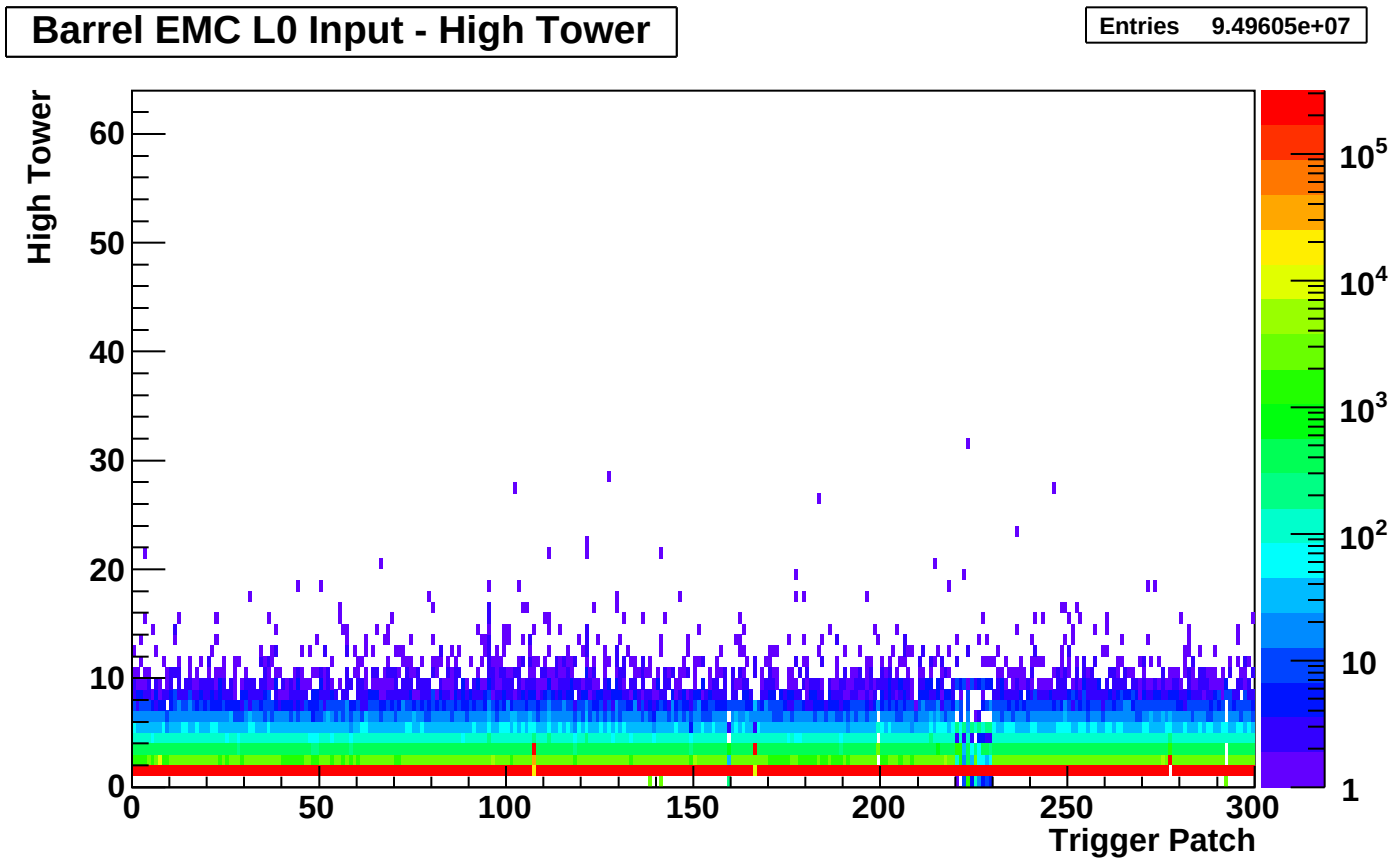
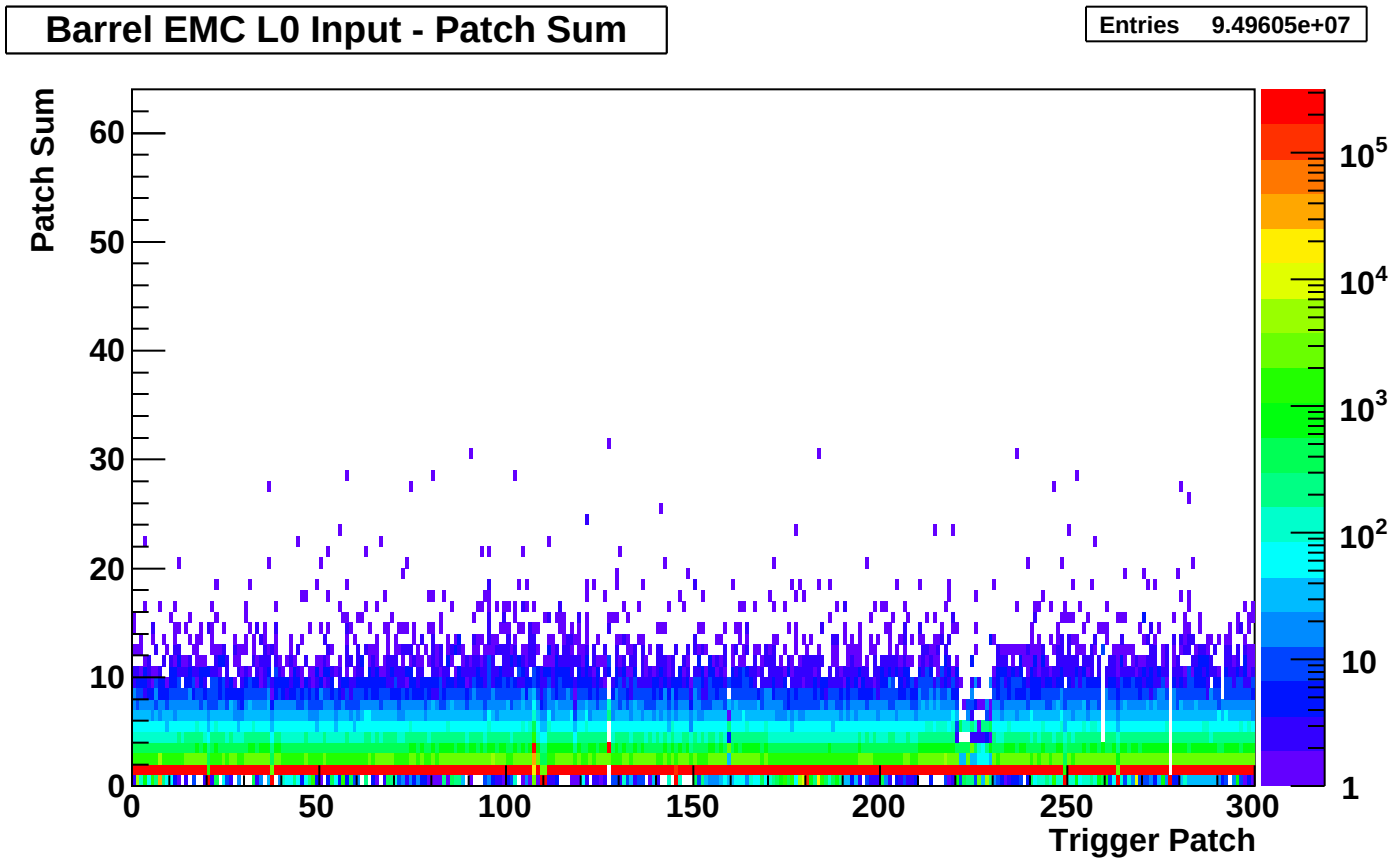
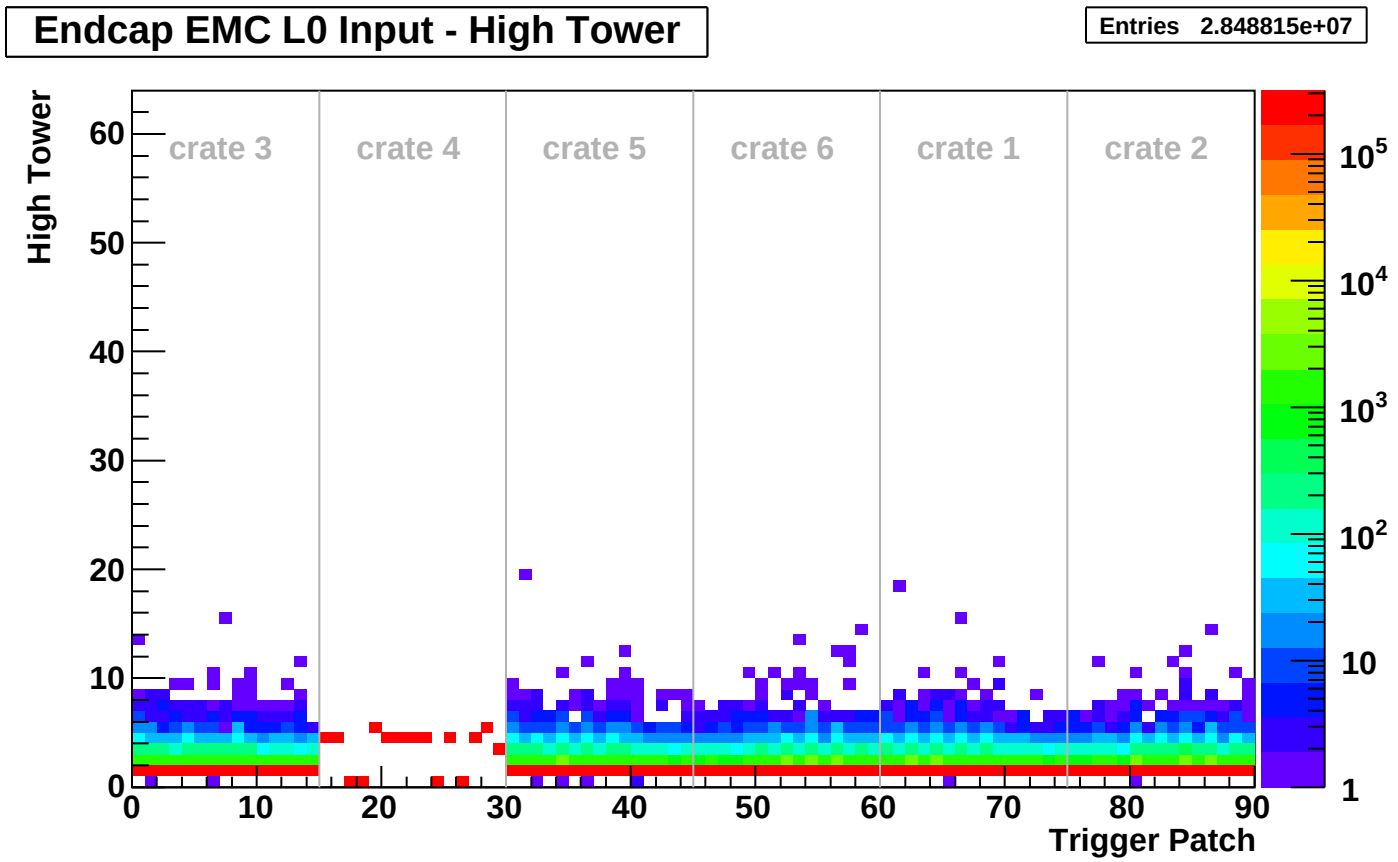
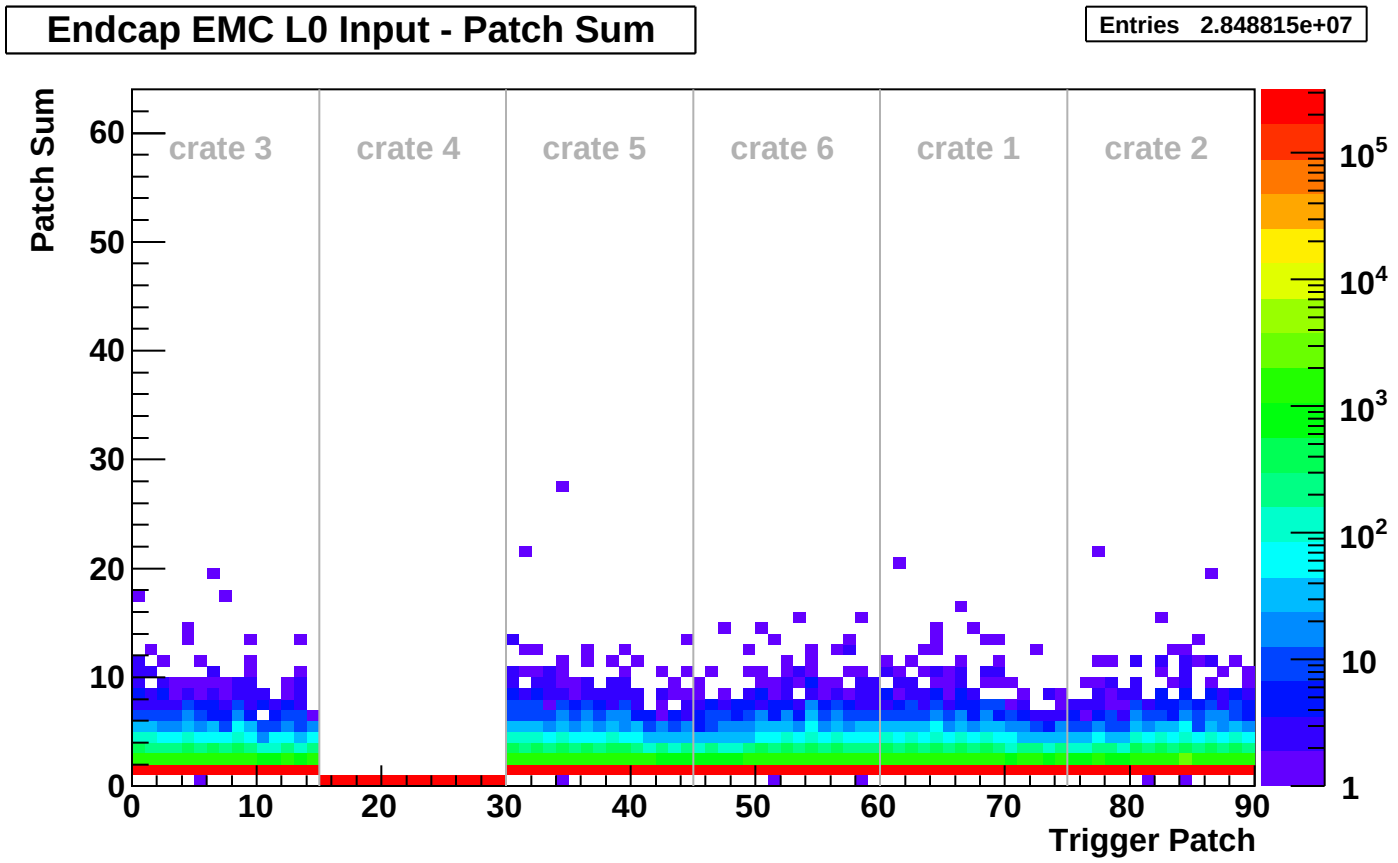
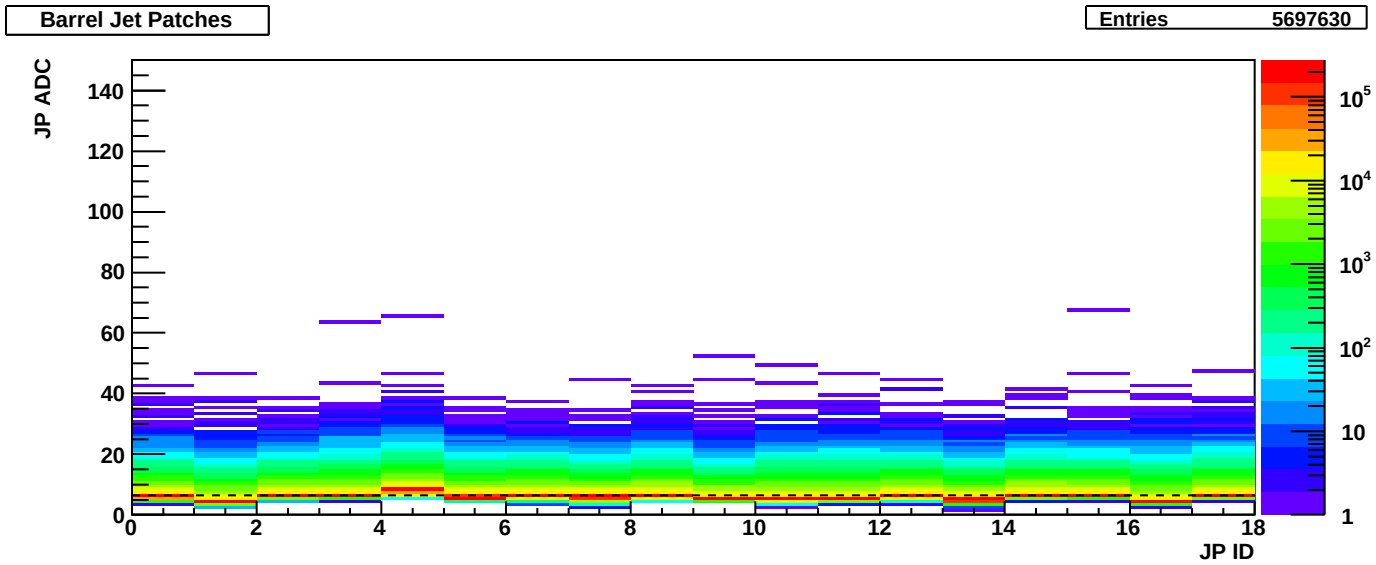
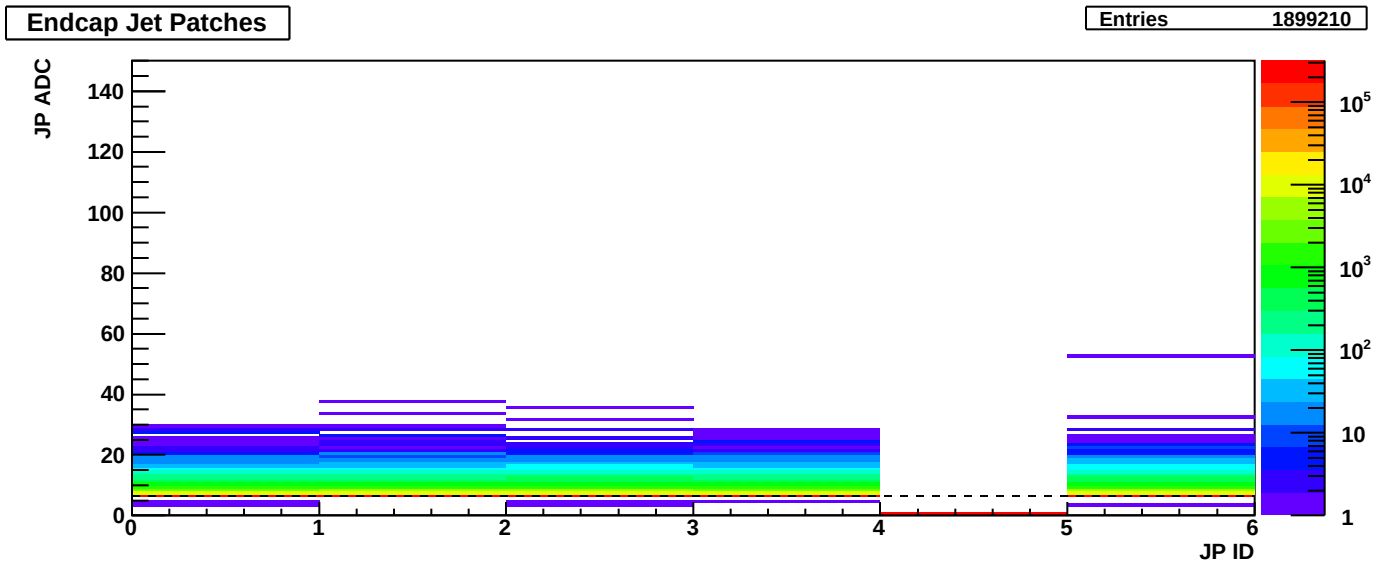

Barrel EMC L0 Input - High Tower
Entries 9.49605e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
$10^2$
$10^3$
$10^4$
$10^5$

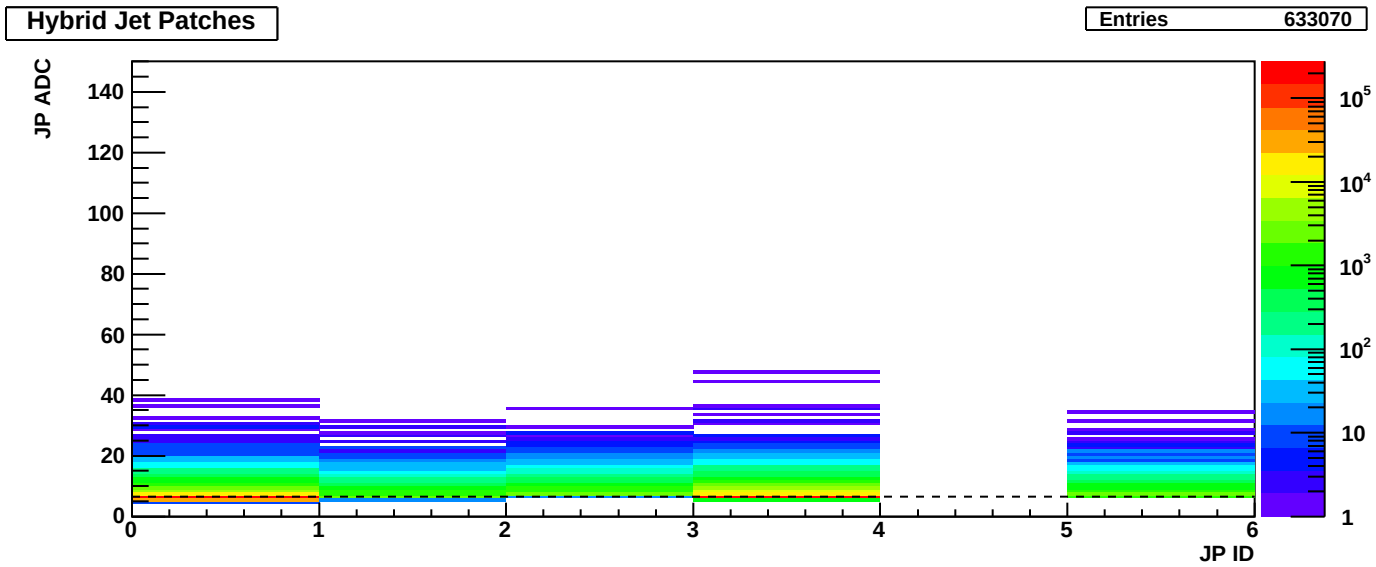

Barrel EMC L0 Input - Patch Sum
Entries 9.49605e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
$10^2$
$10^3$
$10^4$
$10^5$

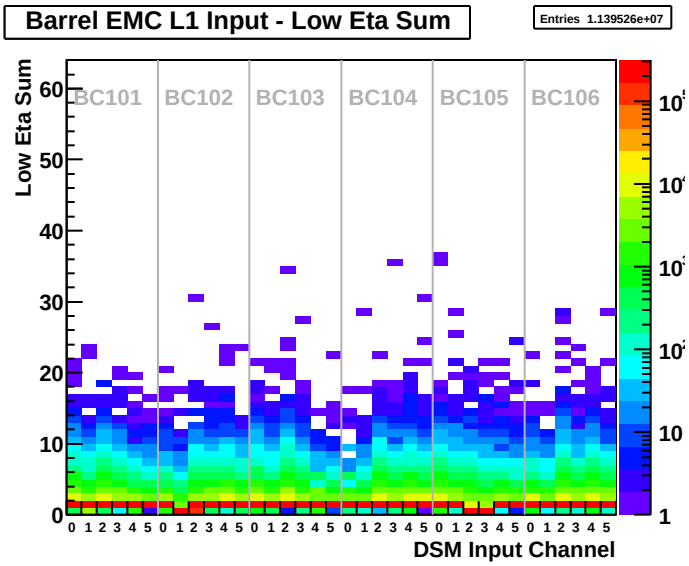

Endcap EMC L0 Input - High Tower
Entries 2.848815e+07
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

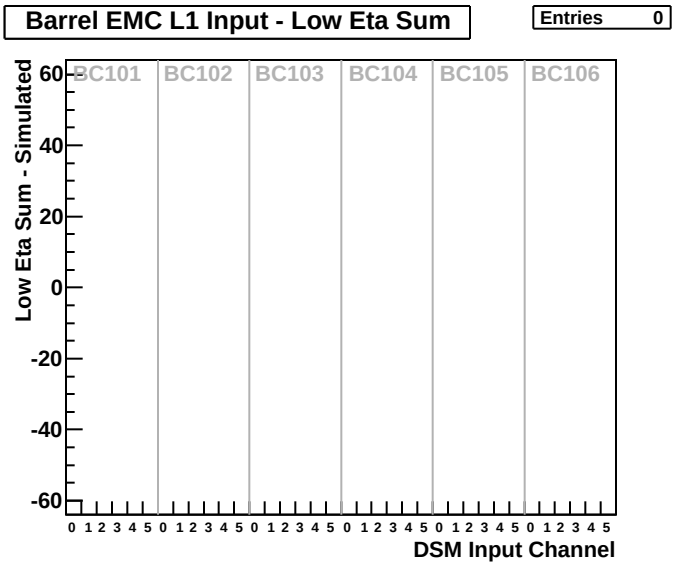

Endcap EMC L0 Input - Patch Sum
Entries 2.848815e+07
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

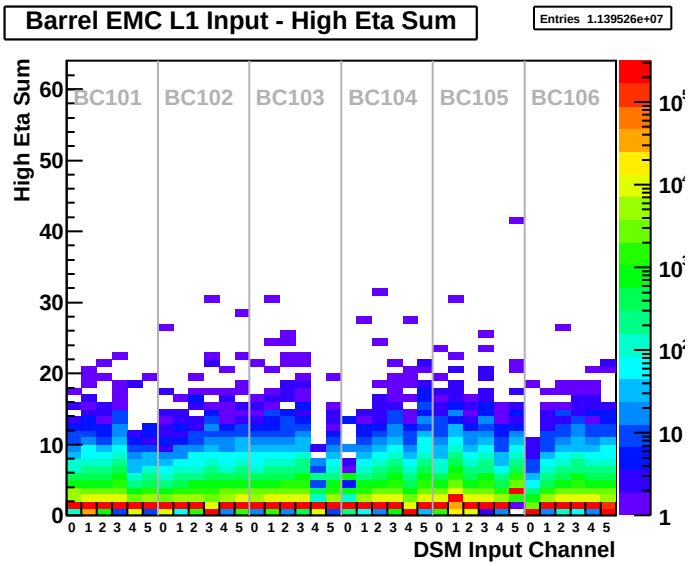

Barrel Jet Patches
Entries 5697630
JP ADC
JP ID

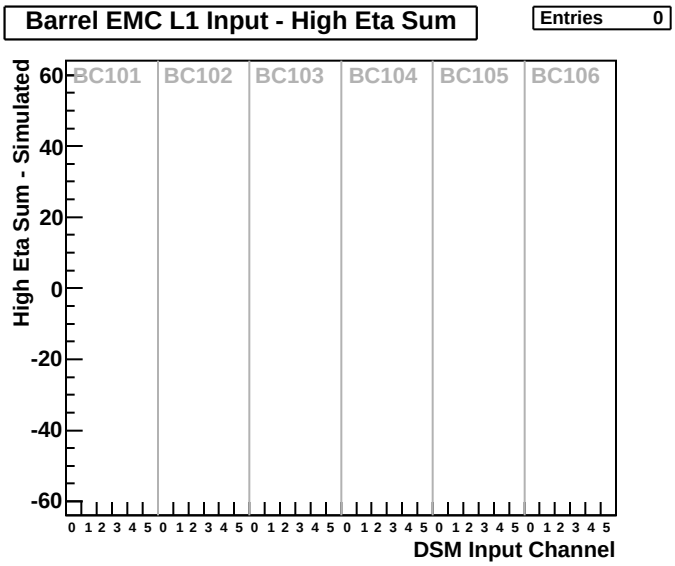

Endcap Jet Patches
Entries 1899210
JP ADC
JP ID

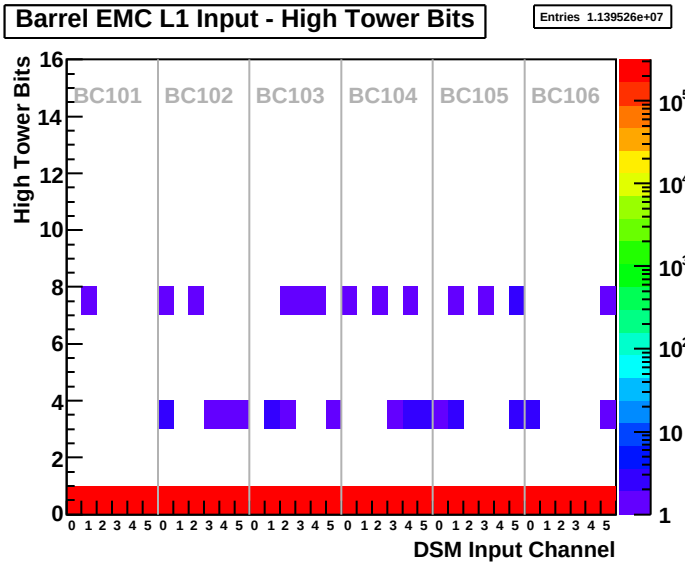

Hybrid Jet Patches
Entries 633070
JP ADC
JP ID

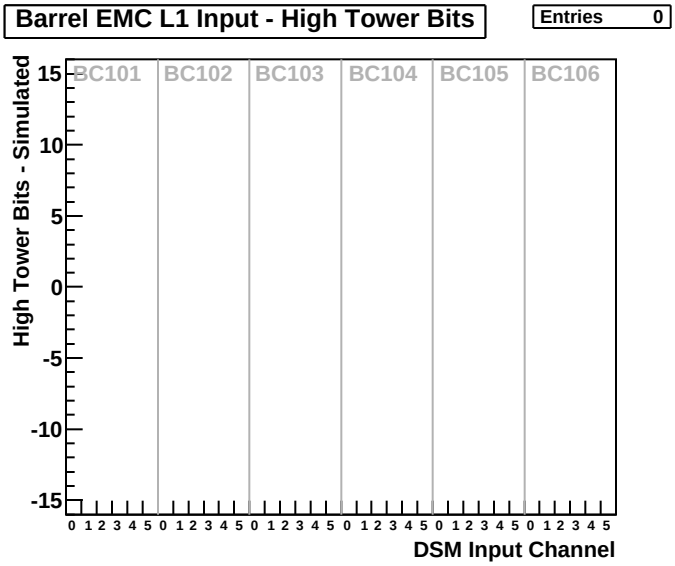

Barrel EMC L1 Input - Low Eta Sum
Entries 1.139526e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

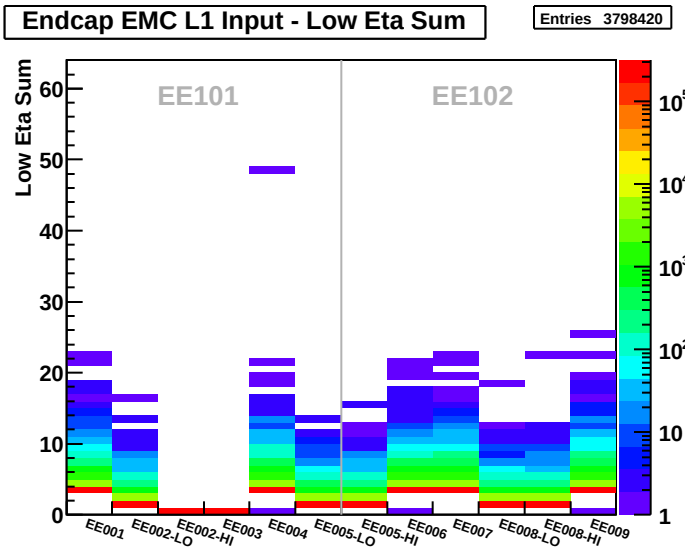

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

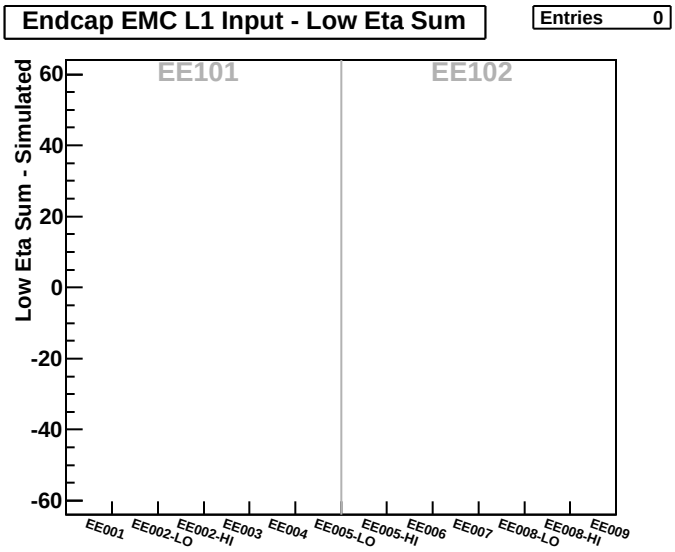

Barrel EMC L1 Input - High Eta Sum
Entries 1.139526e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

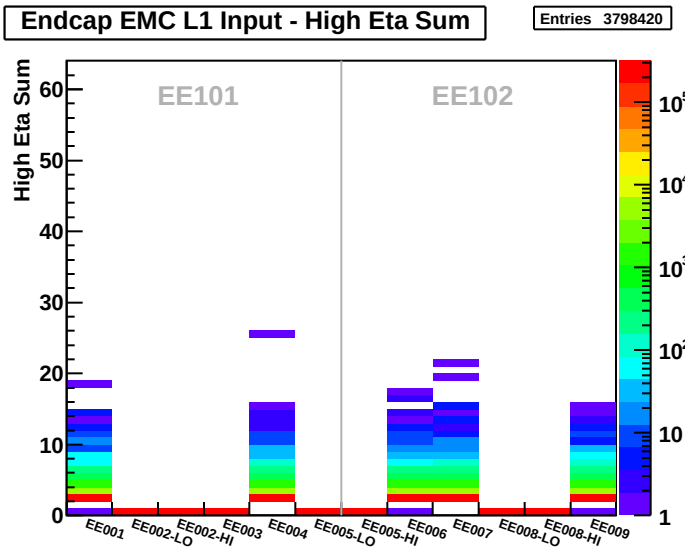

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

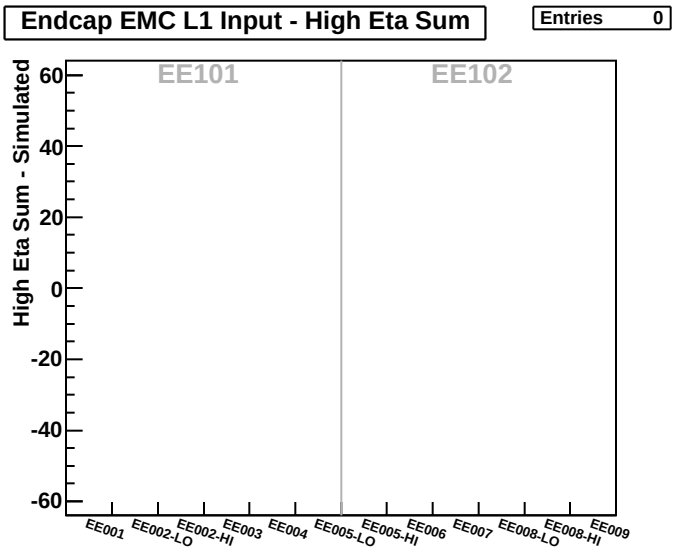

Barrel EMC L1 Input - High Tower Bits
Entries 1.139526e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

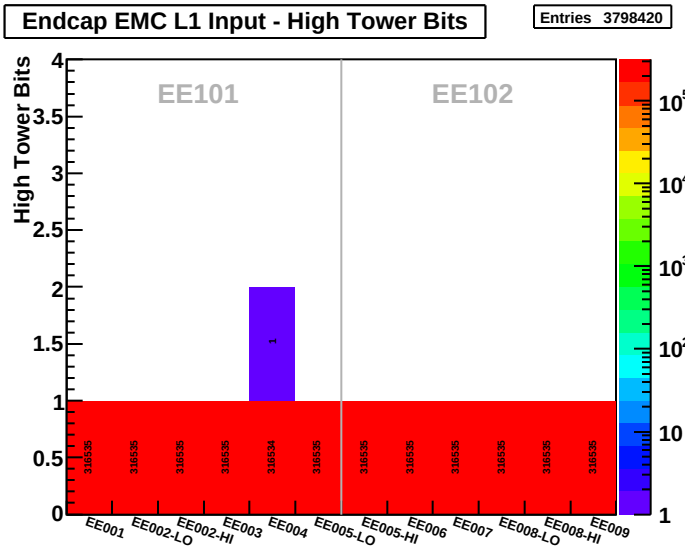

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

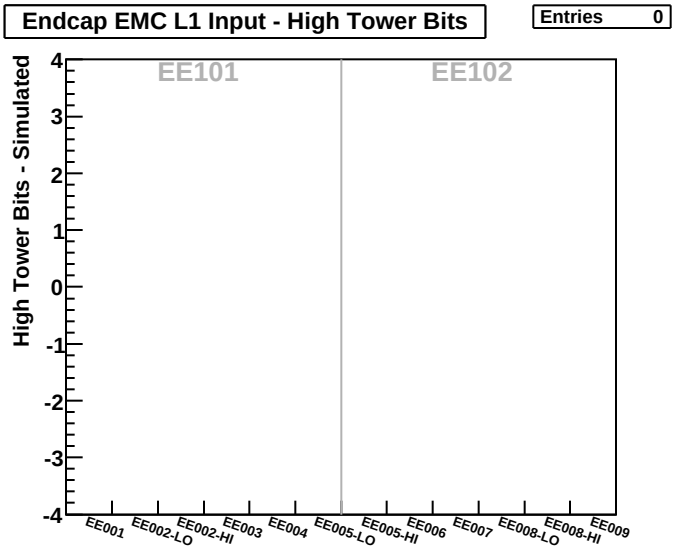

Endcap EMC L1 Input - Low Eta Sum
Entries 3798420
Low Eta Sum
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

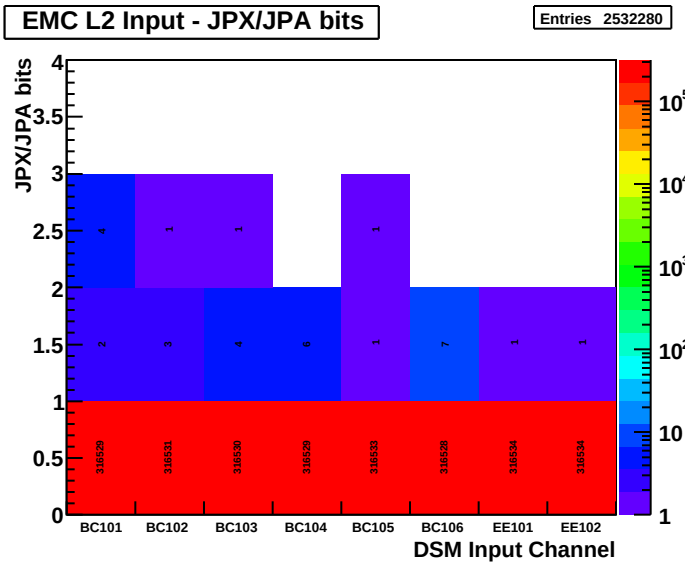

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

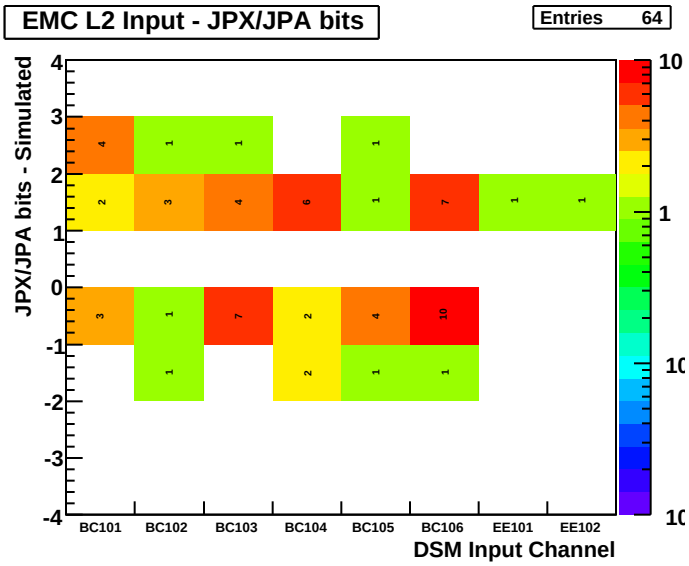

Endcap EMC L1 Input - High Eta Sum
Entries 3798420
High Eta Sum
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

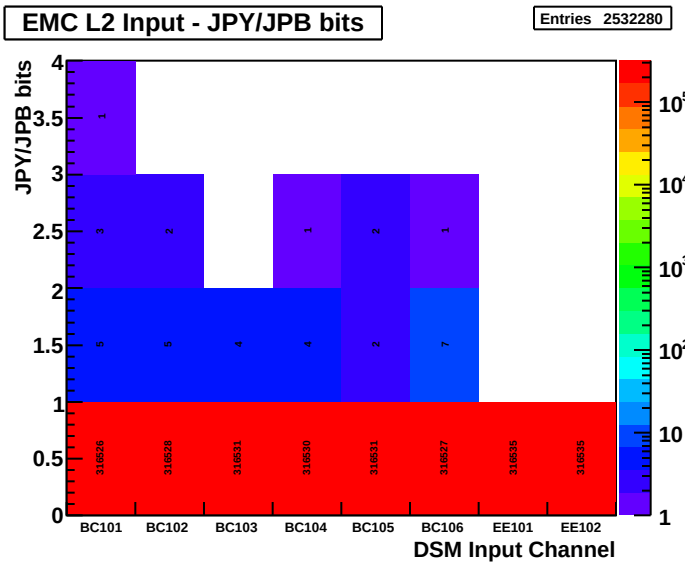

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

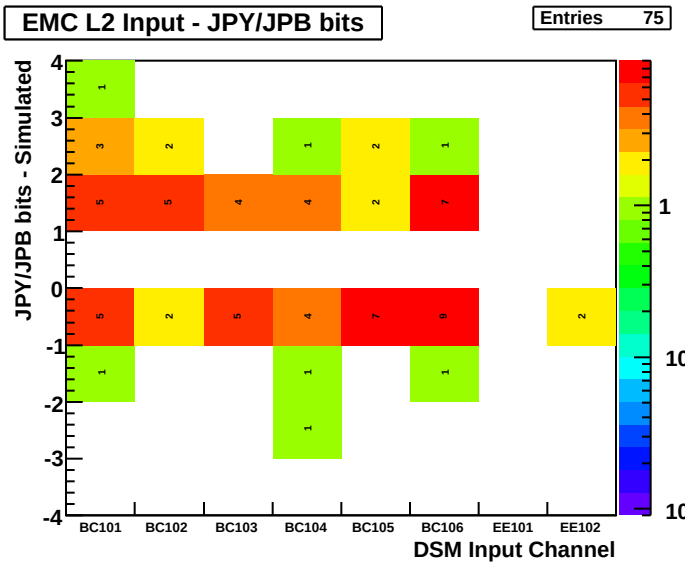

Endcap EMC L1 Input - High Tower Bits
Entries 3798420
High Tower Bits
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

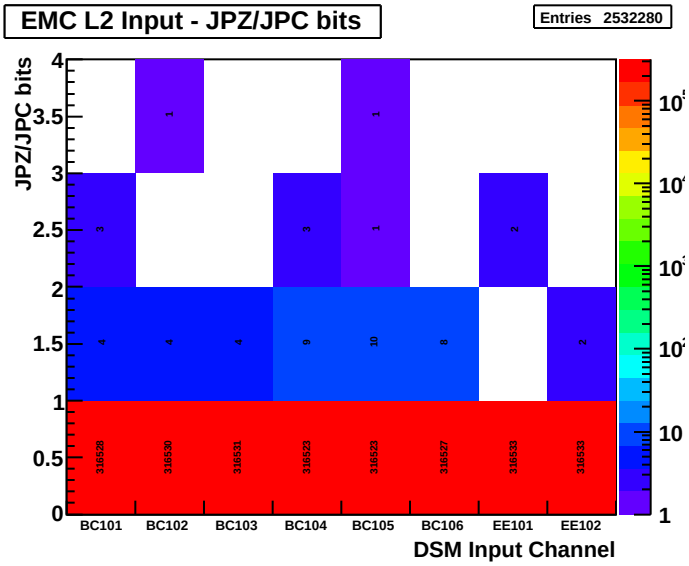

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

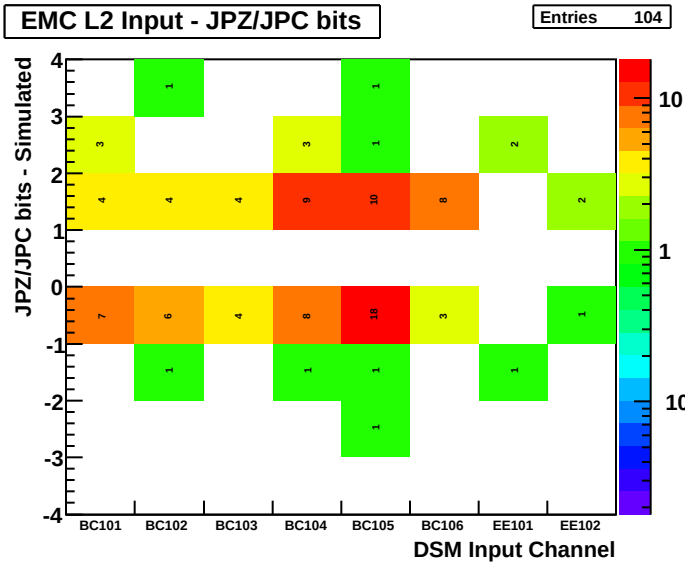

EMC L2 Input - JPX/JPA bits
Entries 2532280
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

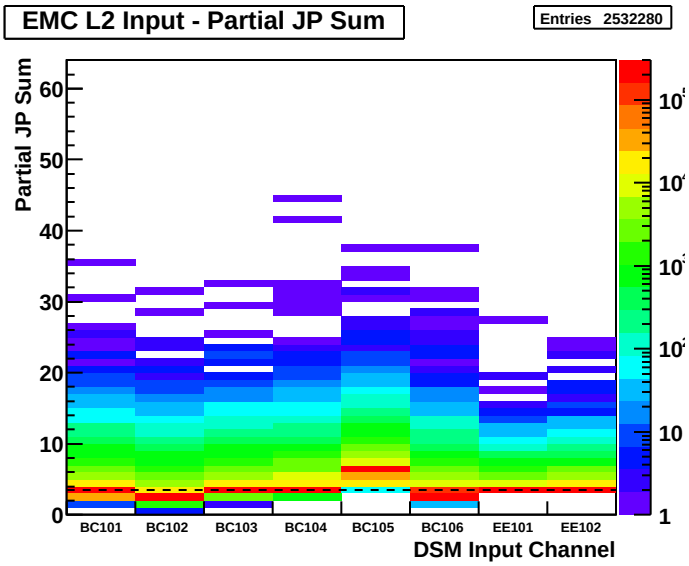

EMC L2 Input - JPX/JPA bits
Entries 64
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

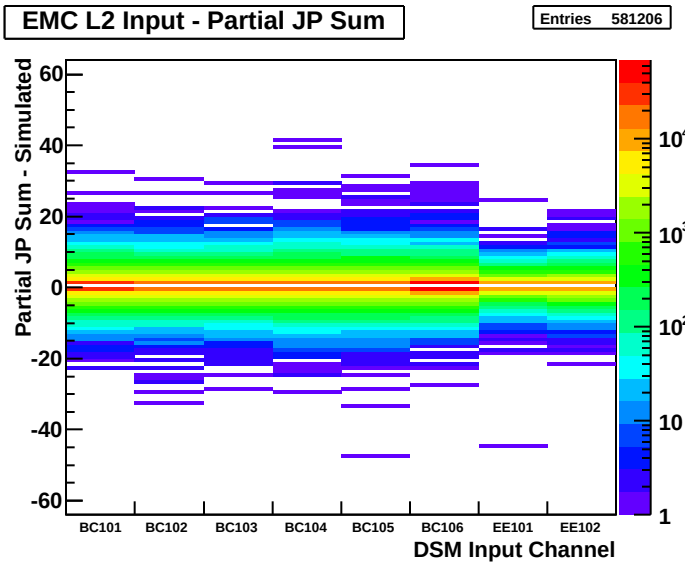

EMC L2 Input - JPY/JPB bits
Entries 2532280
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

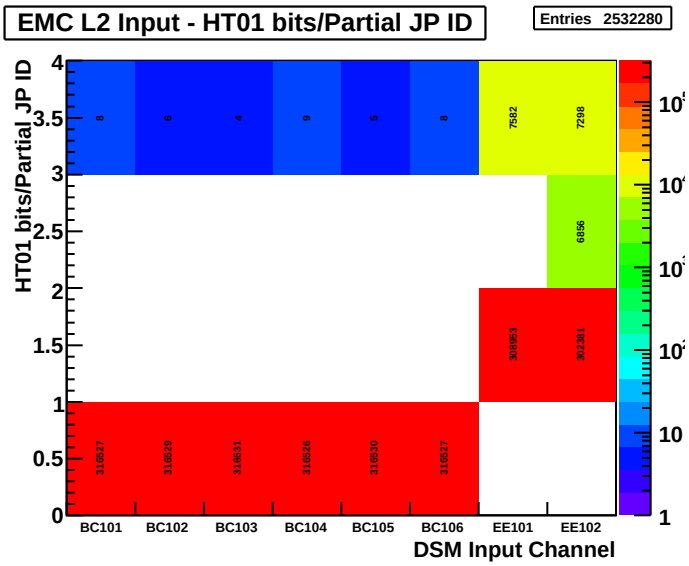

EMC L2 Input - JPY/JPB bits
Entries 75
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

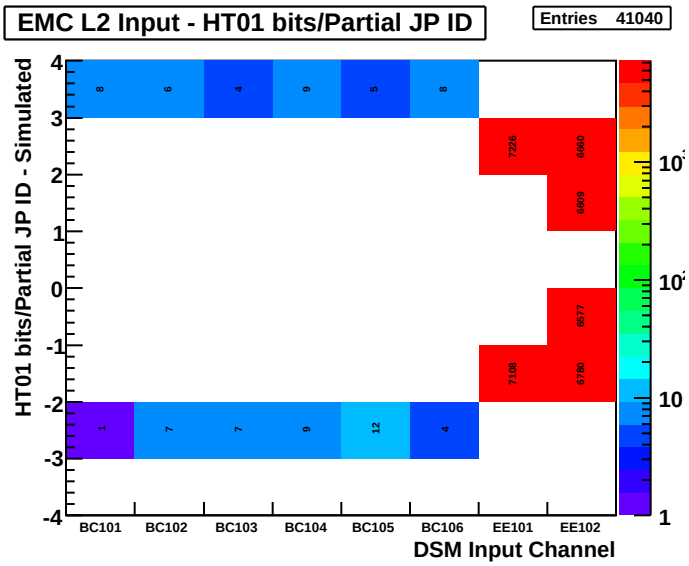

EMC L2 Input - JPZ/JPC bits
Entries 2532280
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

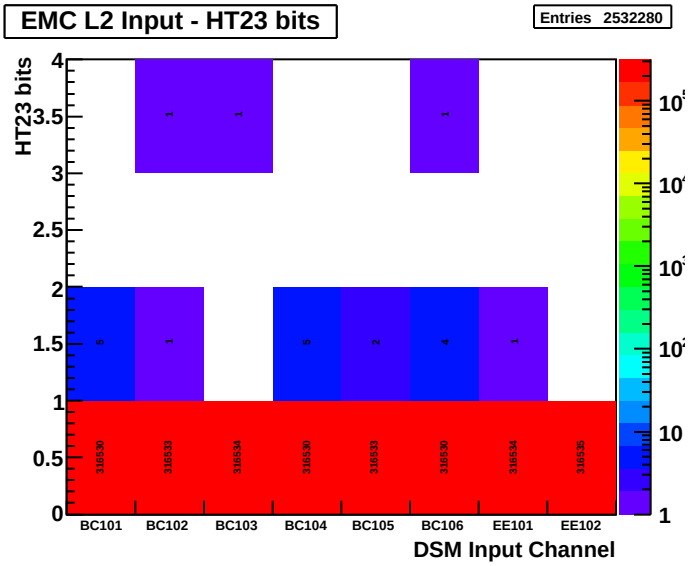

EMC L2 Input - JPZ/JPC bits
Entries 104
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

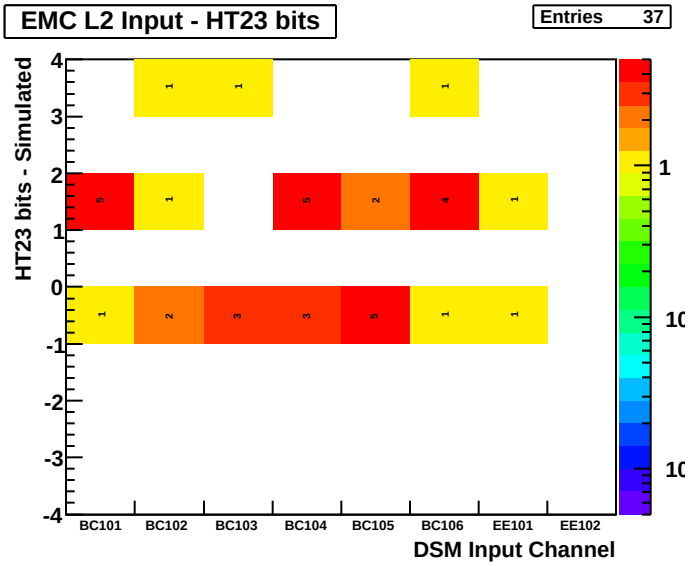

EMC L2 Input - Partial JP Sum
Entries 2532280
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

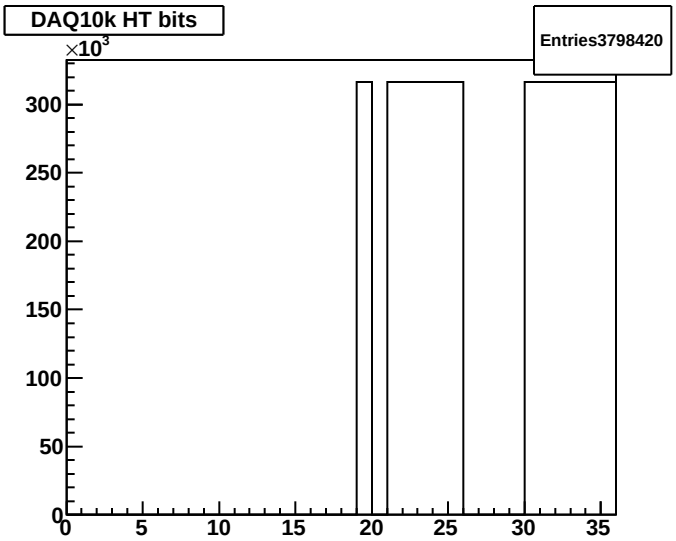

EMC L2 Input - Partial JP Sum
Entries 581206
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

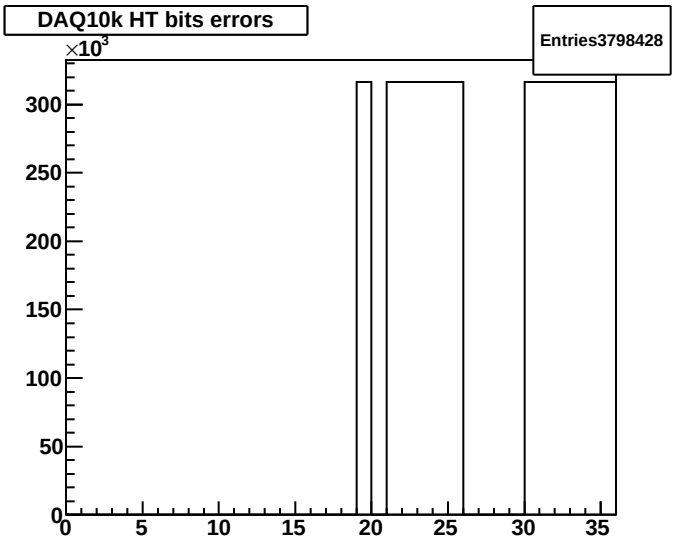

EMC L2 Input - HT01 bits/Partial JP ID
Entries 2532280
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

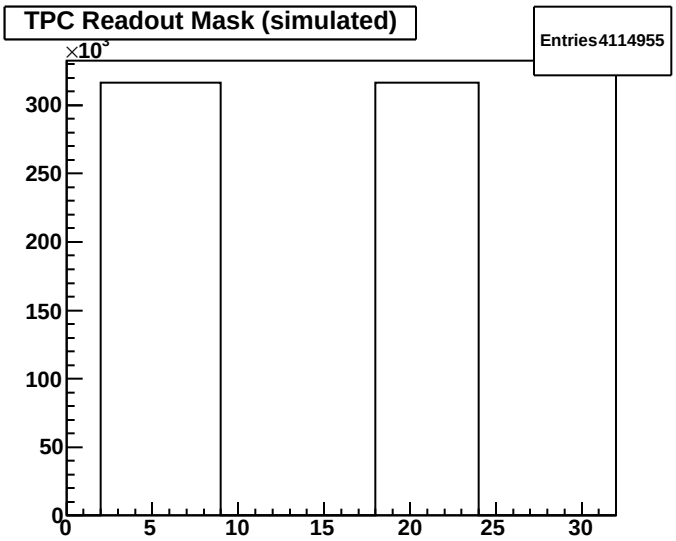

EMC L2 Input - HT01 bits/Partial JP ID
Entries 41040
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

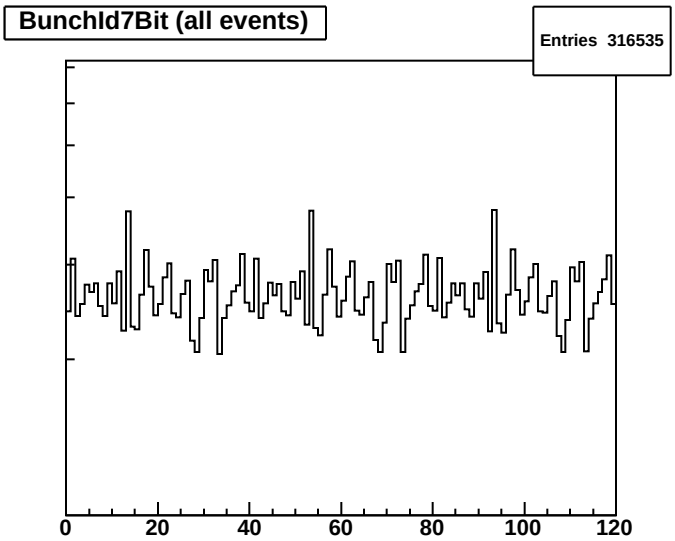

EMC L2 Input - HT23 bits
Entries 2532280
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

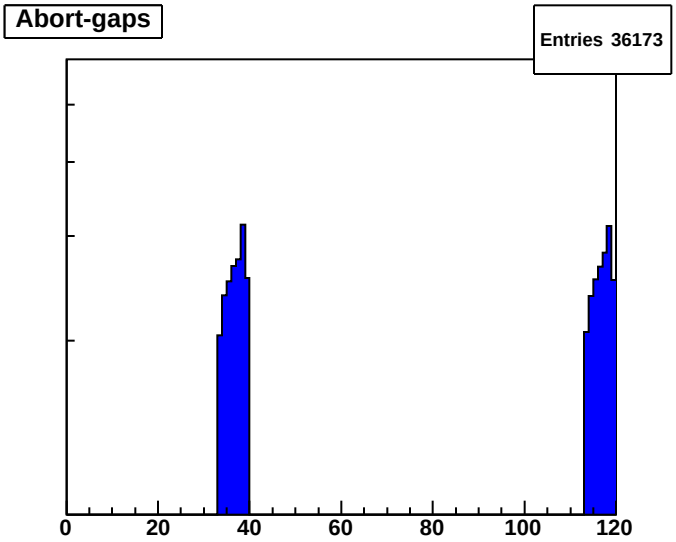

EMC L2 Input - HT23 bits
Entries 37
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

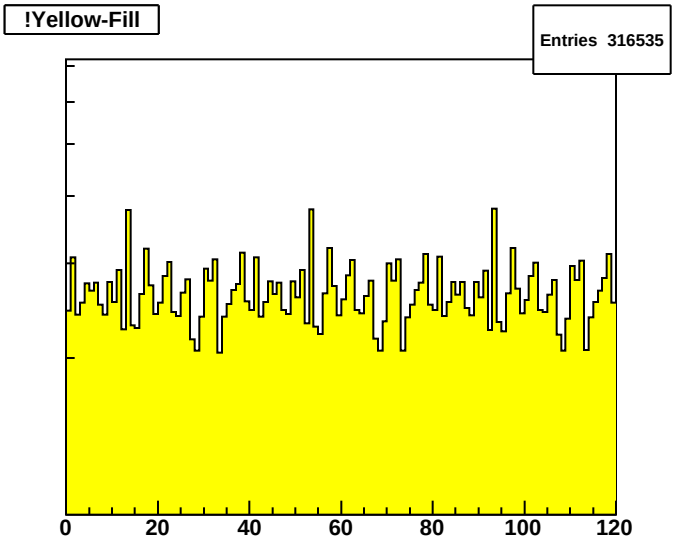

DAQ10k HT bits
Entries3798420
×10^3
300
250
200
150
100
50
0
0 5 10 15 20 25 30 35

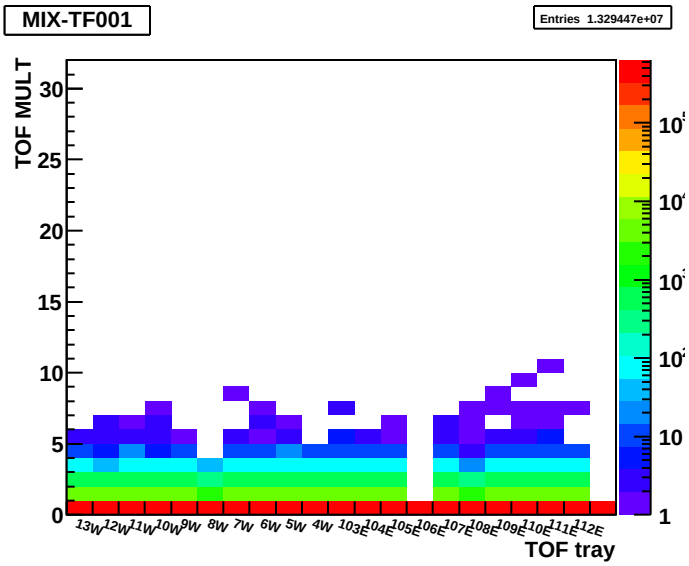

DAQ10k HT bits errors
Entries3798428
×10^3
300
250
200
150
100
50
0
0 5 10 15 20 25 30 35

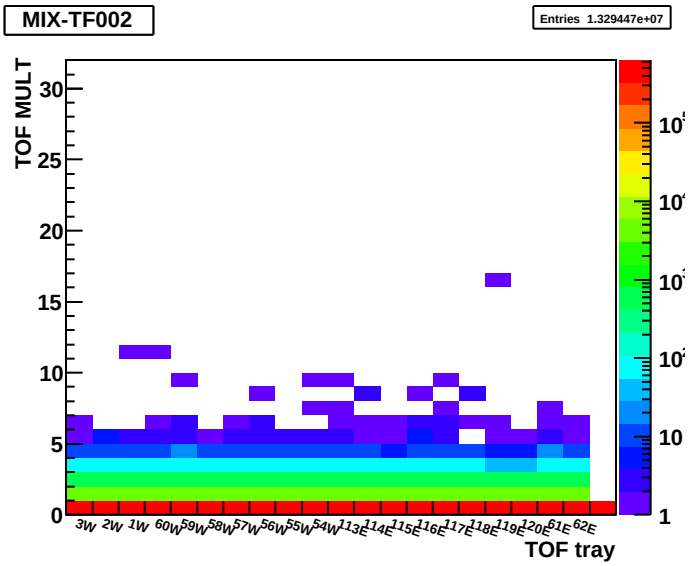

TPC Readout Mask (simulated)
Entries4114955
×10^3
300
250
200
150
100
50
0
0 5 10 15 20 25 30

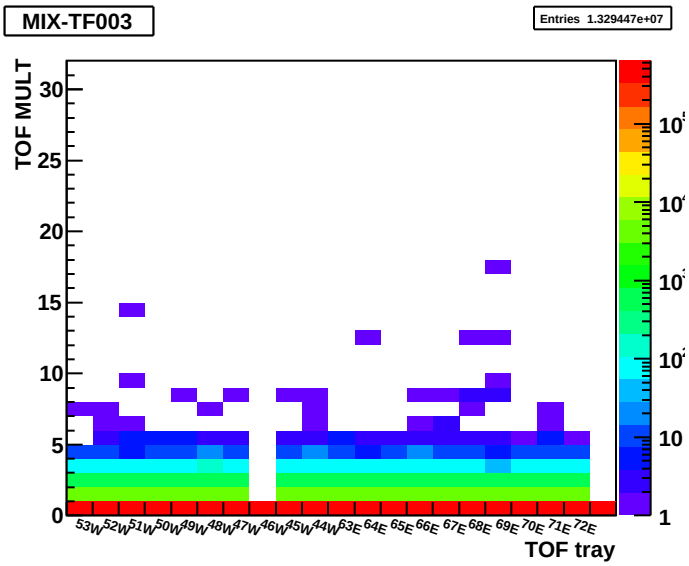

BunchId7Bit (all events)
Entries 316535
0 20 40 60 80 100 120

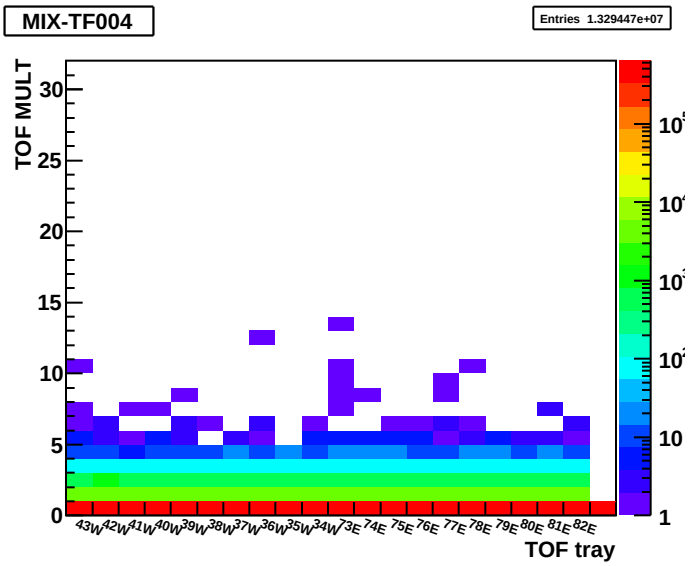

Abort-gaps
Entries 36173
0 20 40 60 80 100 120

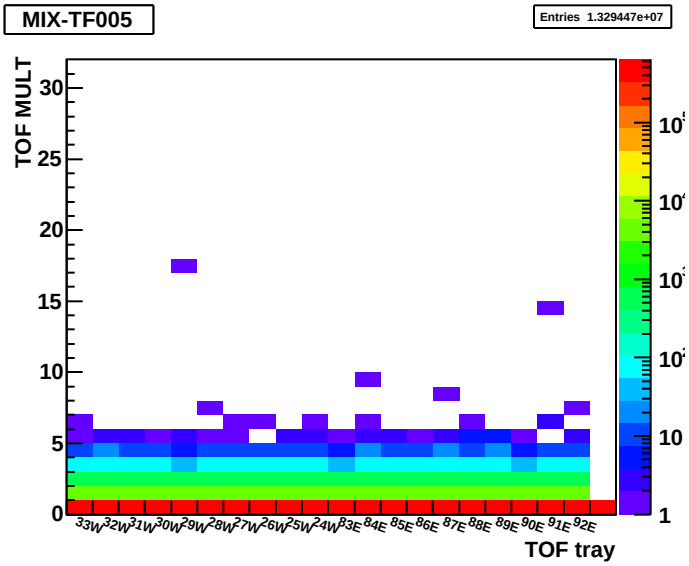

!Yellow-Fill
Entries 316535
0 20 40 60 80 100 120

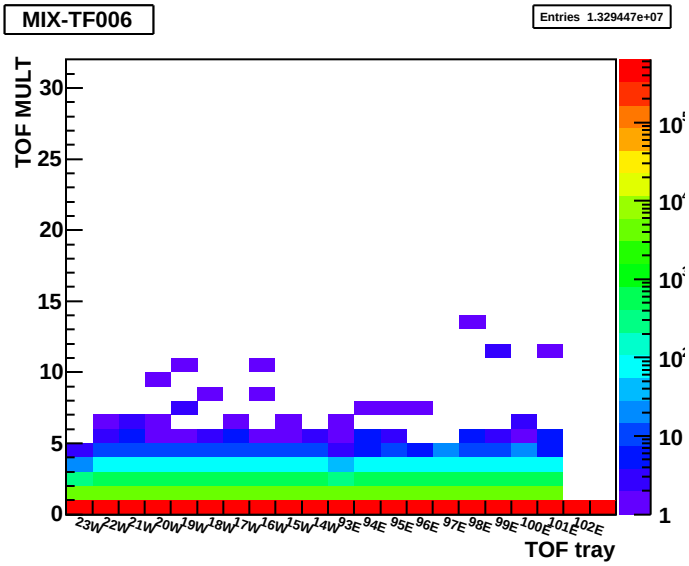

MIX-TF001
Entries 1.329447e+07
TOF MULT
TOF tray

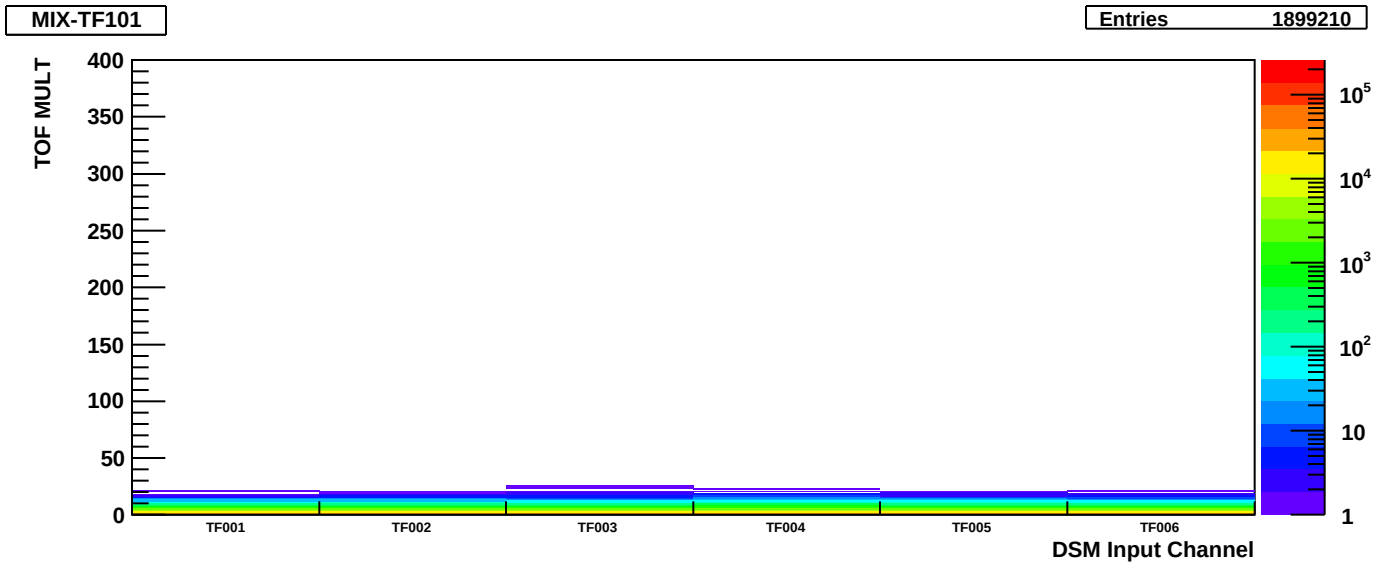

MIX-TF002
Entries 1.329447e+07
TOF MULT
TOF tray

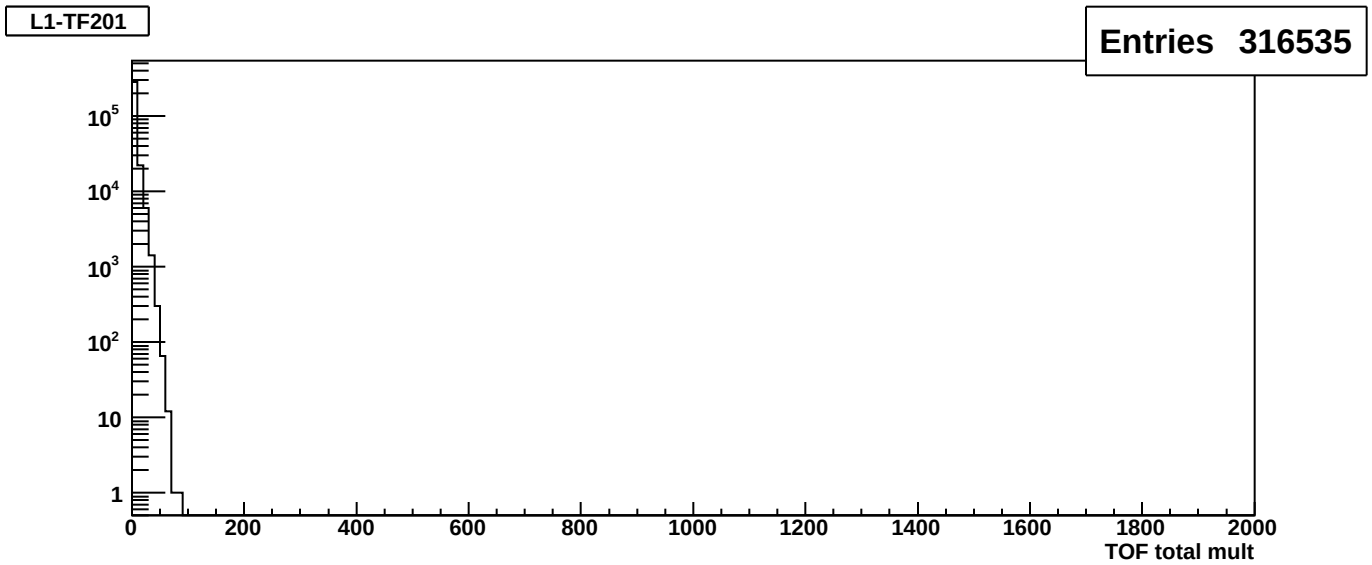

MIX-TF003
Entries 1.329447e+07
TOF MULT
TOF tray

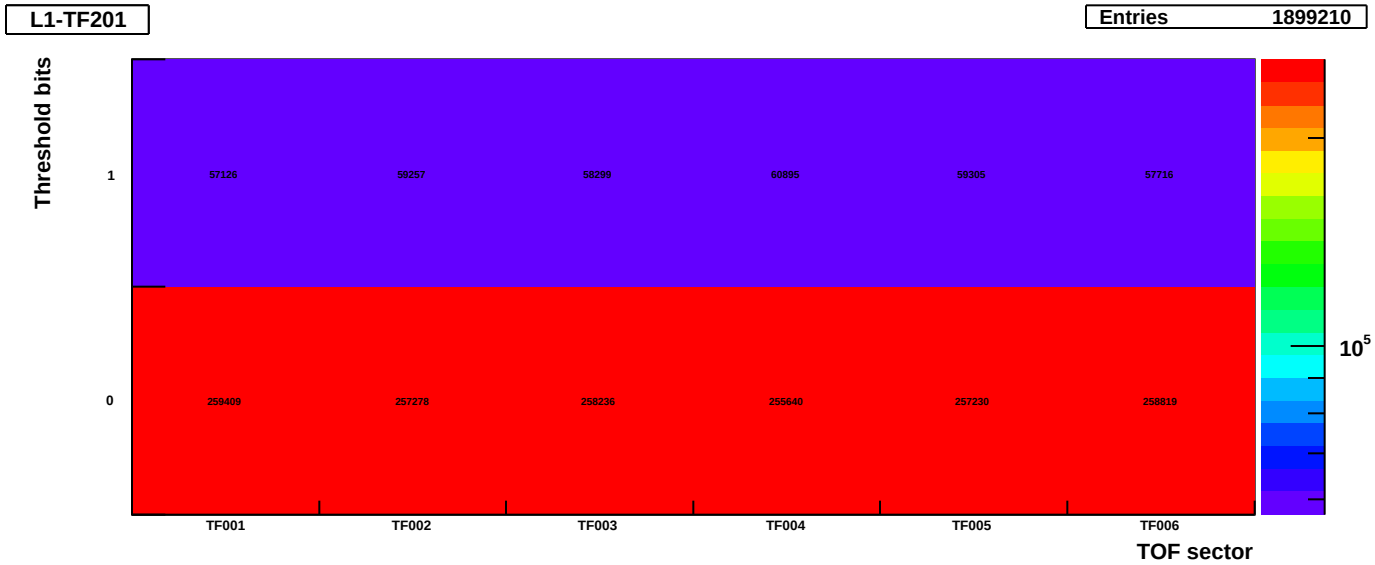

MIX-TF004
Entries 1.329447e+07
TOF MULT
TOF tray

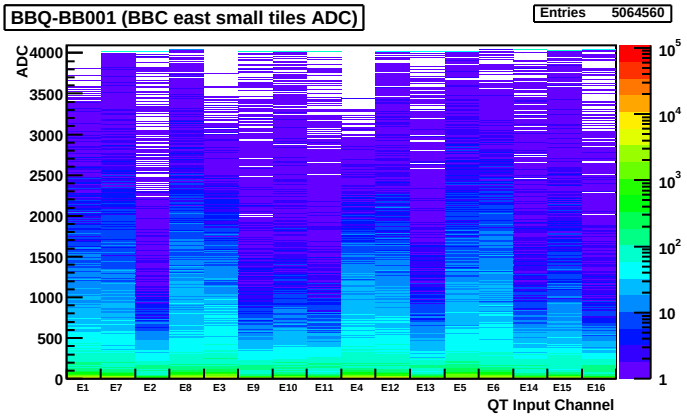

MIX-TF005
Entries 1.329447e+07
TOF MULT
TOF tray

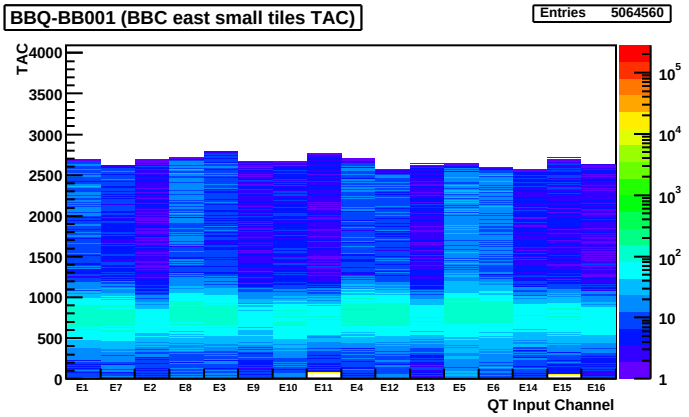

MIX-TF006
Entries 1.329447e+07
TOF MULT
TOF tray

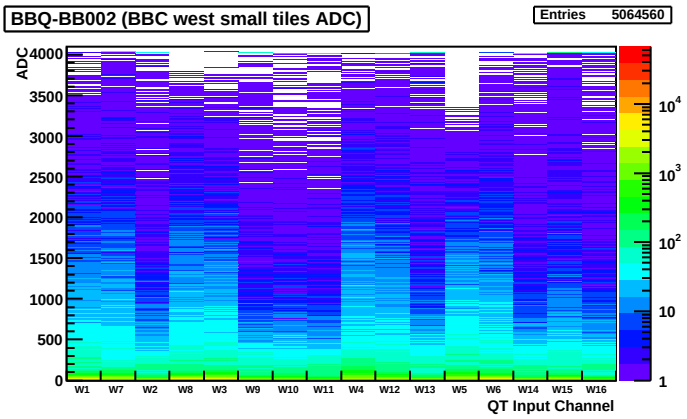

MIX-TF101
Entries 1899210
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
$10^5$
$10^4$
$10^3$
$10^2$
10
1

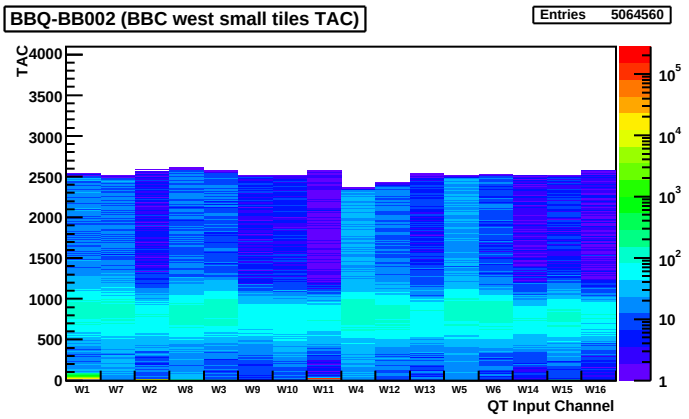

L1-TF201
Entries 316535
$10^5$
$10^4$
$10^3$
$10^2$
10
1
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

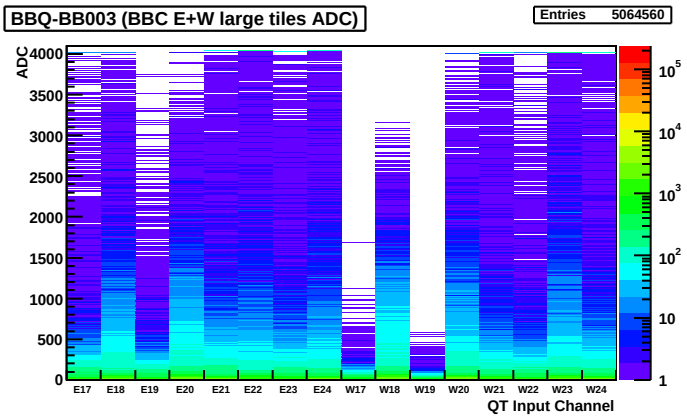

L1-TF201
Entries 1899210
Threshold bits
1
0
57126
59257
58299
60895
59305
57716
259409
257278
258236
255640
257230
258819
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
$10^5$

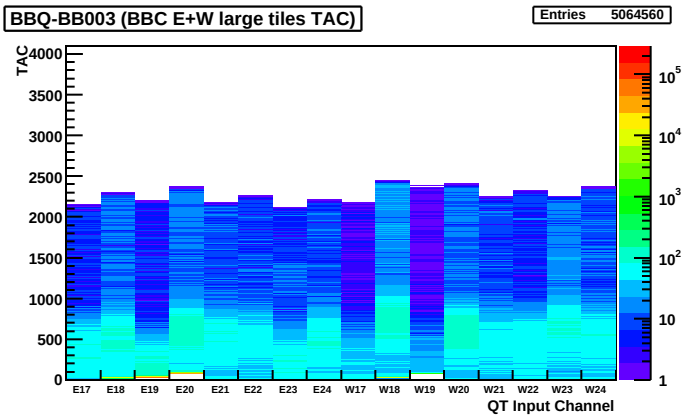

BBQ-BB001 (BBC east small tiles ADC)
Entries 5064560
ADC
QT Input Channel

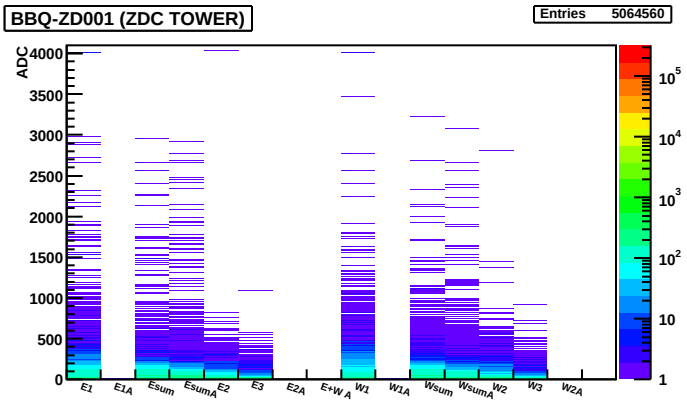

BBQ-BB001 (BBC east small tiles TAC)
Entries 5064560
TAC
QT Input Channel

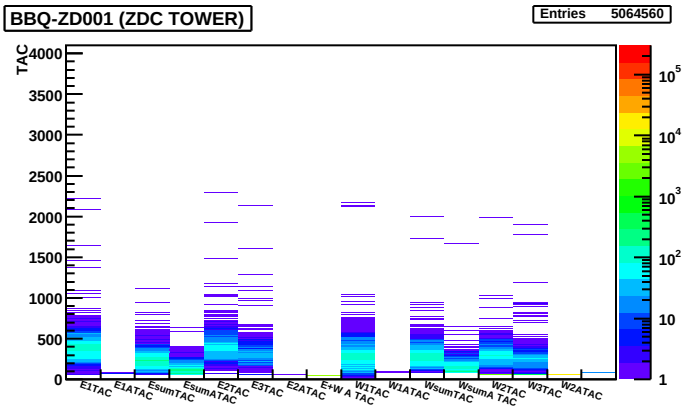

BBQ-BB002 (BBC west small tiles ADC)
Entries 5064560
ADC
QT Input Channel

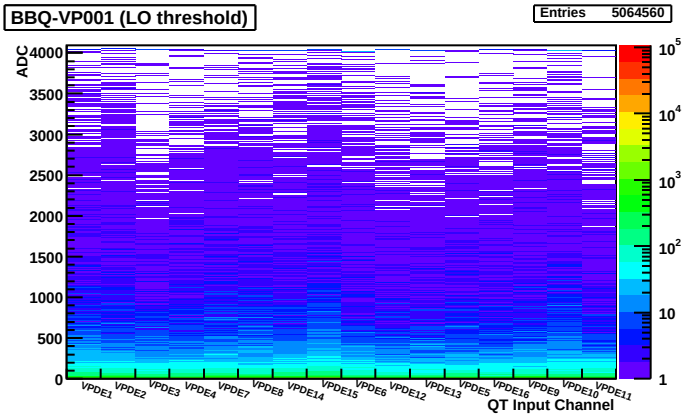

BBQ-BB002 (BBC west small tiles TAC)
Entries 5064560
TAC
QT Input Channel

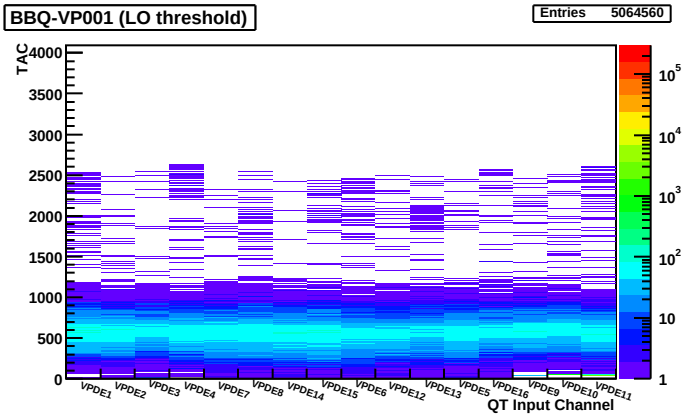

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 5064560
ADC
QT Input Channel

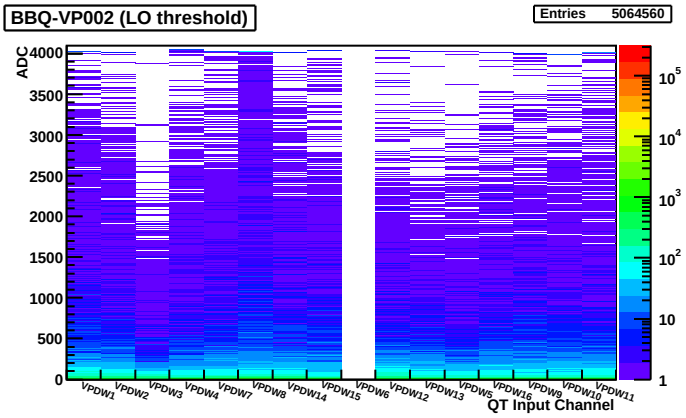

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 5064560
TAC
QT Input Channel

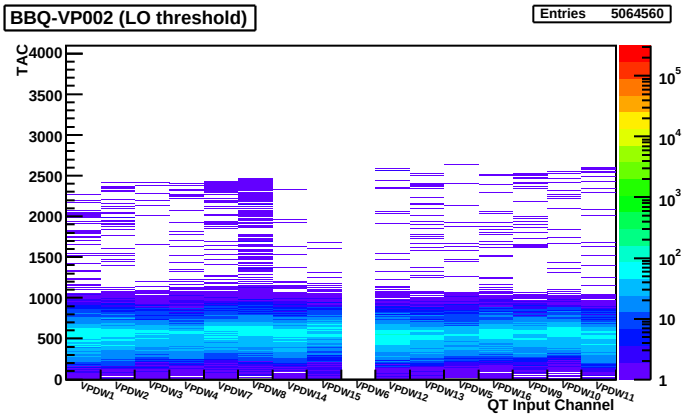

BBQ-ZD001 (ZDC TOWER)
Entries 5064560
ADC

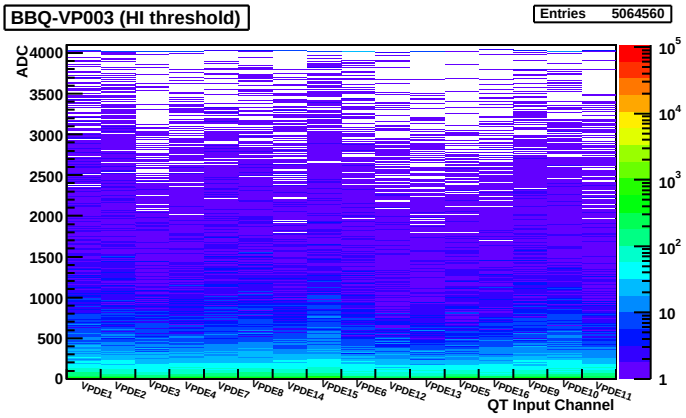

BBQ-ZD001 (ZDC TOWER)
Entries 5064560
TAC

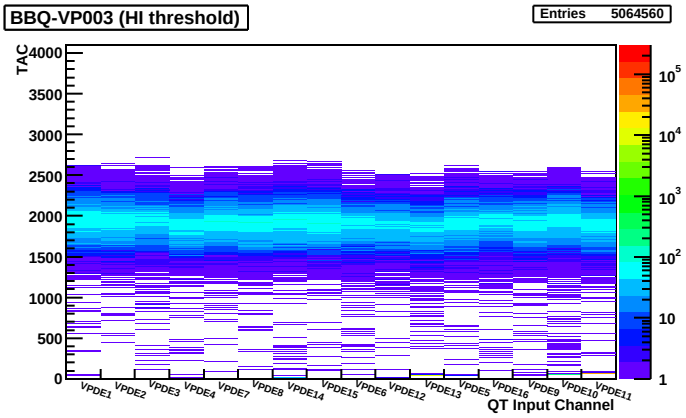

BBQ-VP001 (LO threshold)
Entries 5064560
ADC
QT Input Channel

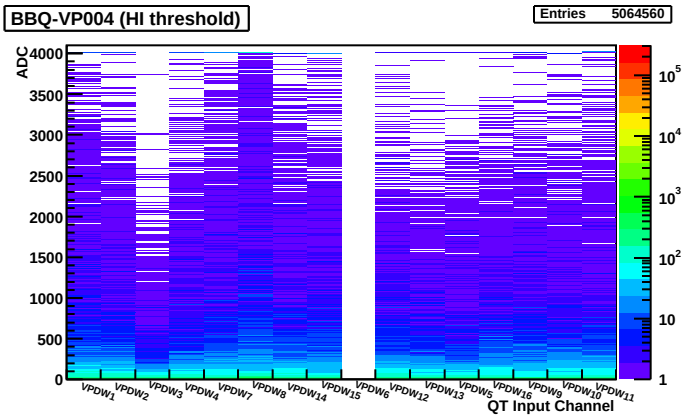

BBQ-VP001 (LO threshold)
Entries 5064560
TAC
QT Input Channel

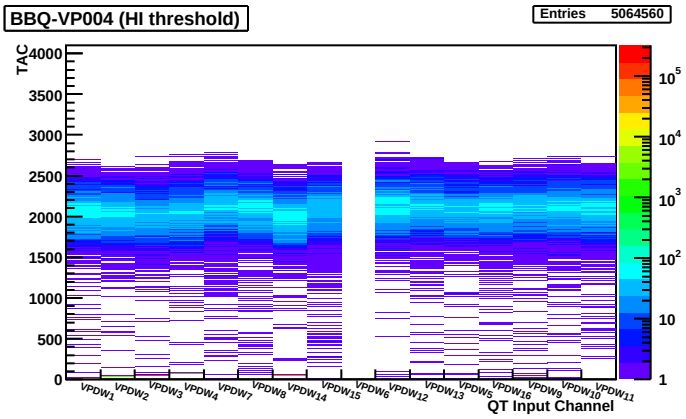

BBQ-VP002 (LO threshold)
Entries 5064560
ADC
QT Input Channel

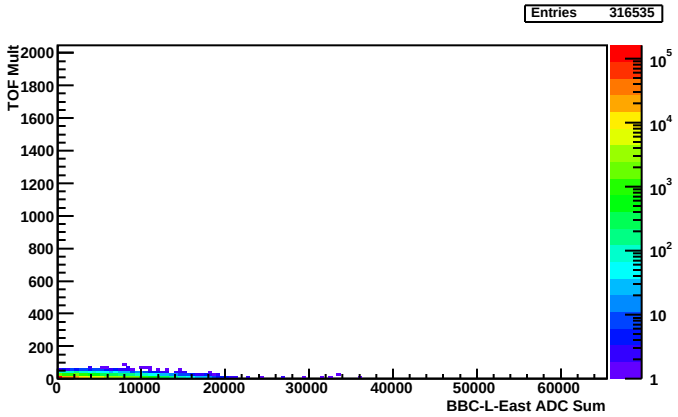

BBQ-VP002 (LO threshold)
Entries 5064560
TAC
QT Input Channel

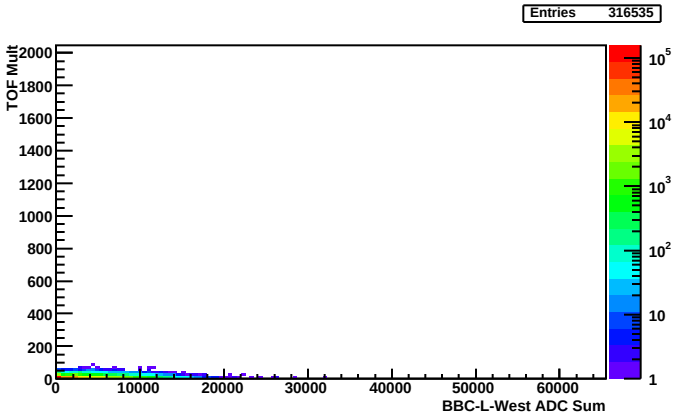

BBQ-VP003 (HI threshold)
Entries 5064560
ADC
QT Input Channel

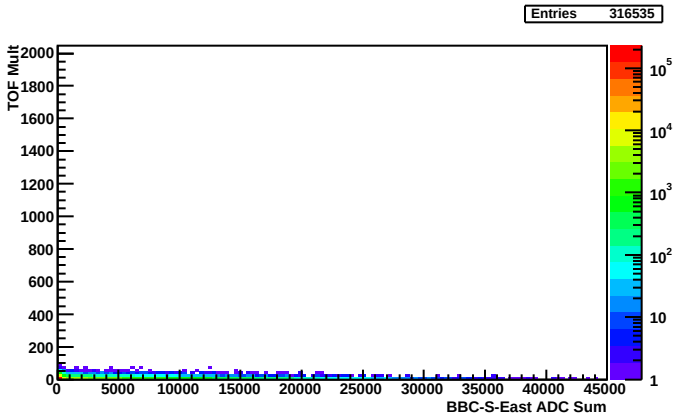

BBQ-VP003 (HI threshold)
Entries 5064560
TAC
QT Input Channel

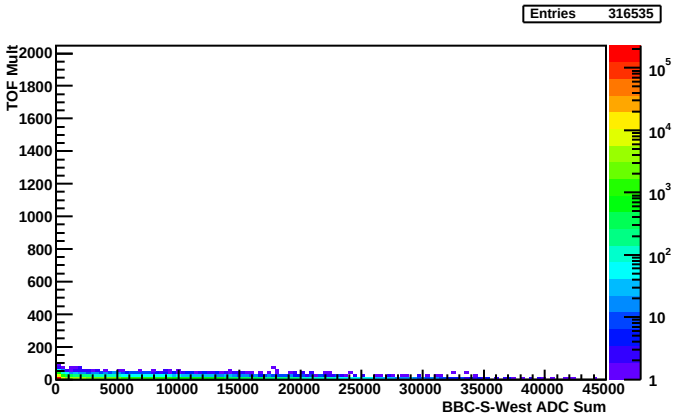

BBQ-VP004 (HI threshold)
Entries 5064560
ADC
QT Input Channel

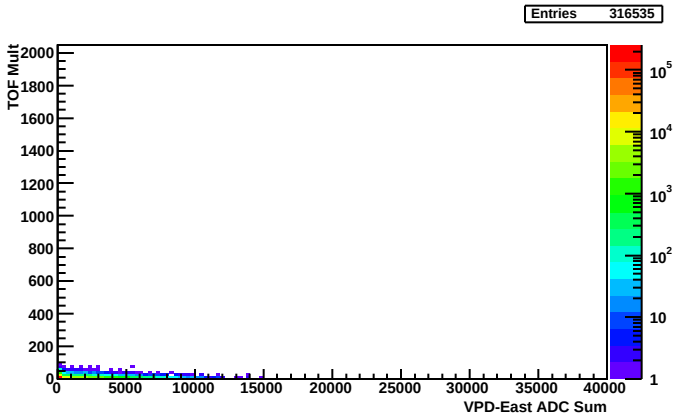

BBQ-VP004 (HI threshold)
Entries 5064560
TAC
QT Input Channel

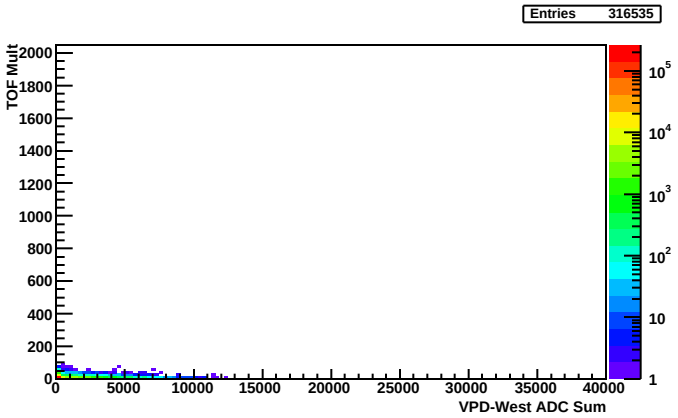

Entries 316535
TOF Mult
BBC-L-East ADC Sum

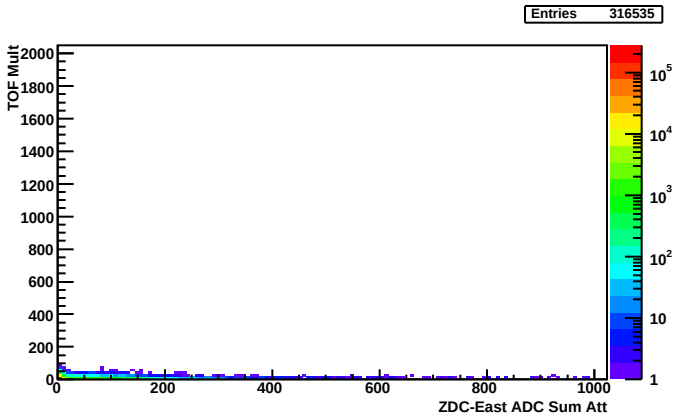

Entries 316535
TOF Mult
BBC-L-West ADC Sum

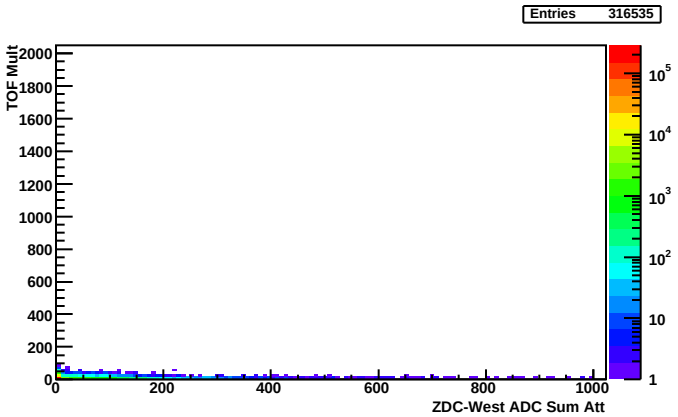

Entries 316535
TOF Mult
BBC-S-East ADC Sum

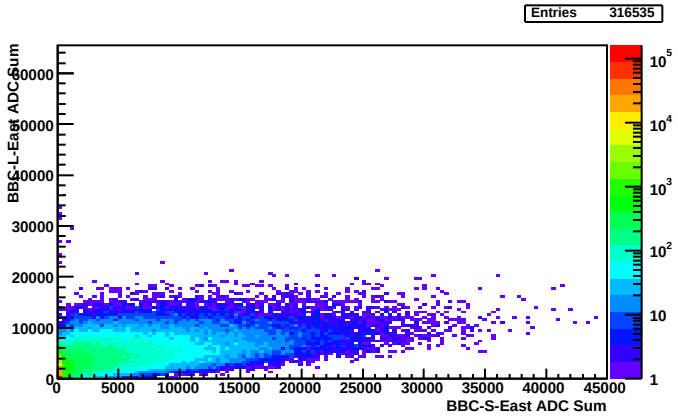

Entries 316535
TOF Mult
BBC-S-West ADC Sum


Entries 316535
TOF Mult
VPD-East ADC Sum


Entries 316535
TOF Mult
VPD-West ADC Sum


Entries 316535
TOF Mult
ZDC-East ADC Sum Att


Entries 316535
TOF Mult
ZDC-West ADC Sum Att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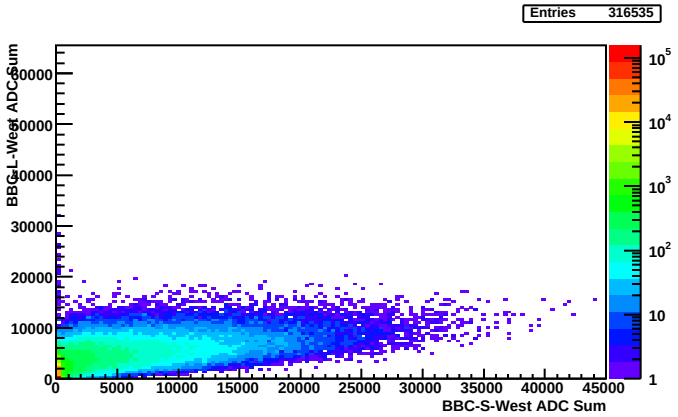
BBC-L-East ADC Sum
BBC-S-East ADC Sum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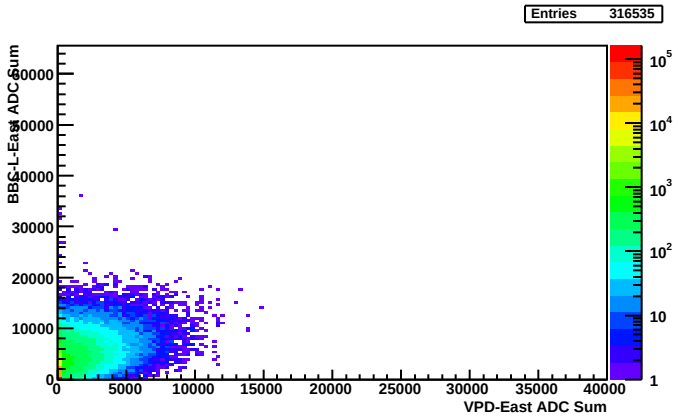
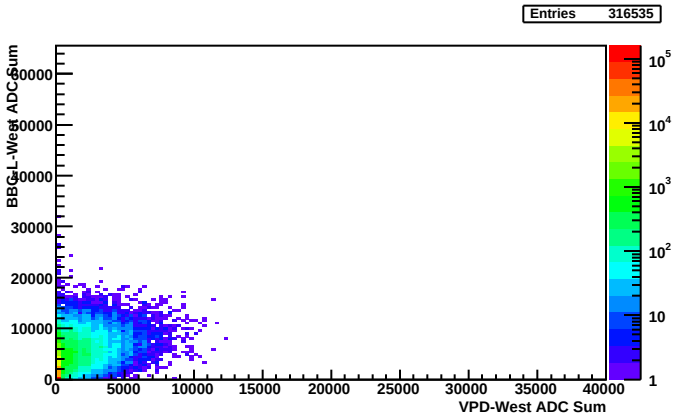
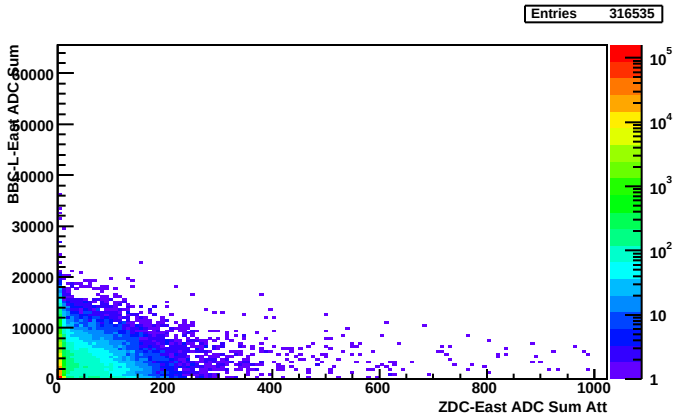
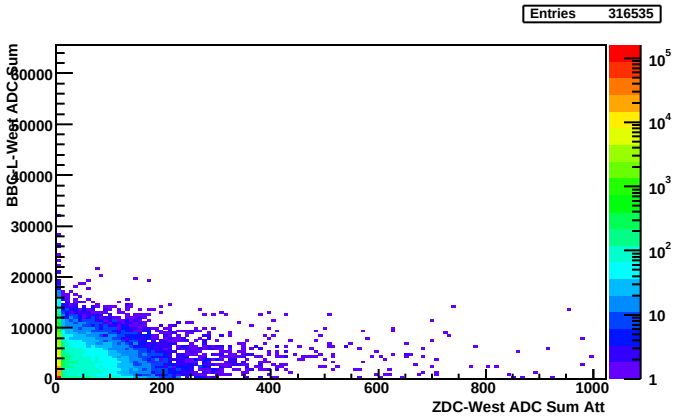
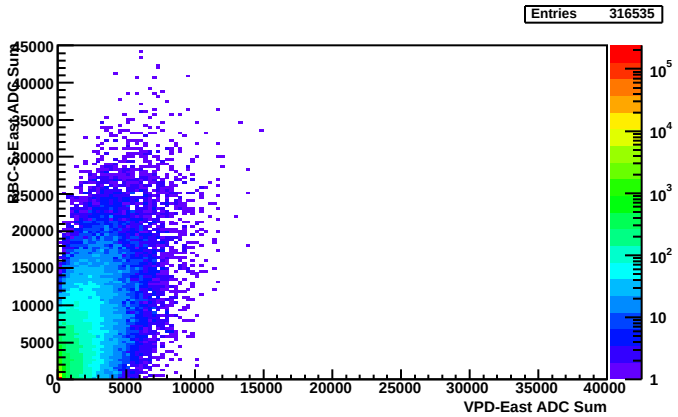
BBC-L-West ADC Sum
BBC-S-West ADC Sum

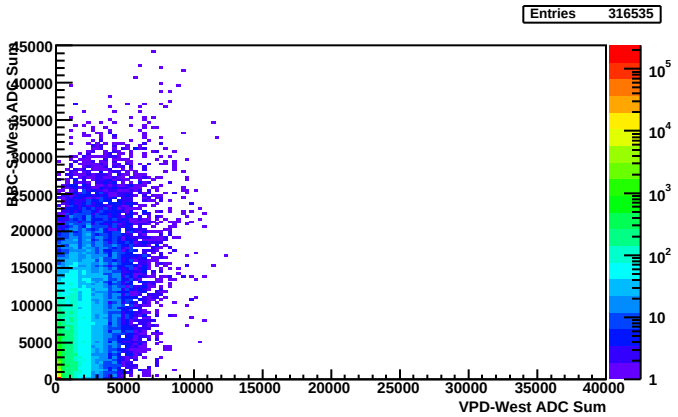

Entries 316535
BBC-L-East ADC Sum
VPD-East ADC Sum

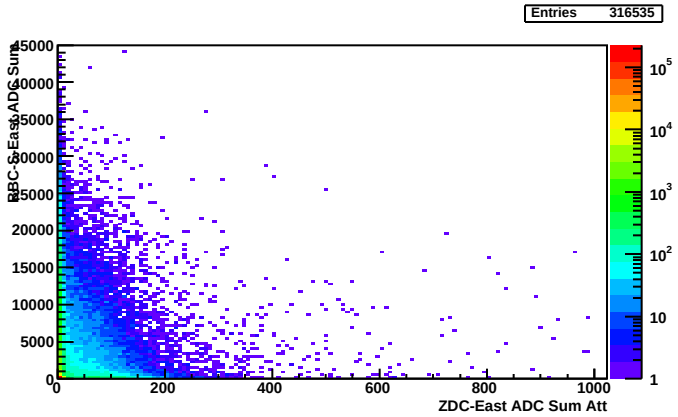

Entries 316535
BBC-L-West ADC Sum
VPD-West ADC Sum

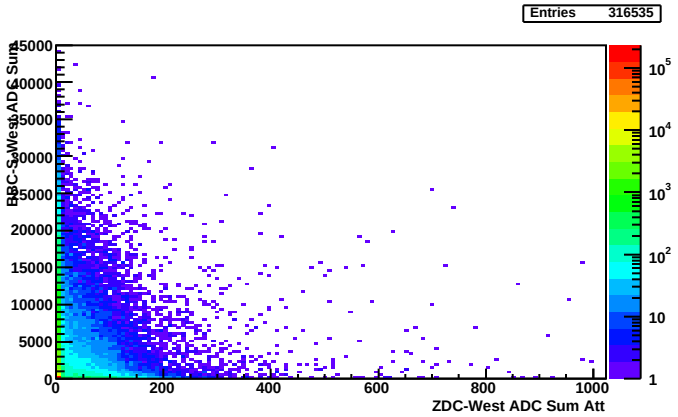

Entries 316535
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

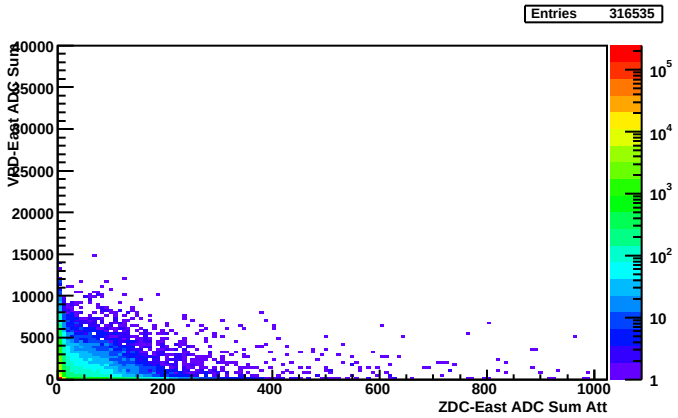

Entries 316535
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

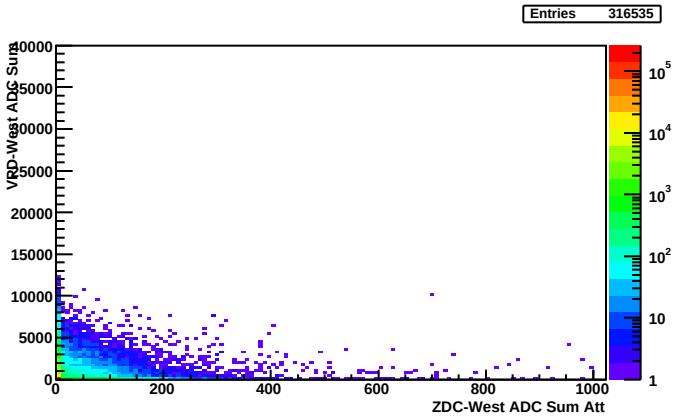

Entries 316535
BBC-S-East ADC Sum
VPD-East ADC Sum

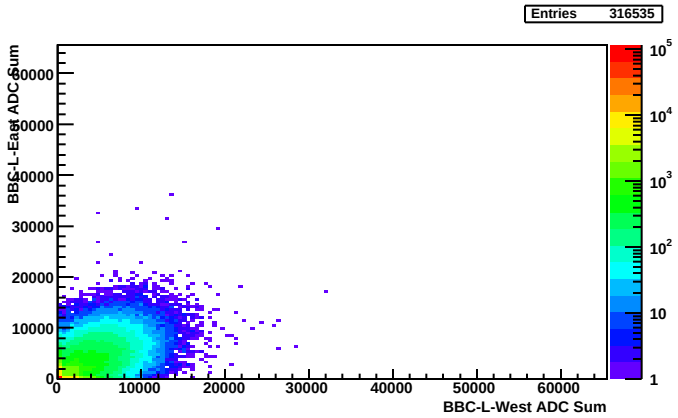

Entries 316535
BBC-S-West ADC Sum
VPD-West ADC Sum

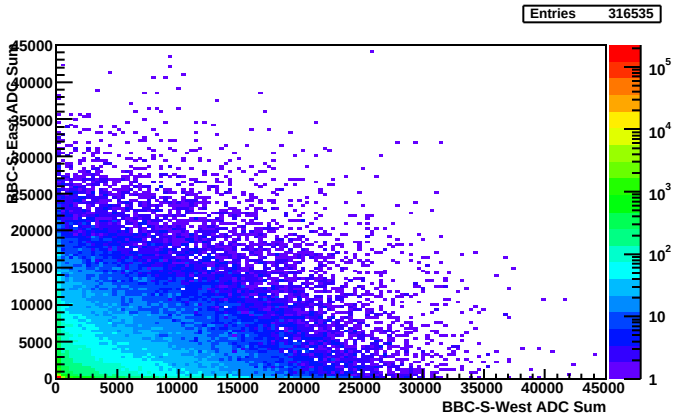

Entries 316535
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

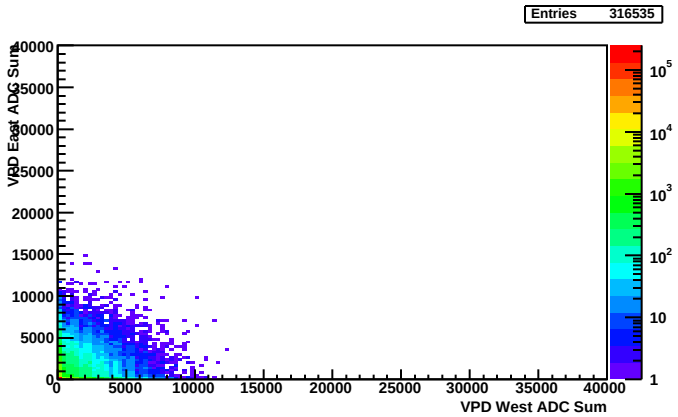

Entries 316535
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

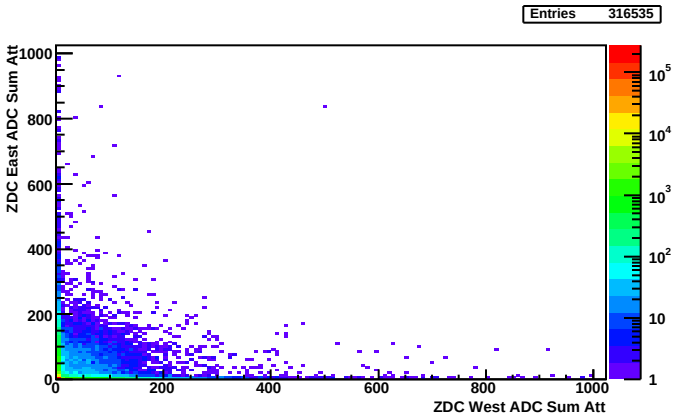

Entries 316535
VPD-East ADC Sum
ZDC-East ADC Sum Att

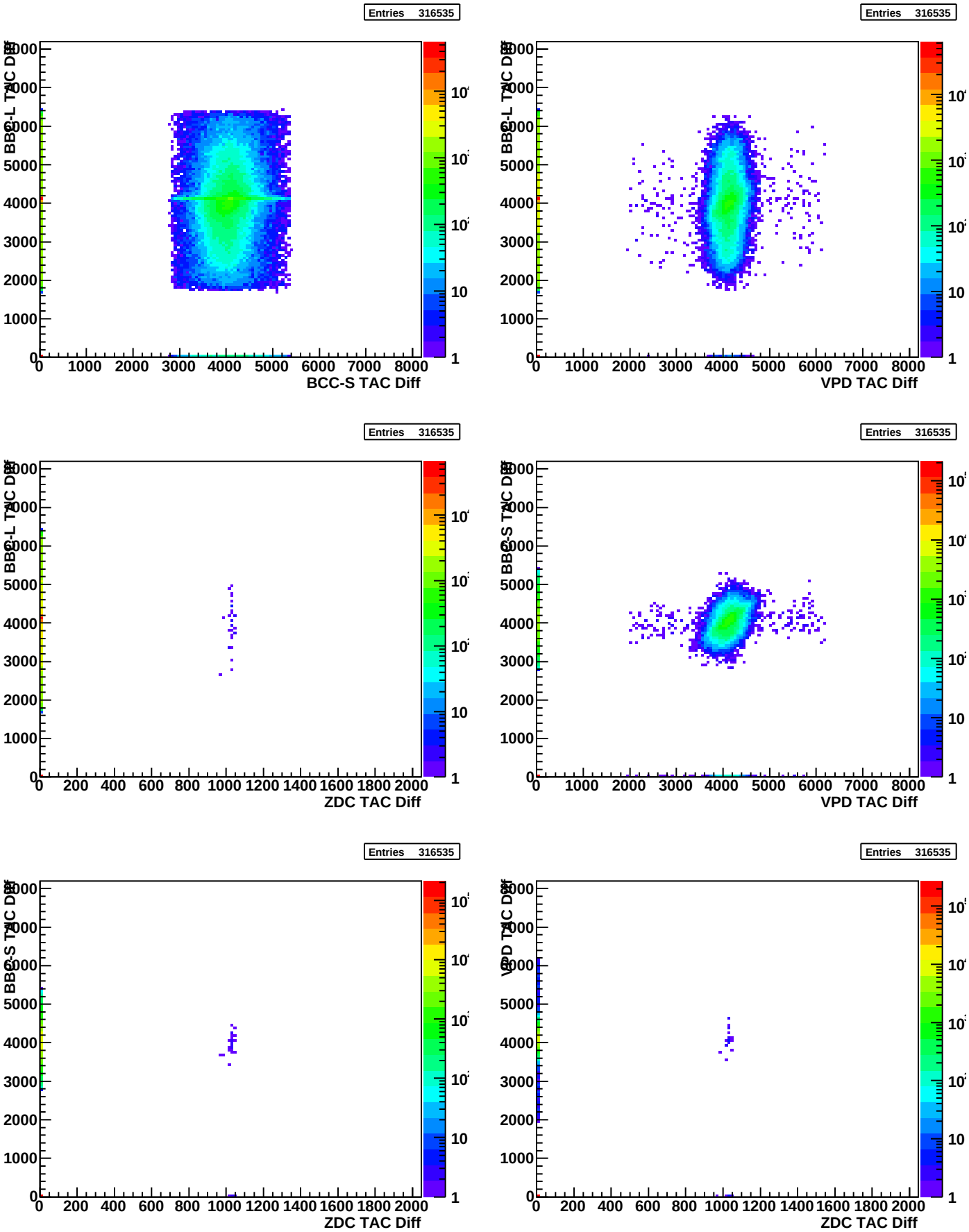

Entries 316535
VPD-West ADC Sum
ZDC-West ADC Sum Att

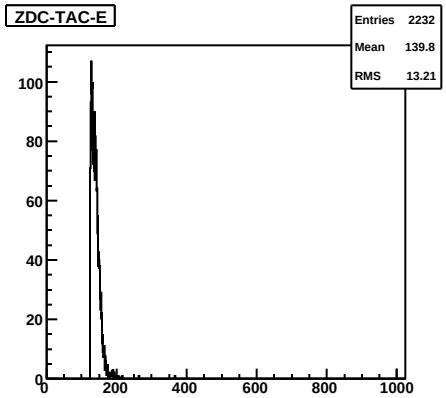

Entries 316535
BBC-L-East ADC Sum
BBC-L-West ADC Sum

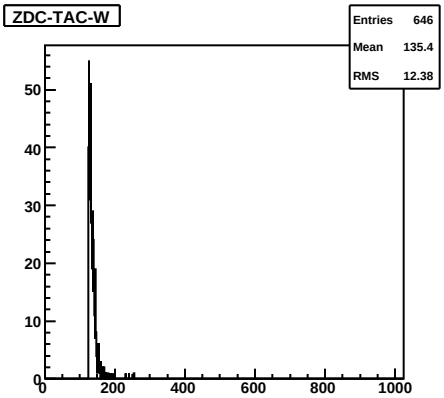

Entries 316535
BBC-S-East ADC Sum
BBC-S-West ADC Sum

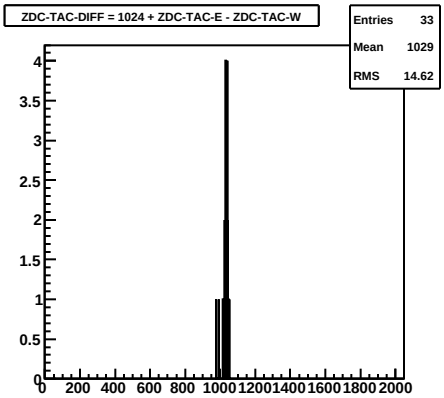

Entries 316535
VPD East ADC Sum
VPD West ADC Sum

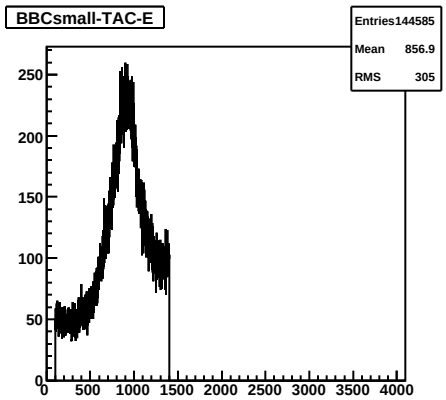

Entries 316535
ZDC East ADC Sum Att
ZDC West ADC Sum Att

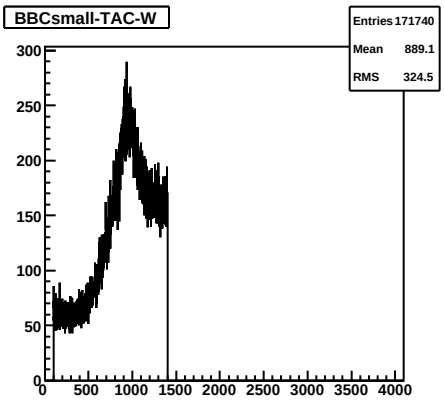

Entries 316535
BBC-L TAC Diff
BCC-S TAC Diff
Entries 316535
BBC-L TAC Diff
VPD TAC Diff
Entries 316535
BBC-L TAC Diff
ZDC TAC Diff
Entries 316535
BBC-S TAC Diff
VPD TAC Diff
Entries 316535
BBC-S TAC Diff
ZDC TAC Diff
Entries 316535
VPD TAC Diff
ZDC TAC Diff

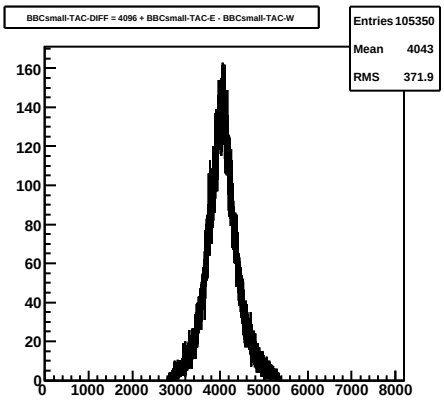

ZDC-TAC-E
Entries 2232
Mean 139.8
RMS 13.21

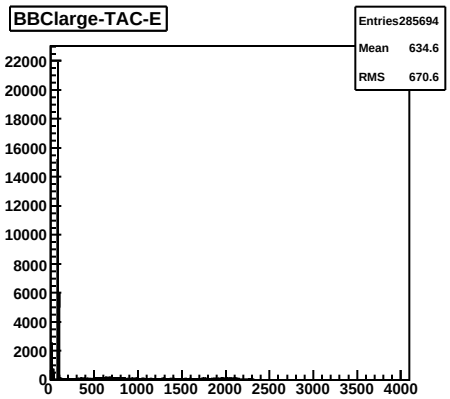

ZDC-TAC-W
Entries 646
Mean 135.4
RMS 12.38

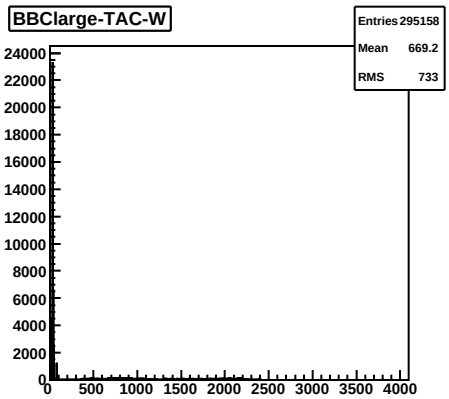

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 33
Mean 1029
RMS 14.62

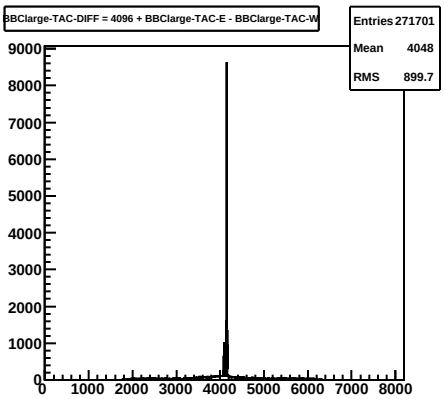

BBCsmall-TAC-E
Entries 144585
Mean 856.9
RMS 305

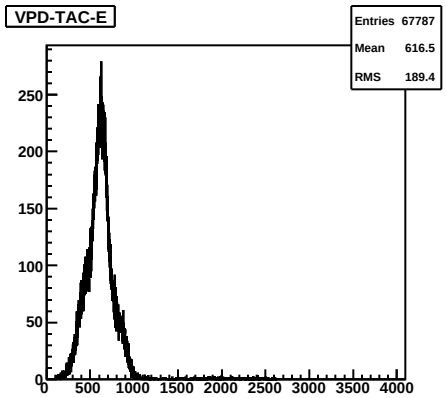

BBCsmall-TAC-W
Entries 171740
Mean 889.1
RMS 324.5

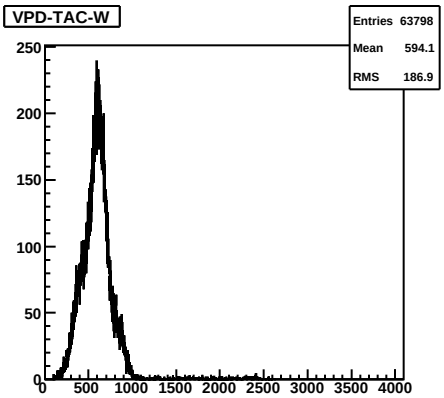

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 105350
Mean 4043
RMS 371.9

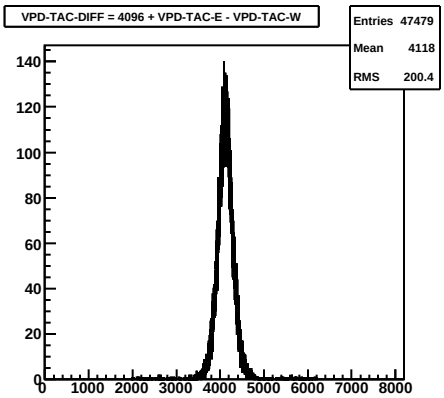

BBClarge-TAC-E
Entries 285694
Mean 634.6
RMS 670.6

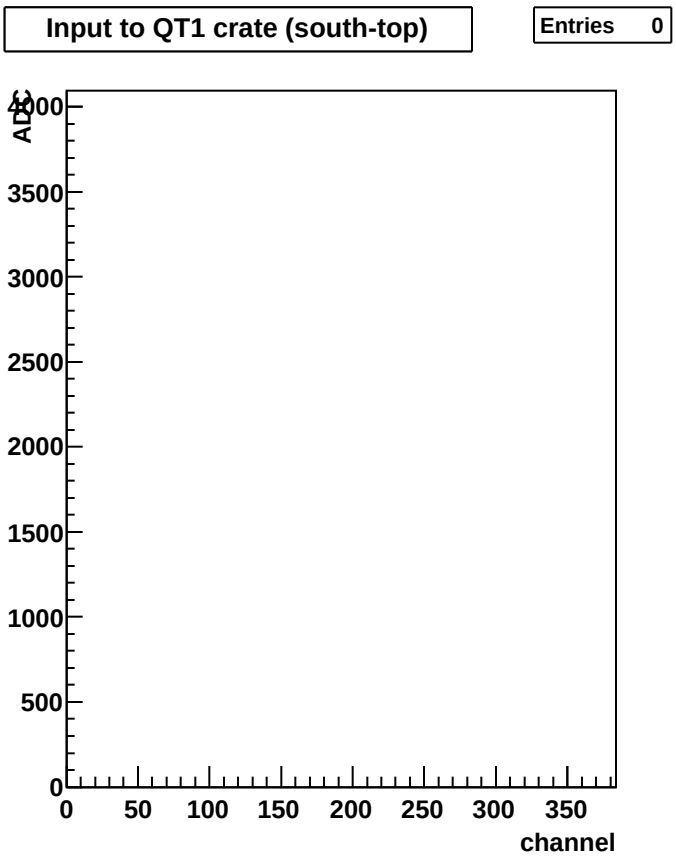

BBClarge-TAC-W
Entries 295158
Mean 669.2
RMS 733

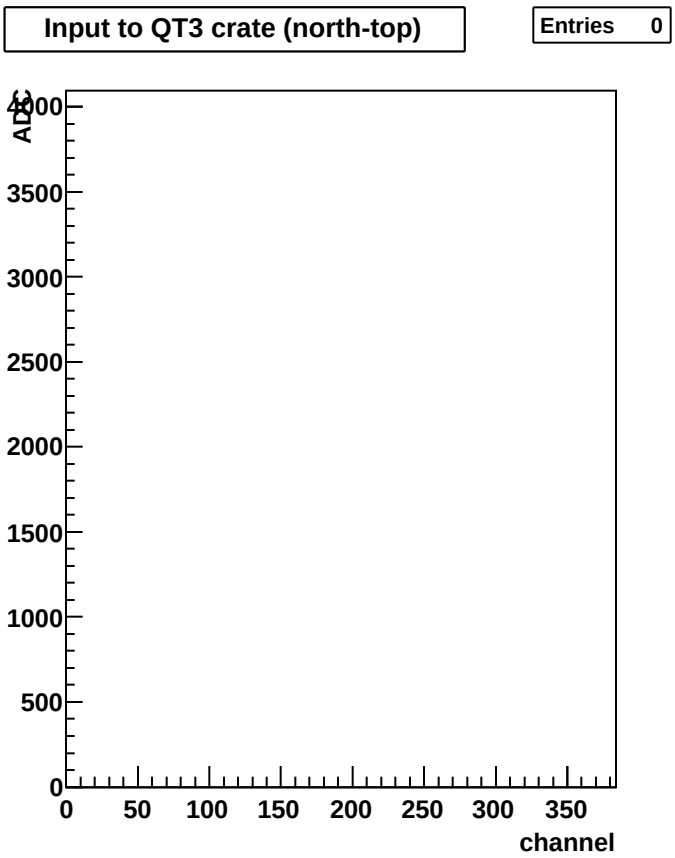

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 271701
Mean 4048
RMS 899.7

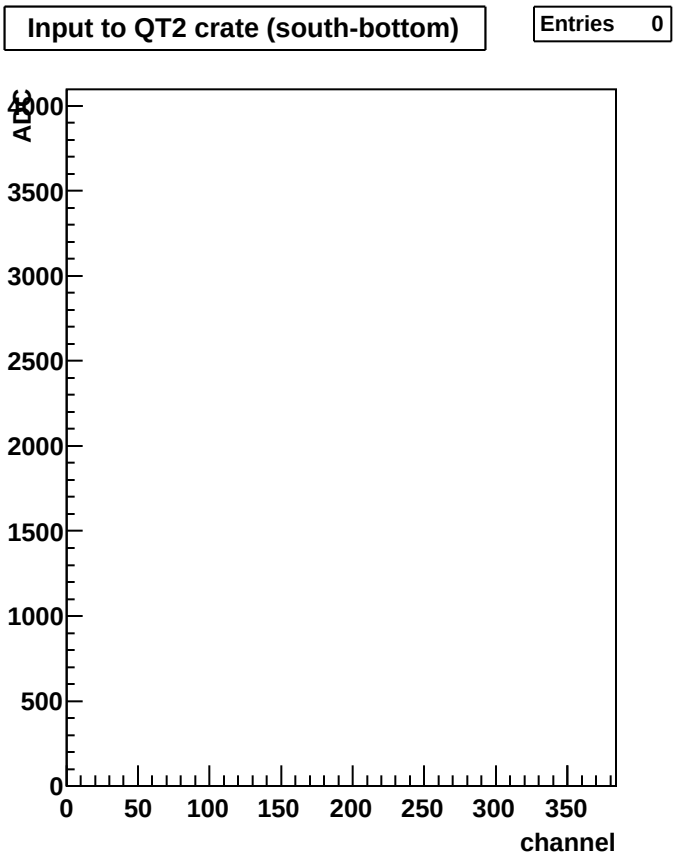

VPD-TAC-E
Entries 67787
Mean 616.5
RMS 189.4

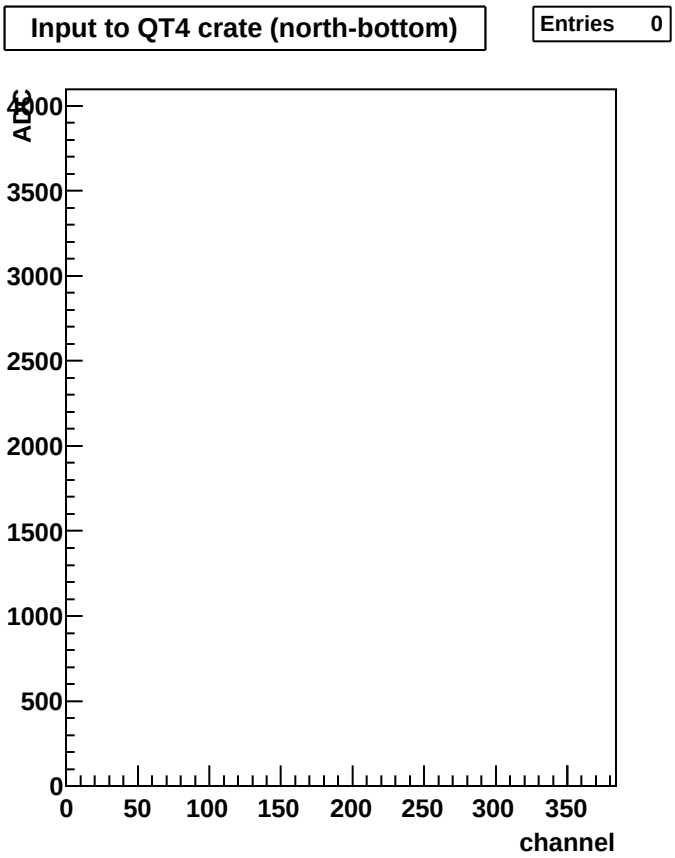

VPD-TAC-W
Entries 63798
Mean 594.1
RMS 186.9

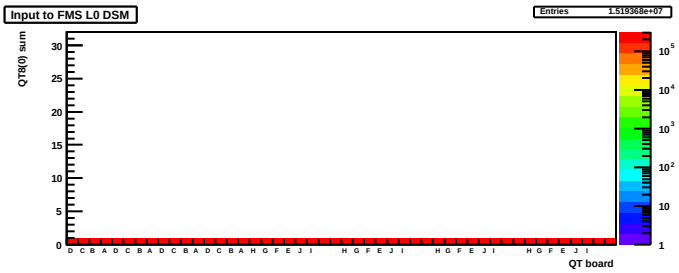

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 47479
Mean 4118
RMS 200.4

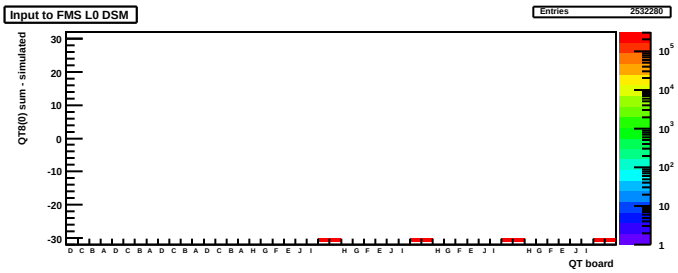

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

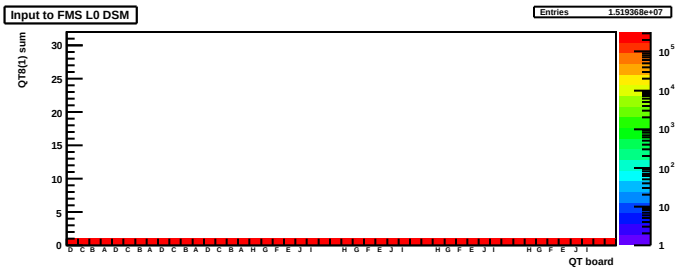

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

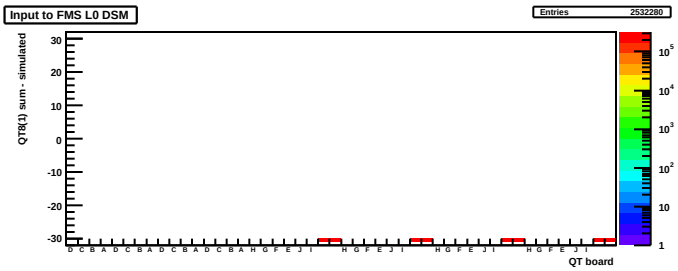

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

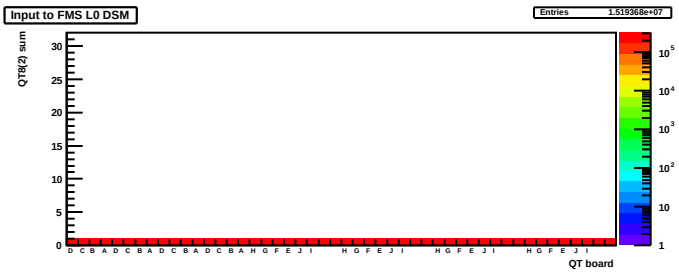

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

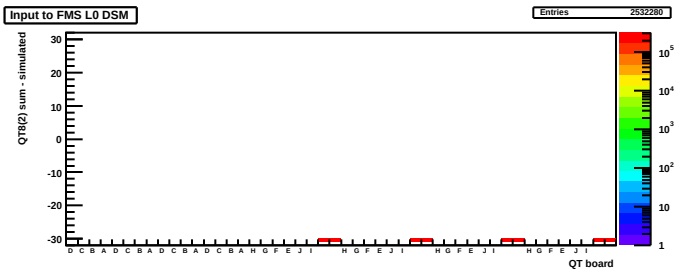

Input to FMS L0 DSM
Entries 1.519368e+07
QT8(0) sum
QT board

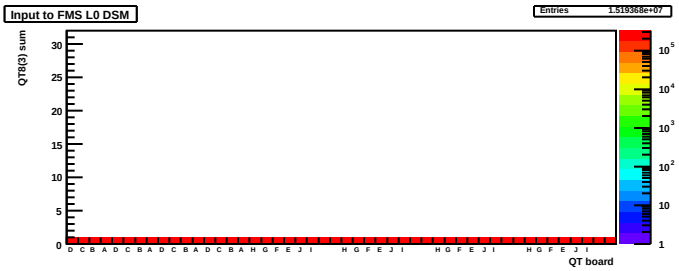

Input to FMS L0 DSM
Entries 2532280
QT8(0) sum - simulated
QT board

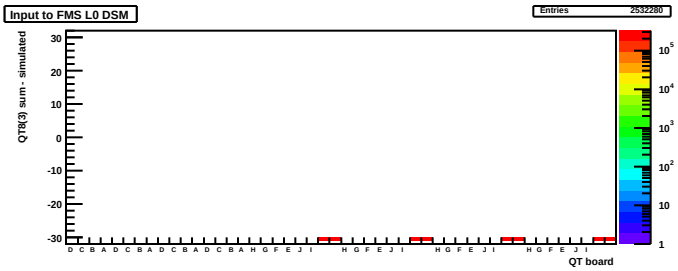

Input to FMS L0 DSM
Entries 1.519368e+07
QT8(1) sum
QT board

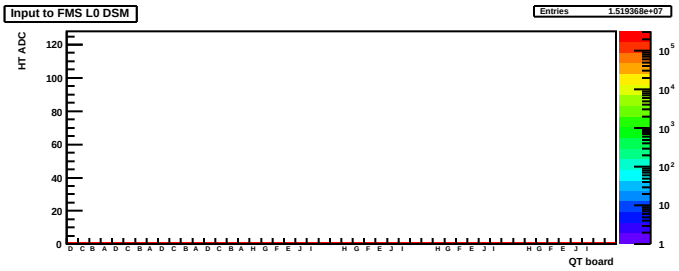

Input to FMS L0 DSM
Entries 2532280
QT8(1) sum - simulated
QT board

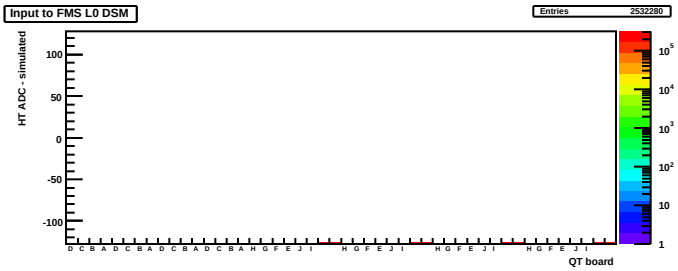

Input to FMS L0 DSM
Entries 1.519368e+07
QT8(2) sum
QT board

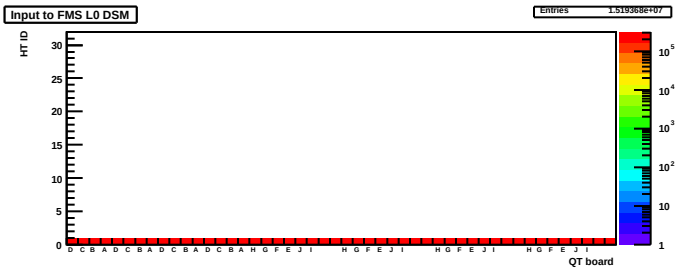

Input to FMS L0 DSM
Entries 2532280
QT8(2) sum - simulated
QT board

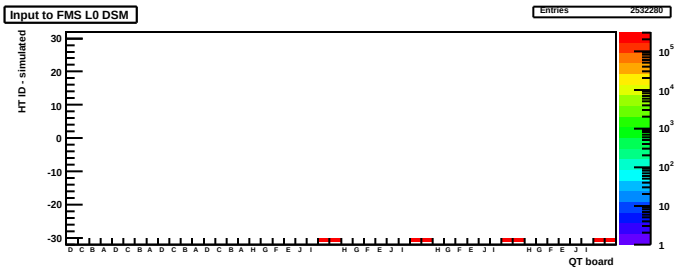

Input to FMS L0 DSM
Entries 1.519368e+07
QT8(3) sum
QT board

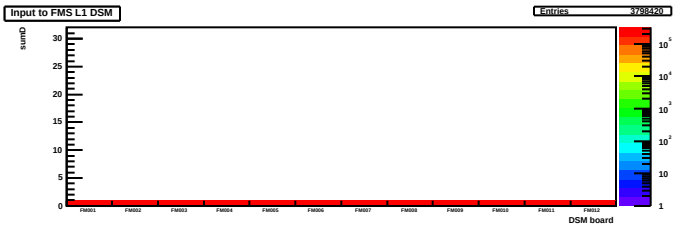

Input to FMS L0 DSM
Entries 2532280
QT8(3) sum - simulated
QT board

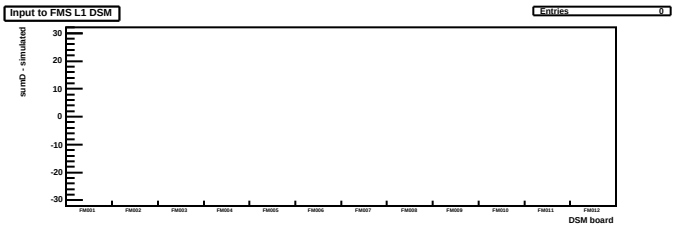

Input to FMS L0 DSM
Entries 1.519368e+07
HT ADC
QT board

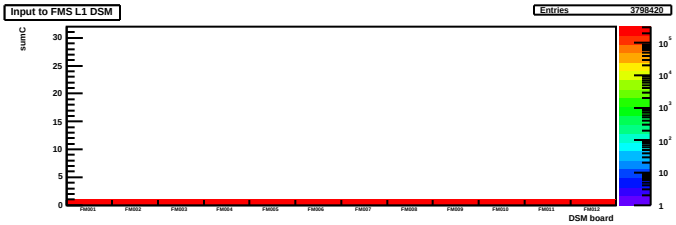

Input to FMS L0 DSM
Entries 2532280
HT ADC - simulated
QT board

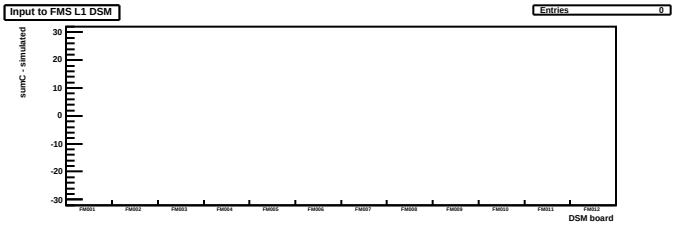

Input to FMS L0 DSM
Entries 1.519368e+07
HT ID
QT board

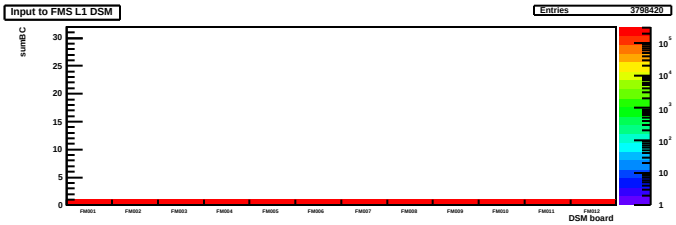

Input to FMS L0 DSM
Entries 2532280
HT ID - simulated
QT board

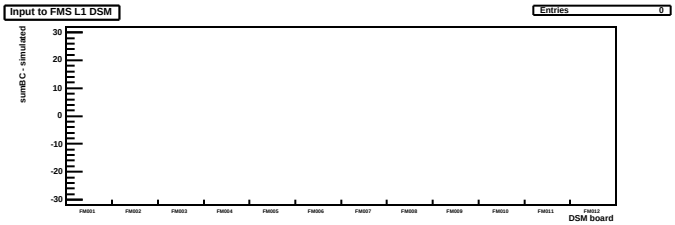

Input to FMS L1 DSM
Entries 3798420
sumD
DSM board

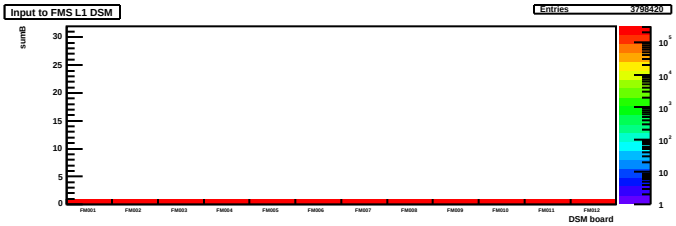

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

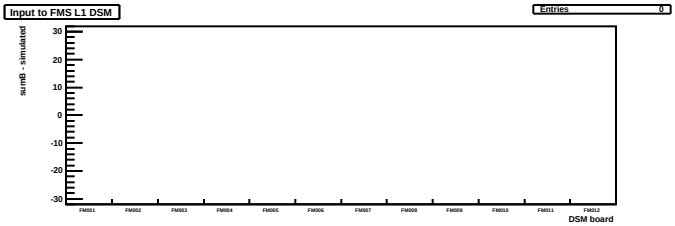

Input to FMS L1 DSM
Entries 3798420
sumC
DSM board

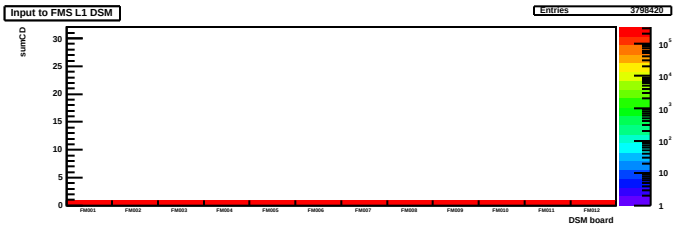

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

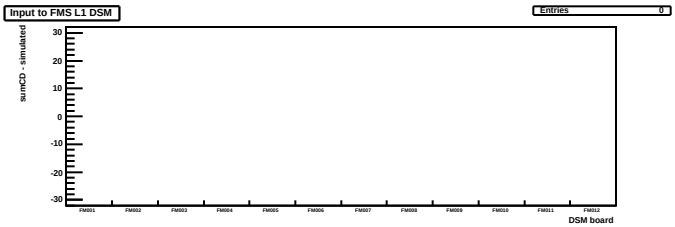

Input to FMS L1 DSM
Entries 3798420
sumBC
DSM board

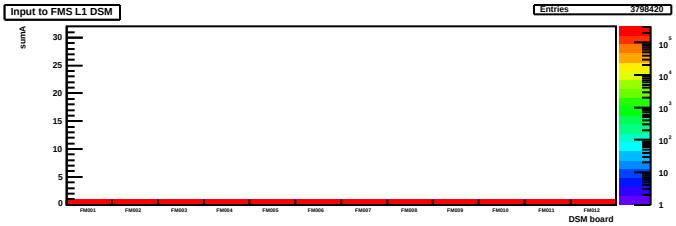

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

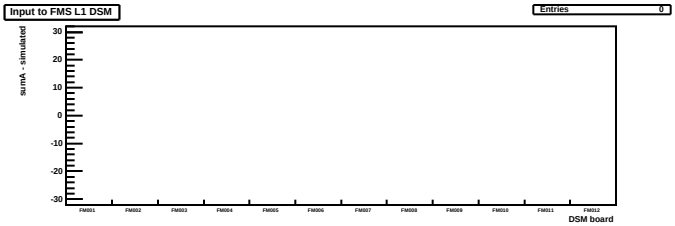

Input to FMS L1 DSM
Entries 3798420
sumB
DSM board

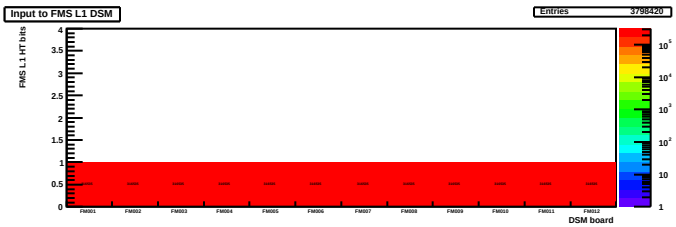

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

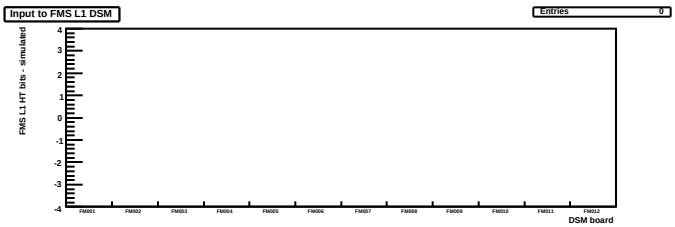

Input to FMS L1 DSM
Entries 3798420
sumCD
DSM board

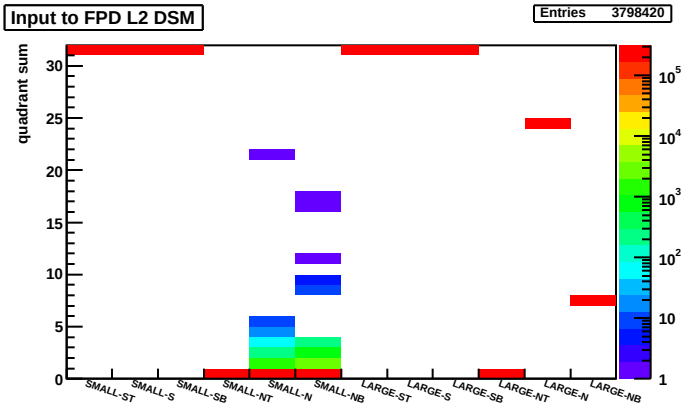

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

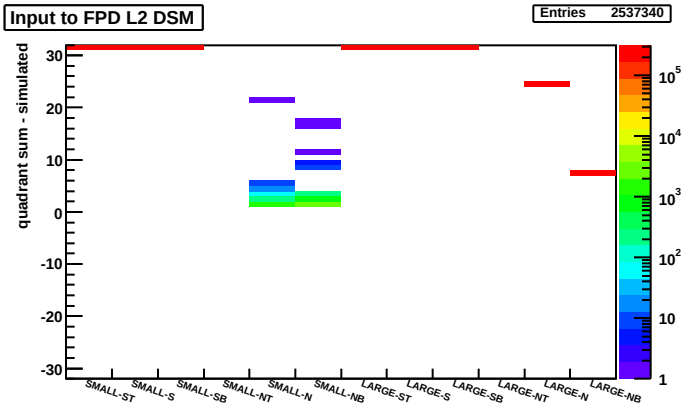

Input to FMS L1 DSM
Entries 3798420
sumA
DSM board

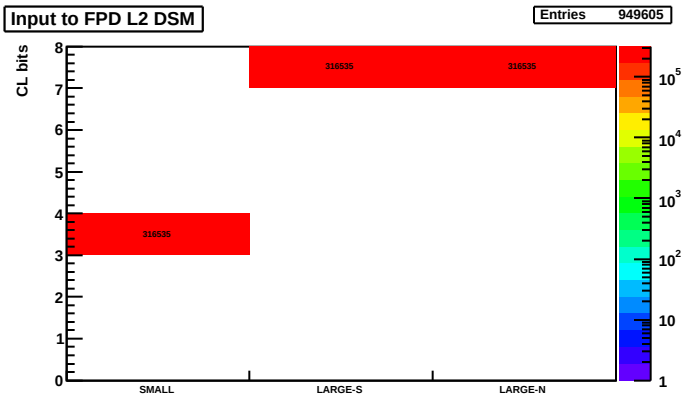

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

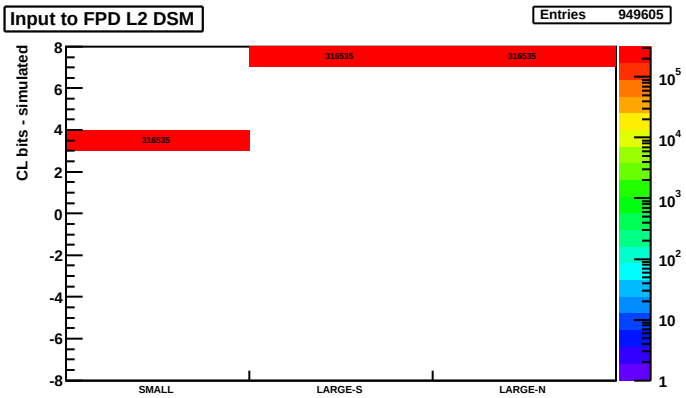

Input to FMS L1 DSM
Entries 3798420
FMS L1 HT bits
DSM board

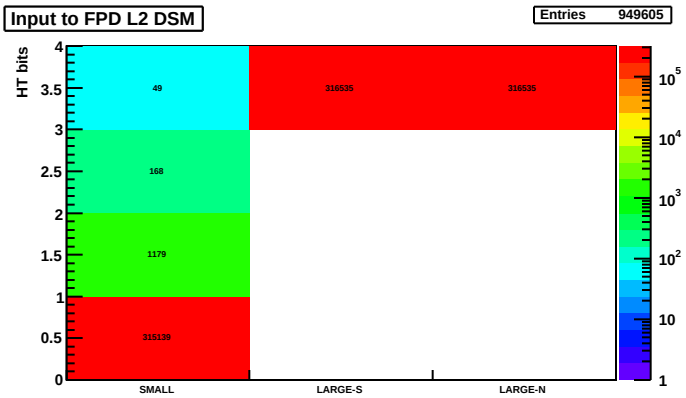

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

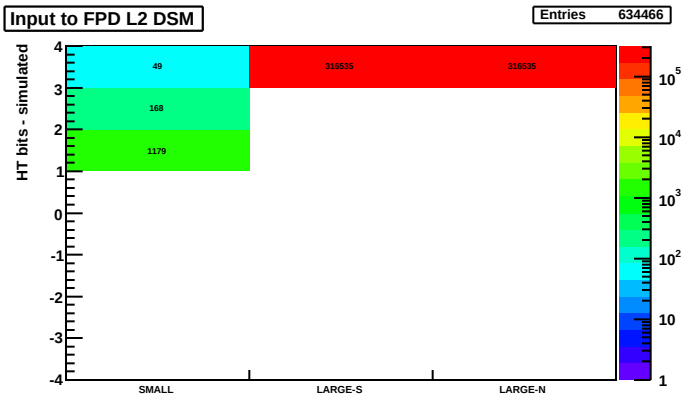

Input to FPD L2 DSM
Entries 3798420
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

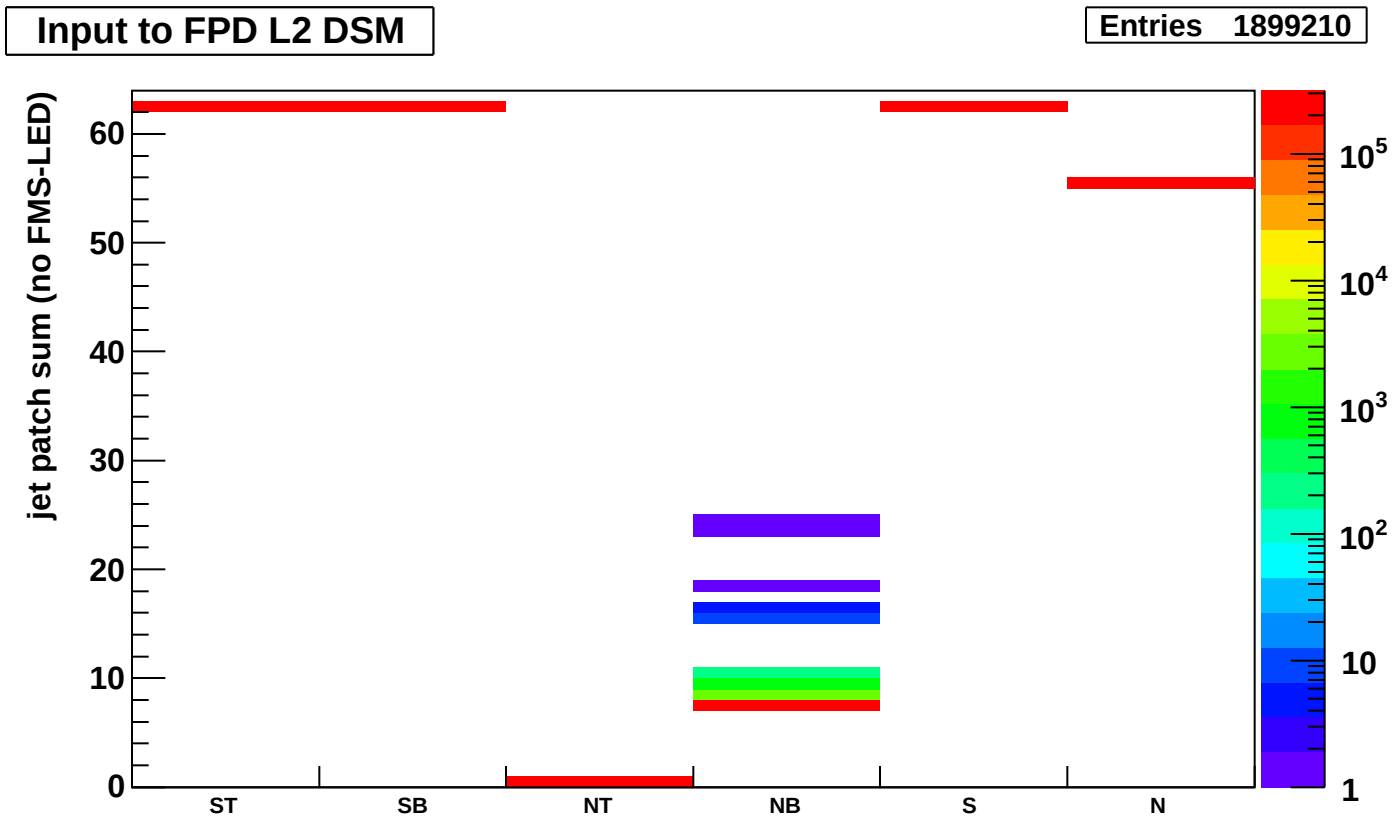

Input to FPD L2 DSM
Entries 2537340
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

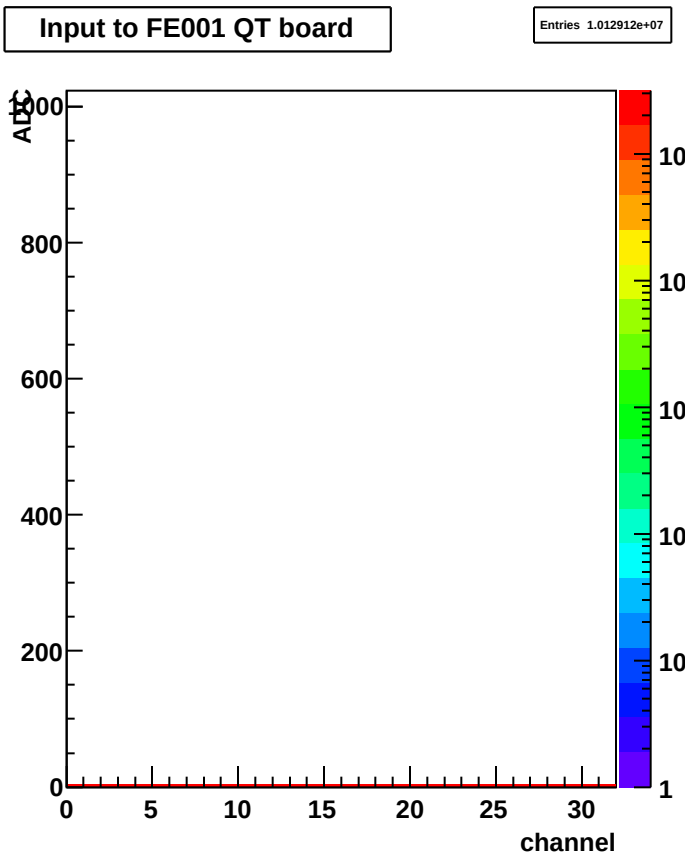

Input to FPD L2 DSM
Entries 949605
CL bits
316535
316535
316535
SMALL
LARGE-S
LARGE-N

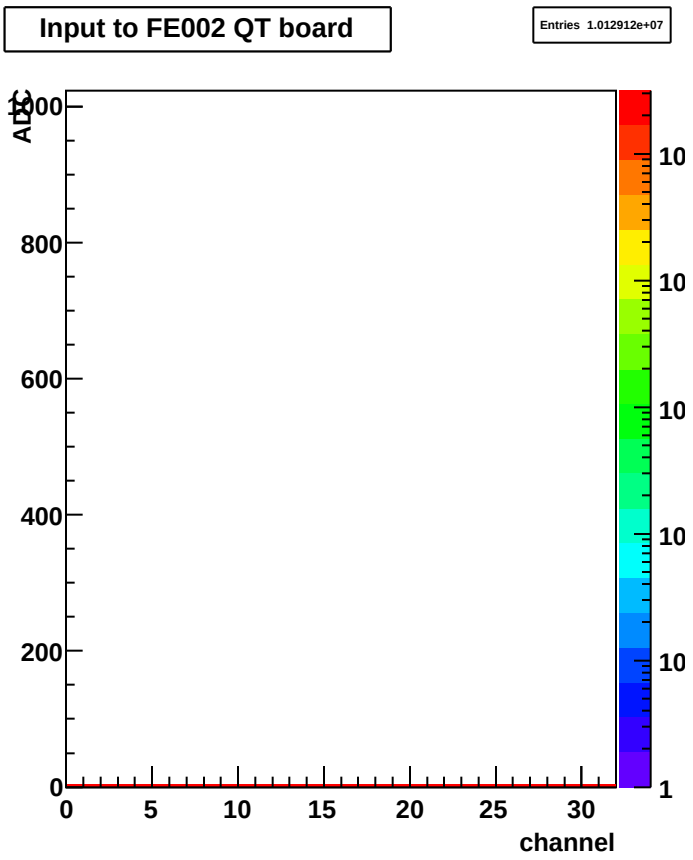

Input to FPD L2 DSM
Entries 949605
CL bits - simulated
316535
316535
316535
SMALL
LARGE-S
LARGE-N

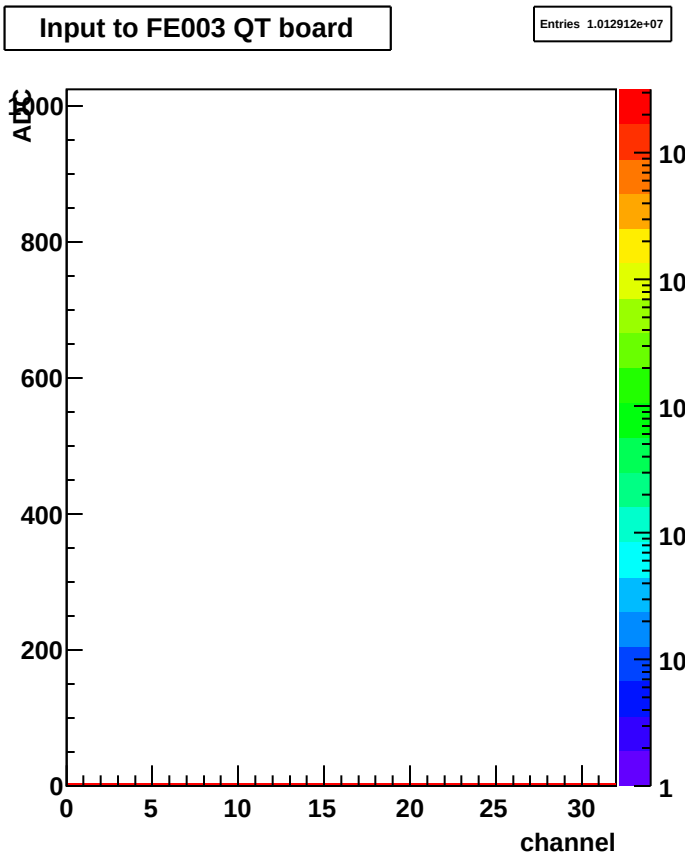

Input to FPD L2 DSM
Entries 949605
HT bits
49
168
1179
315139
316535
316535
SMALL
LARGE-S
LARGE-N

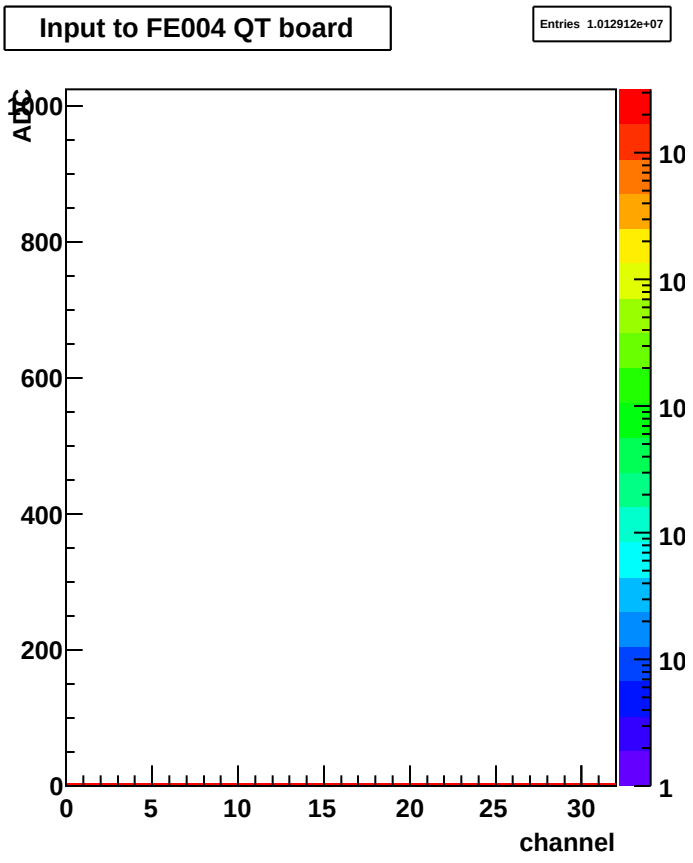

Input to FPD L2 DSM
Entries 634466
HT bits - simulated
49
168
1179
316535
316535
SMALL
LARGE-S
LARGE-N

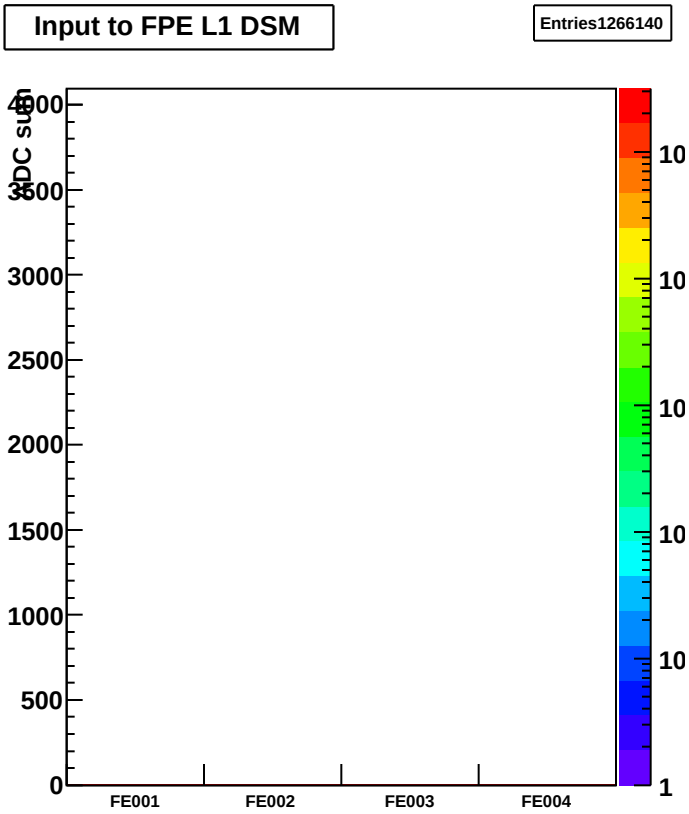

Input to FPD L2 DSM
Entries 1899210
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
$10^2$
$10^3$
$10^4$
$10^5$

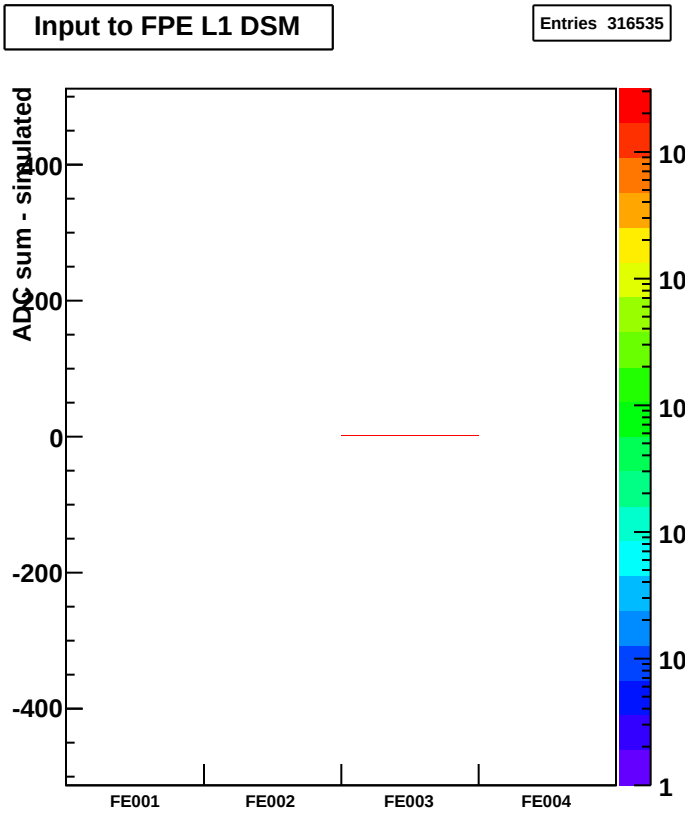

Input to FE001 QT board
Entries 1.012912e+07
ADC
channel

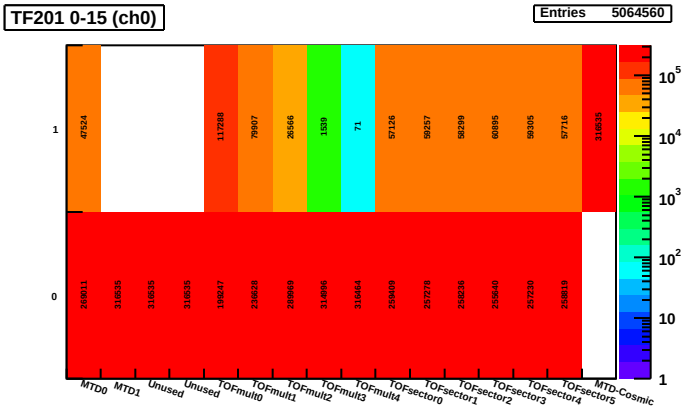

Input to FE002 QT board
Entries 1.012912e+07
ADC
channel

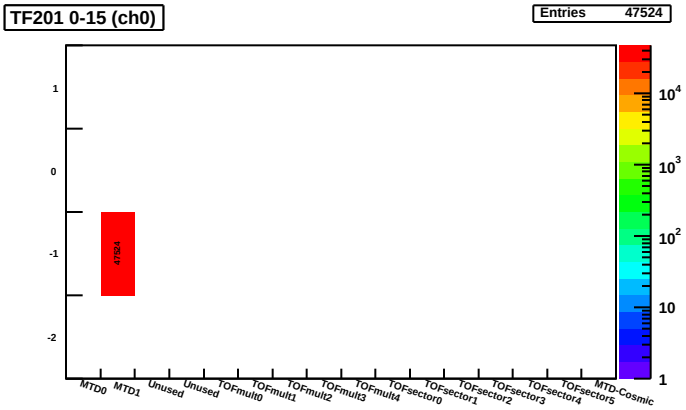

Input to FE003 QT board
Entries 1.012912e+07
ADC
channel

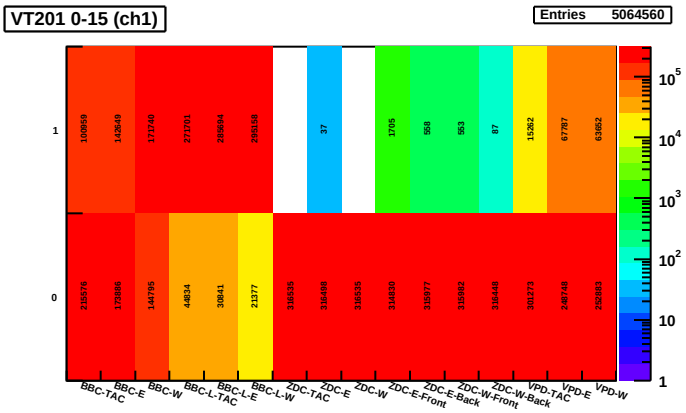

Input to FE004 QT board
Entries 1.012912e+07
ADC
channel

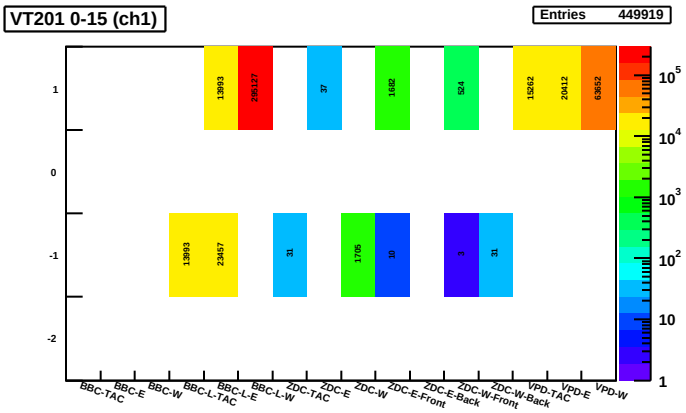

Input to FPE L1 DSM
Entries1266140
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1

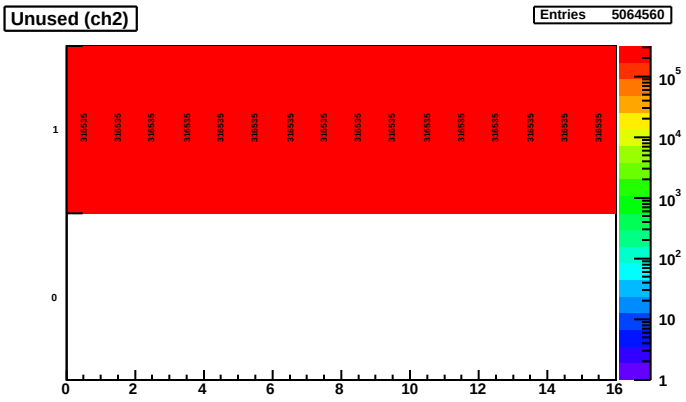

Input to FPE L1 DSM
Entries 316535
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1

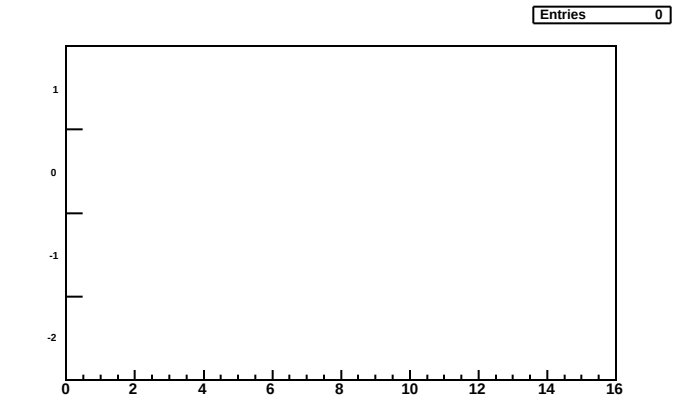

TF201 0-15 (ch0)
Entries 5064560
47524
117288
79907
26566
1539
71
57126
59257
58299
60895
59305
57716
316535
269011
316535
316535
316535
199247
239628
289969
314966
316464
259409
257278
258236
259540
257230
258519
MTD0
MTD1
Unused
Unused
TOFmult0
TOFmult1
TOFmult2
TOFmult3
TOFmult4
TOFsector0
TOFsector1
TOFsector2
TOFsector3
TOFsector4
TOFsector5
MTD-Cosmic

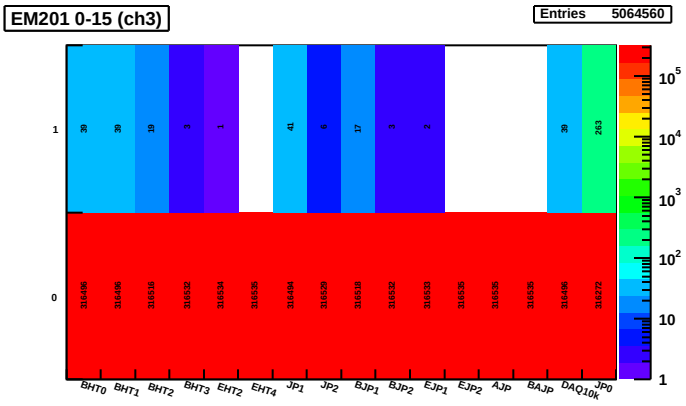

TF201 0-15 (ch0)
Entries 47524
47524
MTD0
MTD1
Unused
Unused
TOFmult0
TOFmult1
TOFmult2
TOFmult3
TOFmult4
TOFsector0
TOFsector1
TOFsector2
TOFsector3
TOFsector4
TOFsector5
MTD-Cosmic

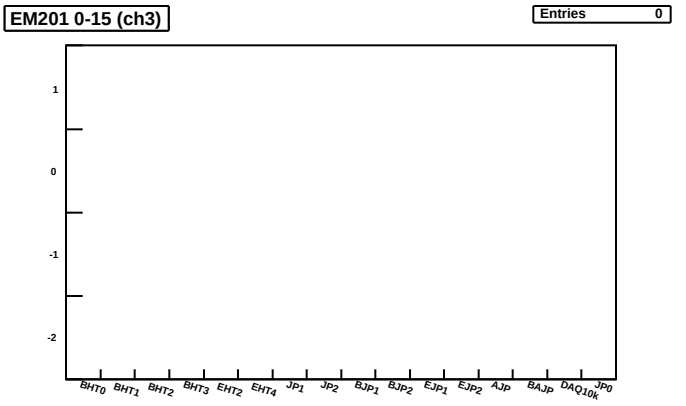

VT201 0-15 (ch1)
Entries 5064560
100959
142849
171740
271701
259694
259158
37
1705
568
553
87
15262
67787
63652
215576
173886
144795
44834
30941
21377
316535
316498
316535
314830
315977
315982
316448
301273
249748
252883
BBC-TAC
BBC-E
BBC-W
BBC-L-TAC
BBC-L-E
BBC-L-W
ZDC-TAC
ZDC-E
ZDC-W
ZDC-E-Front
ZDC-E-Back
ZDC-W-Front
ZDC-W-Back
VPD-TAC
VPD-E
VPD-W


VT201 0-15 (ch1)
Entries 449919
13993
295127
37
14682
524
15262
29412
63652
13993
23457
31
1705
10
3
31
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

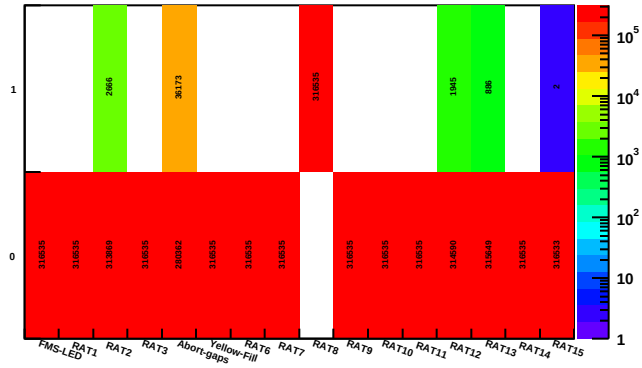

Unused (ch2)
Entries 5064560
316535

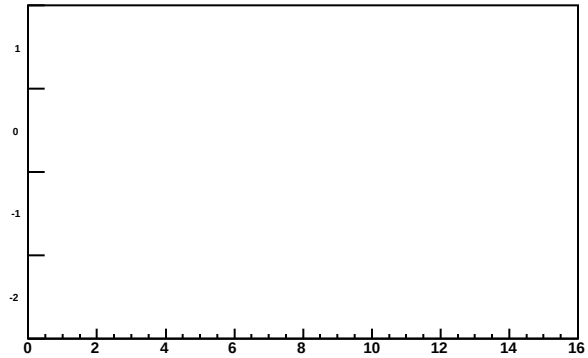

Entries 0


EM201 0-15 (ch3)
Entries 5064560
39
39
19
3
1
41
6
17
3
2
39
263
316496
316496
316516
316532
316534
316535
316494
316529
316518
316532
316533
316535
316535
316535
316496
316272
BHT0
BHT1
BHT2
BHT3
EHT2
EHT4
JP1
JP2
BJP1
BJP2
EJP1
EJP2
AJP
BAJP
DAQ10k
JP0

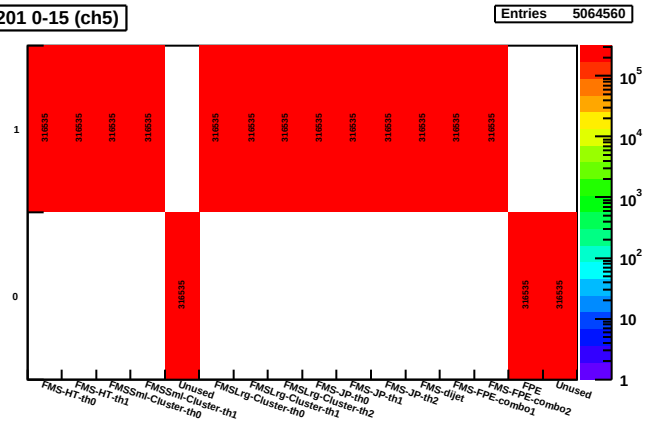

EM201 0-15 (ch3)
Entries 0

**RAT board (ch4)**

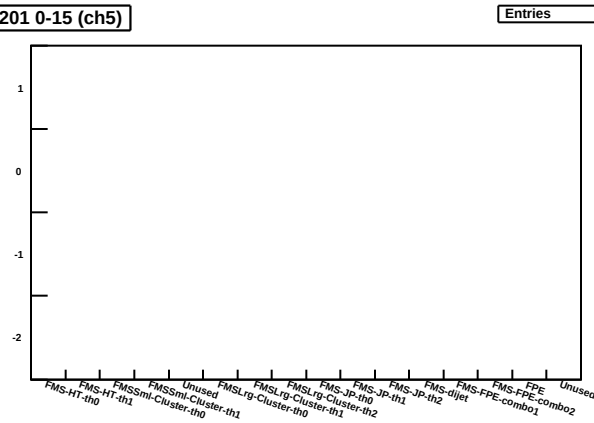


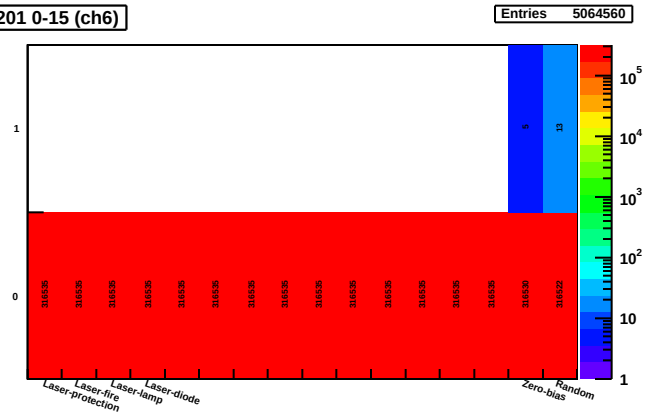

**FP201 0-15 (ch5)**

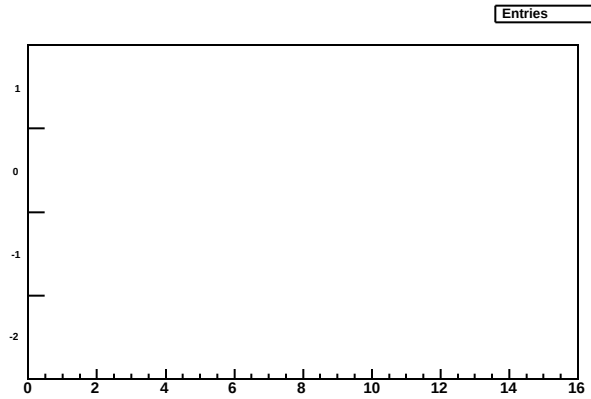


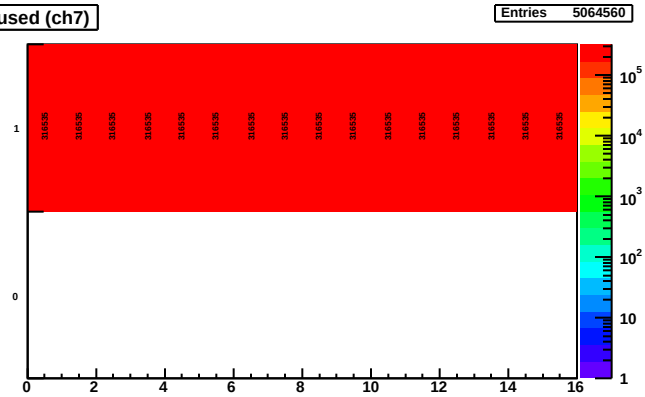
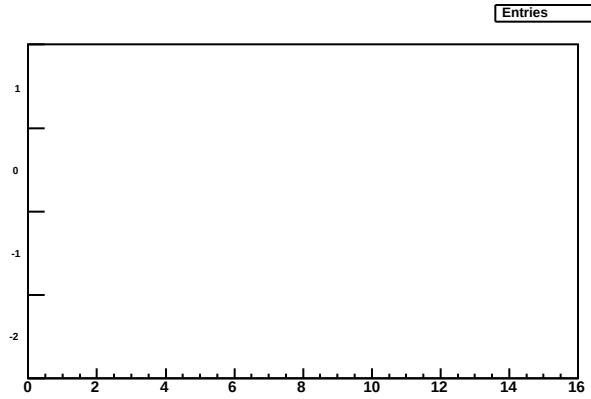

**FP201 0-15 (ch5)**




**ST201 0-15 (ch6)**




**Unused (ch7)**