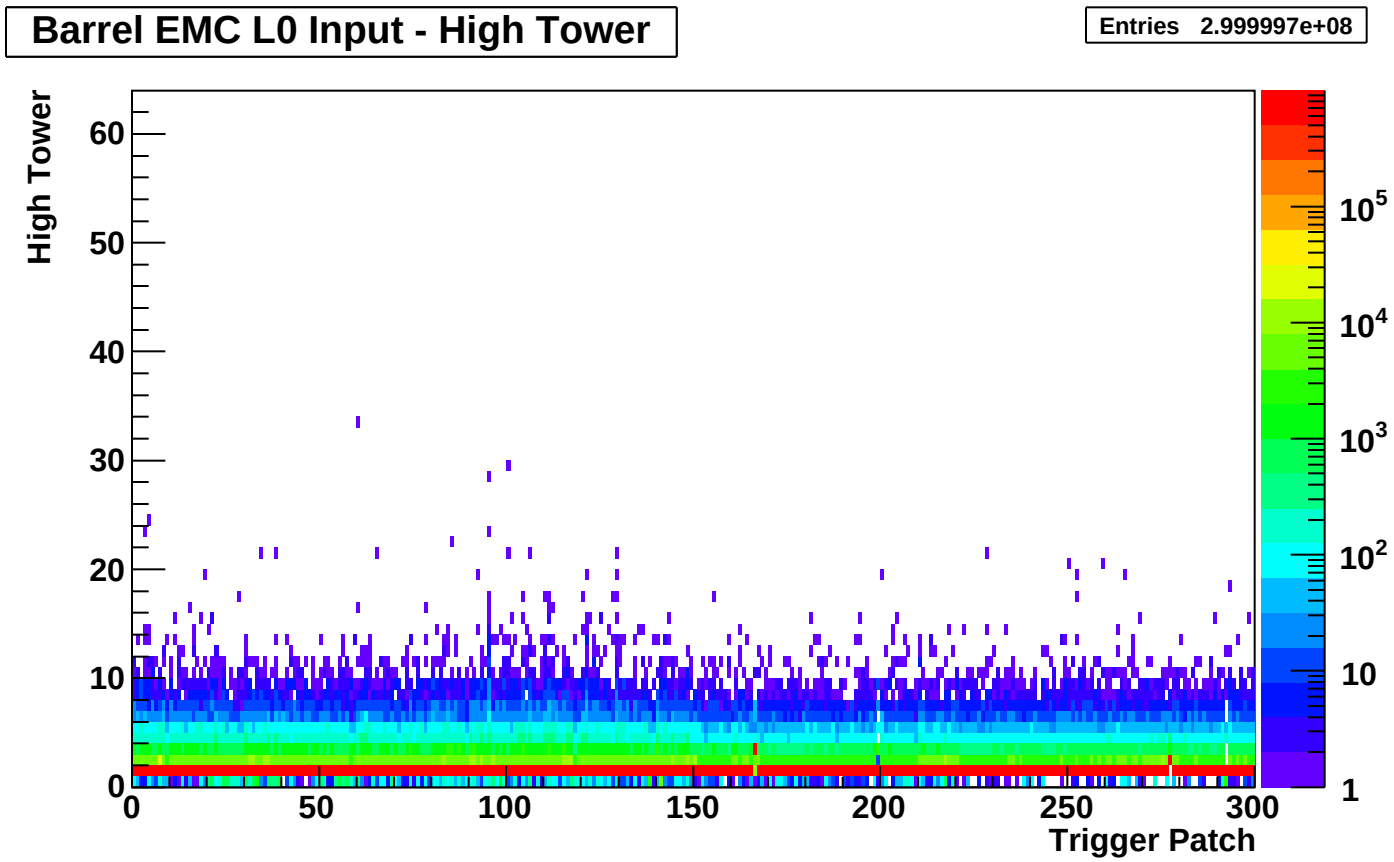
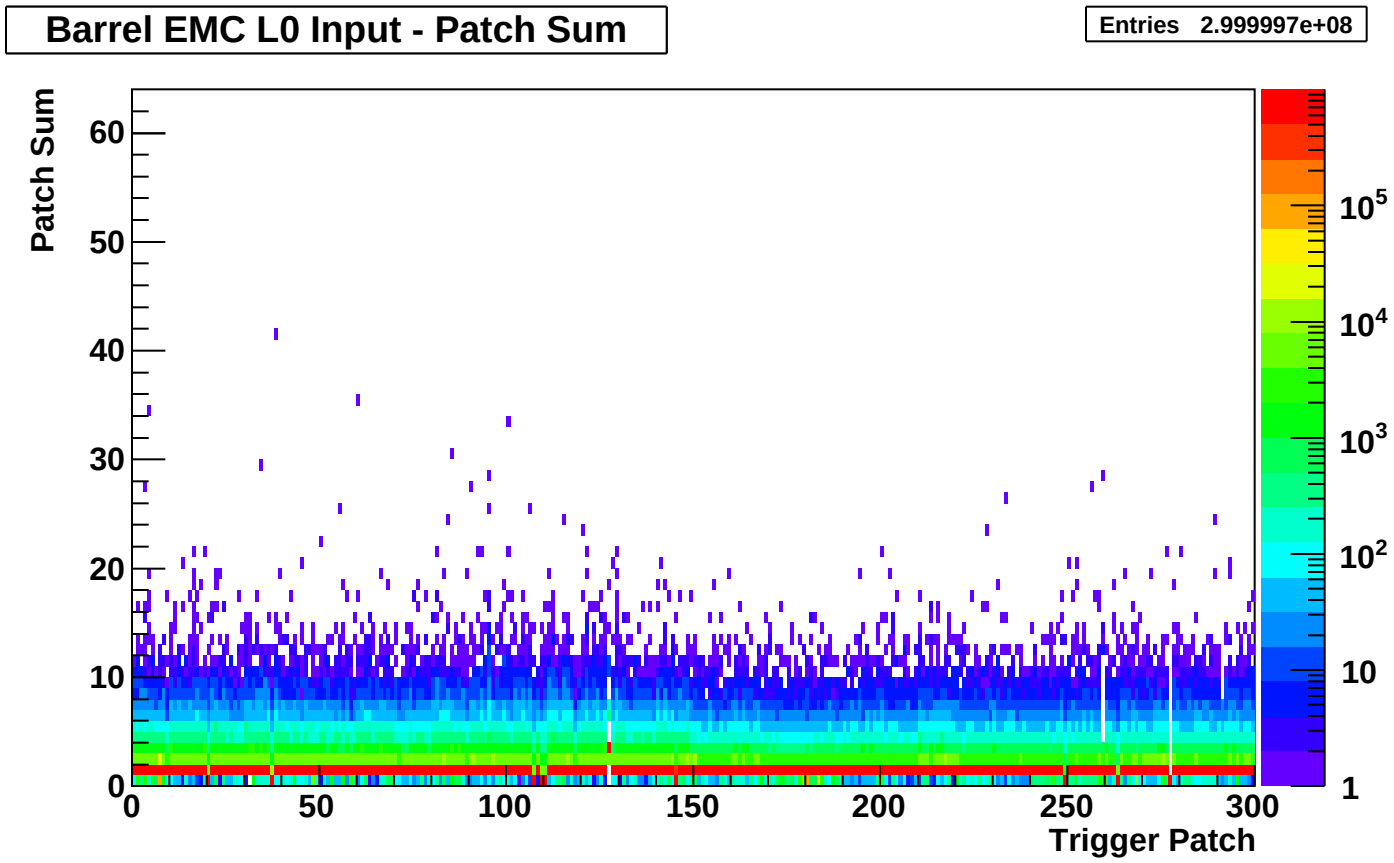
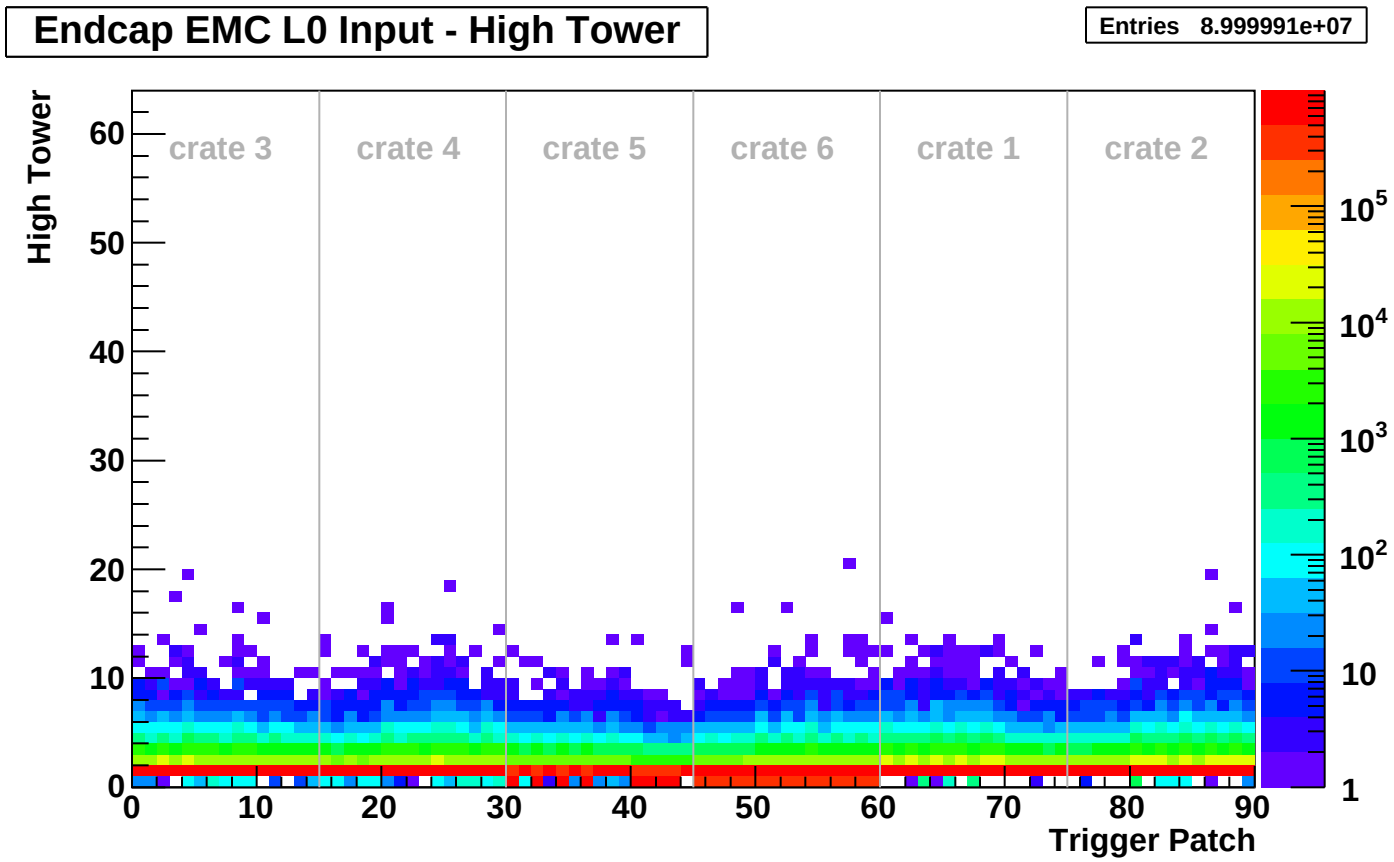
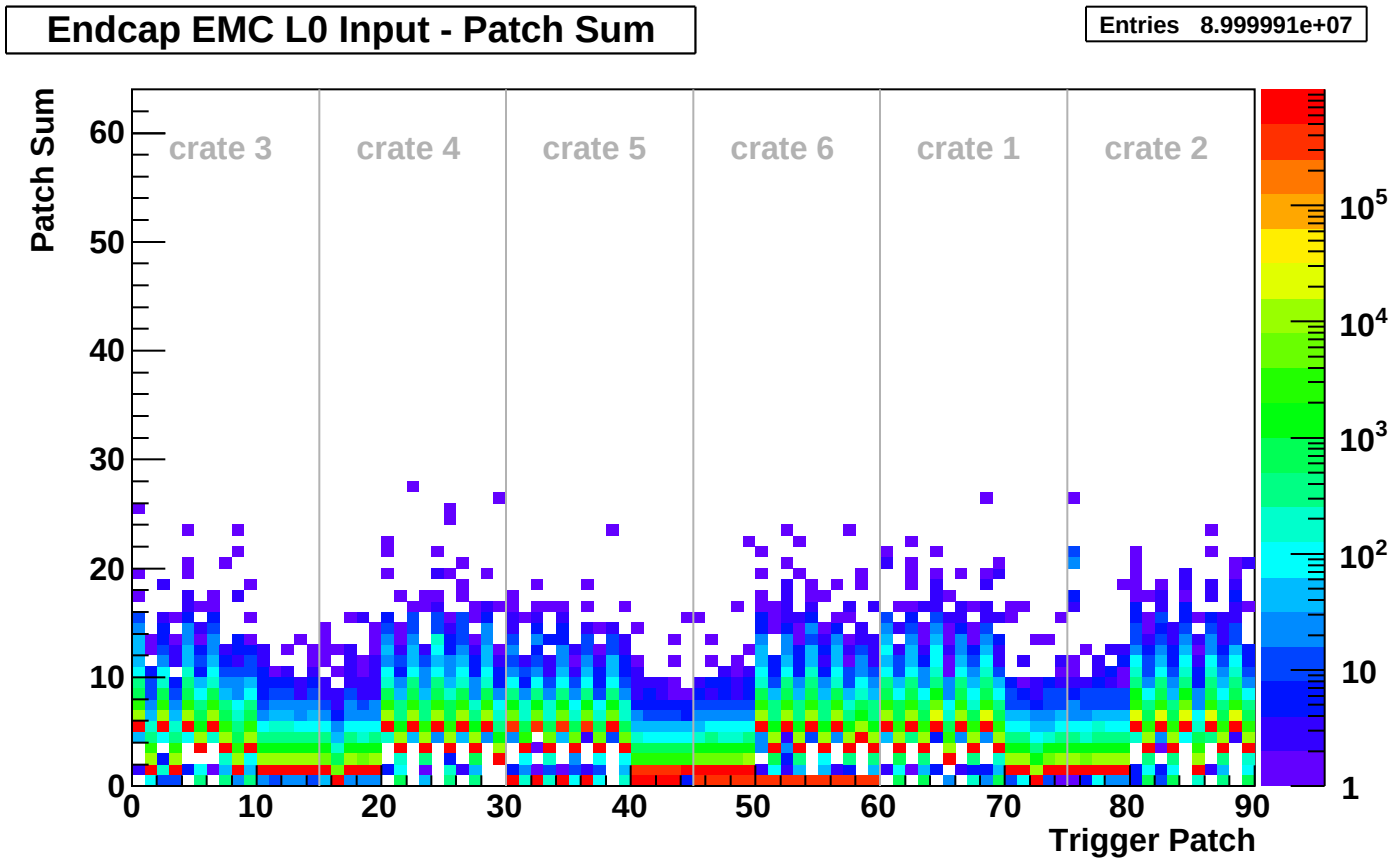
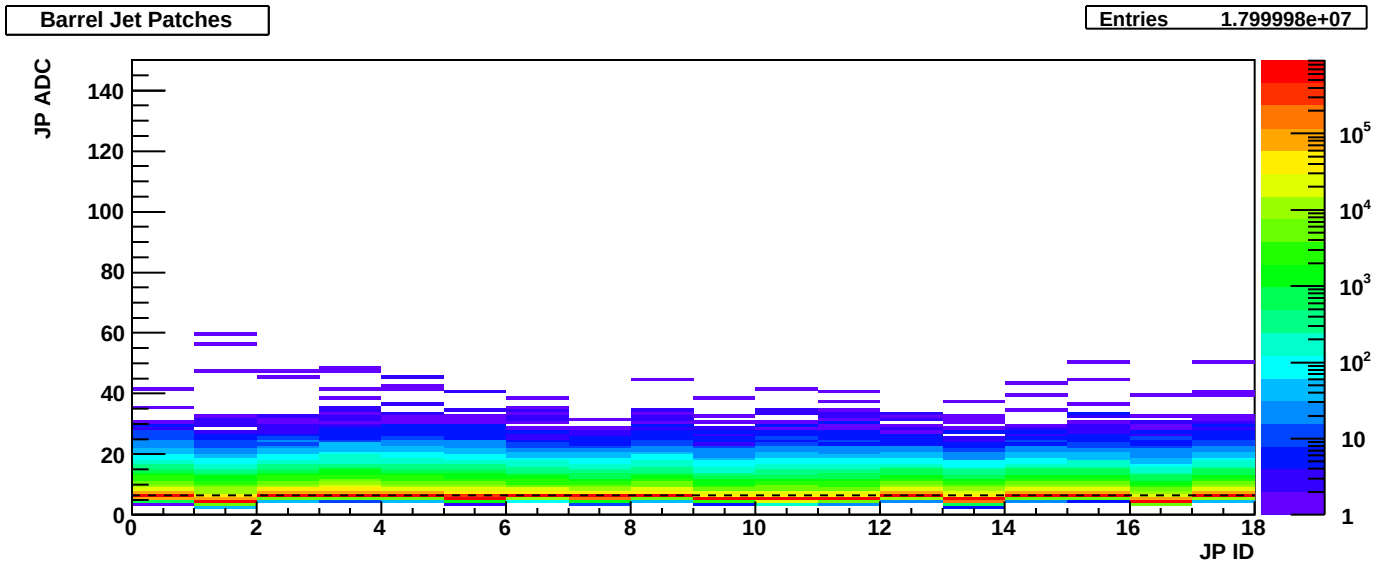
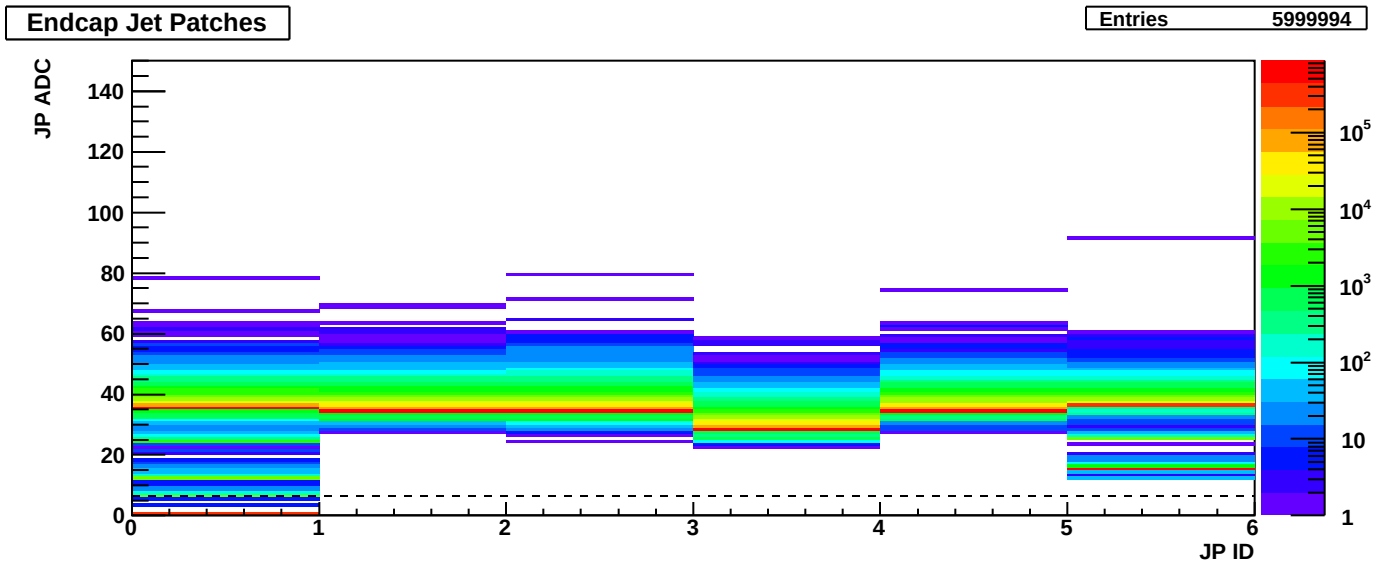

Barrel EMC L0 Input - High Tower
Entries 2.999997e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

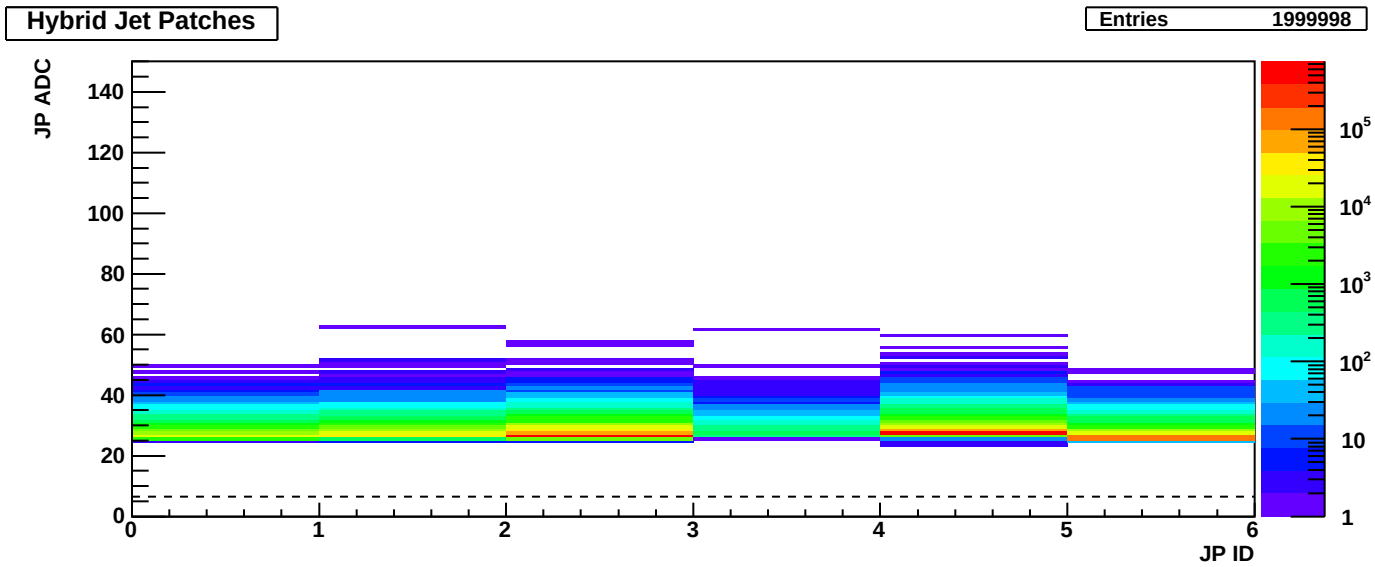

Barrel EMC L0 Input - Patch Sum
Entries 2.999997e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

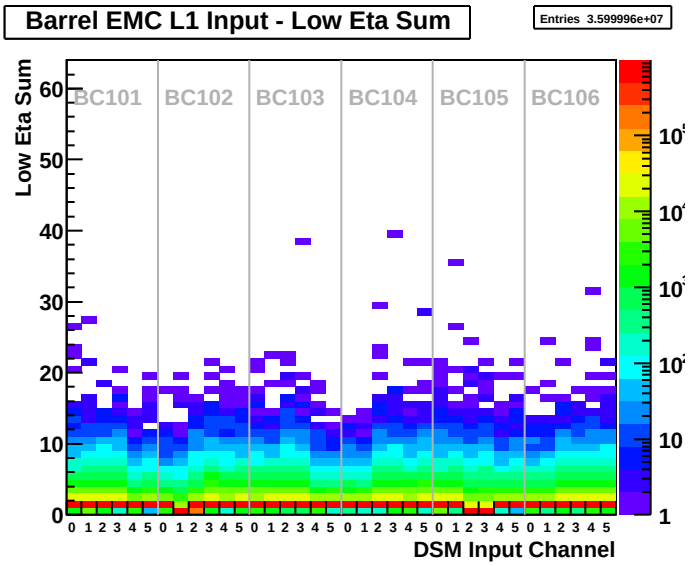

Endcap EMC L0 Input - High Tower
Entries 8.999991e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

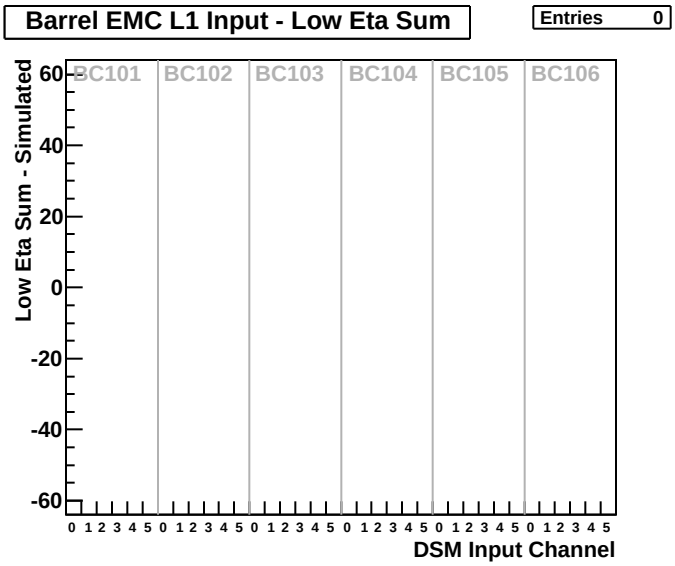

Endcap EMC L0 Input - Patch Sum
Entries 8.999991e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

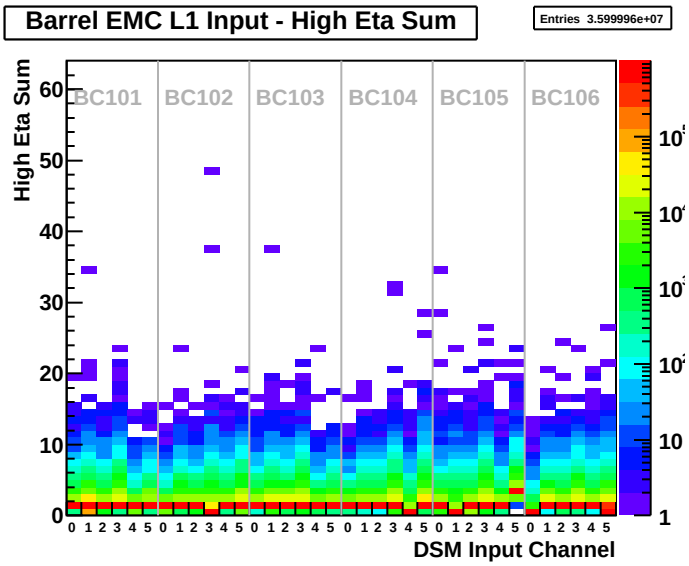

Barrel Jet Patches
Entries 1.799998e+07
JP ADC
JP ID

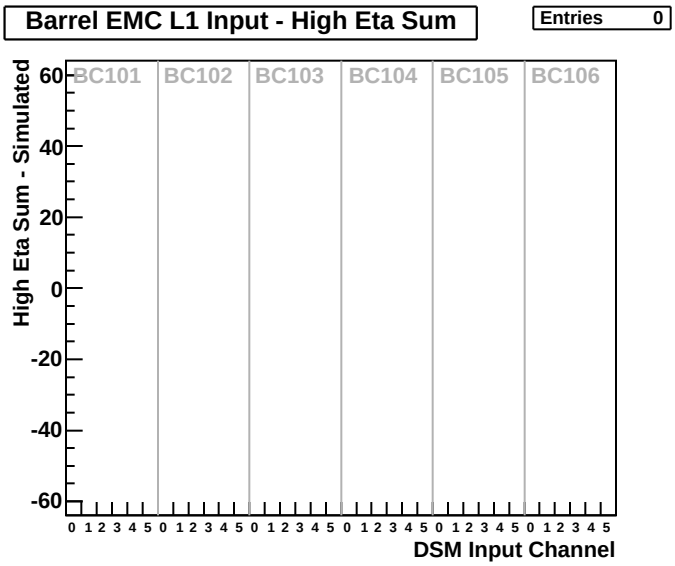

Endcap Jet Patches
Entries 5999994
JP ADC
JP ID

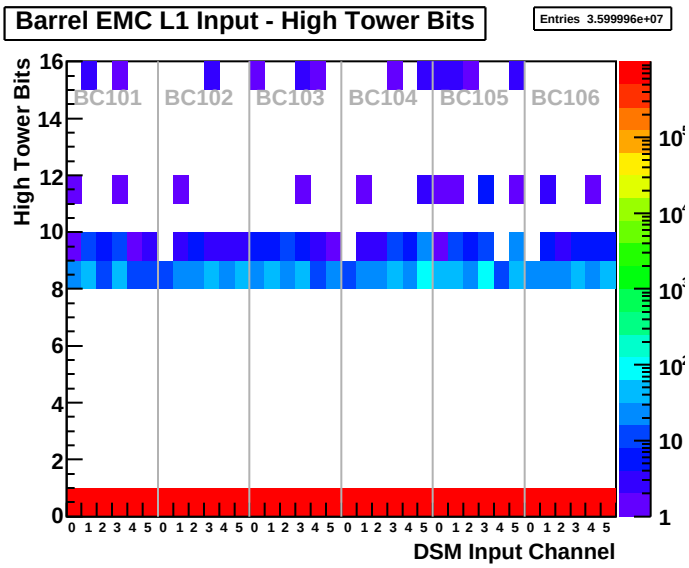

Hybrid Jet Patches
Entries 1999998
JP ADC
JP ID

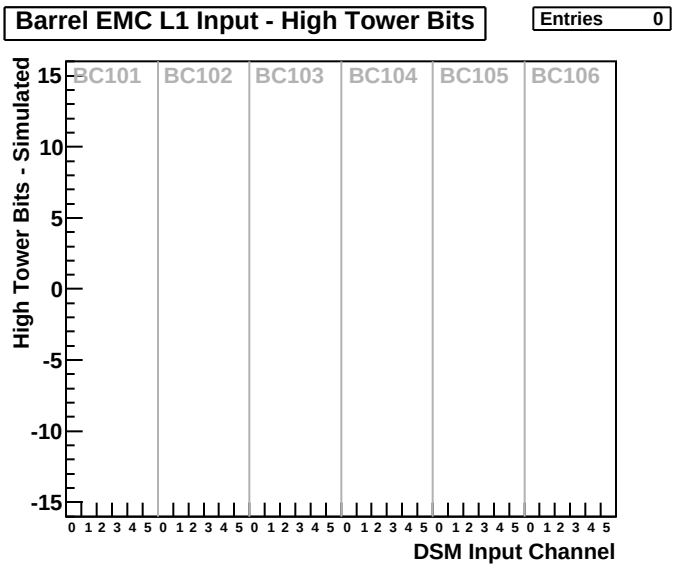

Barrel EMC L1 Input - Low Eta Sum
Entries 3.599996e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

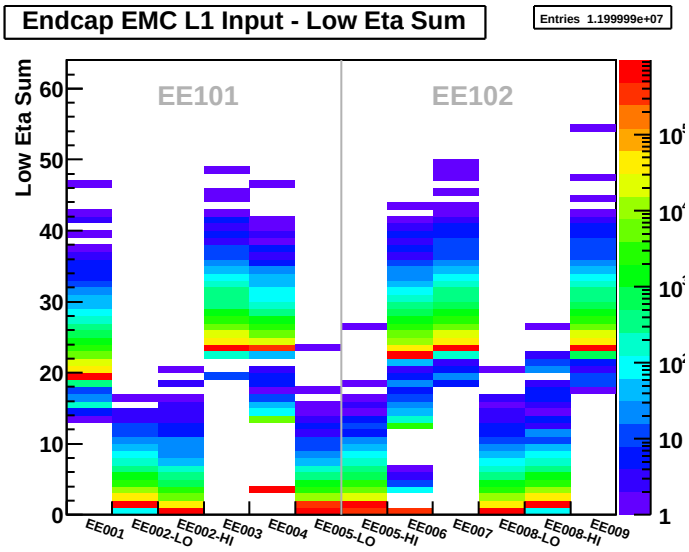

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

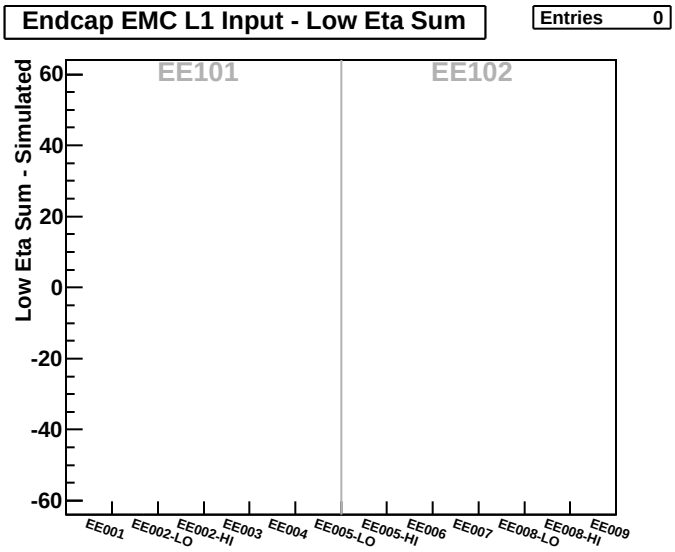

Barrel EMC L1 Input - High Eta Sum
Entries 3.599996e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

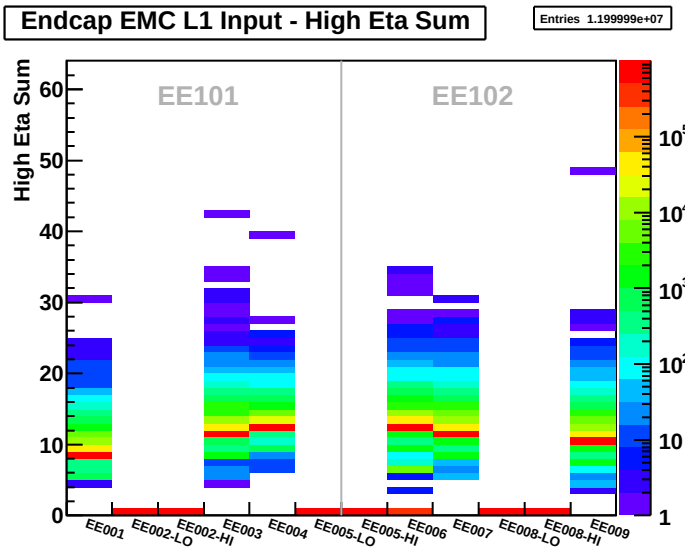

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

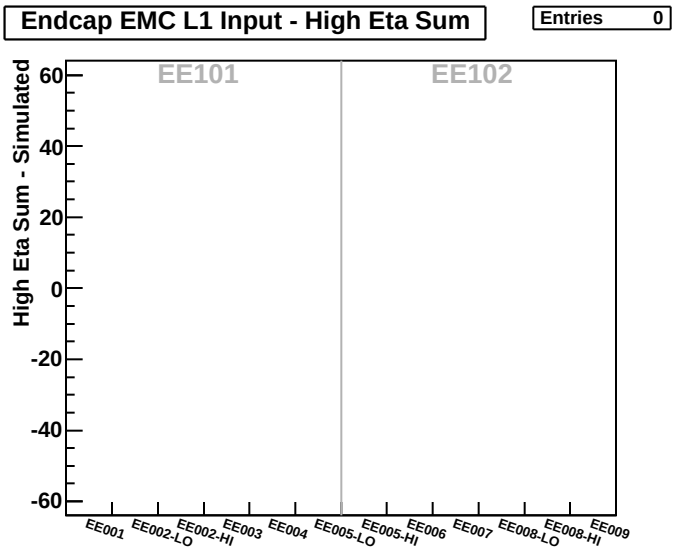

Barrel EMC L1 Input - High Tower Bits
Entries 3.599996e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

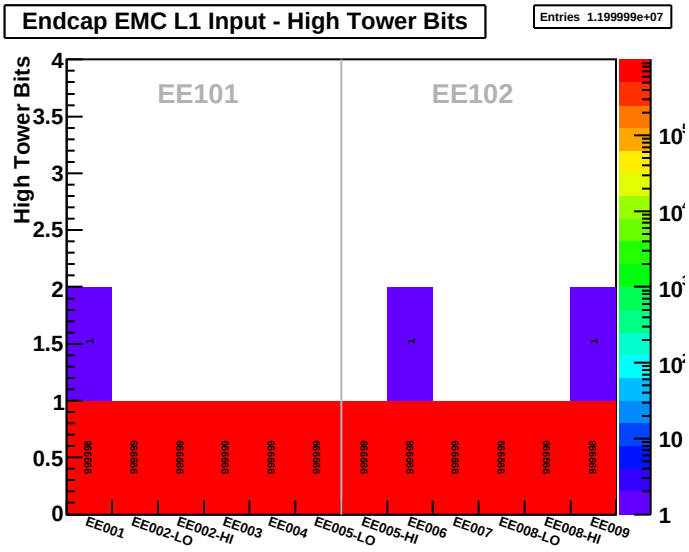

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

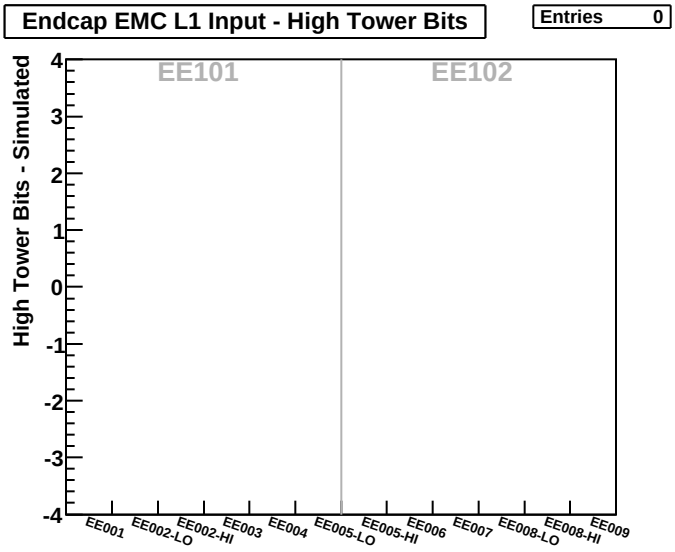

Endcap EMC L1 Input - Low Eta Sum
Entries 1.199999e+07
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

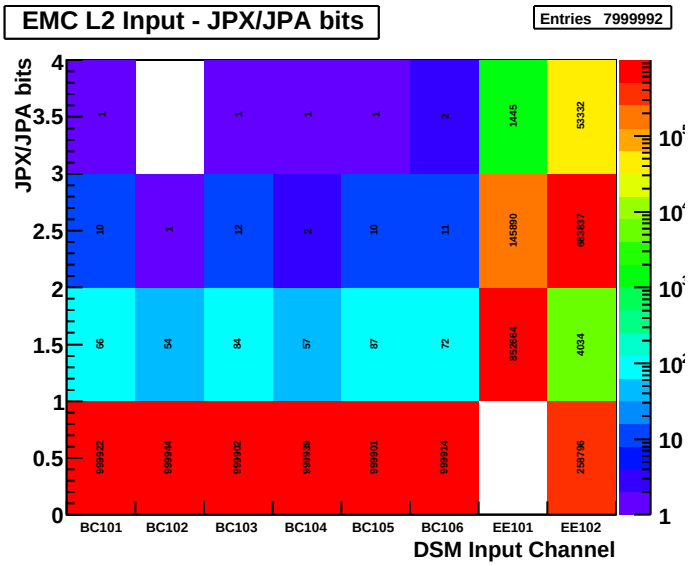

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

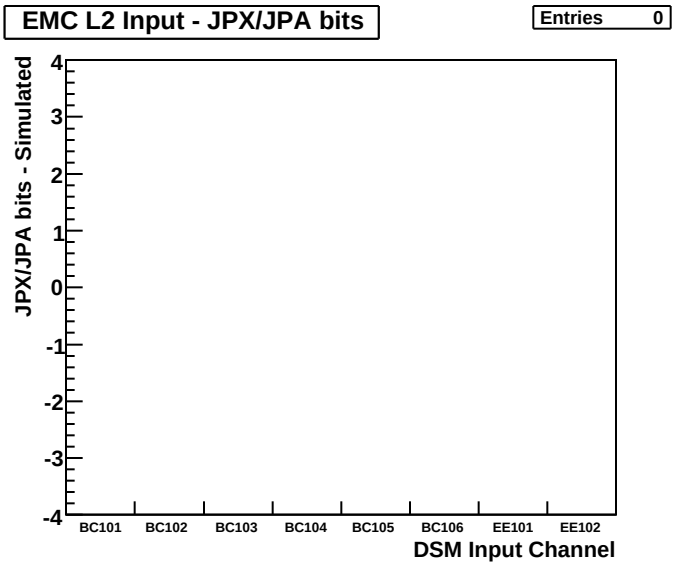

Endcap EMC L1 Input - High Eta Sum
Entries 1.199999e+07
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

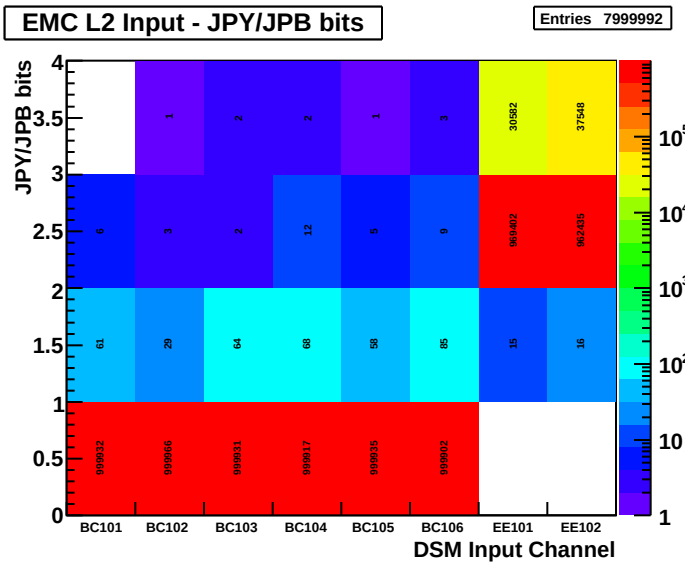

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

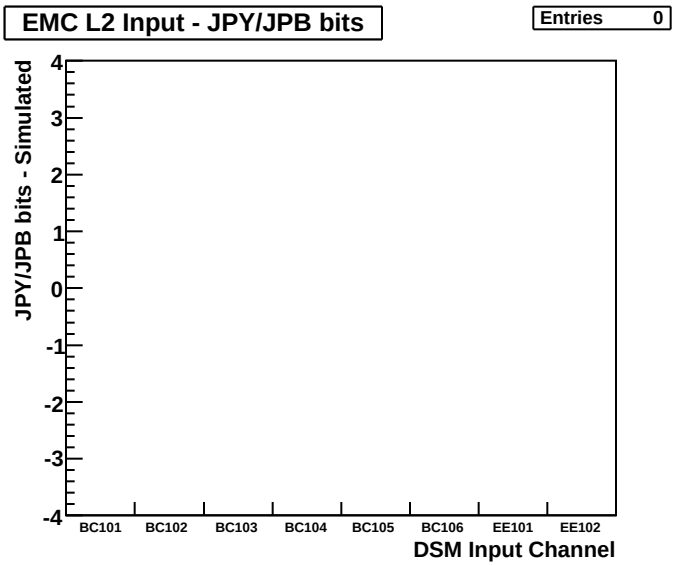

Endcap EMC L1 Input - High Tower Bits
Entries 1.199999e+07
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

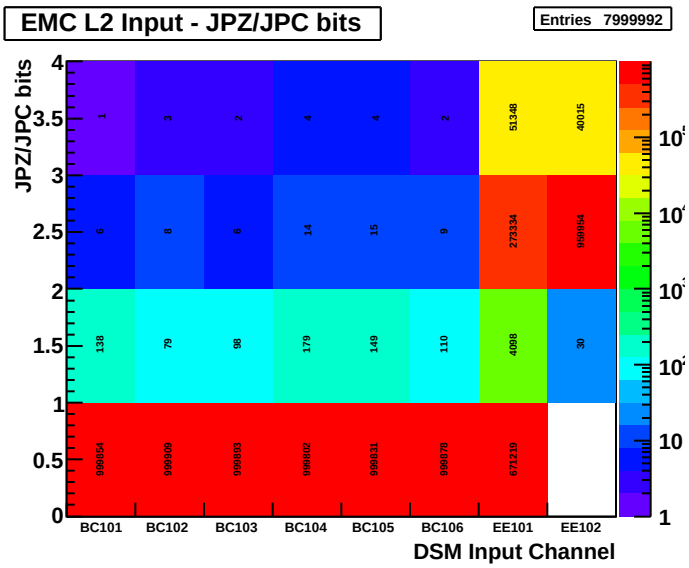

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

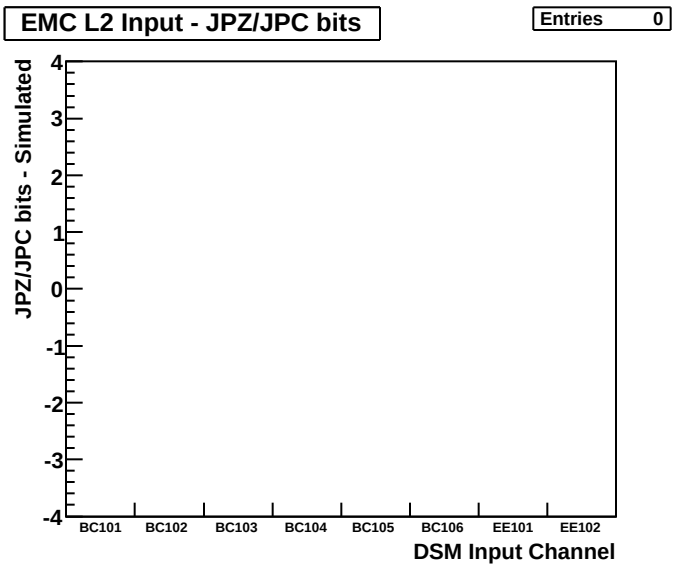

EMC L2 Input - JPX/JPA bits
Entries 7999992
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1 1 1 1 2 1445 53332
10 1 12 2 10 11 145890 683837
66 54 84 57 87 72 852664 4034
999922 999944 999902 999939 999901 999914 258796

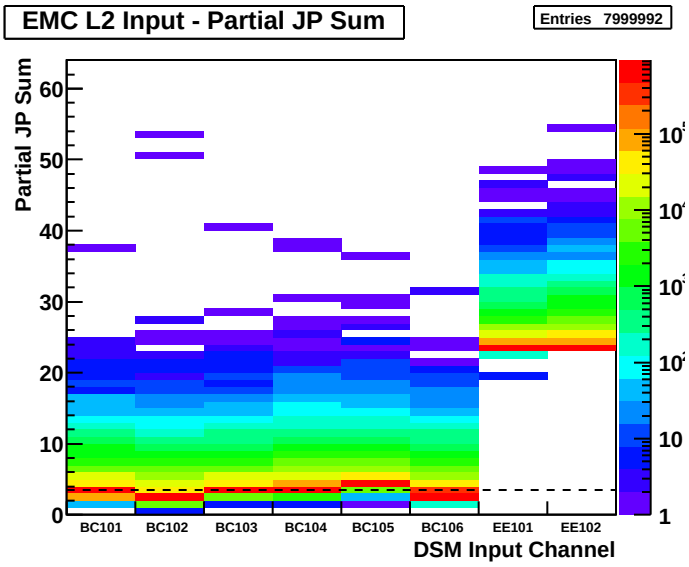

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

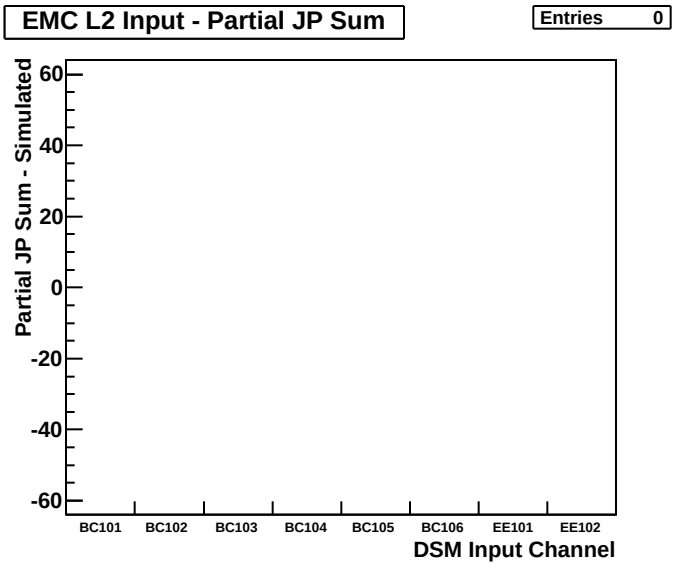

EMC L2 Input - JPY/JPB bits
Entries 7999992
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1 2 2 1 3 30582 37548
6 3 2 12 5 9 969402 962435
61 29 64 68 58 85 15 16
999932 999966 999931 999917 999935 999902

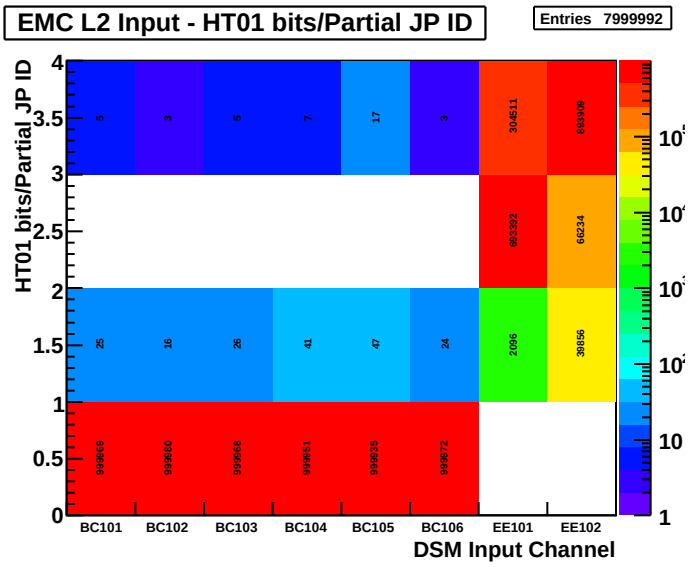

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

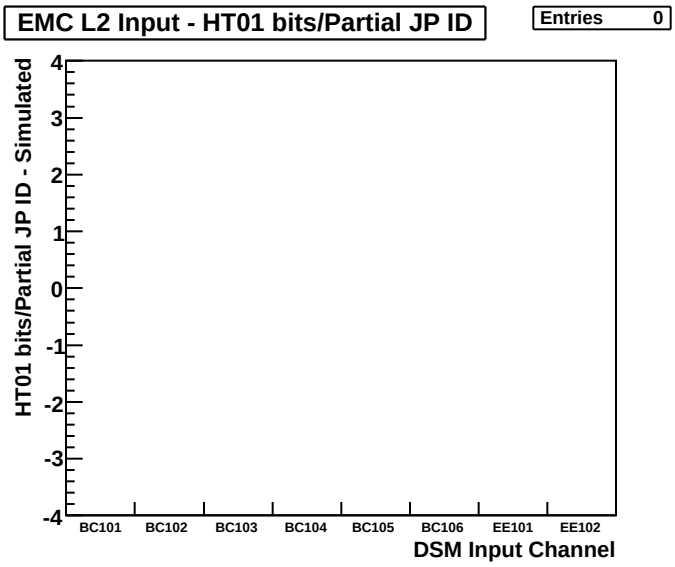

EMC L2 Input - JPZ/JPC bits
Entries 7999992
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
1 3 2 4 4 2 51348 40015
6 8 6 14 15 9 273334 959954
138 79 98 179 149 110 4098 30
999854 999909 999893 999802 999831 999878 671219

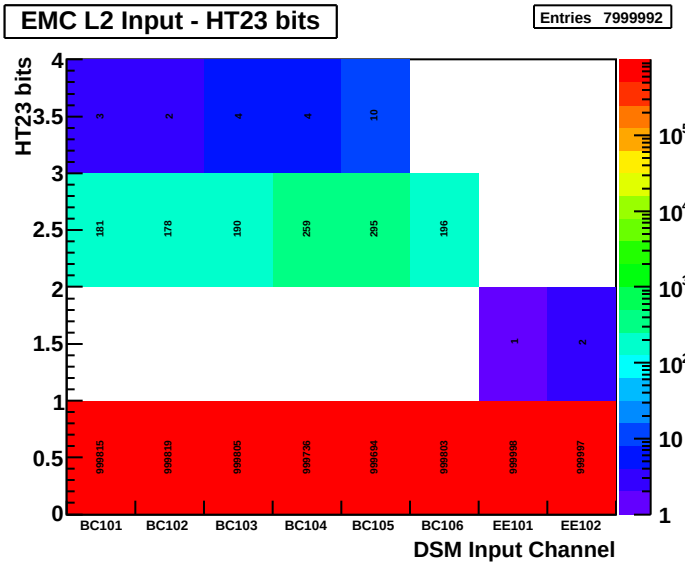

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

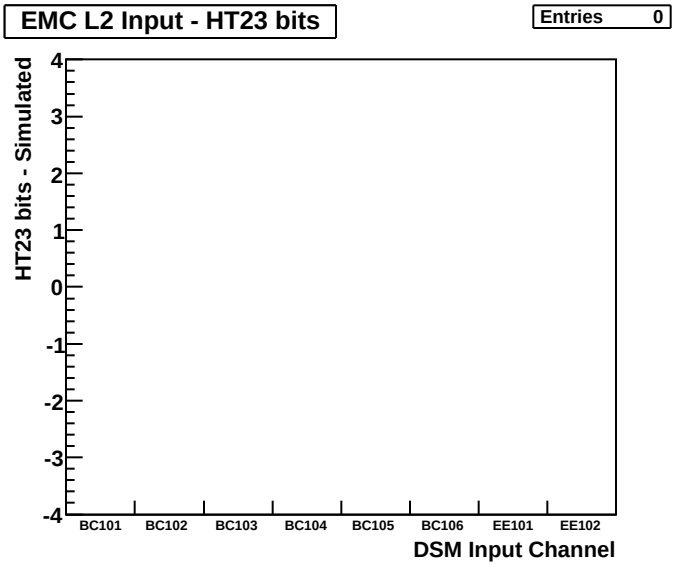

EMC L2 Input - Partial JP Sum
Entries 7999992
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

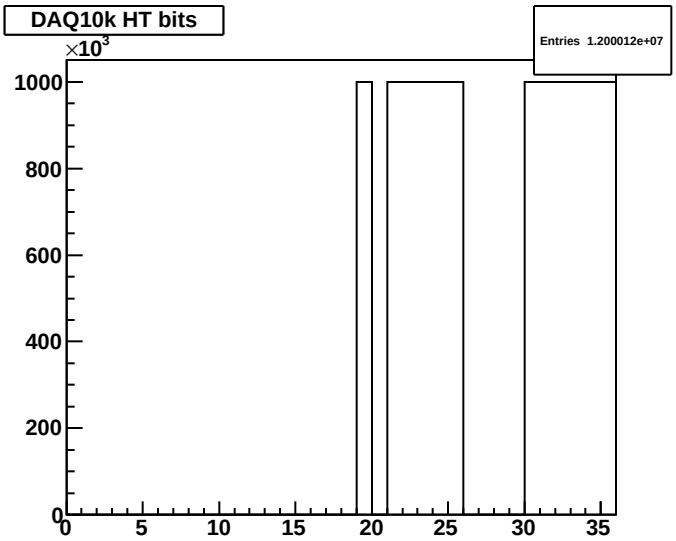

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

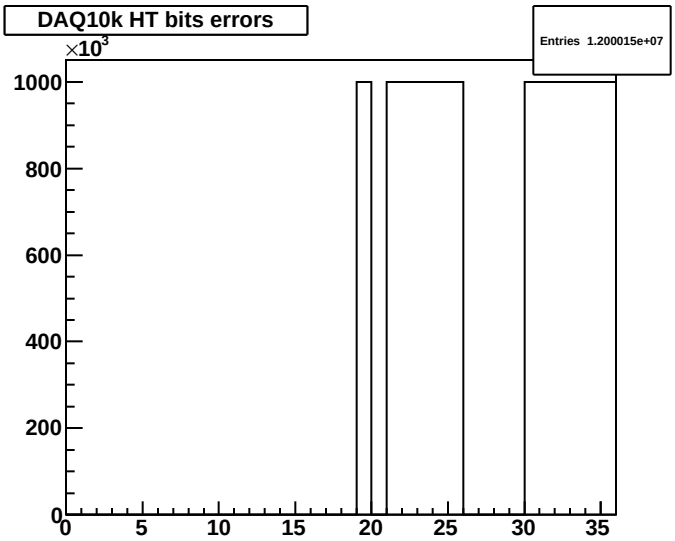

EMC L2 Input - HT01 bits/Partial JP ID
Entries 7999992
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

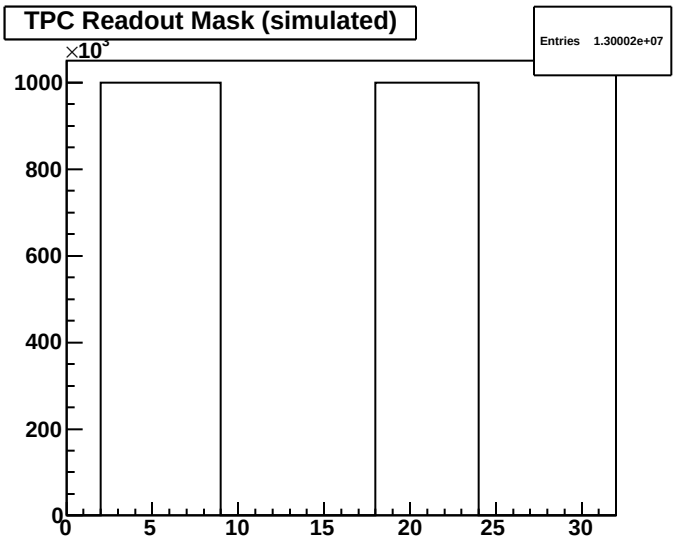

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

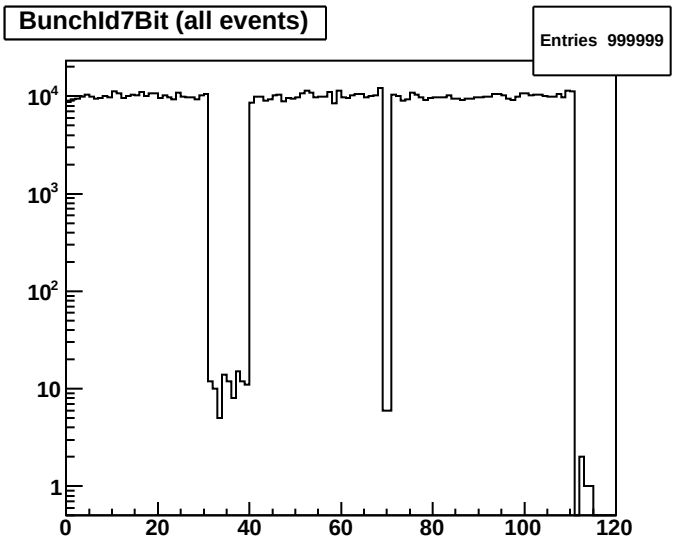

EMC L2 Input - HT23 bits
Entries 7999992
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

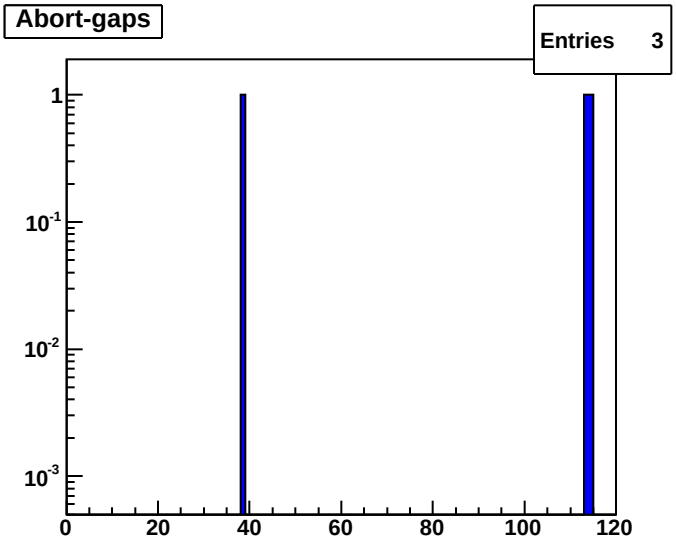

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

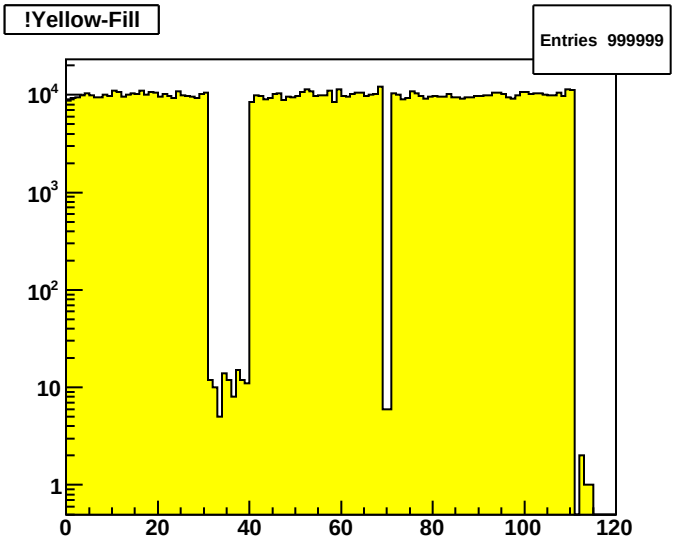

DAQ10k HT bits
Entries 1.200012e+07
×10^3
1000
800
600
400
200
0
0 5 10 15 20 25 30 35

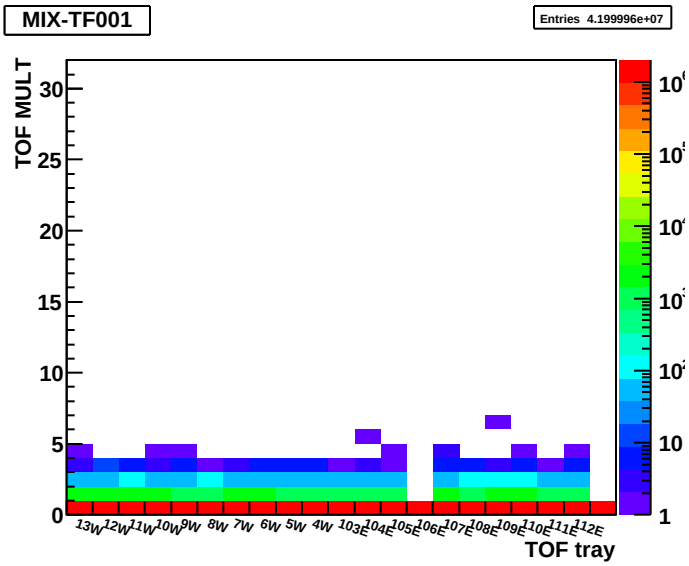

DAQ10k HT bits errors
Entries 1.200015e+07
×10^3
1000
800
600
400
200
0
0 5 10 15 20 25 30 35

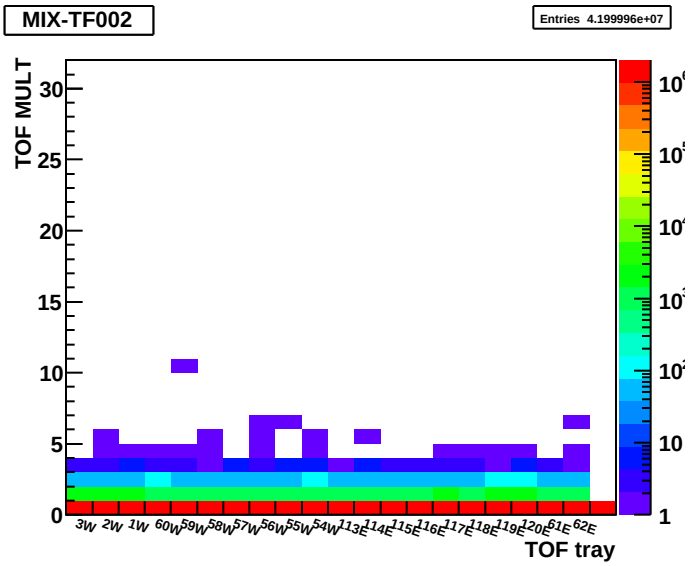

TPC Readout Mask (simulated)
Entries 1.30002e+07
×10^3
1000
800
600
400
200
0
0 5 10 15 20 25 30

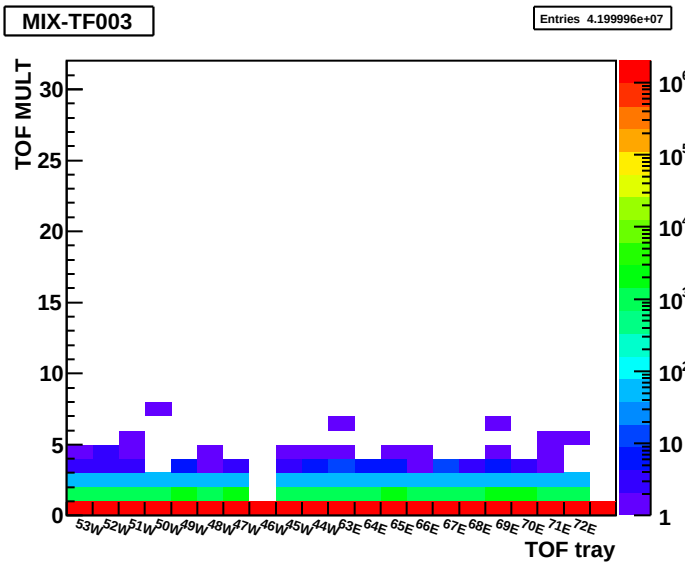

BunchId7Bit (all events)
Entries 999999
10^4
10^3
10^2
10
1
0 20 40 60 80 100 120

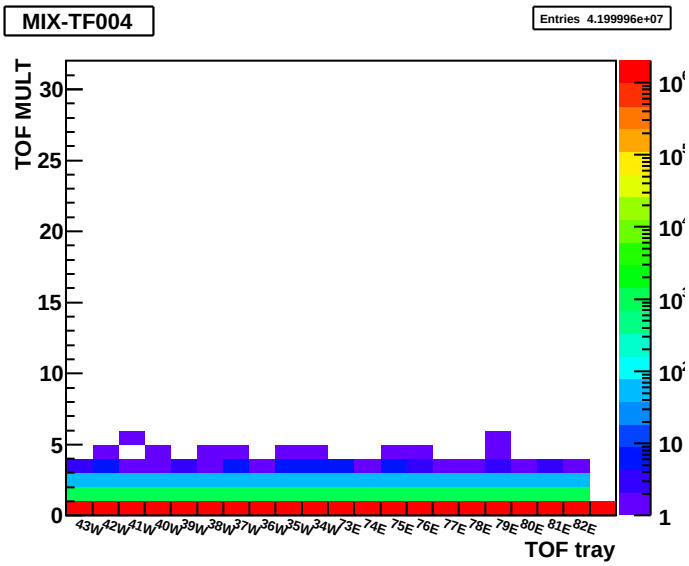

Abort-gaps
Entries 3
1
10^-1
10^-2
10^-3
0 20 40 60 80 100 120

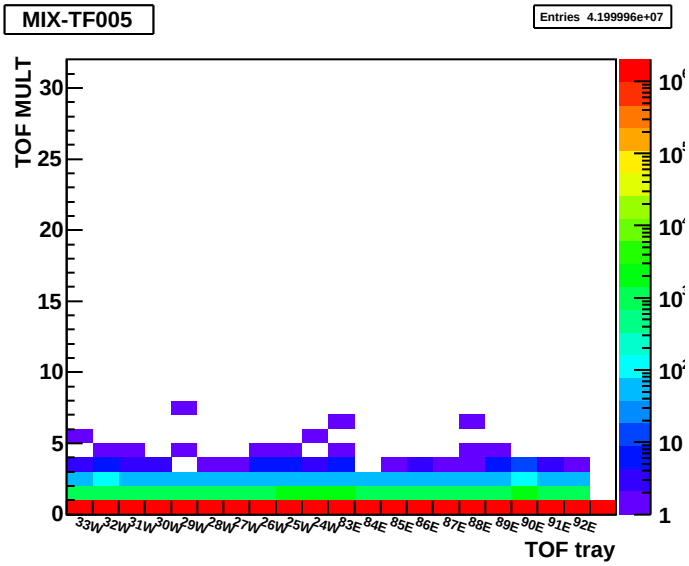

!Yellow-Fill
Entries 999999
10^4
10^3
10^2
10
1
0 20 40 60 80 100 120

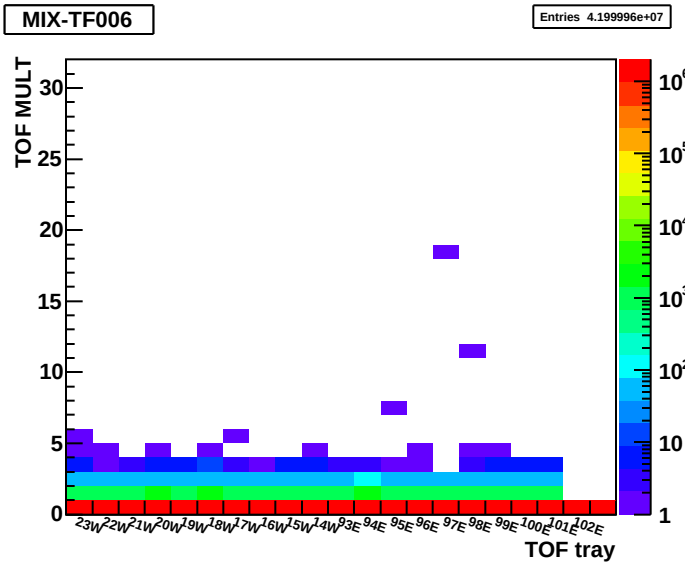

MIX-TF001
Entries 4.199996e+07
TOF MULT
TOF tray

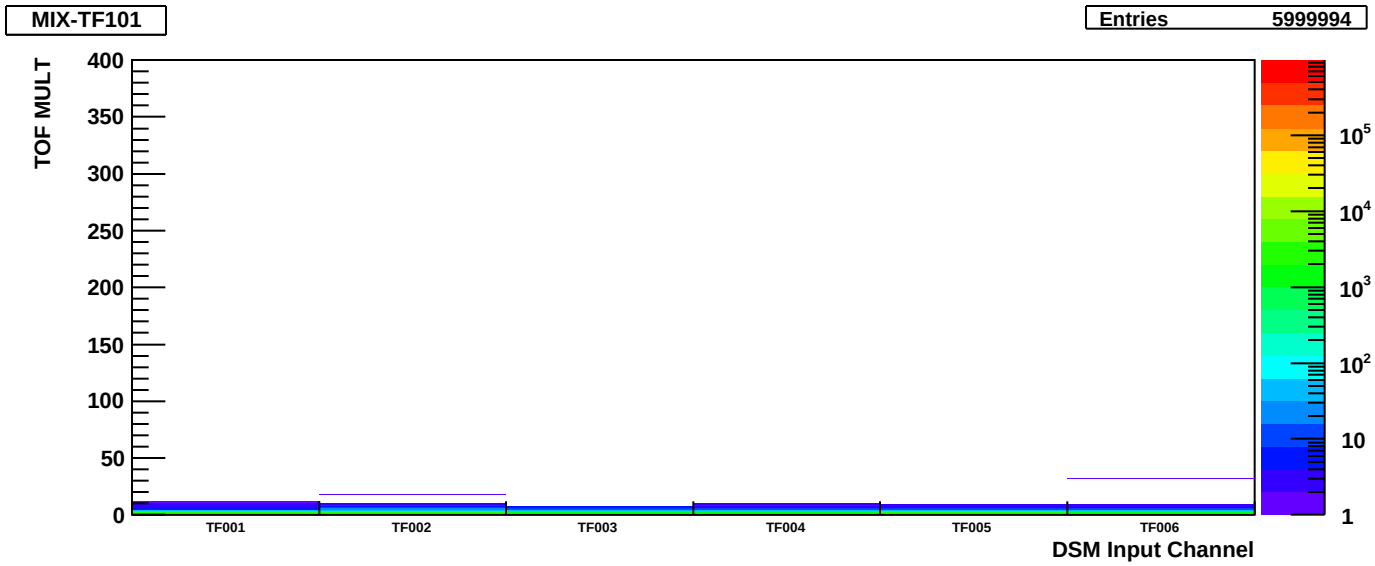

MIX-TF002
Entries 4.199996e+07
TOF MULT
TOF tray

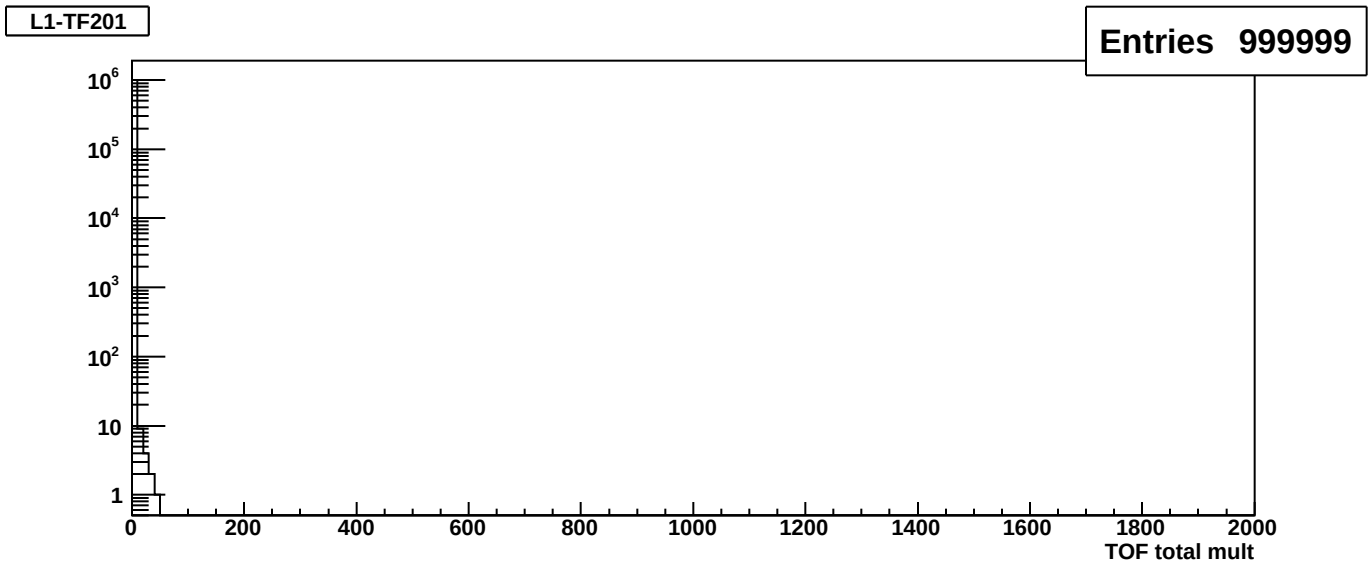

MIX-TF003
Entries 4.199996e+07
TOF MULT
TOF tray

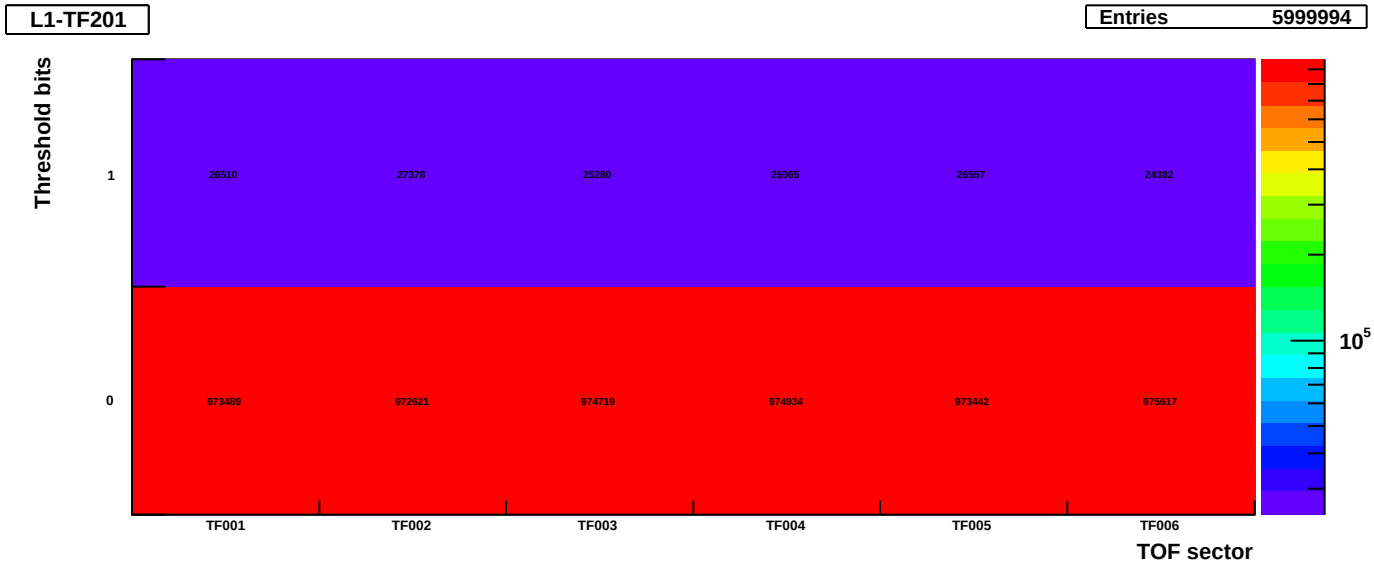

MIX-TF004
Entries 4.199996e+07
TOF MULT
TOF tray

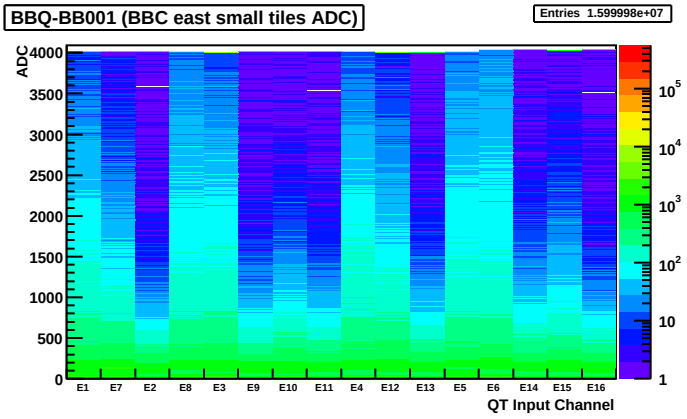

MIX-TF005
Entries 4.199996e+07
TOF MULT
TOF tray

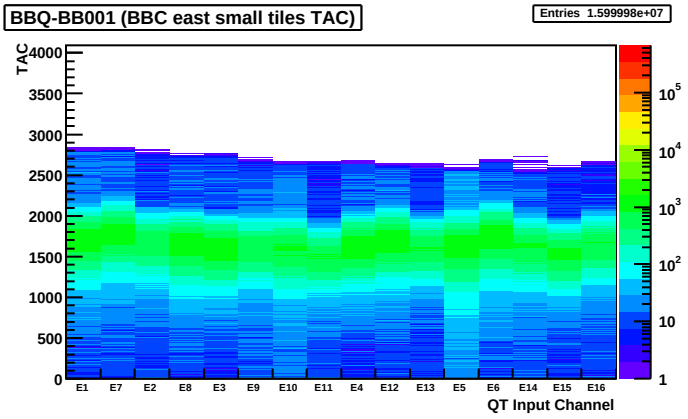

MIX-TF006
Entries 4.199996e+07
TOF MULT
TOF tray

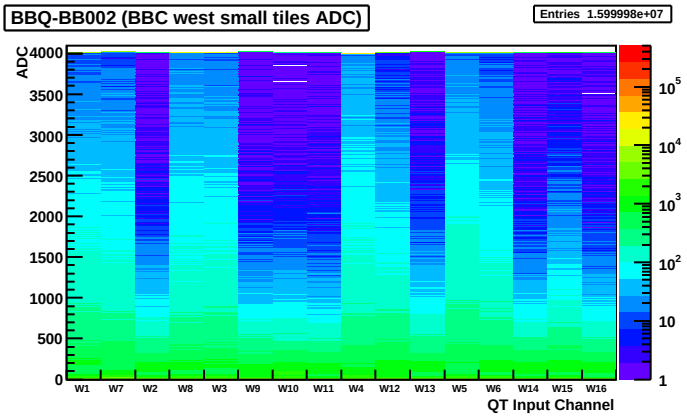

MIX-TF101
Entries 5999994
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

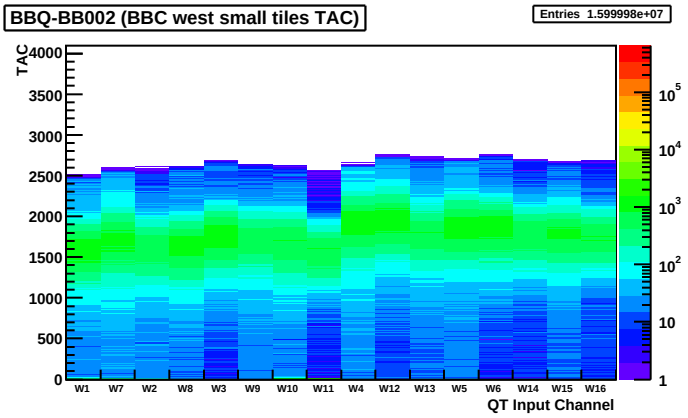

L1-TF201
Entries 999999
10^6
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

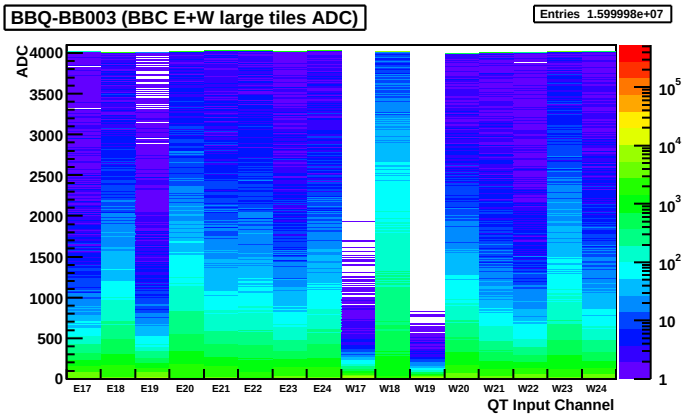

L1-TF201
Entries 5999994
Threshold bits
1
0
26510
27378
25280
25065
26557
24382
973489
972621
974719
974934
973442
975617
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^5

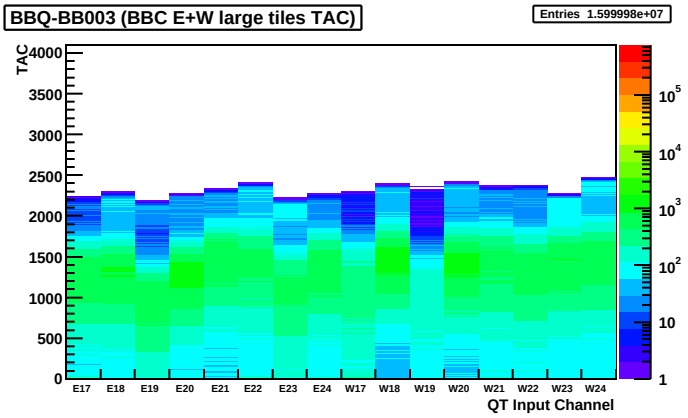

BBQ-BB001 (BBC east small tiles ADC)
Entries 1.599998e+07
ADC
QT Input Channel

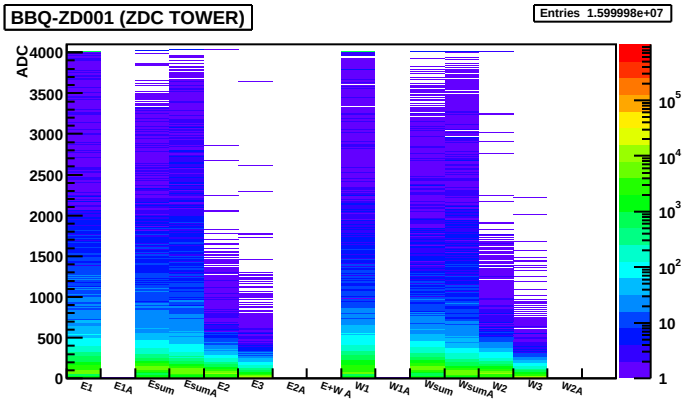

BBQ-BB001 (BBC east small tiles TAC)
Entries 1.599998e+07
TAC
QT Input Channel

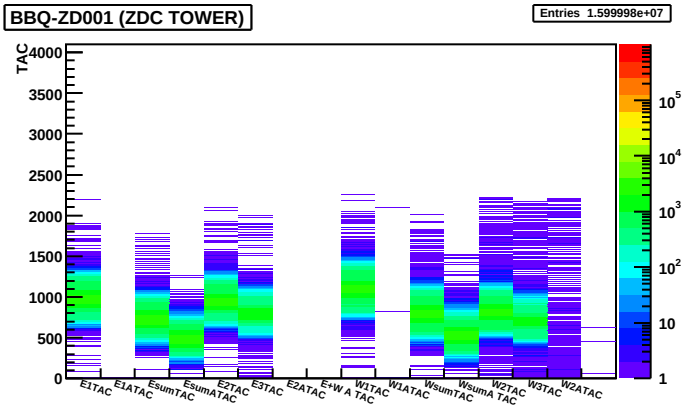

BBQ-BB002 (BBC west small tiles ADC)
Entries 1.599998e+07
ADC
QT Input Channel

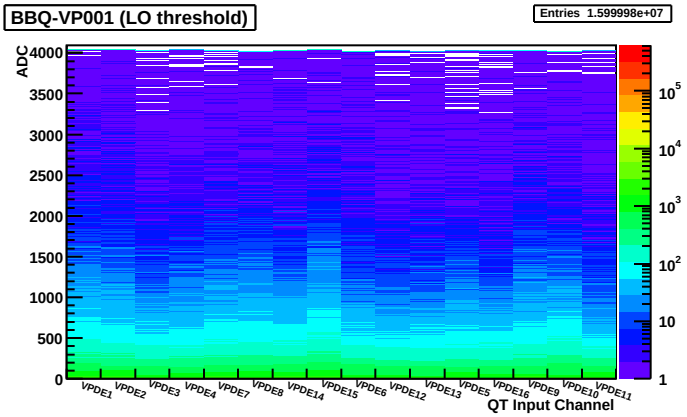

BBQ-BB002 (BBC west small tiles TAC)
Entries 1.599998e+07
TAC
QT Input Channel

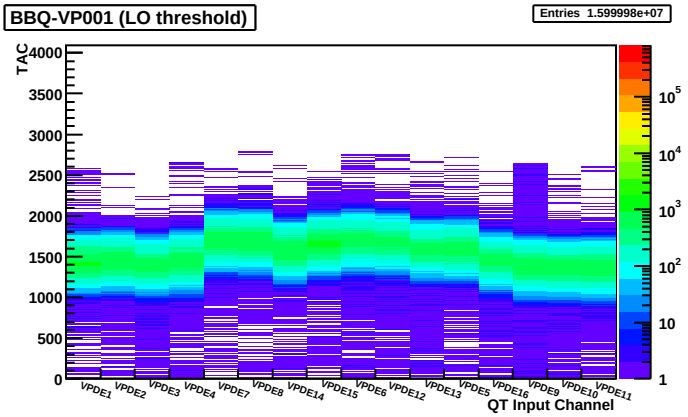

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1.599998e+07
ADC
QT Input Channel

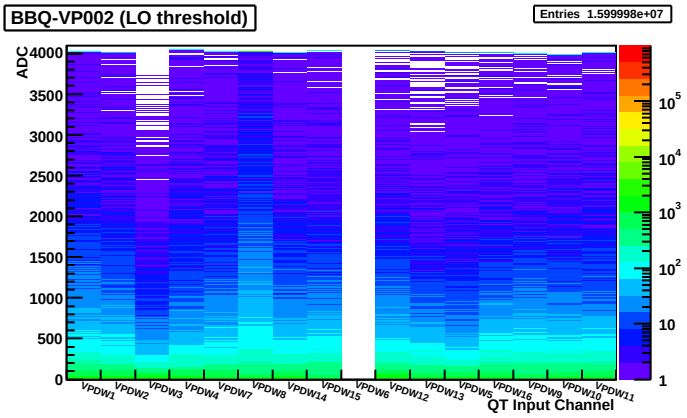

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1.599998e+07
TAC
QT Input Channel

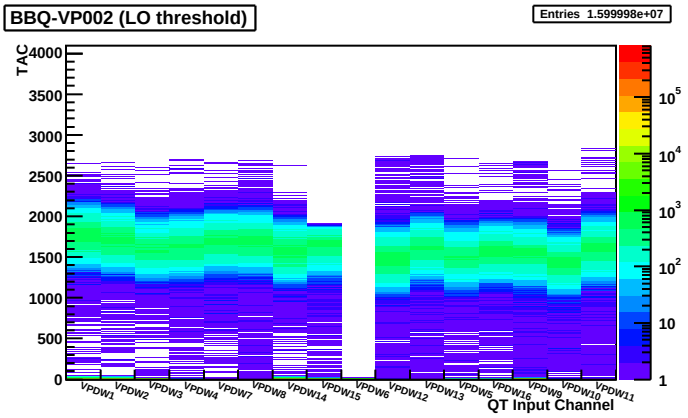

BBQ-ZD001 (ZDC TOWER)
Entries 1.599998e+07
ADC

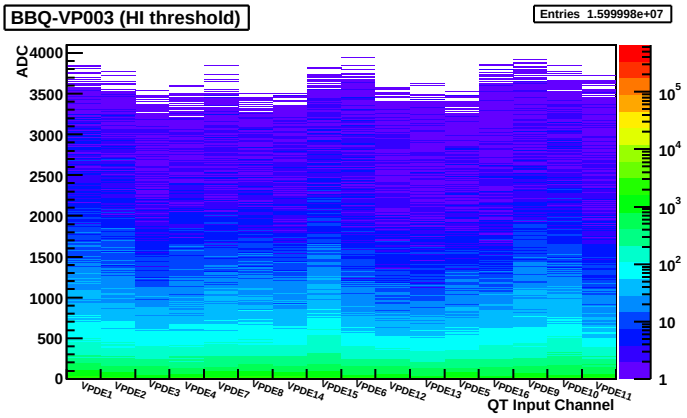

BBQ-ZD001 (ZDC TOWER)
Entries 1.599998e+07
TAC

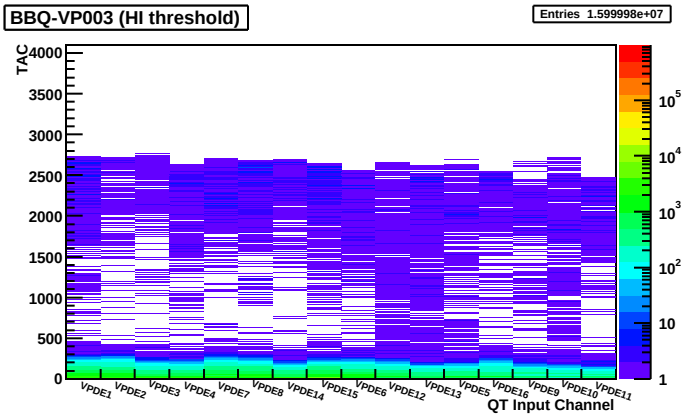

BBQ-VP001 (LO threshold)
Entries 1.599998e+07
ADC
QT Input Channel

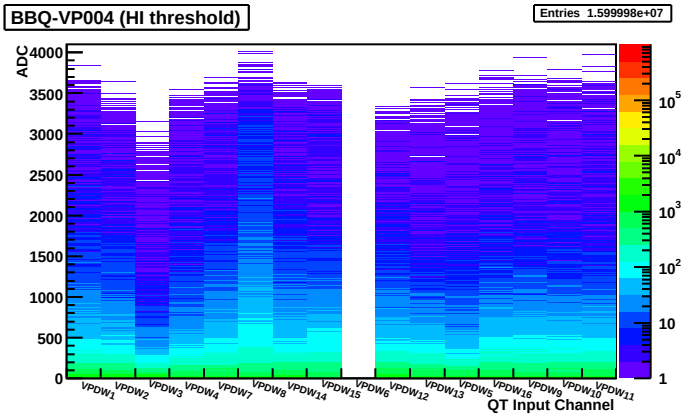

BBQ-VP001 (LO threshold)
Entries 1.599998e+07
TAC
QT Input Channel

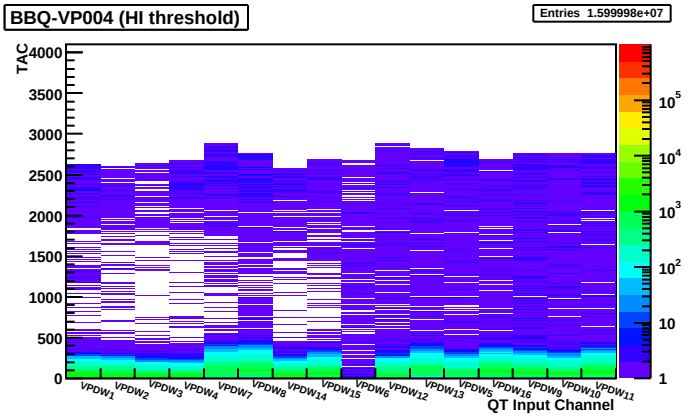

BBQ-VP002 (LO threshold)
Entries 1.599998e+07
ADC
QT Input Channel

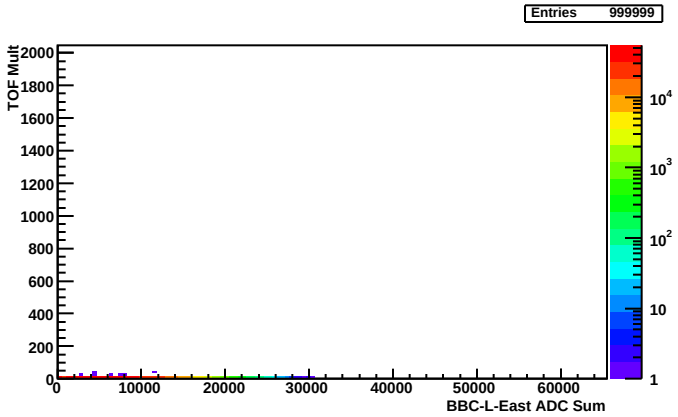

BBQ-VP002 (LO threshold)
Entries 1.599998e+07
TAC
QT Input Channel

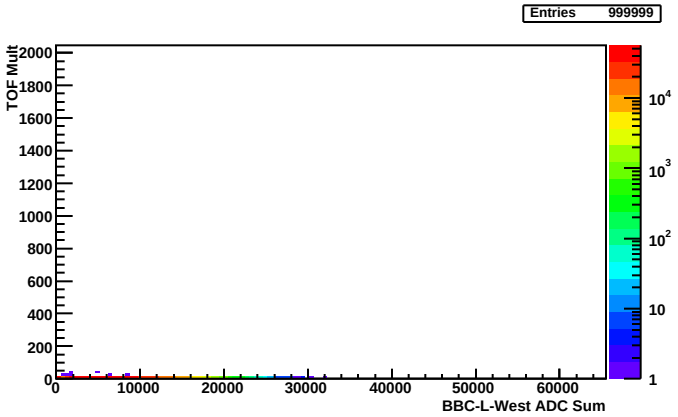

BBQ-VP003 (HI threshold)
Entries 1.599998e+07
ADC
QT Input Channel

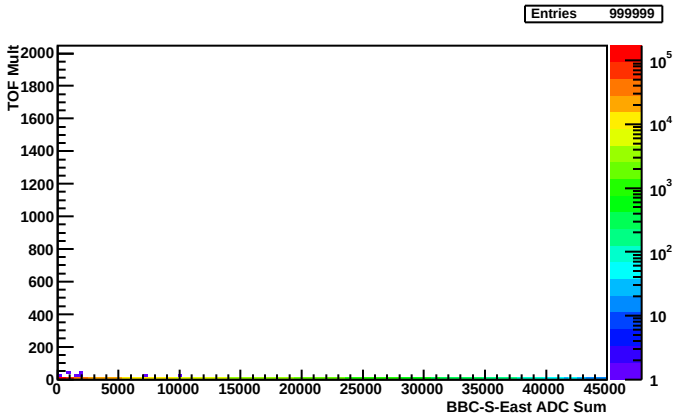

BBQ-VP003 (HI threshold)
Entries 1.599998e+07
TAC
QT Input Channel

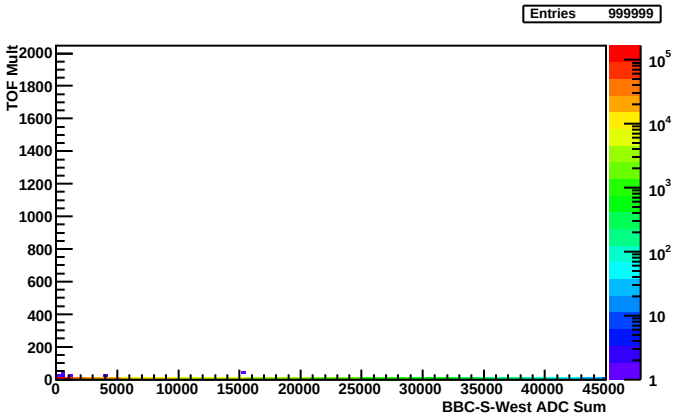

BBQ-VP004 (HI threshold)
Entries 1.599998e+07
ADC
QT Input Channel

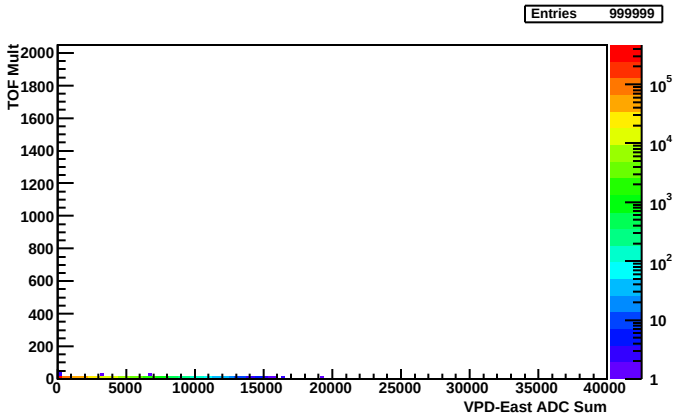

BBQ-VP004 (HI threshold)
Entries 1.599998e+07
TAC
QT Input Channel

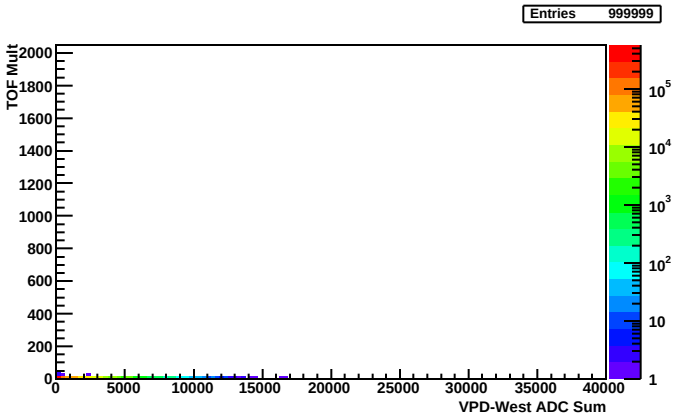

Entries 999999
TOF Mult
BBC-L-East ADC Sum

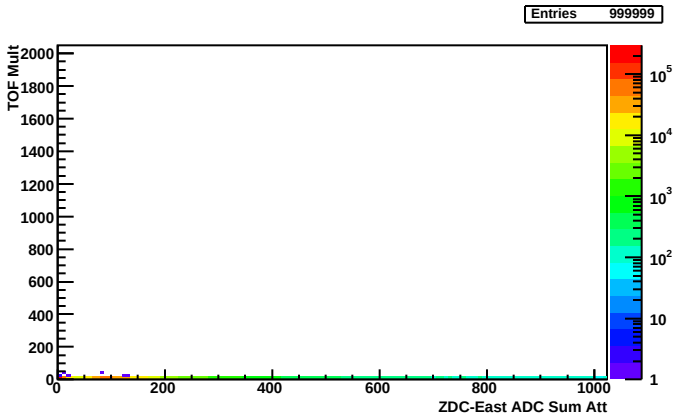

Entries 999999
TOF Mult
BBC-L-West ADC Sum

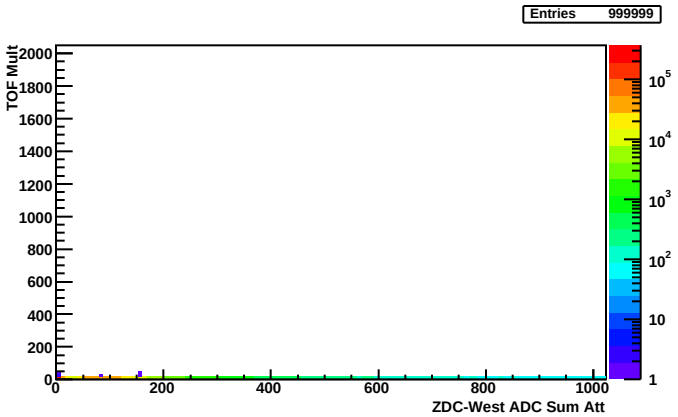

Entries 999999
TOF Mult
BBC-S-East ADC Sum

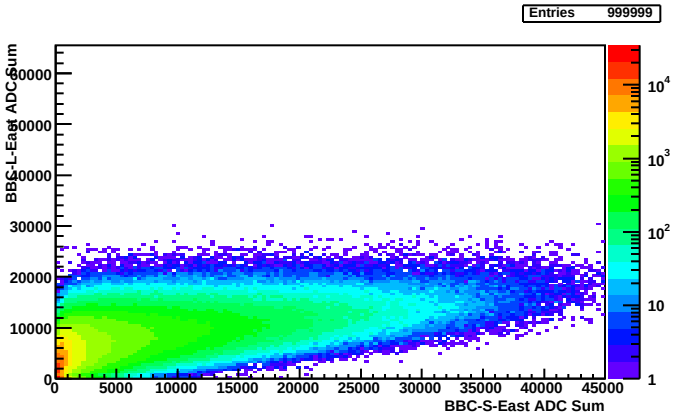

Entries 999999
TOF Mult
BBC-S-West ADC Sum

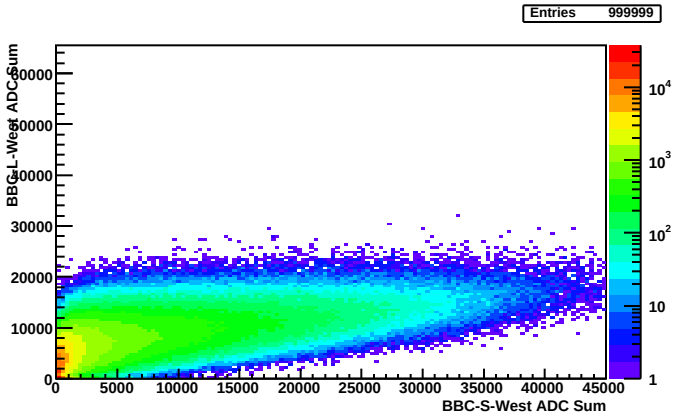

Entries 999999
TOF Mult
VPD-East ADC Sum

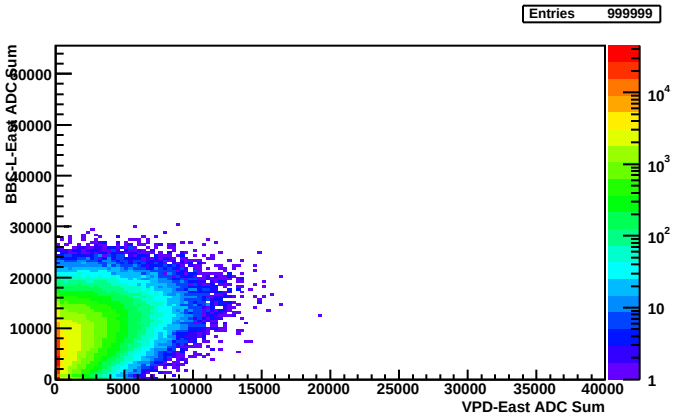

Entries 999999
TOF Mult
VPD-West ADC Sum

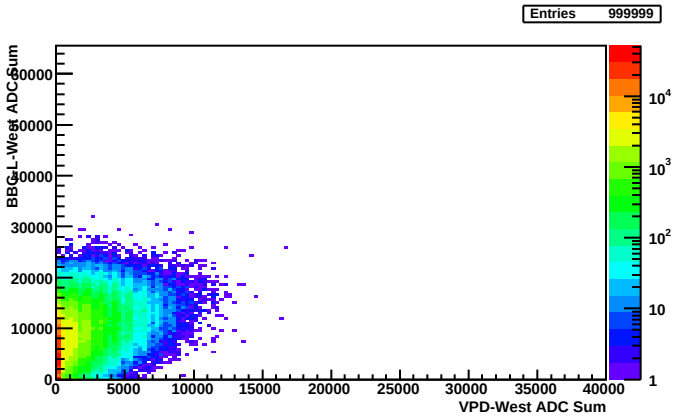

Entries 999999
TOF Mult
ZDC-East ADC Sum Att

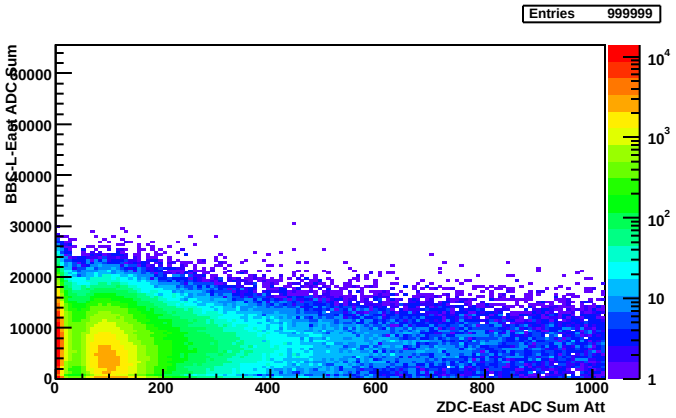

Entries 999999
TOF Mult
ZDC-West ADC Sum Att

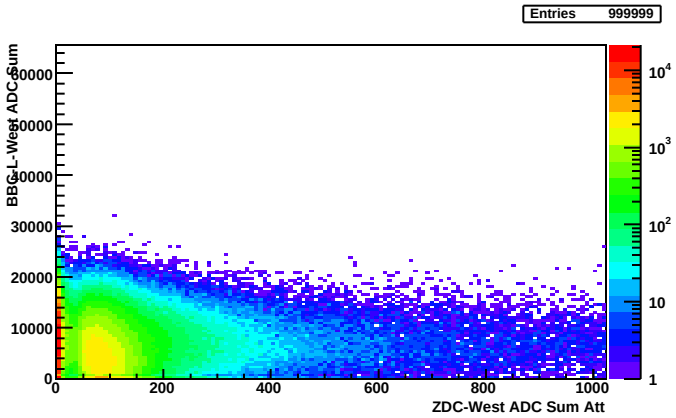

Entries 999999
BBC-L-East ADC Sum
BBC-S-East ADC Sum

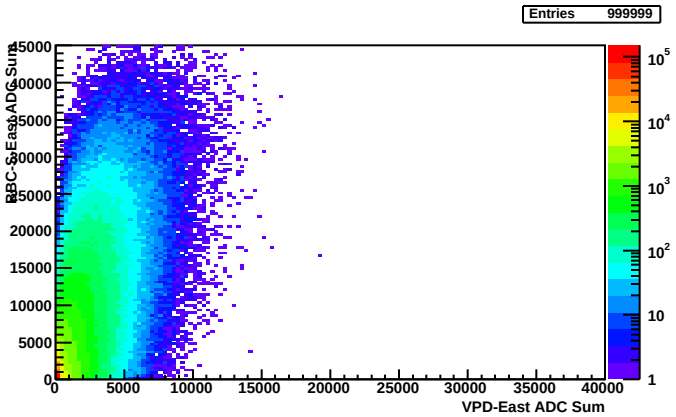

Entries 999999
BBC-L-West ADC Sum
BBC-S-West ADC Sum

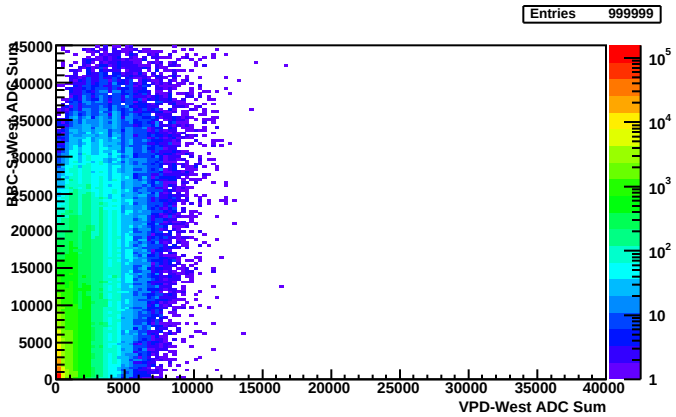

Entries 999999
BBC-L-East ADC Sum
VPD-East ADC Sum

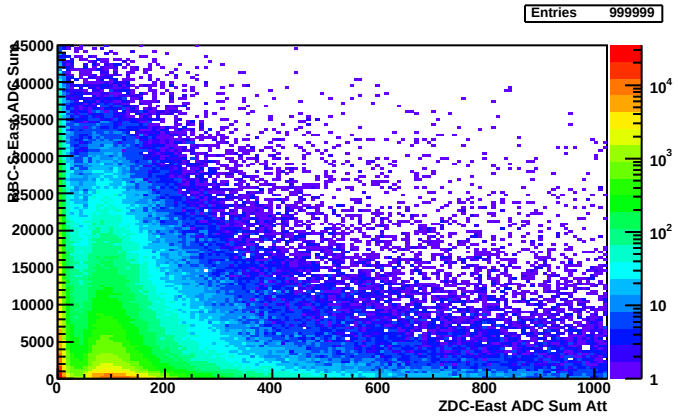

Entries 999999
BBC-L-West ADC Sum
VPD-West ADC Sum

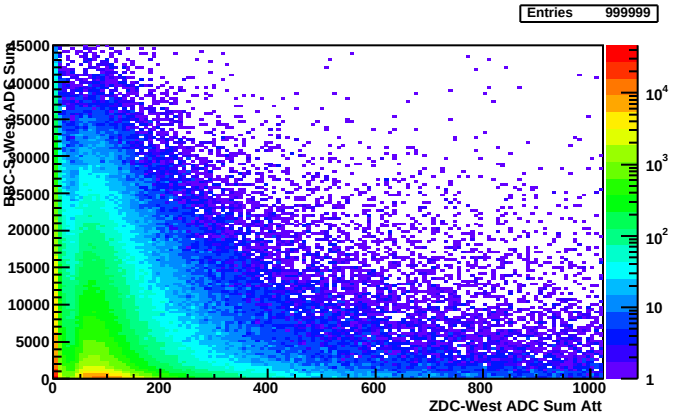

Entries 999999
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

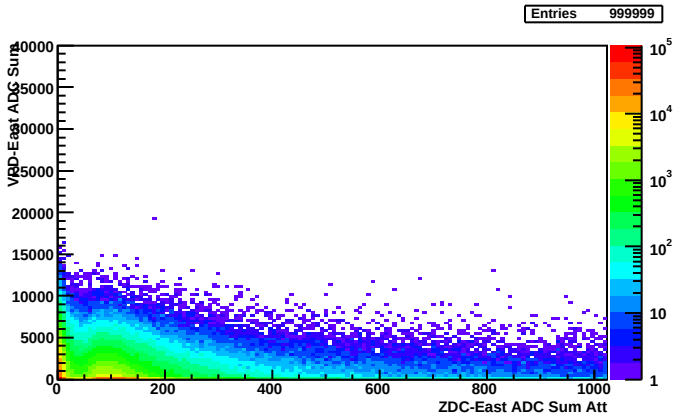

Entries 999999
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

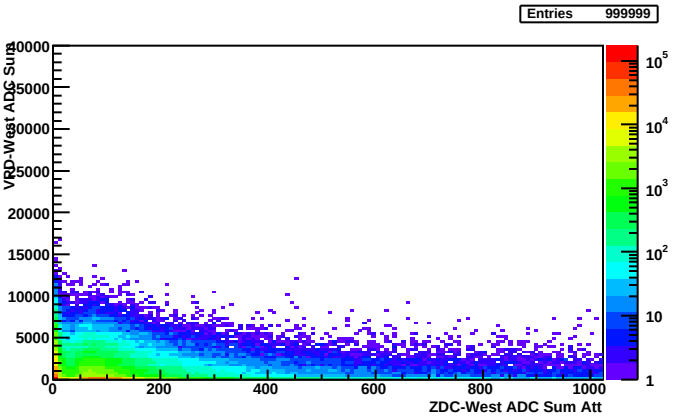

Entries 999999
BBC-S-East ADC Sum
VPD-East ADC Sum

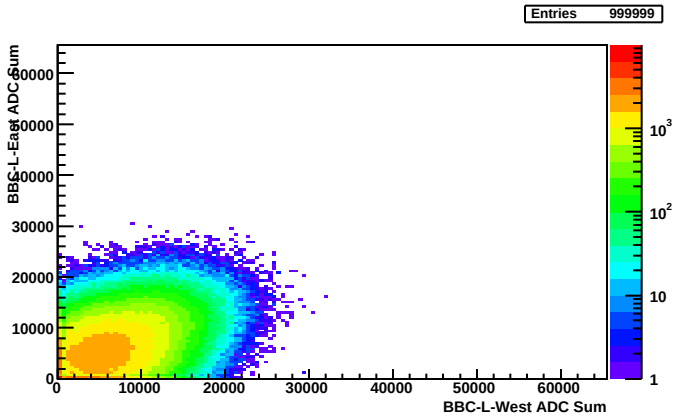

Entries 999999
BBC-S-West ADC Sum
VPD-West ADC Sum

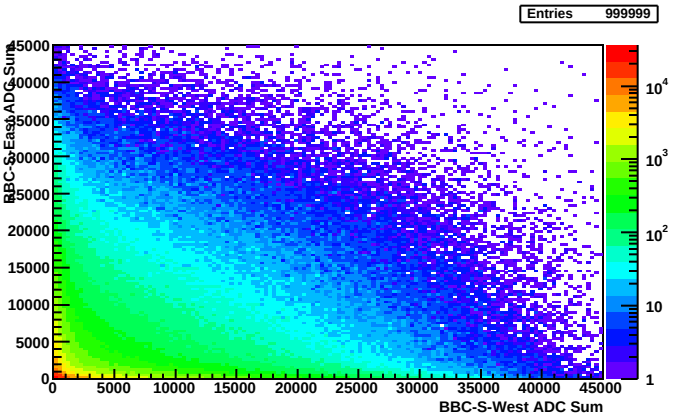

Entries 999999
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

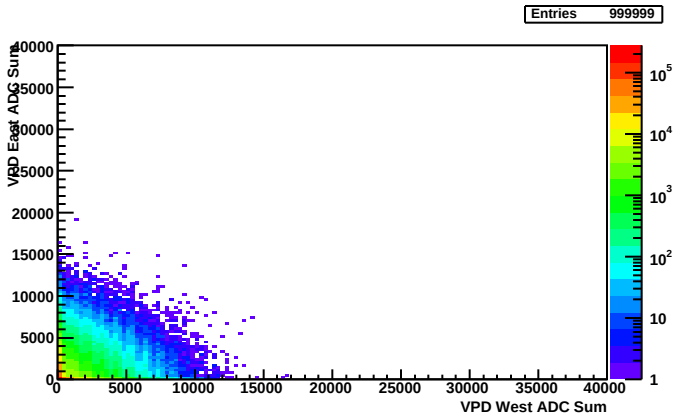

Entries 999999
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

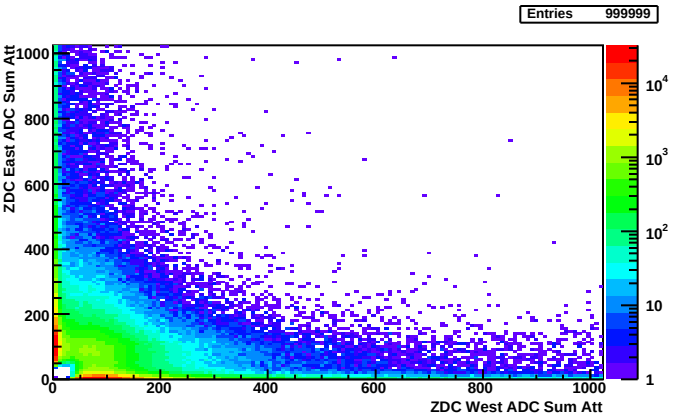

Entries 999999
VPD-East ADC Sum
ZDC-East ADC Sum Att

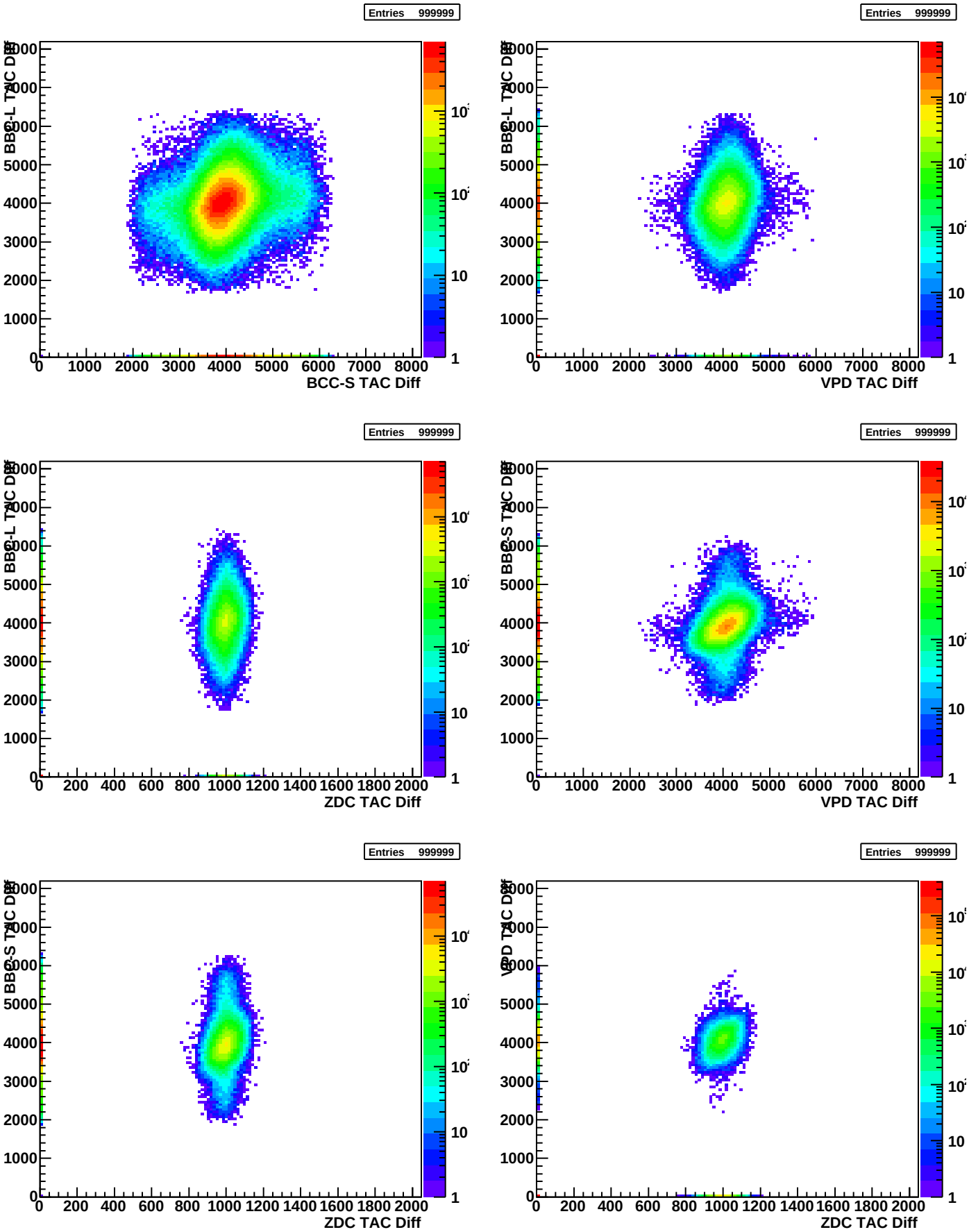

Entries 999999
VPD-West ADC Sum
ZDC-West ADC Sum Att

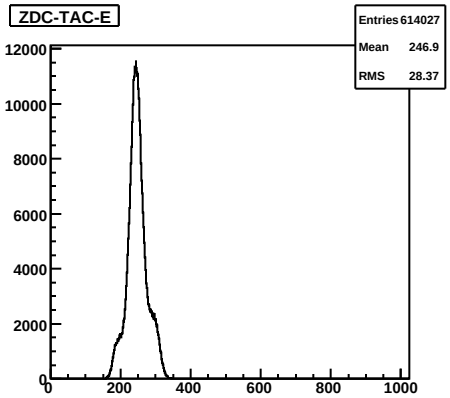

Entries 999999
BBC-L-East ADC Sum
BBC-L-West ADC Sum

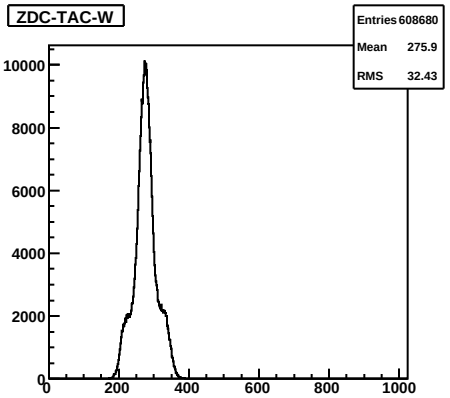

Entries 999999
BBC-S-East ADC Sum
BBC-S-West ADC Sum

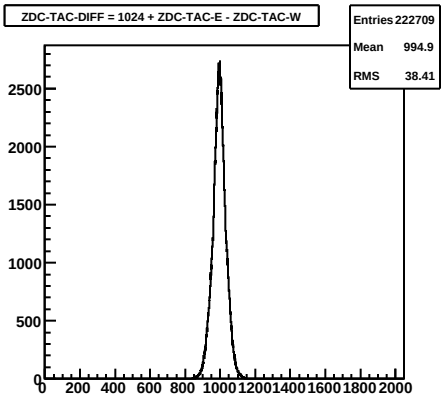

Entries 999999
VPD East ADC Sum
VPD West ADC Sum

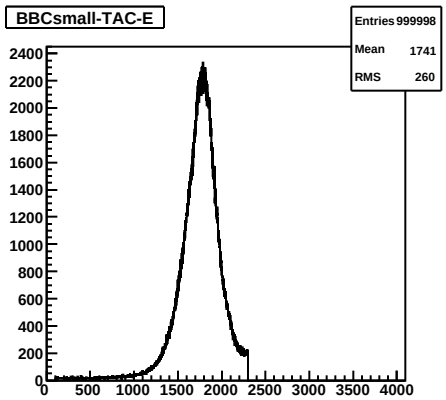

Entries 999999
ZDC East ADC Sum Att
ZDC West ADC Sum Att

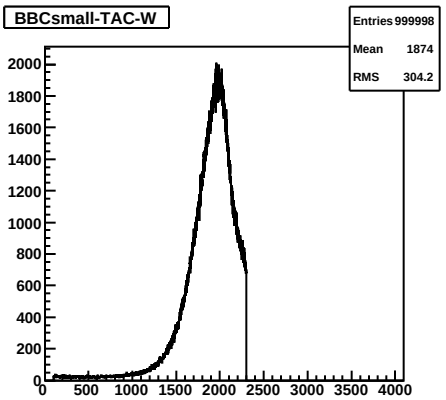

Entries 999999
BBC-L TAC Diff
BCC-S TAC Diff
Entries 999999
BBC-L TAC Diff
VPD TAC Diff
Entries 999999
BBC-L TAC Diff
ZDC TAC Diff
Entries 999999
BBC-S TAC Diff
VPD TAC Diff
Entries 999999
BBC-S TAC Diff
ZDC TAC Diff
Entries 999999
VPD TAC Diff
ZDC TAC Diff

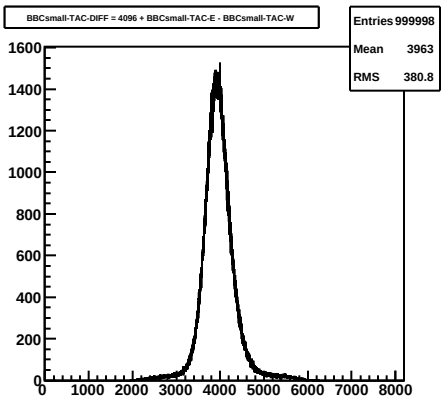

ZDC-TAC-E
Entries 614027
Mean 246.9
RMS 28.37

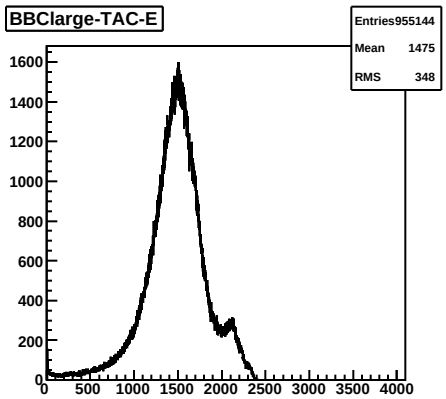

ZDC-TAC-W
Entries 608680
Mean 275.9
RMS 32.43

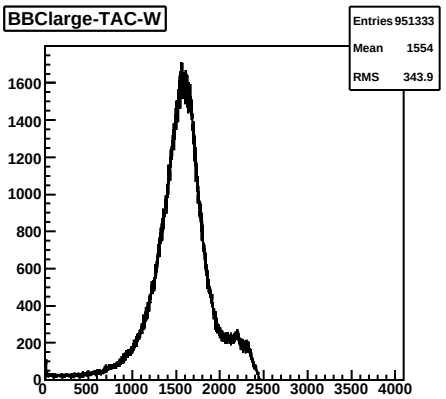

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 222709
Mean 994.9
RMS 38.41

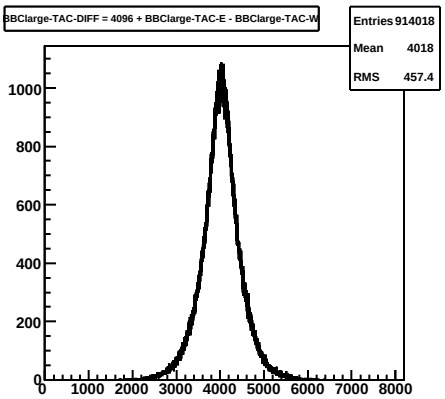

BBCsmall-TAC-E
Entries 999998
Mean 1741
RMS 260

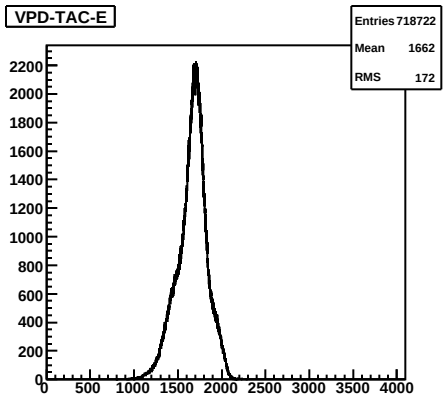

BBCsmall-TAC-W
Entries 999998
Mean 1874
RMS 304.2

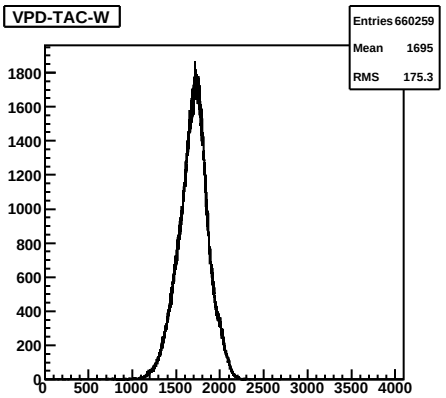

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 999998
Mean 3963
RMS 380.8

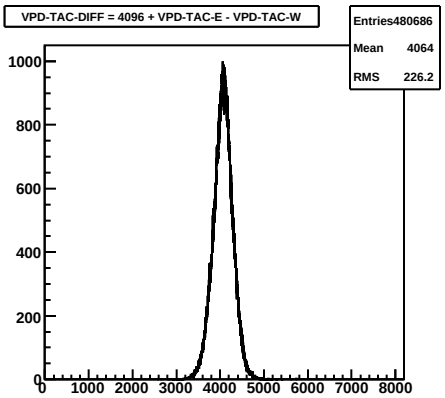

BBClarge-TAC-E
Entries 955144
Mean 1475
RMS 348

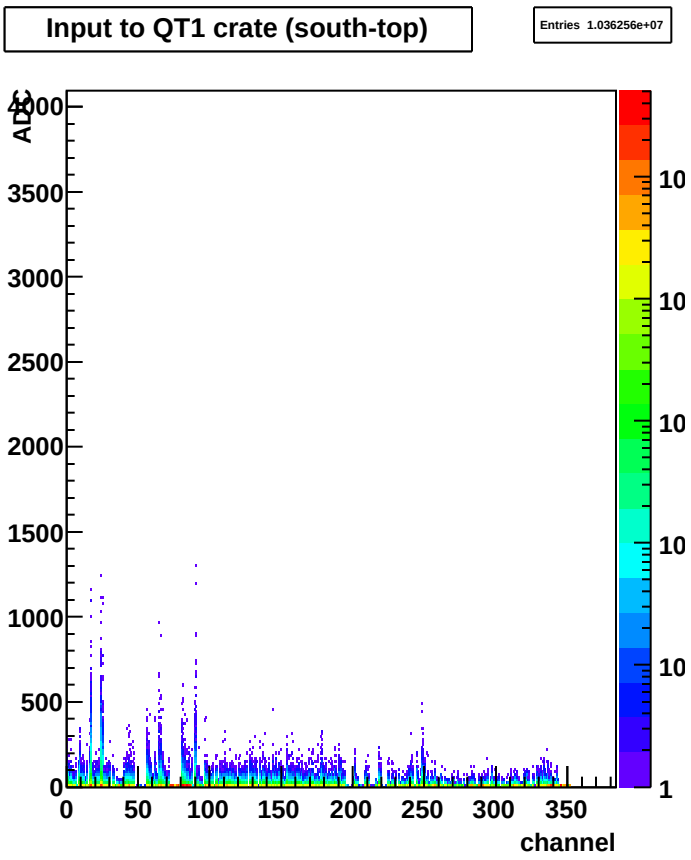

BBClarge-TAC-W
Entries 951333
Mean 1554
RMS 343.9

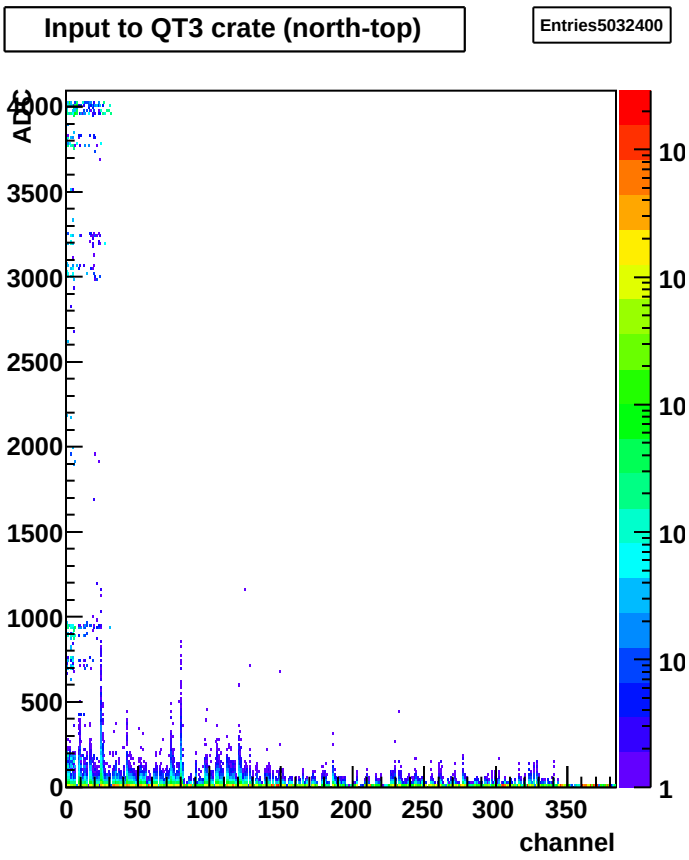

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 914018
Mean 4018
RMS 457.4

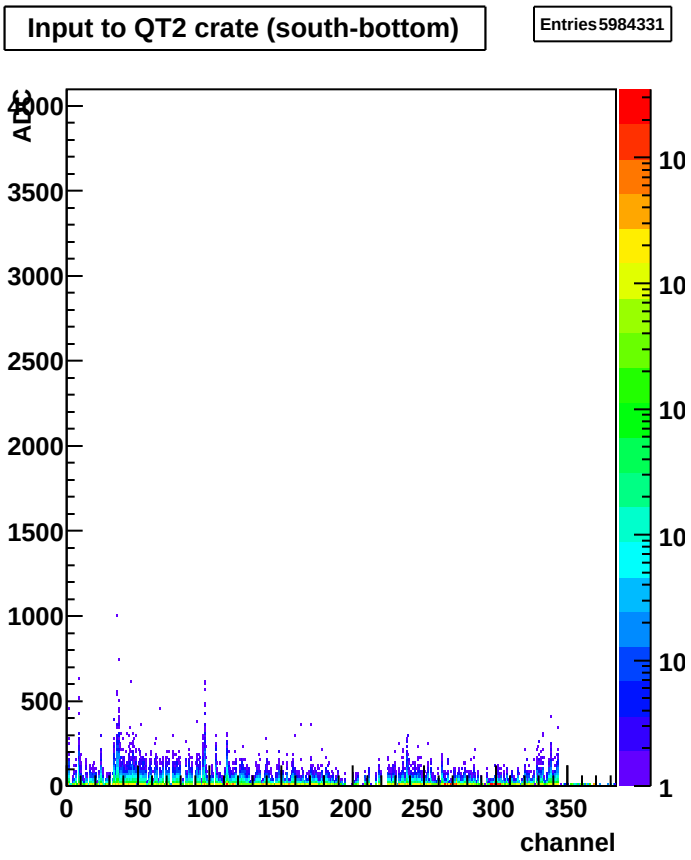

VPD-TAC-E
Entries 718722
Mean 1662
RMS 172

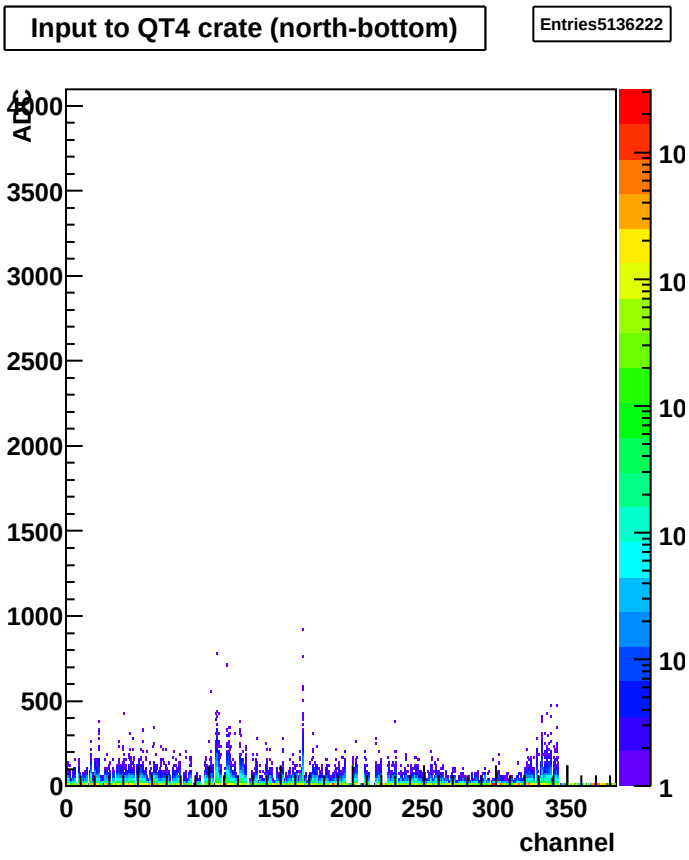

VPD-TAC-W
Entries 660259
Mean 1695
RMS 175.3

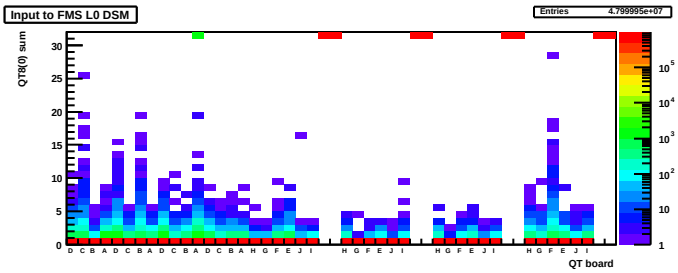

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 480686
Mean 4064
RMS 226.2

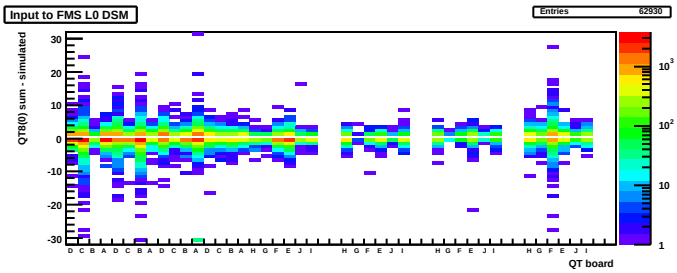

Input to QT1 crate (south-top)
Entries 1.036256e+07
ADC
channel

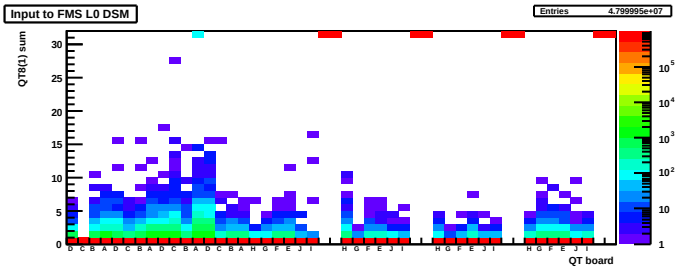

Input to QT3 crate (north-top)
Entries5032400
ADC
channel

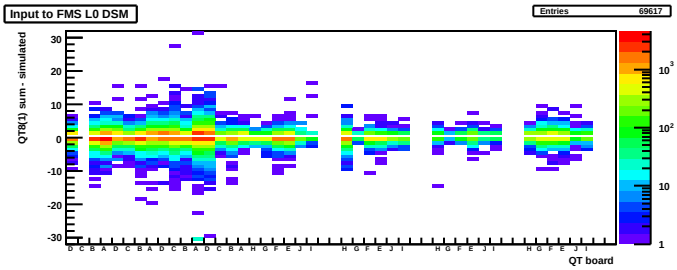

Input to QT2 crate (south-bottom)
Entries5984331
ADC
channel

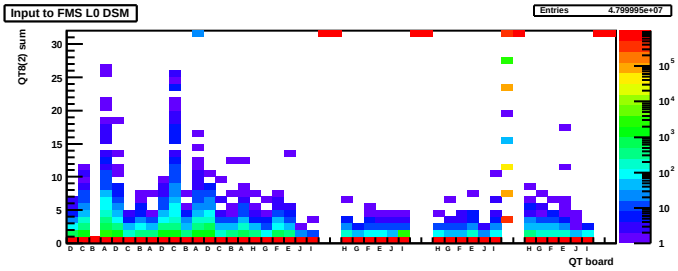

Input to QT4 crate (north-bottom)
Entries5136222
ADC
channel

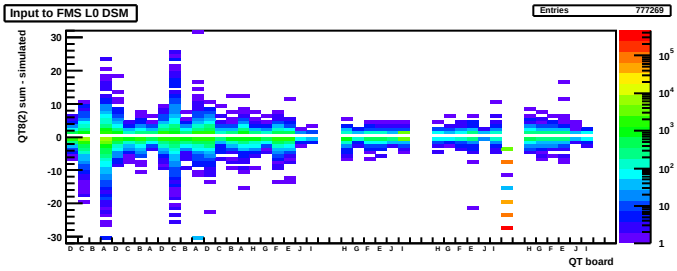

Input to FMS L0 DSM
Entries 4.799995e+07
QT8(0) sum
QT board

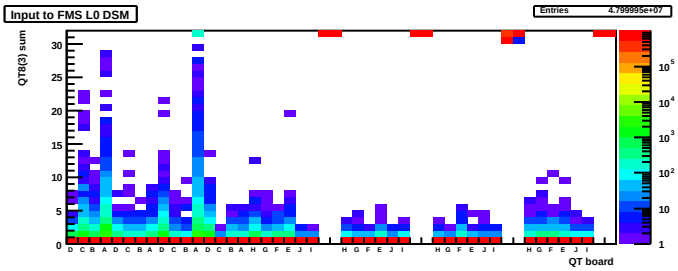

Input to FMS L0 DSM
Entries 62930
QT8(0) sum - simulated
QT board

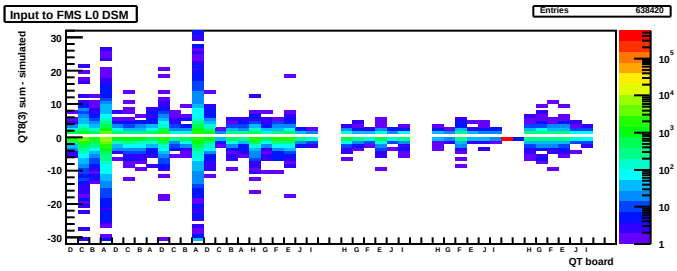

Input to FMS L0 DSM
Entries 4.799995e+07
QT8(1) sum
QT board

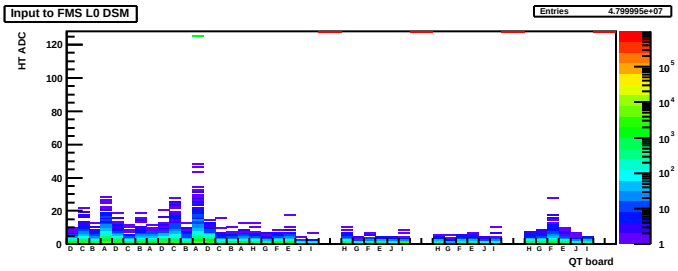

Input to FMS L0 DSM
Entries 69617
QT8(1) sum - simulated
QT board

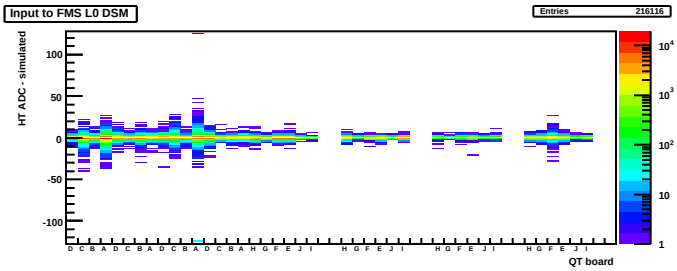

Input to FMS L0 DSM
Entries 4.799995e+07
QT8(2) sum
QT board

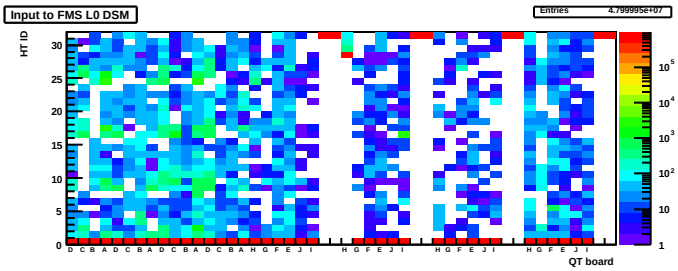

Input to FMS L0 DSM
Entries 777269
QT8(2) sum - simulated
QT board

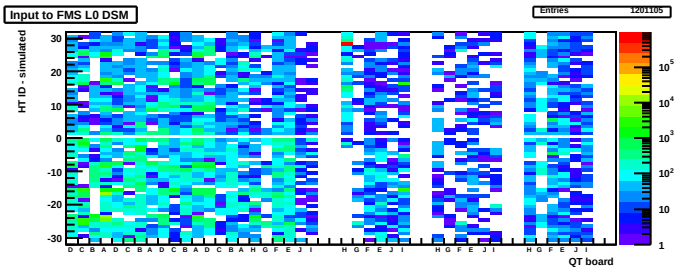

Input to FMS L0 DSM
Entries 4.799995e+07
QT8(3) sum
QT board

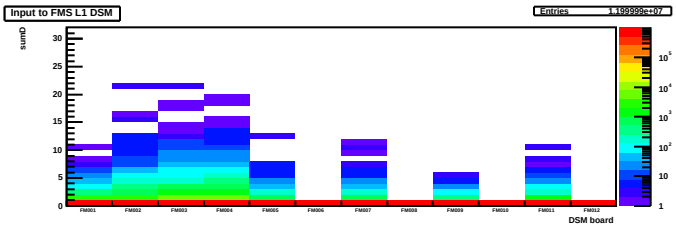

Input to FMS L0 DSM
Entries 638420
QT8(3) sum - simulated
QT board

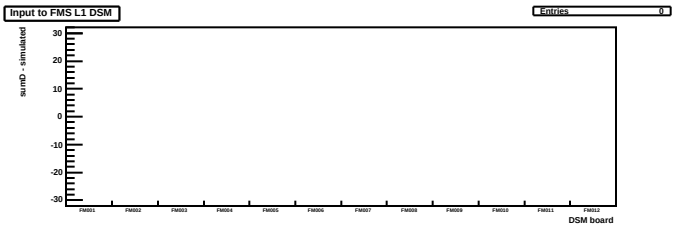

Input to FMS L0 DSM
Entries 4.799995e+07
HT ADC
QT board

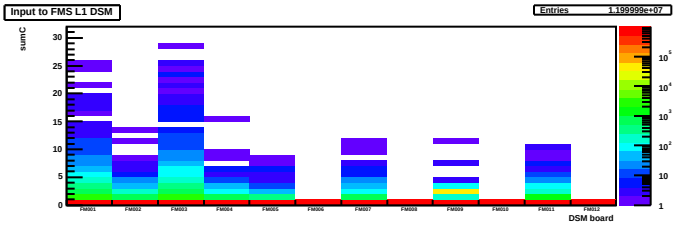

Input to FMS L0 DSM
Entries 216116
HT ADC - simulated
QT board

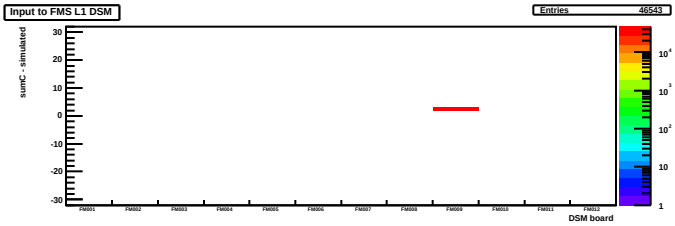

Input to FMS L0 DSM
Entries 4.799995e+07
HT ID
QT board

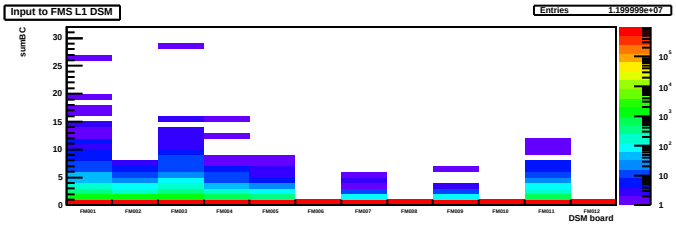

Input to FMS L0 DSM
Entries 1201105
HT ID - simulated
QT board

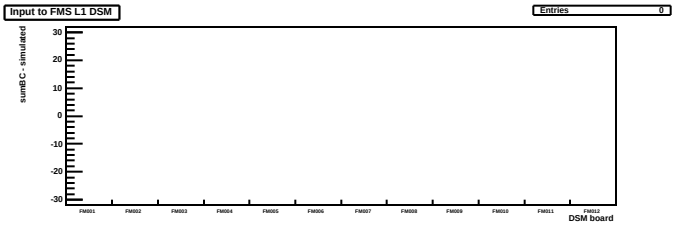

Input to FMS L1 DSM
Entries 1.199999e+07
sumD
DSM board

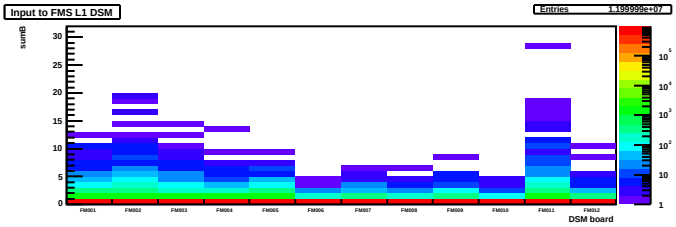

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

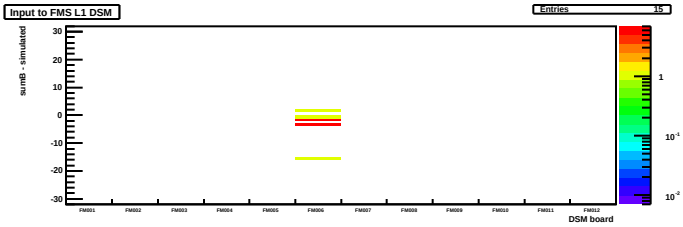

Input to FMS L1 DSM
Entries 1.199999e+07
sumC
DSM board

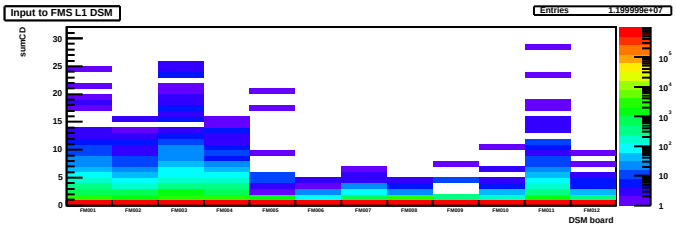

Input to FMS L1 DSM
Entries 46543
sumC - simulated
DSM board

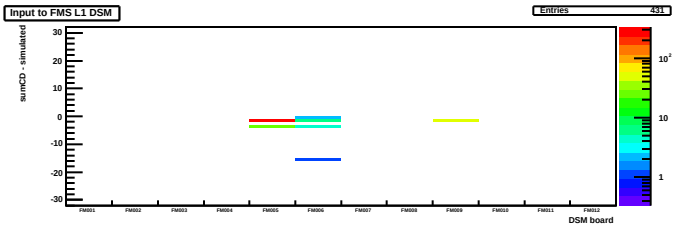

Input to FMS L1 DSM
Entries 1.199999e+07
sumBC
DSM board

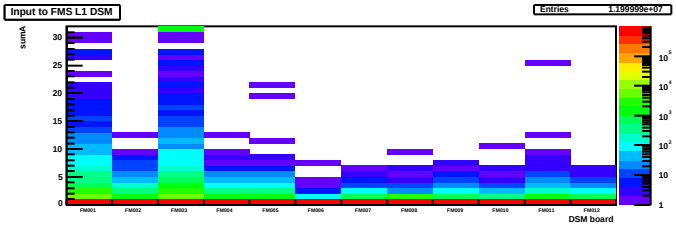

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

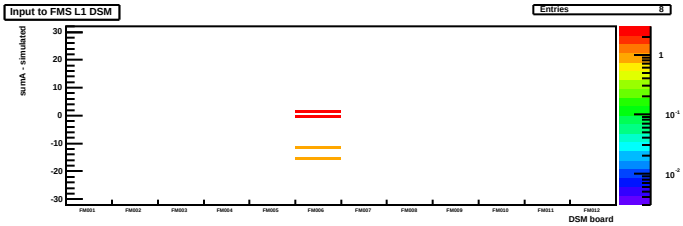

Input to FMS L1 DSM
Entries 1.199999e+07
sumB
DSM board

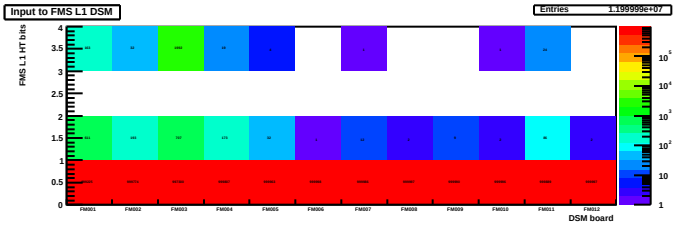

Input to FMS L1 DSM
Entries 15
sumB - simulated
DSM board

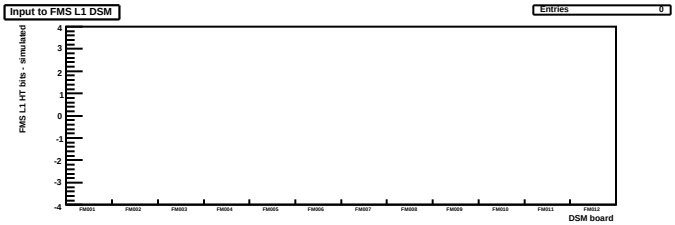

Input to FMS L1 DSM
Entries 1.199999e+07
sumCD
DSM board

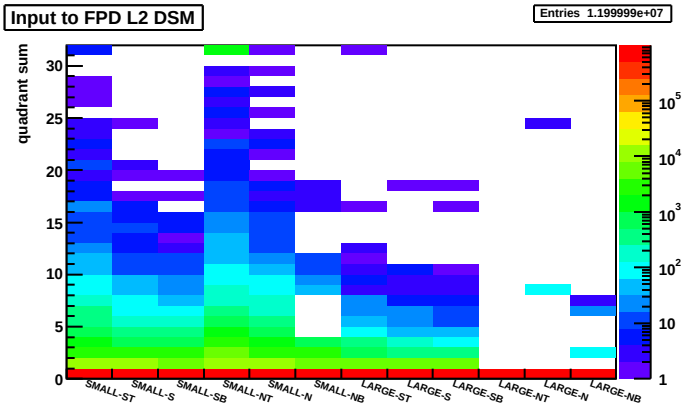

Input to FMS L1 DSM
Entries 431
sumCD - simulated
DSM board

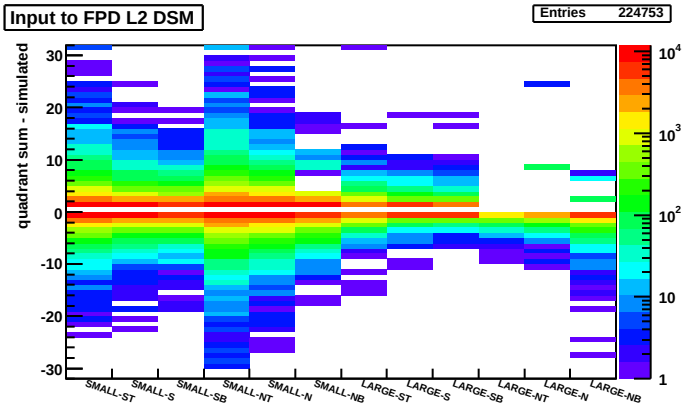

Input to FMS L1 DSM
Entries 1.199999e+07
sumA
DSM board

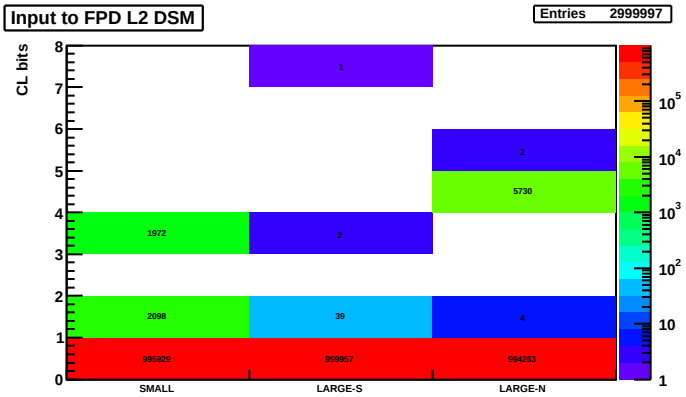

Input to FMS L1 DSM
Entries 8
sumA - simulated
DSM board

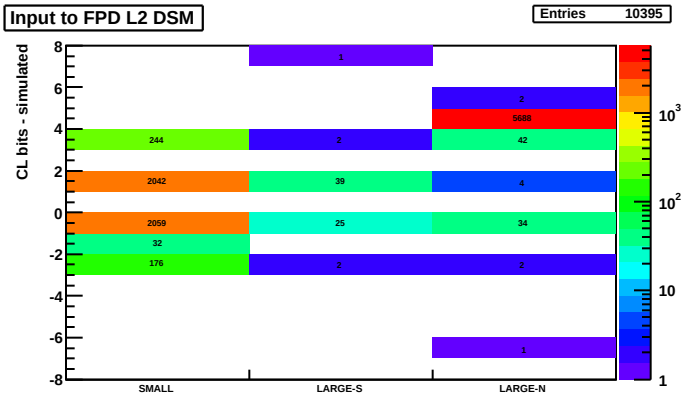

Input to FMS L1 DSM
Entries 1.199999e+07
FMS L1 HT bits
DSM board

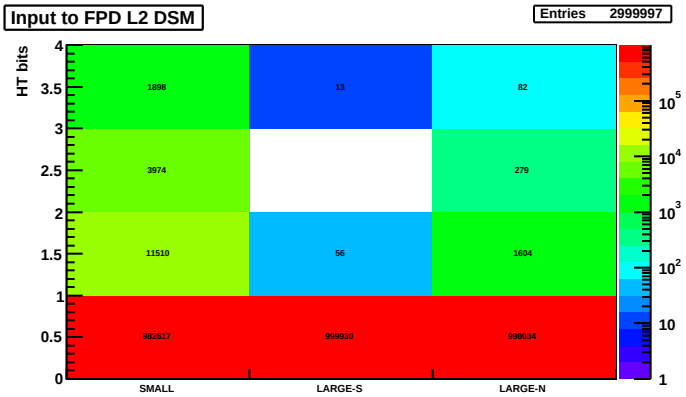

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

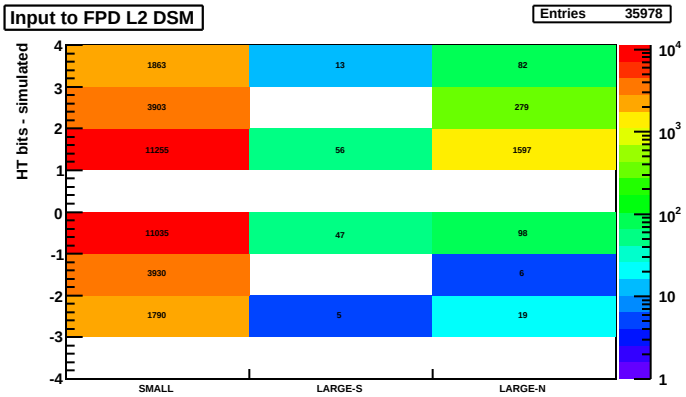

Input to FPD L2 DSM
Entries 1.199999e+07
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

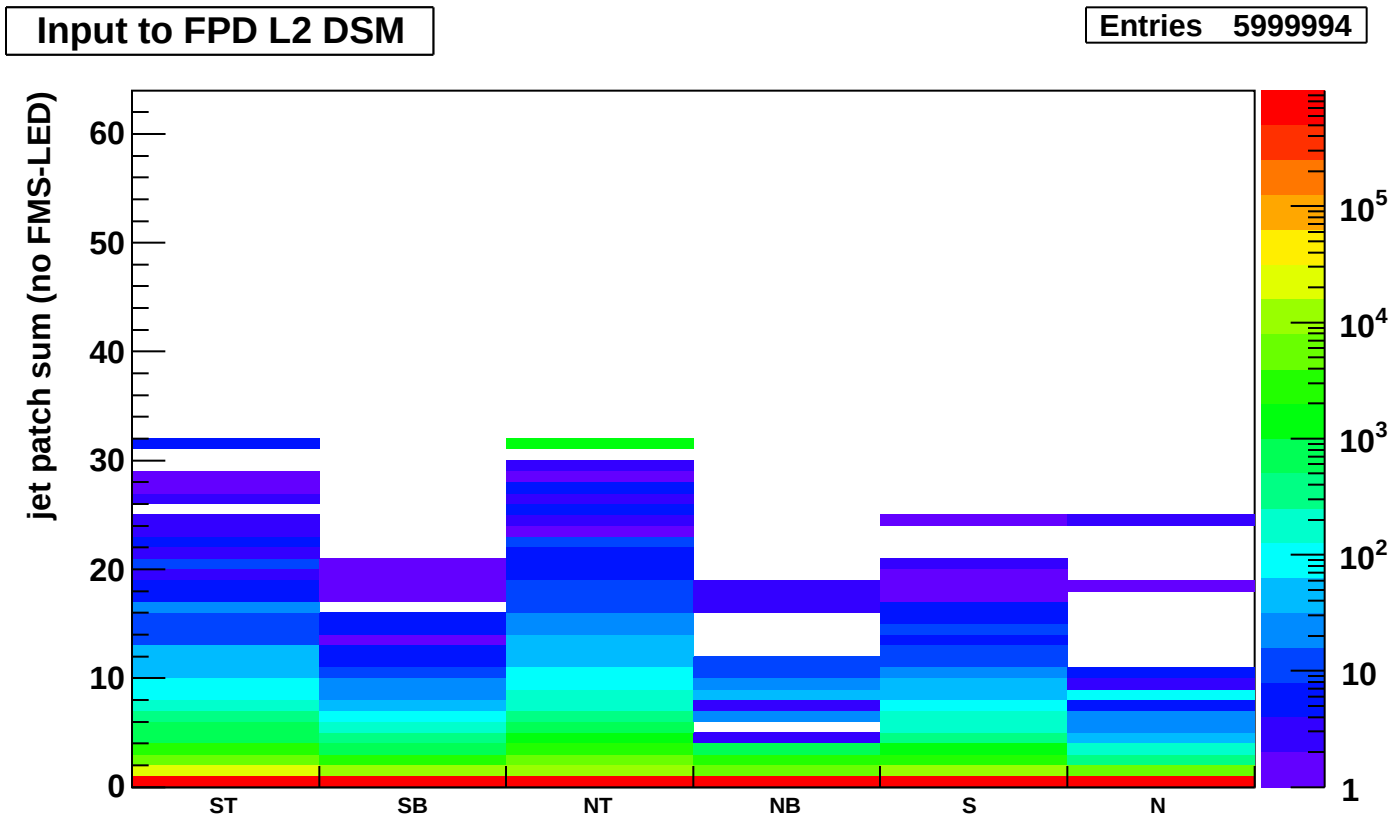

Input to FPD L2 DSM
Entries 224753
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

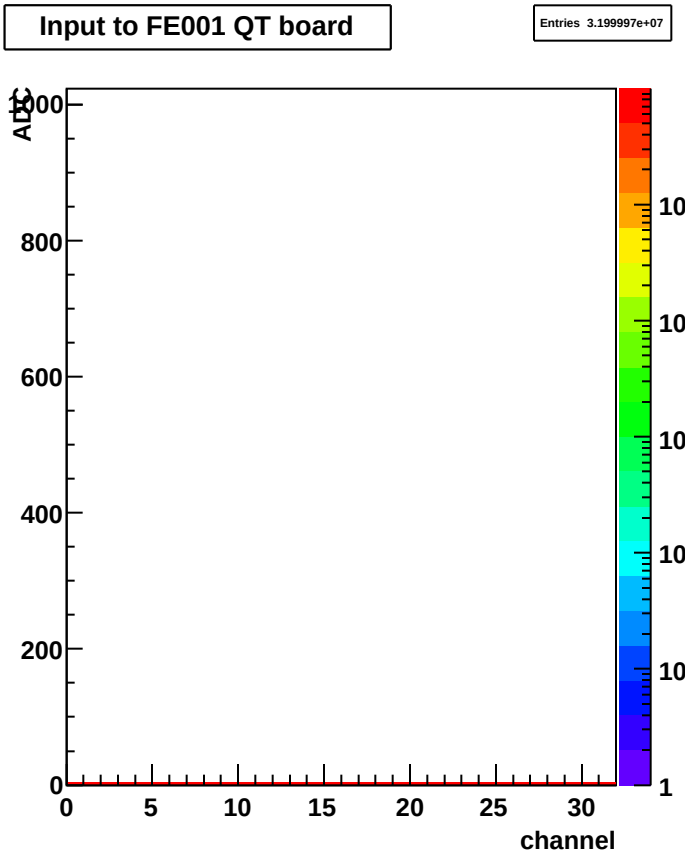

Input to FPD L2 DSM
Entries 2999997
CL bits
1
2
5730
1972
2
2098
39
4
995929
999957
994263
SMALL
LARGE-S
LARGE-N

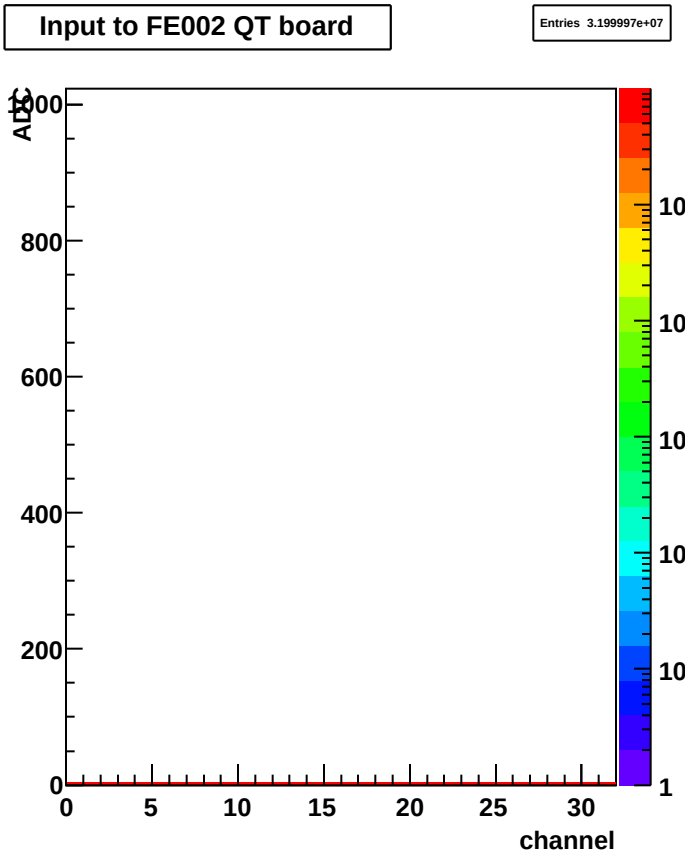

Input to FPD L2 DSM
Entries 10395
CL bits - simulated
1
2
5688
244
2
42
2042
39
4
2059
25
34
32
176
2
2
1
SMALL
LARGE-S
LARGE-N

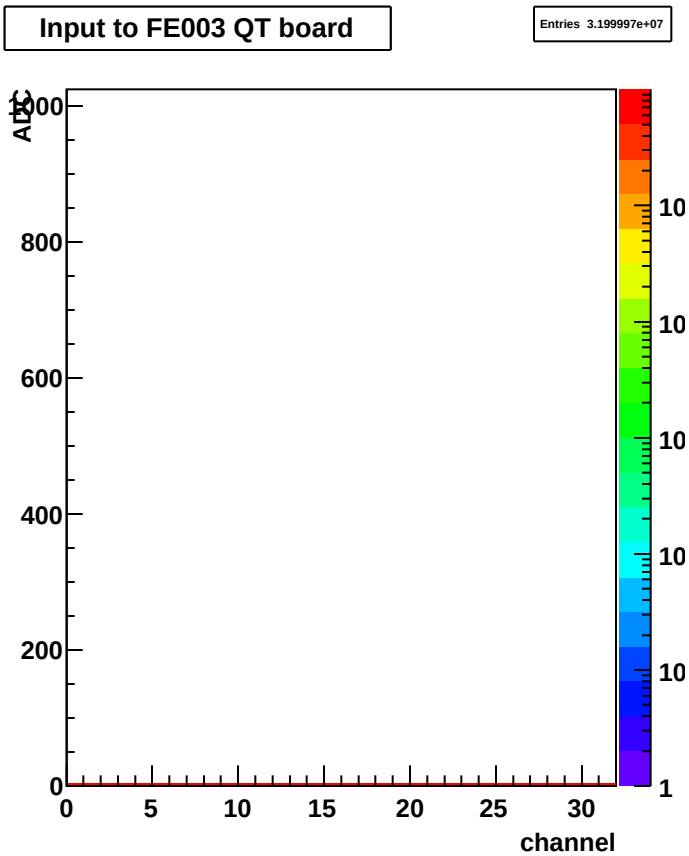

Input to FPD L2 DSM
Entries 2999997
HT bits
1898
13
82
3974
279
11510
56
1604
982617
999930
998034
SMALL
LARGE-S
LARGE-N

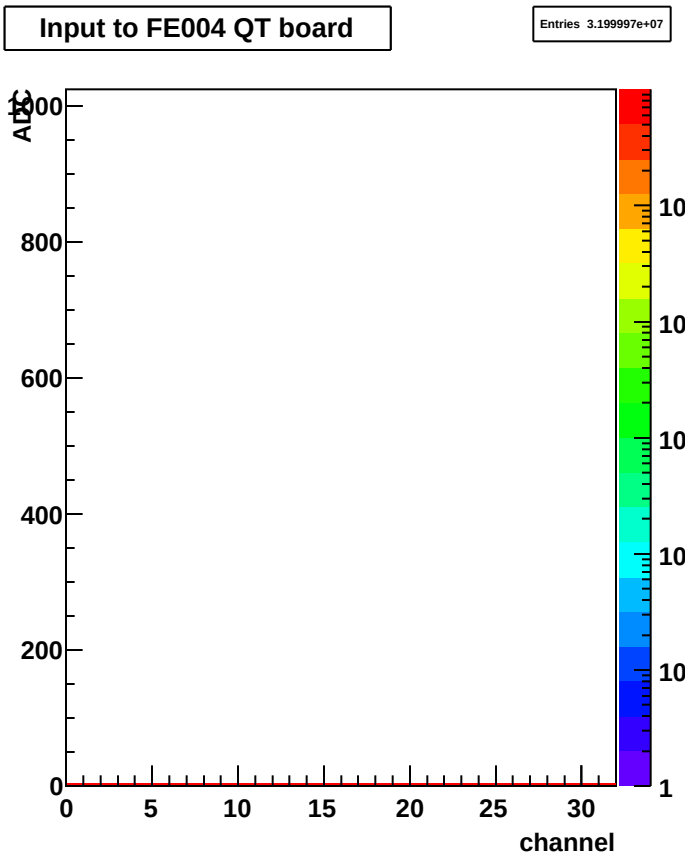

Input to FPD L2 DSM
Entries 35978
HT bits - simulated
1863
13
82
3903
279
11255
56
1597
11035
47
98
3930
6
1790
5
19
SMALL
LARGE-S
LARGE-N

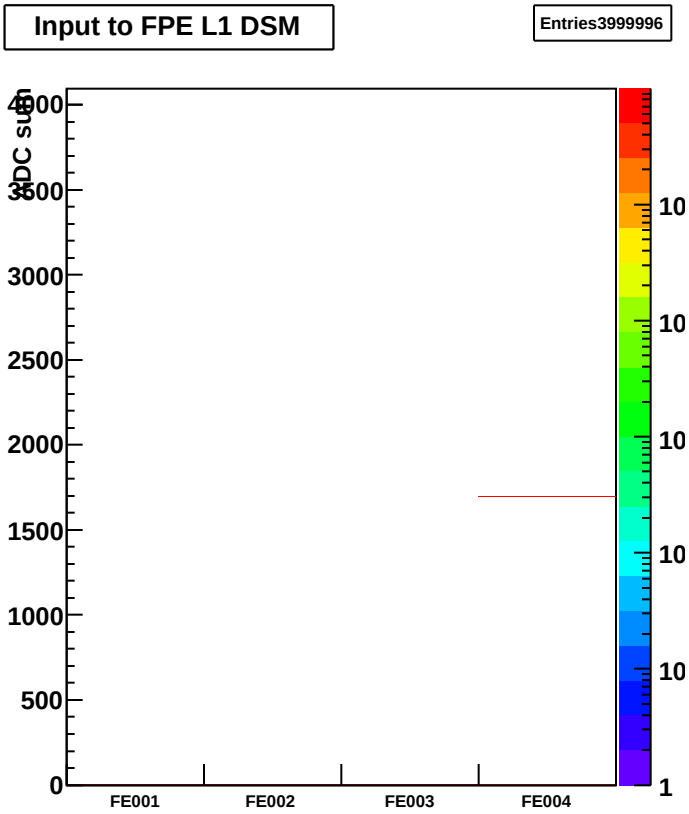

Input to FPD L2 DSM
Entries 5999994
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5

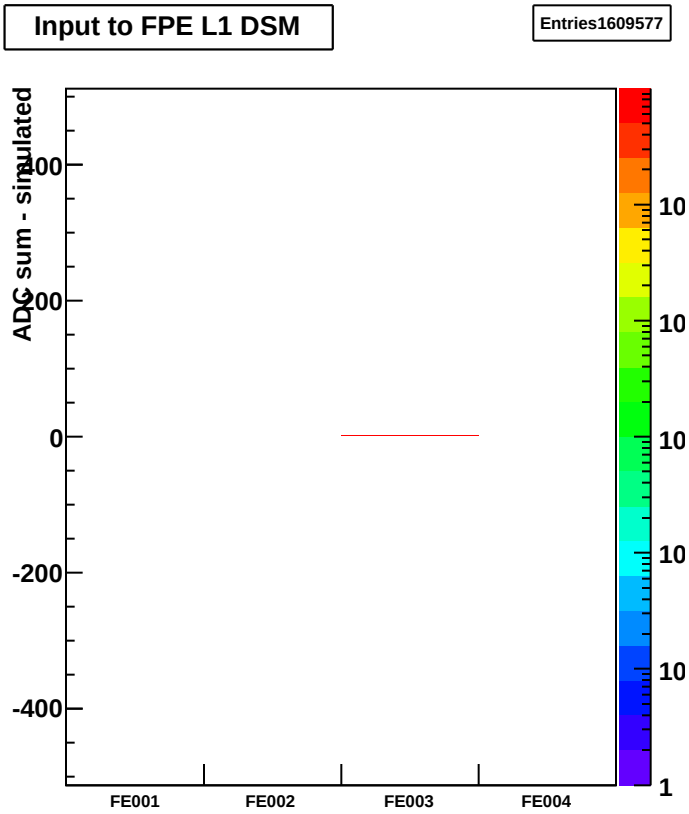

Input to FE001 QT board
Entries 3.199997e+07
ADC
channel

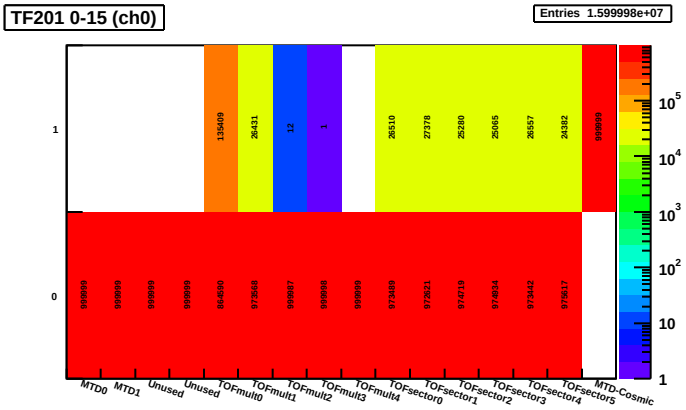

Input to FE002 QT board
Entries 3.199997e+07
ADC
channel

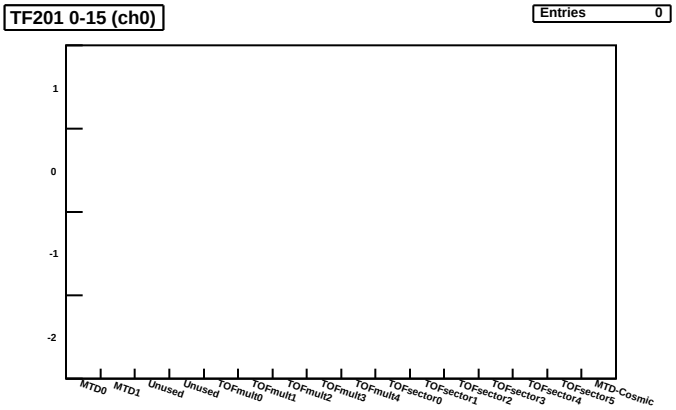

Input to FE003 QT board
Entries 3.199997e+07
ADC
channel


Input to FE004 QT board
Entries 3.199997e+07
ADC
channel


Input to FPE L1 DSM
Entries3999996
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
Entries1609577
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1


TF201 0-15 (ch0)
Entries 1.599998e+07
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 0
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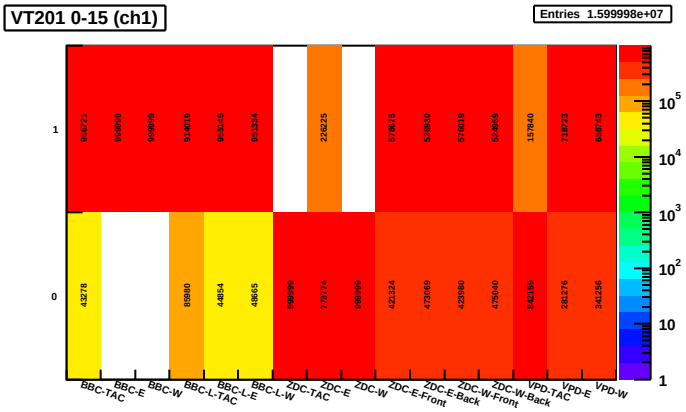
VT201 0-15 (ch1)
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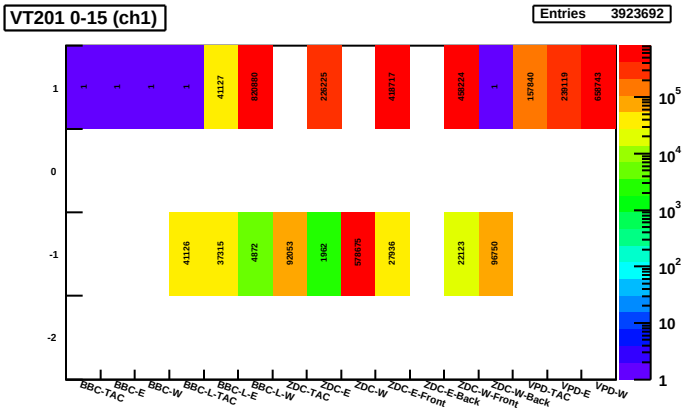
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W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Entries 3923692
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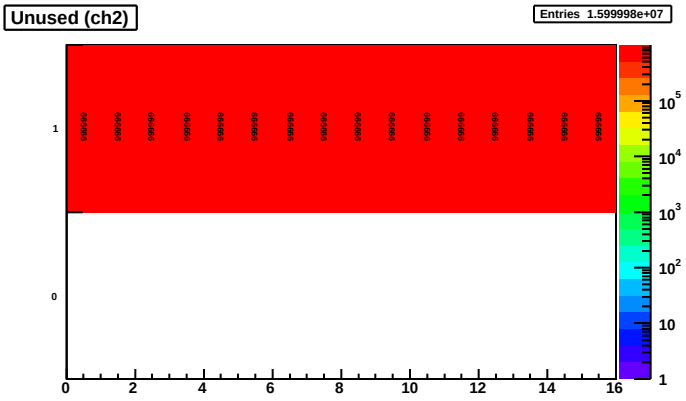
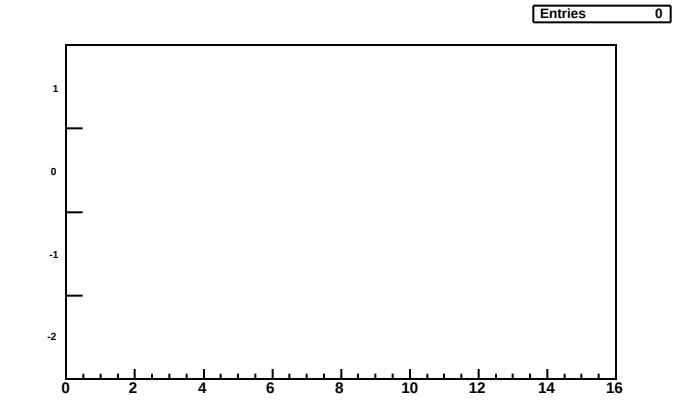
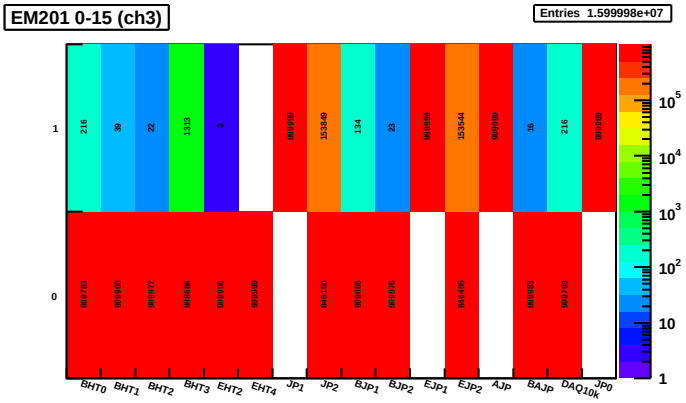
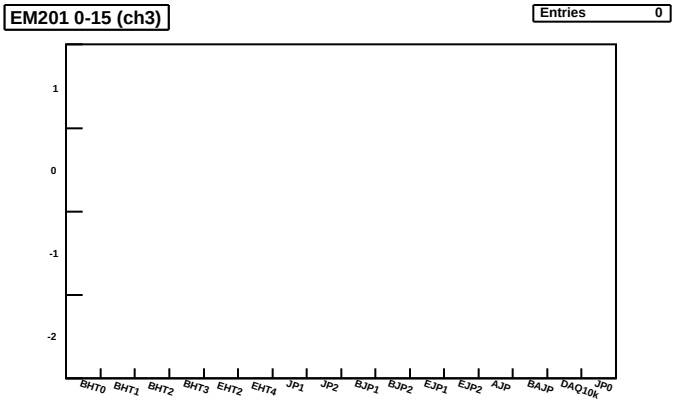
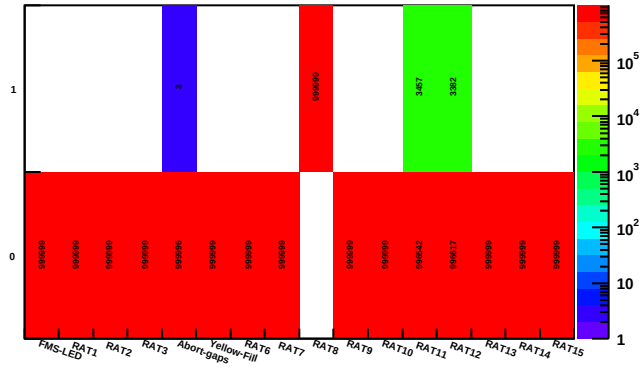

Unused (ch2)
Entries 1.599998e+07

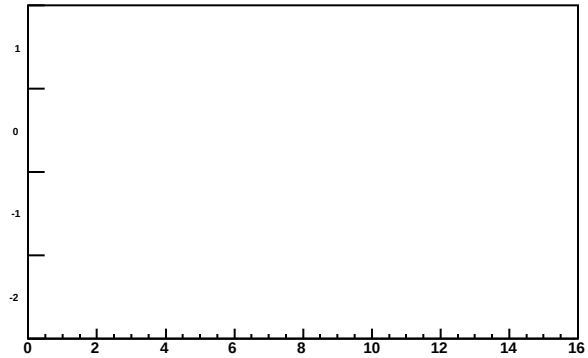

Entries 0


EM201 0-15 (ch3)
Entries 1.599998e+07
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

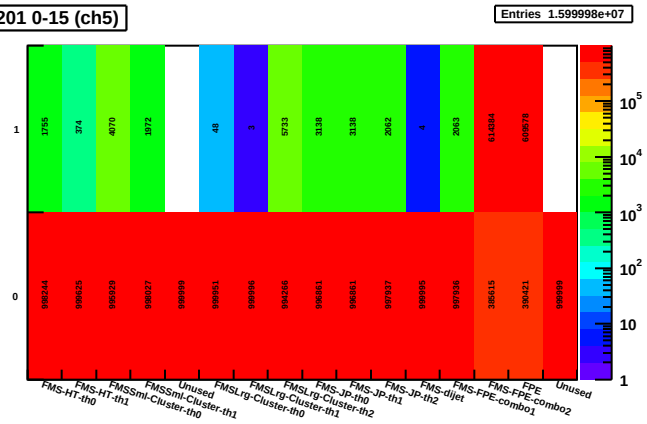

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

RAT board (ch4)





FP201 0-15 (ch5)



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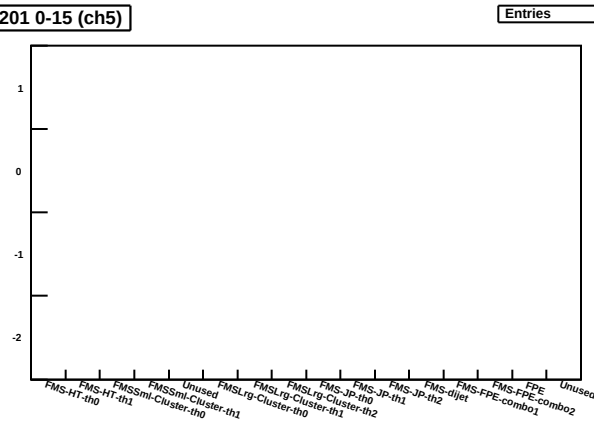
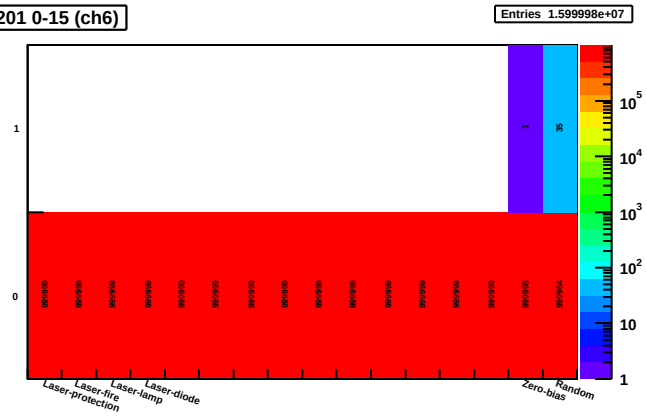
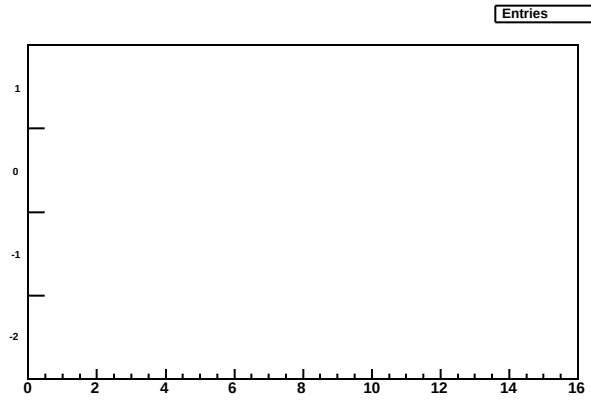
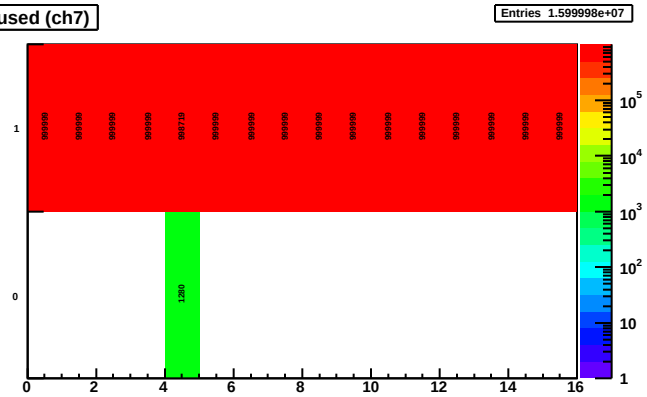
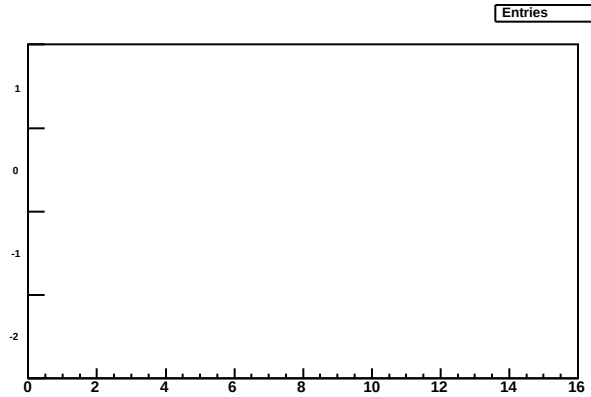


ST201 0-15 (ch6)





Unused (ch7)