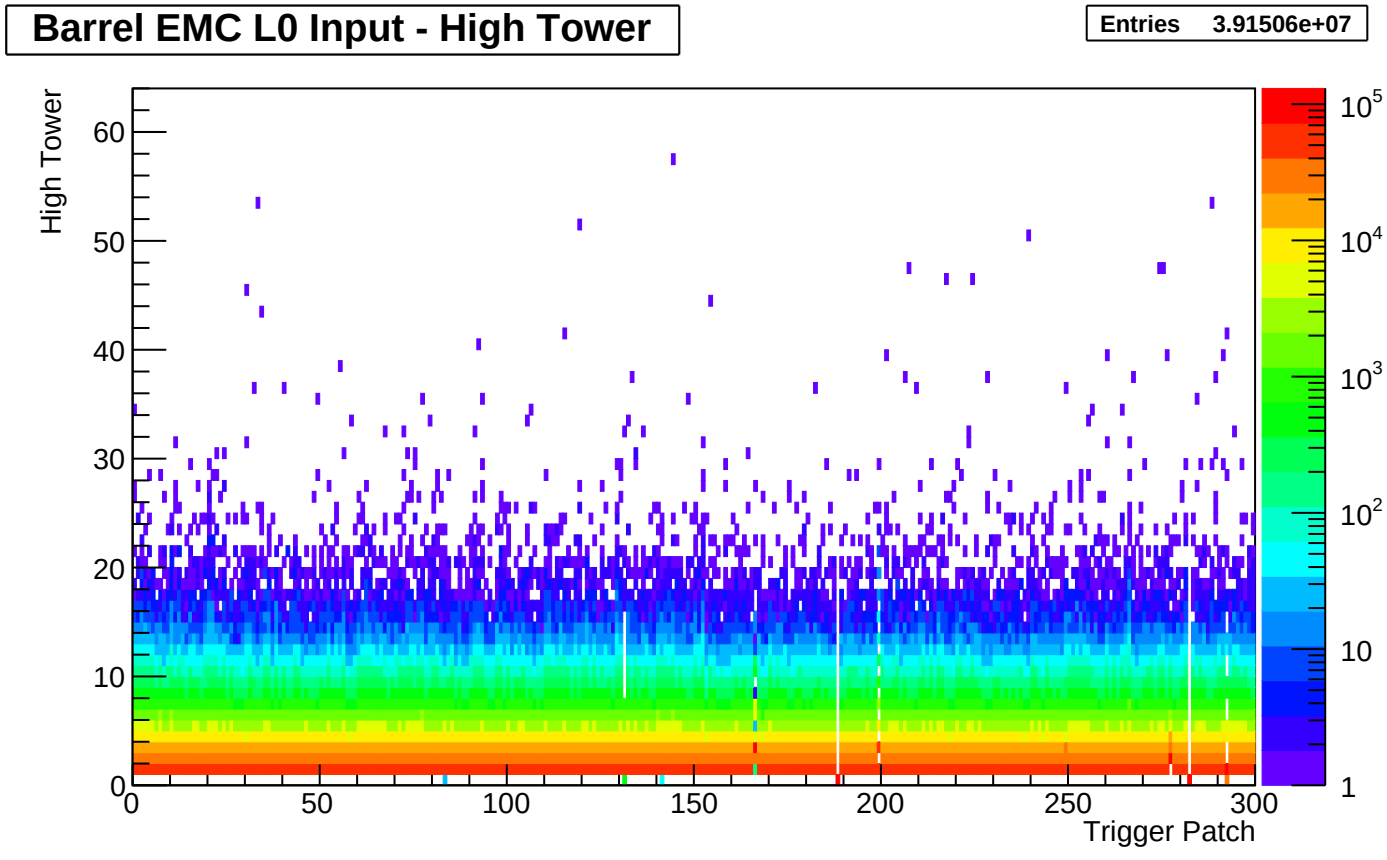
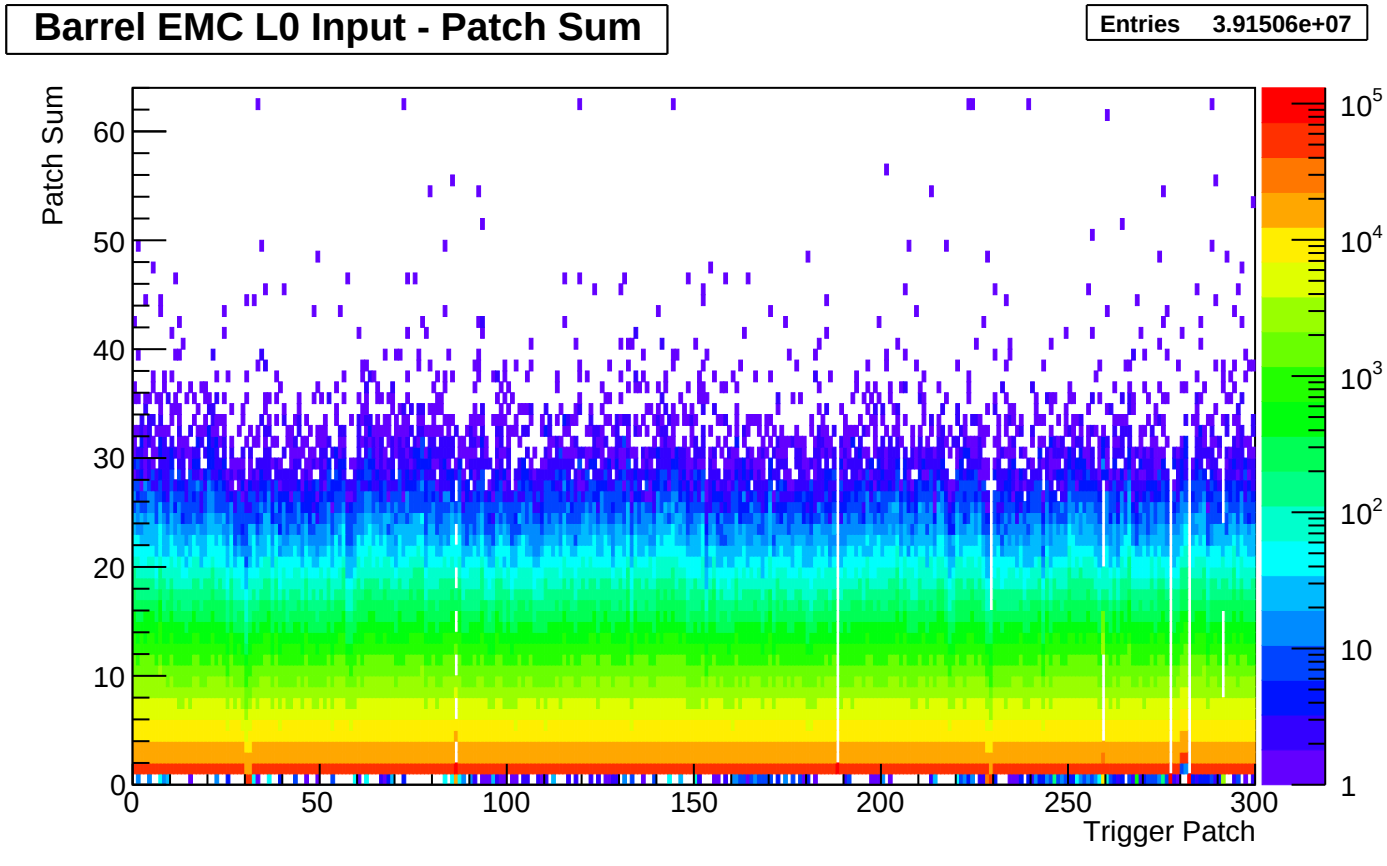
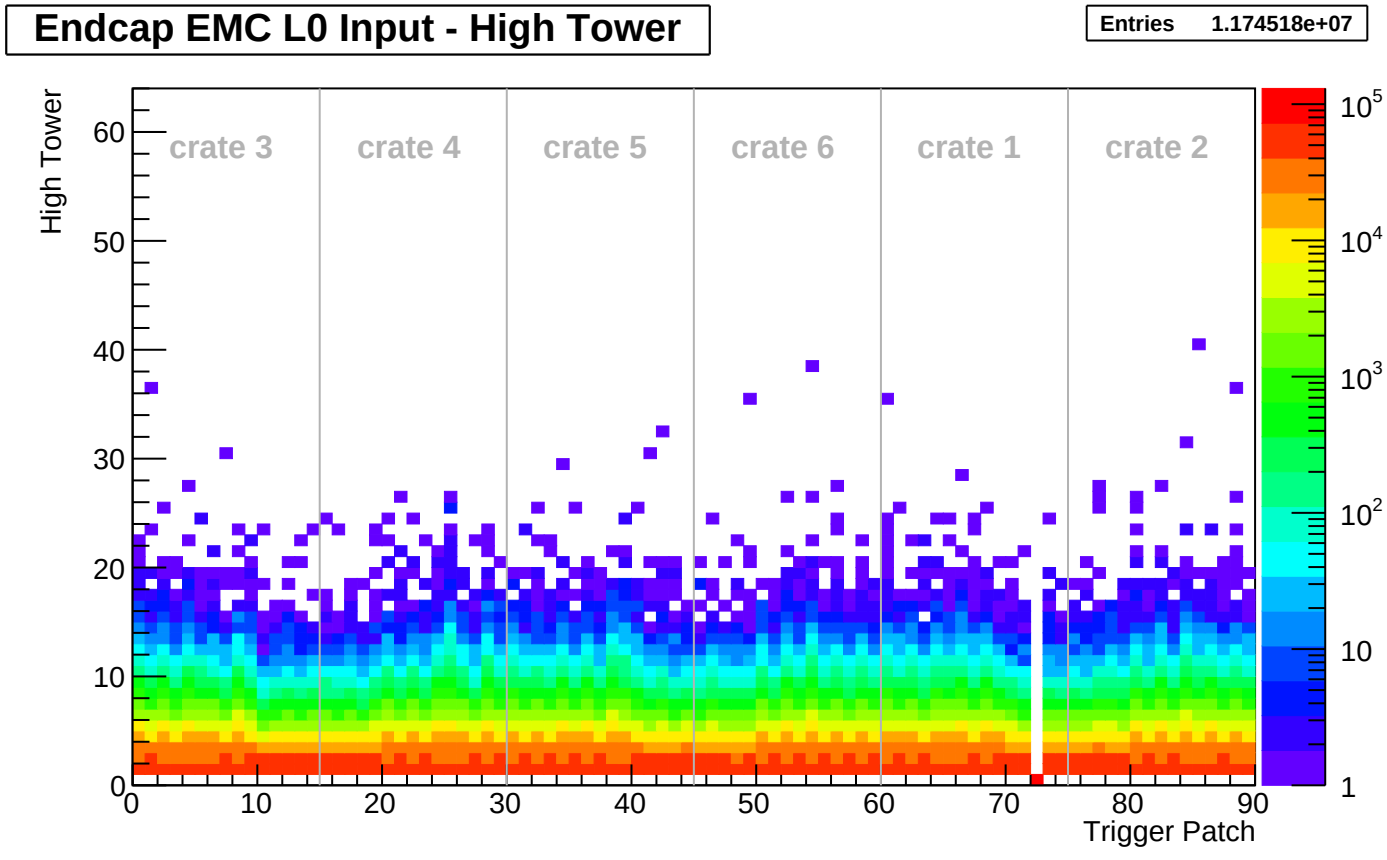
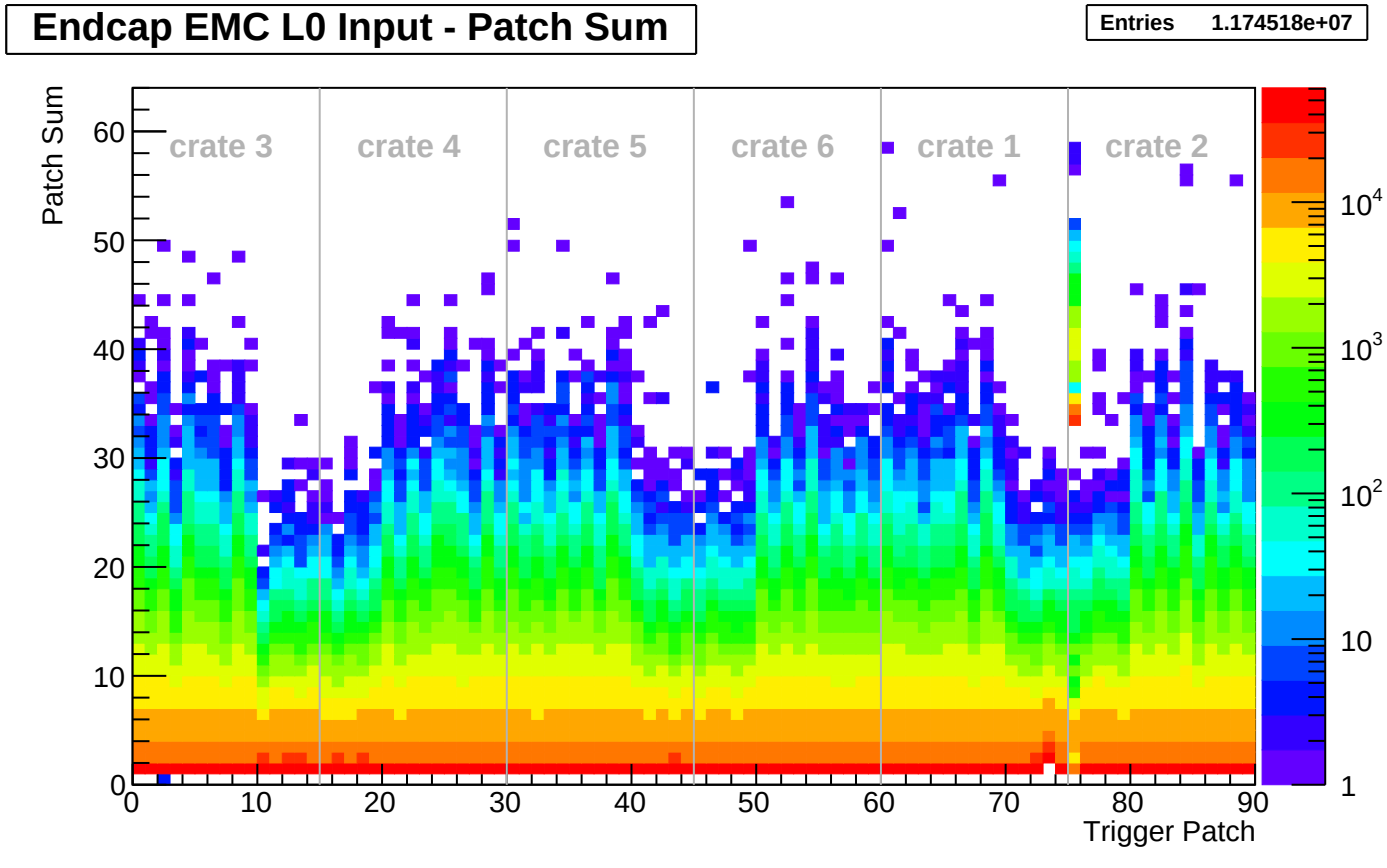
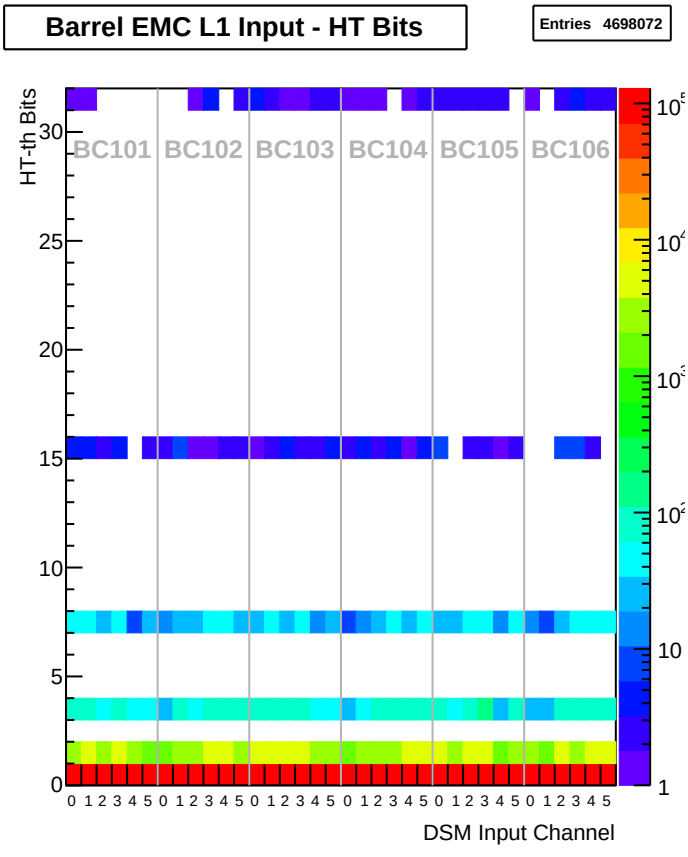
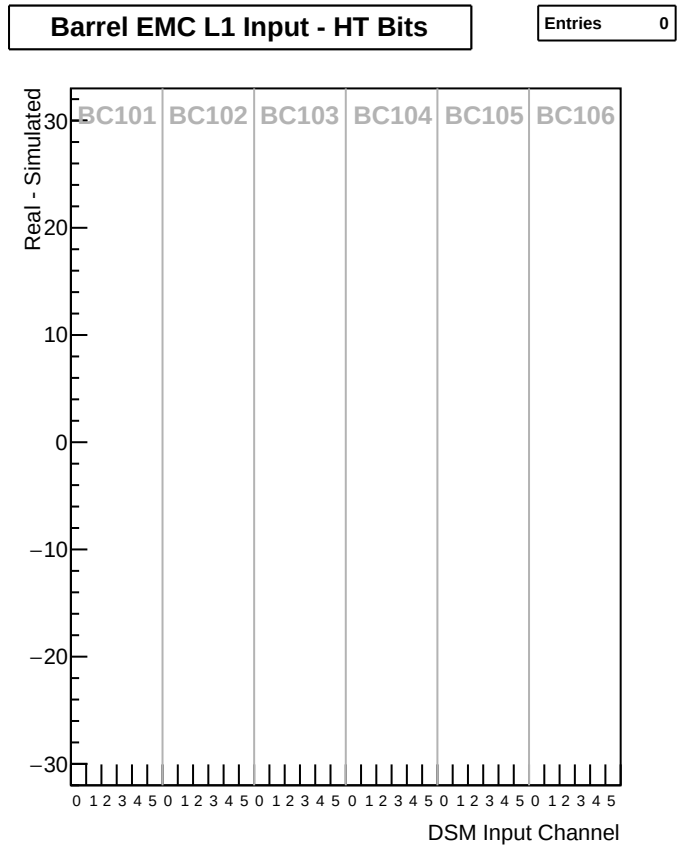

Barrel EMC L0 Input - High Tower
Entries 3.91506e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

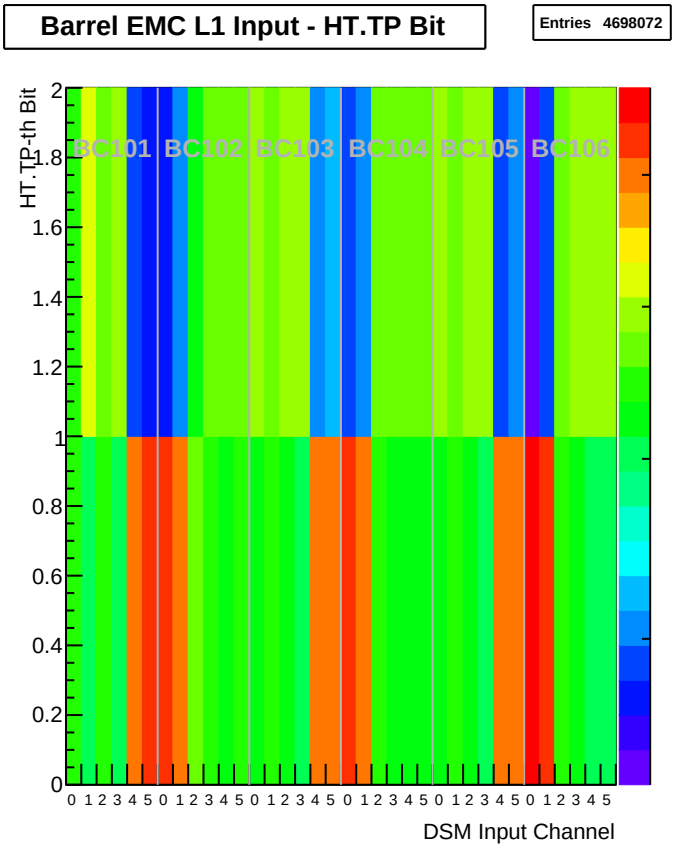

Barrel EMC L0 Input - Patch Sum
Entries 3.91506e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

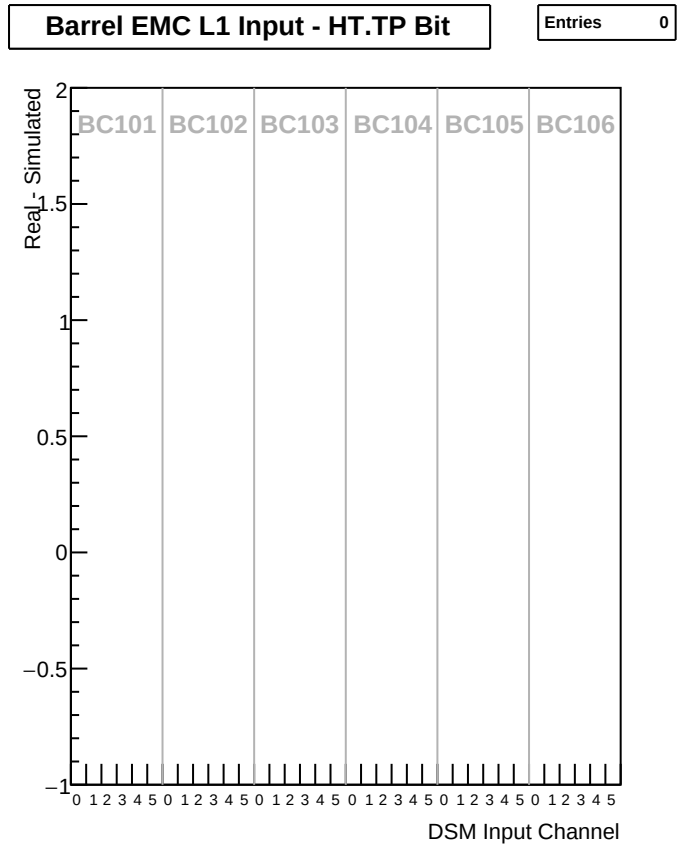

Endcap EMC L0 Input - High Tower
Entries 1.174518e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

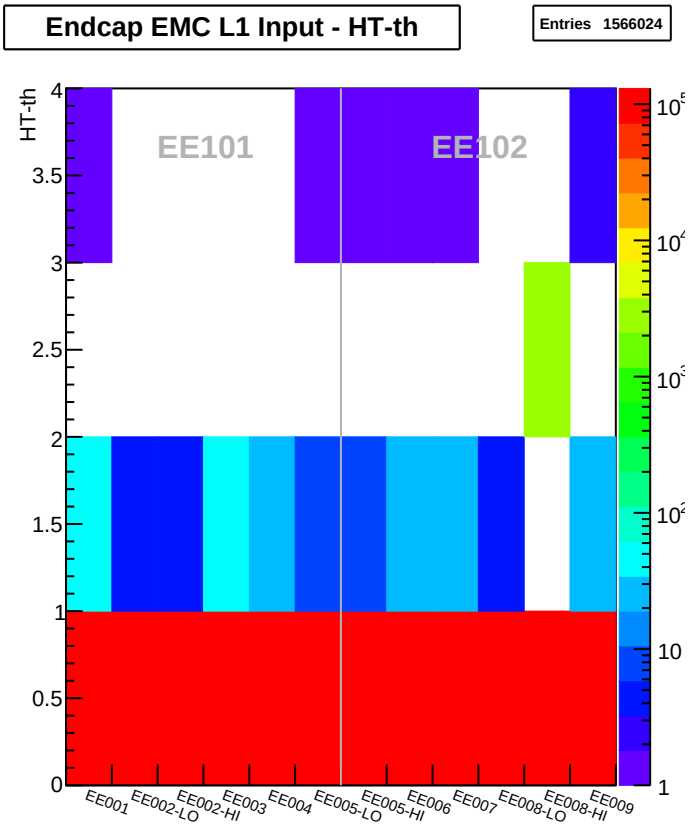

Endcap EMC L0 Input - Patch Sum
Entries 1.174518e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

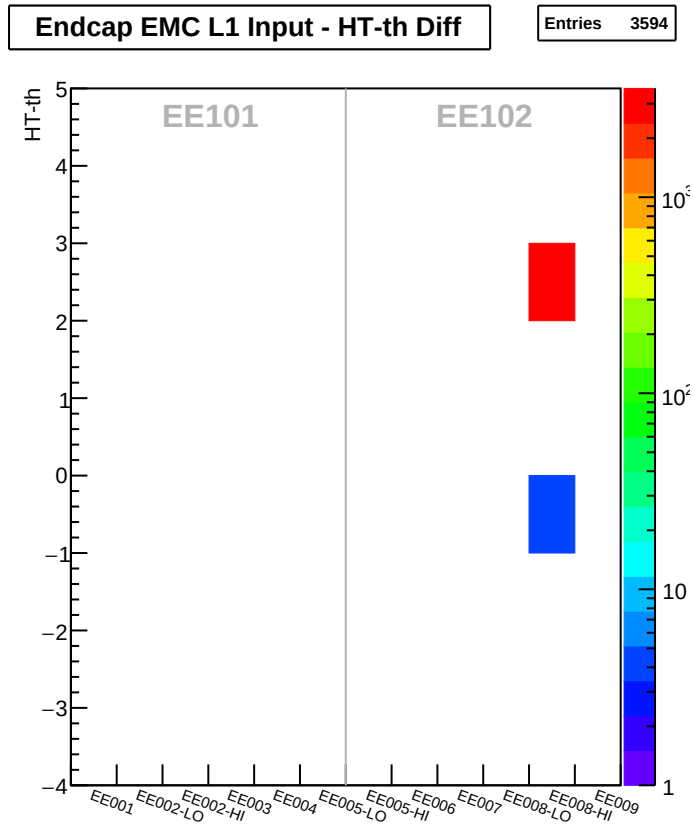

Barrel EMC L1 Input - HT Bits
Entries 4698072
HT-th Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

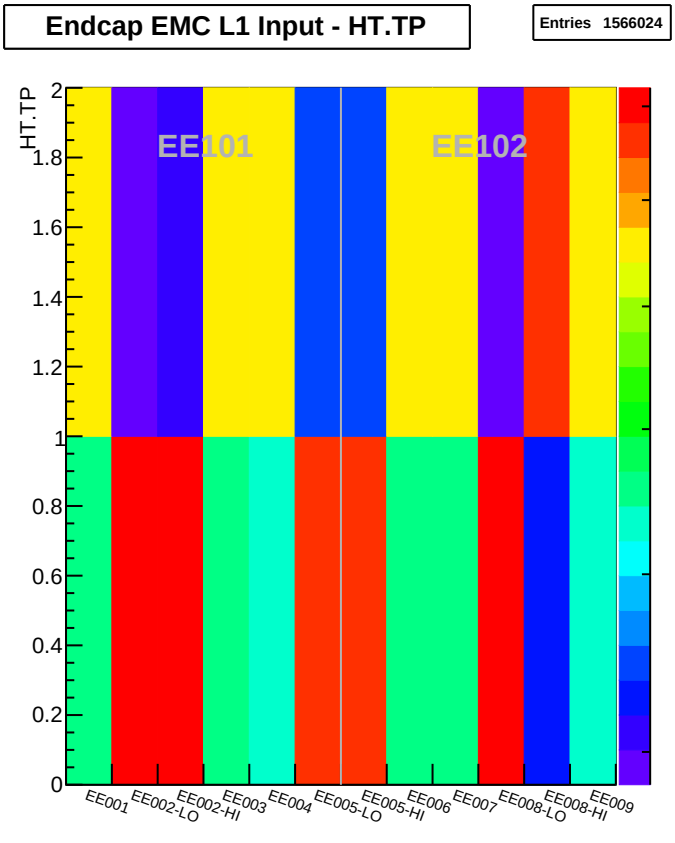

Barrel EMC L1 Input - HT Bits
Entries 0
Real - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

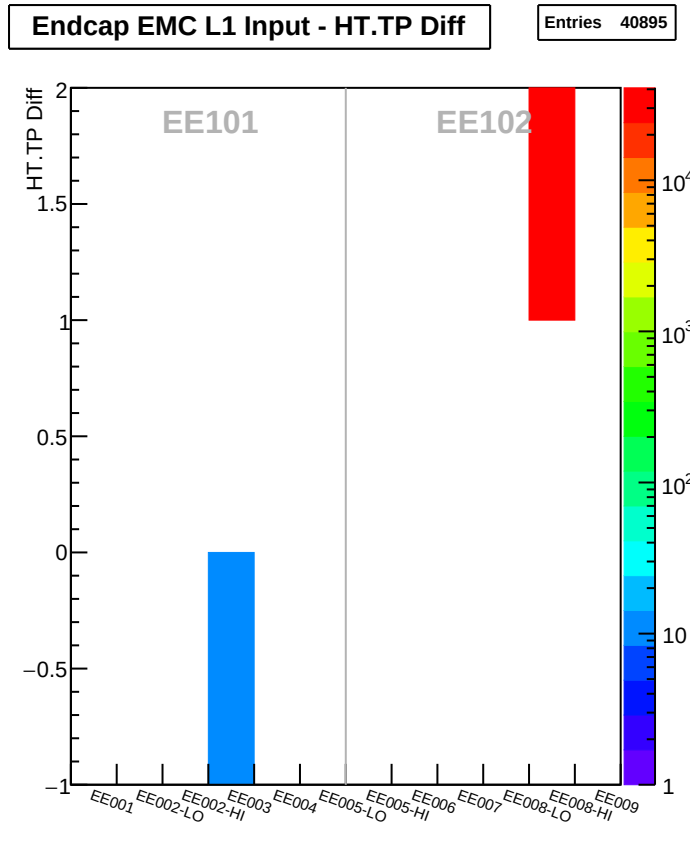

Barrel EMC L1 Input - HT.TP Bit
Entries 4698072
HT.TP-th Bit
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

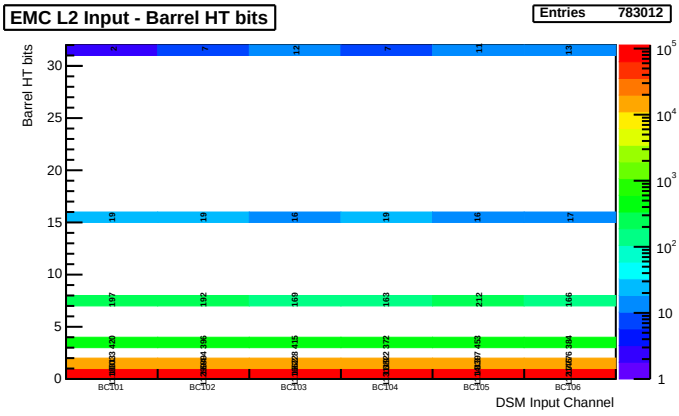

Barrel EMC L1 Input - HT.TP Bit
Entries 0
Real - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

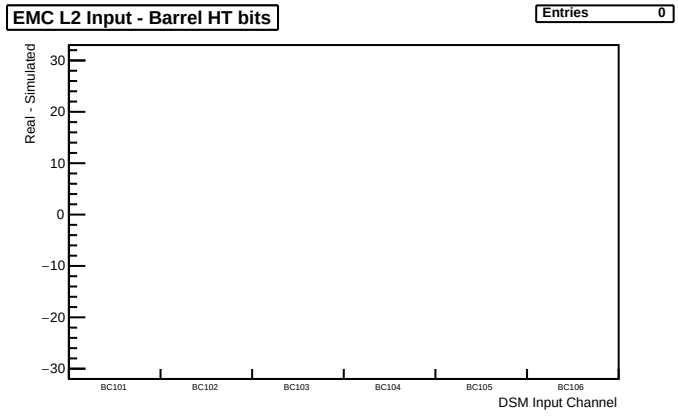

Endcap EMC L1 Input - HT-th
Entries 1566024
HT-th
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

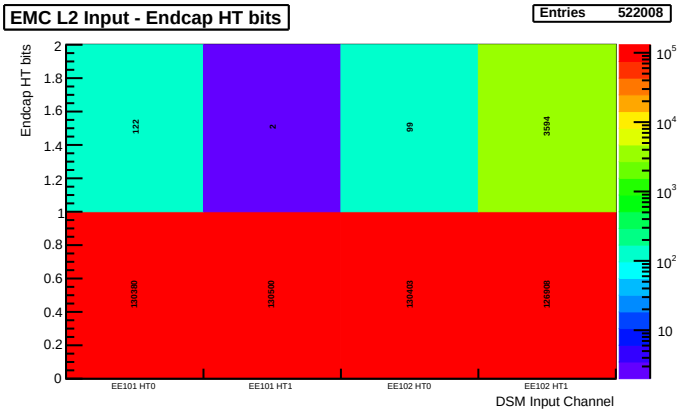

Endcap EMC L1 Input - HT-th Diff
Entries 3594
HT-th
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

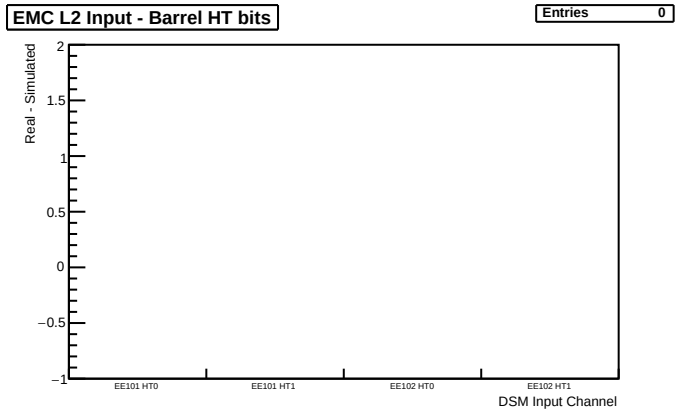

Endcap EMC L1 Input - HT.TP
Entries 1566024
HT.TP
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

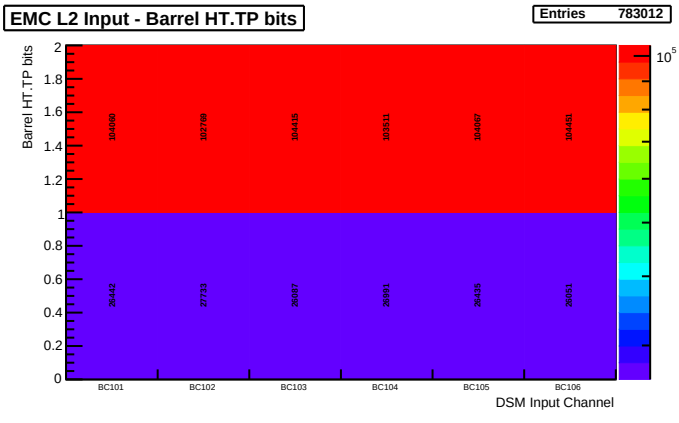

Endcap EMC L1 Input - HT.TP Diff
Entries 40895
HT.TP Diff
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

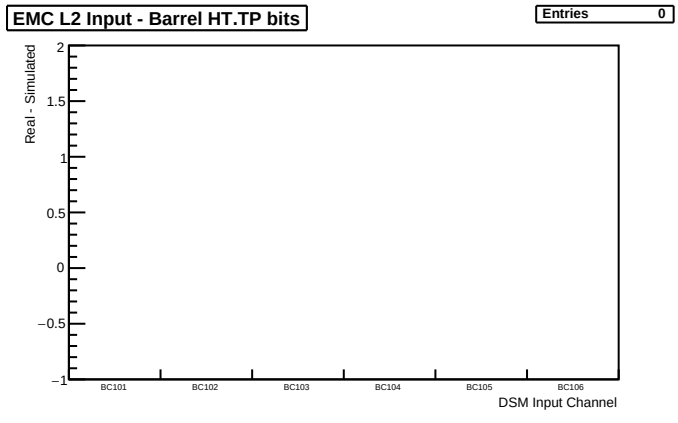

EMC L2 Input - Barrel HT bits
Entries 783012
Barrel HT bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

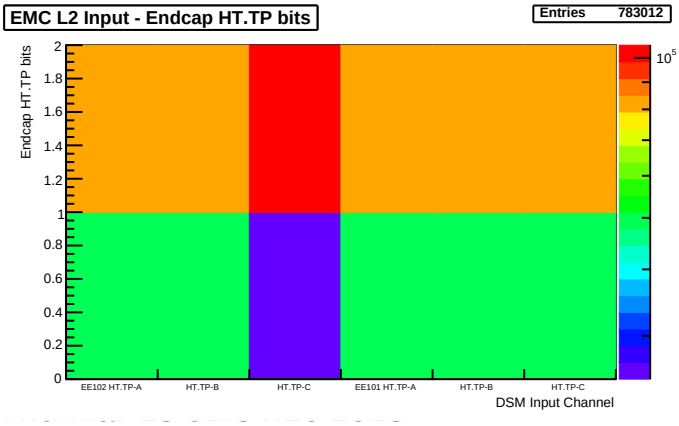

EMC L2 Input - Barrel HT bits
Entries 0
Real - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

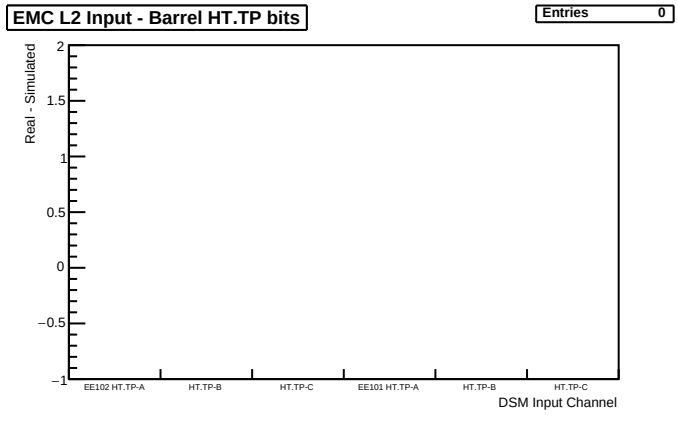

EMC L2 Input - Endcap HT bits
Entries 522008
Endcap HT bits
DSM Input Channel
EE101 HT0
EE101 HT1
EE102 HT0
EE102 HT1

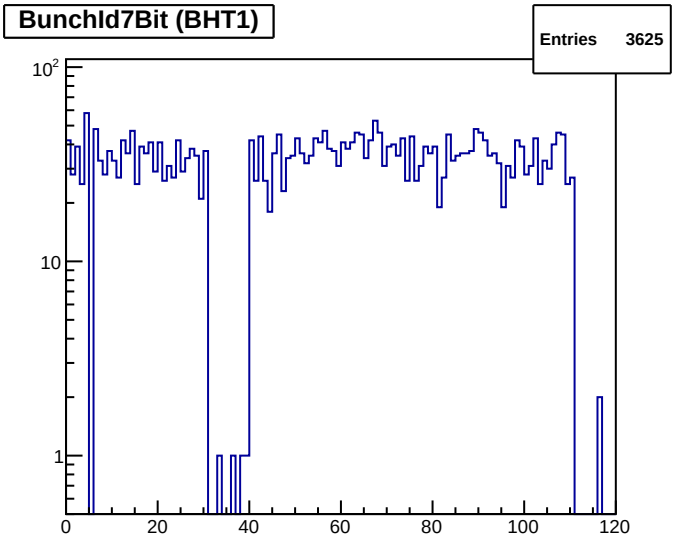

EMC L2 Input - Barrel HT bits
Entries 0
Real - Simulated
DSM Input Channel
EE101 HT0
EE101 HT1
EE102 HT0
EE102 HT1

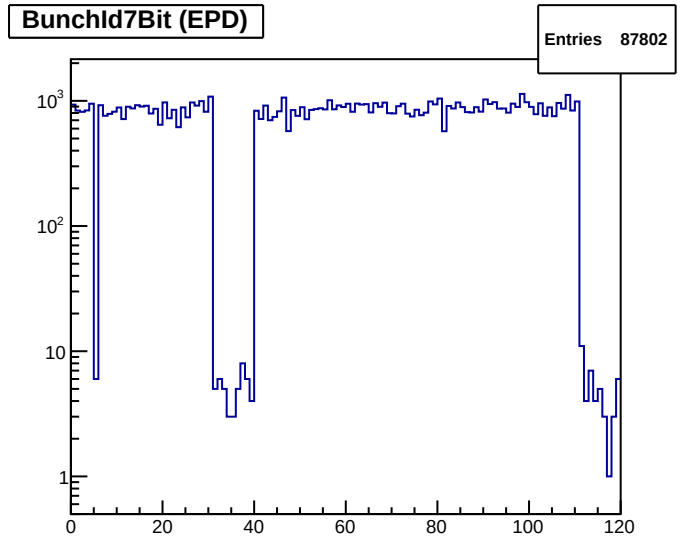

EMC L2 Input - Barrel HT.TP bits
Entries 783012
Barrel HT.TP bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

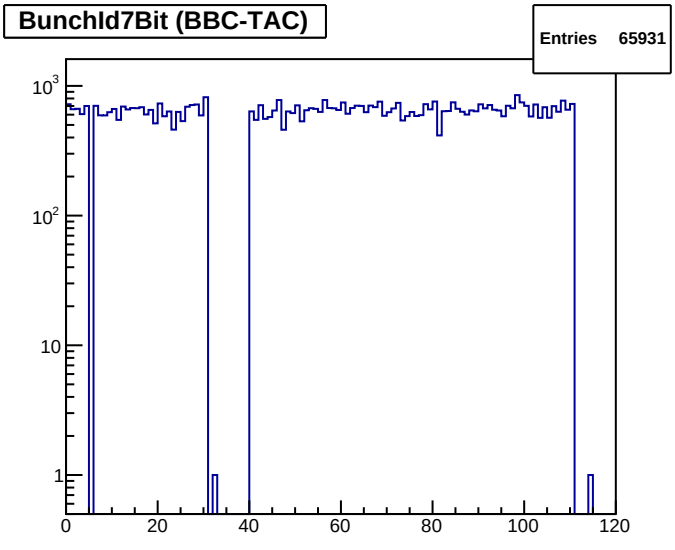

EMC L2 Input - Barrel HT.TP bits
Entries 0
Real - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

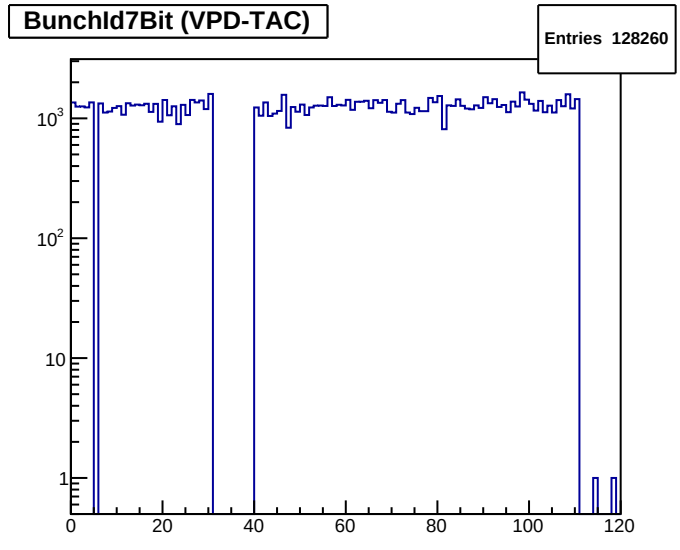

EMC L2 Input - Endcap HT.TP bits
Entries 783012
Endcap HT.TP bits
DSM Input Channel
EE102 HT.TP-A
HT.TP-B
HT.TP-C
EE101 HT.TP-A
HT.TP-B
HT.TP-C

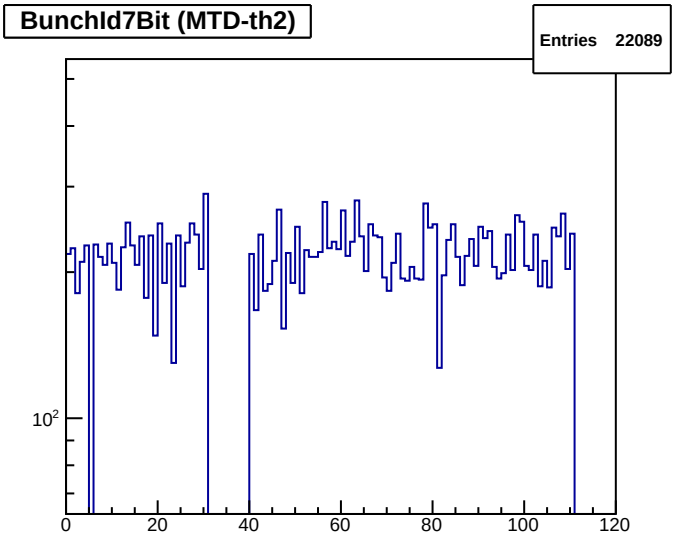

EMC L2 Input - Barrel HT.TP bits
Entries 0
Real - Simulated
DSM Input Channel
EE102 HT.TP-A
HT.TP-B
HT.TP-C
EE101 HT.TP-A
HT.TP-B
HT.TP-C

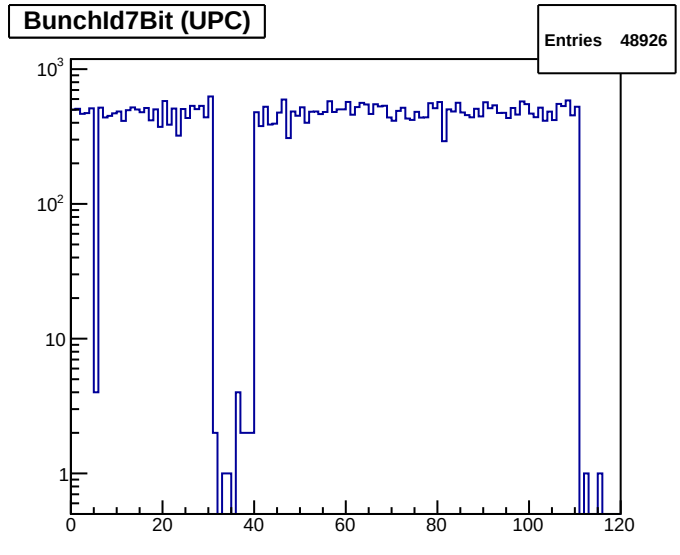

BunchId7Bit (BHT1)
Entries 3625

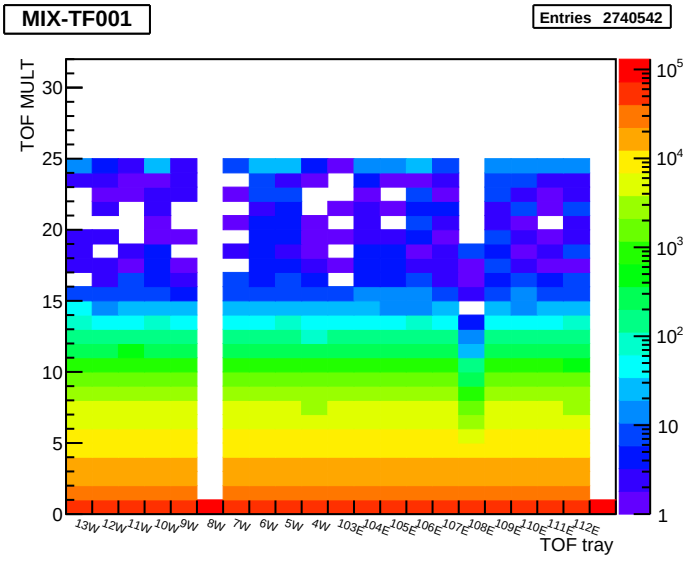

BunchId7Bit (EPD)
Entries 87802

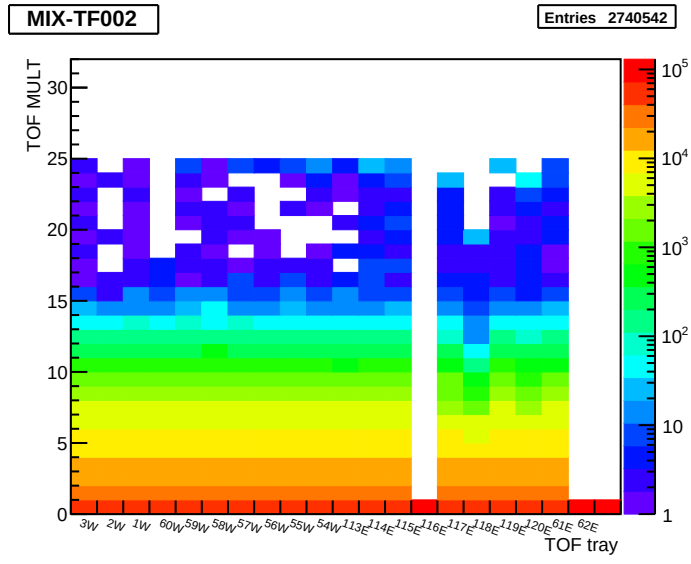

BunchId7Bit (BBC-TAC)
Entries 65931

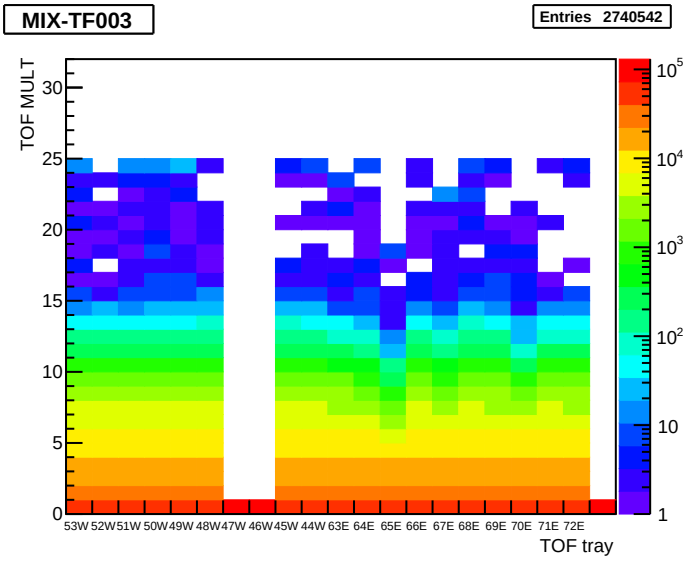

BunchId7Bit (VPD-TAC)
Entries 128260

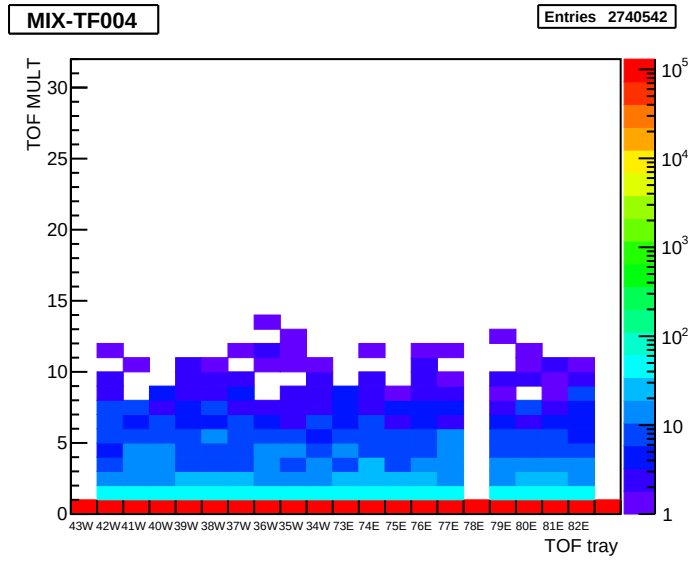

BunchId7Bit (MTD-th2)
Entries 22089

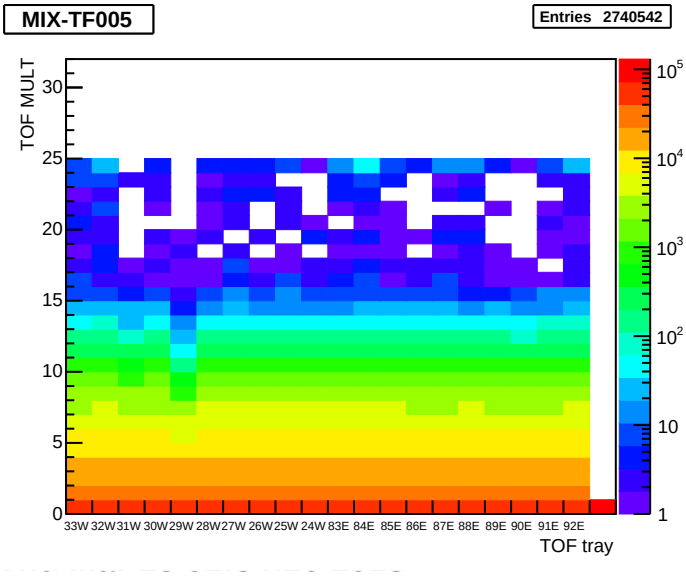

BunchId7Bit (UPC)
Entries 48926

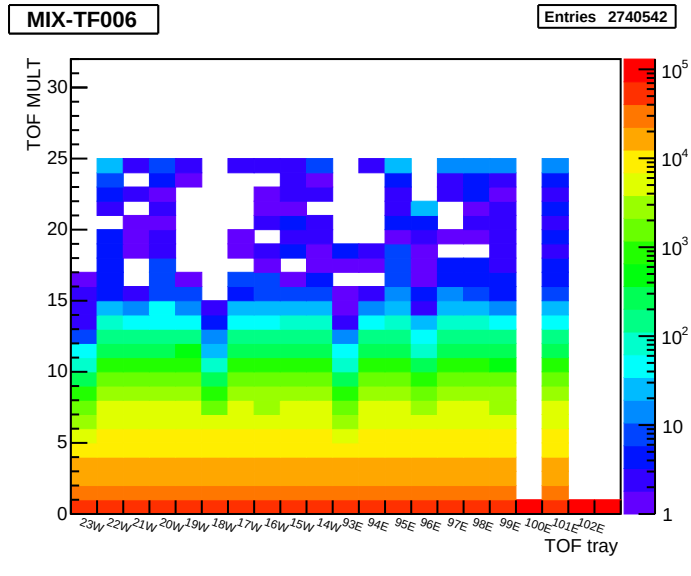

MIX-TF001
Entries 2740542
TOF MULT
TOF tray

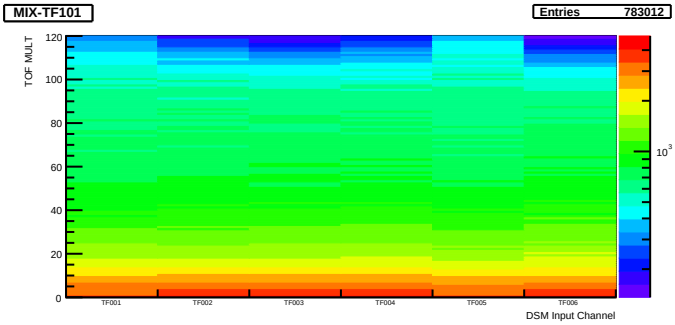

MIX-TF002
Entries 2740542
TOF MULT
TOF tray

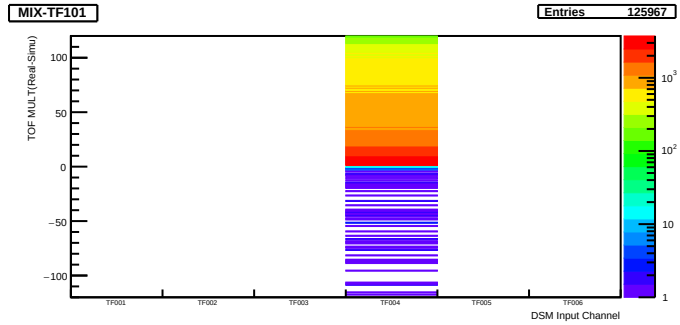

MIX-TF003
Entries 2740542
TOF MULT
TOF tray

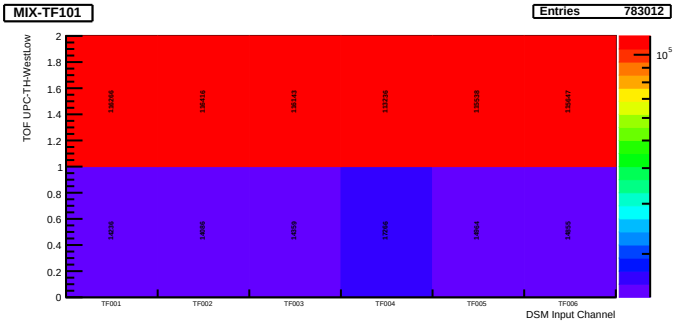

MIX-TF004
Entries 2740542
TOF MULT
TOF tray

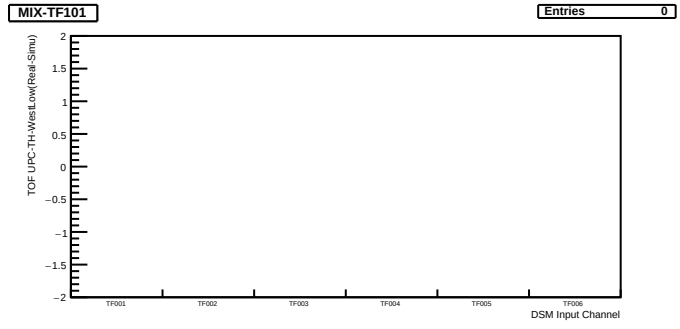

MIX-TF005
Entries 2740542
TOF MULT
TOF tray

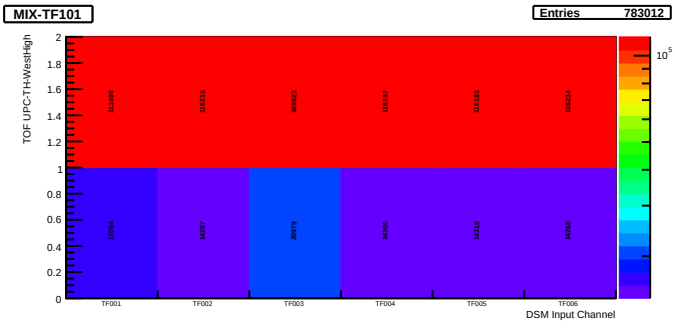

MIX-TF006
Entries 2740542
TOF MULT
TOF tray

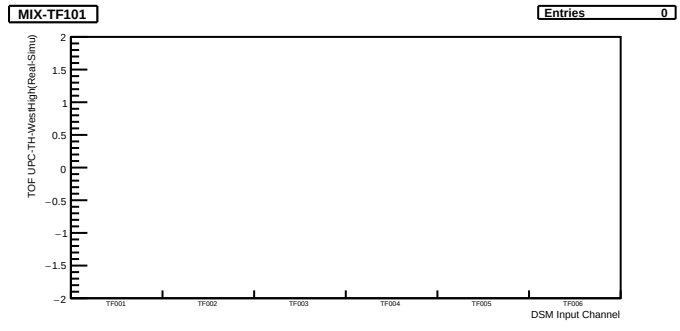

MIX-TF101
Entries 783012
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

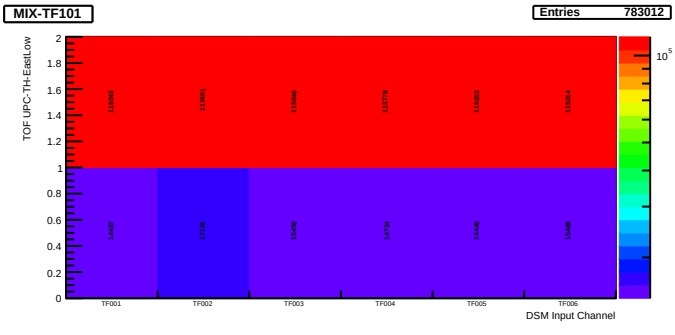

MIX-TF101
Entries 125967
TOF MULT(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

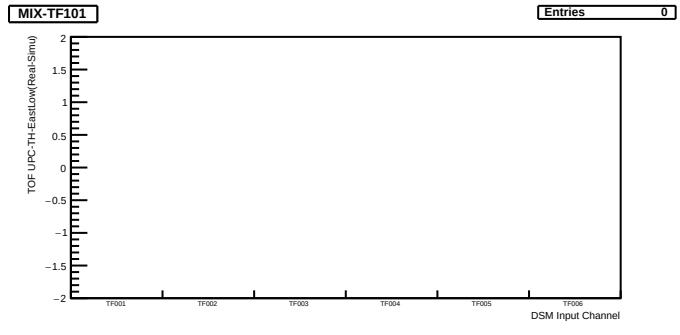

MIX-TF101
Entries 783012
TOF UPC-TH-WestLow
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

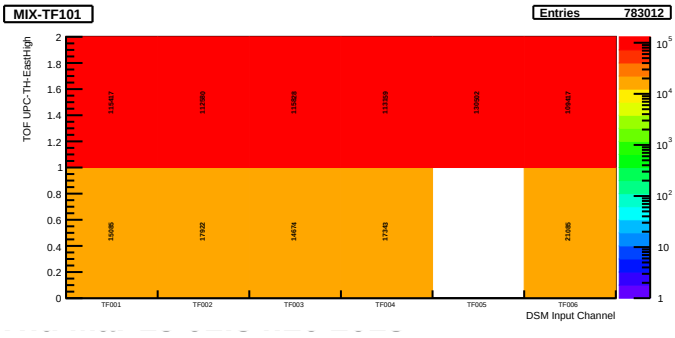

MIX-TF101
Entries 0
TOF UPC-TH-WestLow(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

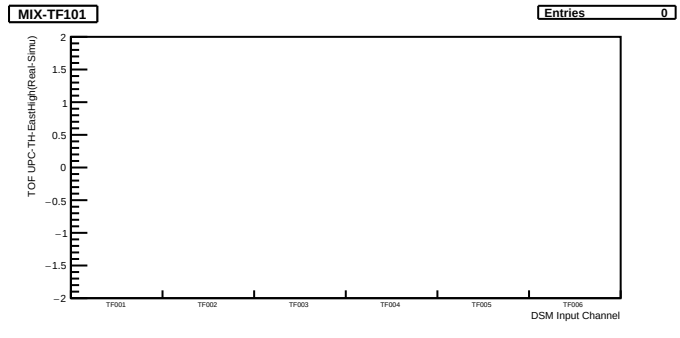

MIX-TF101
Entries 783012
TOF UPC-TH-WestHigh
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

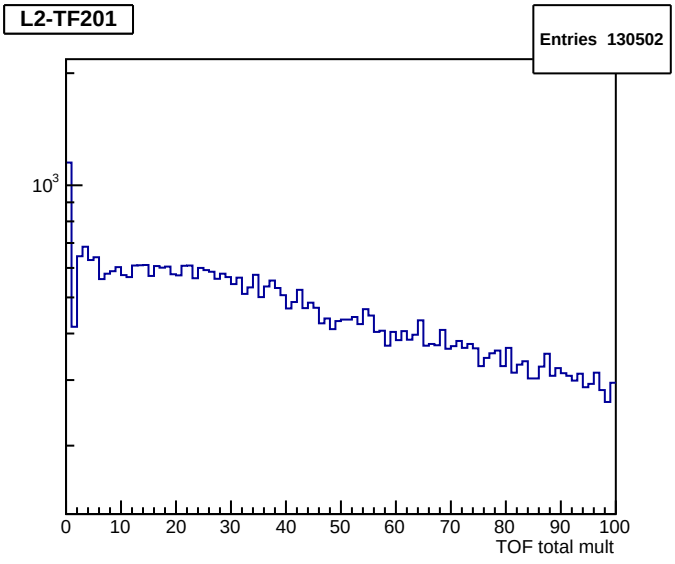

MIX-TF101
Entries 0
TOF UPC-TH-WestHigh(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

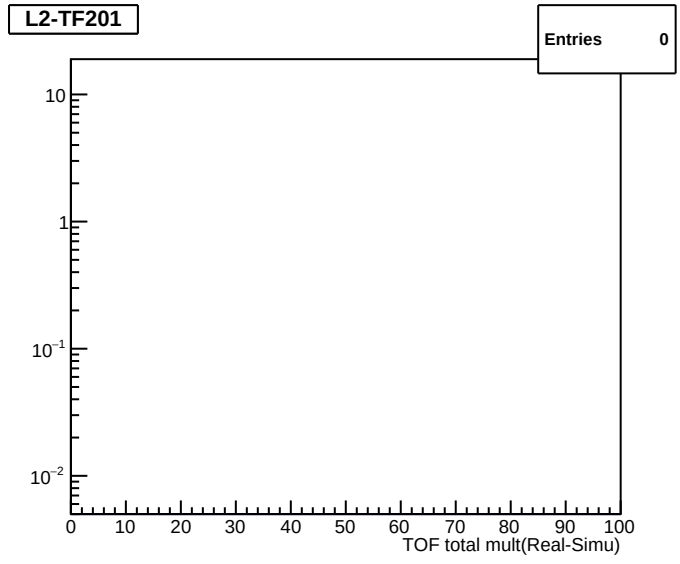

MIX-TF101
Entries 783012
TOF UPC-TH-EastLow
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

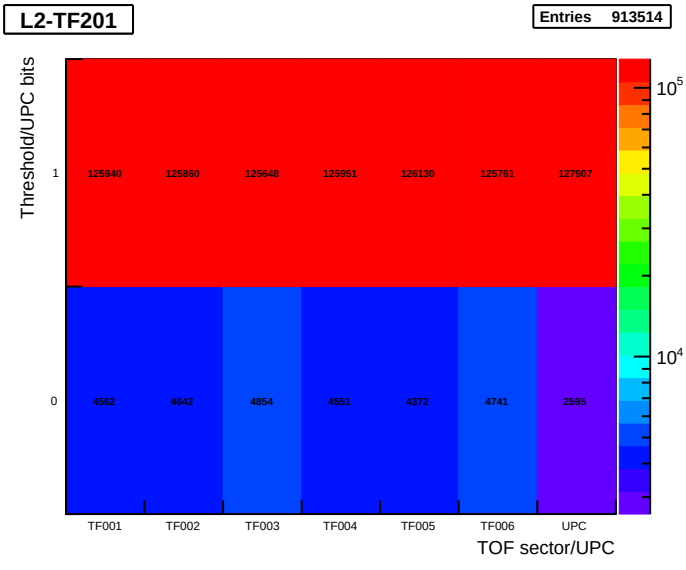

MIX-TF101
Entries 0
TOF UPC-TH-EastLow(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

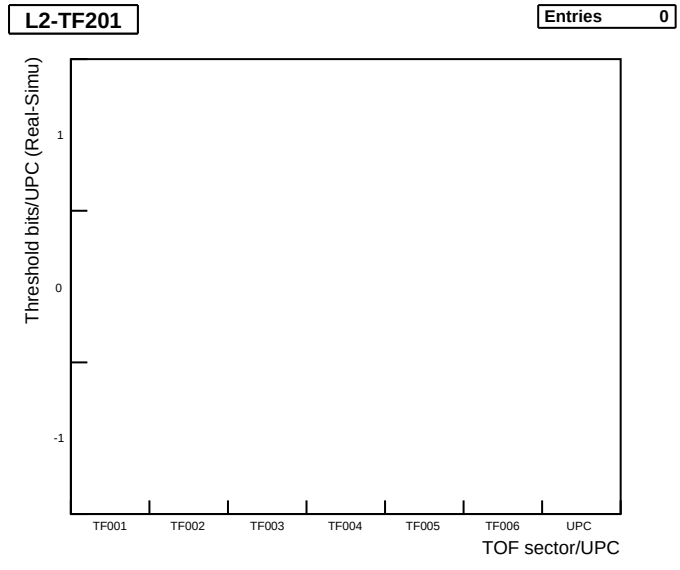

MIX-TF101
Entries 783012
TOF UPC-TH-EastHigh
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

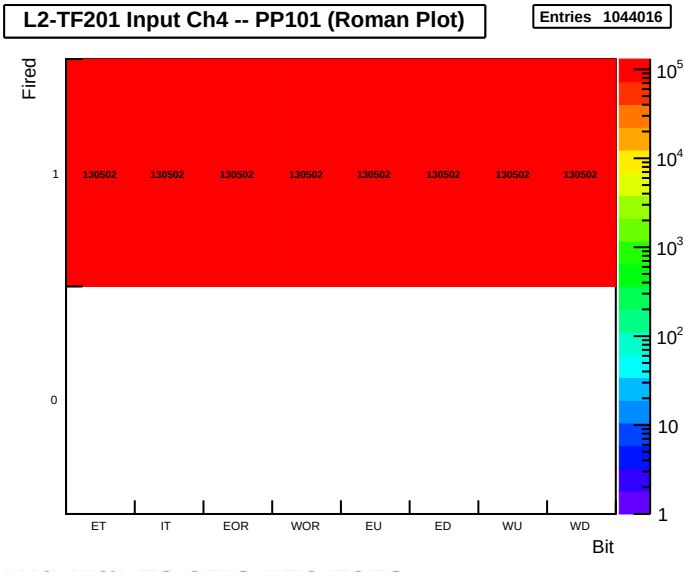

MIX-TF101
Entries 0
TOF UPC-TH-EastHigh(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

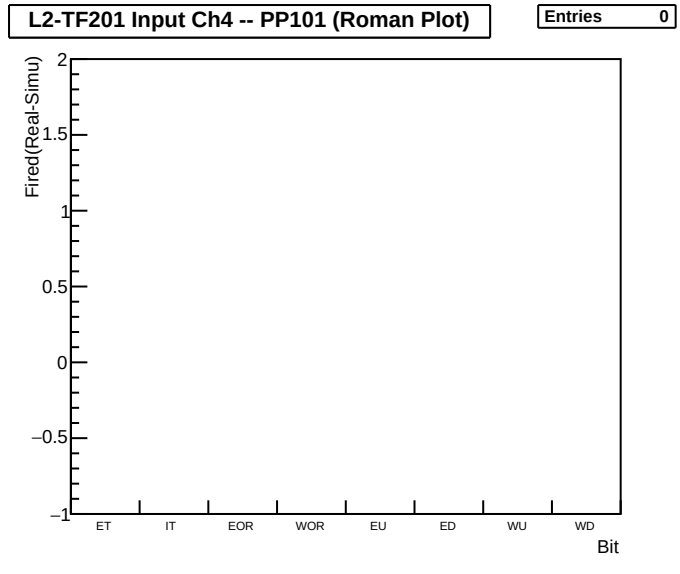

L2-TF201
Entries 130502
10^3
0 10 20 30 40 50 60 70 80 90 100
TOF total mult

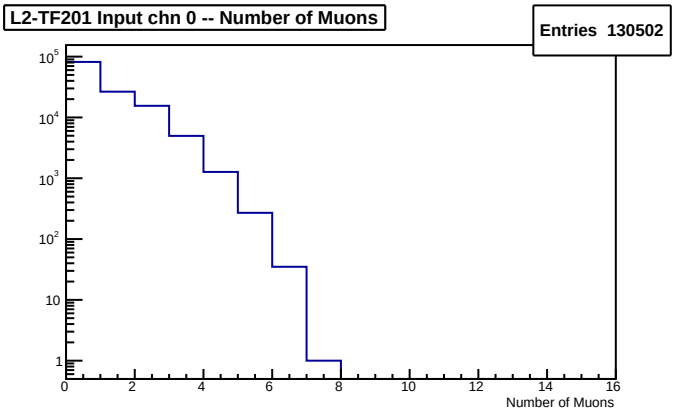

L2-TF201
Entries 0
10
1
10^{-1}
10^{-2}
0 10 20 30 40 50 60 70 80 90 100
TOF total mult(Real-Simu)

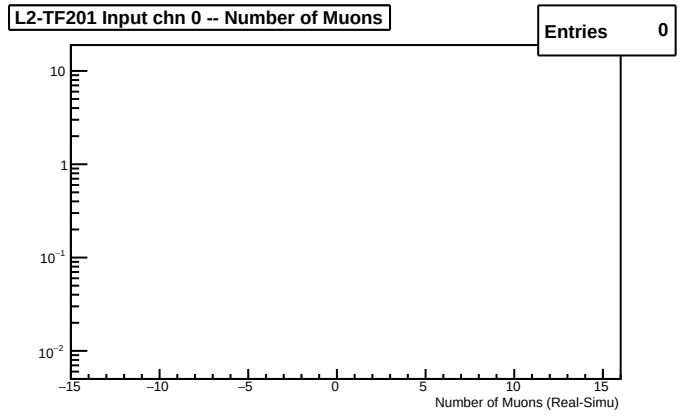

L2-TF201
Entries 913514
Threshold/UPC bits
1
0
125940 125860 125648 125951 126130 125761 127907
4562 4642 4854 4551 4372 4741 2595
10^5
10^4
TF001 TF002 TF003 TF004 TF005 TF006 UPC
TOF sector/UPC

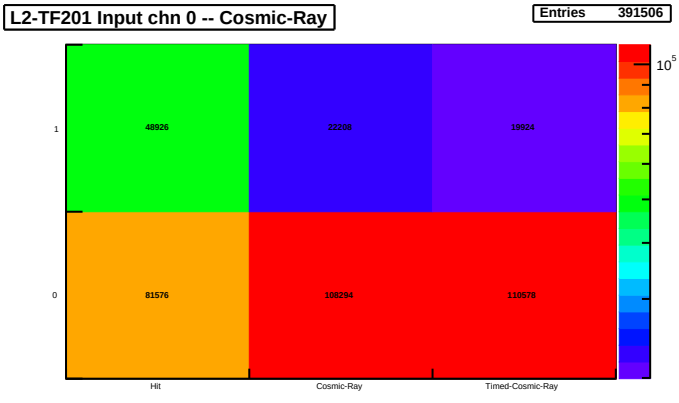

L2-TF201
Entries 0
Threshold bits/UPC (Real-Simu)
1
0
-1
TF001 TF002 TF003 TF004 TF005 TF006 UPC
TOF sector/UPC

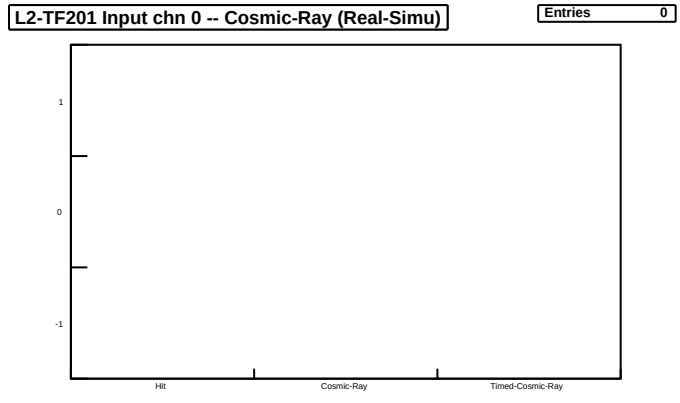

L2-TF201 Input Ch4 -- PP101 (Roman Plot)
Entries 1044016
Fired
1
0
130502 130502 130502 130502 130502 130502 130502 130502
10^5
10^4
10^3
10^2
10
1
ET IT EOR WOR EU ED WU WD
Bit

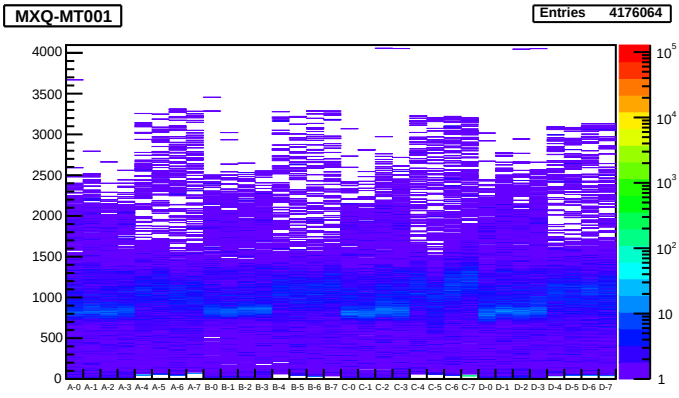

L2-TF201 Input Ch4 -- PP101 (Roman Plot)
Entries 0
Fired(Real-Simu)
2
1.5
1
0.5
0
−0.5
−1
ET IT EOR WOR EU ED WU WD
Bit

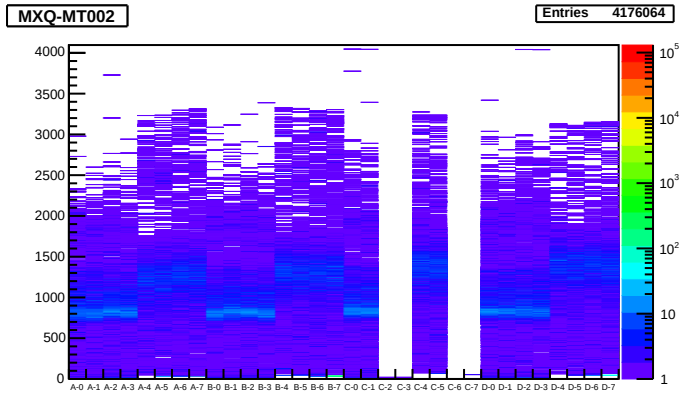

L2-TF201 Input chn 0 -- Number of Muons
Entries 130502
Number of Muons

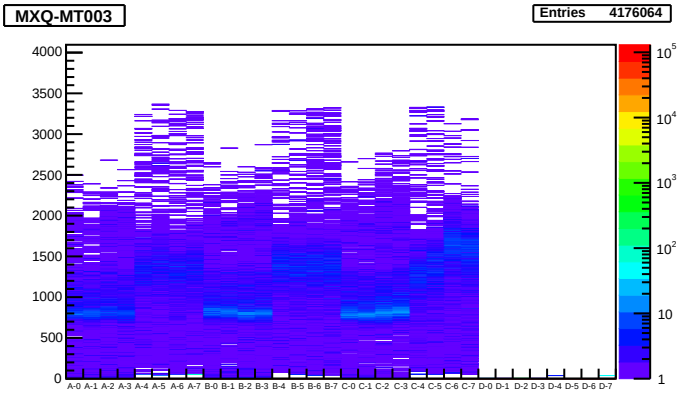

L2-TF201 Input chn 0 -- Number of Muons
Entries 0
Number of Muons (Real-Simu)

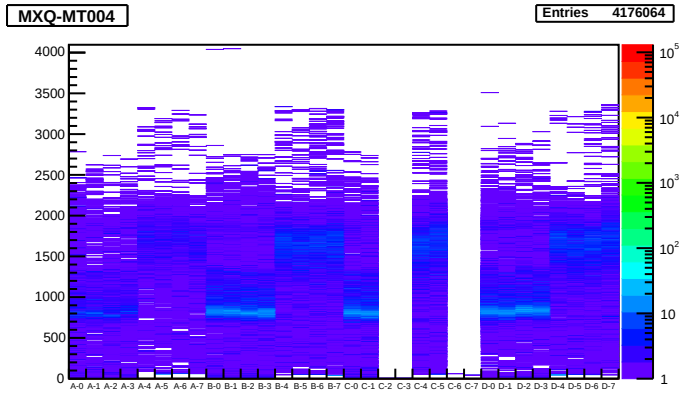

L2-TF201 Input chn 0 -- Cosmic-Ray
Entries 391506
48926
22208
19924
81576
108294
110578
Hit
Cosmic-Ray
Timed-Cosmic-Ray

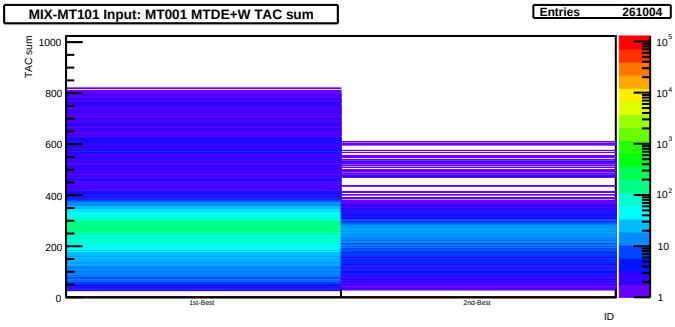

L2-TF201 Input chn 0 -- Cosmic-Ray (Real-Simu)
Entries 0
Hit
Cosmic-Ray
Timed-Cosmic-Ray

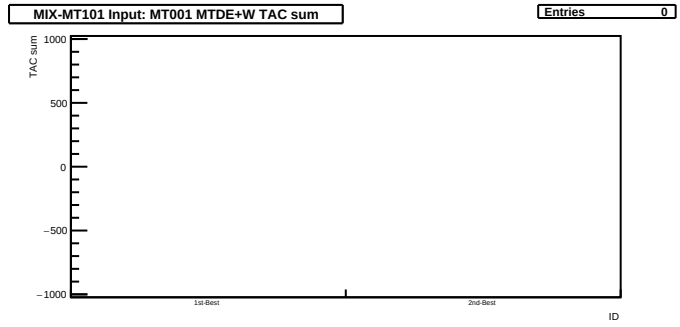

MXQ-MT001
Entries 4176064

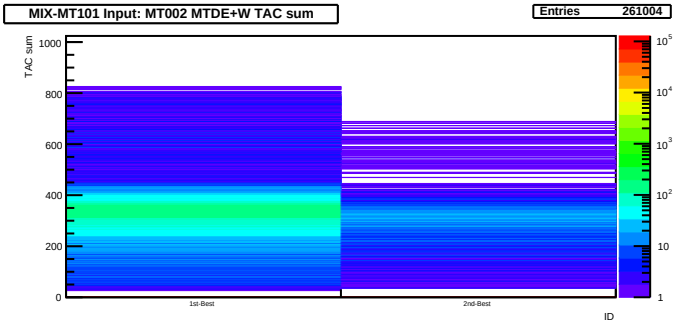

MXQ-MT002
Entries 4176064

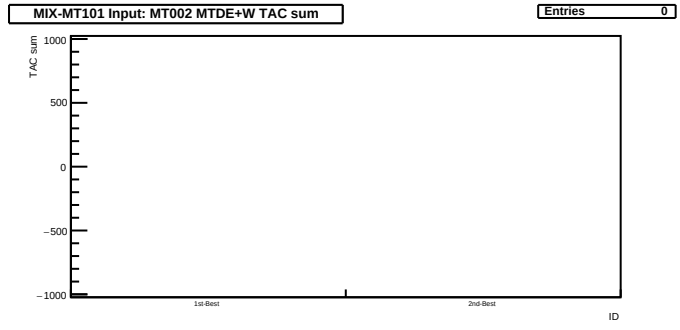

MXQ-MT003
Entries 4176064

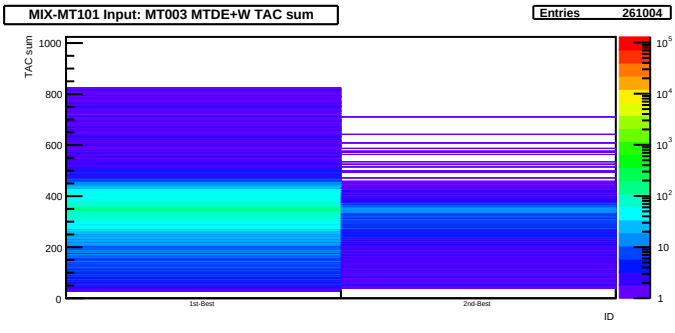

MXQ-MT004
Entries 4176064

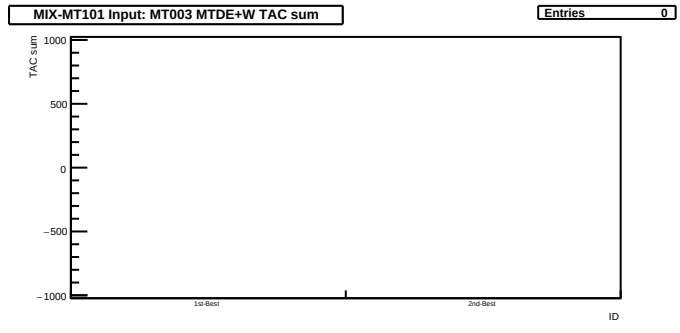

MIX-MT101 Input: MT001 MTDE+W TAC sum
Entries 261004
TAC sum
1st-Best
2nd-Best
ID

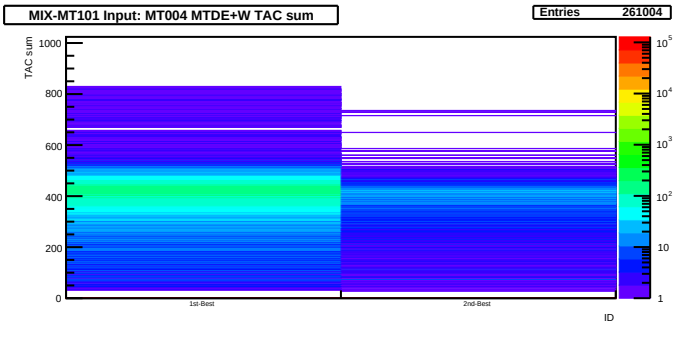

MIX-MT101 Input: MT001 MTDE+W TAC sum
Entries 0
TAC sum
1st-Best
2nd-Best
ID

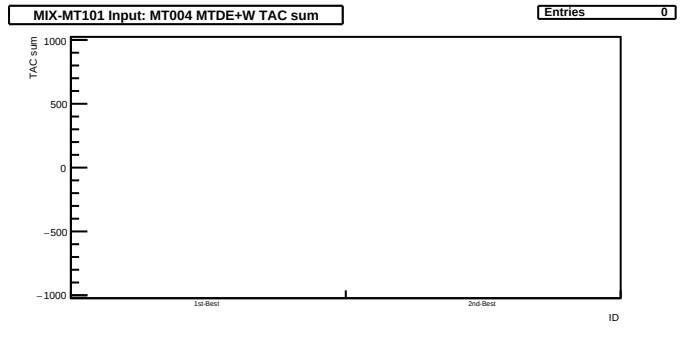

MIX-MT101 Input: MT002 MTDE+W TAC sum
Entries 261004
TAC sum
1st-Best
2nd-Best
ID

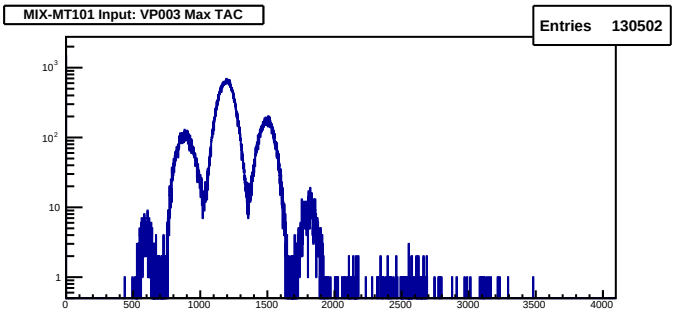

MIX-MT101 Input: MT002 MTDE+W TAC sum
Entries 0
TAC sum
1st-Best
2nd-Best
ID

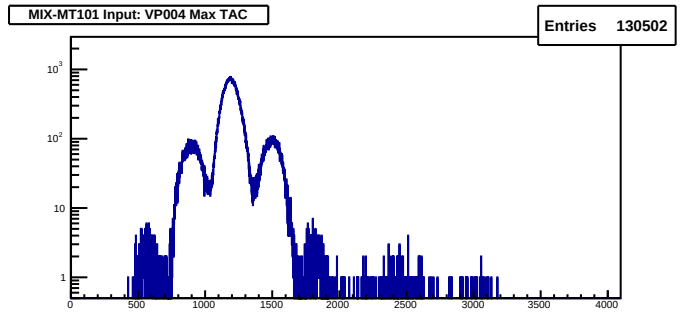

MIX-MT101 Input: MT003 MTDE+W TAC sum
Entries 261004
TAC sum
1st-Best
2nd-Best
ID

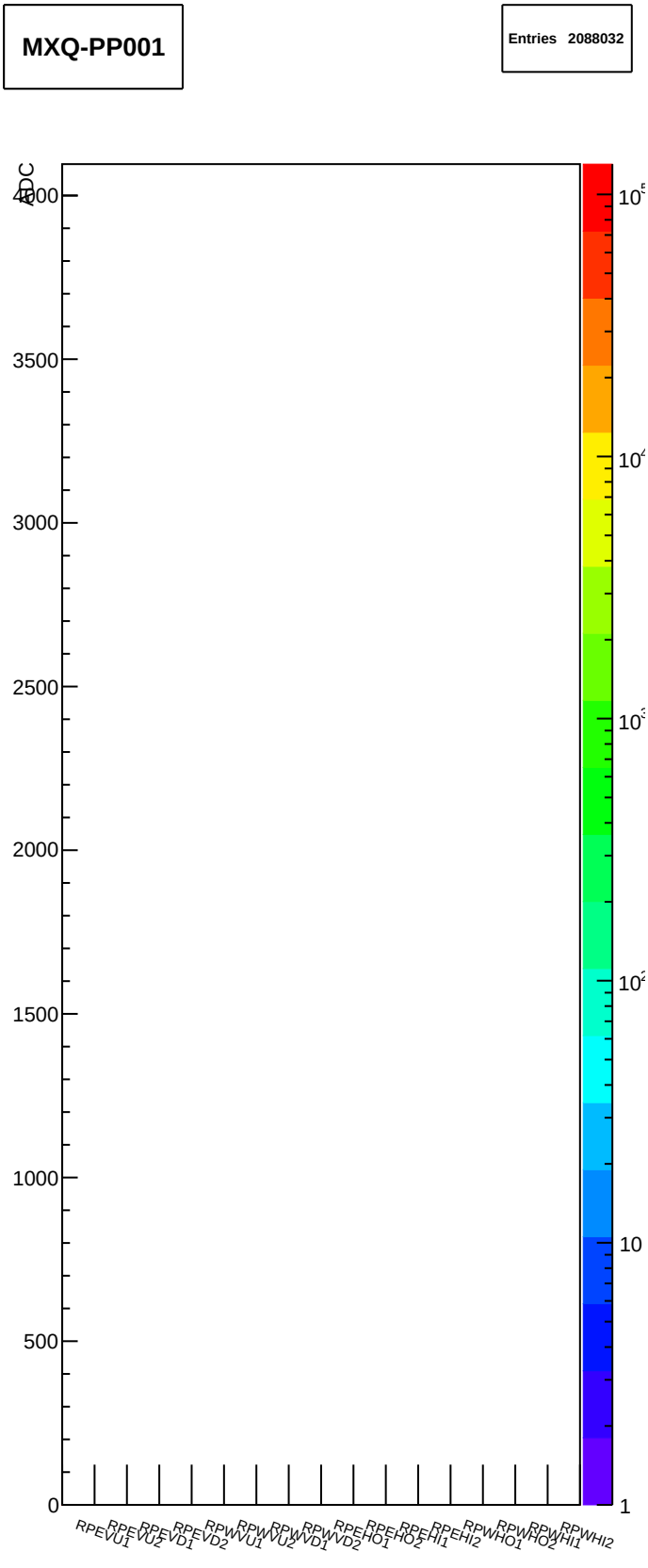

MIX-MT101 Input: MT003 MTDE+W TAC sum
Entries 0
TAC sum
1st-Best
2nd-Best
ID

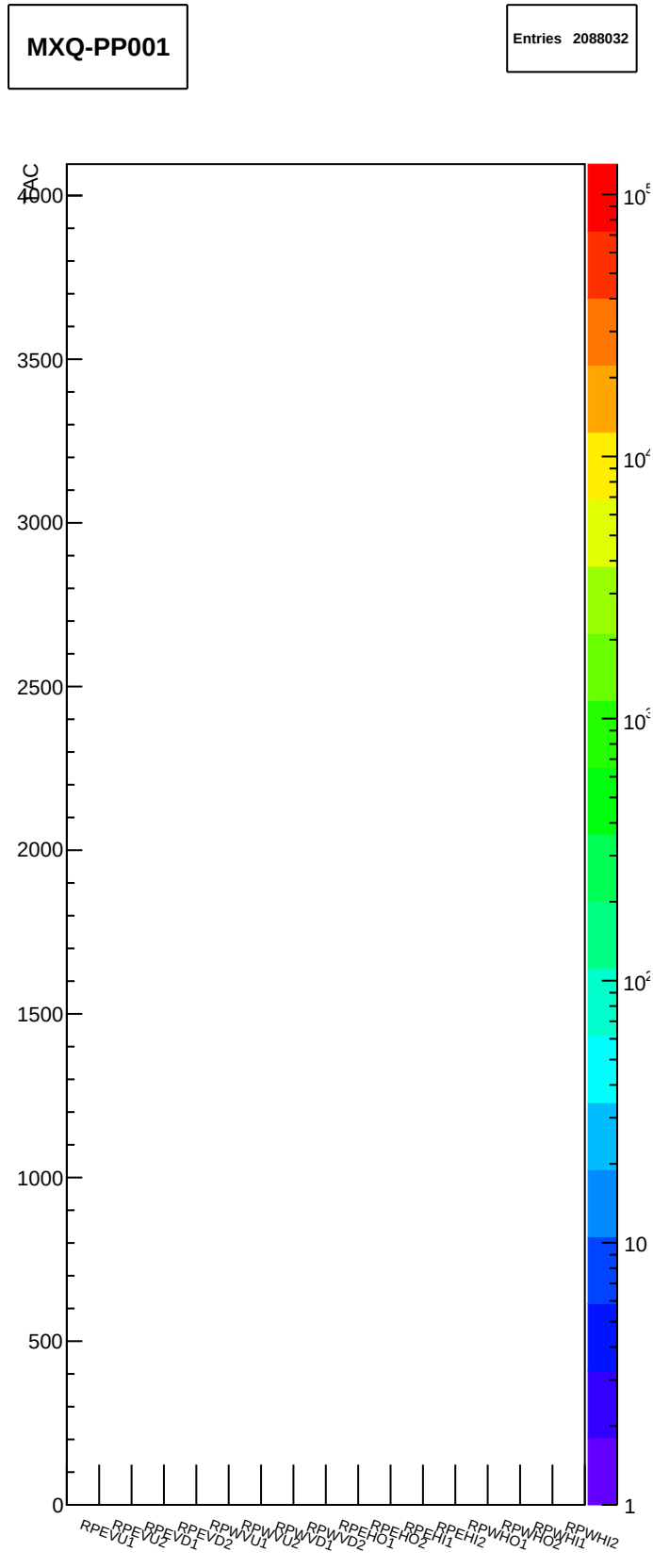

MIX-MT101 Input: MT004 MTDE+W TAC sum
Entries 261004
TAC sum
1st-Best
2nd-Best
ID

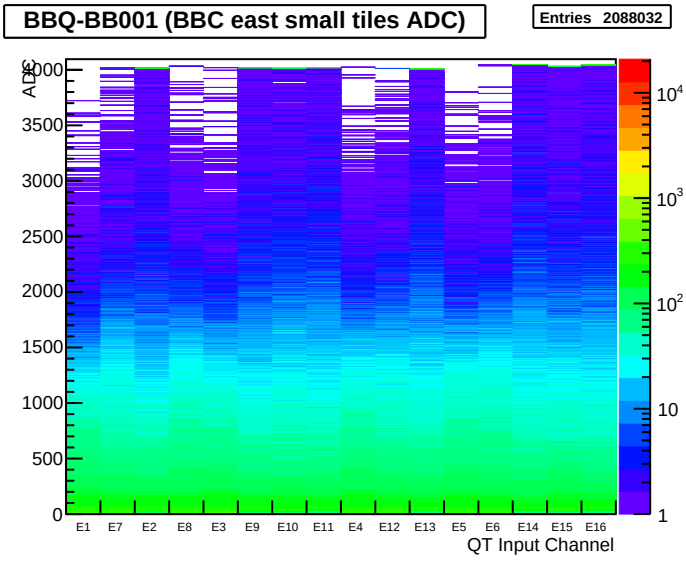

MIX-MT101 Input: MT004 MTDE+W TAC sum
Entries 0
TAC sum
1st-Best
2nd-Best
ID

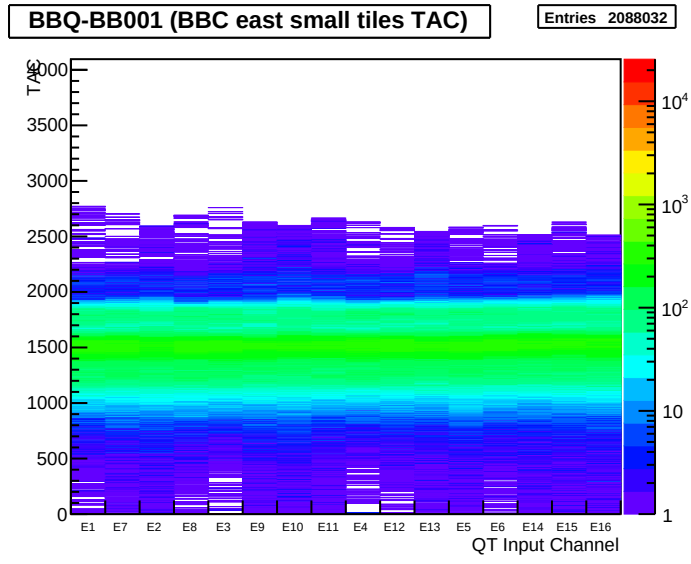

MIX-MT101 Input: VP003 Max TAC
Entries 130502

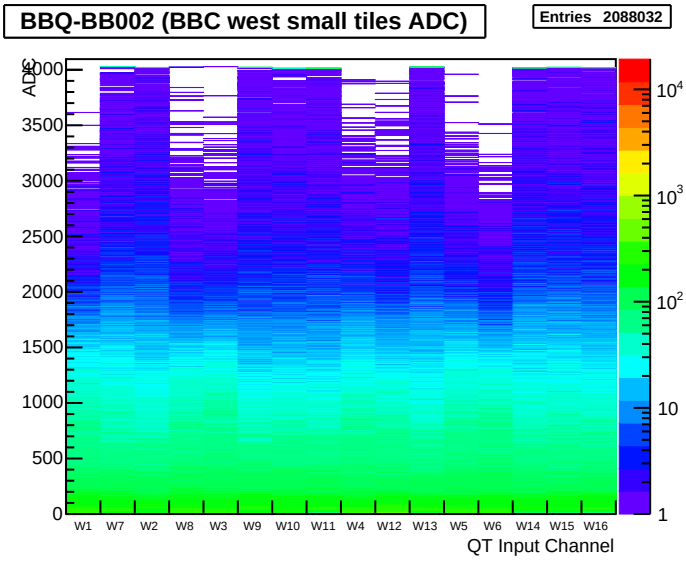

MIX-MT101 Input: VP004 Max TAC
Entries 130502

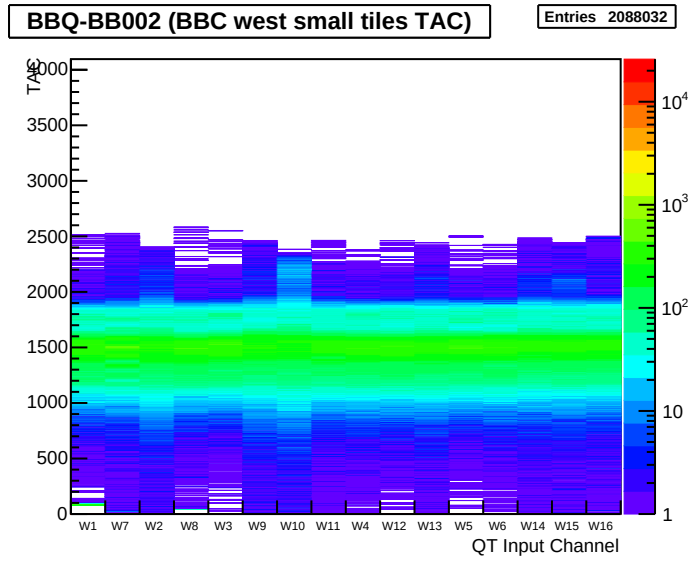

MXQ-PP001
Entries 2088032
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
RPEVU1
RPEVU2
RPEVD1
RPEVD2
RPWVU1
RPWVU2
RPWVD1
RPWVD2
RPEHO1
RPEHO2
RPEHI1
RPEHI2
RPWHO1
RPWHO2
RPWHI1
RPWHI2
1
10

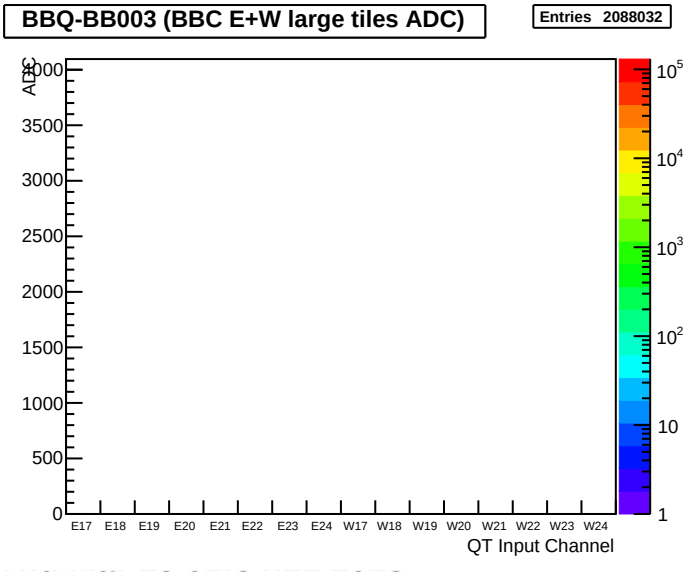

MXQ-PP001
Entries 2088032
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
RPEVU1
RPEVU2
RPEVD1
RPEVD2
RPWVU1
RPWVU2
RPWVD1
RPWVD2
RPEHO1
RPEHO2
RPEHI1
RPEHI2
RPWHO1
RPWHO2
RPWHI1
RPWHI2
1
10

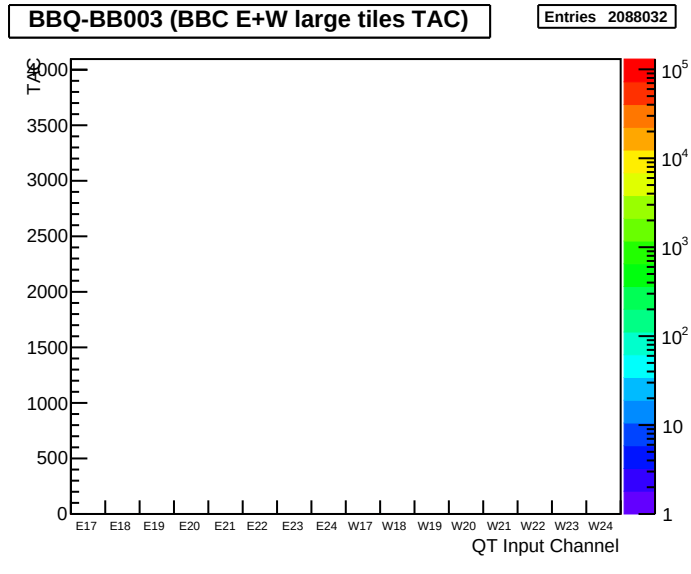

BBQ-BB001 (BBC east small tiles ADC)
Entries 2088032
ADC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

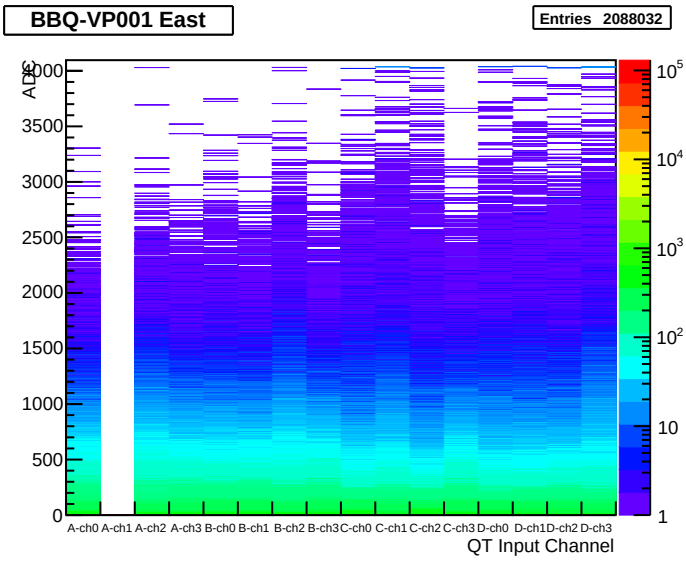

BBQ-BB001 (BBC east small tiles TAC)
Entries 2088032
TAC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

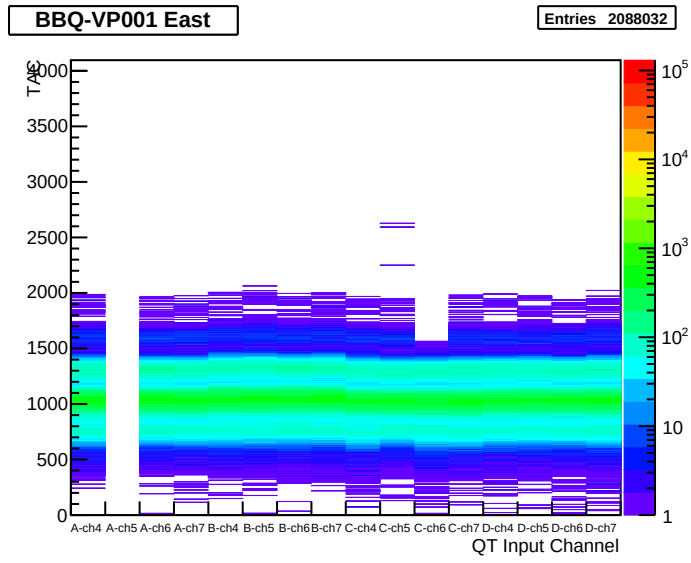

BBQ-BB002 (BBC west small tiles ADC)
Entries 2088032
ADC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

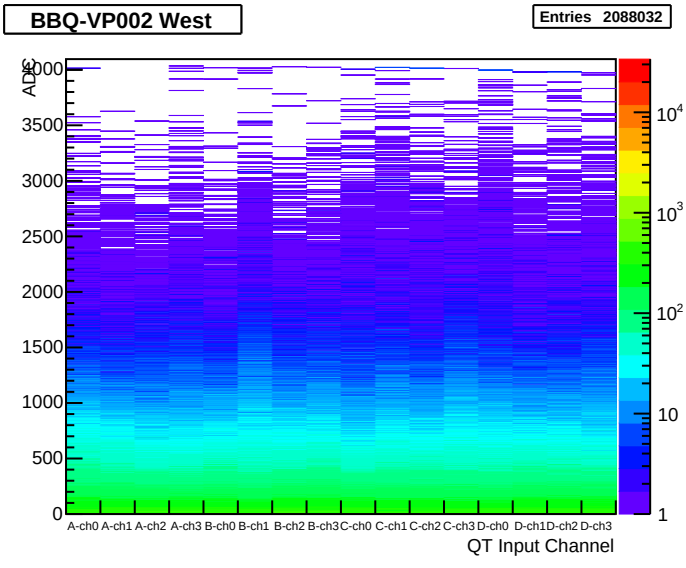

BBQ-BB002 (BBC west small tiles TAC)
Entries 2088032
TAC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

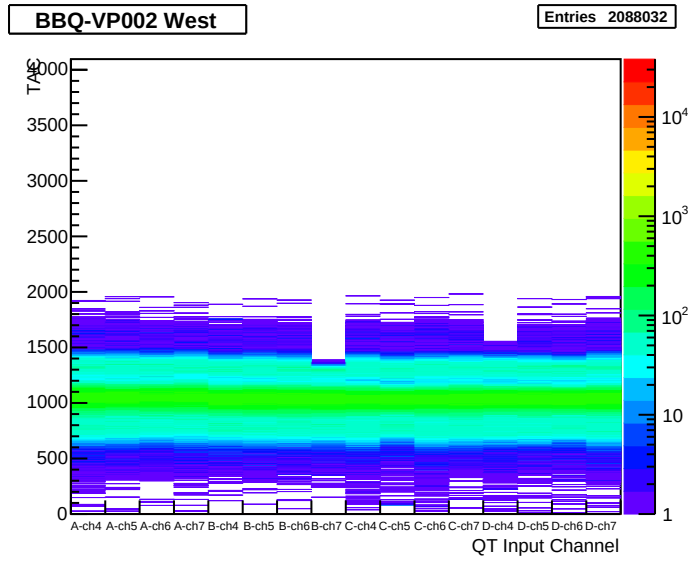

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 2088032
ADC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

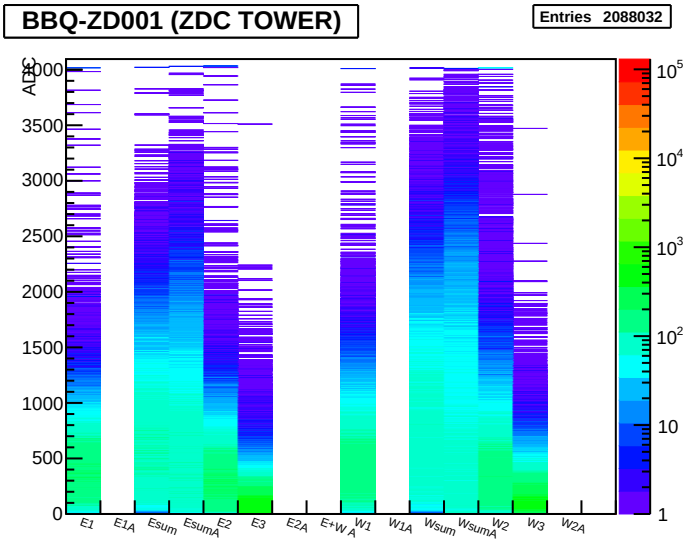

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 2088032
TAC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

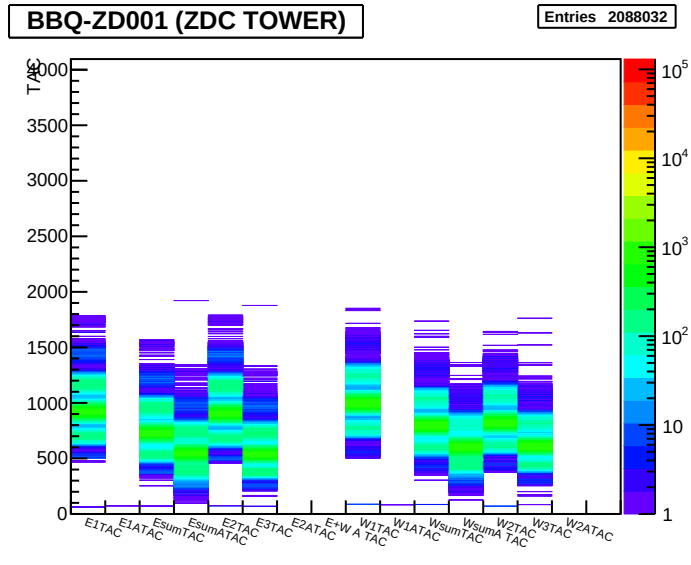

BBQ-VP001 East
Entries 2088032
ADC
QT Input Channel

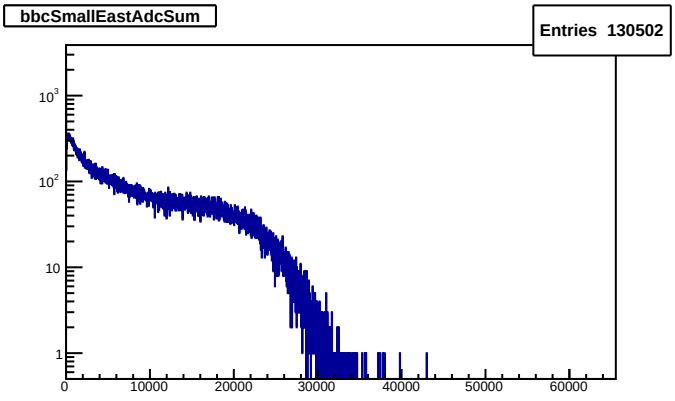

BBQ-VP001 East
Entries 2088032
TAC
QT Input Channel

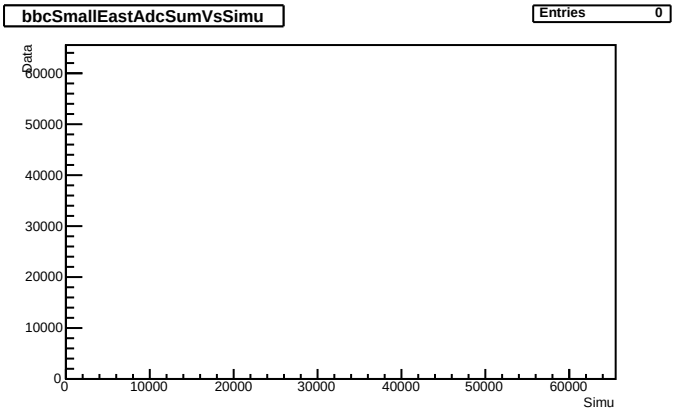

BBQ-VP002 West
Entries 2088032
ADC
QT Input Channel

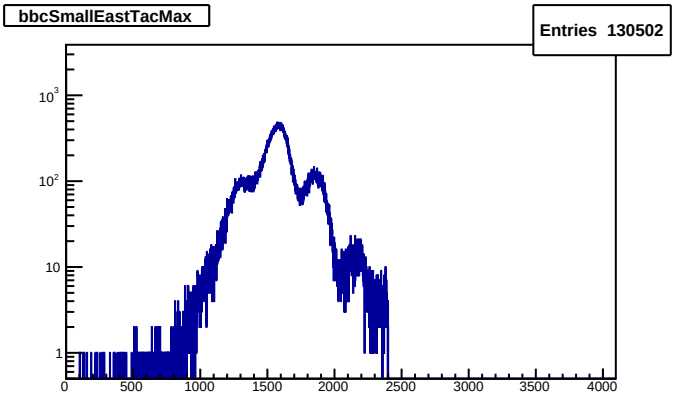

BBQ-VP002 West
Entries 2088032
TAC
QT Input Channel

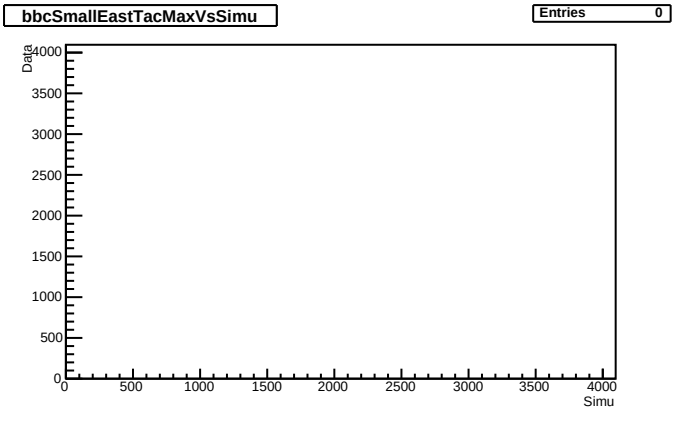

BBQ-ZD001 (ZDC TOWER)
Entries 2088032
ADC

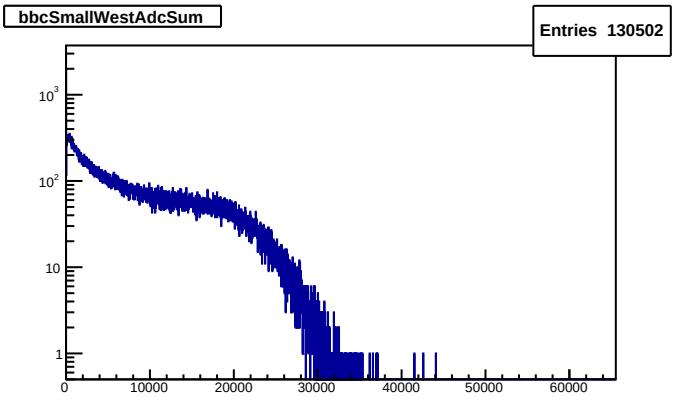

BBQ-ZD001 (ZDC TOWER)
Entries 2088032
TAC

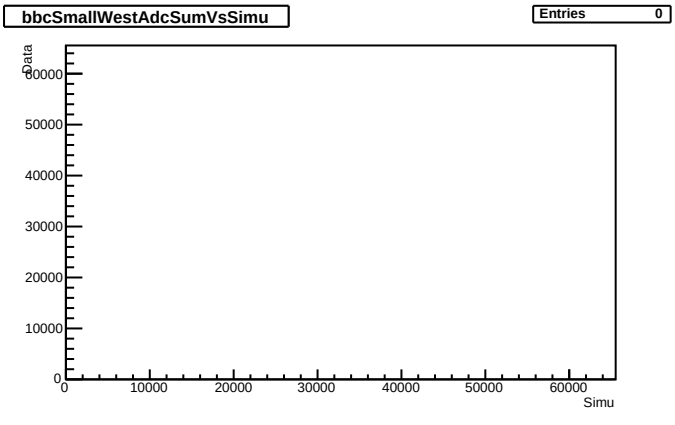

bbcSmallEastAdcSum
Entries 130502

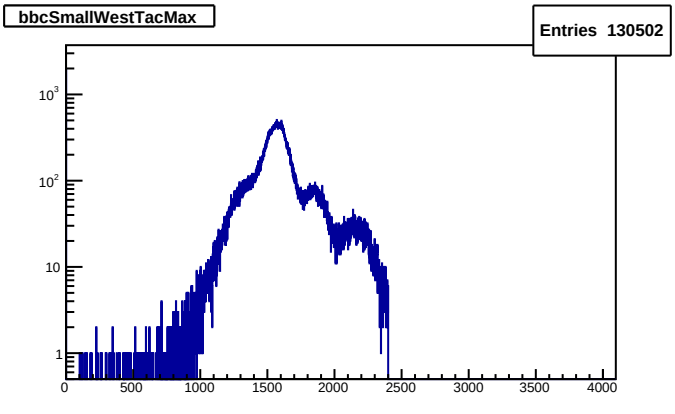

bbcSmallEastAdcSumVsSimu
Entries 0
Data
Simu

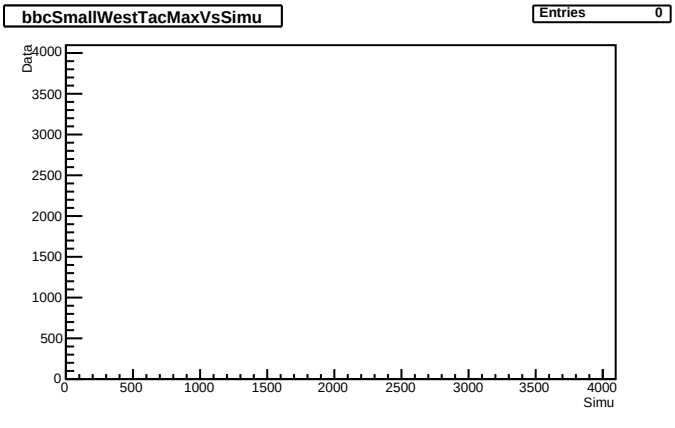

bbcSmallEastTacMax
Entries 130502

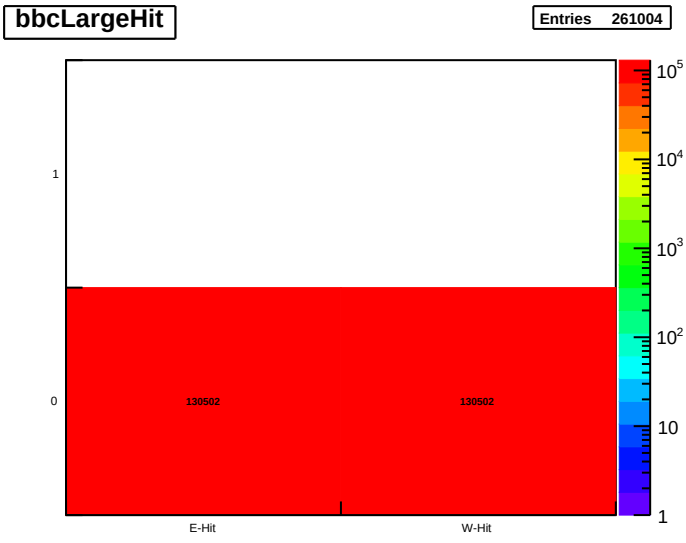

bbcSmallEastTacMaxVsSimu
Entries 0
Data
Simu

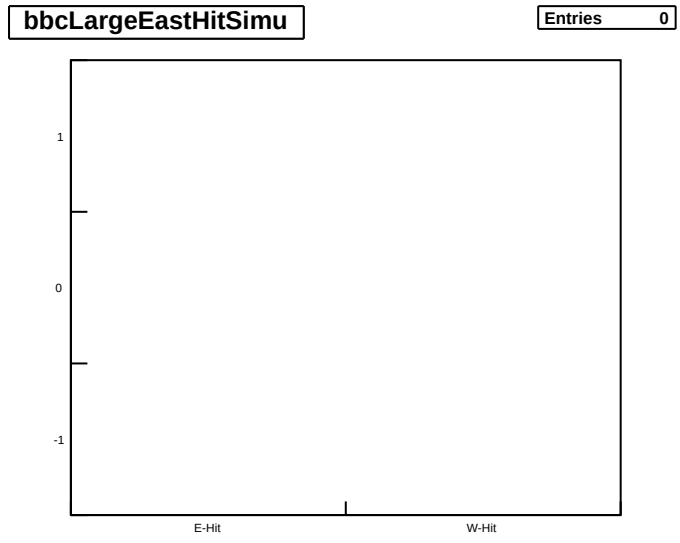

bbcSmallWestAdcSum
Entries 130502

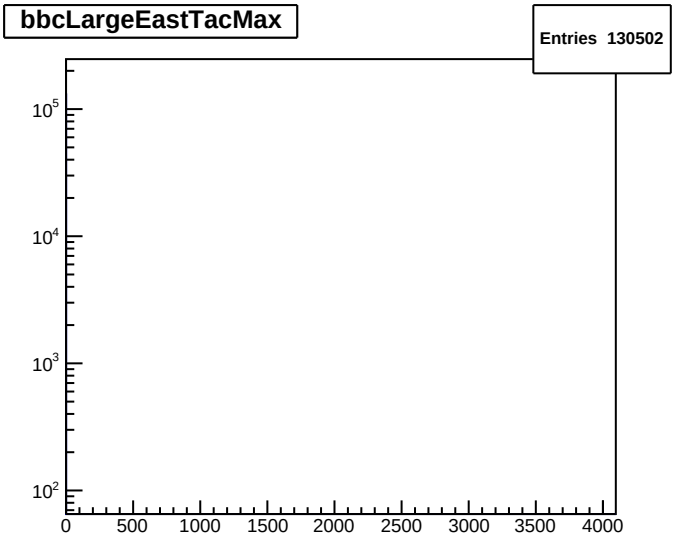

bbcSmallWestAdcSumVsSimu
Entries 0
Data
Simu

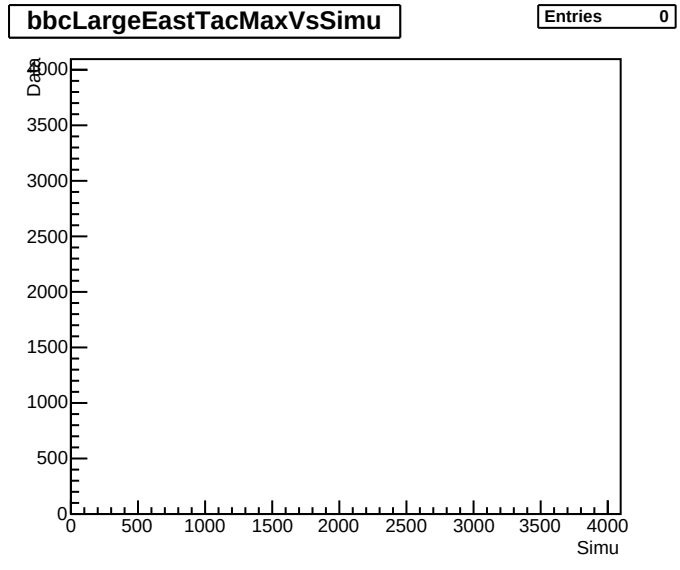

bbcSmallWestTacMax
Entries 130502

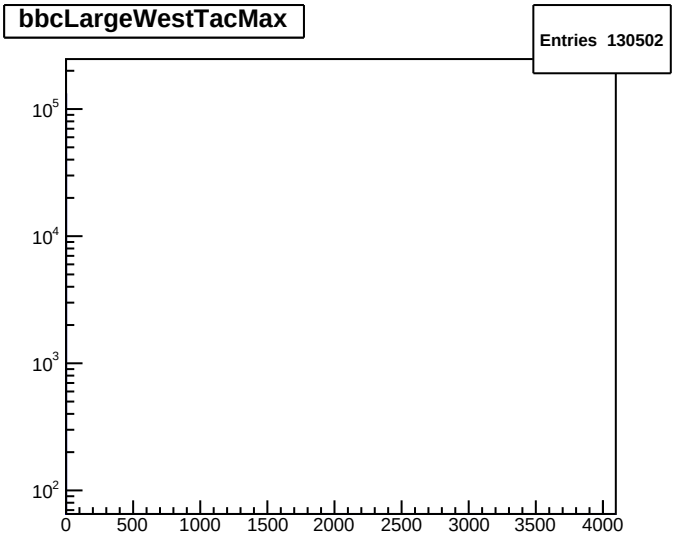

bbcSmallWestTacMaxVsSimu
Entries 0
Data
Simu

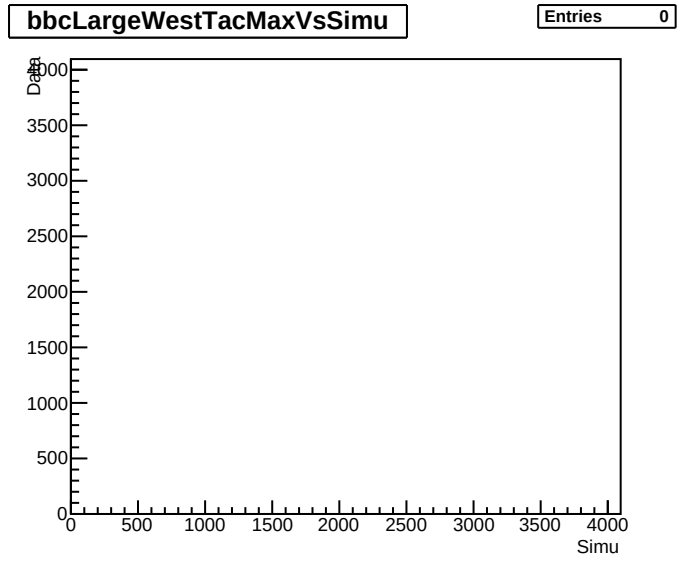

bbcLargeHit
Entries 261004
130502
130502
E-Hit
W-Hit

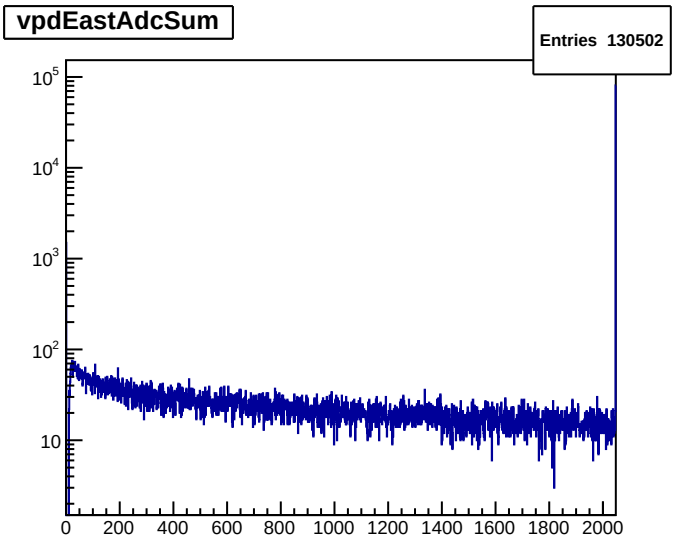

bbcLargeEastHitSimu
Entries 0
E-Hit
W-Hit

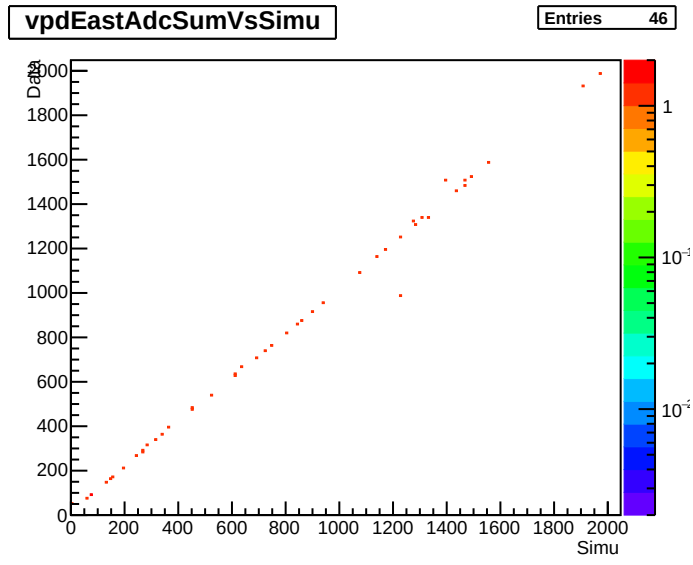

bbcLargeEastTacMax
Entries 130502

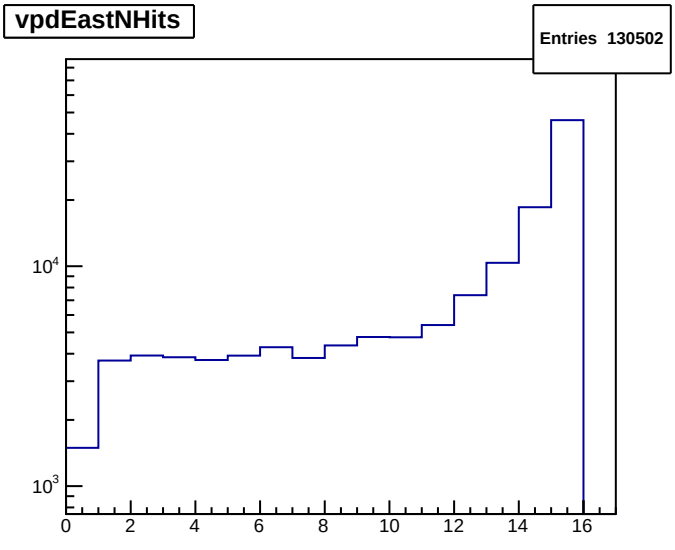

bbcLargeEastTacMaxVsSimu
Entries 0
Data
Simu

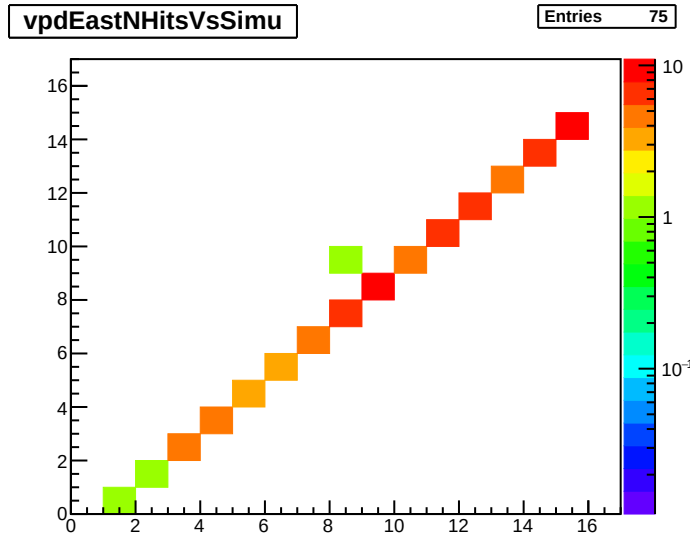

bbcLargeWestTacMax
Entries 130502

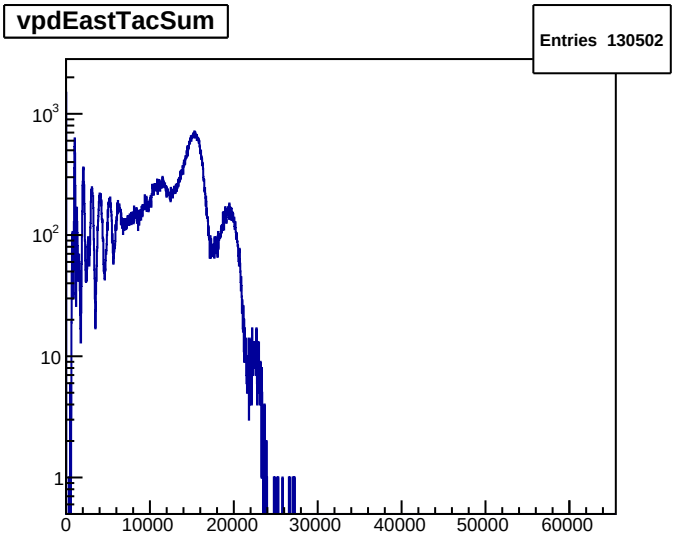

bbcLargeWestTacMaxVsSimu
Entries 0
Data
Simu

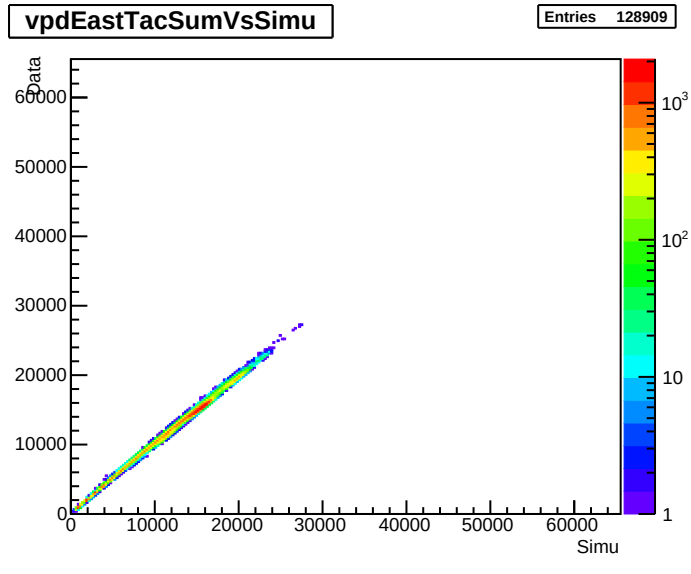

vpdEastAdcSum
Entries 130502

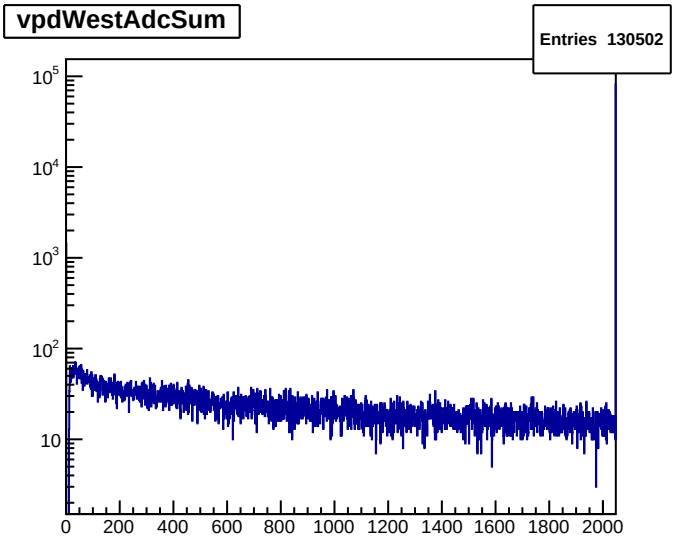

vpdEastAdcSumVsSimu
Entries 46
Data
Simu

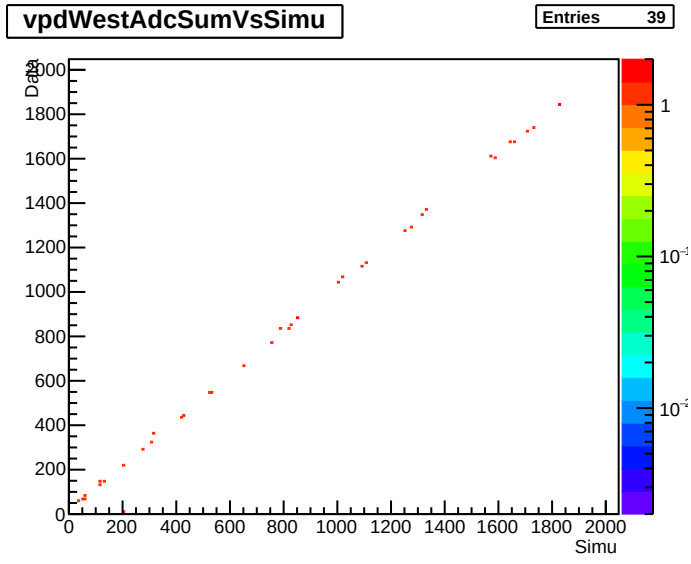

vpdEastNHits
Entries 130502

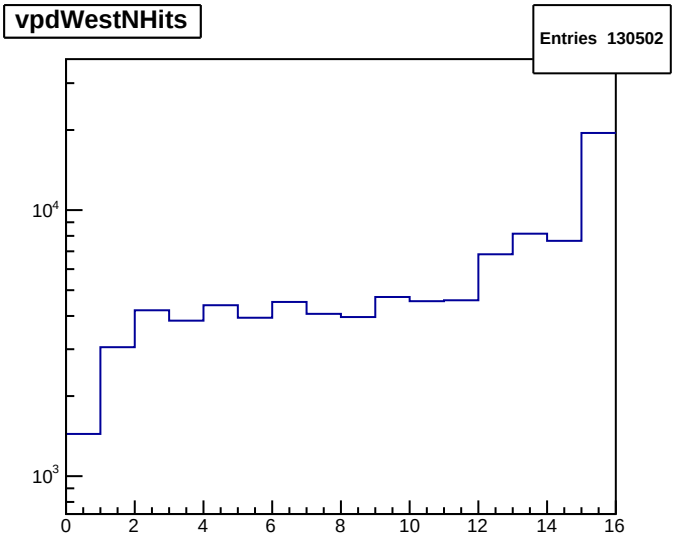

vpdEastNHitsVsSimu
Entries 75

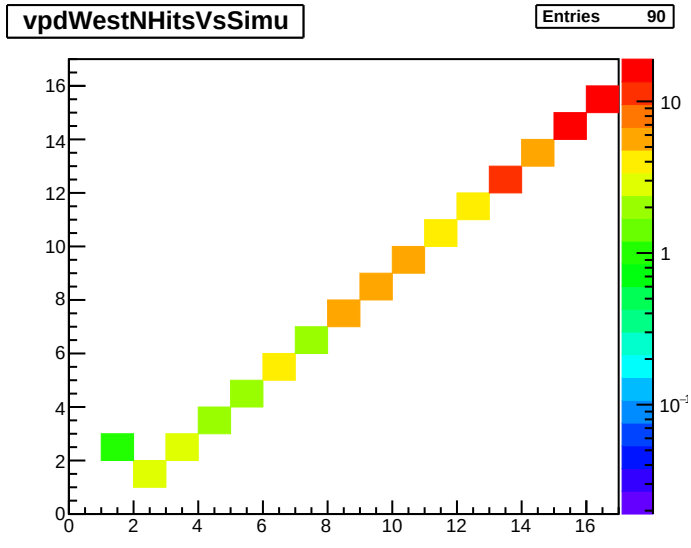

vpdEastTacSum
Entries 130502

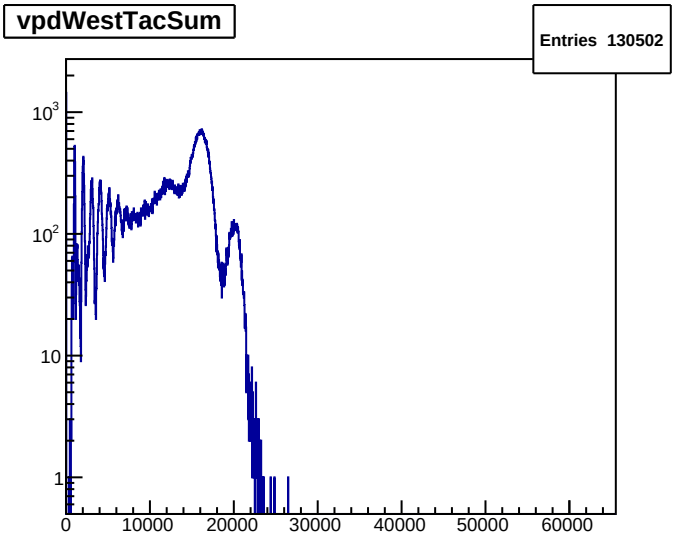

vpdEastTacSumVsSimu
Entries 128909
Data
Simu

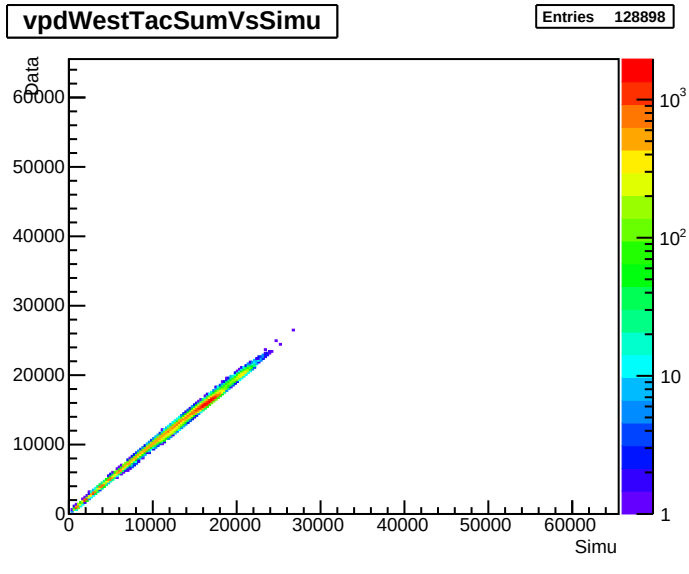

vpdWestAdcSum
Entries 130502

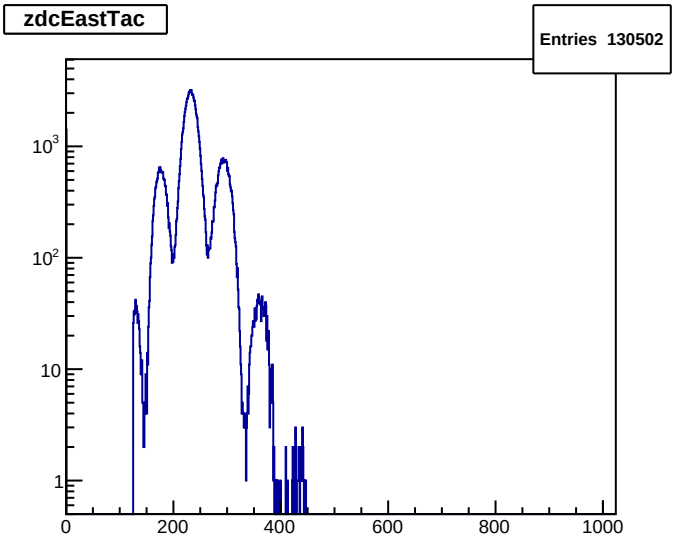

vpdWestAdcSumVsSimu
Entries 39
Data
Simu

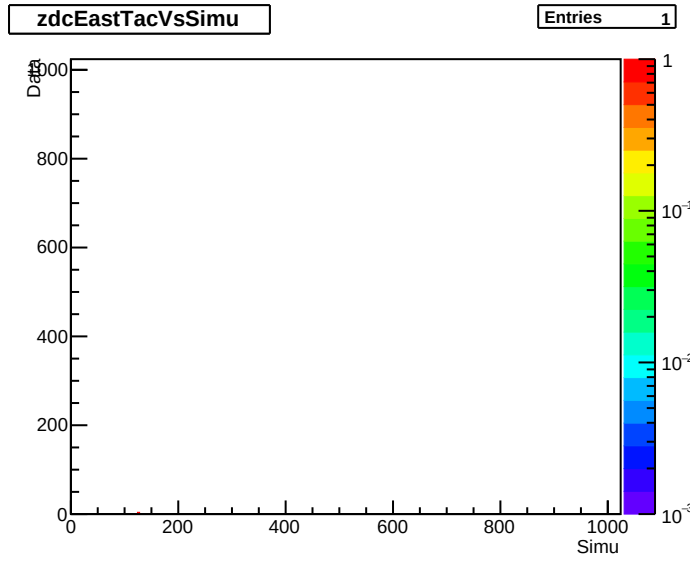

vpdWestNHits
Entries 130502

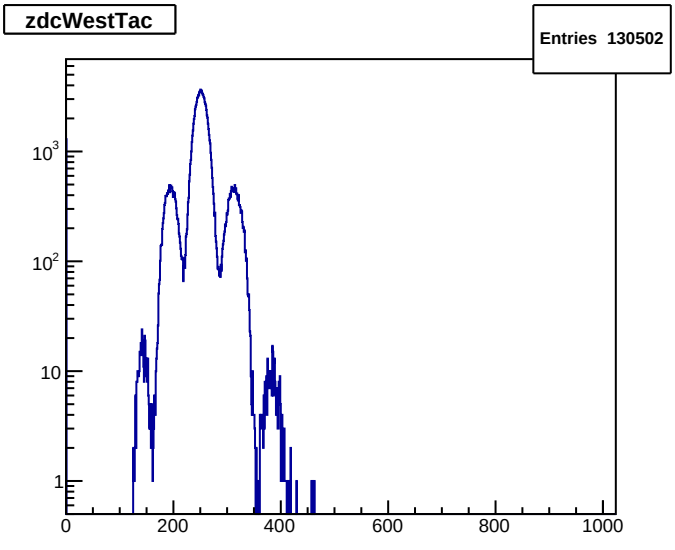

vpdWestNHitsVsSimu
Entries 90

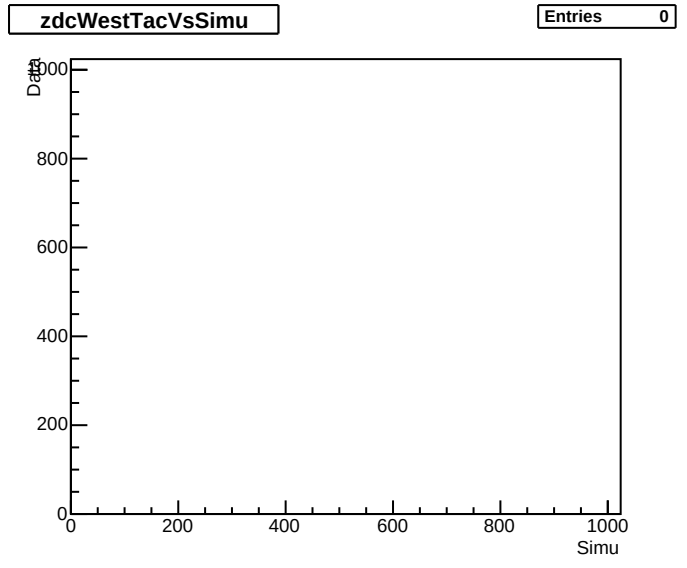

vpdWestTacSum
Entries 130502

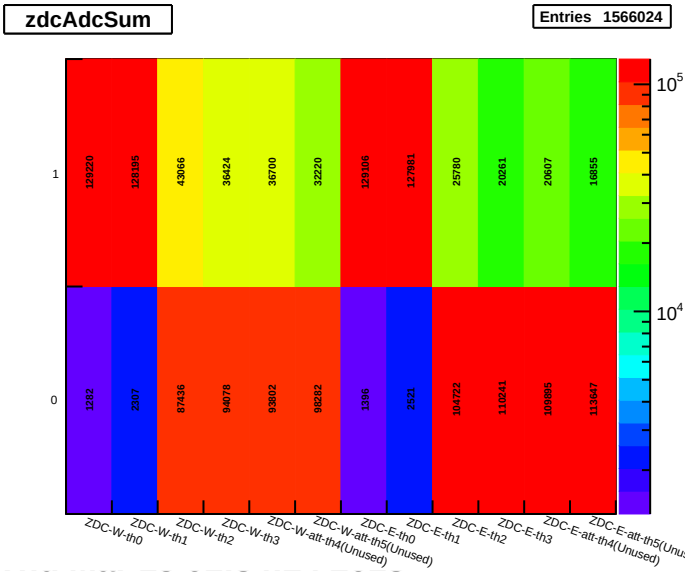

vpdWestTacSumVsSimu
Entries 128898
Data
Simu

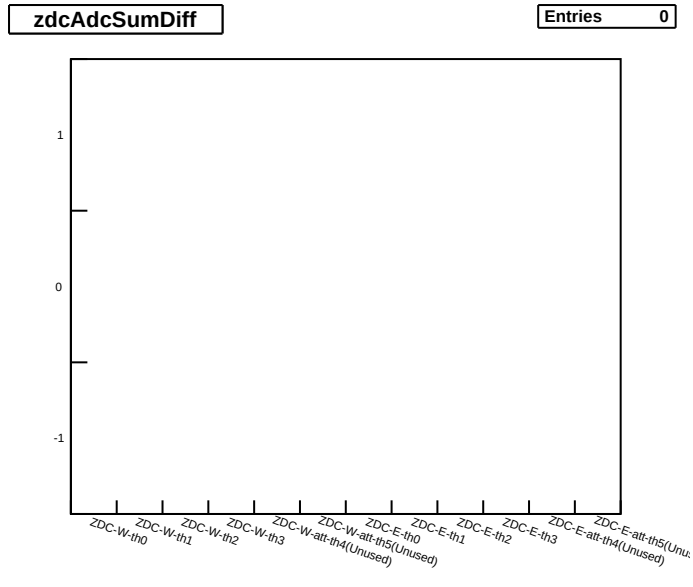

zdcEastTac
Entries 130502
10^3
10^2
10
1
0
200
400
600
800
1000

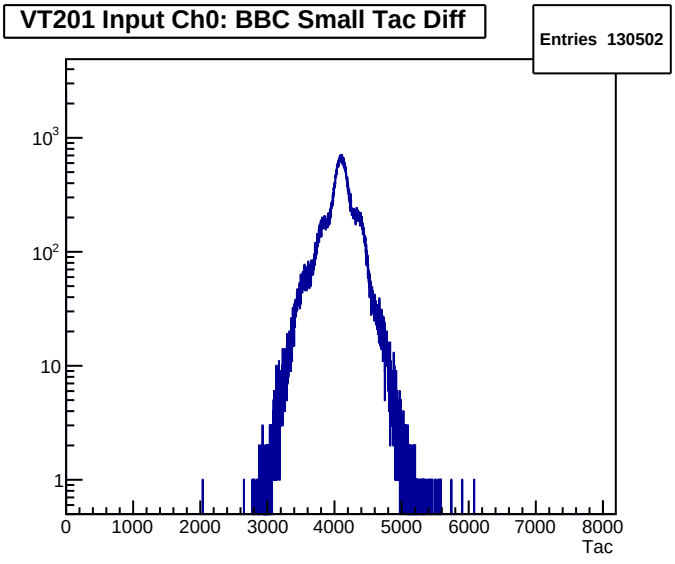

zdcEastTacVsSimu
Entries 1
Data
1000
800
600
400
200
0
0
200
400
600
800
1000
Simu
1
10^{-1}
10^{-2}
10^{-3}

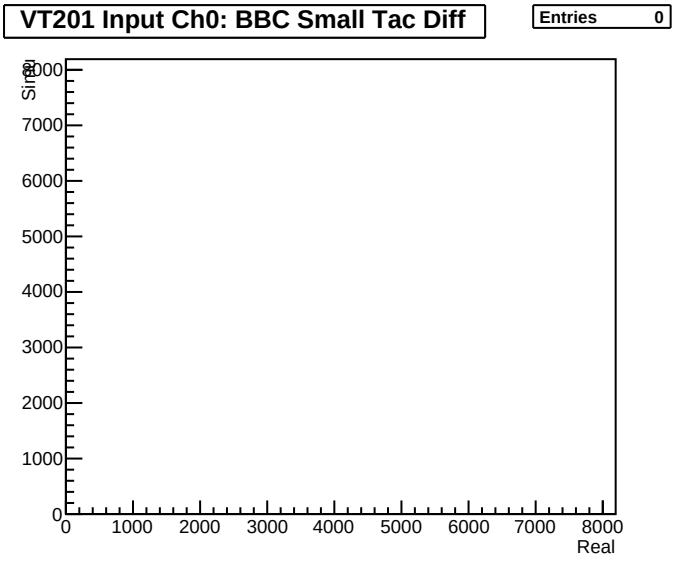

zdcWestTac
Entries 130502
10^3
10^2
10
1
0
200
400
600
800
1000

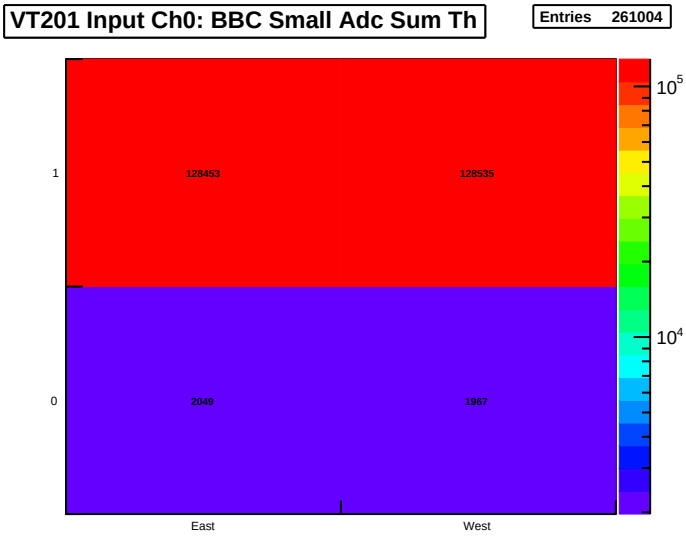

zdcWestTacVsSimu
Entries 0
Data
1000
800
600
400
200
0
0
200
400
600
800
1000
Simu

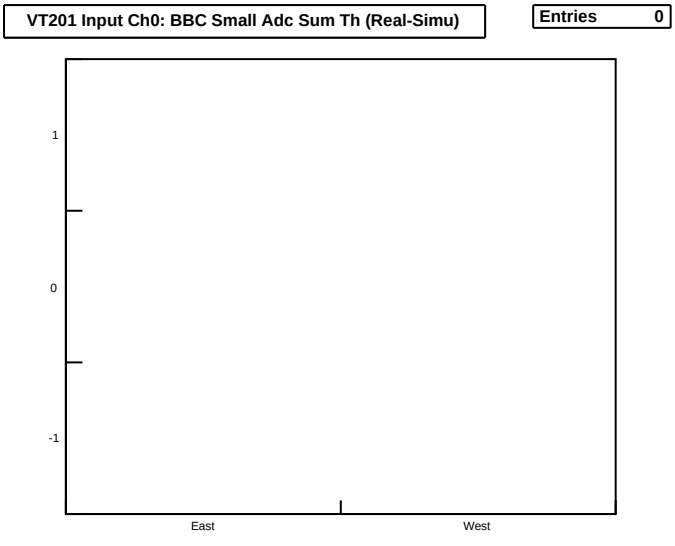

zdcAdcSum
Entries 1566024
1
0
129220
128195
43066
36424
36700
32220
129106
127981
25780
20261
20607
16855
1232
2307
87436
94078
93802
98282
1336
2521
104722
110241
109895
113647
10^5
10^4
ZDC-W-th0
ZDC-W-th1
ZDC-W-th2
ZDC-W-th3
ZDC-W-att-th4(Unused)
ZDC-W-att-th5(Unused)
ZDC-E-th0
ZDC-E-th1
ZDC-E-th2
ZDC-E-th3
ZDC-E-att-th4(Unused)

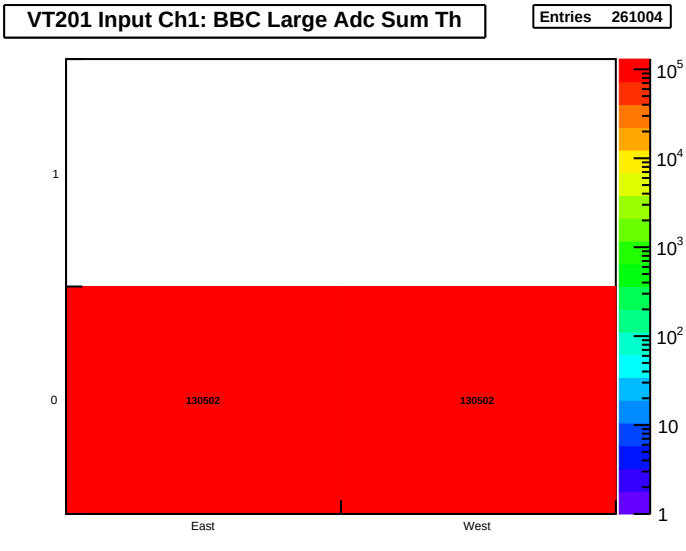

zdcAdcSumDiff
Entries 0
1
0
-1
ZDC-W-th0
ZDC-W-th1
ZDC-W-th2
ZDC-W-th3
ZDC-W-att-th4(Unused)
ZDC-W-att-th5(Unused)
ZDC-E-th0
ZDC-E-th1
ZDC-E-th2
ZDC-E-th3
ZDC-E-att-th4(Unused)

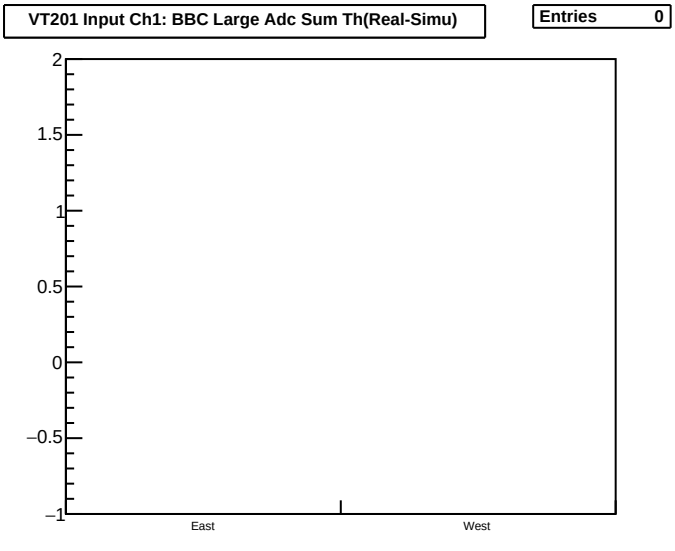

VT201 Input Ch0: BBC Small Tac Diff
Entries 130502
Tac

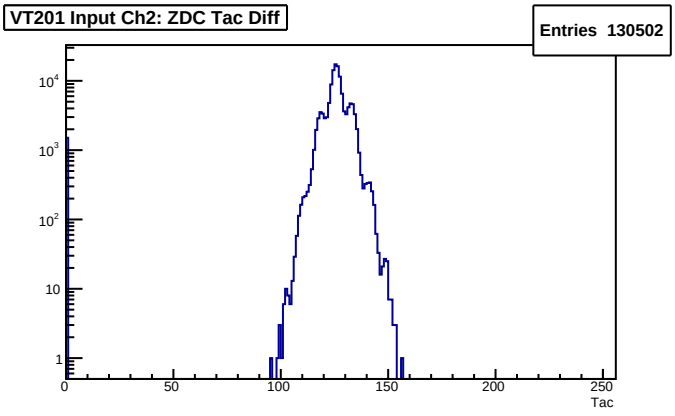

VT201 Input Ch0: BBC Small Tac Diff
Entries 0
Simu
Real

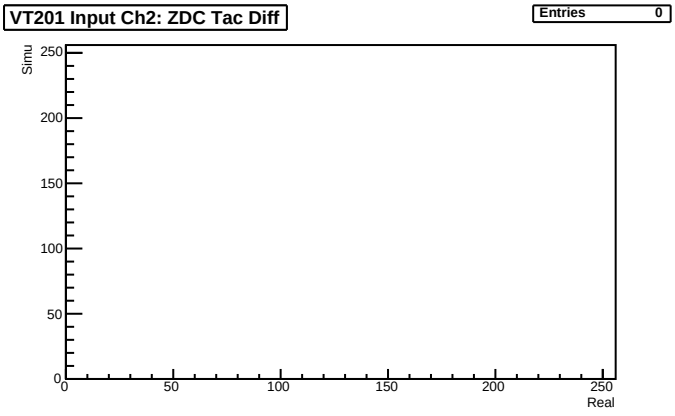

VT201 Input Ch0: BBC Small Adc Sum Th
Entries 261004
128453
128535
2049
1967
East
West

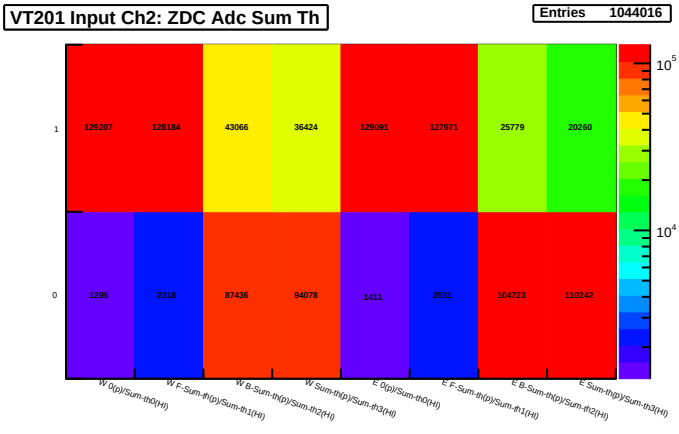

VT201 Input Ch0: BBC Small Adc Sum Th (Real-Simu)
Entries 0
East
West

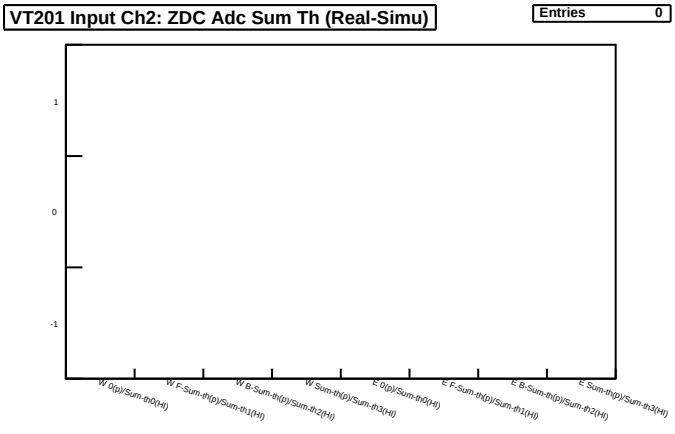

VT201 Input Ch1: BBC Large Adc Sum Th
Entries 261004
130502
130502
East
West

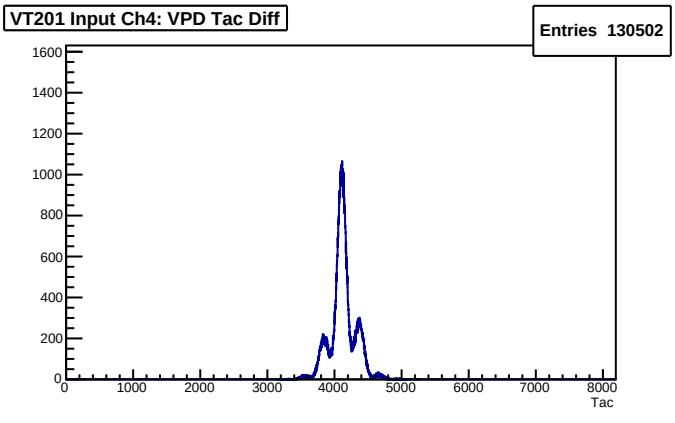

VT201 Input Ch1: BBC Large Adc Sum Th(Real-Simu)
Entries 0
East
West

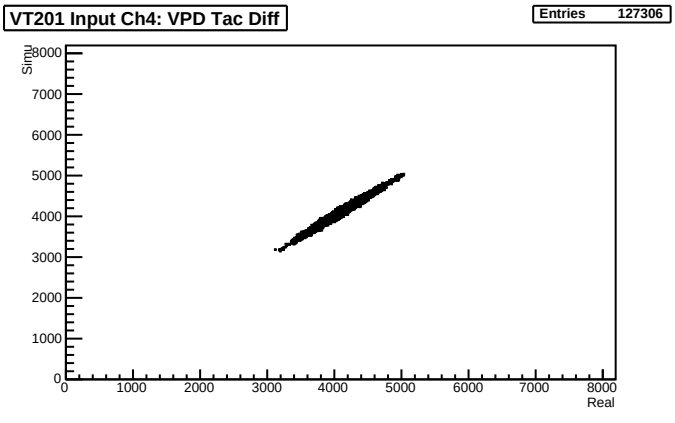

VT201 Input Ch2: ZDC Tac Diff
Entries 130502
Tac

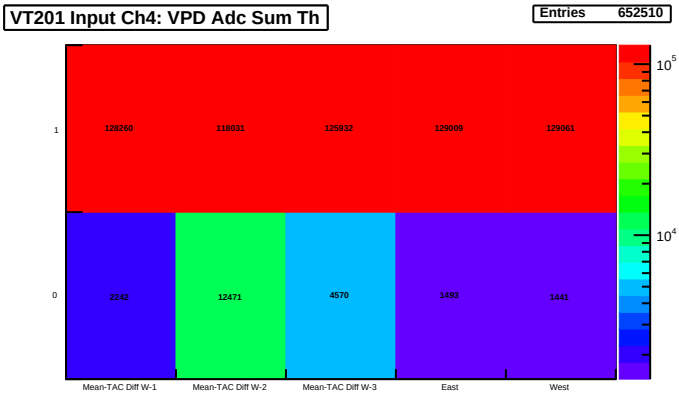

VT201 Input Ch2: ZDC Tac Diff
Entries 0
Simu
Real

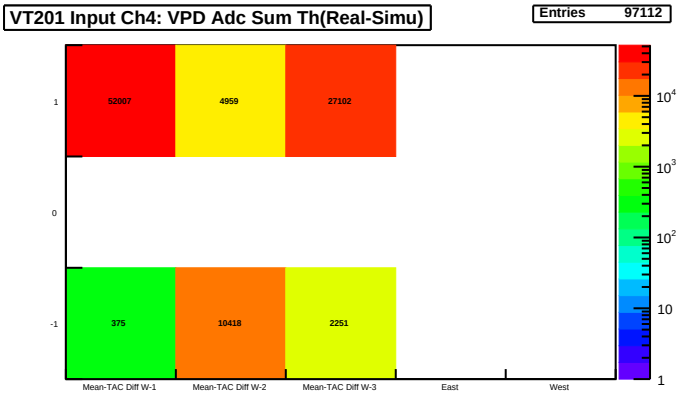

VT201 Input Ch2: ZDC Adc Sum Th
Entries 1044016
129207
128184
43066
36424
129091
127971
25779
20260
1295
2318
87436
94078
1411
2531
104723
110242
W 0(p)/Sum-th0(Hl)
W F-Sum-th(p)/Sum-th1(Hl)
W B-Sum-th(p)/Sum-th2(Hl)
W Sum-th(p)/Sum-th3(Hl)
E 0(p)/Sum-th0(Hl)
E F-Sum-th(p)/Sum-th1(Hl)
E B-Sum-th(p)/Sum-th2(Hl)
E Sum-th(p)/Sum-th3(Hl)

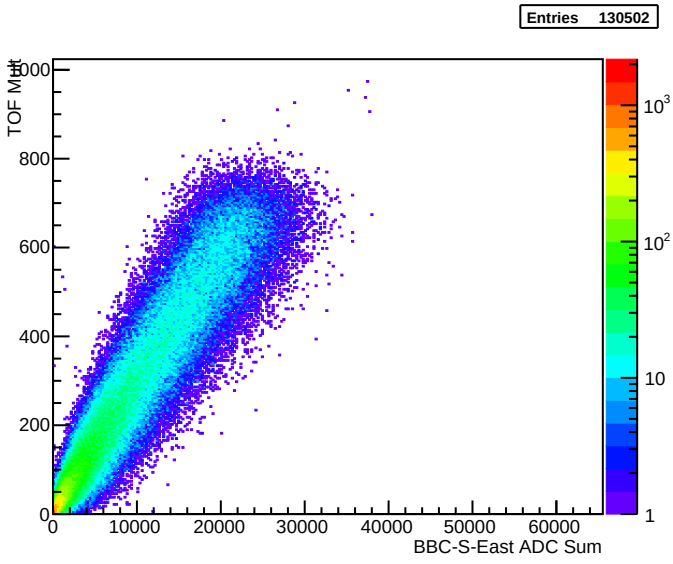

VT201 Input Ch2: ZDC Adc Sum Th (Real-Simu)
Entries 0
W 0(p)/Sum-th0(Hl)
W F-Sum-th(p)/Sum-th1(Hl)
W B-Sum-th(p)/Sum-th2(Hl)
W Sum-th(p)/Sum-th3(Hl)
E 0(p)/Sum-th0(Hl)
E F-Sum-th(p)/Sum-th1(Hl)
E B-Sum-th(p)/Sum-th2(Hl)
E Sum-th(p)/Sum-th3(Hl)

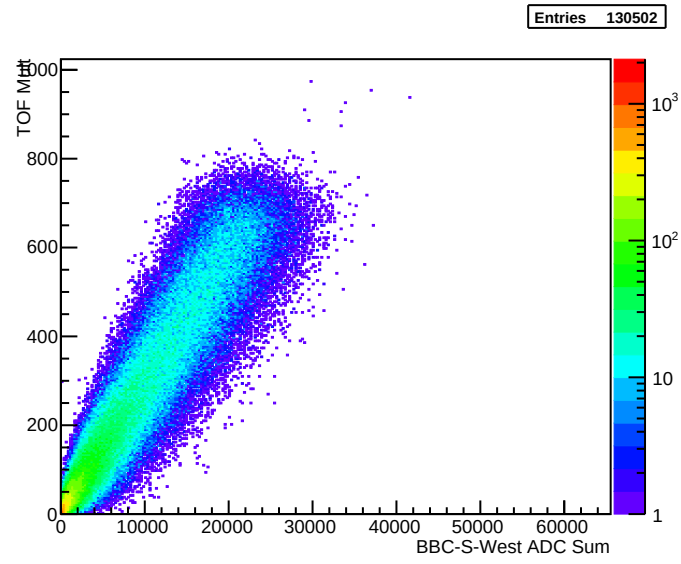

VT201 Input Ch4: VPD Tac Diff
Entries 130502
Tac

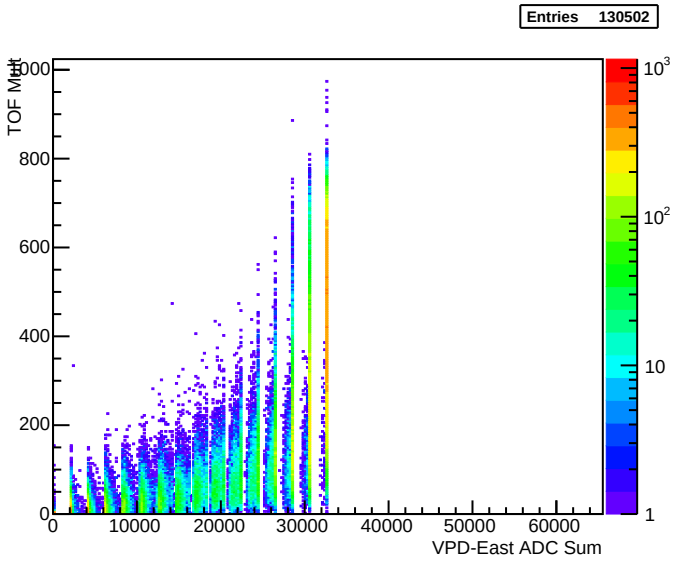

VT201 Input Ch4: VPD Tac Diff
Entries 127306
Simu
Real

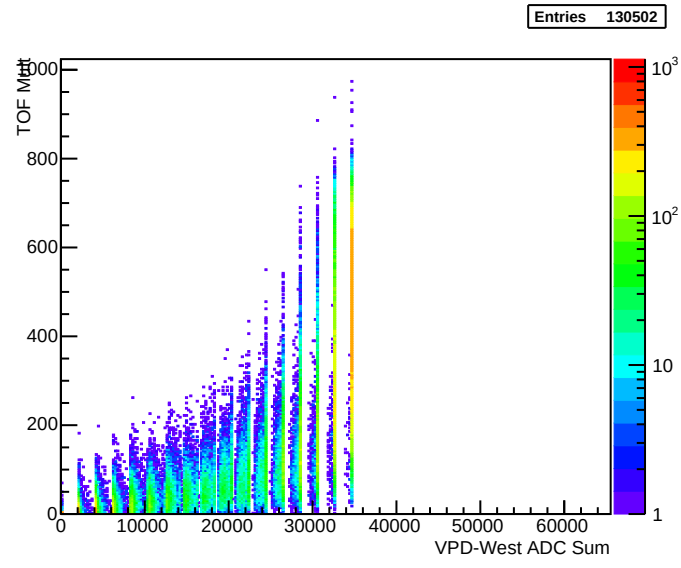

VT201 Input Ch4: VPD Adc Sum Th
Entries 652510
128260
118031
125932
129009
129061
2242
12471
4570
1493
1441
Mean-TAC Diff W-1
Mean-TAC Diff W-2
Mean-TAC Diff W-3
East
West

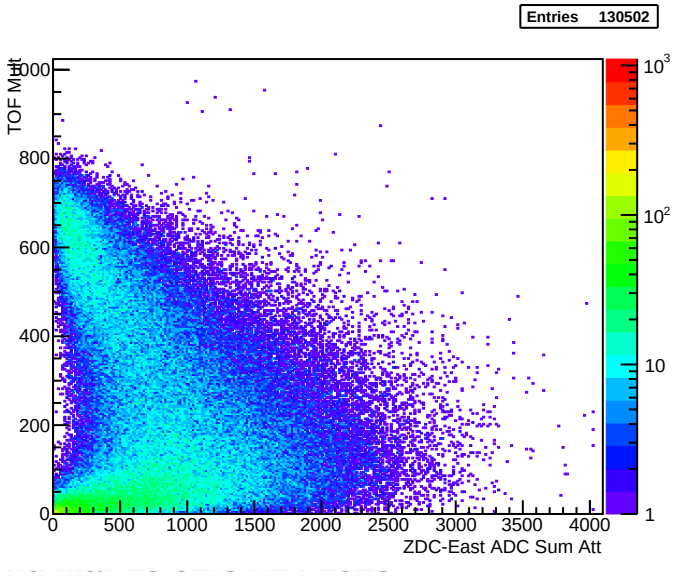

VT201 Input Ch4: VPD Adc Sum Th(Real-Simu)
Entries 97112
52007
4959
27102
375
10418
2251
Mean-TAC Diff W-1
Mean-TAC Diff W-2
Mean-TAC Diff W-3
East
West

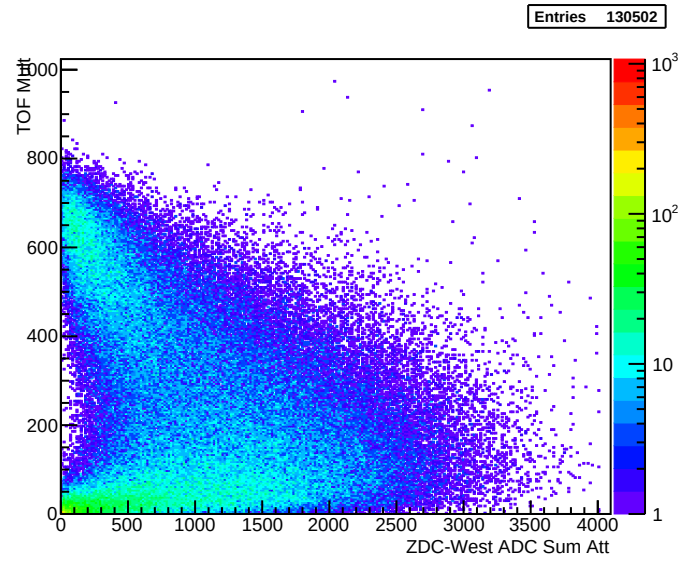

Entries 130502
TOF Mult
BBC-S-East ADC Sum

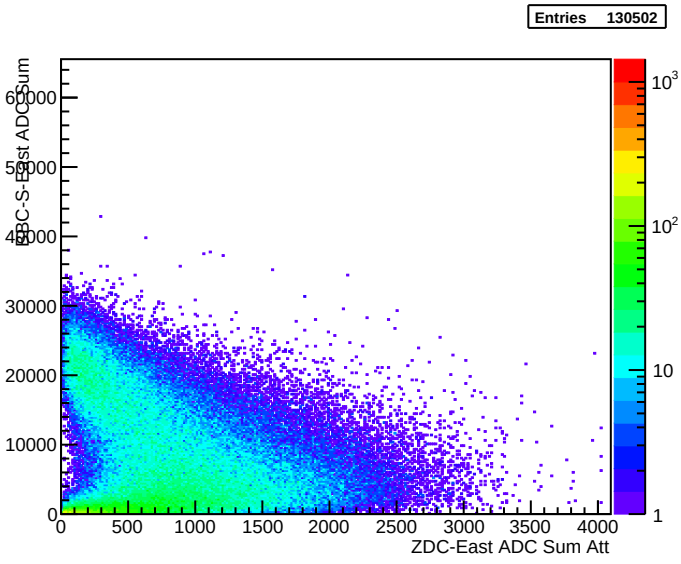

Entries 130502
TOF Mult
BBC-S-West ADC Sum

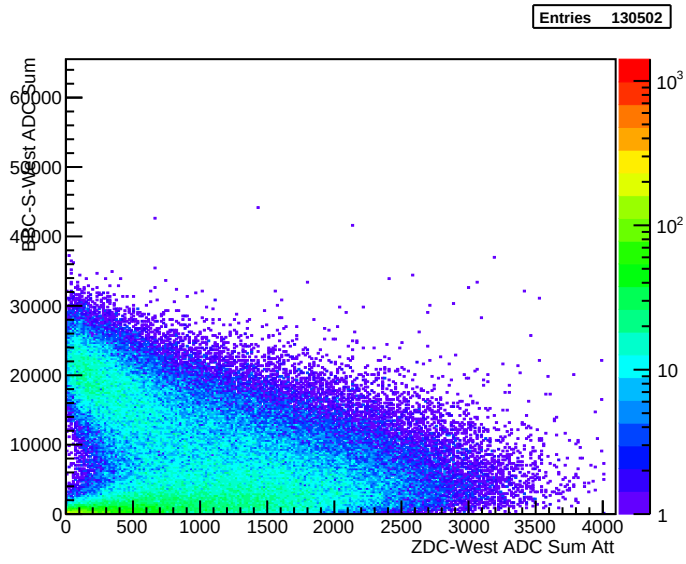

Entries 130502
TOF Mult
VPD-East ADC Sum

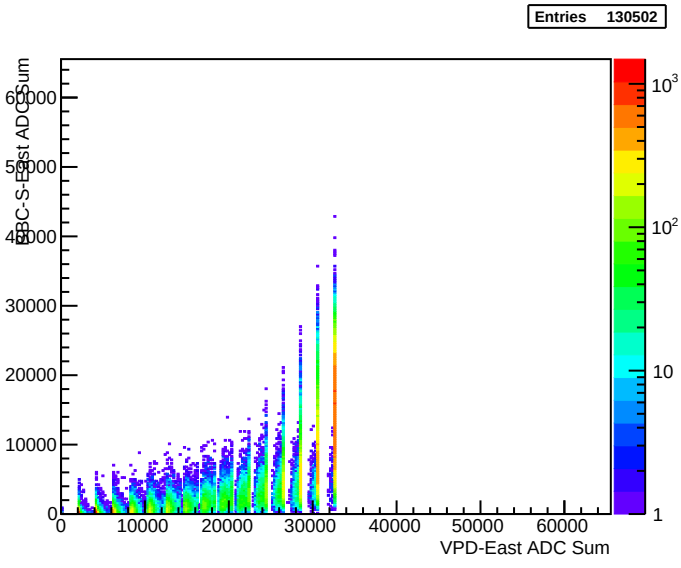

Entries 130502
TOF Mult
VPD-West ADC Sum

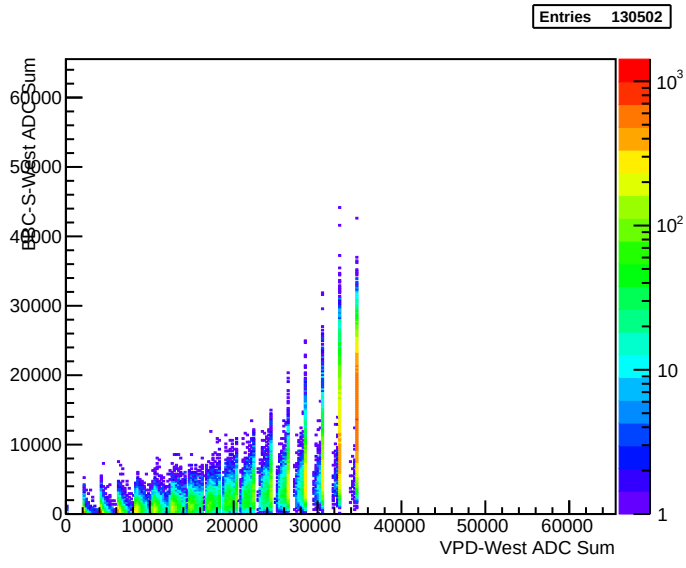

Entries 130502
TOF Mult
ZDC-East ADC Sum Att

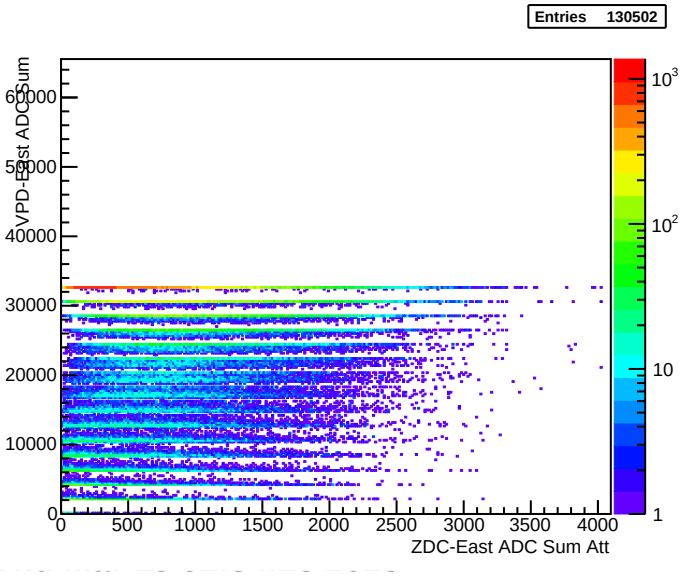

Entries 130502
TOF Mult
ZDC-West ADC Sum Att

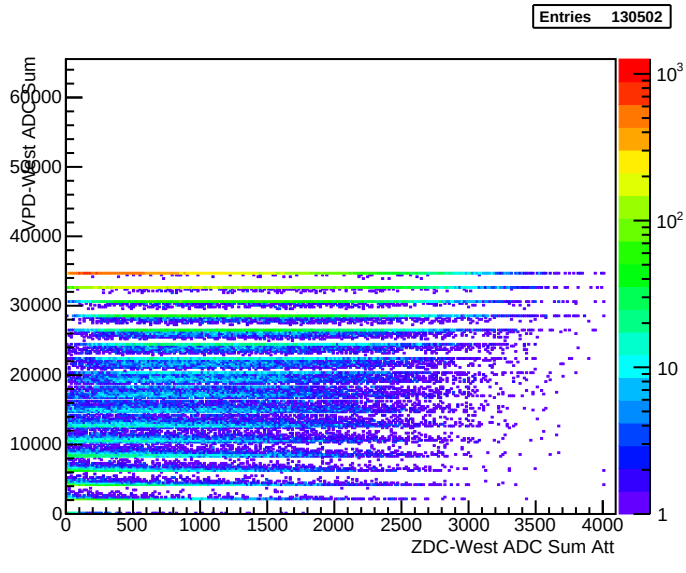

Entries 130502
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

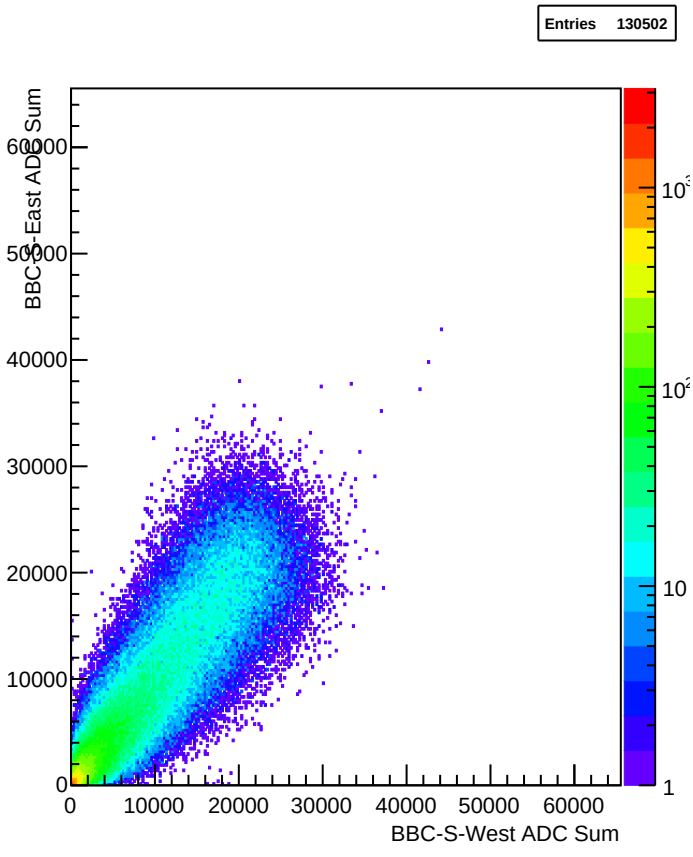

Entries 130502
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

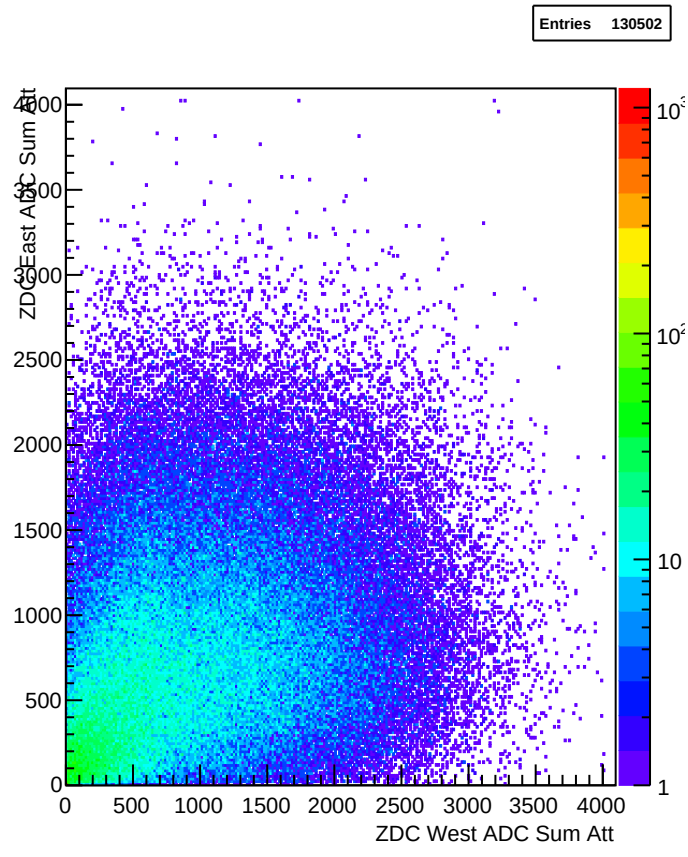

Entries 130502
BBC-S-East ADC Sum
VPD-East ADC Sum

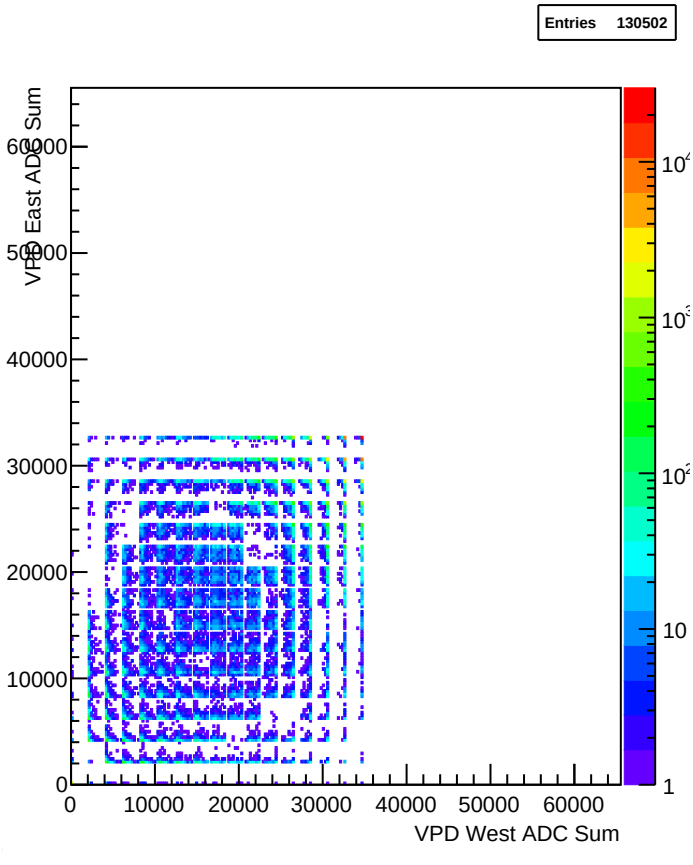

Entries 130502
BBC-S-West ADC Sum
VPD-West ADC Sum

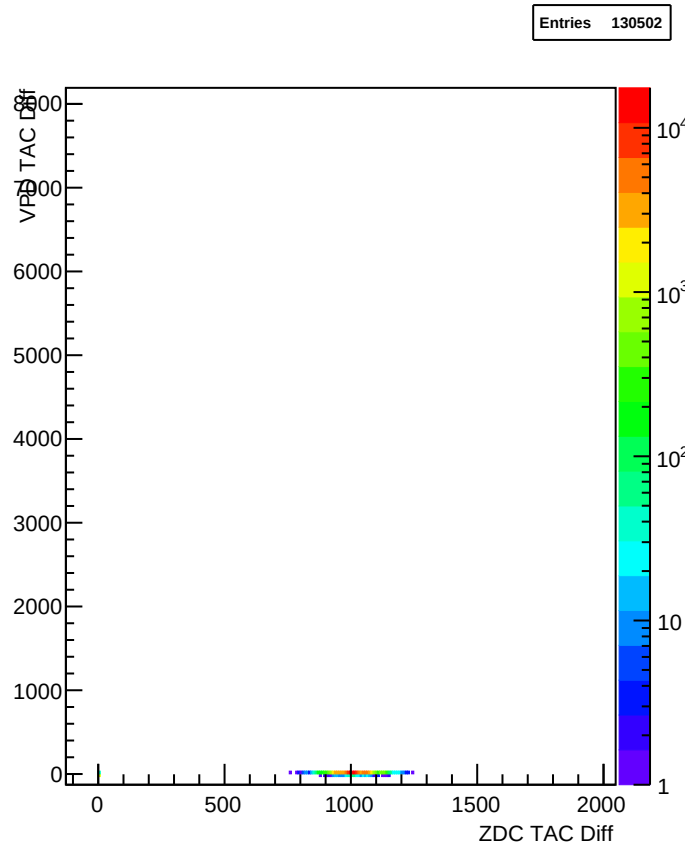

Entries 130502
VPD-East ADC Sum
ZDC-East ADC Sum Att

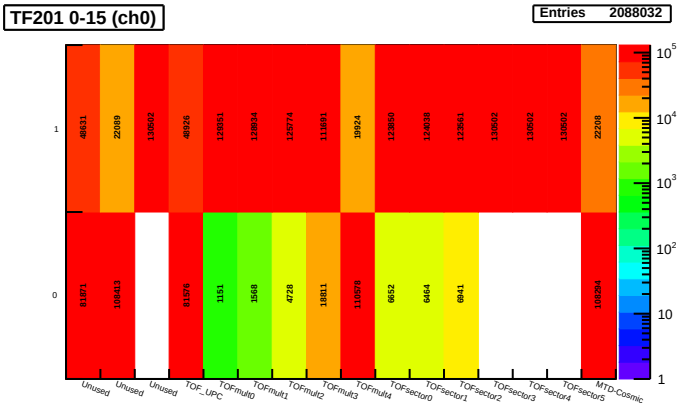

Entries 130502
VPD-West ADC Sum
ZDC-West ADC Sum Att

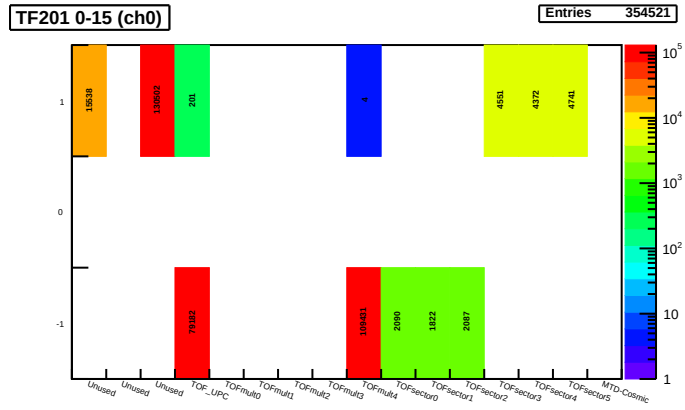

Entries 130502
BBC-S-East ADC Sum
BBC-S-West ADC Sum

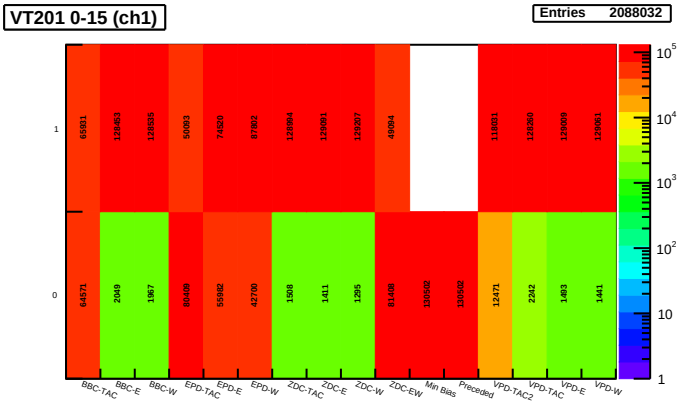

Entries 130502
ZDC East ADC Sum Att
ZDC West ADC Sum Att

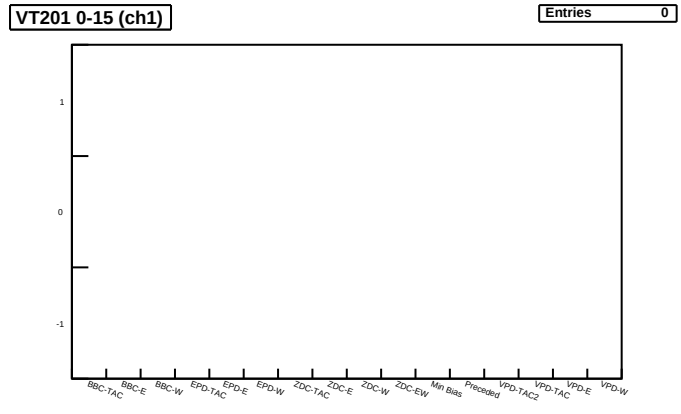

Entries 130502
VPD East ADC Sum
VPD West ADC Sum

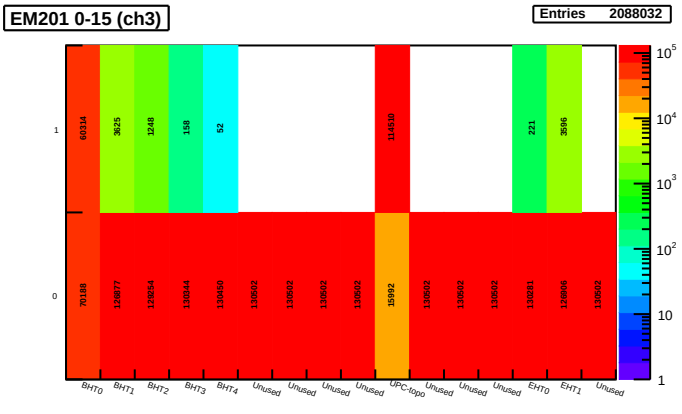

Entries 130502
VPD TAC Diff
ZDC TAC Diff

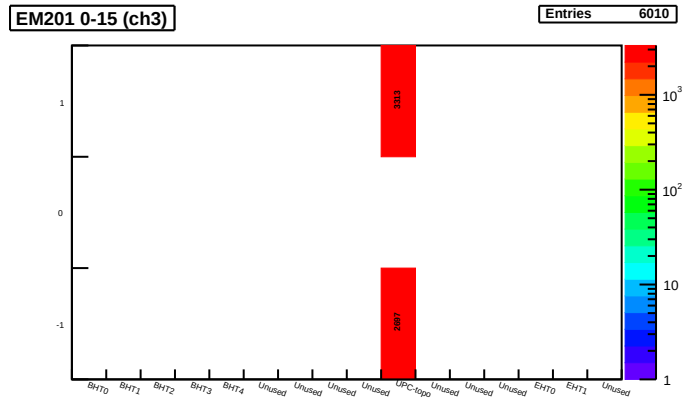

TF201 0-15 (ch0)
Entries 2088032
1
0
46631
22089
130602
46926
129351
128934
125774
111891
19924
123359
124038
123361
130602
130602
130602
22208
81871
109413
81576
1151
1568
4728
18811
110578
6652
6464
6941
108204
Unused
Unused
Unused
TOF_UPC
TOFmult0
TOFmult1
TOFmult2
TOFmult3
TOFmult4
TOFsector0
TOFsector1
TOFsector2
TOFsector3
TOFsector4
TOFsector5
MTD-Cosmic
10^5
10^4
10^3
10^2
10
1

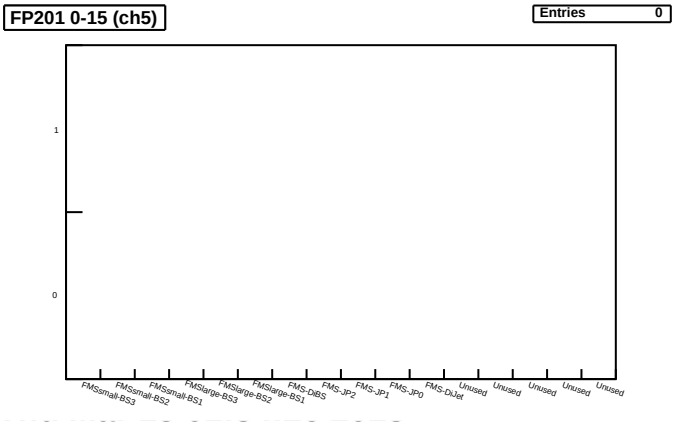

TF201 0-15 (ch0)
Entries 354521
1
0
-1
15538
130602
201
4
4551
4372
4741
79182
109431
2090
1822
2087
Unused
Unused
Unused
TOF_UPC
TOFmult0
TOFmult1
TOFmult2
TOFmult3
TOFmult4
TOFsector0
TOFsector1
TOFsector2
TOFsector3
TOFsector4
TOFsector5
MTD-Cosmic
10^5
10^4
10^3
10^2
10
1

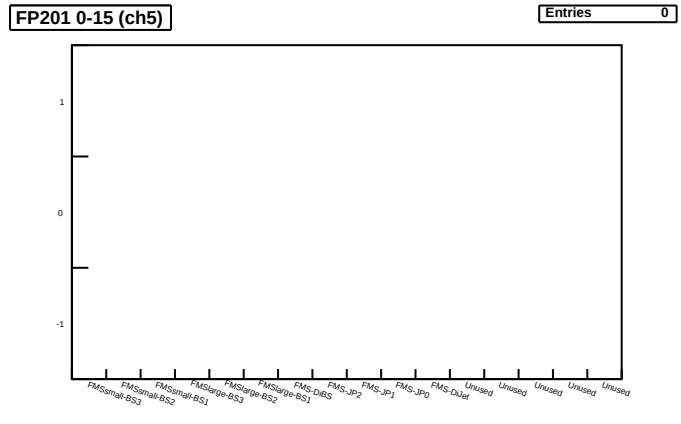

VT201 0-15 (ch1)
Entries 2088032
1
0
65931
124463
128535
50093
74320
87802
128984
129091
129207
49084
118031
128260
129009
129061
64571
2049
1967
80409
55982
42700
1508
1411
1295
81408
130502
130502
12471
2242
1493
1441
BBC-TAC
BBC-E
BBC-W
EPD-TAC
EPD-E
EPD-W
ZDC-TAC
ZDC-E
ZDC-W
ZDC-EW
Min Bias
Preceded
VPD-TAC2
VPD-TAC
VPD-E
VPD-W
10^5
10^4
10^3
10^2
10
1


VT201 0-15 (ch1)
Entries 0
1
0
-1
BBC-TAC
BBC-E
BBC-W
EPD-TAC
EPD-E
EPD-W
ZDC-TAC
ZDC-E
ZDC-W
ZDC-EW
Min Bias
Preceded
VPD-TAC2
VPD-TAC
VPD-E
VPD-W


EM201 0-15 (ch3)
Entries 2088032
1
0
60314
3625
1248
158
52
114510
221
3596
70188
128877
128254
133344
130450
135502
135502
135502
135502
15992
135502
135502
135502
132831
129006
135502
BHT0
BHT1
BHT2
BHT3
BHT4
Unused
Unused
Unused
Unused
UPC-topo
Unused
Unused
Unused
EHT0
EHT1
Unused
10^5
10^4
10^3
10^2
10
1


EM201 0-15 (ch3)
Entries 6010
1
0
-1
3313
2897
BHT0
BHT1
BHT2
BHT3
BHT4
Unused
Unused
Unused
Unused
UPC-topo
Unused
Unused
Unused
EHT0
EHT1
Unused
10^3
10^2
10
1


FP201 0-15 (ch5)
Entries 0
1
0
FMSsmall-BS3
FMSsmall-BS2
FMSsmall-BS1
FMSlarge-BS3
FMSlarge-BS2
FMSlarge-BS1
FMS-DiBS
FMS-JP2
FMS-JP1
FMS-JP0
FMS-DiJet
Unused
Unused
Unused
Unused
Unused


FP201 0-15 (ch5)
Entries 0
1
0
-1
FMSsmall-BS3
FMSsmall-BS2
FMSsmall-BS1
FMSlarge-BS3
FMSlarge-BS2
FMSlarge-BS1
FMS-DiBS
FMS-JP2
FMS-JP1
FMS-JP0
FMS-DiJet
Unused
Unused
Unused
Unused
Unused