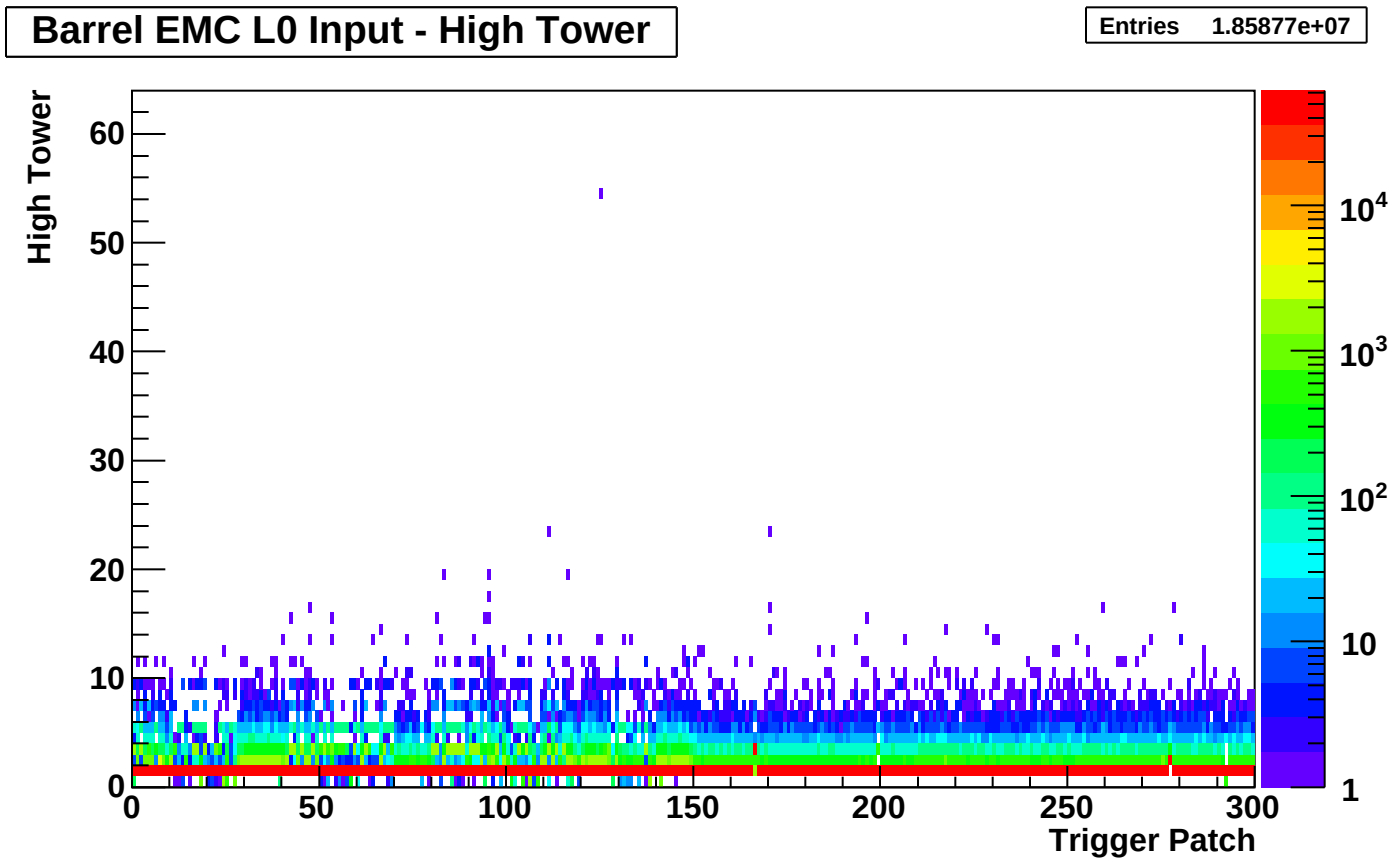
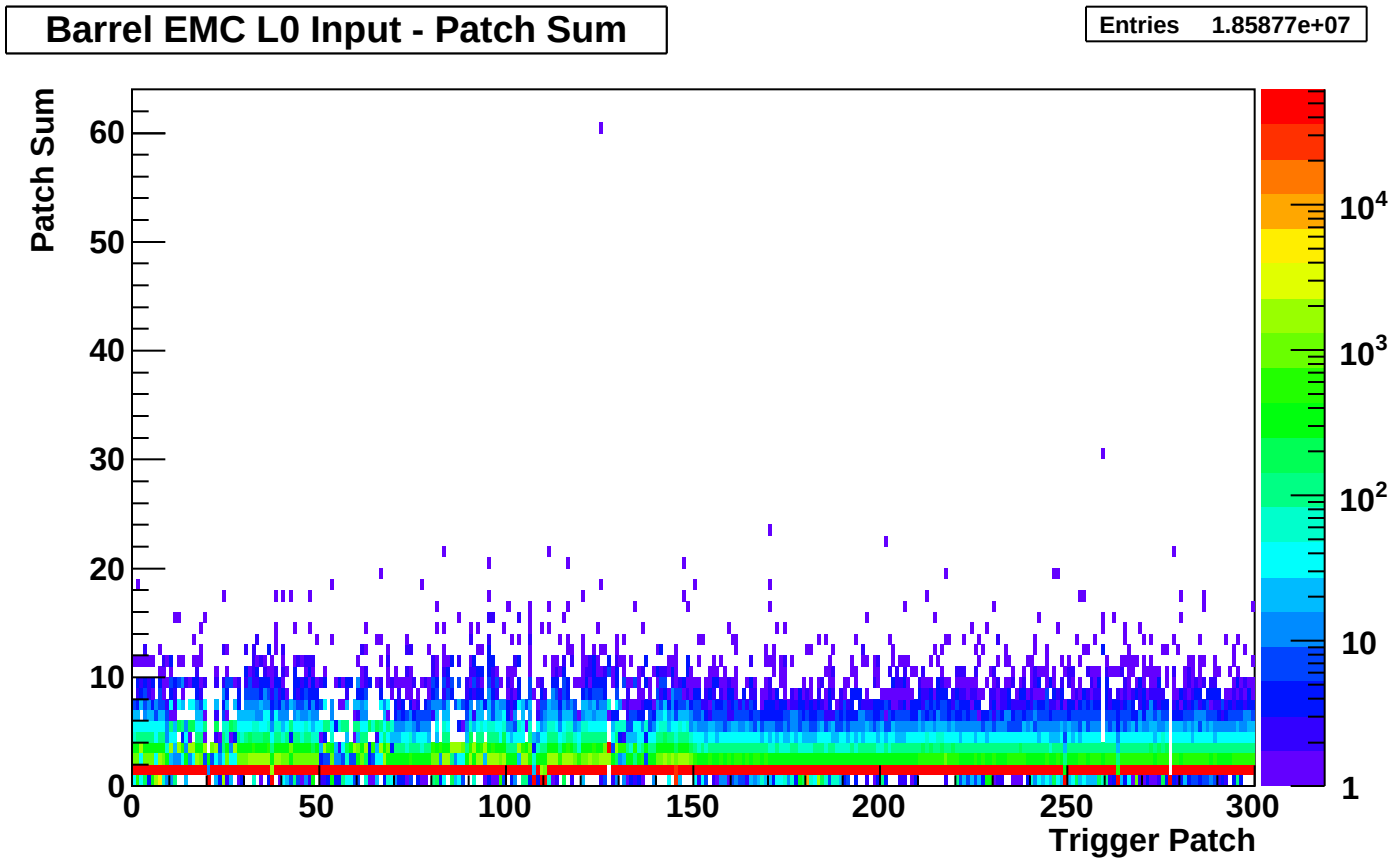
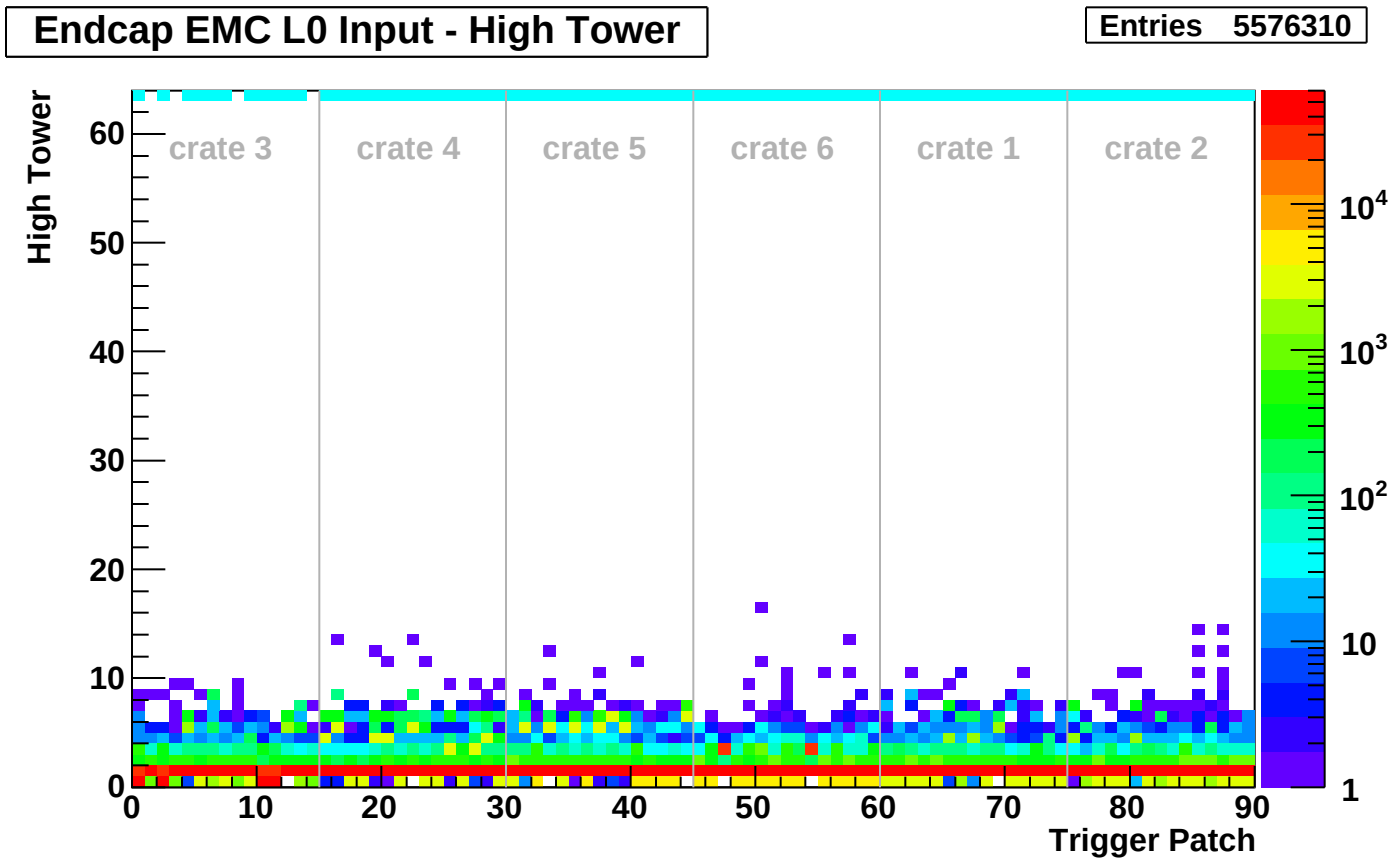
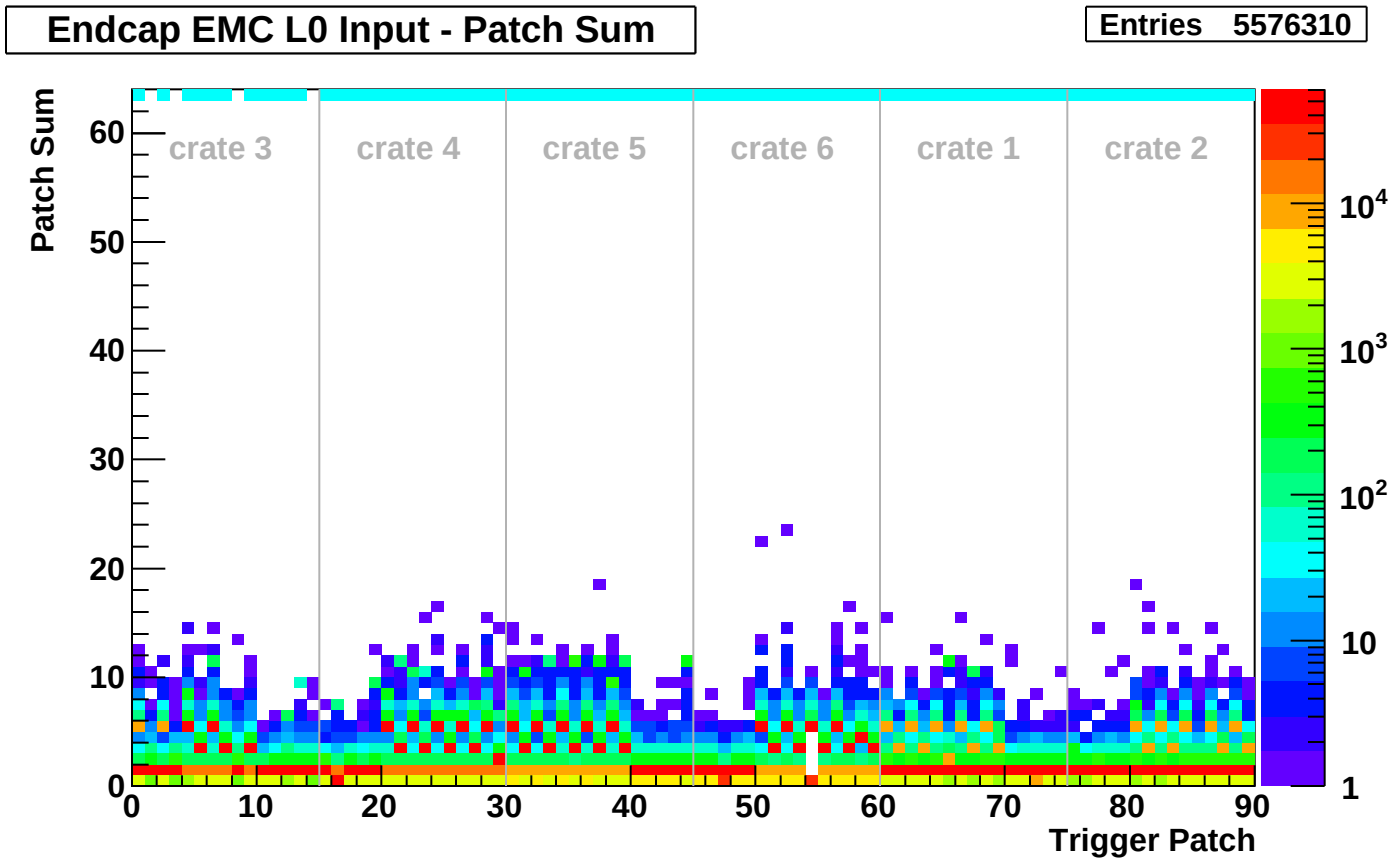
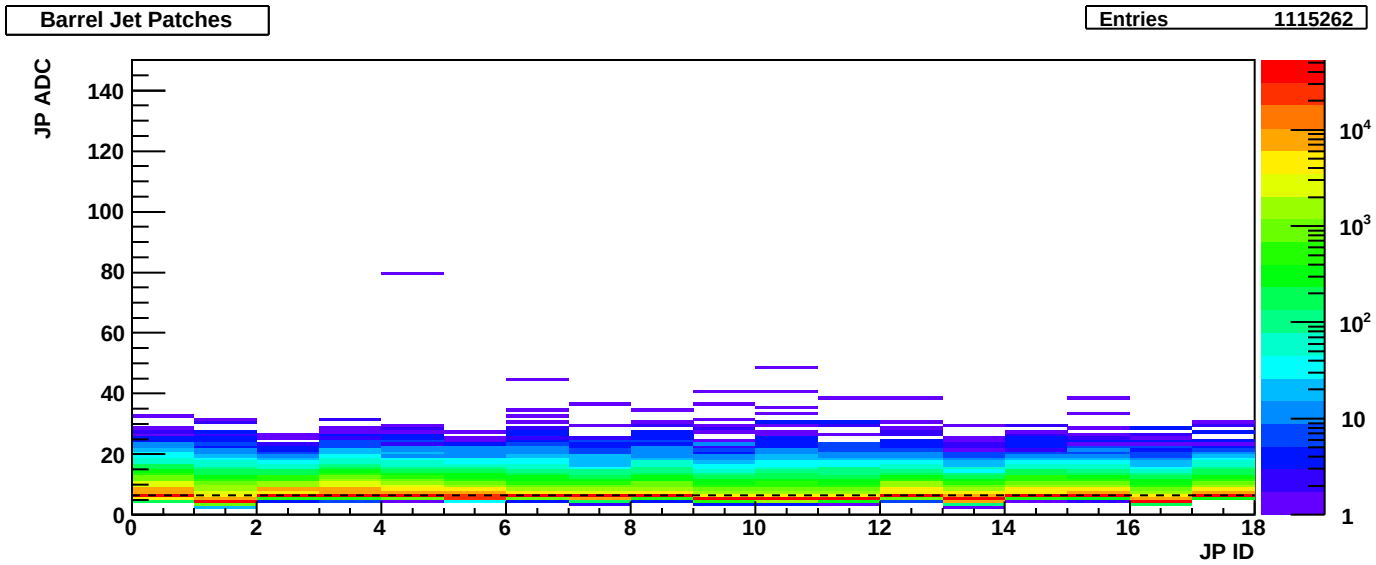
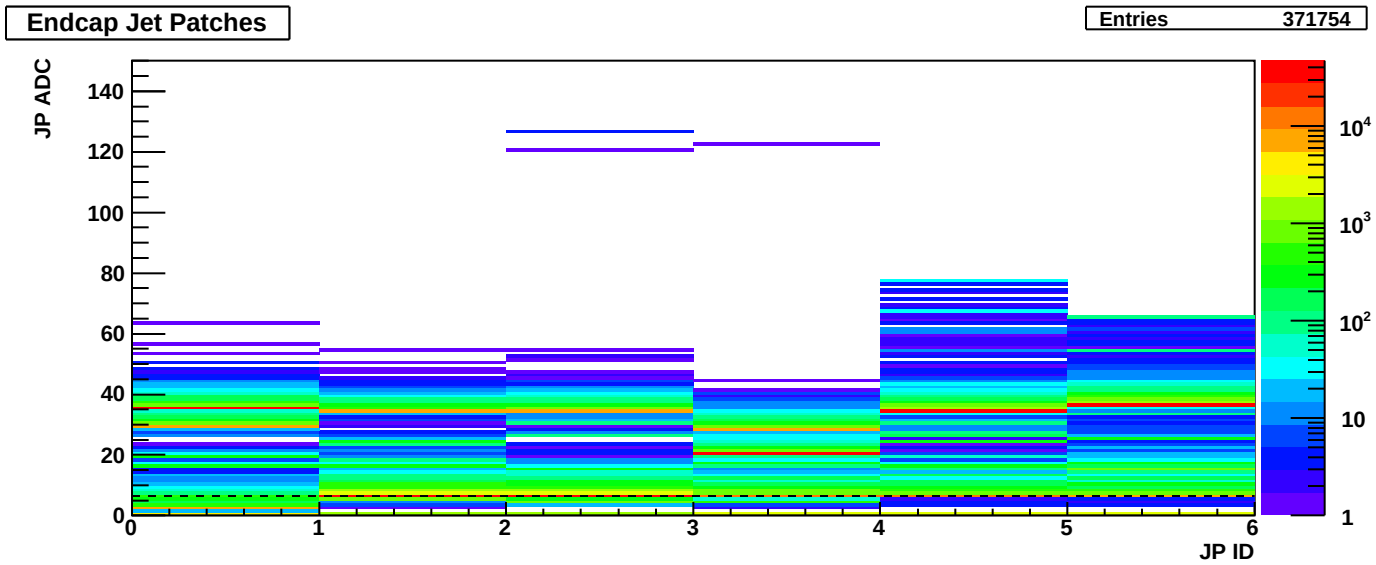

Barrel EMC L0 Input - High Tower
Entries 1.85877e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

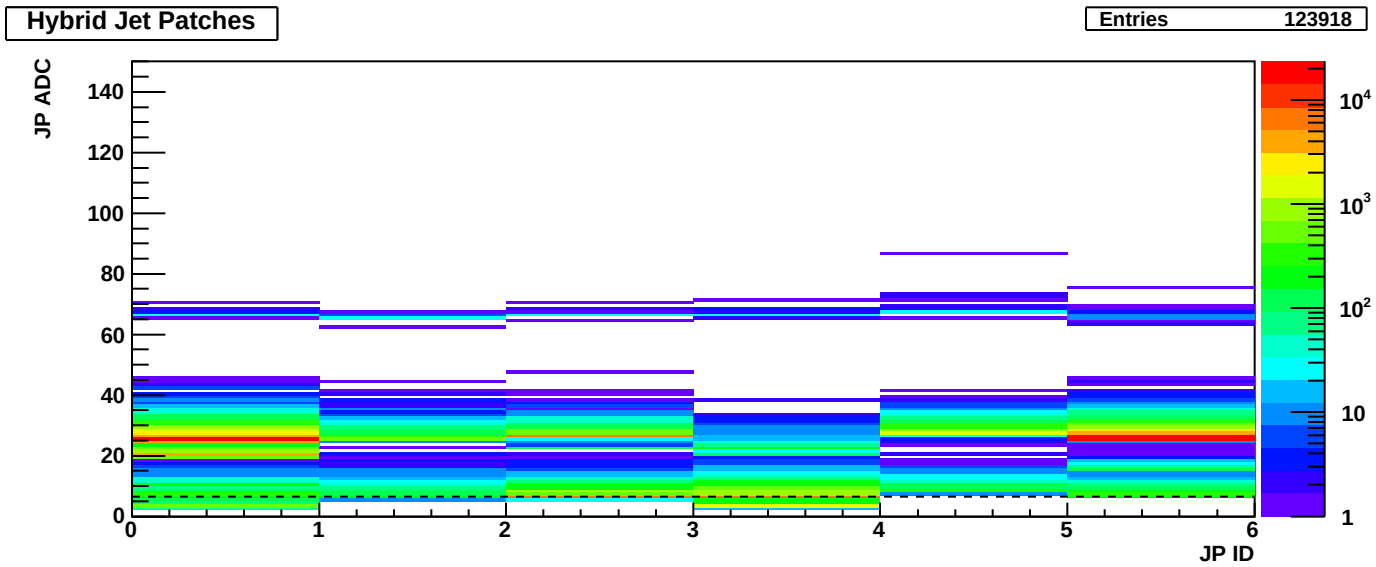

Barrel EMC L0 Input - Patch Sum
Entries 1.85877e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

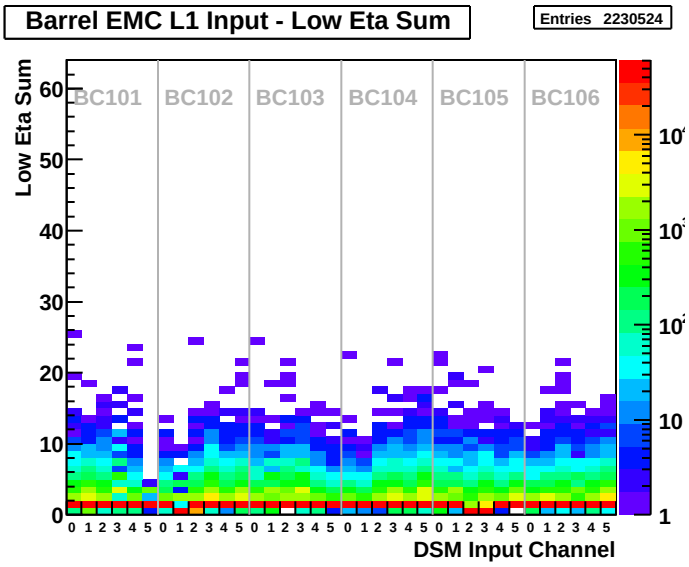

Endcap EMC L0 Input - High Tower
Entries 5576310
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

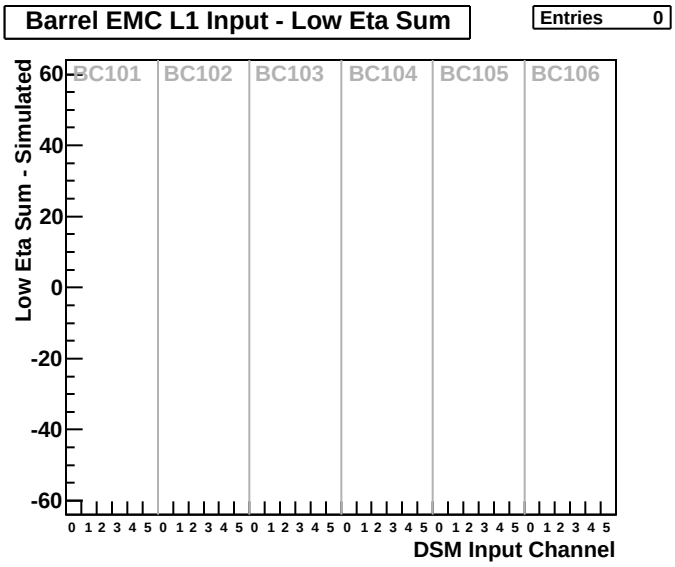

Endcap EMC L0 Input - Patch Sum
Entries 5576310
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

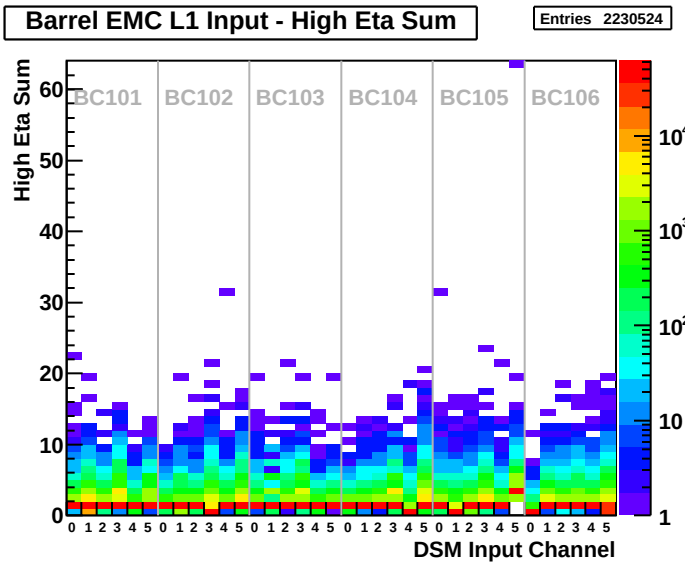

Barrel Jet Patches
Entries 1115262
JP ADC
JP ID

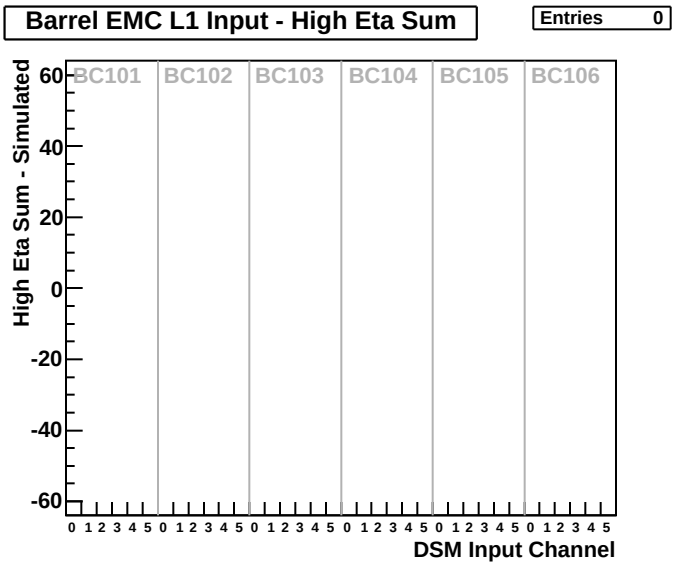

Endcap Jet Patches
Entries 371754
JP ADC
JP ID

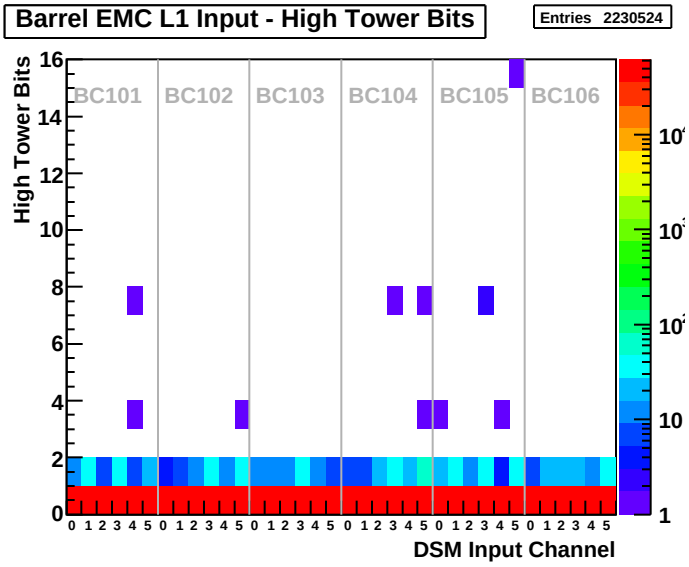

Hybrid Jet Patches
Entries 123918
JP ADC
JP ID

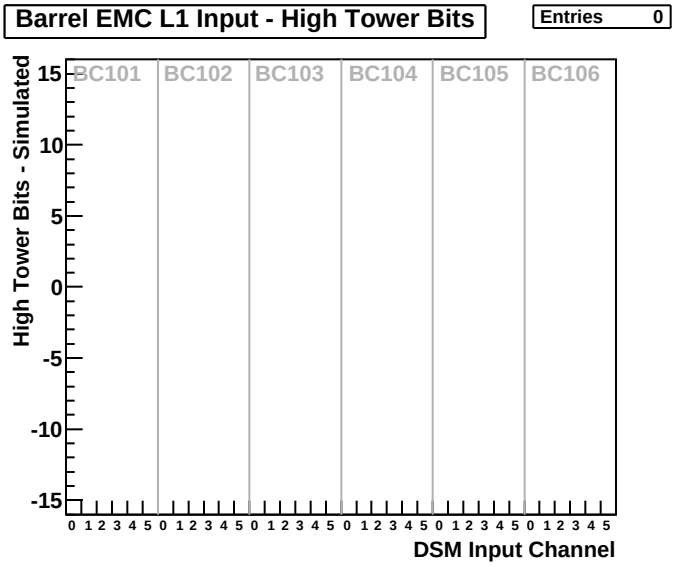

Barrel EMC L1 Input - Low Eta Sum
Entries 2230524
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

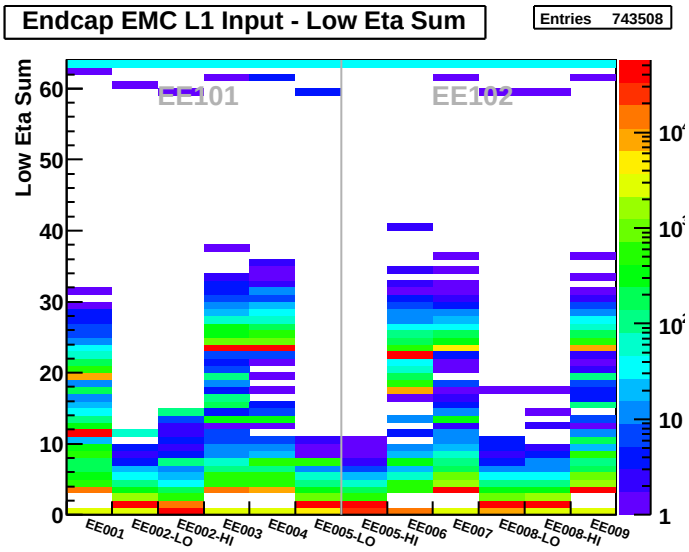

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

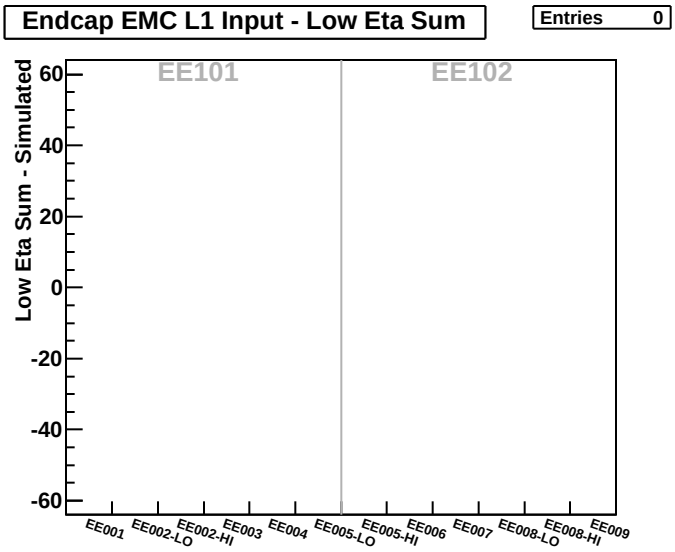

Barrel EMC L1 Input - High Eta Sum
Entries 2230524
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

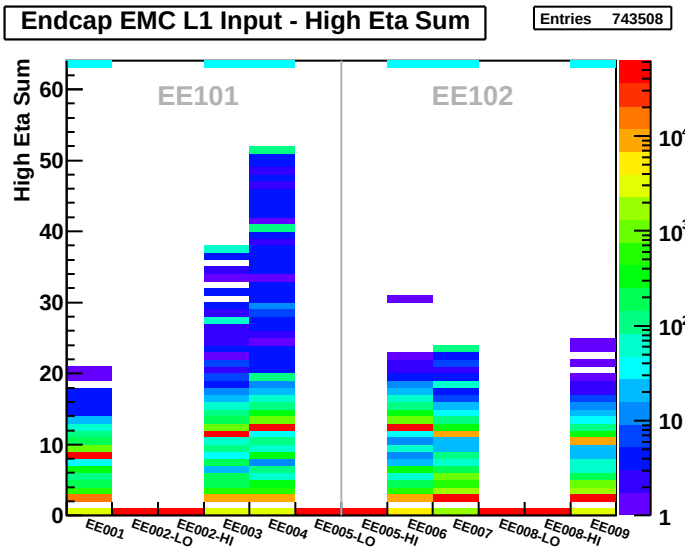

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

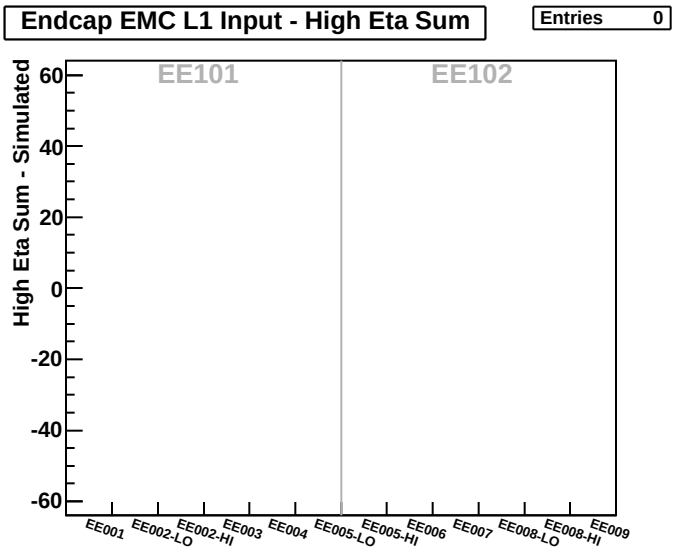

Barrel EMC L1 Input - High Tower Bits
Entries 2230524
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

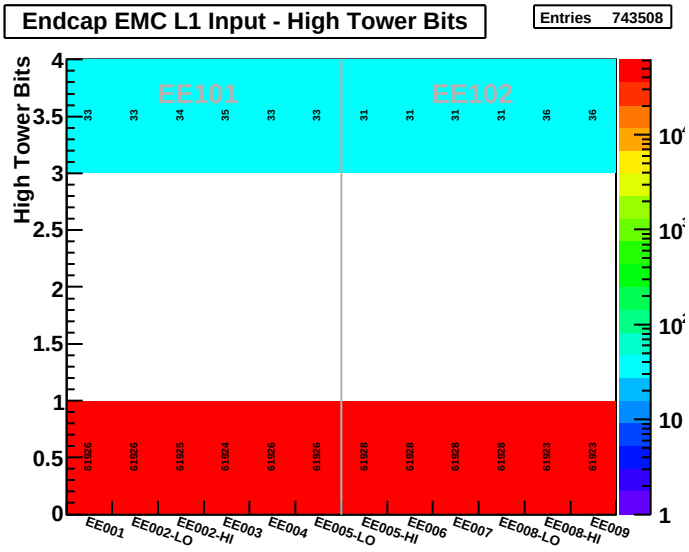

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

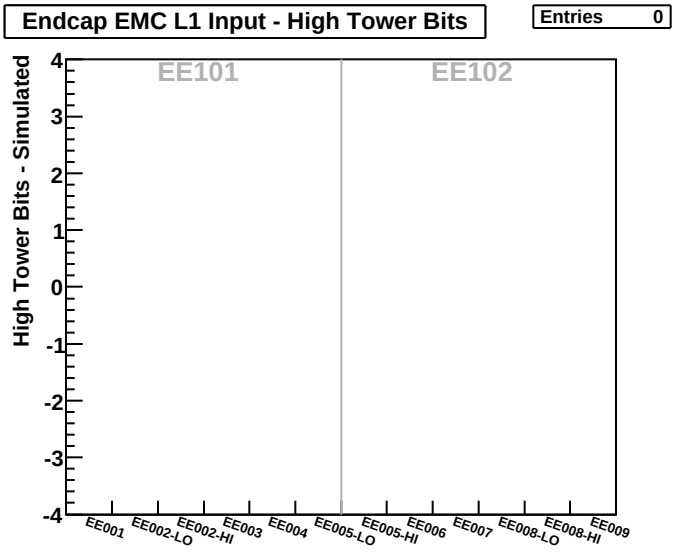

Endcap EMC L1 Input - Low Eta Sum
Entries 743508
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

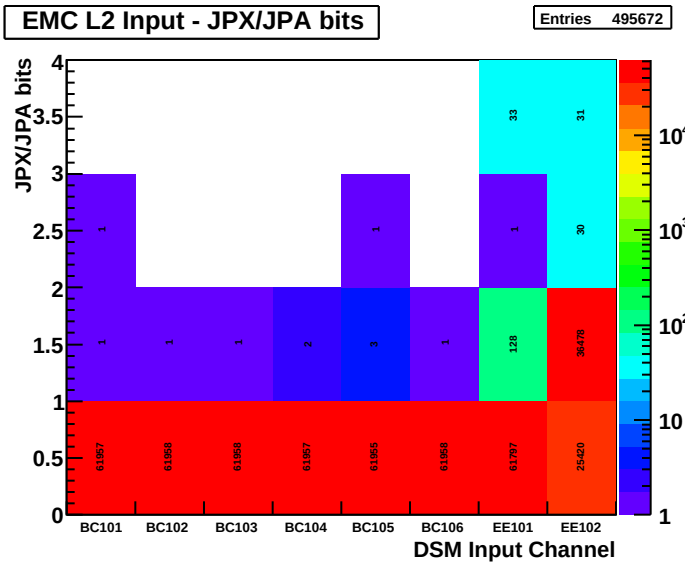

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

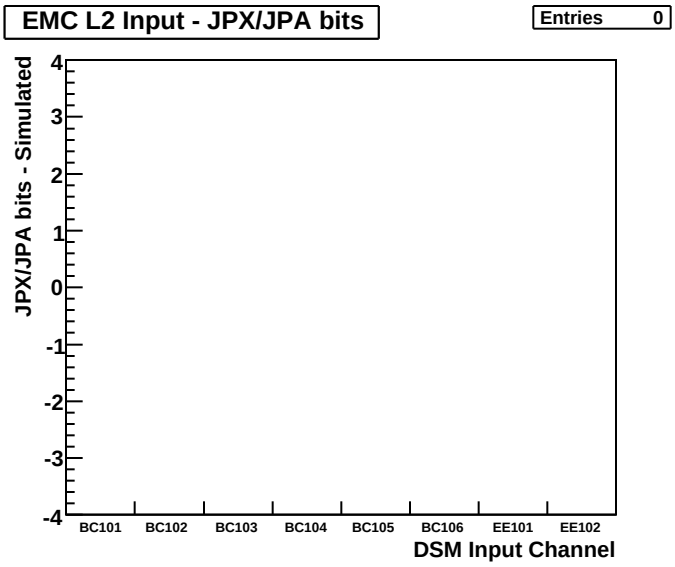

Endcap EMC L1 Input - High Eta Sum
Entries 743508
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

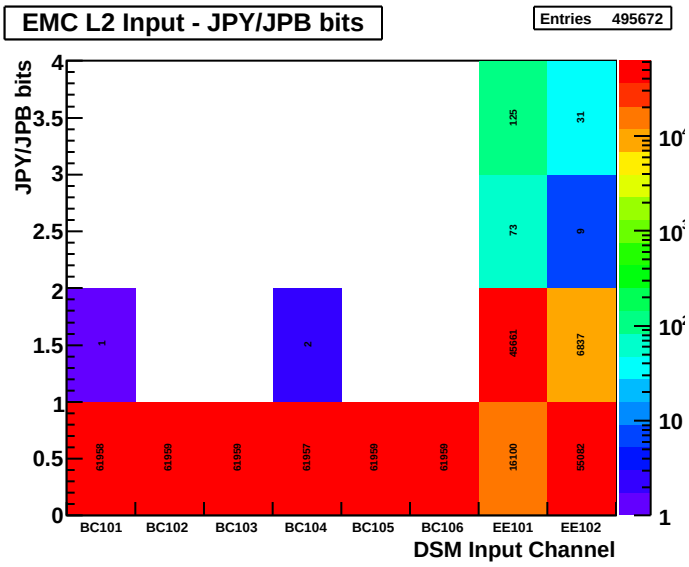

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

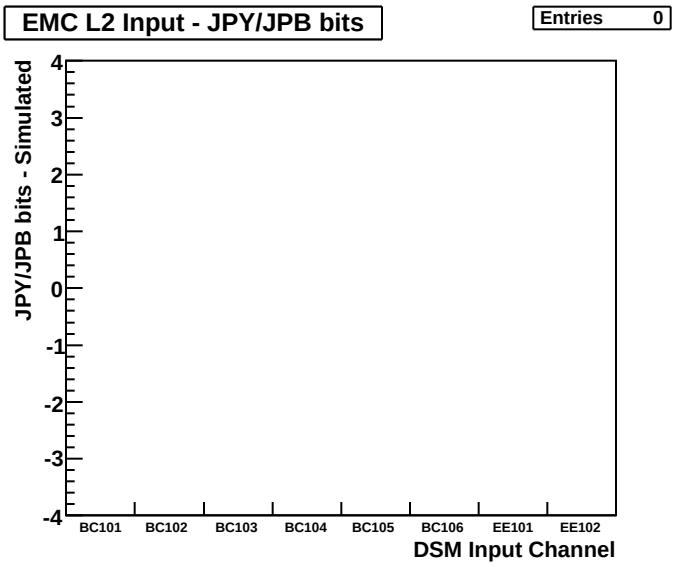

Endcap EMC L1 Input - High Tower Bits
Entries 743508
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

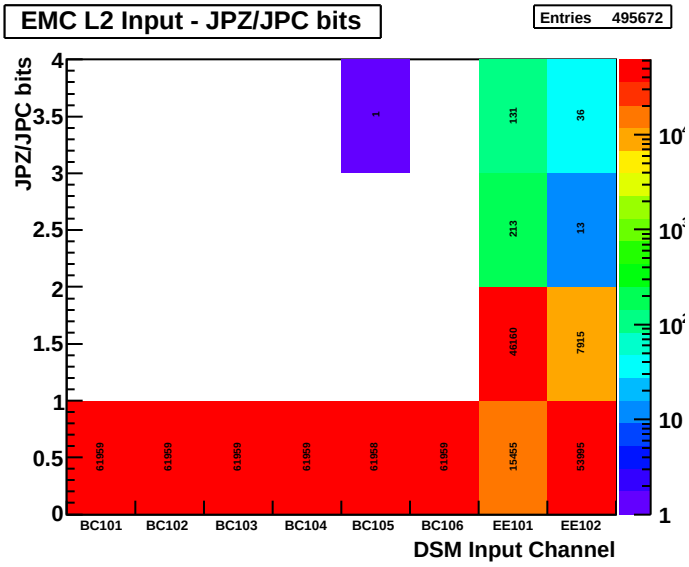

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

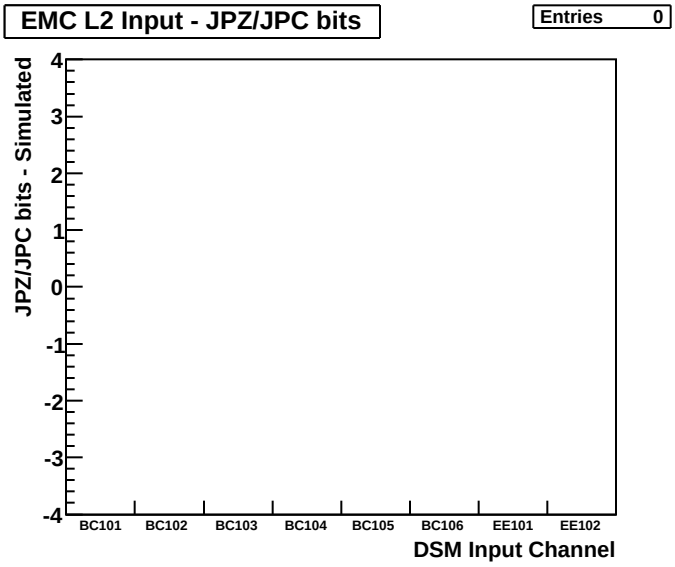

EMC L2 Input - JPX/JPA bits
Entries 495672
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

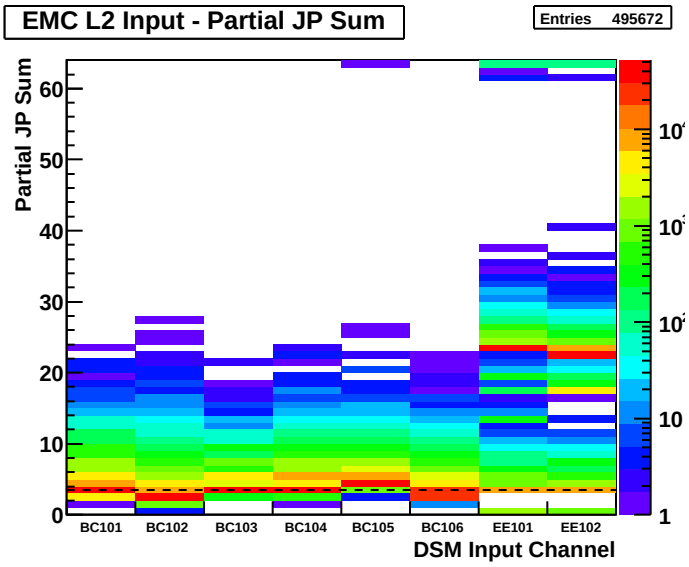

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

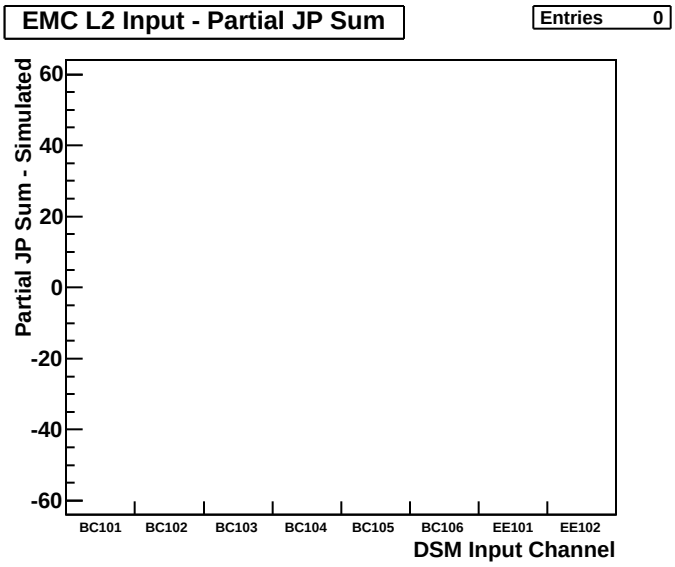

EMC L2 Input - JPY/JPB bits
Entries 495672
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

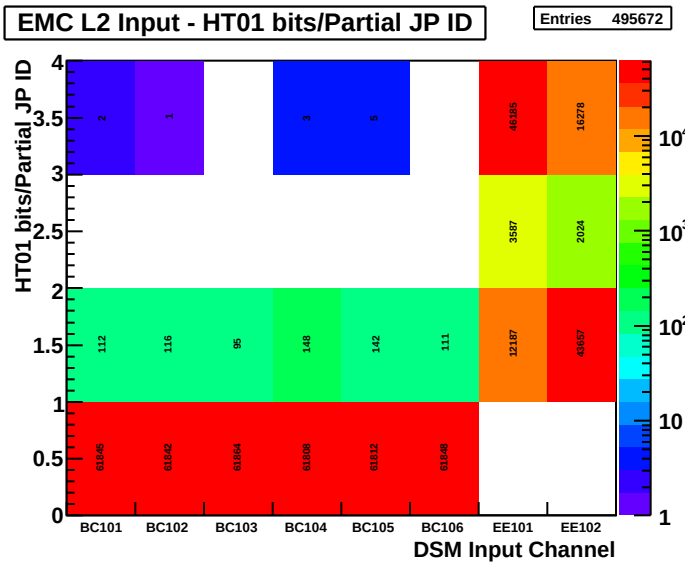

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

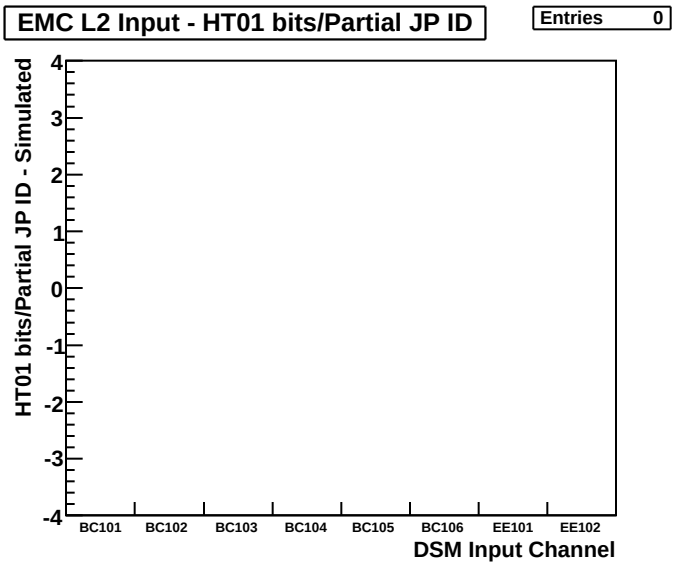

EMC L2 Input - JPZ/JPC bits
Entries 495672
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

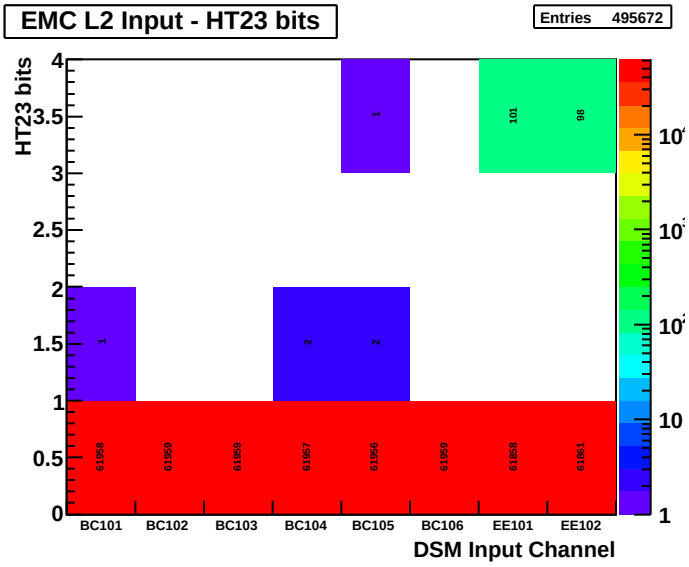

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

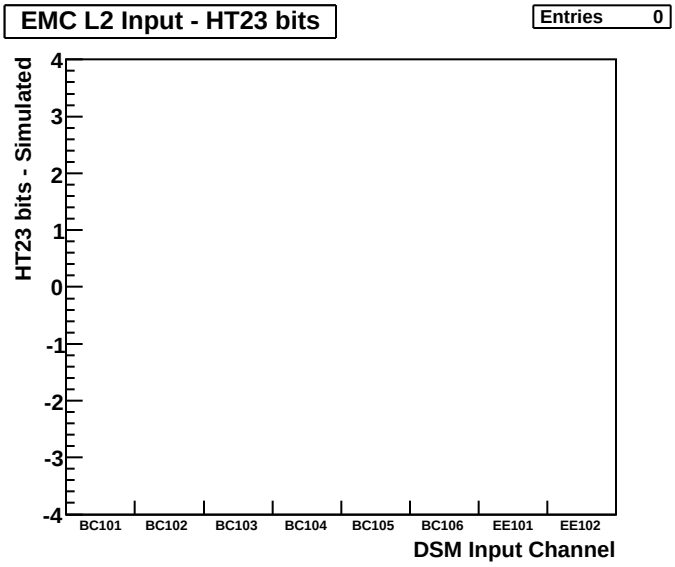

EMC L2 Input - Partial JP Sum
Entries 495672
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

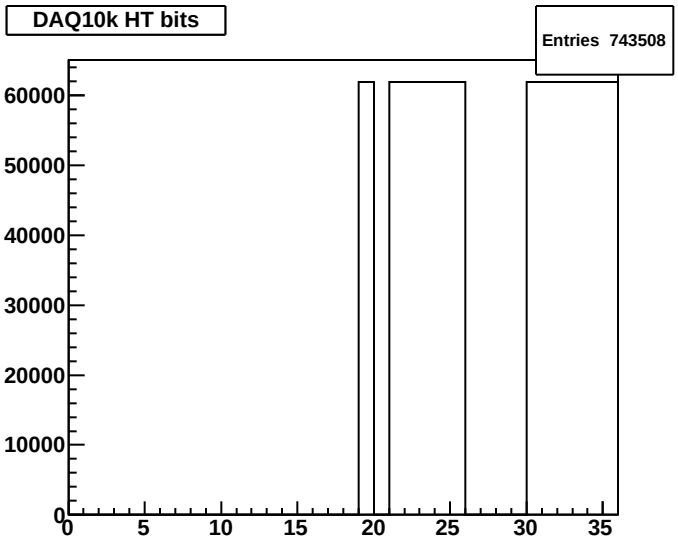

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

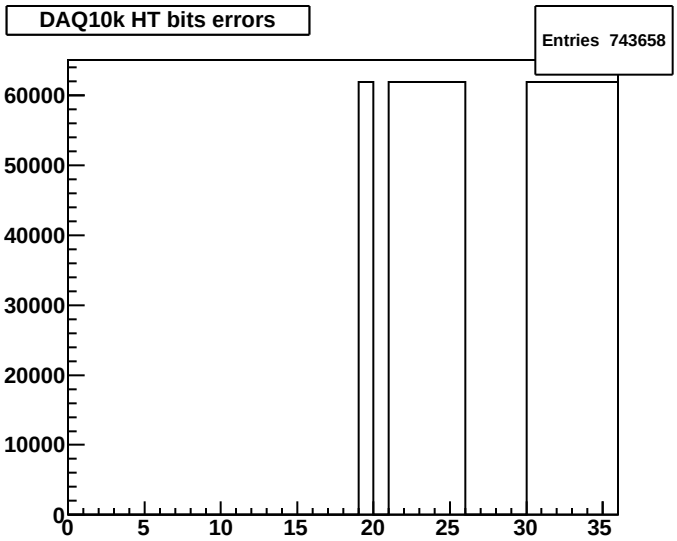

EMC L2 Input - HT01 bits/Partial JP ID
Entries 495672
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

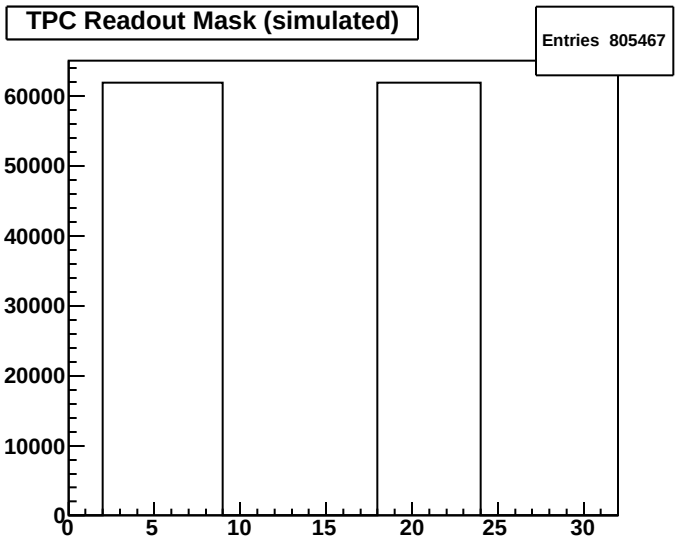

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

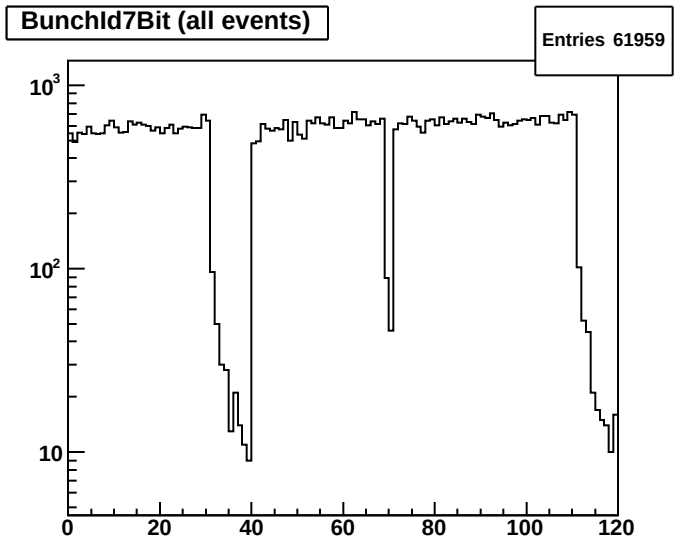

EMC L2 Input - HT23 bits
Entries 495672
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

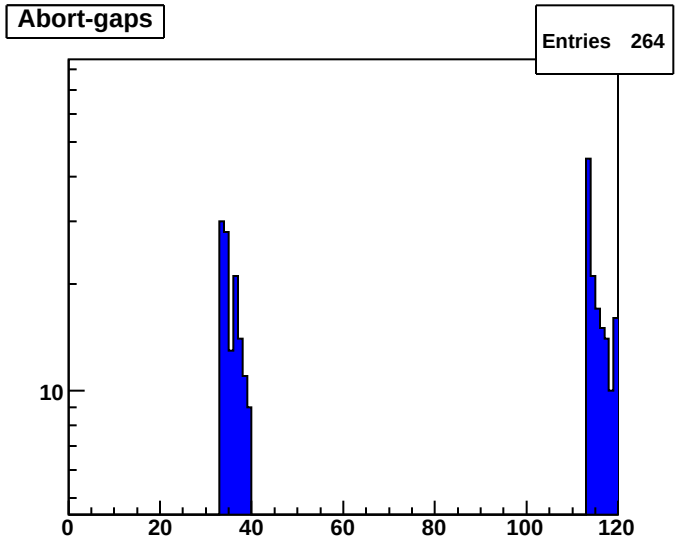

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

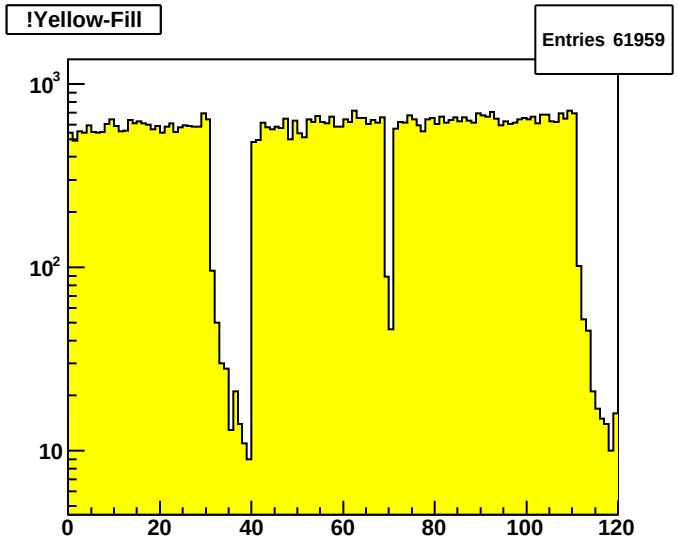

DAQ10k HT bits
Entries 743508
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

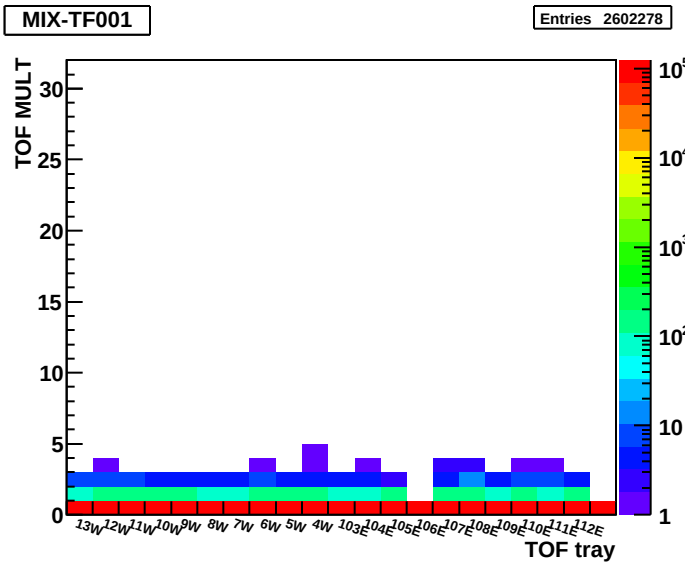

DAQ10k HT bits errors
Entries 743658
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

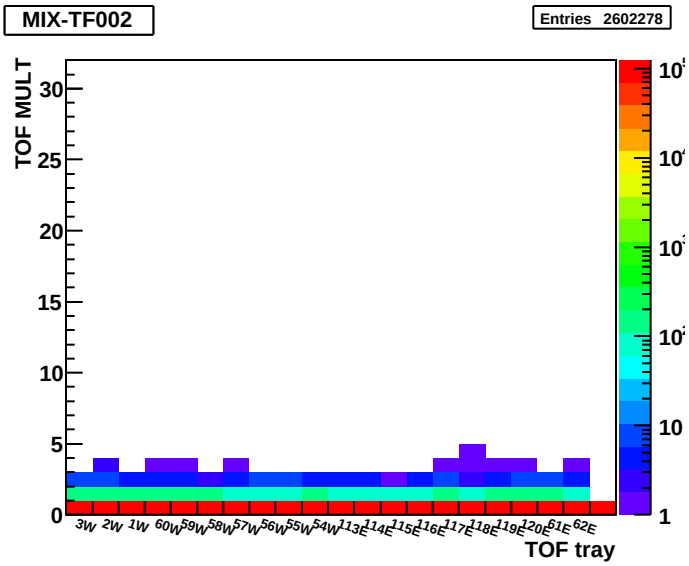

TPC Readout Mask (simulated)
Entries 805467
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30

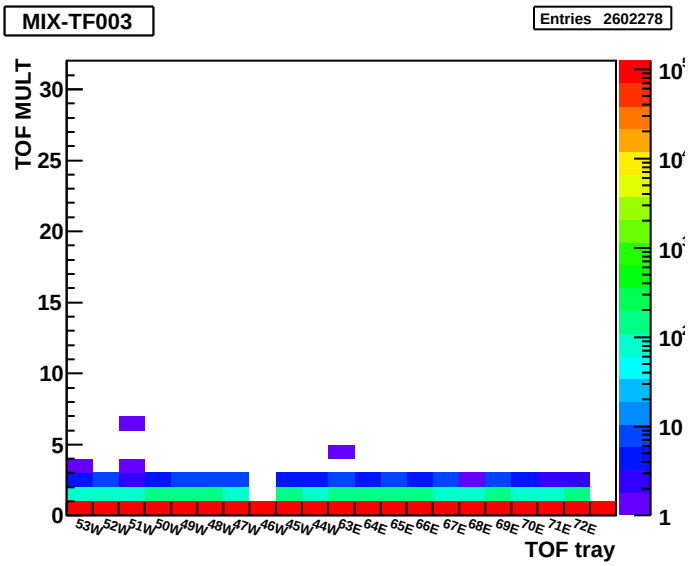

BunchId7Bit (all events)
Entries 61959
10^3
10^2
10
0 20 40 60 80 100 120

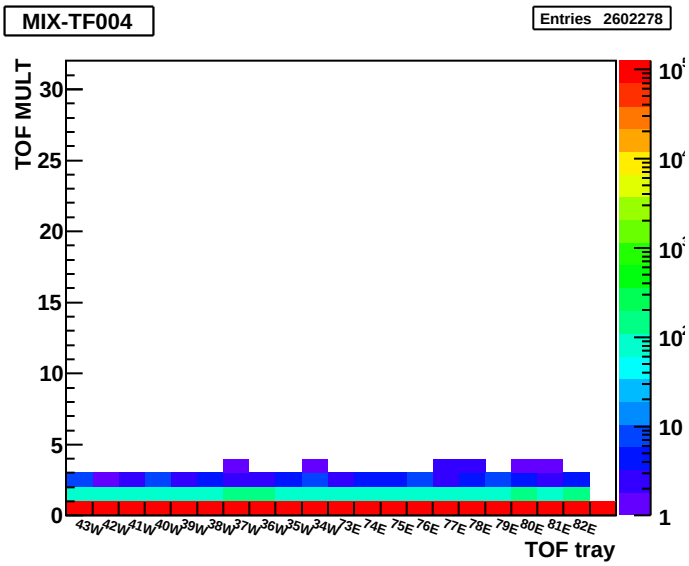

Abort-gaps
Entries 264
10
0 20 40 60 80 100 120

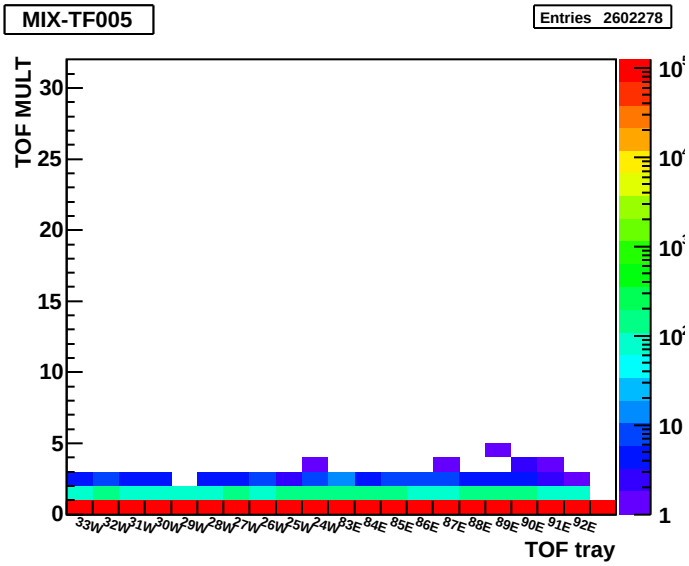

!Yellow-Fill
Entries 61959
10^3
10^2
10
0 20 40 60 80 100 120

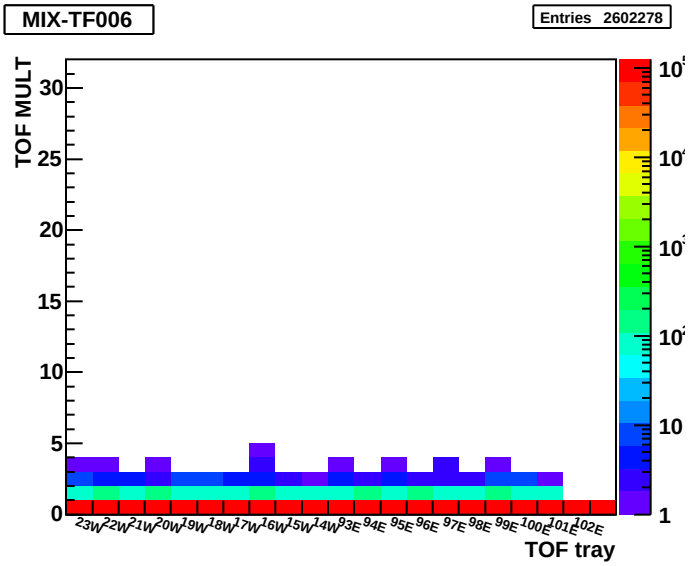

MIX-TF001
Entries 2602278
TOF MULT
TOF tray

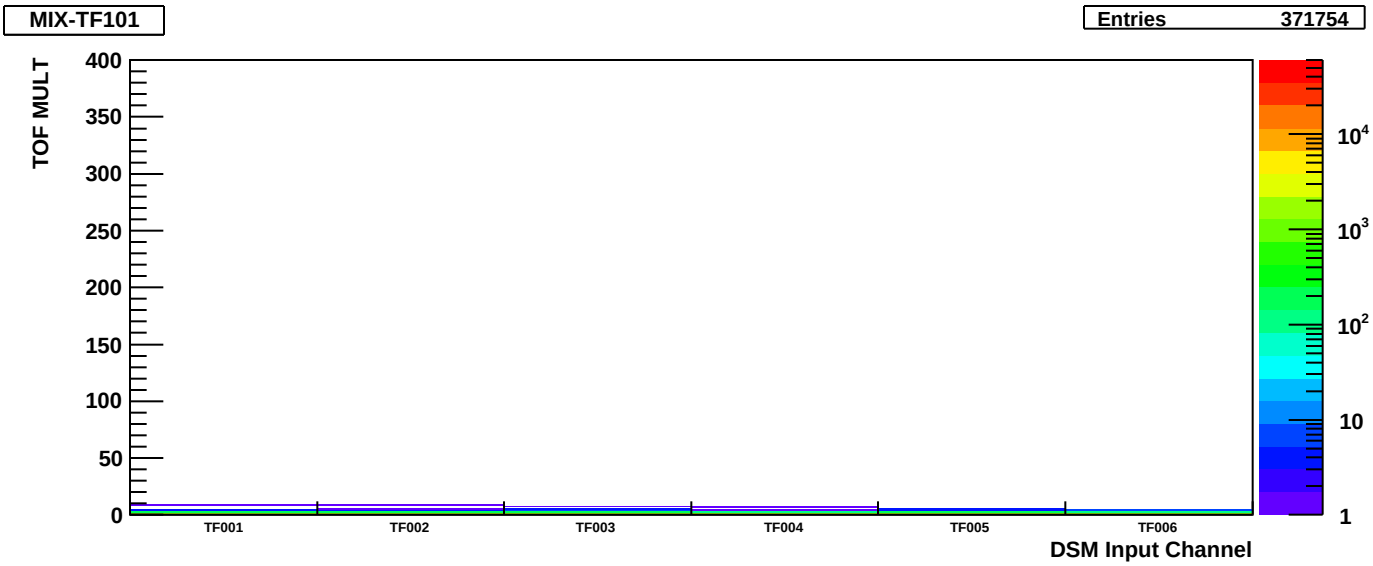

MIX-TF002
Entries 2602278
TOF MULT
TOF tray

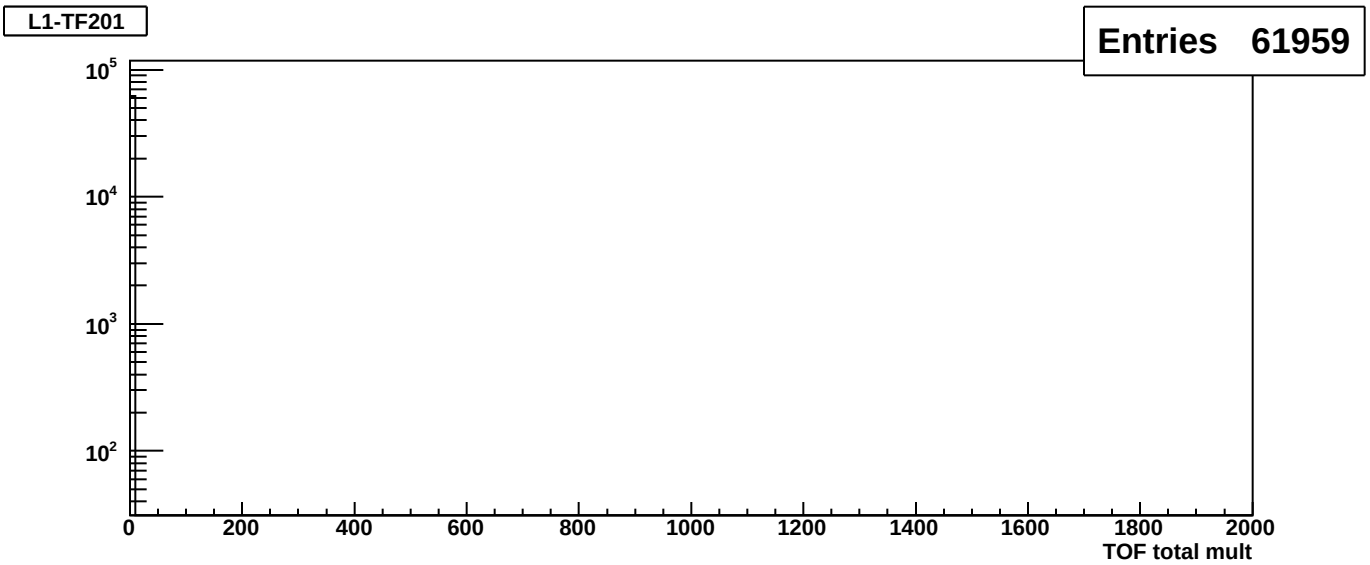

MIX-TF003
Entries 2602278
TOF MULT
TOF tray

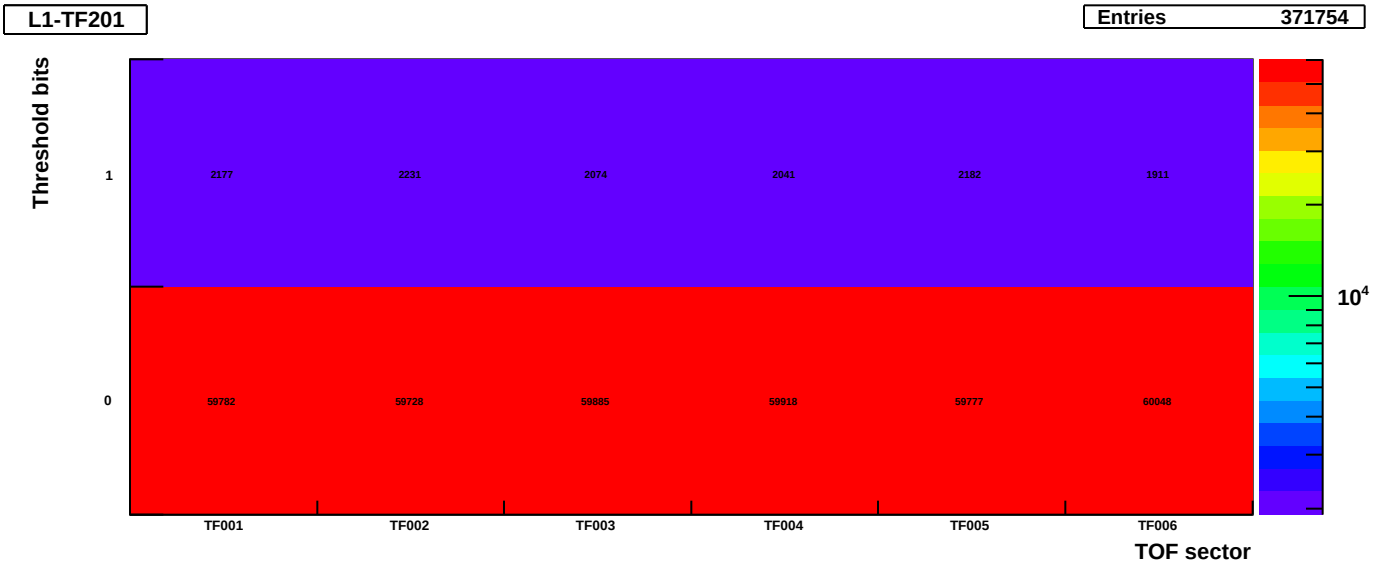

MIX-TF004
Entries 2602278
TOF MULT
TOF tray

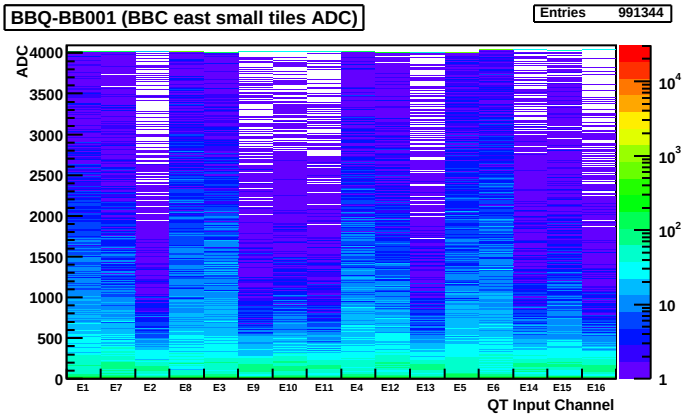

MIX-TF005
Entries 2602278
TOF MULT
TOF tray

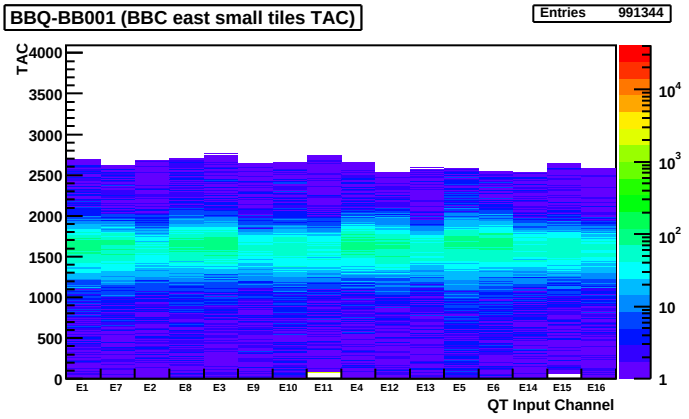

MIX-TF006
Entries 2602278
TOF MULT
TOF tray

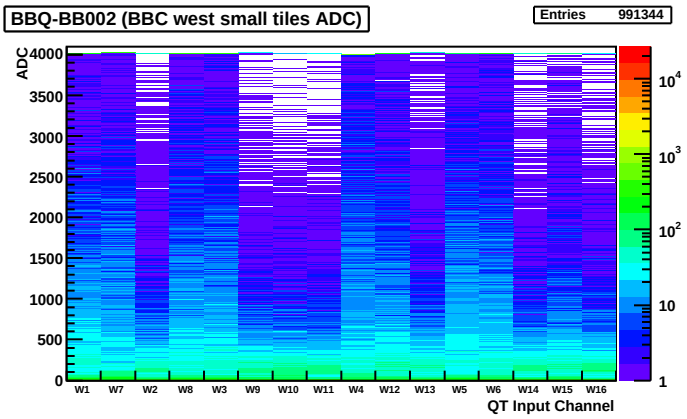

MIX-TF101
Entries 371754
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

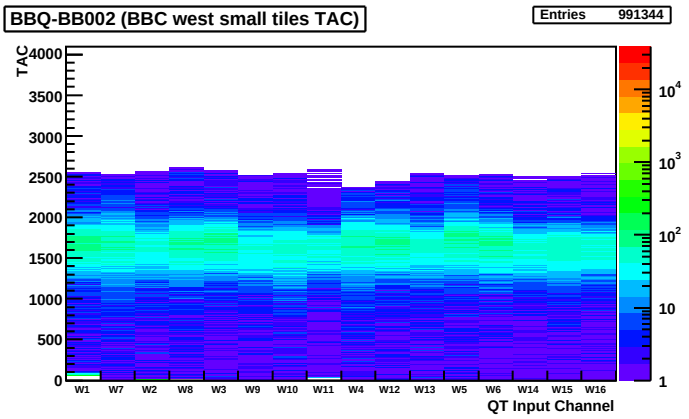

L1-TF201
Entries 61959
10^5
10^4
10^3
10^2
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

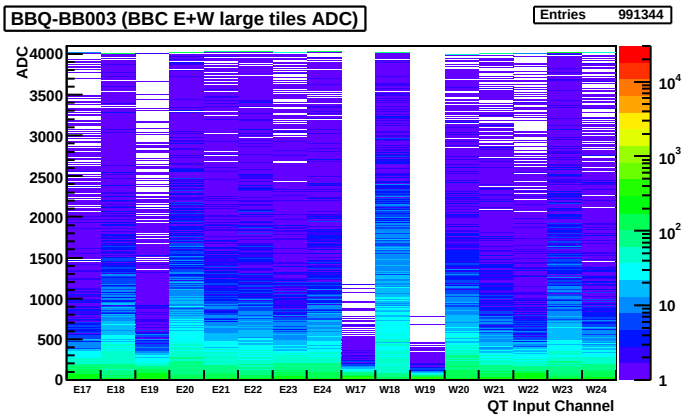

L1-TF201
Entries 371754
Threshold bits
1
0
2177
2231
2074
2041
2182
1911
59782
59728
59885
59918
59777
60048
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

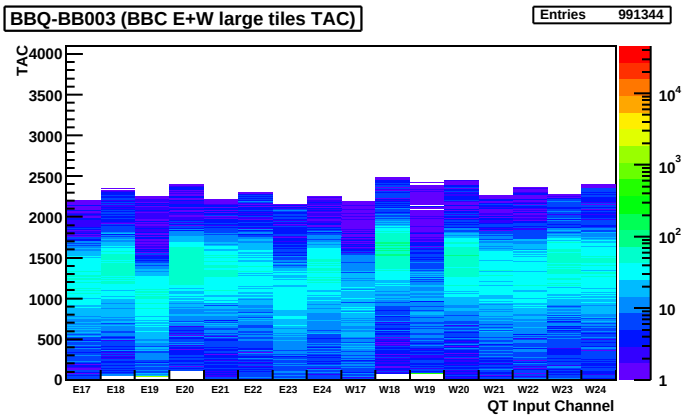

BBQ-BB001 (BBC east small tiles ADC)
Entries 991344
ADC
QT Input Channel

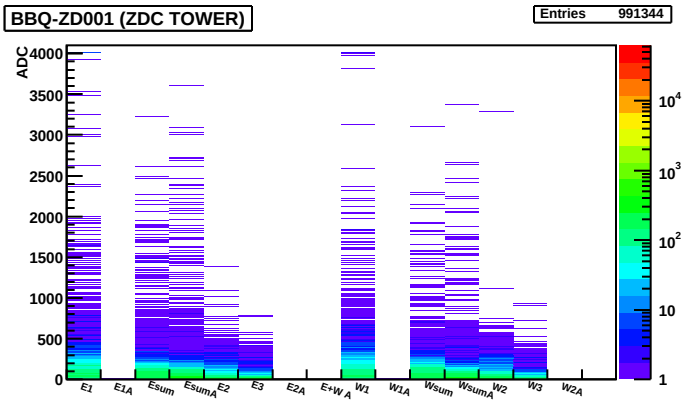

BBQ-BB001 (BBC east small tiles TAC)
Entries 991344
TAC
QT Input Channel

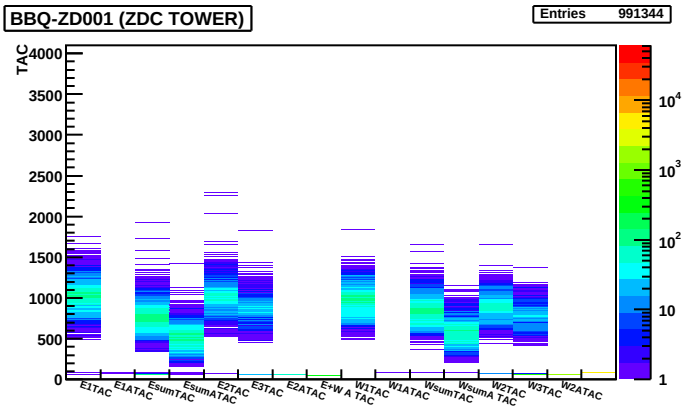

BBQ-BB002 (BBC west small tiles ADC)
Entries 991344
ADC
QT Input Channel

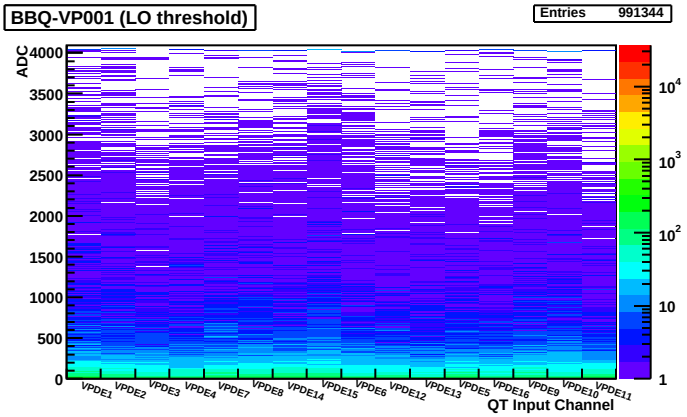

BBQ-BB002 (BBC west small tiles TAC)
Entries 991344
TAC
QT Input Channel

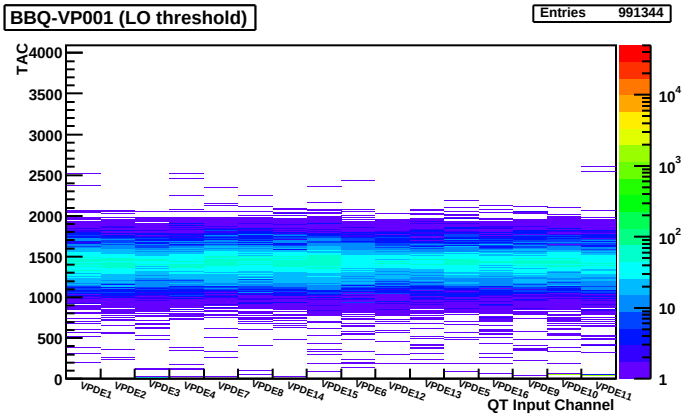

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 991344
ADC
QT Input Channel

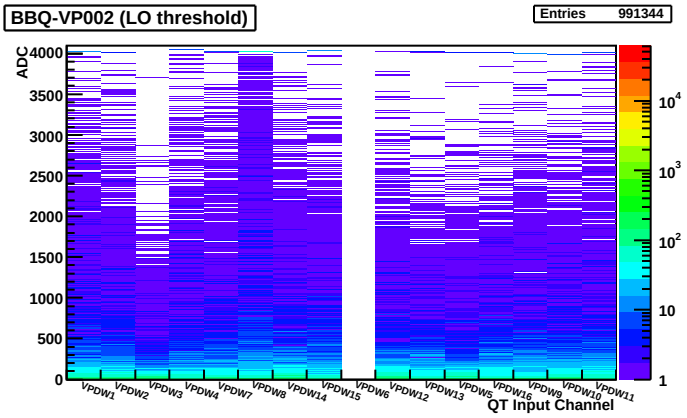

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 991344
TAC
QT Input Channel

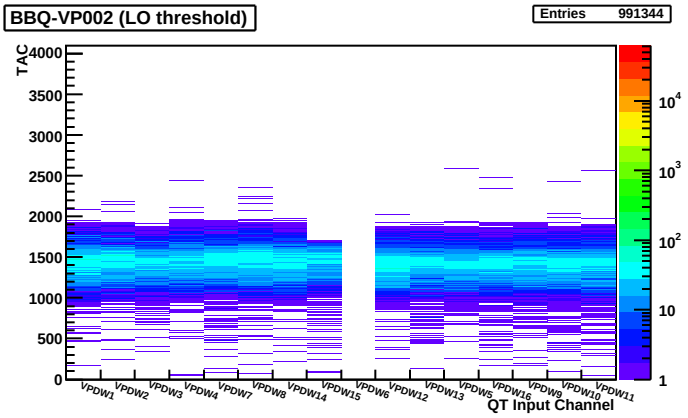

BBQ-ZD001 (ZDC TOWER)
Entries 991344
ADC

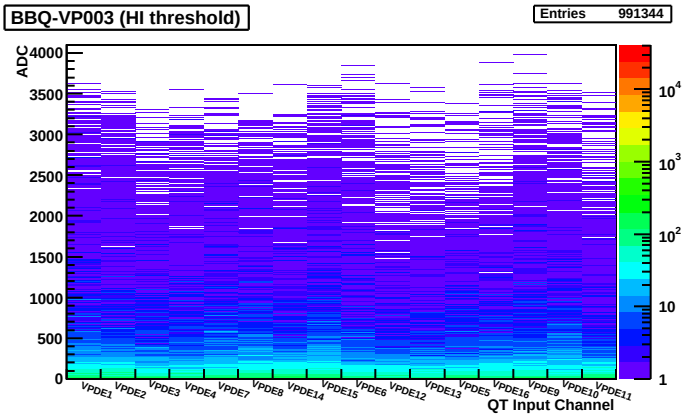

BBQ-ZD001 (ZDC TOWER)
Entries 991344
TAC

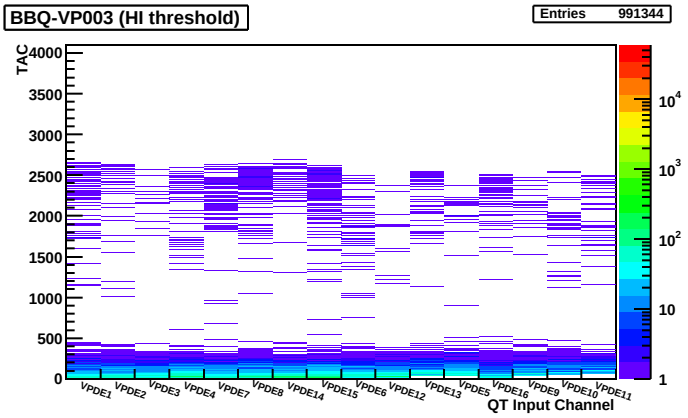

BBQ-VP001 (LO threshold)
Entries 991344
ADC
QT Input Channel

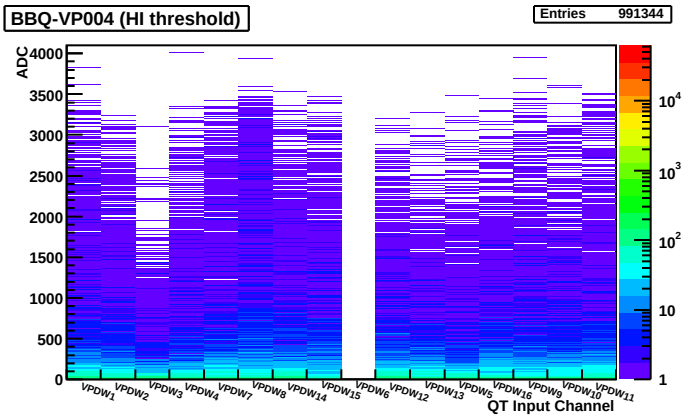

BBQ-VP001 (LO threshold)
Entries 991344
TAC
QT Input Channel

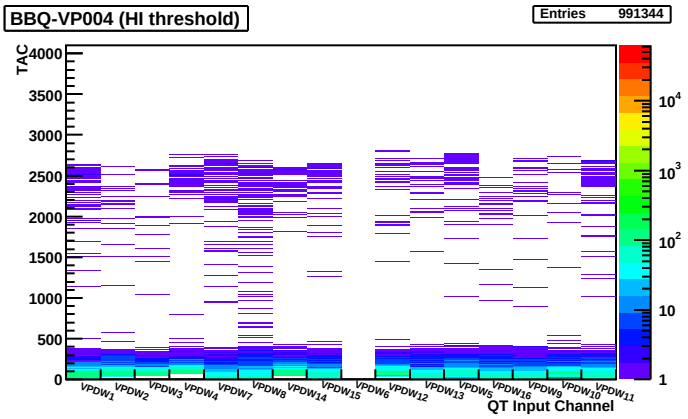

BBQ-VP002 (LO threshold)
Entries 991344
ADC
QT Input Channel

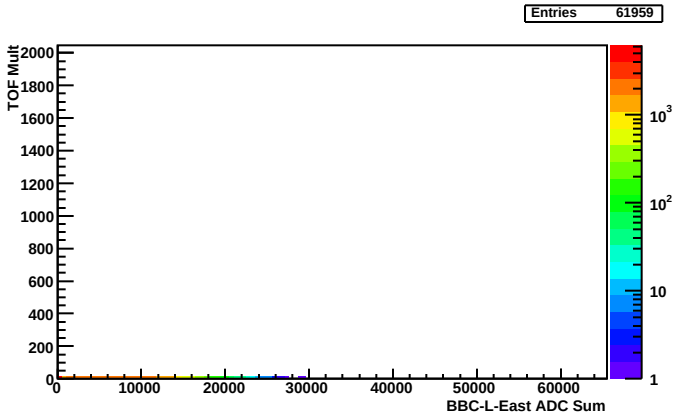

BBQ-VP002 (LO threshold)
Entries 991344
TAC
QT Input Channel

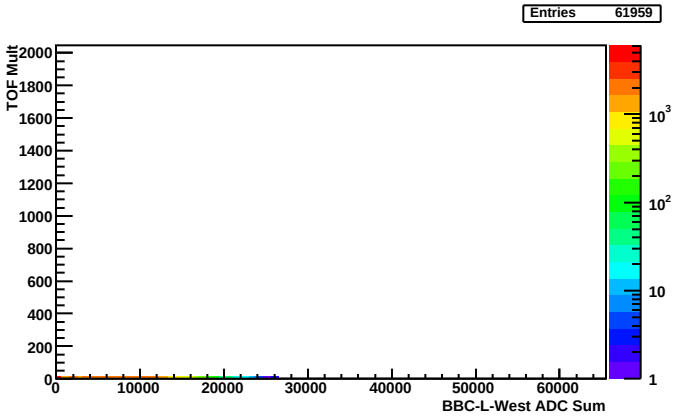

BBQ-VP003 (HI threshold)
Entries 991344
ADC
QT Input Channel

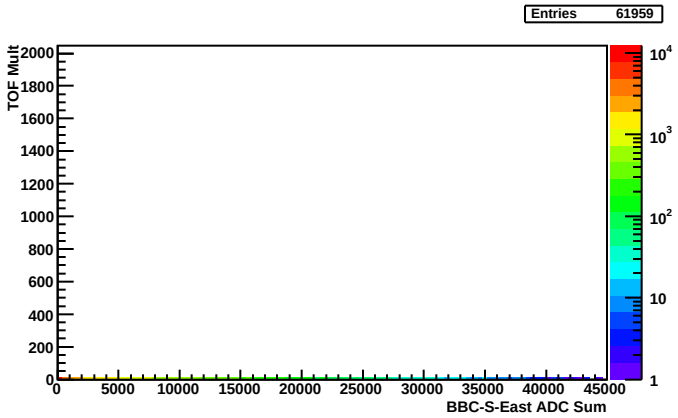

BBQ-VP003 (HI threshold)
Entries 991344
TAC
QT Input Channel

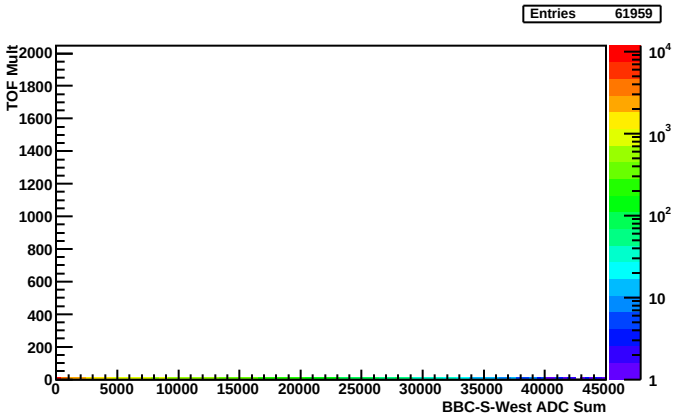

BBQ-VP004 (HI threshold)
Entries 991344
ADC
QT Input Channel

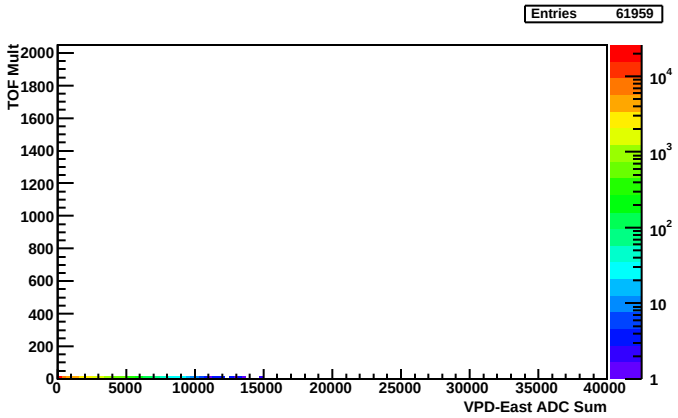

BBQ-VP004 (HI threshold)
Entries 991344
TAC
QT Input Channel

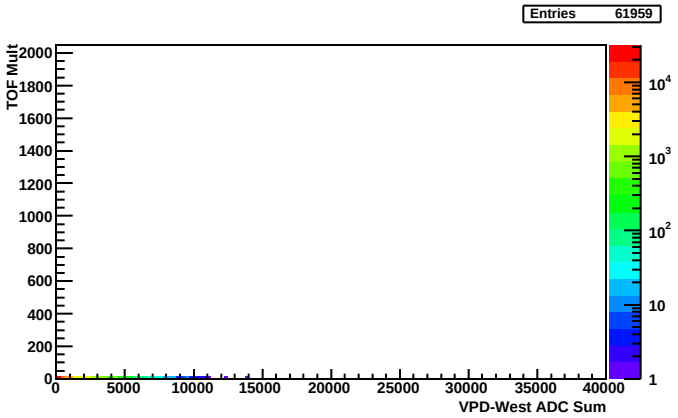

Entries 61959
TOF Mult
BBC-L-East ADC Sum

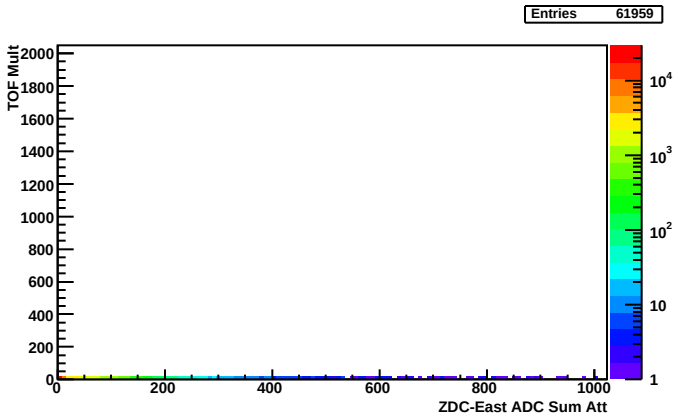

Entries 61959
TOF Mult
BBC-L-West ADC Sum

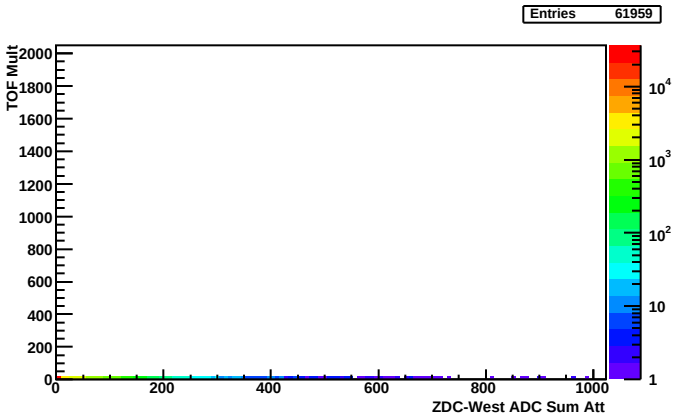

Entries 61959
TOF Mult
BBC-S-East ADC Sum

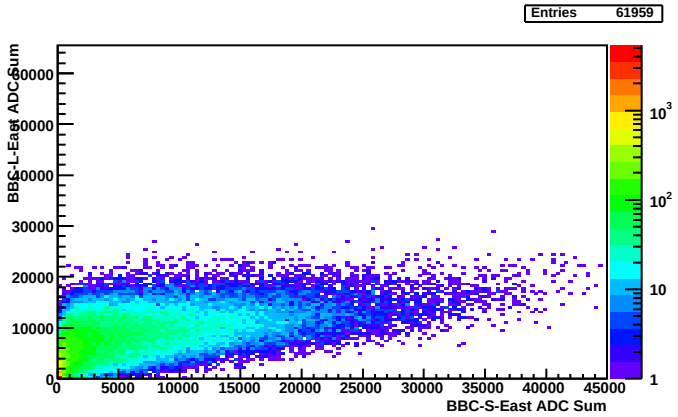

Entries 61959
TOF Mult
BBC-S-West ADC Sum

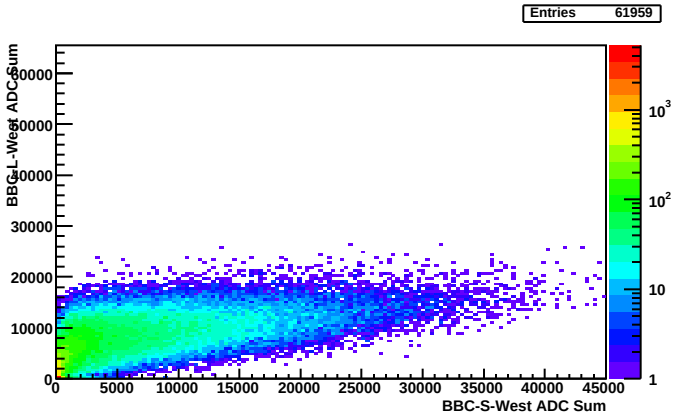

Entries 61959
TOF Mult
VPD-East ADC Sum

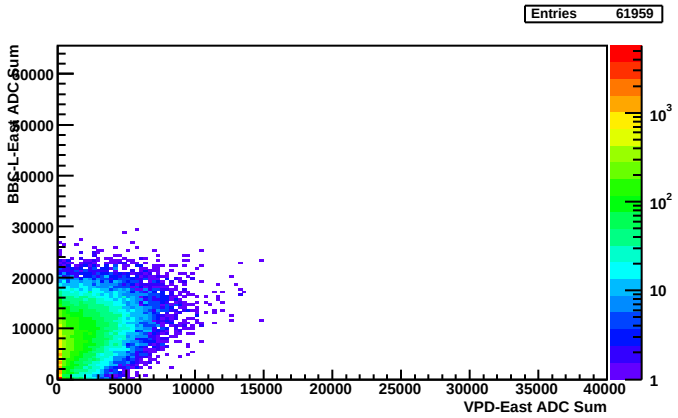

Entries 61959
TOF Mult
VPD-West ADC Sum

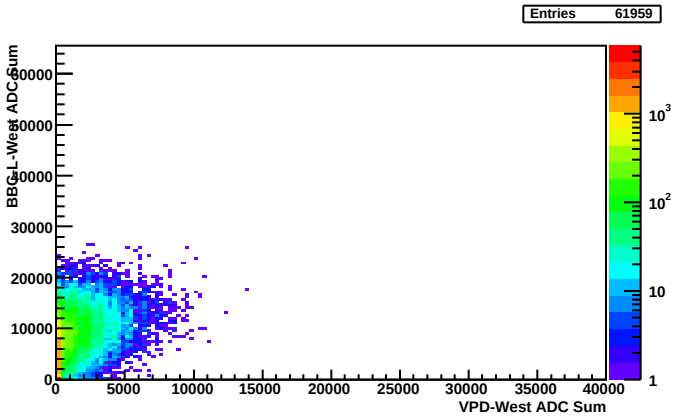

Entries 61959
TOF Mult
ZDC-East ADC Sum Att

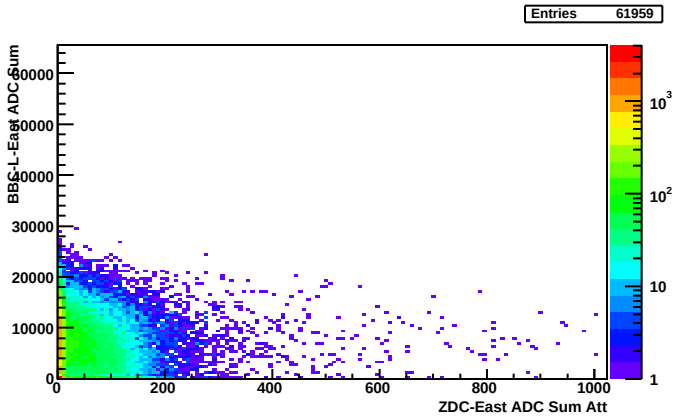

Entries 61959
TOF Mult
ZDC-West ADC Sum Att

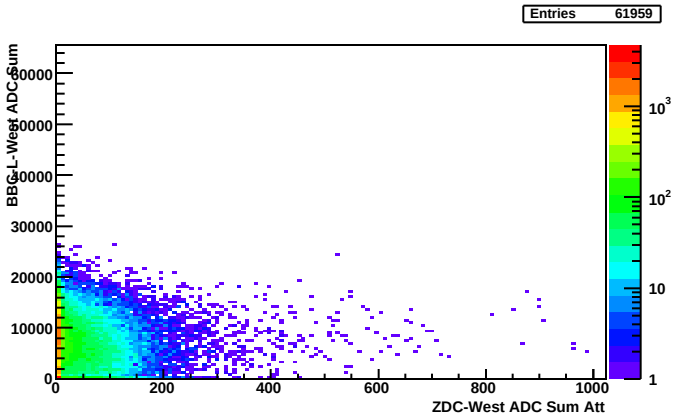

Entries 61959
BBC-L-East ADC Sum
BBC-S-East ADC Sum


Entries 61959
BBC-L-West ADC Sum
BBC-S-West ADC Sum


Entries 61959
BBC-L-East ADC Sum
VPD-East ADC Sum


Entries 61959
BBC-L-West ADC Sum
VPD-West ADC Sum


Entries 61959
BBC-L-East ADC Sum
ZDC-East ADC Sum Att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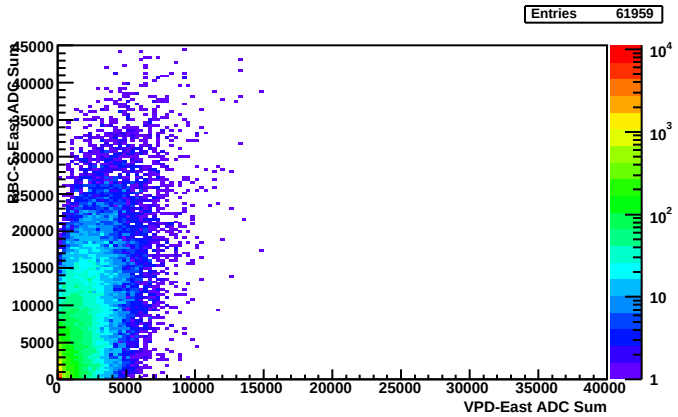
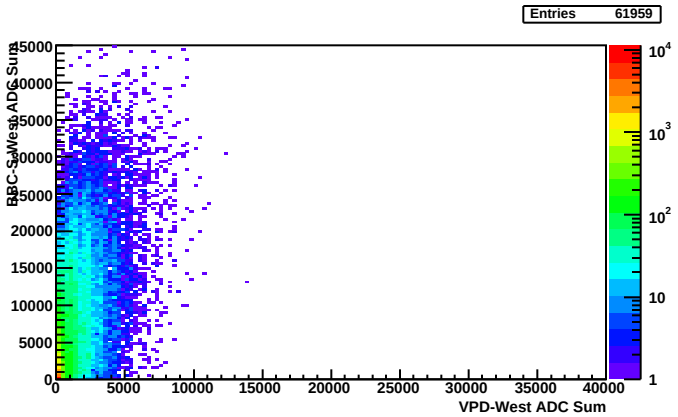
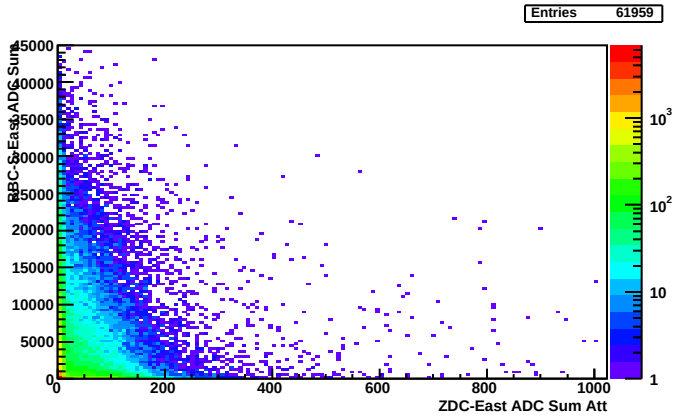
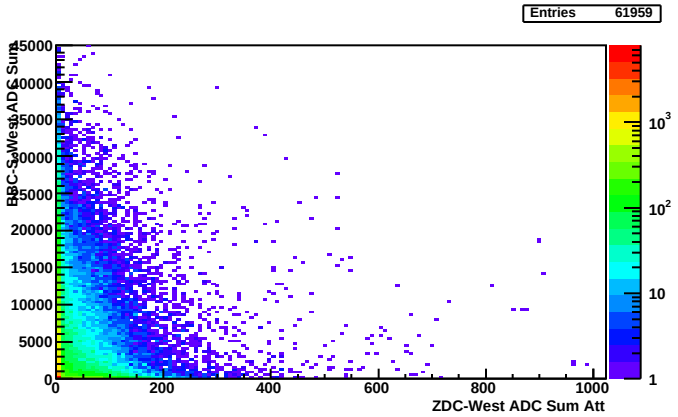
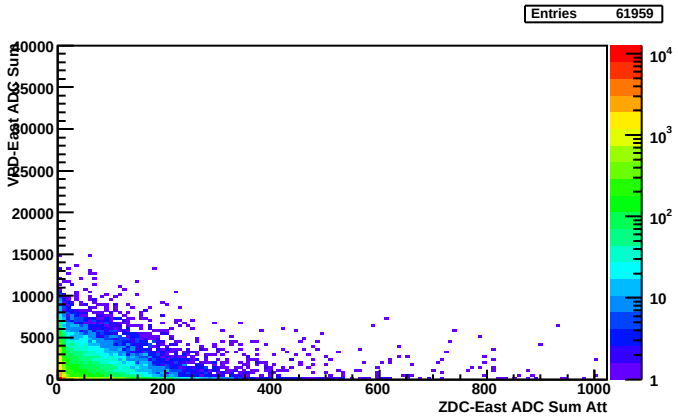
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

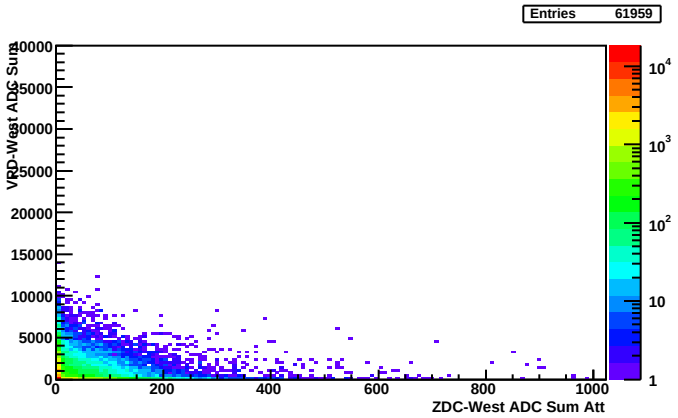

Entries 61959
BBC-S-East ADC Sum
VPD-East ADC Sum

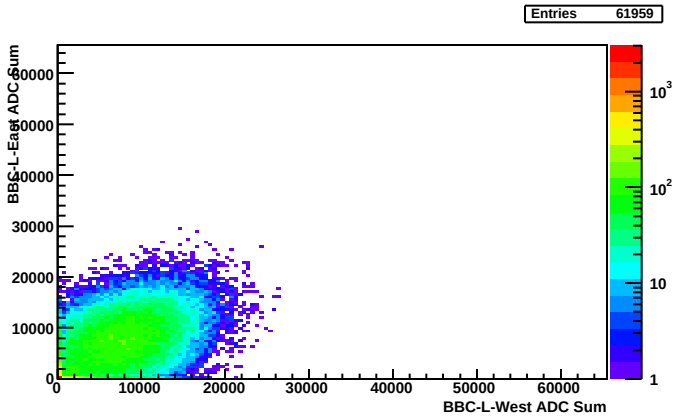

Entries 61959
BBC-S-West ADC Sum
VPD-West ADC Sum

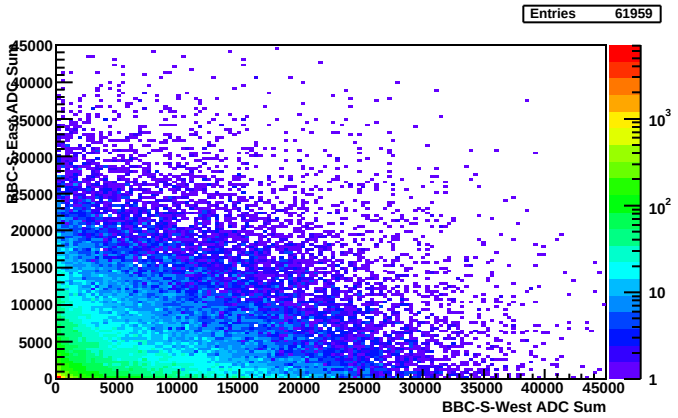

Entries 61959
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

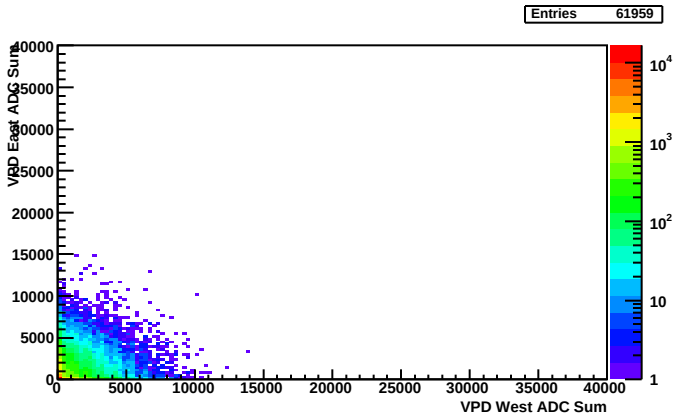

Entries 61959
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

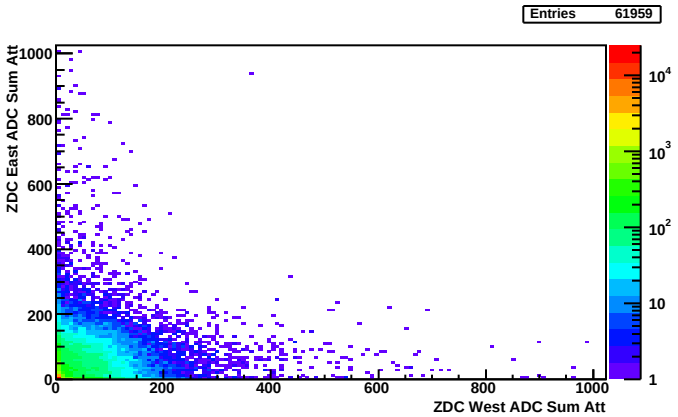

Entries 61959
VPD-East ADC Sum
ZDC-East ADC Sum Att

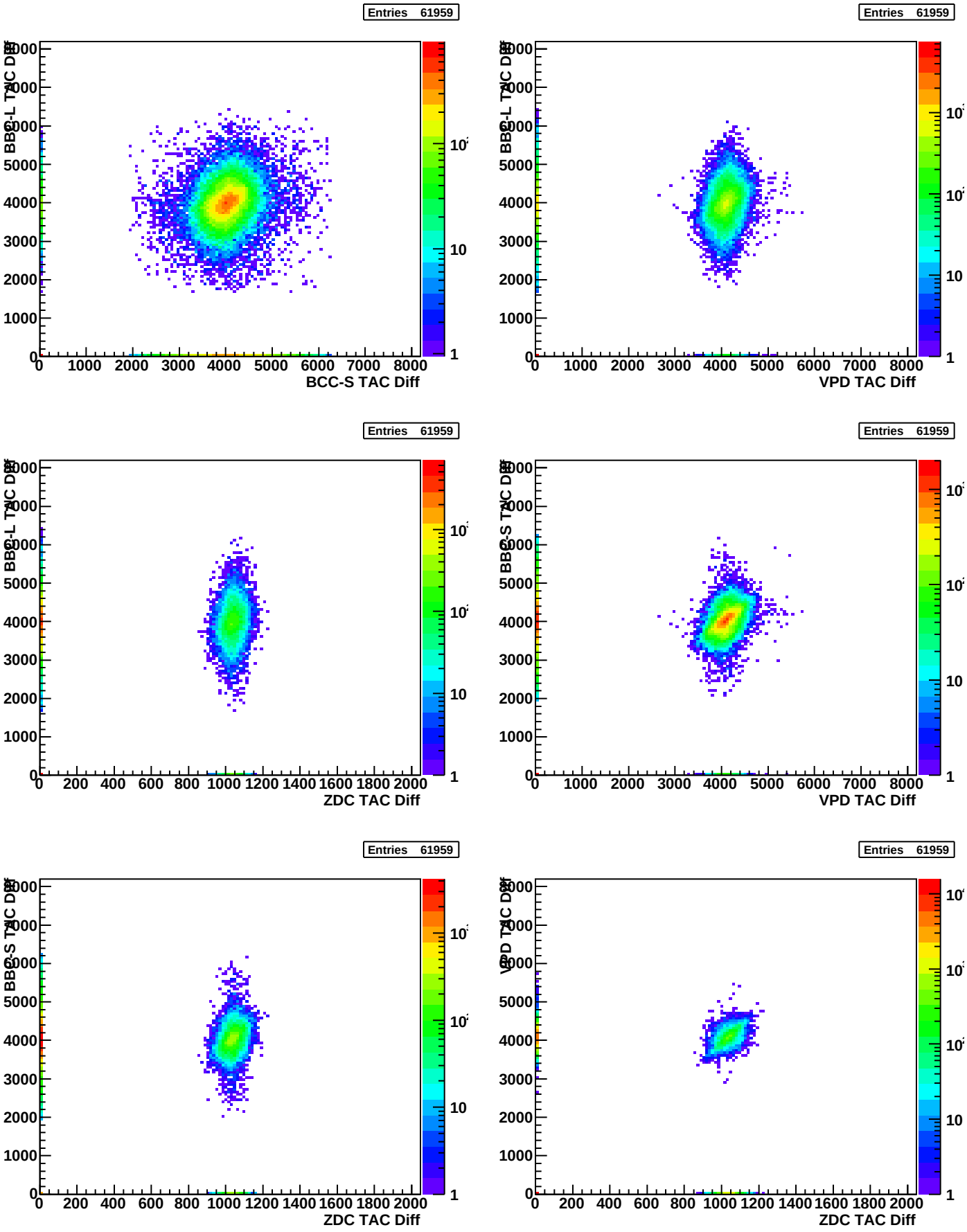

Entries 61959
VPD-West ADC Sum
ZDC-West ADC Sum Att

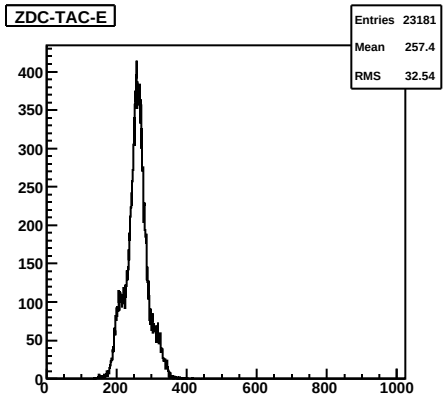

Entries 61959
BBC-L-East ADC Sum
BBC-L-West ADC Sum

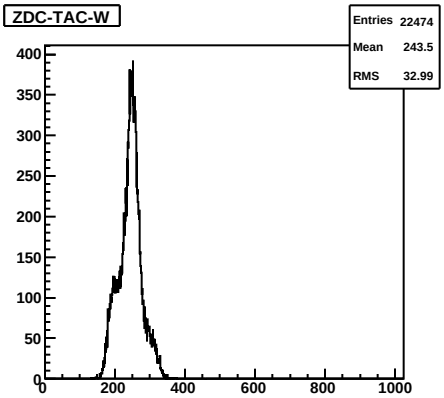

Entries 61959
BBC-S-East ADC Sum
BBC-S-West ADC Sum

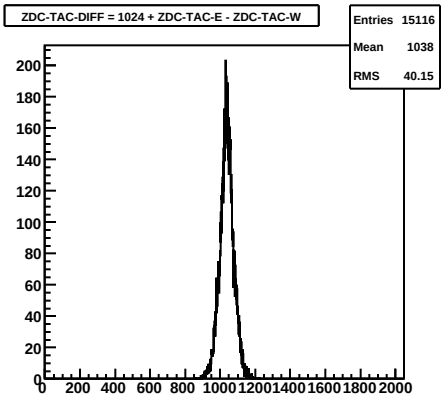

Entries 61959
VPD East ADC Sum
VPD West ADC Sum

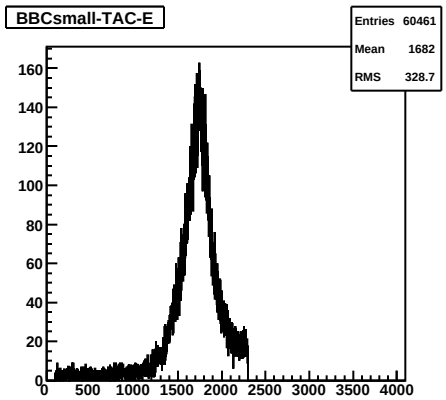

Entries 61959
ZDC East ADC Sum Att
ZDC West ADC Sum Att

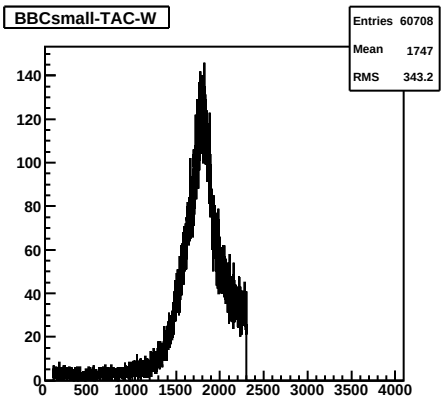

Entries 61959
BBC-L TAC Diff
BCC-S TAC Diff
Entries 61959
BBC-L TAC Diff
VPD TAC Diff
Entries 61959
BBC-L TAC Diff
ZDC TAC Diff
Entries 61959
BBC-S TAC Diff
VPD TAC Diff
Entries 61959
BBC-S TAC Diff
ZDC TAC Diff
Entries 61959
VPD TAC Diff
ZDC TAC Diff

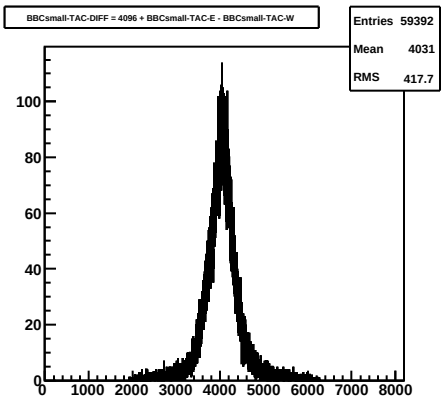

ZDC-TAC-E
Entries 23181
Mean 257.4
RMS 32.54

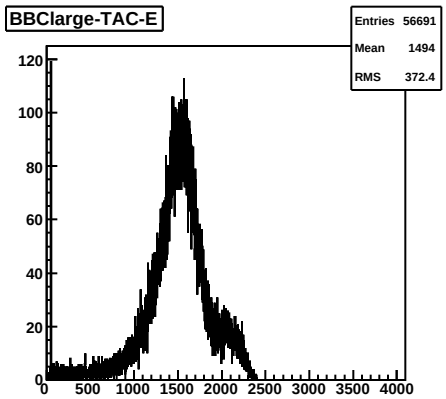

ZDC-TAC-W
Entries 22474
Mean 243.5
RMS 32.99

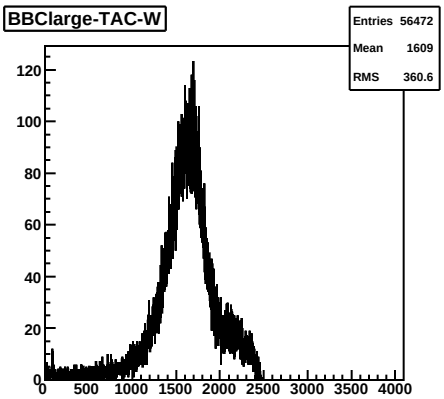

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 15116
Mean 1038
RMS 40.15

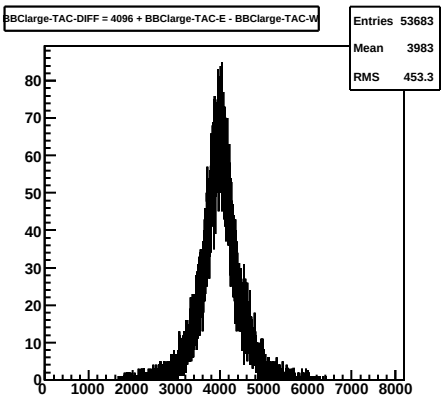

BBCsmall-TAC-E
Entries 60461
Mean 1682
RMS 328.7

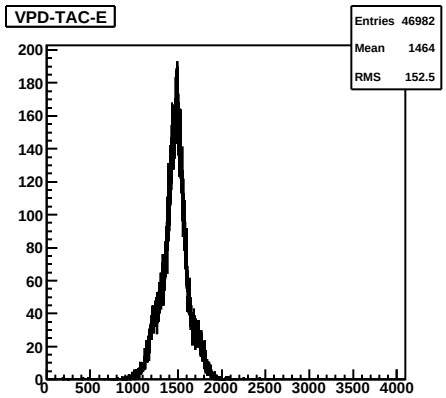

BBCsmall-TAC-W
Entries 60708
Mean 1747
RMS 343.2

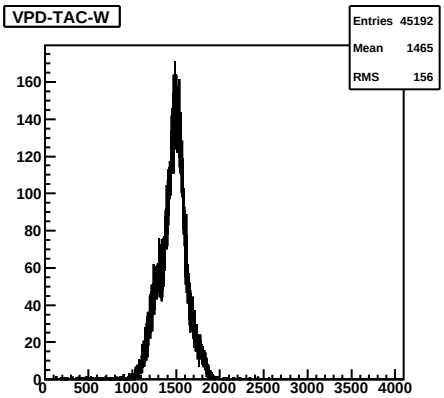

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 59392
Mean 4031
RMS 417.7

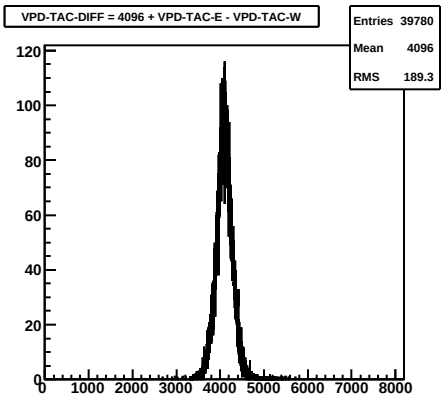

BBClarge-TAC-E
Entries 56691
Mean 1494
RMS 372.4

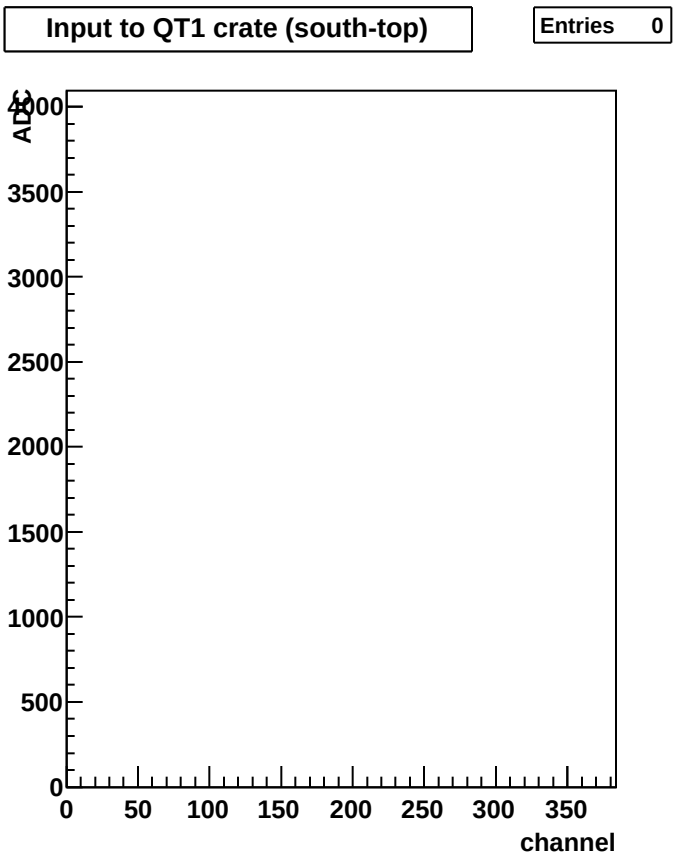

BBClarge-TAC-W
Entries 56472
Mean 1609
RMS 360.6

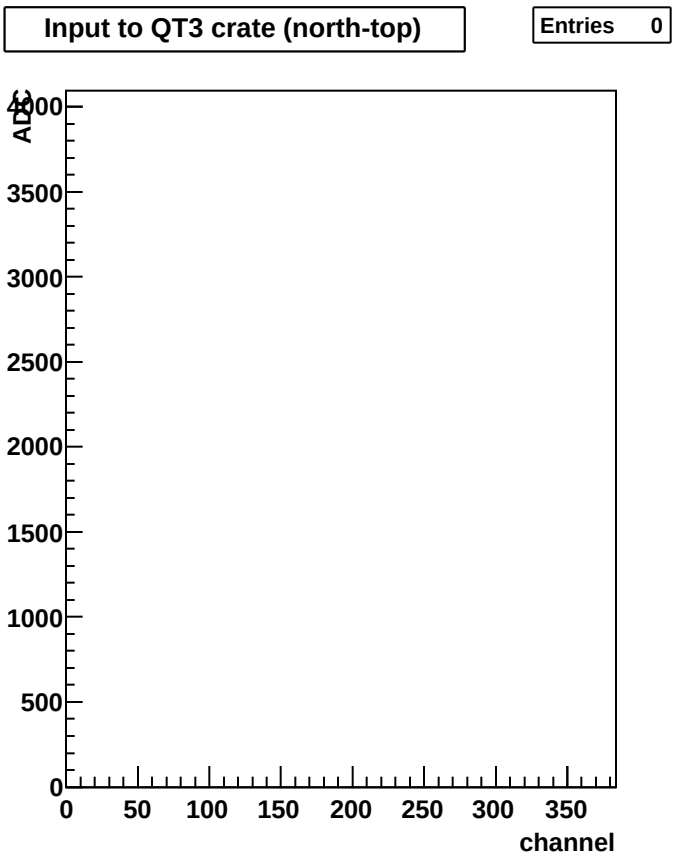

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 53683
Mean 3983
RMS 453.3

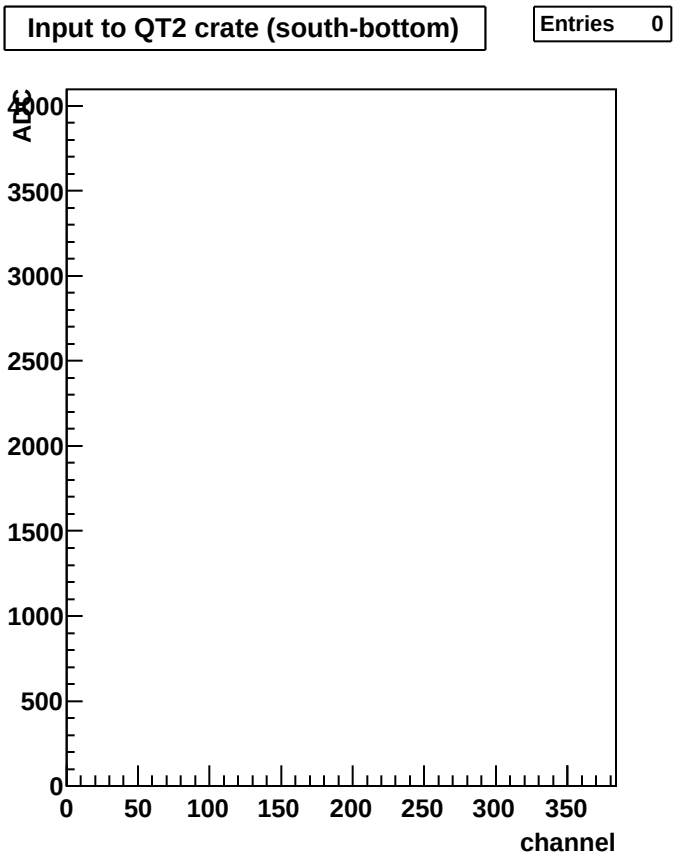

VPD-TAC-E
Entries 46982
Mean 1464
RMS 152.5

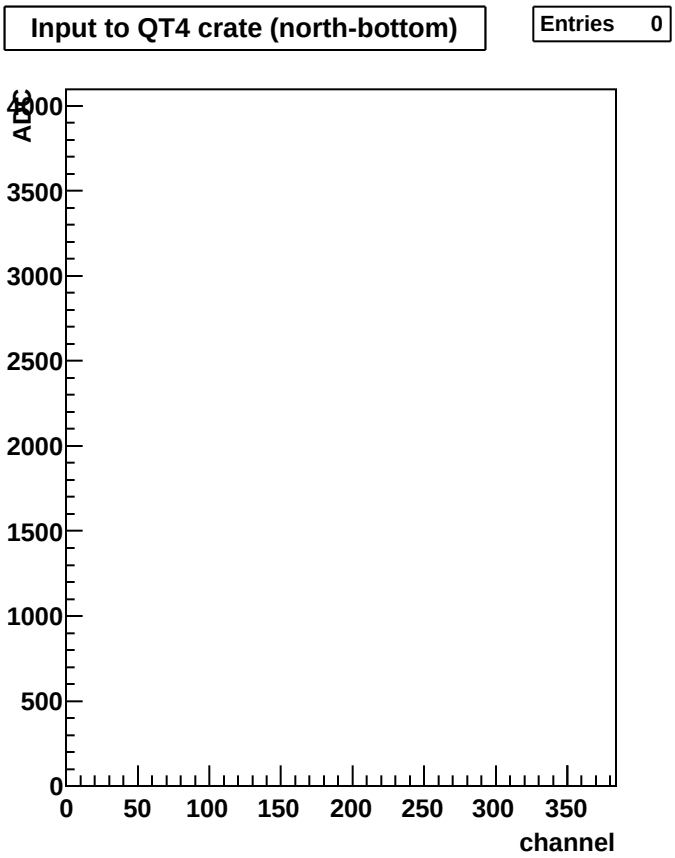

VPD-TAC-W
Entries 45192
Mean 1465
RMS 156

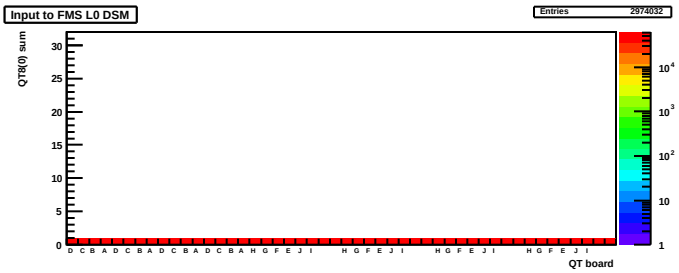

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 39780
Mean 4096
RMS 189.3

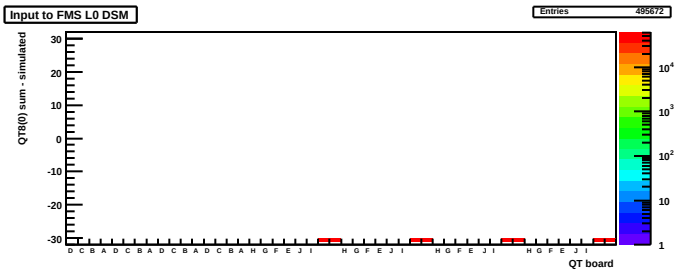

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

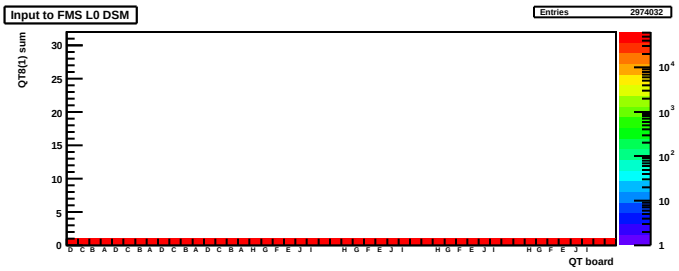

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

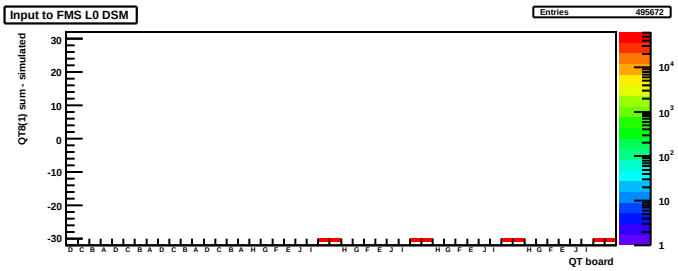

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

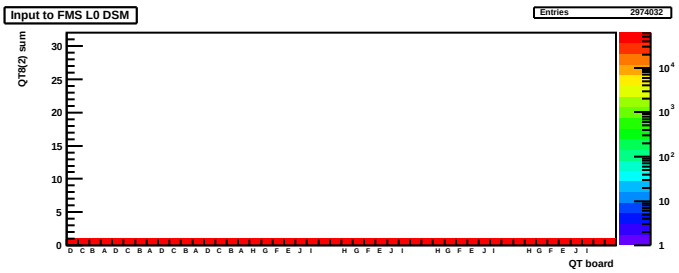

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

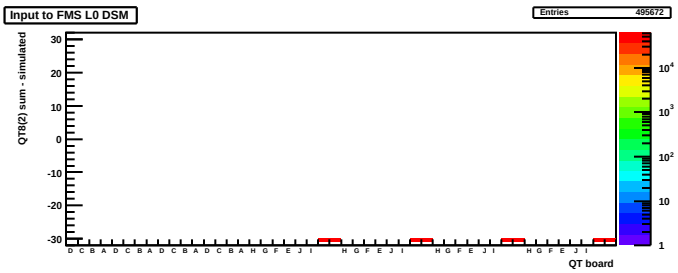

Input to FMS L0 DSM
Entries 2974032
QT8(0) sum
QT board

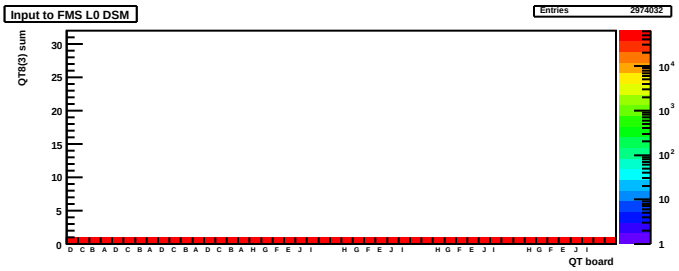

Input to FMS L0 DSM
Entries 495672
QT8(0) sum - simulated
QT board

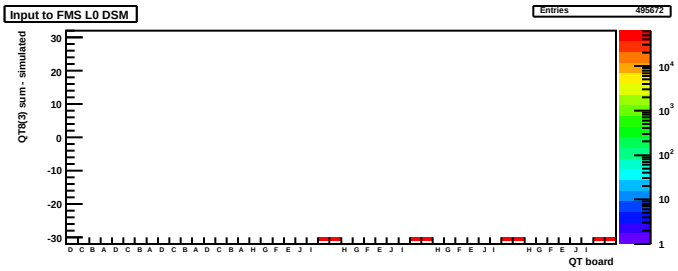

Input to FMS L0 DSM
Entries 2974032
QT8(1) sum
QT board

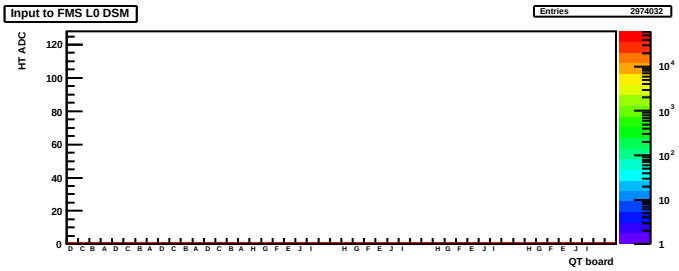

Input to FMS L0 DSM
Entries 495672
QT8(1) sum - simulated
QT board

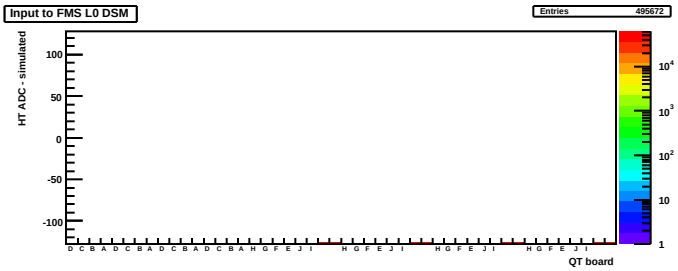

Input to FMS L0 DSM
Entries 2974032
QT8(2) sum
QT board

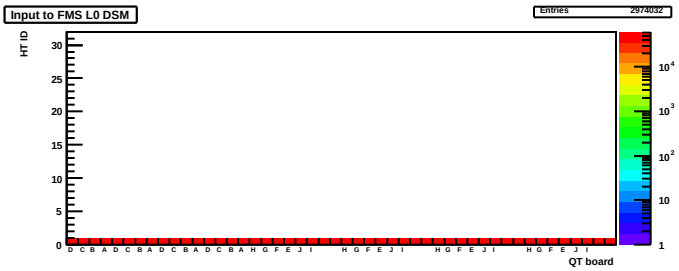

Input to FMS L0 DSM
Entries 495672
QT8(2) sum - simulated
QT board

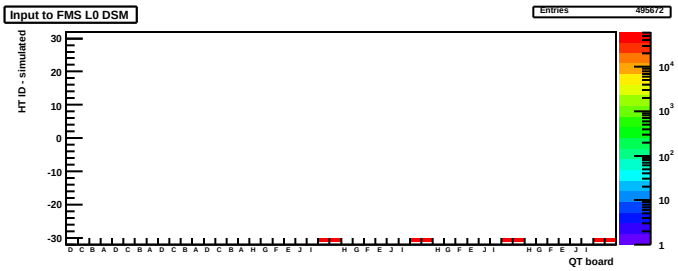

Input to FMS L0 DSM
Entries 2974032
QT8(3) sum
QT board

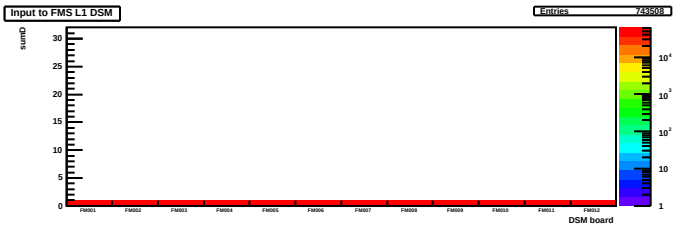

Input to FMS L0 DSM
Entries 495672
QT8(3) sum - simulated
QT board

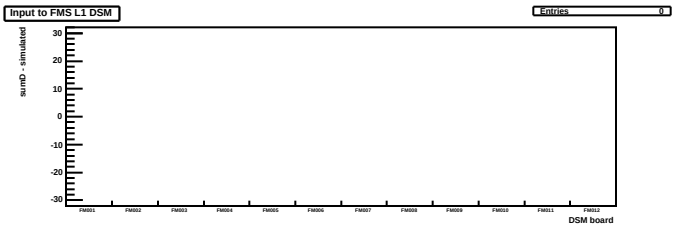

Input to FMS L0 DSM
Entries 2974032
HT ADC
QT board

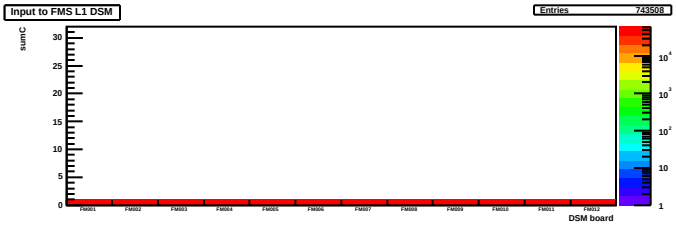

Input to FMS L0 DSM
Entries 495672
HT ADC - simulated
QT board

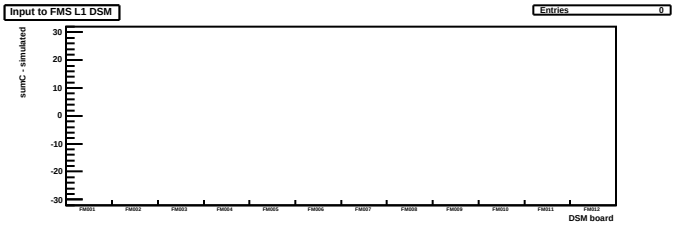

Input to FMS L0 DSM
Entries 2974032
HT ID
QT board

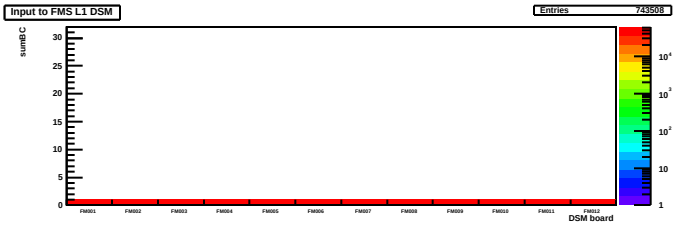

Input to FMS L0 DSM
Entries 495672
HT ID - simulated
QT board

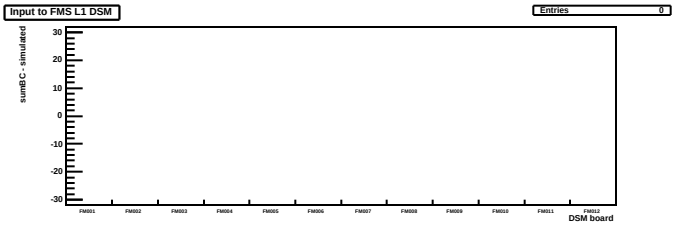

Input to FMS L1 DSM
Entries 743508
sumD
DSM board

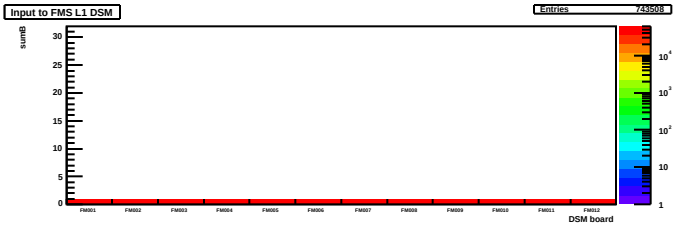

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

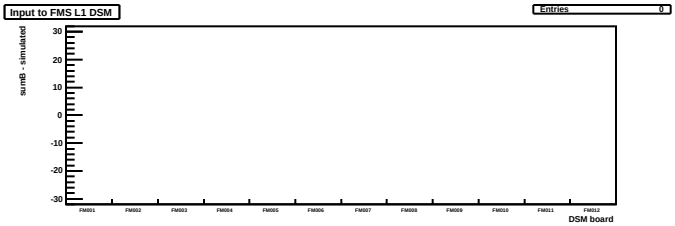

Input to FMS L1 DSM
Entries 743508
sumC
DSM board

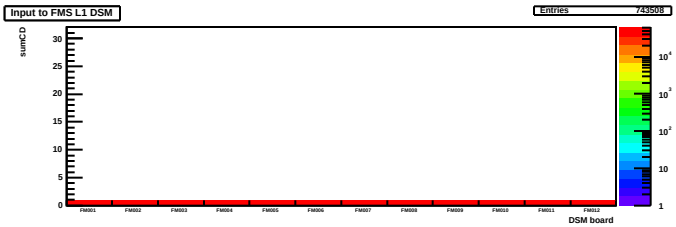

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

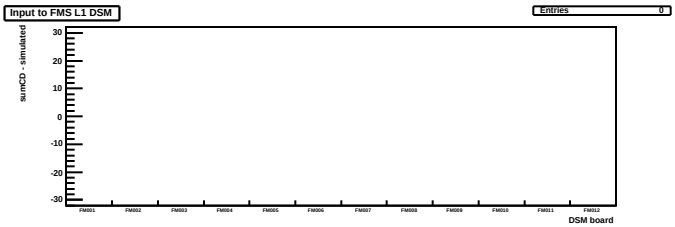

Input to FMS L1 DSM
Entries 743508
sumBC
DSM board

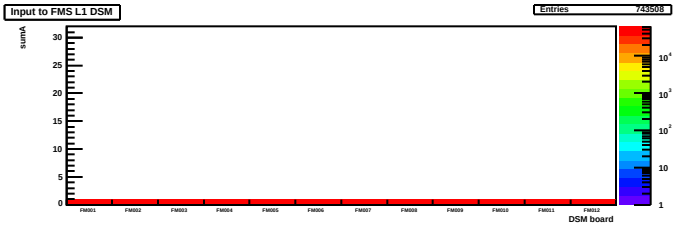

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

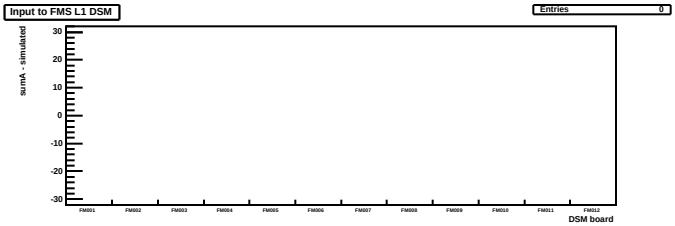

Input to FMS L1 DSM
Entries 743508
sumB
DSM board

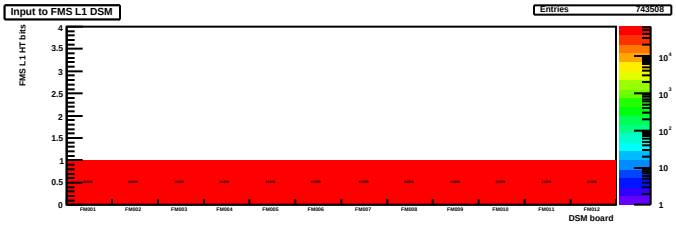

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

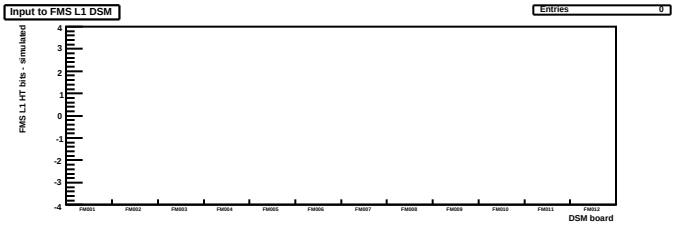

Input to FMS L1 DSM
Entries 743508
sumCD
DSM board

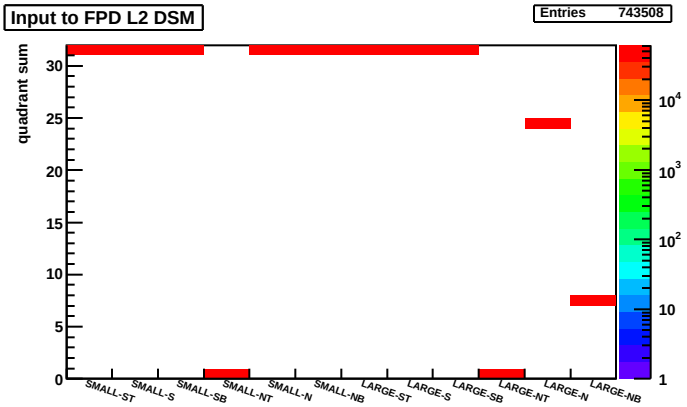

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

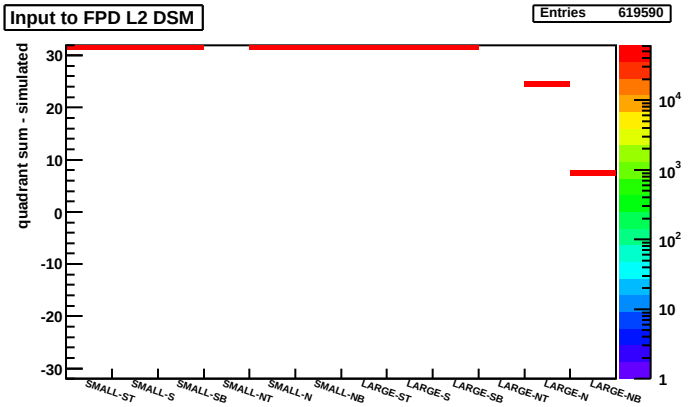

Input to FMS L1 DSM
Entries 743508
sumA
DSM board

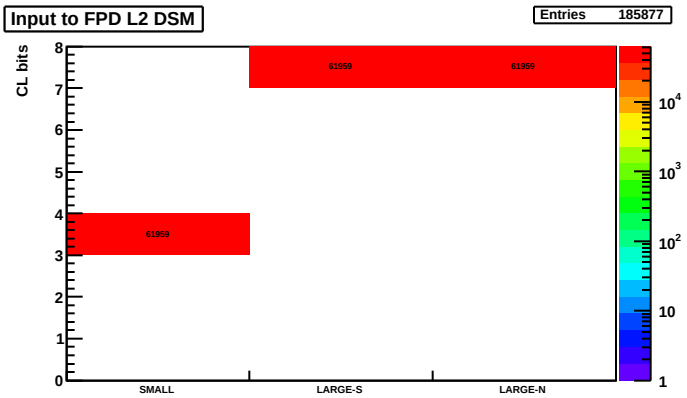

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

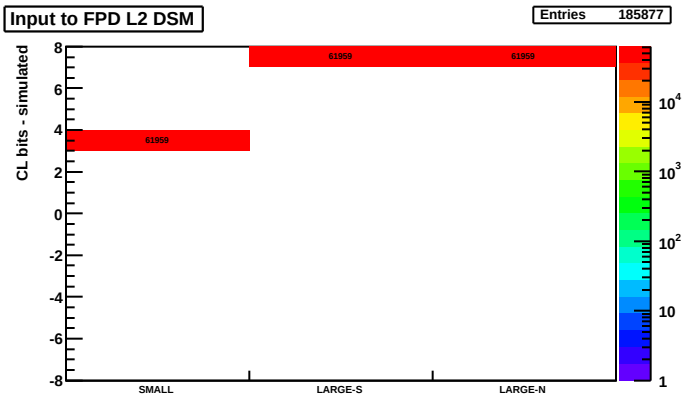

Input to FMS L1 DSM
Entries 743508
FMS L1 HT bits
DSM board

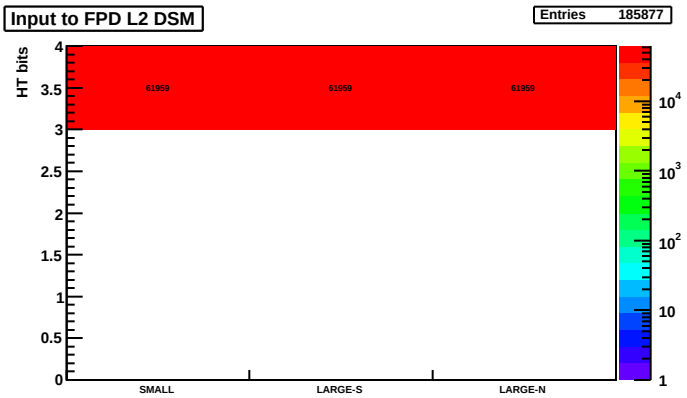

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

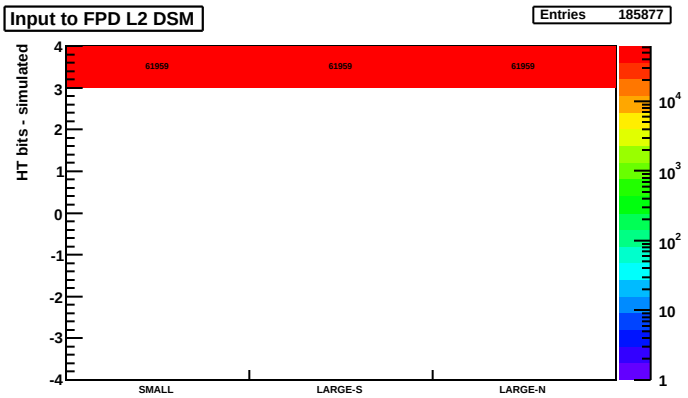

Input to FPD L2 DSM
Entries 743508
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

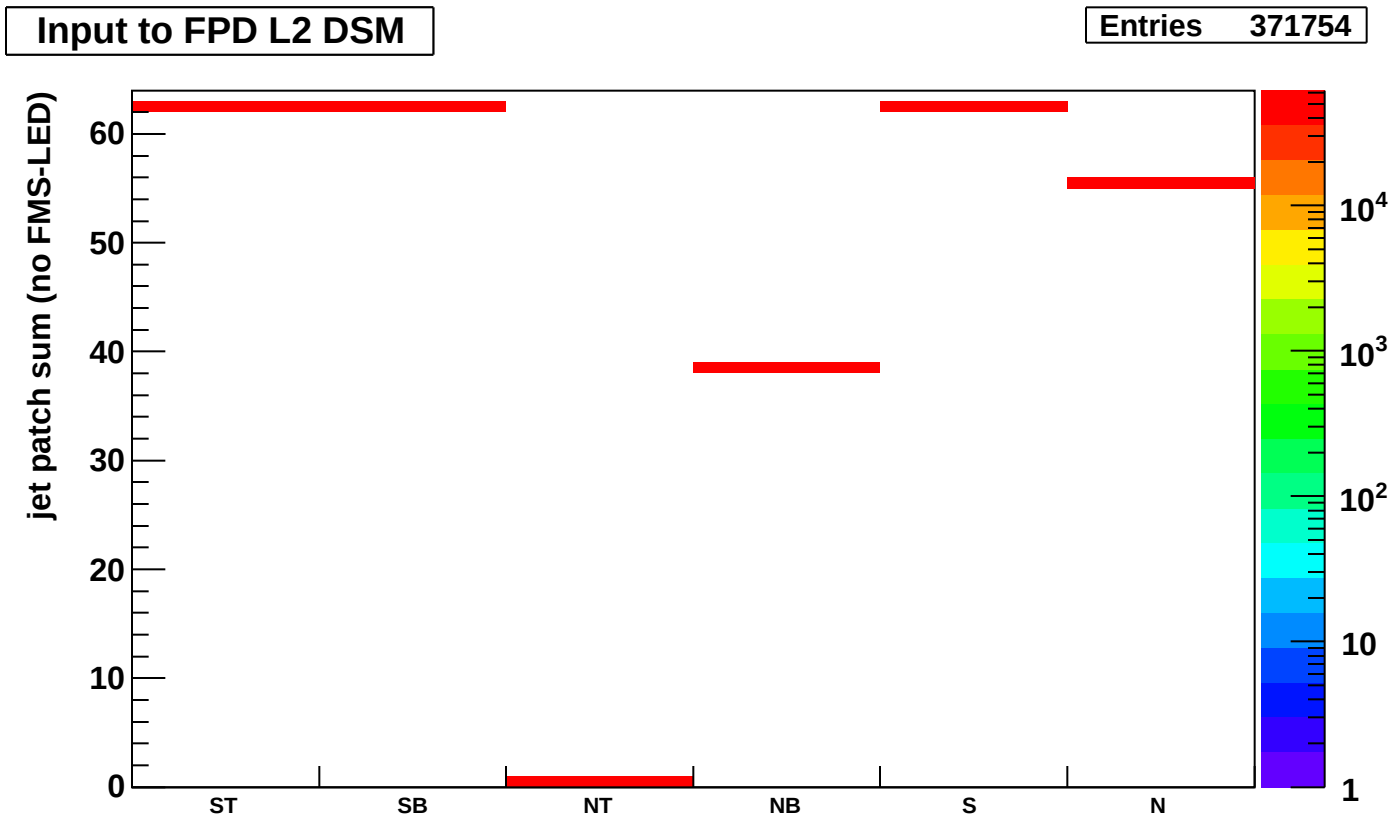

Input to FPD L2 DSM
Entries 619590
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

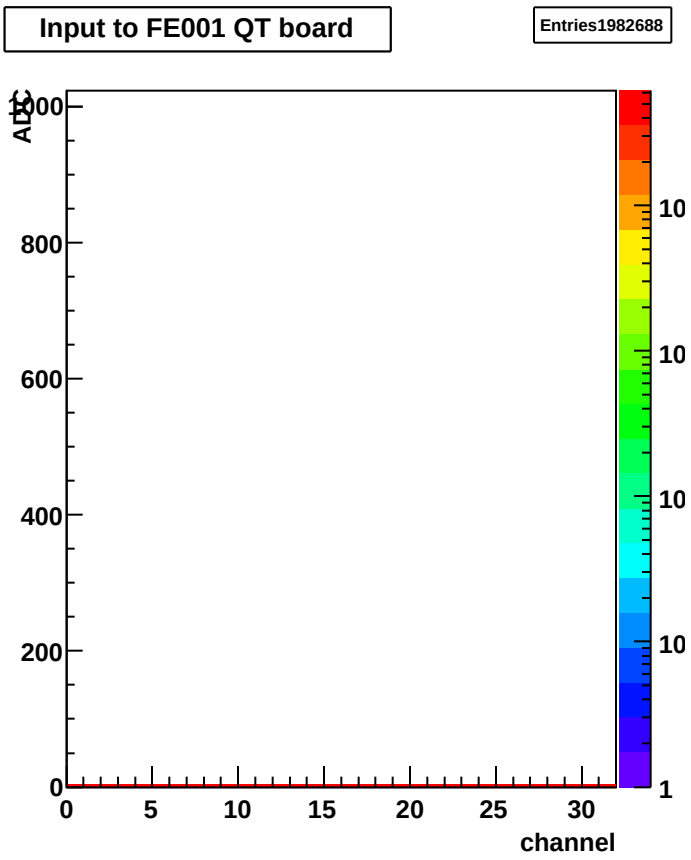

Input to FPD L2 DSM
Entries 185877
CL bits
61959
SMALL
LARGE-S
LARGE-N

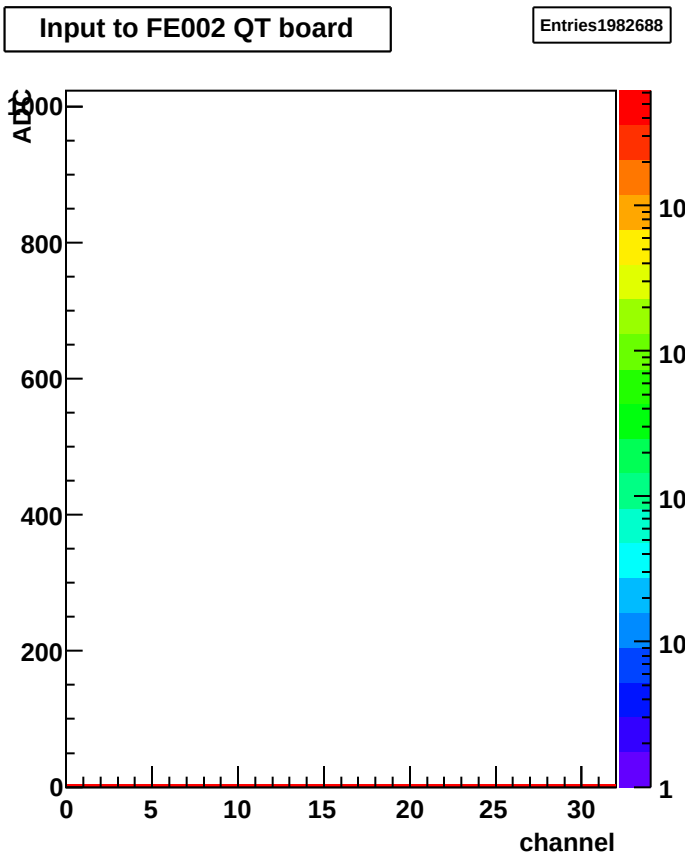

Input to FPD L2 DSM
Entries 185877
CL bits - simulated
61959
SMALL
LARGE-S
LARGE-N

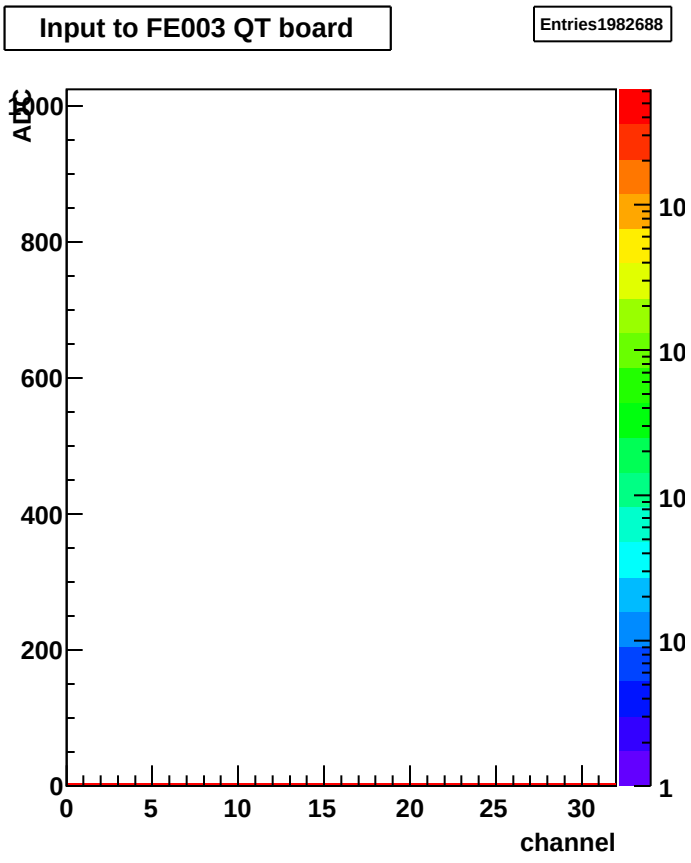

Input to FPD L2 DSM
Entries 185877
HT bits
61959
SMALL
LARGE-S
LARGE-N

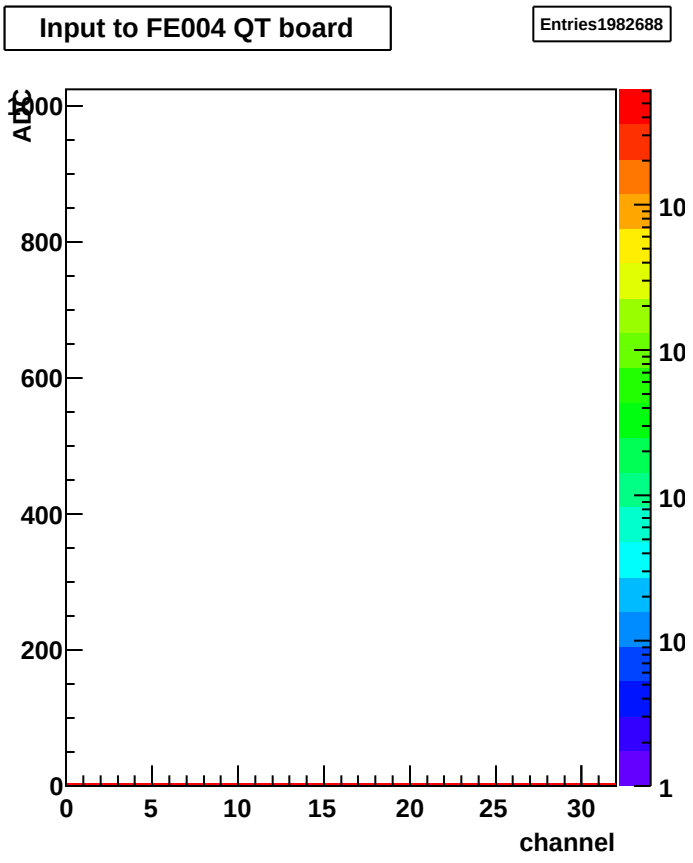

Input to FPD L2 DSM
Entries 185877
HT bits - simulated
61959
SMALL
LARGE-S
LARGE-N

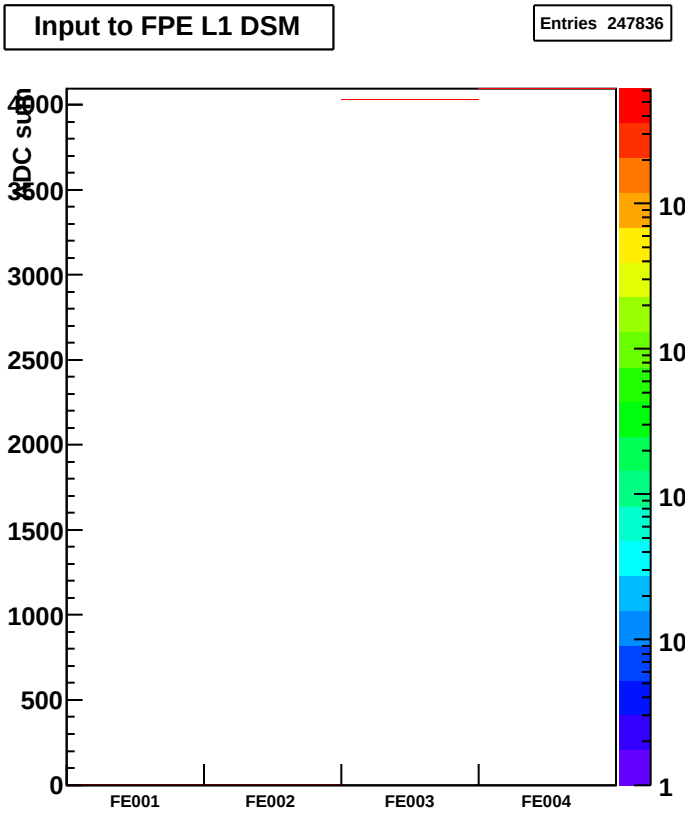

Input to FPD L2 DSM
Entries 371754
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4


Input to FE001 QT board
Entries1982688
ADC
channel

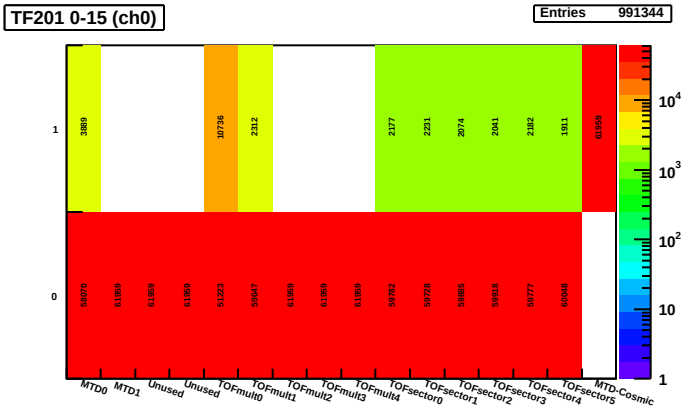

Input to FE002 QT board
Entries1982688
ADC
channel


Input to FE003 QT board
Entries1982688
ADC
channel

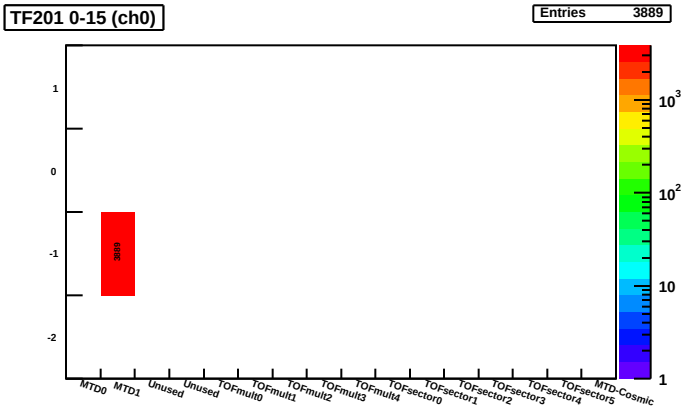

Input to FE004 QT board
Entries1982688
ADC
channel


Input to FPE L1 DSM
Entries 247836
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

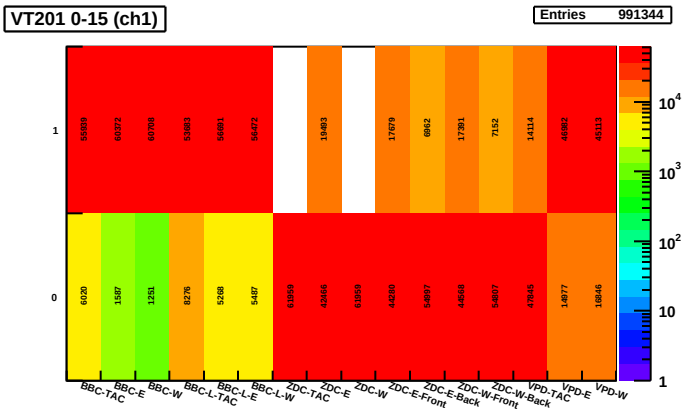
TF201 0-15 (ch0)



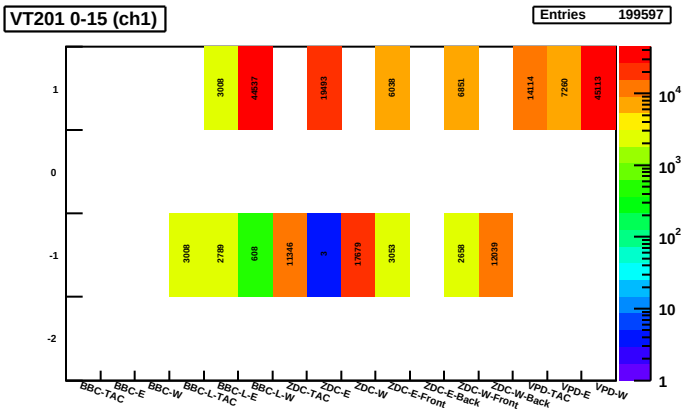
TF201 0-15 (ch0)



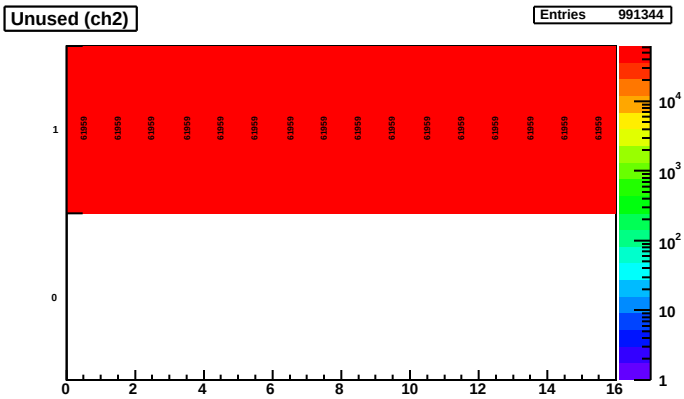
VT201 0-15 (ch1)

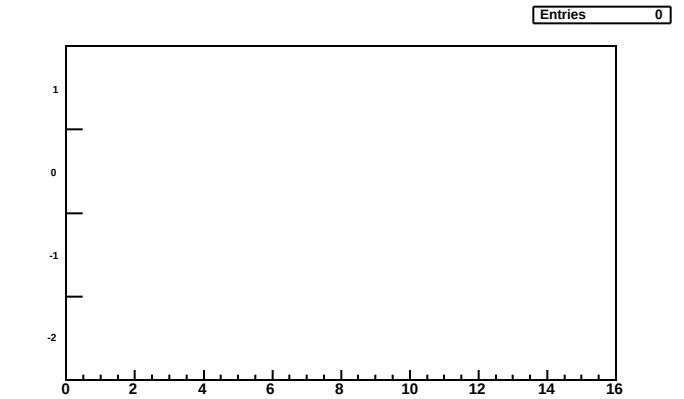


VT201 0-15 (ch1)

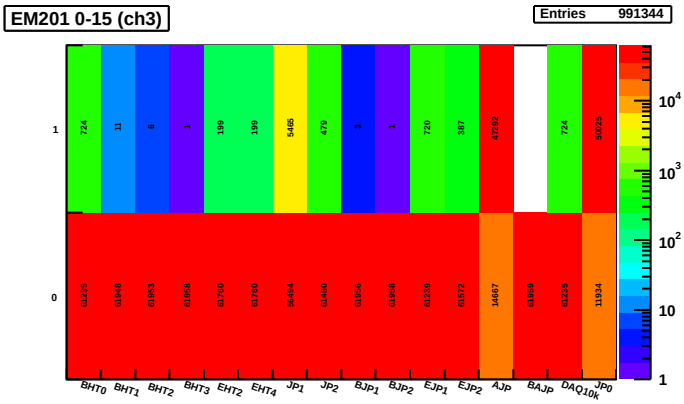


Unused (ch2)





EM201 0-15 (ch3)



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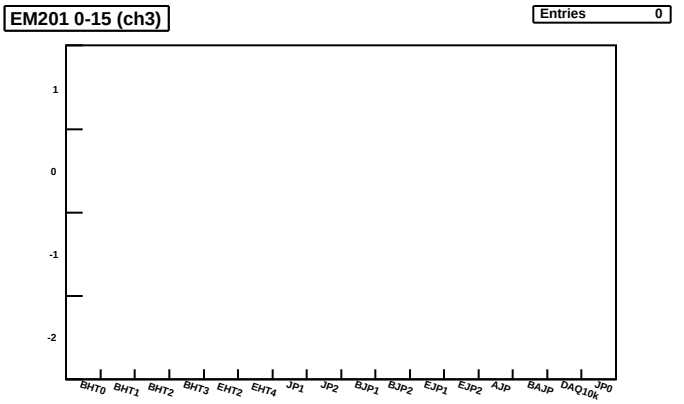
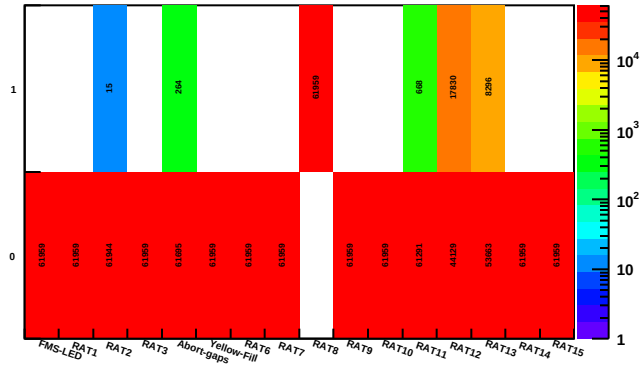
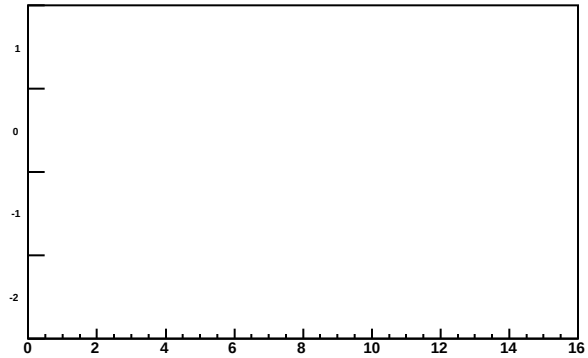
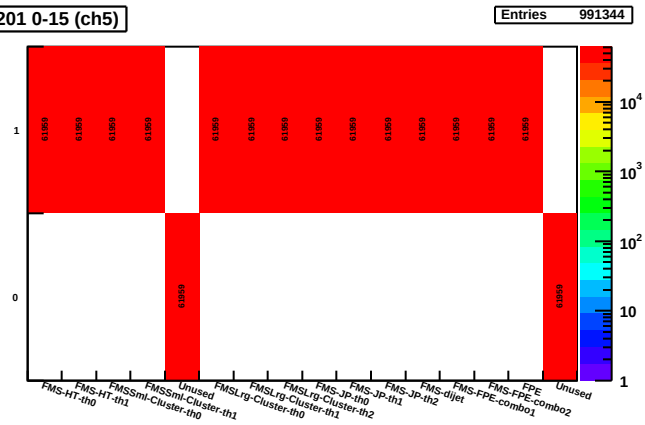


RAT board (ch4)





FP201 0-15 (ch5)



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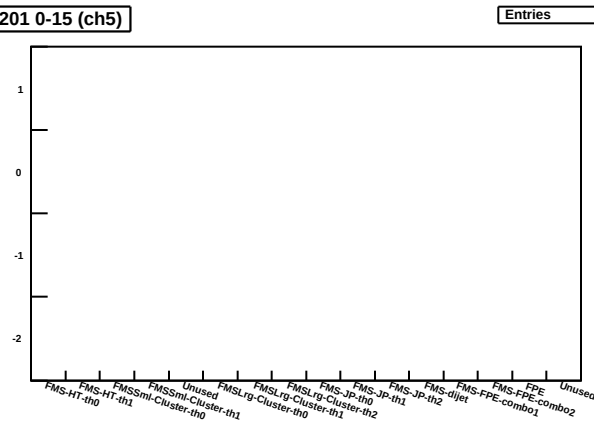

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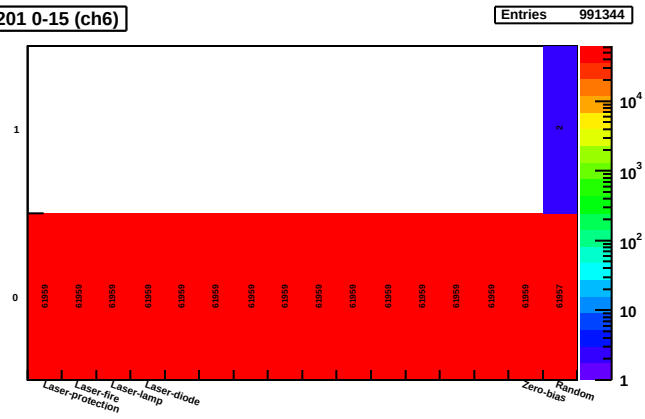

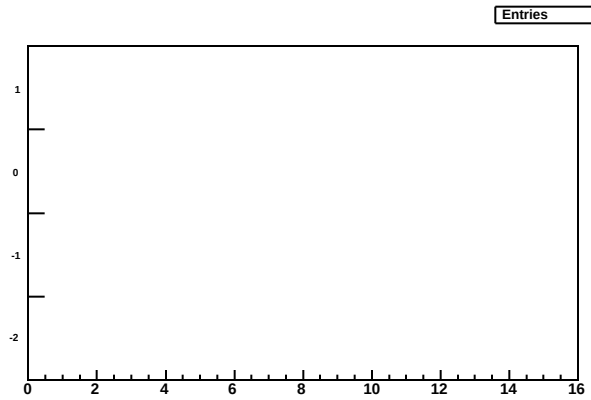
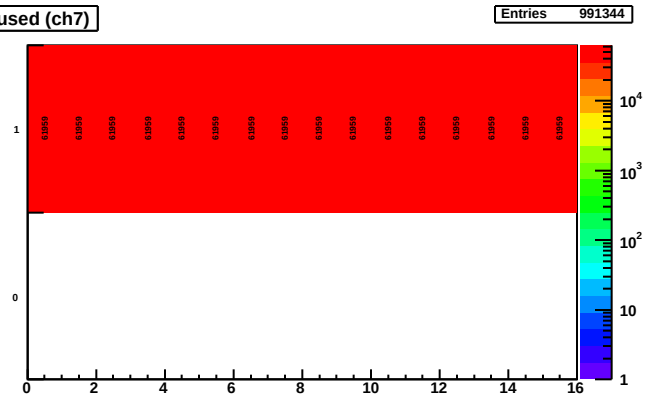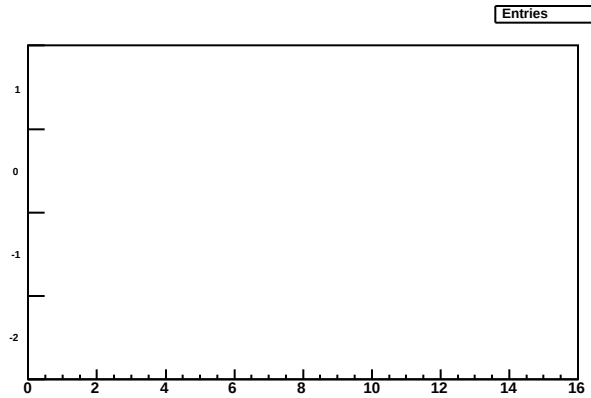
Unused (ch7)