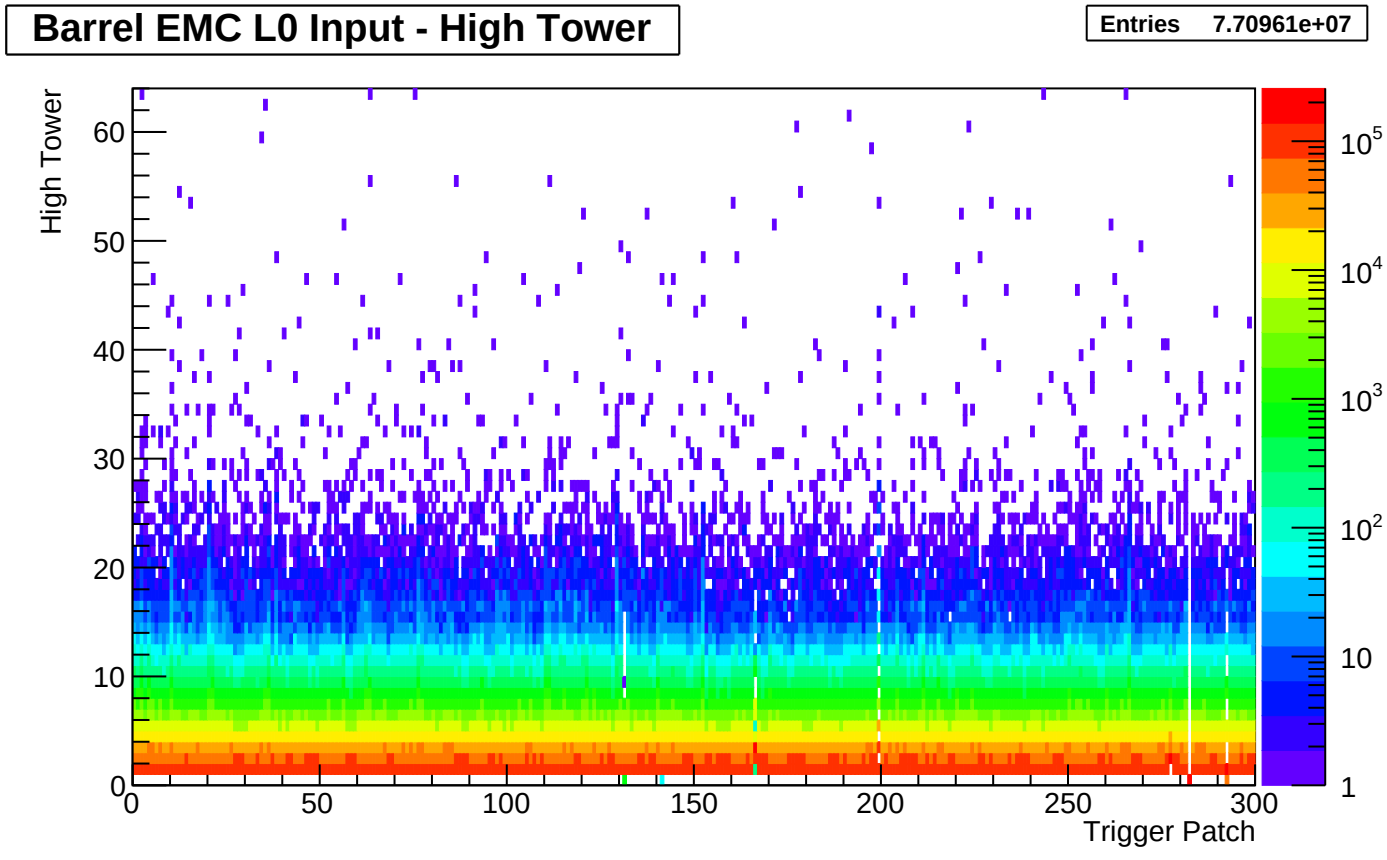
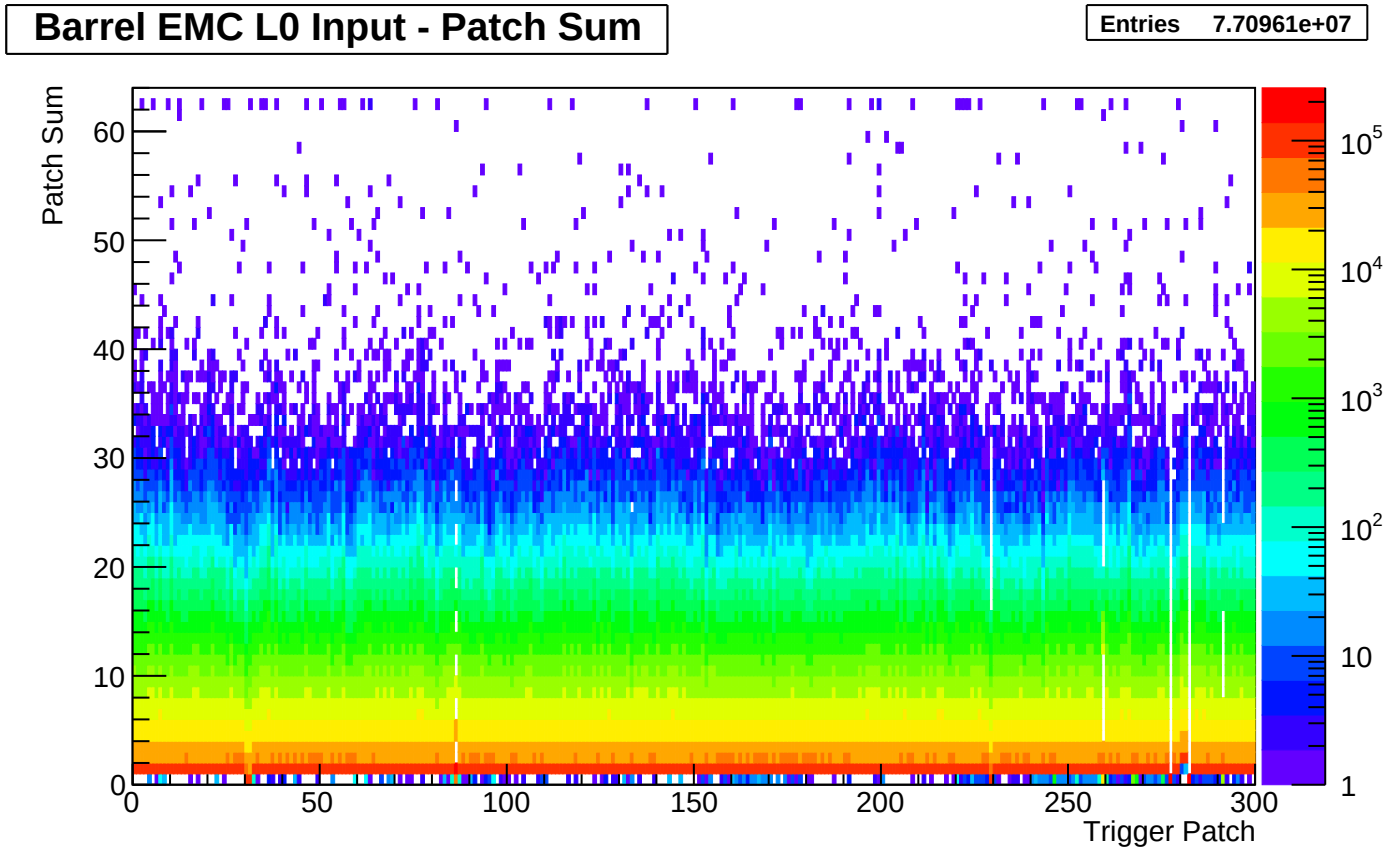
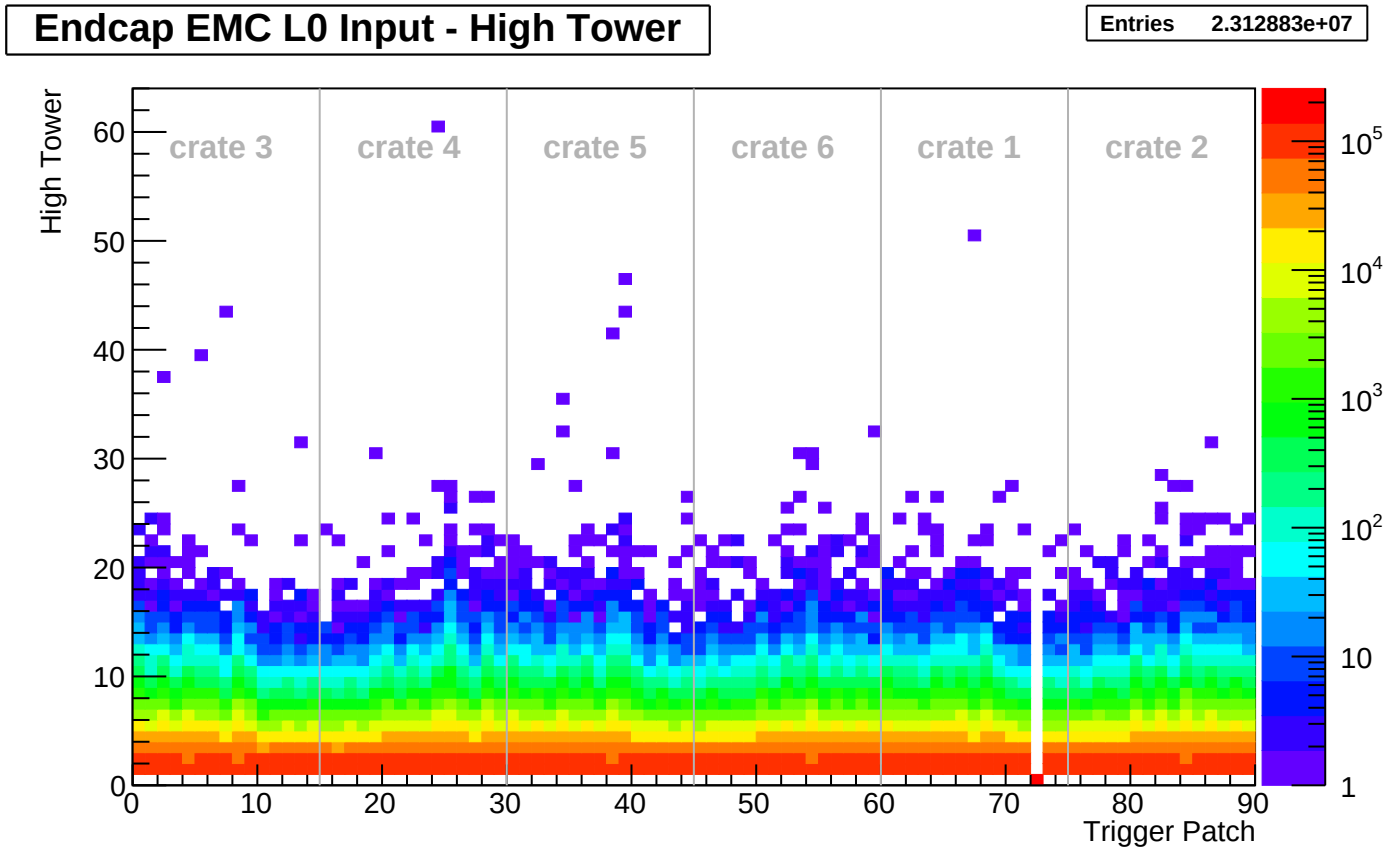
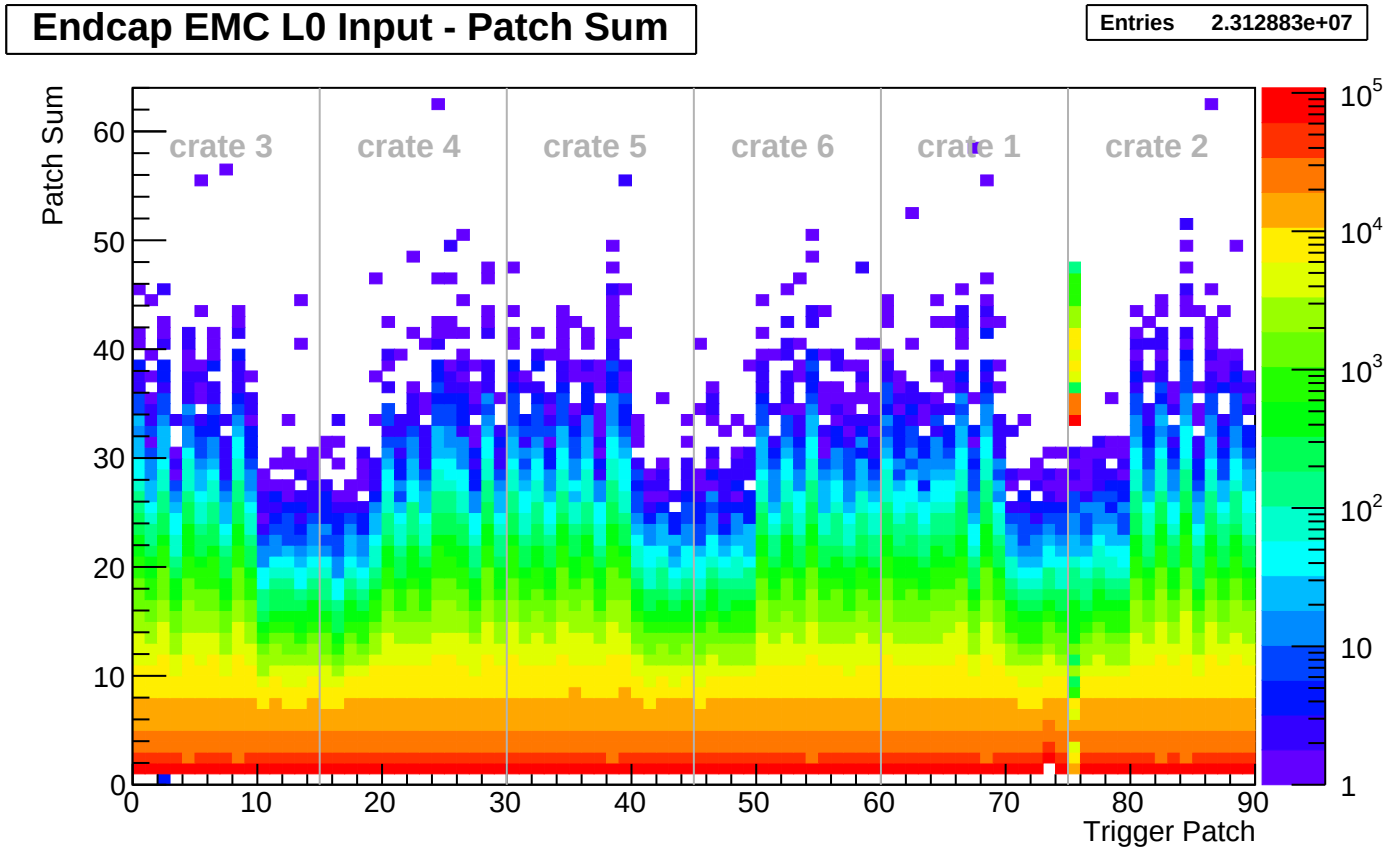
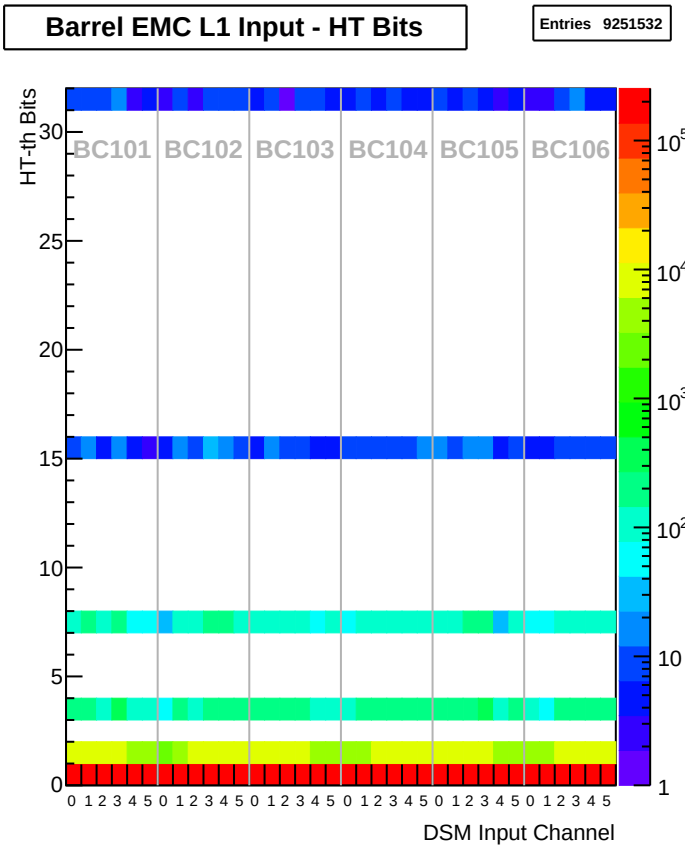
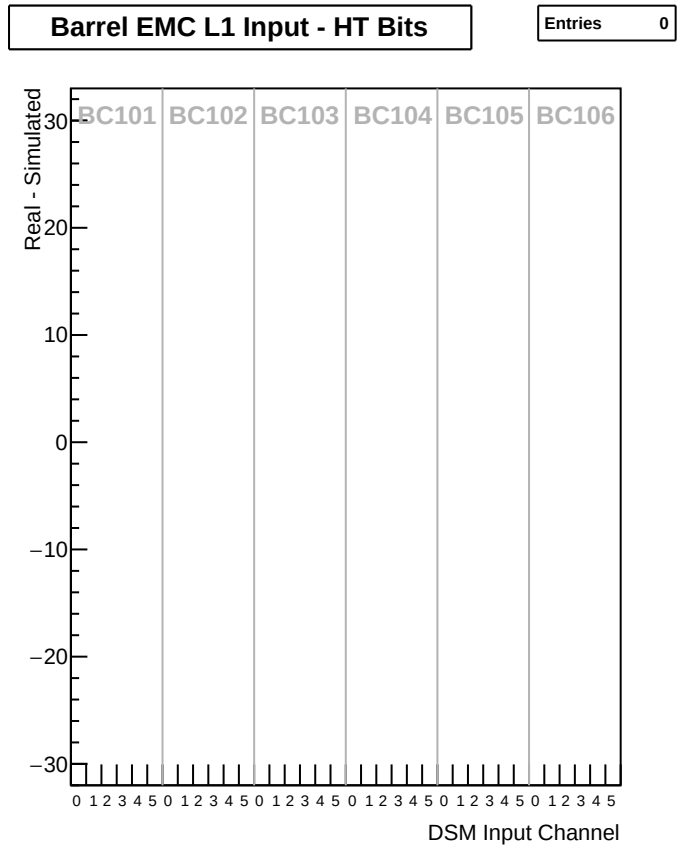

Barrel EMC L0 Input - High Tower
Entries 7.70961e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

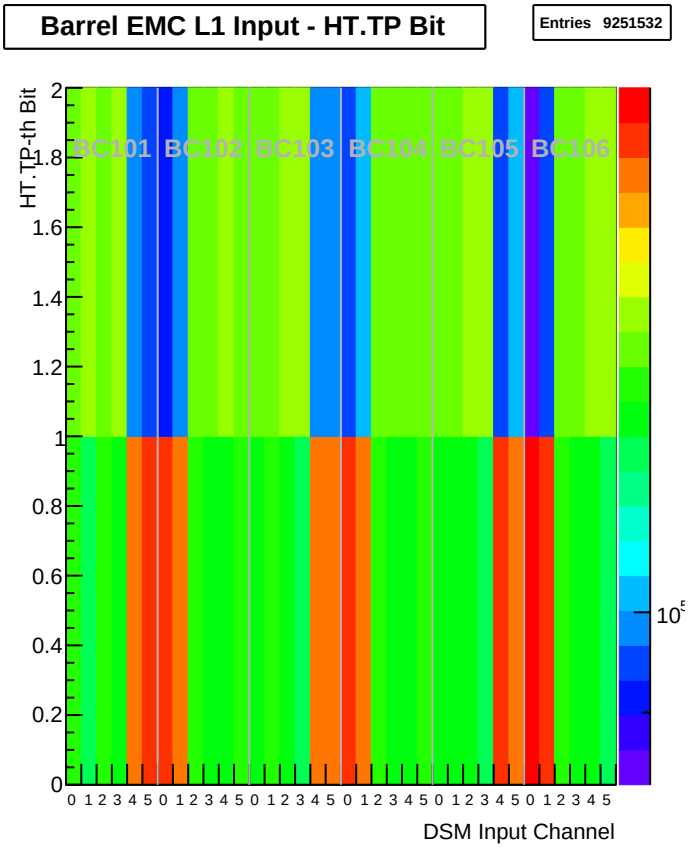

Barrel EMC L0 Input - Patch Sum
Entries 7.70961e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

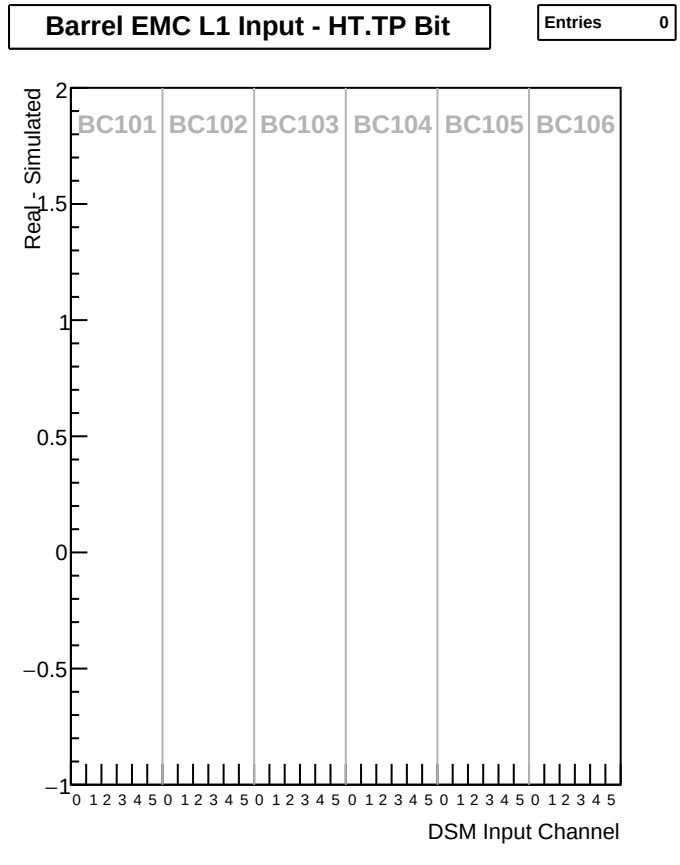

Endcap EMC L0 Input - High Tower
Entries 2.312883e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

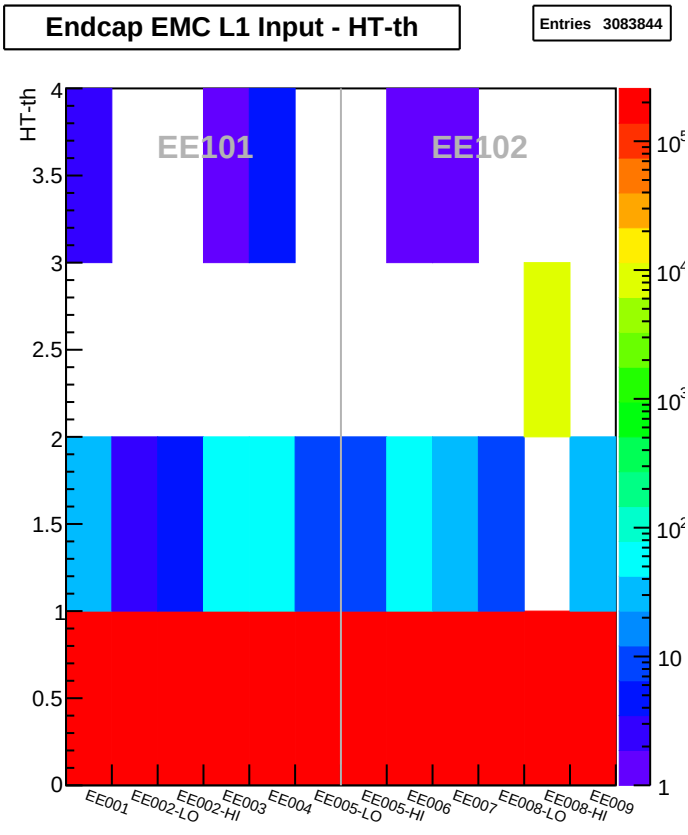

Endcap EMC L0 Input - Patch Sum
Entries 2.312883e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

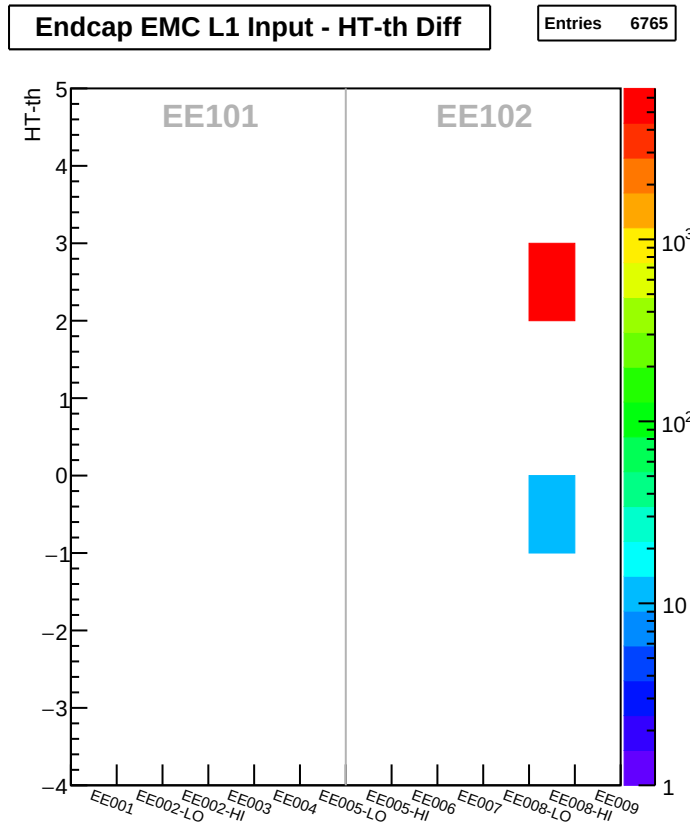

Barrel EMC L1 Input - HT Bits
Entries 9251532
HT-th Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

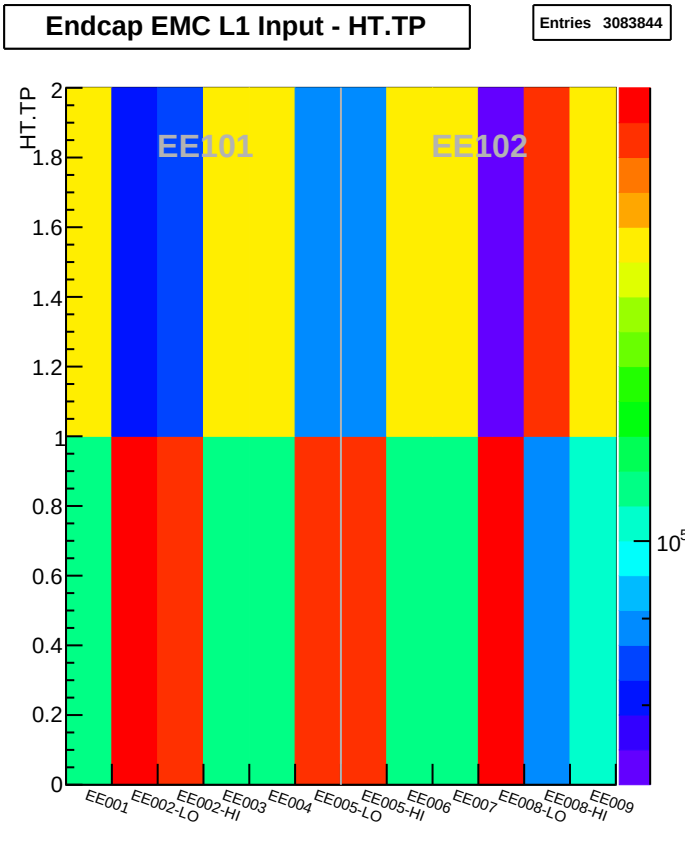

Barrel EMC L1 Input - HT Bits
Entries 0
Real - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

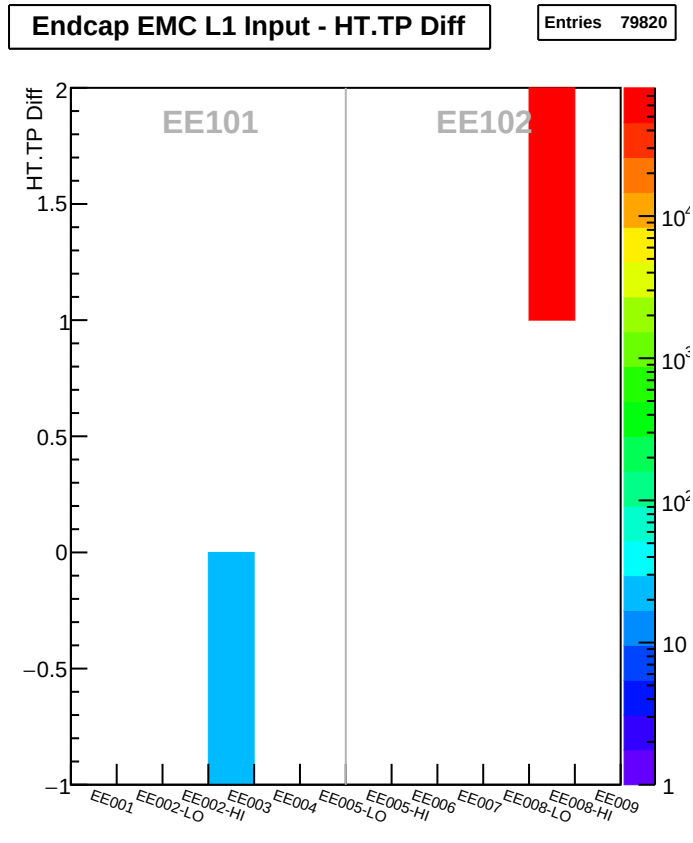

Barrel EMC L1 Input - HT.TP Bit
Entries 9251532
HT.TP-th Bit
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

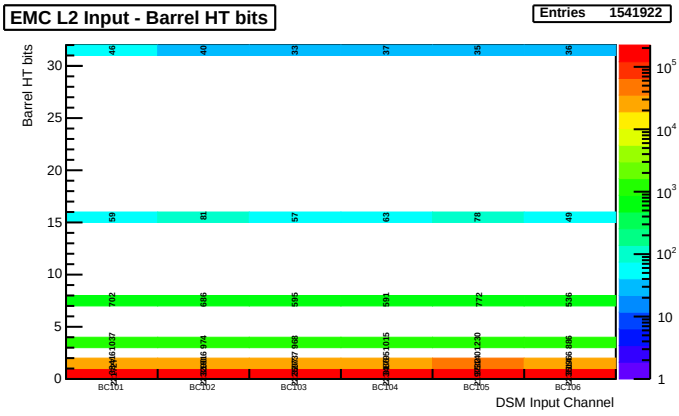

Barrel EMC L1 Input - HT.TP Bit
Entries 0
Real - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

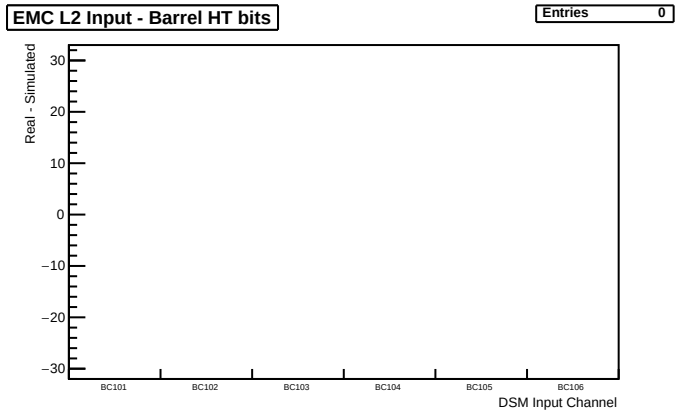

Endcap EMC L1 Input - HT-th
Entries 3083844
HT-th
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

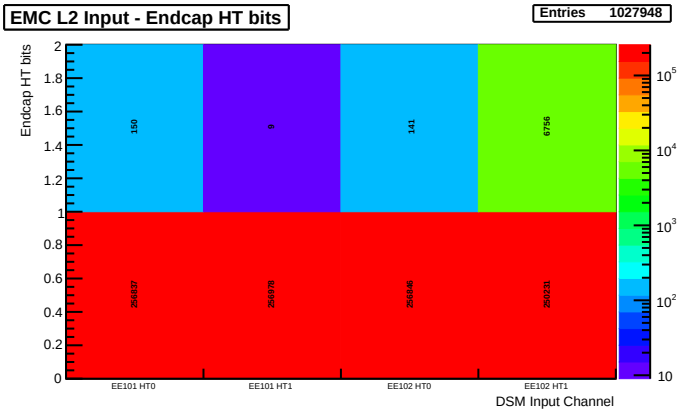

Endcap EMC L1 Input - HT-th Diff
Entries 6765
HT-th
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

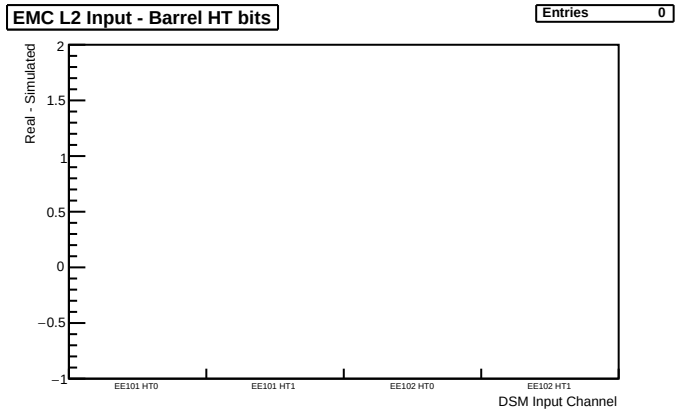

Endcap EMC L1 Input - HT.TP
Entries 3083844
HT.TP
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

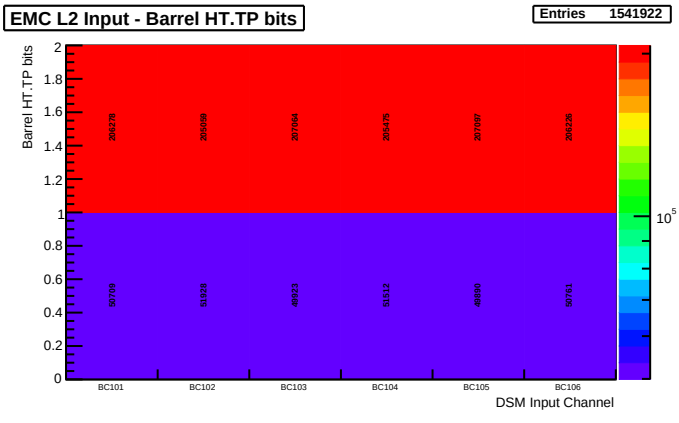

Endcap EMC L1 Input - HT.TP Diff
Entries 79820
HT.TP Diff
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

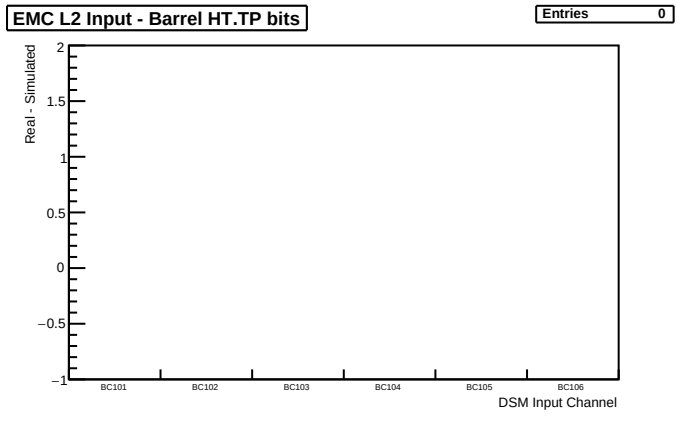

EMC L2 Input - Barrel HT bits
Entries 1541922
Barrel HT bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

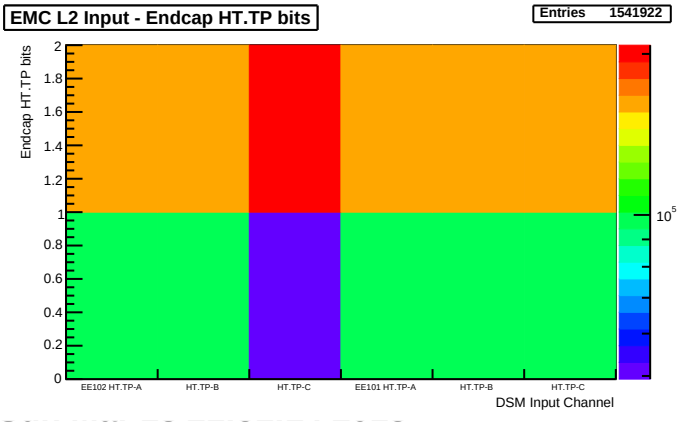

EMC L2 Input - Barrel HT bits
Entries 0
Real - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

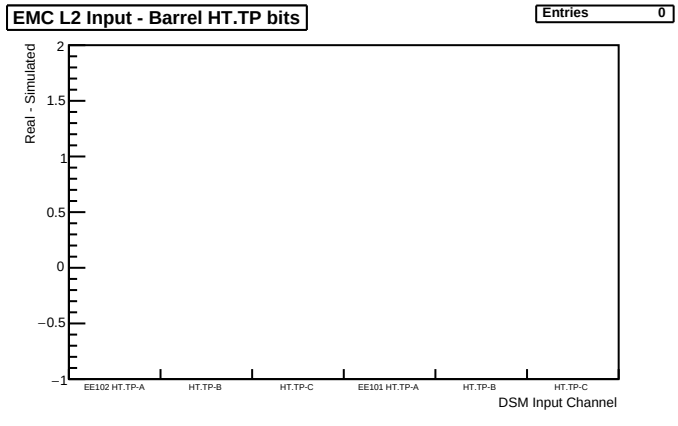

EMC L2 Input - Endcap HT bits
Entries 1027948
Endcap HT bits
DSM Input Channel
EE101 HT0
EE101 HT1
EE102 HT0
EE102 HT1

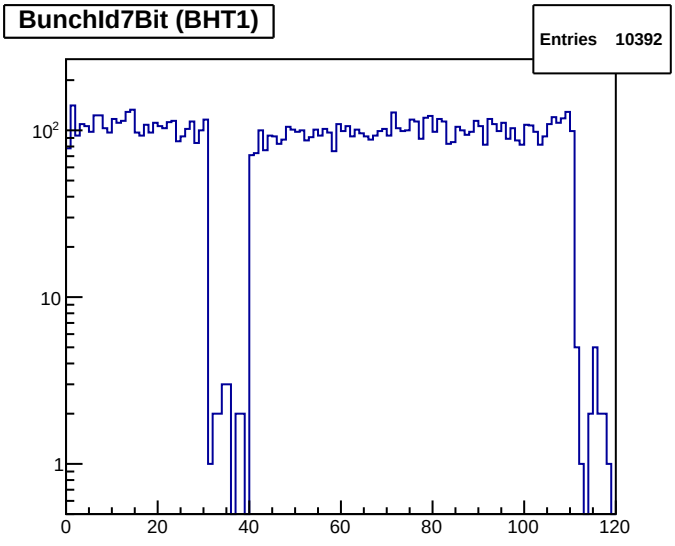

EMC L2 Input - Barrel HT bits
Entries 0
Real - Simulated
DSM Input Channel
EE101 HT0
EE101 HT1
EE102 HT0
EE102 HT1

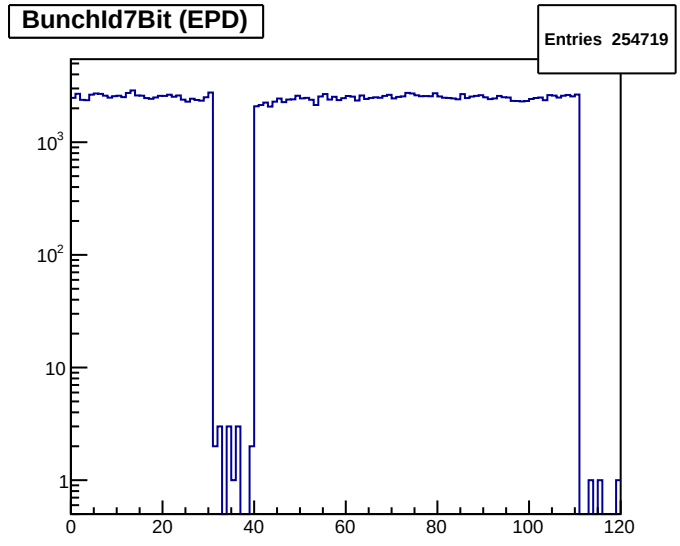

EMC L2 Input - Barrel HT.TP bits
Entries 1541922
Barrel HT.TP bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

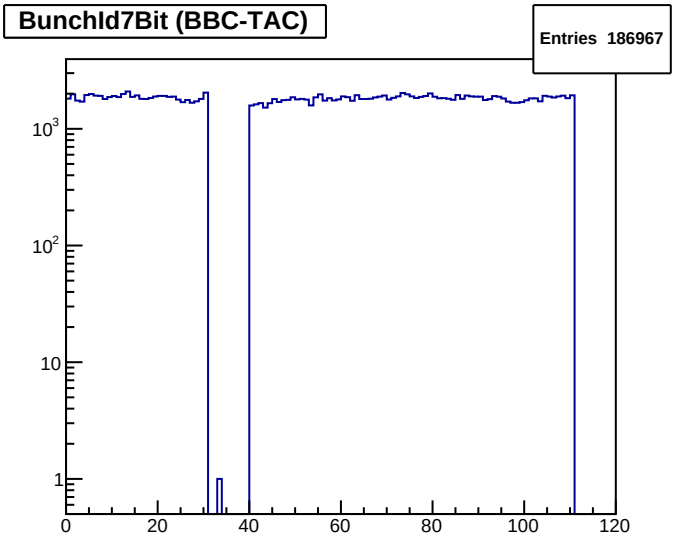

EMC L2 Input - Barrel HT.TP bits
Entries 0
Real - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

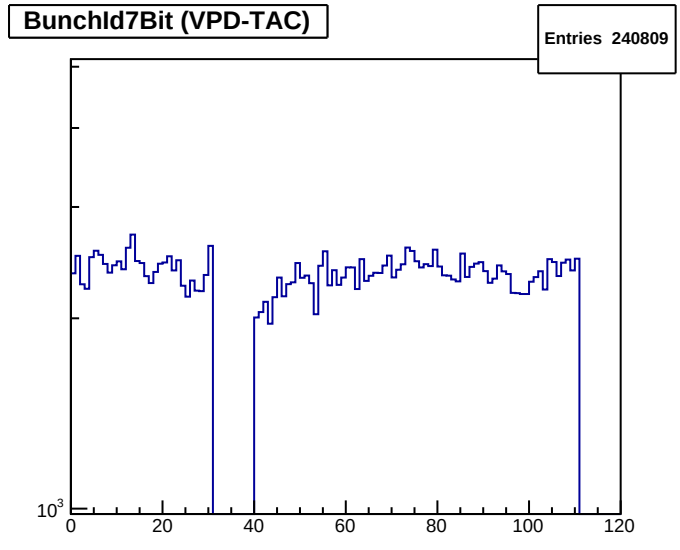

EMC L2 Input - Endcap HT.TP bits
Entries 1541922
Endcap HT.TP bits
DSM Input Channel
EE102 HT.TP-A
HT.TP-B
HT.TP-C
EE101 HT.TP-A
HT.TP-B
HT.TP-C

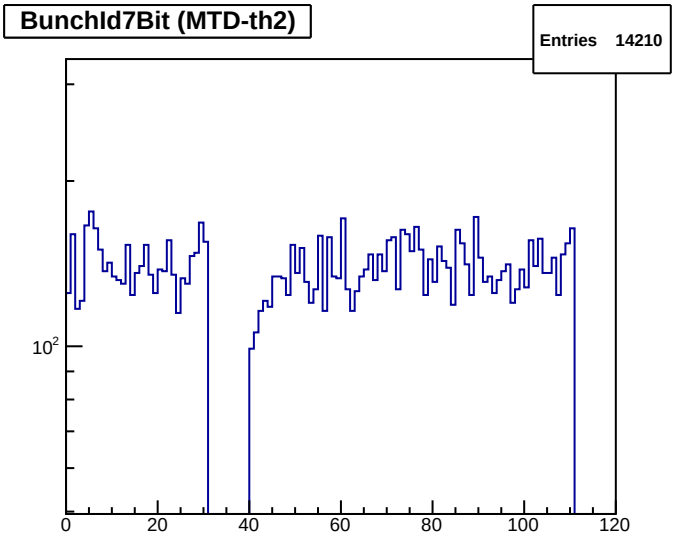

EMC L2 Input - Barrel HT.TP bits
Entries 0
Real - Simulated
DSM Input Channel
EE102 HT.TP-A
HT.TP-B
HT.TP-C
EE101 HT.TP-A
HT.TP-B
HT.TP-C

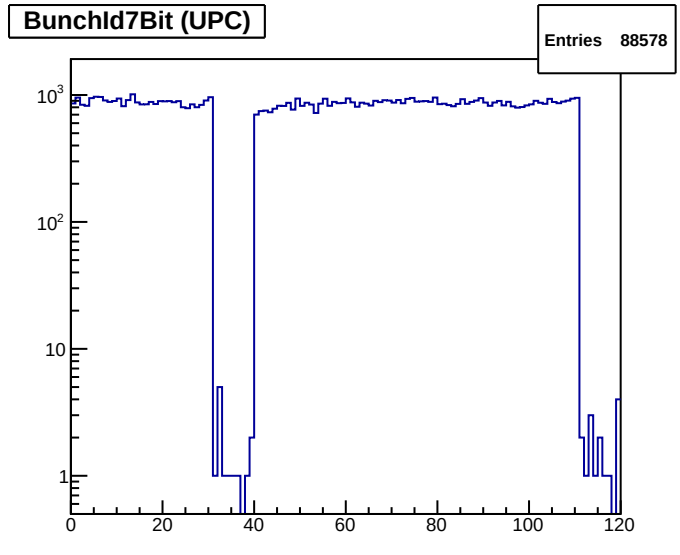

BunchId7Bit (BHT1)
Entries 10392

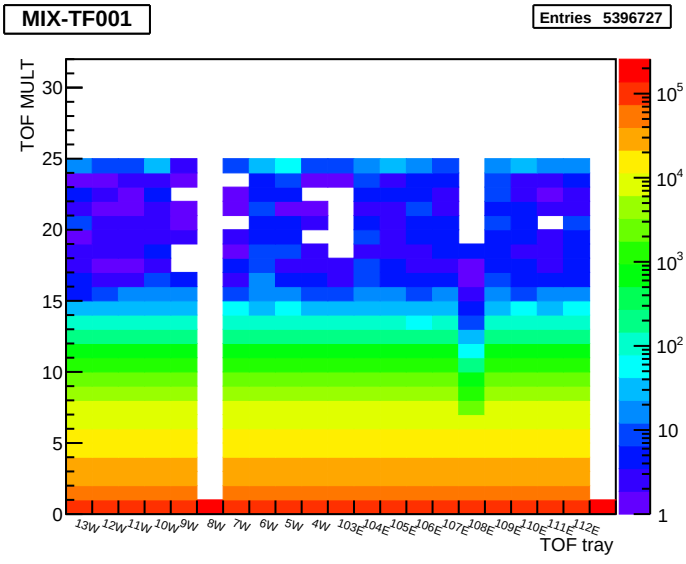

BunchId7Bit (EPD)
Entries 254719

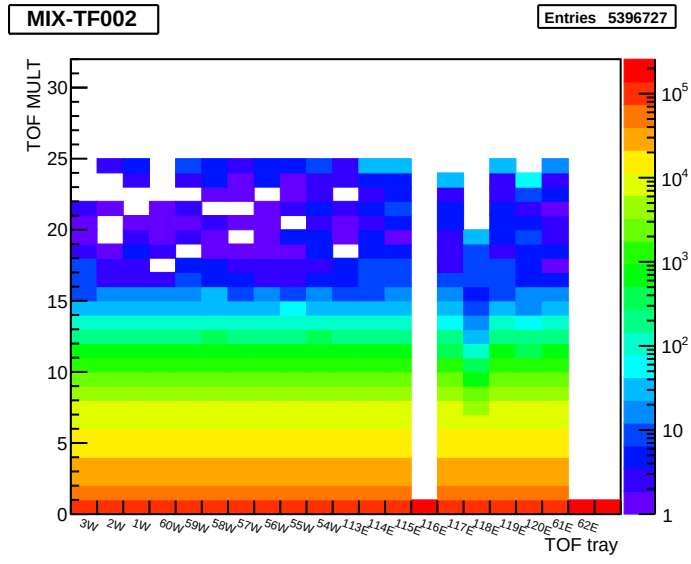

BunchId7Bit (BBC-TAC)
Entries 186967

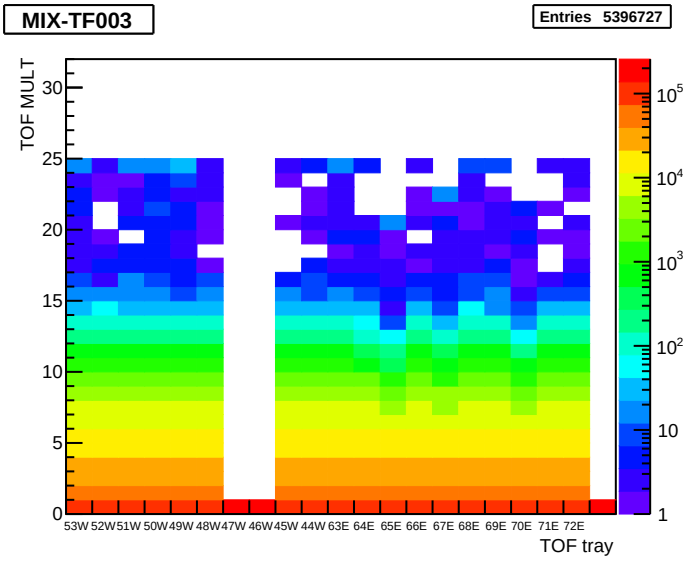

BunchId7Bit (VPD-TAC)
Entries 240809

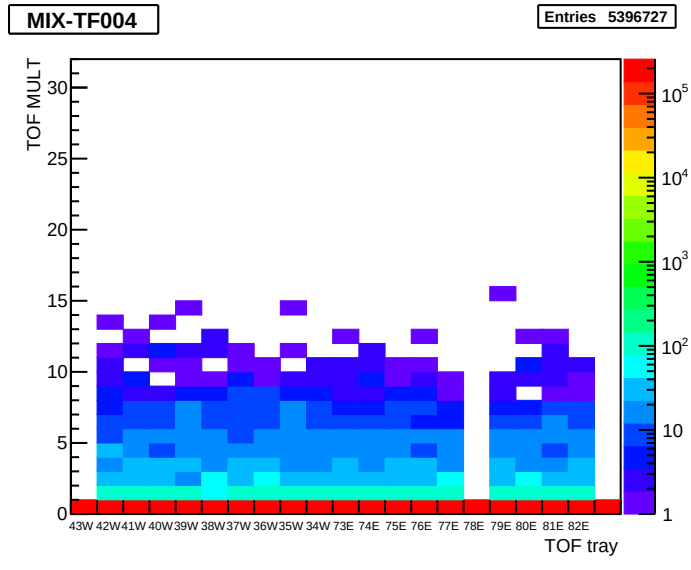

BunchId7Bit (MTD-th2)
Entries 14210

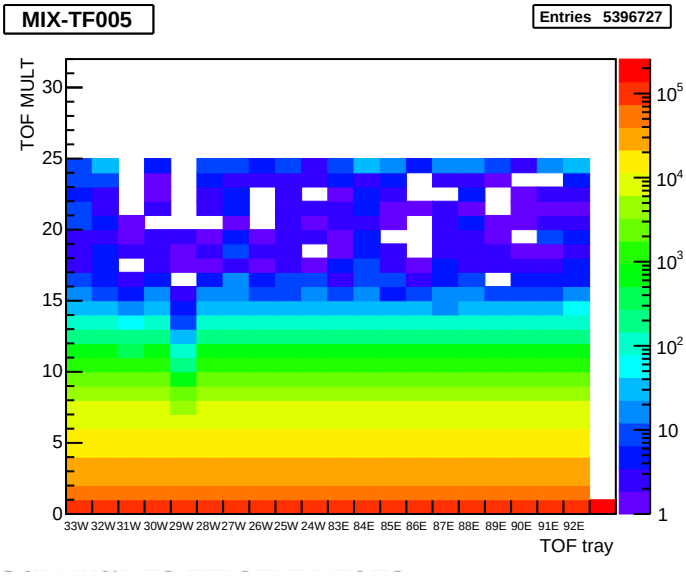

BunchId7Bit (UPC)
Entries 88578

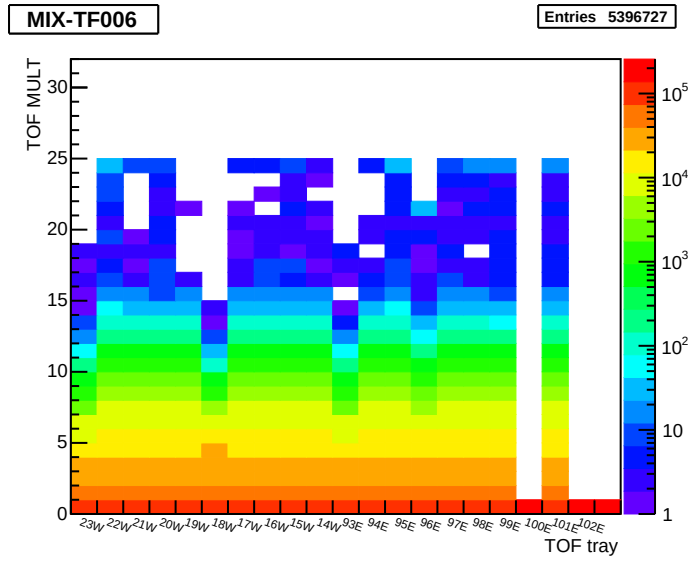

MIX-TF001
Entries 5396727
TOF MULT
TOF tray

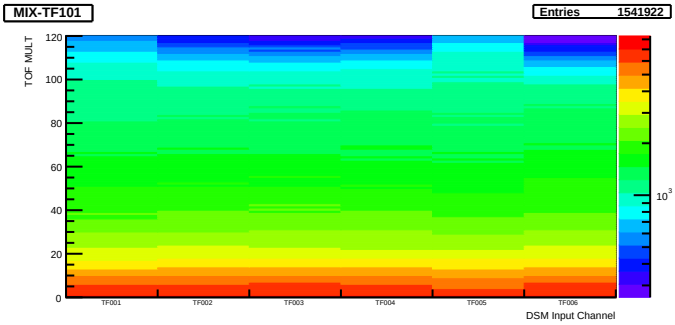

MIX-TF002
Entries 5396727
TOF MULT
TOF tray

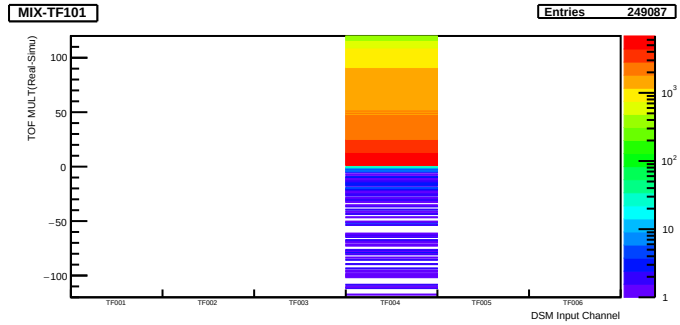

MIX-TF003
Entries 5396727
TOF MULT
TOF tray

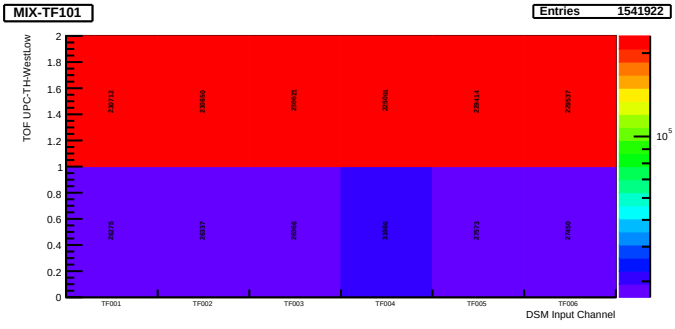

MIX-TF004
Entries 5396727
TOF MULT
TOF tray

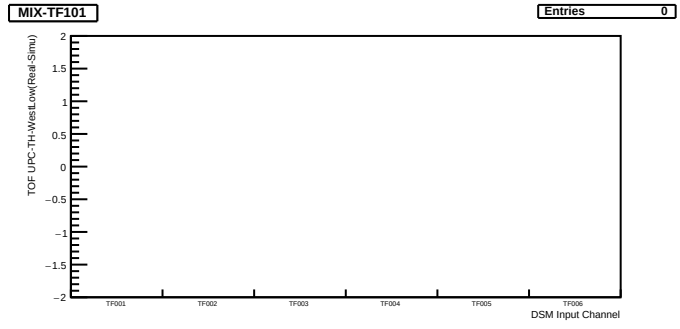

MIX-TF005
Entries 5396727
TOF MULT
TOF tray

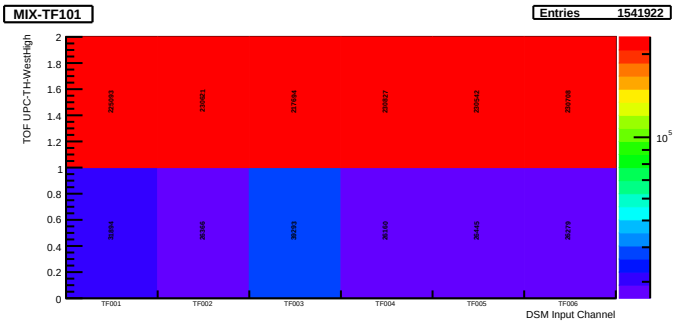

MIX-TF006
Entries 5396727
TOF MULT
TOF tray

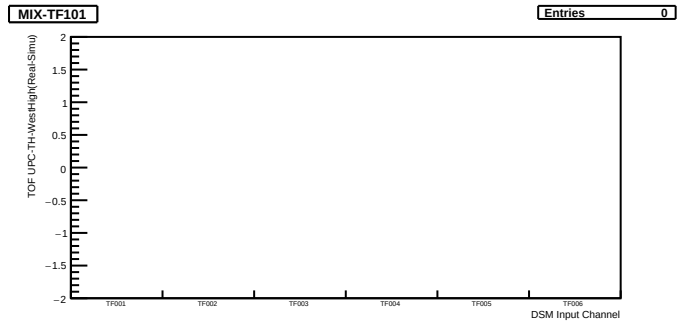

MIX-TF101
Entries 1541922
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

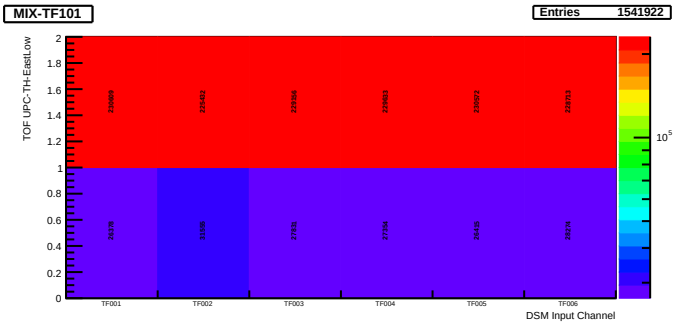

MIX-TF101
Entries 249087
TOF MULT(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

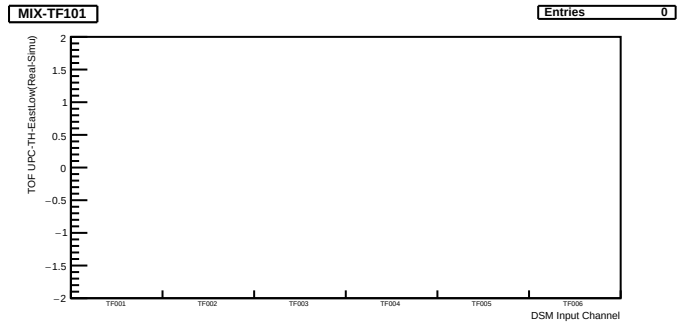

MIX-TF101
Entries 1541922
TOF UPC-TH-WestLow
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

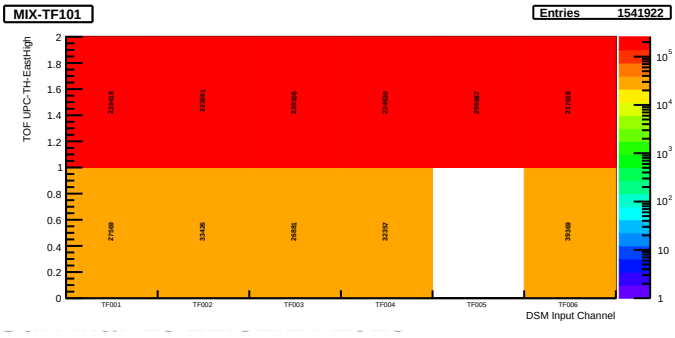

MIX-TF101
Entries 0
TOF UPC-TH-WestLow(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

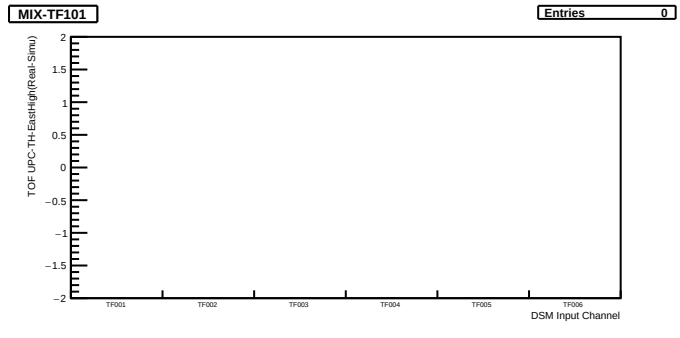

MIX-TF101
Entries 1541922
TOF UPC-TH-WestHigh
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

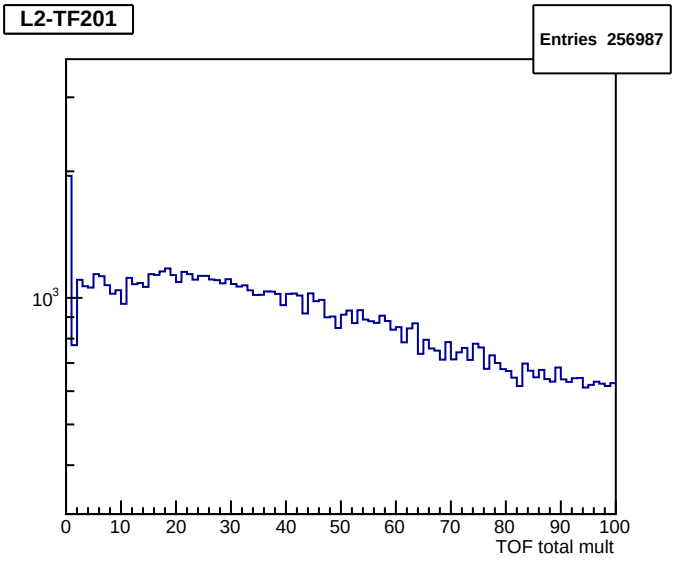

MIX-TF101
Entries 0
TOF UPC-TH-WestHigh(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

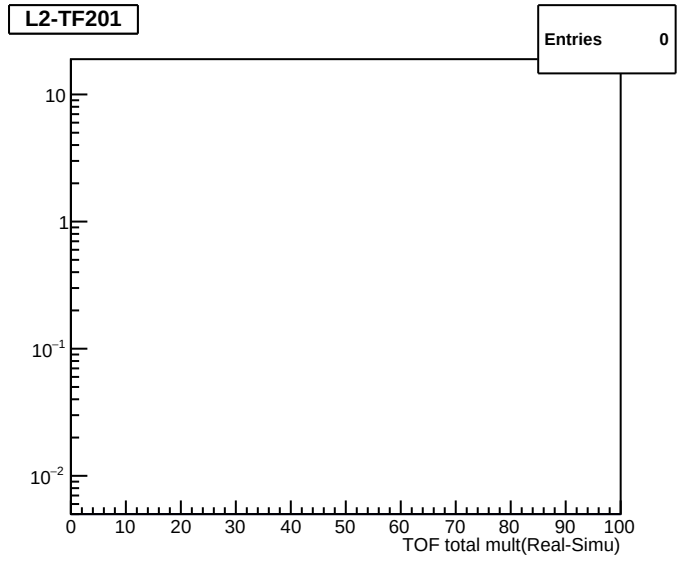

MIX-TF101
Entries 1541922
TOF UPC-TH-EastLow
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

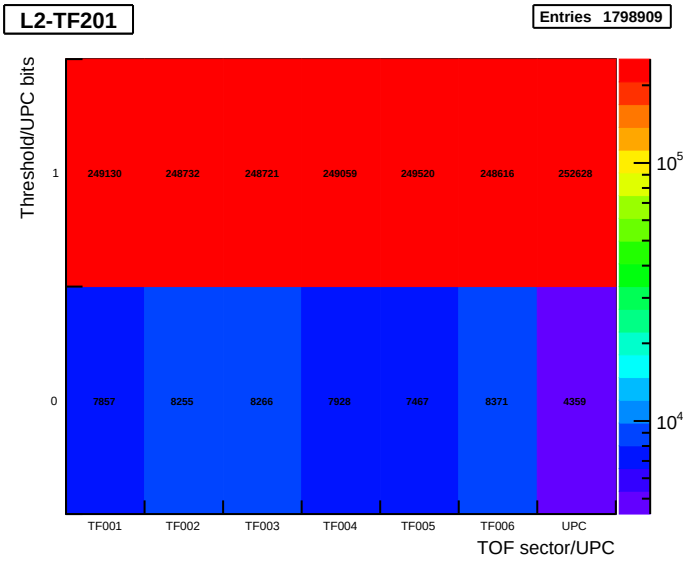

MIX-TF101
Entries 0
TOF UPC-TH-EastLow(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

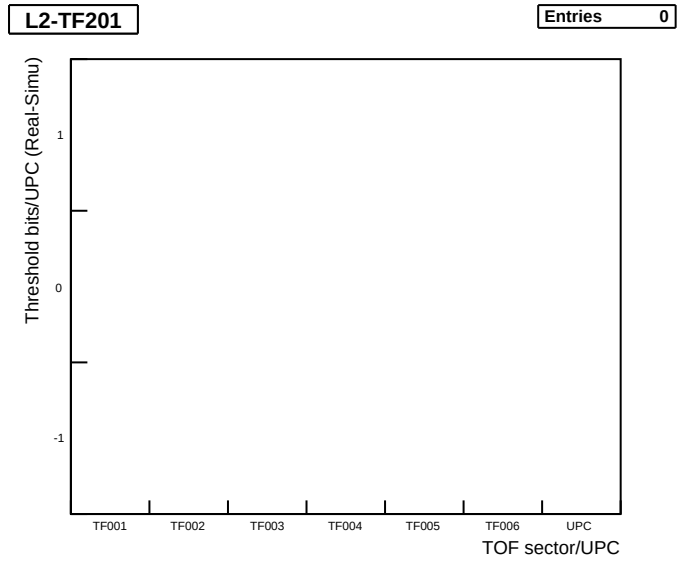

MIX-TF101
Entries 1541922
TOF UPC-TH-EastHigh
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

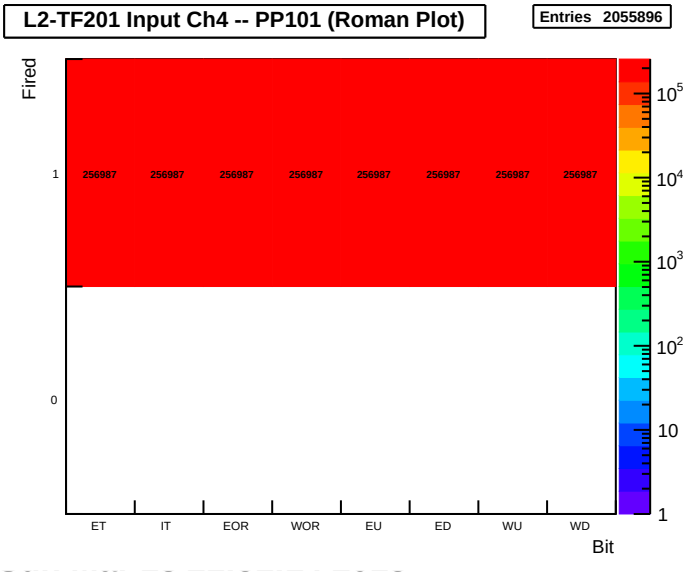

MIX-TF101
Entries 0
TOF UPC-TH-EastHigh(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

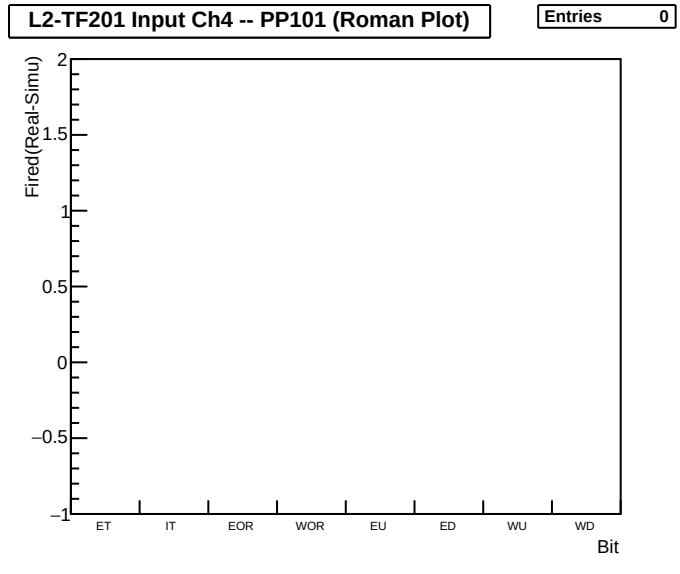

L2-TF201
Entries 256987
10^3
0 10 20 30 40 50 60 70 80 90 100
TOF total mult

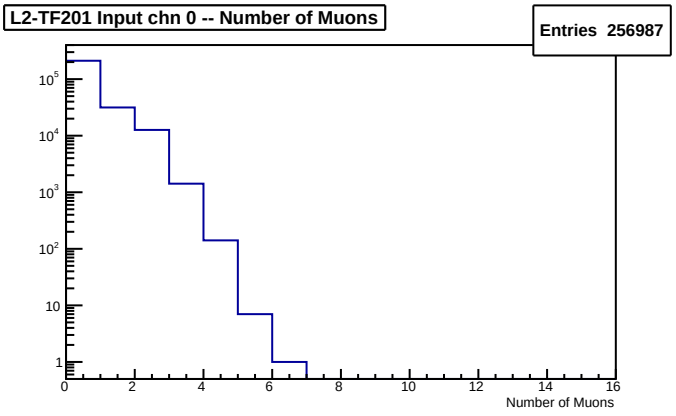

L2-TF201
Entries 0
10
1
10^{-1}
10^{-2}
0 10 20 30 40 50 60 70 80 90 100
TOF total mult(Real-Simu)

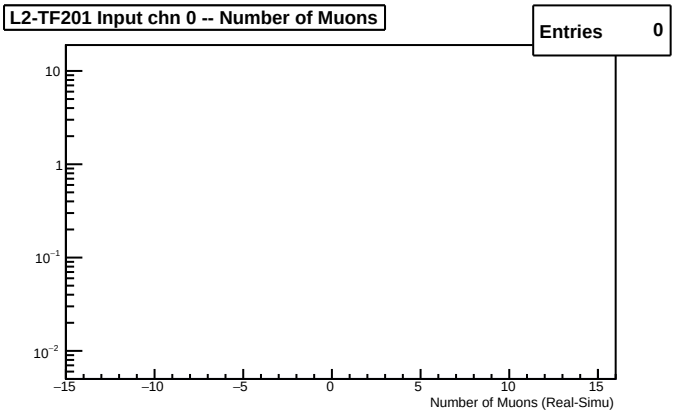

L2-TF201
Entries 1798909
Threshold/UPC bits
1
0
249130 248732 248721 249059 249520 248616 252628
7857 8255 8266 7928 7467 8371 4359
10^5
10^4
TF001 TF002 TF003 TF004 TF005 TF006 UPC
TOF sector/UPC

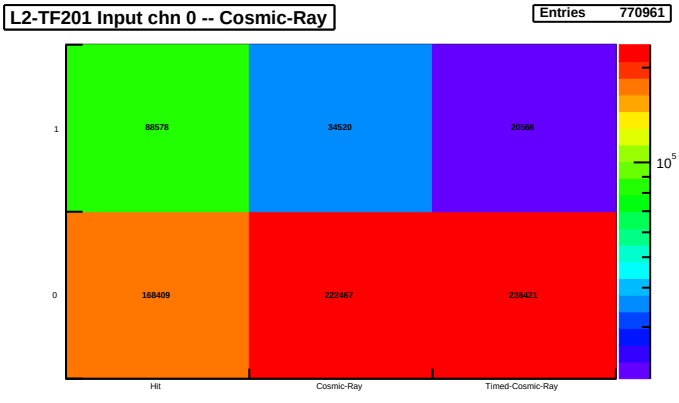

L2-TF201
Entries 0
Threshold bits/UPC (Real-Simu)
1
0
-1
TF001 TF002 TF003 TF004 TF005 TF006 UPC
TOF sector/UPC

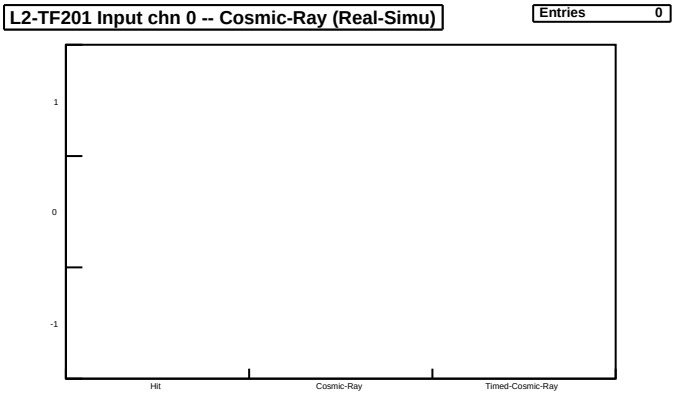

L2-TF201 Input Ch4 -- PP101 (Roman Plot)
Entries 2055896
Fired
1
0
256987 256987 256987 256987 256987 256987 256987 256987
10^5
10^4
10^3
10^2
10
1
ET IT EOR WOR EU ED WU WD
Bit

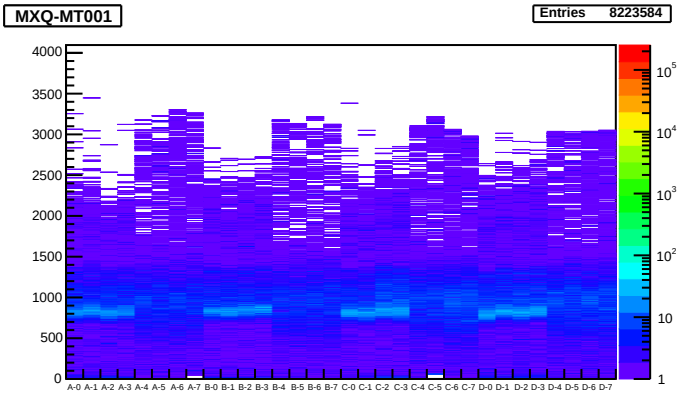

L2-TF201 Input Ch4 -- PP101 (Roman Plot)
Entries 0
Fired(Real-Simu)
2
1.5
1
0.5
0
−0.5
−1
ET IT EOR WOR EU ED WU WD
Bit

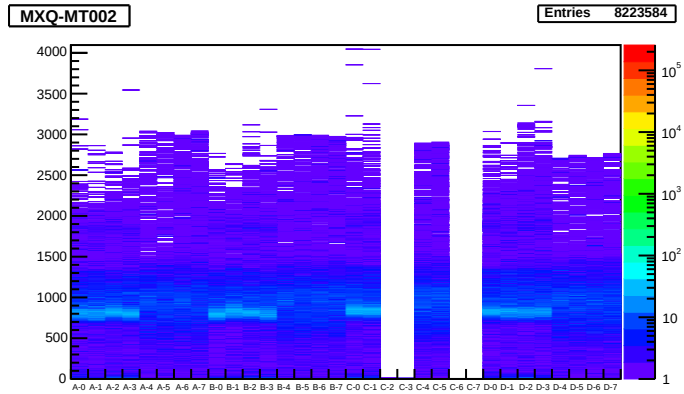

L2-TF201 Input chn 0 -- Number of Muons
Entries 256987
Number of Muons

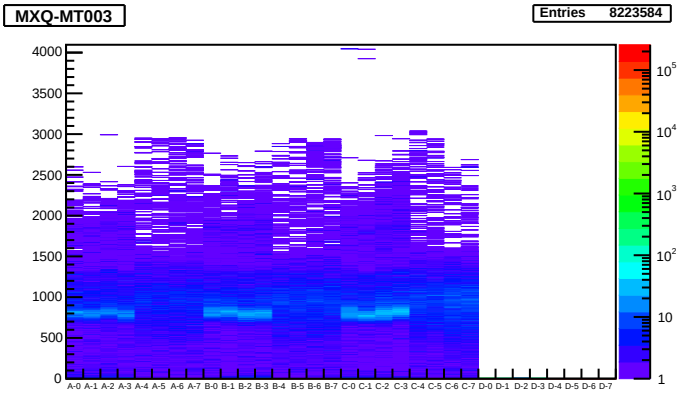

L2-TF201 Input chn 0 -- Number of Muons
Entries 0
Number of Muons (Real-Simu)

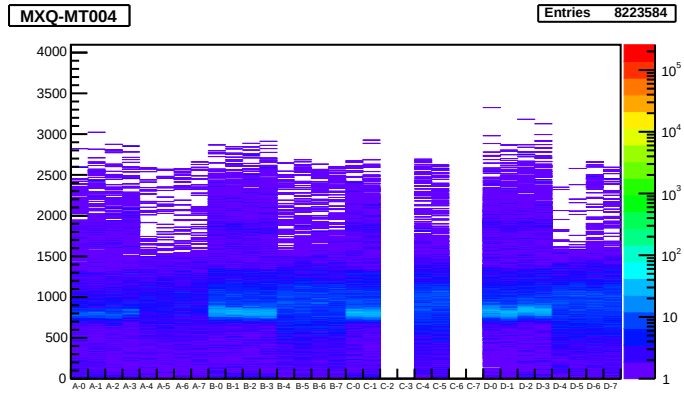

L2-TF201 Input chn 0 -- Cosmic-Ray
Entries 770961
88578
34520
20566
168409
222467
236421
Hit
Cosmic-Ray
Timed-Cosmic-Ray

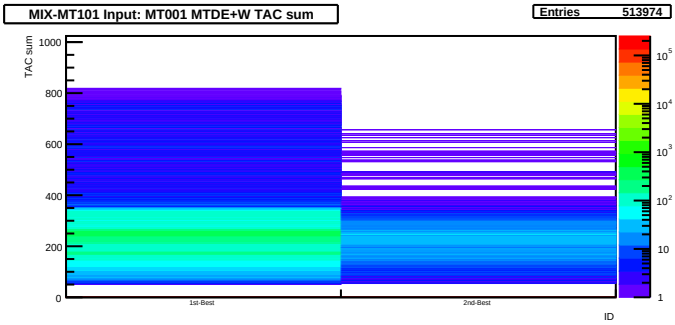

L2-TF201 Input chn 0 -- Cosmic-Ray (Real-Simu)
Entries 0
Hit
Cosmic-Ray
Timed-Cosmic-Ray

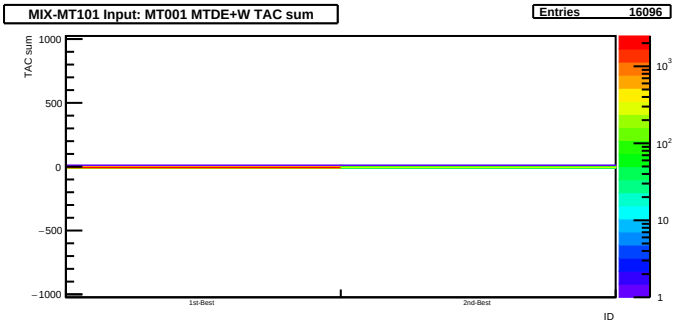

MXQ-MT001
Entries 8223584
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^5
10^4
10^3
10^2
10
1

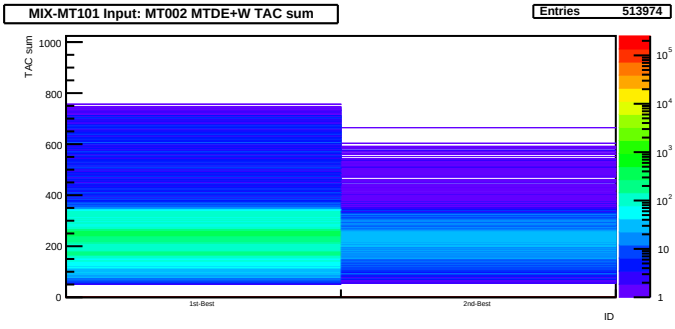

MXQ-MT002
Entries 8223584
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^5
10^4
10^3
10^2
10
1

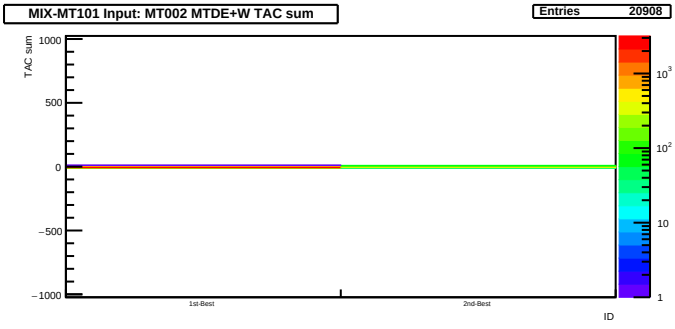

MXQ-MT003
Entries 8223584
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^5
10^4
10^3
10^2
10
1

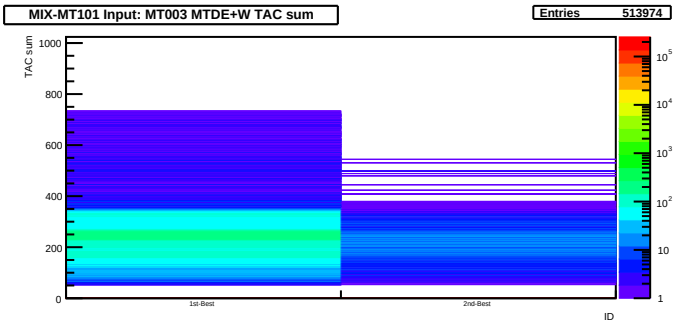

MXQ-MT004
Entries 8223584
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^5
10^4
10^3
10^2
10
1

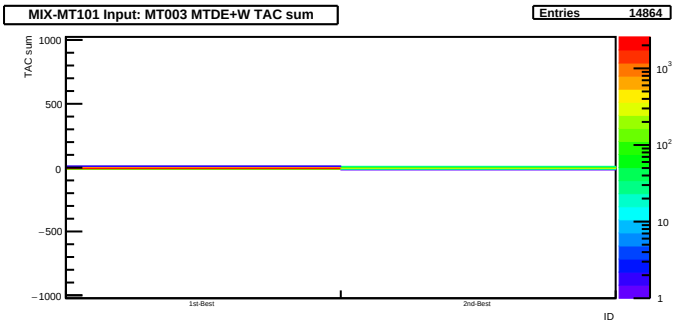

MIX-MT101 Input: MT001 MTDE+W TAC sum
Entries 513974
TAC sum
1st-Best
2nd-Best
ID

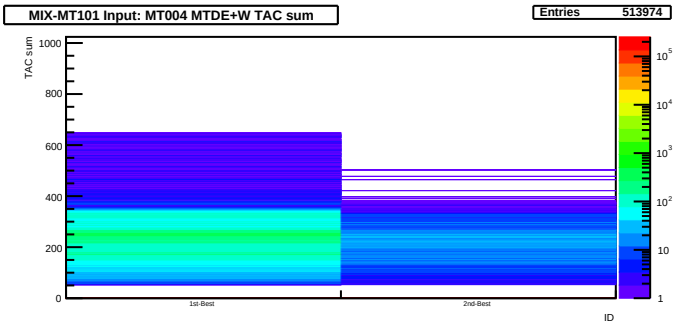

MIX-MT101 Input: MT001 MTDE+W TAC sum
Entries 16096
TAC sum
1st-Best
2nd-Best
ID

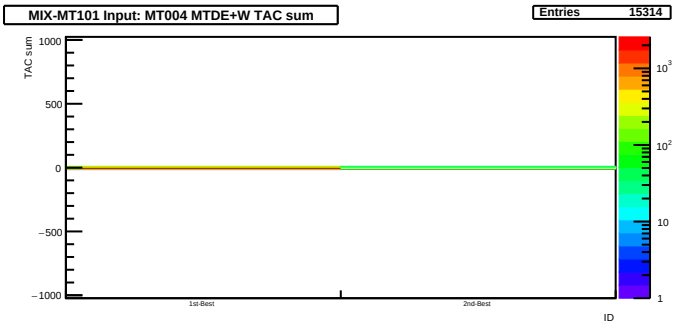

MIX-MT101 Input: MT002 MTDE+W TAC sum
Entries 513974
TAC sum
1st-Best
2nd-Best
ID

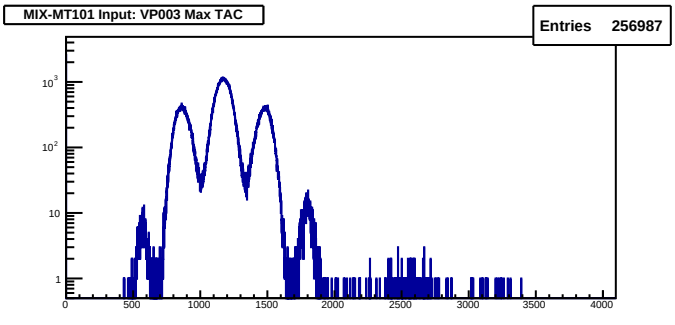

MIX-MT101 Input: MT002 MTDE+W TAC sum
Entries 20908
TAC sum
1st-Best
2nd-Best
ID

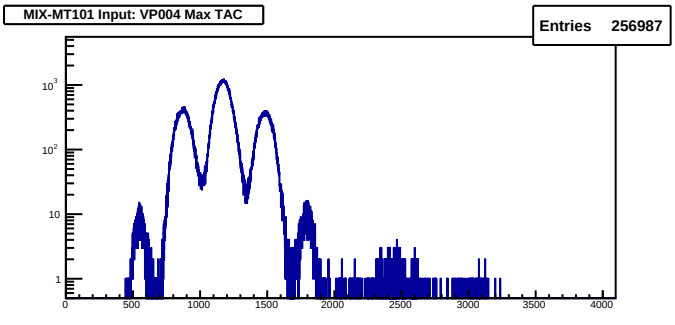

MIX-MT101 Input: MT003 MTDE+W TAC sum
Entries 513974
TAC sum
1st-Best
2nd-Best
ID

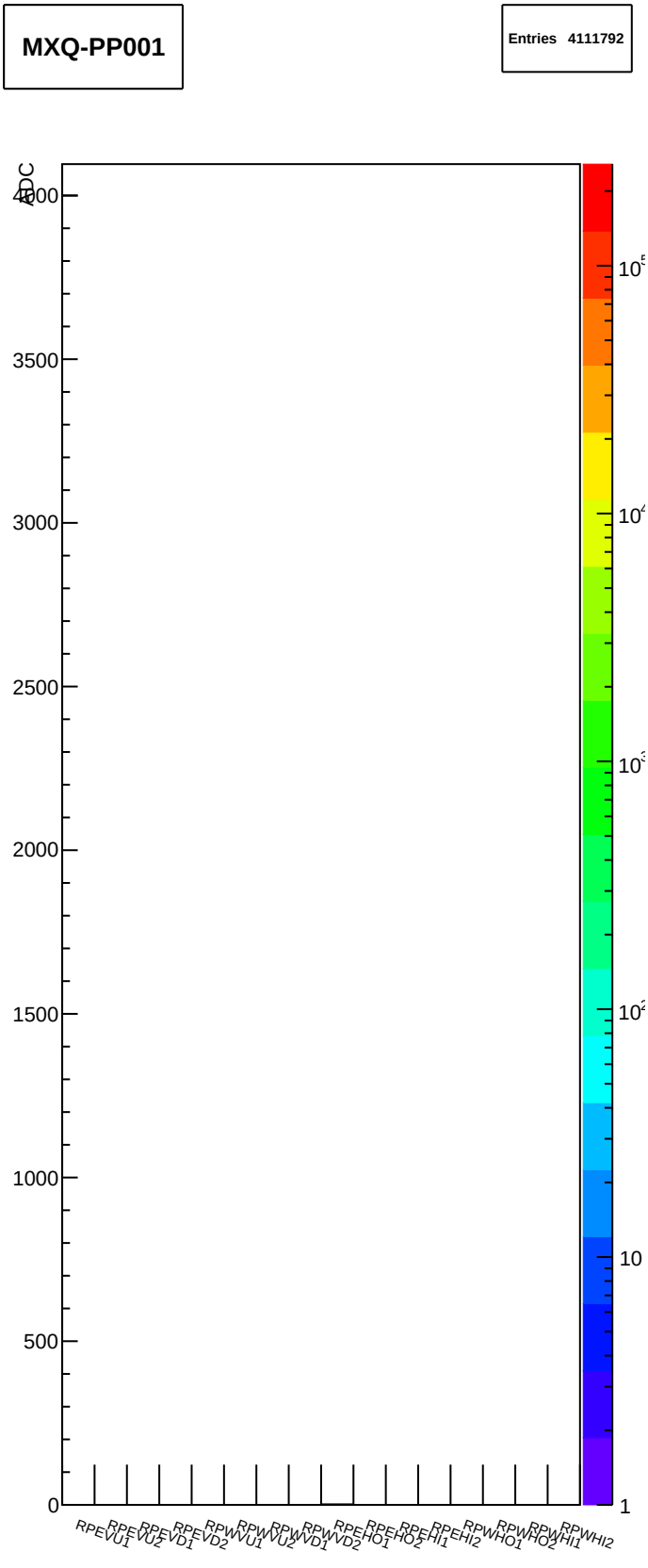

MIX-MT101 Input: MT003 MTDE+W TAC sum
Entries 14864
TAC sum
1st-Best
2nd-Best
ID

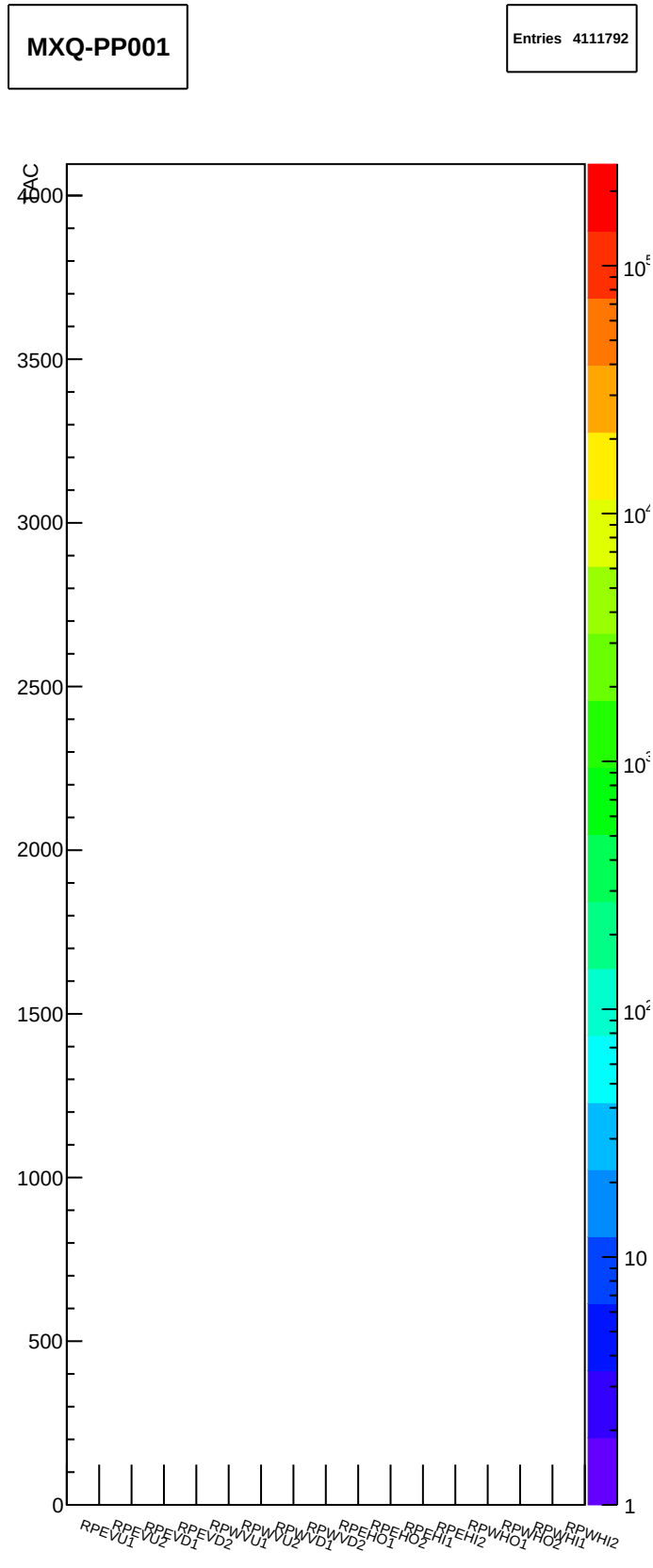

MIX-MT101 Input: MT004 MTDE+W TAC sum
Entries 513974
TAC sum
1st-Best
2nd-Best
ID

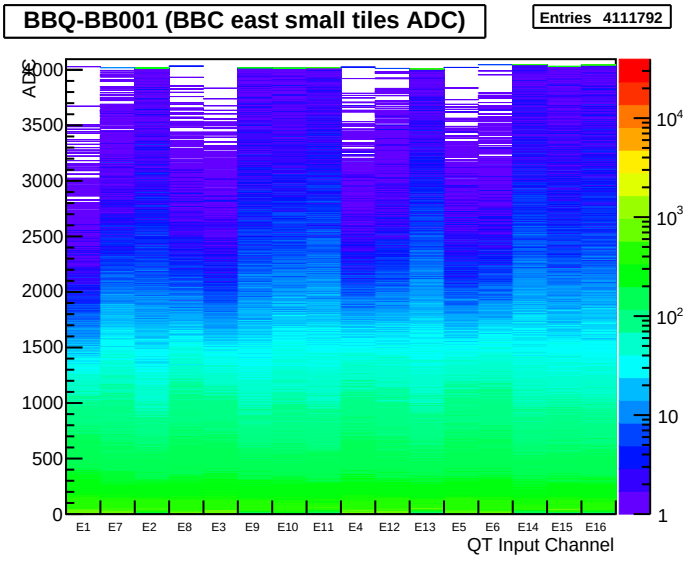

MIX-MT101 Input: MT004 MTDE+W TAC sum
Entries 15314
TAC sum
1st-Best
2nd-Best
ID

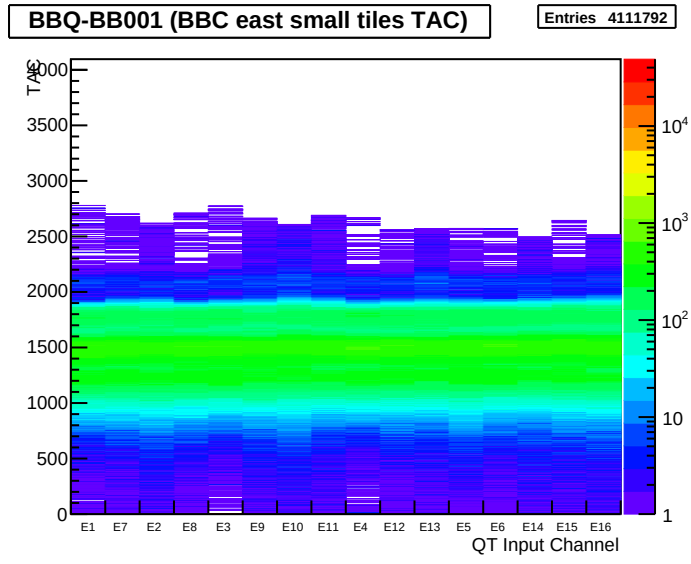

MIX-MT101 Input: VP003 Max TAC
Entries 256987

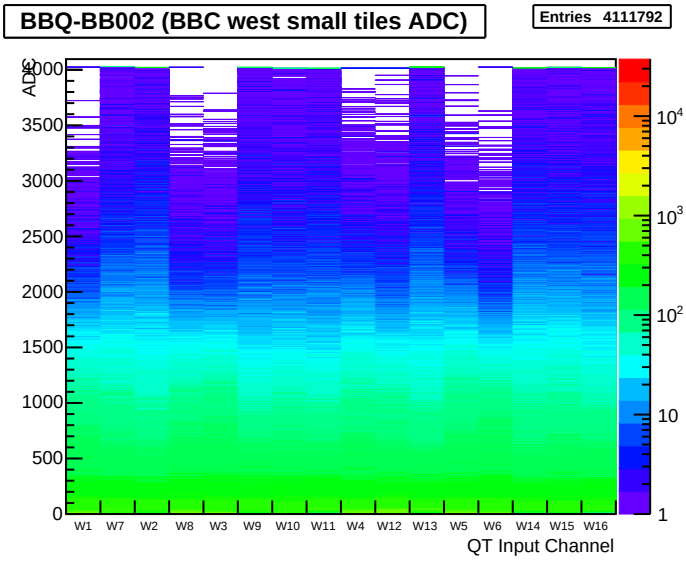

MIX-MT101 Input: VP004 Max TAC
Entries 256987

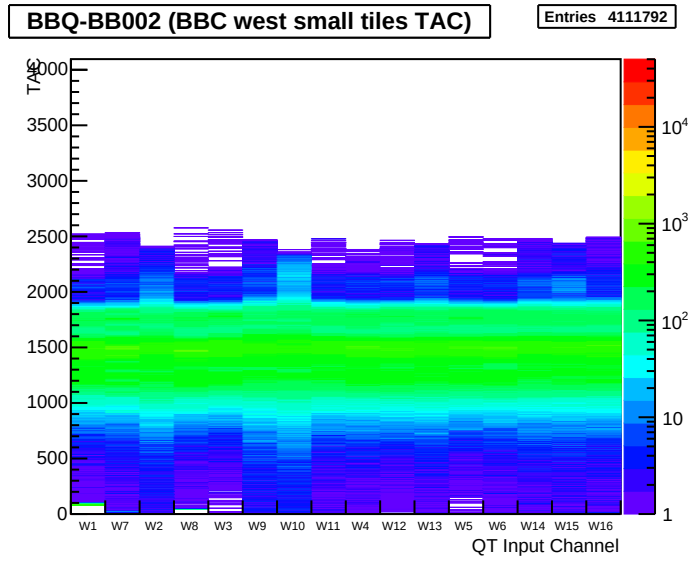

MXQ-PP001
Entries 4111792
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
RPEVU1
RPEVU2
RPEVD1
RPEVD2
RPWVU1
RPWVU2
RPWVD1
RPWVD2
RPEHO1
RPEHO2
RPEHI1
RPEHI2
RPWHO1
RPWHO2
RPWHI1
RPWHI2
10
1

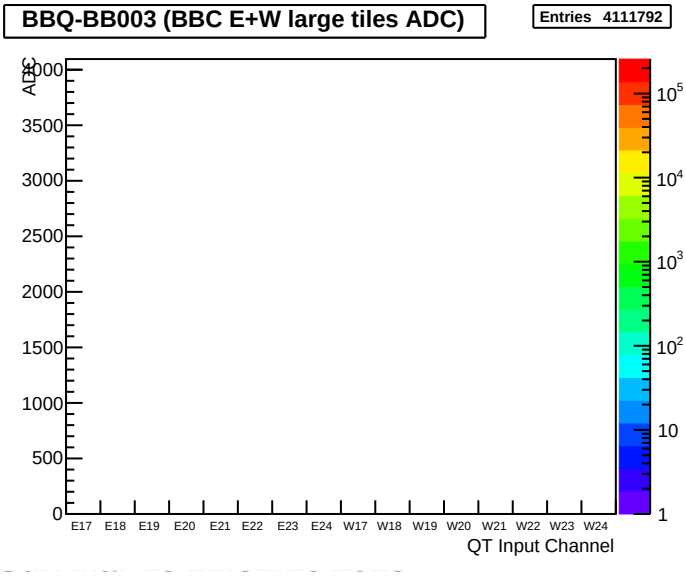

MXQ-PP001
Entries 4111792
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
RPEVU1
RPEVU2
RPEVD1
RPEVD2
RPWVU1
RPWVU2
RPWVD1
RPWVD2
RPEHO1
RPEHO2
RPEHI1
RPEHI2
RPWHO1
RPWHO2
RPWHI1
RPWHI2
10
1

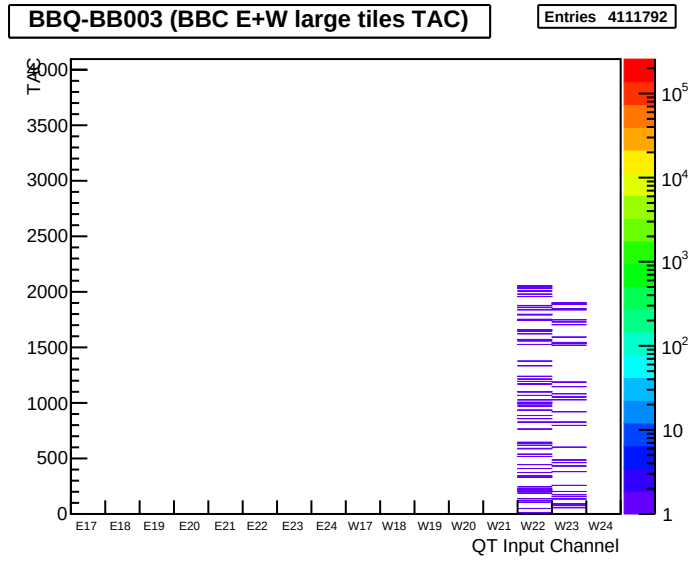

BBQ-BB001 (BBC east small tiles ADC)
Entries 4111792
ADC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

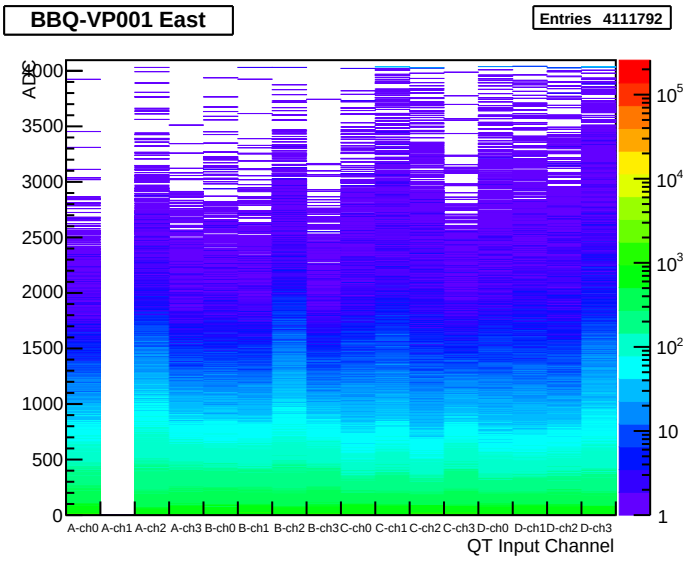

BBQ-BB001 (BBC east small tiles TAC)
Entries 4111792
TAC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

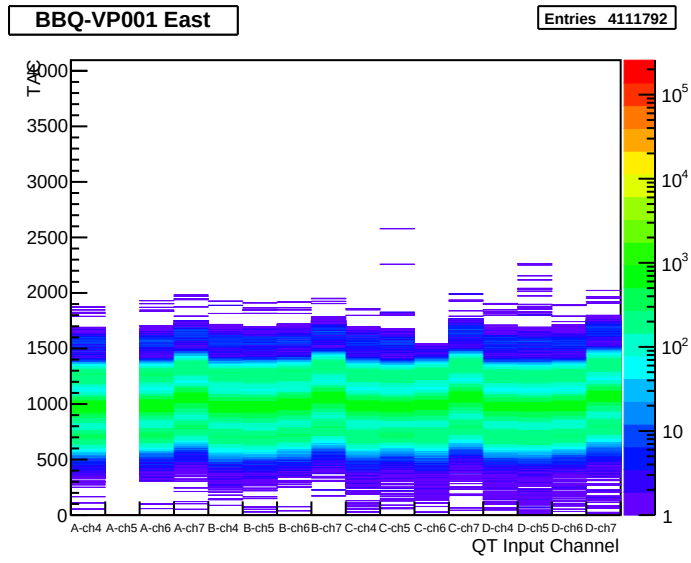

BBQ-BB002 (BBC west small tiles ADC)
Entries 4111792
ADC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

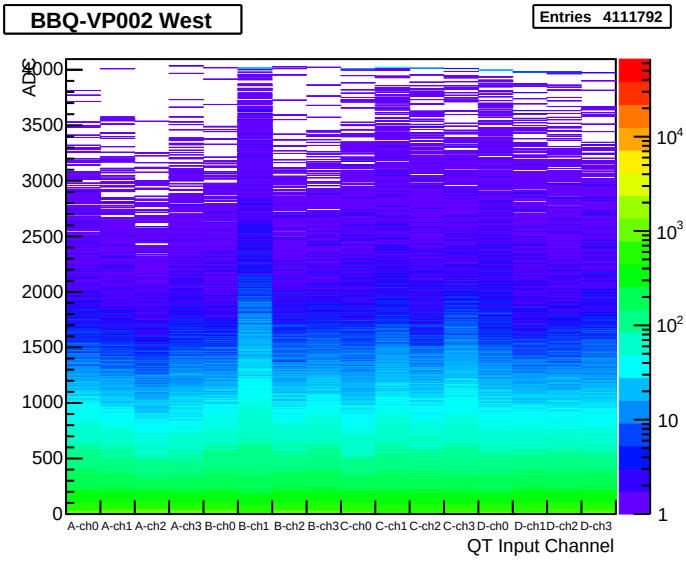

BBQ-BB002 (BBC west small tiles TAC)
Entries 4111792
TAC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

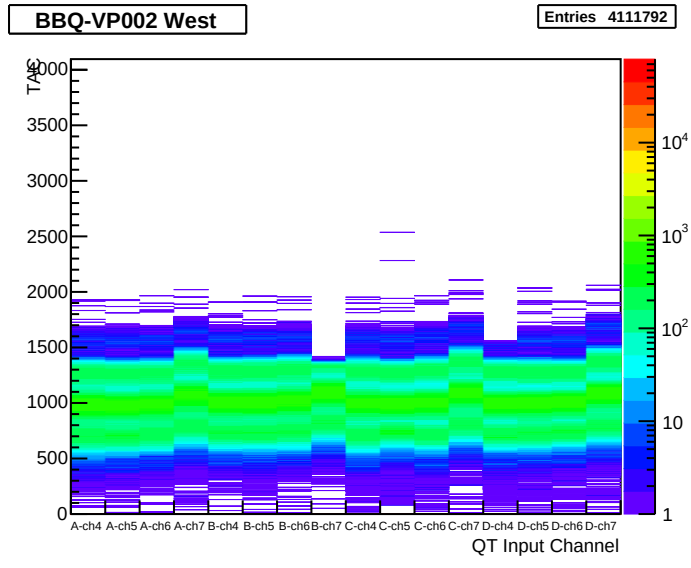

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 4111792
ADC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

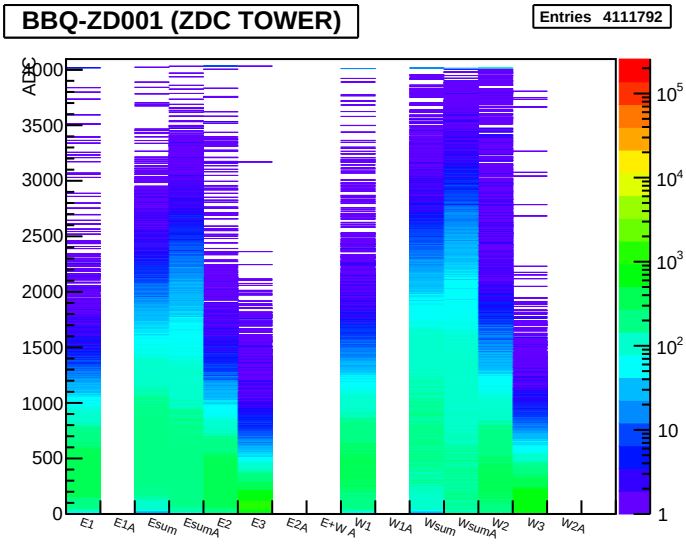

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 4111792
TAC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

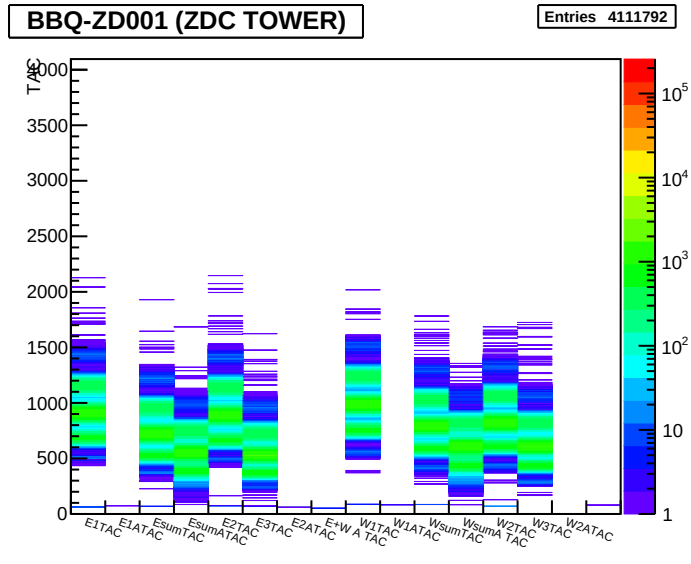

BBQ-VP001 East
Entries 4111792
ADC
QT Input Channel

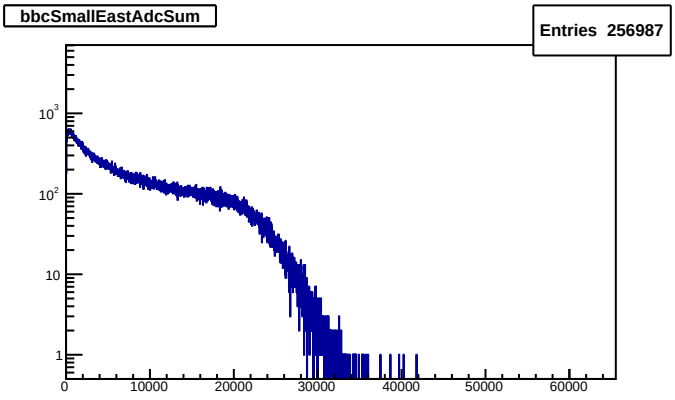

BBQ-VP001 East
Entries 4111792
TAC
QT Input Channel

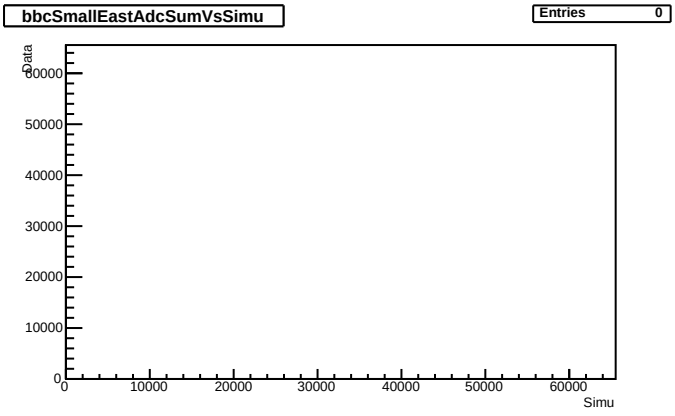

BBQ-VP002 West
Entries 4111792
ADC
QT Input Channel

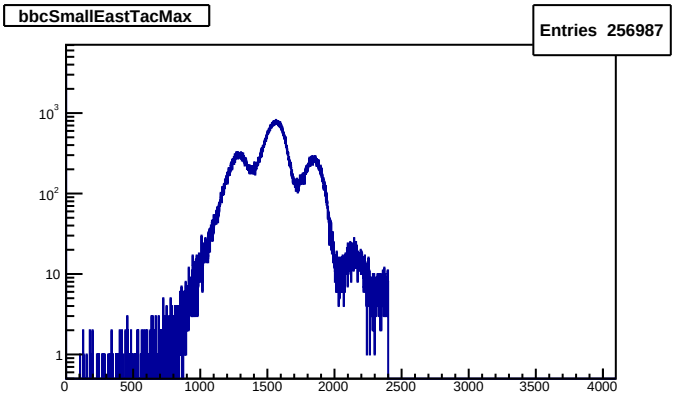

BBQ-VP002 West
Entries 4111792
TAC
QT Input Channel

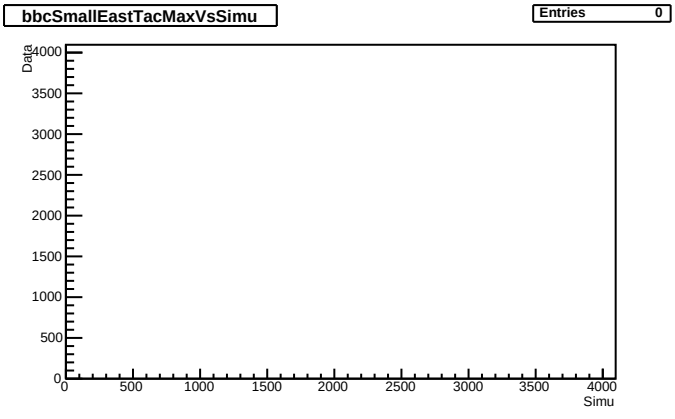

BBQ-ZD001 (ZDC TOWER)
Entries 4111792
ADC

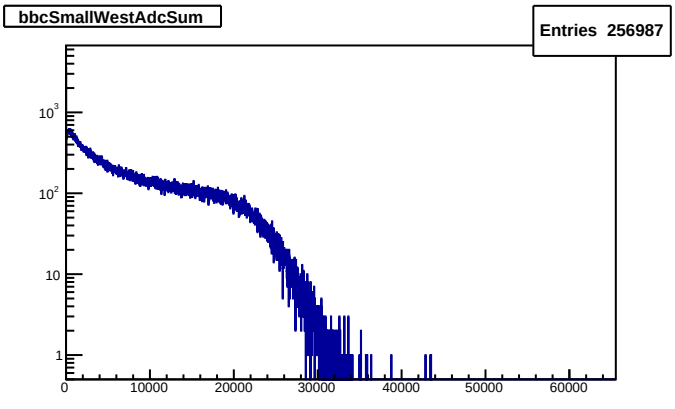

BBQ-ZD001 (ZDC TOWER)
Entries 4111792
TAC

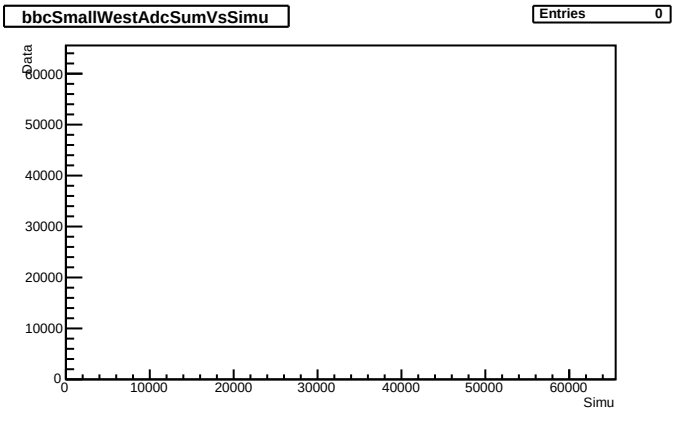

bbcSmallEastAdcSum
Entries 256987

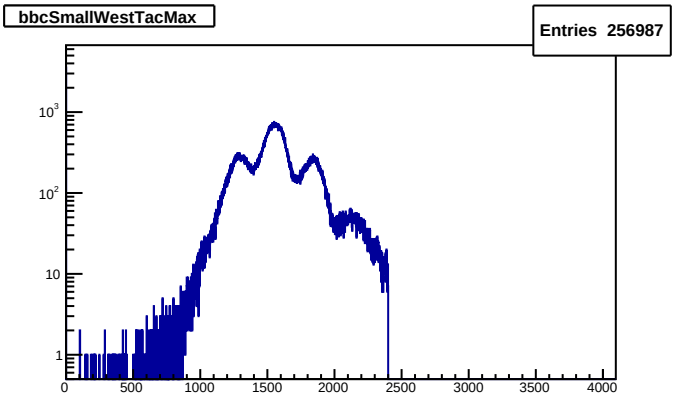

bbcSmallEastAdcSumVsSimu
Entries 0
Data
Simu

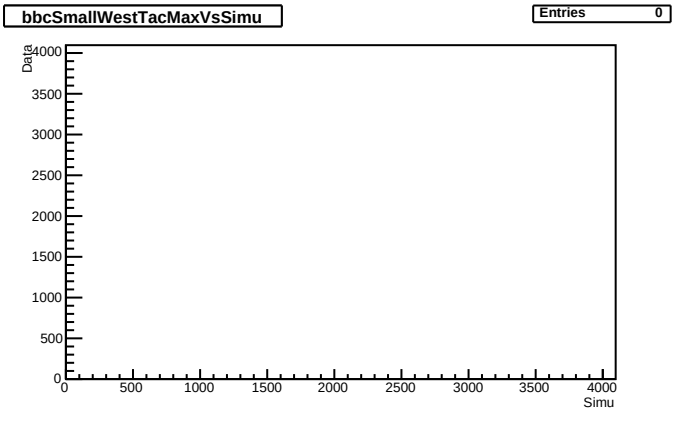

bbcSmallEastTacMax
Entries 256987

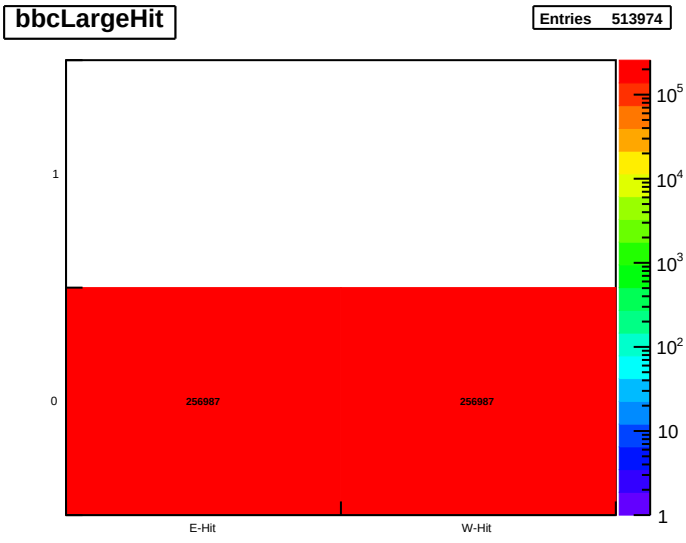

bbcSmallEastTacMaxVsSimu
Entries 0
Data
Simu

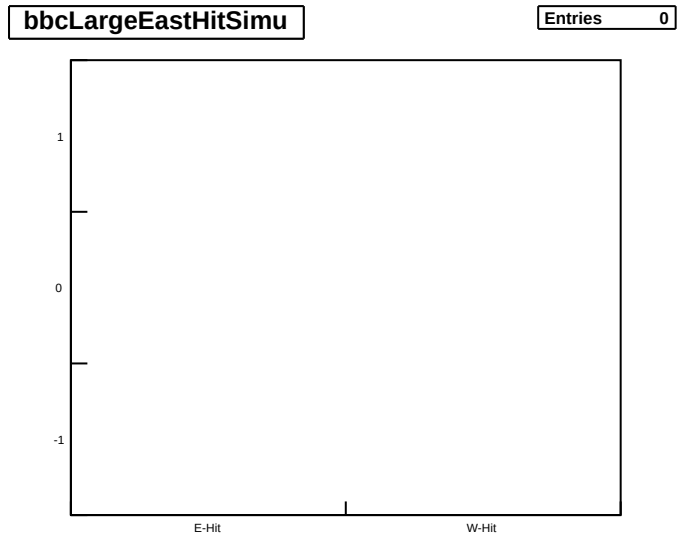

bbcSmallWestAdcSum
Entries 256987

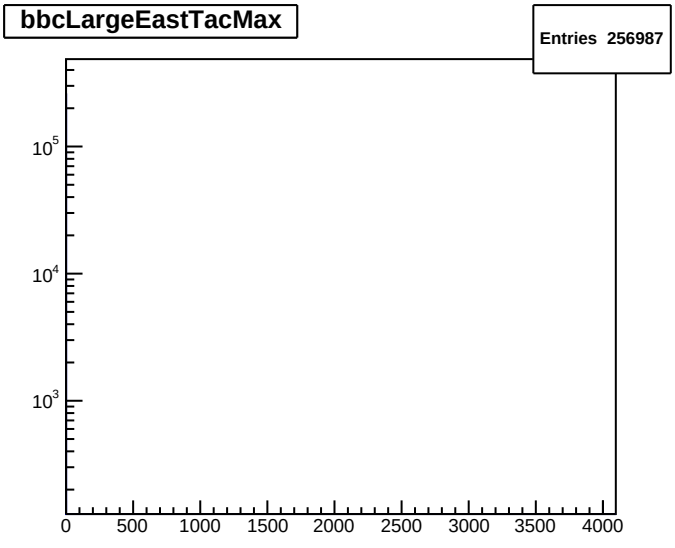

bbcSmallWestAdcSumVsSimu
Entries 0
Data
Simu

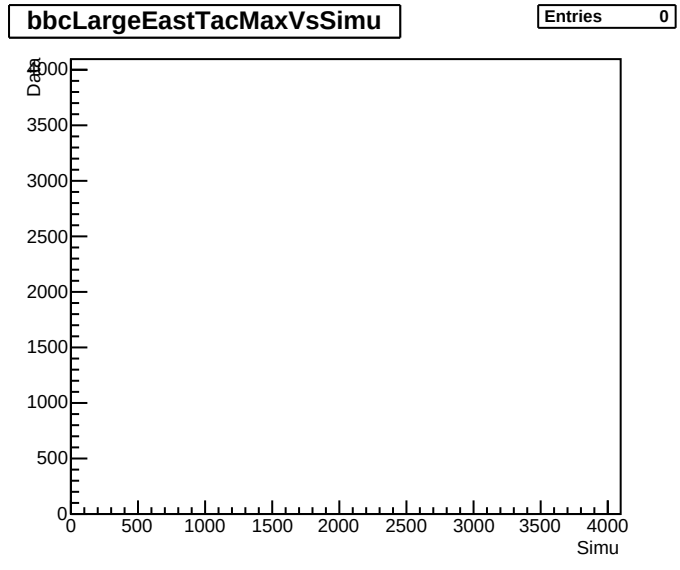

bbcSmallWestTacMax
Entries 256987

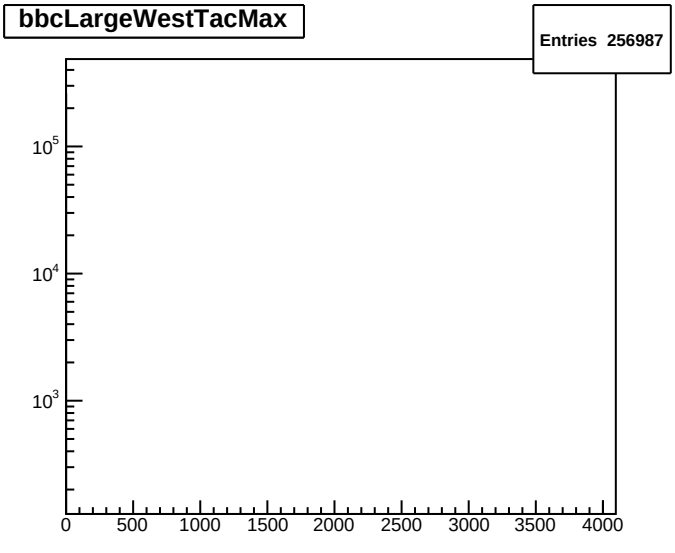

bbcSmallWestTacMaxVsSimu
Entries 0
Data
Simu

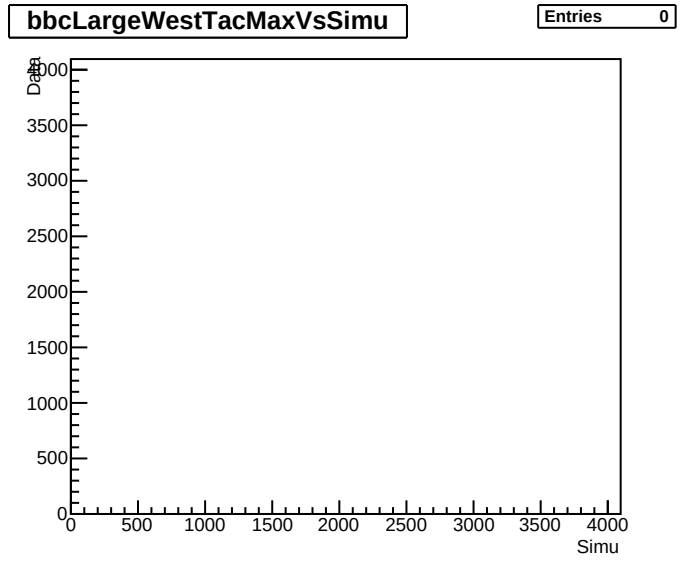

bbcLargeHit
Entries 513974
256987
256987
E-Hit
W-Hit

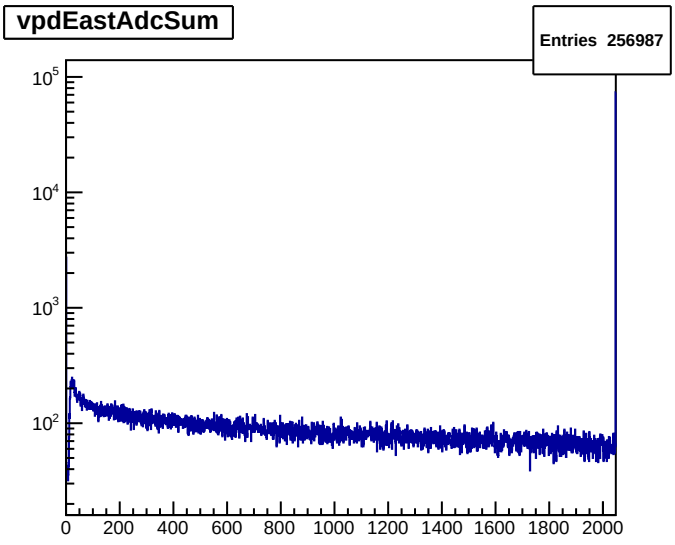

bbcLargeEastHitSimu
Entries 0
E-Hit
W-Hit

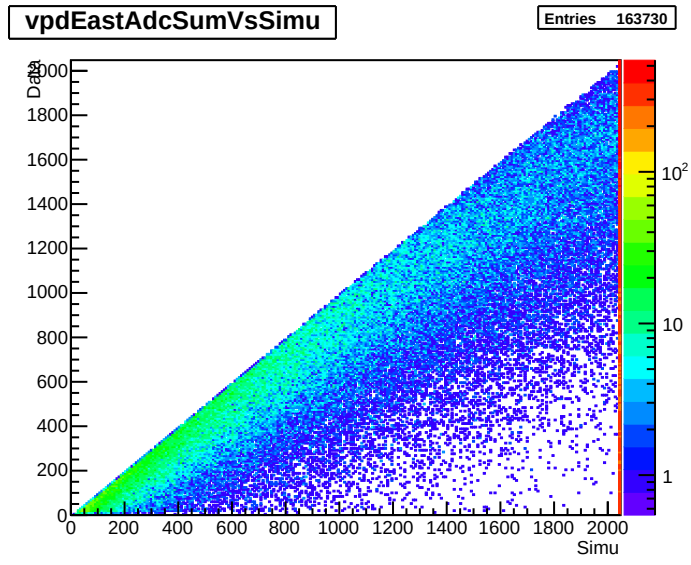

bbcLargeEastTacMax
Entries 256987

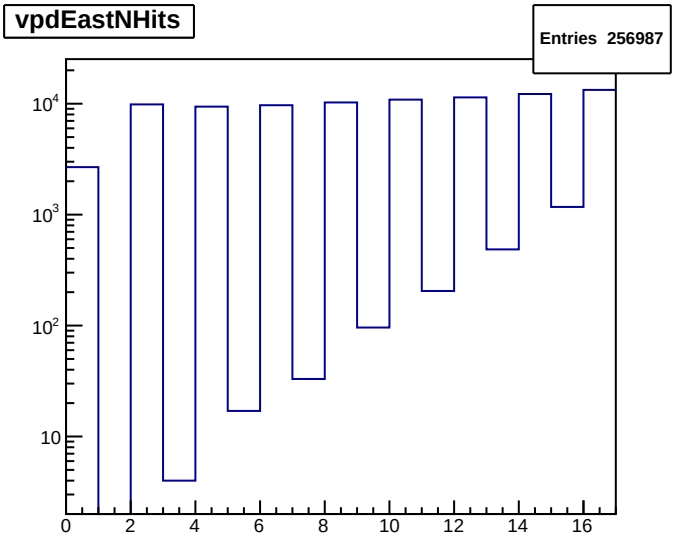

bbcLargeEastTacMaxVsSimu
Entries 0
Data
Simu

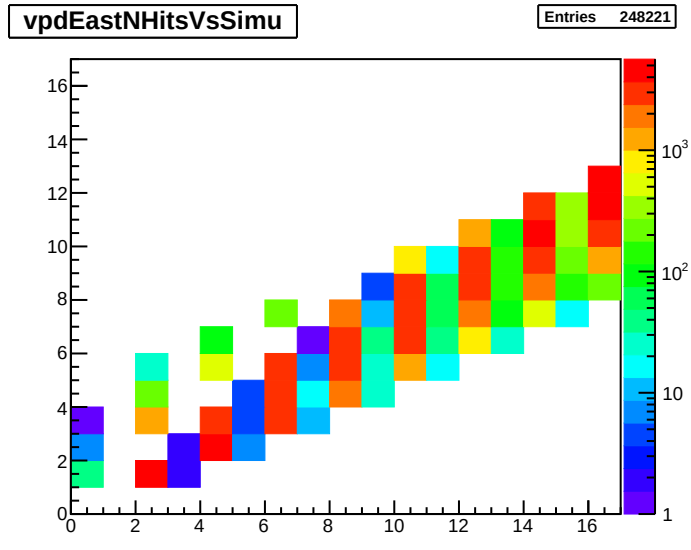

bbcLargeWestTacMax
Entries 256987

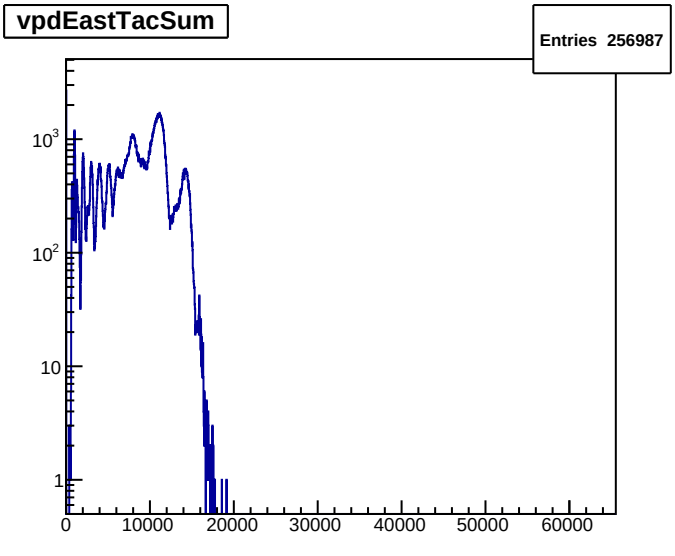

bbcLargeWestTacMaxVsSimu
Entries 0
Data
Simu

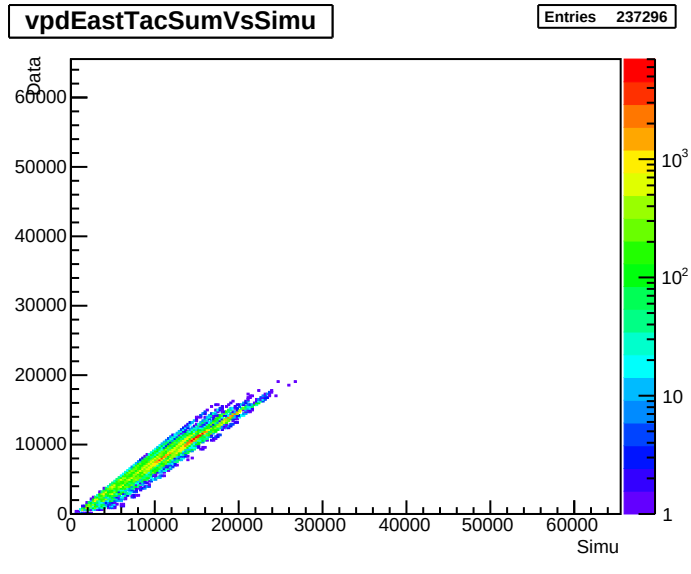

vpdEastAdcSum
Entries 256987

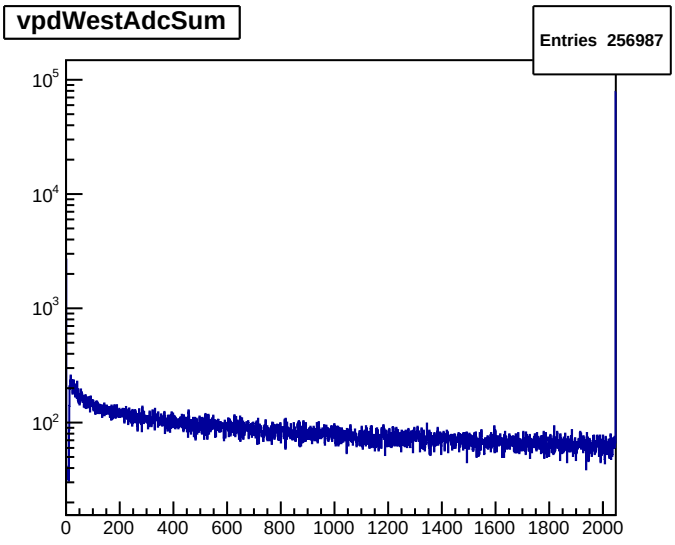

vpdEastAdcSumVsSimu
Entries 163730
Data
Simu

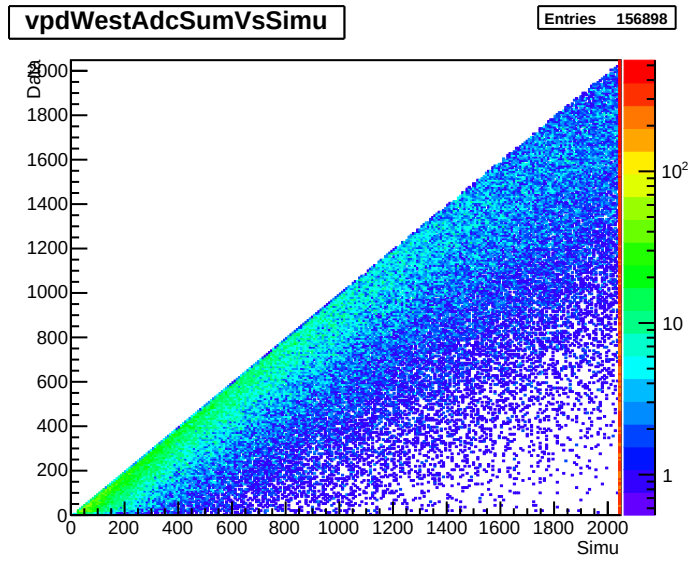

vpdEastNHits
Entries 256987

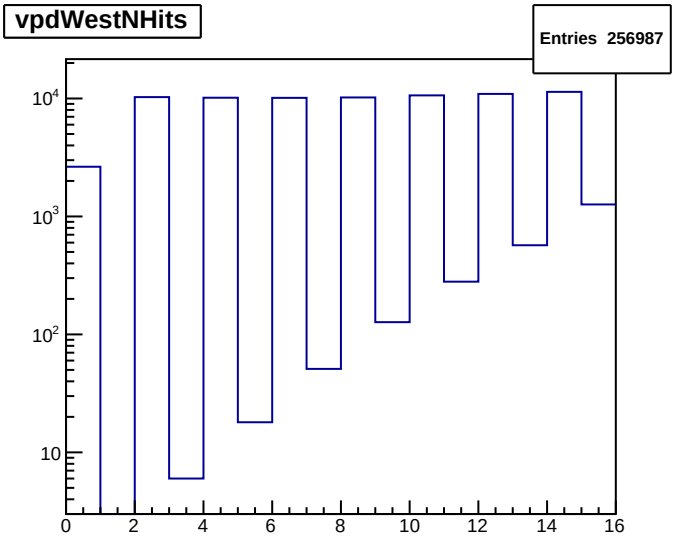

vpdEastNHitsVsSimu
Entries 248221

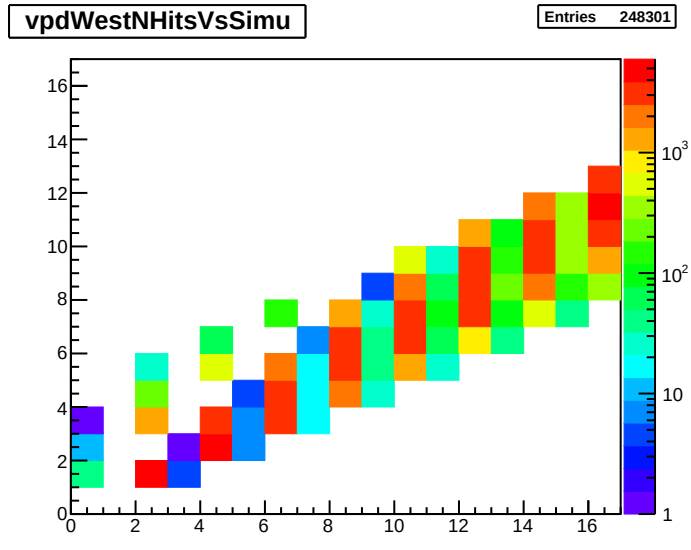

vpdEastTacSum
Entries 256987

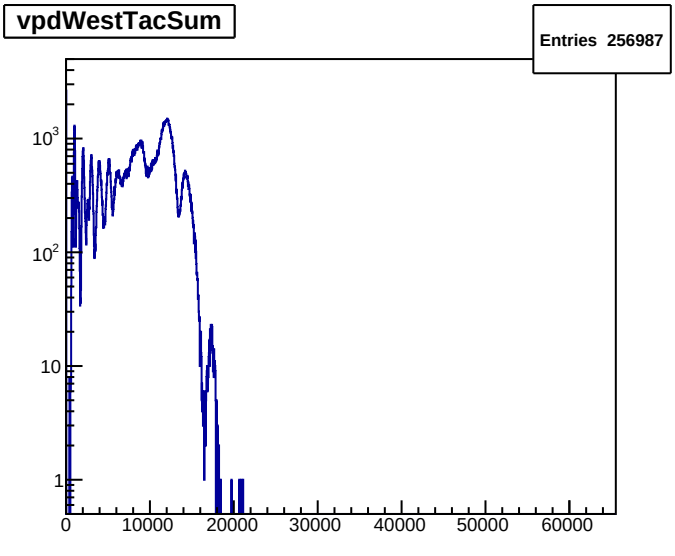

vpdEastTacSumVsSimu
Entries 237296
Data
Simu

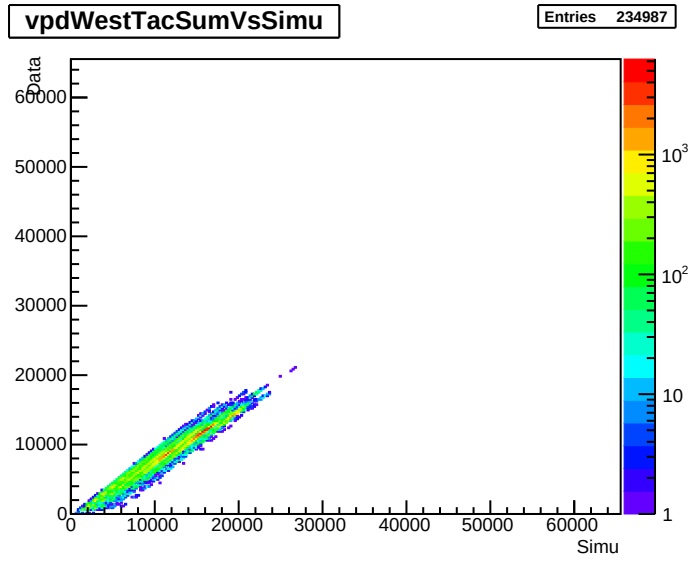

vpdWestAdcSum
Entries 256987

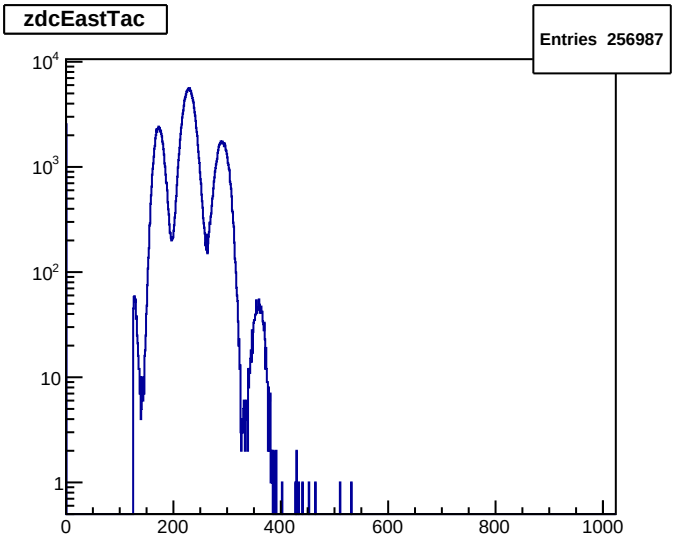

vpdWestAdcSumVsSimu
Entries 156898
Data
Simu

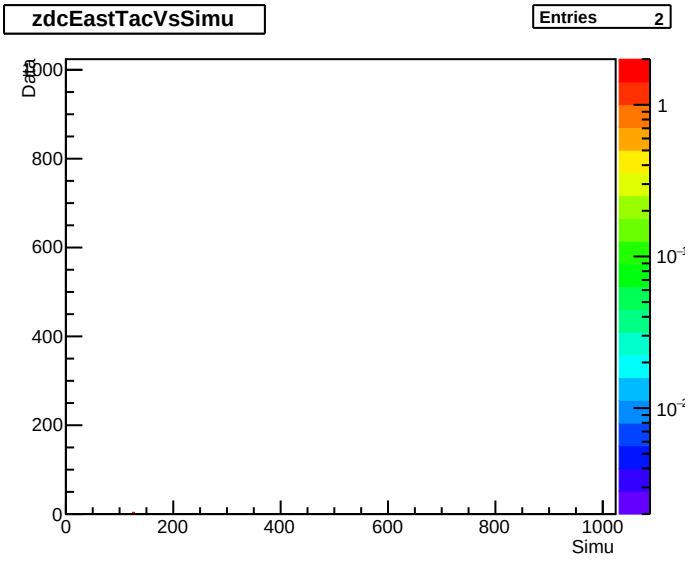

vpdWestNHits
Entries 256987

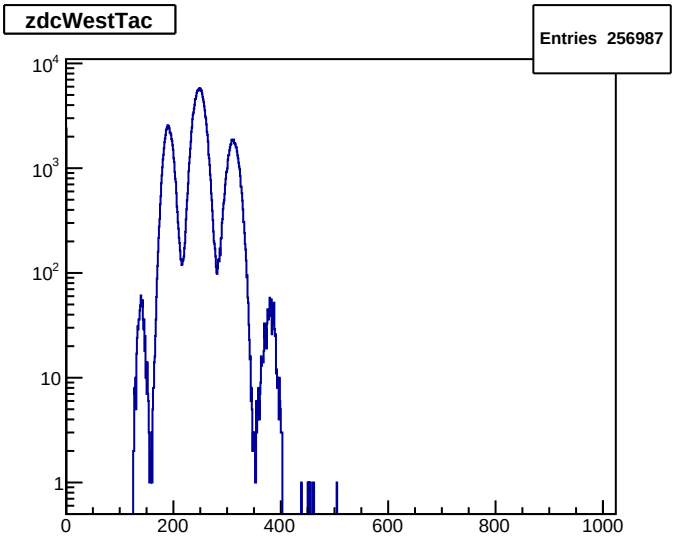

vpdWestNHitsVsSimu
Entries 248301

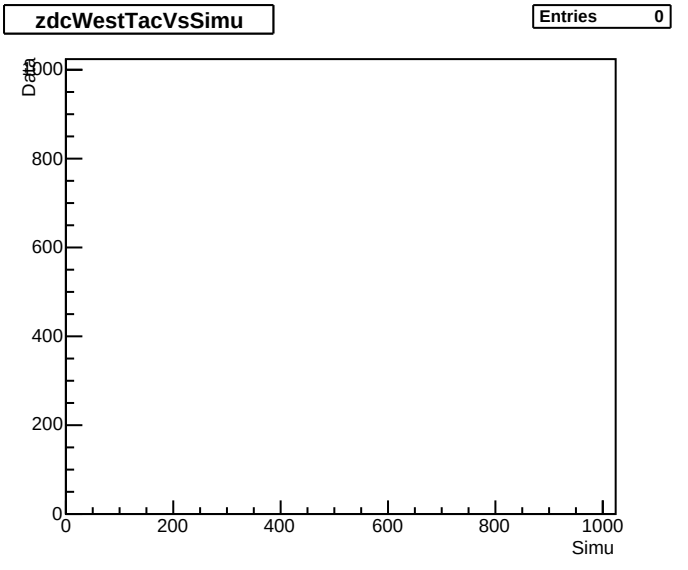

vpdWestTacSum
Entries 256987

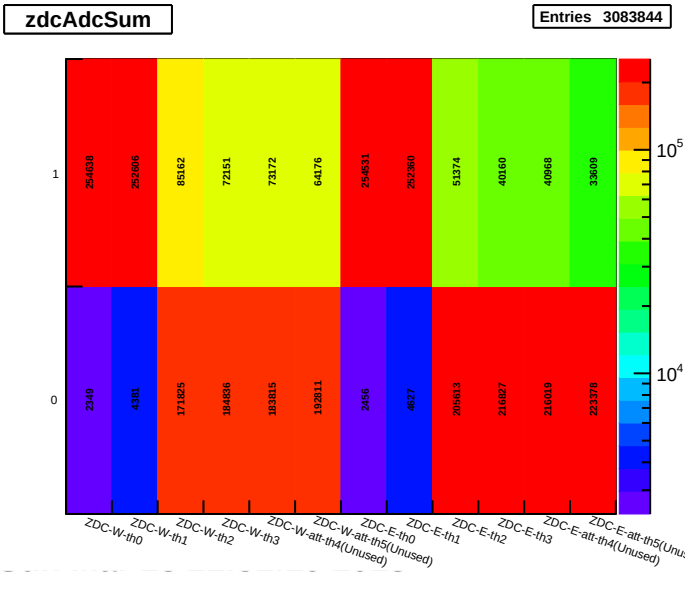

vpdWestTacSumVsSimu
Entries 234987
Data
Simu

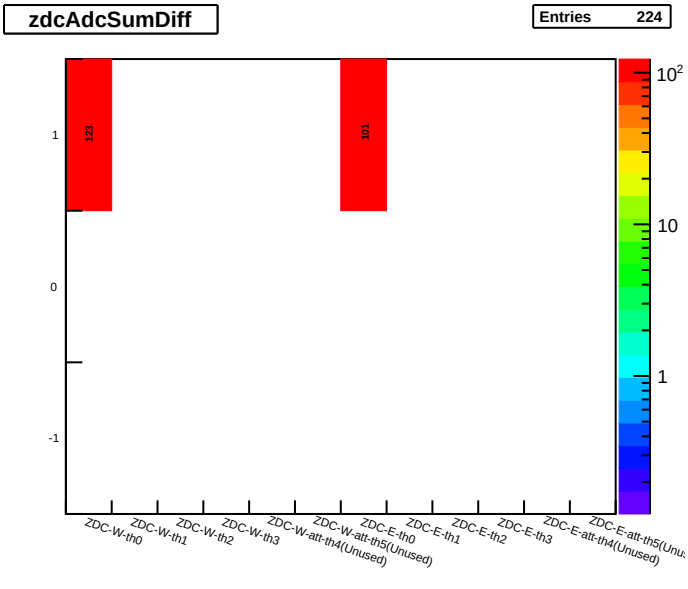

zdcEastTac
Entries 256987

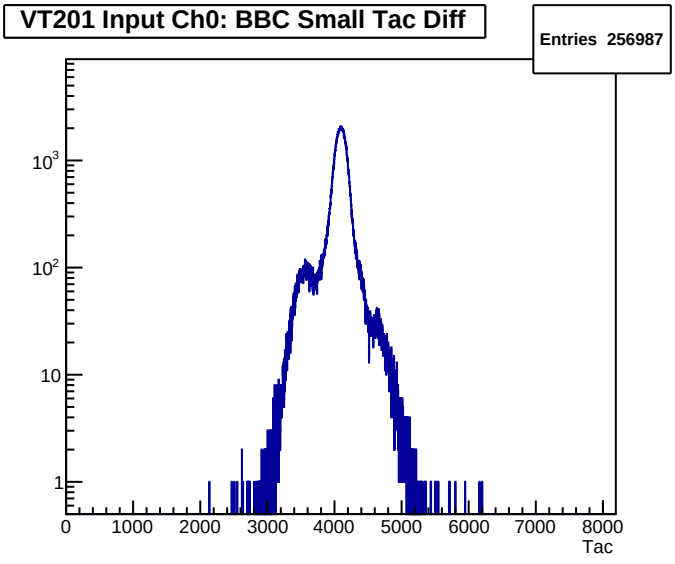

zdcEastTacVsSimu
Entries 2
Data
Simu

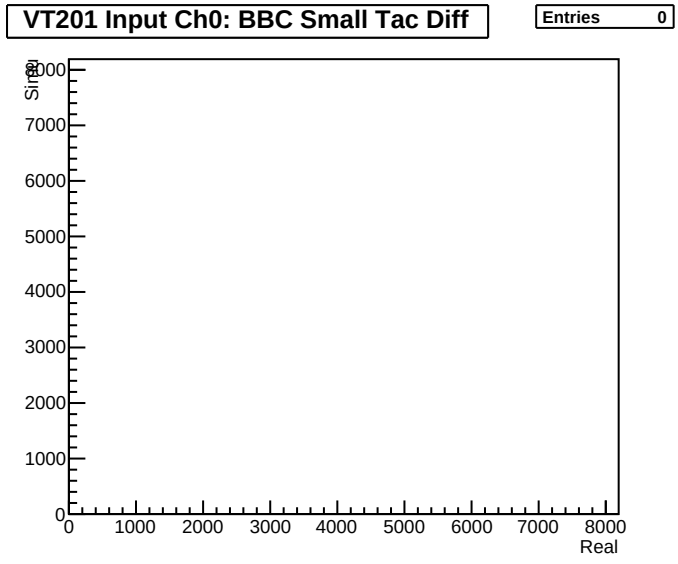

zdcWestTac
Entries 256987

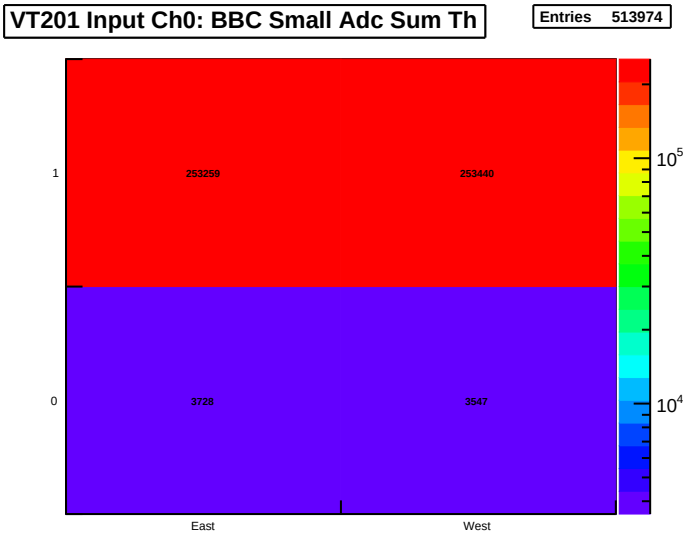

zdcWestTacVsSimu
Entries 0
Data
Simu

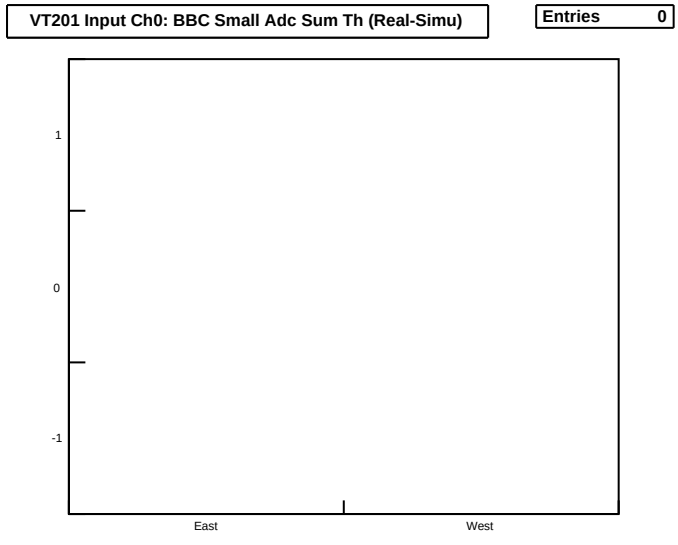

zdcAdcSum
Entries 3083844
254638
252806
85162
72151
73172
64176
254531
252380
51374
40160
40968
33609
2349
4381
171825
184836
183815
192811
2456
4627
205613
216827
216019
223378
ZDC-W-th0
ZDC-W-th1
ZDC-W-th2
ZDC-W-th3
ZDC-W-att-th4(Unused)
ZDC-W-att-th5(Unused)
ZDC-E-th0
ZDC-E-th1
ZDC-E-th2
ZDC-E-th3
ZDC-E-att-th4(Unused)

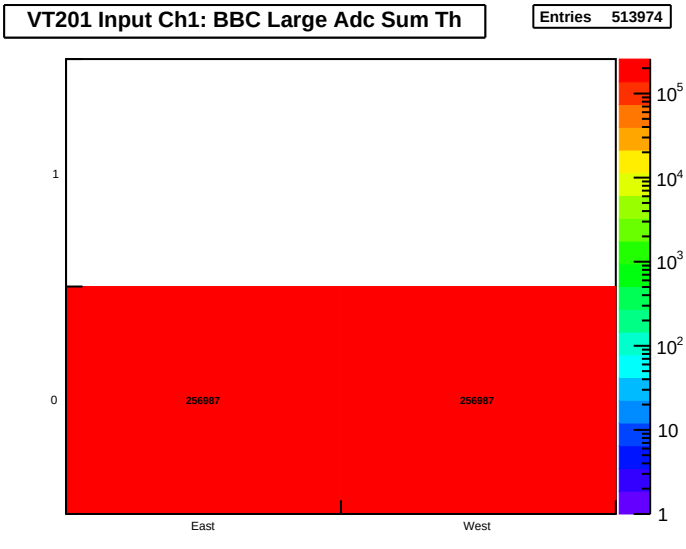

zdcAdcSumDiff
Entries 224
123
101
ZDC-W-th0
ZDC-W-th1
ZDC-W-th2
ZDC-W-th3
ZDC-W-att-th4(Unused)
ZDC-W-att-th5(Unused)
ZDC-E-th0
ZDC-E-th1
ZDC-E-th2
ZDC-E-th3
ZDC-E-att-th4(Unused)

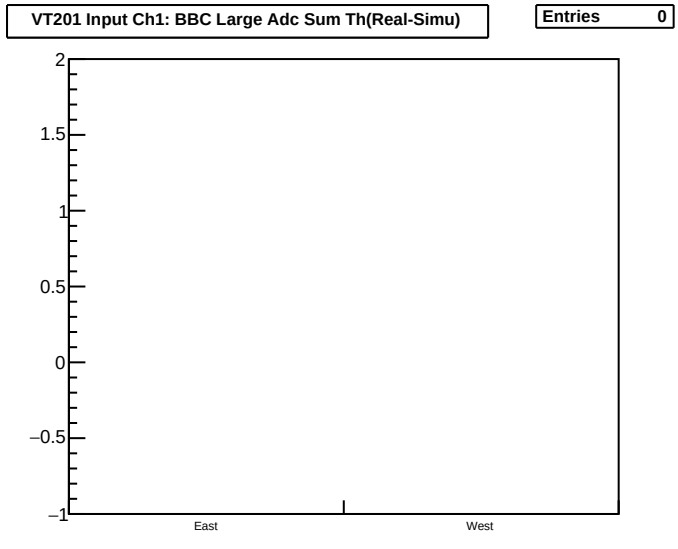

VT201 Input Ch0: BBC Small Tac Diff
Entries 256987
Tac

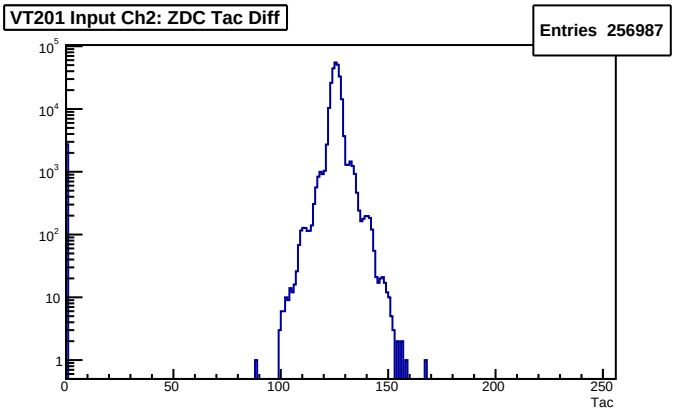

VT201 Input Ch0: BBC Small Tac Diff
Entries 0
Simu
Real

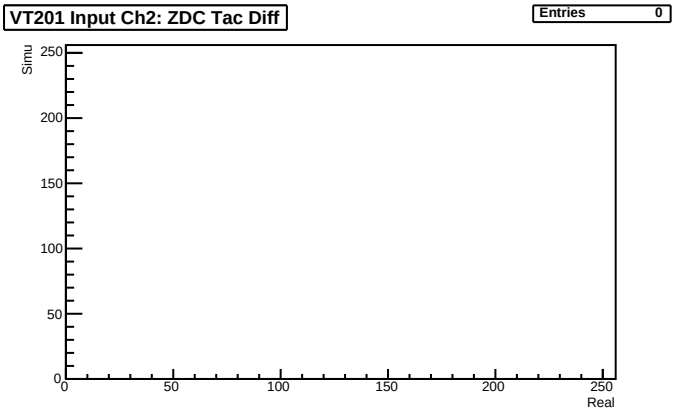

VT201 Input Ch0: BBC Small Adc Sum Th
Entries 513974
253259
253440
3728
3547
East
West

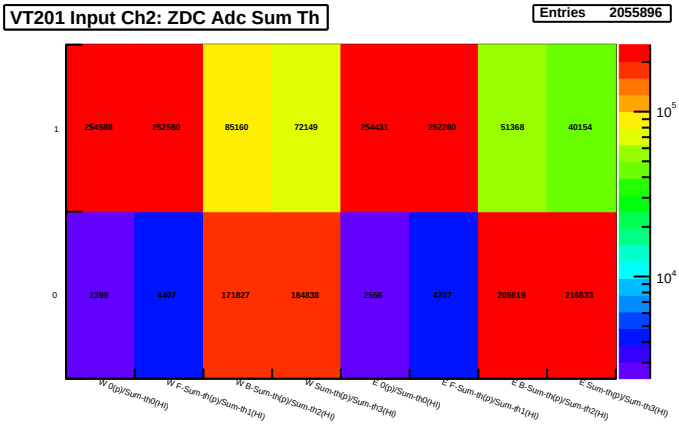

VT201 Input Ch0: BBC Small Adc Sum Th (Real-Simu)
Entries 0
East
West

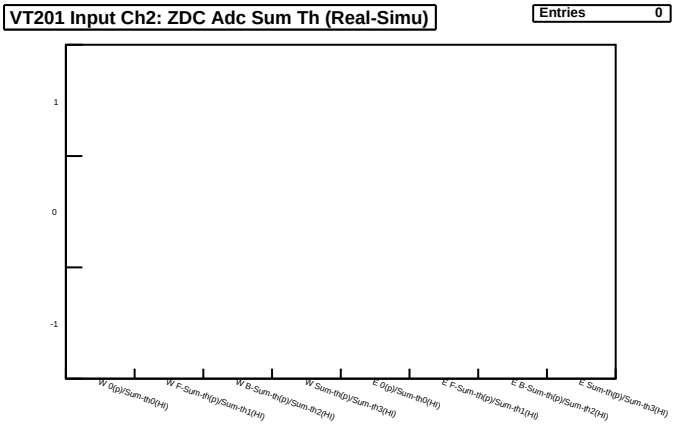

VT201 Input Ch1: BBC Large Adc Sum Th
Entries 513974
256987
256987
East
West

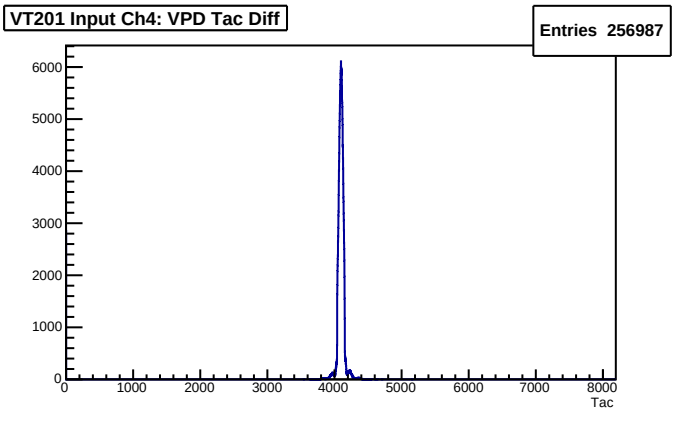

VT201 Input Ch1: BBC Large Adc Sum Th(Real-Simu)
Entries 0
East
West

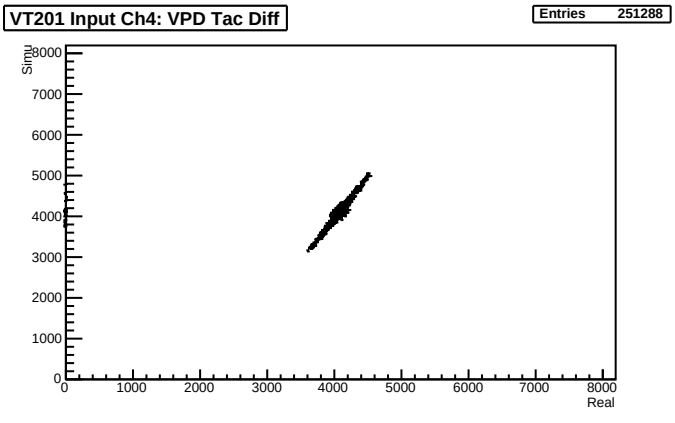

VT201 Input Ch2: ZDC Tac Diff
Entries 256987
Tac

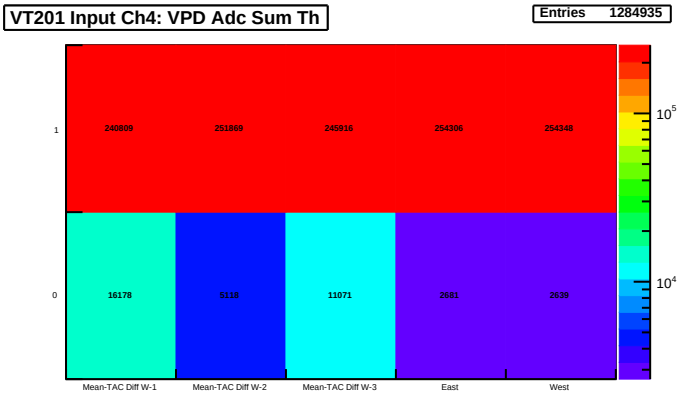

VT201 Input Ch2: ZDC Tac Diff
Entries 0
Simu
Real

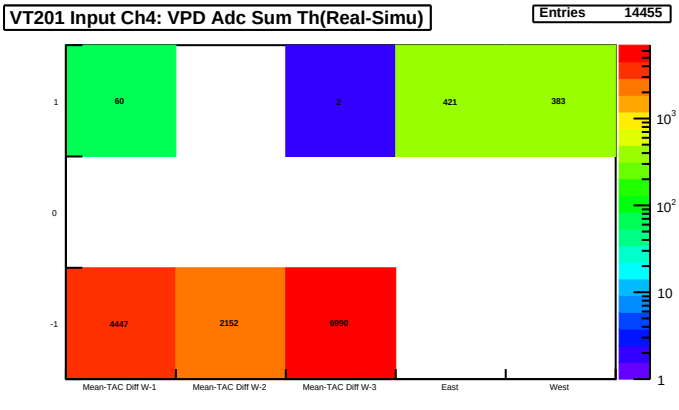

VT201 Input Ch2: ZDC Adc Sum Th
Entries 2055896
254588
252580
85160
72149
254431
252280
51368
40154
2399
4407
171827
184838
2556
4707
205619
216833
W 0(p)/Sum-th0(H)
W F-Sum-th(p)/Sum-th1(H)
W B-Sum-th(p)/Sum-th2(H)
W Sum-th(p)/Sum-th3(H)
E 0(p)/Sum-th0(H)
E F-Sum-th(p)/Sum-th1(H)
E B-Sum-th(p)/Sum-th2(H)
E Sum-th(p)/Sum-th3(H)

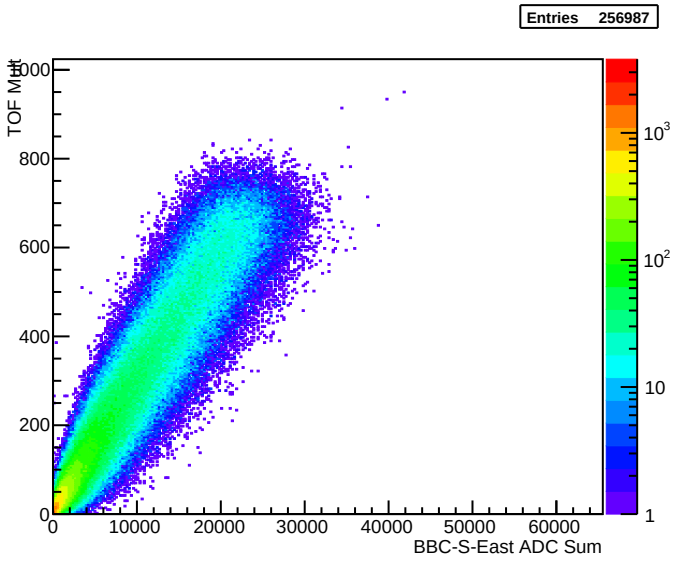

VT201 Input Ch2: ZDC Adc Sum Th (Real-Simu)
Entries 0
W 0(p)/Sum-th0(H)
W F-Sum-th(p)/Sum-th1(H)
W B-Sum-th(p)/Sum-th2(H)
W Sum-th(p)/Sum-th3(H)
E 0(p)/Sum-th0(H)
E F-Sum-th(p)/Sum-th1(H)
E B-Sum-th(p)/Sum-th2(H)
E Sum-th(p)/Sum-th3(H)

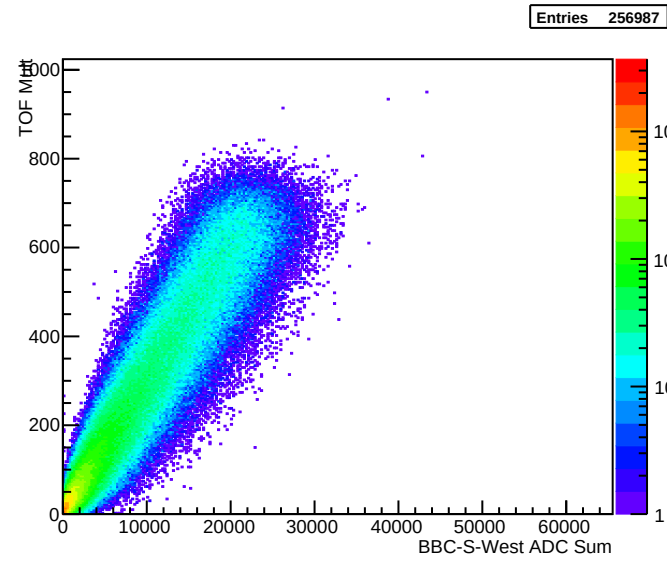

VT201 Input Ch4: VPD Tac Diff
Entries 256987
Tac

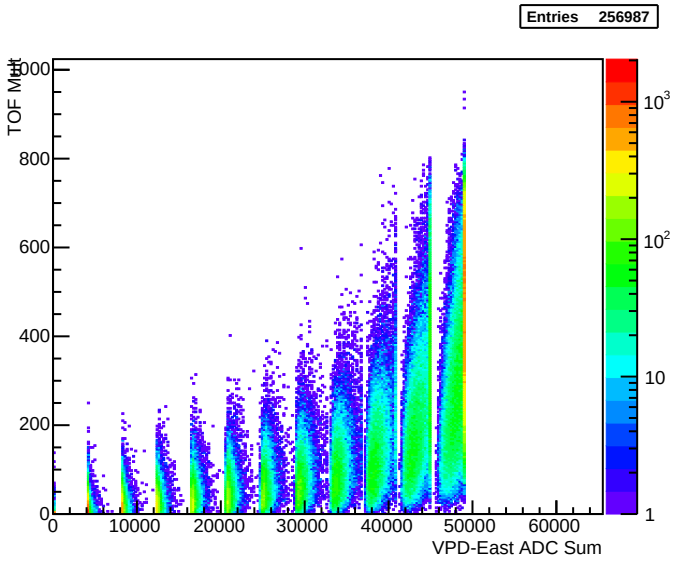

VT201 Input Ch4: VPD Tac Diff
Entries 251288
Simu
Real

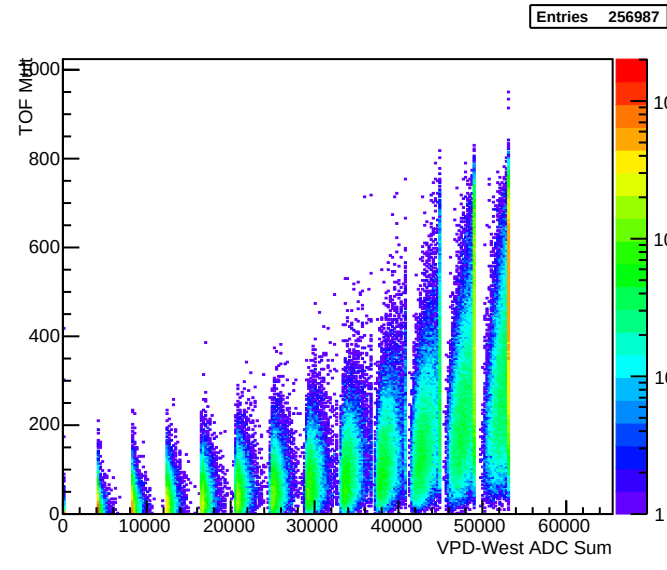

VT201 Input Ch4: VPD Adc Sum Th
Entries 1284935
240809
251869
245916
254306
254348
16178
5118
11071
2681
2639
Mean-TAC Diff W-1
Mean-TAC Diff W-2
Mean-TAC Diff W-3
East
West

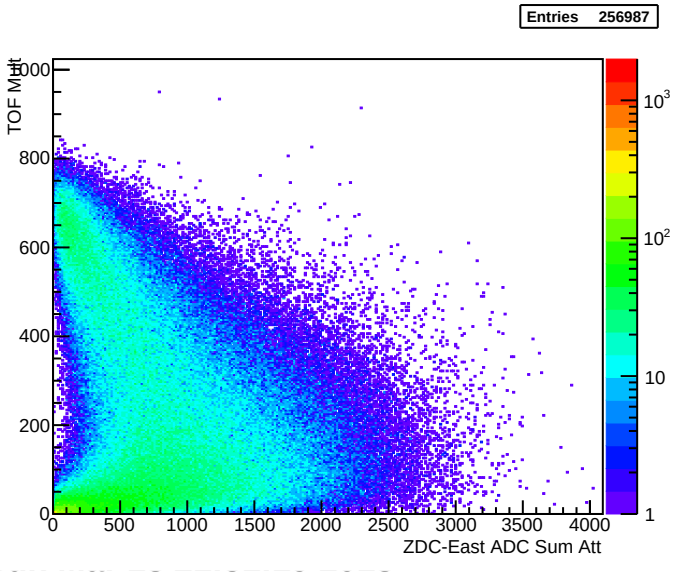

VT201 Input Ch4: VPD Adc Sum Th(Real-Simu)
Entries 14455
60
2
421
383
4447
2152
6990
Mean-TAC Diff W-1
Mean-TAC Diff W-2
Mean-TAC Diff W-3
East
West

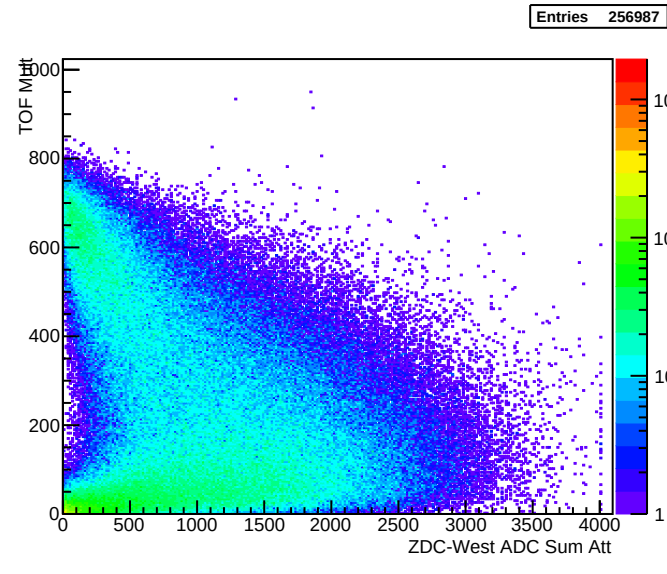

Entries 256987
TOF Mult
BBC-S-East ADC Sum

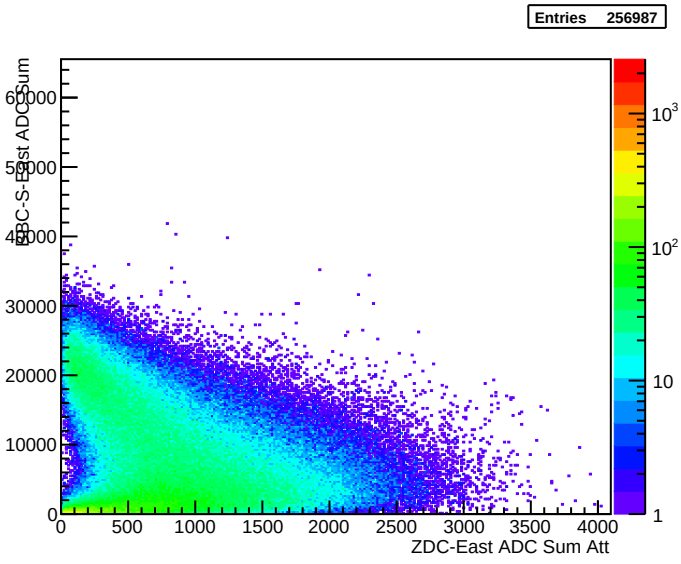

Entries 256987
TOF Mult
BBC-S-West ADC Sum

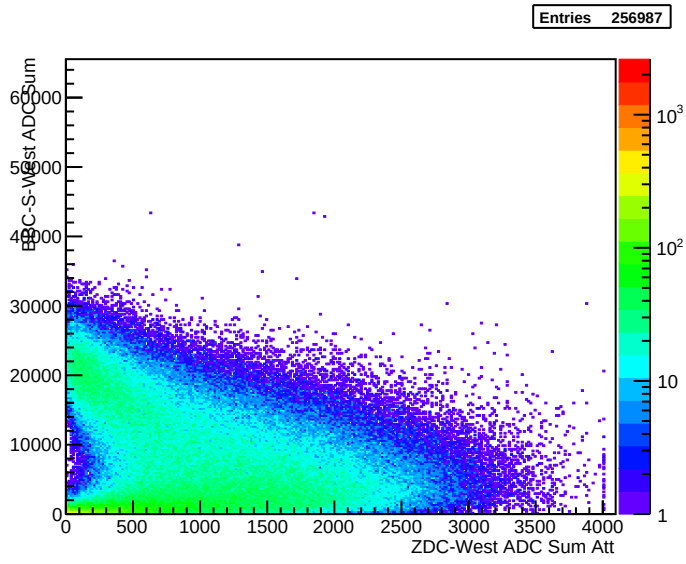

Entries 256987
TOF Mult
VPD-East ADC Sum

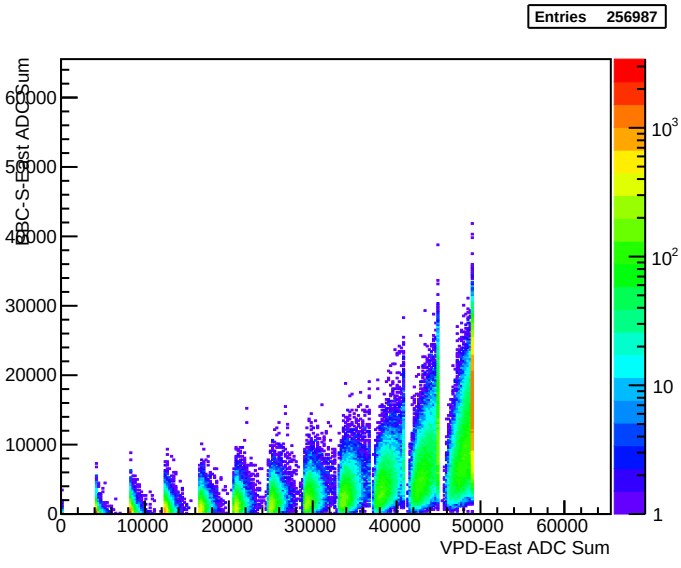

Entries 256987
TOF Mult
VPD-West ADC Sum

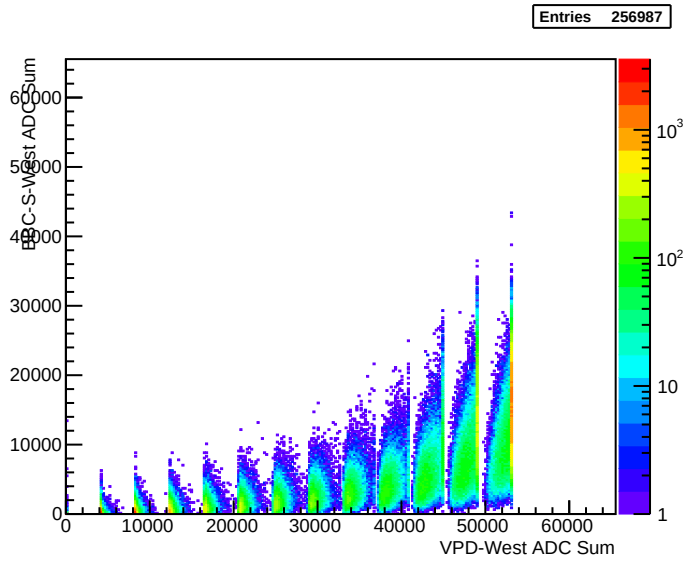

Entries 256987
TOF Mult
ZDC-East ADC Sum Att

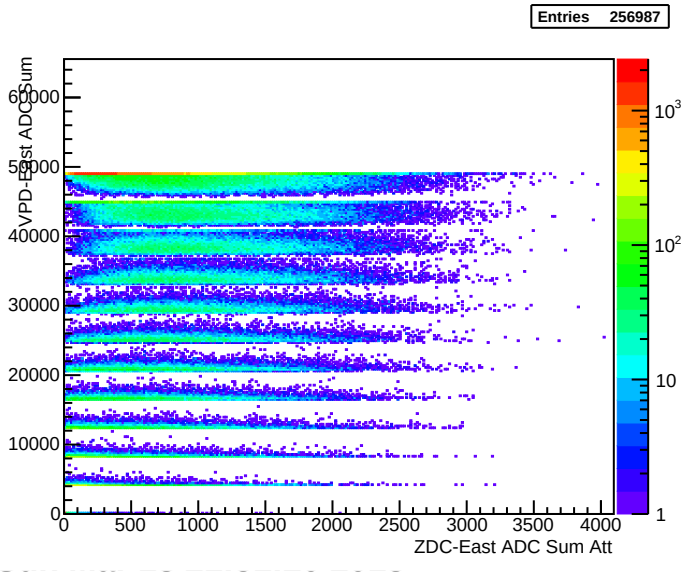

Entries 256987
TOF Mult
ZDC-West ADC Sum Att

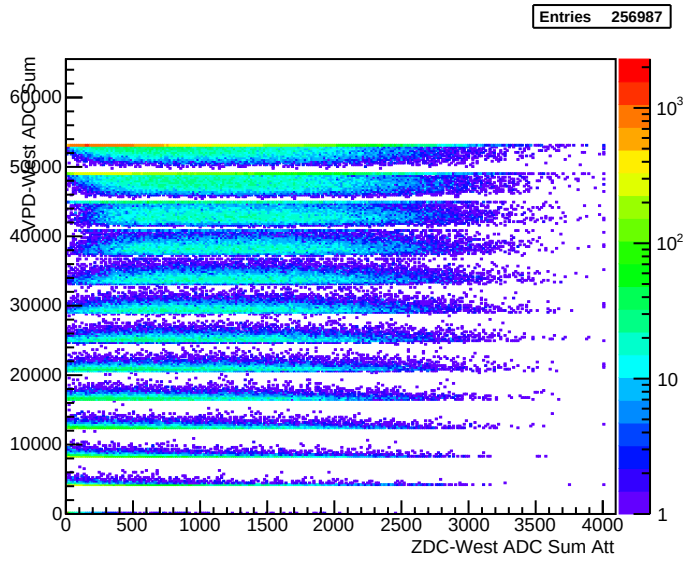

Entries 256987
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

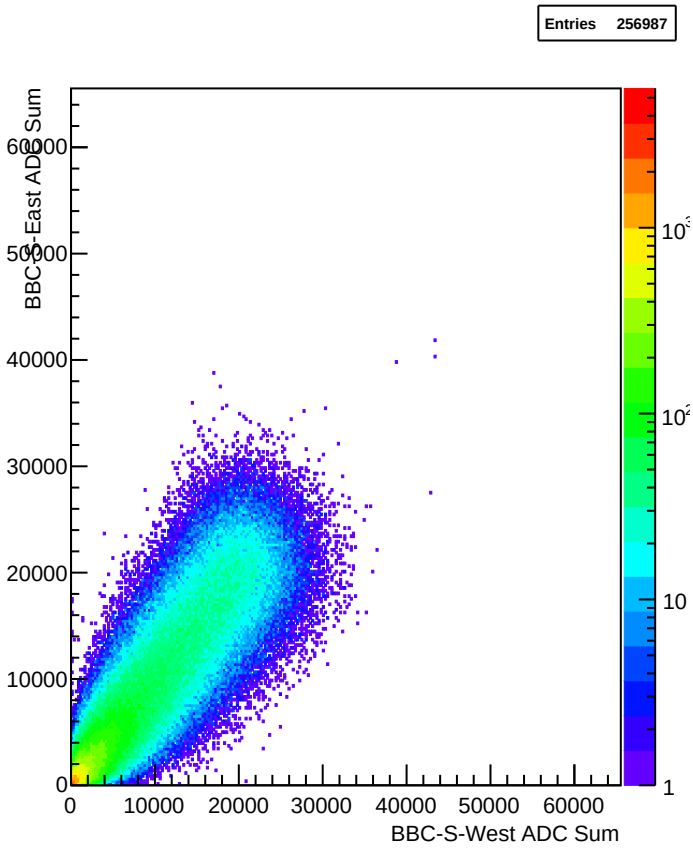

Entries 256987
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

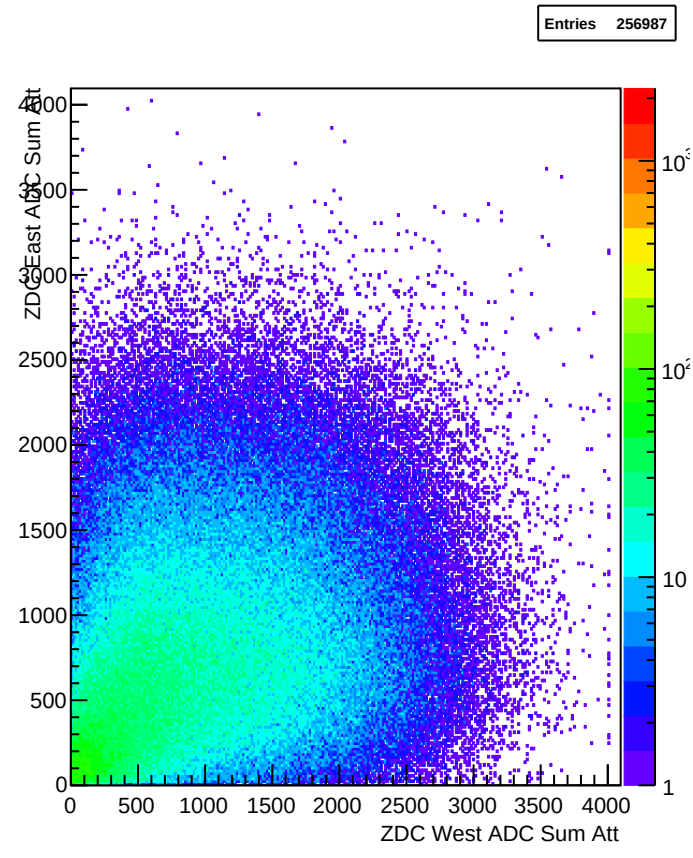

Entries 256987
BBC-S-East ADC Sum
VPD-East ADC Sum


Entries 256987
BBC-S-West ADC Sum
VPD-West ADC Sum


Entries 256987
VPD-East ADC Sum
ZDC-East ADC Sum Att


Entries 256987
VPD-West ADC Sum
ZDC-West ADC Sum Att


Entries 256987
BBC-S-East ADC Sum
BBC-S-West ADC Sum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ZDC East ADC Sum Att
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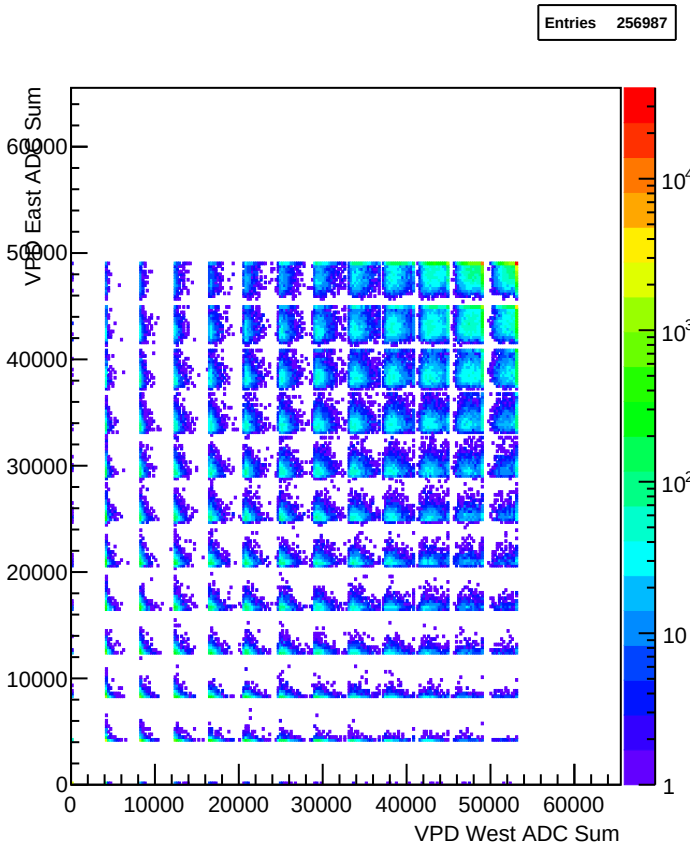
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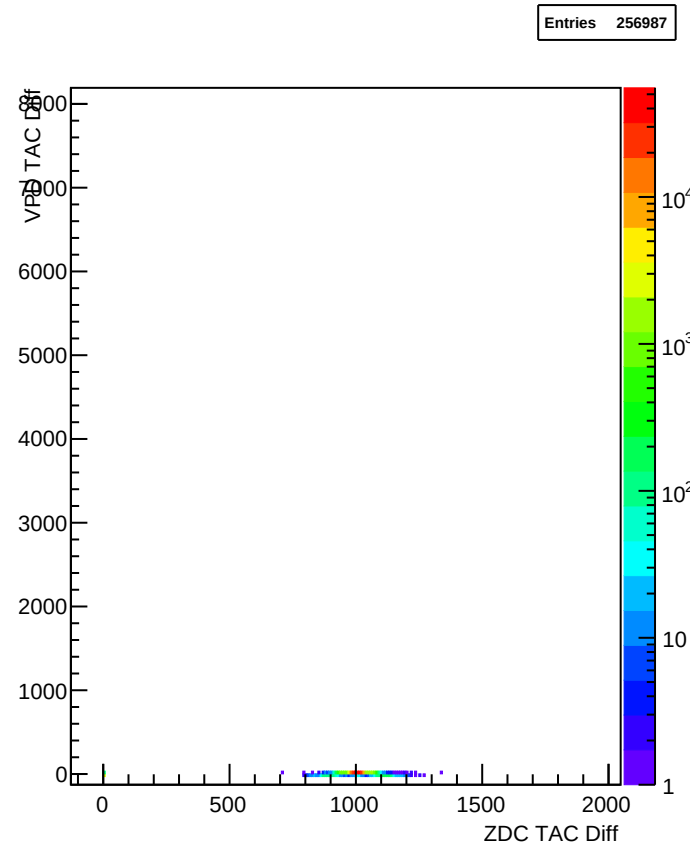
VPD East ADC Sum
VPD West ADC Sum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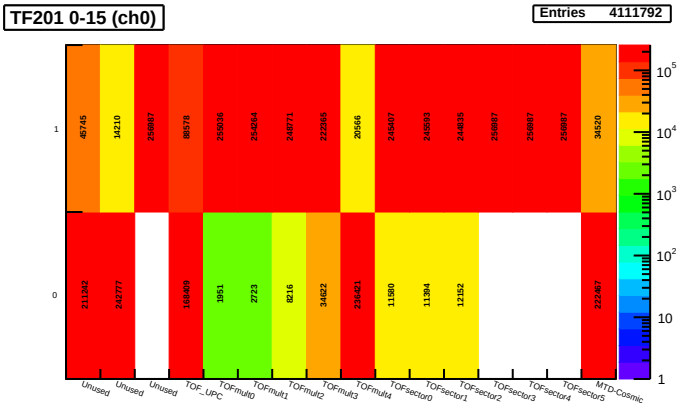
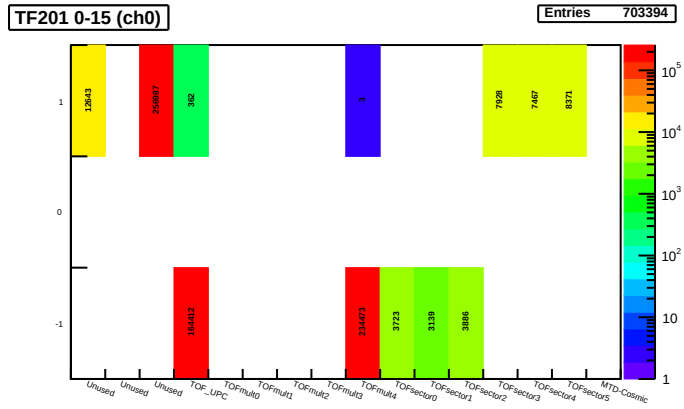
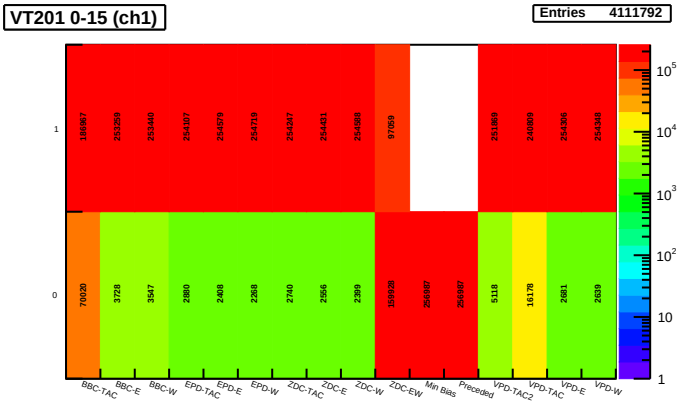
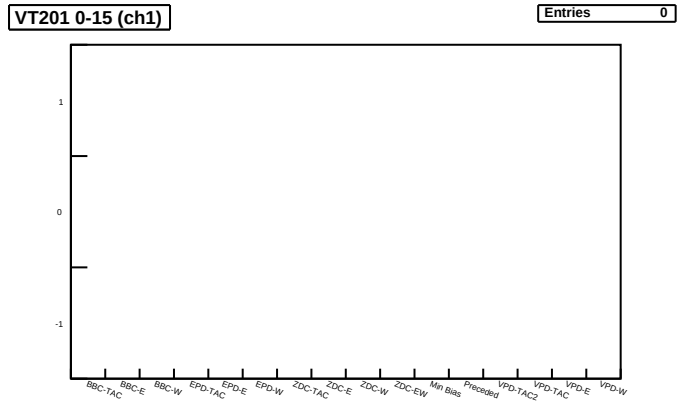
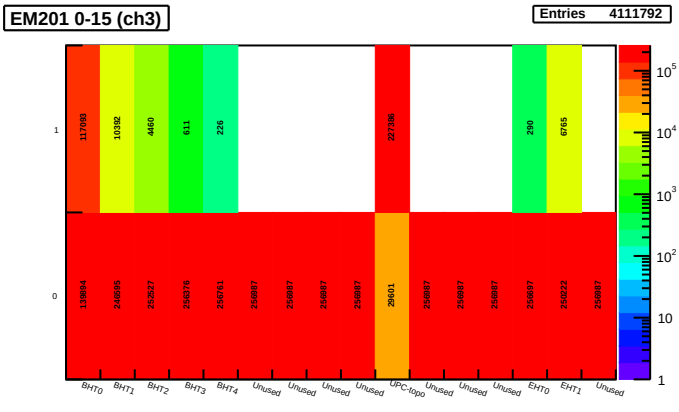
VPD TAC Diff
ZDC TAC Diff

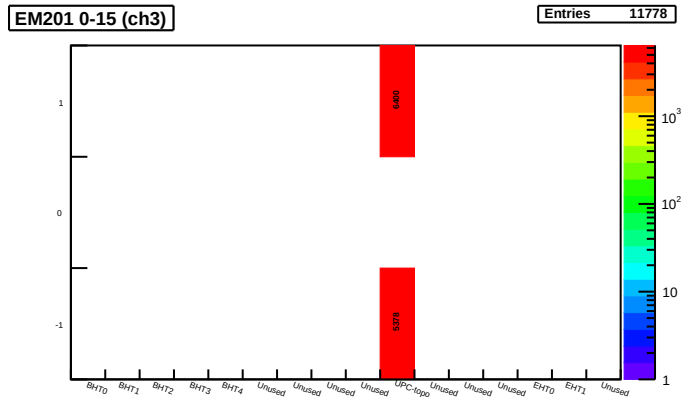

TF201 0-15 (ch0)
Entries 4111792
45745 14210 256987 88578 253036 254264 248771 222365 20566 245407 245593 244835 256987 256987 256987 34520
211242 242777 168409 1951 2723 8216 34622 236421 11980 11394 12152 222467
Unused Unused Unused TOF_UPC TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

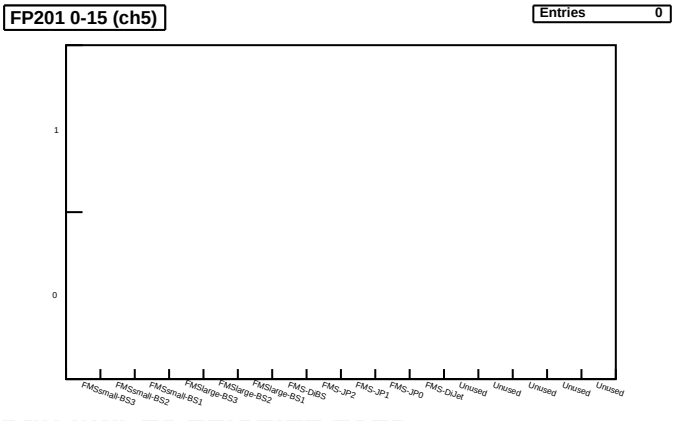

TF201 0-15 (ch0)
Entries 703394
12643 256987 362 3 7928 7467 8371
164412 234473 3723 3139 3886
Unused Unused Unused TOF_UPC TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

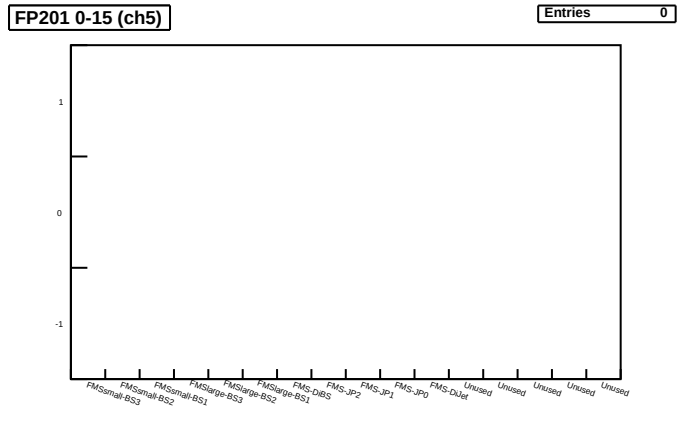

VT201 0-15 (ch1)
Entries 4111792
189987 253259 253440 254107 254579 254719 254287 254451 254588 97059 251869 240809 254305 254348
70020 3728 3547 2880 2408 2268 2740 2956 2399 159928 256987 256987 5118 16178 2681 2639
BBC-TAC BBC-E BBC-W EPD-TAC EPD-E EPD-W ZDC-TAC ZDC-E ZDC-W ZDC-EW Min Bias Preceded 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 4111792
117093 10392 4460 611 226 227386 290 6765
138894 246595 253527 256376 256761 256987 256987 256987 256987 29601 256987 256987 256987 256697 250222 256987
BHT0 BHT1 BHT2 BHT3 BHT4 Unused Unused Unused Unused UPC-topo Unused Unused Unused EHT0 EHT1 Unused


EM201 0-15 (ch3)
Entries 11778
6400
5378
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
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