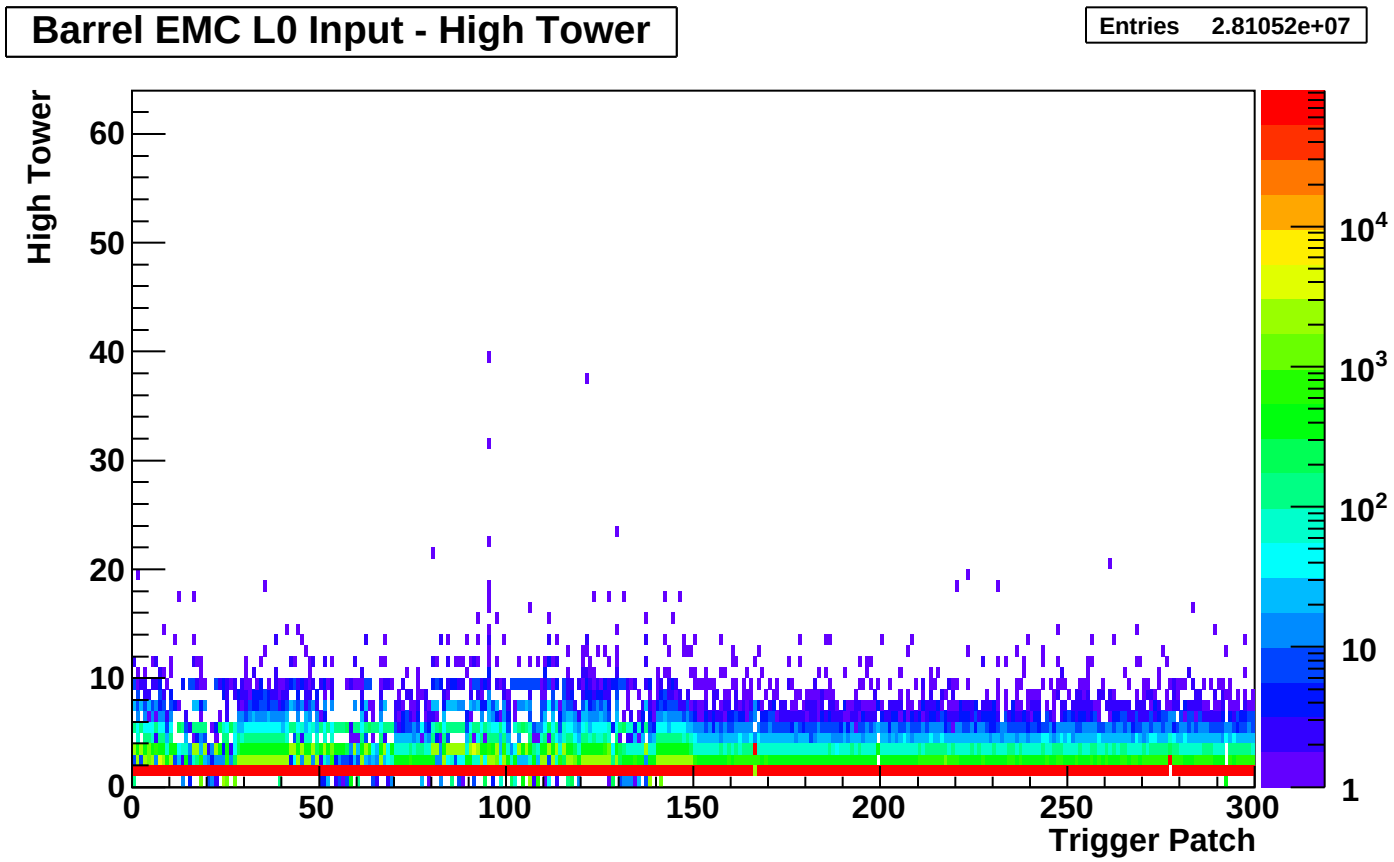
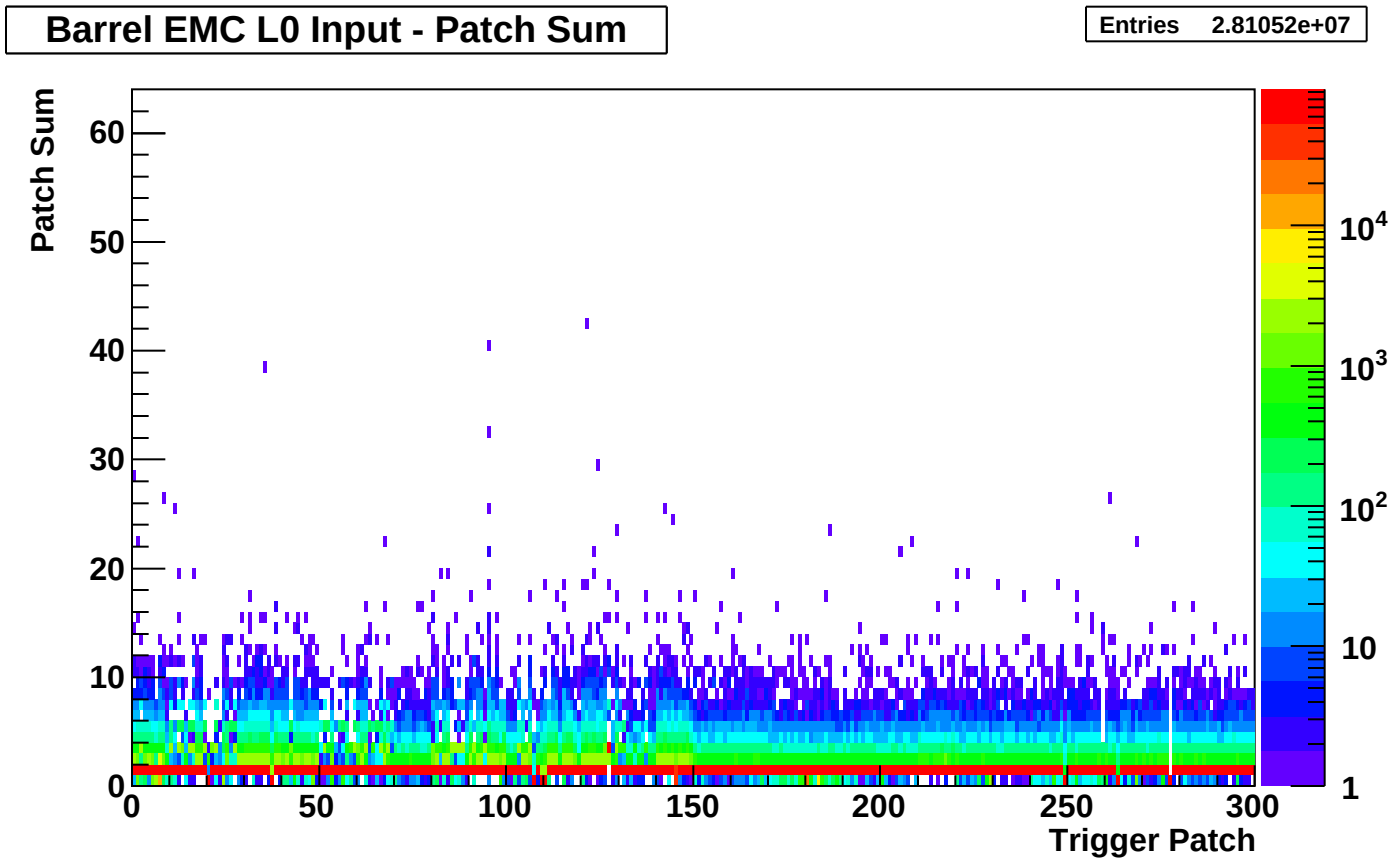
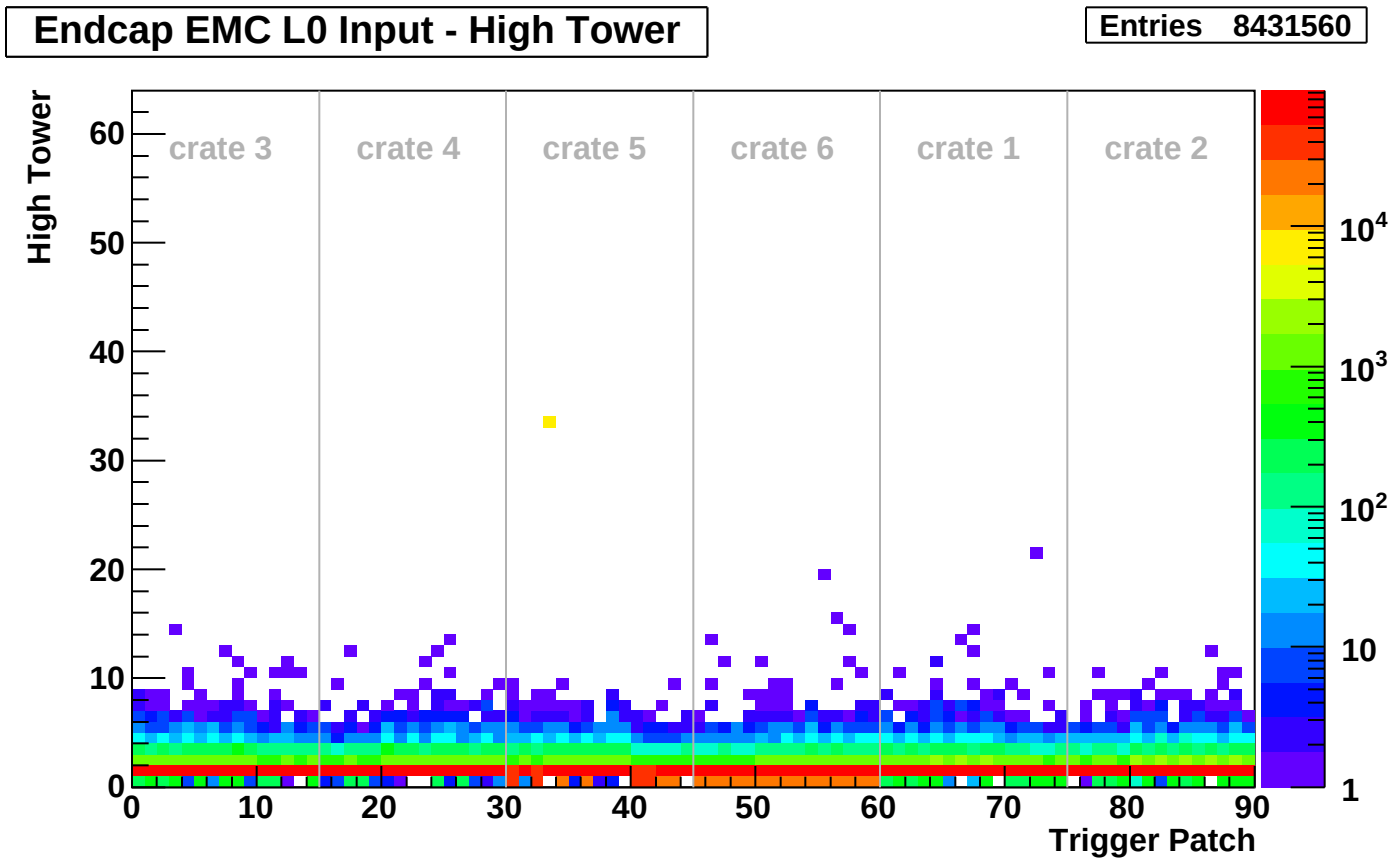
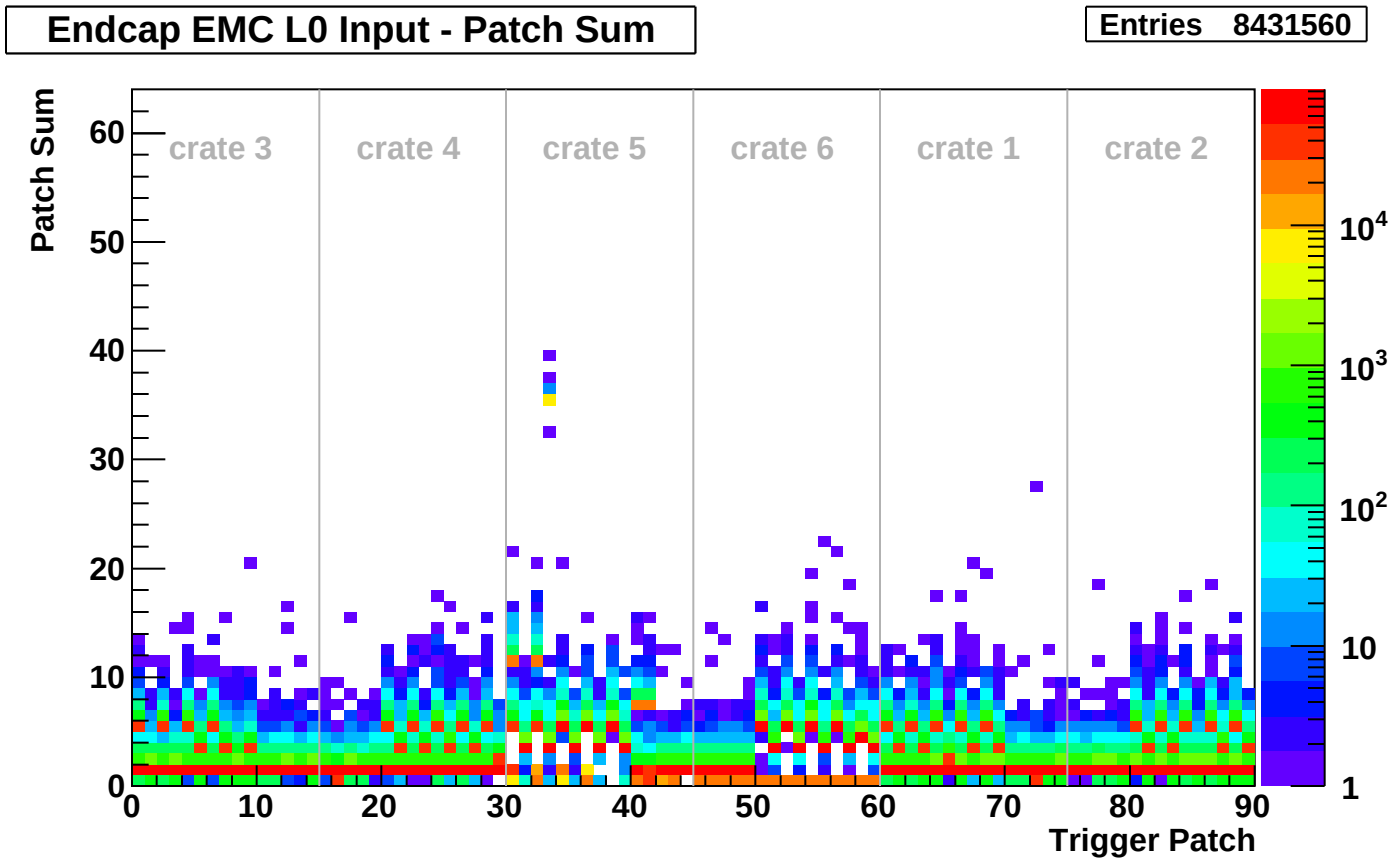
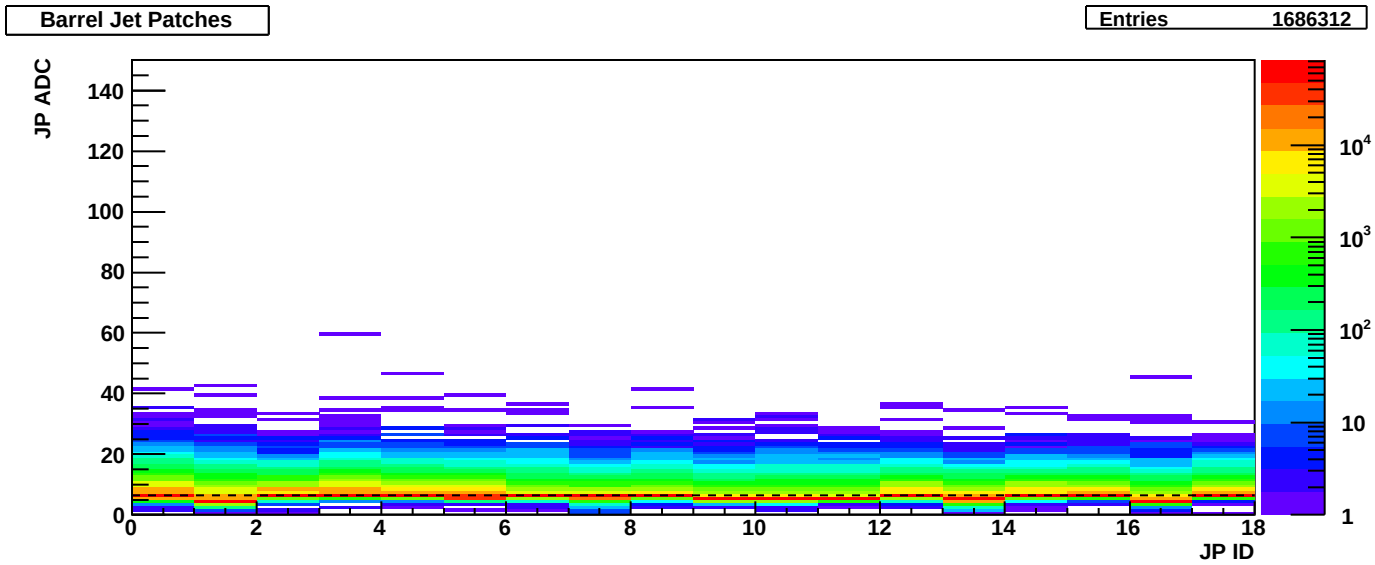
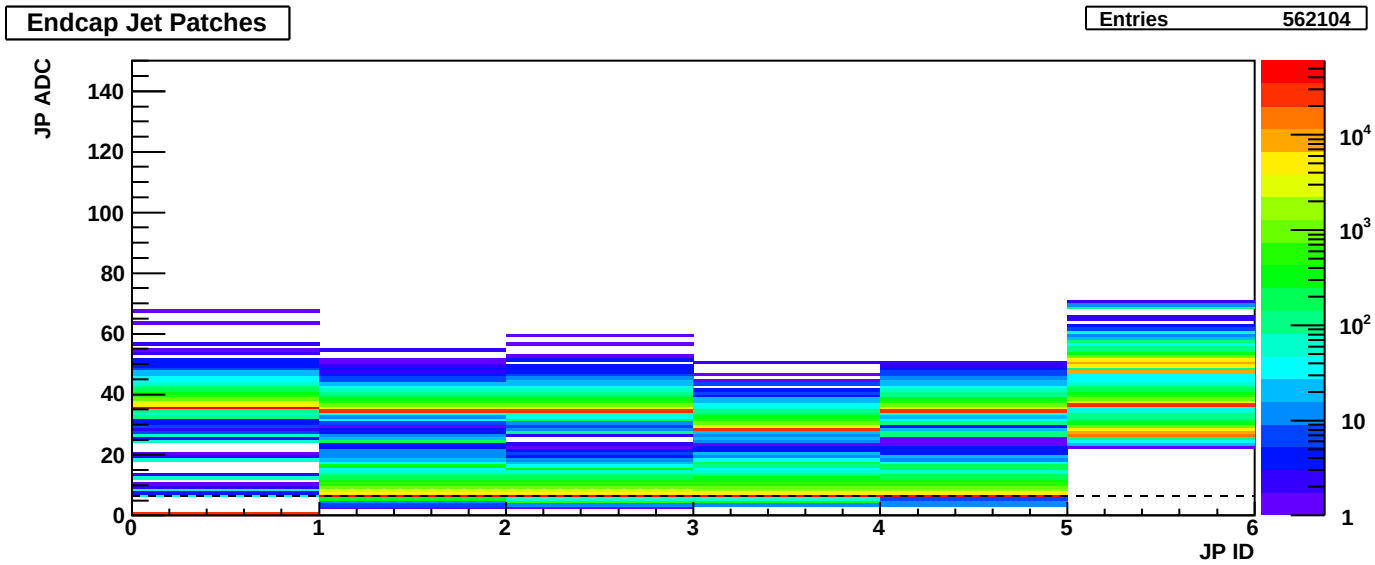

Barrel EMC L0 Input - High Tower
Entries 2.81052e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

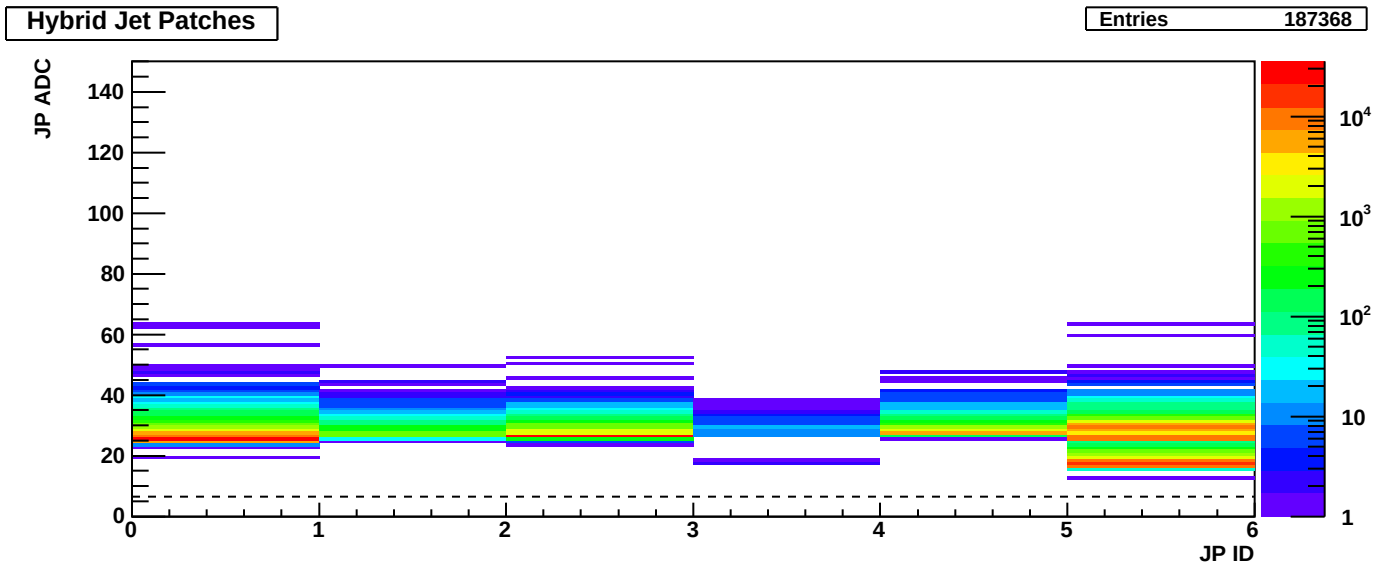

Barrel EMC L0 Input - Patch Sum
Entries 2.81052e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

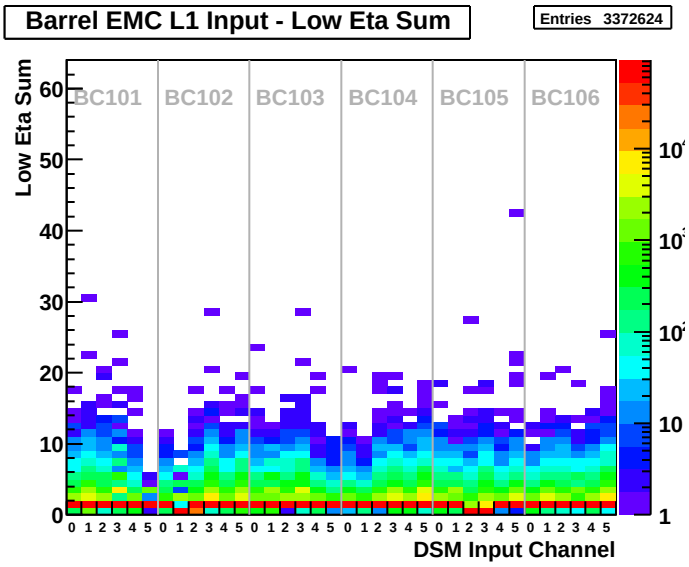

Endcap EMC L0 Input - High Tower
Entries 8431560
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

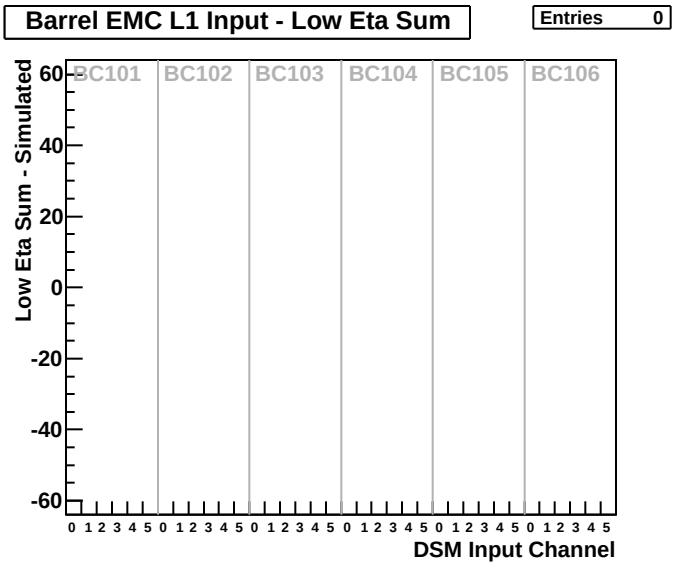

Endcap EMC L0 Input - Patch Sum
Entries 8431560
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

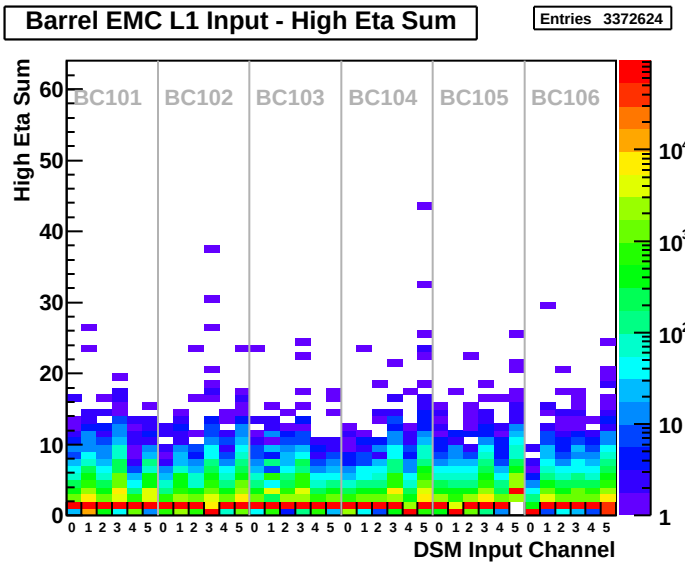

Barrel Jet Patches
Entries 1686312
JP ADC
JP ID

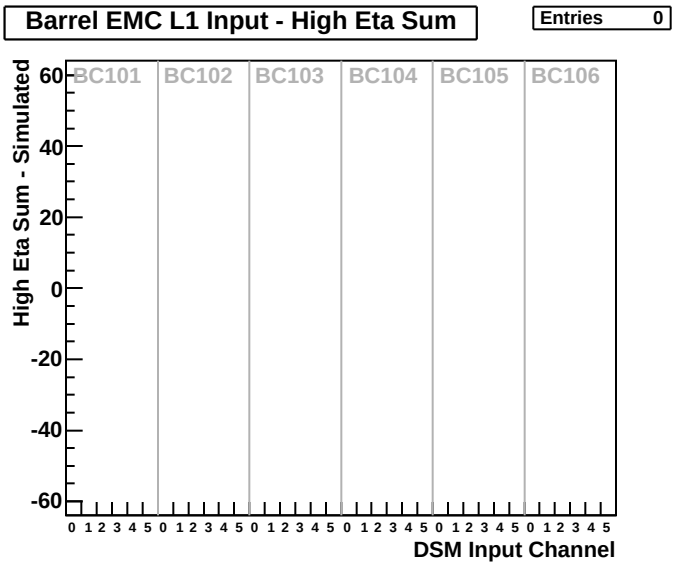

Endcap Jet Patches
Entries 562104
JP ADC
JP ID

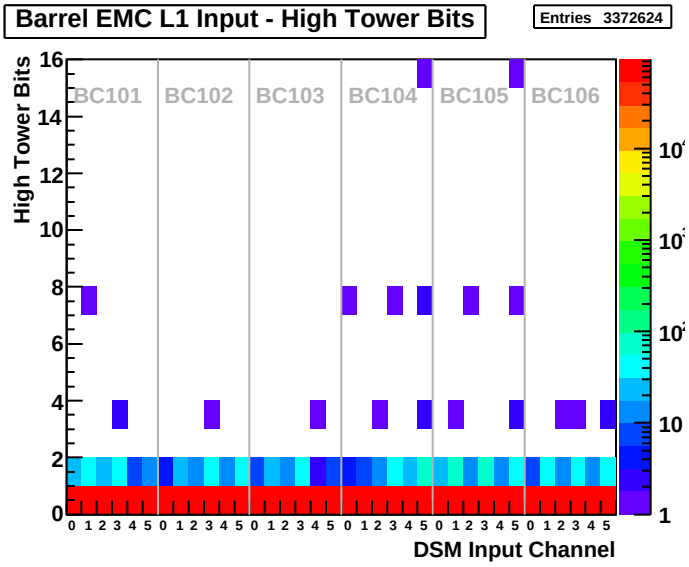

Hybrid Jet Patches
Entries 187368
JP ADC
JP ID

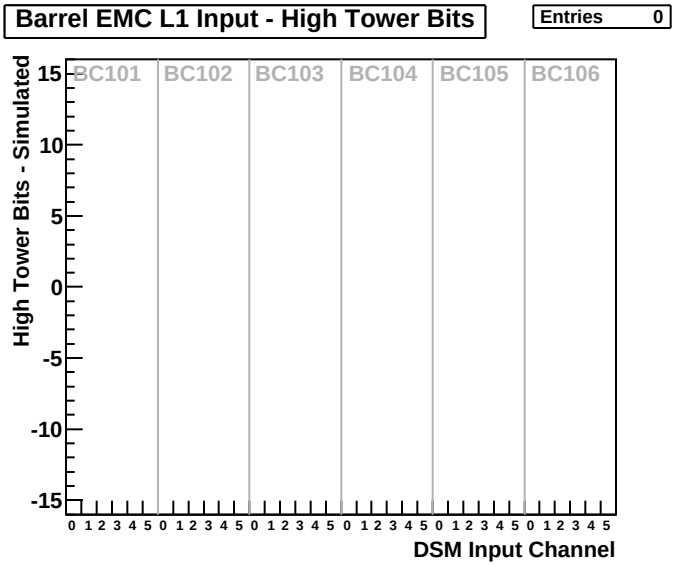

Barrel EMC L1 Input - Low Eta Sum
Entries 3372624
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

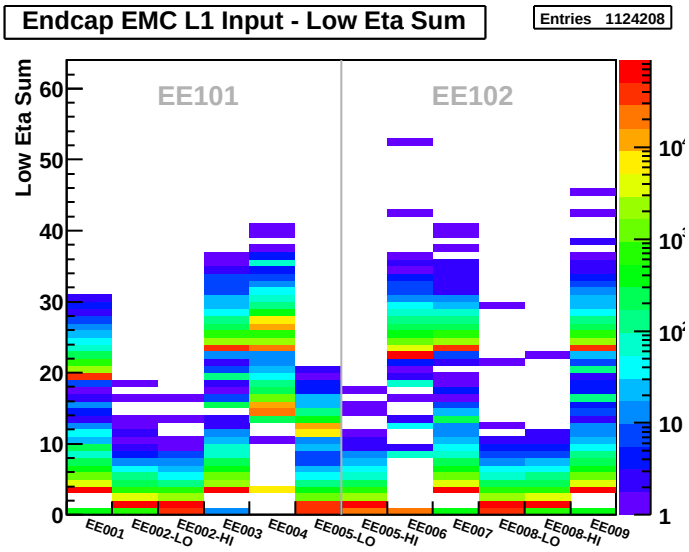

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

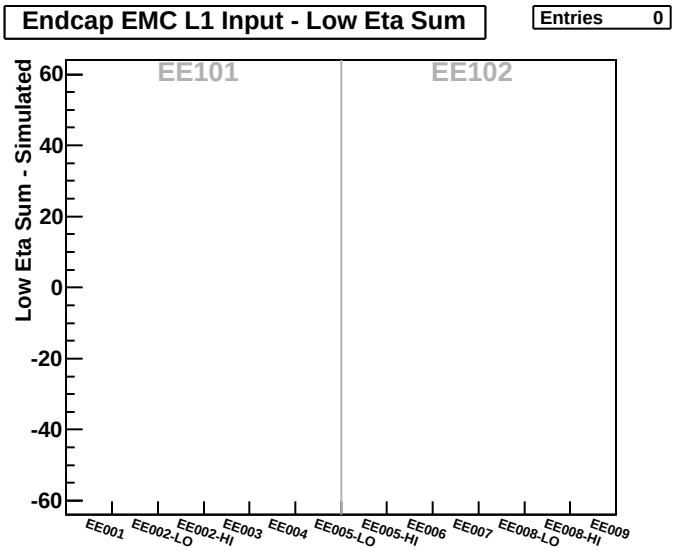

Barrel EMC L1 Input - High Eta Sum
Entries 3372624
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

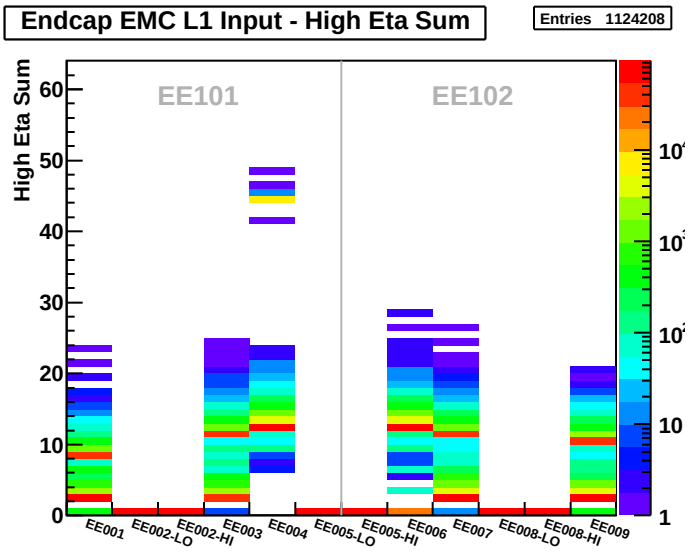

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

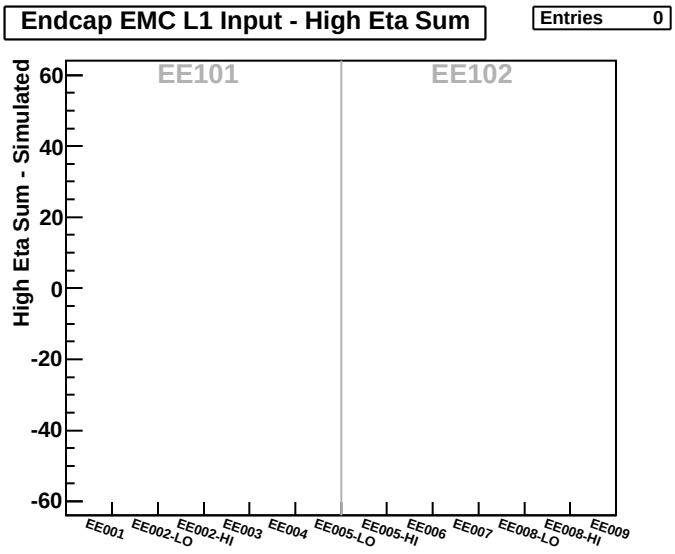

Barrel EMC L1 Input - High Tower Bits
Entries 3372624
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

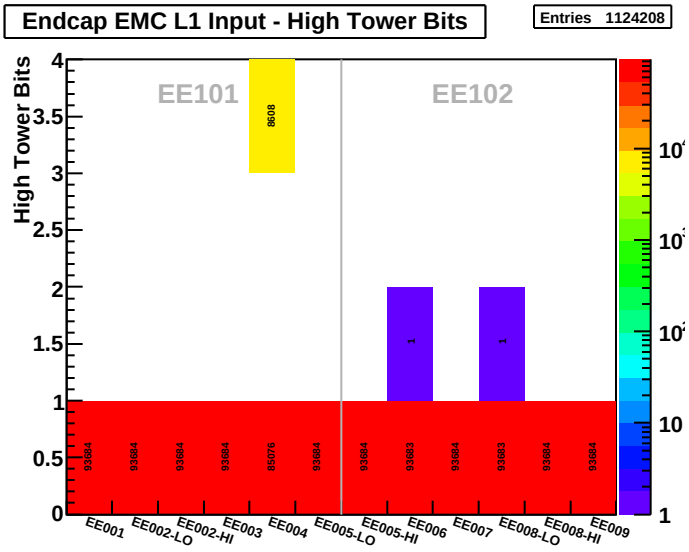

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

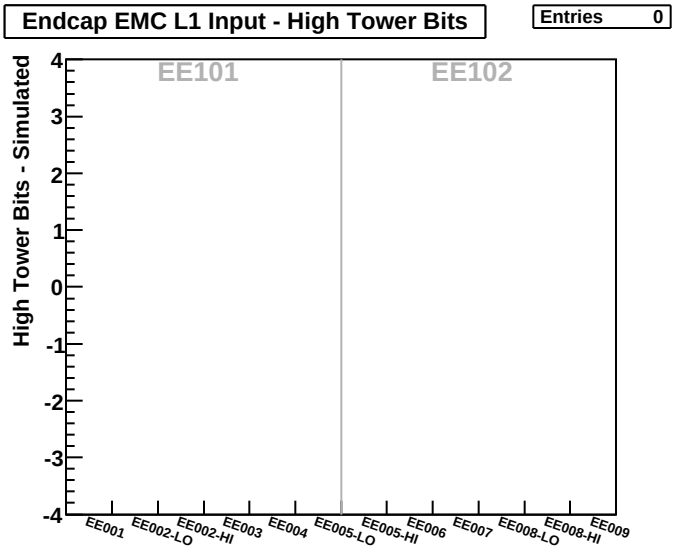

Endcap EMC L1 Input - Low Eta Sum
Entries 1124208
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

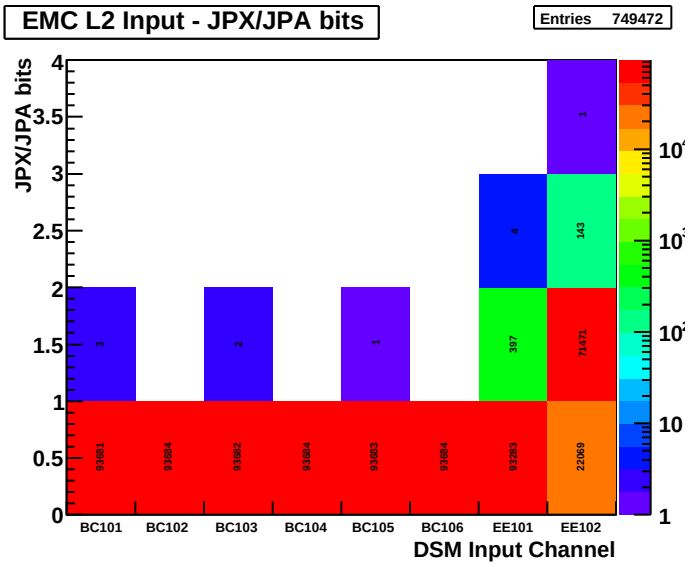

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

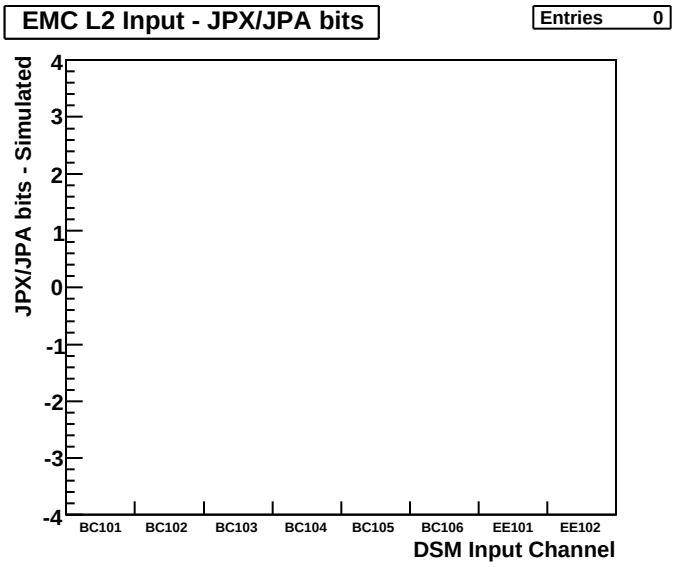

Endcap EMC L1 Input - High Eta Sum
Entries 1124208
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

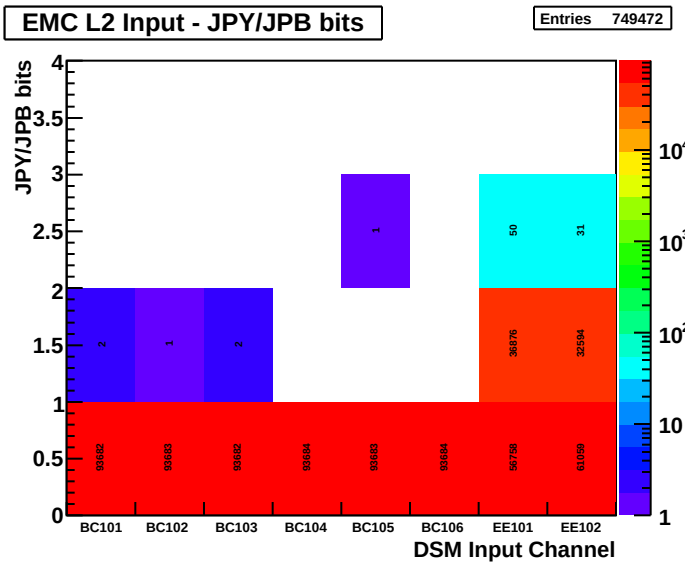

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

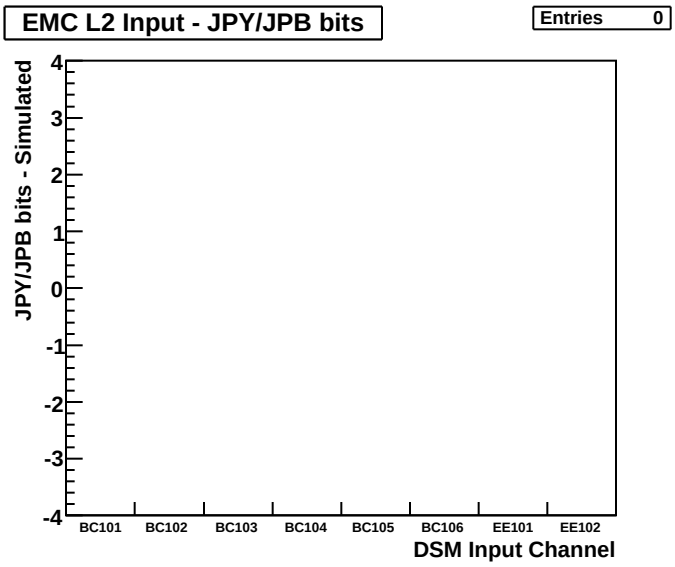

Endcap EMC L1 Input - High Tower Bits
Entries 1124208
High Tower Bits
EE101
EE102
8608
93684 93684 93684 93684 85076 93684 93684 93683 93684 93683 93684 93684
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

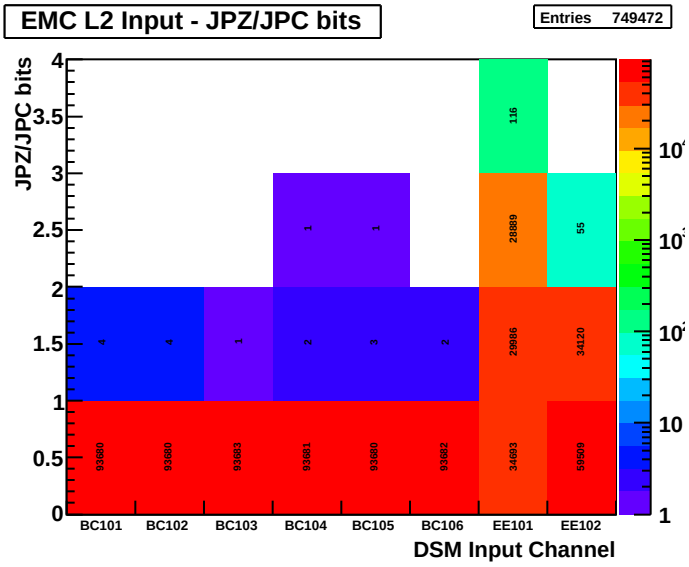

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

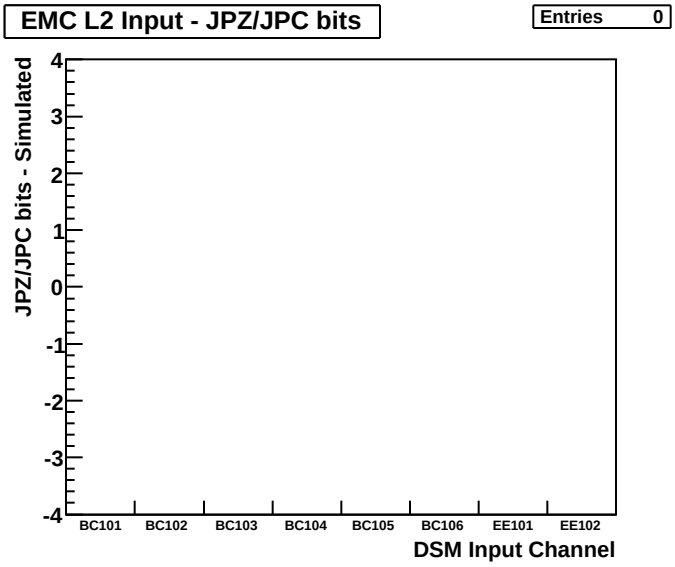

EMC L2 Input - JPX/JPA bits
Entries 749472
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

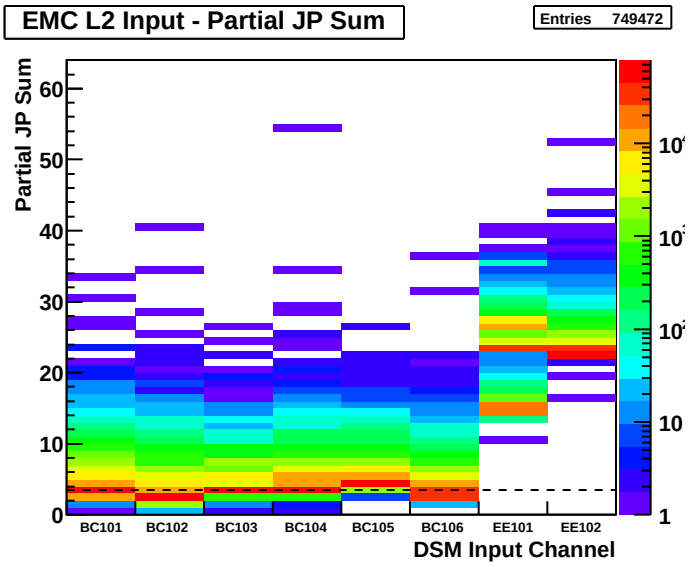

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

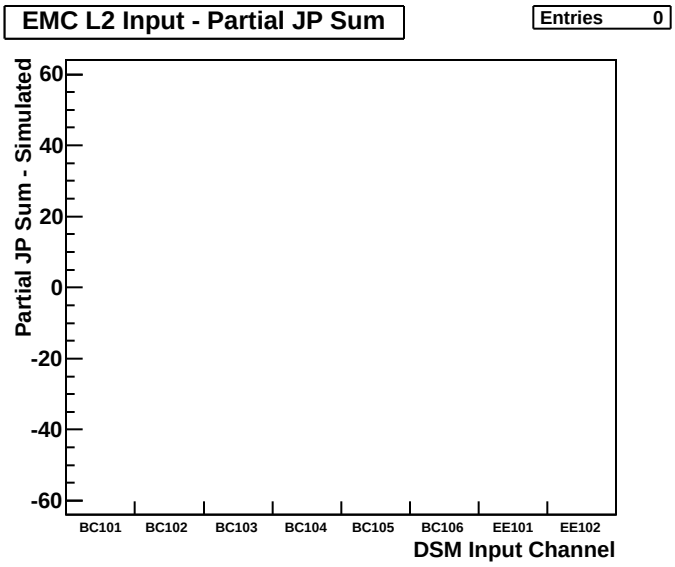

EMC L2 Input - JPY/JPB bits
Entries 749472
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

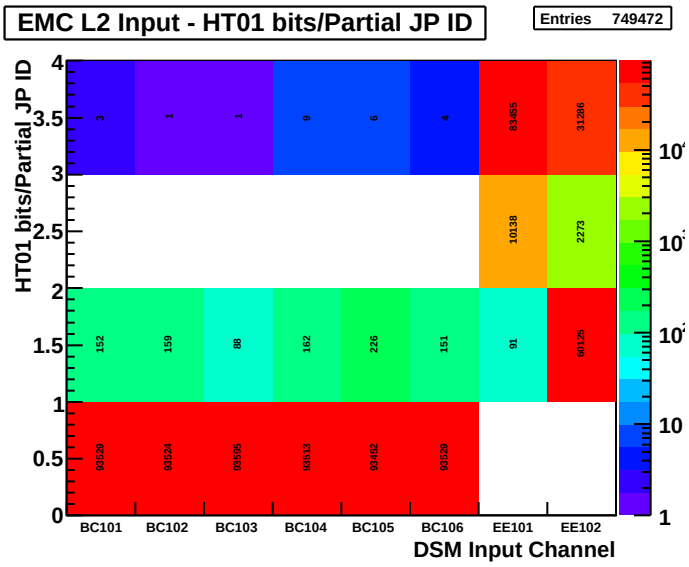

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

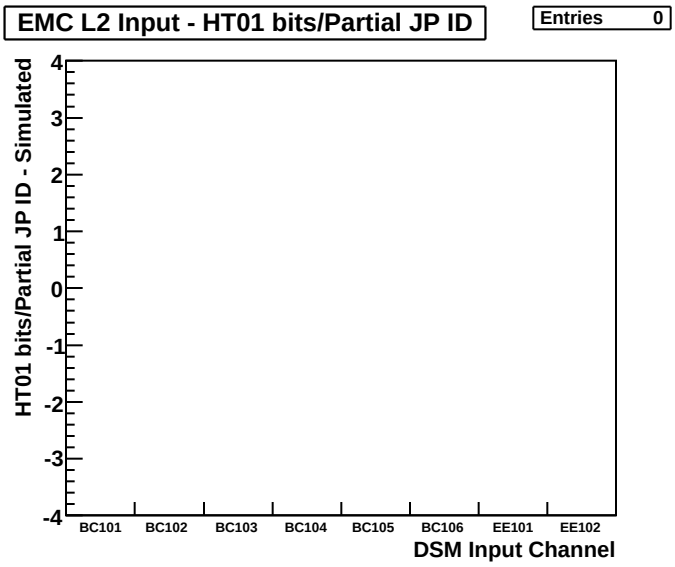

EMC L2 Input - JPZ/JPC bits
Entries 749472
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

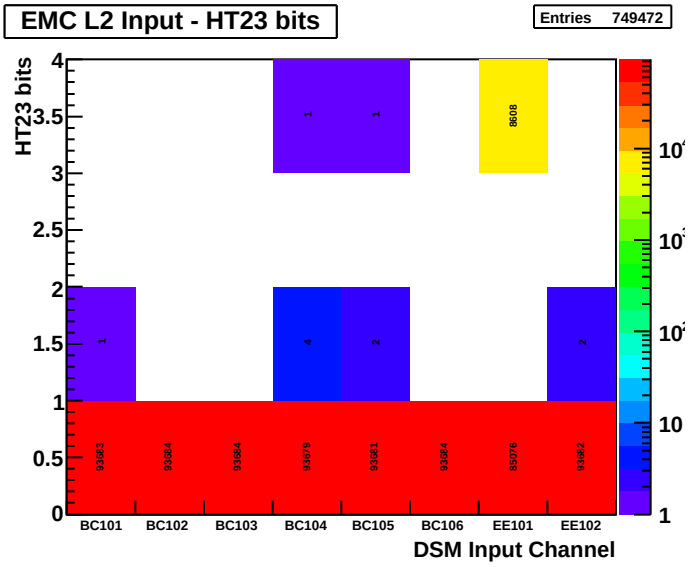

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

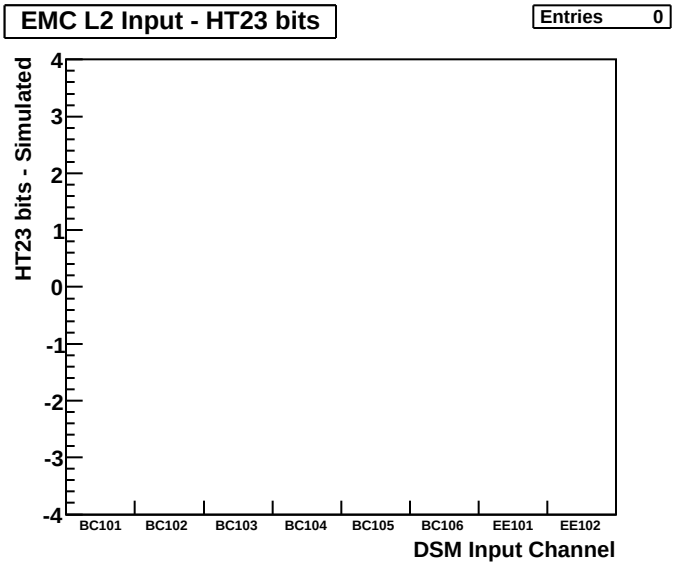

EMC L2 Input - Partial JP Sum
Entries 749472
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

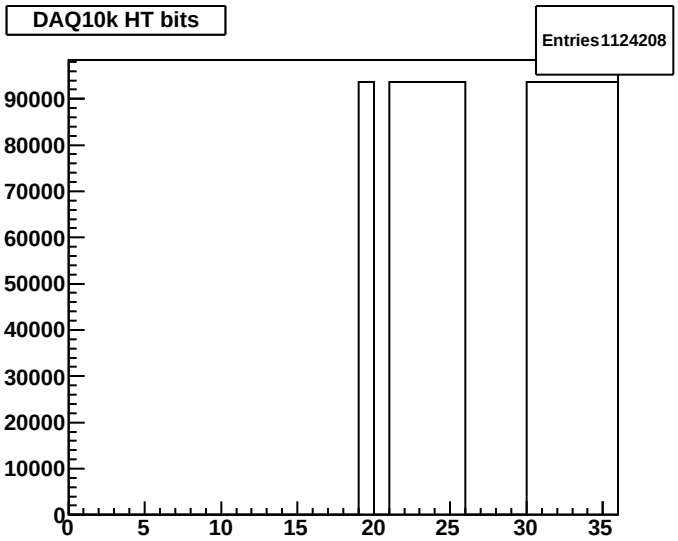

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

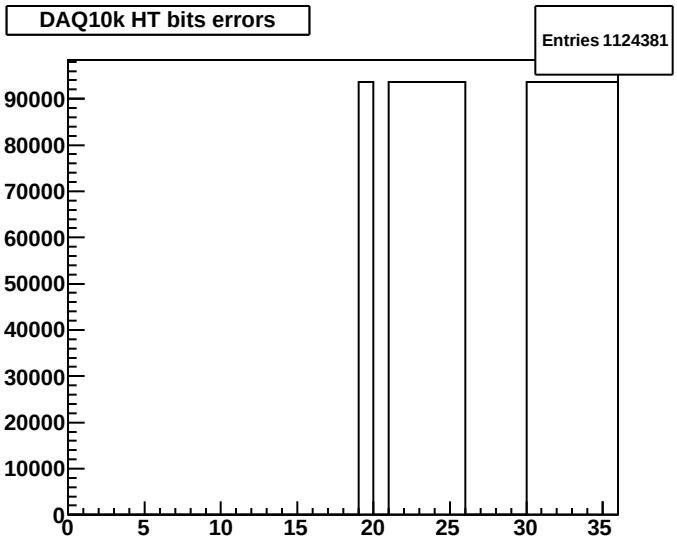

EMC L2 Input - HT01 bits/Partial JP ID
Entries 749472
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

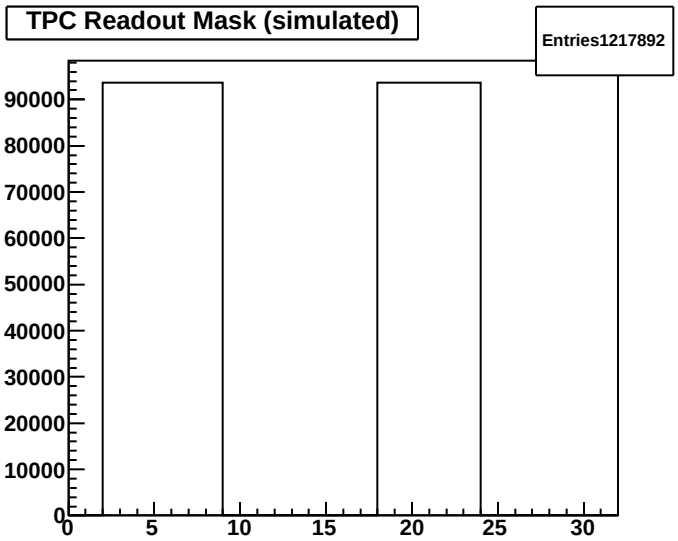

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

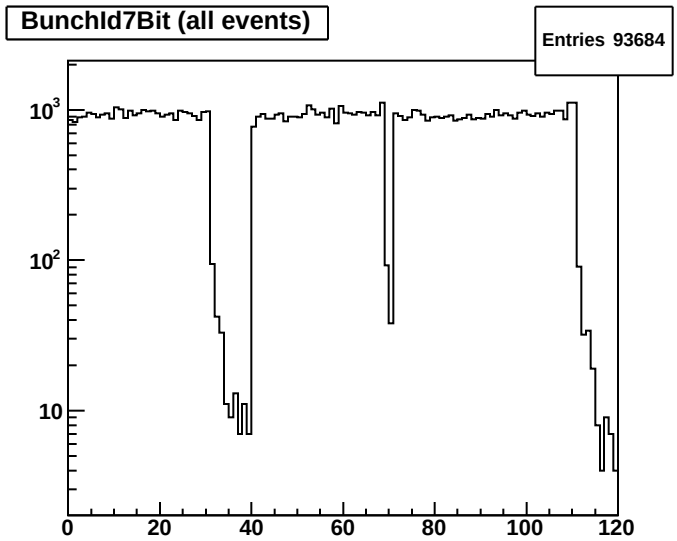

EMC L2 Input - HT23 bits
Entries 749472
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

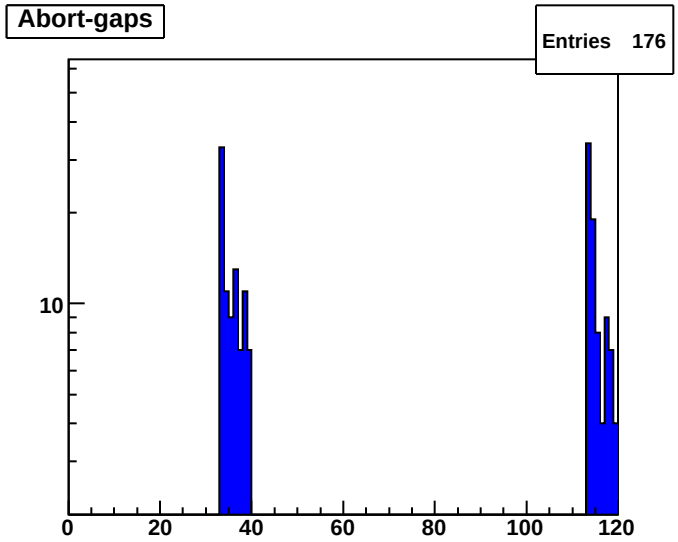

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

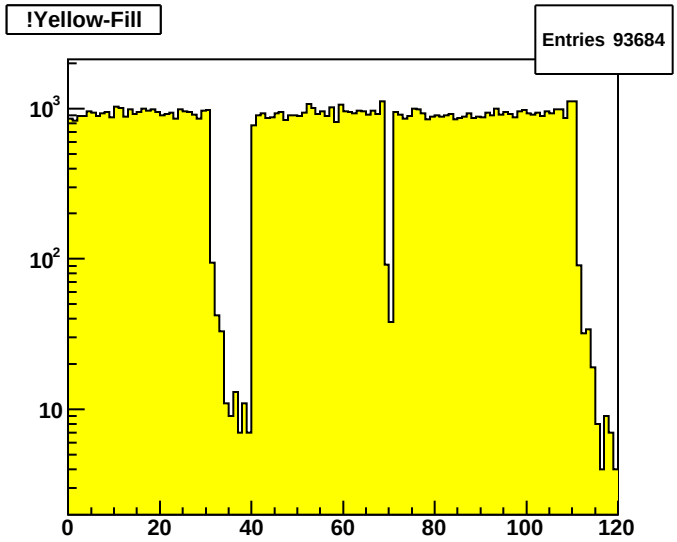

DAQ10k HT bits
Entries 1124208
90000
80000
70000
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

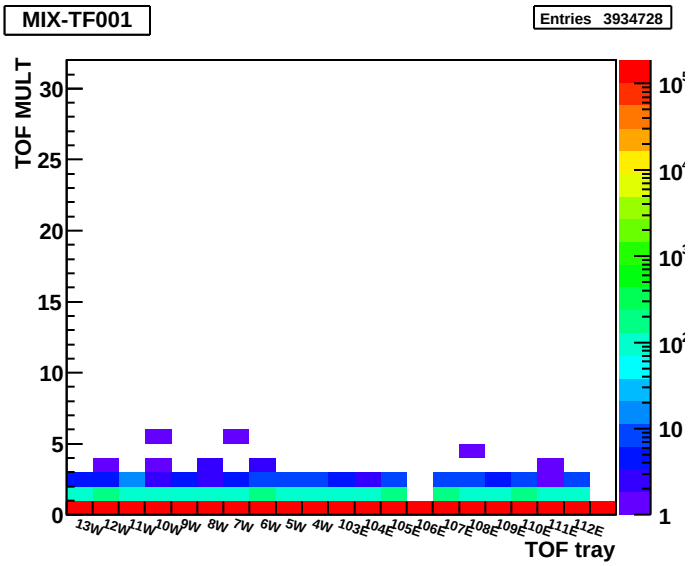

DAQ10k HT bits errors
Entries 1124381
90000
80000
70000
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

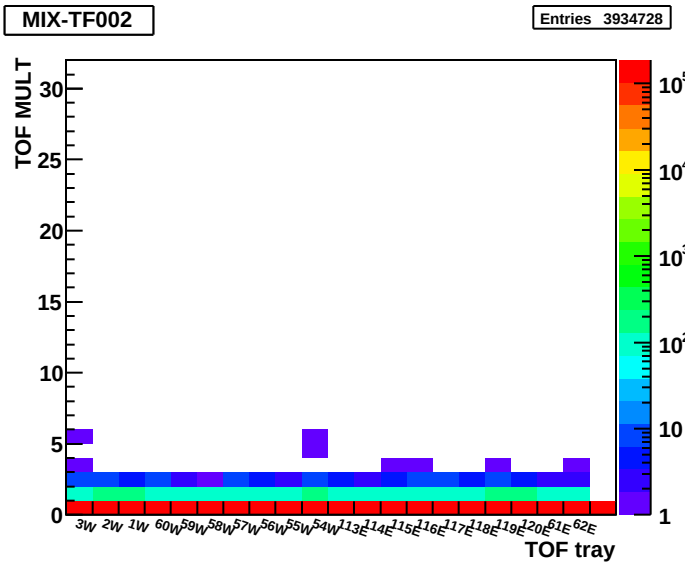

TPC Readout Mask (simulated)
Entries 1217892
90000
80000
70000
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30

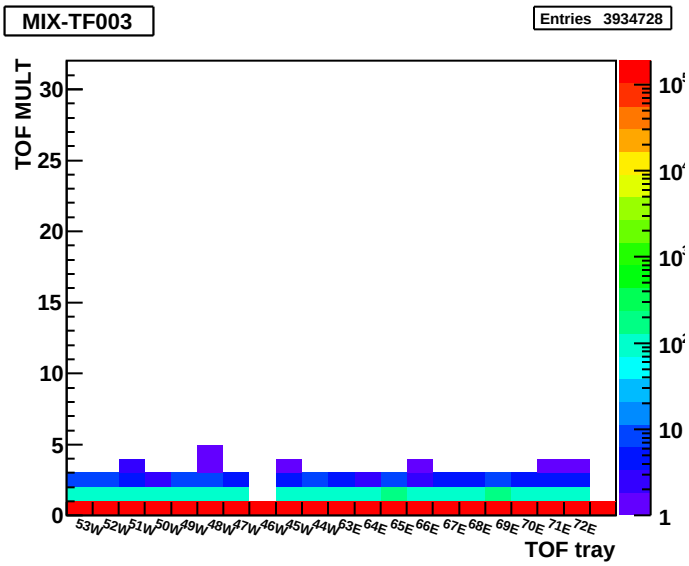

BunchId7Bit (all events)
Entries 93684
10^3
10^2
10
0 20 40 60 80 100 120

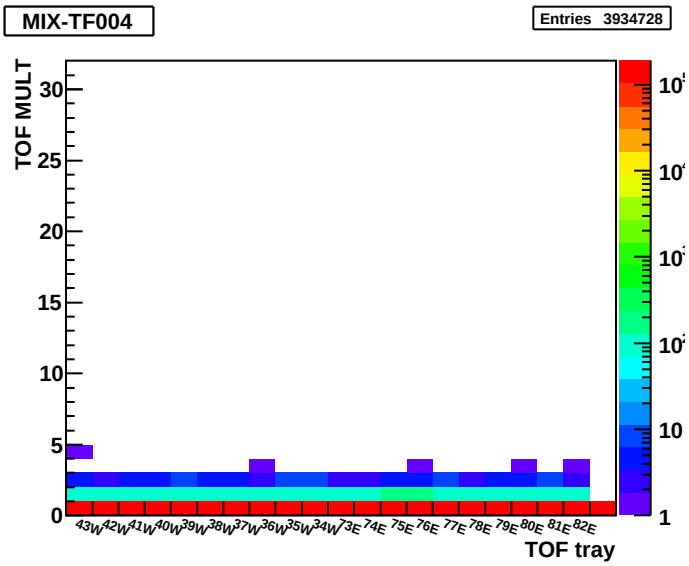

Abort-gaps
Entries 176
10
0 20 40 60 80 100 120

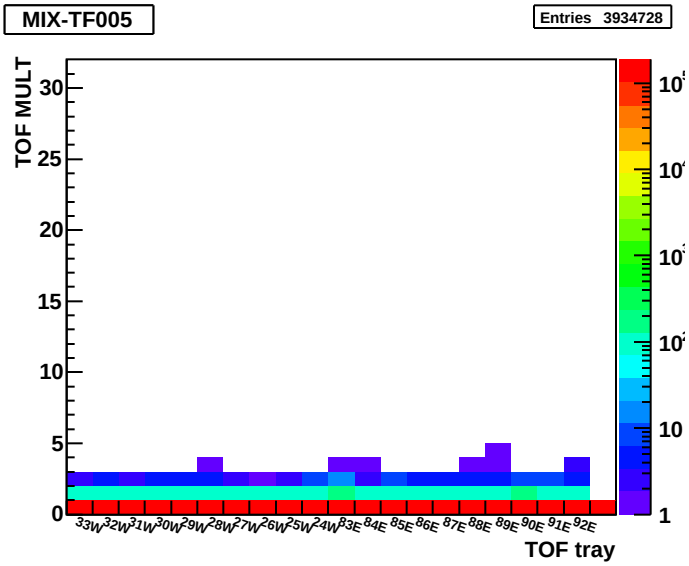

!Yellow-Fill
Entries 93684
10^3
10^2
10
0 20 40 60 80 100 120

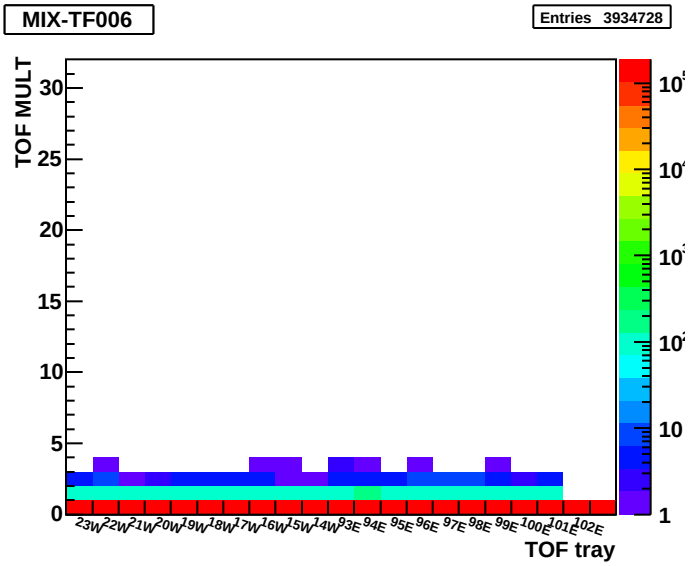

MIX-TF001
Entries 3934728
TOF MULT
TOF tray

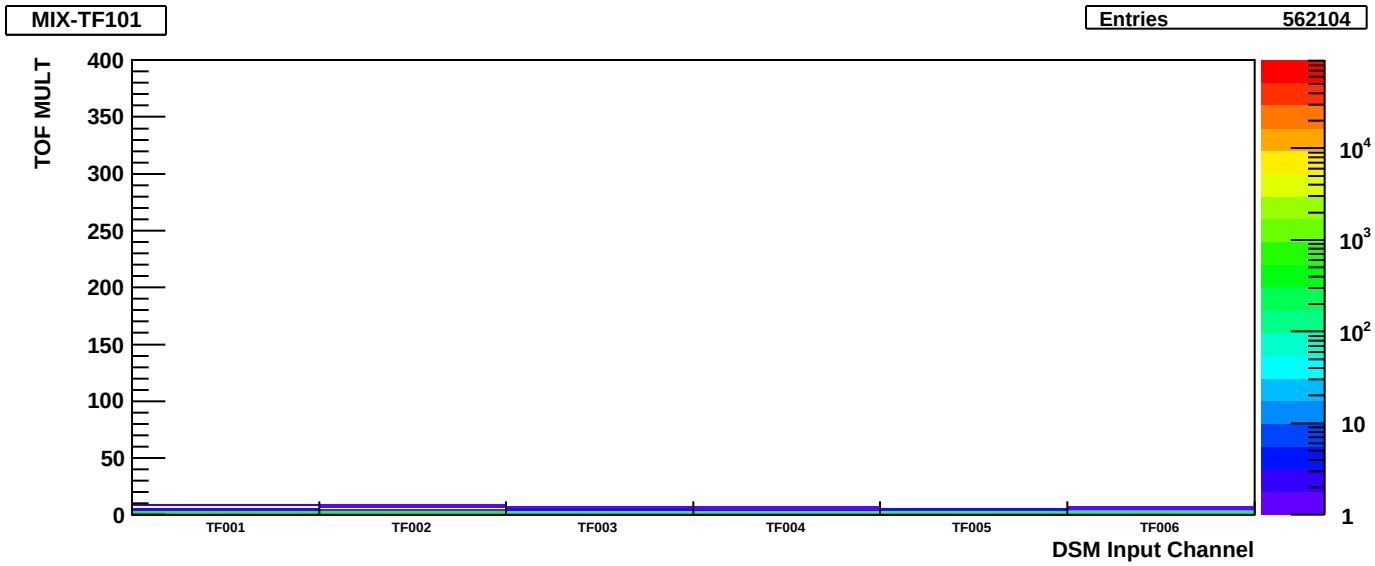

MIX-TF002
Entries 3934728
TOF MULT
TOF tray

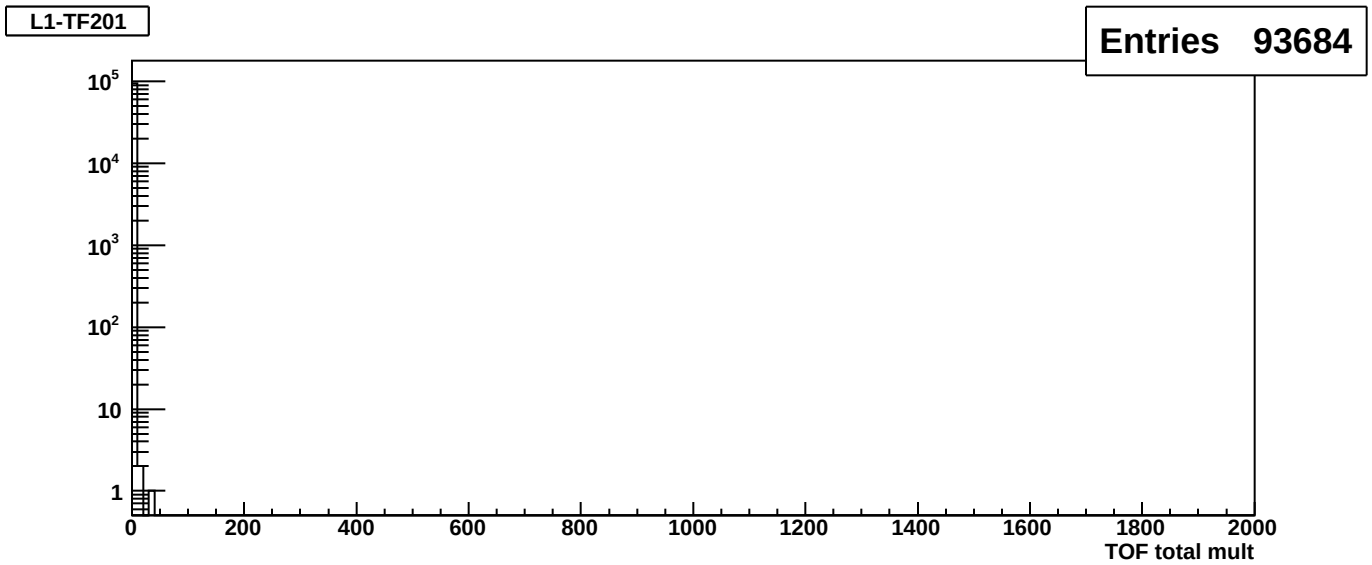

MIX-TF003
Entries 3934728
TOF MULT
TOF tray

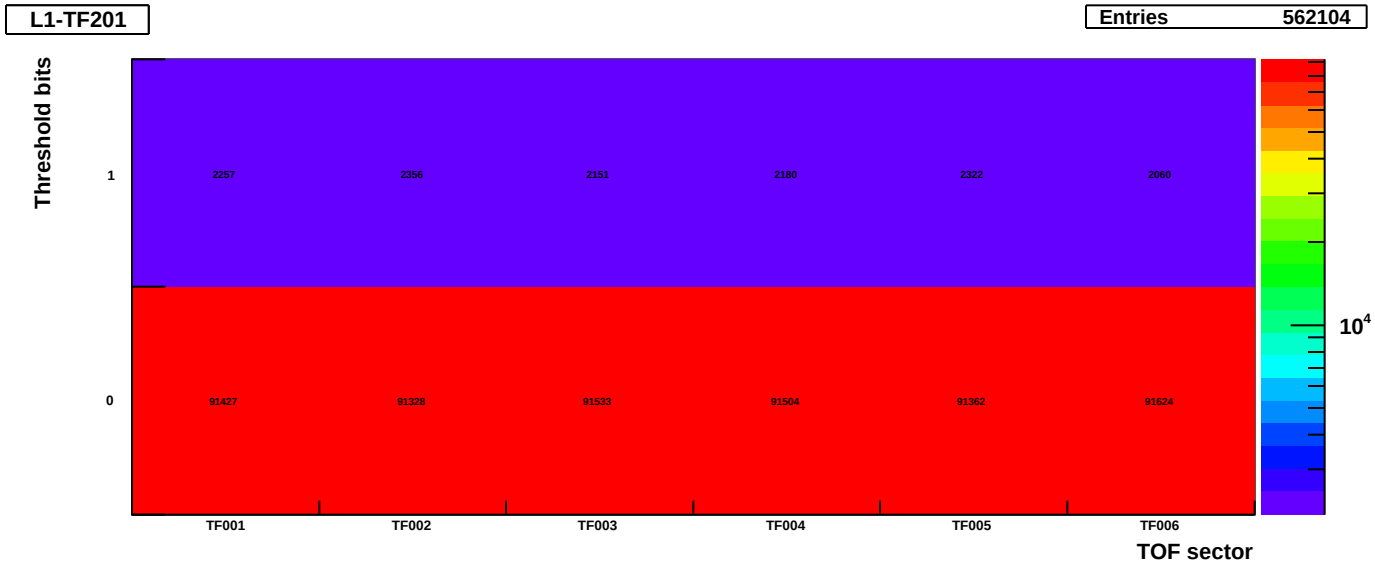

MIX-TF004
Entries 3934728
TOF MULT
TOF tray

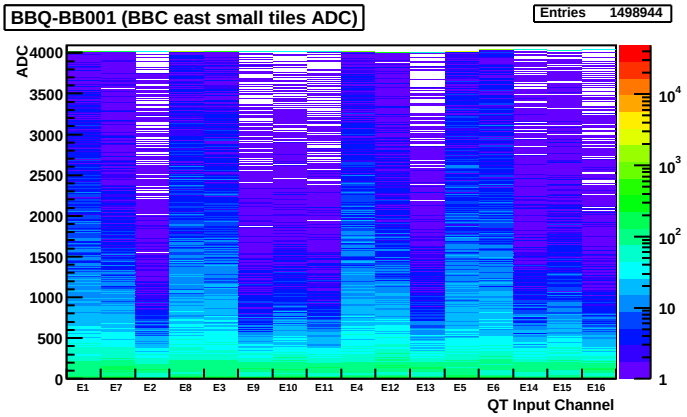

MIX-TF005
Entries 3934728
TOF MULT
TOF tray

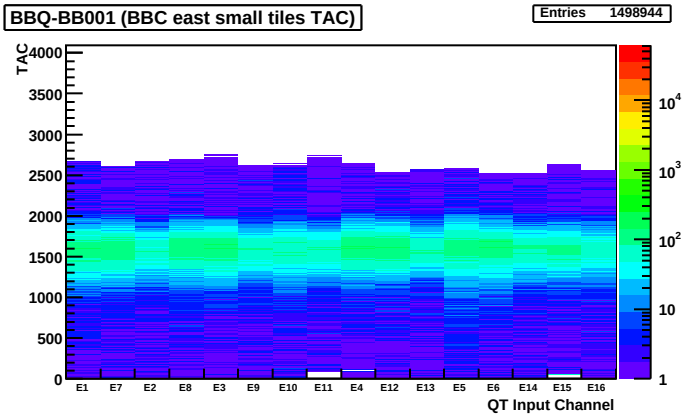

MIX-TF006
Entries 3934728
TOF MULT
TOF tray

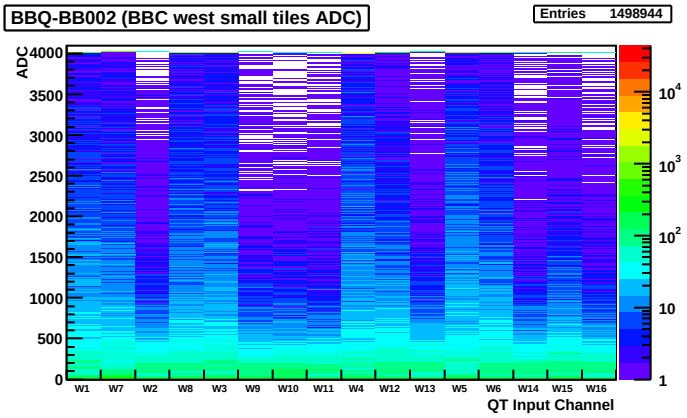

MIX-TF101
Entries 562104
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

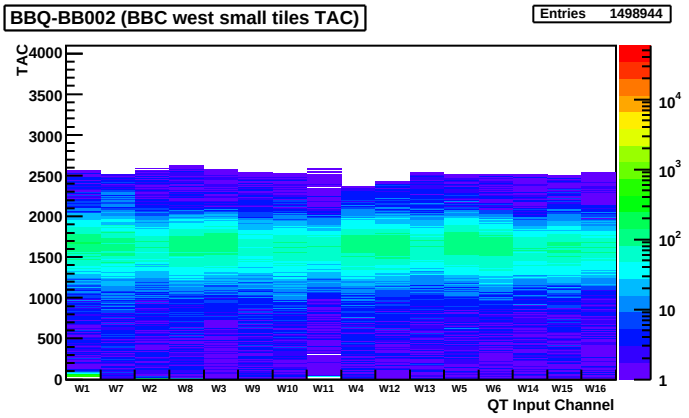

L1-TF201
Entries 93684
10^5
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

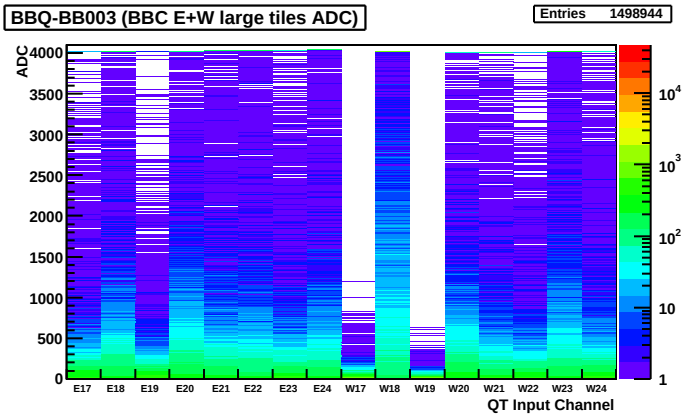

L1-TF201
Entries 562104
Threshold bits
1
0
2257
2356
2151
2180
2322
2060
91427
91328
91533
91504
91362
91624
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

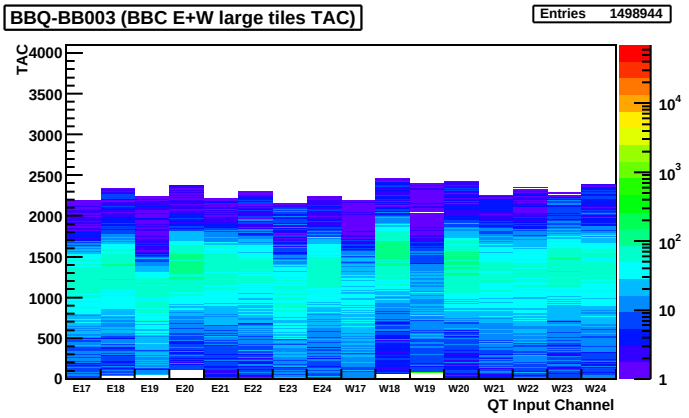

BBQ-BB001 (BBC east small tiles ADC)
Entries 1498944
ADC
QT Input Channel

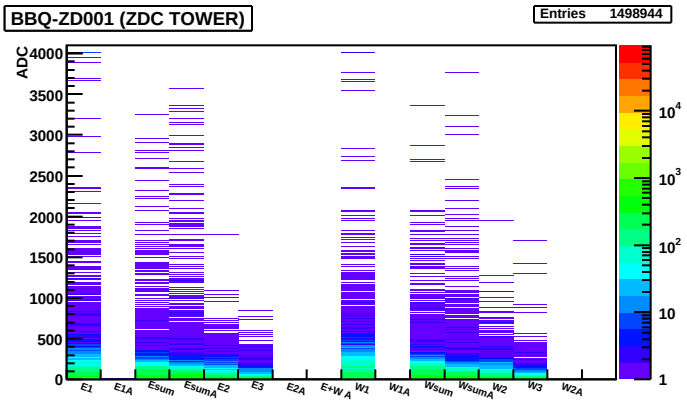

BBQ-BB001 (BBC east small tiles TAC)
Entries 1498944
TAC
QT Input Channel

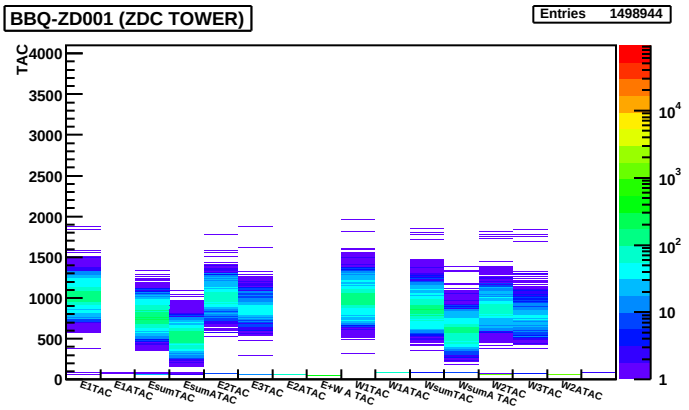

BBQ-BB002 (BBC west small tiles ADC)
Entries 1498944
ADC
QT Input Channel

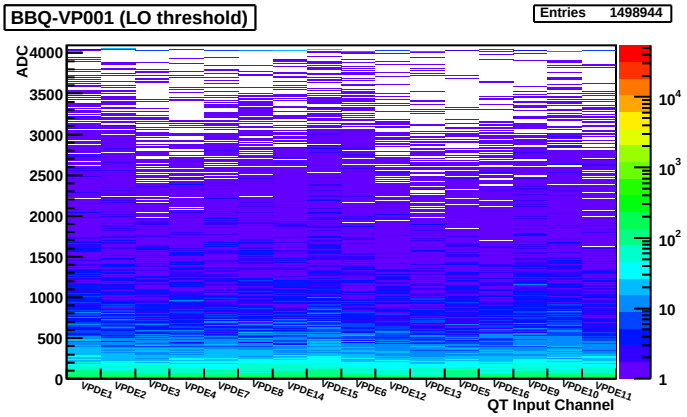

BBQ-BB002 (BBC west small tiles TAC)
Entries 1498944
TAC
QT Input Channel

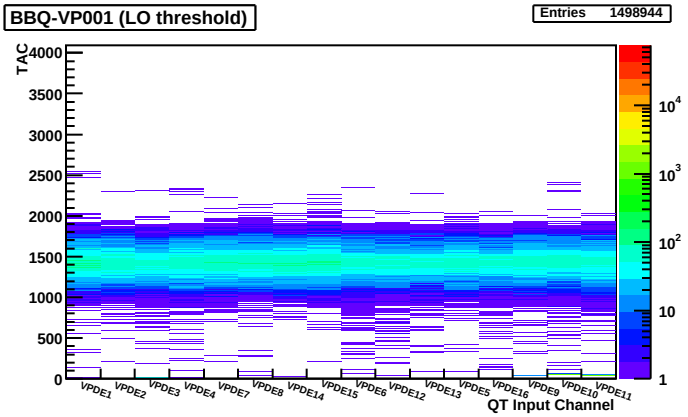

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1498944
ADC
QT Input Channel

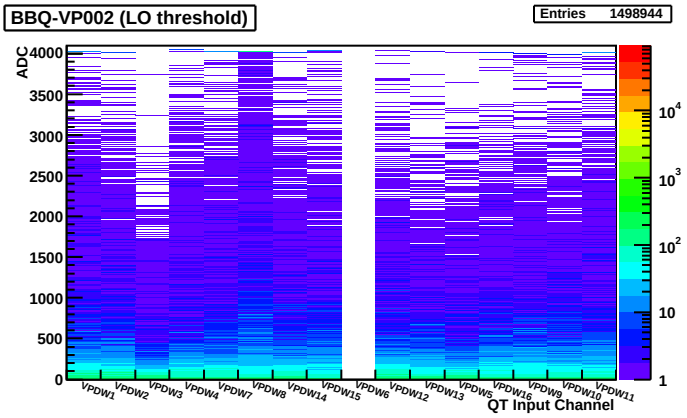

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1498944
TAC
QT Input Channel

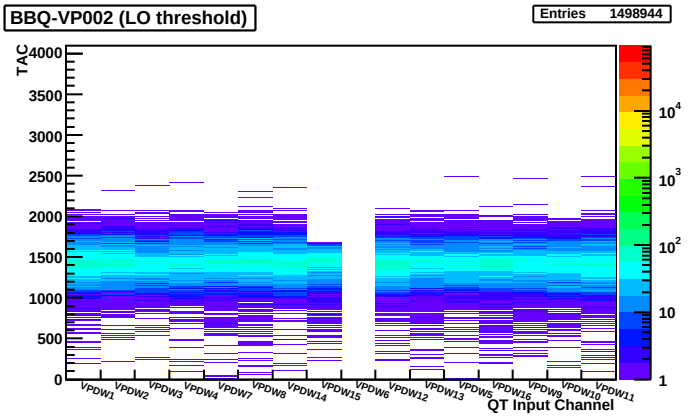

BBQ-ZD001 (ZDC TOWER)
Entries 1498944
ADC

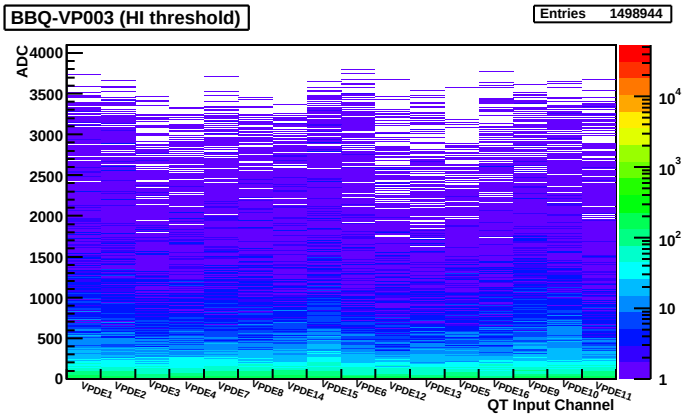

BBQ-ZD001 (ZDC TOWER)
Entries 1498944
TAC

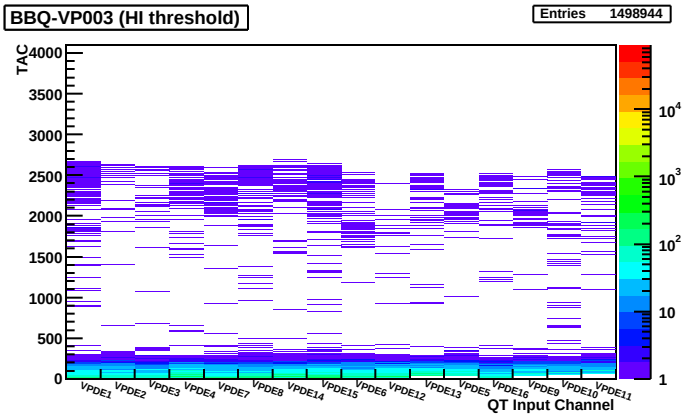

BBQ-VP001 (LO threshold)
Entries 1498944
ADC
QT Input Channel

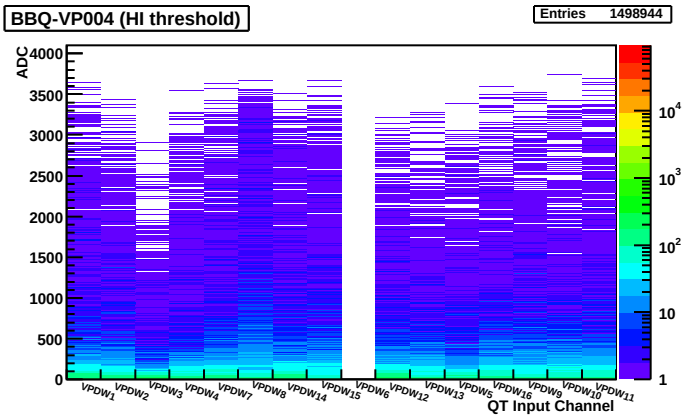

BBQ-VP001 (LO threshold)
Entries 1498944
TAC
QT Input Channel

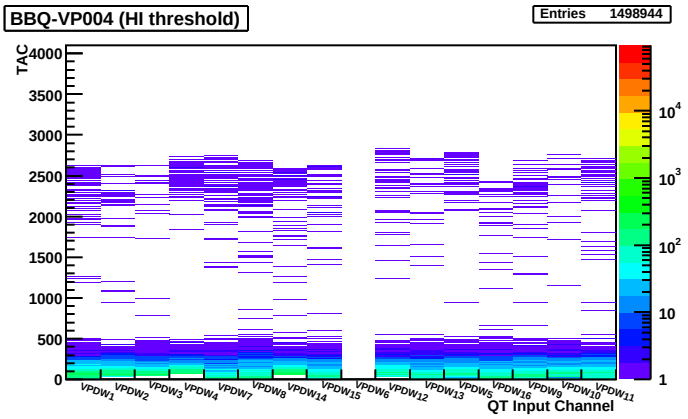

BBQ-VP002 (LO threshold)
Entries 1498944
ADC
QT Input Channel

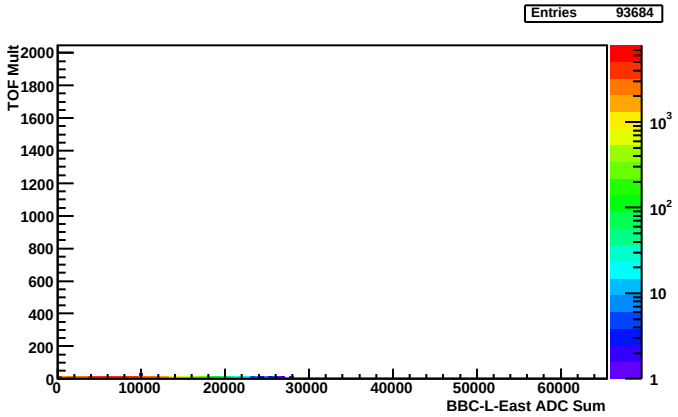

BBQ-VP002 (LO threshold)
Entries 1498944
TAC
QT Input Channel

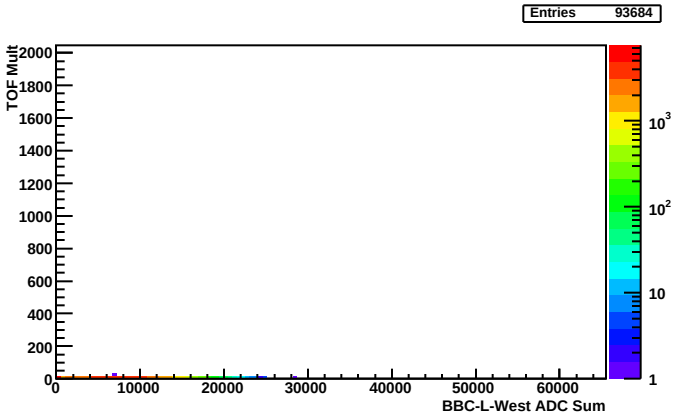

BBQ-VP003 (HI threshold)
Entries 1498944
ADC
QT Input Channel

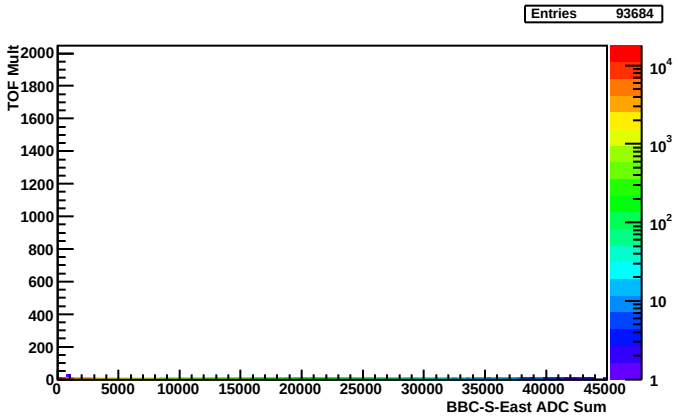

BBQ-VP003 (HI threshold)
Entries 1498944
TAC
QT Input Channel

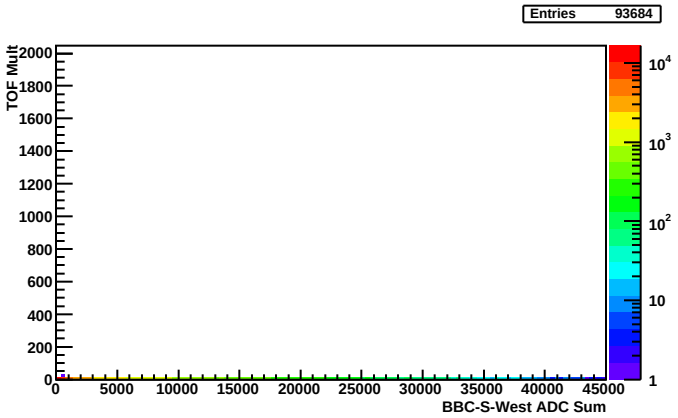

BBQ-VP004 (HI threshold)
Entries 1498944
ADC
QT Input Channel

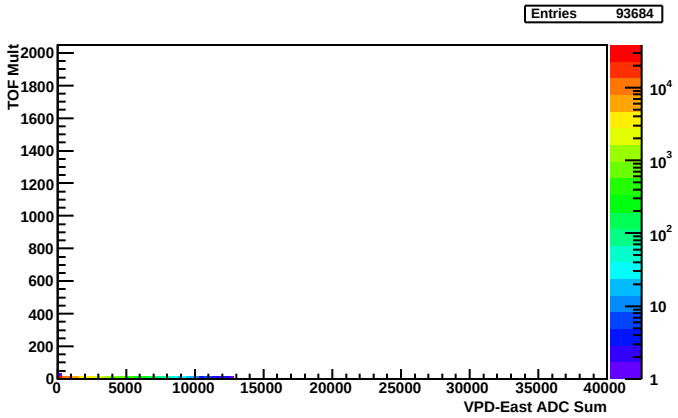

BBQ-VP004 (HI threshold)
Entries 1498944
TAC
QT Input Channel

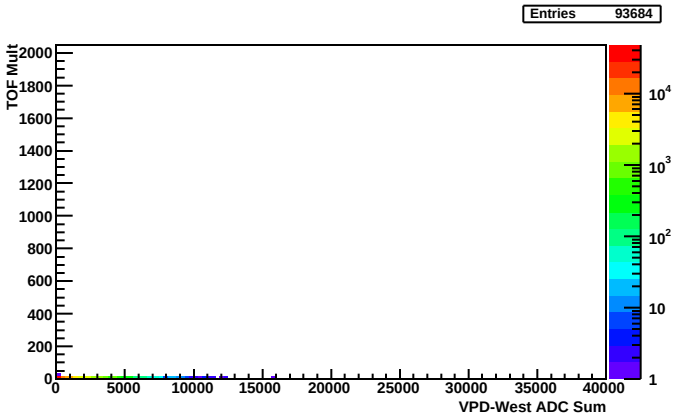

Entries 93684
TOF Mult
BBC-L-East ADC Sum

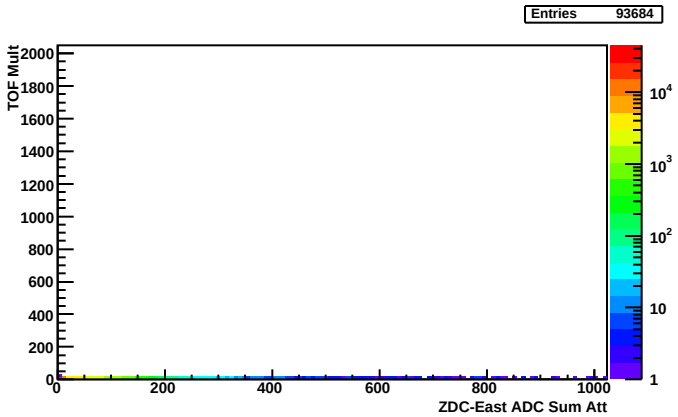

Entries 93684
TOF Mult
BBC-L-West ADC Sum

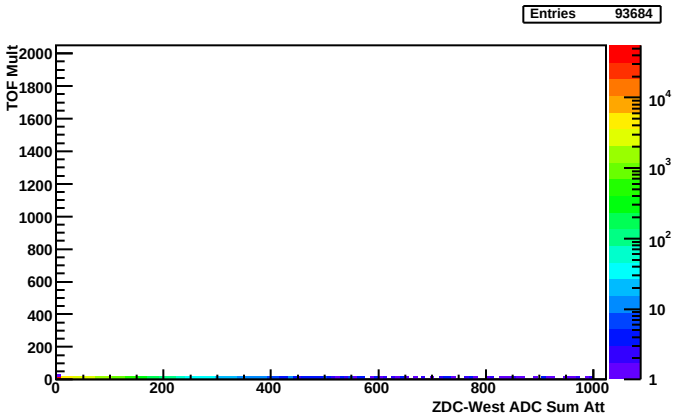

Entries 93684
TOF Mult
BBC-S-East ADC Sum

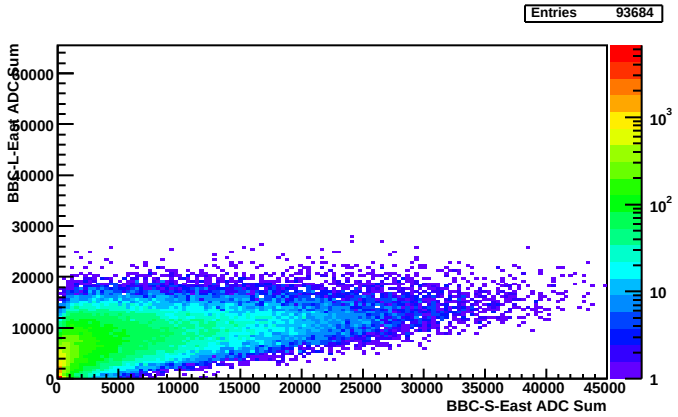

Entries 93684
TOF Mult
BBC-S-West ADC Sum

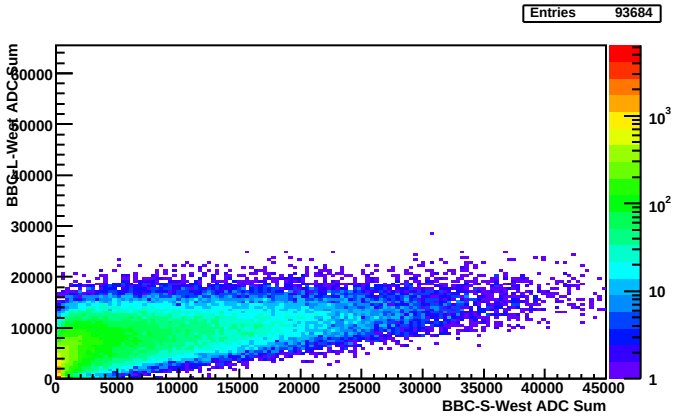

Entries 93684
TOF Mult
VPD-East ADC Sum

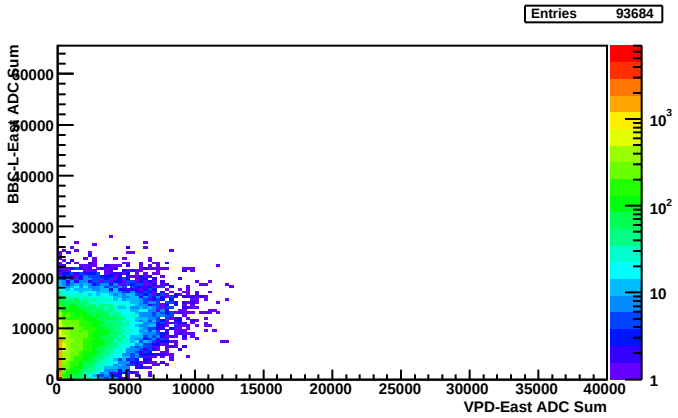

Entries 93684
TOF Mult
VPD-West ADC Sum

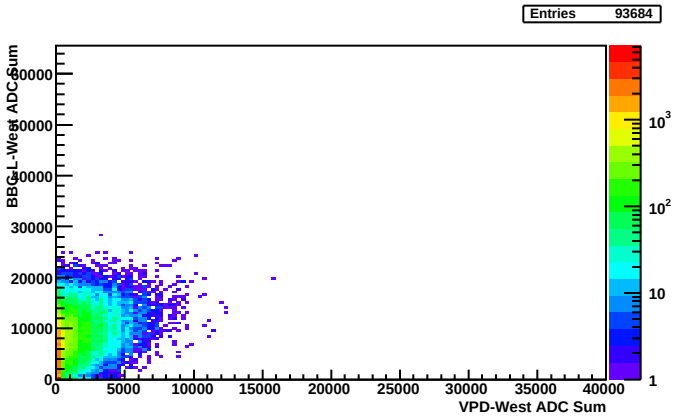

Entries 93684
TOF Mult
ZDC-East ADC Sum Att

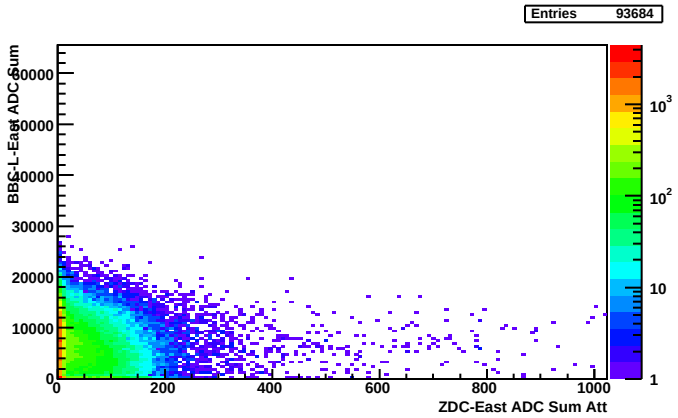

Entries 93684
TOF Mult
ZDC-West ADC Sum Att

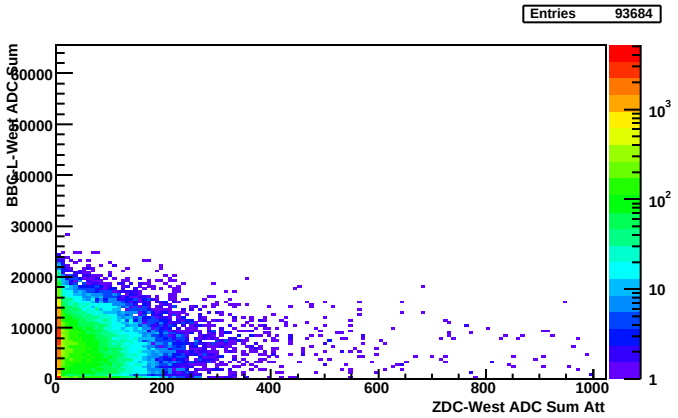

Entries 93684
BBC-L-East ADC Sum
BBC-S-East ADC Sum

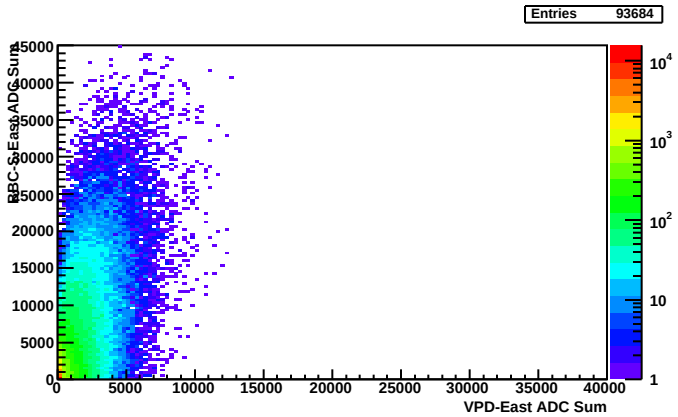

Entries 93684
BBC-L-West ADC Sum
BBC-S-West ADC Sum

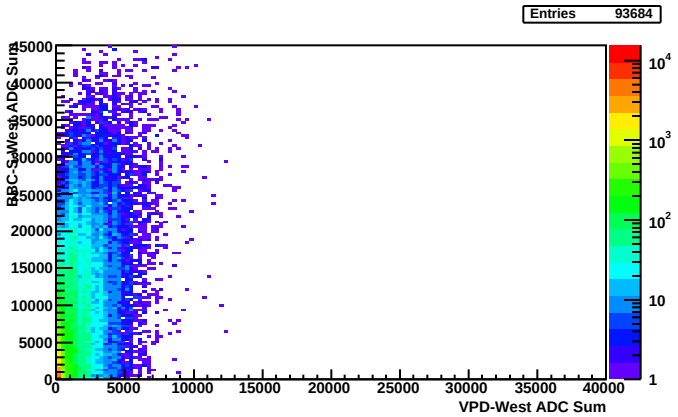

Entries 93684
BBC-L-East ADC Sum
VPD-East ADC Sum

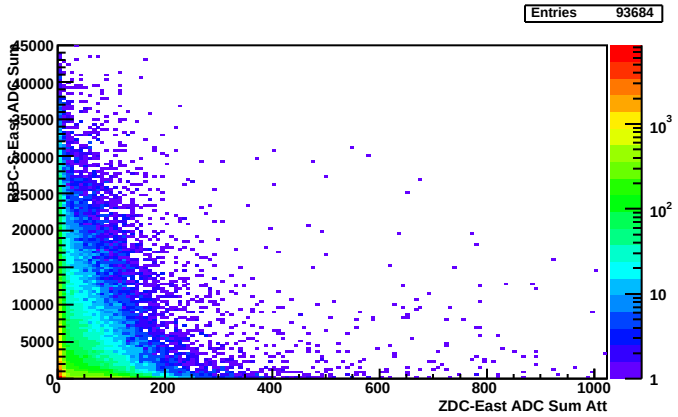

Entries 93684
BBC-L-West ADC Sum
VPD-West ADC Sum

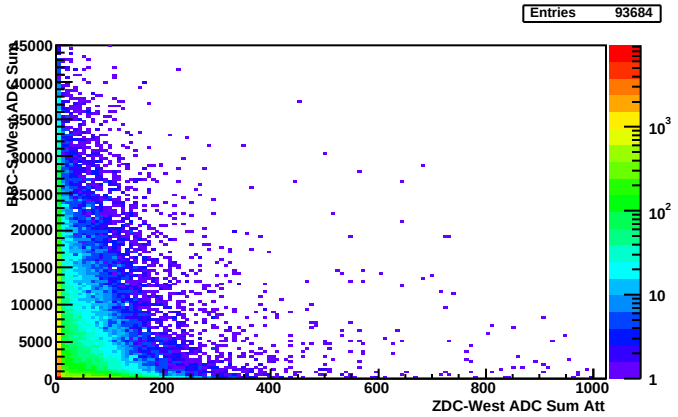

Entries 93684
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

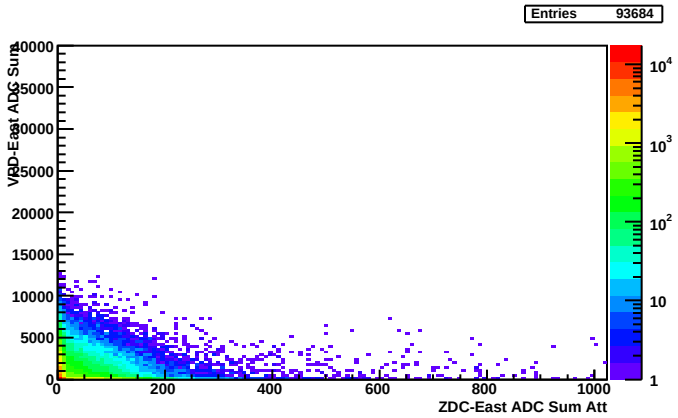

Entries 93684
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

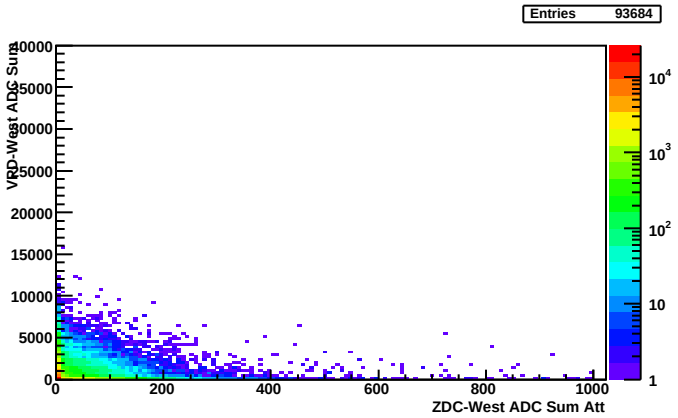

Entries 93684
BBC-S-East ADC Sum
VPD-East ADC Sum

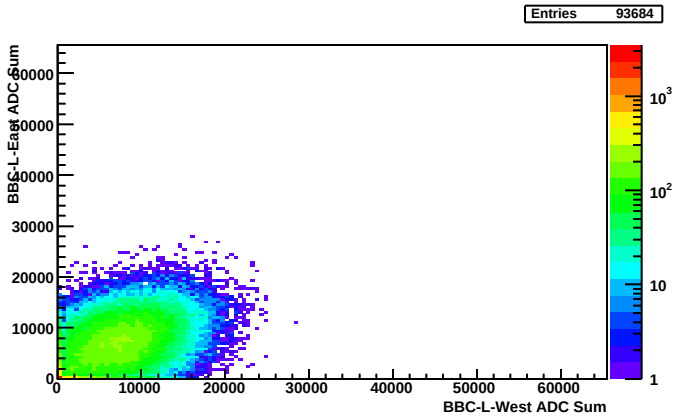

Entries 93684
BBC-S-West ADC Sum
VPD-West ADC Sum

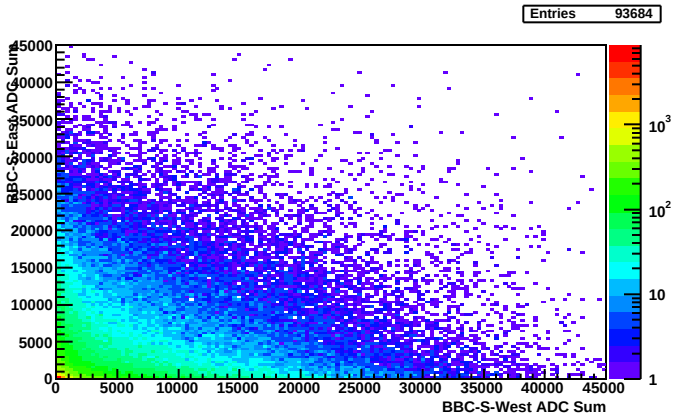

Entries 93684
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

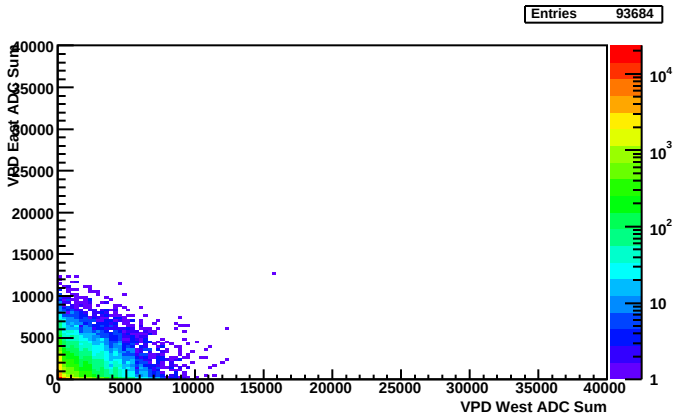

Entries 93684
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

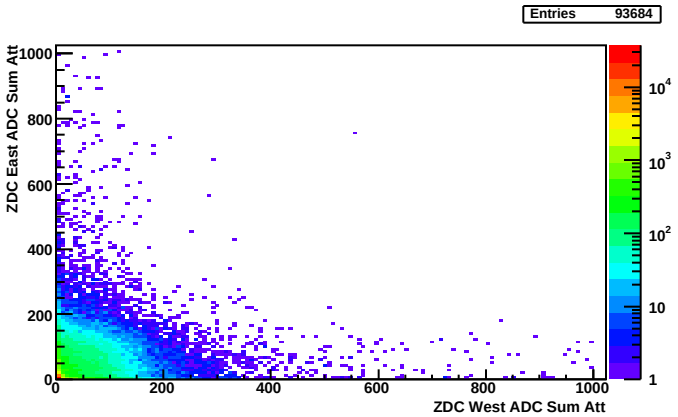

Entries 93684
VPD-East ADC Sum
ZDC-East ADC Sum Att

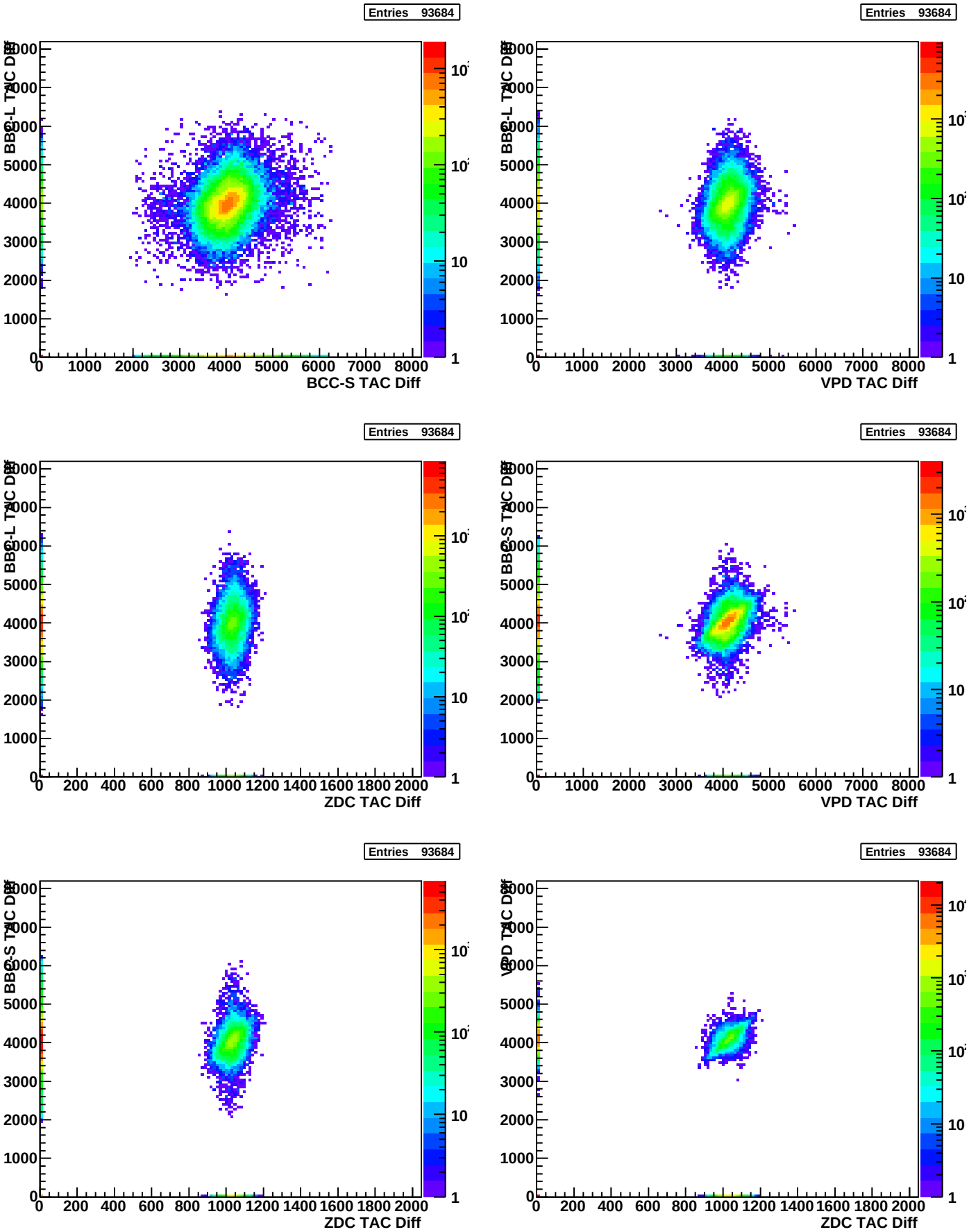

Entries 93684
VPD-West ADC Sum
ZDC-West ADC Sum Att

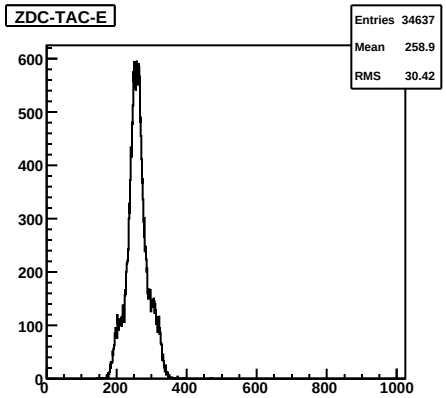

Entries 93684
BBC-L-East ADC Sum
BBC-L-West ADC Sum

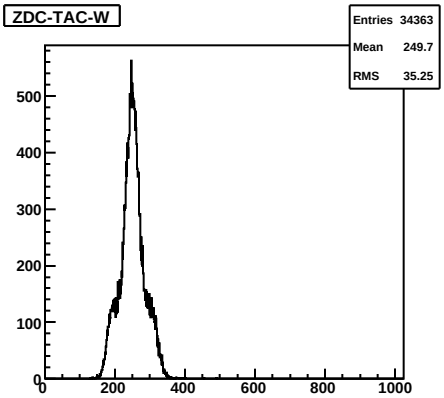

Entries 93684
BBC-S-East ADC Sum
BBC-S-West ADC Sum

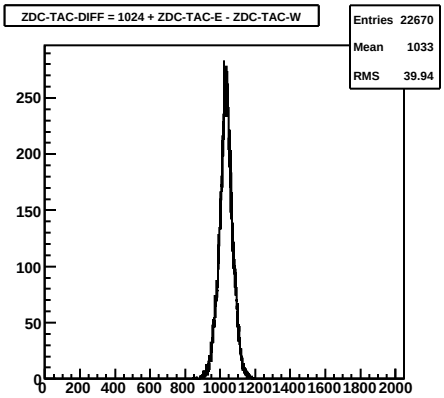

Entries 93684
VPD East ADC Sum
VPD West ADC Sum

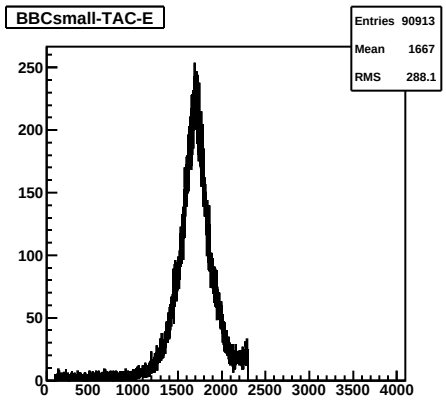

Entries 93684
ZDC East ADC Sum Att
ZDC West ADC Sum Att

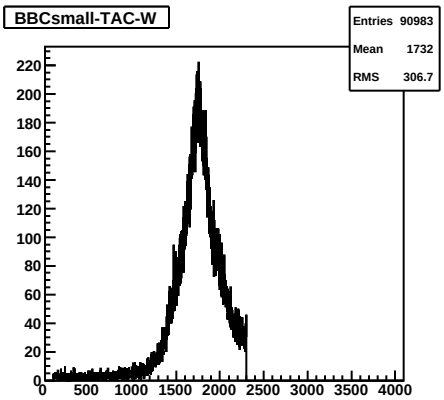

Entries 93684
BBC-L TAC Diff
BCC-S TAC Diff
Entries 93684
BBC-L TAC Diff
VPD TAC Diff
Entries 93684
BBC-L TAC Diff
ZDC TAC Diff
Entries 93684
BBC-S TAC Diff
VPD TAC Diff
Entries 93684
BBC-S TAC Diff
ZDC TAC Diff
Entries 93684
VPD TAC Diff
ZDC TAC Diff

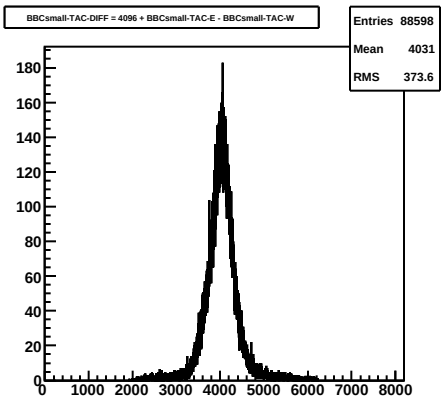

ZDC-TAC-E
Entries 34637
Mean 258.9
RMS 30.42

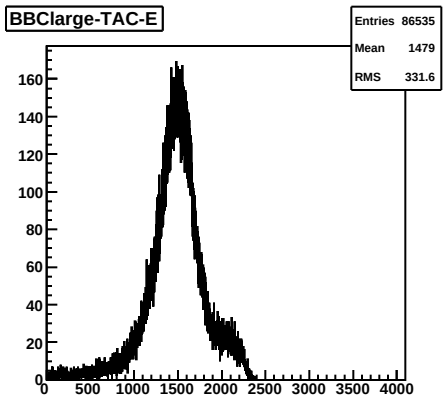

ZDC-TAC-W
Entries 34363
Mean 249.7
RMS 35.25

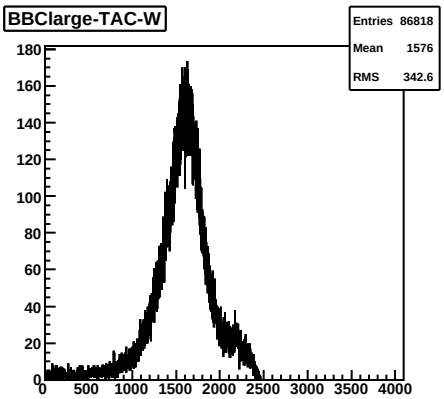

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 22670
Mean 1033
RMS 39.94

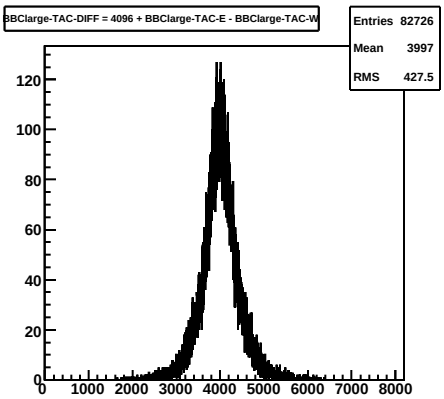

BBCsmall-TAC-E
Entries 90913
Mean 1667
RMS 288.1

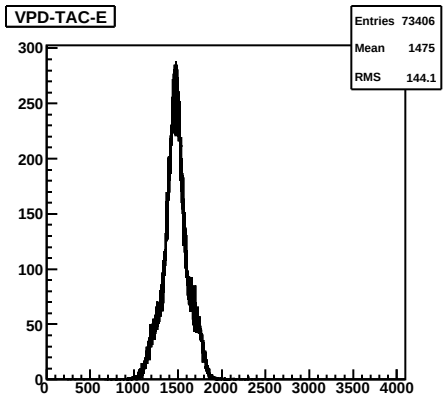

BBCsmall-TAC-W
Entries 90983
Mean 1732
RMS 306.7

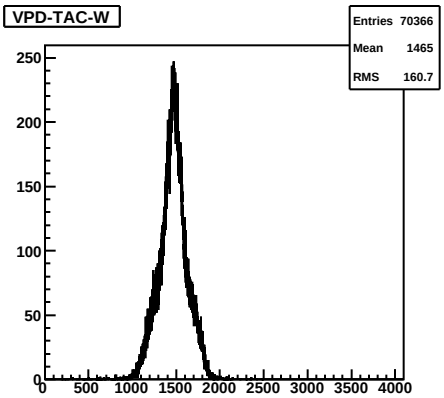

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 88598
Mean 4031
RMS 373.6

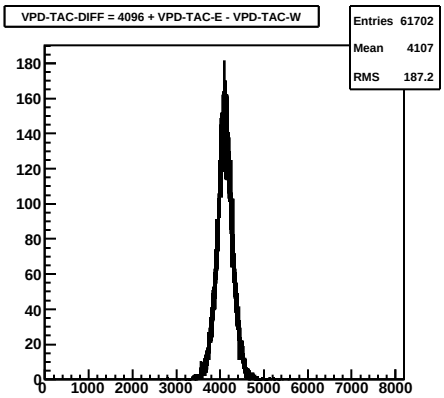

BBClarge-TAC-E
Entries 86535
Mean 1479
RMS 331.6

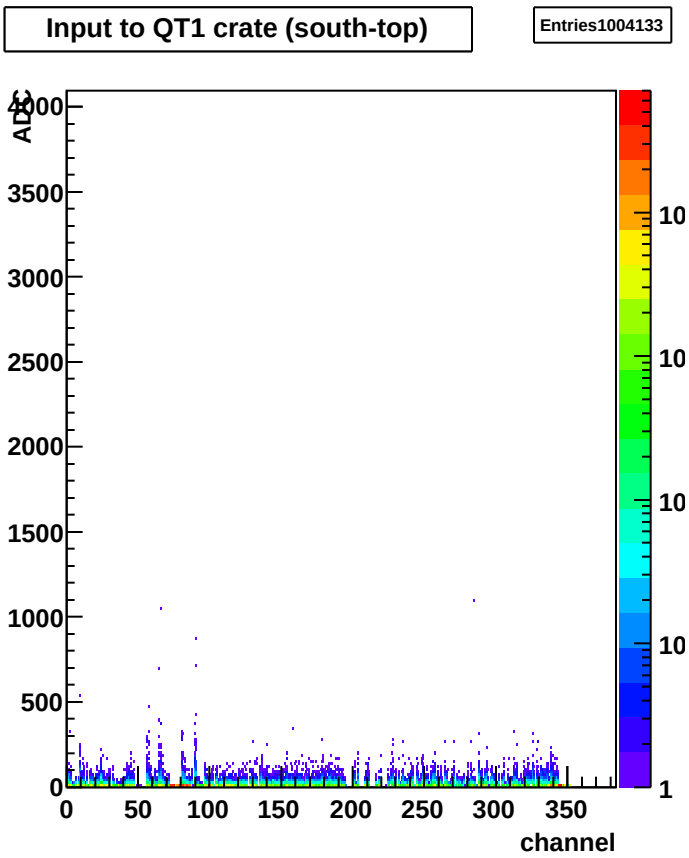

BBClarge-TAC-W
Entries 86818
Mean 1576
RMS 342.6

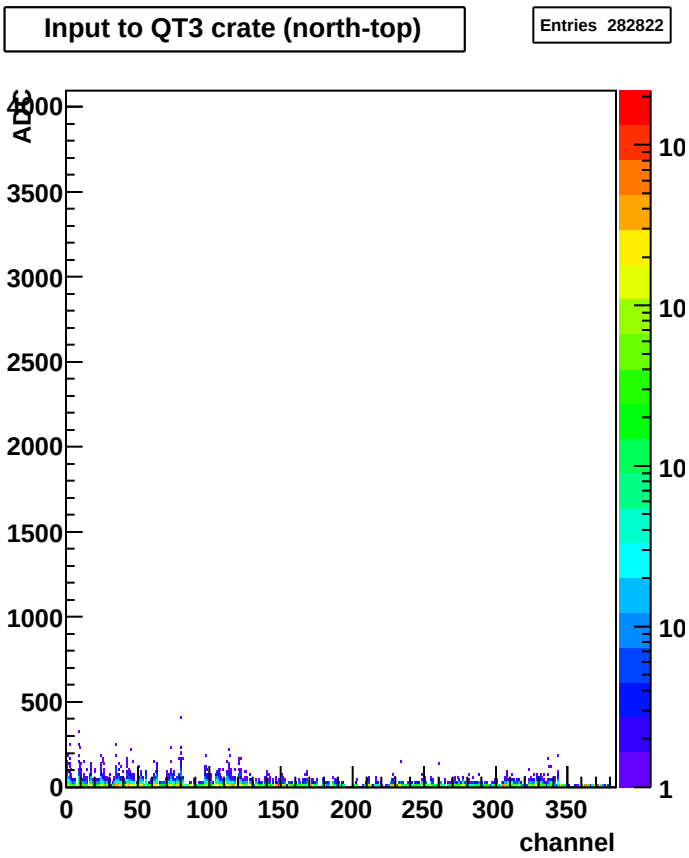

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 82726
Mean 3997
RMS 427.5

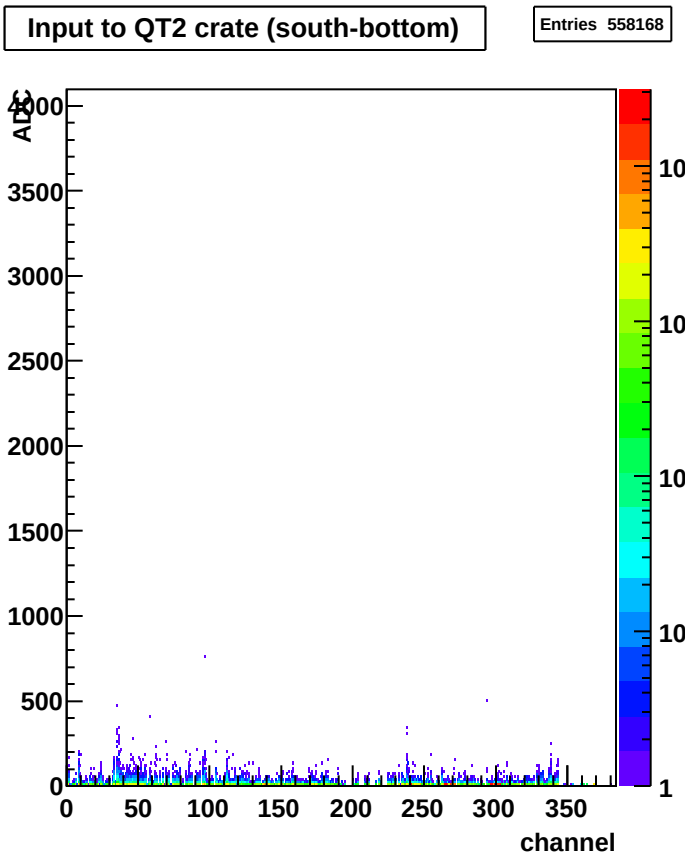

VPD-TAC-E
Entries 73406
Mean 1475
RMS 144.1

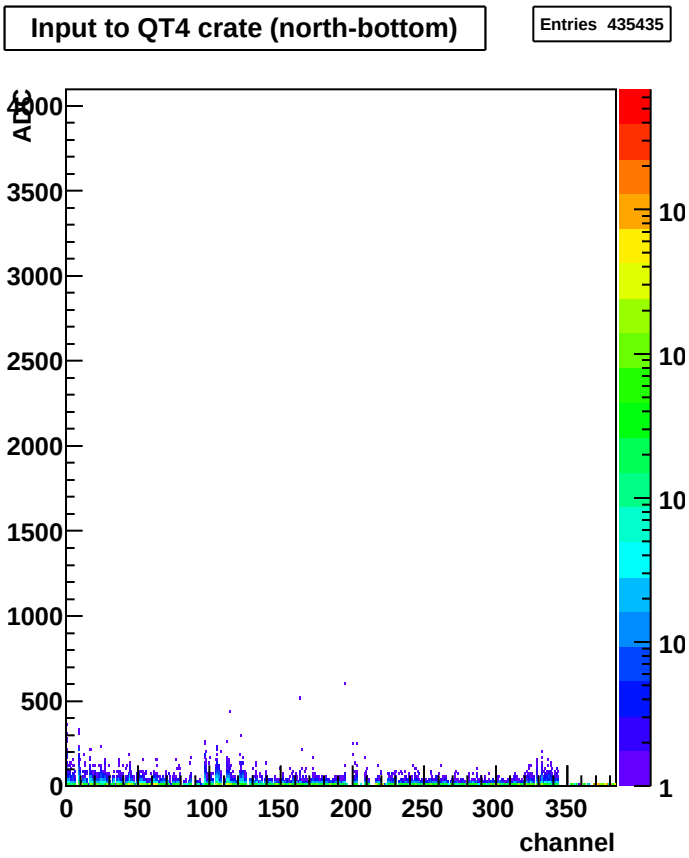

VPD-TAC-W
Entries 70366
Mean 1465
RMS 160.7

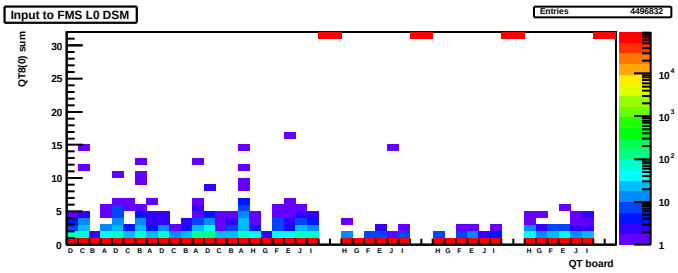

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 61702
Mean 4107
RMS 187.2

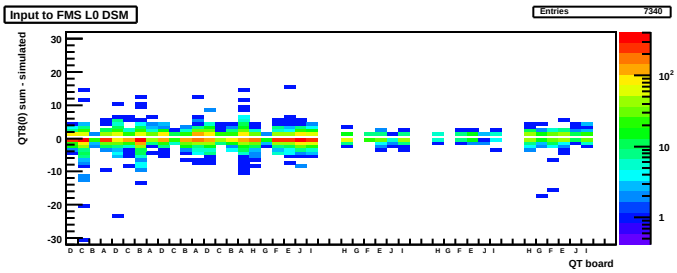

Input to QT1 crate (south-top)
Entries1004133
ADC
channel

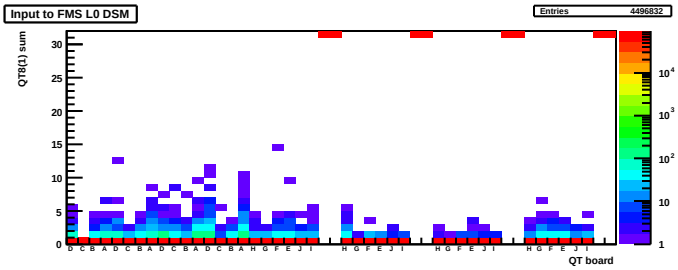

Input to QT3 crate (north-top)
Entries 282822
ADC
channel

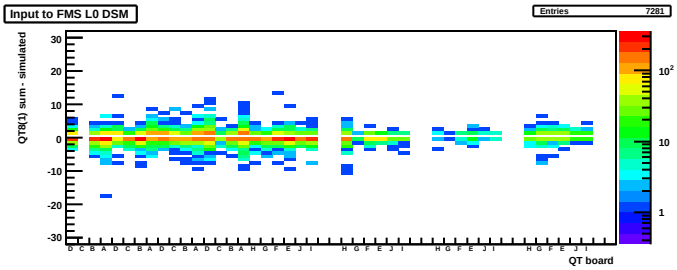

Input to QT2 crate (south-bottom)
Entries 558168
ADC
channel

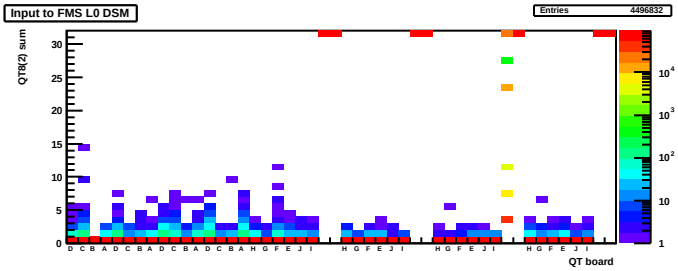

Input to QT4 crate (north-bottom)
Entries 435435
ADC
channel

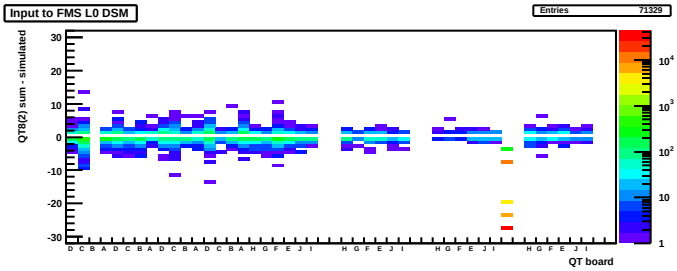

Input to FMS L0 DSM
Entries 4496832
QT8(0) sum
QT board

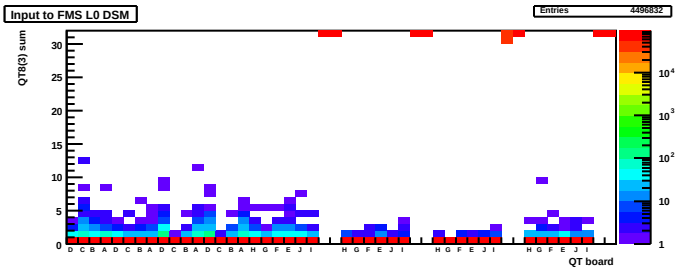

Input to FMS L0 DSM
Entries 7340
QT8(0) sum - simulated
QT board

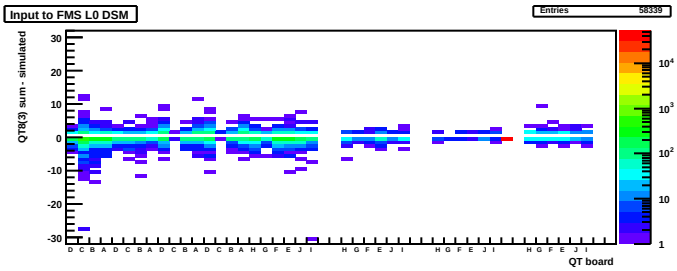

Input to FMS L0 DSM
Entries 4496832
QT8(1) sum
QT board

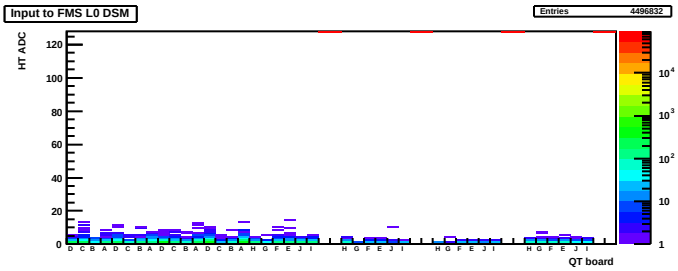

Input to FMS L0 DSM
Entries 7281
QT8(1) sum - simulated
QT board

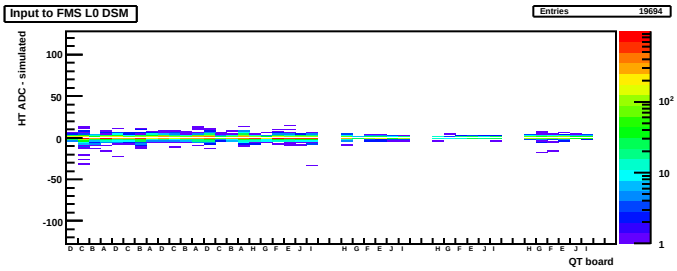

Input to FMS L0 DSM
Entries 4496832
QT8(2) sum
QT board

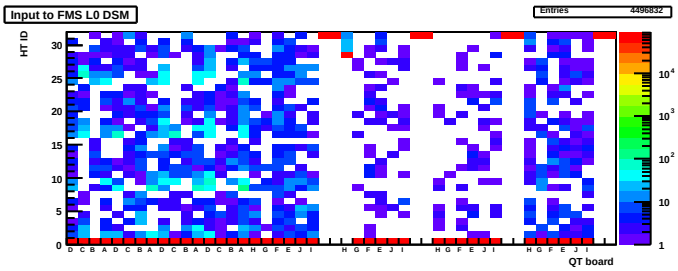

Input to FMS L0 DSM
Entries 71329
QT8(2) sum - simulated
QT board

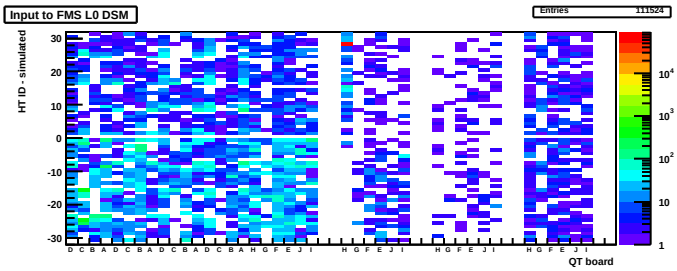

Input to FMS L0 DSM
Entries 4496832
QT8(3) sum
QT board

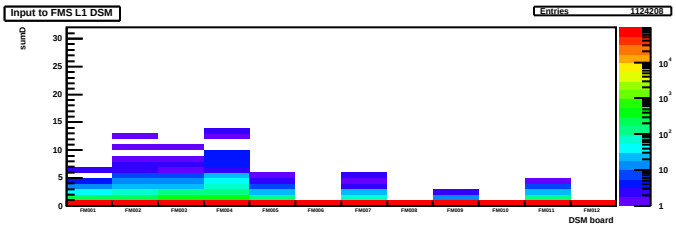

Input to FMS L0 DSM
Entries 58339
QT8(3) sum - simulated
QT board

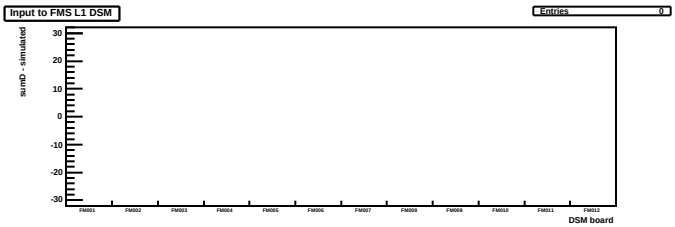

Input to FMS L0 DSM
Entries 4496832
HT ADC
QT board

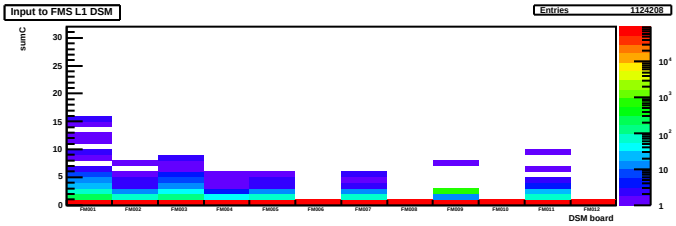

Input to FMS L0 DSM
Entries 19694
HT ADC - simulated
QT board

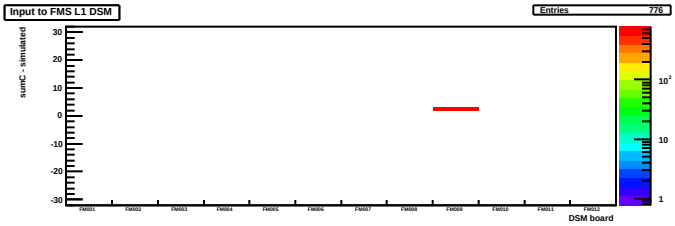

Input to FMS L0 DSM
Entries 4496832
HT ID
QT board

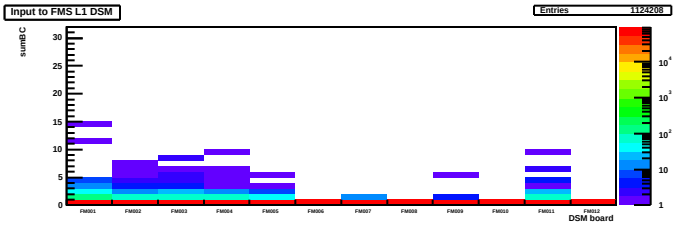

Input to FMS L0 DSM
Entries 111524
HT ID - simulated
QT board

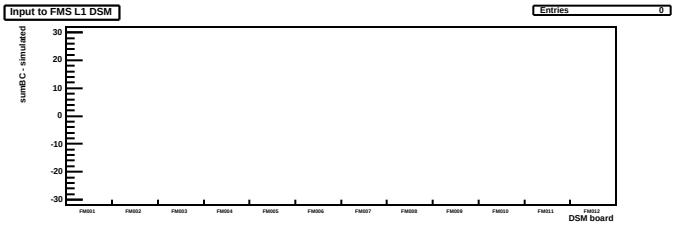

Input to FMS L1 DSM
Entries 1124208
sumD
DSM board

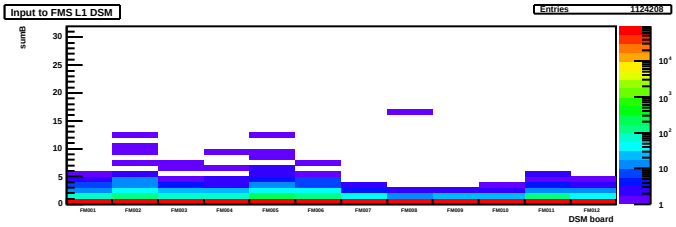

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

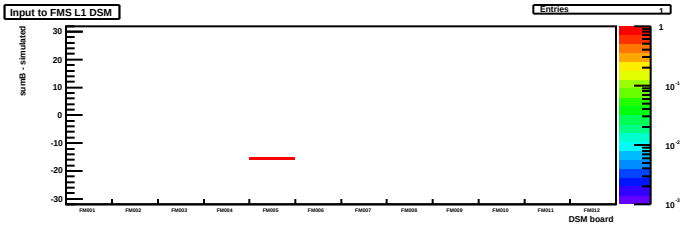

Input to FMS L1 DSM
Entries 1124208
sumC
DSM board

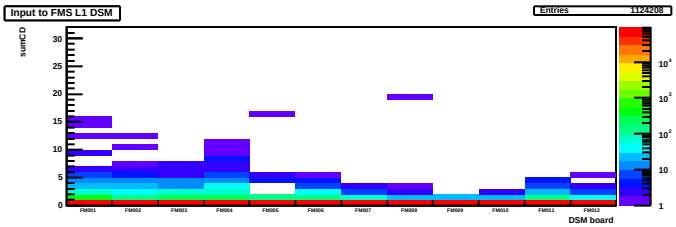

Input to FMS L1 DSM
Entries 776
sumC - simulated
DSM board

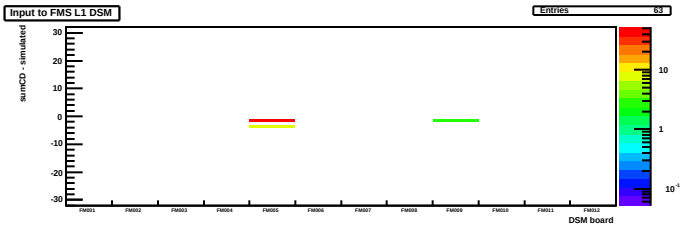

Input to FMS L1 DSM
Entries 1124208
sumBC
DSM board

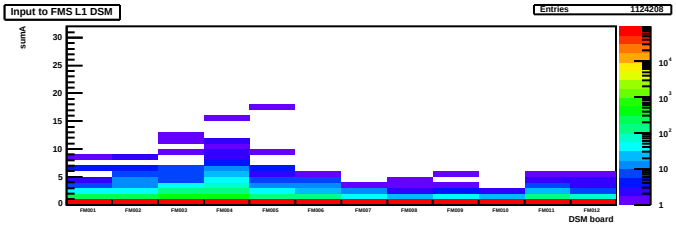

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

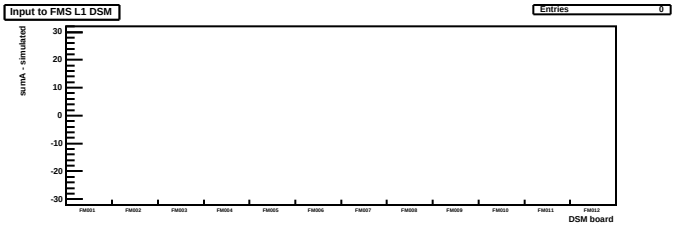

Input to FMS L1 DSM
Entries 1124208
sumB
DSM board

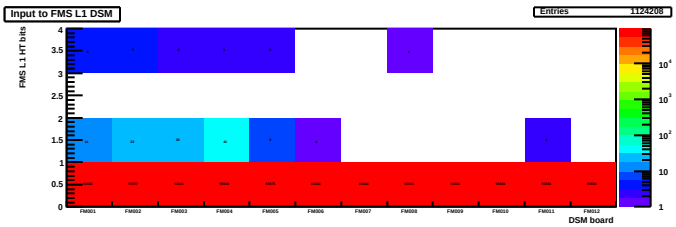

Input to FMS L1 DSM
Entries 1
sumB - simulated
DSM board

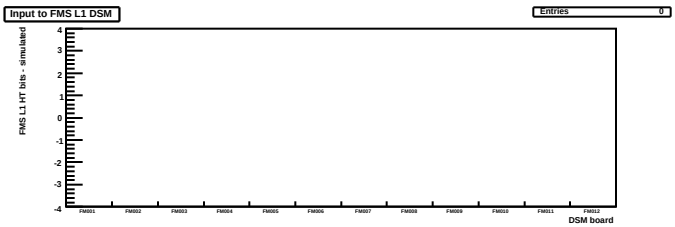

Input to FMS L1 DSM
Entries 1124208
sumCD
DSM board

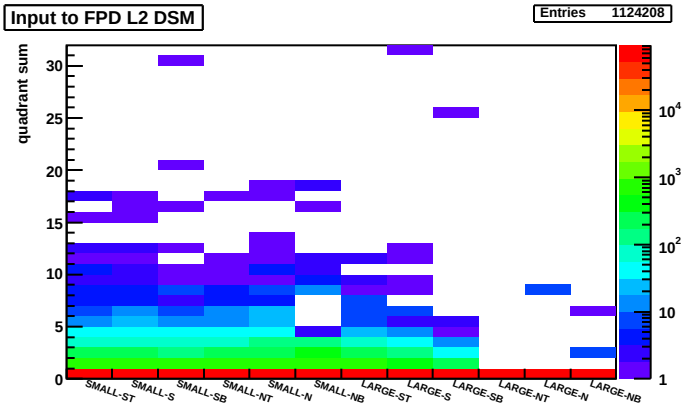

Input to FMS L1 DSM
Entries 63
sumCD - simulated
DSM board

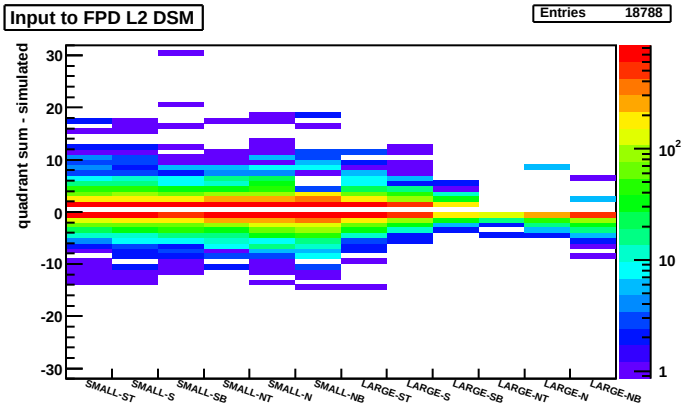

Input to FMS L1 DSM
Entries 1124208
sumA
DSM board

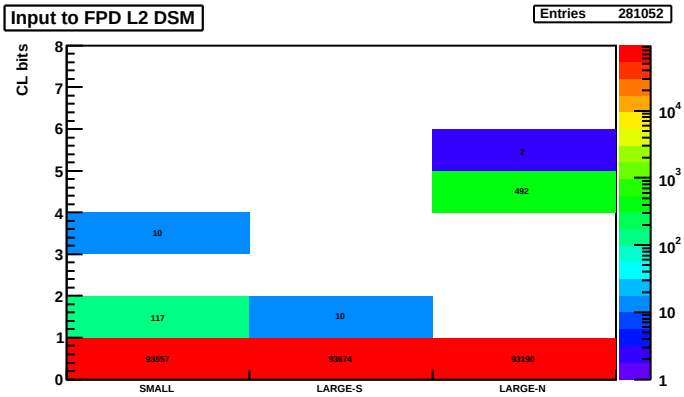

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

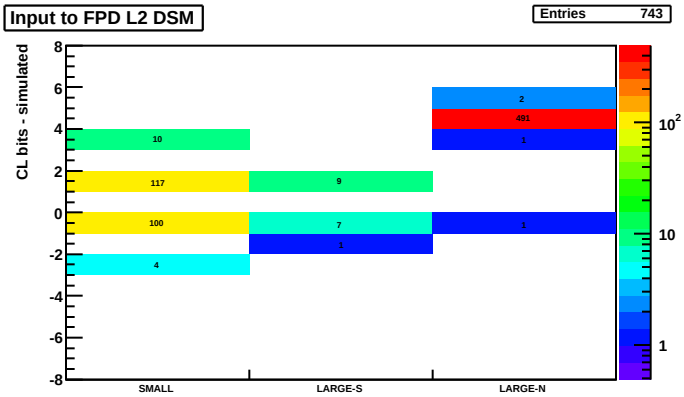

Input to FMS L1 DSM
Entries 1124208
FMS L1 HT bits
DSM board

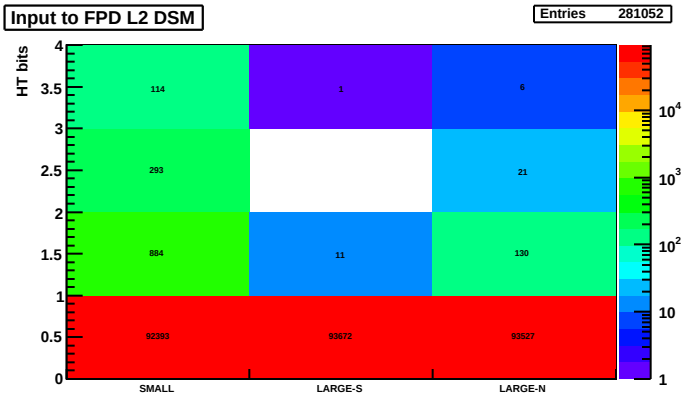

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

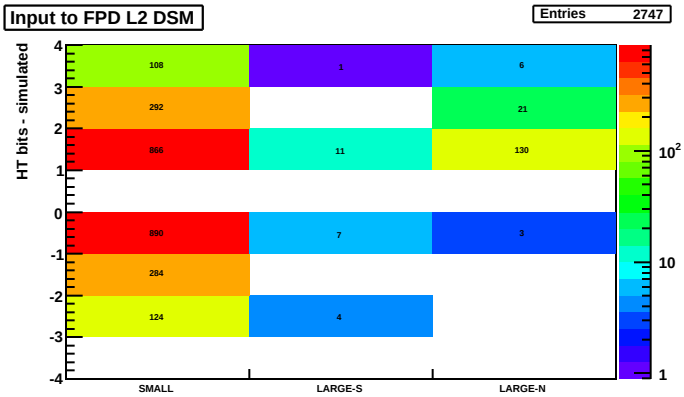

Input to FPD L2 DSM
Entries 1124208
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

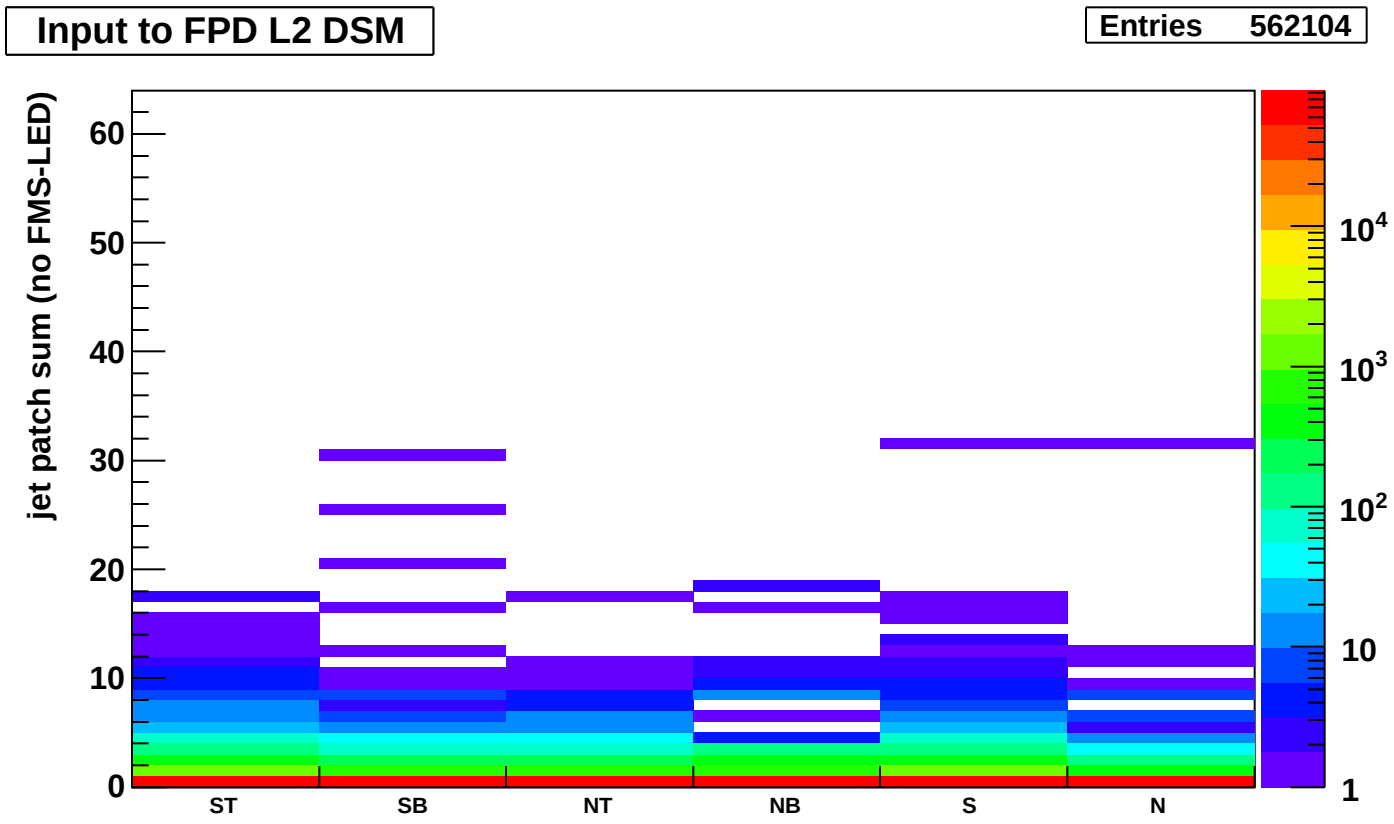

Input to FPD L2 DSM
Entries 18788
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

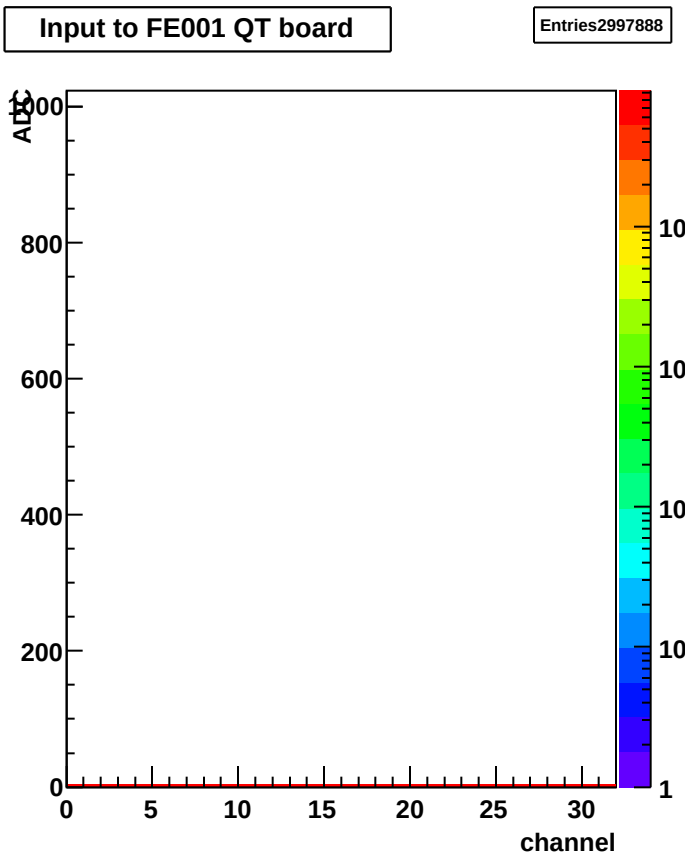

Input to FPD L2 DSM
Entries 281052
CL bits
10
117
93557
10
93674
2
492
93190
SMALL
LARGE-S
LARGE-N

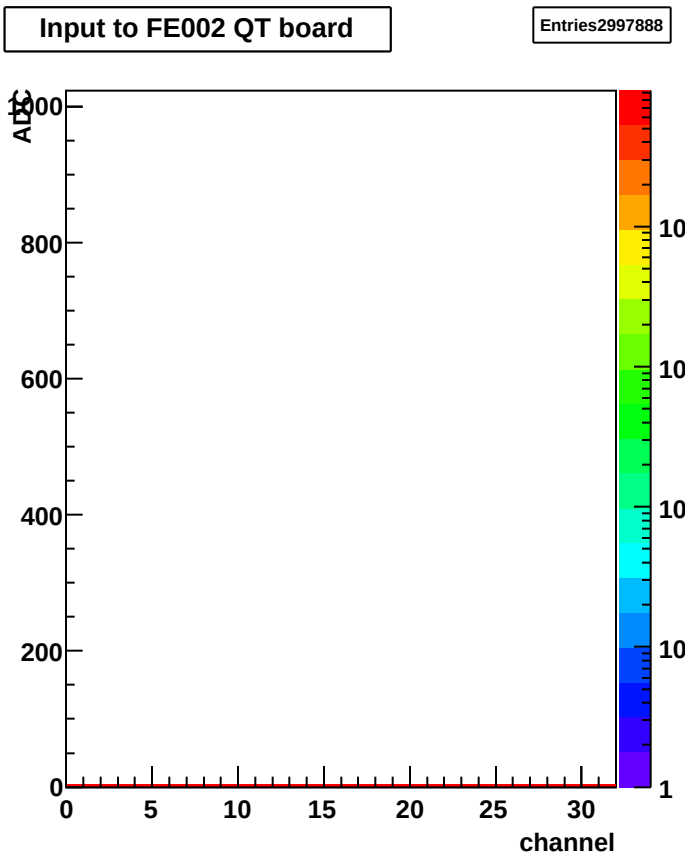

Input to FPD L2 DSM
Entries 743
CL bits - simulated
10
117
100
4
9
7
1
2
491
1
1
SMALL
LARGE-S
LARGE-N

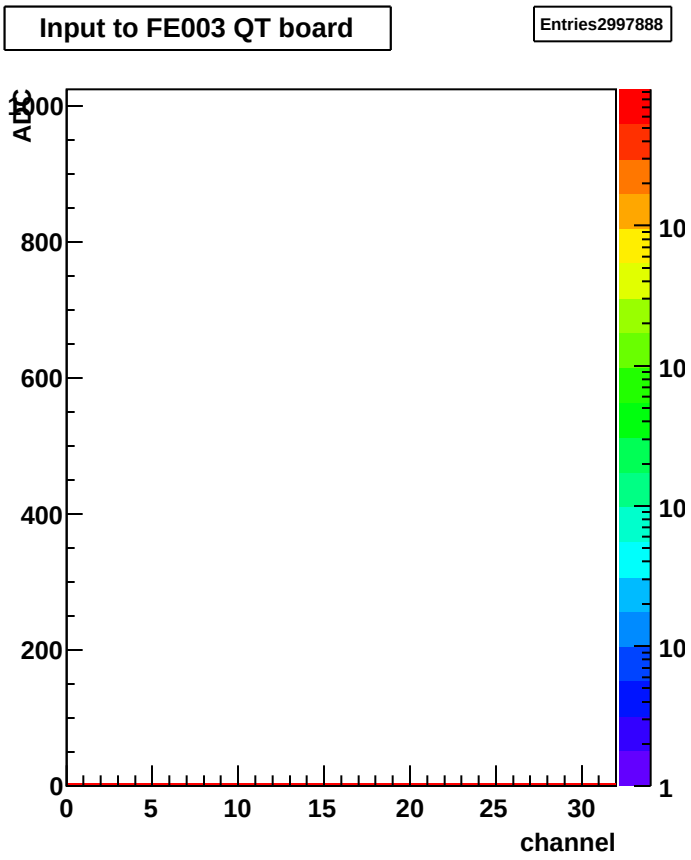

Input to FPD L2 DSM
Entries 281052
HT bits
114
293
884
92393
1
11
93672
6
21
130
93527
SMALL
LARGE-S
LARGE-N

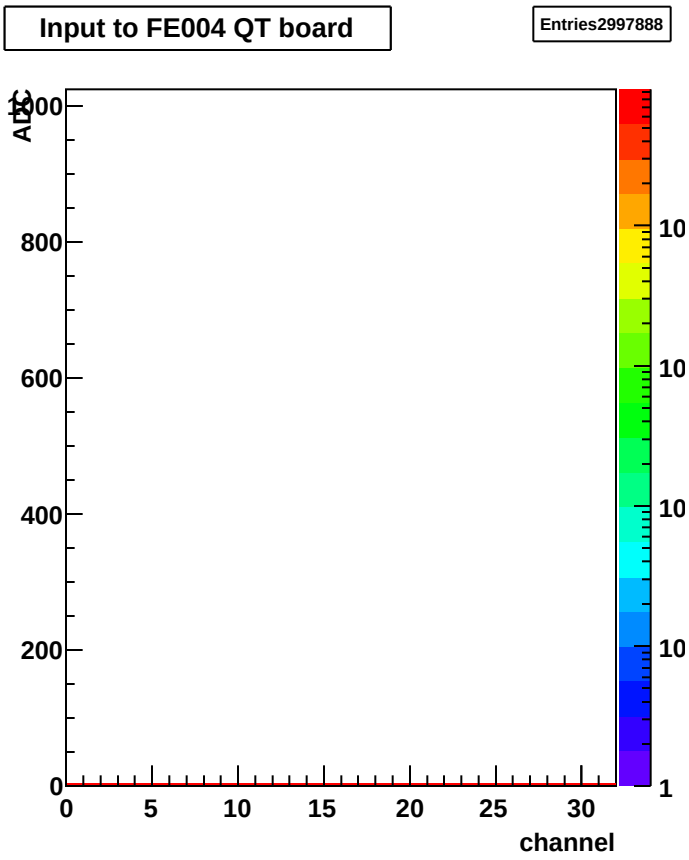

Input to FPD L2 DSM
Entries 2747
HT bits - simulated
108
292
866
890
284
124
1
11
4
6
21
130
7
3
SMALL
LARGE-S
LARGE-N

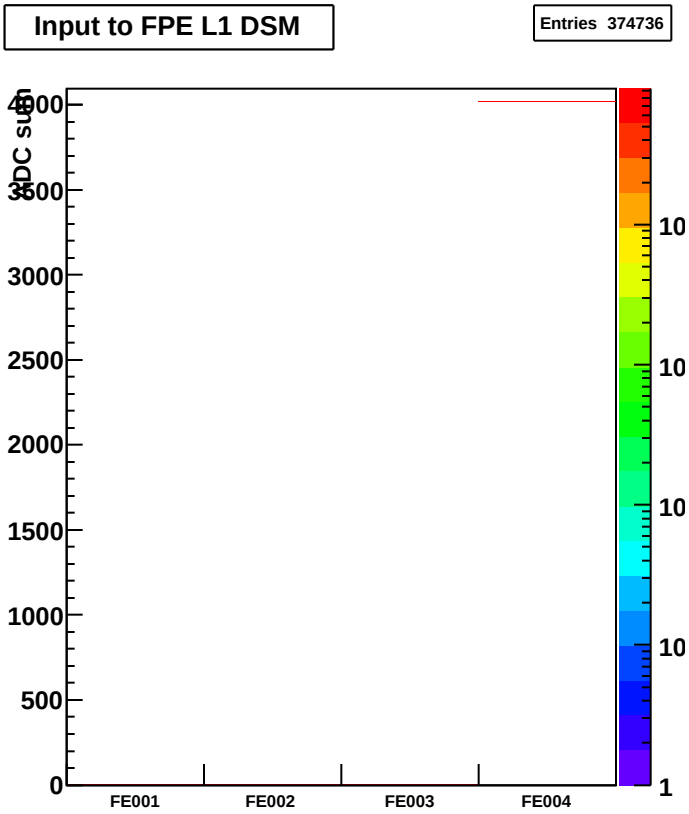

Input to FPD L2 DSM
Entries 562104
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

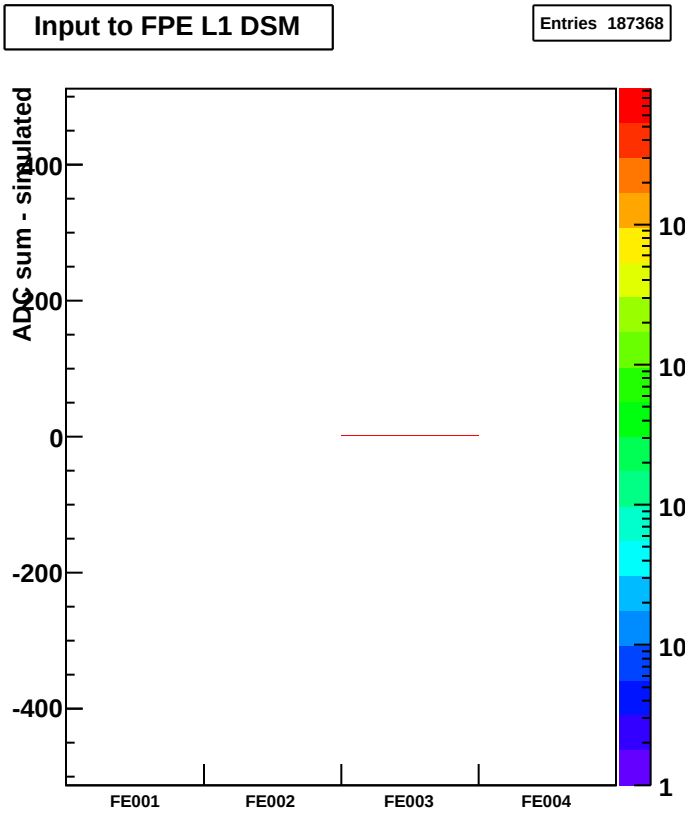

Input to FE001 QT board
Entries2997888
ADC
channel

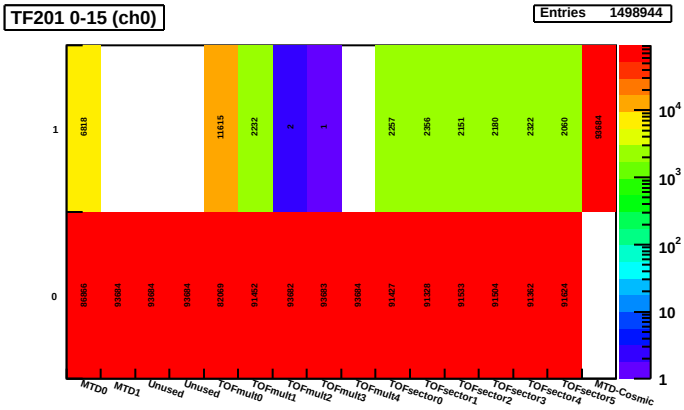

Input to FE002 QT board
Entries2997888
ADC
channel

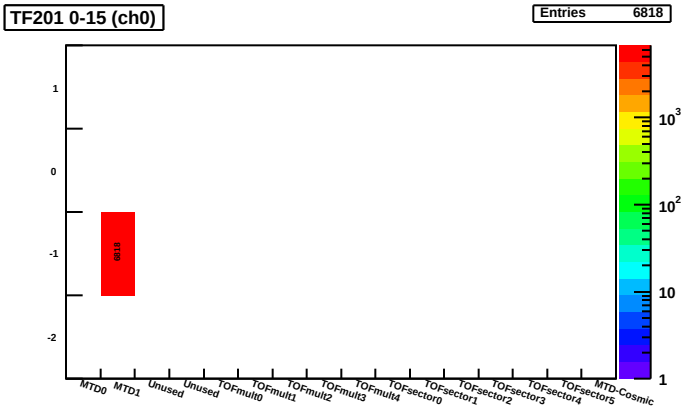

Input to FE003 QT board
Entries2997888
ADC
channel

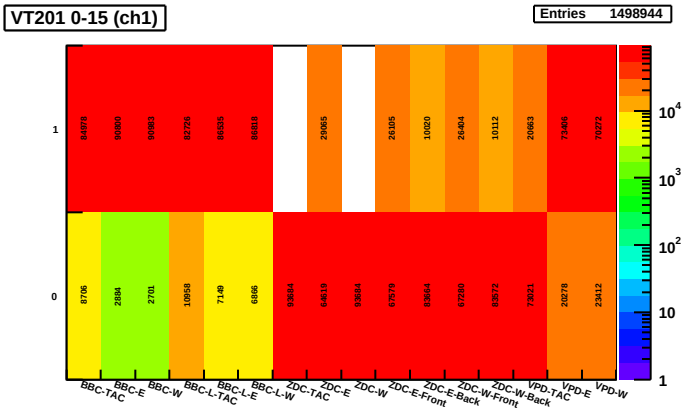

Input to FE004 QT board
Entries2997888
ADC
channel

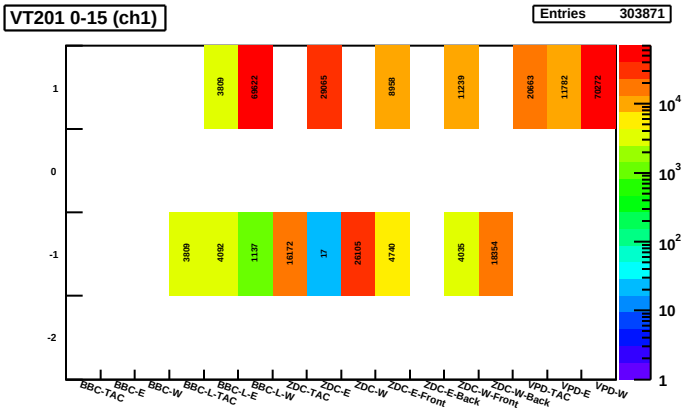

Input to FPE L1 DSM
Entries 374736
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1


Input to FPE L1 DSM
Entries 187368
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1


TF201 0-15 (ch0)
Entries 1498944
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


TF201 0-15 (ch0)
Entries 6818
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 1498944
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W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Entries 303871
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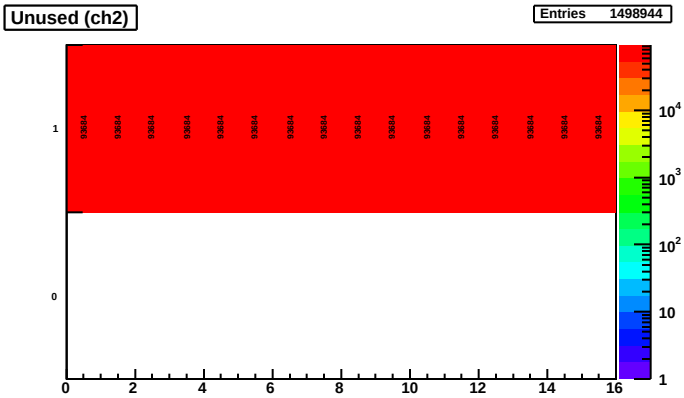
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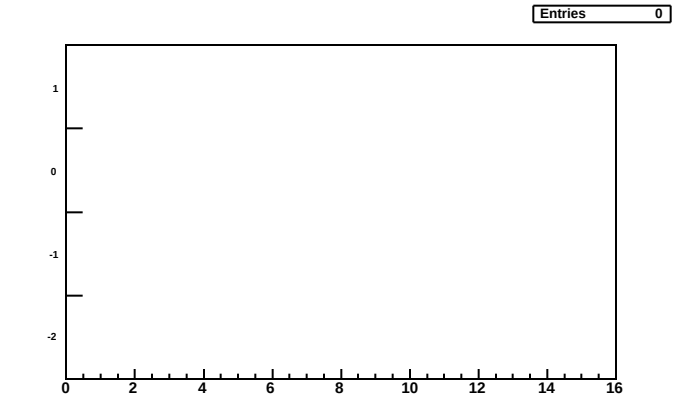
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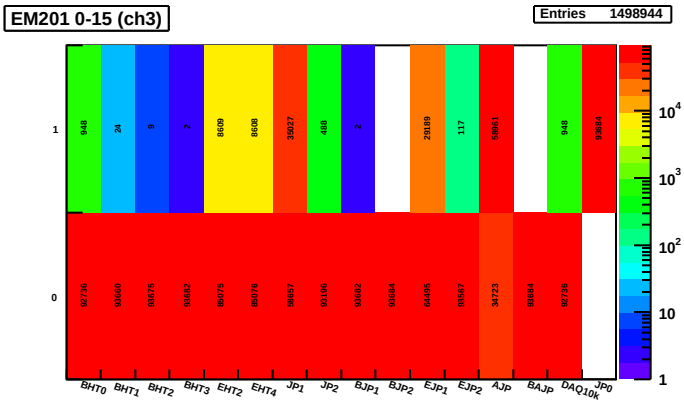
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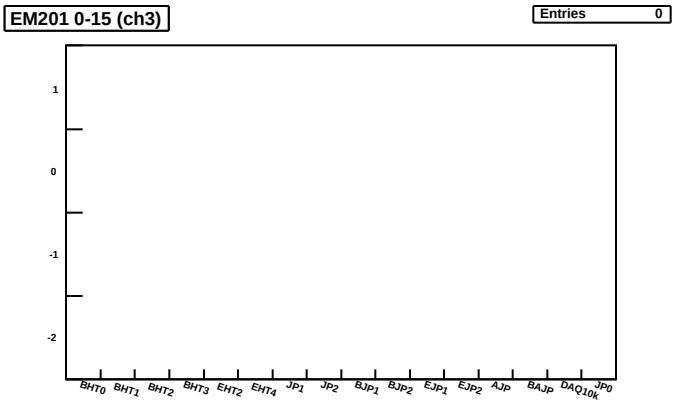
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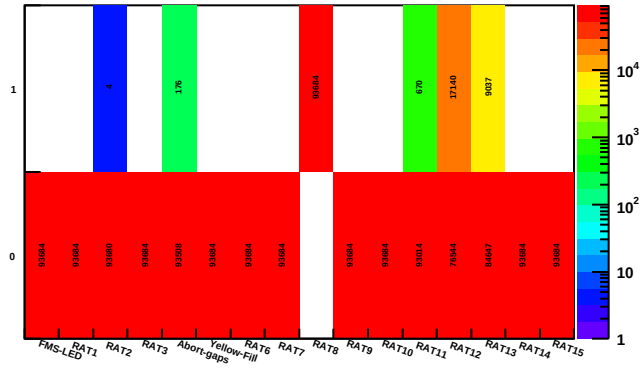
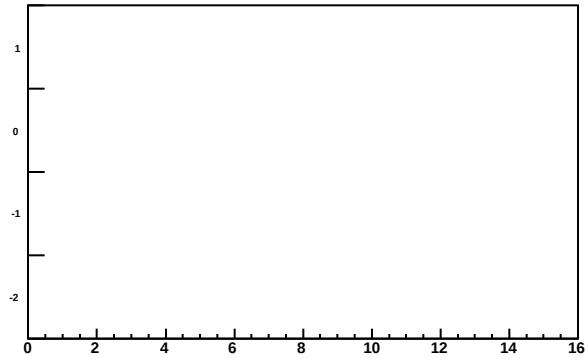
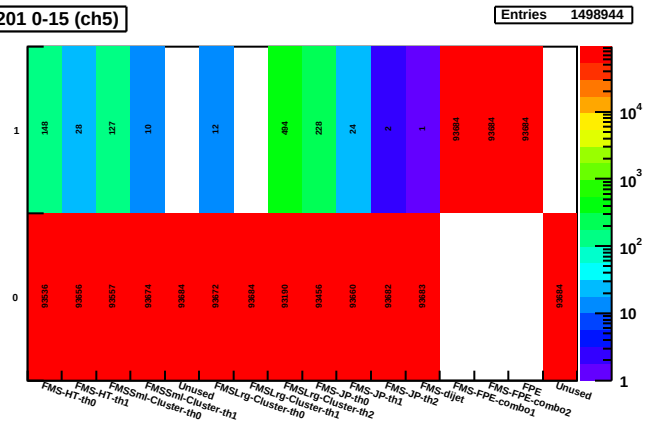
RAT board (ch4)





FP201 0-15 (ch5)



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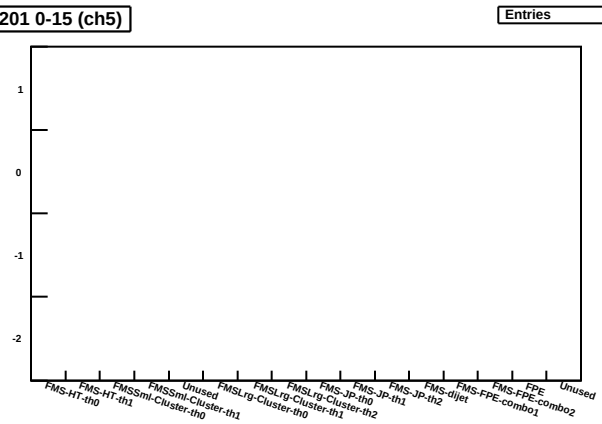
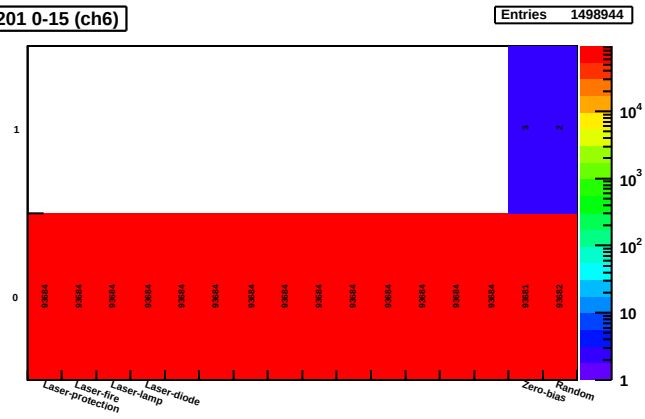
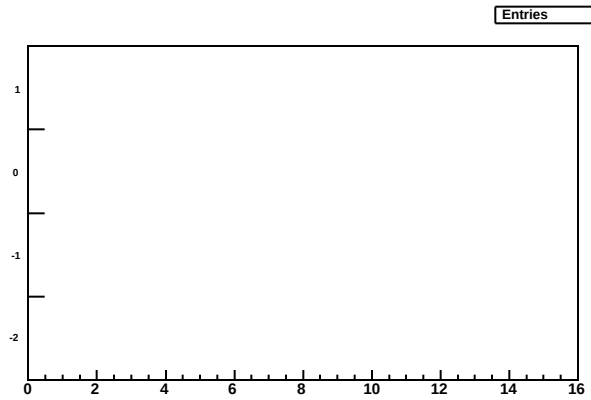
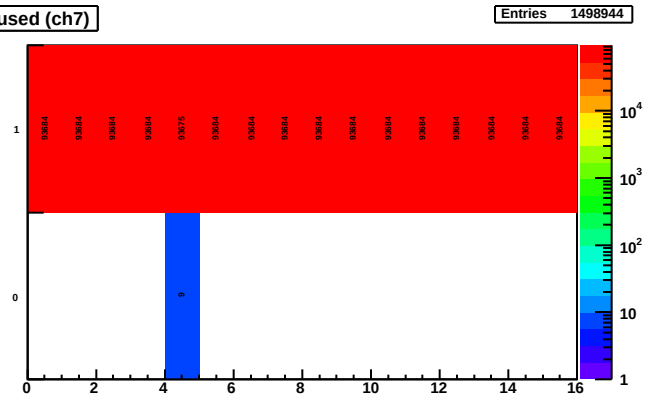
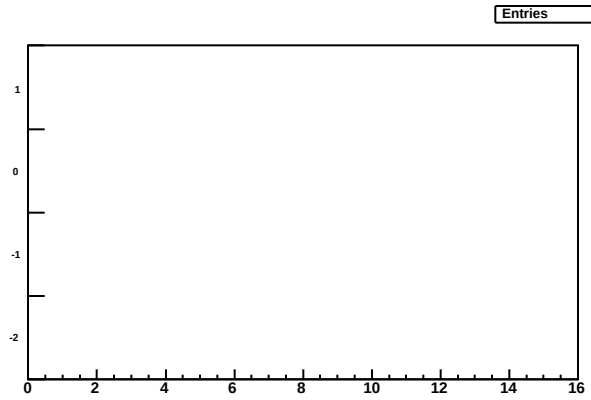


ST201 0-15 (ch6)





Unused (ch7)