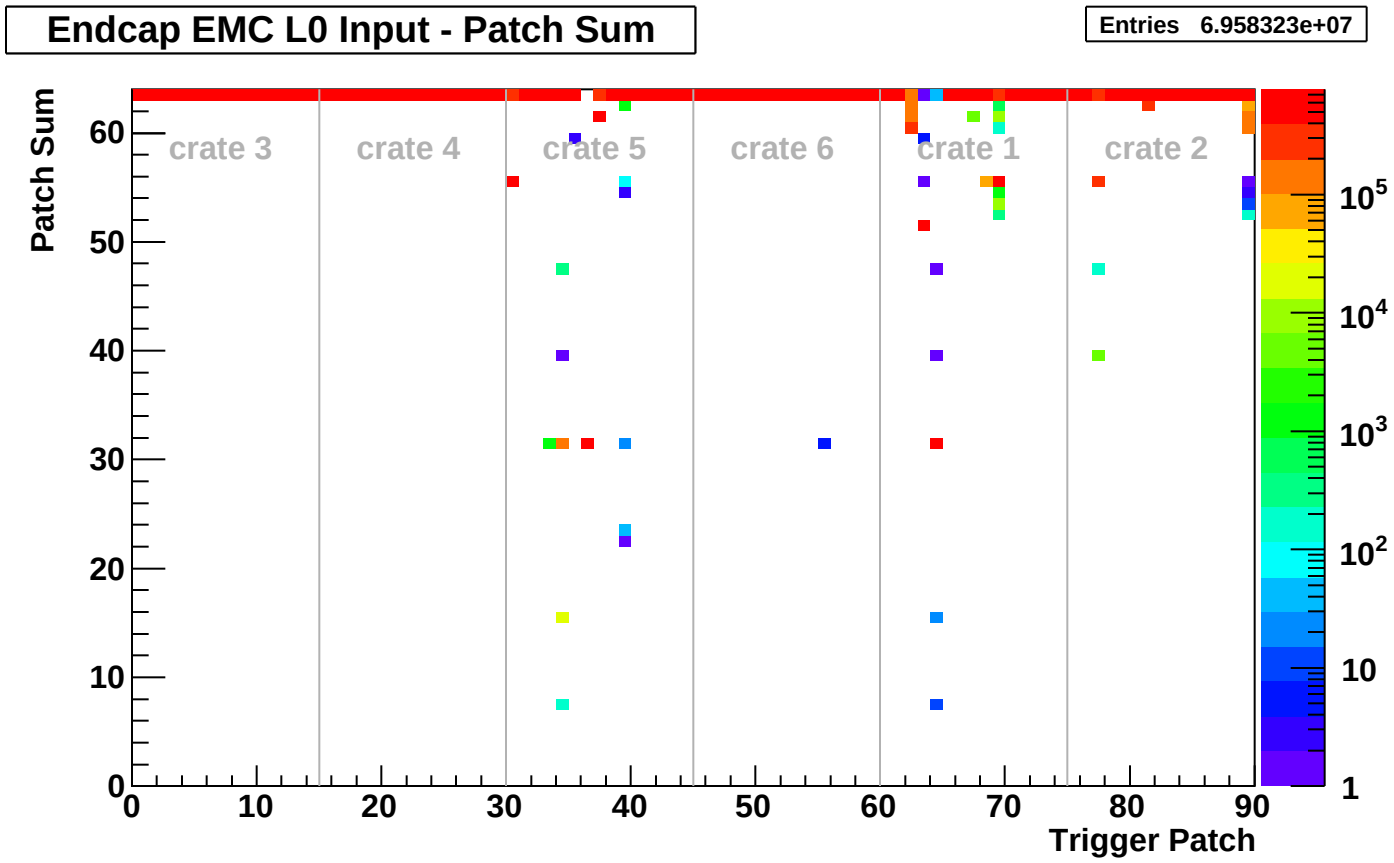
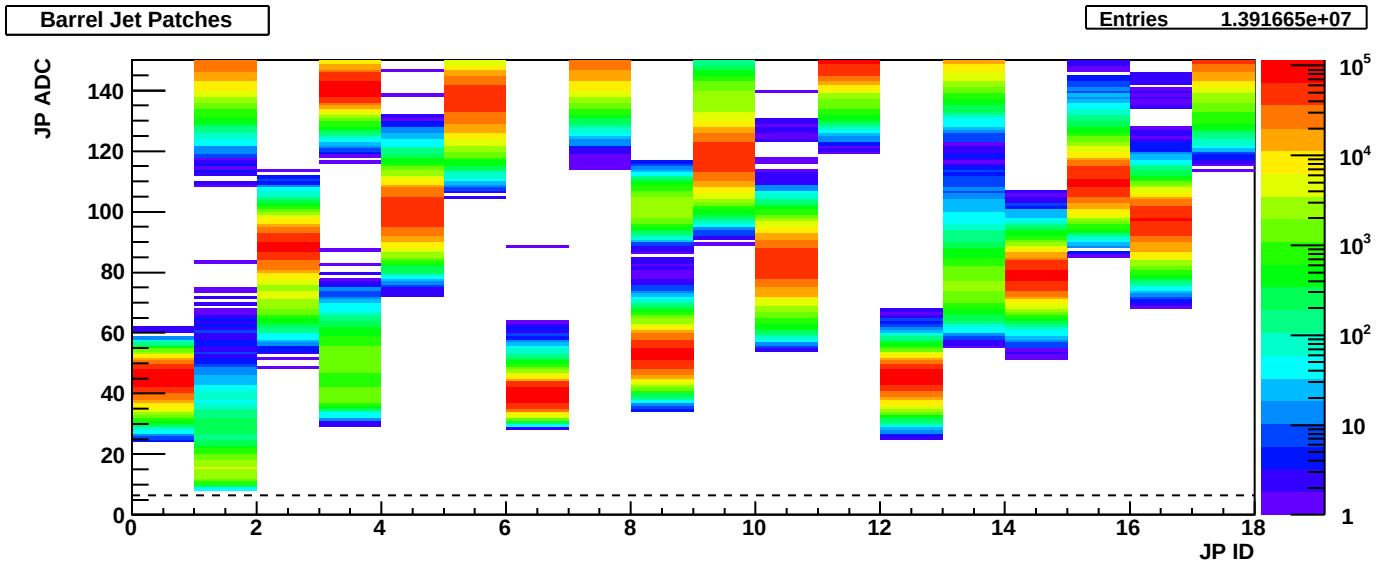
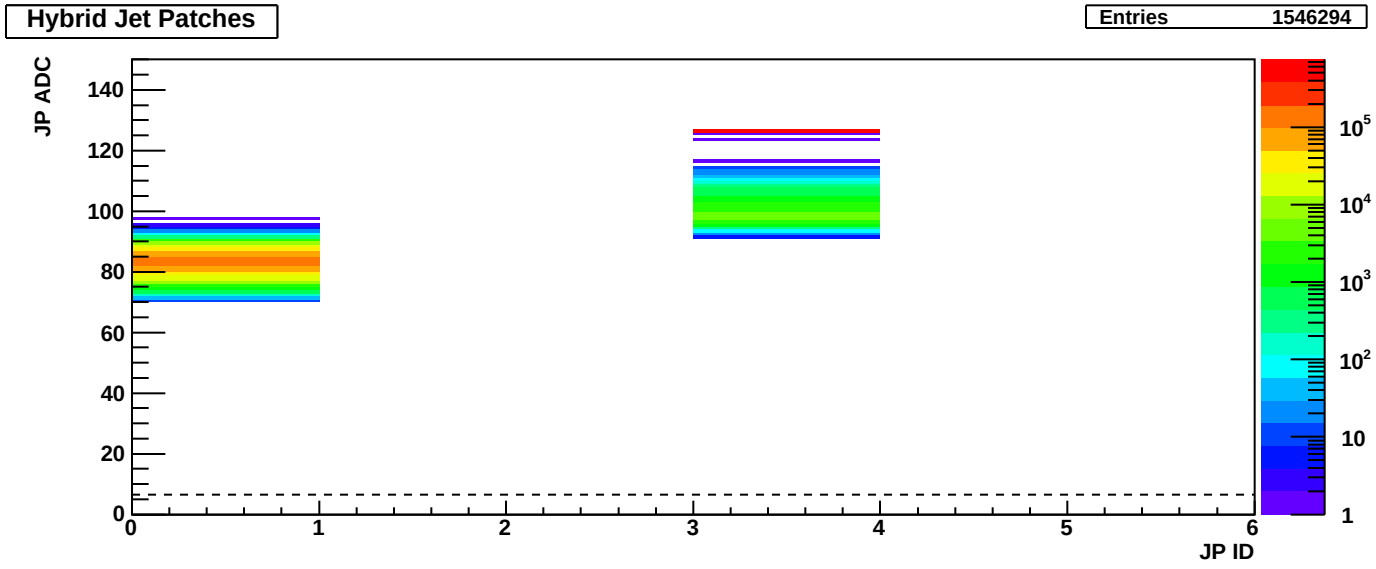

Barrel EMC L0 Input - High Tower
Entries 2.319441e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

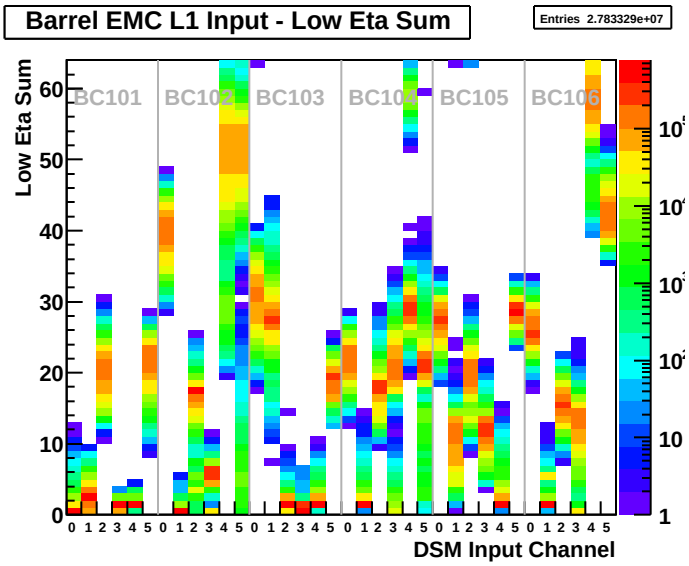

Barrel EMC L0 Input - Patch Sum
Entries 2.319441e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

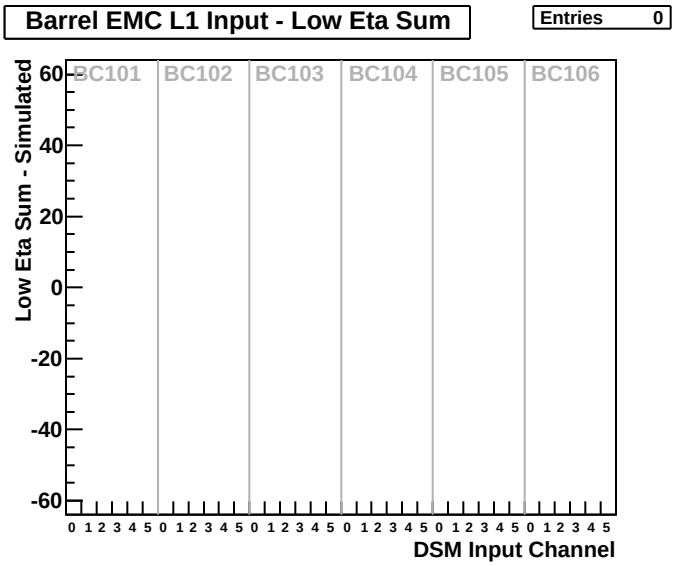

Endcap EMC L0 Input - High Tower
Entries 6.958323e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

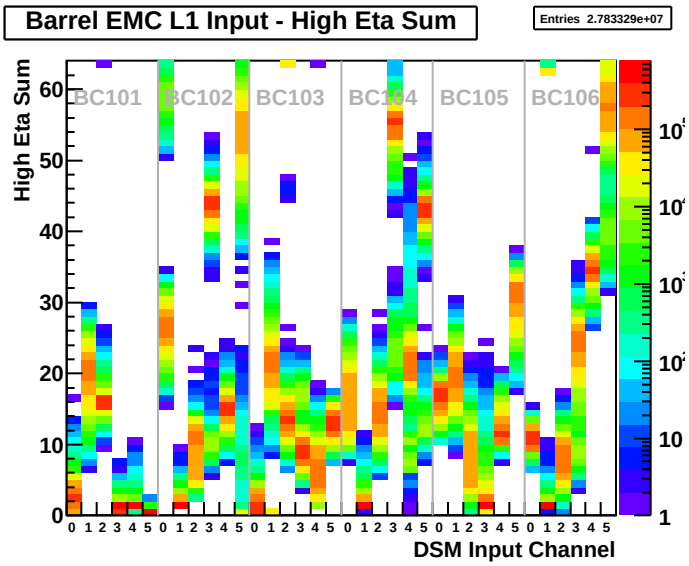

Endcap EMC L0 Input - Patch Sum
Entries 6.958323e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

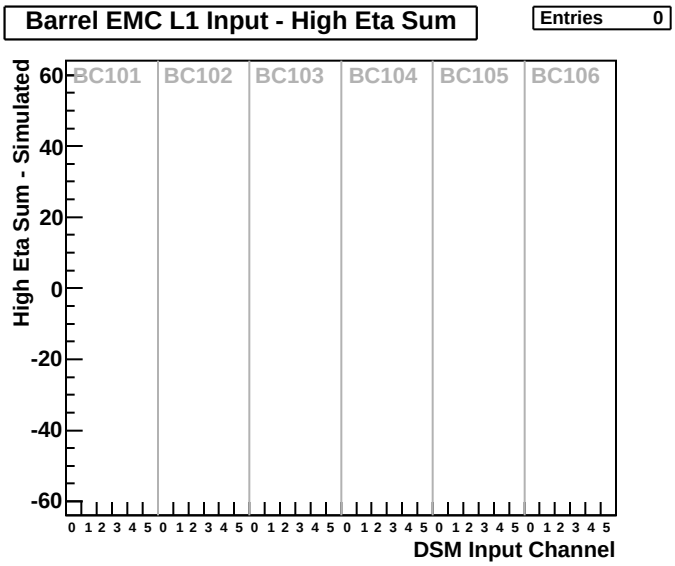

Barrel Jet Patches
Entries 1.391665e+07
JP ADC
JP ID

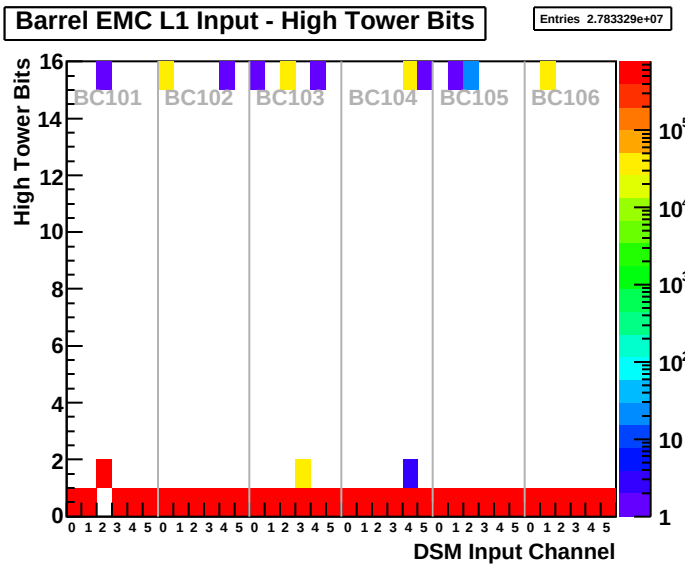

Hybrid Jet Patches
Entries 1546294
JP ADC
JP ID

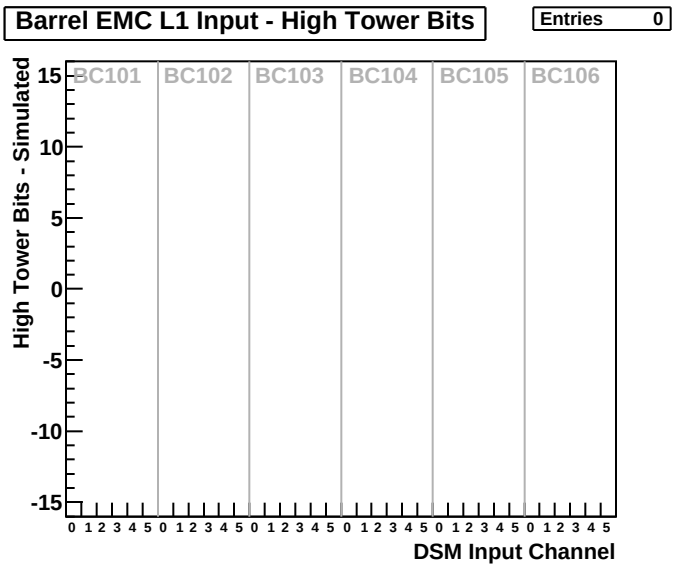

Barrel EMC L1 Input - Low Eta Sum
Entries 2.783329e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

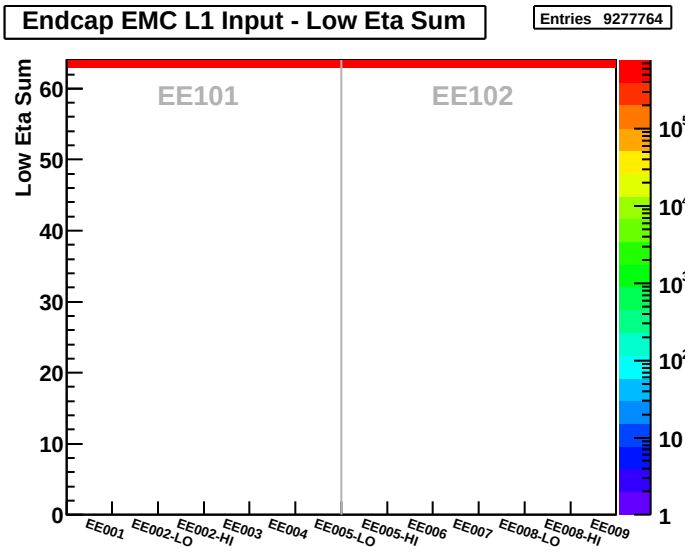

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

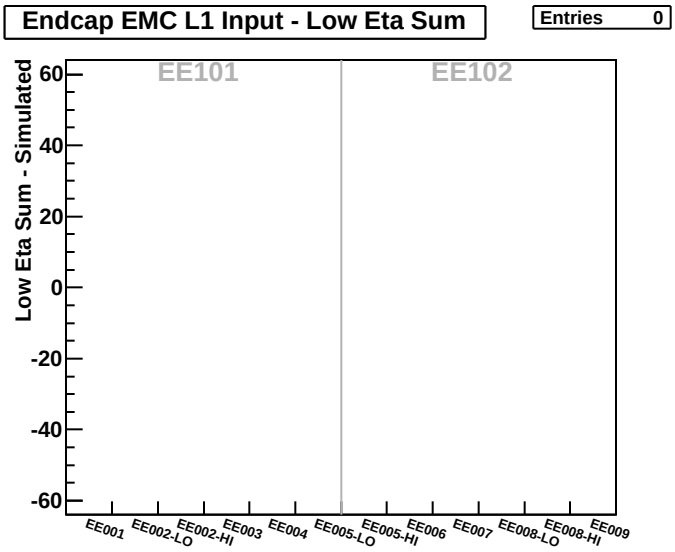

Barrel EMC L1 Input - High Eta Sum
Entries 2.783329e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

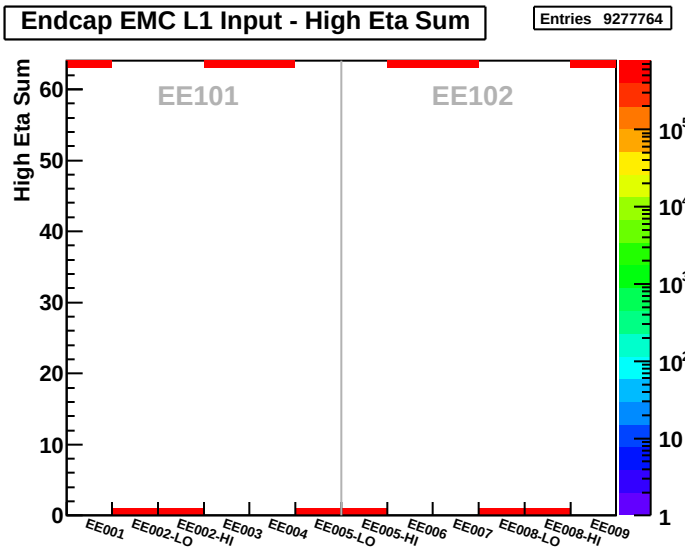

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

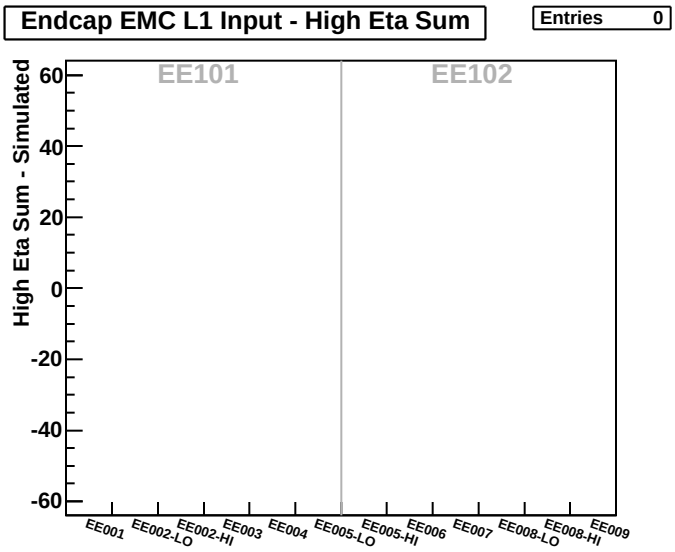

Barrel EMC L1 Input - High Tower Bits
Entries 2.783329e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

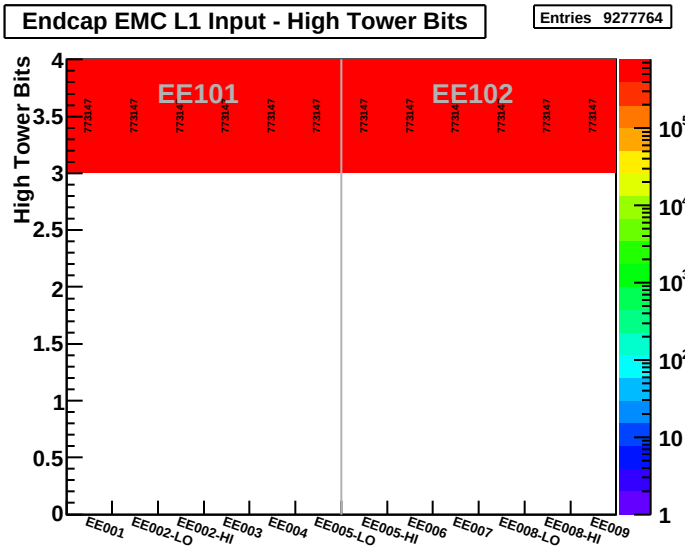

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

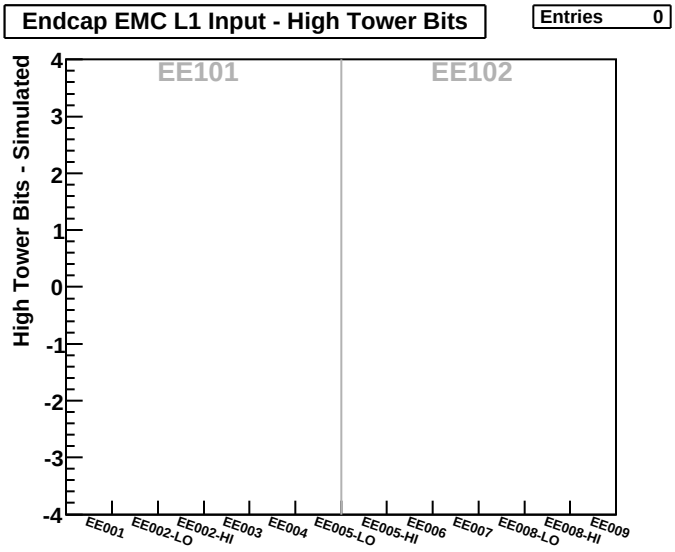

Endcap EMC L1 Input - Low Eta Sum
Entries 9277764
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

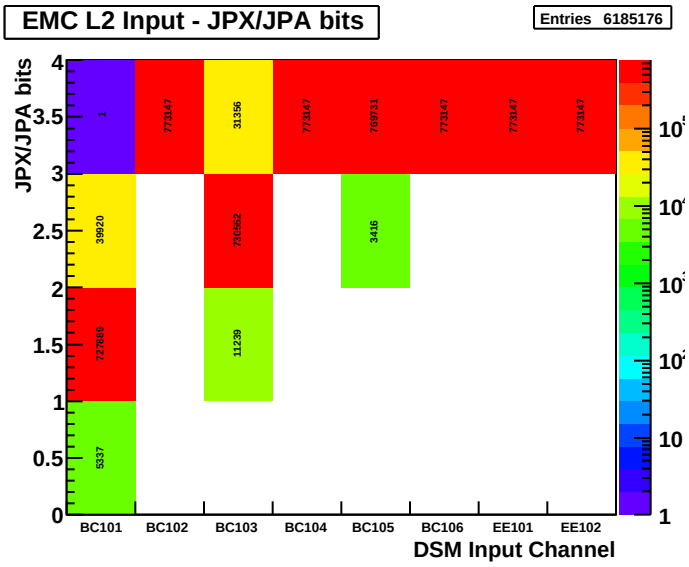

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

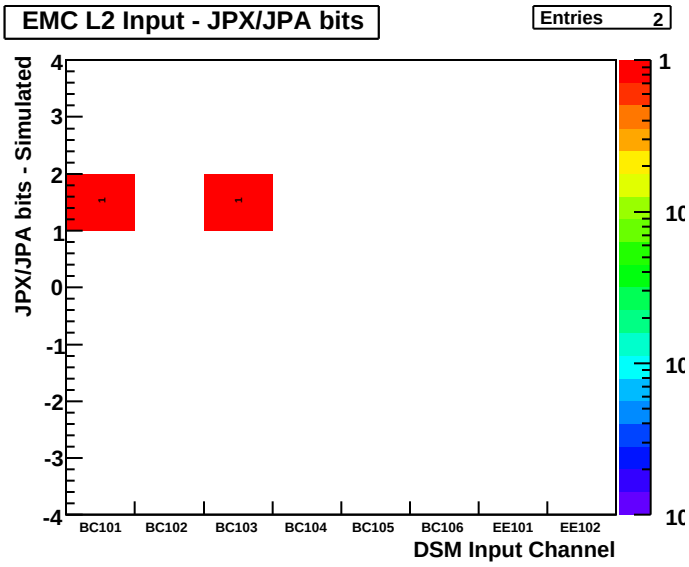

Endcap EMC L1 Input - High Eta Sum
Entries 9277764
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

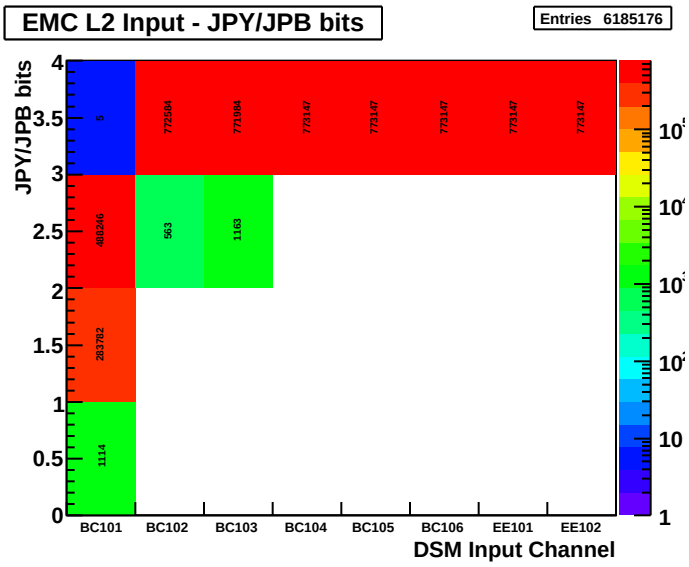

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

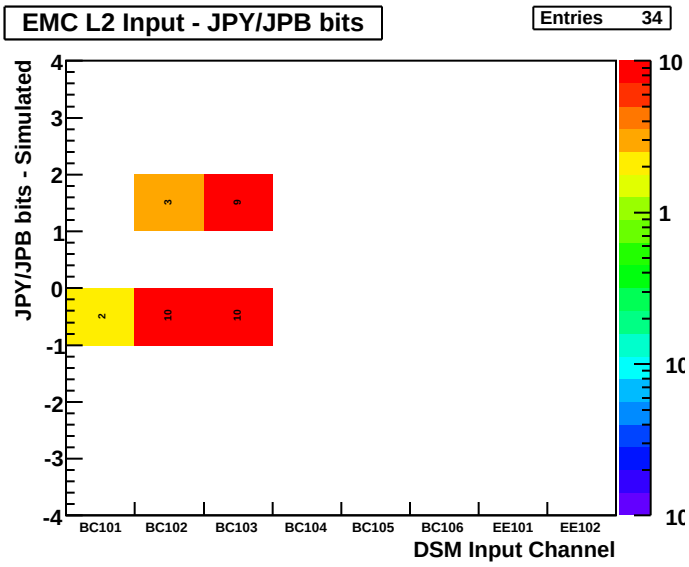

Endcap EMC L1 Input - High Tower Bits
Entries 9277764
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

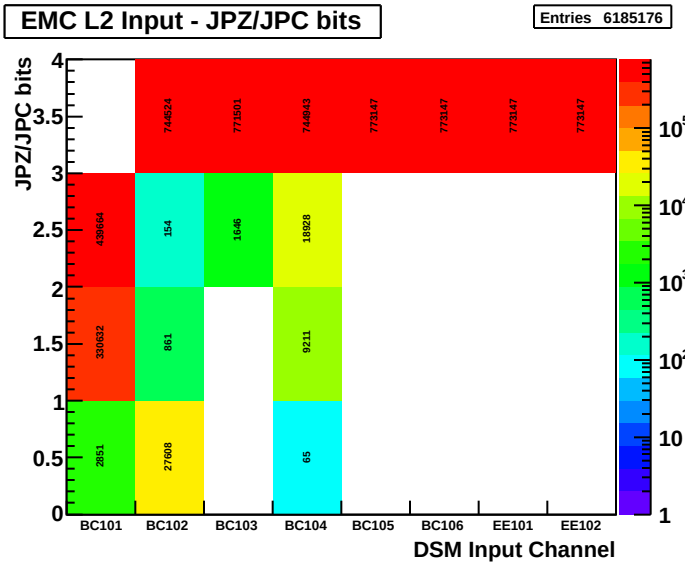

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

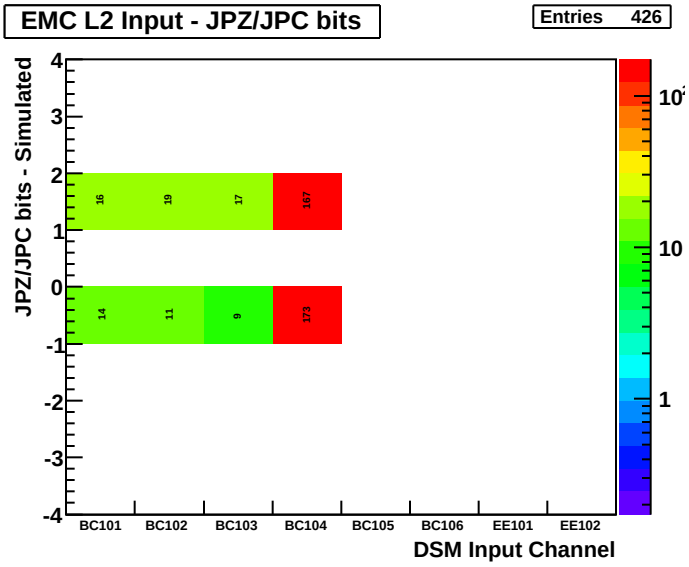

EMC L2 Input - JPX/JPA bits
Entries 6185176
JPX/JPA bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

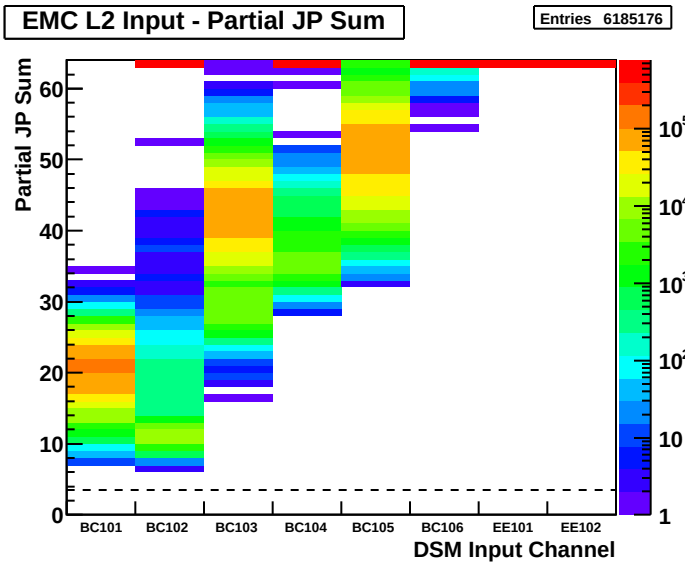

EMC L2 Input - JPX/JPA bits
Entries 2
JPX/JPA bits - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

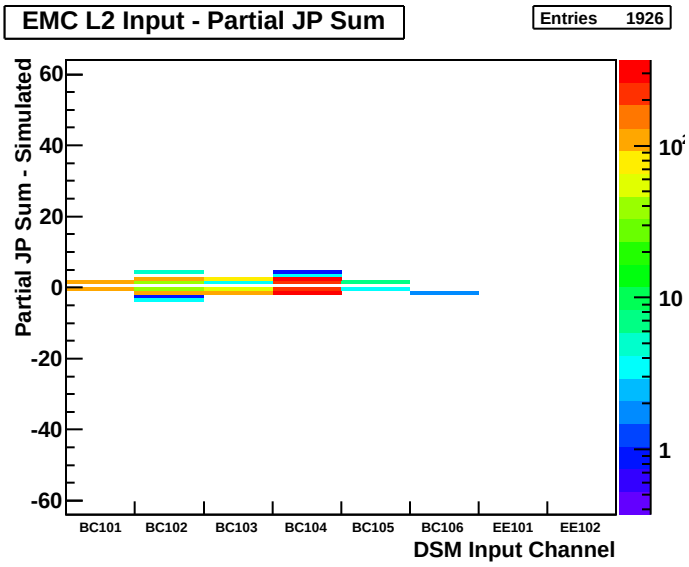

EMC L2 Input - JPY/JPB bits
Entries 6185176
JPY/JPB bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

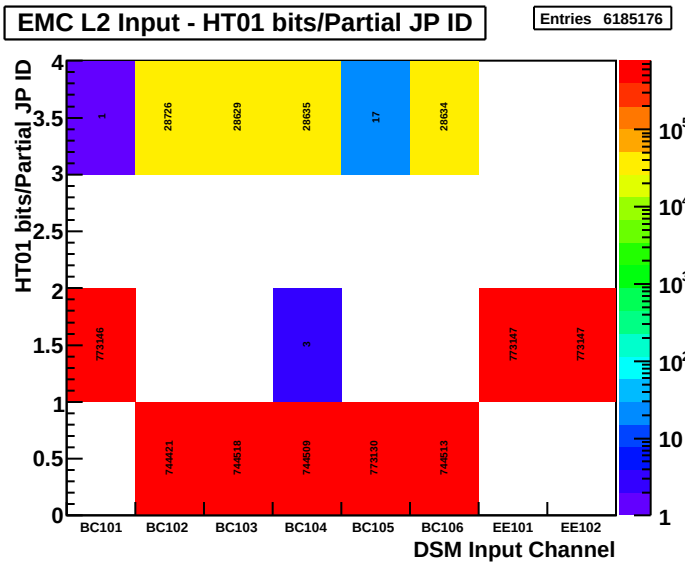

EMC L2 Input - JPY/JPB bits
Entries 34
JPY/JPB bits - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

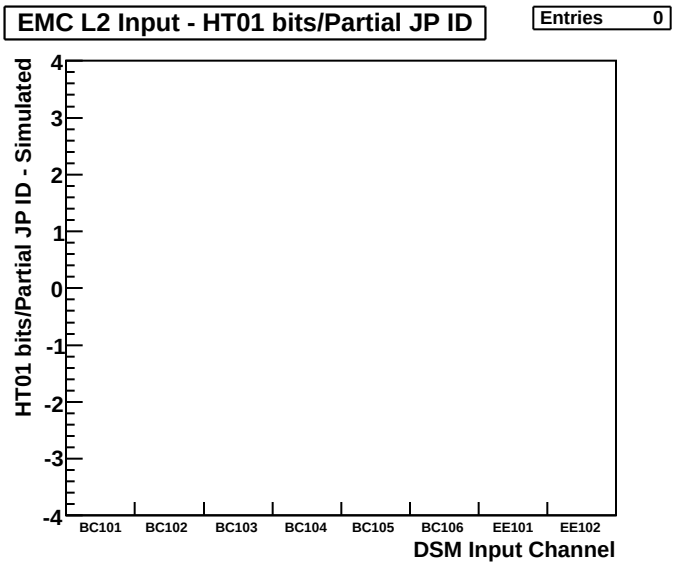

EMC L2 Input - JPZ/JPC bits
Entries 6185176
JPZ/JPC bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

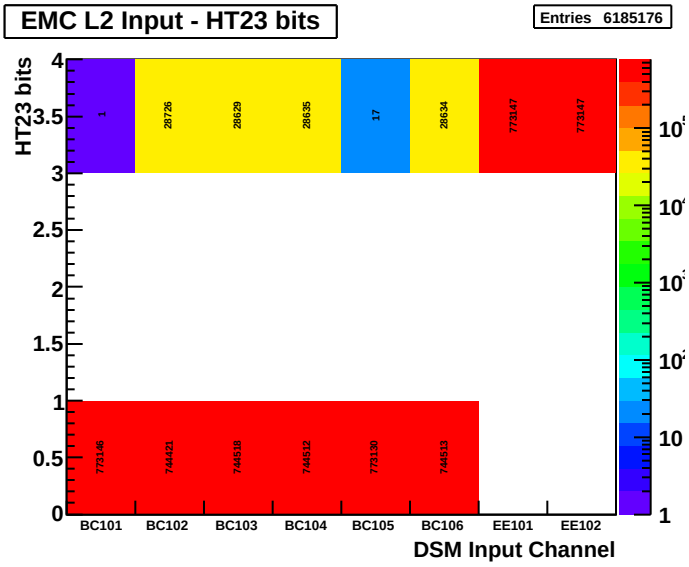

EMC L2 Input - JPZ/JPC bits
Entries 426
JPZ/JPC bits - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

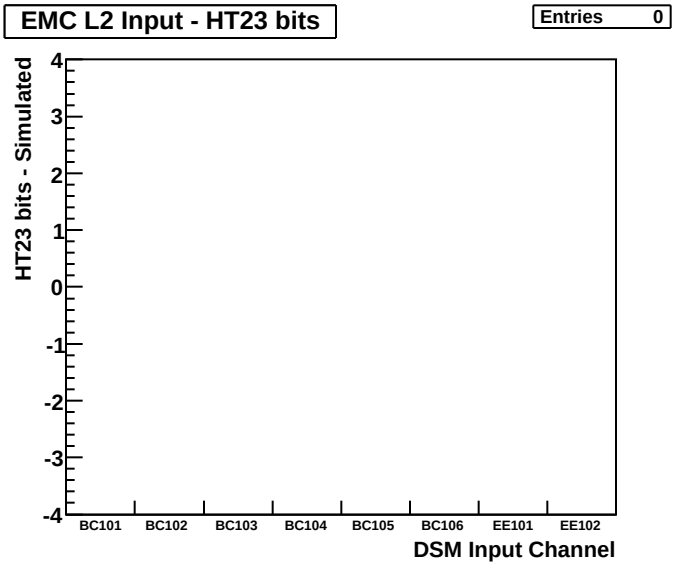

EMC L2 Input - Partial JP Sum
Entries 6185176
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

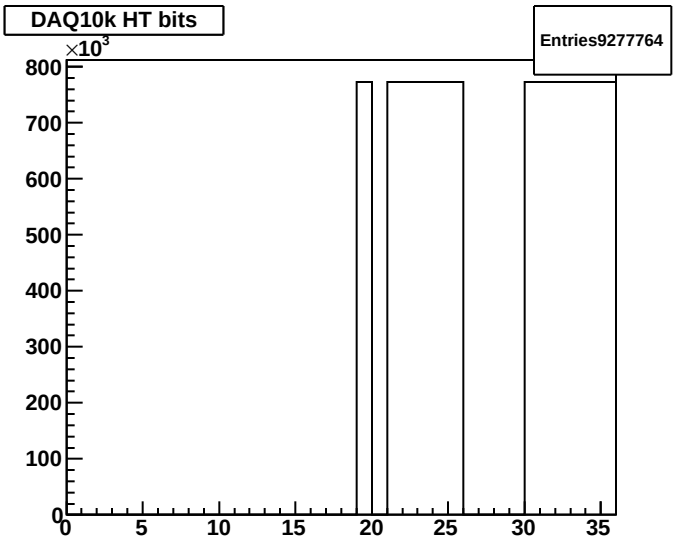

EMC L2 Input - Partial JP Sum
Entries 1926
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

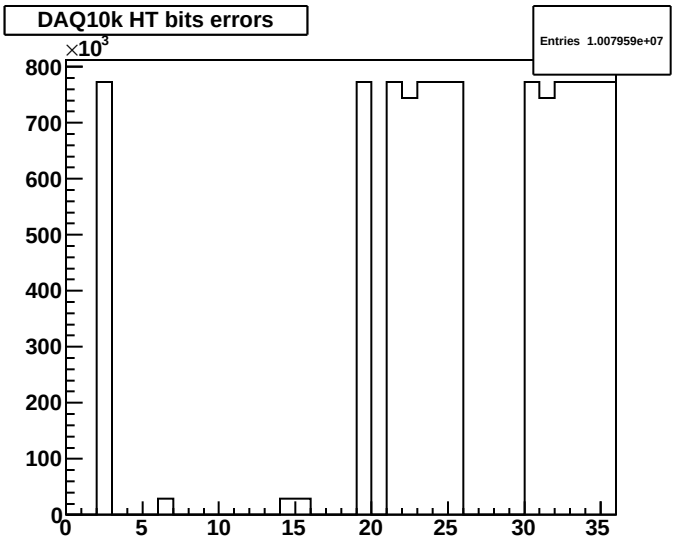

EMC L2 Input - HT01 bits/Partial JP ID
Entries 6185176
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

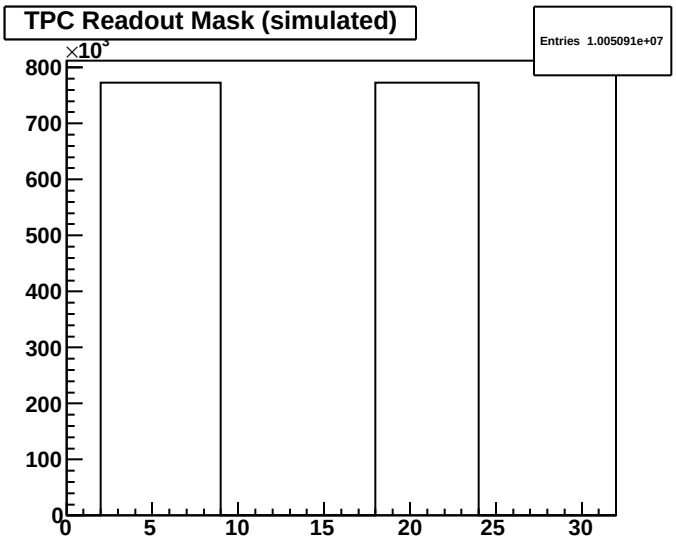

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

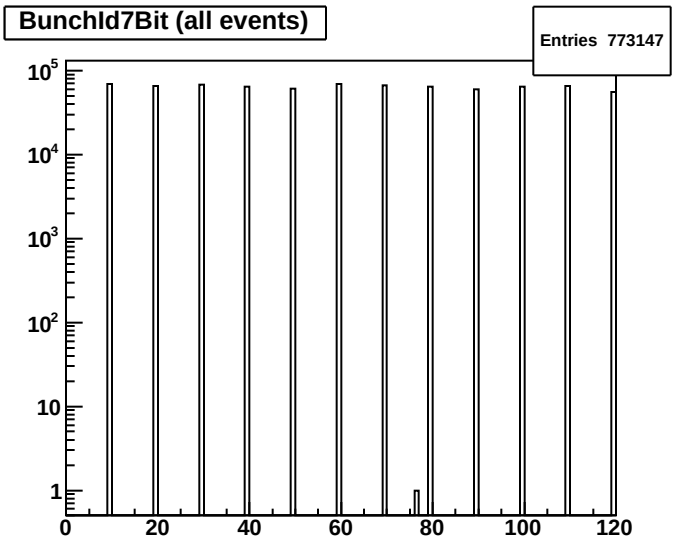

EMC L2 Input - HT23 bits
Entries 6185176
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

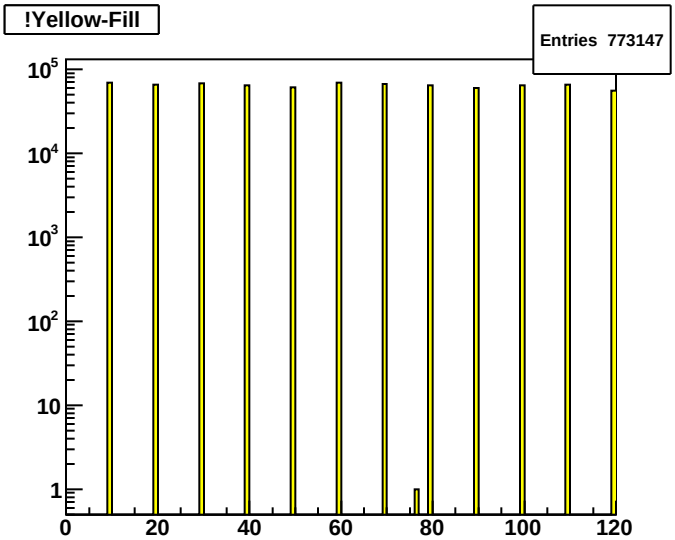

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

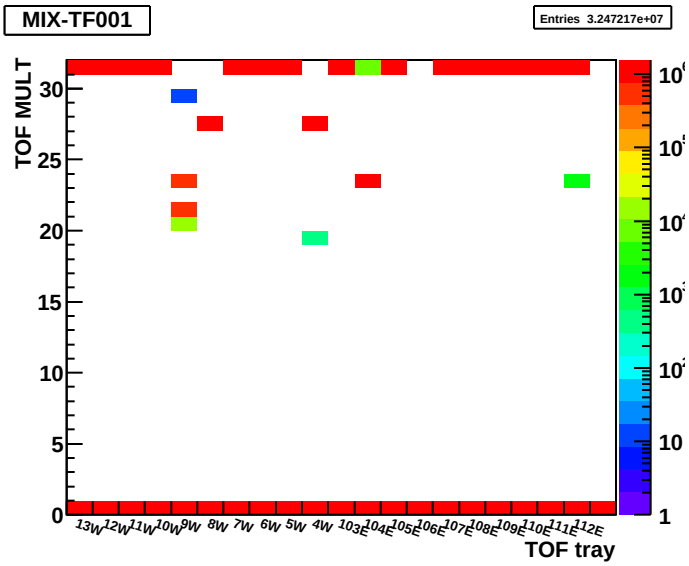

DAQ10k HT bits
Entries9277764
×10^3
800
700
600
500
400
300
200
100
0
0
5
10
15
20
25
30
35

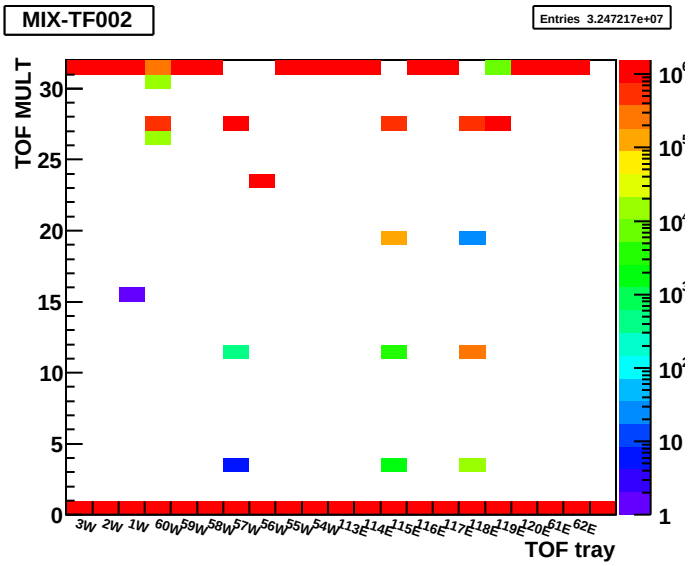

DAQ10k HT bits errors
Entries 1.007959e+07
×10^3
800
700
600
500
400
300
200
100
0
0
5
10
15
20
25
30
35

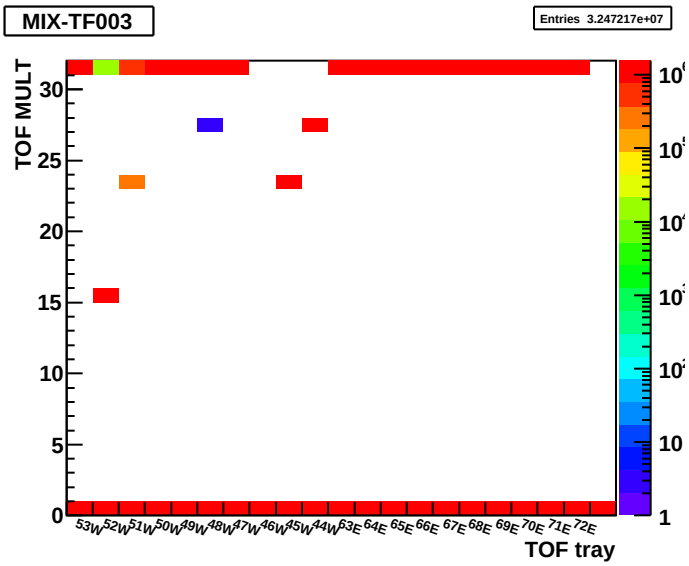

TPC Readout Mask (simulated)
Entries 1.005091e+07
×10^3
800
700
600
500
400
300
200
100
0
0
5
10
15
20
25
30

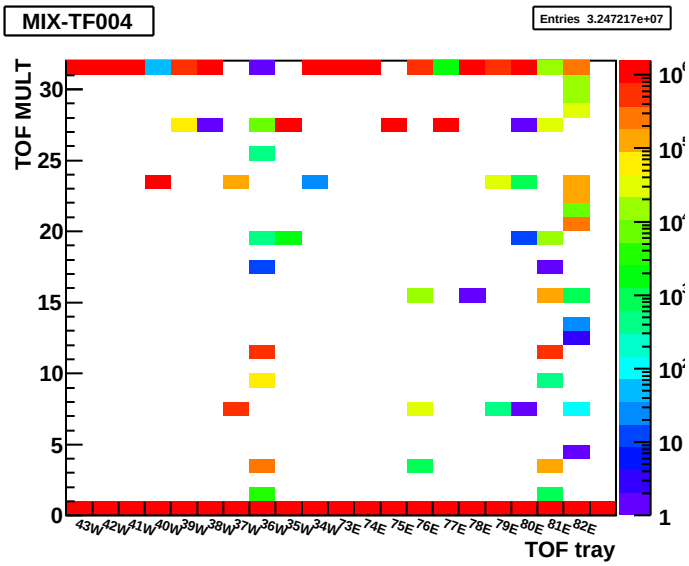

BunchId7Bit (all events)
Entries 773147
10^5
10^4
10^3
10^2
10
1
0
20
40
60
80
100
120

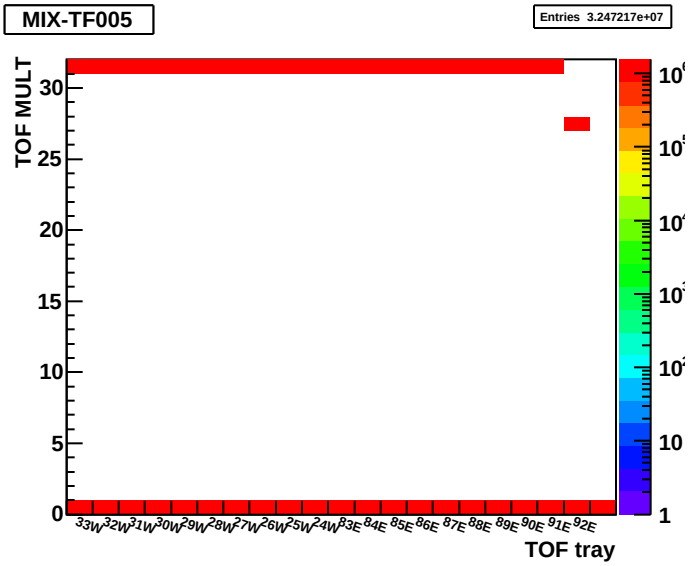

!Yellow-Fill
Entries 773147
10^5
10^4
10^3
10^2
10
1
0
20
40
60
80
100
120

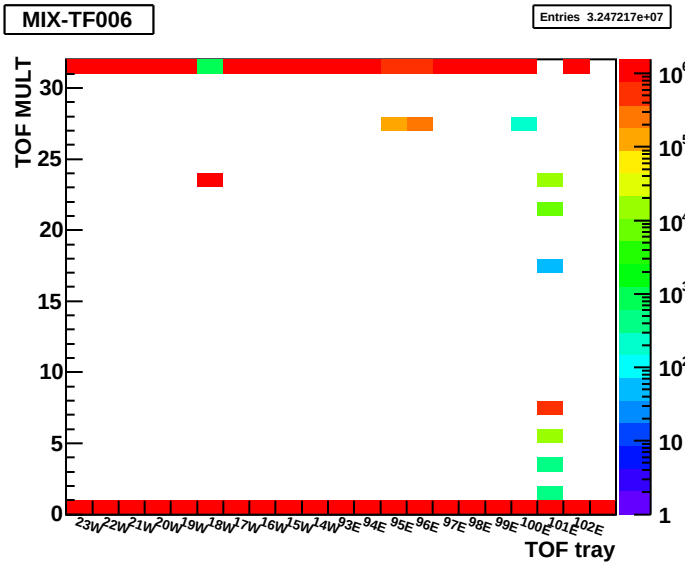

MIX-TF001
Entries 3.247217e+07
TOF MULT
TOF tray

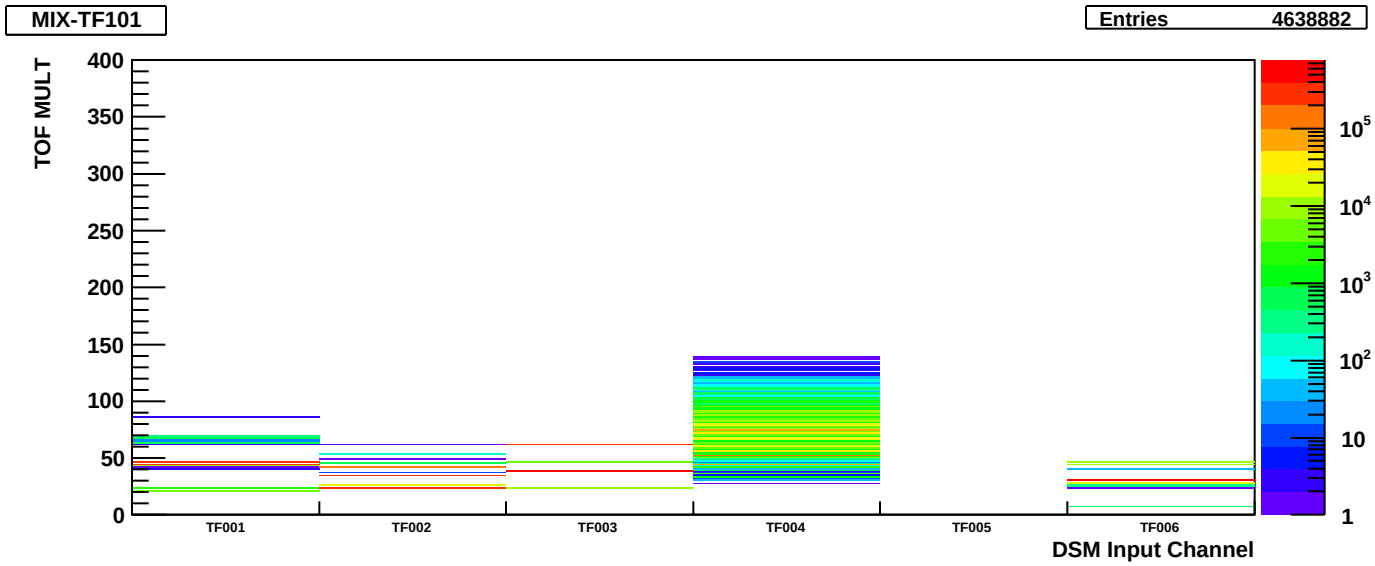

MIX-TF002
Entries 3.247217e+07
TOF MULT
TOF tray

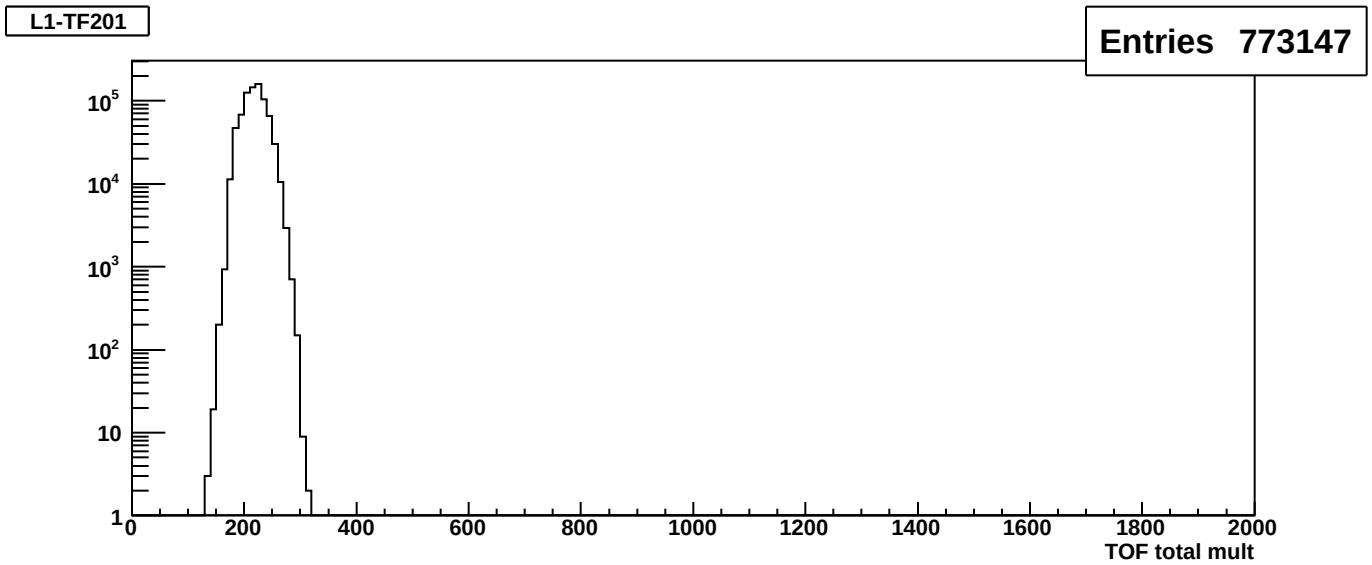

MIX-TF003
Entries 3.247217e+07
TOF MULT
TOF tray

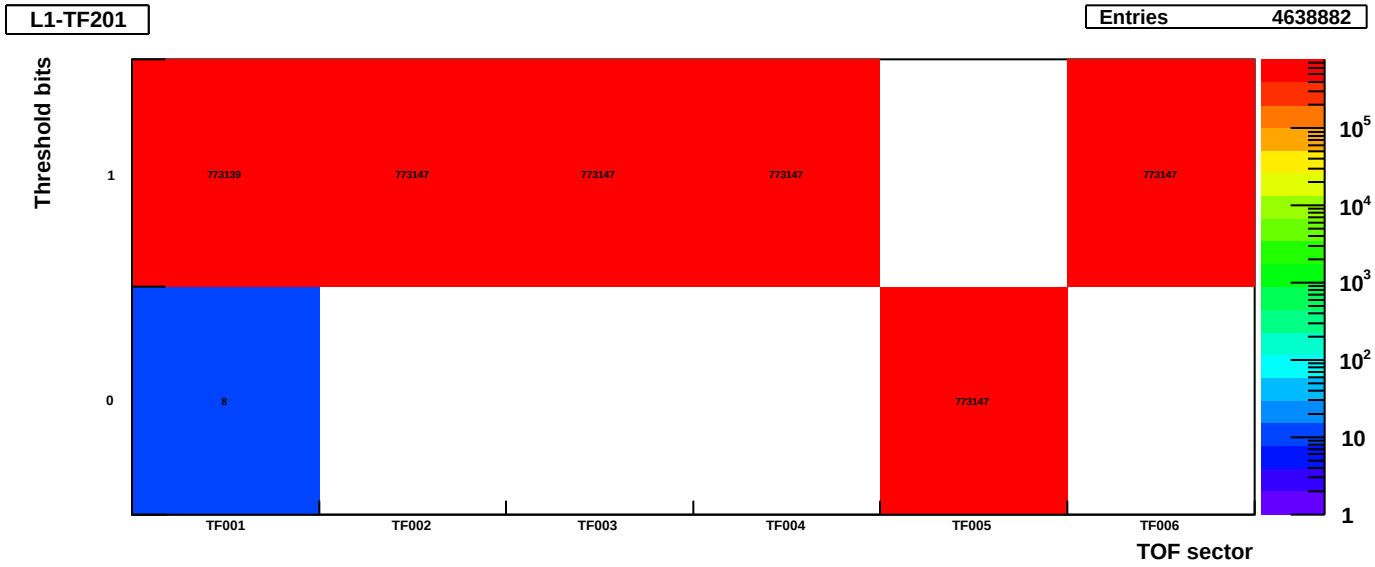

MIX-TF004
Entries 3.247217e+07
TOF MULT
TOF tray

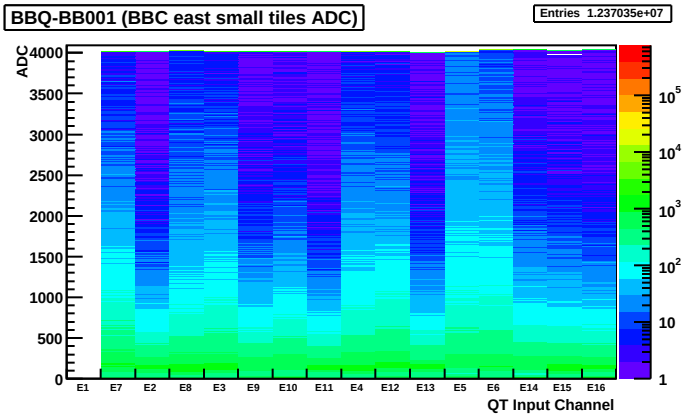

MIX-TF005
Entries 3.247217e+07
TOF MULT
TOF tray

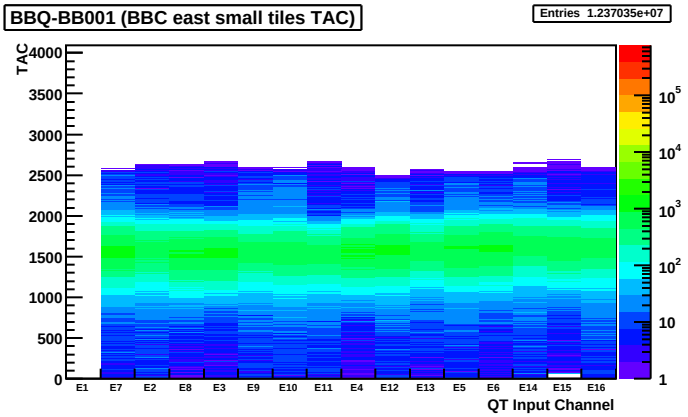

MIX-TF006
Entries 3.247217e+07
TOF MULT
TOF tray

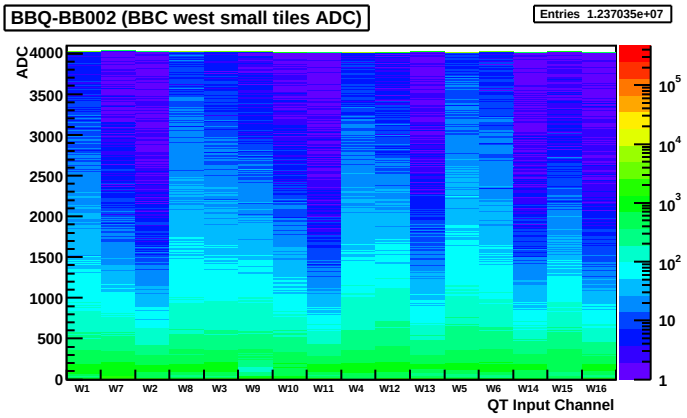

MIX-TF101
Entries 4638882
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

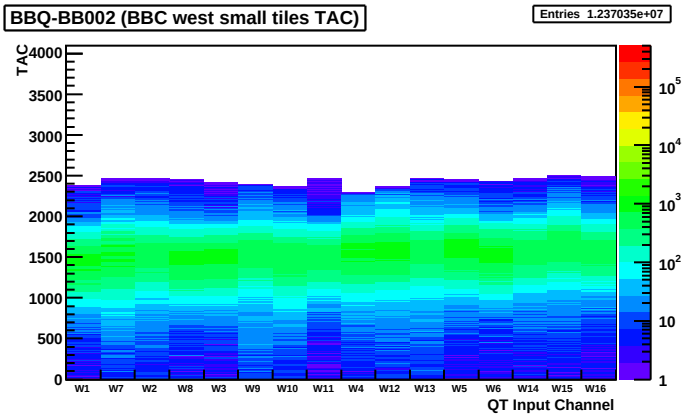

L1-TF201
Entries 773147
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

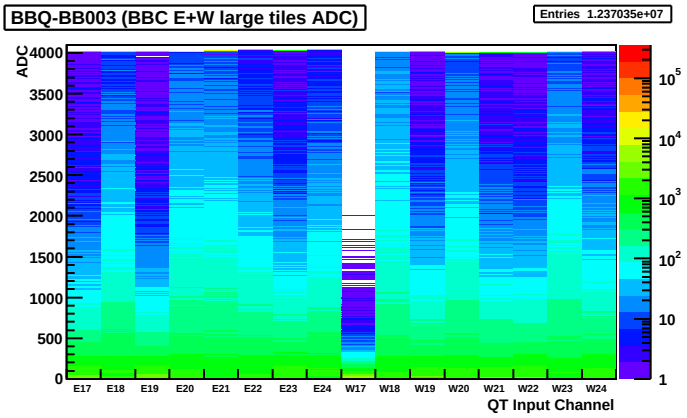

L1-TF201
Entries 4638882
Threshold bits
1
0
773139
773147
773147
773147
773147
8
773147
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5
10^4
10^3
10^2
10
1

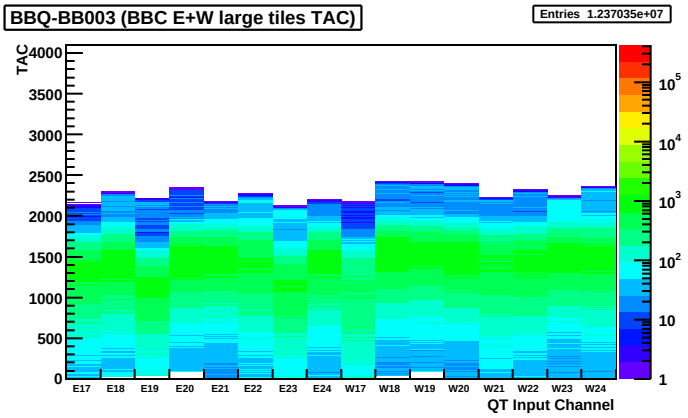

BBQ-BB001 (BBC east small tiles ADC)
Entries 1.237035e+07
ADC
QT Input Channel

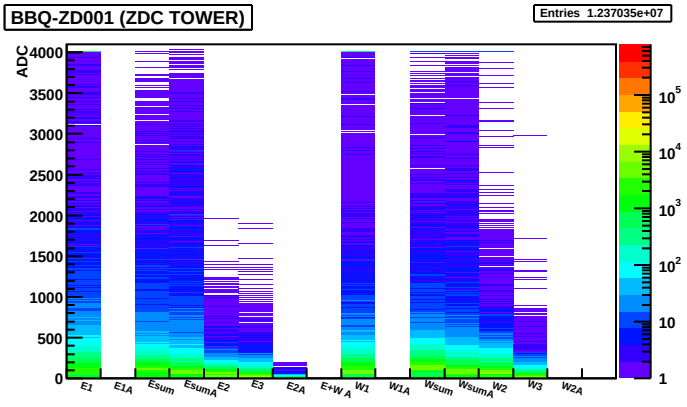

BBQ-BB001 (BBC east small tiles TAC)
Entries 1.237035e+07
TAC
QT Input Channel

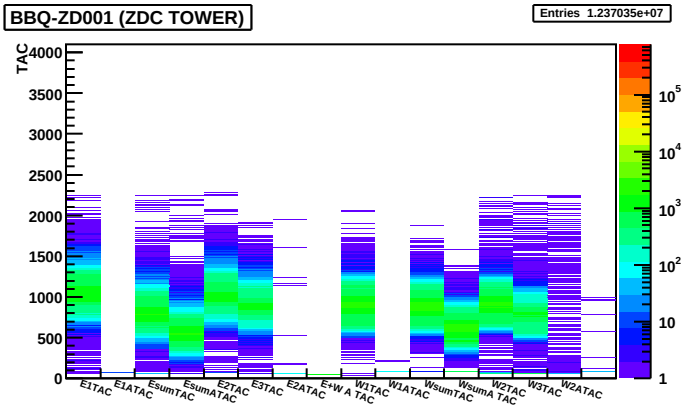

BBQ-BB002 (BBC west small tiles ADC)
Entries 1.237035e+07
ADC
QT Input Channel

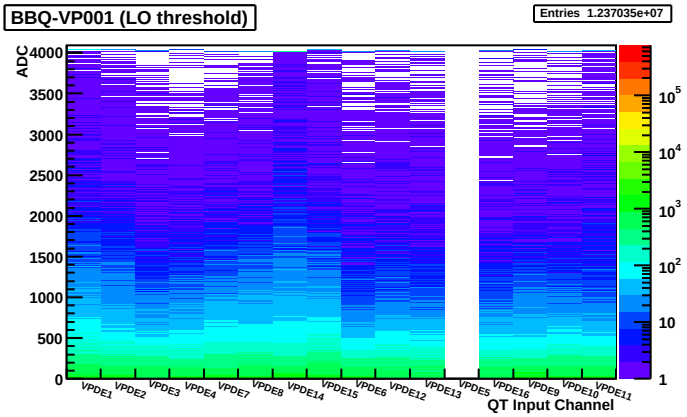

BBQ-BB002 (BBC west small tiles TAC)
Entries 1.237035e+07
TAC
QT Input Channel

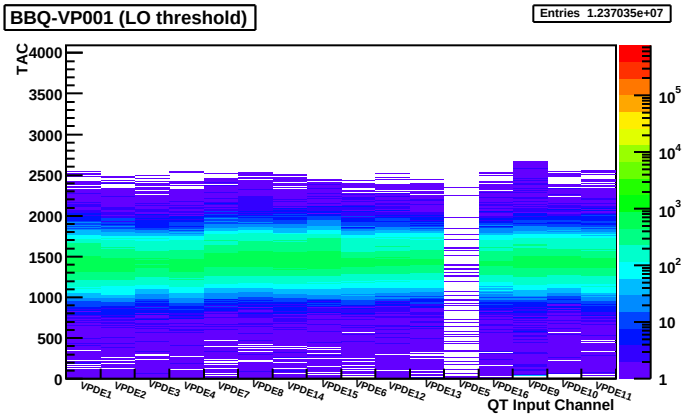

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1.237035e+07
ADC
QT Input Channel

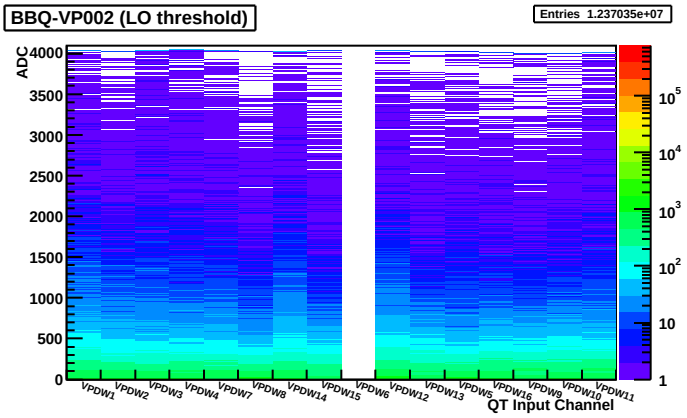

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1.237035e+07
TAC
QT Input Channel

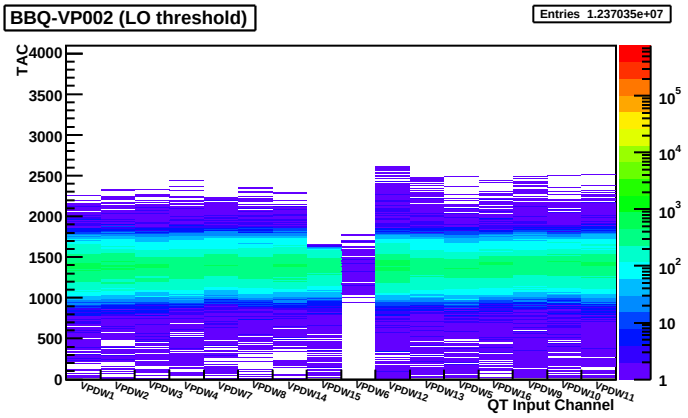

BBQ-ZD001 (ZDC TOWER)
Entries 1.237035e+07
ADC

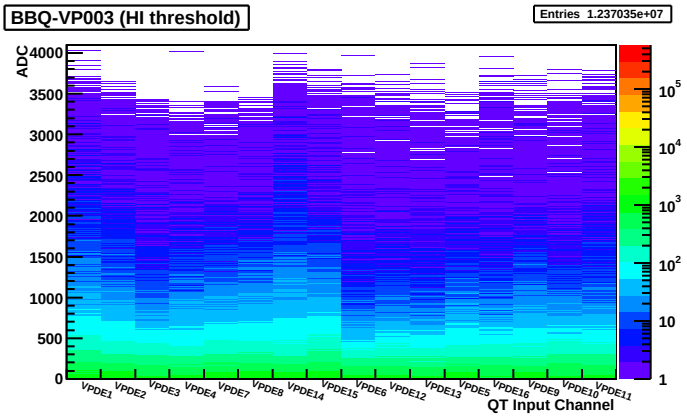

BBQ-ZD001 (ZDC TOWER)
Entries 1.237035e+07
TAC

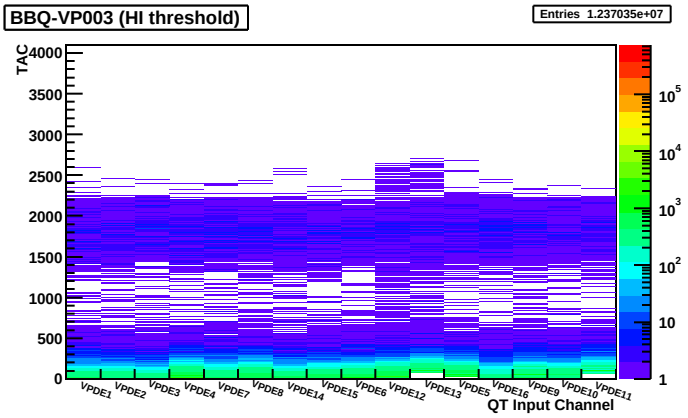

BBQ-VP001 (LO threshold)
Entries 1.237035e+07
ADC
QT Input Channel

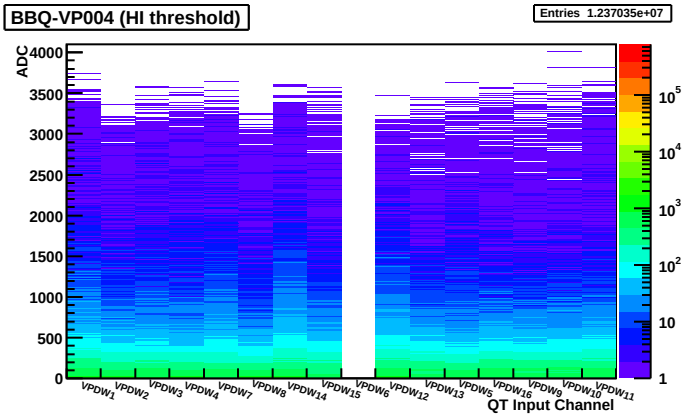

BBQ-VP001 (LO threshold)
Entries 1.237035e+07
TAC
QT Input Channel

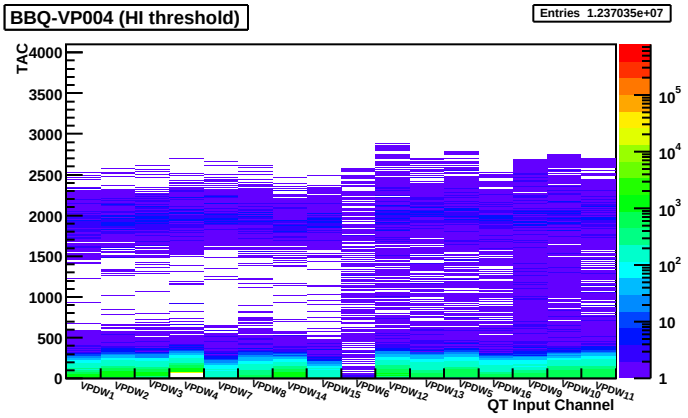

BBQ-VP002 (LO threshold)
Entries 1.237035e+07
ADC
QT Input Channel

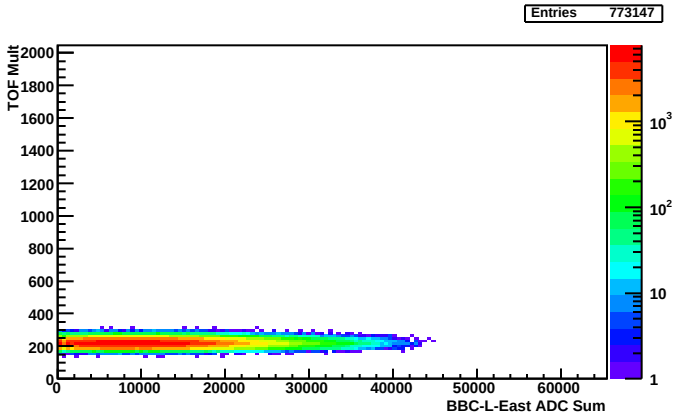

BBQ-VP002 (LO threshold)
Entries 1.237035e+07
TAC
QT Input Channel

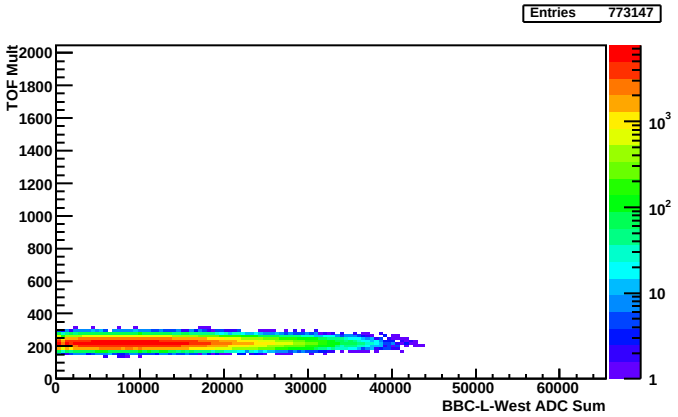

BBQ-VP003 (HI threshold)
Entries 1.237035e+07
ADC
QT Input Channel

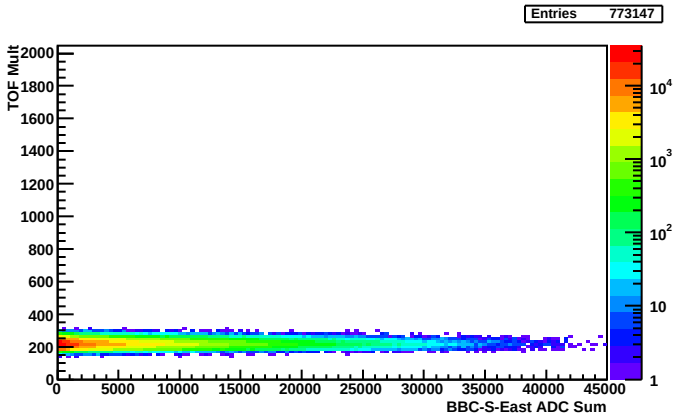

BBQ-VP003 (HI threshold)
Entries 1.237035e+07
TAC
QT Input Channel

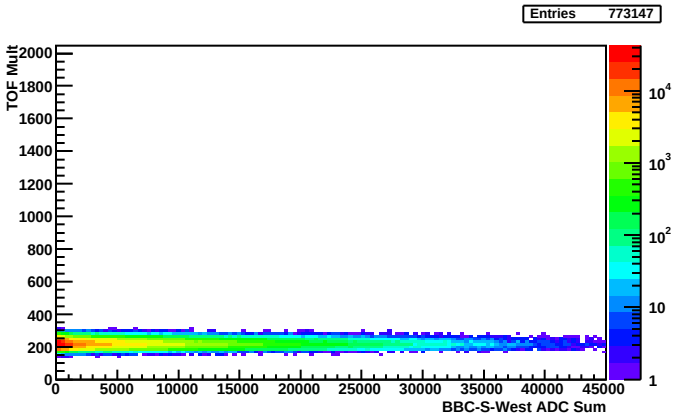

BBQ-VP004 (HI threshold)
Entries 1.237035e+07
ADC
QT Input Channel

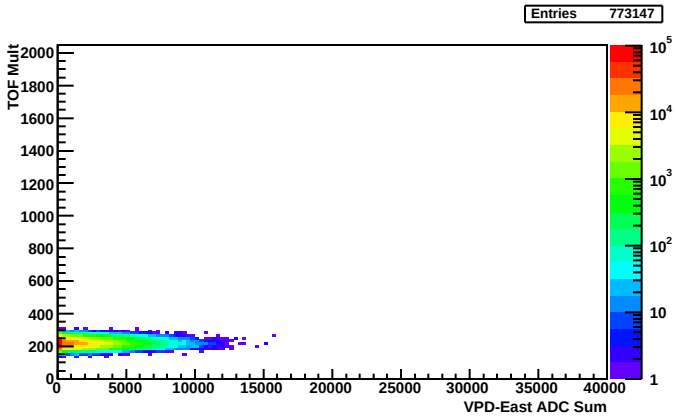

BBQ-VP004 (HI threshold)
Entries 1.237035e+07
TAC
QT Input Channel

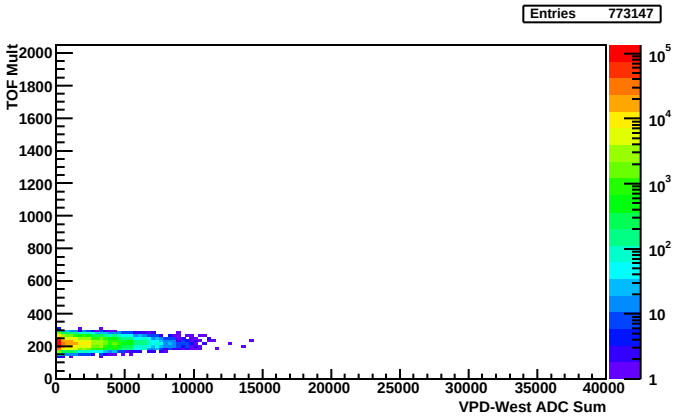

Entries 773147
TOF Mult
BBC-L-East ADC Sum

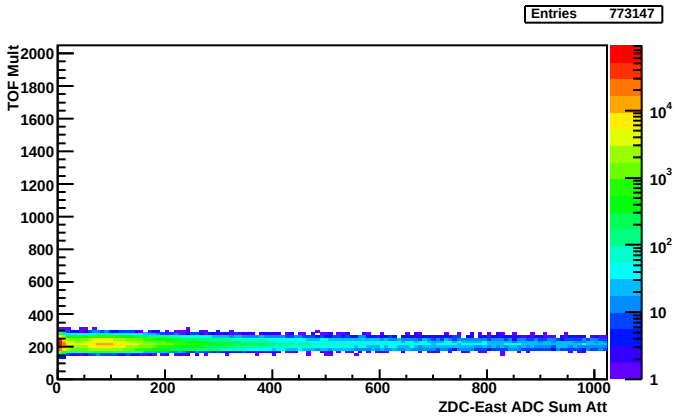

Entries 773147
TOF Mult
BBC-L-West ADC Sum

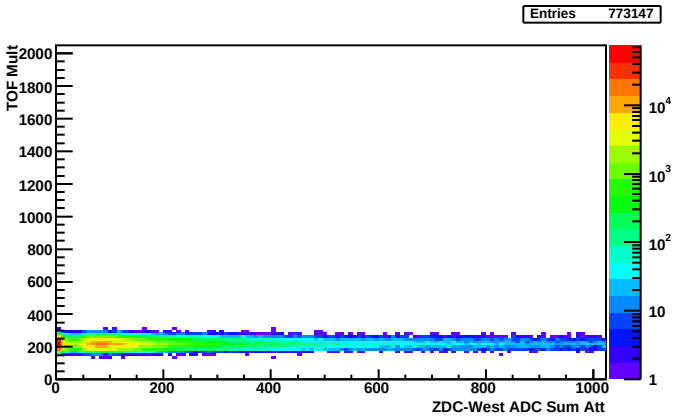

Entries 773147
TOF Mult
BBC-S-East ADC Sum

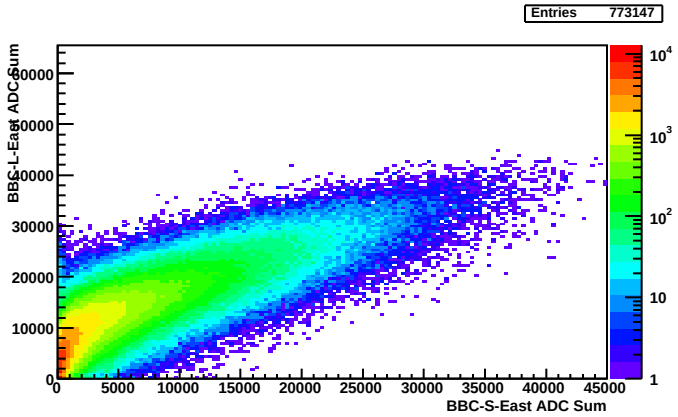

Entries 773147
TOF Mult
BBC-S-West ADC Sum

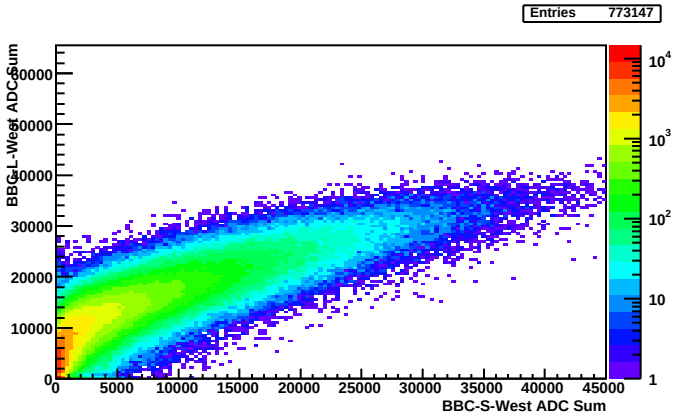

Entries 773147
TOF Mult
VPD-East ADC Sum

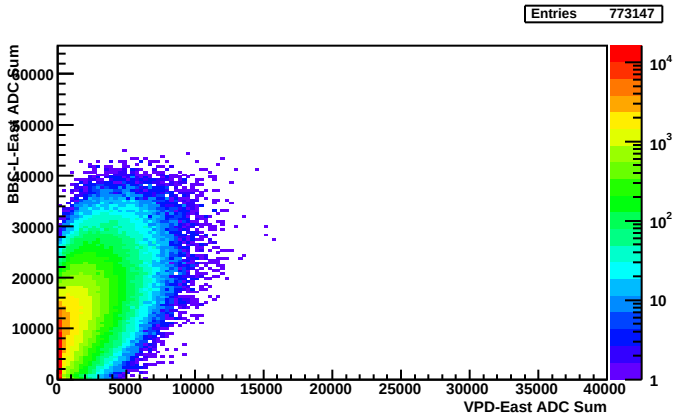

Entries 773147
TOF Mult
VPD-West ADC Sum

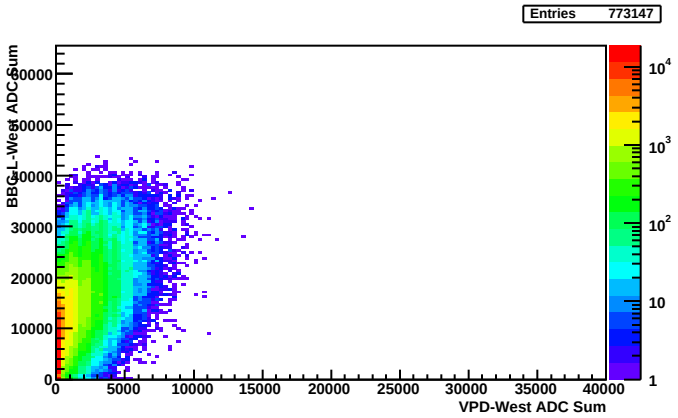

Entries 773147
TOF Mult
ZDC-East ADC Sum Att

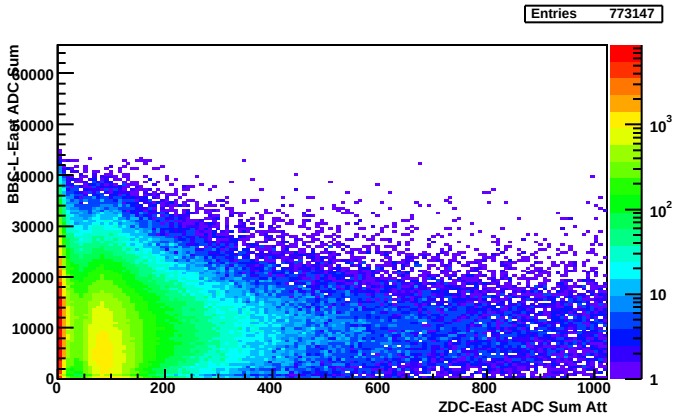

Entries 773147
TOF Mult
ZDC-West ADC Sum Att

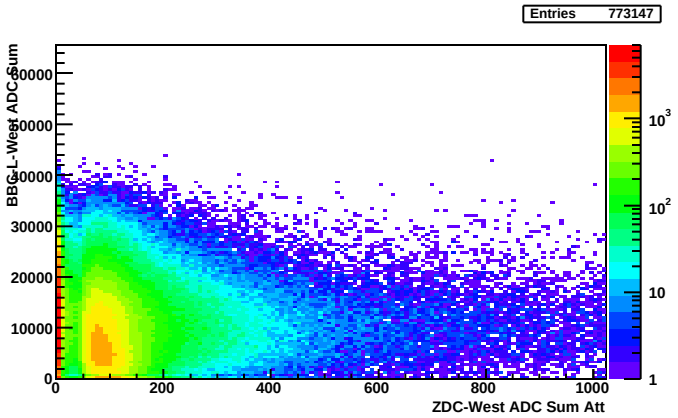

Entries 773147
BBC-L-East ADC Sum
BBC-S-East ADC Sum

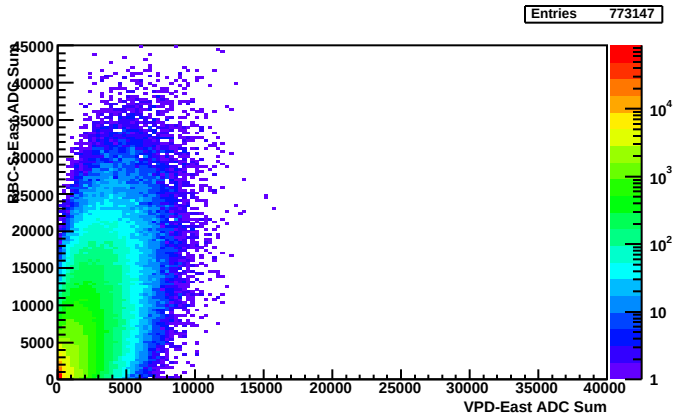

Entries 773147
BBC-L-West ADC Sum
BBC-S-West ADC Sum

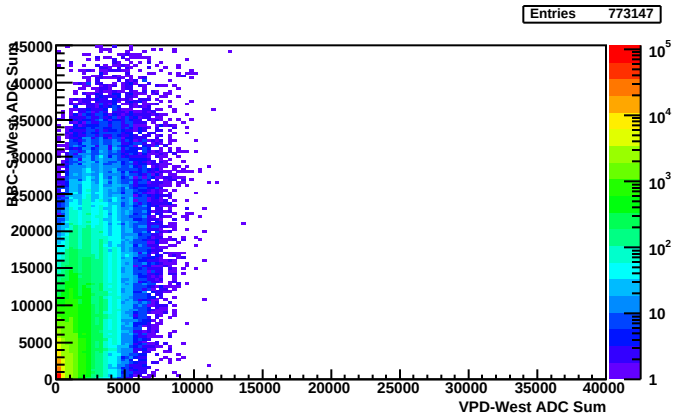

Entries 773147
BBC-L-East ADC Sum
VPD-East ADC Sum

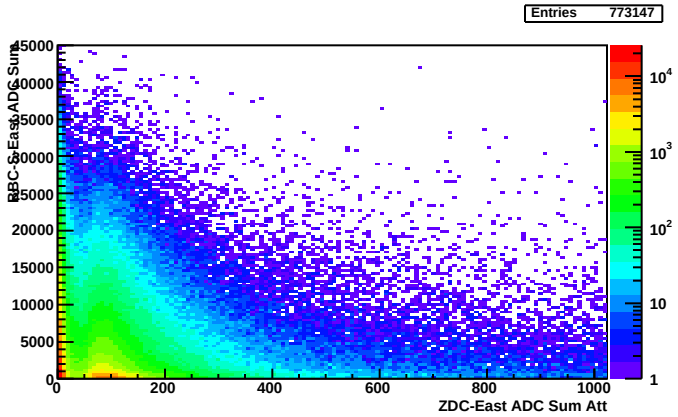

Entries 773147
BBC-L-West ADC Sum
VPD-West ADC Sum

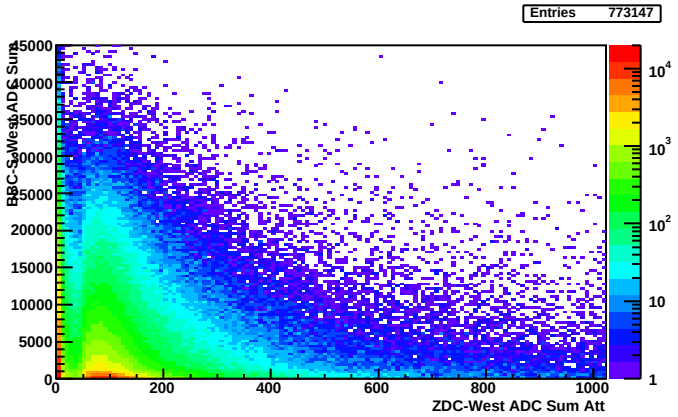

Entries 773147
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

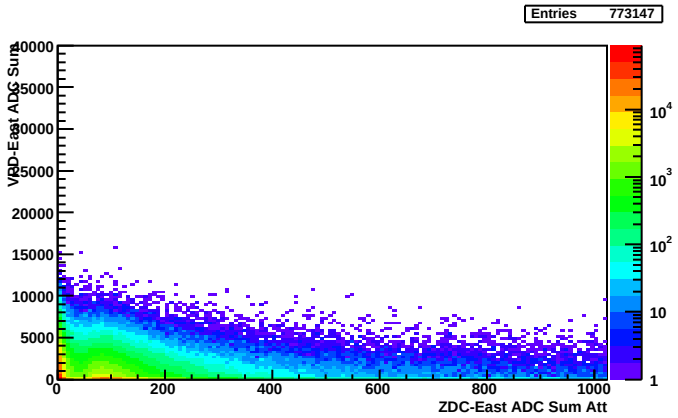

Entries 773147
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

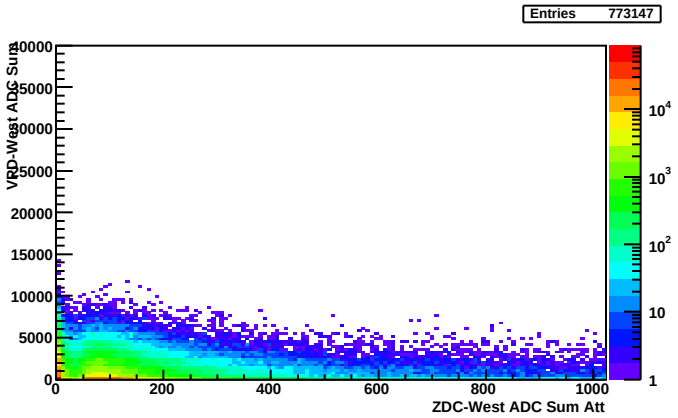

Entries 773147
BBC-S-East ADC Sum
VPD-East ADC Sum

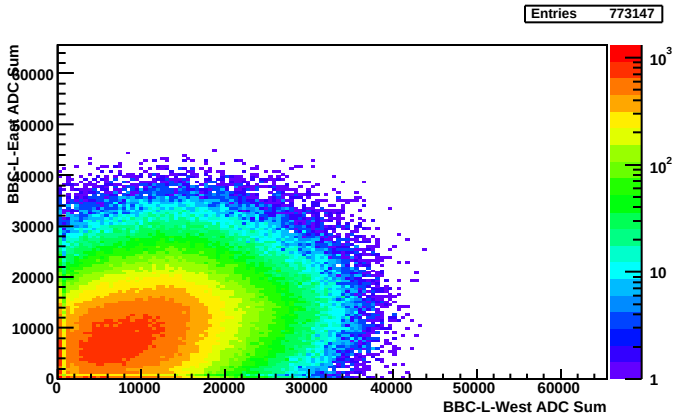

Entries 773147
BBC-S-West ADC Sum
VPD-West ADC Sum

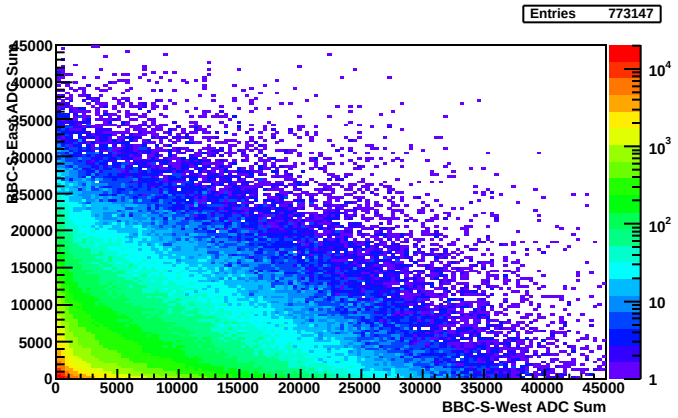

Entries 773147
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

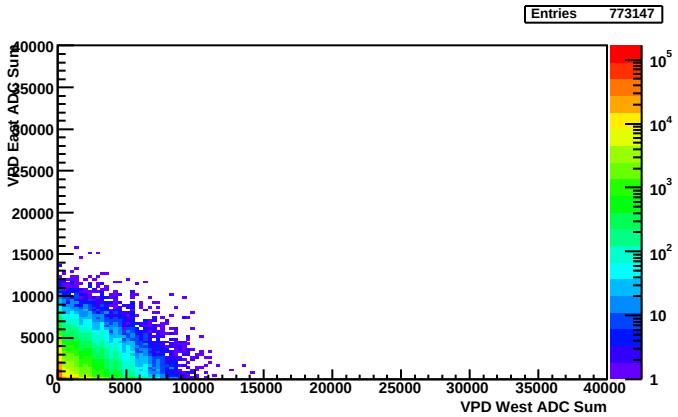

Entries 773147
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

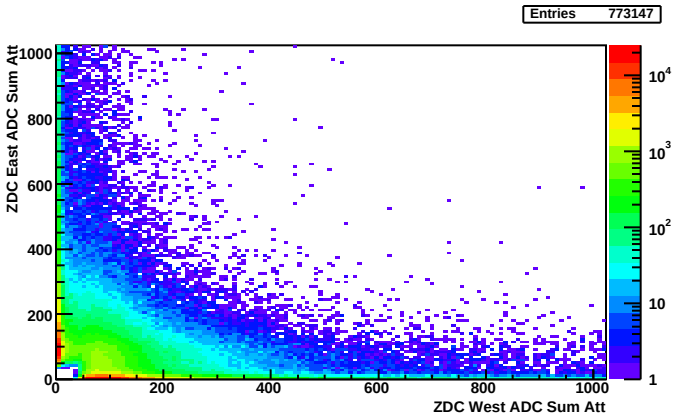

Entries 773147
VPD-East ADC Sum
ZDC-East ADC Sum Att

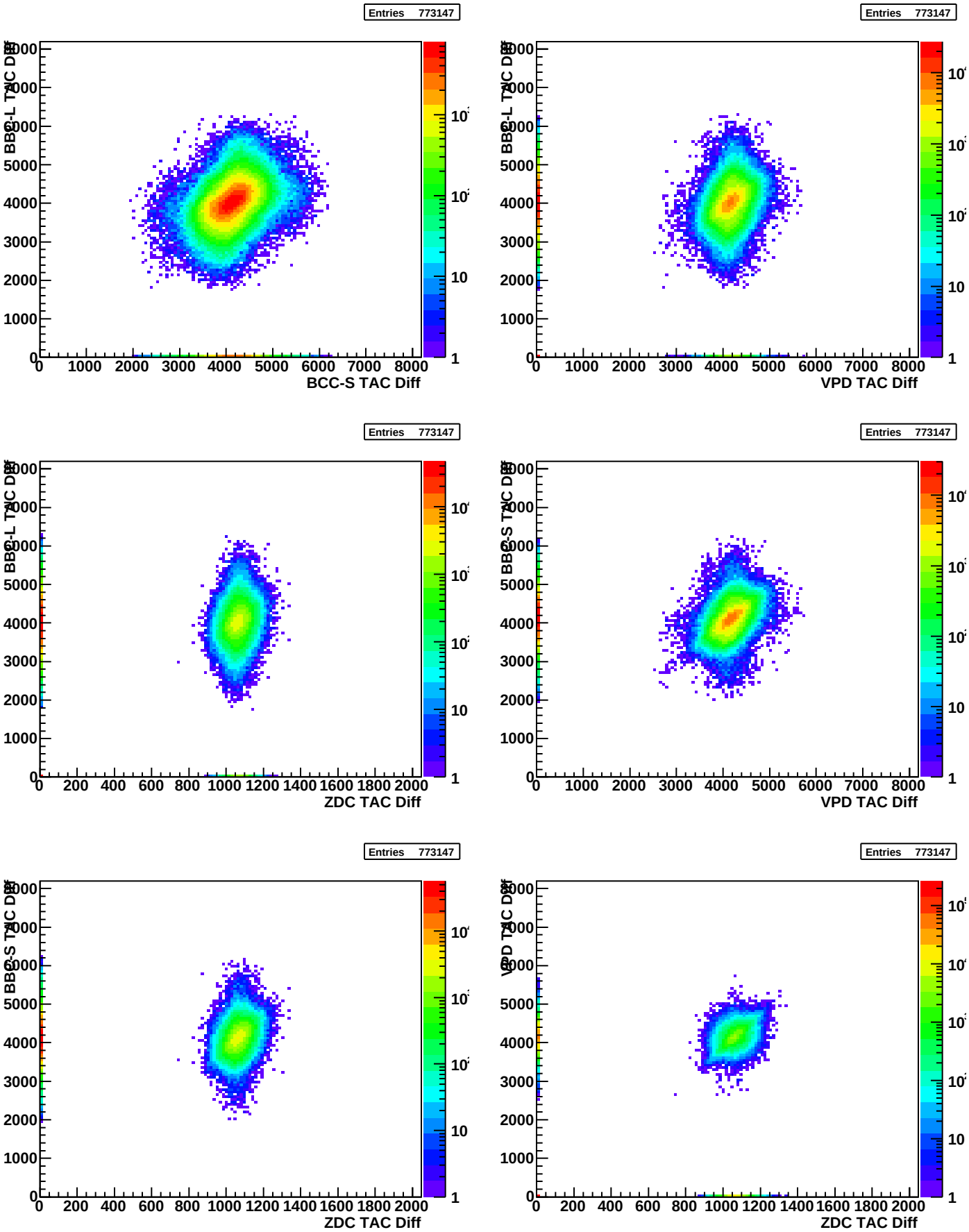

Entries 773147
VPD-West ADC Sum
ZDC-West ADC Sum Att

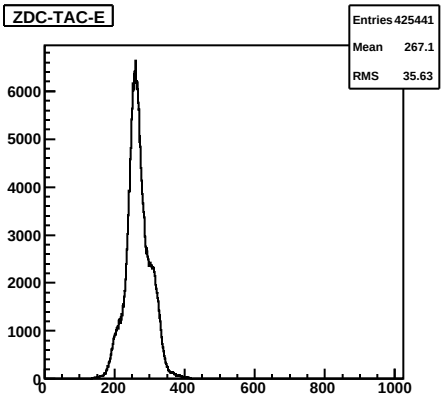

Entries 773147
BBC-L-East ADC Sum
BBC-L-West ADC Sum

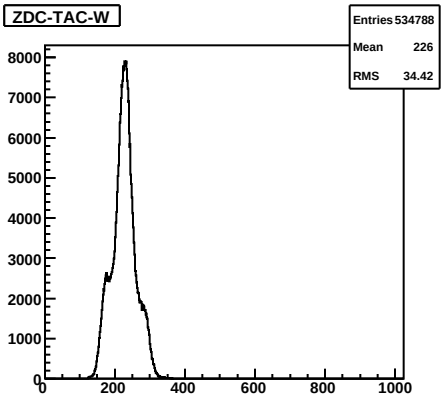

Entries 773147
BBC-S-East ADC Sum
BBC-S-West ADC Sum

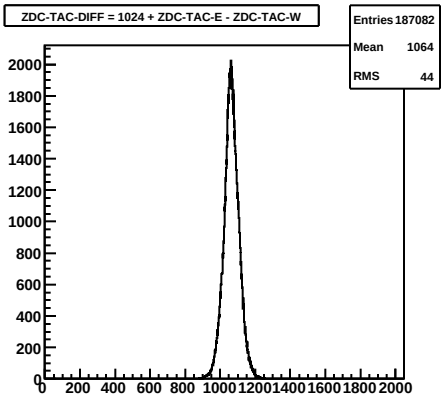

Entries 773147
VPD East ADC Sum
VPD West ADC Sum

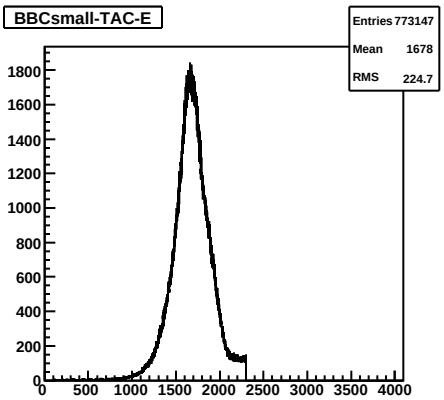

Entries 773147
ZDC East ADC Sum Att
ZDC West ADC Sum Att

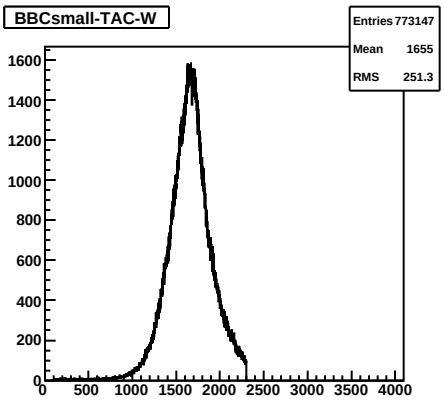

Entries 773147
BBC-L TAC Diff
BCC-S TAC Diff
Entries 773147
BBC-L TAC Diff
VPD TAC Diff
Entries 773147
BBC-L TAC Diff
ZDC TAC Diff
Entries 773147
BBC-S TAC Diff
VPD TAC Diff
Entries 773147
BBC-S TAC Diff
ZDC TAC Diff
Entries 773147
VPD TAC Diff
ZDC TAC Diff

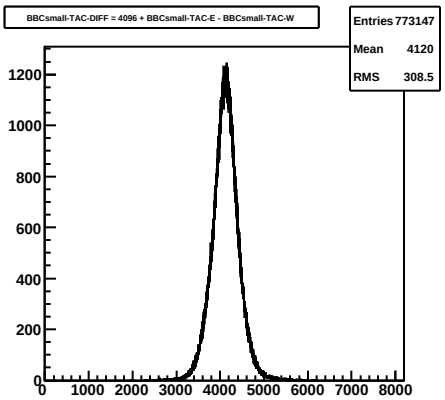

ZDC-TAC-E
Entries 425441
Mean 267.1
RMS 35.63

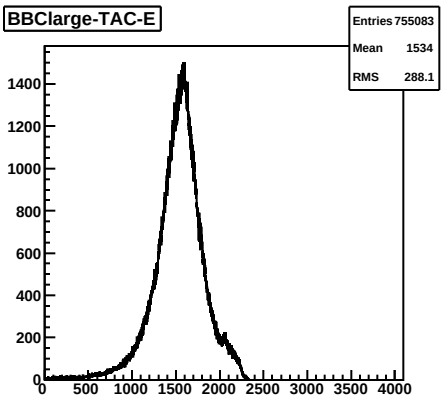

ZDC-TAC-W
Entries 534788
Mean 226
RMS 34.42

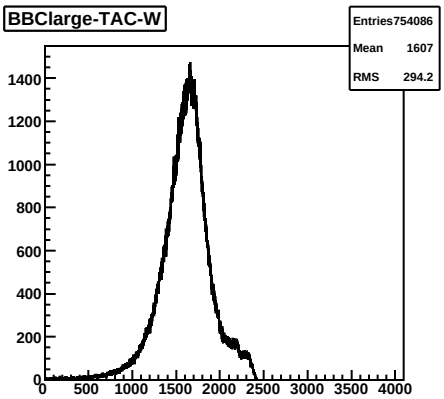

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 187082
Mean 1064
RMS 44

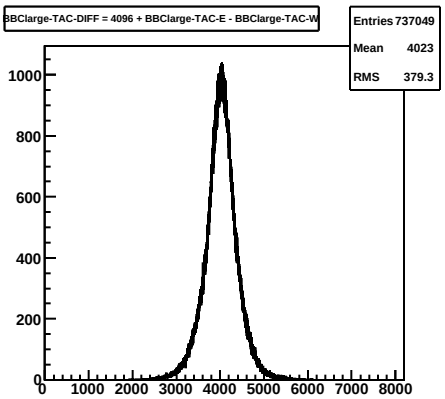

BBCsmall-TAC-E
Entries 773147
Mean 1678
RMS 224.7

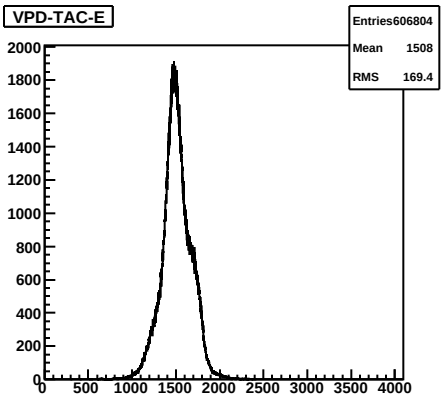

BBCsmall-TAC-W
Entries 773147
Mean 1655
RMS 251.3

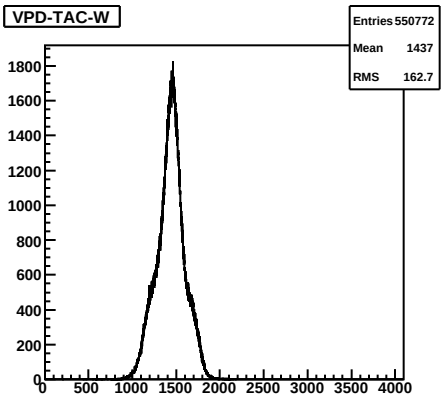

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 773147
Mean 4120
RMS 308.5

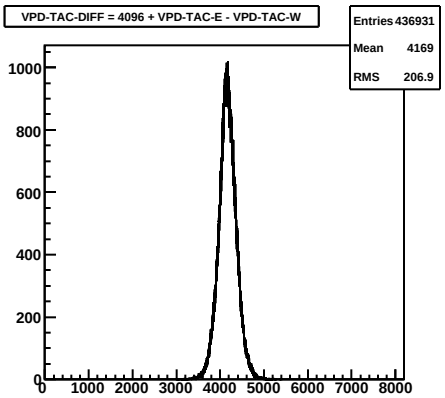

BBClarge-TAC-E
Entries 755083
Mean 1534
RMS 288.1

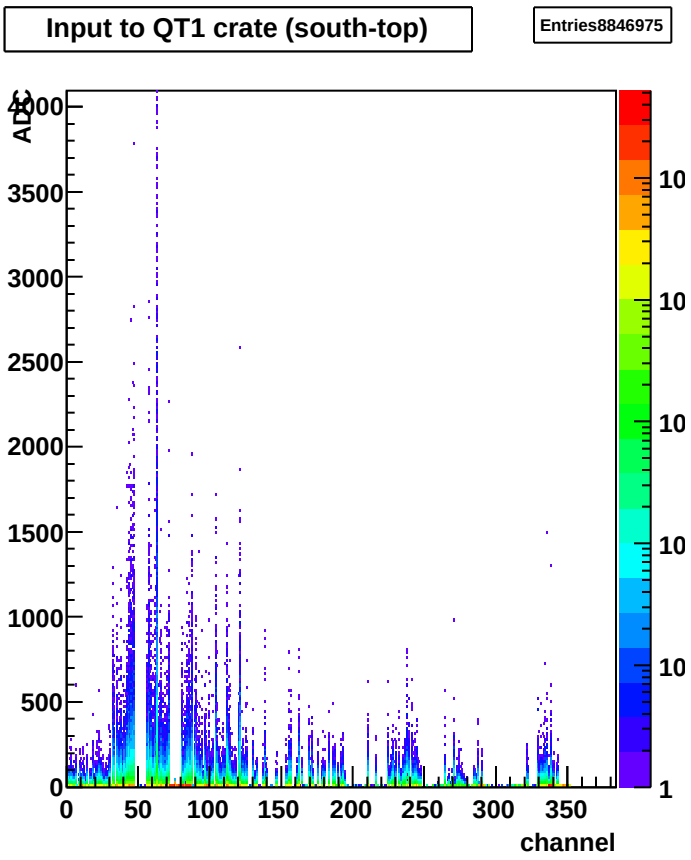

BBClarge-TAC-W
Entries 754086
Mean 1607
RMS 294.2

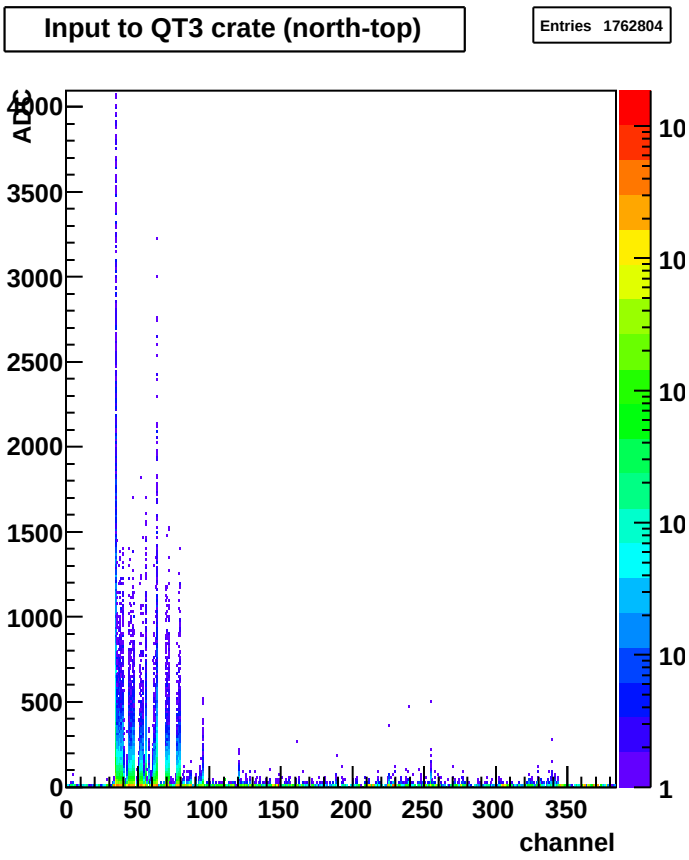

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 737049
Mean 4023
RMS 379.3

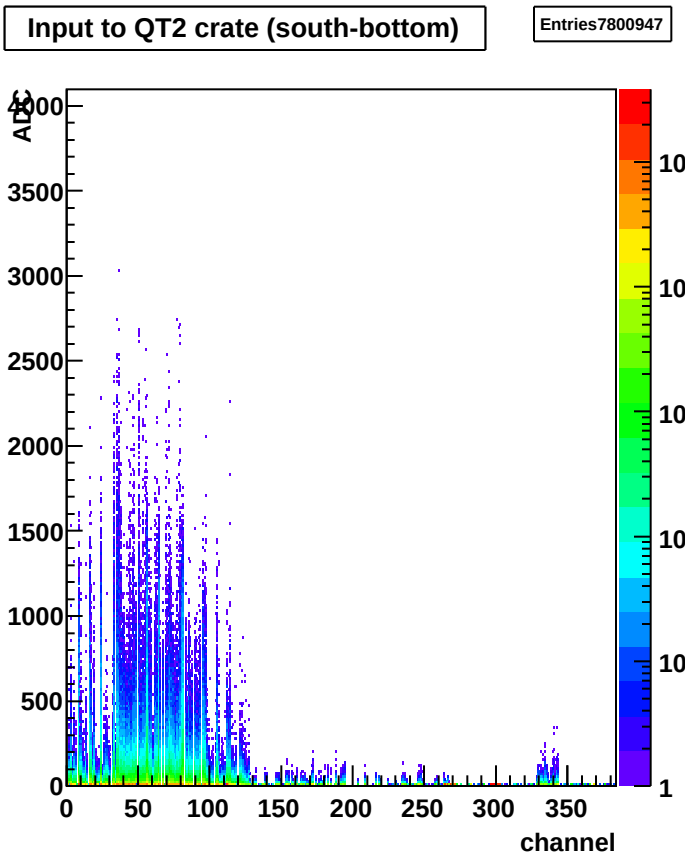

VPD-TAC-E
Entries 606804
Mean 1508
RMS 169.4

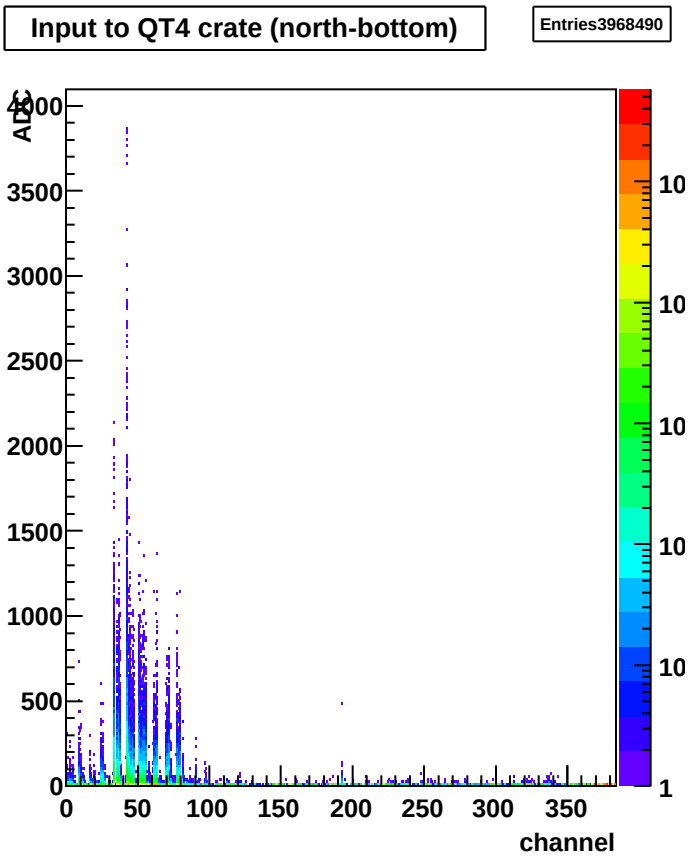

VPD-TAC-W
Entries 550772
Mean 1437
RMS 162.7

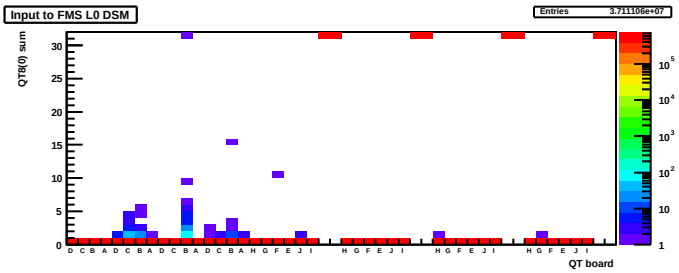

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 436931
Mean 4169
RMS 206.9

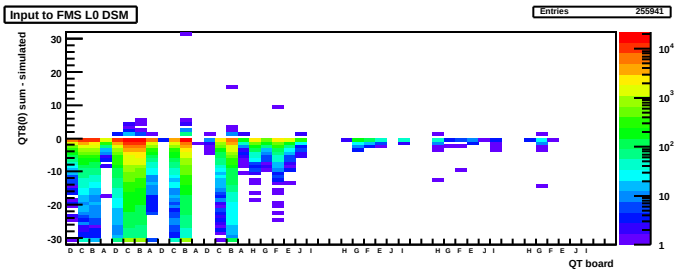

Input to QT1 crate (south-top)
Entries8846975
ADC
channel

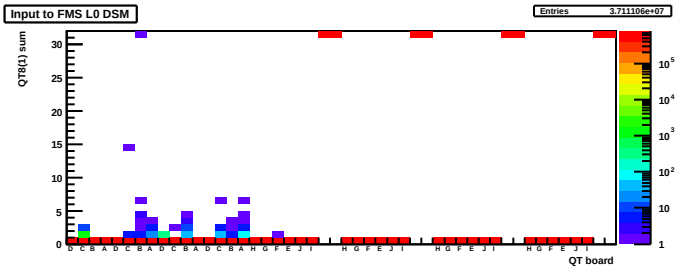

Input to QT3 crate (north-top)
Entries 1762804
ADC
channel

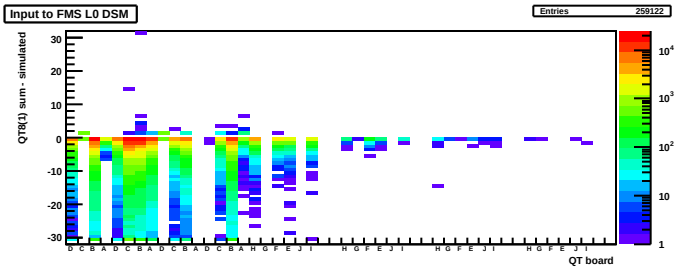

Input to QT2 crate (south-bottom)
Entries7800947
ADC
channel

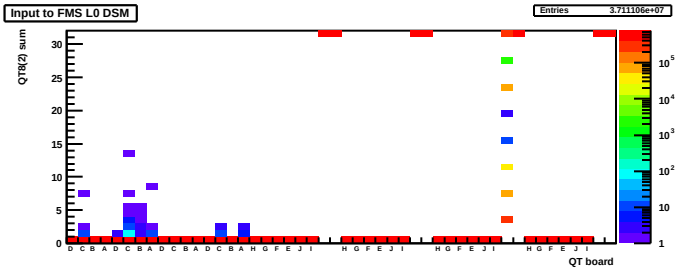

Input to QT4 crate (north-bottom)
Entries3968490
ADC
channel

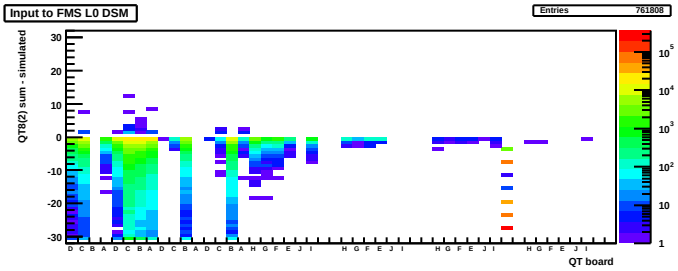

Input to FMS L0 DSM
Entries 3.711106e+07
QT8(0) sum
QT board

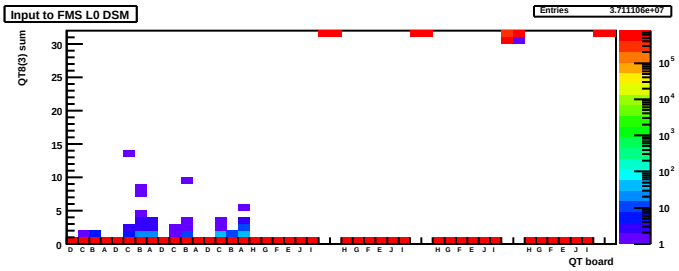

Input to FMS L0 DSM
Entries 255941
QT8(0) sum - simulated
QT board

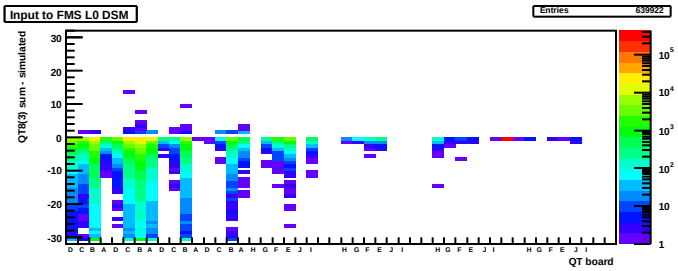

Input to FMS L0 DSM
Entries 3.711106e+07
QT8(1) sum
QT board

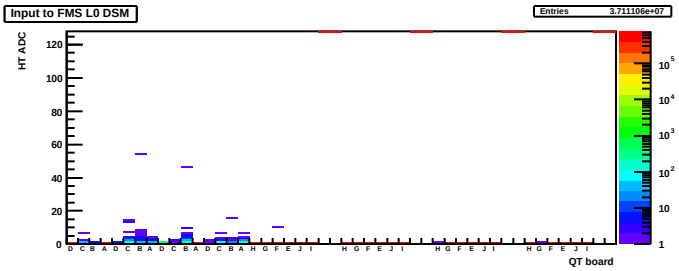

Input to FMS L0 DSM
Entries 259122
QT8(1) sum - simulated
QT board

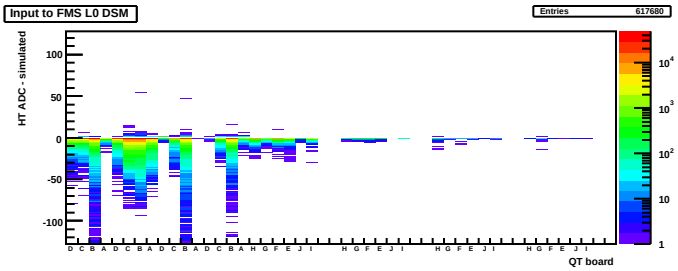

Input to FMS L0 DSM
Entries 3.711106e+07
QT8(2) sum
QT board

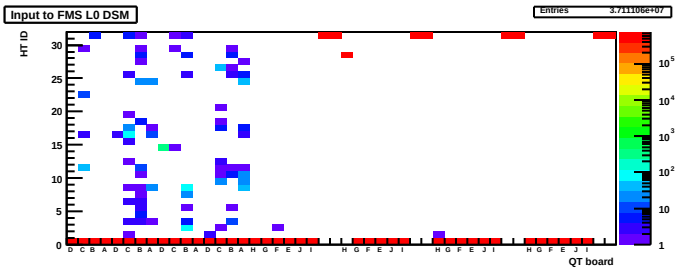

Input to FMS L0 DSM
Entries 761808
QT8(2) sum - simulated
QT board

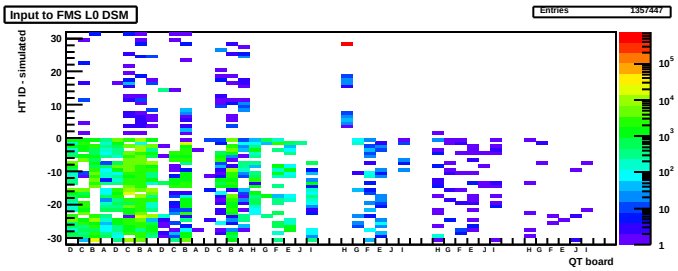

Input to FMS L0 DSM
Entries 3.711106e+07
QT8(3) sum
QT board

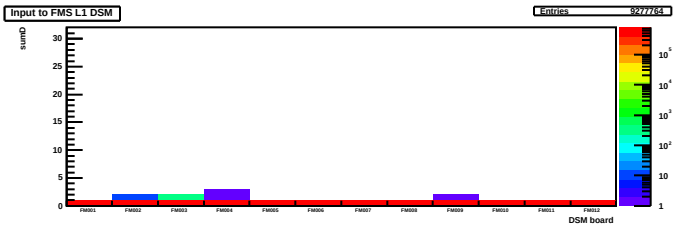

Input to FMS L0 DSM
Entries 639922
QT8(3) sum - simulated
QT board

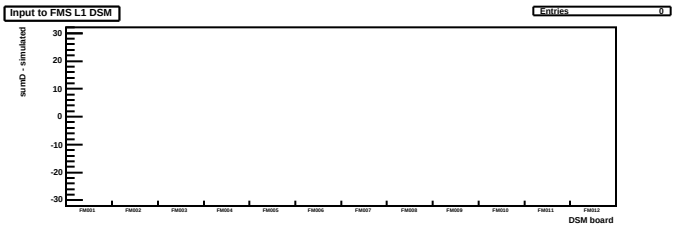

Input to FMS L0 DSM
Entries 3.711106e+07
HT ADC
QT board

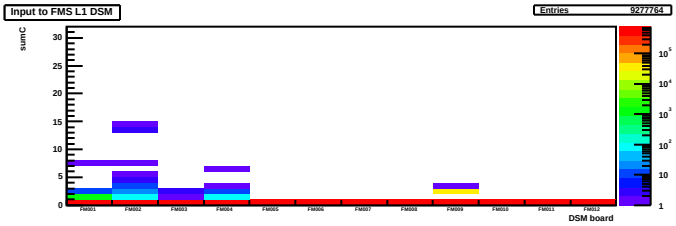

Input to FMS L0 DSM
Entries 617680
HT ADC - simulated
QT board

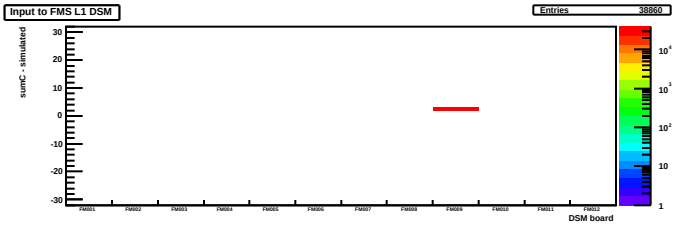

Input to FMS L0 DSM
Entries 3.711106e+07
HT ID
QT board

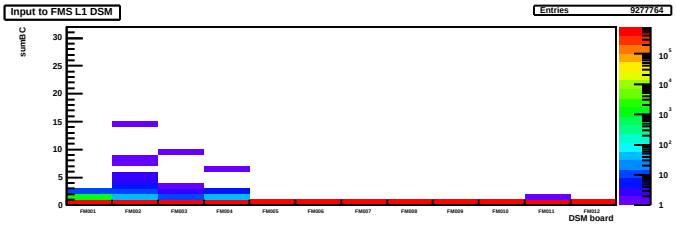

Input to FMS L0 DSM
Entries 1357447
HT ID - simulated
QT board

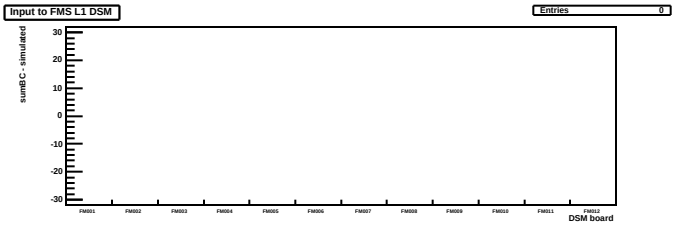

Input to FMS L1 DSM
Entries 9277764
sumD
DSM board

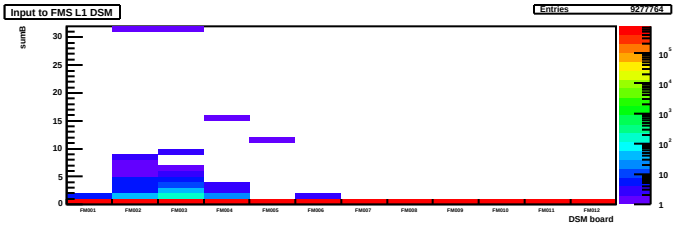

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

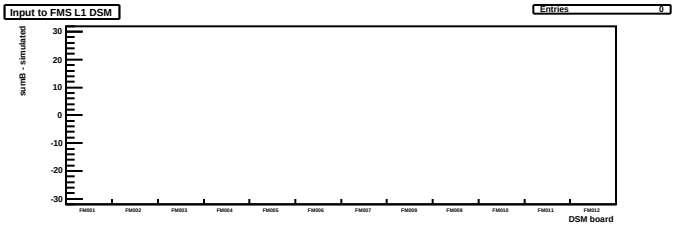

Input to FMS L1 DSM
Entries 9277764
sumC
DSM board

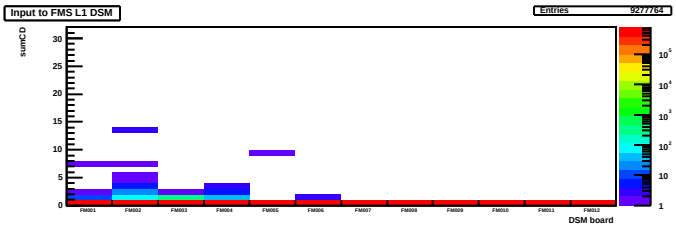

Input to FMS L1 DSM
Entries 38860
sumC - simulated
DSM board

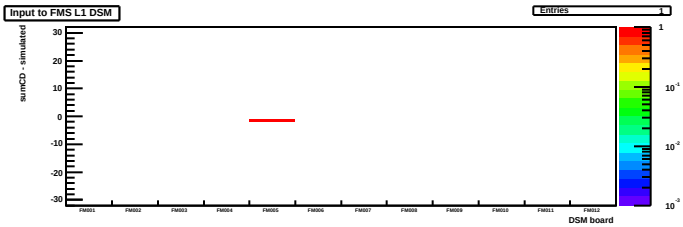

Input to FMS L1 DSM
Entries 9277764
sumBC
DSM board

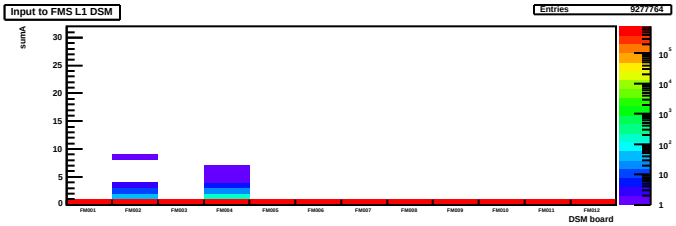

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

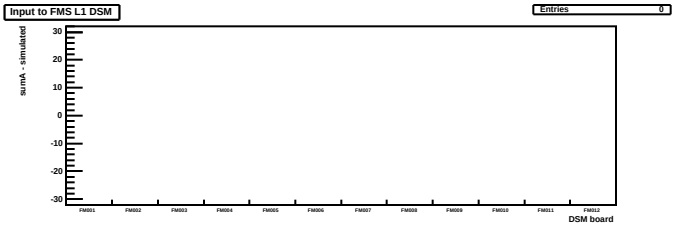

Input to FMS L1 DSM
Entries 9277764
sumB
DSM board

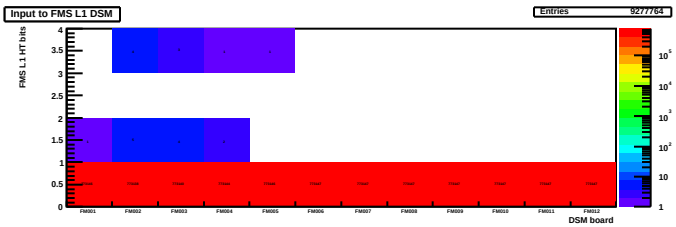

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

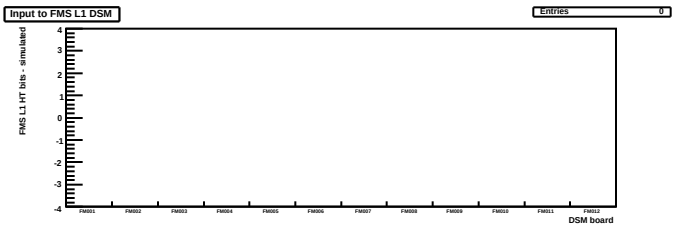

Input to FMS L1 DSM
Entries 9277764
sumCD
DSM board

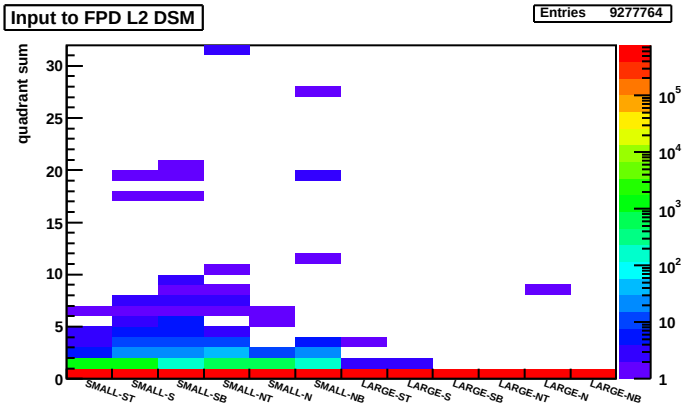

Input to FMS L1 DSM
Entries 1
sumCD - simulated
DSM board

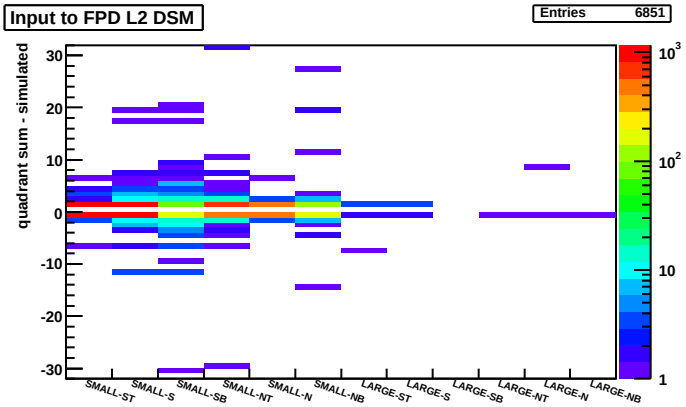

Input to FMS L1 DSM
Entries 9277764
sumA
DSM board

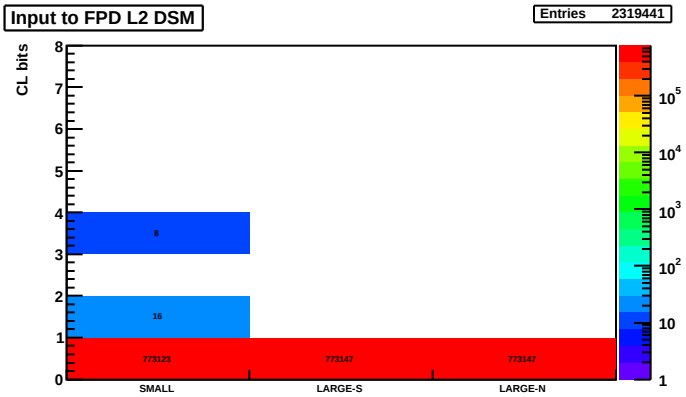

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

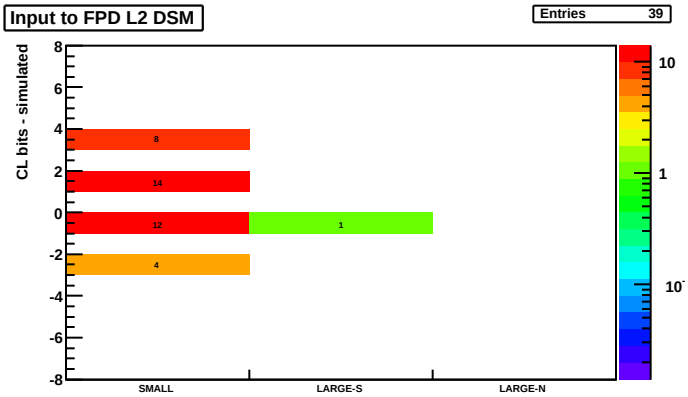

Input to FMS L1 DSM
Entries 9277764
FMS L1 HT bits
DSM board

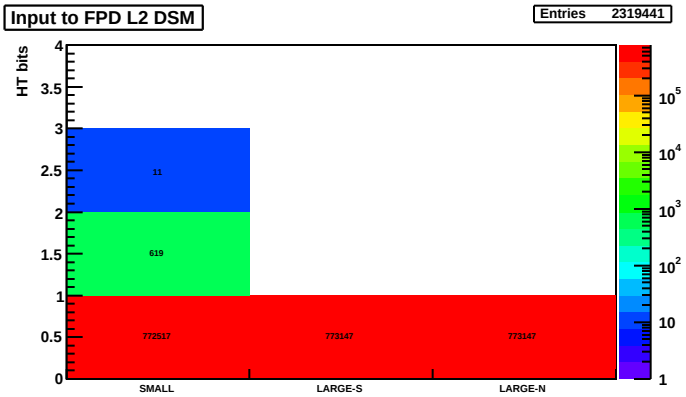

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

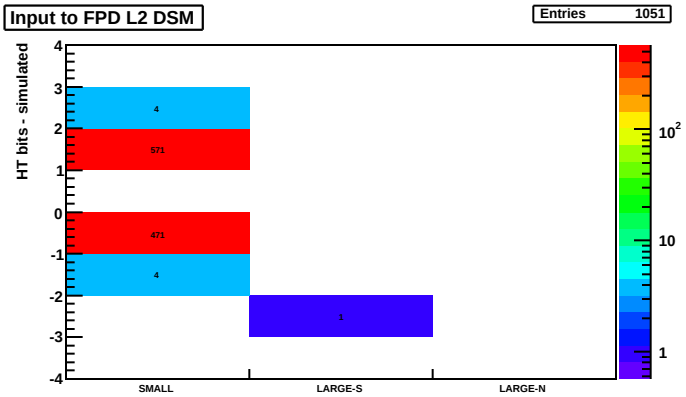

Input to FPD L2 DSM
Entries 9277764
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

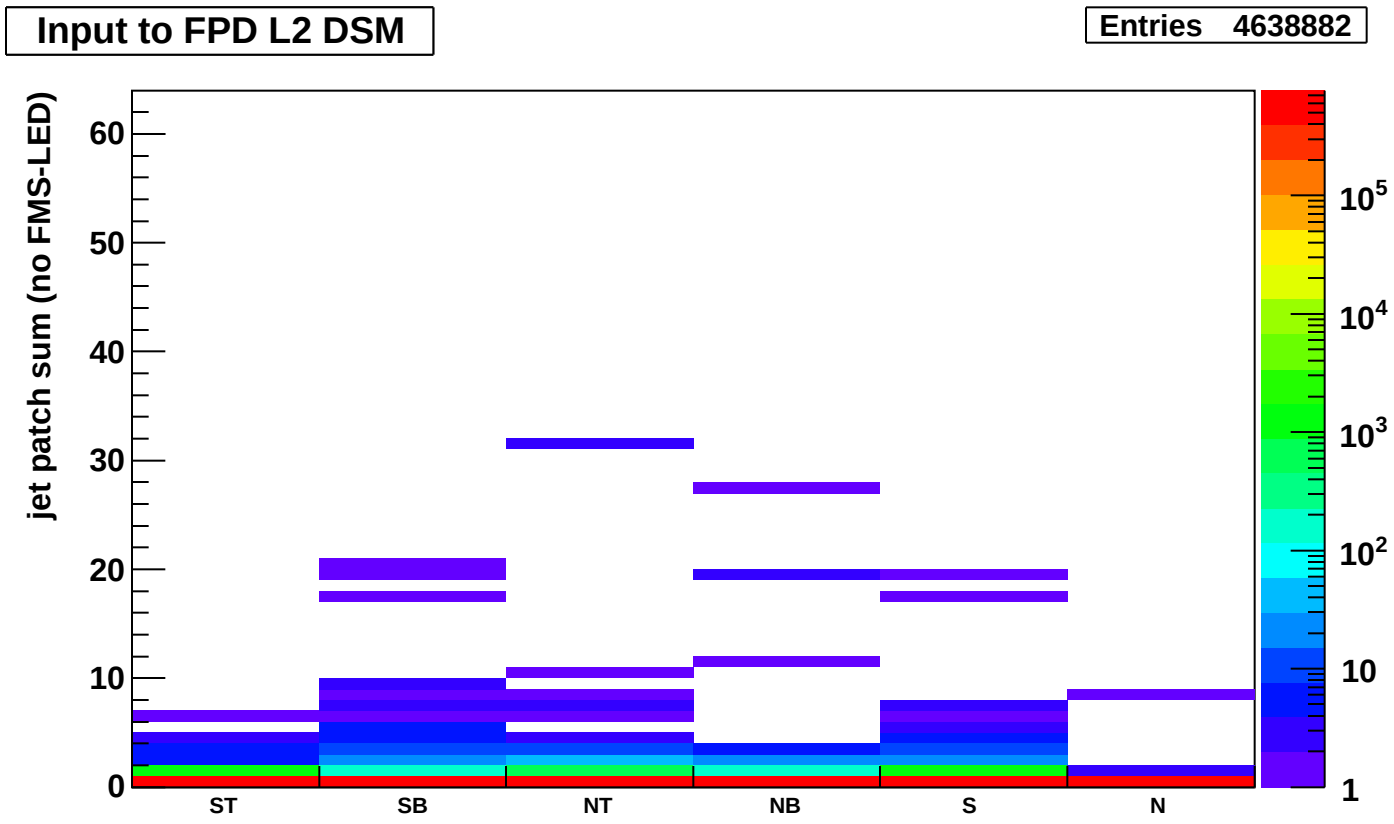

Input to FPD L2 DSM
Entries 6851
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

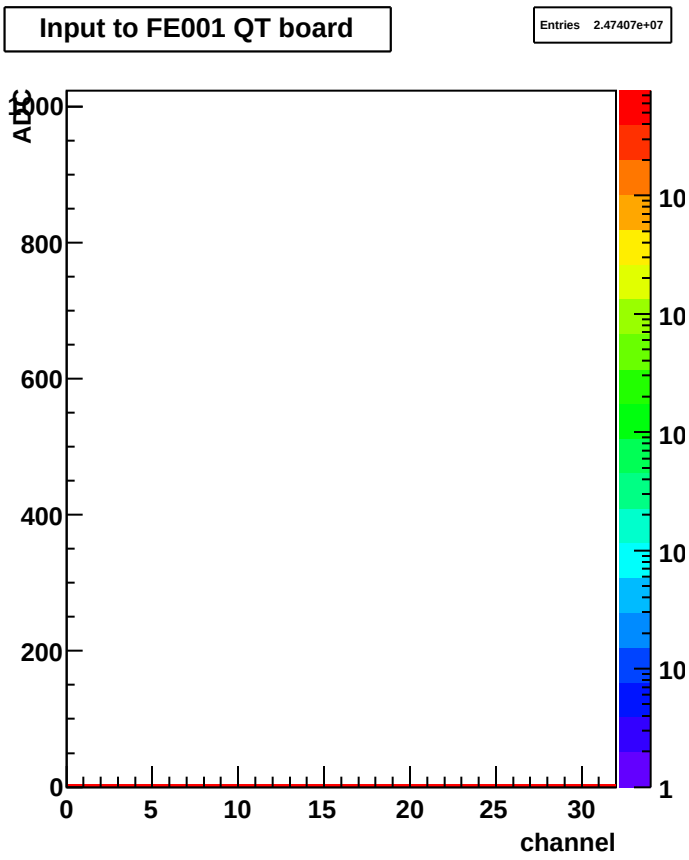

Input to FPD L2 DSM
Entries 2319441
CL bits
8
16
773123
773147
773147
SMALL
LARGE-S
LARGE-N

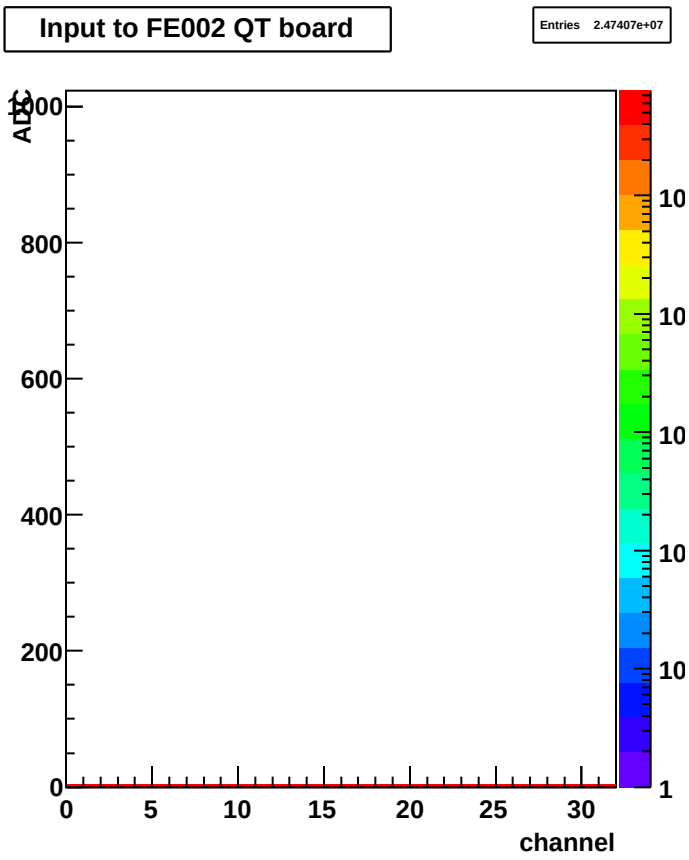

Input to FPD L2 DSM
Entries 39
CL bits - simulated
8
14
12
1
4
SMALL
LARGE-S
LARGE-N

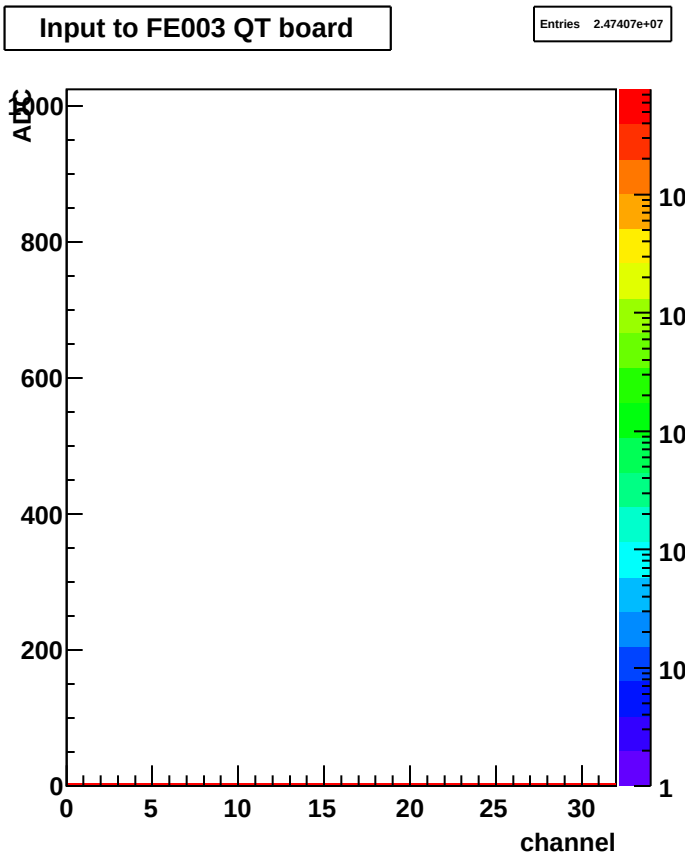

Input to FPD L2 DSM
Entries 2319441
HT bits
11
619
772517
773147
773147
SMALL
LARGE-S
LARGE-N

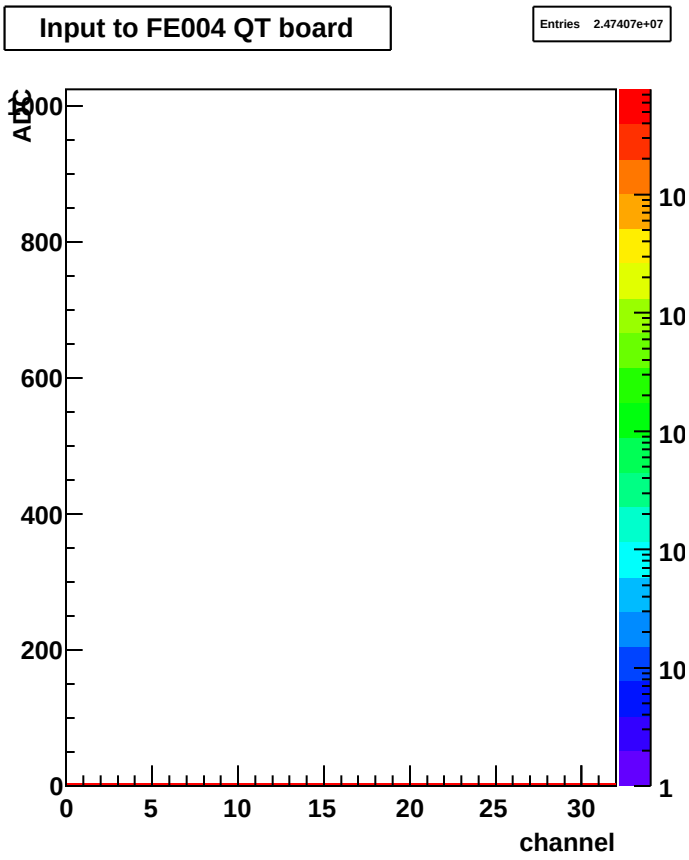

Input to FPD L2 DSM
Entries 1051
HT bits - simulated
4
571
471
4
1
SMALL
LARGE-S
LARGE-N

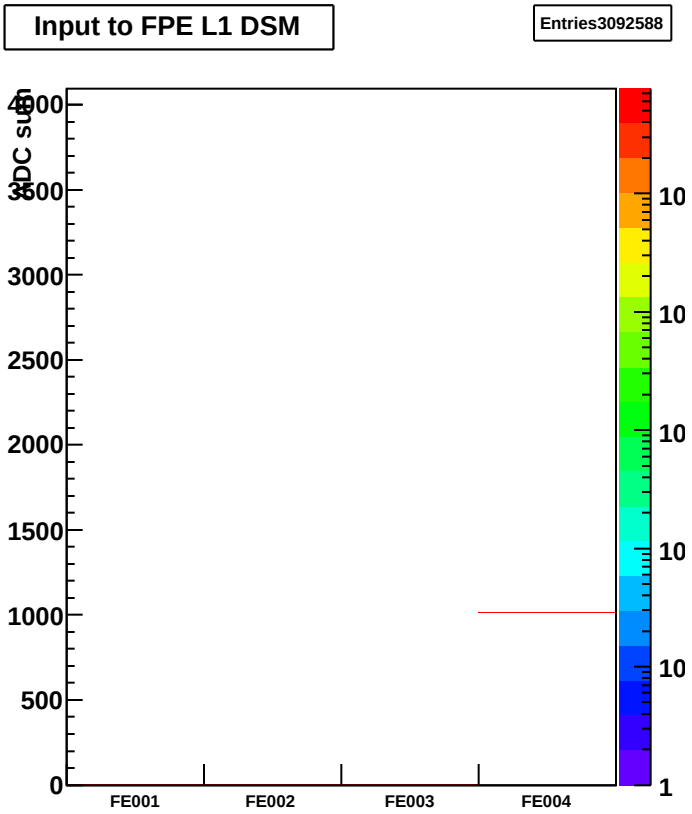

Input to FPD L2 DSM
Entries 4638882
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5


Input to FE001 QT board
Entries 2.47407e+07
ADC
channel

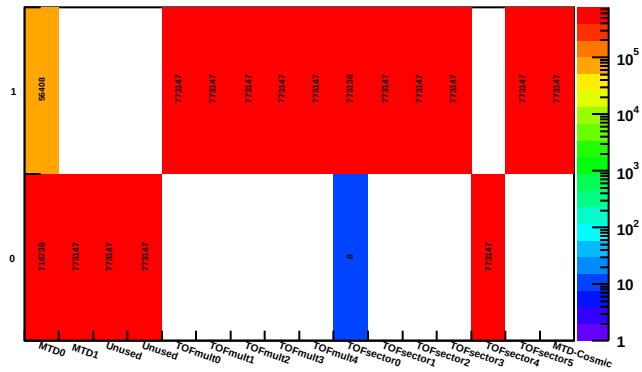

Input to FE002 QT board
Entries 2.47407e+07
ADC
channel


Input to FE003 QT board
Entries 2.47407e+07
ADC
channel

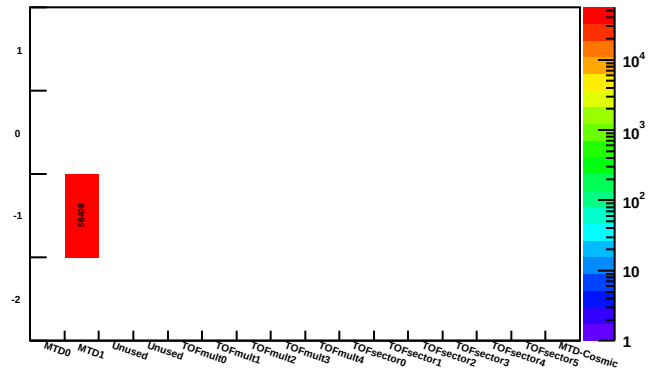

Input to FE004 QT board
Entries 2.47407e+07
ADC
channel


Input to FPE L1 DSM
Entries3092588
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1

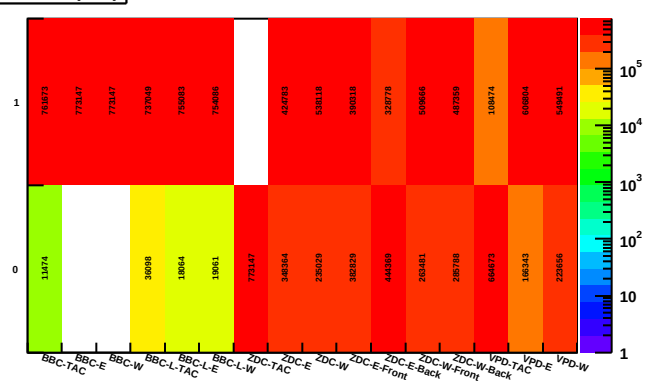
TF201 0-15 (ch0)



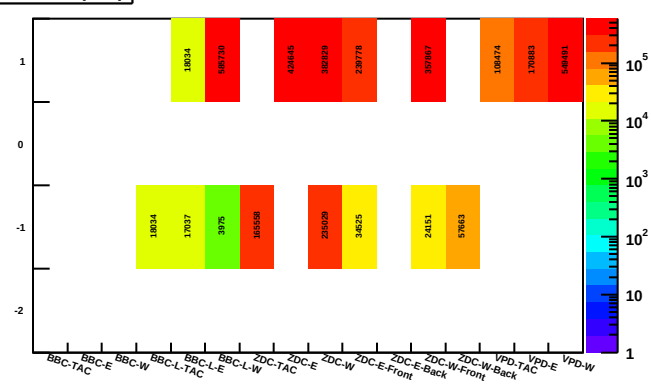
TF201 0-15 (ch0)



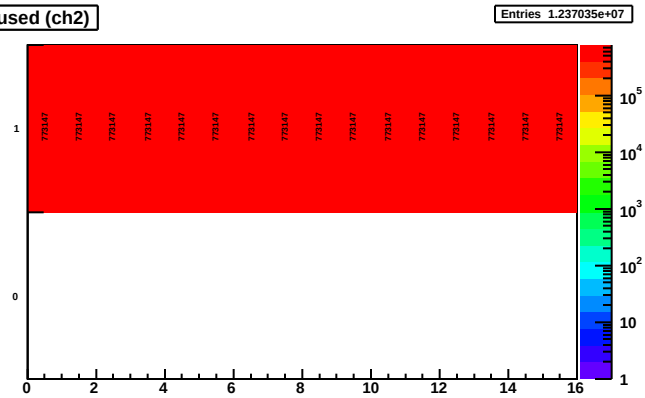
VT201 0-15 (ch1)

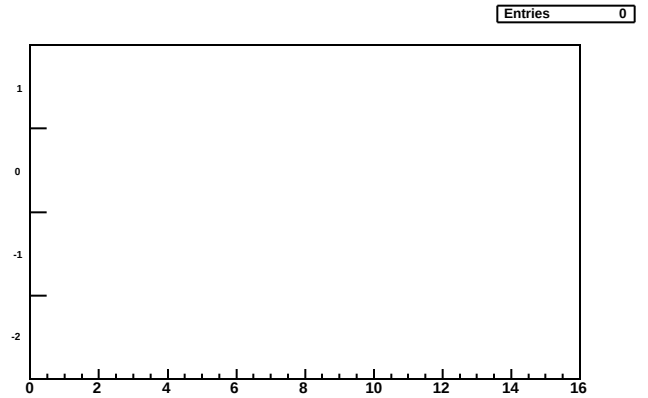


VT201 0-15 (ch1)

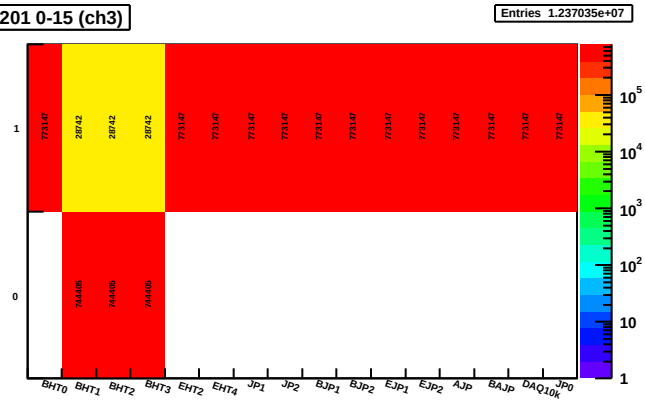


Unused (ch2)

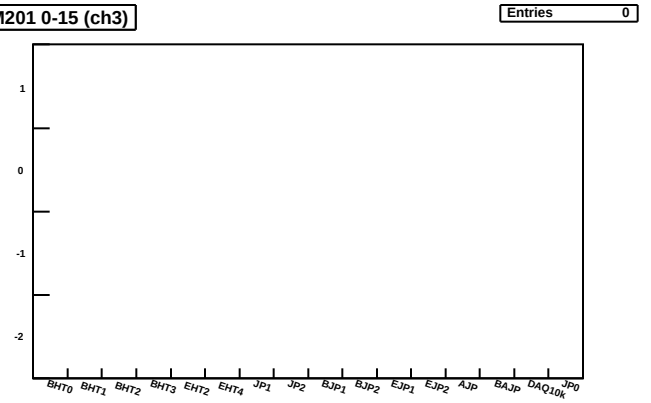


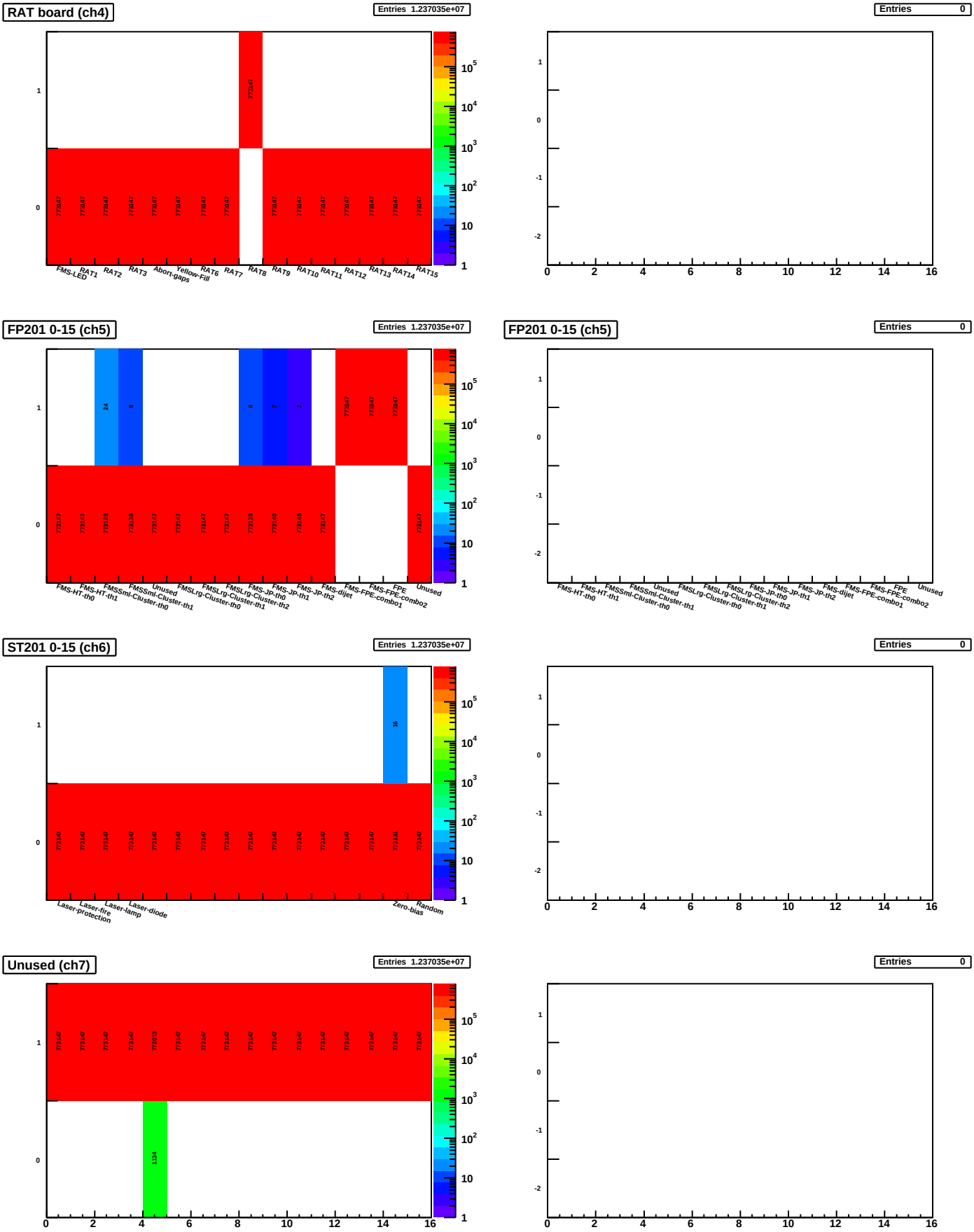


EM201 0-15 (ch3)



EM201 0-15 (ch3)




RAT board (ch4)
Entries 1.237035e+07
Entries 0
FMS-LED
RAT1
RAT2
RAT3
Abort-gaps
Yellow-Fill
RAT6
RAT7
RAT8
RAT9
RAT10
RAT11
RAT12
RAT13
RAT14
RAT15
FP201 0-15 (ch5)
Entries 1.237035e+07
Entries 0
FMS-HT-th0
FMS-HT-th1
FMSSml-Cluster-th0
FMSSml-Cluster-th1
Unused
FMSLrg-Cluster-th0
FMSLrg-Cluster-th1
FMSLrg-Cluster-th2
FMS-JP-th0
FMS-JP-th1
FMS-JP-th2
FMS-diJet
FMS-FPE-combo1
FMS-FPE-combo2
FPE
Unused
ST201 0-15 (ch6)
Entries 1.237035e+07
Entries 0
Laser-protection
Laser-fire
Laser-lamp
Laser-diode
Zero-bias
Random
Unused (ch7)
Entries 1.237035e+07
Entries 0