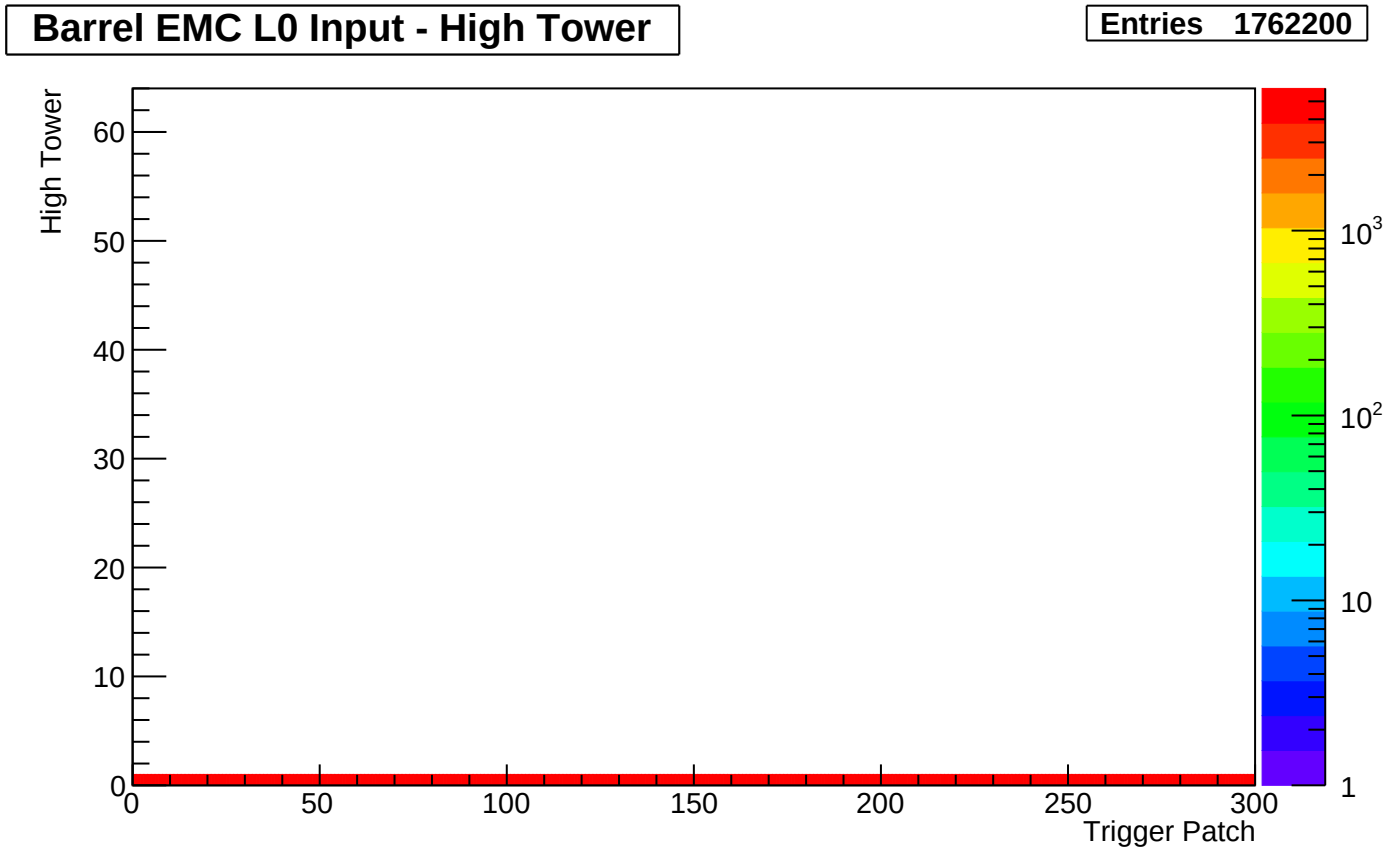
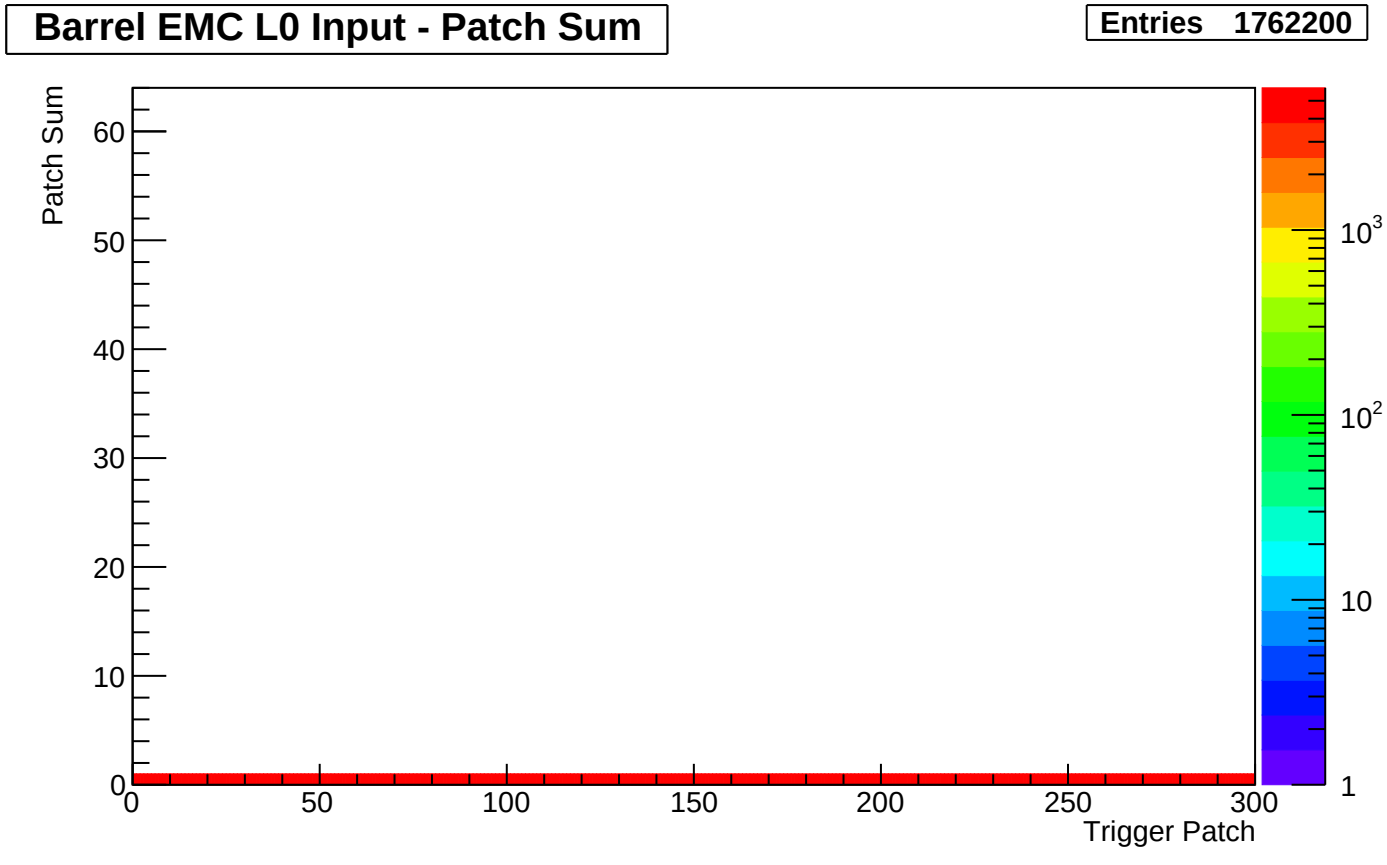
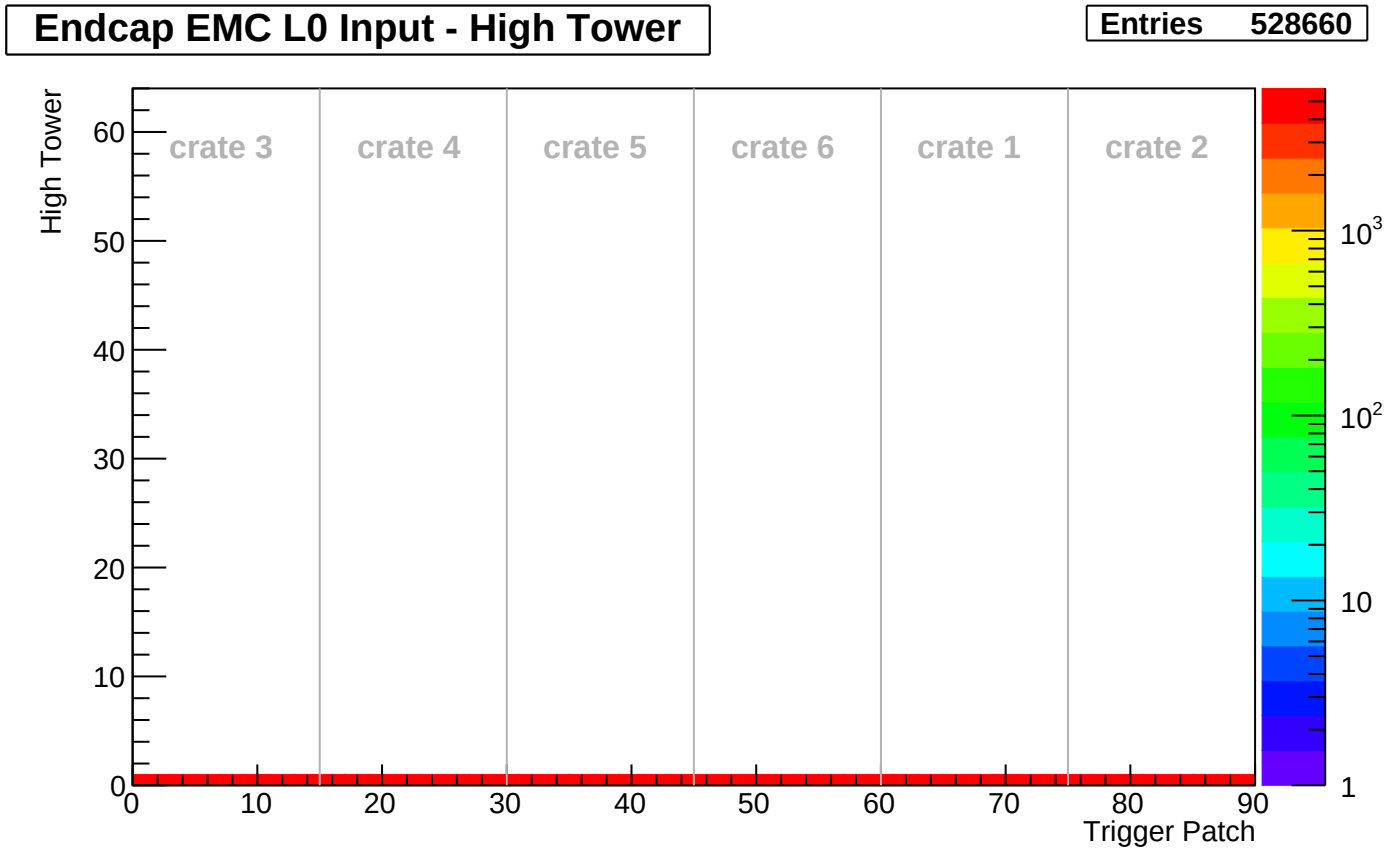
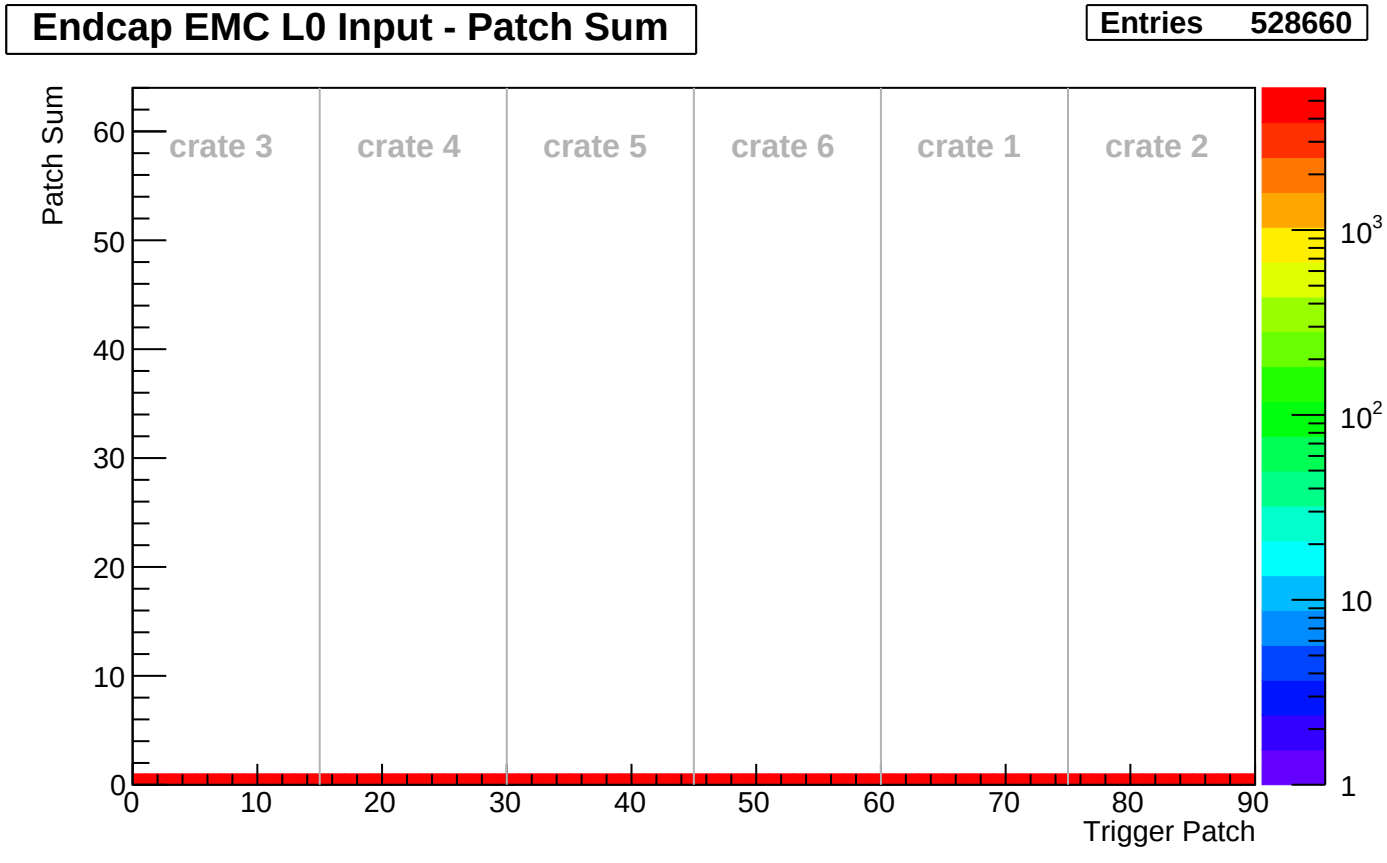
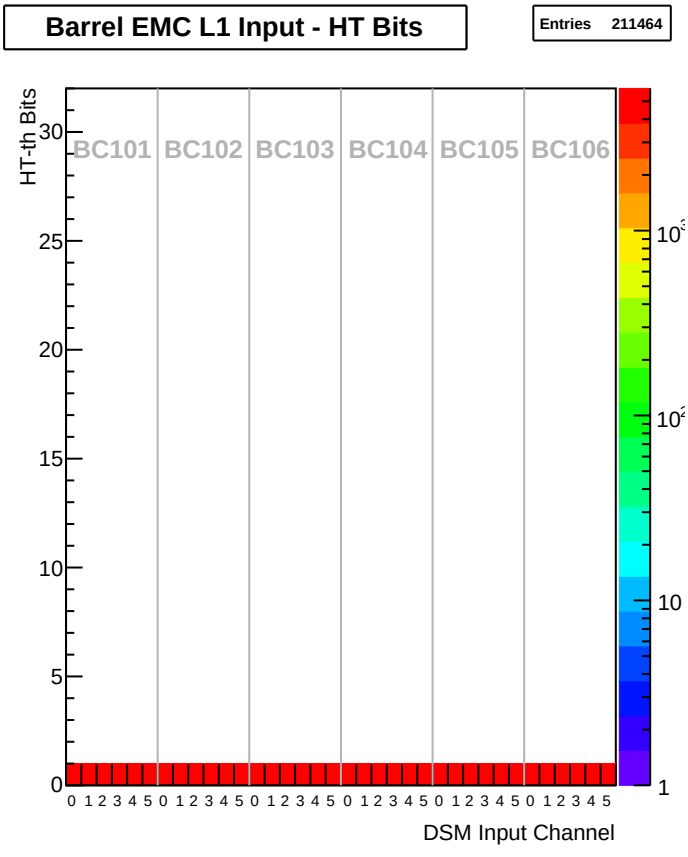
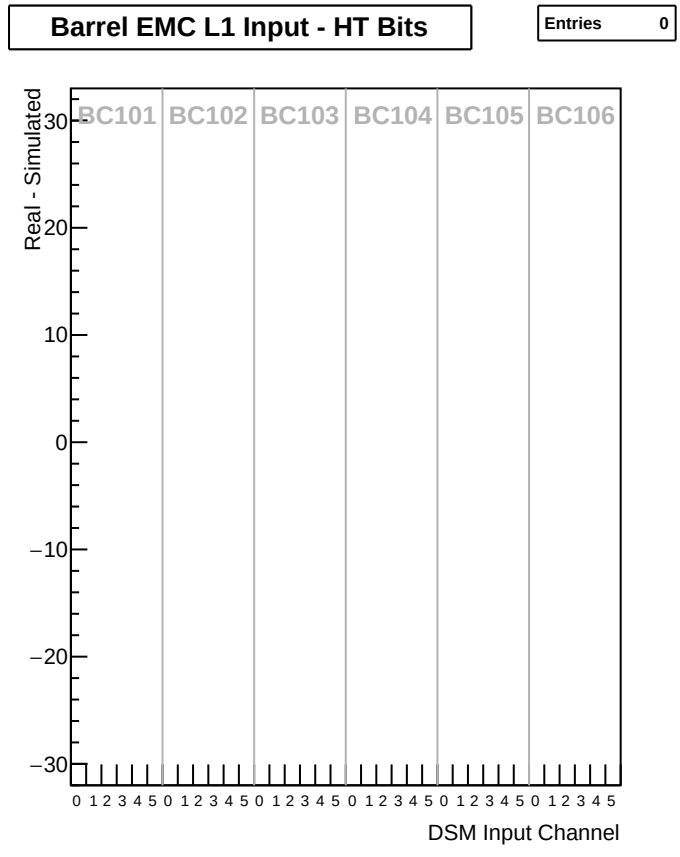

Barrel EMC L0 Input - High Tower
Entries 1762200
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3

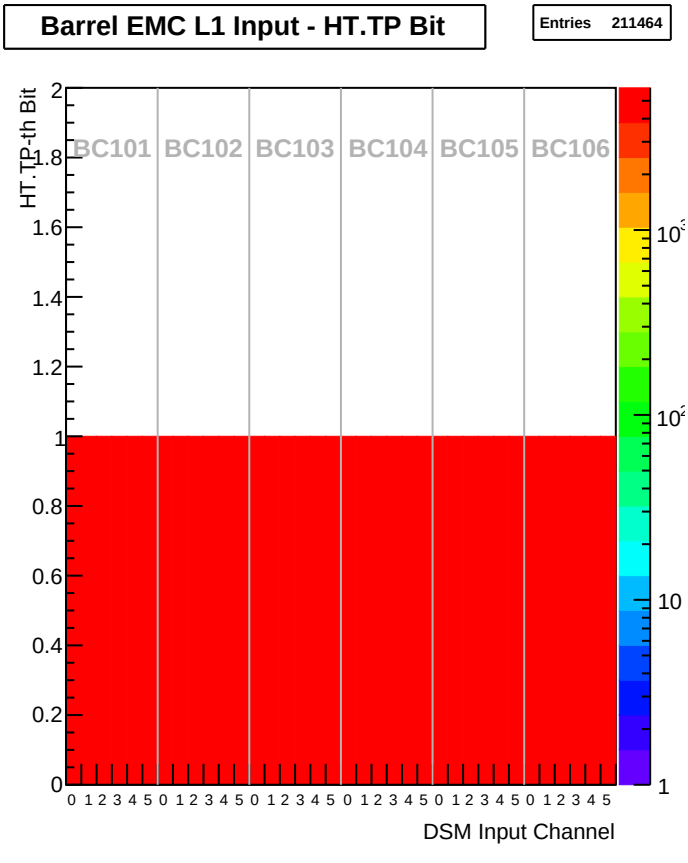

Barrel EMC L0 Input - Patch Sum
Entries 1762200
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3

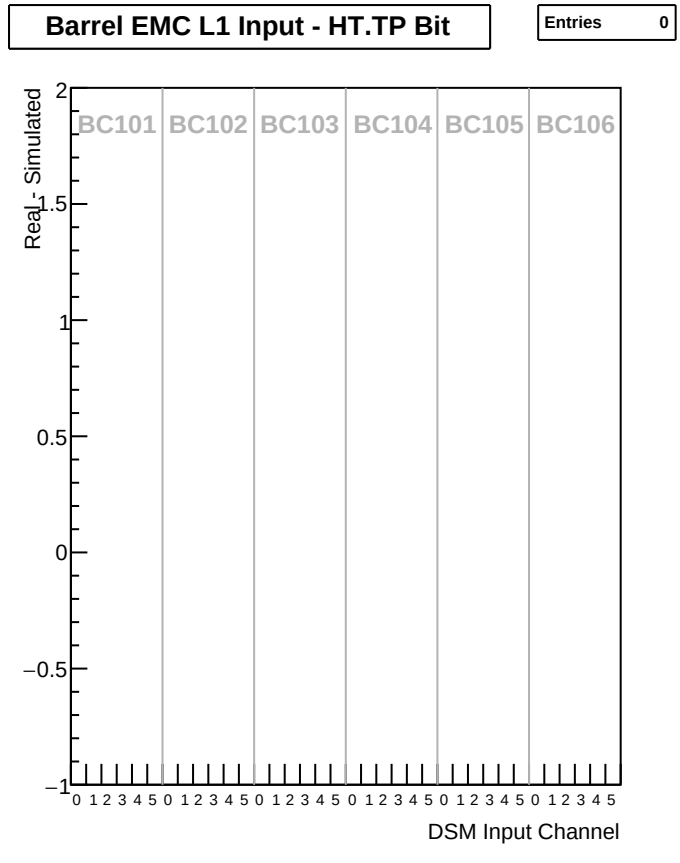

Endcap EMC L0 Input - High Tower
Entries 528660
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
10^2
10^3

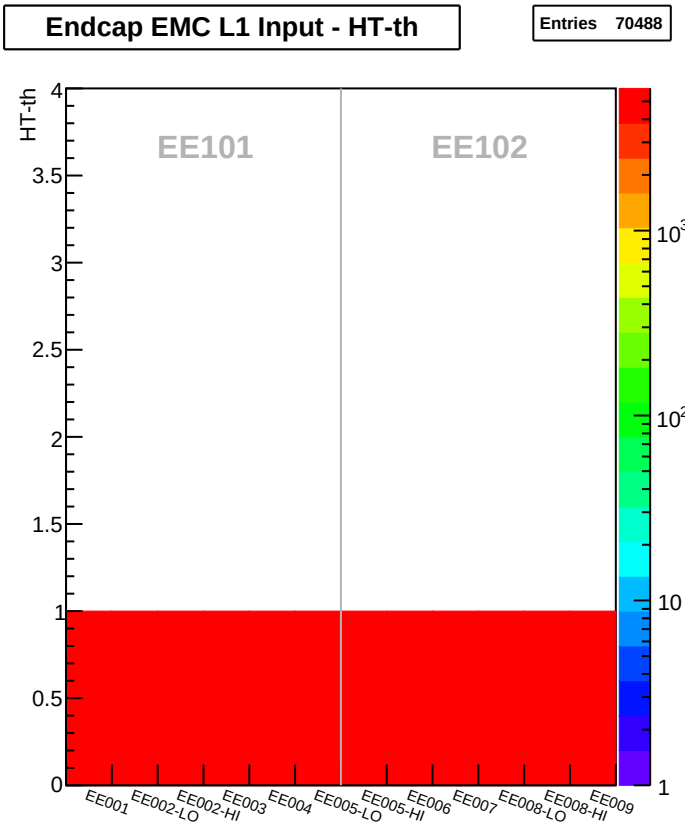

Endcap EMC L0 Input - Patch Sum
Entries 528660
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
10^2
10^3

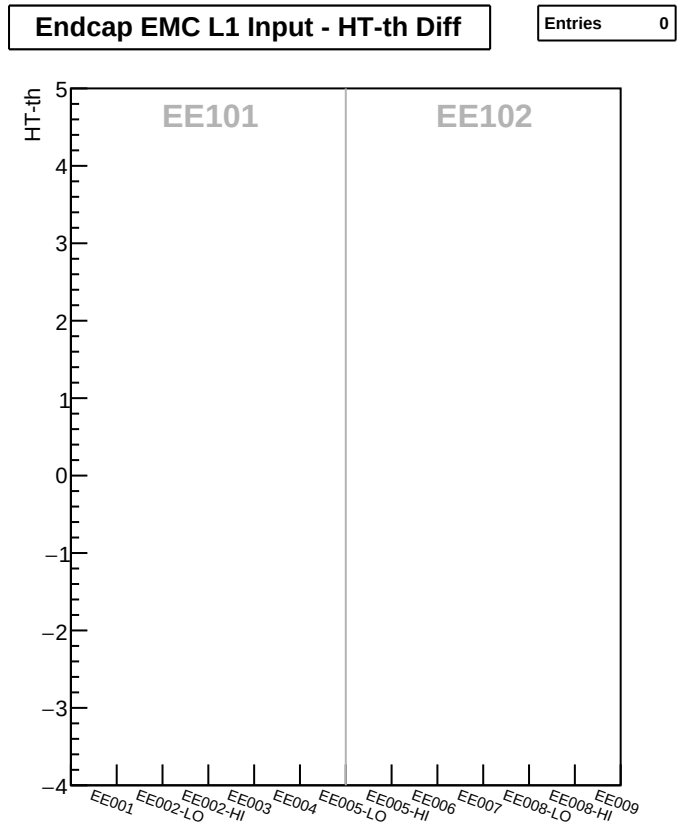

Barrel EMC L1 Input - HT Bits
Entries 211464
HT-th Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

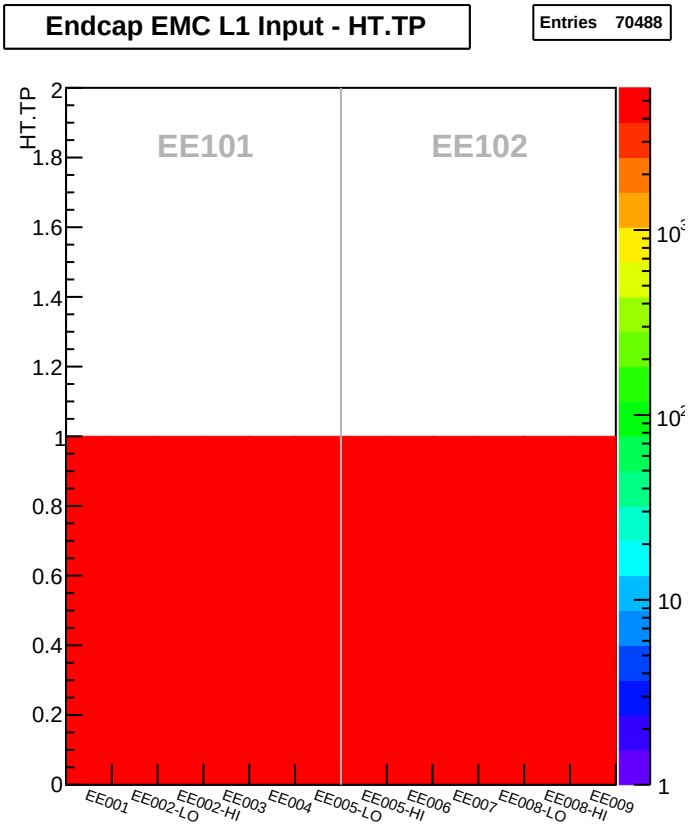

Barrel EMC L1 Input - HT Bits
Entries 0
Real - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

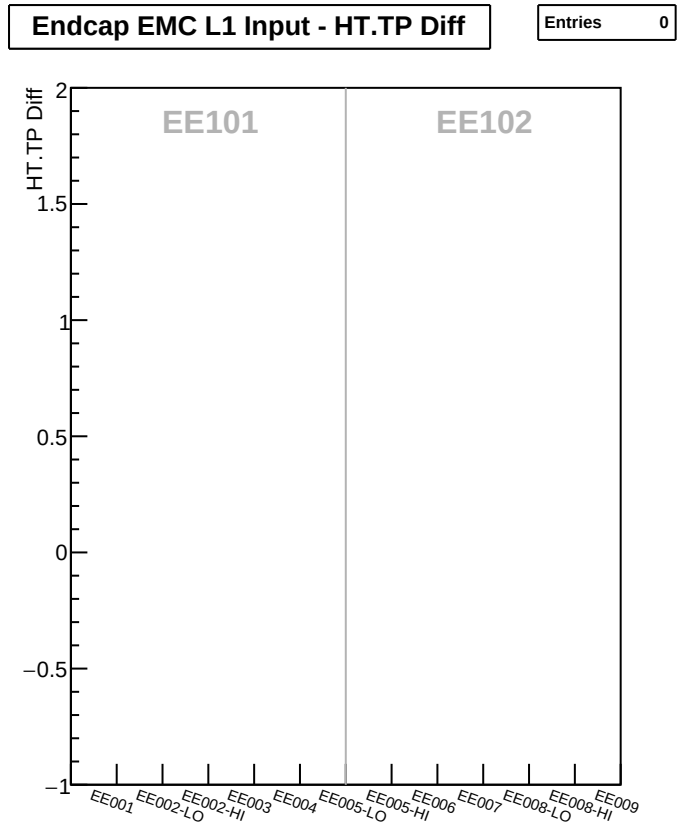

Barrel EMC L1 Input - HT.TP Bit
Entries 211464
HT.TP-th Bit
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

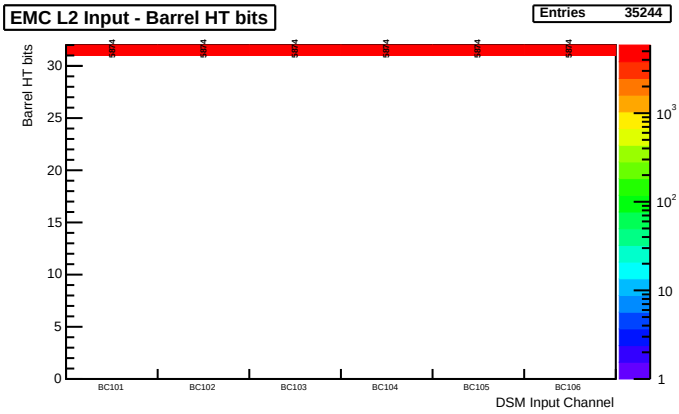

Barrel EMC L1 Input - HT.TP Bit
Entries 0
Real - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

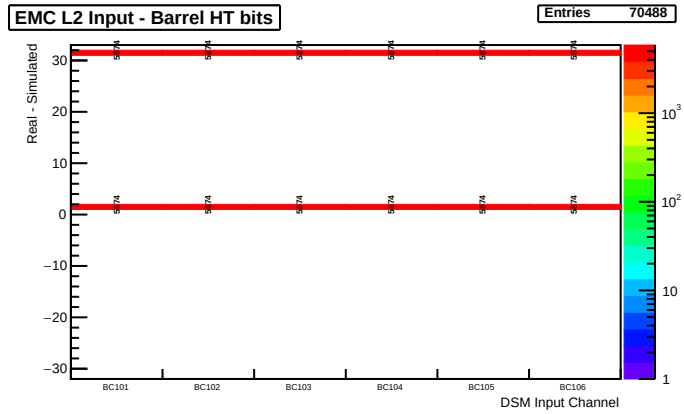

Endcap EMC L1 Input - HT-th
Entries 70488
HT-th
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

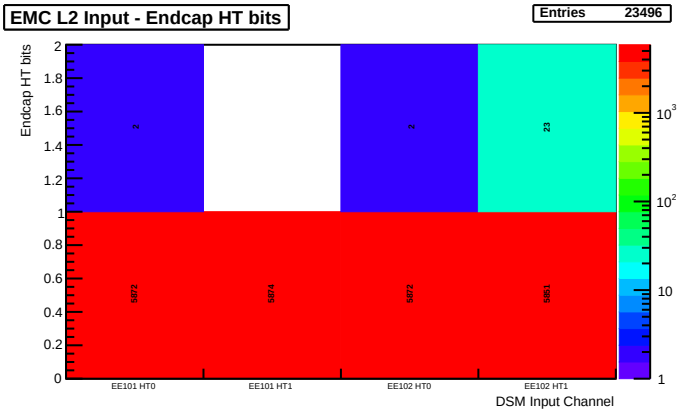

Endcap EMC L1 Input - HT-th Diff
Entries 0
HT-th
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

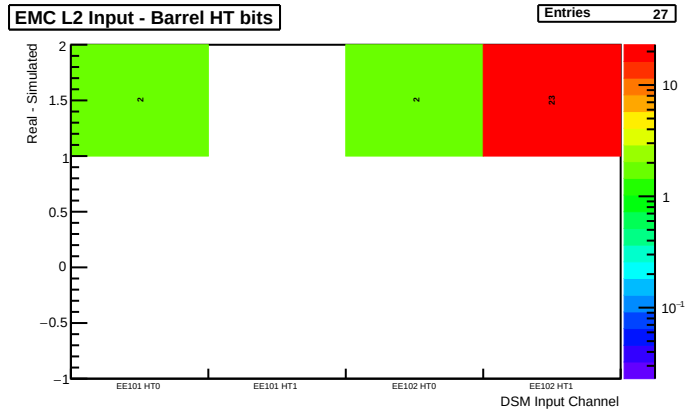

Endcap EMC L1 Input - HT.TP
Entries 70488
HT.TP
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

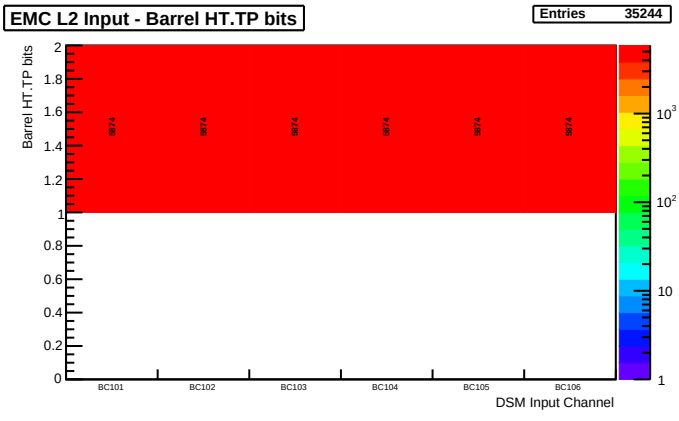

Endcap EMC L1 Input - HT.TP Diff
Entries 0
HT.TP Diff
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

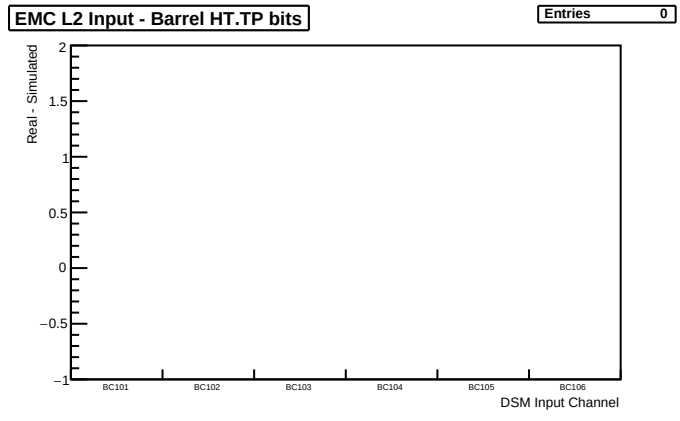

EMC L2 Input - Barrel HT bits
Entries 35244
Barrel HT bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

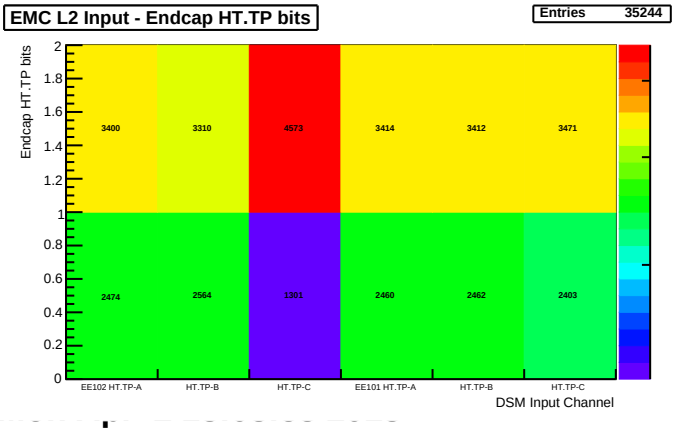

EMC L2 Input - Barrel HT bits
Entries 70488
Real - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

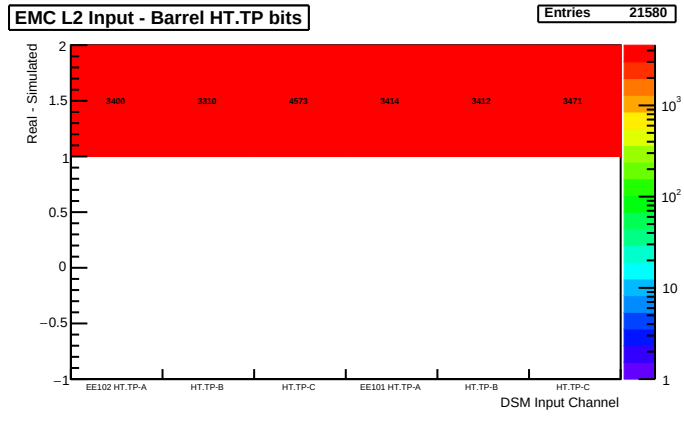

EMC L2 Input - Endcap HT bits
Entries 23496
Endcap HT bits
DSM Input Channel
EE101 HT0
EE101 HT1
EE102 HT0
EE102 HT1

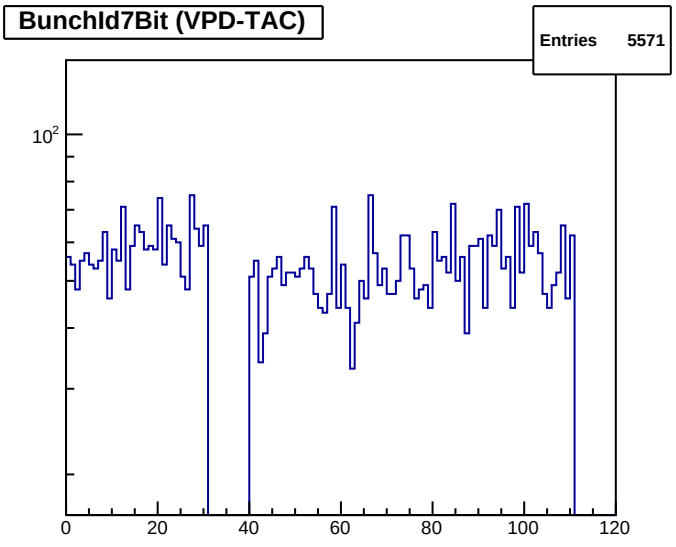

EMC L2 Input - Barrel HT bits
Entries 27
Real - Simulated
DSM Input Channel
EE101 HT0
EE101 HT1
EE102 HT0
EE102 HT1

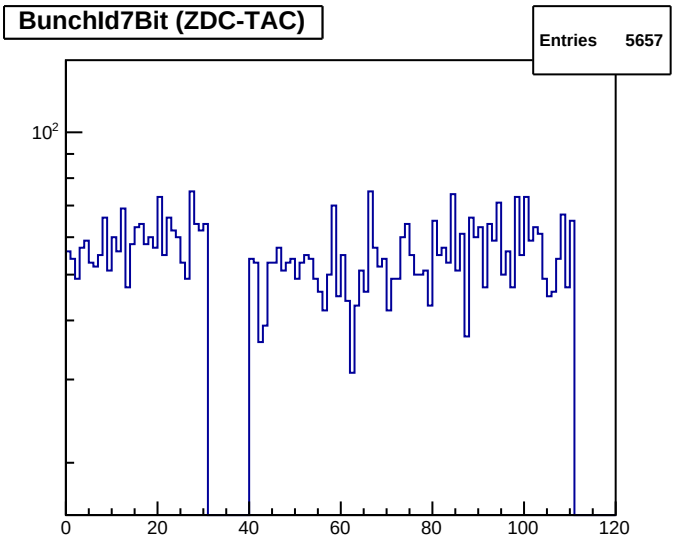

EMC L2 Input - Barrel HT.TP bits
Entries 35244
Barrel HT.TP bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

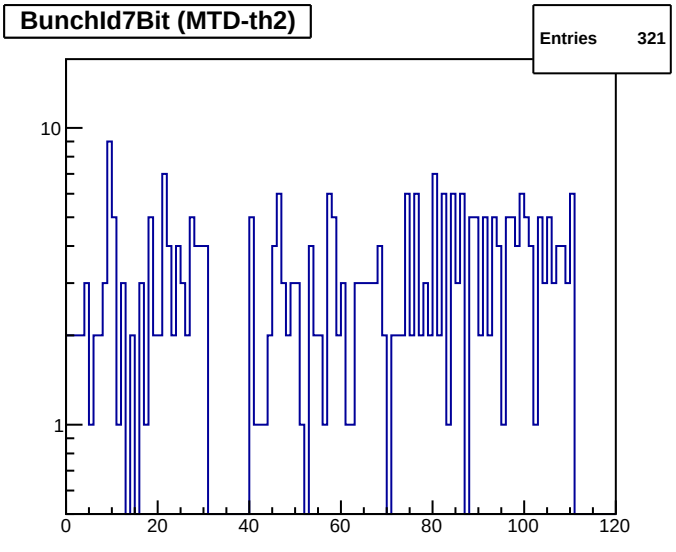

EMC L2 Input - Barrel HT.TP bits
Entries 0
Real - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

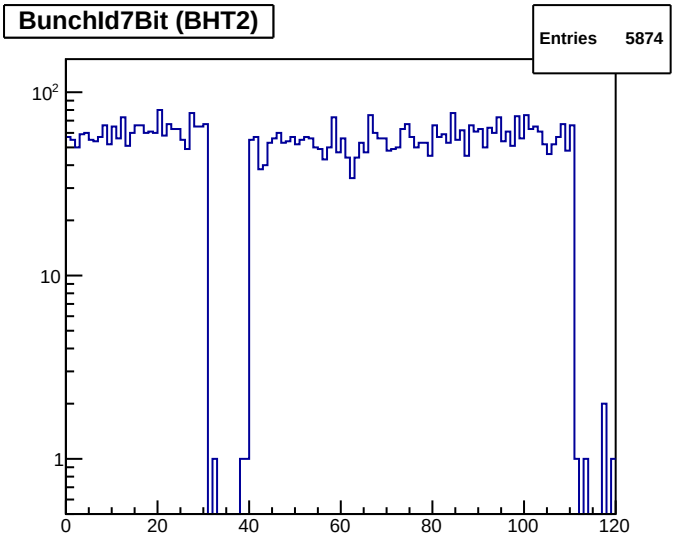

EMC L2 Input - Endcap HT.TP bits
Entries 35244
Endcap HT.TP bits
DSM Input Channel
EE102 HT.TP-A
HT.TP-B
HT.TP-C
EE101 HT.TP-A
HT.TP-B
HT.TP-C

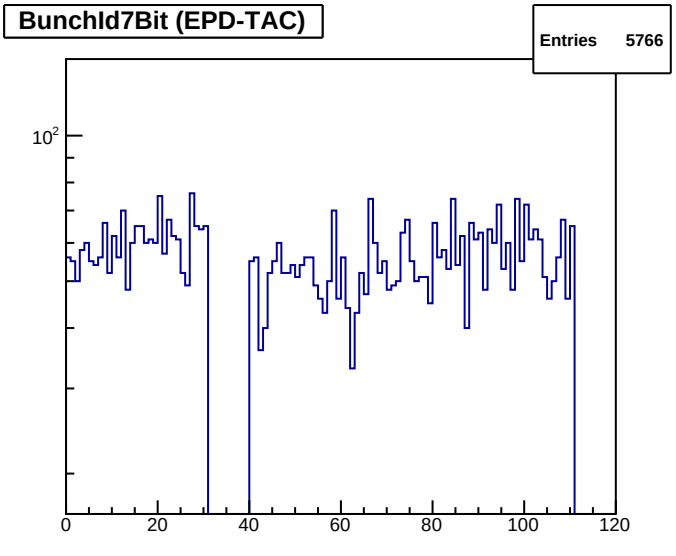

EMC L2 Input - Barrel HT.TP bits
Entries 21580
Real - Simulated
DSM Input Channel
EE102 HT.TP-A
HT.TP-B
HT.TP-C
EE101 HT.TP-A
HT.TP-B
HT.TP-C

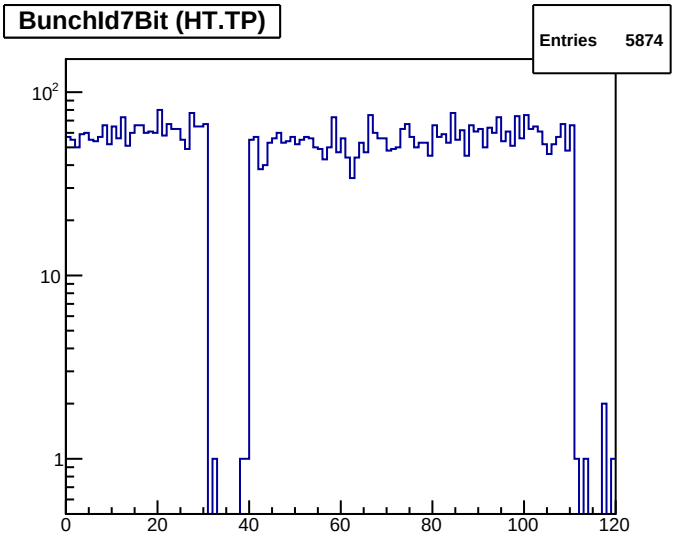

BunchId7Bit (VPD-TAC)
Entries 5571
10^2
0 20 40 60 80 100 120

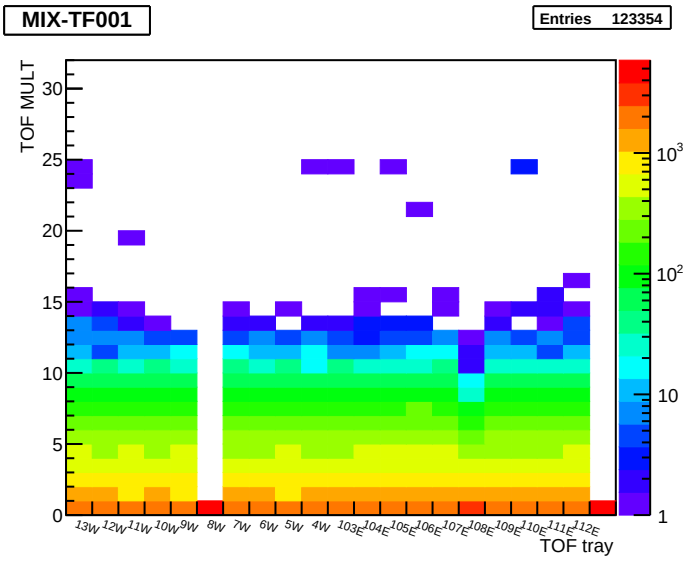

BunchId7Bit (ZDC-TAC)
Entries 5657
10^2
0 20 40 60 80 100 120

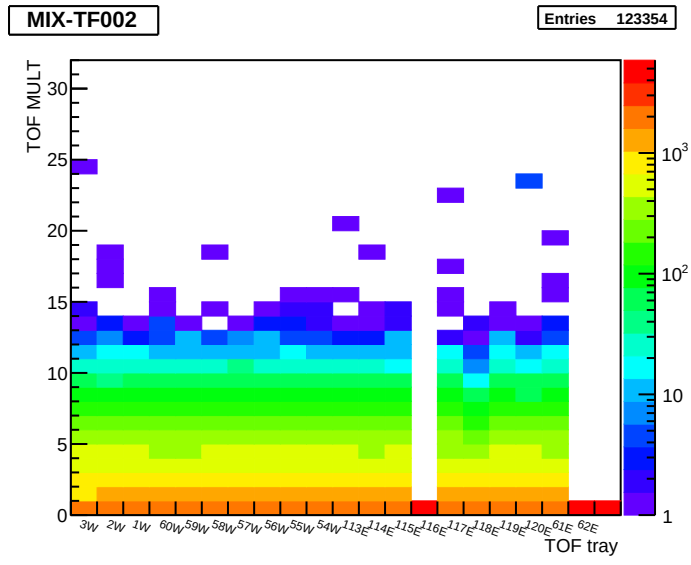

BunchId7Bit (MTD-th2)
Entries 321
10
1
0 20 40 60 80 100 120

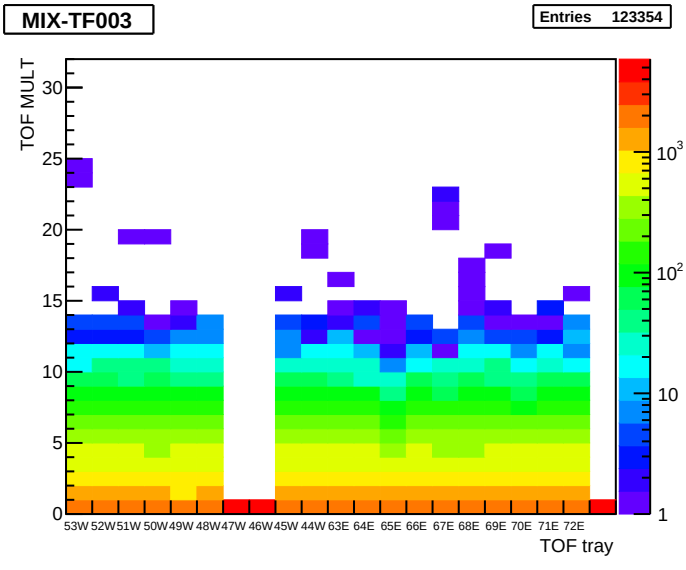

BunchId7Bit (BHT2)
Entries 5874
10^2
10
1
0 20 40 60 80 100 120

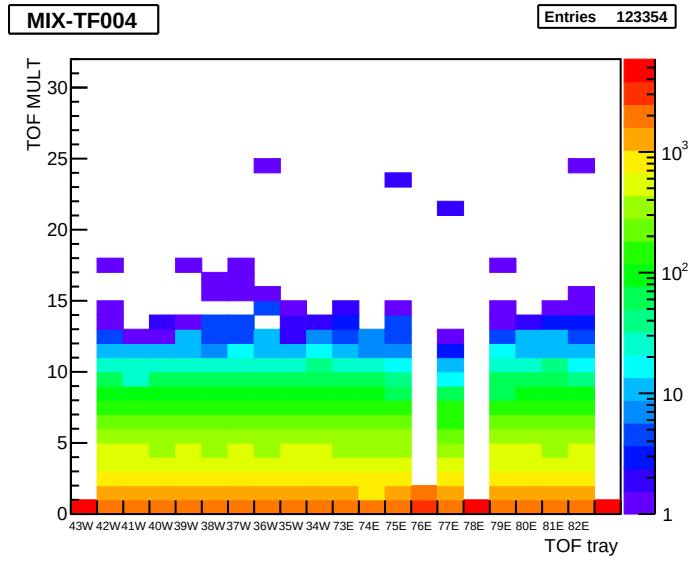

BunchId7Bit (EPD-TAC)
Entries 5766
10^2
0 20 40 60 80 100 120

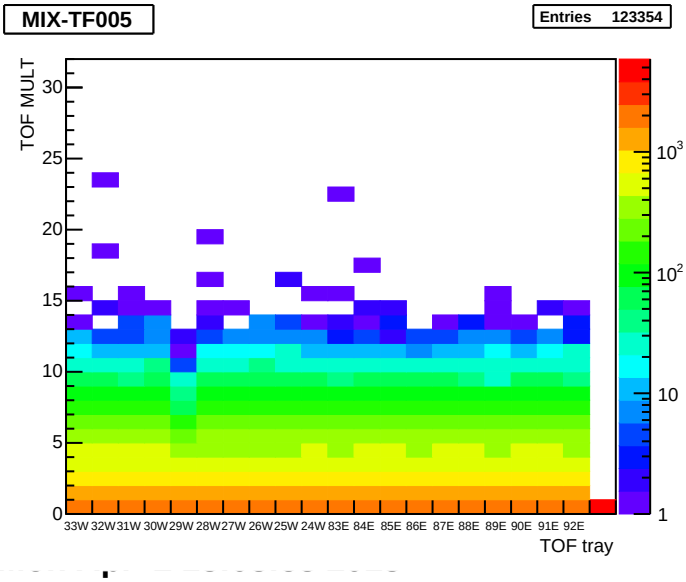

BunchId7Bit (HT.TP)
Entries 5874
10^2
10
1
0 20 40 60 80 100 120

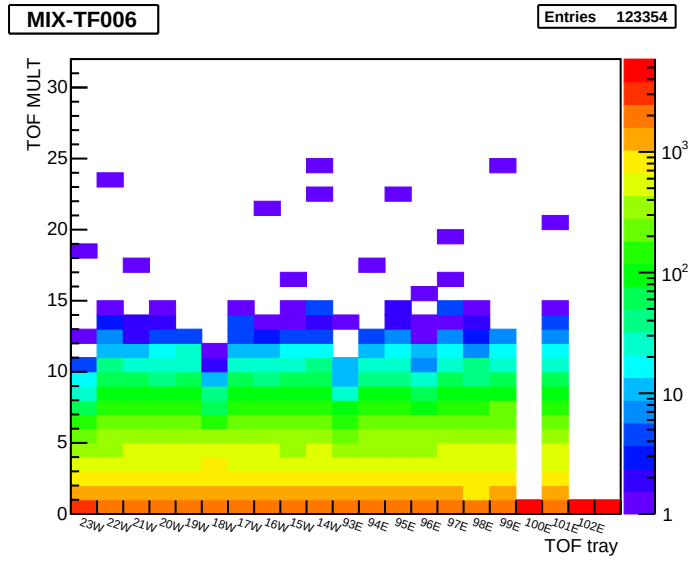

MIX-TF001
Entries 123354
TOF MULT
TOF tray

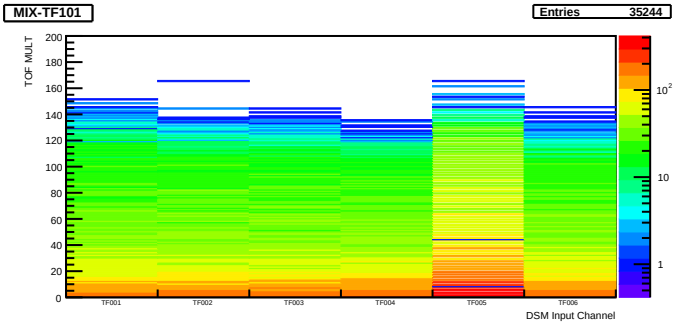

MIX-TF002
Entries 123354
TOF MULT
TOF tray

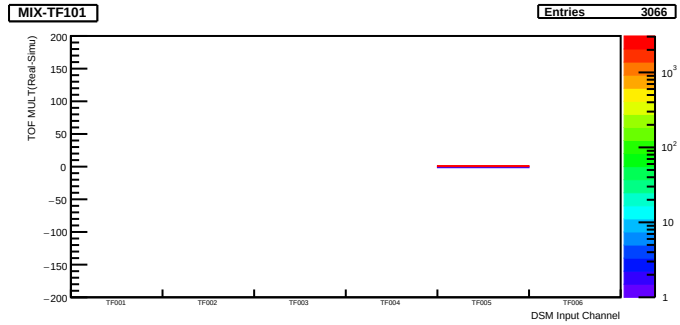

MIX-TF003
Entries 123354
TOF MULT
TOF tray

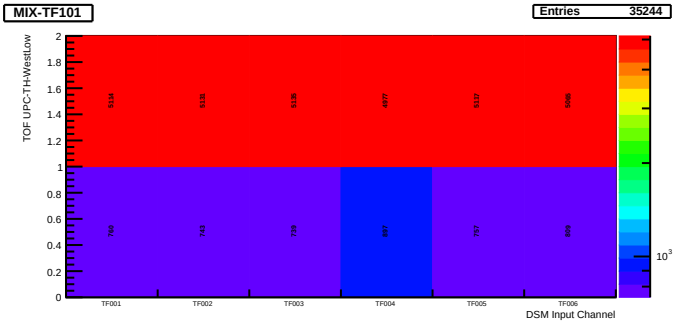

MIX-TF004
Entries 123354
TOF MULT
TOF tray

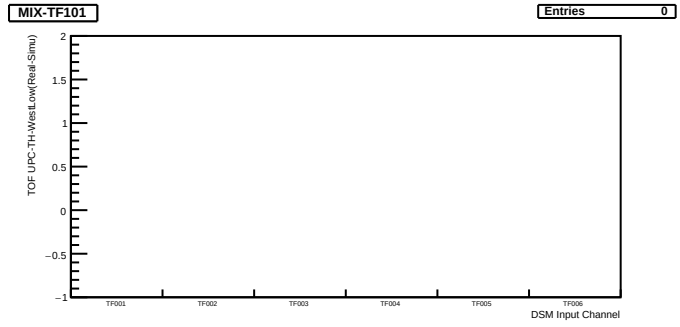

MIX-TF005
Entries 123354
TOF MULT
TOF tray

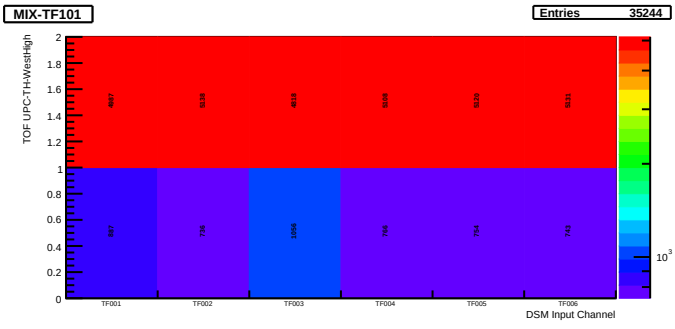

MIX-TF006
Entries 123354
TOF MULT
TOF tray

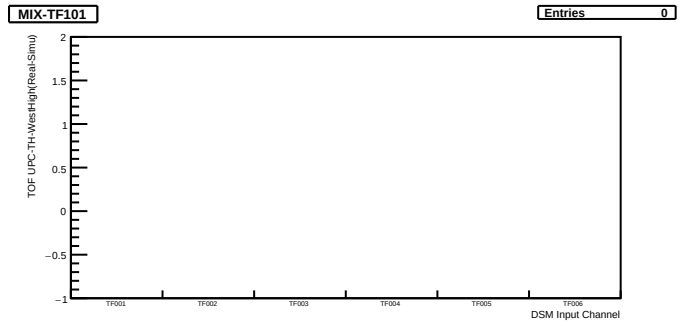

MIX-TF101
Entries 35244
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

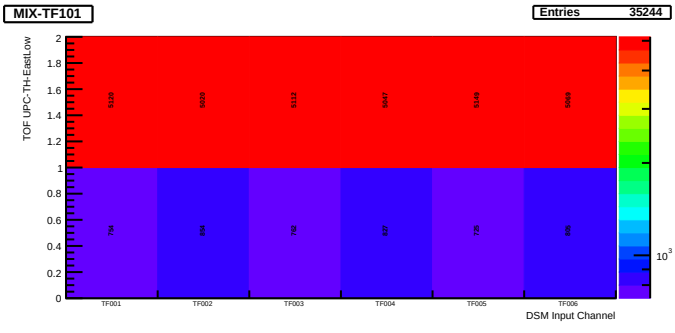

MIX-TF101
Entries 3066
TOF MULT(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

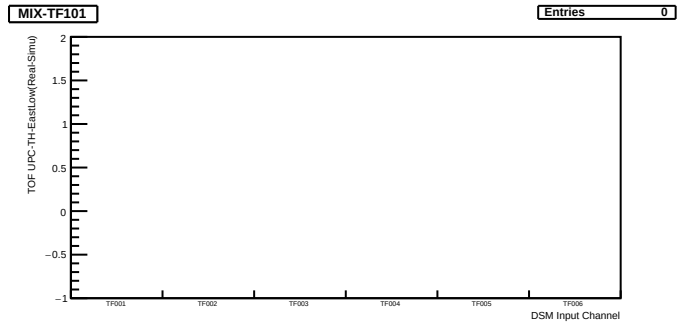

MIX-TF101
Entries 35244
TOF UPC-TH-WestLow
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

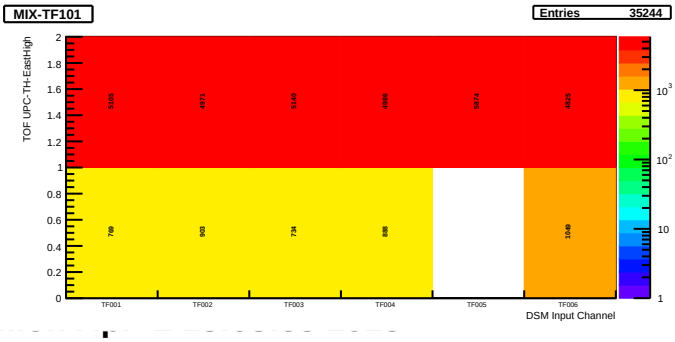

MIX-TF101
Entries 0
TOF UPC-TH-WestLow(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

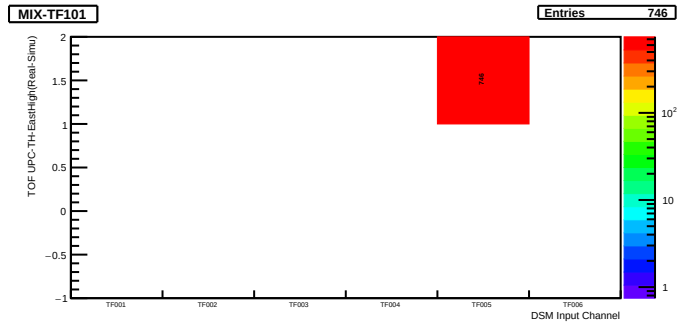

MIX-TF101
Entries 35244
TOF UPC-TH-WestHigh
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

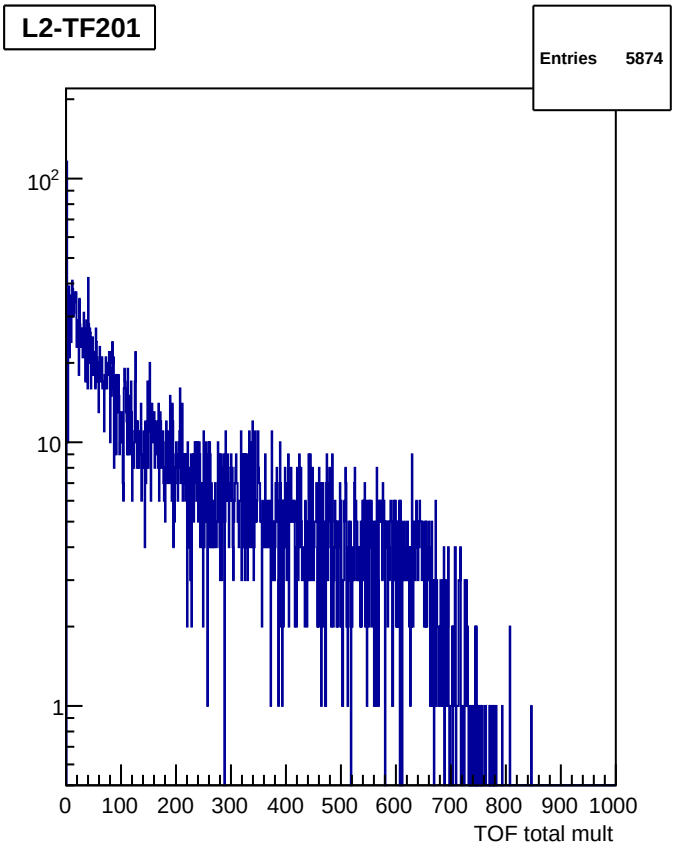

MIX-TF101
Entries 0
TOF UPC-TH-WestHigh(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

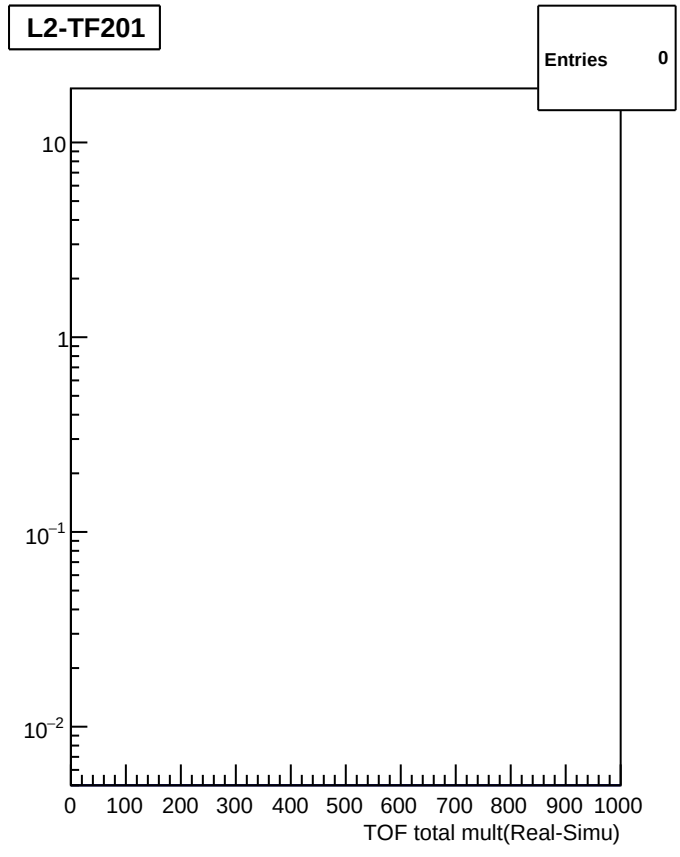

MIX-TF101
Entries 35244
TOF UPC-TH-EastLow
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

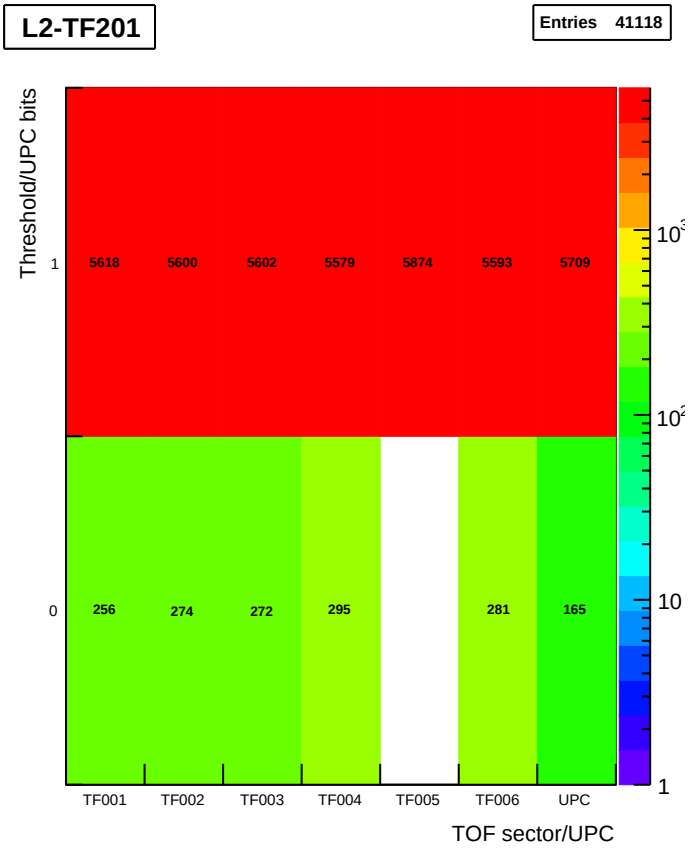

MIX-TF101
Entries 0
TOF UPC-TH-EastLow(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

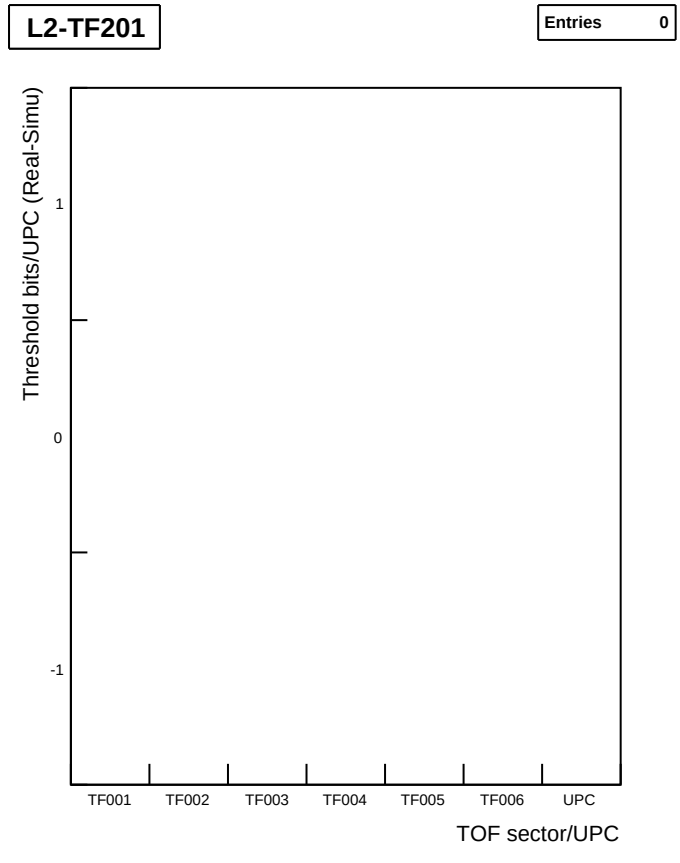

MIX-TF101
Entries 35244
TOF UPC-TH-EastHigh
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

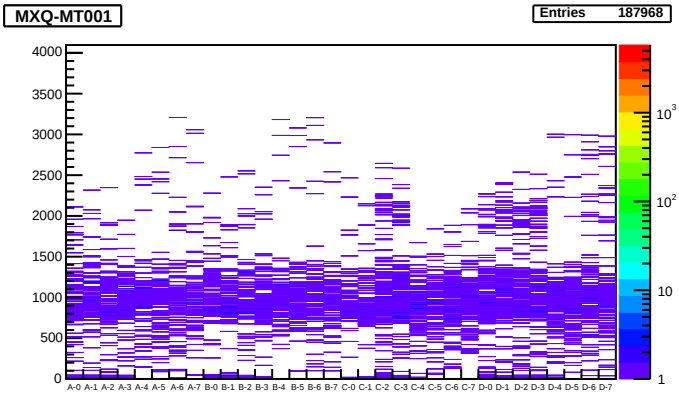

MIX-TF101
Entries 746
TOF UPC-TH-EastHigh(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

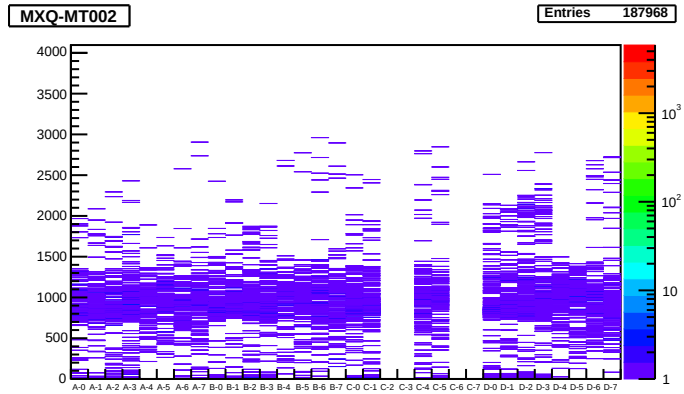

L2-TF201
Entries 5874
TOF total mult

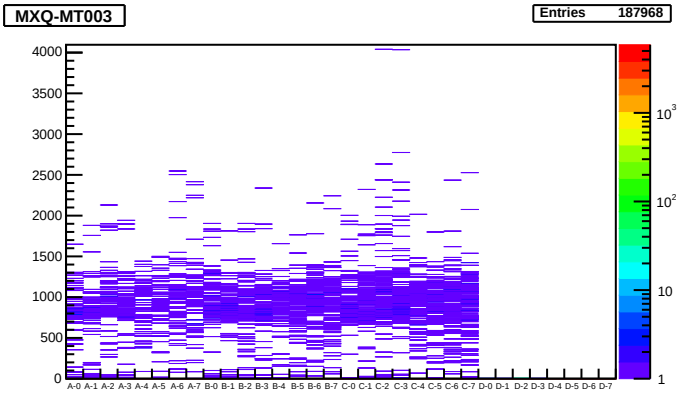

L2-TF201
Entries 0
TOF total mult(Real-Simu)

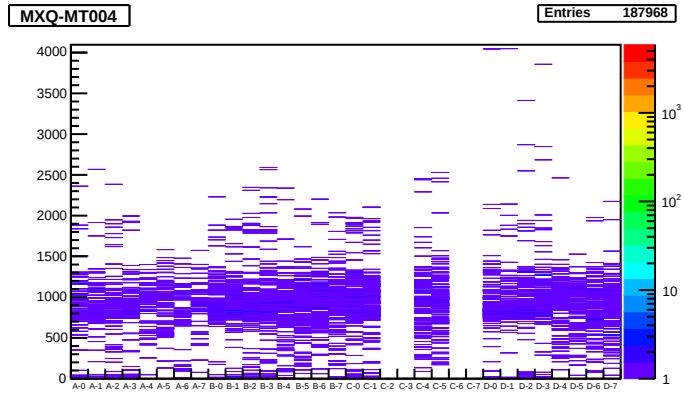

L2-TF201
Entries 41118
Threshold/UPC bits
5618
5600
5602
5579
5874
5593
5709
256
274
272
295
281
165
TF001
TF002
TF003
TF004
TF005
TF006
UPC
TOF sector/UPC

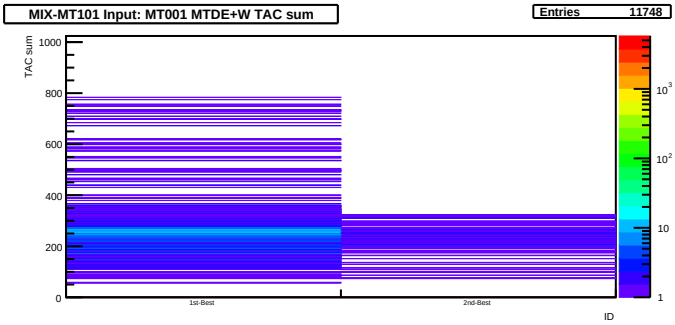

L2-TF201
Entries 0
Threshold bits/UPC (Real-Simu)
TF001
TF002
TF003
TF004
TF005
TF006
UPC
TOF sector/UPC

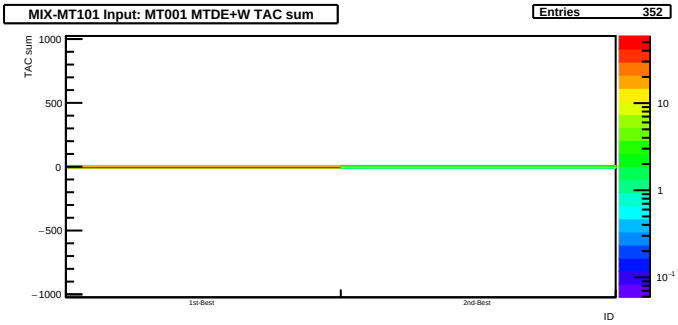

MXQ-MT001
Entries 187968
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^3
10^2
10
1

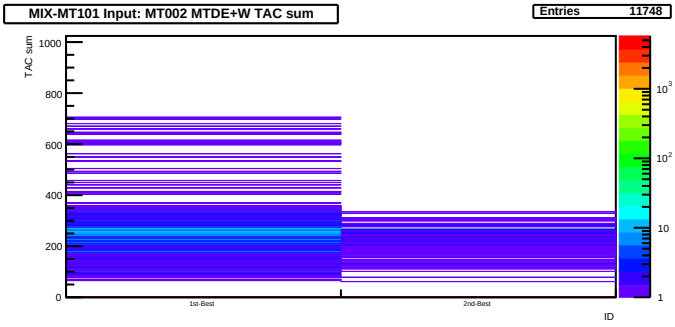

MXQ-MT002
Entries 187968
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^3
10^2
10
1

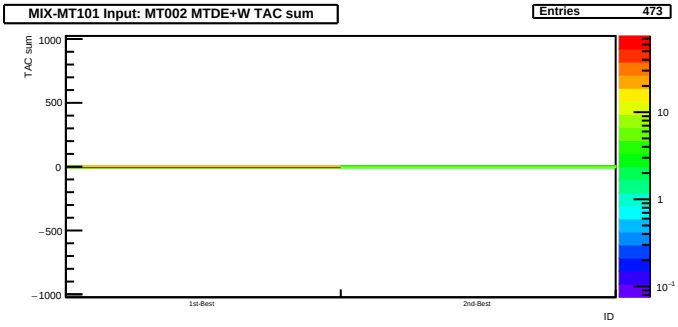

MXQ-MT003
Entries 187968
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^3
10^2
10
1

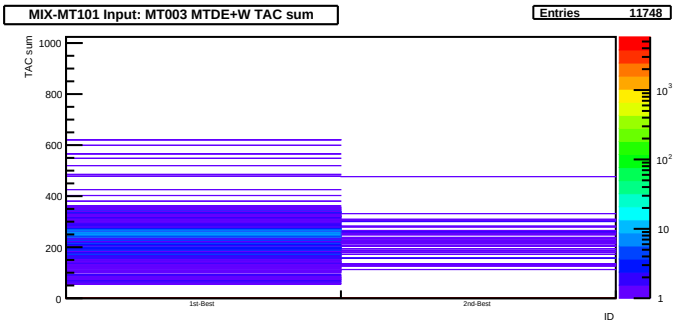

MXQ-MT004
Entries 187968
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^3
10^2
10
1

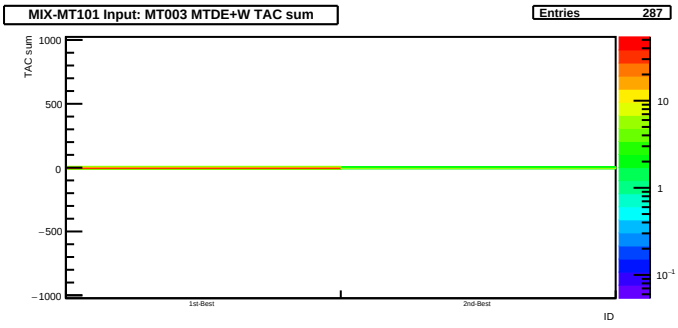

MIX-MT101 Input: MT001 MTDE+W TAC sum
Entries 11748
TAC sum
1st-Best
2nd-Best
ID

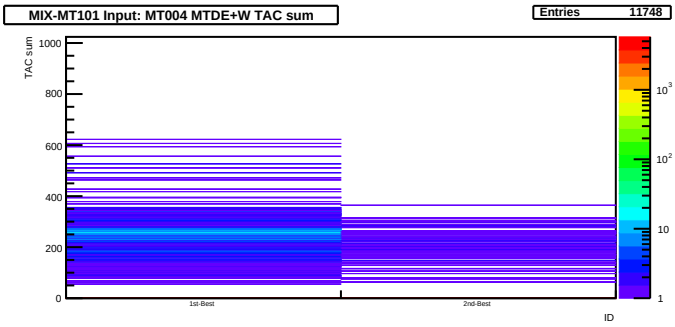

MIX-MT101 Input: MT001 MTDE+W TAC sum
Entries 352
TAC sum
1st-Best
2nd-Best
ID

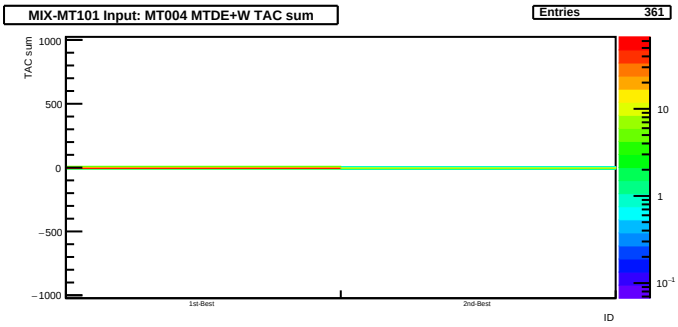

MIX-MT101 Input: MT002 MTDE+W TAC sum
Entries 11748
TAC sum
1st-Best
2nd-Best
ID

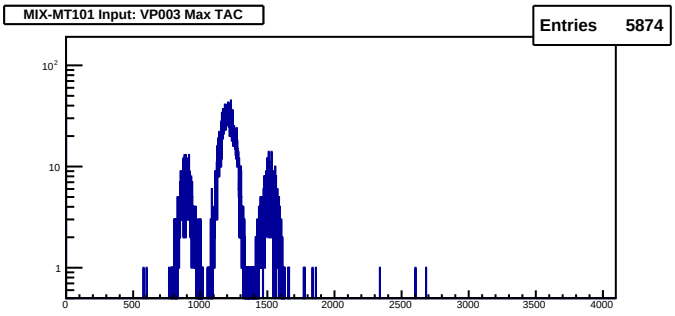

MIX-MT101 Input: MT002 MTDE+W TAC sum
Entries 473
TAC sum
1st-Best
2nd-Best
ID

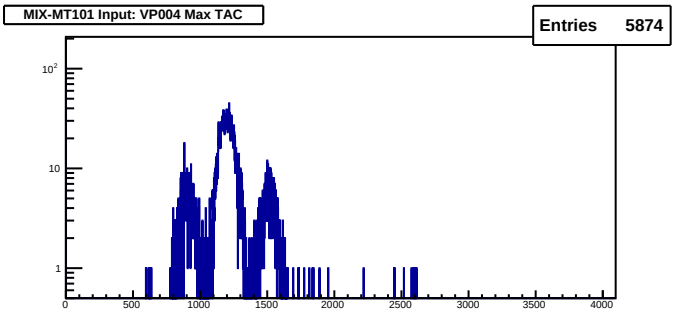

MIX-MT101 Input: MT003 MTDE+W TAC sum
Entries 11748
TAC sum
1st-Best
2nd-Best
ID

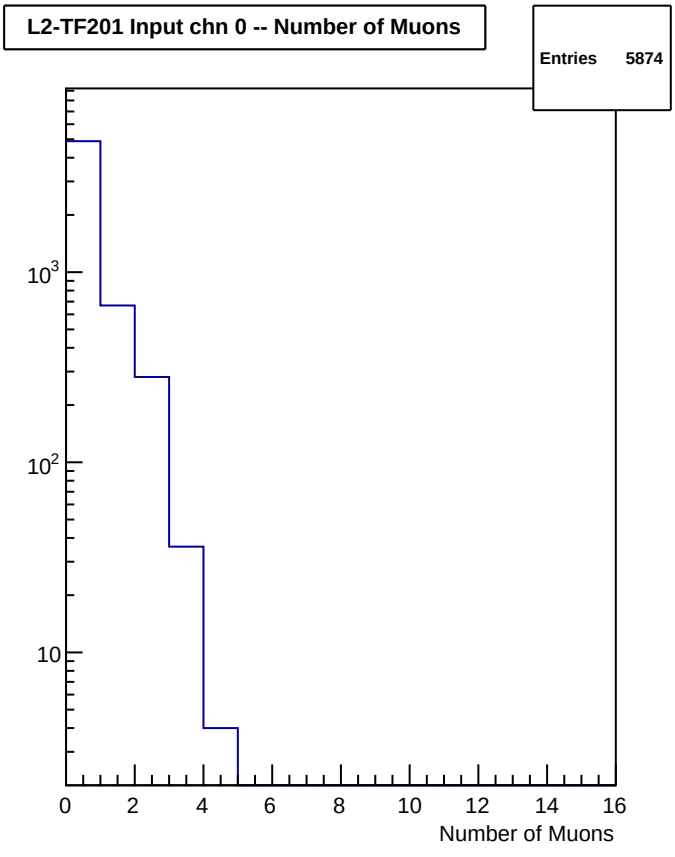

MIX-MT101 Input: MT003 MTDE+W TAC sum
Entries 287
TAC sum
1st-Best
2nd-Best
ID

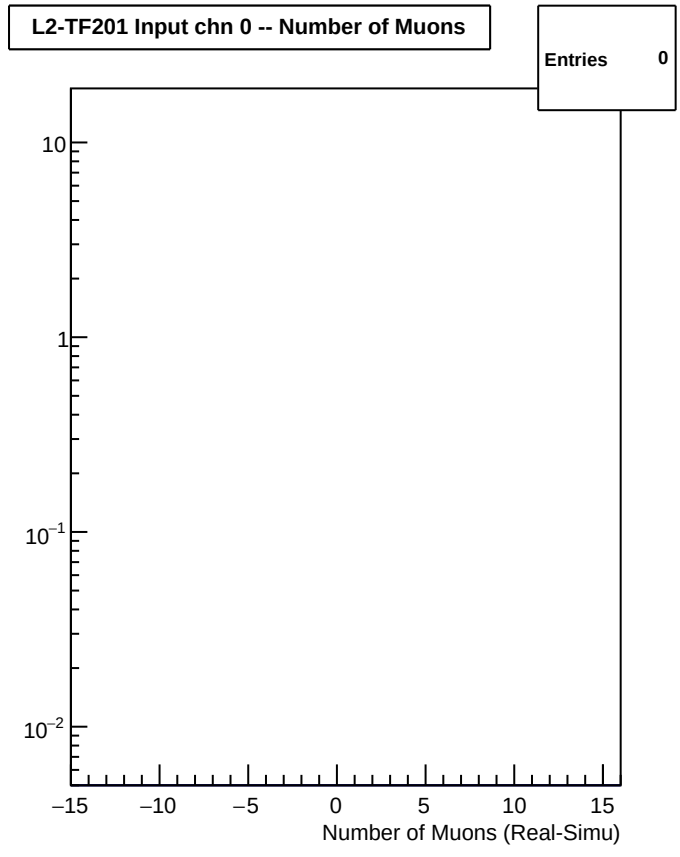

MIX-MT101 Input: MT004 MTDE+W TAC sum
Entries 11748
TAC sum
1st-Best
2nd-Best
ID

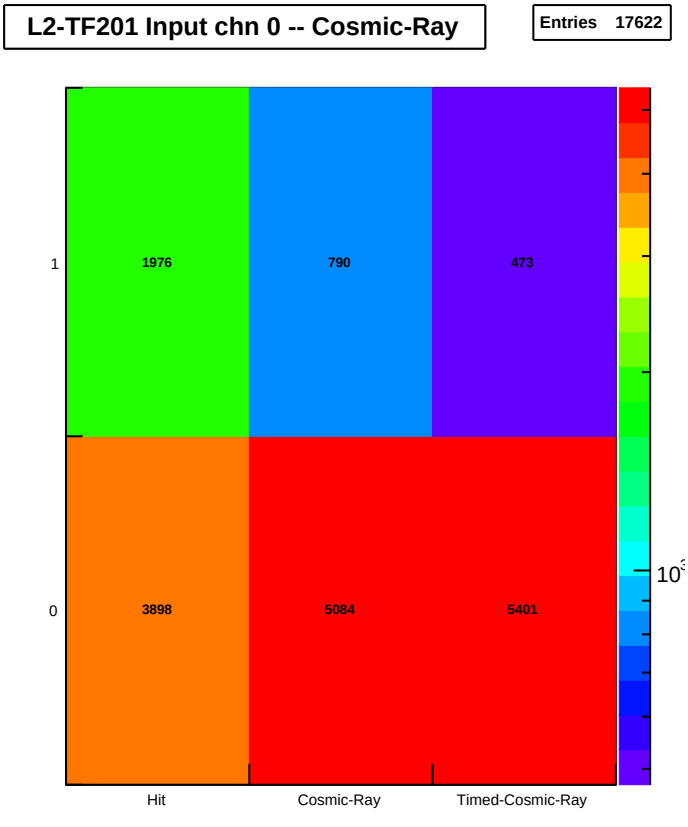

MIX-MT101 Input: MT004 MTDE+W TAC sum
Entries 361
TAC sum
1st-Best
2nd-Best
ID

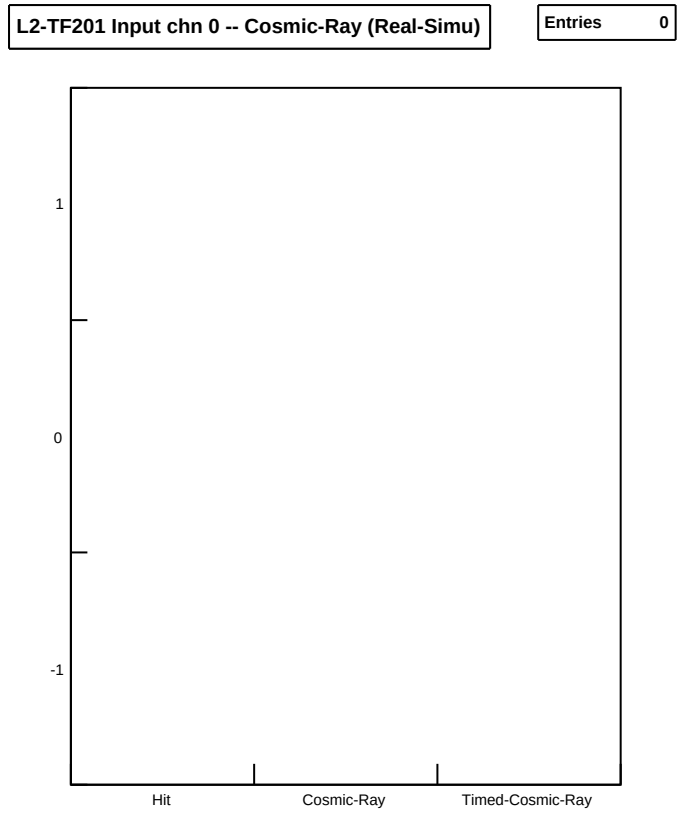

MIX-MT101 Input: VP003 Max TAC
Entries 5874

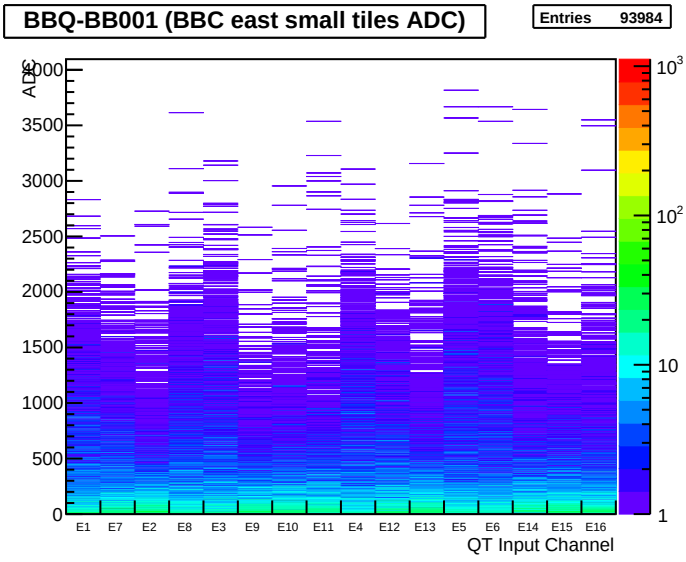

MIX-MT101 Input: VP004 Max TAC
Entries 5874

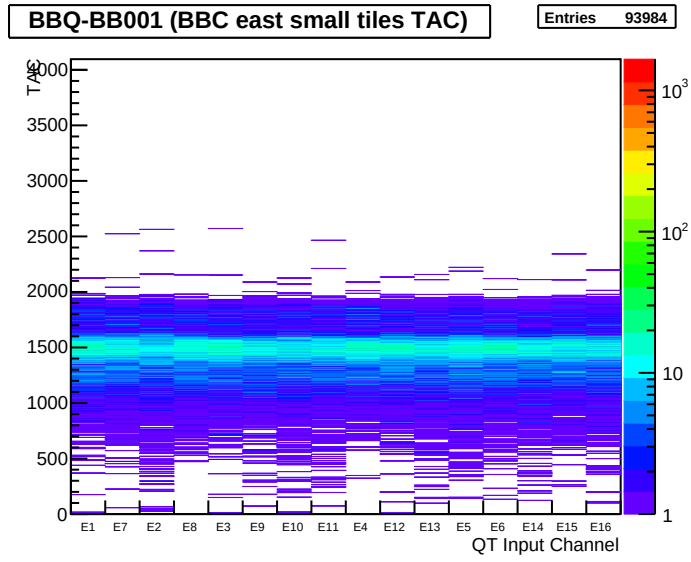

L2-TF201 Input chn 0 -- Number of Muons
Entries 5874
Number of Muons

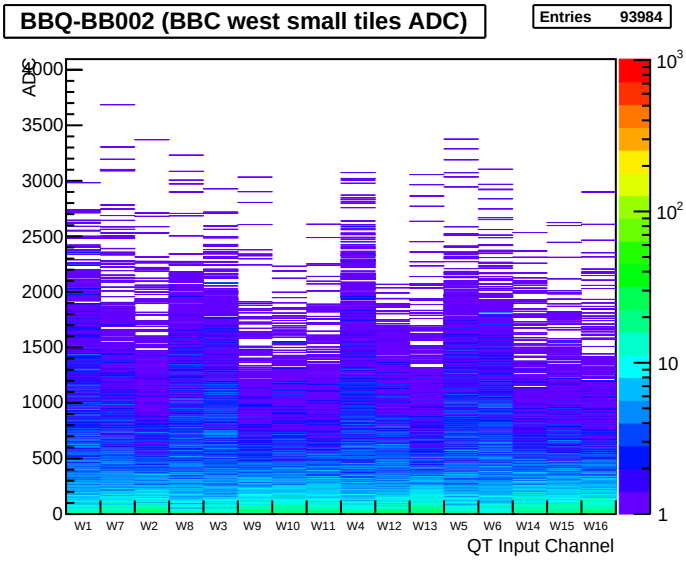

L2-TF201 Input chn 0 -- Number of Muons
Entries 0
Number of Muons (Real-Simu)

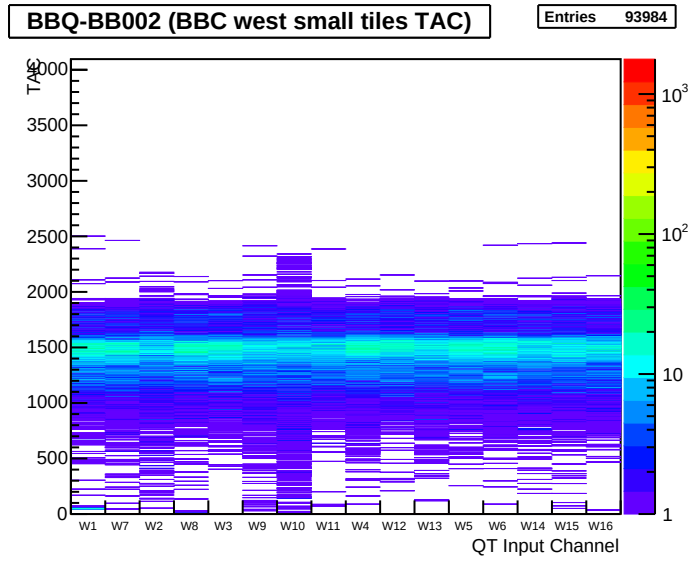

L2-TF201 Input chn 0 -- Cosmic-Ray
Entries 17622
1976
790
473
3898
5084
5401
Hit
Cosmic-Ray
Timed-Cosmic-Ray

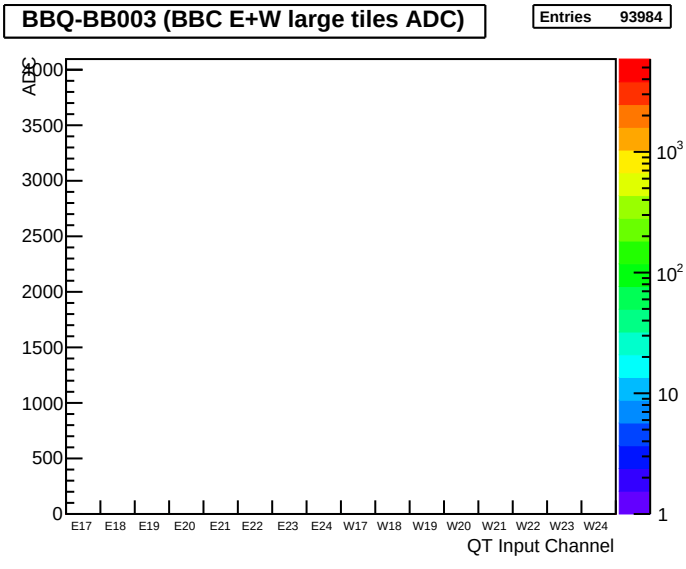

L2-TF201 Input chn 0 -- Cosmic-Ray (Real-Simu)
Entries 0
Hit
Cosmic-Ray
Timed-Cosmic-Ray

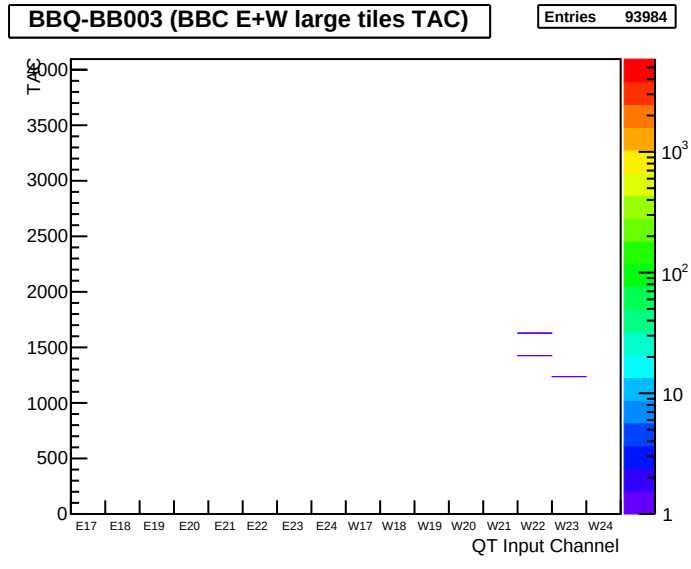

BBQ-BB001 (BBC east small tiles ADC)
Entries 93984
ADC
QT Input Channel

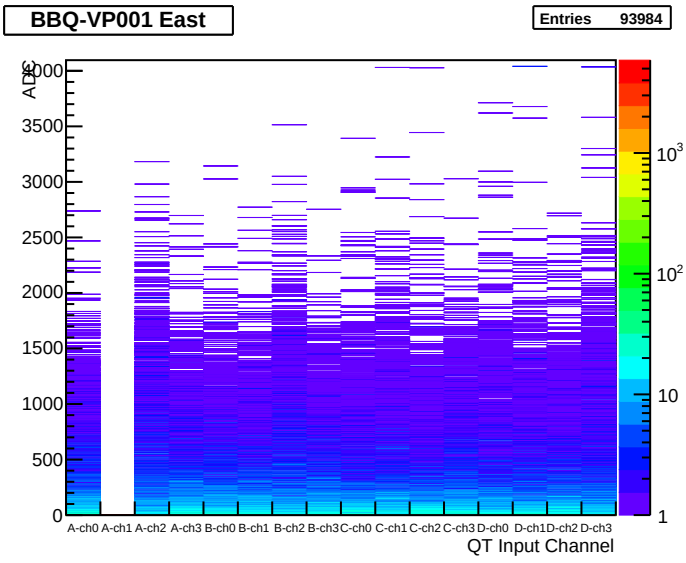

BBQ-BB001 (BBC east small tiles TAC)
Entries 93984
TAC
QT Input Channel

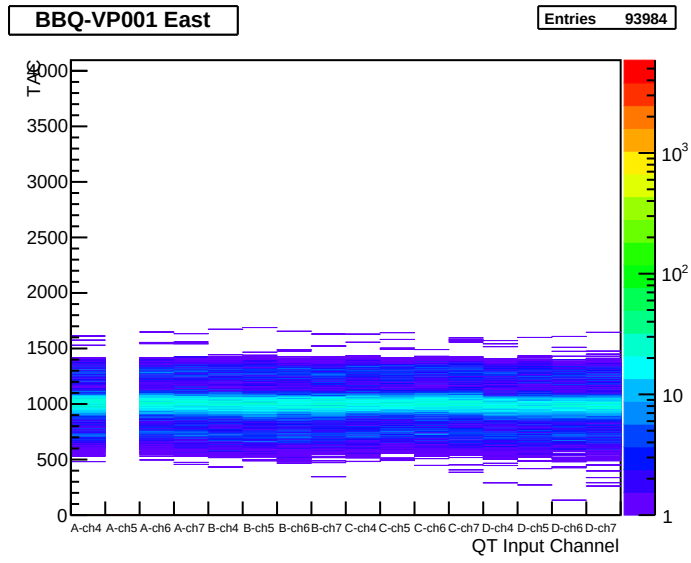

BBQ-BB002 (BBC west small tiles ADC)
Entries 93984
ADC
QT Input Channel

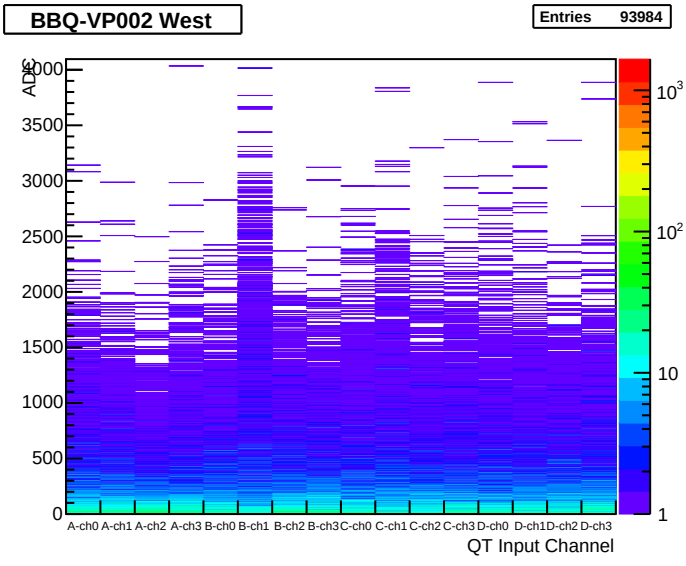

BBQ-BB002 (BBC west small tiles TAC)
Entries 93984
TAC
QT Input Channel

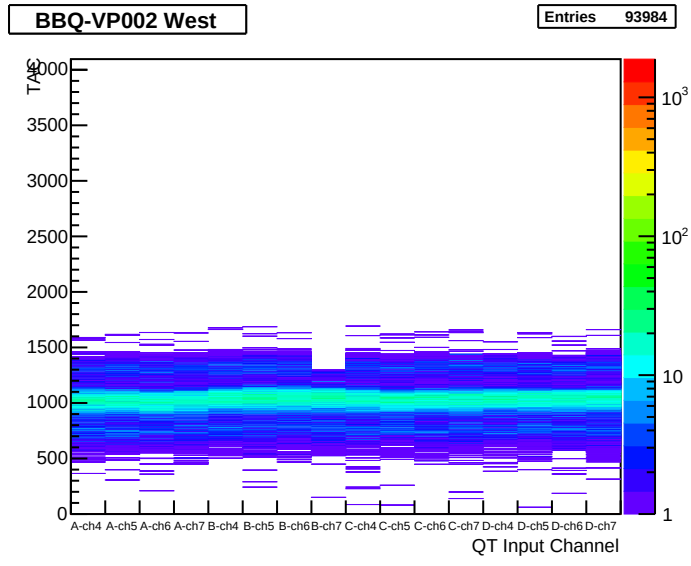

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 93984
ADC
QT Input Channel

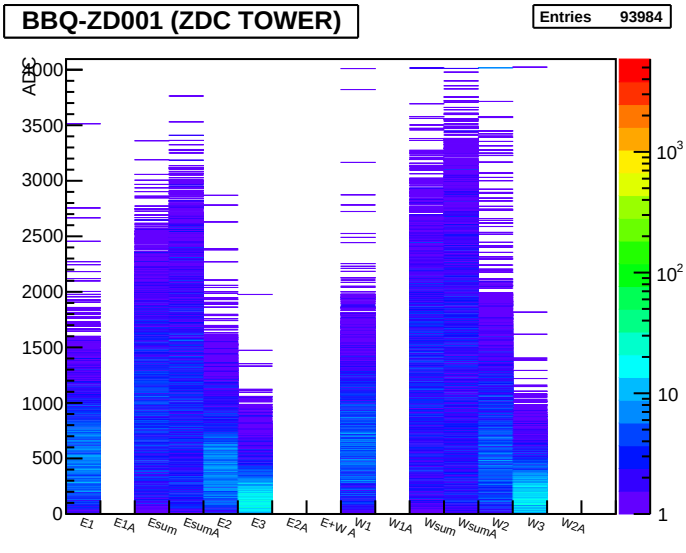

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 93984
TAC
QT Input Channel

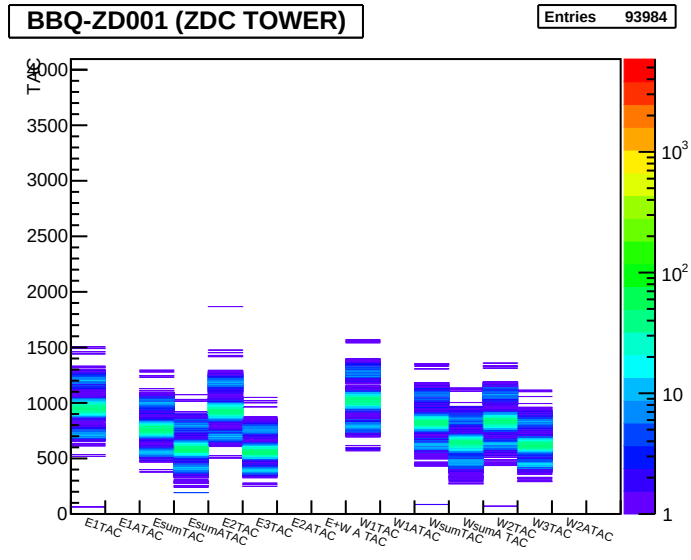

BBQ-VP001 East
Entries 93984
ADC
QT Input Channel

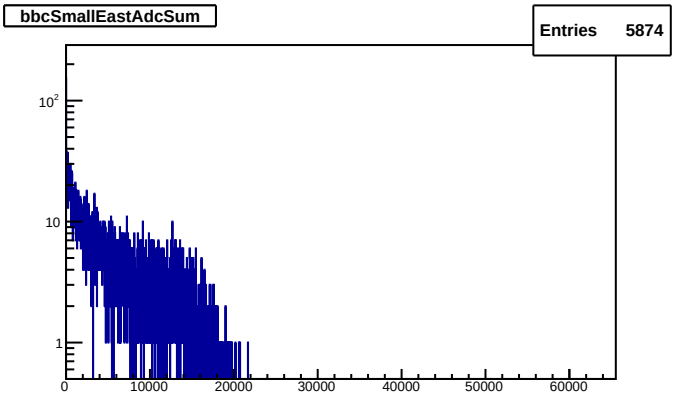

BBQ-VP001 East
Entries 93984
TAC
QT Input Channel

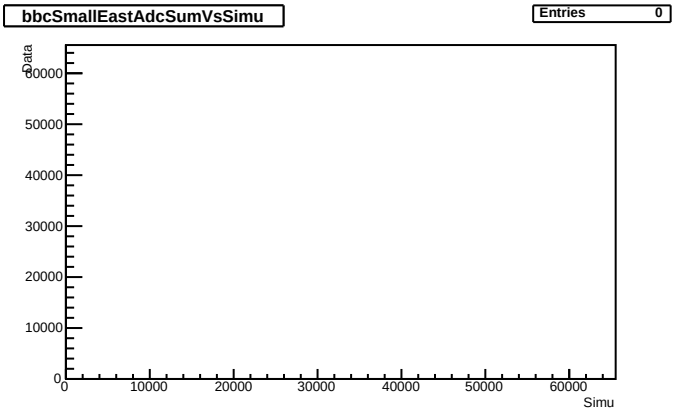

BBQ-VP002 West
Entries 93984
ADC
QT Input Channel

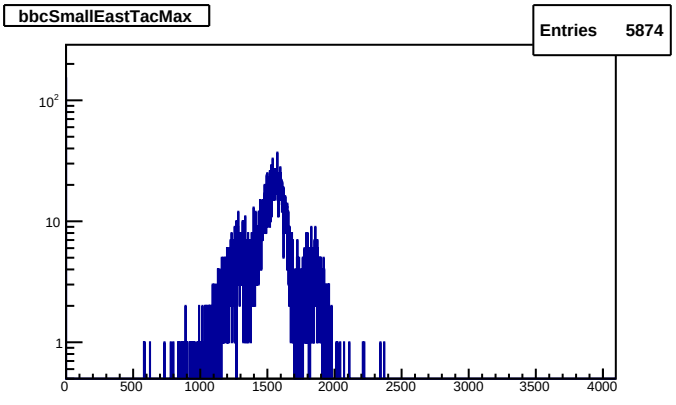

BBQ-VP002 West
Entries 93984
TAC
QT Input Channel

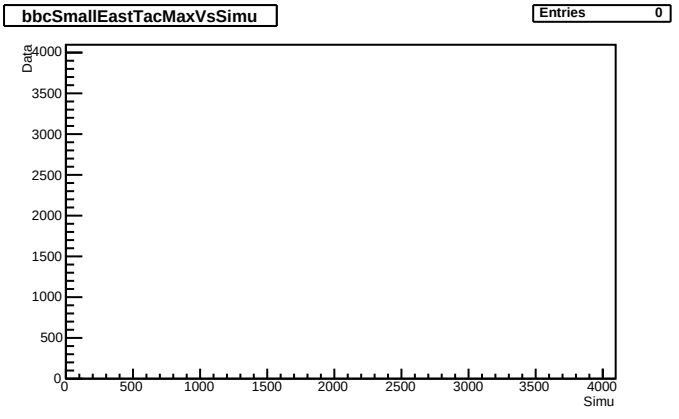

BBQ-ZD001 (ZDC TOWER)
Entries 93984
ADC

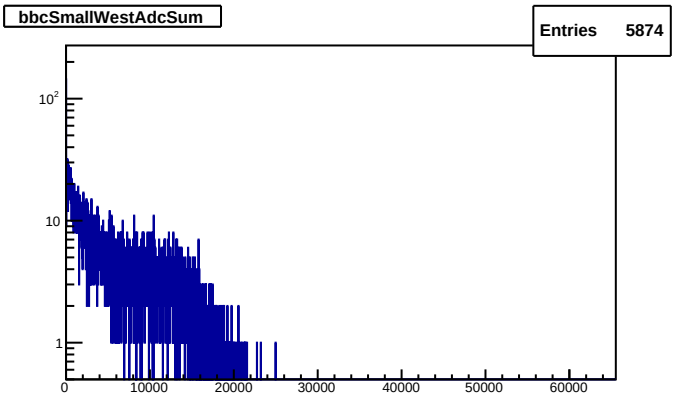

BBQ-ZD001 (ZDC TOWER)
Entries 93984
TAC

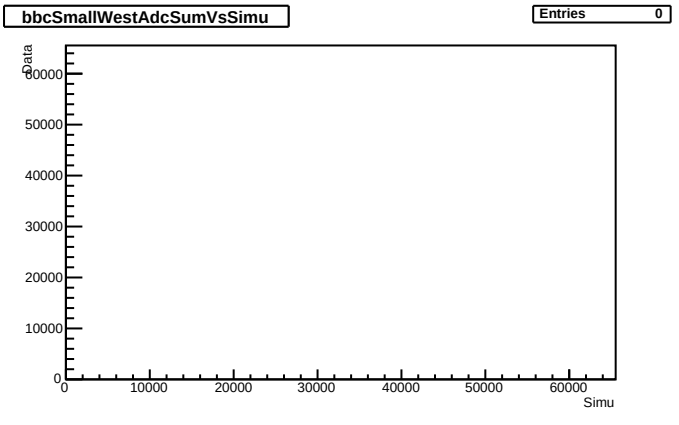

bbcSmallEastAdcSum
Entries 5874

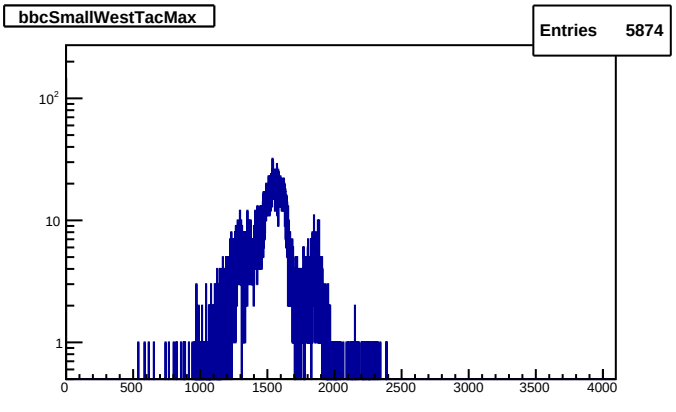

bbcSmallEastAdcSumVsSimu
Entries 0
Data
Simu

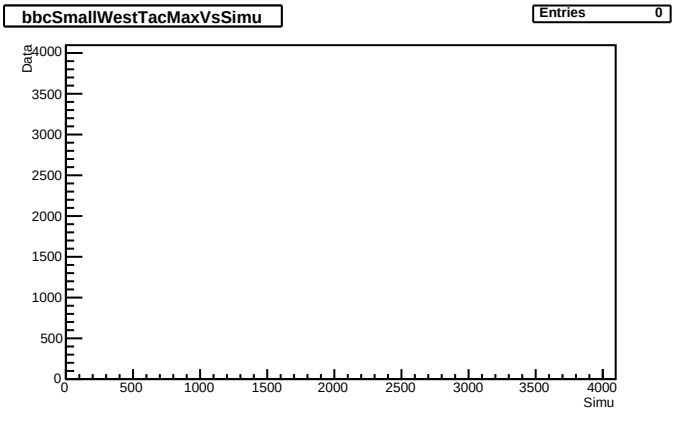

bbcSmallEastTacMax
Entries 5874

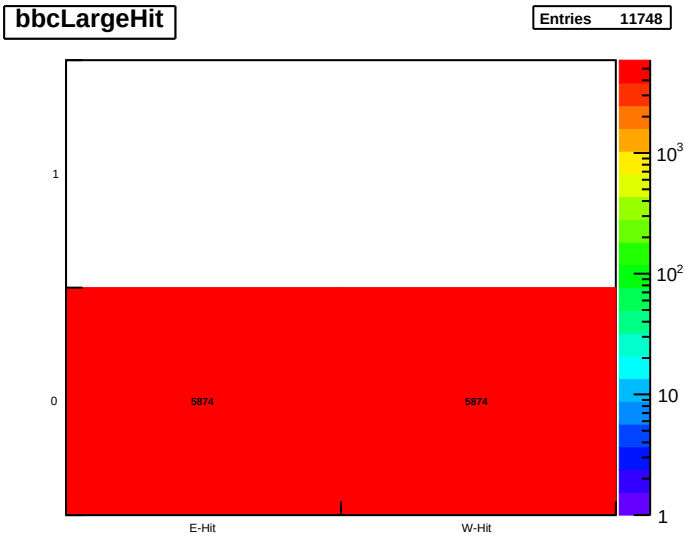

bbcSmallEastTacMaxVsSimu
Entries 0
Data
Simu

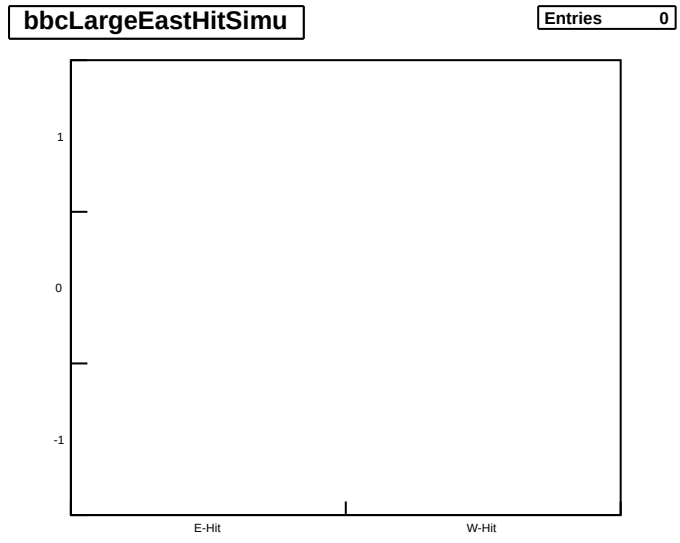

bbcSmallWestAdcSum
Entries 5874

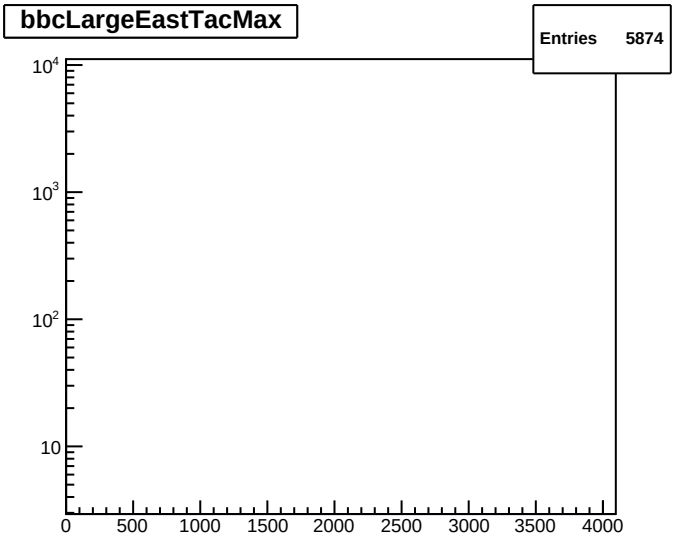

bbcSmallWestAdcSumVsSimu
Entries 0
Data
Simu

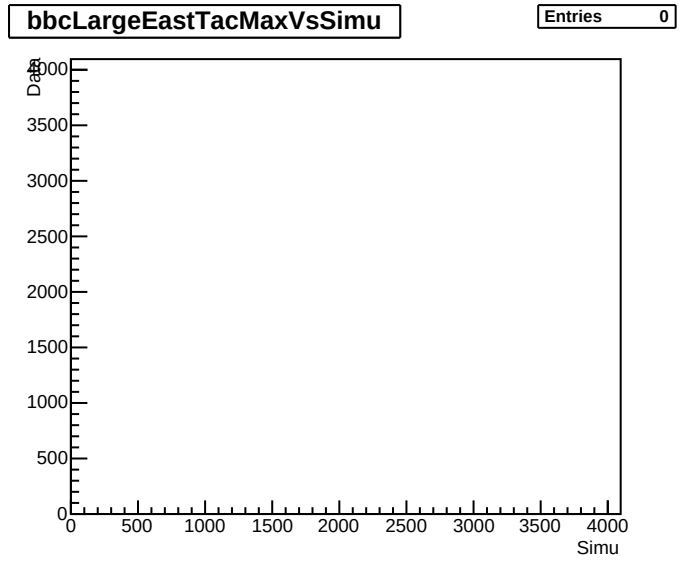

bbcSmallWestTacMax
Entries 5874

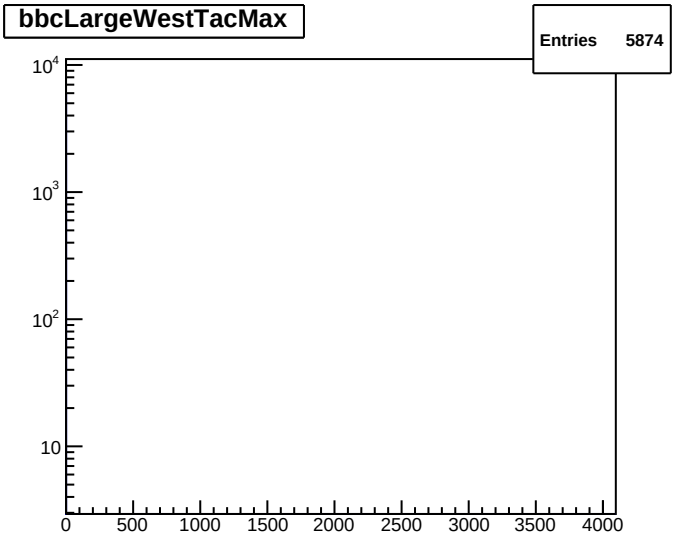

bbcSmallWestTacMaxVsSimu
Entries 0
Data
Simu

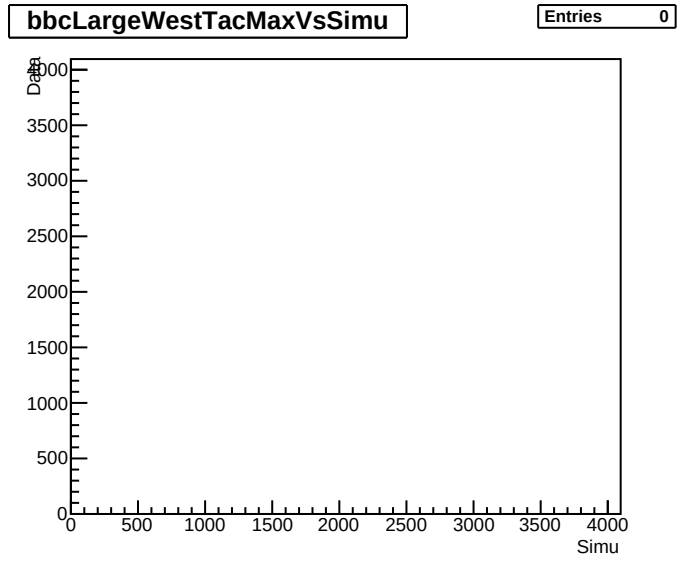

bbcLargeHit
Entries 11748
5874
5874
E-Hit
W-Hit

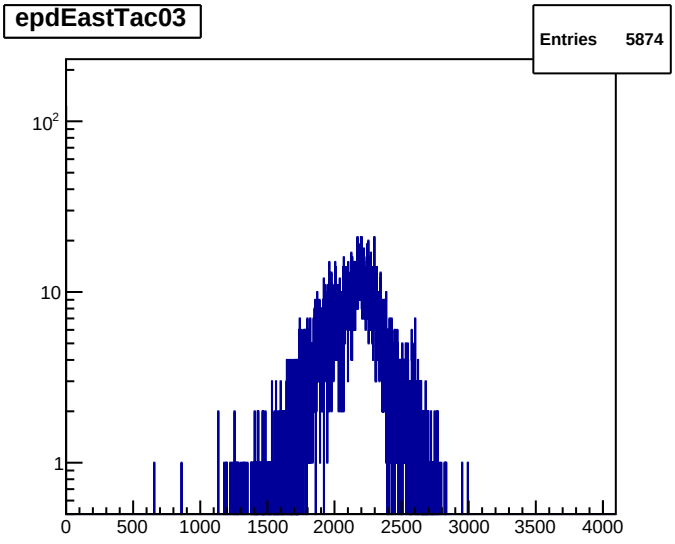

bbcLargeEastHitSimu
Entries 0
E-Hit
W-Hit

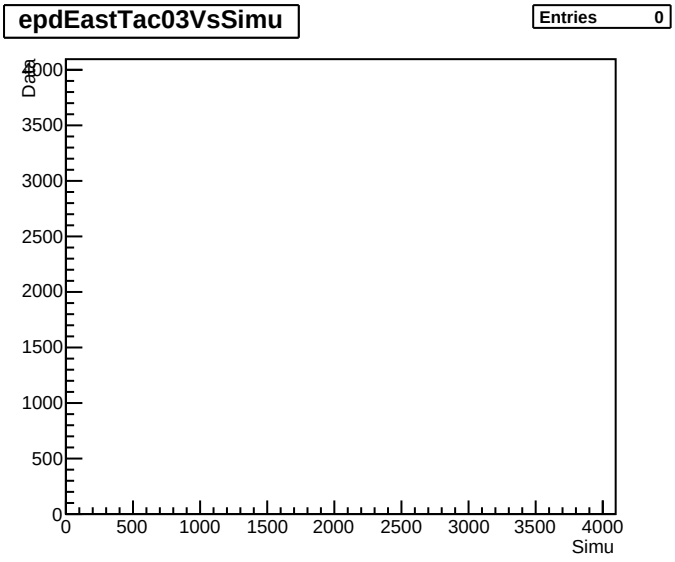

bbcLargeEastTacMax
Entries 5874

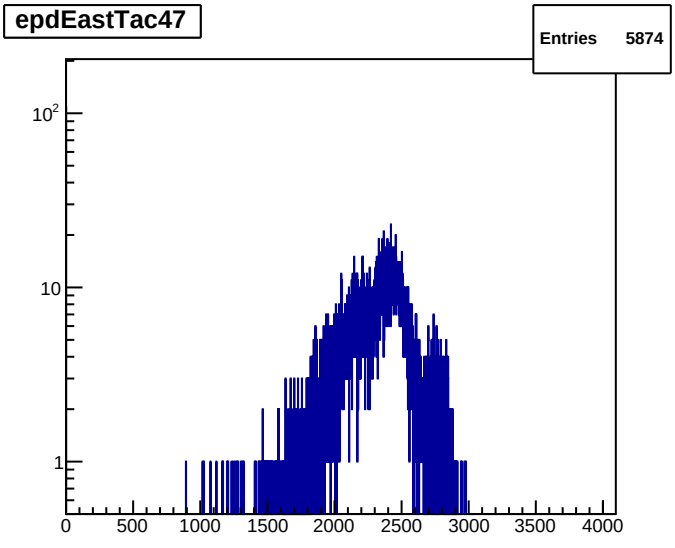

bbcLargeEastTacMaxVsSimu
Entries 0
Data
Simu

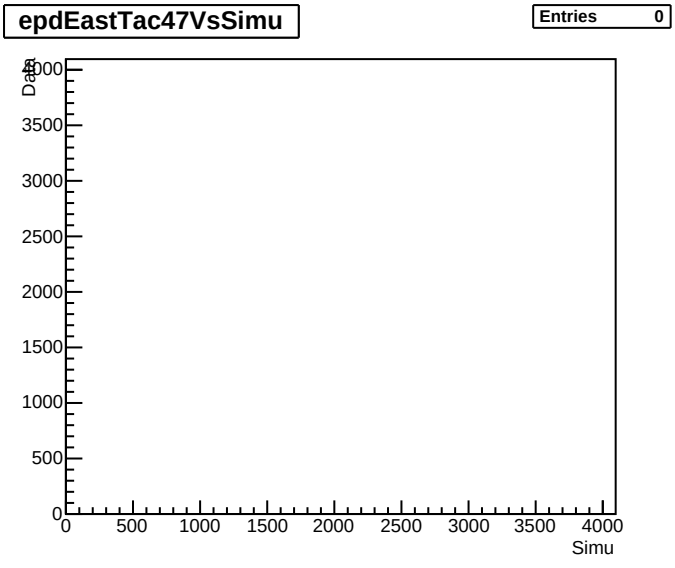

bbcLargeWestTacMax
Entries 5874

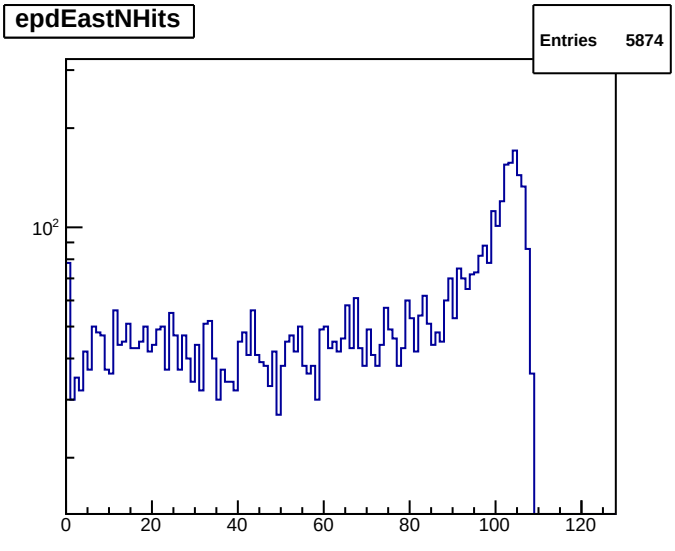

bbcLargeWestTacMaxVsSimu
Entries 0
Data
Simu

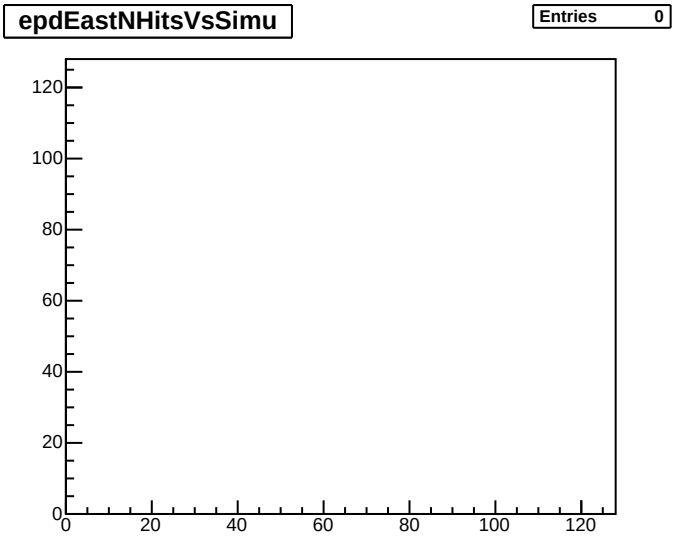

epdEastTac03
Entries 5874
10^2
10
1
0 500 1000 1500 2000 2500 3000 3500 4000

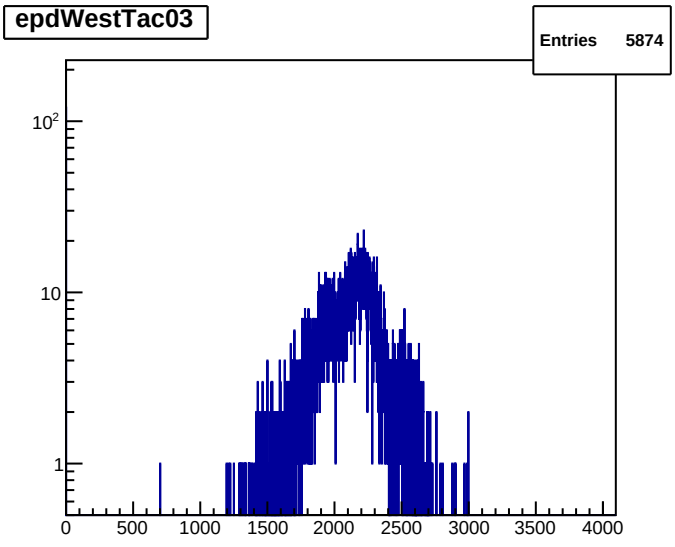

epdEastTac03VsSimu
Entries 0
Data
4000 3500 3000 2500 2000 1500 1000 500 0
0 500 1000 1500 2000 2500 3000 3500 4000
Simu

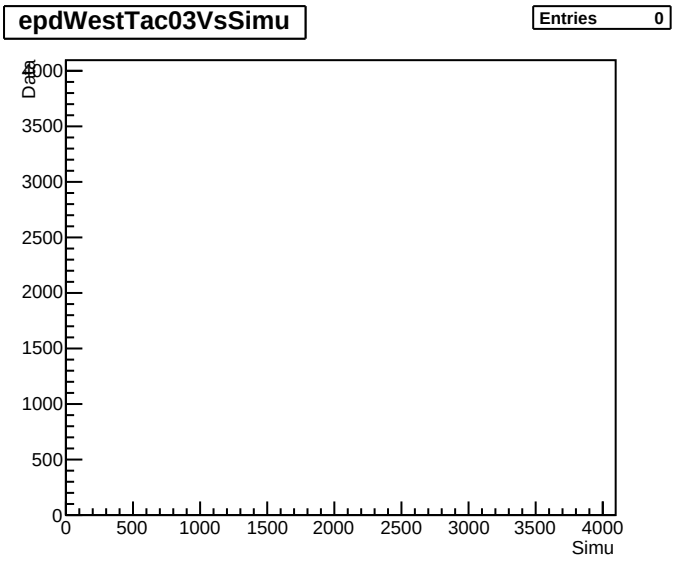

epdEastTac47
Entries 5874
10^2
10
1
0 500 1000 1500 2000 2500 3000 3500 4000

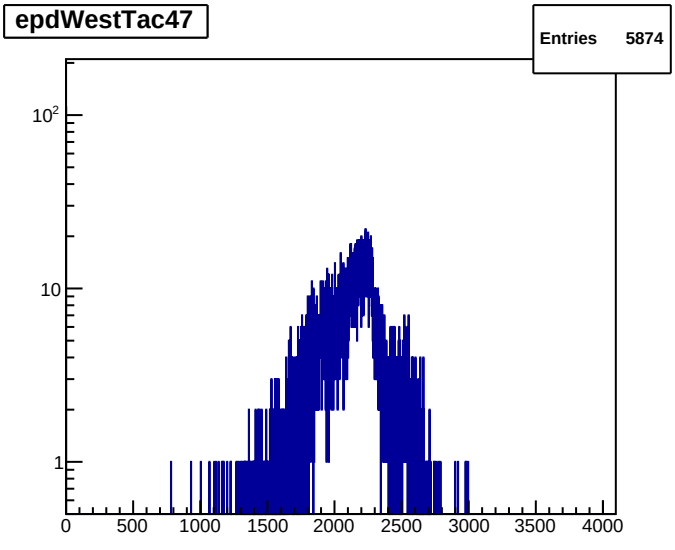

epdEastTac47VsSimu
Entries 0
Data
4000 3500 3000 2500 2000 1500 1000 500 0
0 500 1000 1500 2000 2500 3000 3500 4000
Simu

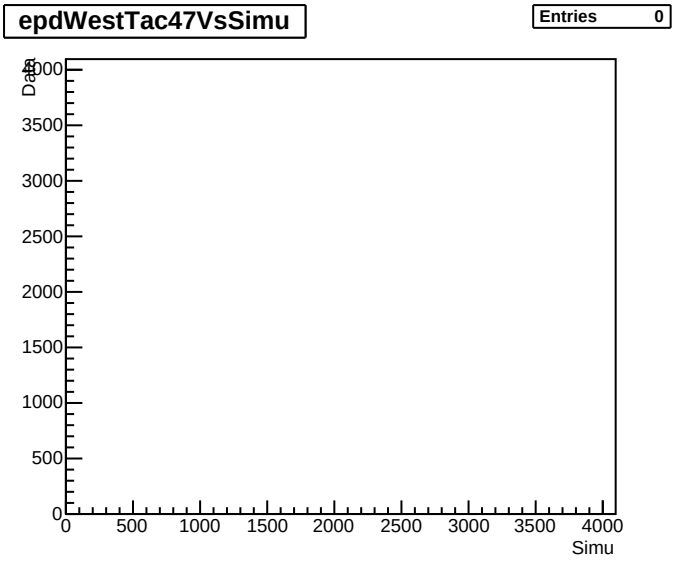

epdEastNHits
Entries 5874
10^2
0 20 40 60 80 100 120

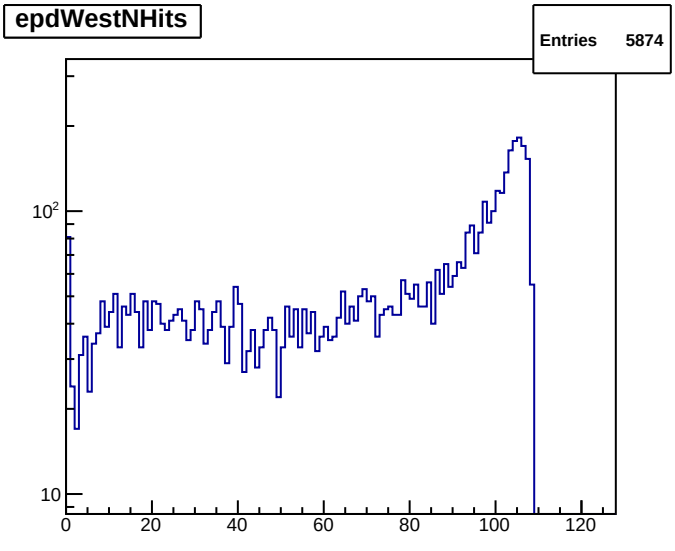

epdEastNHitsVsSimu
Entries 0
120 100 80 60 40 20 0
0 20 40 60 80 100 120

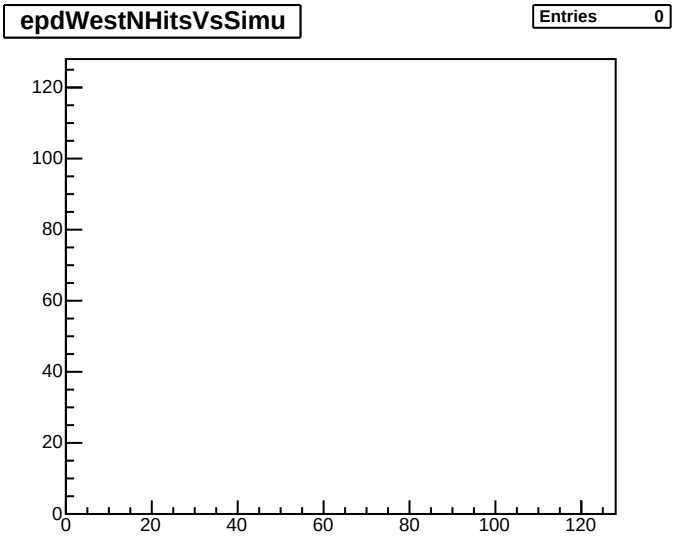

epdWestTac03
Entries 5874
10^2
10
1
0 500 1000 1500 2000 2500 3000 3500 4000

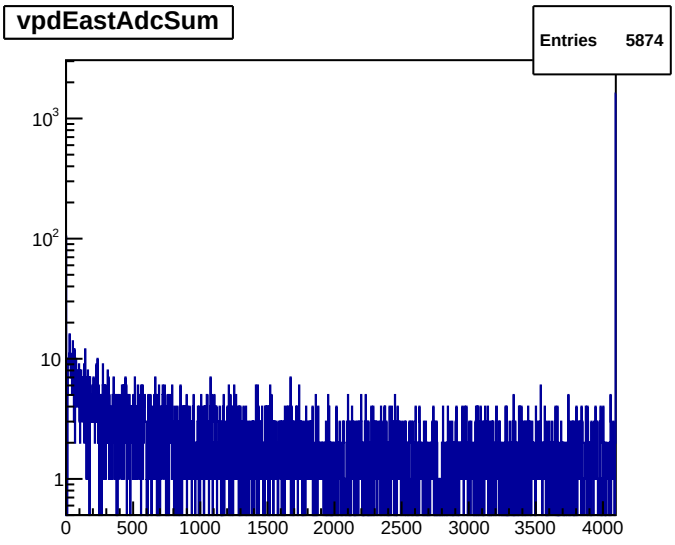

epdWestTac03VsSimu
Entries 0
Data
4000 3500 3000 2500 2000 1500 1000 500 0
0 500 1000 1500 2000 2500 3000 3500 4000
Simu

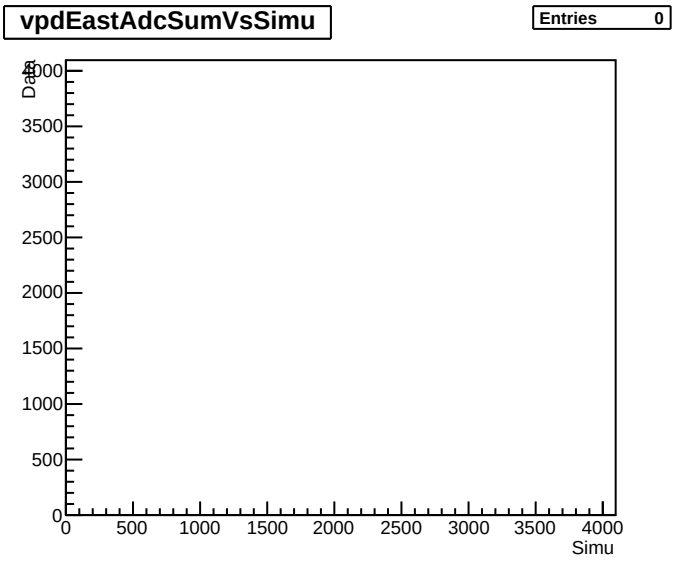

epdWestTac47
Entries 5874
10^2
10
1
0 500 1000 1500 2000 2500 3000 3500 4000

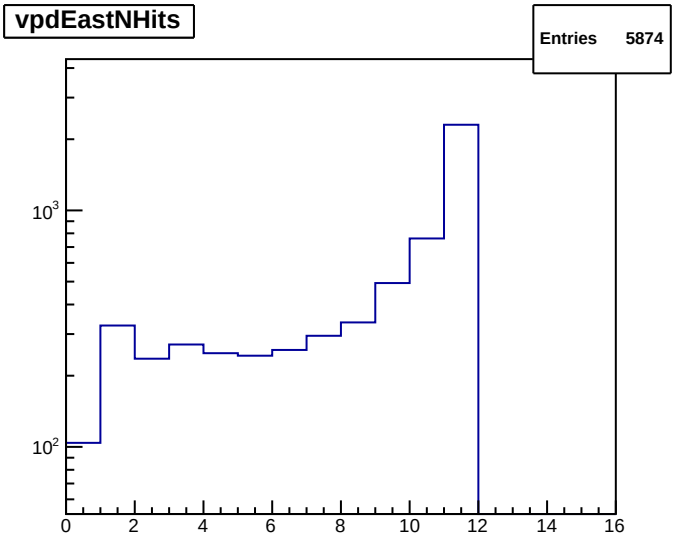

epdWestTac47VsSimu
Entries 0
Data
4000 3500 3000 2500 2000 1500 1000 500 0
0 500 1000 1500 2000 2500 3000 3500 4000
Simu

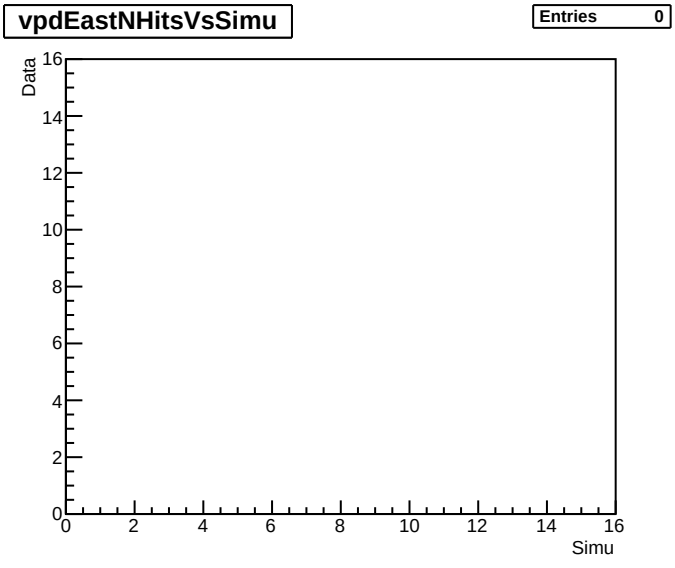

epdWestNHits
Entries 5874
10^2
10
0 20 40 60 80 100 120

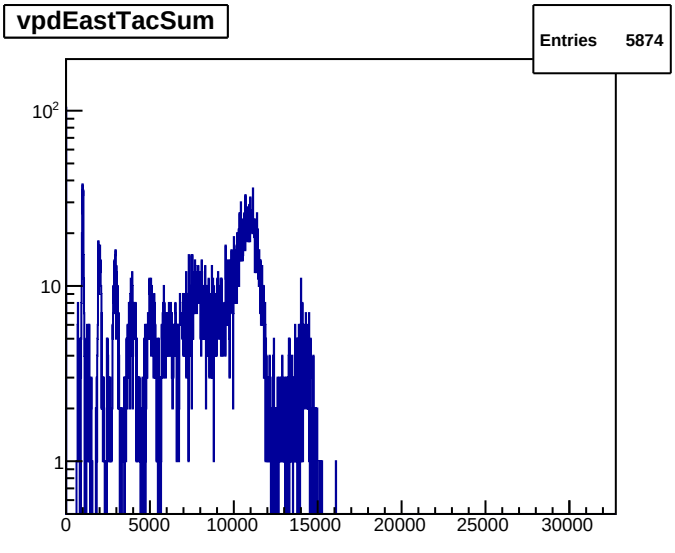

epdWestNHitsVsSimu
Entries 0
120 100 80 60 40 20 0
0 20 40 60 80 100 120

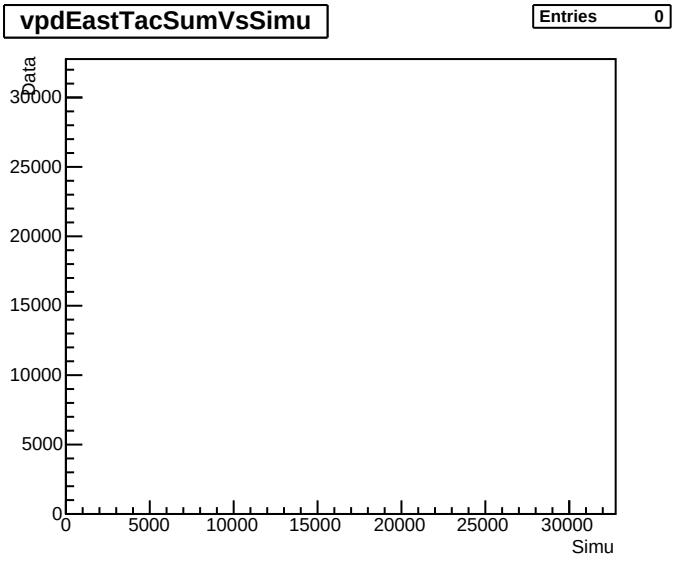

vpdEastAdcSum
Entries 5874
10^3
10^2
10
1
0 500 1000 1500 2000 2500 3000 3500 4000

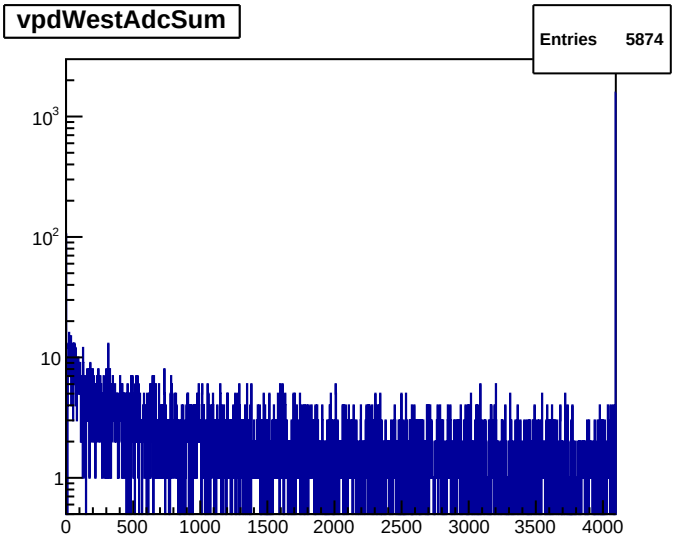

vpdEastAdcSumVsSimu
Entries 0
Data
4000
3500
3000
2500
2000
1500
1000
500
0
0 500 1000 1500 2000 2500 3000 3500 4000
Simu

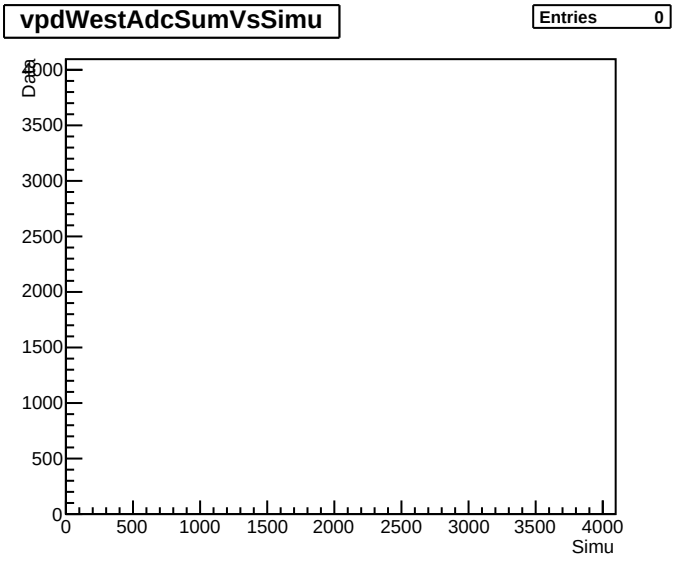

vpdEastNHits
Entries 5874
10^3
10^2
0 2 4 6 8 10 12 14 16

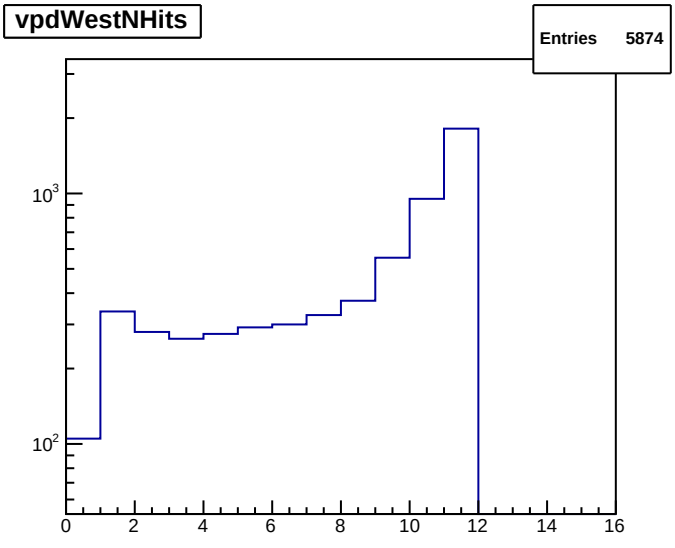

vpdEastNHitsVsSimu
Entries 0
Data
16
14
12
10
8
6
4
2
0
0 2 4 6 8 10 12 14 16
Simu

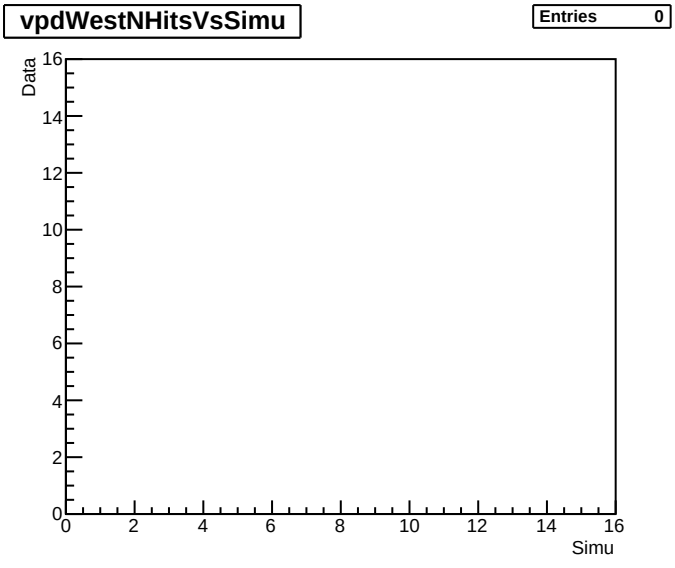

vpdEastTacSum
Entries 5874
10^2
10
1
0 5000 10000 15000 20000 25000 30000

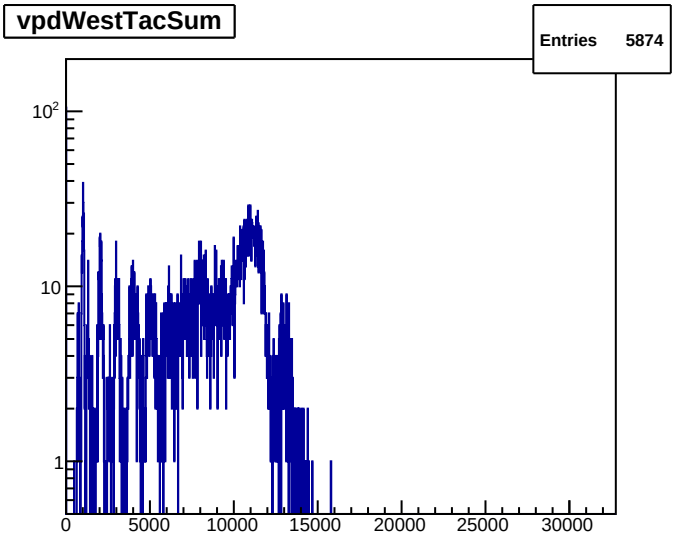

vpdEastTacSumVsSimu
Entries 0
Data
30000
25000
20000
15000
10000
5000
0
0 5000 10000 15000 20000 25000 30000
Simu

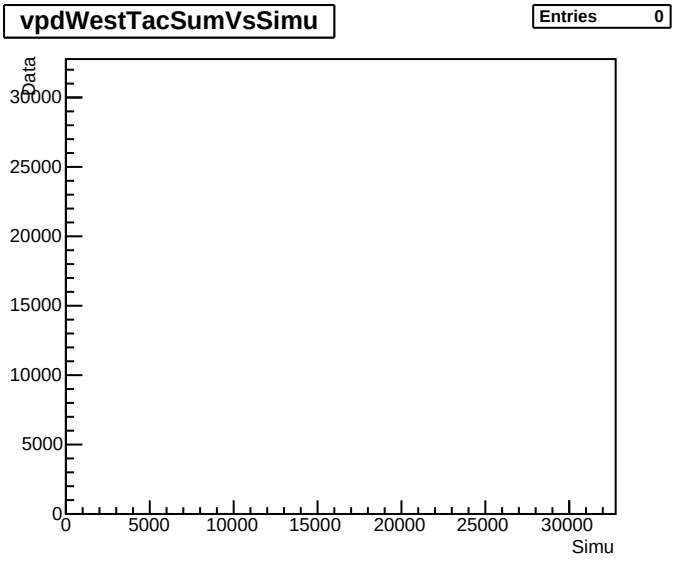

vpdWestAdcSum
Entries 5874
10^3
10^2
10
1
0 500 1000 1500 2000 2500 3000 3500 4000

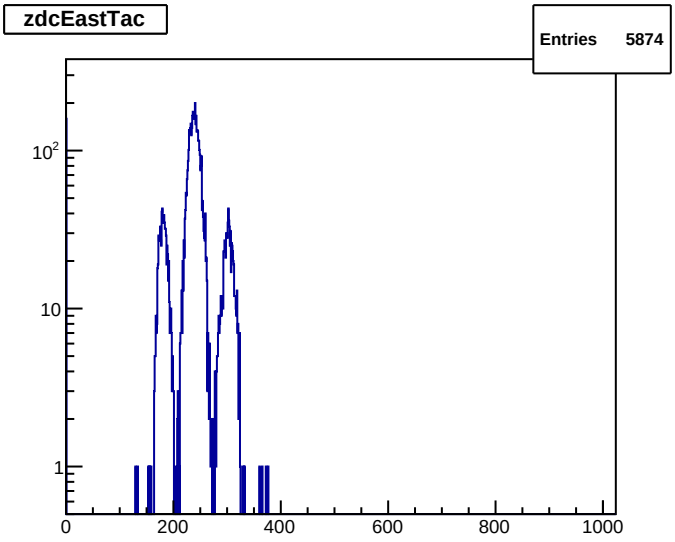

vpdWestAdcSumVsSimu
Entries 0
Data
4000 3500 3000 2500 2000 1500 1000 500 0
0 500 1000 1500 2000 2500 3000 3500 4000
Simu

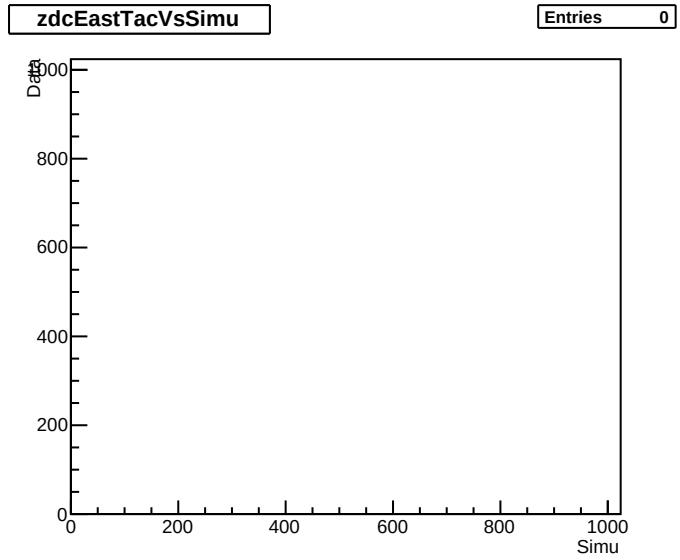

vpdWestNHits
Entries 5874
10^3
10^2
0 2 4 6 8 10 12 14 16

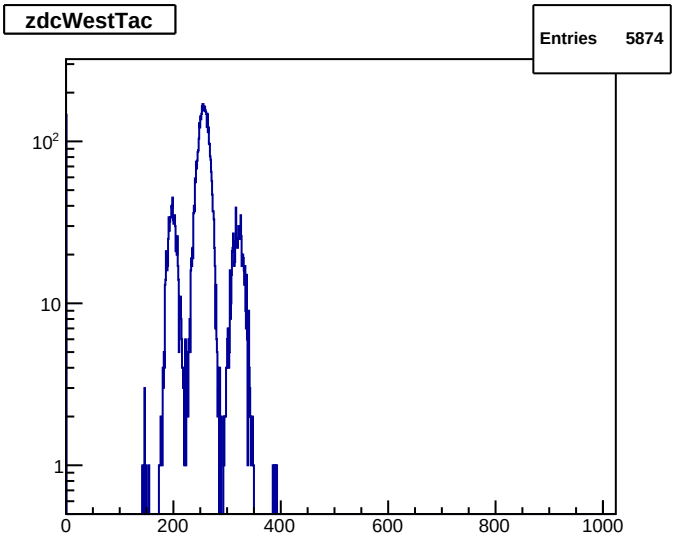

vpdWestNHitsVsSimu
Entries 0
Data
16 14 12 10 8 6 4 2 0
0 2 4 6 8 10 12 14 16
Simu

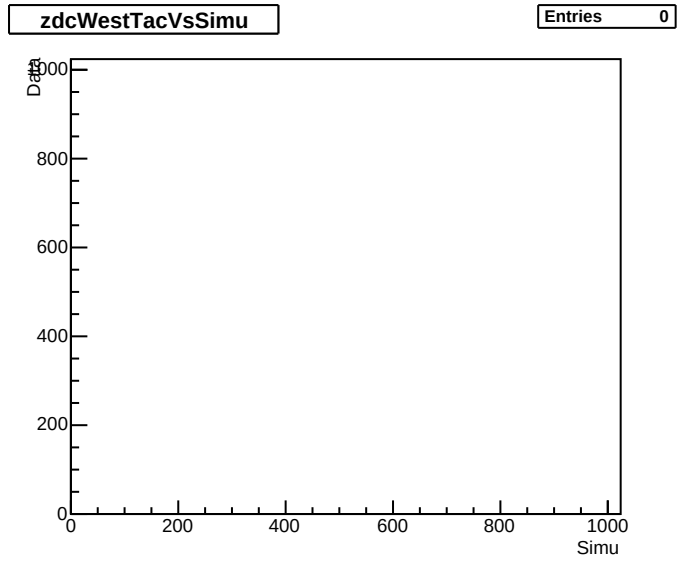

vpdWestTacSum
Entries 5874
10^2
10
1
0 5000 10000 15000 20000 25000 30000

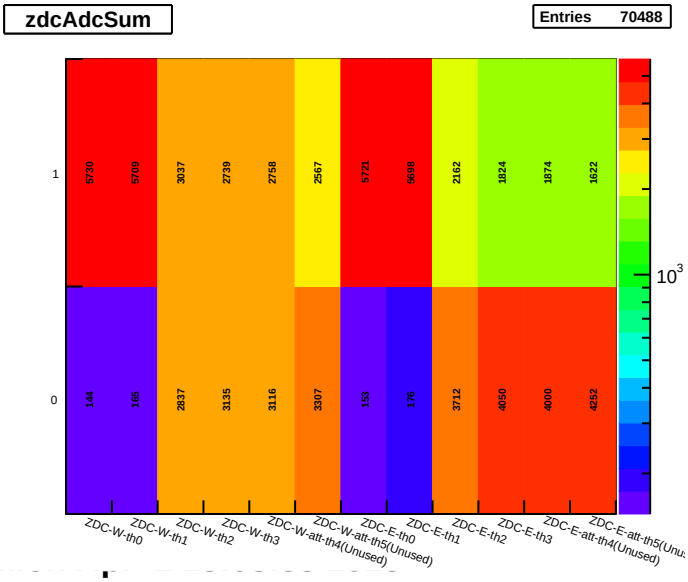

vpdWestTacSumVsSimu
Entries 0
Data
30000 25000 20000 15000 10000 5000 0
0 5000 10000 15000 20000 25000 30000
Simu

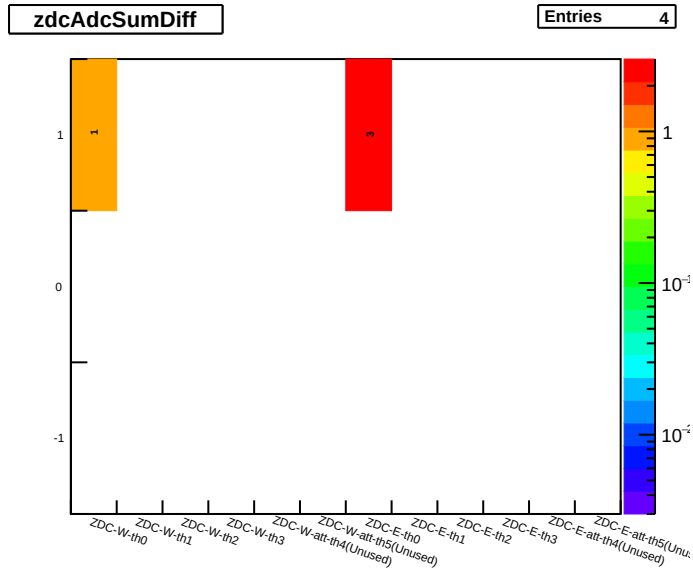

zdcEastTac
Entries 5874
10^2
10
1
0
200
400
600
800
1000

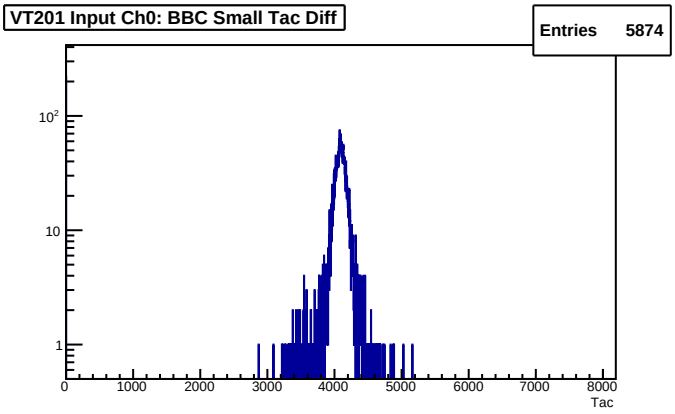

zdcEastTacVsSimu
Entries 0
Data
1000
800
600
400
200
0
0
200
400
600
800
1000
Simu

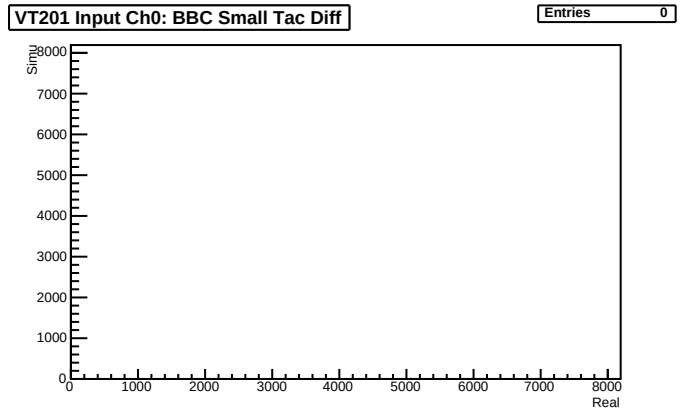

zdcWestTac
Entries 5874
10^2
10
1
0
200
400
600
800
1000

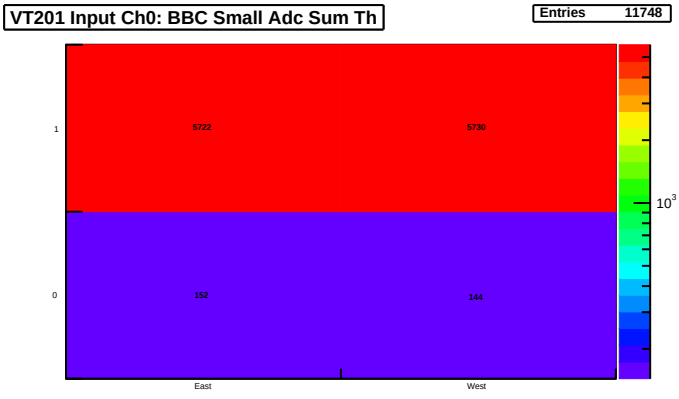

zdcWestTacVsSimu
Entries 0
Data
1000
800
600
400
200
0
0
200
400
600
800
1000
Simu

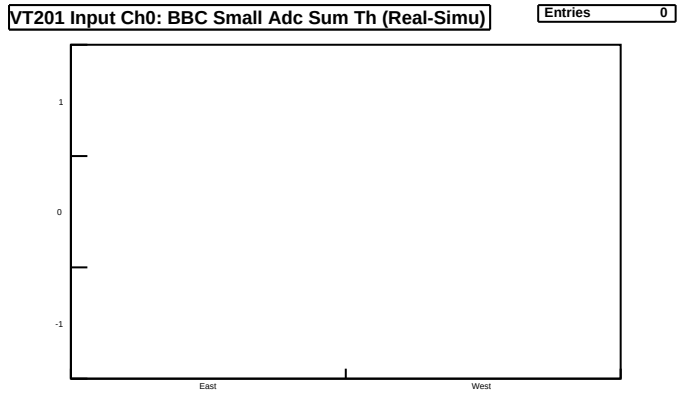

zdcAdcSum
Entries 70488
1
0
5730
5709
3037
2739
2758
2567
5721
5698
2162
1824
1874
1622
144
165
2837
3135
3116
3307
153
176
3712
4050
4000
4252
10^3
ZDC-W-th0
ZDC-W-th1
ZDC-W-th2
ZDC-W-th3
ZDC-W-att-th4(Unused)
ZDC-W-att-th5(Unused)
ZDC-E-th0
ZDC-E-th1
ZDC-E-th2
ZDC-E-th3
ZDC-E-att-th4(Unused)

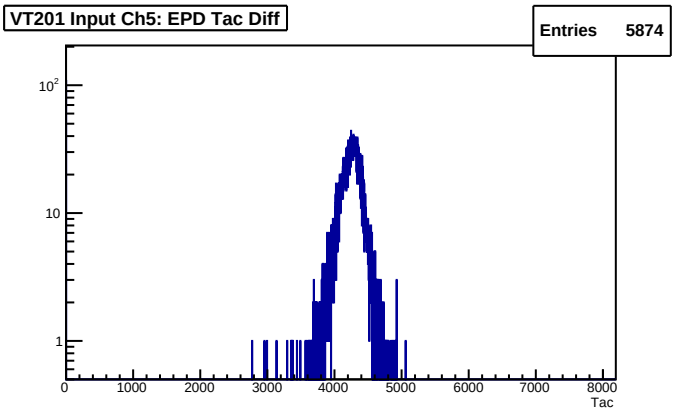

zdcAdcSumDiff
Entries 4
1
0
-1
1
3
1
ZDC-W-th0
ZDC-W-th1
ZDC-W-th2
ZDC-W-th3
ZDC-W-att-th4(Unused)
ZDC-W-att-th5(Unused)
ZDC-E-th0
ZDC-E-th1
ZDC-E-th2
ZDC-E-th3
ZDC-E-att-th4(Unused)

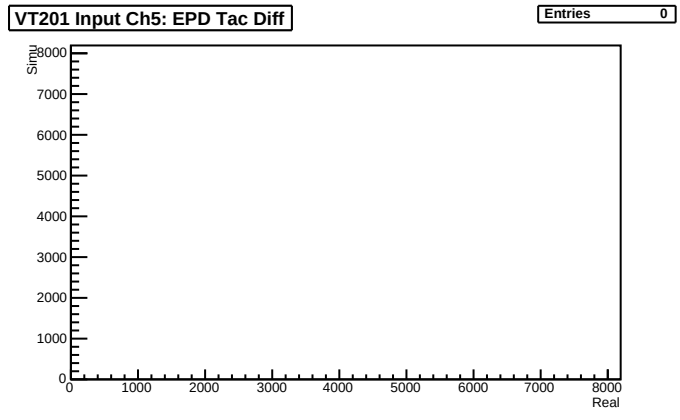

VT201 Input Ch0: BBC Small Tac Diff
Entries 5874
Tac

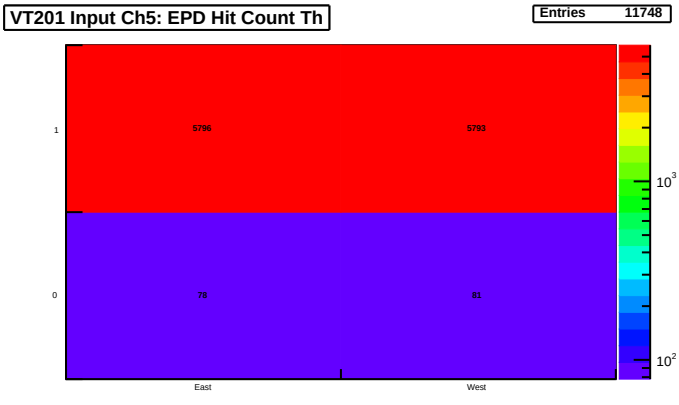

VT201 Input Ch0: BBC Small Tac Diff
Entries 0
Simu
Real

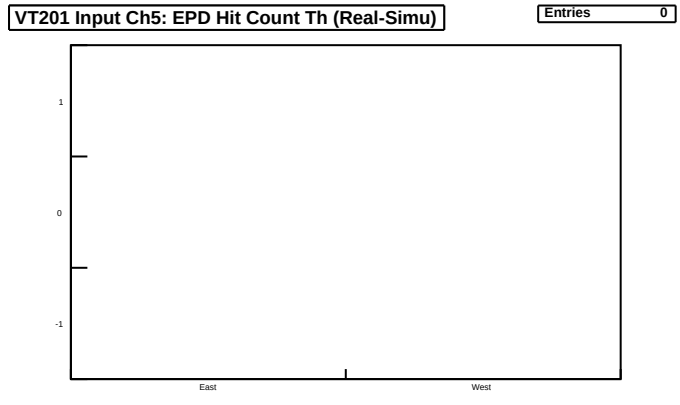

VT201 Input Ch0: BBC Small Adc Sum Th
Entries 11748
5722
5730
152
144
East
West

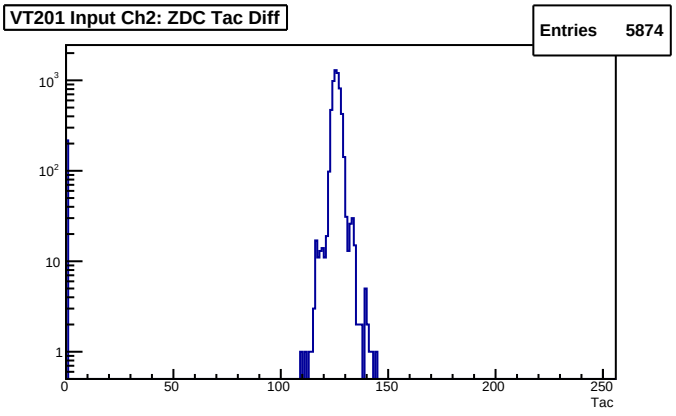

VT201 Input Ch0: BBC Small Adc Sum Th (Real-Simu)
Entries 0
East
West

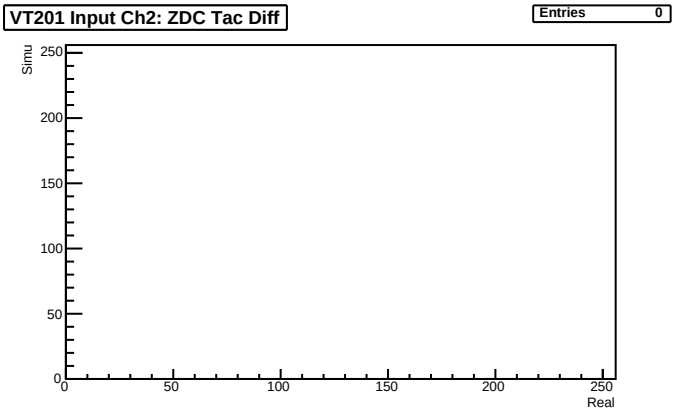

VT201 Input Ch5: EPD Tac Diff
Entries 5874
Tac

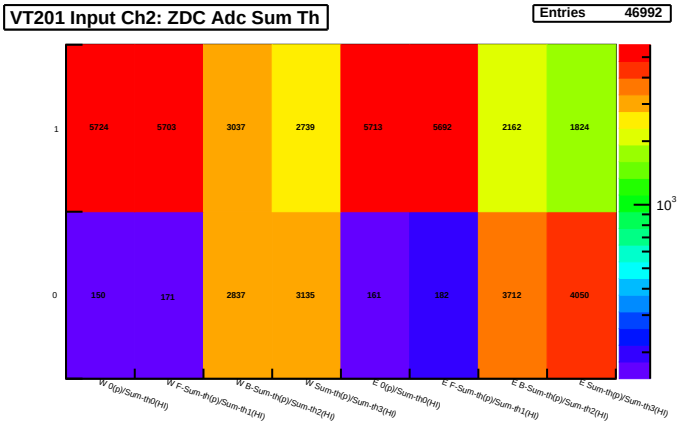

VT201 Input Ch5: EPD Tac Diff
Entries 0
Simu
Real

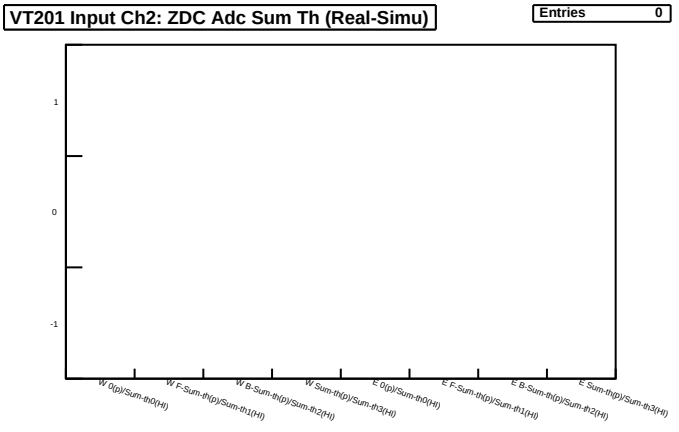

VT201 Input Ch5: EPD Hit Count Th
Entries 11748
5796
5793
78
81
East
West

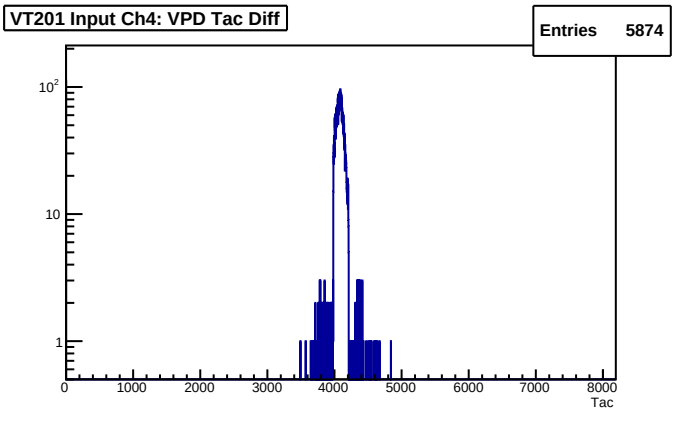

VT201 Input Ch5: EPD Hit Count Th (Real-Simu)
Entries 0
East
West

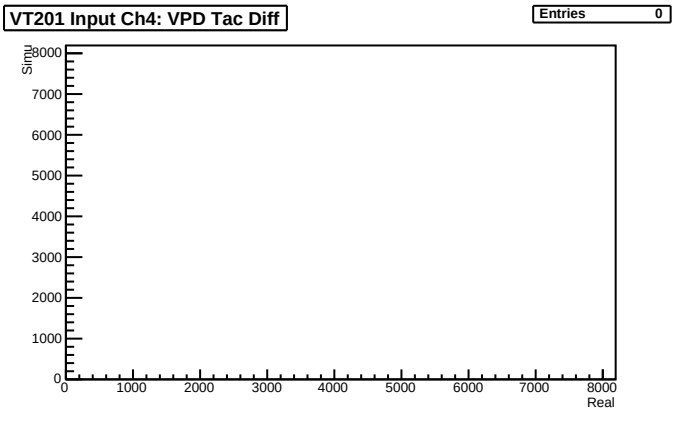

VT201 Input Ch2: ZDC Tac Diff
Entries 5874
Tac

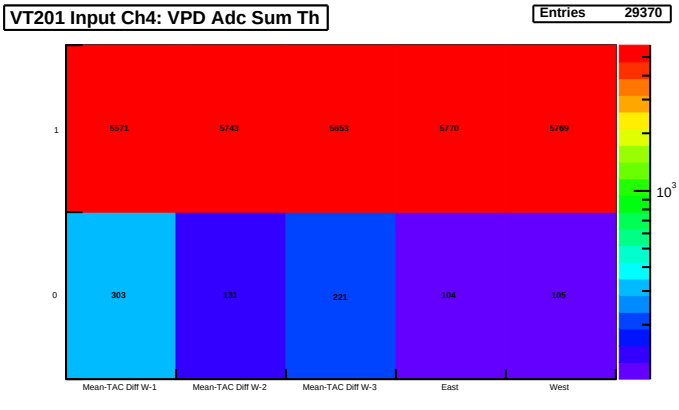

VT201 Input Ch2: ZDC Tac Diff
Entries 0
Simu
Real

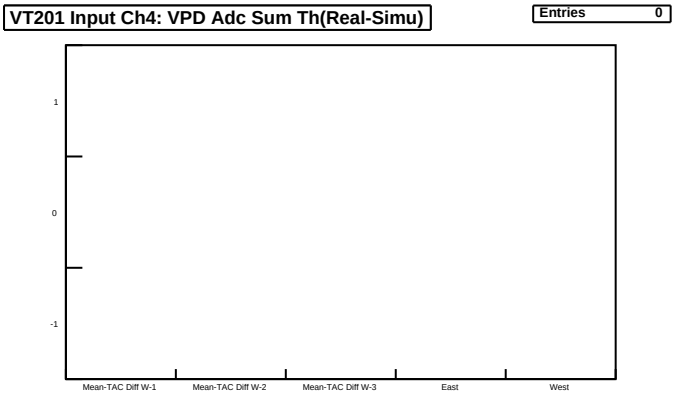

VT201 Input Ch2: ZDC Adc Sum Th
Entries 46992
5724
5703
3037
2739
5713
5692
2162
1824
150
171
2837
3135
161
182
3712
4050
W 0(p)/Sum-th0(H)
W F-Sum-th(p)/Sum-th1(H)
W B-Sum-th(p)/Sum-th2(H)
W Sum-th(p)/Sum-th3(H)
E 0(p)/Sum-th0(H)
E F-Sum-th(p)/Sum-th1(H)
E B-Sum-th(p)/Sum-th2(H)
E Sum-th(p)/Sum-th3(H)

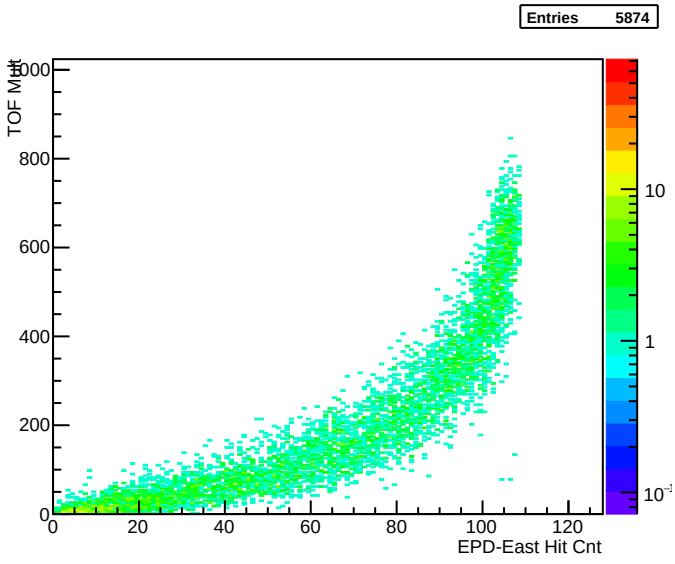

VT201 Input Ch2: ZDC Adc Sum Th (Real-Simu)
Entries 0
W 0(p)/Sum-th0(H)
W F-Sum-th(p)/Sum-th1(H)
W B-Sum-th(p)/Sum-th2(H)
W Sum-th(p)/Sum-th3(H)
E 0(p)/Sum-th0(H)
E F-Sum-th(p)/Sum-th1(H)
E B-Sum-th(p)/Sum-th2(H)
E Sum-th(p)/Sum-th3(H)

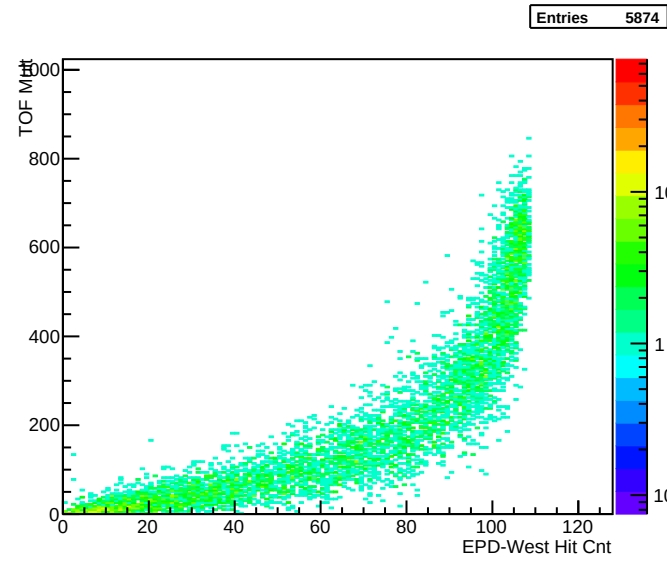

VT201 Input Ch4: VPD Tac Diff
Entries 5874
Tac

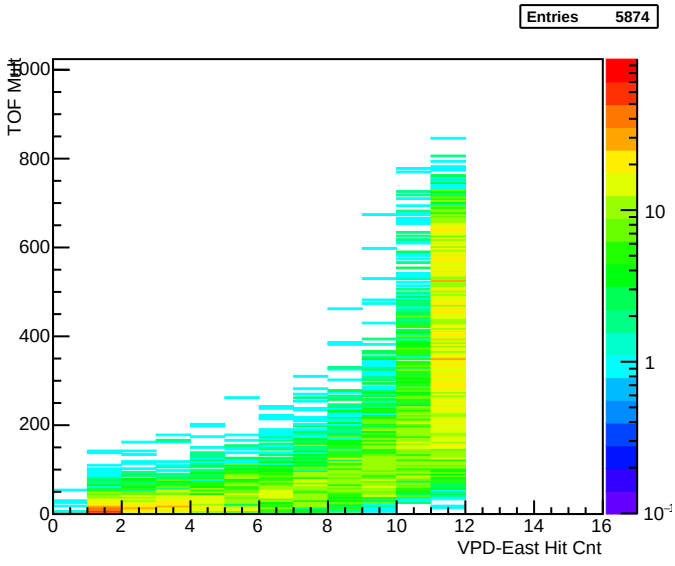

VT201 Input Ch4: VPD Tac Diff
Entries 0
Simu
Real

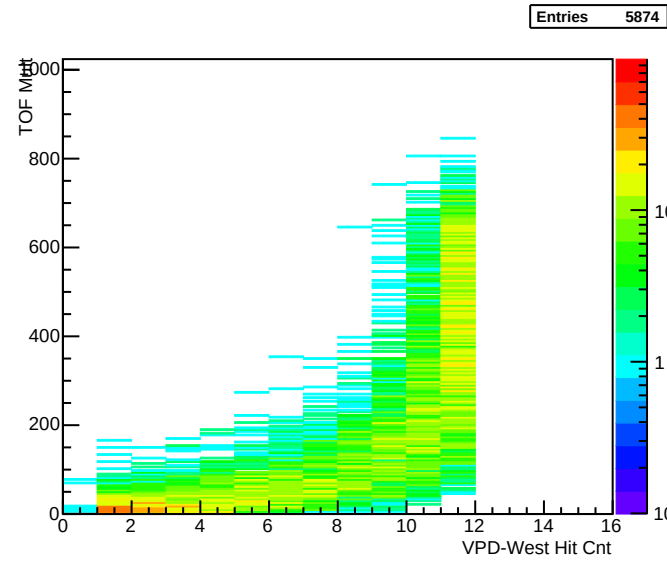

VT201 Input Ch4: VPD Adc Sum Th
Entries 29370
5571
5743
5653
5770
5769
303
131
221
104
105
Mean-TAC Diff W-1
Mean-TAC Diff W-2
Mean-TAC Diff W-3
East
West

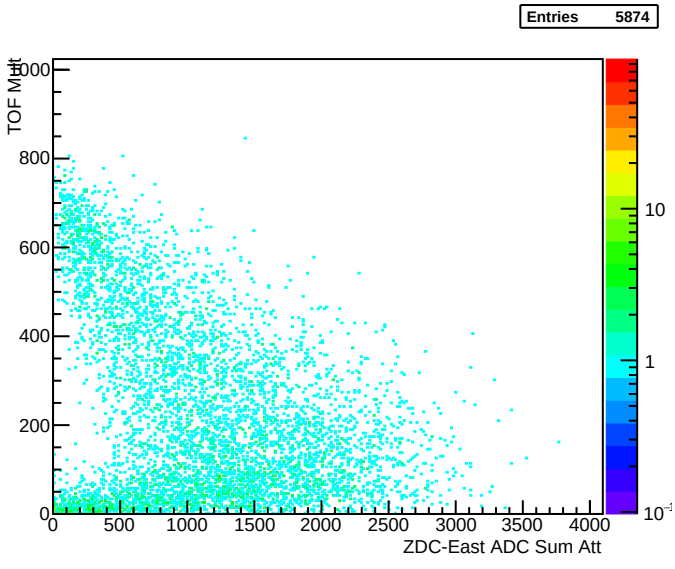

VT201 Input Ch4: VPD Adc Sum Th(Real-Simu)
Entries 0
Mean-TAC Diff W-1
Mean-TAC Diff W-2
Mean-TAC Diff W-3
East
West

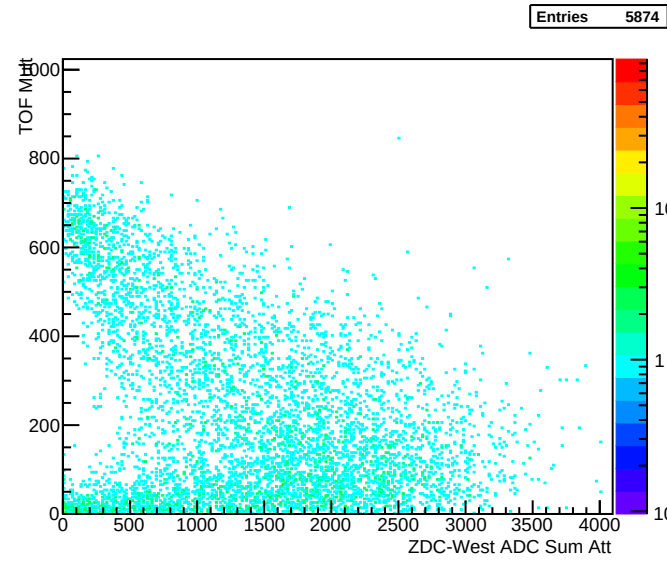

Entries 5874
TOF Mult
EPD-East Hit Cnt

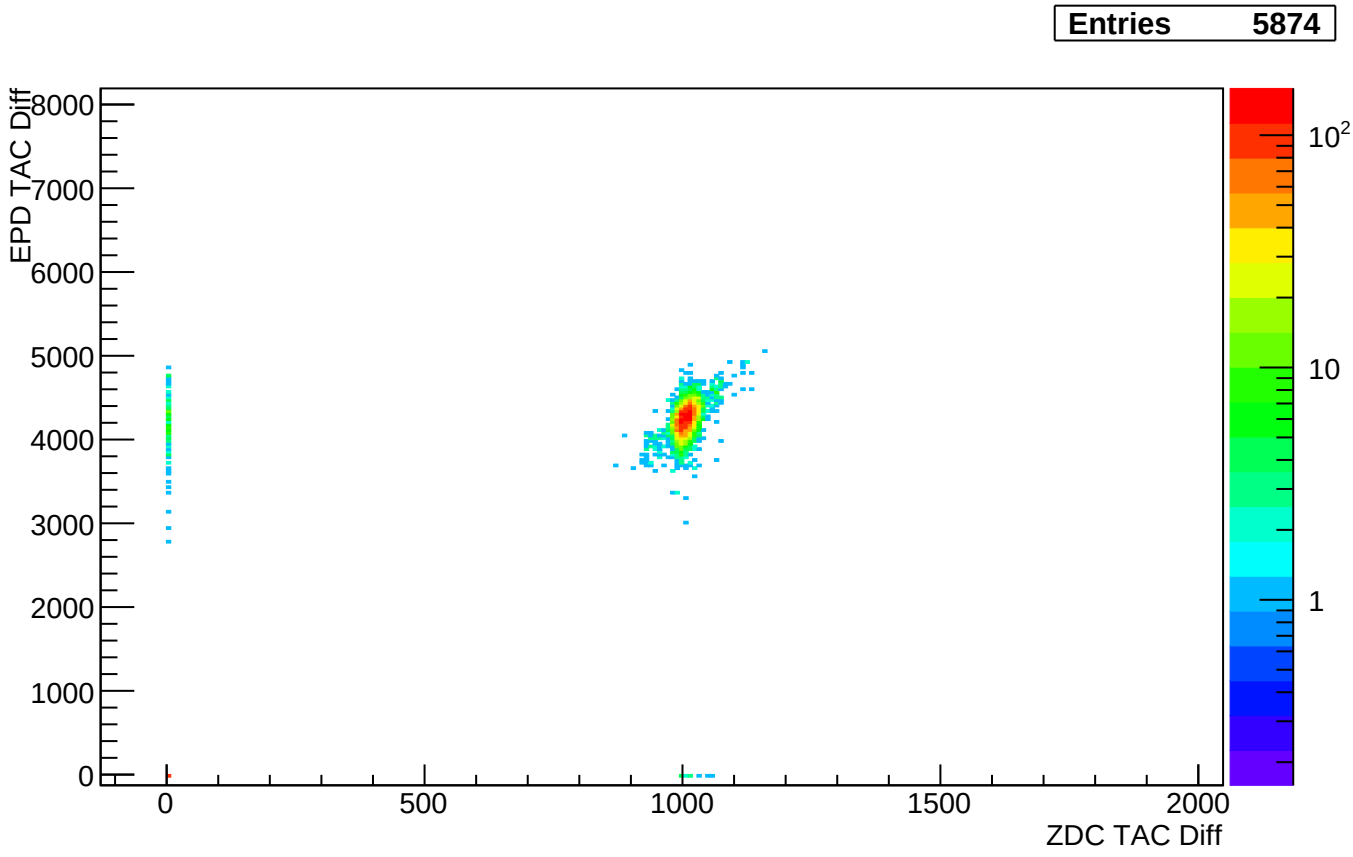

Entries 5874
TOF Mult
EPD-West Hit Cnt

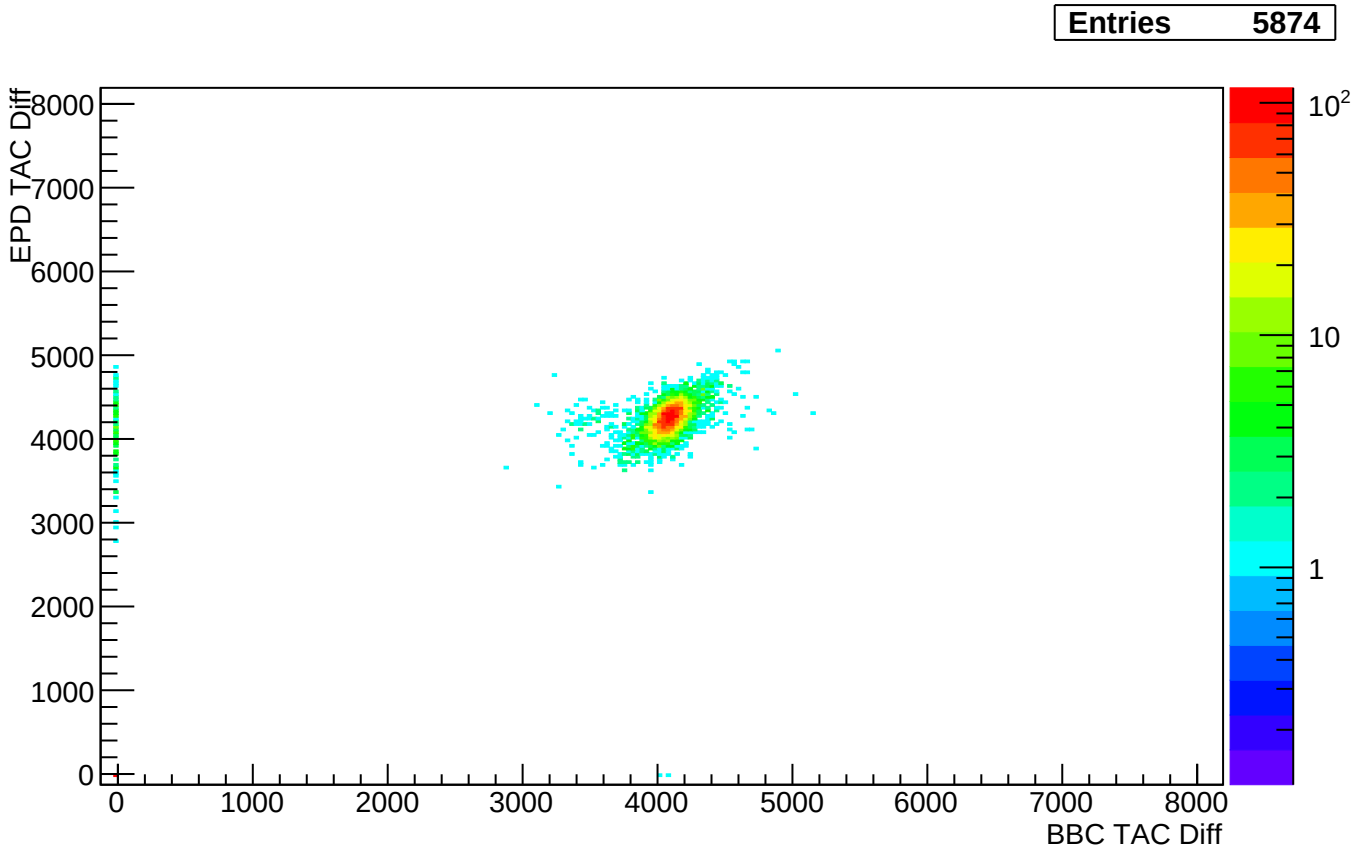

Entries 5874
TOF Mult
VPD-East Hit Cnt

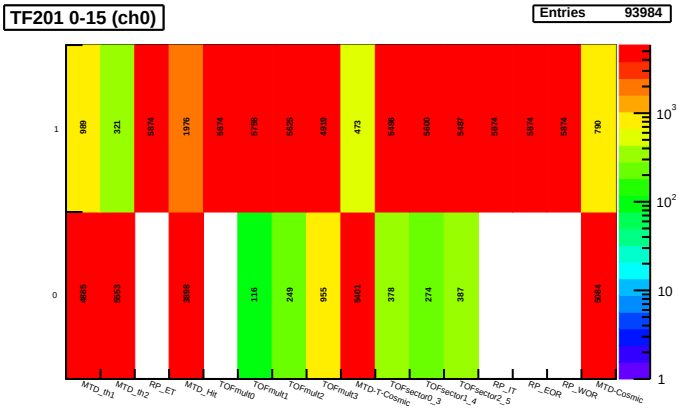

Entries 5874
TOF Mult
VPD-West Hit Cnt

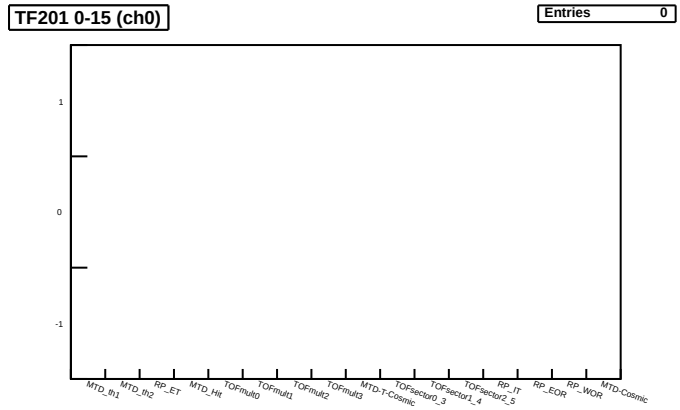

Entries 5874
TOF Mult
ZDC-East ADC Sum Att

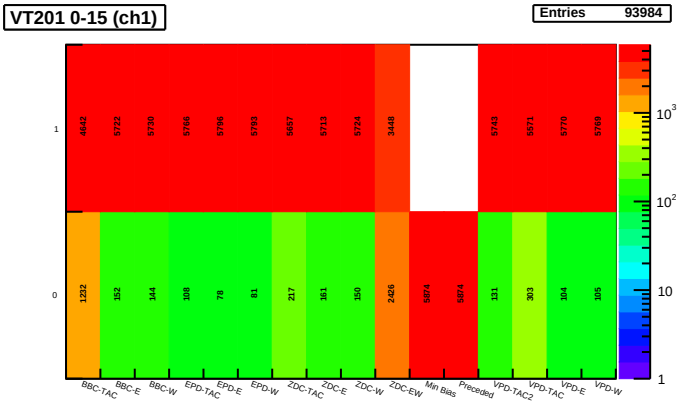

Entries 5874
TOF Mult
ZDC-West ADC Sum Att

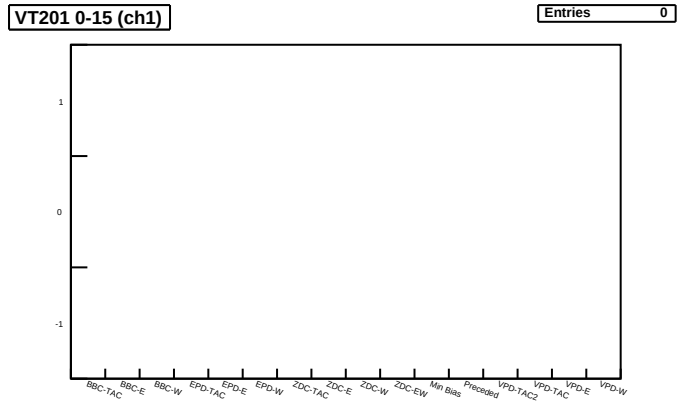

Entries 5874
EPD TAC Diff
ZDC TAC Diff
0
500
1000
1500
2000
1000
2000
3000
4000
5000
6000
7000
8000
1
10
10^2

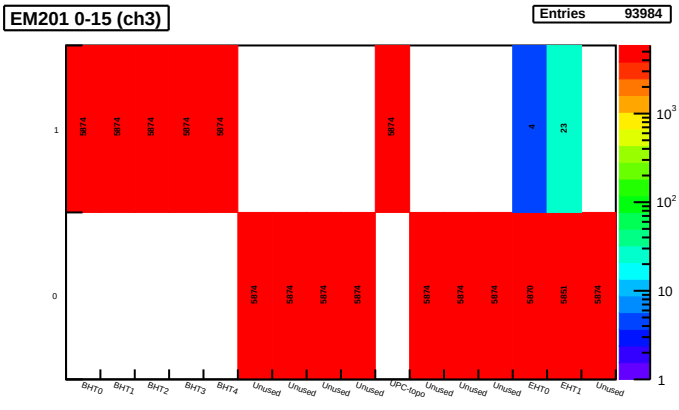

Entries 5874
EPD TAC Diff
BBC TAC Diff
0
1000
2000
3000
4000
5000
6000
7000
8000
1
10
10^2

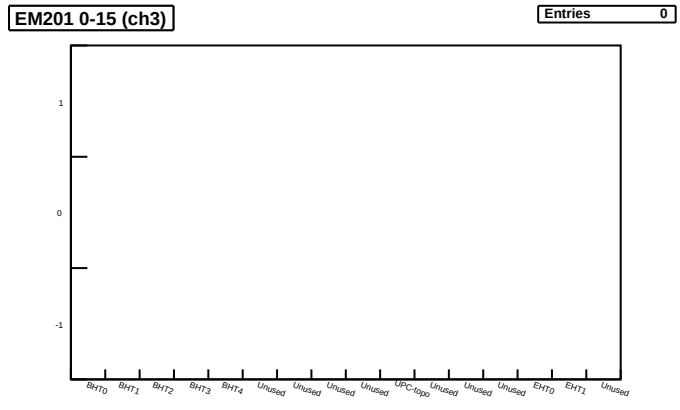

TF201 0-15 (ch0)
Entries 93984
989 321 5874 1976 5874 5738 5625 4919 473 5496 5600 5487 5874 5874 5874 790
4885 5553 3898 116 249 955 5401 378 274 387 5084
MTD_th1 MTD_th2 RP_ET MTD_Hit TOFmult0 TOFmult1 TOFmult2 TOFmult3 MTD-T-Cosmic TOFsector0_3 TOFsector1_4 TOFsector2_5 RP_IT RP_EOR RP_WOR MTD-Cosmic

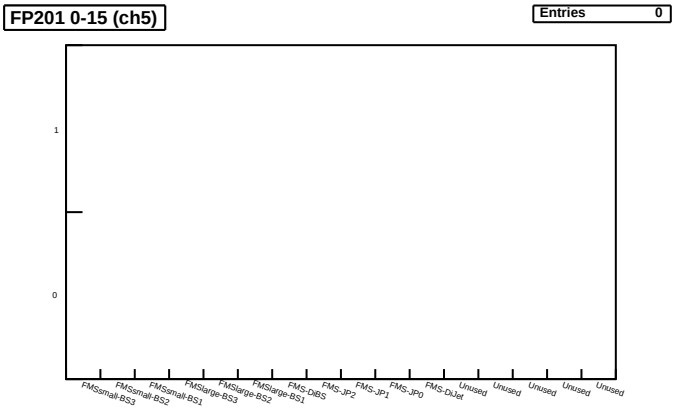

TF201 0-15 (ch0)
Entries 0
MTD_th1 MTD_th2 RP_ET MTD_Hit TOFmult0 TOFmult1 TOFmult2 TOFmult3 MTD-T-Cosmic TOFsector0_3 TOFsector1_4 TOFsector2_5 RP_IT RP_EOR RP_WOR MTD-Cosmic

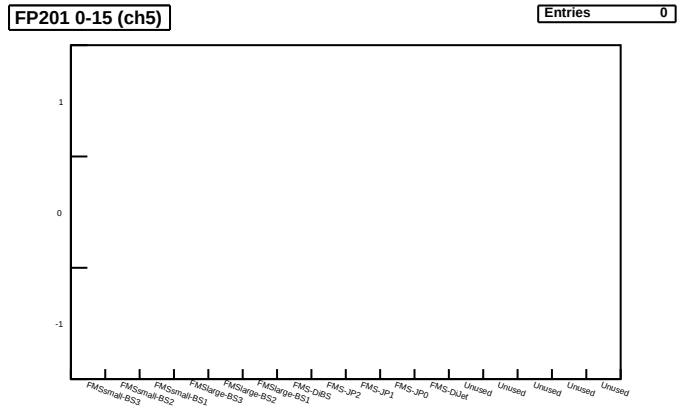

VT201 0-15 (ch1)
Entries 93984
4642 5722 5730 5766 5796 5793 5657 5713 5724 3448 5743 5571 5770 5769
1232 152 144 108 78 81 217 161 150 2426 5874 5874 131 303 104 105
BBC-TAC BBC-E BBC-W EPD-TAC EPD-E EPD-W ZDC-TAC ZDC-E ZDC-W ZDC-EW Min Bias Preceded VPD-TAC2 VPD-TAC VPD-E VPD-W


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 93984
5874 5874 5874 5874 5874 5874 4 23
5874 5874 5874 5874 5874 5874 5874 5870 5851 5874
BHT0 BHT1 BHT2 BHT3 BHT4 Unused Unused Unused Unused UPC-topo Unused Unused Unused EHT0 EHT1 Unused


EM201 0-15 (ch3)
Entries 0
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