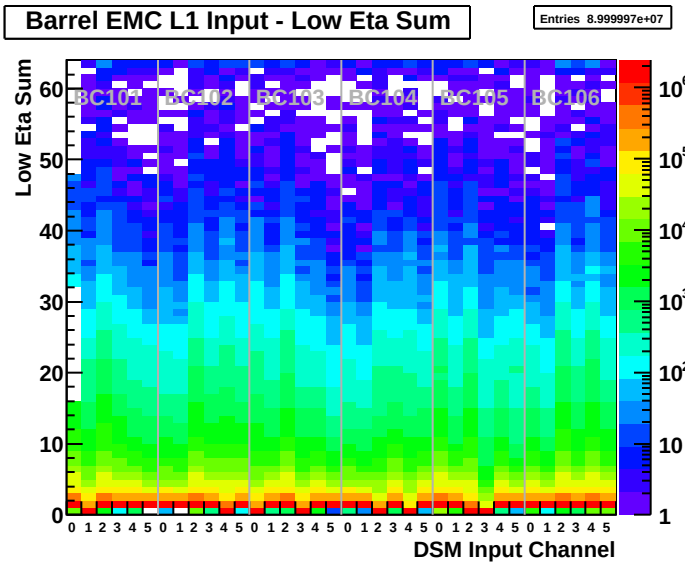
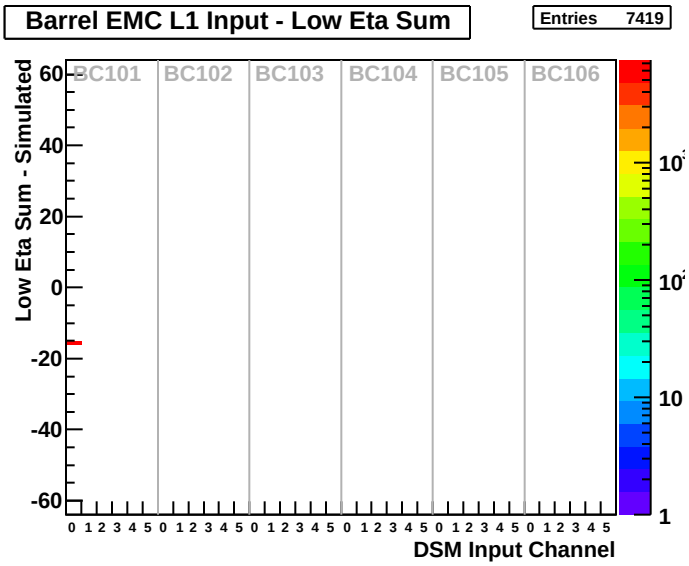
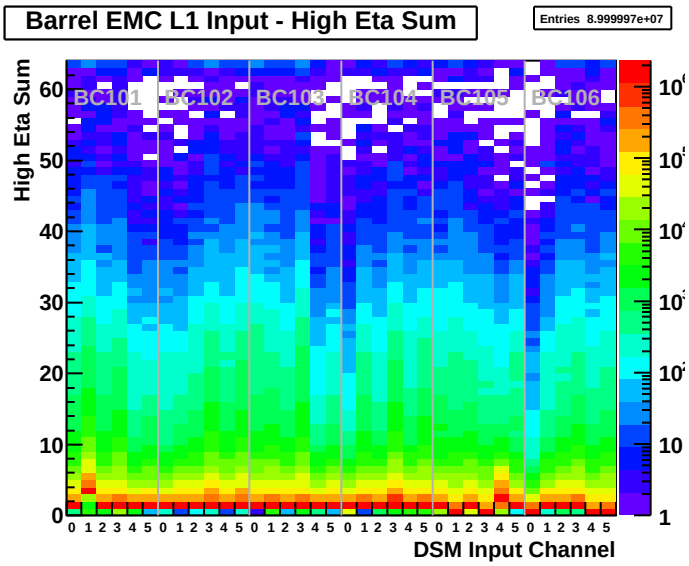
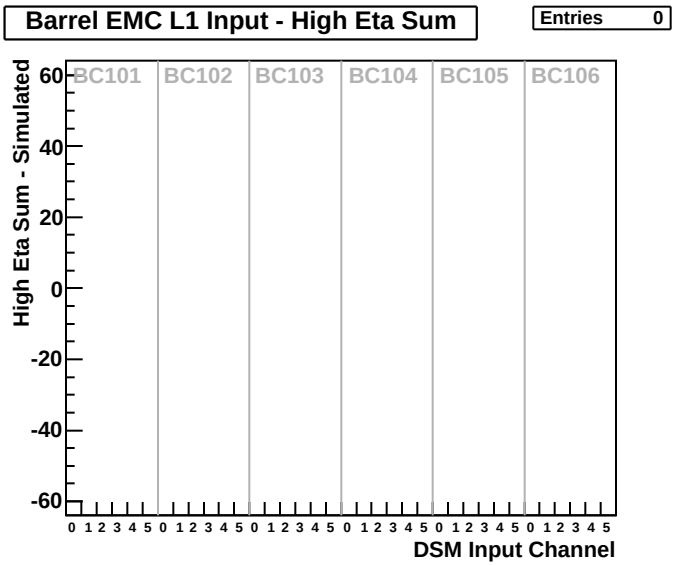
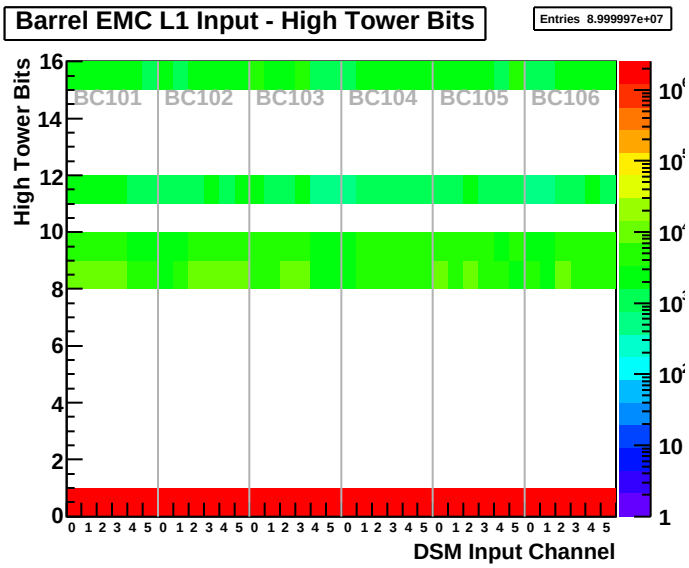
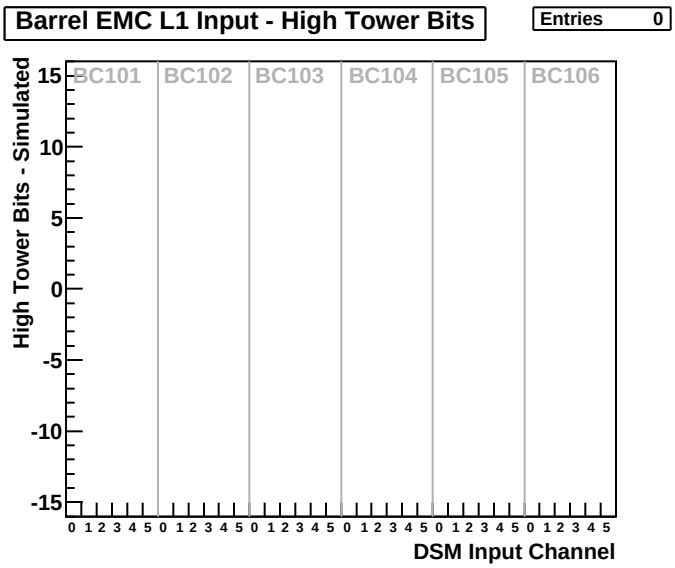

Barrel EMC L1 Input - Low Eta Sum
Entries 8.999997e+07
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

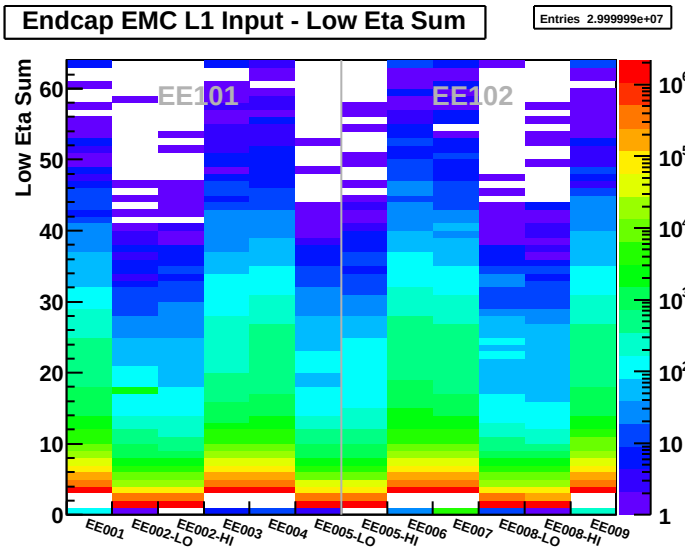

Barrel EMC L1 Input - Low Eta Sum
Entries 7419
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

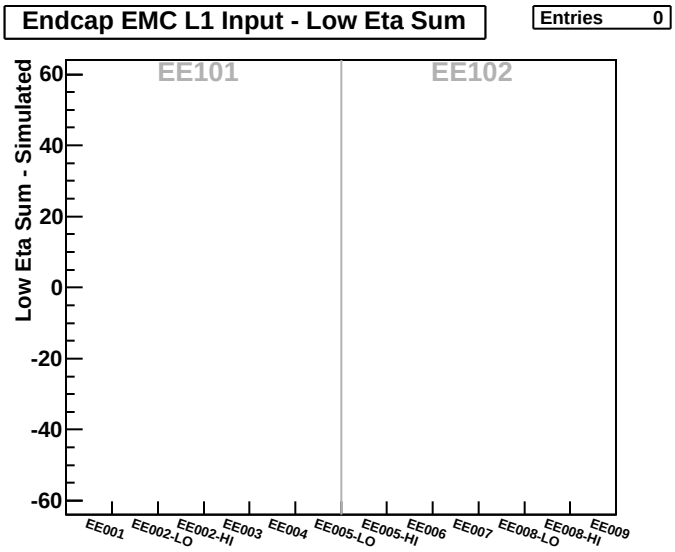

Barrel EMC L1 Input - High Eta Sum
Entries 8.999997e+07
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

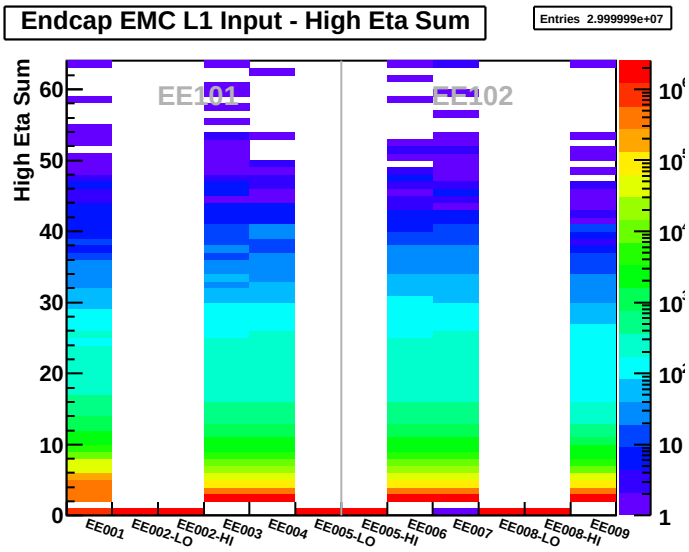

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

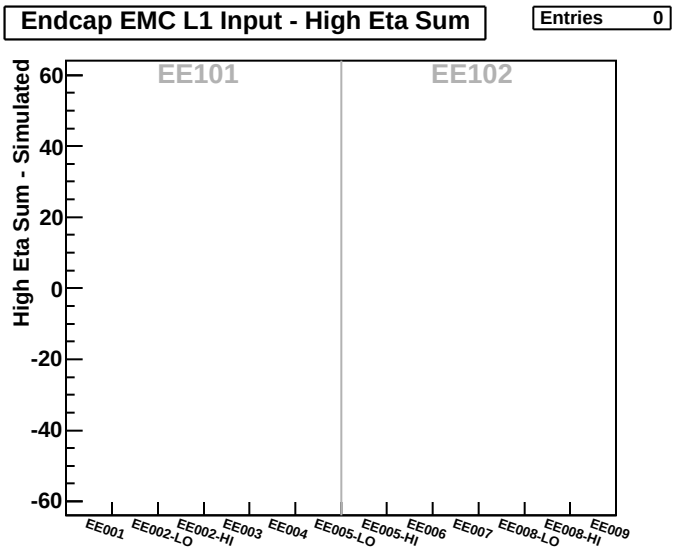

Barrel EMC L1 Input - High Tower Bits
Entries 8.999997e+07
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

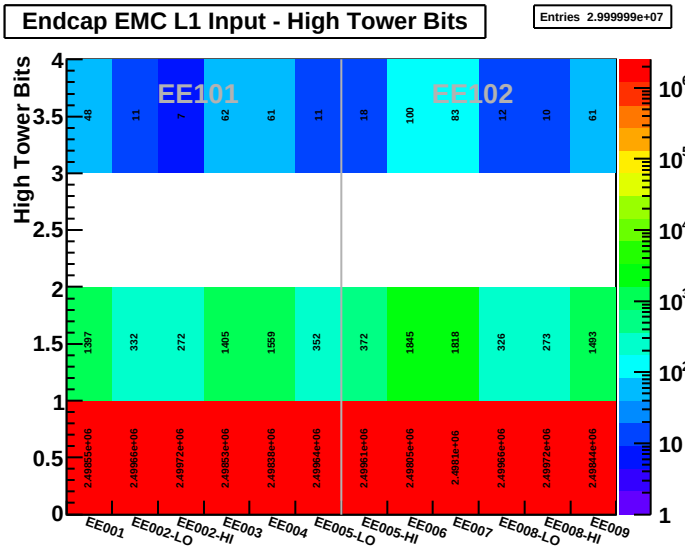

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

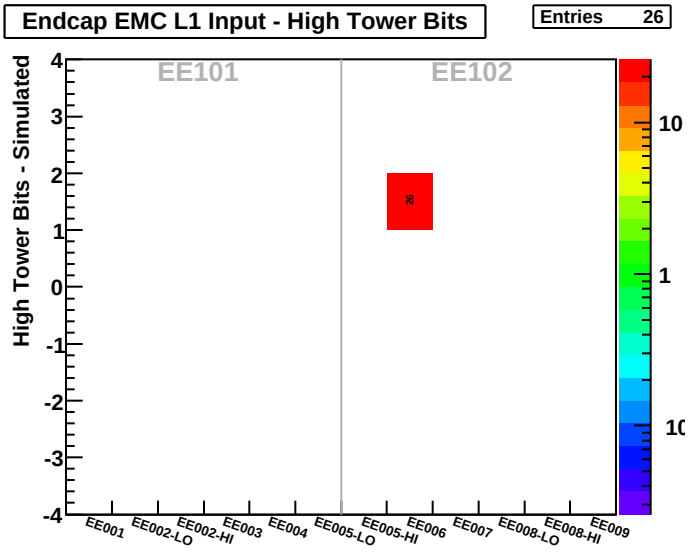

Endcap EMC L1 Input - Low Eta Sum
Entries 2.999999e+07
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

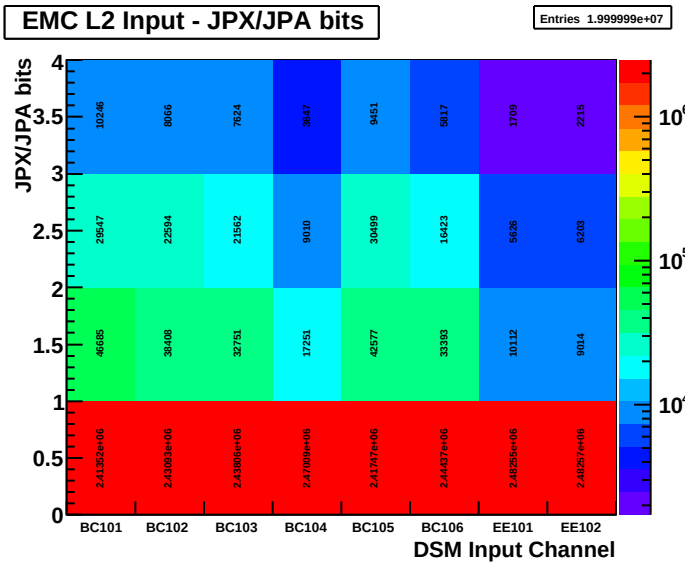

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

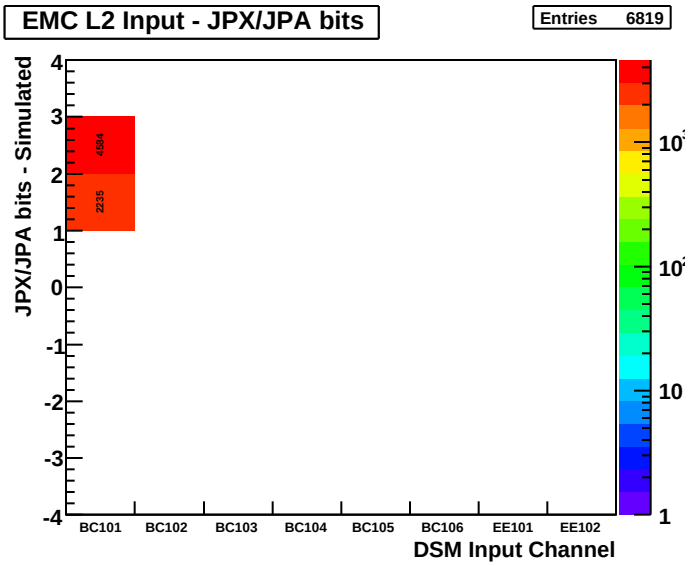

Endcap EMC L1 Input - High Eta Sum
Entries 2.999999e+07
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

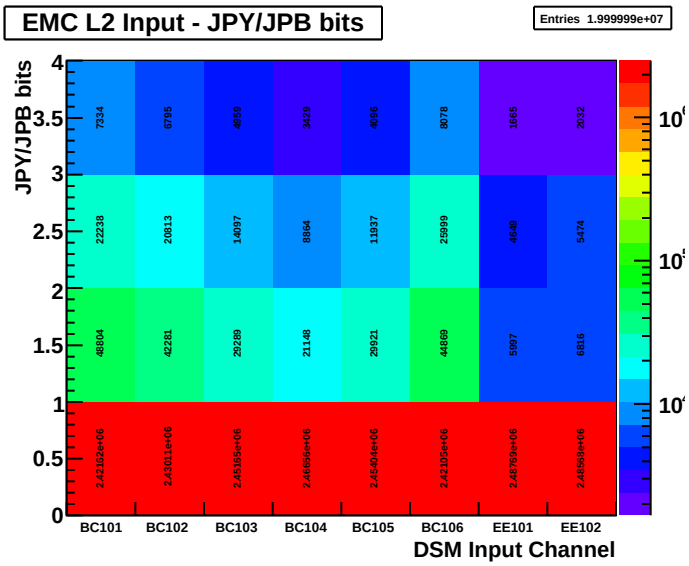

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

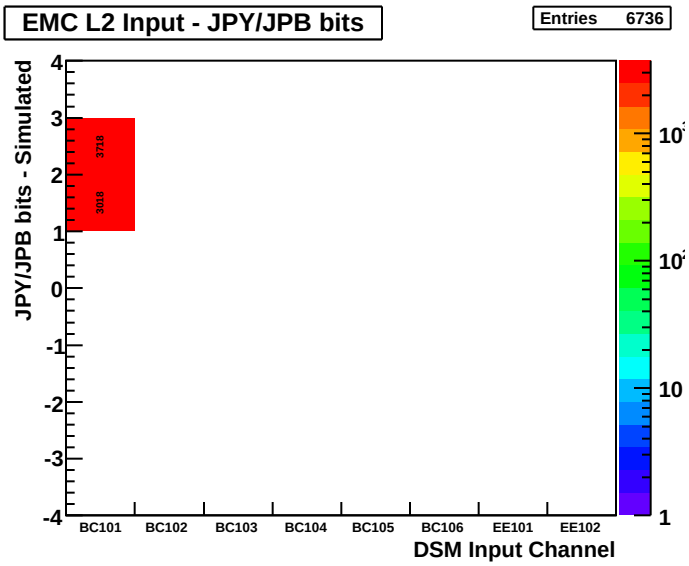

Endcap EMC L1 Input - High Tower Bits
Entries 2.999999e+07
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

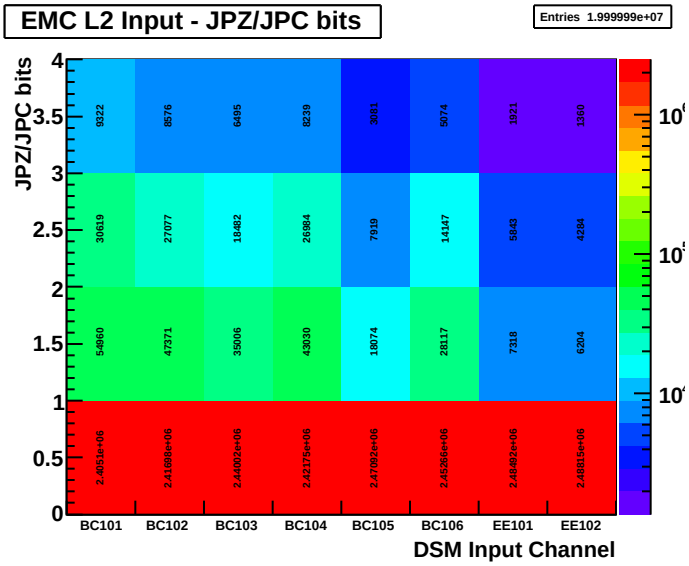

Endcap EMC L1 Input - High Tower Bits
Entries 26
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

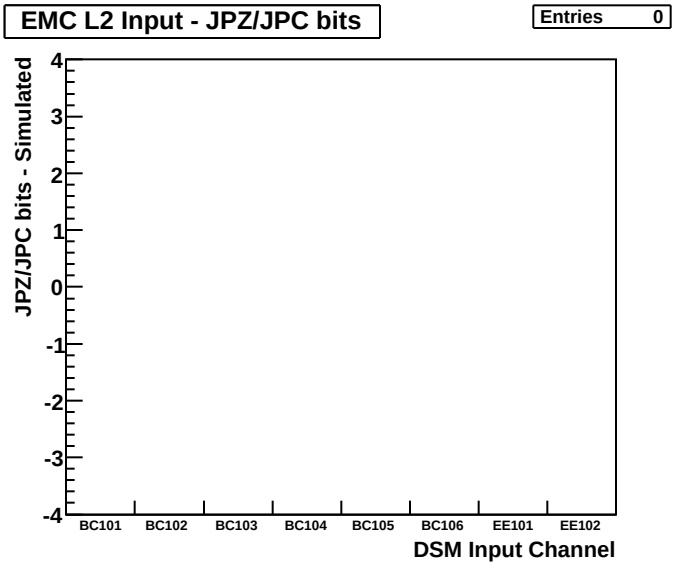

EMC L2 Input - JPX/JPA bits
Entries 1.999999e+07
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
10246 8066 7624 3647 9451 5817 1709 2215
29547 22594 21562 9010 30499 16423 5626 6203
46685 38408 32751 17251 42577 33393 10112 9014
2.41352e+06 2.43083e+06 2.43806e+06 2.47009e+06 2.41747e+06 2.44437e+06 2.48255e+06 2.48257e+06

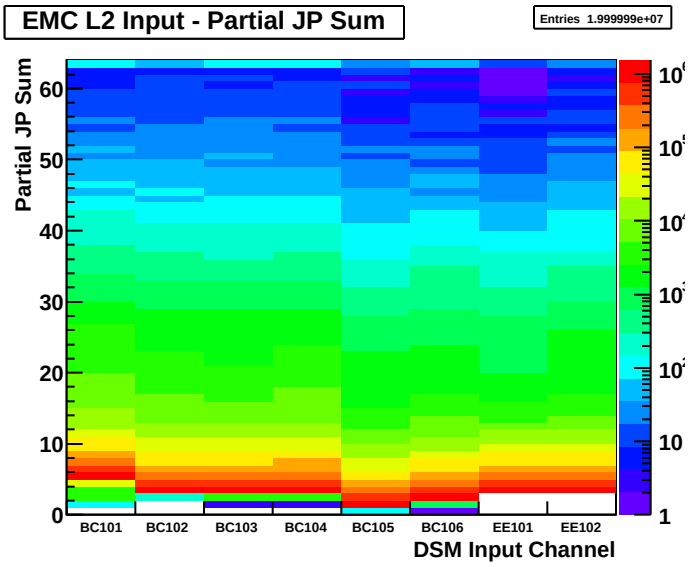

EMC L2 Input - JPX/JPA bits
Entries 6819
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
4584
2235

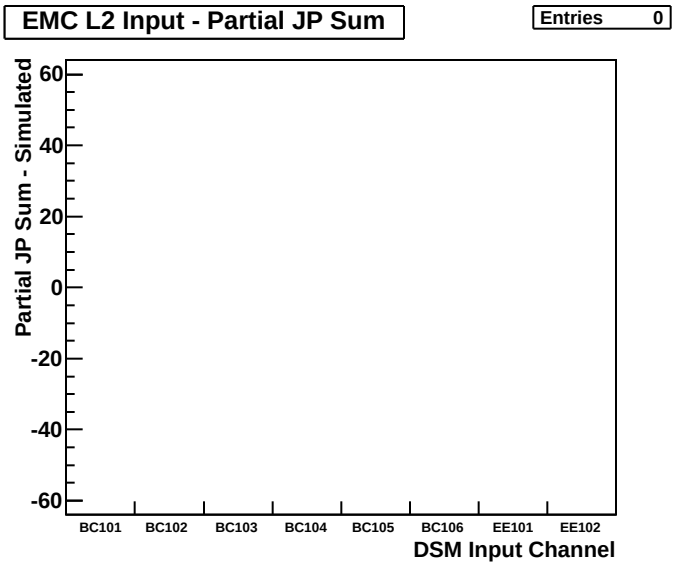

EMC L2 Input - JPY/JPB bits
Entries 1.999999e+07
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
7334 6795 4959 3429 4096 8078 1665 2032
22238 20913 14097 8864 11937 29999 4649 5474
48804 42281 29289 21148 29921 44869 5997 6816
2.42162e+06 2.43011e+06 2.45185e+06 2.46656e+06 2.45404e+06 2.42105e+06 2.48759e+06 2.46568e+06

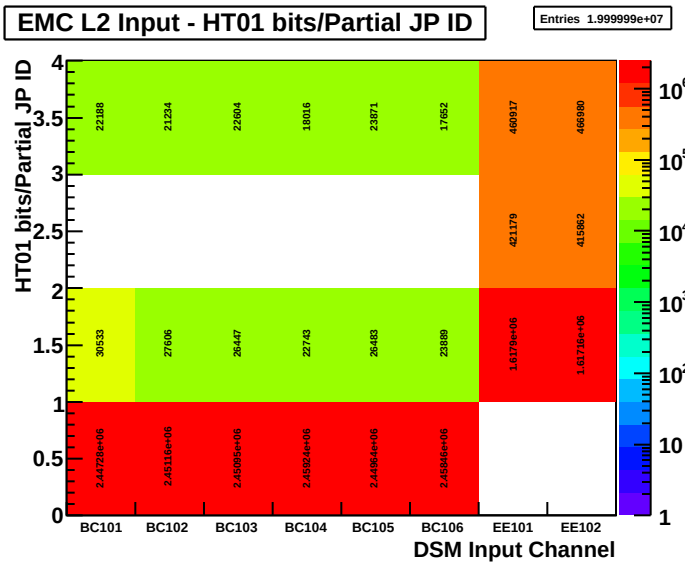

EMC L2 Input - JPY/JPB bits
Entries 6736
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
3718
3018

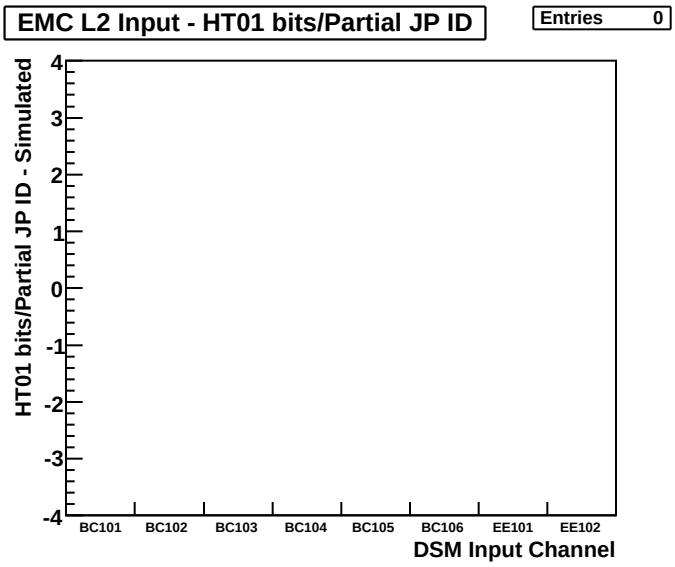

EMC L2 Input - JPZ/JPC bits
Entries 1.999999e+07
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
9322 8576 6495 8239 3081 5074 1921 1360
30619 27077 18482 26984 7919 14147 5843 4284
54860 47371 35006 43030 18074 28117 7318 6204
2.40518e+06 2.41698e+06 2.44002e+06 2.42175e+06 2.47092e+06 2.45266e+06 2.48492e+06 2.48815e+06

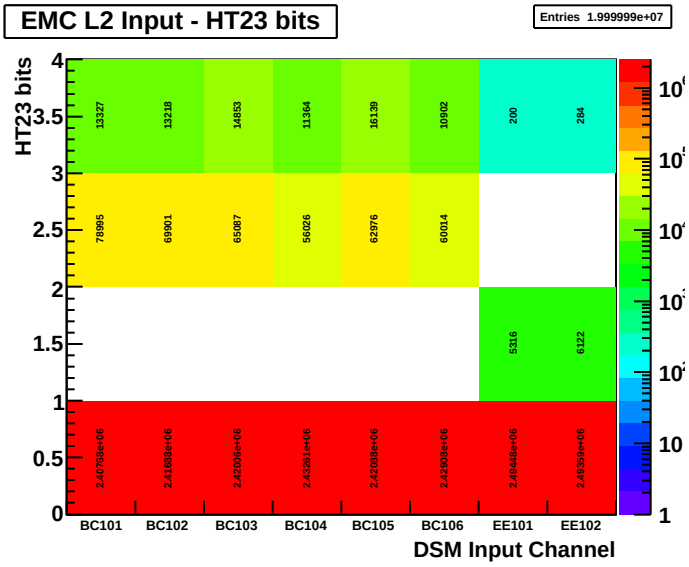

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

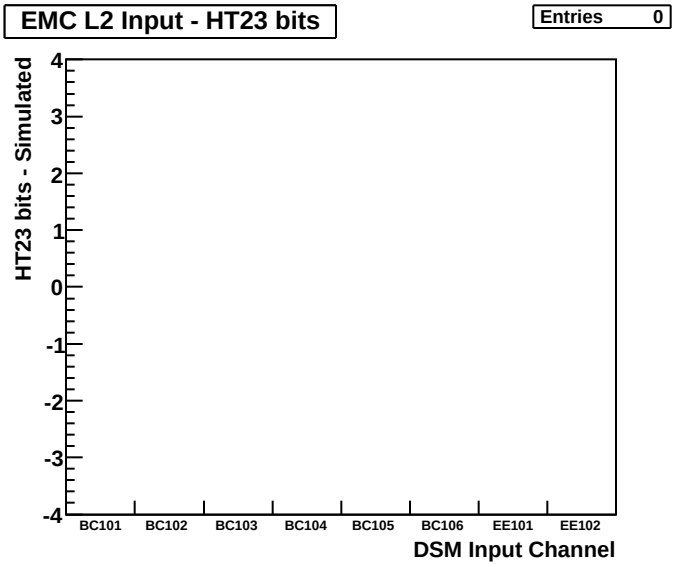

EMC L2 Input - Partial JP Sum
Entries 1.999999e+07
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

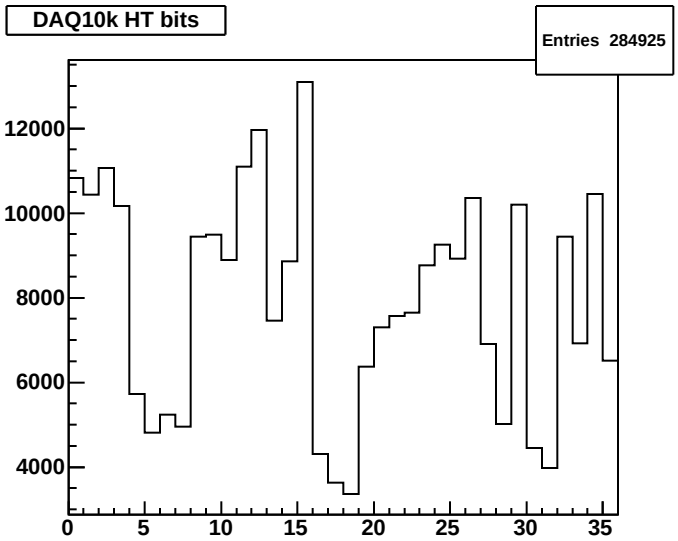

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

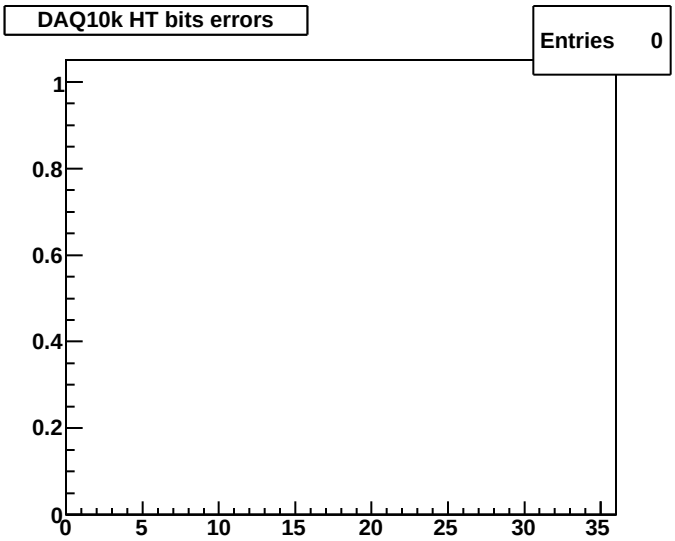

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1.999999e+07
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

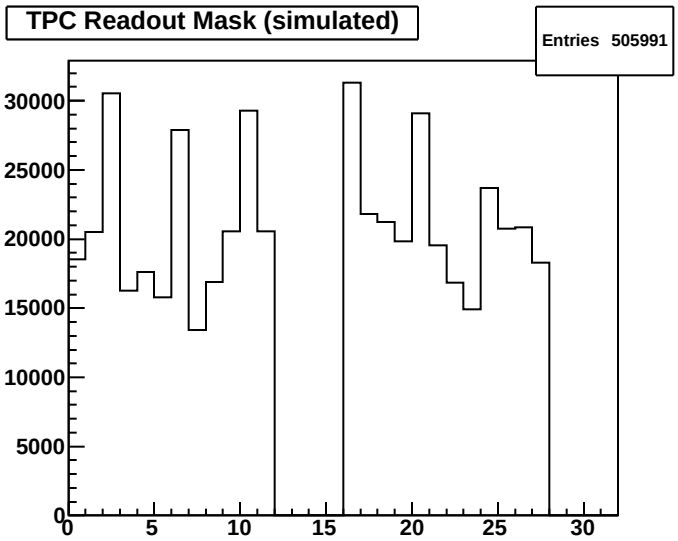

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

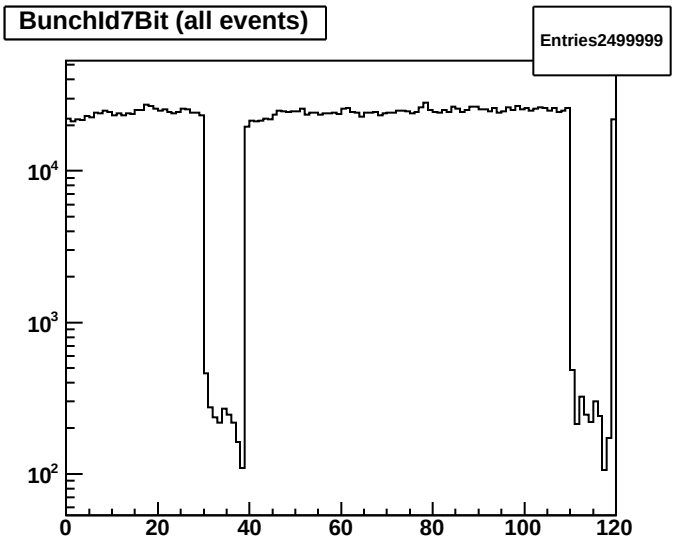

EMC L2 Input - HT23 bits
Entries 1.999999e+07
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

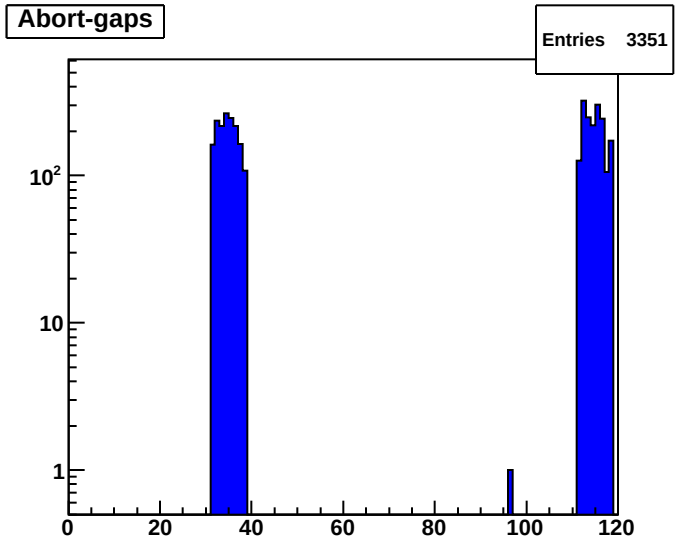

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

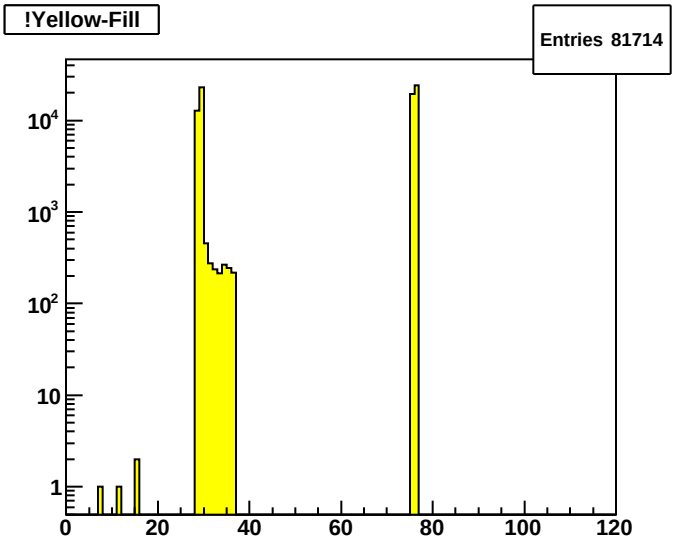

DAQ10k HT bits
Entries 284925
12000
10000
8000
6000
4000
0
5
10
15
20
25
30
35

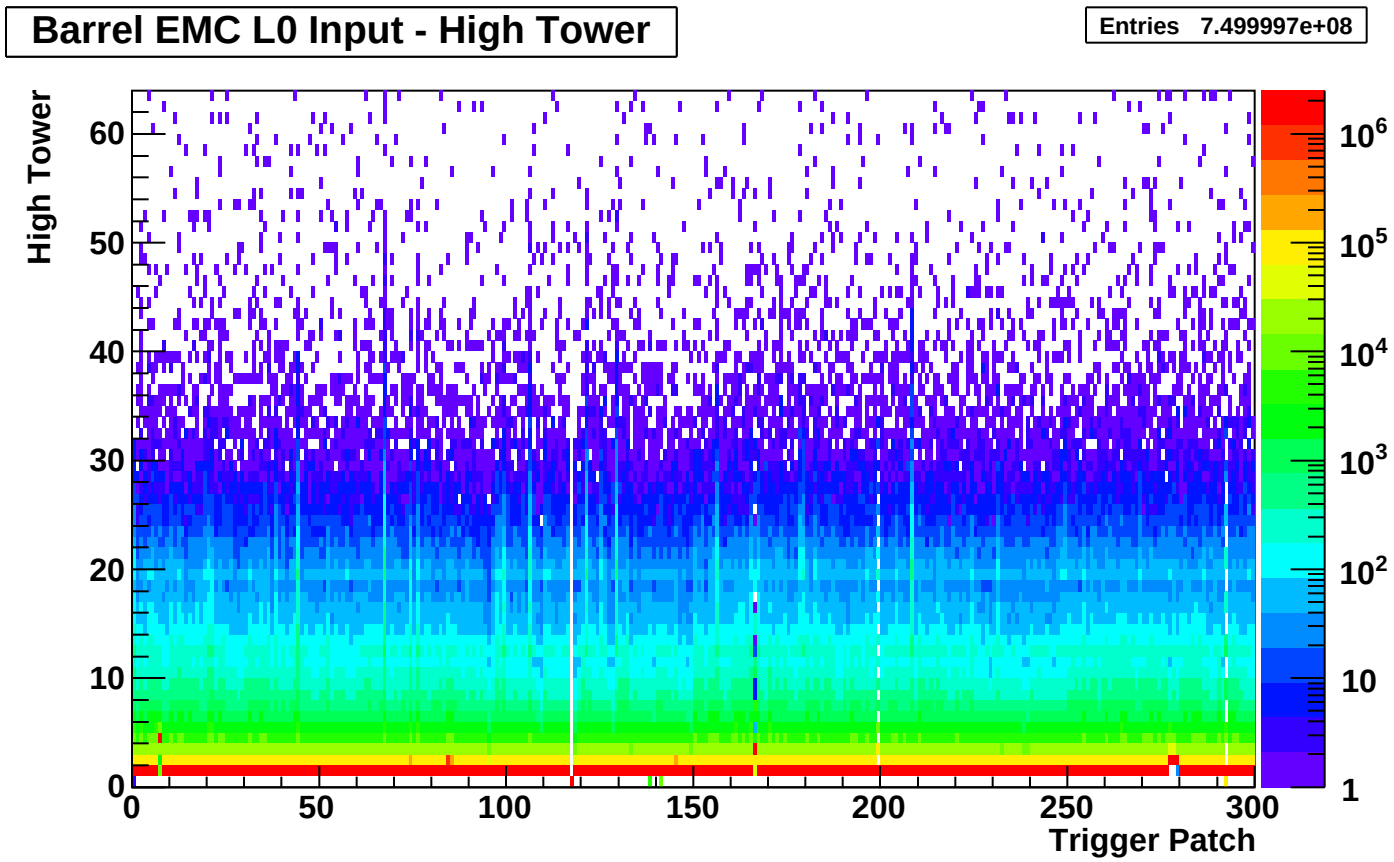

DAQ10k HT bits errors
Entries 0
1
0.8
0.6
0.4
0.2
0
0
5
10
15
20
25
30
35

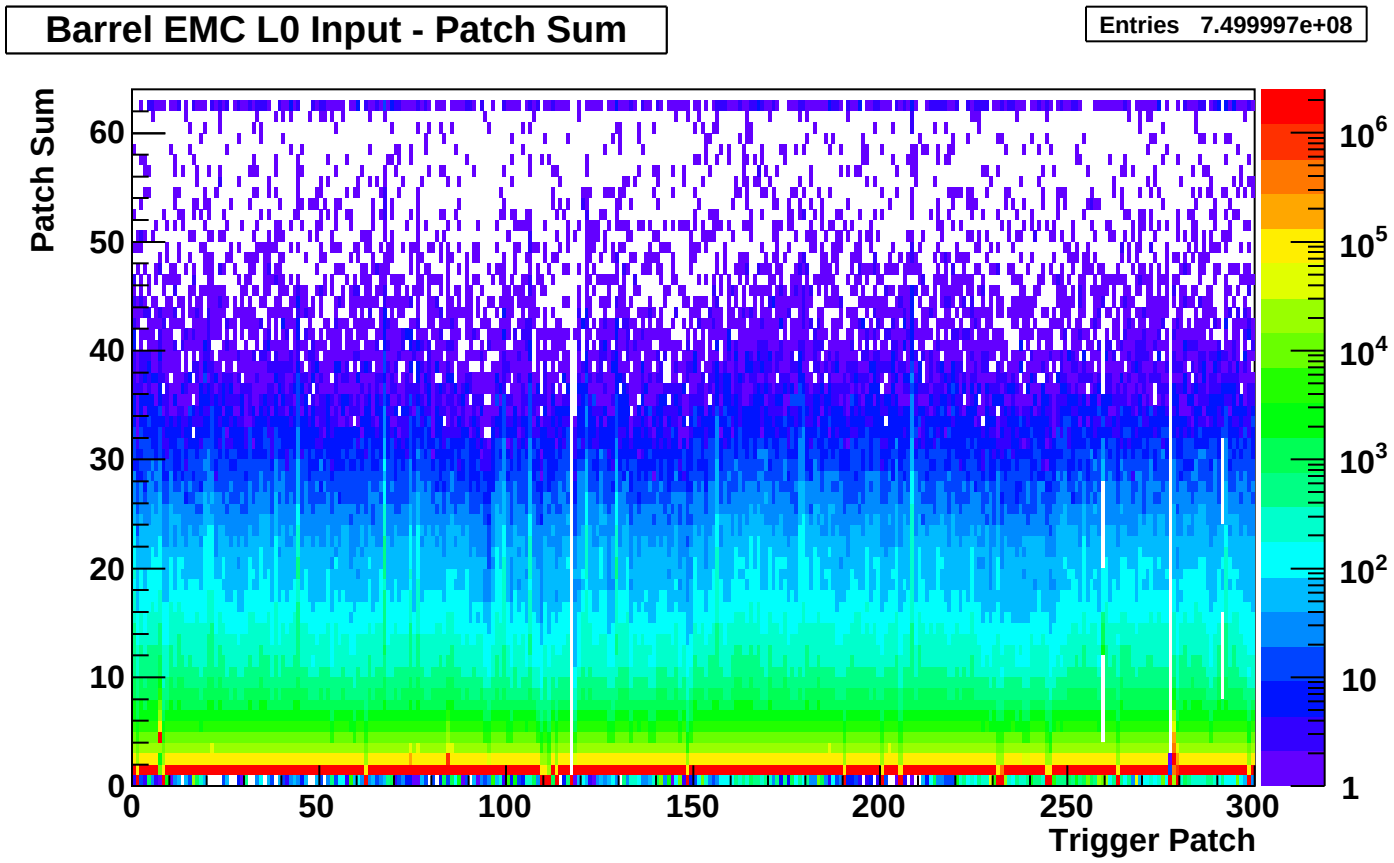

TPC Readout Mask (simulated)
Entries 505991
30000
25000
20000
15000
10000
5000
0
0
5
10
15
20
25
30

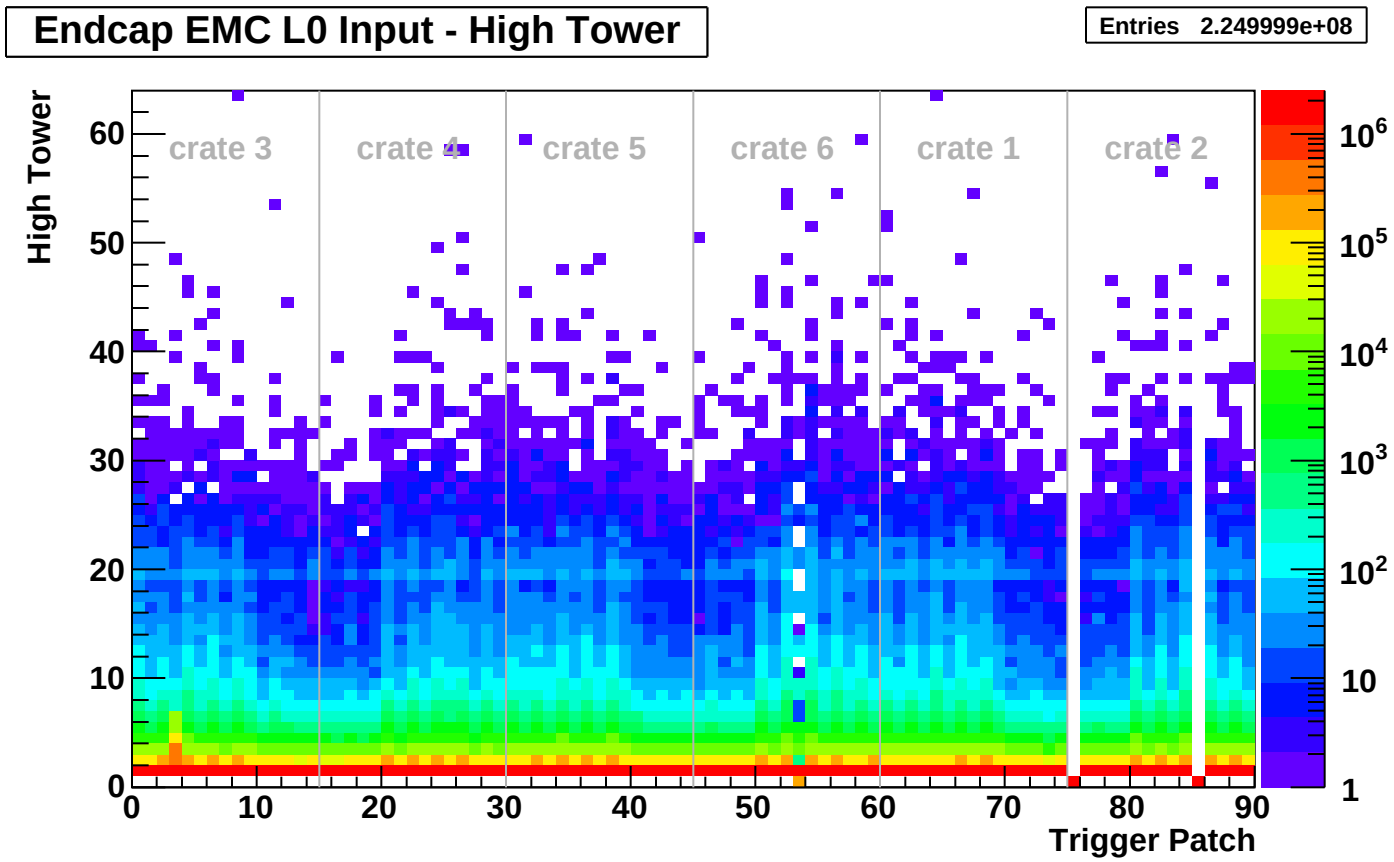

BunchId7Bit (all events)
Entries2499999
10^4
10^3
10^2
0
20
40
60
80
100
120

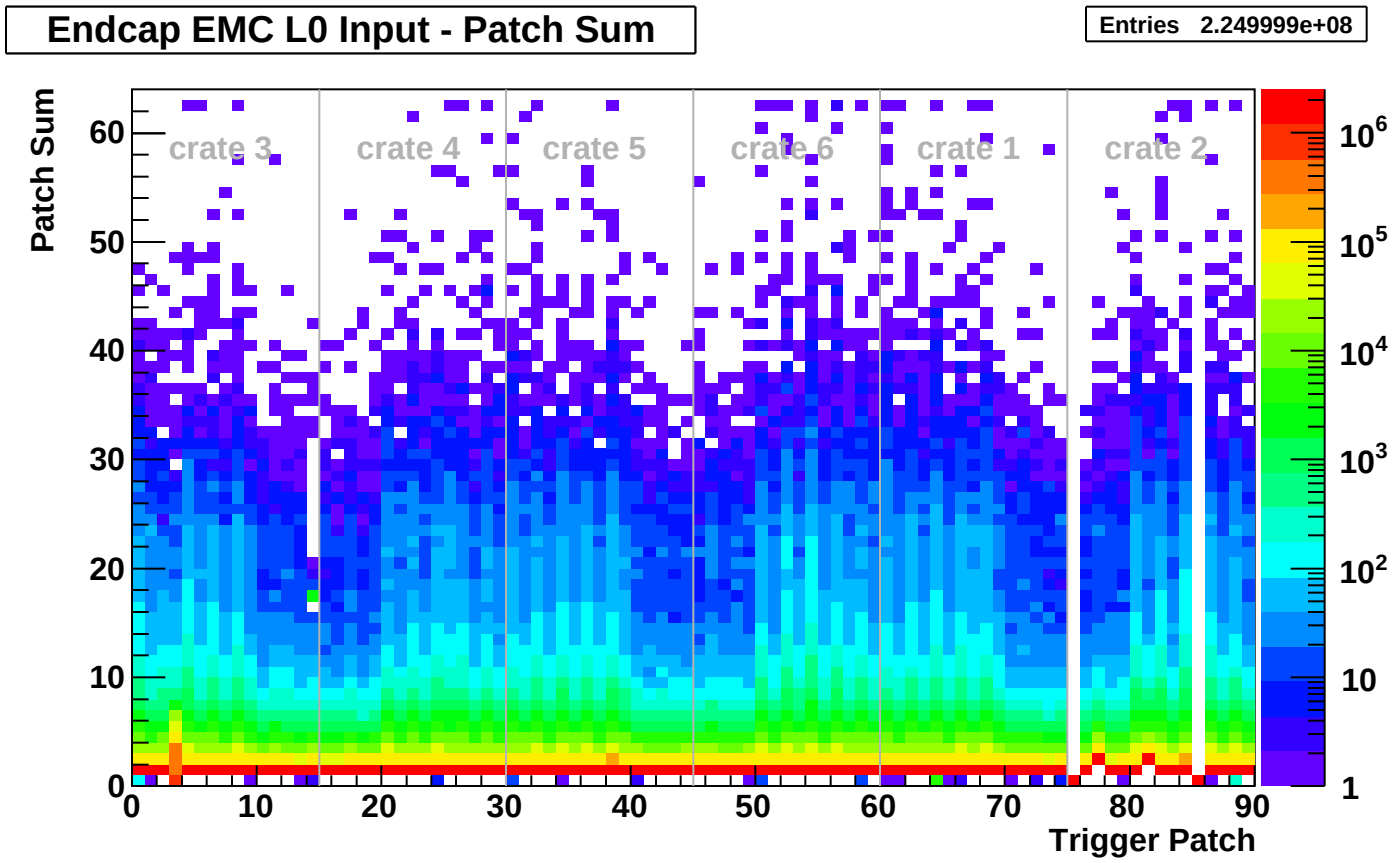

Abort-gaps
Entries 3351
10^2
10
1
0
20
40
60
80
100
120

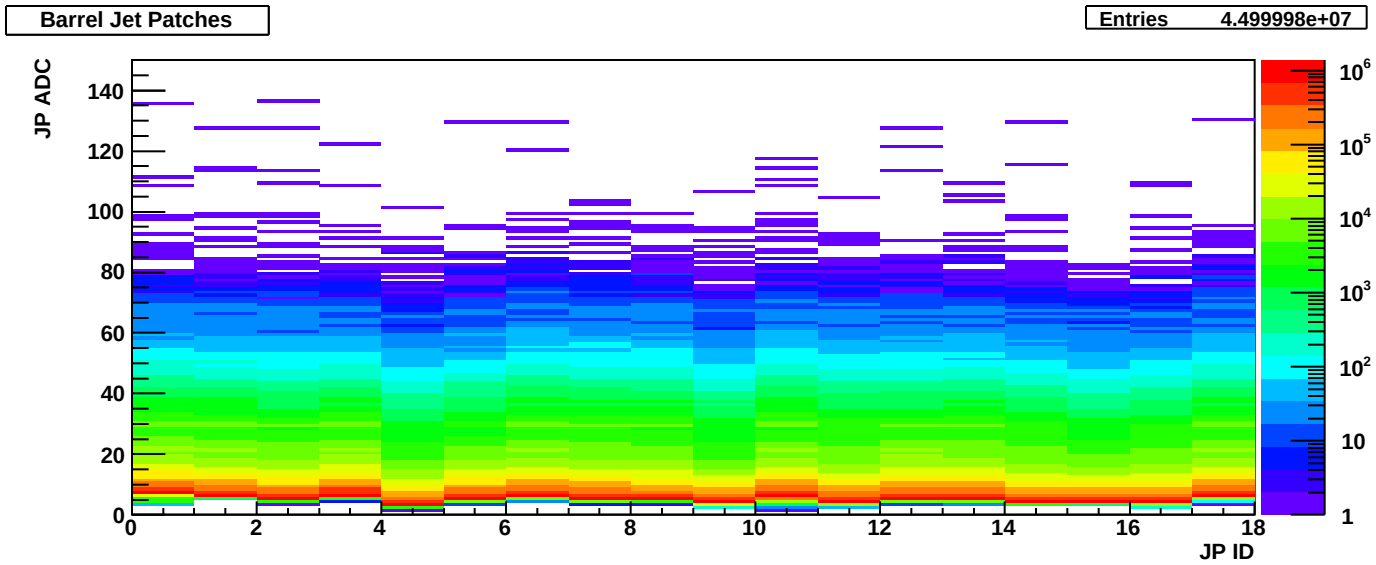

!Yellow-Fill
Entries 81714
10^4
10^3
10^2
10
1
0
20
40
60
80
100
120

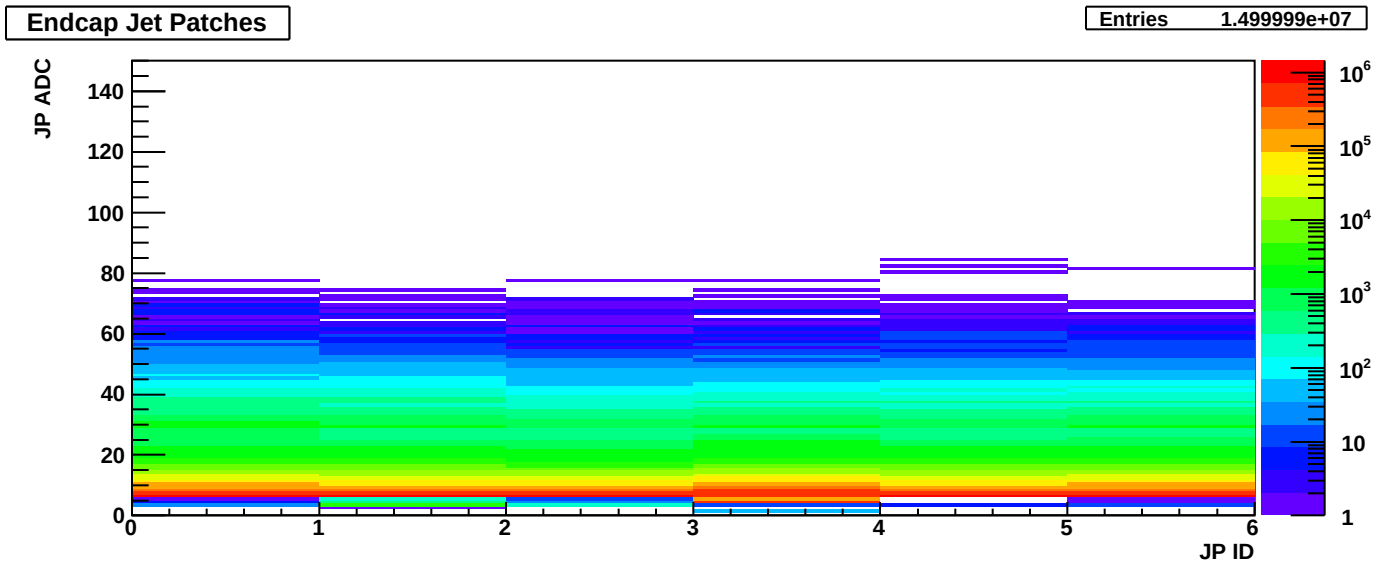

Barrel EMC L0 Input - High Tower
Entries 7.499997e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

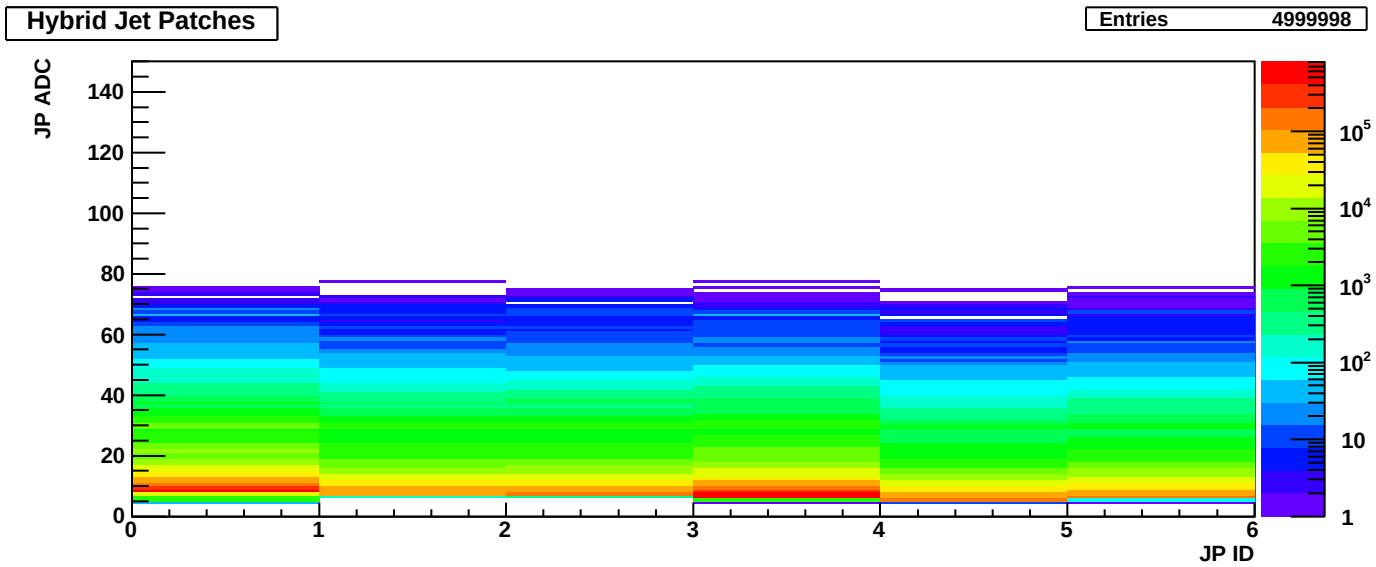

Barrel EMC L0 Input - Patch Sum
Entries 7.499997e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

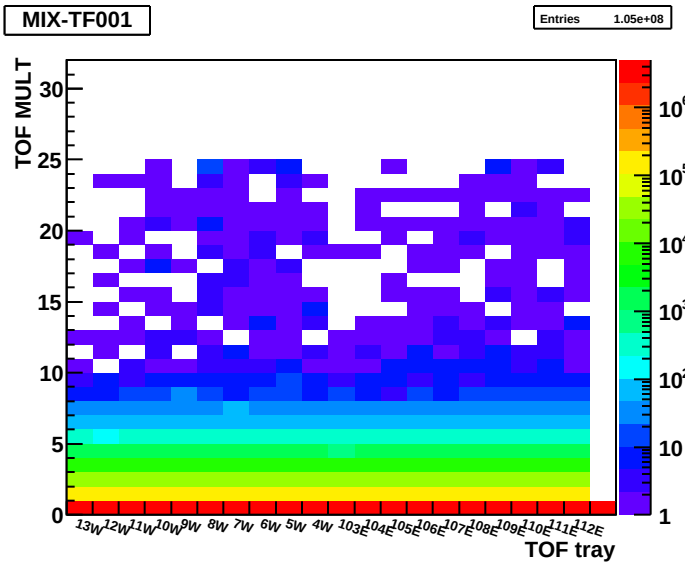

Endcap EMC L0 Input - High Tower
Entries 2.249999e+08
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

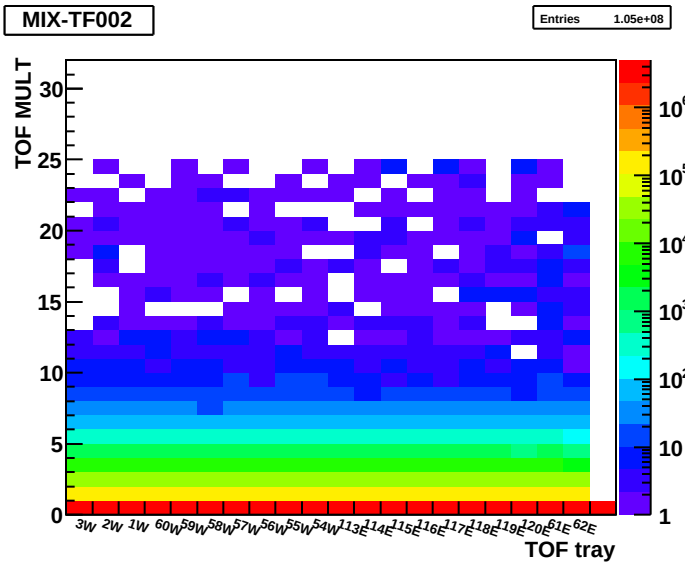

Endcap EMC L0 Input - Patch Sum
Entries 2.249999e+08
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

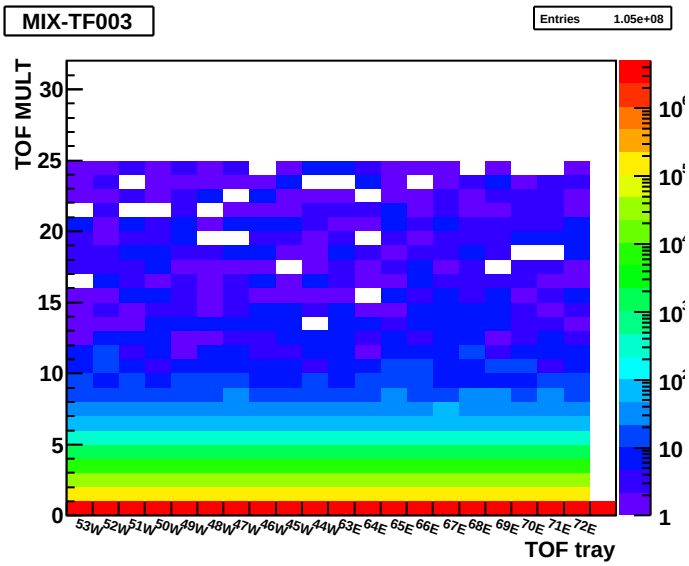

Barrel Jet Patches
Entries 4.499998e+07
JP ADC
JP ID

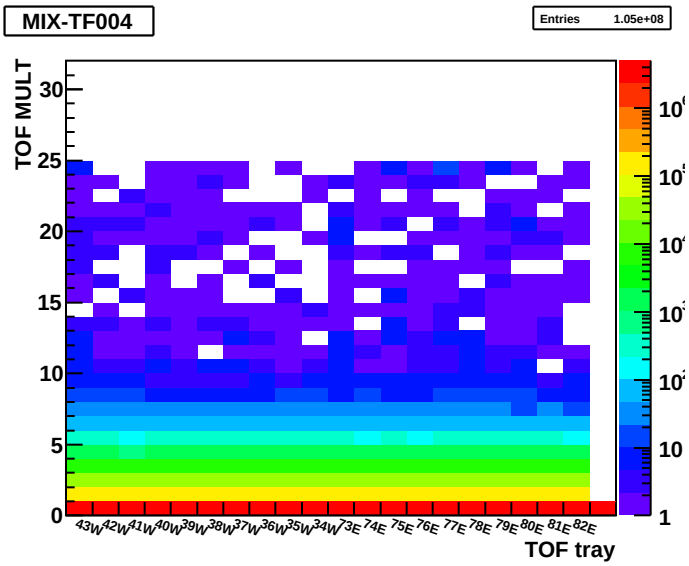

Endcap Jet Patches
Entries 1.499999e+07
JP ADC
JP ID

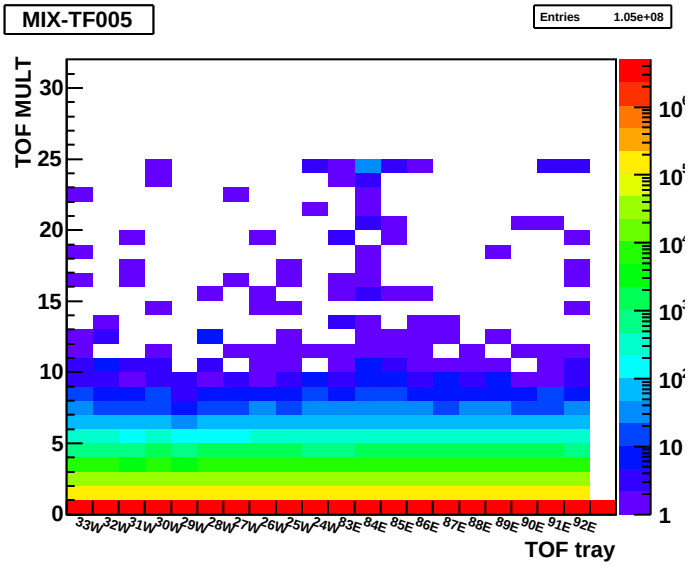

Hybrid Jet Patches
Entries 4999998
JP ADC
JP ID

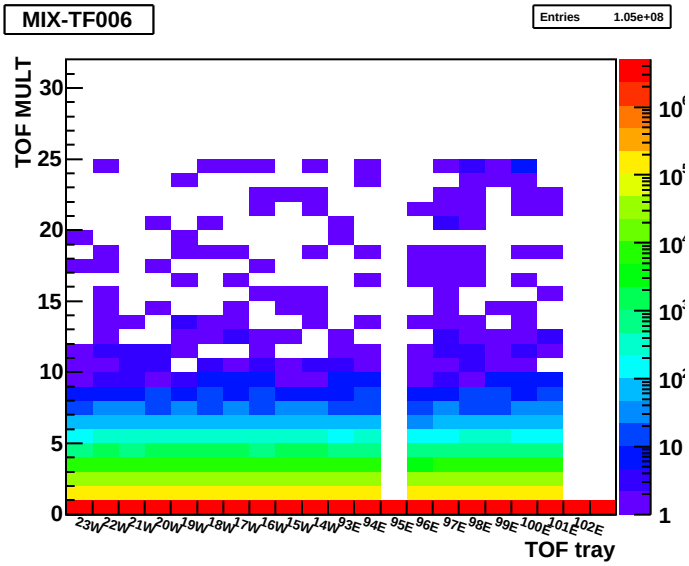

MIX-TF001
Entries 1.05e+08
TOF MULT
TOF tray

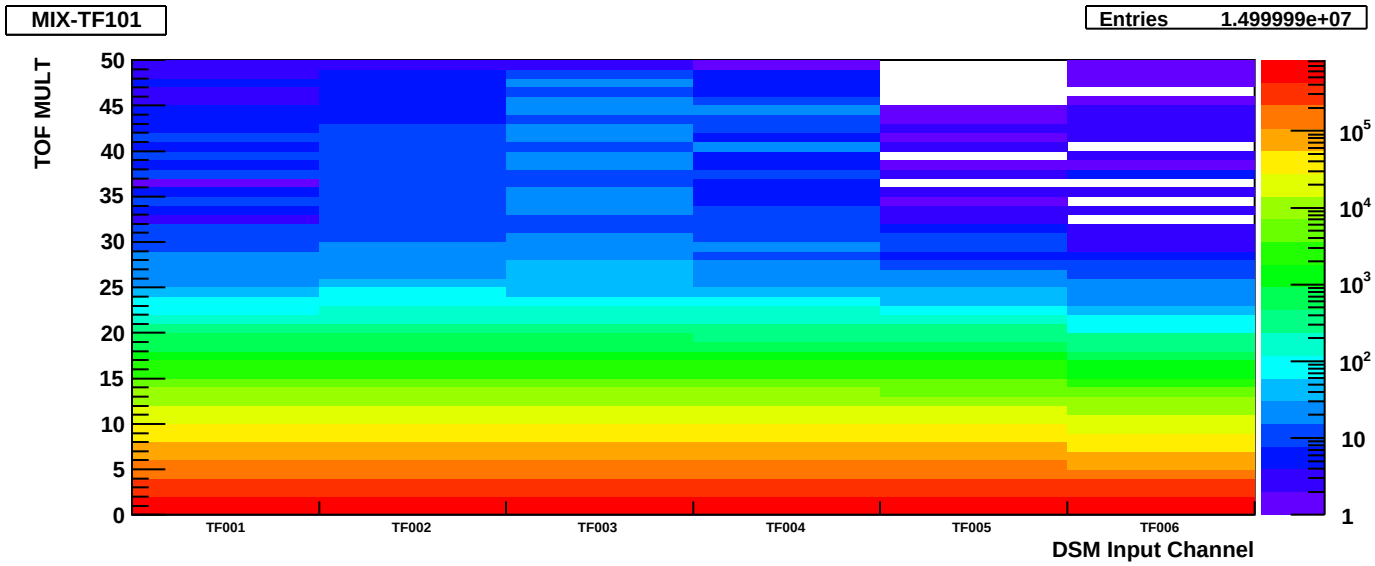

MIX-TF002
Entries 1.05e+08
TOF MULT
TOF tray

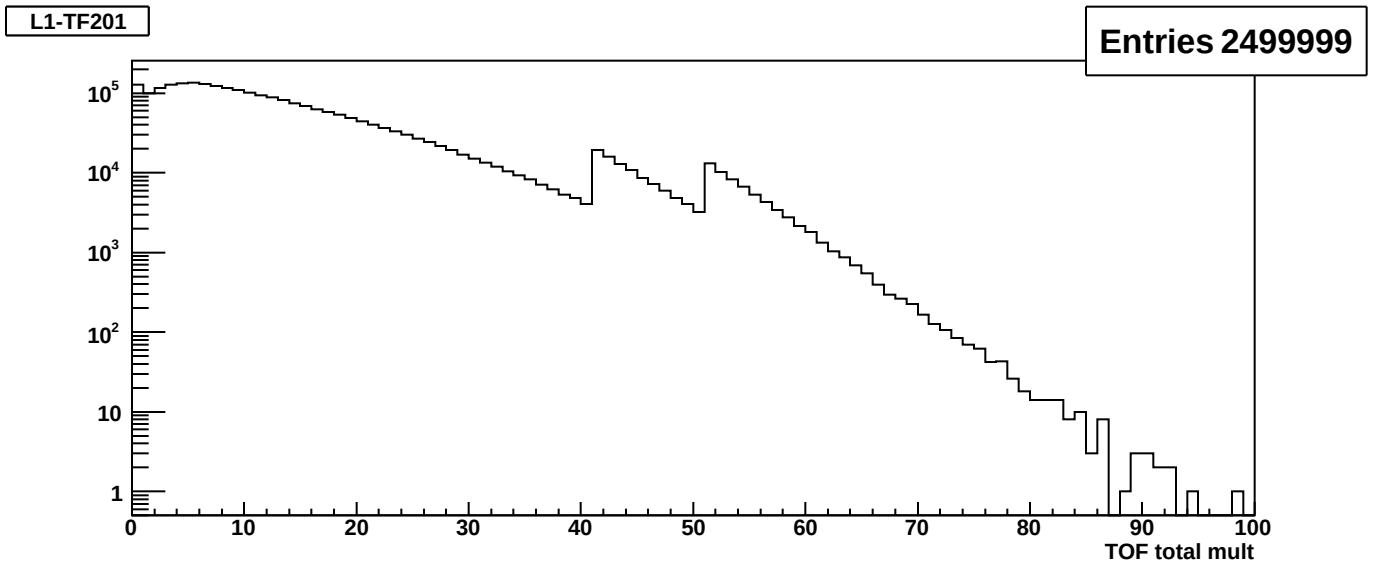

MIX-TF003
Entries 1.05e+08
TOF MULT
TOF tray

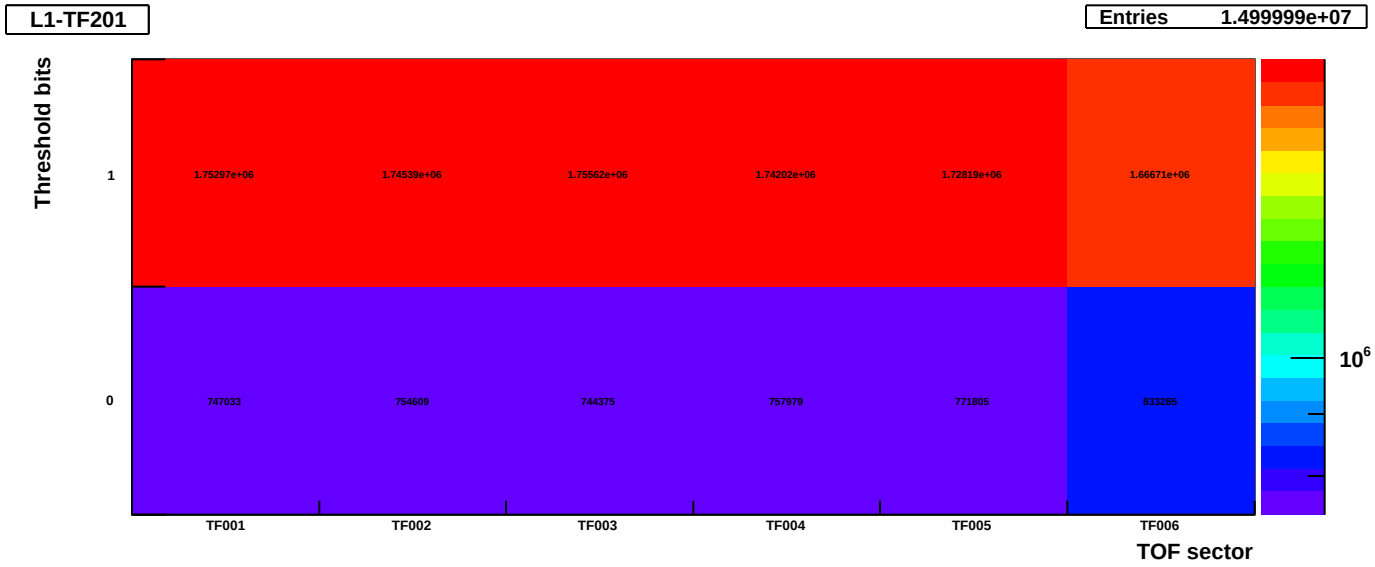

MIX-TF004
Entries 1.05e+08
TOF MULT
TOF tray

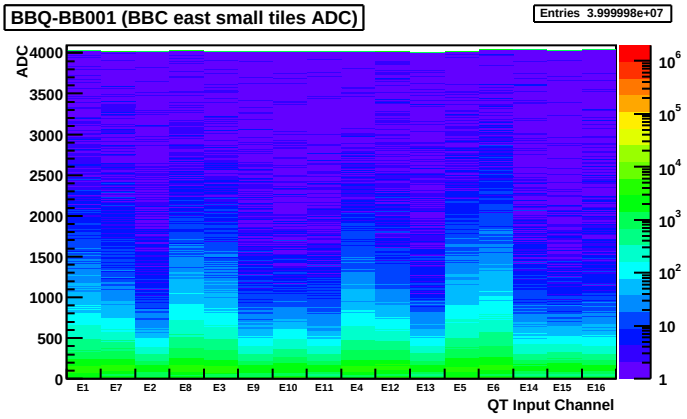

MIX-TF005
Entries 1.05e+08
TOF MULT
TOF tray

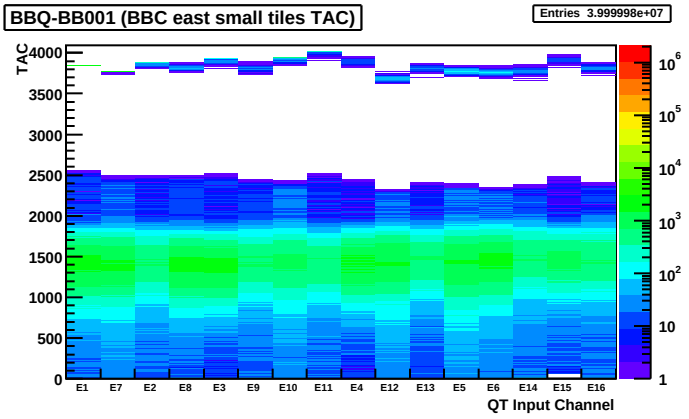

MIX-TF006
Entries 1.05e+08
TOF MULT
TOF tray

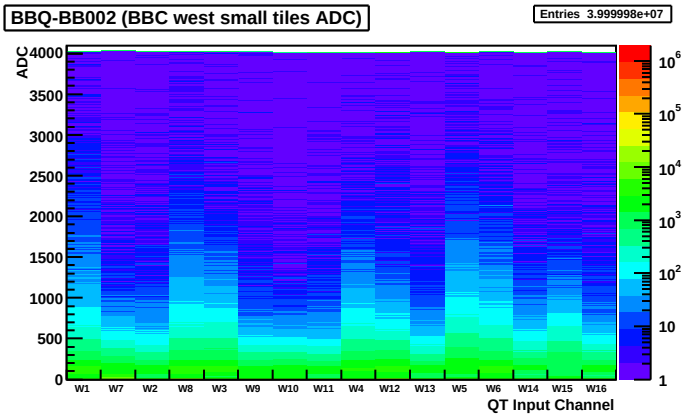

MIX-TF101
Entries 1.499999e+07
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

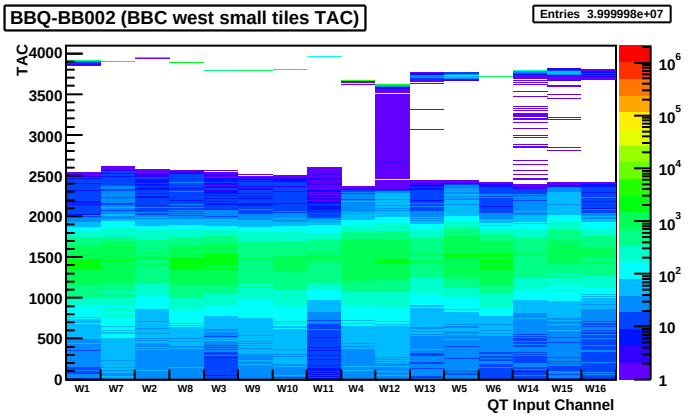

L1-TF201
Entries 2499999
TOF total mult

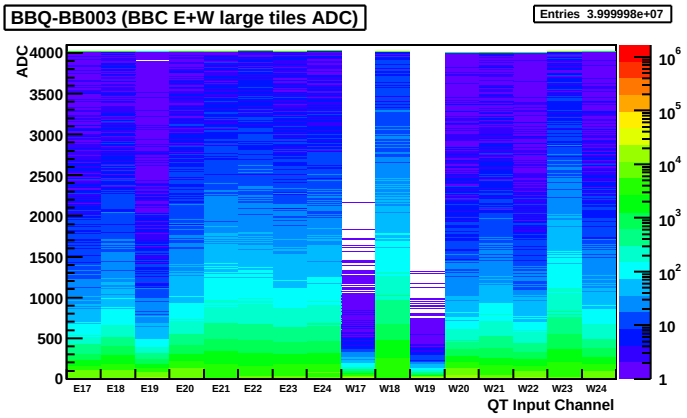

L1-TF201
Entries 1.499999e+07
Threshold bits
1.75297e+06
1.74539e+06
1.75562e+06
1.74202e+06
1.72819e+06
1.66671e+06
747033
754609
744375
757979
771805
833285
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

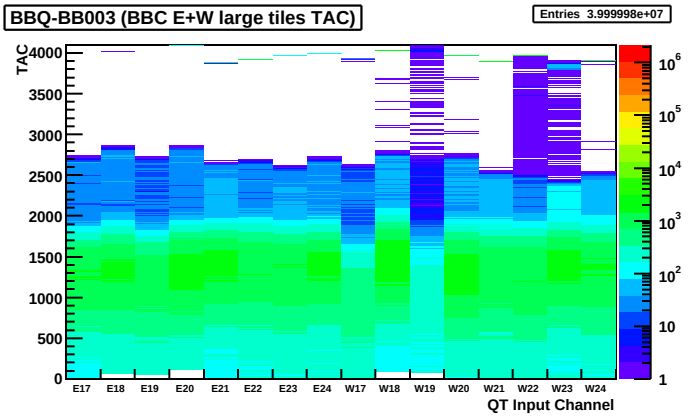

BBQ-BB001 (BBC east small tiles ADC)
Entries 3.999998e+07
ADC
QT Input Channel

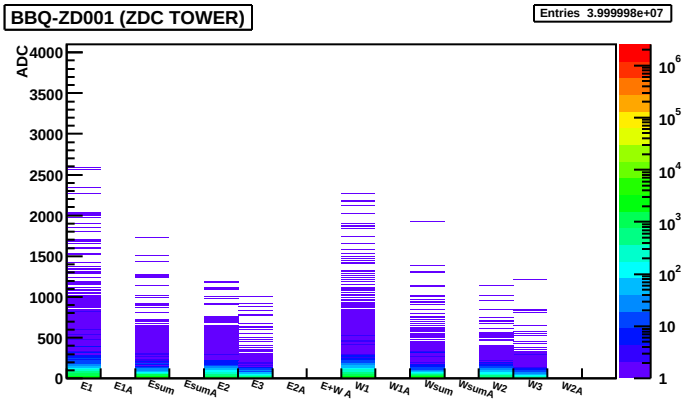

BBQ-BB001 (BBC east small tiles TAC)
Entries 3.999998e+07
TAC
QT Input Channel

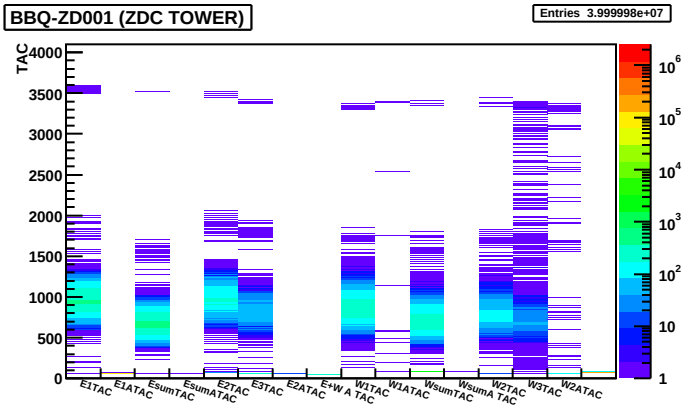

BBQ-BB002 (BBC west small tiles ADC)
Entries 3.999998e+07
ADC
QT Input Channel

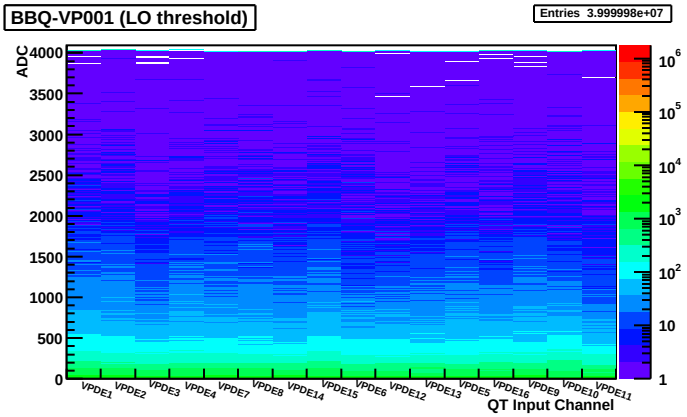

BBQ-BB002 (BBC west small tiles TAC)
Entries 3.999998e+07
TAC
QT Input Channel

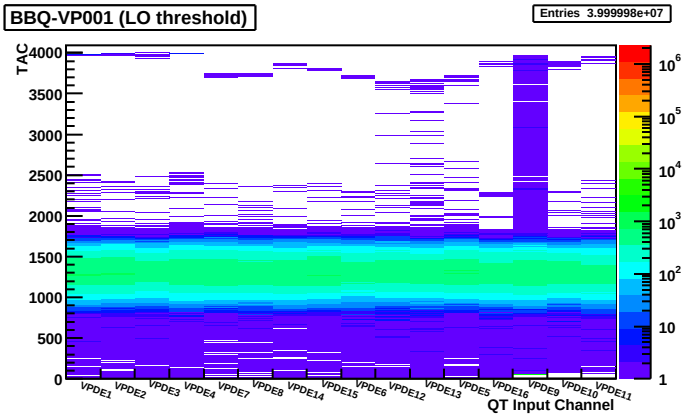

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 3.999998e+07
ADC
QT Input Channel

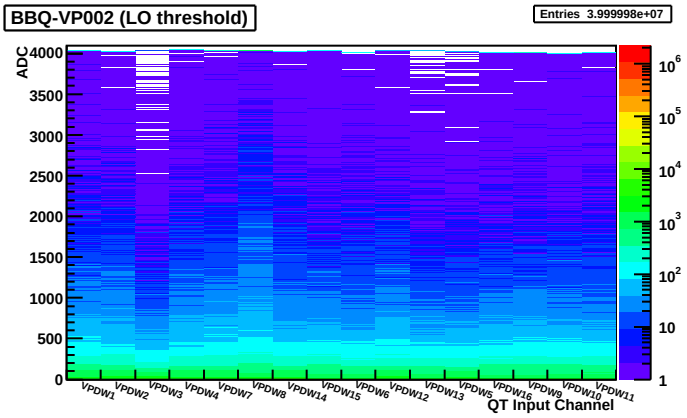

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 3.999998e+07
TAC
QT Input Channel

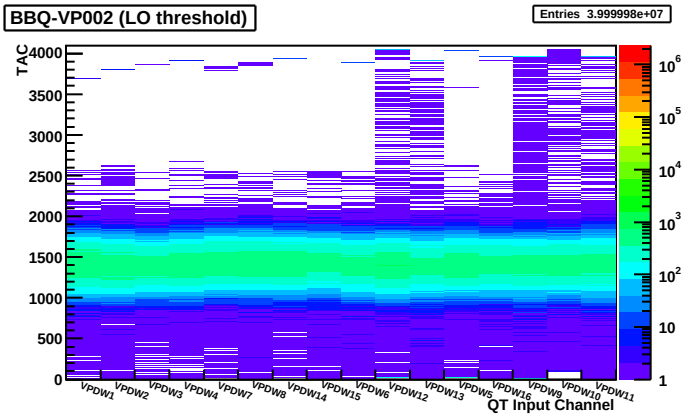

BBQ-ZD001 (ZDC TOWER)
Entries 3.999998e+07
ADC

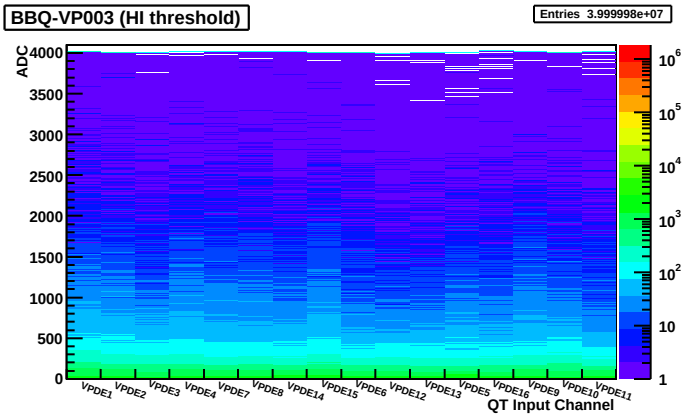

BBQ-ZD001 (ZDC TOWER)
Entries 3.999998e+07
TAC

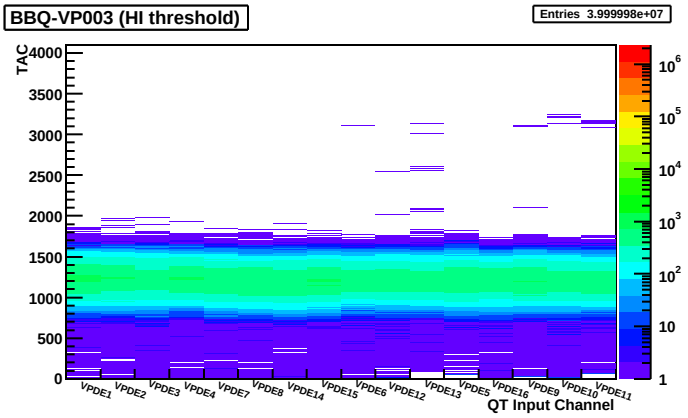

BBQ-VP001 (LO threshold)
Entries 3.999998e+07
ADC
QT Input Channel

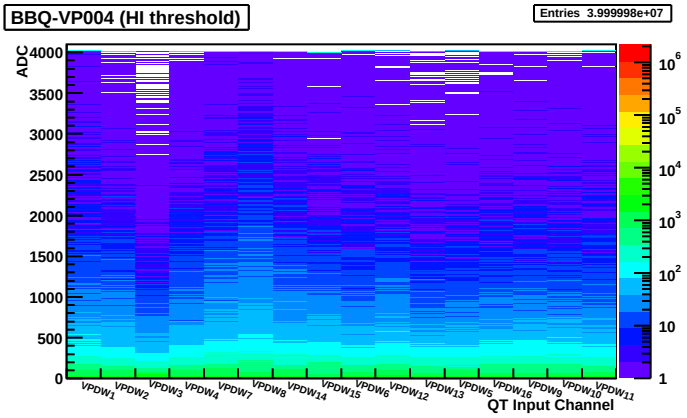

BBQ-VP001 (LO threshold)
Entries 3.999998e+07
TAC
QT Input Channel

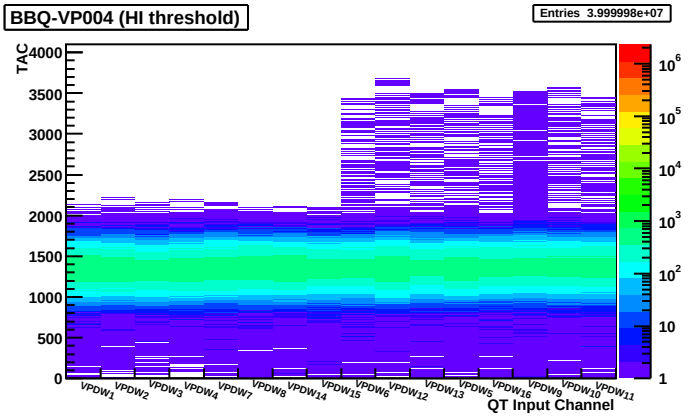

BBQ-VP002 (LO threshold)
Entries 3.999998e+07
ADC
QT Input Channel

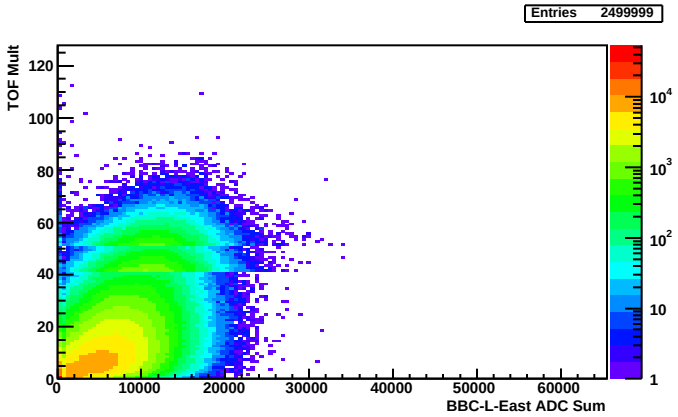

BBQ-VP002 (LO threshold)
Entries 3.999998e+07
TAC
QT Input Channel

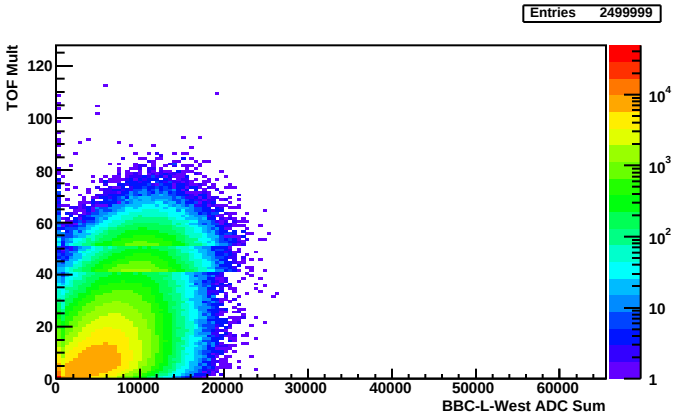

BBQ-VP003 (HI threshold)
Entries 3.999998e+07
ADC
QT Input Channel

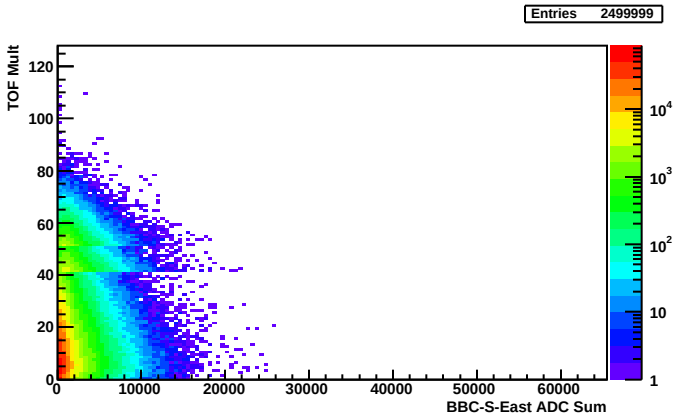

BBQ-VP003 (HI threshold)
Entries 3.999998e+07
TAC
QT Input Channel

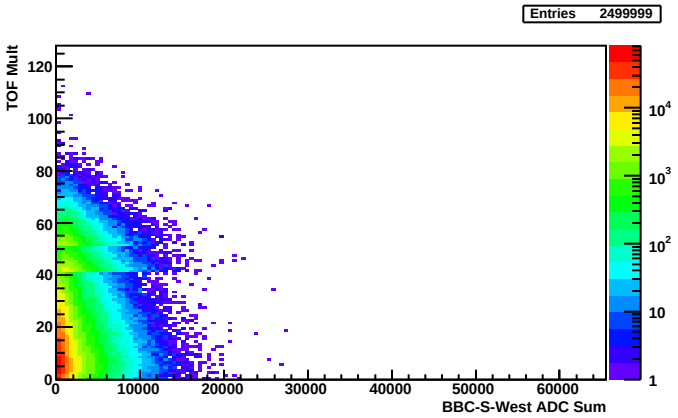

BBQ-VP004 (HI threshold)
Entries 3.999998e+07
ADC
QT Input Channel

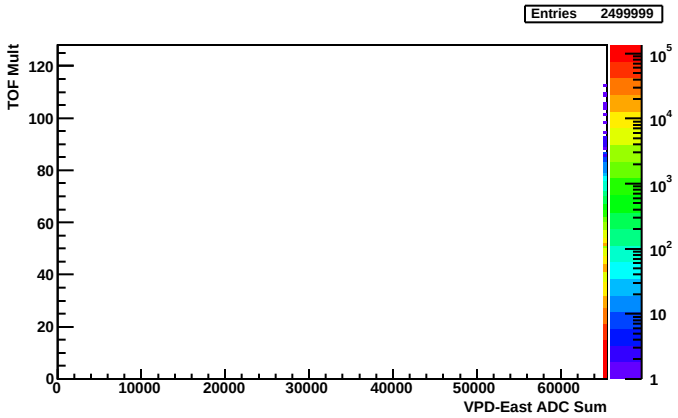

BBQ-VP004 (HI threshold)
Entries 3.999998e+07
TAC
QT Input Channel

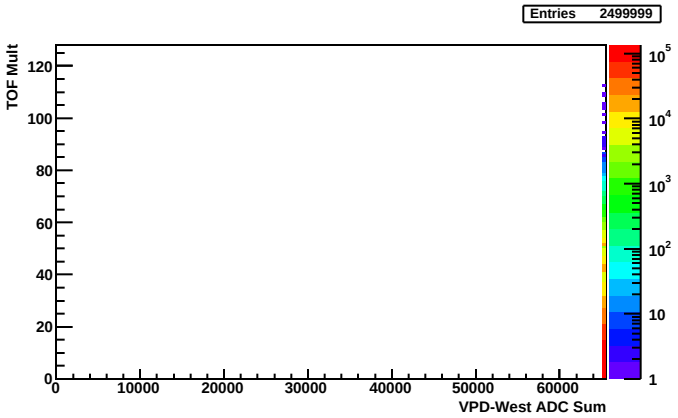

Entries 2499999
TOF Mult
BBC-L-East ADC Sum

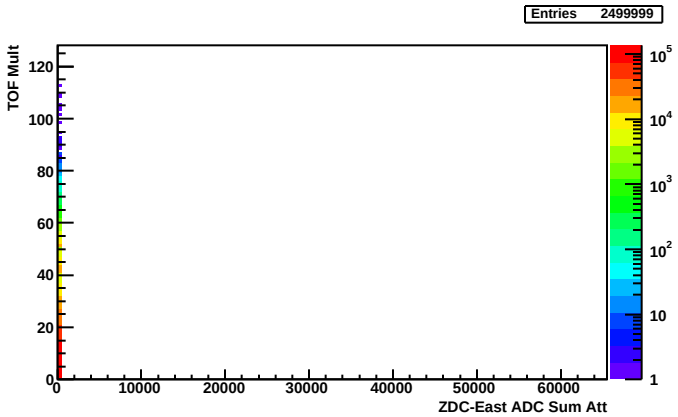

Entries 2499999
TOF Mult
BBC-L-West ADC Sum

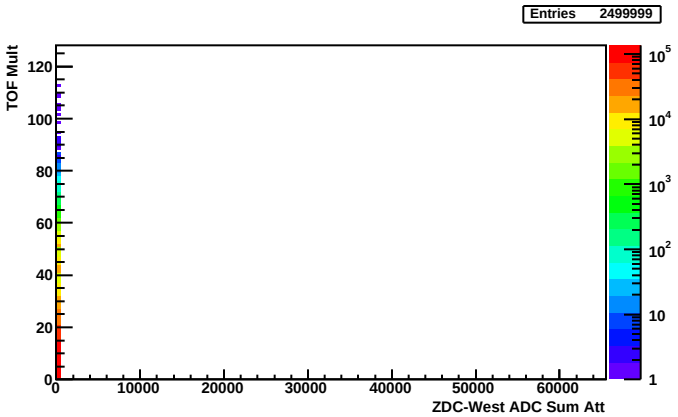

Entries 2499999
TOF Mult
BBC-S-East ADC Sum

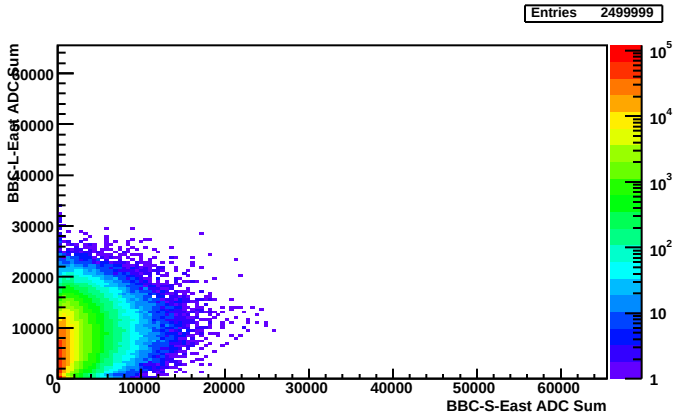

Entries 2499999
TOF Mult
BBC-S-West ADC Sum

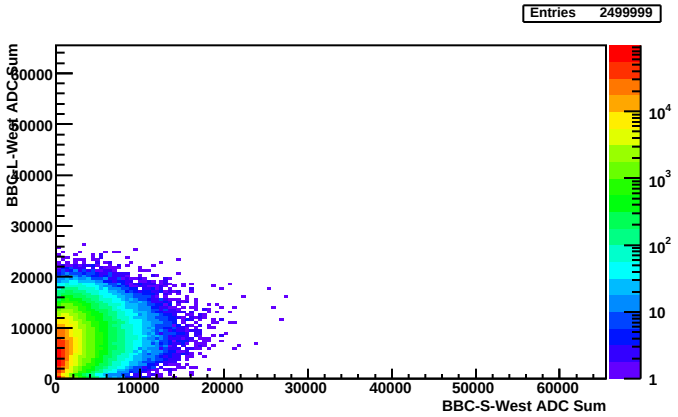

Entries 2499999
TOF Mult
VPD-East ADC Sum

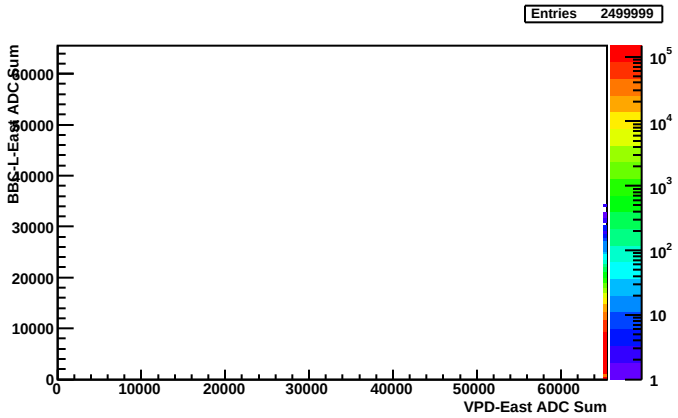

Entries 2499999
TOF Mult
VPD-West ADC Sum

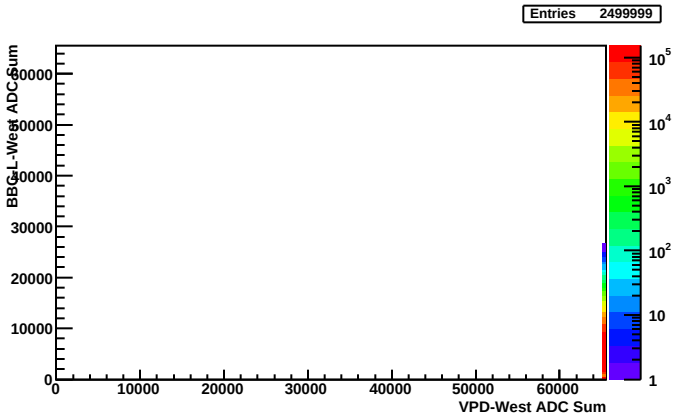

Entries 2499999
TOF Mult
ZDC-East ADC Sum Att

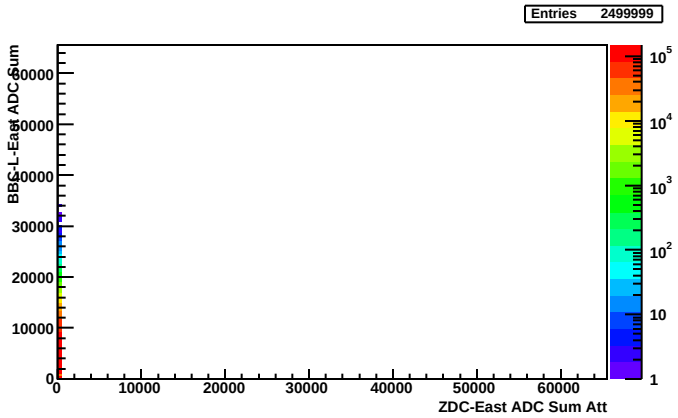

Entries 2499999
TOF Mult
ZDC-West ADC Sum Att

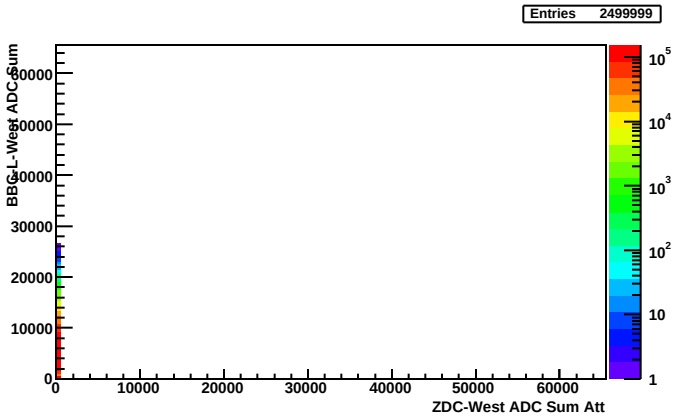

Entries 2499999
BBC-L-East ADC Sum
BBC-S-East ADC Sum

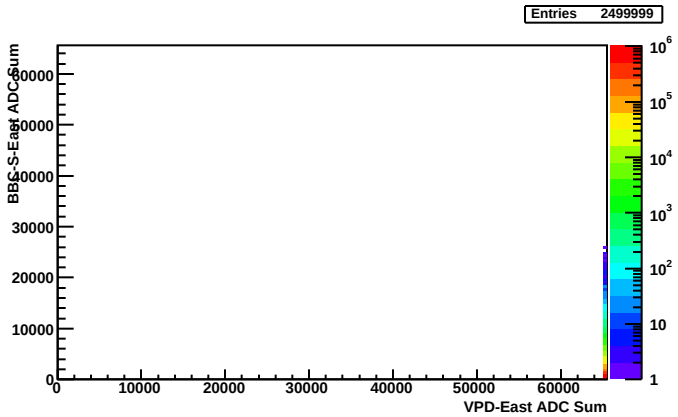

Entries 2499999
BBC-L-West ADC Sum
BBC-S-West ADC Sum

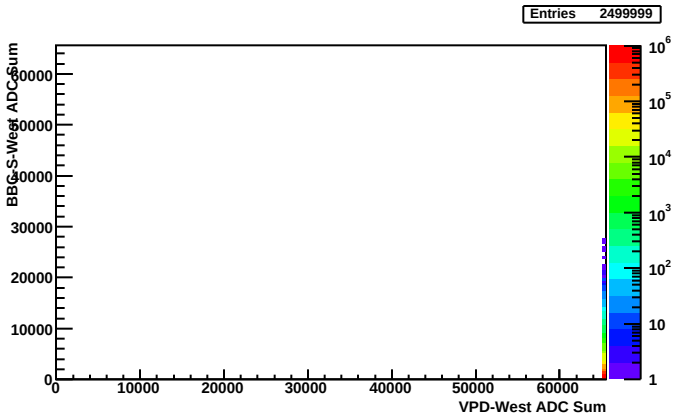

Entries 2499999
BBC-L-East ADC Sum
VPD-East ADC Sum

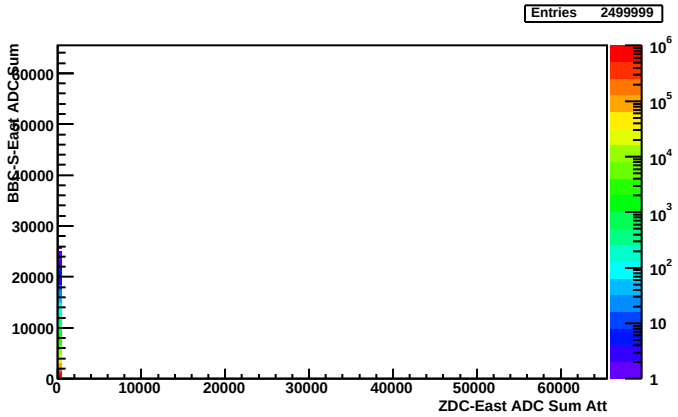

Entries 2499999
BBC-L-West ADC Sum
VPD-West ADC Sum

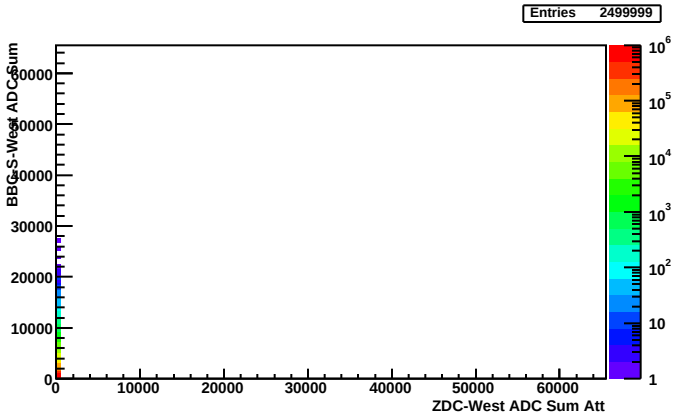

Entries 2499999
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

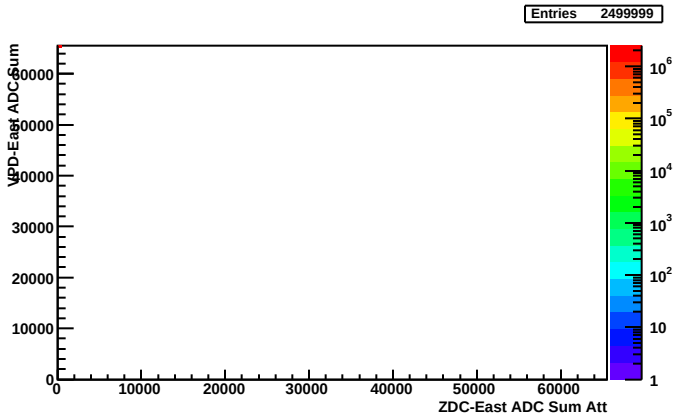

Entries 2499999
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

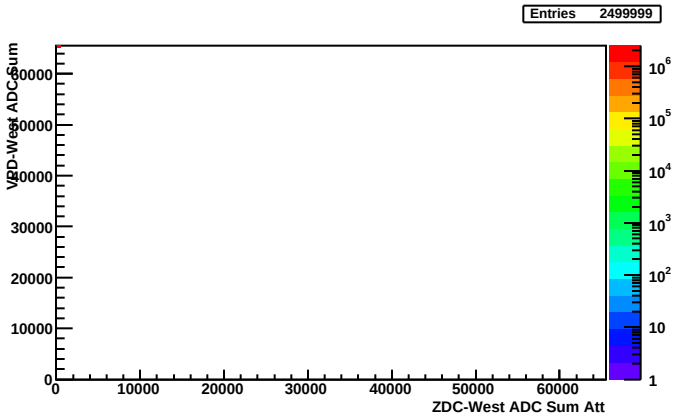

Entries 2499999
BBC-S-East ADC Sum
VPD-East ADC Sum

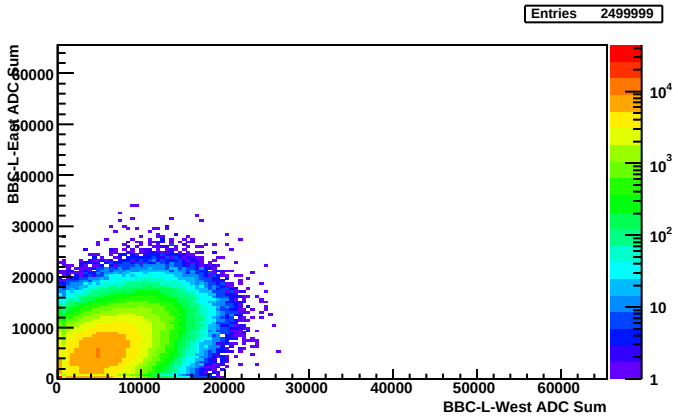

Entries 2499999
BBC-S-West ADC Sum
VPD-West ADC Sum

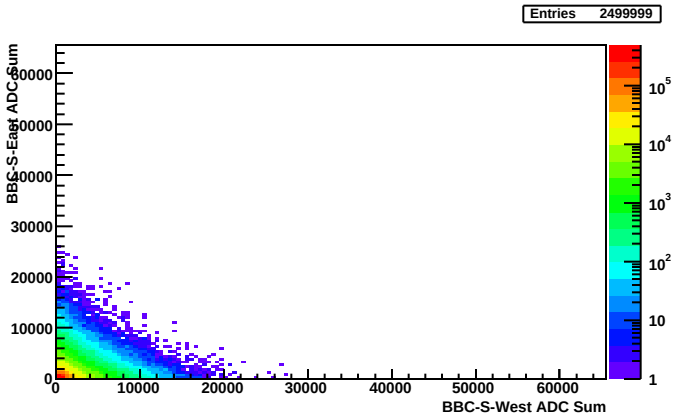

Entries 2499999
BBC-S-East ADC Sum
ZDC-East ADC Sum Att


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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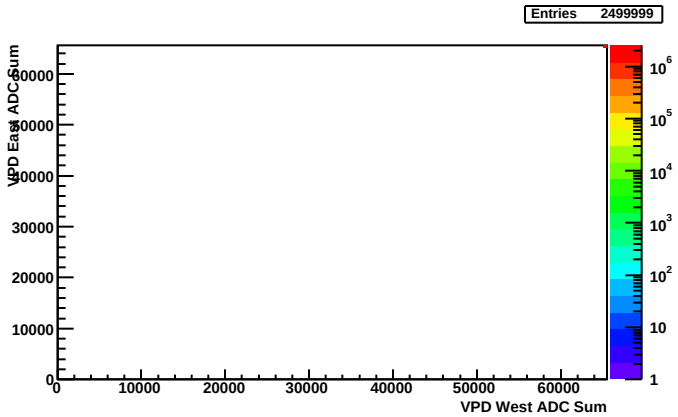
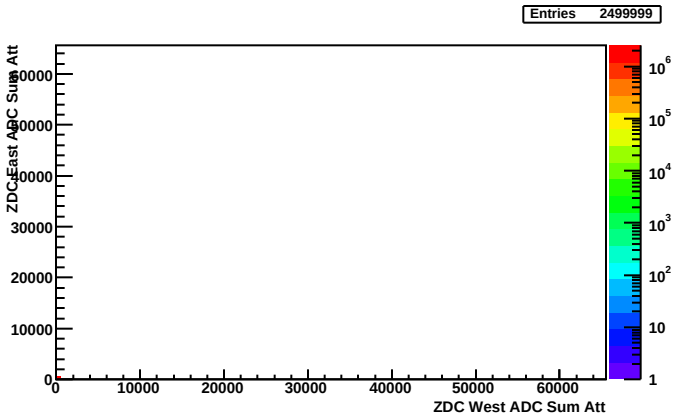
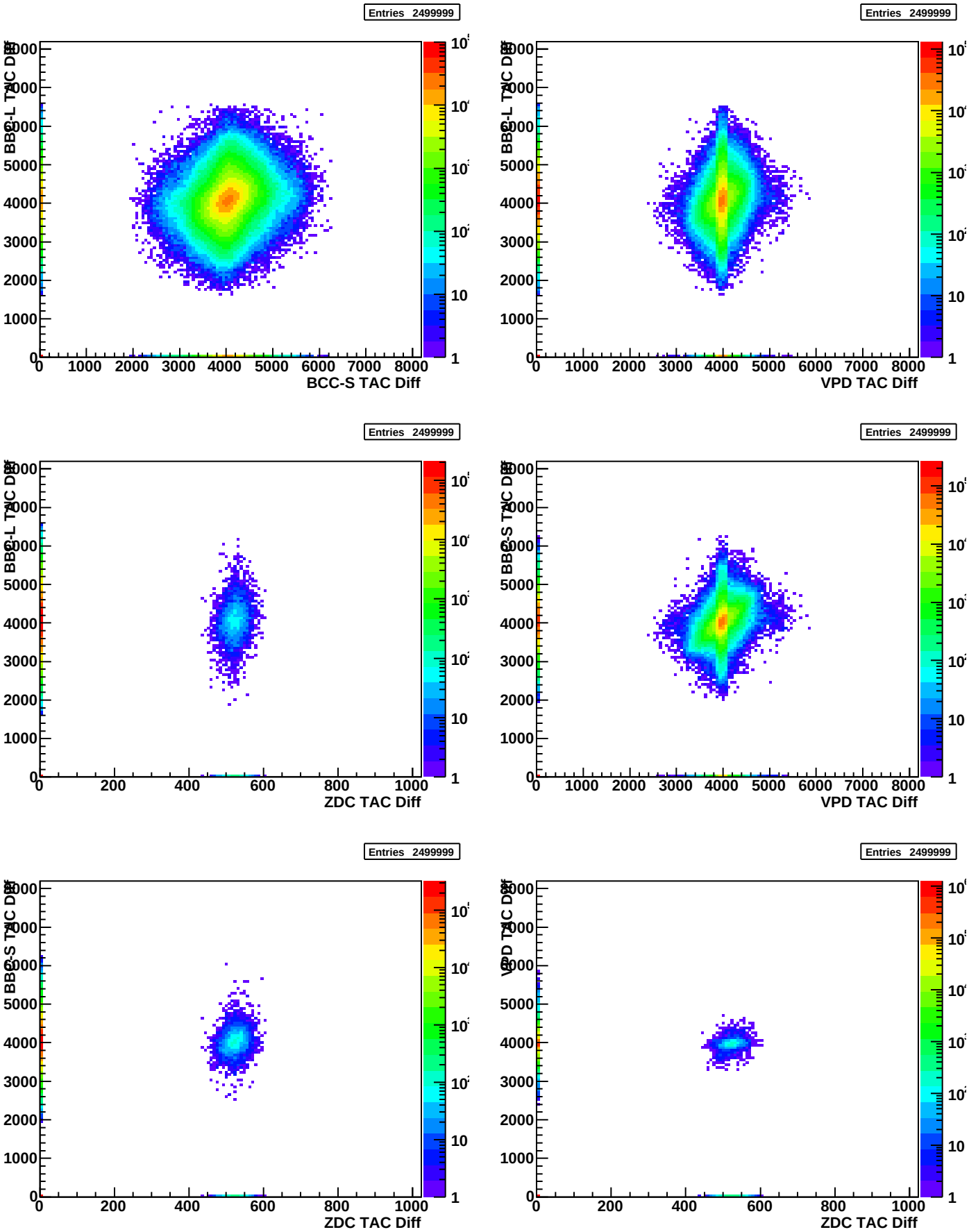
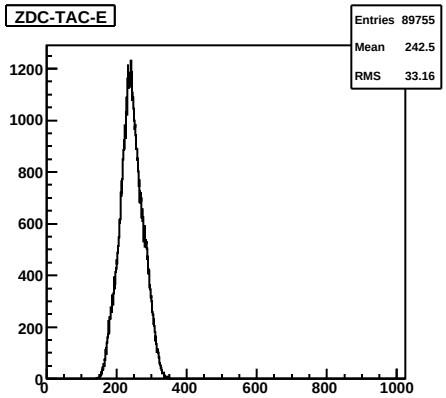
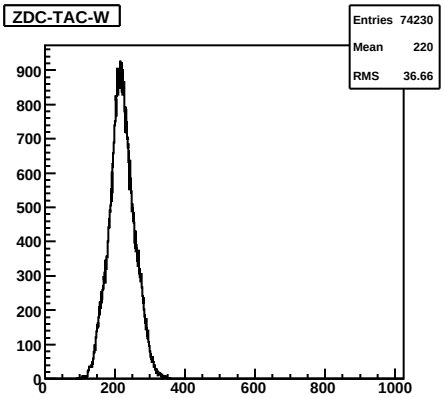
BBC-S-East ADC Sum
BBC-S-West ADC Sum

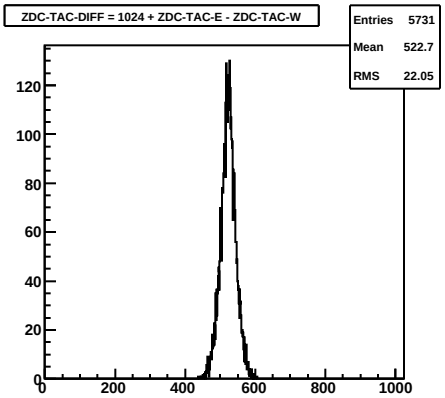

Entries 2499999
VPD East ADC Sum
VPD West ADC Sum

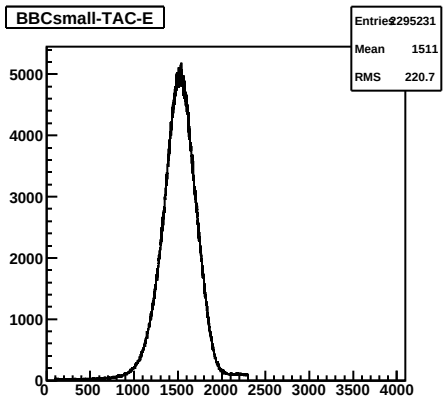

Entries 2499999
ZDC East ADC Sum Att
ZDC West ADC Sum Att

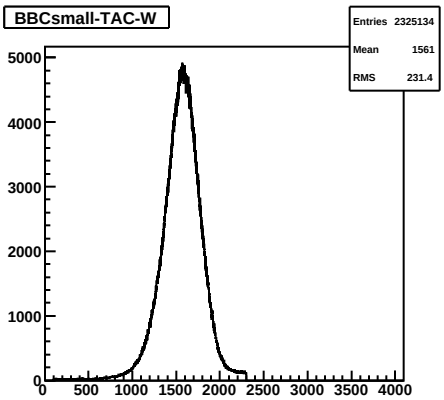

Entries 2499999
BBC-L TAC Diff
BCC-S TAC Diff
Entries 2499999
BBC-L TAC Diff
VPD TAC Diff
Entries 2499999
BBC-L TAC Diff
ZDC TAC Diff
Entries 2499999
BBC-S TAC Diff
VPD TAC Diff
Entries 2499999
BBC-S TAC Diff
ZDC TAC Diff
Entries 2499999
VPD TAC Diff
ZDC TAC Diff

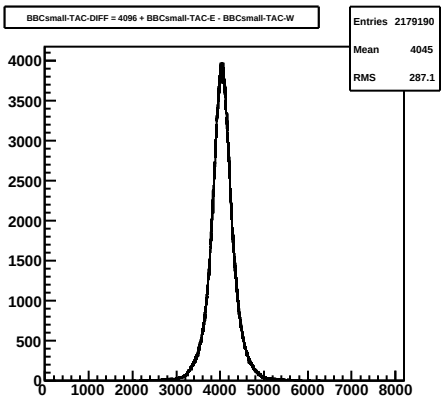

ZDC-TAC-E
Entries 89755
Mean 242.5
RMS 33.16

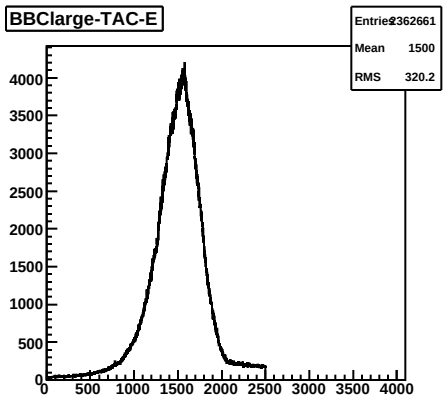

ZDC-TAC-W
Entries 74230
Mean 220
RMS 36.66

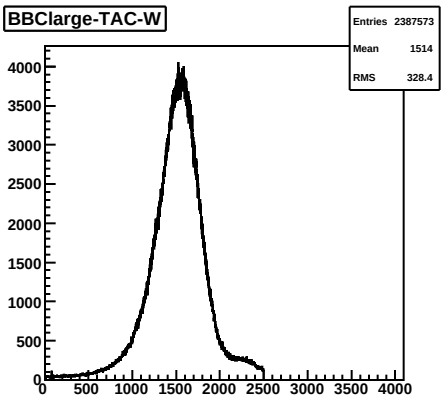

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 5731
Mean 522.7
RMS 22.05

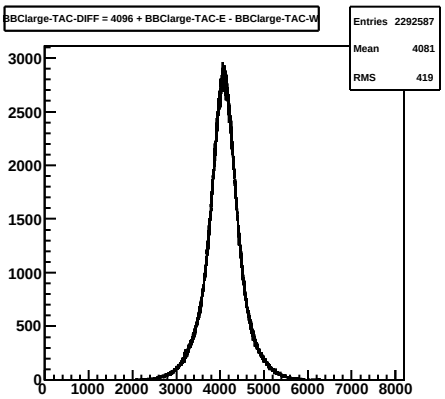

BBCsmall-TAC-E
Entries 2295231
Mean 1511
RMS 220.7

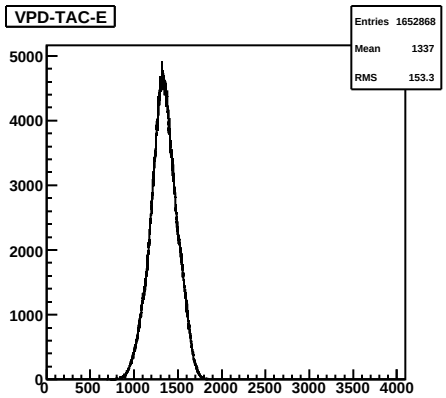

BBCsmall-TAC-W
Entries 2325134
Mean 1561
RMS 231.4

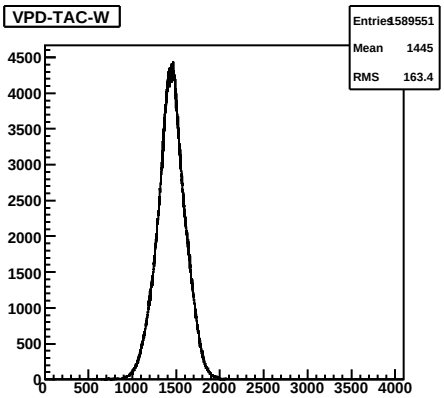

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 2179190
Mean 4045
RMS 287.1

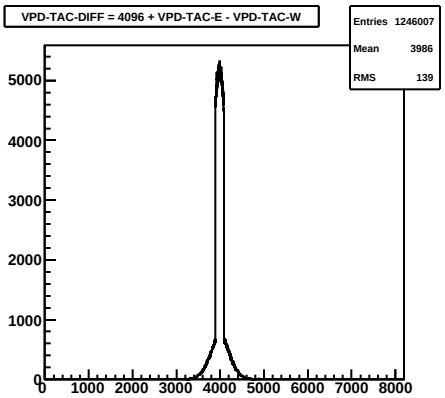

BBClarge-TAC-E
Entries 2362661
Mean 1500
RMS 320.2

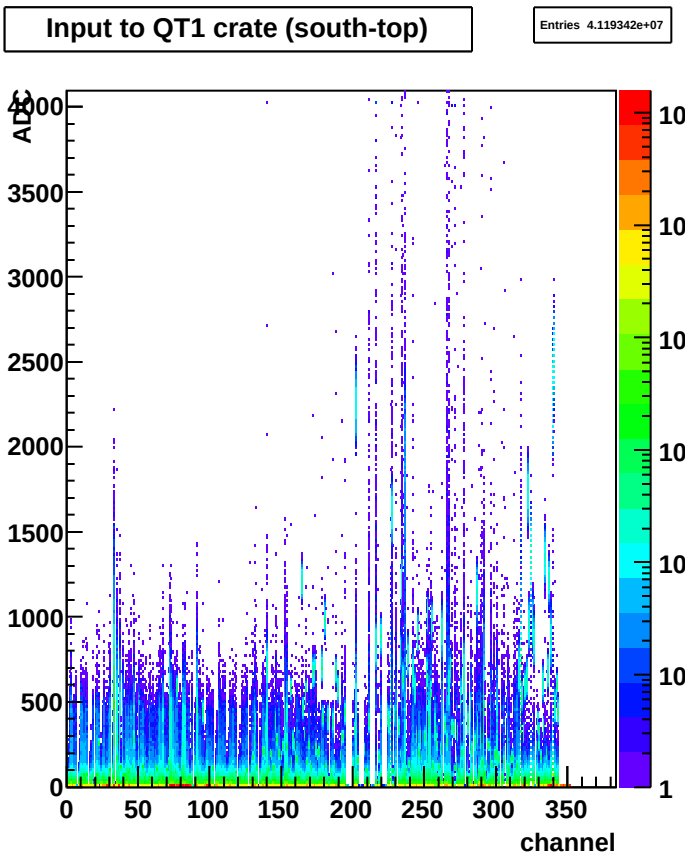

BBClarge-TAC-W
Entries 2387573
Mean 1514
RMS 328.4

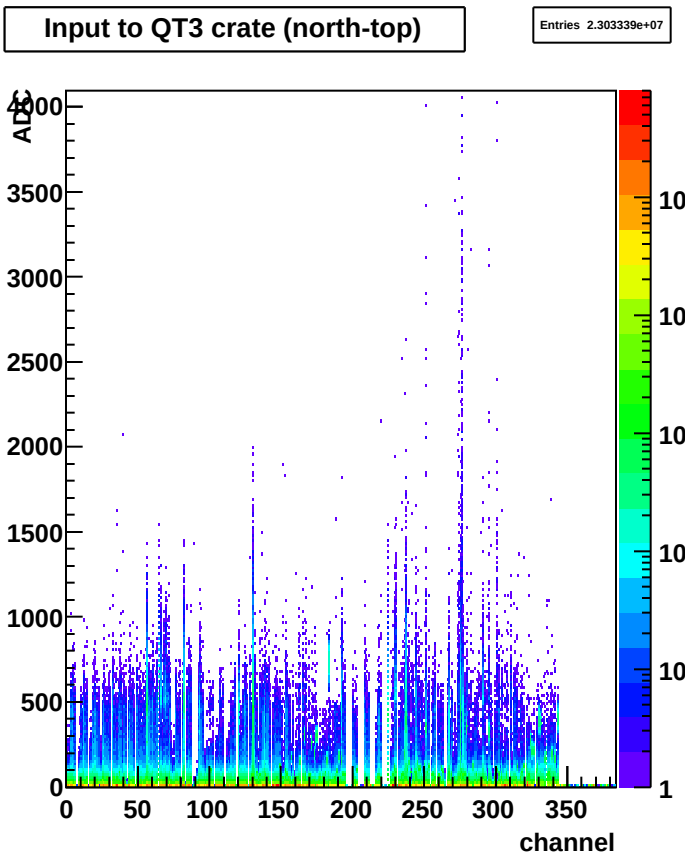

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 2292587
Mean 4081
RMS 419

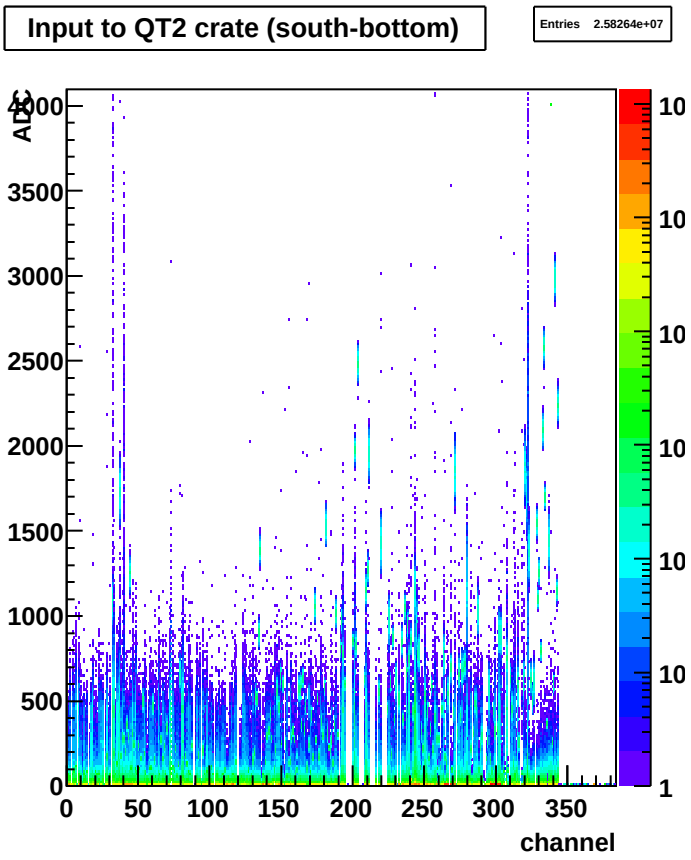

VPD-TAC-E
Entries 1652868
Mean 1337
RMS 153.3

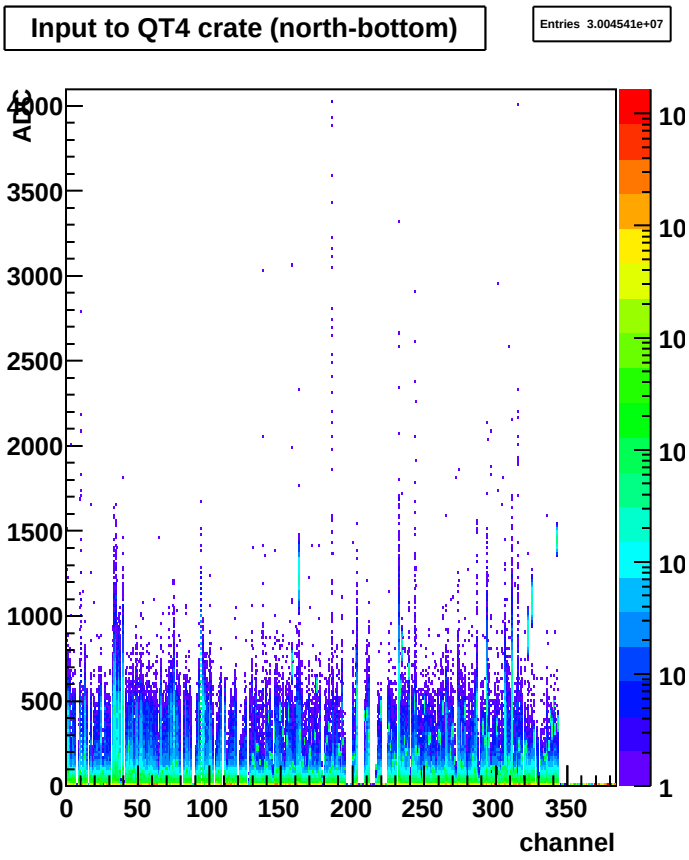

VPD-TAC-W
Entries 1589551
Mean 1445
RMS 163.4

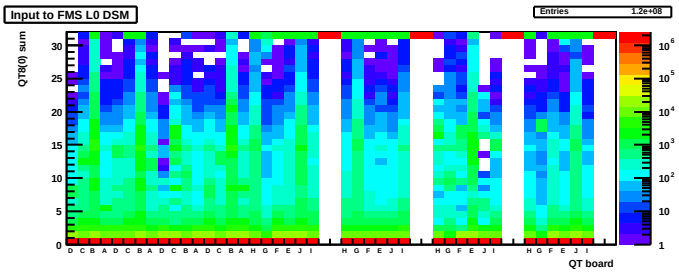

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 1246007
Mean 3986
RMS 139

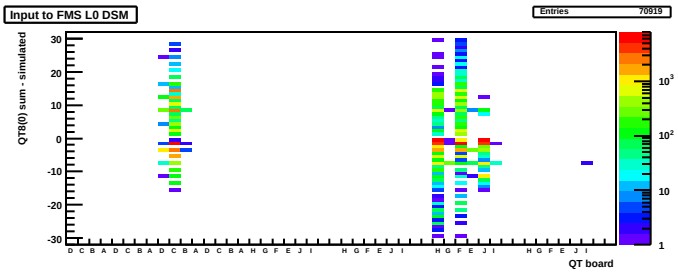

Input to QT1 crate (south-top)
Entries 4.119342e+07
ADC
channel

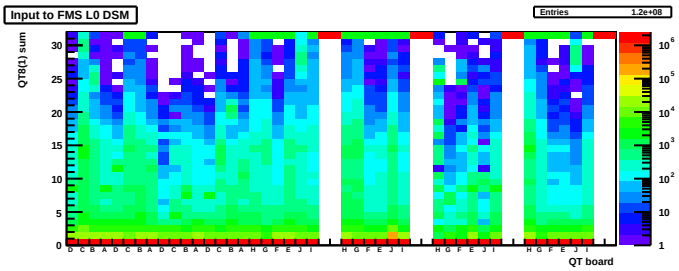

Input to QT3 crate (north-top)
Entries 2.303339e+07
ADC
channel

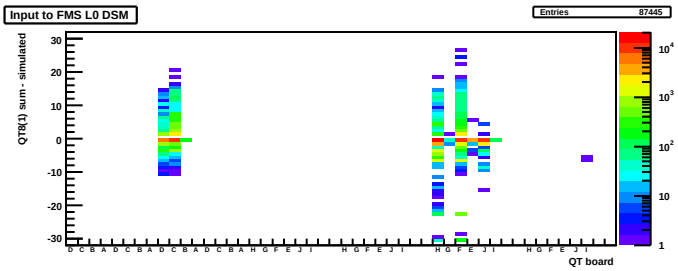

Input to QT2 crate (south-bottom)
Entries 2.58264e+07
ADC
channel

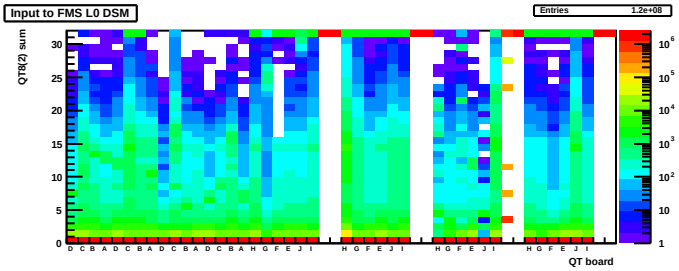

Input to QT4 crate (north-bottom)
Entries 3.004541e+07
ADC
channel

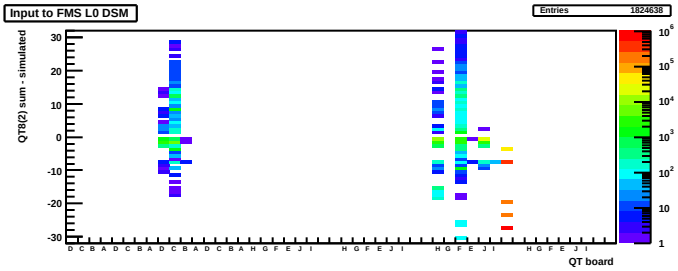

Input to FMS L0 DSM
Entries 1.2e+08
QT8(0) sum
QT board

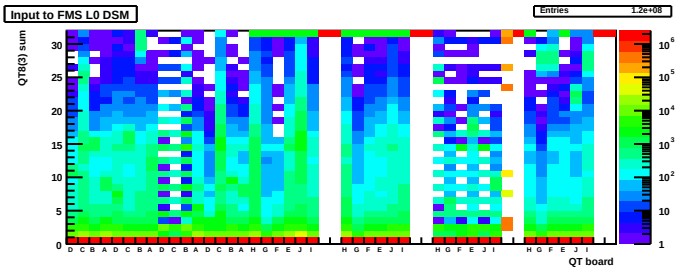

Input to FMS L0 DSM
Entries 70919
QT8(0) sum - simulated
QT board

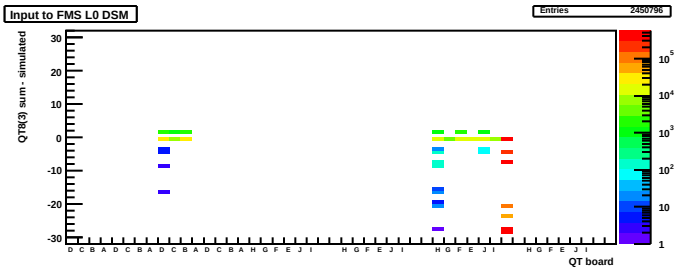

Input to FMS L0 DSM
Entries 1.2e+08
QT8(1) sum
QT board

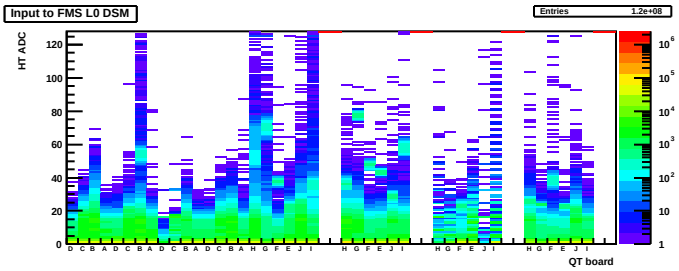

Input to FMS L0 DSM
Entries 87445
QT8(1) sum - simulated
QT board

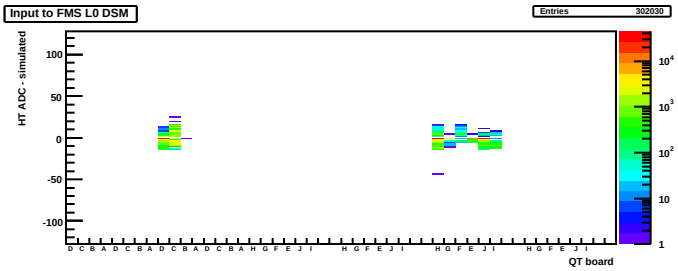

Input to FMS L0 DSM
Entries 1.2e+08
QT8(2) sum
QT board

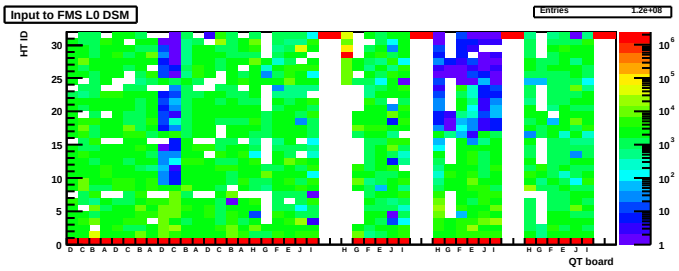

Input to FMS L0 DSM
Entries 1824638
QT8(2) sum - simulated
QT board

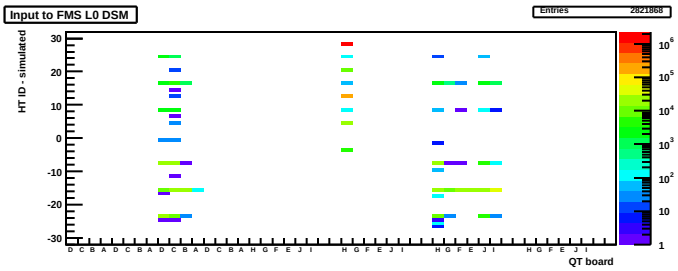

Input to FMS L0 DSM
Entries 1.2e+08
QT8(3) sum
QT board

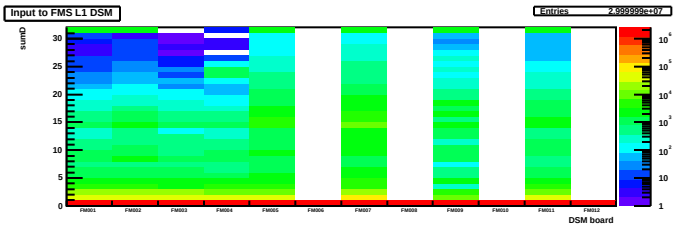

Input to FMS L0 DSM
Entries 2450796
QT8(3) sum - simulated
QT board

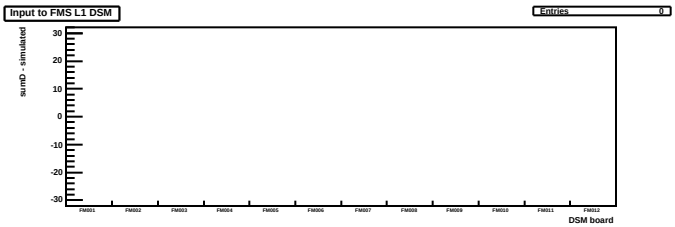

Input to FMS L0 DSM
Entries 1.2e+08
HT ADC
QT board

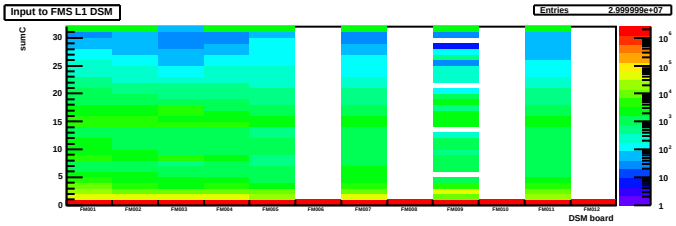

Input to FMS L0 DSM
Entries 302030
HT ADC - simulated
QT board

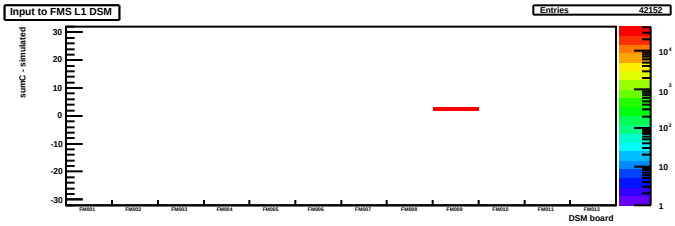

Input to FMS L0 DSM
Entries 1.2e+08
HT ID
QT board

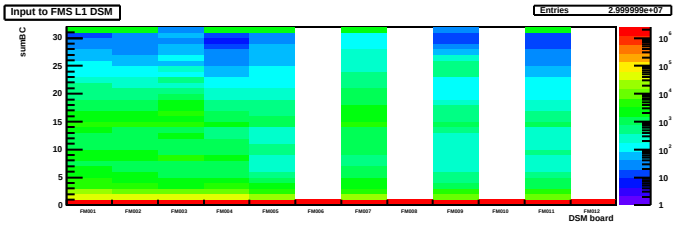

Input to FMS L0 DSM
Entries 2821868
HT ID - simulated
QT board

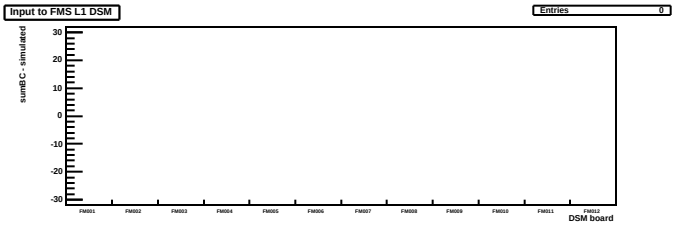

Input to FMS L1 DSM
Entries 2.999999e+07
sumD
DSM board

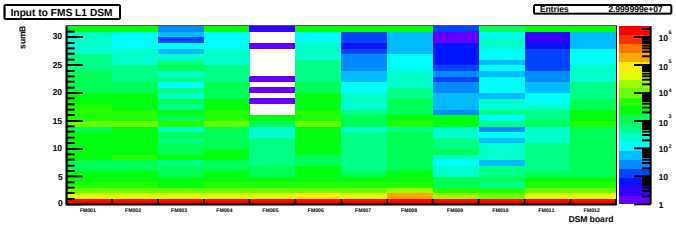

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

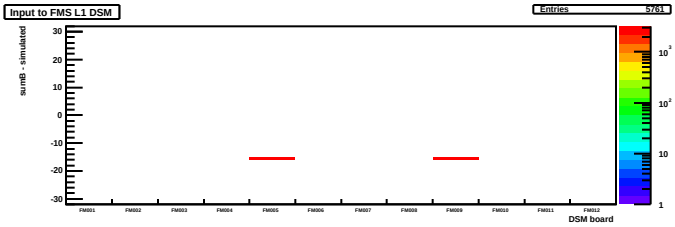

Input to FMS L1 DSM
Entries 2.999999e+07
sumC
DSM board

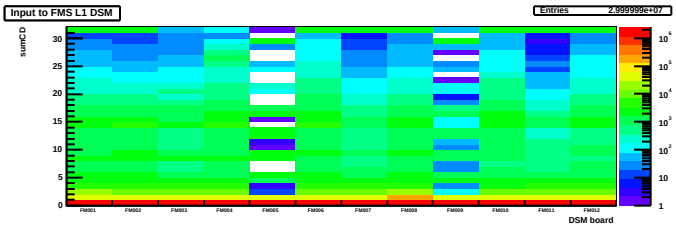

Input to FMS L1 DSM
Entries 42152
sumC - simulated
DSM board

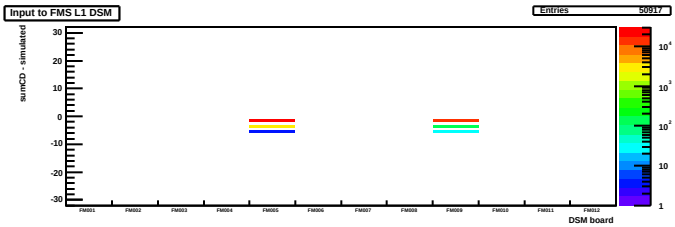

Input to FMS L1 DSM
Entries 2.999999e+07
sumBC
DSM board

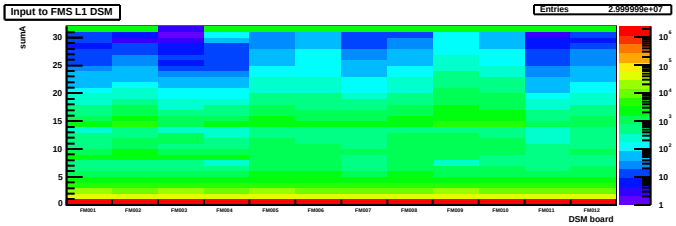

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

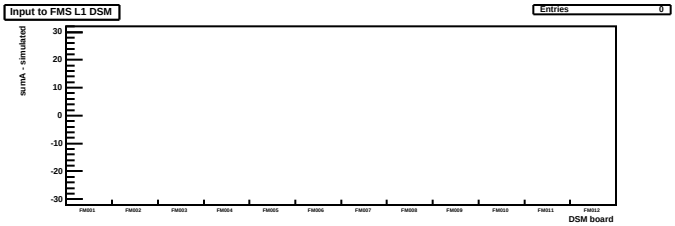

Input to FMS L1 DSM
Entries 2.999999e+07
sumB
DSM board

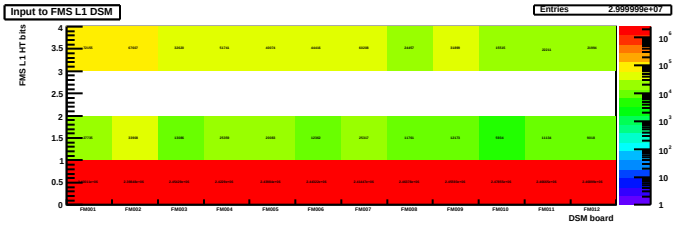

Input to FMS L1 DSM
Entries 5761
sumB - simulated
DSM board

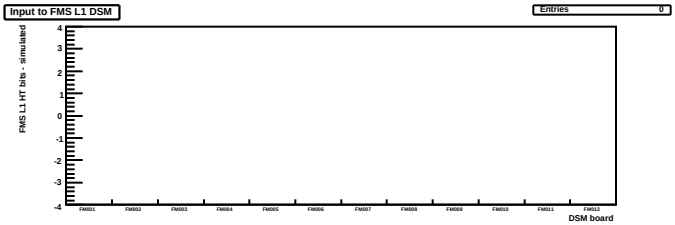

Input to FMS L1 DSM
Entries 2.999999e+07
sumCD
DSM board

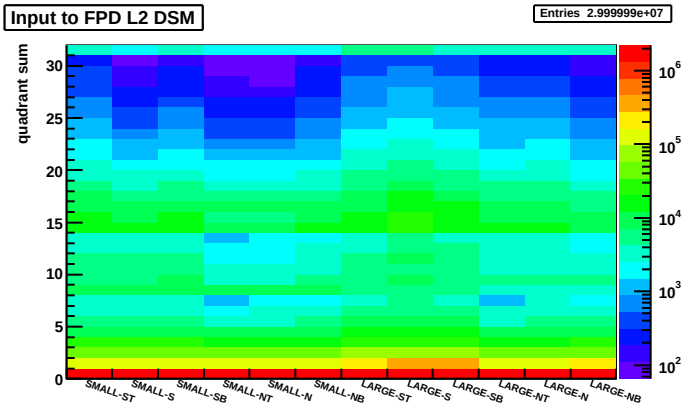

Input to FMS L1 DSM
Entries 50917
sumCD - simulated
DSM board

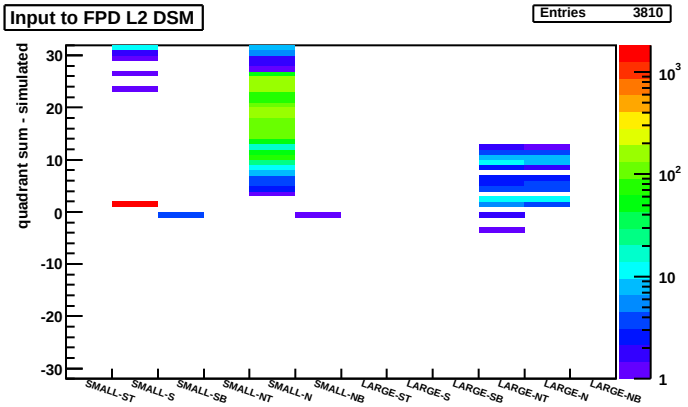

Input to FMS L1 DSM
Entries 2.999999e+07
sumA
DSM board

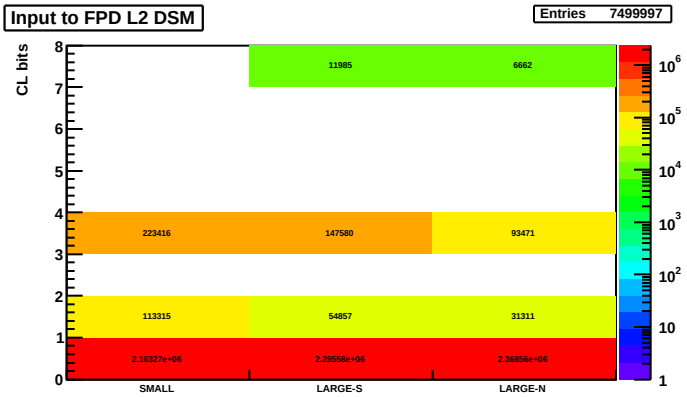

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

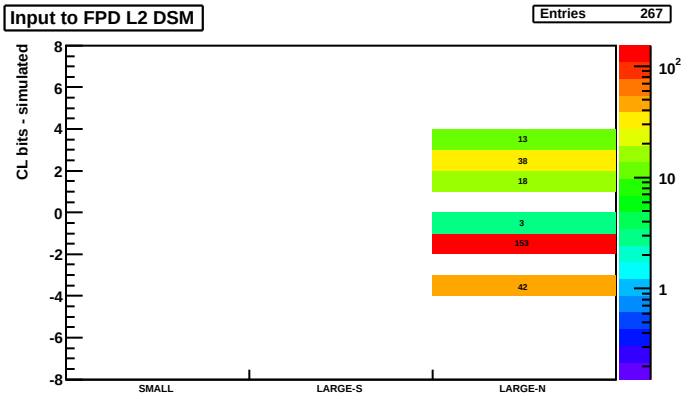

Input to FMS L1 DSM
Entries 2.999999e+07
FMS L1 HT bits
DSM board

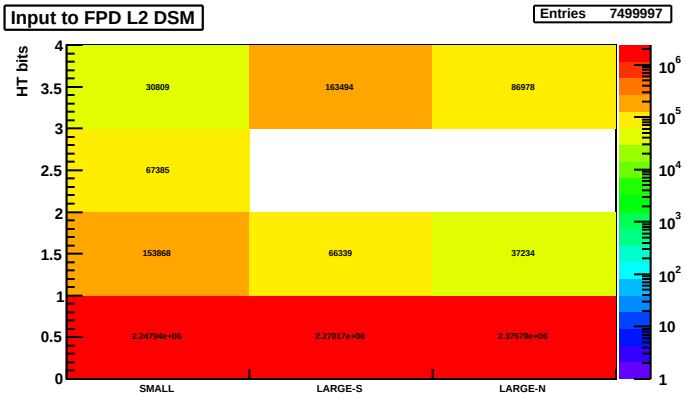

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

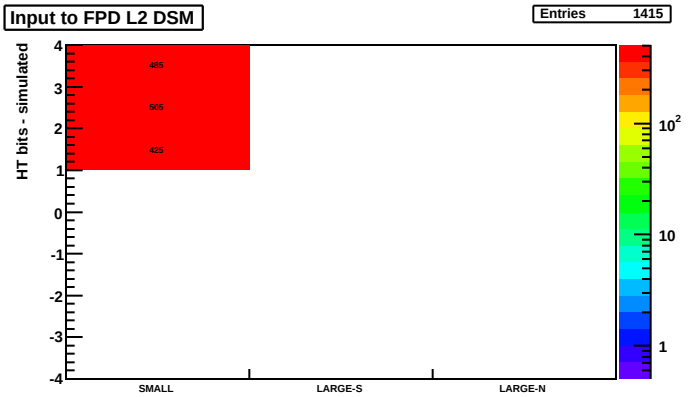

Input to FPD L2 DSM
Entries 2.999999e+07
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

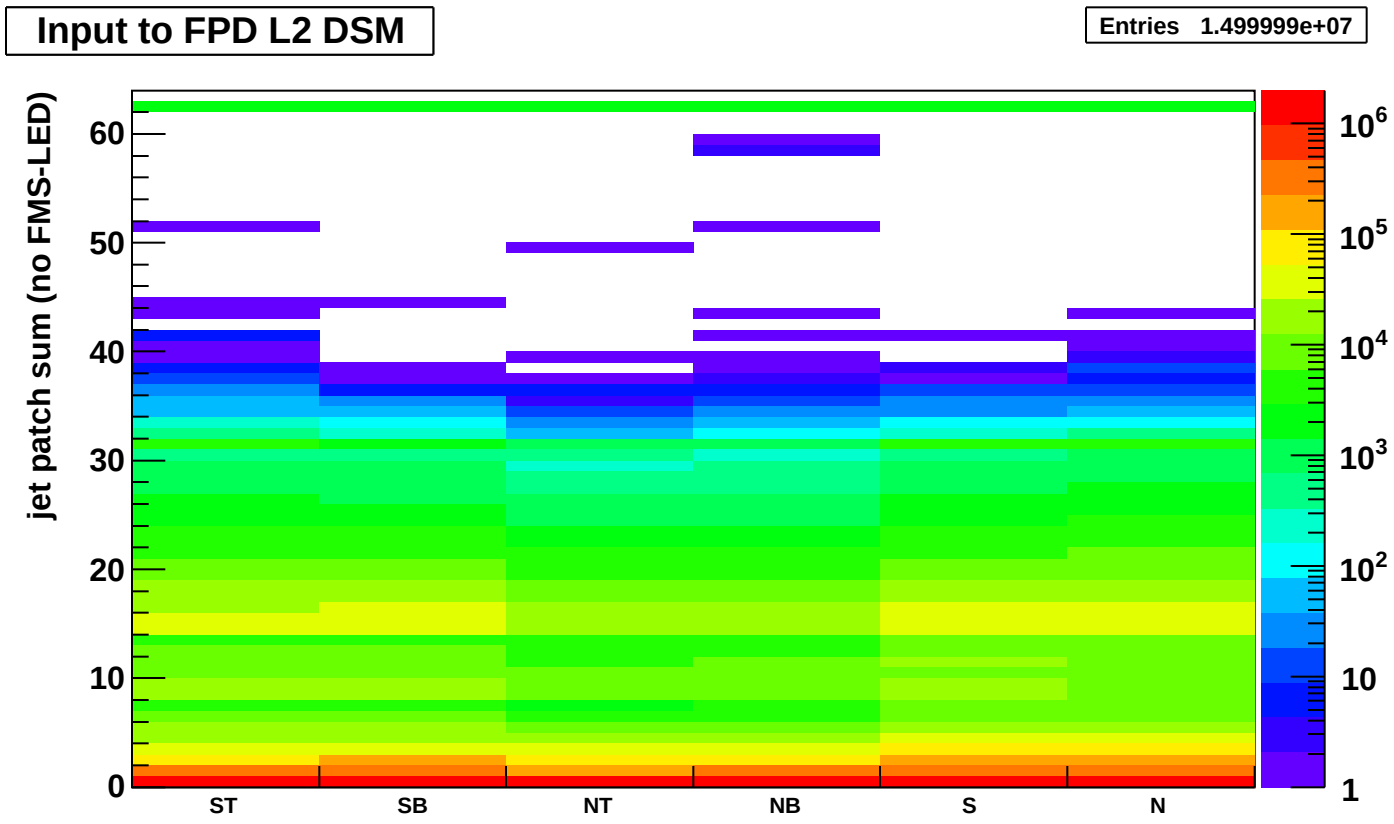

Input to FPD L2 DSM
Entries 3810
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

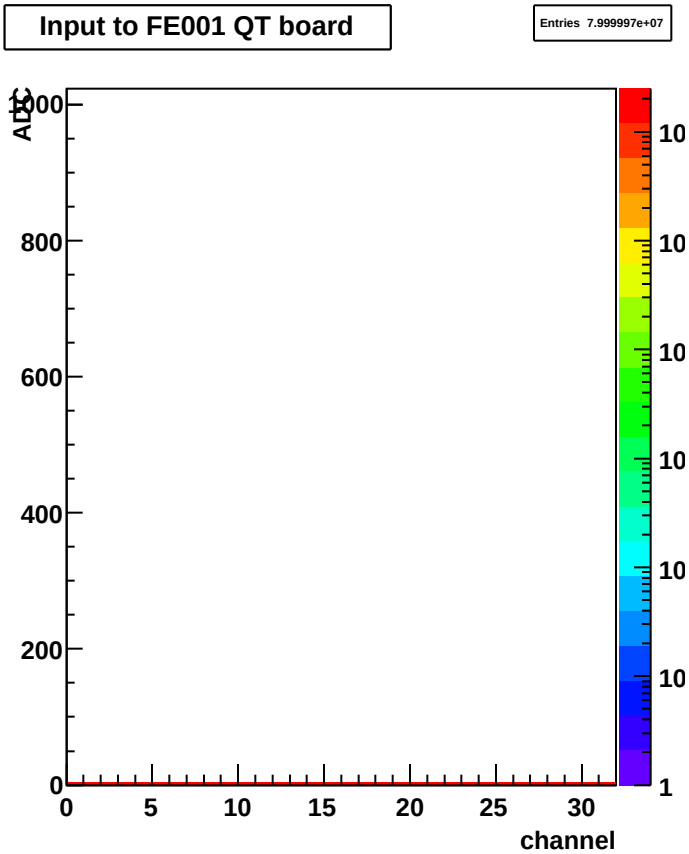

Input to FPD L2 DSM
Entries 7499997
CL bits
11985
6662
223416
147580
93471
113315
54857
31311
2.16327e+06
2.28558e+06
2.36856e+06
SMALL
LARGE-S
LARGE-N

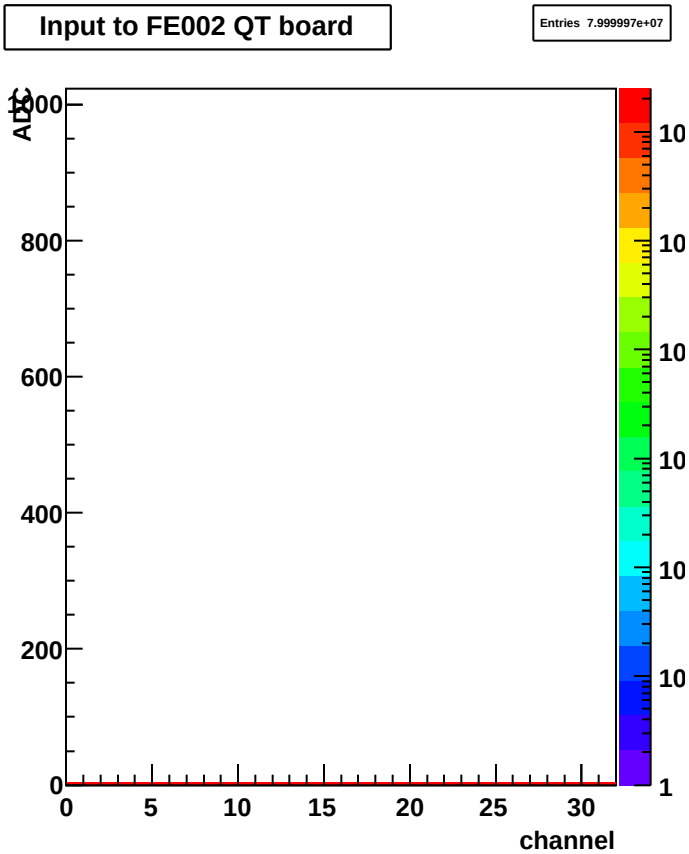

Input to FPD L2 DSM
Entries 267
CL bits - simulated
13
38
18
3
153
42
SMALL
LARGE-S
LARGE-N

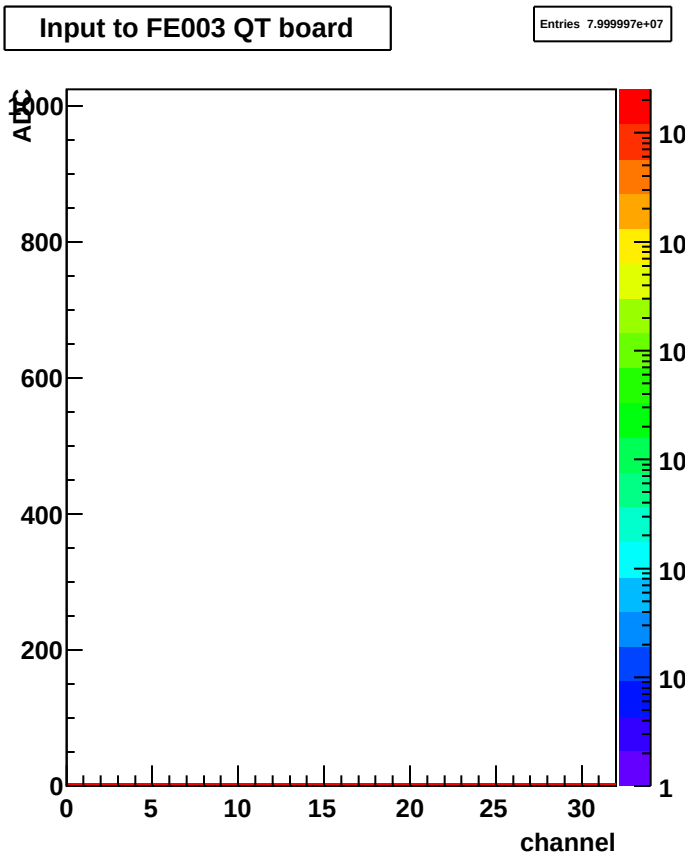

Input to FPD L2 DSM
Entries 7499997
HT bits
30809
163494
86978
67385
153868
66339
37234
2.24794e+06
2.27017e+06
2.37579e+06
SMALL
LARGE-S
LARGE-N

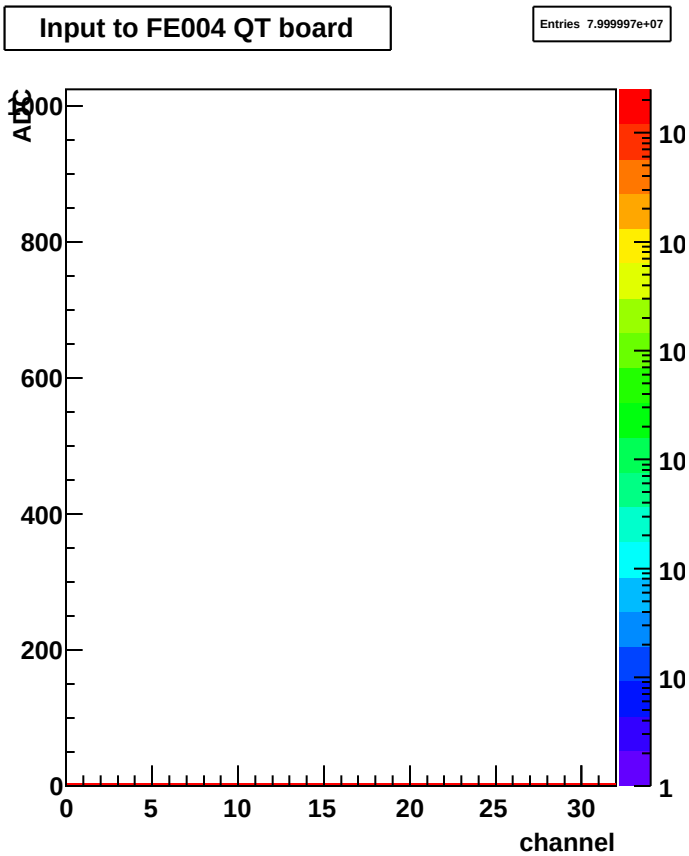

Input to FPD L2 DSM
Entries 1415
HT bits - simulated
485
505
425
SMALL
LARGE-S
LARGE-N

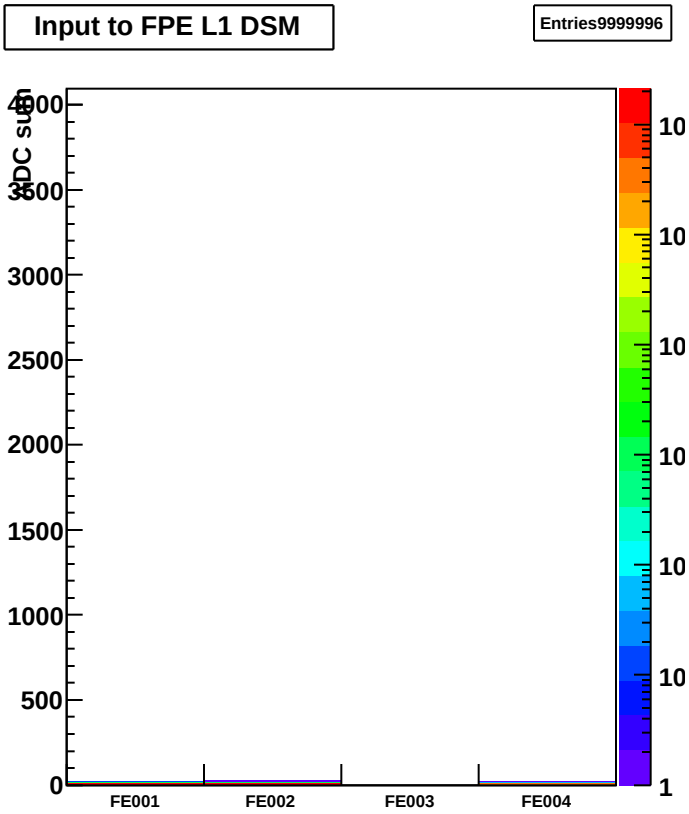

Input to FPD L2 DSM
Entries 1.499999e+07
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5
10^6

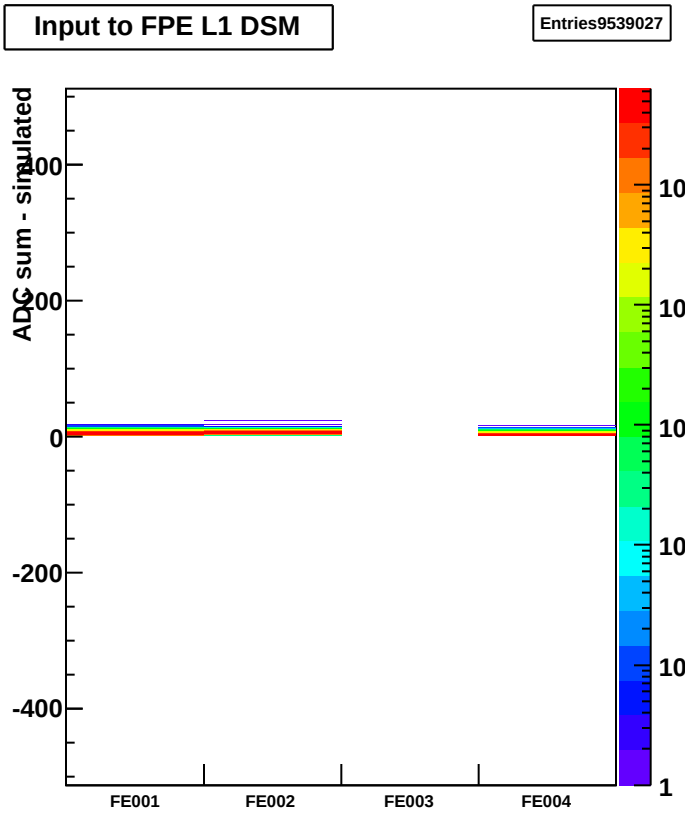

Input to FE001 QT board
Entries 7.999997e+07
ADC
channel


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

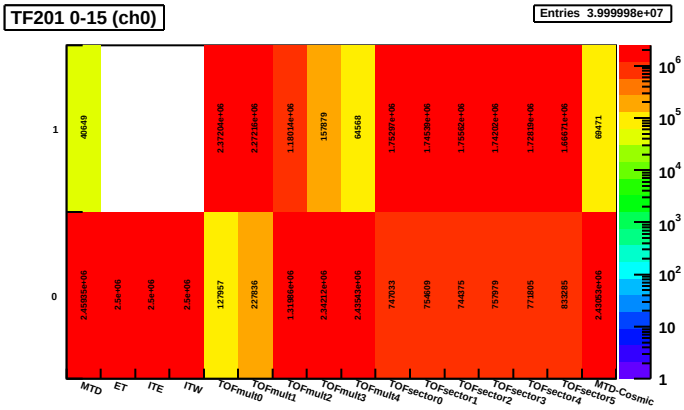

Input to FE003 QT board
Entries 7.999997e+07
ADC
channel


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
Entries9539027
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1

TF201 0-15 (ch0)



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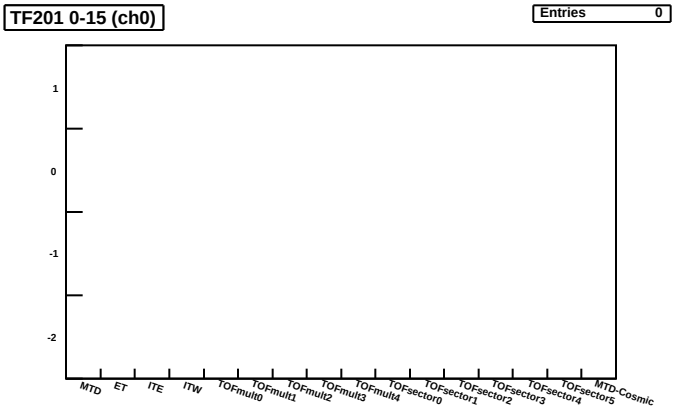

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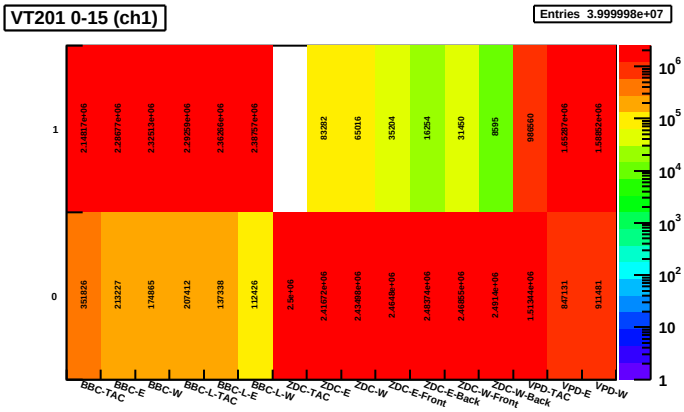

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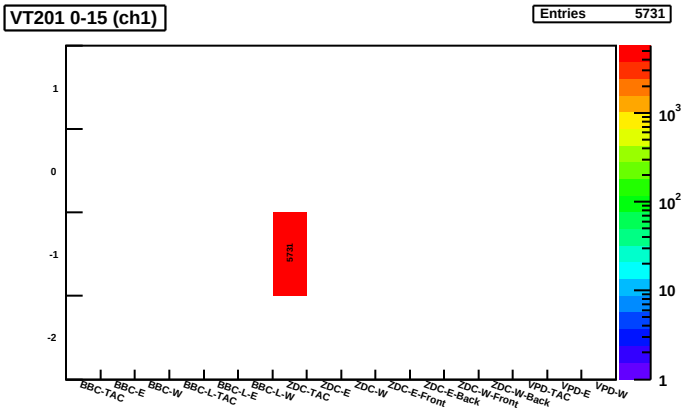

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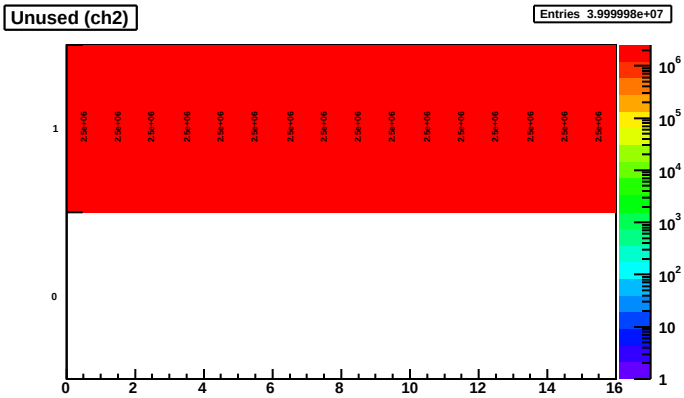

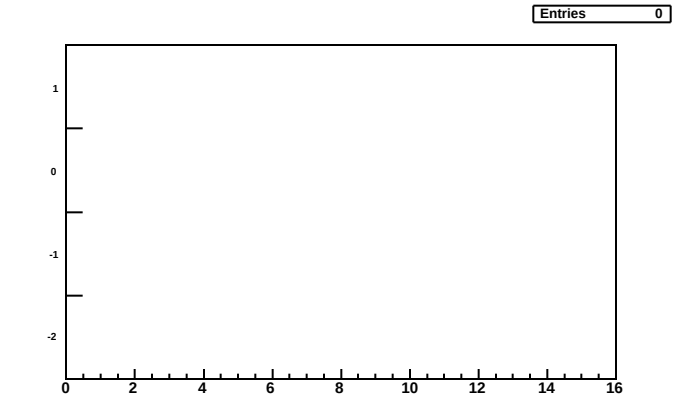

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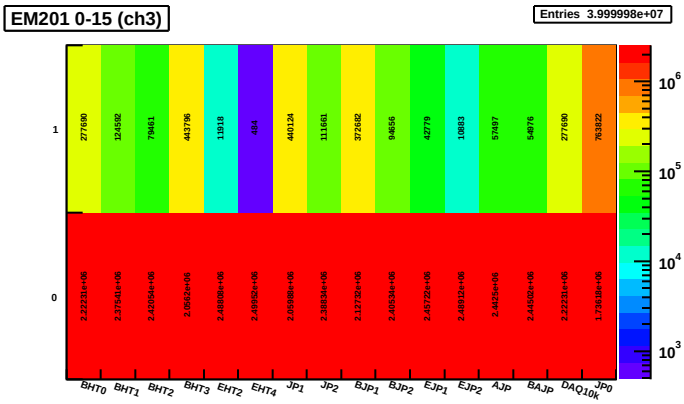

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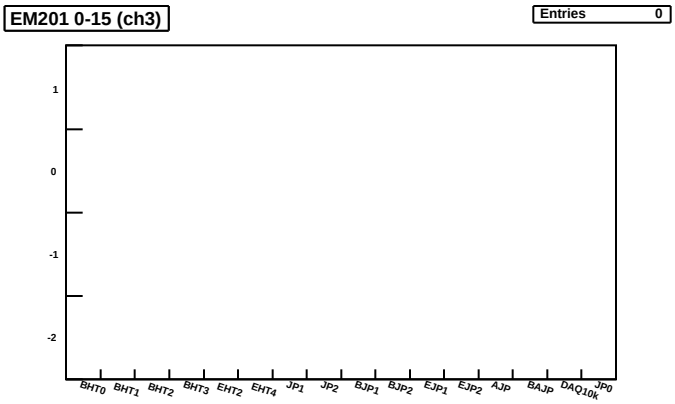
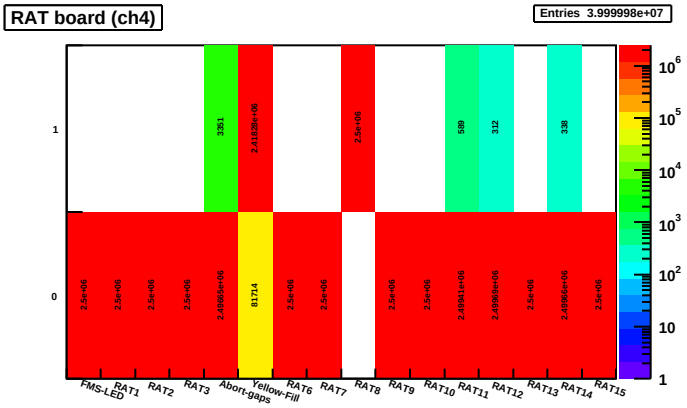
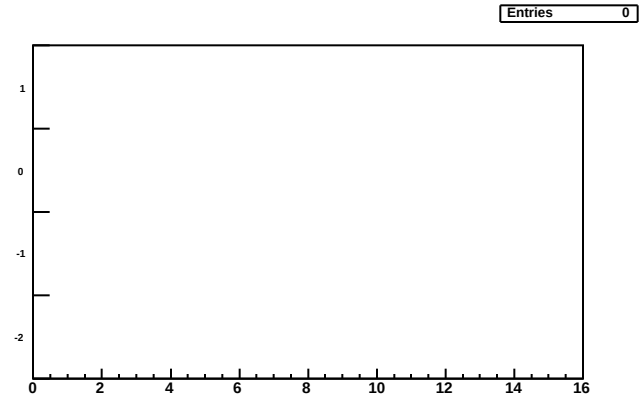


RAT board (ch4)





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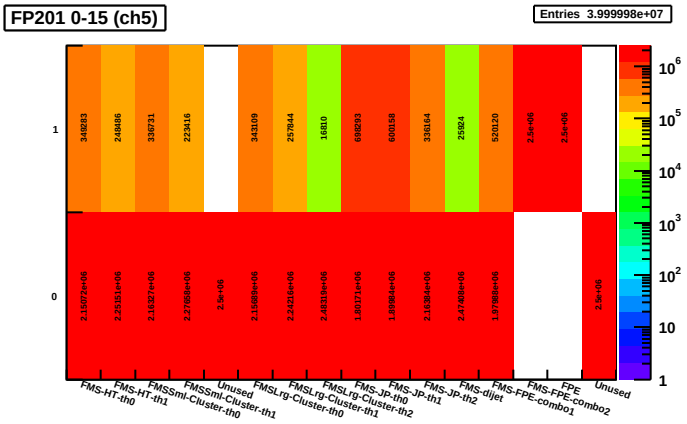
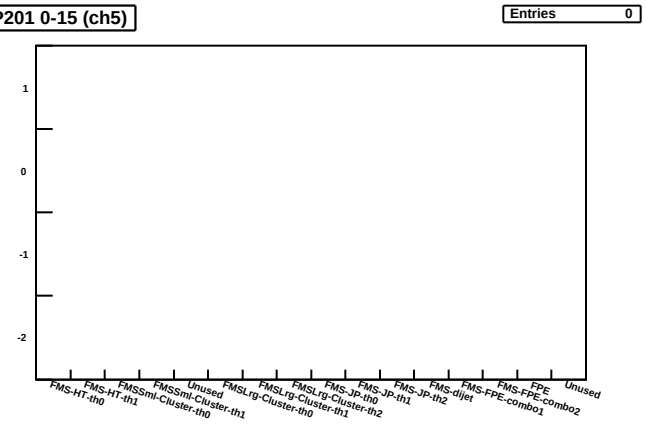


FP201 0-15 (ch5)



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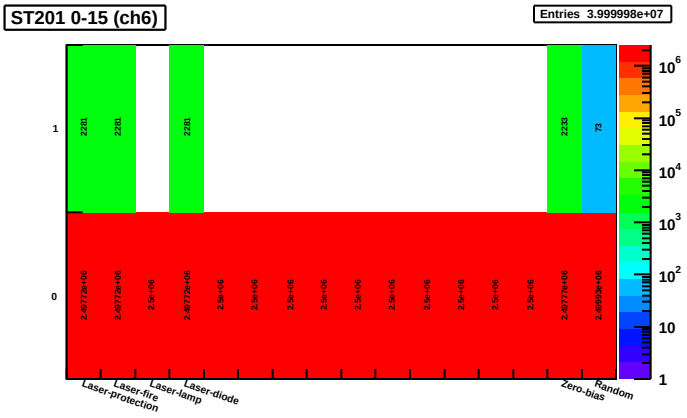

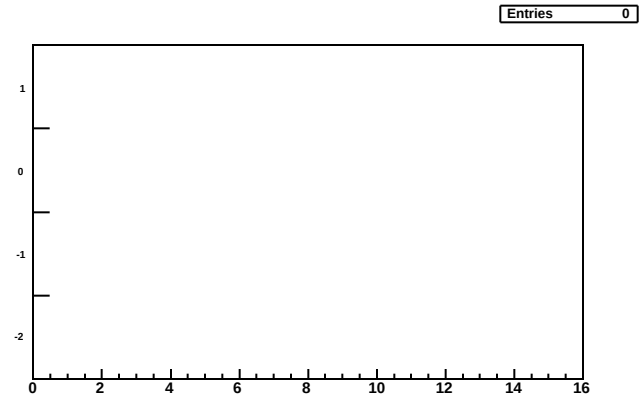
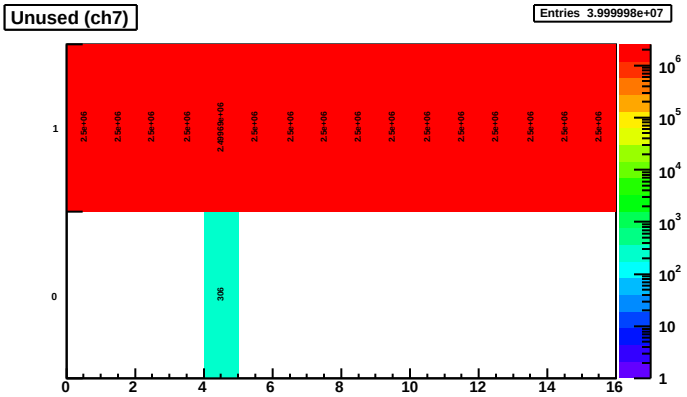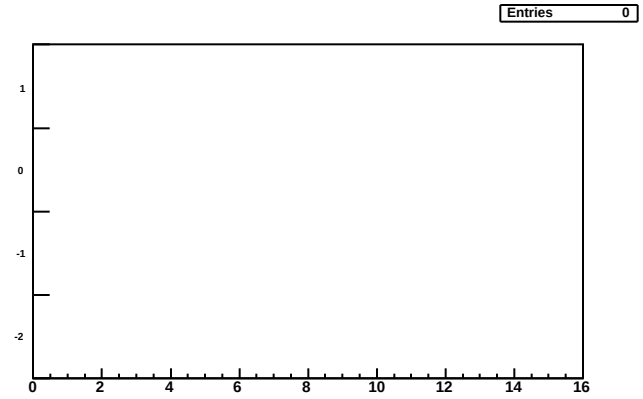
Unused (ch7)