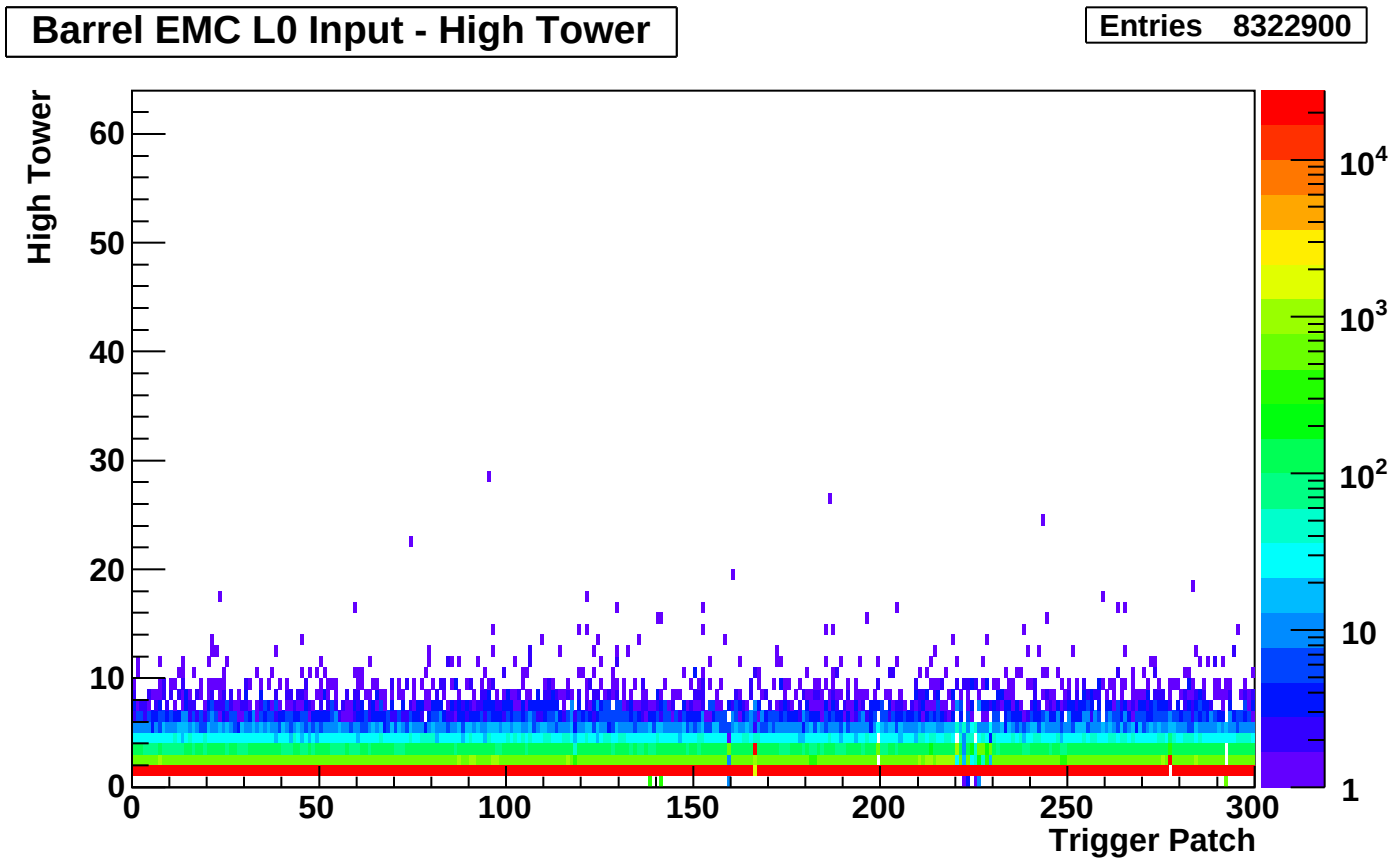
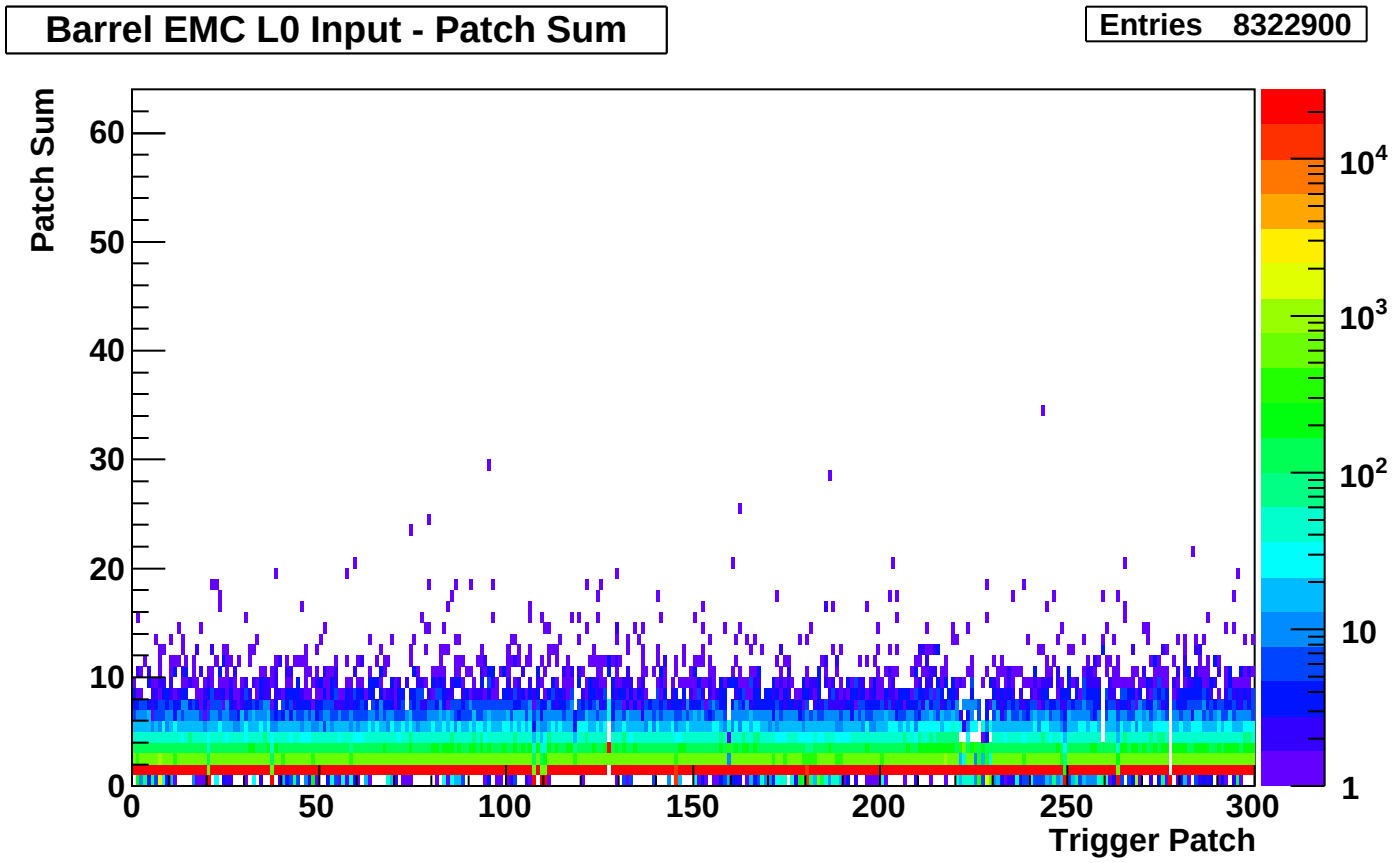
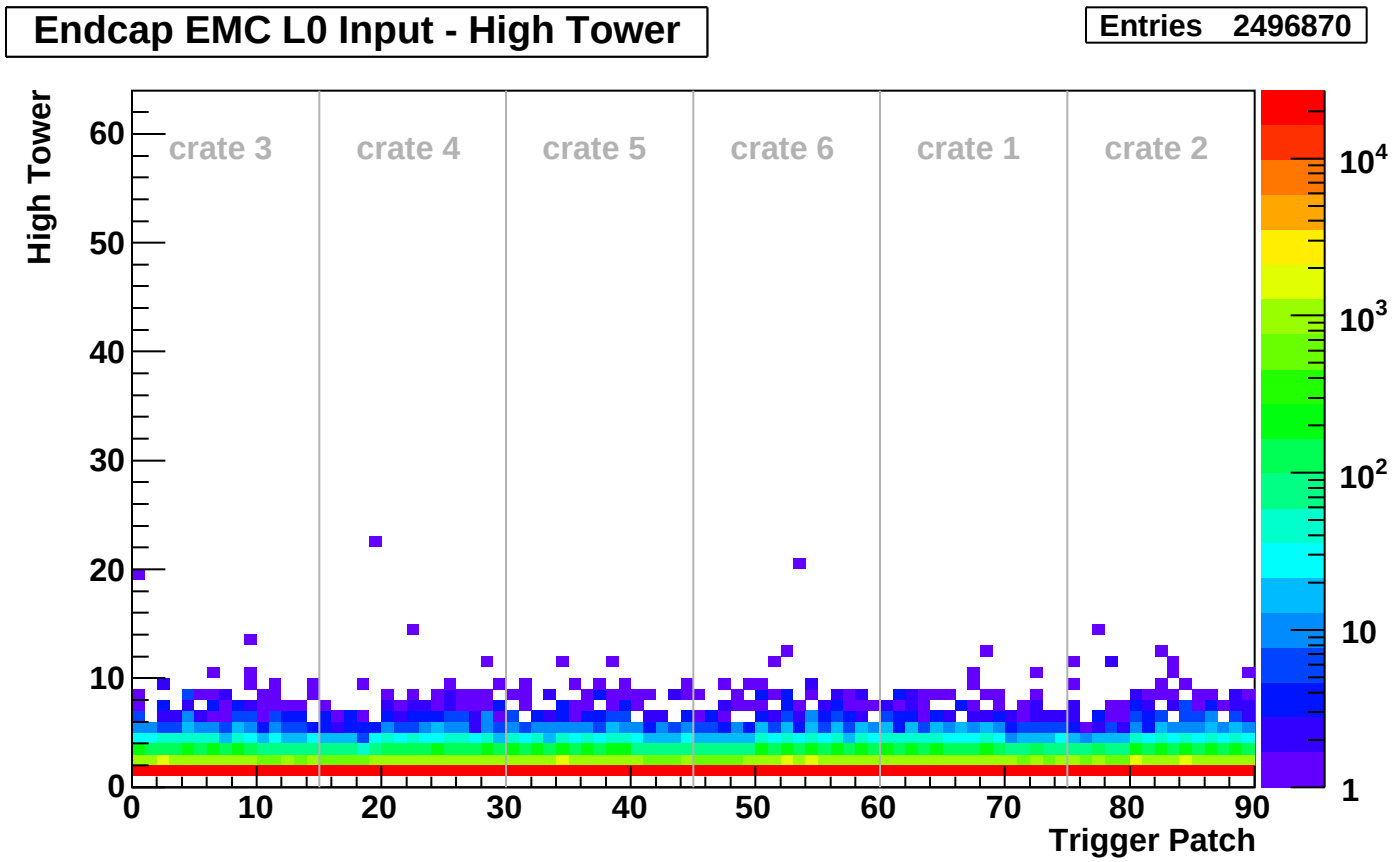
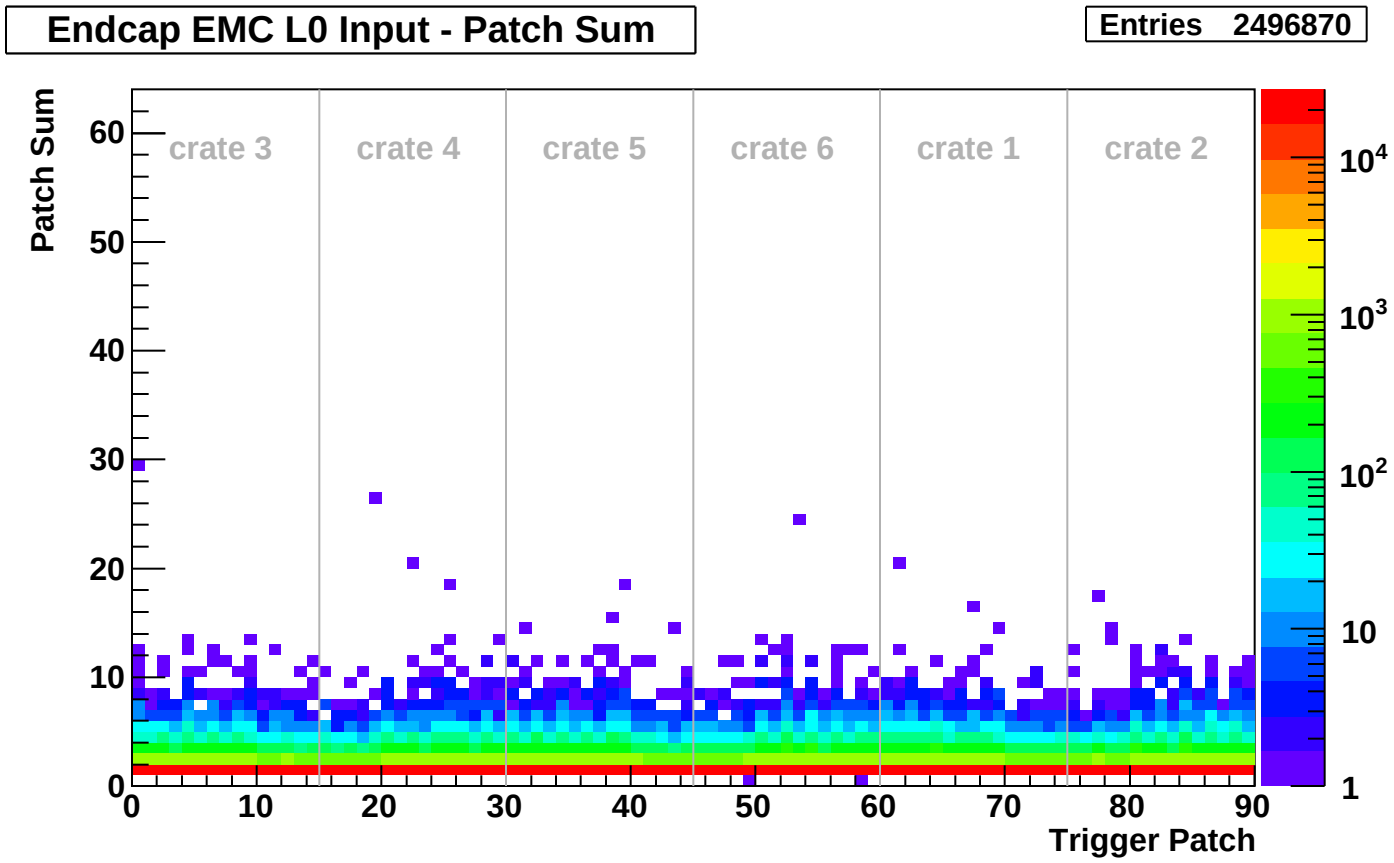
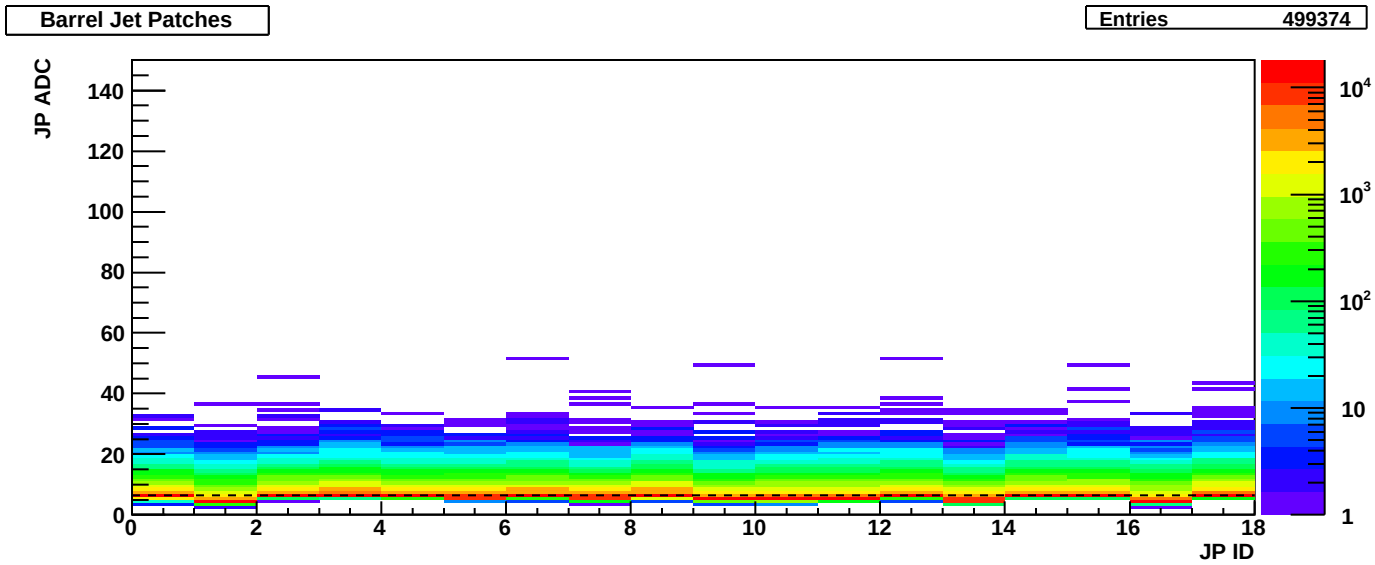
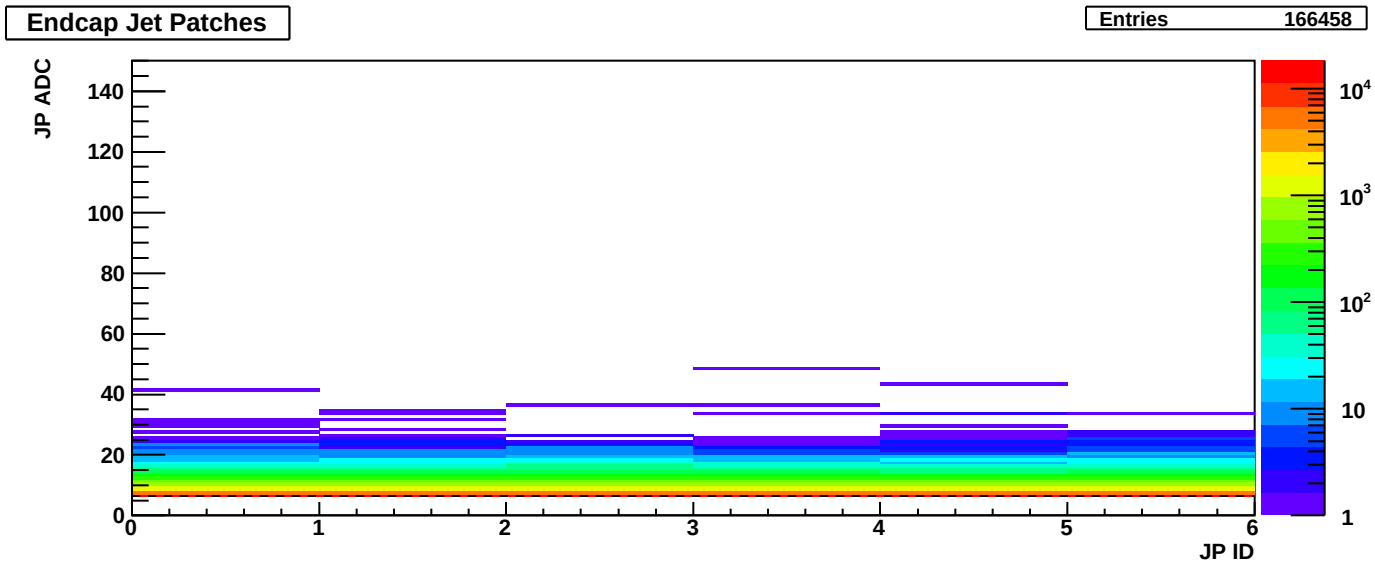

Barrel EMC L0 Input - High Tower
Entries 8322900
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

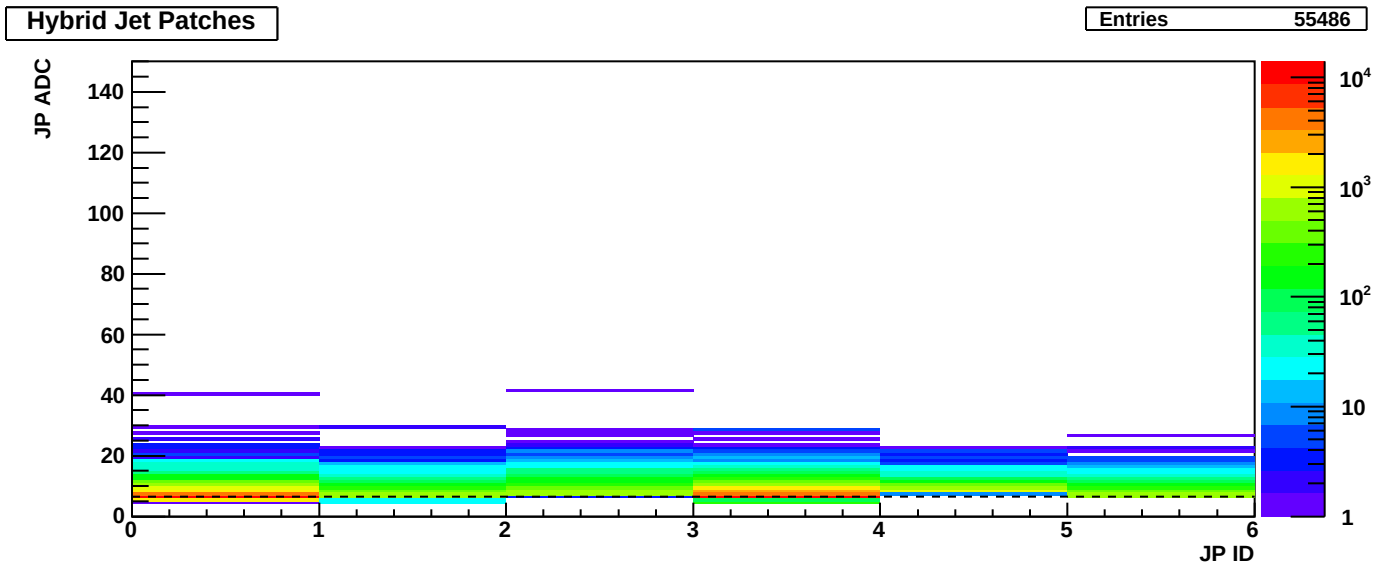

Barrel EMC L0 Input - Patch Sum
Entries 8322900
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

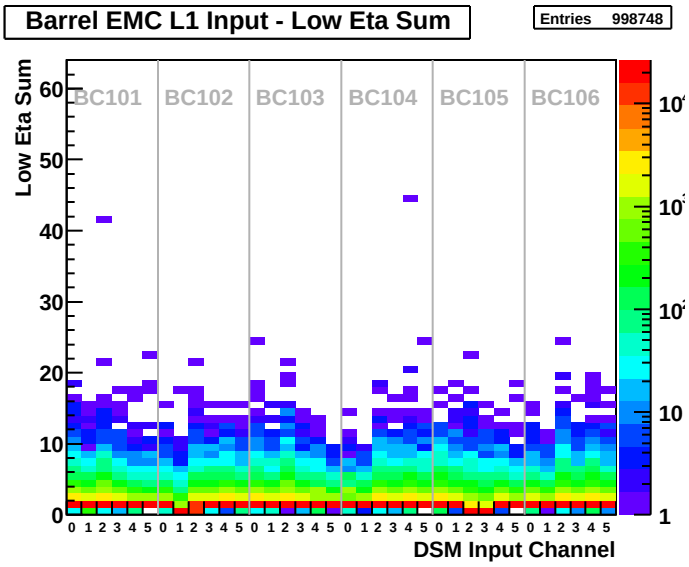

Endcap EMC L0 Input - High Tower
Entries 2496870
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

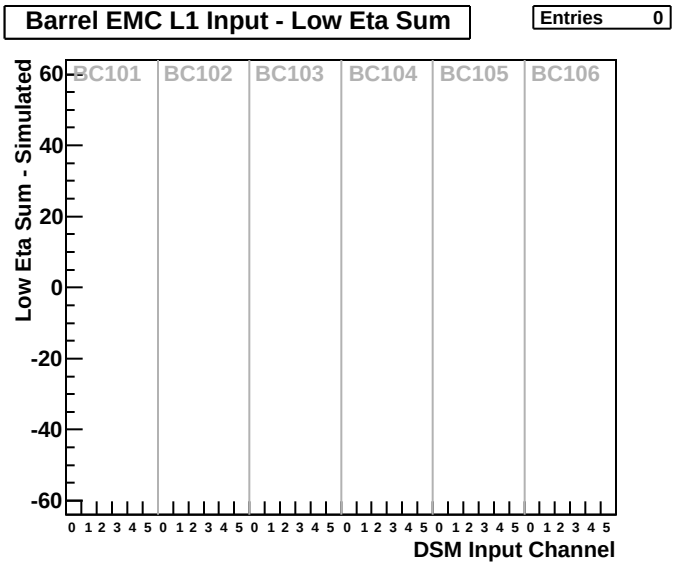

Endcap EMC L0 Input - Patch Sum
Entries 2496870
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

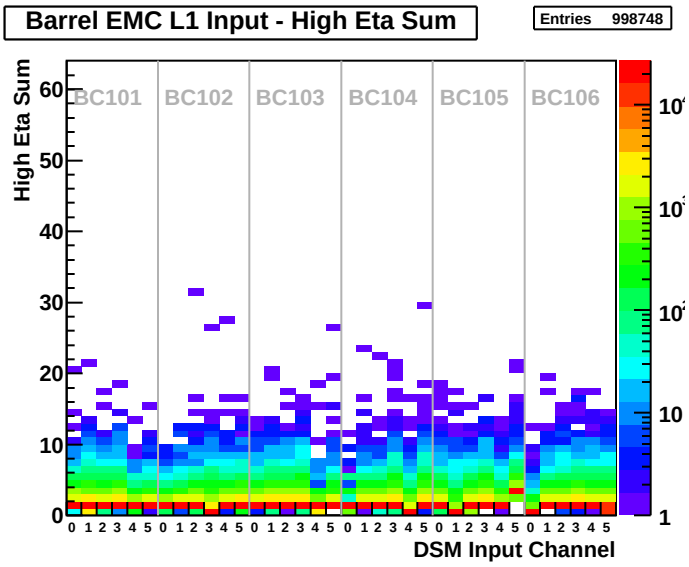

Barrel Jet Patches
Entries 499374
JP ADC
JP ID

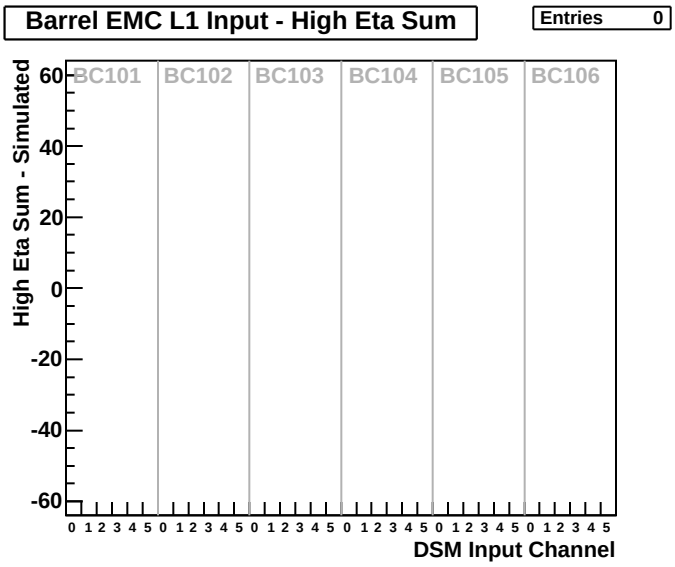

Endcap Jet Patches
Entries 166458
JP ADC
JP ID

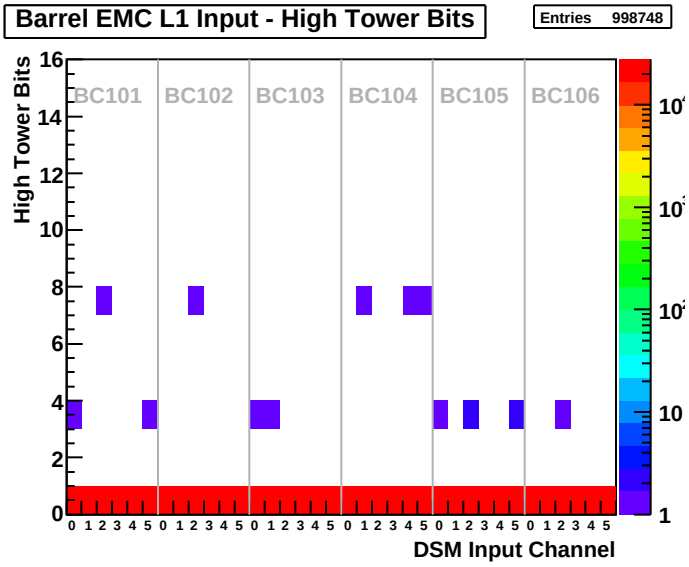

Hybrid Jet Patches
Entries 55486
JP ADC
JP ID

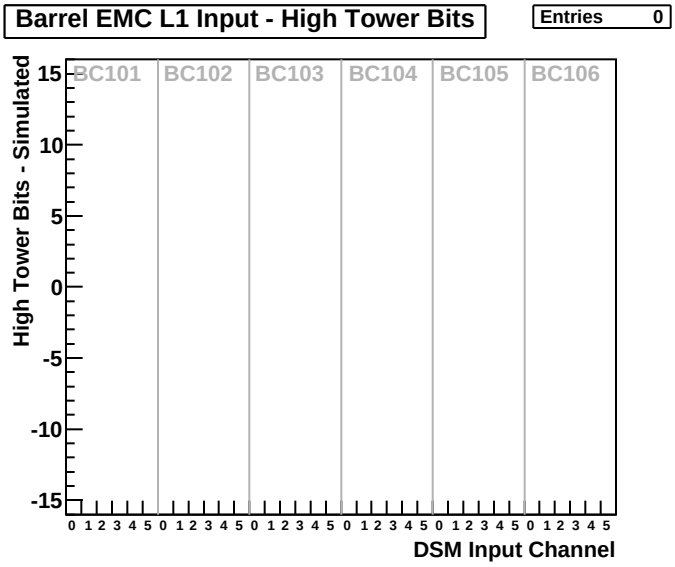

Barrel EMC L1 Input - Low Eta Sum
Entries 998748
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

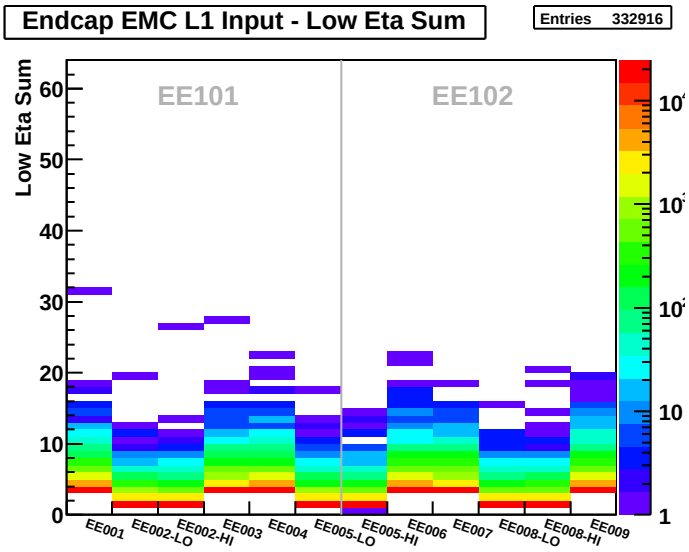

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

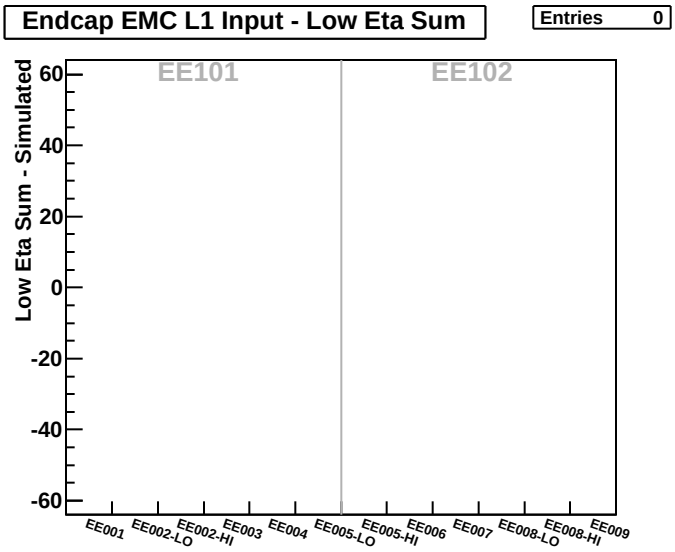

Barrel EMC L1 Input - High Eta Sum
Entries 998748
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

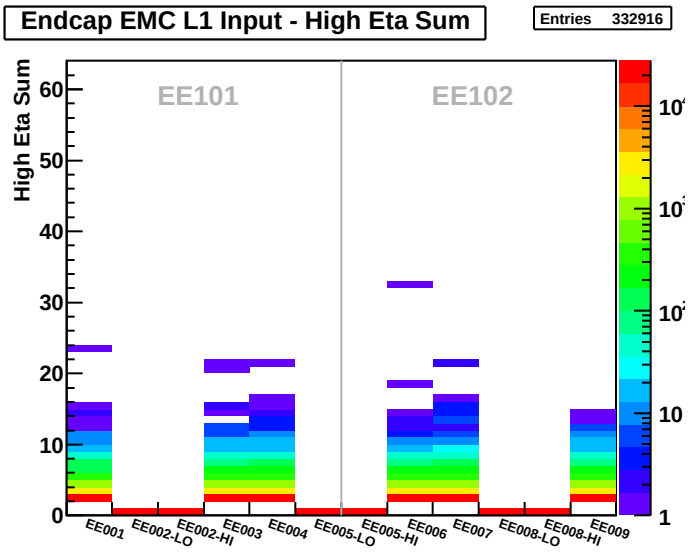

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

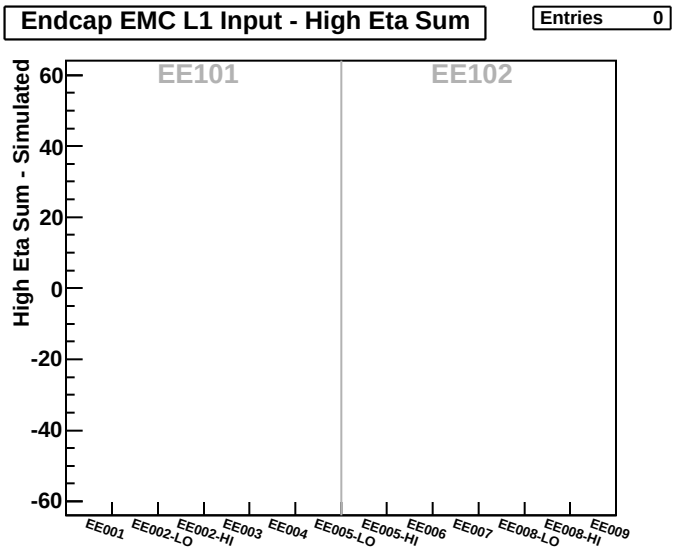

Barrel EMC L1 Input - High Tower Bits
Entries 998748
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

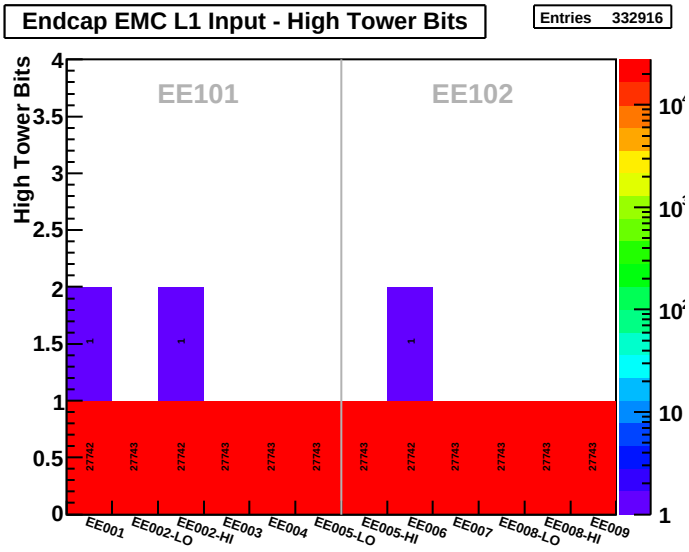

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

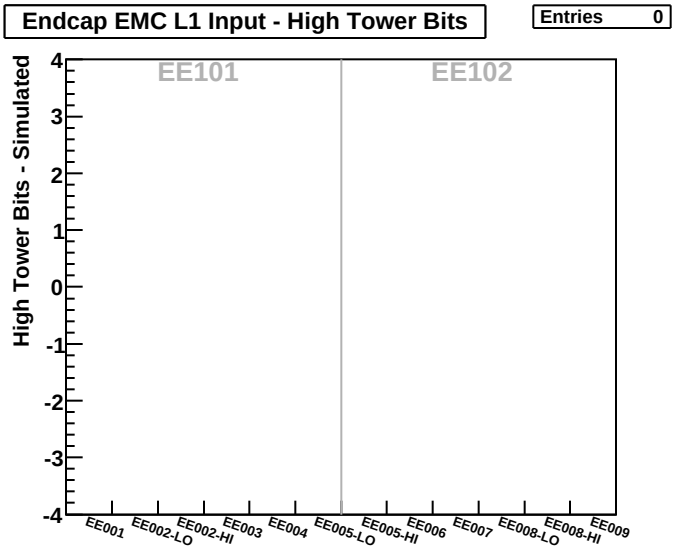

Endcap EMC L1 Input - Low Eta Sum
Entries 332916
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

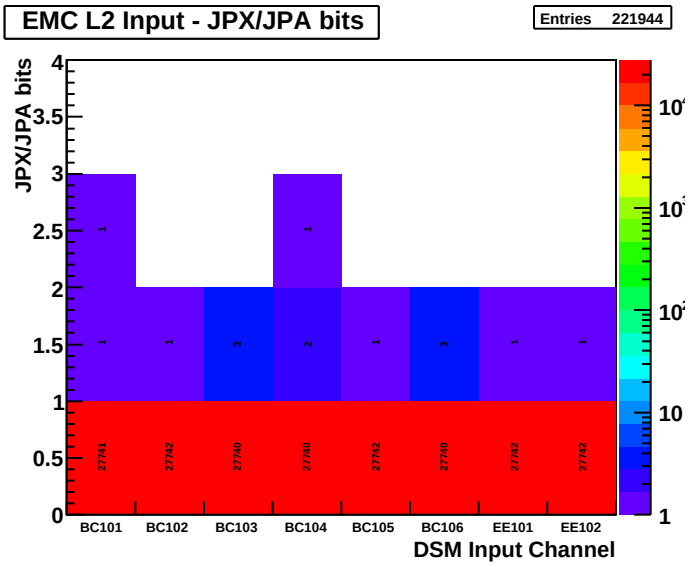

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

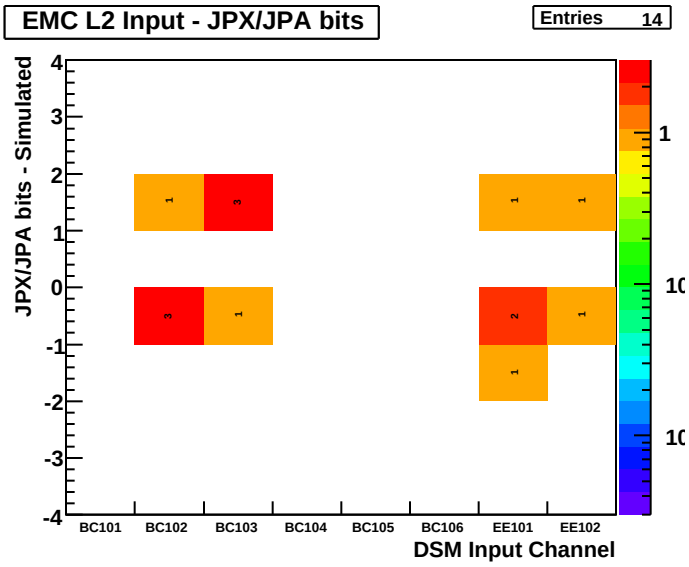

Endcap EMC L1 Input - High Eta Sum
Entries 332916
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

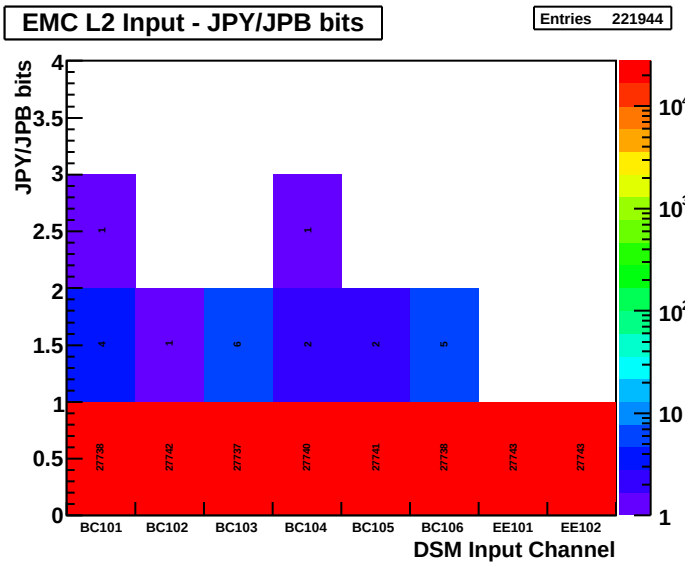

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

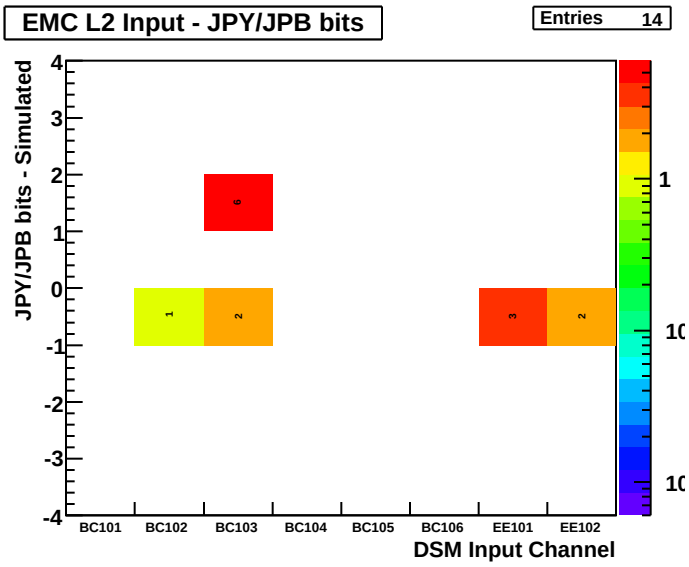

Endcap EMC L1 Input - High Tower Bits
Entries 332916
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

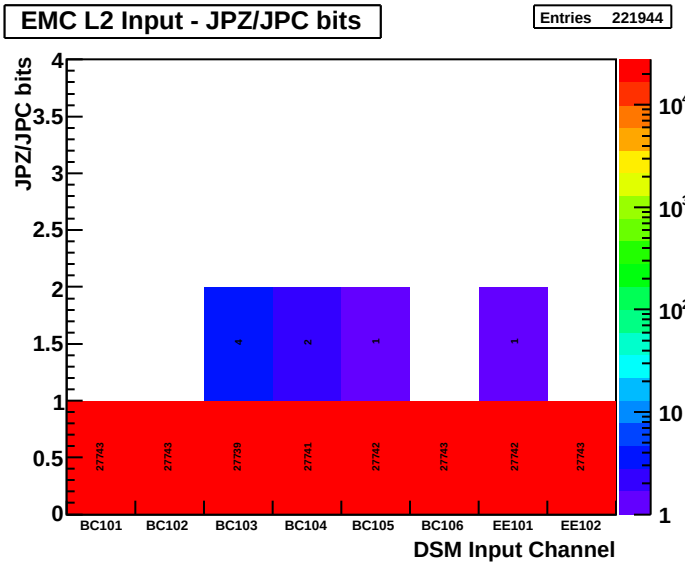

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

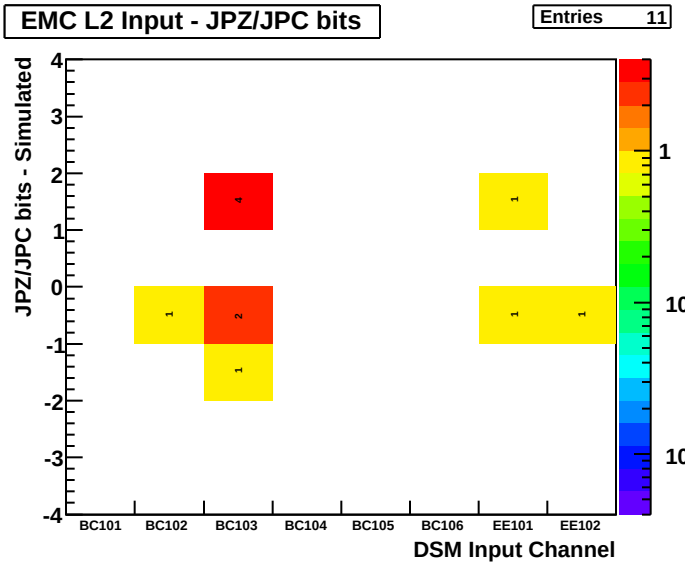

EMC L2 Input - JPX/JPA bits
Entries 221944
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

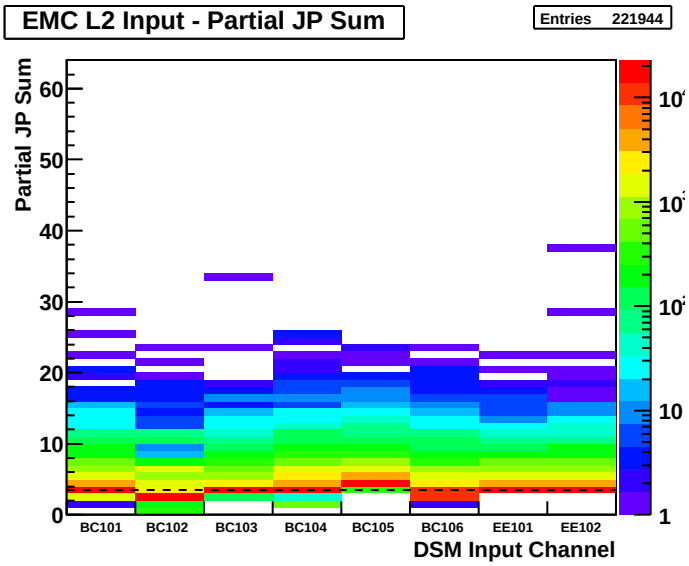

EMC L2 Input - JPX/JPA bits
Entries 14
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

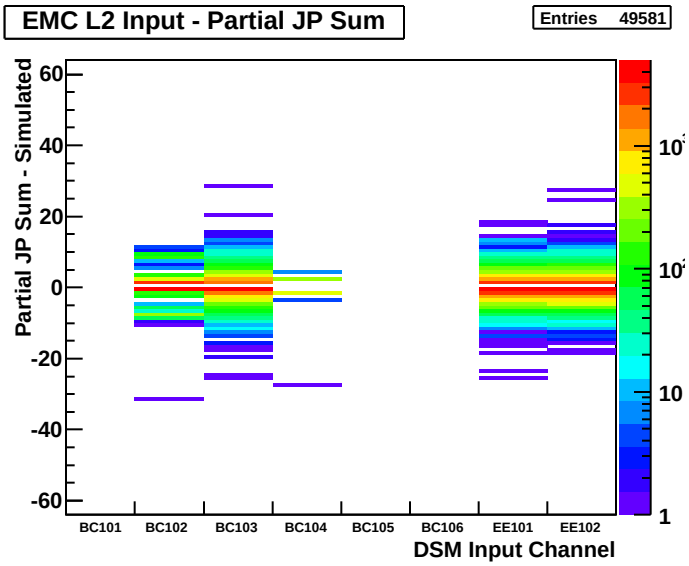

EMC L2 Input - JPY/JPB bits
Entries 221944
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

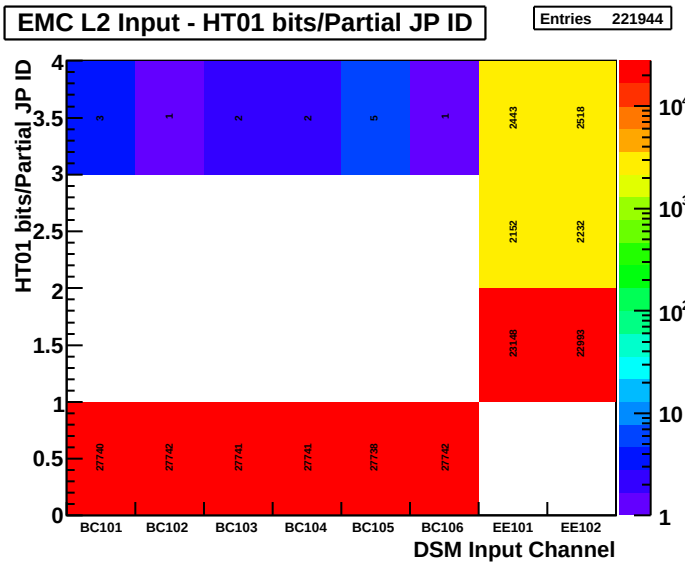

EMC L2 Input - JPY/JPB bits
Entries 14
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

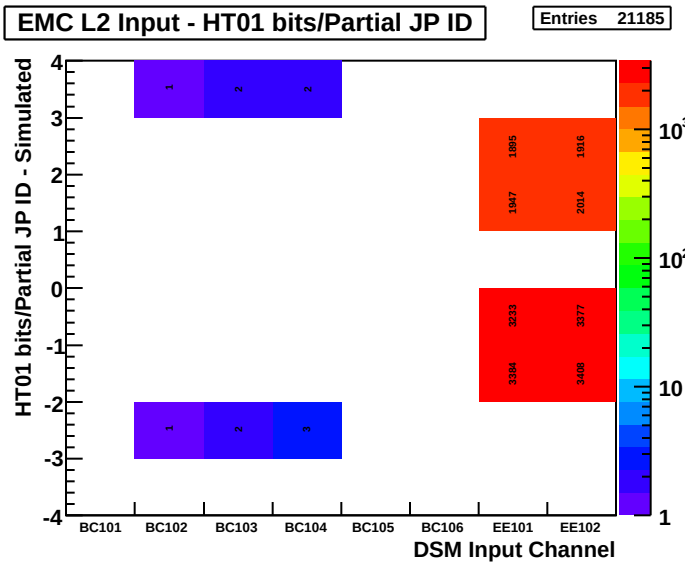

EMC L2 Input - JPZ/JPC bits
Entries 221944
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

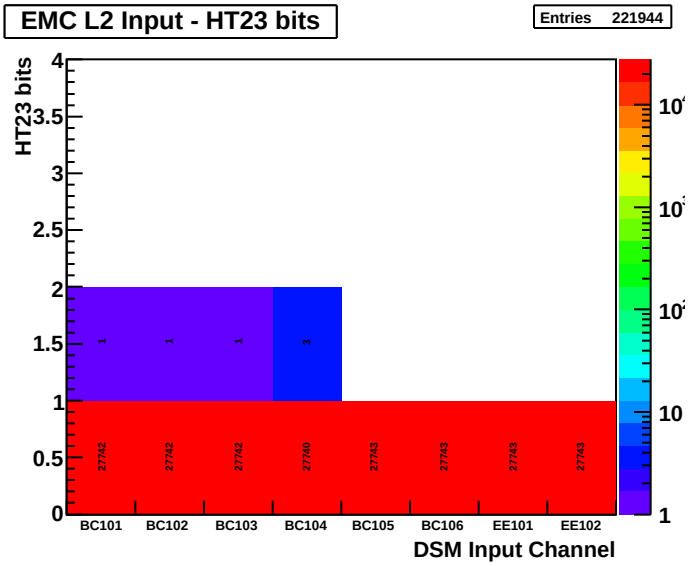

EMC L2 Input - JPZ/JPC bits
Entries 11
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

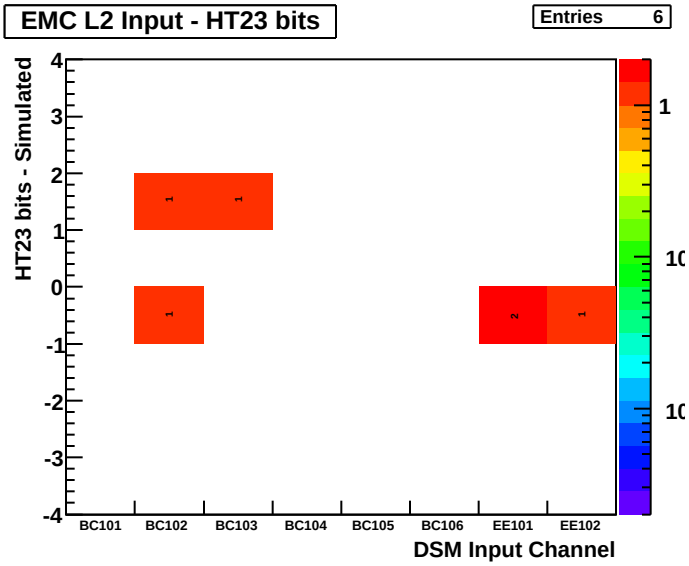

EMC L2 Input - Partial JP Sum
Entries 221944
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

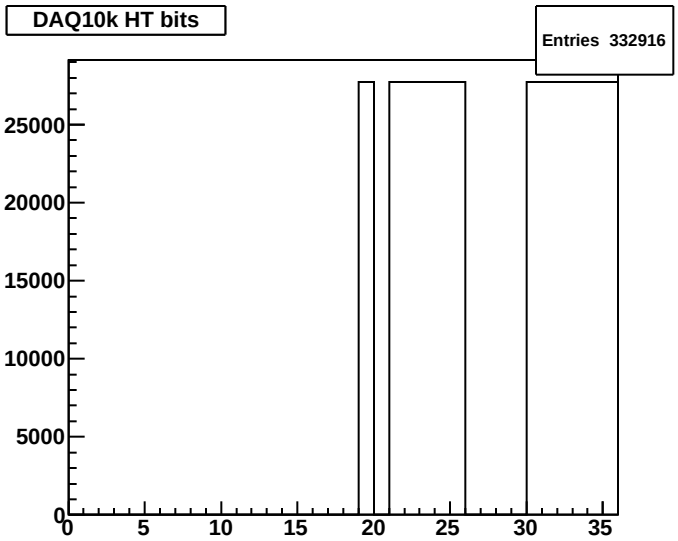

EMC L2 Input - Partial JP Sum
Entries 49581
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

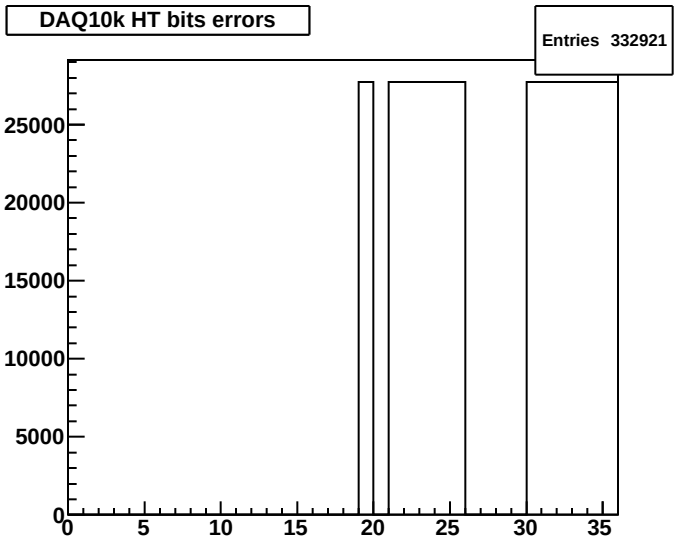

EMC L2 Input - HT01 bits/Partial JP ID
Entries 221944
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

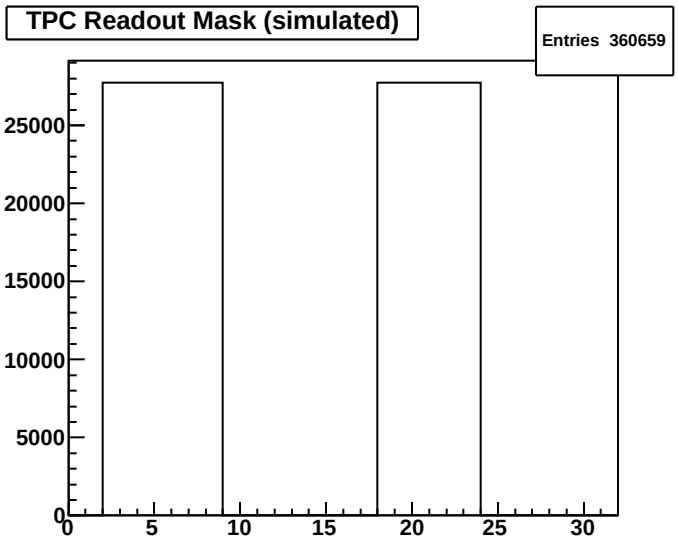

EMC L2 Input - HT01 bits/Partial JP ID
Entries 21185
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

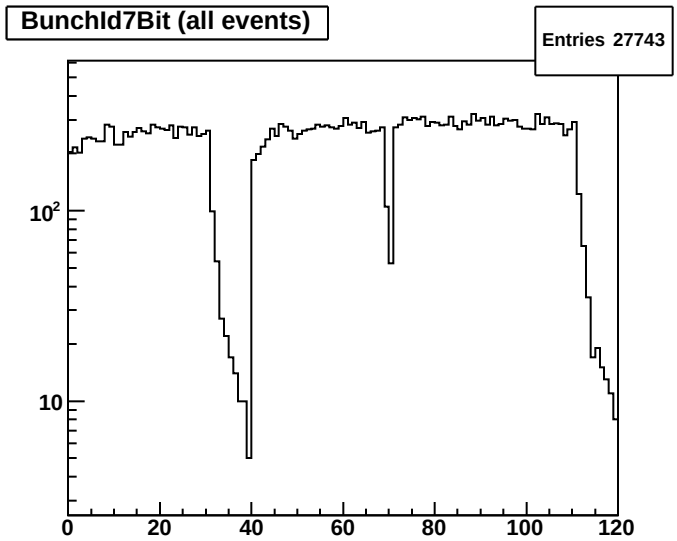

EMC L2 Input - HT23 bits
Entries 221944
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

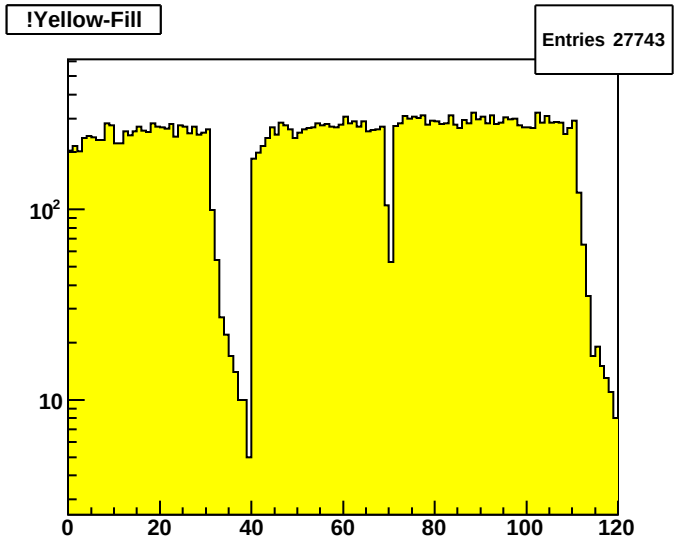

EMC L2 Input - HT23 bits
Entries 6
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

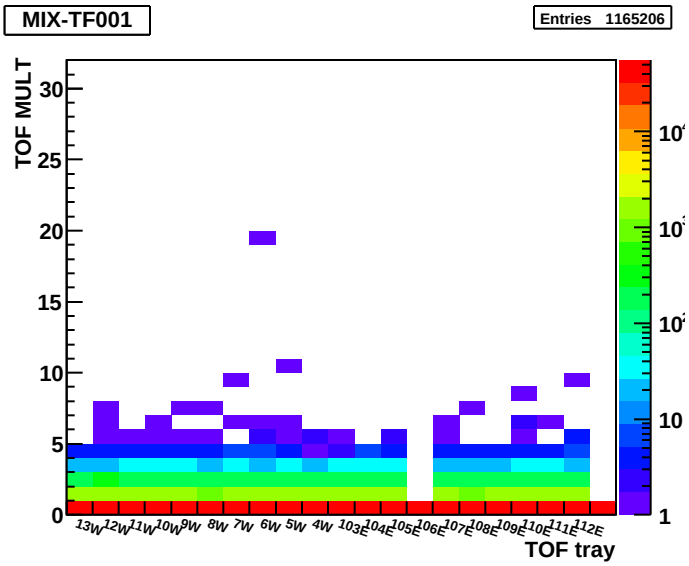

DAQ10k HT bits
Entries 332916
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

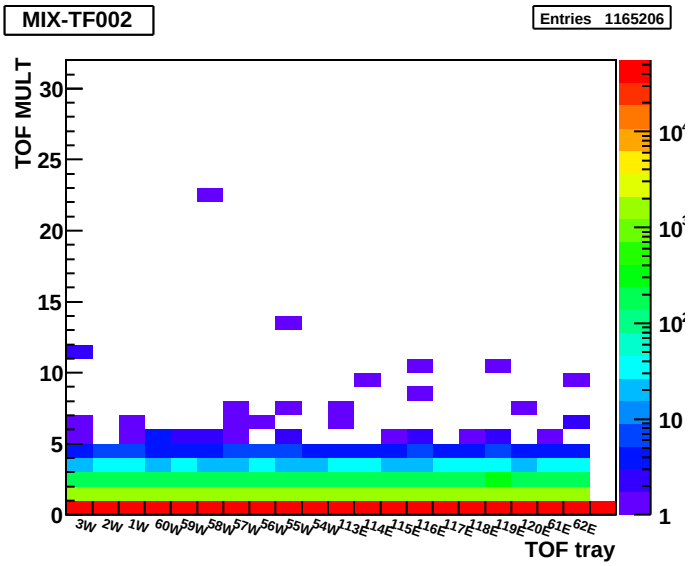

DAQ10k HT bits errors
Entries 332921
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

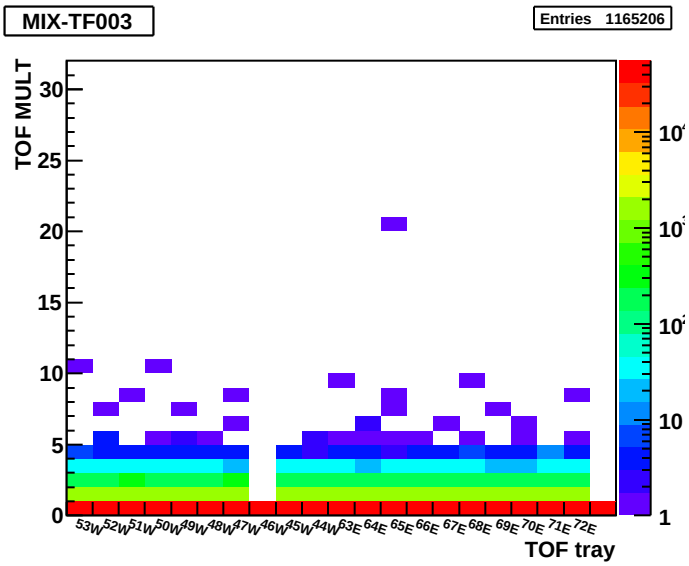

TPC Readout Mask (simulated)
Entries 360659
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

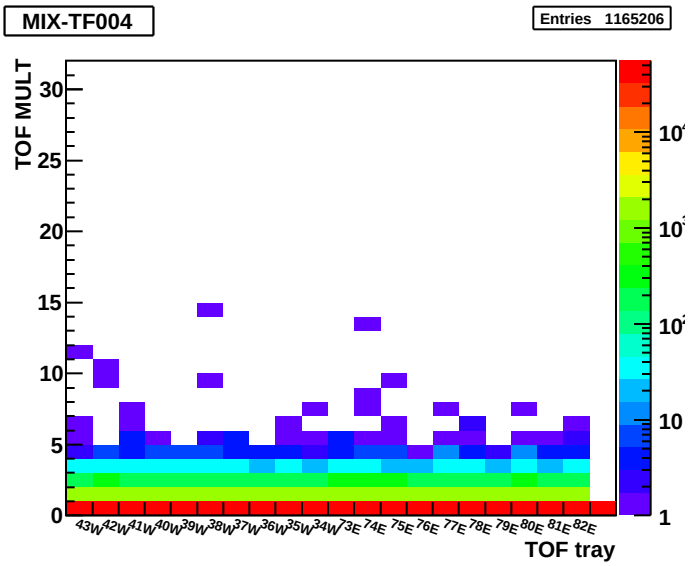

BunchId7Bit (all events)
Entries 27743
10^2
10
0 20 40 60 80 100 120

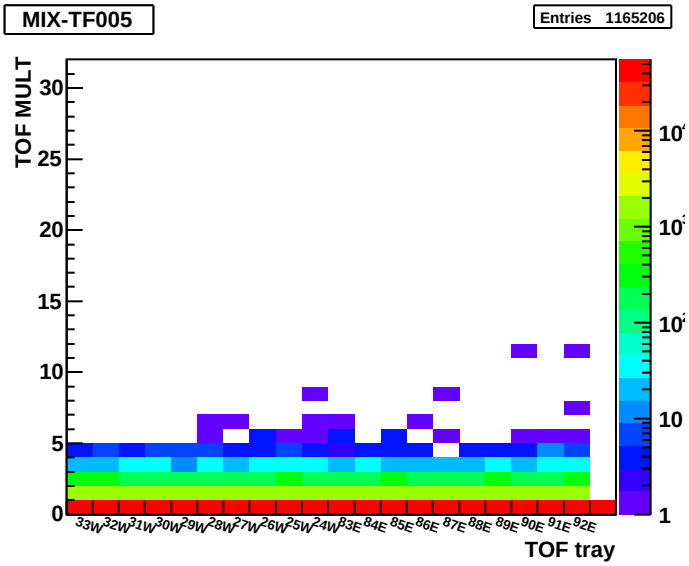

!Yellow-Fill
Entries 27743
10^2
10
0 20 40 60 80 100 120

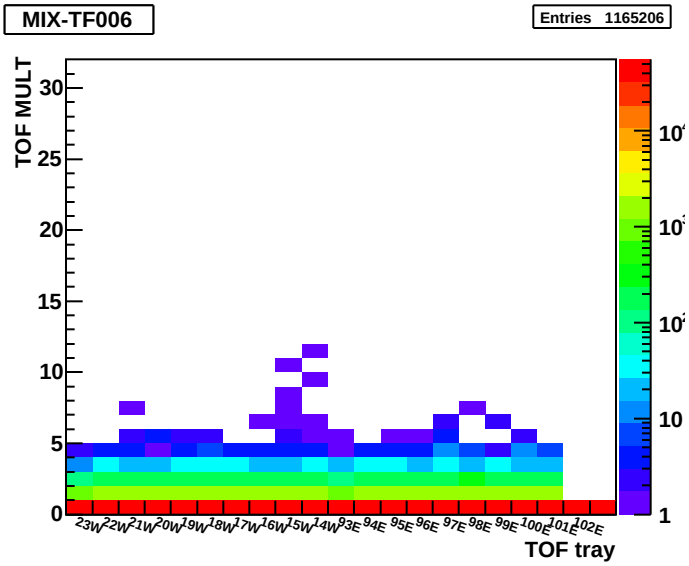

MIX-TF001
Entries 1165206
TOF MULT
TOF tray

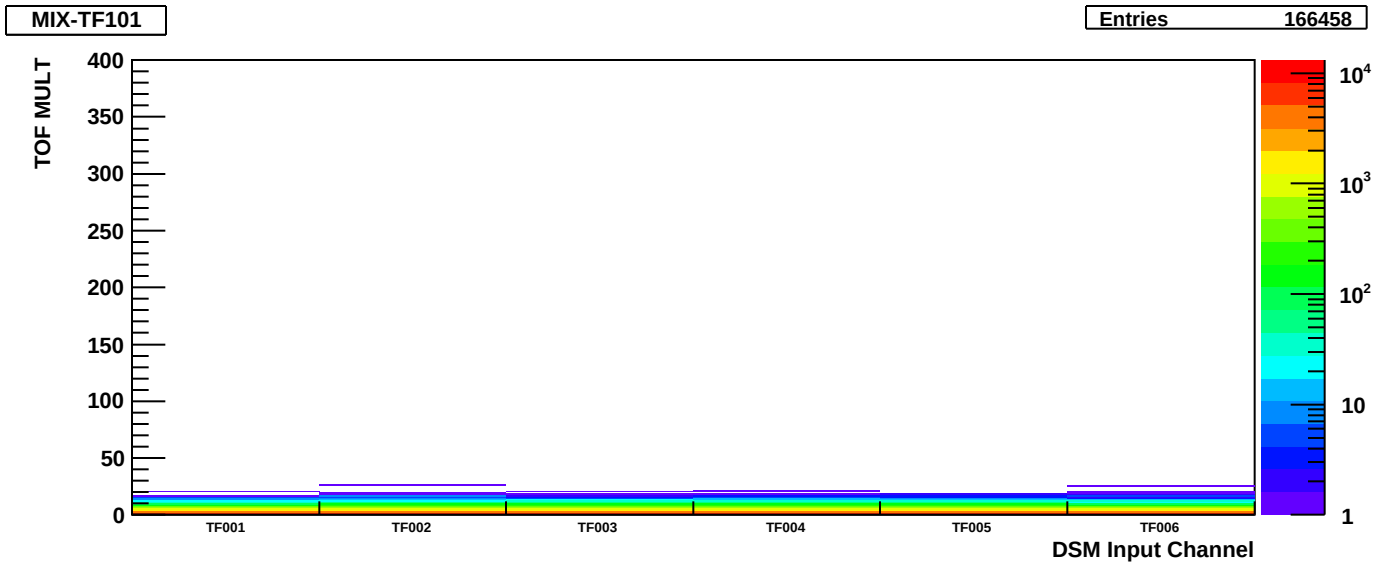

MIX-TF002
Entries 1165206
TOF MULT
TOF tray

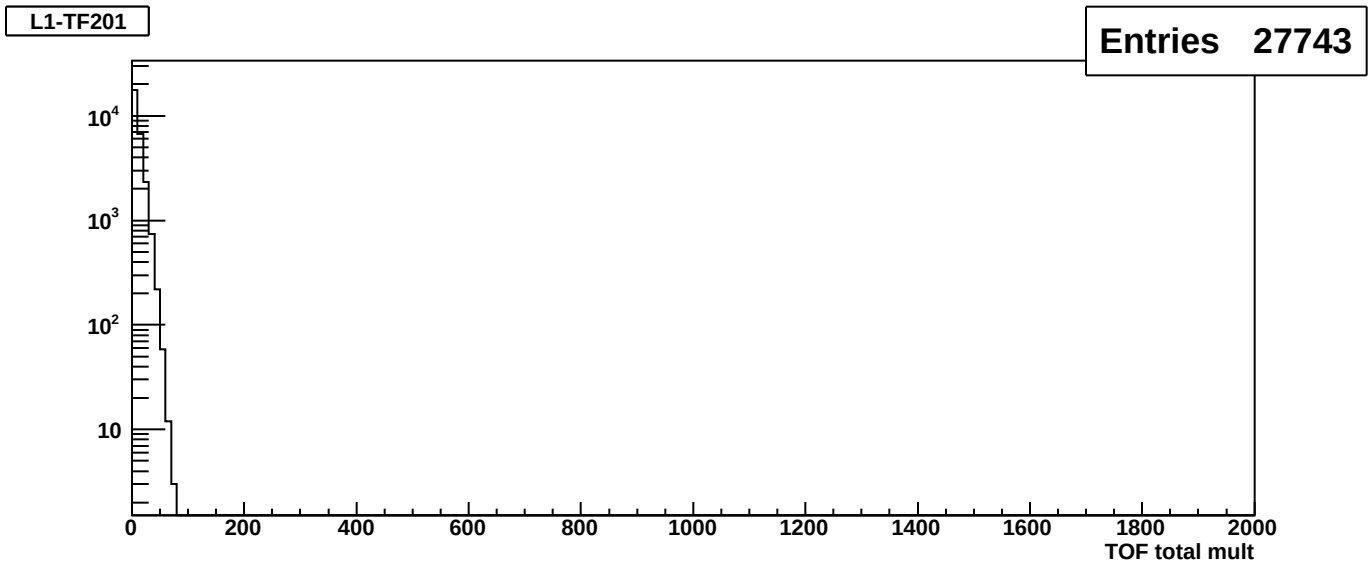

MIX-TF003
Entries 1165206
TOF MULT
TOF tray

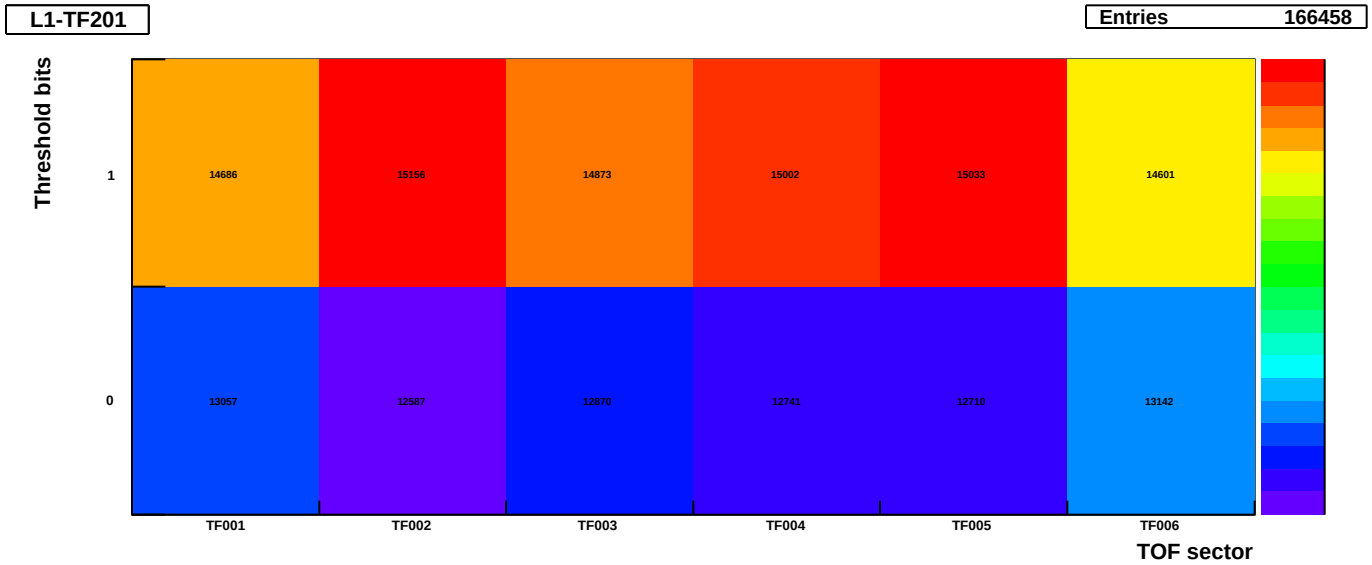

MIX-TF004
Entries 1165206
TOF MULT
TOF tray

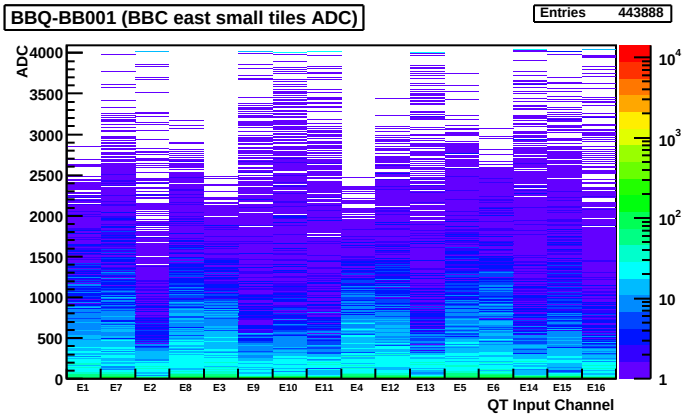

MIX-TF005
Entries 1165206
TOF MULT
TOF tray

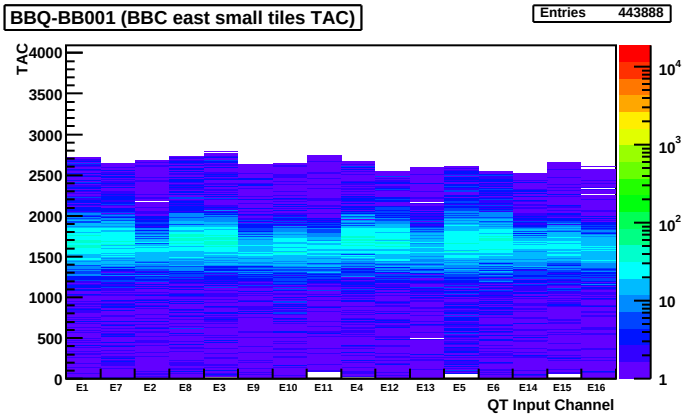

MIX-TF006
Entries 1165206
TOF MULT
TOF tray

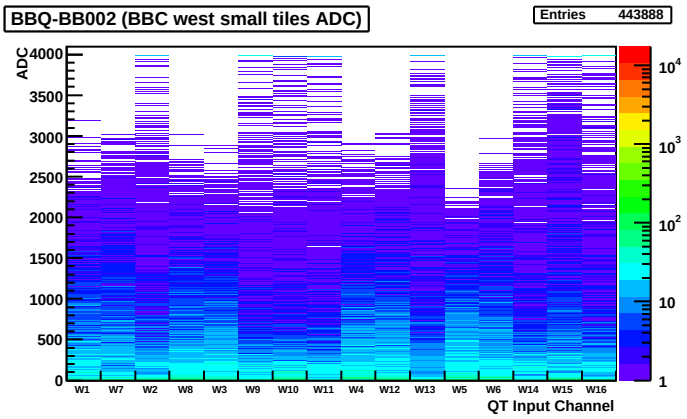

MIX-TF101
Entries 166458
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

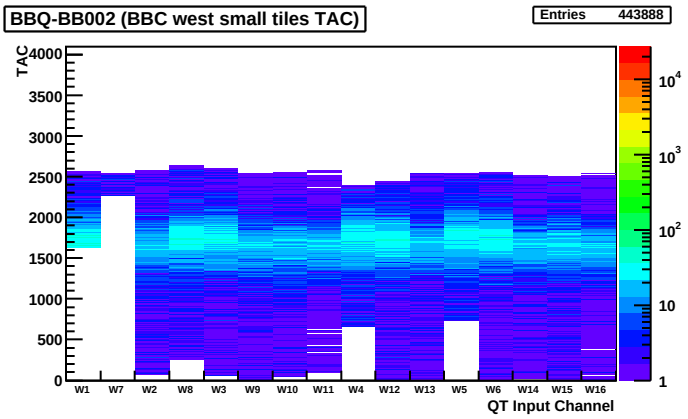

L1-TF201
Entries 27743
10^4
10^3
10^2
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

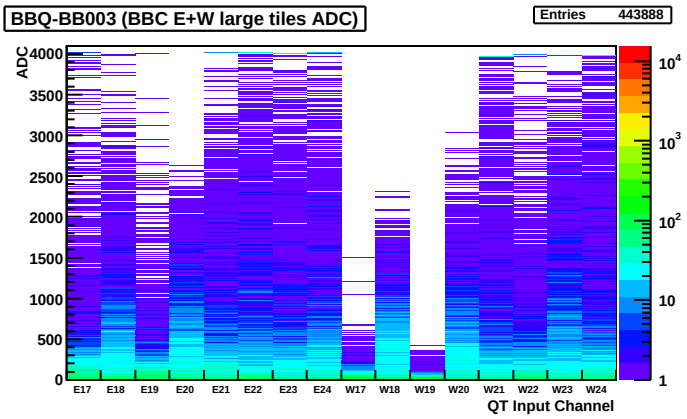

L1-TF201
Entries 166458
Threshold bits
1
0
14686
15156
14873
15002
15033
14601
13057
12587
12870
12741
12710
13142
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

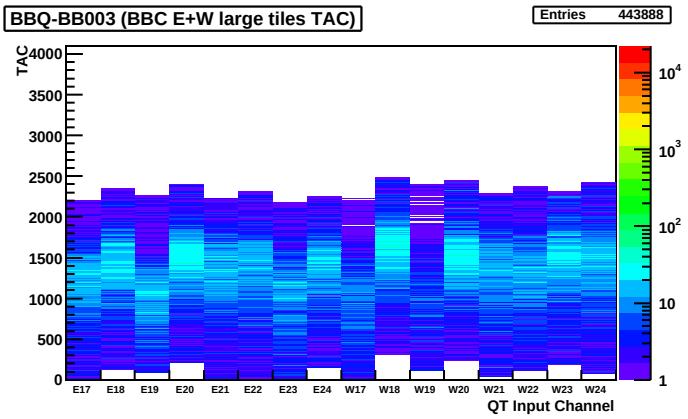

BBQ-BB001 (BBC east small tiles ADC)
Entries 443888
ADC
QT Input Channel

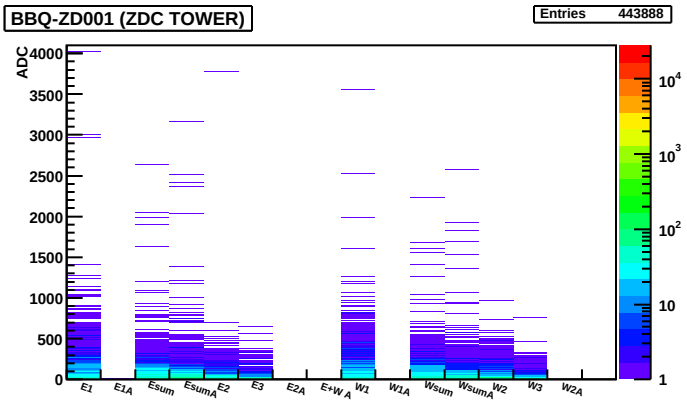

BBQ-BB001 (BBC east small tiles TAC)
Entries 443888
TAC
QT Input Channel

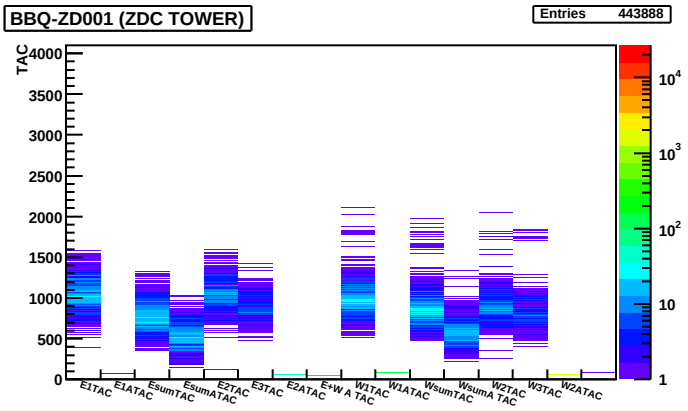

BBQ-BB002 (BBC west small tiles ADC)
Entries 443888
ADC
QT Input Channel

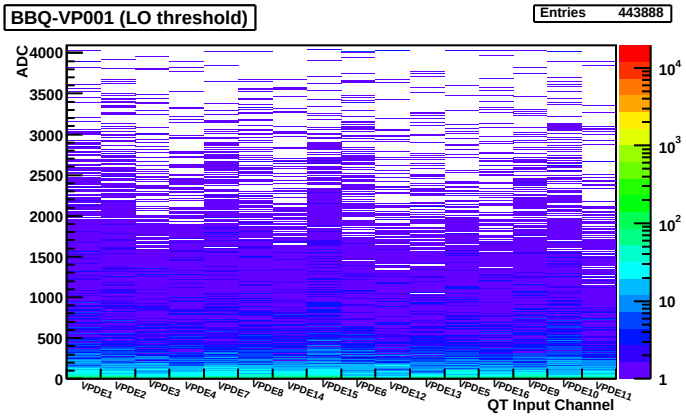

BBQ-BB002 (BBC west small tiles TAC)
Entries 443888
TAC
QT Input Channel

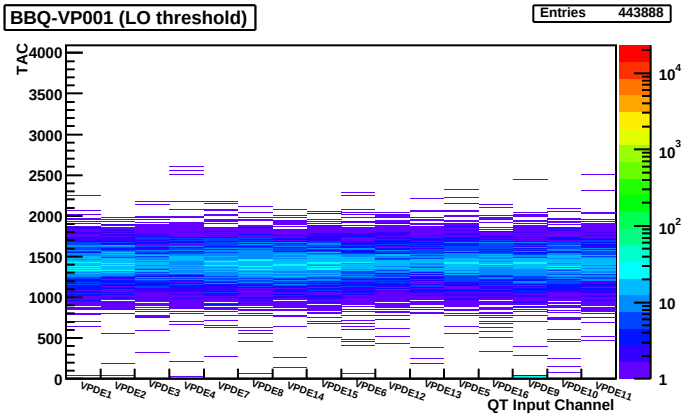

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 443888
ADC
QT Input Channel

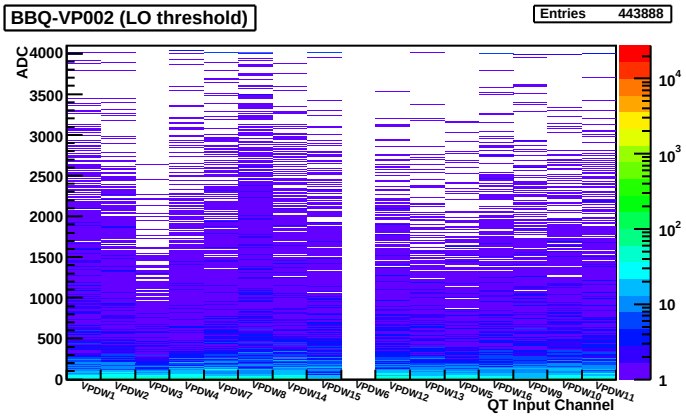

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 443888
TAC
QT Input Channel

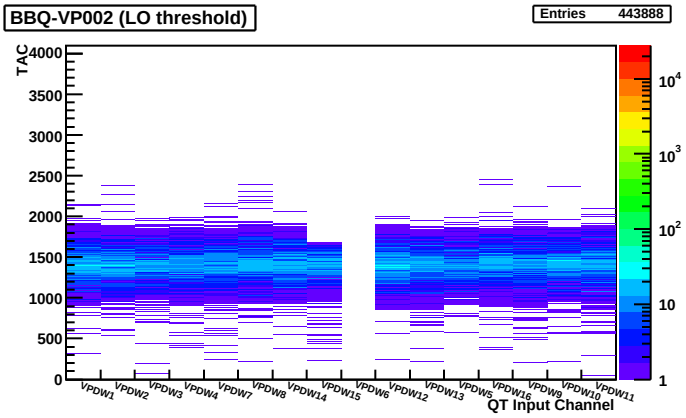

BBQ-ZD001 (ZDC TOWER)
Entries 443888
ADC

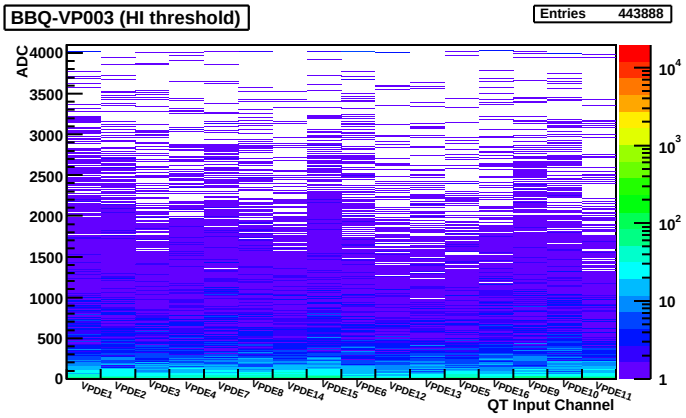

BBQ-ZD001 (ZDC TOWER)
Entries 443888
TAC

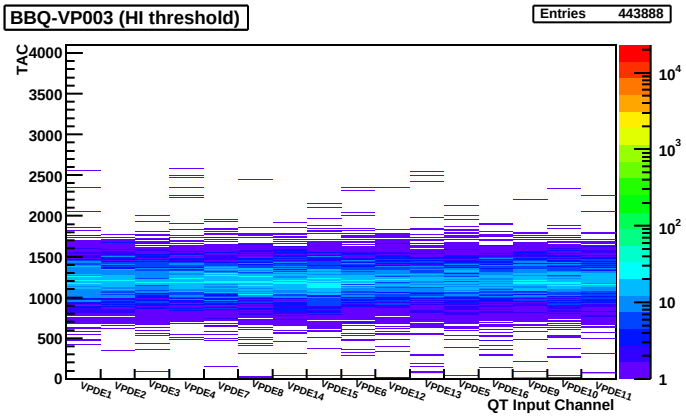

BBQ-VP001 (LO threshold)
Entries 443888
ADC
QT Input Channel

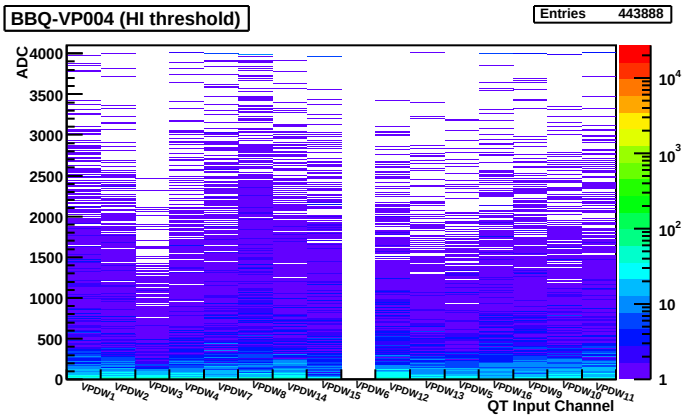

BBQ-VP001 (LO threshold)
Entries 443888
TAC
QT Input Channel

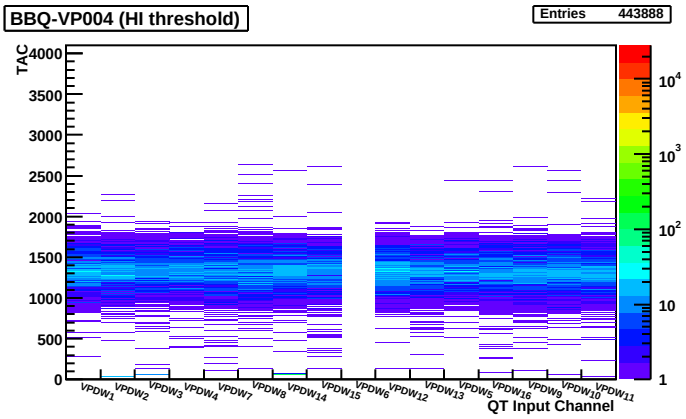

BBQ-VP002 (LO threshold)
Entries 443888
ADC
QT Input Channel

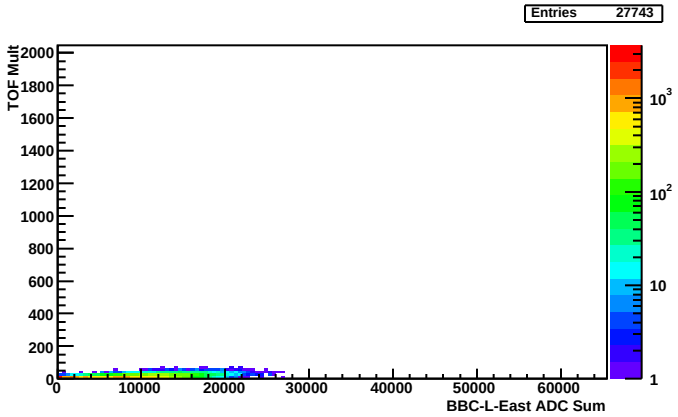

BBQ-VP002 (LO threshold)
Entries 443888
TAC
QT Input Channel

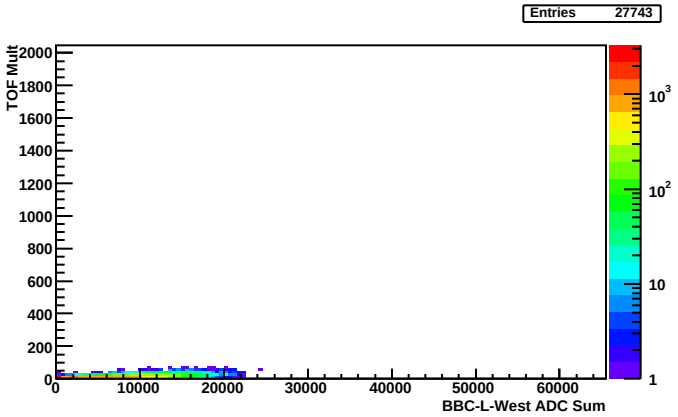

BBQ-VP003 (HI threshold)
Entries 443888
ADC
QT Input Channel

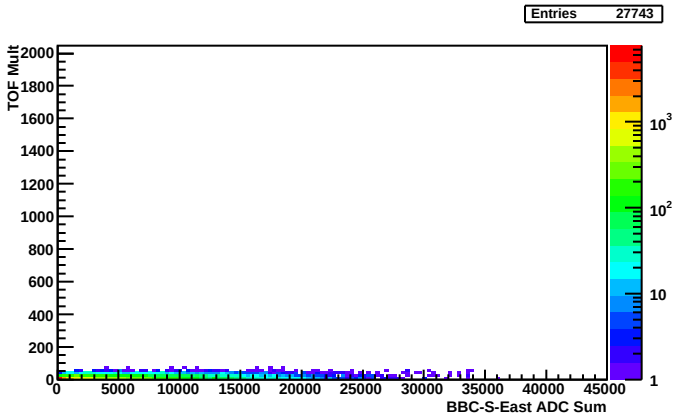

BBQ-VP003 (HI threshold)
Entries 443888
TAC
QT Input Channel

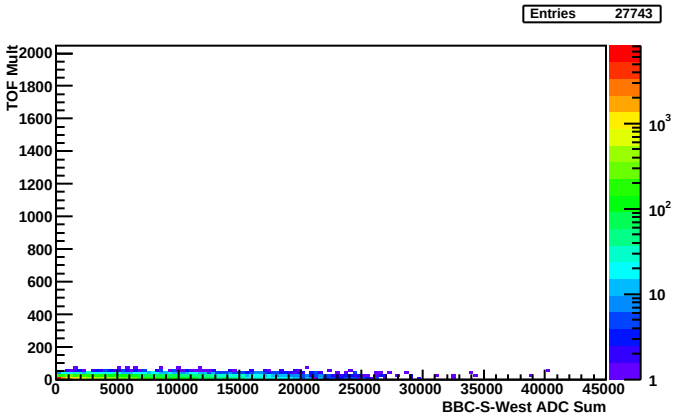

BBQ-VP004 (HI threshold)
Entries 443888
ADC
QT Input Channel

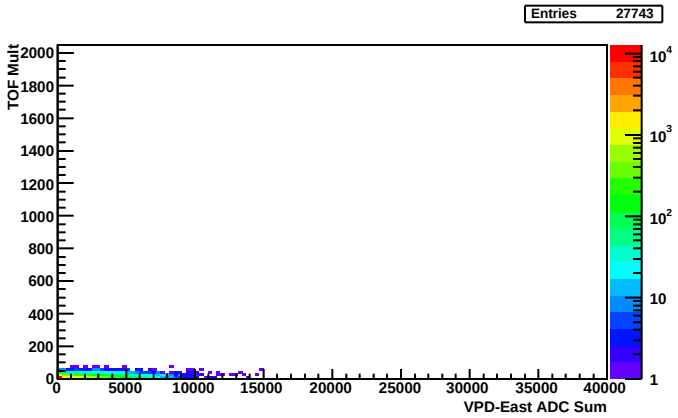

BBQ-VP004 (HI threshold)
Entries 443888
TAC
QT Input Channel

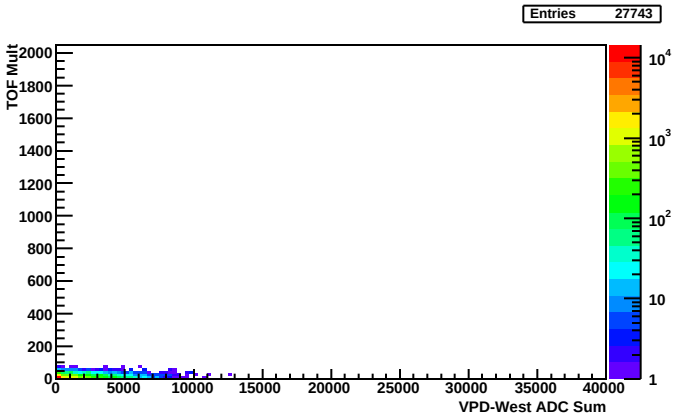

Entries 27743
TOF Mult
BBC-L-East ADC Sum

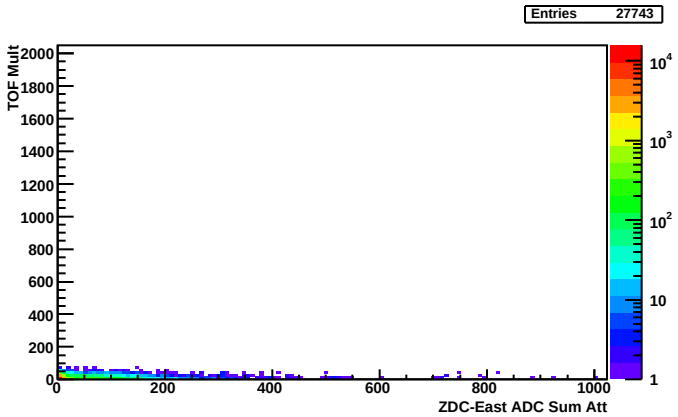

Entries 27743
TOF Mult
BBC-L-West ADC Sum

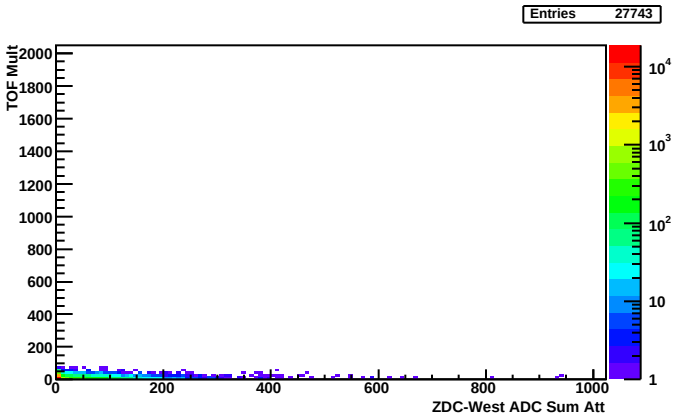

Entries 27743
TOF Mult
BBC-S-East ADC Sum

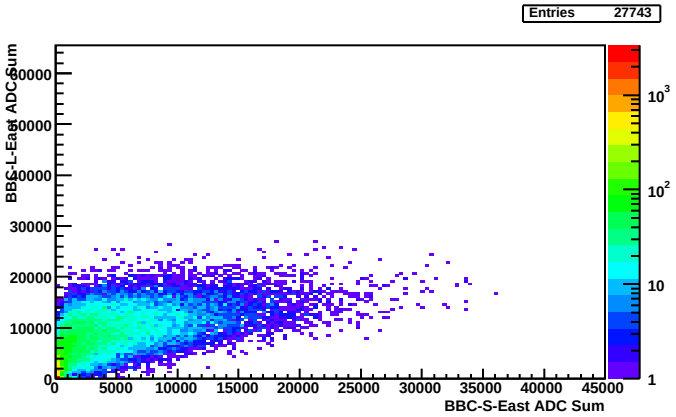

Entries 27743
TOF Mult
BBC-S-West ADC Sum

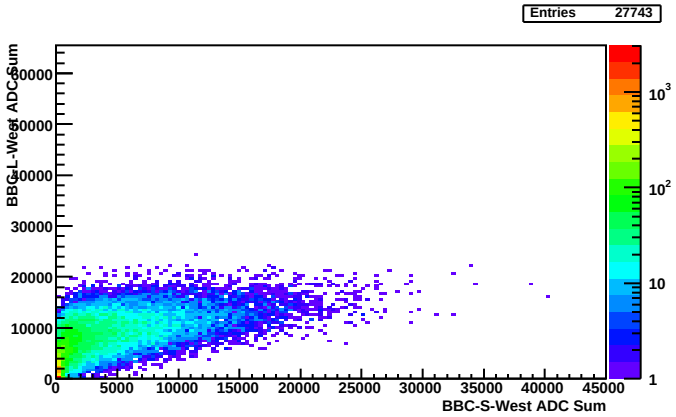

Entries 27743
TOF Mult
VPD-East ADC Sum

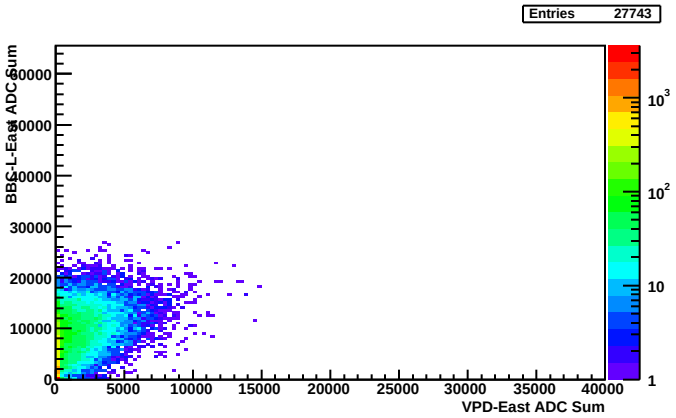

Entries 27743
TOF Mult
VPD-West ADC Sum

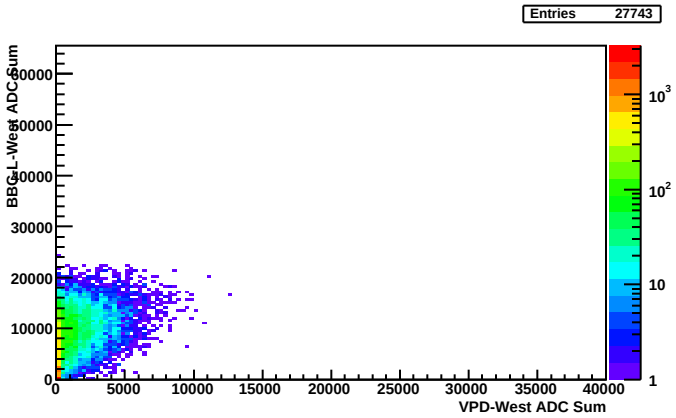

Entries 27743
TOF Mult
ZDC-East ADC Sum Att

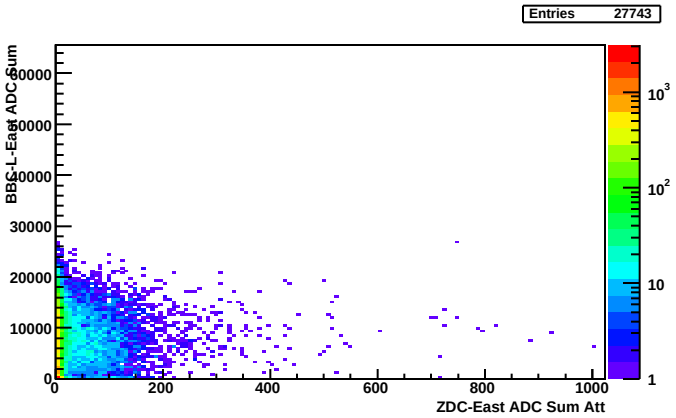

Entries 27743
TOF Mult
ZDC-West ADC Sum Att

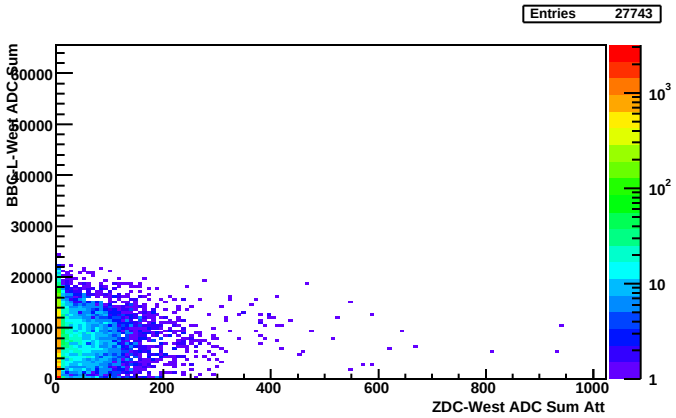

Entries 27743
BBC-L-East ADC Sum
BBC-S-East ADC Sum

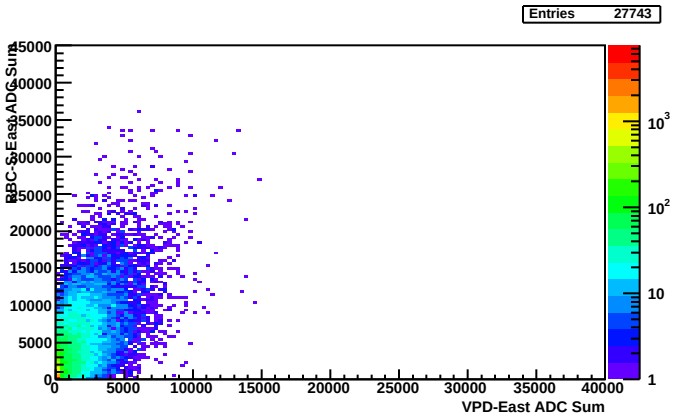

Entries 27743
BBC-L-West ADC Sum
BBC-S-West ADC Sum

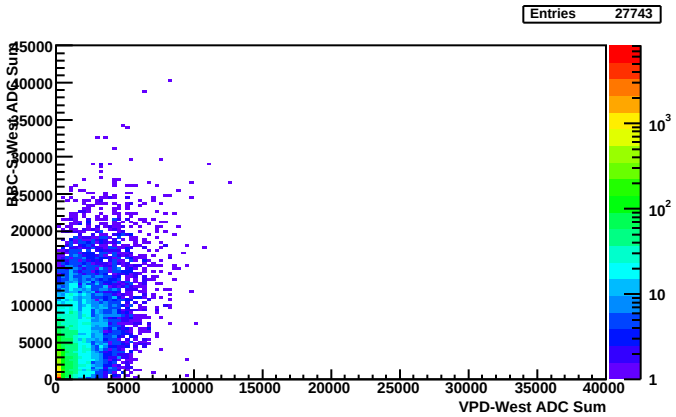

Entries 27743
BBC-L-East ADC Sum
VPD-East ADC Sum

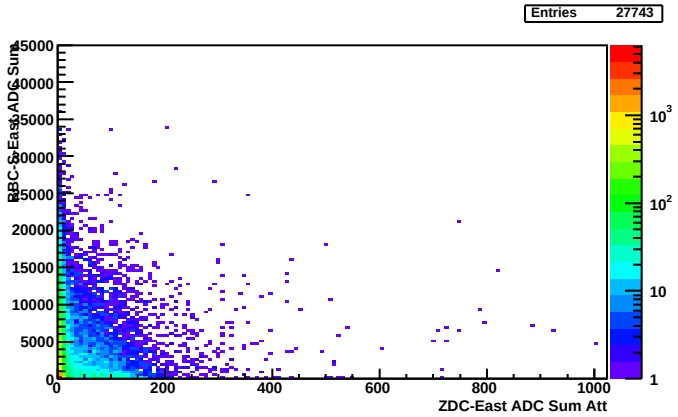

Entries 27743
BBC-L-West ADC Sum
VPD-West ADC Sum

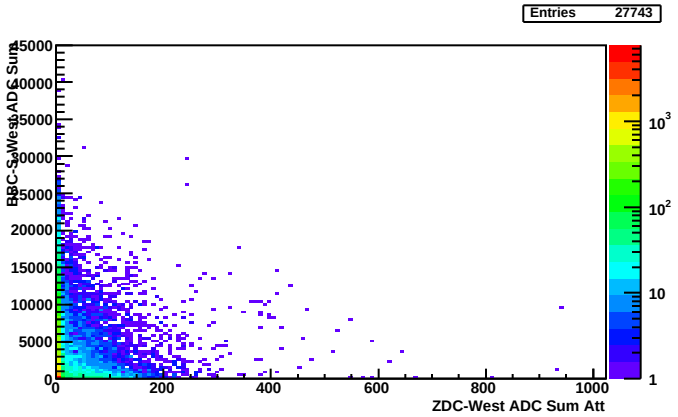

Entries 27743
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

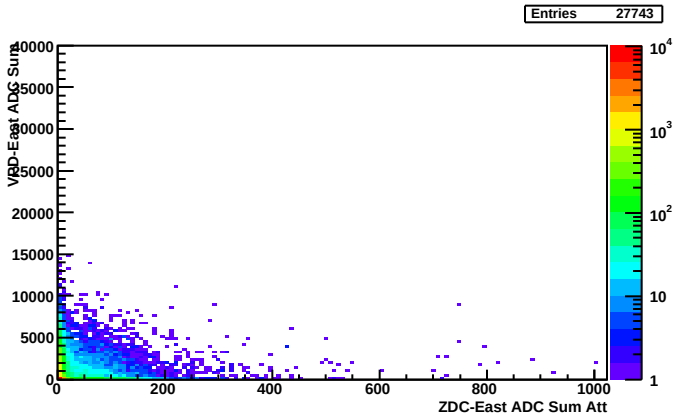

Entries 27743
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

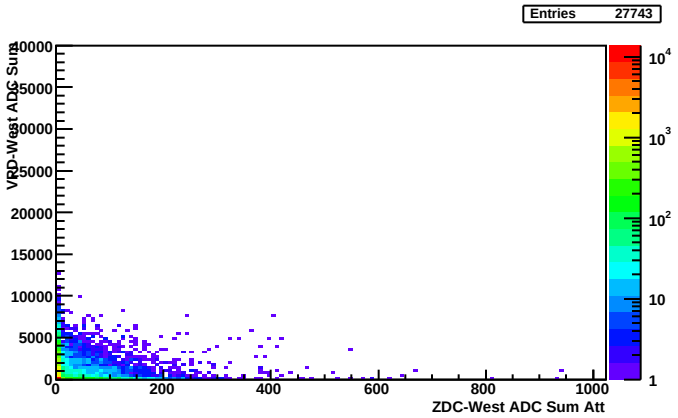

Entries 27743
BBC-S-East ADC Sum
VPD-East ADC Sum

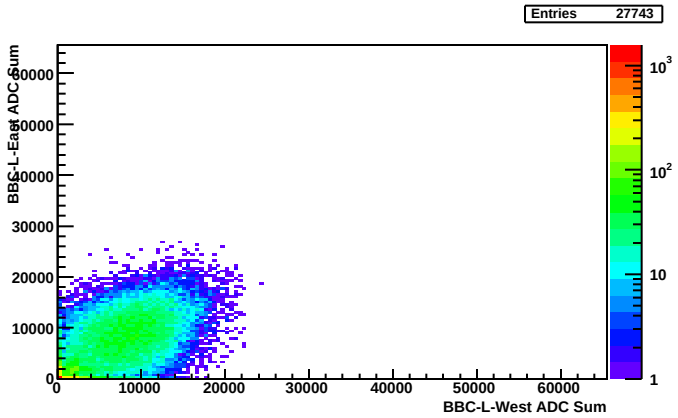

Entries 27743
BBC-S-West ADC Sum
VPD-West ADC Sum

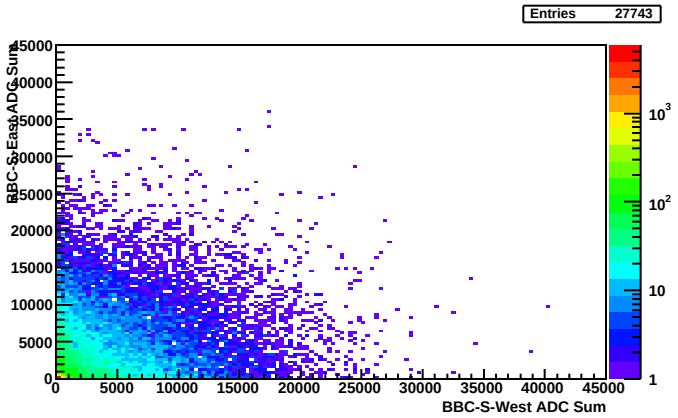

Entries 27743
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

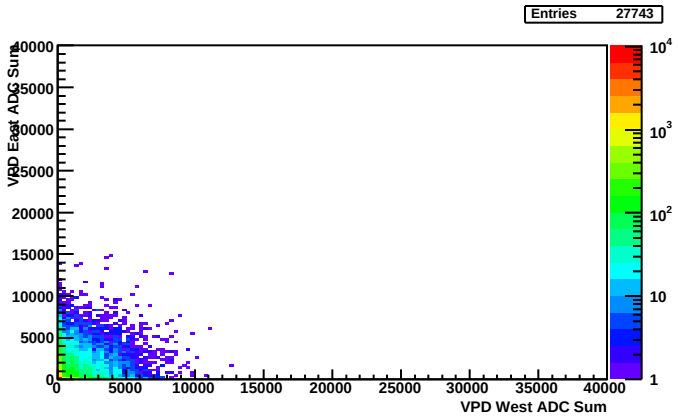

Entries 27743
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

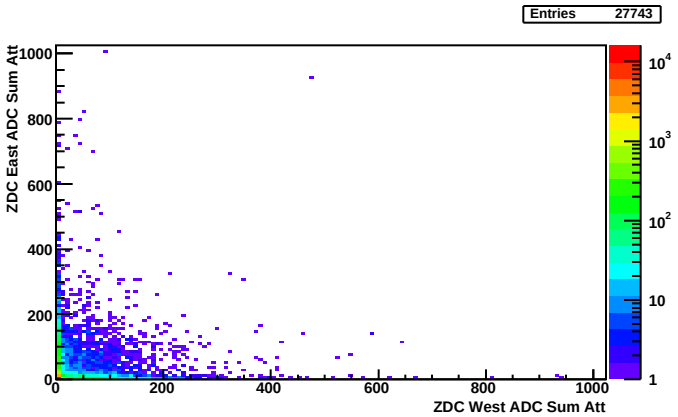

Entries 27743
VPD-East ADC Sum
ZDC-East ADC Sum Att

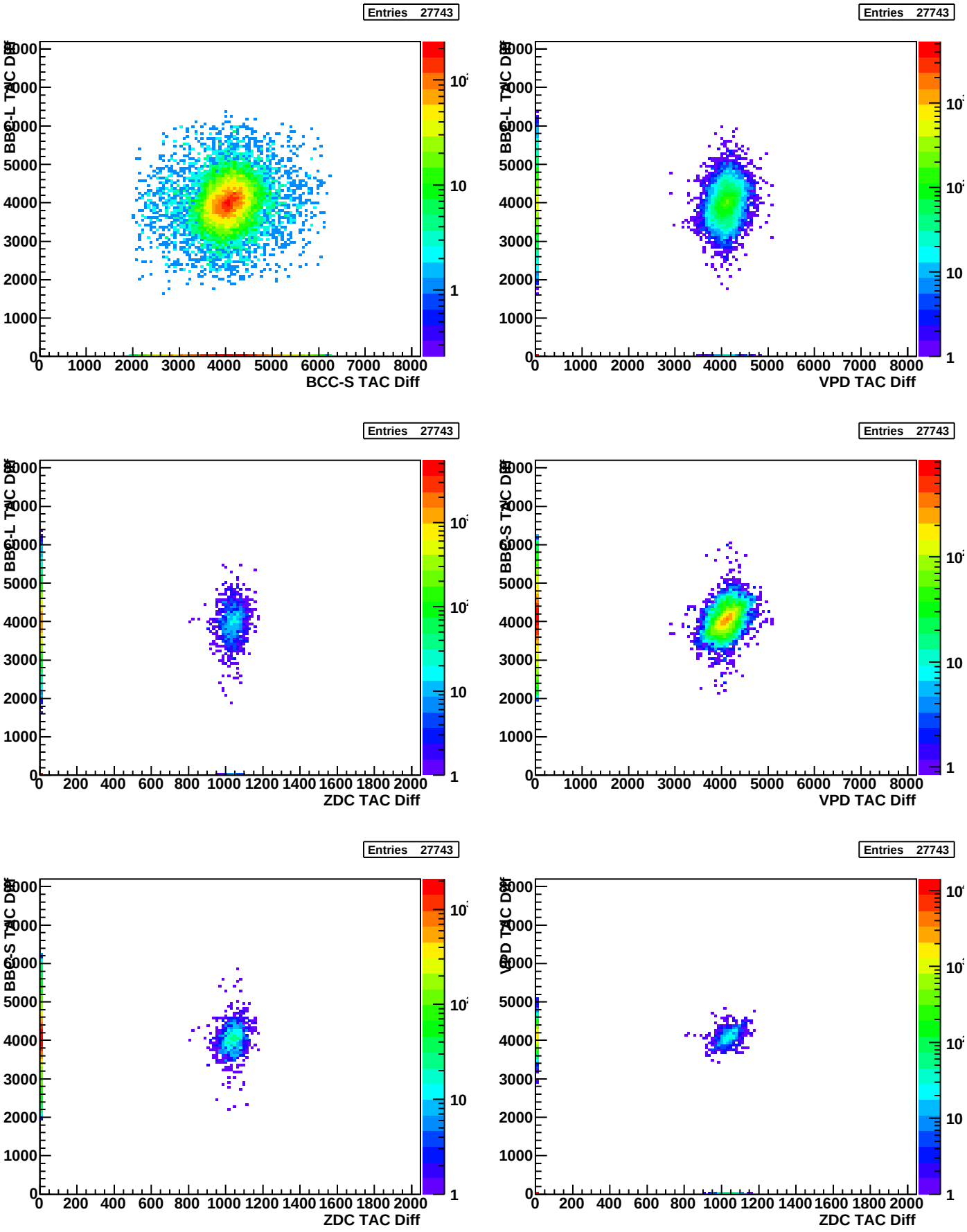

Entries 27743
VPD-West ADC Sum
ZDC-West ADC Sum Att

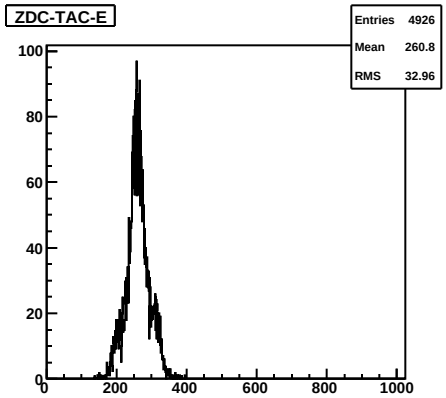

Entries 27743
BBC-L-East ADC Sum
BBC-L-West ADC Sum

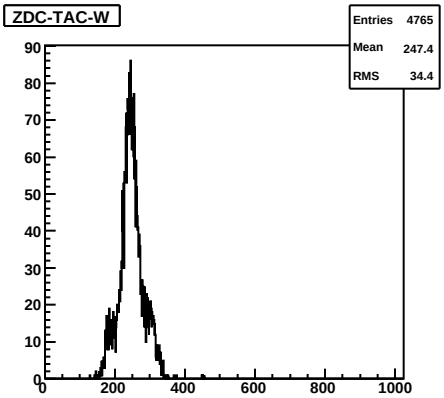

Entries 27743
BBC-S-East ADC Sum
BBC-S-West ADC Sum

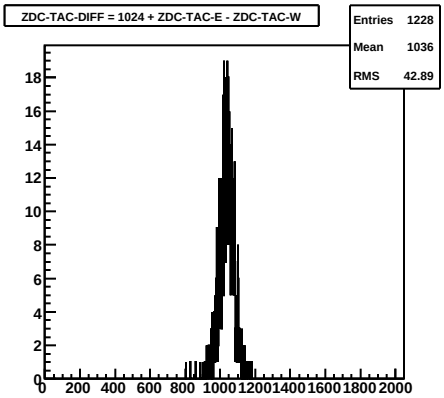

Entries 27743
VPD East ADC Sum
VPD West ADC Sum

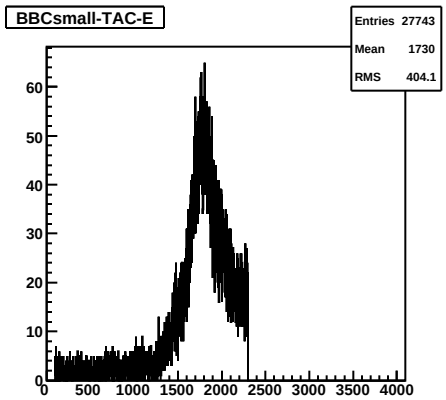

Entries 27743
ZDC East ADC Sum Att
ZDC West ADC Sum Att

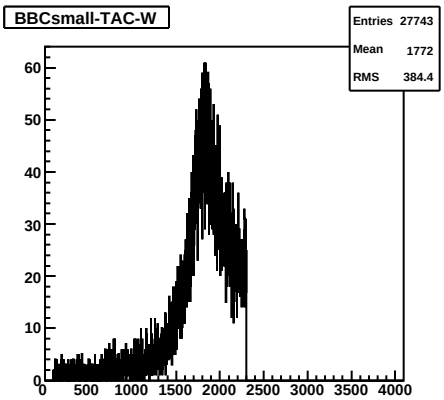

Entries 27743
BBC-L TAC Diff
BCC-S TAC Diff
VPD TAC Diff
ZDC TAC Diff
BBC-S TAC Diff
VPD TAC Diff
ZDC TAC Diff

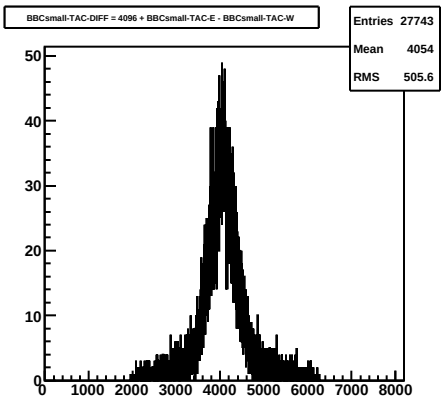

ZDC-TAC-E
Entries 4926
Mean 260.8
RMS 32.96

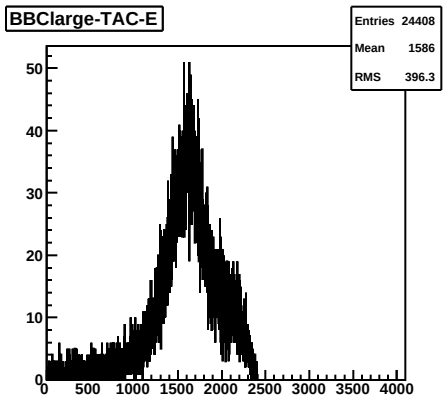

ZDC-TAC-W
Entries 4765
Mean 247.4
RMS 34.4

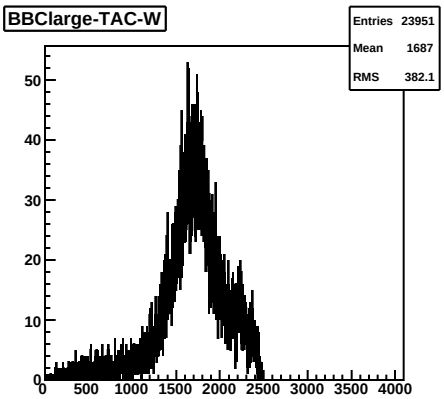

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 1228
Mean 1036
RMS 42.89

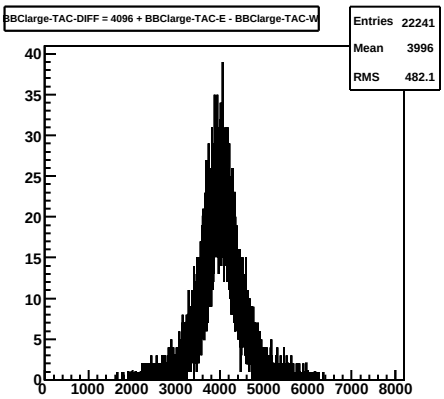

BBCsmall-TAC-E
Entries 27743
Mean 1730
RMS 404.1

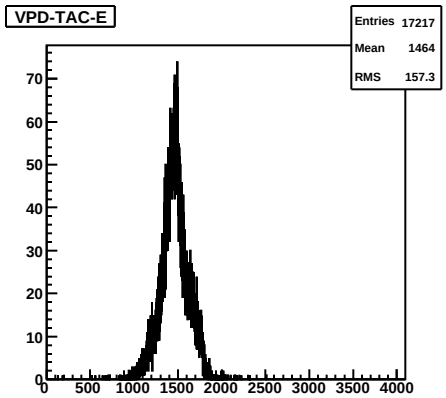

BBCsmall-TAC-W
Entries 27743
Mean 1772
RMS 384.4

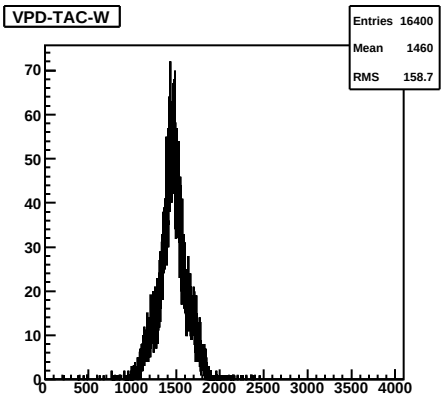

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 27743
Mean 4054
RMS 505.6

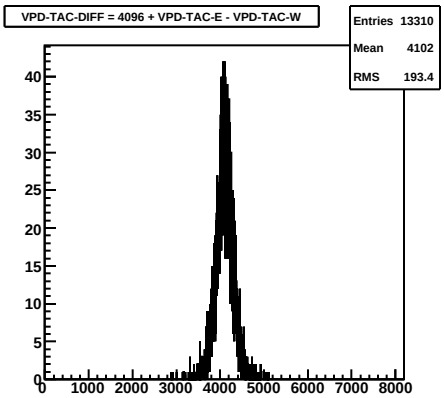

BBClarge-TAC-E
Entries 24408
Mean 1586
RMS 396.3

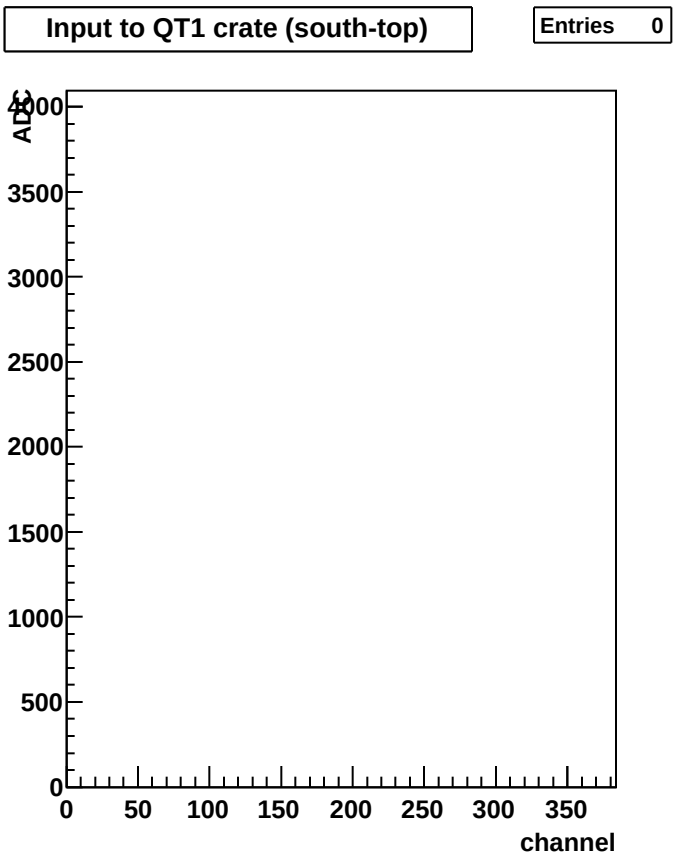

BBClarge-TAC-W
Entries 23951
Mean 1687
RMS 382.1

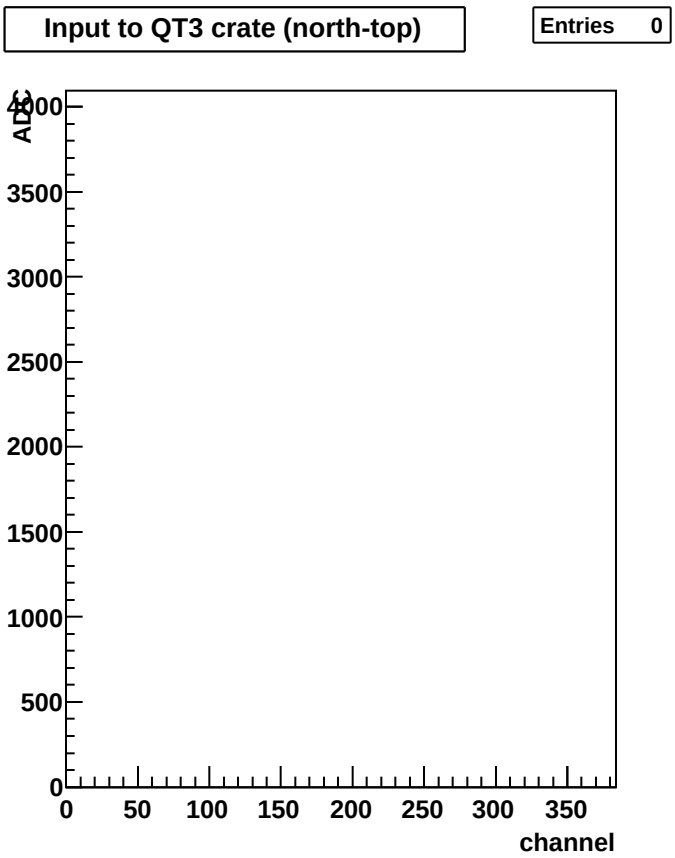

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 22241
Mean 3996
RMS 482.1

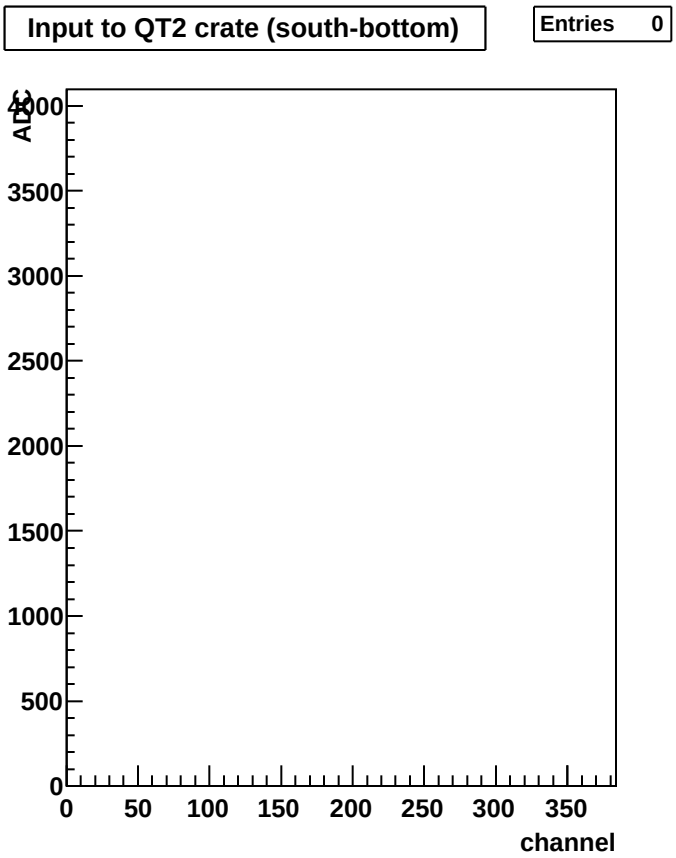

VPD-TAC-E
Entries 17217
Mean 1464
RMS 157.3

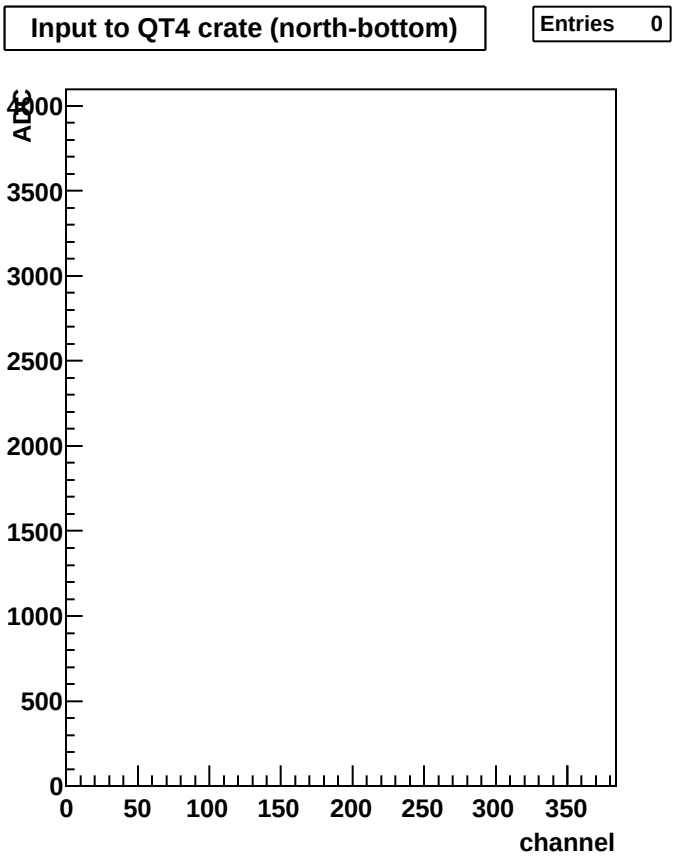

VPD-TAC-W
Entries 16400
Mean 1460
RMS 158.7

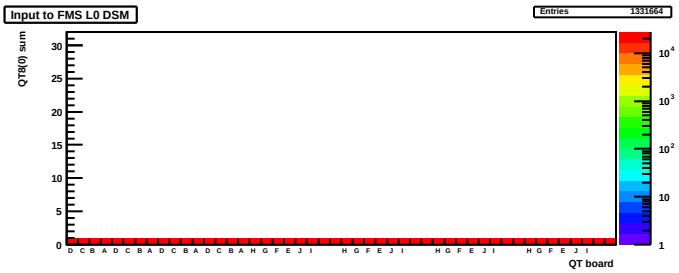

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 13310
Mean 4102
RMS 193.4

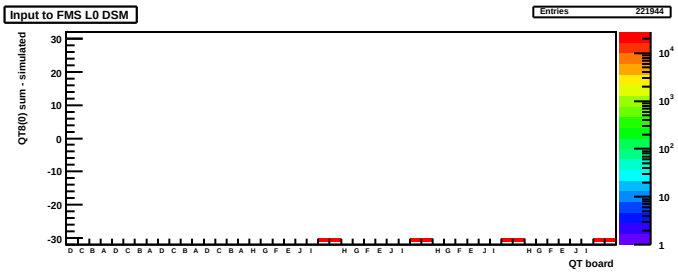

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

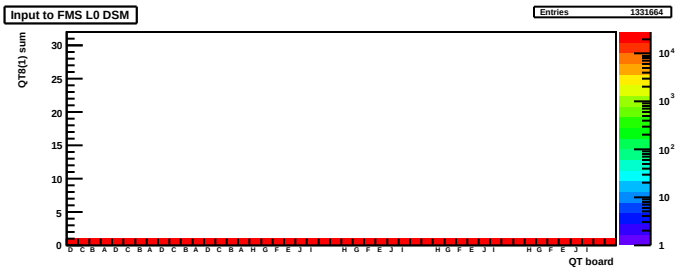

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

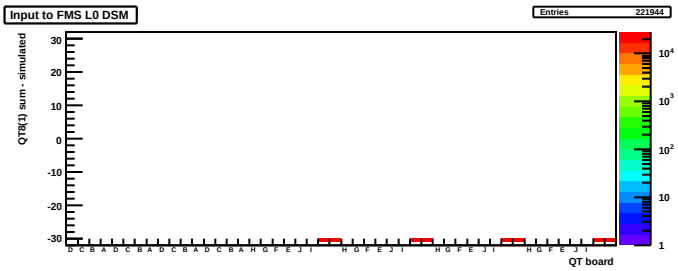

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

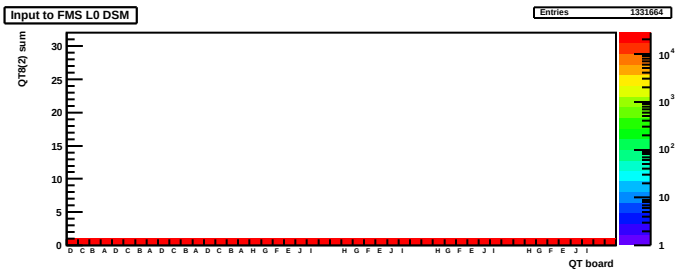

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

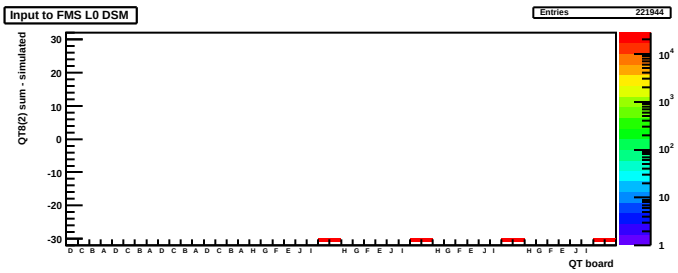

Input to FMS L0 DSM
Entries 1331664
QT8(0) sum
QT board

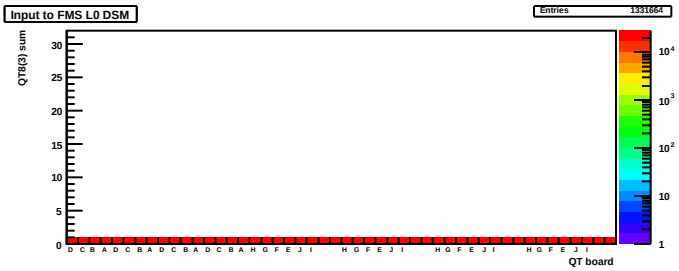

Input to FMS L0 DSM
Entries 221944
QT8(0) sum - simulated
QT board

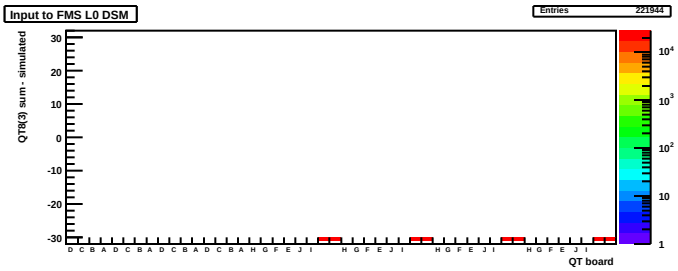

Input to FMS L0 DSM
Entries 1331664
QT8(1) sum
QT board

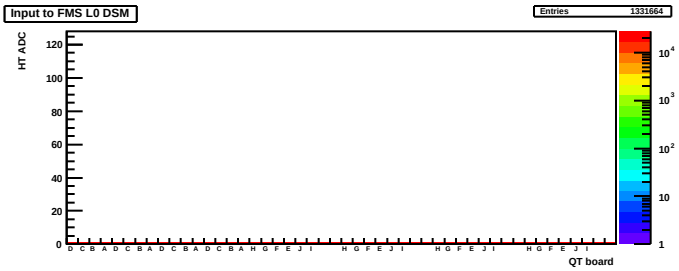

Input to FMS L0 DSM
Entries 221944
QT8(1) sum - simulated
QT board

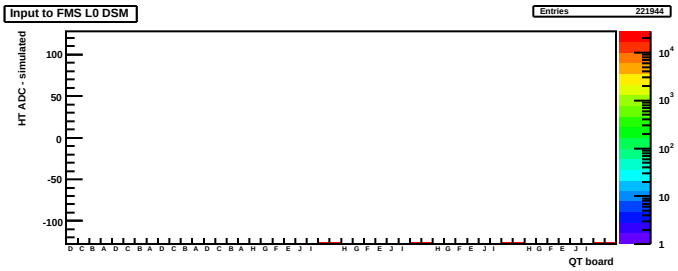

Input to FMS L0 DSM
Entries 1331664
QT8(2) sum
QT board

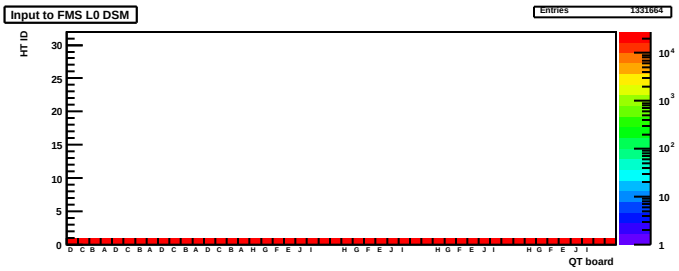

Input to FMS L0 DSM
Entries 221944
QT8(2) sum - simulated
QT board

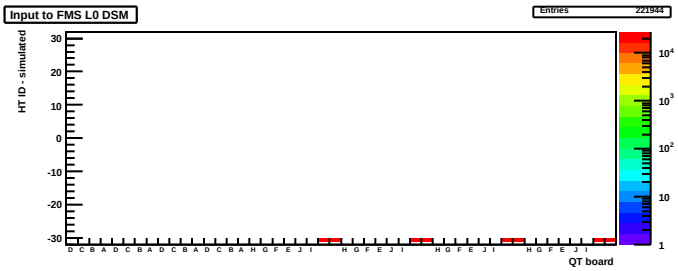

Input to FMS L0 DSM
Entries 1331664
QT8(3) sum
QT board

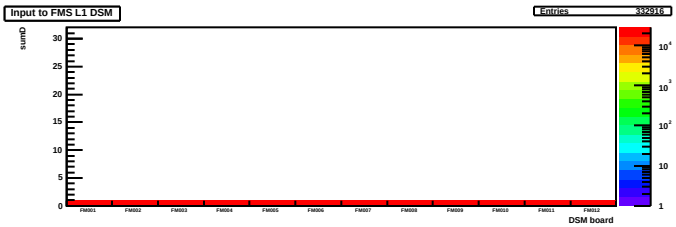

Input to FMS L0 DSM
Entries 221944
QT8(3) sum - simulated
QT board

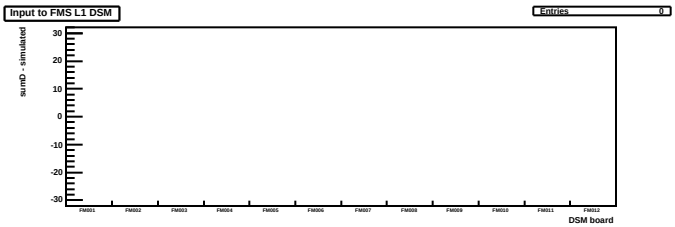

Input to FMS L0 DSM
Entries 1331664
HT ADC
QT board

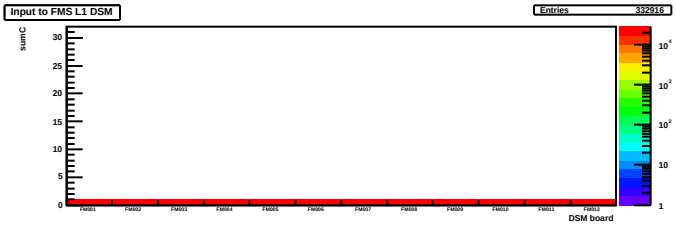

Input to FMS L0 DSM
Entries 221944
HT ADC - simulated
QT board

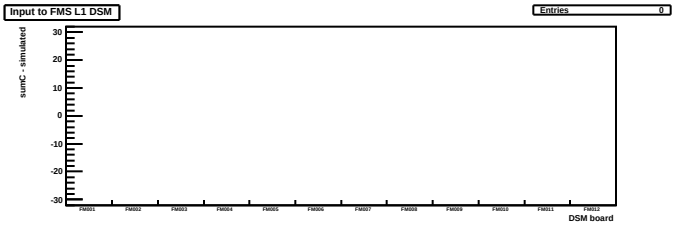

Input to FMS L0 DSM
Entries 1331664
HT ID
QT board

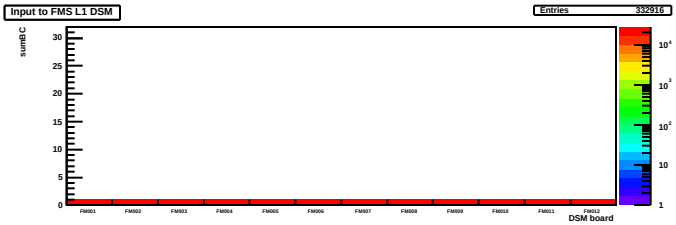

Input to FMS L0 DSM
Entries 221944
HT ID - simulated
QT board

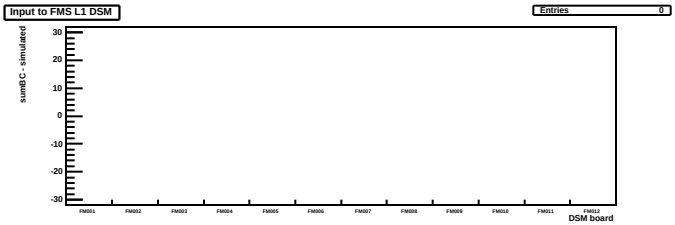

Input to FMS L1 DSM
Entries 332916
sumD
DSM board

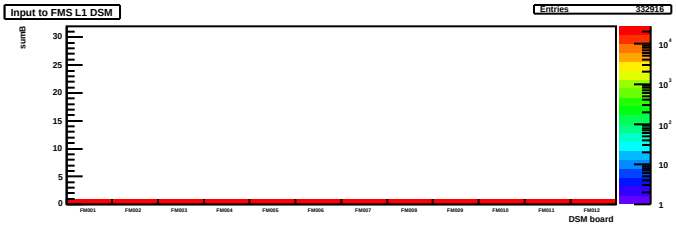

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

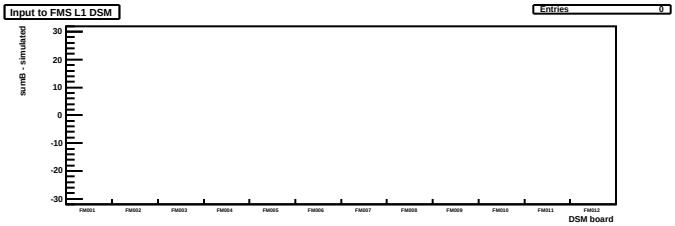

Input to FMS L1 DSM
Entries 332916
sumC
DSM board

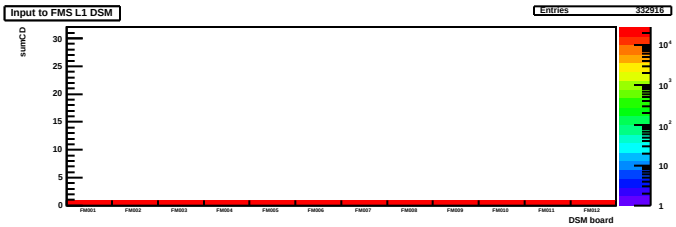

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

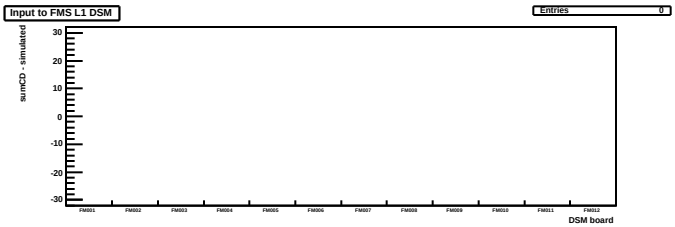

Input to FMS L1 DSM
Entries 332916
sumBC
DSM board

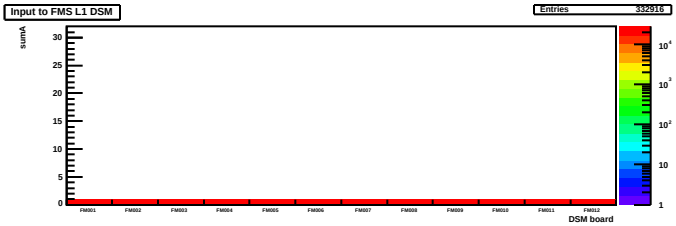

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

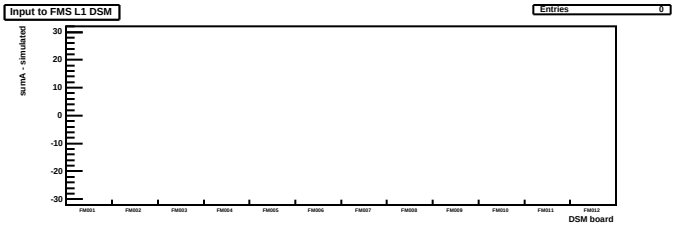

Input to FMS L1 DSM
Entries 332916
sumB
DSM board

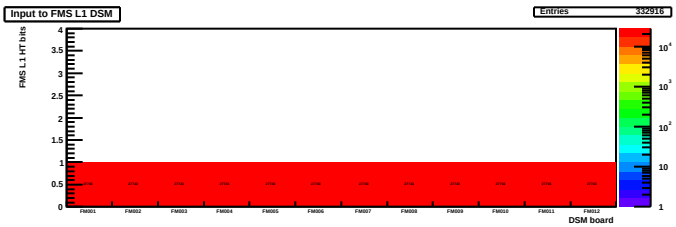

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

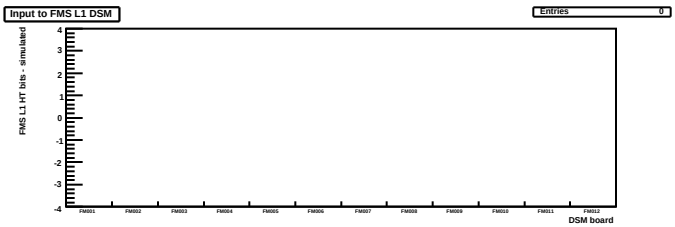

Input to FMS L1 DSM
Entries 332916
sumCD
DSM board

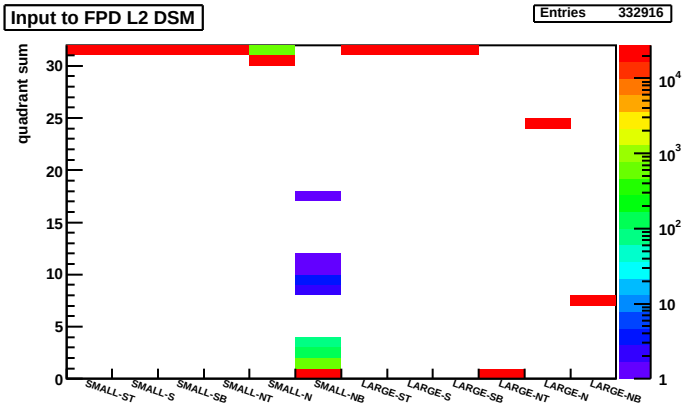

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

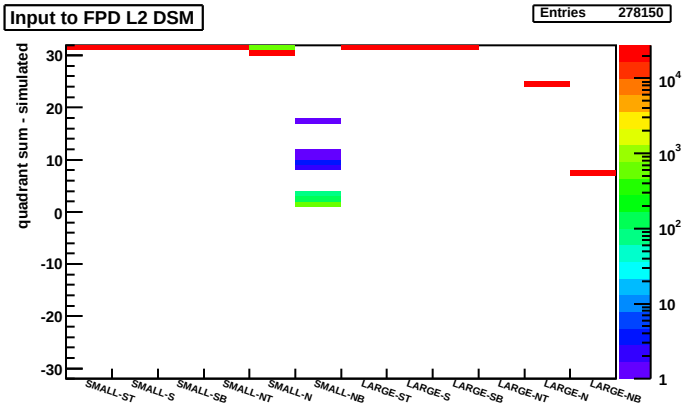

Input to FMS L1 DSM
Entries 332916
sumA
DSM board

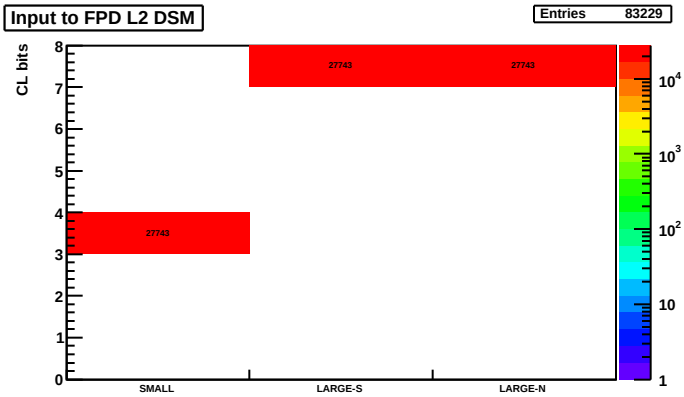

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

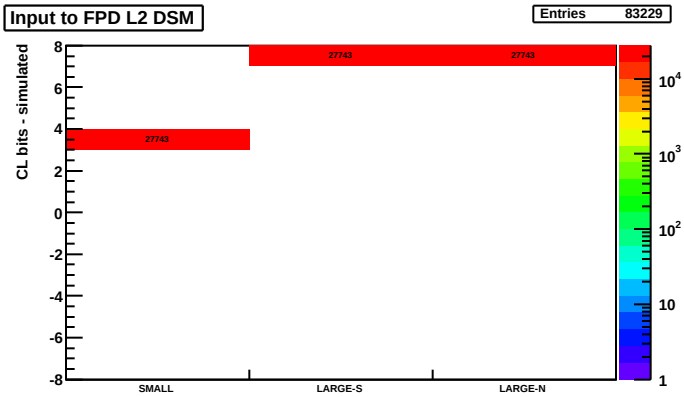

Input to FMS L1 DSM
Entries 332916
FMS L1 HT bits
DSM board

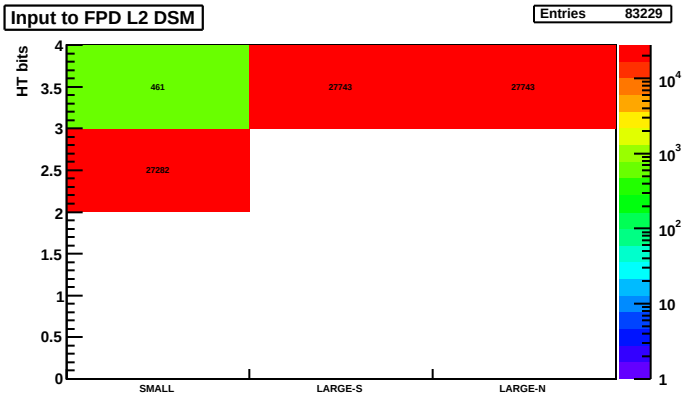

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

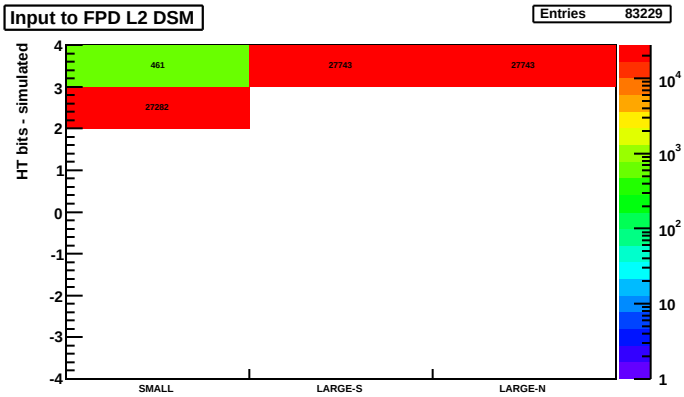

Input to FPD L2 DSM
Entries 332916
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

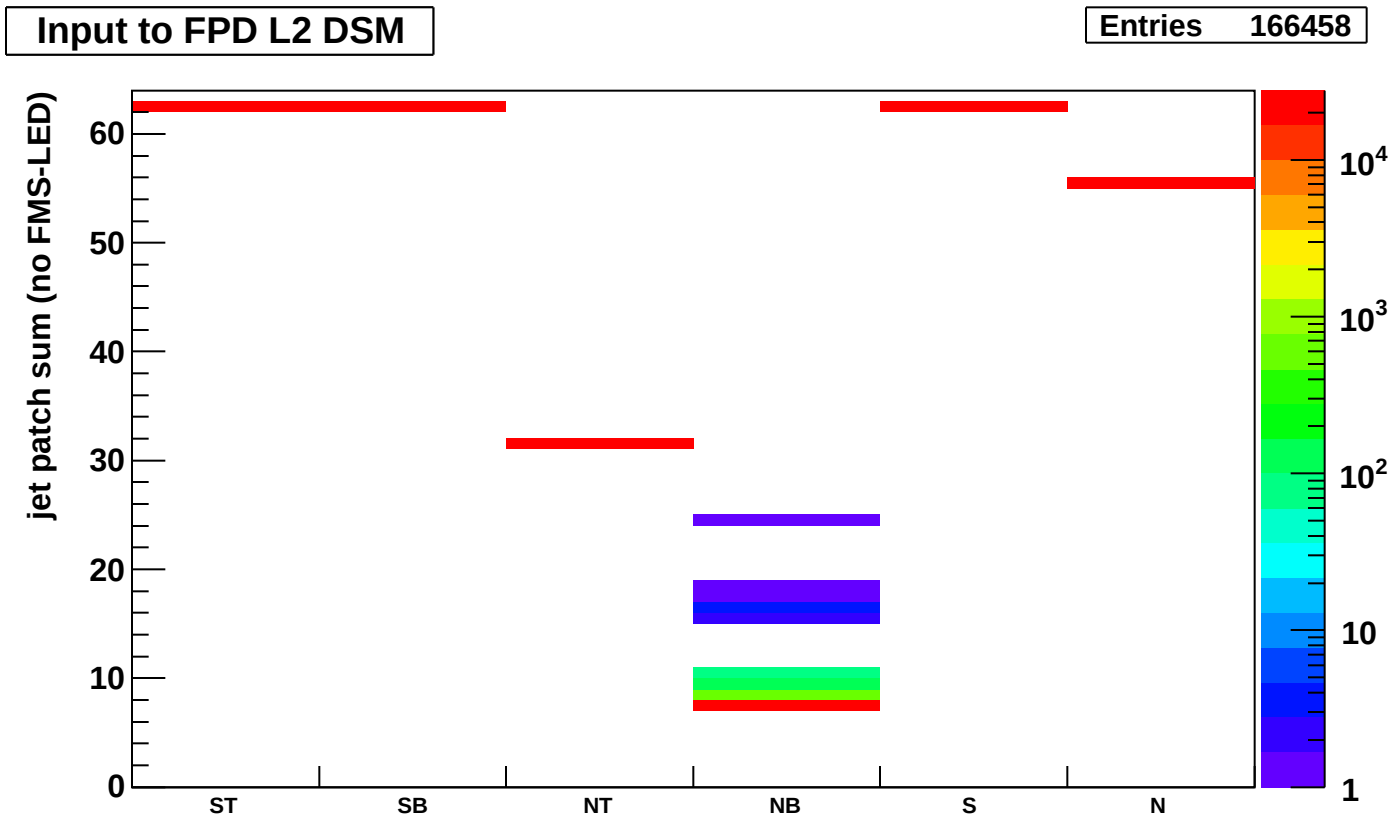

Input to FPD L2 DSM
Entries 278150
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

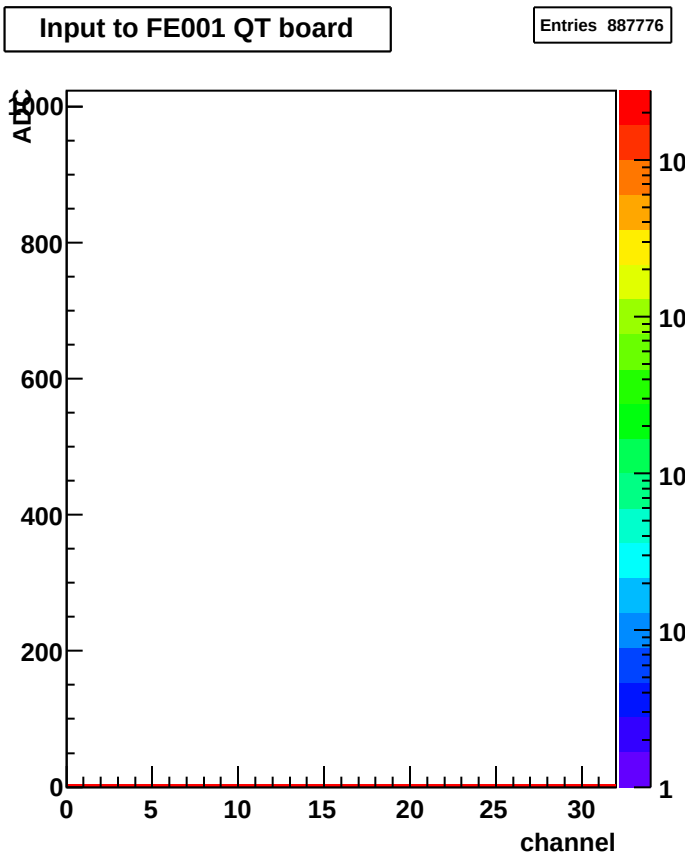

Input to FPD L2 DSM
Entries 83229
CL bits
27743
27743
27743
SMALL
LARGE-S
LARGE-N

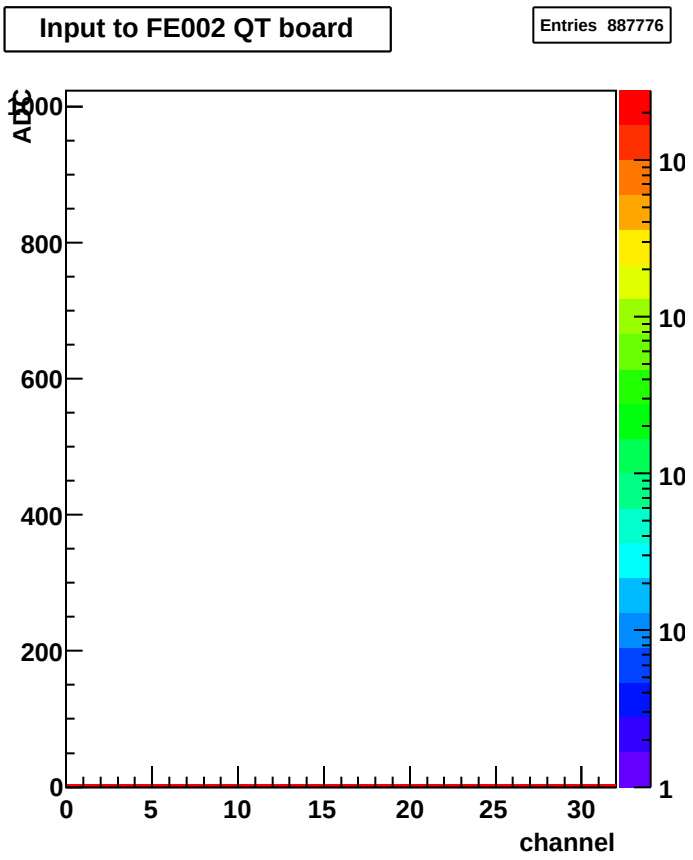

Input to FPD L2 DSM
Entries 83229
CL bits - simulated
27743
27743
27743
SMALL
LARGE-S
LARGE-N

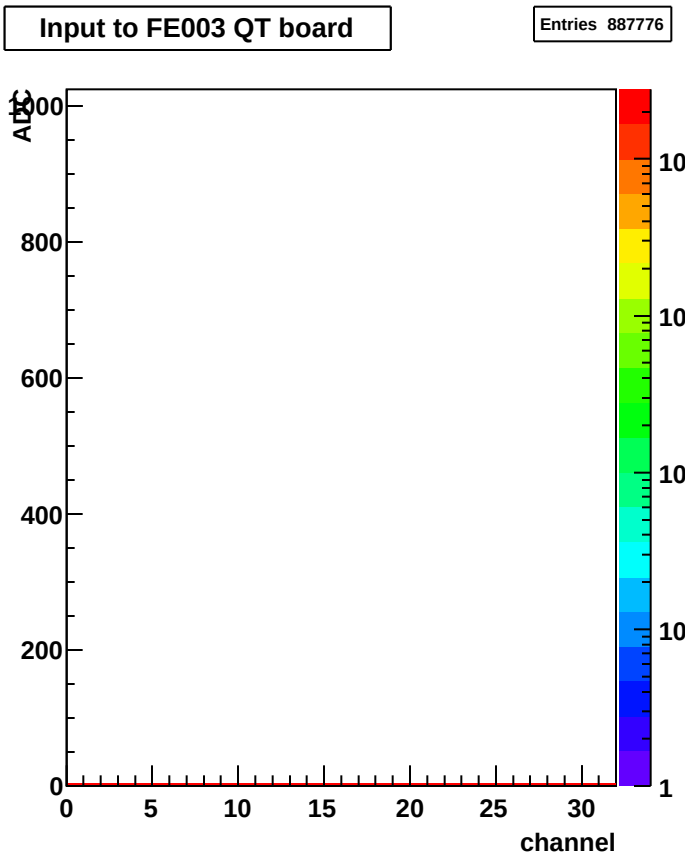

Input to FPD L2 DSM
Entries 83229
HT bits
461
27743
27743
27282
SMALL
LARGE-S
LARGE-N

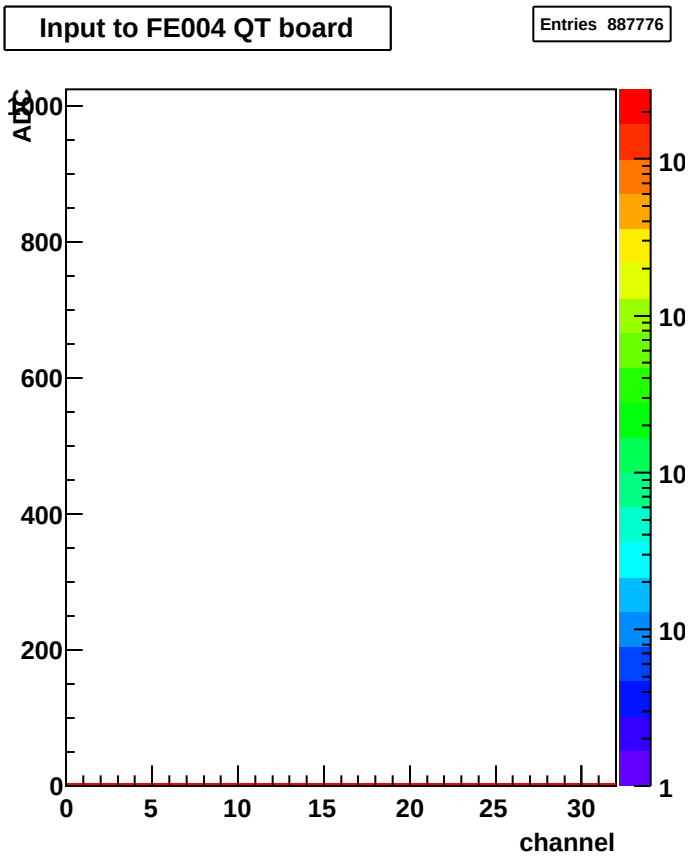

Input to FPD L2 DSM
Entries 83229
HT bits - simulated
461
27743
27743
27282
SMALL
LARGE-S
LARGE-N

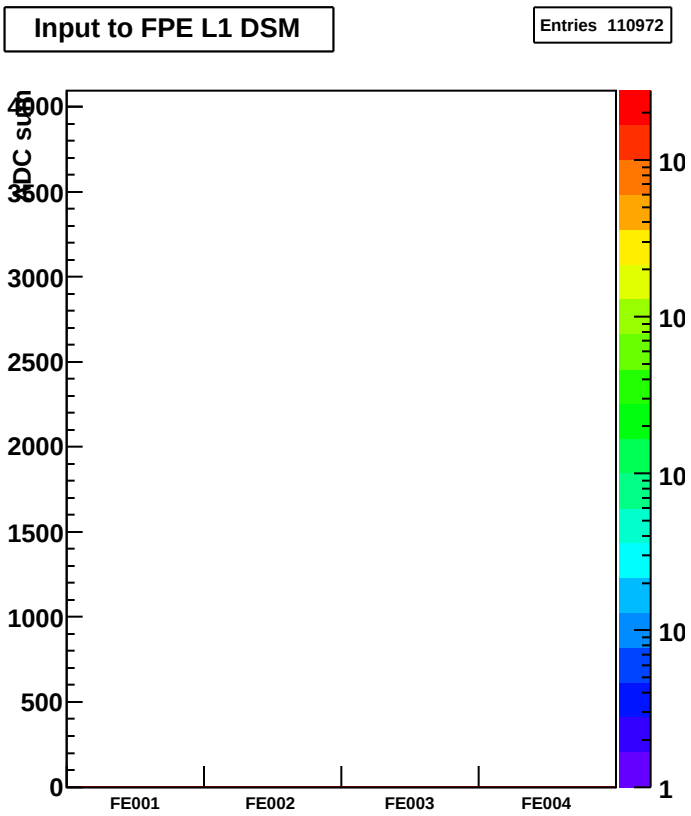

Input to FPD L2 DSM
Entries 166458
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

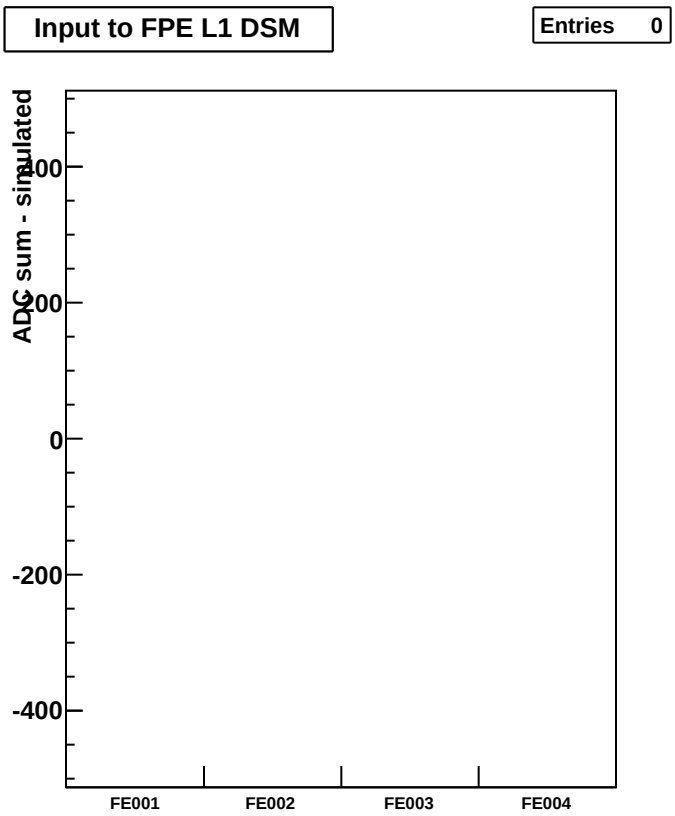

Input to FE001 QT board
Entries 887776
ADC
channel

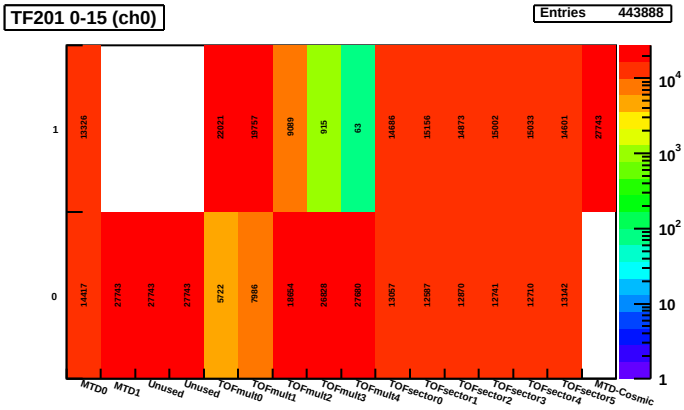

Input to FE002 QT board
Entries 887776
ADC
channel

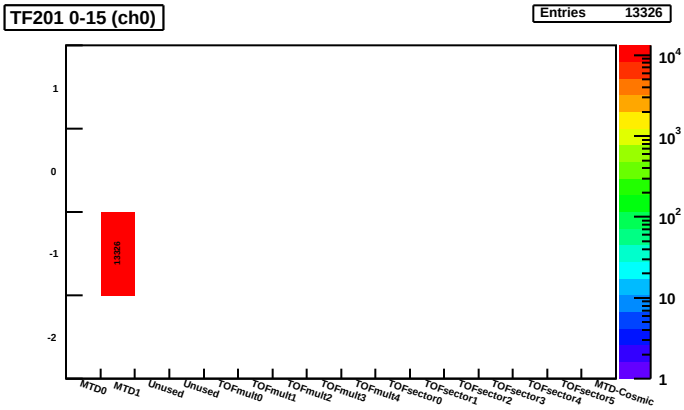

Input to FE003 QT board
Entries 887776
ADC
channel

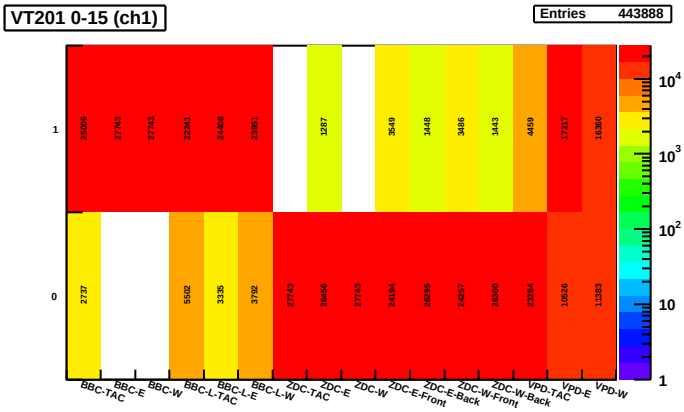

Input to FE004 QT board
Entries 887776
ADC
channel

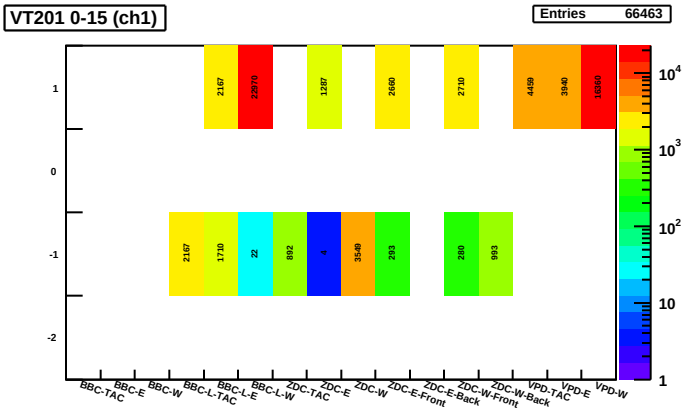

Input to FPE L1 DSM
Entries 110972
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

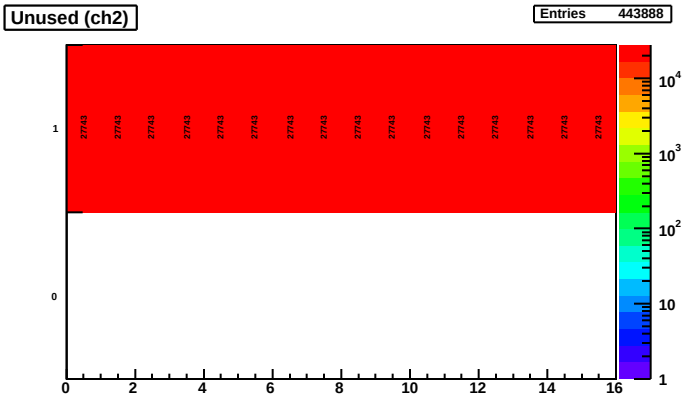

Input to FPE L1 DSM
Entries 0
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004

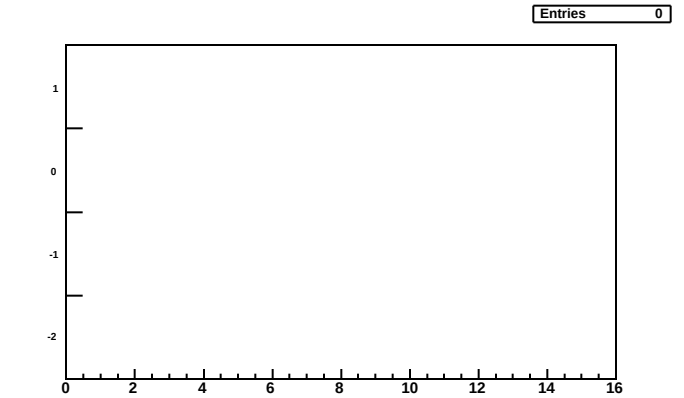

TF201 0-15 (ch0)
Entries 443888
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

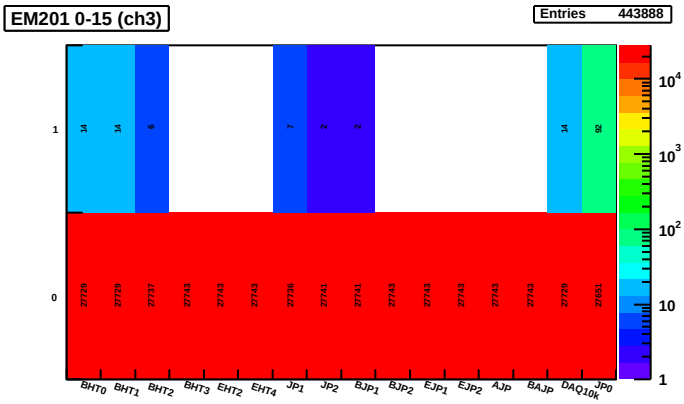

TF201 0-15 (ch0)
Entries 13326
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

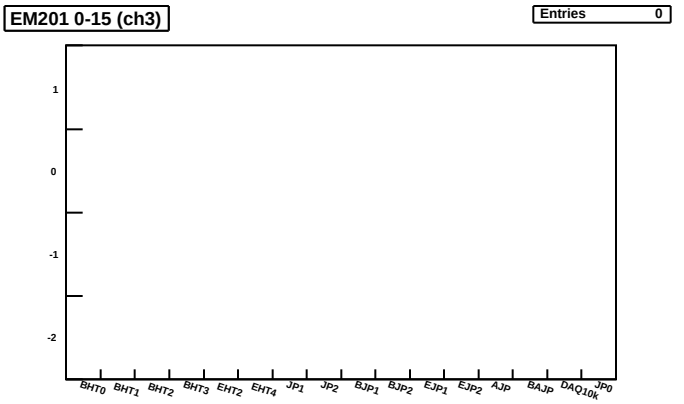

VT201 0-15 (ch1)
Entries 443888
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 66463
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 443888


Entries 0


EM201 0-15 (ch3)
Entries 443888
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0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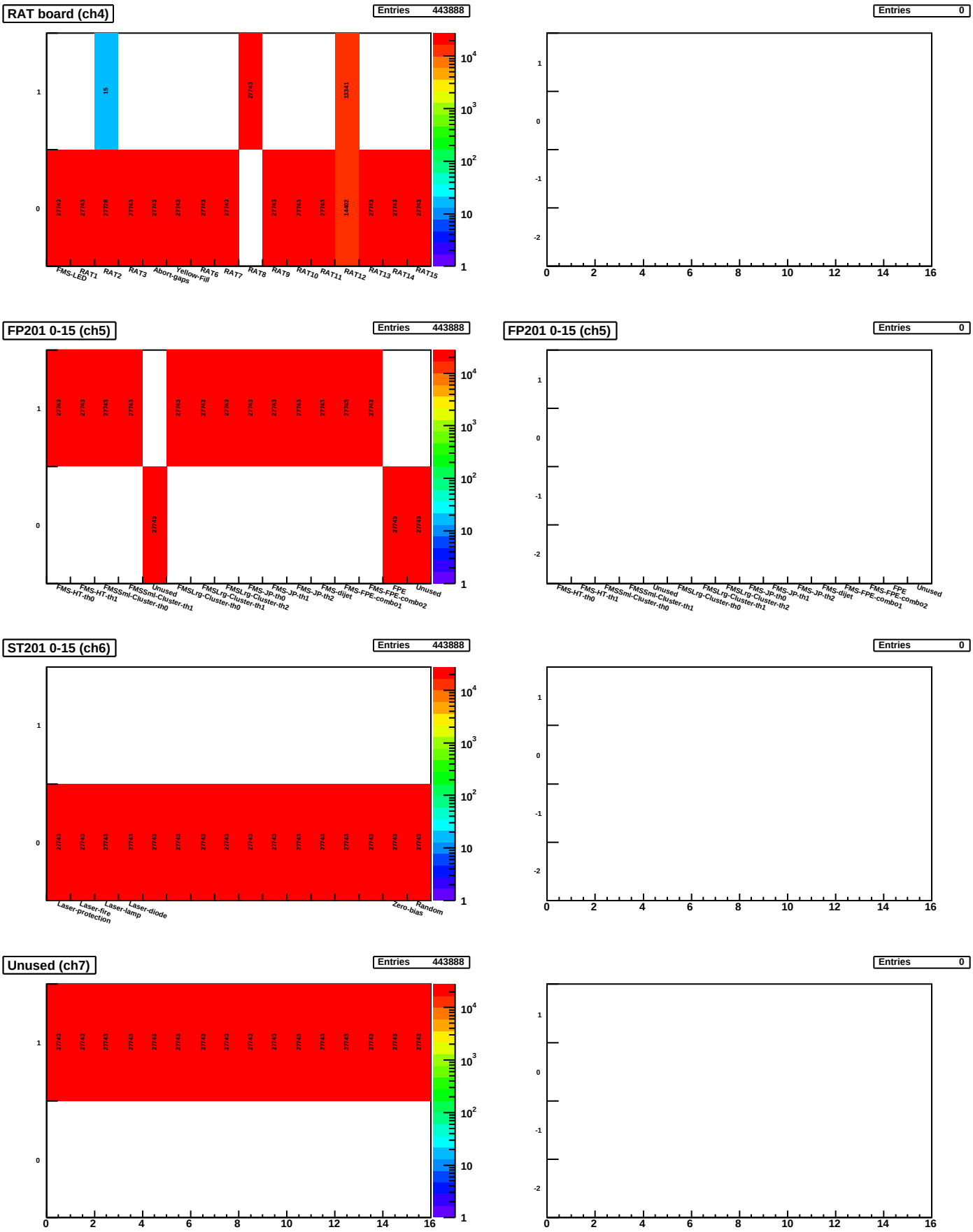
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0


RAT board (ch4)
Entries 443888
Entries 0
FP201 0-15 (ch5)
Entries 443888
FP201 0-15 (ch5)
Entries 0
ST201 0-15 (ch6)
Entries 443888
Entries 0
Unused (ch7)
Entries 443888
Entries 0