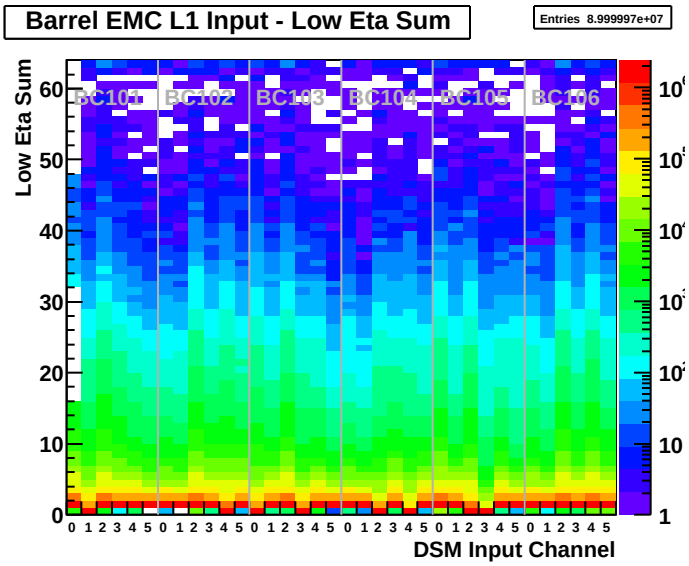
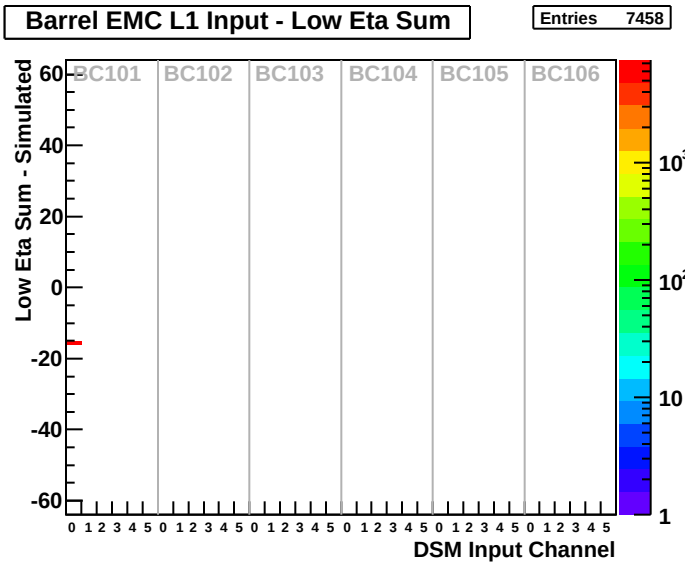
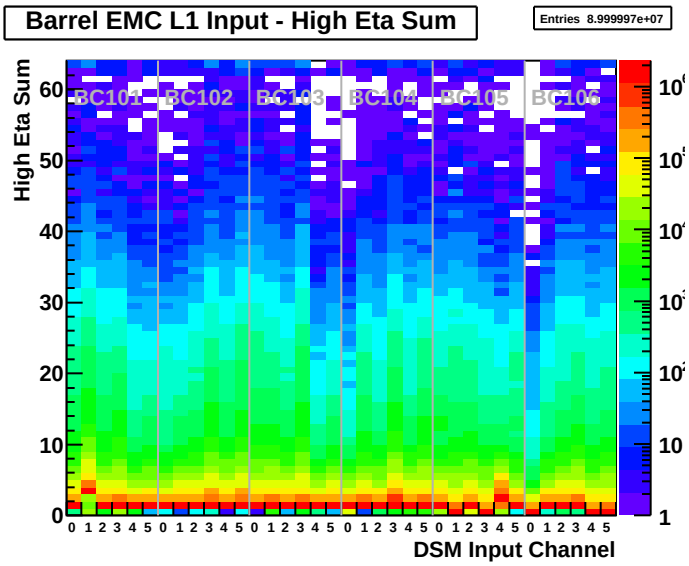
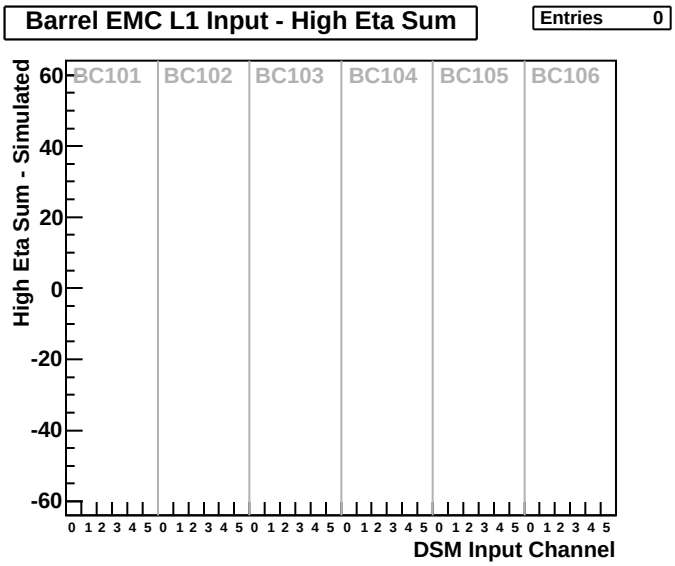
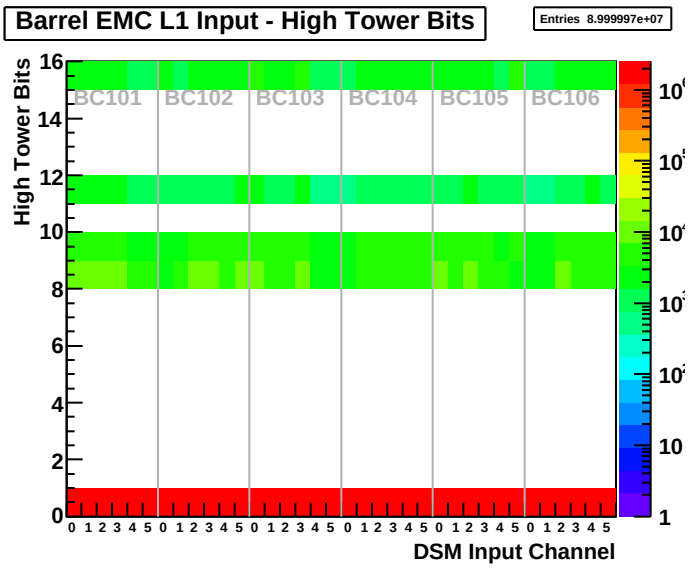
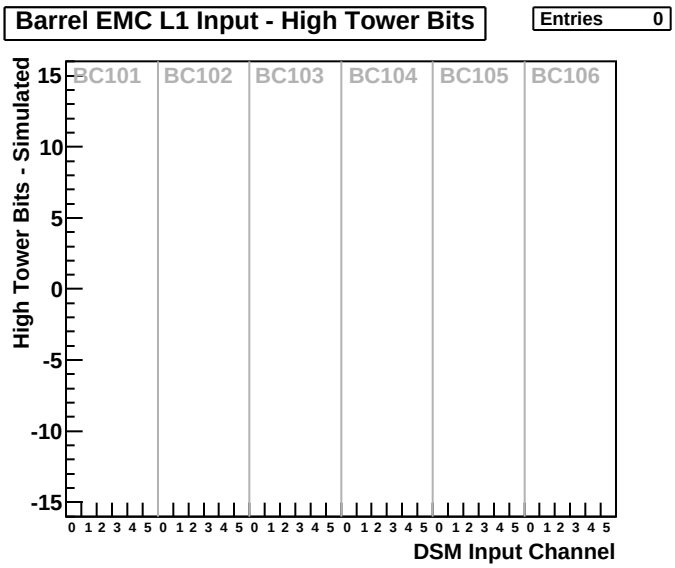

Barrel EMC L1 Input - Low Eta Sum
Entries 8.999997e+07
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

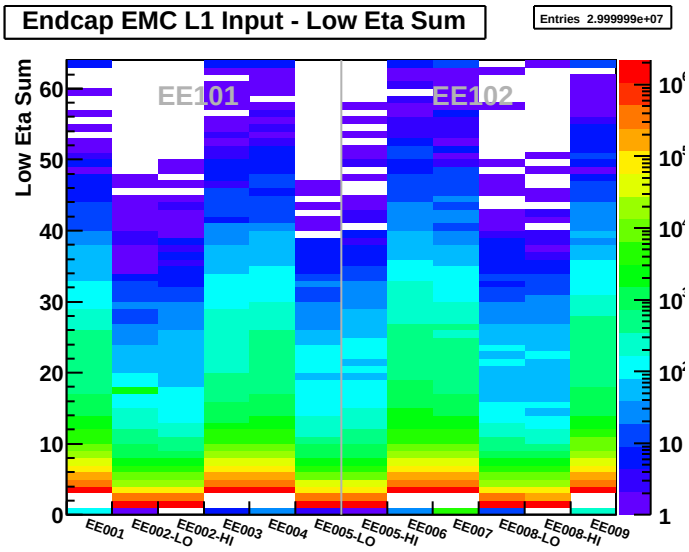

Barrel EMC L1 Input - Low Eta Sum
Entries 7458
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

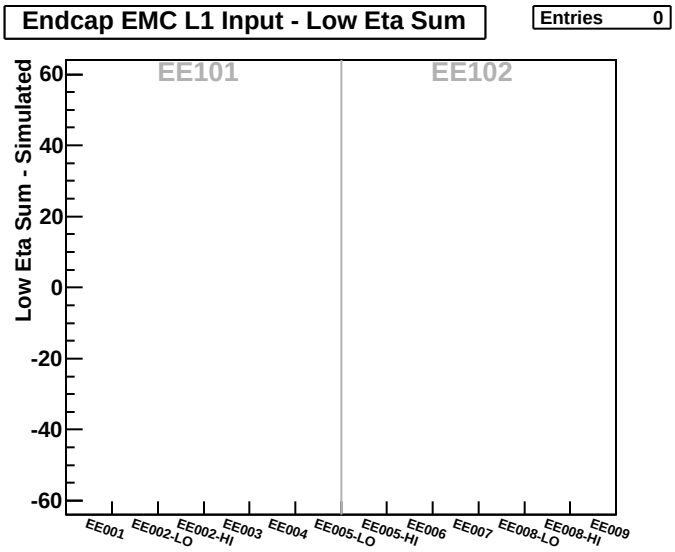

Barrel EMC L1 Input - High Eta Sum
Entries 8.999997e+07
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

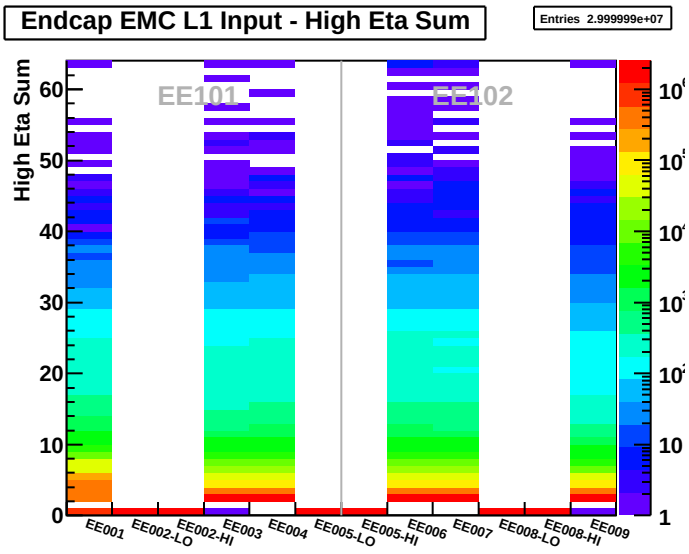

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

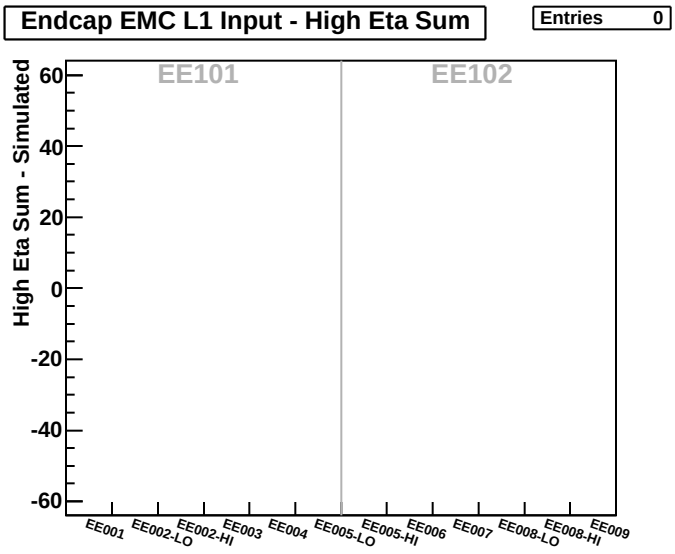

Barrel EMC L1 Input - High Tower Bits
Entries 8.999997e+07
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

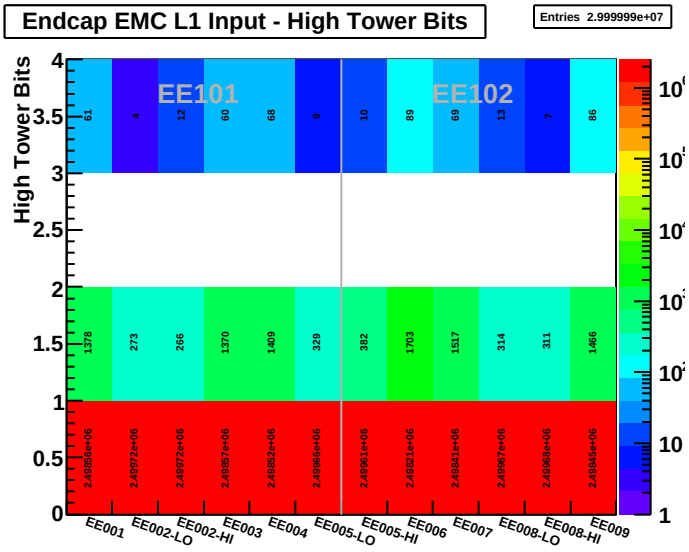

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

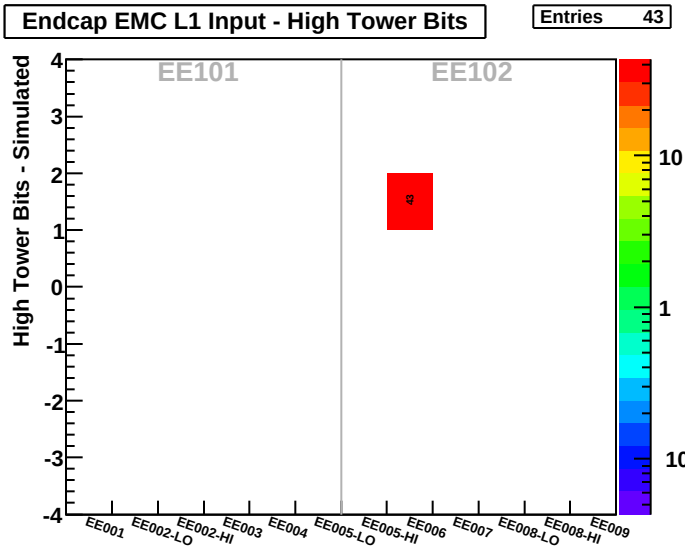

Endcap EMC L1 Input - Low Eta Sum
Entries 2.999999e+07
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

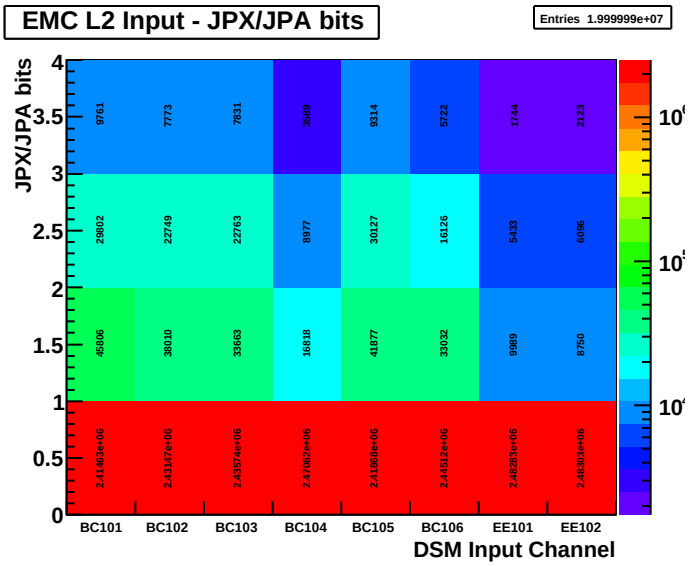

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

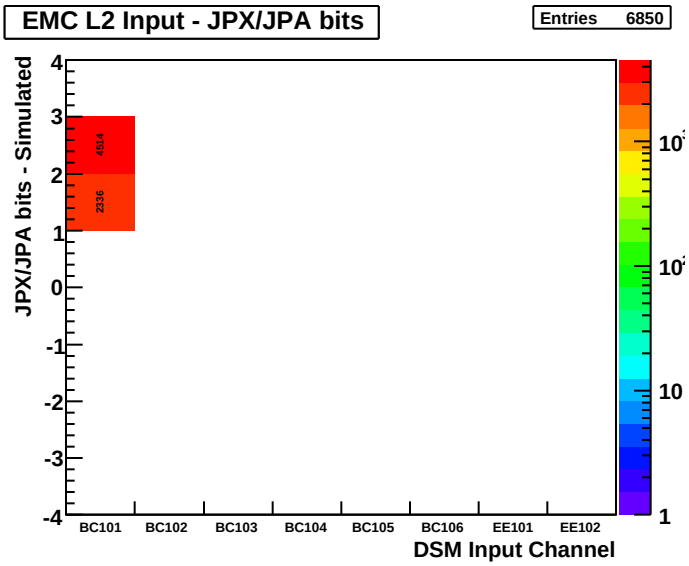

Endcap EMC L1 Input - High Eta Sum
Entries 2.999999e+07
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

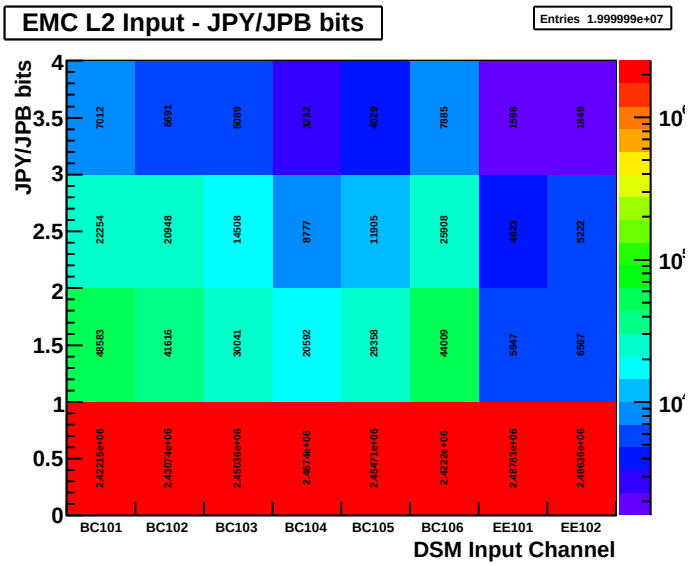

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

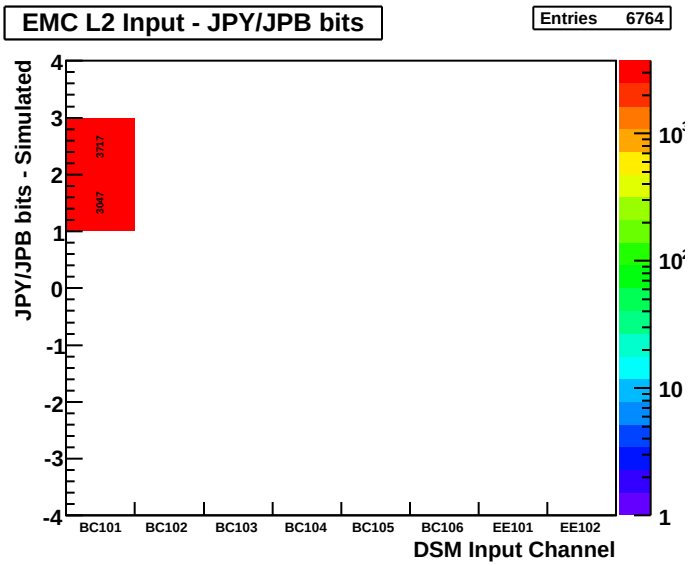

Endcap EMC L1 Input - High Tower Bits
Entries 2.999999e+07
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

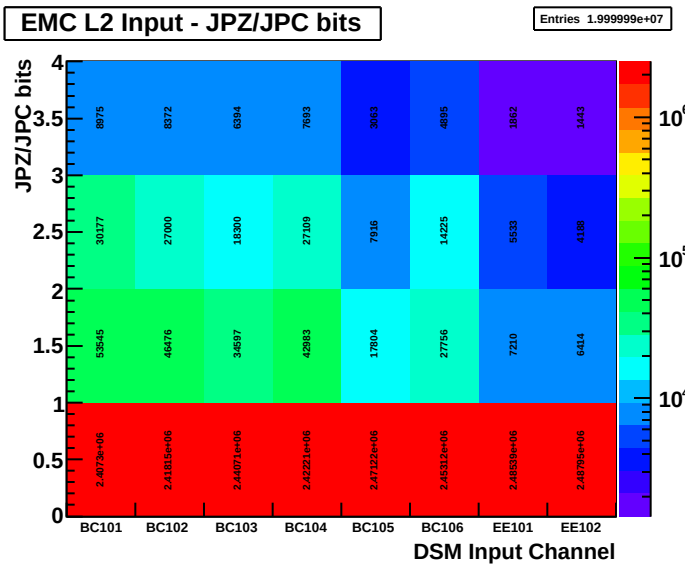

Endcap EMC L1 Input - High Tower Bits
Entries 43
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

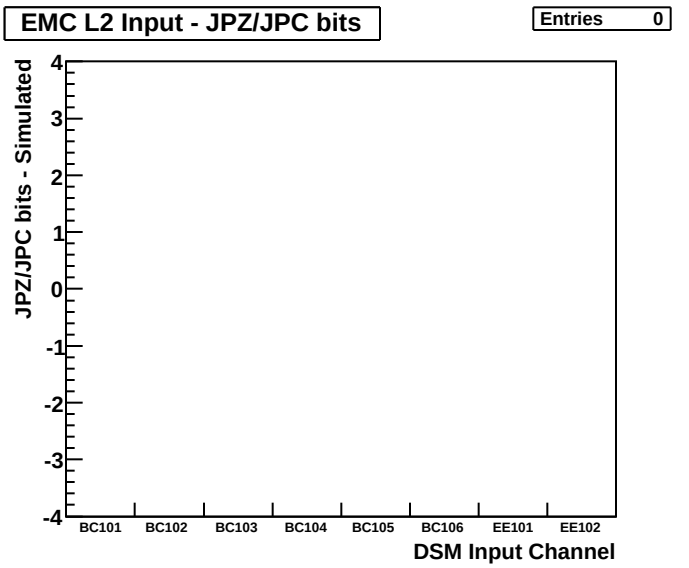

EMC L2 Input - JPX/JPA bits
Entries 1.999999e+07
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
9761 7773 7631 3589 9314 5722 1744 2123
29802 22749 22763 8977 30127 16126 5433 6096
45806 38010 33663 16818 41877 33032 9989 8750
2.41463e+06 2.43147e+06 2.43574e+06 2.47082e+06 2.41868e+06 2.44512e+06 2.48283e+06 2.48303e+06

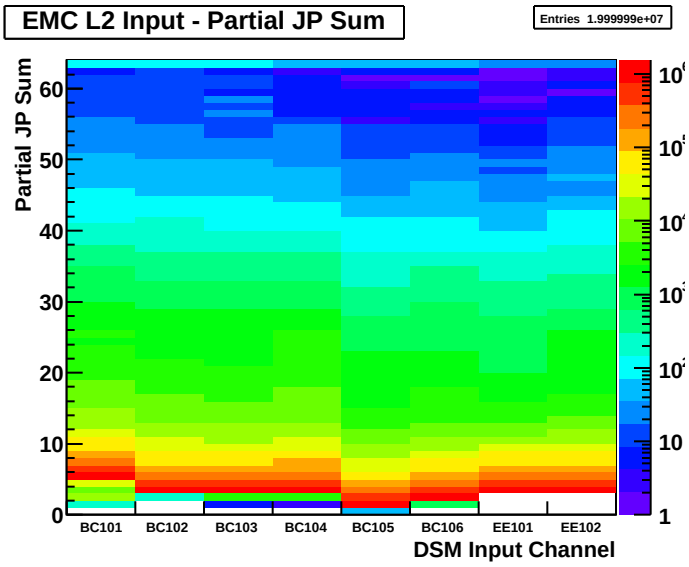

EMC L2 Input - JPX/JPA bits
Entries 6850
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
4514
2336

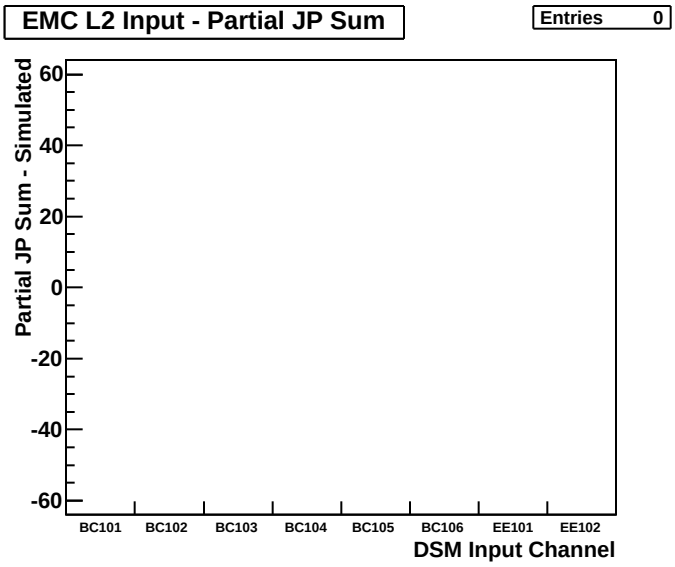

EMC L2 Input - JPY/JPB bits
Entries 1.999999e+07
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
7012 6691 5089 3232 4029 7885 1596 1349
22254 20948 14508 8777 11905 29908 4623 5222
48583 41616 30041 20592 29358 44009 5947 6567
2.42215e+06 2.43074e+06 2.45036e+06 2.4674e+06 2.45471e+06 2.4222e+06 2.48783e+06 2.48636e+06

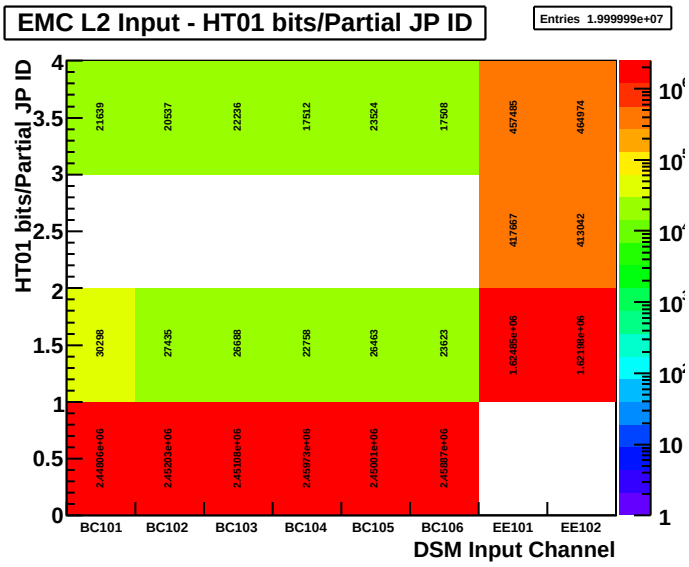

EMC L2 Input - JPY/JPB bits
Entries 6764
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
3717
3047

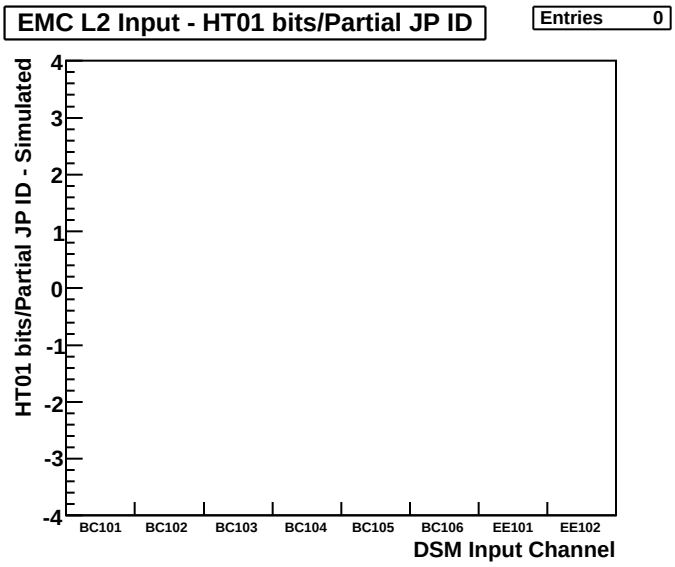

EMC L2 Input - JPZ/JPC bits
Entries 1.999999e+07
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
8975 8372 6394 7693 3963 4895 1862 1443
30177 27000 18300 27109 7916 14225 5533 4188
53545 45476 34597 42983 17804 27756 7210 6414
2.4073e+06 2.41815e+06 2.44071e+06 2.42221e+06 2.47122e+06 2.45312e+06 2.48539e+06 2.48795e+06

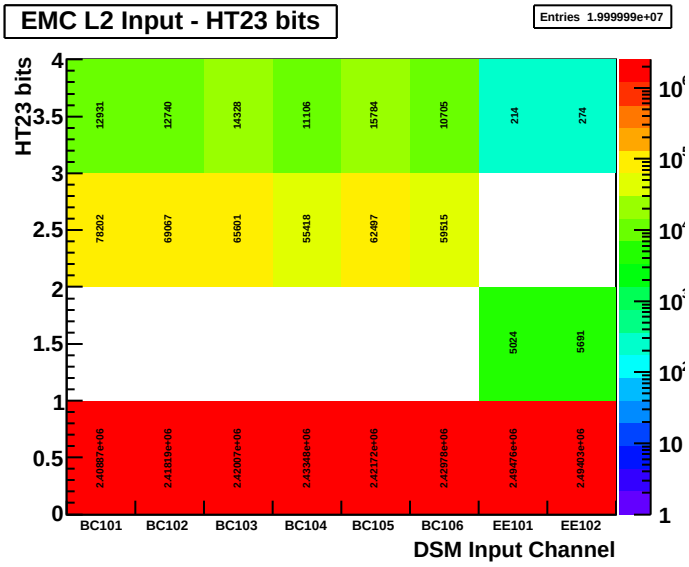

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

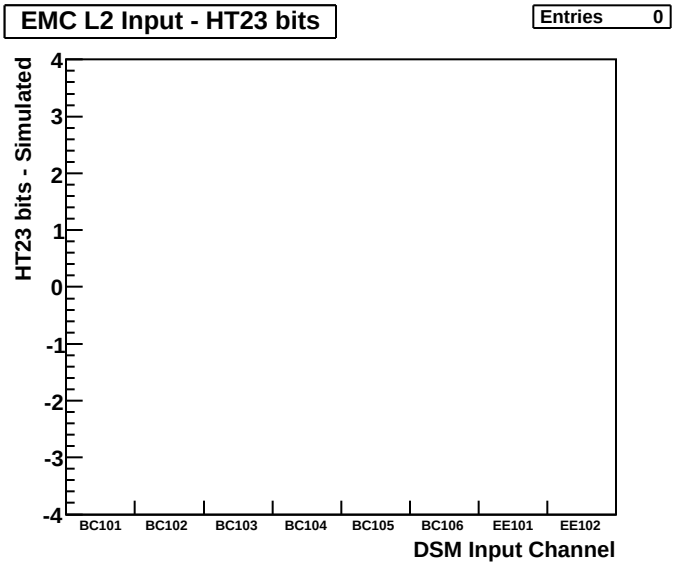

EMC L2 Input - Partial JP Sum
Entries 1.999999e+07
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

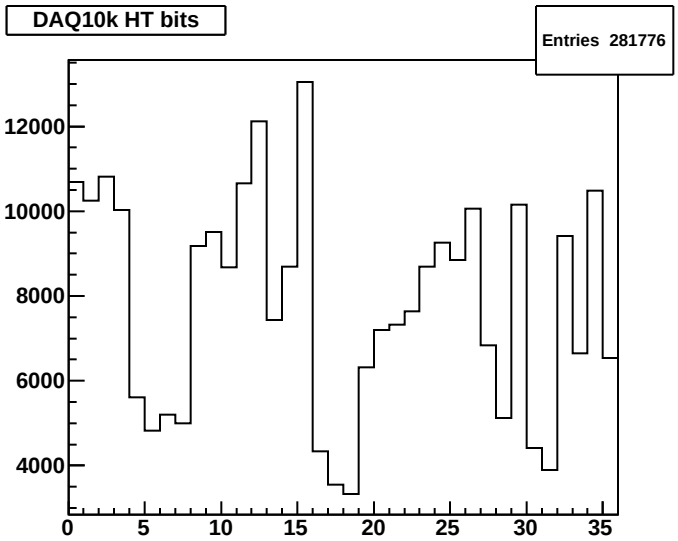

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

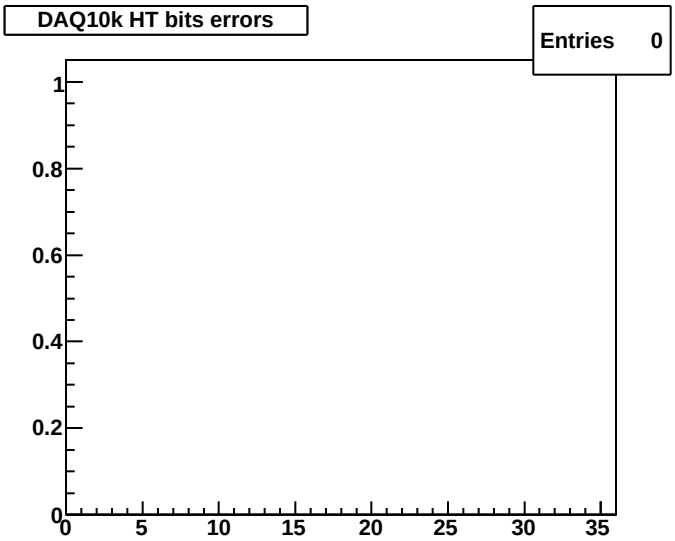

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1.999999e+07
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

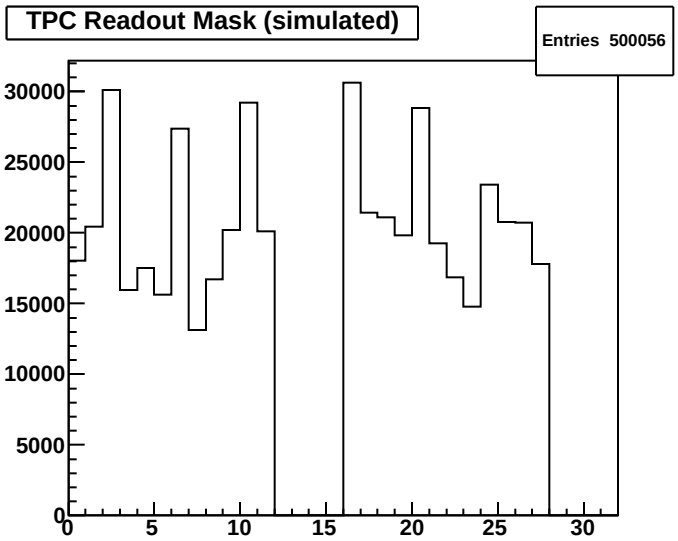

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

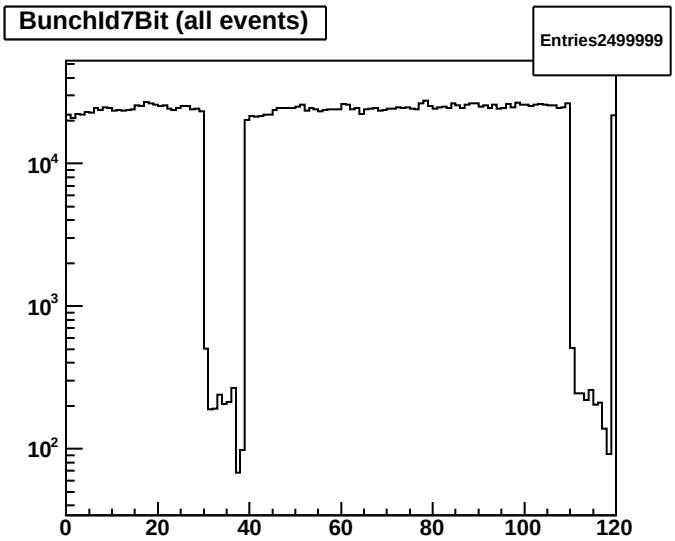

EMC L2 Input - HT23 bits
Entries 1.999999e+07
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

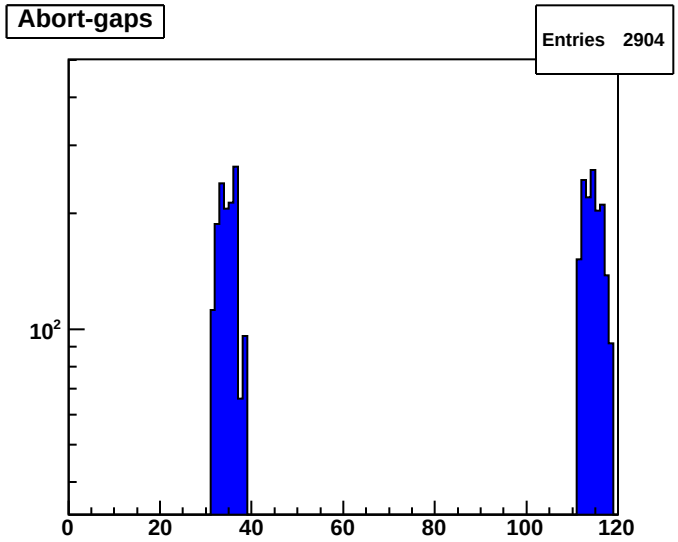

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

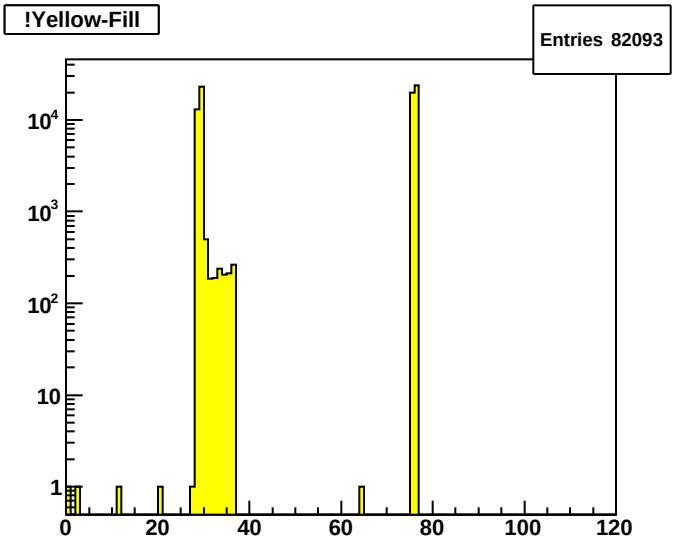

DAQ10k HT bits
Entries 281776
12000
10000
8000
6000
4000
0 5 10 15 20 25 30 35

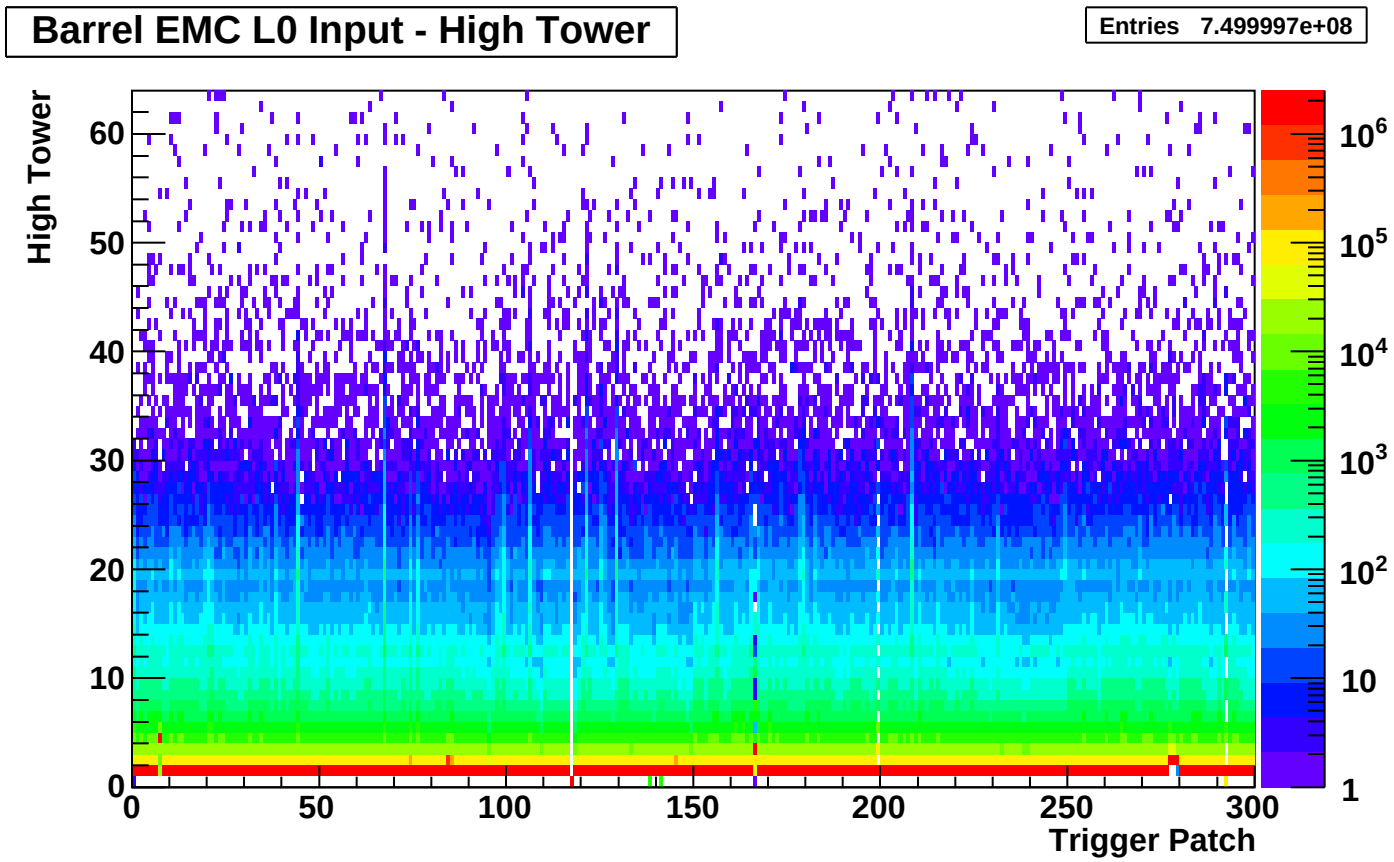

DAQ10k HT bits errors
Entries 0
1
0.8
0.6
0.4
0.2
0
0 5 10 15 20 25 30 35

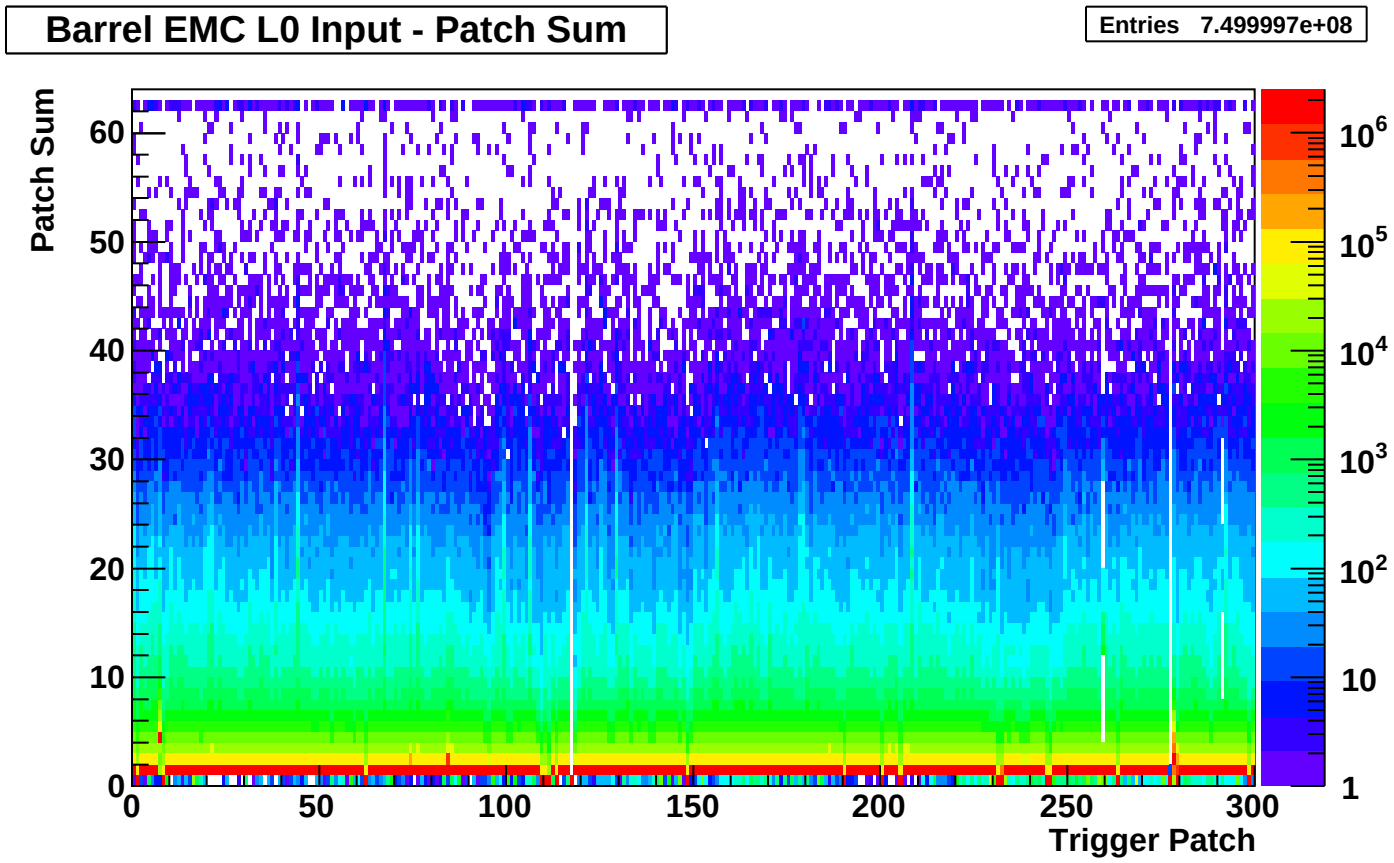

TPC Readout Mask (simulated)
Entries 500056
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

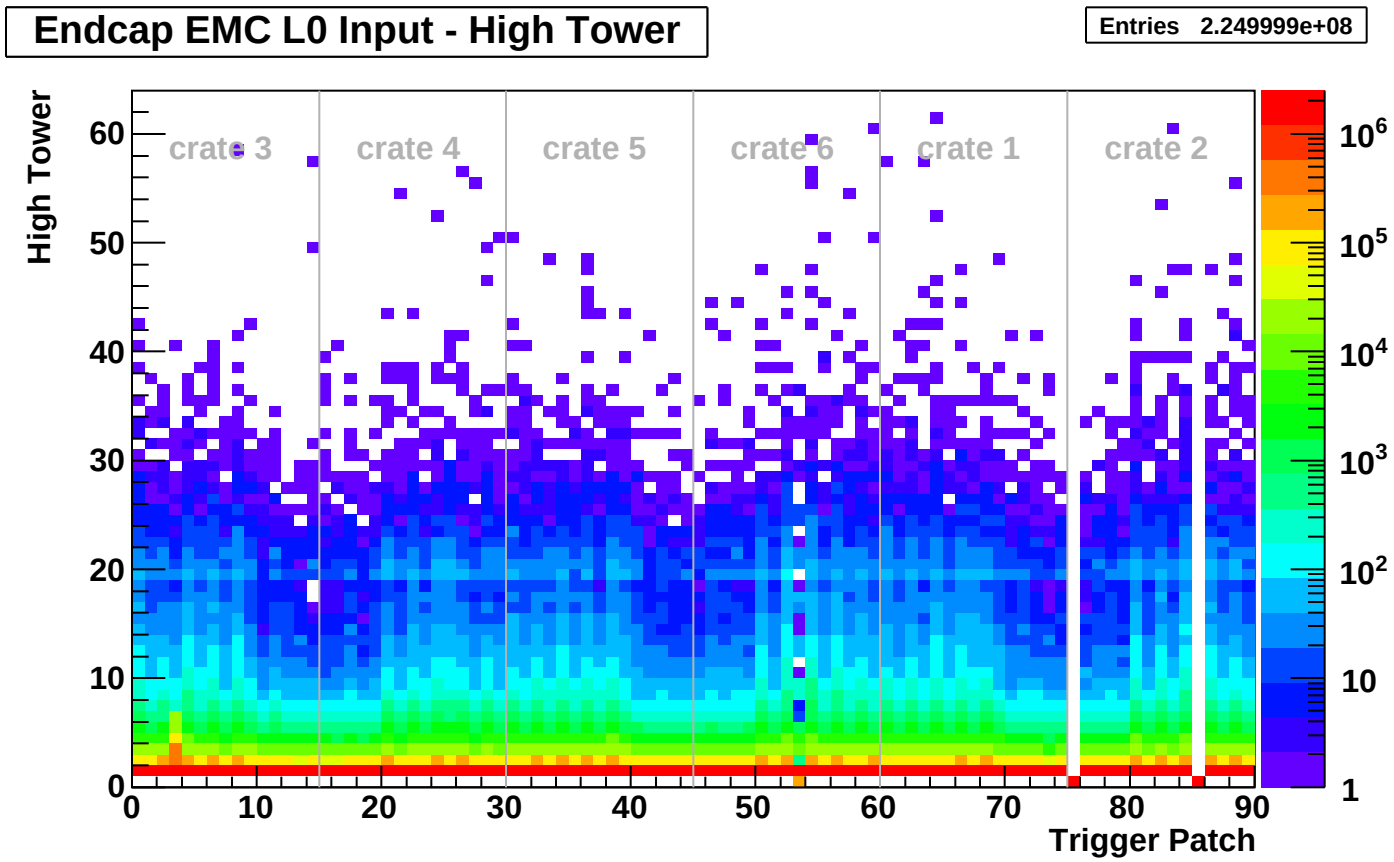

BunchId7Bit (all events)
Entries2499999
$10^4$
$10^3$
$10^2$
0 20 40 60 80 100 120

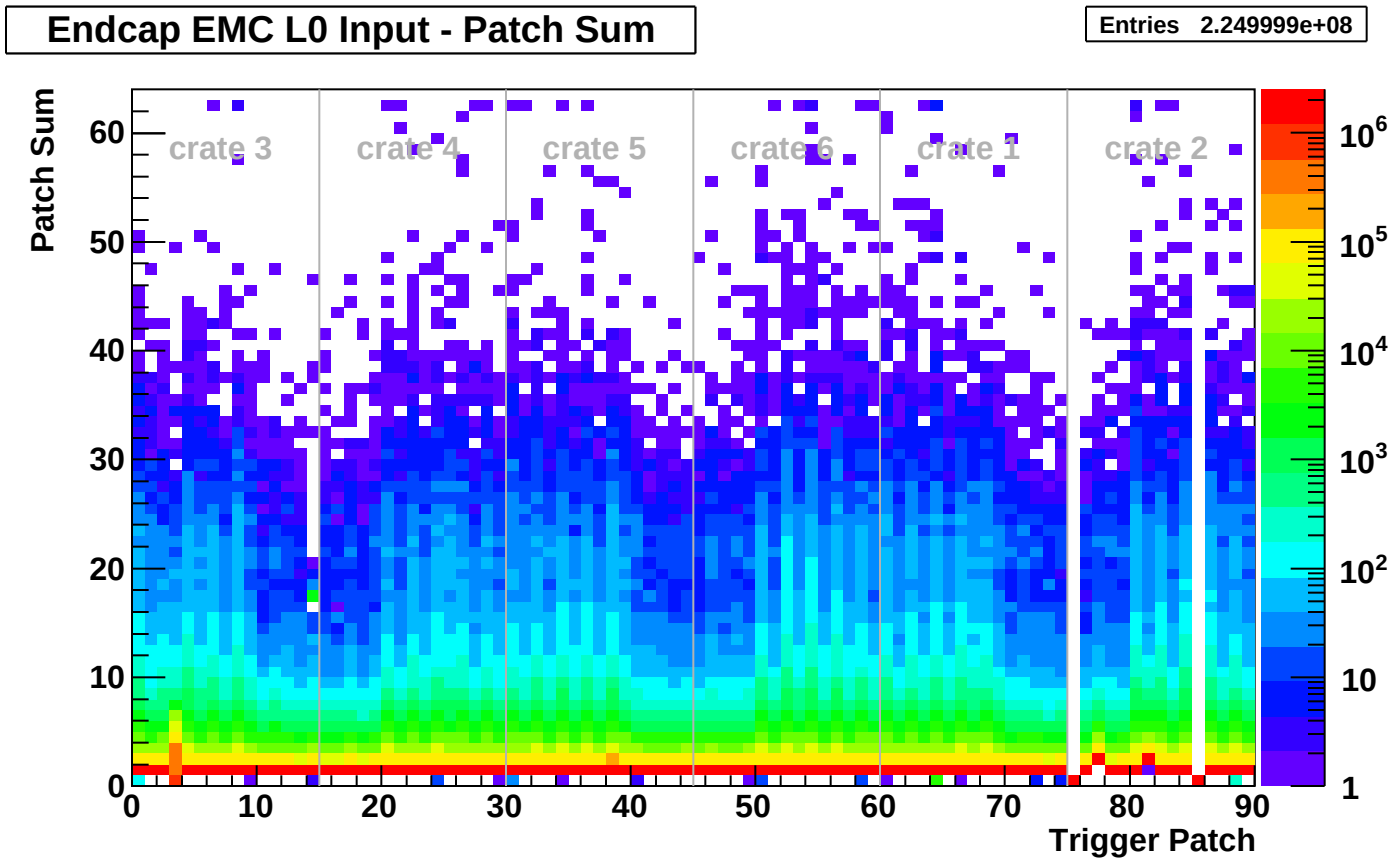

Abort-gaps
Entries 2904
$10^2$
0 20 40 60 80 100 120

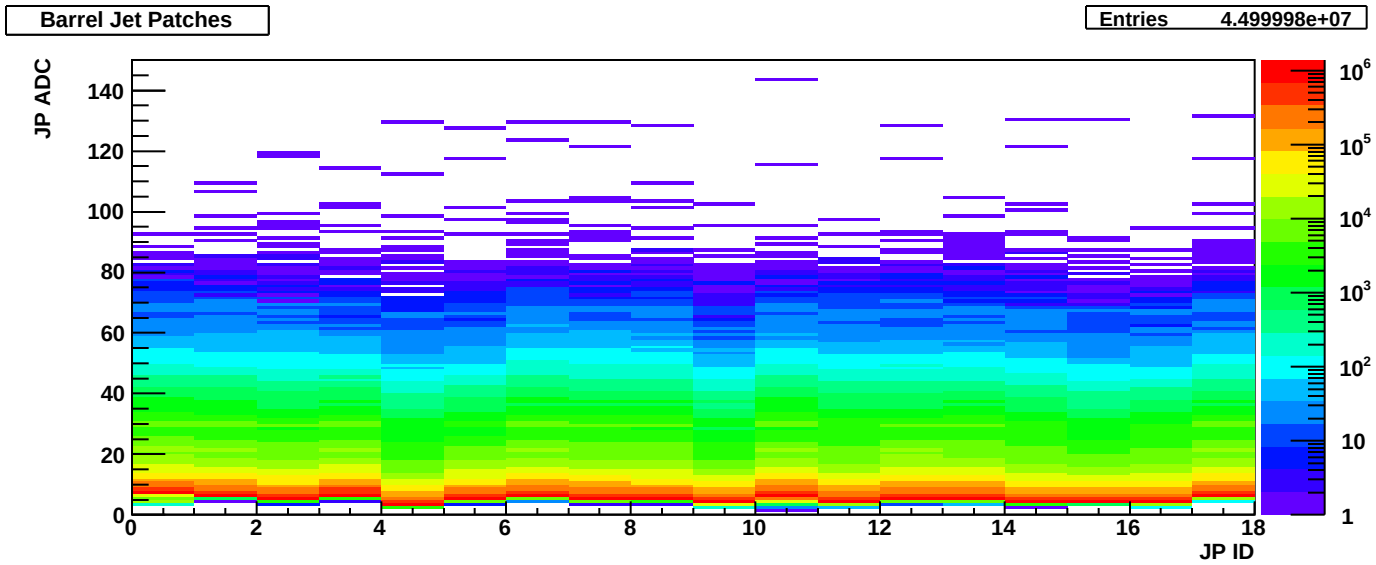

!Yellow-Fill
Entries 82093
$10^4$
$10^3$
$10^2$
10
1
0 20 40 60 80 100 120

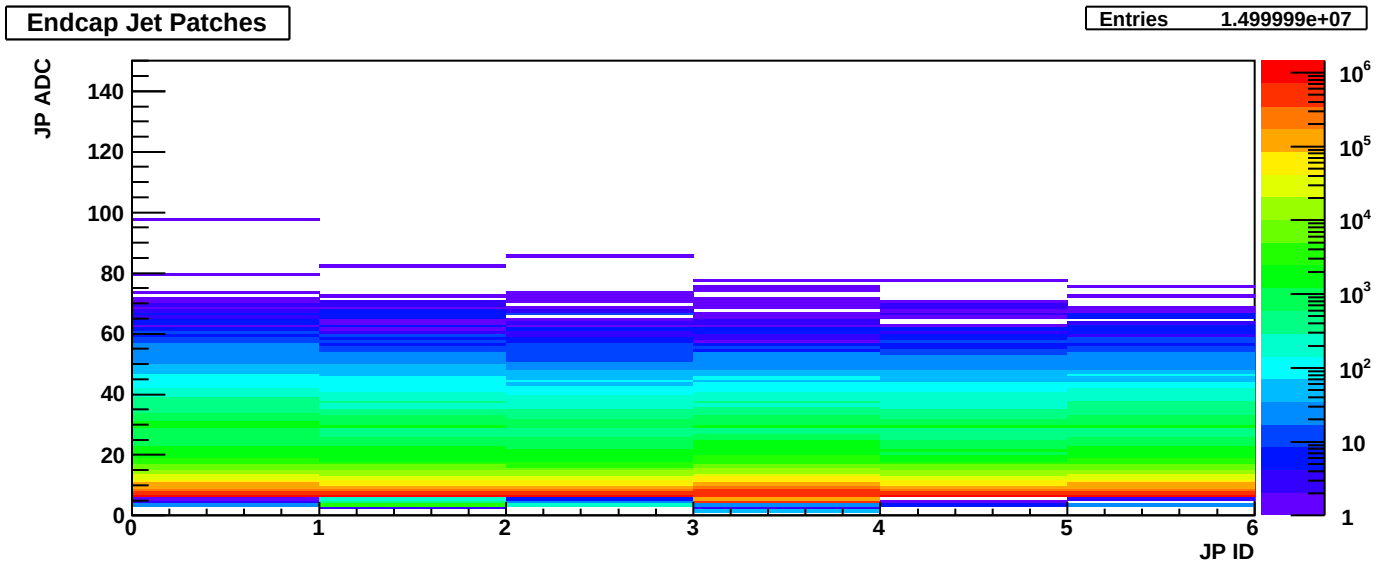

Barrel EMC L0 Input - High Tower
Entries 7.499997e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
$10^2$
$10^3$
$10^4$
$10^5$
$10^6$

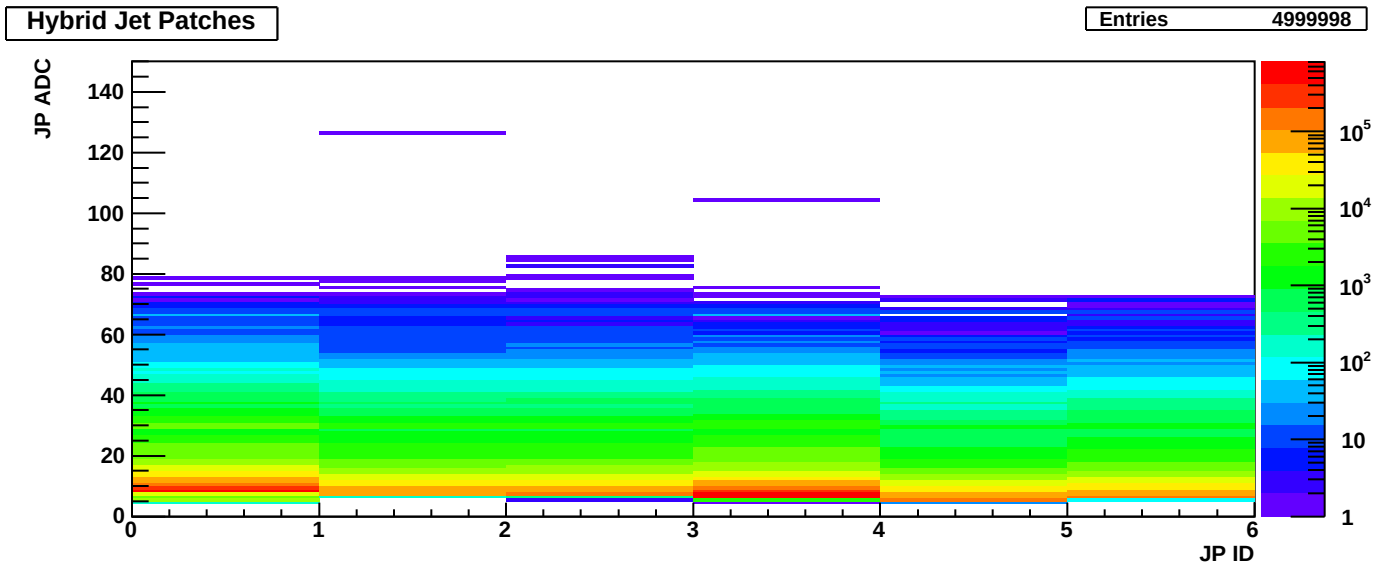

Barrel EMC L0 Input - Patch Sum
Entries 7.499997e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
$10^2$
$10^3$
$10^4$
$10^5$
$10^6$

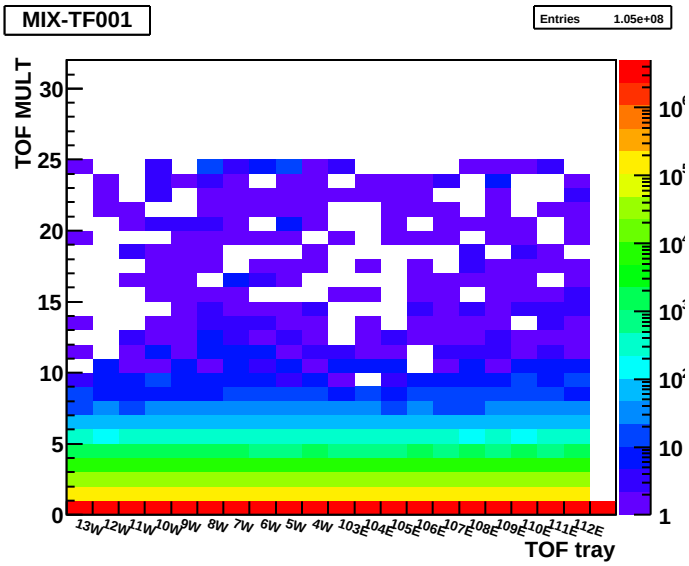

Endcap EMC L0 Input - High Tower
Entries 2.249999e+08
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

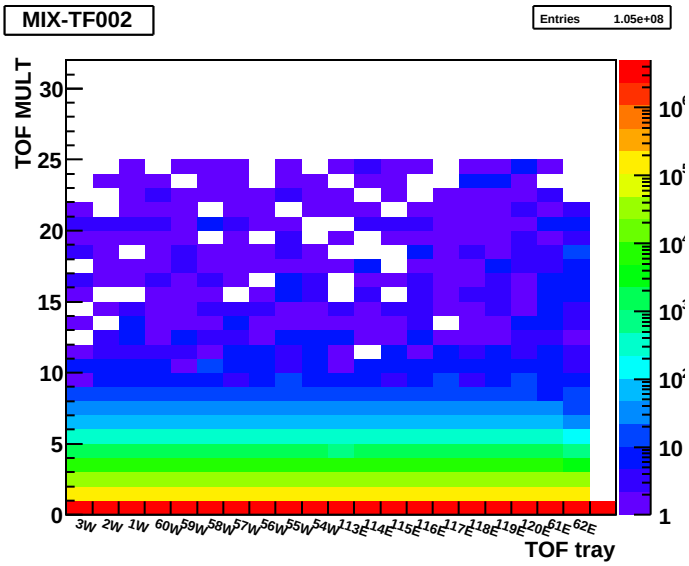

Endcap EMC L0 Input - Patch Sum
Entries 2.249999e+08
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

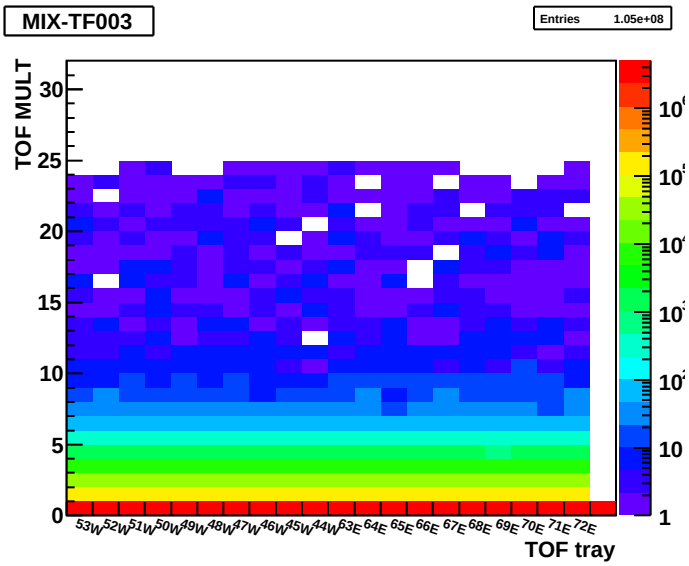

Barrel Jet Patches
Entries 4.499998e+07
JP ADC
JP ID

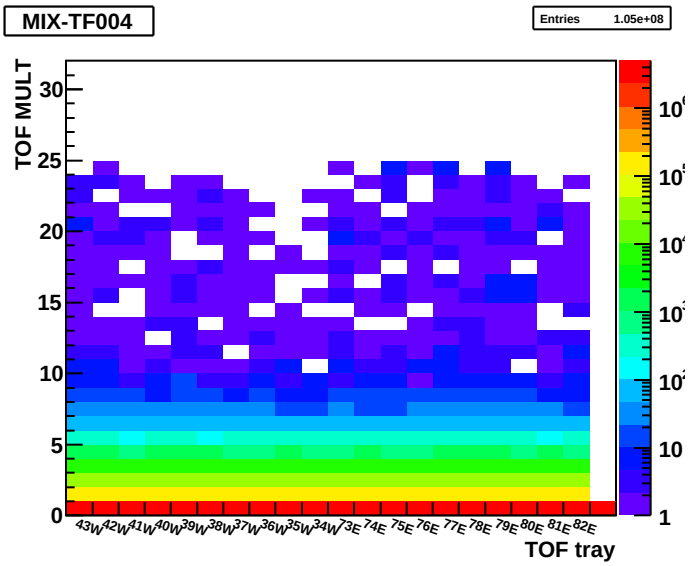

Endcap Jet Patches
Entries 1.499999e+07
JP ADC
JP ID

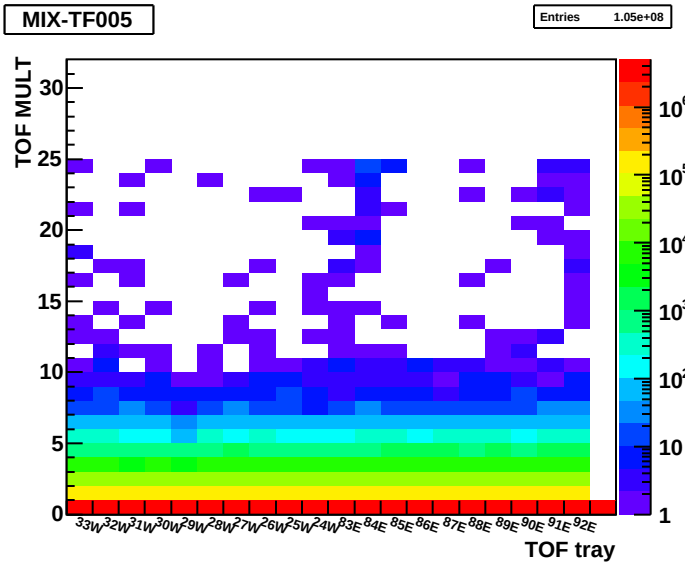

Hybrid Jet Patches
Entries 4999998
JP ADC
JP ID

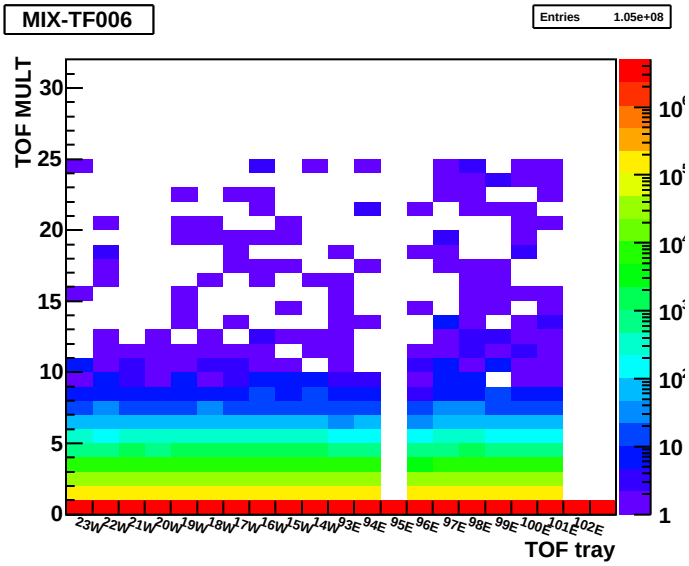

MIX-TF001
Entries 1.05e+08
TOF MULT
TOF tray

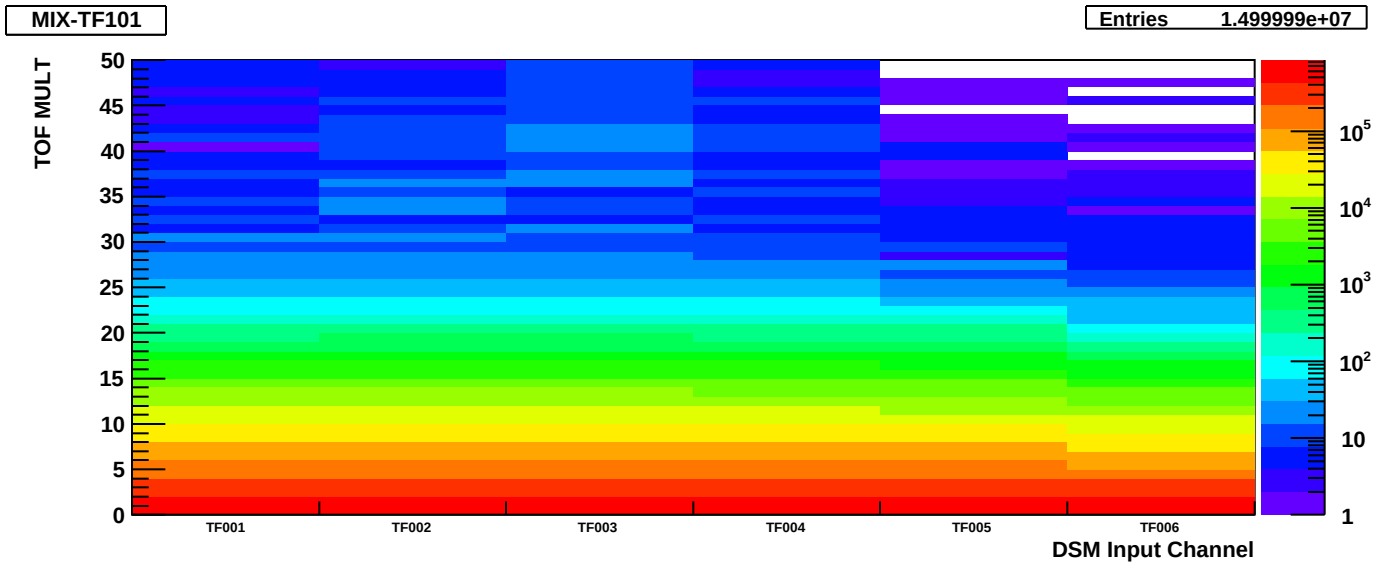

MIX-TF002
Entries 1.05e+08
TOF MULT
TOF tray

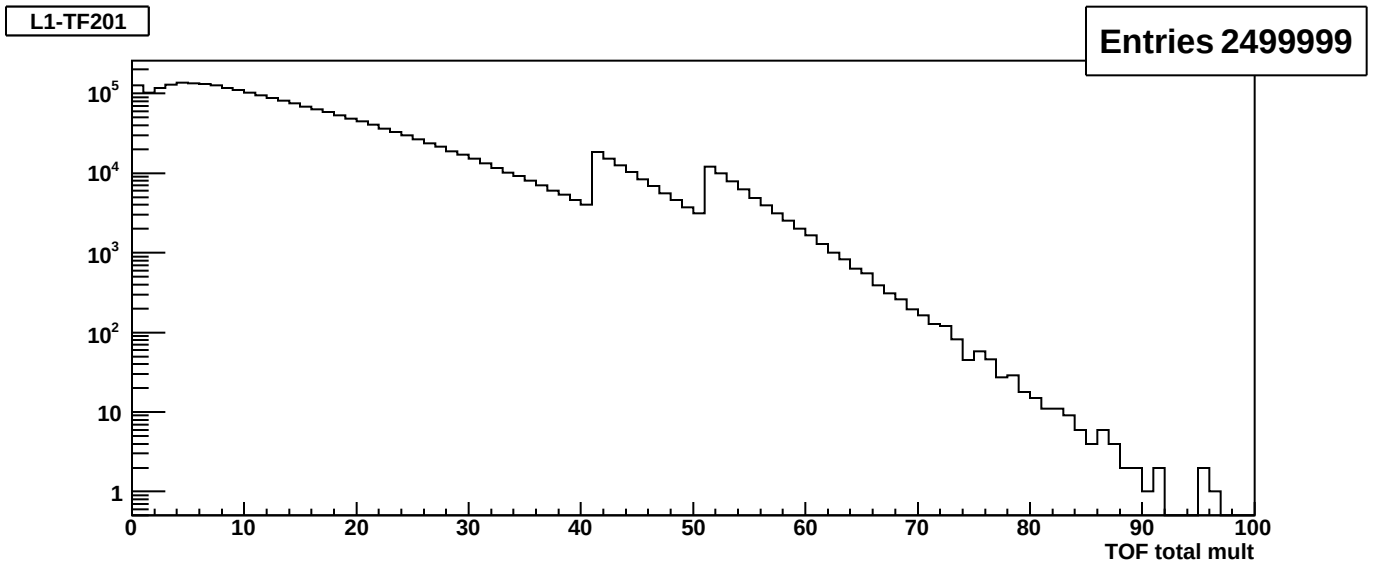

MIX-TF003
Entries 1.05e+08
TOF MULT
TOF tray

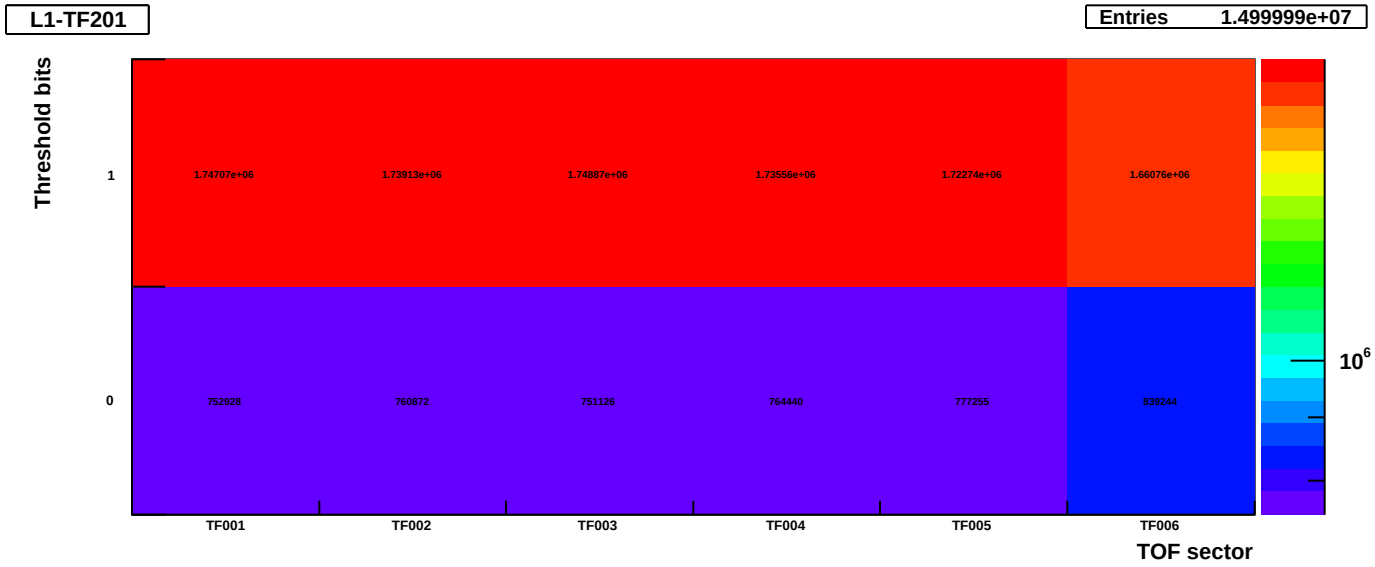

MIX-TF004
Entries 1.05e+08
TOF MULT
TOF tray

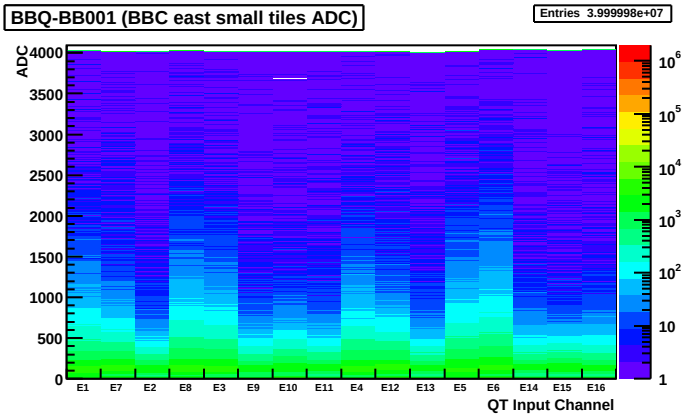

MIX-TF005
Entries 1.05e+08
TOF MULT
TOF tray

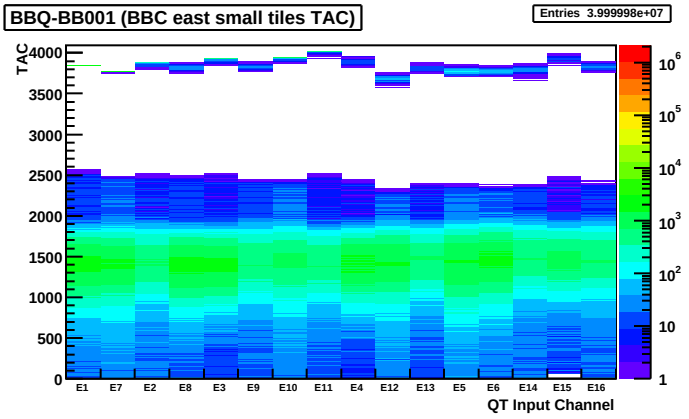

MIX-TF006
Entries 1.05e+08
TOF MULT
TOF tray

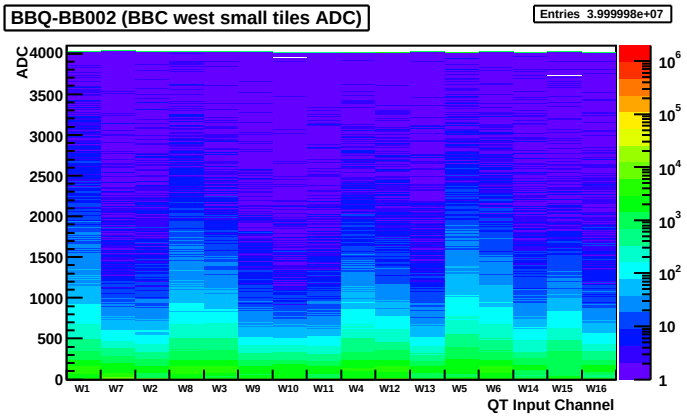

MIX-TF101
Entries 1.499999e+07
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

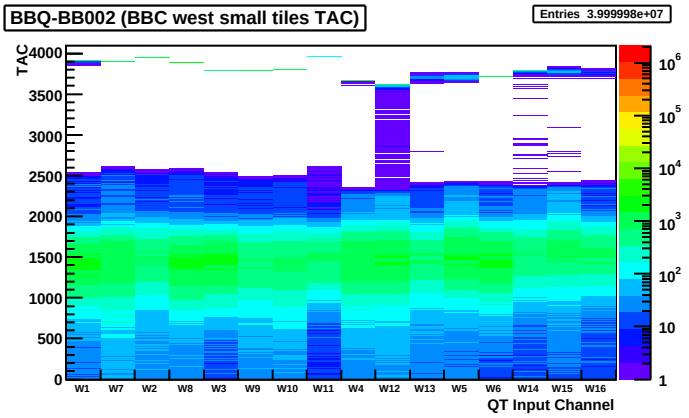

L1-TF201
Entries 2499999
TOF total mult

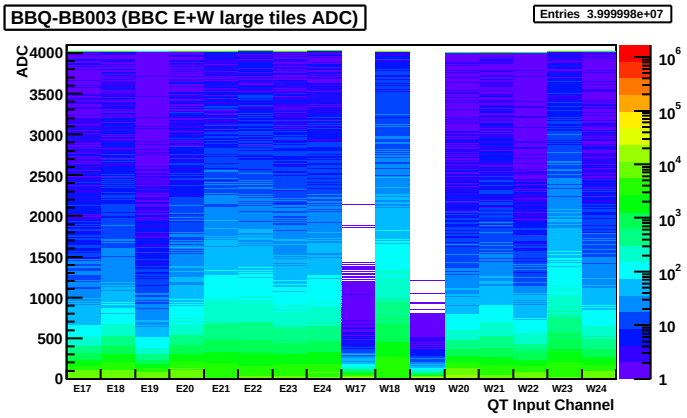

L1-TF201
Entries 1.499999e+07
Threshold bits
1.74707e+06
1.73913e+06
1.74887e+06
1.73556e+06
1.72274e+06
1.66076e+06
752928
760872
751126
764440
777255
839244
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

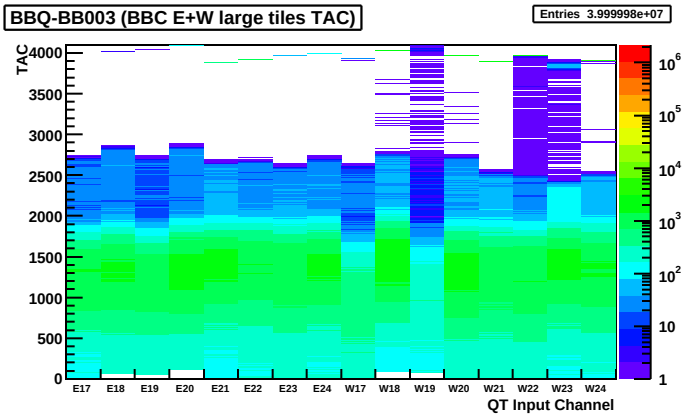

BBQ-BB001 (BBC east small tiles ADC)
Entries 3.999998e+07
ADC
QT Input Channel

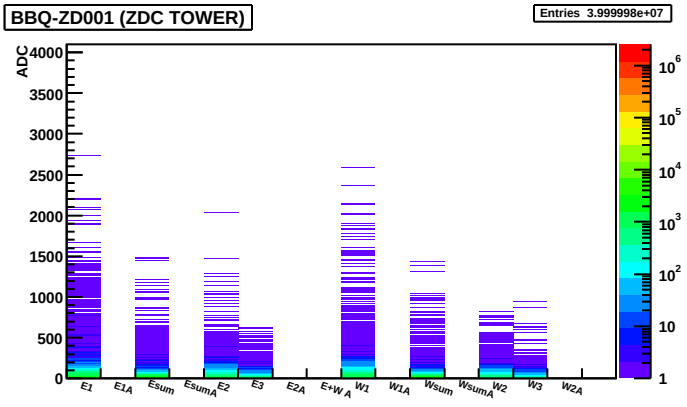

BBQ-BB001 (BBC east small tiles TAC)
Entries 3.999998e+07
TAC
QT Input Channel

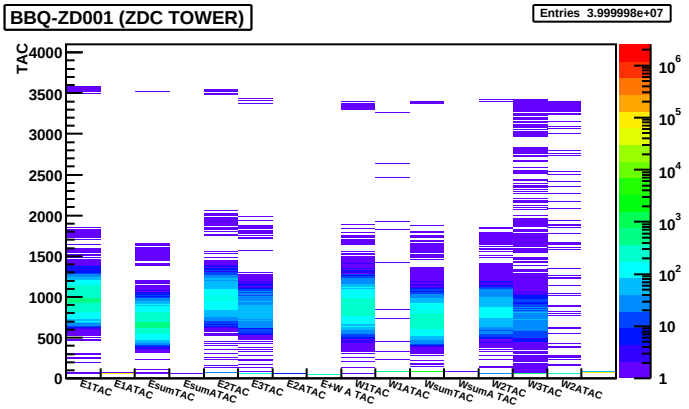

BBQ-BB002 (BBC west small tiles ADC)
Entries 3.999998e+07
ADC
QT Input Channel

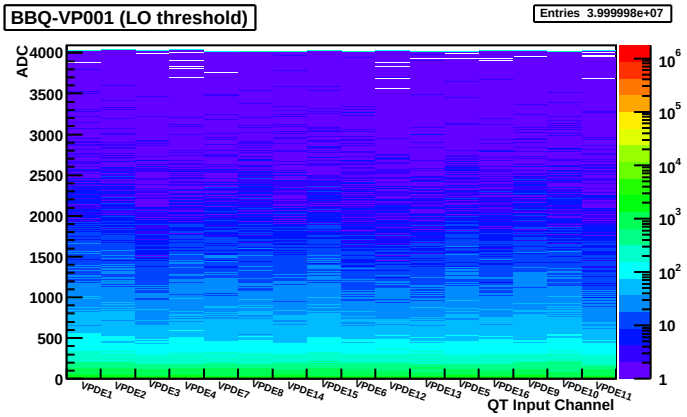

BBQ-BB002 (BBC west small tiles TAC)
Entries 3.999998e+07
TAC
QT Input Channel

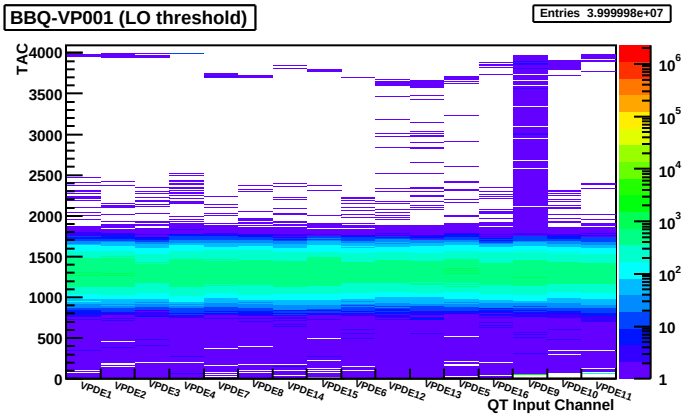

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 3.999998e+07
ADC
QT Input Channel

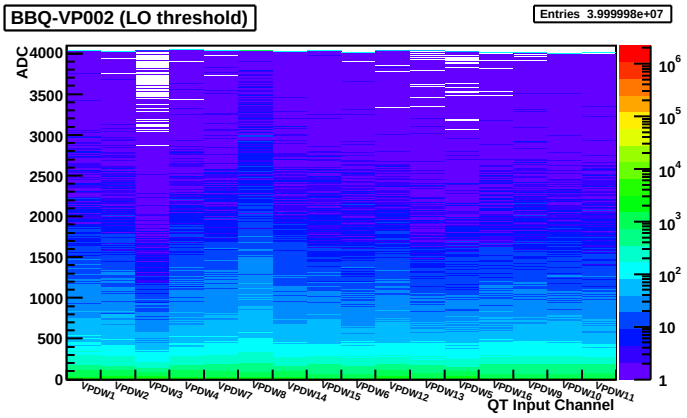

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 3.999998e+07
TAC
QT Input Channel

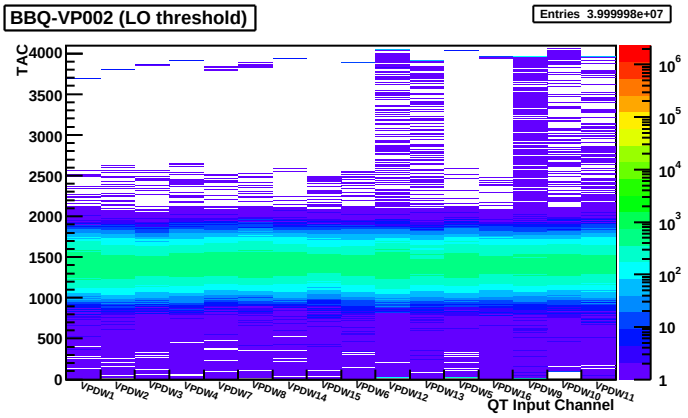

BBQ-ZD001 (ZDC TOWER)
Entries 3.999998e+07
ADC

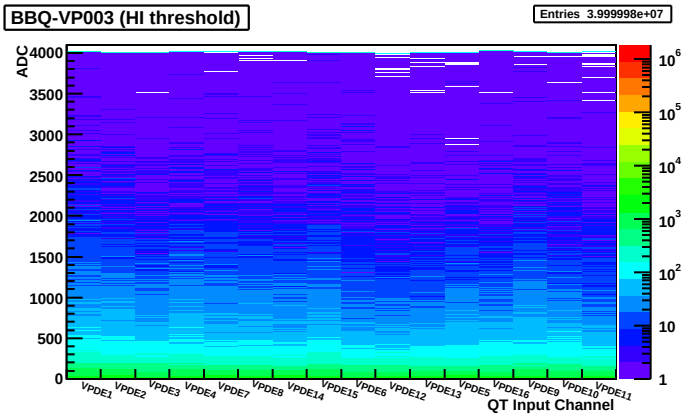

BBQ-ZD001 (ZDC TOWER)
Entries 3.999998e+07
TAC

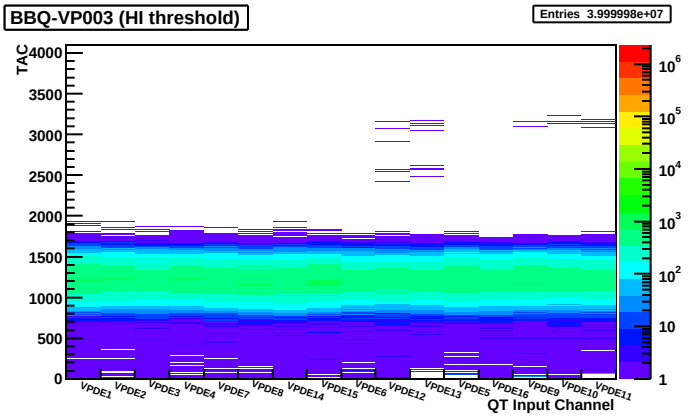

BBQ-VP001 (LO threshold)
Entries 3.999998e+07
ADC
QT Input Channel

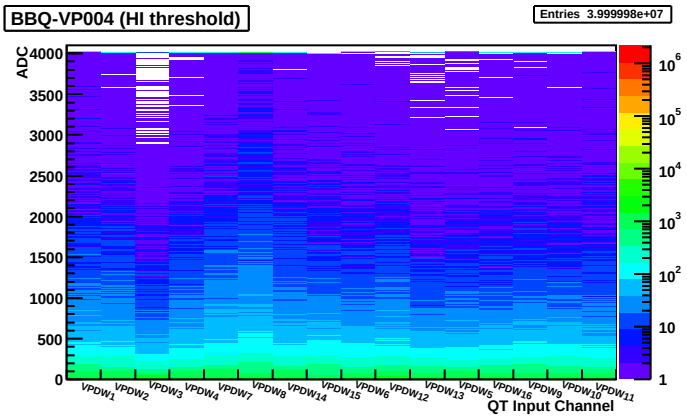

BBQ-VP001 (LO threshold)
Entries 3.999998e+07
TAC
QT Input Channel

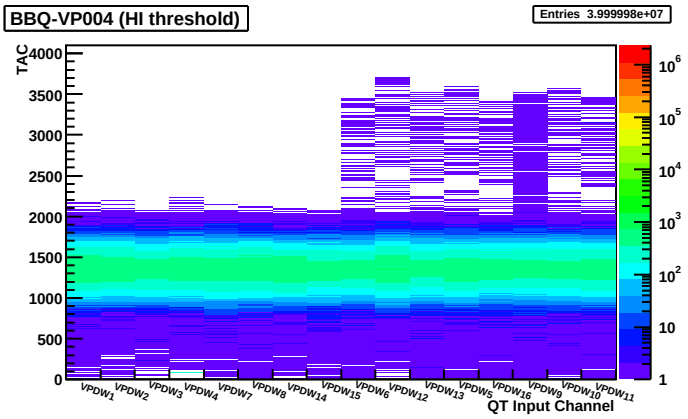

BBQ-VP002 (LO threshold)
Entries 3.999998e+07
ADC
QT Input Channel

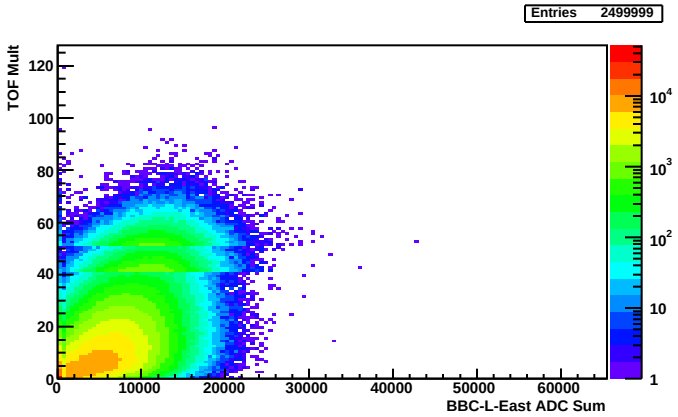

BBQ-VP002 (LO threshold)
Entries 3.999998e+07
TAC
QT Input Channel

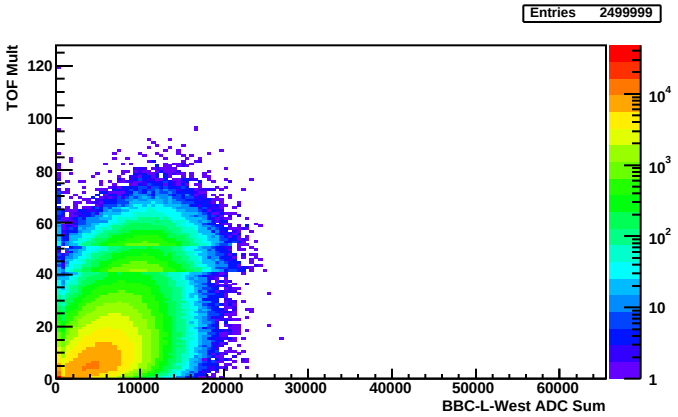

BBQ-VP003 (HI threshold)
Entries 3.999998e+07
ADC
QT Input Channel

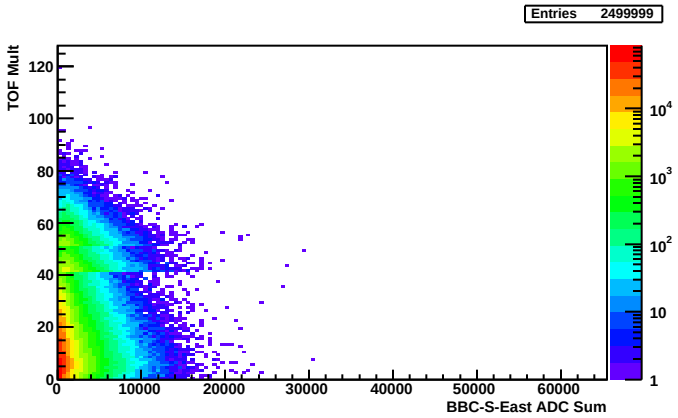

BBQ-VP003 (HI threshold)
Entries 3.999998e+07
TAC
QT Input Channel

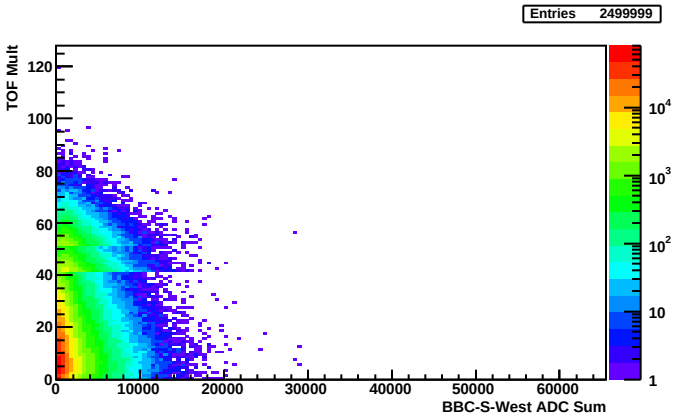

BBQ-VP004 (HI threshold)
Entries 3.999998e+07
ADC
QT Input Channel

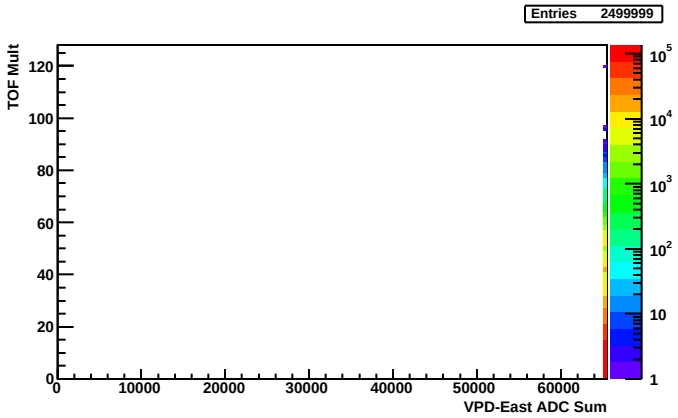

BBQ-VP004 (HI threshold)
Entries 3.999998e+07
TAC
QT Input Channel

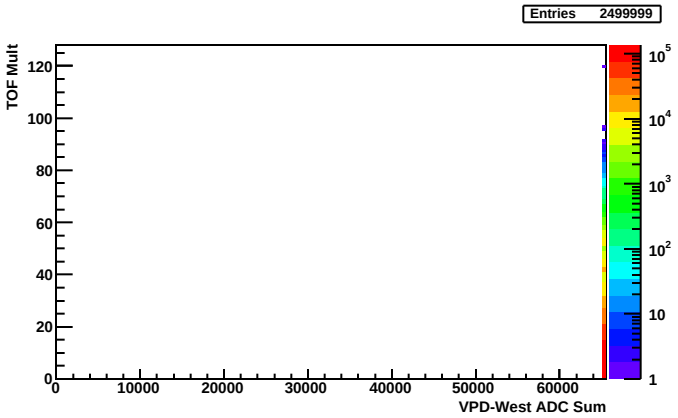

Entries 2499999
TOF Mult
BBC-L-East ADC Sum

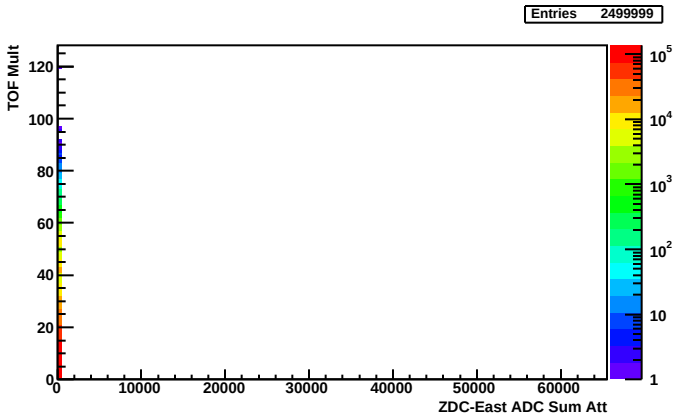

Entries 2499999
TOF Mult
BBC-L-West ADC Sum

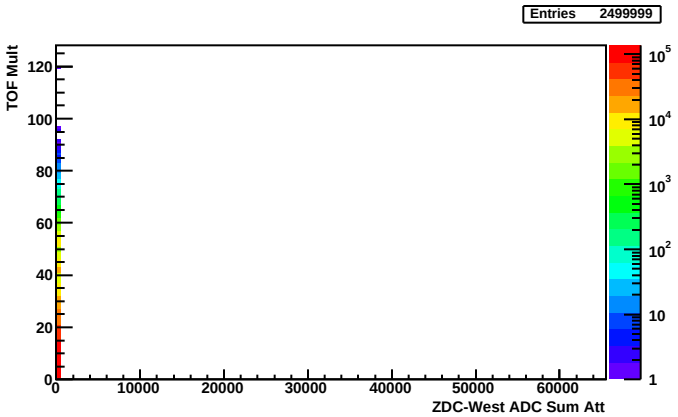

Entries 2499999
TOF Mult
BBC-S-East ADC Sum

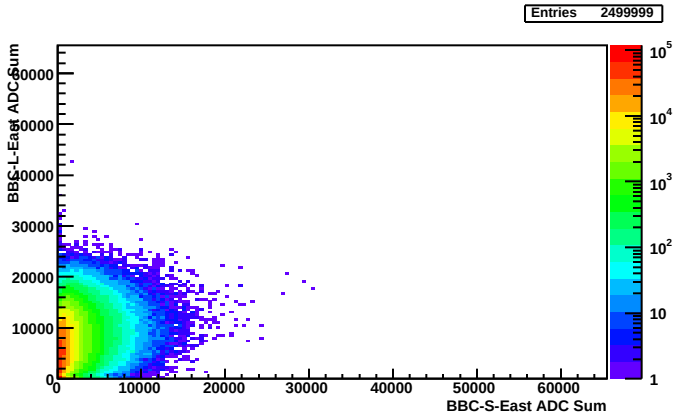

Entries 2499999
TOF Mult
BBC-S-West ADC Sum

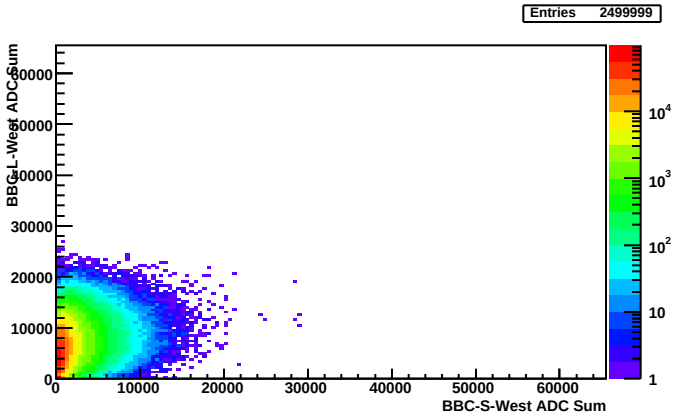

Entries 2499999
TOF Mult
VPD-East ADC Sum

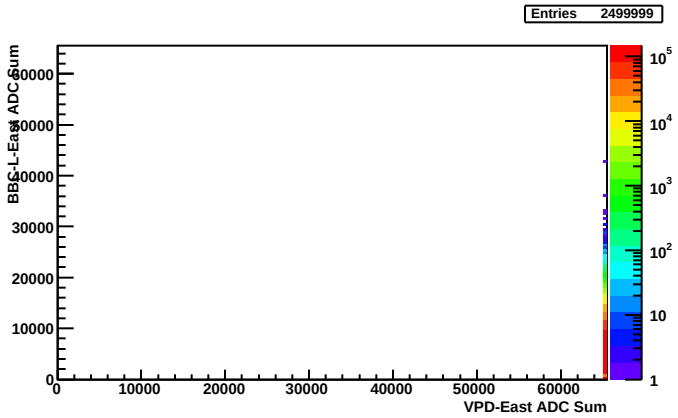

Entries 2499999
TOF Mult
VPD-West ADC Sum

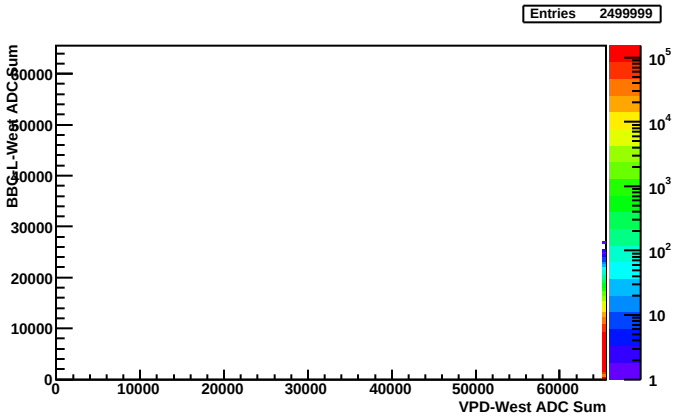

Entries 2499999
TOF Mult
ZDC-East ADC Sum Att

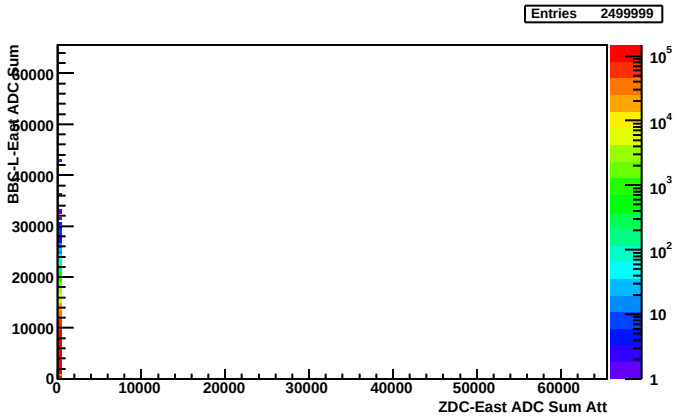

Entries 2499999
TOF Mult
ZDC-West ADC Sum Att

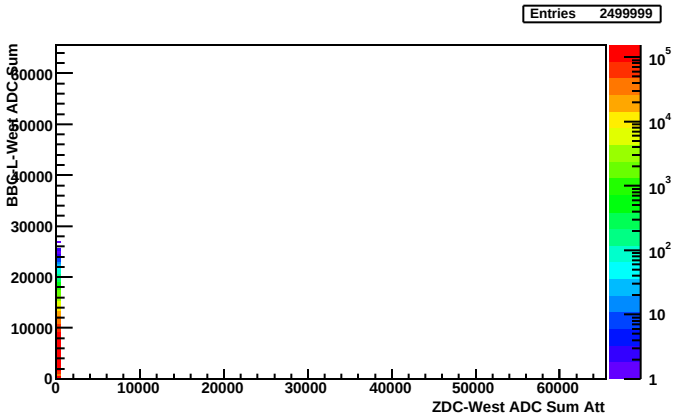

Entries 2499999
BBC-L-East ADC Sum
BBC-S-East ADC Sum

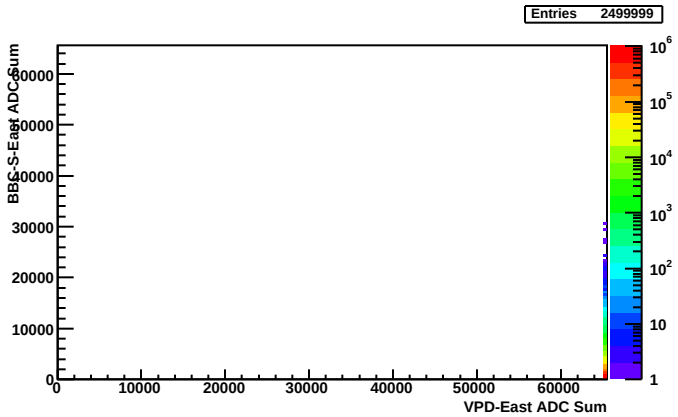

Entries 2499999
BBC-L-West ADC Sum
BBC-S-West ADC Sum

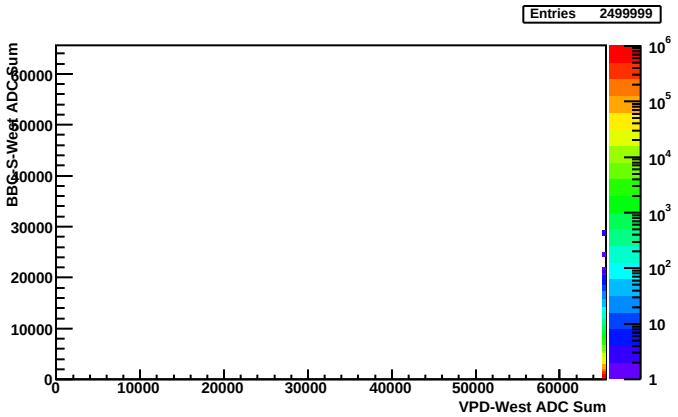

Entries 2499999
BBC-L-East ADC Sum
VPD-East ADC Sum

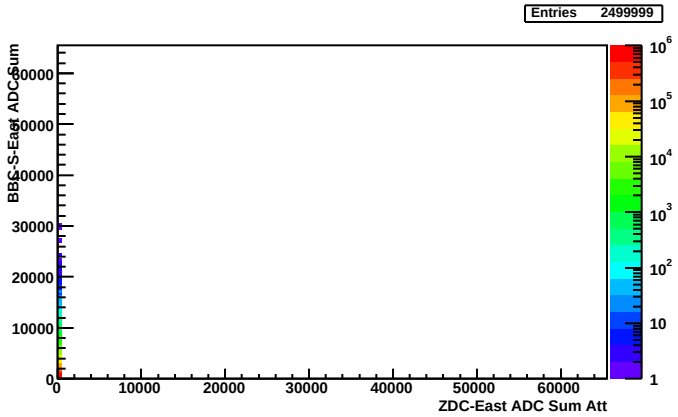

Entries 2499999
BBC-L-West ADC Sum
VPD-West ADC Sum

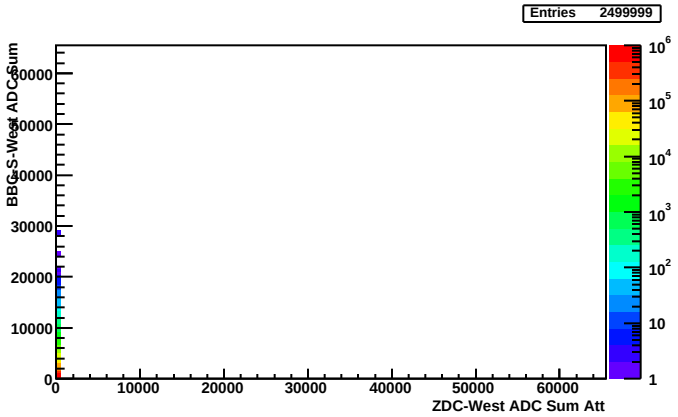

Entries 2499999
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

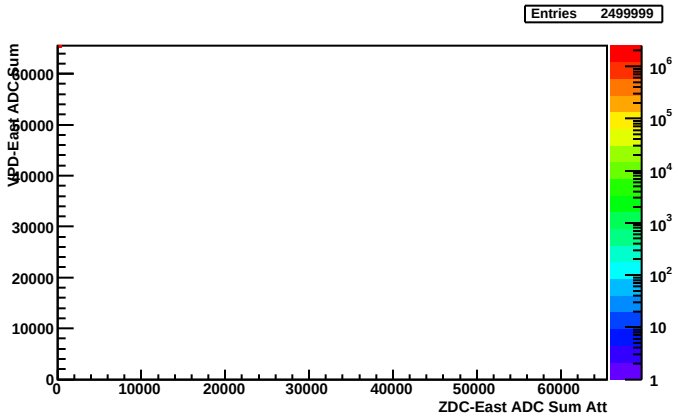

Entries 2499999
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

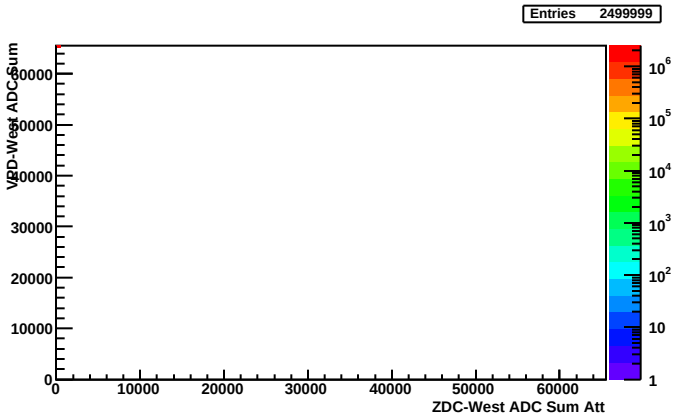

Entries 2499999
BBC-S-East ADC Sum
VPD-East ADC Sum

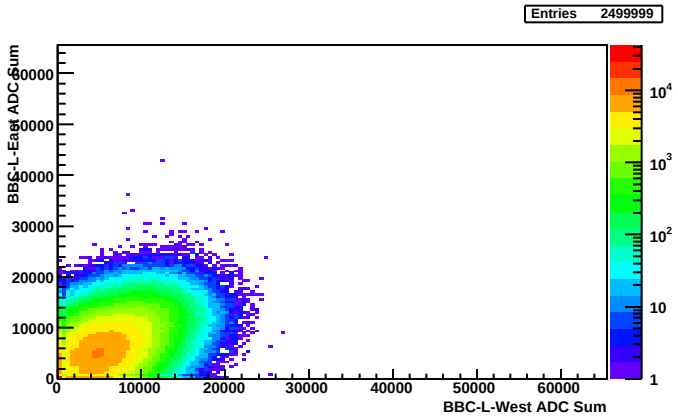

Entries 2499999
BBC-S-West ADC Sum
VPD-West ADC Sum

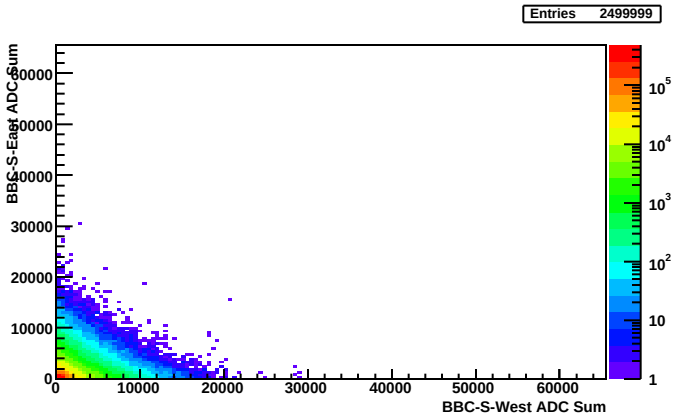

Entries 2499999
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

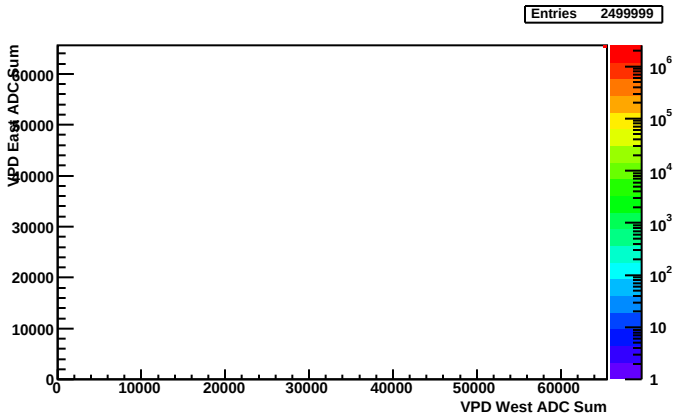

Entries 2499999
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

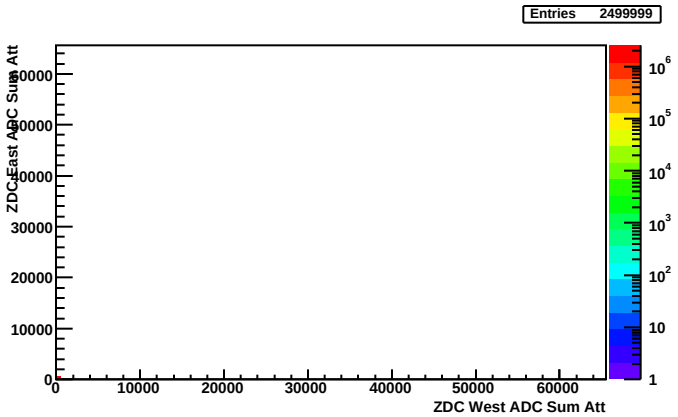

Entries 2499999
VPD-East ADC Sum
ZDC-East ADC Sum Att

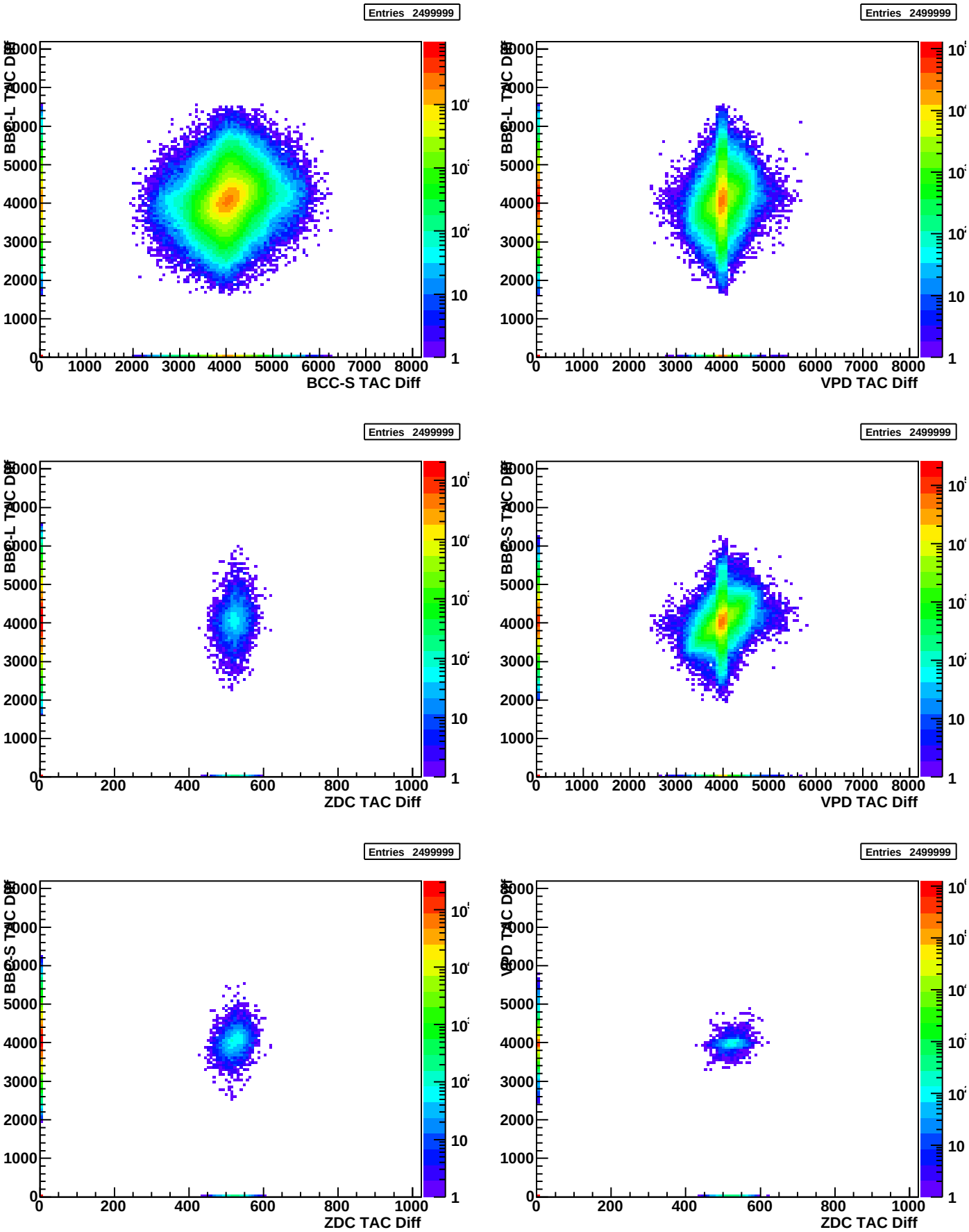

Entries 2499999
VPD-West ADC Sum
ZDC-West ADC Sum Att

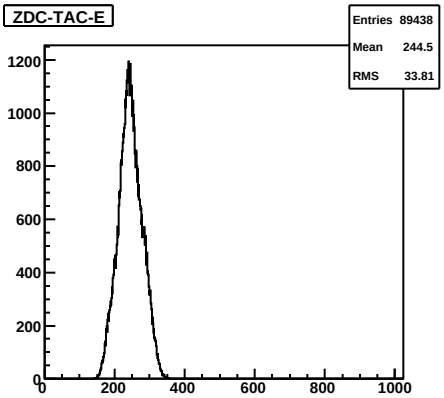

Entries 2499999
BBC-L-East ADC Sum
BBC-L-West ADC Sum

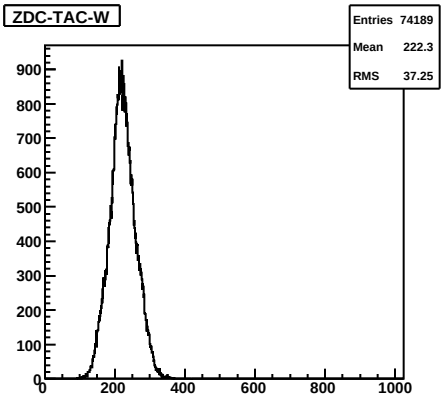

Entries 2499999
BBC-S-East ADC Sum
BBC-S-West ADC Sum

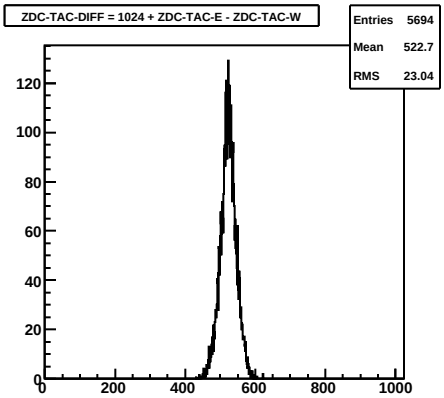

Entries 2499999
VPD East ADC Sum
VPD West ADC Sum

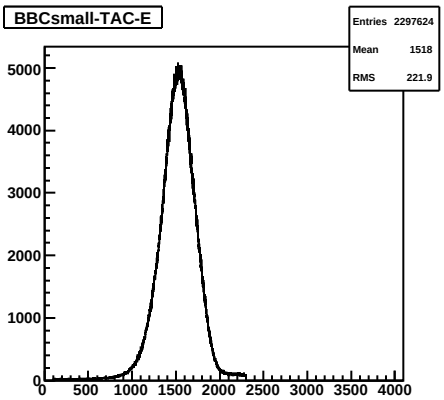

Entries 2499999
ZDC East ADC Sum Att
ZDC West ADC Sum Att

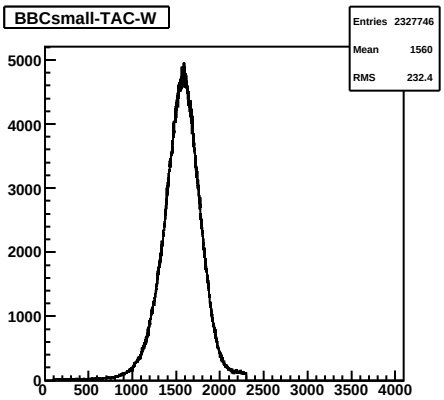

Entries 2499999
BBC-L TAC Diff
BCC-S TAC Diff
Entries 2499999
BBC-L TAC Diff
VPD TAC Diff
Entries 2499999
BBC-L TAC Diff
ZDC TAC Diff
Entries 2499999
BBC-S TAC Diff
VPD TAC Diff
Entries 2499999
BBC-S TAC Diff
ZDC TAC Diff
Entries 2499999
VPD TAC Diff
ZDC TAC Diff

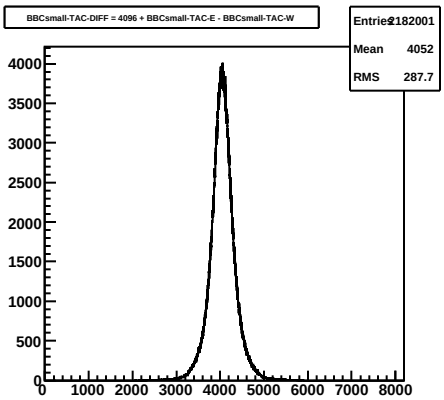

ZDC-TAC-E
Entries 89438
Mean 244.5
RMS 33.81

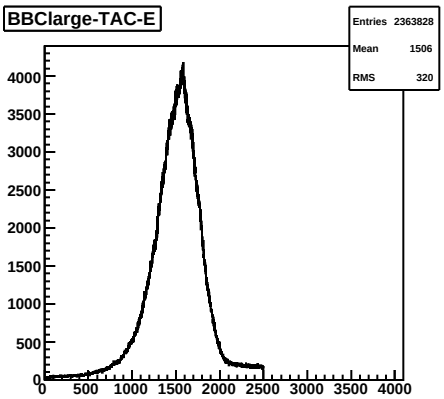

ZDC-TAC-W
Entries 74189
Mean 222.3
RMS 37.25

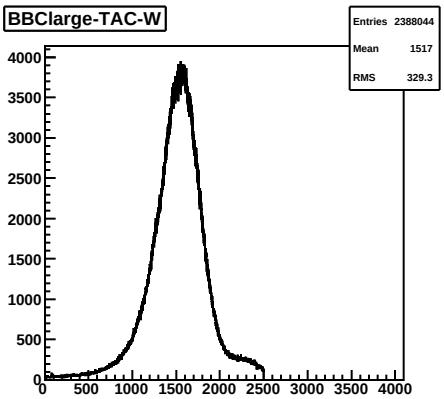

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 5694
Mean 522.7
RMS 23.04

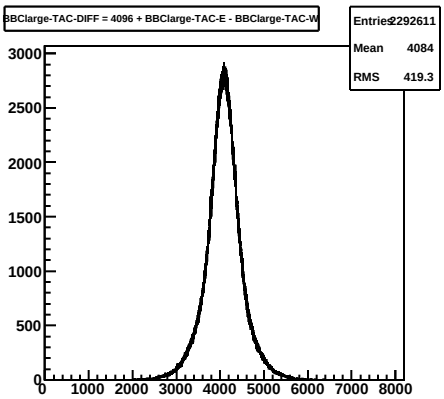

BBCsmall-TAC-E
Entries 2297624
Mean 1518
RMS 221.9

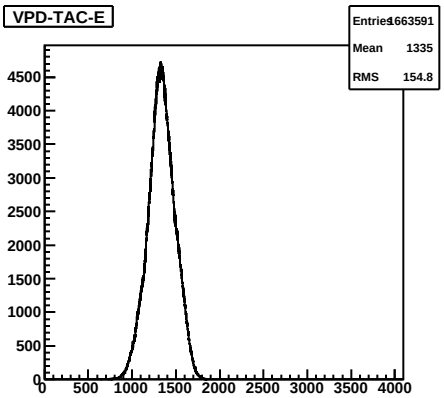

BBCsmall-TAC-W
Entries 2327746
Mean 1560
RMS 232.4

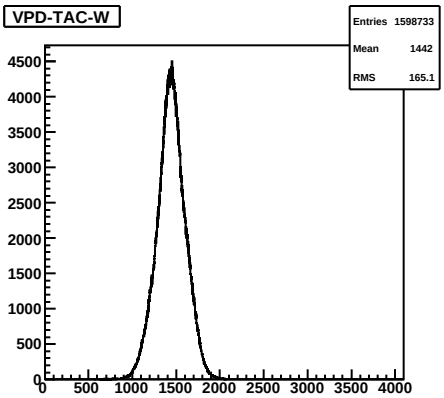

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 2182001
Mean 4052
RMS 287.7

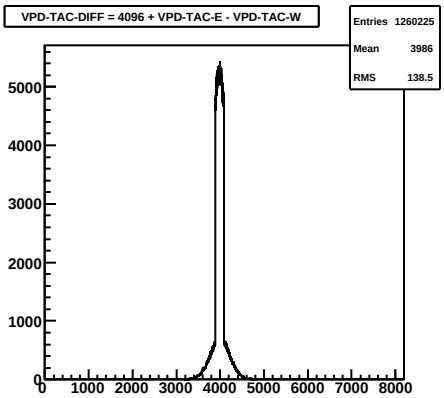

BBClarge-TAC-E
Entries 2363828
Mean 1506
RMS 320

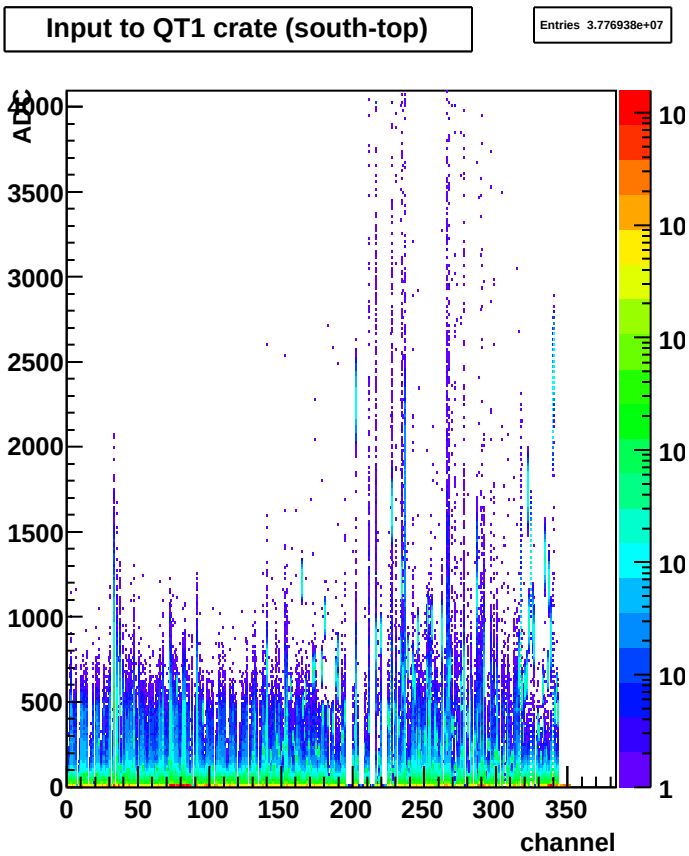

BBClarge-TAC-W
Entries 2388044
Mean 1517
RMS 329.3

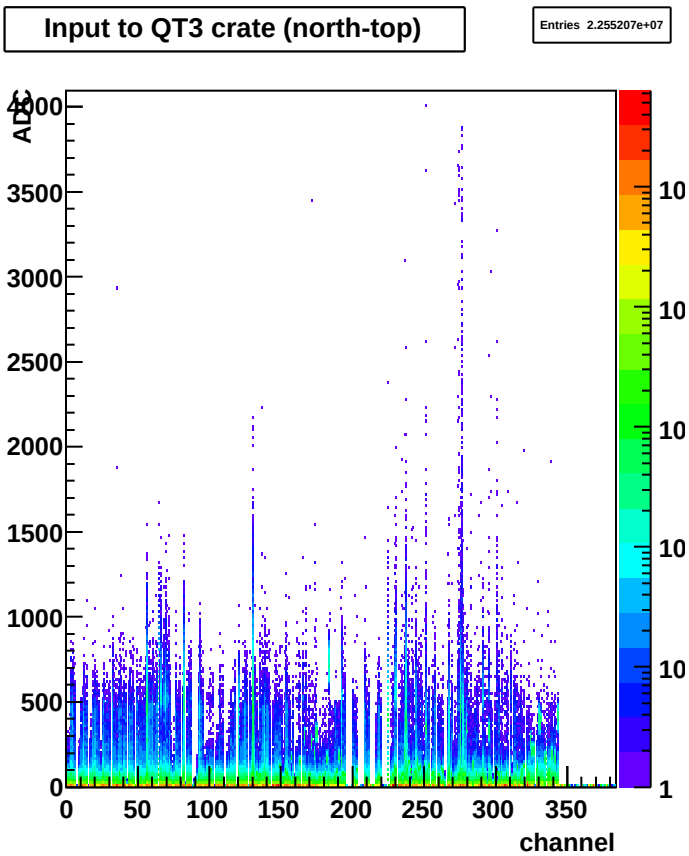

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 2292611
Mean 4084
RMS 419.3

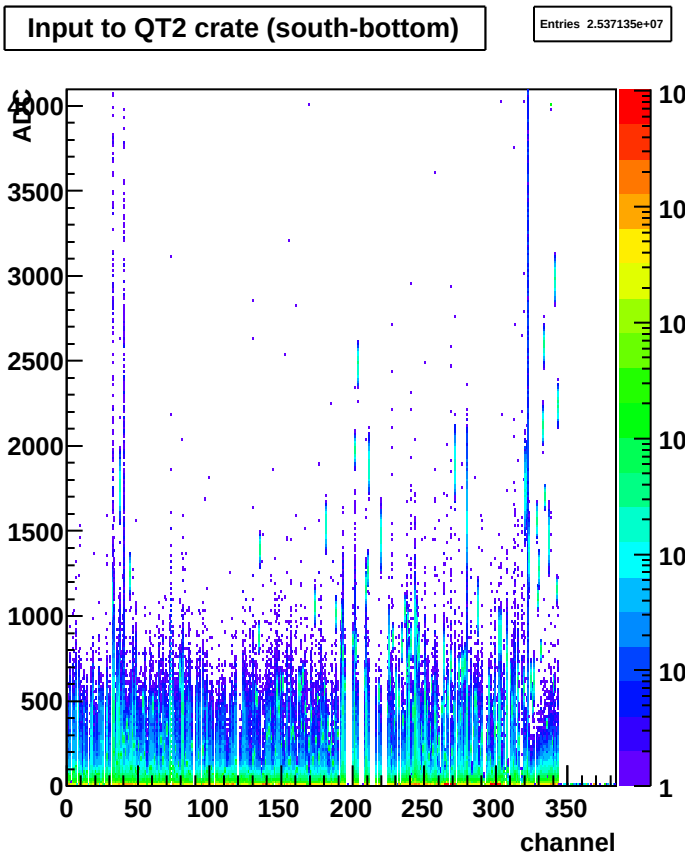

VPD-TAC-E
Entries 1663591
Mean 1335
RMS 154.8

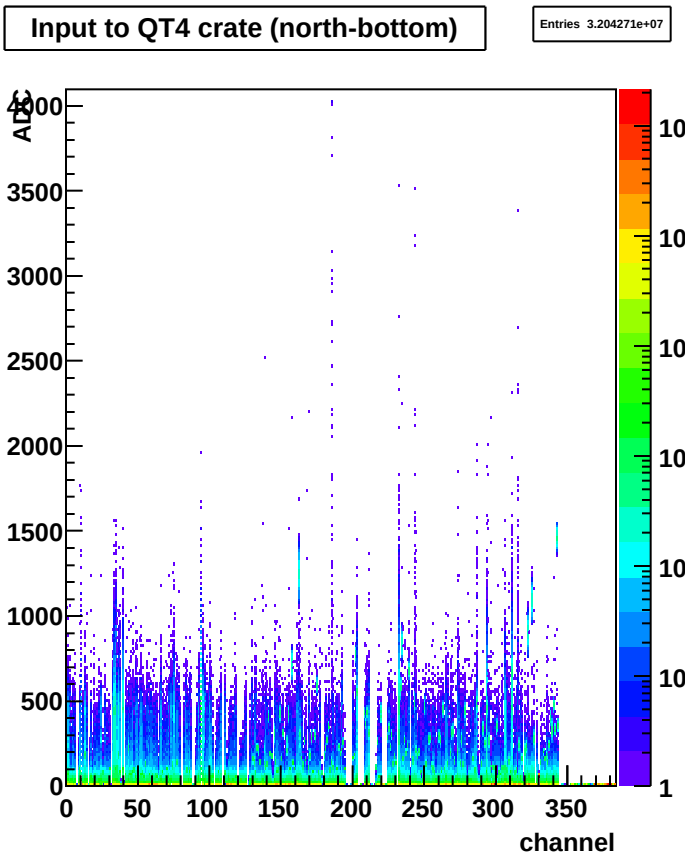

VPD-TAC-W
Entries 1598733
Mean 1442
RMS 165.1

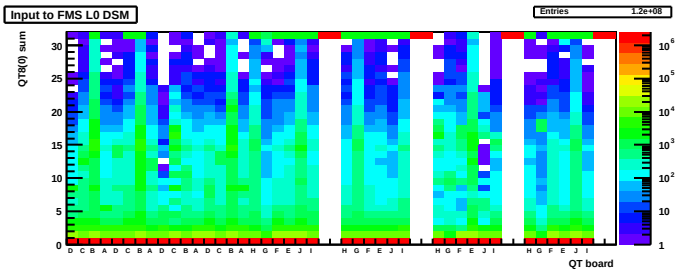

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 1260225
Mean 3986
RMS 138.5

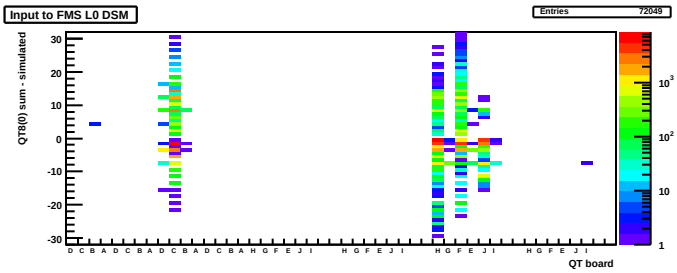

Input to QT1 crate (south-top)
Entries 3.776938e+07
ADC
channel

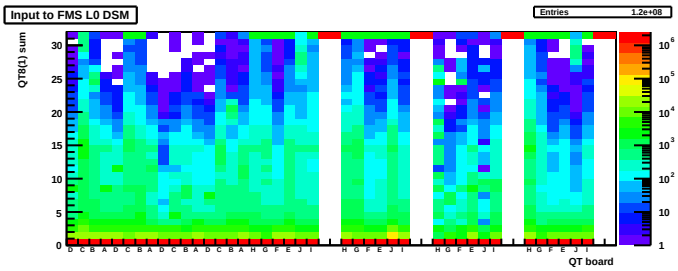

Input to QT3 crate (north-top)
Entries 2.255207e+07
ADC
channel

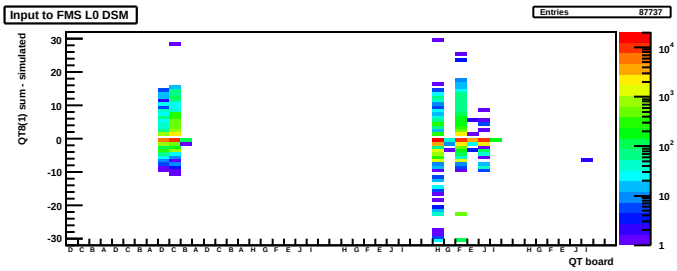

Input to QT2 crate (south-bottom)
Entries 2.537135e+07
ADC
channel

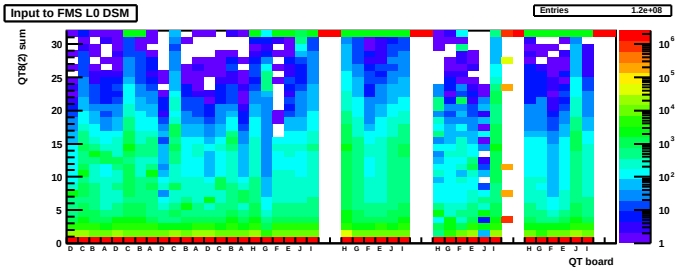

Input to QT4 crate (north-bottom)
Entries 3.204271e+07
ADC
channel

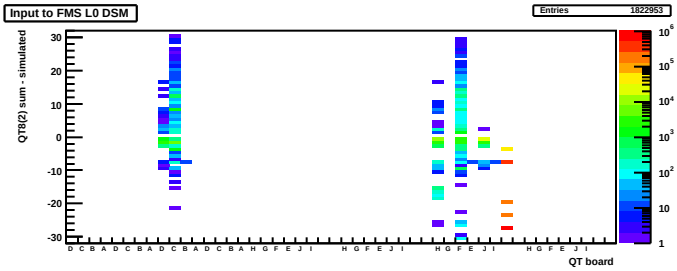

Input to FMS L0 DSM
Entries 1.2e+08
QT8(0) sum
QT board

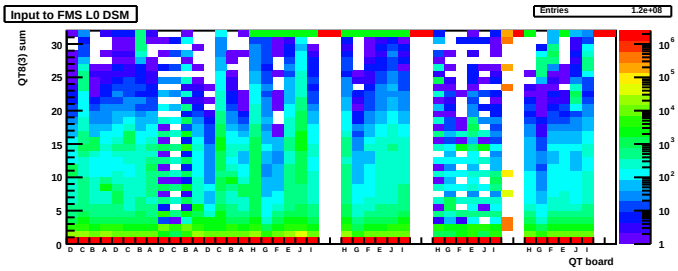

Input to FMS L0 DSM
Entries 72049
QT8(0) sum - simulated
QT board

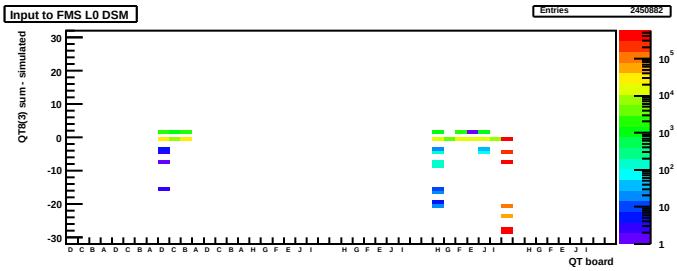

Input to FMS L0 DSM
Entries 1.2e+08
QT8(1) sum
QT board

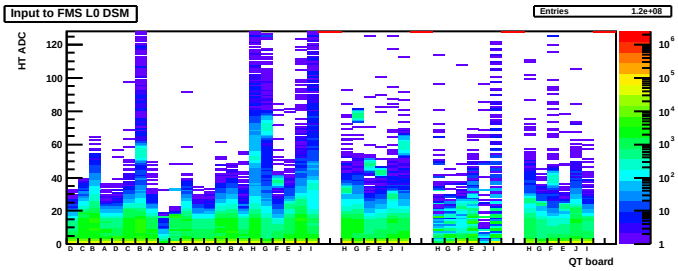

Input to FMS L0 DSM
Entries 87737
QT8(1) sum - simulated
QT board

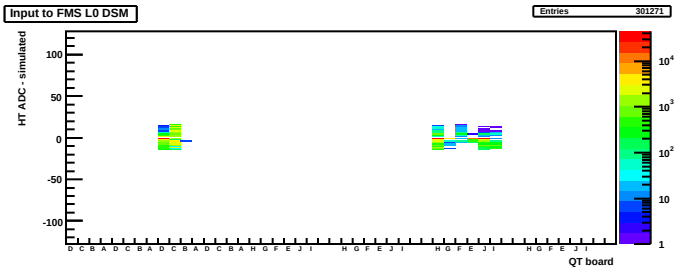

Input to FMS L0 DSM
Entries 1.2e+08
QT8(2) sum
QT board

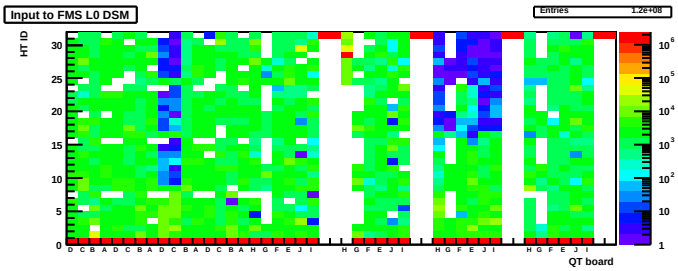

Input to FMS L0 DSM
Entries 1822953
QT8(2) sum - simulated
QT board

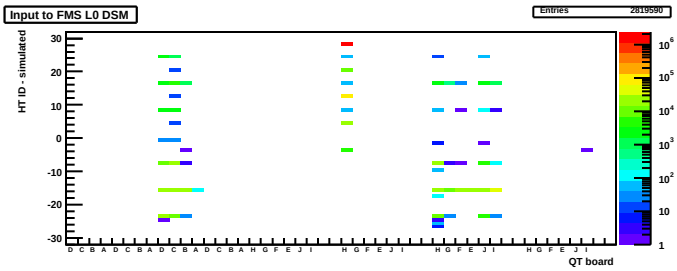

Input to FMS L0 DSM
Entries 1.2e+08
QT8(3) sum
QT board

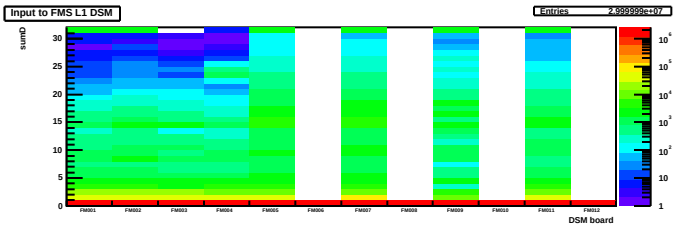

Input to FMS L0 DSM
Entries 2450882
QT8(3) sum - simulated
QT board

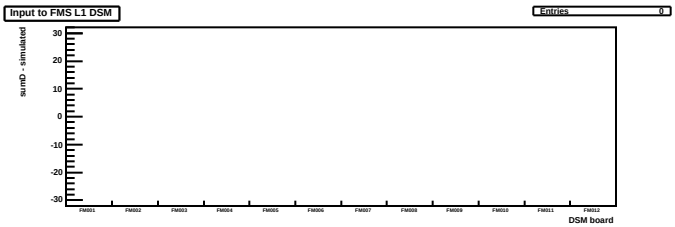

Input to FMS L0 DSM
Entries 1.2e+08
HT ADC
QT board

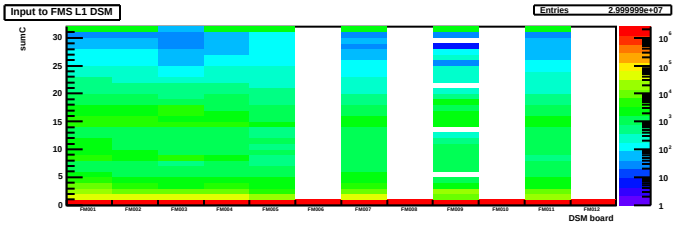

Input to FMS L0 DSM
Entries 301271
HT ADC - simulated
QT board

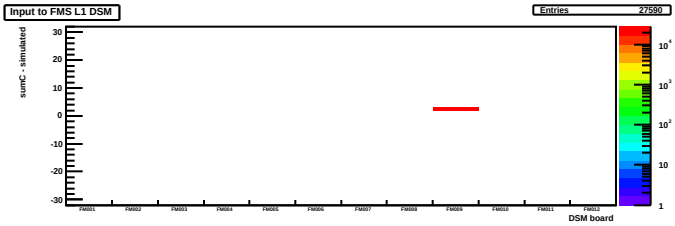

Input to FMS L0 DSM
Entries 1.2e+08
HT ID
QT board

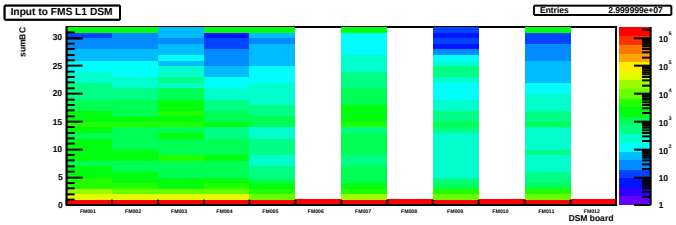

Input to FMS L0 DSM
Entries 2819590
HT ID - simulated
QT board

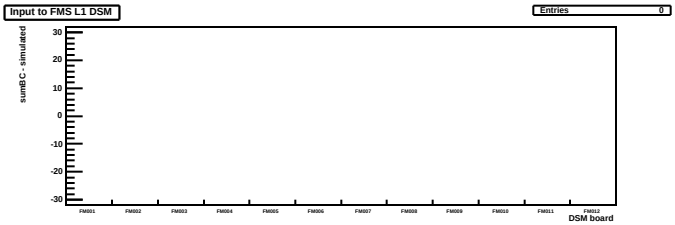

Input to FMS L1 DSM
Entries 2.999999e+07
sumD
DSM board

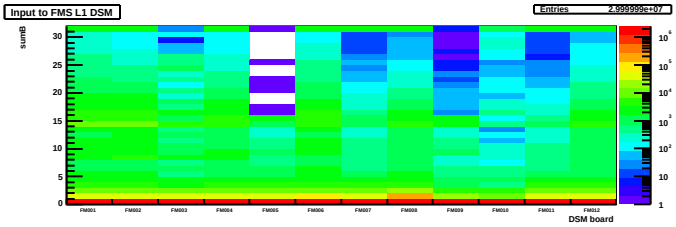

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

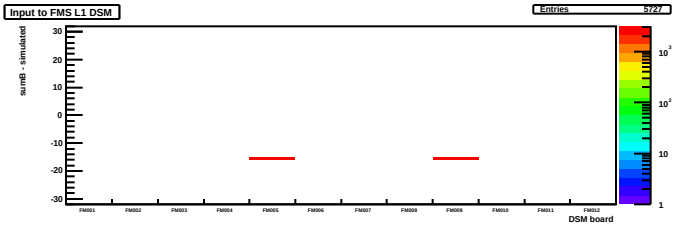

Input to FMS L1 DSM
Entries 2.999999e+07
sumC
DSM board

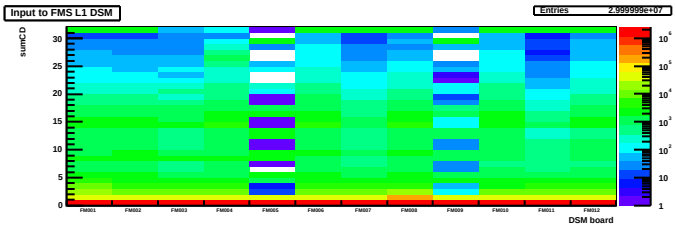

Input to FMS L1 DSM
Entries 27590
sumC - simulated
DSM board

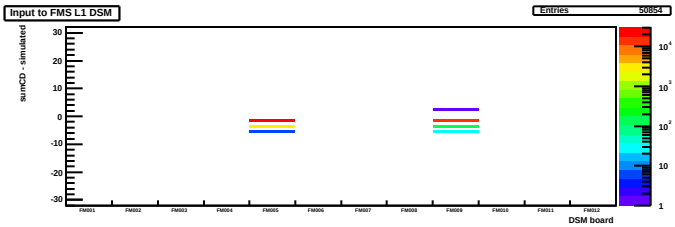

Input to FMS L1 DSM
Entries 2.999999e+07
sumBC
DSM board

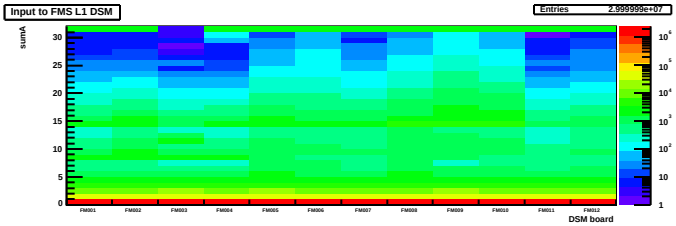

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

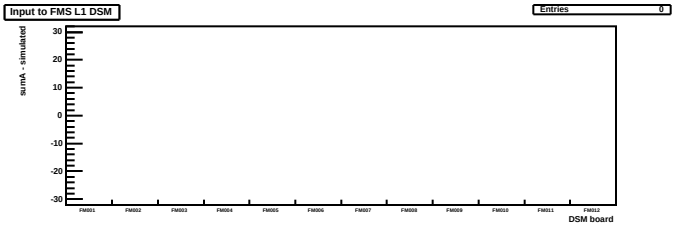

Input to FMS L1 DSM
Entries 2.999999e+07
sumB
DSM board

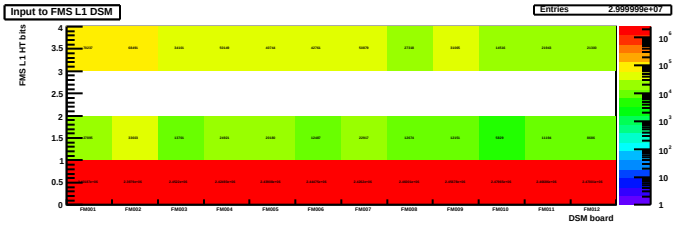

Input to FMS L1 DSM
Entries 5727
sumB - simulated
DSM board

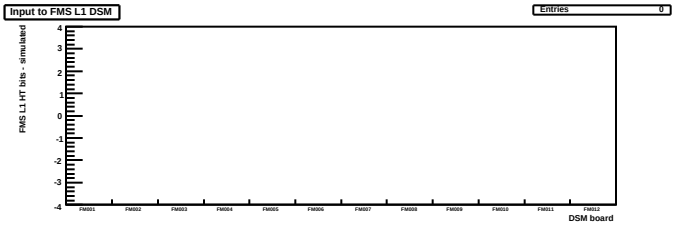

Input to FMS L1 DSM
Entries 2.999999e+07
sumCD
DSM board

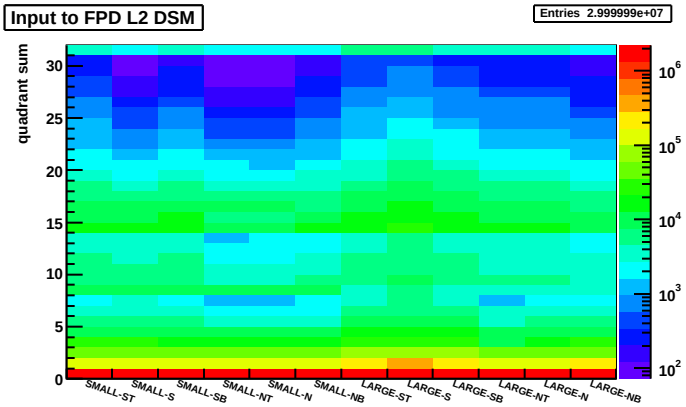

Input to FMS L1 DSM
Entries 50854
sumCD - simulated
DSM board

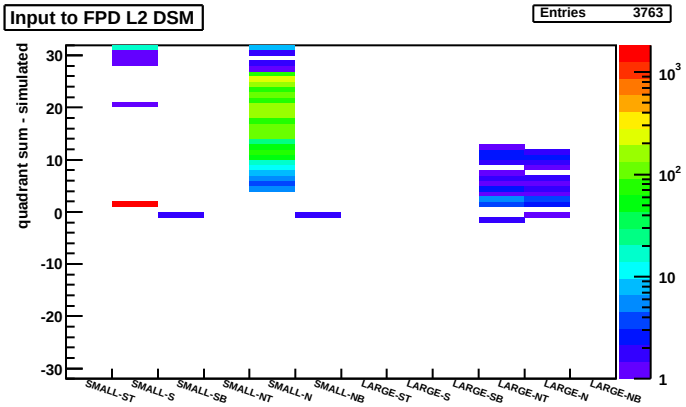

Input to FMS L1 DSM
Entries 2.999999e+07
sumA
DSM board

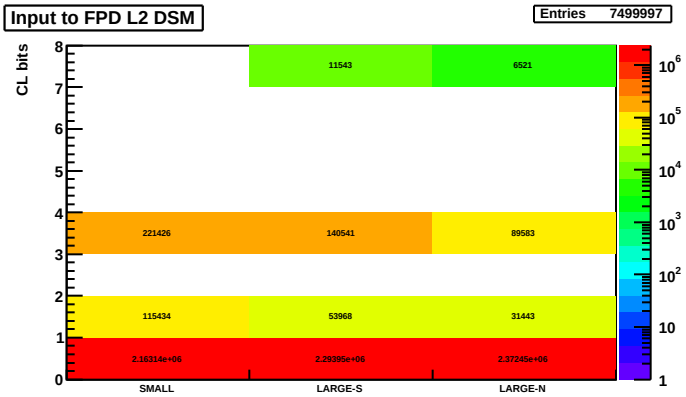

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

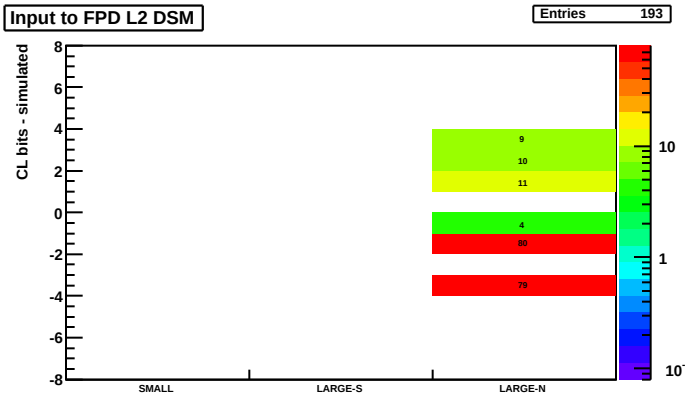

Input to FMS L1 DSM
Entries 2.999999e+07
FMS L1 HT bits
DSM board

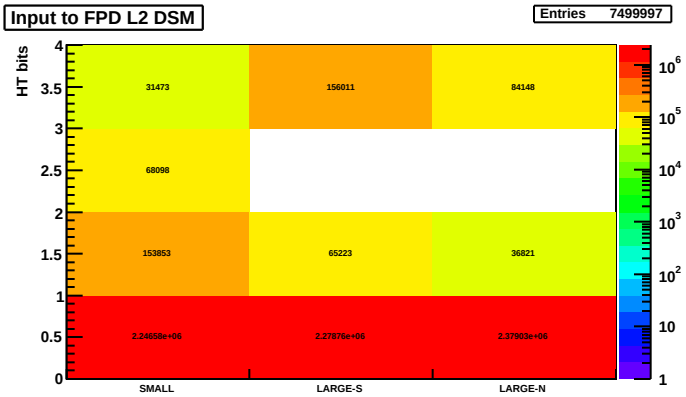

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

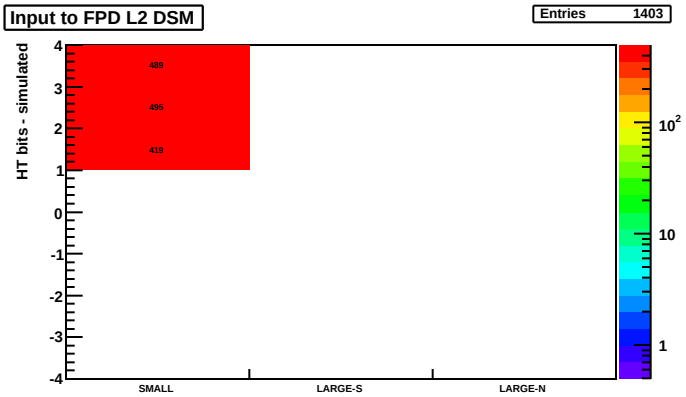

Input to FPD L2 DSM
Entries 2.999999e+07
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

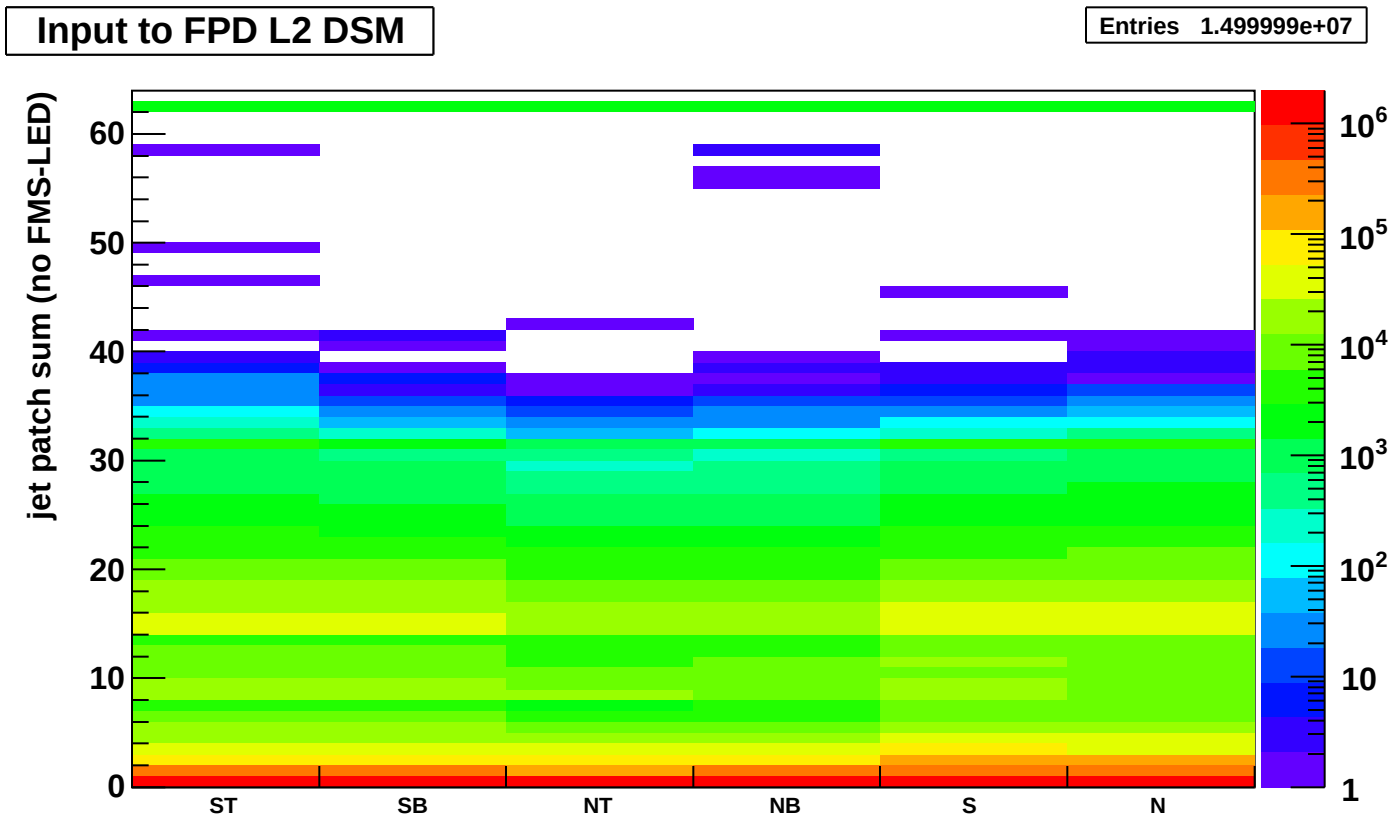

Input to FPD L2 DSM
Entries 3763
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

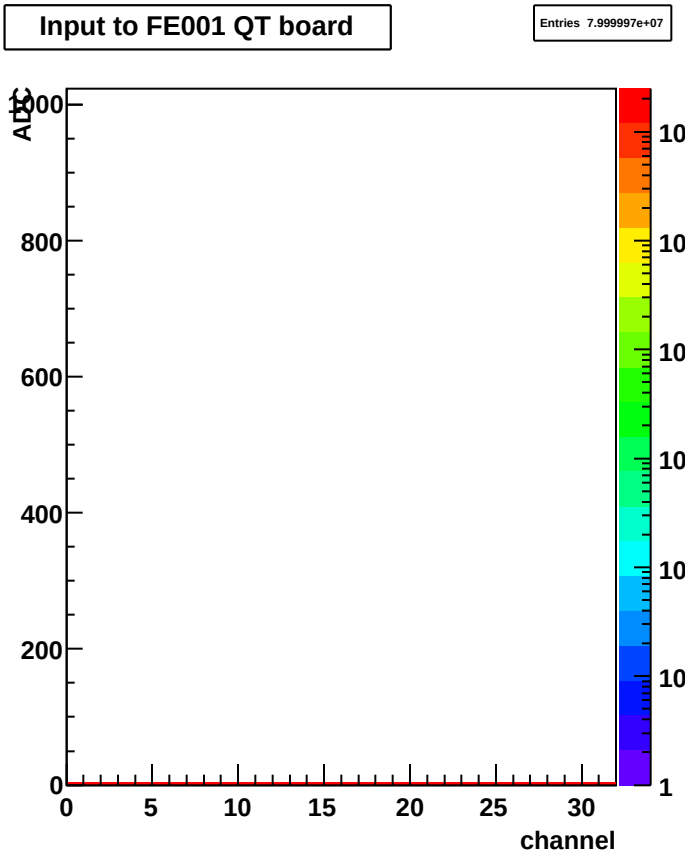

Input to FPD L2 DSM
Entries 7499997
CL bits
11543
6521
221426
140541
89583
115434
53968
31443
2.16314e+06
2.29395e+06
2.37245e+06
SMALL
LARGE-S
LARGE-N

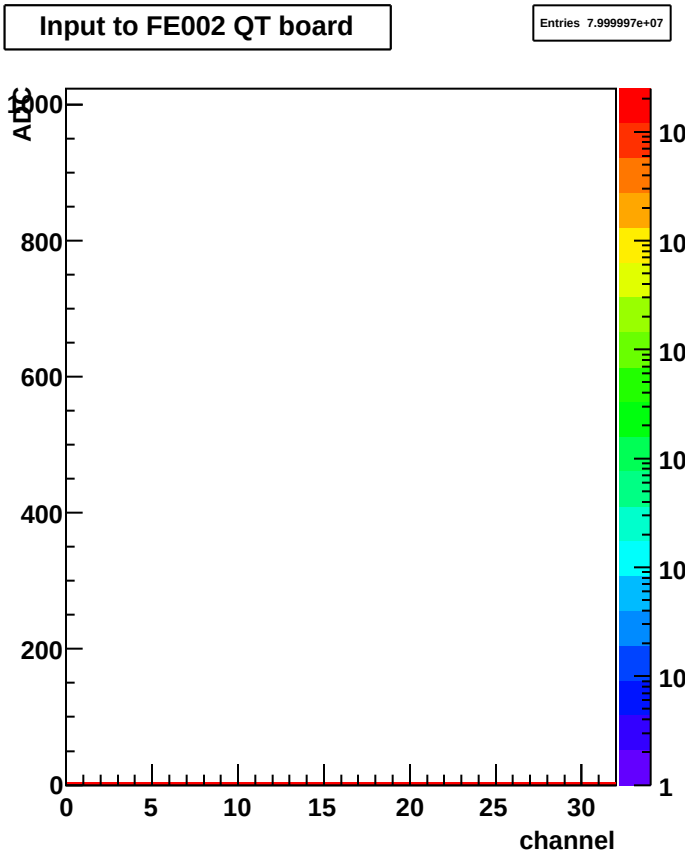

Input to FPD L2 DSM
Entries 193
CL bits - simulated
9
10
11
4
80
79
SMALL
LARGE-S
LARGE-N

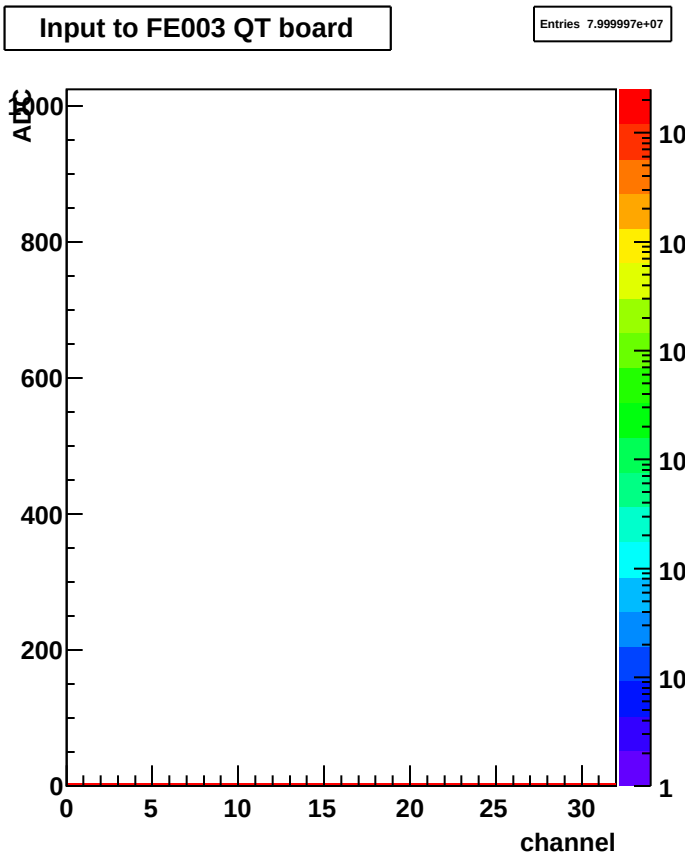

Input to FPD L2 DSM
Entries 7499997
HT bits
31473
156011
84148
68098
153853
65223
36821
2.24658e+06
2.27876e+06
2.37903e+06
SMALL
LARGE-S
LARGE-N

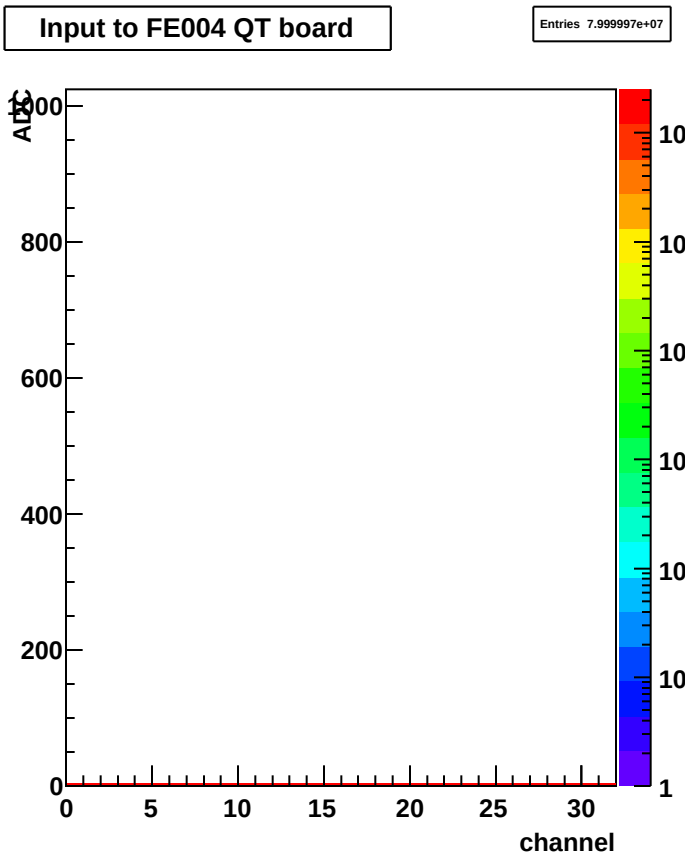

Input to FPD L2 DSM
Entries 1403
HT bits - simulated
489
495
419
SMALL
LARGE-S
LARGE-N

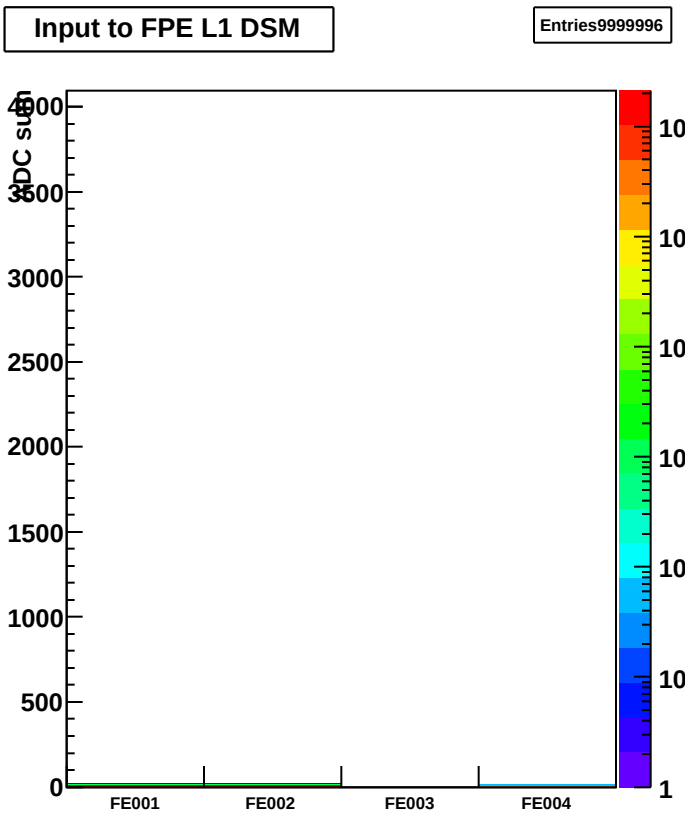

Input to FPD L2 DSM
Entries 1.499999e+07
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
$10^2$
$10^3$
$10^4$
$10^5$
$10^6$

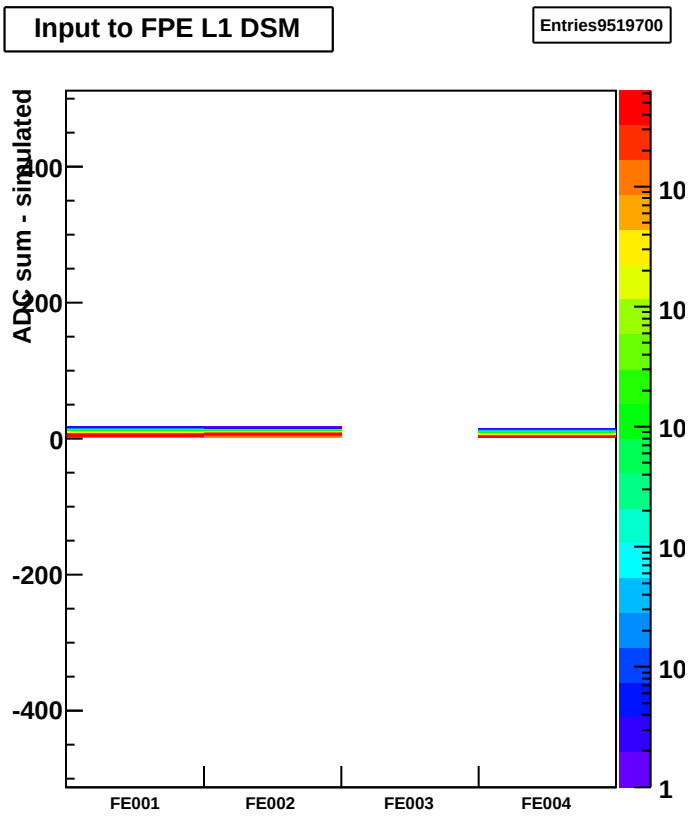

Input to FE001 QT board
Entries 7.999997e+07
ADC
channel


Input to FE002 QT board
Entries 7.999997e+07
ADC
channel

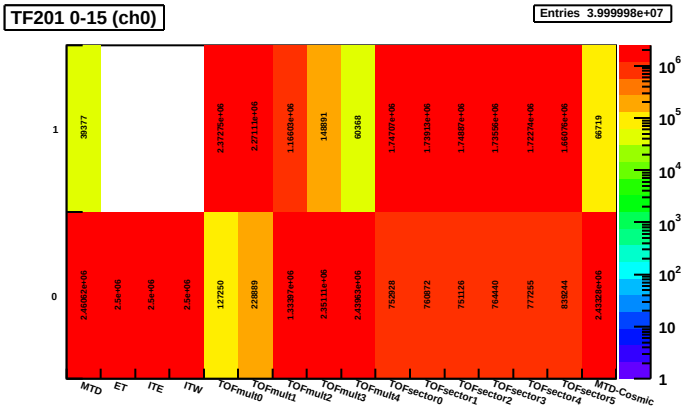

Input to FE003 QT board
Entries 7.999997e+07
ADC
channel


Input to FE004 QT board
Entries 7.999997e+07
ADC
channel


Input to FPE L1 DSM
Entries9999996
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
10
1


Input to FPE L1 DSM
Entries9519700
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1

TF201 0-15 (ch0)

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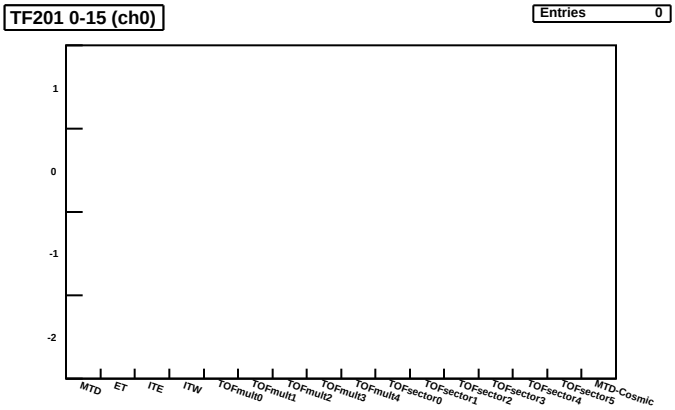


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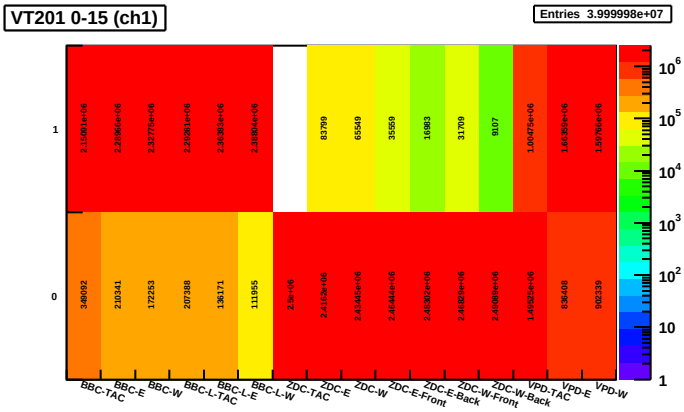


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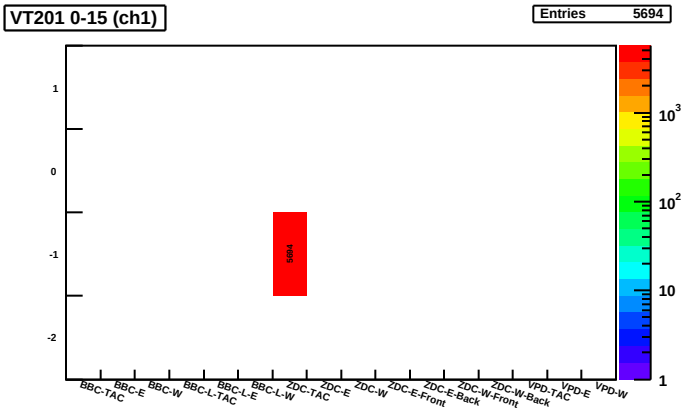


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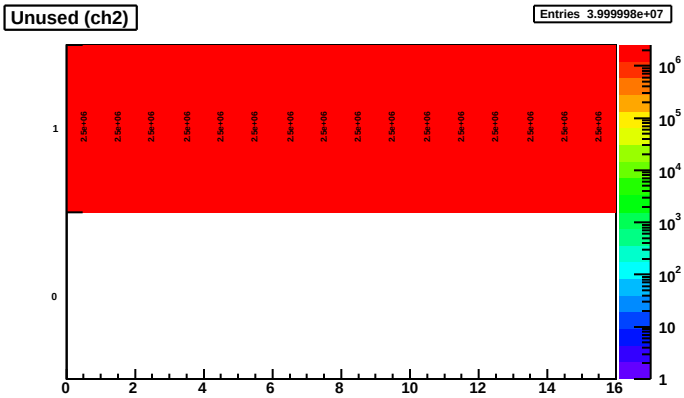
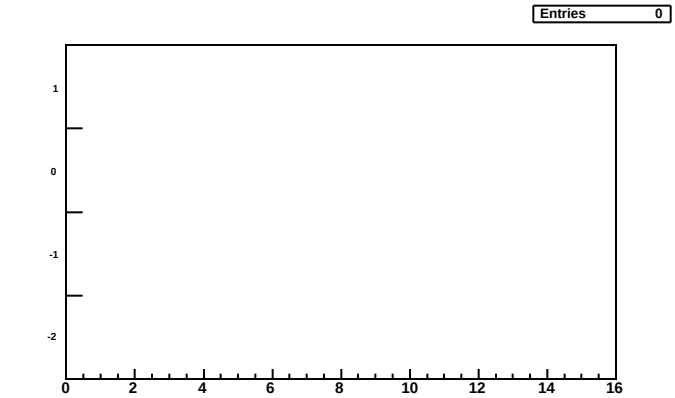
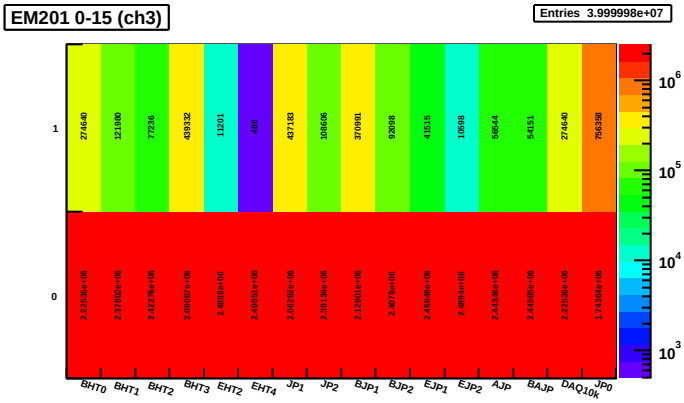



EM201 0-15 (ch3)

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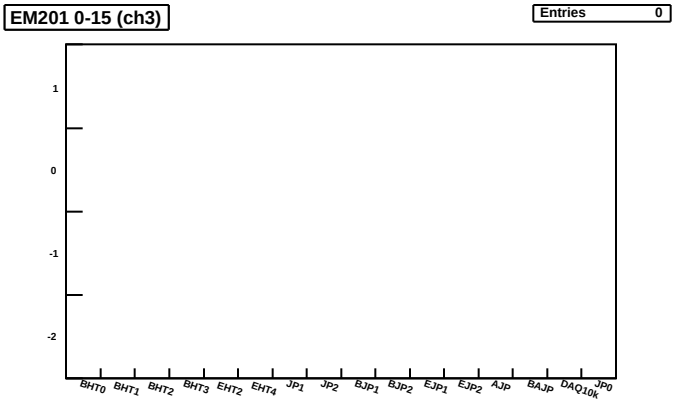
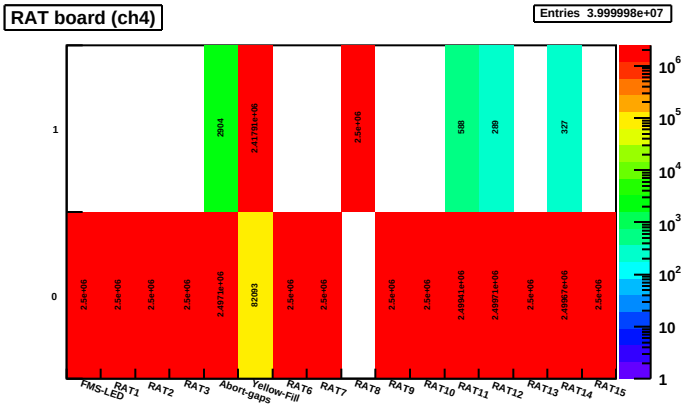
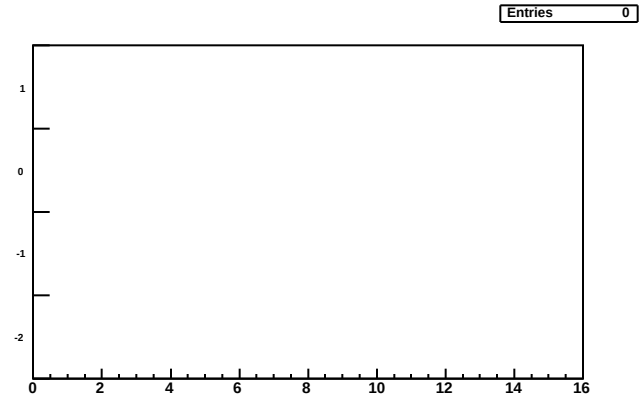
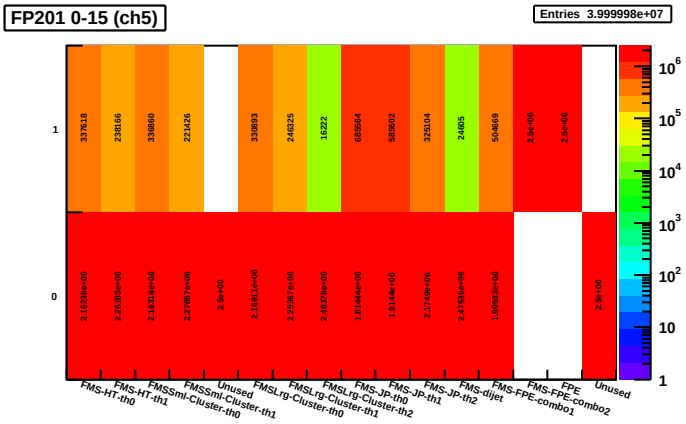


**RAT board (ch4)**

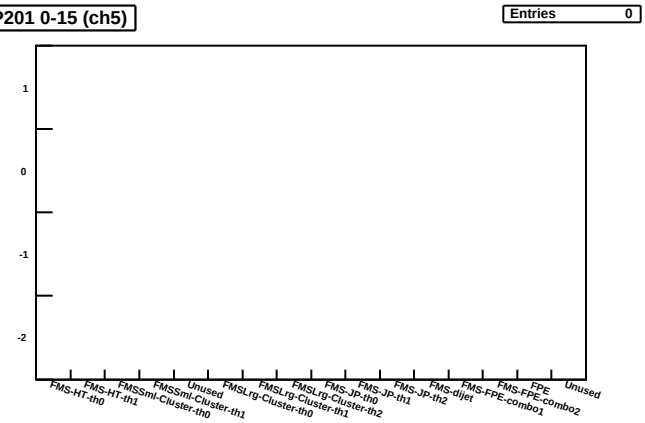


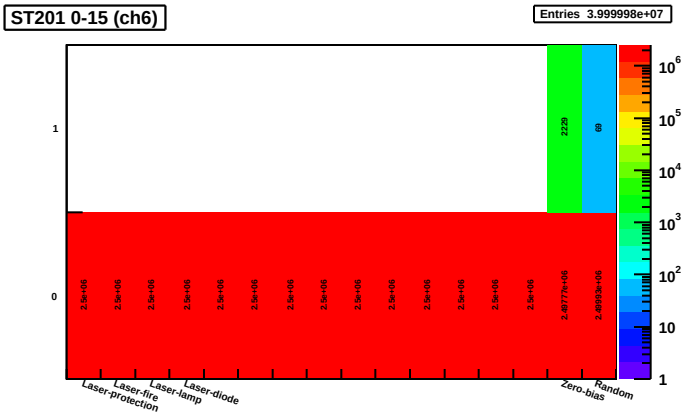

**FP201 0-15 (ch5)**

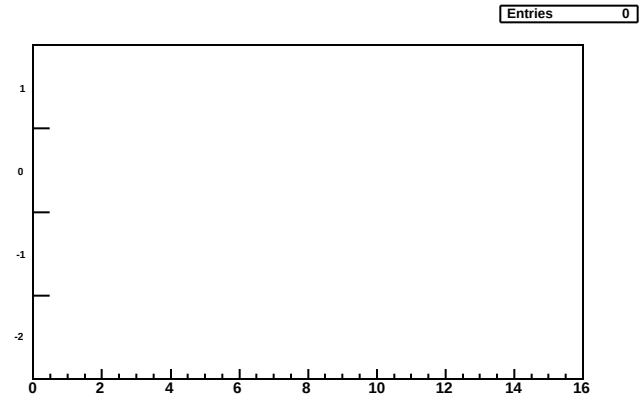


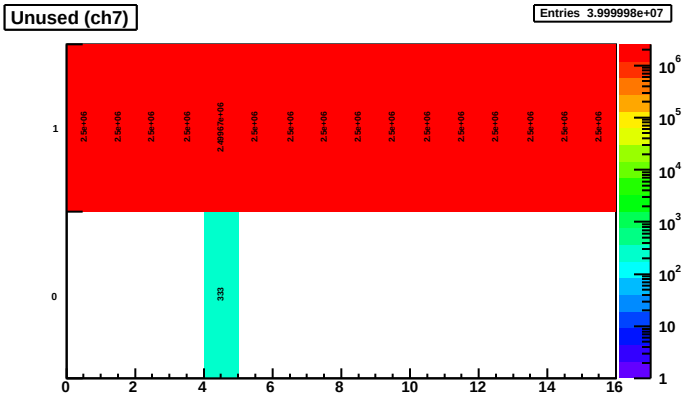
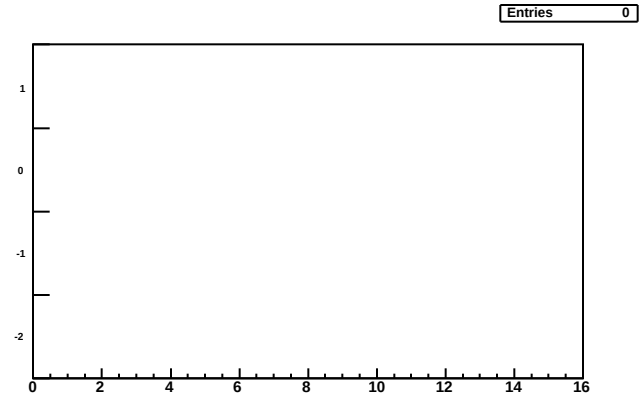

**FP201 0-15 (ch5)**




**ST201 0-15 (ch6)**




**Unused (ch7)**