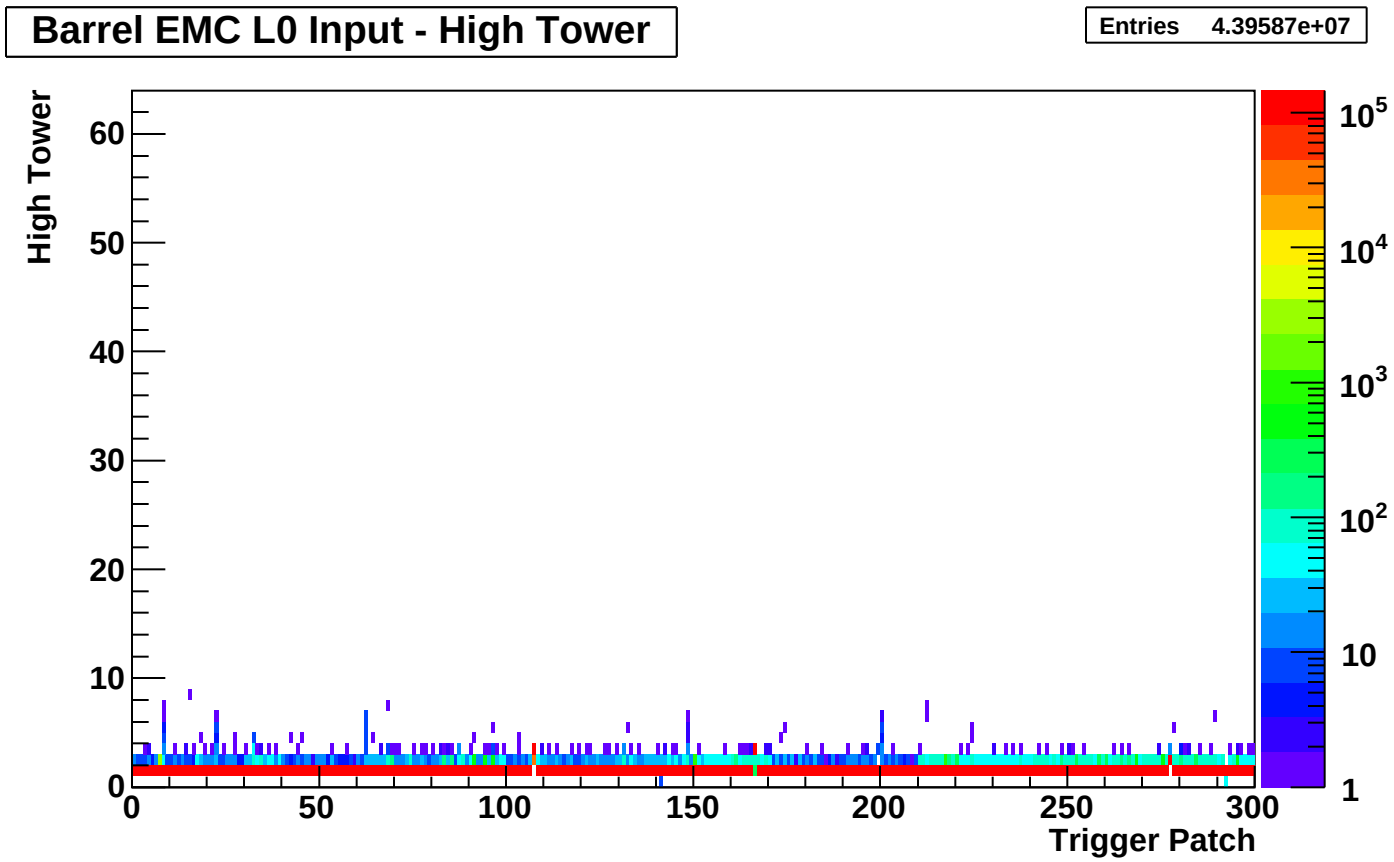
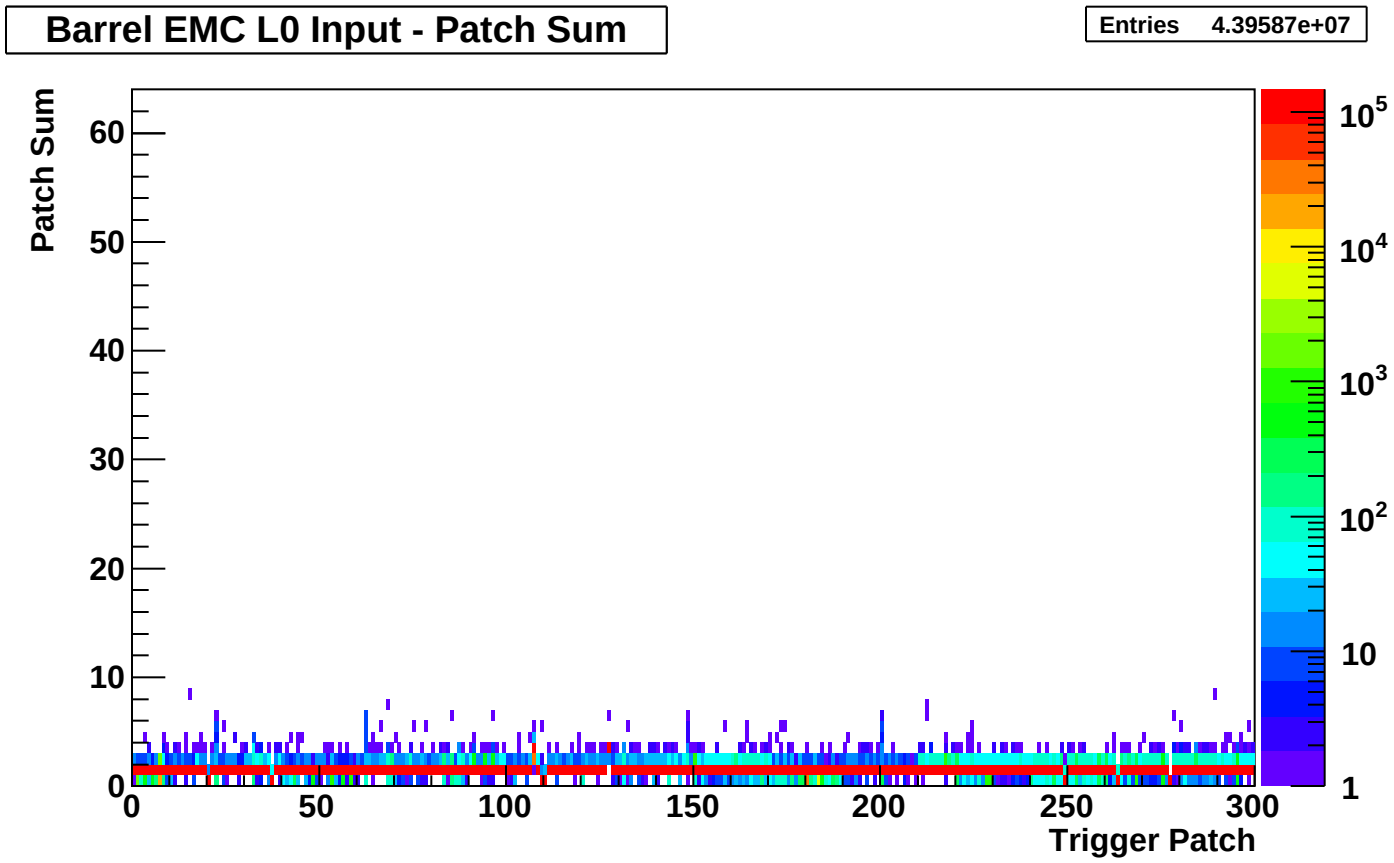
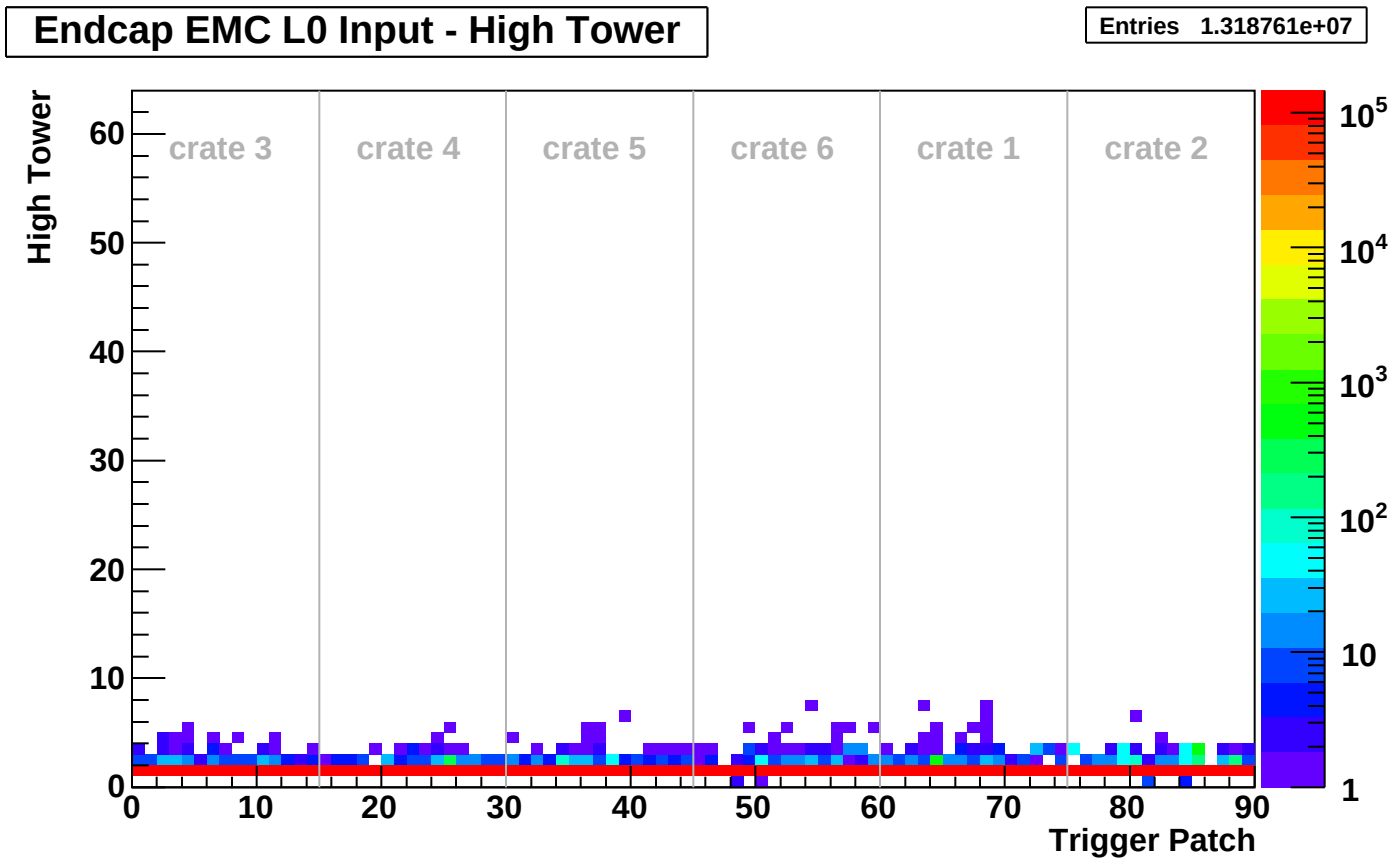
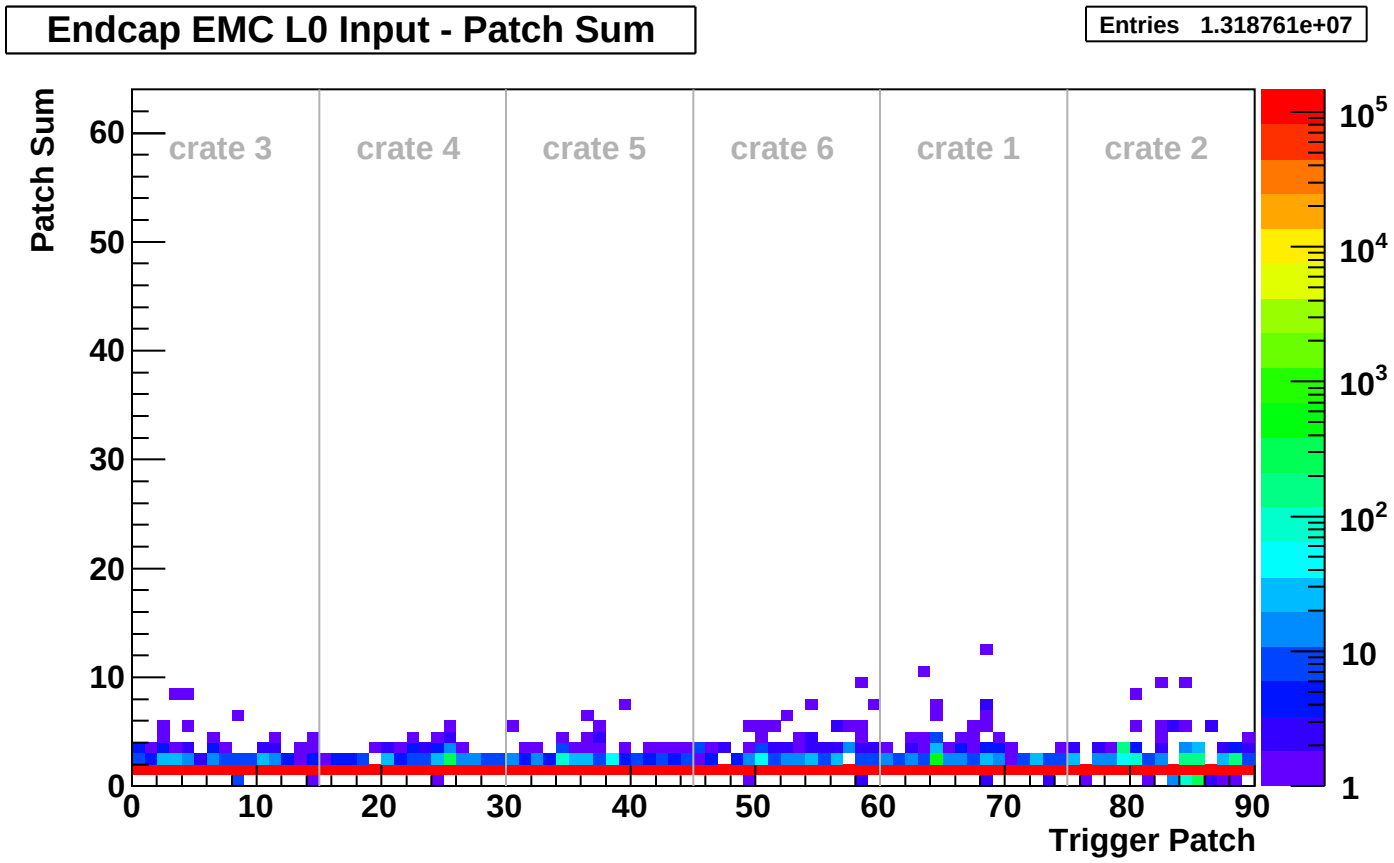
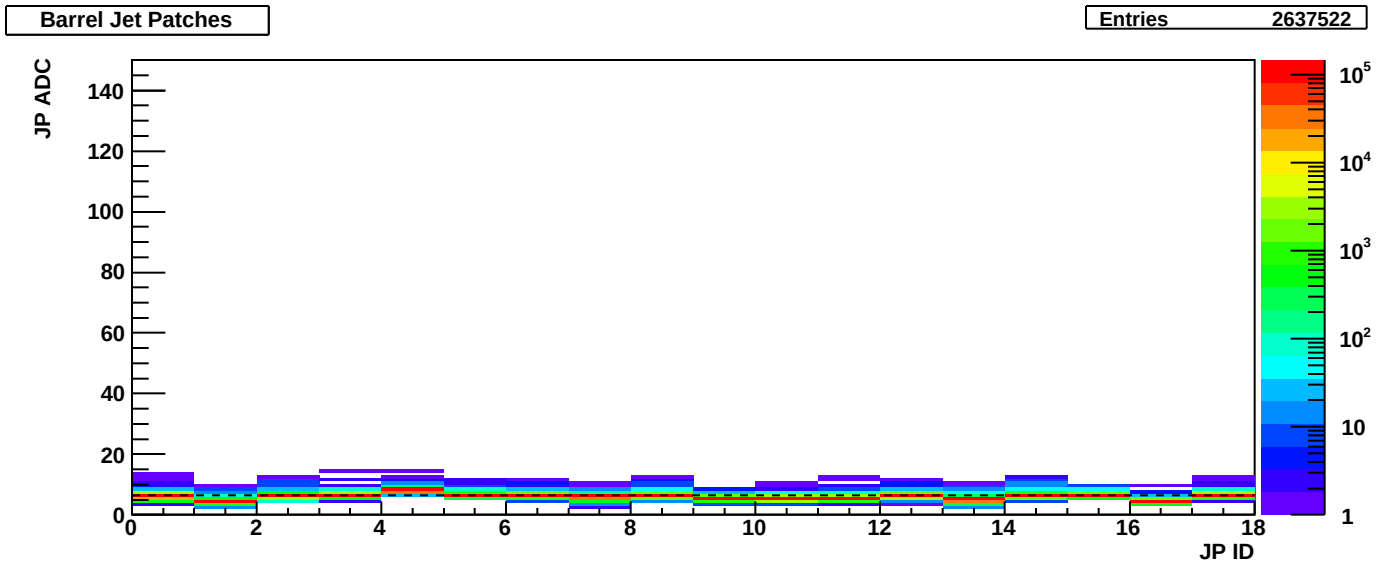
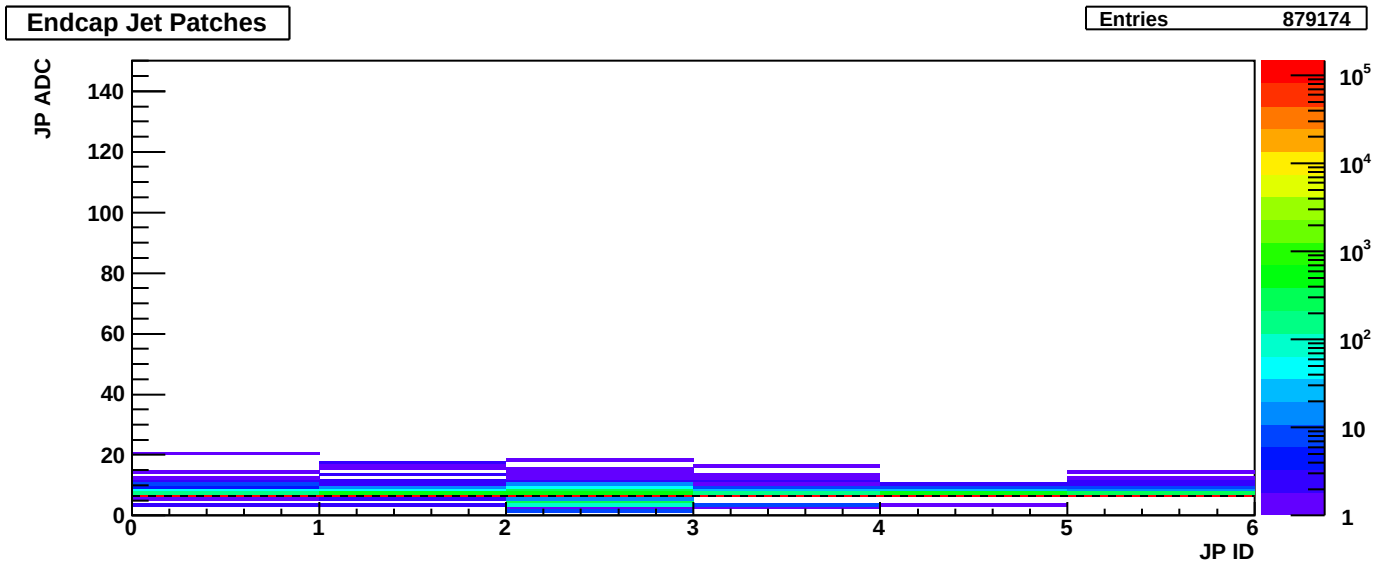

Barrel EMC L0 Input - High Tower
Entries 4.39587e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

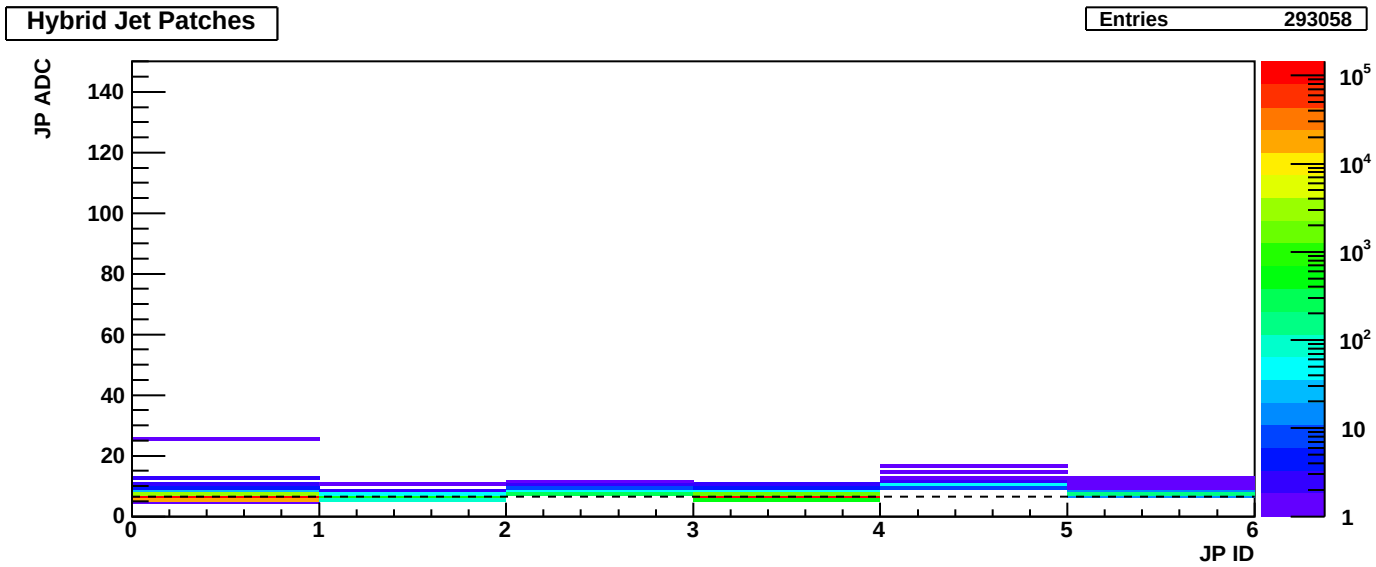

Barrel EMC L0 Input - Patch Sum
Entries 4.39587e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

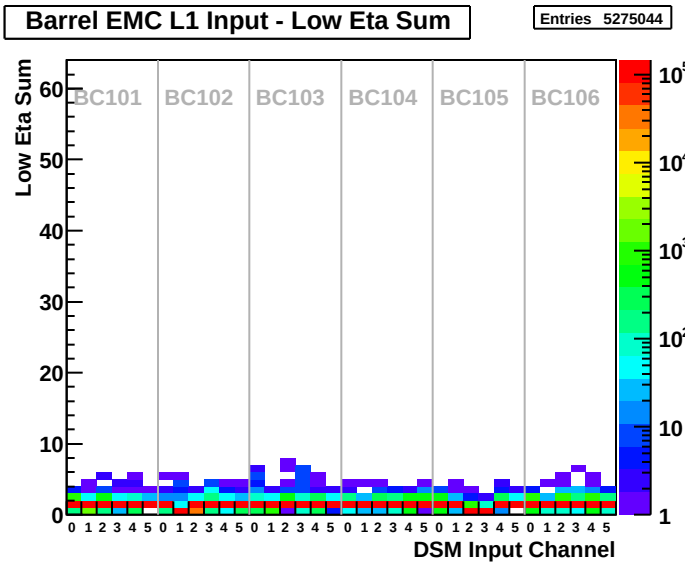

Endcap EMC L0 Input - High Tower
Entries 1.318761e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

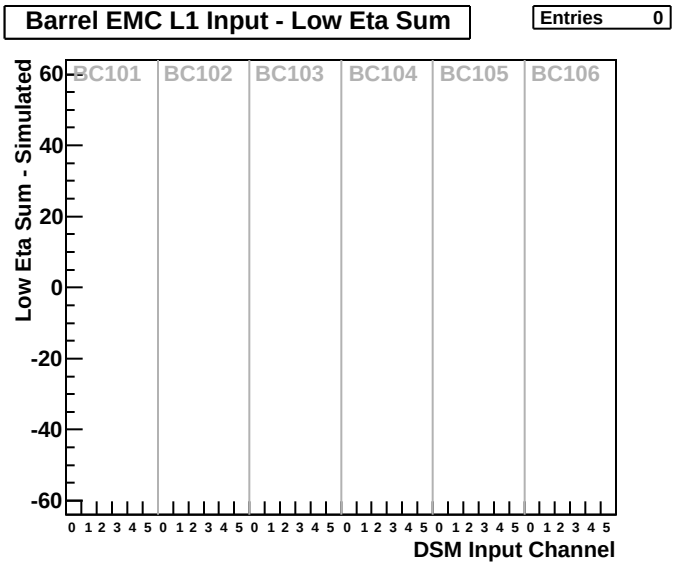

Endcap EMC L0 Input - Patch Sum
Entries 1.318761e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

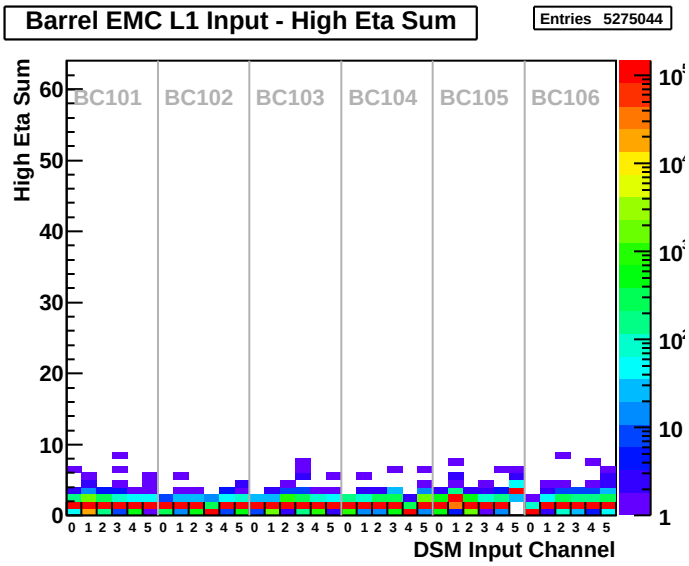

Barrel Jet Patches
Entries 2637522
JP ADC
JP ID

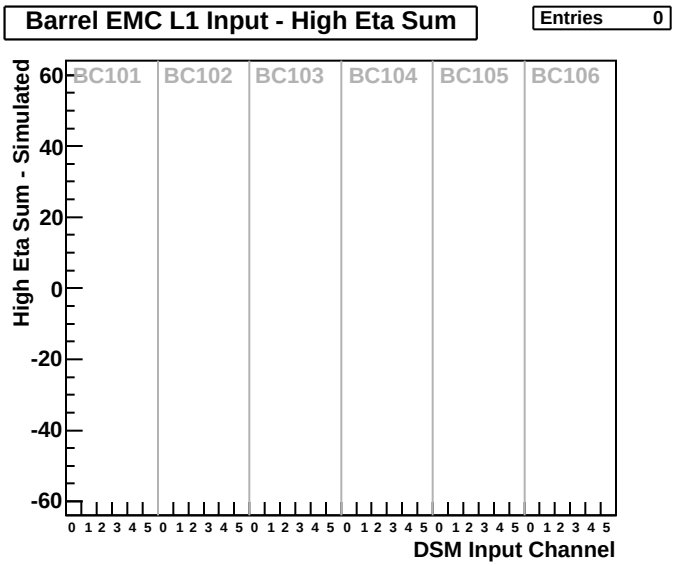

Endcap Jet Patches
Entries 879174
JP ADC
JP ID

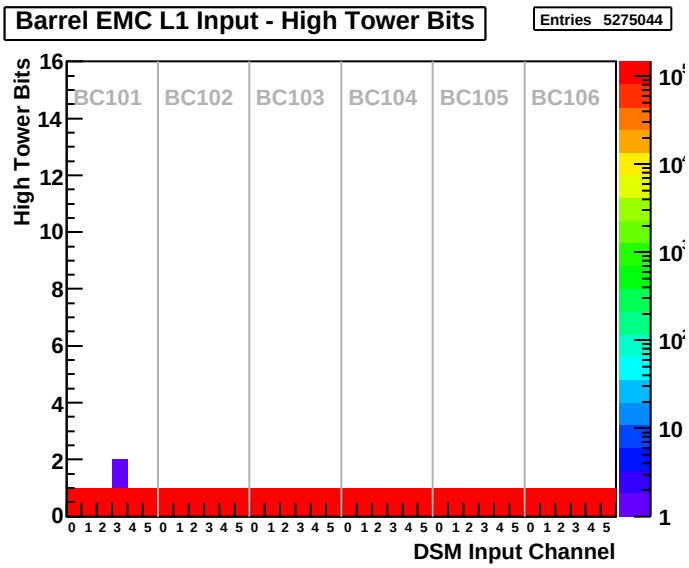

Hybrid Jet Patches
Entries 293058
JP ADC
JP ID

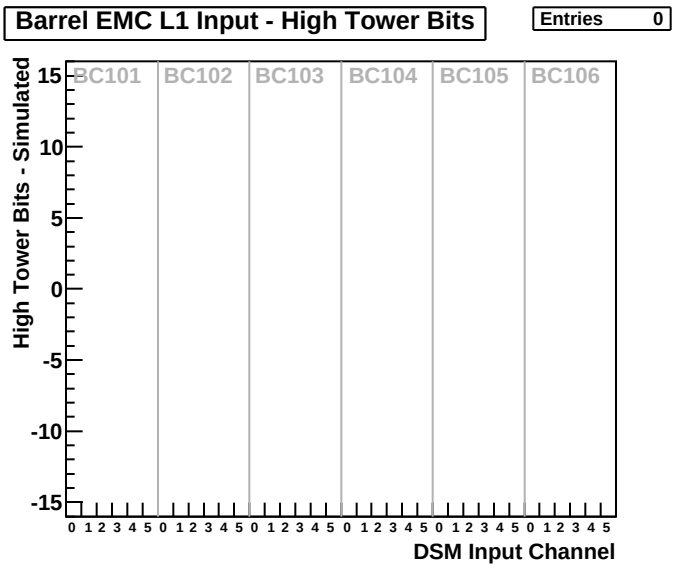

Barrel EMC L1 Input - Low Eta Sum
Entries 5275044
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

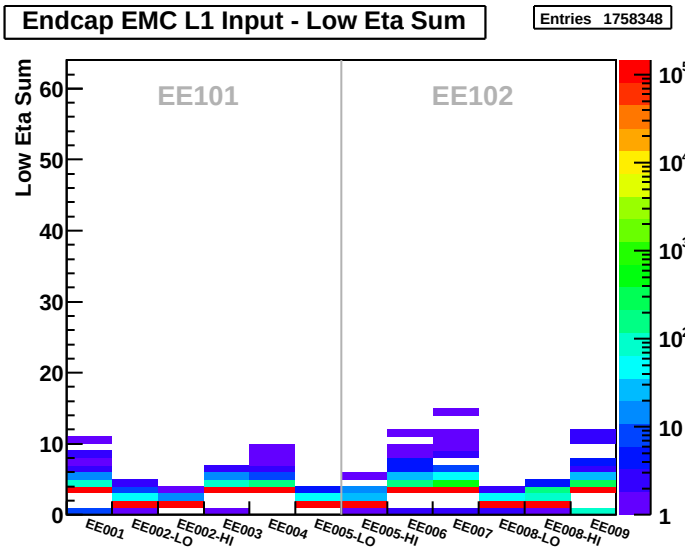

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

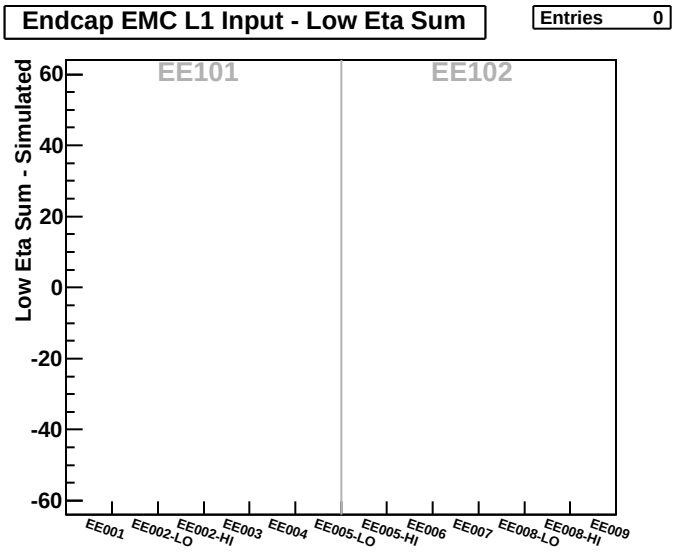

Barrel EMC L1 Input - High Eta Sum
Entries 5275044
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

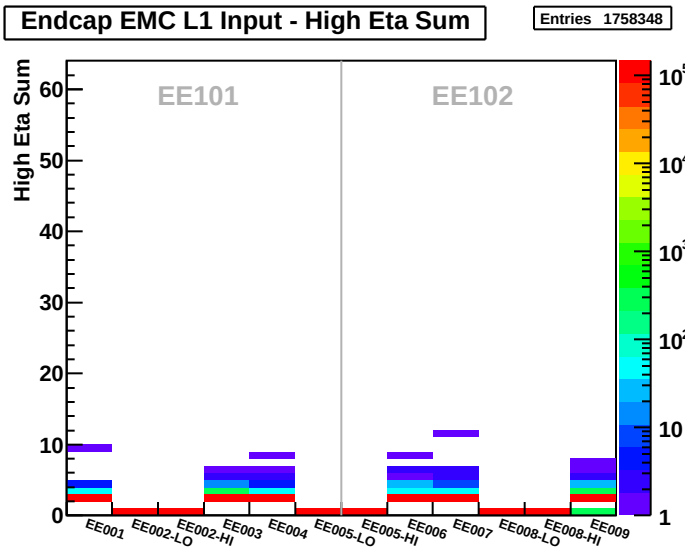

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

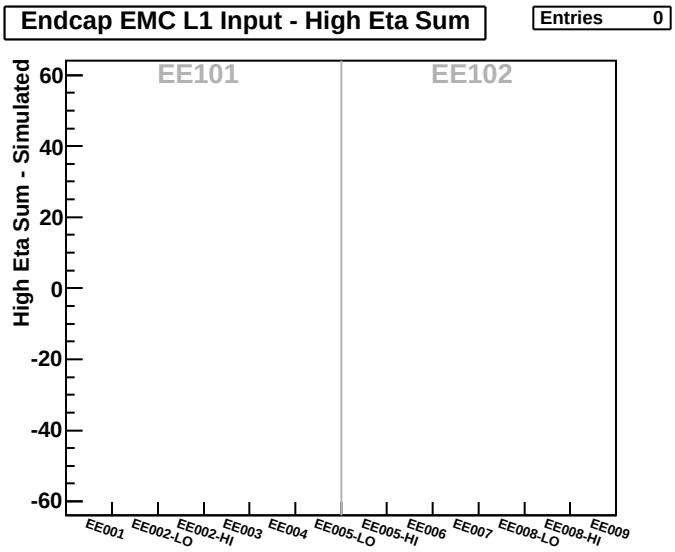

Barrel EMC L1 Input - High Tower Bits
Entries 5275044
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

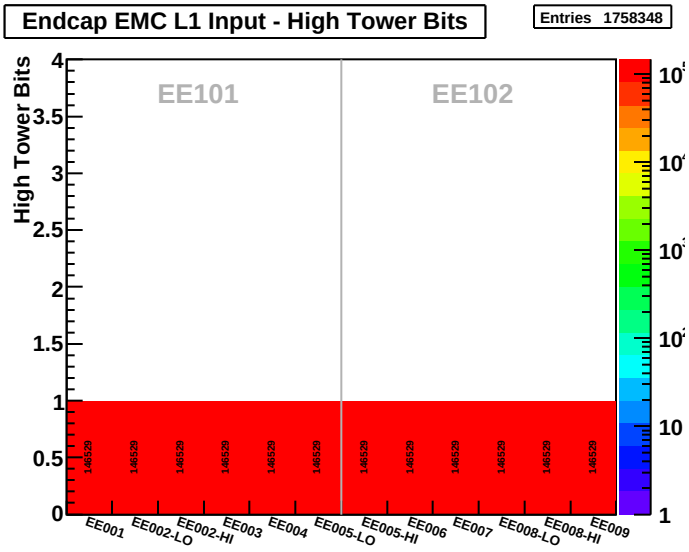

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

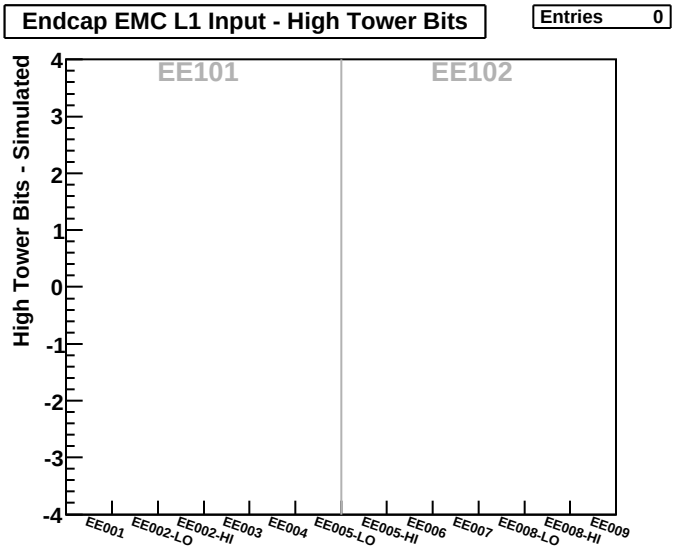

Endcap EMC L1 Input - Low Eta Sum
Entries 1758348
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

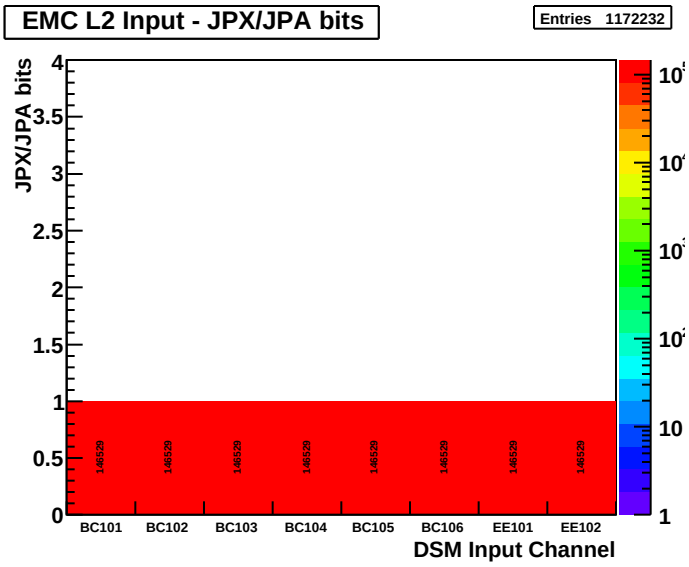

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

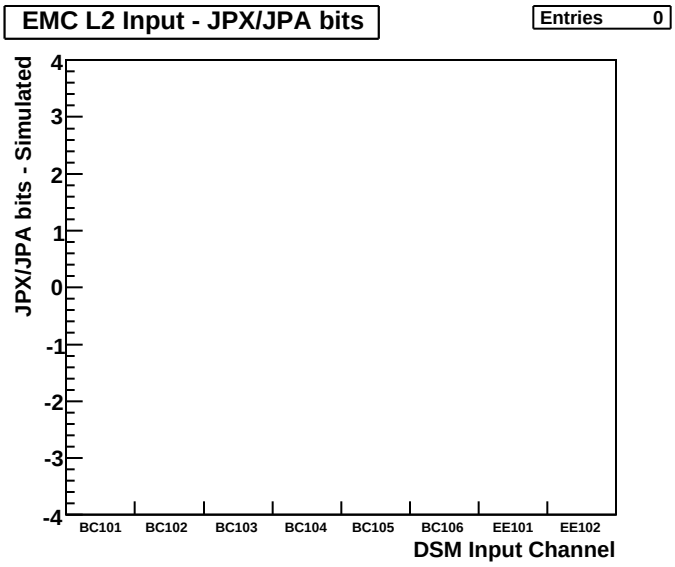

Endcap EMC L1 Input - High Eta Sum
Entries 1758348
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

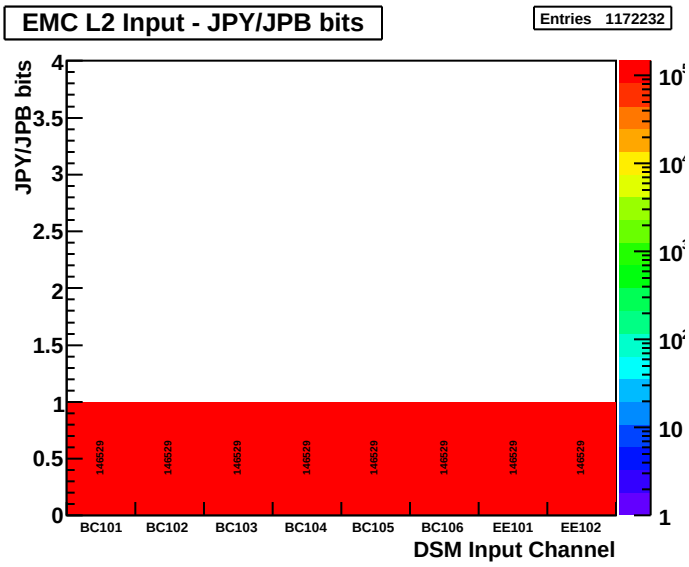

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

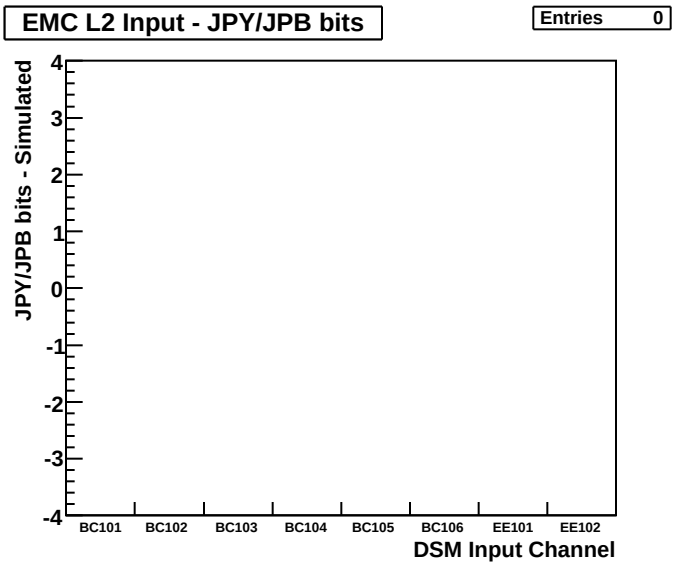

Endcap EMC L1 Input - High Tower Bits
Entries 1758348
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

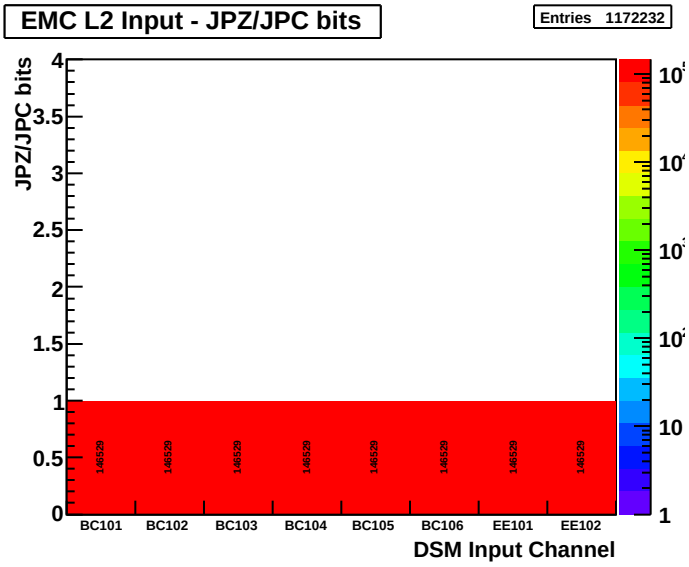

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

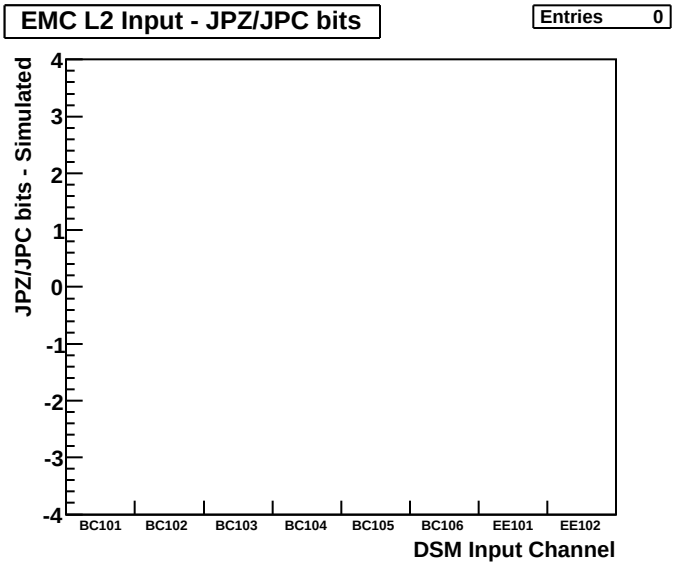

EMC L2 Input - JPX/JPA bits
Entries 1172232
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
146529

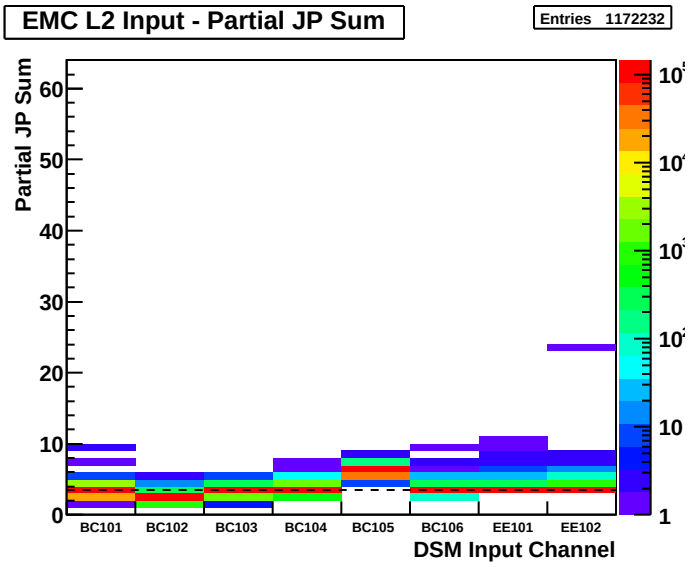

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

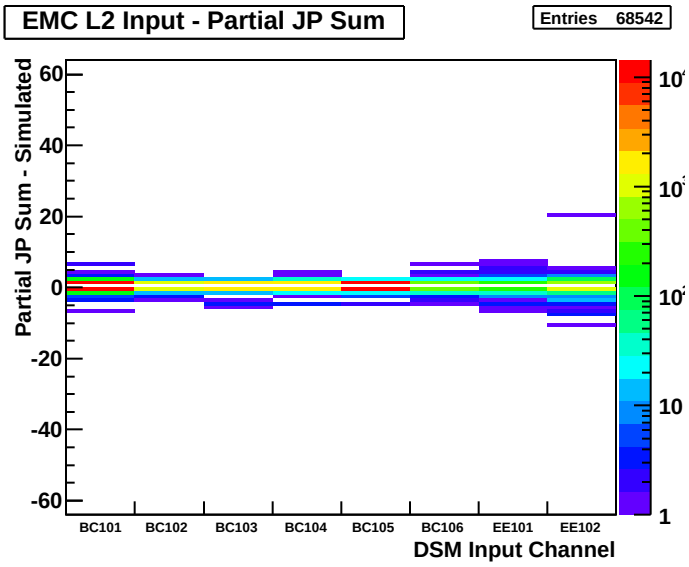

EMC L2 Input - JPY/JPB bits
Entries 1172232
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
146529

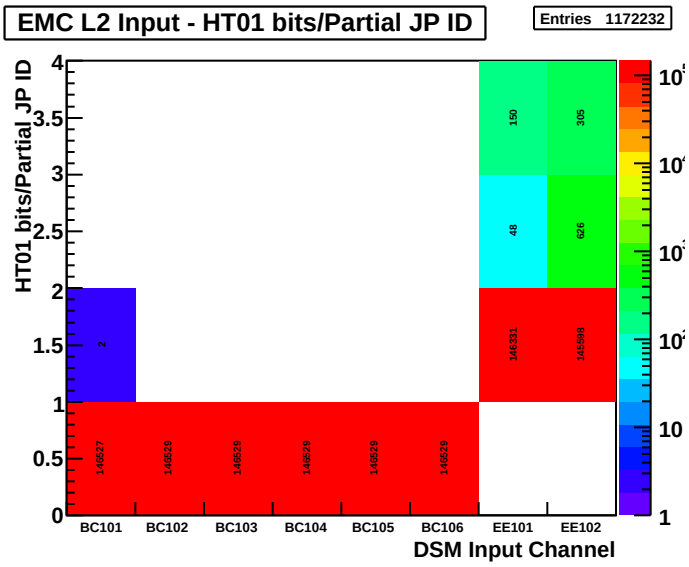

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

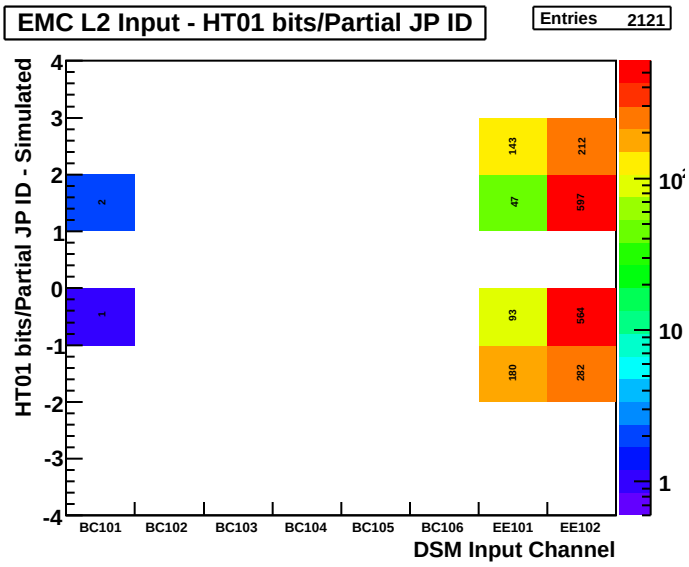

EMC L2 Input - JPZ/JPC bits
Entries 1172232
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
146529

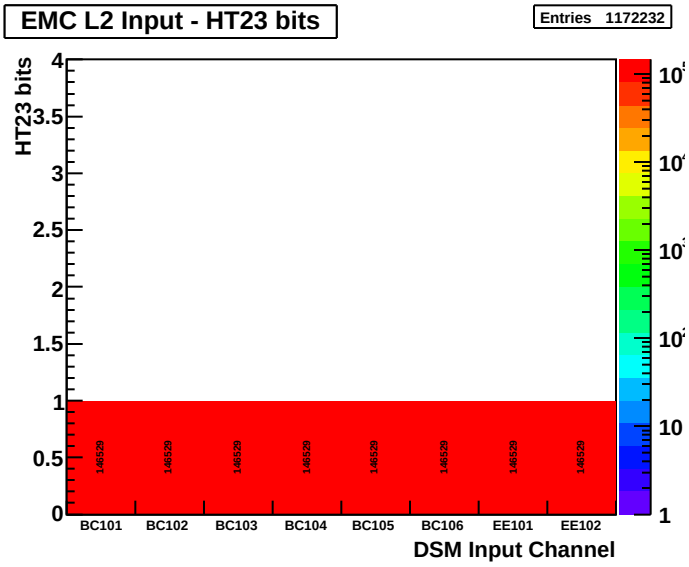

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

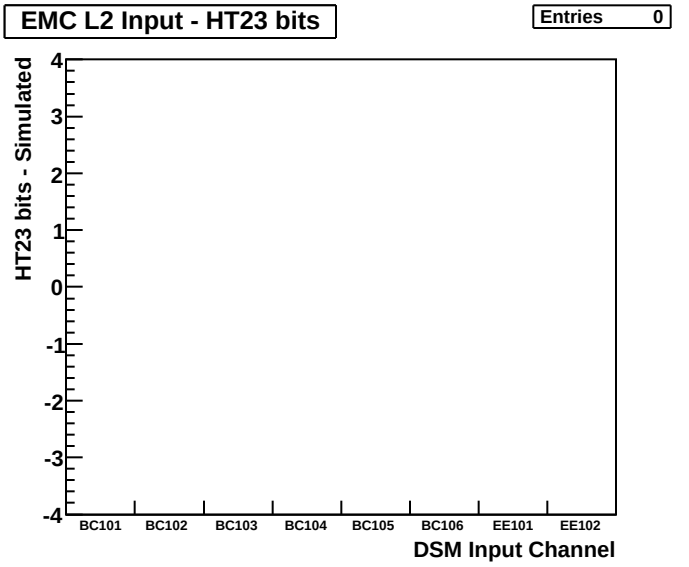

EMC L2 Input - Partial JP Sum
Entries 1172232
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

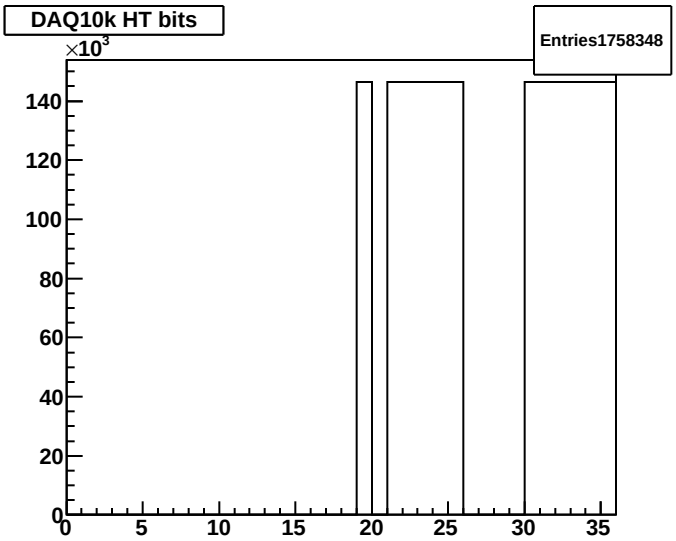

EMC L2 Input - Partial JP Sum
Entries 68542
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

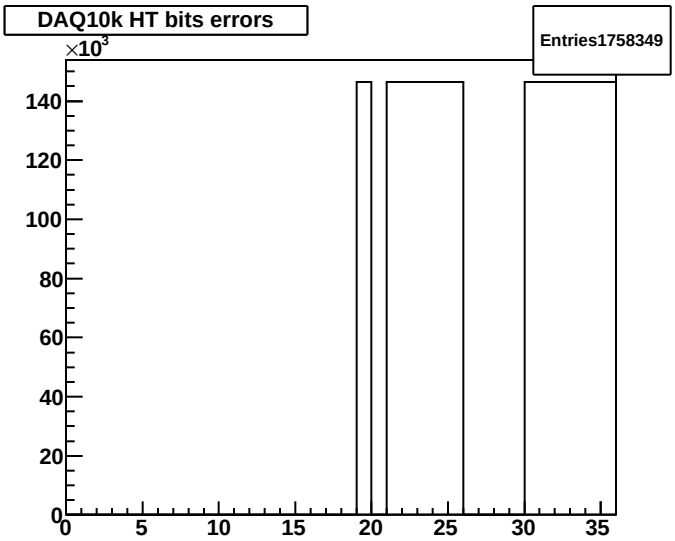

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1172232
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

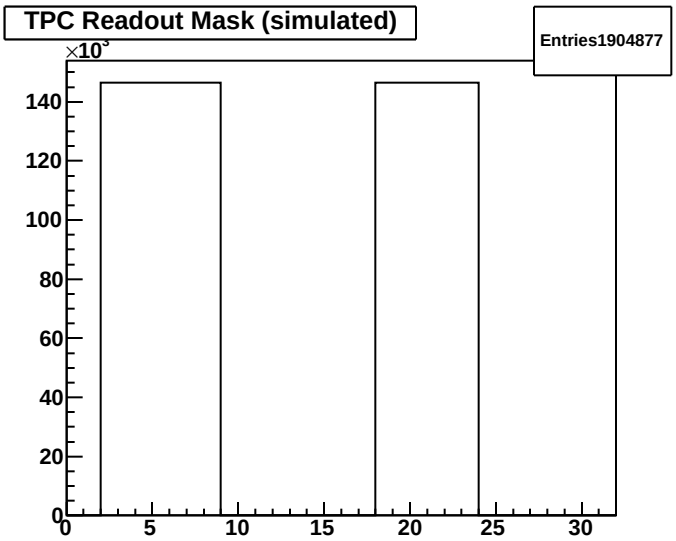

EMC L2 Input - HT01 bits/Partial JP ID
Entries 2121
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

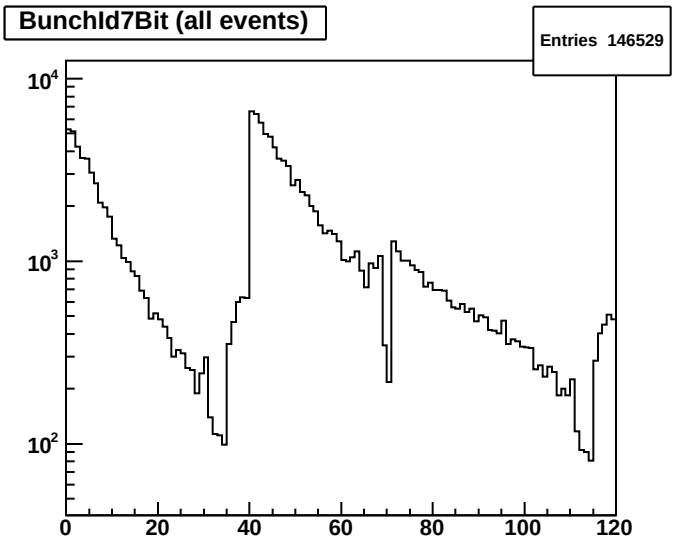

EMC L2 Input - HT23 bits
Entries 1172232
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

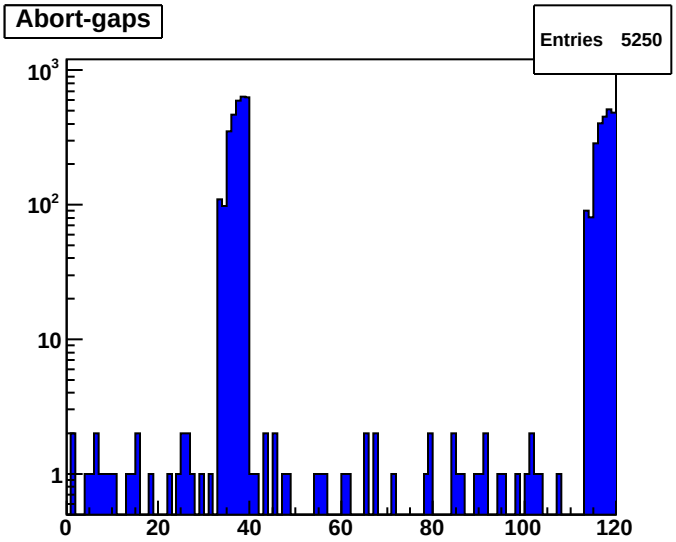

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102


DAQ10k HT bits
Entries1758348
×10^3
140
120
100
80
60
40
20
0
0 5 10 15 20 25 30 35

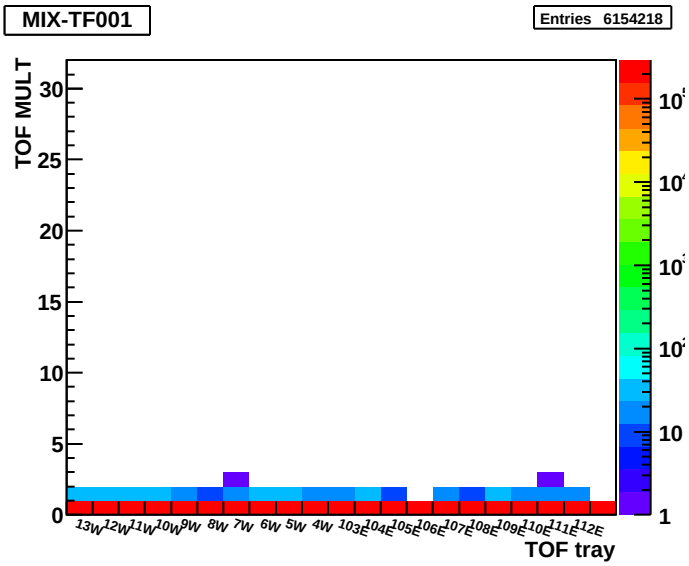

DAQ10k HT bits errors
Entries1758349
×10^3
140
120
100
80
60
40
20
0
0 5 10 15 20 25 30 35

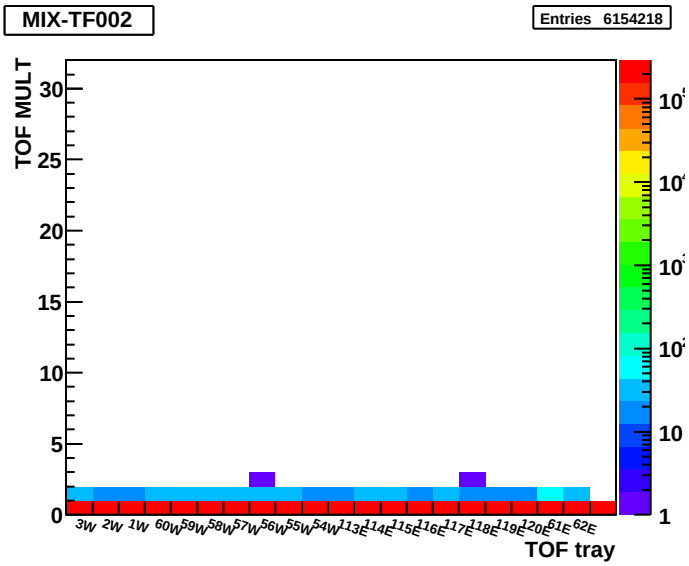

TPC Readout Mask (simulated)
Entries1904877
×10^3
140
120
100
80
60
40
20
0
0 5 10 15 20 25 30

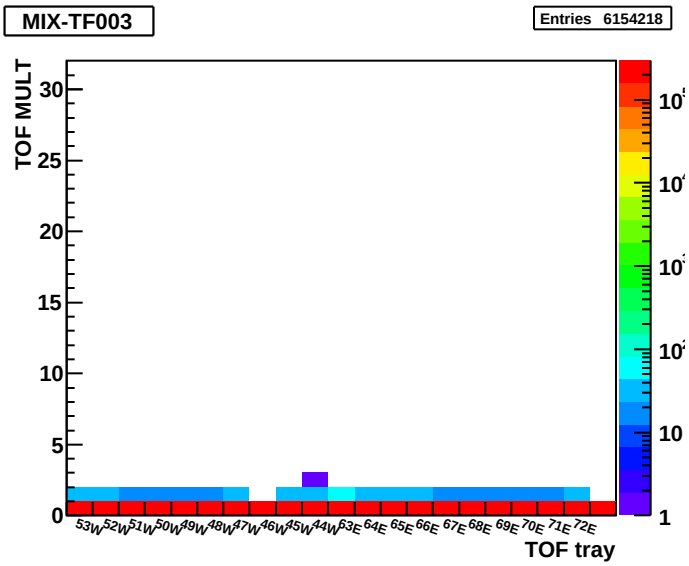

BunchId7Bit (all events)
Entries 146529
10^4
10^3
10^2
0 20 40 60 80 100 120

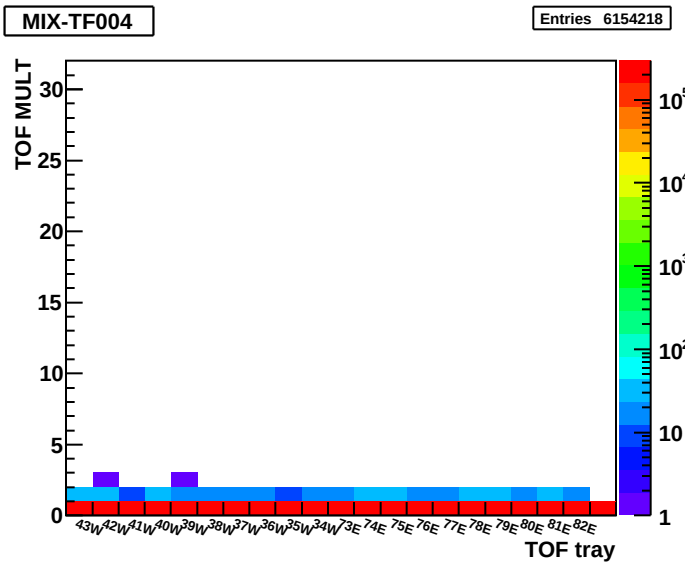

Abort-gaps
Entries 5250
10^3
10^2
10
1
0 20 40 60 80 100 120

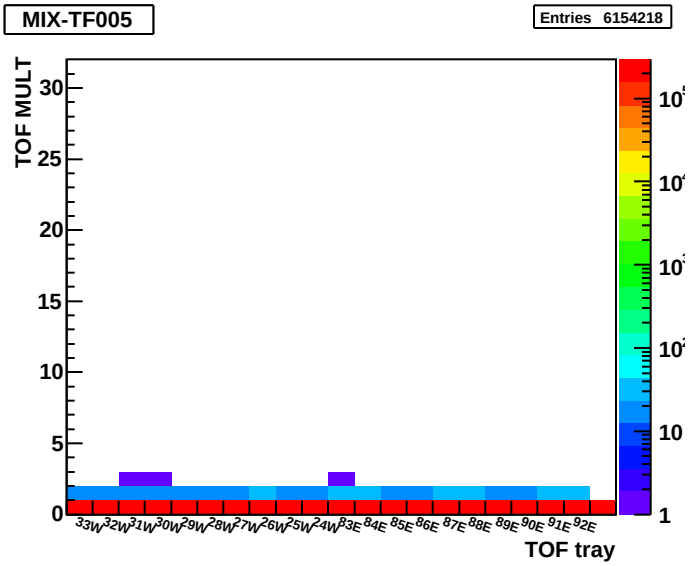
!Yellow-Fill
Entries 146529
10^4
10^3
10^2
0 20 40 60 80 100 120

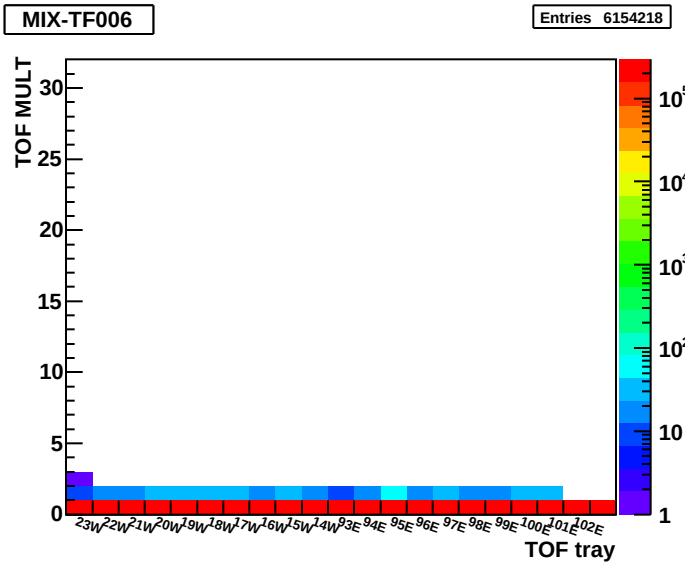

MIX-TF001
Entries 6154218
TOF MULT
TOF tray

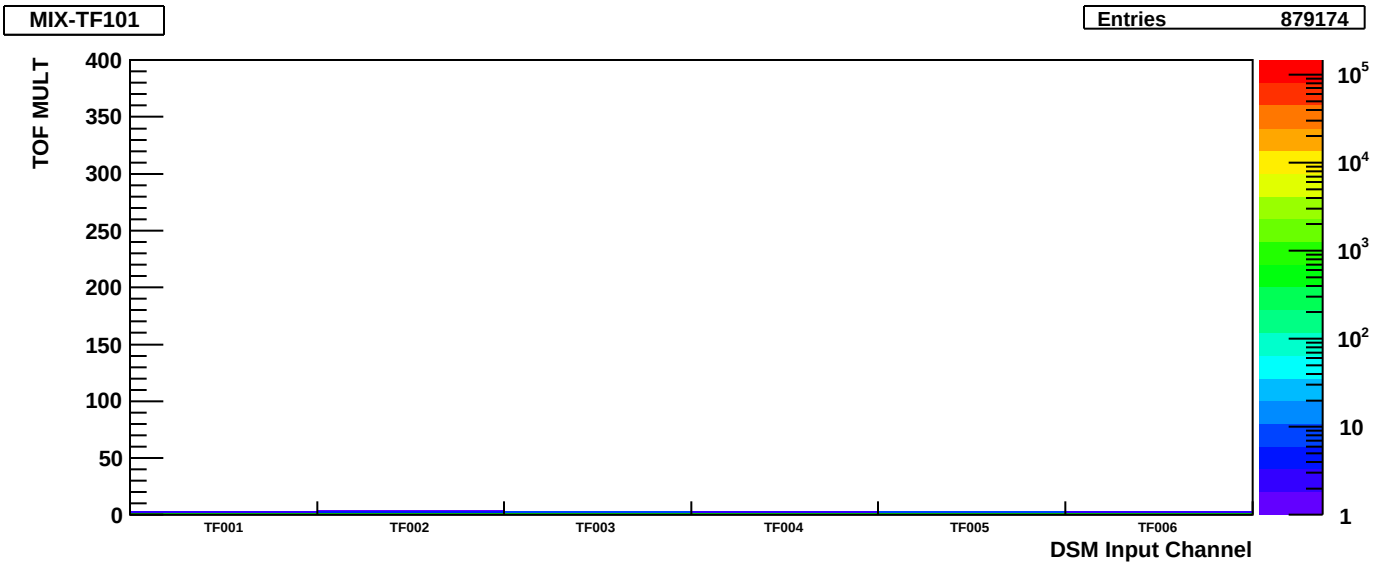

MIX-TF002
Entries 6154218
TOF MULT
TOF tray

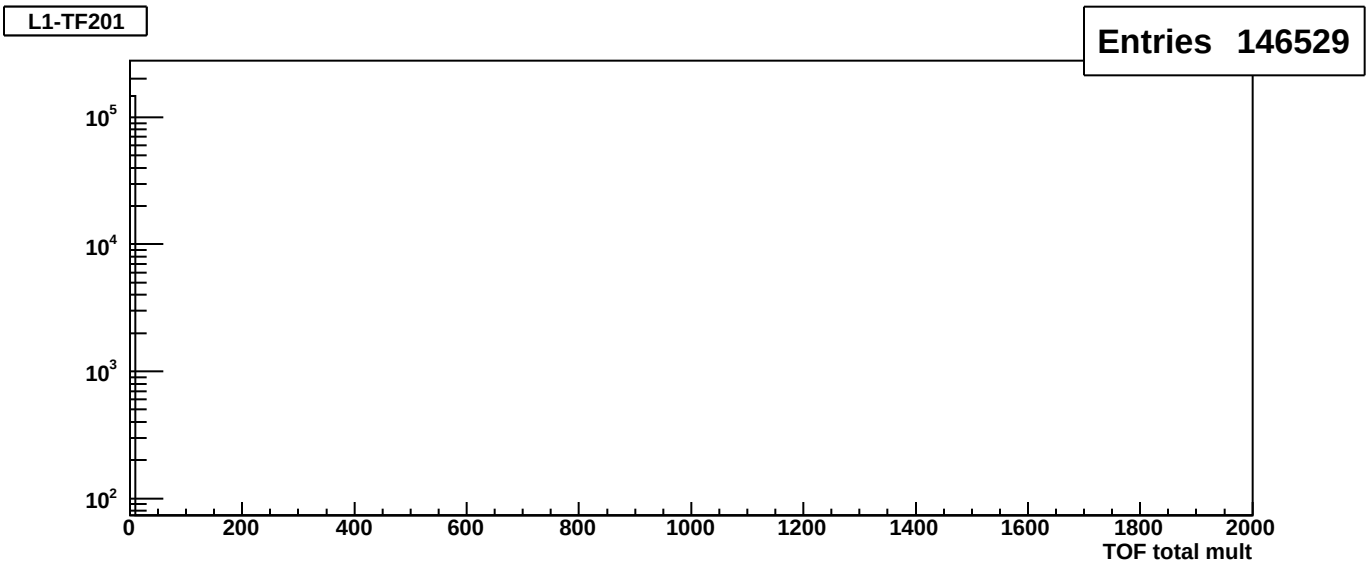

MIX-TF003
Entries 6154218
TOF MULT
TOF tray

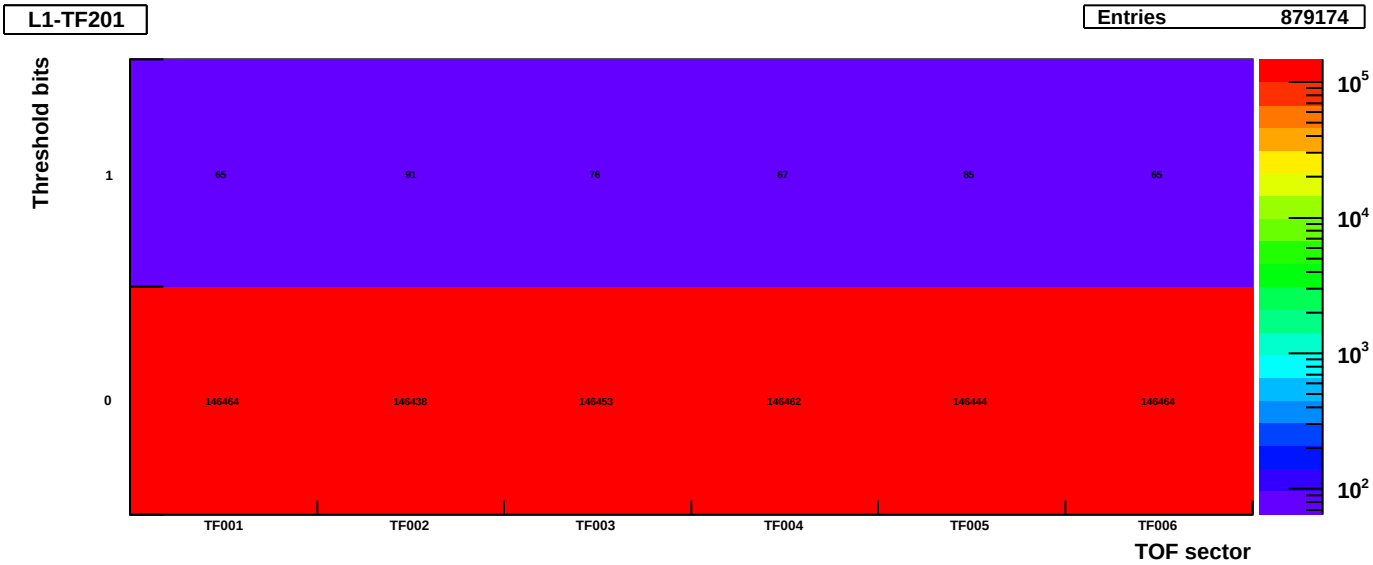

MIX-TF004
Entries 6154218
TOF MULT
TOF tray

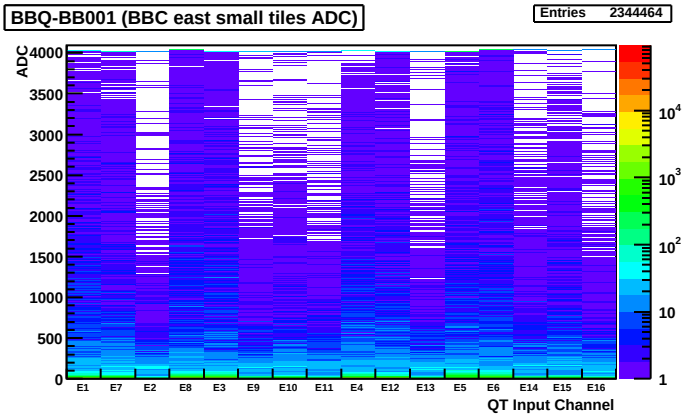

MIX-TF005
Entries 6154218
TOF MULT
TOF tray

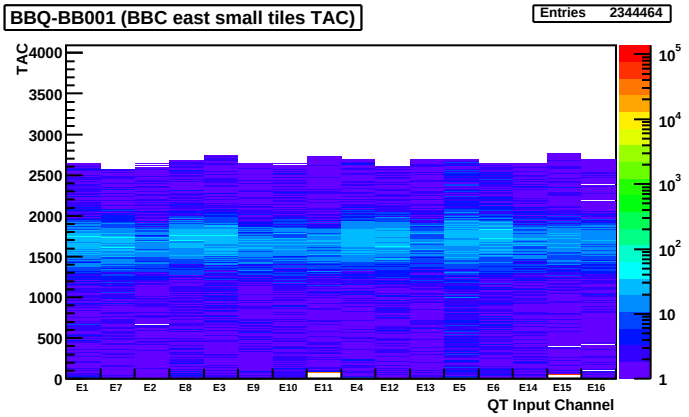

MIX-TF006
Entries 6154218
TOF MULT
TOF tray

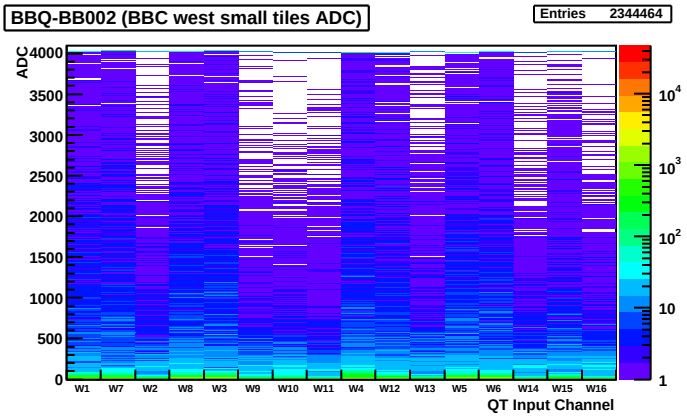

MIX-TF101
Entries 879174
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

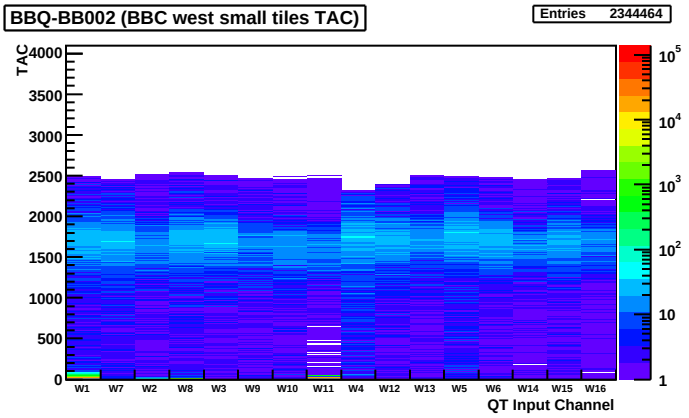

L1-TF201
Entries 146529
10^5
10^4
10^3
10^2
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

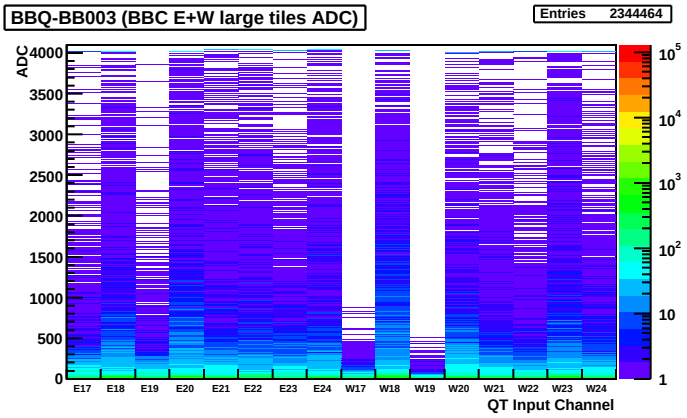

L1-TF201
Entries 879174
Threshold bits
1
0
65
91
76
67
85
65
146464
146438
146453
146462
146444
146464
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5
10^4
10^3
10^2

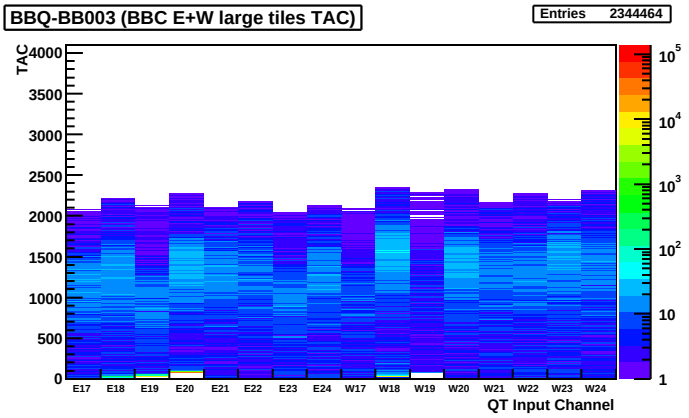

BBQ-BB001 (BBC east small tiles ADC)
Entries 2344464
ADC
QT Input Channel

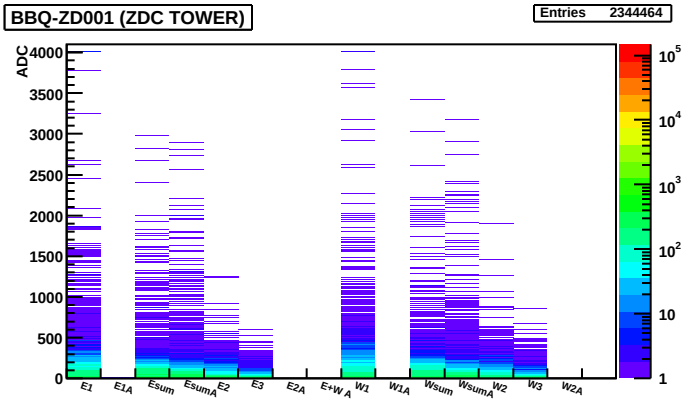

BBQ-BB001 (BBC east small tiles TAC)
Entries 2344464
TAC
QT Input Channel

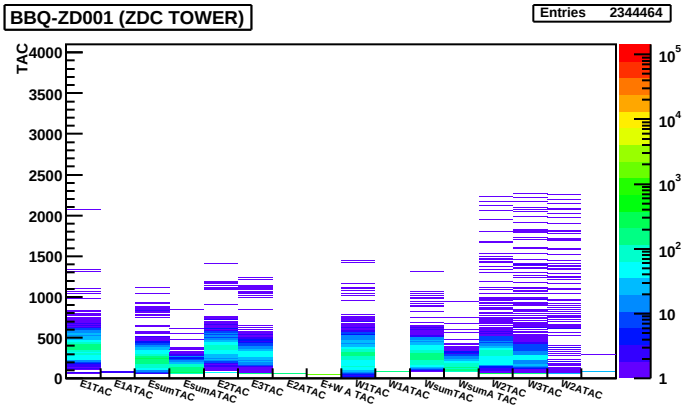

BBQ-BB002 (BBC west small tiles ADC)
Entries 2344464
ADC
QT Input Channel

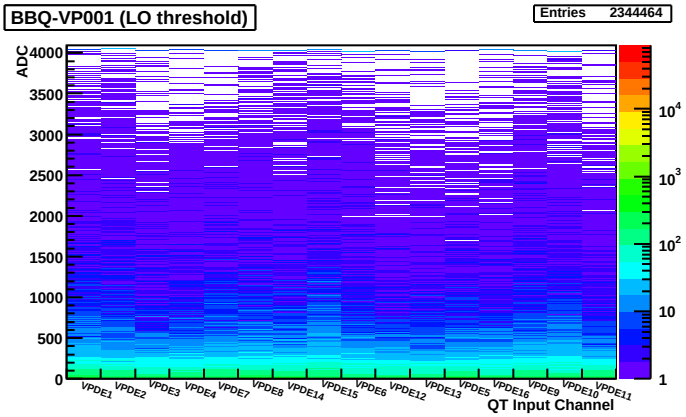

BBQ-BB002 (BBC west small tiles TAC)
Entries 2344464
TAC
QT Input Channel

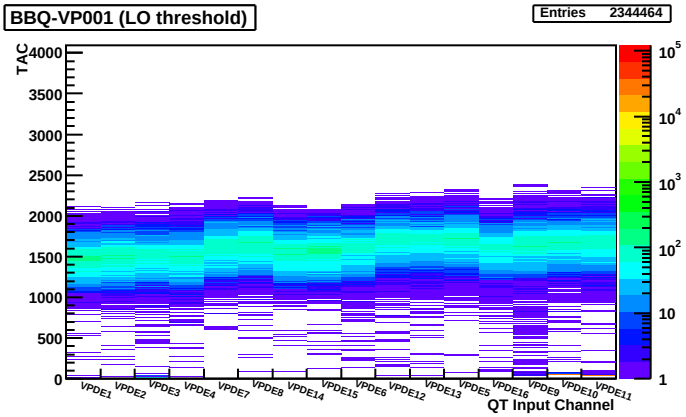

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 2344464
ADC
QT Input Channel

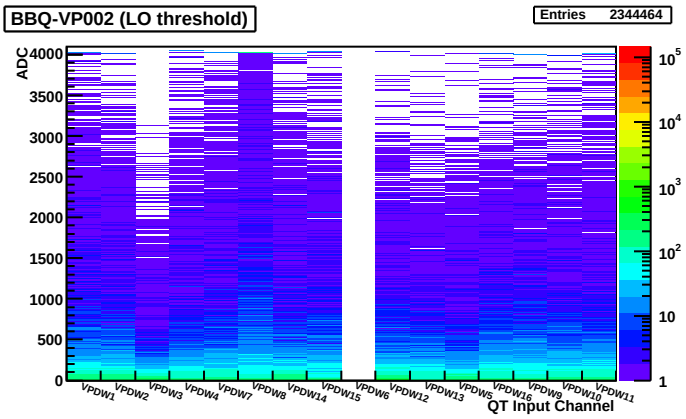

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 2344464
TAC
QT Input Channel

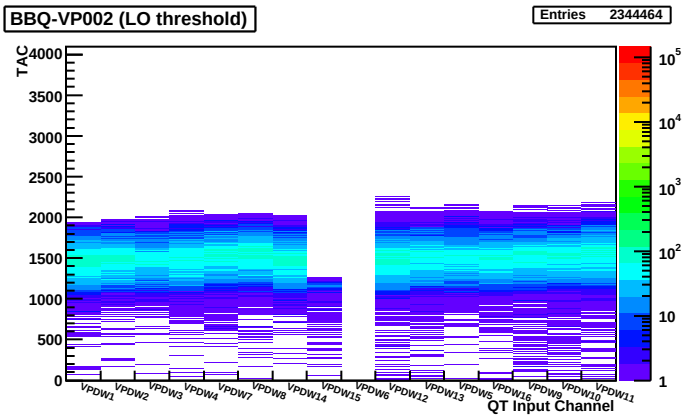

BBQ-ZD001 (ZDC TOWER)
Entries 2344464
ADC

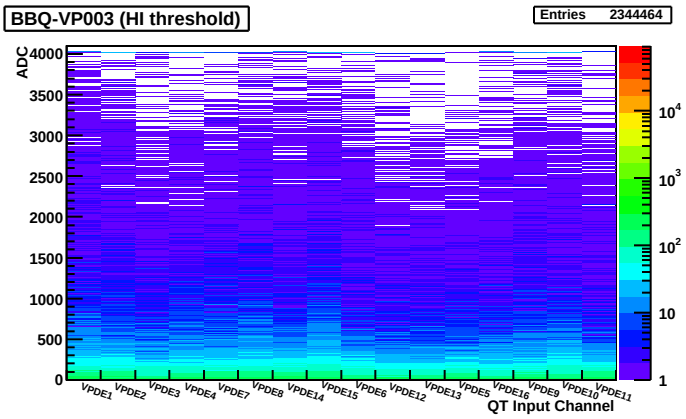

BBQ-ZD001 (ZDC TOWER)
Entries 2344464
TAC

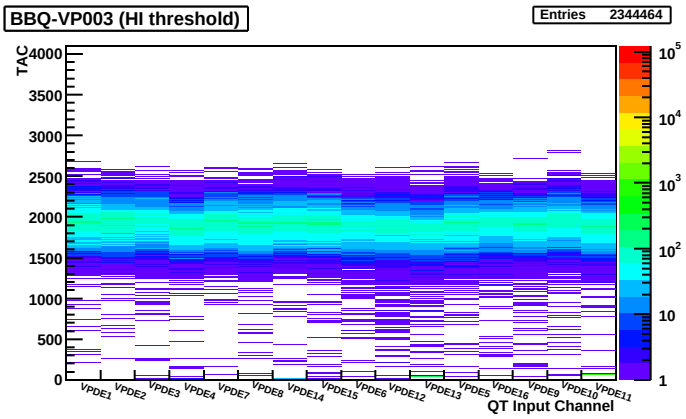

BBQ-VP001 (LO threshold)
Entries 2344464
ADC
QT Input Channel

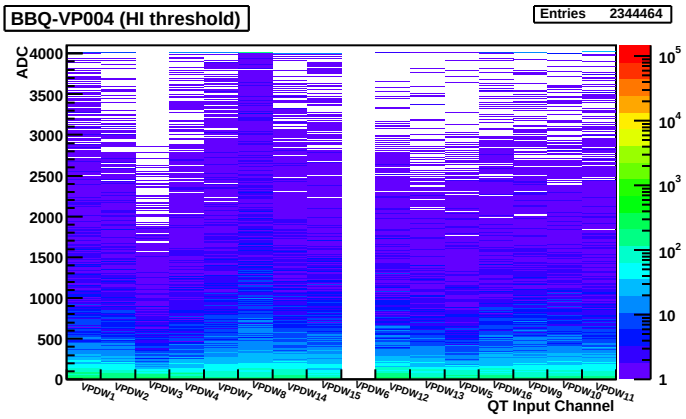

BBQ-VP001 (LO threshold)
Entries 2344464
TAC
QT Input Channel

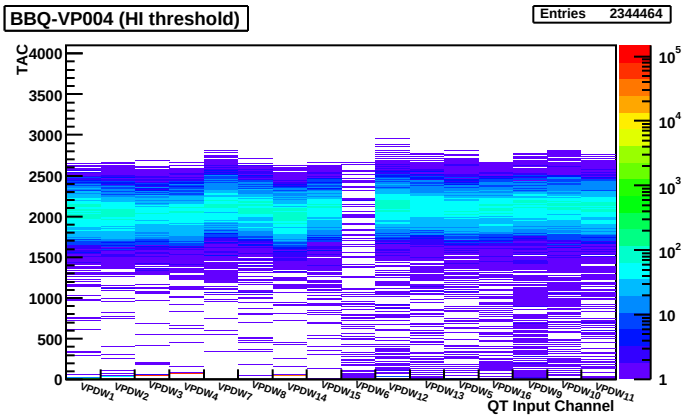

BBQ-VP002 (LO threshold)
Entries 2344464
ADC
QT Input Channel

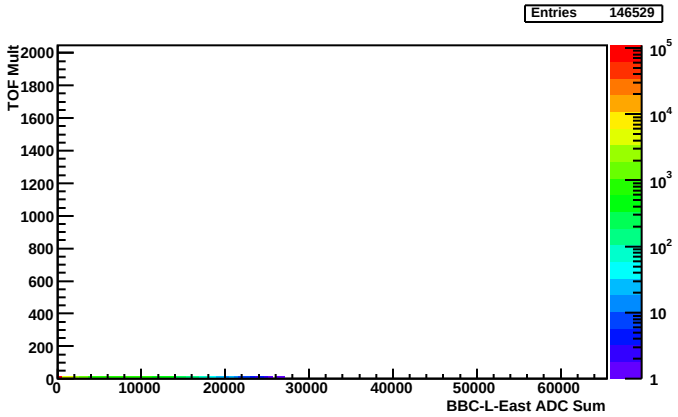

BBQ-VP002 (LO threshold)
Entries 2344464
TAC
QT Input Channel

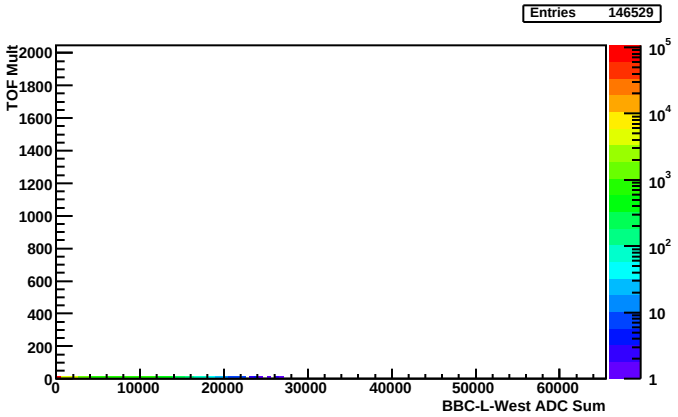

BBQ-VP003 (HI threshold)
Entries 2344464
ADC
QT Input Channel

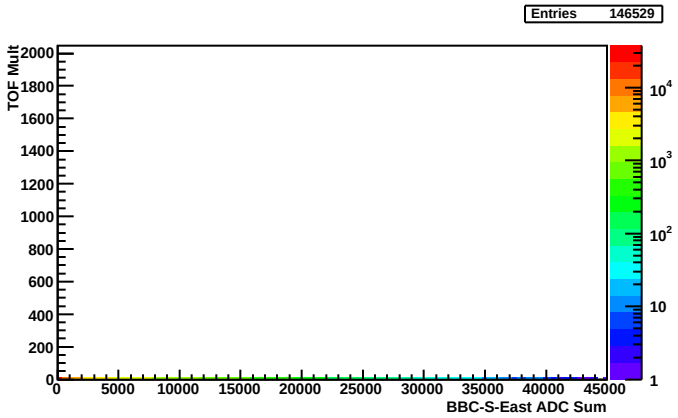

BBQ-VP003 (HI threshold)
Entries 2344464
TAC
QT Input Channel

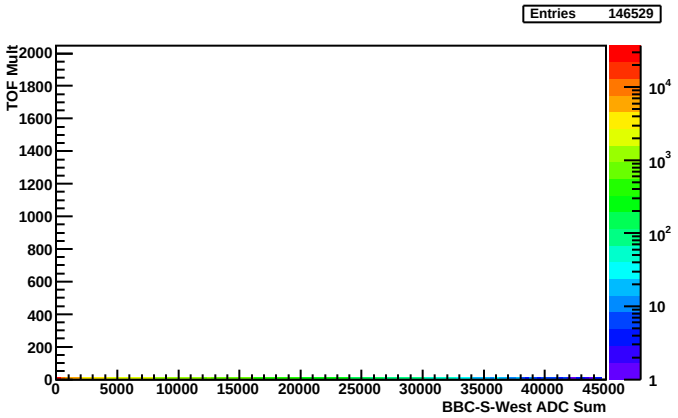

BBQ-VP004 (HI threshold)
Entries 2344464
ADC
QT Input Channel

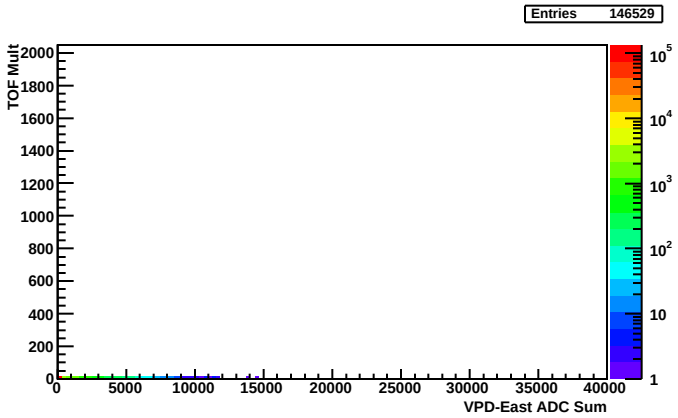

BBQ-VP004 (HI threshold)
Entries 2344464
TAC
QT Input Channel

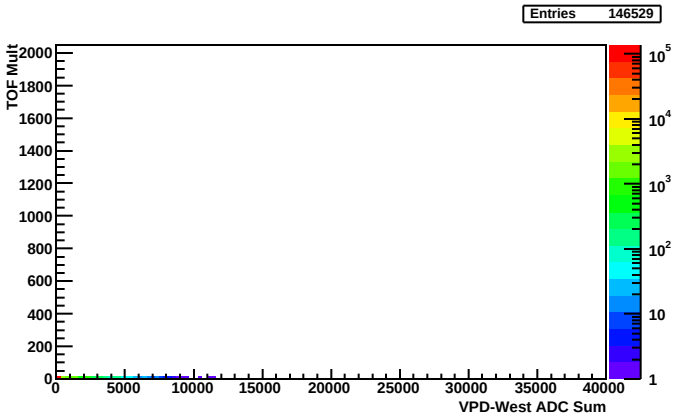

Entries 146529
TOF Mult
BBC-L-East ADC Sum

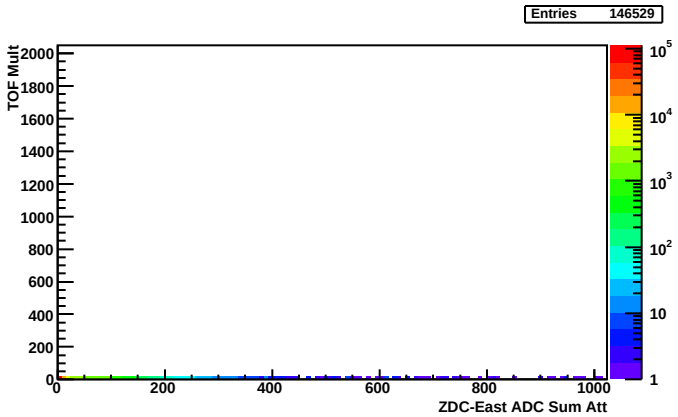

Entries 146529
TOF Mult
BBC-L-West ADC Sum

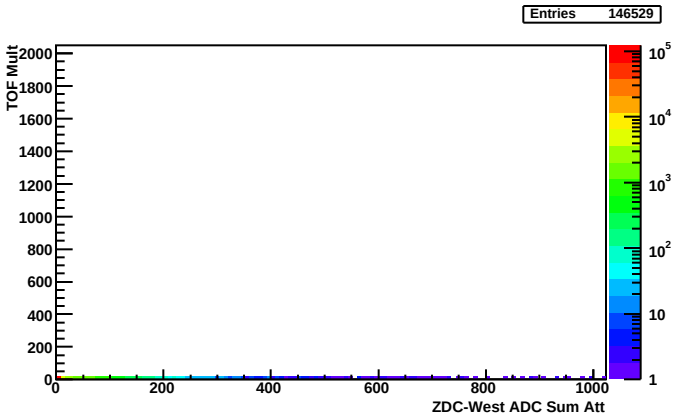

Entries 146529
TOF Mult
BBC-S-East ADC Sum

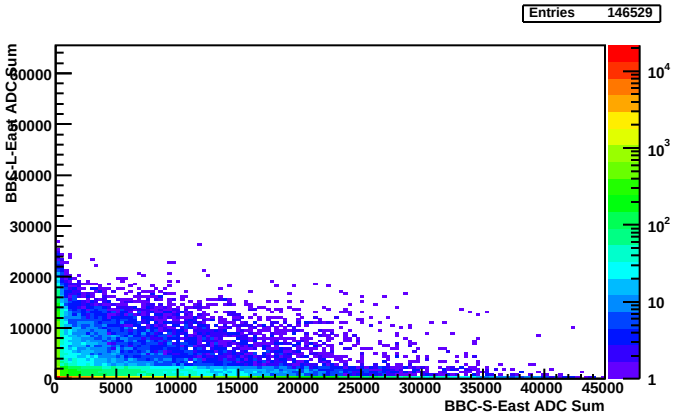

Entries 146529
TOF Mult
BBC-S-West ADC Sum

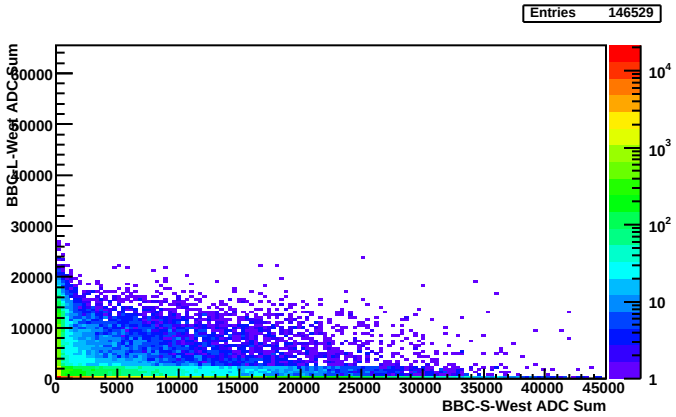

Entries 146529
TOF Mult
VPD-East ADC Sum

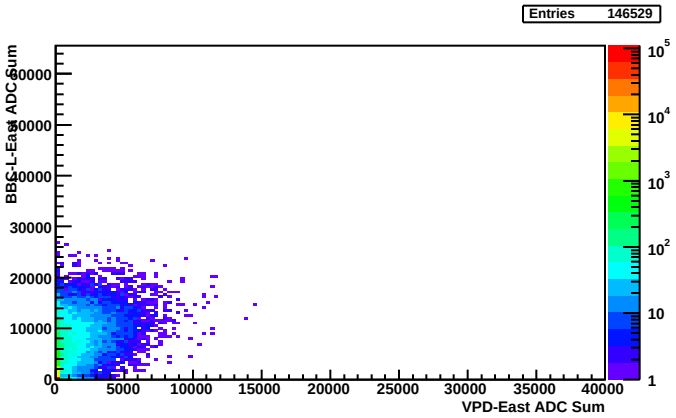

Entries 146529
TOF Mult
VPD-West ADC Sum

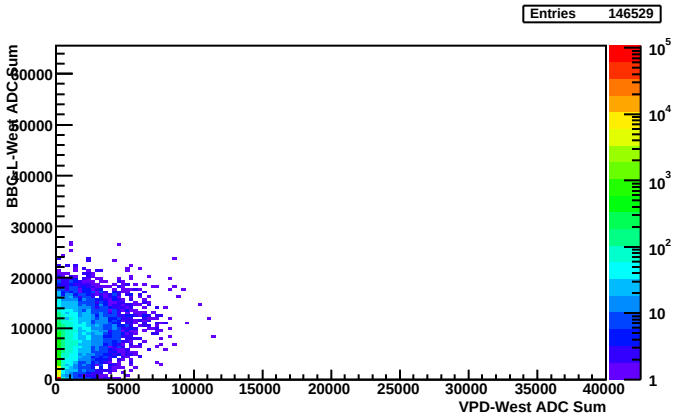

Entries 146529
TOF Mult
ZDC-East ADC Sum Att

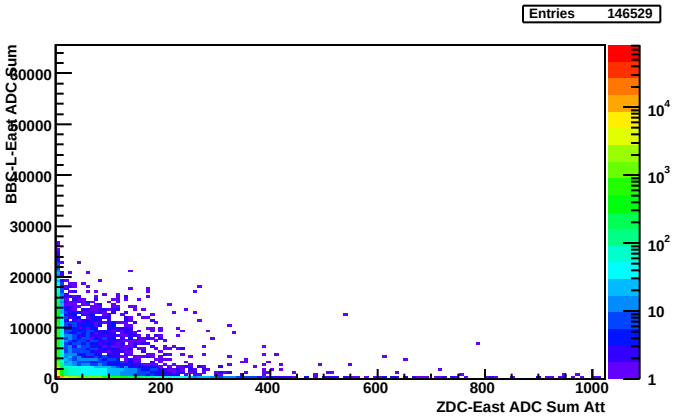

Entries 146529
TOF Mult
ZDC-West ADC Sum Att

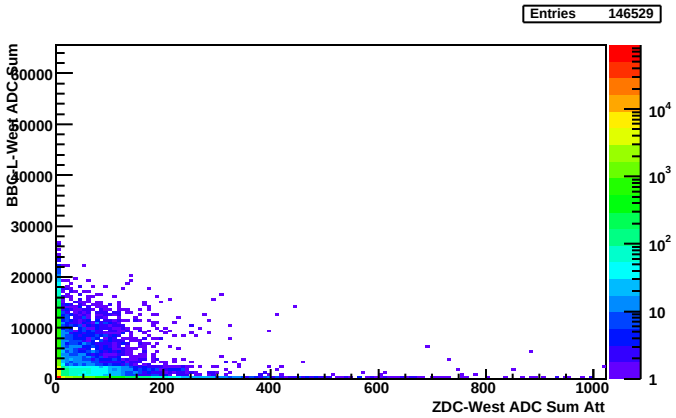

Entries 146529
BBC-L-East ADC Sum
BBC-S-East ADC Sum

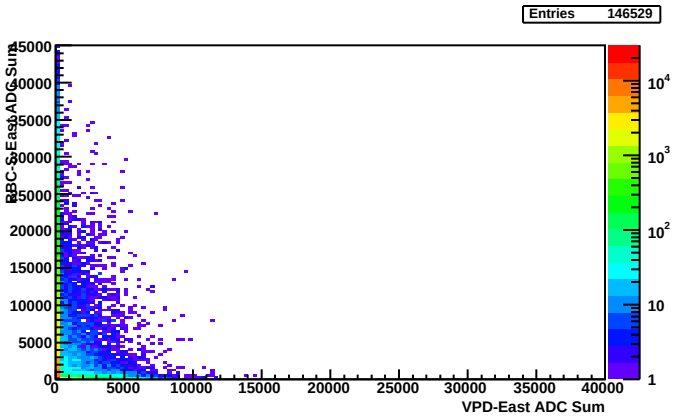

Entries 146529
BBC-L-West ADC Sum
BBC-S-West ADC Sum

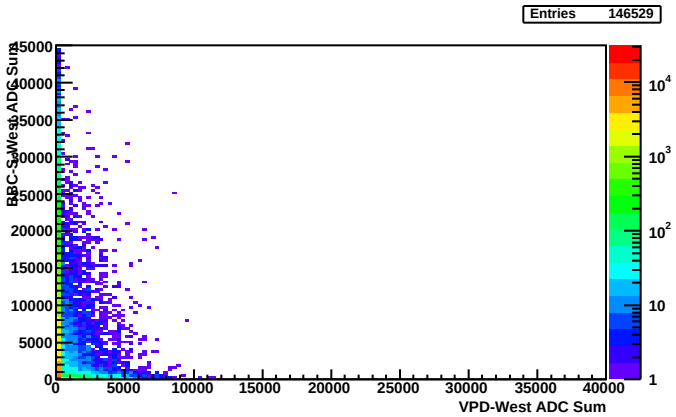

Entries 146529
BBC-L-East ADC Sum
VPD-East ADC Sum

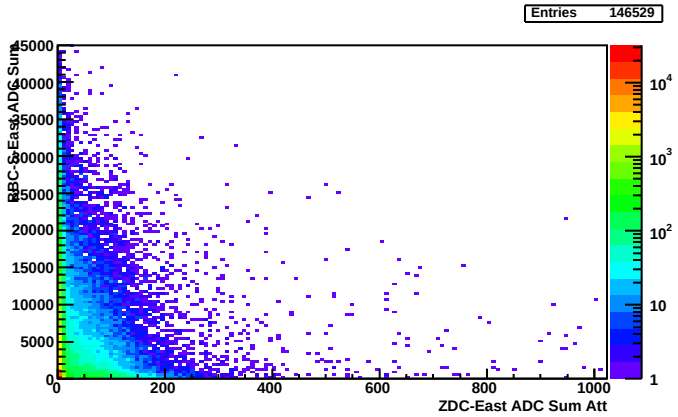

Entries 146529
BBC-L-West ADC Sum
VPD-West ADC Sum

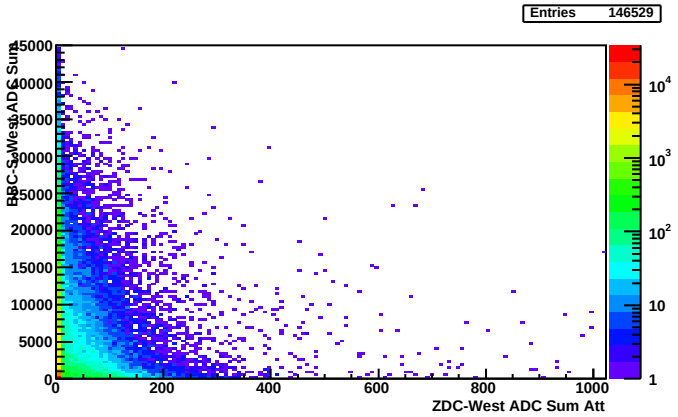

Entries 146529
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

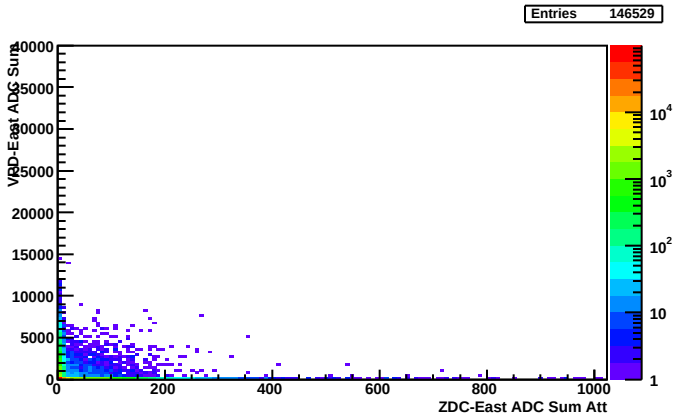

Entries 146529
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

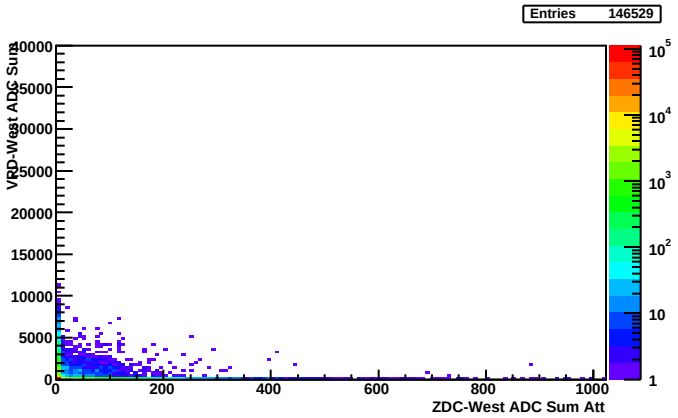

Entries 146529
BBC-S-East ADC Sum
VPD-East ADC Sum

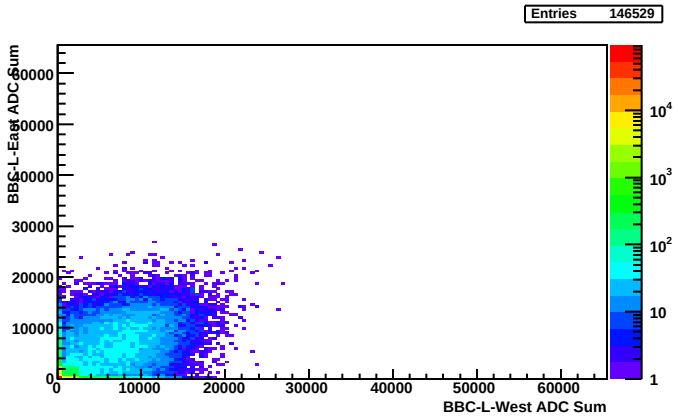

Entries 146529
BBC-S-West ADC Sum
VPD-West ADC Sum

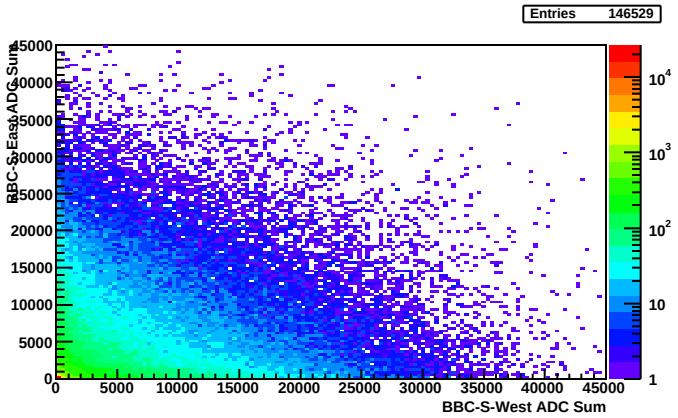

Entries 146529
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

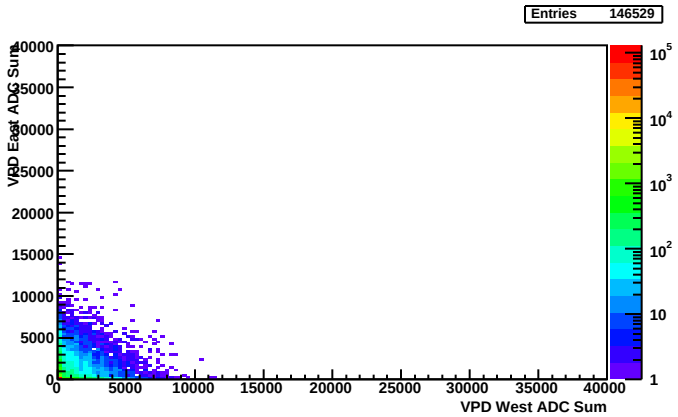

Entries 146529
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

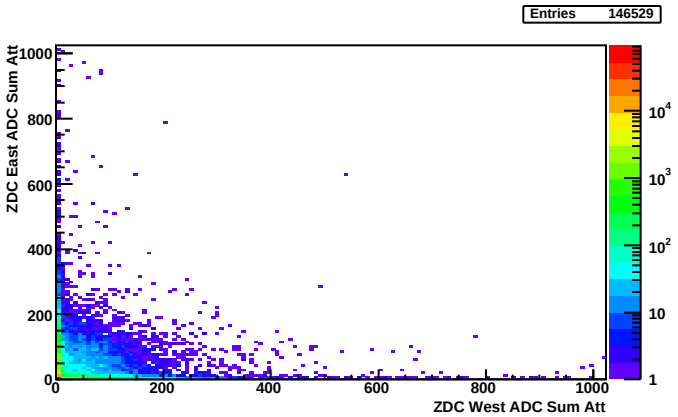

Entries 146529
VPD-East ADC Sum
ZDC-East ADC Sum Att

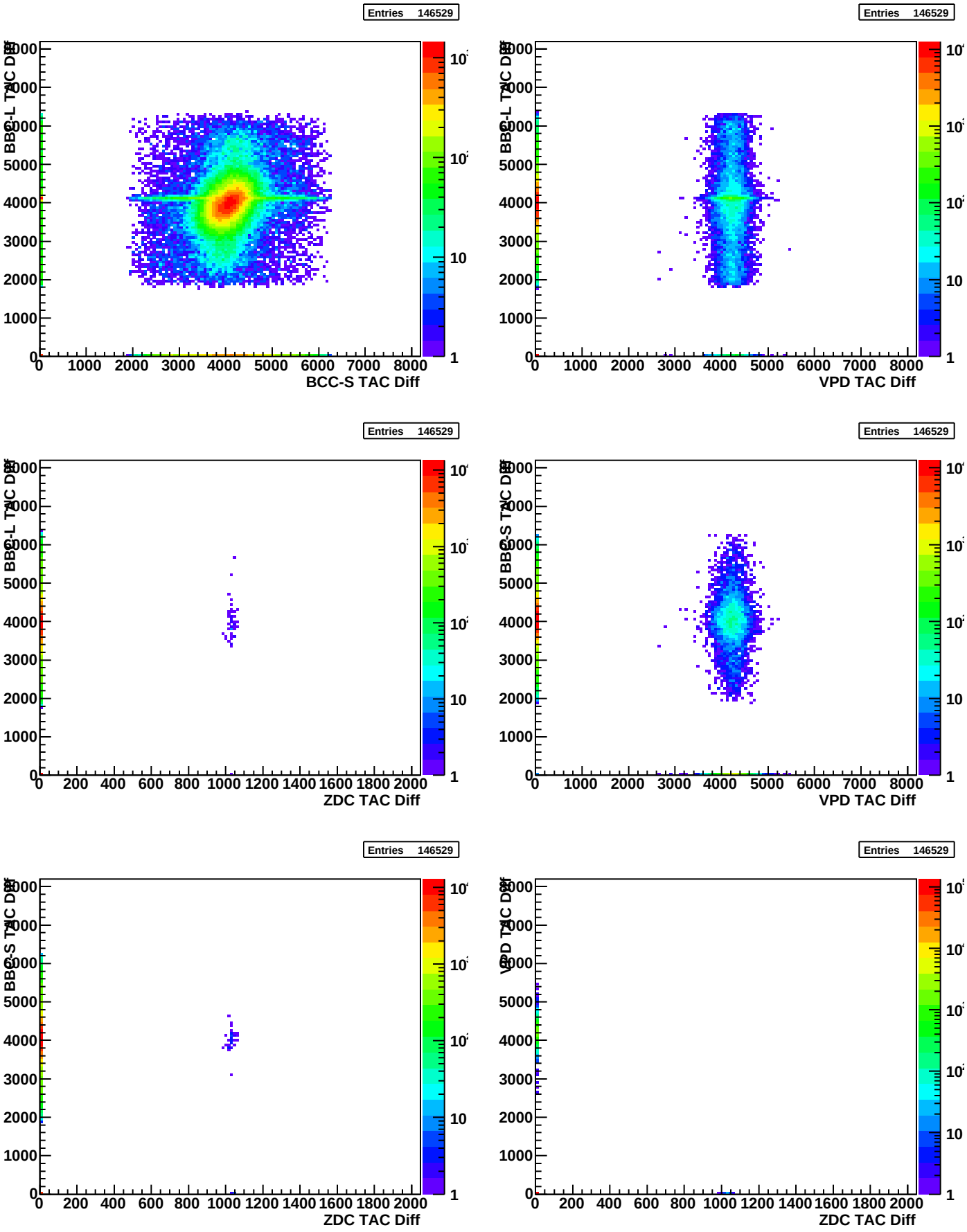

Entries 146529
VPD-West ADC Sum
ZDC-West ADC Sum Att

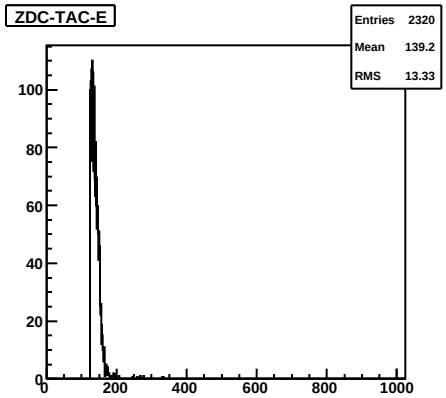

Entries 146529
BBC-L-East ADC Sum
BBC-L-West ADC Sum

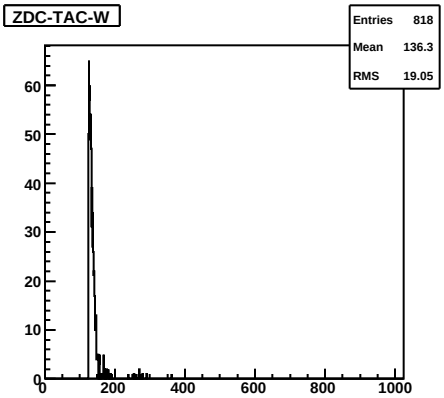

Entries 146529
BBC-S-East ADC Sum
BBC-S-West ADC Sum

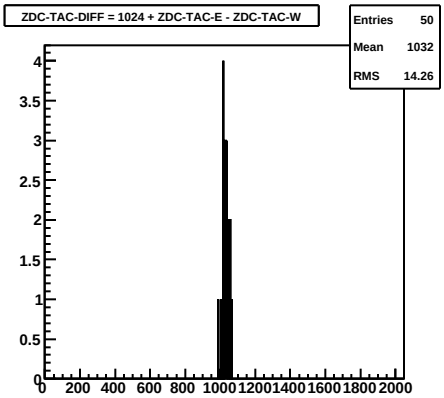

Entries 146529
VPD East ADC Sum
VPD West ADC Sum

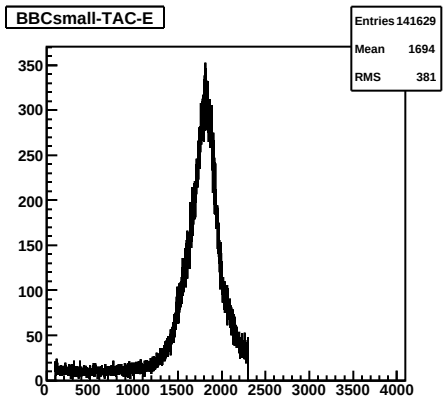

Entries 146529
ZDC East ADC Sum Att
ZDC West ADC Sum Att

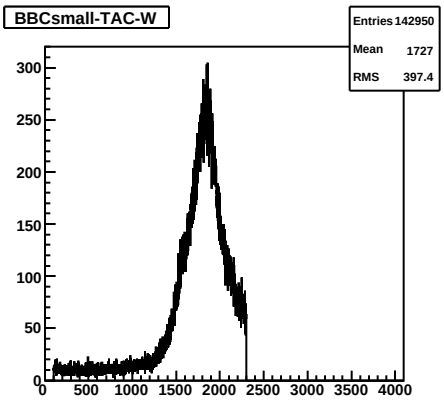

Entries 146529
BBC-L TAC Diff
BCC-S TAC Diff
Entries 146529
BBC-L TAC Diff
VPD TAC Diff
Entries 146529
BBC-L TAC Diff
ZDC TAC Diff
Entries 146529
BBC-S TAC Diff
VPD TAC Diff
Entries 146529
BBC-S TAC Diff
ZDC TAC Diff
Entries 146529
VPD TAC Diff
ZDC TAC Diff

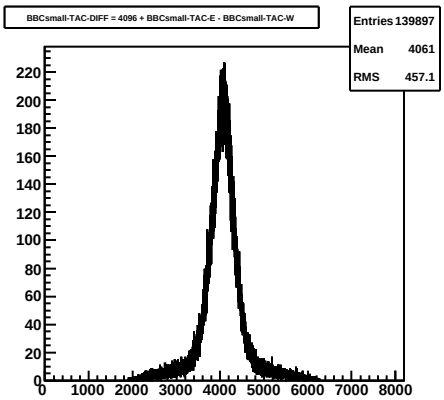

ZDC-TAC-E
Entries 2320
Mean 139.2
RMS 13.33

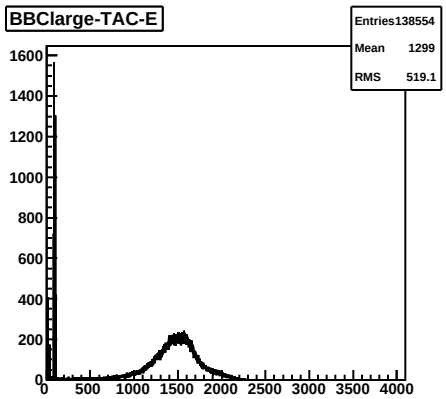

ZDC-TAC-W
Entries 818
Mean 136.3
RMS 19.05

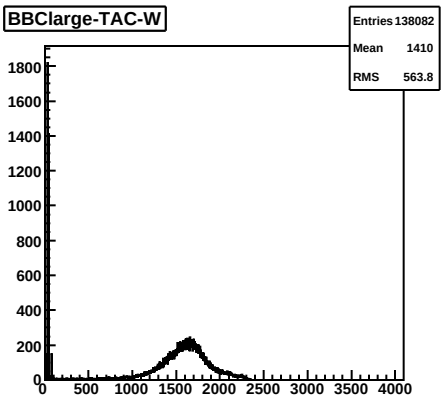

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 50
Mean 1032
RMS 14.26

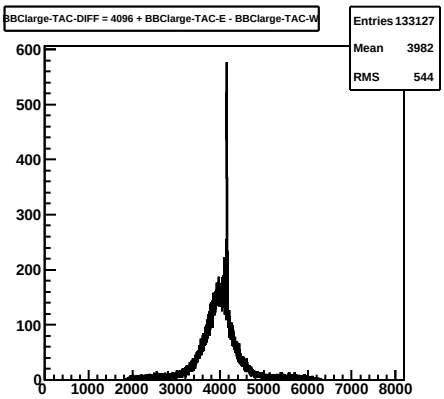

BBCsmall-TAC-E
Entries 141629
Mean 1694
RMS 381

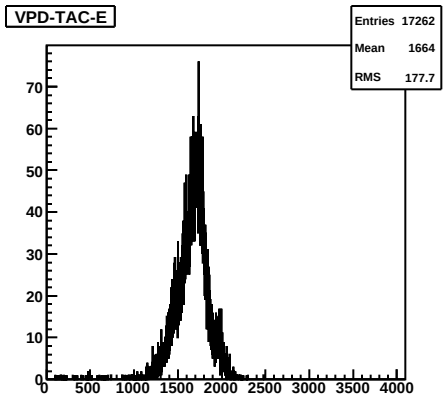

BBCsmall-TAC-W
Entries 142950
Mean 1727
RMS 397.4

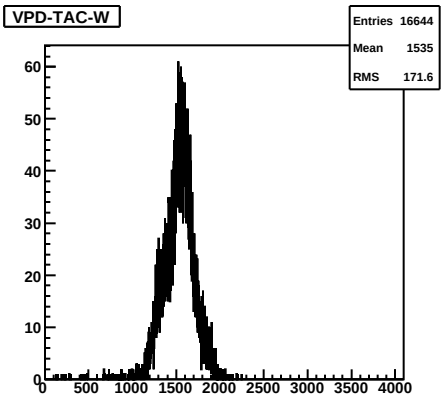

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 139897
Mean 4061
RMS 457.1

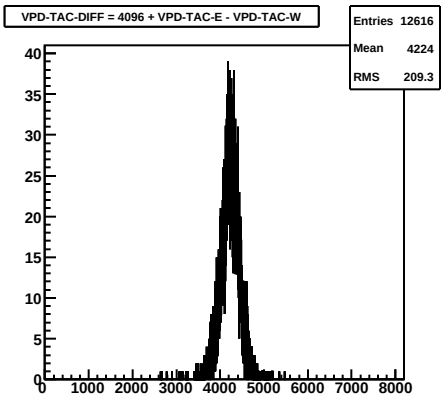

BBClarge-TAC-E
Entries 138554
Mean 1299
RMS 519.1

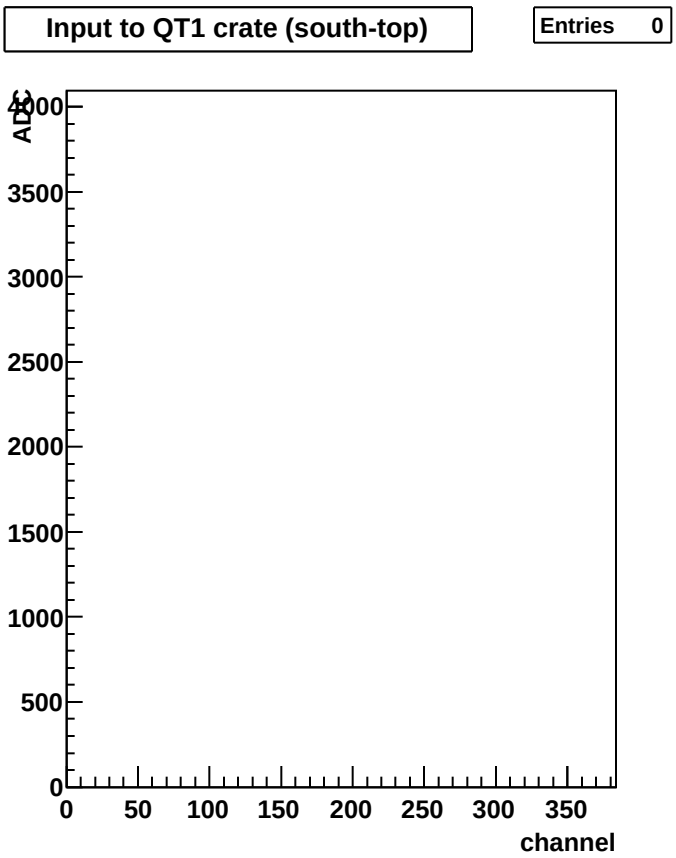

BBClarge-TAC-W
Entries 138082
Mean 1410
RMS 563.8

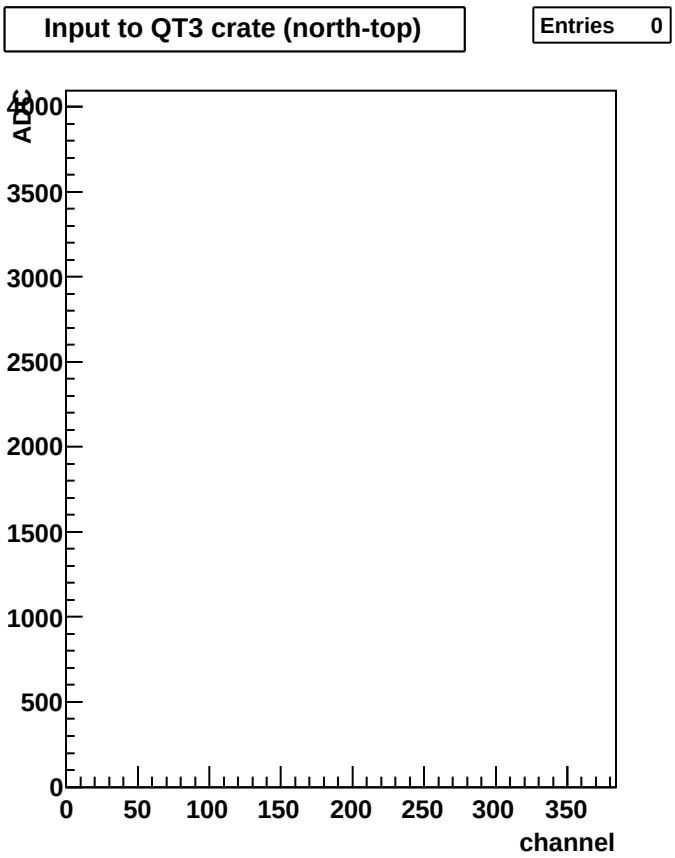

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 133127
Mean 3982
RMS 544

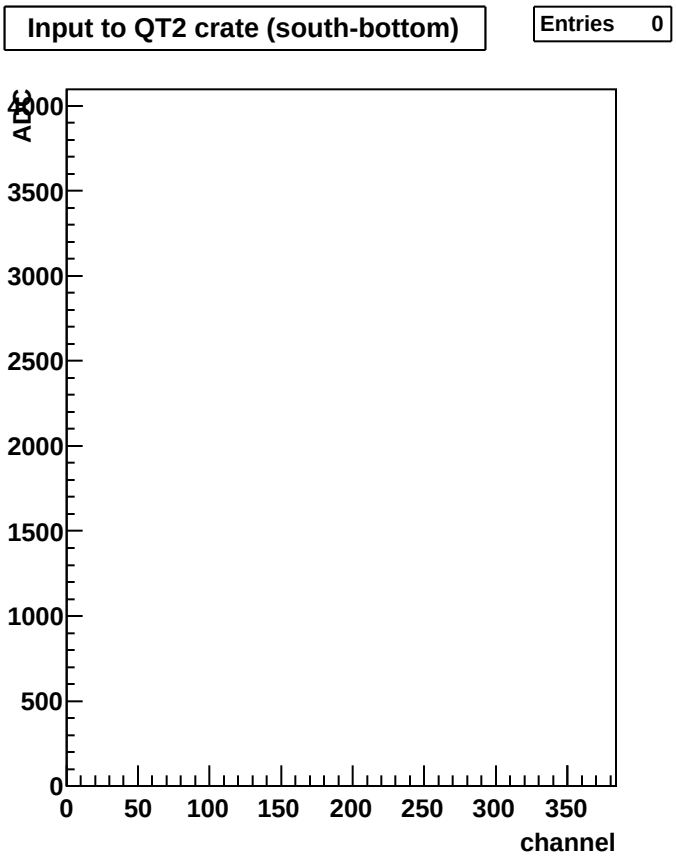

VPD-TAC-E
Entries 17262
Mean 1664
RMS 177.7

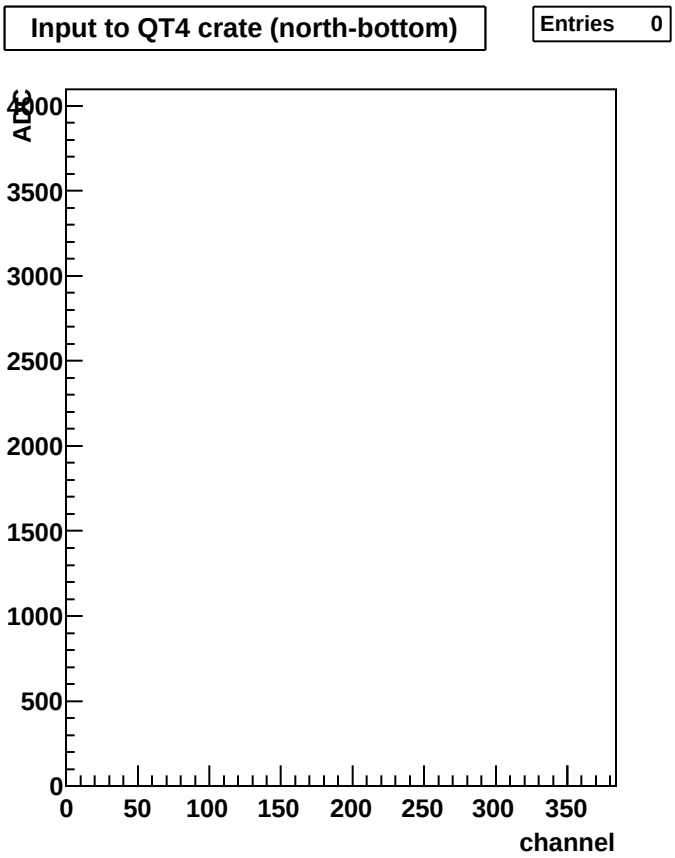

VPD-TAC-W
Entries 16644
Mean 1535
RMS 171.6

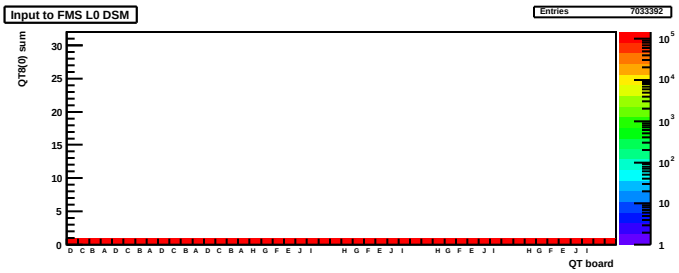

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 12616
Mean 4224
RMS 209.3

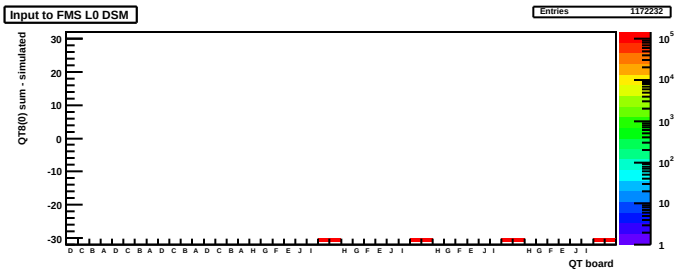

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

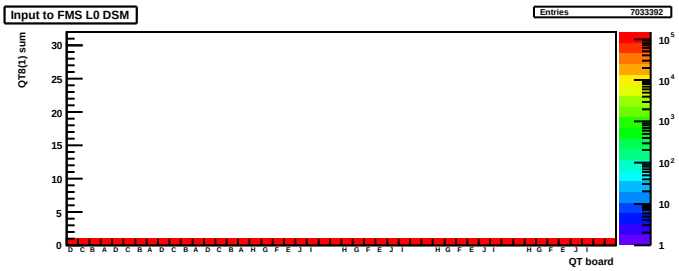

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

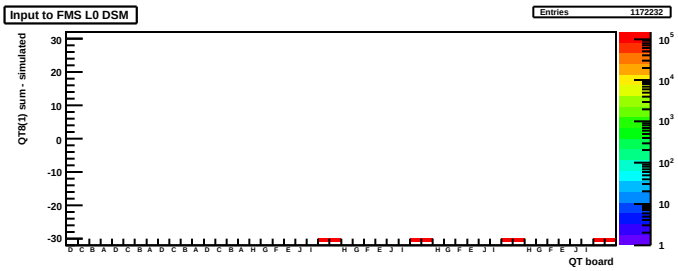

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

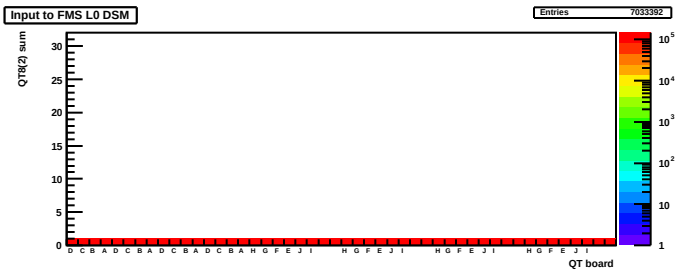

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

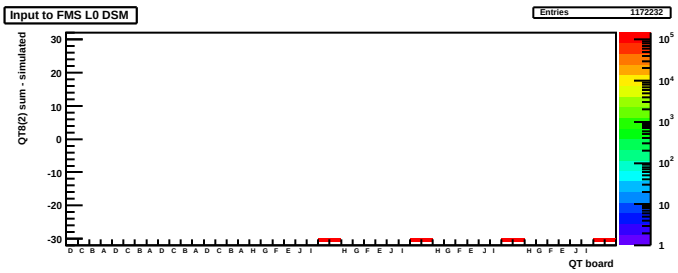

Input to FMS L0 DSM
Entries 7033392
QT8(0) sum
QT board

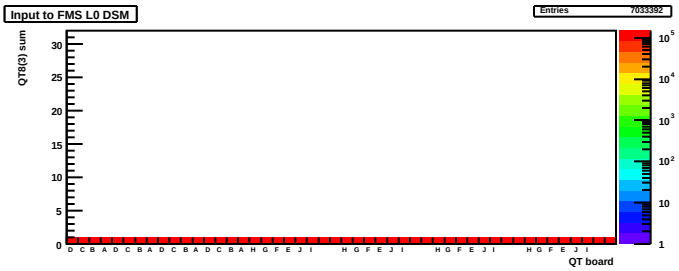

Input to FMS L0 DSM
Entries 1172232
QT8(0) sum - simulated
QT board

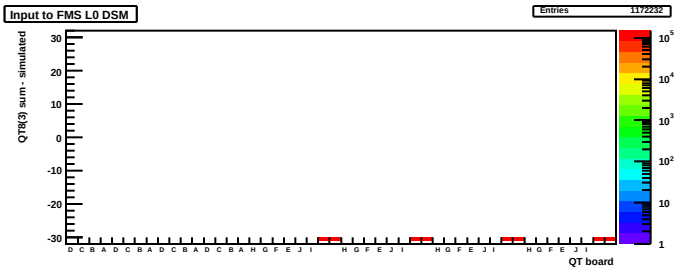

Input to FMS L0 DSM
Entries 7033392
QT8(1) sum
QT board

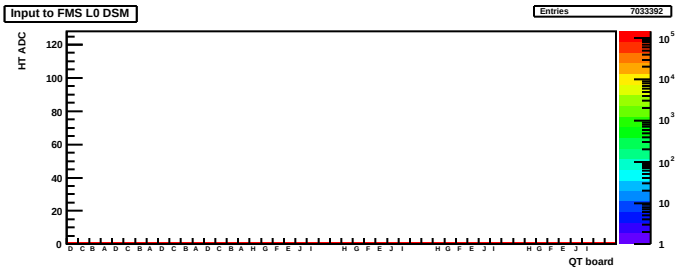

Input to FMS L0 DSM
Entries 1172232
QT8(1) sum - simulated
QT board

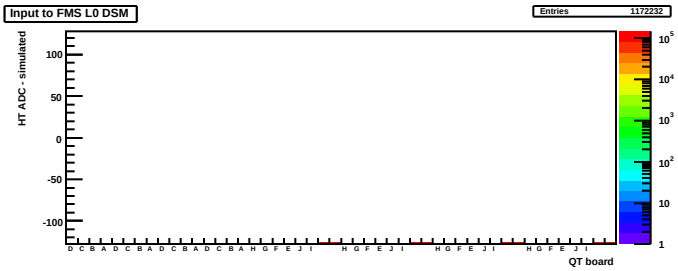

Input to FMS L0 DSM
Entries 7033392
QT8(2) sum
QT board

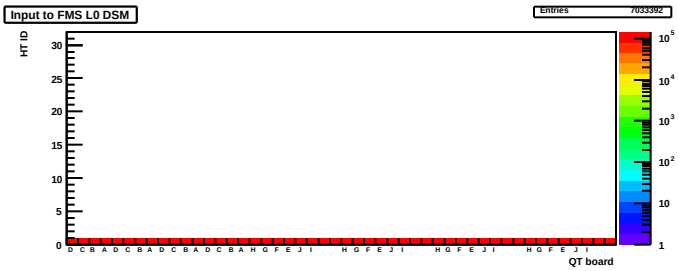

Input to FMS L0 DSM
Entries 1172232
QT8(2) sum - simulated
QT board

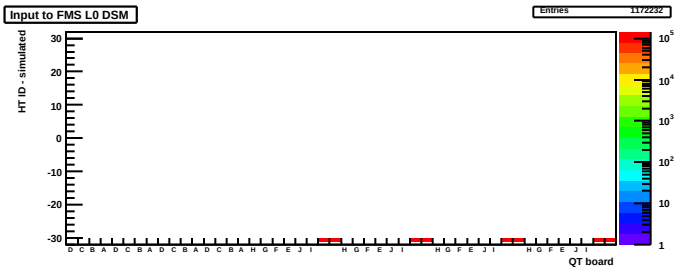

Input to FMS L0 DSM
Entries 7033392
QT8(3) sum
QT board

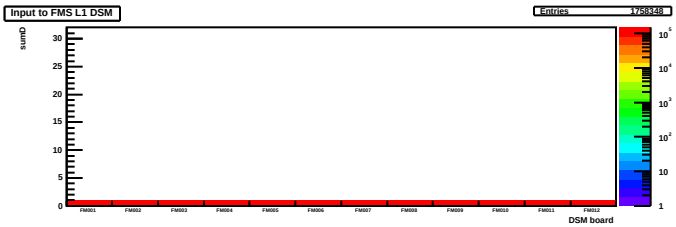

Input to FMS L0 DSM
Entries 1172232
QT8(3) sum - simulated
QT board

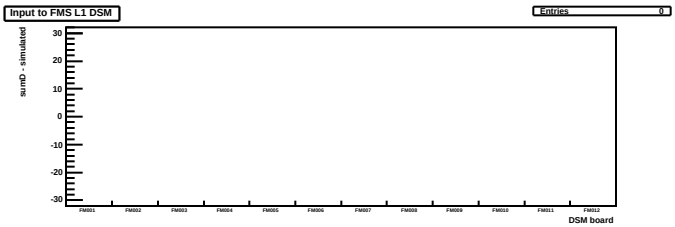

Input to FMS L0 DSM
Entries 7033392
HT ADC
QT board

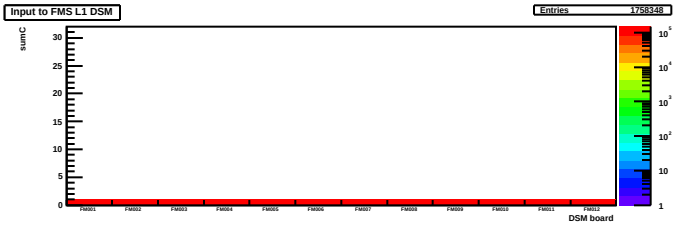

Input to FMS L0 DSM
Entries 1172232
HT ADC - simulated
QT board

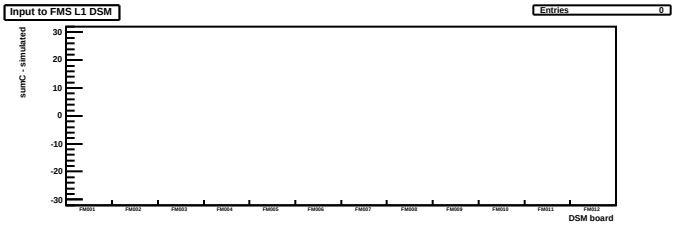

Input to FMS L0 DSM
Entries 7033392
HT ID
QT board

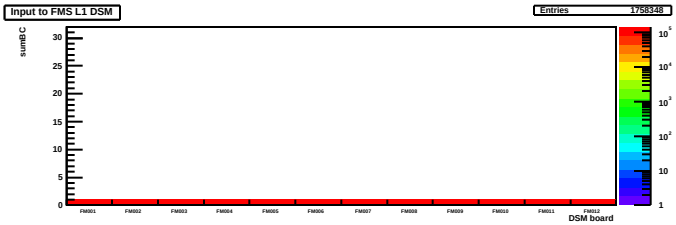

Input to FMS L0 DSM
Entries 1172232
HT ID - simulated
QT board

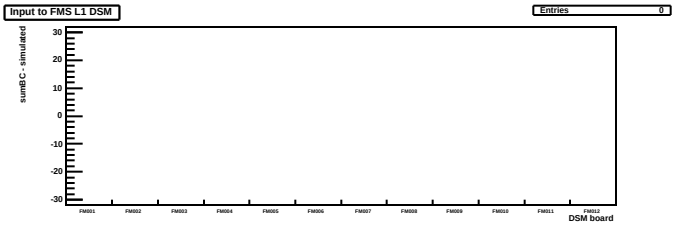

Input to FMS L1 DSM
Entries 1758348
sumD
DSM board

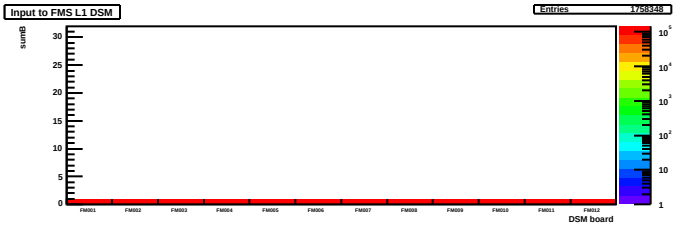

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

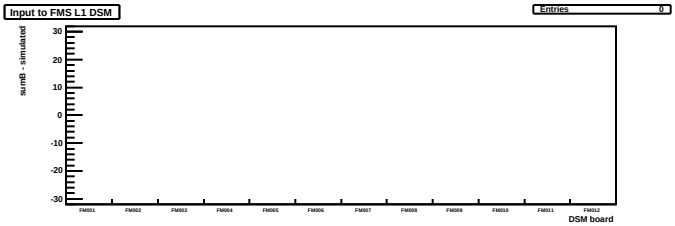

Input to FMS L1 DSM
Entries 1758348
sumC
DSM board

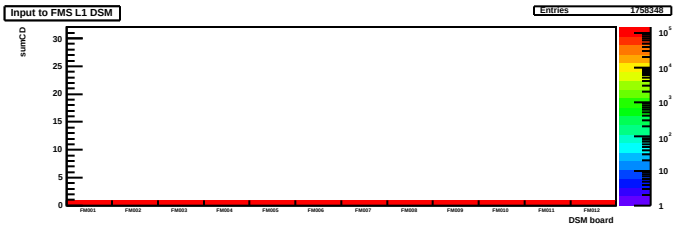

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

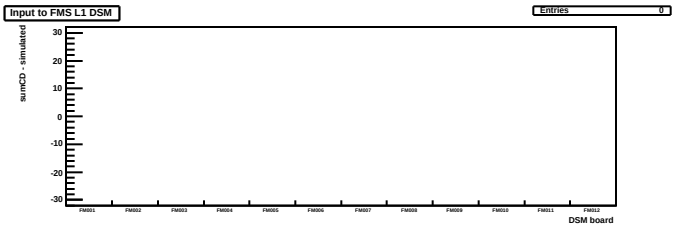

Input to FMS L1 DSM
Entries 1758348
sumBC
DSM board

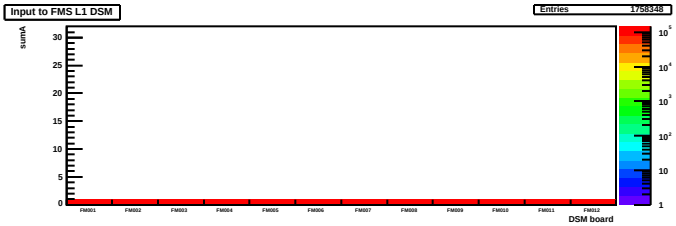

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

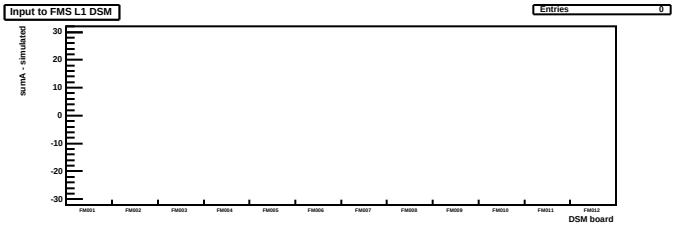

Input to FMS L1 DSM
Entries 1758348
sumB
DSM board

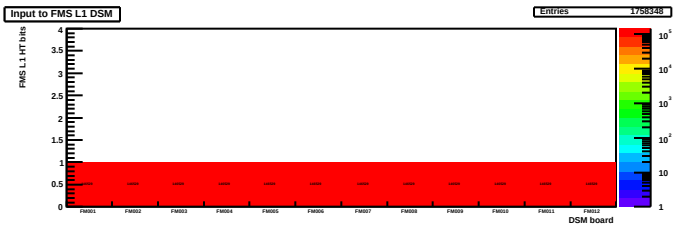

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

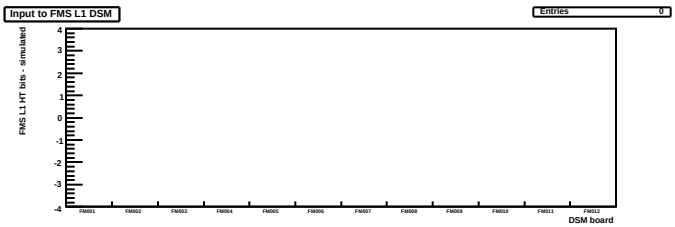

Input to FMS L1 DSM
Entries 1758348
sumCD
DSM board

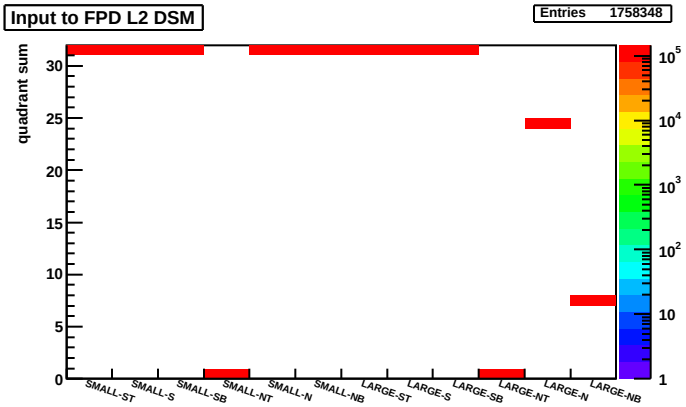

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

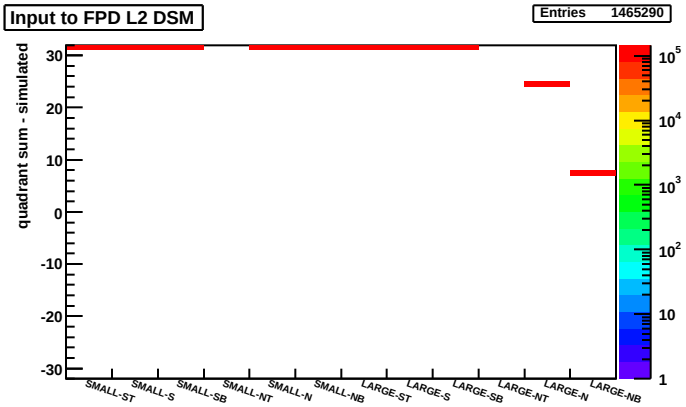

Input to FMS L1 DSM
Entries 1758348
sumA
DSM board

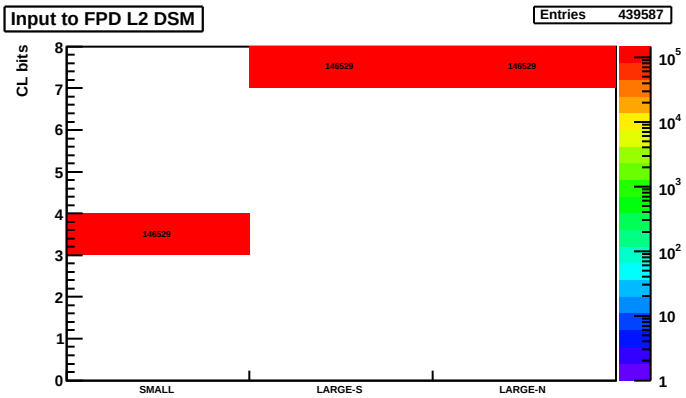

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

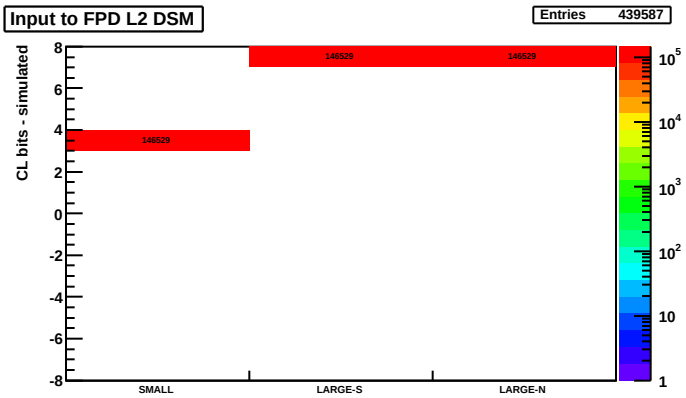

Input to FMS L1 DSM
Entries 1758348
FMS L1 HT bits
DSM board

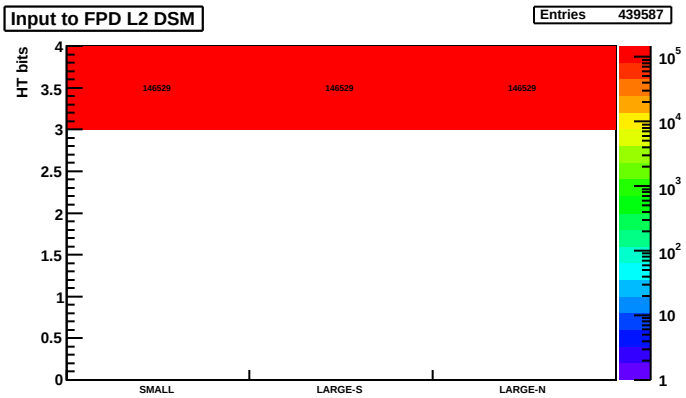

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

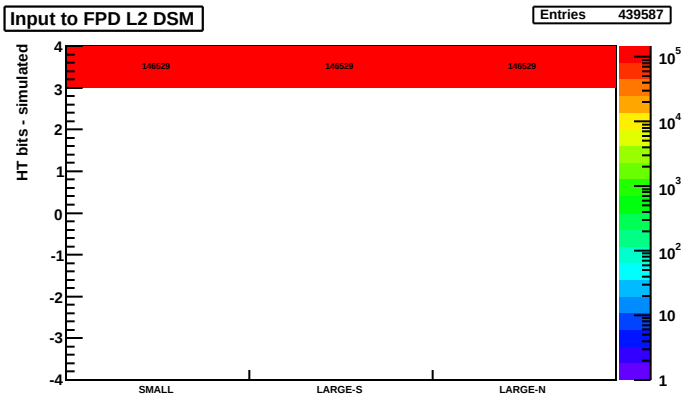

Input to FPD L2 DSM
Entries 1758348
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

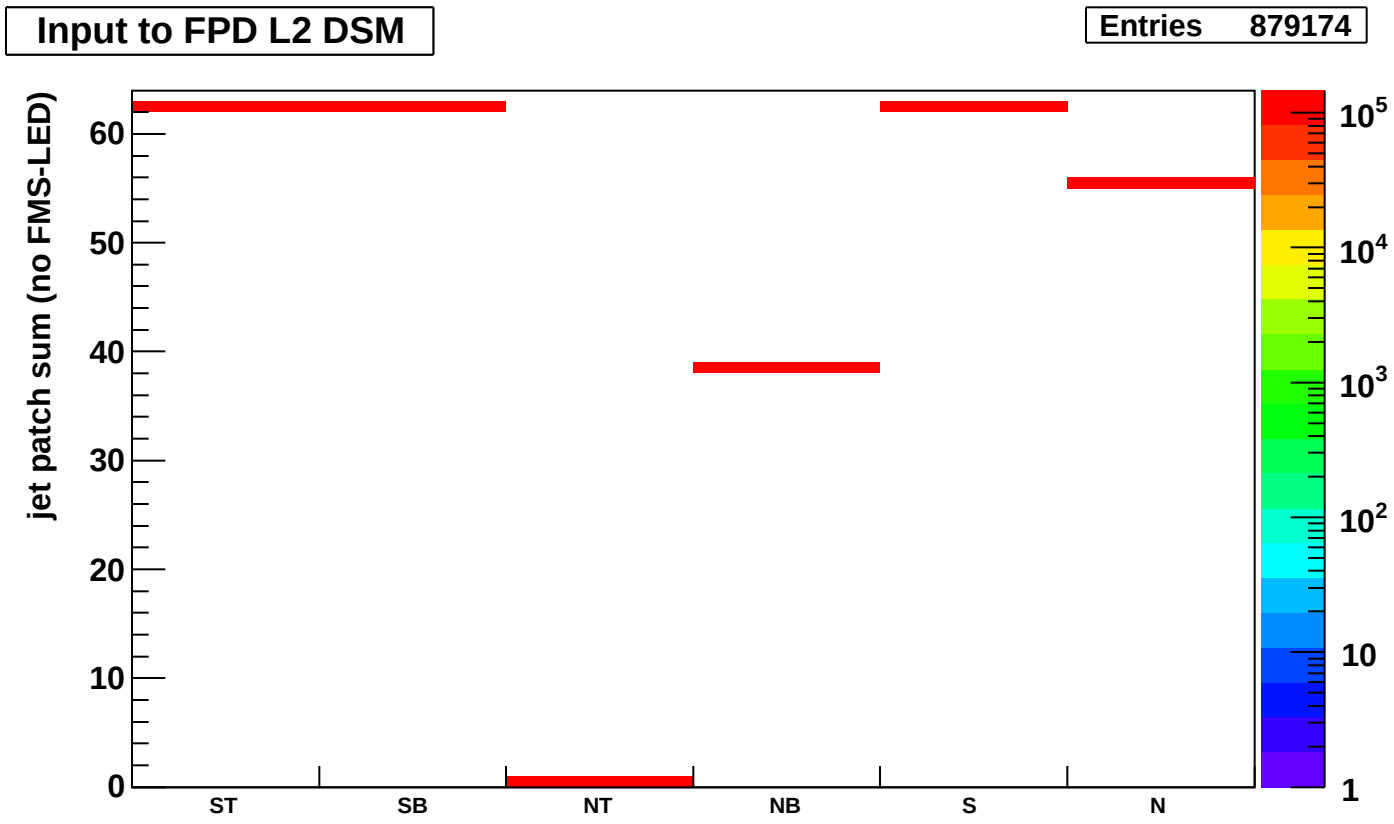

Input to FPD L2 DSM
Entries 1465290
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

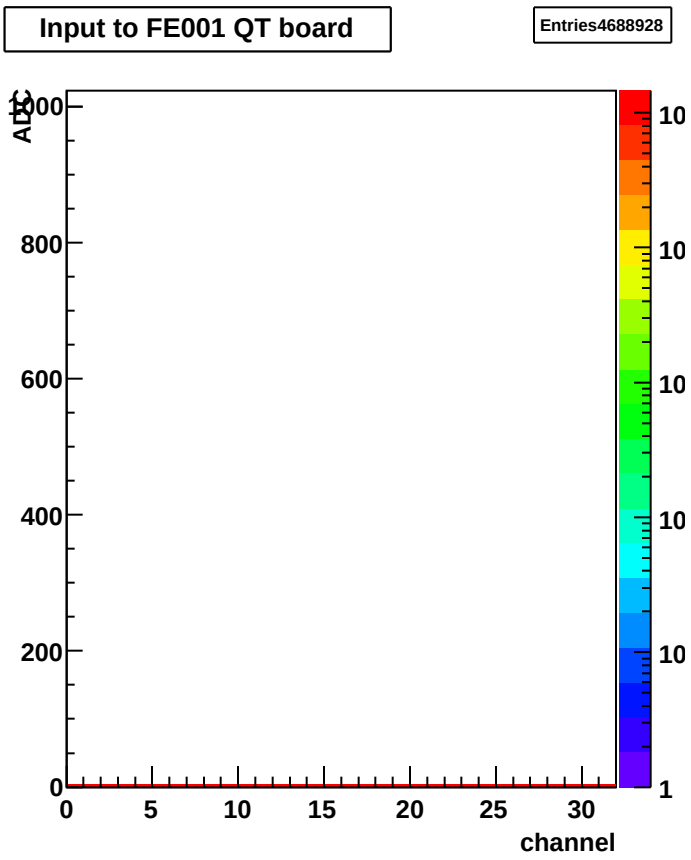

Input to FPD L2 DSM
Entries 439587
CL bits
146529
146529
146529
SMALL
LARGE-S
LARGE-N

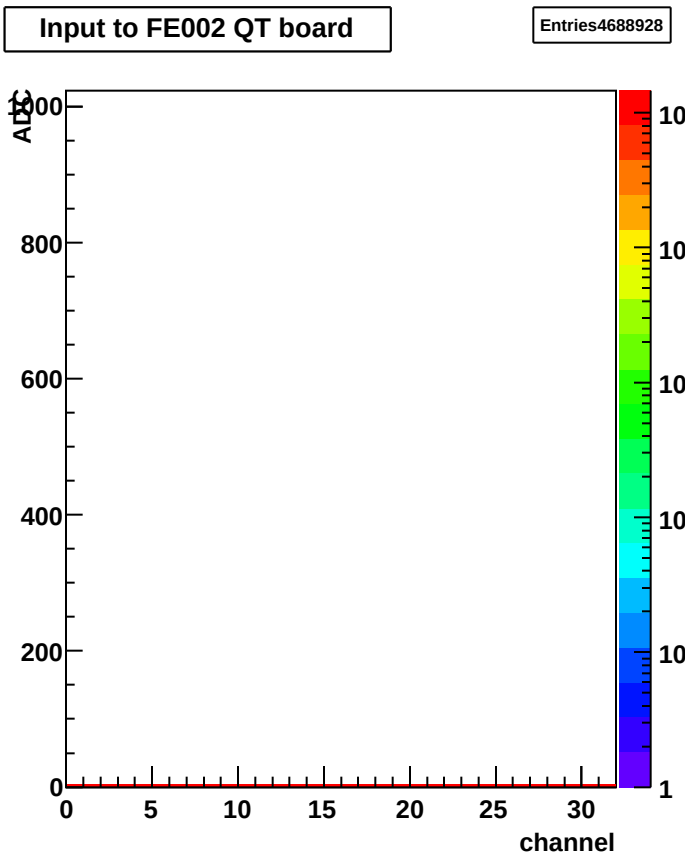

Input to FPD L2 DSM
Entries 439587
CL bits - simulated
146529
146529
146529
SMALL
LARGE-S
LARGE-N

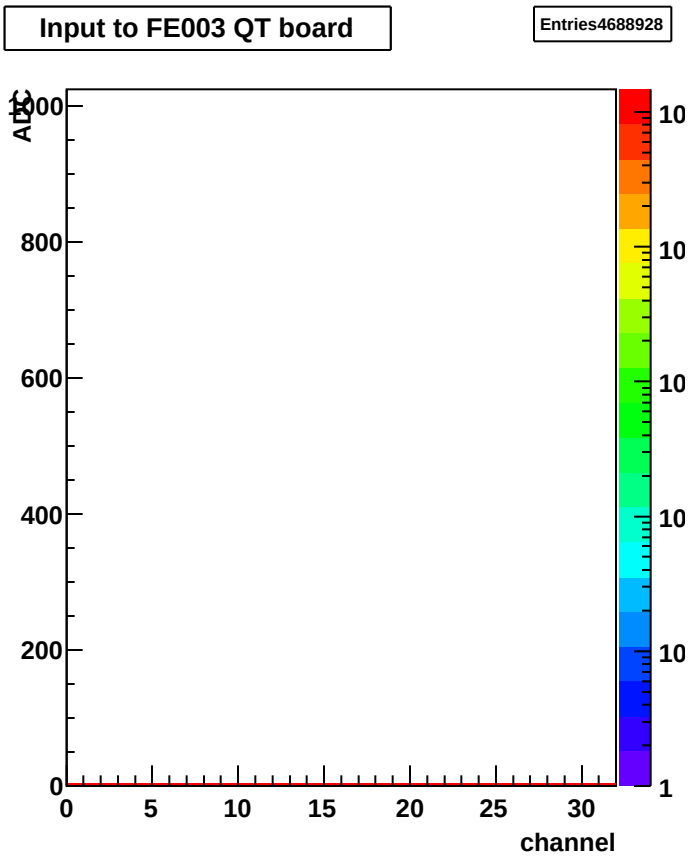

Input to FPD L2 DSM
Entries 439587
HT bits
146529
146529
146529
SMALL
LARGE-S
LARGE-N

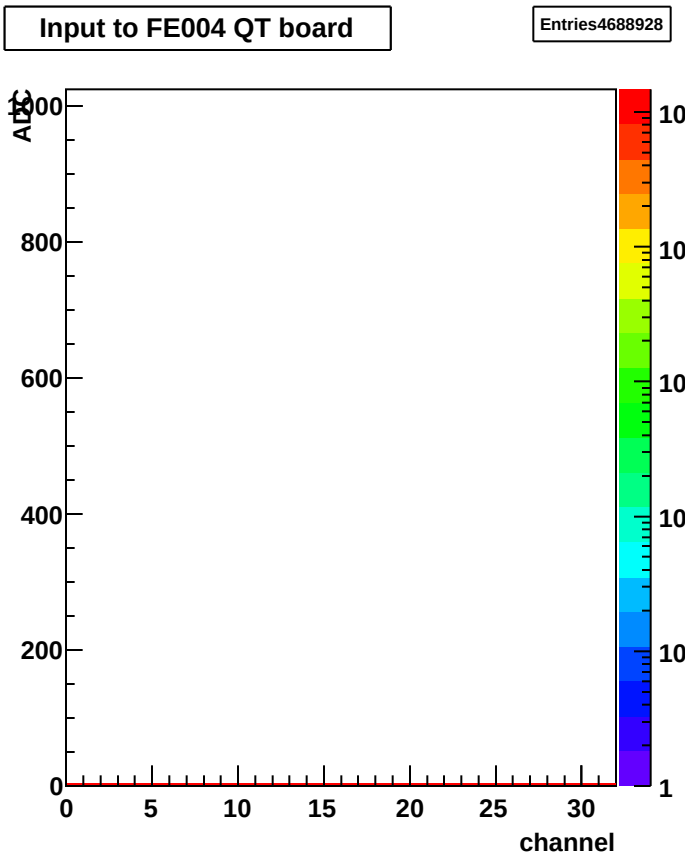

Input to FPD L2 DSM
Entries 439587
HT bits - simulated
146529
146529
146529
SMALL
LARGE-S
LARGE-N

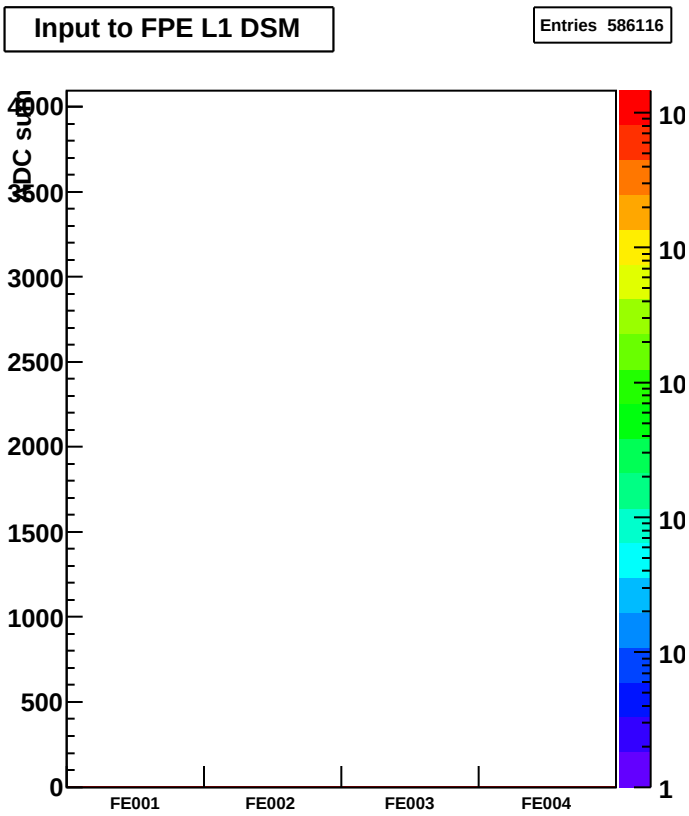

Input to FPD L2 DSM
Entries 879174
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

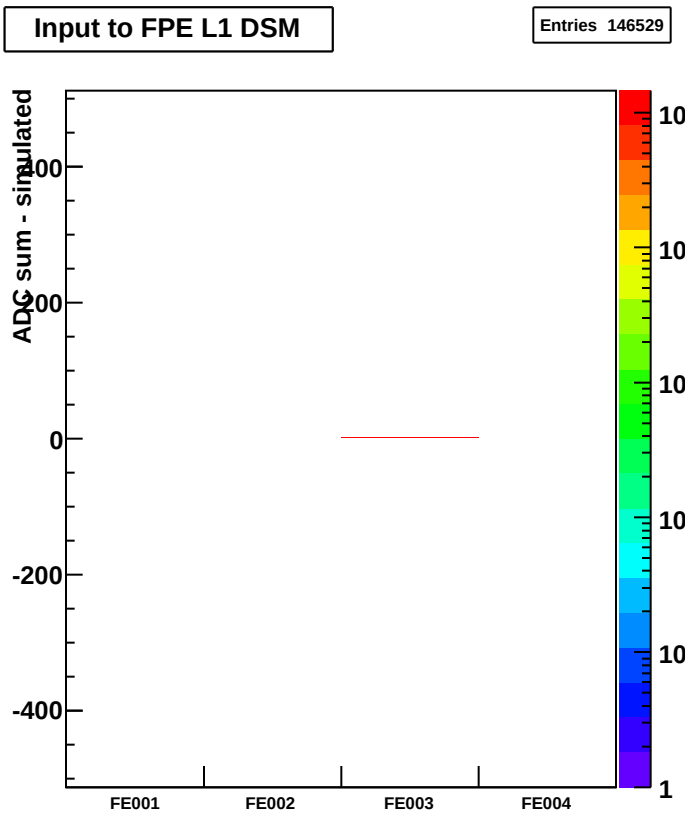

Input to FE001 QT board
Entries4688928
ADC
1000
800
600
400
200
0
0
5
10
15
20
25
30
channel
10
10
10
10
10
1

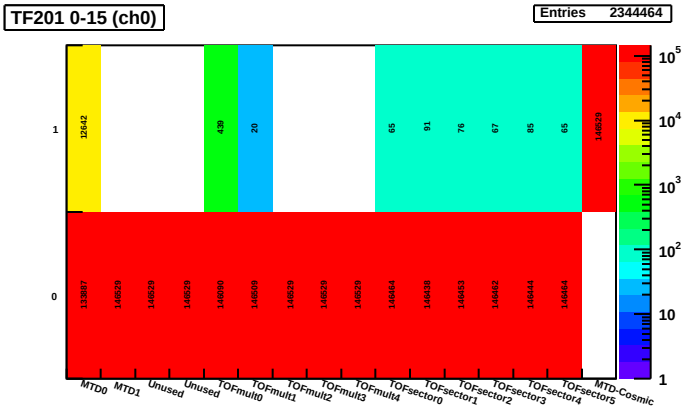

Input to FE002 QT board
Entries4688928
ADC
1000
800
600
400
200
0
0
5
10
15
20
25
30
channel
10
10
10
10
10
1

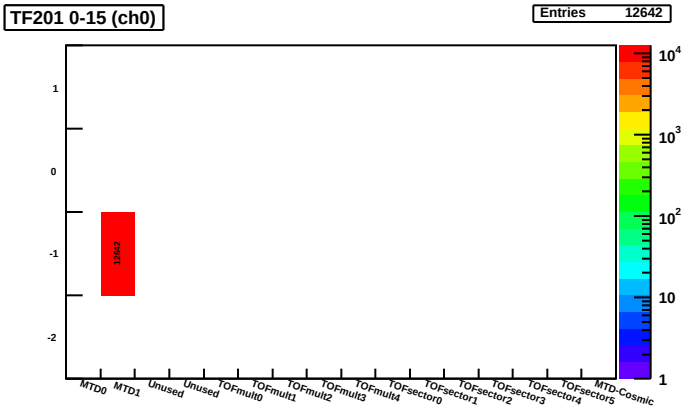

Input to FE003 QT board
Entries4688928
ADC
1000
800
600
400
200
0
0
5
10
15
20
25
30
channel
10
10
10
10
10
1

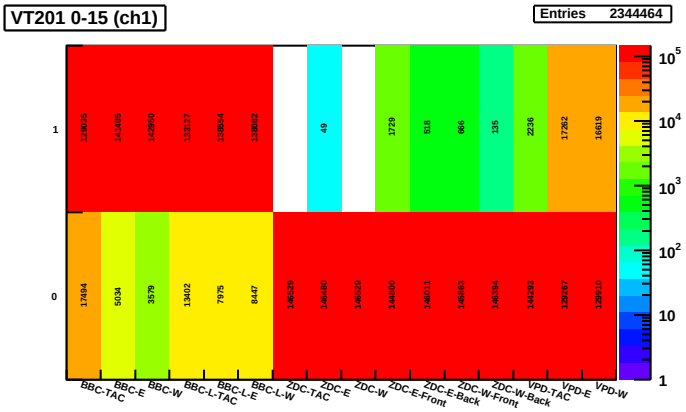

Input to FE004 QT board
Entries4688928
ADC
1000
800
600
400
200
0
0
5
10
15
20
25
30
channel
10
10
10
10
10
1

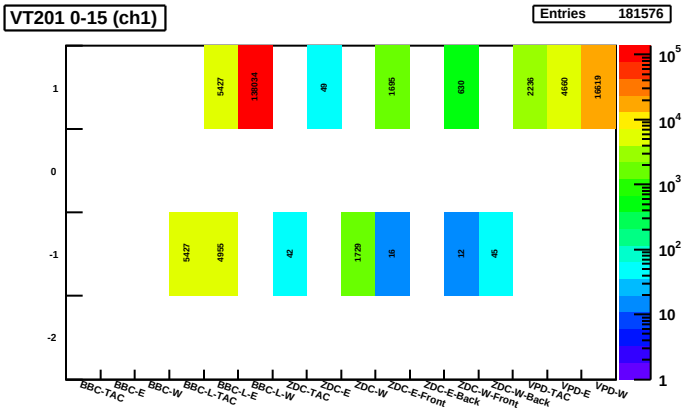

Input to FPE L1 DSM
Entries 586116
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1


Input to FPE L1 DSM
Entries 146529
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1


TF201 0-15 (ch0)
Entries 2344464
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 12642
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 2344464
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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Entries 181576
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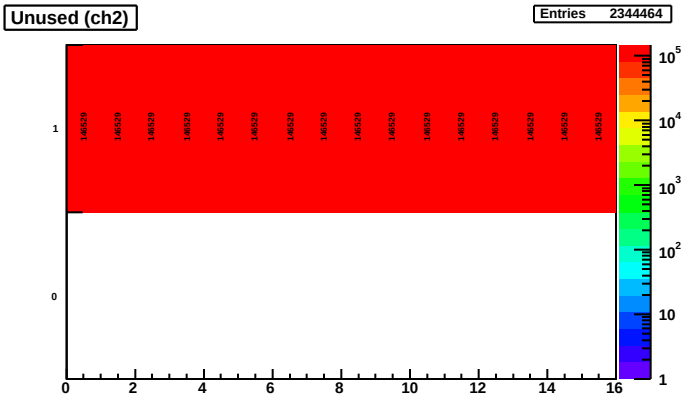
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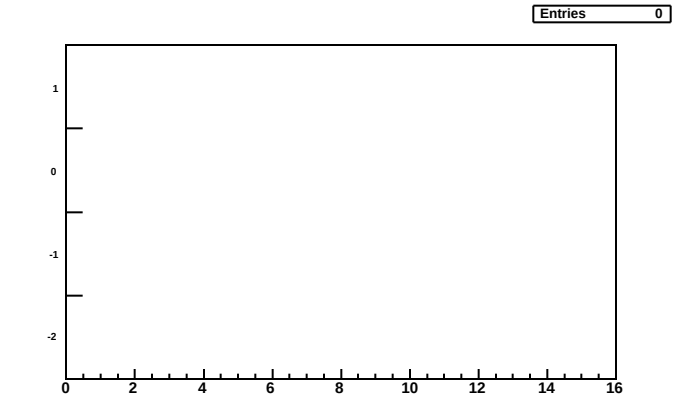
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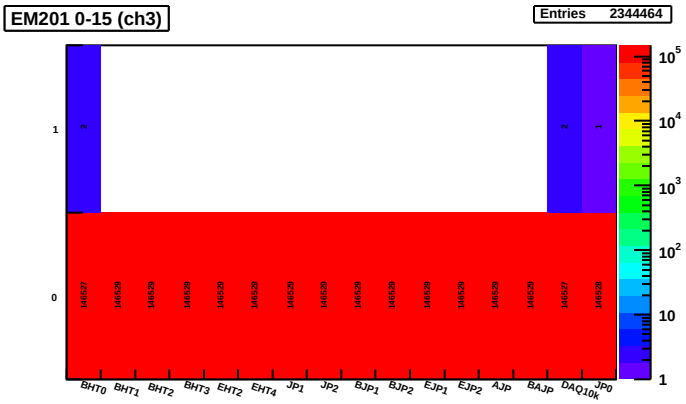
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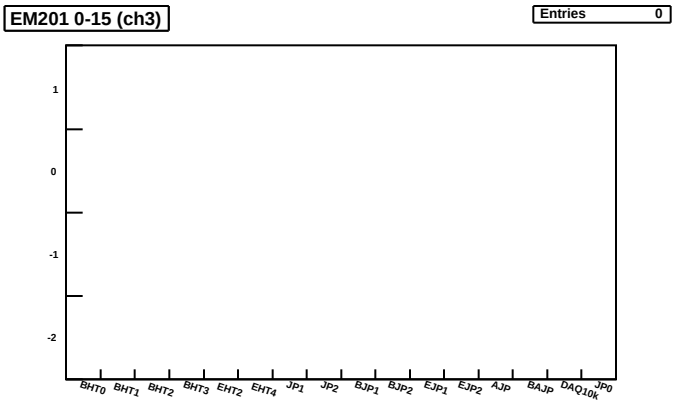
EM201 0-15 (ch3)
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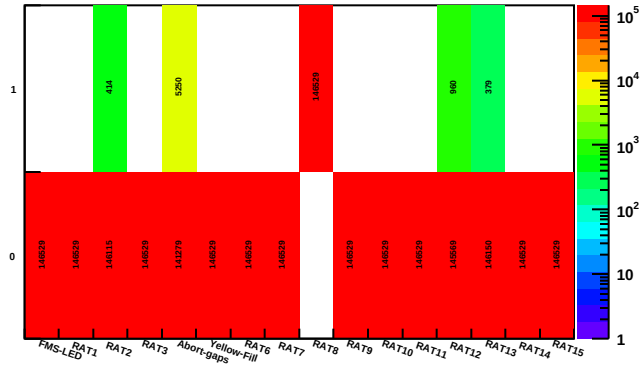
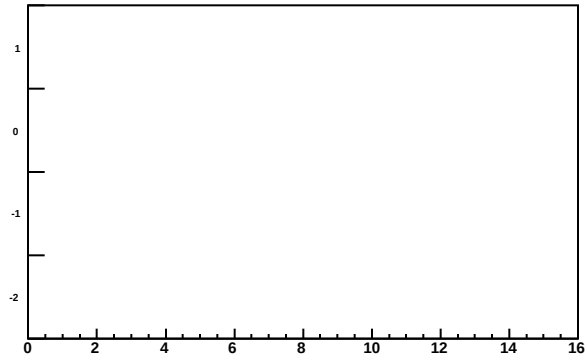
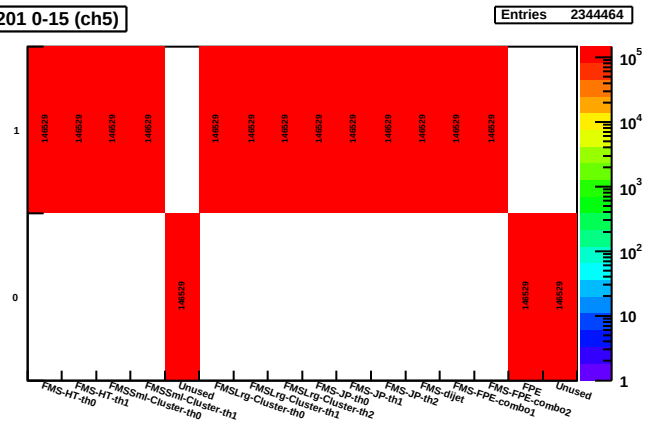
RAT board (ch4)





FP201 0-15 (ch5)



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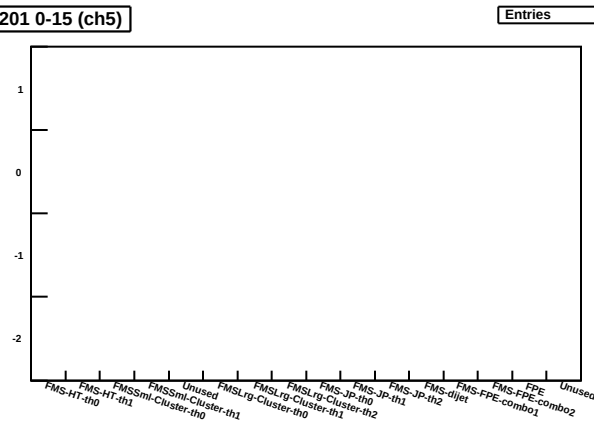
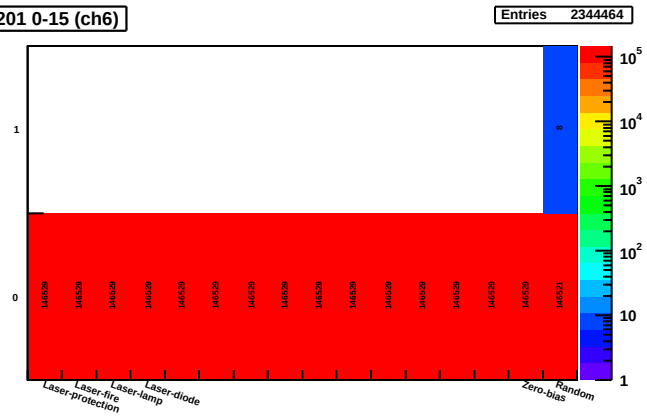
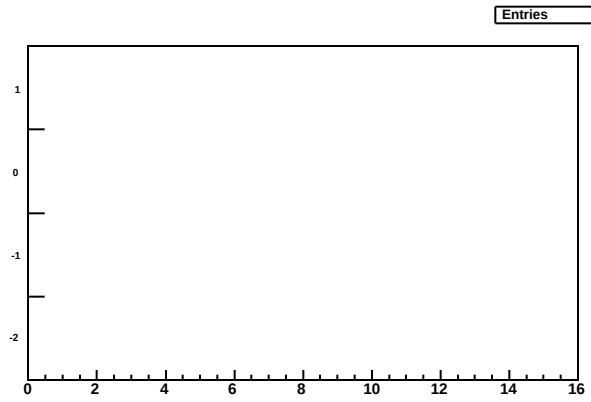
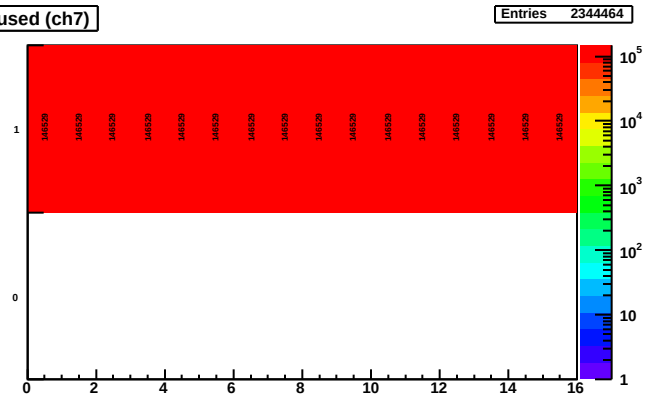
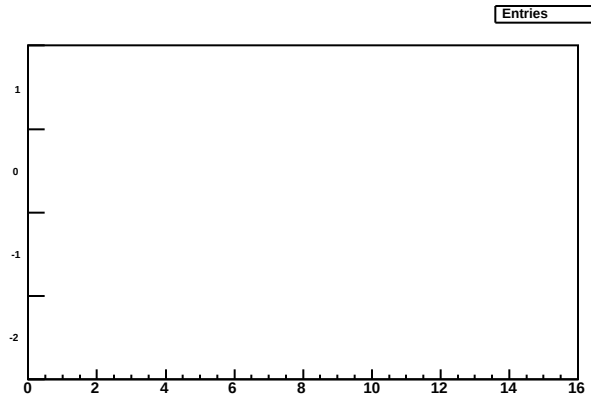


ST201 0-15 (ch6)





Unused (ch7)