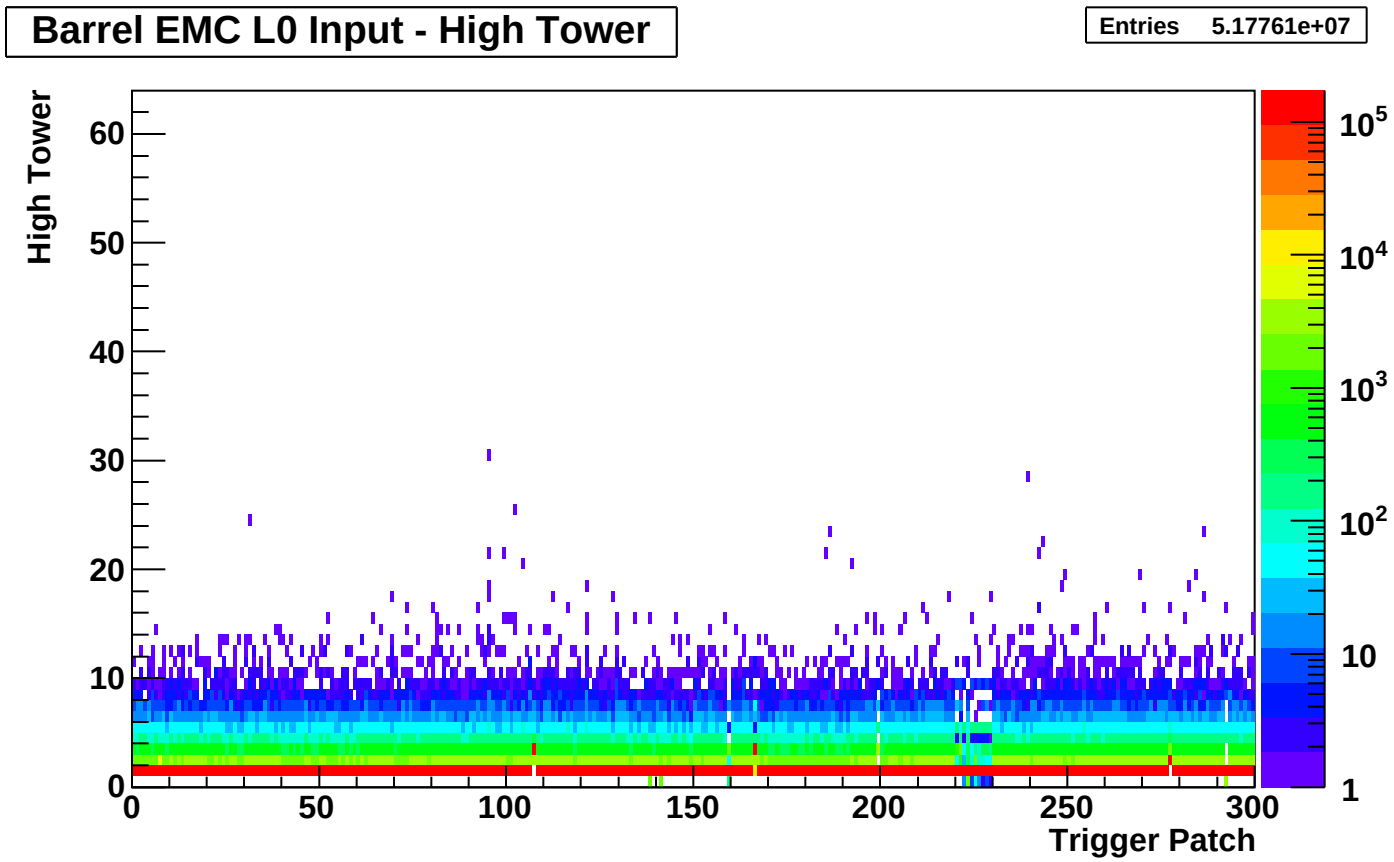
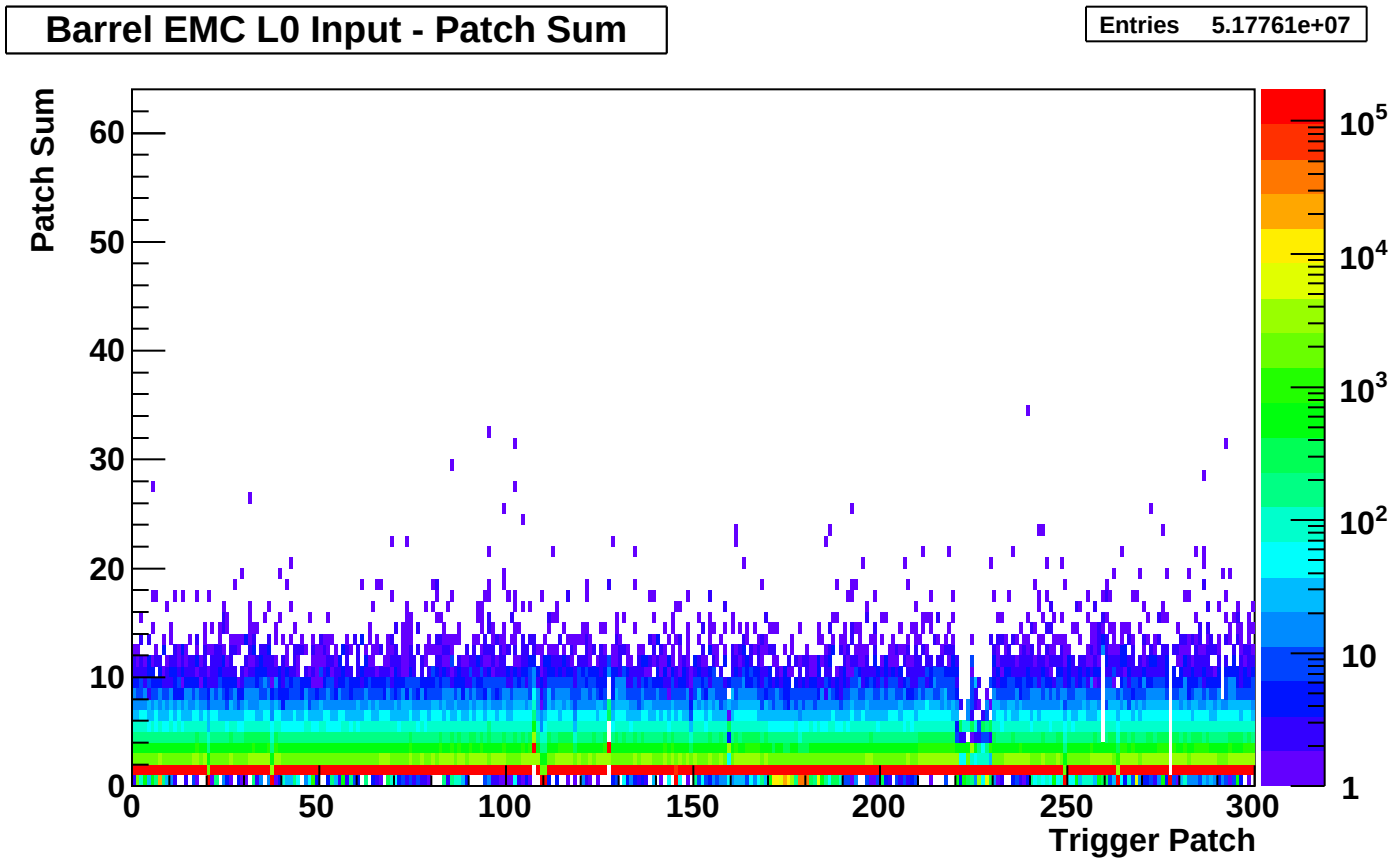
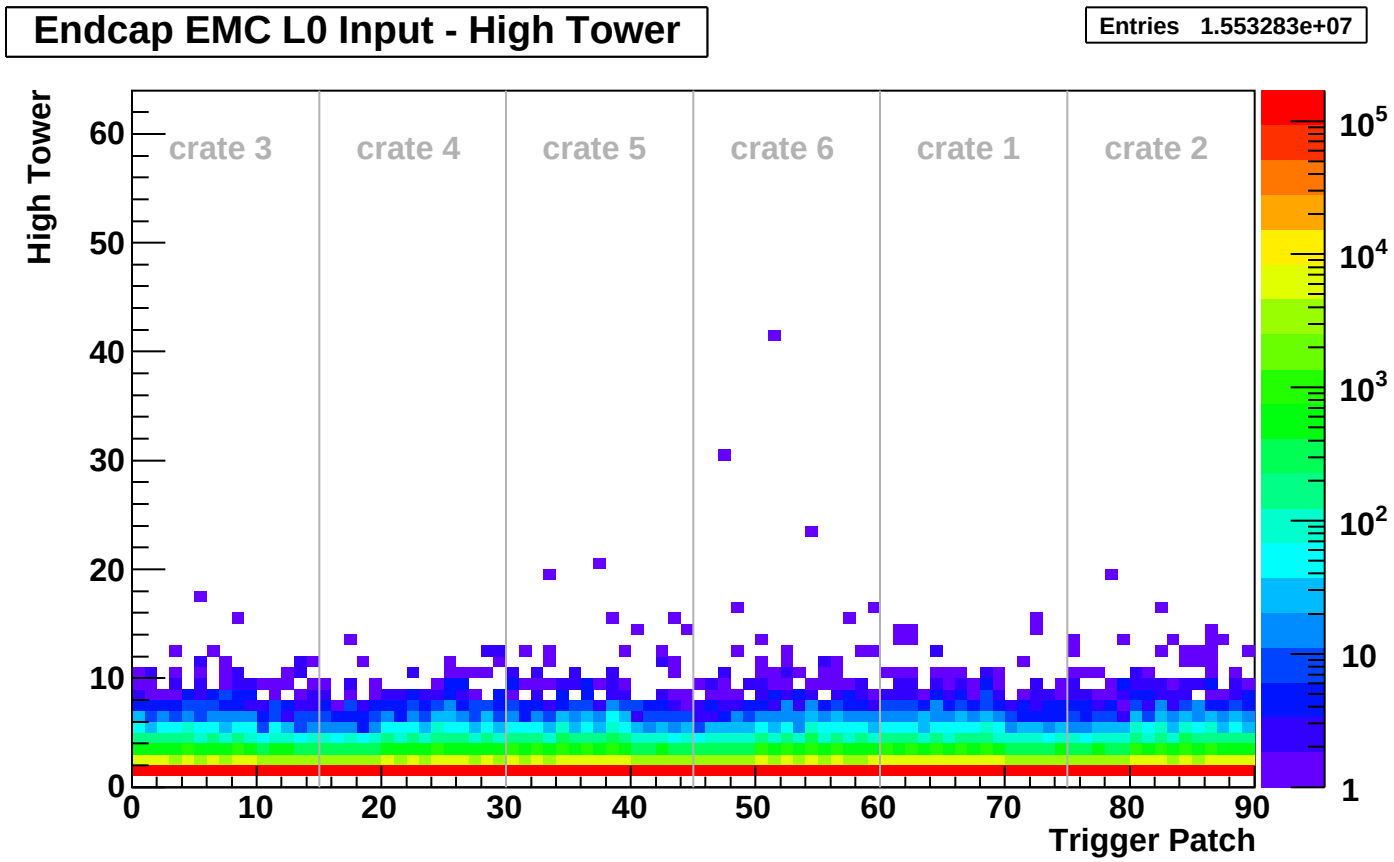
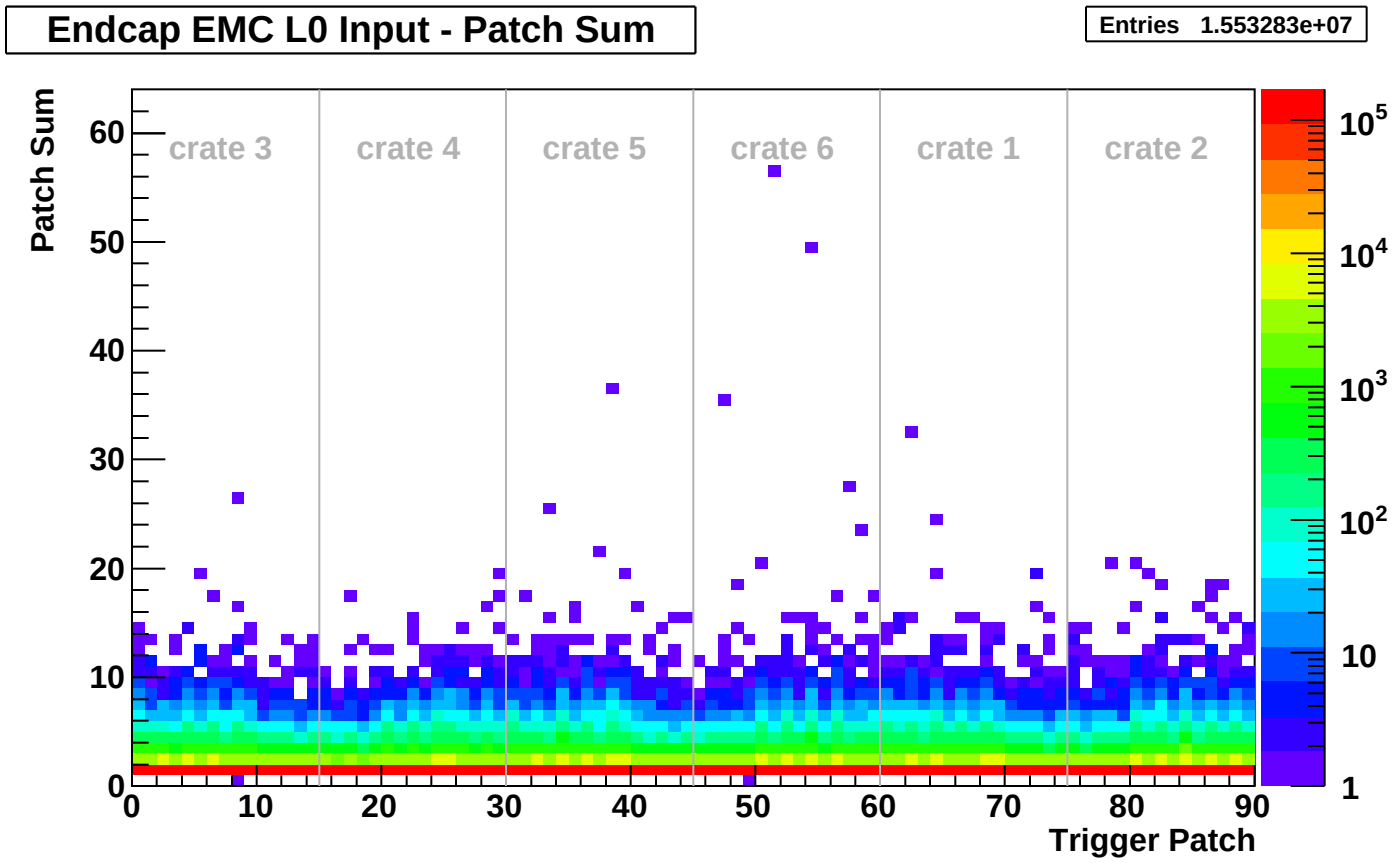
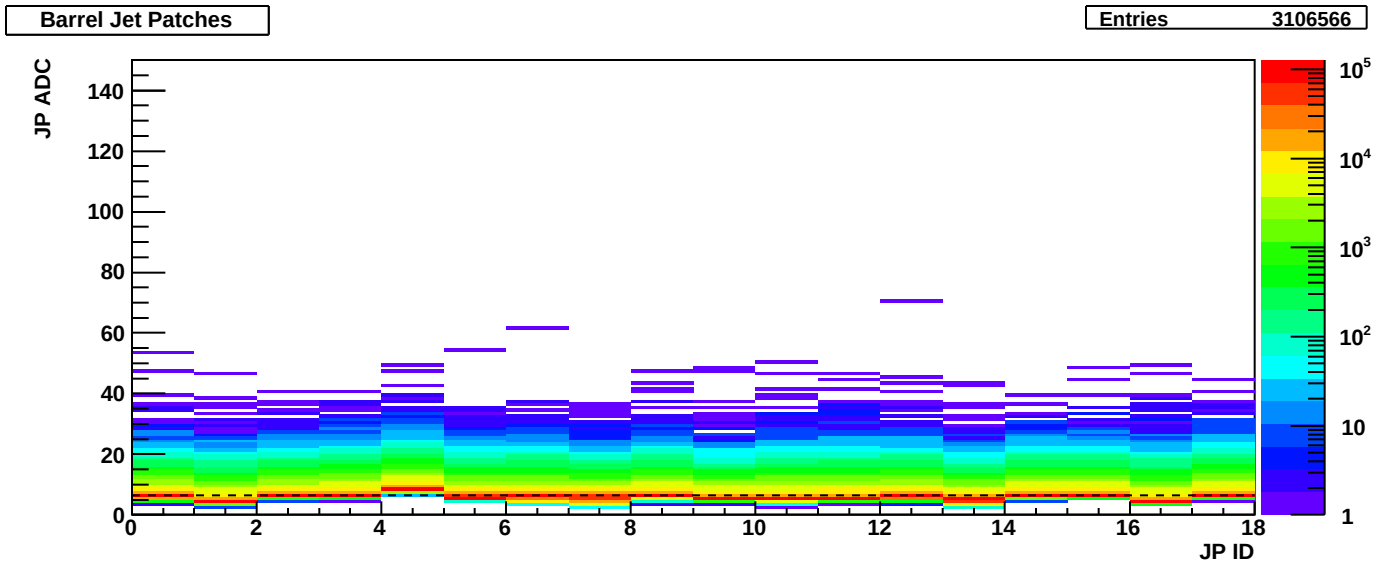
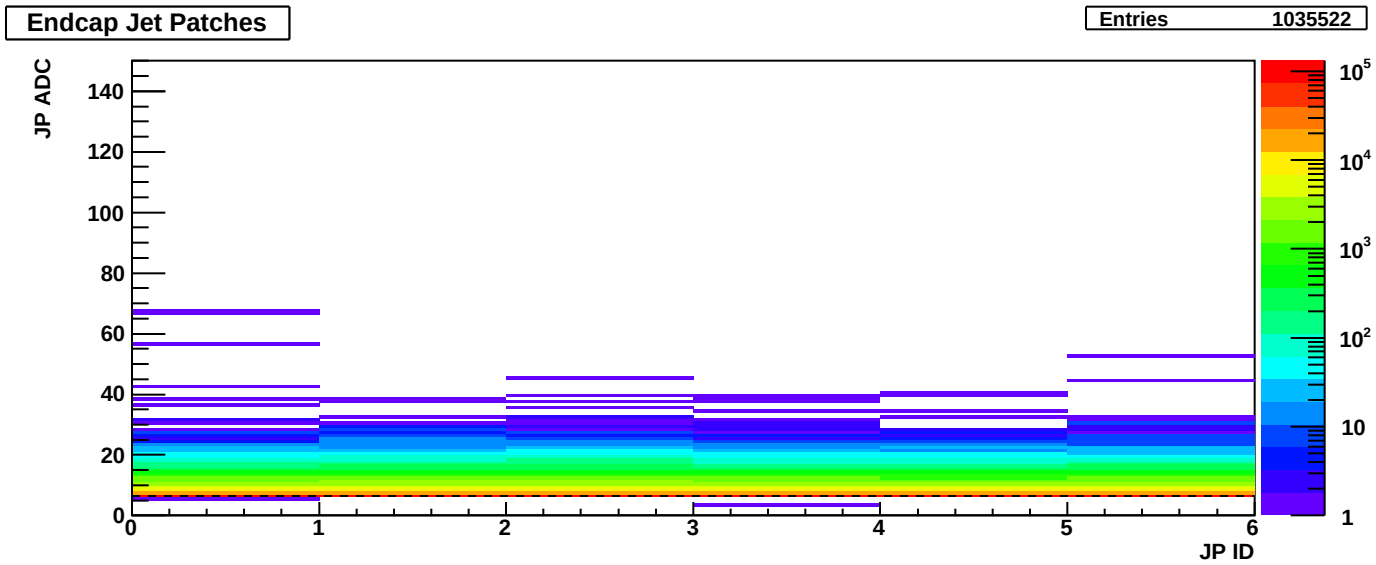

Barrel EMC L0 Input - High Tower
Entries 5.17761e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

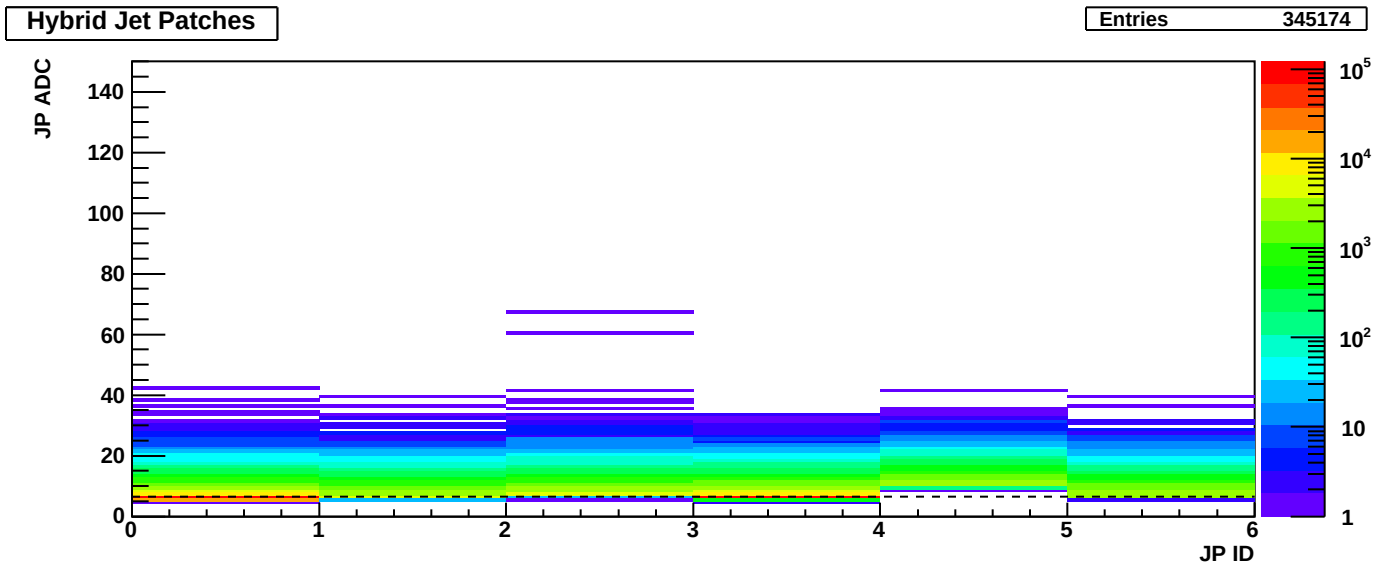

Barrel EMC L0 Input - Patch Sum
Entries 5.17761e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

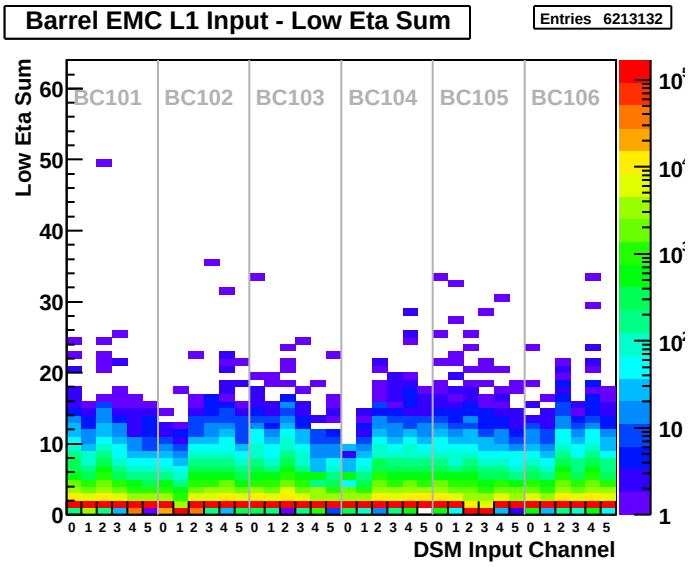

Endcap EMC L0 Input - High Tower
Entries 1.553283e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

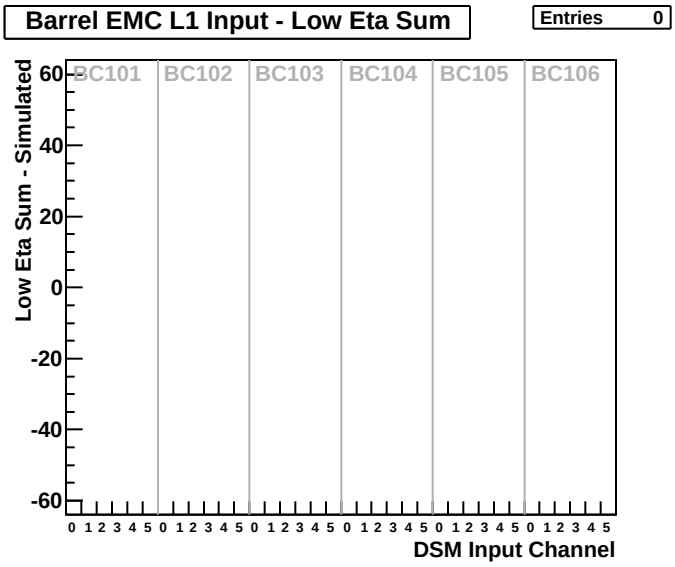

Endcap EMC L0 Input - Patch Sum
Entries 1.553283e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

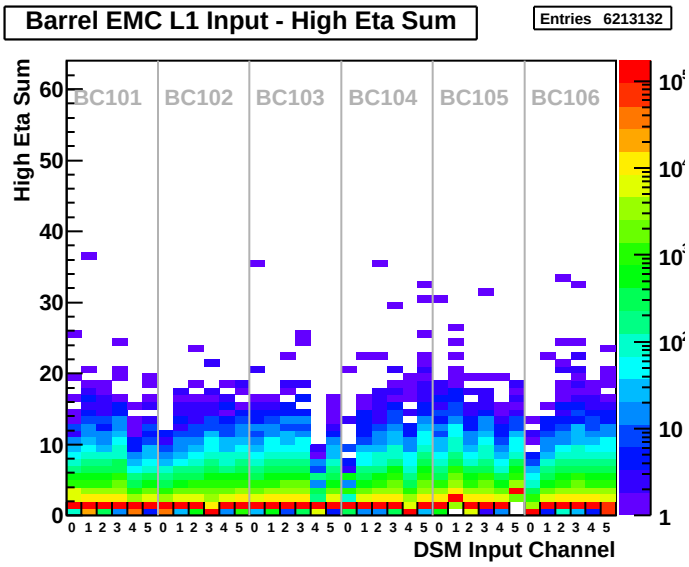

Barrel Jet Patches
Entries 3106566
JP ADC
JP ID

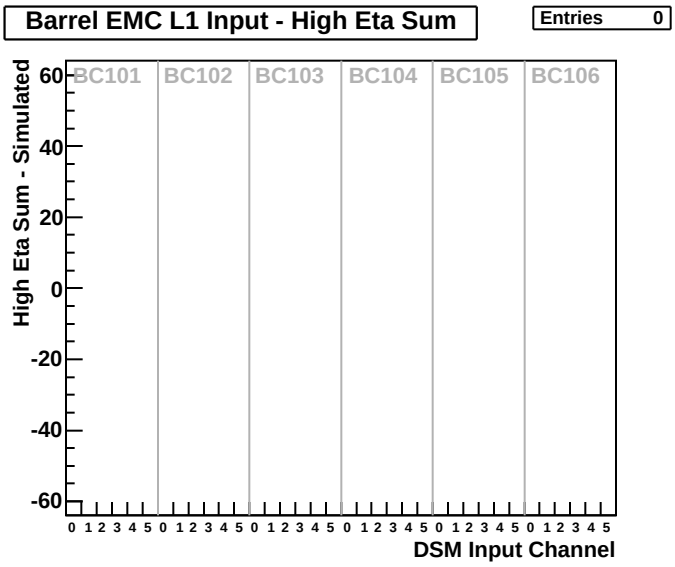

Endcap Jet Patches
Entries 1035522
JP ADC
JP ID

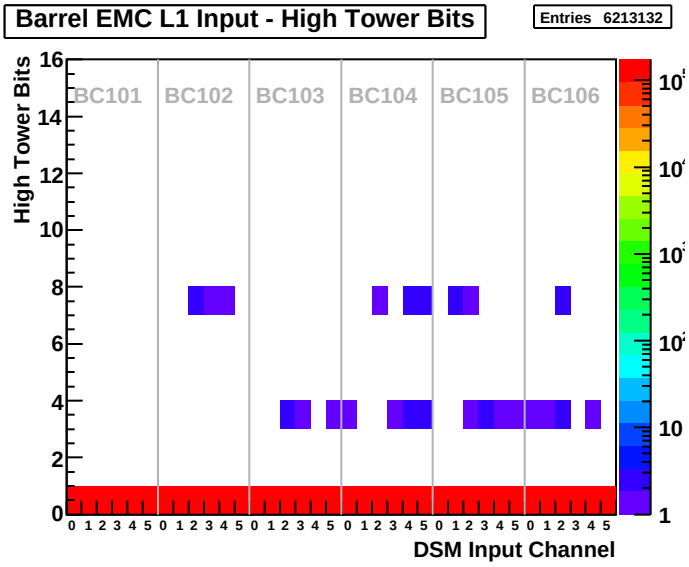

Hybrid Jet Patches
Entries 345174
JP ADC
JP ID

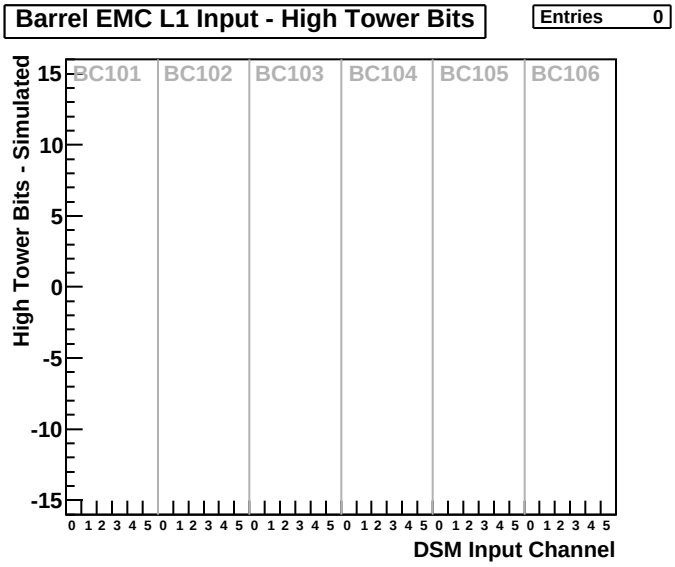

Barrel EMC L1 Input - Low Eta Sum
Entries 6213132
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

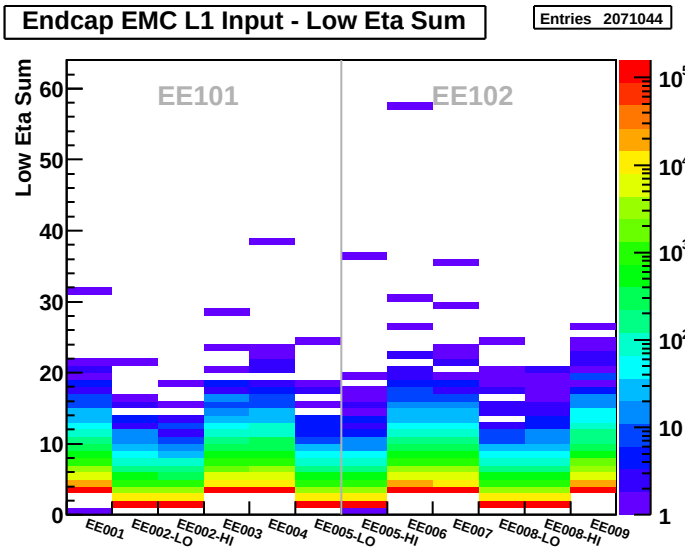

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

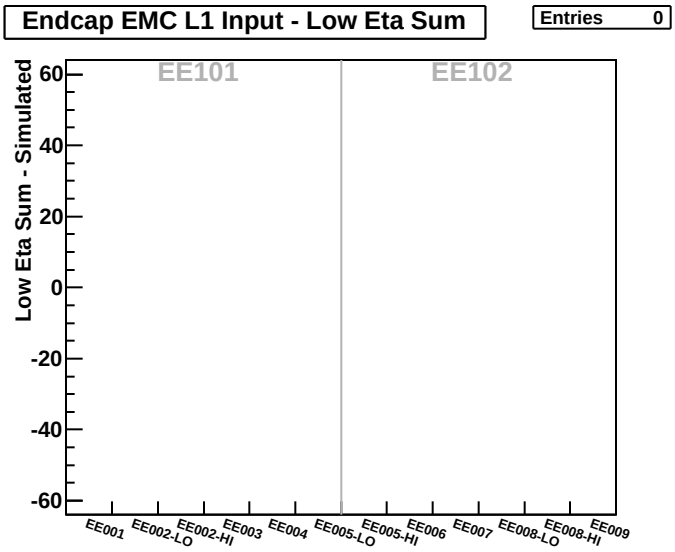

Barrel EMC L1 Input - High Eta Sum
Entries 6213132
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

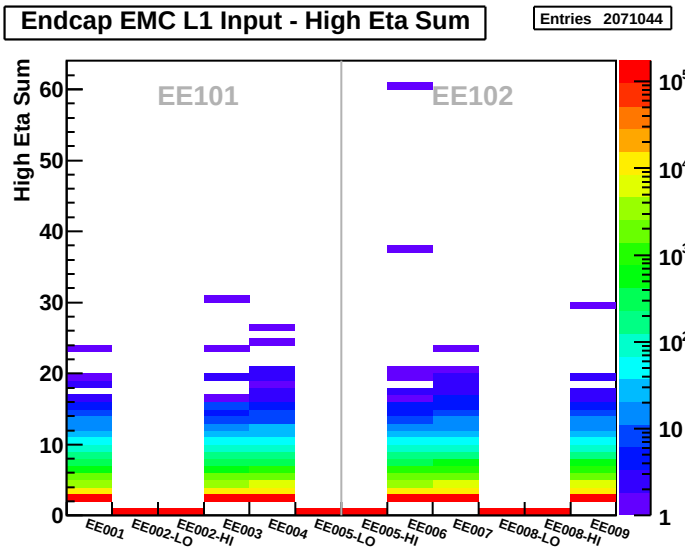

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

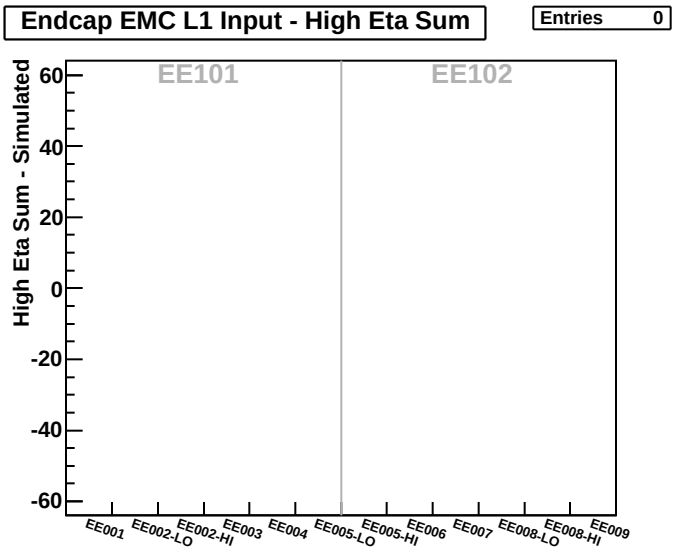

Barrel EMC L1 Input - High Tower Bits
Entries 6213132
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

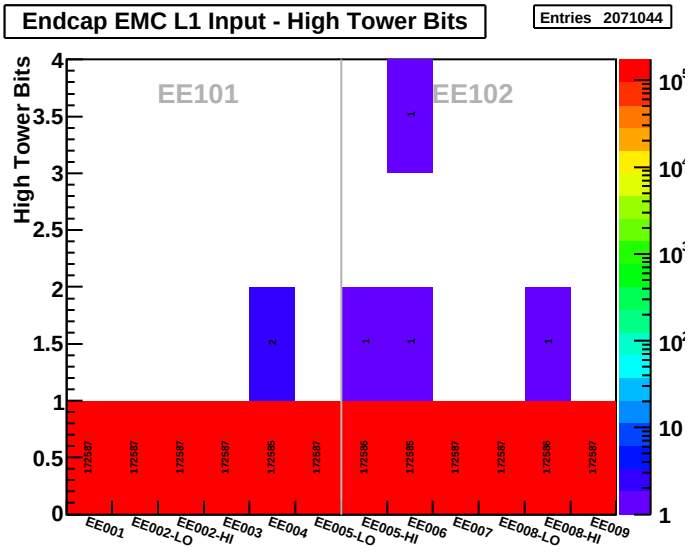

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

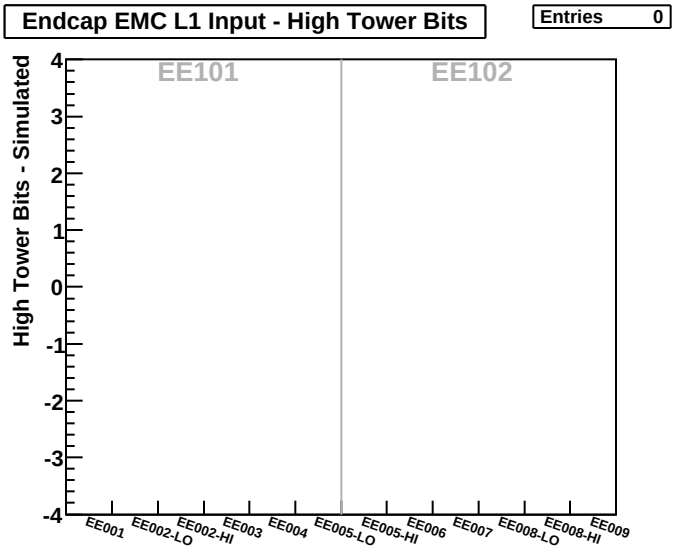

Endcap EMC L1 Input - Low Eta Sum
Entries 2071044
Low Eta Sum
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

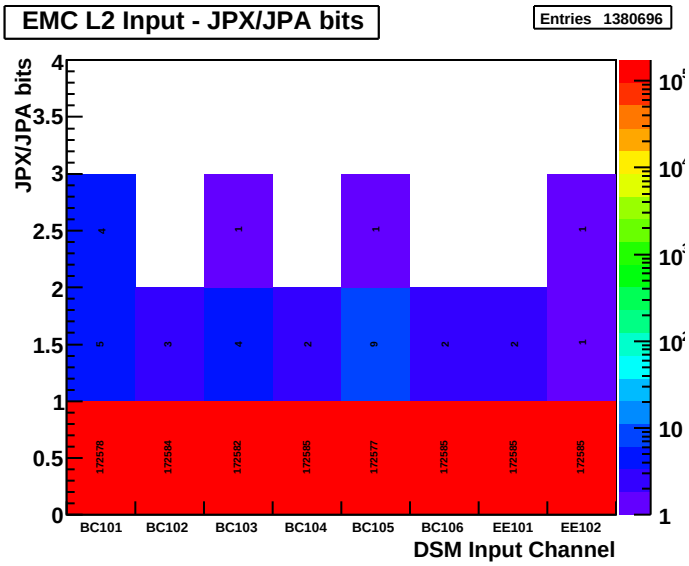

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

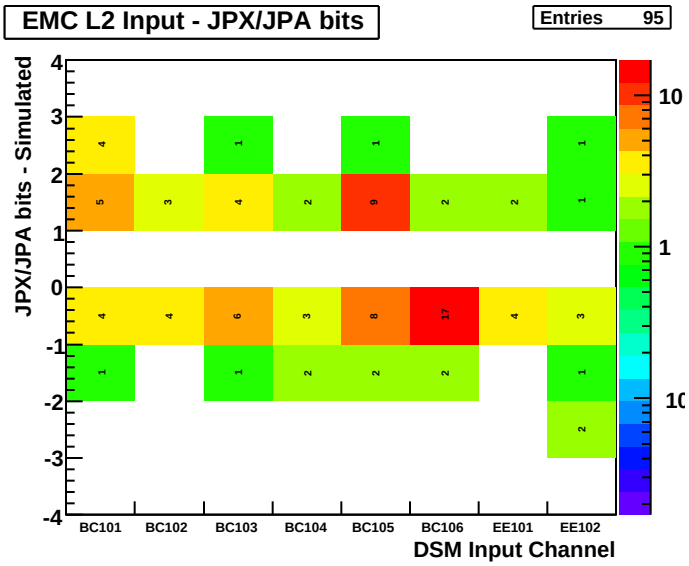

Endcap EMC L1 Input - High Eta Sum
Entries 2071044
High Eta Sum
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

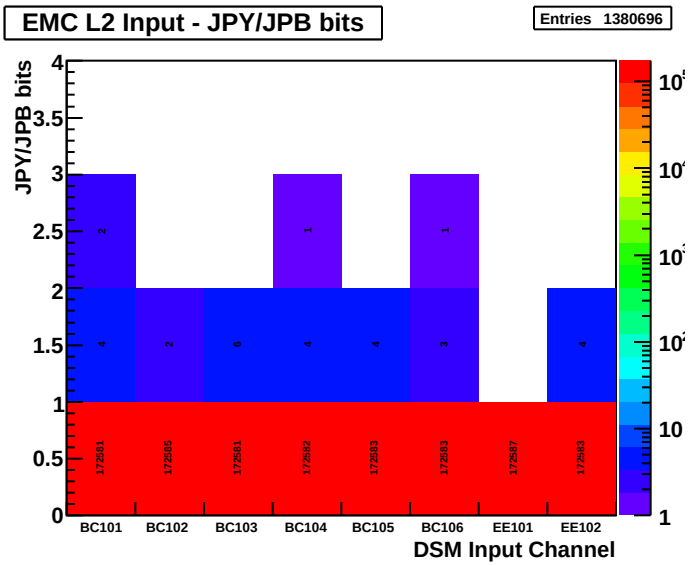

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

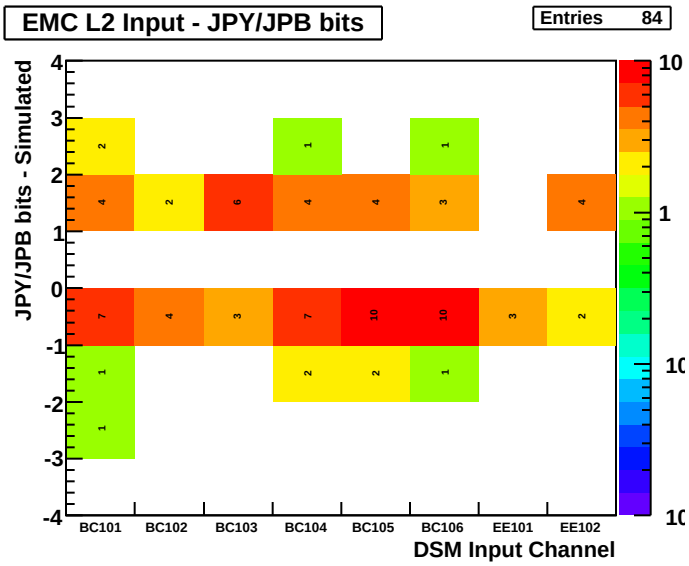

Endcap EMC L1 Input - High Tower Bits
Entries 2071044
High Tower Bits
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

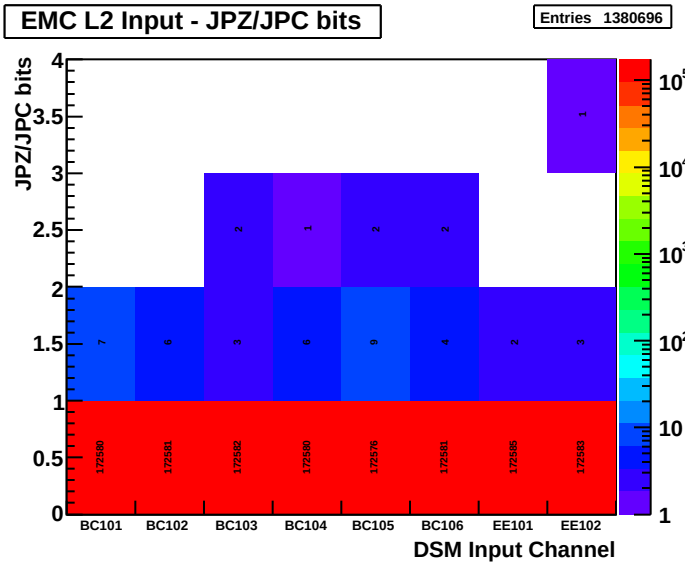

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

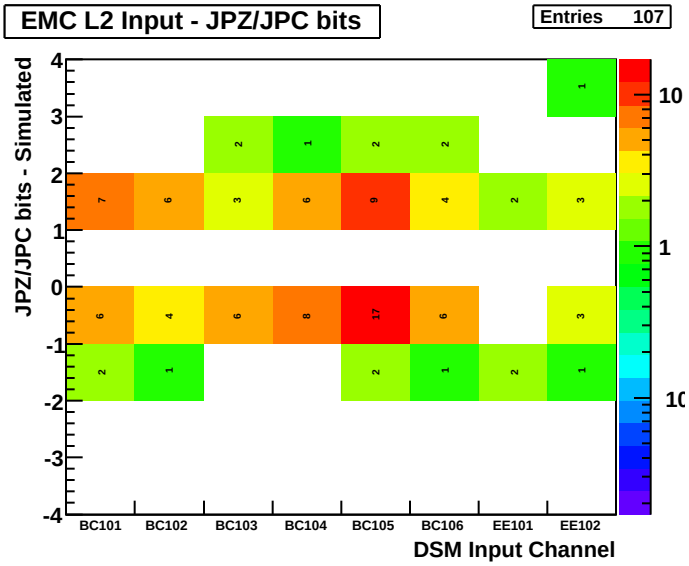

EMC L2 Input - JPX/JPA bits
Entries 1380696
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

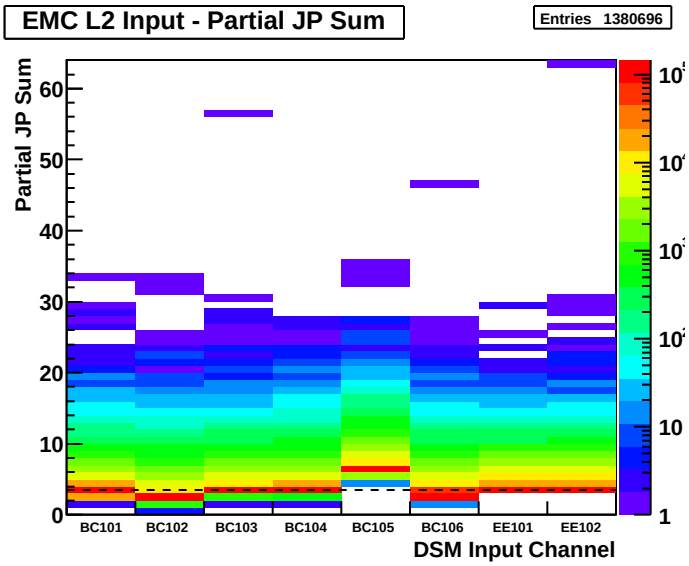

EMC L2 Input - JPX/JPA bits
Entries 95
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

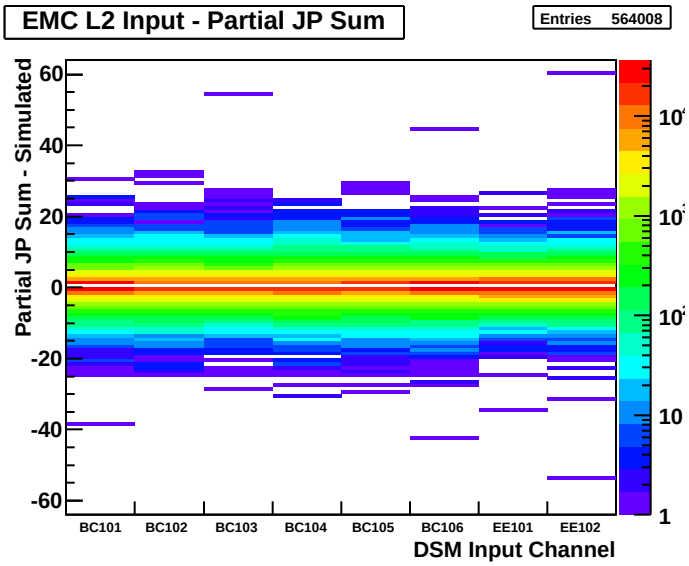

EMC L2 Input - JPY/JPB bits
Entries 1380696
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

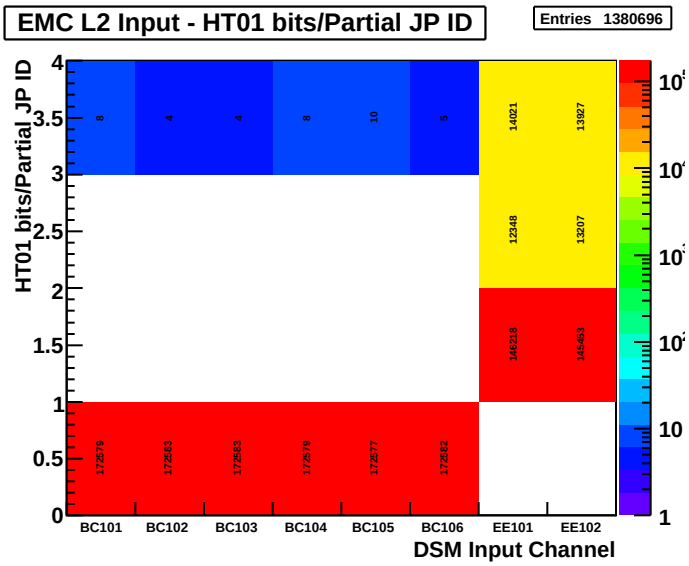

EMC L2 Input - JPY/JPB bits
Entries 84
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

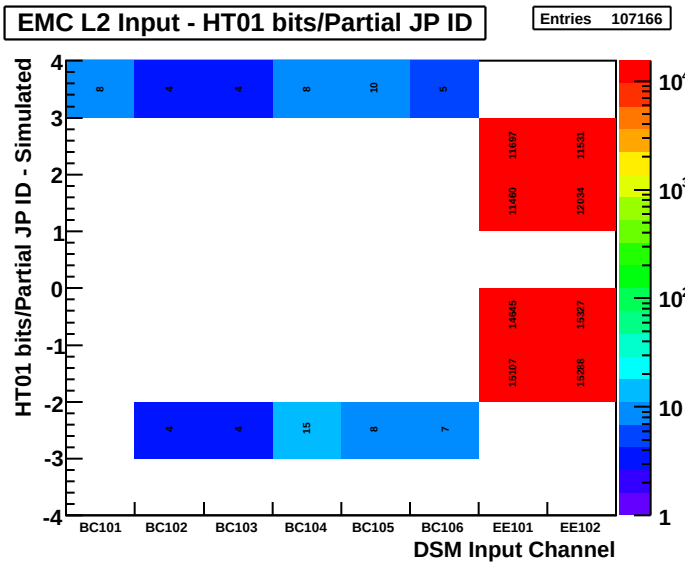

EMC L2 Input - JPZ/JPC bits
Entries 1380696
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

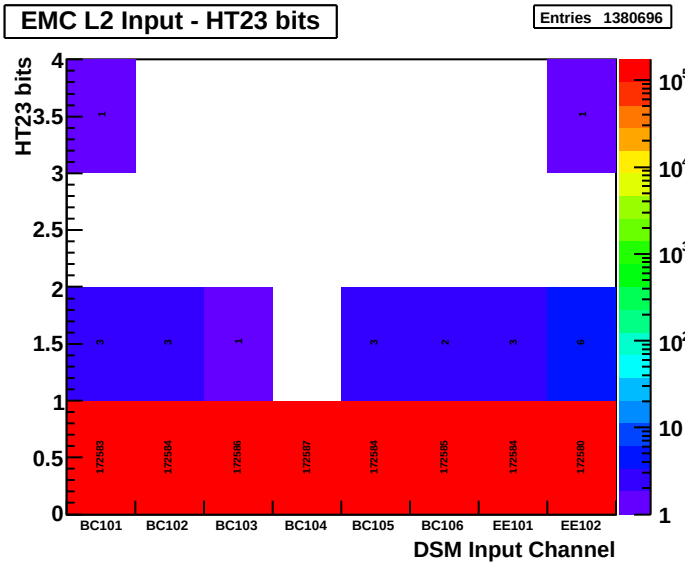

EMC L2 Input - JPZ/JPC bits
Entries 107
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

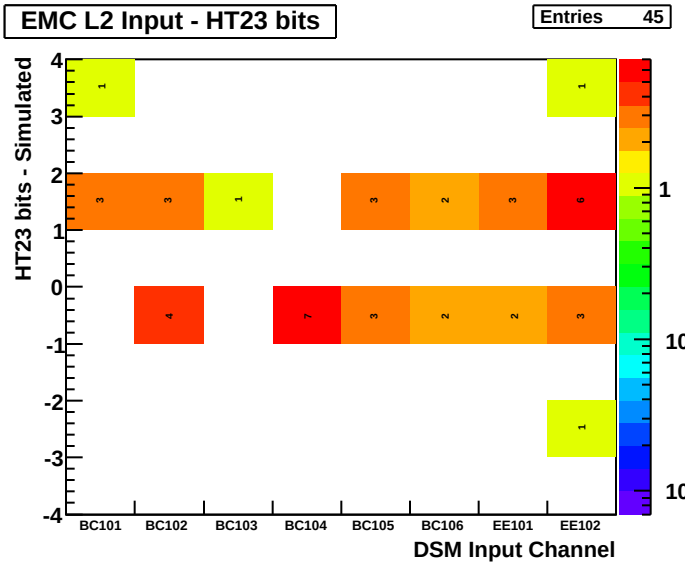

EMC L2 Input - Partial JP Sum
Entries 1380696
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

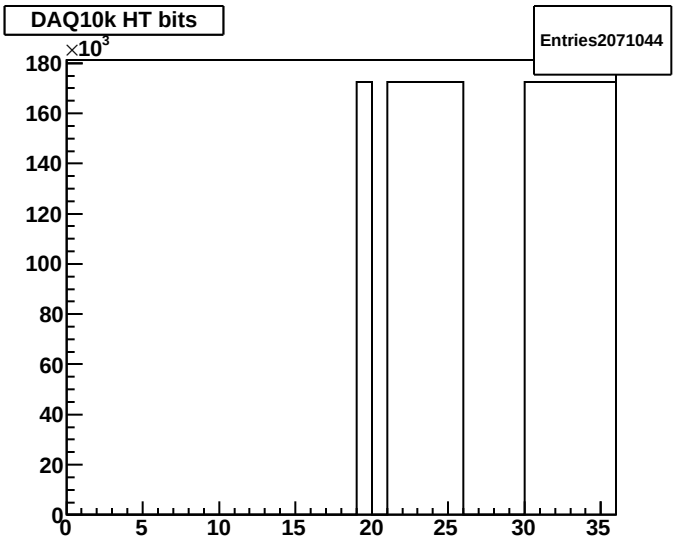

EMC L2 Input - Partial JP Sum
Entries 564008
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

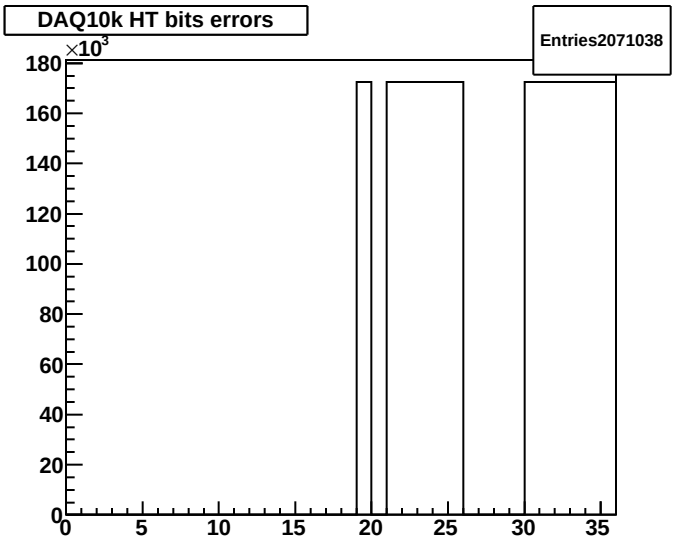

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1380696
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

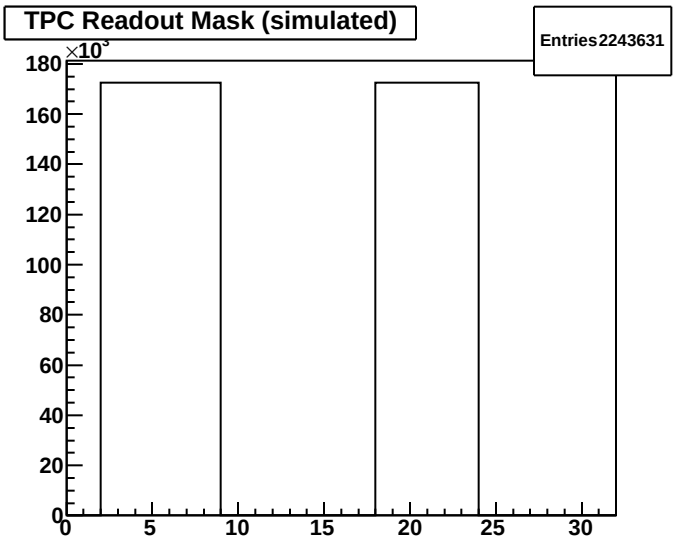

EMC L2 Input - HT01 bits/Partial JP ID
Entries 107166
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

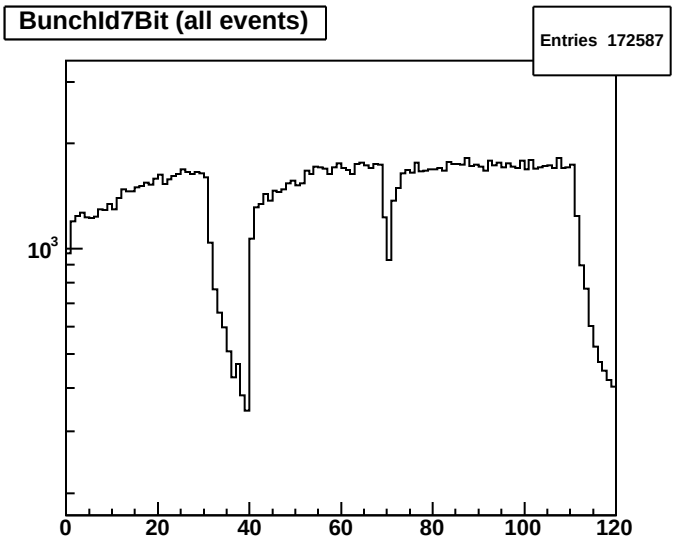

EMC L2 Input - HT23 bits
Entries 1380696
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

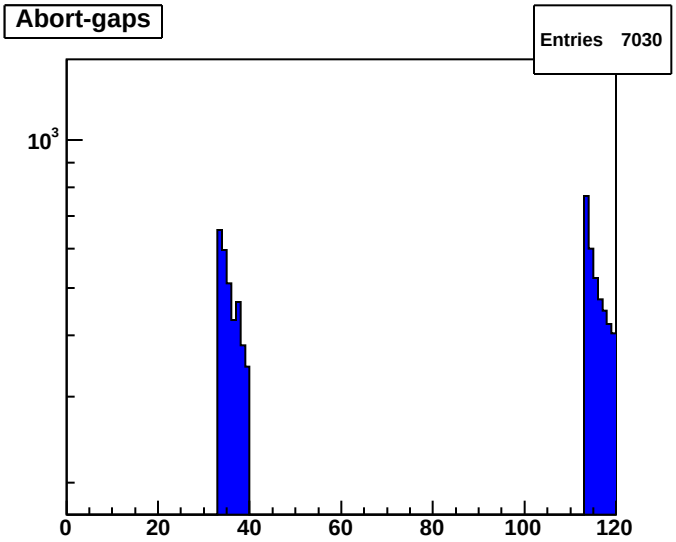

EMC L2 Input - HT23 bits
Entries 45
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

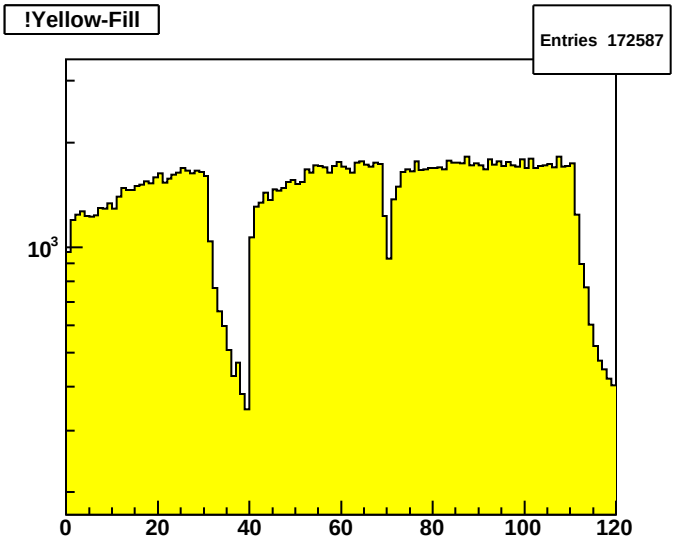

DAQ10k HT bits
Entries2071044
×10^3
180
160
140
120
100
80
60
40
20
0
0 5 10 15 20 25 30 35

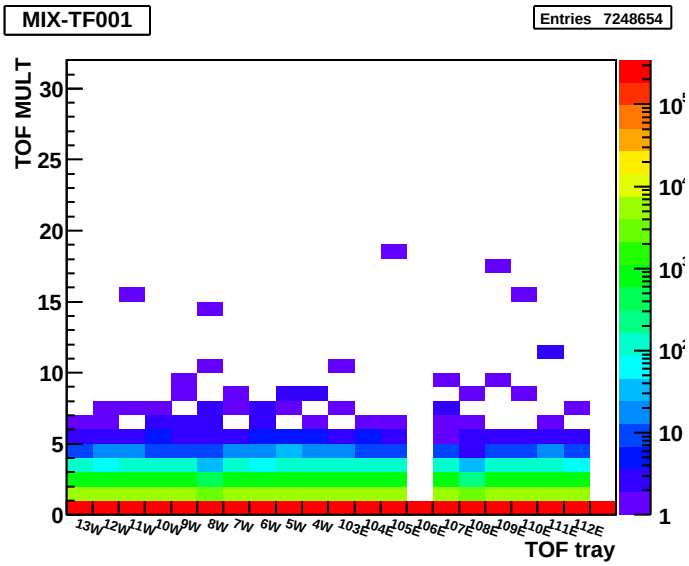

DAQ10k HT bits errors
Entries2071038
×10^3
180
160
140
120
100
80
60
40
20
0
0 5 10 15 20 25 30 35

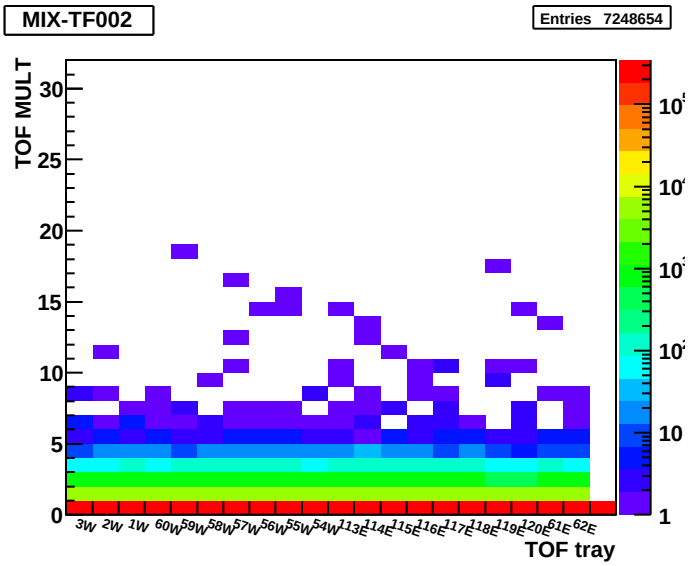

TPC Readout Mask (simulated)
Entries2243631
×10^3
180
160
140
120
100
80
60
40
20
0
0 5 10 15 20 25 30

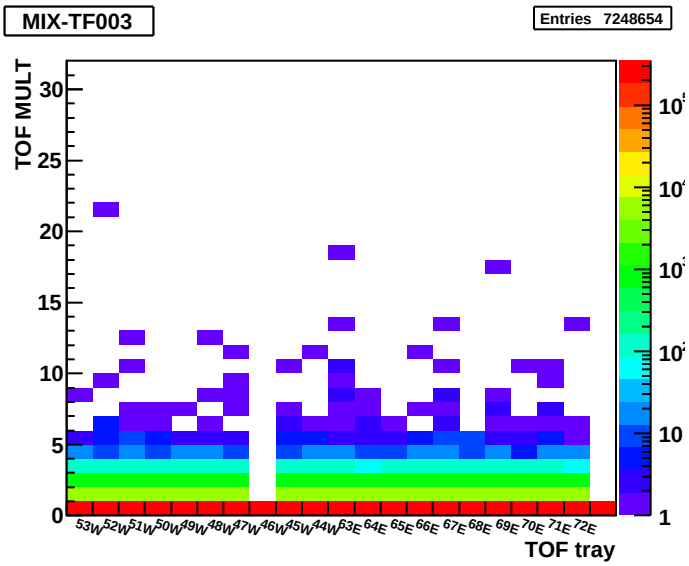

BunchId7Bit (all events)
Entries 172587
10^3
0 20 40 60 80 100 120

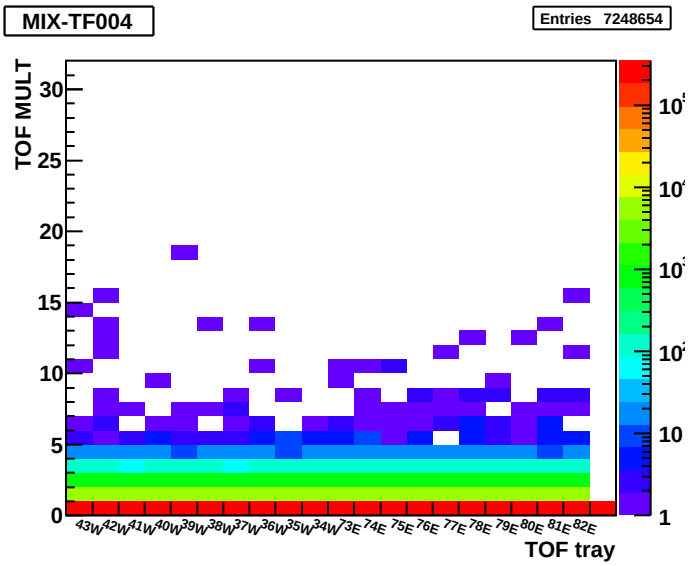

Abort-gaps
Entries 7030
10^3
0 20 40 60 80 100 120

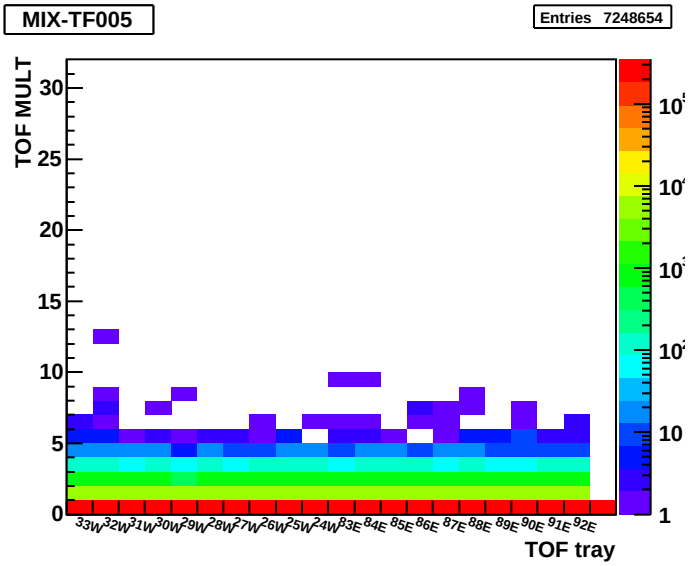

!Yellow-Fill
Entries 172587
10^3
0 20 40 60 80 100 120

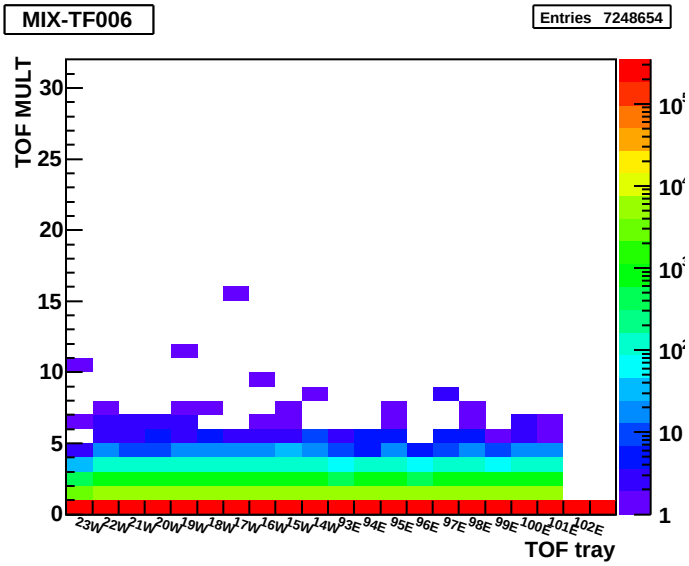

MIX-TF001
Entries 7248654
TOF MULT
TOF tray

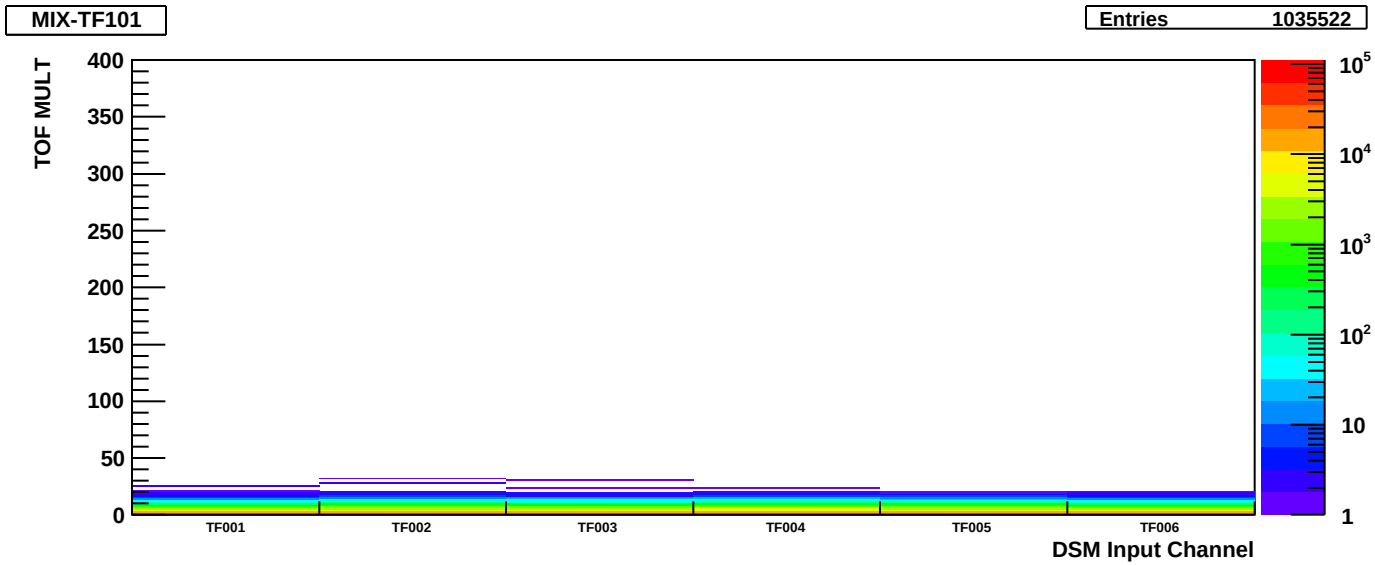

MIX-TF002
Entries 7248654
TOF MULT
TOF tray

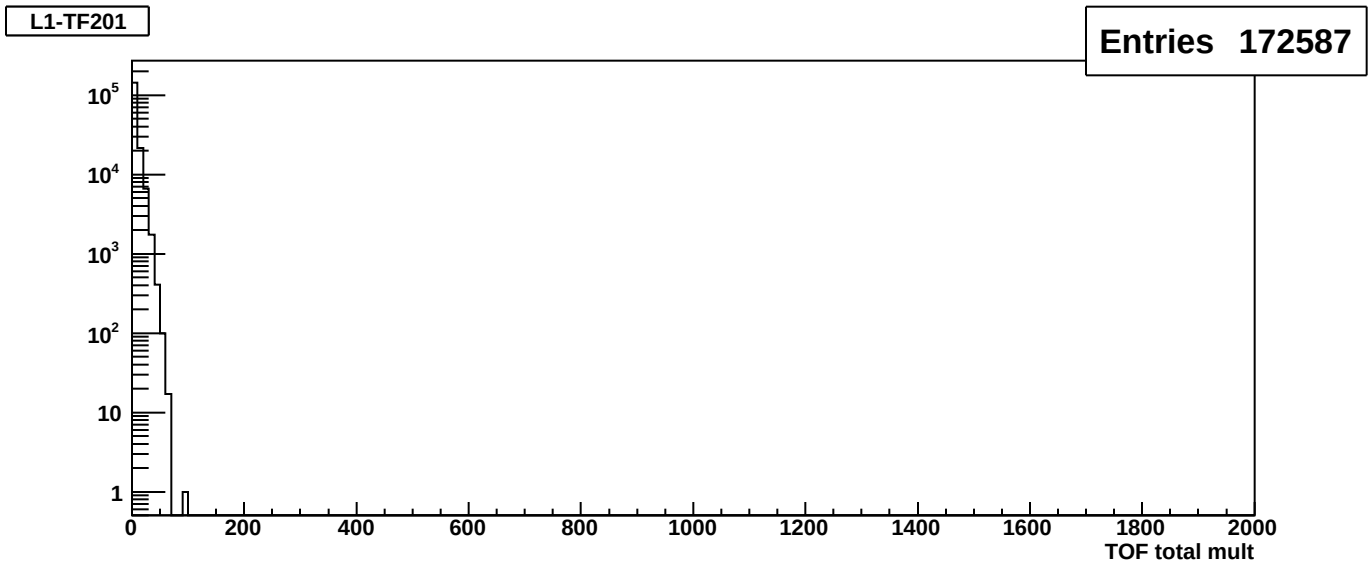

MIX-TF003
Entries 7248654
TOF MULT
TOF tray

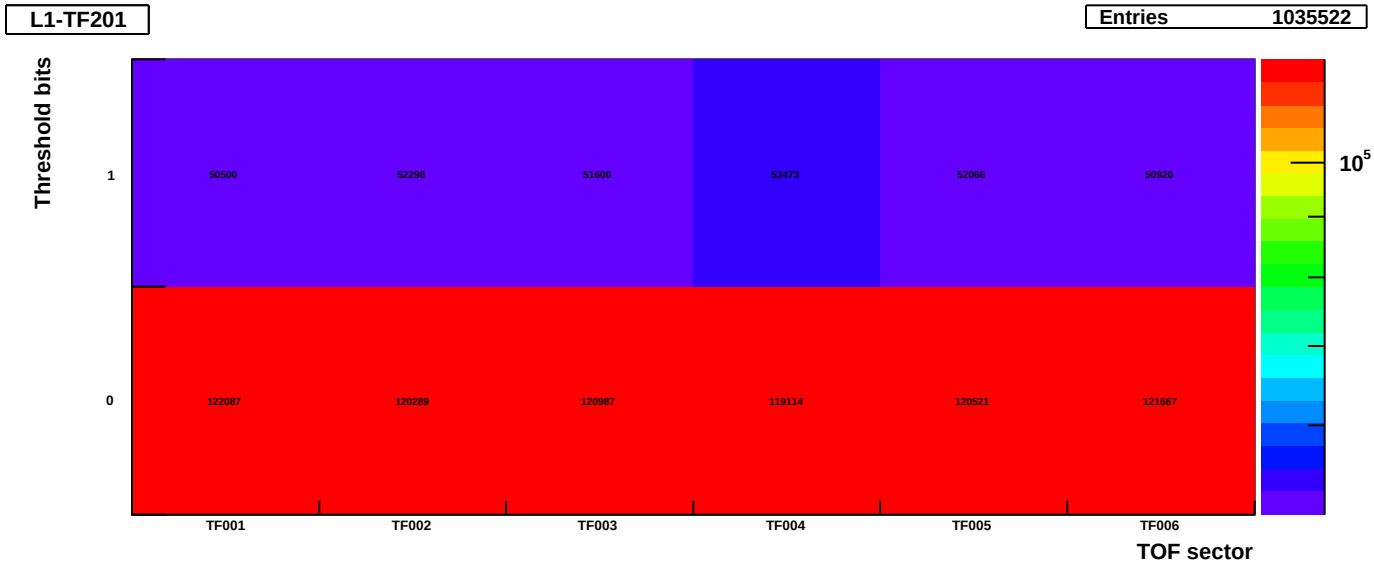

MIX-TF004
Entries 7248654
TOF MULT
TOF tray

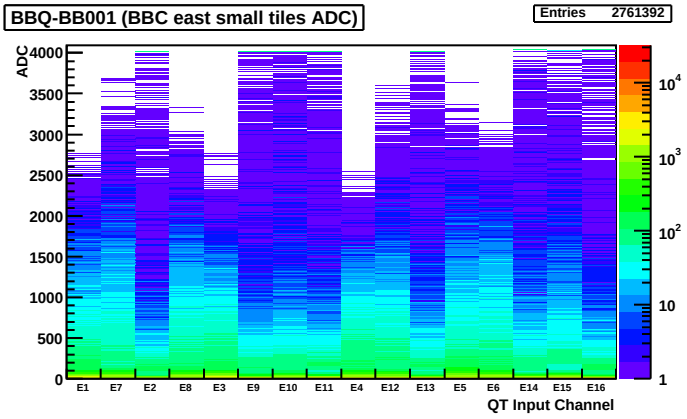

MIX-TF005
Entries 7248654
TOF MULT
TOF tray

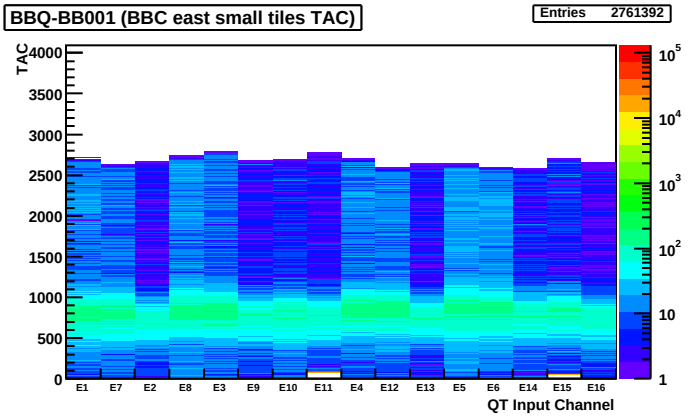

MIX-TF006
Entries 7248654
TOF MULT
TOF tray

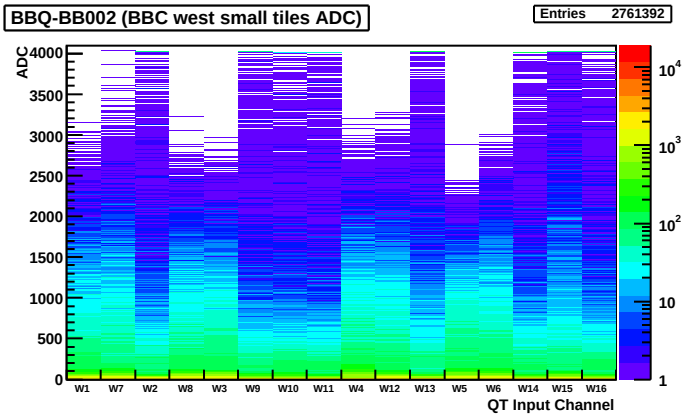

MIX-TF101
Entries 1035522
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

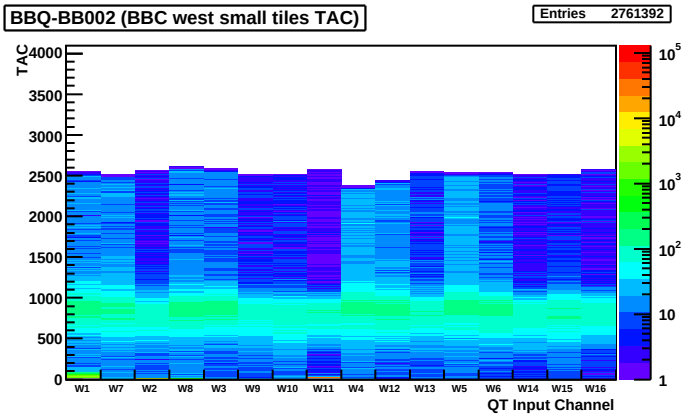

L1-TF201
Entries 172587
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

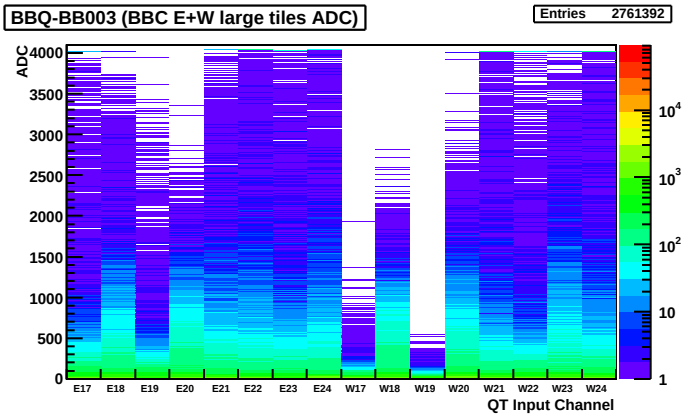

L1-TF201
Entries 1035522
Threshold bits
1
0
50500
52298
51600
53473
52066
50920
122087
120289
120987
119114
120521
121667
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5

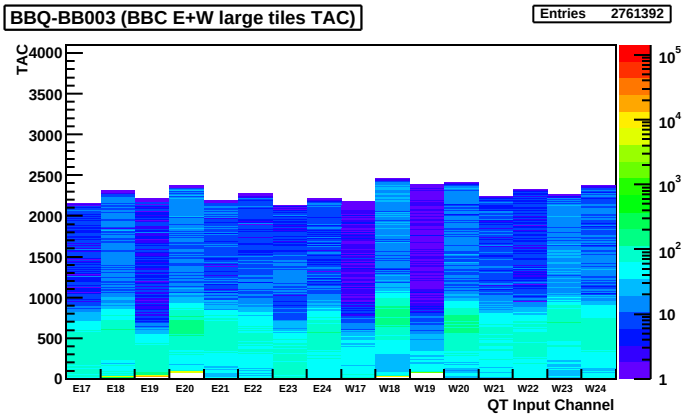

BBQ-BB001 (BBC east small tiles ADC)
Entries 2761392
ADC
QT Input Channel

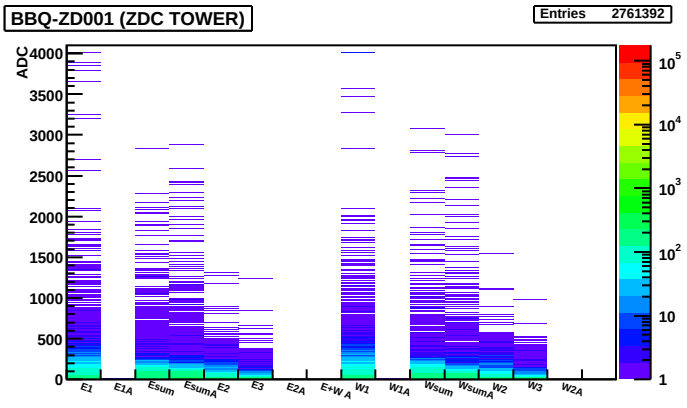

BBQ-BB001 (BBC east small tiles TAC)
Entries 2761392
TAC
QT Input Channel

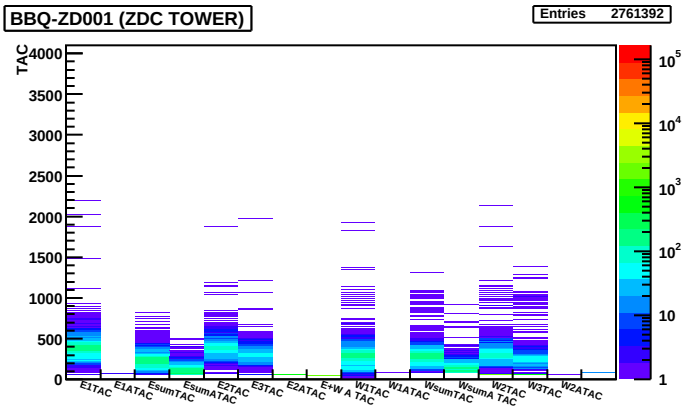

BBQ-BB002 (BBC west small tiles ADC)
Entries 2761392
ADC
QT Input Channel

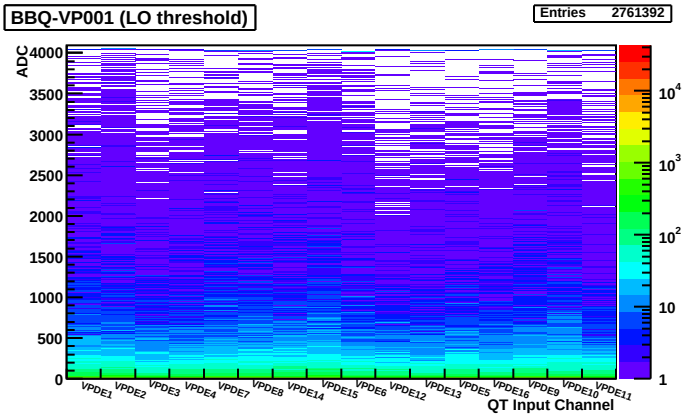

BBQ-BB002 (BBC west small tiles TAC)
Entries 2761392
TAC
QT Input Channel

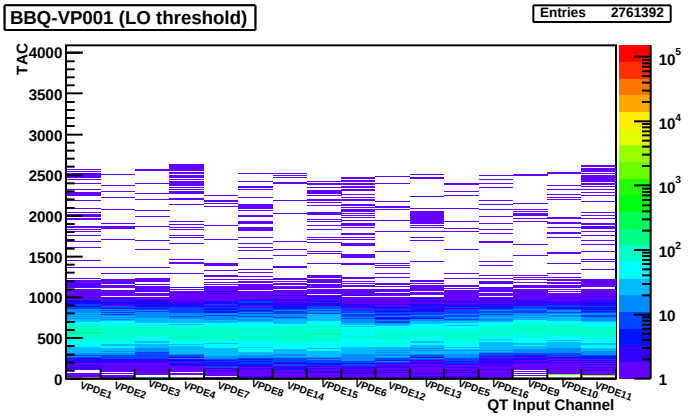

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 2761392
ADC
QT Input Channel

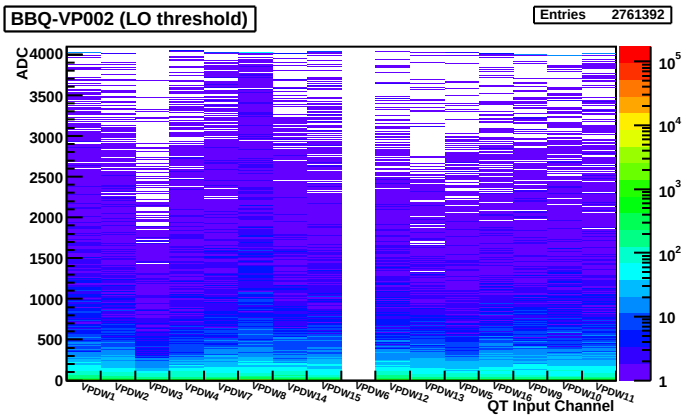

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 2761392
TAC
QT Input Channel

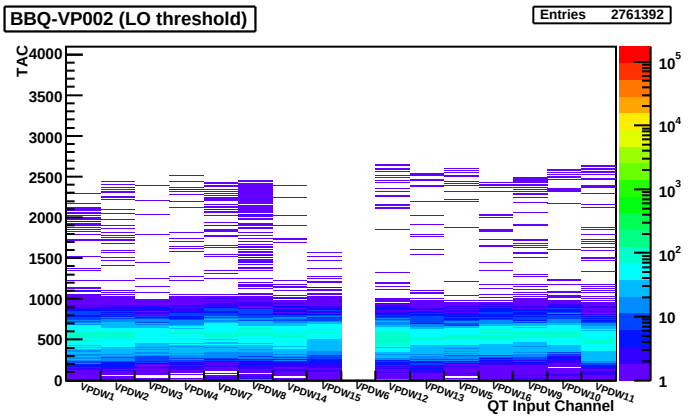

BBQ-ZD001 (ZDC TOWER)
Entries 2761392
ADC

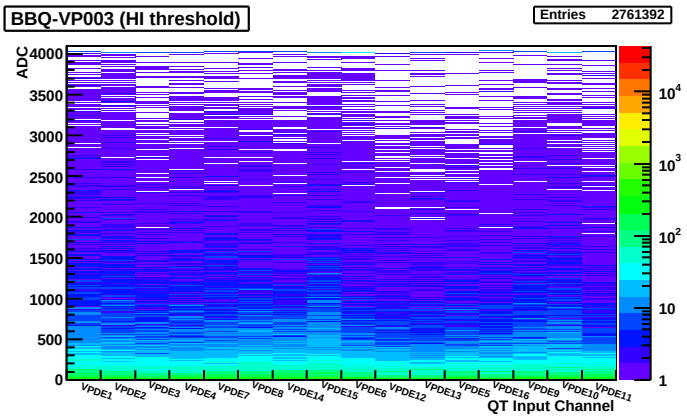

BBQ-ZD001 (ZDC TOWER)
Entries 2761392
TAC

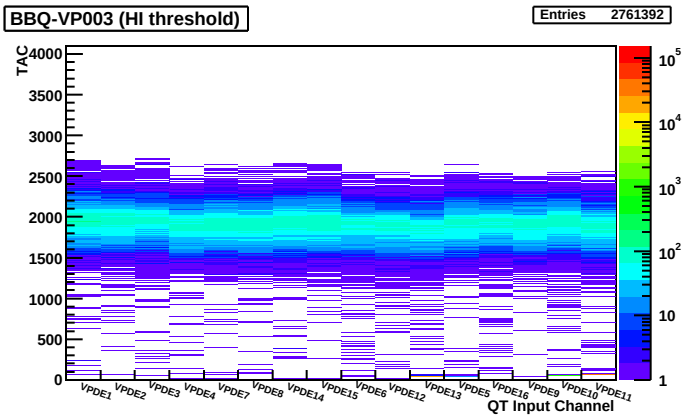

BBQ-VP001 (LO threshold)
Entries 2761392
ADC
QT Input Channel

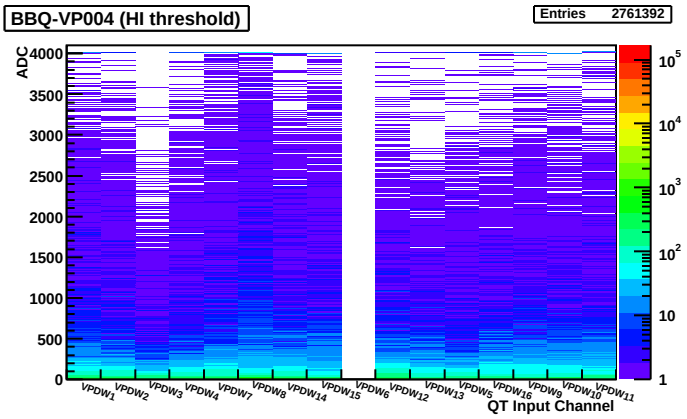

BBQ-VP001 (LO threshold)
Entries 2761392
TAC
QT Input Channel

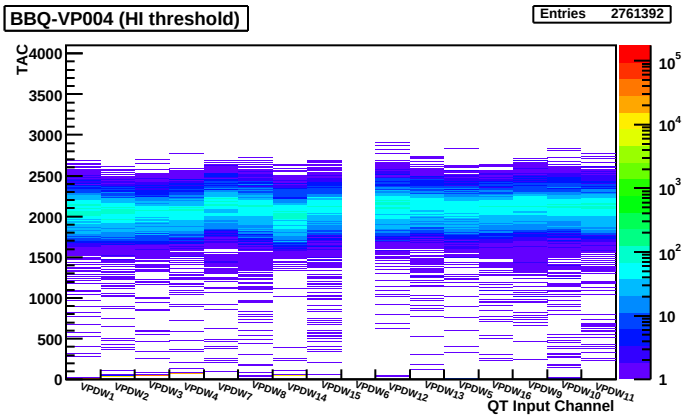

BBQ-VP002 (LO threshold)
Entries 2761392
ADC
QT Input Channel

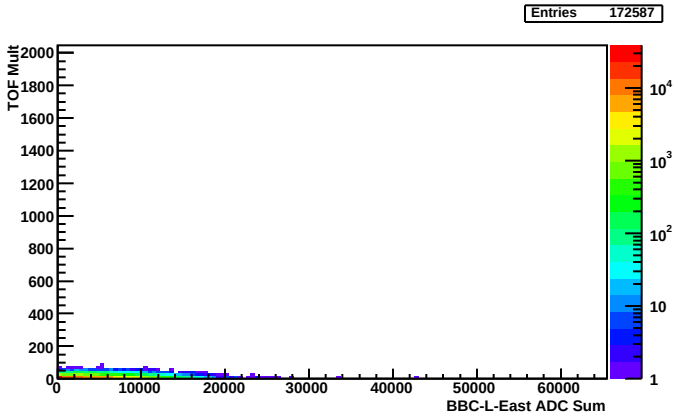

BBQ-VP002 (LO threshold)
Entries 2761392
TAC
QT Input Channel

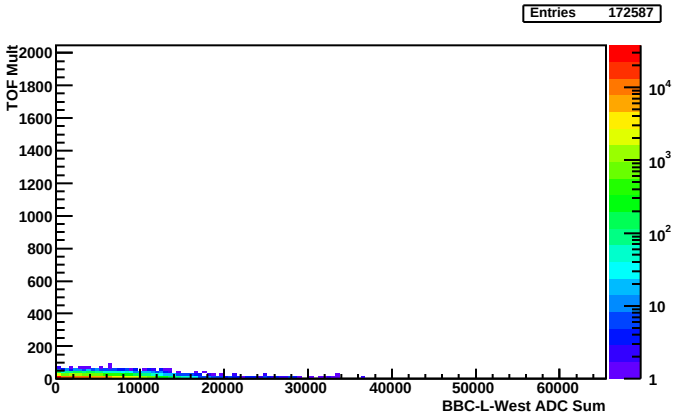

BBQ-VP003 (HI threshold)
Entries 2761392
ADC
QT Input Channel

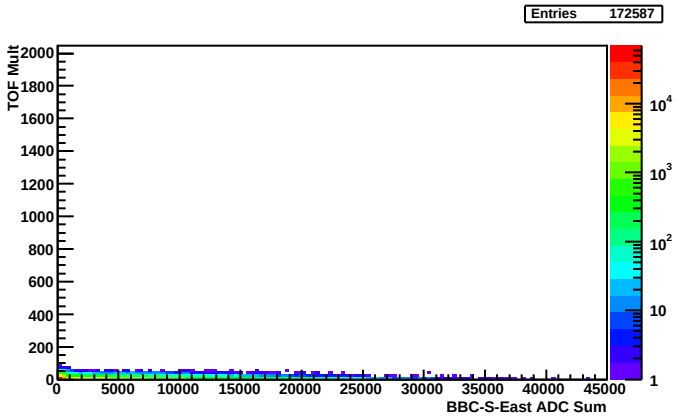

BBQ-VP003 (HI threshold)
Entries 2761392
TAC
QT Input Channel

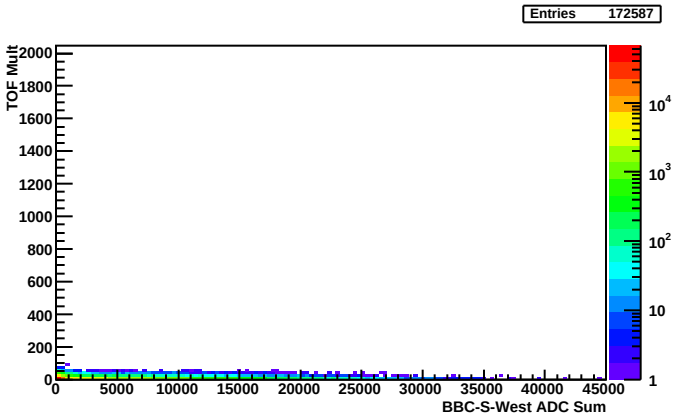

BBQ-VP004 (HI threshold)
Entries 2761392
ADC
QT Input Channel

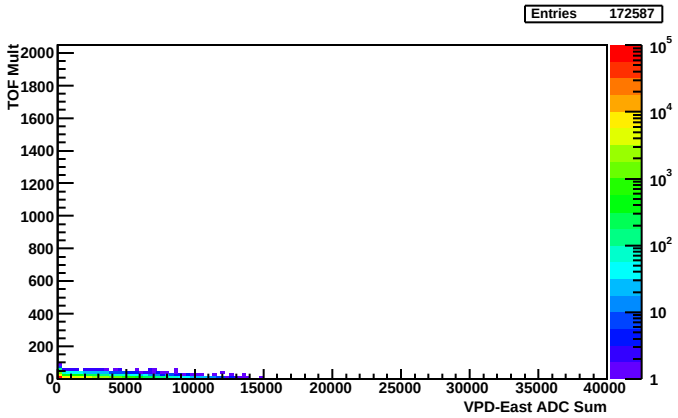

BBQ-VP004 (HI threshold)
Entries 2761392
TAC
QT Input Channel

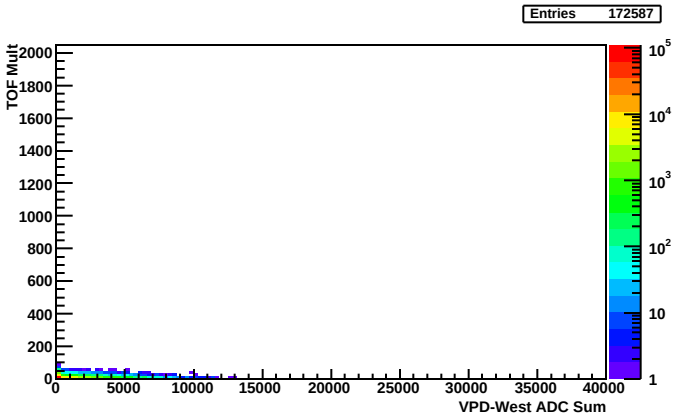

Entries 172587
TOF Mult
BBC-L-East ADC Sum

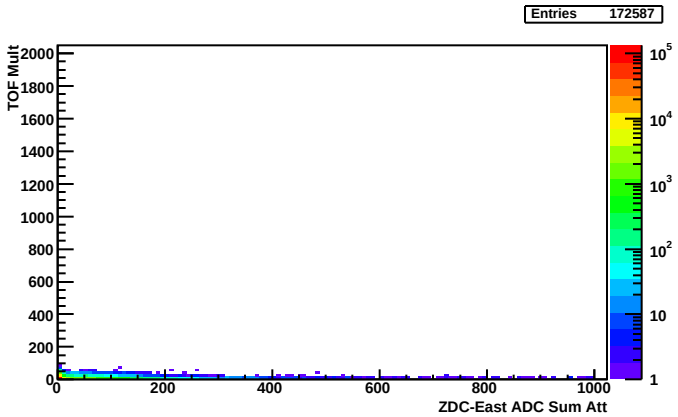

Entries 172587
TOF Mult
BBC-L-West ADC Sum

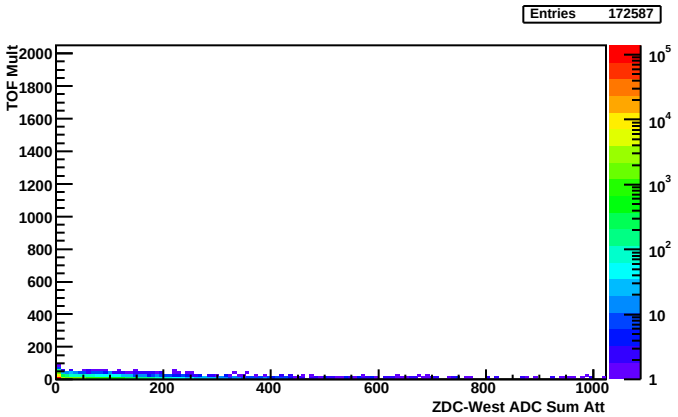

Entries 172587
TOF Mult
BBC-S-East ADC Sum

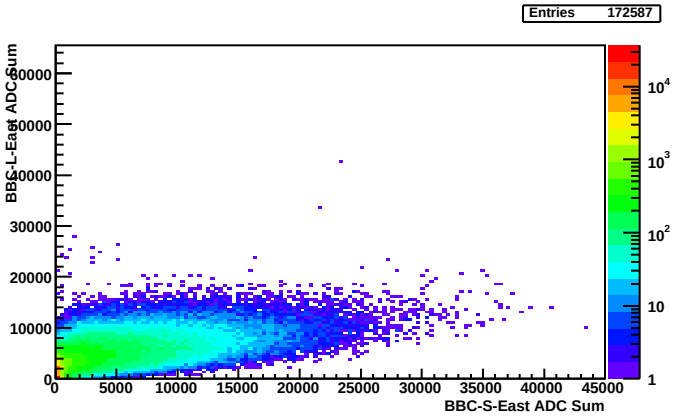

Entries 172587
TOF Mult
BBC-S-West ADC Sum

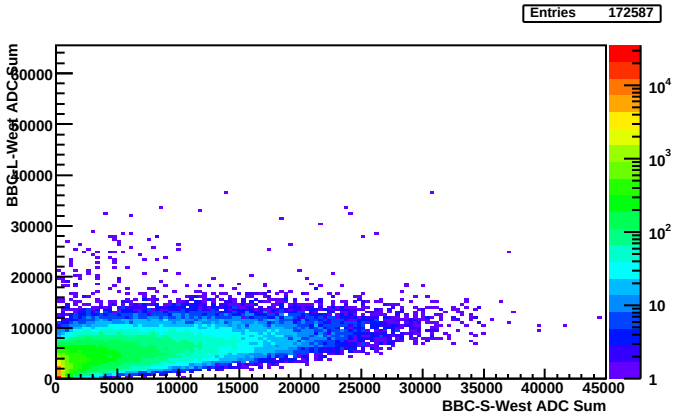

Entries 172587
TOF Mult
VPD-East ADC Sum

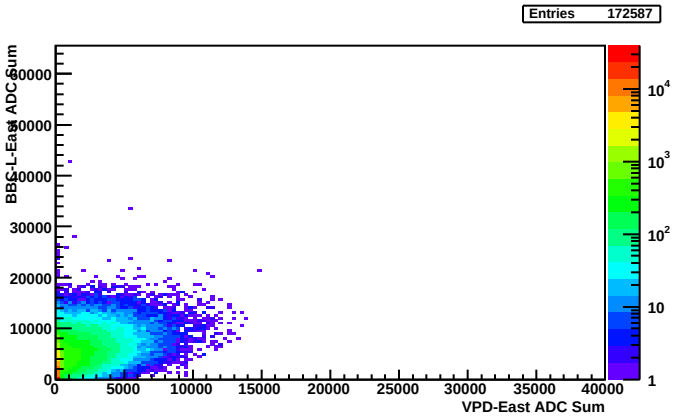

Entries 172587
TOF Mult
VPD-West ADC Sum

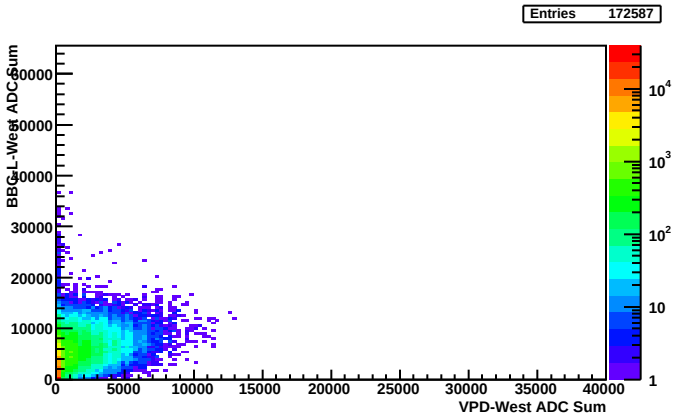

Entries 172587
TOF Mult
ZDC-East ADC Sum Att

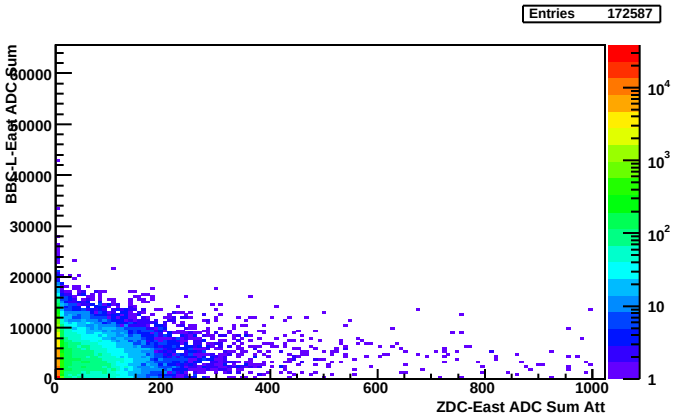

Entries 172587
TOF Mult
ZDC-West ADC Sum Att

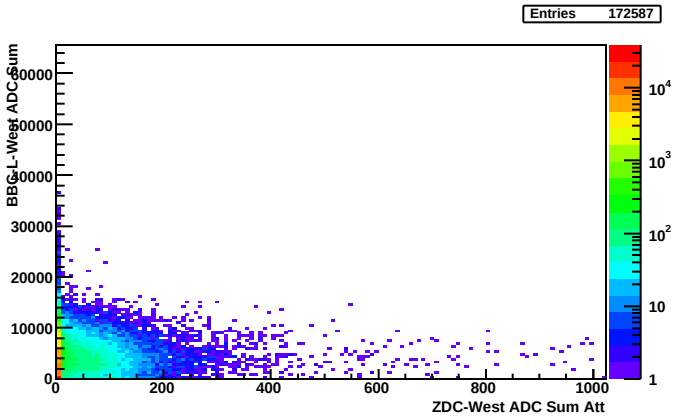

Entries 172587
BBC-L-East ADC Sum
BBC-S-East ADC Sum

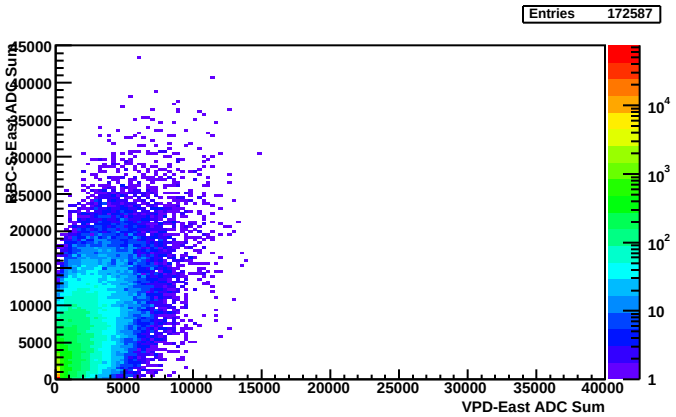

Entries 172587
BBC-L-West ADC Sum
BBC-S-West ADC Sum

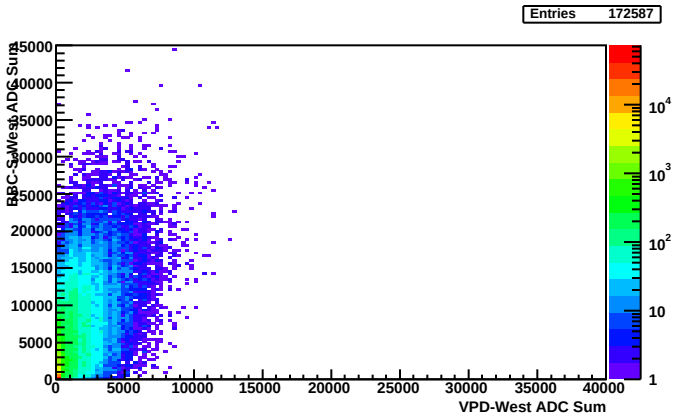

Entries 172587
BBC-L-East ADC Sum
VPD-East ADC Sum

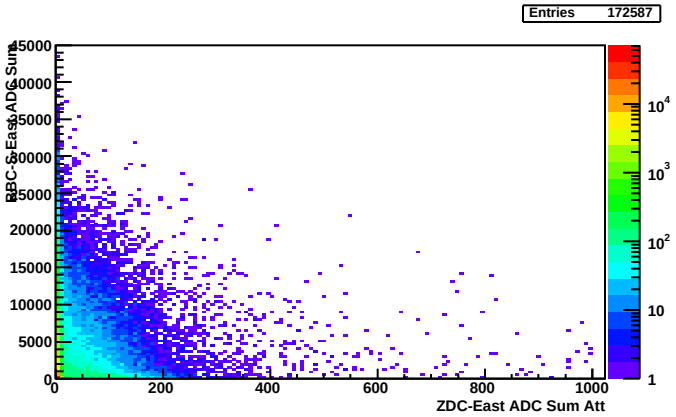

Entries 172587
BBC-L-West ADC Sum
VPD-West ADC Sum

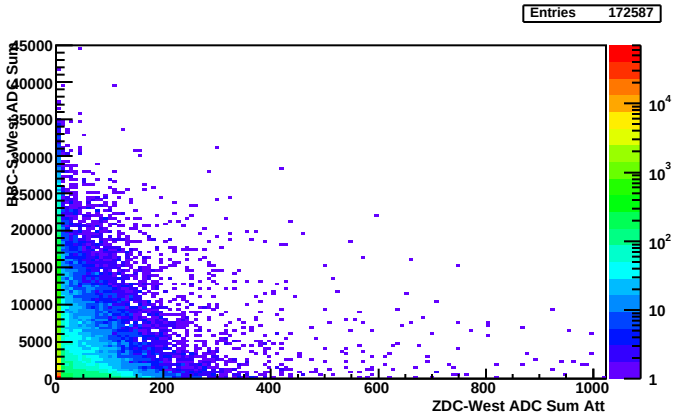

Entries 172587
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

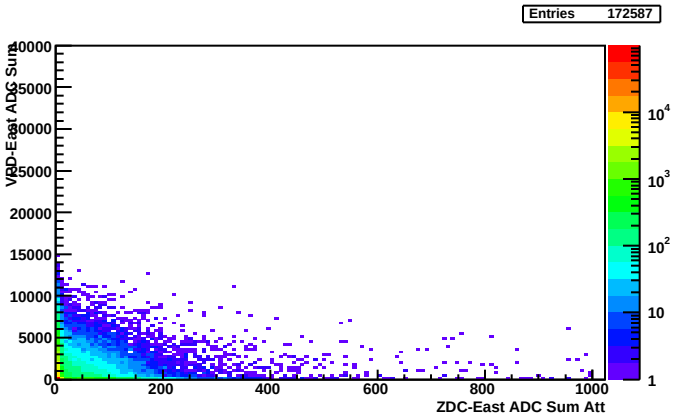

Entries 172587
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

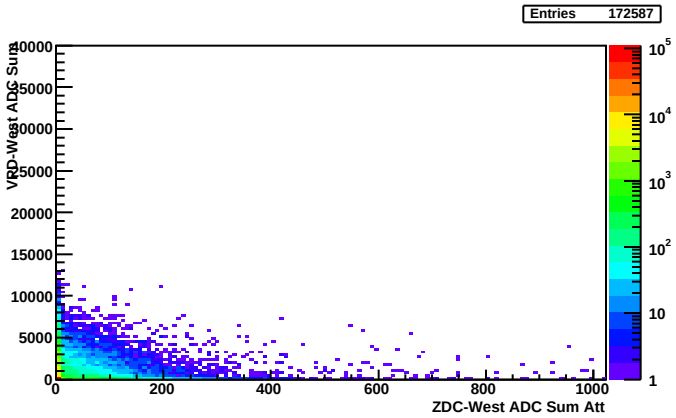

Entries 172587
BBC-S-East ADC Sum
VPD-East ADC Sum

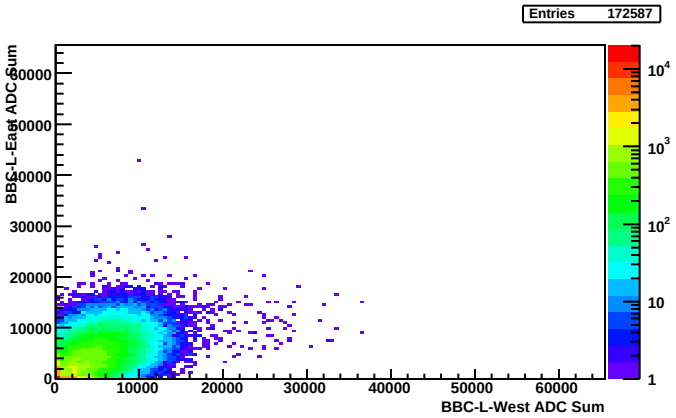

Entries 172587
BBC-S-West ADC Sum
VPD-West ADC Sum

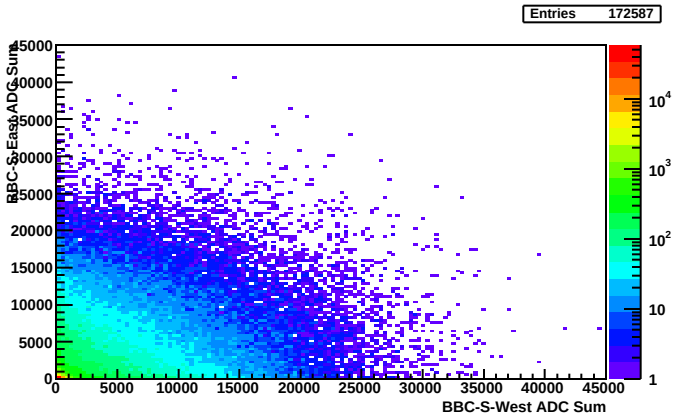

Entries 172587
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

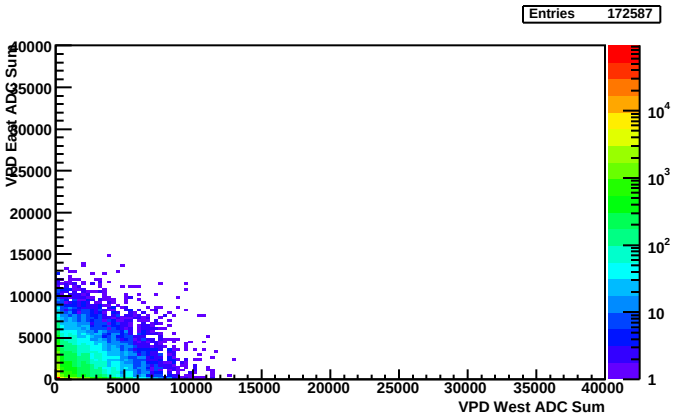

Entries 172587
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

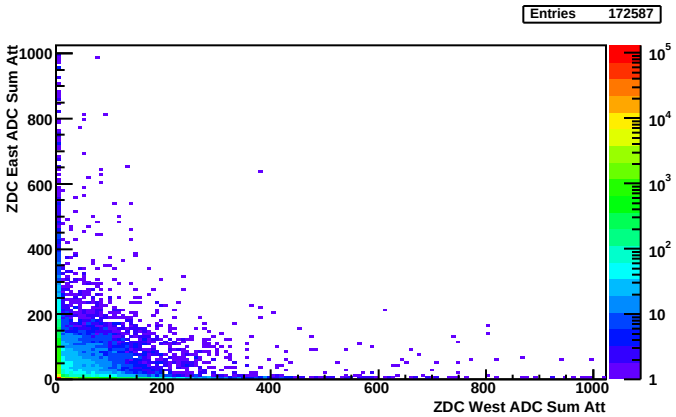

Entries 172587
VPD-East ADC Sum
ZDC-East ADC Sum Att

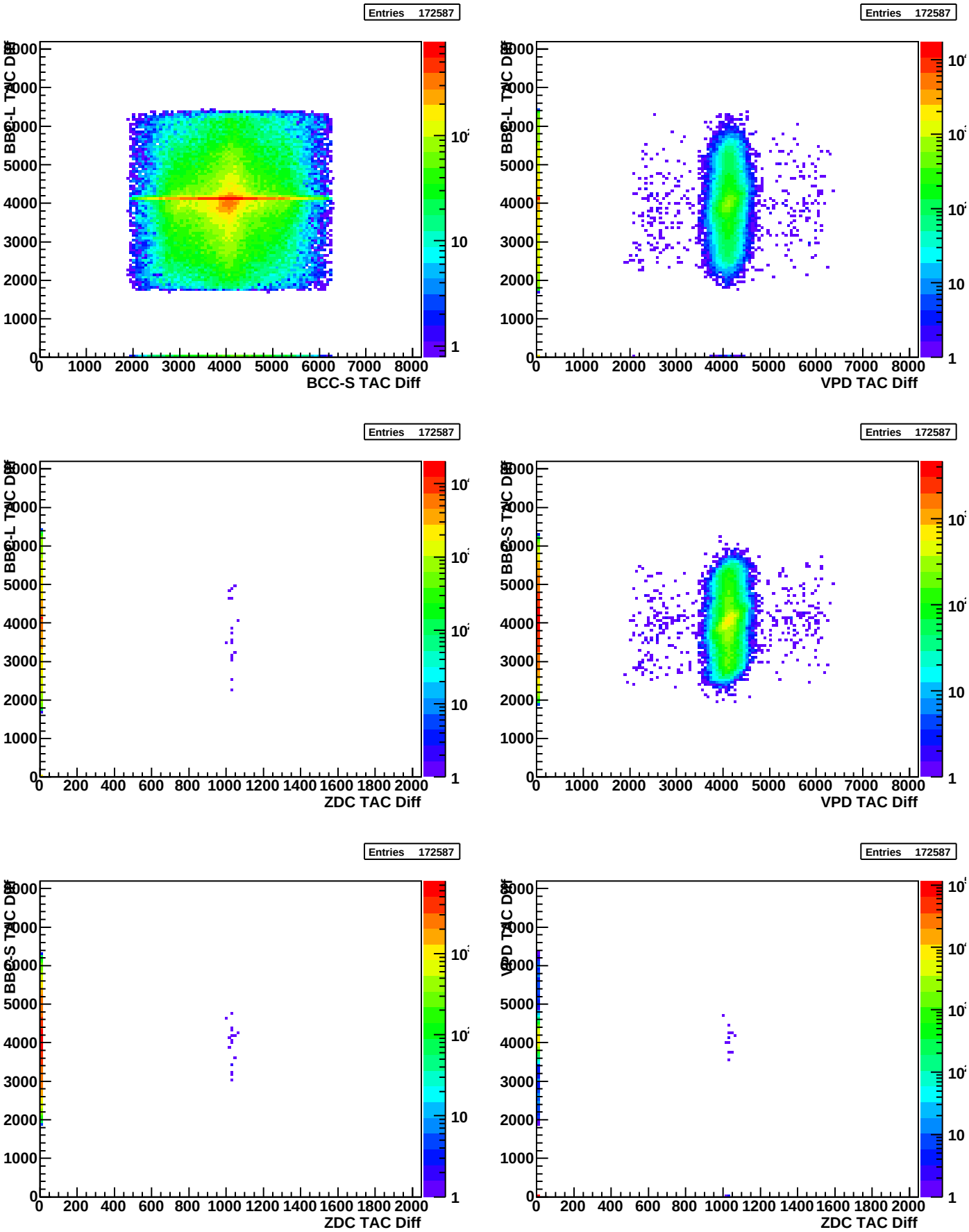

Entries 172587
VPD-West ADC Sum
ZDC-West ADC Sum Att

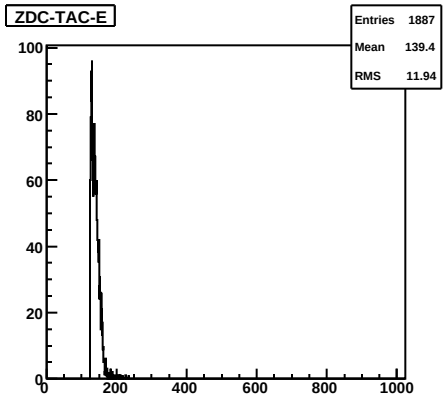

Entries 172587
BBC-L-East ADC Sum
BBC-L-West ADC Sum

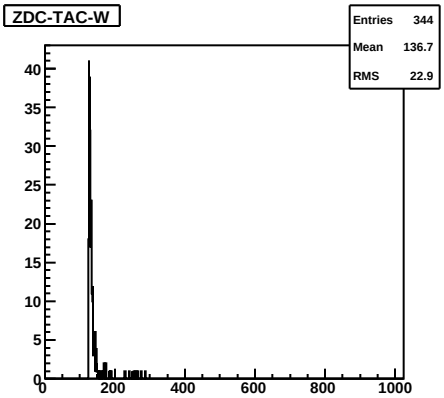

Entries 172587
BBC-S-East ADC Sum
BBC-S-West ADC Sum

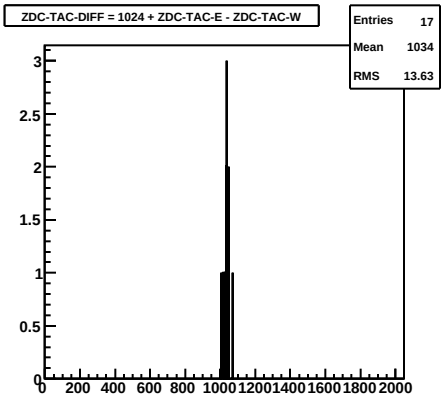

Entries 172587
VPD East ADC Sum
VPD West ADC Sum

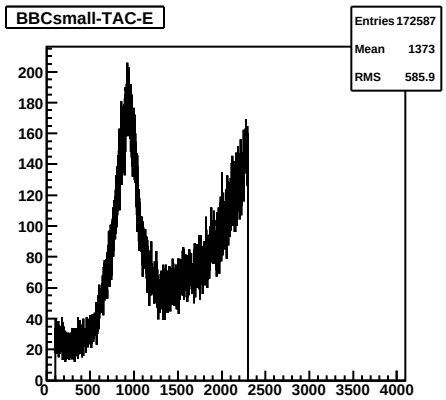

Entries 172587
ZDC East ADC Sum Att
ZDC West ADC Sum Att

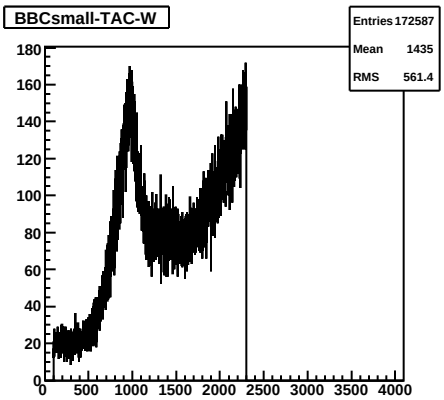

Entries 172587
BBC-L TAC Diff
BCC-S TAC Diff
Entries 172587
BBC-L TAC Diff
VPD TAC Diff
Entries 172587
BBC-L TAC Diff
ZDC TAC Diff
Entries 172587
BBC-S TAC Diff
VPD TAC Diff
Entries 172587
BBC-S TAC Diff
ZDC TAC Diff
Entries 172587
VPD TAC Diff
ZDC TAC Diff

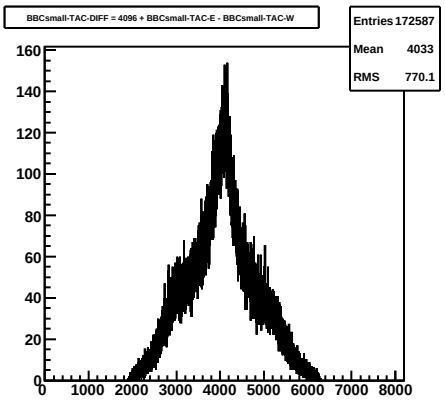

ZDC-TAC-E
Entries 1887
Mean 139.4
RMS 11.94

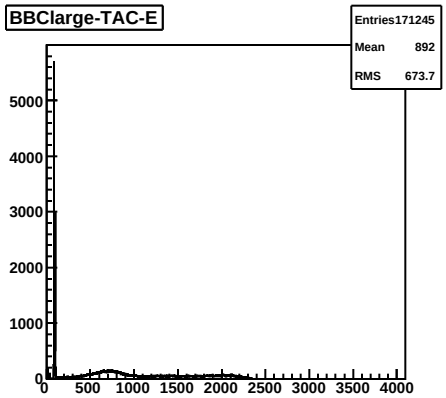

ZDC-TAC-W
Entries 344
Mean 136.7
RMS 22.9

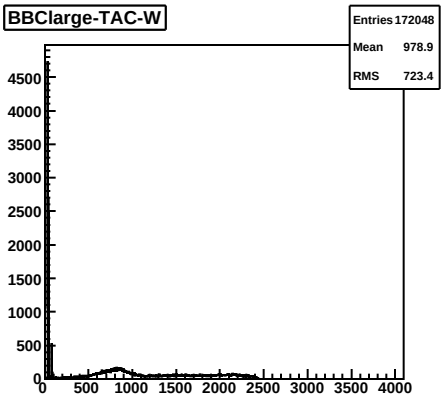

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 17
Mean 1034
RMS 13.63

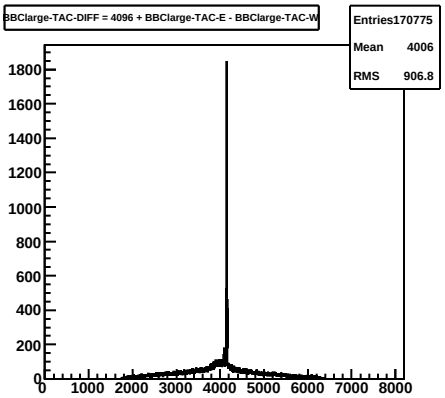

BBCsmall-TAC-E
Entries 172587
Mean 1373
RMS 585.9

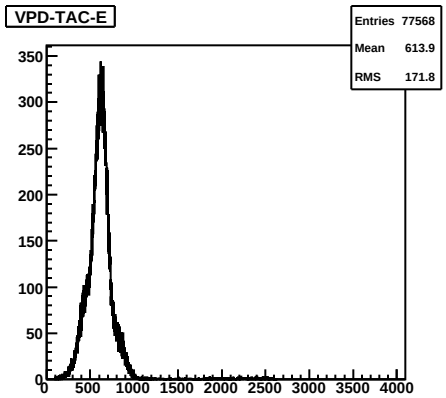

BBCsmall-TAC-W
Entries 172587
Mean 1435
RMS 561.4

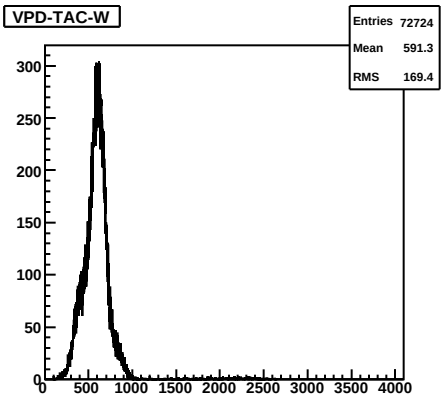

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 172587
Mean 4033
RMS 770.1

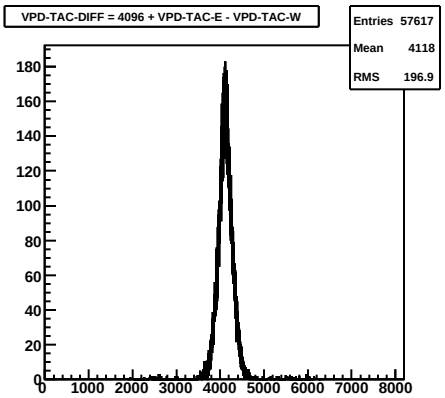

BBClarge-TAC-E
Entries 171245
Mean 892
RMS 673.7

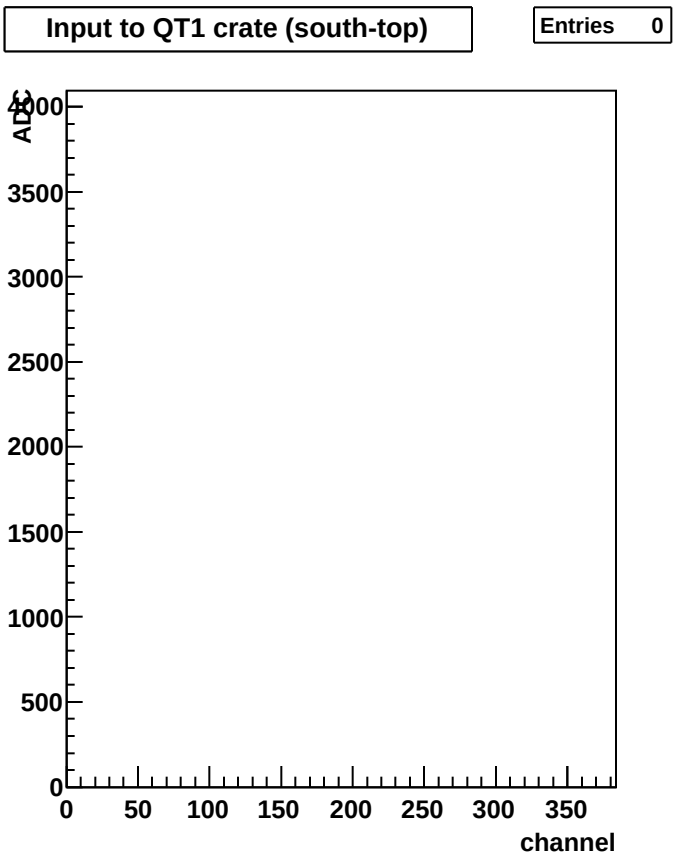

BBClarge-TAC-W
Entries 172048
Mean 978.9
RMS 723.4

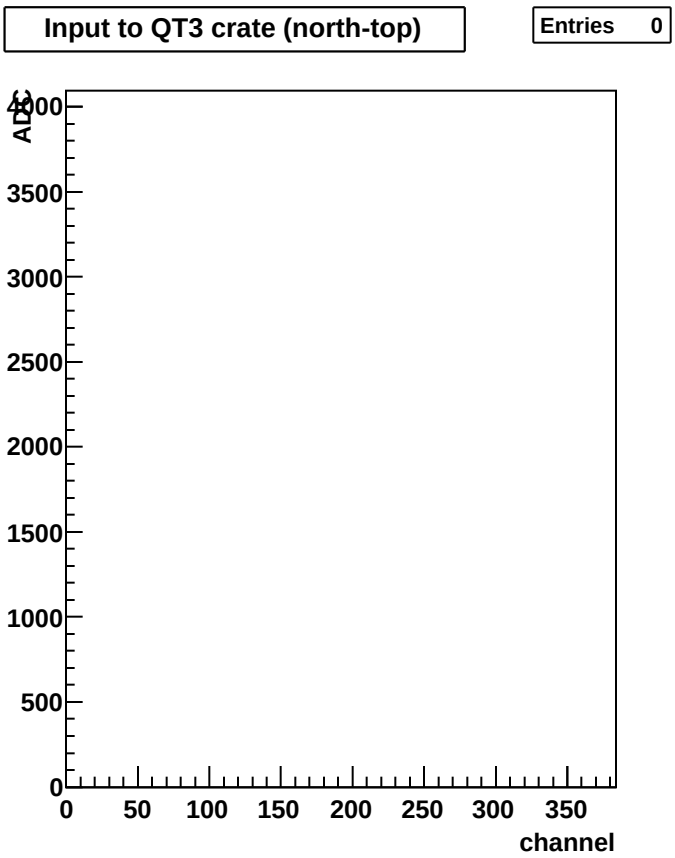

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 170775
Mean 4006
RMS 906.8

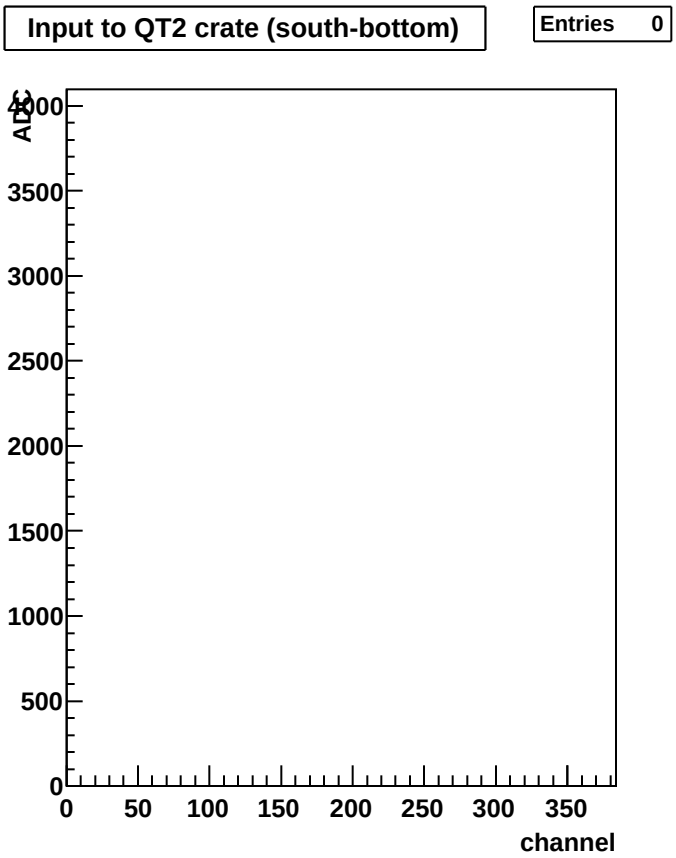

VPD-TAC-E
Entries 77568
Mean 613.9
RMS 171.8

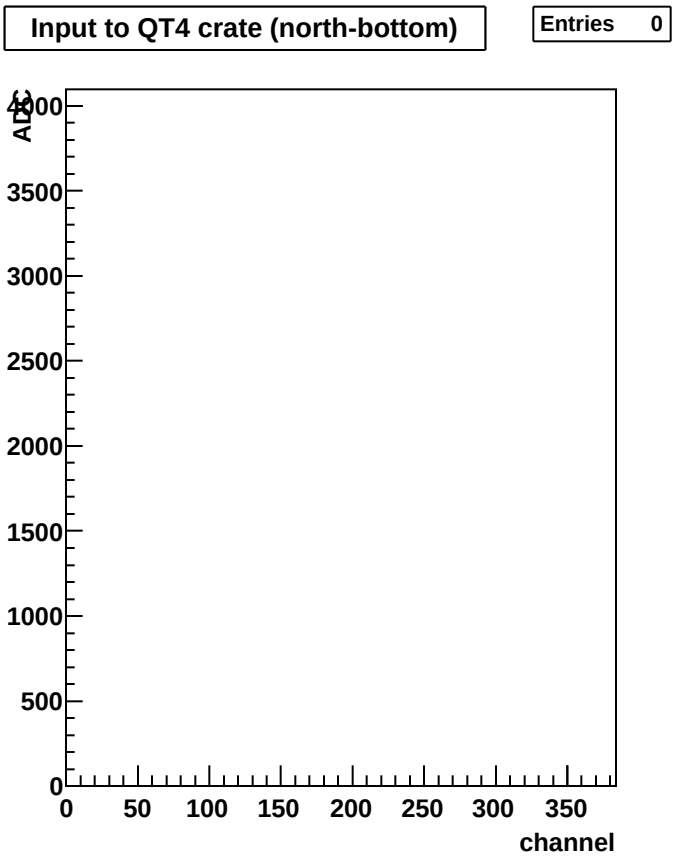

VPD-TAC-W
Entries 72724
Mean 591.3
RMS 169.4

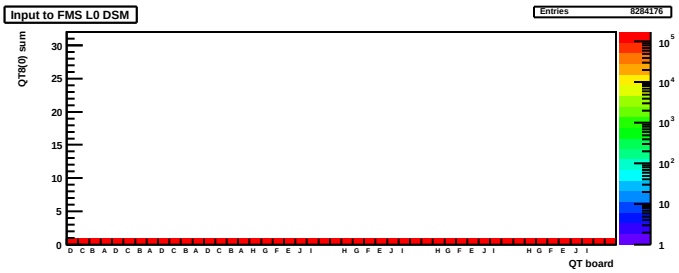

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 57617
Mean 4118
RMS 196.9

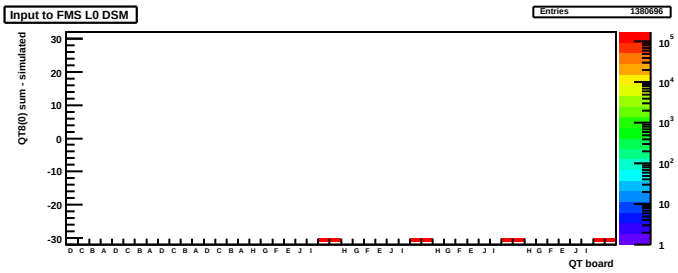

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

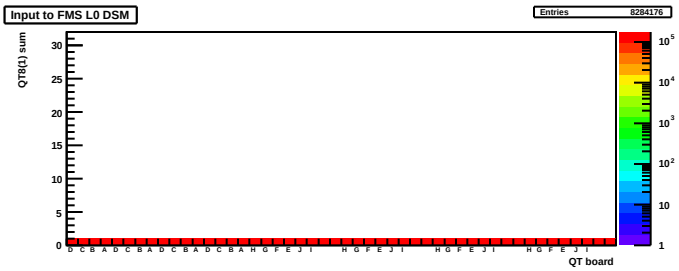

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

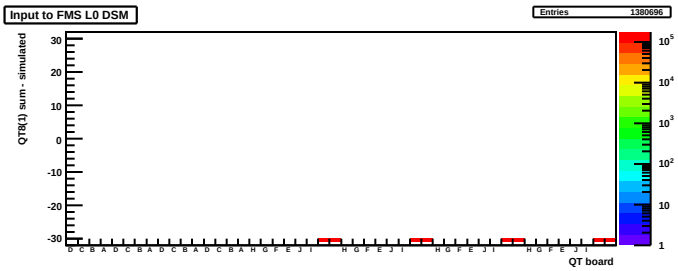

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

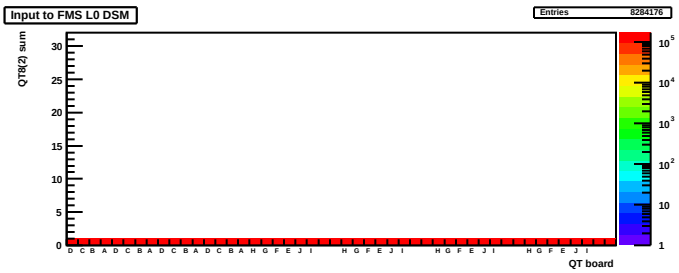

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

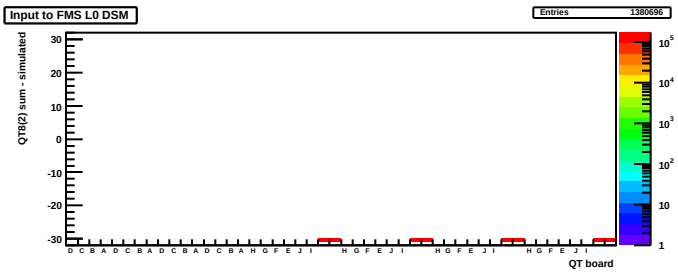

Input to FMS L0 DSM
Entries 8284176
QT8(0) sum
QT board

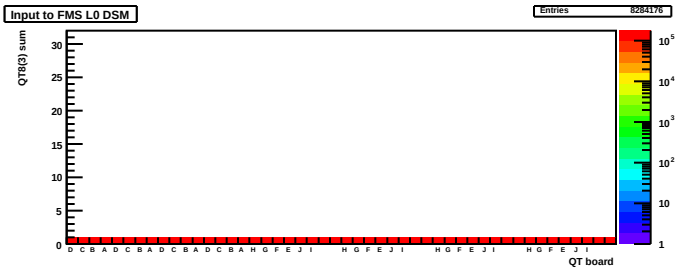

Input to FMS L0 DSM
Entries 1380696
QT8(0) sum - simulated
QT board

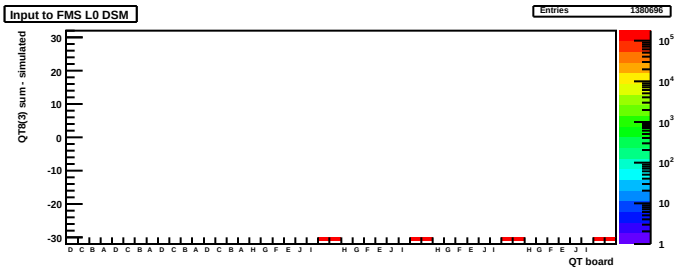

Input to FMS L0 DSM
Entries 8284176
QT8(1) sum
QT board

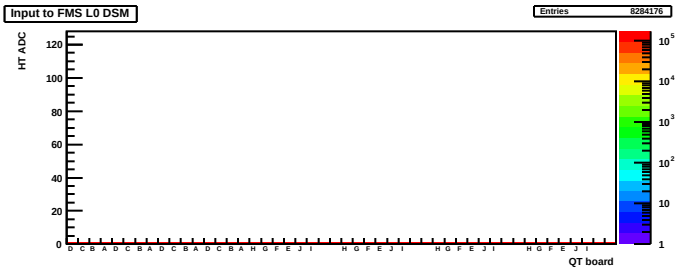

Input to FMS L0 DSM
Entries 1380696
QT8(1) sum - simulated
QT board

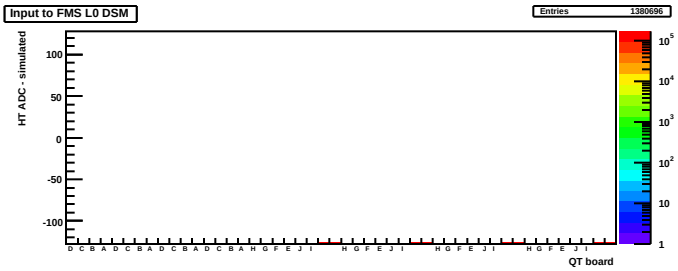

Input to FMS L0 DSM
Entries 8284176
QT8(2) sum
QT board

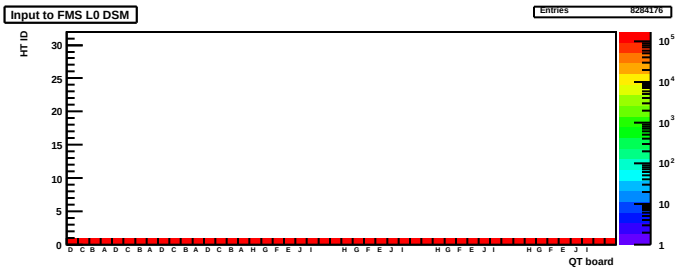

Input to FMS L0 DSM
Entries 1380696
QT8(2) sum - simulated
QT board

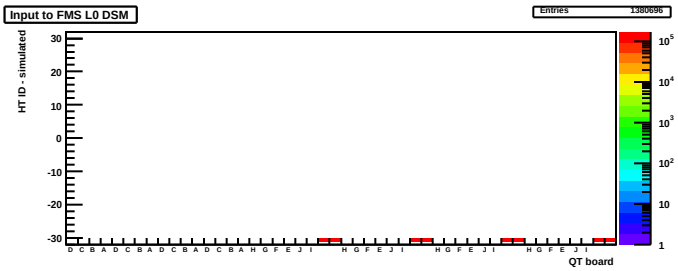

Input to FMS L0 DSM
Entries 8284176
QT8(3) sum
QT board

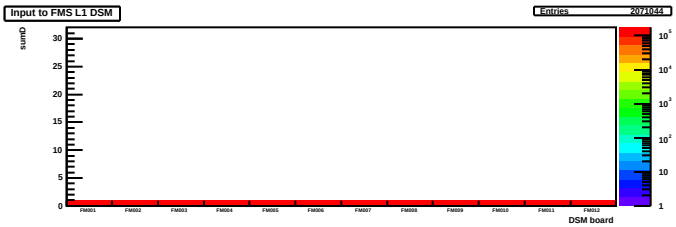

Input to FMS L0 DSM
Entries 1380696
QT8(3) sum - simulated
QT board

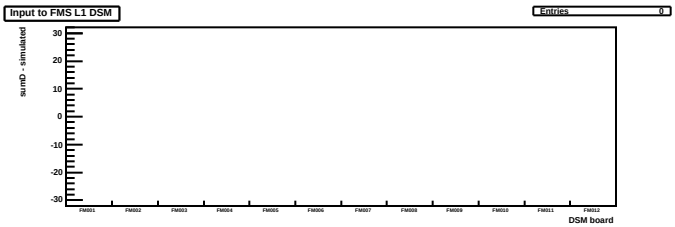

Input to FMS L0 DSM
Entries 8284176
HT ADC
QT board

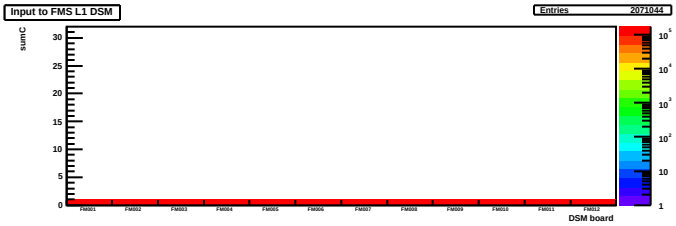

Input to FMS L0 DSM
Entries 1380696
HT ADC - simulated
QT board

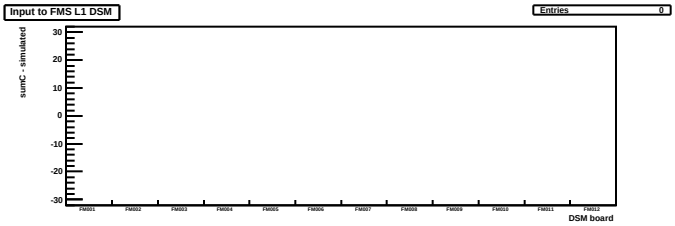

Input to FMS L0 DSM
Entries 8284176
HT ID
QT board

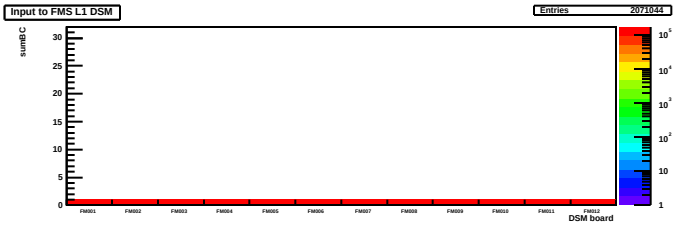

Input to FMS L0 DSM
Entries 1380696
HT ID - simulated
QT board

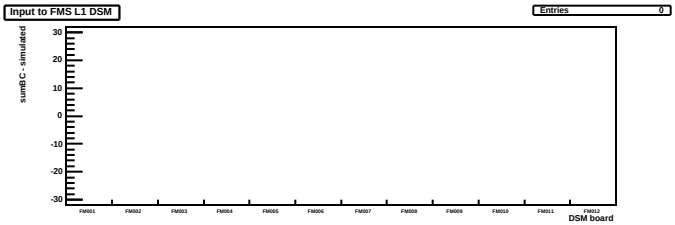

Input to FMS L1 DSM
Entries 2071044
sumD
DSM board

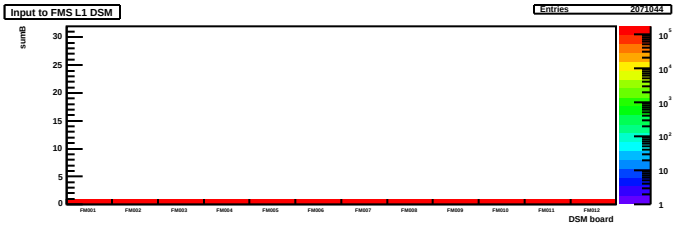

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

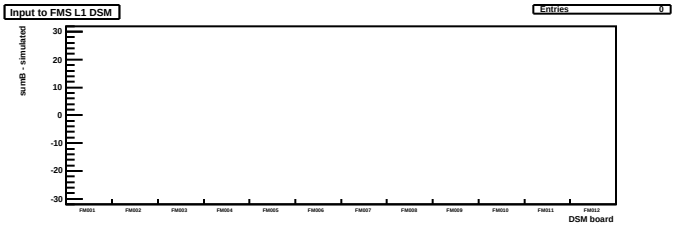

Input to FMS L1 DSM
Entries 2071044
sumC
DSM board

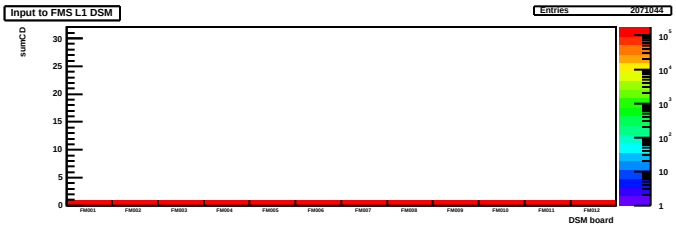

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

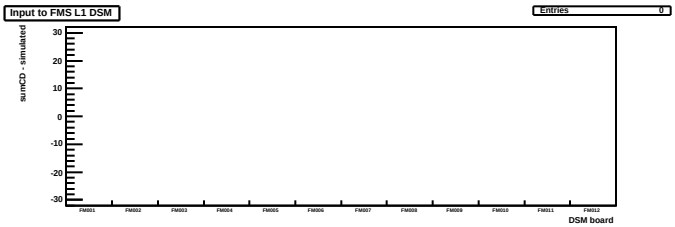

Input to FMS L1 DSM
Entries 2071044
sumBC
DSM board

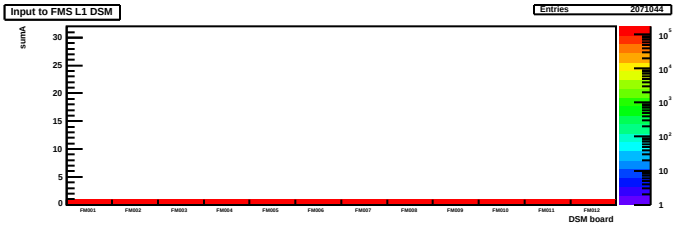

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

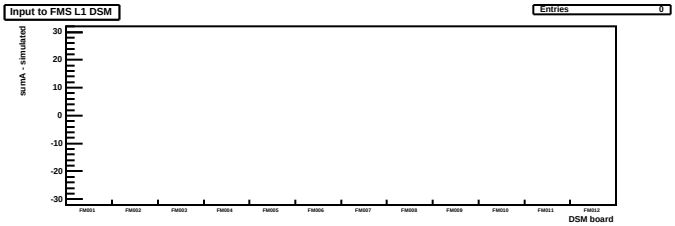

Input to FMS L1 DSM
Entries 2071044
sumB
DSM board

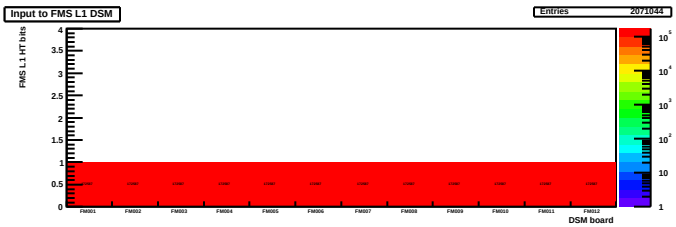

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

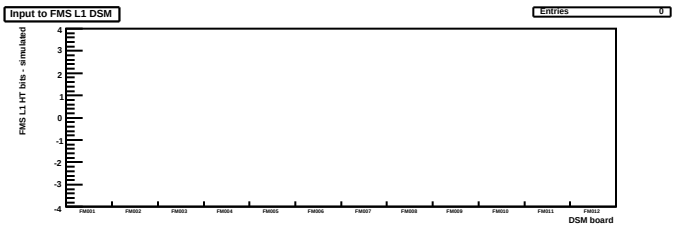

Input to FMS L1 DSM
Entries 2071044
sumCD
DSM board

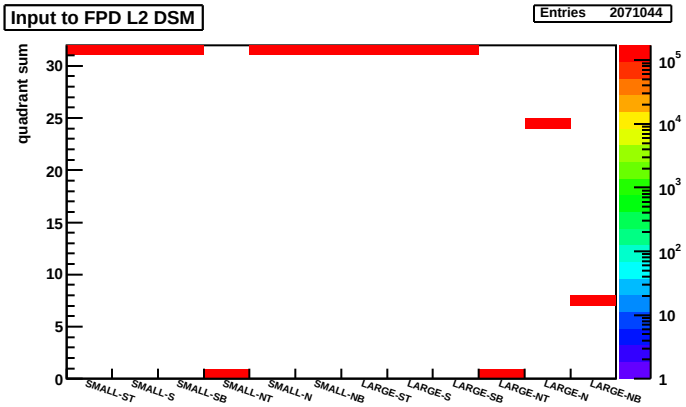

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

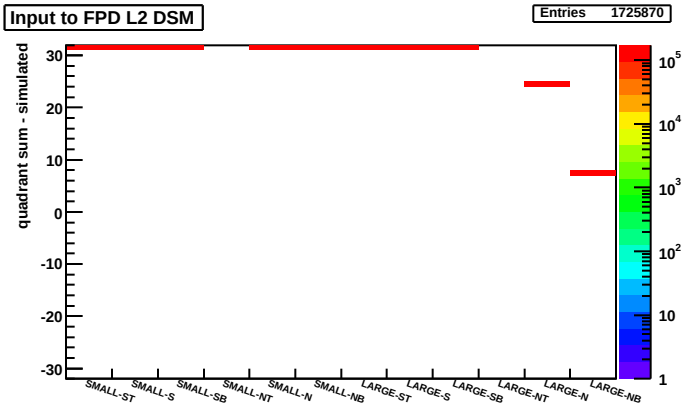

Input to FMS L1 DSM
Entries 2071044
sumA
DSM board

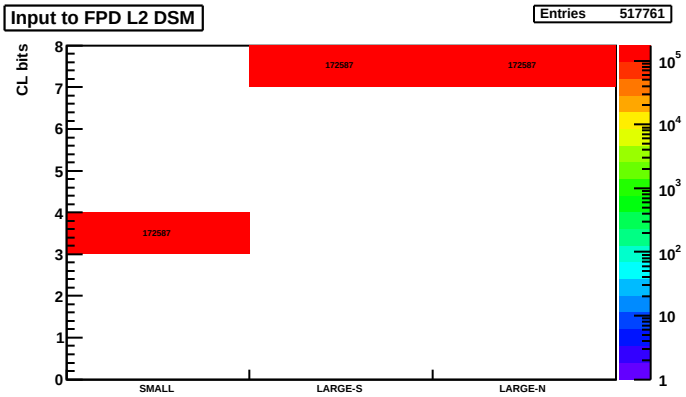

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

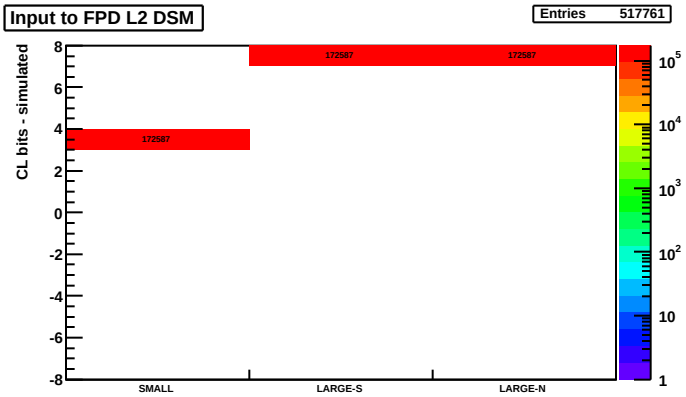

Input to FMS L1 DSM
Entries 2071044
FMS L1 HT bits
DSM board

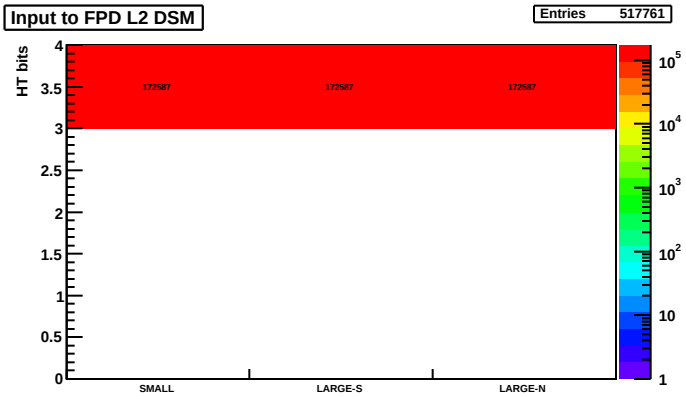

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

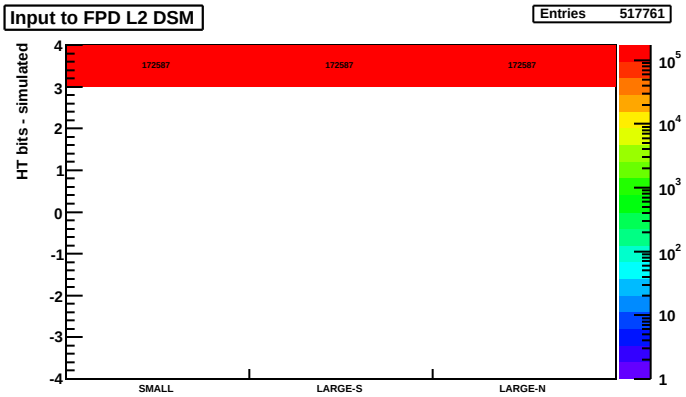

Input to FPD L2 DSM
Entries 2071044
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

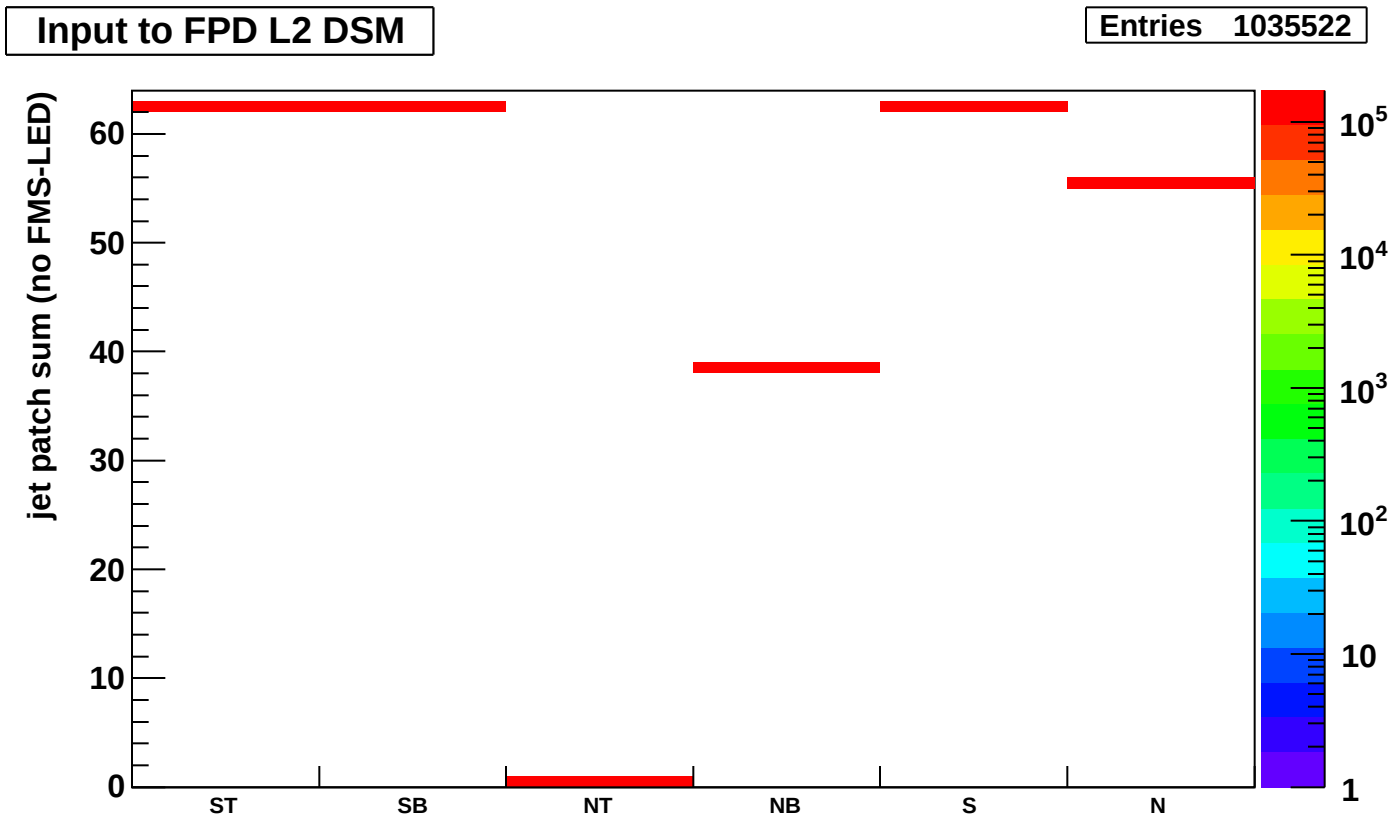

Input to FPD L2 DSM
Entries 1725870
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

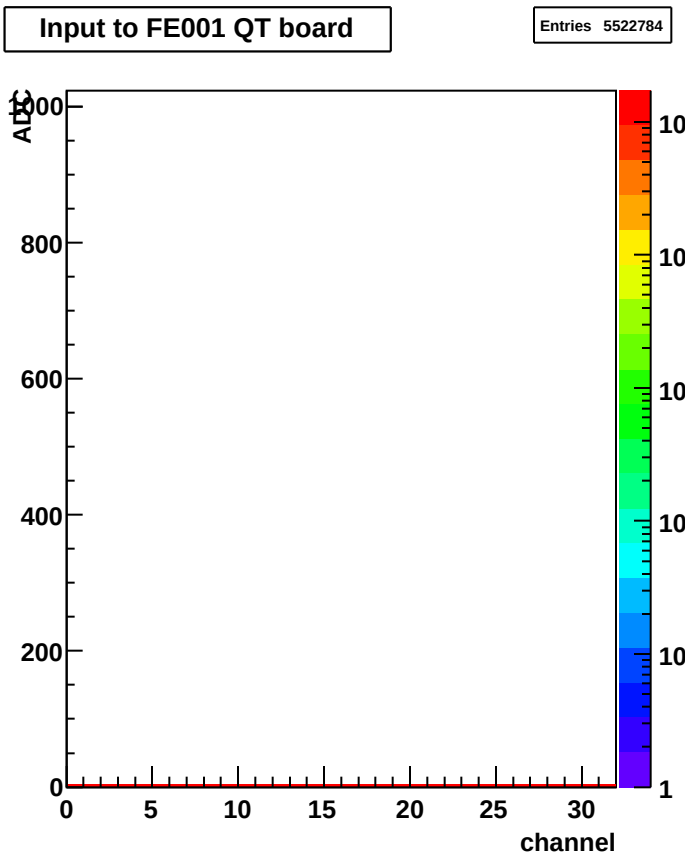

Input to FPD L2 DSM
Entries 517761
CL bits
172587
172587
172587
SMALL
LARGE-S
LARGE-N

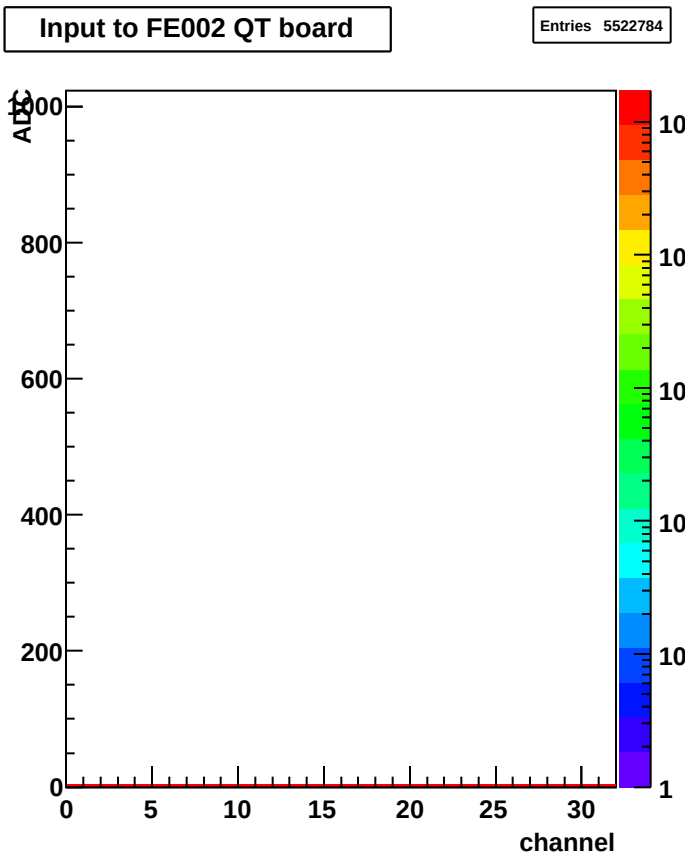

Input to FPD L2 DSM
Entries 517761
CL bits - simulated
172587
172587
172587
SMALL
LARGE-S
LARGE-N

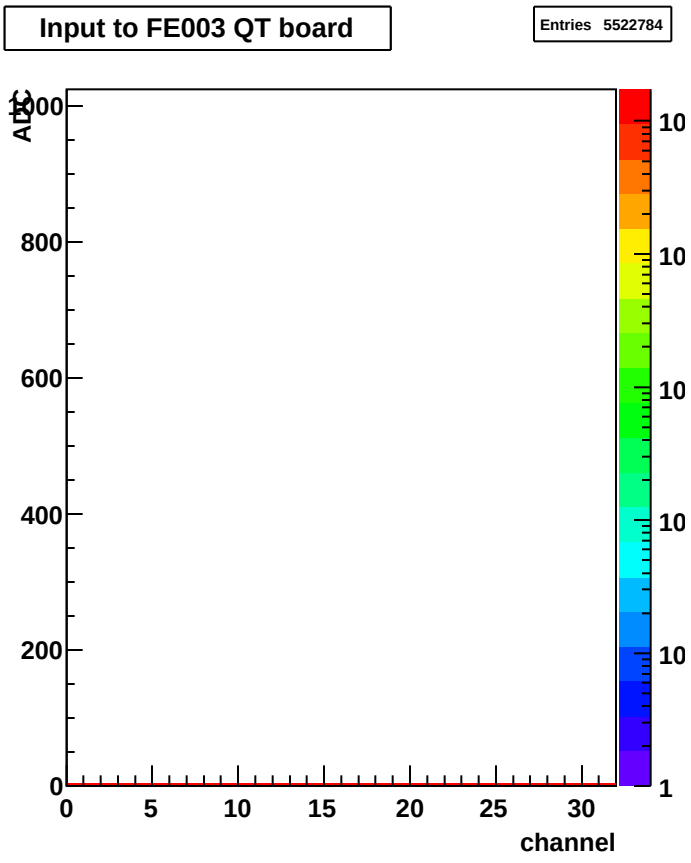

Input to FPD L2 DSM
Entries 517761
HT bits
172587
172587
172587
SMALL
LARGE-S
LARGE-N

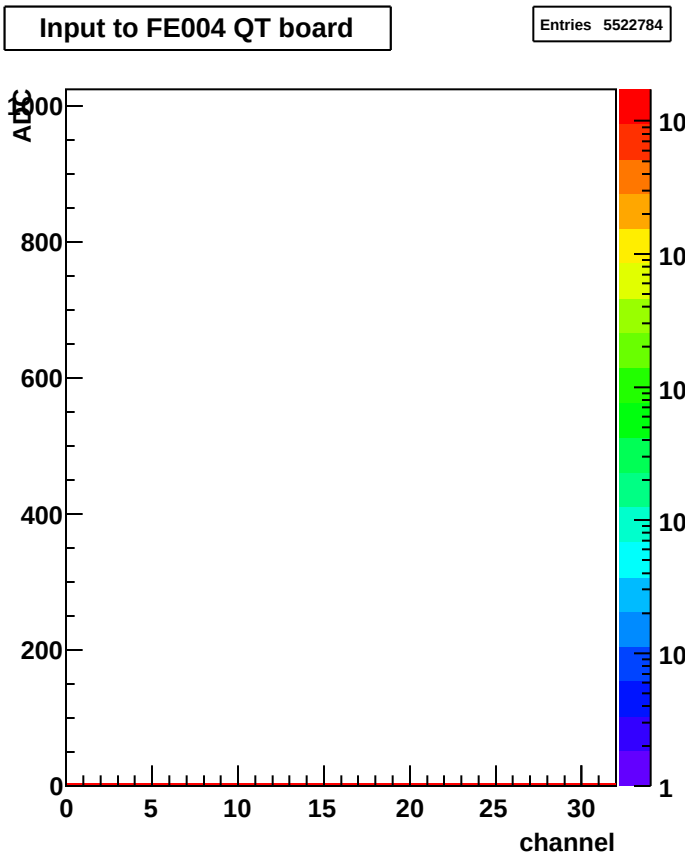

Input to FPD L2 DSM
Entries 517761
HT bits - simulated
172587
172587
172587
SMALL
LARGE-S
LARGE-N

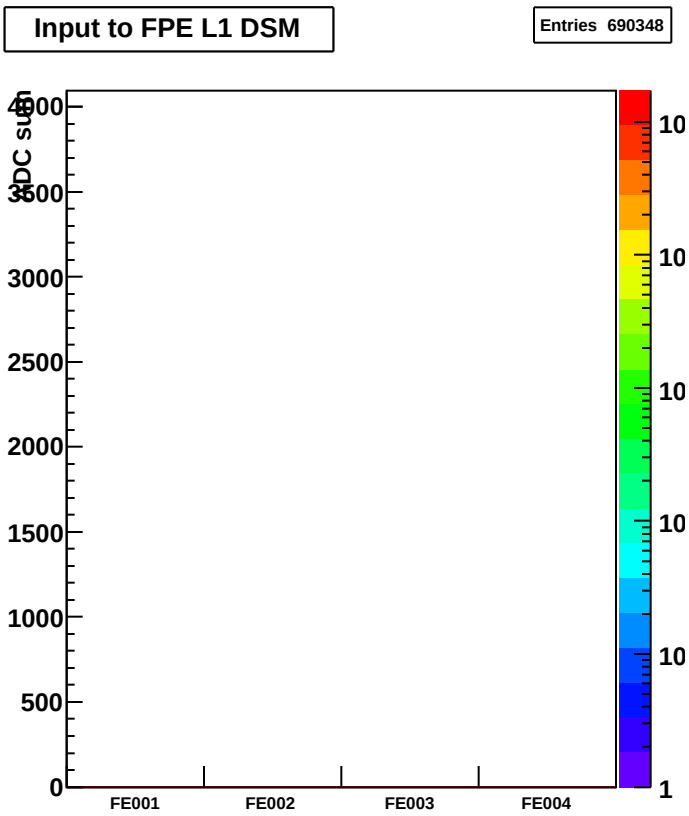

Input to FPD L2 DSM
Entries 1035522
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

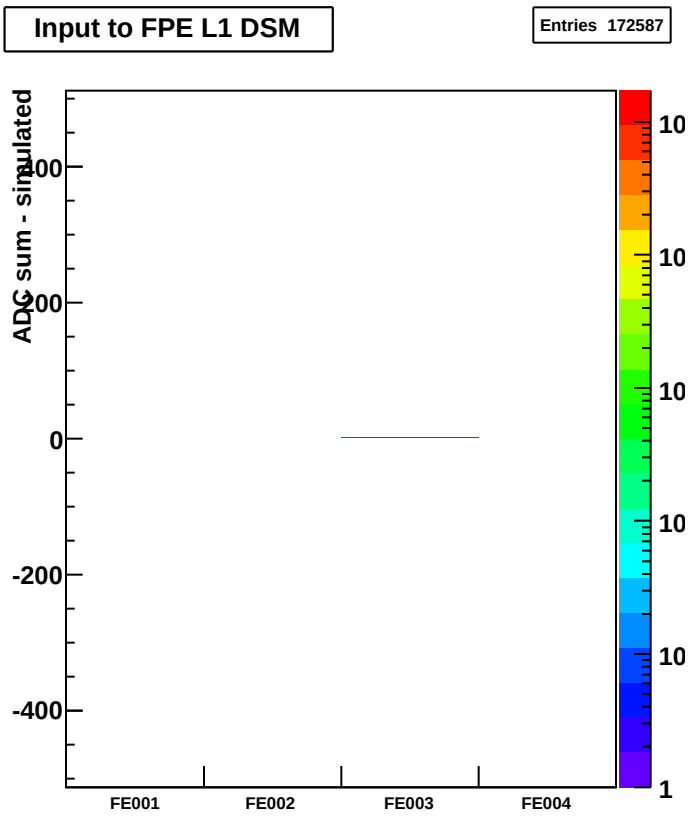

Input to FE001 QT board
Entries 5522784
ADC
channel


Input to FE002 QT board
Entries 5522784
ADC
channel

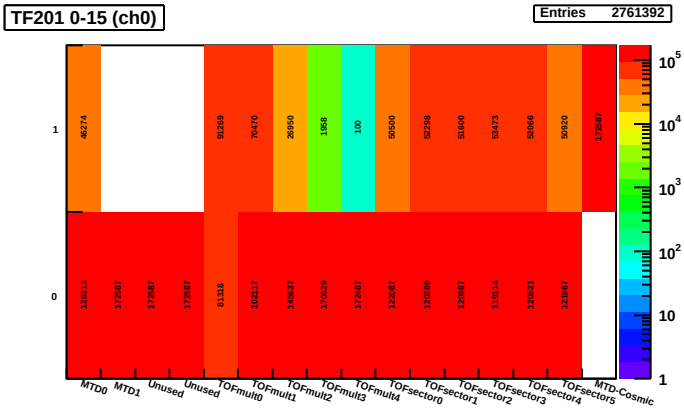

Input to FE003 QT board
Entries 5522784
ADC
channel


Input to FE004 QT board
Entries 5522784
ADC
channel

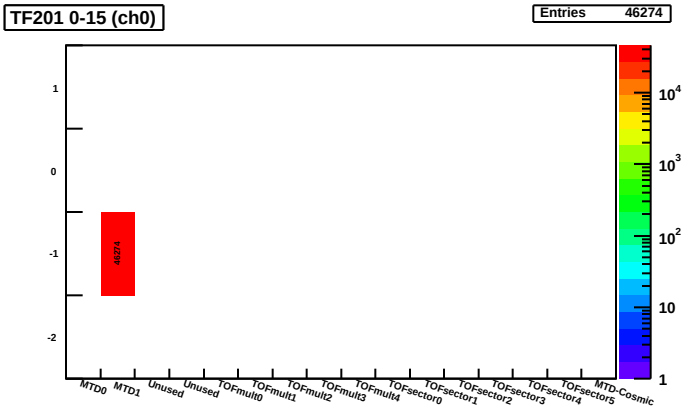

Input to FPE L1 DSM
Entries 690348
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1


Input to FPE L1 DSM
Entries 172587
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1

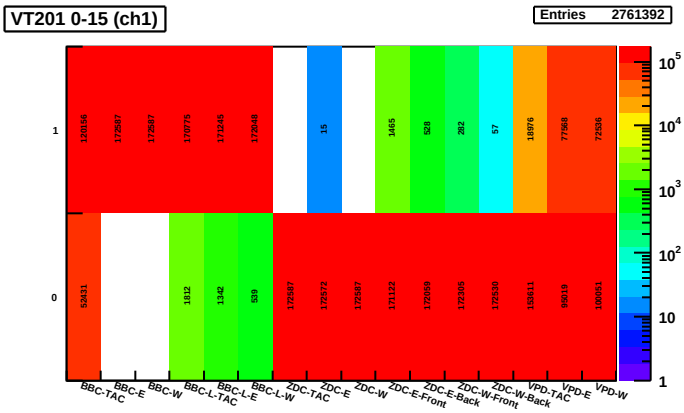
TF201 0-15 (ch0)



TF201 0-15 (ch0)



VT201 0-15 (ch1)



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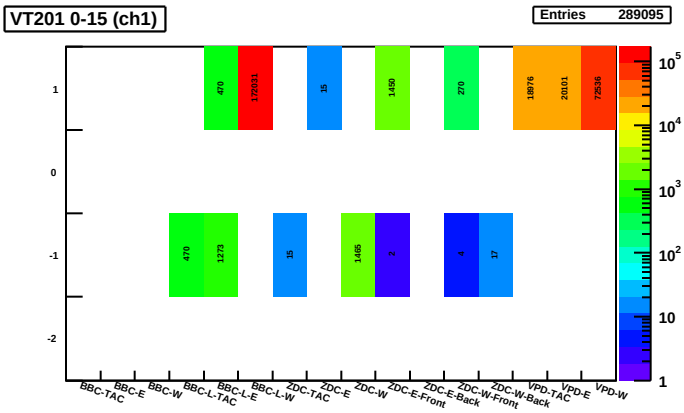

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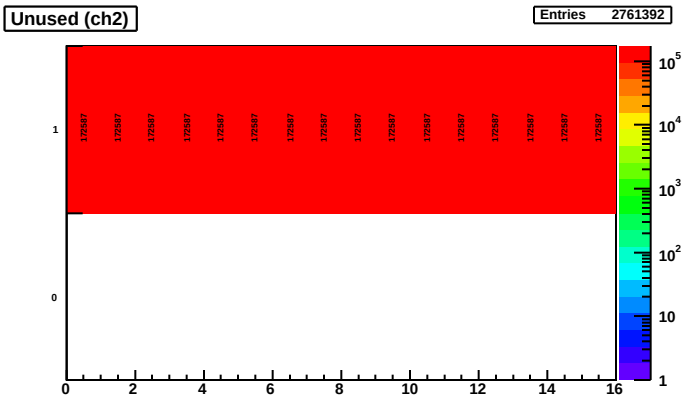

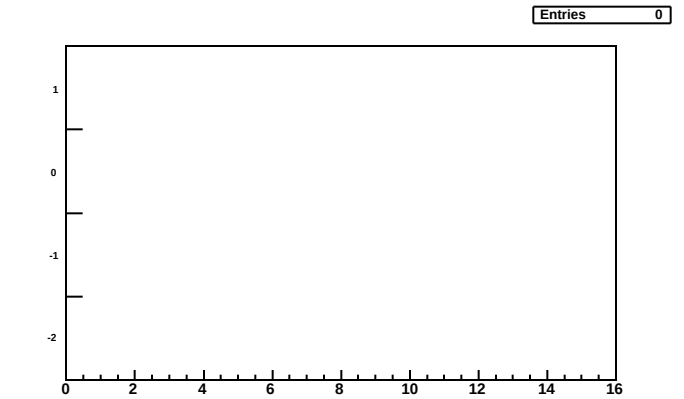

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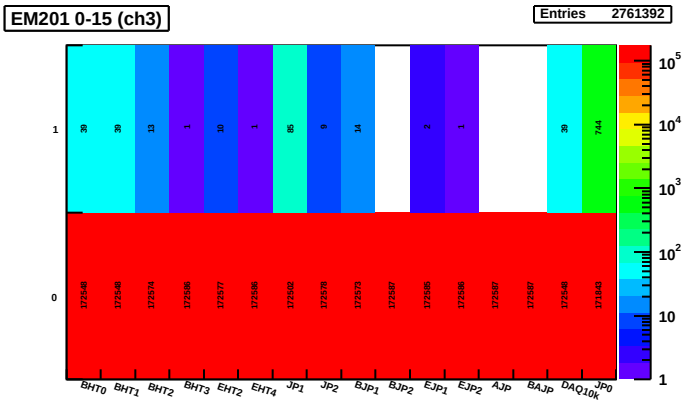

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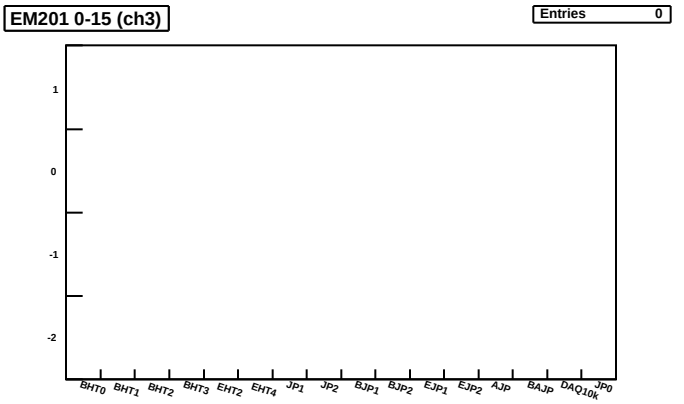
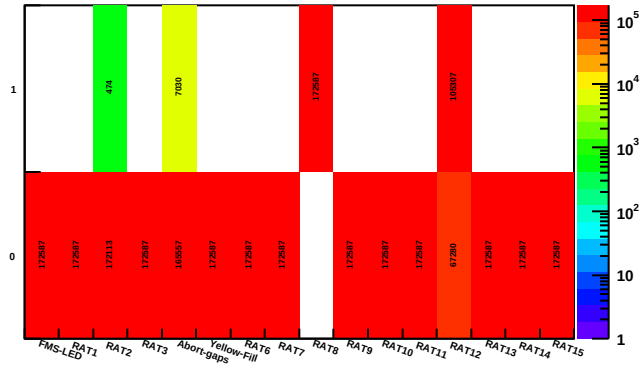
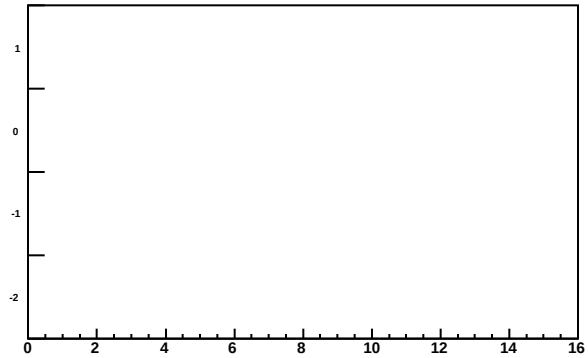


RAT board (ch4)





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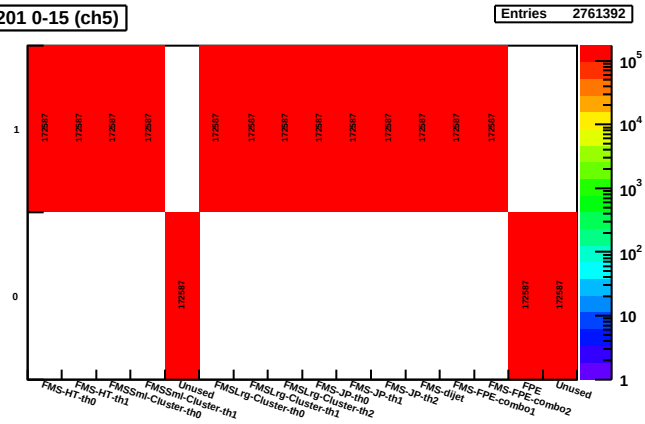

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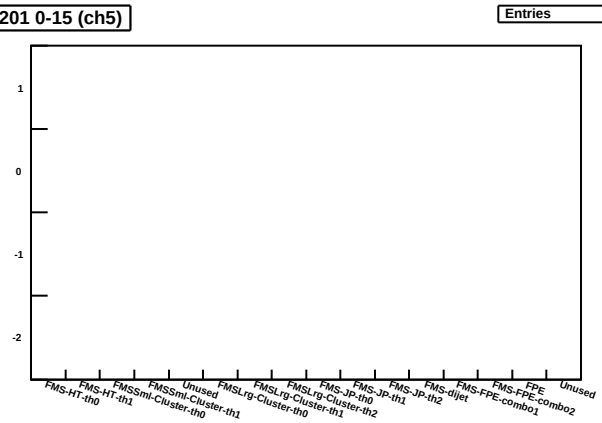

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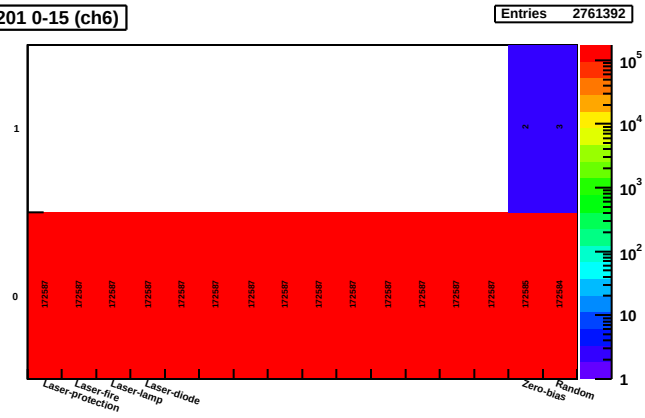

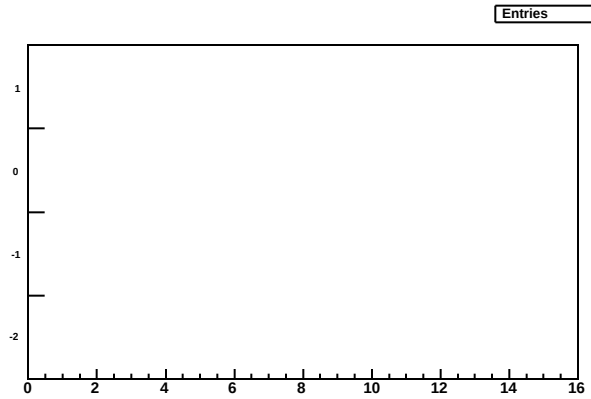
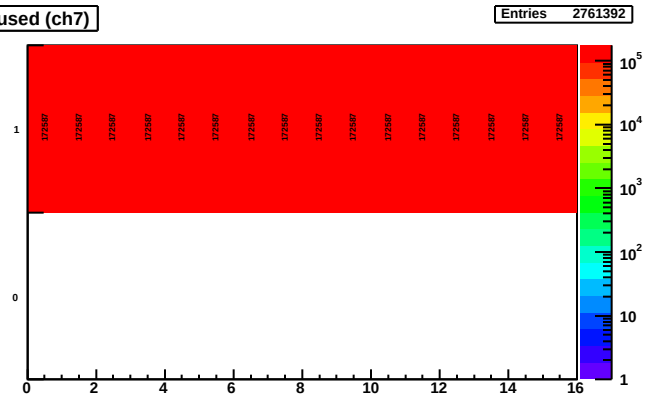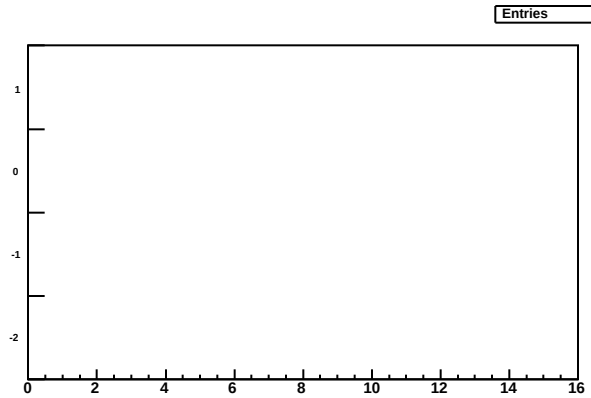
Unused (ch7)