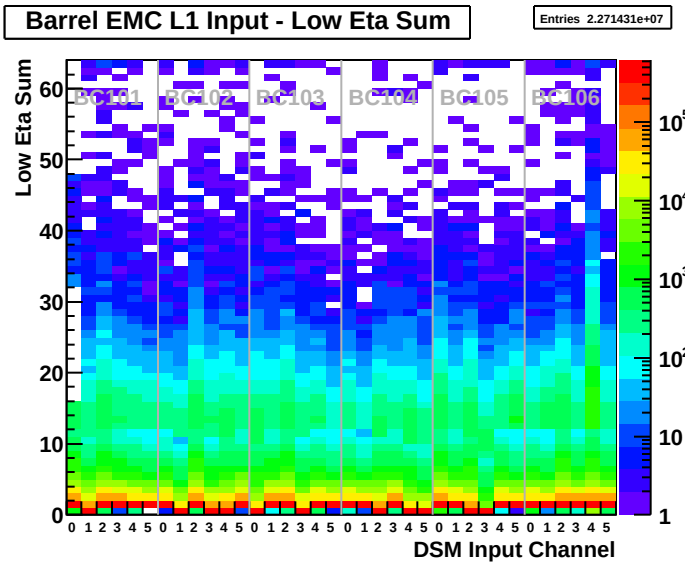
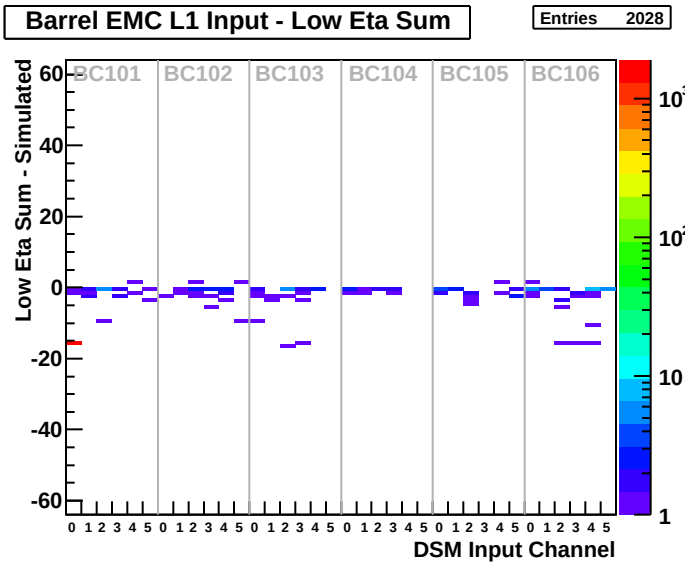
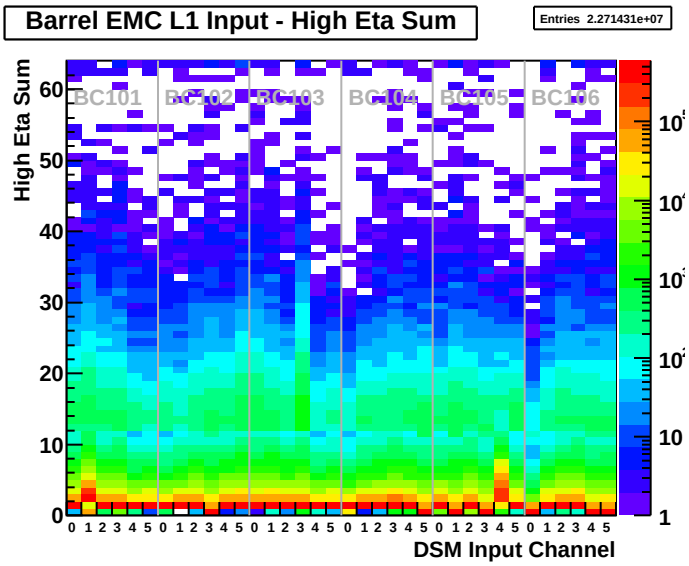
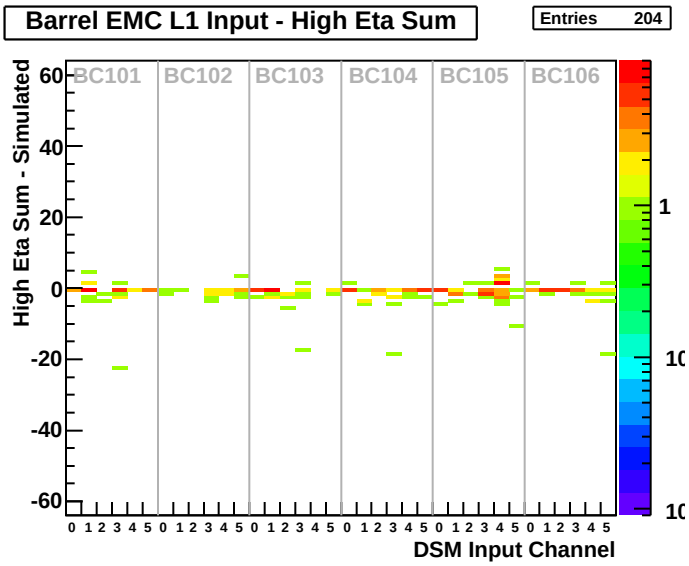
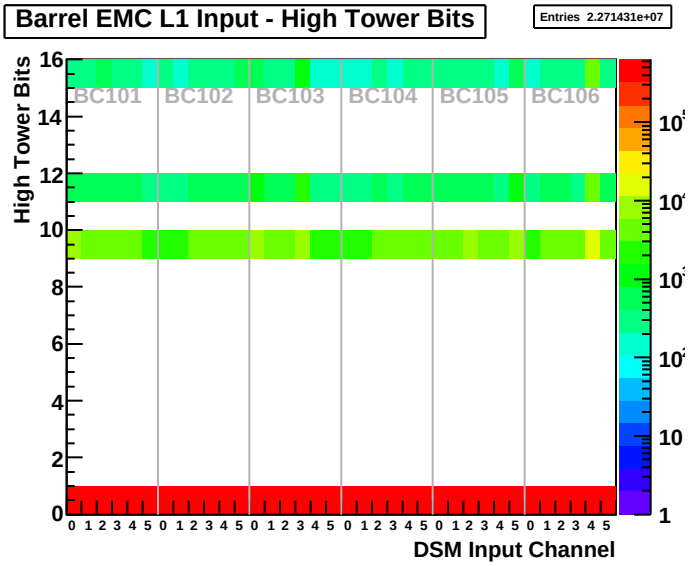
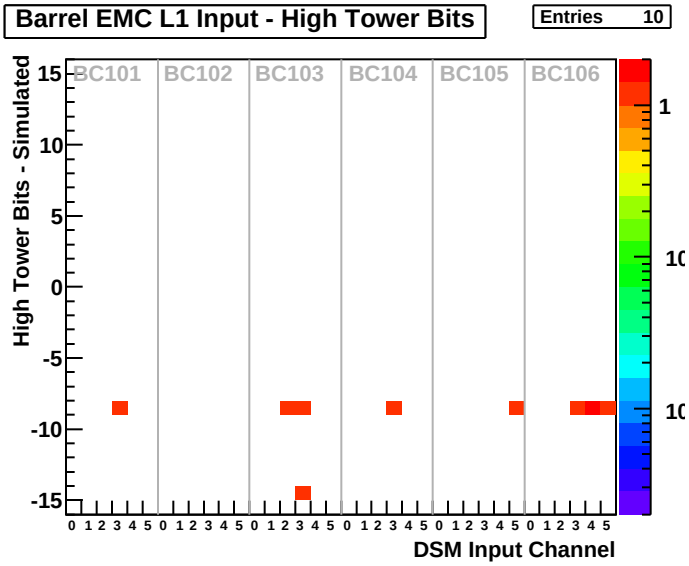

Barrel EMC L1 Input - Low Eta Sum
Entries 2.271431e+07
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

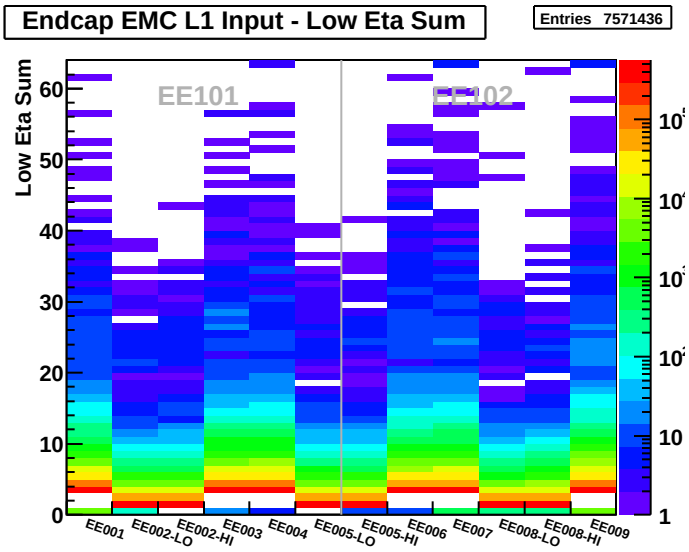

Barrel EMC L1 Input - Low Eta Sum
Entries 2028
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

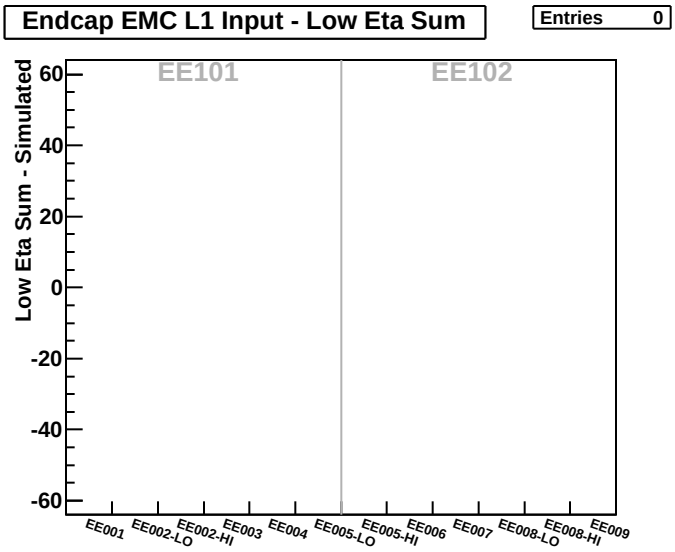

Barrel EMC L1 Input - High Eta Sum
Entries 2.271431e+07
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

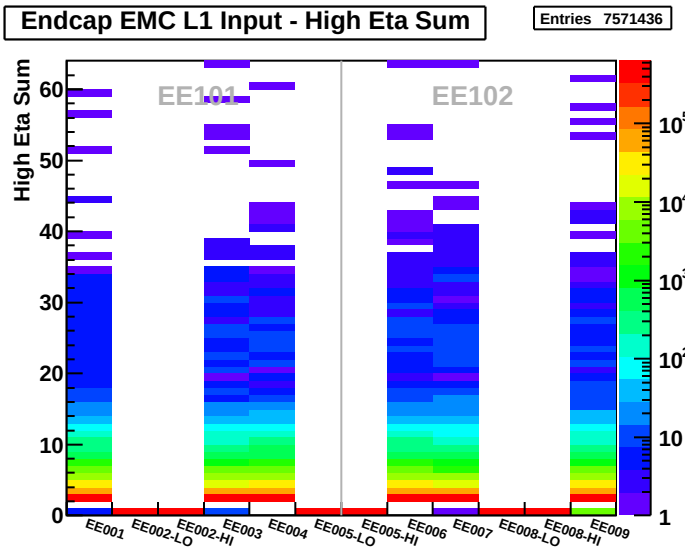

Barrel EMC L1 Input - High Eta Sum
Entries 204
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

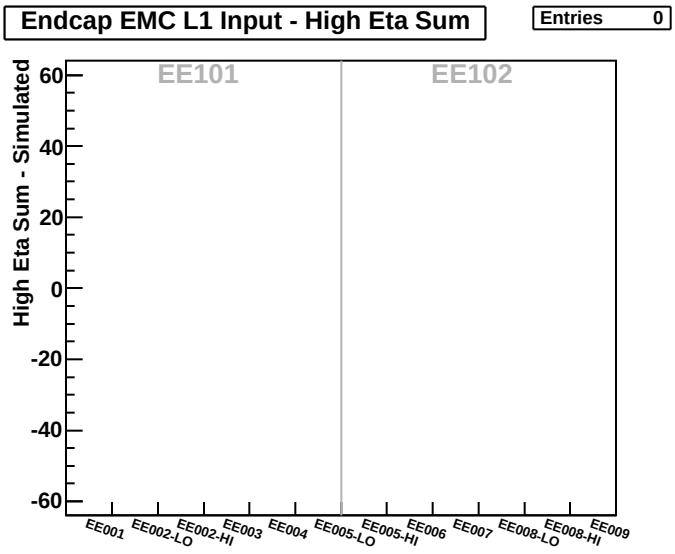

Barrel EMC L1 Input - High Tower Bits
Entries 2.271431e+07
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

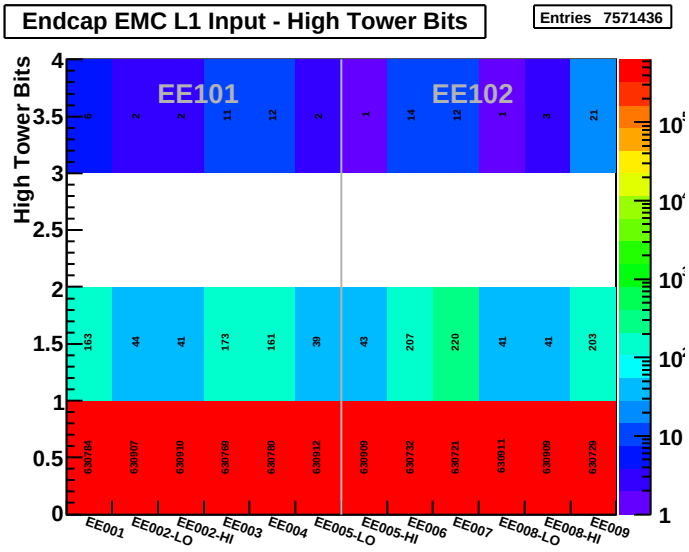

Barrel EMC L1 Input - High Tower Bits
Entries 10
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

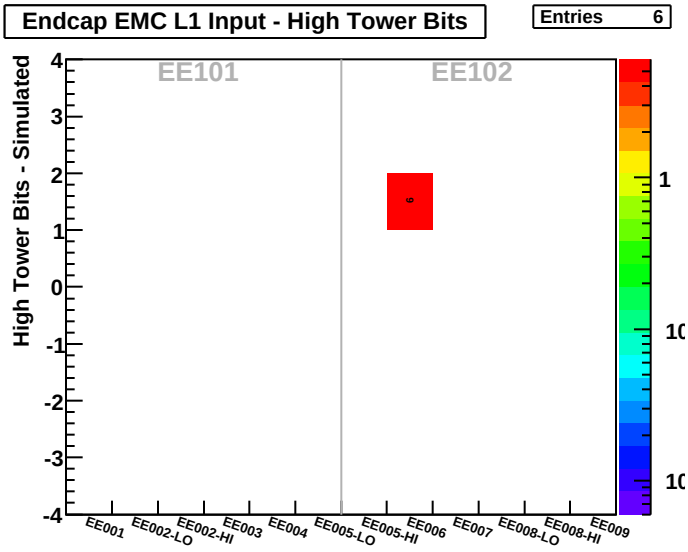

Endcap EMC L1 Input - Low Eta Sum
Entries 7571436
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

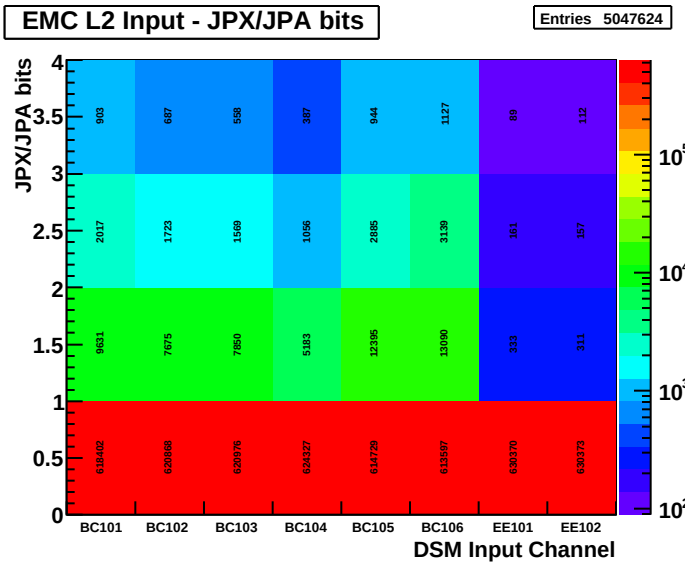

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

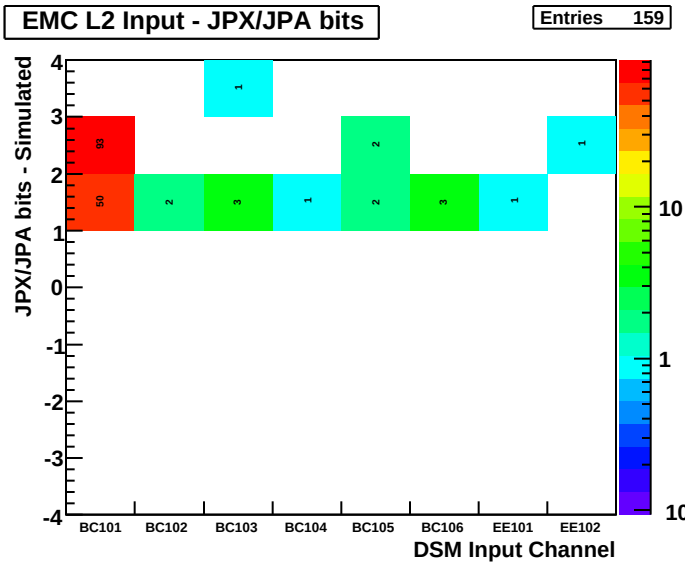

Endcap EMC L1 Input - High Eta Sum
Entries 7571436
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

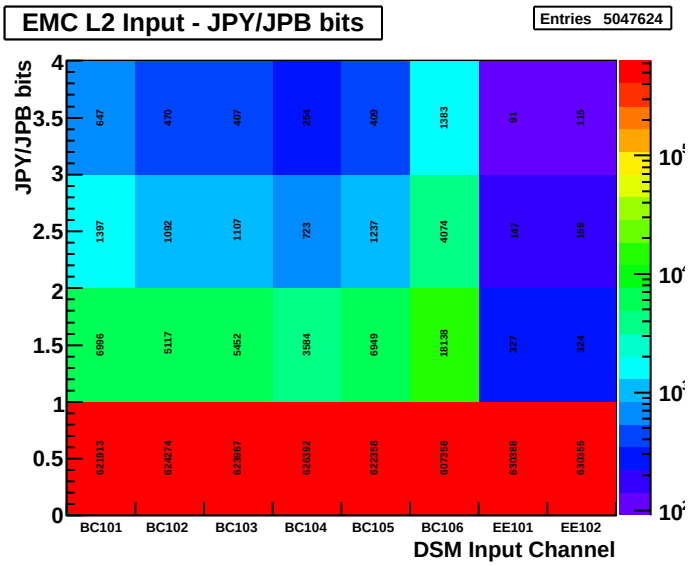

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

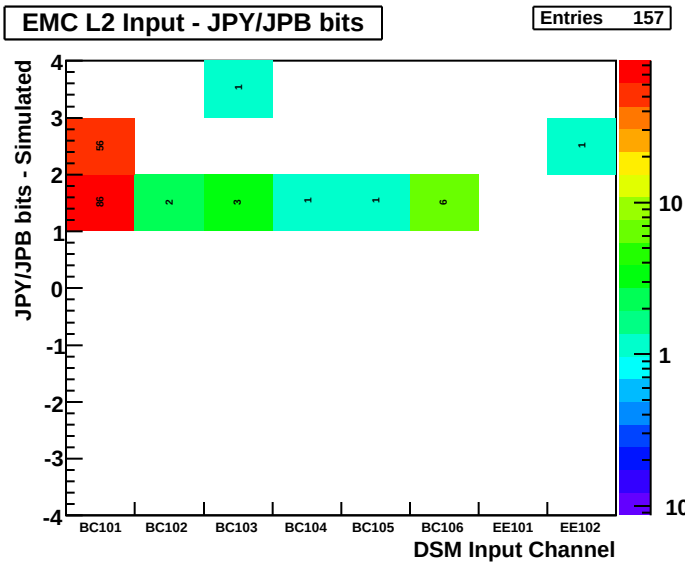

Endcap EMC L1 Input - High Tower Bits
Entries 7571436
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

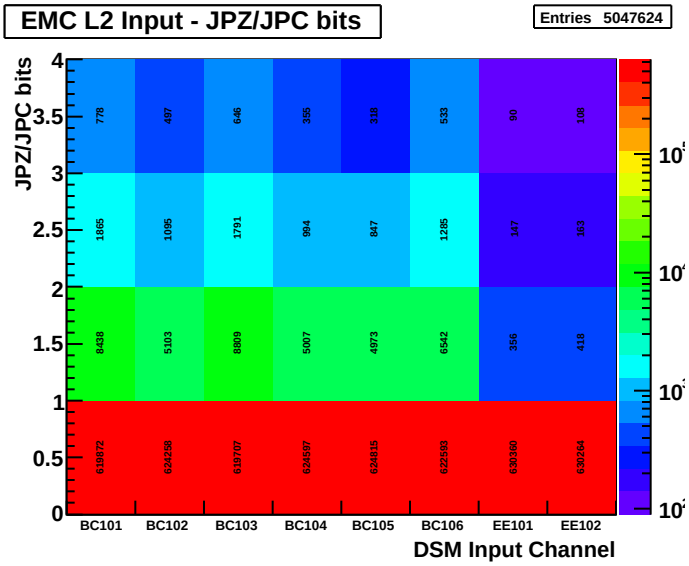

Endcap EMC L1 Input - High Tower Bits
Entries 6
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

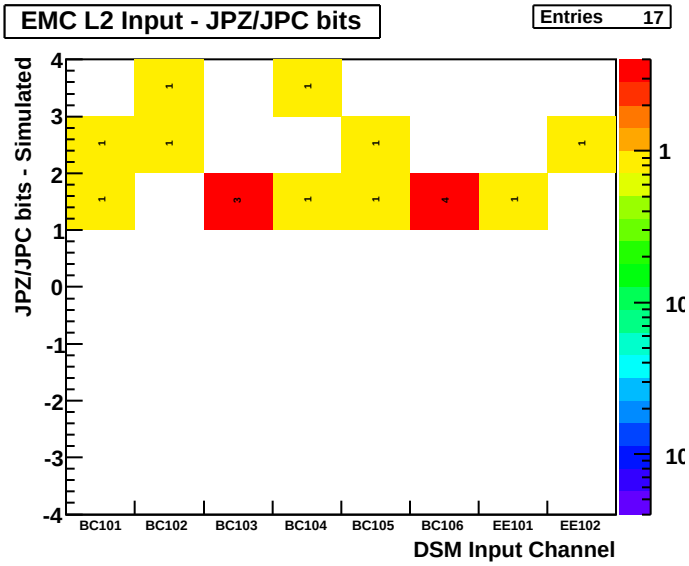

EMC L2 Input - JPX/JPA bits
Entries 5047624
JPX/JPA bits
903 687 558 387 944 1127 89 112
2017 1723 1569 1056 2885 3139 161 157
9631 7675 7850 5183 12395 13090 333 311
618402 620868 620976 624327 614729 613597 630370 630373
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
DSM Input Channel

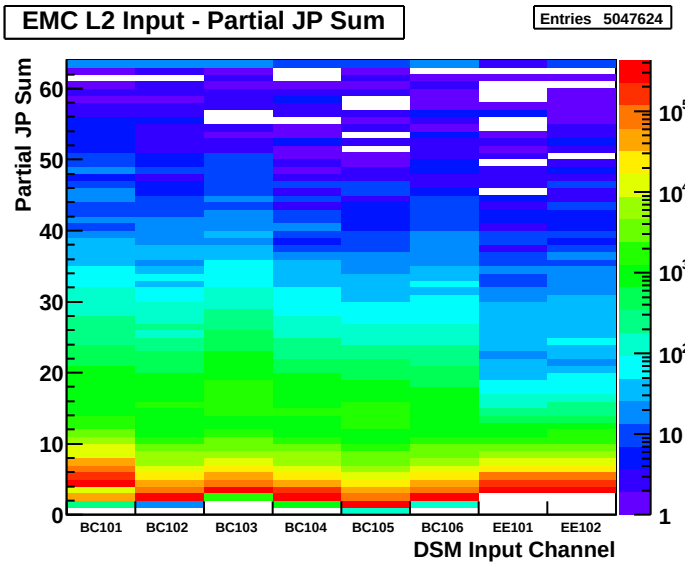

EMC L2 Input - JPX/JPA bits
Entries 159
JPX/JPA bits - Simulated
1
93 2 2 1
50 2 3 1 2 3 1
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
DSM Input Channel

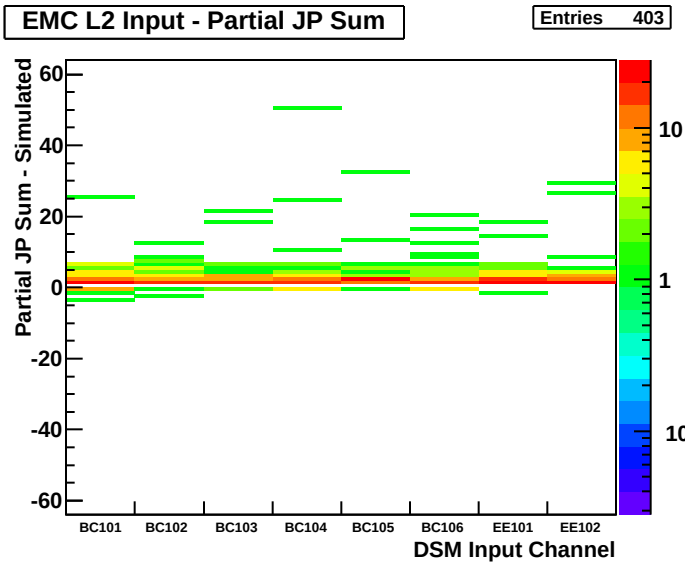

EMC L2 Input - JPY/JPB bits
Entries 5047624
JPY/JPB bits
647 470 407 254 409 1383 91 115
1397 1092 1107 723 1237 4074 147 159
6996 5117 5452 3594 6949 18138 327 324
621913 624274 622987 626392 622358 607358 630388 630355
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
DSM Input Channel

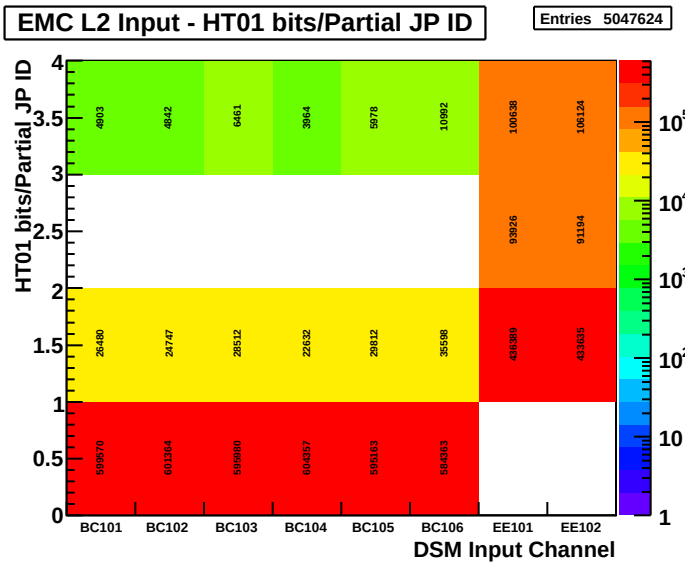

EMC L2 Input - JPY/JPB bits
Entries 157
JPY/JPB bits - Simulated
1
56 1
86 2 3 1 1 6
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
DSM Input Channel

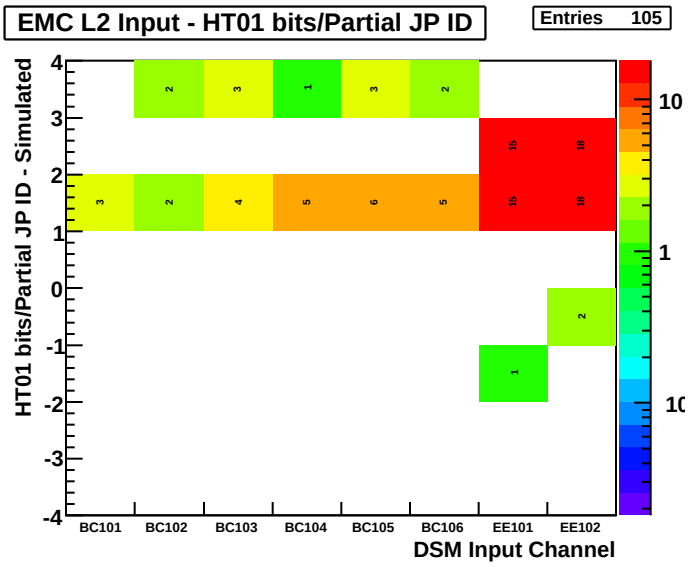

EMC L2 Input - JPZ/JPC bits
Entries 5047624
JPZ/JPC bits
778 497 646 355 318 533 90 108
1865 1095 1791 994 847 1285 147 163
8438 5103 8809 5007 4973 6542 356 418
619372 624298 619707 624597 624815 622593 630360 630264
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
DSM Input Channel

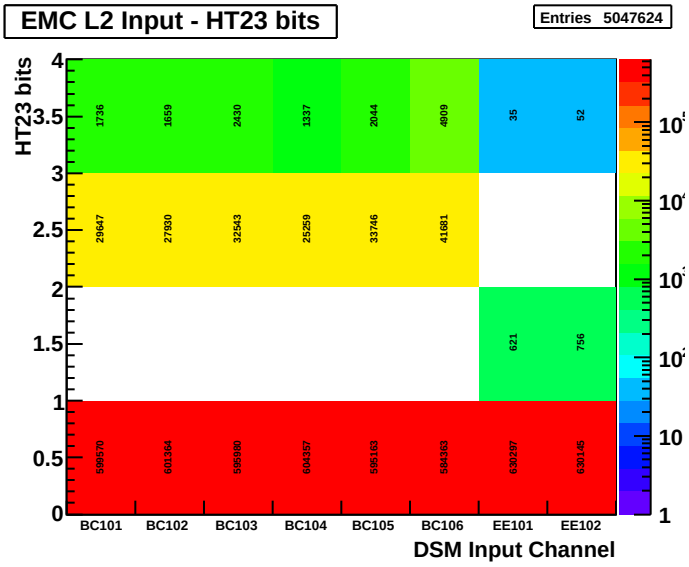

EMC L2 Input - JPZ/JPC bits
Entries 17
JPZ/JPC bits - Simulated
1 1 1
1 1 1 1
1 3 1 1 4 1
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
DSM Input Channel

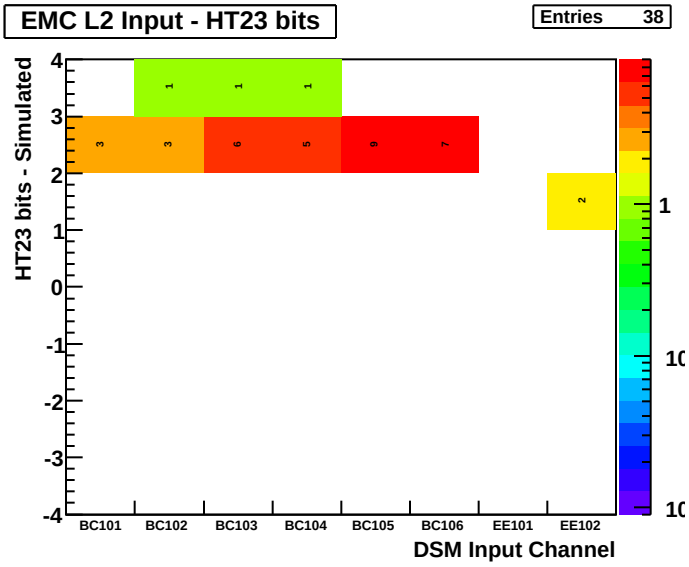

EMC L2 Input - Partial JP Sum
Entries 5047624
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

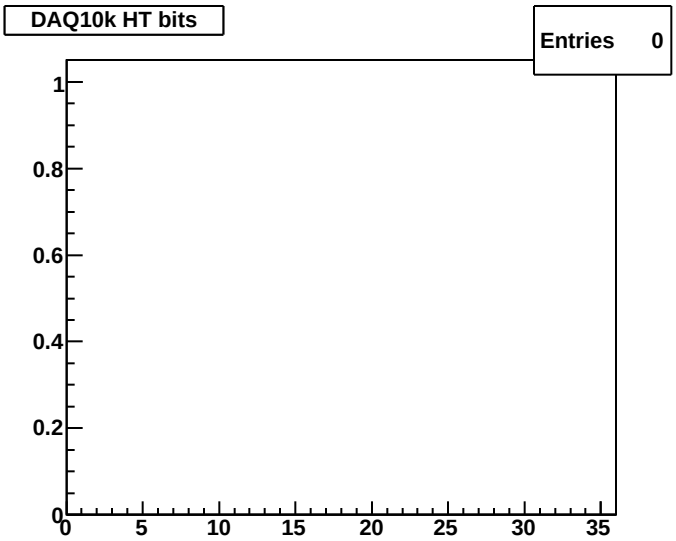

EMC L2 Input - Partial JP Sum
Entries 403
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

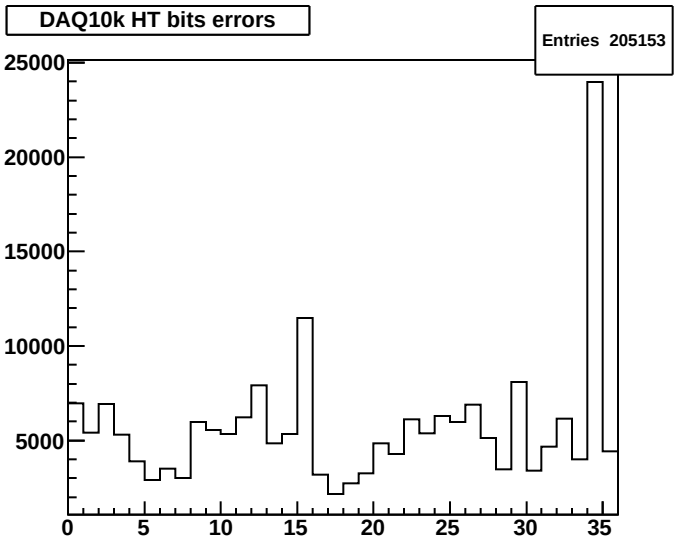

EMC L2 Input - HT01 bits/Partial JP ID
Entries 5047624
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

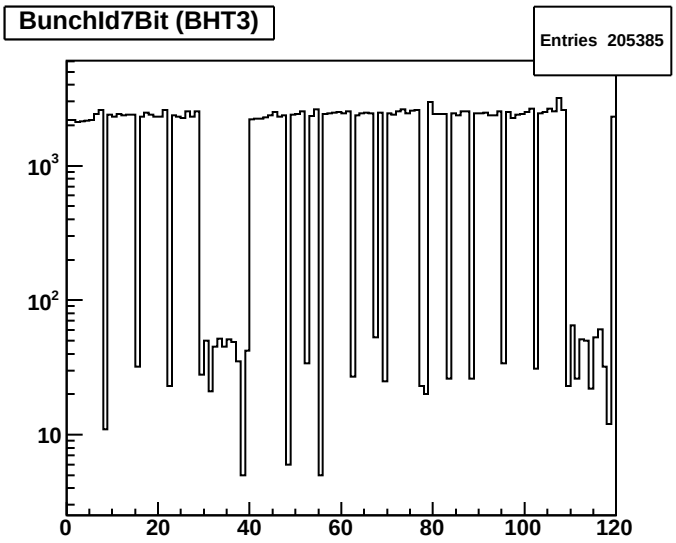

EMC L2 Input - HT01 bits/Partial JP ID
Entries 105
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

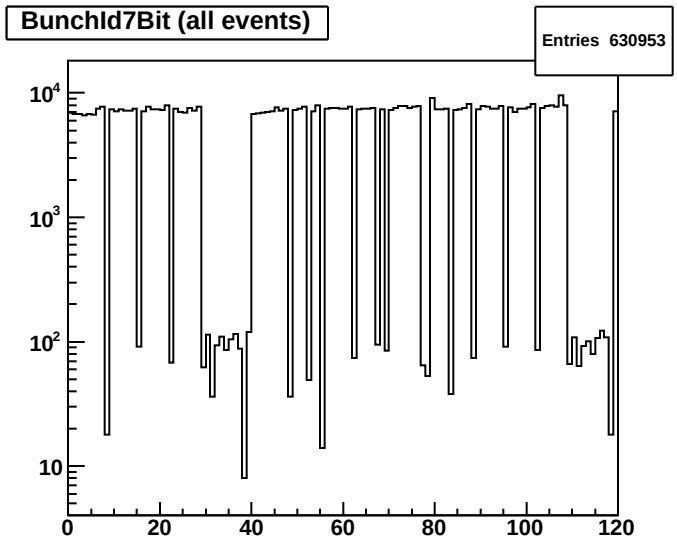

EMC L2 Input - HT23 bits
Entries 5047624
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

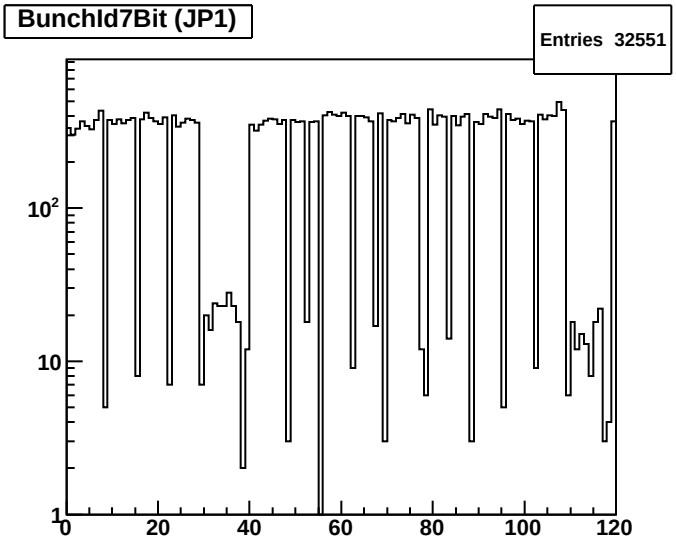

EMC L2 Input - HT23 bits
Entries 38
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

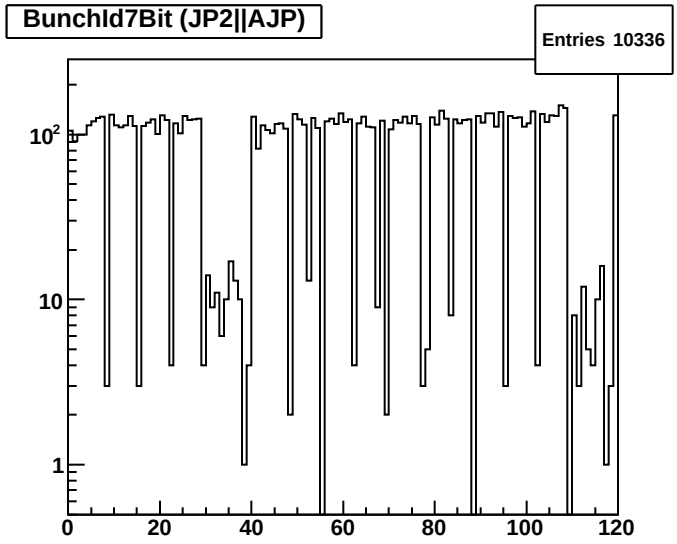

DAQ10k HT bits
Entries 0

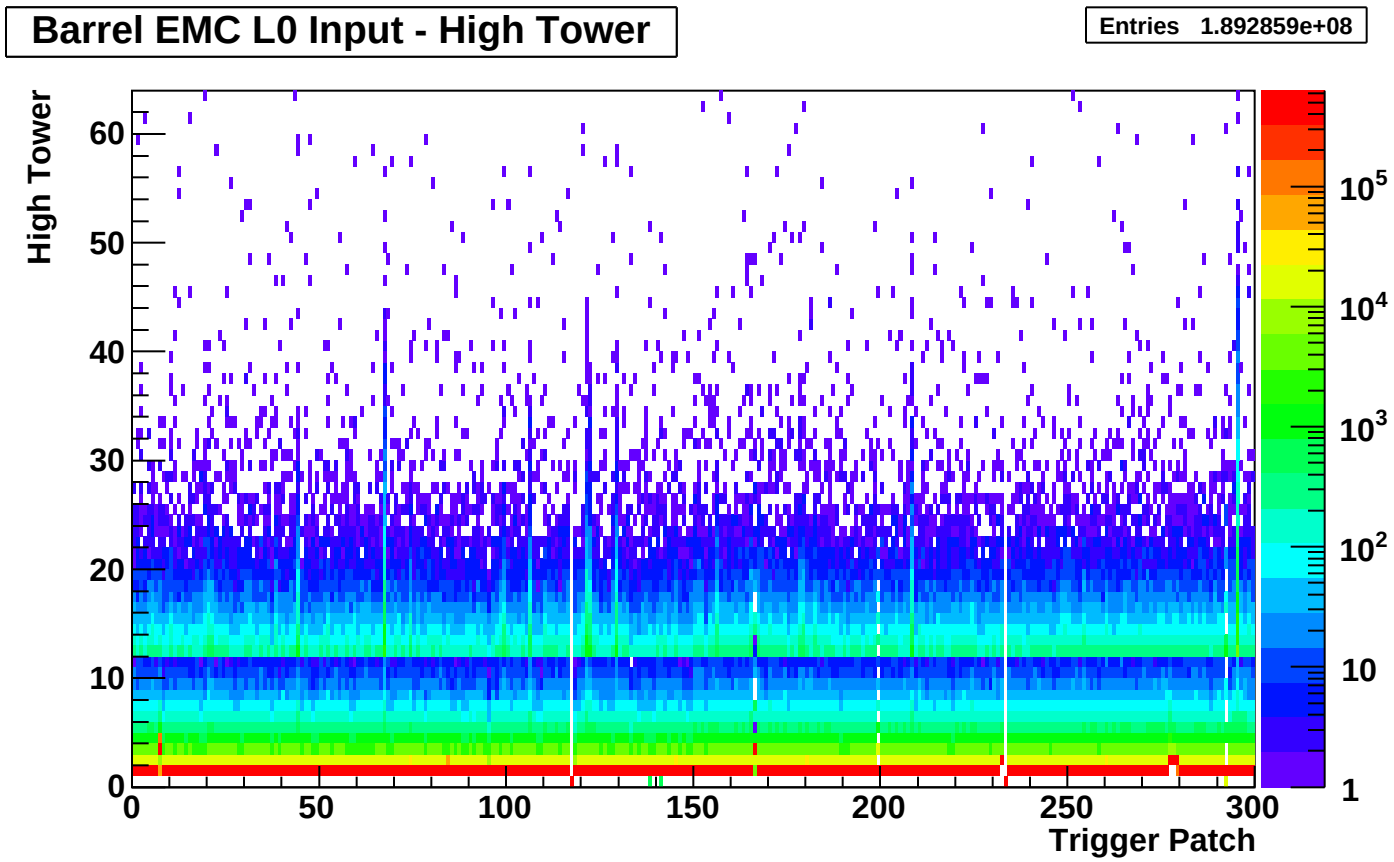

DAQ10k HT bits errors
Entries 205153

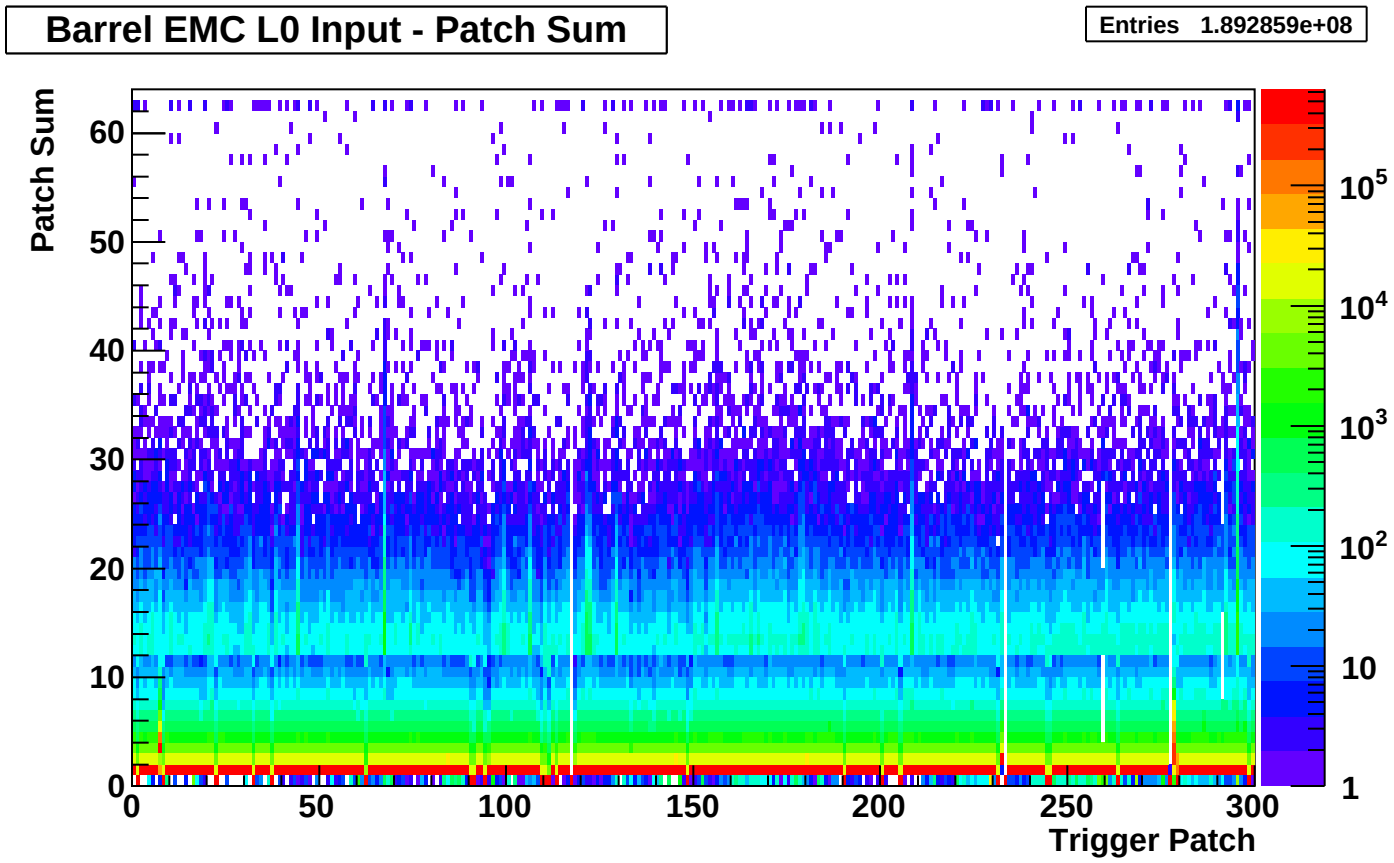

BunchId7Bit (BHT3)
Entries 205385

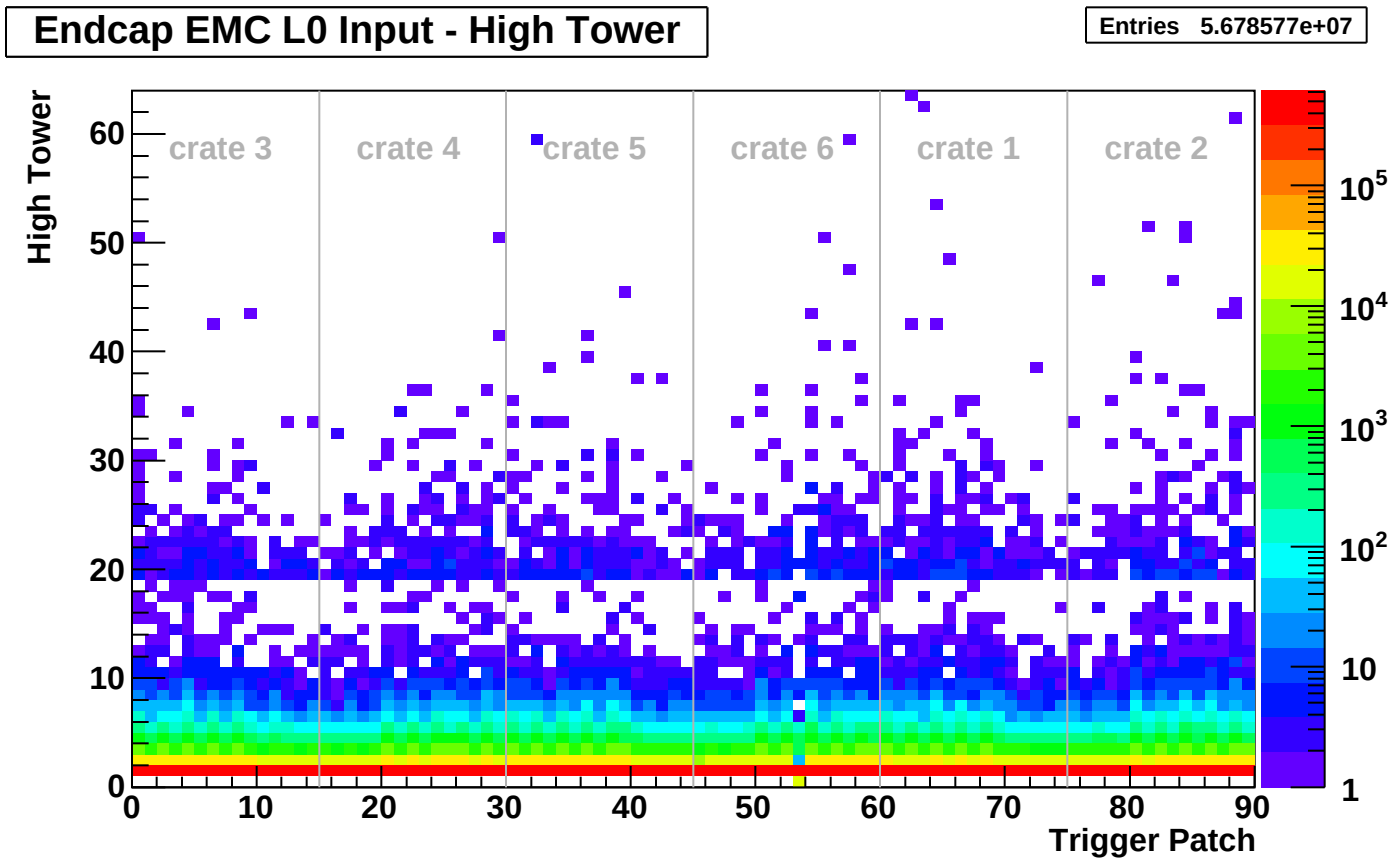

BunchId7Bit (all events)
Entries 630953

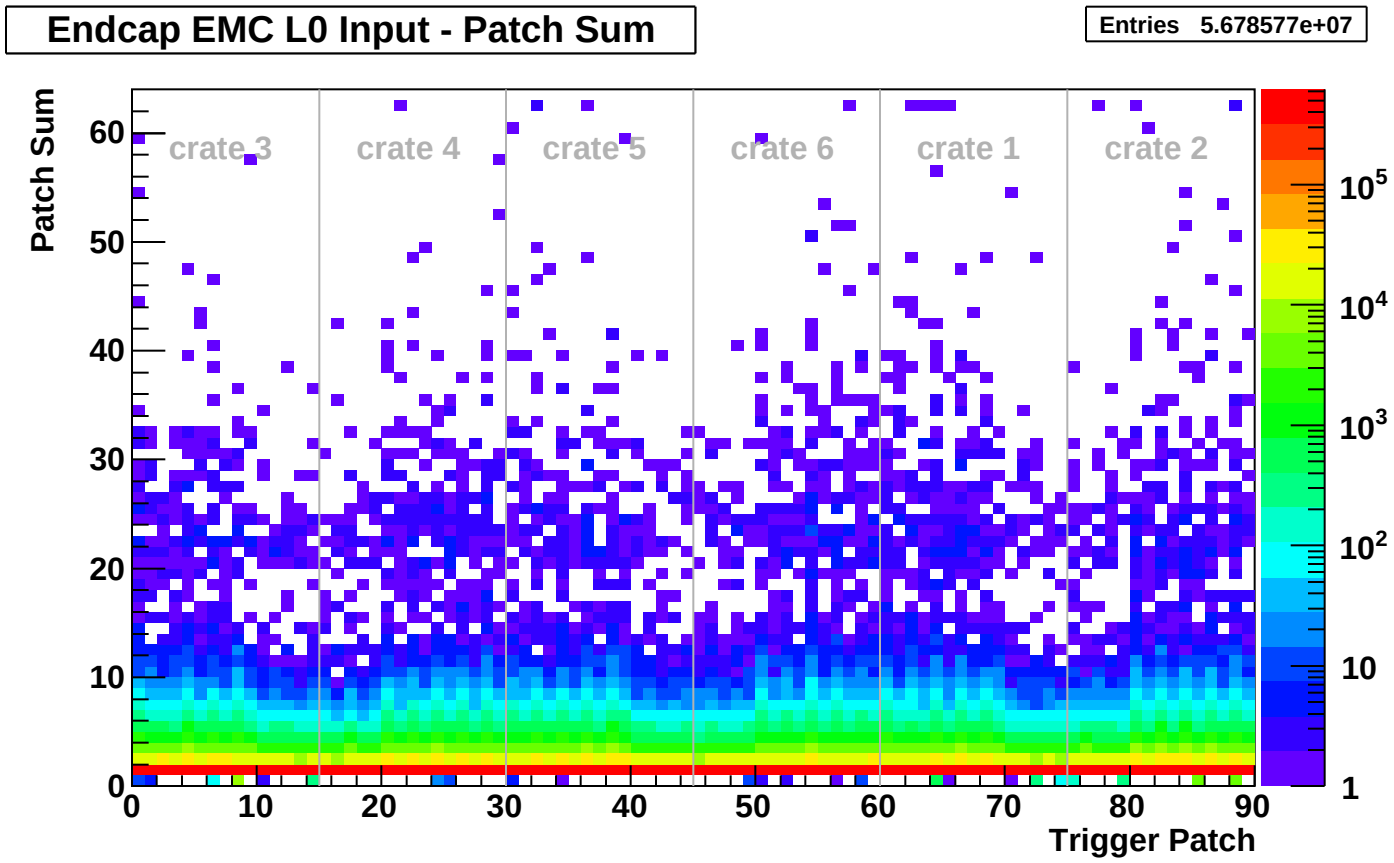

BunchId7Bit (JP1)
Entries 32551

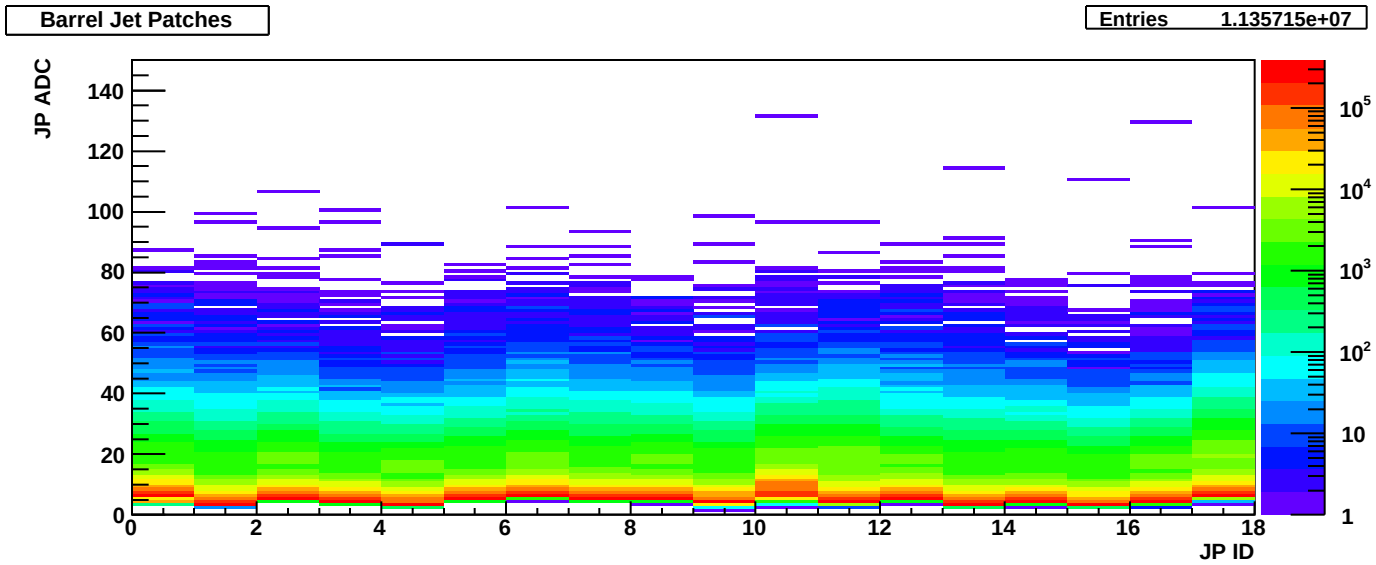

BunchId7Bit (JP2||AJP)
Entries 10336

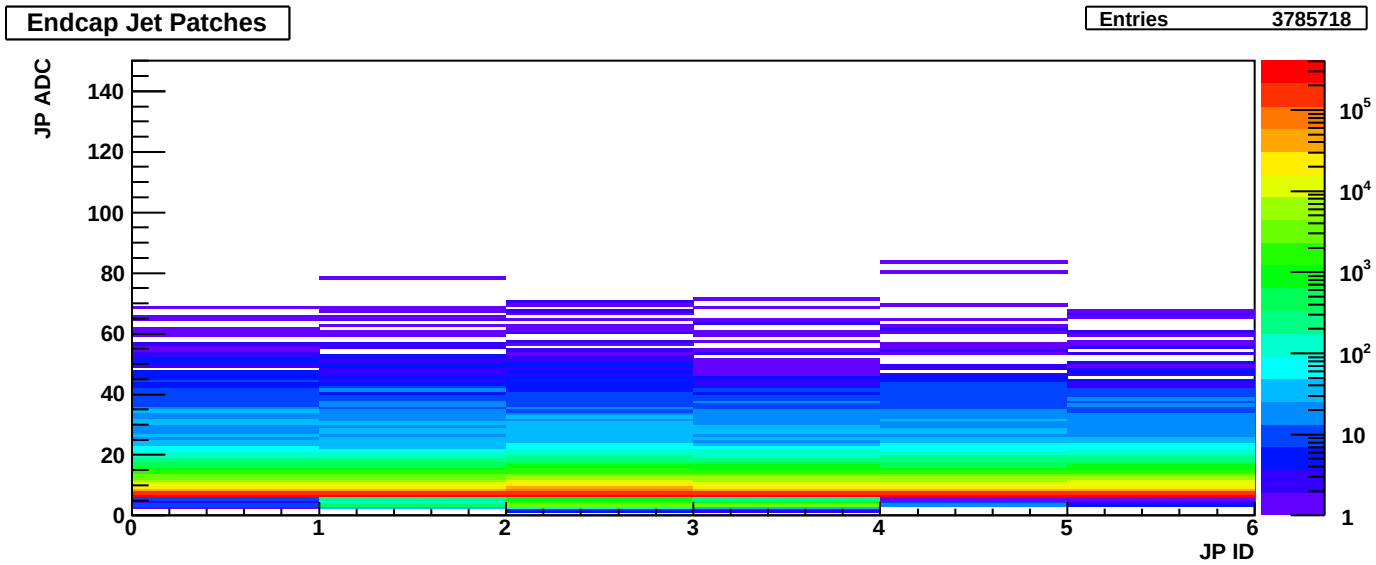

Barrel EMC L0 Input - High Tower
Entries 1.892859e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

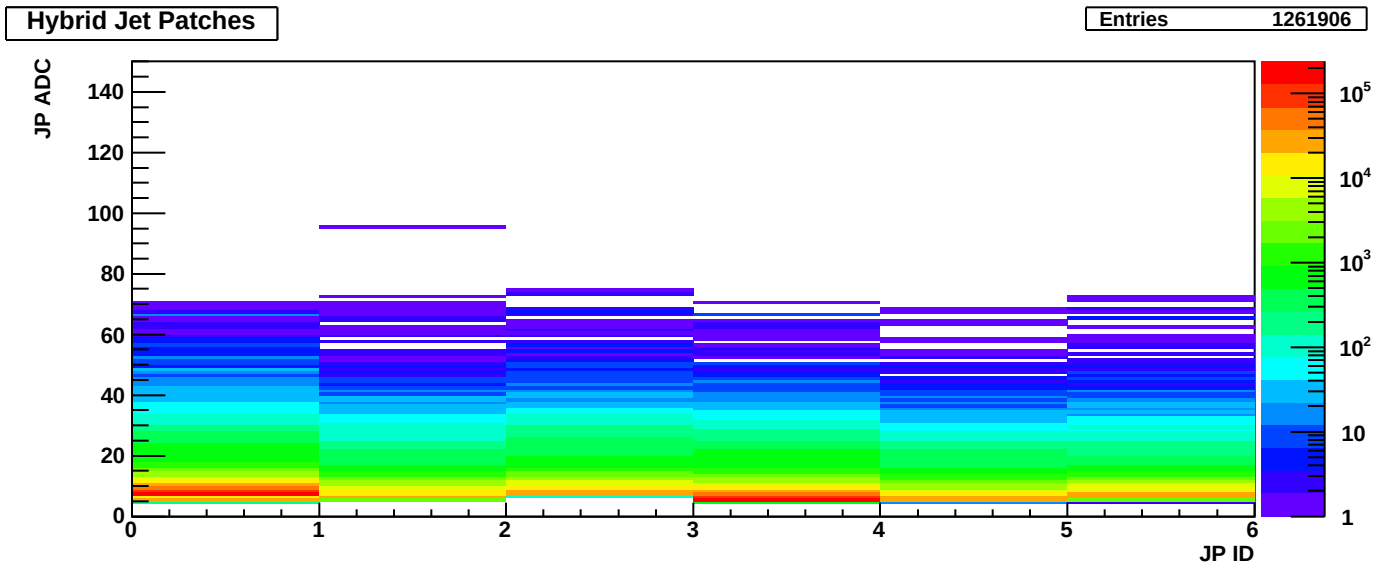

Barrel EMC L0 Input - Patch Sum
Entries 1.892859e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

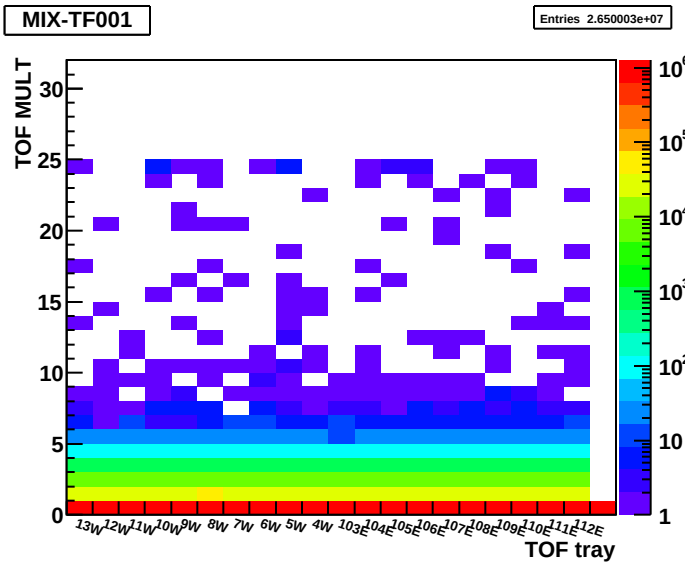

Endcap EMC L0 Input - High Tower
Entries 5.678577e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

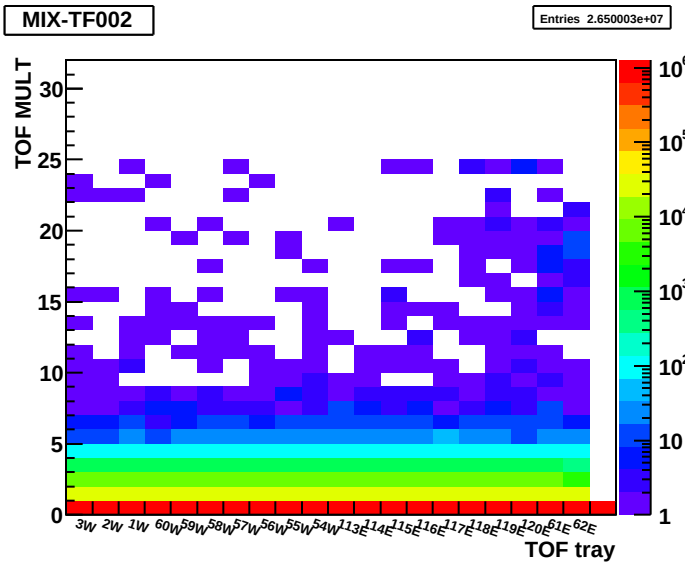

Endcap EMC L0 Input - Patch Sum
Entries 5.678577e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

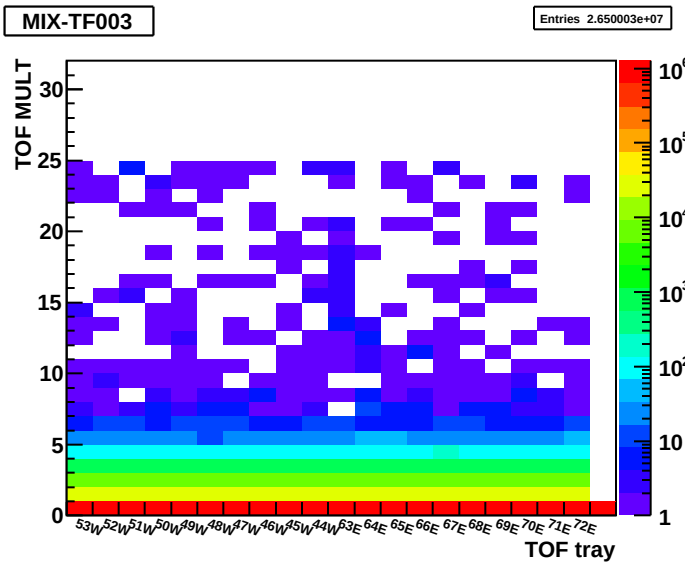

Barrel Jet Patches
Entries 1.135715e+07
JP ADC
JP ID

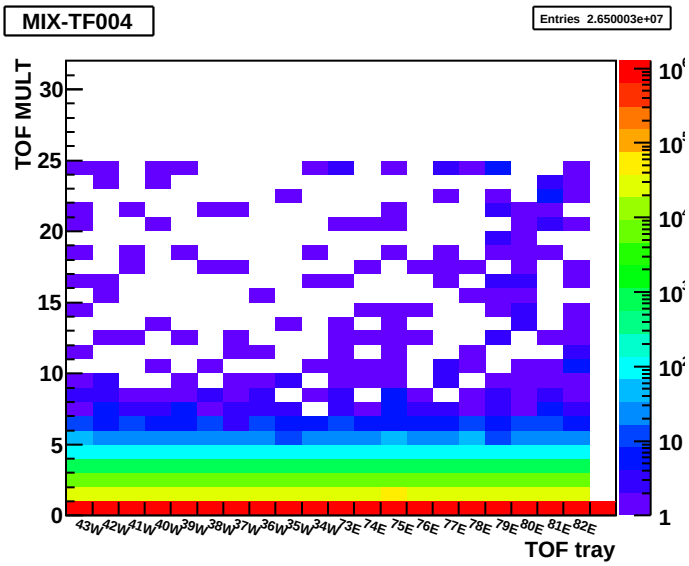

Endcap Jet Patches
Entries 3785718
JP ADC
JP ID

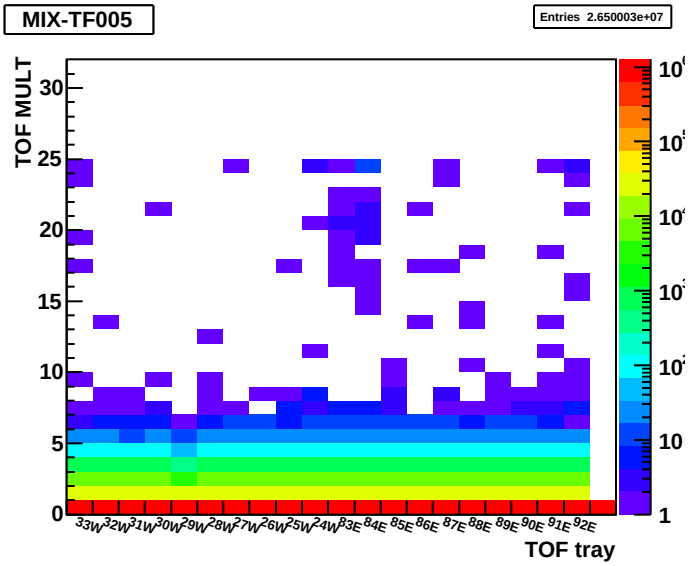

Hybrid Jet Patches
Entries 1261906
JP ADC
JP ID

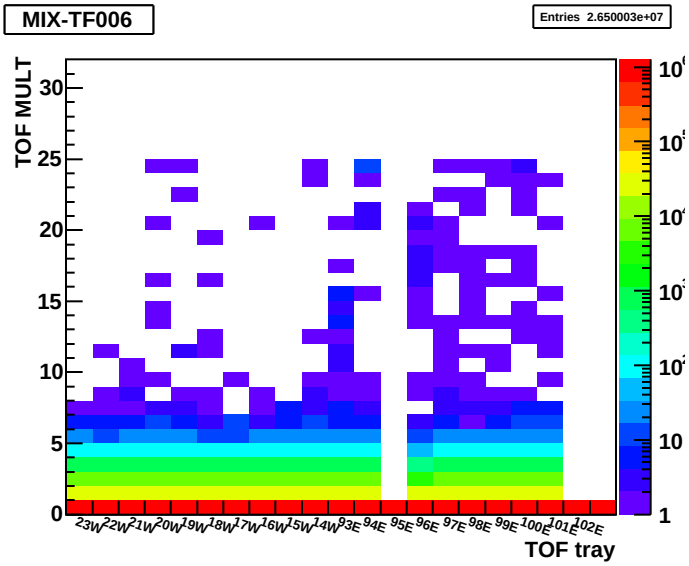

MIX-TF001
Entries 2.650003e+07
TOF MULT
TOF tray

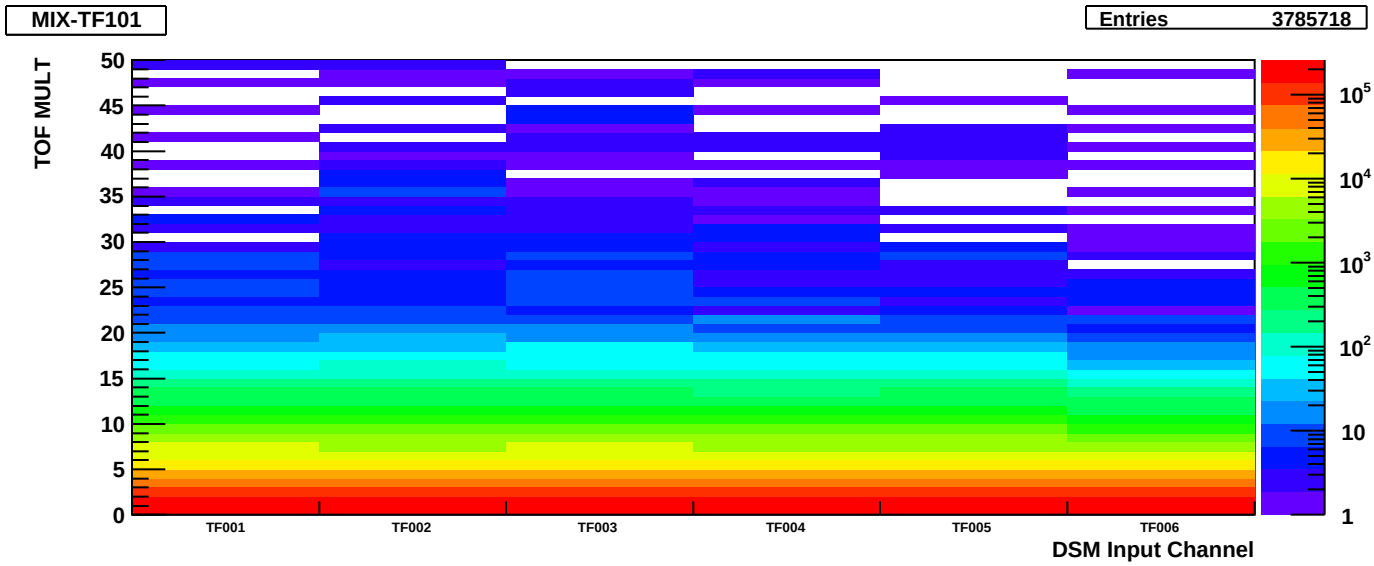

MIX-TF002
Entries 2.650003e+07
TOF MULT
TOF tray

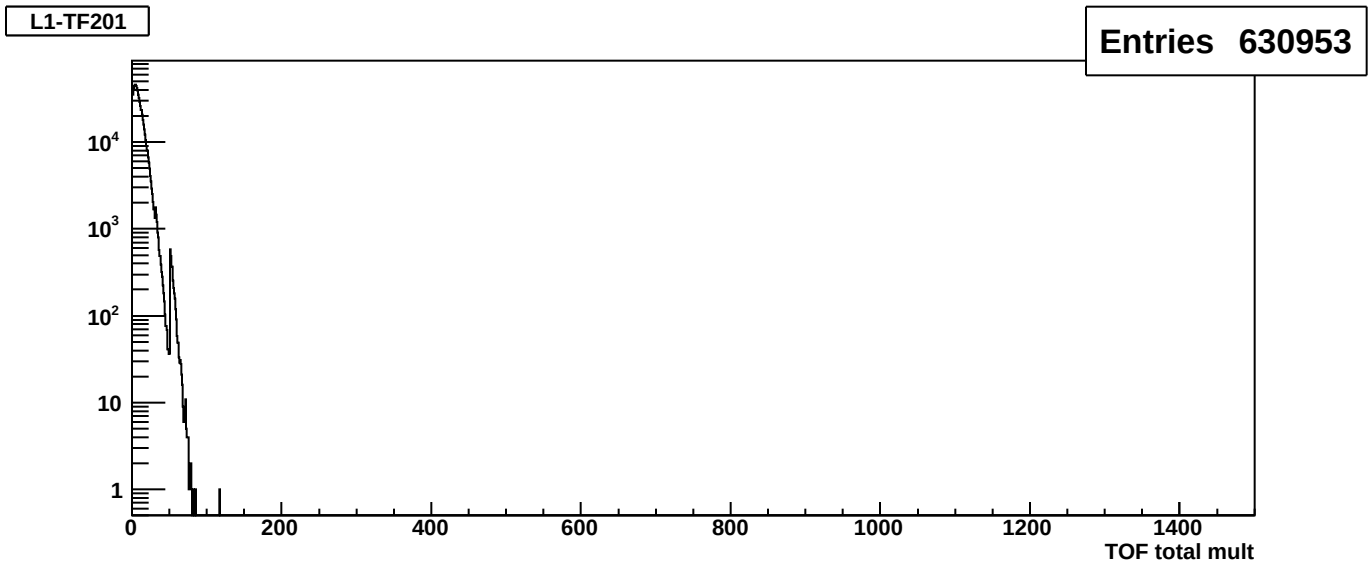

MIX-TF003
Entries 2.650003e+07
TOF MULT
TOF tray

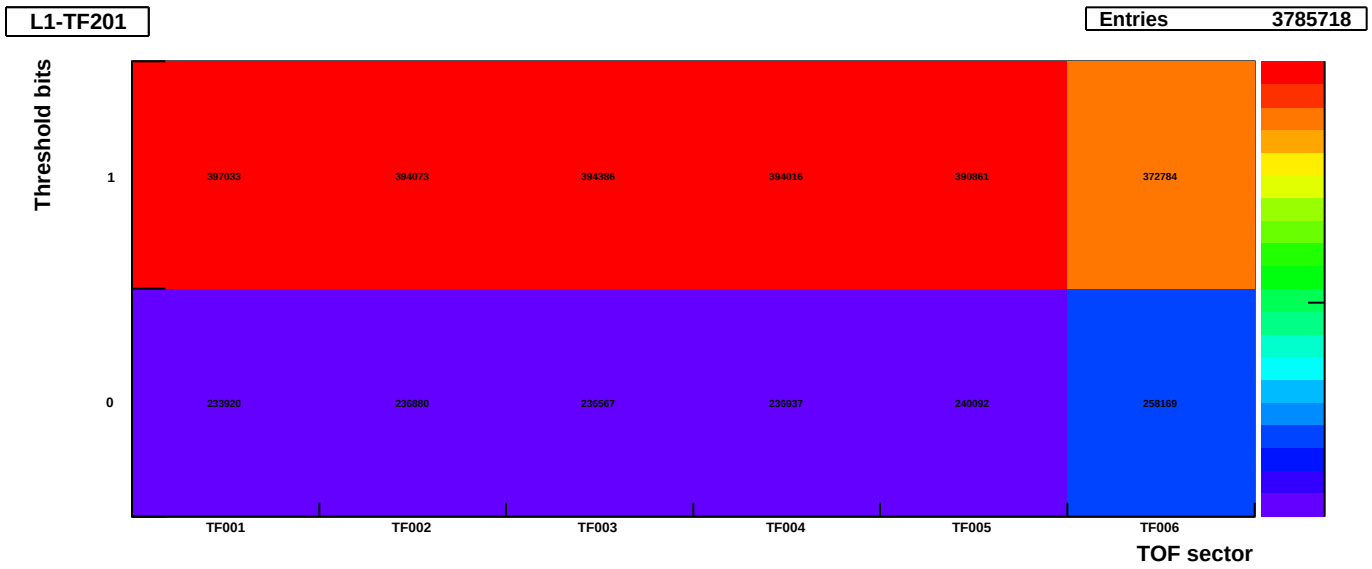

MIX-TF004
Entries 2.650003e+07
TOF MULT
TOF tray

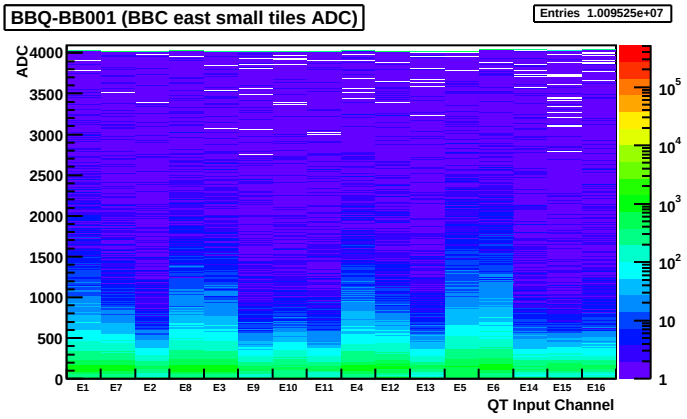

MIX-TF005
Entries 2.650003e+07
TOF MULT
TOF tray

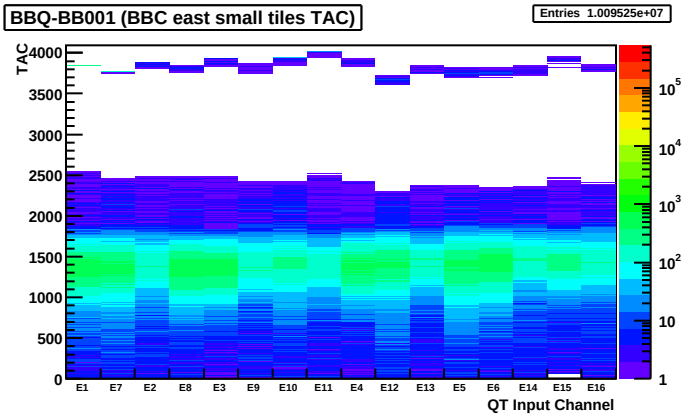

MIX-TF006
Entries 2.650003e+07
TOF MULT
TOF tray

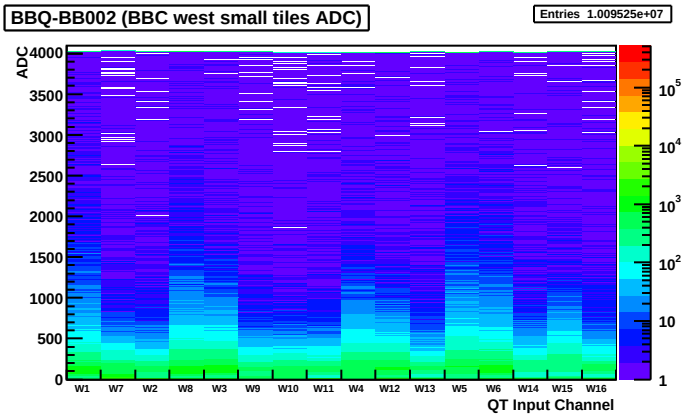

MIX-TF101
Entries 3785718
TOF MULT
50
45
40
35
30
25
20
15
10
5
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^5
10^4
10^3
10^2
10
1

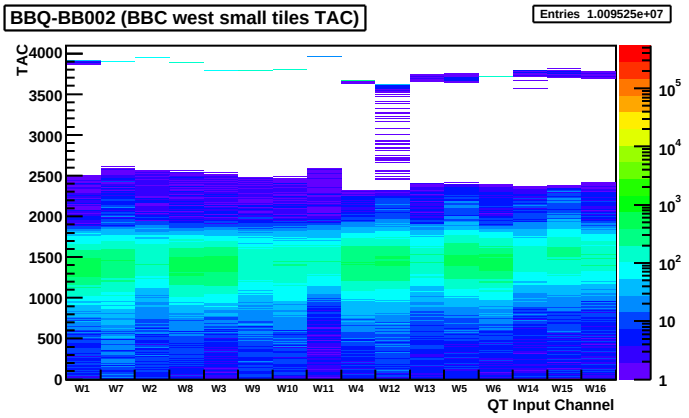

L1-TF201
Entries 630953
10^4
10^3
10^2
10
1
0
200
400
600
800
1000
1200
1400
TOF total mult

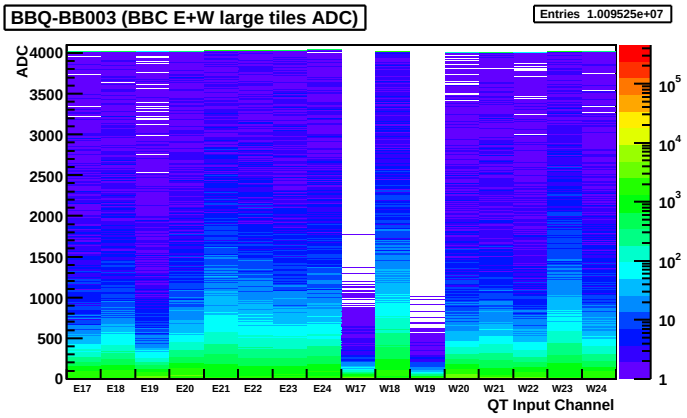

L1-TF201
Entries 3785718
Threshold bits
1
0
397033
394073
394386
394016
390861
372784
233920
236880
236567
236937
240092
258169
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

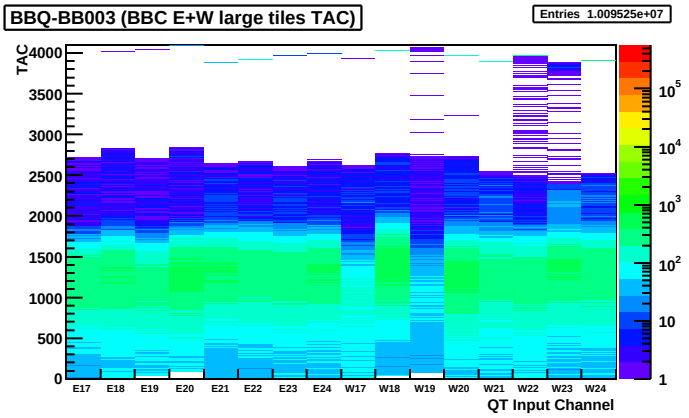

BBQ-BB001 (BBC east small tiles ADC)
Entries 1.009525e+07
ADC
QT Input Channel

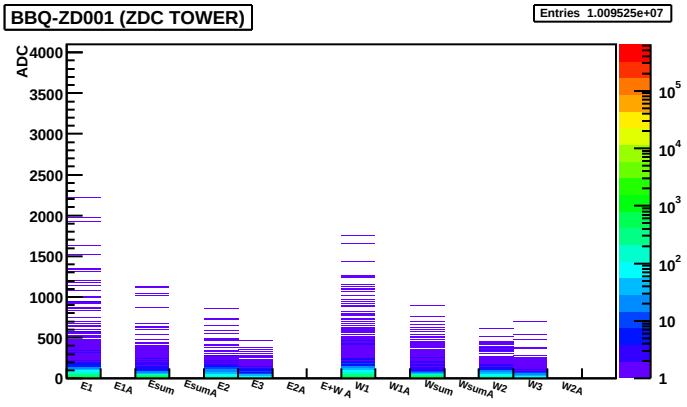

BBQ-BB001 (BBC east small tiles TAC)
Entries 1.009525e+07
TAC
QT Input Channel

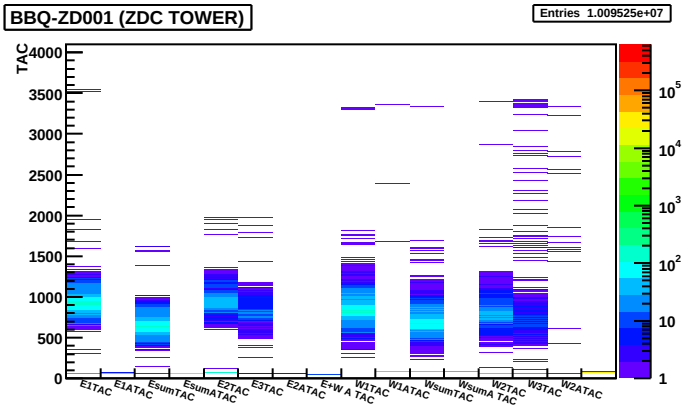

BBQ-BB002 (BBC west small tiles ADC)
Entries 1.009525e+07
ADC
QT Input Channel

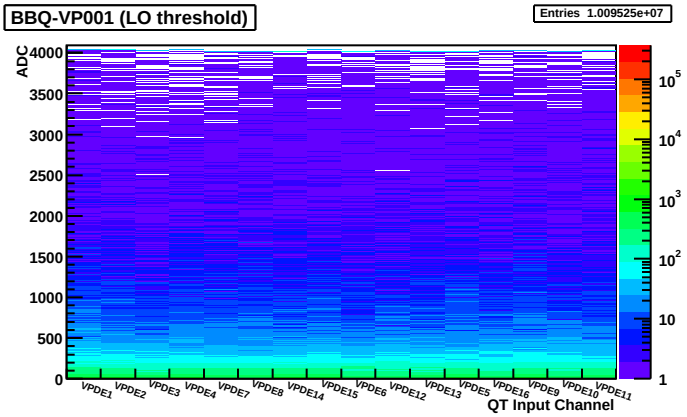

BBQ-BB002 (BBC west small tiles TAC)
Entries 1.009525e+07
TAC
QT Input Channel

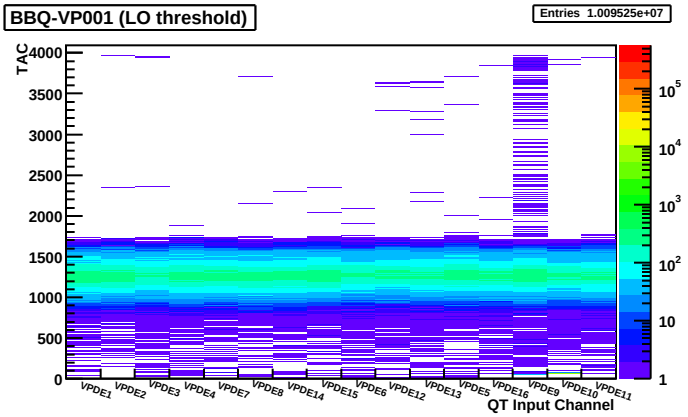

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1.009525e+07
ADC
QT Input Channel

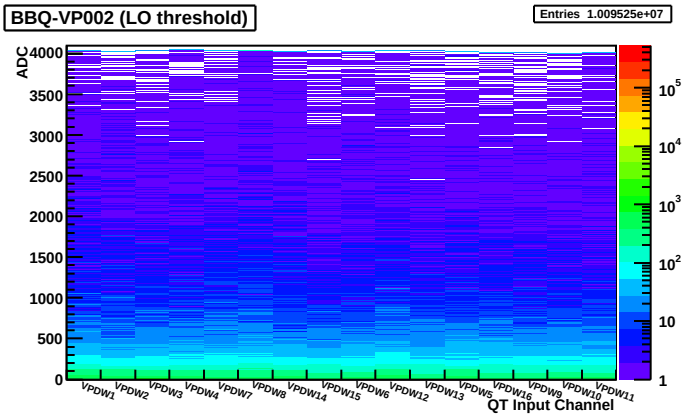

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1.009525e+07
TAC
QT Input Channel

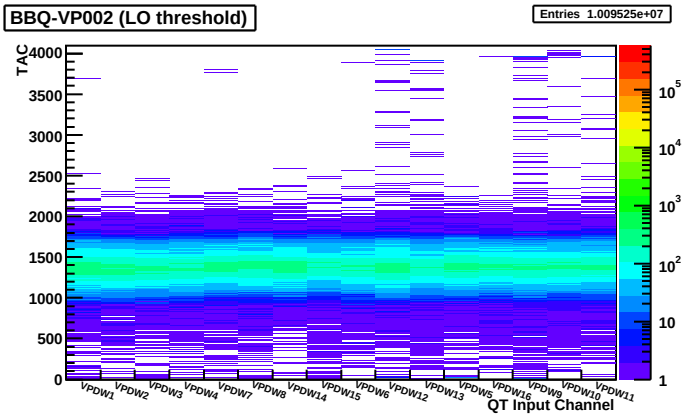

BBQ-ZD001 (ZDC TOWER)
Entries 1.009525e+07
ADC

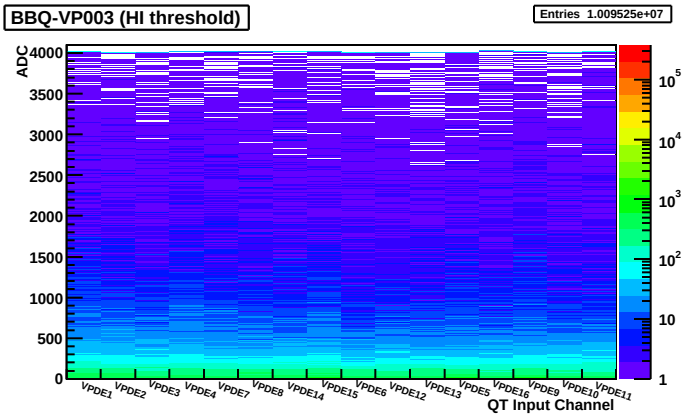

BBQ-ZD001 (ZDC TOWER)
Entries 1.009525e+07
TAC

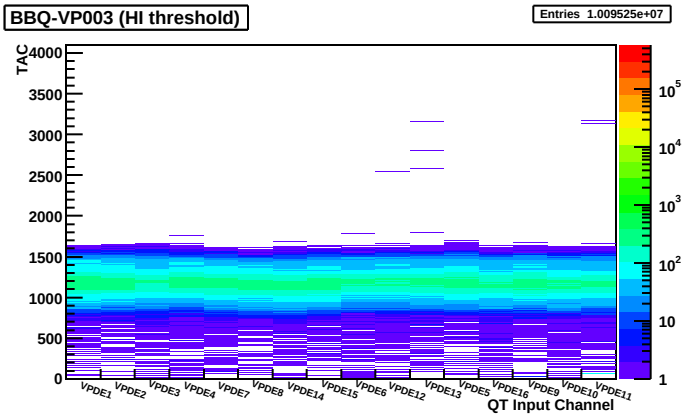

BBQ-VP001 (LO threshold)
Entries 1.009525e+07
ADC
QT Input Channel

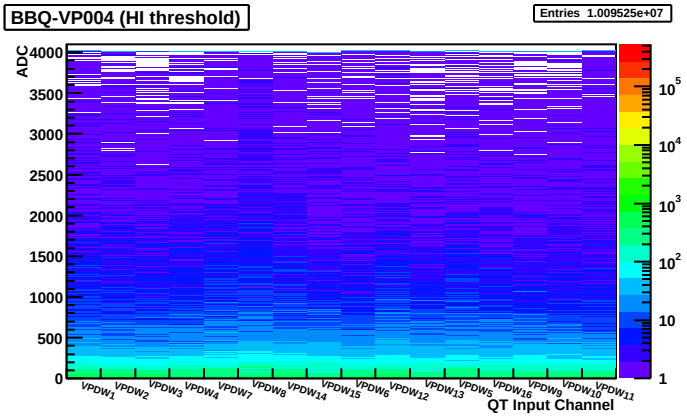

BBQ-VP001 (LO threshold)
Entries 1.009525e+07
TAC
QT Input Channel

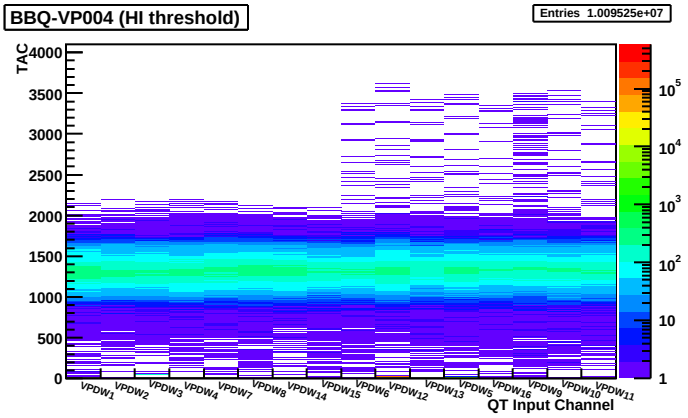

BBQ-VP002 (LO threshold)
Entries 1.009525e+07
ADC
QT Input Channel

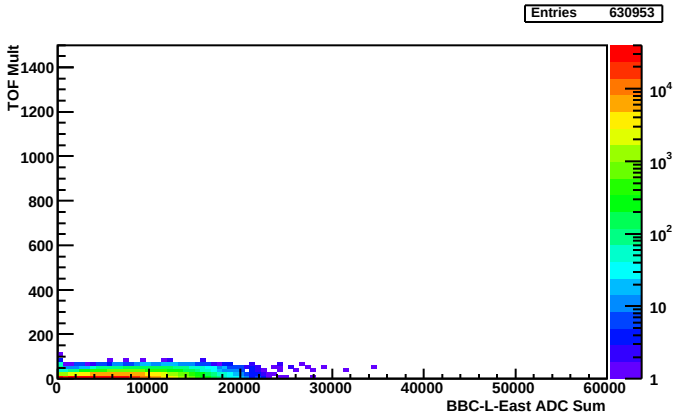

BBQ-VP002 (LO threshold)
Entries 1.009525e+07
TAC
QT Input Channel

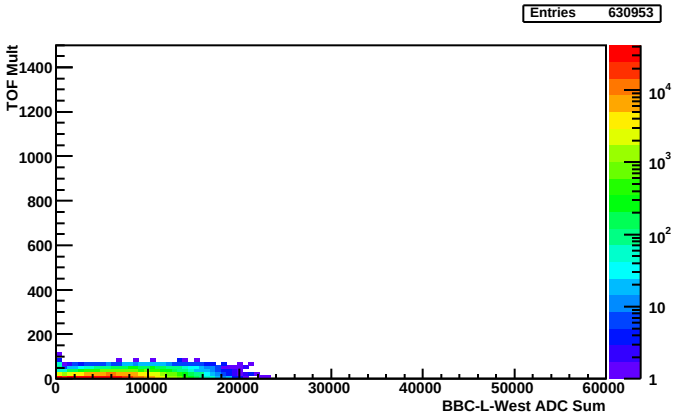

BBQ-VP003 (HI threshold)
Entries 1.009525e+07
ADC
QT Input Channel

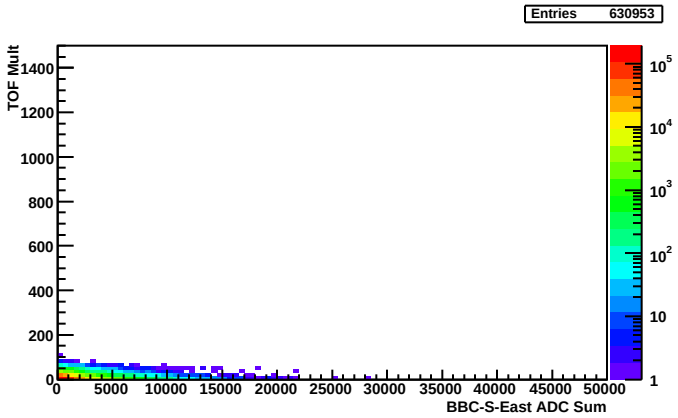

BBQ-VP003 (HI threshold)
Entries 1.009525e+07
TAC
QT Input Channel

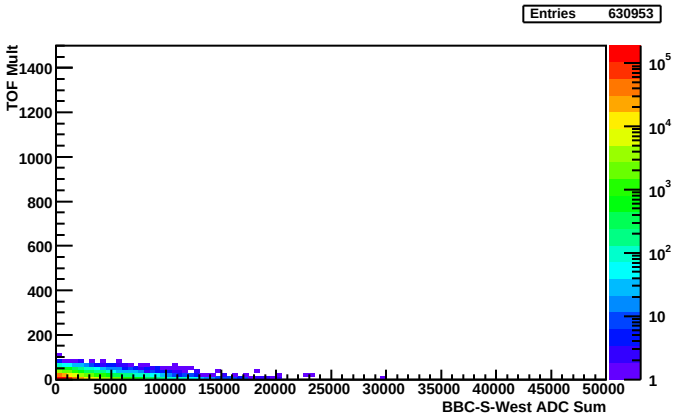

BBQ-VP004 (HI threshold)
Entries 1.009525e+07
ADC
QT Input Channel

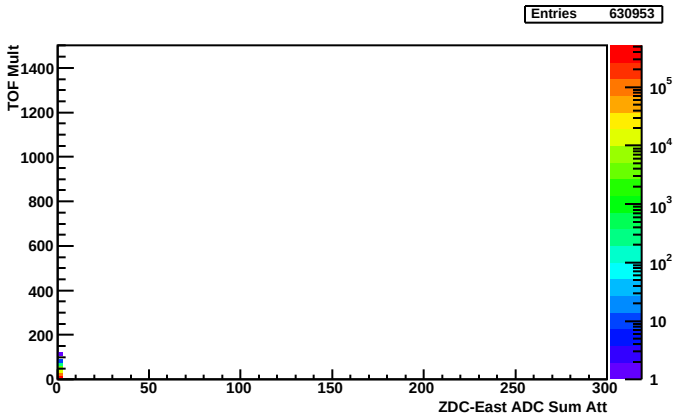

BBQ-VP004 (HI threshold)
Entries 1.009525e+07
TAC
QT Input Channel

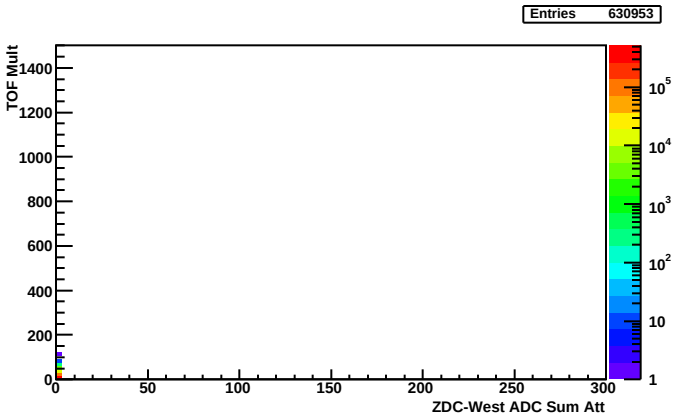

Entries 630953
TOF Mult
BBC-L-East ADC Sum

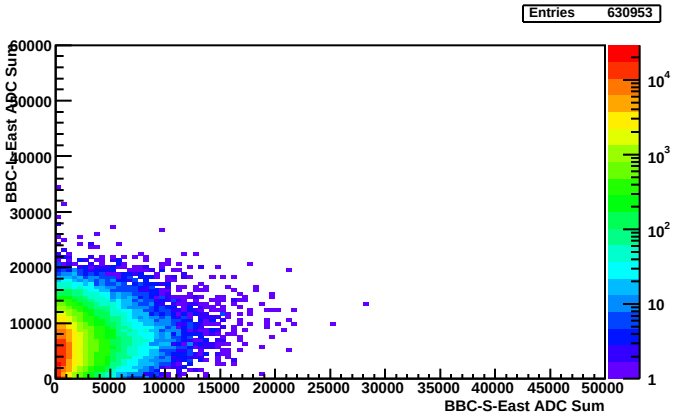

Entries 630953
TOF Mult
BBC-L-West ADC Sum

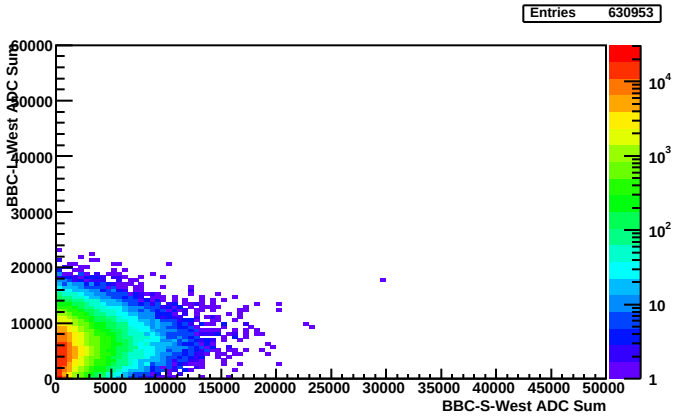

Entries 630953
TOF Mult
BBC-S-East ADC Sum

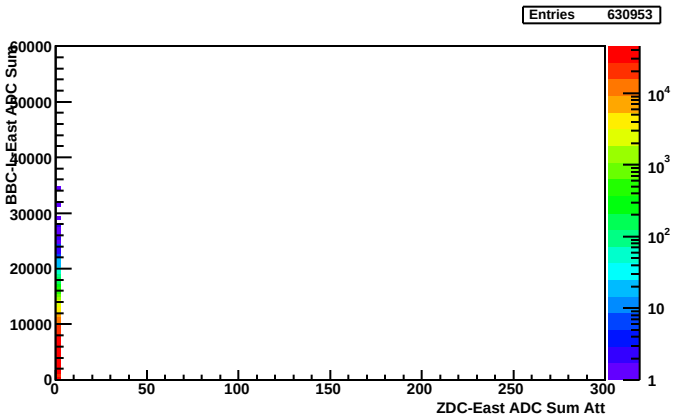

Entries 630953
TOF Mult
BBC-S-West ADC Sum

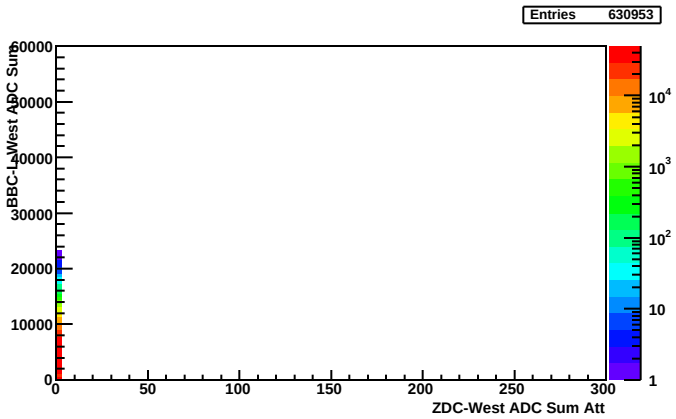

Entries 630953
TOF Mult
ZDC-East ADC Sum Att

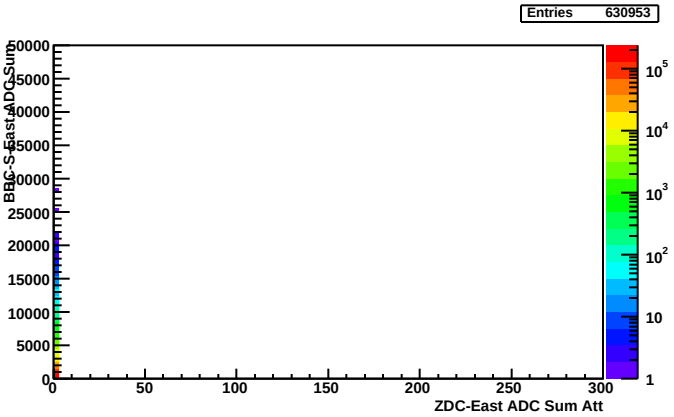

Entries 630953
TOF Mult
ZDC-West ADC Sum Att

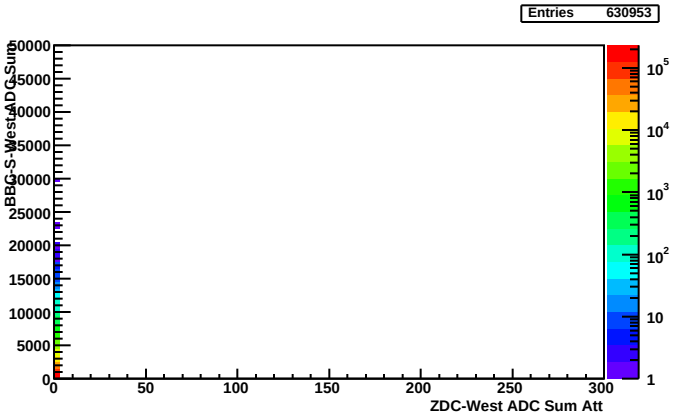

Entries 630953
BBC-L-East ADC Sum
BBC-S-East ADC Sum

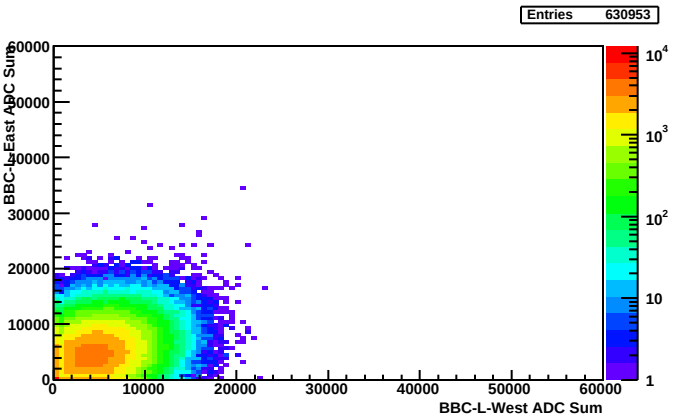

Entries 630953
BBC-L-West ADC Sum
BBC-S-West ADC Sum

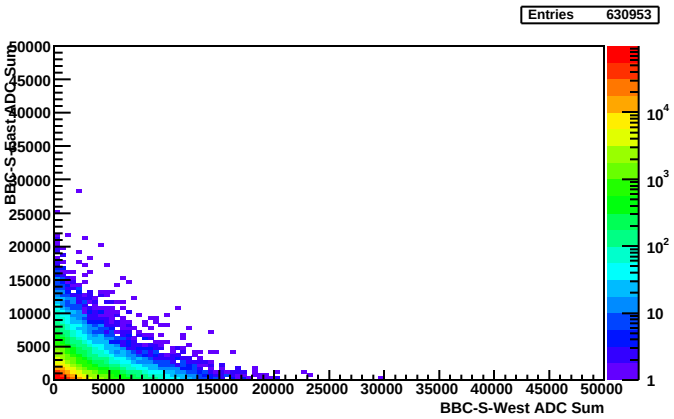

Entries 630953
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

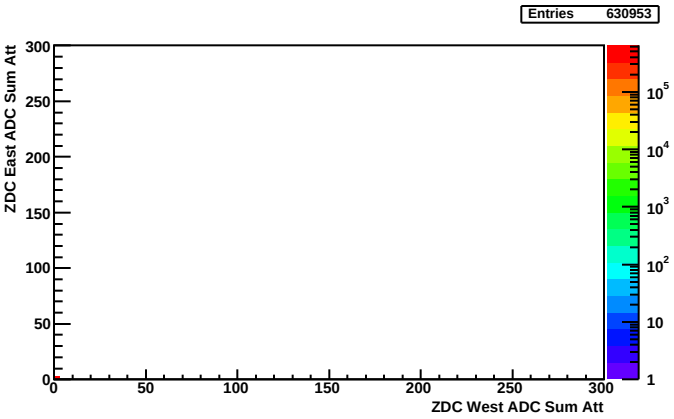

Entries 630953
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

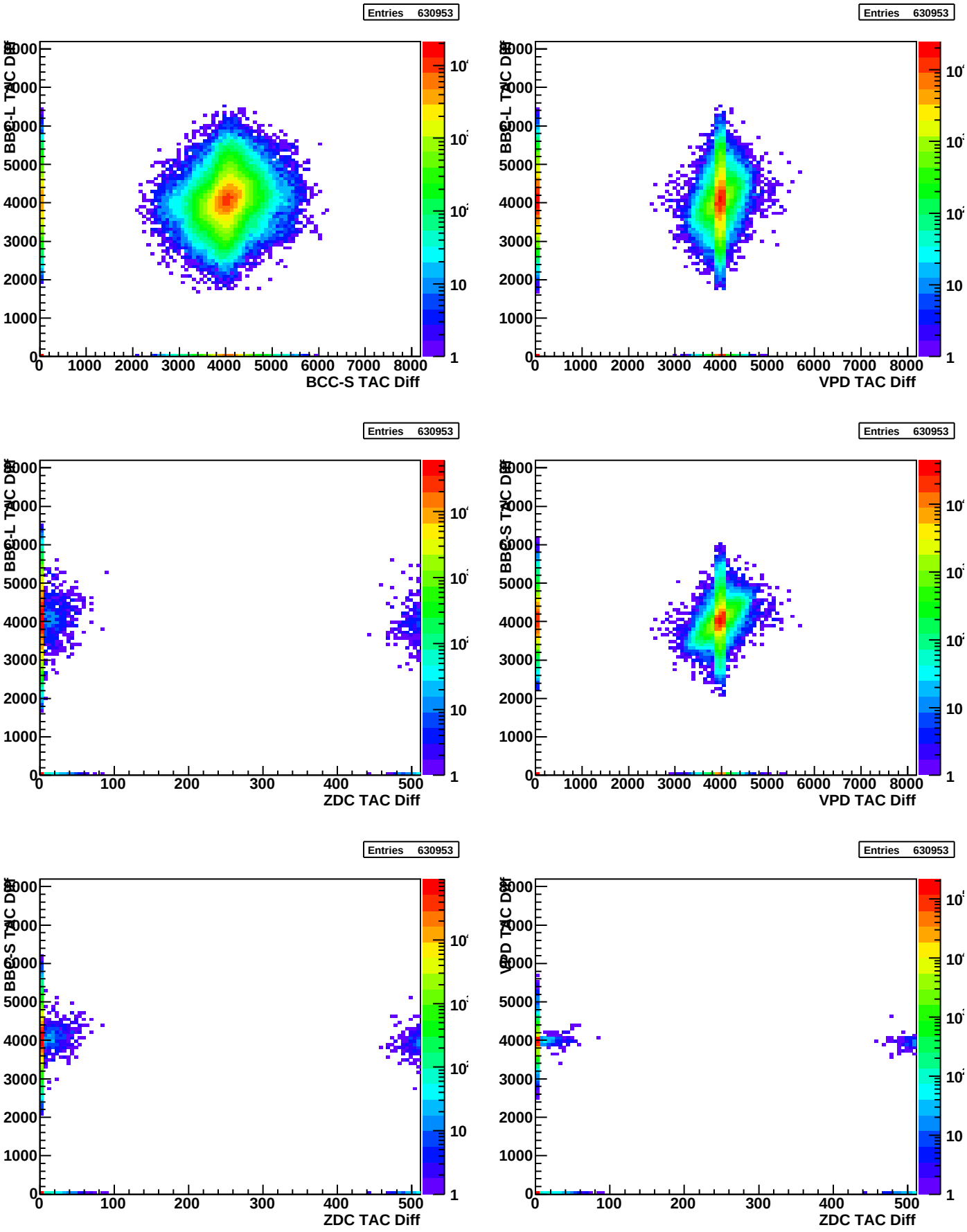

Entries 630953
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

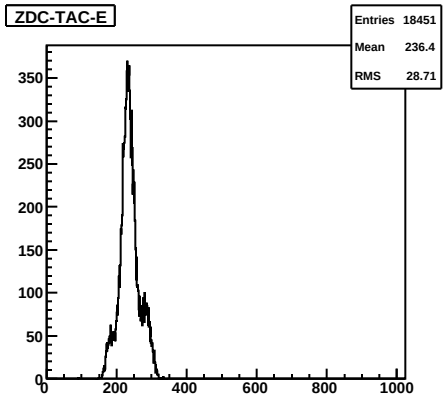

Entries 630953
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

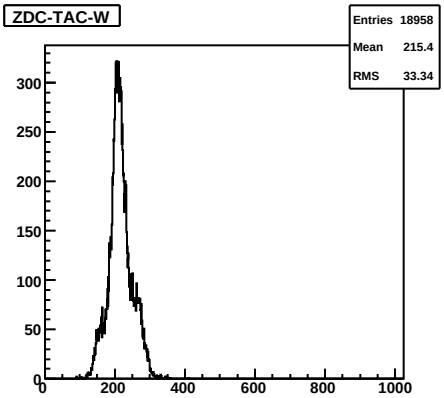

Entries 630953
BBC-L-East ADC Sum
BBC-L-West ADC Sum

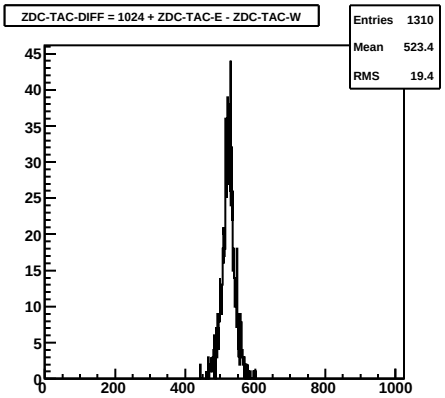

Entries 630953
BBC-S-East ADC Sum
BBC-S-West ADC Sum

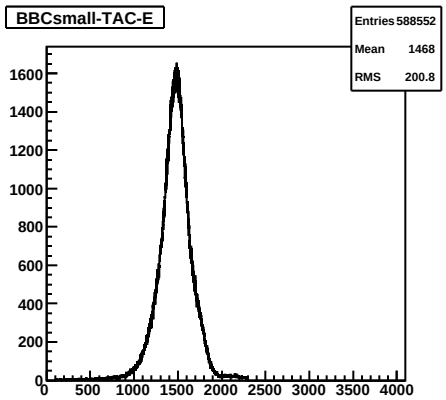

Entries 630953
ZDC East ADC Sum Att
ZDC West ADC Sum Att

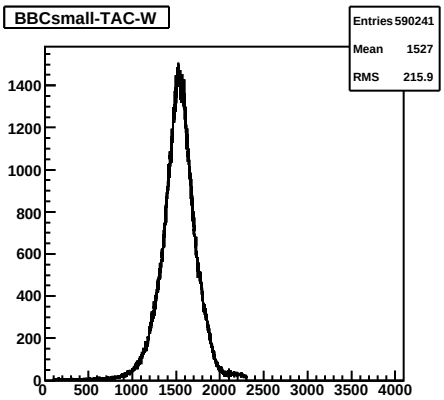

Entries 630953
BBC-L TAC Diff
BCC-S TAC Diff
Entries 630953
BBC-L TAC Diff
VPD TAC Diff
Entries 630953
BBC-L TAC Diff
ZDC TAC Diff
Entries 630953
BBC-S TAC Diff
VPD TAC Diff
Entries 630953
BBC-S TAC Diff
ZDC TAC Diff
Entries 630953
VPD TAC Diff
ZDC TAC Diff

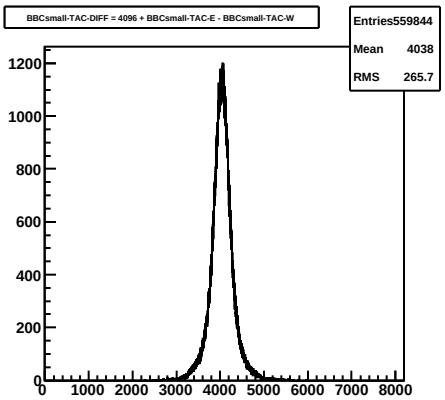

ZDC-TAC-E
Entries 18451
Mean 236.4
RMS 28.71

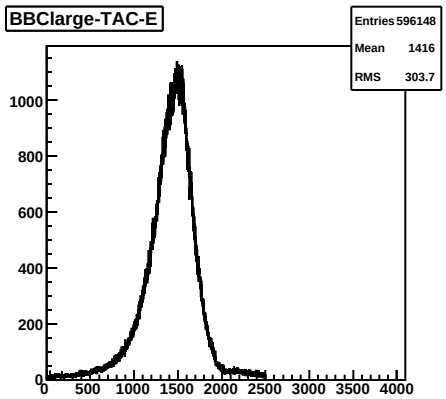

ZDC-TAC-W
Entries 18958
Mean 215.4
RMS 33.34

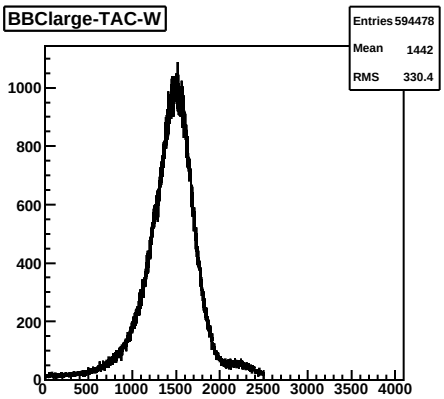

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 1310
Mean 523.4
RMS 19.4

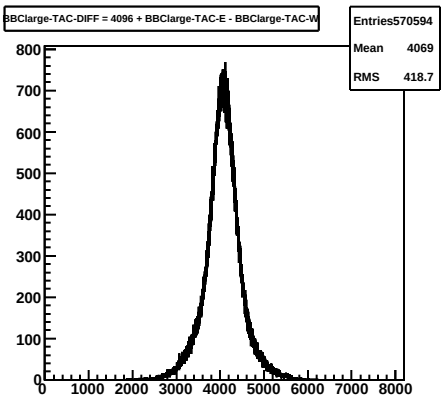

BBCsmall-TAC-E
Entries 588552
Mean 1468
RMS 200.8

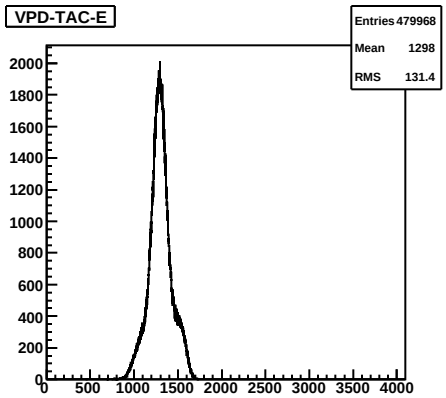

BBCsmall-TAC-W
Entries 590241
Mean 1527
RMS 215.9

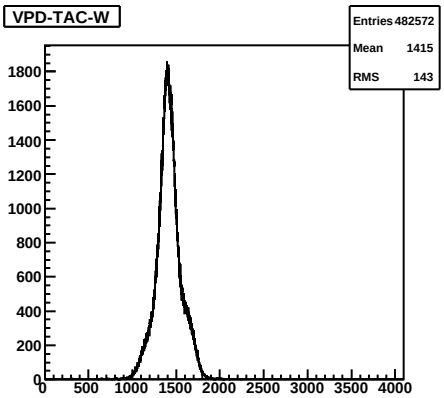

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries559844
Mean 4038
RMS 265.7

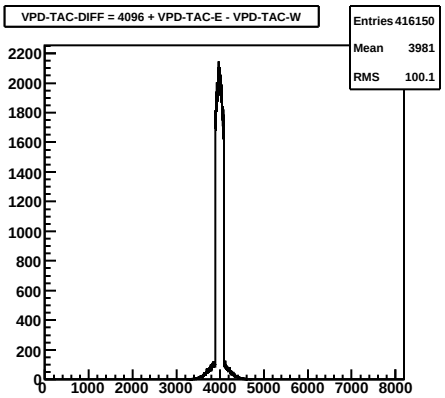

BBClarge-TAC-E
Entries 596148
Mean 1416
RMS 303.7

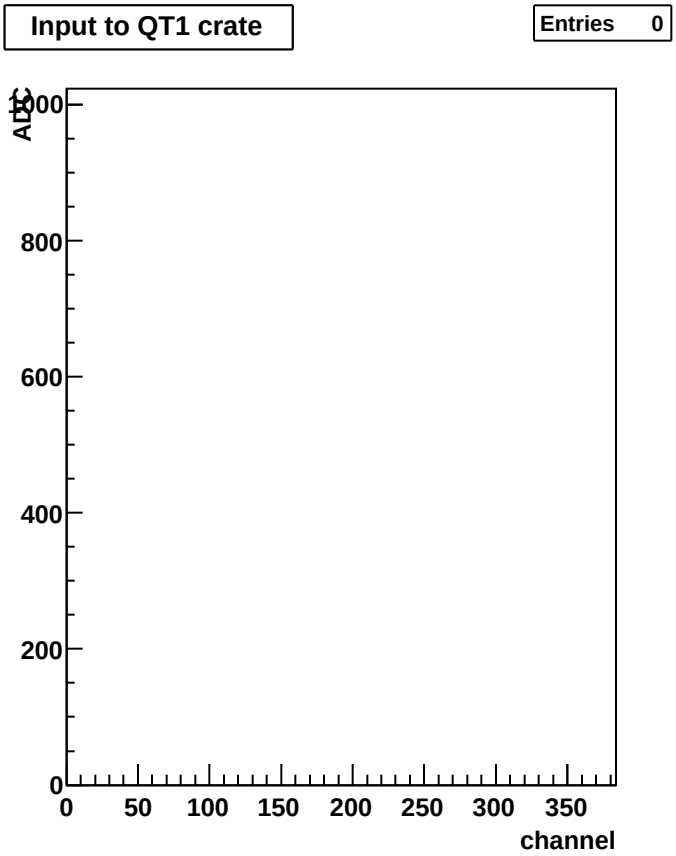

BBClarge-TAC-W
Entries 594478
Mean 1442
RMS 330.4

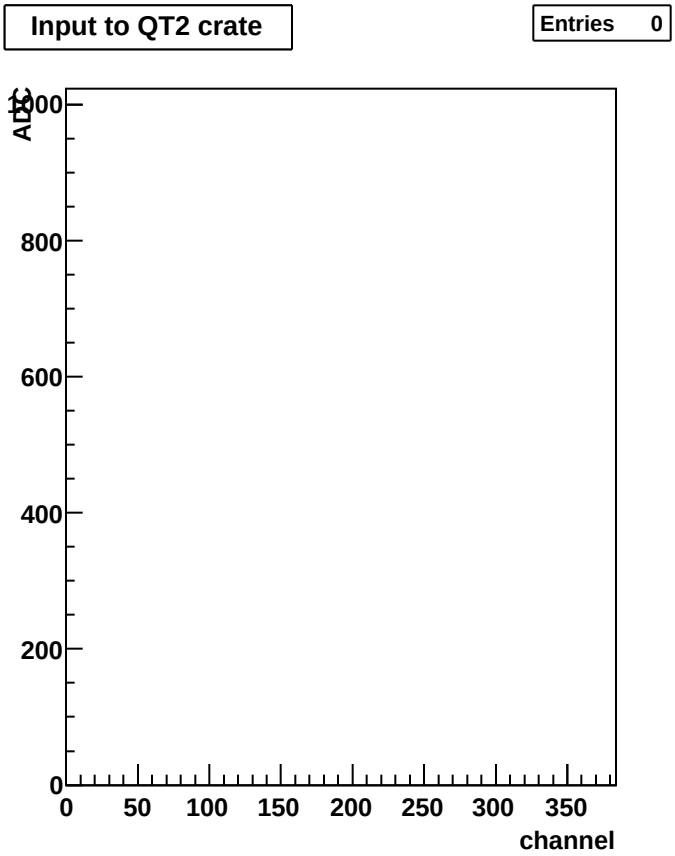

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries570594
Mean 4069
RMS 418.7

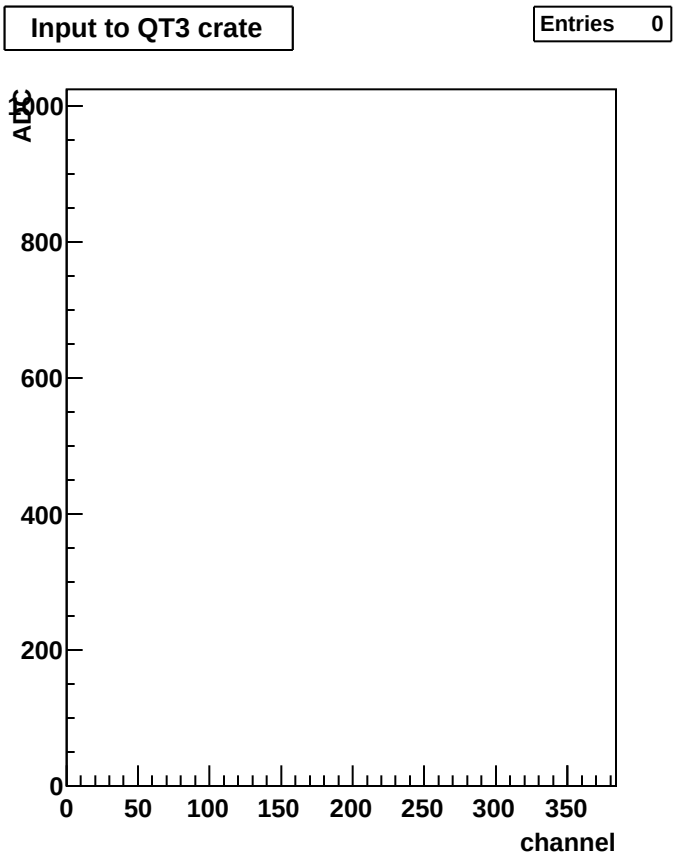

VPD-TAC-E
Entries 479968
Mean 1298
RMS 131.4

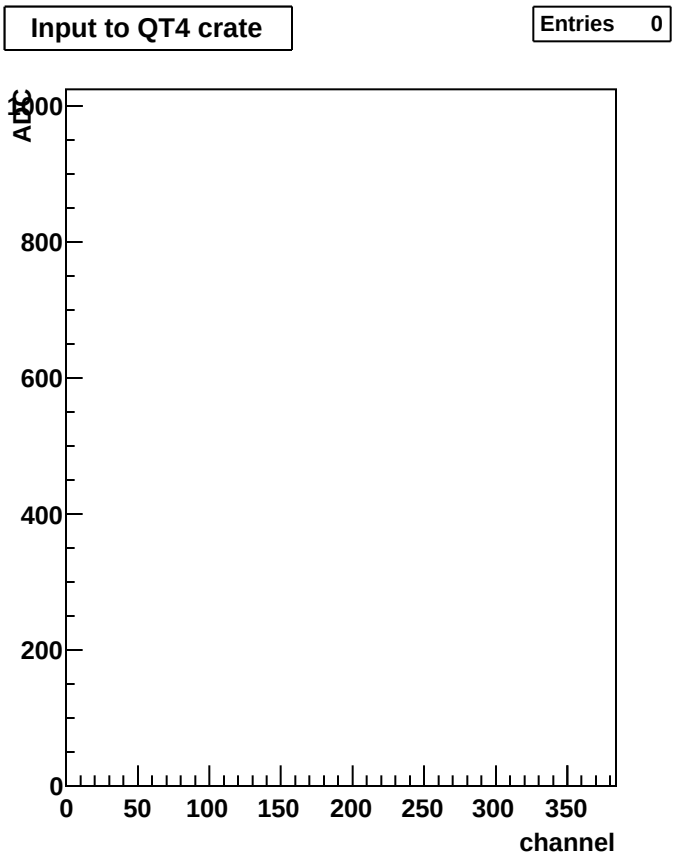

VPD-TAC-W
Entries 482572
Mean 1415
RMS 143

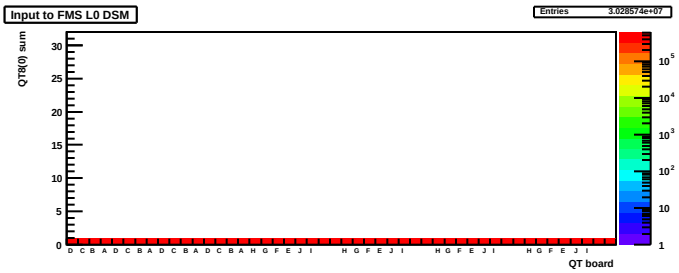

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 416150
Mean 3981
RMS 100.1

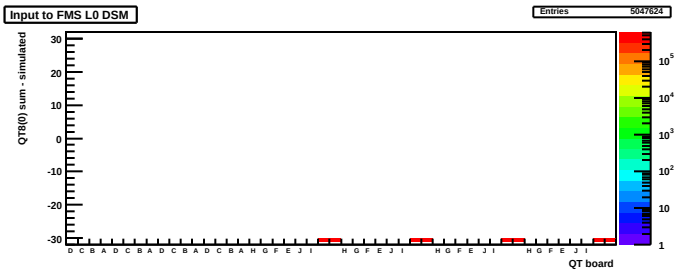

Input to QT1 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

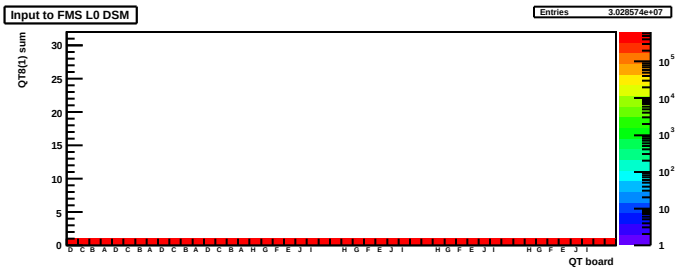

Input to QT2 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

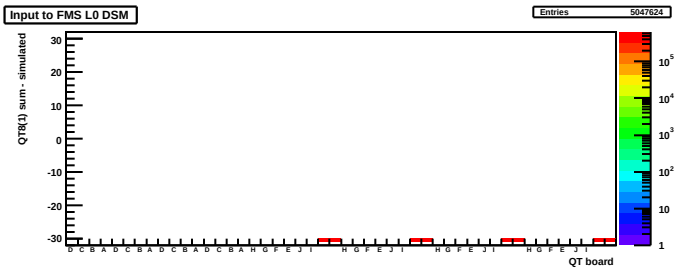

Input to QT3 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

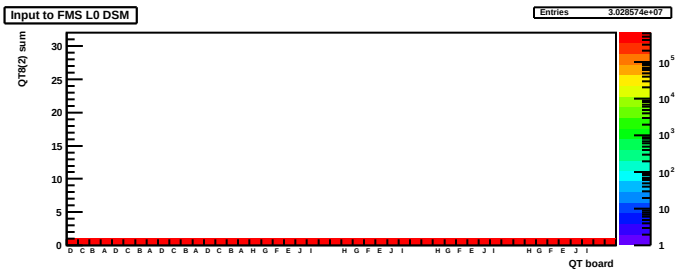

Input to QT4 crate
Entries 0
ADC
1000
800
600
400
200
0
0 50 100 150 200 250 300 350
channel

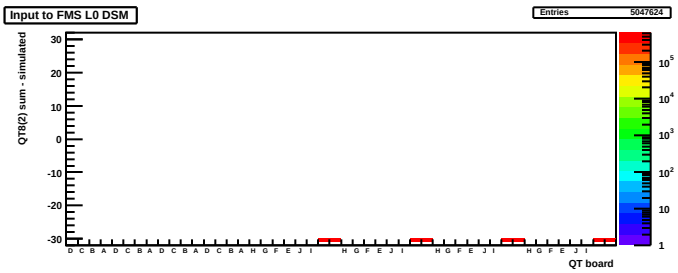

Input to FMS L0 DSM
Entries 3.028574e+07
QT8(0) sum
QT board

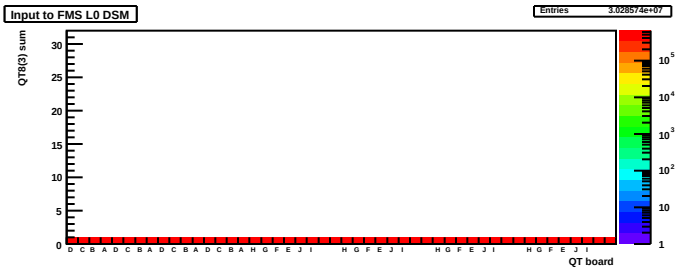

Input to FMS L0 DSM
Entries 5047624
QT8(0) sum - simulated
QT board

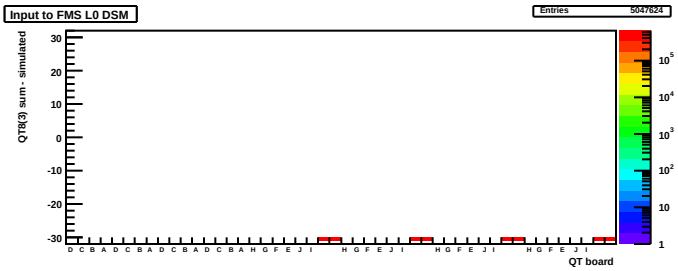

Input to FMS L0 DSM
Entries 3.028574e+07
QT8(1) sum
QT board

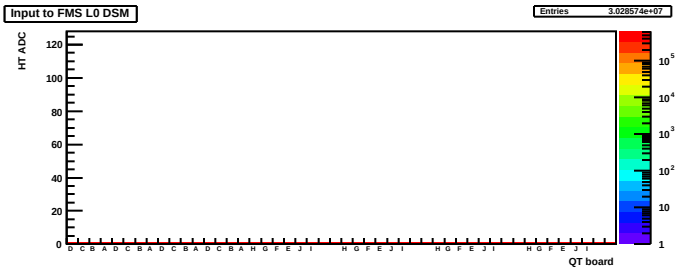

Input to FMS L0 DSM
Entries 5047624
QT8(1) sum - simulated
QT board

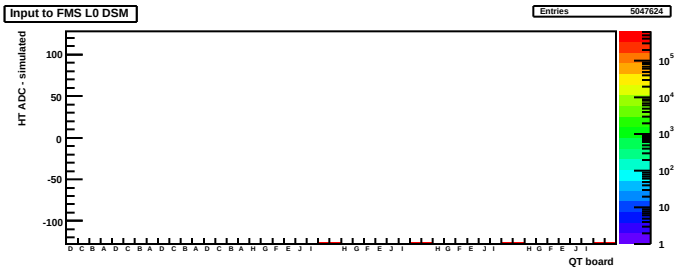

Input to FMS L0 DSM
Entries 3.028574e+07
QT8(2) sum
QT board

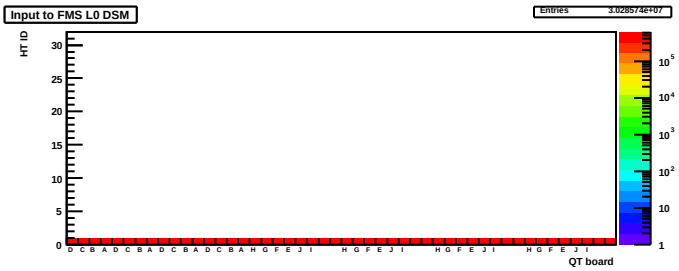

Input to FMS L0 DSM
Entries 5047624
QT8(2) sum - simulated
QT board

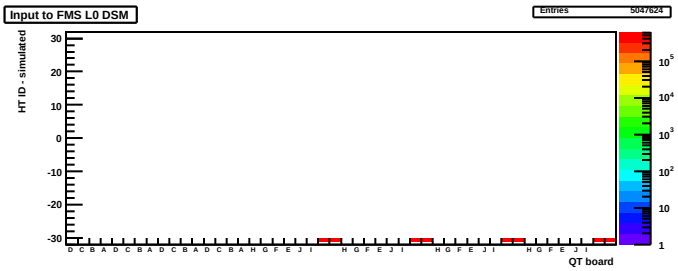

Input to FMS L0 DSM
Entries 3.028574e+07
QT8(3) sum
QT board

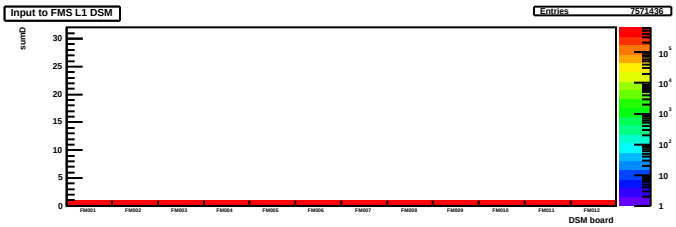

Input to FMS L0 DSM
Entries 5047624
QT8(3) sum - simulated
QT board

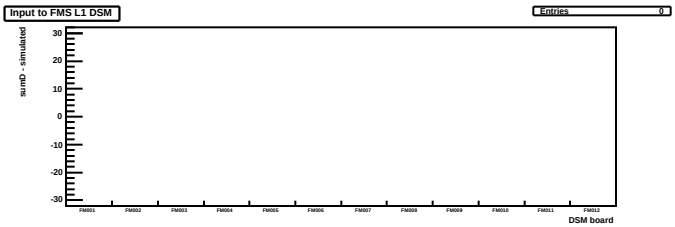

Input to FMS L0 DSM
Entries 3.028574e+07
HT ADC
QT board

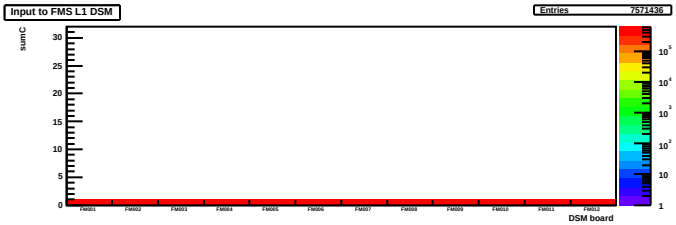

Input to FMS L0 DSM
Entries 5047624
HT ADC - simulated
QT board

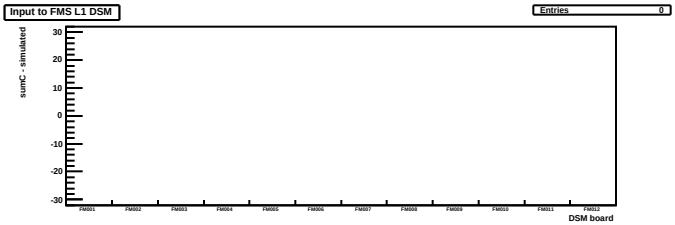

Input to FMS L0 DSM
Entries 3.028574e+07
HT ID
QT board

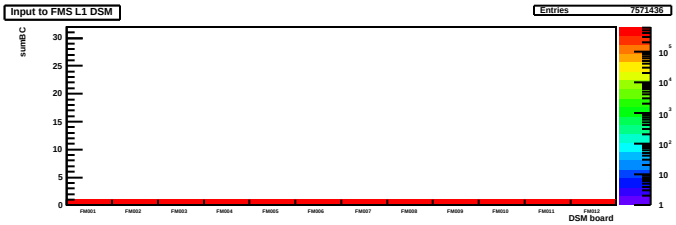

Input to FMS L0 DSM
Entries 5047624
HT ID - simulated
QT board

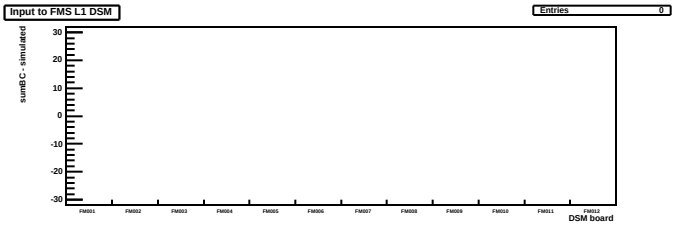

Input to FMS L1 DSM
Entries 7571436
sumD
DSM board

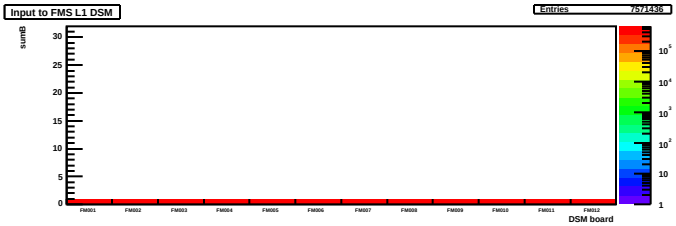

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

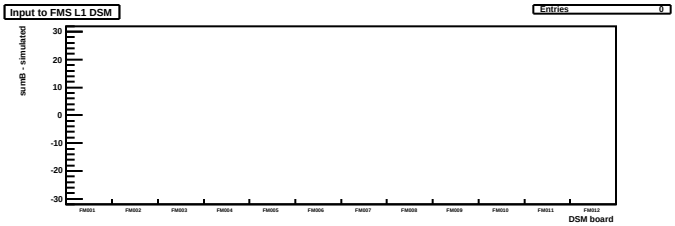

Input to FMS L1 DSM
Entries 7571436
sumC
DSM board

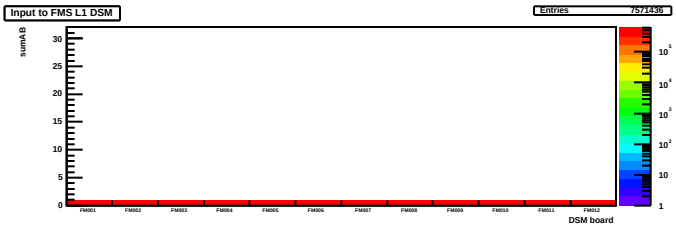

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

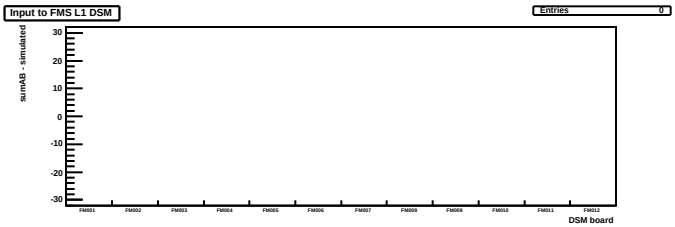

Input to FMS L1 DSM
Entries 7571436
sumBC
DSM board

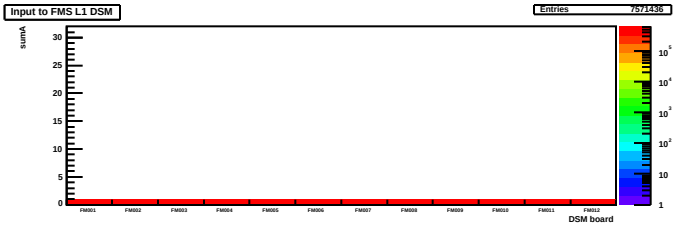

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

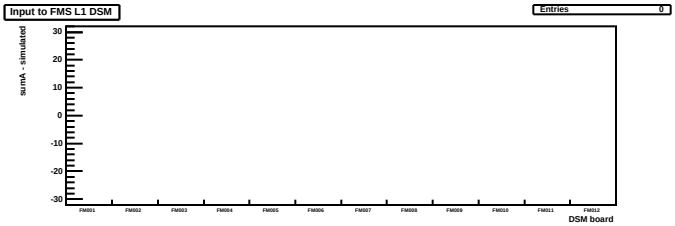

Input to FMS L1 DSM
Entries 7571436
sumB
DSM board

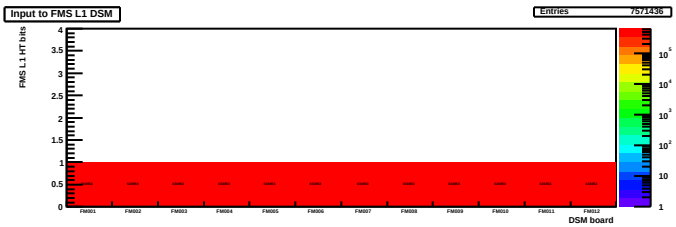

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

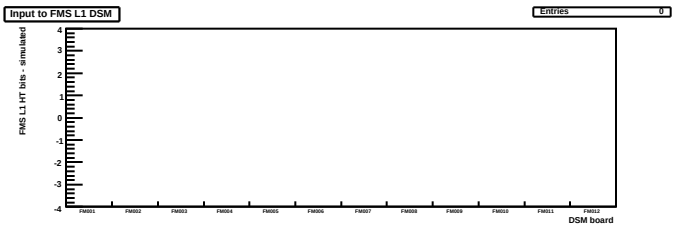

Input to FMS L1 DSM
Entries 7571436
sumAB
DSM board

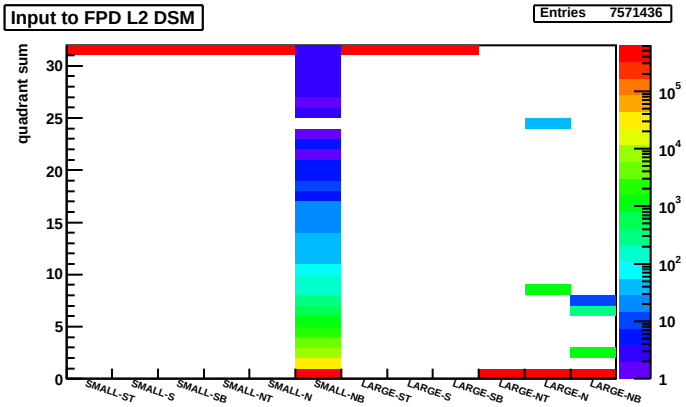

Input to FMS L1 DSM
Entries 0
sumAB - simulated
DSM board

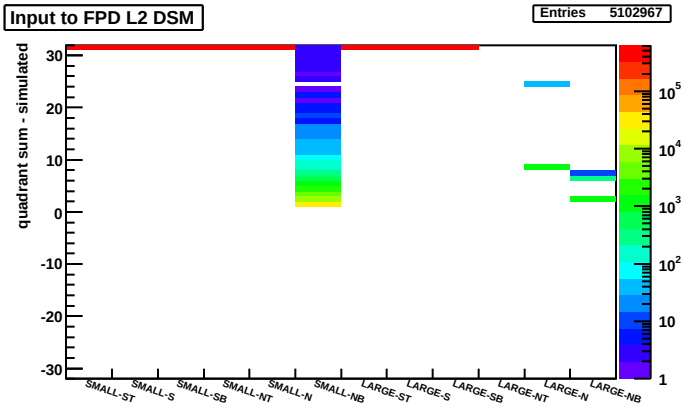

Input to FMS L1 DSM
Entries 7571436
sumA
DSM board

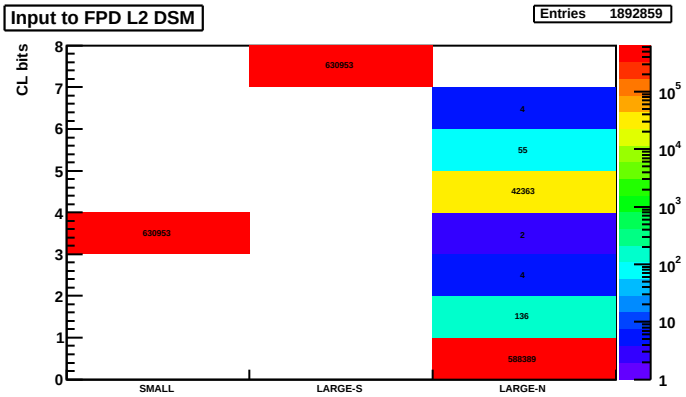

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

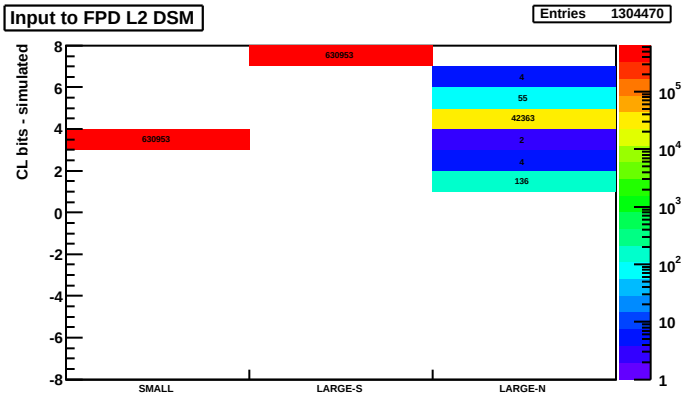

Input to FMS L1 DSM
Entries 7571436
FMS L1 HT bits
DSM board

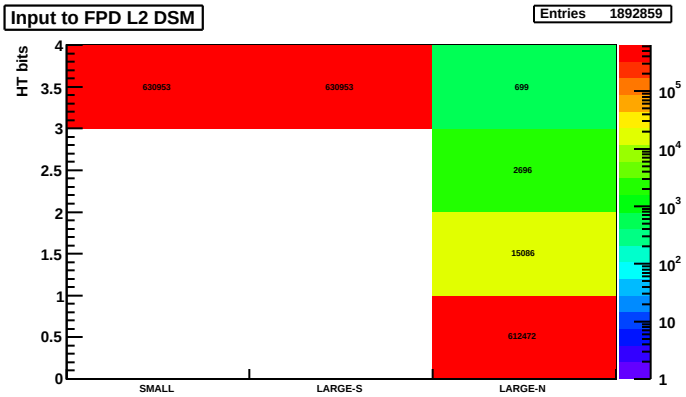

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

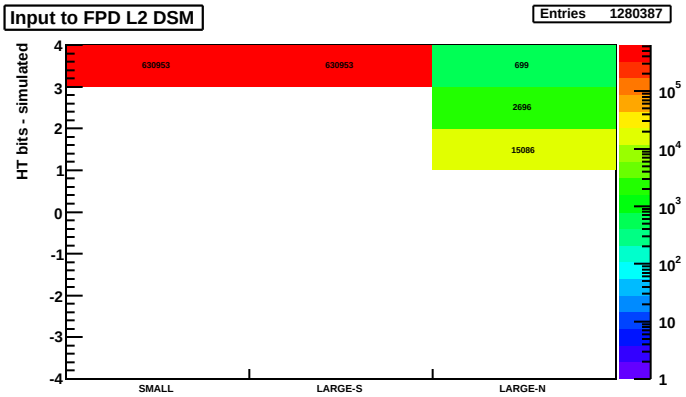

Input to FPD L2 DSM
Entries 7571436
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

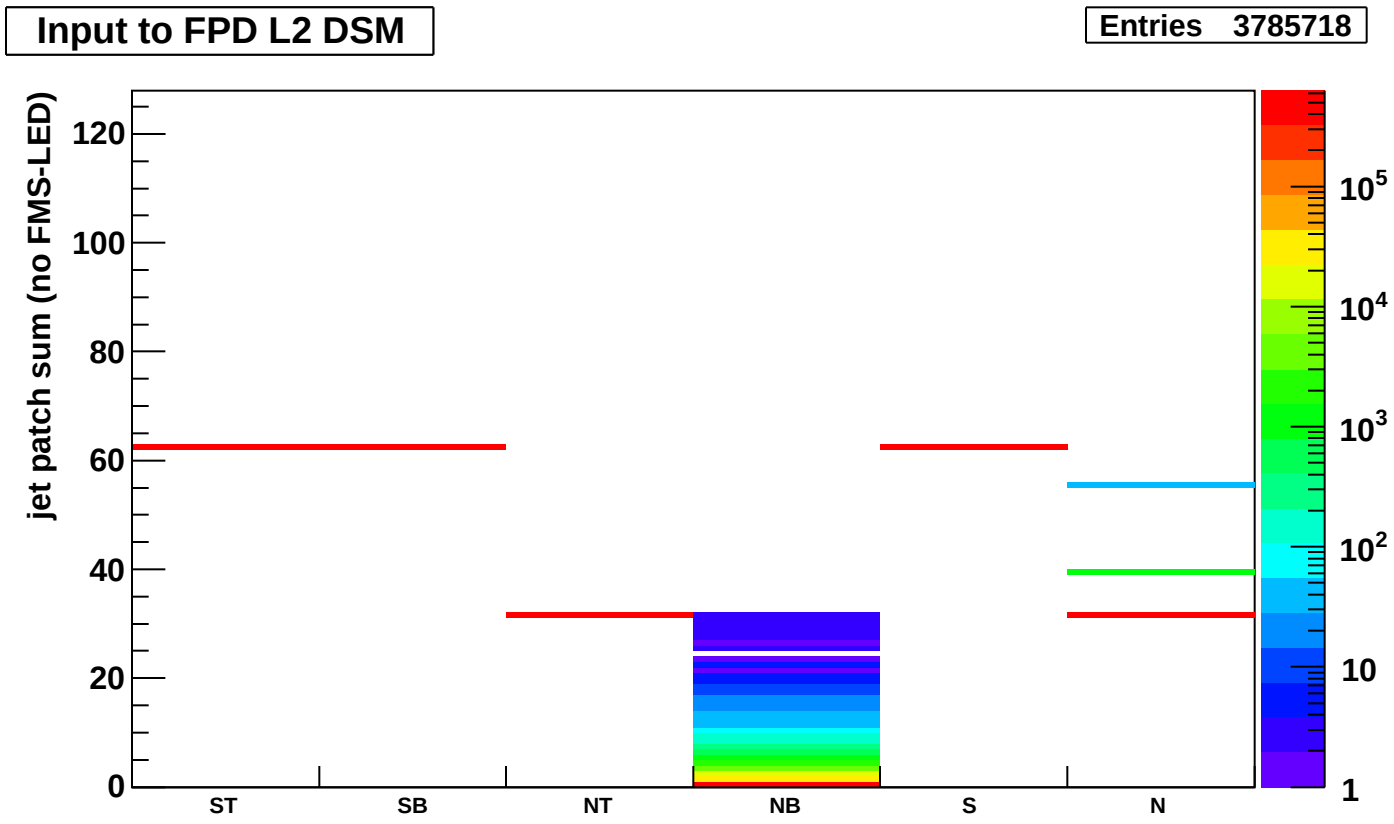

Input to FPD L2 DSM
Entries 5102967
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

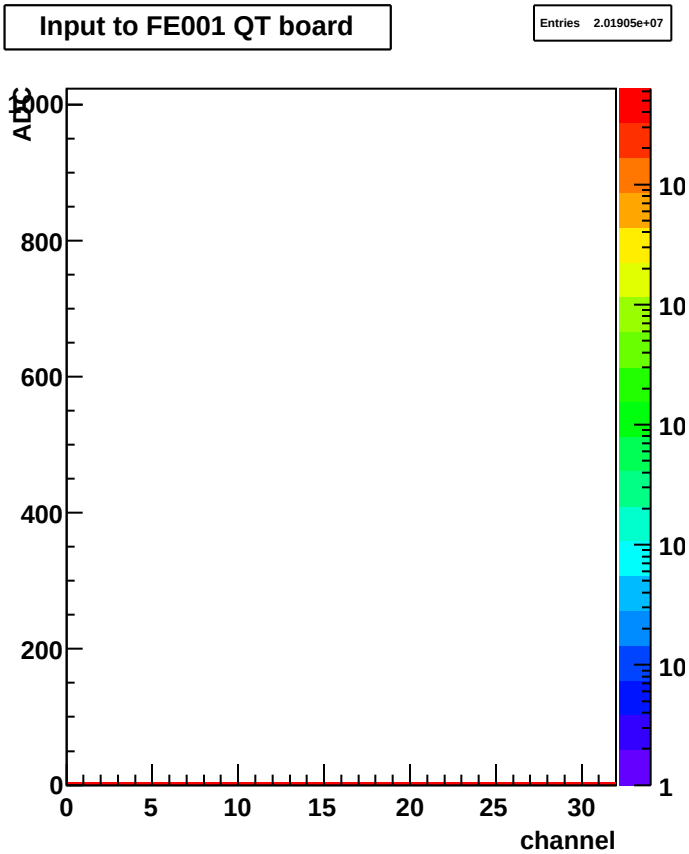

Input to FPD L2 DSM
Entries 1892859
CL bits
630953
630953
4
55
42363
2
4
136
588389
SMALL
LARGE-S
LARGE-N

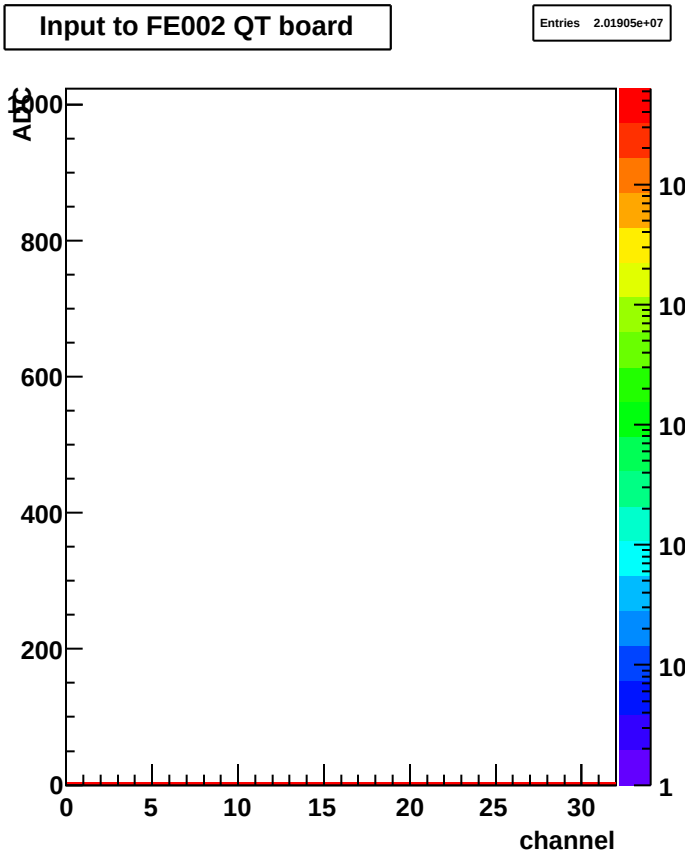

Input to FPD L2 DSM
Entries 1304470
CL bits - simulated
630953
630953
4
55
42363
2
4
136
SMALL
LARGE-S
LARGE-N

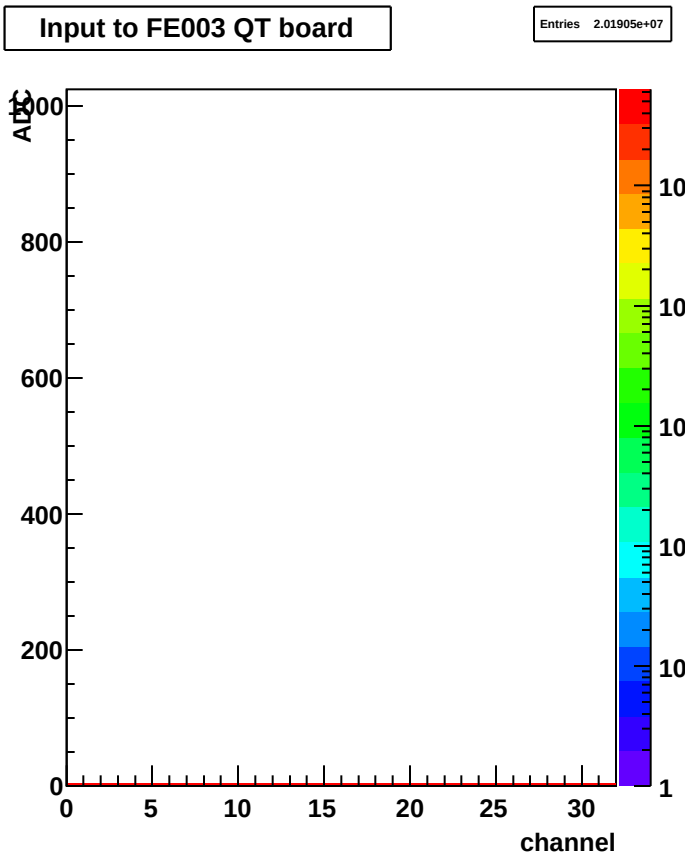

Input to FPD L2 DSM
Entries 1892859
HT bits
630953
630953
699
2696
15086
612472
SMALL
LARGE-S
LARGE-N

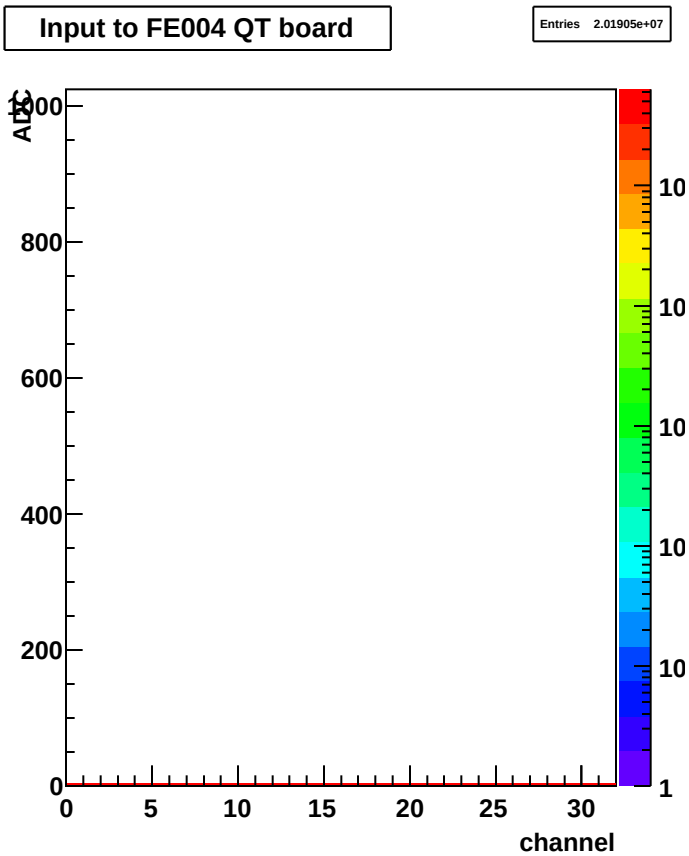

Input to FPD L2 DSM
Entries 1280387
HT bits - simulated
630953
630953
699
2696
15086
SMALL
LARGE-S
LARGE-N

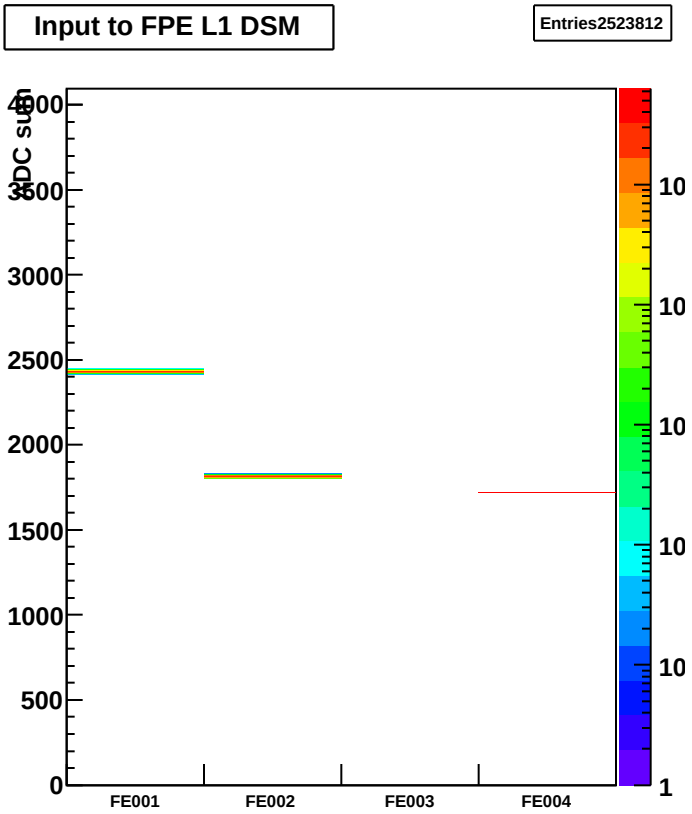

Input to FPD L2 DSM
Entries 3785718
jet patch sum (no FMS-LED)
0
20
40
60
80
100
120
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5


Input to FE001 QT board
Entries 2.01905e+07
ADC
channel

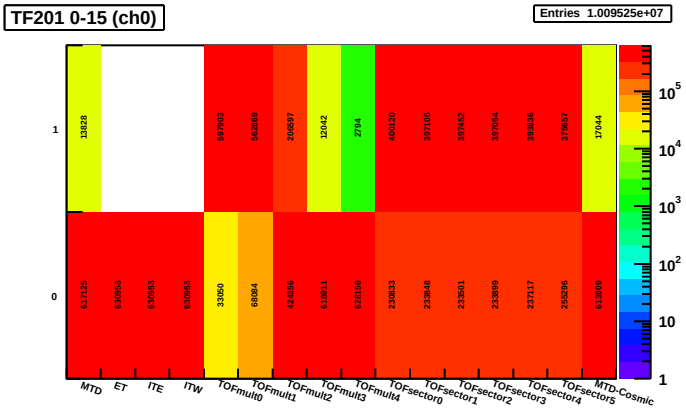

Input to FE002 QT board
Entries 2.01905e+07
ADC
channel


Input to FE003 QT board
Entries 2.01905e+07
ADC
channel

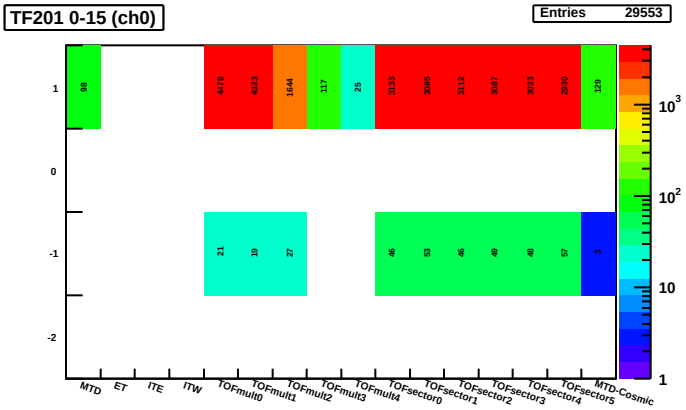

Input to FE004 QT board
Entries 2.01905e+07
ADC
channel


Input to FPE L1 DSM
Entries2523812
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
1

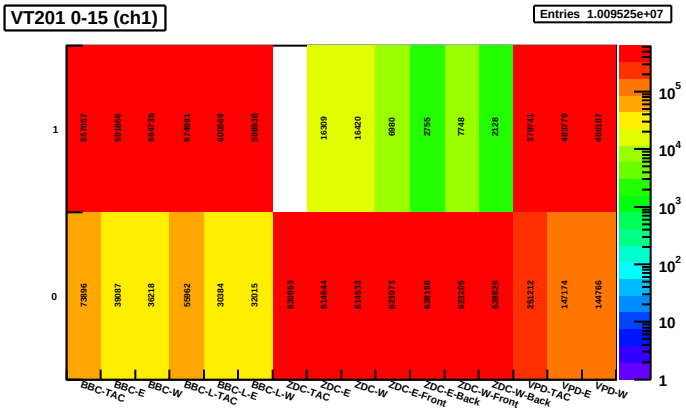
TF201 0-15 (ch0)



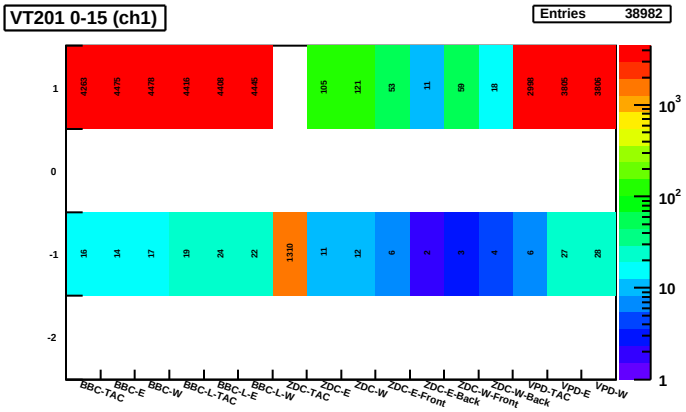
TF201 0-15 (ch0)



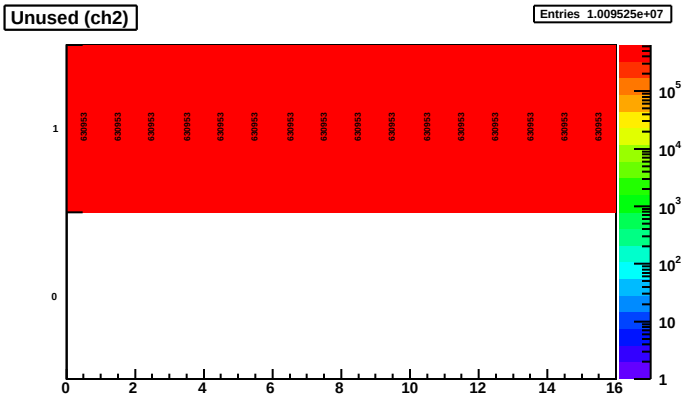
VT201 0-15 (ch1)

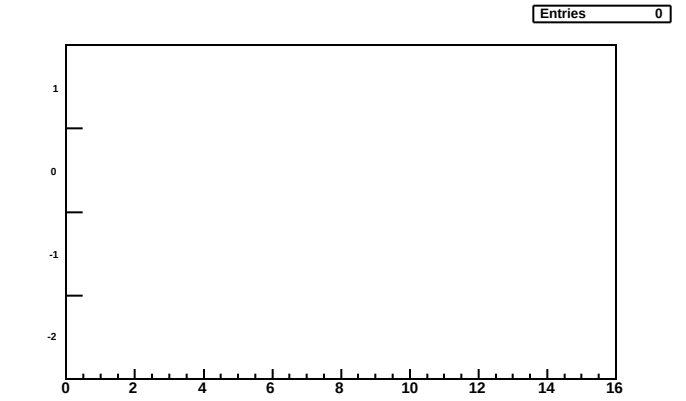


VT201 0-15 (ch1)

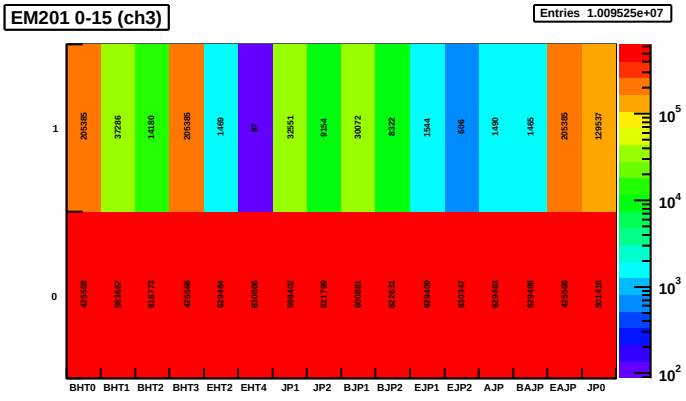


Unused (ch2)

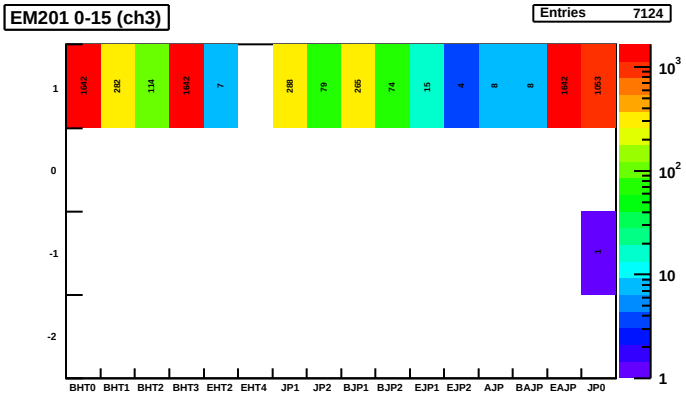


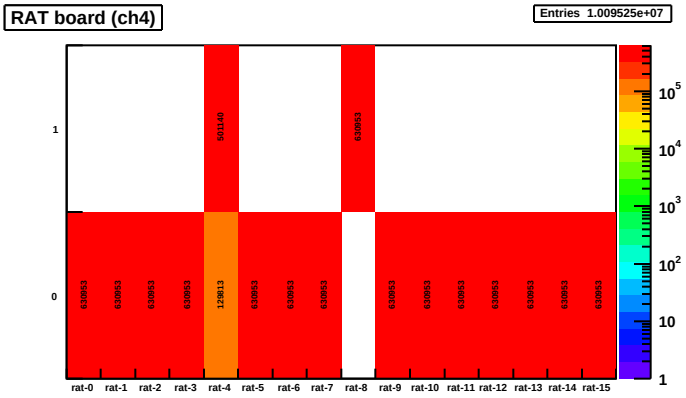


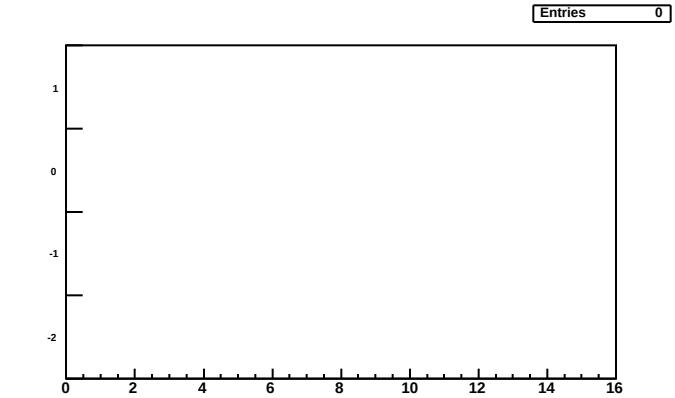
EM201 0-15 (ch3)

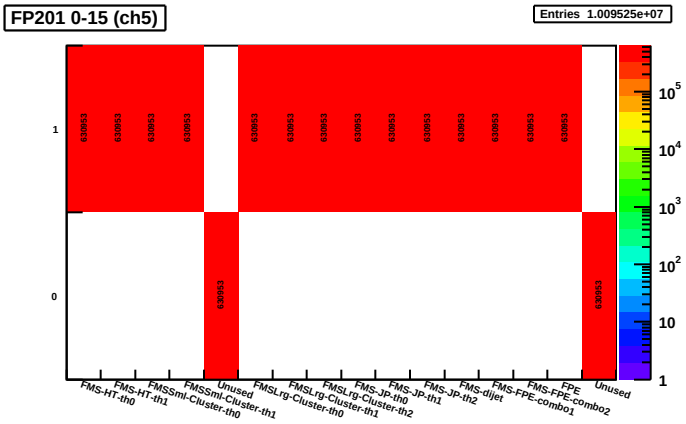


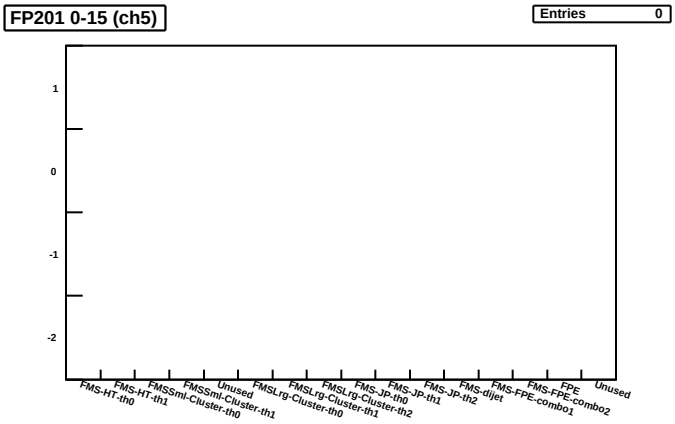
EM201 0-15 (ch3)

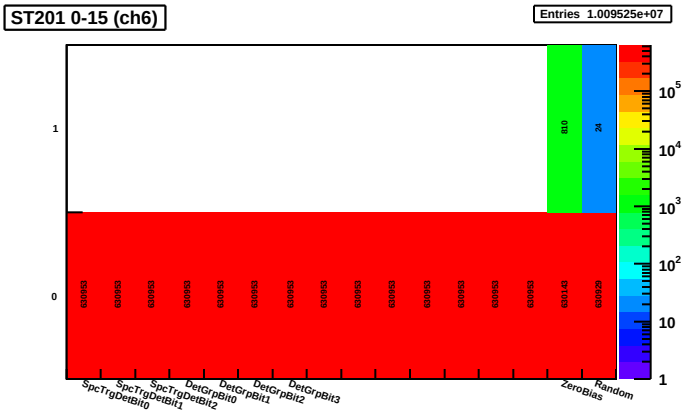


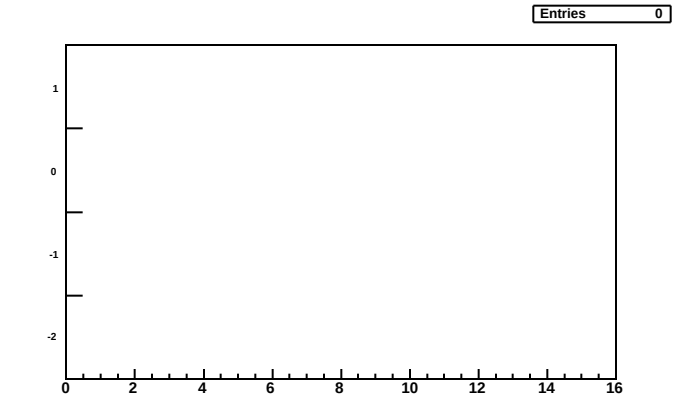

RAT board (ch4)
Entries 1.009525e+07
rat-0 rat-1 rat-2 rat-3 rat-4 rat-5 rat-6 rat-7 rat-8 rat-9 rat-10 rat-11 rat-12 rat-13 rat-14 rat-15

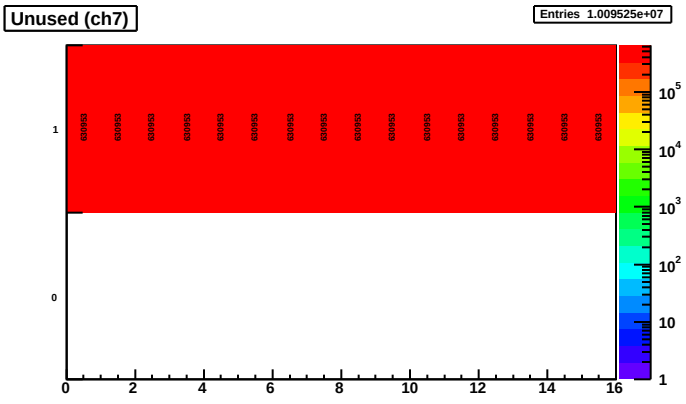

Entries 0

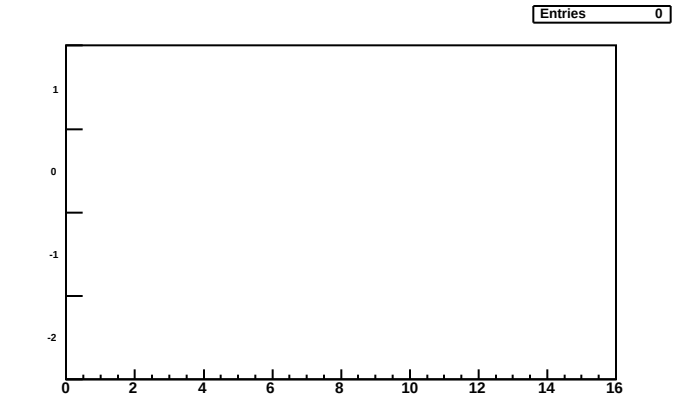

FP201 0-15 (ch5)
Entries 1.009525e+07
FMS-HT-th0
FMS-HT-th1
FMSSml-Cluster-th0
FMSSml-Cluster-th1
Unused
FMSLrg-Cluster-th0
FMSLrg-Cluster-th1
FMSLrg-Cluster-th2
FMS-JP-th0
FMS-JP-th1
FMS-JP-th2
FMS-dijet
FMS-FPE-combo1
FPE
FMS-FPE-combo2
Unused


FP201 0-15 (ch5)
Entries 0


ST201 0-15 (ch6)
Entries 1.009525e+07
SpcTrgDetBit0
SpcTrgDetBit1
SpcTrgDetBit2
DetGrpBit0
DetGrpBit1
DetGrpBit2
DetGrpBit3
ZeroBias
Random


Entries 0


Unused (ch7)
Entries 1.009525e+07


Entries 0