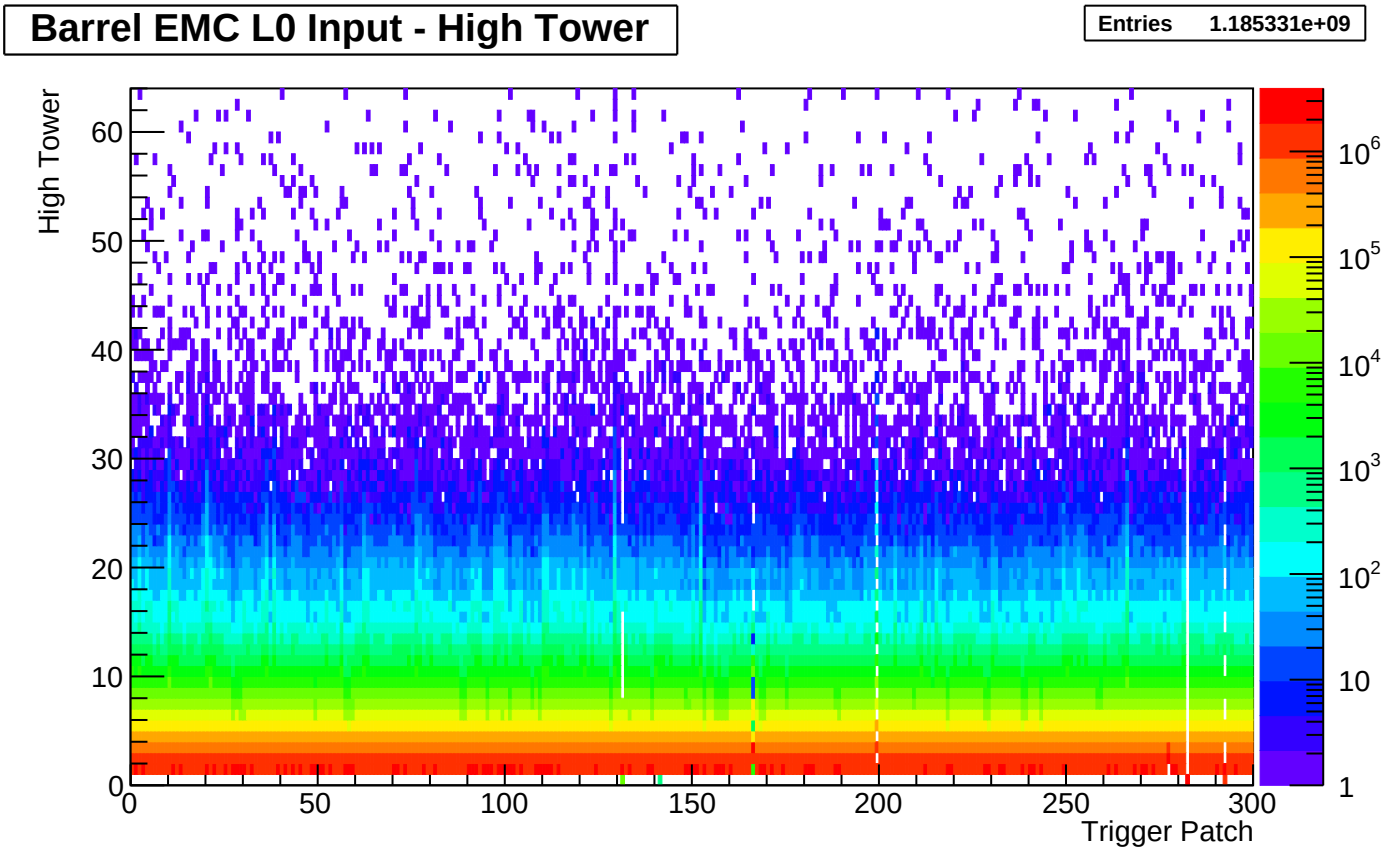
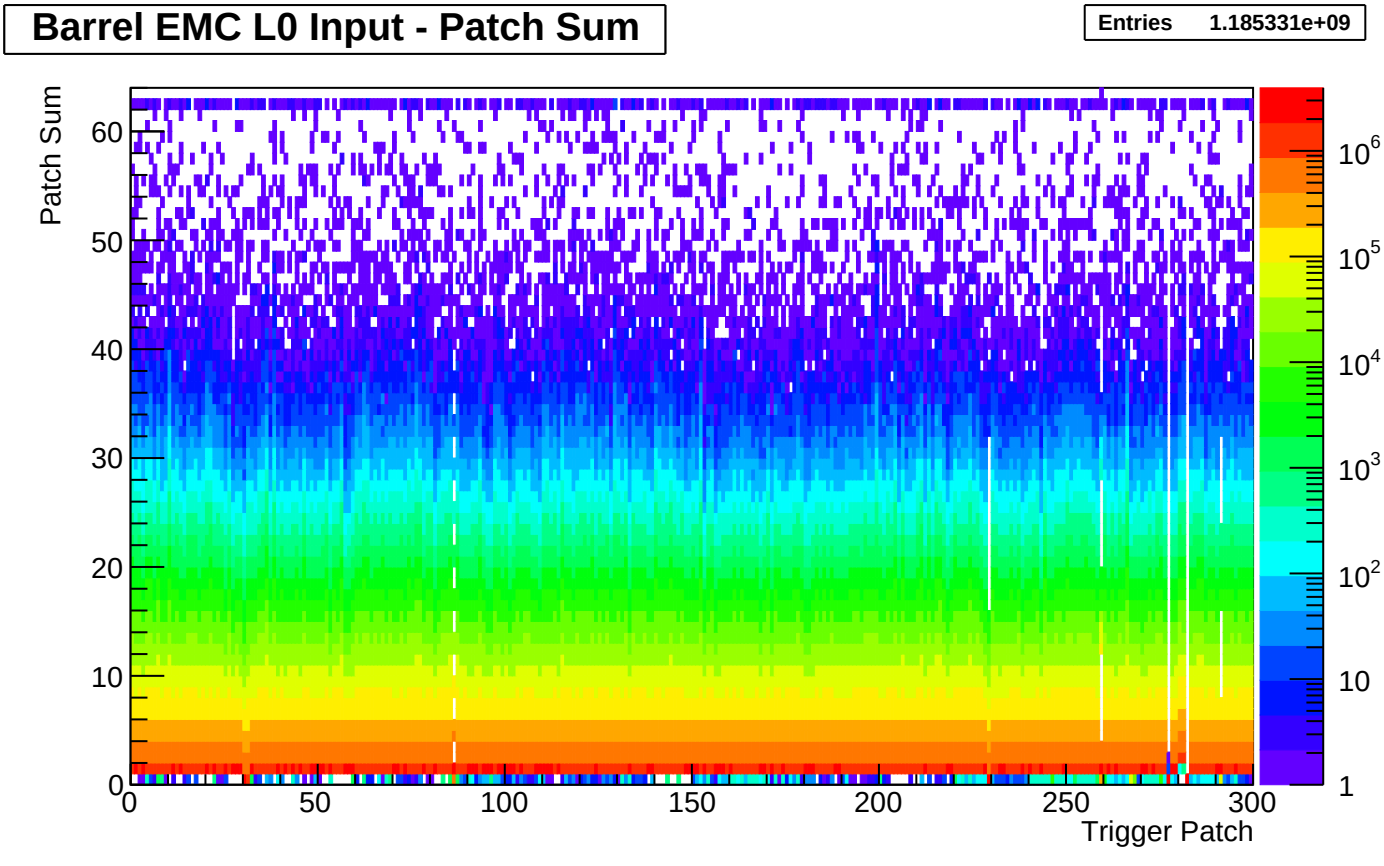
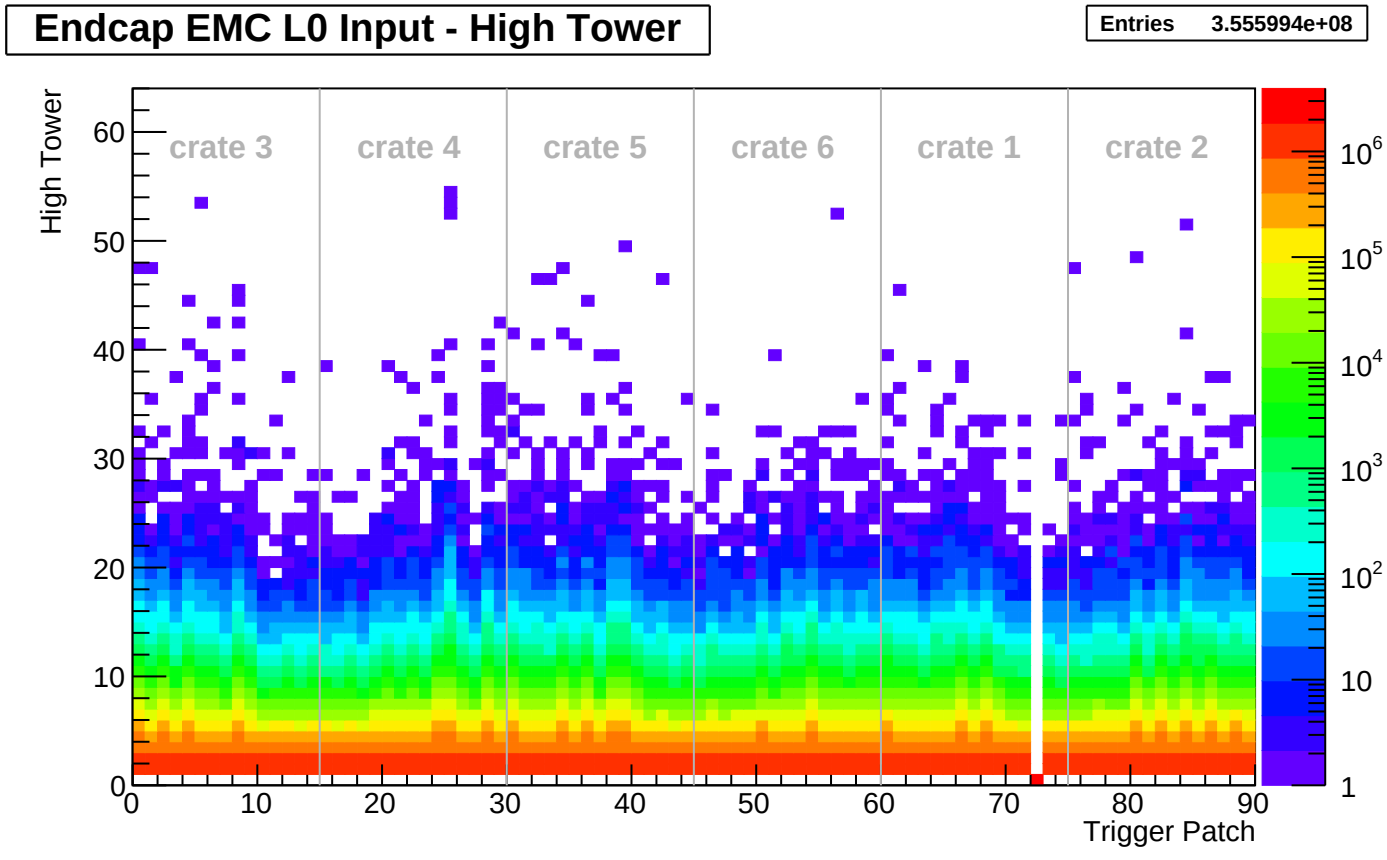
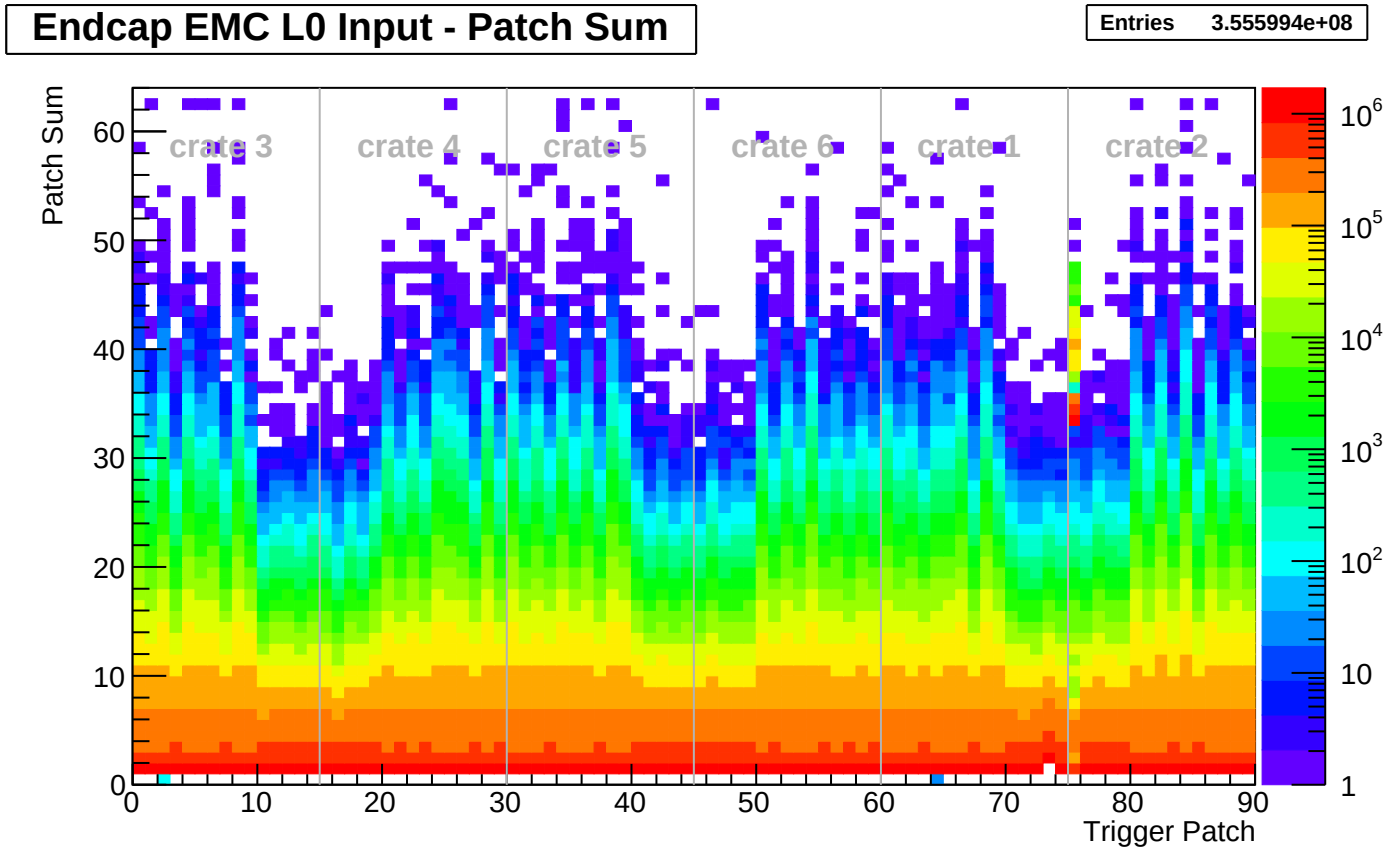
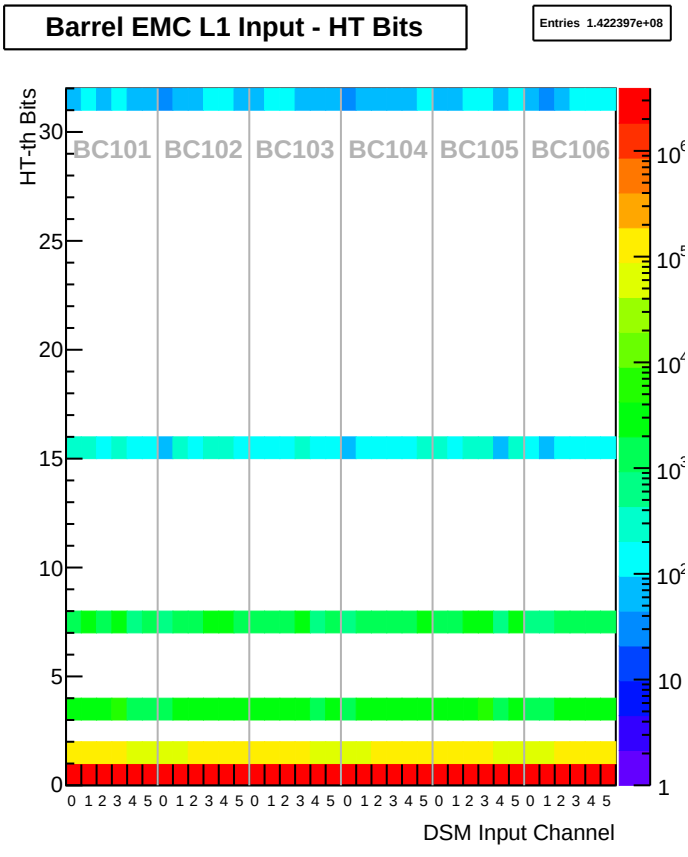
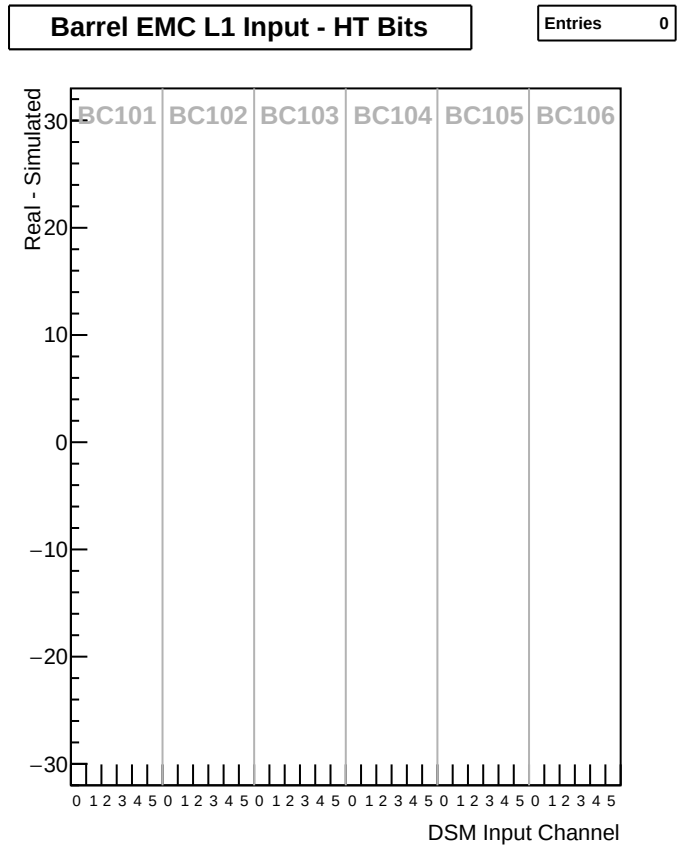

Barrel EMC L0 Input - High Tower
Entries 1.185331e+09
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

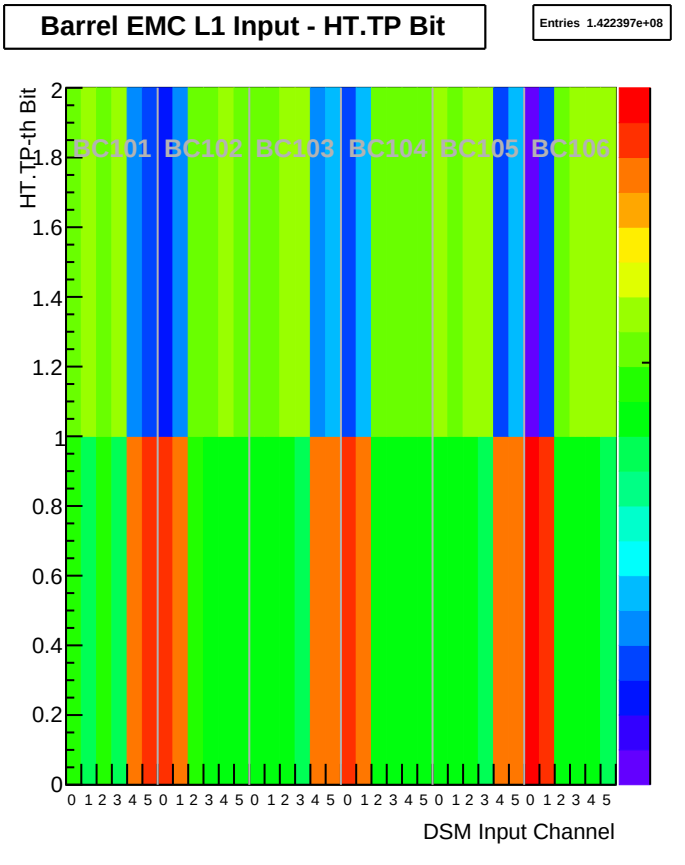

Barrel EMC L0 Input - Patch Sum
Entries 1.185331e+09
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

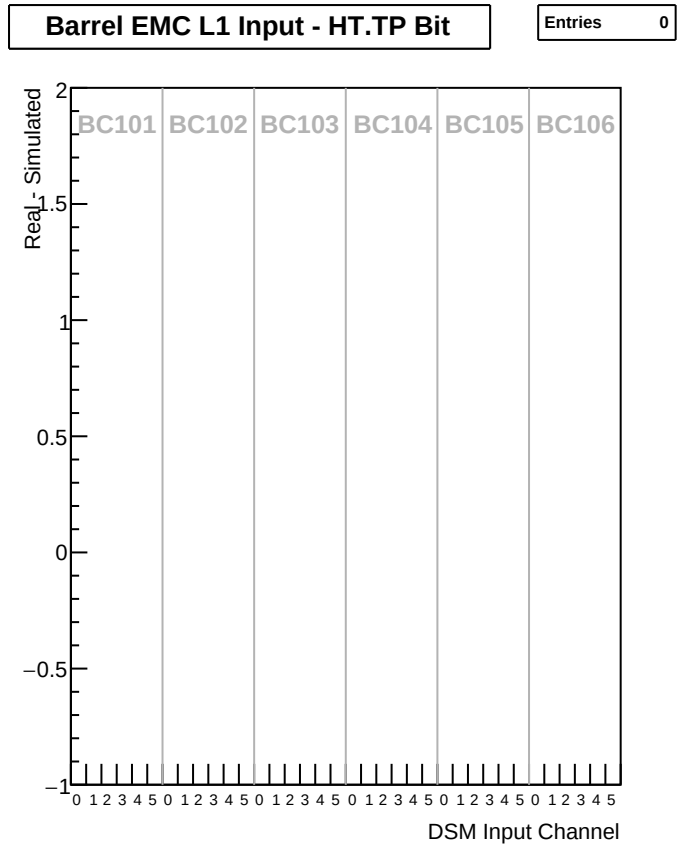

Endcap EMC L0 Input - High Tower
Entries 3.555994e+08
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

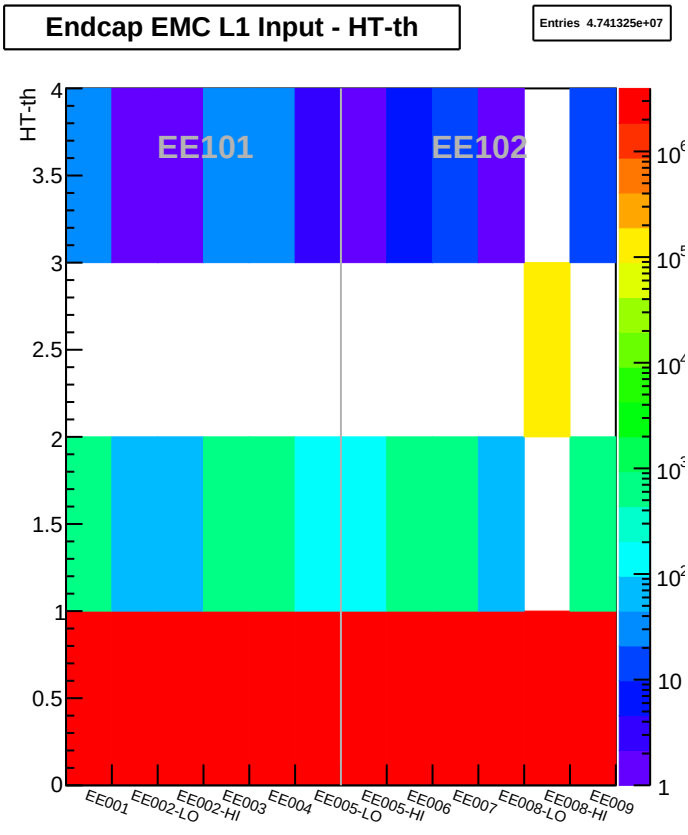

Endcap EMC L0 Input - Patch Sum
Entries 3.555994e+08
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

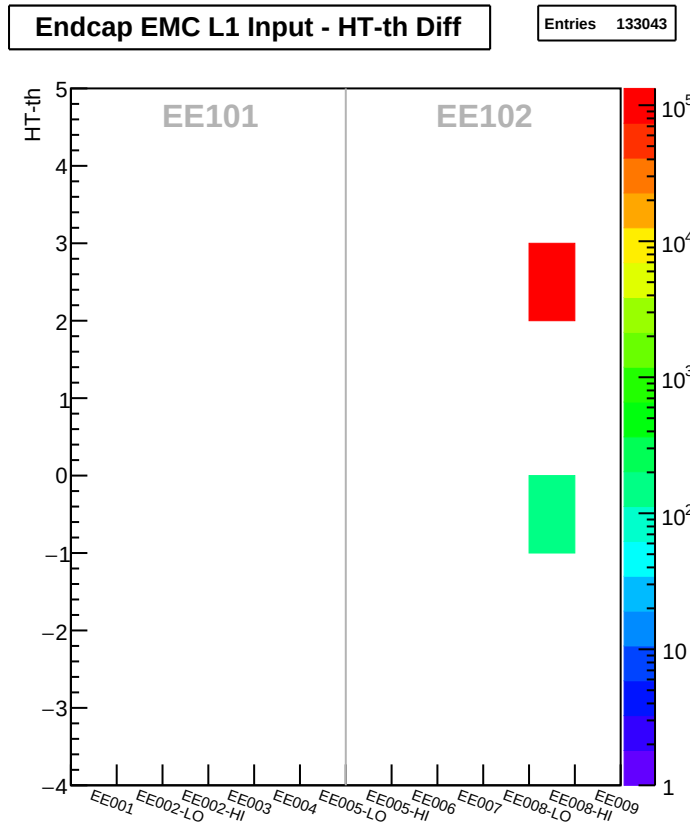

Barrel EMC L1 Input - HT Bits
Entries 1.422397e+08
HT-th Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

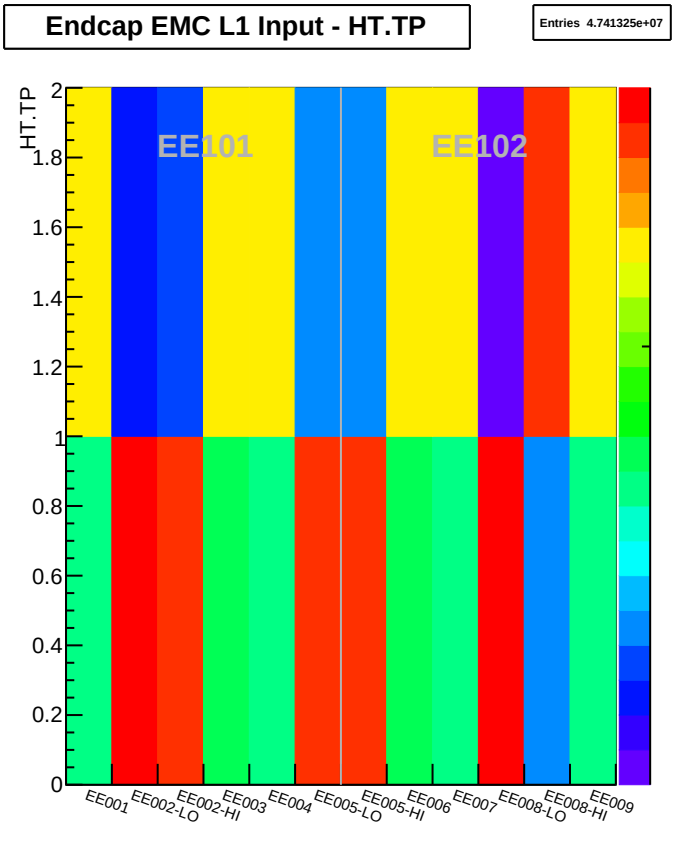

Barrel EMC L1 Input - HT Bits
Entries 0
Real - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

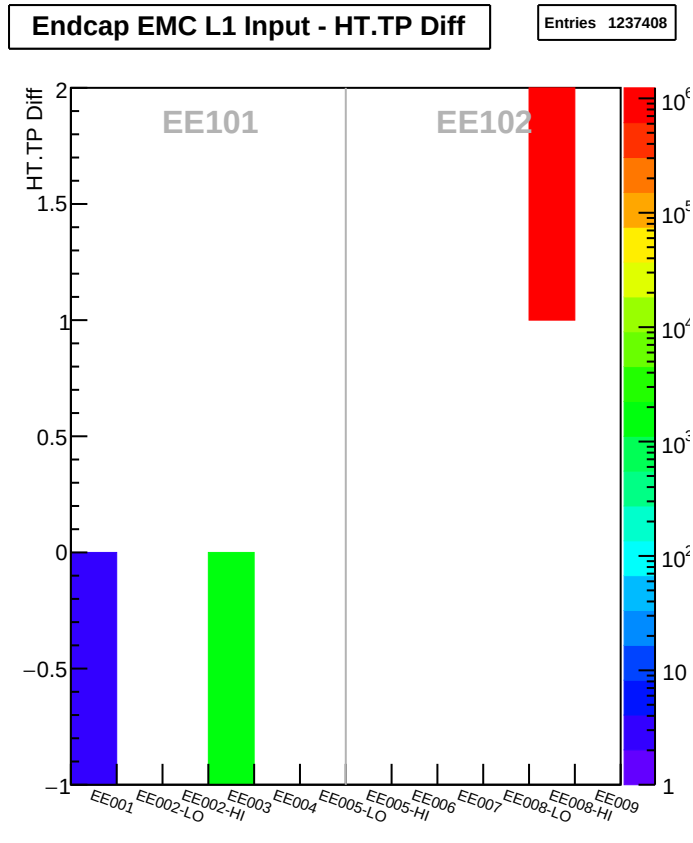

Barrel EMC L1 Input - HT.TP Bit
Entries 1.422397e+08
HT.TP-th Bit
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

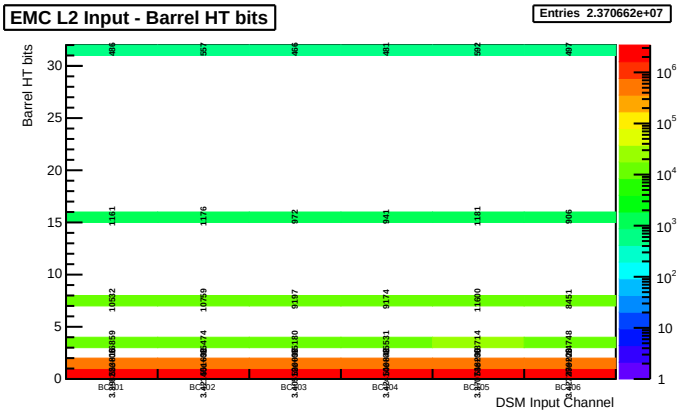

Barrel EMC L1 Input - HT.TP Bit
Entries 0
Real - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

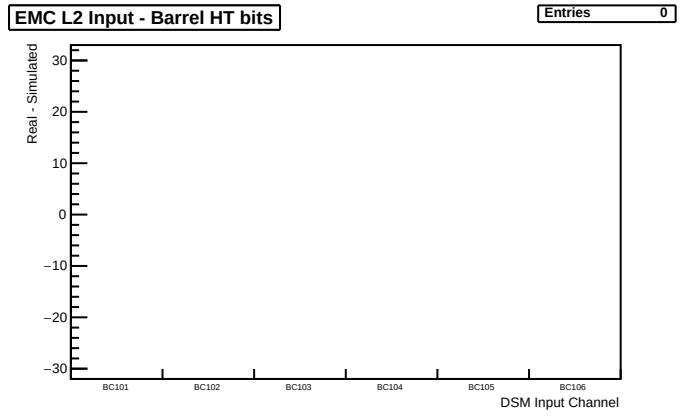

Endcap EMC L1 Input - HT-th
Entries 4.741325e+07
HT-th
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

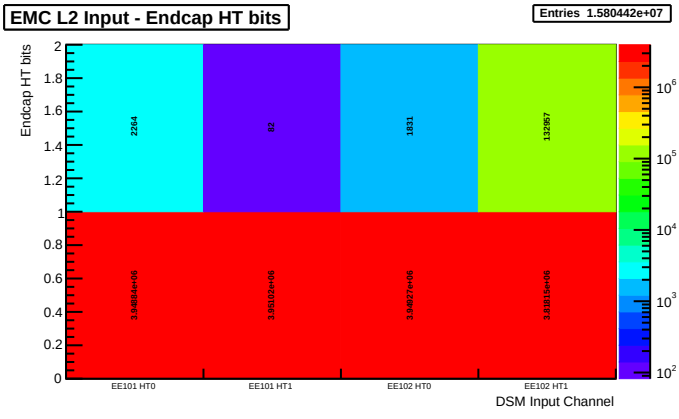

Endcap EMC L1 Input - HT-th Diff
Entries 133043
HT-th
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

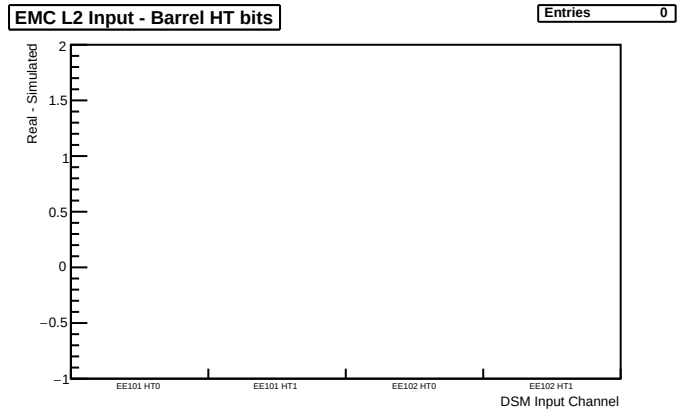

Endcap EMC L1 Input - HT.TP
Entries 4.741325e+07
HT.TP
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

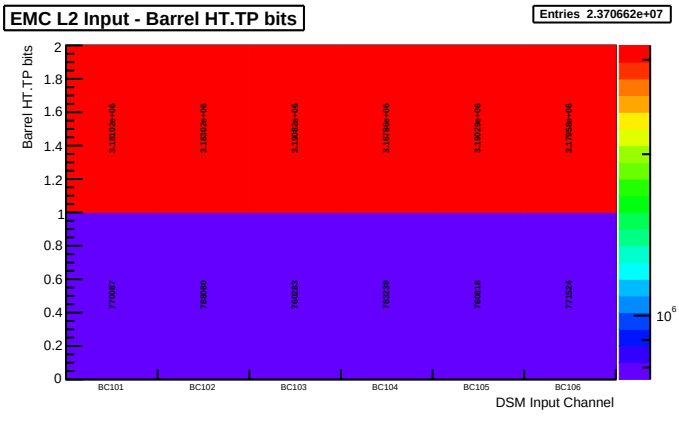

Endcap EMC L1 Input - HT.TP Diff
Entries 1237408
HT.TP Diff
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

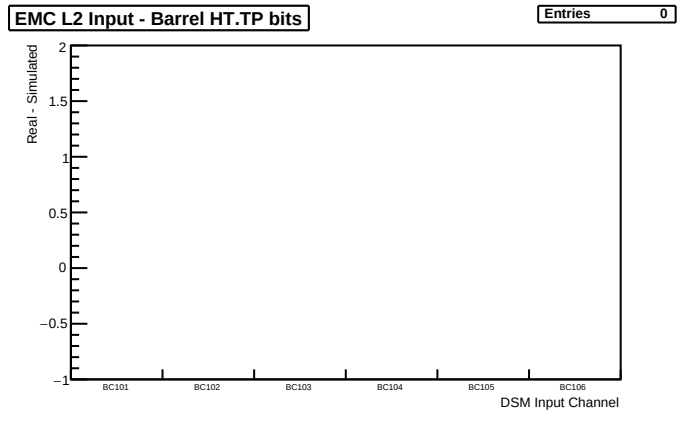

EMC L2 Input - Barrel HT bits
Entries 2.370662e+07
Barrel HT bits
DSM Input Channel

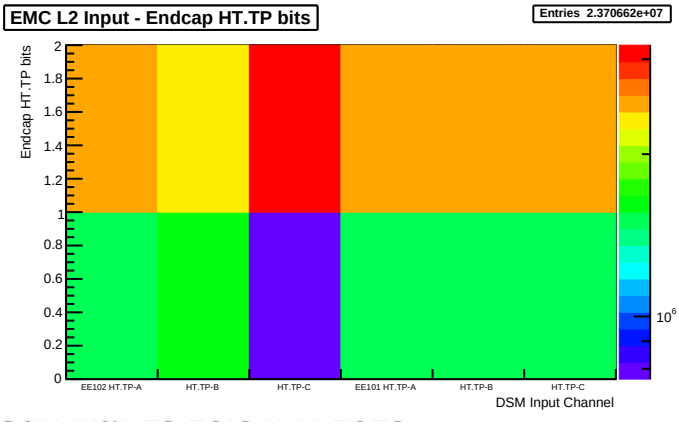

EMC L2 Input - Barrel HT bits
Entries 0
Real - Simulated
DSM Input Channel

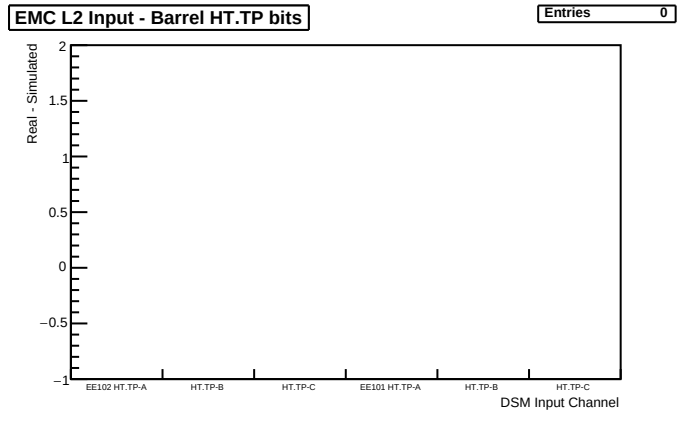

EMC L2 Input - Endcap HT bits
Entries 1.580442e+07
Endcap HT bits
DSM Input Channel

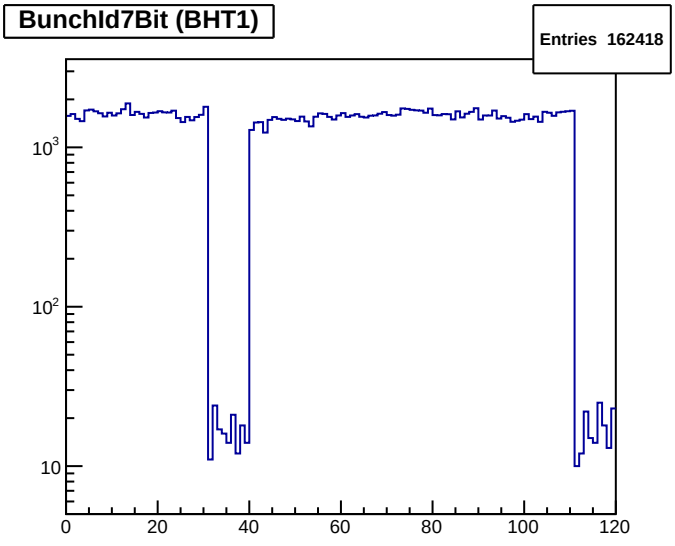

EMC L2 Input - Barrel HT bits
Entries 0
Real - Simulated
DSM Input Channel

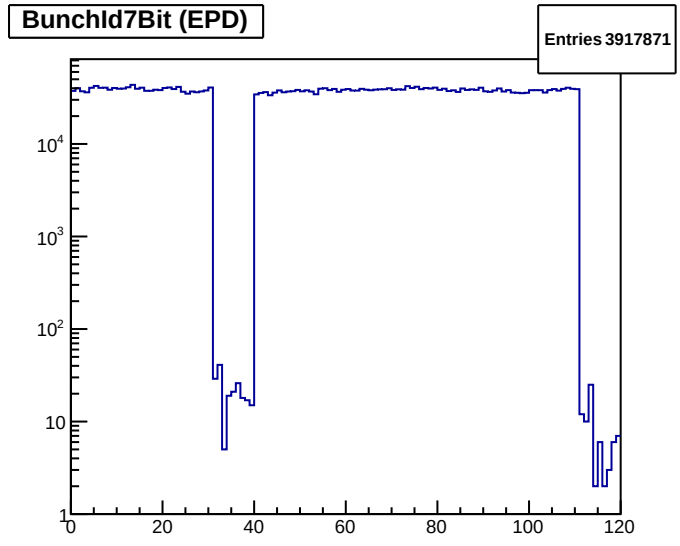

EMC L2 Input - Barrel HT.TP bits
Entries 2.370662e+07
Barrel HT.TP bits
DSM Input Channel

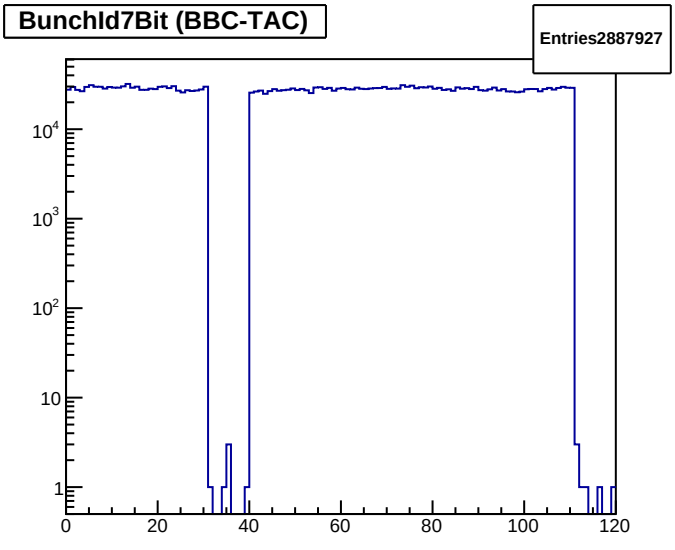

EMC L2 Input - Barrel HT.TP bits
Entries 0
Real - Simulated
DSM Input Channel

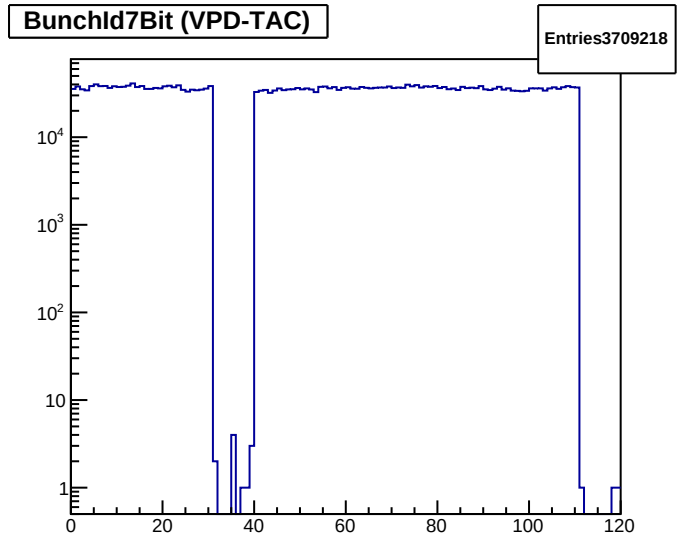

EMC L2 Input - Endcap HT.TP bits
Entries 2.370662e+07
Endcap HT.TP bits
DSM Input Channel

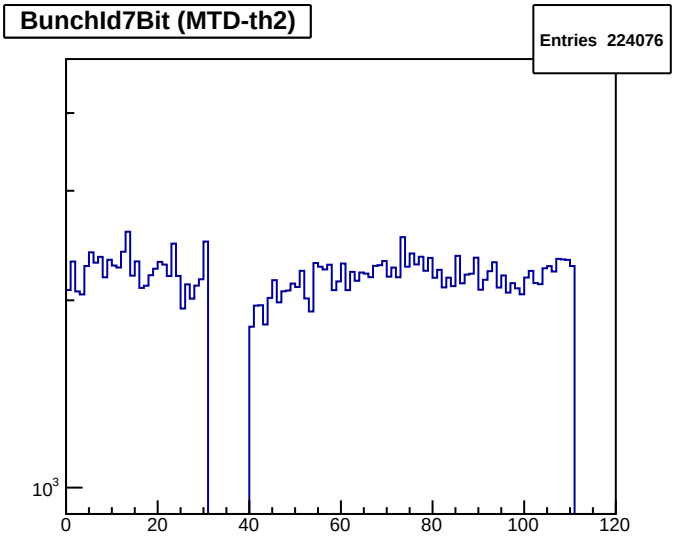

EMC L2 Input - Barrel HT.TP bits
Entries 0
Real - Simulated
DSM Input Channel

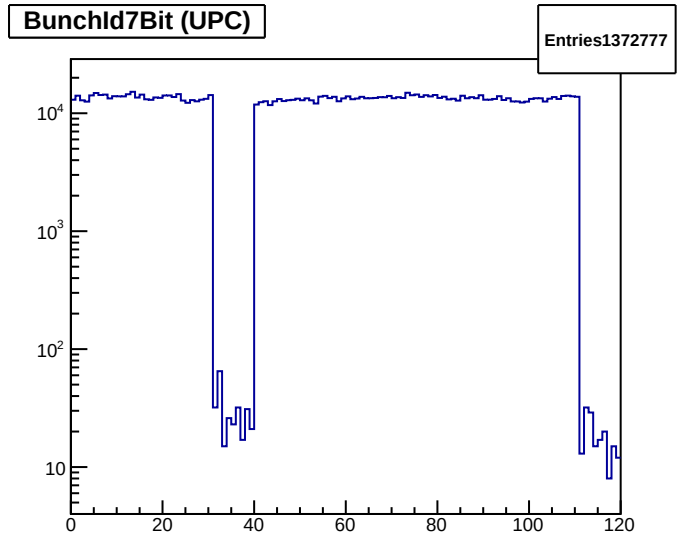

BunchId7Bit (BHT1)
Entries 162418
10^3
10^2
10
0
20
40
60
80
100
120

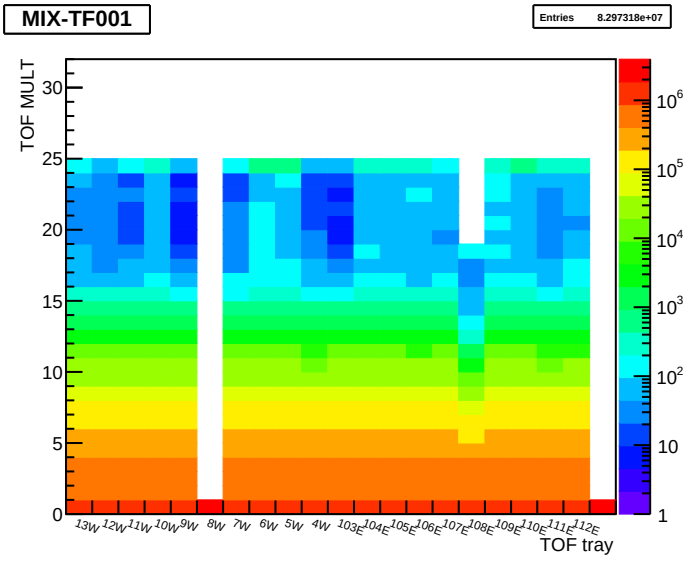

BunchId7Bit (EPD)
Entries 3917871
10^4
10^3
10^2
10
1
0
20
40
60
80
100
120

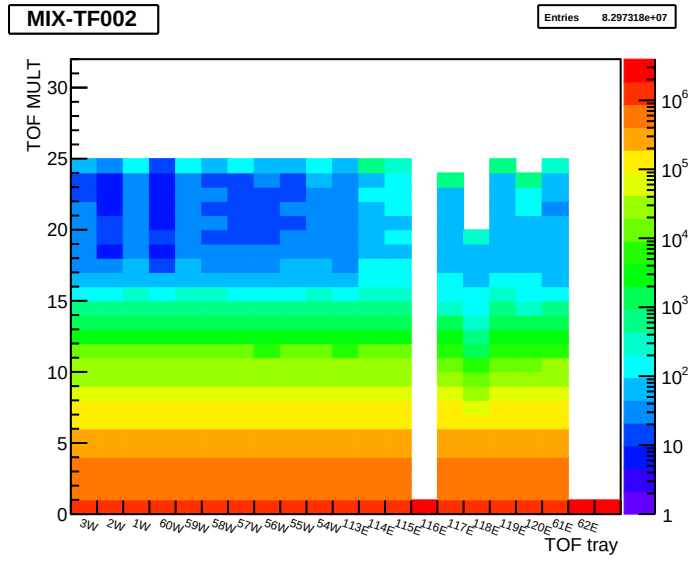

BunchId7Bit (BBC-TAC)
Entries2887927
10^4
10^3
10^2
10
1
0
20
40
60
80
100
120

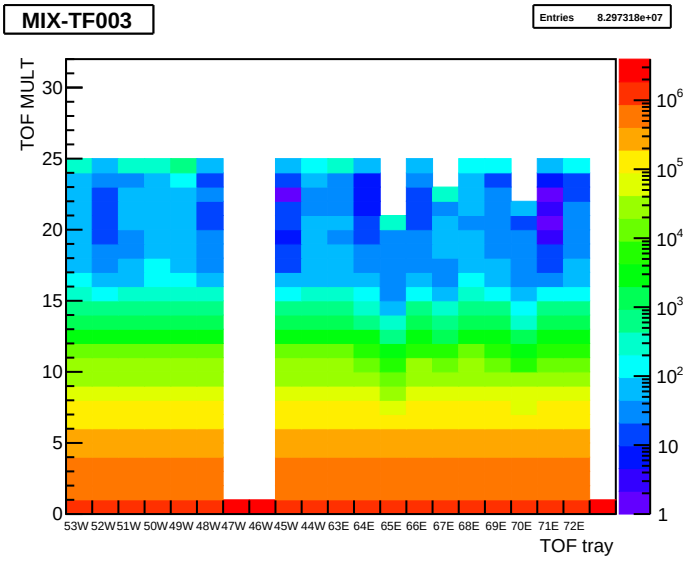

BunchId7Bit (VPD-TAC)
Entries3709218
10^4
10^3
10^2
10
1
0
20
40
60
80
100
120

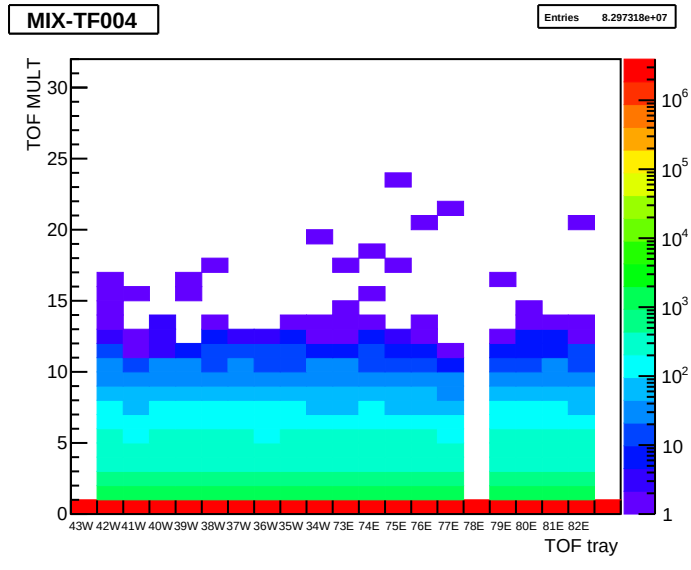

BunchId7Bit (MTD-th2)
Entries 224076
10^3
0
20
40
60
80
100
120

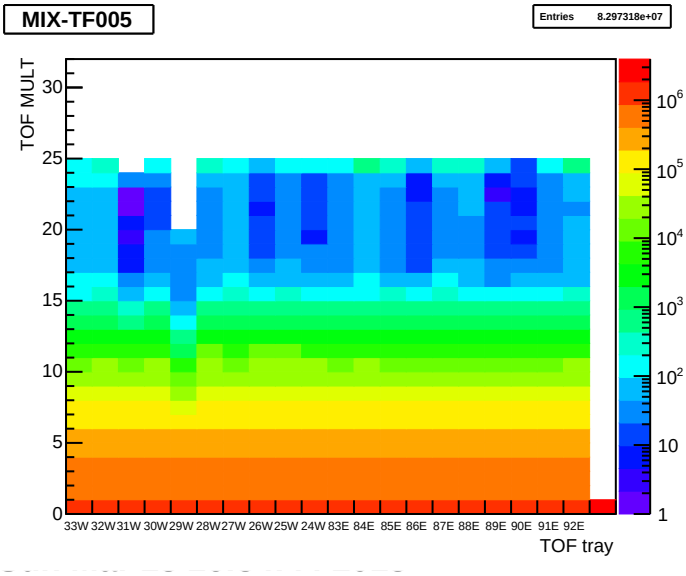

BunchId7Bit (UPC)
Entries1372777
10^4
10^3
10^2
10
0
20
40
60
80
100
120

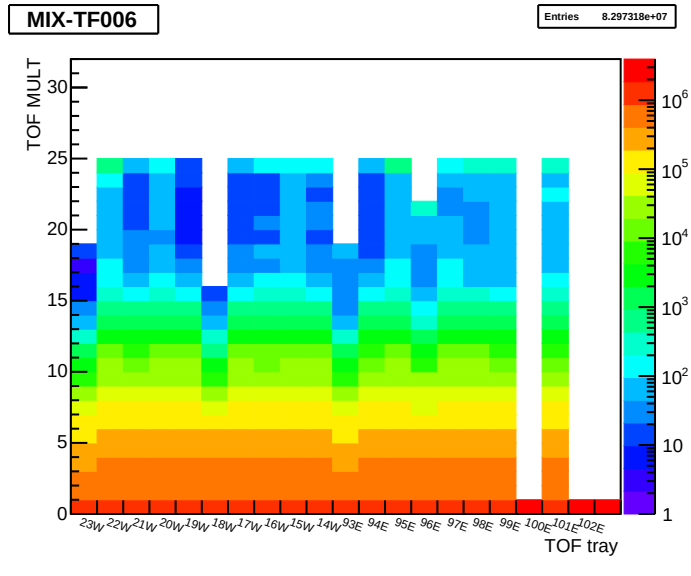

MIX-TF001
Entries 8.297318e+07
TOF MULT
TOF tray

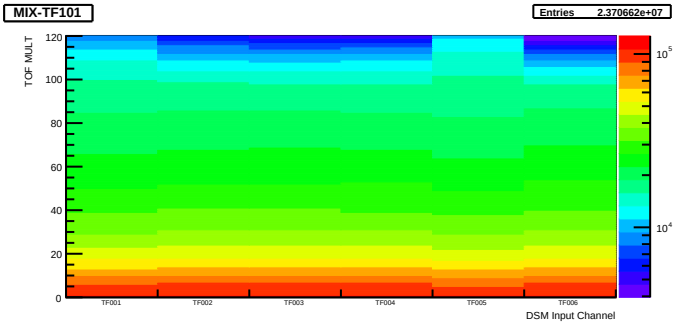

MIX-TF002
Entries 8.297318e+07
TOF MULT
TOF tray

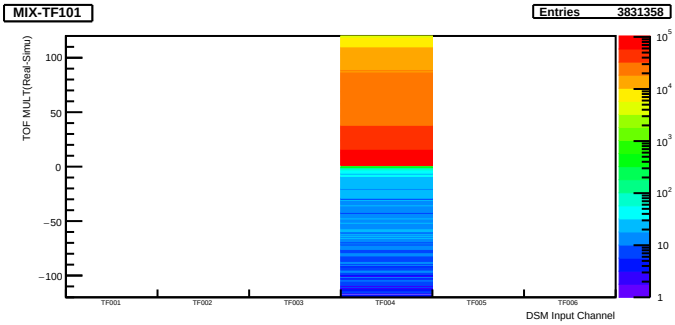

MIX-TF003
Entries 8.297318e+07
TOF MULT
TOF tray

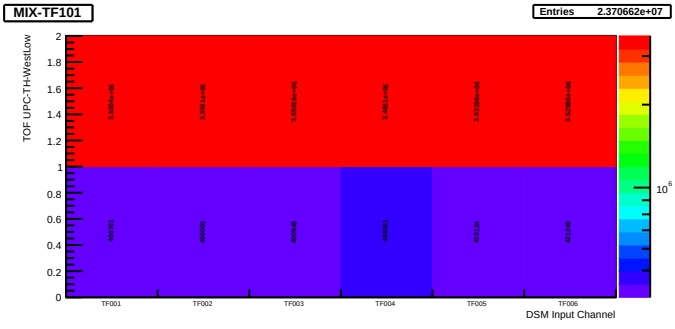

MIX-TF004
Entries 8.297318e+07
TOF MULT
TOF tray

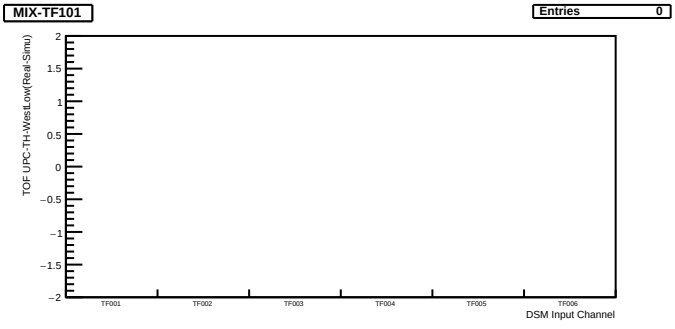

MIX-TF005
Entries 8.297318e+07
TOF MULT
TOF tray

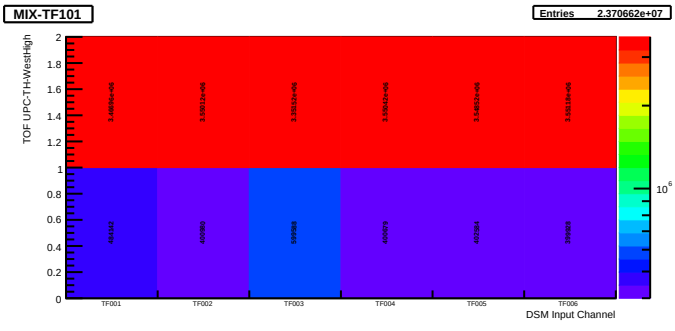

MIX-TF006
Entries 8.297318e+07
TOF MULT
TOF tray

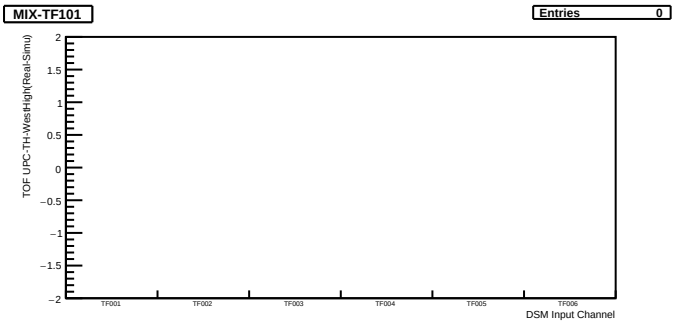

MIX-TF101
Entries 2.370662e+07
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

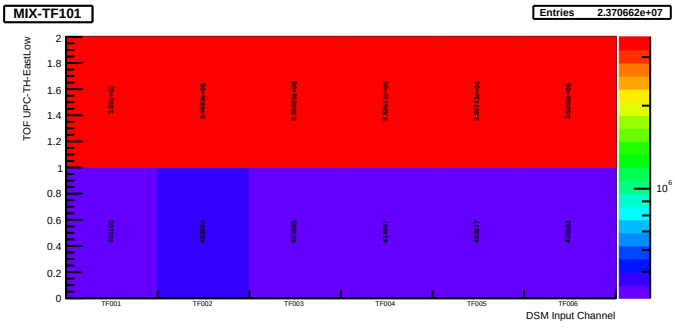

MIX-TF101
Entries 3831358
TOF MULT(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

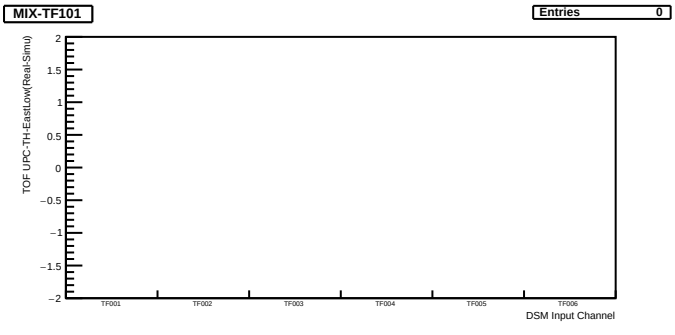

MIX-TF101
Entries 2.370662e+07
TOF UPC-TH-WestLow
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

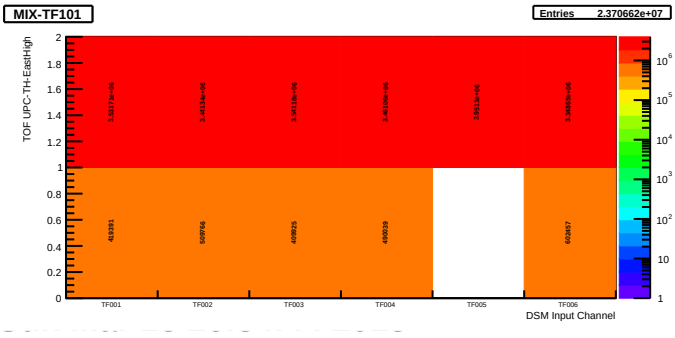

MIX-TF101
Entries 0
TOF UPC-TH-WestLow(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

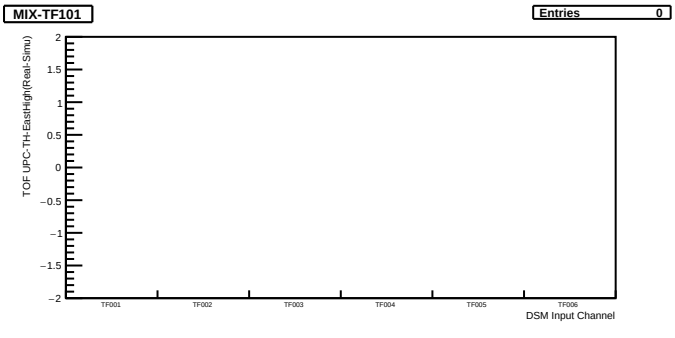

MIX-TF101
Entries 2.370662e+07
TOF UPC-TH-WestHigh
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

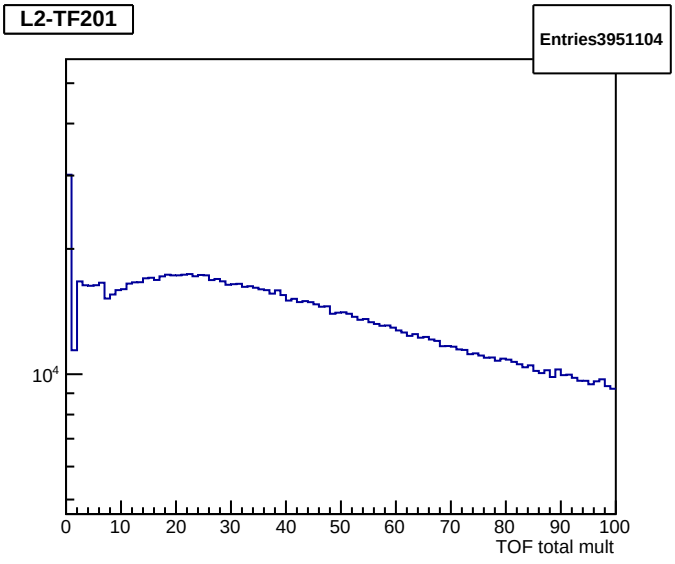

MIX-TF101
Entries 0
TOF UPC-TH-WestHigh(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

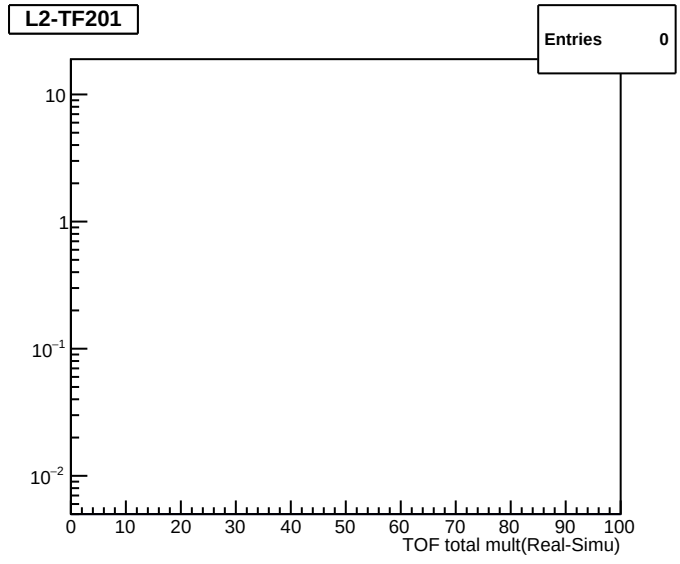

MIX-TF101
Entries 2.370662e+07
TOF UPC-TH-EastLow
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

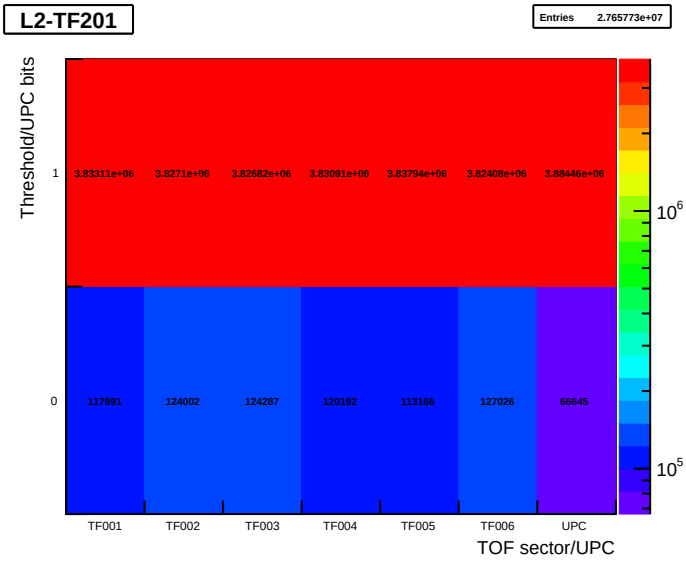

MIX-TF101
Entries 0
TOF UPC-TH-EastLow(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

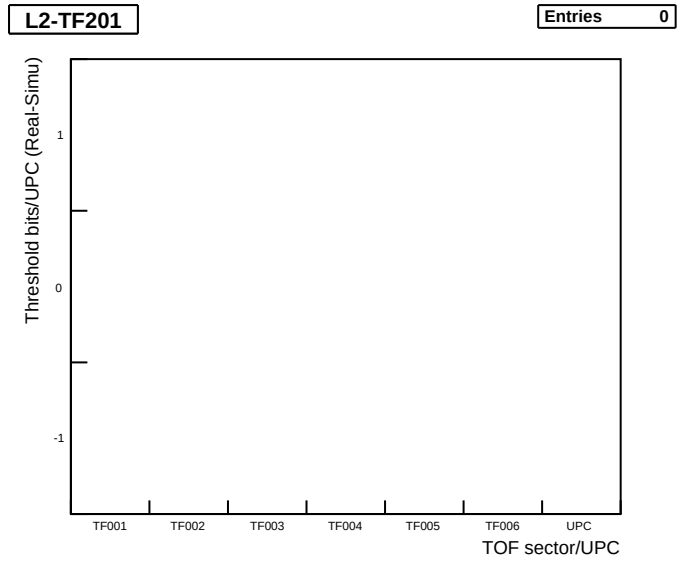

MIX-TF101
Entries 2.370662e+07
TOF UPC-TH-EastHigh
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

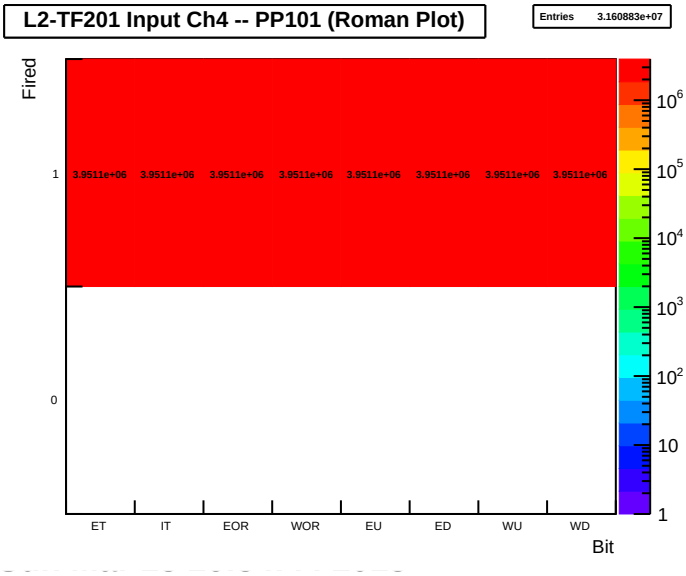

MIX-TF101
Entries 0
TOF UPC-TH-EastHigh(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

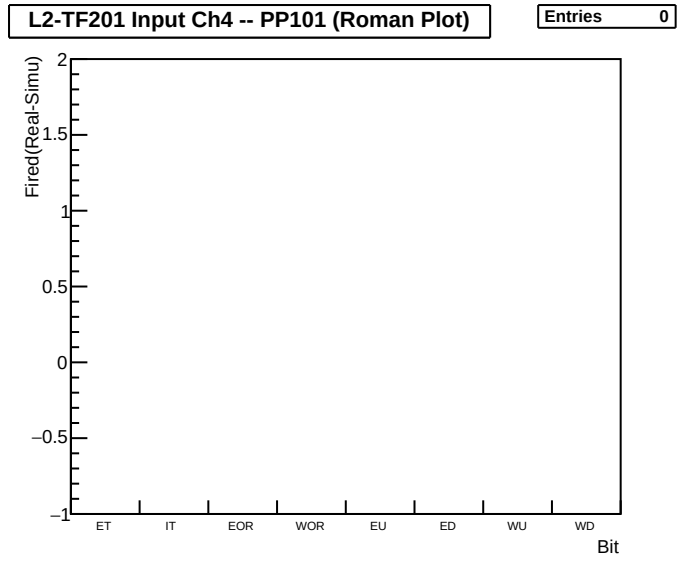

L2-TF201
Entries3951104
10^4
0 10 20 30 40 50 60 70 80 90 100
TOF total mult

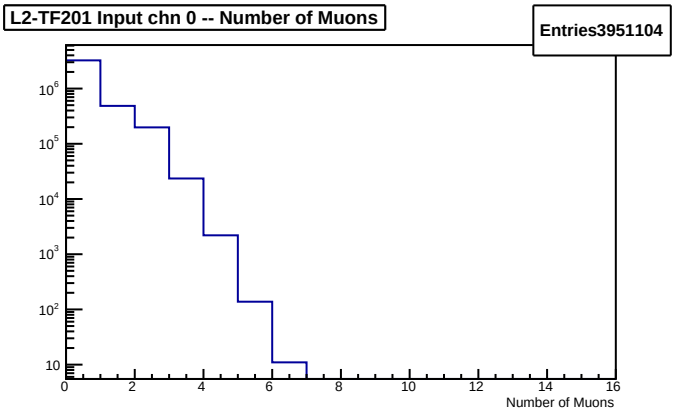

L2-TF201
Entries 0
10
1
10^{-1}
10^{-2}
0 10 20 30 40 50 60 70 80 90 100
TOF total mult(Real-Simu)

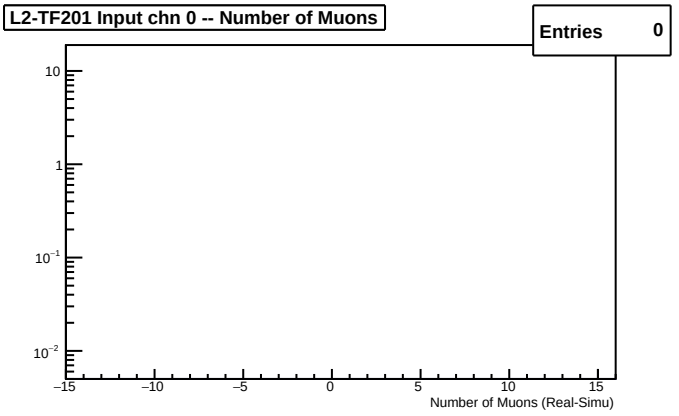

L2-TF201
Entries 2.765773e+07
Threshold/UPC bits
1
0
3.83311e+06 3.8271e+06 3.82682e+06 3.83091e+06 3.83794e+06 3.82408e+06 3.88446e+06
117991 124002 124287 120192 113166 127026 66645
TF001 TF002 TF003 TF004 TF005 TF006 UPC
TOF sector/UPC
10^6
10^5

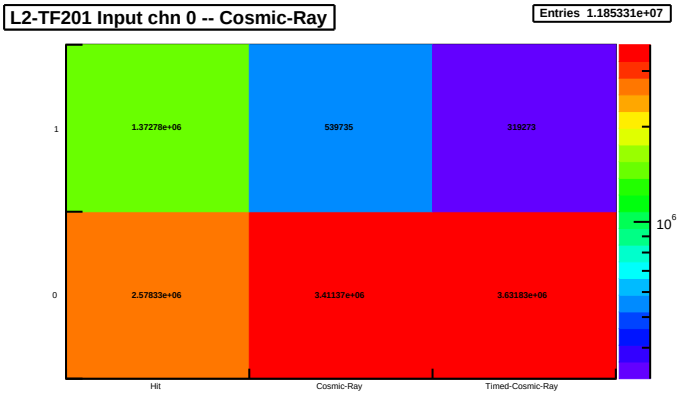

L2-TF201
Entries 0
Threshold bits/UPC (Real-Simu)
1
0
-1
TF001 TF002 TF003 TF004 TF005 TF006 UPC
TOF sector/UPC

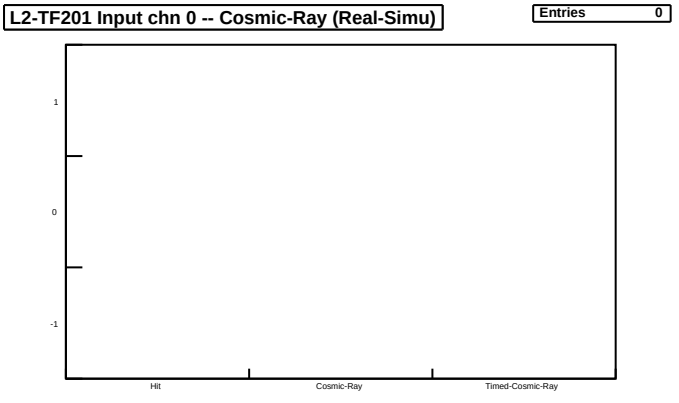

L2-TF201 Input Ch4 -- PP101 (Roman Plot)
Entries 3.160883e+07
Fired
1
0
3.9511e+06 3.9511e+06 3.9511e+06 3.9511e+06 3.9511e+06 3.9511e+06 3.9511e+06 3.9511e+06
ET IT EOR WOR EU ED WU WD
Bit
10^6
10^5
10^4
10^3
10^2
10
1

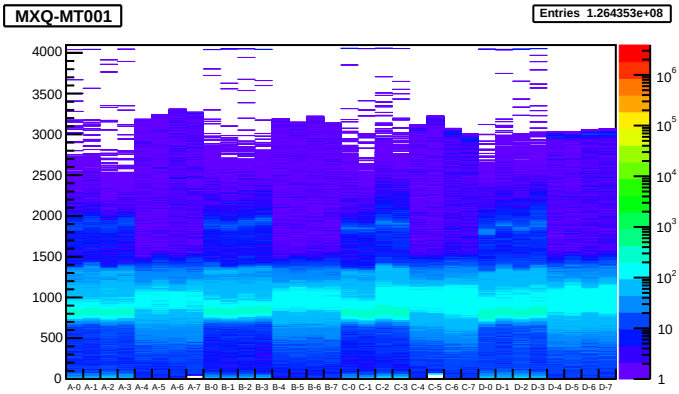

L2-TF201 Input Ch4 -- PP101 (Roman Plot)
Entries 0
Fired(Real-Simu)
2
1.5
1
0.5
0
−0.5
−1
ET IT EOR WOR EU ED WU WD
Bit

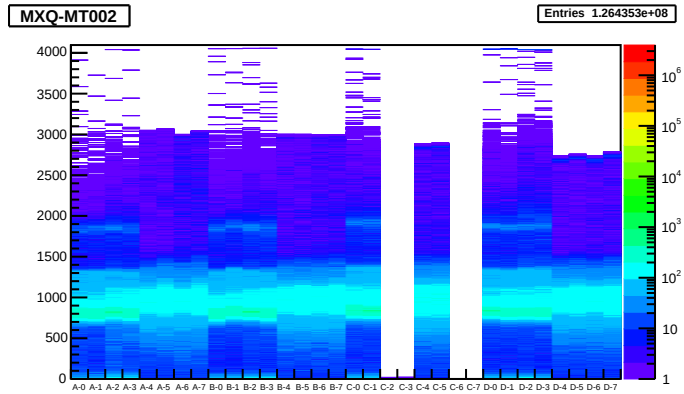

L2-TF201 Input chn 0 -- Number of Muons
Entries3951104
Number of Muons

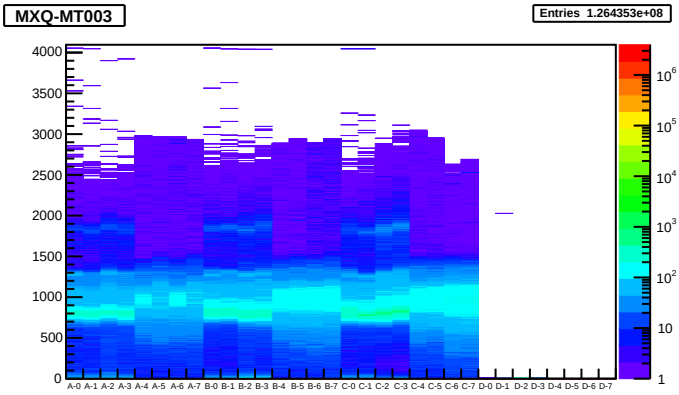

L2-TF201 Input chn 0 -- Number of Muons
Entries 0
Number of Muons (Real-Simu)

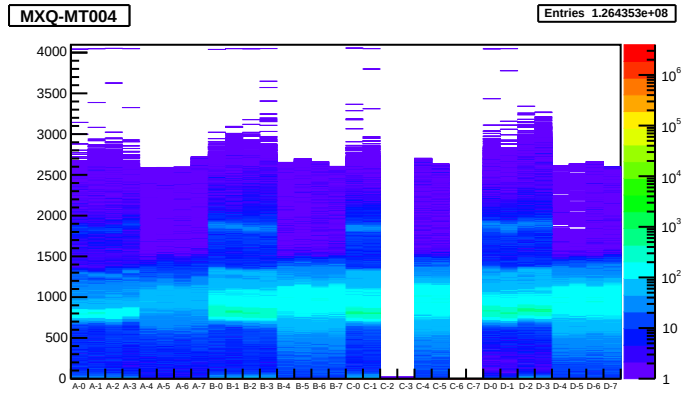

L2-TF201 Input chn 0 -- Cosmic-Ray
Entries 1.185331e+07
1.37278e+06
539735
319273
2.57833e+06
3.41137e+06
3.63183e+06
Hit
Cosmic-Ray
Timed-Cosmic-Ray

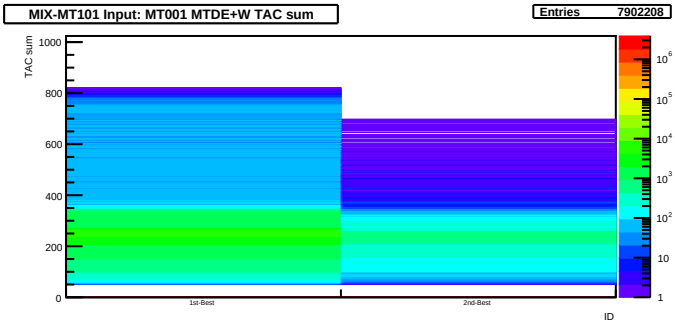

L2-TF201 Input chn 0 -- Cosmic-Ray (Real-Simu)
Entries 0
Hit
Cosmic-Ray
Timed-Cosmic-Ray

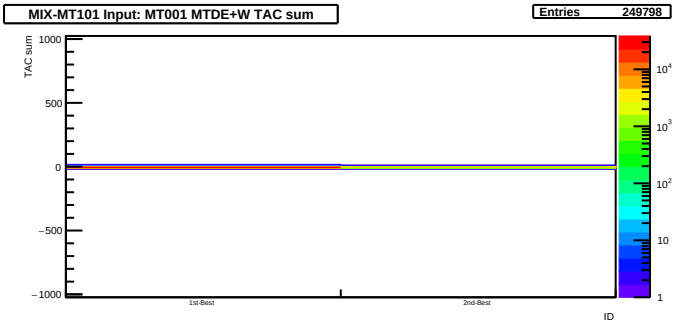

MXQ-MT001
Entries 1.264353e+08
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^6
10^5
10^4
10^3
10^2
10
1

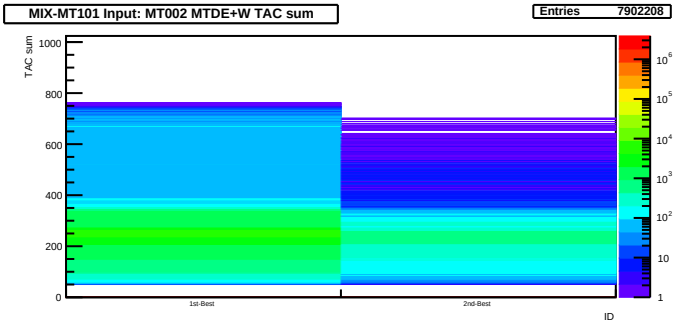

MXQ-MT002
Entries 1.264353e+08
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^6
10^5
10^4
10^3
10^2
10
1

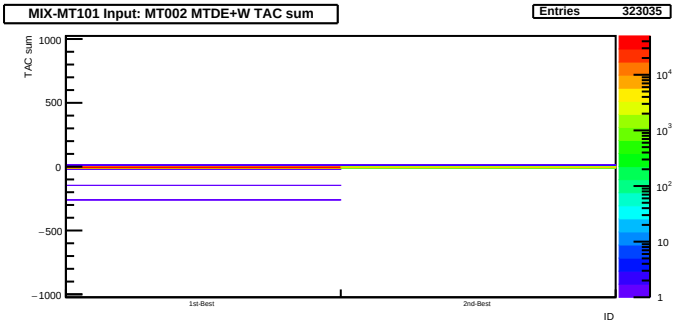

MXQ-MT003
Entries 1.264353e+08
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^6
10^5
10^4
10^3
10^2
10
1

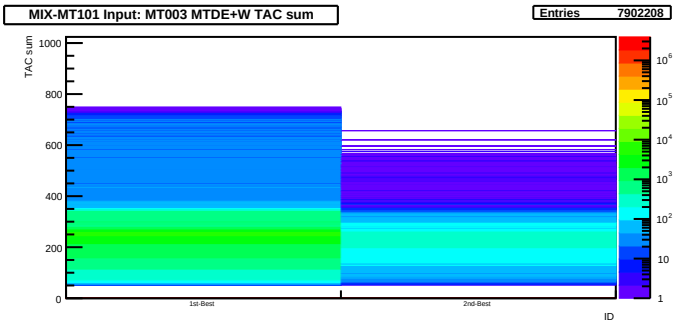

MXQ-MT004
Entries 1.264353e+08
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^6
10^5
10^4
10^3
10^2
10
1

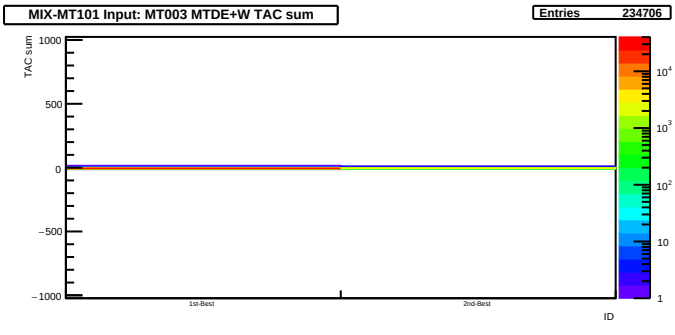

MIX-MT101 Input: MT001 MTDE+W TAC sum
Entries 7902208
TAC sum
1st-Best
2nd-Best
ID

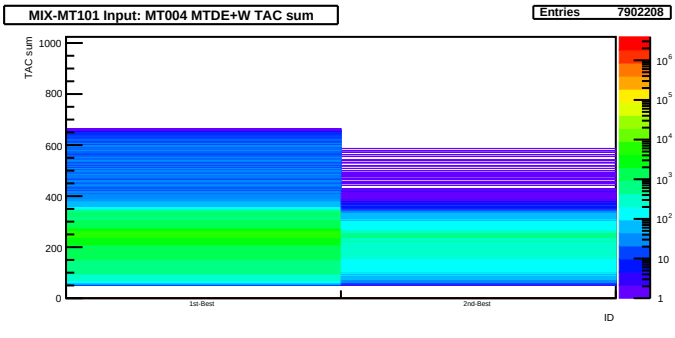

MIX-MT101 Input: MT001 MTDE+W TAC sum
Entries 249798
TAC sum
1st-Best
2nd-Best
ID

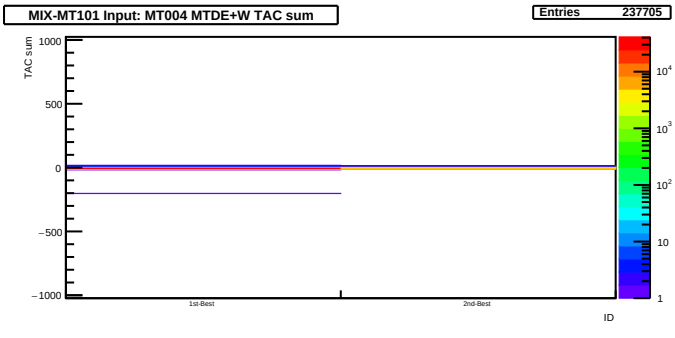

MIX-MT101 Input: MT002 MTDE+W TAC sum
Entries 7902208
TAC sum
1st-Best
2nd-Best
ID

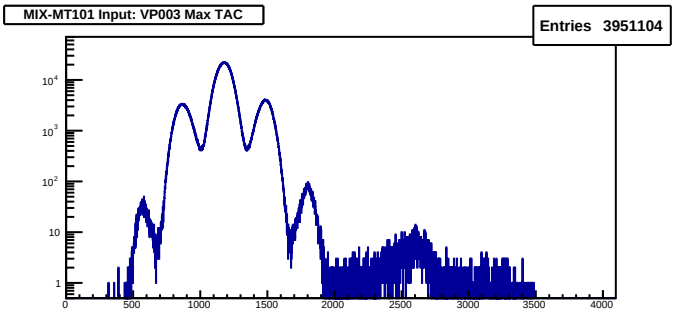

MIX-MT101 Input: MT002 MTDE+W TAC sum
Entries 323035
TAC sum
1st-Best
2nd-Best
ID

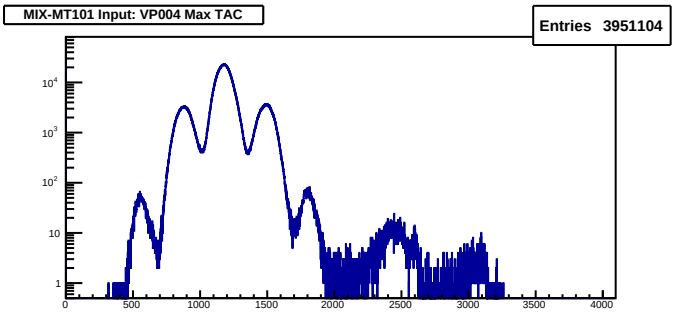

MIX-MT101 Input: MT003 MTDE+W TAC sum
Entries 7902208
TAC sum
1st-Best
2nd-Best
ID

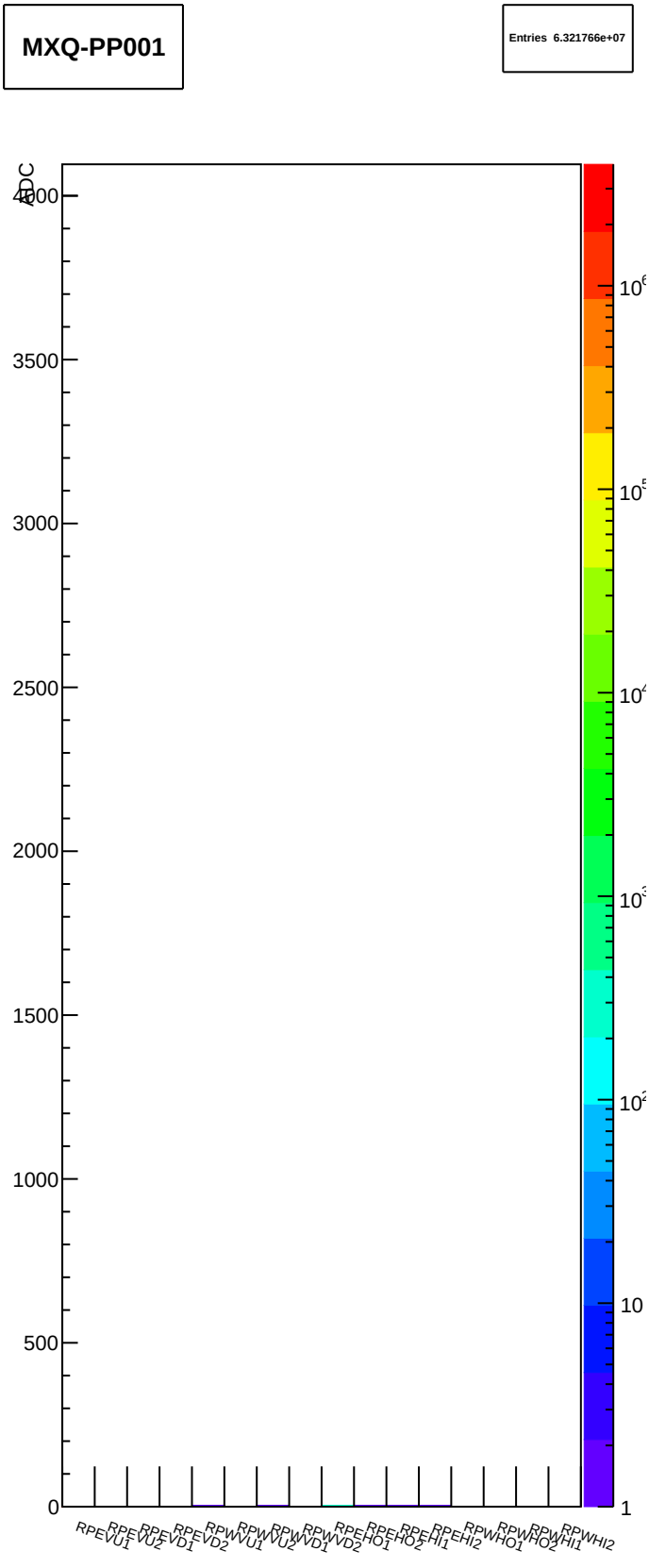

MIX-MT101 Input: MT003 MTDE+W TAC sum
Entries 234706
TAC sum
1st-Best
2nd-Best
ID

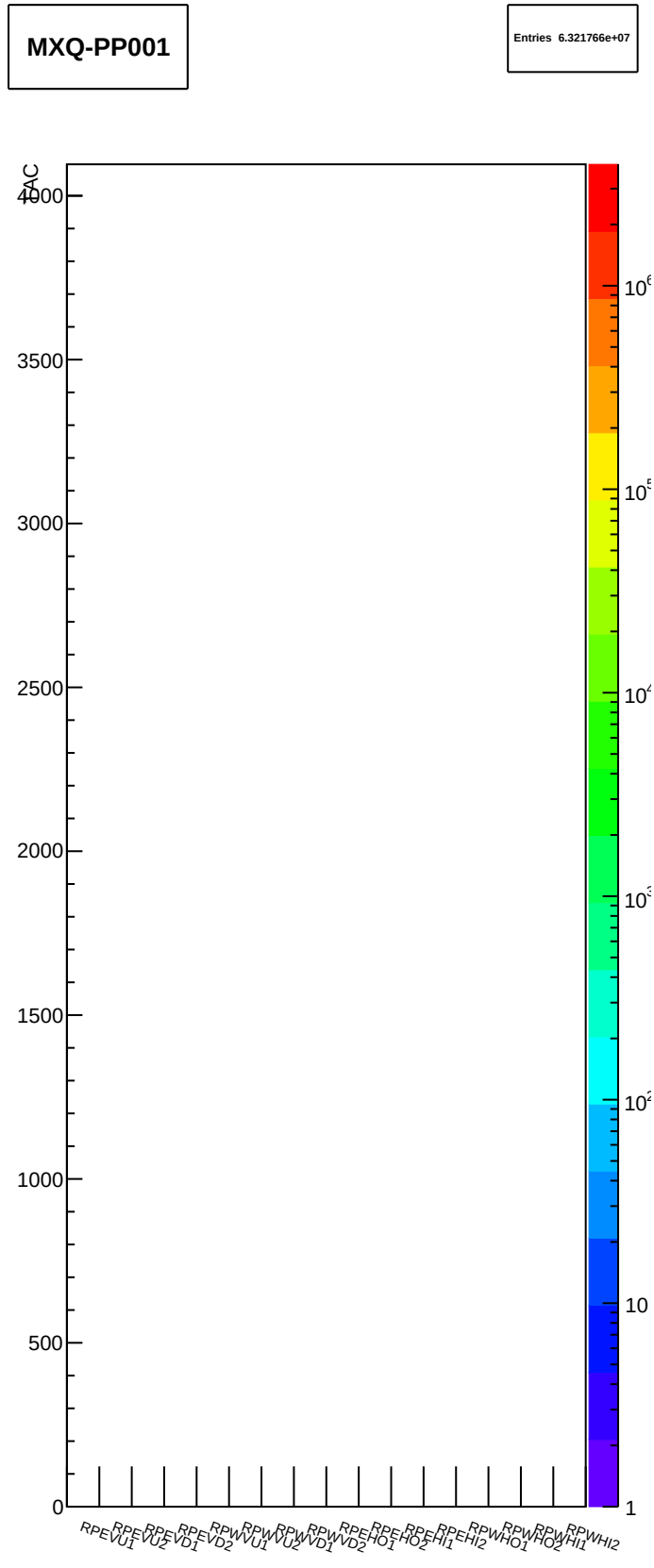

MIX-MT101 Input: MT004 MTDE+W TAC sum
Entries 7902208
TAC sum
1st-Best
2nd-Best
ID

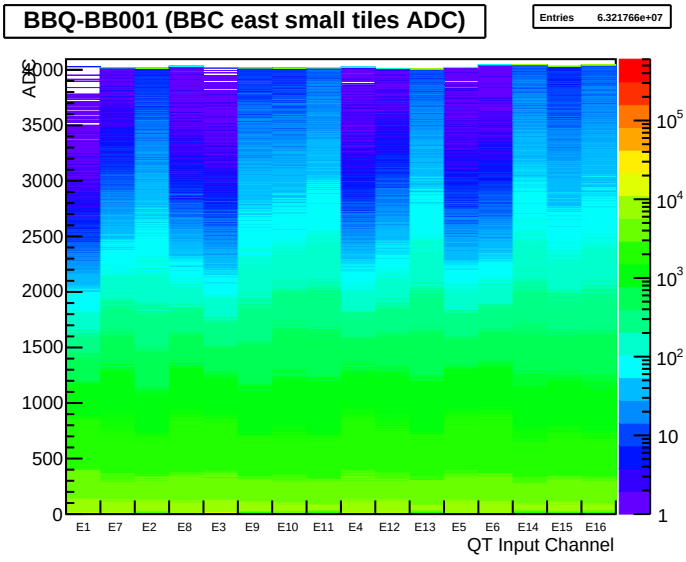

MIX-MT101 Input: MT004 MTDE+W TAC sum
Entries 237705
TAC sum
1st-Best
2nd-Best
ID

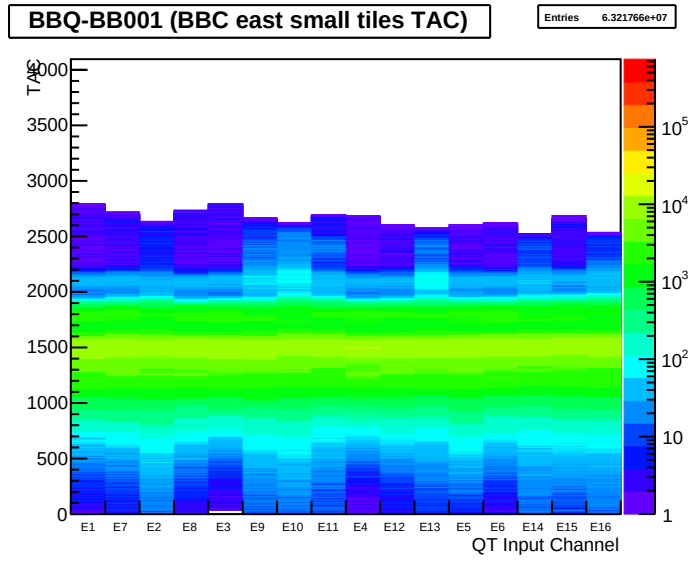

MIX-MT101 Input: VP003 Max TAC
Entries 3951104

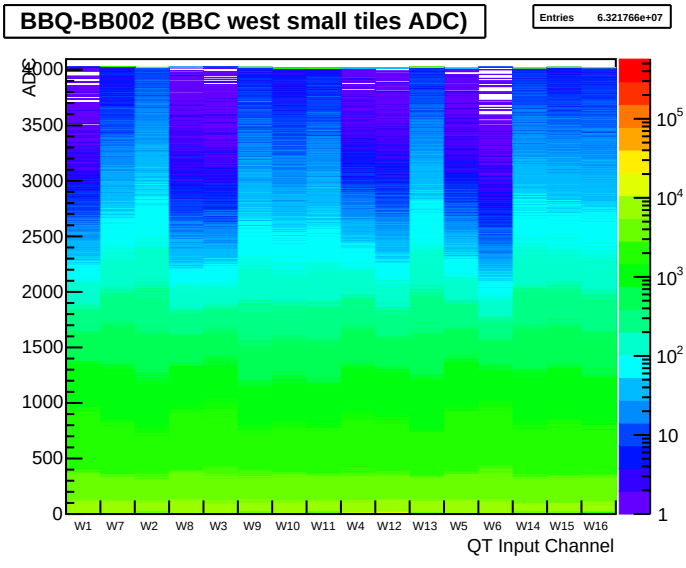

MIX-MT101 Input: VP004 Max TAC
Entries 3951104

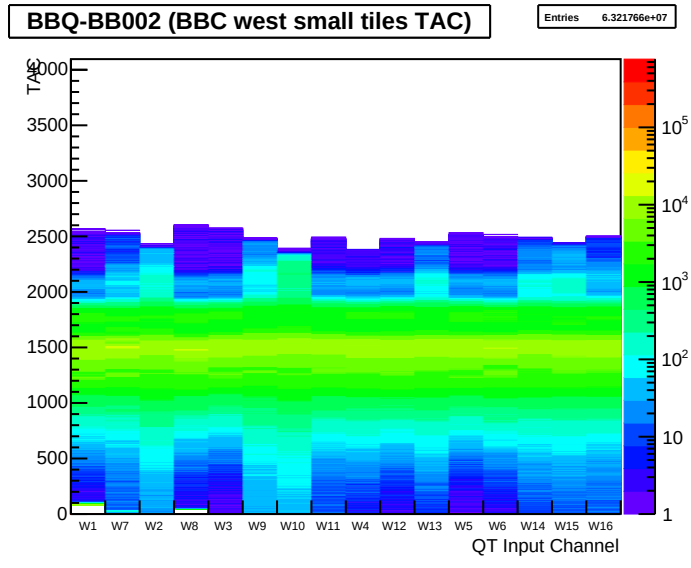

MXQ-PP001
Entries 6.321766e+07
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
RPEVU1
RPEVU2
RPEVD1
RPEVD2
RPWVU1
RPWVU2
RPWVD1
RPWVD2
RPEHO1
RPEHO2
RPEHI1
RPEHI2
RPWHO1
RPWHO2
RPWHI1
RPWHI2
10^6
10^5
10^4
10^3
10^2
10
1

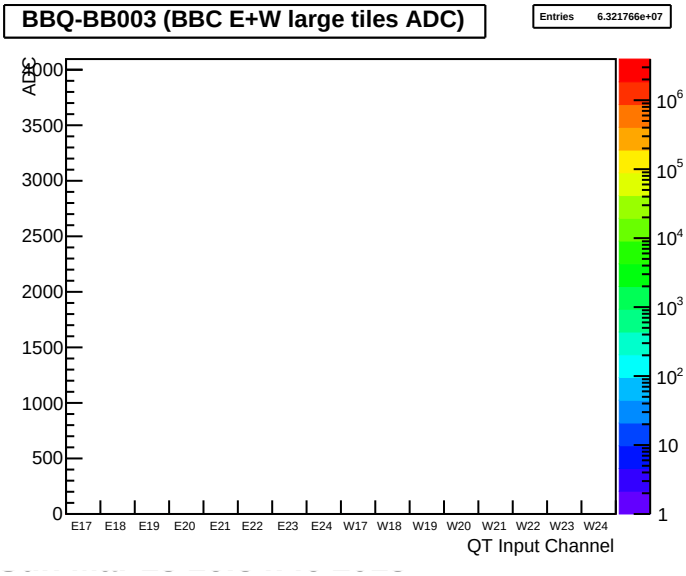

MXQ-PP001
Entries 6.321766e+07
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
RPEVU1
RPEVU2
RPEVD1
RPEVD2
RPWVU1
RPWVU2
RPWVD1
RPWVD2
RPEHO1
RPEHO2
RPEHI1
RPEHI2
RPWHO1
RPWHO2
RPWHI1
RPWHI2
10^6
10^5
10^4
10^3
10^2
10
1

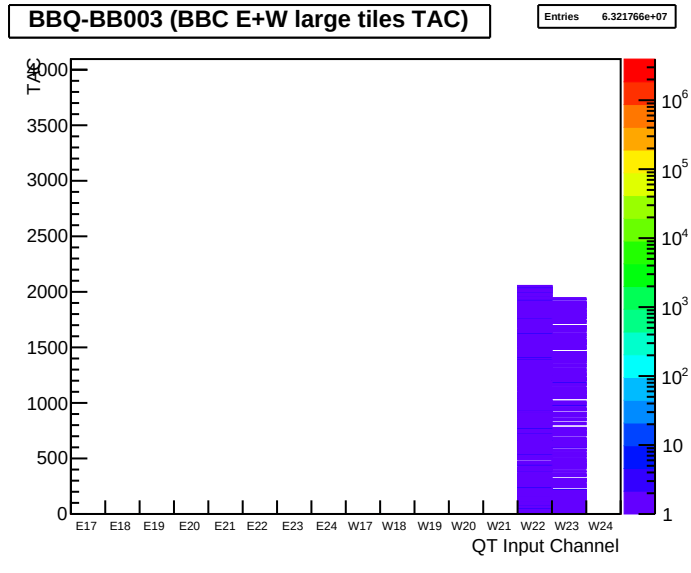

BBQ-BB001 (BBC east small tiles ADC)
Entries 6.321766e+07
ADC
QT Input Channel

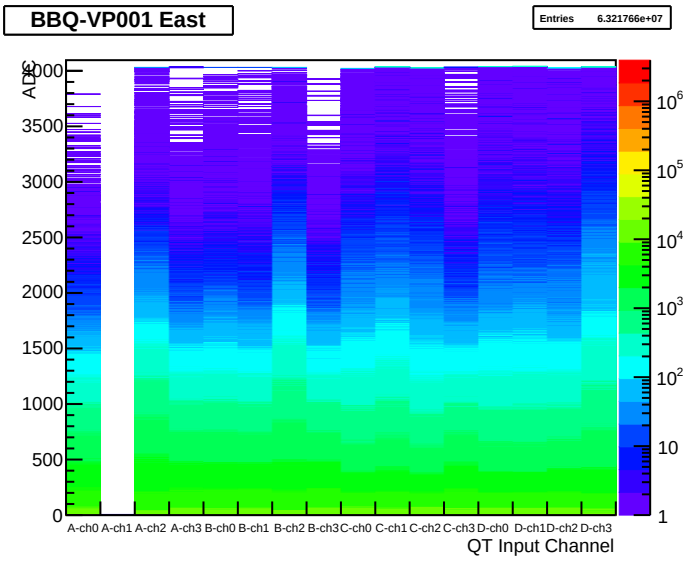

BBQ-BB001 (BBC east small tiles TAC)
Entries 6.321766e+07
TAC
QT Input Channel

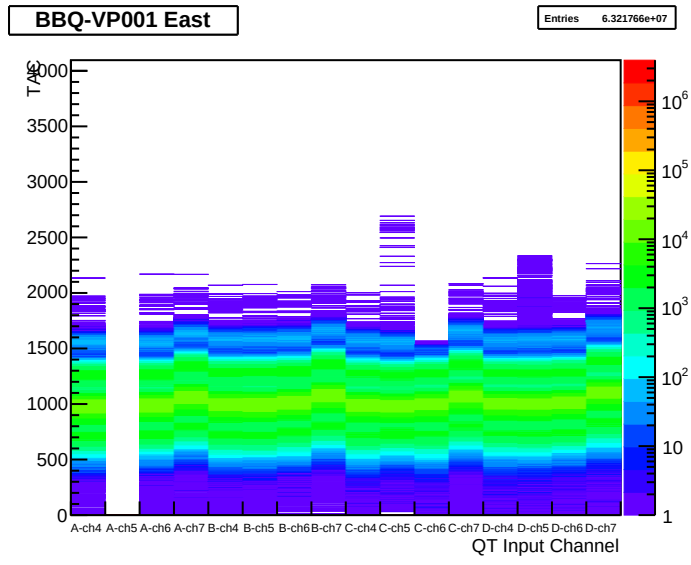

BBQ-BB002 (BBC west small tiles ADC)
Entries 6.321766e+07
ADC
QT Input Channel

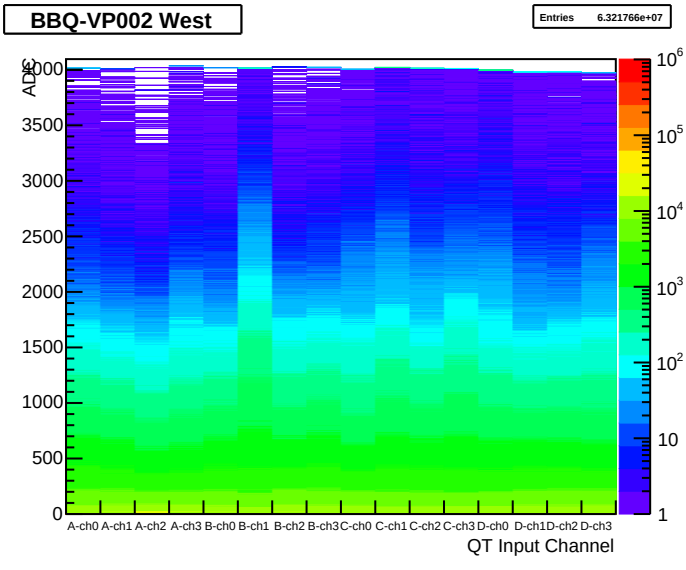

BBQ-BB002 (BBC west small tiles TAC)
Entries 6.321766e+07
TAC
QT Input Channel

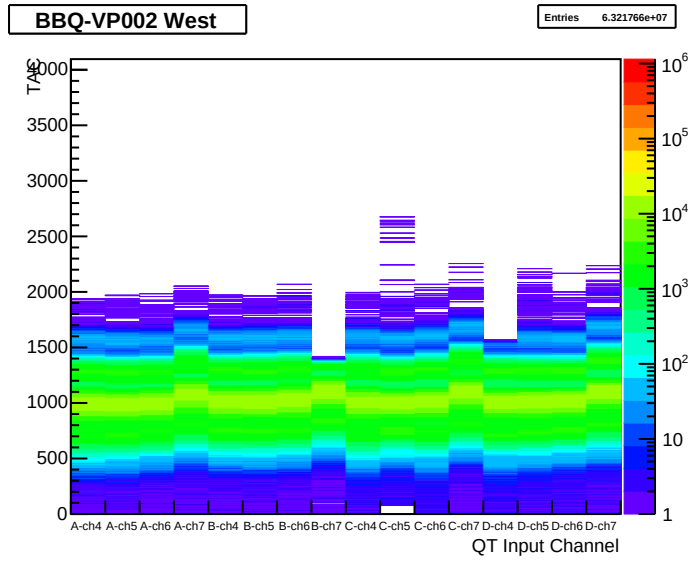

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 6.321766e+07
ADC
QT Input Channel

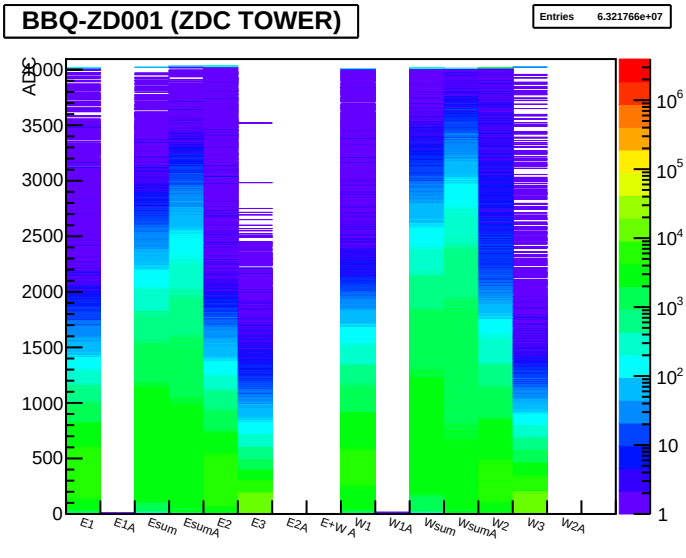

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 6.321766e+07
TAC
QT Input Channel

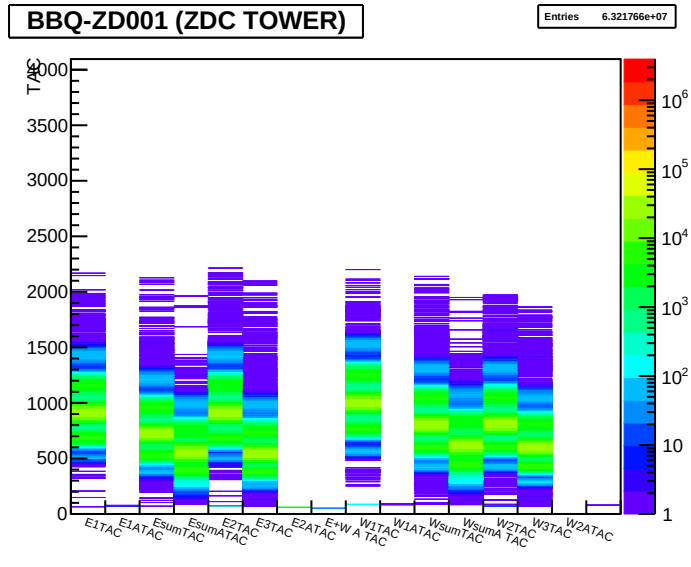

BBQ-VP001 East
Entries 6.321766e+07
ADC
QT Input Channel

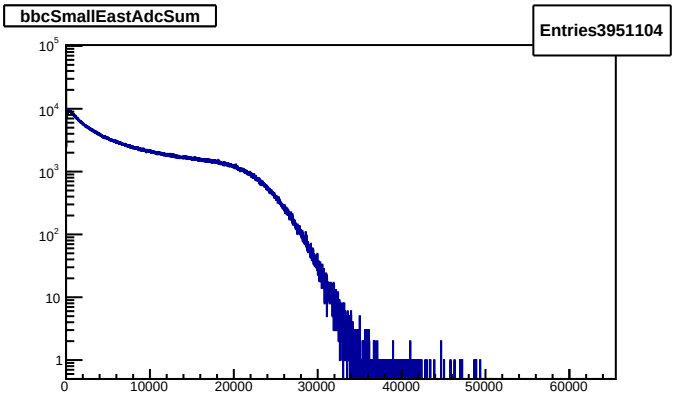

BBQ-VP001 East
Entries 6.321766e+07
TAC
QT Input Channel

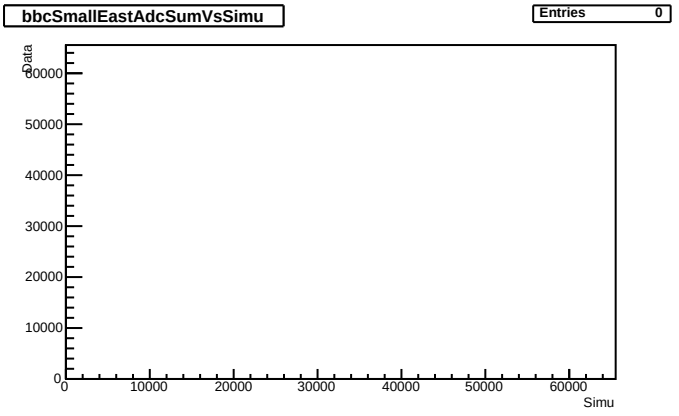

BBQ-VP002 West
Entries 6.321766e+07
ADC
QT Input Channel

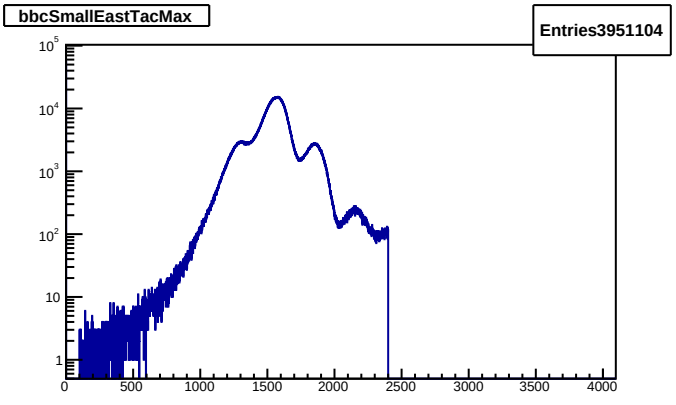

BBQ-VP002 West
Entries 6.321766e+07
TAC
QT Input Channel

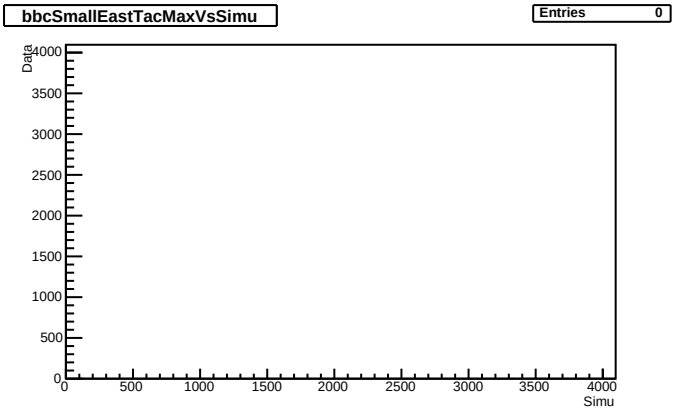

BBQ-ZD001 (ZDC TOWER)
Entries 6.321766e+07
ADC

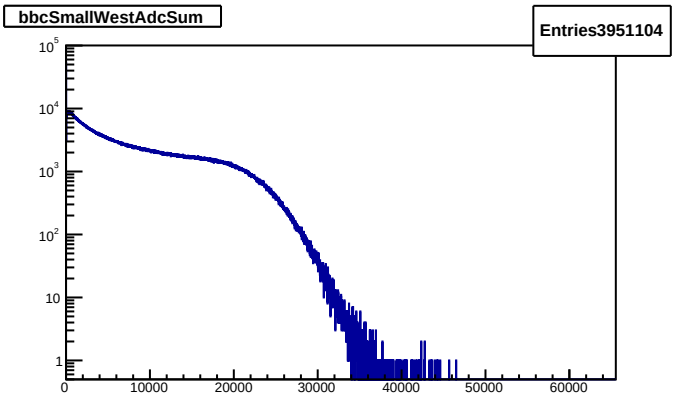

BBQ-ZD001 (ZDC TOWER)
Entries 6.321766e+07
TAC

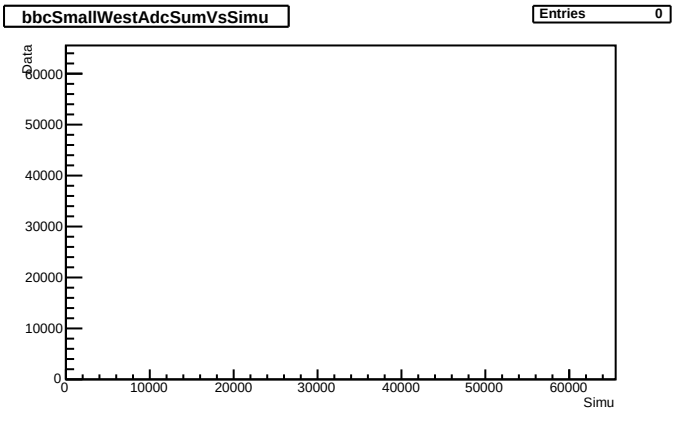

bbcSmallEastAdcSum
Entries3951104

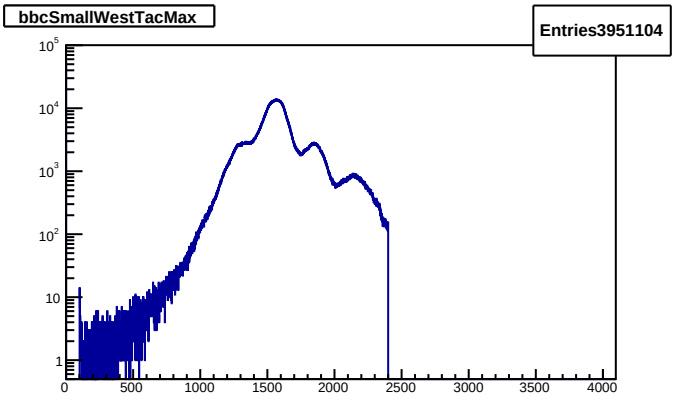

bbcSmallEastAdcSumVsSimu
Entries 0
Data
Simu

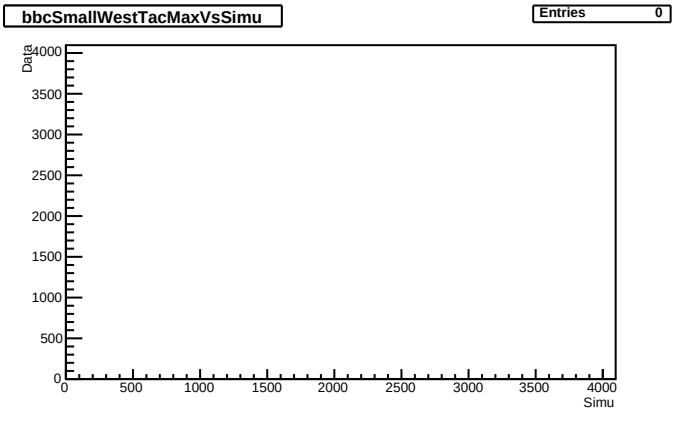

bbcSmallEastTacMax
Entries3951104

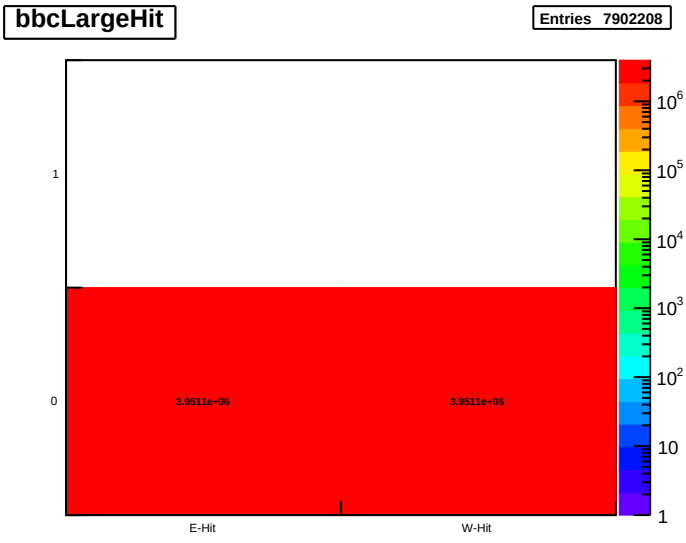

bbcSmallEastTacMaxVsSimu
Entries 0
Data
Simu

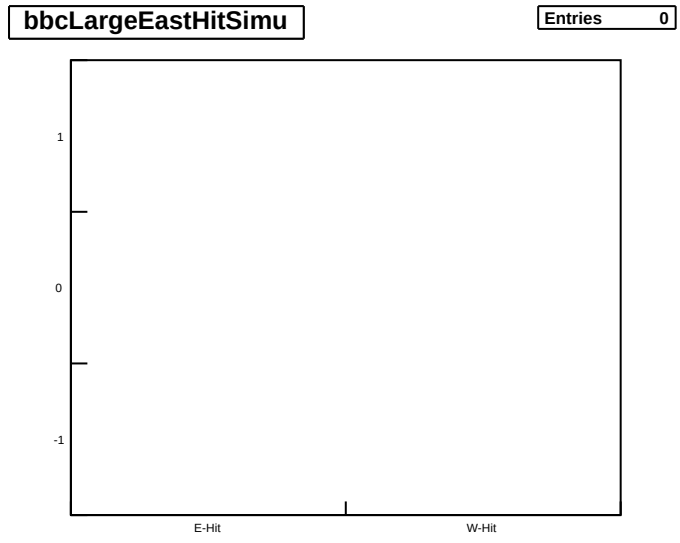

bbcSmallWestAdcSum
Entries3951104

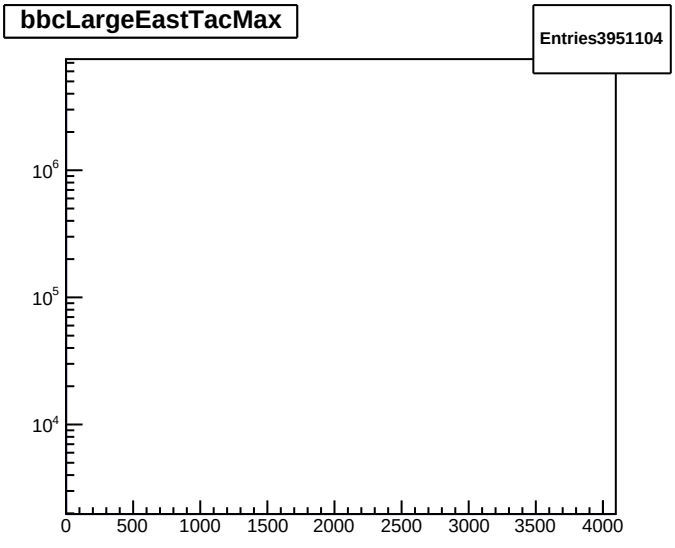

bbcSmallWestAdcSumVsSimu
Entries 0
Data
Simu

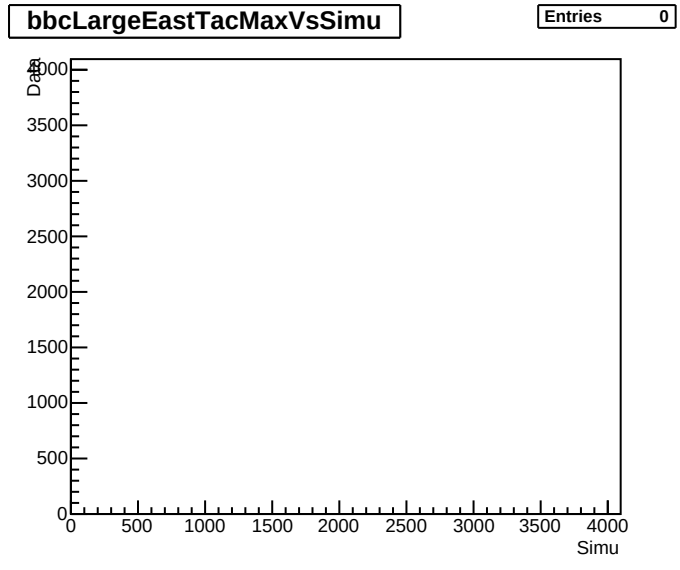

bbcSmallWestTacMax
Entries3951104

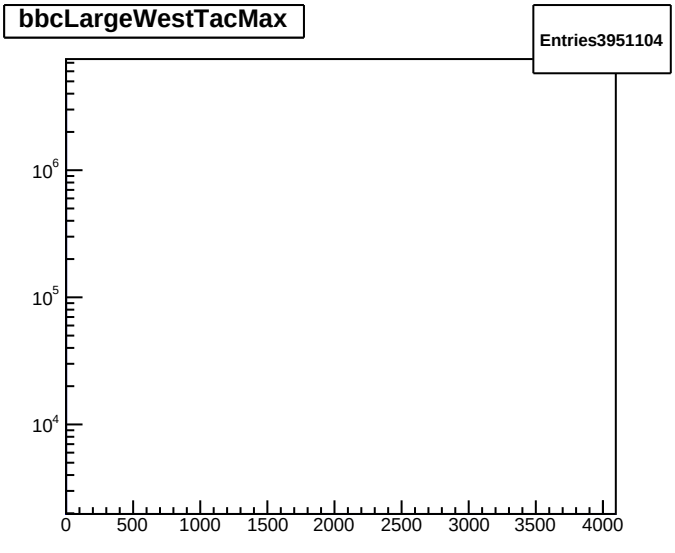

bbcSmallWestTacMaxVsSimu
Entries 0
Data
Simu

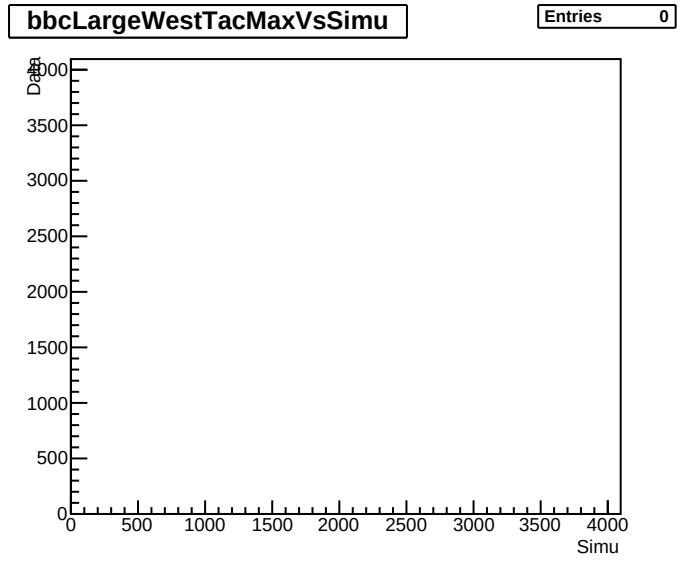

bbcLargeHit
Entries 7902208
3.9511e+06
3.9511e+06
E-Hit
W-Hit

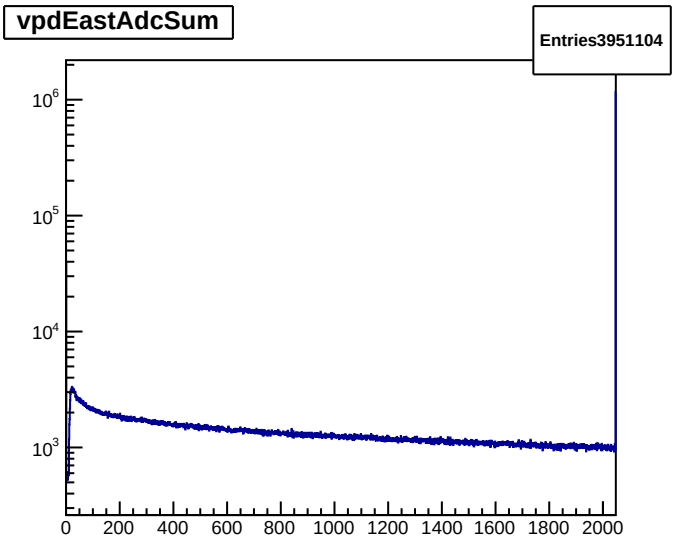

bbcLargeEastHitSimu
Entries 0
E-Hit
W-Hit

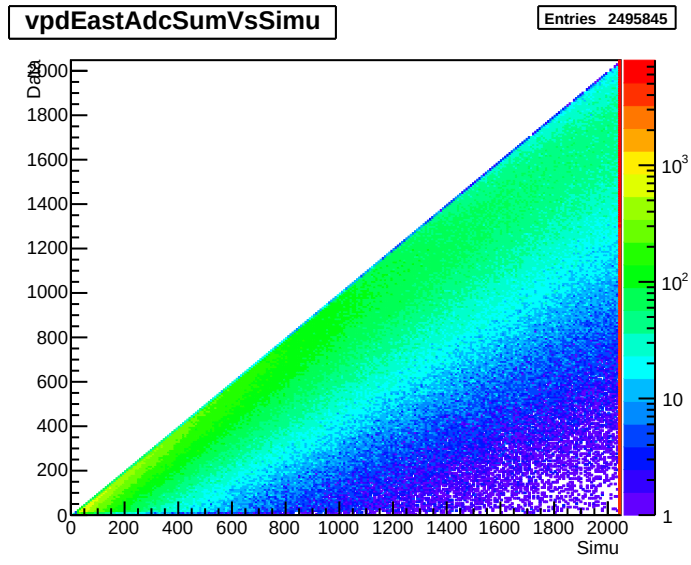

bbcLargeEastTacMax
Entries3951104

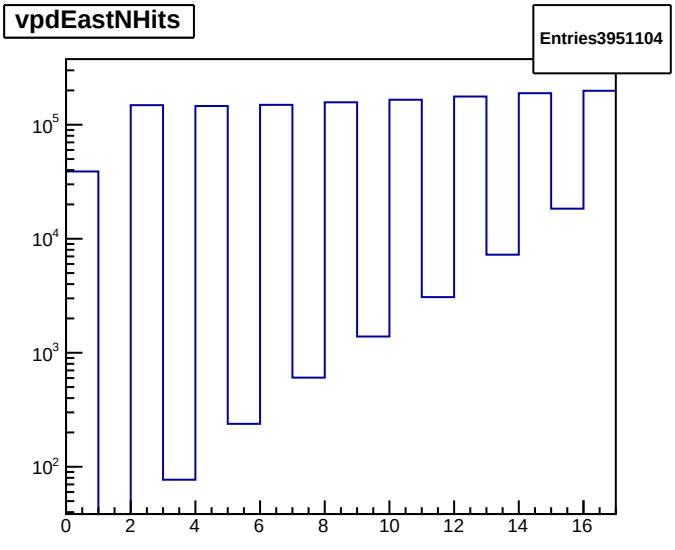

bbcLargeEastTacMaxVsSimu
Entries 0
Data
Simu

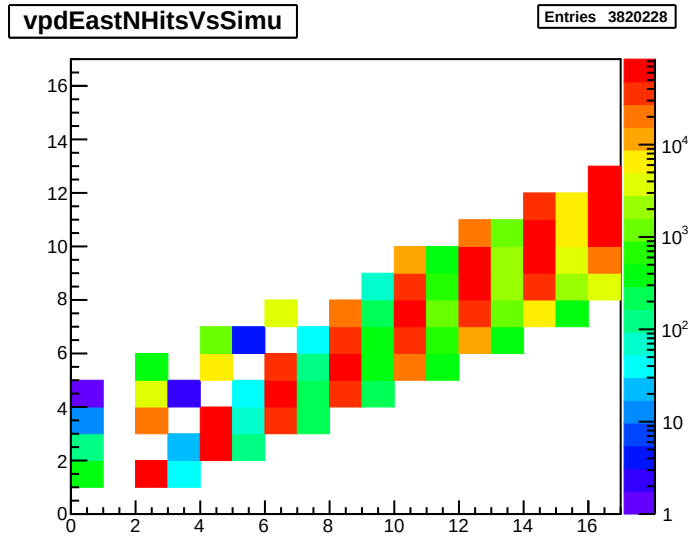

bbcLargeWestTacMax
Entries3951104

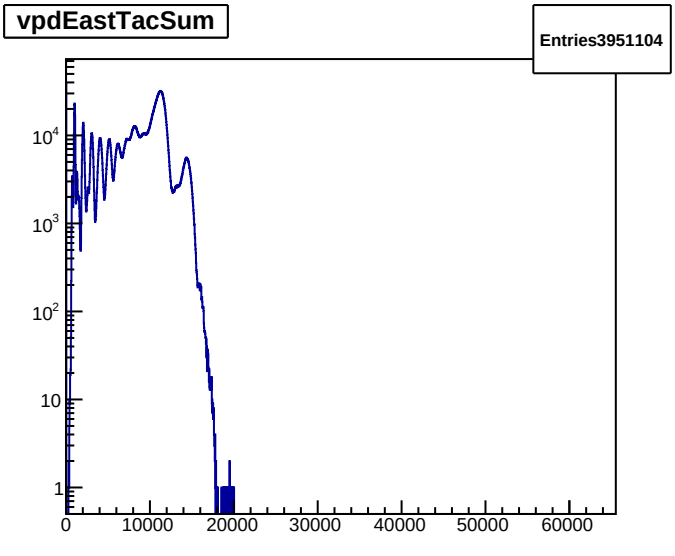

bbcLargeWestTacMaxVsSimu
Entries 0
Data
Simu

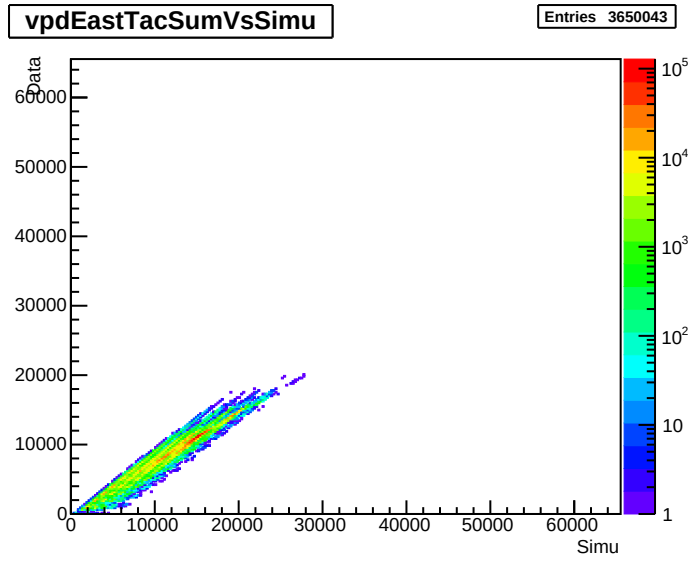

vpdEastAdcSum
Entries3951104

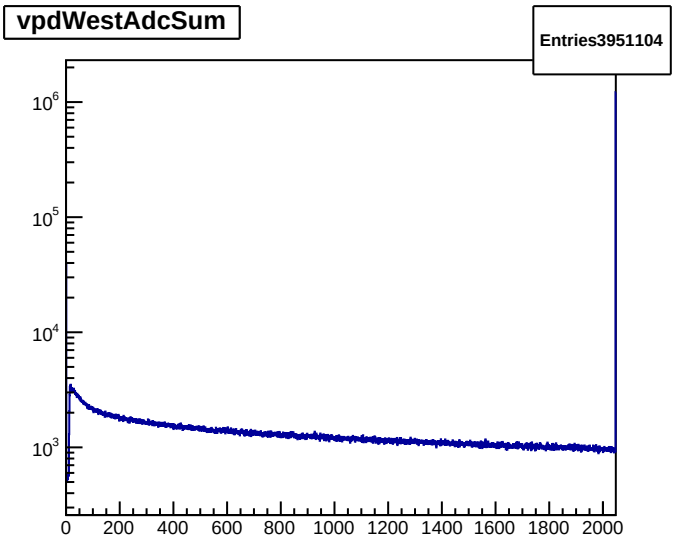

vpdEastAdcSumVsSimu
Entries 2495845
Data
Simu

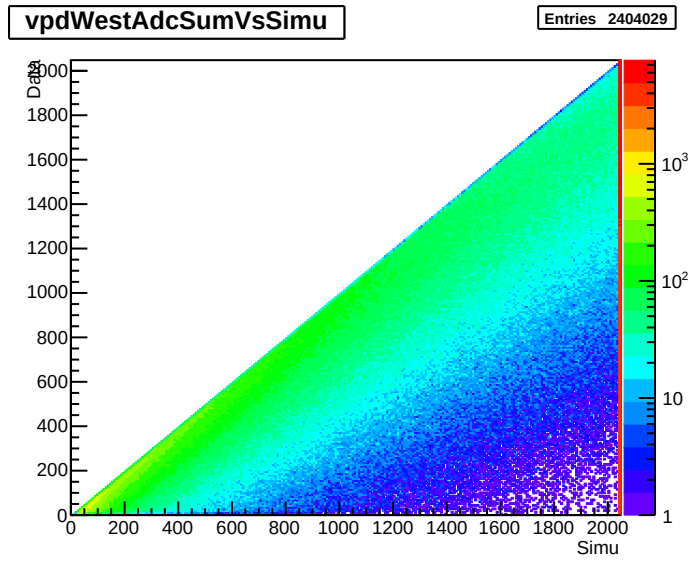

vpdEastNHits
Entries3951104

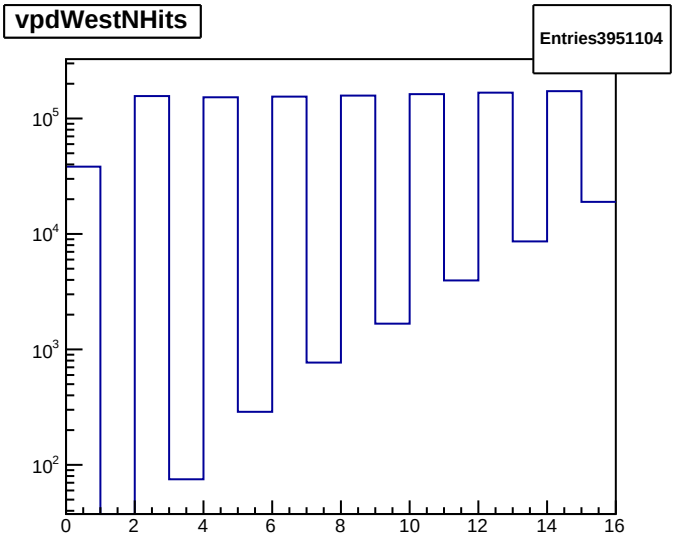

vpdEastNHitsVsSimu
Entries 3820228

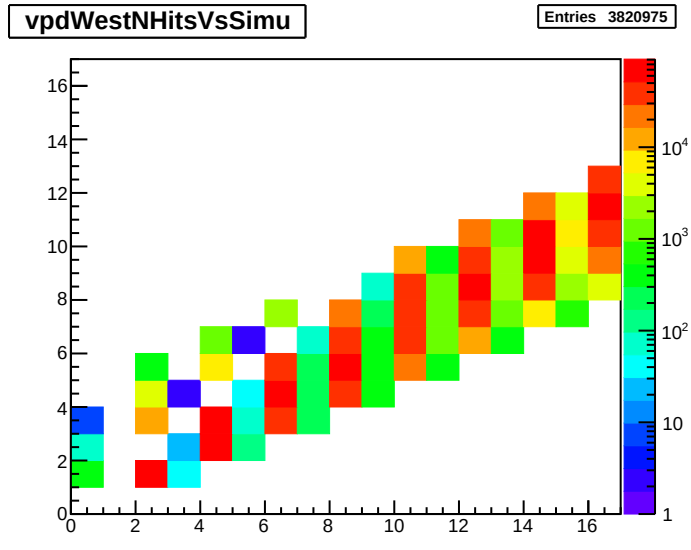

vpdEastTacSum
Entries3951104

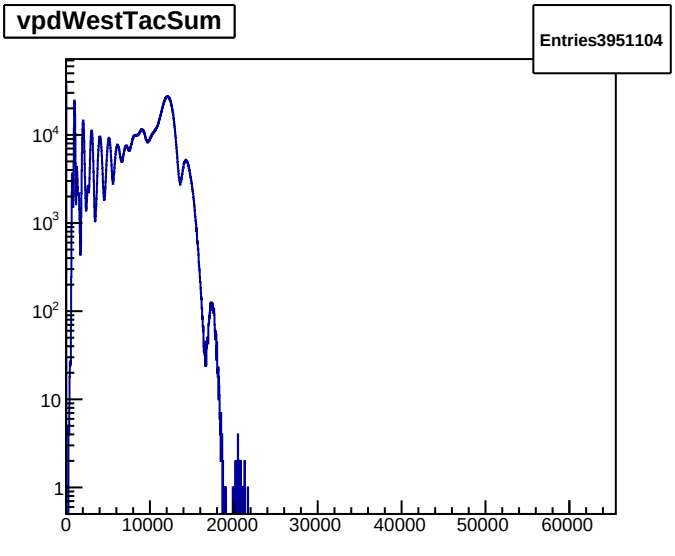

vpdEastTacSumVsSimu
Entries 3650043
Data
Simu

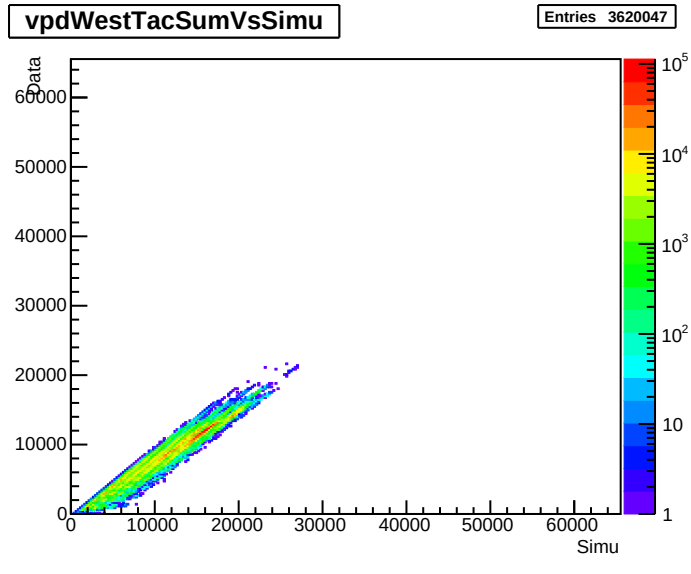

vpdWestAdcSum
Entries3951104

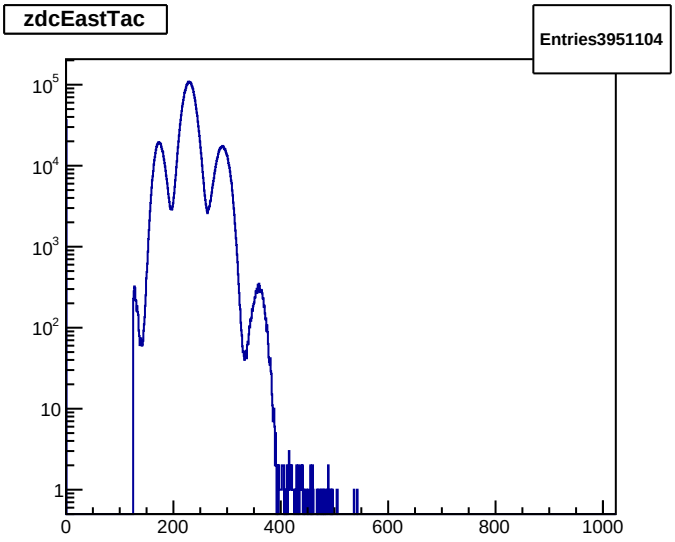

vpdWestAdcSumVsSimu
Entries 2404029
Data
Simu

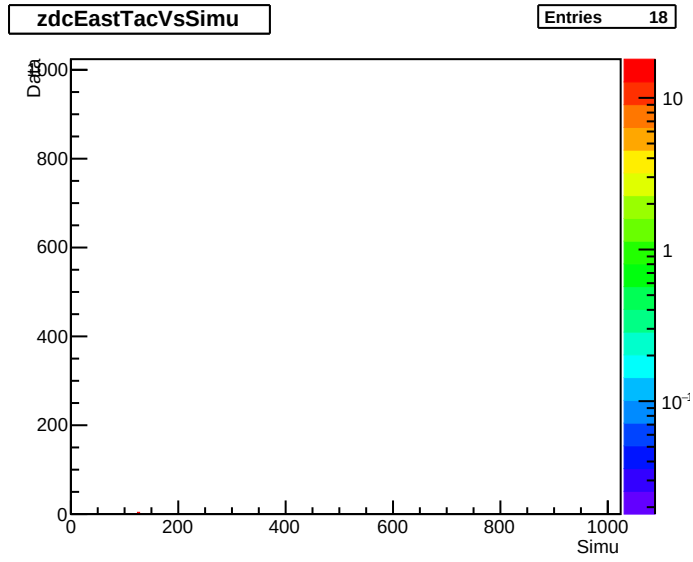

vpdWestNHits
Entries3951104

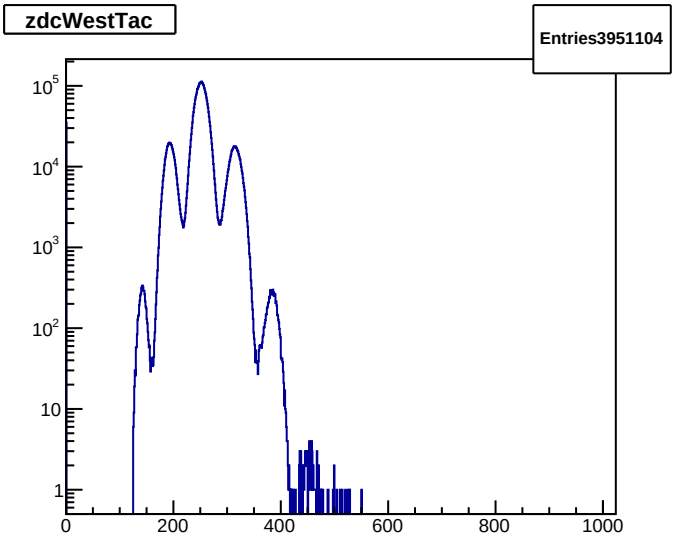

vpdWestNHitsVsSimu
Entries 3820975

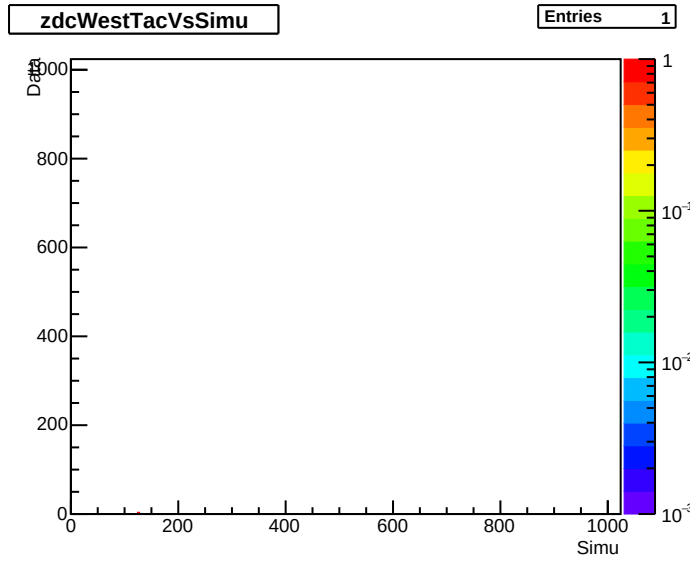

vpdWestTacSum
Entries3951104

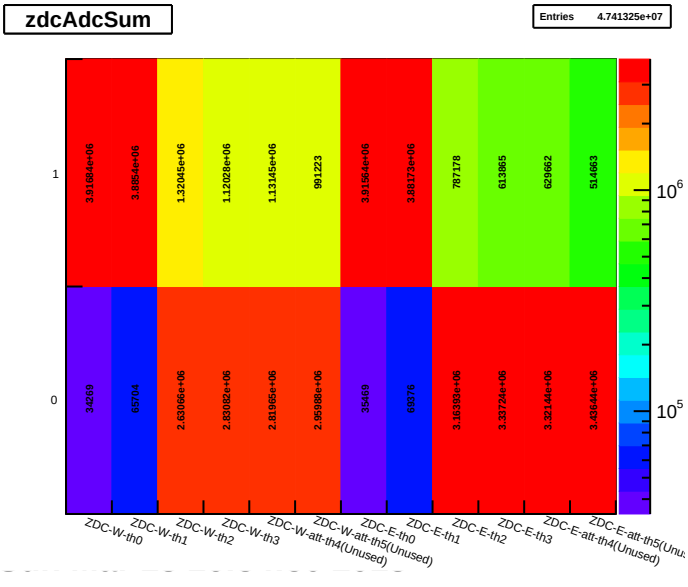

vpdWestTacSumVsSimu
Entries 3620047
Data
Simu

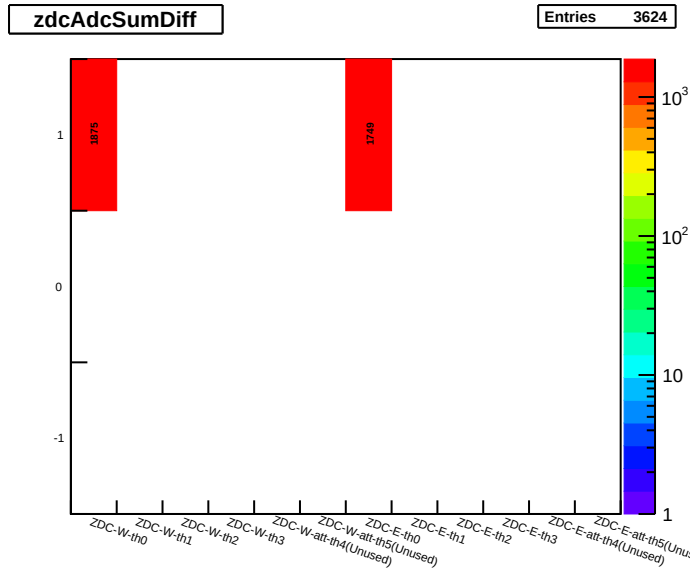

zdcEastTac
Entries3951104

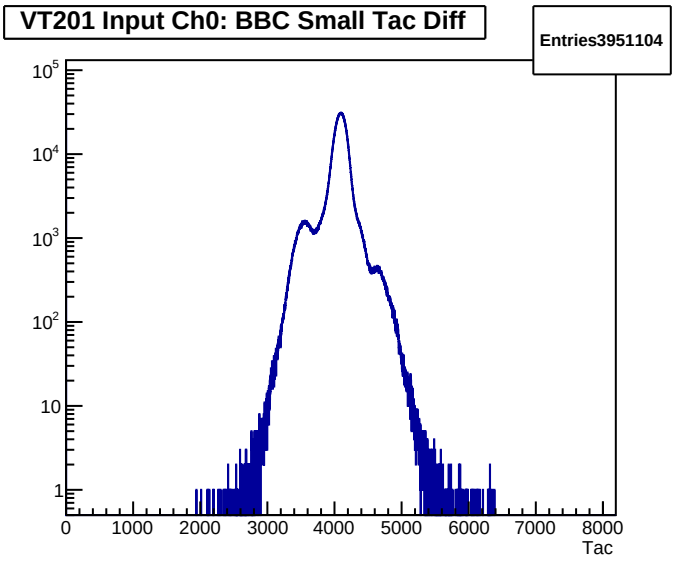

zdcEastTacVsSimu
Entries 18
Data
Simu

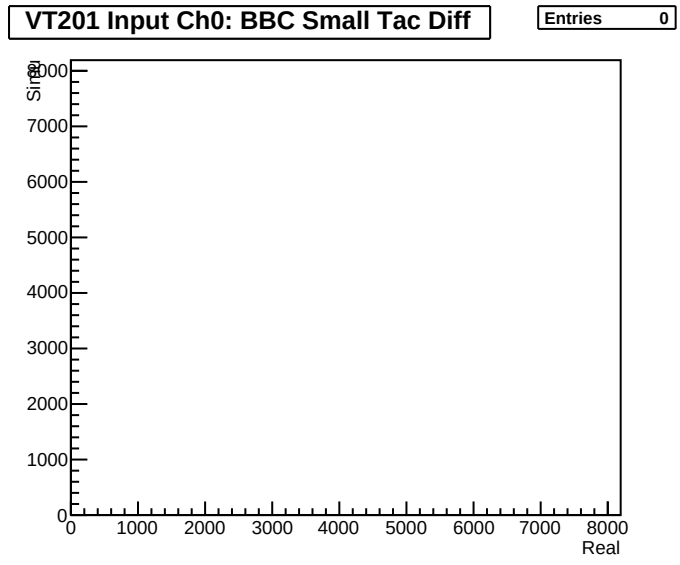

zdcWestTac
Entries3951104

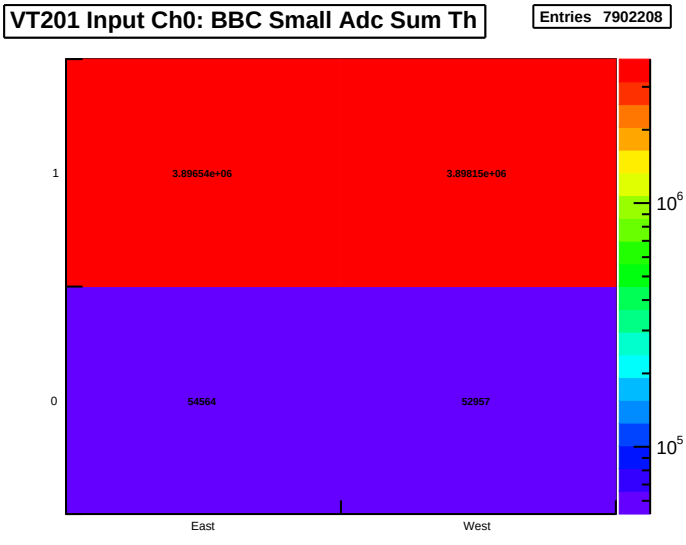

zdcWestTacVsSimu
Entries 1
Data
Simu

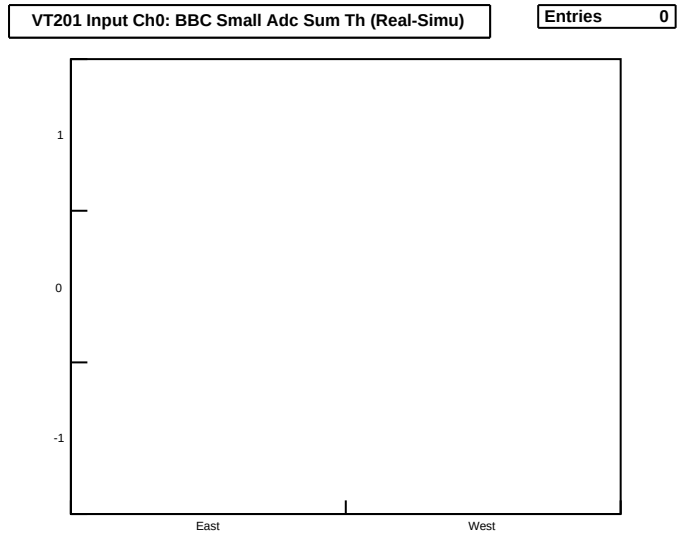

zdcAdcSum
Entries 4.741325e+07
3.91684e+06
3.8854e+06
1.32045e+06
1.12028e+06
1.13145e+06
991223
3.91564e+06
3.88173e+06
787178
613865
629662
514663
34269
65704
2.63066e+06
2.83082e+06
2.81965e+06
2.95988e+06
35469
69376
3.16393e+06
3.33724e+06
3.32144e+06
3.43644e+06
ZDC-W-th0
ZDC-W-th1
ZDC-W-th2
ZDC-W-th3
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)
ZDC-E-att-th5(Unu

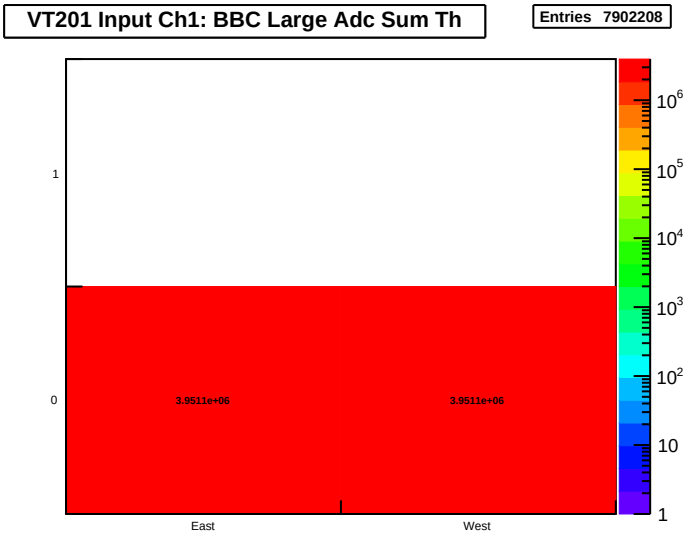

zdcAdcSumDiff
Entries 3624
1875
1749
ZDC-W-th0
ZDC-W-th1
ZDC-W-th2
ZDC-W-th3
ZDC-W-att-th4(Unused)
ZDC-W-att-th5(Unused)
ZDC-E-th0
ZDC-E-th1
ZDC-E-th2
ZDC-E-th3
ZDC-E-att-th4(Unused)
ZDC-E-att-th5(Unu

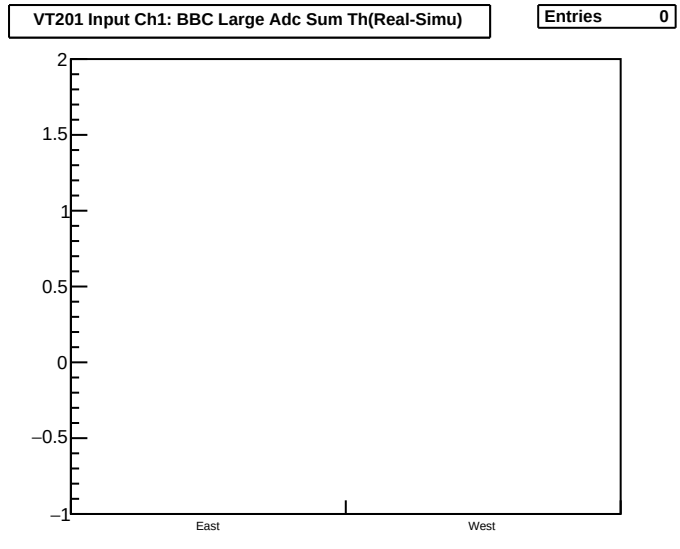

VT201 Input Ch0: BBC Small Tac Diff
Entries3951104
Tac

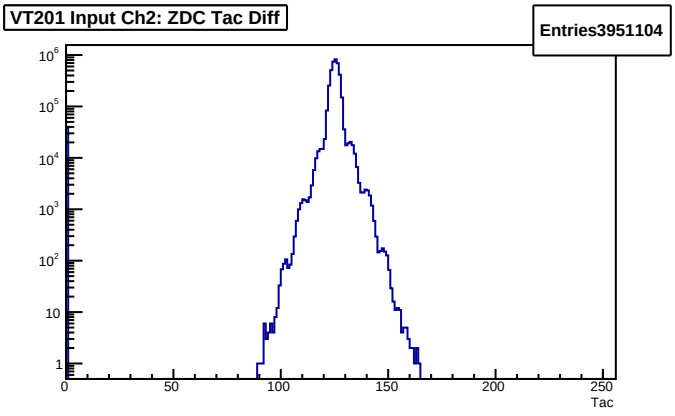

VT201 Input Ch0: BBC Small Tac Diff
Entries 0
Simu
Real

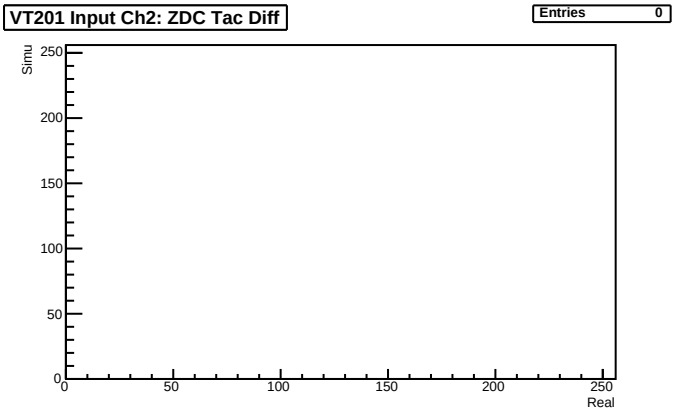

VT201 Input Ch0: BBC Small Adc Sum Th
Entries 7902208
3.89654e+06
3.89815e+06
54564
52957
East
West

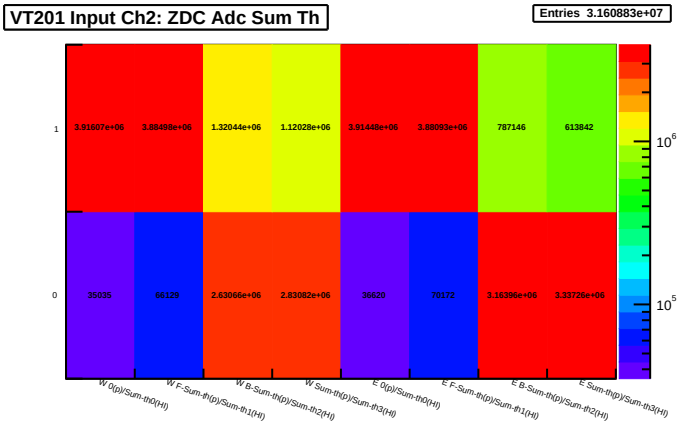

VT201 Input Ch0: BBC Small Adc Sum Th (Real-Simu)
Entries 0
East
West

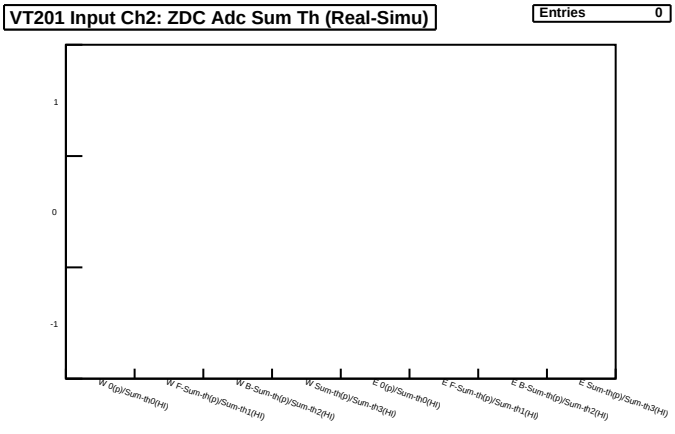

VT201 Input Ch1: BBC Large Adc Sum Th
Entries 7902208
3.9511e+06
3.9511e+06
East
West

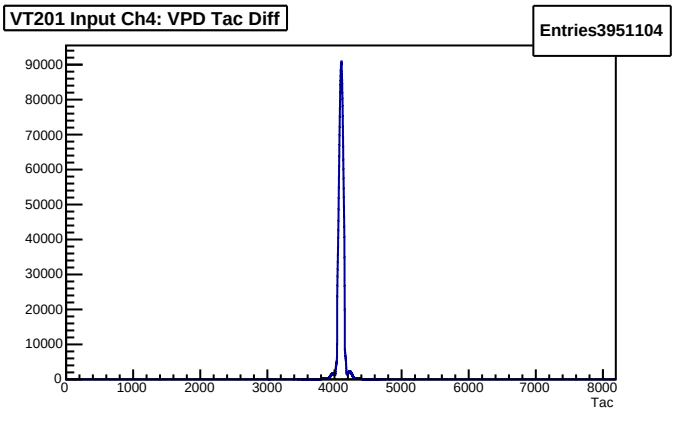

VT201 Input Ch1: BBC Large Adc Sum Th(Real-Simu)
Entries 0
East
West

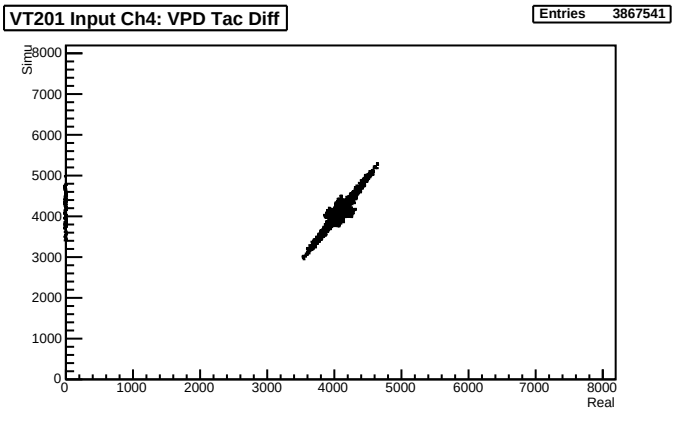

VT201 Input Ch2: ZDC Tac Diff
Entries3951104
Tac

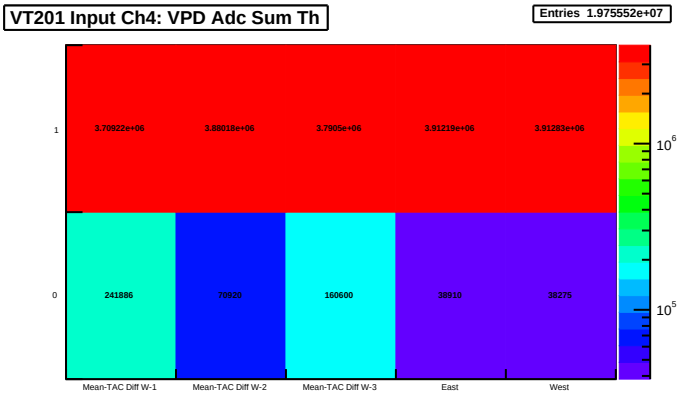

VT201 Input Ch2: ZDC Tac Diff
Entries 0
Simu
Real

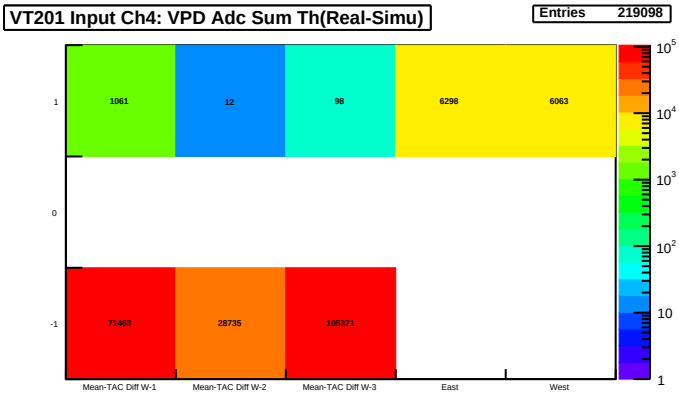

VT201 Input Ch2: ZDC Adc Sum Th
Entries 3.160883e+07
3.91607e+06
3.88498e+06
1.32044e+06
1.12028e+06
3.91448e+06
3.88093e+06
787146
613842
35035
66129
2.63066e+06
2.83082e+06
36620
70172
3.16396e+06
3.33726e+06
W 0(p)/Sum-th0(Hl)
W F-Sum-th(p)/Sum-th1(Hl)
W B-Sum-th(p)/Sum-th2(Hl)
W Sum-th(p)/Sum-th3(Hl)
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)

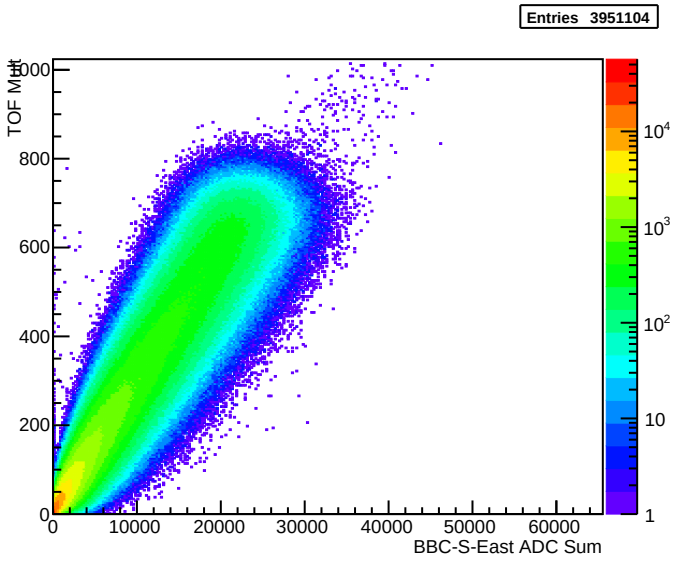

VT201 Input Ch2: ZDC Adc Sum Th (Real-Simu)
Entries 0
W 0(p)/Sum-th0(Hl)
W F-Sum-th(p)/Sum-th1(Hl)
W B-Sum-th(p)/Sum-th2(Hl)
W Sum-th(p)/Sum-th3(Hl)
E 0(p)/Sum-th0(Hl)
E F-Sum-th(p)/Sum-th1(Hl)
E B-Sum-th(p)/Sum-th2(Hl)
E Sum-th(p)/Sum-th3(Hl)

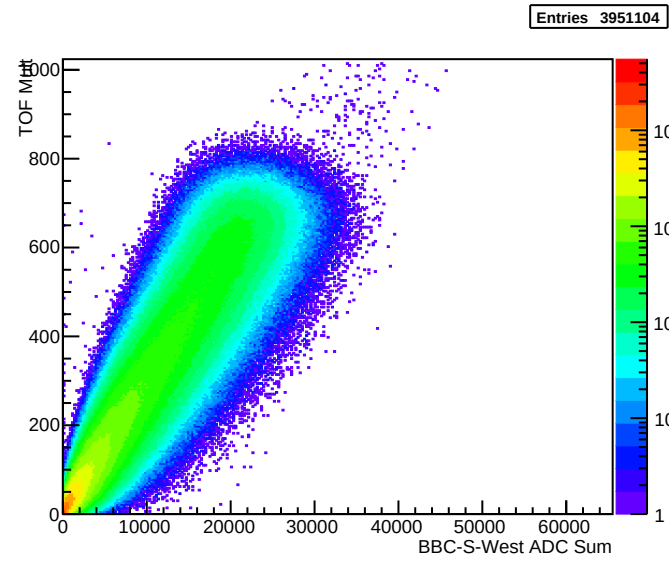

VT201 Input Ch4: VPD Tac Diff
Entries3951104
Tac

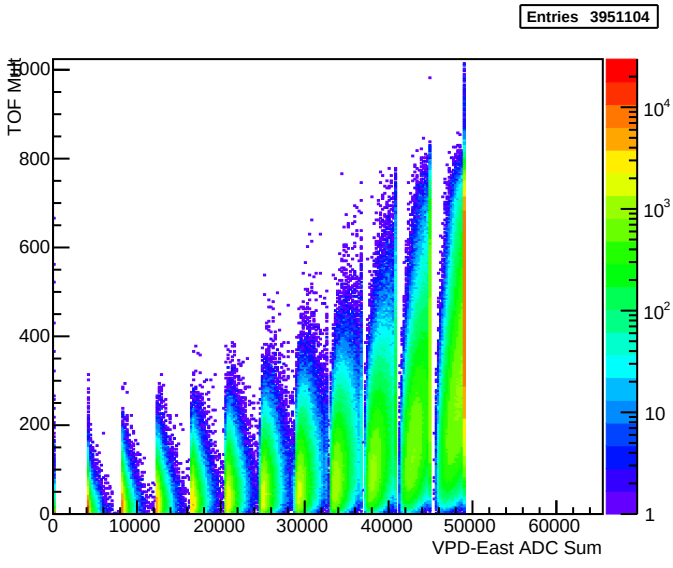

VT201 Input Ch4: VPD Tac Diff
Entries 3867541
Simu
Real

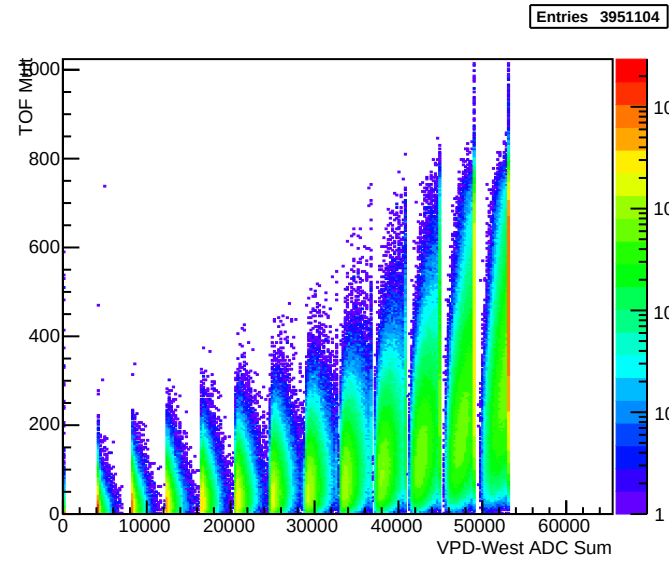

VT201 Input Ch4: VPD Adc Sum Th
Entries 1.975552e+07
3.70922e+06
3.68018e+06
3.7905e+06
3.91219e+06
3.91283e+06
241886
70920
160600
38910
38275
Mean-TAC Diff W-1
Mean-TAC Diff W-2
Mean-TAC Diff W-3
East
West

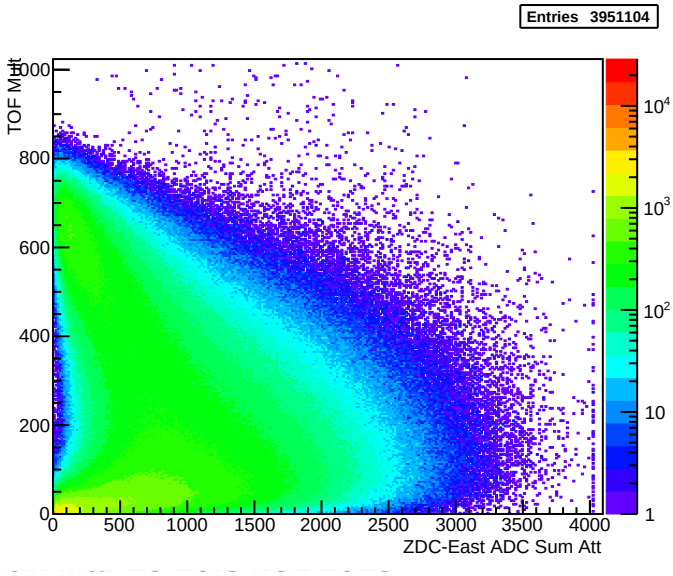

VT201 Input Ch4: VPD Adc Sum Th(Real-Simu)
Entries 219098
1061
12
98
6298
6063
71460
28735
105371
Mean-TAC Diff W-1
Mean-TAC Diff W-2
Mean-TAC Diff W-3
East
West

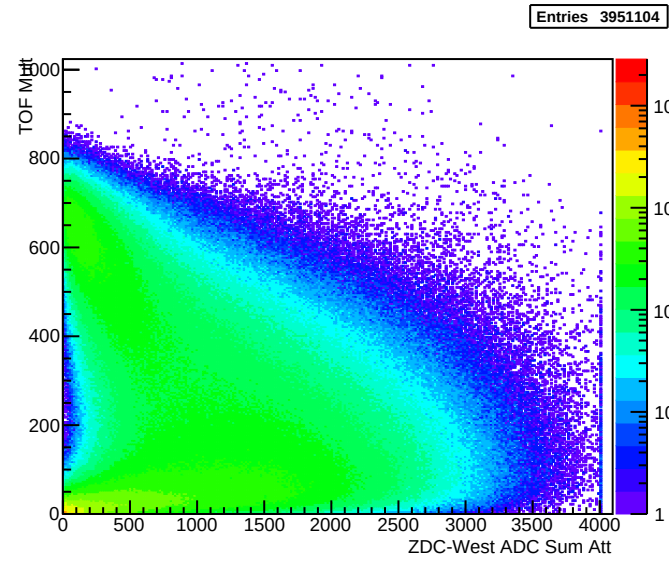

Entries 3951104
TOF Mult
BBC-S-East ADC Sum

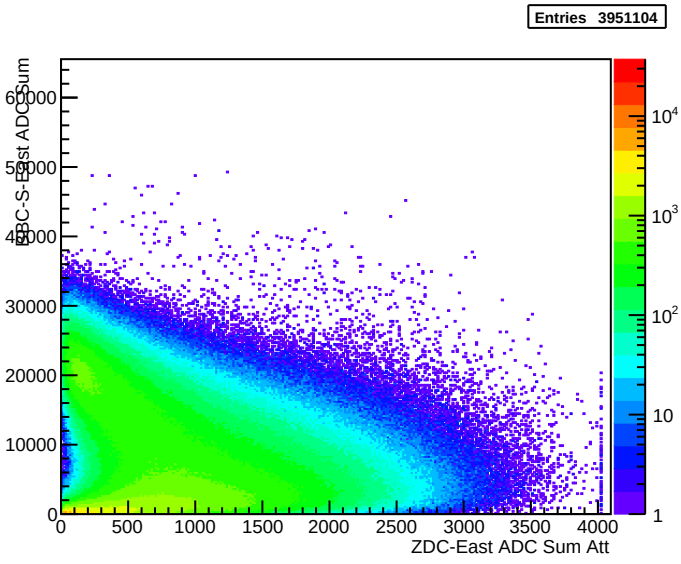

Entries 3951104
TOF Mult
BBC-S-West ADC Sum

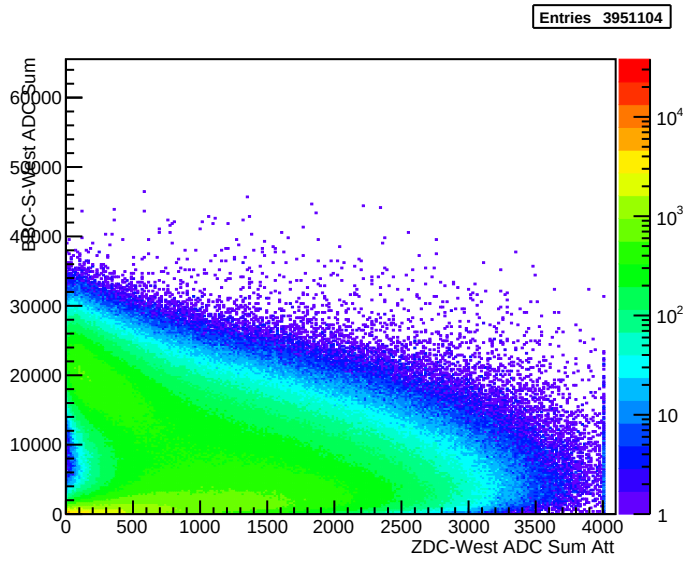

Entries 3951104
TOF Mult
VPD-East ADC Sum

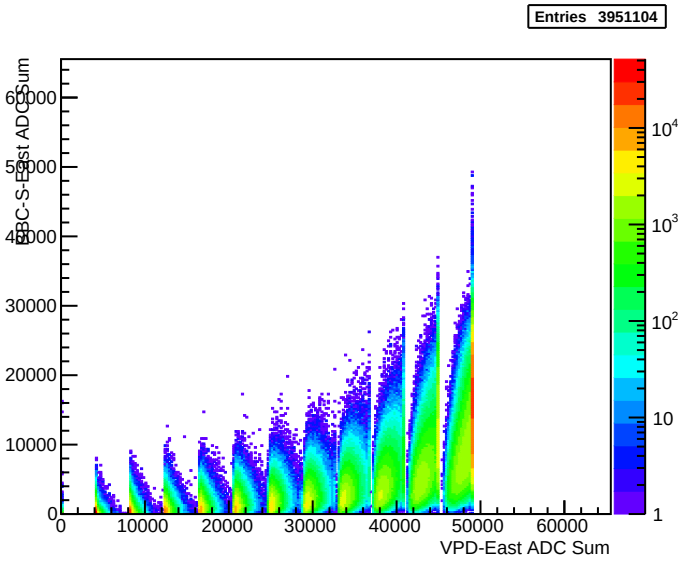

Entries 3951104
TOF Mult
VPD-West ADC Sum

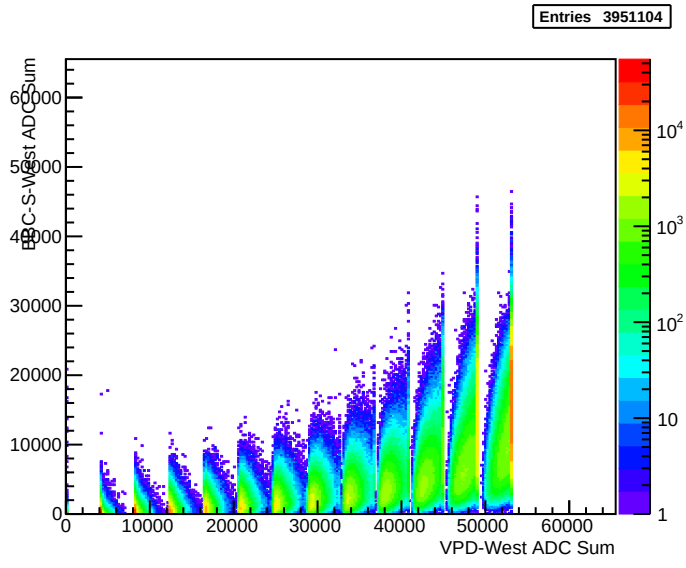

Entries 3951104
TOF Mult
ZDC-East ADC Sum Att

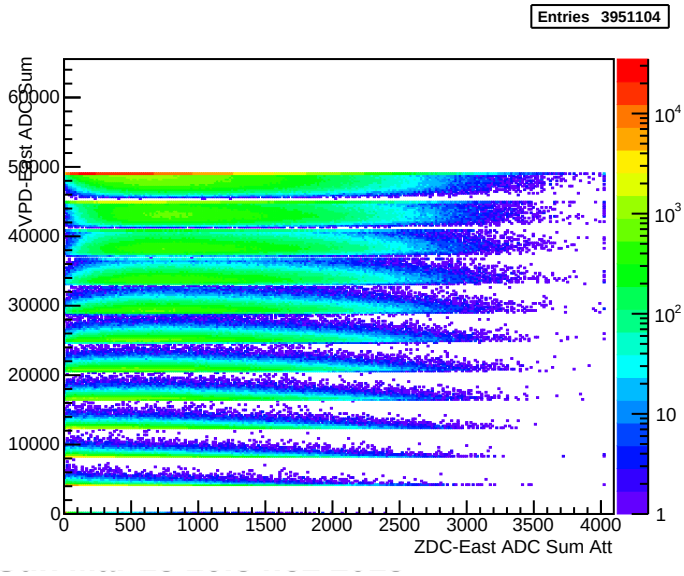

Entries 3951104
TOF Mult
ZDC-West ADC Sum Att

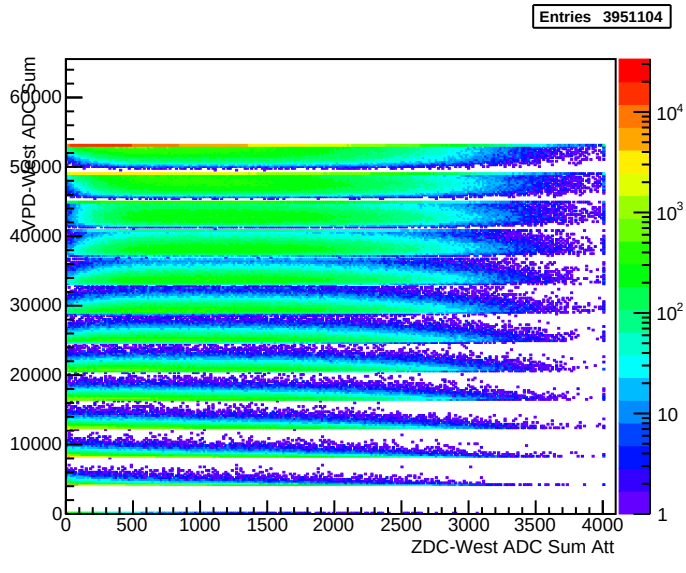

Entries 3951104
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

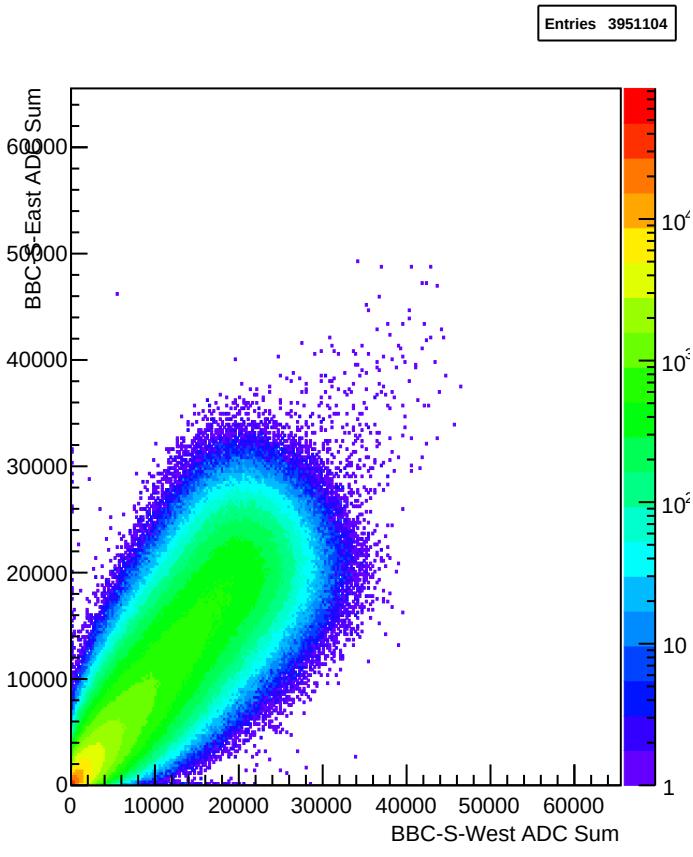

Entries 3951104
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

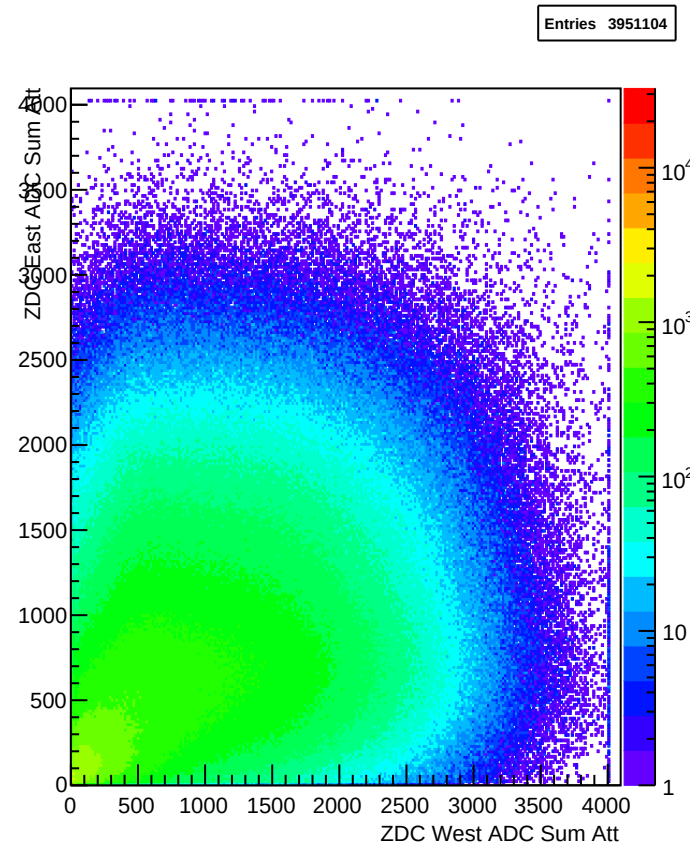

Entries 3951104
BBC-S-East ADC Sum
VPD-East ADC Sum

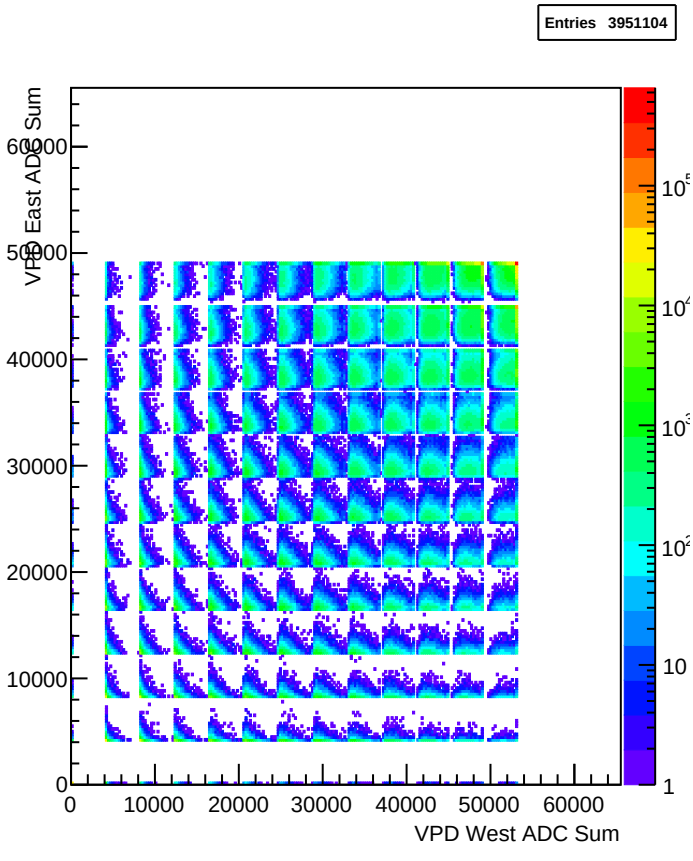

Entries 3951104
BBC-S-West ADC Sum
VPD-West ADC Sum

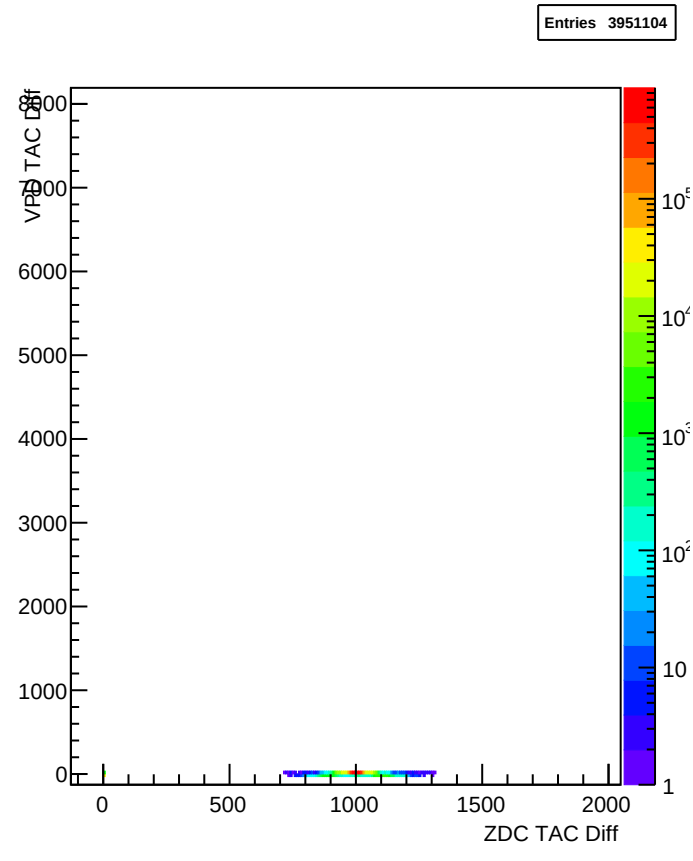

Entries 3951104
VPD-East ADC Sum
ZDC-East ADC Sum Att

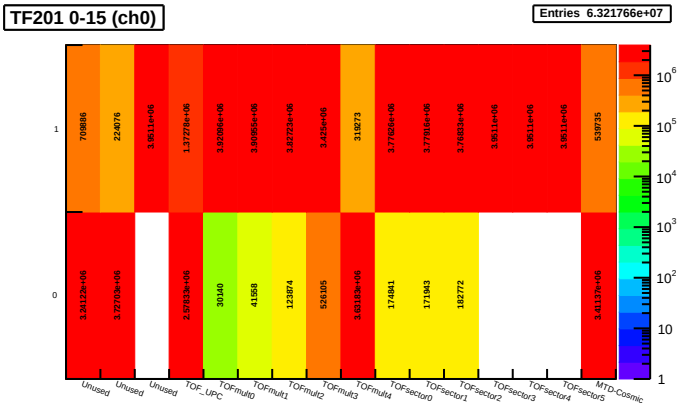

Entries 3951104
VPD-West ADC Sum
ZDC-West ADC Sum Att

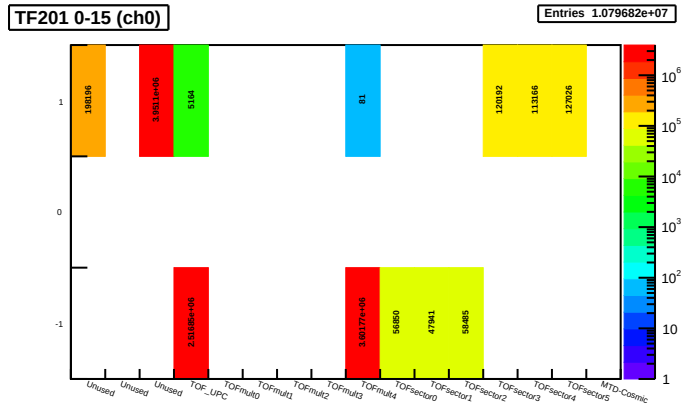

Entries 3951104
BBC-S-East ADC Sum
BBC-S-West ADC Sum

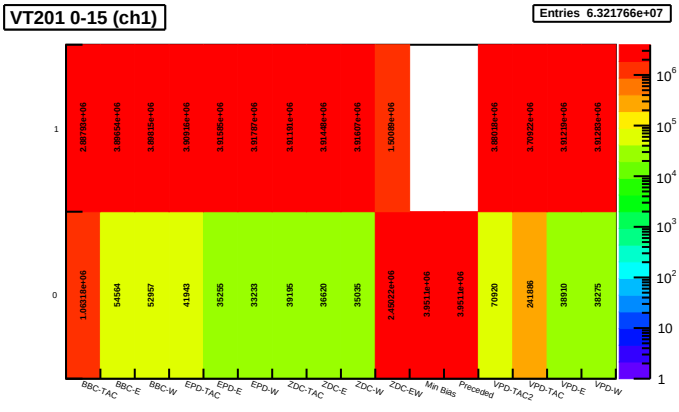

Entries 3951104
ZDC East ADC Sum Att
ZDC West ADC Sum Att

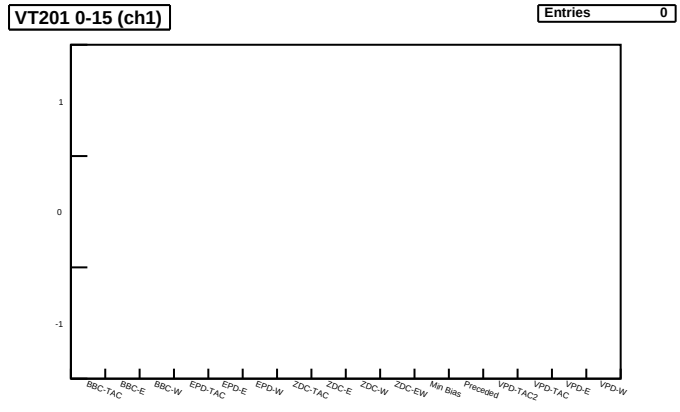

Entries 3951104
VPD East ADC Sum
VPD West ADC Sum

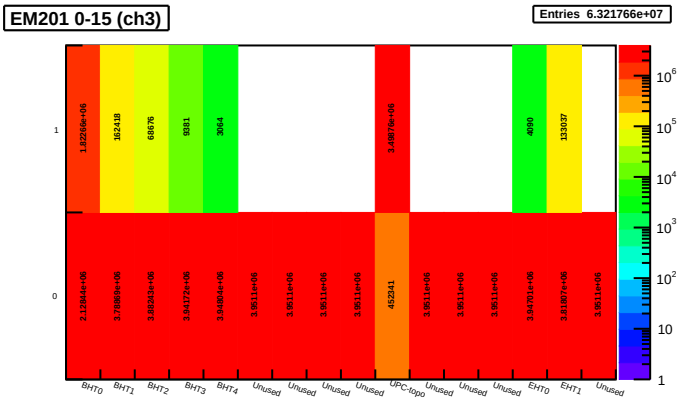

Entries 3951104
VPD TAC Diff
ZDC TAC Diff

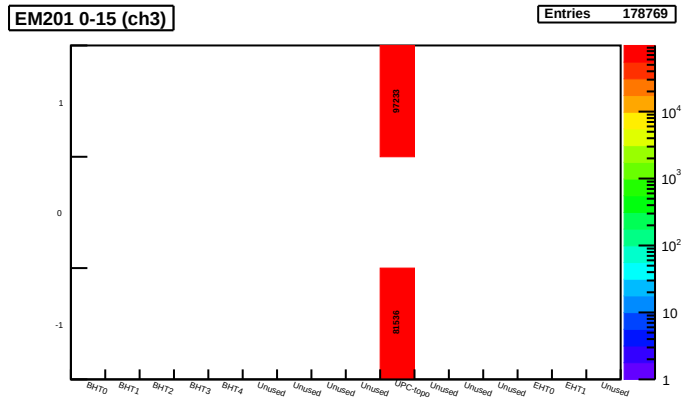

TF201 0-15 (ch0)
Entries 6.321766e+07
709886
224076
3.5511e+06
1.372728e+06
3.920366e+06
3.909536e+06
3.827236e+06
3.42594e+06
319273
3.776264e+06
3.770156e+06
3.768324e+06
3.5511e+06
3.5511e+06
3.5511e+06
539735
3.24122e+06
3.72703e+06
2.578334e+06
30140
41558
123074
526105
3.631539e+06
174941
171943
182772
3.411326e+06
Unused
Unused
Unused
TOF_UPC
TOFmult0
TOFmult1
TOFmult2
TOFmult3
TOFmult4
TOFsector0
TOFsector1
TOFsector2
TOFsector3
TOFsector4
TOFsector5
MTD-Cosmic

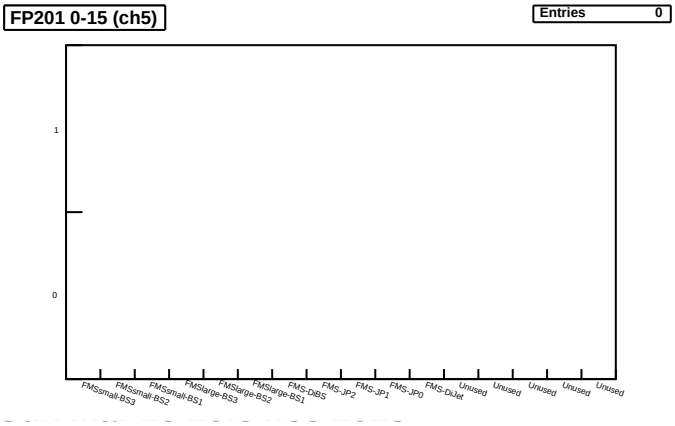

TF201 0-15 (ch0)
Entries 1.079682e+07
198196
3.5511e+06
5164
81
120192
113166
127026
2.516856e+06
3.601776e+06
56850
47941
58485
Unused
Unused
Unused
TOF_UPC
TOFmult0
TOFmult1
TOFmult2
TOFmult3
TOFmult4
TOFsector0
TOFsector1
TOFsector2
TOFsector3
TOFsector4
TOFsector5
MTD-Cosmic

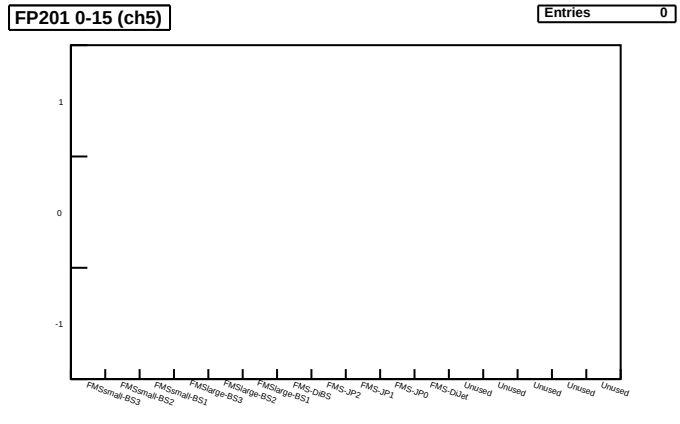

VT201 0-15 (ch1)
Entries 6.321766e+07
2.857934e+06
3.096544e+06
3.089135e+06
3.09316e+06
3.013856e+06
3.017076e+06
3.011016e+06
3.014496e+06
3.015076e+06
1.500886e+06
3.880184e+06
3.709226e+06
3.012196e+06
3.012036e+06
1.006318e+06
54564
52957
41943
35285
33233
39195
36620
35035
2.459226e+06
3.951116e+06
3.951116e+06
70920
261886
38910
38275
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


VT201 0-15 (ch1)
Entries 0
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 6.321766e+07
1.822268e+06
162418
686676
9381
3064
3.488766e+06
4290
133037
2.128944e+06
3.788859e+06
3.823323e+06
3.94172e+06
3.948244e+06
3.5511e+06
3.5511e+06
3.5511e+06
3.5511e+06
452341
3.5511e+06
3.5511e+06
3.5511e+06
3.947021e+06
3.618076e+06
3.5511e+06
BHT0
BHT1
BHT2
BHT3
BHT4
Unused
Unused
Unused
Unused
UPC-topo
Unused
Unused
Unused
EHT0
EHT1
Unused


EM201 0-15 (ch3)
Entries 178769
97233
81536
BHT0
BHT1
BHT2
BHT3
BHT4
Unused
Unused
Unused
Unused
UPC-topo
Unused
Unused
Unused
EHT0
EHT1
Unused


FP201 0-15 (ch5)
Entries 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
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