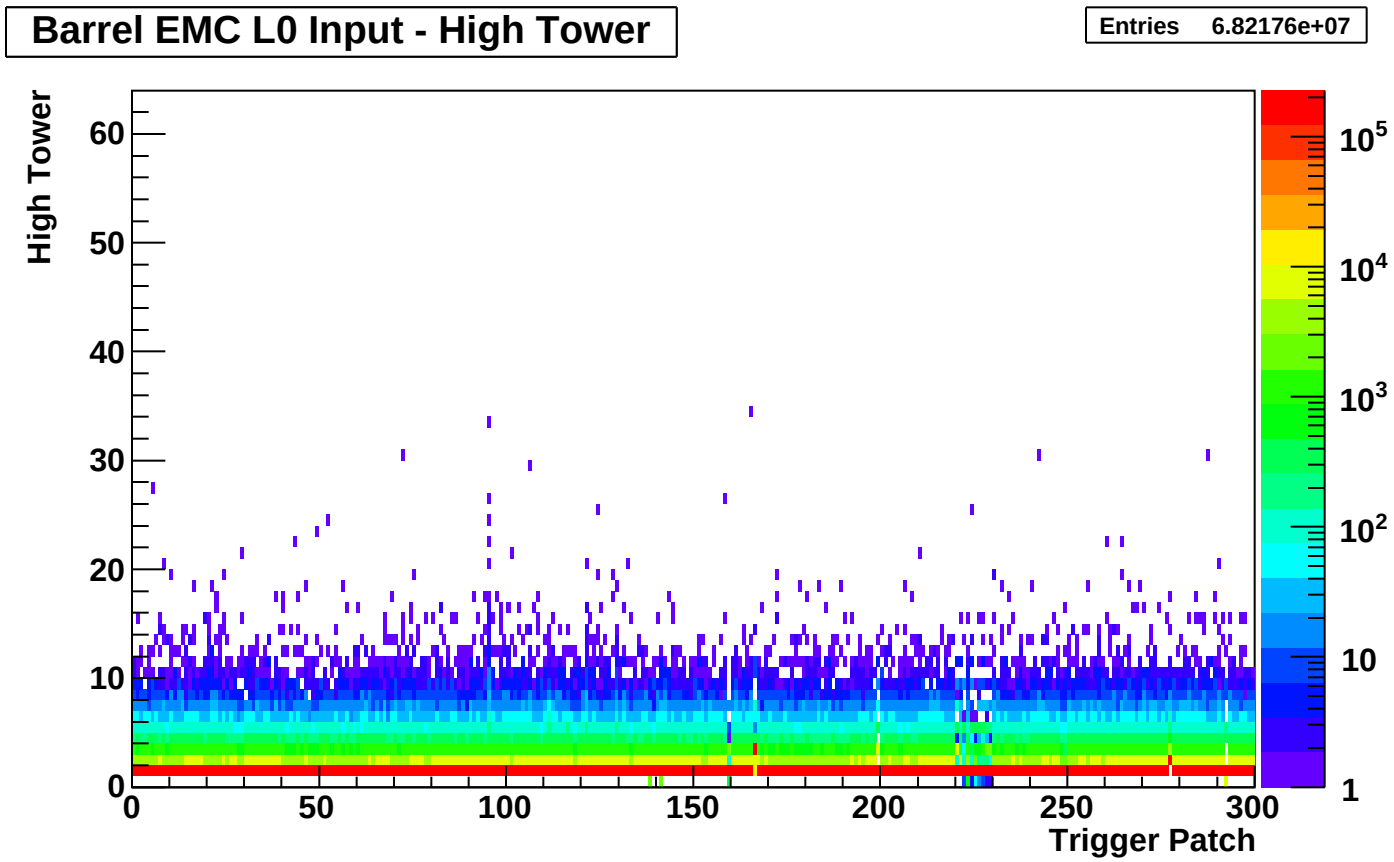
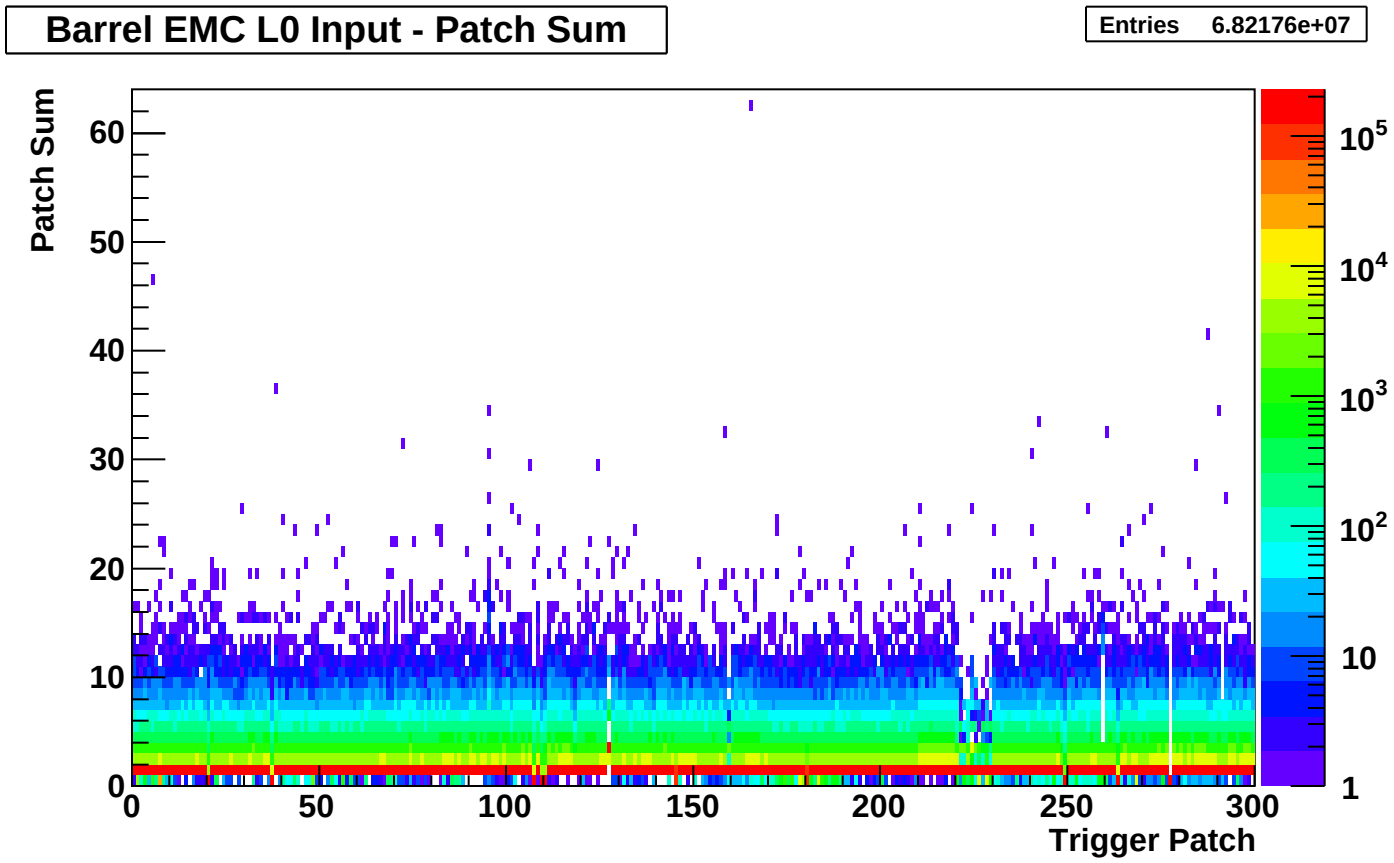
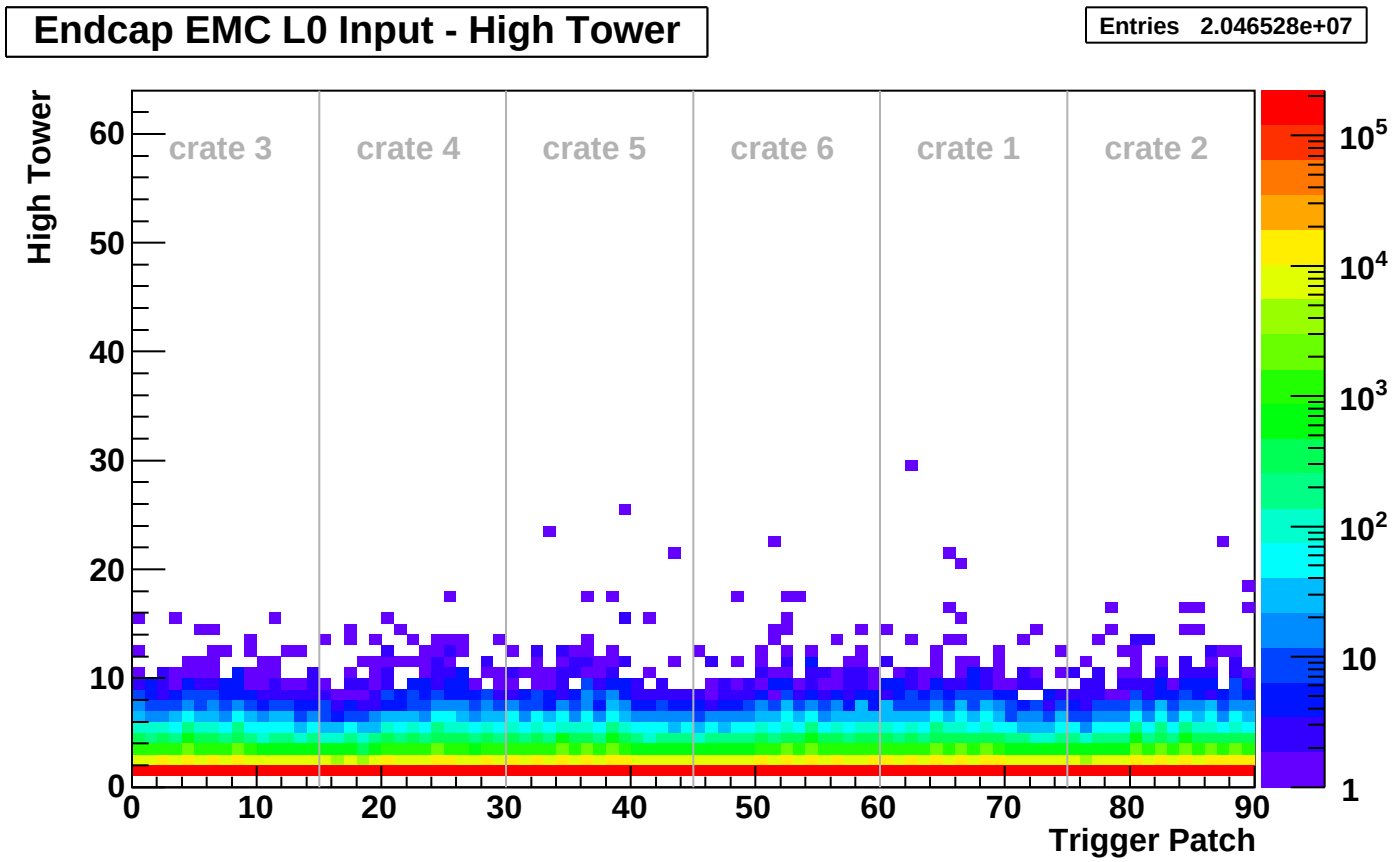
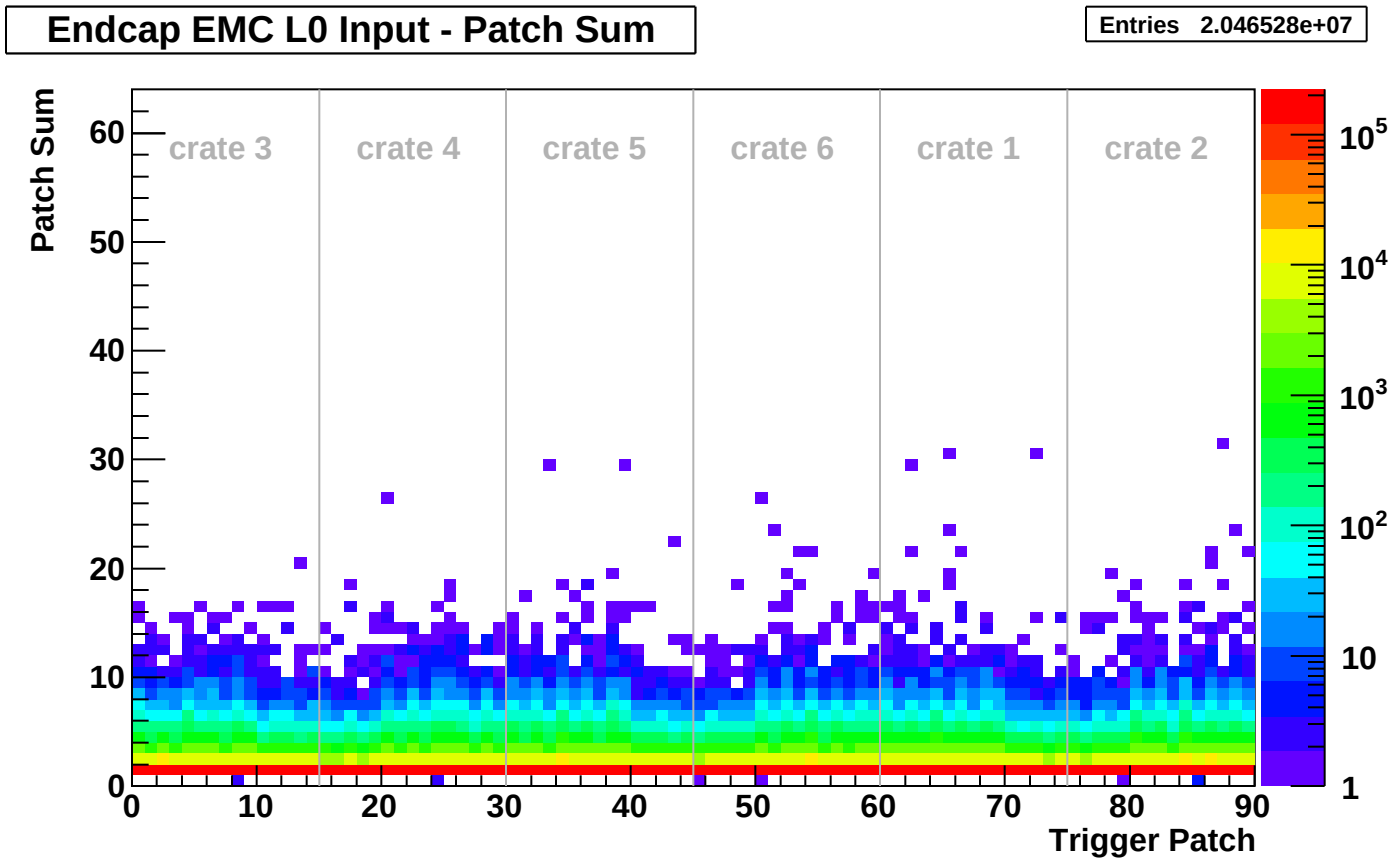
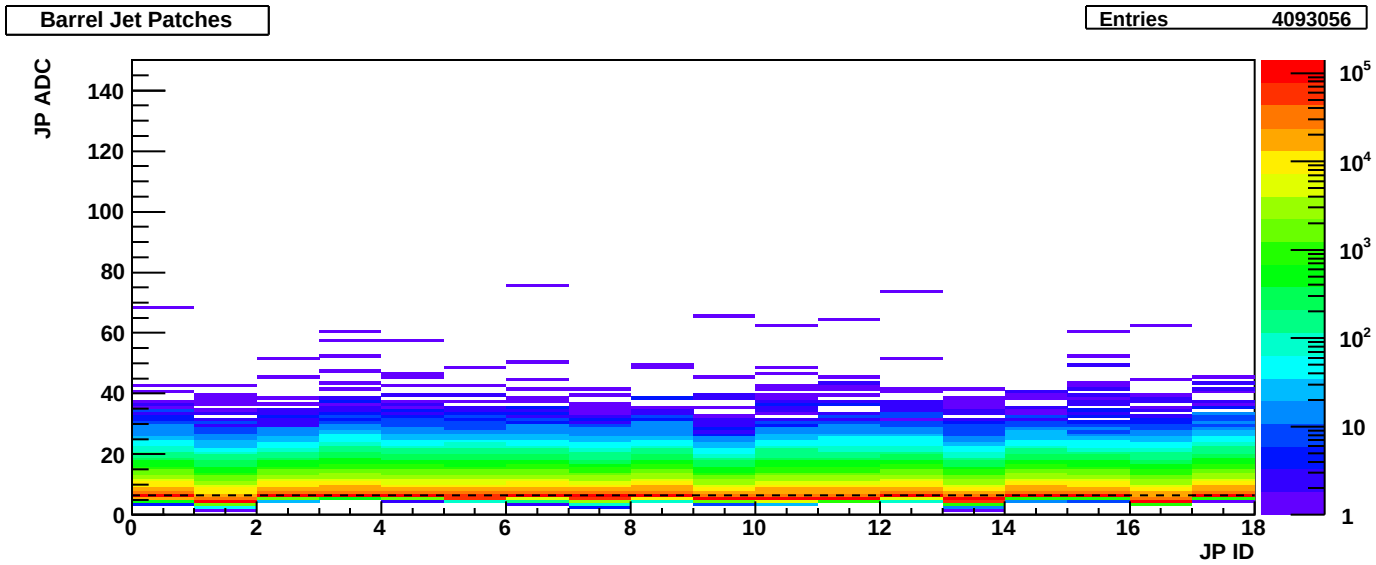
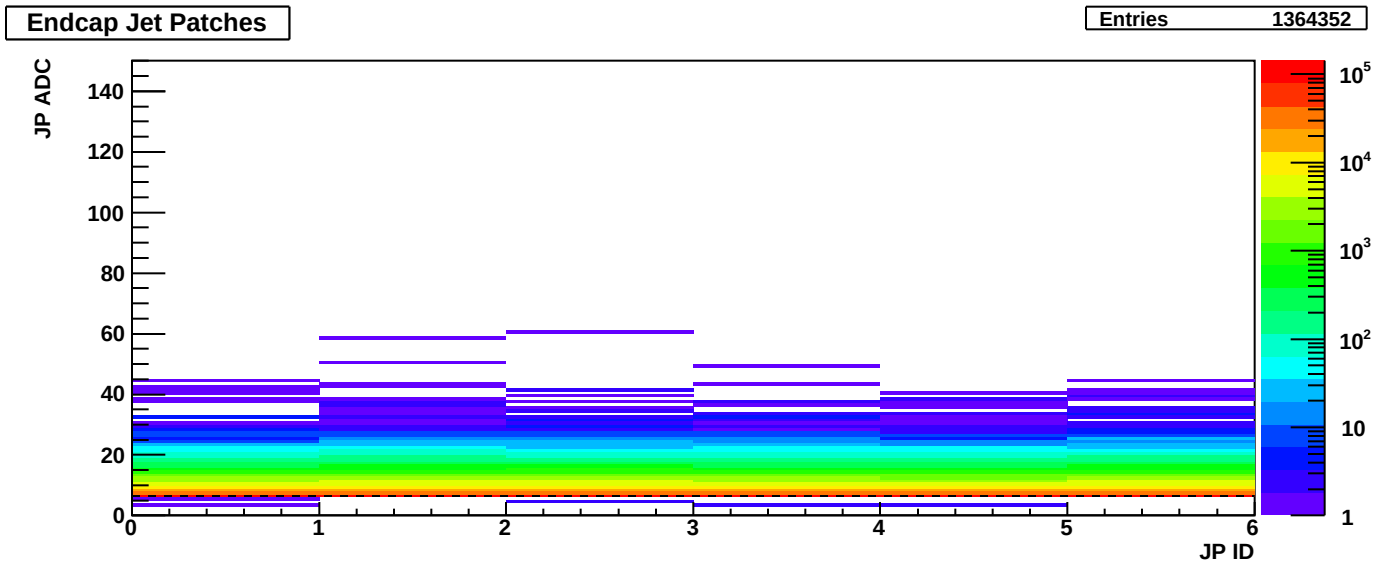

Barrel EMC L0 Input - High Tower
Entries 6.82176e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

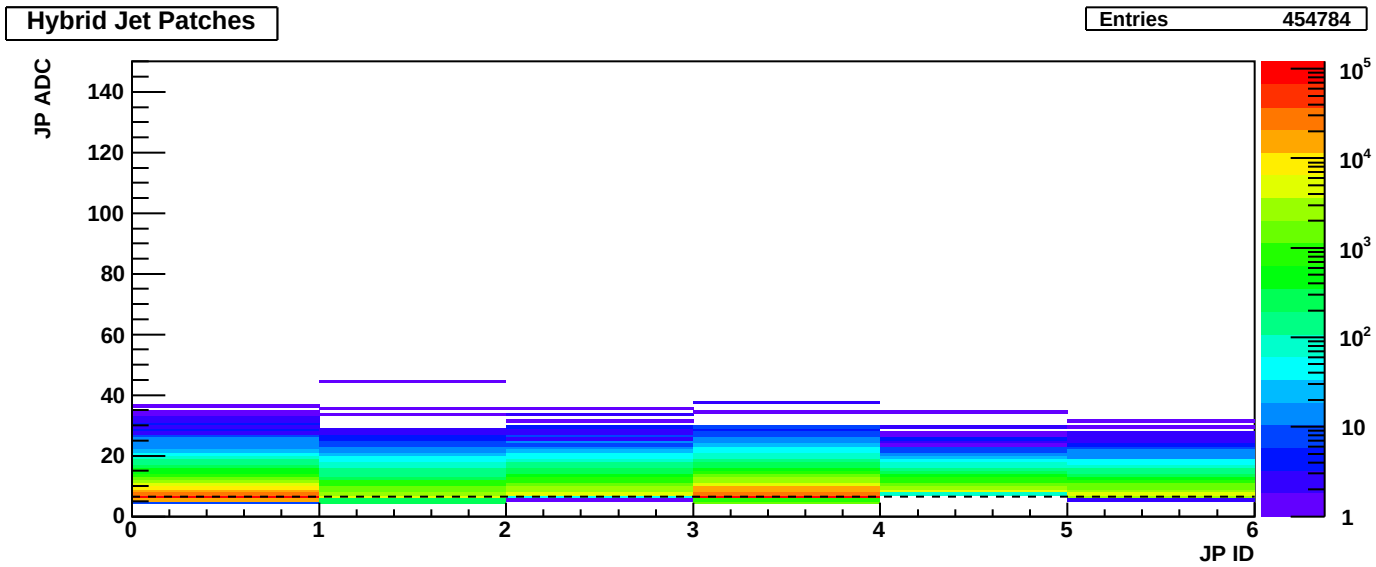

Barrel EMC L0 Input - Patch Sum
Entries 6.82176e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

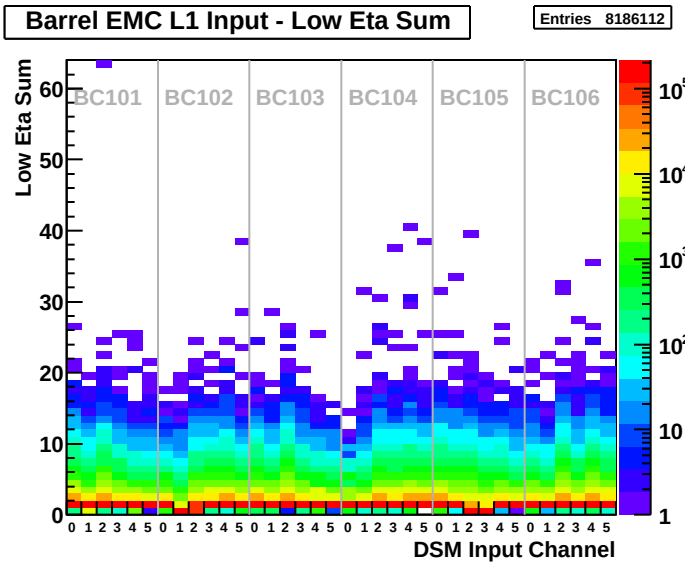

Endcap EMC L0 Input - High Tower
Entries 2.046528e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

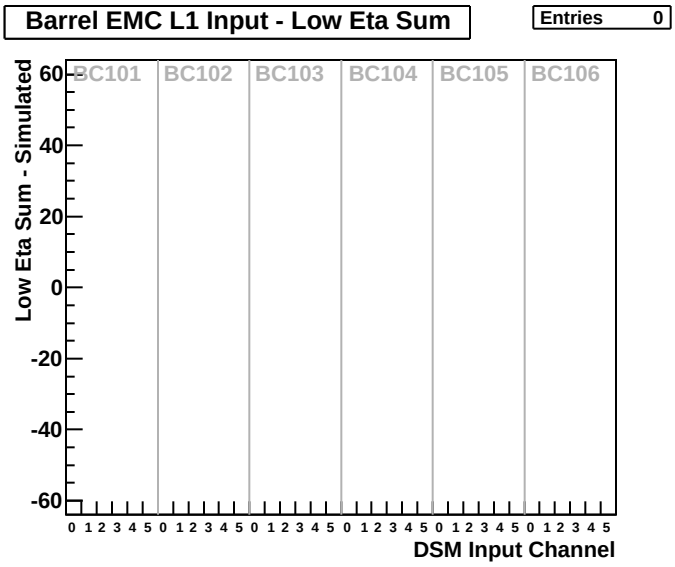

Endcap EMC L0 Input - Patch Sum
Entries 2.046528e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

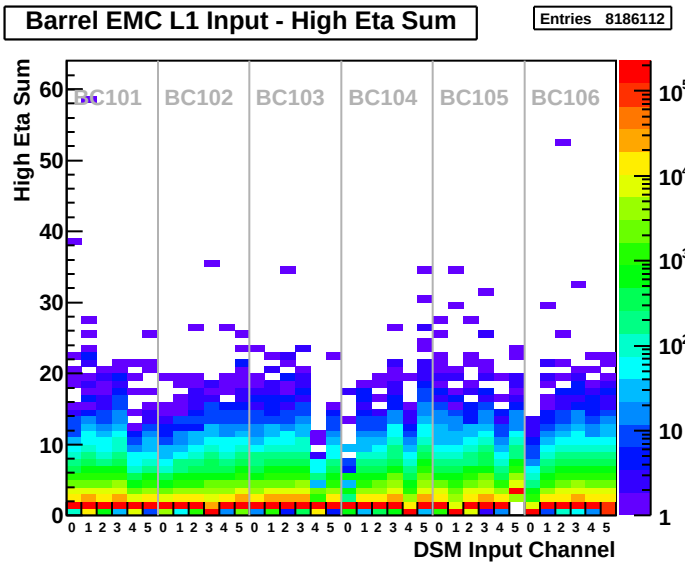

Barrel Jet Patches
Entries 4093056
JP ADC
JP ID

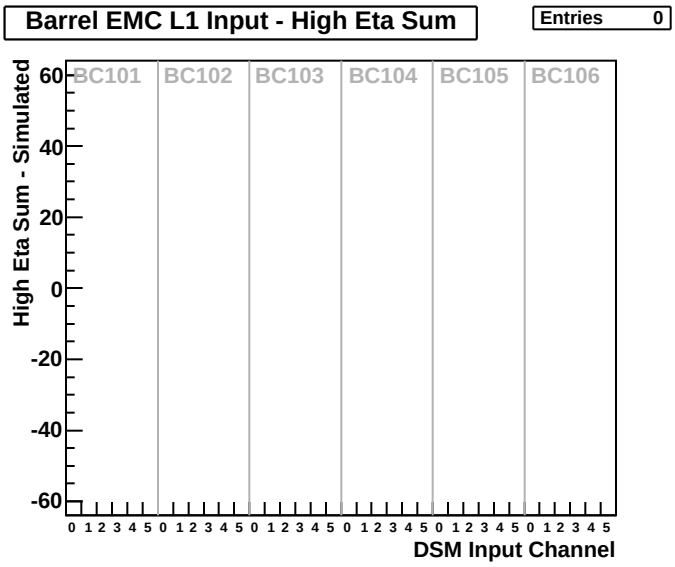

Endcap Jet Patches
Entries 1364352
JP ADC
JP ID

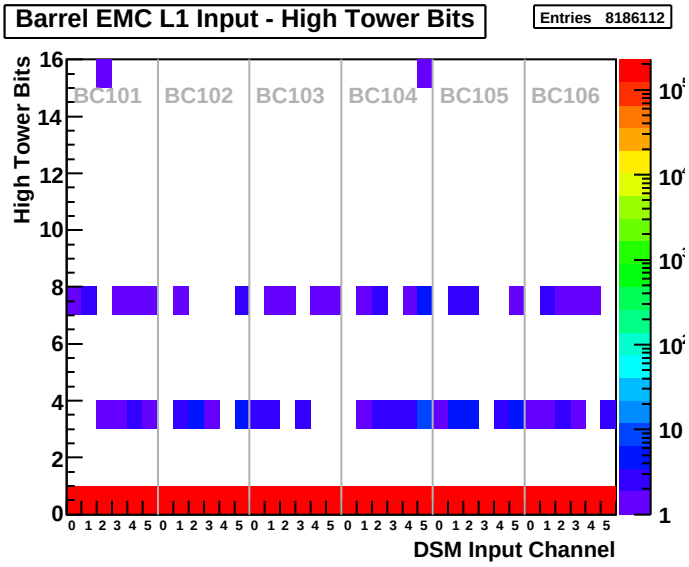

Hybrid Jet Patches
Entries 454784
JP ADC
JP ID

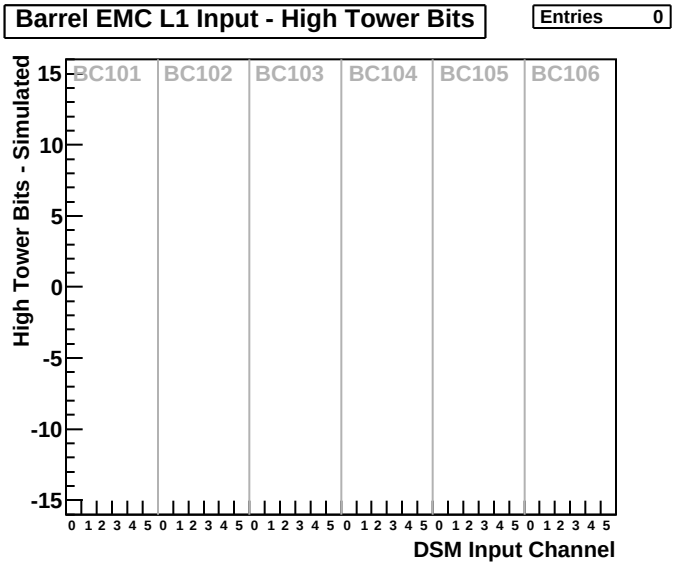

Barrel EMC L1 Input - Low Eta Sum
Entries 8186112
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

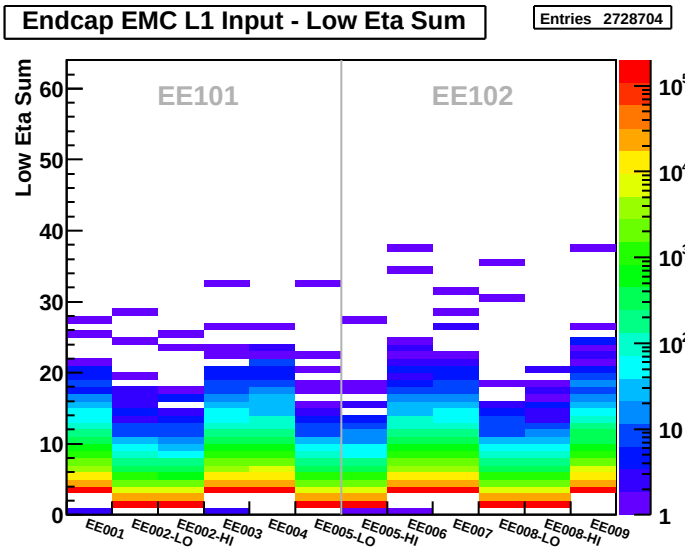

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

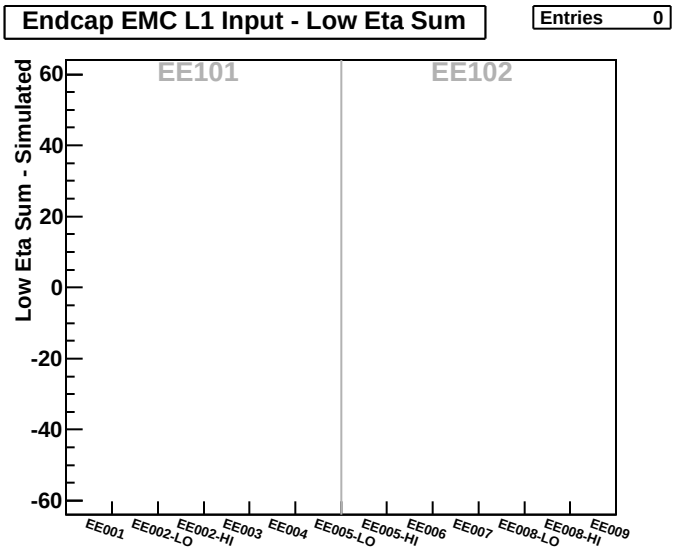

Barrel EMC L1 Input - High Eta Sum
Entries 8186112
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

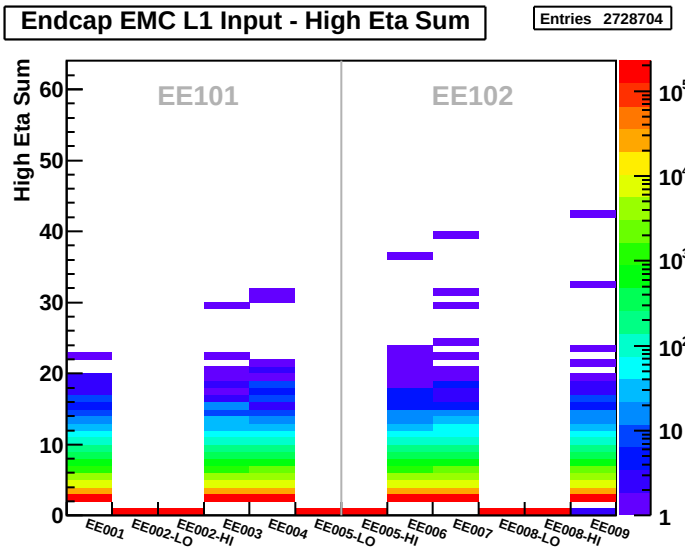

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

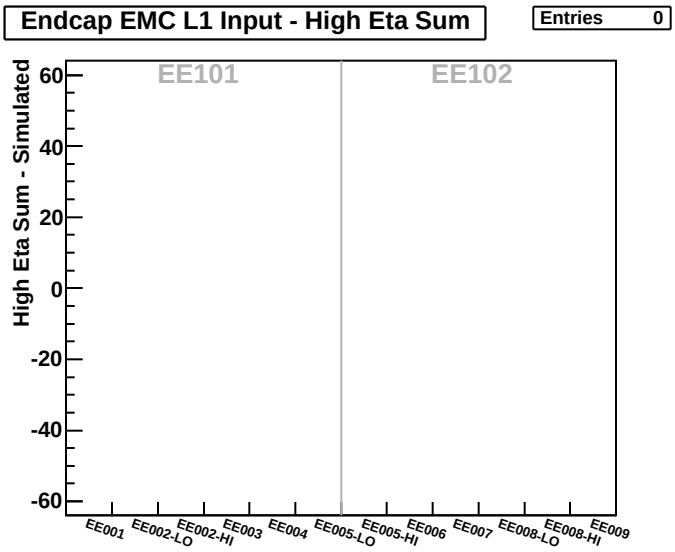

Barrel EMC L1 Input - High Tower Bits
Entries 8186112
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

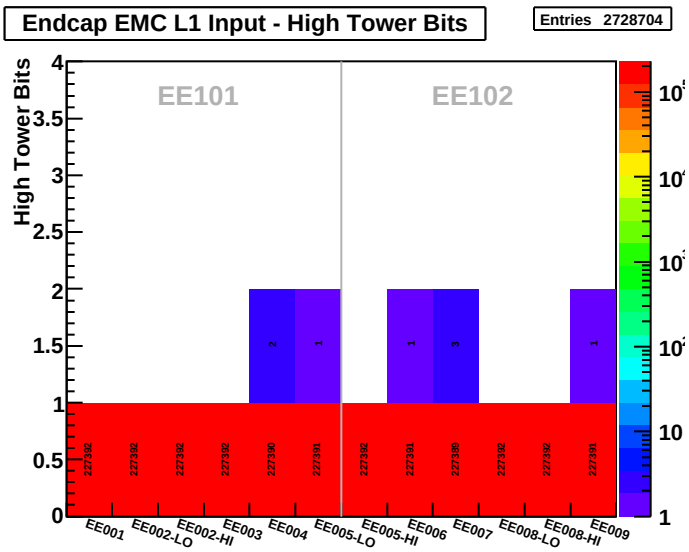

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

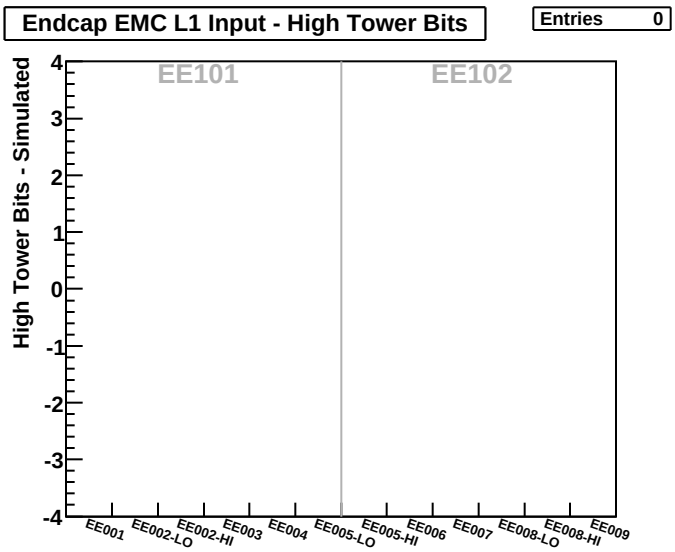

Endcap EMC L1 Input - Low Eta Sum
Entries 2728704
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

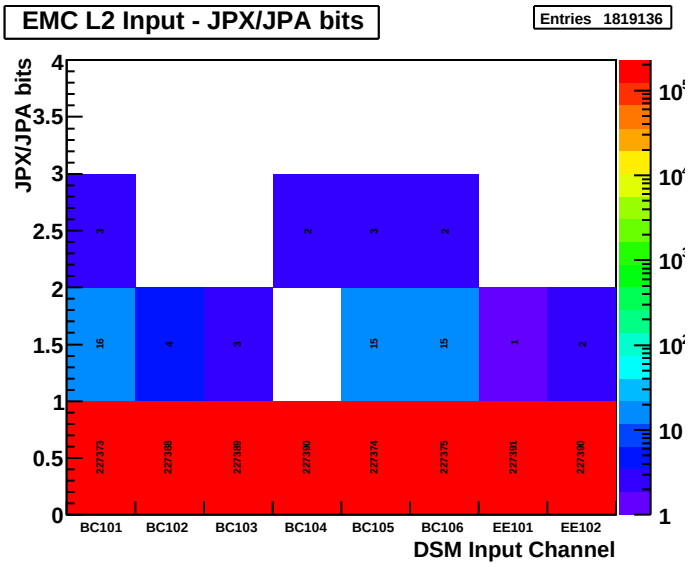

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

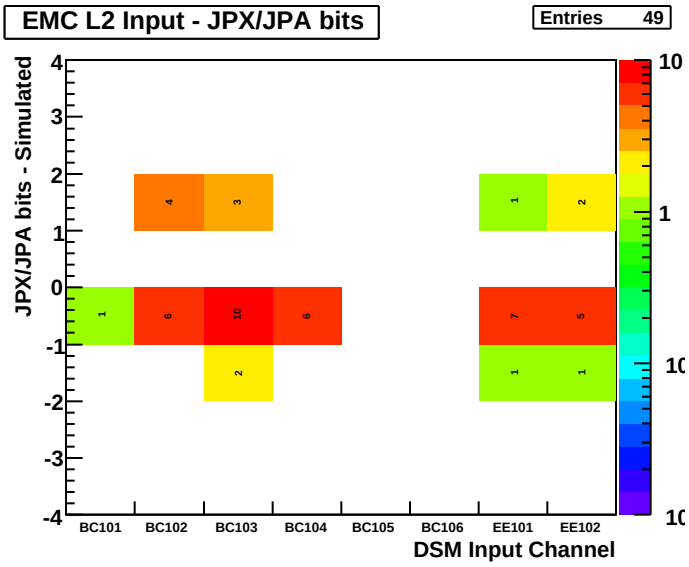

Endcap EMC L1 Input - High Eta Sum
Entries 2728704
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

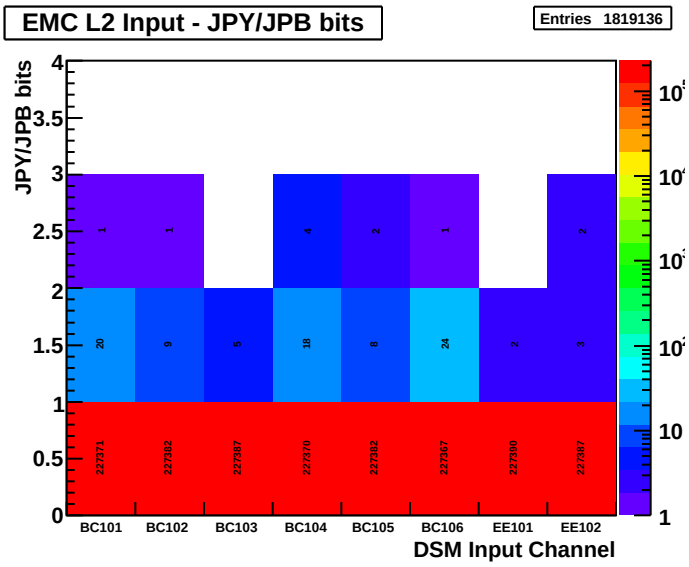

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

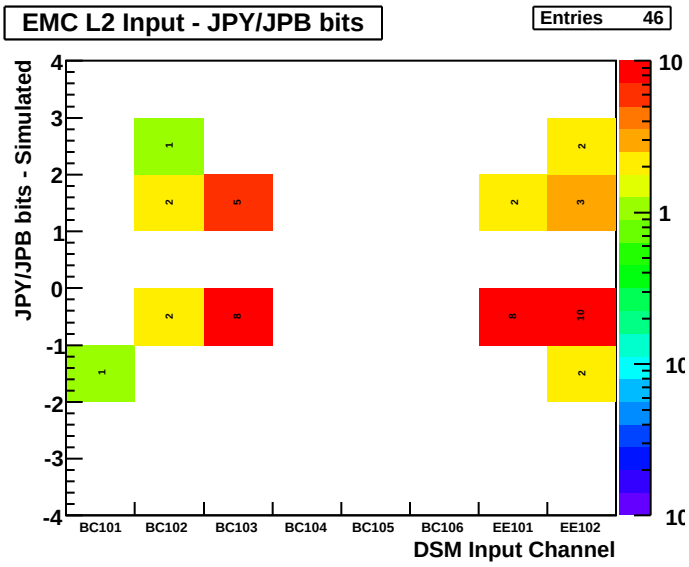

Endcap EMC L1 Input - High Tower Bits
Entries 2728704
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

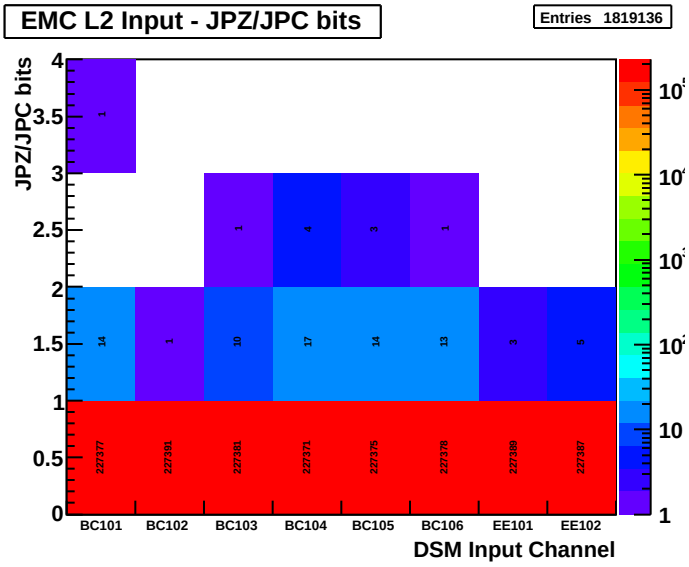

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

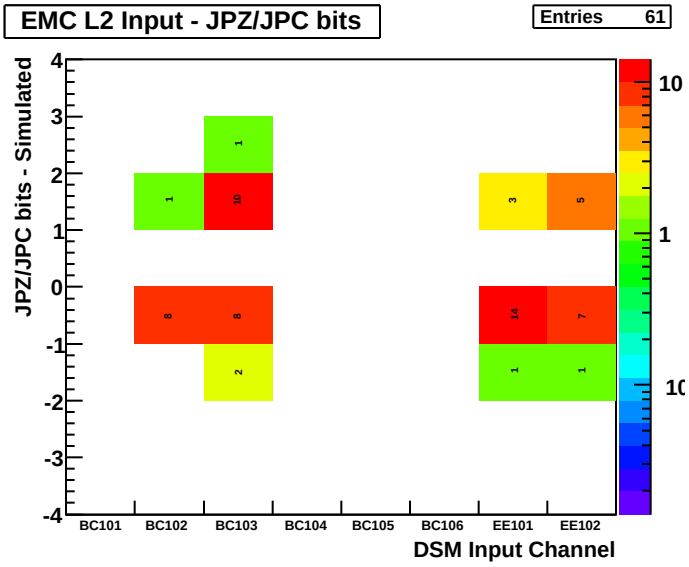

EMC L2 Input - JPX/JPA bits
Entries 1819136
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

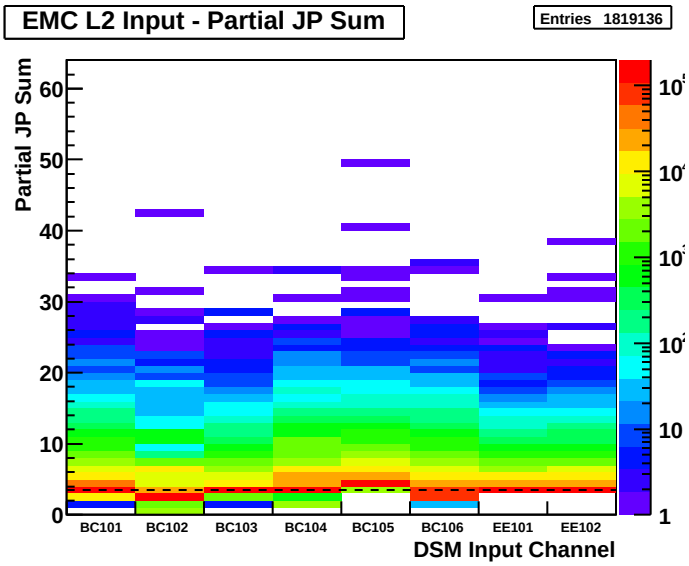

EMC L2 Input - JPX/JPA bits
Entries 49
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

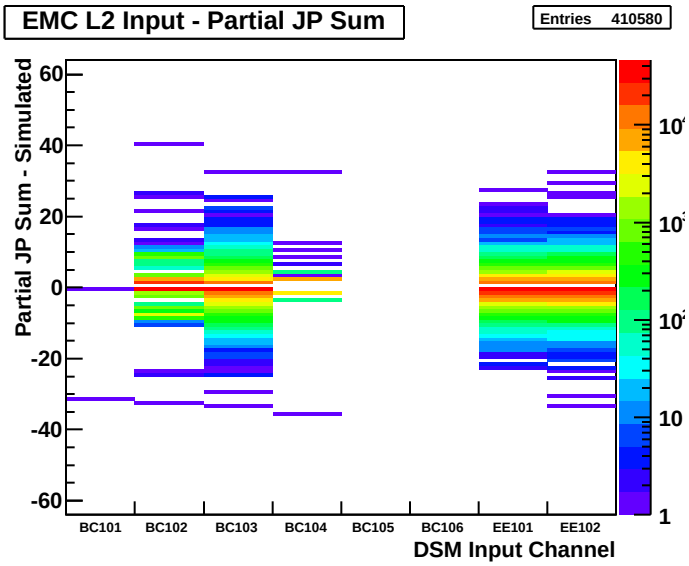

EMC L2 Input - JPY/JPB bits
Entries 1819136
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

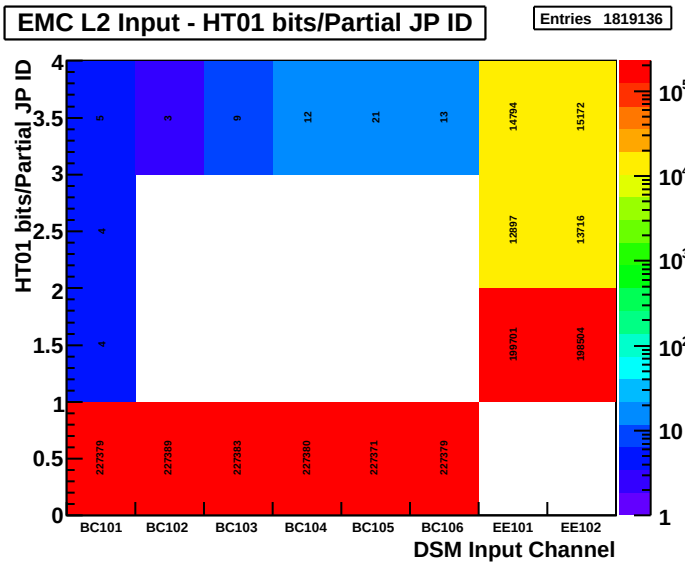

EMC L2 Input - JPY/JPB bits
Entries 46
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

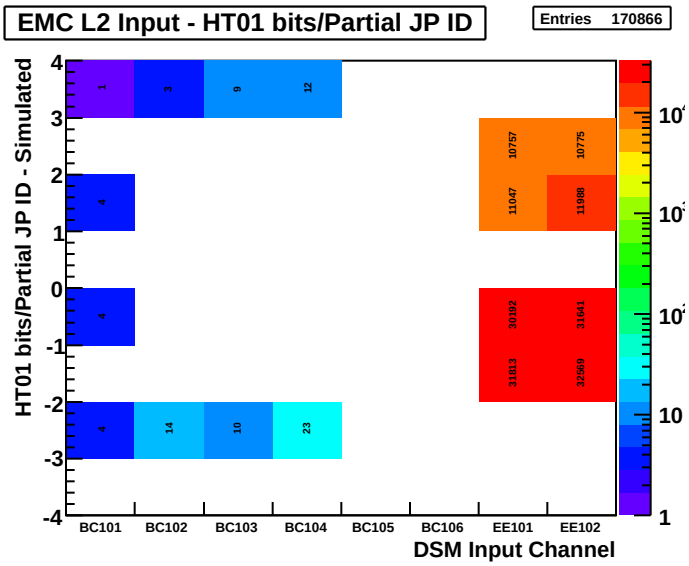

EMC L2 Input - JPZ/JPC bits
Entries 1819136
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

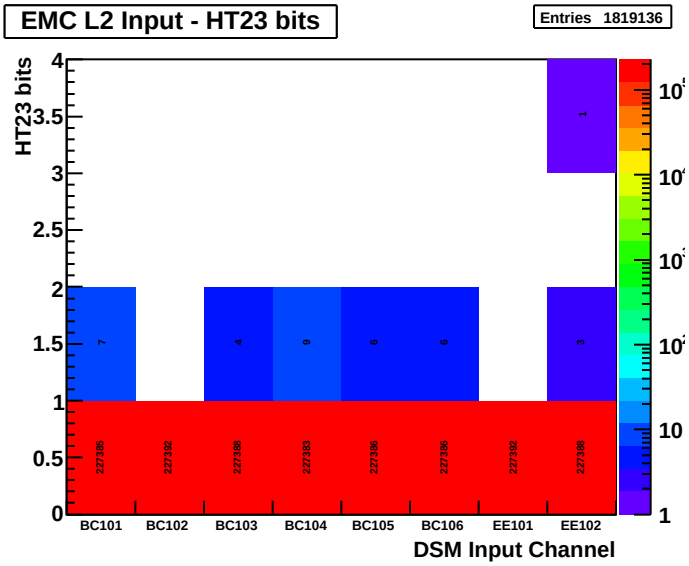

EMC L2 Input - JPZ/JPC bits
Entries 61
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

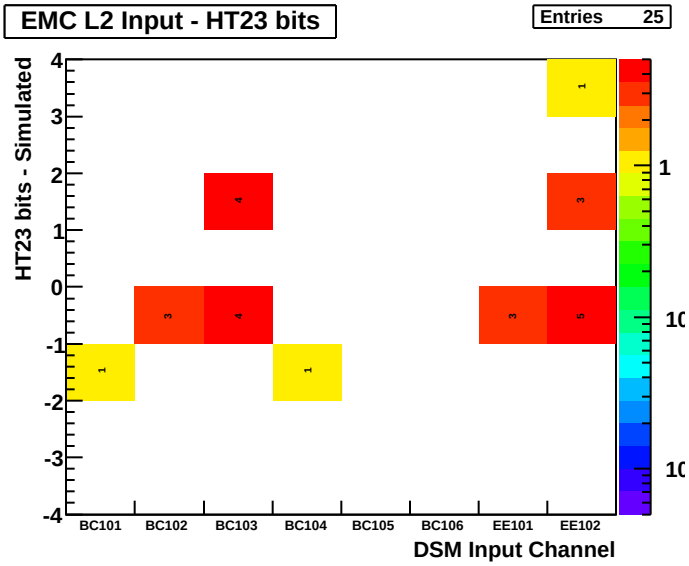

EMC L2 Input - Partial JP Sum
Entries 1819136
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

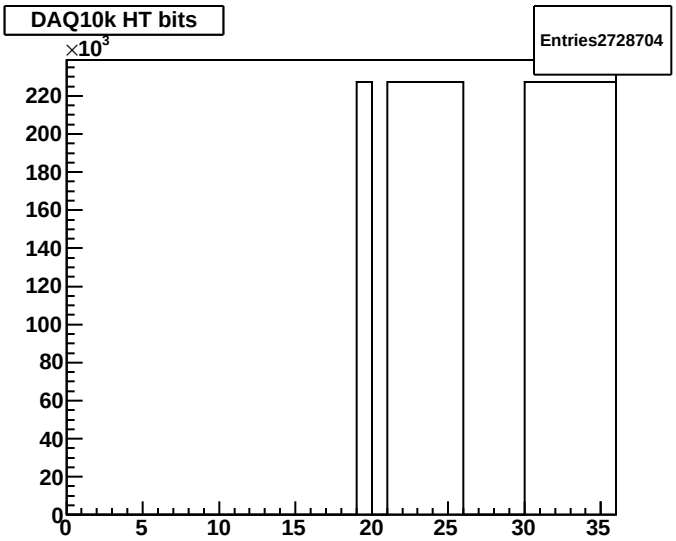

EMC L2 Input - Partial JP Sum
Entries 410580
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

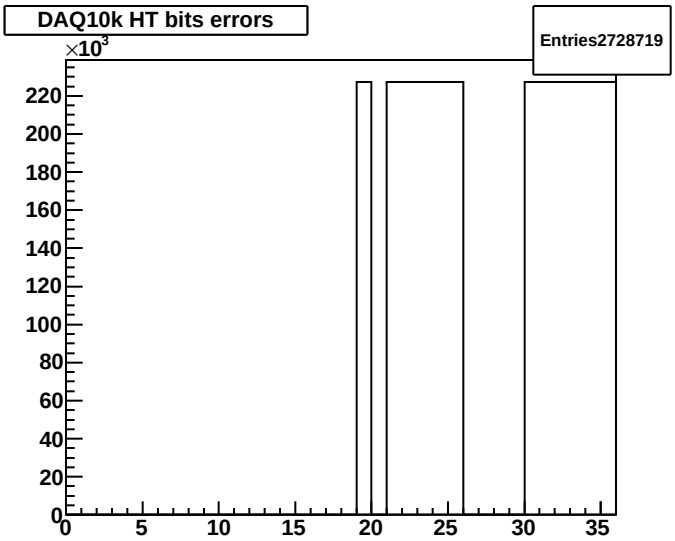

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1819136
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

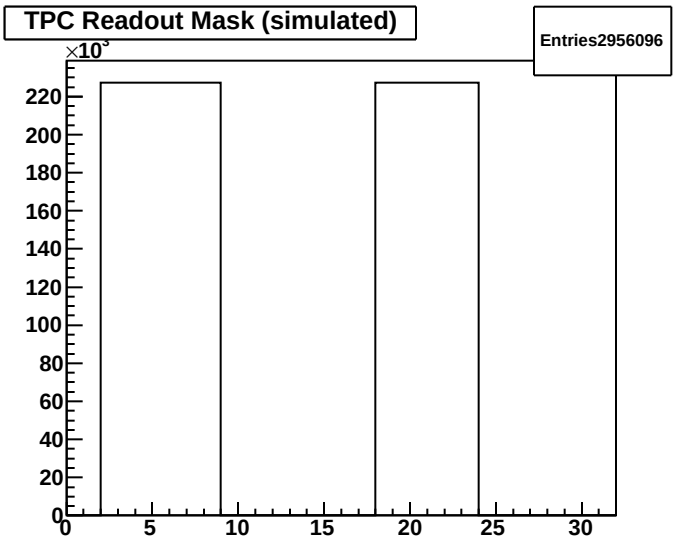

EMC L2 Input - HT01 bits/Partial JP ID
Entries 170866
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

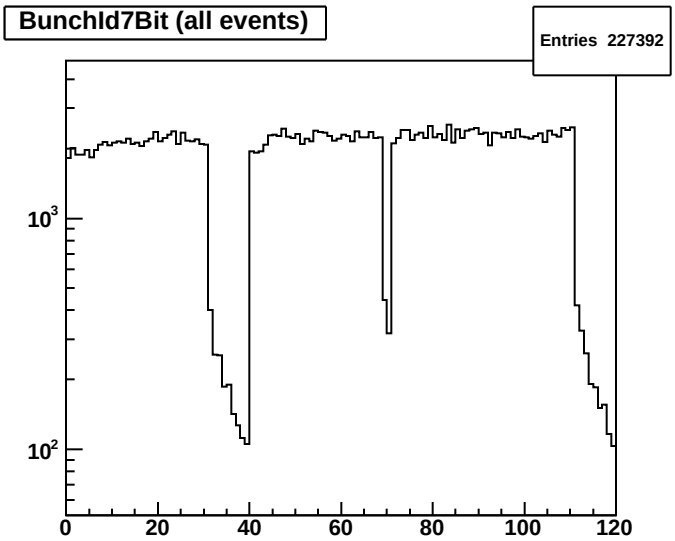

EMC L2 Input - HT23 bits
Entries 1819136
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

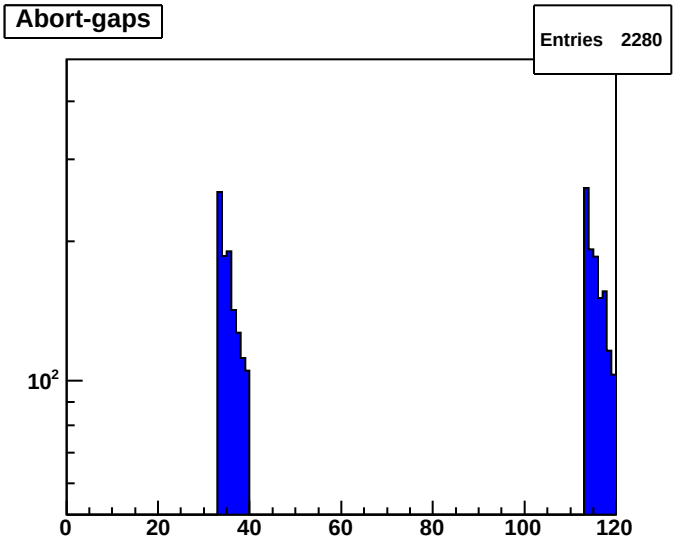

EMC L2 Input - HT23 bits
Entries 25
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

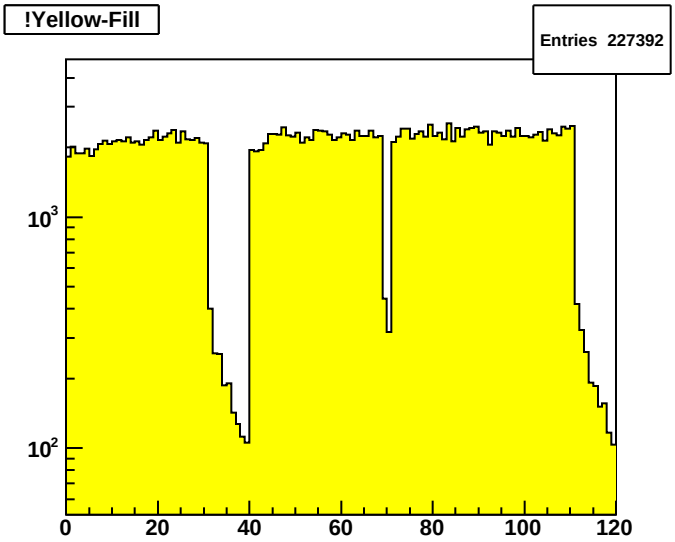

DAQ10k HT bits
Entries2728704
×10^3
0 20 40 60 80 100 120 140 160 180 200 220
0 5 10 15 20 25 30 35

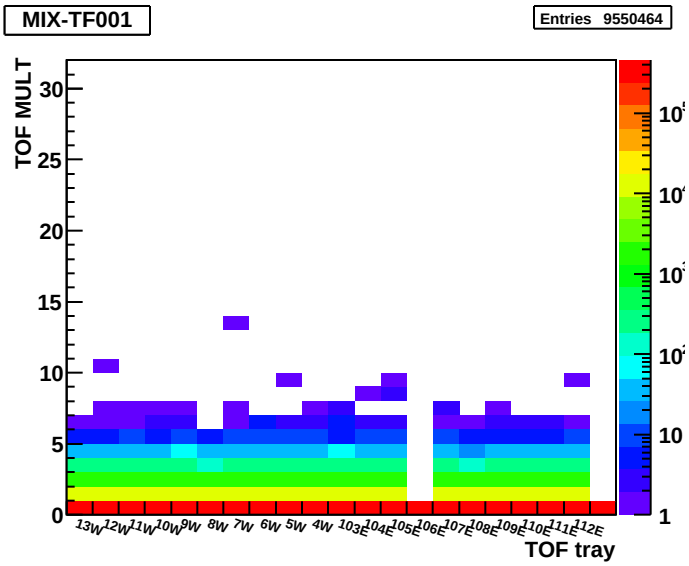

DAQ10k HT bits errors
Entries2728719
×10^3
0 20 40 60 80 100 120 140 160 180 200 220
0 5 10 15 20 25 30 35

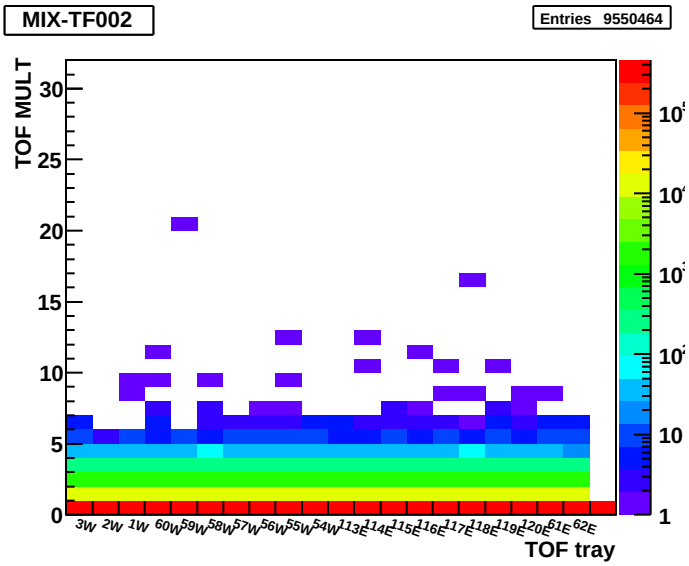

TPC Readout Mask (simulated)
Entries2956096
×10^3
0 20 40 60 80 100 120 140 160 180 200 220
0 5 10 15 20 25 30

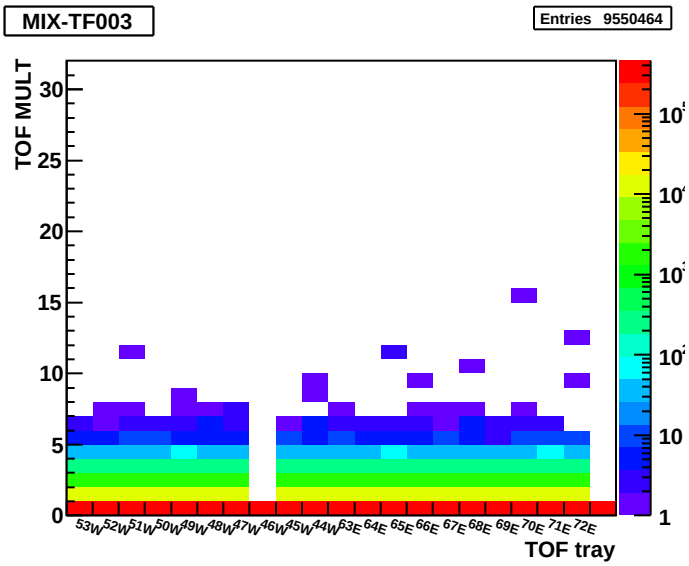

BunchId7Bit (all events)
Entries 227392
10^3
10^2
0 20 40 60 80 100 120

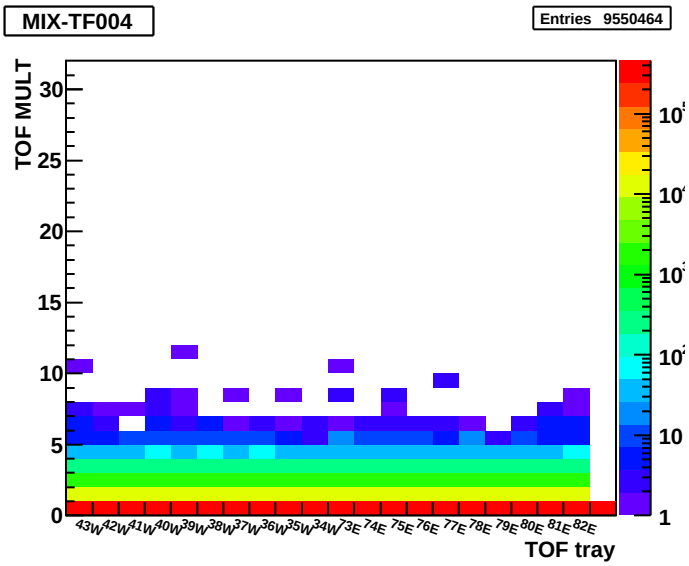

Abort-gaps
Entries 2280
10^2
0 20 40 60 80 100 120

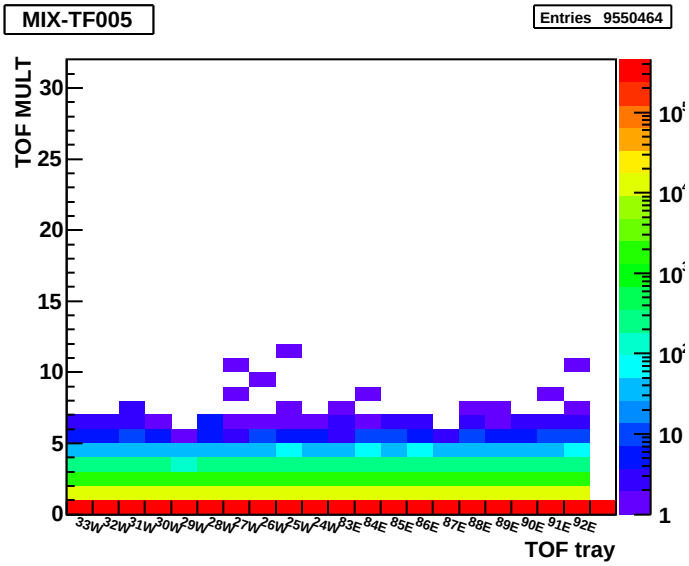

!Yellow-Fill
Entries 227392
10^3
10^2
0 20 40 60 80 100 120

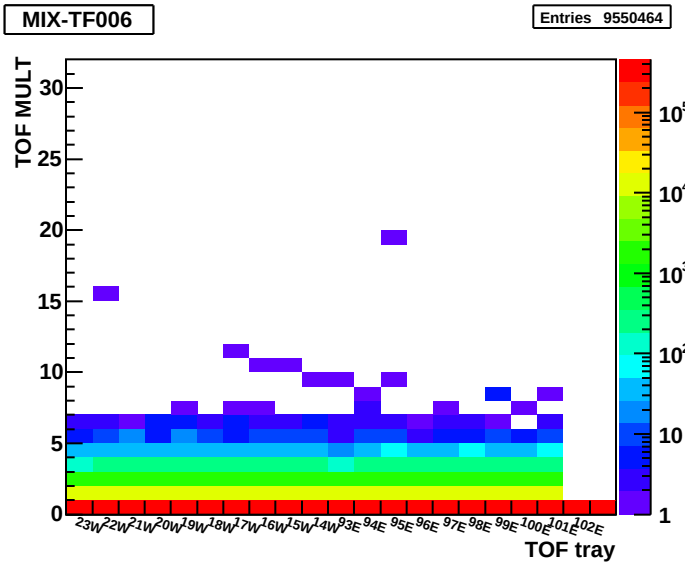

MIX-TF001
Entries 9550464
TOF MULT
TOF tray

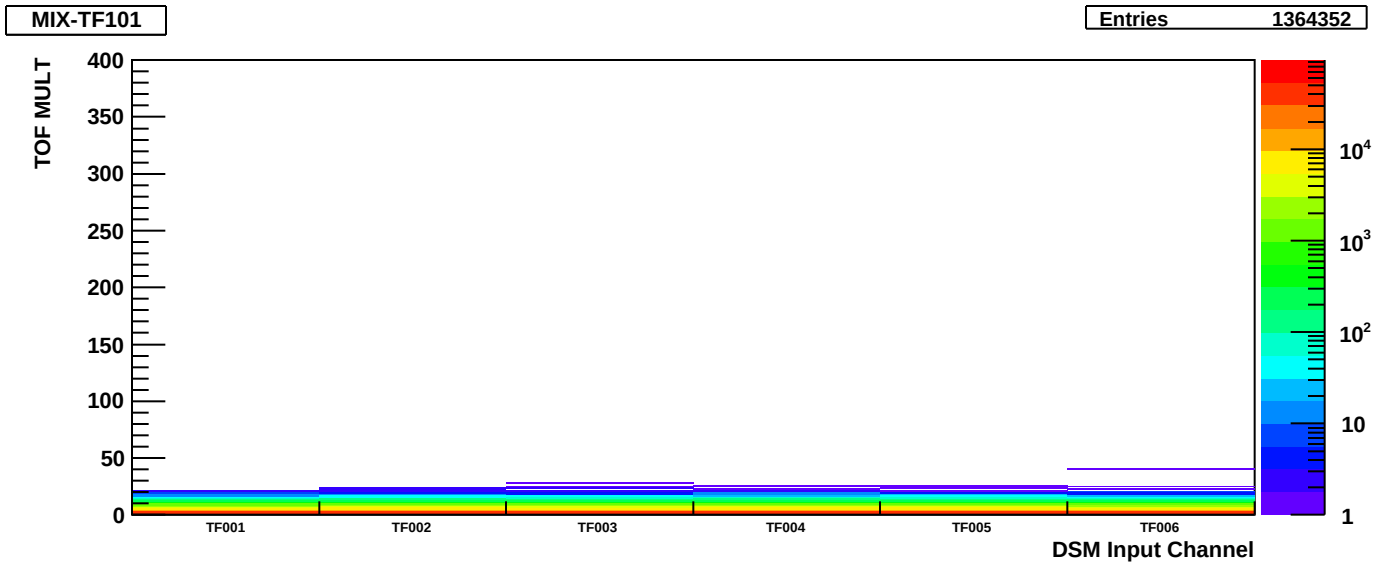

MIX-TF002
Entries 9550464
TOF MULT
TOF tray

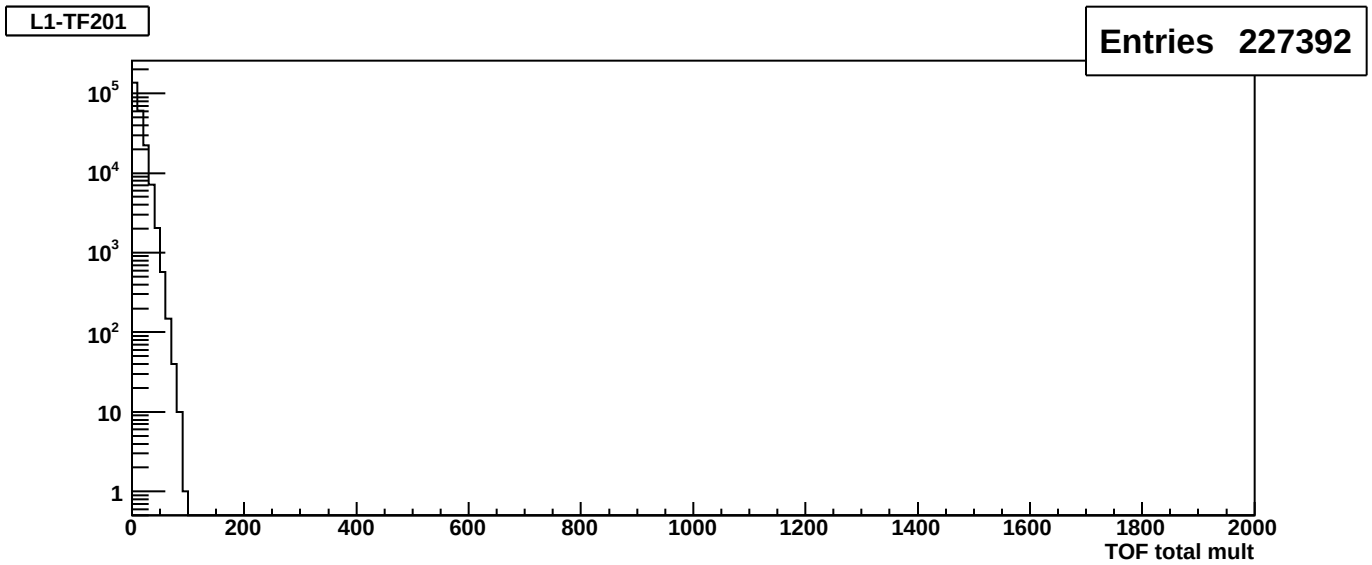

MIX-TF003
Entries 9550464
TOF MULT
TOF tray

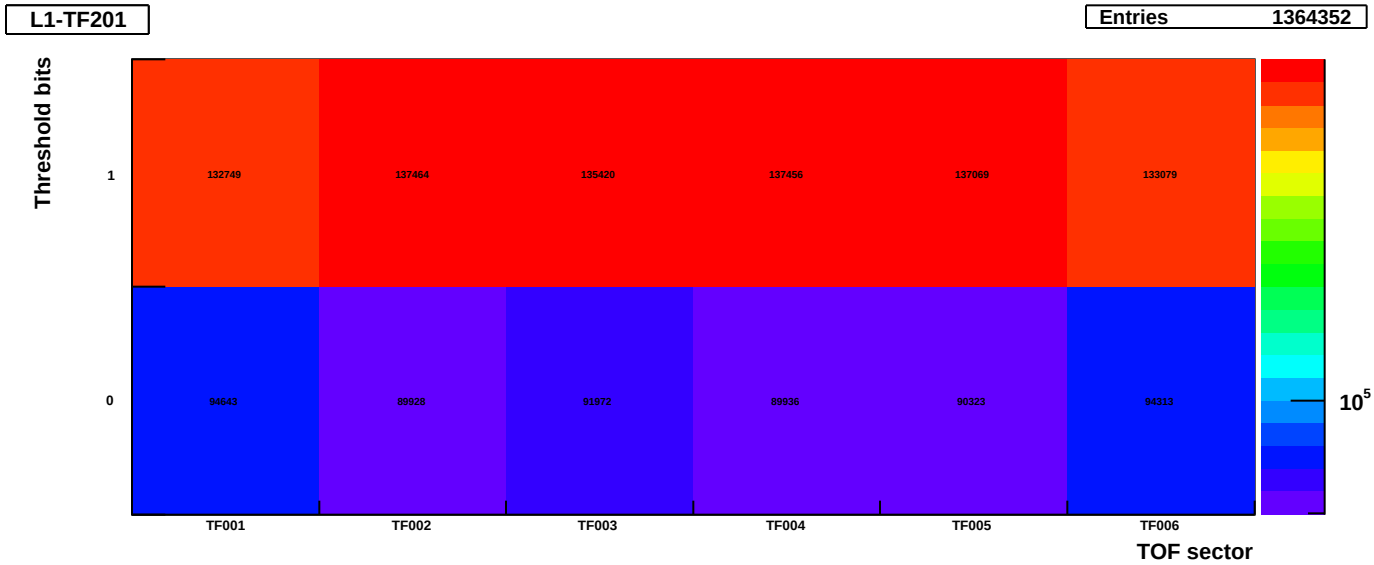

MIX-TF004
Entries 9550464
TOF MULT
TOF tray

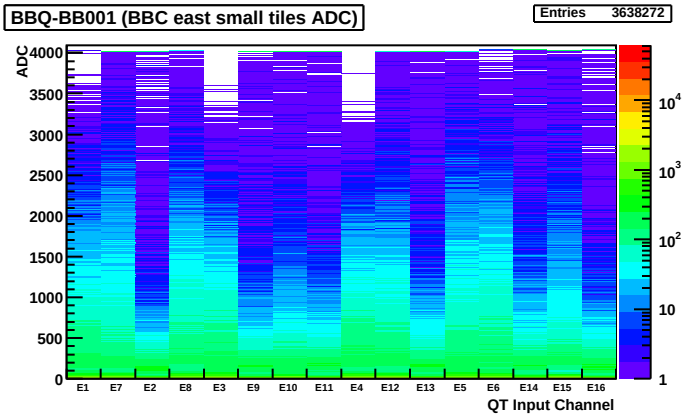

MIX-TF005
Entries 9550464
TOF MULT
TOF tray

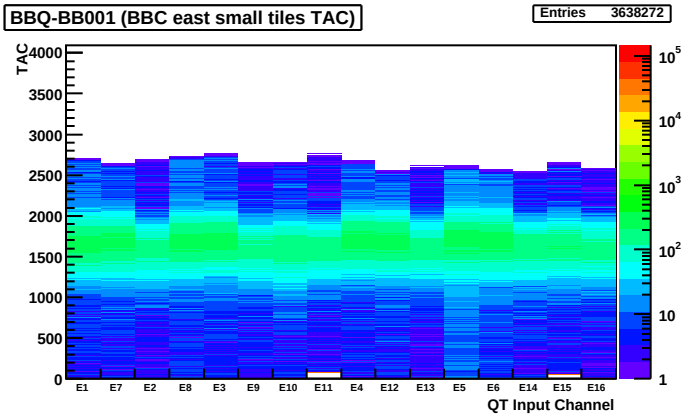

MIX-TF006
Entries 9550464
TOF MULT
TOF tray

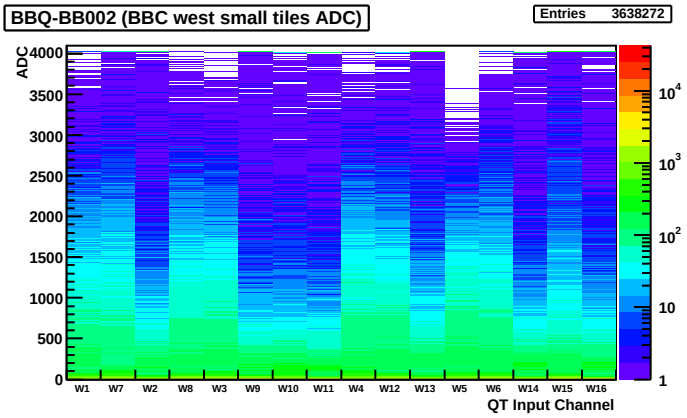

MIX-TF101
Entries 1364352
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

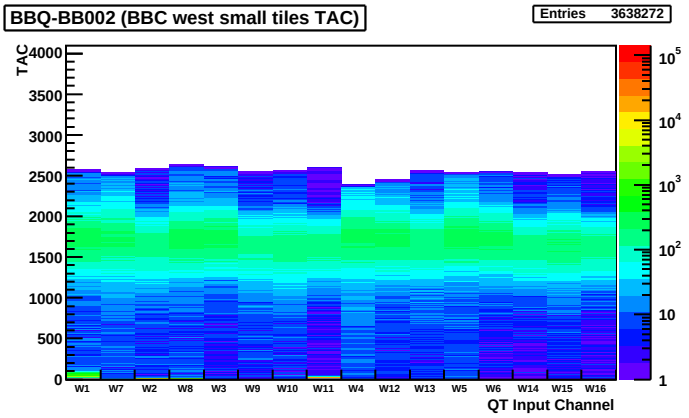

L1-TF201
Entries 227392
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

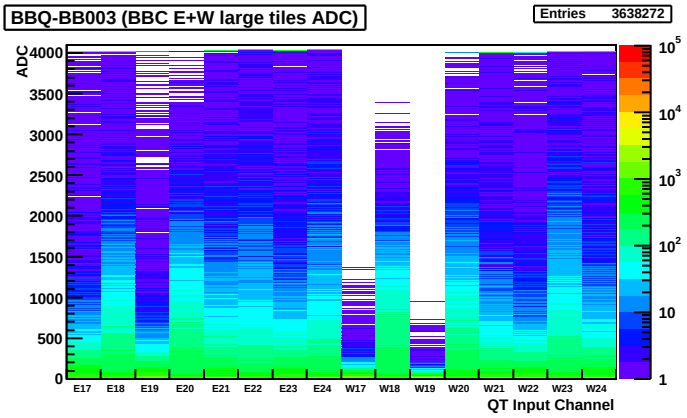

L1-TF201
Entries 1364352
Threshold bits
1
0
132749
137464
135420
137456
137069
133079
94643
89928
91972
89936
90323
94313
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5

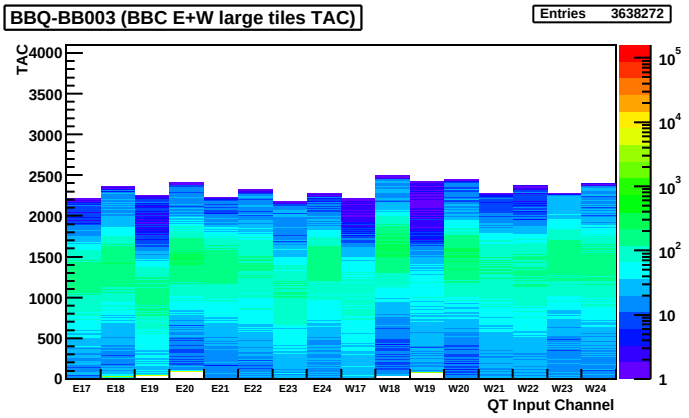

BBQ-BB001 (BBC east small tiles ADC)
Entries 3638272
ADC
QT Input Channel

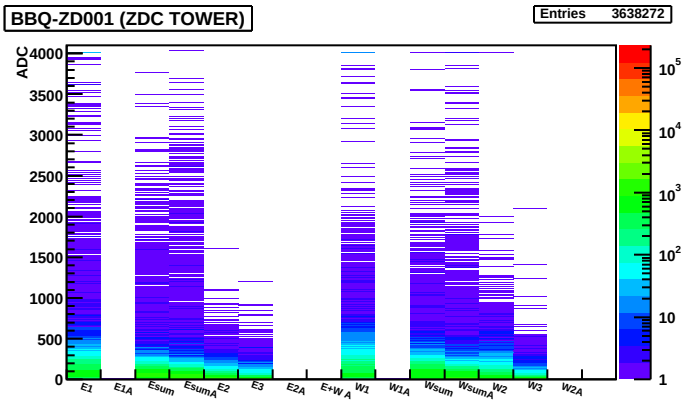

BBQ-BB001 (BBC east small tiles TAC)
Entries 3638272
TAC
QT Input Channel

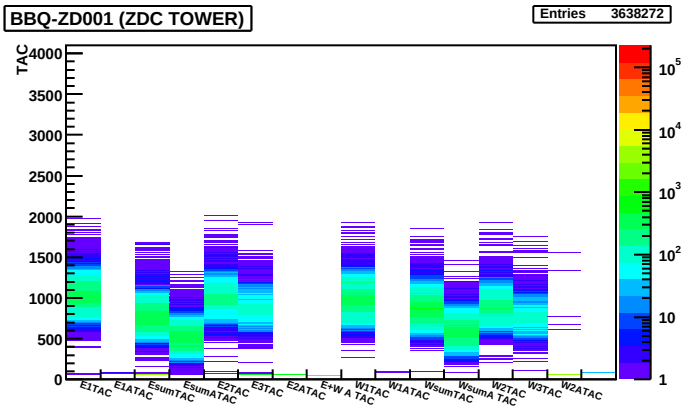

BBQ-BB002 (BBC west small tiles ADC)
Entries 3638272
ADC
QT Input Channel

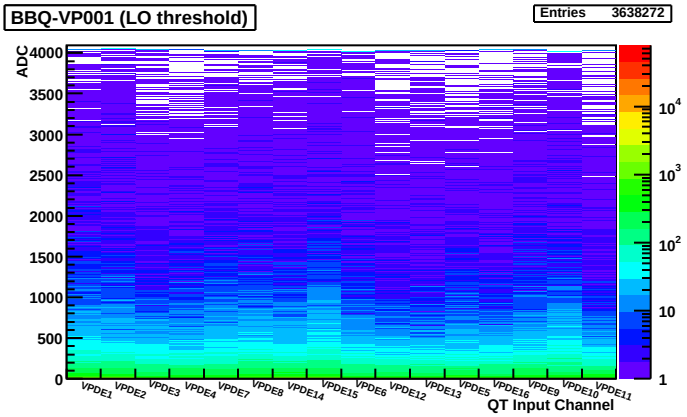

BBQ-BB002 (BBC west small tiles TAC)
Entries 3638272
TAC
QT Input Channel

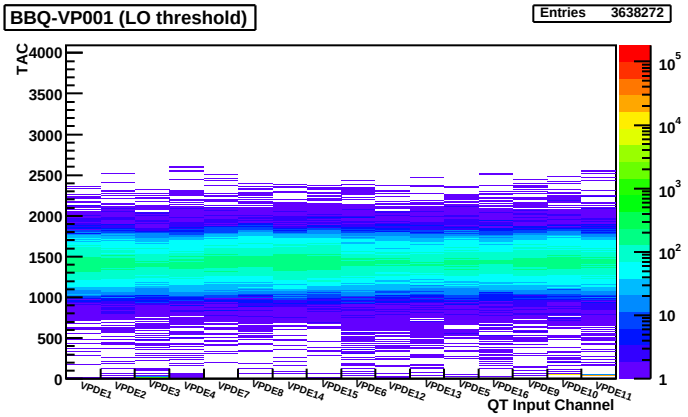

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 3638272
ADC
QT Input Channel

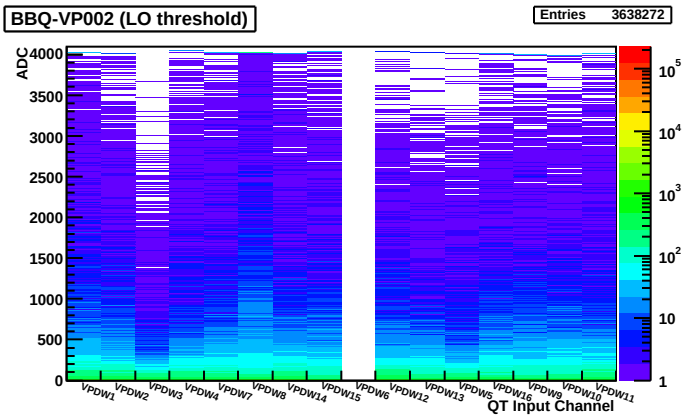

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 3638272
TAC
QT Input Channel

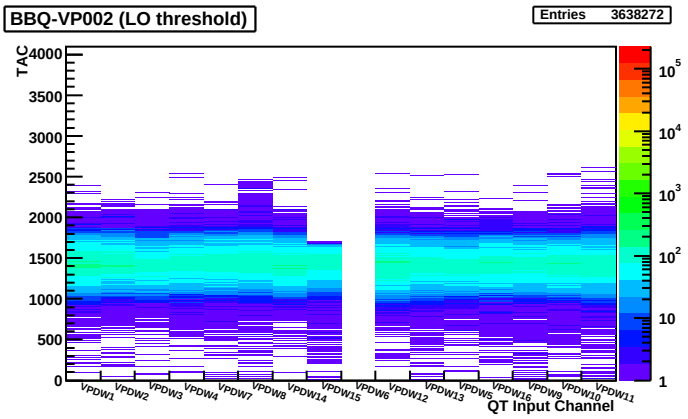

BBQ-ZD001 (ZDC TOWER)
Entries 3638272
ADC

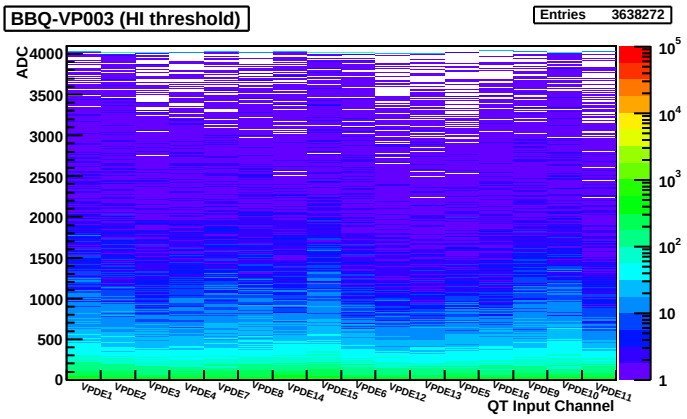

BBQ-ZD001 (ZDC TOWER)
Entries 3638272
TAC

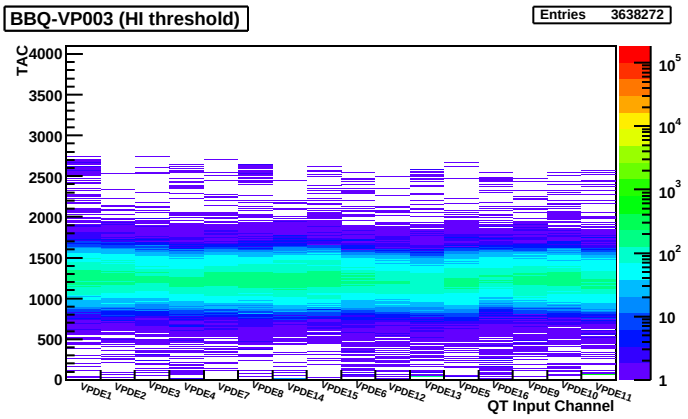

BBQ-VP001 (LO threshold)
Entries 3638272
ADC
QT Input Channel

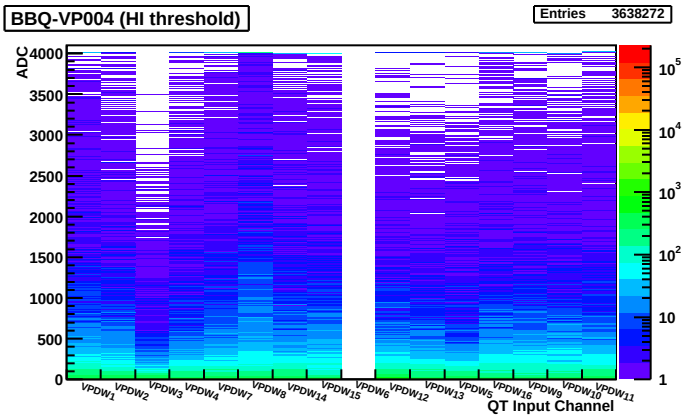

BBQ-VP001 (LO threshold)
Entries 3638272
TAC
QT Input Channel

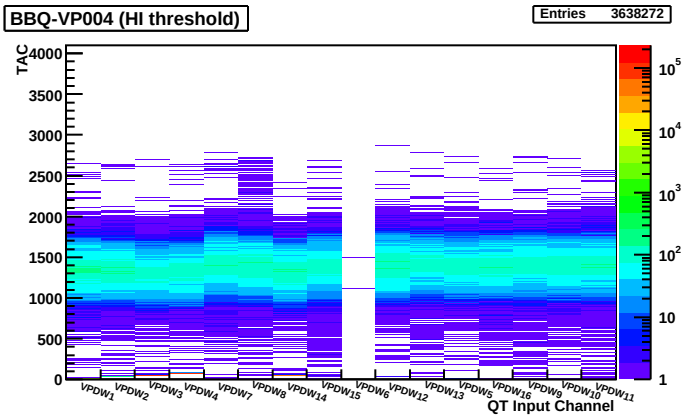

BBQ-VP002 (LO threshold)
Entries 3638272
ADC
QT Input Channel

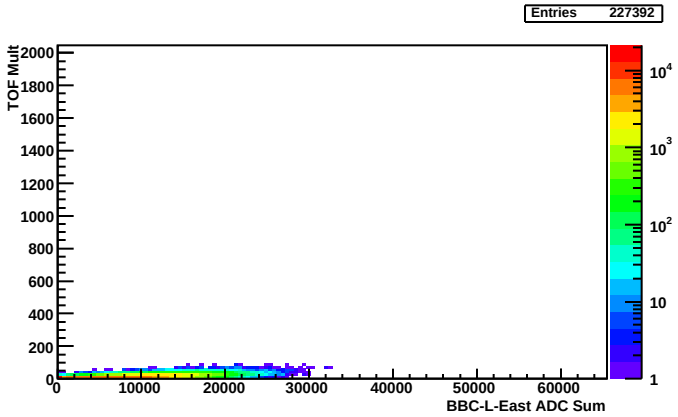

BBQ-VP002 (LO threshold)
Entries 3638272
TAC
QT Input Channel

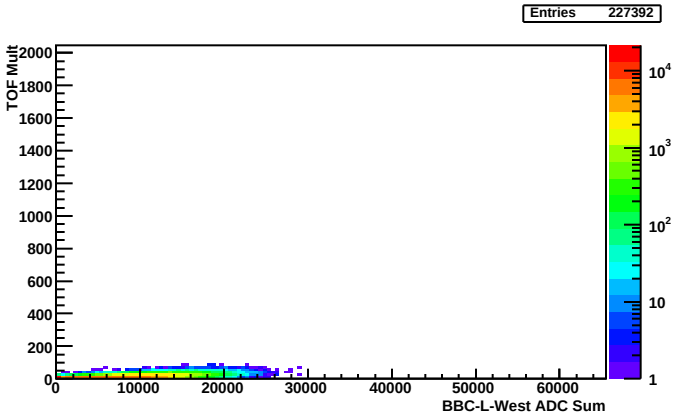

BBQ-VP003 (HI threshold)
Entries 3638272
ADC
QT Input Channel

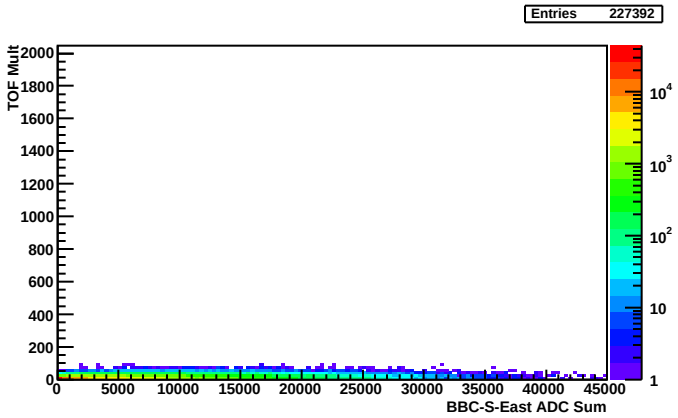

BBQ-VP003 (HI threshold)
Entries 3638272
TAC
QT Input Channel

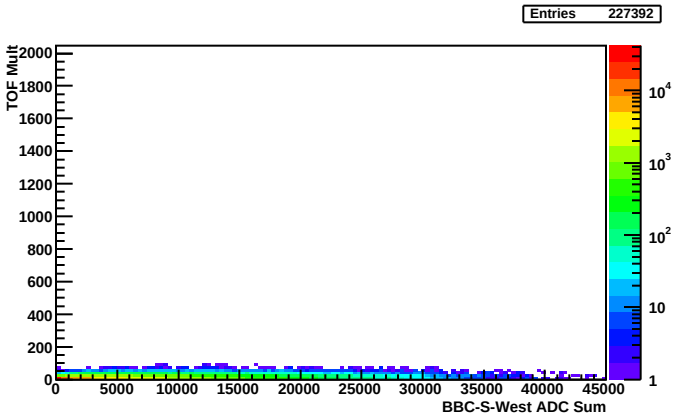

BBQ-VP004 (HI threshold)
Entries 3638272
ADC
QT Input Channel

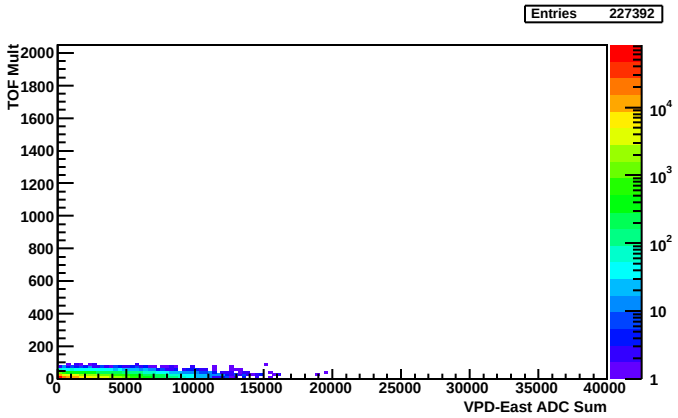

BBQ-VP004 (HI threshold)
Entries 3638272
TAC
QT Input Channel

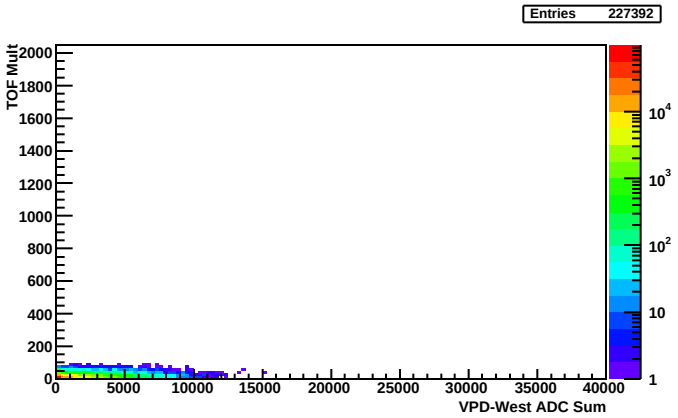

Entries 227392
TOF Mult
BBC-L-East ADC Sum

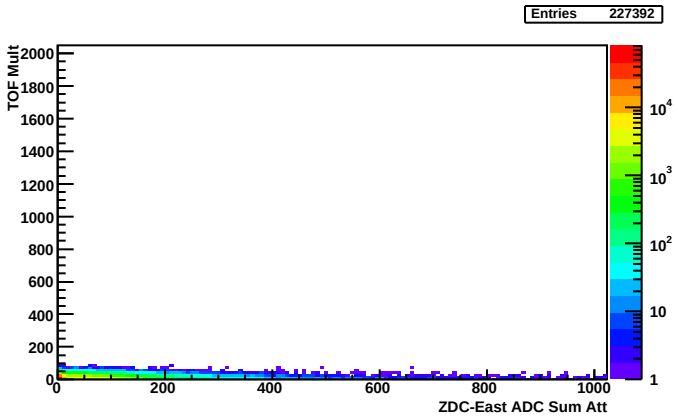

Entries 227392
TOF Mult
BBC-L-West ADC Sum

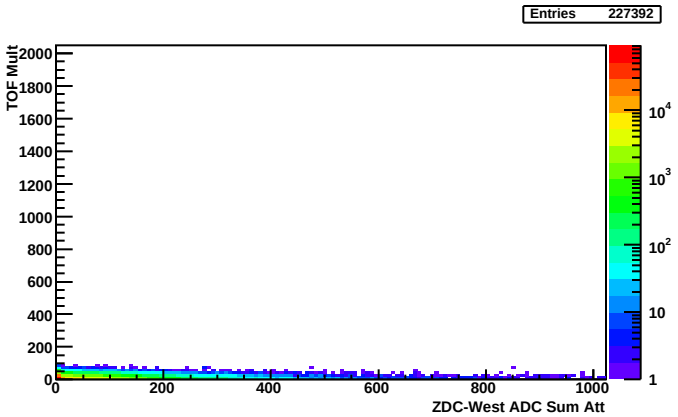

Entries 227392
TOF Mult
BBC-S-East ADC Sum

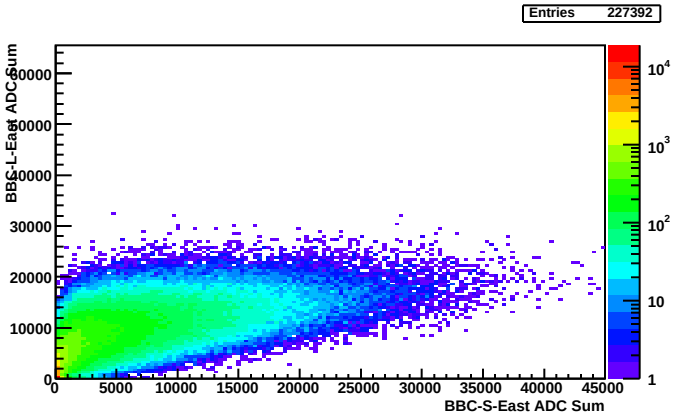

Entries 227392
TOF Mult
BBC-S-West ADC Sum

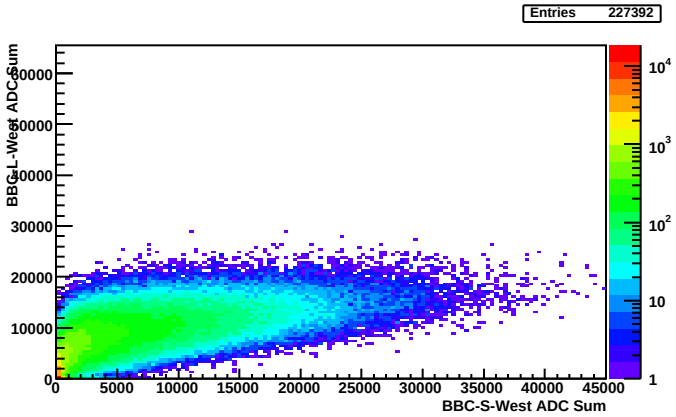

Entries 227392
TOF Mult
VPD-East ADC Sum

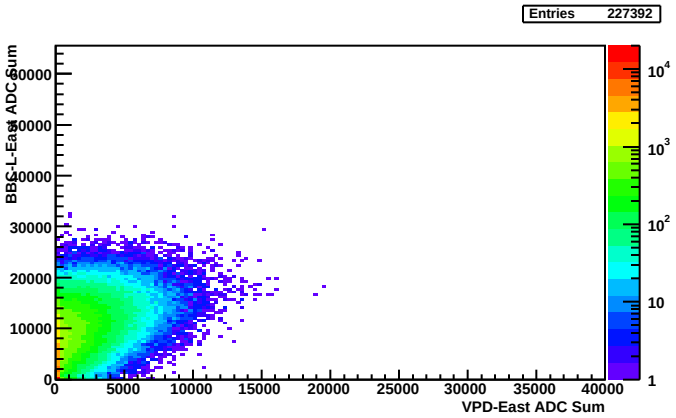

Entries 227392
TOF Mult
VPD-West ADC Sum

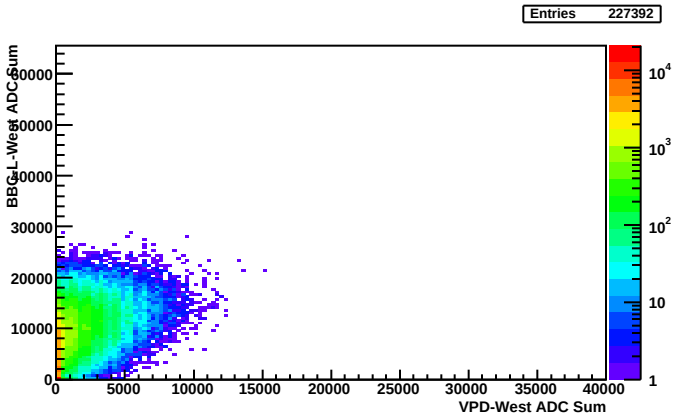

Entries 227392
TOF Mult
ZDC-East ADC Sum Att

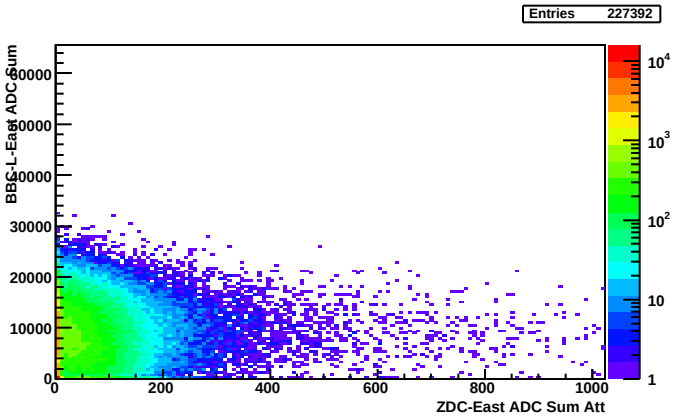

Entries 227392
TOF Mult
ZDC-West ADC Sum Att

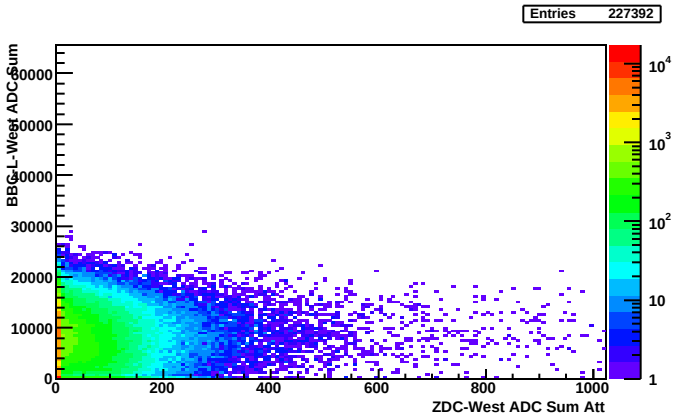

Entries 227392
BBC-L-East ADC Sum
BBC-S-East ADC Sum

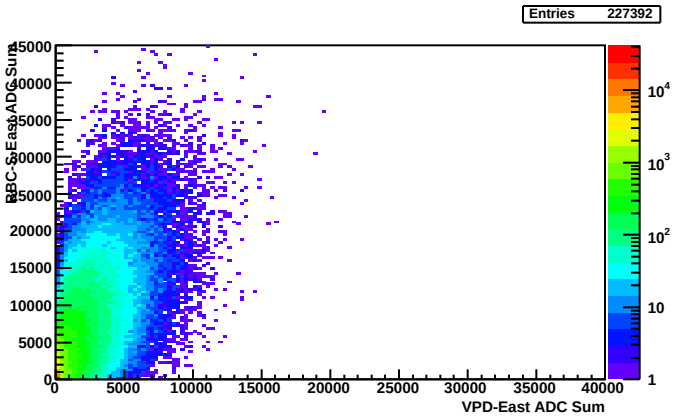

Entries 227392
BBC-L-West ADC Sum
BBC-S-West ADC Sum

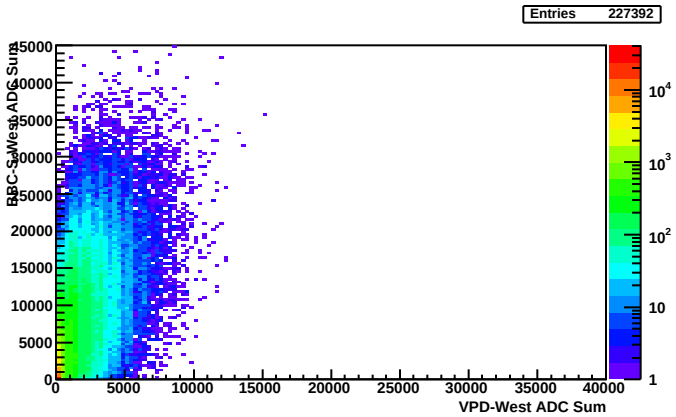

Entries 227392
BBC-L-East ADC Sum
VPD-East ADC Sum

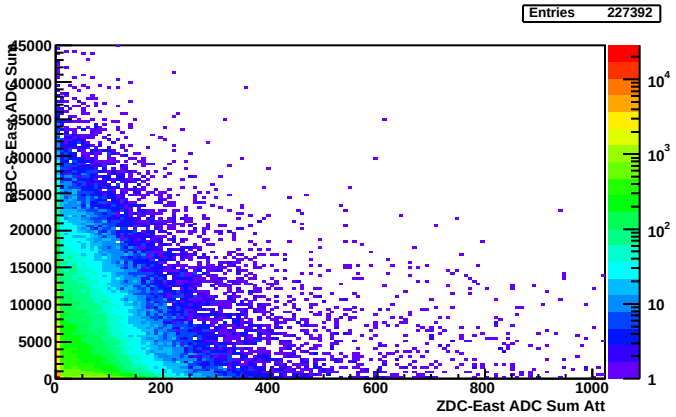

Entries 227392
BBC-L-West ADC Sum
VPD-West ADC Sum

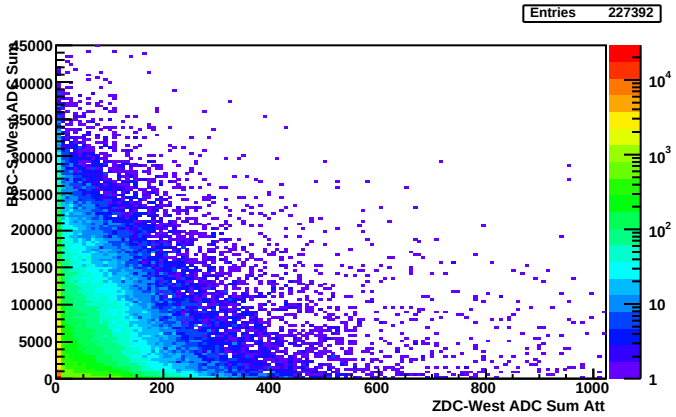

Entries 227392
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

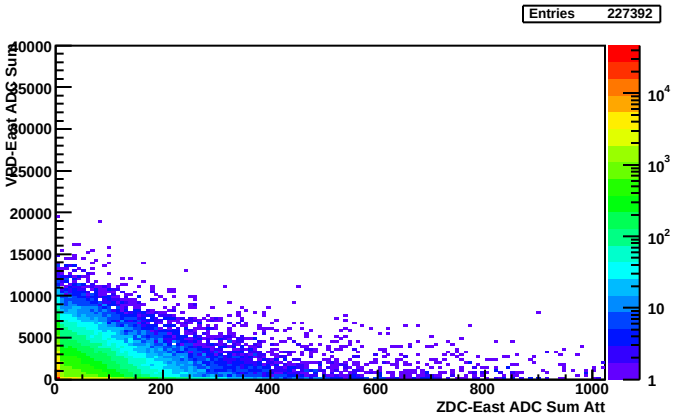

Entries 227392
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

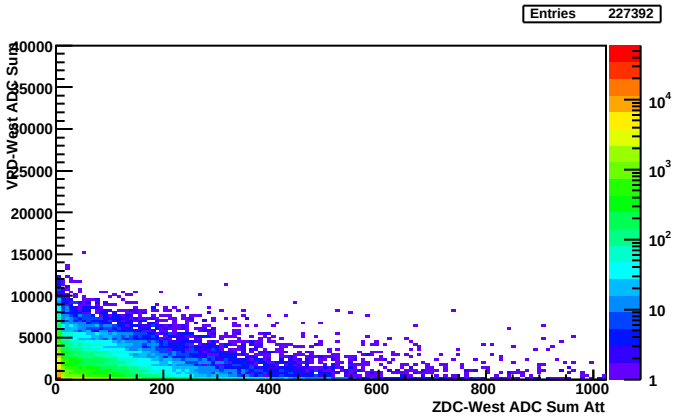

Entries 227392
BBC-S-East ADC Sum
VPD-East ADC Sum

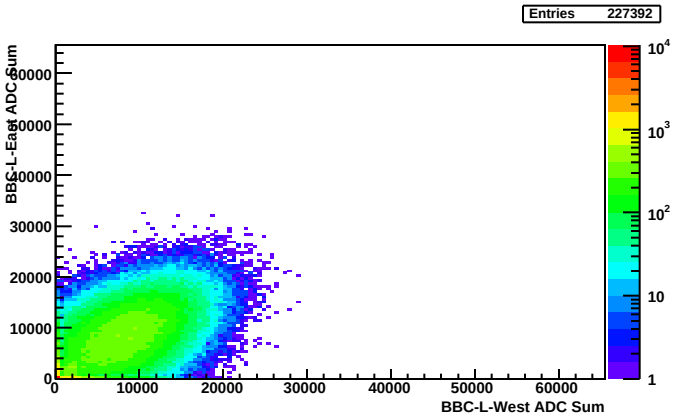

Entries 227392
BBC-S-West ADC Sum
VPD-West ADC Sum

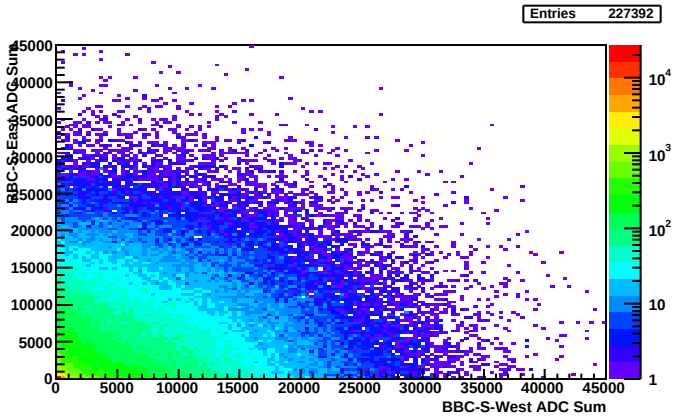

Entries 227392
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

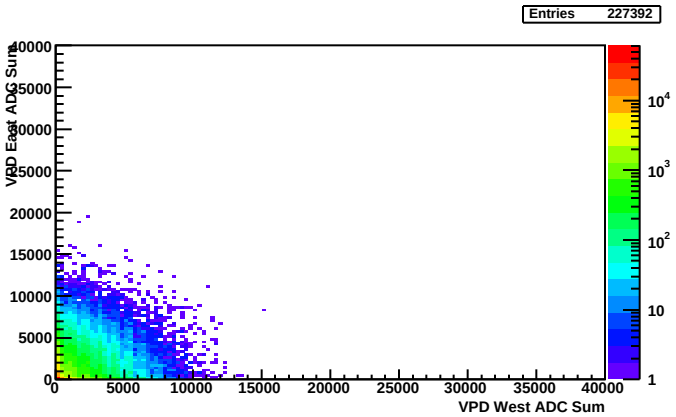

Entries 227392
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

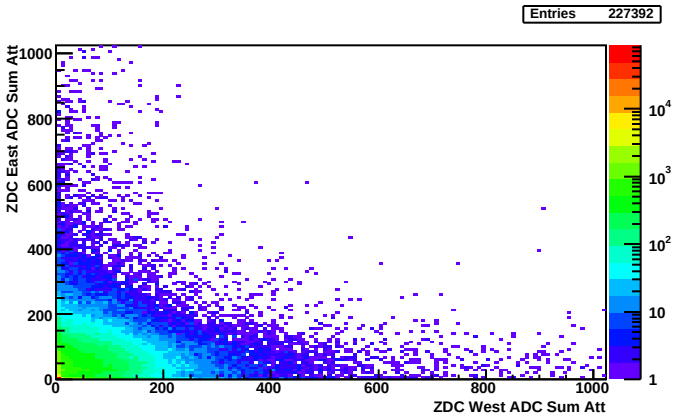

Entries 227392
VPD-East ADC Sum
ZDC-East ADC Sum Att

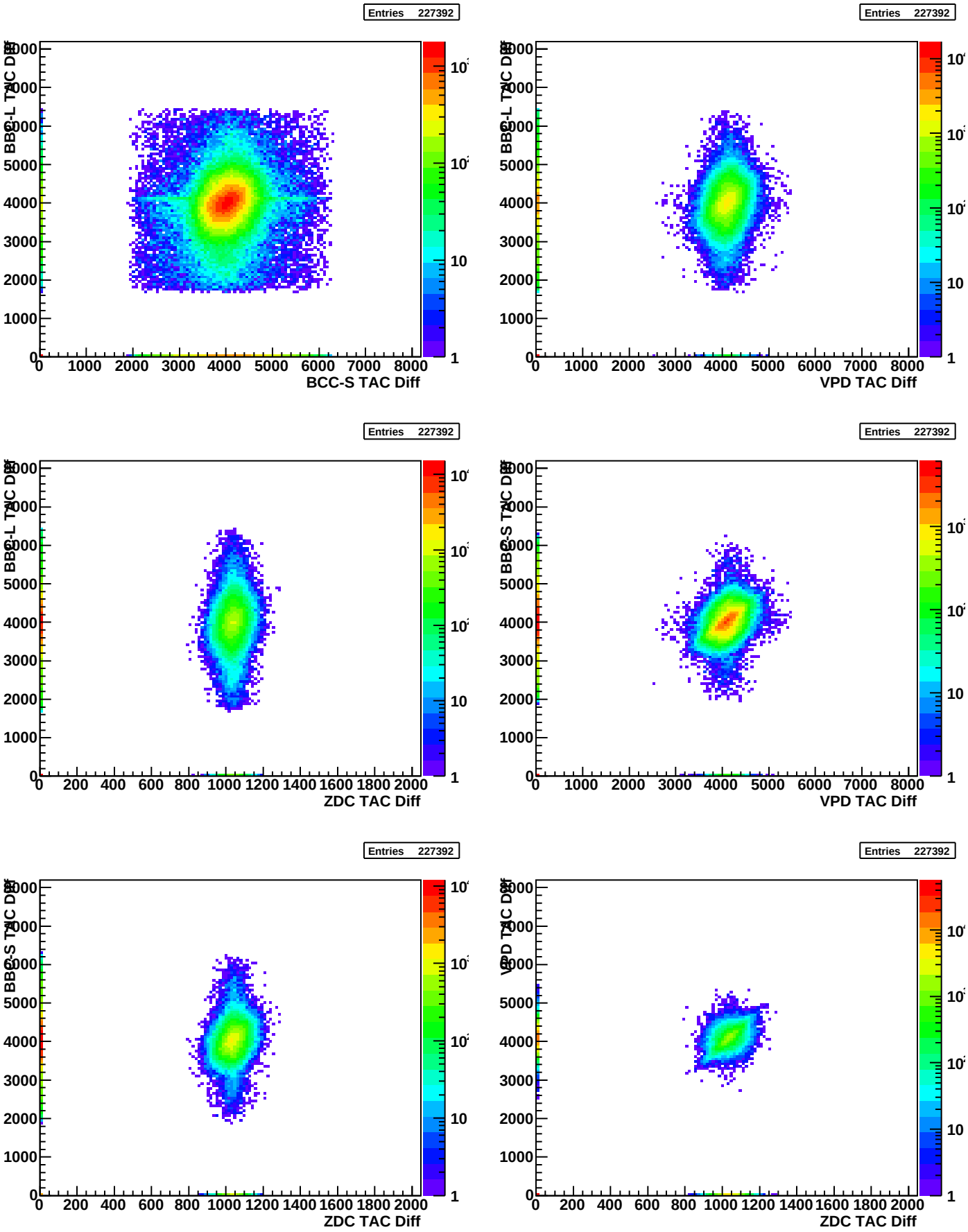

Entries 227392
VPD-West ADC Sum
ZDC-West ADC Sum Att

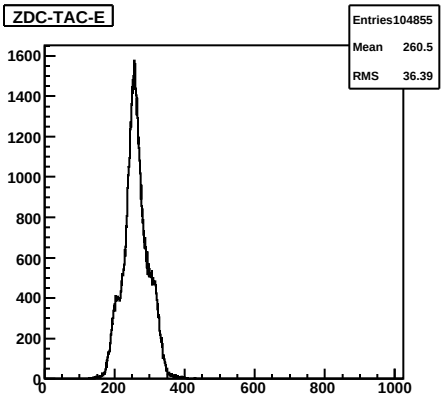

Entries 227392
BBC-L-East ADC Sum
BBC-L-West ADC Sum

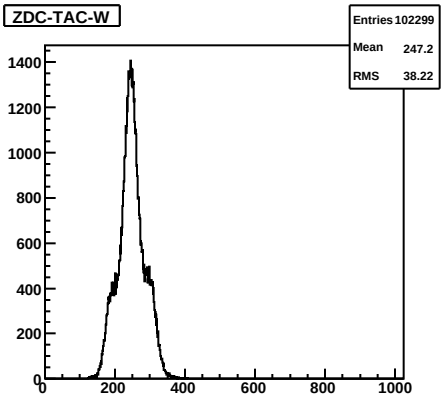

Entries 227392
BBC-S-East ADC Sum
BBC-S-West ADC Sum

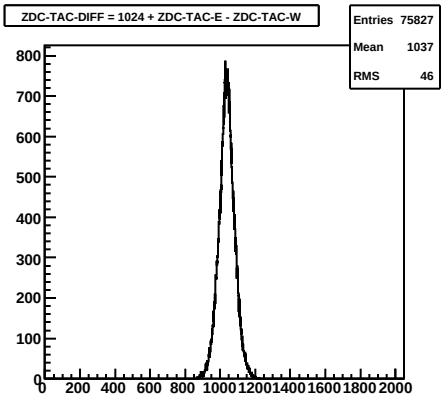

Entries 227392
VPD East ADC Sum
VPD West ADC Sum

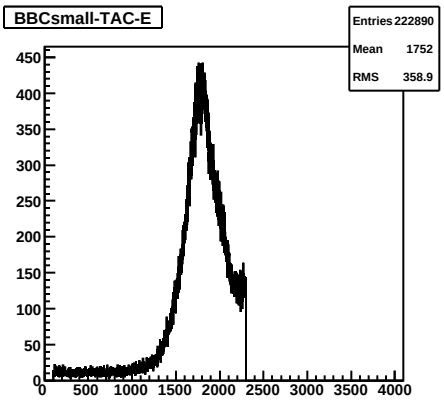

Entries 227392
ZDC East ADC Sum Att
ZDC West ADC Sum Att

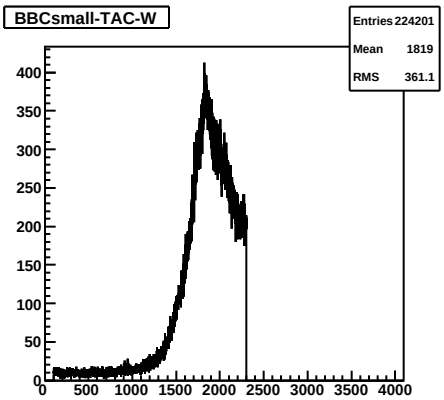

Entries 227392
BBC-L TAC Diff
BCC-S TAC Diff
Entries 227392
BBC-L TAC Diff
VPD TAC Diff
Entries 227392
BBC-L TAC Diff
ZDC TAC Diff
Entries 227392
BBC-S TAC Diff
VPD TAC Diff
Entries 227392
BBC-S TAC Diff
ZDC TAC Diff
Entries 227392
VPD TAC Diff
ZDC TAC Diff

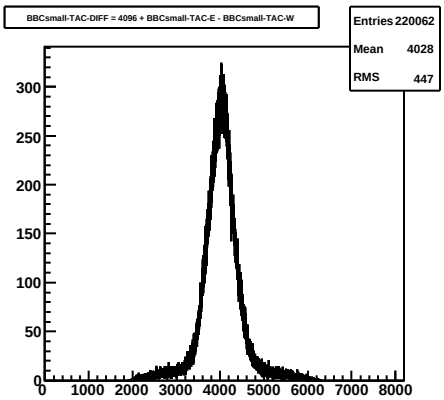

ZDC-TAC-E
Entries 104855
Mean 260.5
RMS 36.39

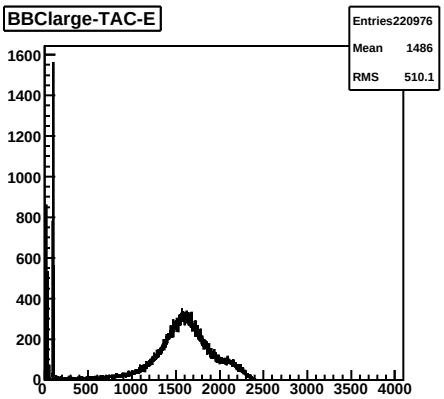

ZDC-TAC-W
Entries 102299
Mean 247.2
RMS 38.22

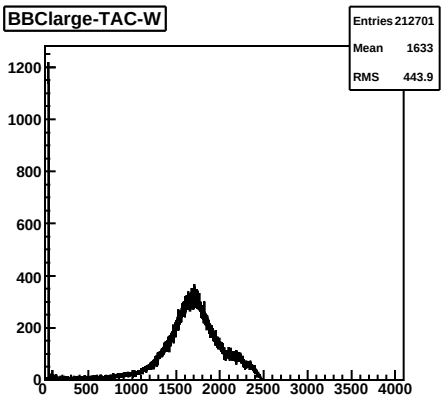

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 75827
Mean 1037
RMS 46

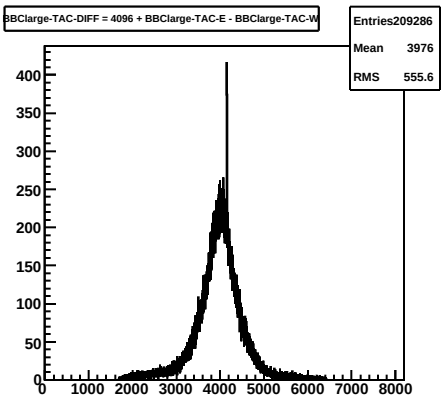

BBCsmall-TAC-E
Entries 222890
Mean 1752
RMS 358.9

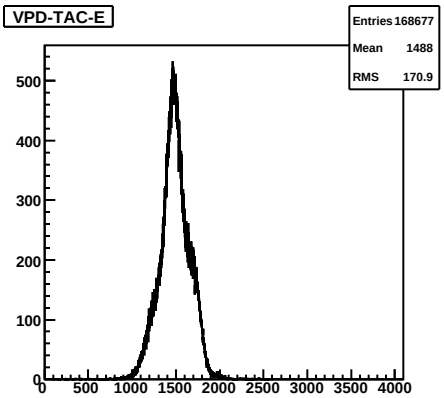

BBCsmall-TAC-W
Entries 224201
Mean 1819
RMS 361.1

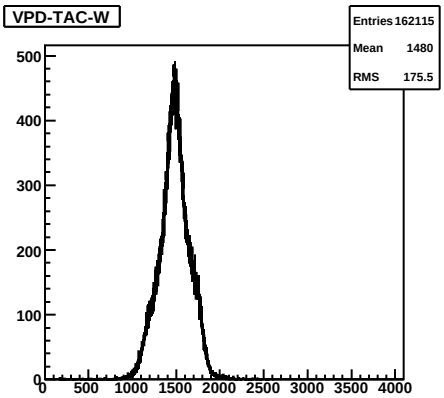

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 220062
Mean 4028
RMS 447

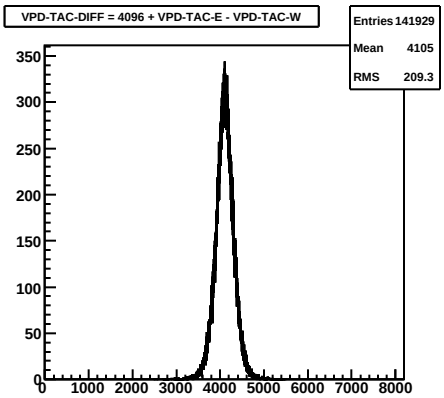

BBClarge-TAC-E
Entries 220976
Mean 1486
RMS 510.1

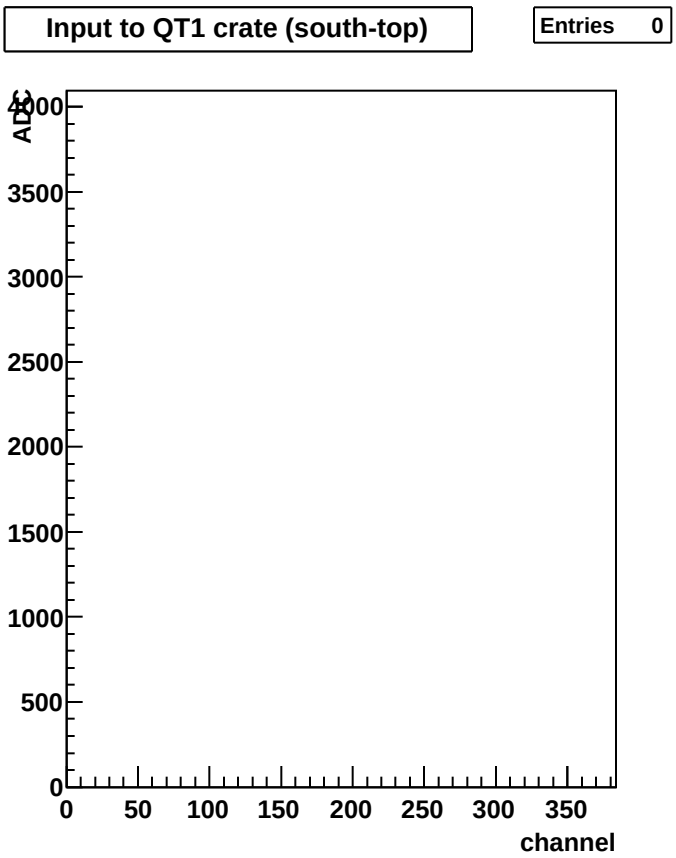

BBClarge-TAC-W
Entries 212701
Mean 1633
RMS 443.9

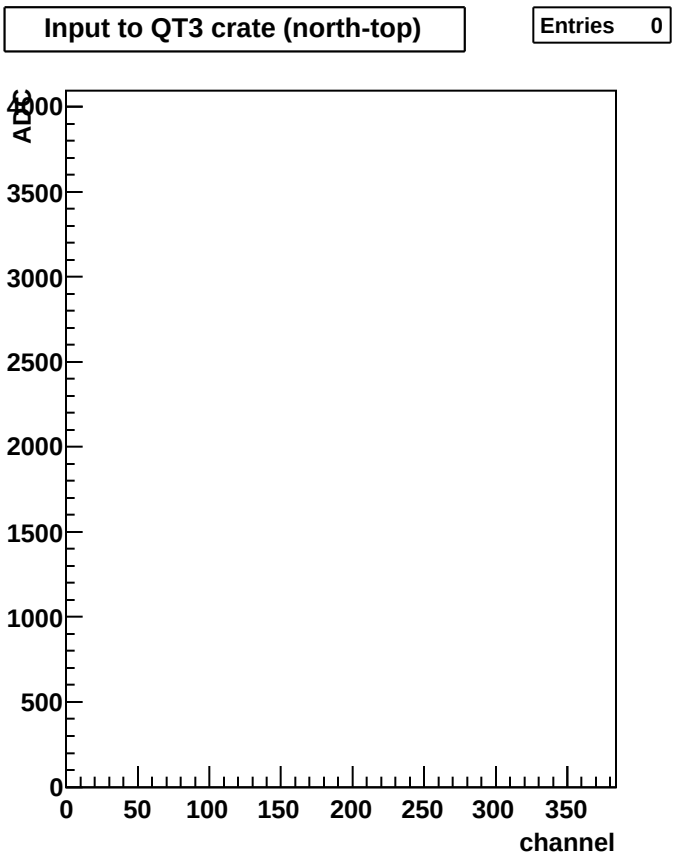

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 209286
Mean 3976
RMS 555.6

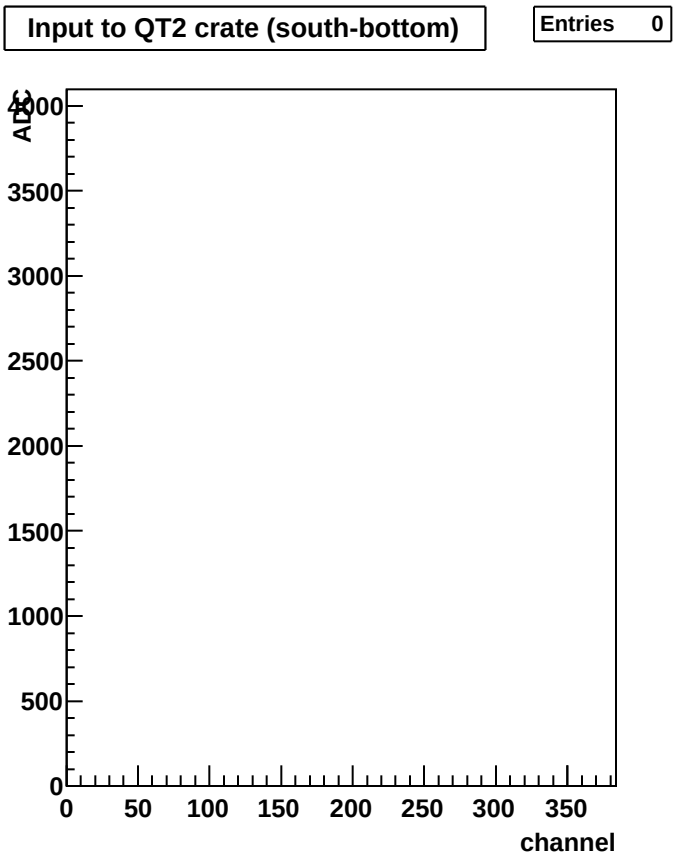

VPD-TAC-E
Entries 168677
Mean 1488
RMS 170.9

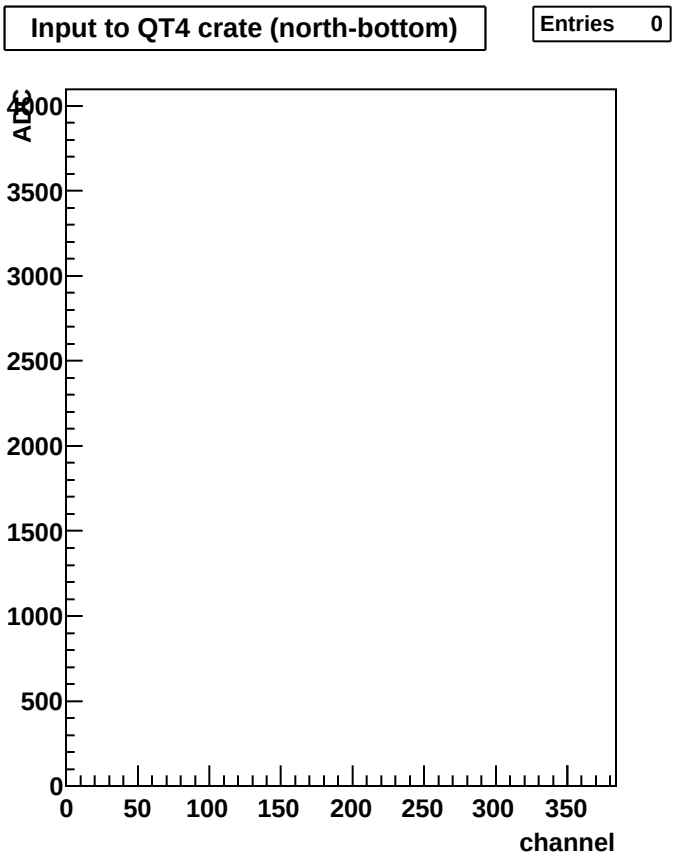

VPD-TAC-W
Entries 162115
Mean 1480
RMS 175.5

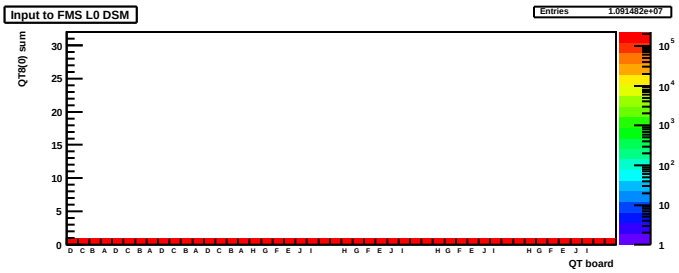

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 141929
Mean 4105
RMS 209.3

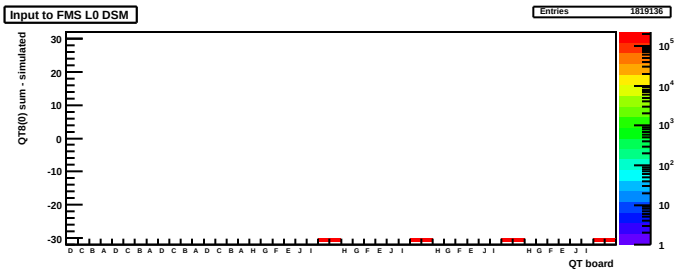

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

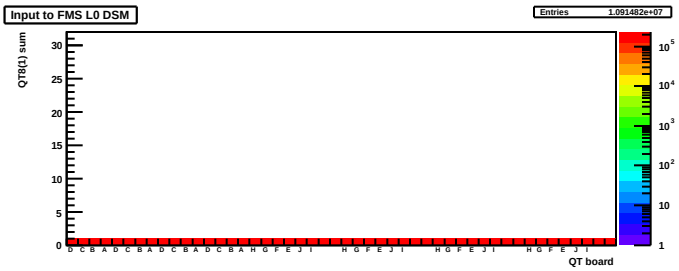

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

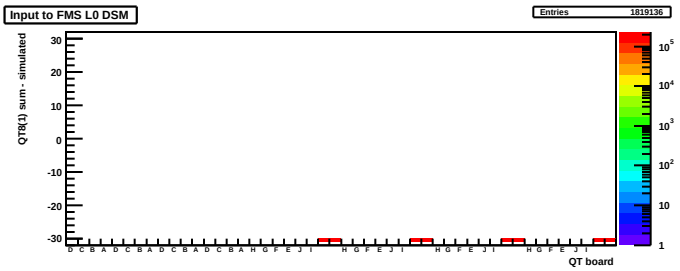

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

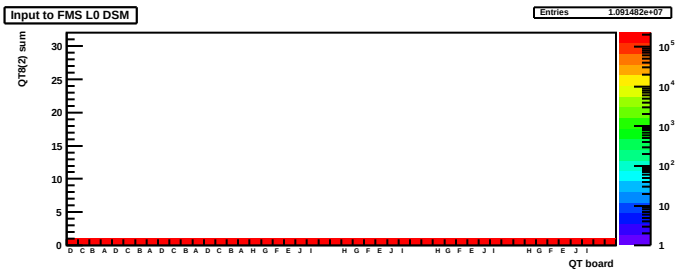

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

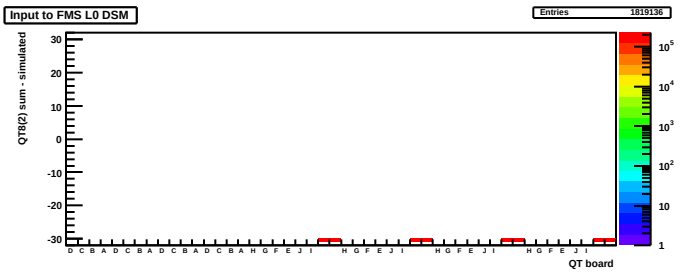

Input to FMS L0 DSM
Entries 1.091482e+07
QT8(0) sum
QT board

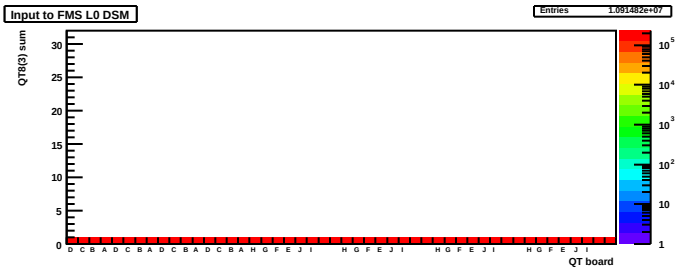

Input to FMS L0 DSM
Entries 1819136
QT8(0) sum - simulated
QT board

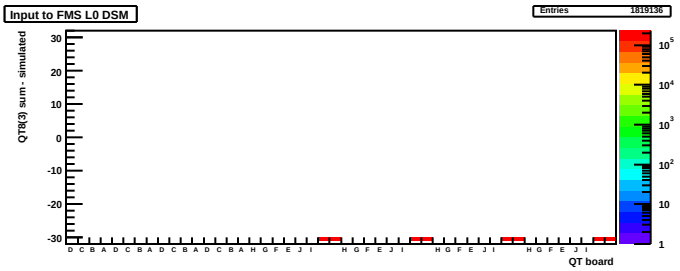

Input to FMS L0 DSM
Entries 1.091482e+07
QT8(1) sum
QT board

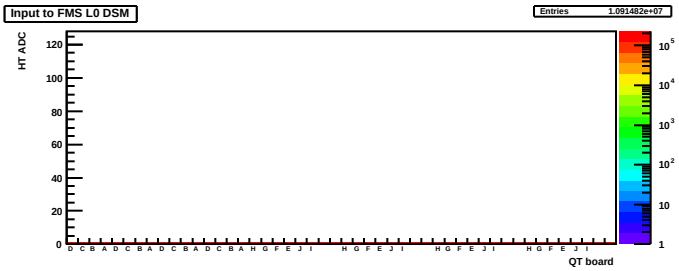

Input to FMS L0 DSM
Entries 1819136
QT8(1) sum - simulated
QT board

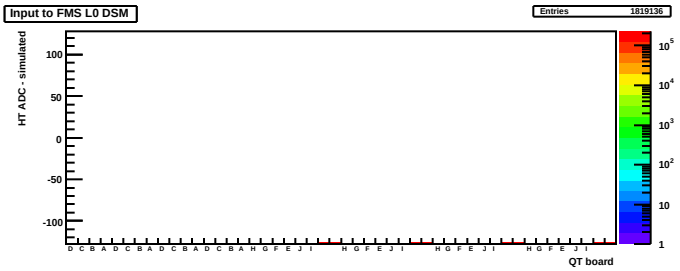

Input to FMS L0 DSM
Entries 1.091482e+07
QT8(2) sum
QT board

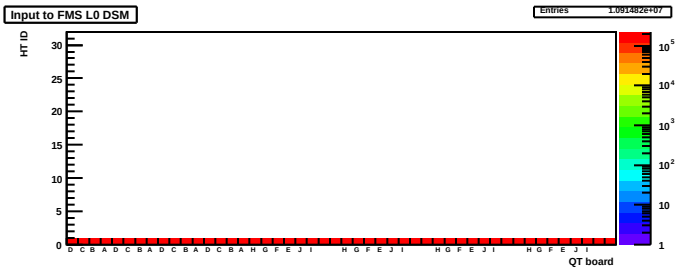

Input to FMS L0 DSM
Entries 1819136
QT8(2) sum - simulated
QT board

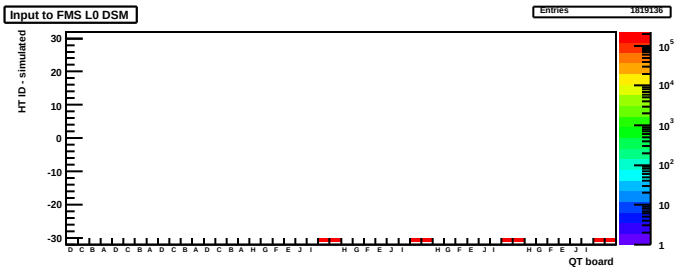

Input to FMS L0 DSM
Entries 1.091482e+07
QT8(3) sum
QT board

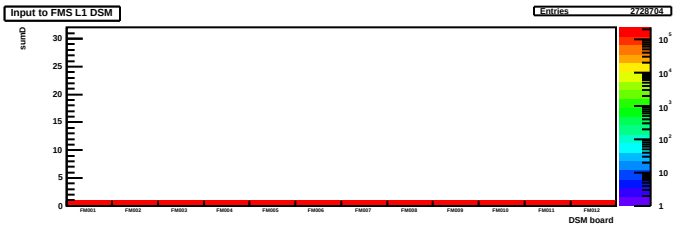

Input to FMS L0 DSM
Entries 1819136
QT8(3) sum - simulated
QT board

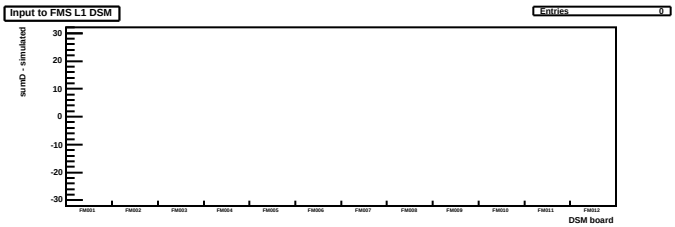

Input to FMS L0 DSM
Entries 1.091482e+07
HT ADC
QT board

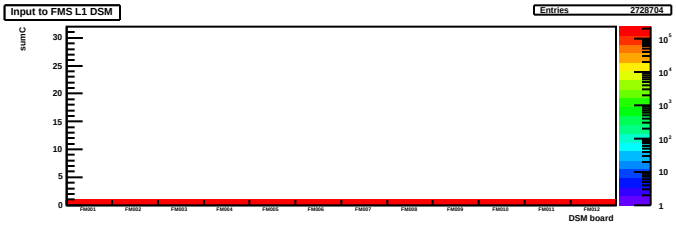

Input to FMS L0 DSM
Entries 1819136
HT ADC - simulated
QT board

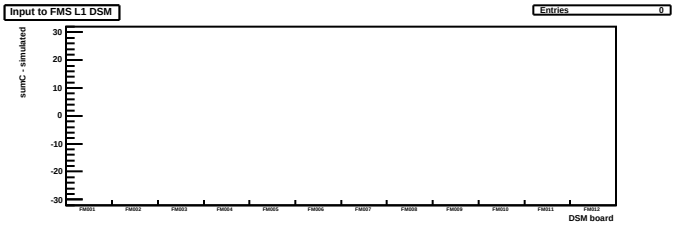

Input to FMS L0 DSM
Entries 1.091482e+07
HT ID
QT board

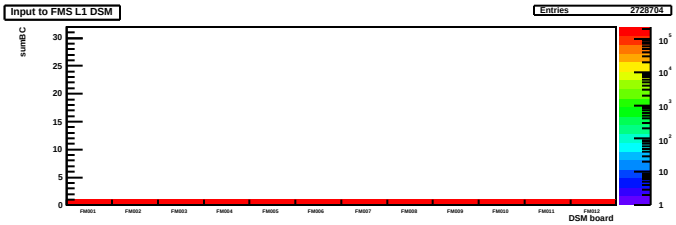

Input to FMS L0 DSM
Entries 1819136
HT ID - simulated
QT board

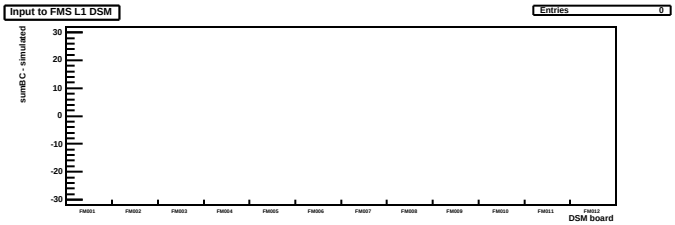

Input to FMS L1 DSM
Entries 2728704
sumD
DSM board

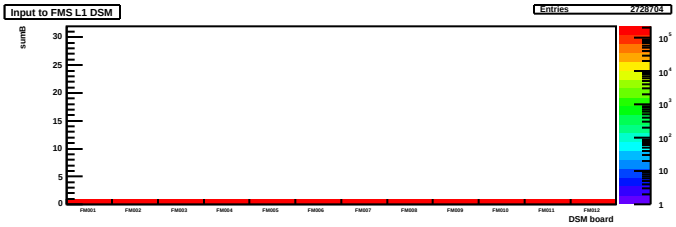

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

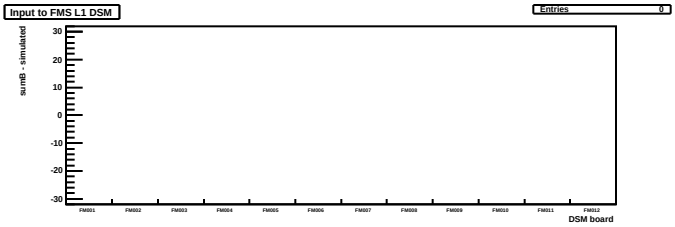

Input to FMS L1 DSM
Entries 2728704
sumC
DSM board

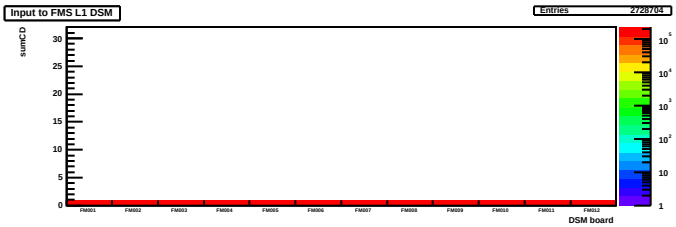

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

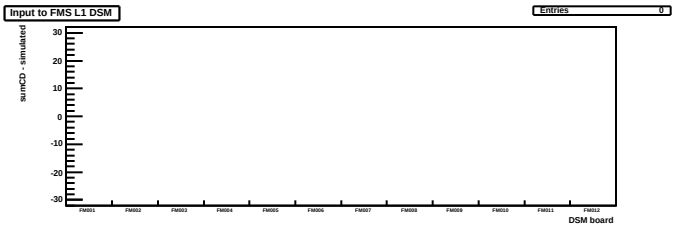

Input to FMS L1 DSM
Entries 2728704
sumBC
DSM board

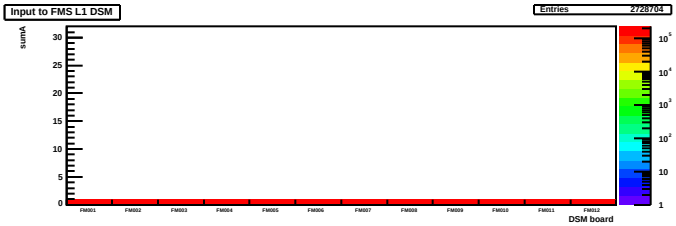

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

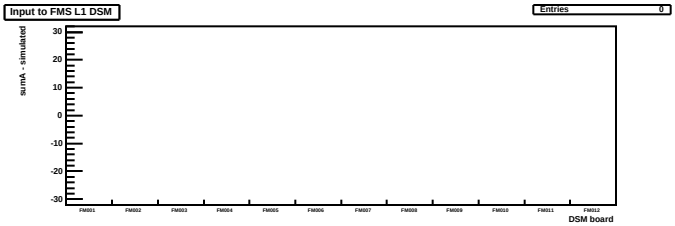

Input to FMS L1 DSM
Entries 2728704
sumB
DSM board

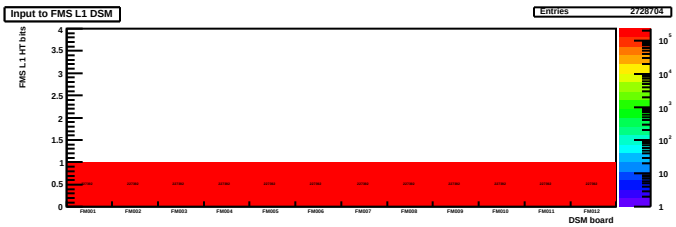

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

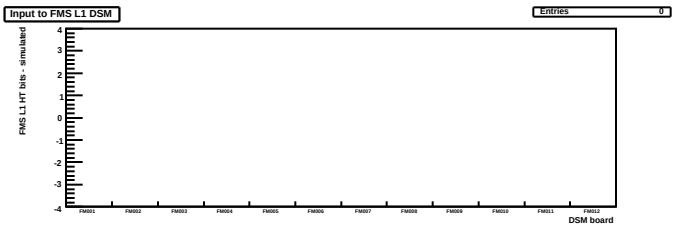

Input to FMS L1 DSM
Entries 2728704
sumCD
DSM board

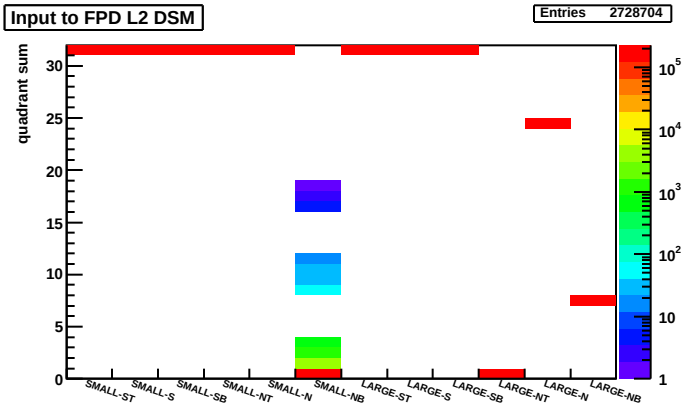

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

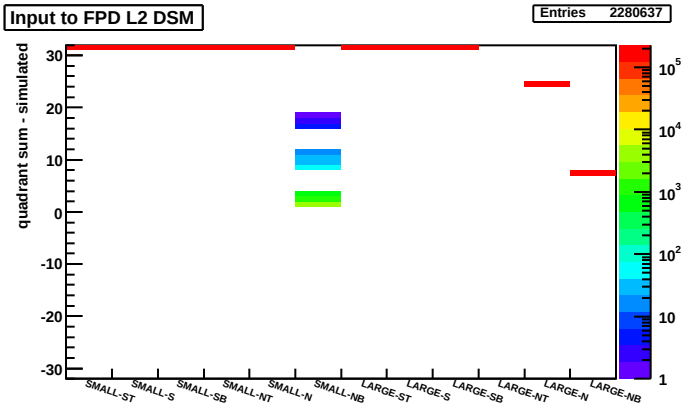

Input to FMS L1 DSM
Entries 2728704
sumA
DSM board

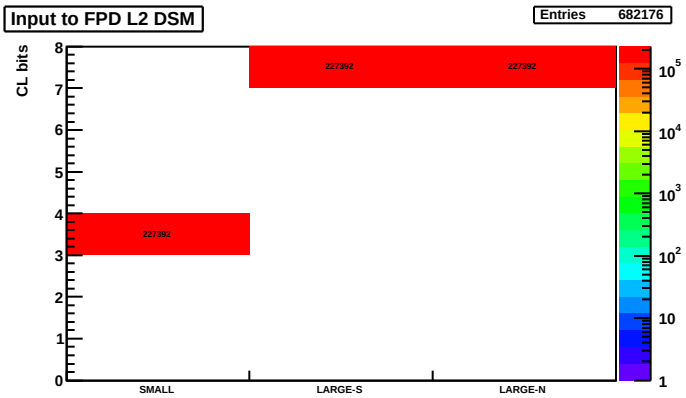

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

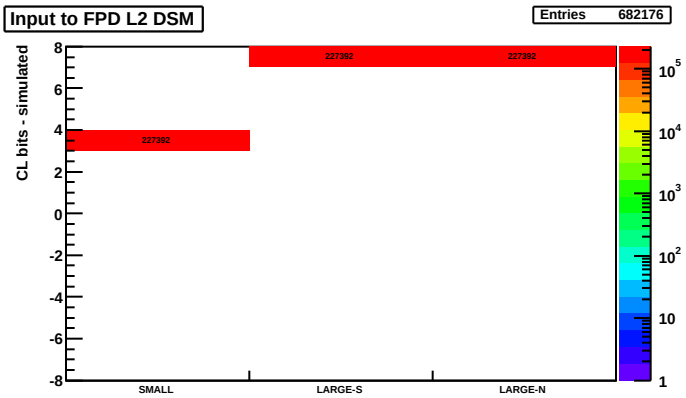

Input to FMS L1 DSM
Entries 2728704
FMS L1 HT bits
DSM board

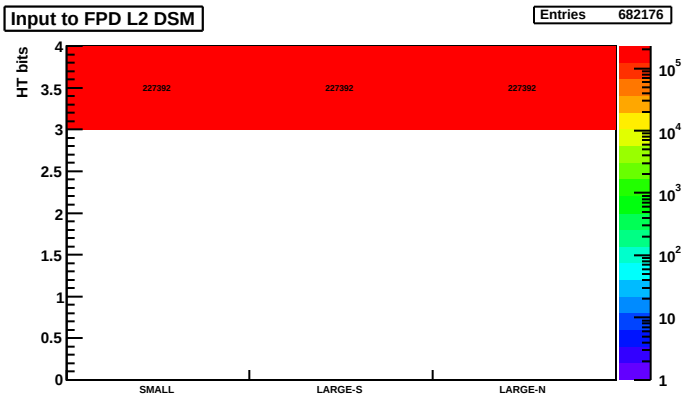

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

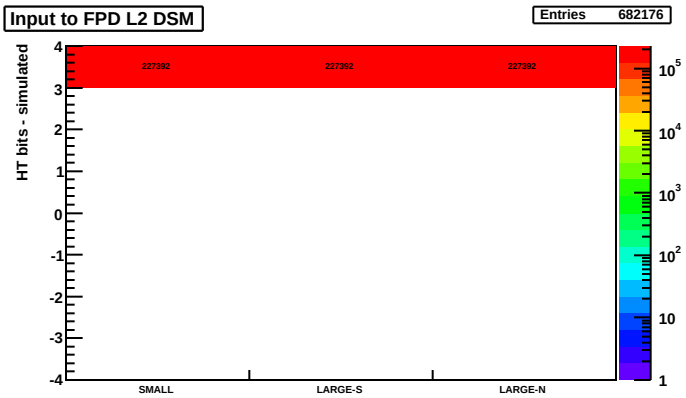

Input to FPD L2 DSM
Entries 2728704
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

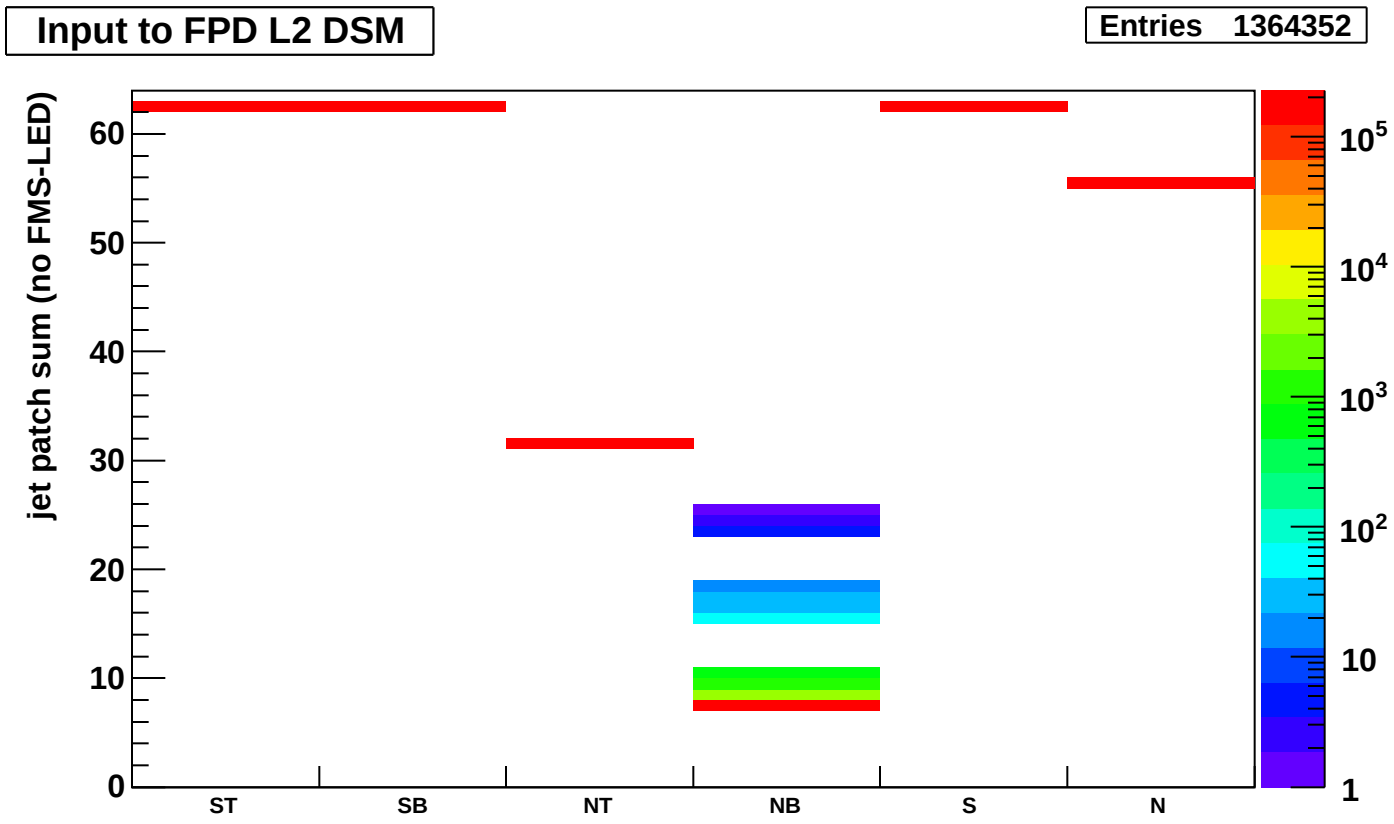

Input to FPD L2 DSM
Entries 2280637
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

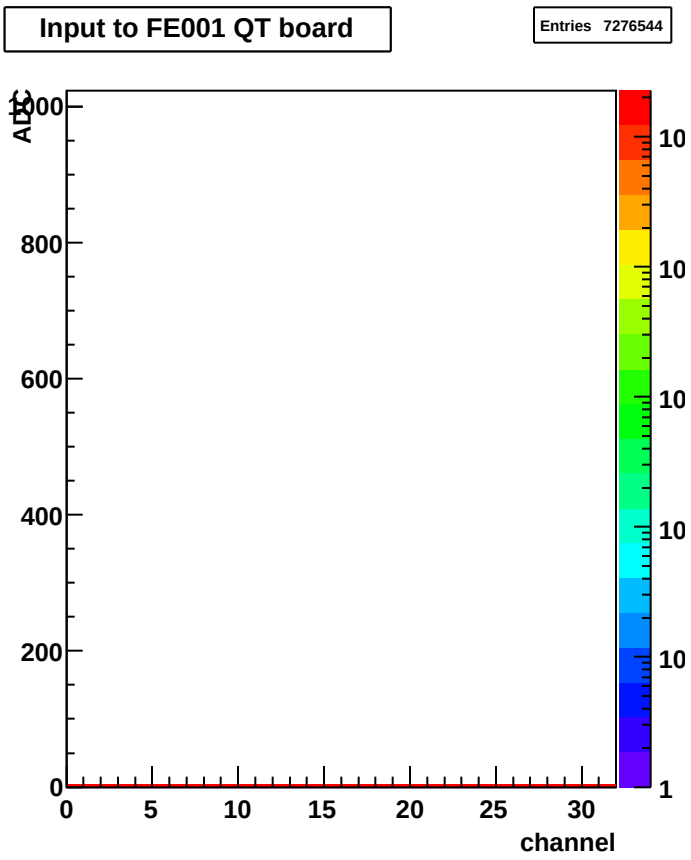

Input to FPD L2 DSM
Entries 682176
CL bits
227392
227392
227392
SMALL
LARGE-S
LARGE-N

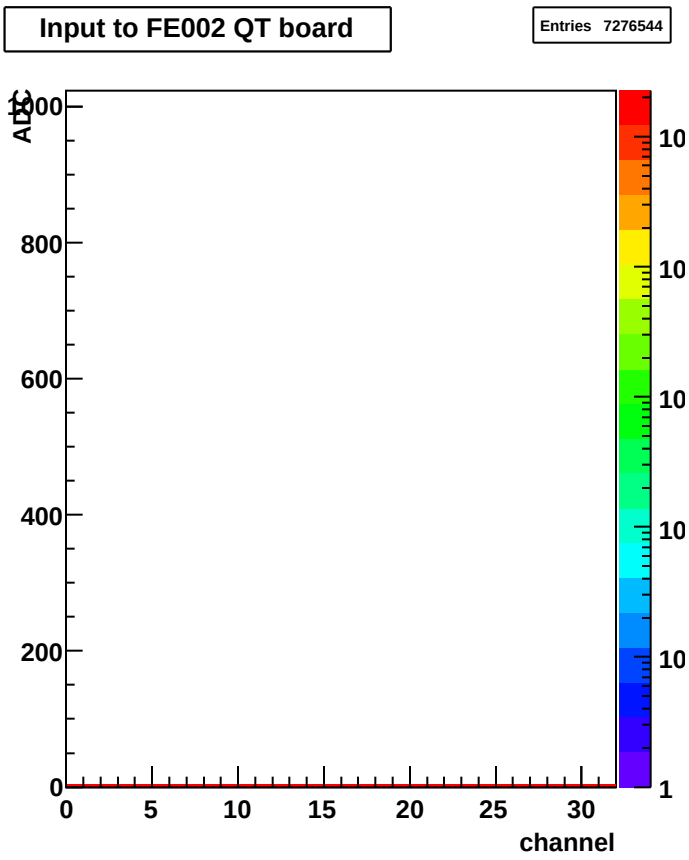

Input to FPD L2 DSM
Entries 682176
CL bits - simulated
227392
227392
227392
SMALL
LARGE-S
LARGE-N

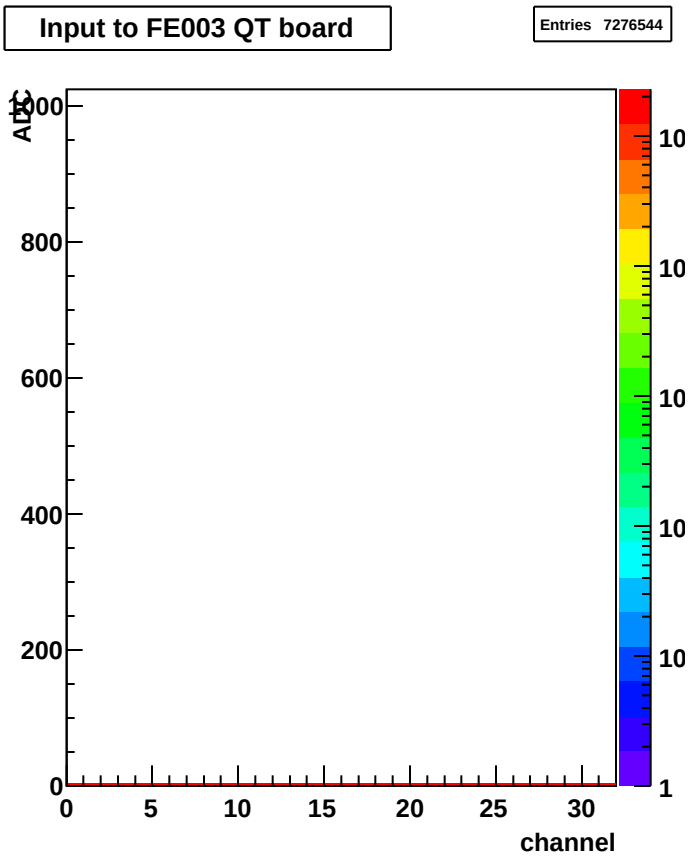

Input to FPD L2 DSM
Entries 682176
HT bits
227392
227392
227392
SMALL
LARGE-S
LARGE-N

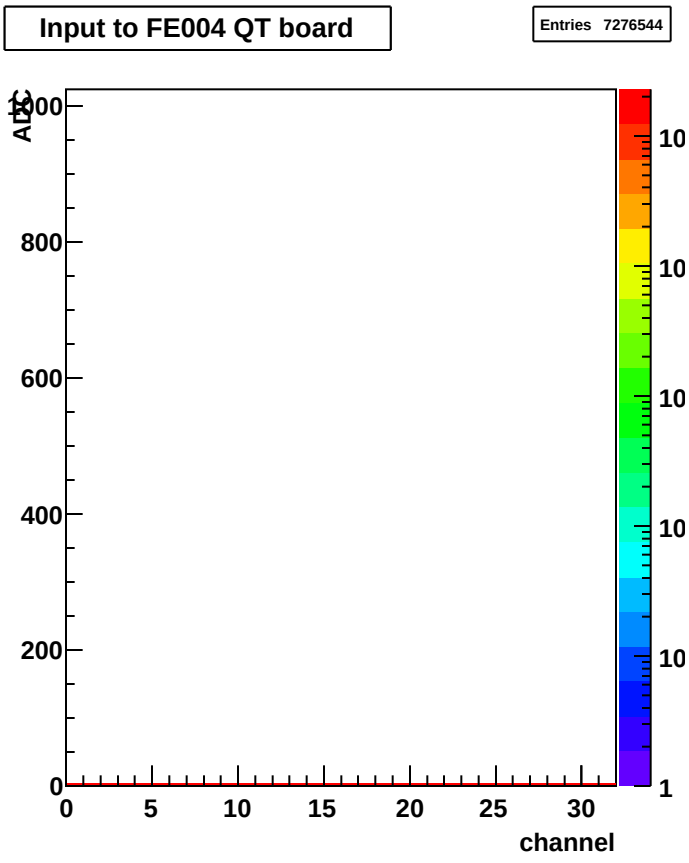

Input to FPD L2 DSM
Entries 682176
HT bits - simulated
227392
227392
227392
SMALL
LARGE-S
LARGE-N

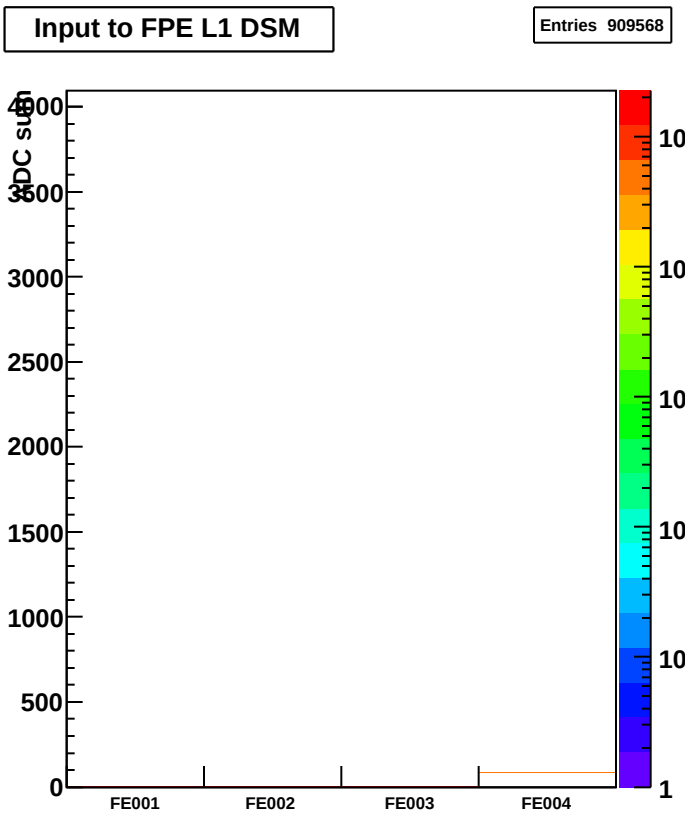

Input to FPD L2 DSM
Entries 1364352
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

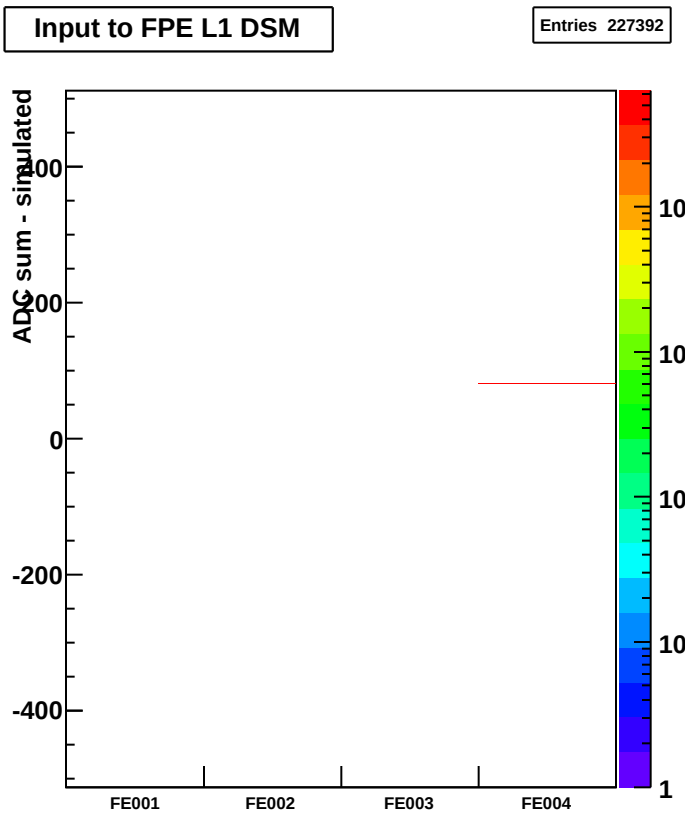

Input to FE001 QT board
Entries 7276544
ADC
channel

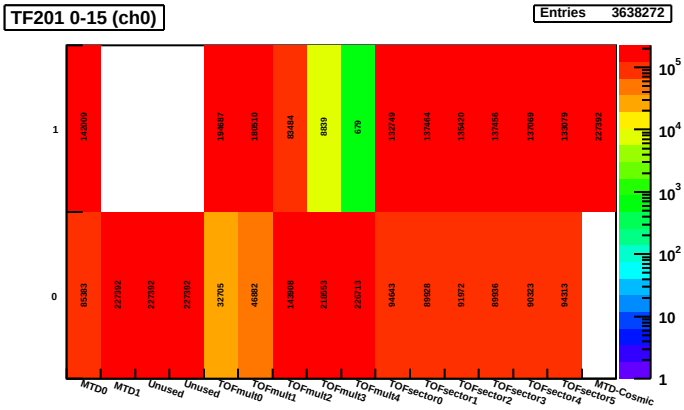

Input to FE002 QT board
Entries 7276544
ADC
channel

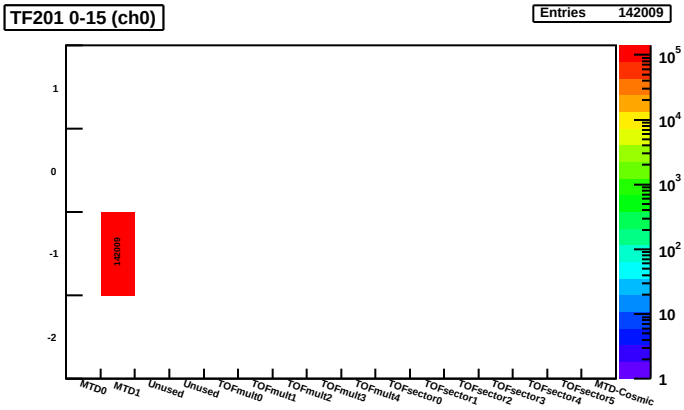

Input to FE003 QT board
Entries 7276544
ADC
channel

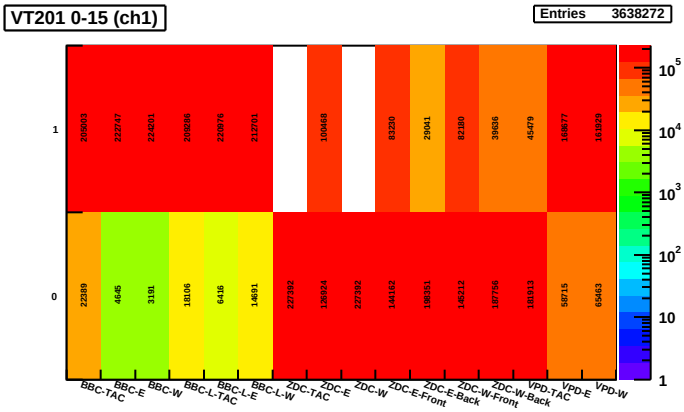

Input to FE004 QT board
Entries 7276544
ADC
channel

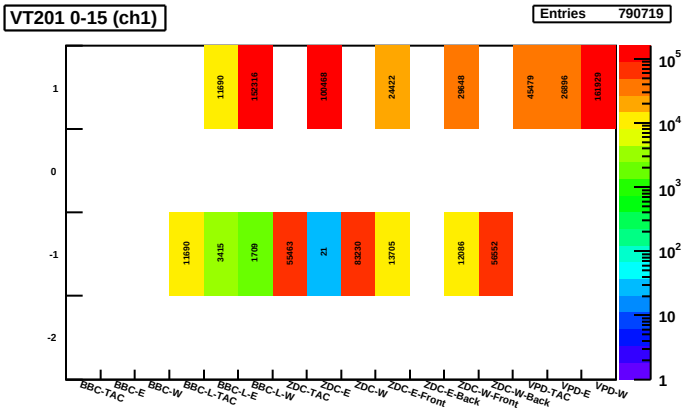

Input to FPE L1 DSM
Entries 909568
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1


Input to FPE L1 DSM
Entries 227392
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1


TF201 0-15 (ch0)
Entries 3638272
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 142009
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 3638272
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 790719
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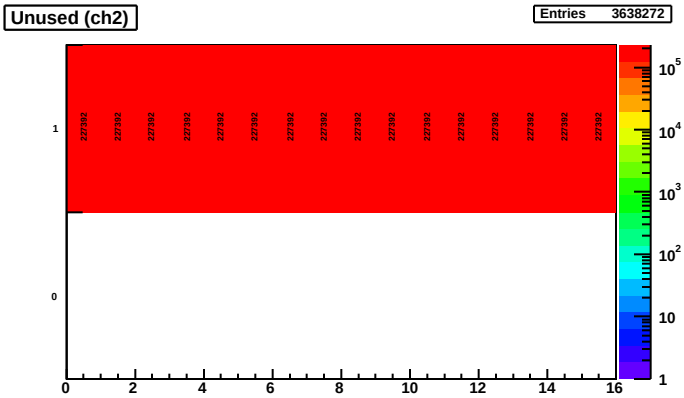
Unused (ch2)
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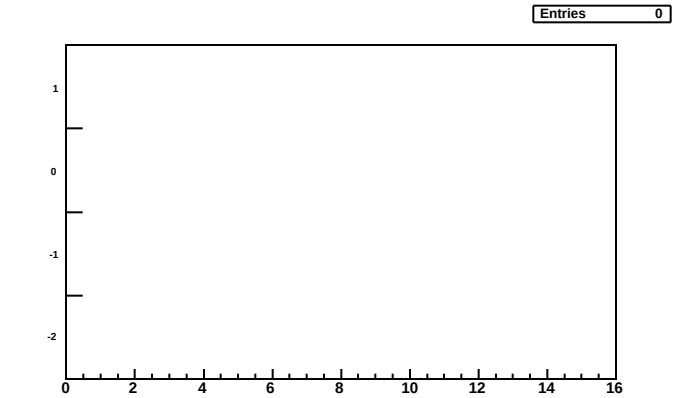
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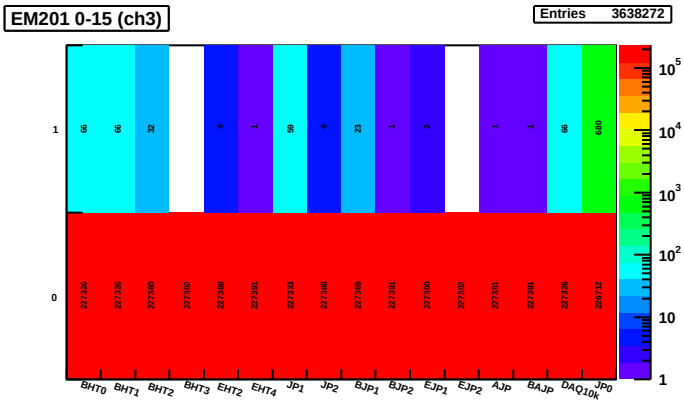
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Entries 3638272
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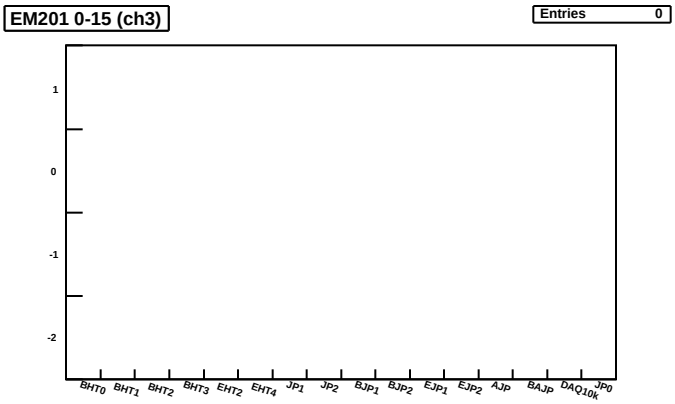
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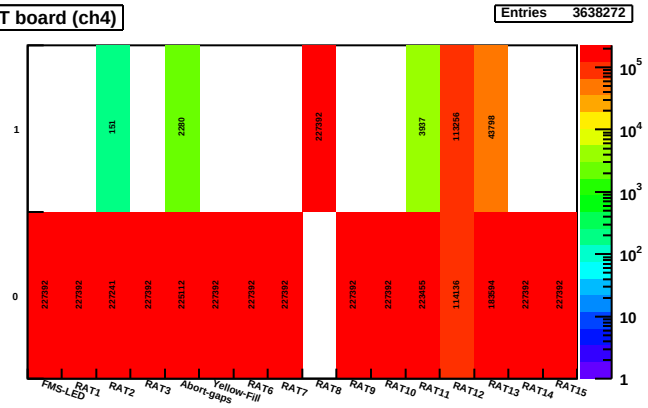
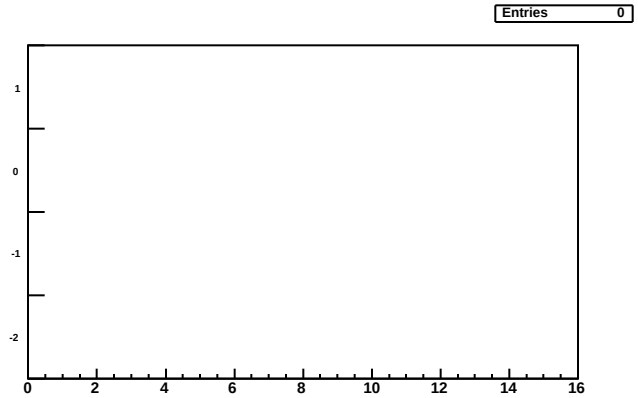
RAT board (ch4)





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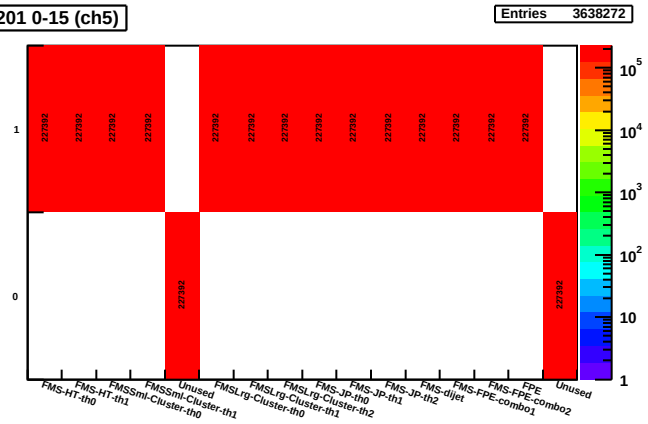

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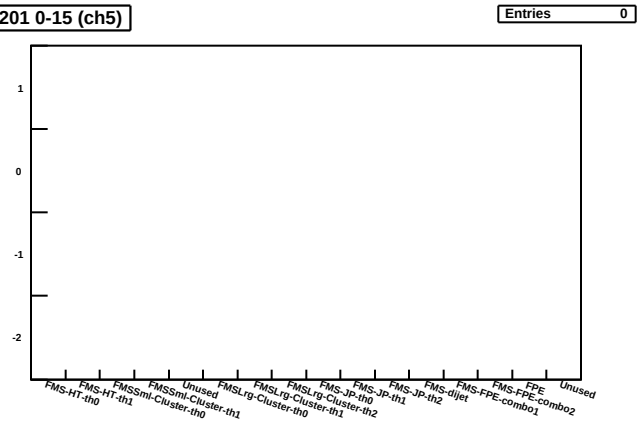
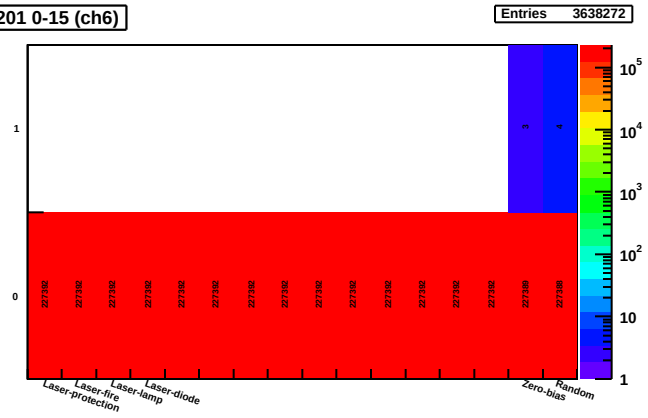
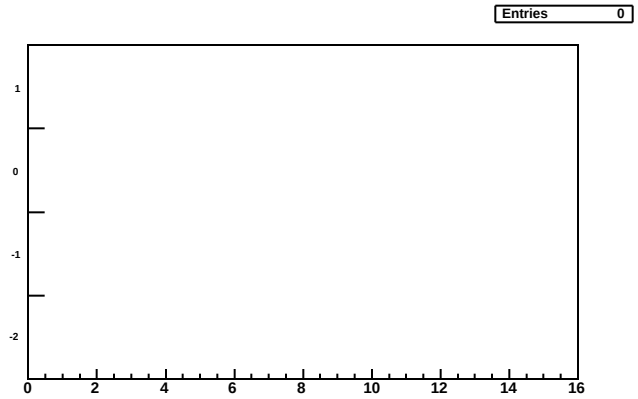
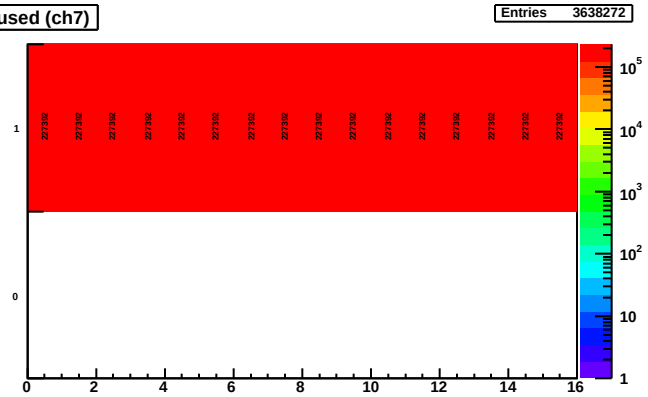
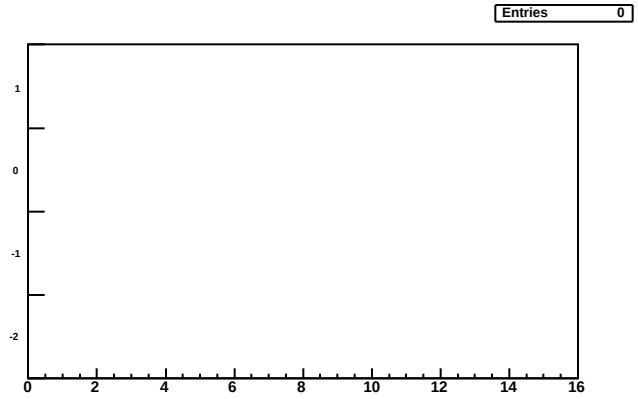


ST201 0-15 (ch6)





Unused (ch7)