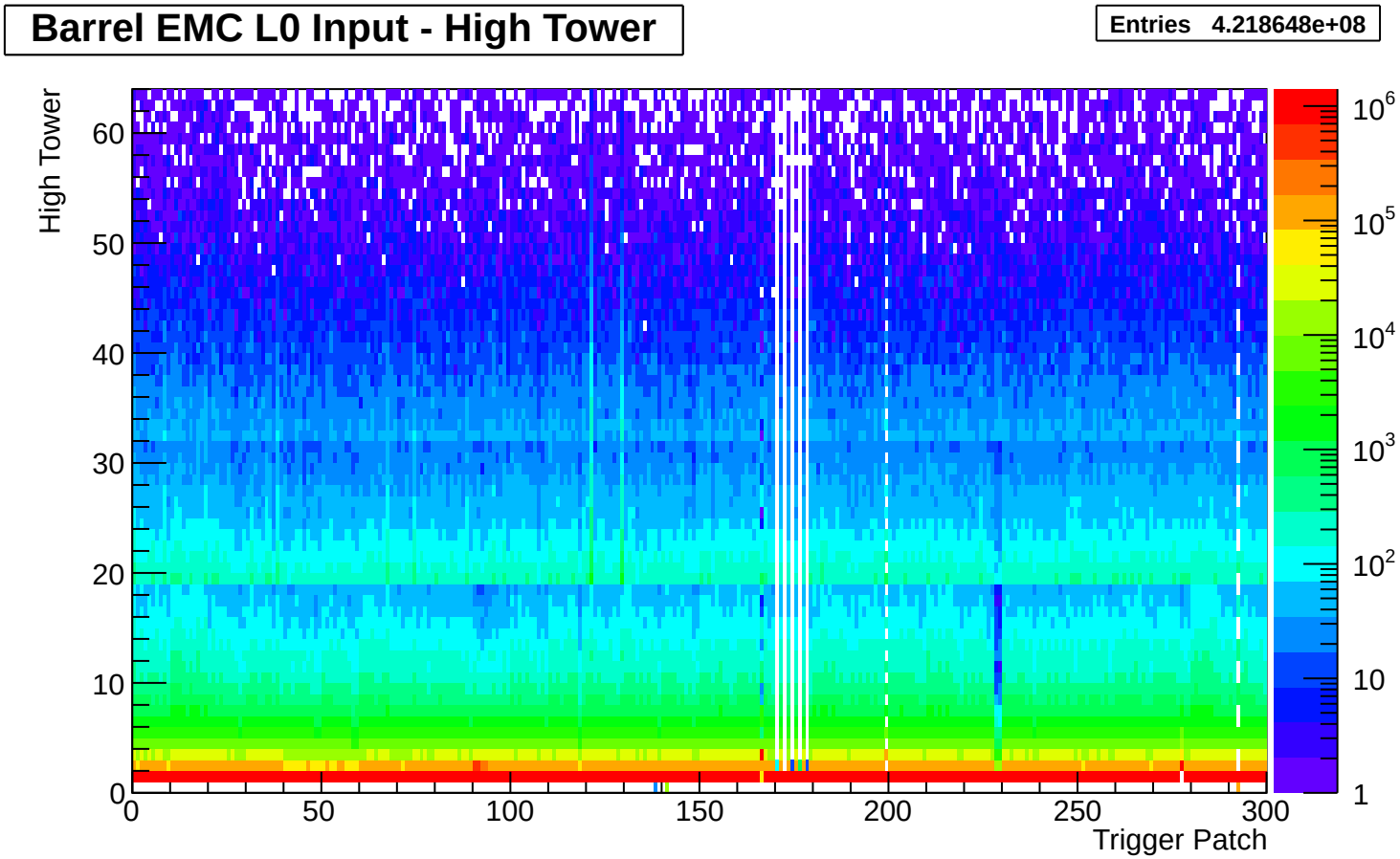
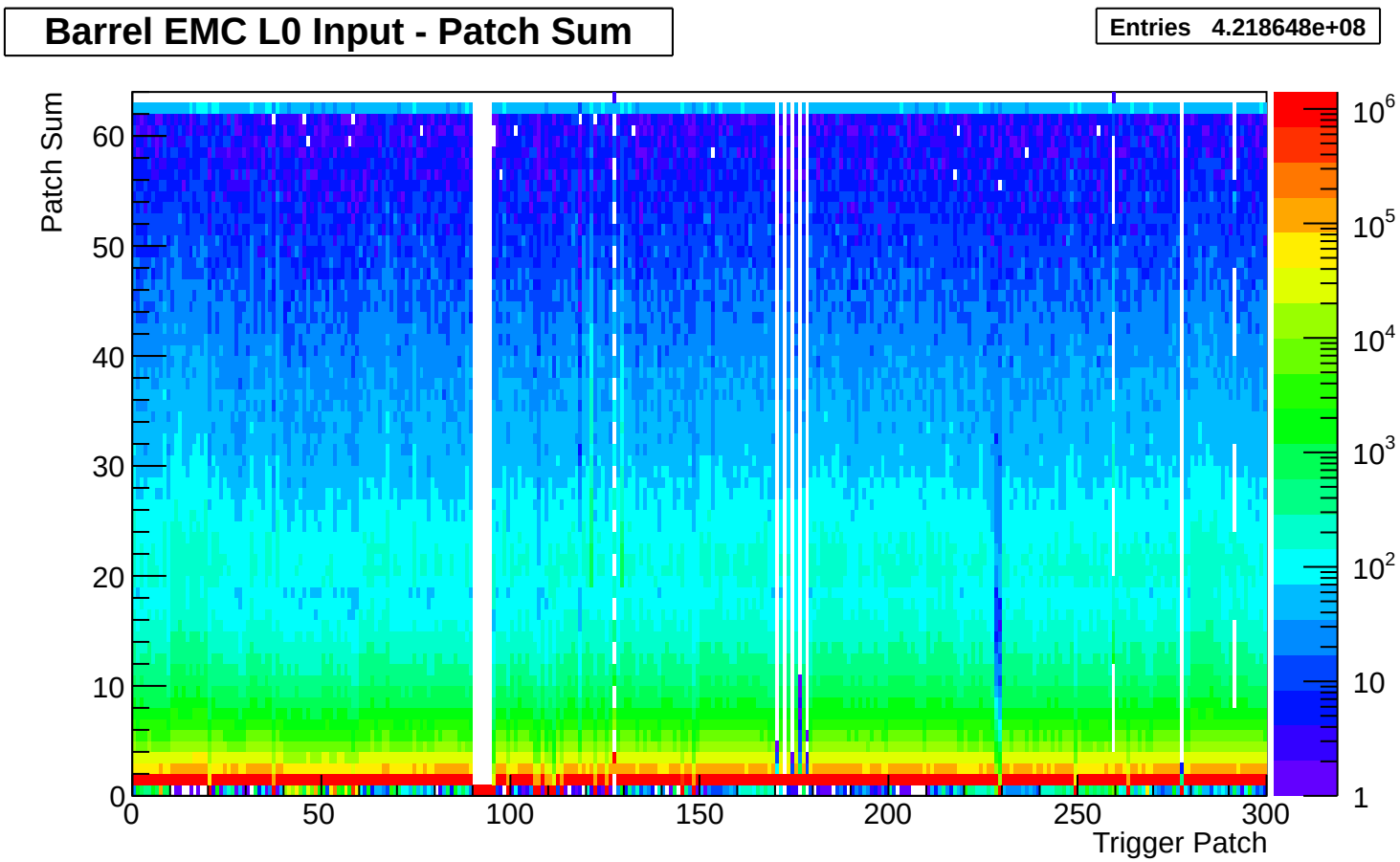
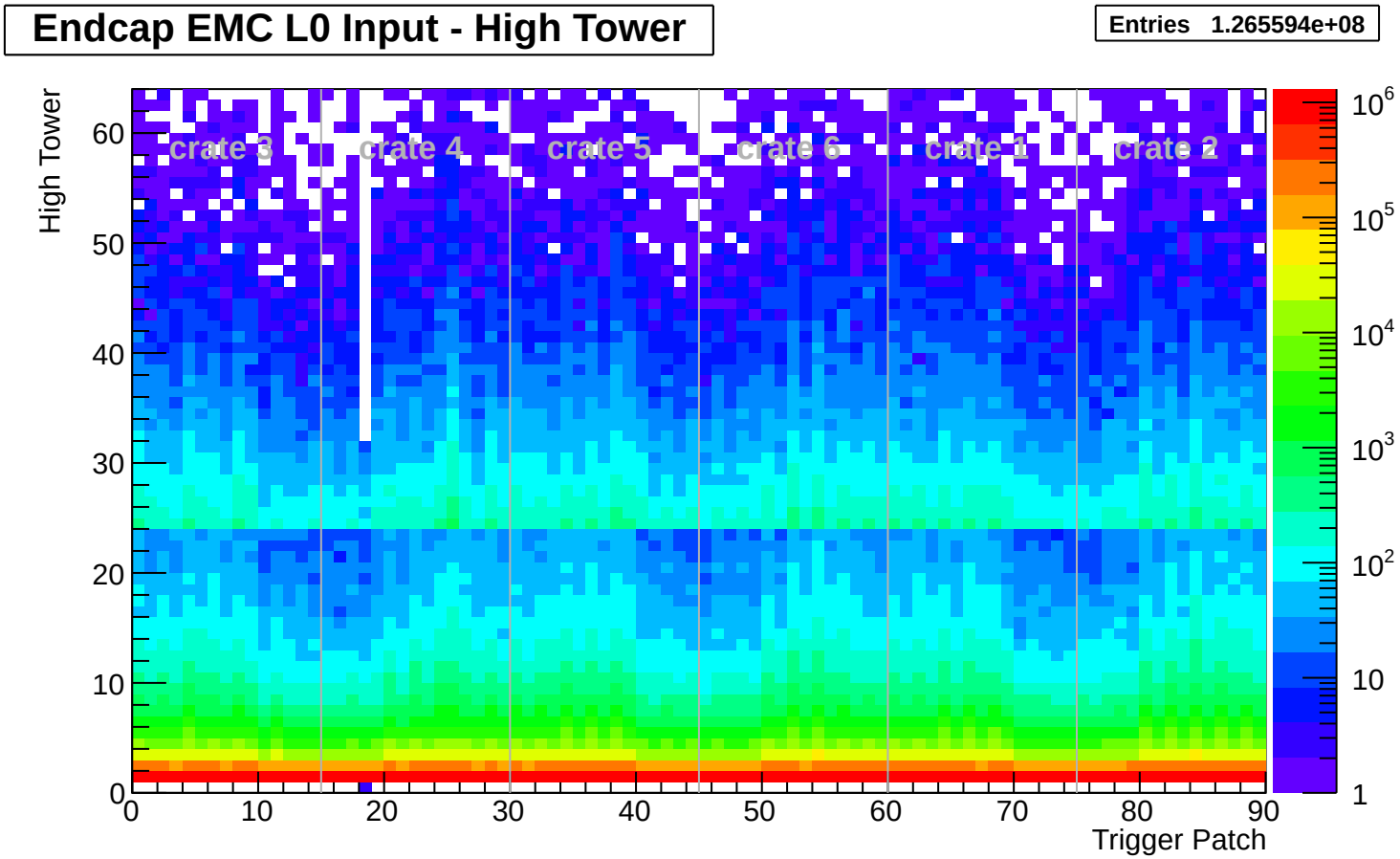
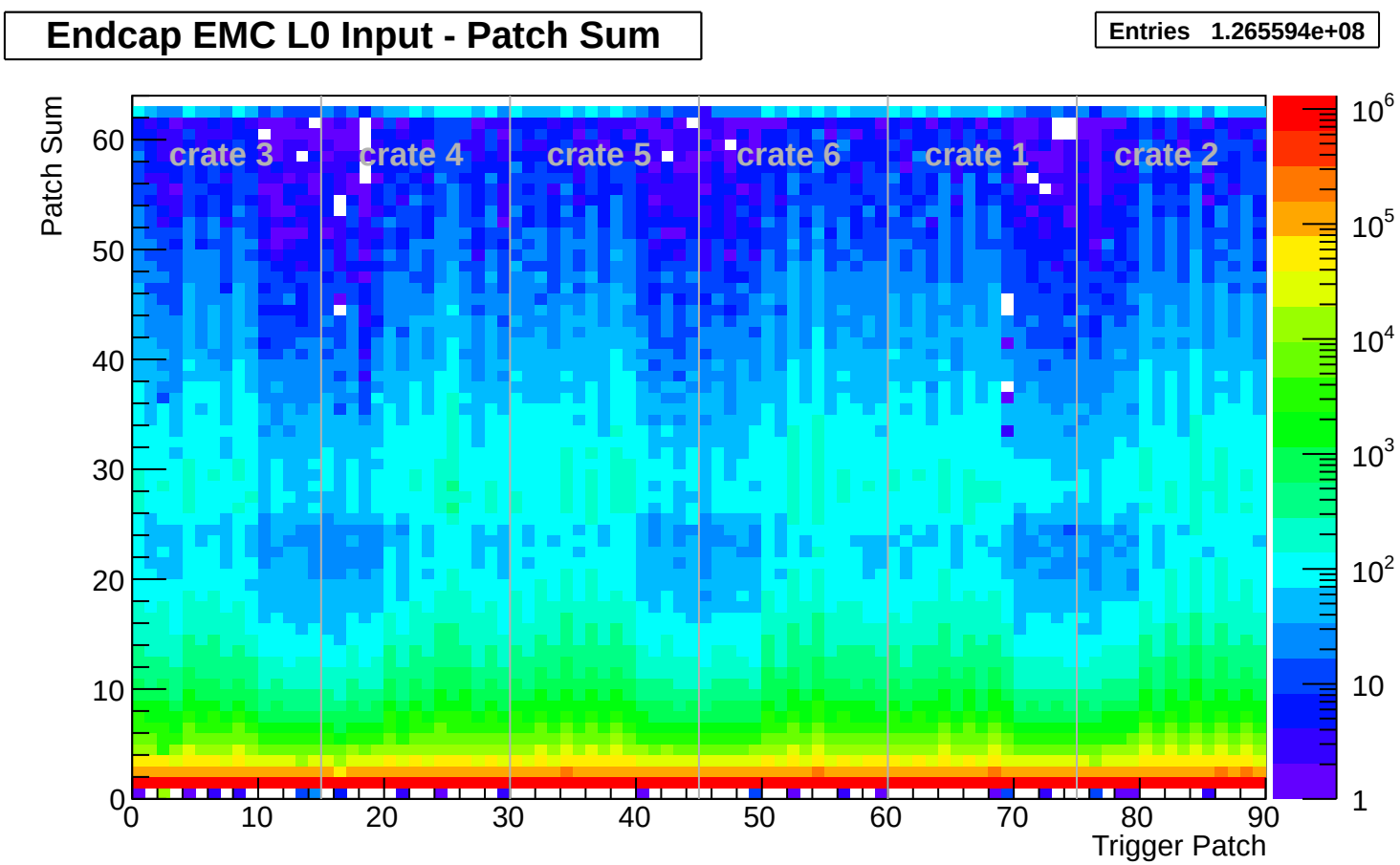
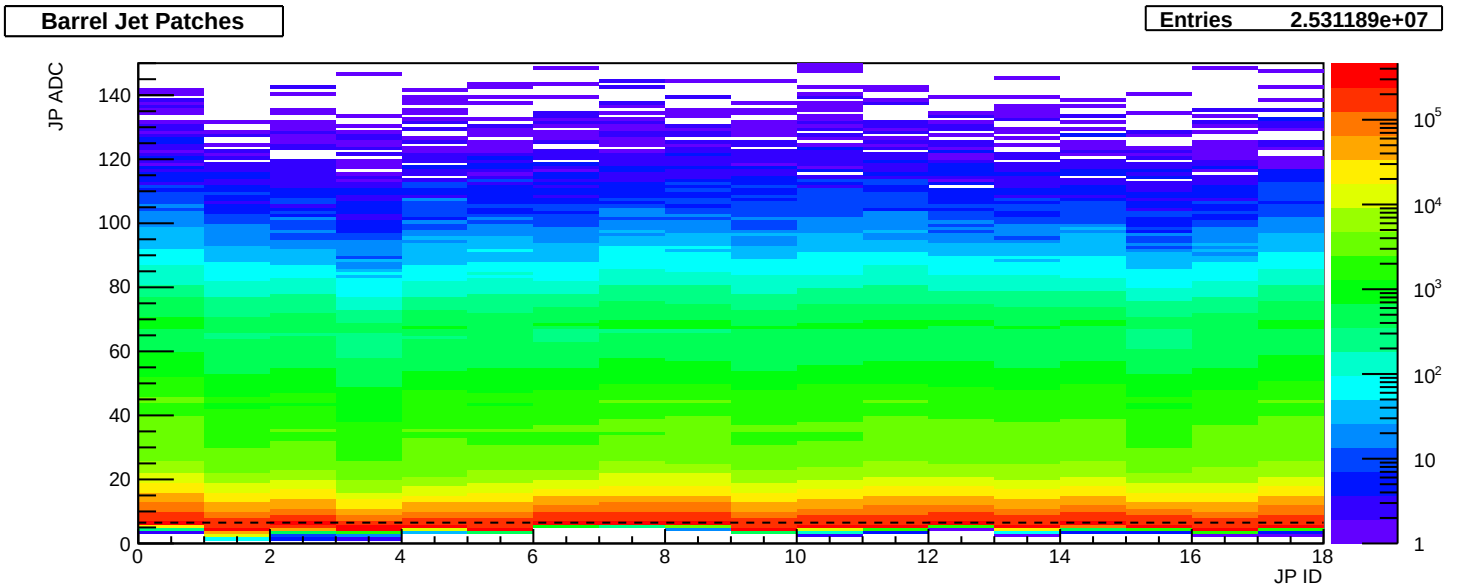
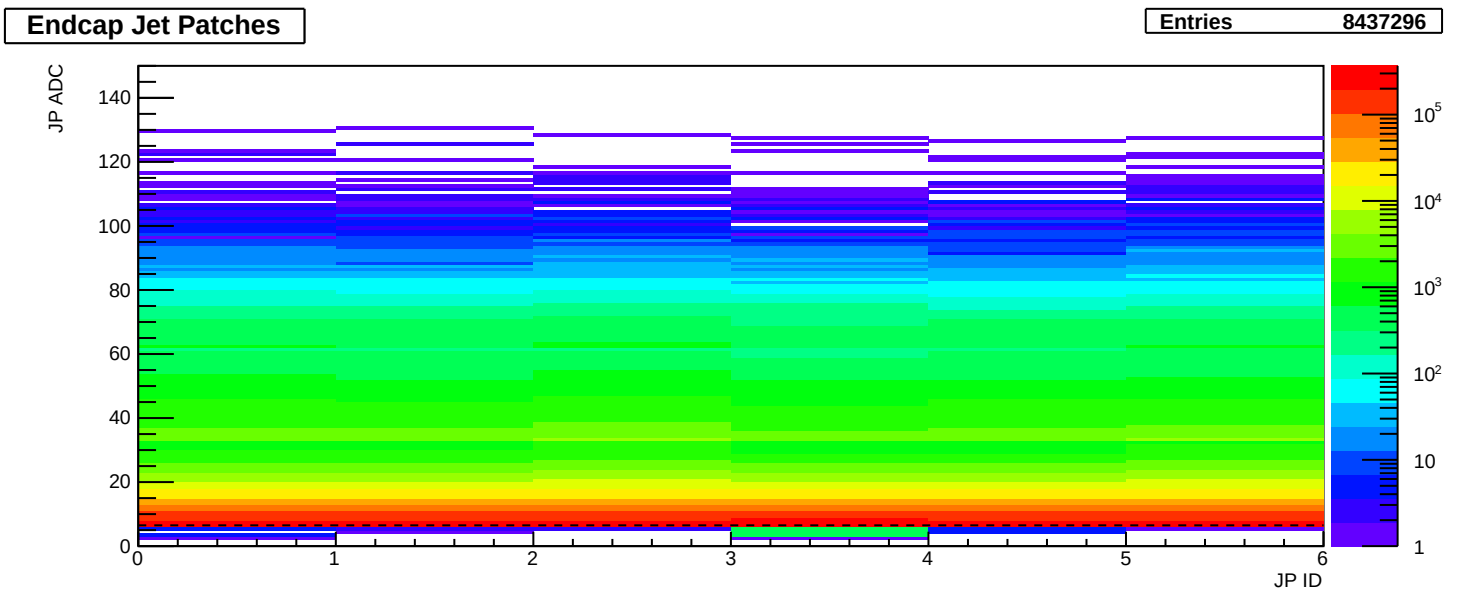

Barrel EMC L0 Input - High Tower
Entries 4.218648e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

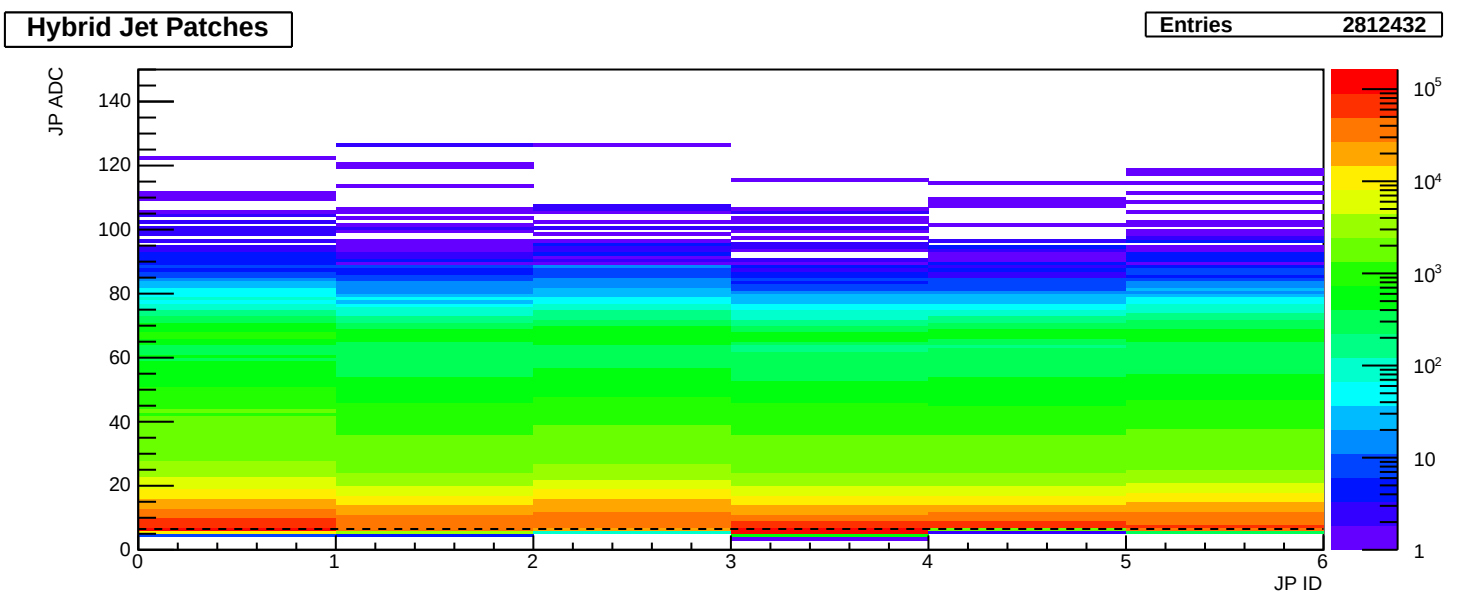

Barrel EMC L0 Input - Patch Sum
Entries 4.218648e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

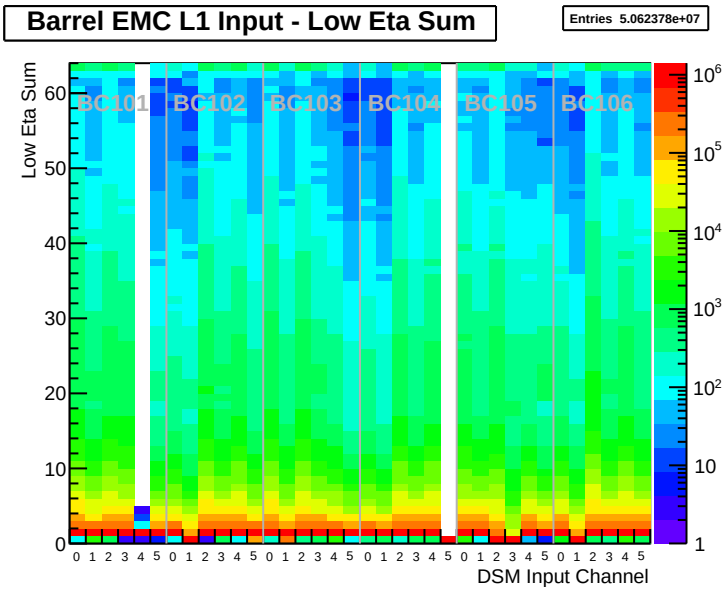

Endcap EMC L0 Input - High Tower
Entries 1.265594e+08
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

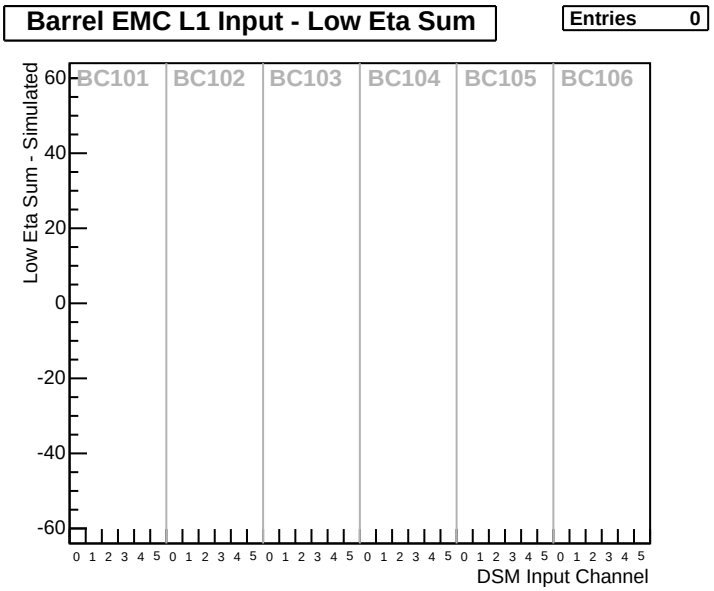

Endcap EMC L0 Input - Patch Sum
Entries 1.265594e+08
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

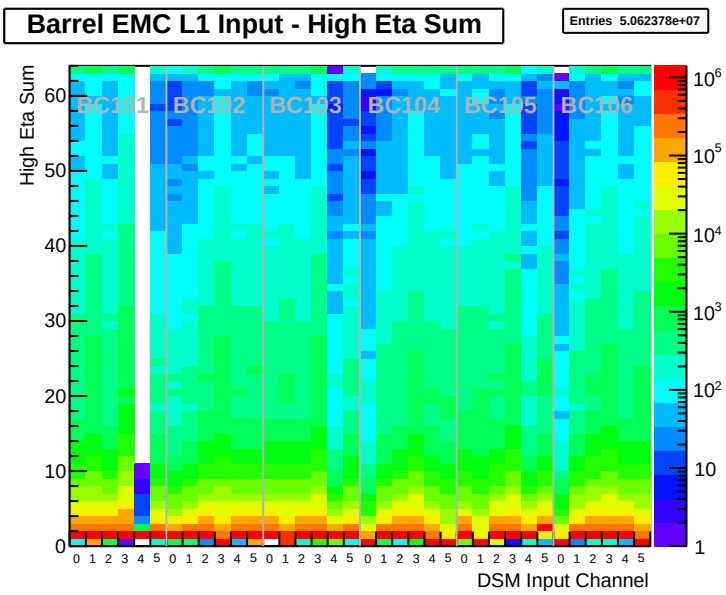

Barrel Jet Patches
Entries 2.531189e+07
JP ADC
JP ID

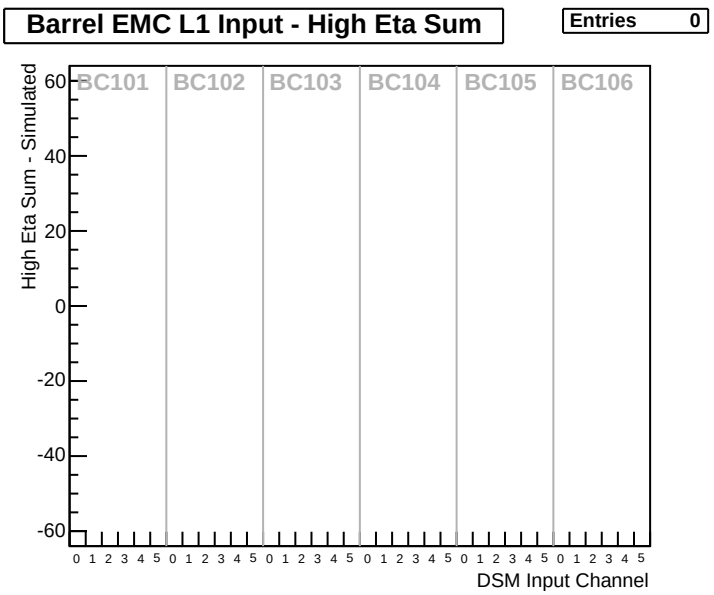

Endcap Jet Patches
Entries 8437296
JP ADC
JP ID

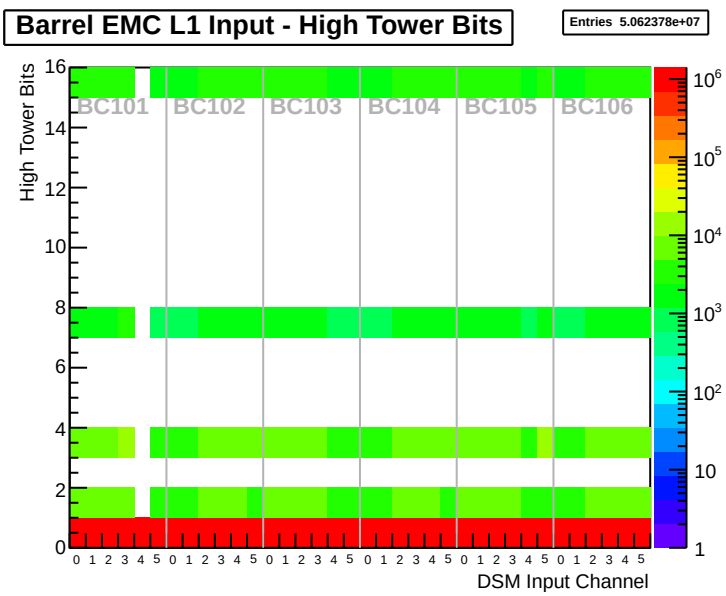

Hybrid Jet Patches
Entries 2812432
JP ADC
JP ID

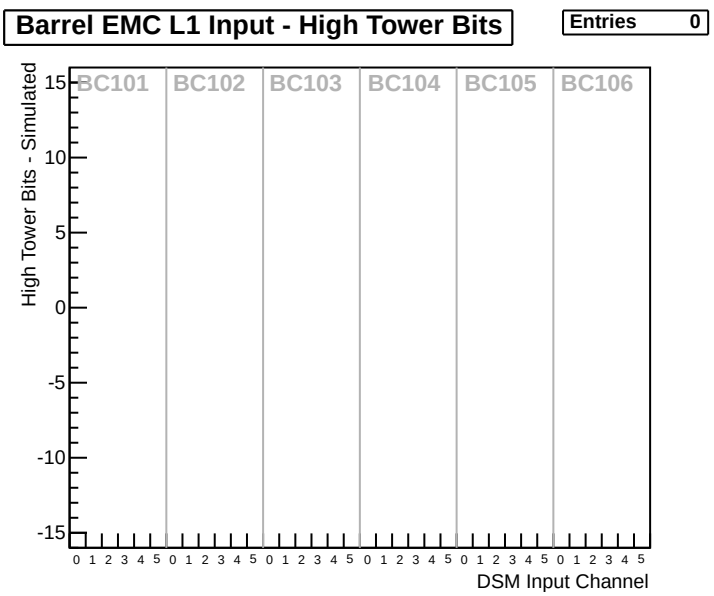

Barrel EMC L1 Input - Low Eta Sum
Entries 5.062378e+07
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

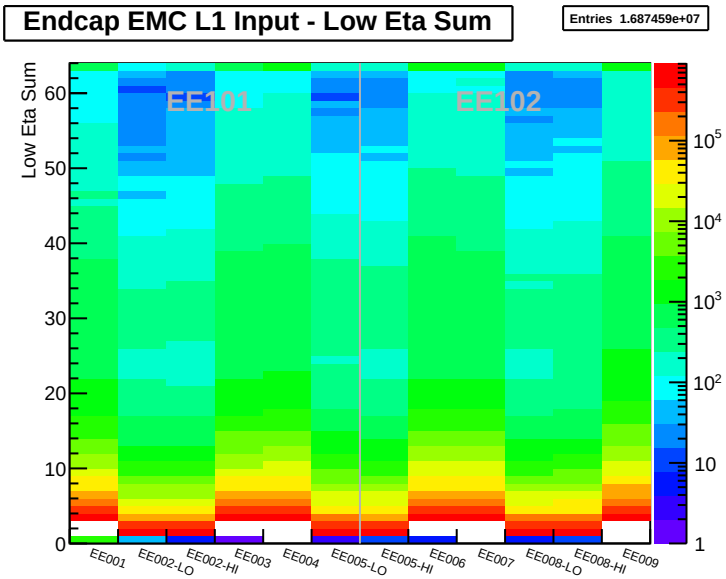

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

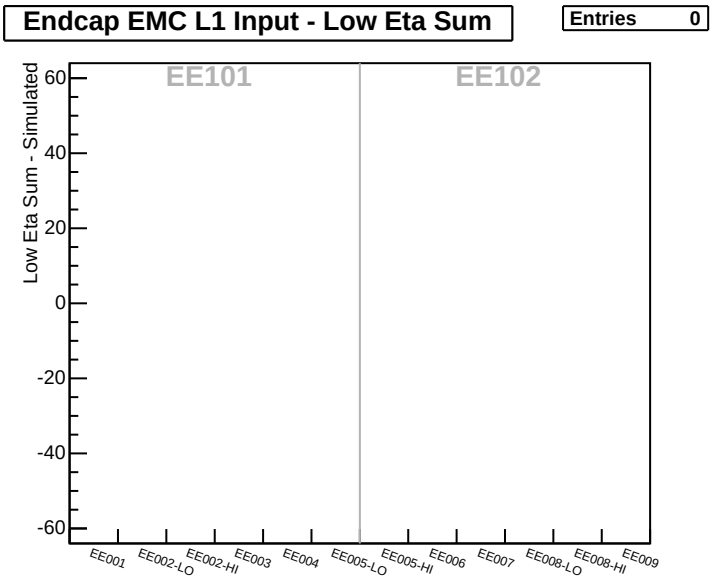

Barrel EMC L1 Input - High Eta Sum
Entries 5.062378e+07
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

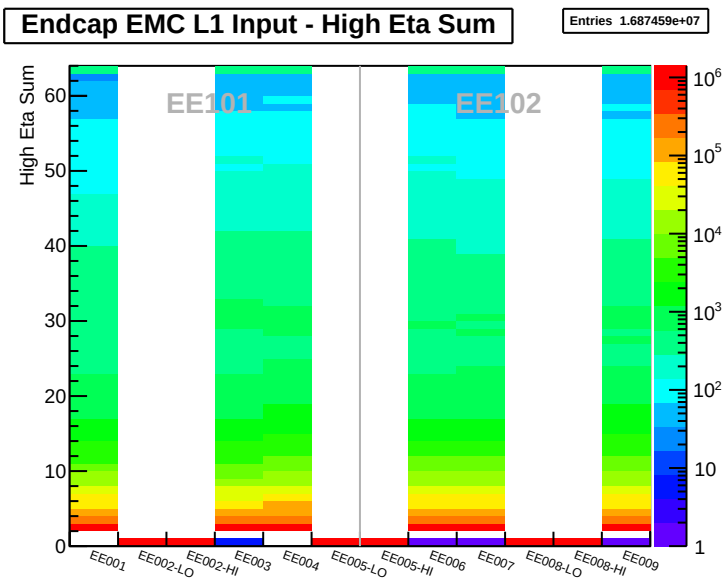

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

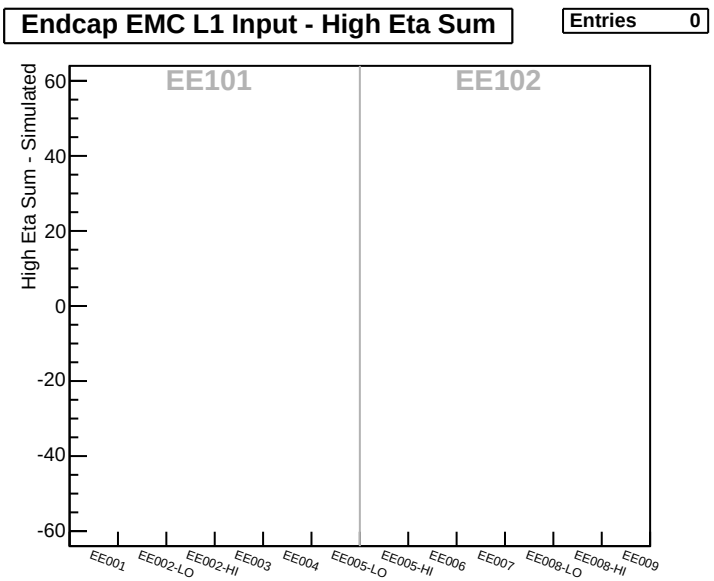

Barrel EMC L1 Input - High Tower Bits
Entries 5.062378e+07
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

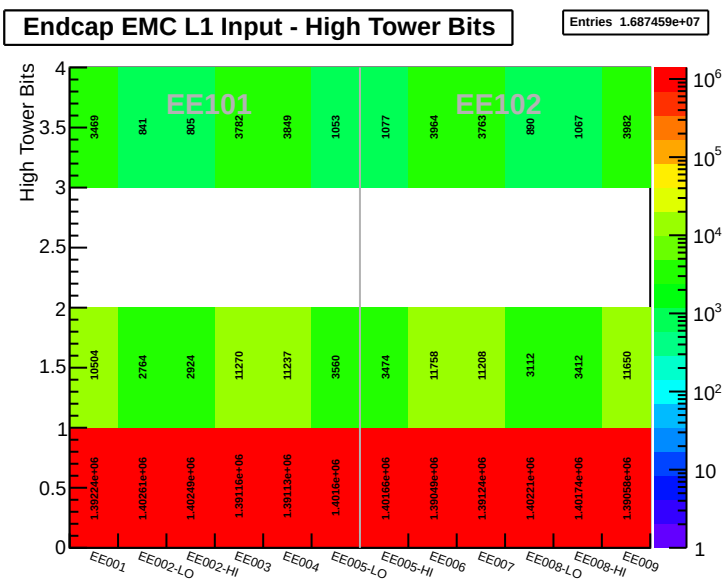

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

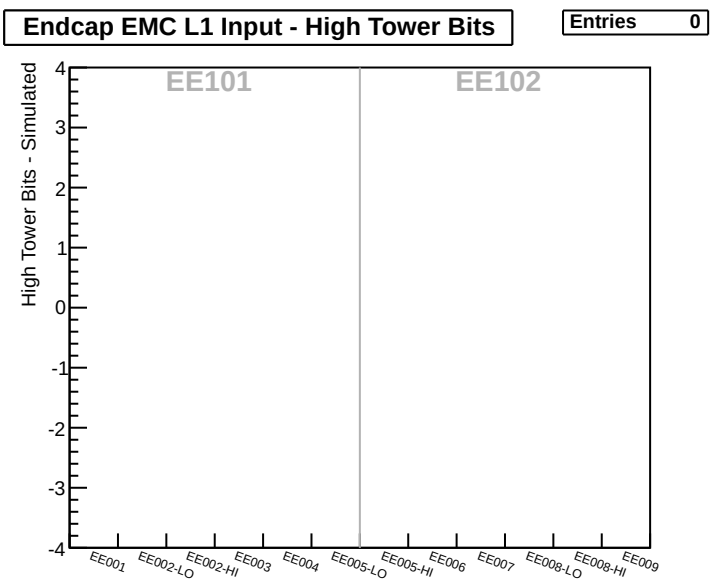

Endcap EMC L1 Input - Low Eta Sum
Entries 1.687459e+07
Low Eta Sum
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

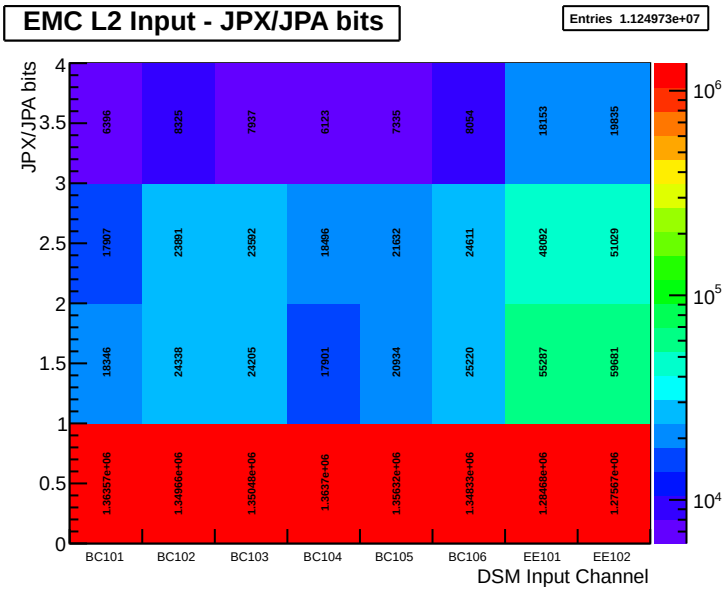

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

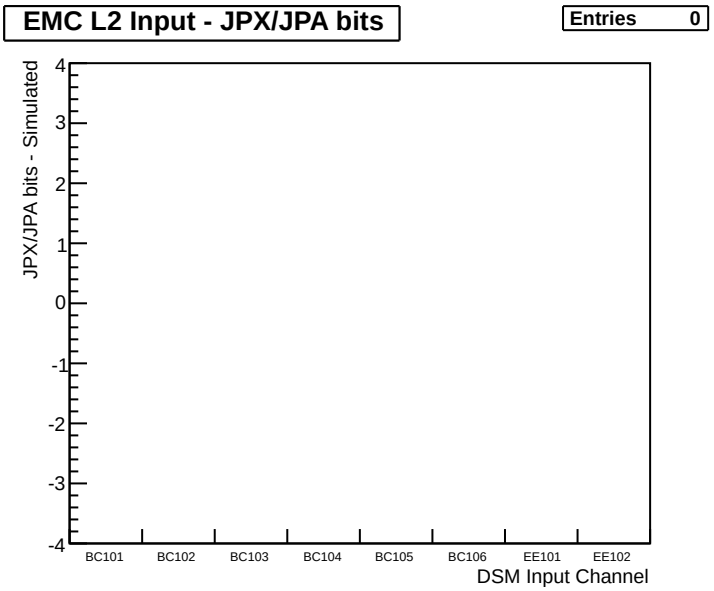

Endcap EMC L1 Input - High Eta Sum
Entries 1.687459e+07
High Eta Sum
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

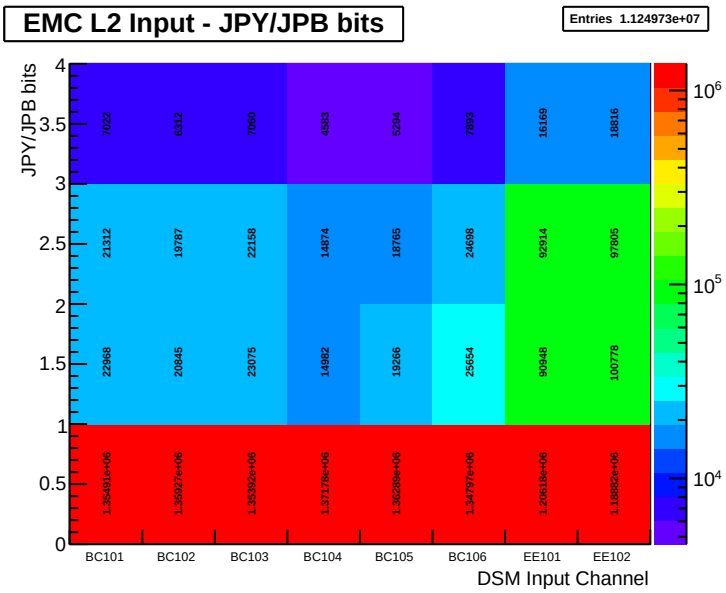

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

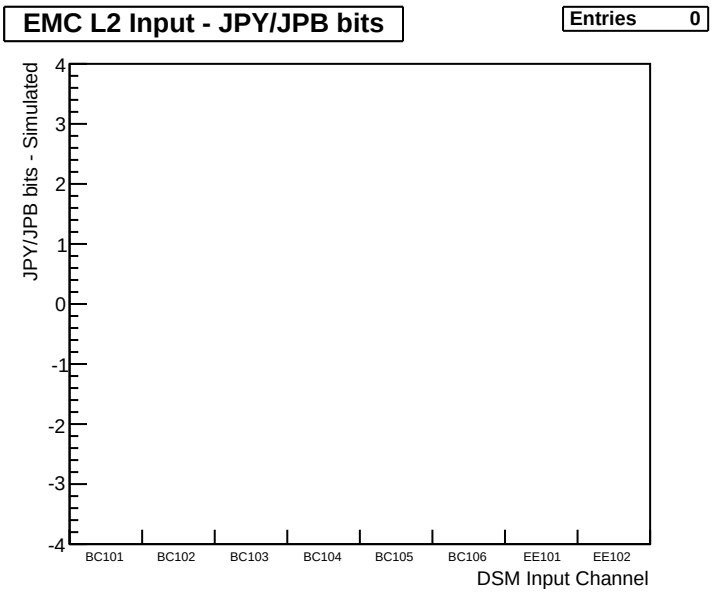

Endcap EMC L1 Input - High Tower Bits
Entries 1.687459e+07
High Tower Bits
EE101
EE102
3469
841
805
3782
3849
1053
1077
3964
3763
890
1067
3982
10504
2764
2924
11270
11237
3560
3474
11758
11208
3112
3412
11650
1.39224e+06
1.40261e+06
1.40249e+06
1.39116e+06
1.39113e+06
1.4016e+06
1.40166e+06
1.39049e+06
1.39124e+06
1.40221e+06
1.40174e+06
1.39058e+06
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

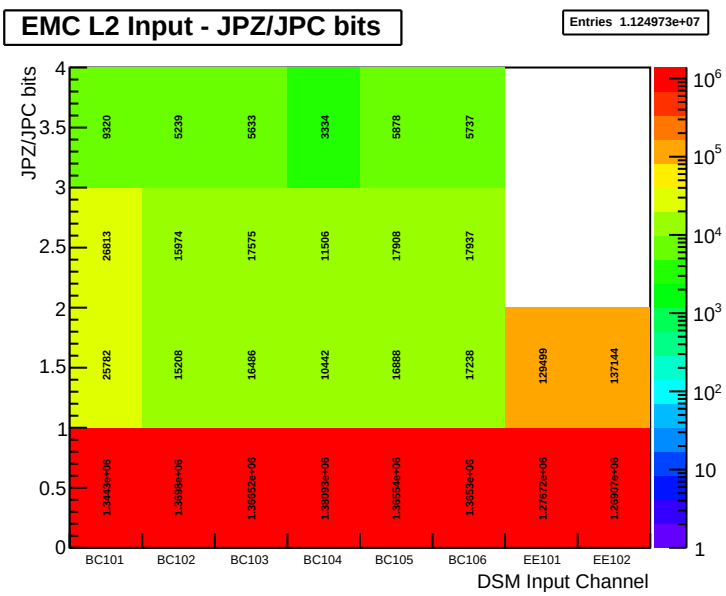

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

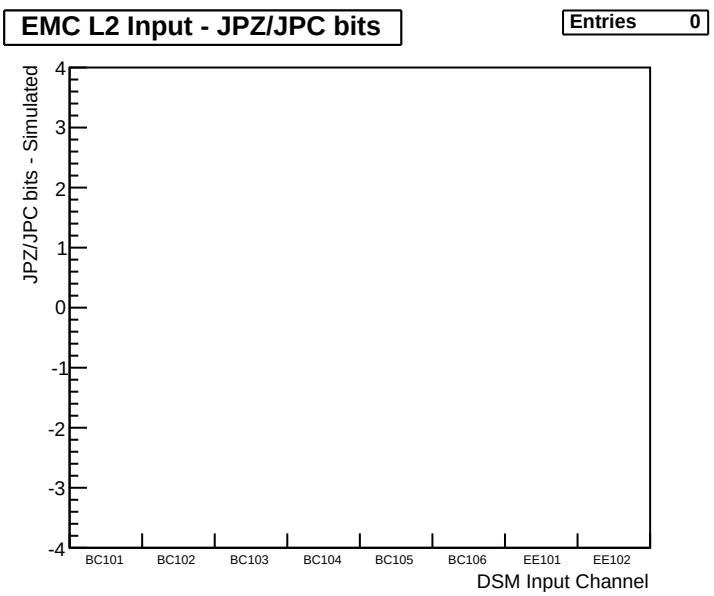

EMC L2 Input - JPX/JPA bits
Entries 1.124973e+07
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
6396 8325 7937 6123 7335 8054 18153 19835
17907 23891 23592 18486 21632 24611 49092 51029
18346 24338 24205 17901 20934 25220 55287 59681
1.36357e+06 1.34966e+06 1.35048e+06 1.3637e+06 1.35632e+06 1.34833e+06 1.28468e+06 1.27567e+06

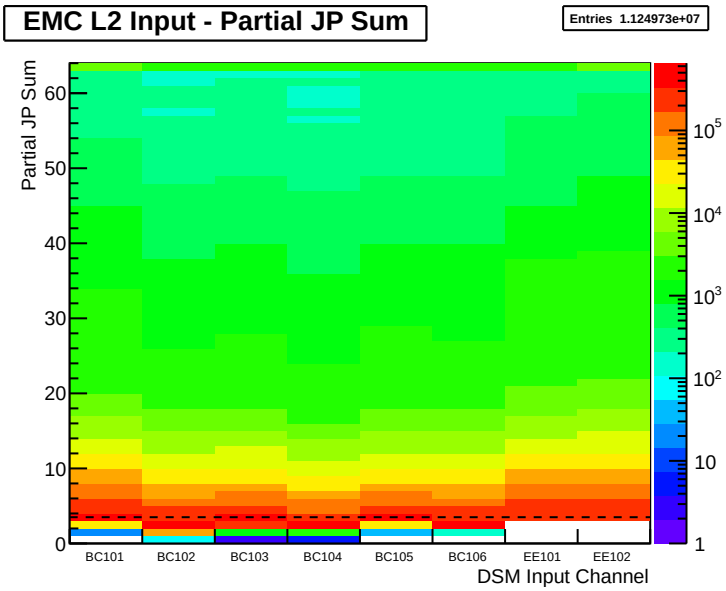

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

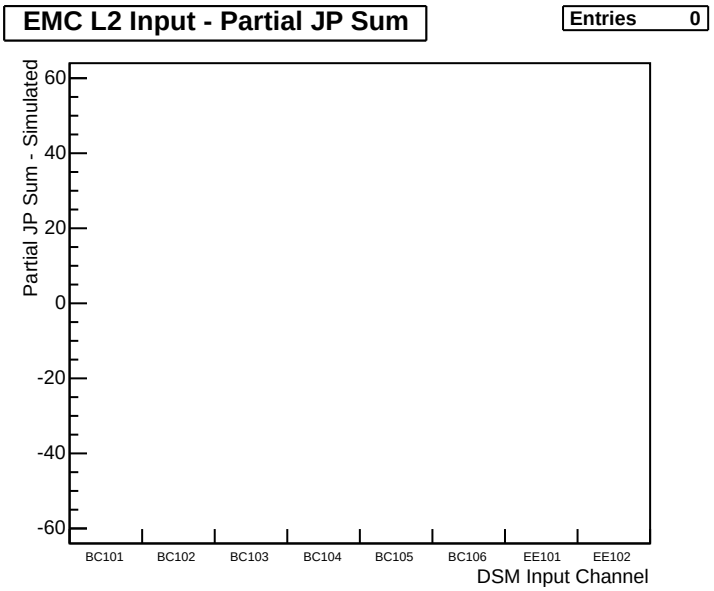

EMC L2 Input - JPY/JPB bits
Entries 1.124973e+07
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
7022 6312 7060 4583 5294 7893 16169 18816
21312 19787 22158 14874 18765 24698 92914 97005
22968 20845 23075 14982 19266 25654 90948 100778
1.35491e+06 1.35927e+06 1.35392e+06 1.37178e+06 1.36289e+06 1.34797e+06 1.20618e+06 1.18882e+06

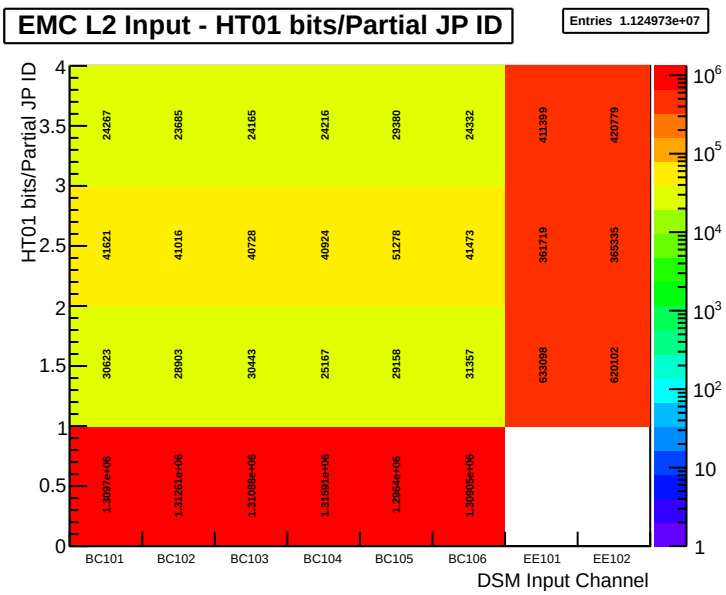

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

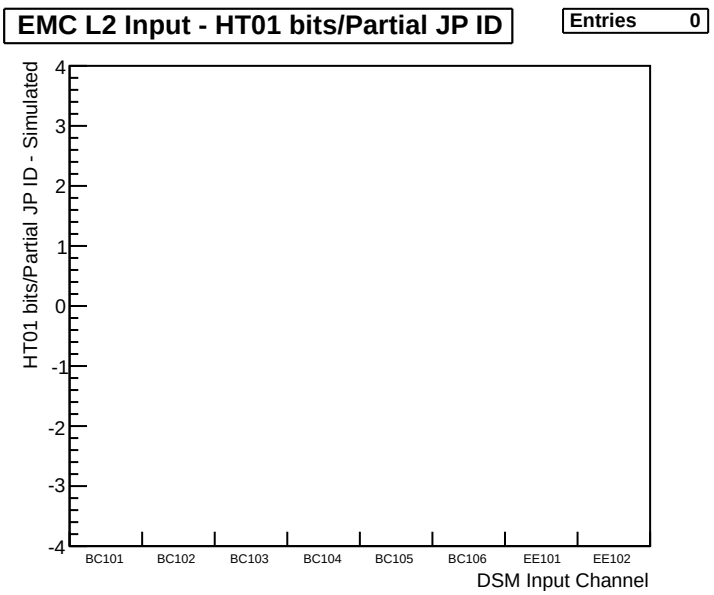

EMC L2 Input - JPZ/JPC bits
Entries 1.124973e+07
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
9320 5239 5633 3334 5878 5737
26813 15974 17575 11506 17908 17937
25782 15208 16486 10442 16888 17238 129499 137144
1.3443e+06 1.3698e+06 1.36652e+06 1.38093e+06 1.36554e+06 1.3653e+06 1.27672e+06 1.26907e+06

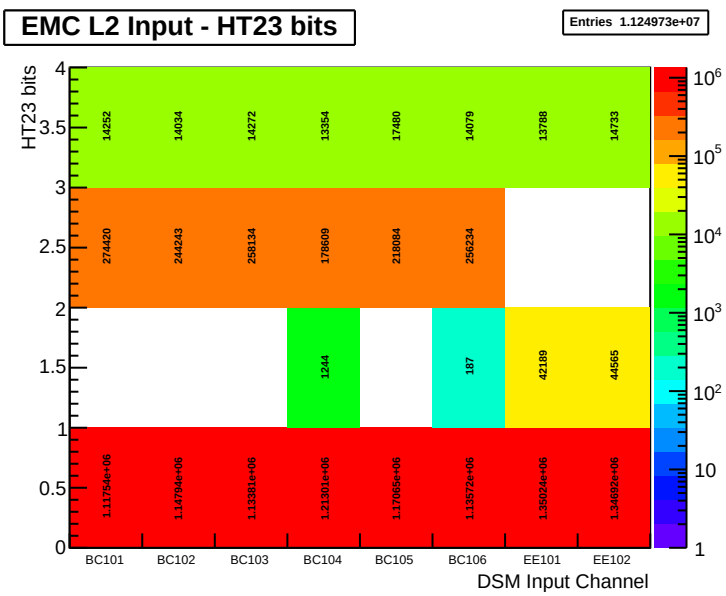

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

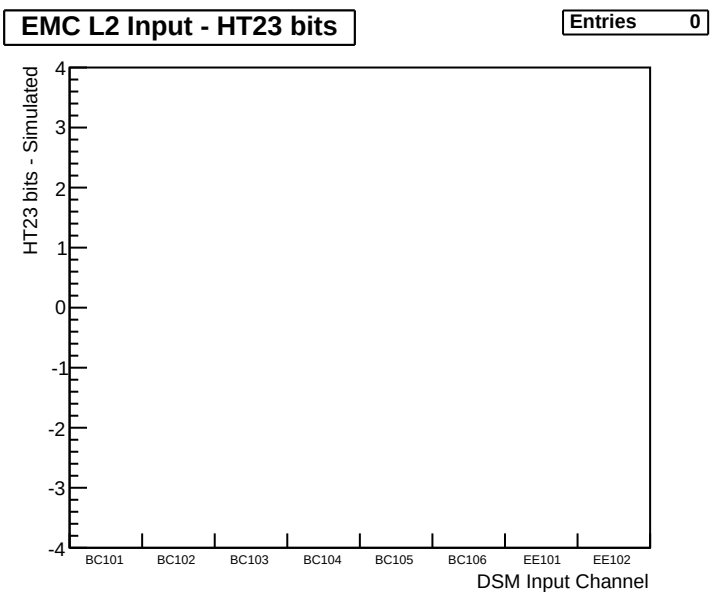

EMC L2 Input - Partial JP Sum
Entries 1.124973e+07
Partial JP Sum
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

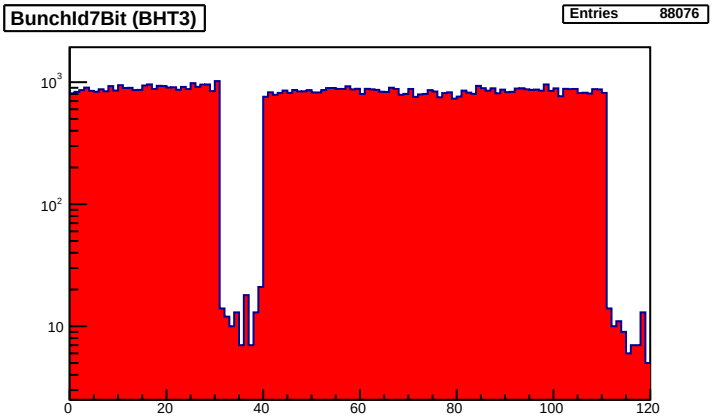

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

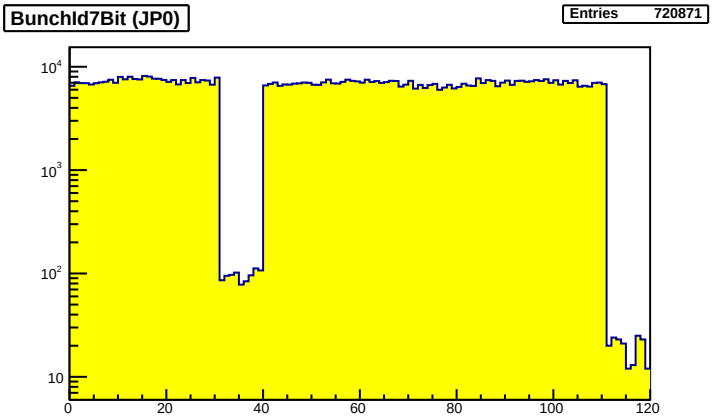

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1.124973e+07
HT01 bits/Partial JP ID
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

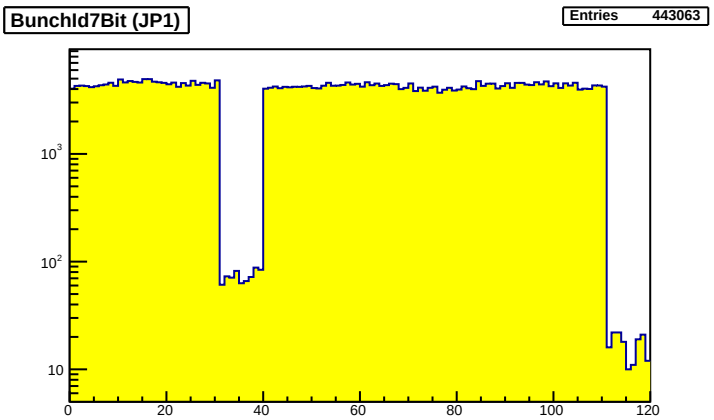

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

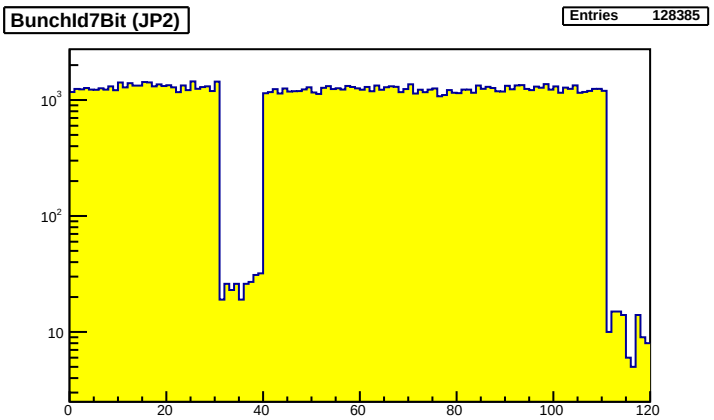

EMC L2 Input - HT23 bits
Entries 1.124973e+07
HT23 bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

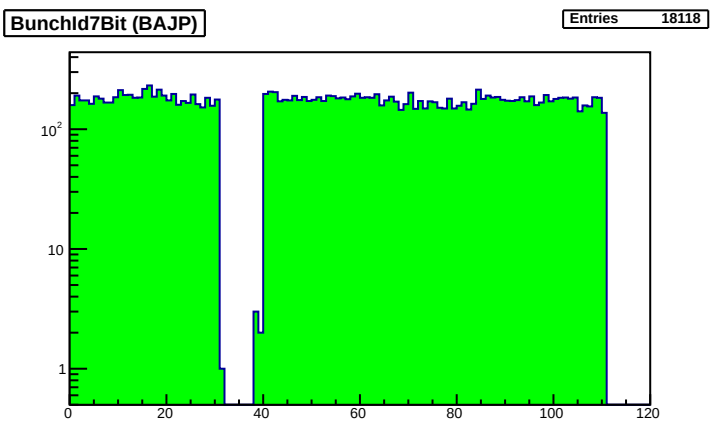

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106
EE101
EE102

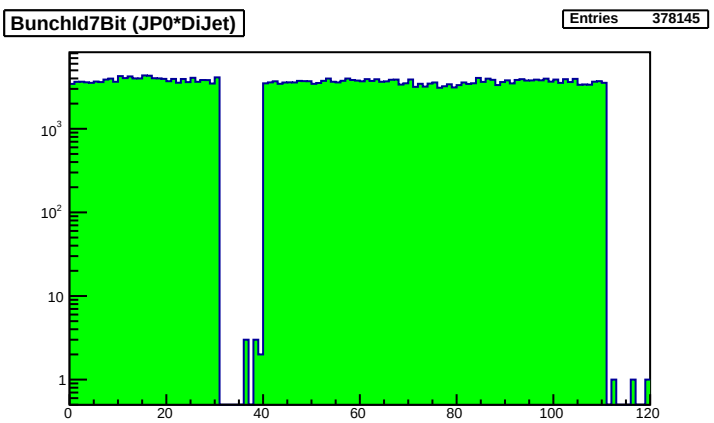

BunchId7Bit (BHT3)
Entries 88076

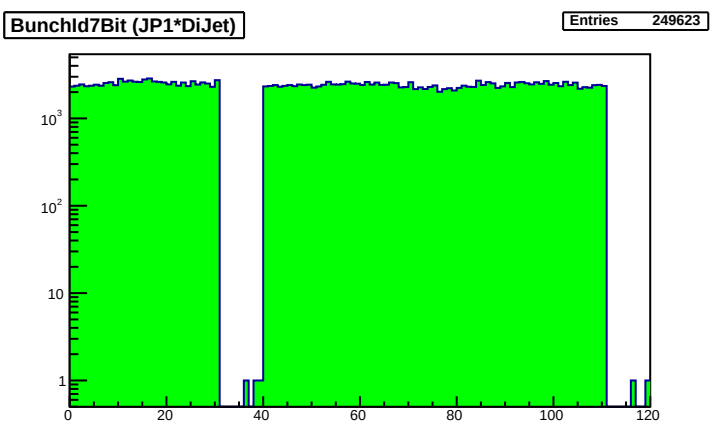

BunchId7Bit (JP0)
Entries 720871

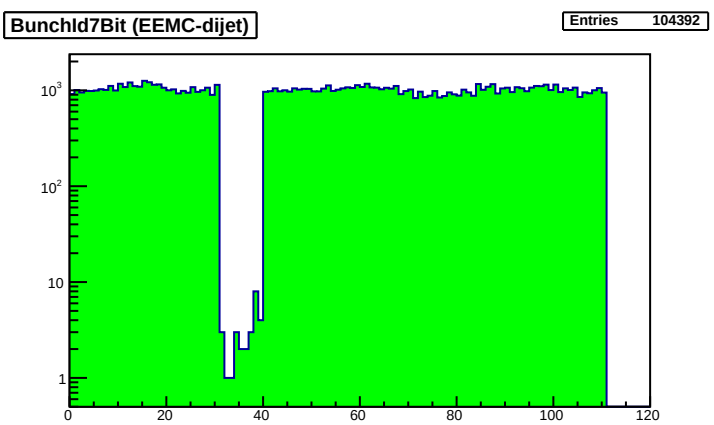

BunchId7Bit (JP1)
Entries 443063

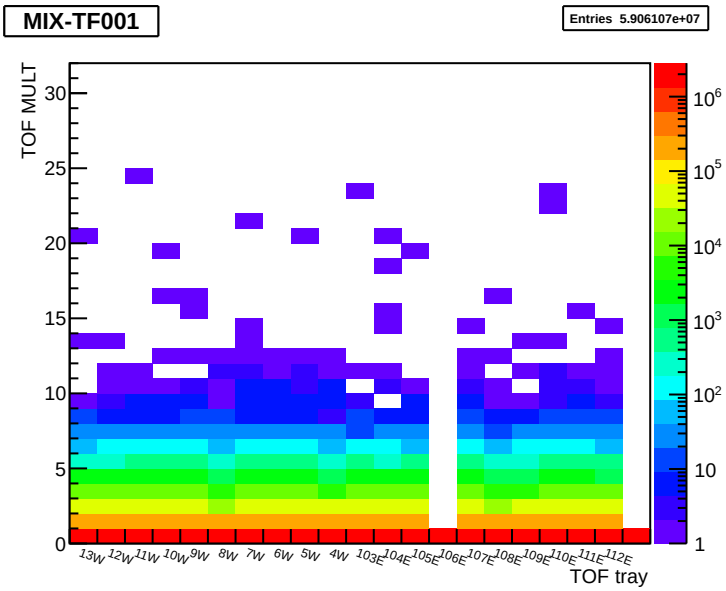

BunchId7Bit (JP2)
Entries 128385

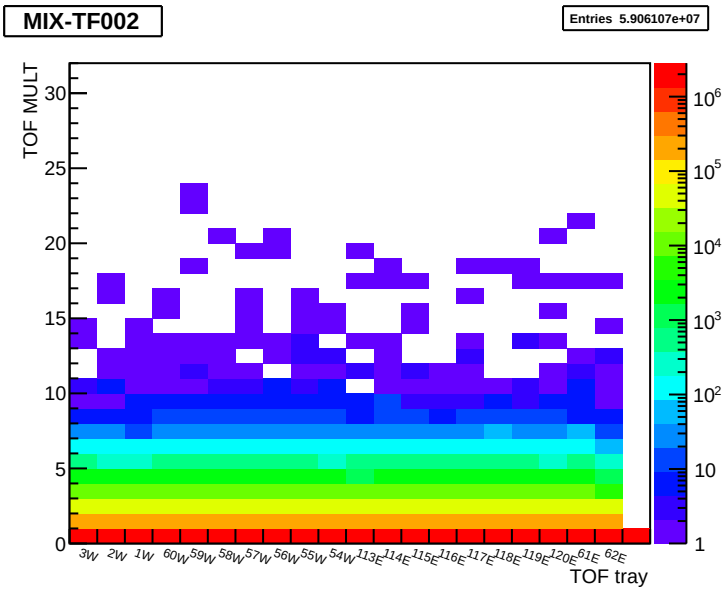

BunchId7Bit (BAJP)
Entries 18118

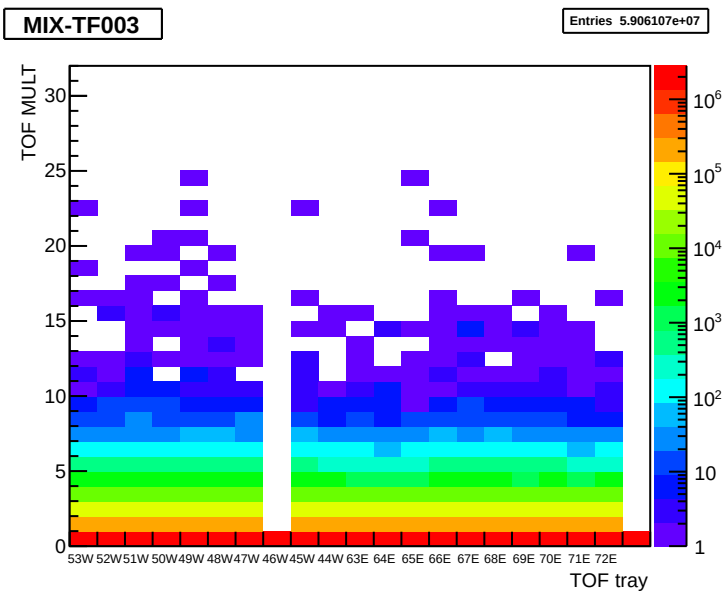

BunchId7Bit (JP0*DiJet)
Entries 378145

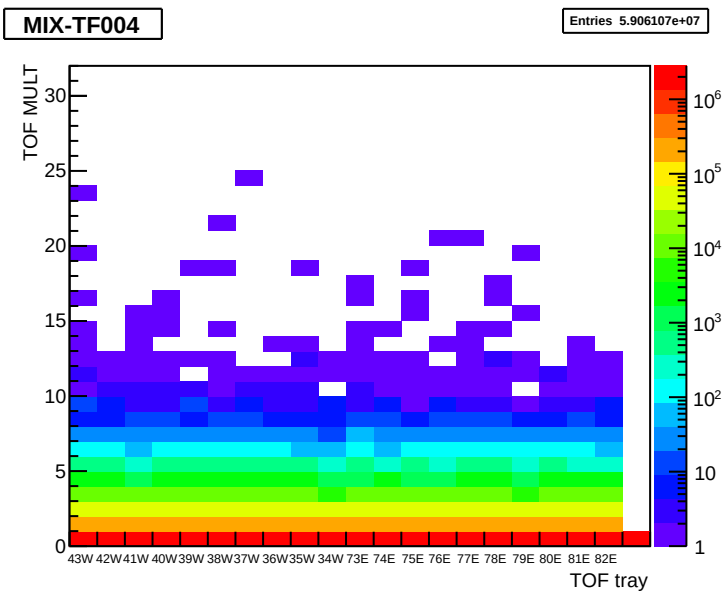

BunchId7Bit (JP1*DiJet)
Entries 249623

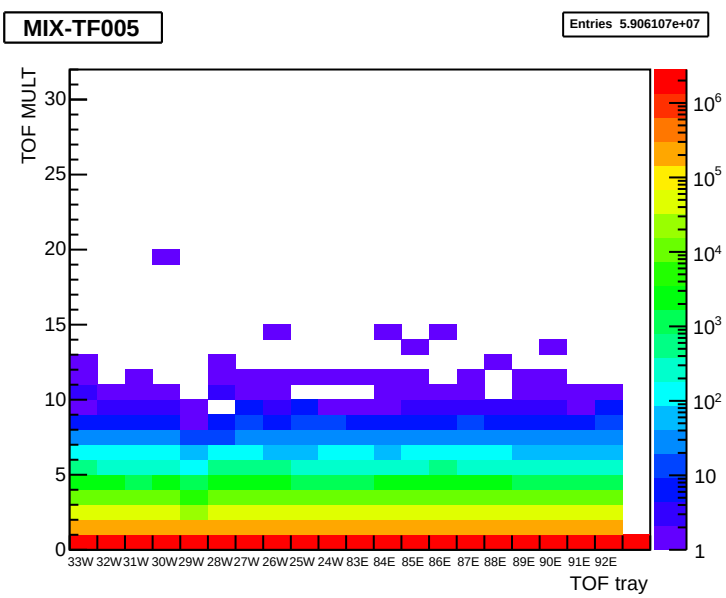

BunchId7Bit (EEMC-dijet)
Entries 104392

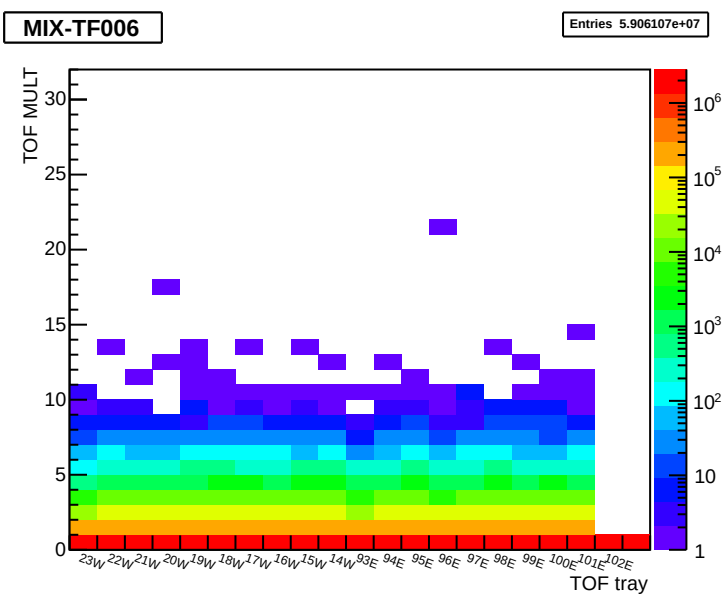

MIX-TF001
Entries 5.906107e+07
TOF MULT
TOF tray

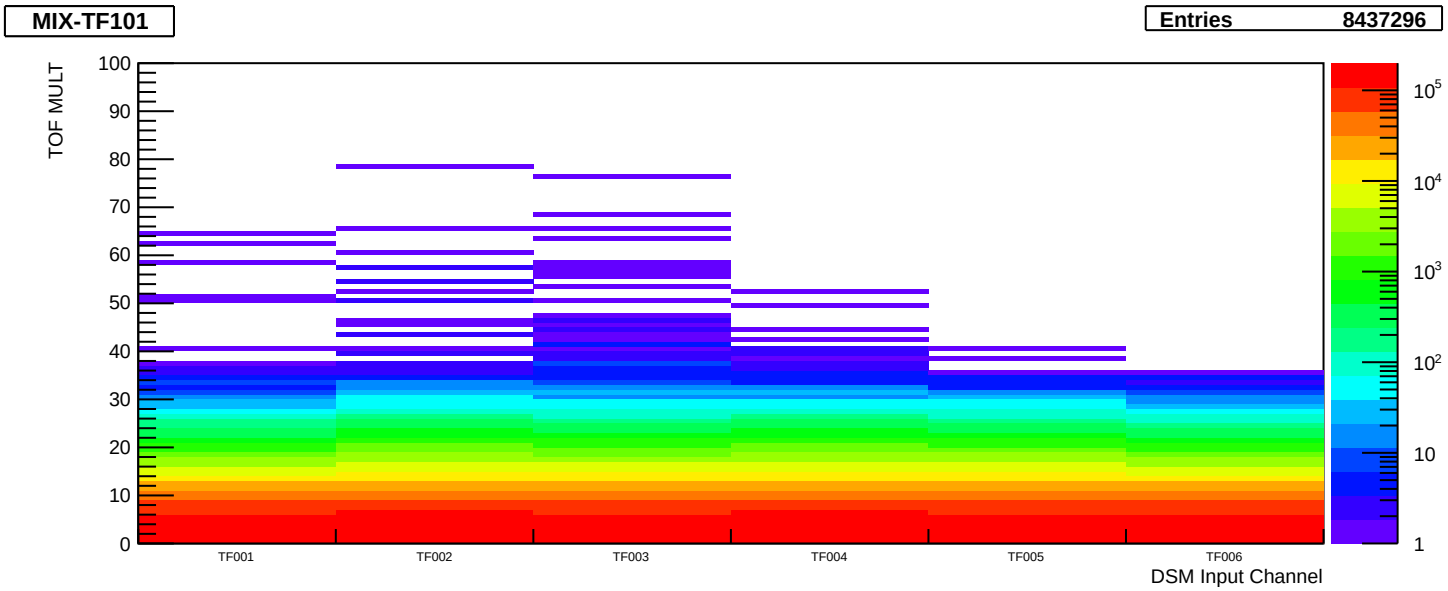

MIX-TF002
Entries 5.906107e+07
TOF MULT
TOF tray

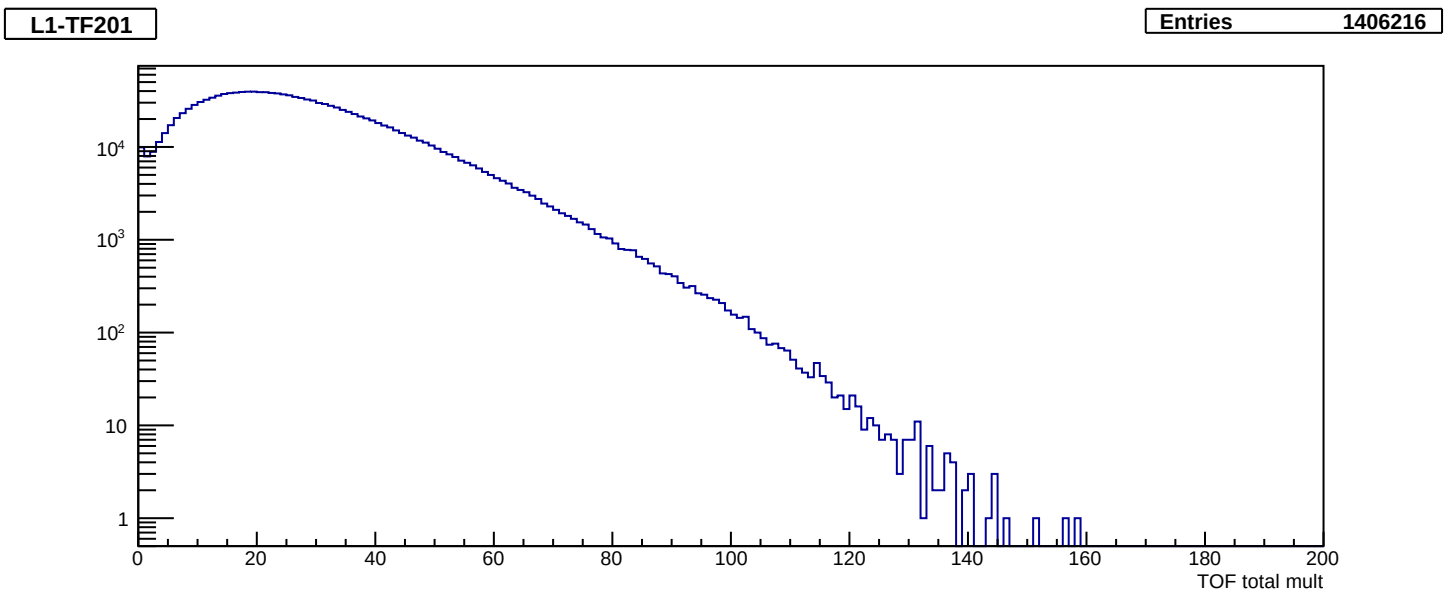

MIX-TF003
Entries 5.906107e+07
TOF MULT
TOF tray

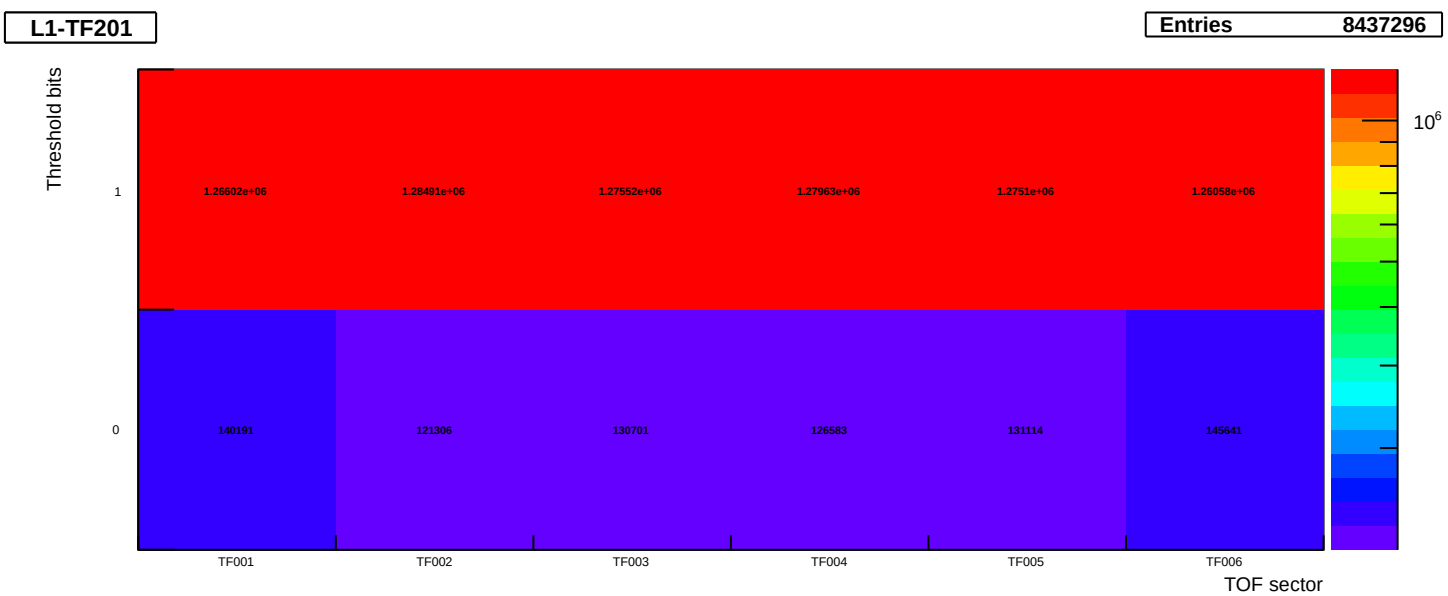

MIX-TF004
Entries 5.906107e+07
TOF MULT
TOF tray

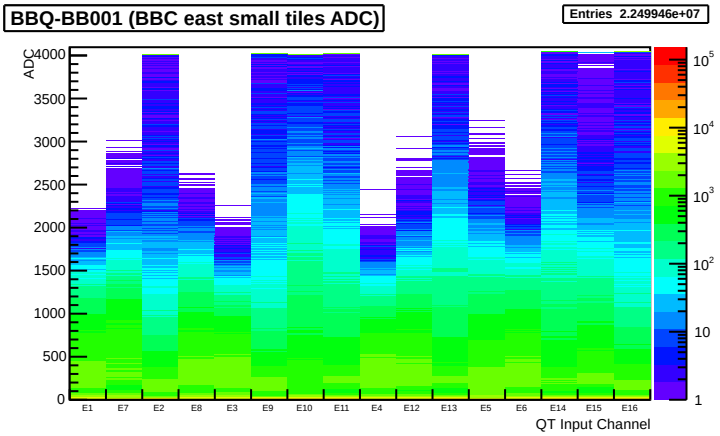

MIX-TF005
Entries 5.906107e+07
TOF MULT
TOF tray

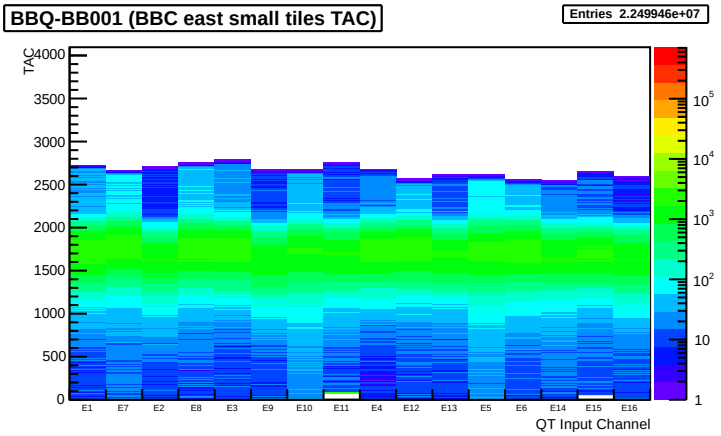

MIX-TF006
Entries 5.906107e+07
TOF MULT
TOF tray

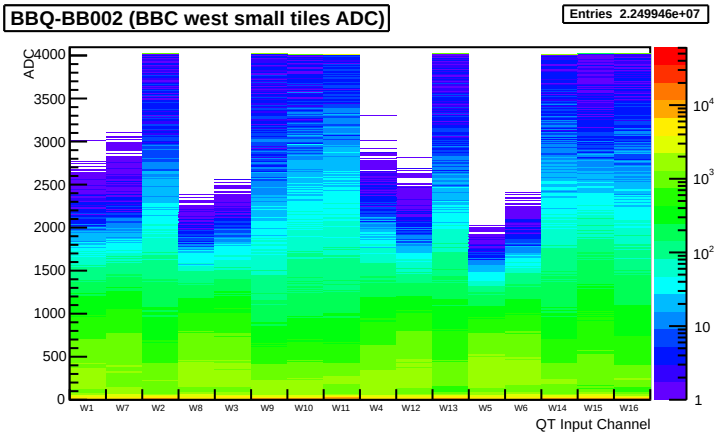

MIX-TF101
Entries 8437296
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

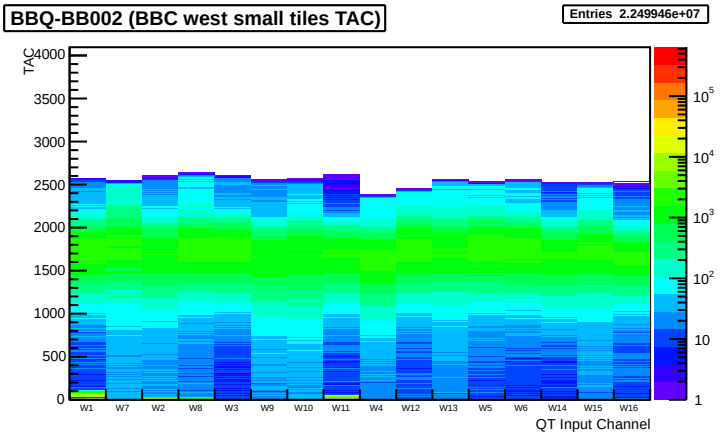

L1-TF201
Entries 1406216
TOF total mult

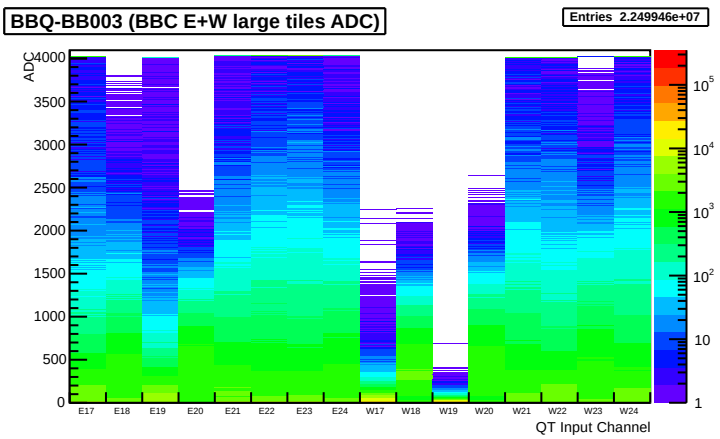

L1-TF201
Entries 8437296
Threshold bits
1.26602e+06
1.28491e+06
1.27552e+06
1.27963e+06
1.2751e+06
1.26058e+06
140191
121306
130701
126583
131114
145641
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

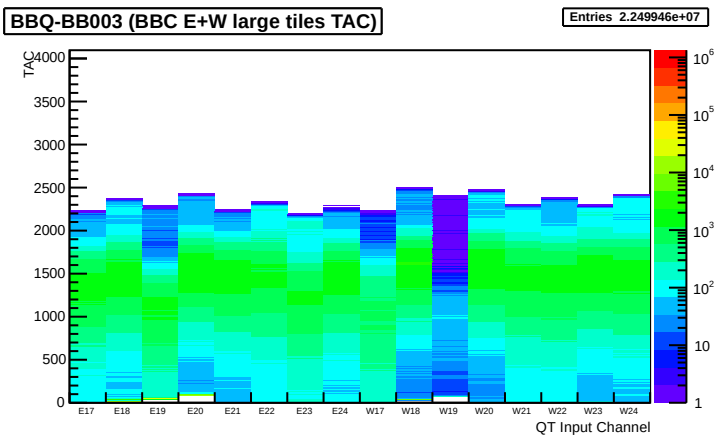

BBQ-BB001 (BBC east small tiles ADC)
Entries 2.249946e+07
ADC
QT Input Channel

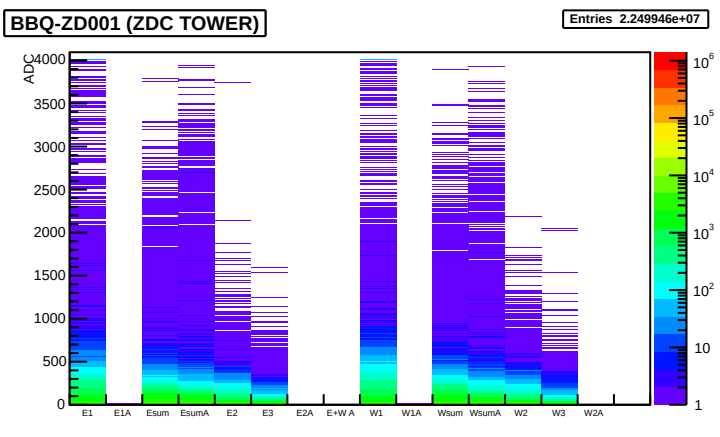

BBQ-BB001 (BBC east small tiles TAC)
Entries 2.249946e+07
TAC
QT Input Channel

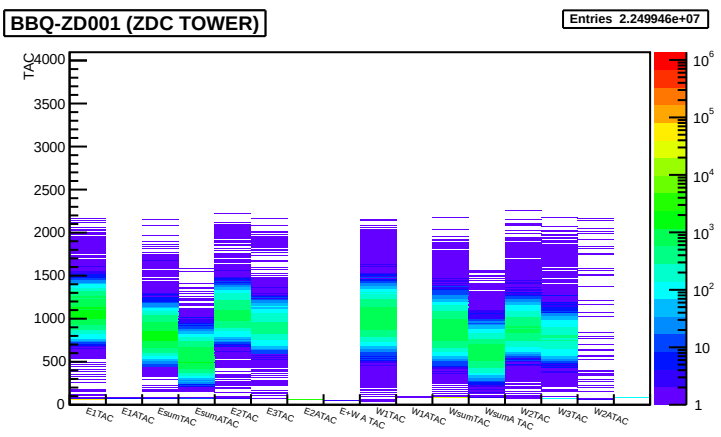

BBQ-BB002 (BBC west small tiles ADC)
Entries 2.249946e+07
ADC
QT Input Channel

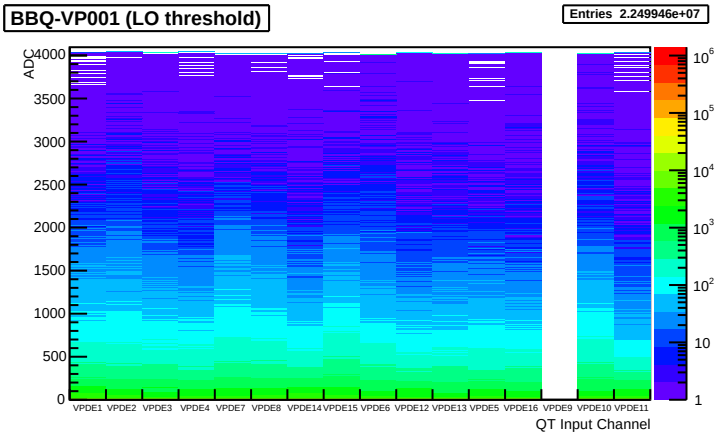

BBQ-BB002 (BBC west small tiles TAC)
Entries 2.249946e+07
TAC
QT Input Channel

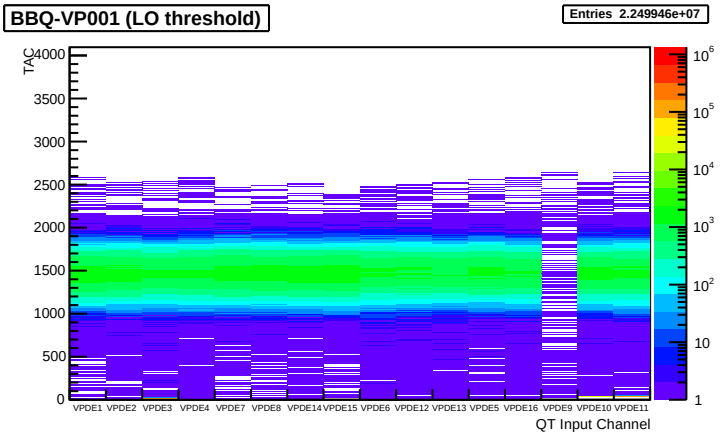

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 2.249946e+07
ADC
QT Input Channel

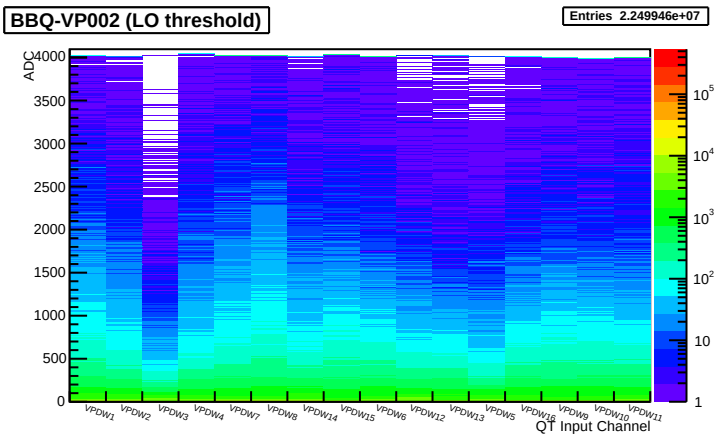

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 2.249946e+07
TAC
QT Input Channel

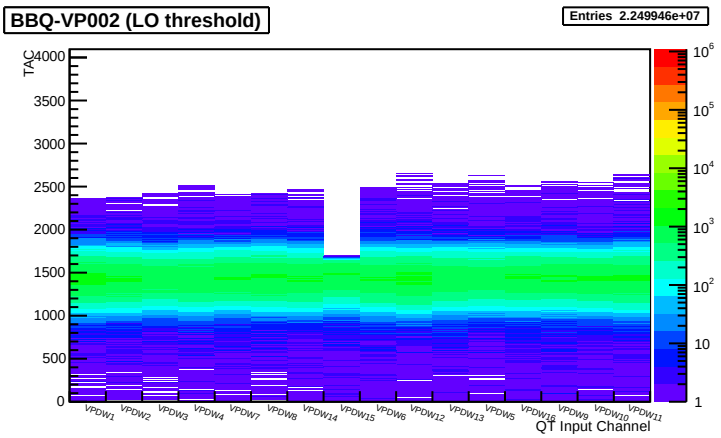

BBQ-ZD001 (ZDC TOWER)
Entries 2.249946e+07
ADC

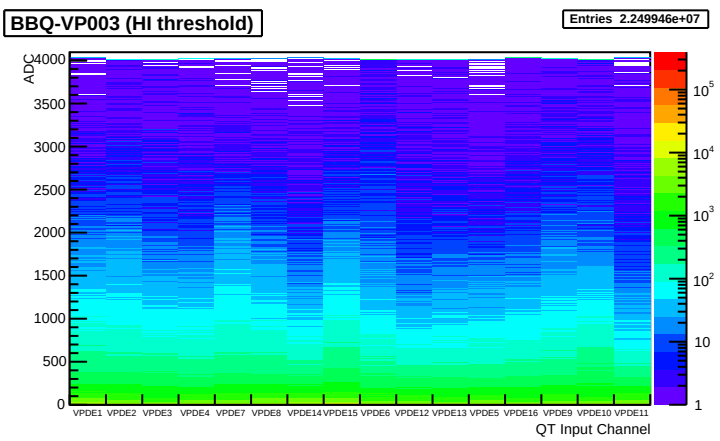

BBQ-ZD001 (ZDC TOWER)
Entries 2.249946e+07
TAC

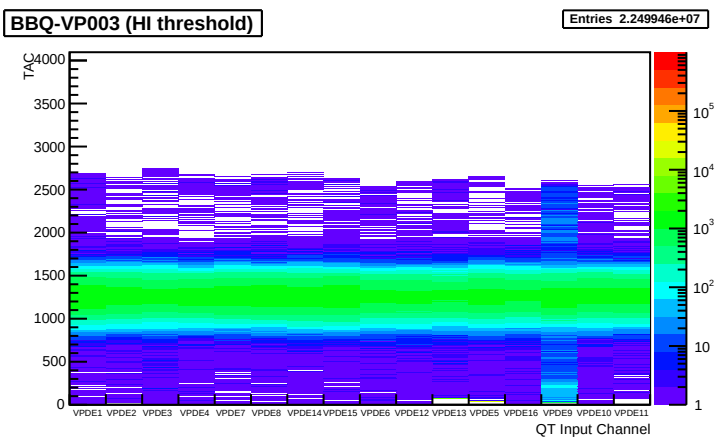

BBQ-VP001 (LO threshold)
Entries 2.249946e+07
ADC
QT Input Channel

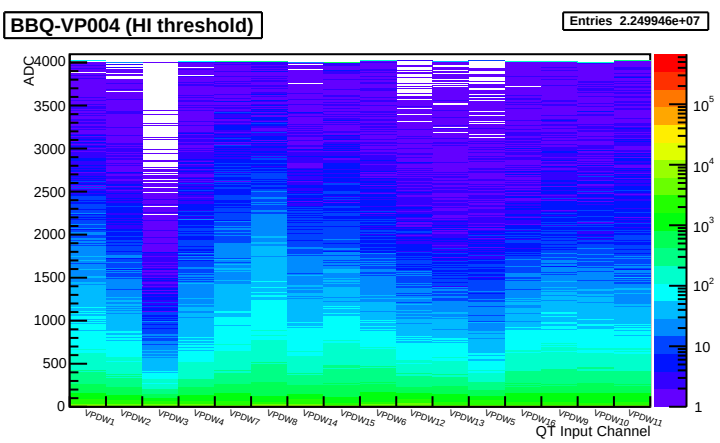

BBQ-VP001 (LO threshold)
Entries 2.249946e+07
TAC
QT Input Channel

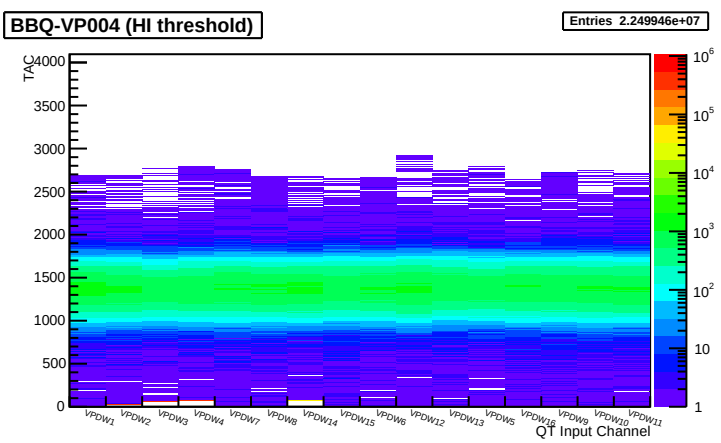

BBQ-VP002 (LO threshold)
Entries 2.249946e+07
ADC
QT Input Channel

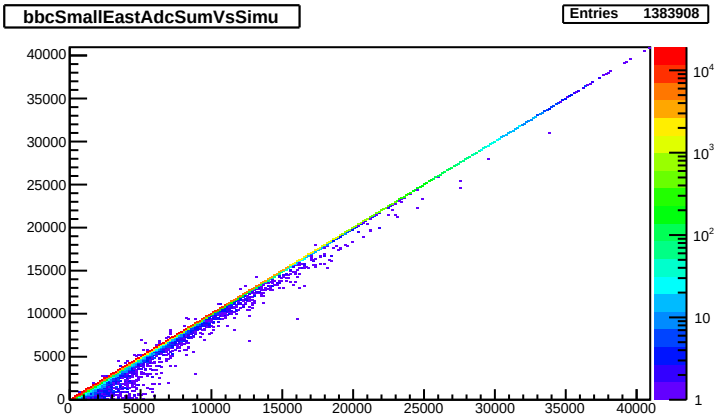

BBQ-VP002 (LO threshold)
Entries 2.249946e+07
TAC
QT Input Channel

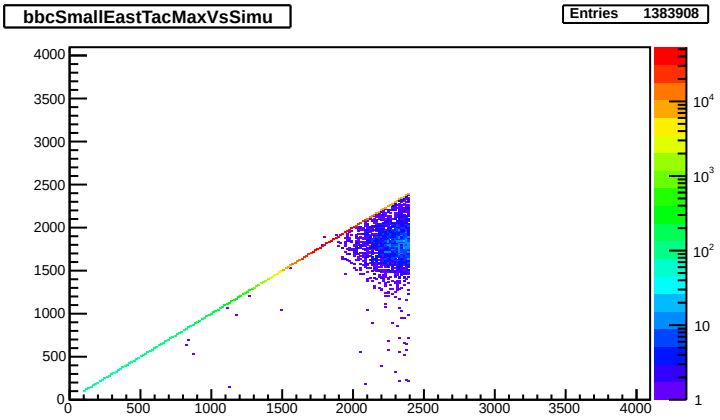

BBQ-VP003 (HI threshold)
Entries 2.249946e+07
ADC
QT Input Channel

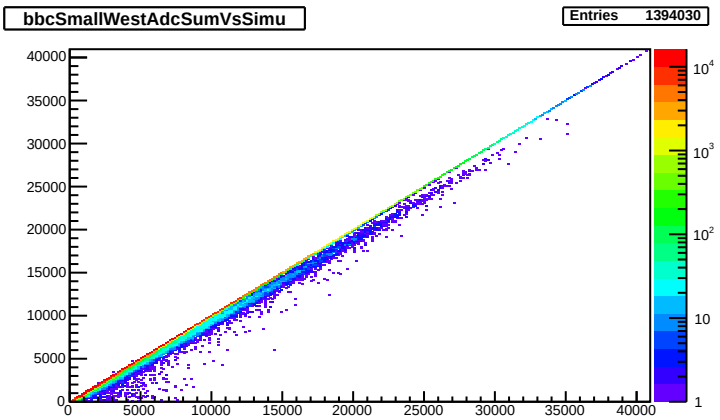

BBQ-VP003 (HI threshold)
Entries 2.249946e+07
TAC
QT Input Channel

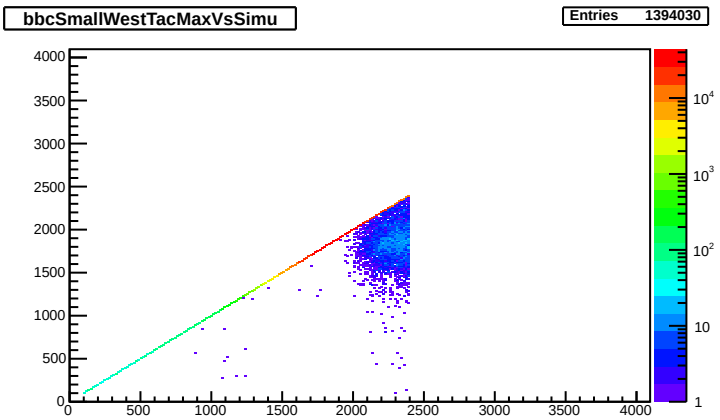

BBQ-VP004 (HI threshold)
Entries 2.249946e+07
ADC
QT Input Channel

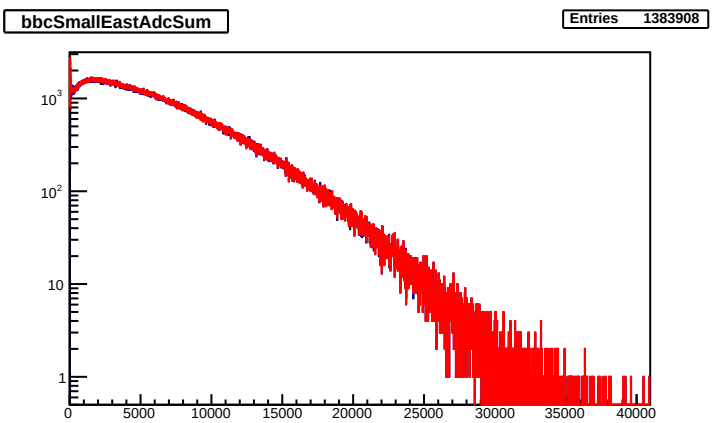

BBQ-VP004 (HI threshold)
Entries 2.249946e+07
TAC
QT Input Channel

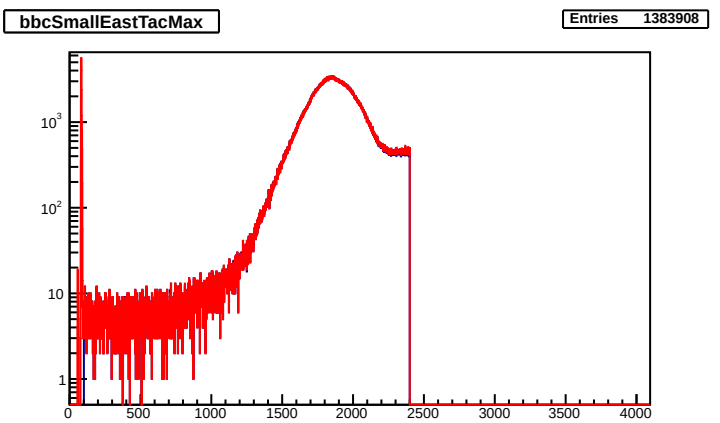

bbcSmallEastAdcSumVsSimu
Entries 1383908

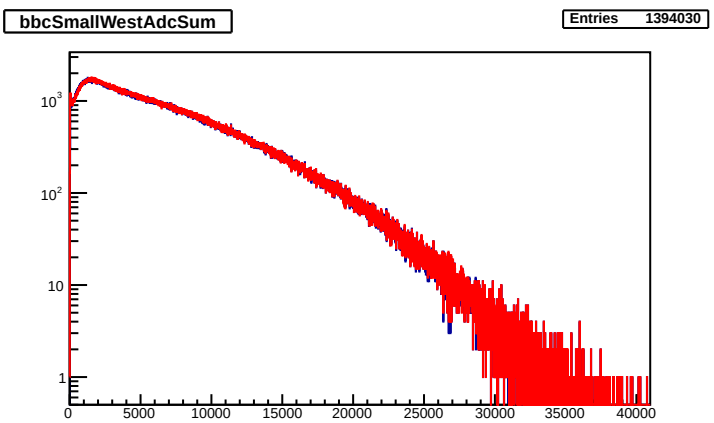

bbcSmallEastTacMaxVsSimu
Entries 1383908


bbcSmallWestAdcSumVsSimu
Entries 1394030


bbcSmallWestTacMaxVsSimu
Entries 1394030


bbcSmallEastAdcSum
Entries 1383908


bbcSmallEastTacMax
Entries 1383908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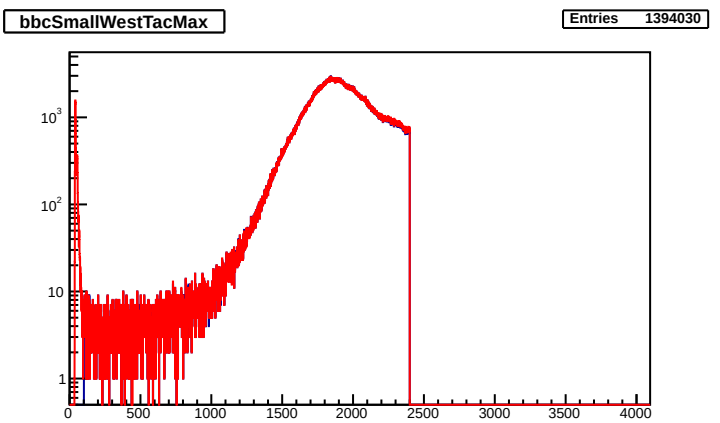
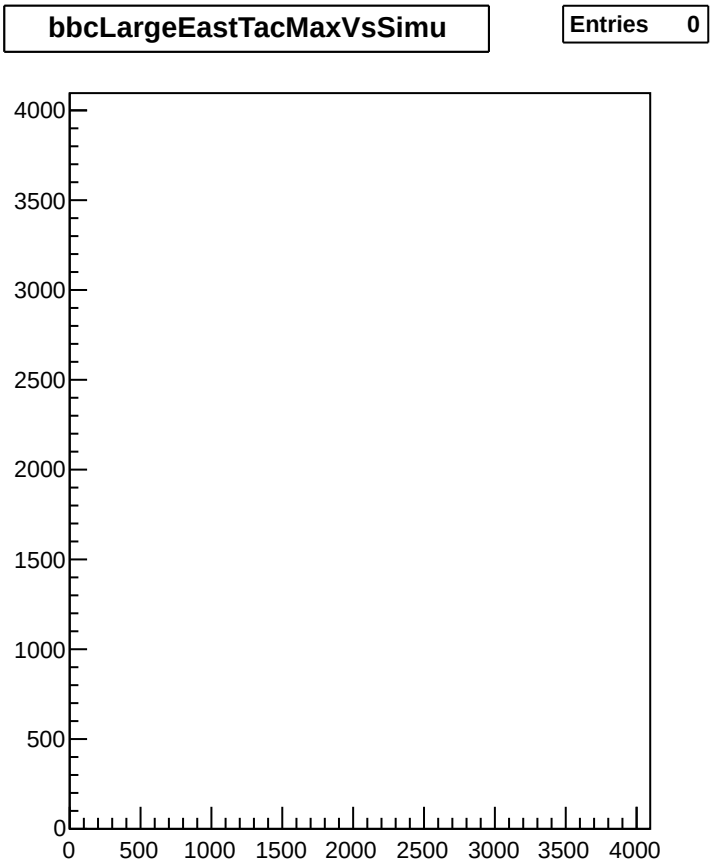
Entries 1394030


bbcSmallWestTacMax
Entries 1394030


bbcLargeEastTacMaxVsSimu
Entries 0
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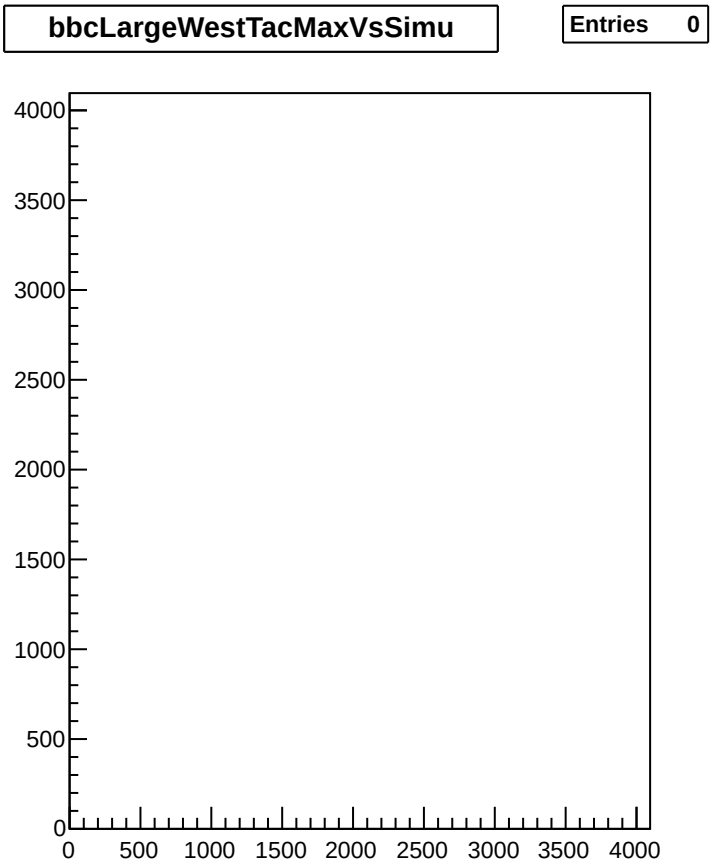
3500
3000
2500
2000
1500
1000
500
0
0 500 1000 1500 2000 2500 3000 3500 4000


bbcLargeWestTacMaxVsSimu
Entries 0
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3500
3000
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2000
1500
1000
500
0
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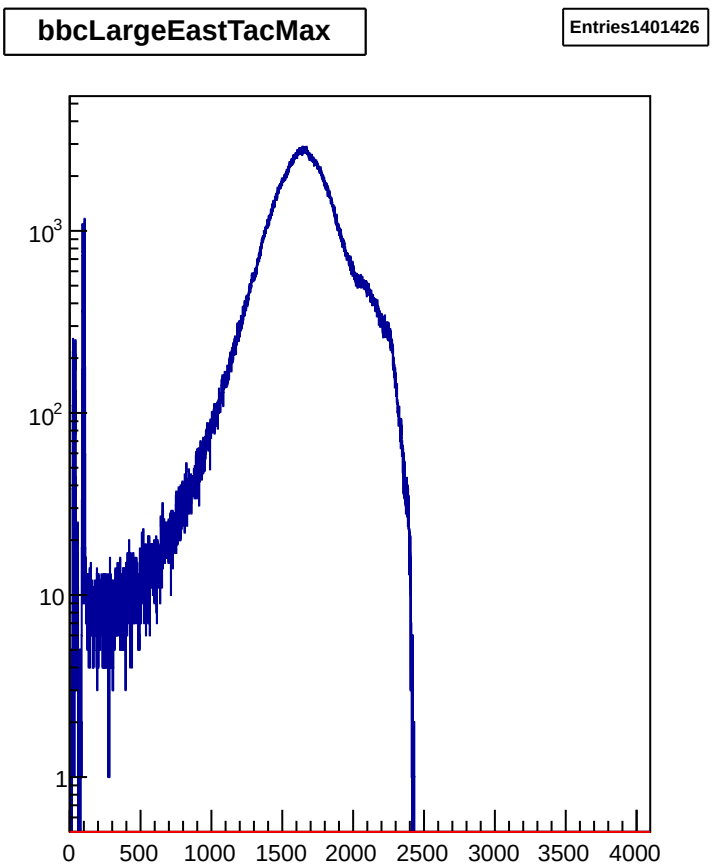
bbcLargeEastTacMax
Entries1401426
10^3
10^2
10
1
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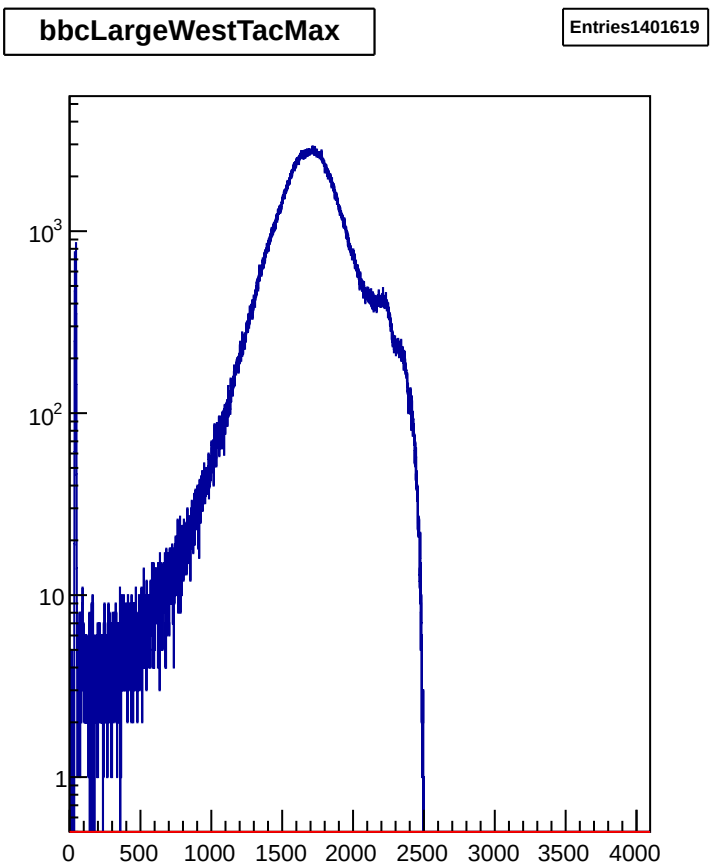
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10^2
10
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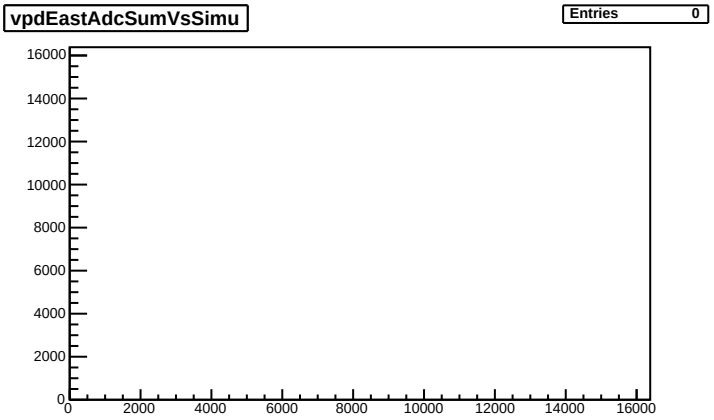
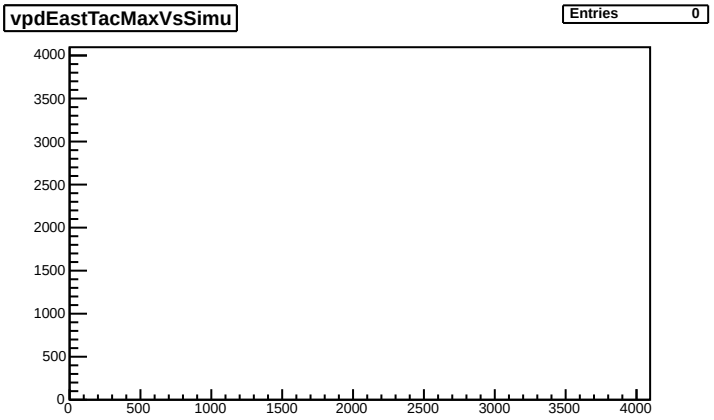
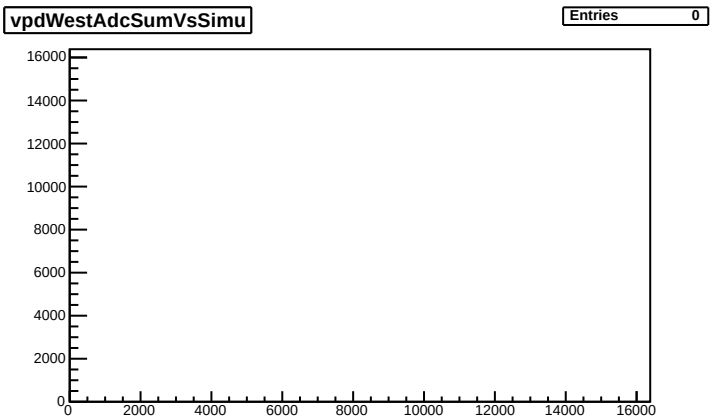
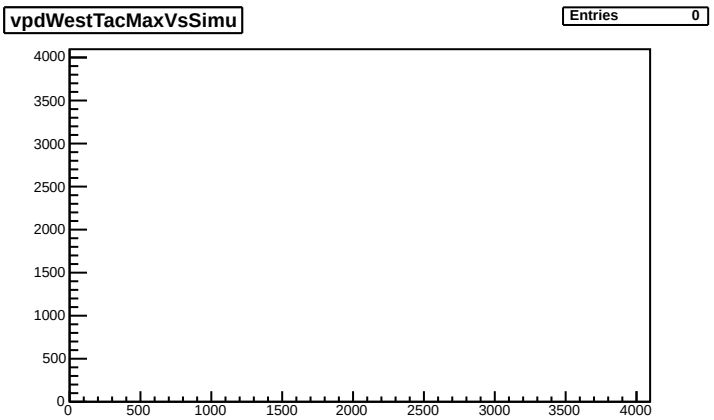
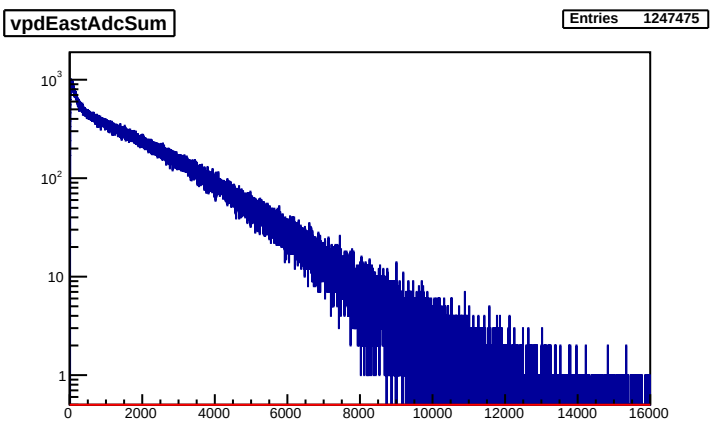
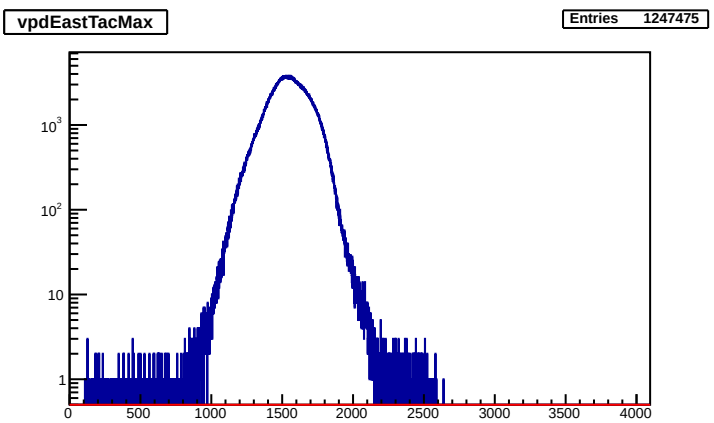

vpdEastAdcSumVsSimu
Entries 0

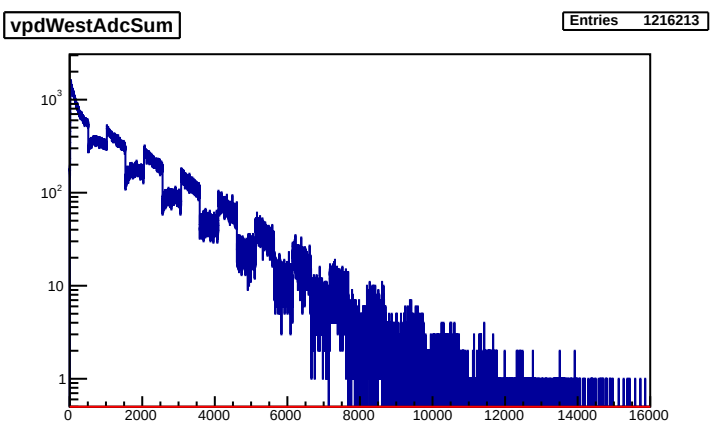

vpdEastTacMaxVsSimu
Entries 0

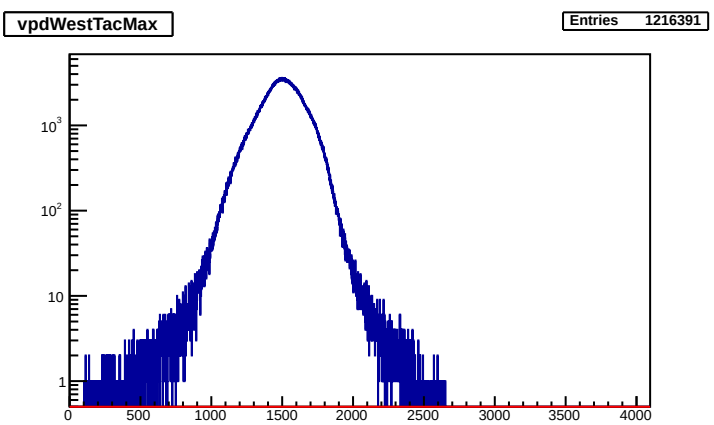

vpdWestAdcSumVsSimu
Entries 0

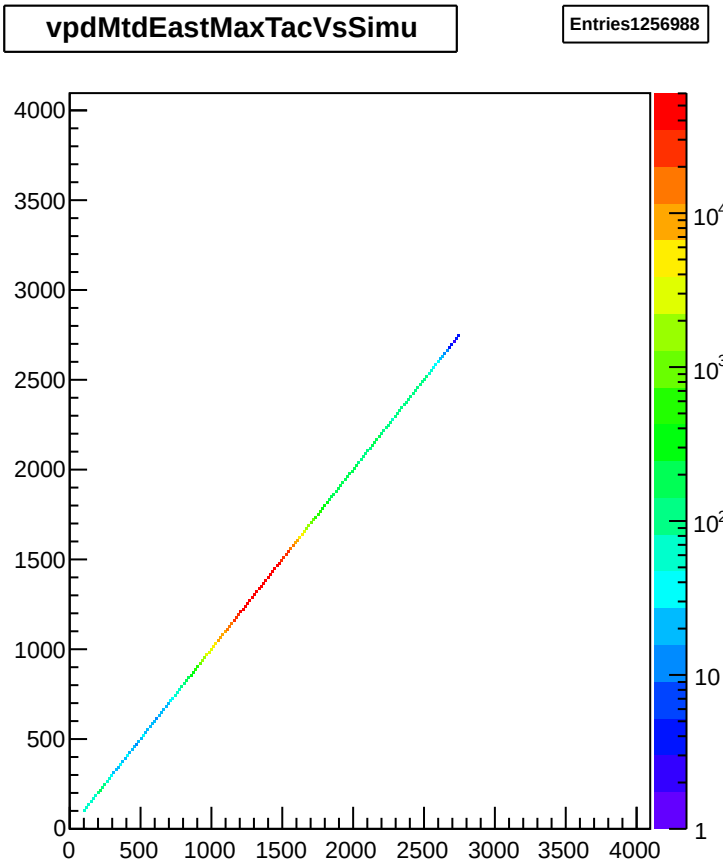

vpdWestTacMaxVsSimu
Entries 0


vpdEastAdcSum
Entries 1247475


vpdEastTacMax
Entries 1247475


vpdWestAdcSum
Entries 1216213


vpdWestTacMax
Entries 1216391


vpdMtdEastMaxTacVsSimu
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2500
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500
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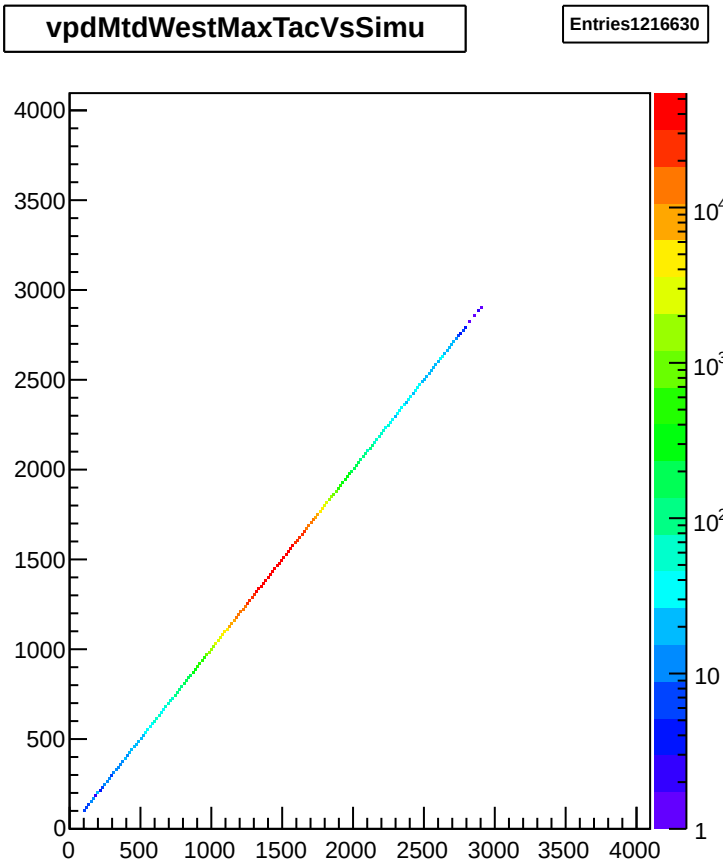
10
1


vpdMtdWestMaxTacVsSimu
Entries1216630
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2000
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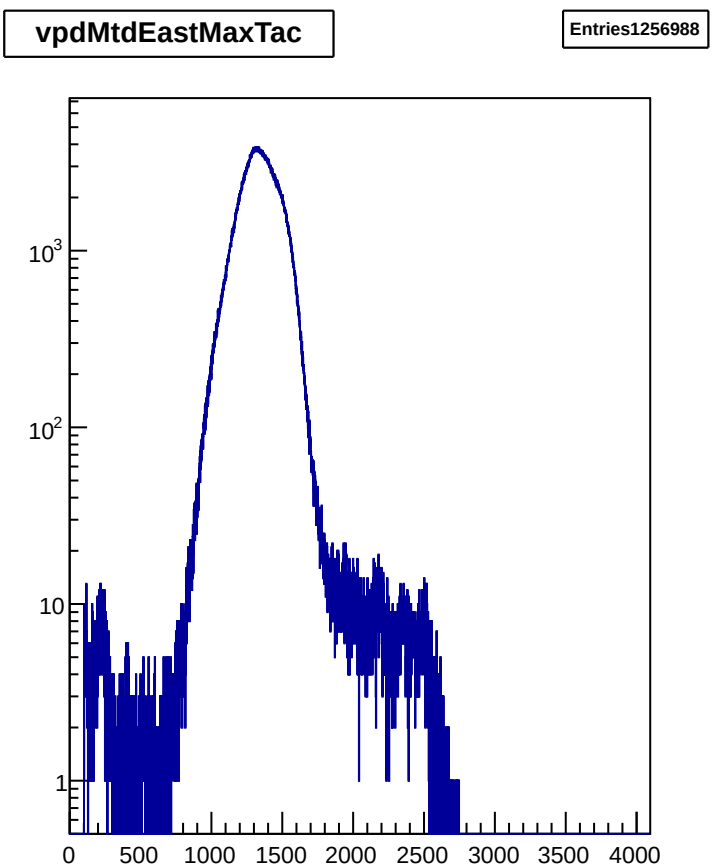
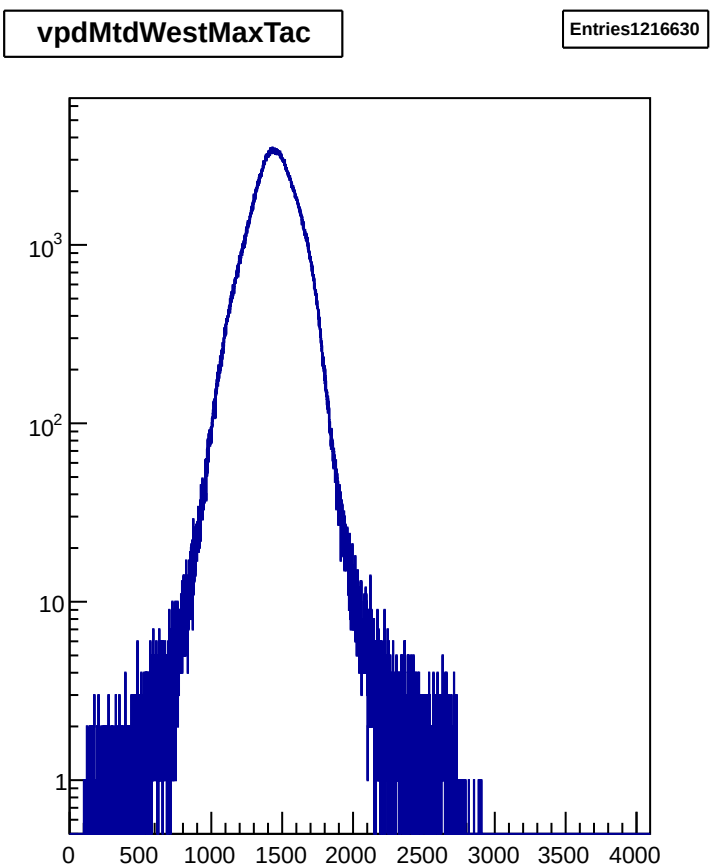
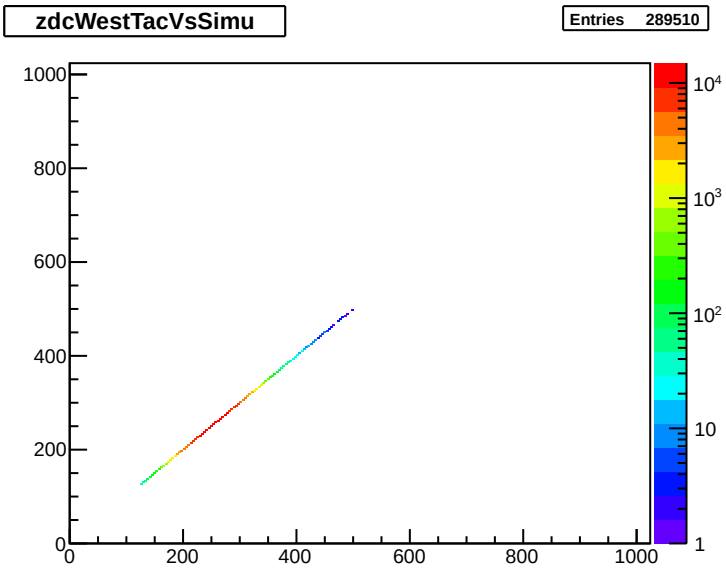
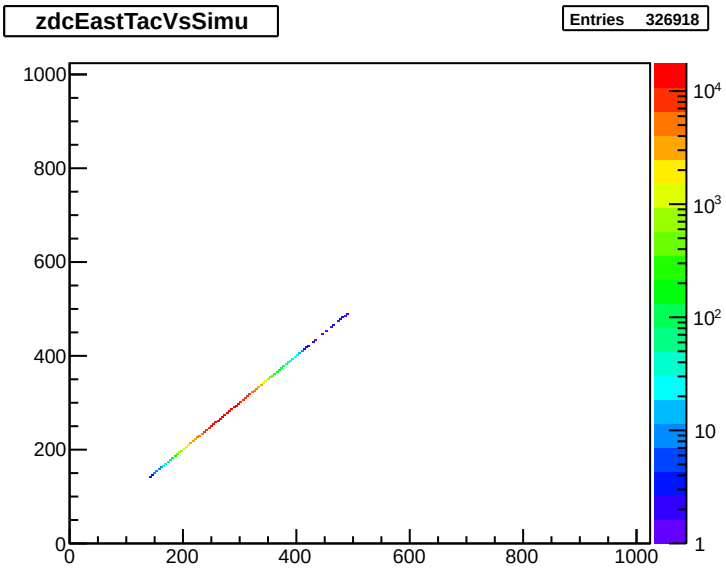
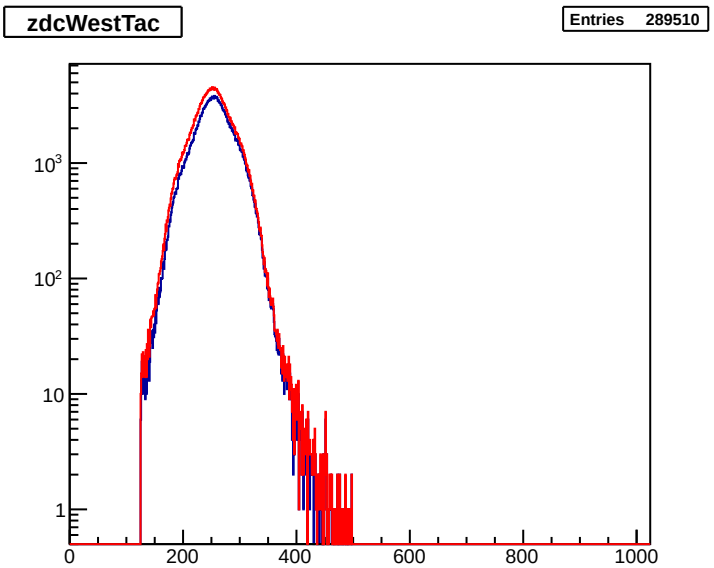
10
1

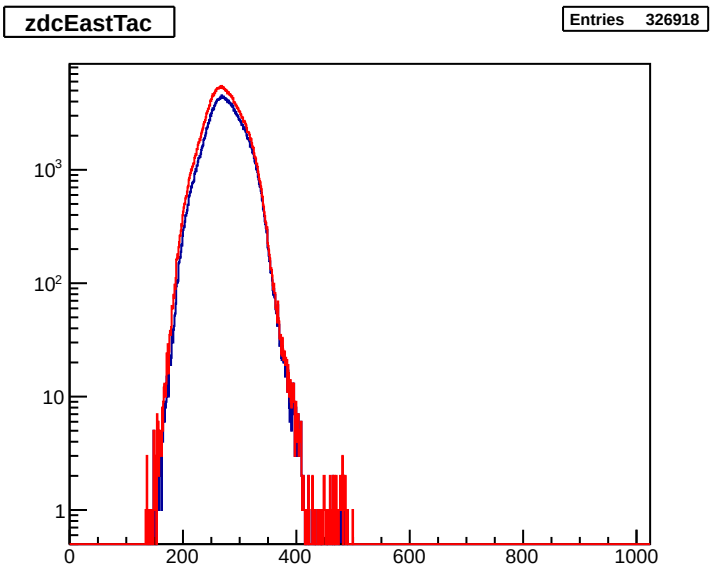

vpdMtdEastMaxTac
Entries1256988
10^3
10^2
10
1
0 500 1000 1500 2000 2500 3000 3500 4000

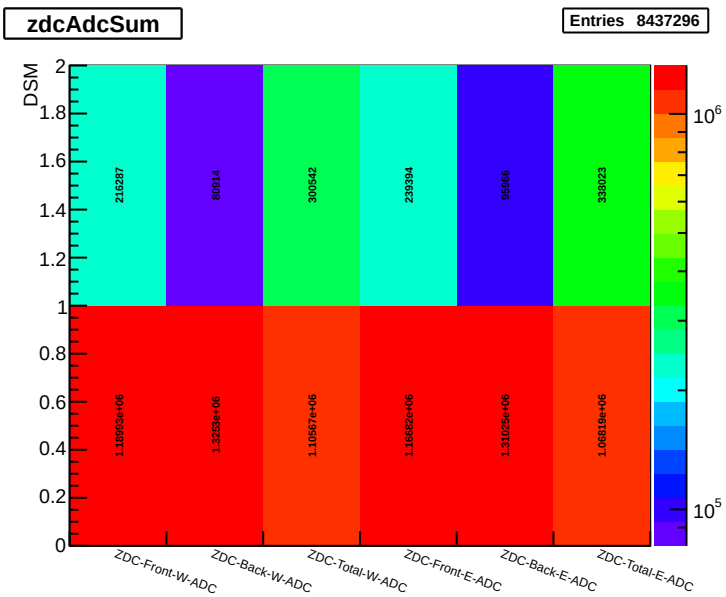

vpdMtdWestMaxTac
Entries1216630
10^3
10^2
10
1
0 500 1000 1500 2000 2500 3000 3500 4000


zdcWestTacVsSimu
Entries 289510


zdcEastTacVsSimu
Entries 326918


zdcWestTac
Entries 289510


zdcEastTac
Entries 326918


zdcAdcSum
Entries 8437296
DSM
216287
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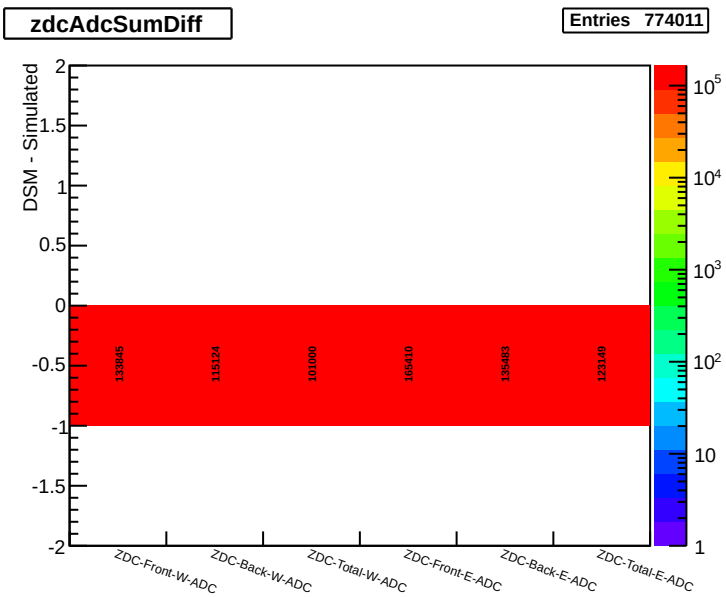
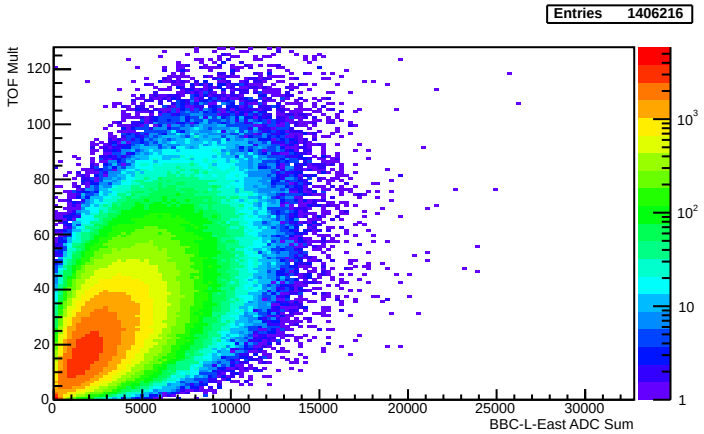
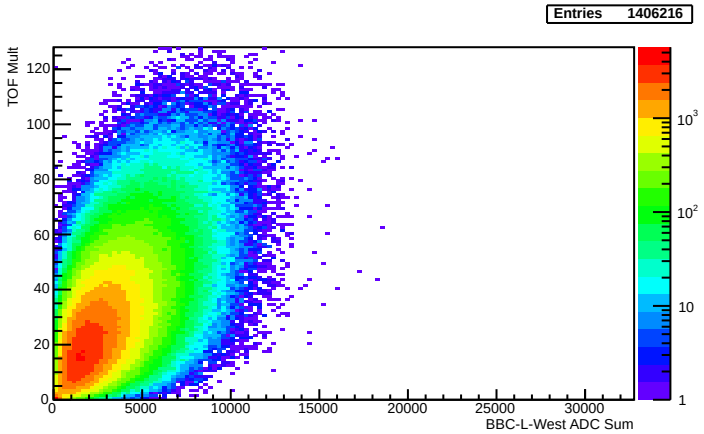
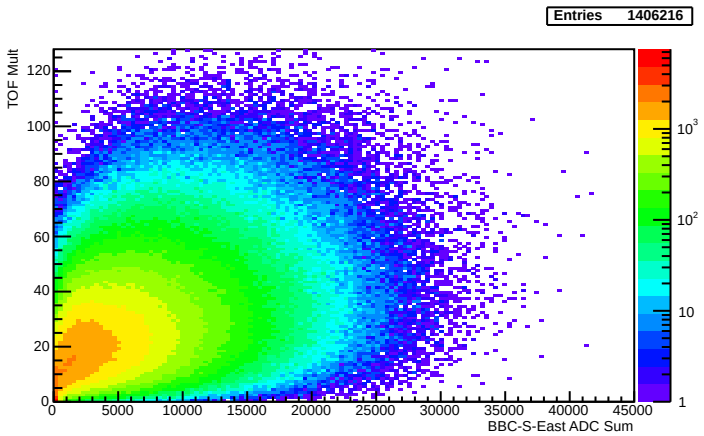
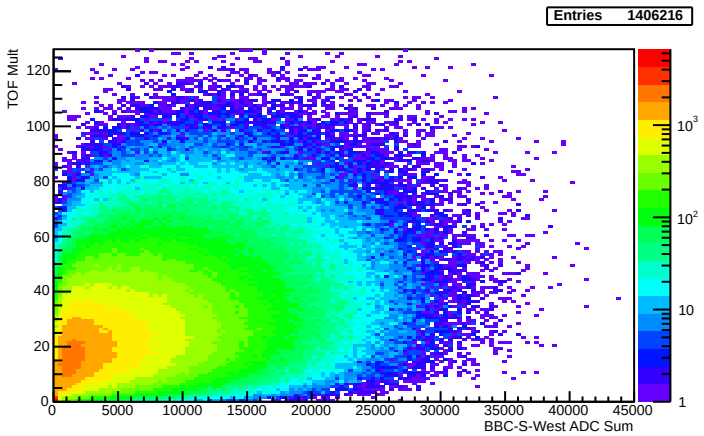
300542
239394
95956
338023
1.18893e+06
1.3253e+06
1.10567e+06
1.16682e+06
1.31025e+06
1.06819e+06
ZDC-Front-W-ADC
ZDC-Back-W-ADC
ZDC-Total-W-ADC
ZDC-Front-E-ADC
ZDC-Back-E-ADC
ZDC-Total-E-ADC

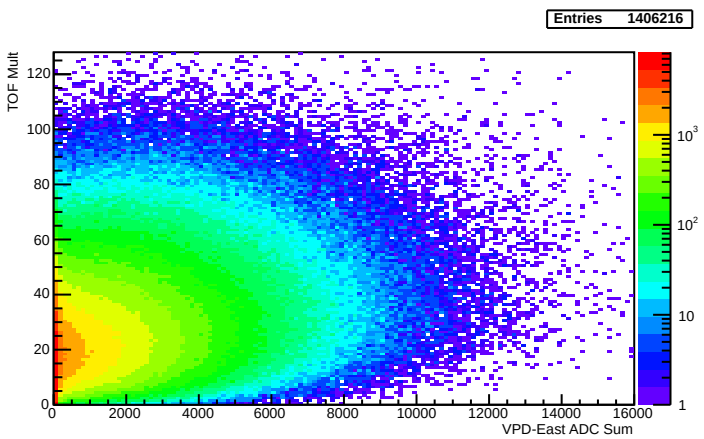

zdcAdcSumDiff
Entries 774011
DSM - Simulated
133845
115124
101000
165410
135483
123149
ZDC-Front-W-ADC
ZDC-Back-W-ADC
ZDC-Total-W-ADC
ZDC-Front-E-ADC
ZDC-Back-E-ADC
ZDC-Total-E-ADC

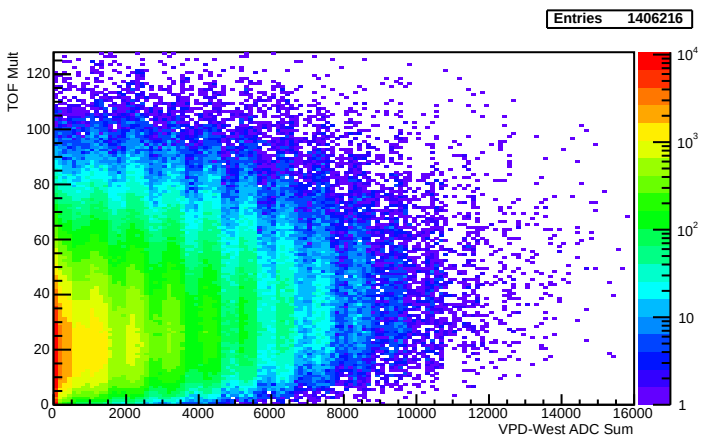

Entries 1406216
TOF Mult
BBC-L-East ADC Sum

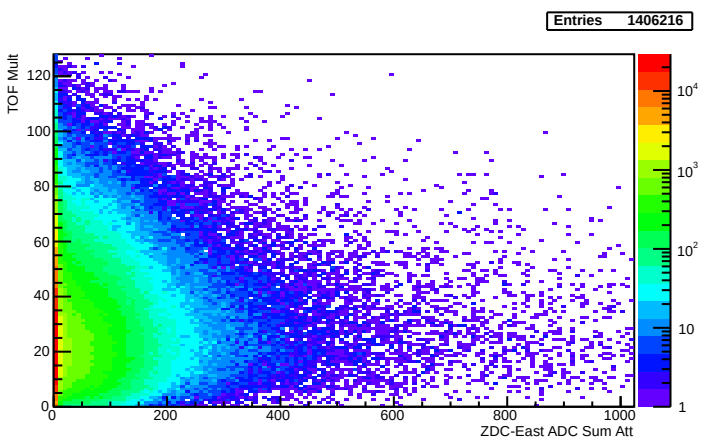

Entries 1406216
TOF Mult
BBC-L-West ADC Sum

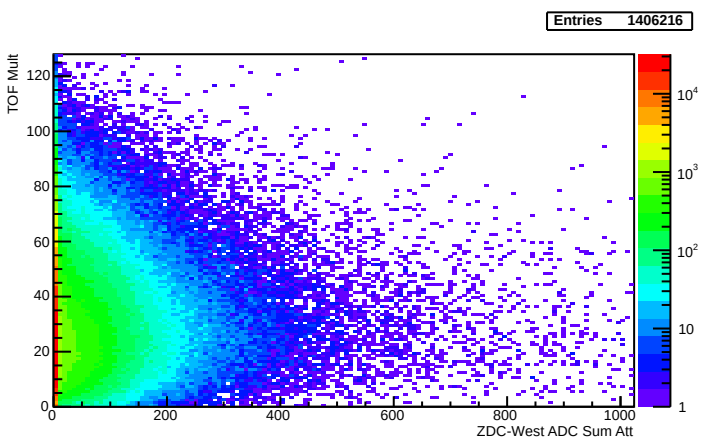

Entries 1406216
TOF Mult
BBC-S-East ADC Sum

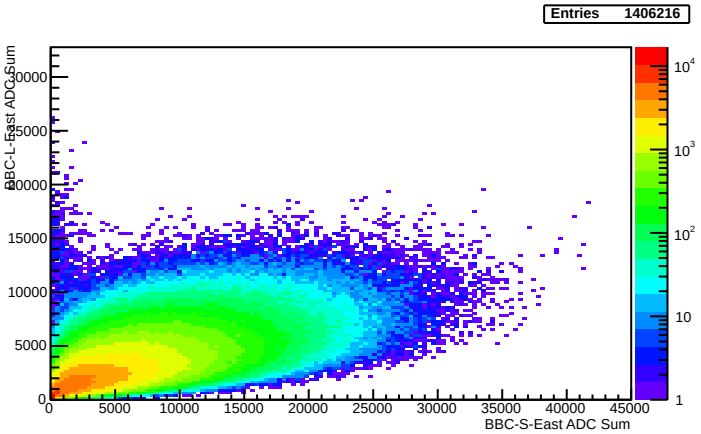

Entries 1406216
TOF Mult
BBC-S-West ADC Sum

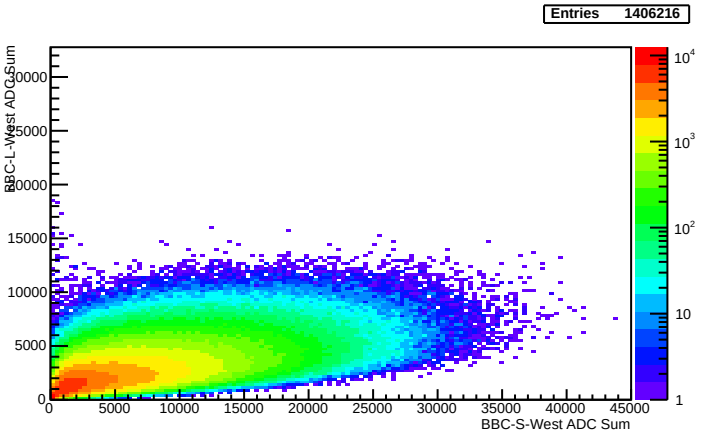

Entries 1406216
TOF Mult
VPD-East ADC Sum

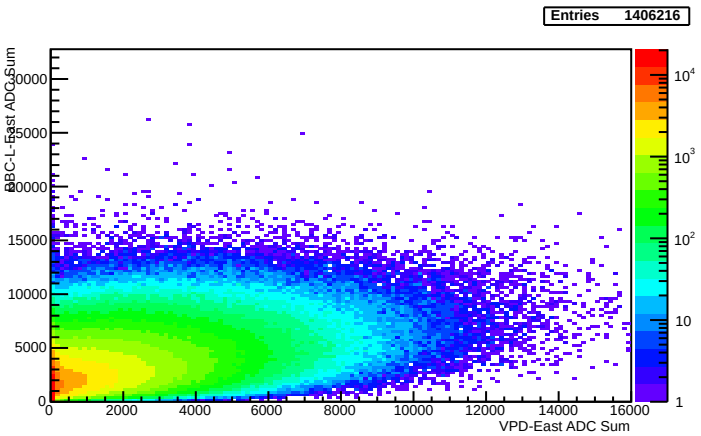

Entries 1406216
TOF Mult
VPD-West ADC Sum

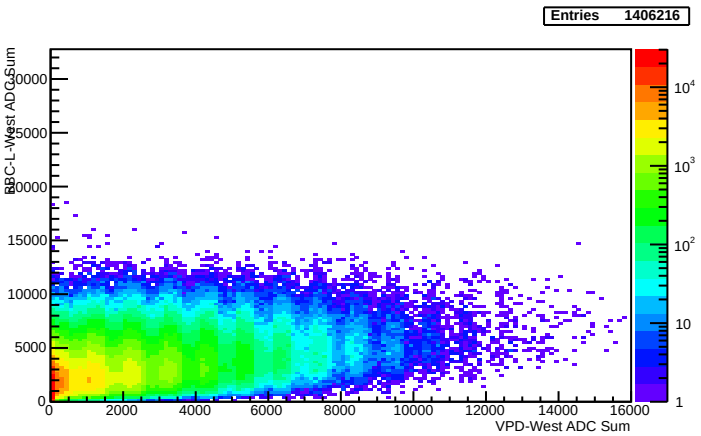

Entries 1406216
TOF Mult
ZDC-East ADC Sum Att

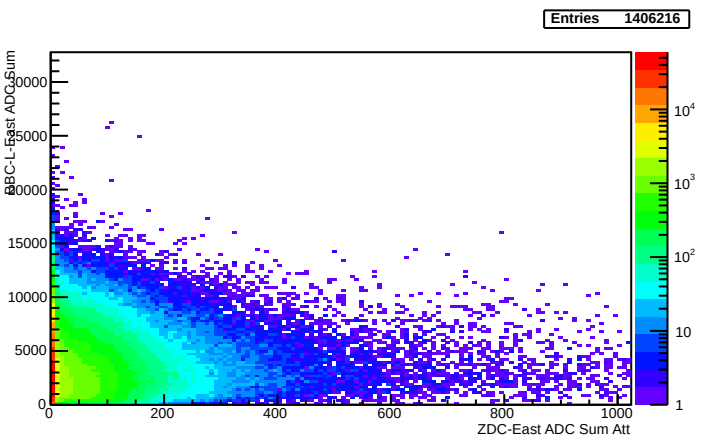

Entries 1406216
TOF Mult
ZDC-West ADC Sum Att

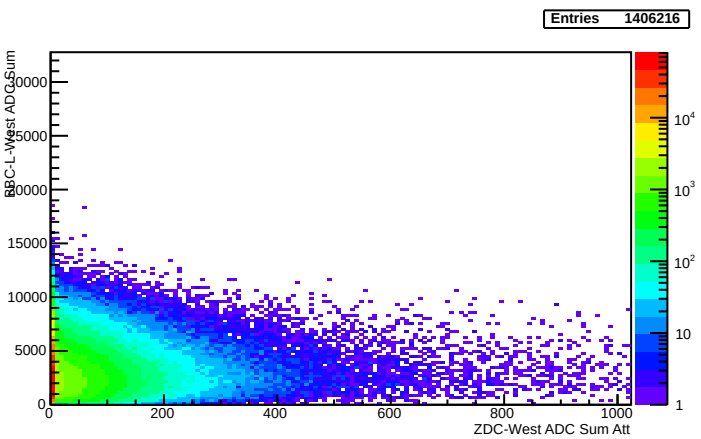

Entries 1406216
BBC-L-East ADC Sum
BBC-S-East ADC Sum

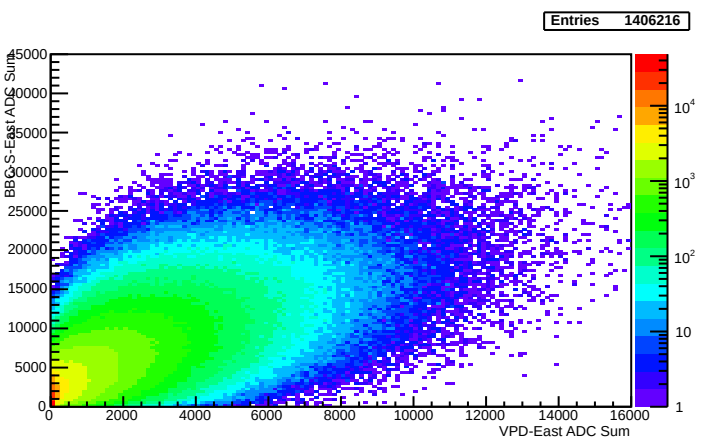

Entries 1406216
BBC-L-West ADC Sum
BBC-S-West ADC Sum

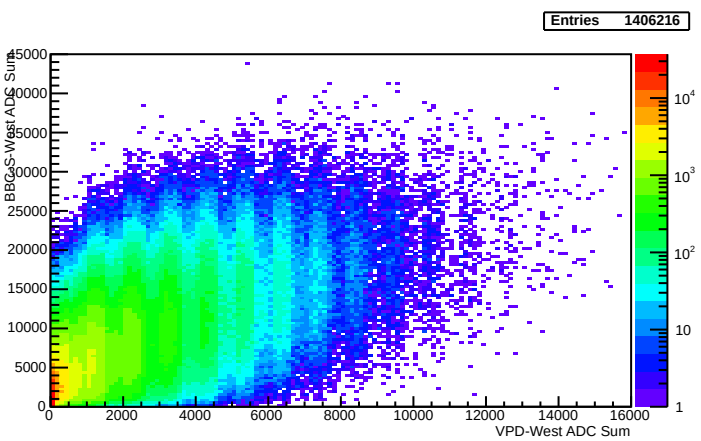

Entries 1406216
BBC-L-East ADC Sum
VPD-East ADC Sum

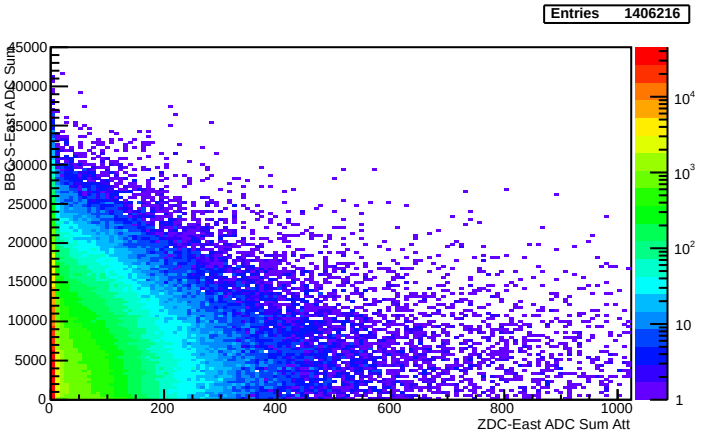

Entries 1406216
BBC-L-West ADC Sum
VPD-West ADC Sum

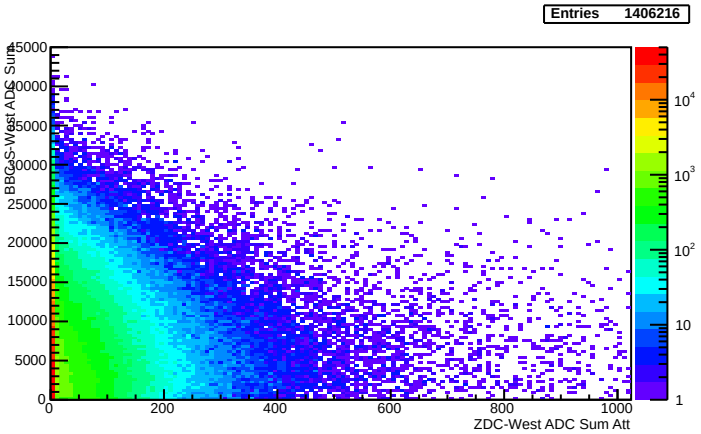

Entries 1406216
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

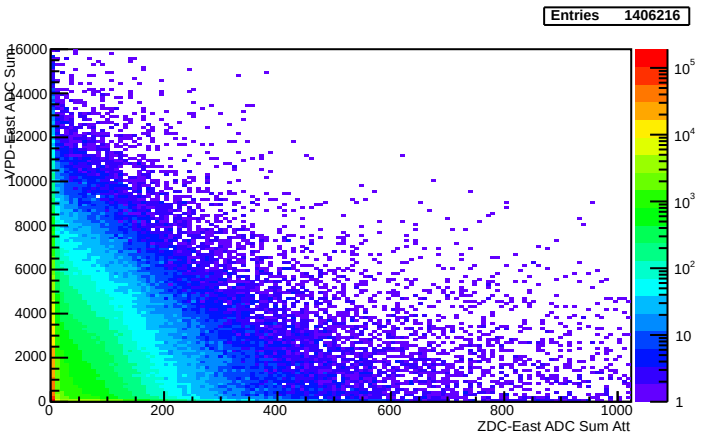

Entries 1406216
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

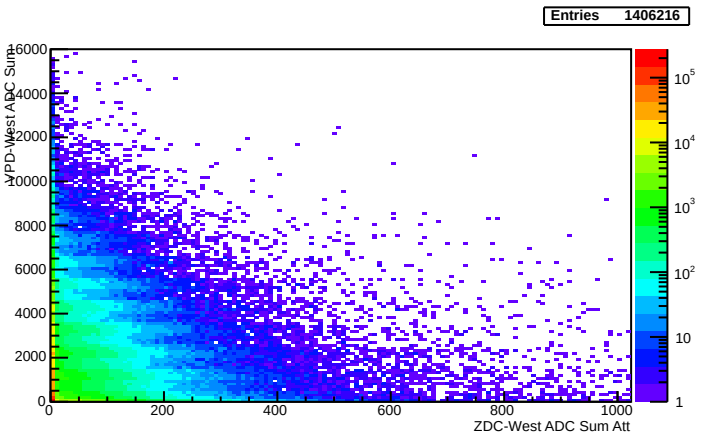

Entries 1406216
BBC-S-East ADC Sum
VPD-East ADC Sum

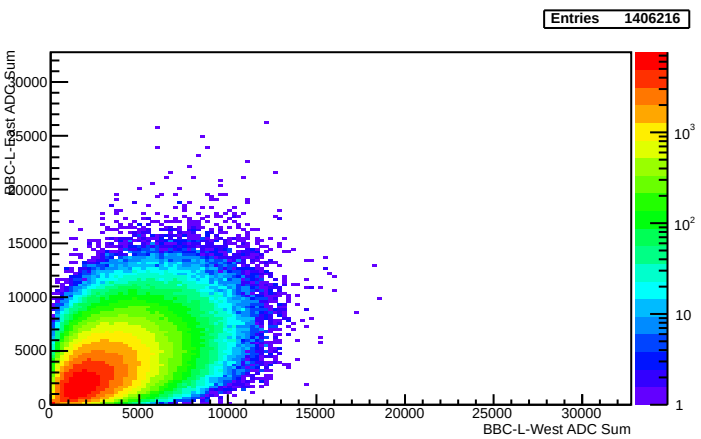

Entries 1406216
BBC-S-West ADC Sum
VPD-West ADC Sum


Entries 1406216
BBC-S-East ADC Sum
ZDC-East ADC Sum Att


Entries 1406216
BBC-S-West ADC Sum
ZDC-West ADC Sum Att


Entries 1406216
VPD-East ADC Sum
ZDC-East ADC Sum Att


Entries 1406216
VPD-West ADC Sum
ZDC-West ADC Sum Att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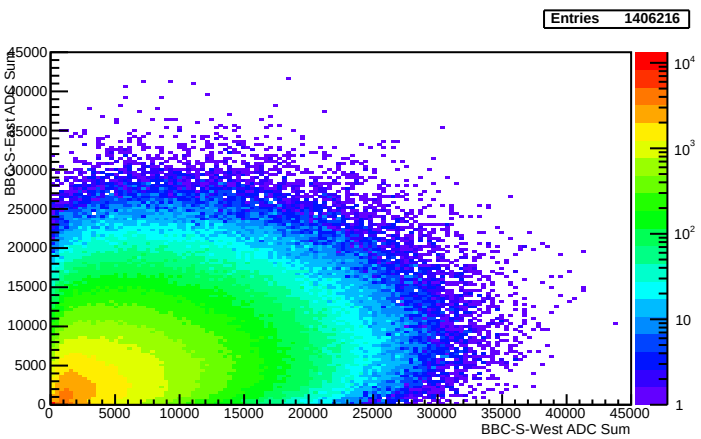
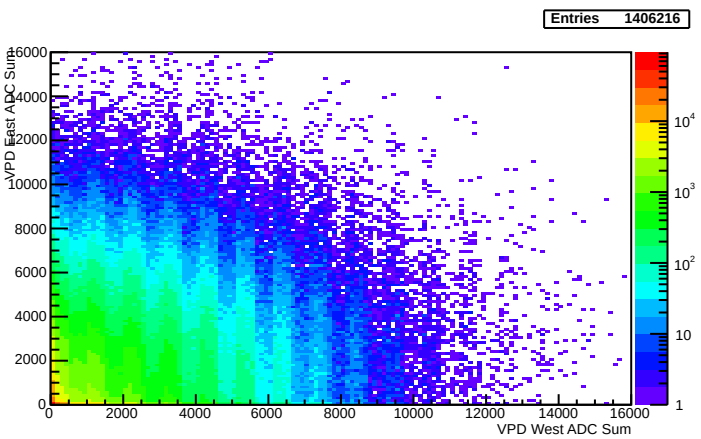
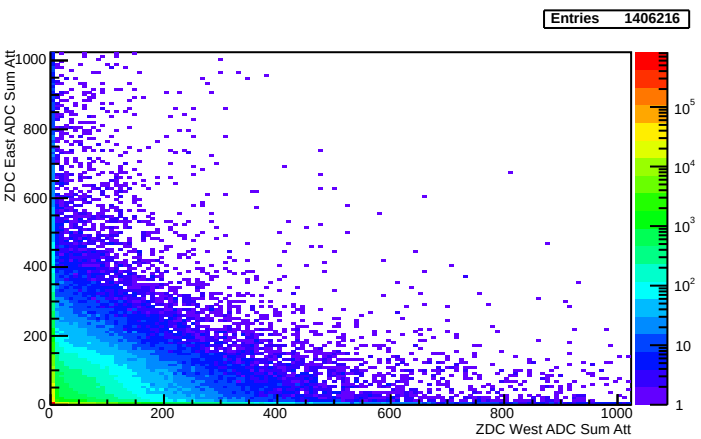
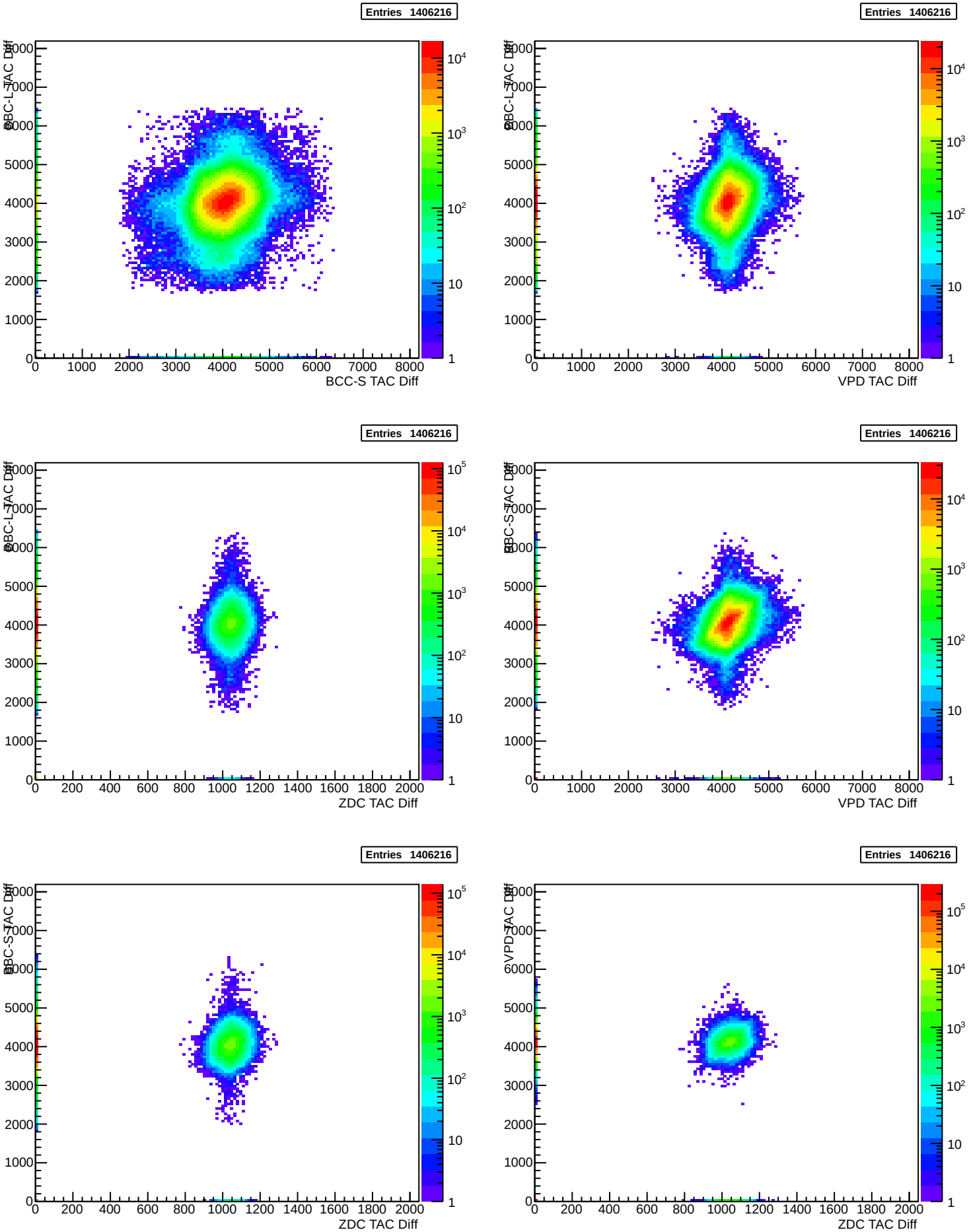
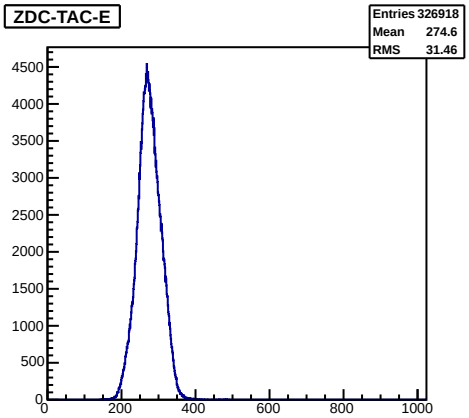
BBC-L-East ADC Sum
BBC-L-West ADC Sum

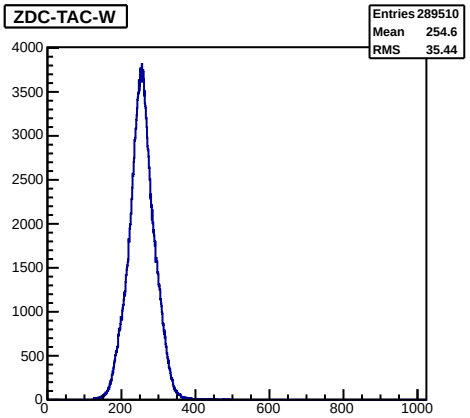

Entries 1406216
BBC-S-East ADC Sum
BBC-S-West ADC Sum

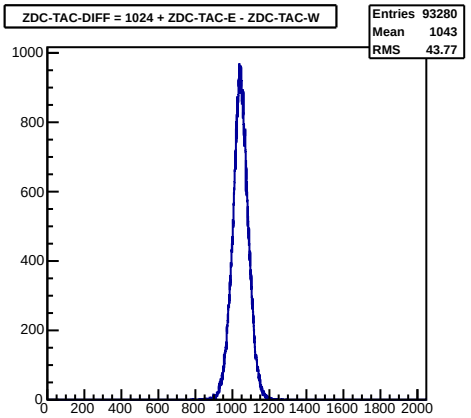

Entries 1406216
VPD East ADC Sum
VPD West ADC Sum

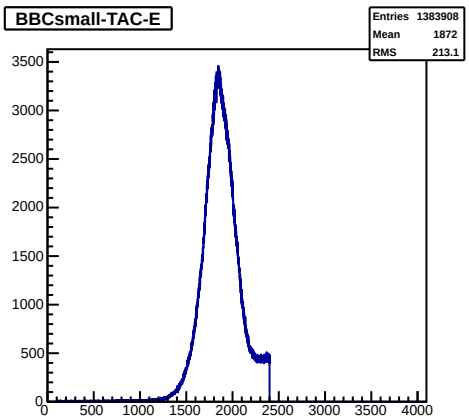

Entries 1406216
ZDC East ADC Sum Att
ZDC West ADC Sum Att

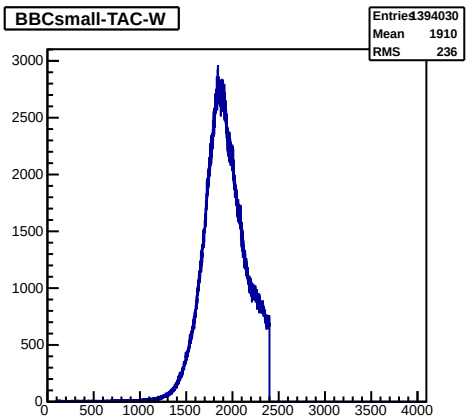

Entries 1406216
BBC-L TAC Diff
BCC-S TAC Diff
Entries 1406216
BBC-L TAC Diff
VPD TAC Diff
Entries 1406216
BBC-L TAC Diff
ZDC TAC Diff
Entries 1406216
BBC-S TAC Diff
VPD TAC Diff
Entries 1406216
BBC-S TAC Diff
ZDC TAC Diff
Entries 1406216
VPD TAC Diff
ZDC TAC Diff

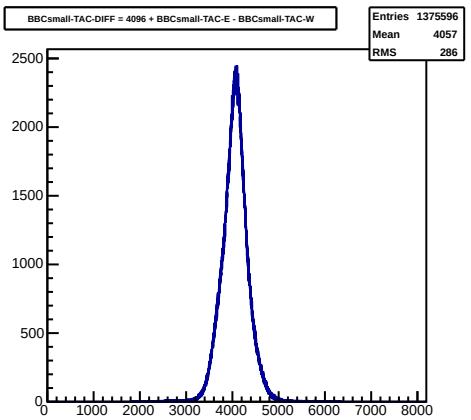

ZDC-TAC-E
Entries 326918
Mean 274.6
RMS 31.46

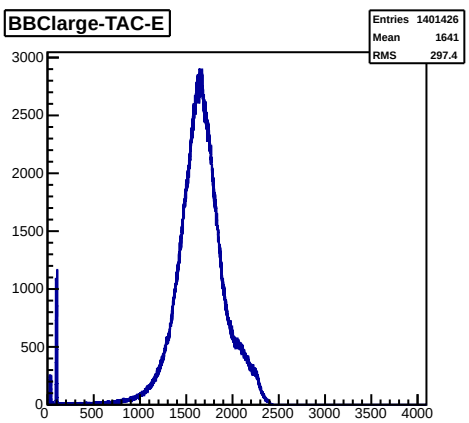

ZDC-TAC-W
Entries 289510
Mean 254.6
RMS 35.44

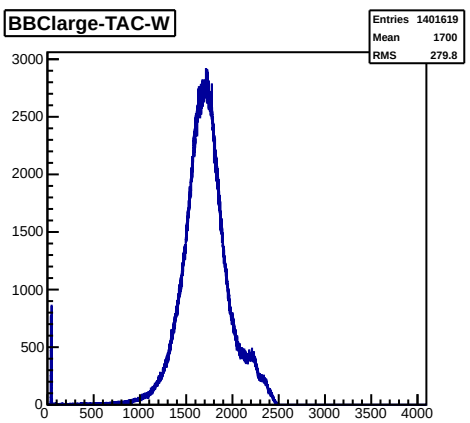

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 93280
Mean 1043
RMS 43.77

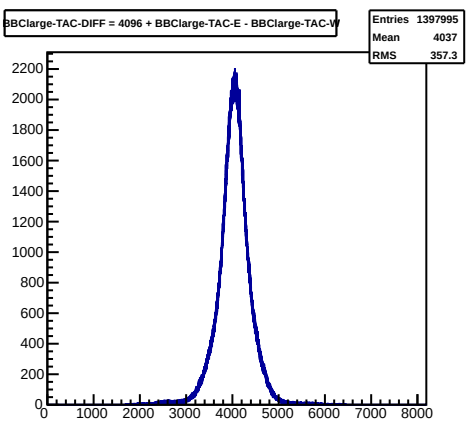

BBCsmall-TAC-E
Entries 1383908
Mean 1872
RMS 213.1

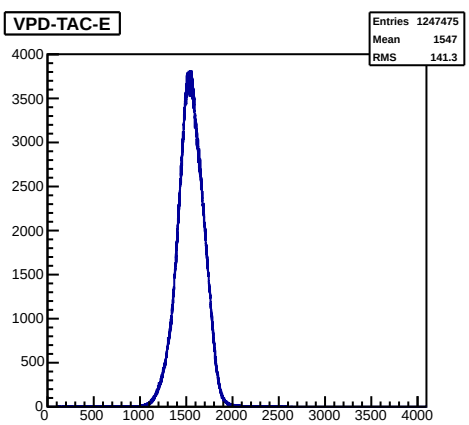

BBCsmall-TAC-W
Entries 1394030
Mean 1910
RMS 236

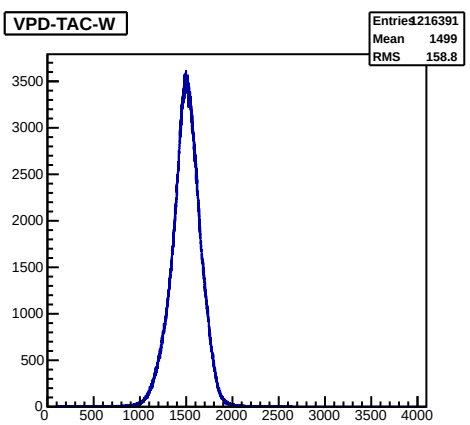

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 1375596
Mean 4057
RMS 286

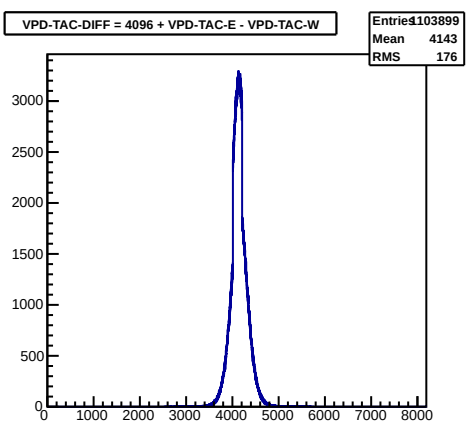

BBClarge-TAC-E
Entries 1401426
Mean 1641
RMS 297.4

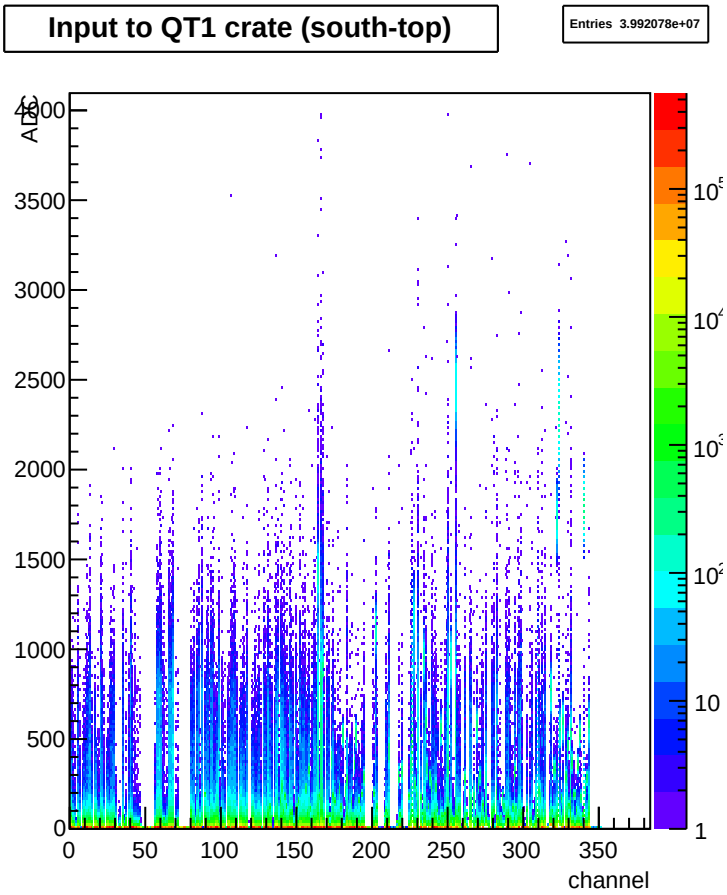

BBClarge-TAC-W
Entries 1401619
Mean 1700
RMS 279.8

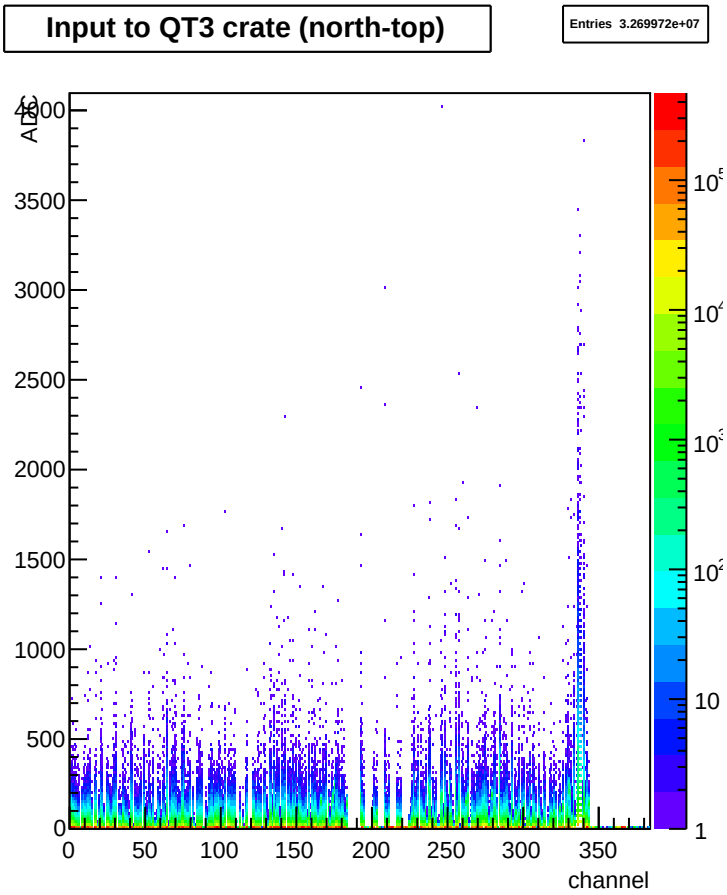

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 1397995
Mean 4037
RMS 357.3

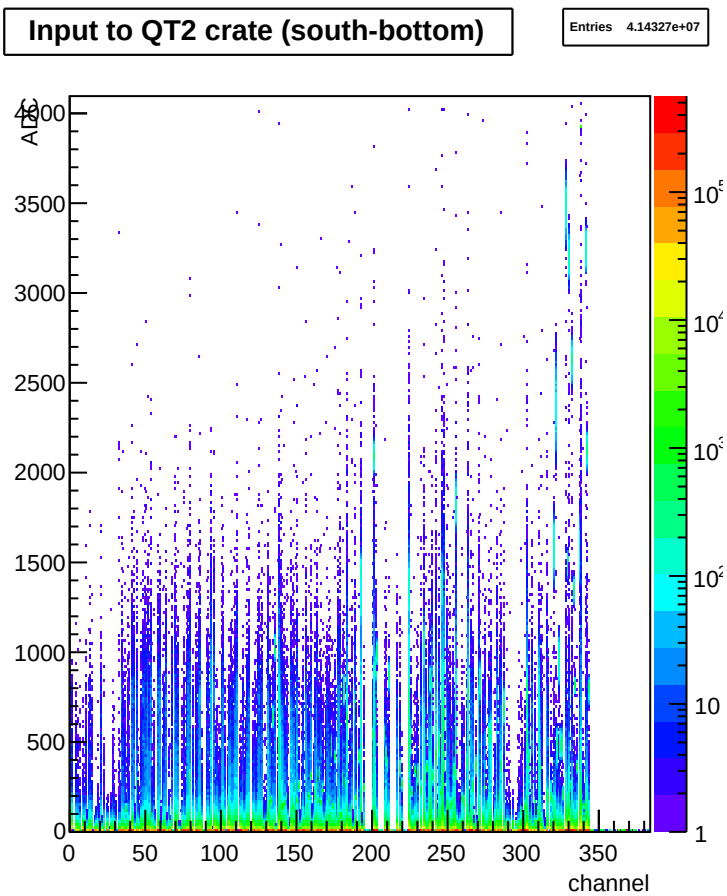

VPD-TAC-E
Entries 1247475
Mean 1547
RMS 141.3

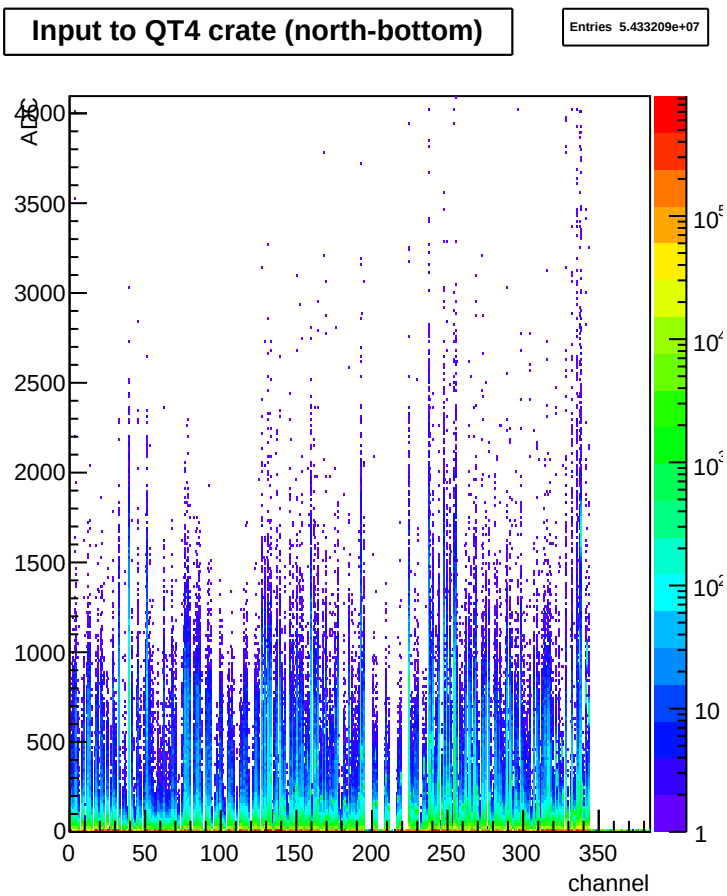

VPD-TAC-W
Entries 1216391
Mean 1499
RMS 158.8

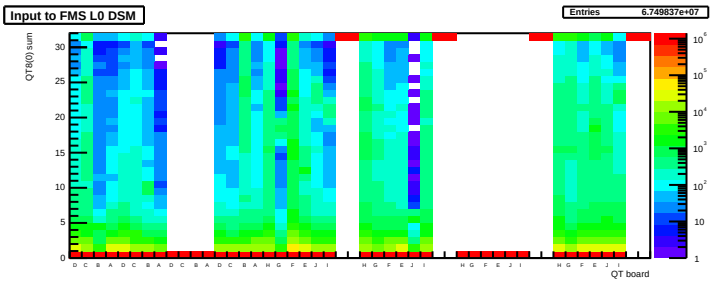

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 1103899
Mean 4143
RMS 176

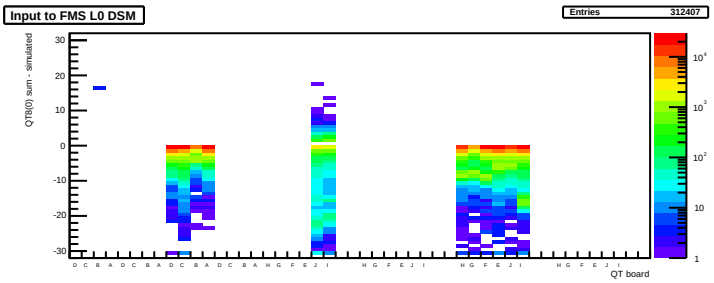

Input to QT1 crate (south-top)
Entries 3.992078e+07
ADC
channel

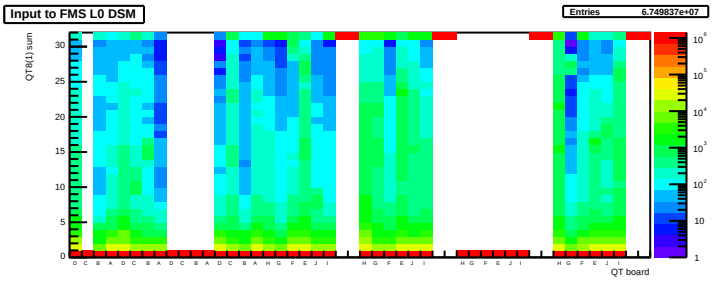

Input to QT3 crate (north-top)
Entries 3.269972e+07
ADC
channel

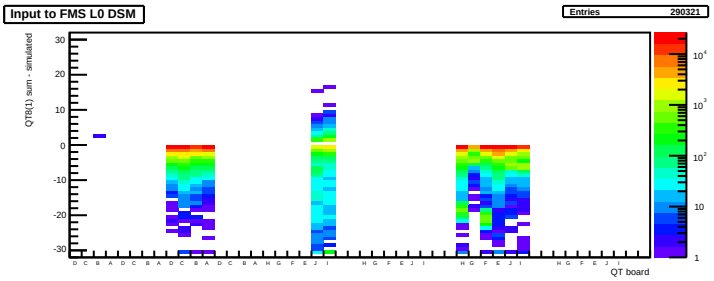

Input to QT2 crate (south-bottom)
Entries 4.14327e+07
ADC
channel

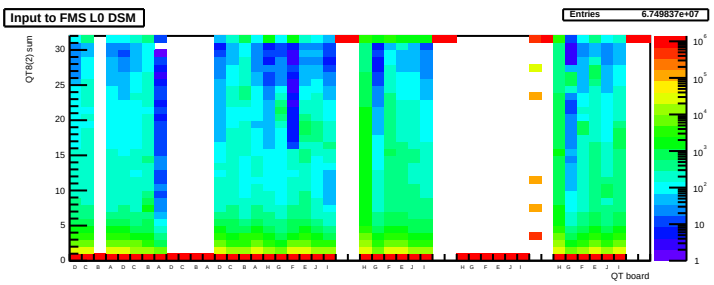

Input to QT4 crate (north-bottom)
Entries 5.433209e+07
ADC
channel

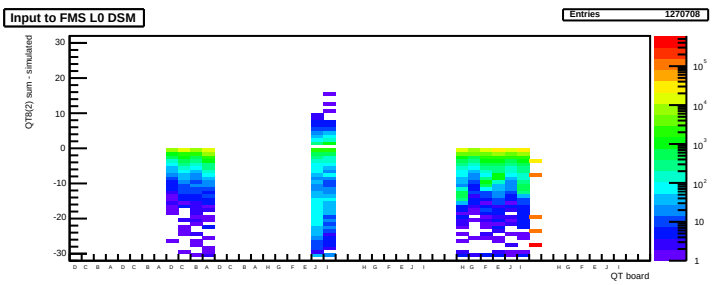

Input to FMS L0 DSM
Entries 6.749837e+07
QT8(0) sum
QT board

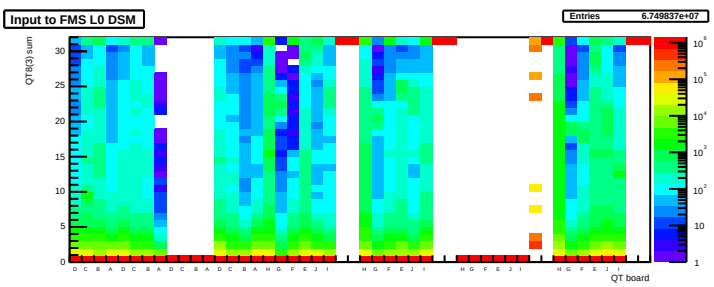

Input to FMS L0 DSM
Entries 312407
QT8(0) sum - simulated
QT board

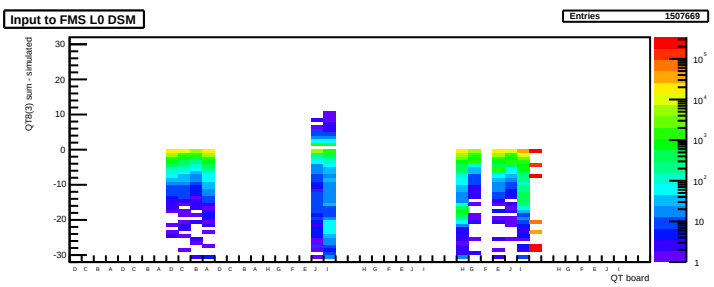

Input to FMS L0 DSM
Entries 6.749837e+07
QT8(1) sum
QT board

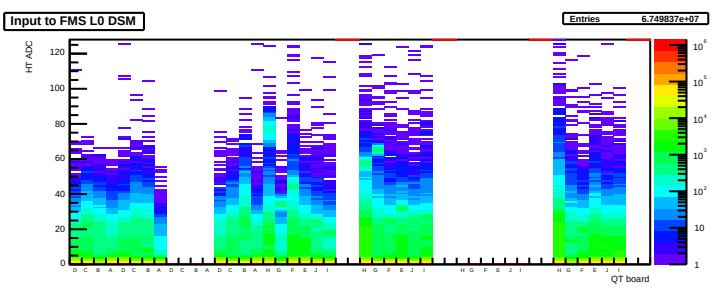

Input to FMS L0 DSM
Entries 290321
QT8(1) sum - simulated
QT board

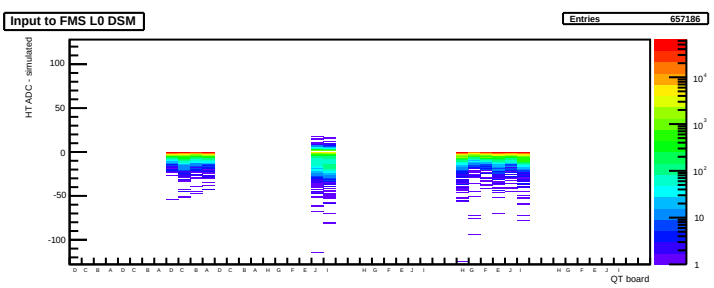

Input to FMS L0 DSM
Entries 6.749837e+07
QT8(2) sum
QT board

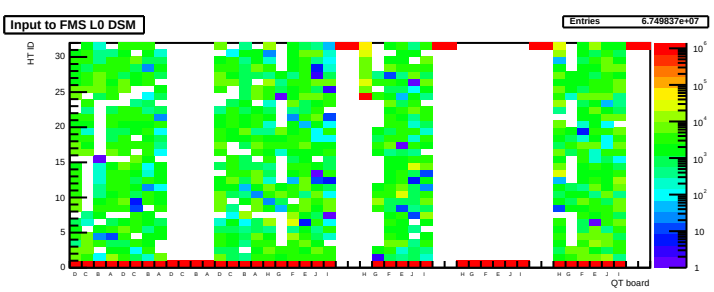

Input to FMS L0 DSM
Entries 1270708
QT8(2) sum - simulated
QT board

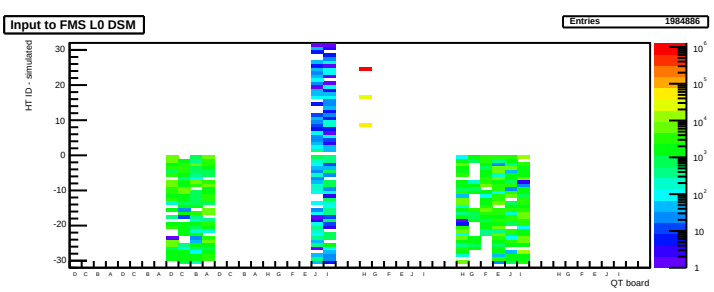

Input to FMS L0 DSM
Entries 6.749837e+07
QT8(3) sum
QT board

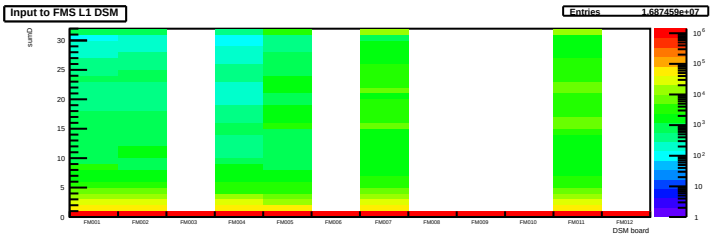

Input to FMS L0 DSM
Entries 1507669
QT8(3) sum - simulated
QT board

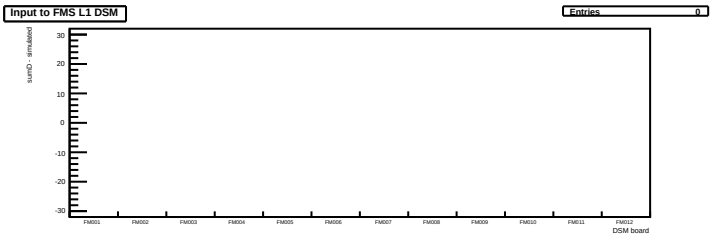

Input to FMS L0 DSM
Entries 6.749837e+07
HT ADC
QT board

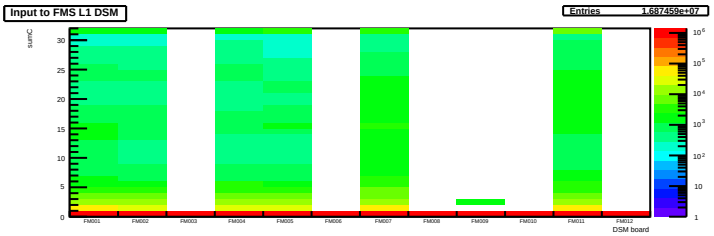

Input to FMS L0 DSM
Entries 657186
HT ADC - simulated
QT board

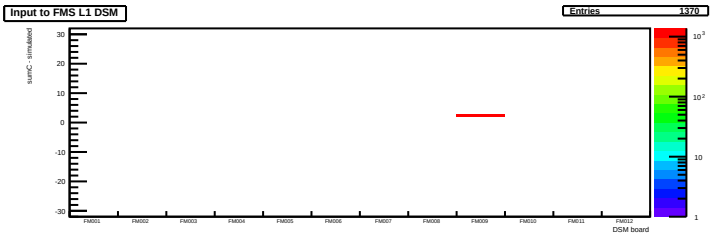

Input to FMS L0 DSM
Entries 6.749837e+07
HT ID
QT board

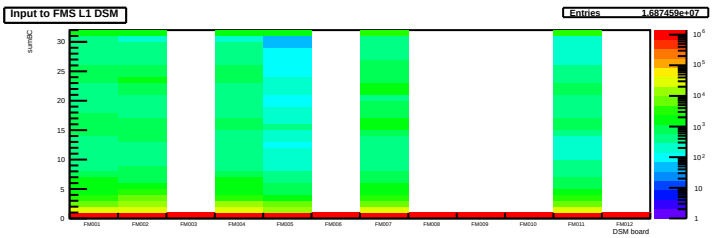

Input to FMS L0 DSM
Entries 1984886
HT ID - simulated
QT board

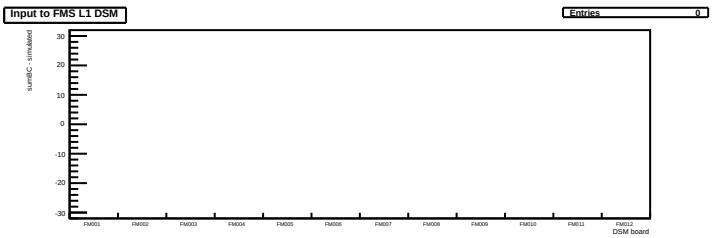

Input to FMS L1 DSM
Entries 1.687459e+07
sumD
DSM board

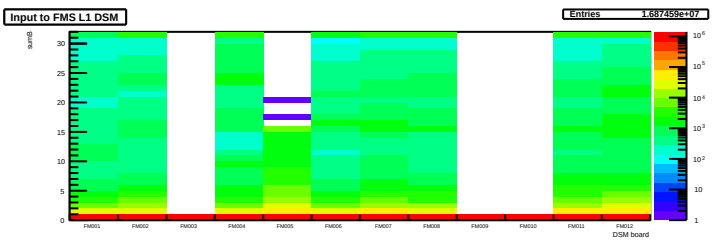

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

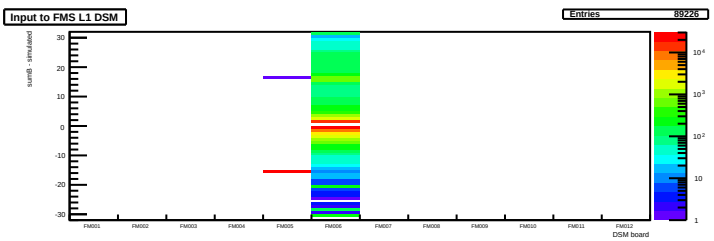

Input to FMS L1 DSM
Entries 1.687459e+07
sumC
DSM board

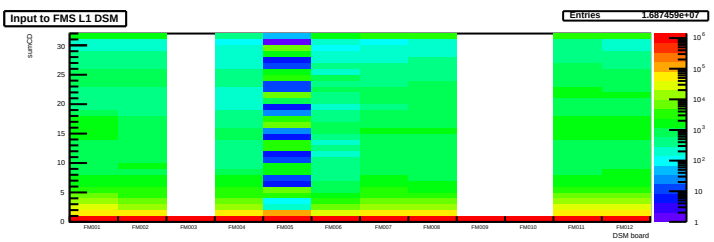

Input to FMS L1 DSM
Entries 1370
sumC - simulated
DSM board

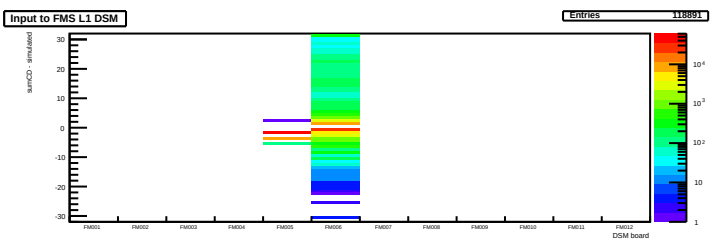

Input to FMS L1 DSM
Entries 1.687459e+07
sumBC
DSM board

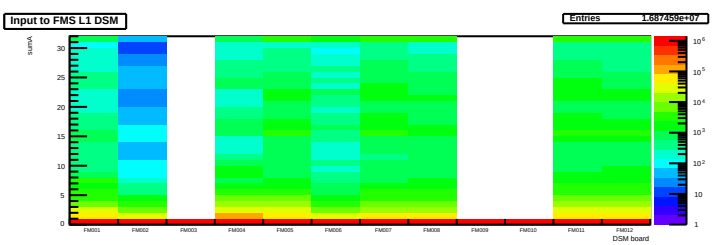

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

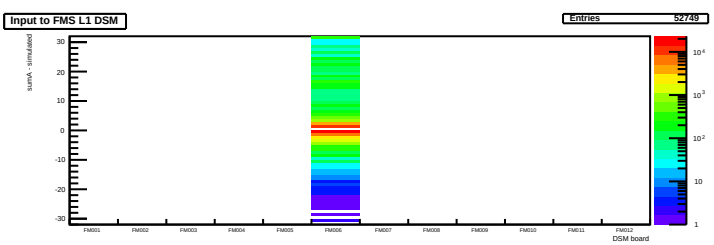

Input to FMS L1 DSM
Entries 1.687459e+07
sumB
DSM board

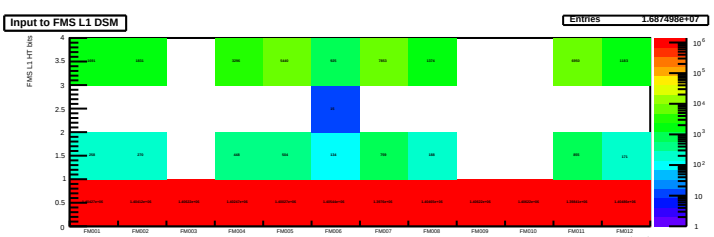

Input to FMS L1 DSM
Entries 89226
sumB - simulated
DSM board

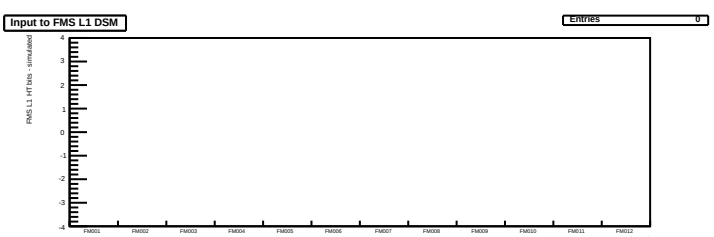

Input to FMS L1 DSM
Entries 1.687459e+07
sumCD
DSM board

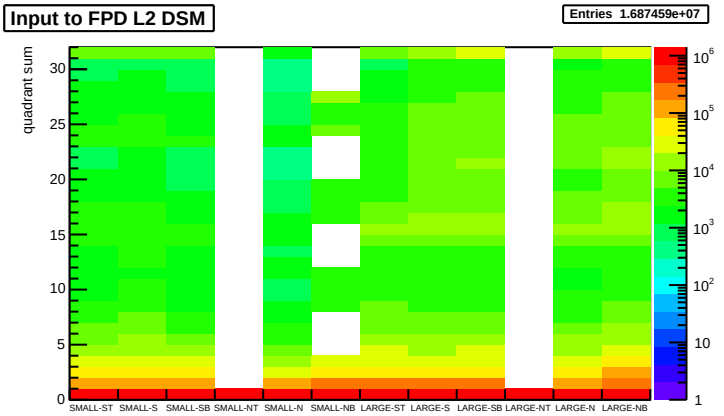

Input to FMS L1 DSM
Entries 118891
sumCD - simulated
DSM board

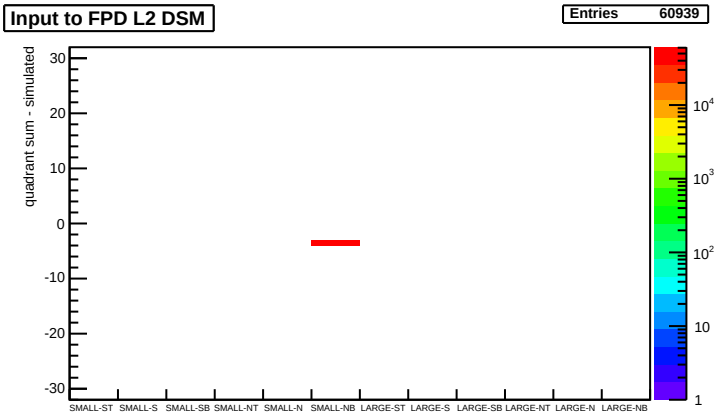

Input to FMS L1 DSM
Entries 1.687459e+07
sumA
DSM board

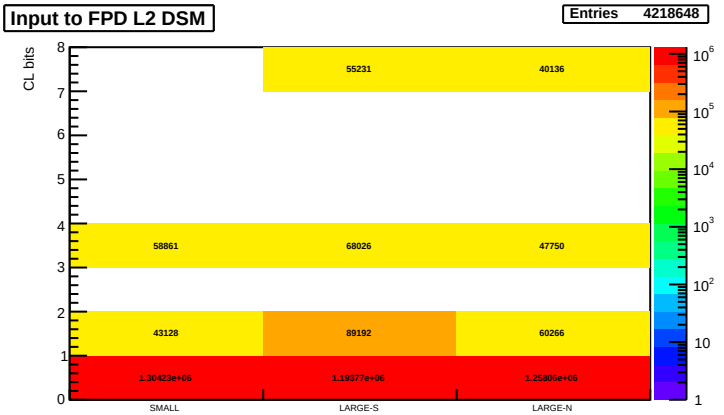

Input to FMS L1 DSM
Entries 52749
sumA - simulated
DSM board

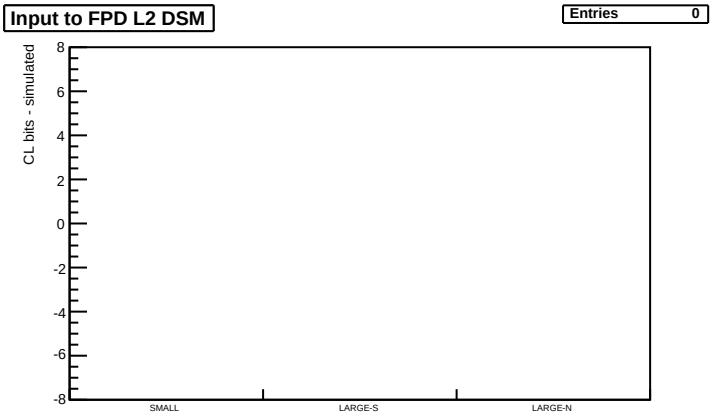

Input to FMS L1 DSM
Entries 1.687498e+07
FMS L1 HT bits
DSM board

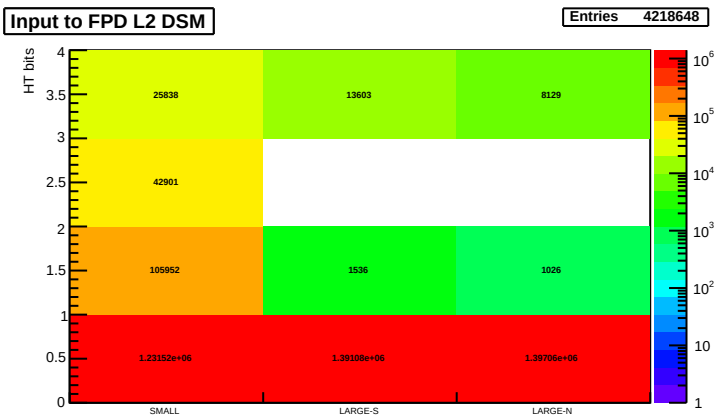

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

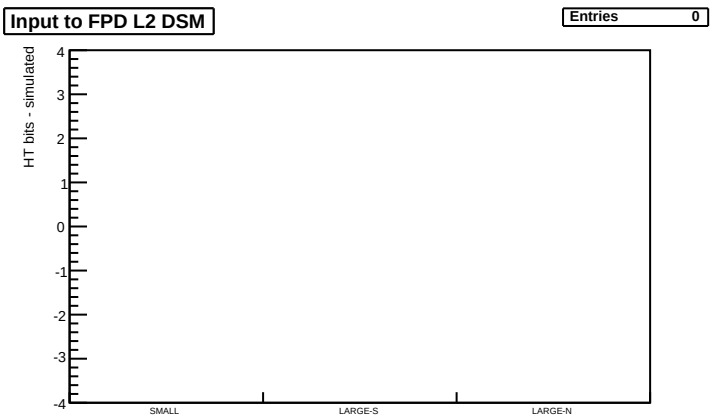

Input to FPD L2 DSM
Entries 1.687459e+07
quadrant sum
SMALL-ST SMALL-S SMALL-SB SMALL-NT SMALL-N SMALL-NB LARGE-ST LARGE-S LARGE-SB LARGE-NT LARGE-N LARGE-NB

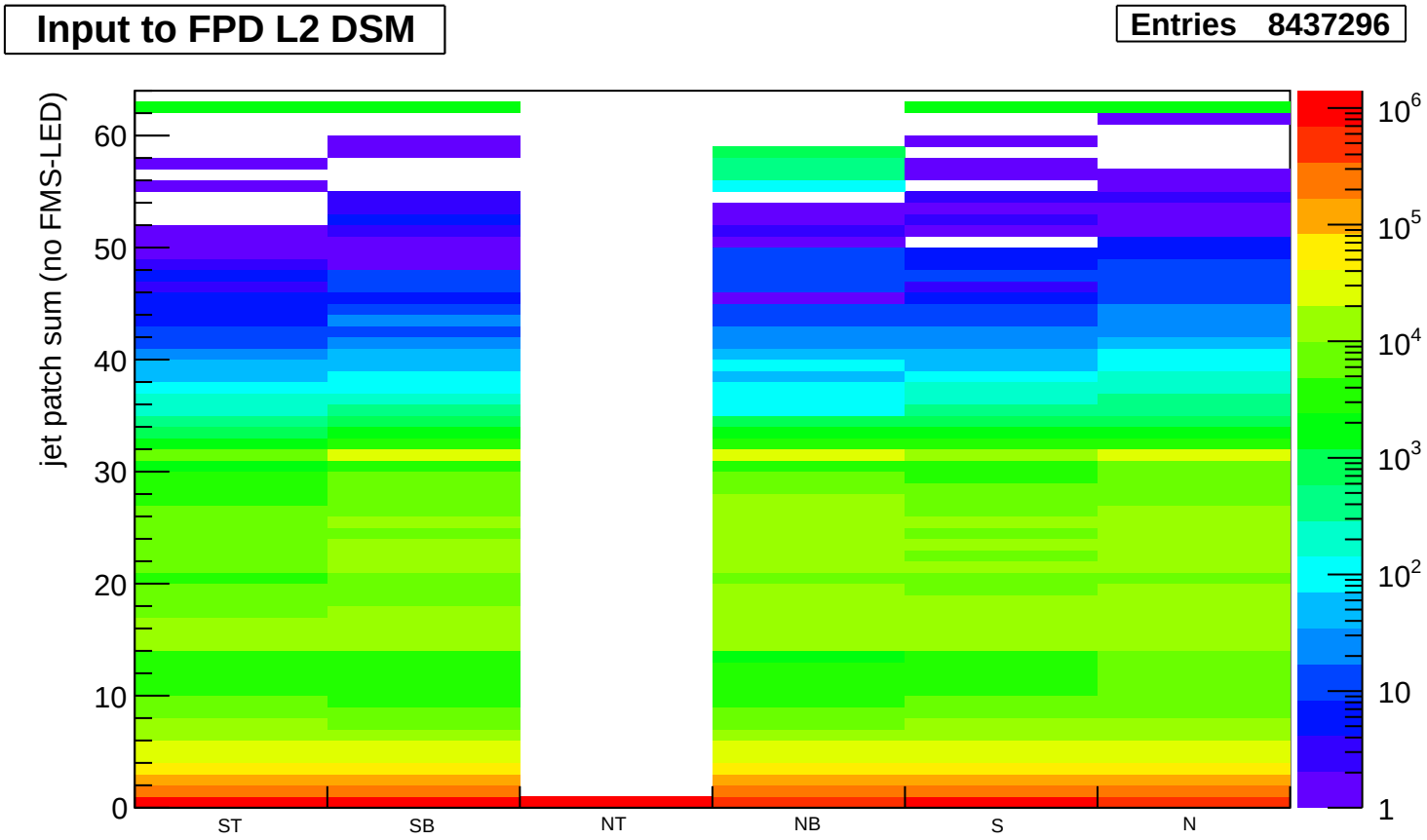

Input to FPD L2 DSM
Entries 60939
quadrant sum - simulated
SMALL-ST SMALL-S SMALL-SB SMALL-NT SMALL-N SMALL-NB LARGE-ST LARGE-S LARGE-SB LARGE-NT LARGE-N LARGE-NB

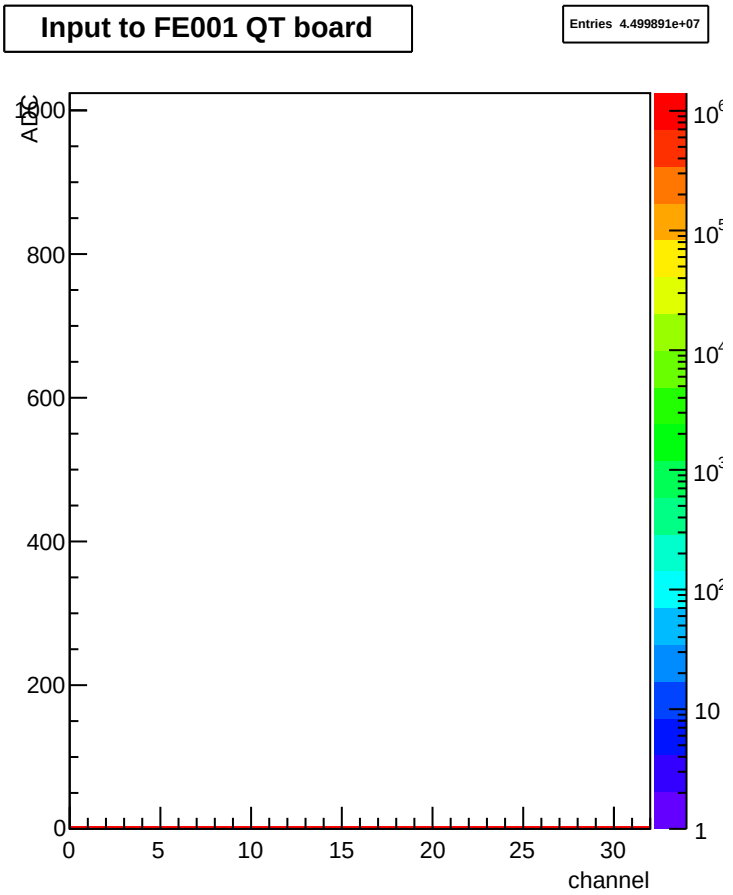

Input to FPD L2 DSM
Entries 4218648
CL bits
55231
40136
58861
68026
47750
43128
89192
60266
1.30423e+06
1.19377e+06
1.25806e+06
SMALL
LARGE-S
LARGE-N

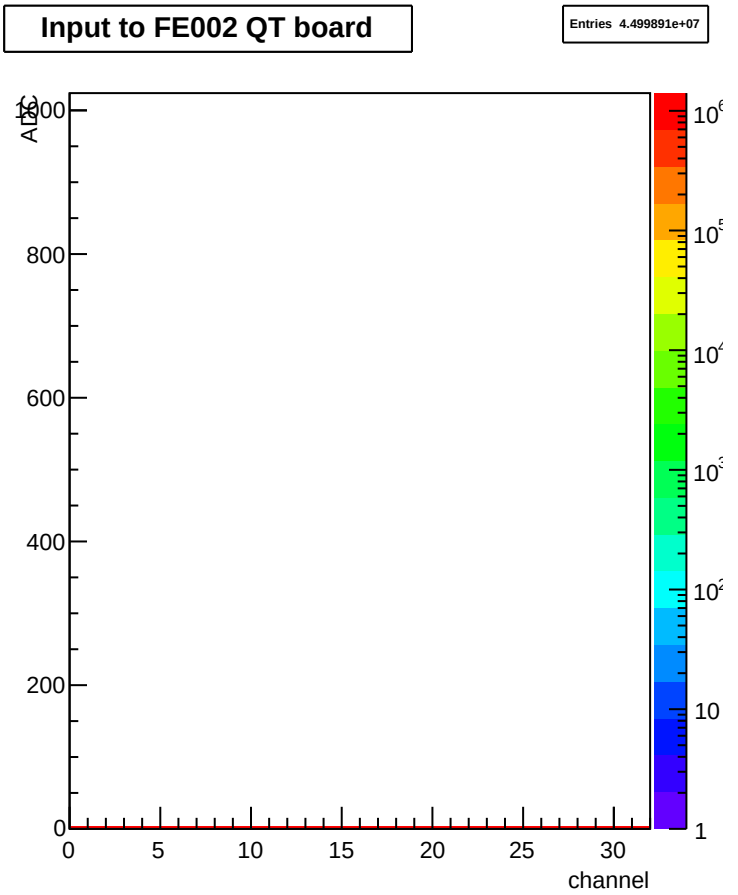

Input to FPD L2 DSM
Entries 0
CL bits - simulated
SMALL
LARGE-S
LARGE-N

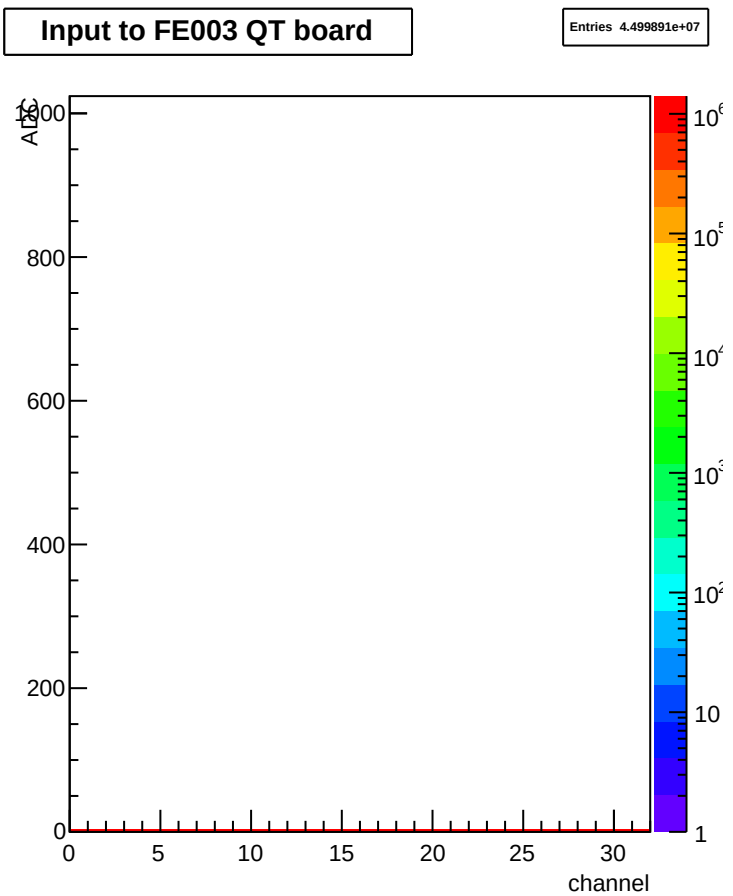

Input to FPD L2 DSM
Entries 4218648
HT bits
25838
13603
8129
42901
105952
1536
1026
1.23152e+06
1.39108e+06
1.39706e+06
SMALL
LARGE-S
LARGE-N

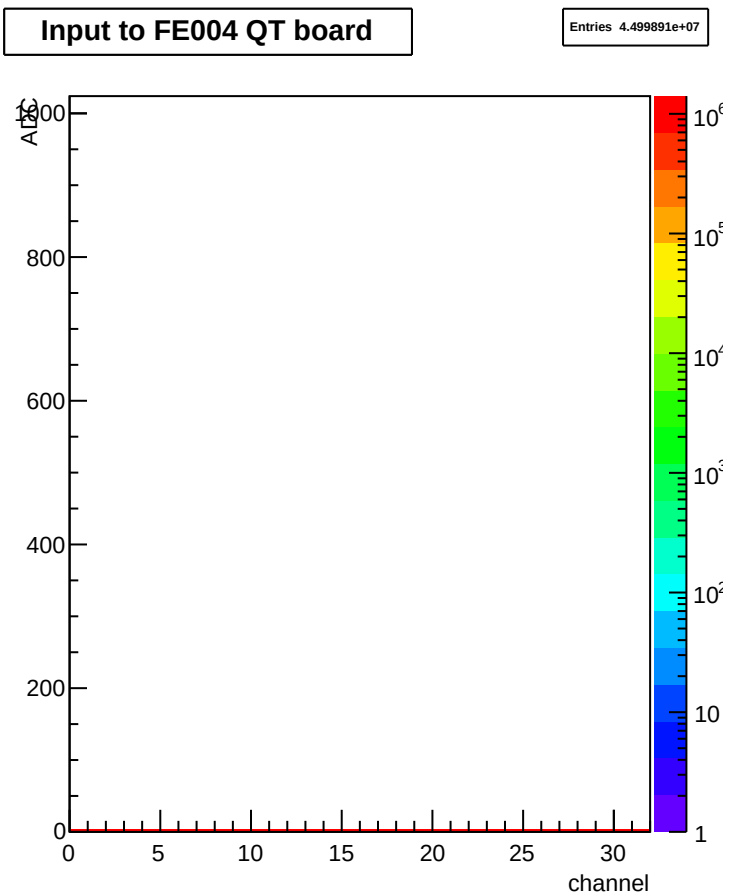

Input to FPD L2 DSM
Entries 0
HT bits - simulated
SMALL
LARGE-S
LARGE-N

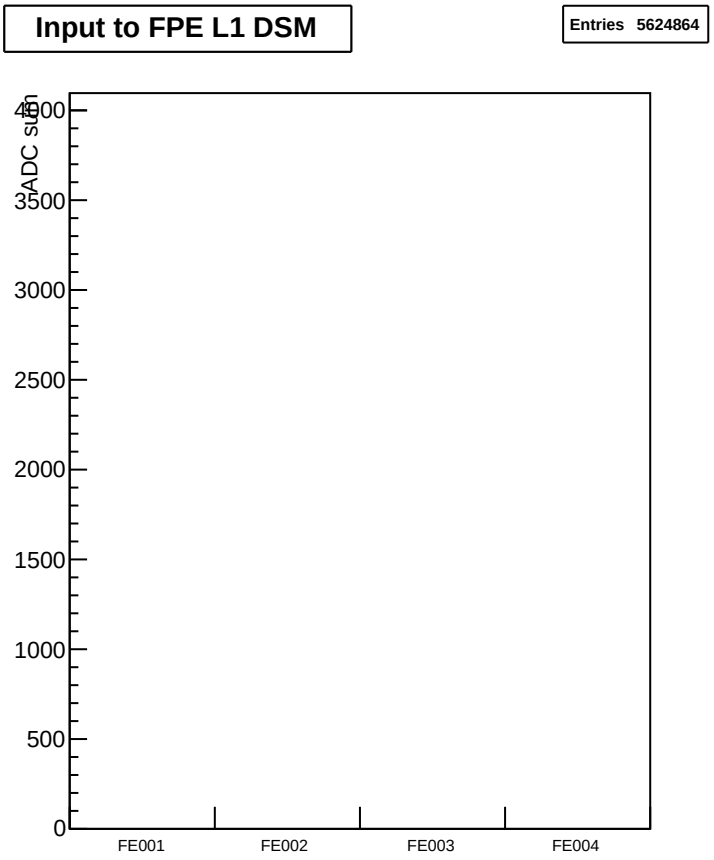

Input to FPD L2 DSM
Entries 8437296
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5
10^6

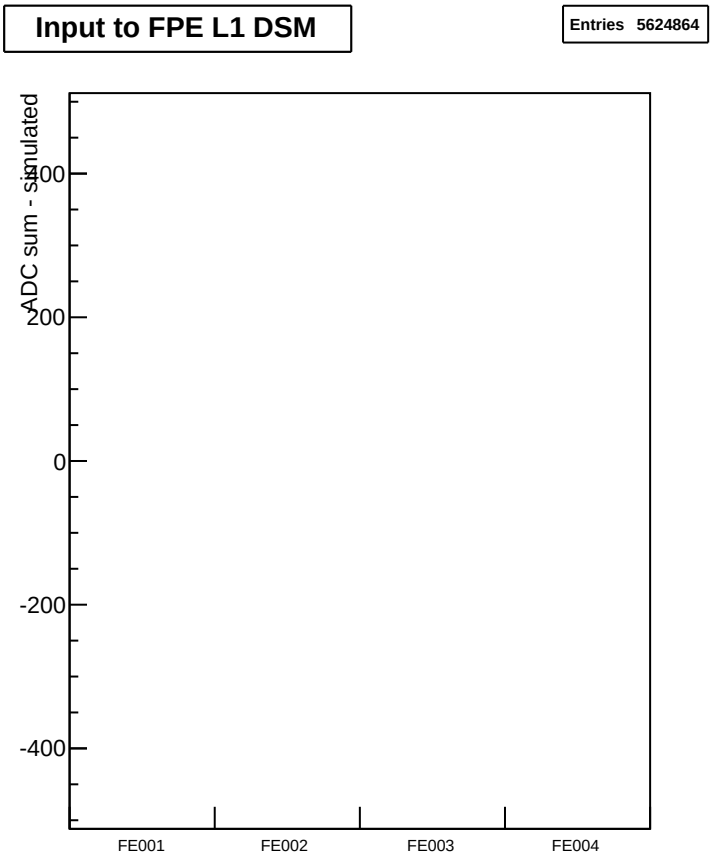

Input to FE001 QT board
Entries 4.499891e+07
ADC
channel

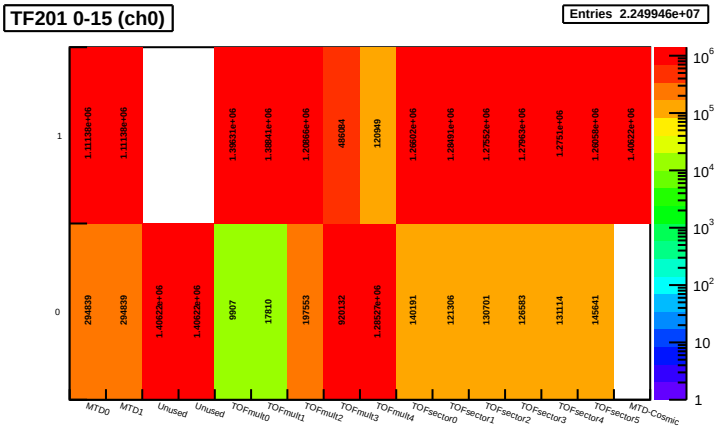

Input to FE002 QT board
Entries 4.499891e+07
ADC
channel

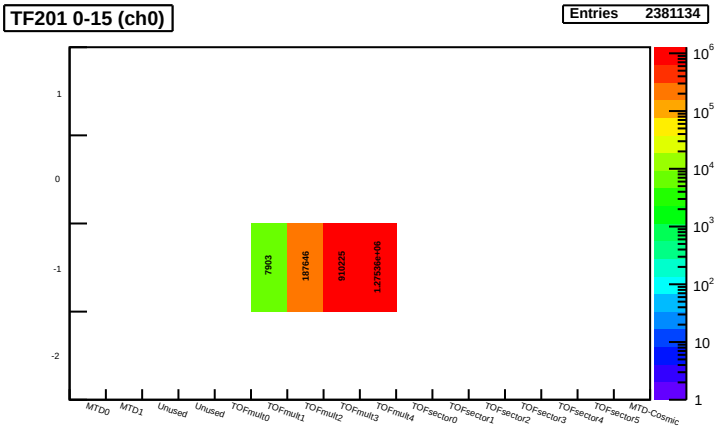

Input to FE003 QT board
Entries 4.499891e+07
ADC
channel

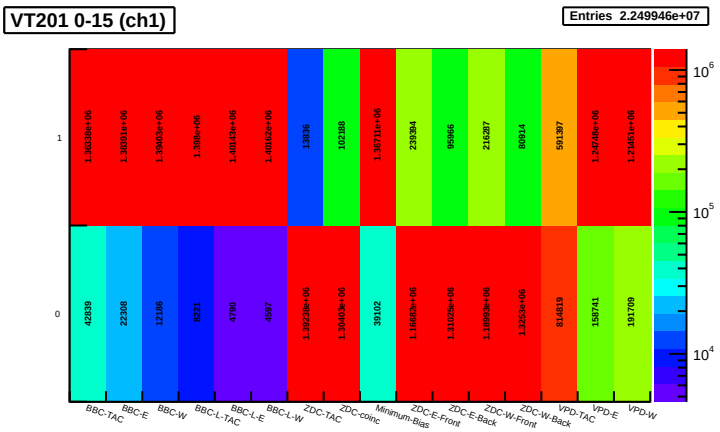

Input to FE004 QT board
Entries 4.499891e+07
ADC
channel

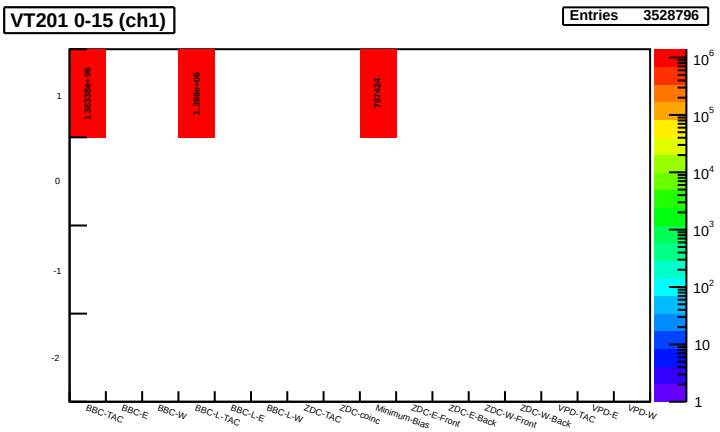

Input to FPE L1 DSM
Entries 5624864
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004

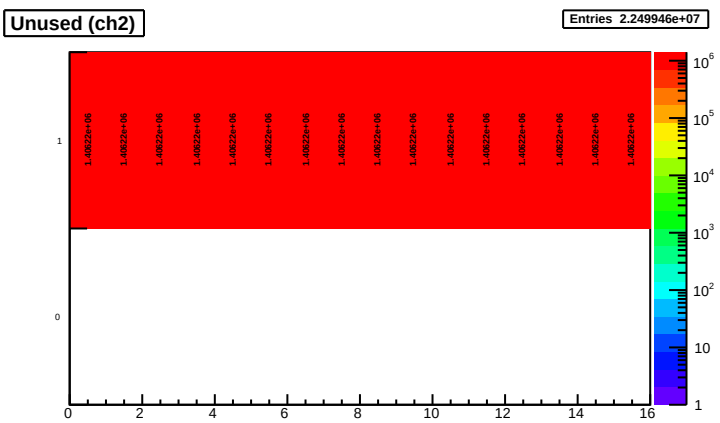

Input to FPE L1 DSM
Entries 5624864
ADC sum - simulated
400
200
0
-200
-400
FE001
FE002
FE003
FE004

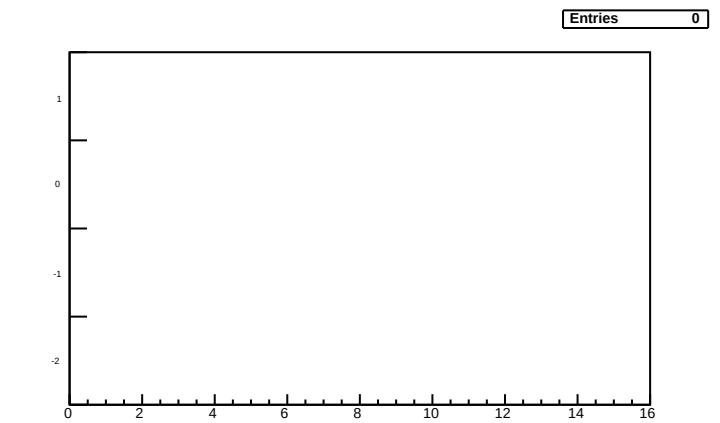

TF201 0-15 (ch0)
Entries 2.249946e+07
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

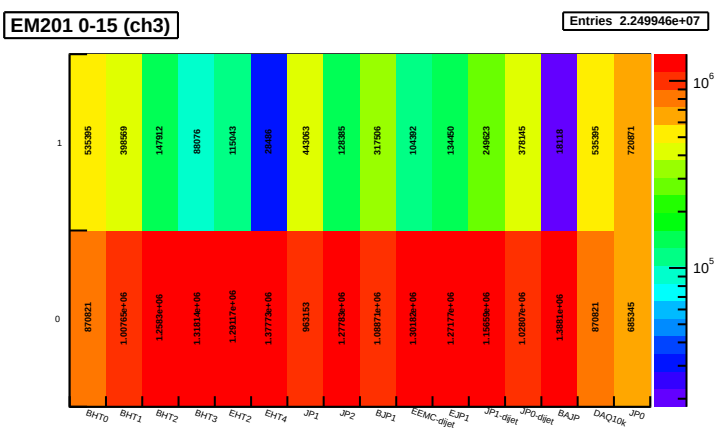

TF201 0-15 (ch0)
Entries 2381134
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

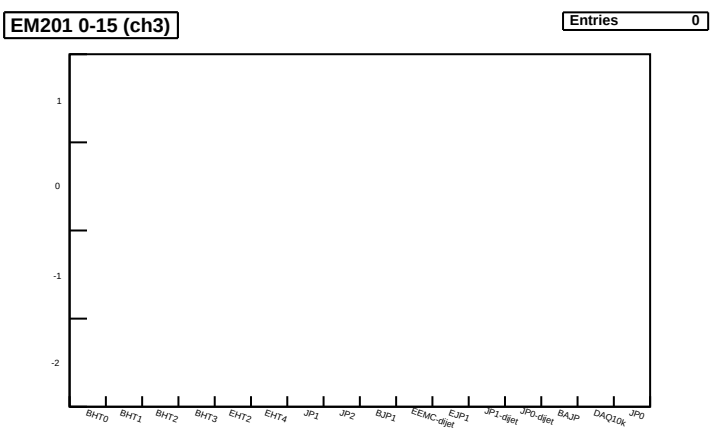

VT201 0-15 (ch1)
Entries 2.249946e+07
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-coinc Minimum-Bias ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 3528796
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-coinc Minimum-Bias ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

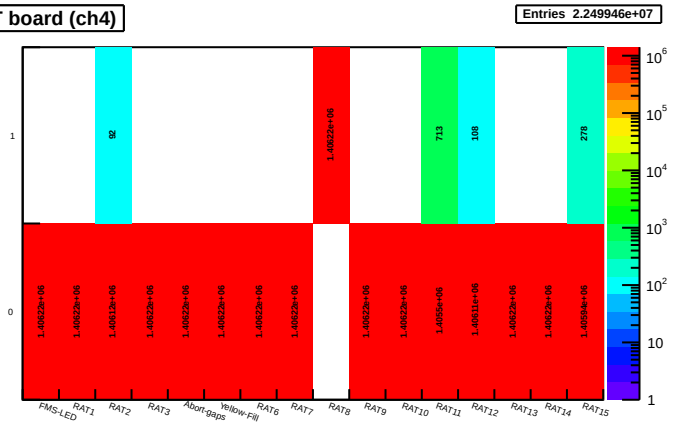

Unused (ch2)
Entries 2.249946e+07


Entries 0


EM201 0-15 (ch3)
Entries 2.249946e+07
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 EEMC-dijet EJP1 JP1-dijet JP0-dijet BAJP DAQ10k JP0


EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 EEMC-dijet EJP1 JP1-dijet JP0-dijet BAJP DAQ10k JP0

RAT board (ch4)


Entries 2.249946e+07
92
1.40622e+06
713
108
278
1.40622e+06
1.40622e+06
1.40613e+06
1.40622e+06
1.40622e+06
1.40622