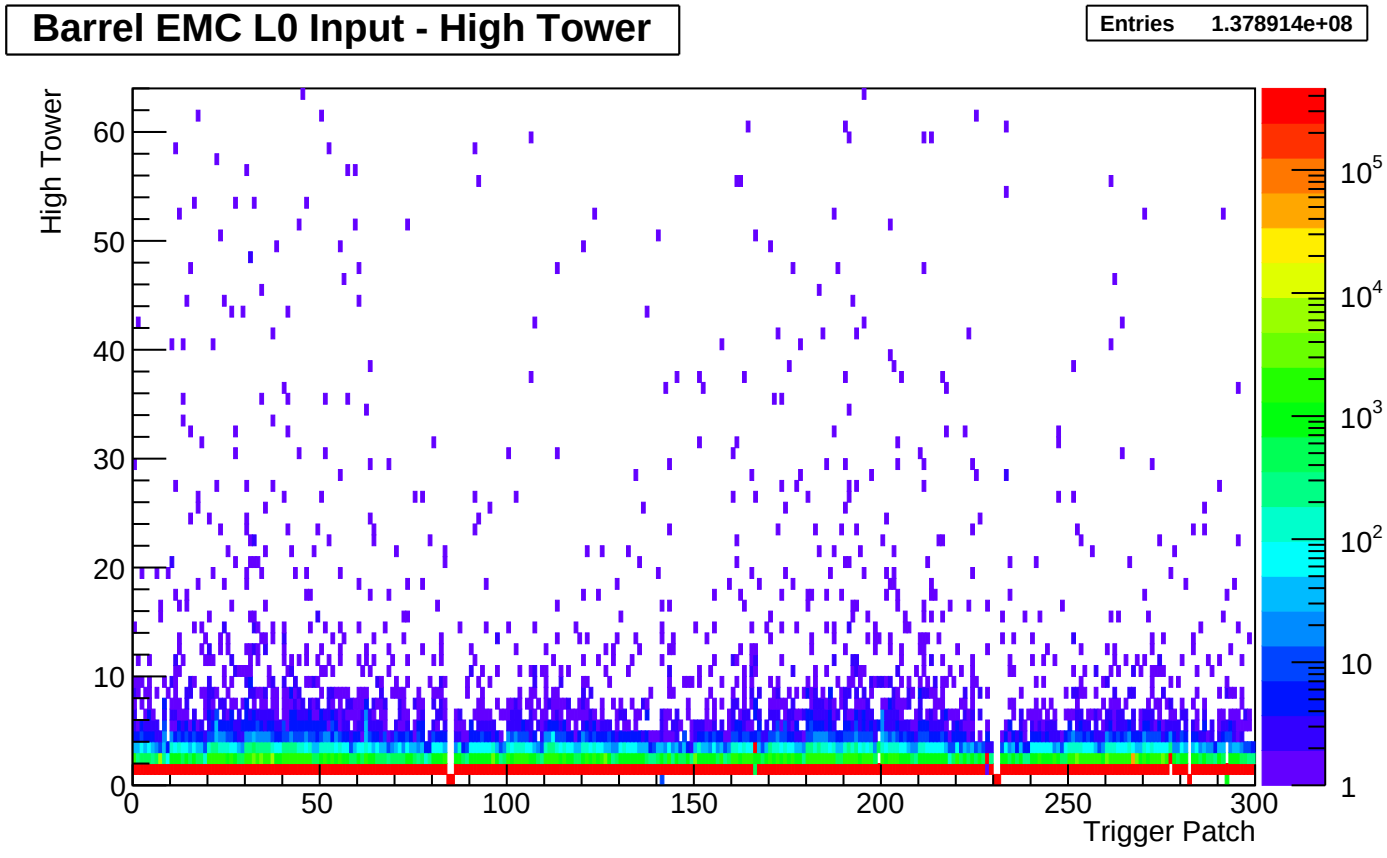
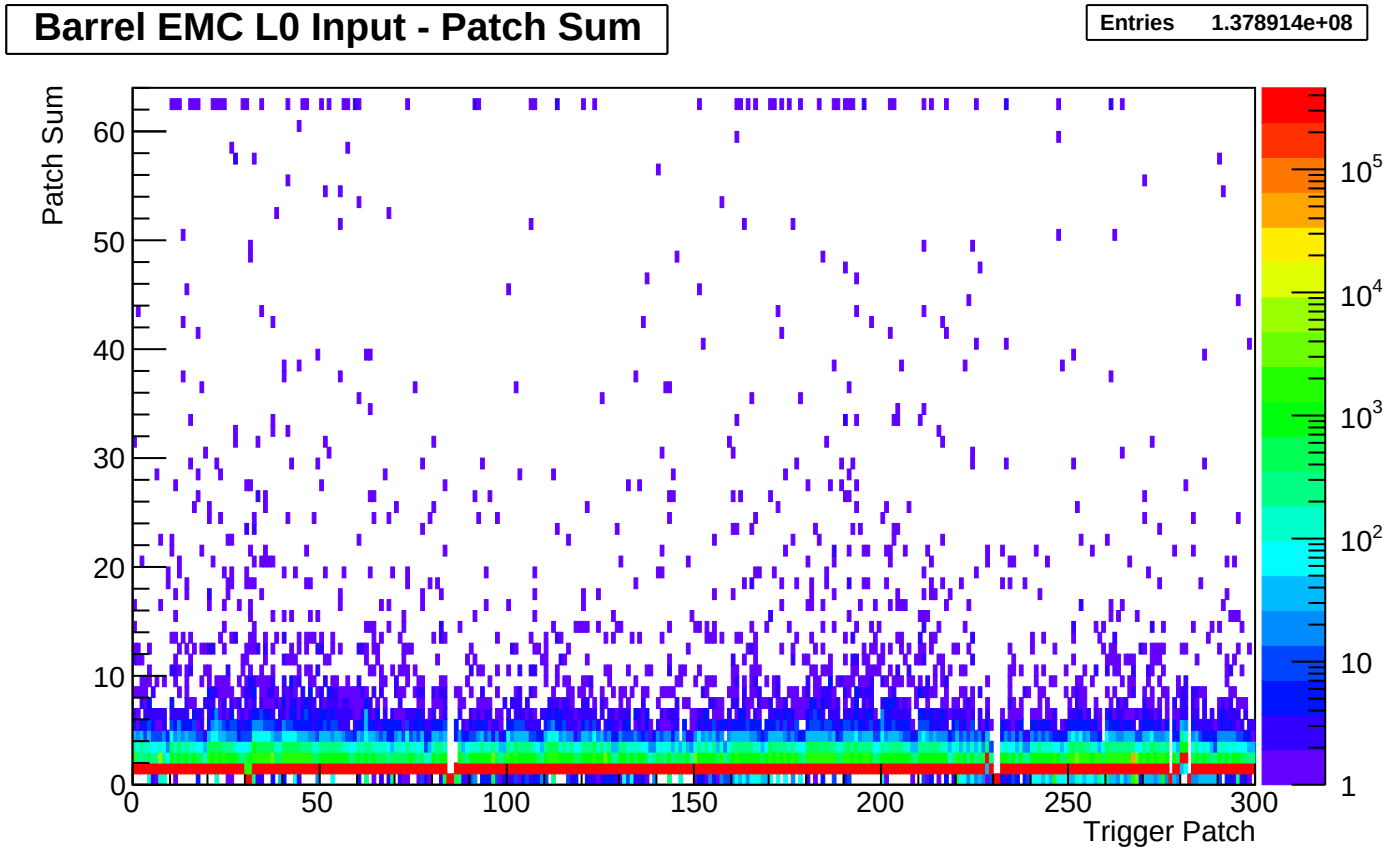
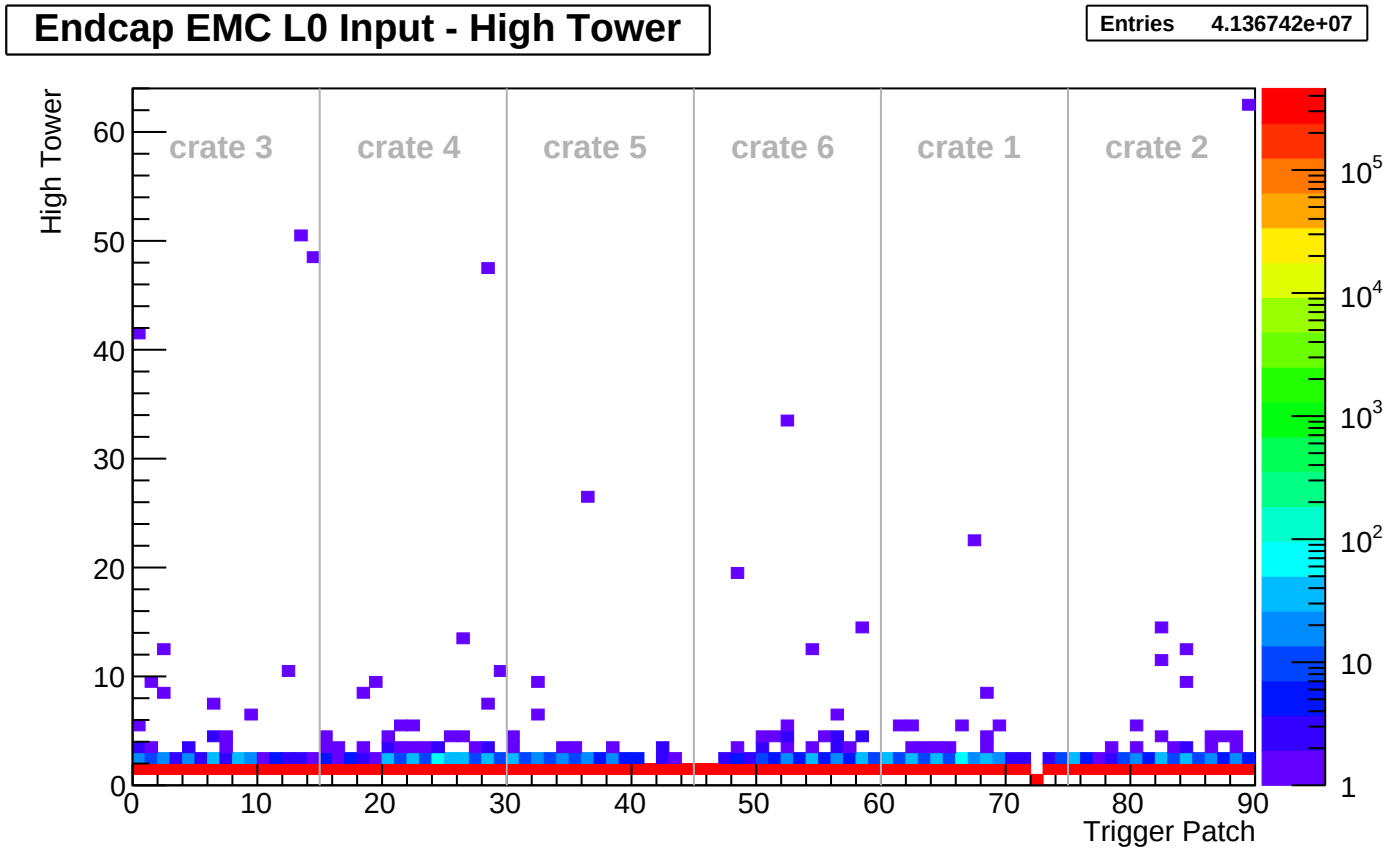
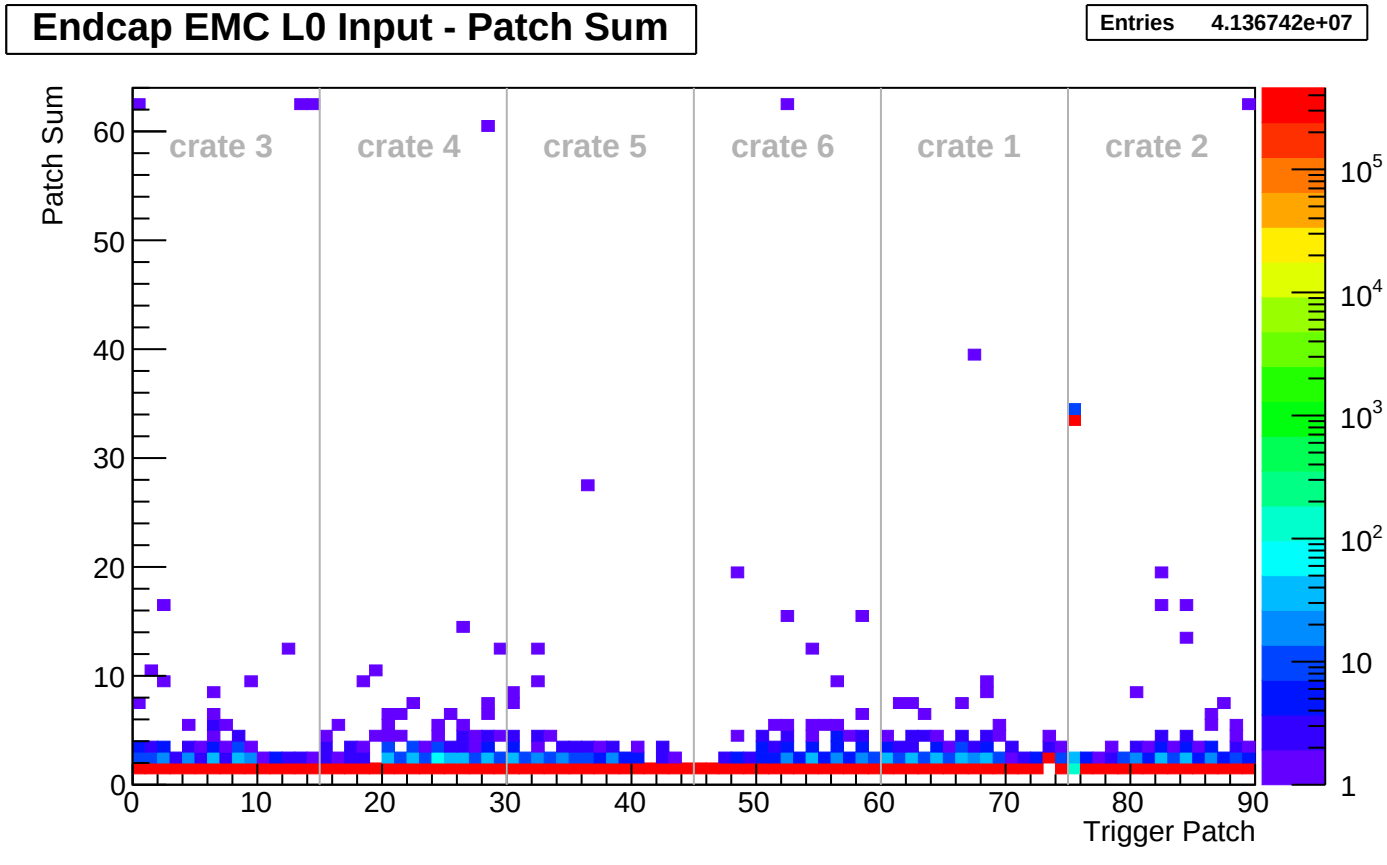
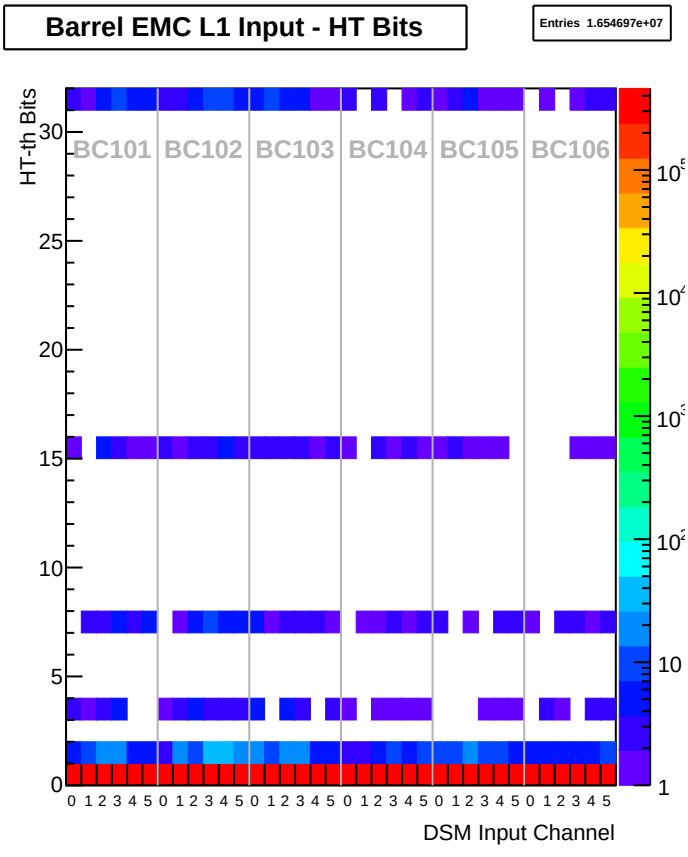
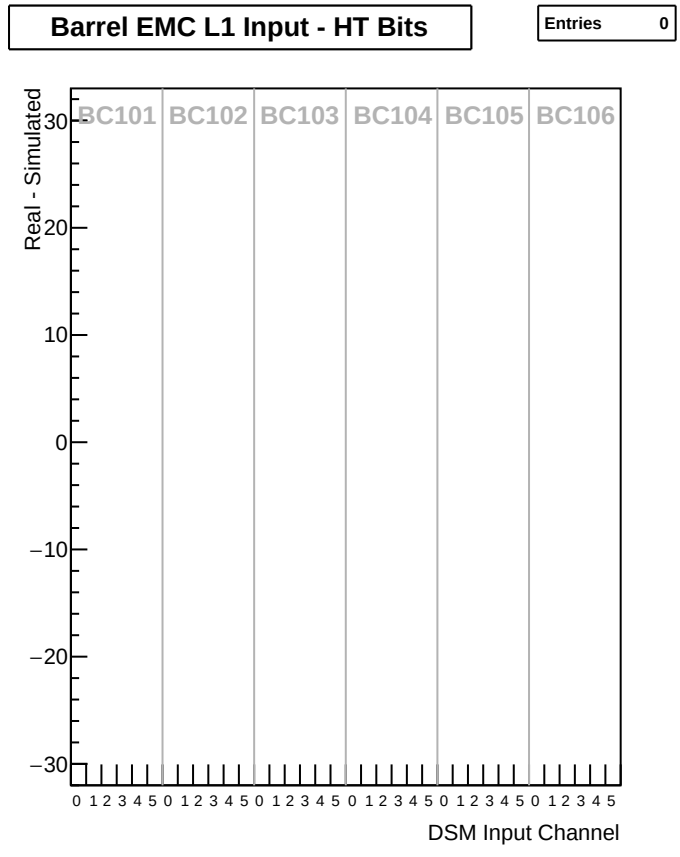

Barrel EMC L0 Input - High Tower
Entries 1.378914e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
$10^2$
$10^3$
$10^4$
$10^5$

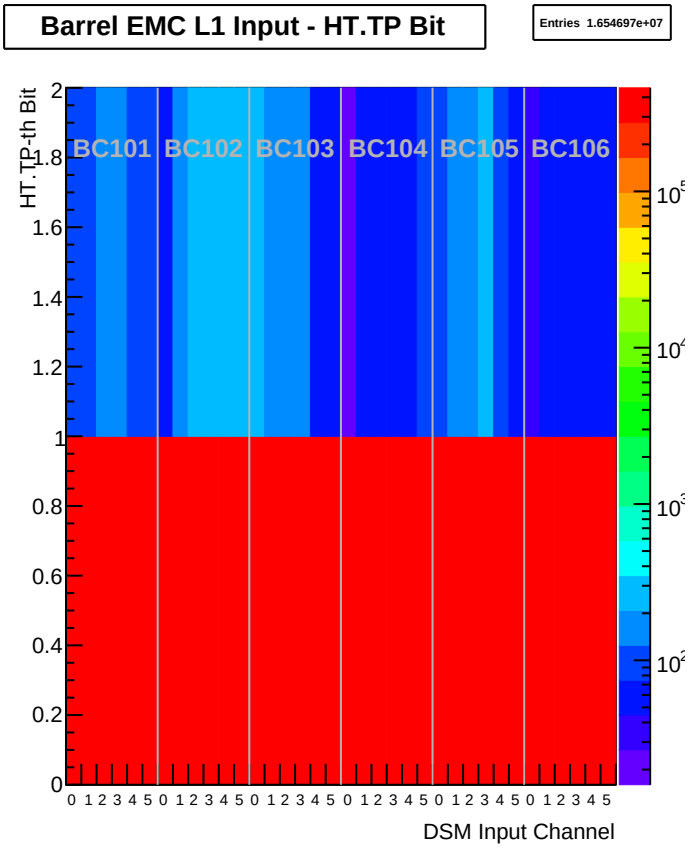

Barrel EMC L0 Input - Patch Sum
Entries 1.378914e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
$10^2$
$10^3$
$10^4$
$10^5$

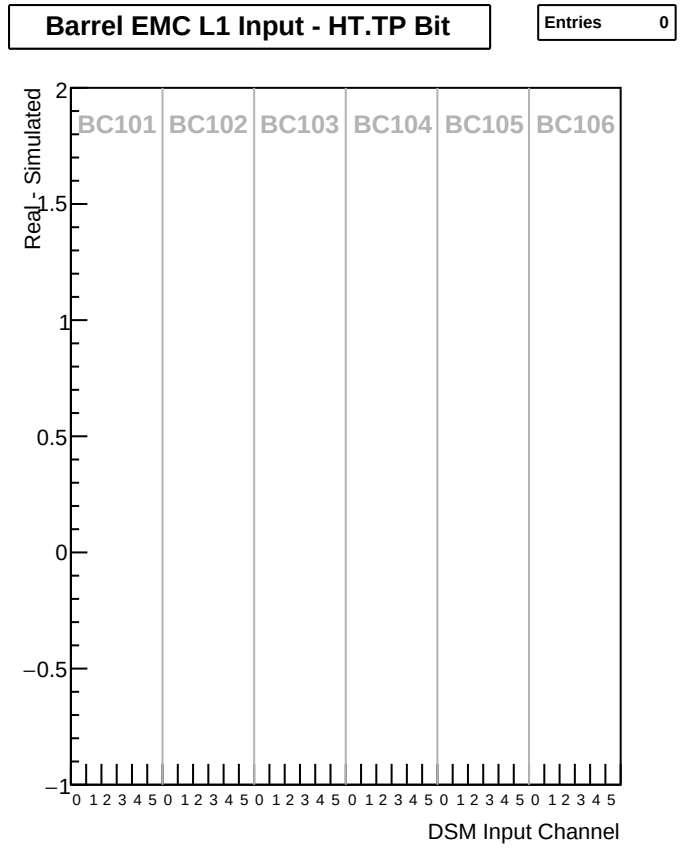

Endcap EMC L0 Input - High Tower
Entries 4.136742e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

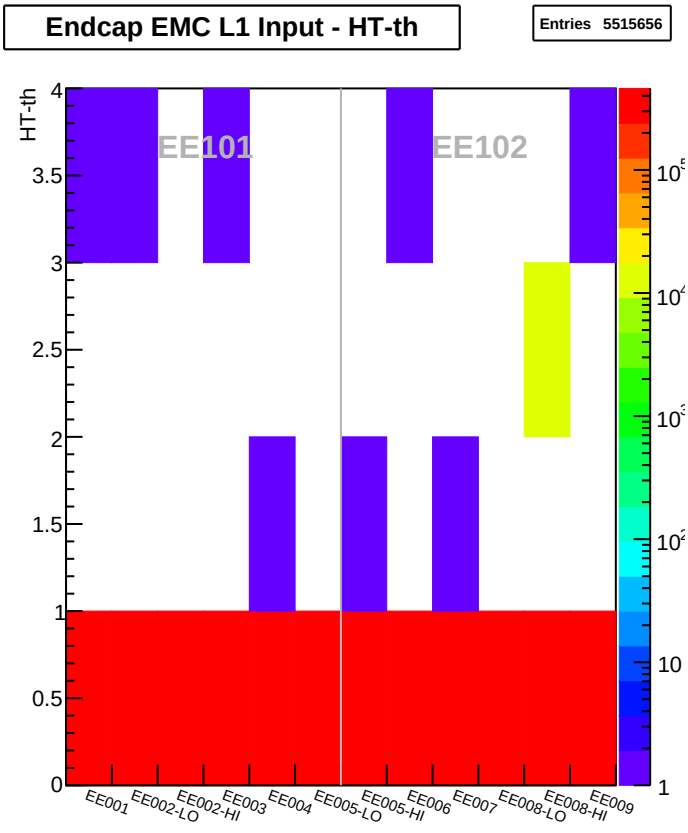

Endcap EMC L0 Input - Patch Sum
Entries 4.136742e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

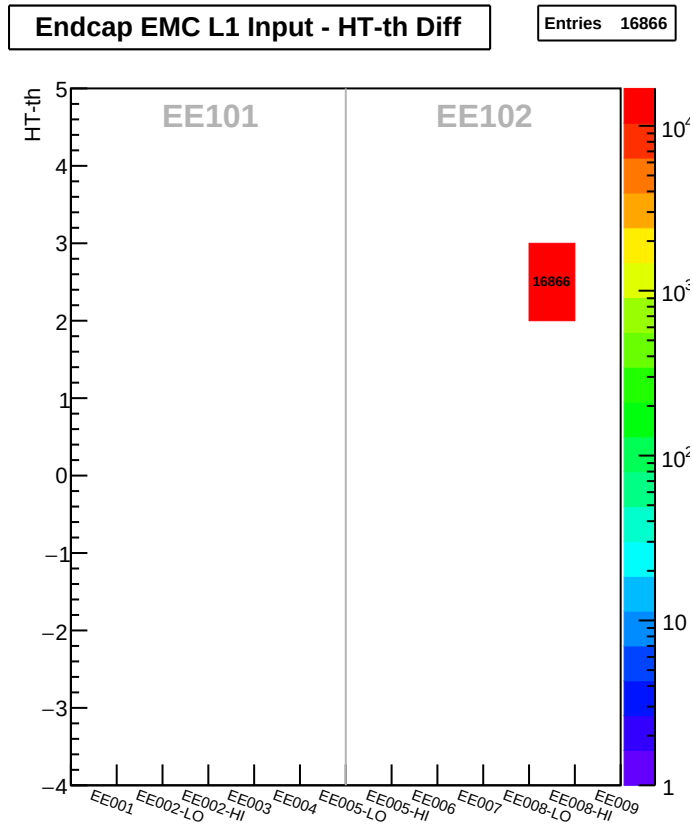

Barrel EMC L1 Input - HT Bits
Entries 1.654697e+07
HT-th Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

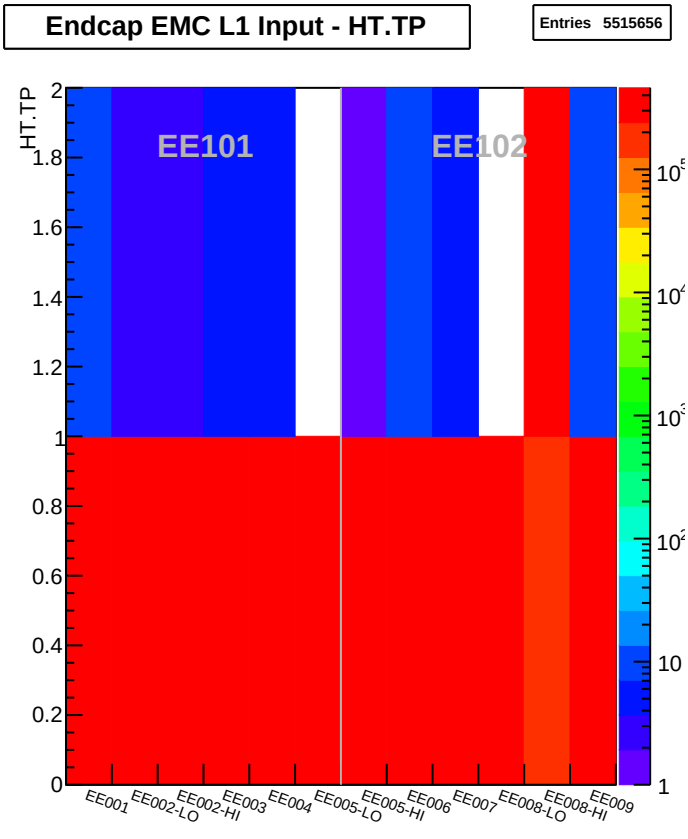

Barrel EMC L1 Input - HT Bits
Entries 0
Real - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

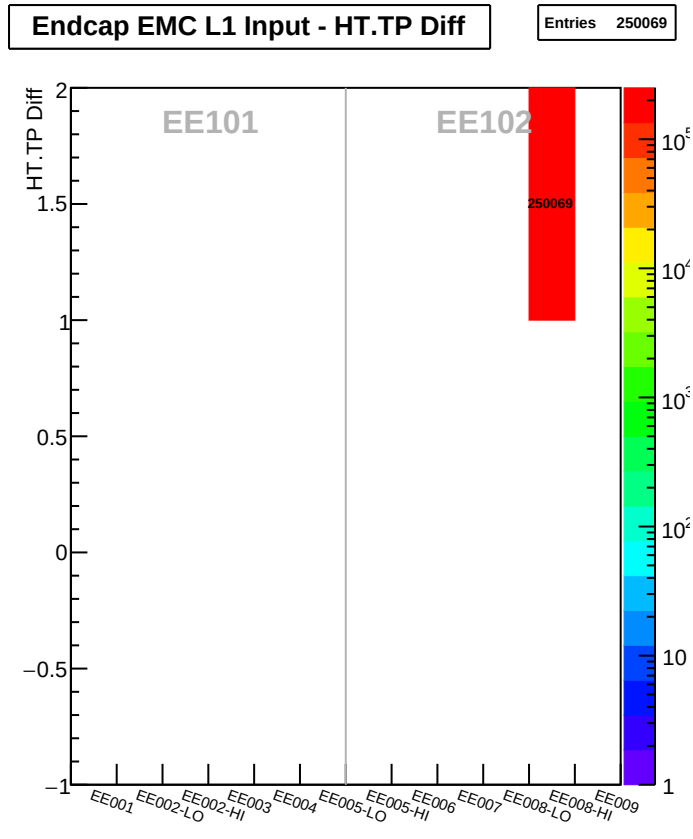

Barrel EMC L1 Input - HT.TP Bit
Entries 1.654697e+07
HT.TP-th Bit
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

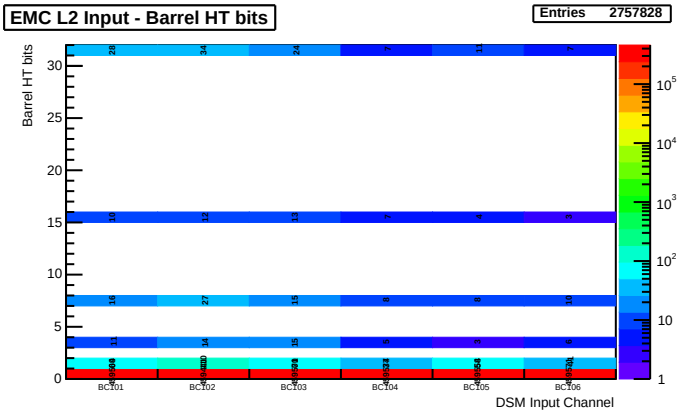

Barrel EMC L1 Input - HT.TP Bit
Entries 0
Real - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

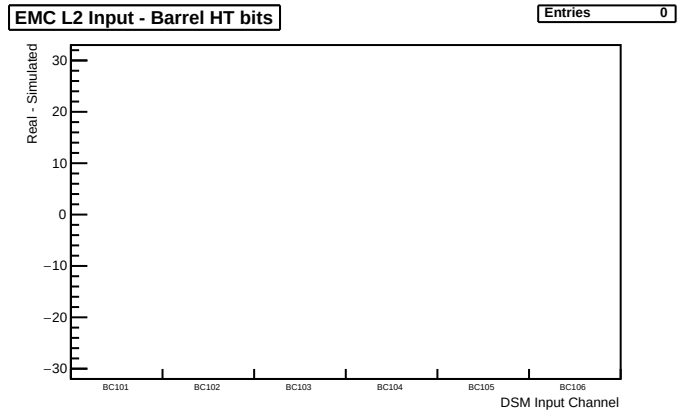

Endcap EMC L1 Input - HT-th
Entries 5515656
HT-th
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

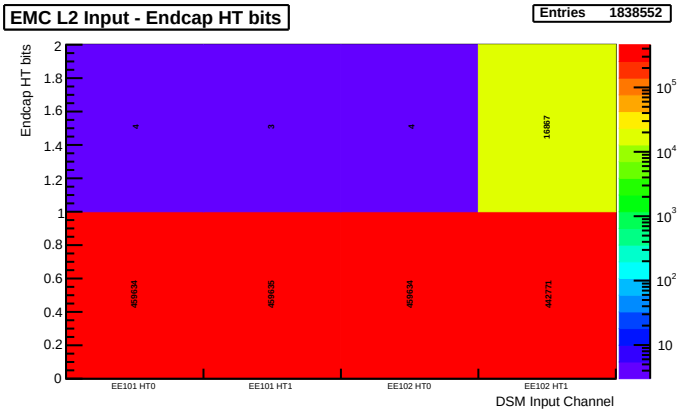

Endcap EMC L1 Input - HT-th Diff
Entries 16866
HT-th
EE101
EE102
16866
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

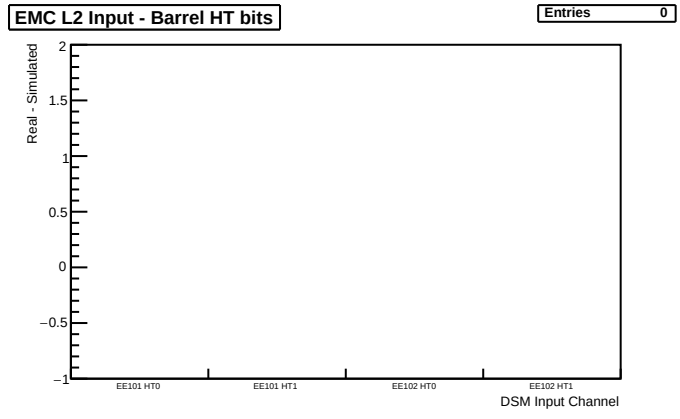

Endcap EMC L1 Input - HT.TP
Entries 5515656
HT.TP
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

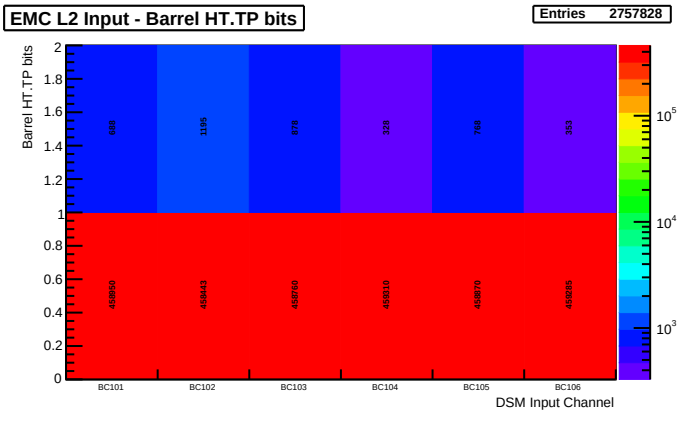

Endcap EMC L1 Input - HT.TP Diff
Entries 250069
HT.TP Diff
EE101
EE102
250069
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

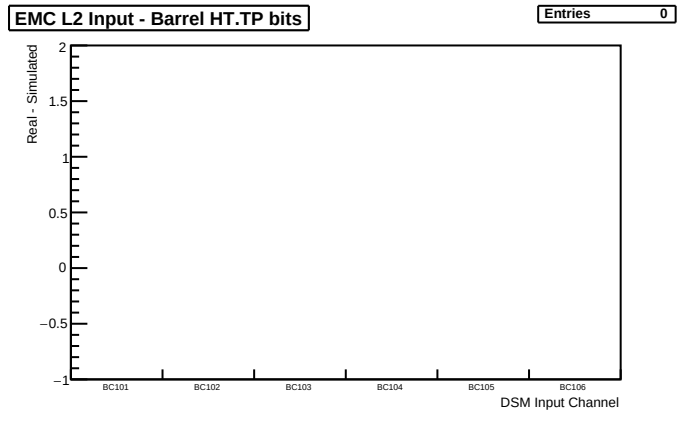

EMC L2 Input - Barrel HT bits
Entries 2757828
Barrel HT bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

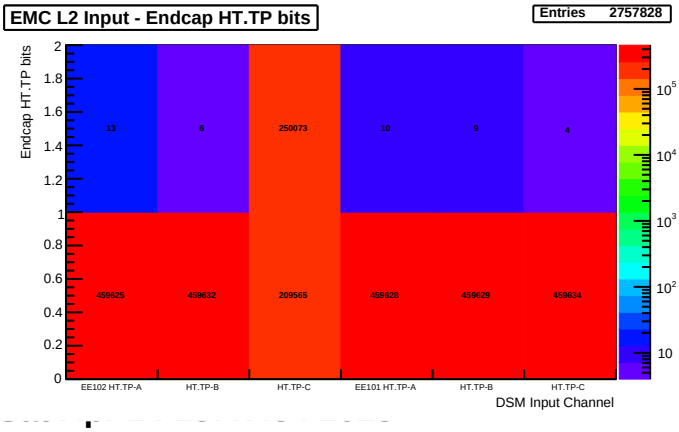

EMC L2 Input - Barrel HT bits
Entries 0
Real - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

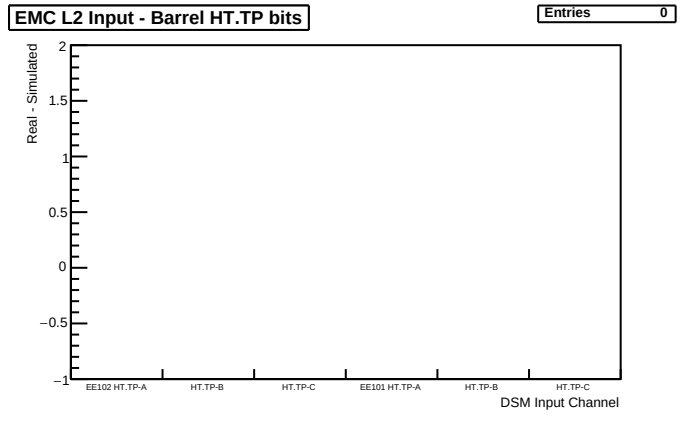

EMC L2 Input - Endcap HT bits
Entries 1838552
Endcap HT bits
DSM Input Channel
EE101 HT0
EE101 HT1
EE102 HT0
EE102 HT1

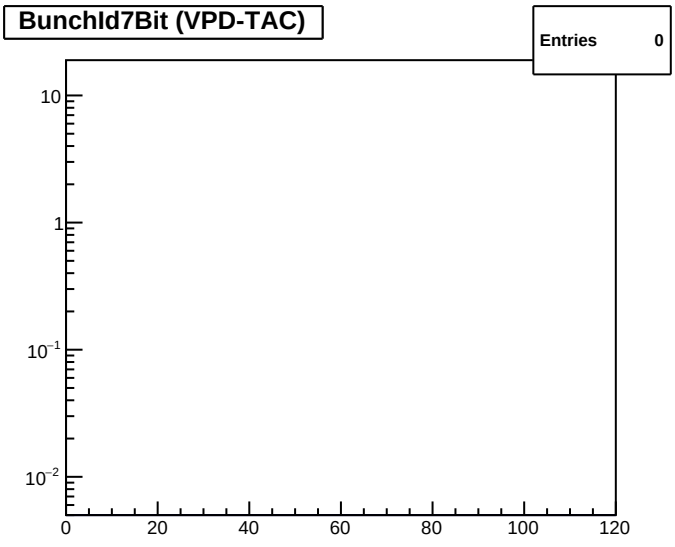

EMC L2 Input - Barrel HT bits
Entries 0
Real - Simulated
DSM Input Channel
EE101 HT0
EE101 HT1
EE102 HT0
EE102 HT1

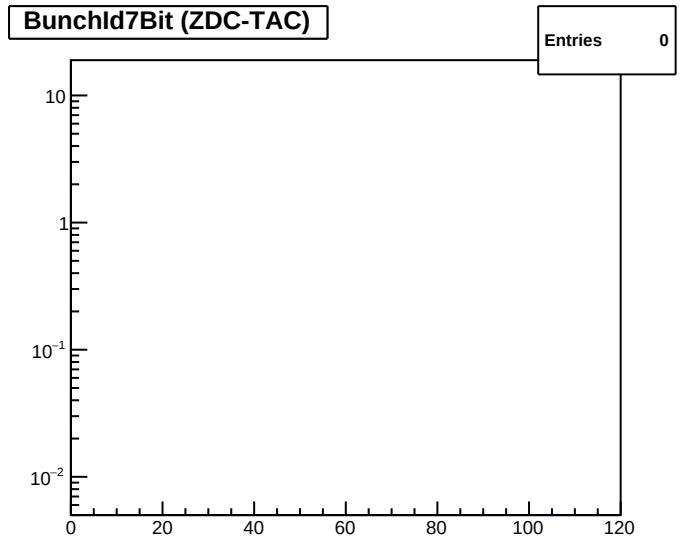

EMC L2 Input - Barrel HT.TP bits
Entries 2757828
Barrel HT.TP bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

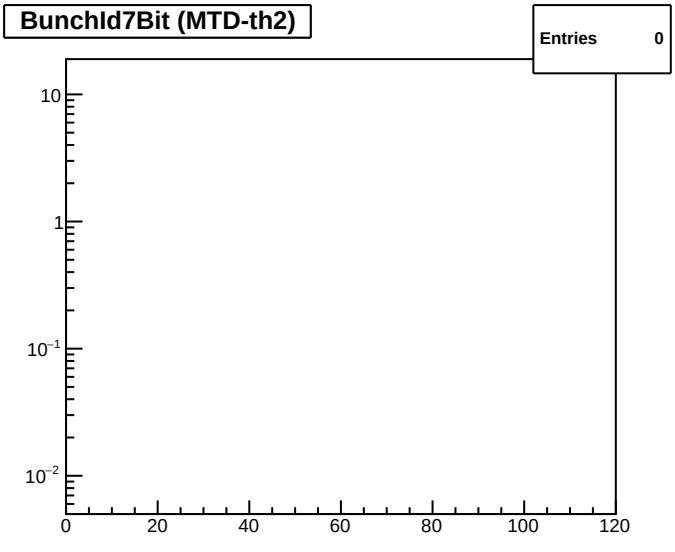

EMC L2 Input - Barrel HT.TP bits
Entries 0
Real - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

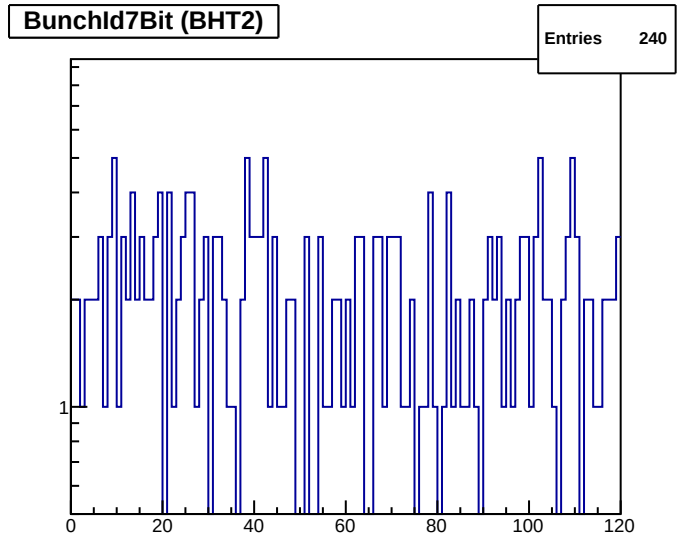

EMC L2 Input - Endcap HT.TP bits
Entries 2757828
Endcap HT.TP bits
DSM Input Channel
EE102 HT.TP-A
HT.TP-B
HT.TP-C
EE101 HT.TP-A
HT.TP-B
HT.TP-C

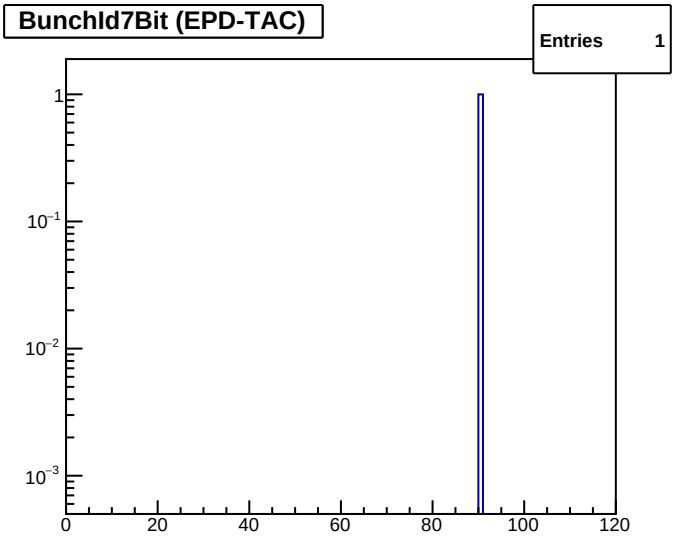

EMC L2 Input - Barrel HT.TP bits
Entries 0
Real - Simulated
DSM Input Channel
EE102 HT.TP-A
HT.TP-B
HT.TP-C
EE101 HT.TP-A
HT.TP-B
HT.TP-C

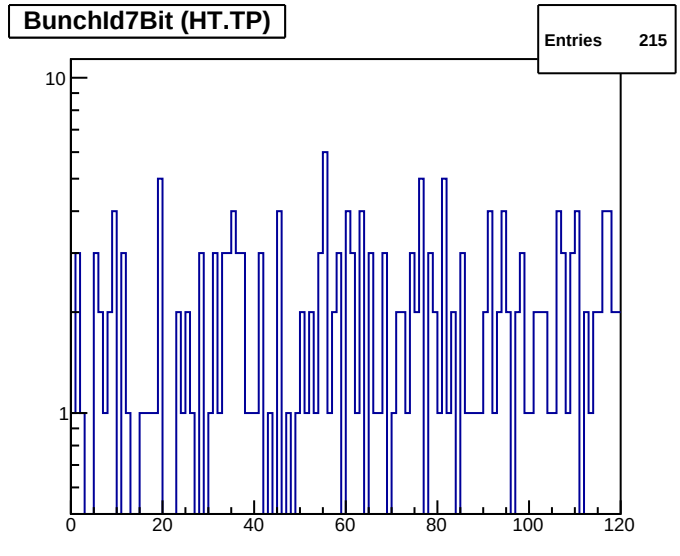

BunchId7Bit (VPD-TAC)
Entries 0

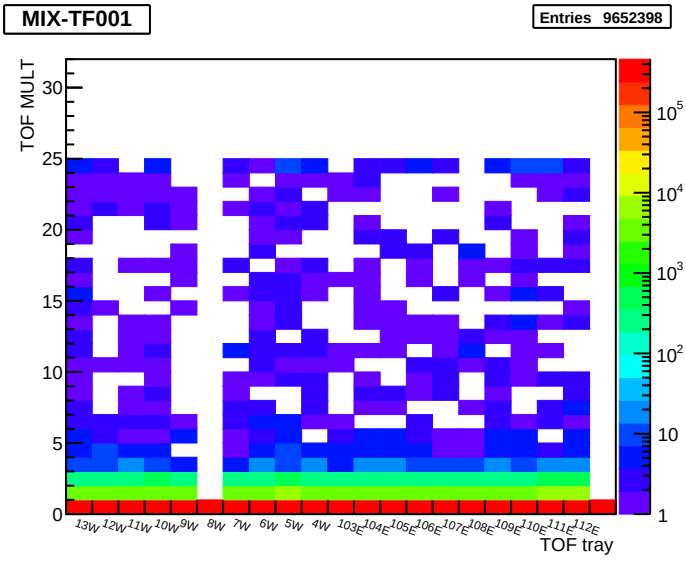

BunchId7Bit (ZDC-TAC)
Entries 0

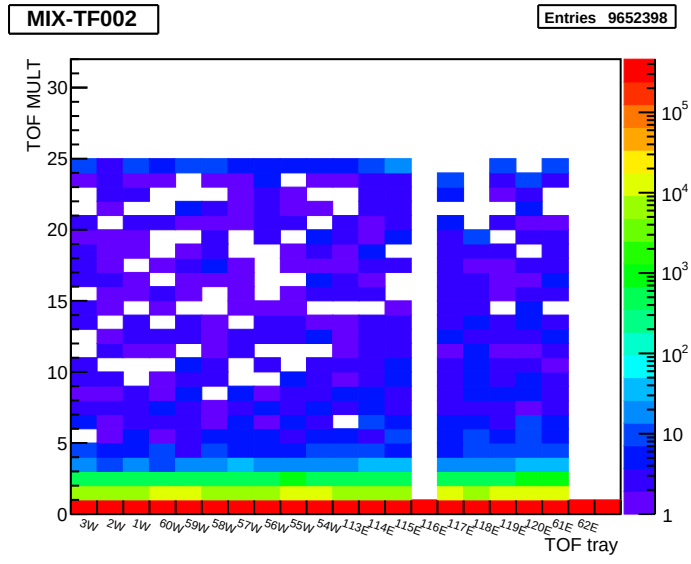

BunchId7Bit (MTD-th2)
Entries 0

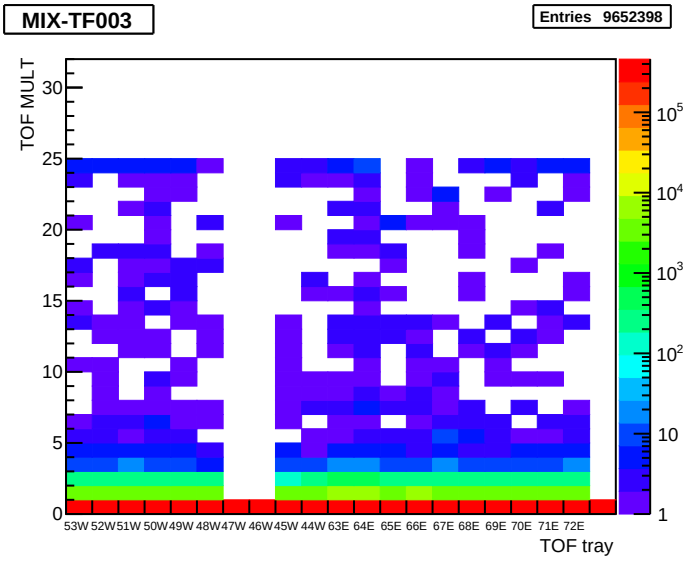

BunchId7Bit (BHT2)
Entries 240

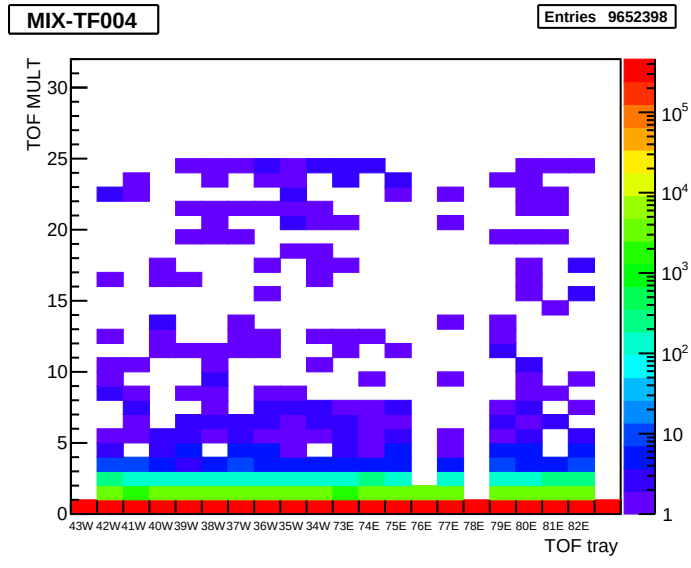

BunchId7Bit (EPD-TAC)
Entries 1

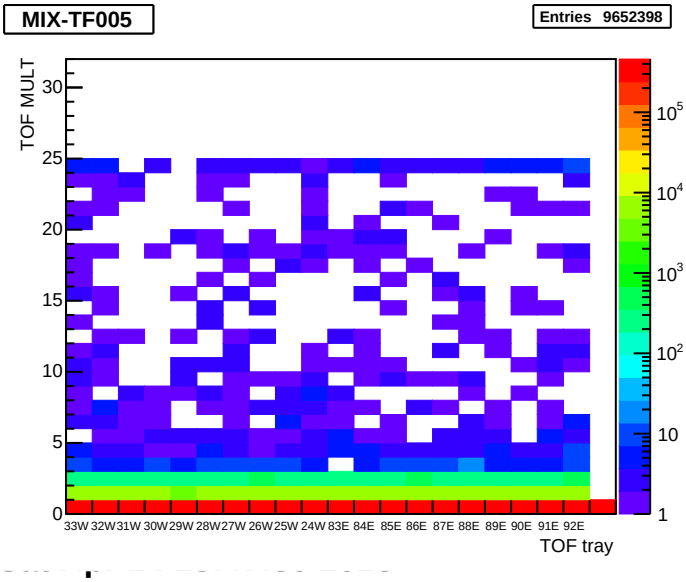

BunchId7Bit (HT.TP)
Entries 215

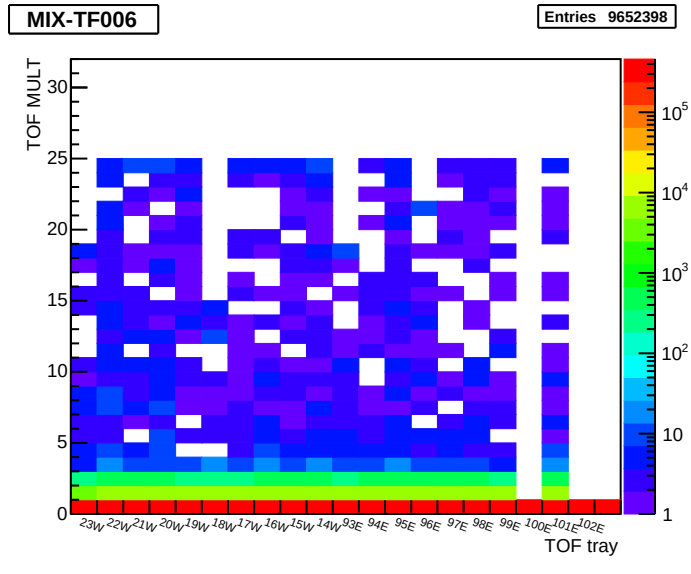

MIX-TF001
Entries 9652398
TOF MULT
TOF tray

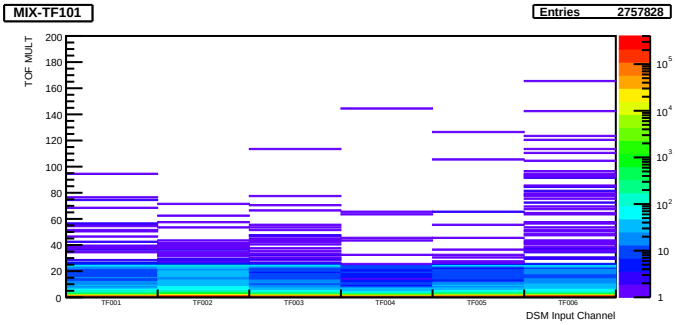

MIX-TF002
Entries 9652398
TOF MULT
TOF tray

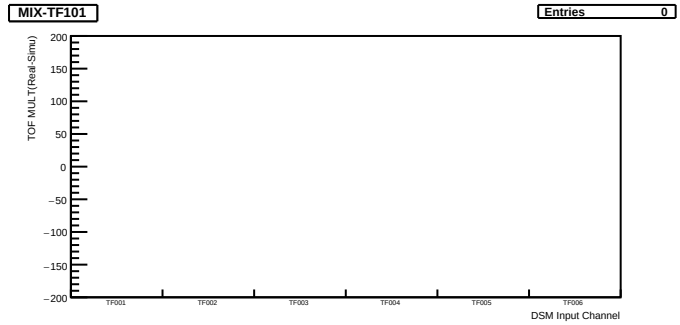

MIX-TF003
Entries 9652398
TOF MULT
TOF tray

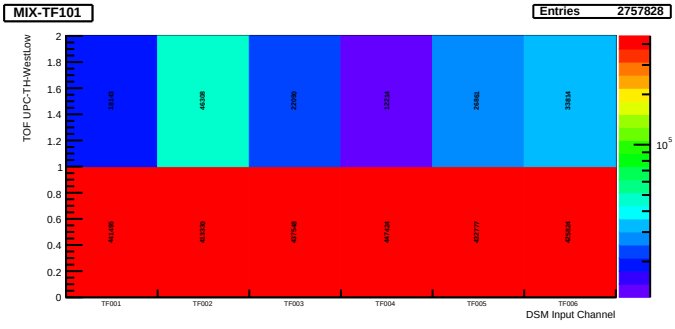

MIX-TF004
Entries 9652398
TOF MULT
TOF tray

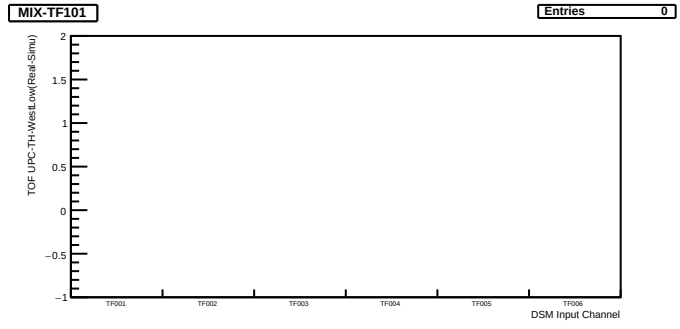

MIX-TF005
Entries 9652398
TOF MULT
TOF tray

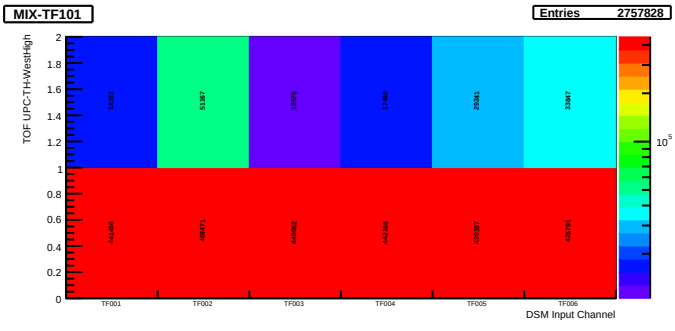

MIX-TF006
Entries 9652398
TOF MULT
TOF tray

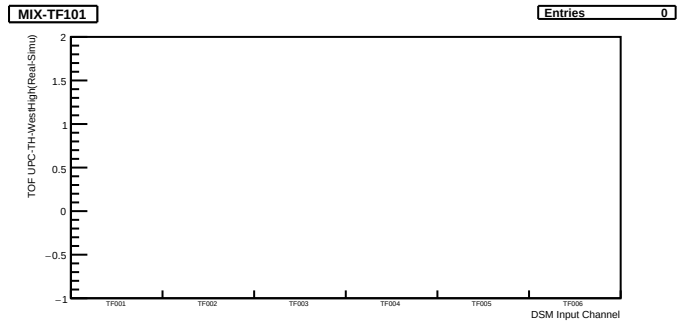

MIX-TF101
Entries 2757828
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

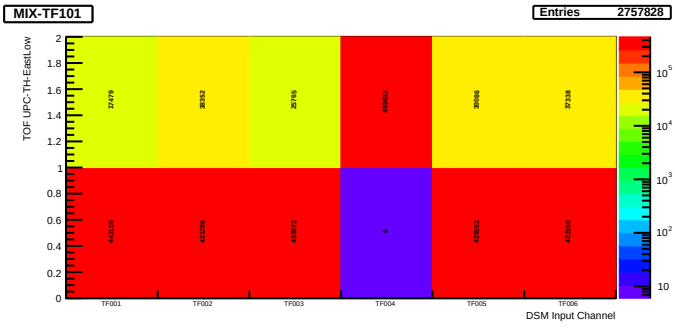

MIX-TF101
Entries 0
TOF MULT(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

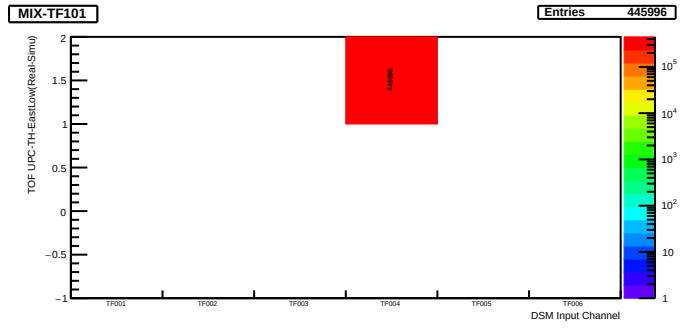

MIX-TF101
Entries 2757828
TOF UPC-TH-WestLow
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

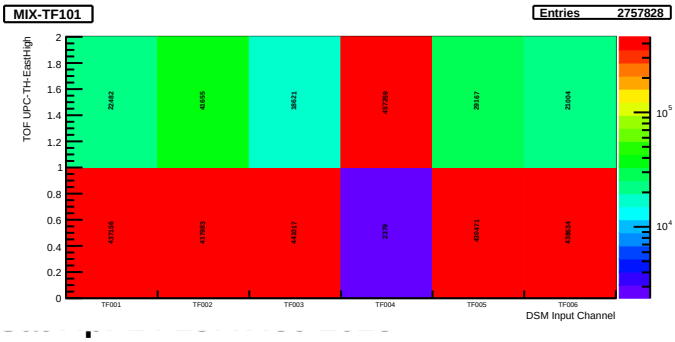

MIX-TF101
Entries 0
TOF UPC-TH-WestLow(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

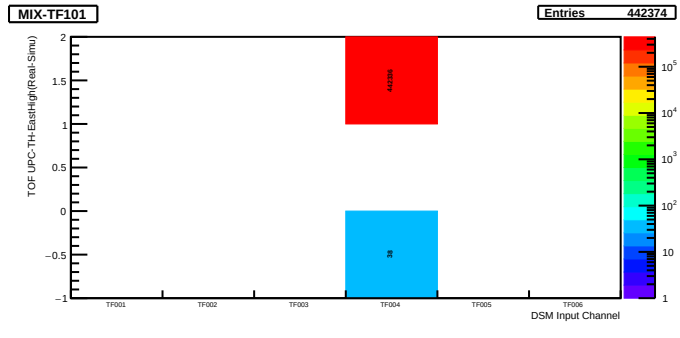

MIX-TF101
Entries 2757828
TOF UPC-TH-WestHigh
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

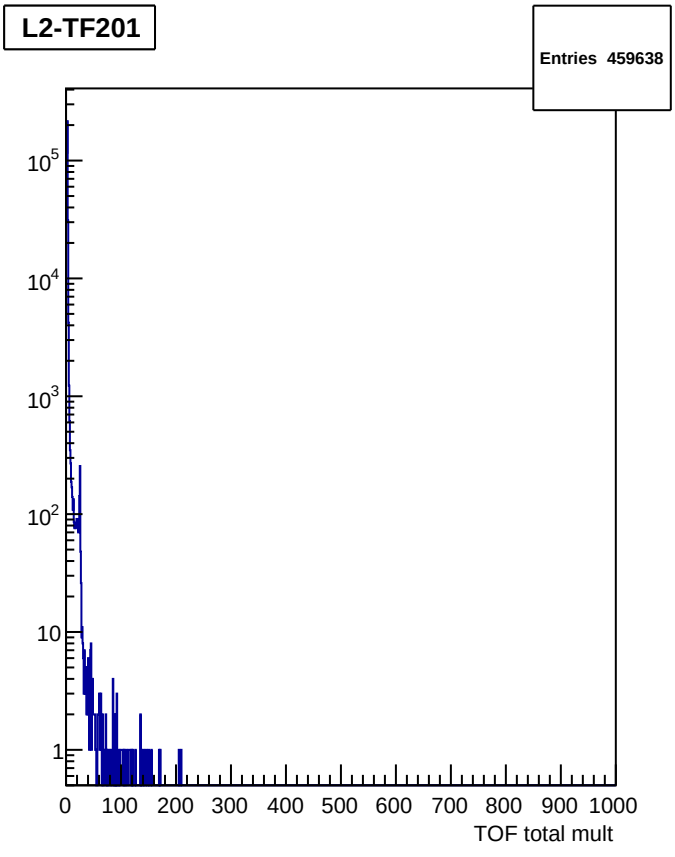

MIX-TF101
Entries 0
TOF UPC-TH-WestHigh(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

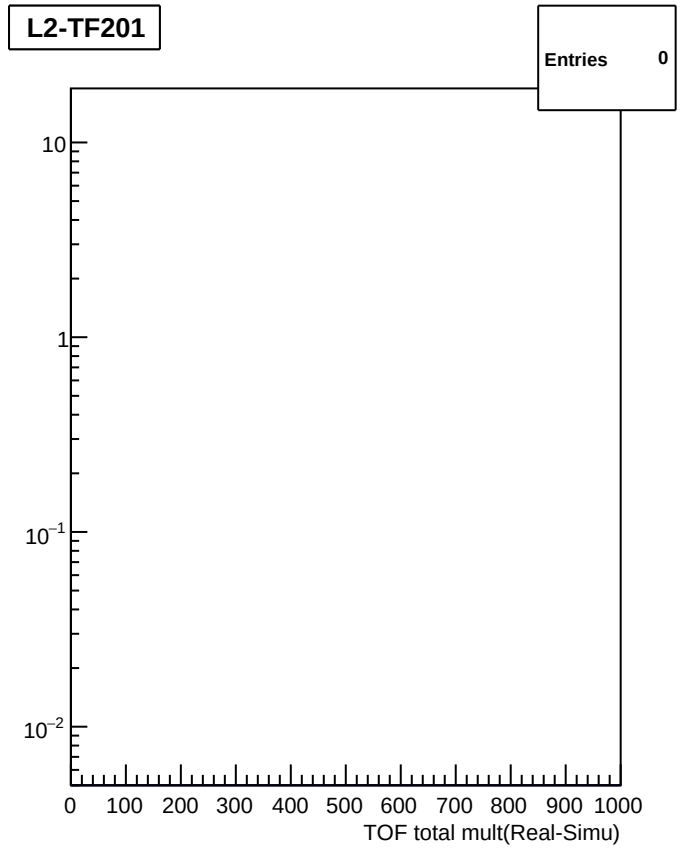

MIX-TF101
Entries 2757828
TOF UPC-TH-EastLow
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

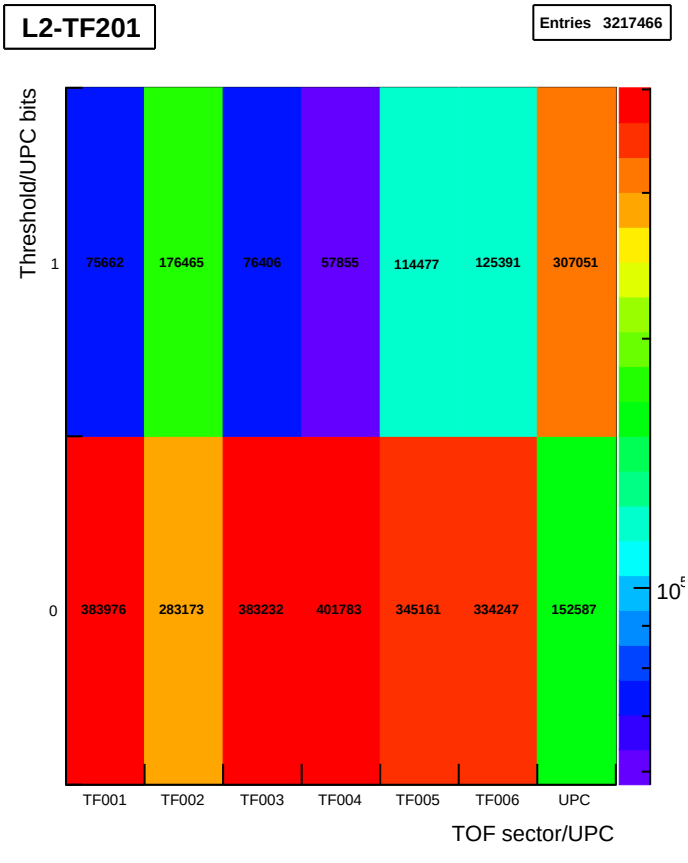

MIX-TF101
Entries 445996
TOF UPC-TH-EastLow(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

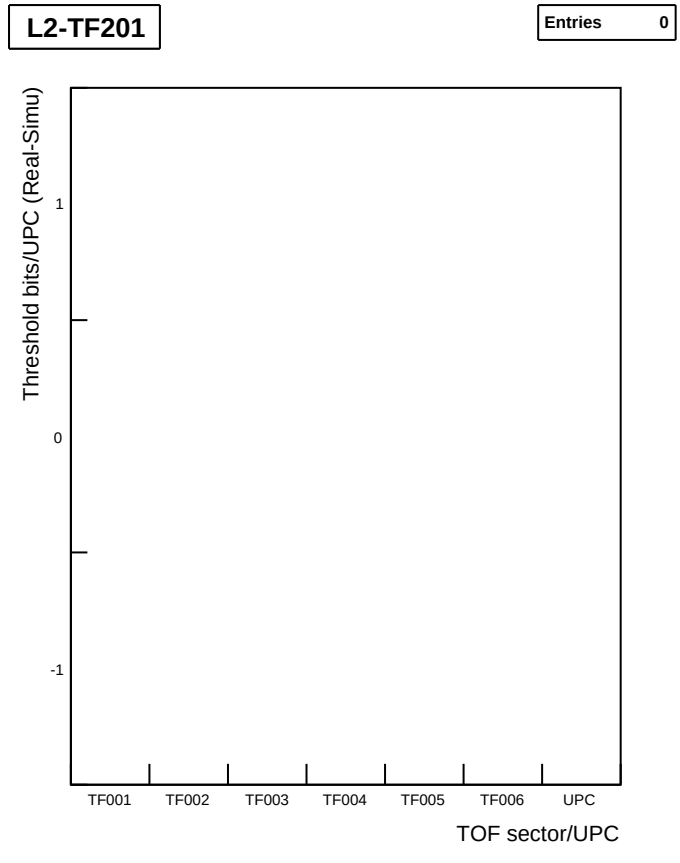

MIX-TF101
Entries 2757828
TOF UPC-TH-EastHigh
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

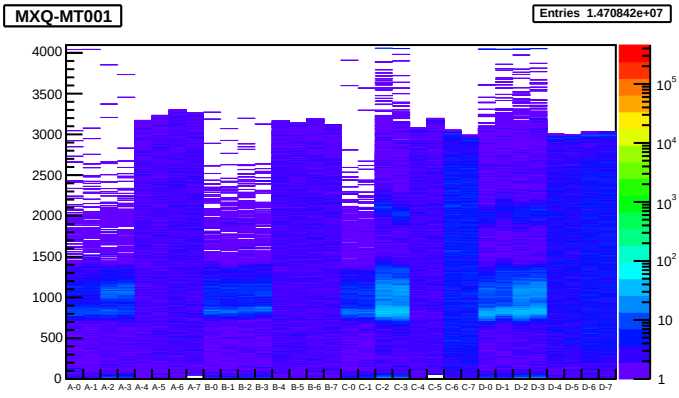

MIX-TF101
Entries 442374
TOF UPC-TH-EastHigh(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

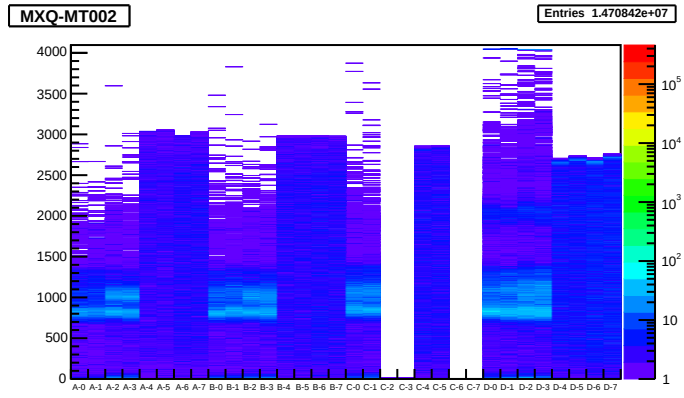

L2-TF201
Entries 459638
TOF total mult

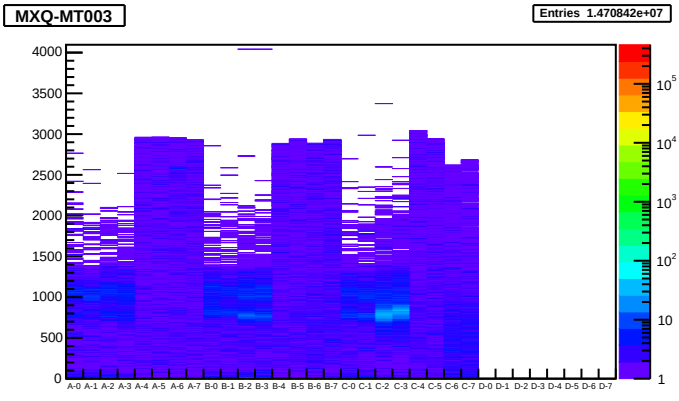

L2-TF201
Entries 0
TOF total mult(Real-Simu)

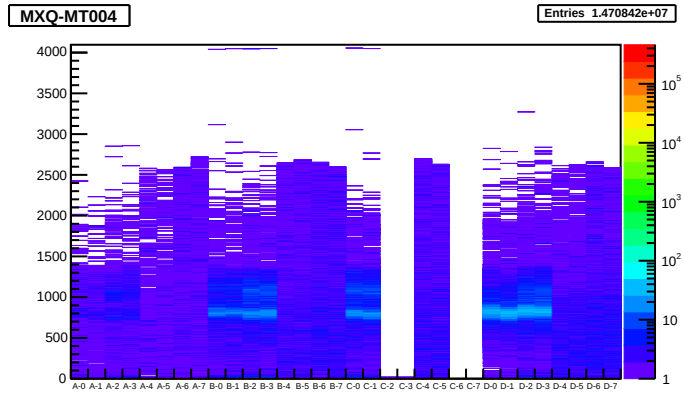

L2-TF201
Entries 3217466
Threshold/UPC bits
75662
176465
76406
57855
114477
125391
307051
383976
283173
383232
401783
345161
334247
152587
TF001
TF002
TF003
TF004
TF005
TF006
UPC
TOF sector/UPC

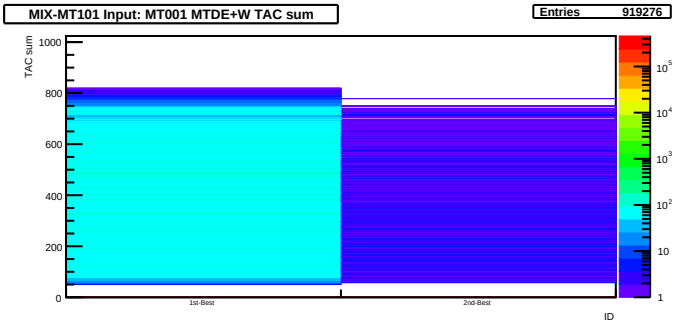

L2-TF201
Entries 0
Threshold bits/UPC (Real-Simu)
TF001
TF002
TF003
TF004
TF005
TF006
UPC
TOF sector/UPC

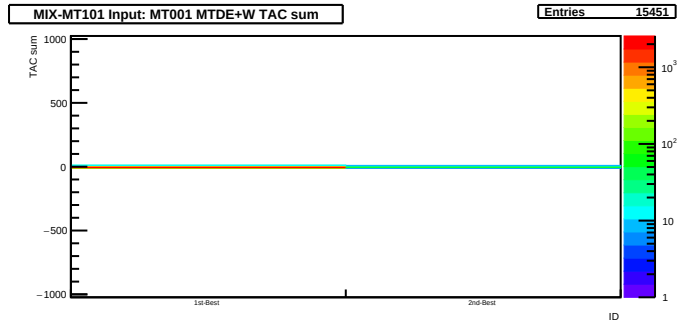

MXQ-MT001
Entries 1.470842e+07
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
$10^5$
$10^4$
$10^3$
$10^2$
10
1

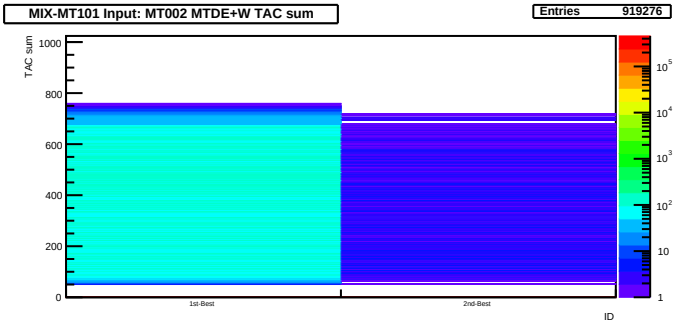

MXQ-MT002
Entries 1.470842e+07
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
$10^5$
$10^4$
$10^3$
$10^2$
10
1

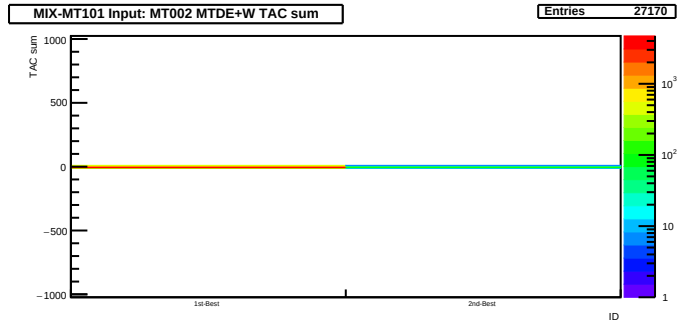

MXQ-MT003
Entries 1.470842e+07
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
$10^5$
$10^4$
$10^3$
$10^2$
10
1

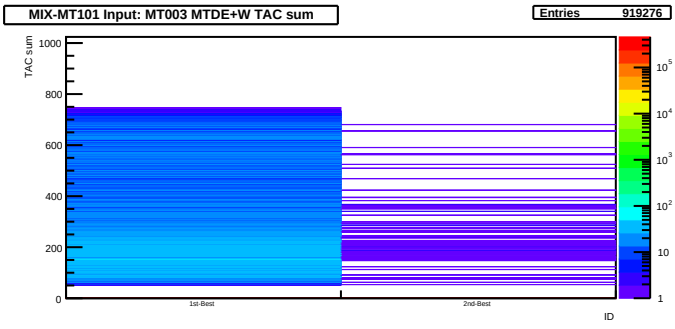

MXQ-MT004
Entries 1.470842e+07
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
$10^5$
$10^4$
$10^3$
$10^2$
10
1

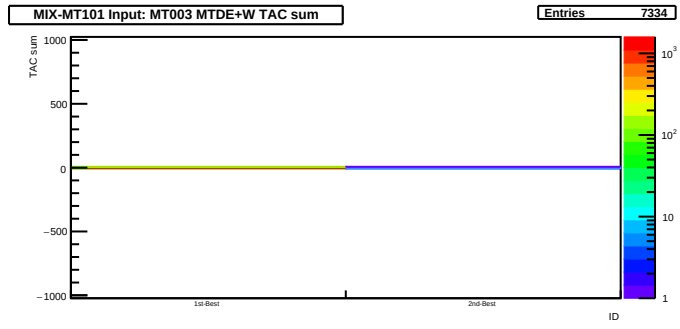

MIX-MT101 Input: MT001 MTDE+W TAC sum
Entries 919276
TAC sum
1st-Best
2nd-Best
ID

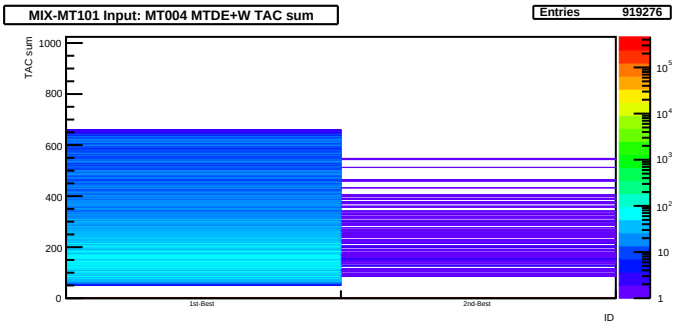

MIX-MT101 Input: MT001 MTDE+W TAC sum
Entries 15451
TAC sum
1st-Best
2nd-Best
ID

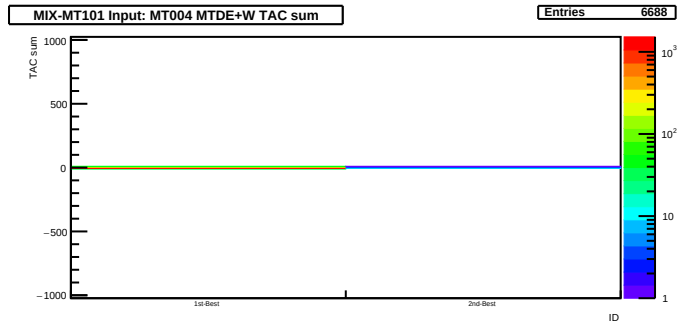

MIX-MT101 Input: MT002 MTDE+W TAC sum
Entries 919276
TAC sum
1st-Best
2nd-Best
ID

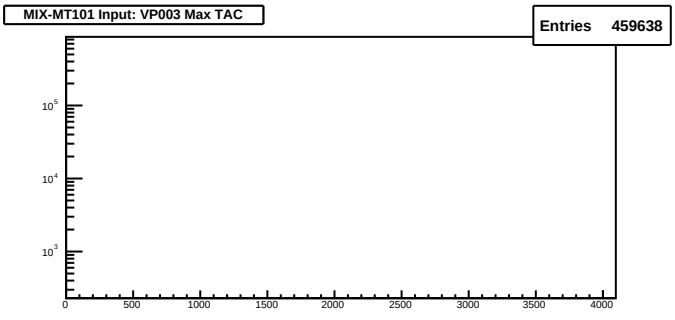

MIX-MT101 Input: MT002 MTDE+W TAC sum
Entries 27170
TAC sum
1st-Best
2nd-Best
ID

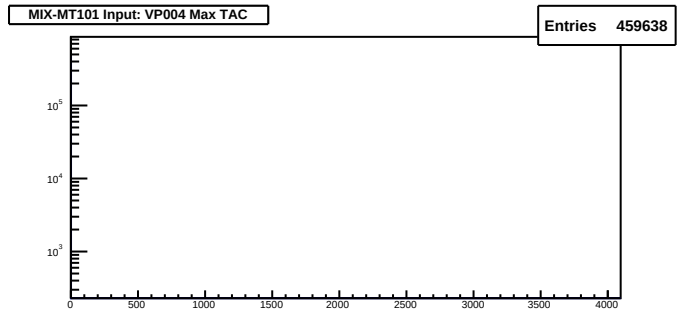

MIX-MT101 Input: MT003 MTDE+W TAC sum
Entries 919276
TAC sum
1st-Best
2nd-Best
ID

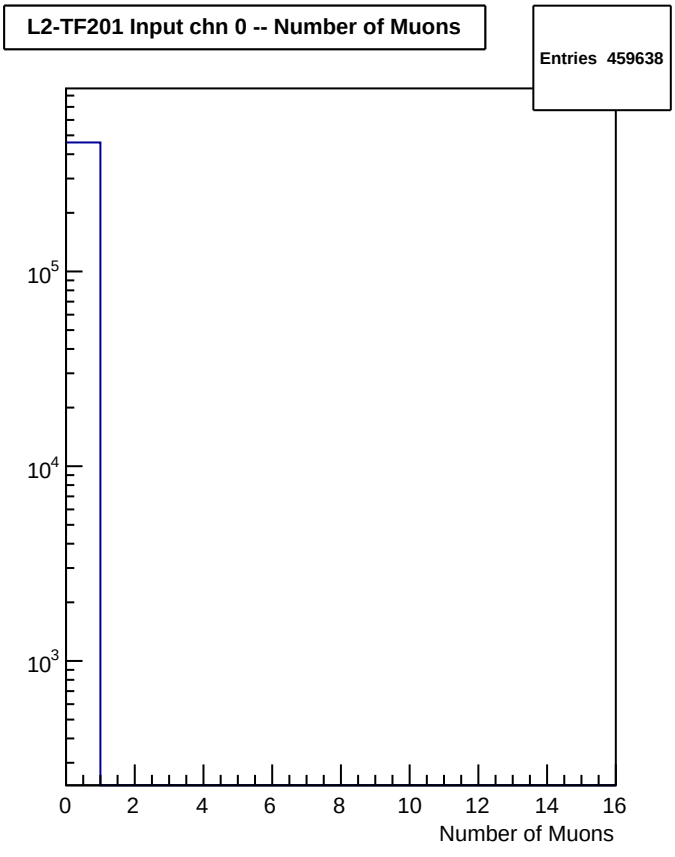

MIX-MT101 Input: MT003 MTDE+W TAC sum
Entries 7334
TAC sum
1st-Best
2nd-Best
ID

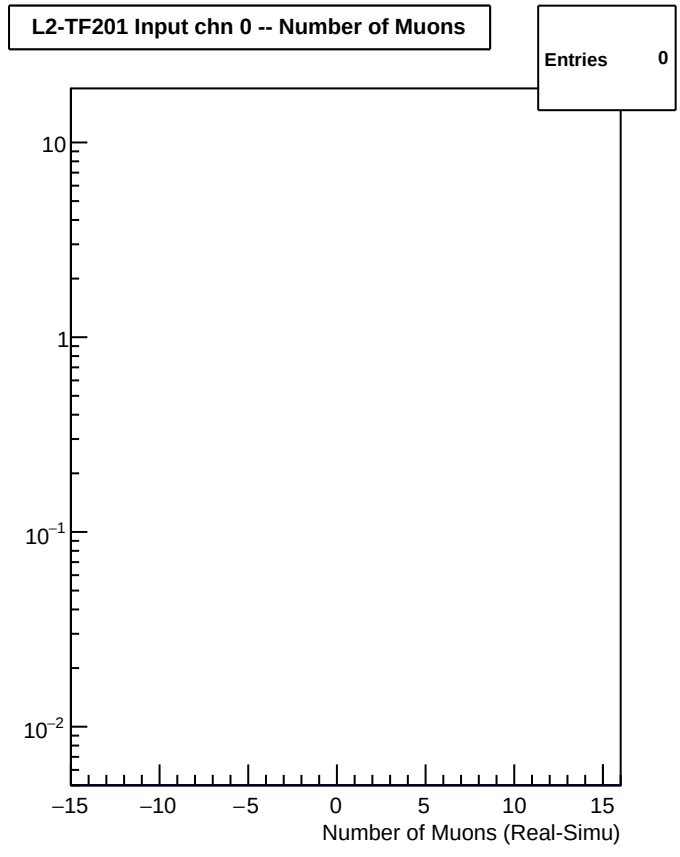

MIX-MT101 Input: MT004 MTDE+W TAC sum
Entries 919276
TAC sum
1st-Best
2nd-Best
ID

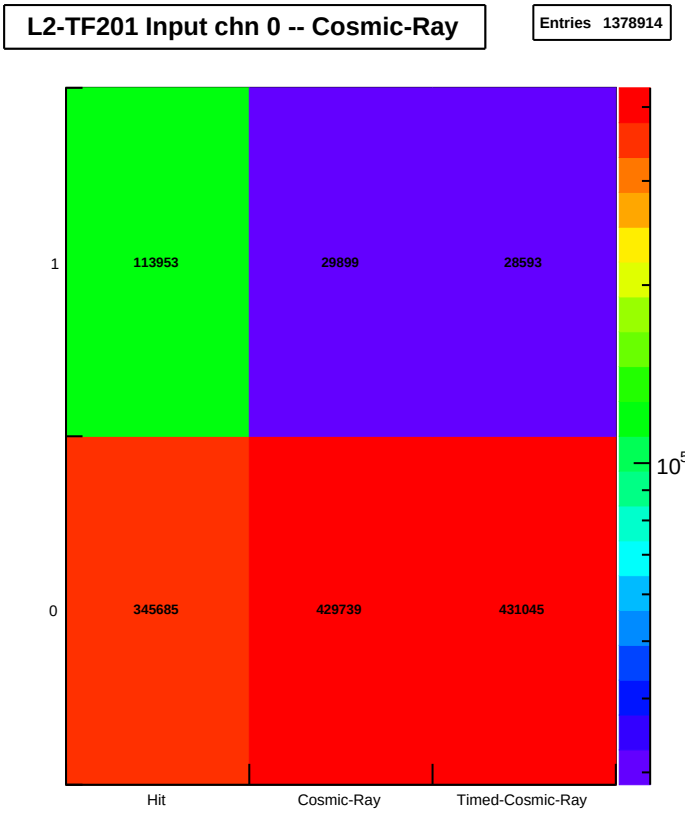

MIX-MT101 Input: MT004 MTDE+W TAC sum
Entries 6688
TAC sum
1st-Best
2nd-Best
ID

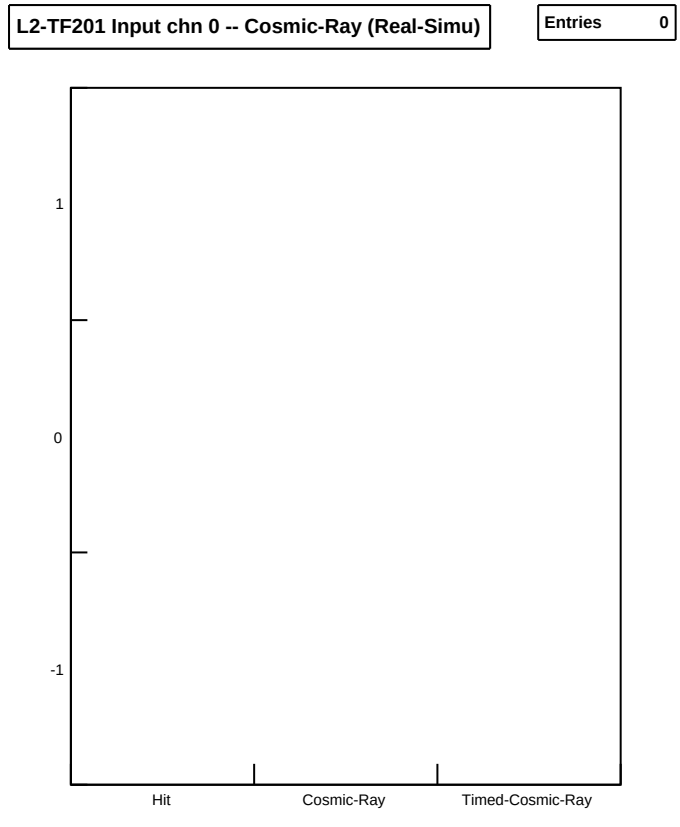

MIX-MT101 Input: VP003 Max TAC
Entries 459638

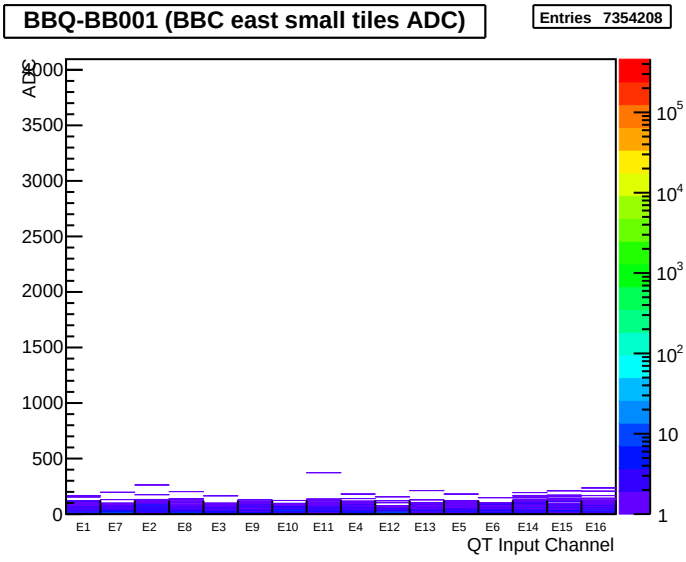

MIX-MT101 Input: VP004 Max TAC
Entries 459638

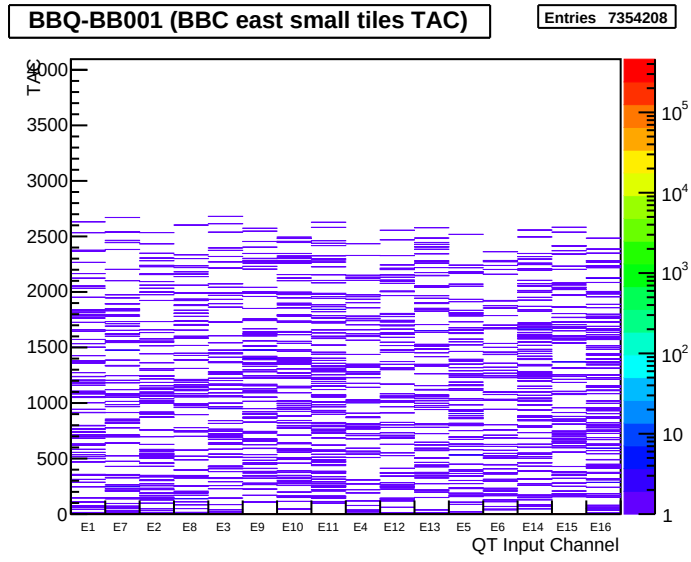

L2-TF201 Input chn 0 -- Number of Muons
Entries 459638
$10^5$
$10^4$
$10^3$
0 2 4 6 8 10 12 14 16
Number of Muons

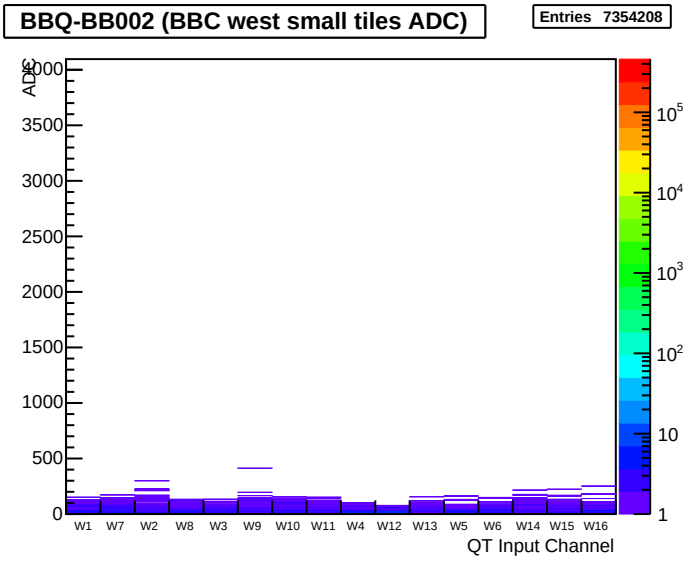

L2-TF201 Input chn 0 -- Number of Muons
Entries 0
10
1
$10^{-1}$
$10^{-2}$
–15 –10 –5 0 5 10 15
Number of Muons (Real-Simu)

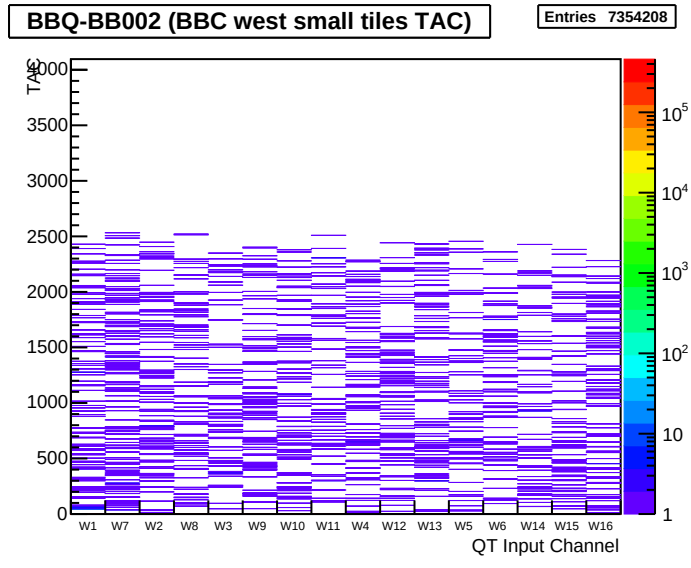

L2-TF201 Input chn 0 -- Cosmic-Ray
Entries 1378914
1
0
113953
29899
28593
345685
429739
431045
Hit
Cosmic-Ray
Timed-Cosmic-Ray

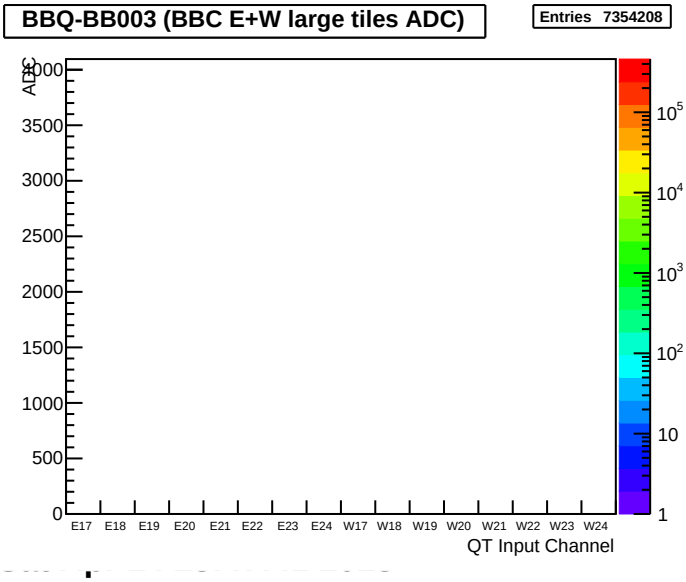

L2-TF201 Input chn 0 -- Cosmic-Ray (Real-Simu)
Entries 0
1
0
-1
Hit
Cosmic-Ray
Timed-Cosmic-Ray

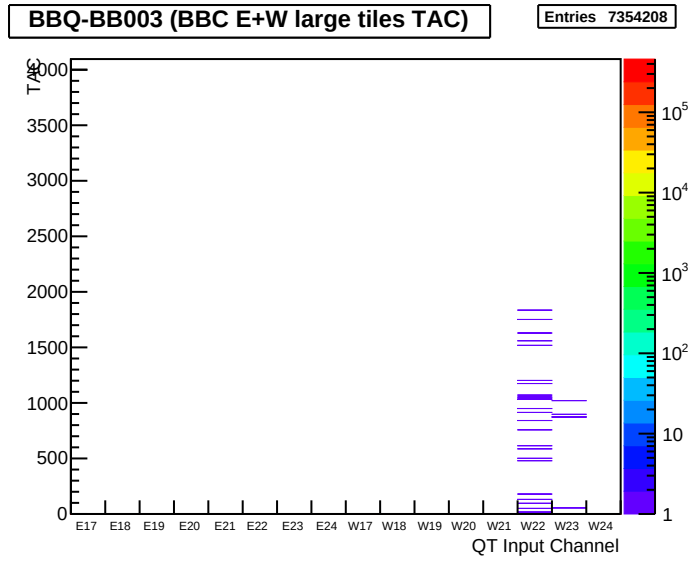

BBQ-BB001 (BBC east small tiles ADC)
Entries 7354208
ADC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

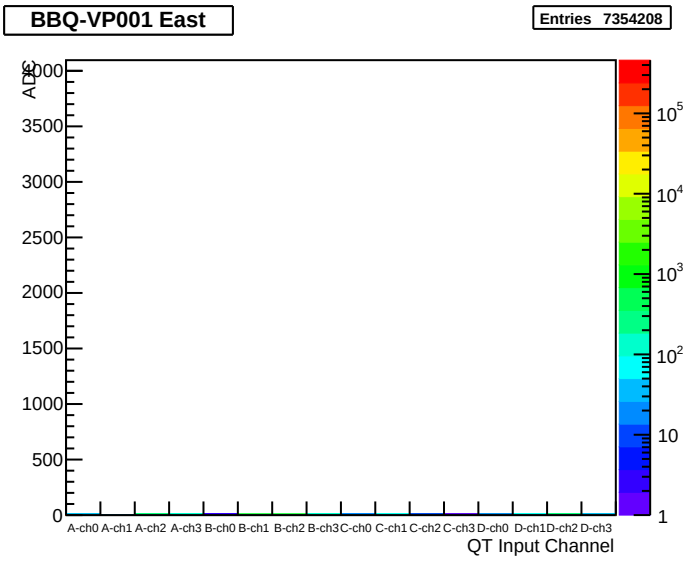

BBQ-BB001 (BBC east small tiles TAC)
Entries 7354208
TAC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

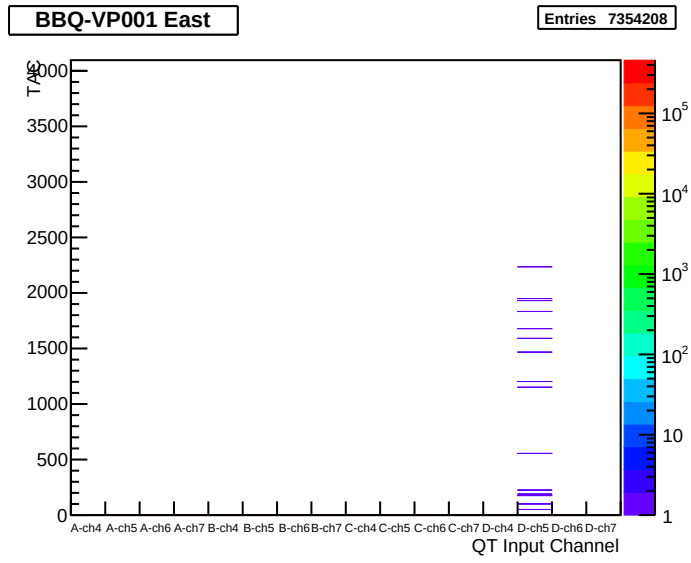

BBQ-BB002 (BBC west small tiles ADC)
Entries 7354208
ADC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

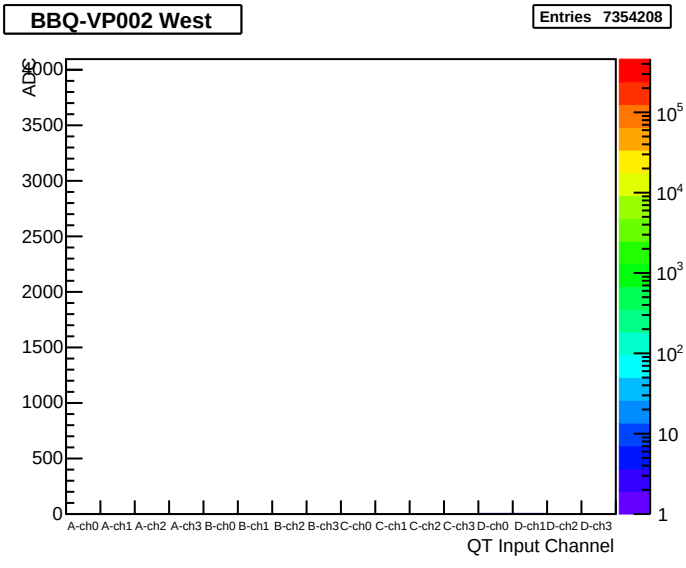

BBQ-BB002 (BBC west small tiles TAC)
Entries 7354208
TAC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

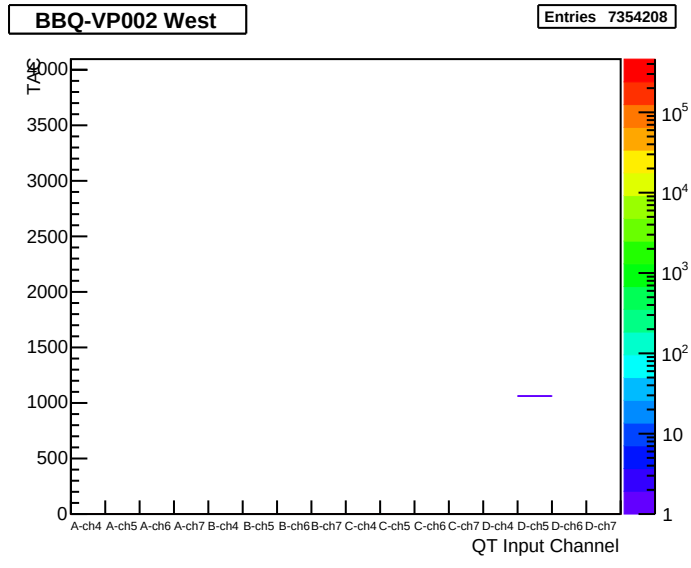

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 7354208
ADC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

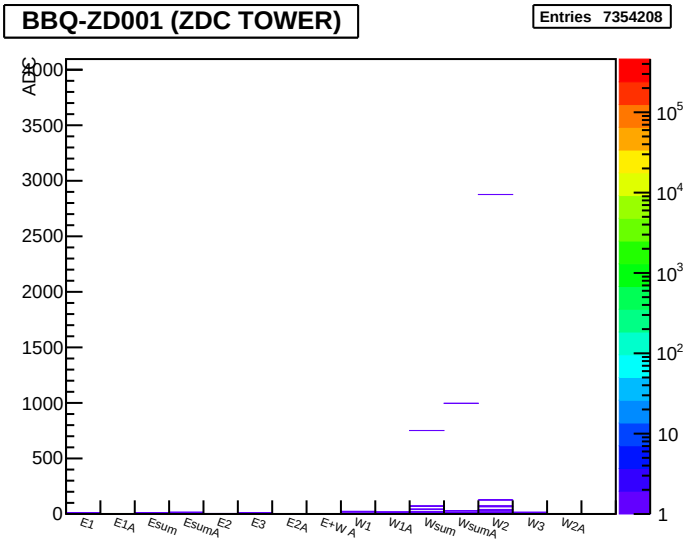

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 7354208
TAC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

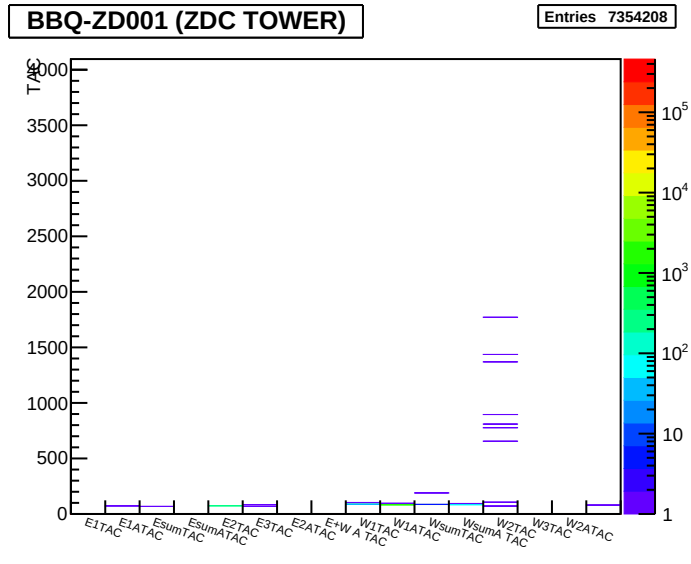

BBQ-VP001 East
Entries 7354208
ADC
QT Input Channel

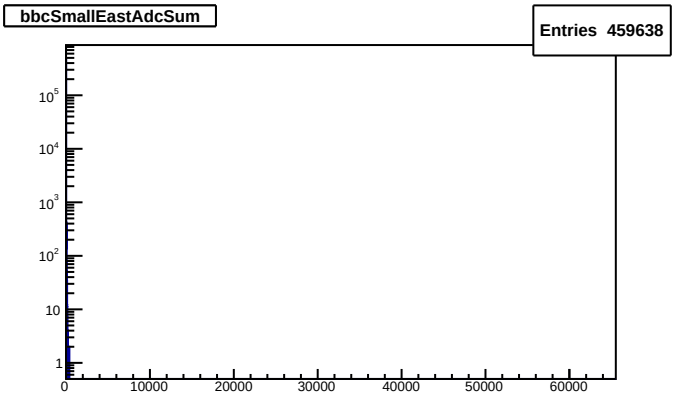

BBQ-VP001 East
Entries 7354208
TAC
QT Input Channel

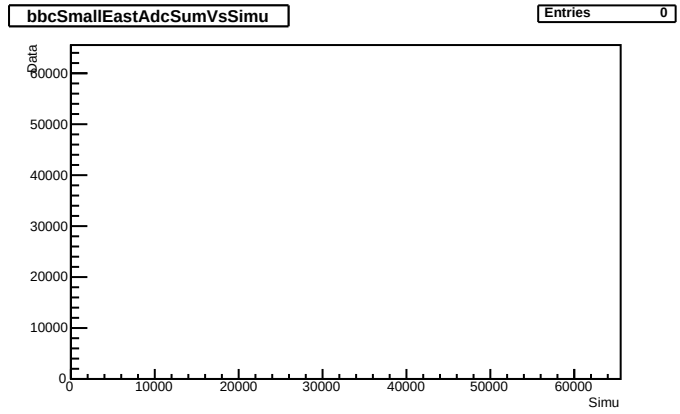

BBQ-VP002 West
Entries 7354208
ADC
QT Input Channel

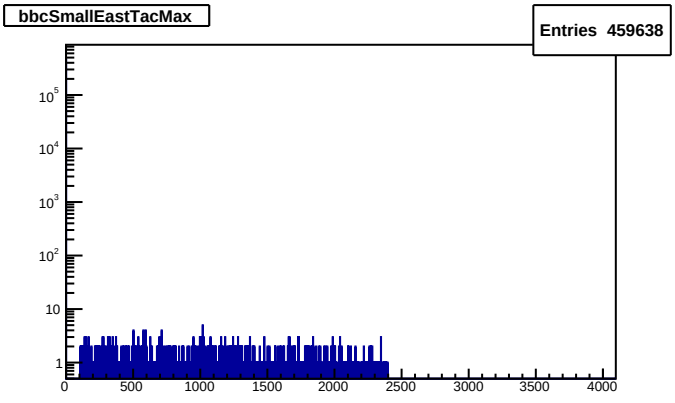

BBQ-VP002 West
Entries 7354208
TAC
QT Input Channel

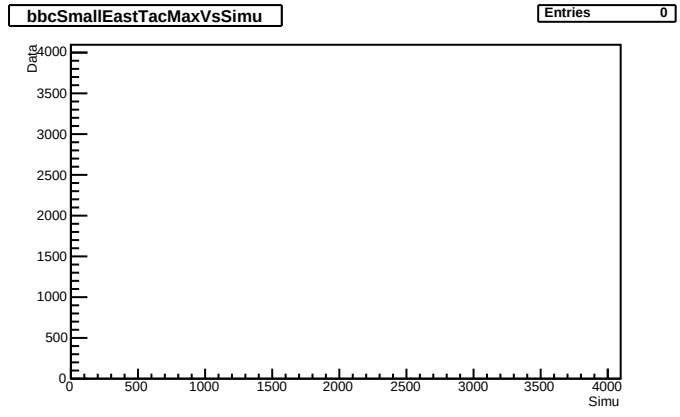

BBQ-ZD001 (ZDC TOWER)
Entries 7354208
ADC

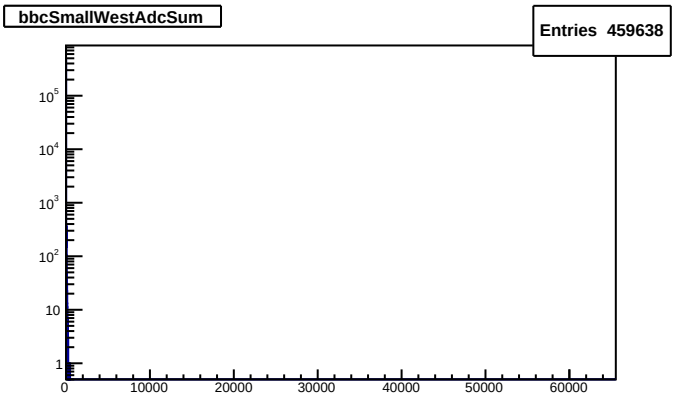

BBQ-ZD001 (ZDC TOWER)
Entries 7354208
TAC

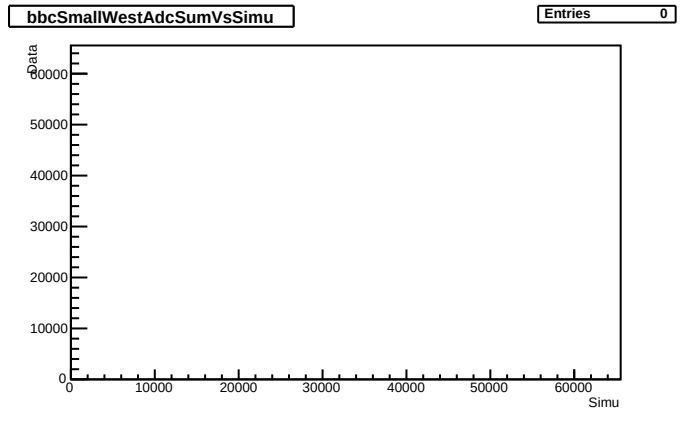

bbcSmallEastAdcSum
Entries 459638

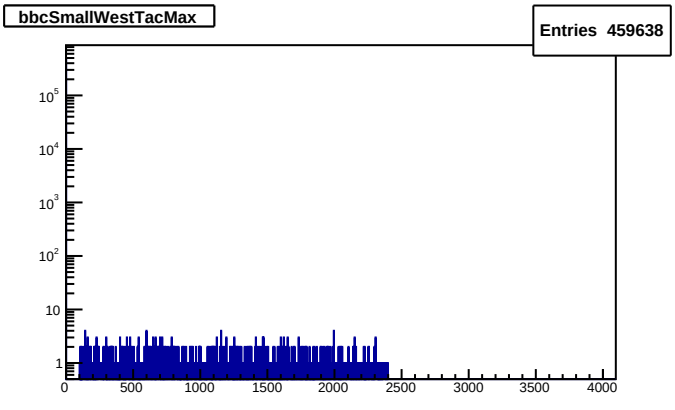

bbcSmallEastAdcSumVsSimu
Entries 0
Data
Simu

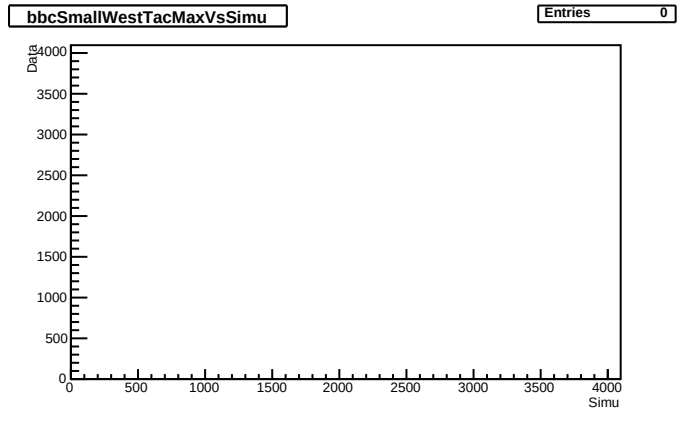

bbcSmallEastTacMax
Entries 459638

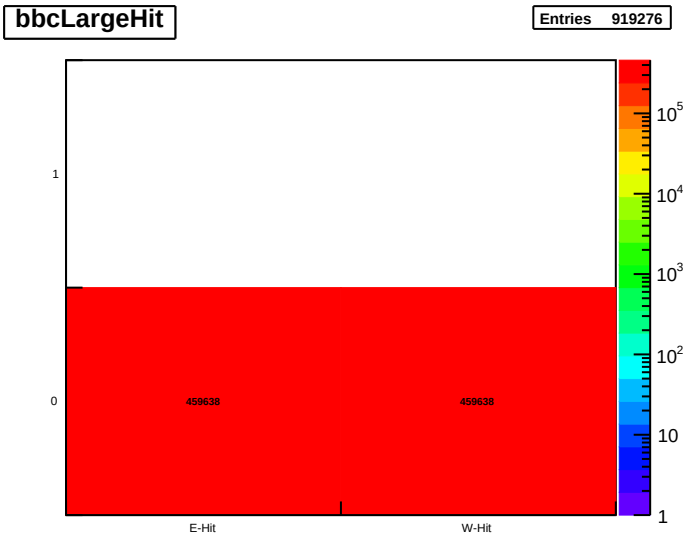

bbcSmallEastTacMaxVsSimu
Entries 0
Data
Simu

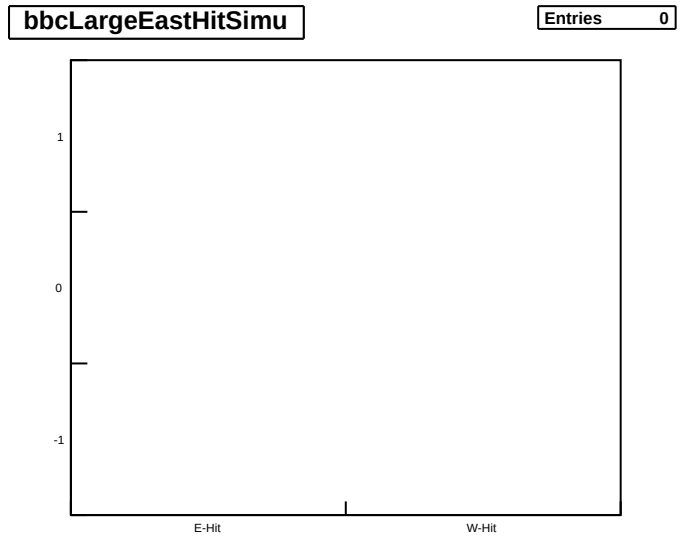

bbcSmallWestAdcSum
Entries 459638

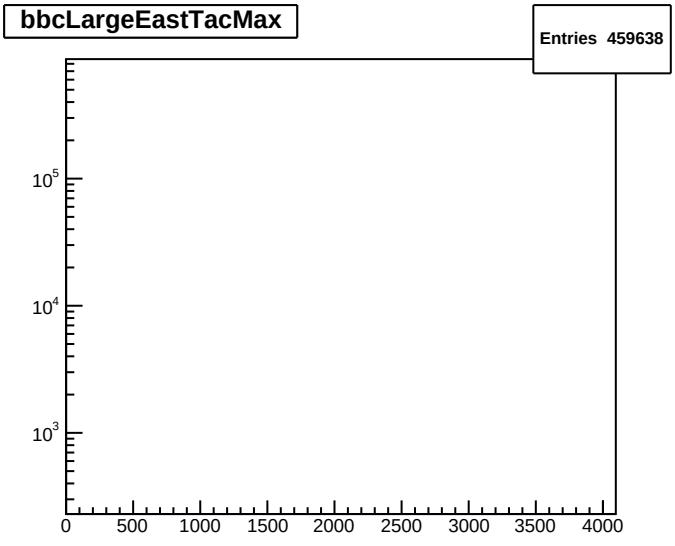

bbcSmallWestAdcSumVsSimu
Entries 0
Data
Simu

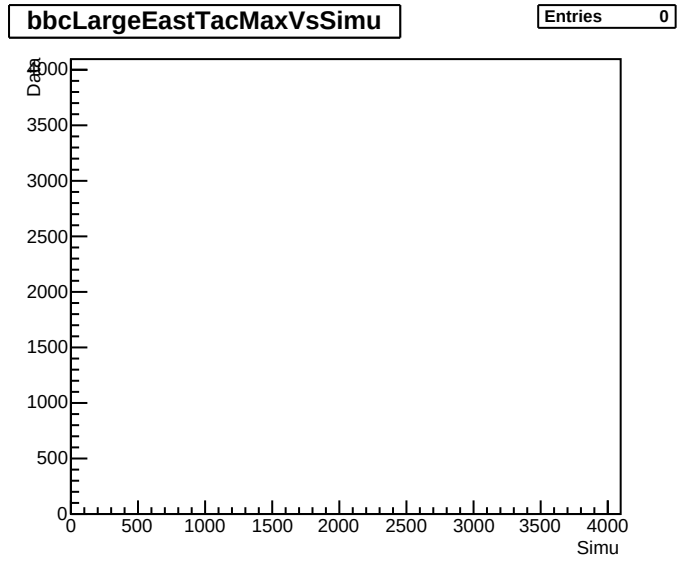

bbcSmallWestTacMax
Entries 459638

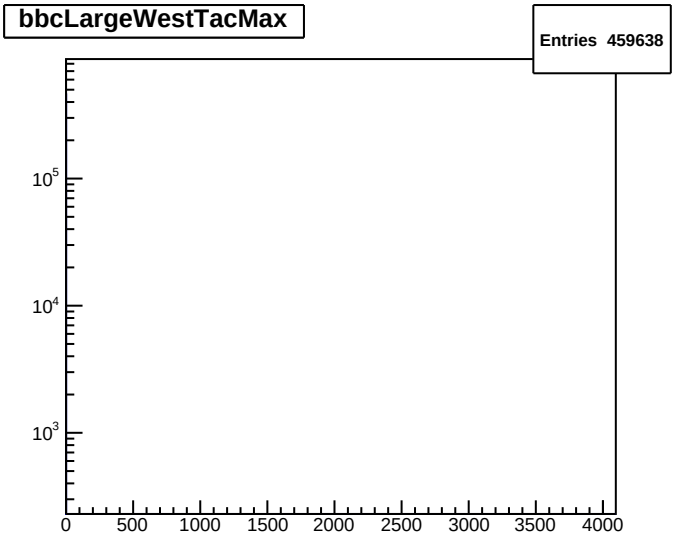

bbcSmallWestTacMaxVsSimu
Entries 0
Data
Simu

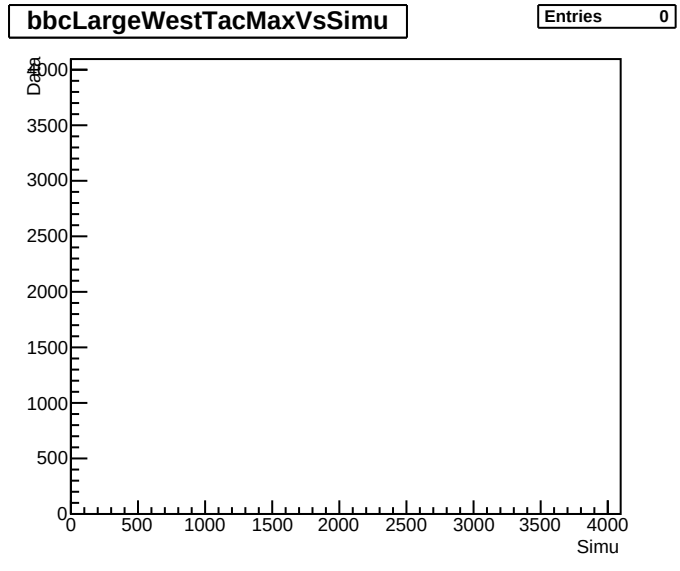

bbcLargeHit
Entries 919276
1
0
459638
459638
E-Hit
W-Hit
$10^5$
$10^4$
$10^3$
$10^2$
10
1

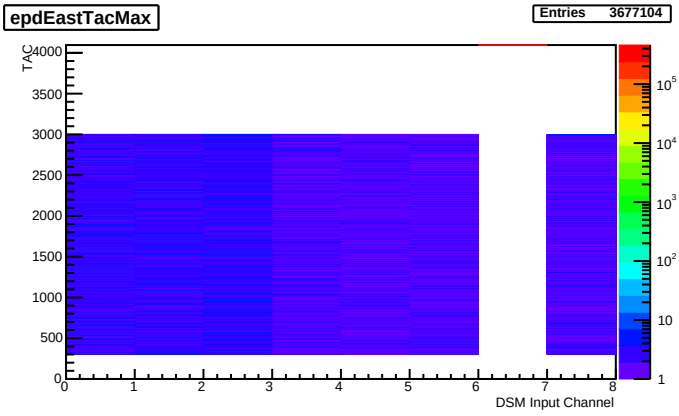

bbcLargeEastHitSimu
Entries 0
1
0
-1
E-Hit
W-Hit

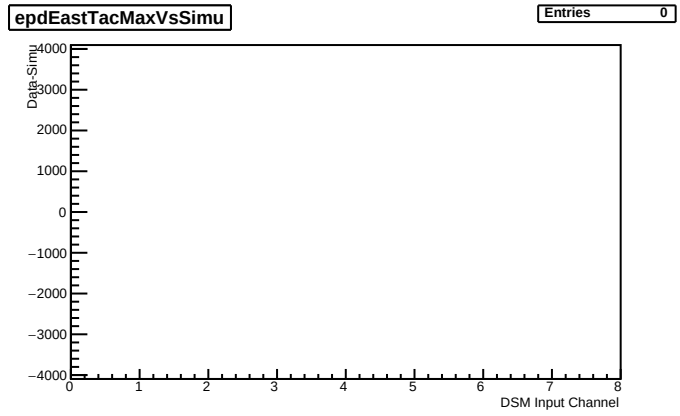

bbcLargeEastTacMax
Entries 459638
$10^5$
$10^4$
$10^3$
0
500
1000
1500
2000
2500
3000
3500
4000

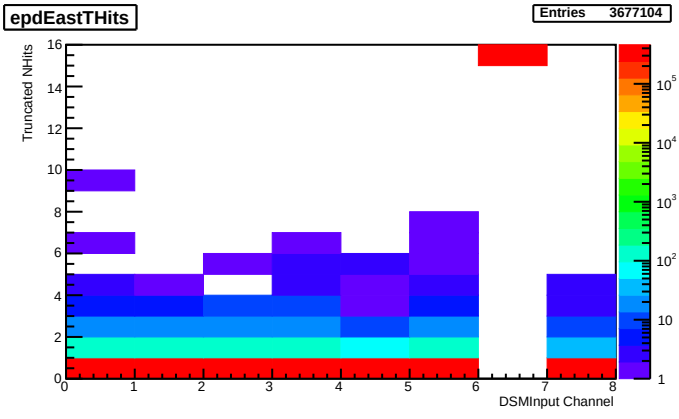

bbcLargeEastTacMaxVsSimu
Entries 0
Data
4000
3500
3000
2500
2000
1500
1000
500
0
0
500
1000
1500
2000
2500
3000
3500
4000
Simu

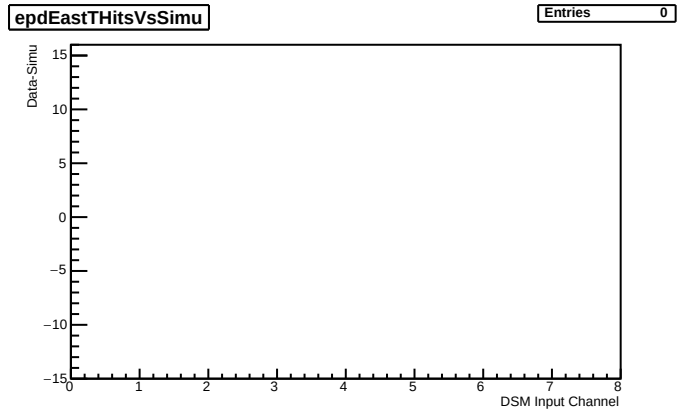

bbcLargeWestTacMax
Entries 459638
$10^5$
$10^4$
$10^3$
0
500
1000
1500
2000
2500
3000
3500
4000

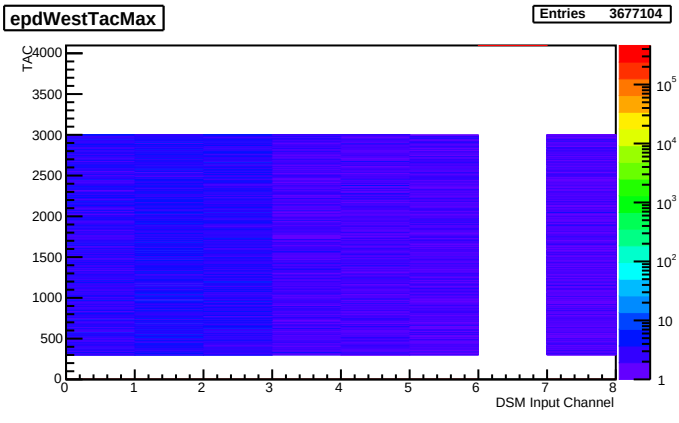

bbcLargeWestTacMaxVsSimu
Entries 0
Data
4000
3500
3000
2500
2000
1500
1000
500
0
0
500
1000
1500
2000
2500
3000
3500
4000
Simu

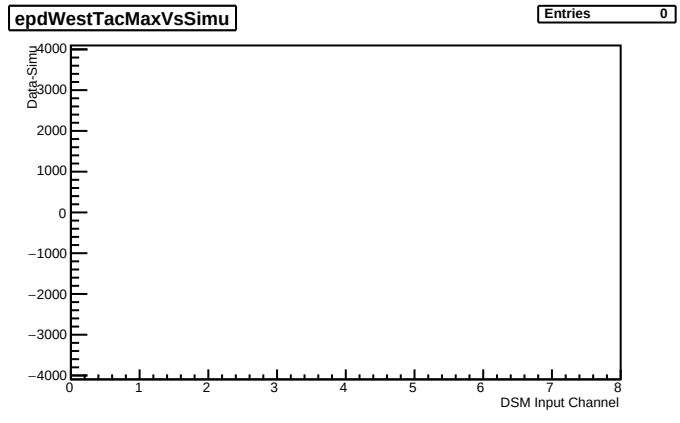

epdEastTacMax
Entries 3677104
TAC
DSM Input Channel

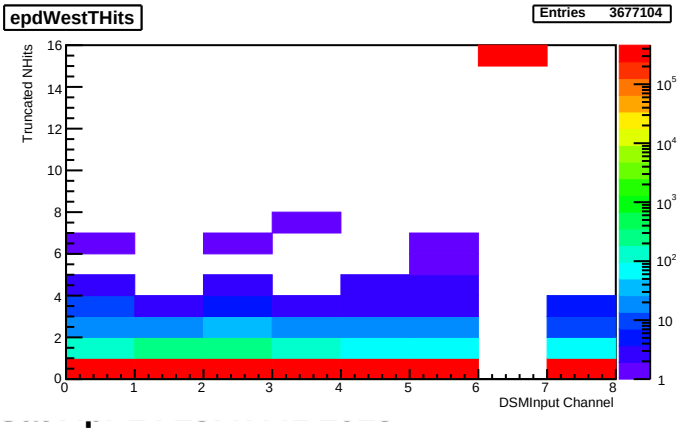

epdEastTacMaxVsSimu
Entries 0
Data-Simu
DSM Input Channel

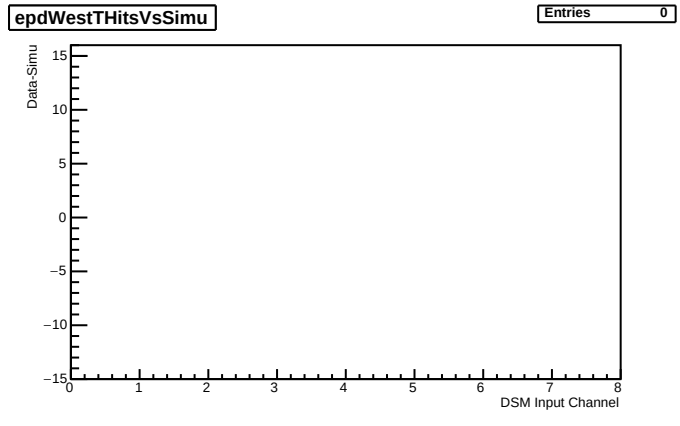

epdEastTHits
Entries 3677104
Truncated NHits
DSMInput Channel

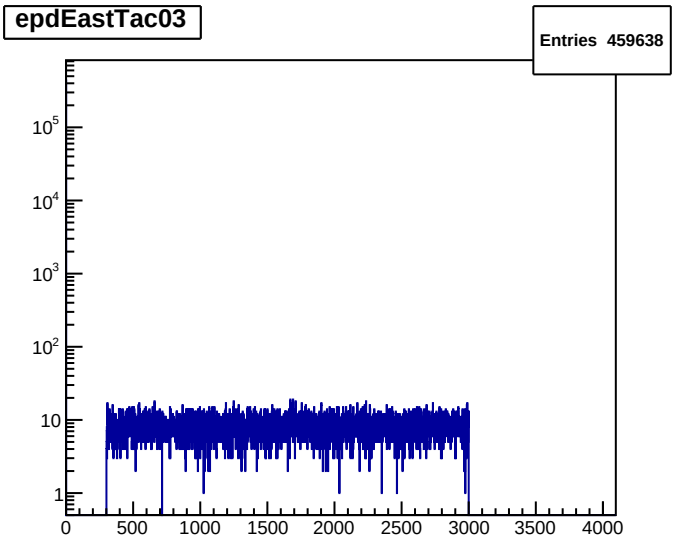

epdEastTHitsVsSimu
Entries 0
Data-Simu
DSM Input Channel

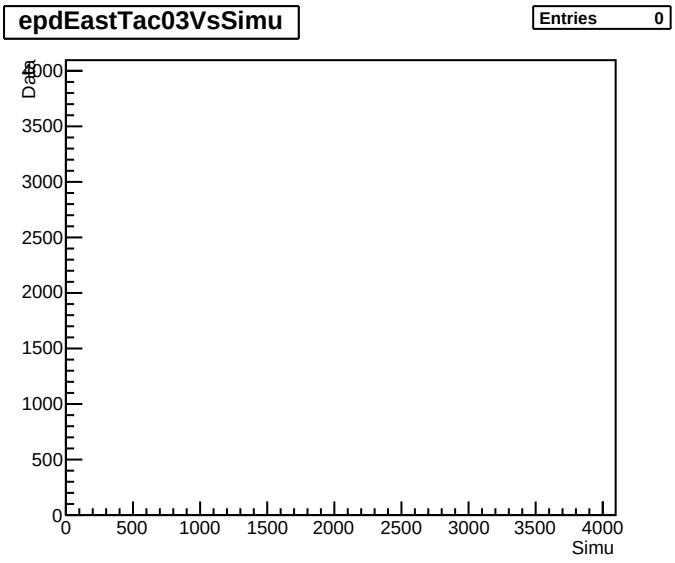

epdWestTacMax
Entries 3677104
TAC
DSM Input Channel

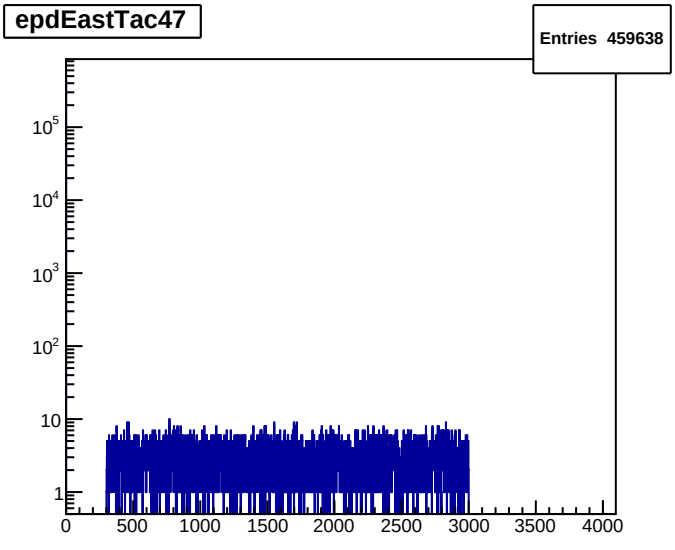

epdWestTacMaxVsSimu
Entries 0
Data-Simu
DSM Input Channel

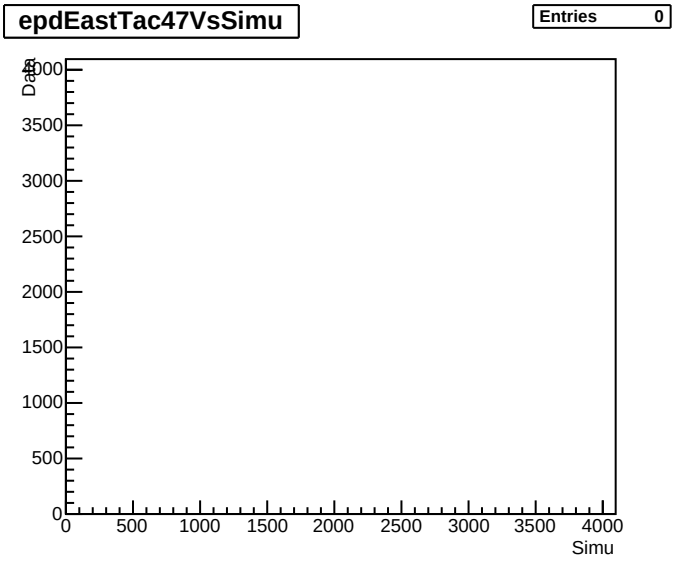

epdWestTHits
Entries 3677104
Truncated NHits
DSMInput Channel

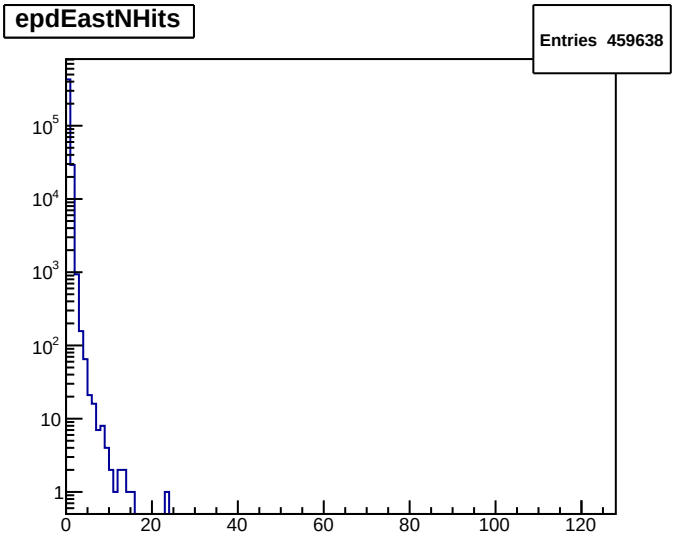

epdWestTHitsVsSimu
Entries 0
Data-Simu
DSM Input Channel

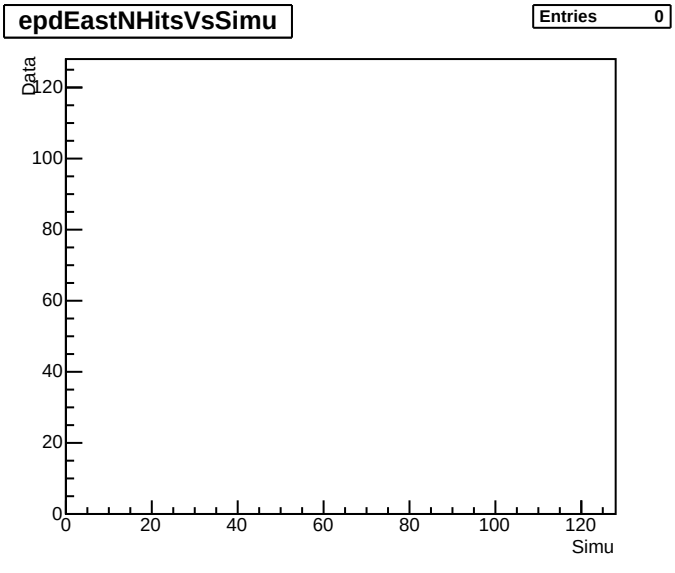

epdEastTac03
Entries 459638

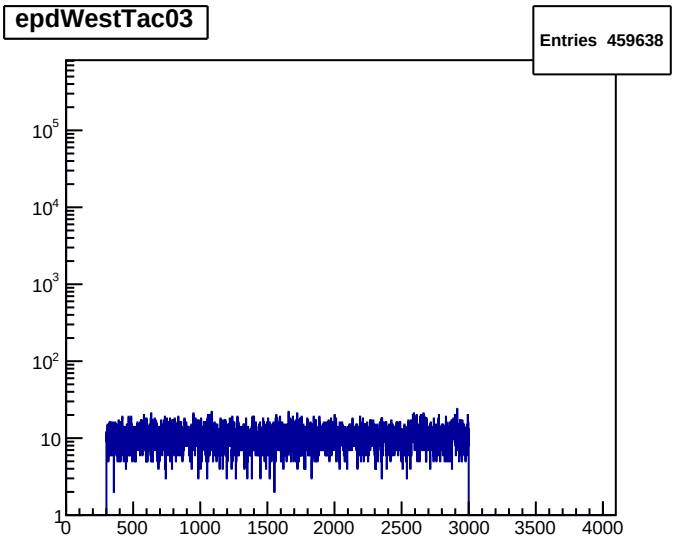

epdEastTac03VsSimu
Entries 0
Data
Simu

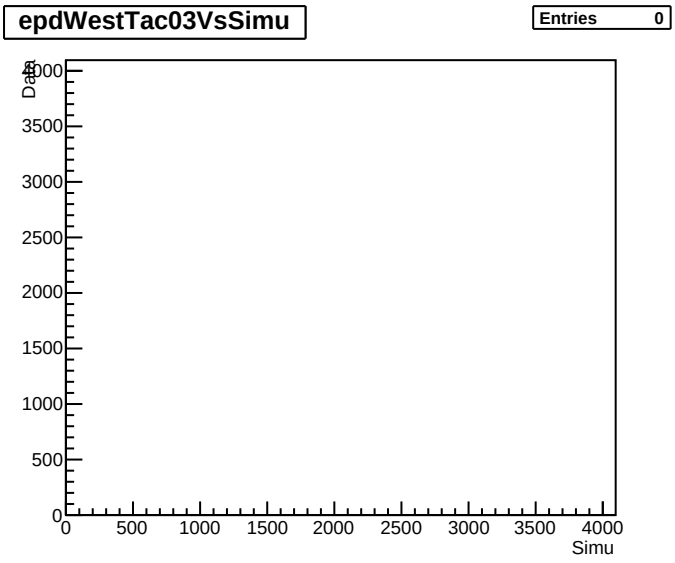

epdEastTac47
Entries 459638

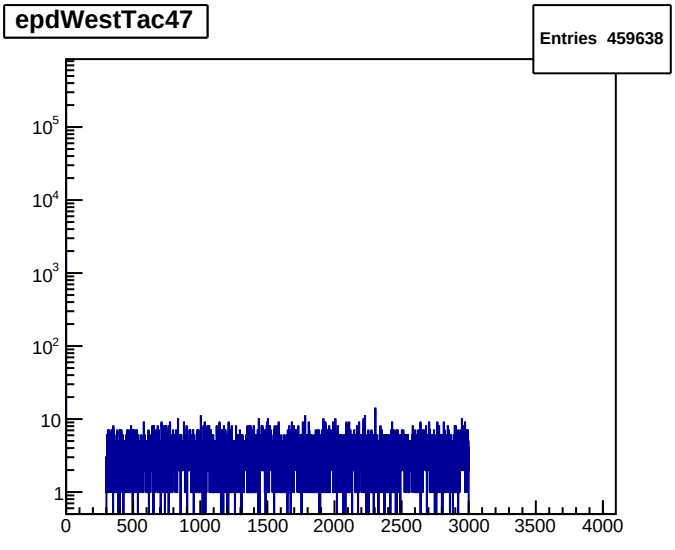

epdEastTac47VsSimu
Entries 0
Data
Simu

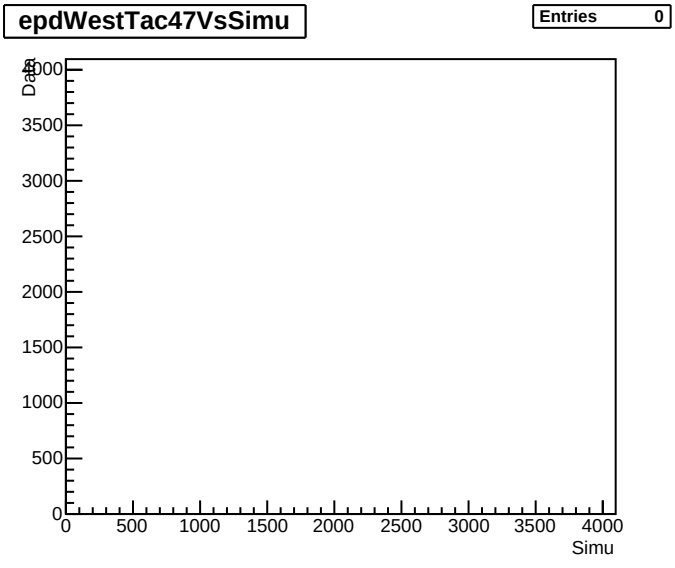

epdEastNHits
Entries 459638

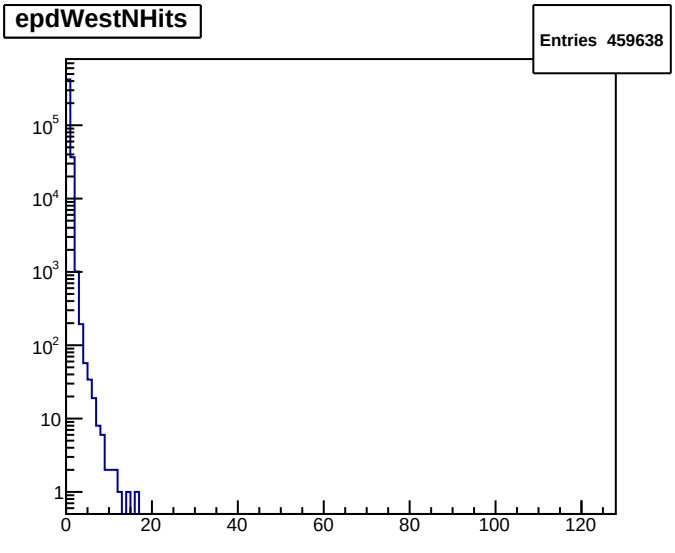

epdEastNHitsVsSimu
Entries 0
Data
Simu

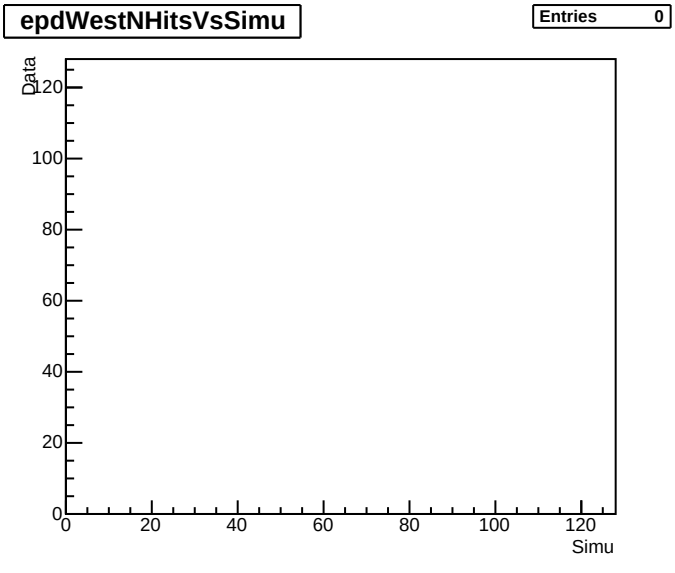

epdWestTac03
Entries 459638

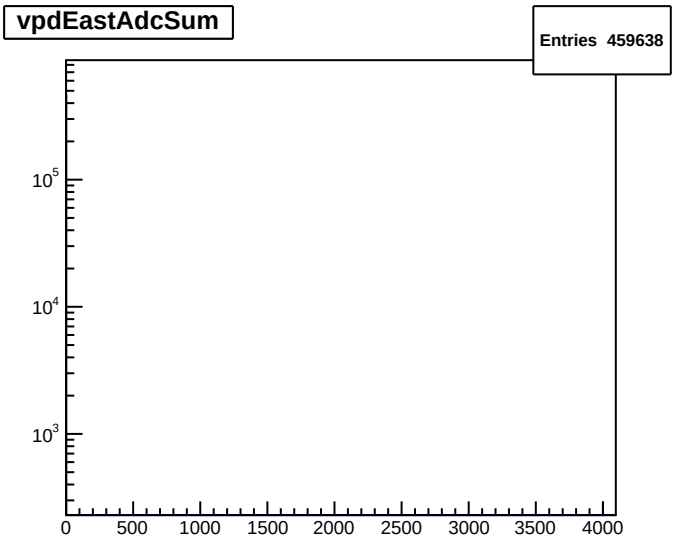

epdWestTac03VsSimu
Entries 0
Data
Simu

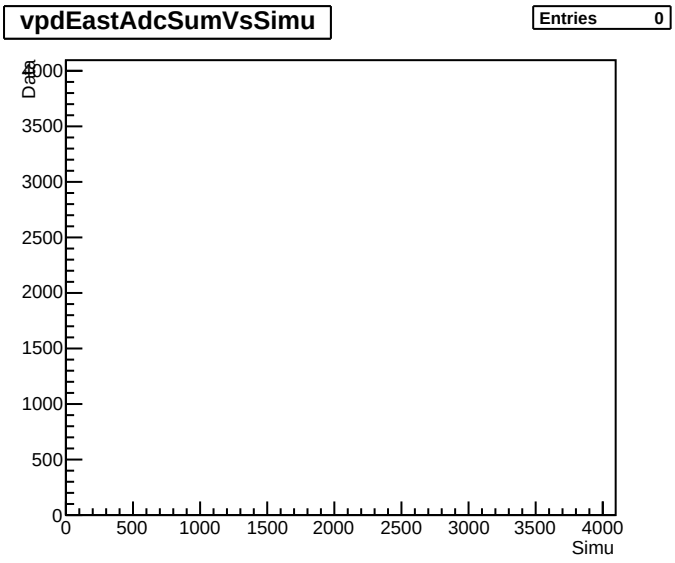

epdWestTac47
Entries 459638

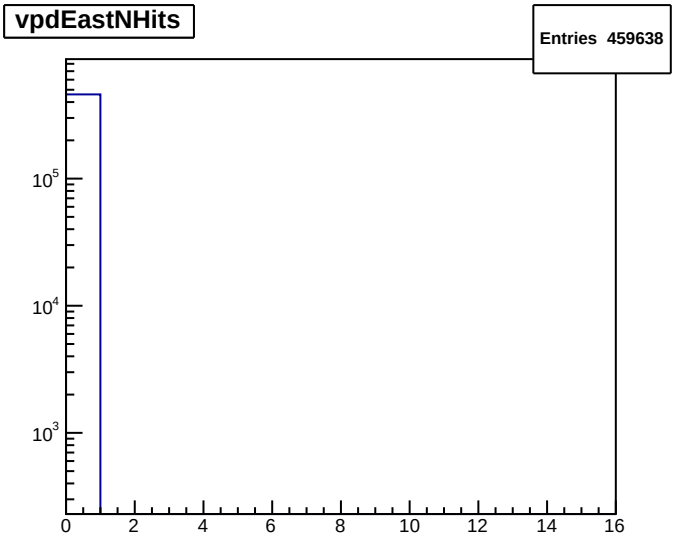

epdWestTac47VsSimu
Entries 0
Data
Simu

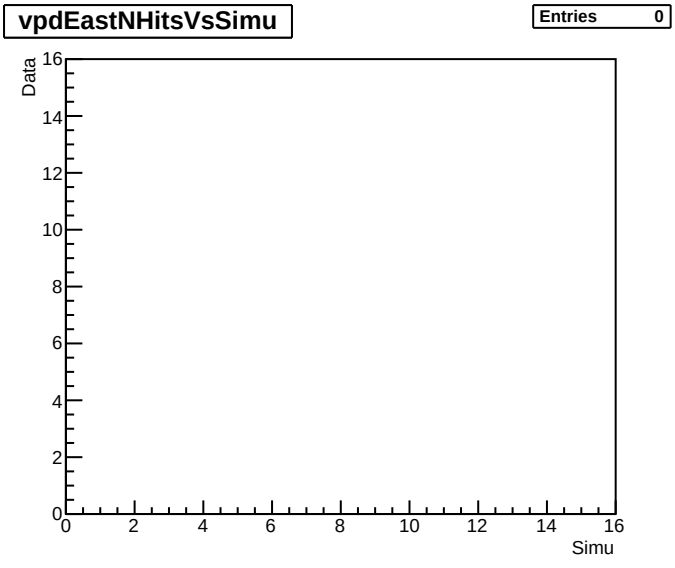

epdWestNHits
Entries 459638

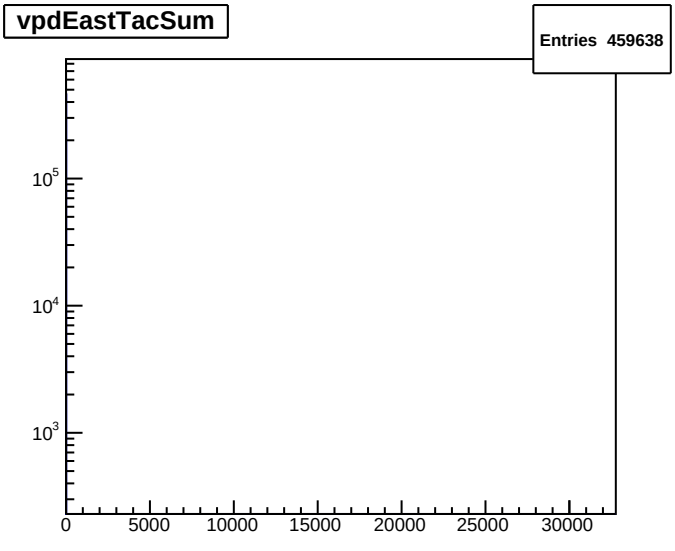

epdWestNHitsVsSimu
Entries 0
Data
Simu

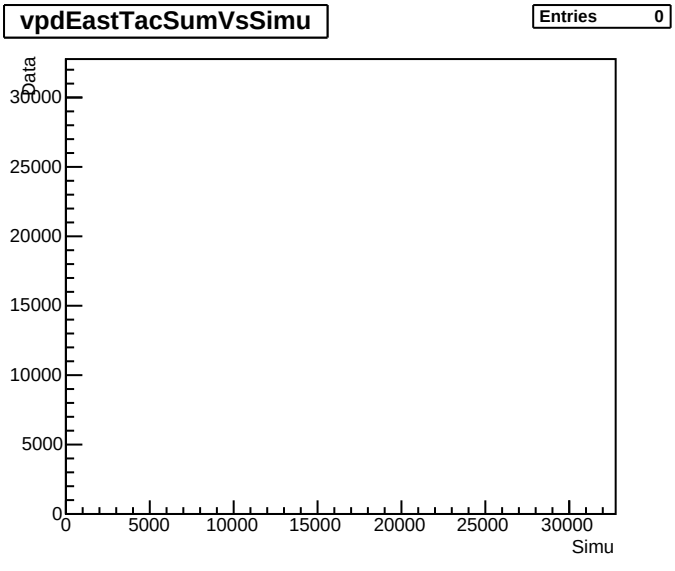

vpdEastAdcSum
Entries 459638
$10^5$
$10^4$
$10^3$
0 500 1000 1500 2000 2500 3000 3500 4000

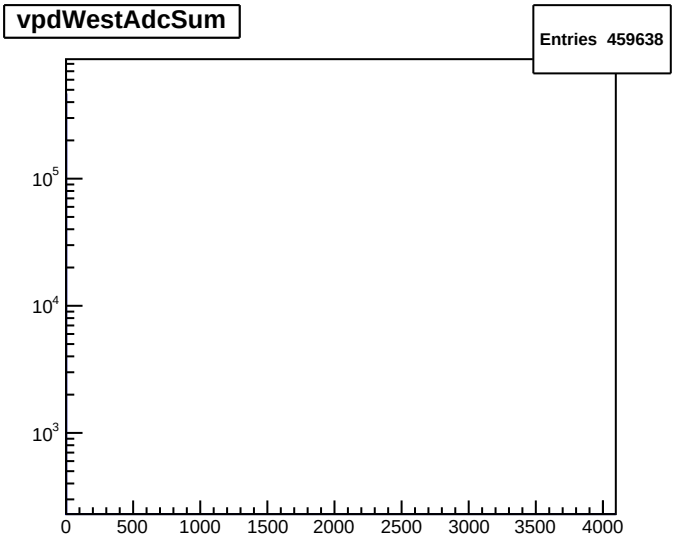

vpdEastAdcSumVsSimu
Entries 0
Data
0 500 1000 1500 2000 2500 3000 3500 4000
Simu

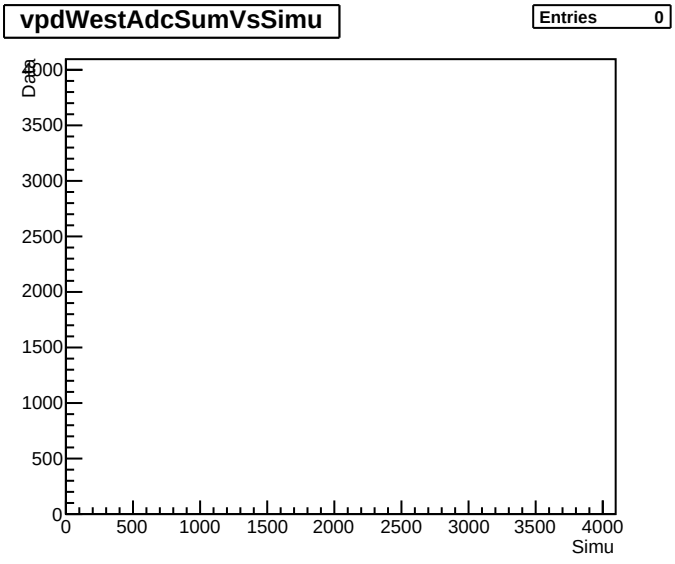

vpdEastNHits
Entries 459638
$10^5$
$10^4$
$10^3$
0 2 4 6 8 10 12 14 16

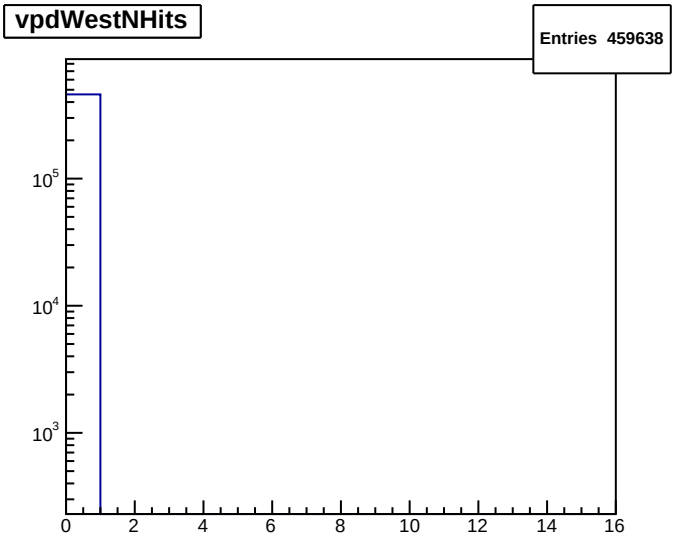

vpdEastNHitsVsSimu
Entries 0
Data
0 2 4 6 8 10 12 14 16
Simu

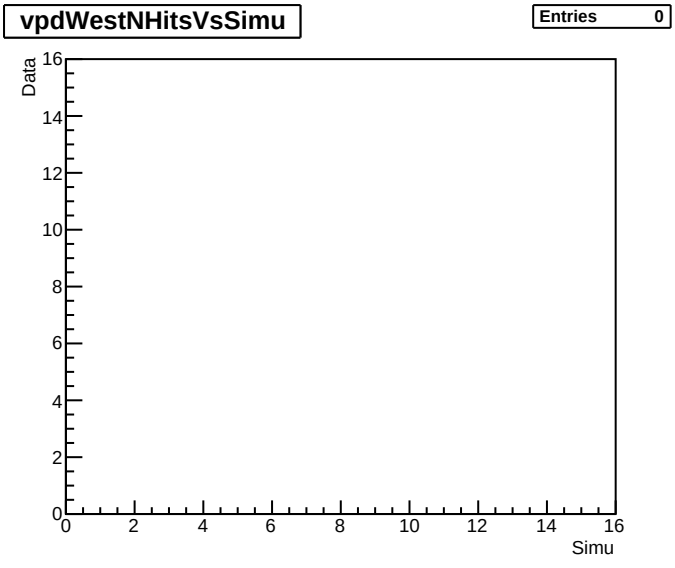

vpdEastTacSum
Entries 459638
$10^5$
$10^4$
$10^3$
0 5000 10000 15000 20000 25000 30000

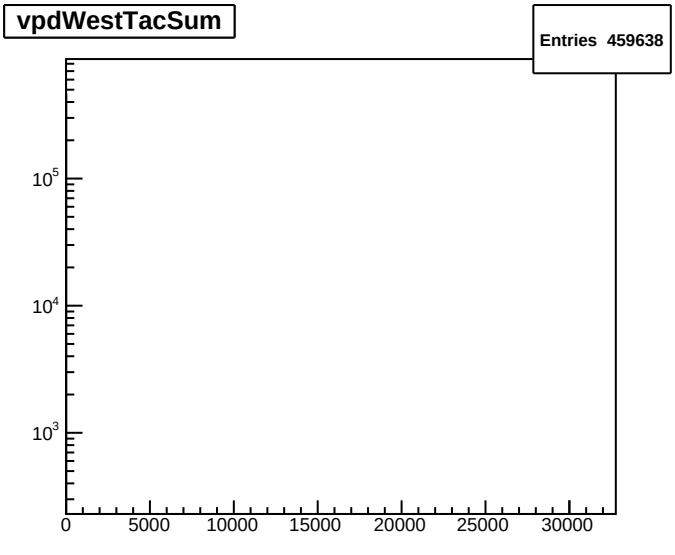

vpdEastTacSumVsSimu
Entries 0
Data
0 5000 10000 15000 20000 25000 30000
Simu

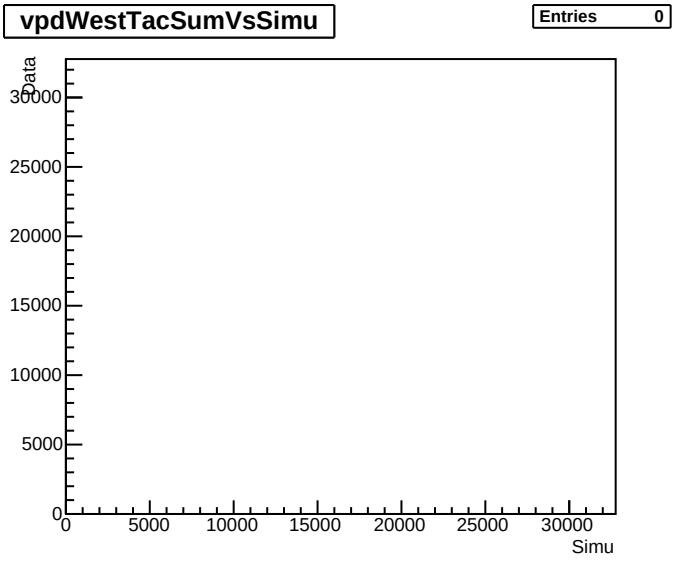

vpdWestAdcSum
Entries 459638
$10^5$
$10^4$
$10^3$
0 500 1000 1500 2000 2500 3000 3500 4000

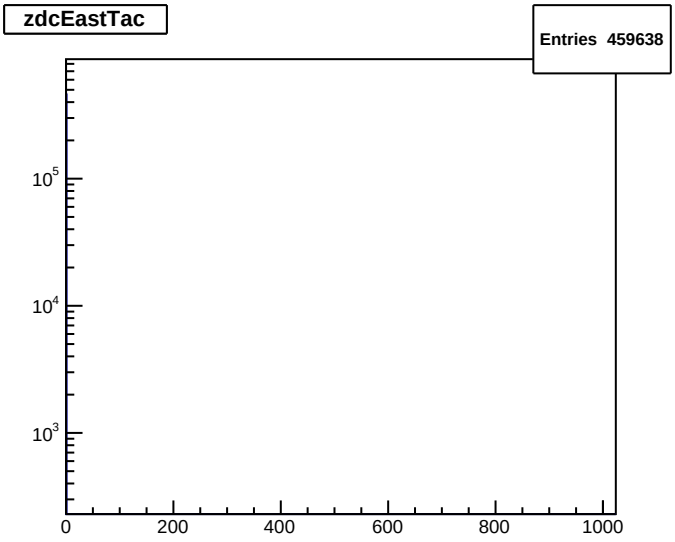

vpdWestAdcSumVsSimu
Entries 0
Data
0 500 1000 1500 2000 2500 3000 3500 4000
Simu

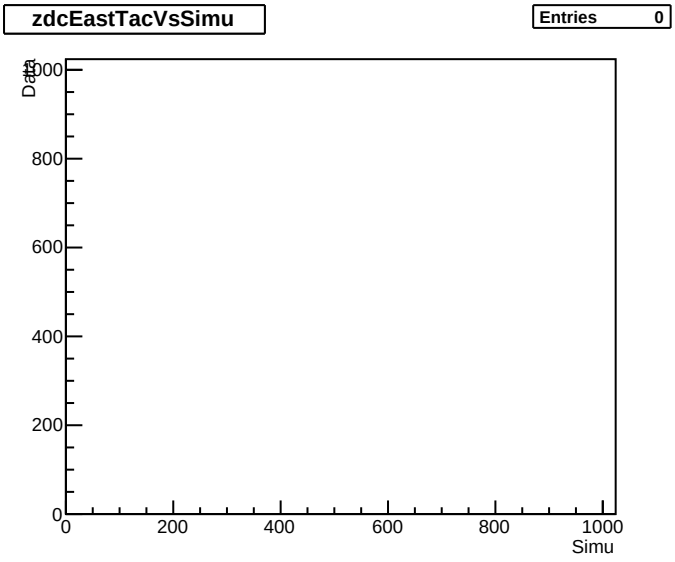

vpdWestNHits
Entries 459638
$10^5$
$10^4$
$10^3$
0 2 4 6 8 10 12 14 16

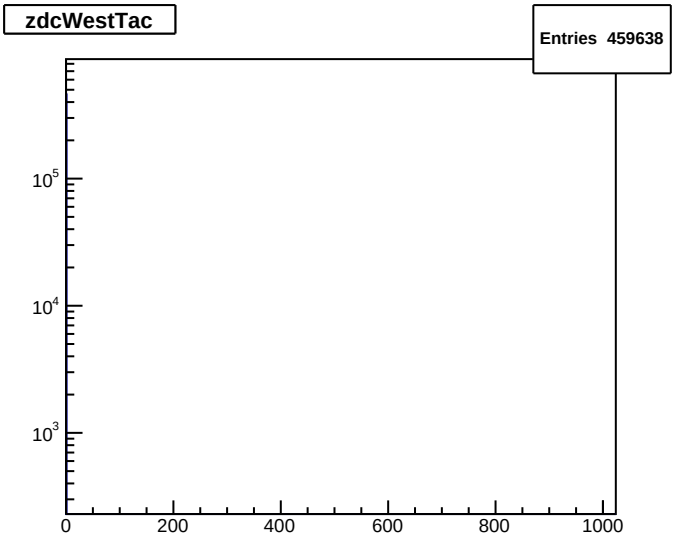

vpdWestNHitsVsSimu
Entries 0
Data
0 2 4 6 8 10 12 14 16
Simu

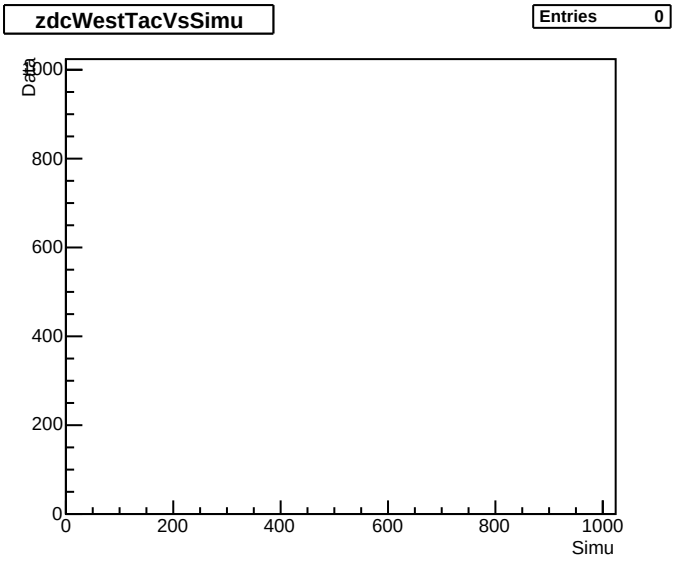

vpdWestTacSum
Entries 459638
$10^5$
$10^4$
$10^3$
0 5000 10000 15000 20000 25000 30000

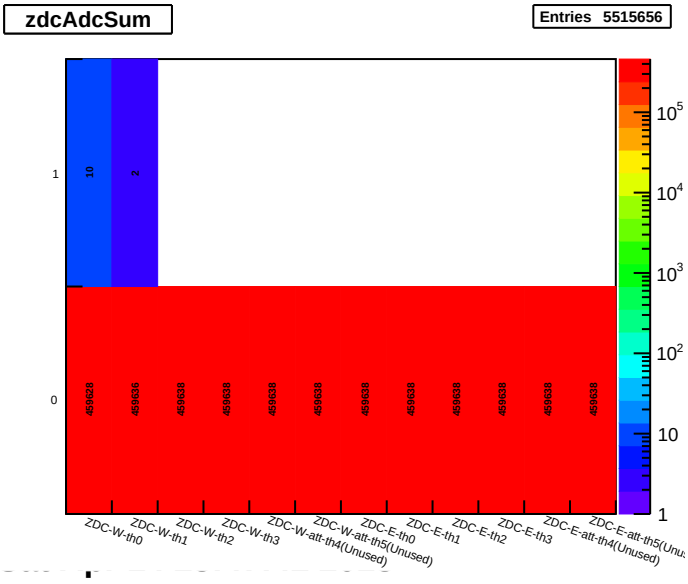

vpdWestTacSumVsSimu
Entries 0
Data
0 5000 10000 15000 20000 25000 30000
Simu

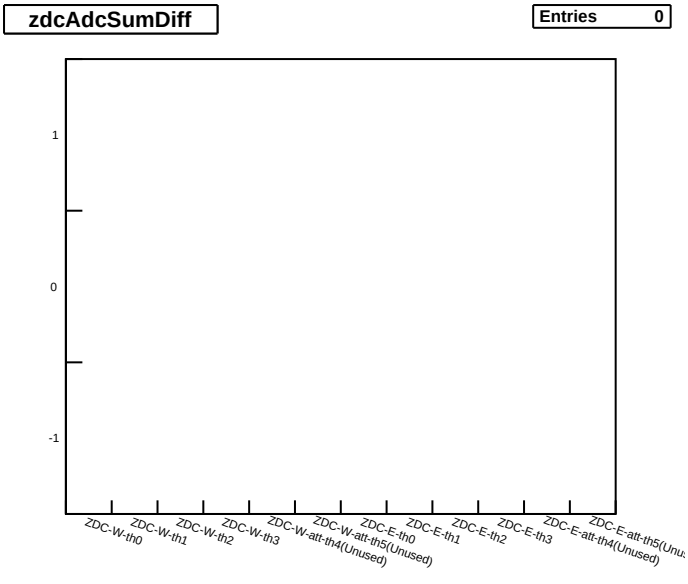

zdcEastTac
Entries 459638
$10^5$
$10^4$
$10^3$
0
200
400
600
800
1000

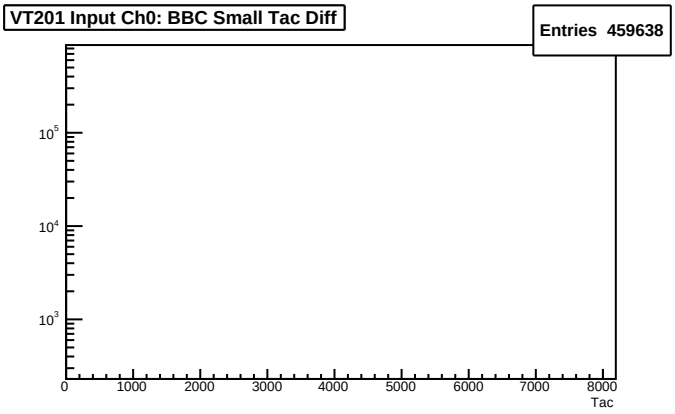

zdcEastTacVsSimu
Entries 0
Data
1000
800
600
400
200
0
0
200
400
600
800
1000
Simu

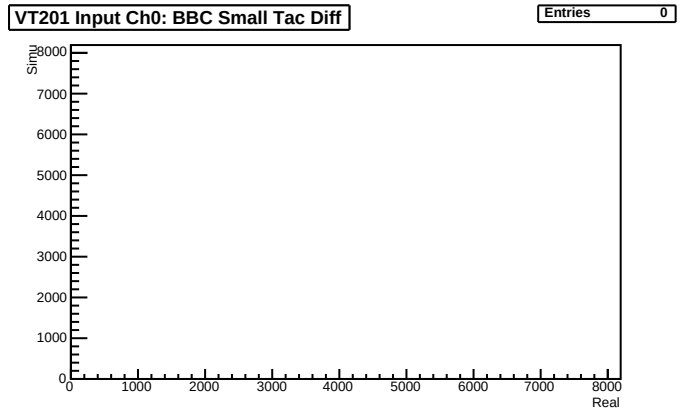

zdcWestTac
Entries 459638
$10^5$
$10^4$
$10^3$
0
200
400
600
800
1000

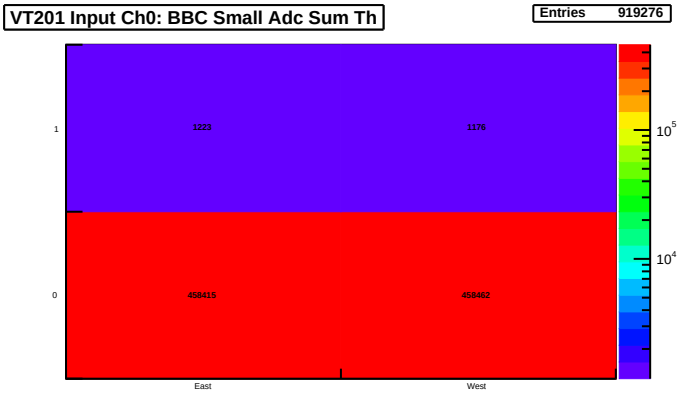

zdcWestTacVsSimu
Entries 0
Data
1000
800
600
400
200
0
0
200
400
600
800
1000
Simu

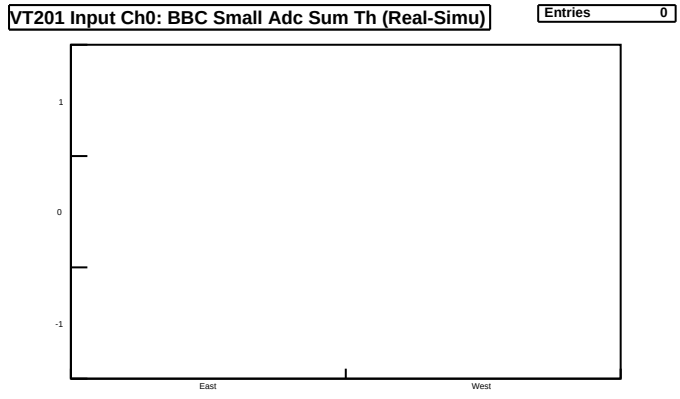

zdcAdcSum
Entries 5515656
1
0
10
2
459638
$10^5$
$10^4$
$10^3$
$10^2$
10
1
ZDC-W-th0
ZDC-W-th1
ZDC-W-th2
ZDC-W-th3
ZDC-W-att-th4(Unused)
ZDC-W-att-th5(Unused)
ZDC-E-th0
ZDC-E-th1
ZDC-E-th2
ZDC-E-th3
ZDC-E-att-th4(Unused)
ZDC-E-att-th5(Unu

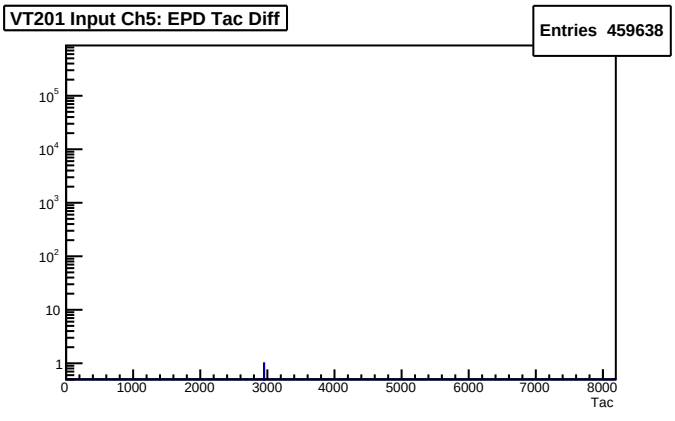

zdcAdcSumDiff
Entries 0
1
0
-1
ZDC-W-th0
ZDC-W-th1
ZDC-W-th2
ZDC-W-th3
ZDC-W-att-th4(Unused)
ZDC-W-att-th5(Unused)
ZDC-E-th0
ZDC-E-th1
ZDC-E-th2
ZDC-E-th3
ZDC-E-att-th4(Unused)
ZDC-E-att-th5(Unu

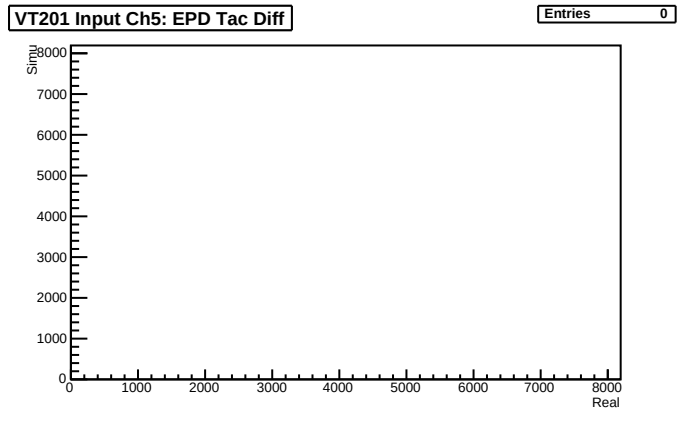

VT201 Input Ch0: BBC Small Tac Diff
Entries 459638
Tac

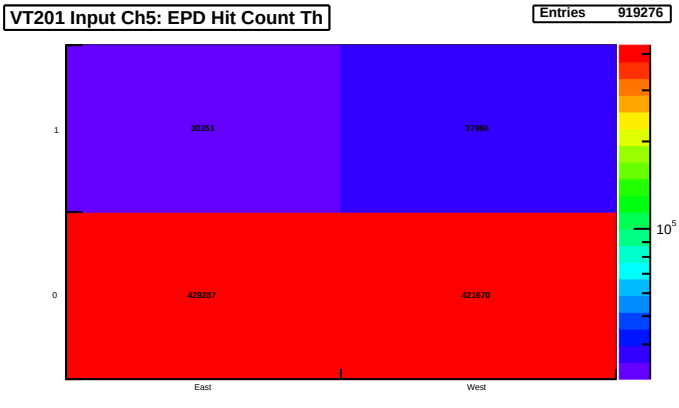

VT201 Input Ch0: BBC Small Tac Diff
Entries 0
Simu
Real

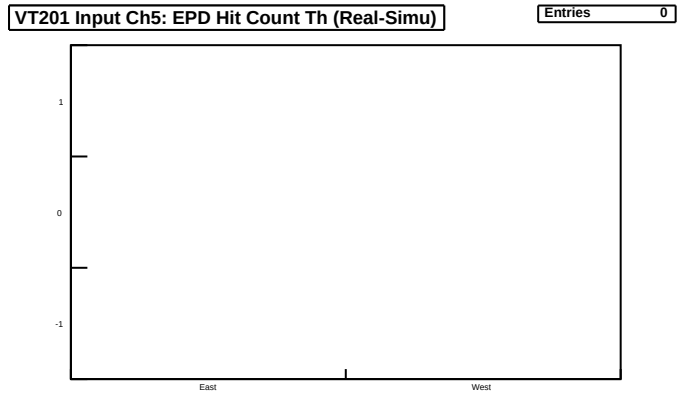

VT201 Input Ch0: BBC Small Adc Sum Th
Entries 919276
1223
1176
458415
458462
East
West

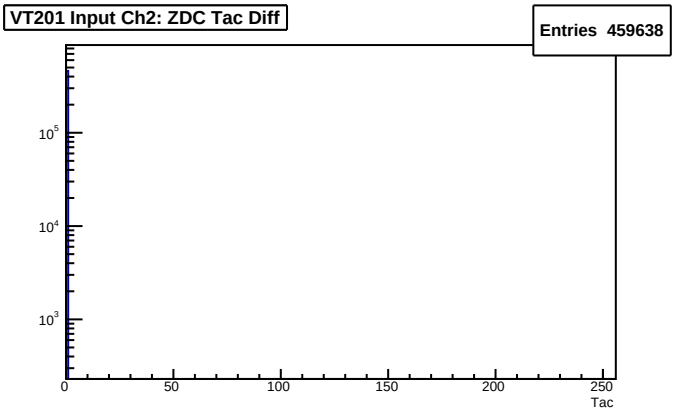

VT201 Input Ch0: BBC Small Adc Sum Th (Real-Simu)
Entries 0
East
West

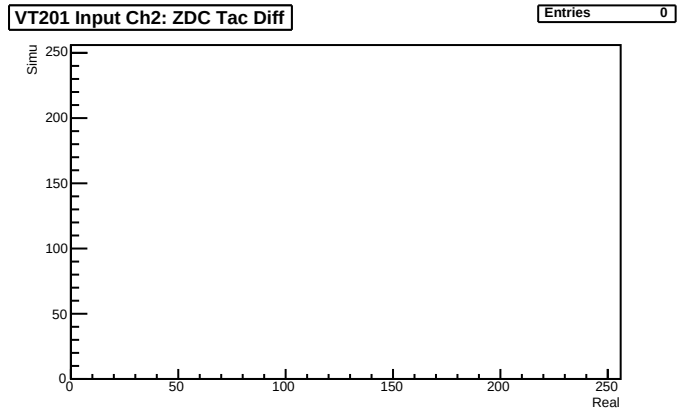

VT201 Input Ch5: EPD Tac Diff
Entries 459638
Tac

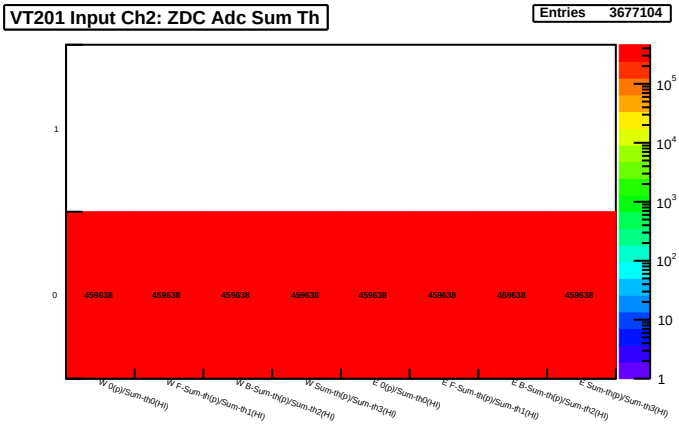

VT201 Input Ch5: EPD Tac Diff
Entries 0
Simu
Real

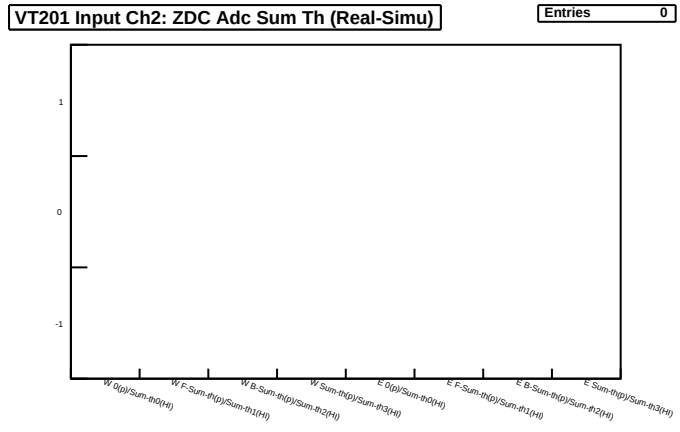

VT201 Input Ch5: EPD Hit Count Th
Entries 919276
30351
37968
429287
421670
East
West

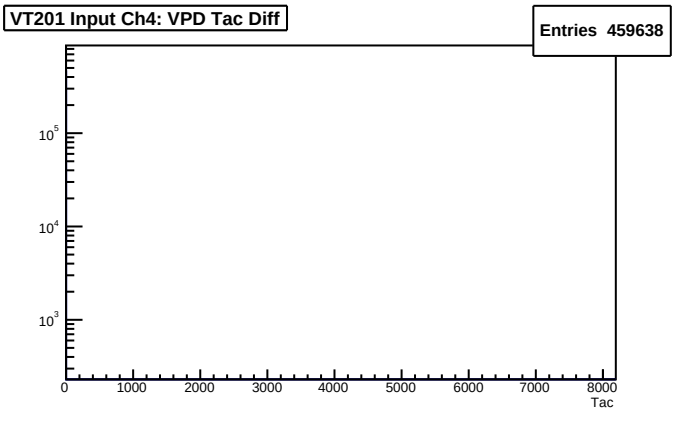

VT201 Input Ch5: EPD Hit Count Th (Real-Simu)
Entries 0
East
West

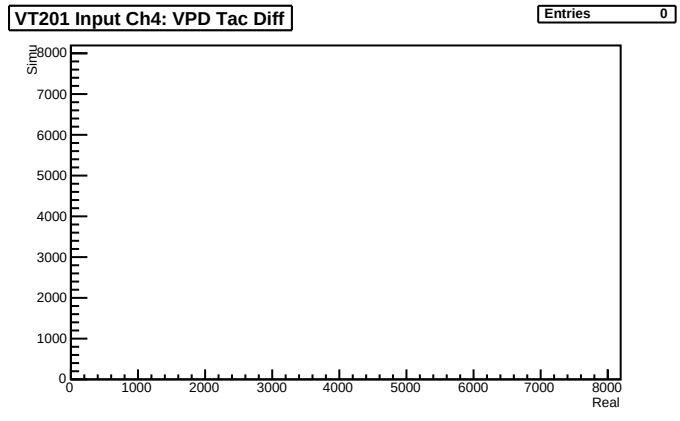

VT201 Input Ch2: ZDC Tac Diff
Entries 459638
Tac

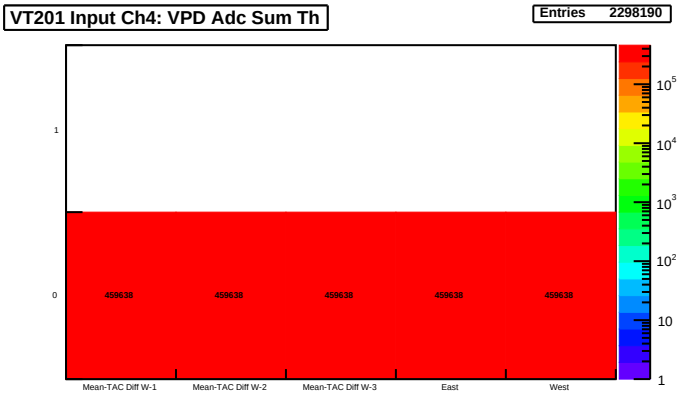

VT201 Input Ch2: ZDC Tac Diff
Entries 0
Simu
Real

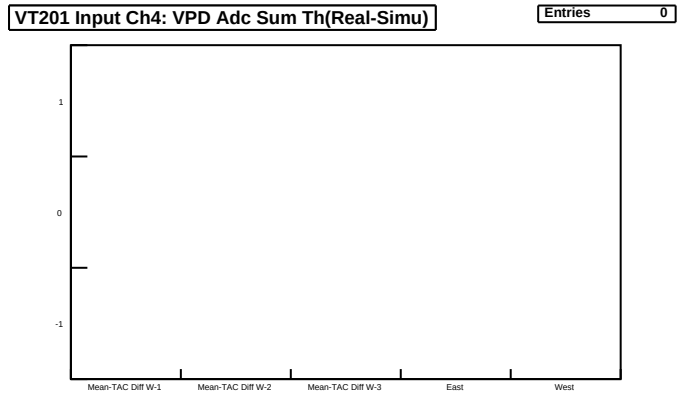

VT201 Input Ch2: ZDC Adc Sum Th
Entries 3677104
459638
W 0(p)/Sum-th0(H)
W F-Sum-th(p)/Sum-th1(H)
W B-Sum-th(p)/Sum-th2(H)
W Sum-th(p)/Sum-th3(H)
E 0(p)/Sum-th0(H)
E F-Sum-th(p)/Sum-th1(H)
E B-Sum-th(p)/Sum-th2(H)
E Sum-th(p)/Sum-th3(H)

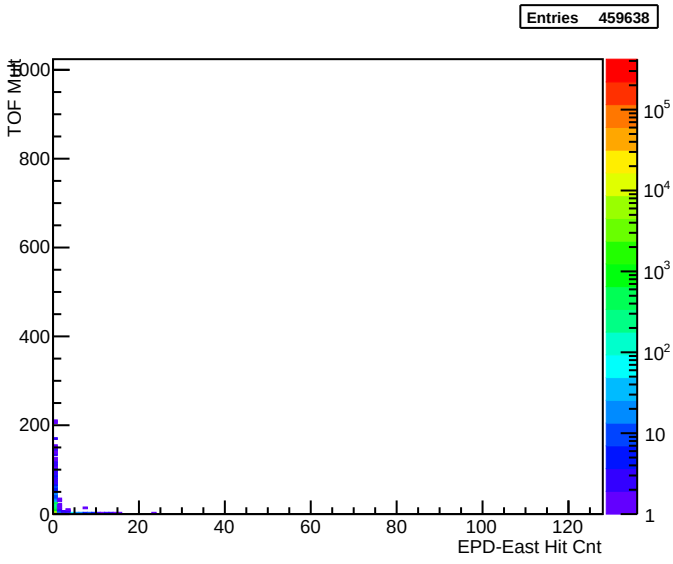

VT201 Input Ch2: ZDC Adc Sum Th (Real-Simu)
Entries 0
W 0(p)/Sum-th0(H)
W F-Sum-th(p)/Sum-th1(H)
W B-Sum-th(p)/Sum-th2(H)
W Sum-th(p)/Sum-th3(H)
E 0(p)/Sum-th0(H)
E F-Sum-th(p)/Sum-th1(H)
E B-Sum-th(p)/Sum-th2(H)
E Sum-th(p)/Sum-th3(H)

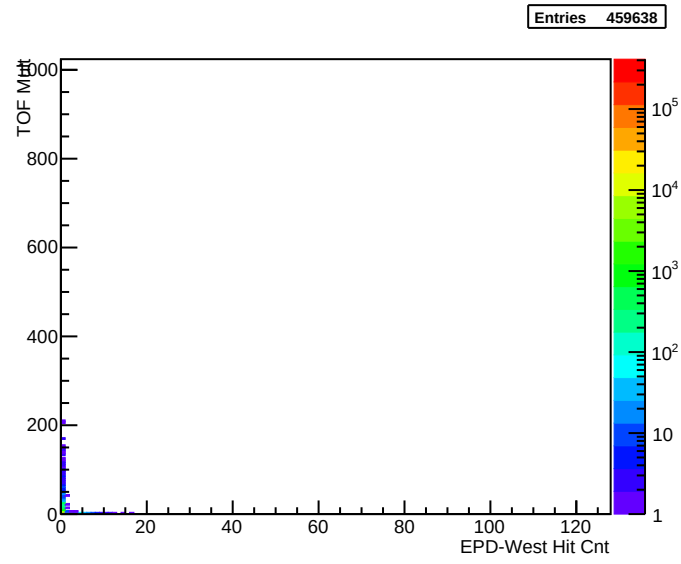

VT201 Input Ch4: VPD Tac Diff
Entries 459638
Tac

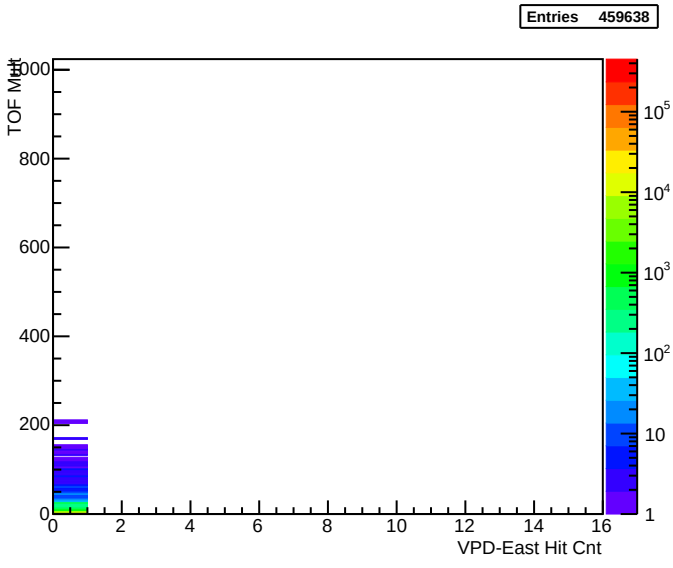

VT201 Input Ch4: VPD Tac Diff
Entries 0
Simu
Real

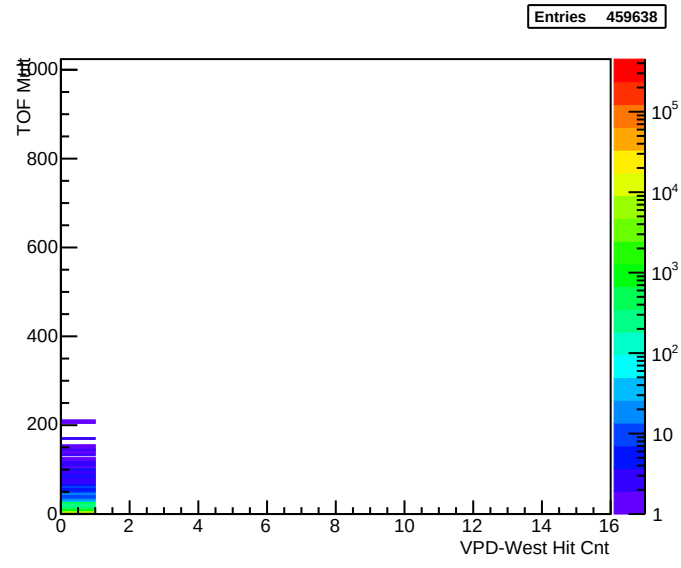

VT201 Input Ch4: VPD Adc Sum Th
Entries 2298190
459638
Mean-TAC Diff W-1
Mean-TAC Diff W-2
Mean-TAC Diff W-3
East
West

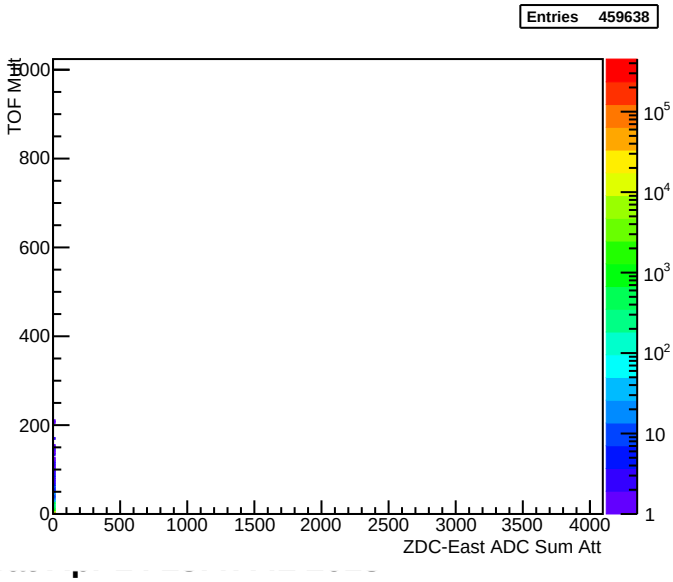

VT201 Input Ch4: VPD Adc Sum Th(Real-Simu)
Entries 0
Mean-TAC Diff W-1
Mean-TAC Diff W-2
Mean-TAC Diff W-3
East
West

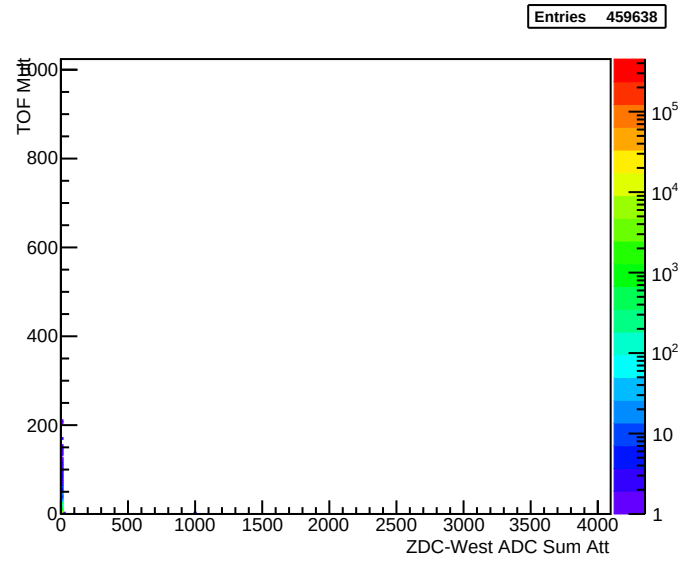

Entries 459638
TOF Mult
EPD-East Hit Cnt

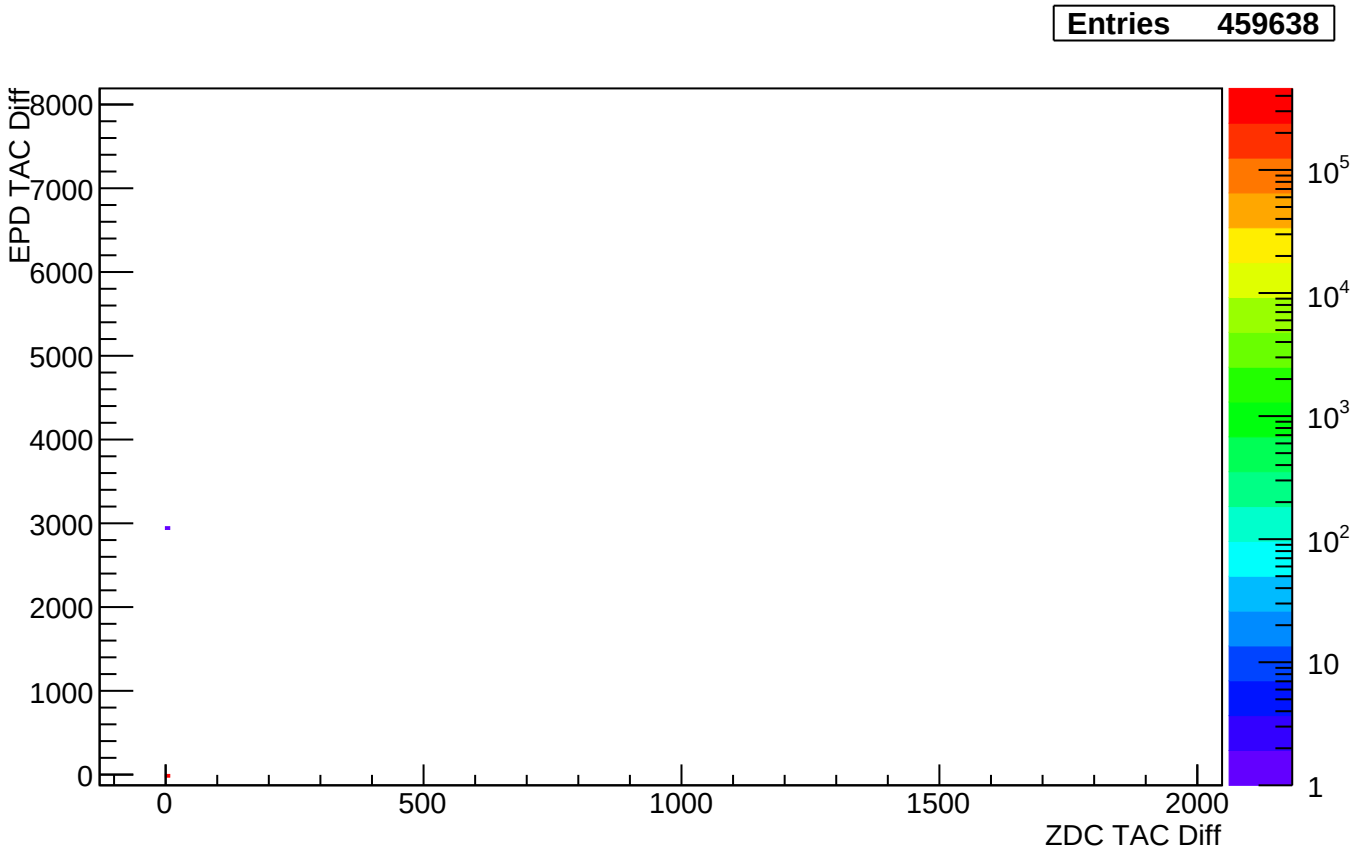

Entries 459638
TOF Mult
EPD-West Hit Cnt

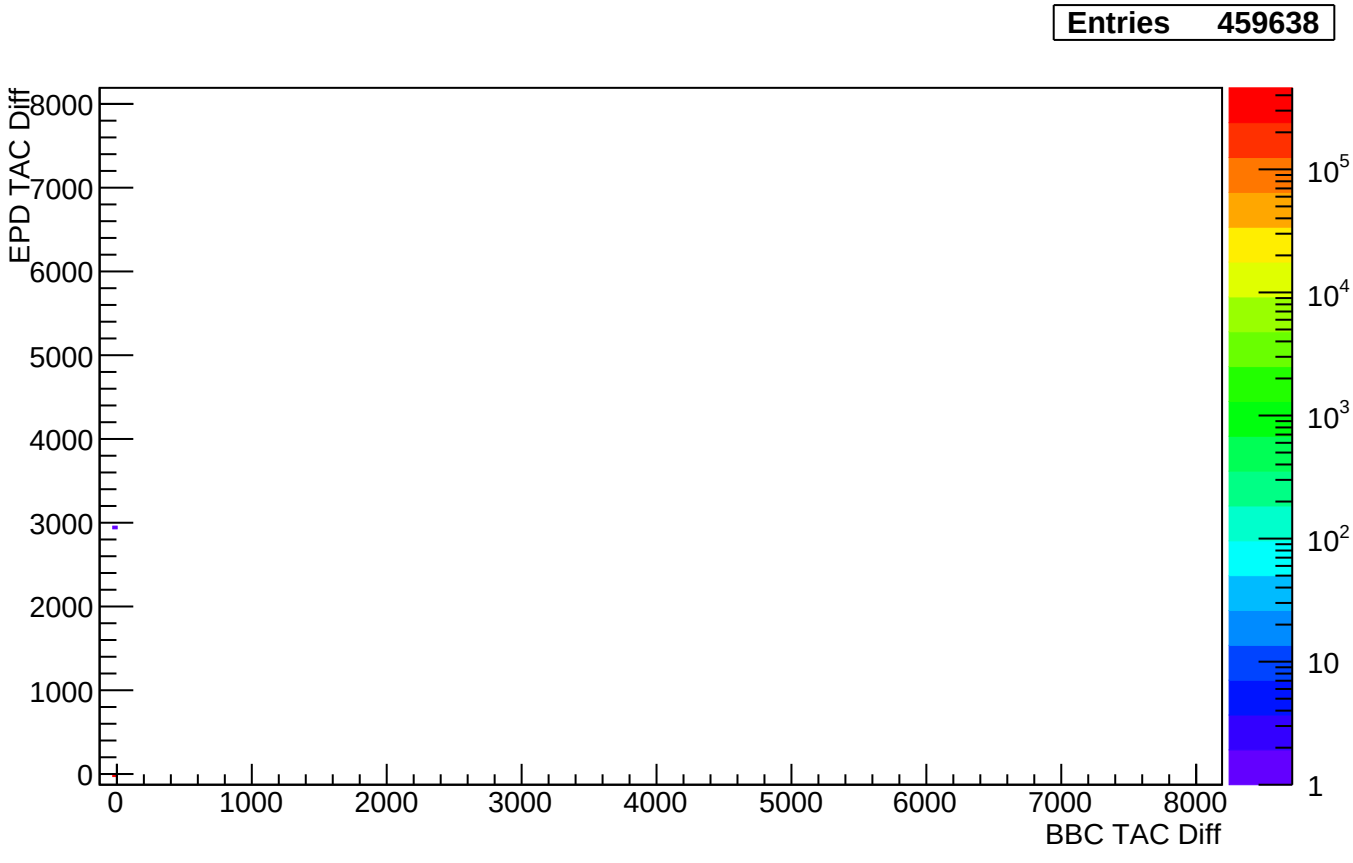

Entries 459638
TOF Mult
VPD-East Hit Cnt

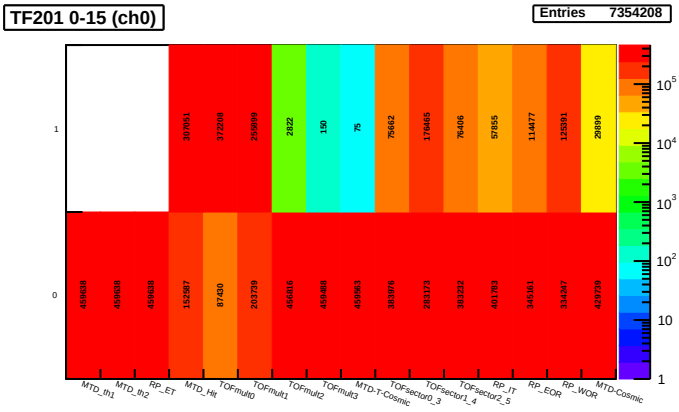

Entries 459638
TOF Mult
VPD-West Hit Cnt

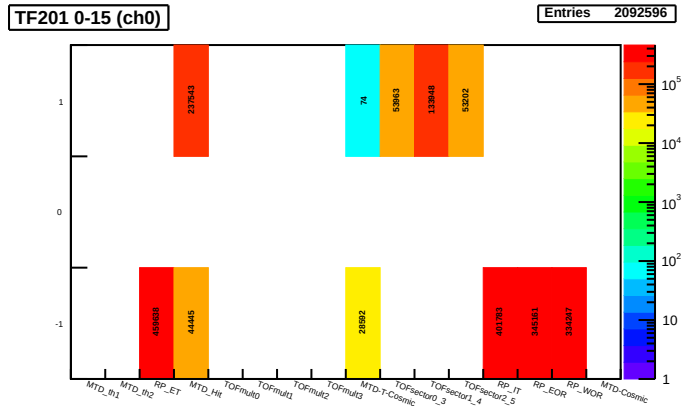

Entries 459638
TOF Mult
ZDC-East ADC Sum Att

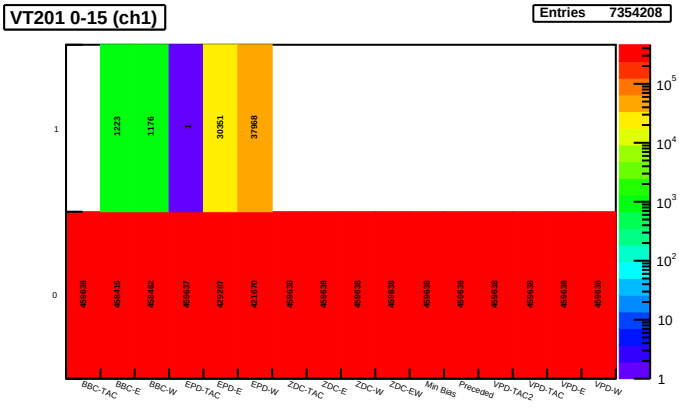

Entries 459638
TOF Mult
ZDC-West ADC Sum Att

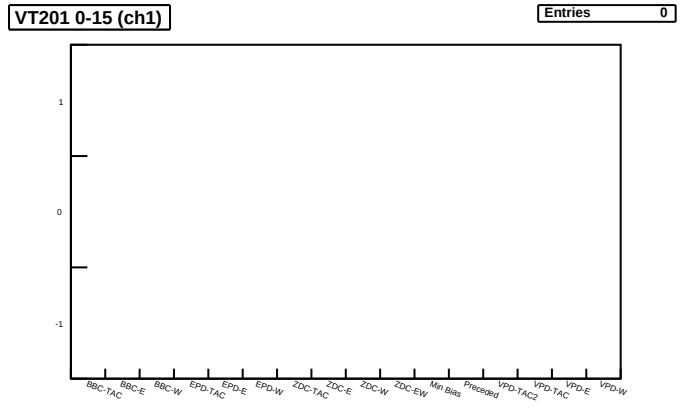

Entries 459638
EPD TAC Diff
ZDC TAC Diff
0
1000
2000
3000
4000
5000
6000
7000
8000
0
500
1000
1500
2000
1
10
$10^2$
$10^3$
$10^4$
$10^5$

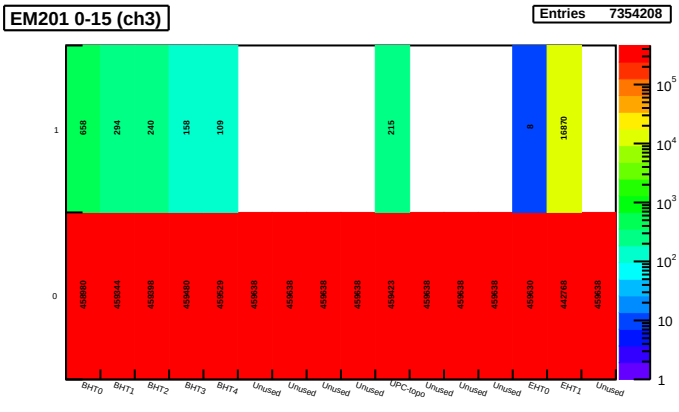

Entries 459638
EPD TAC Diff
BBC TAC Diff
0
1000
2000
3000
4000
5000
6000
7000
8000
0
1000
2000
3000
4000
5000
6000
7000
8000
1
10
$10^2$
$10^3$
$10^4$
$10^5$

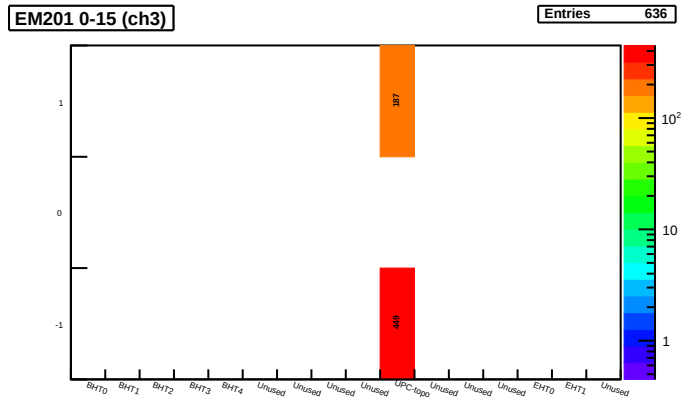

TF201 0-15 (ch0)
Entries 7354208
MTD_th1 MTD_th2 RP_ET MTD_Hit TOFmult0 TOFmult1 TOFmult2 TOFmult3 MTD-T-Cosmic TOFsector0_3 TOFsector1_4 TOFsector2_5 RP_IT RP_EOR RP_WOR MTD-Cosmic

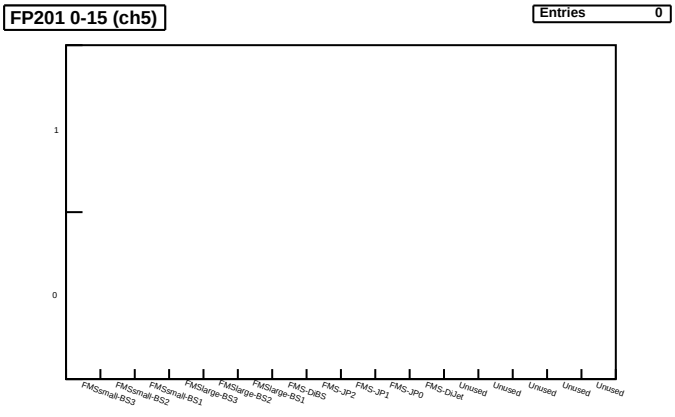

TF201 0-15 (ch0)
Entries 2092596
MTD_th1 MTD_th2 RP_ET MTD_Hit TOFmult0 TOFmult1 TOFmult2 TOFmult3 MTD-T-Cosmic TOFsector0_3 TOFsector1_4 TOFsector2_5 RP_IT RP_EOR RP_WOR MTD-Cosmic

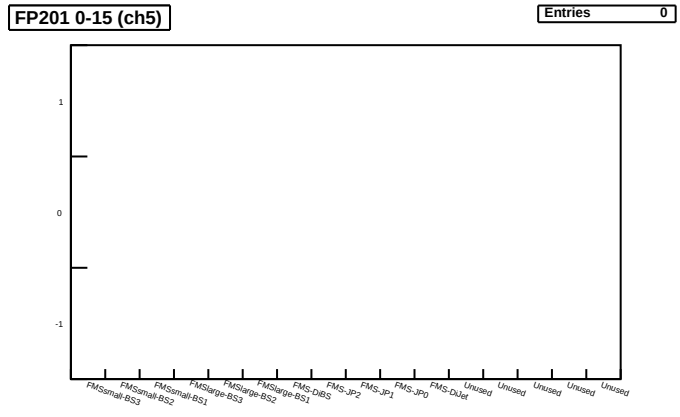

VT201 0-15 (ch1)
Entries 7354208
BBC-TAC BBC-E BBC-W EPD-TAC EPD-E EPD-W ZDC-TAC ZDC-E ZDC-W ZDC-EW Min Bias Preceded VPD-TAC2 VPD-TAC VPD-E VPD-W


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 7354208
BHT0 BHT1 BHT2 BHT3 BHT4 Unused Unused Unused Unused UPC-topo Unused Unused Unused EHT0 EHT1 Unused


EM201 0-15 (ch3)
Entries 636
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