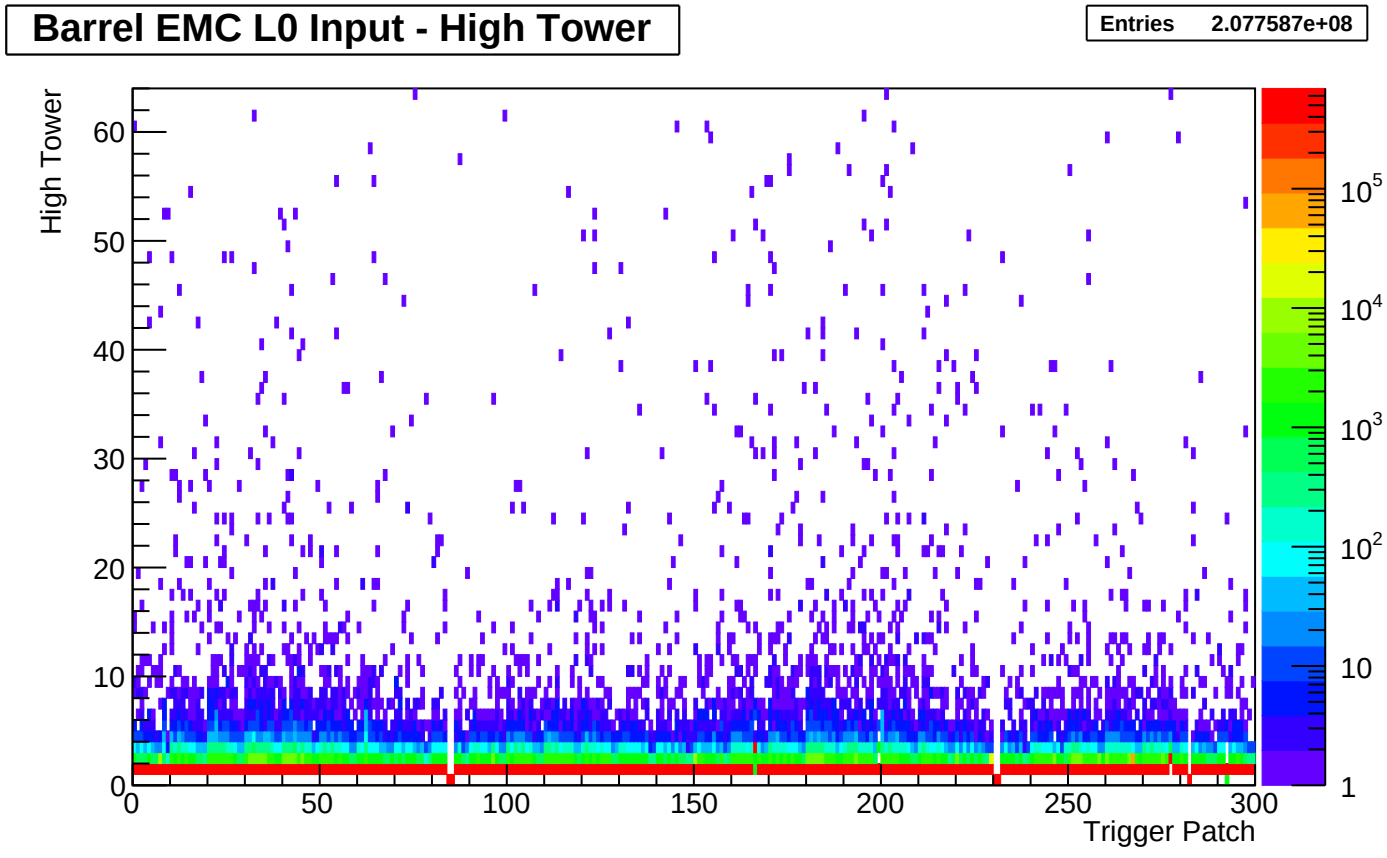
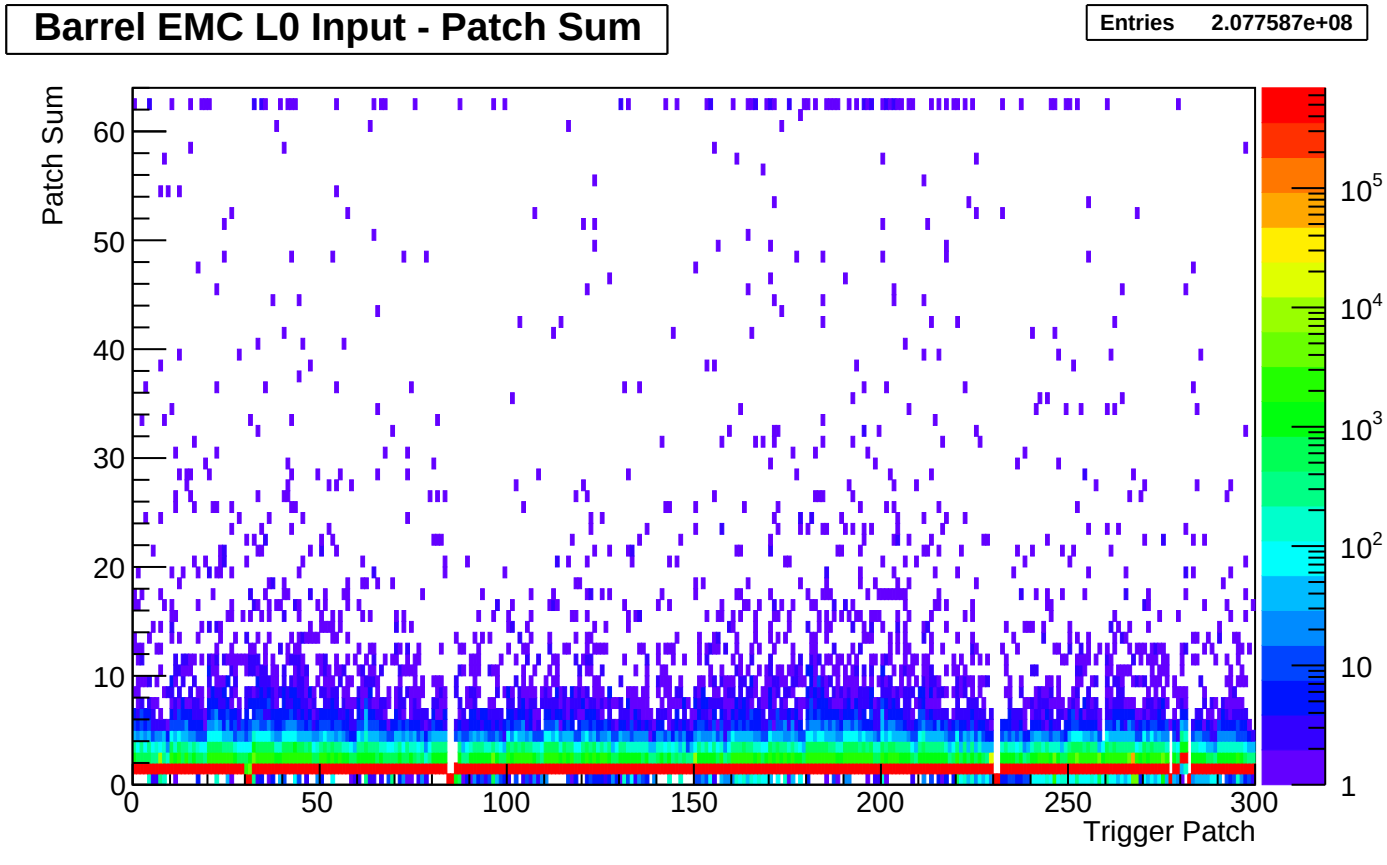
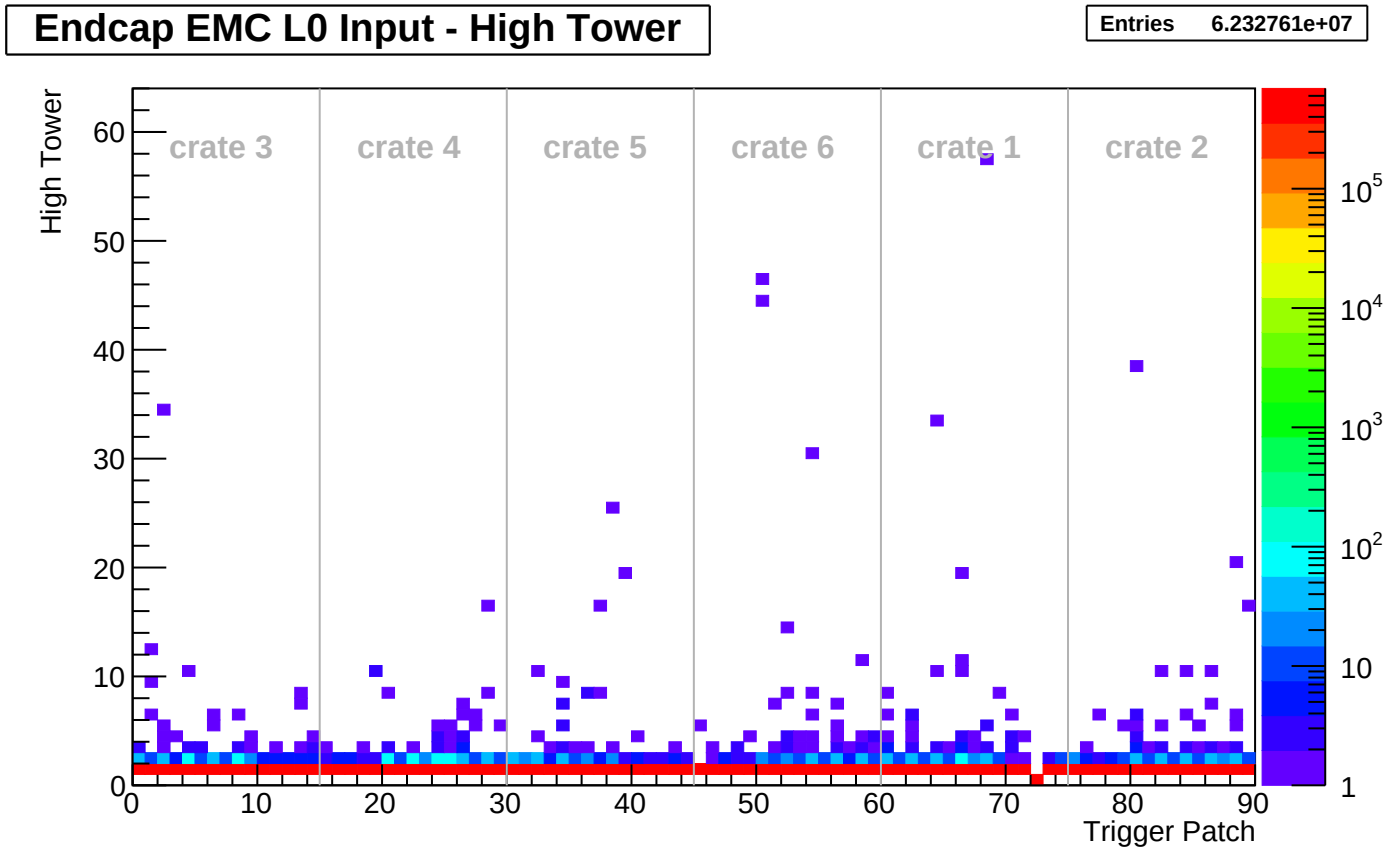
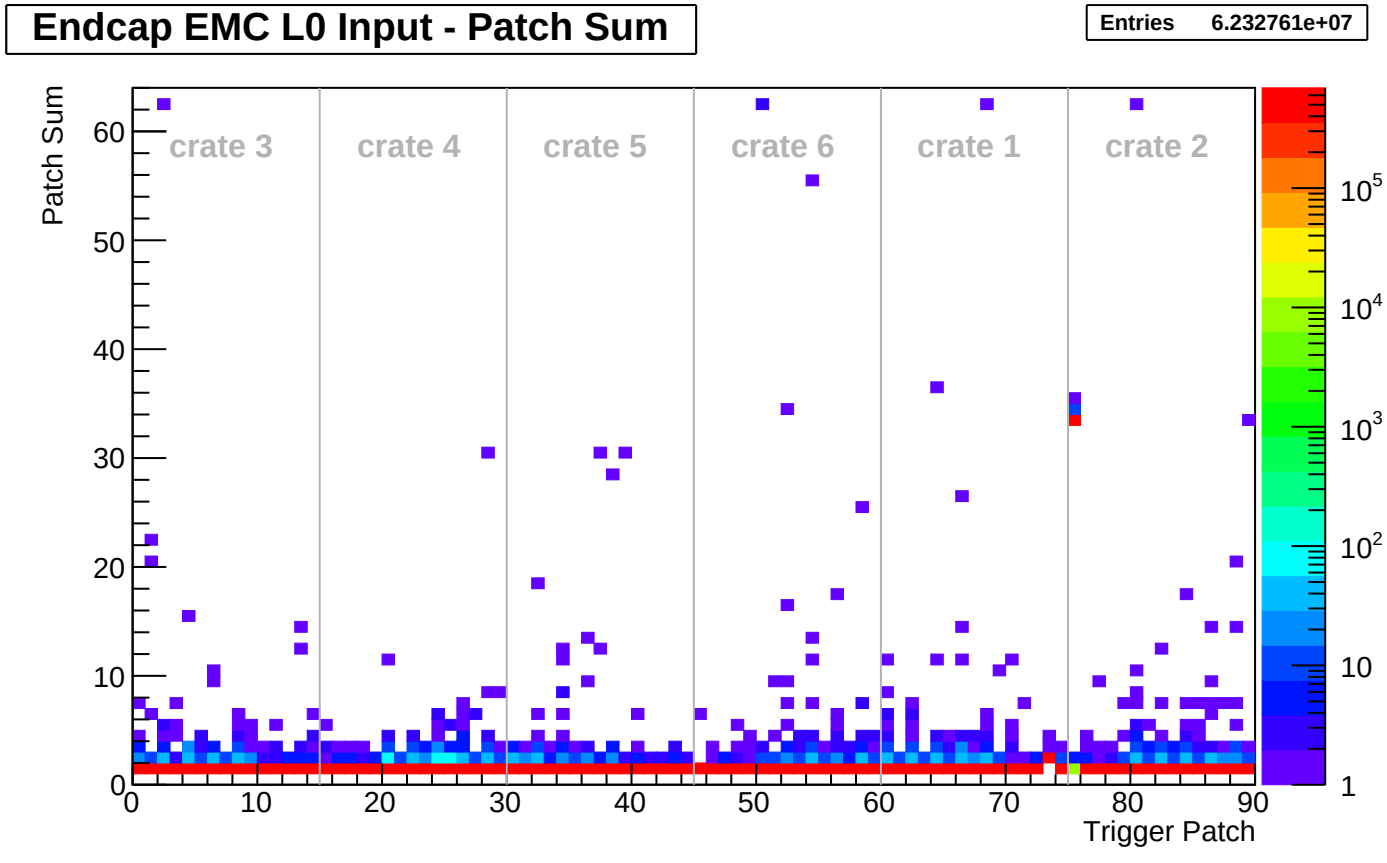
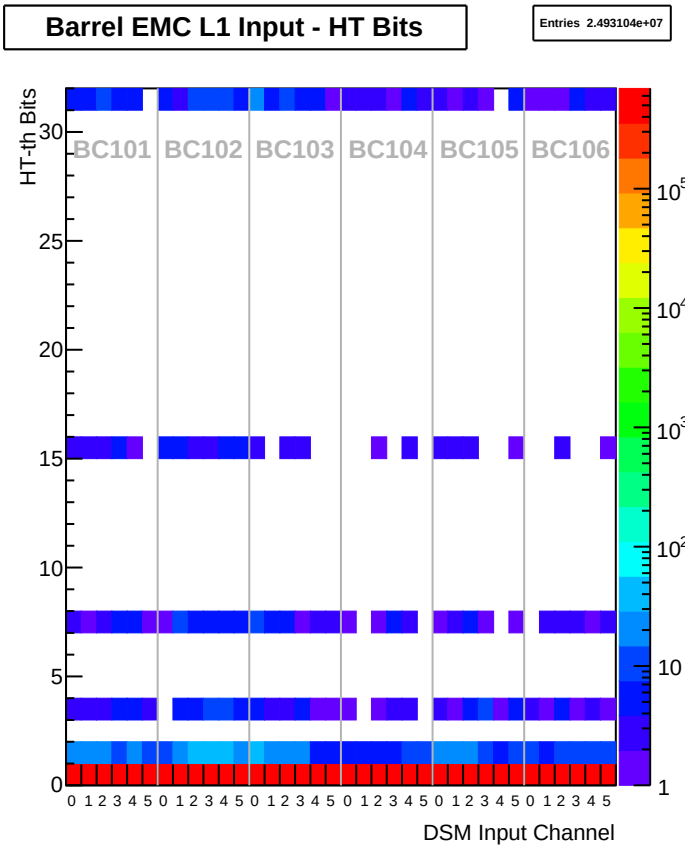
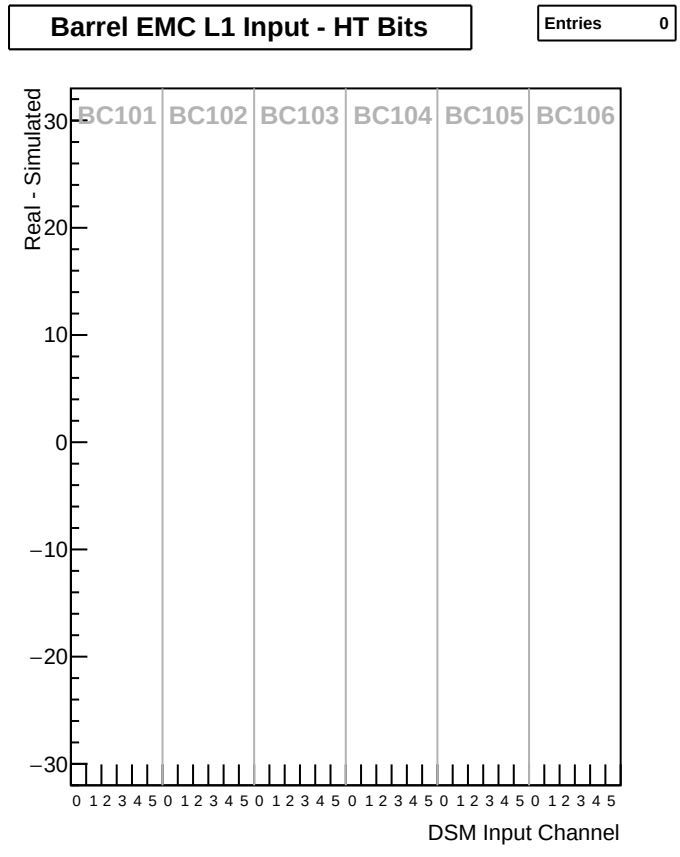

Barrel EMC L0 Input - High Tower
Entries 2.077587e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
$10^2$
$10^3$
$10^4$
$10^5$

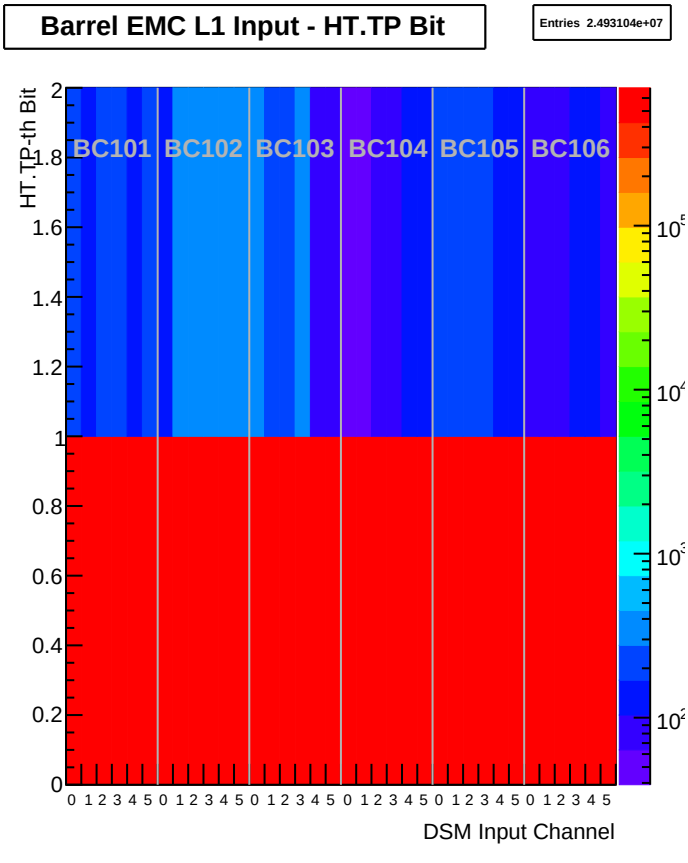

Barrel EMC L0 Input - Patch Sum
Entries 2.077587e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
$10^2$
$10^3$
$10^4$
$10^5$

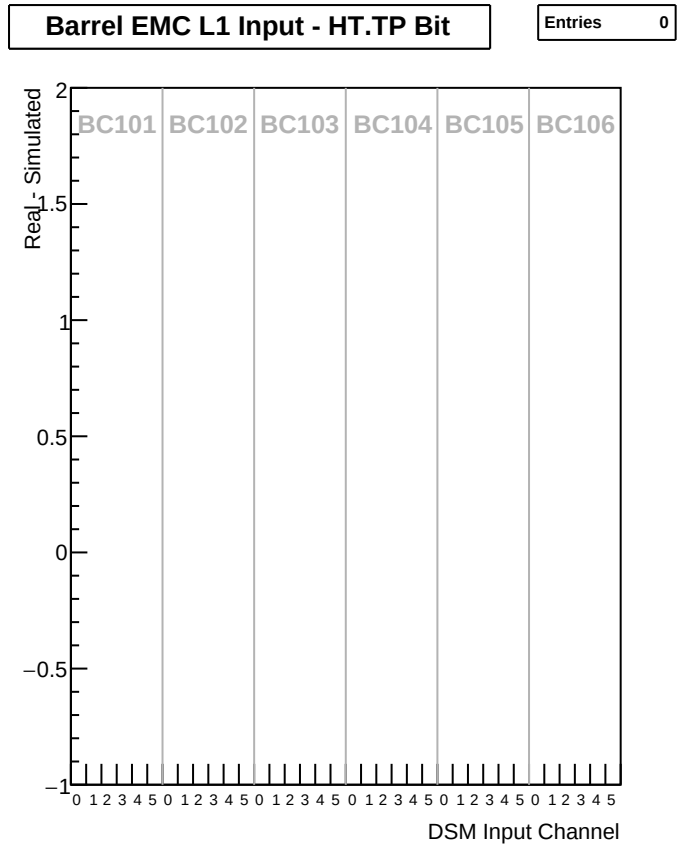

Endcap EMC L0 Input - High Tower
Entries 6.232761e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

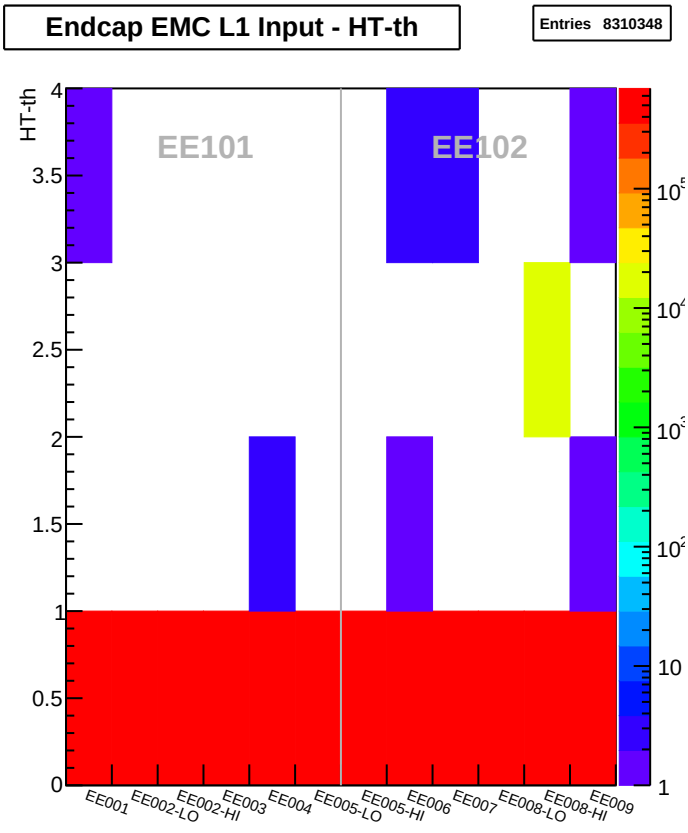

Endcap EMC L0 Input - Patch Sum
Entries 6.232761e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

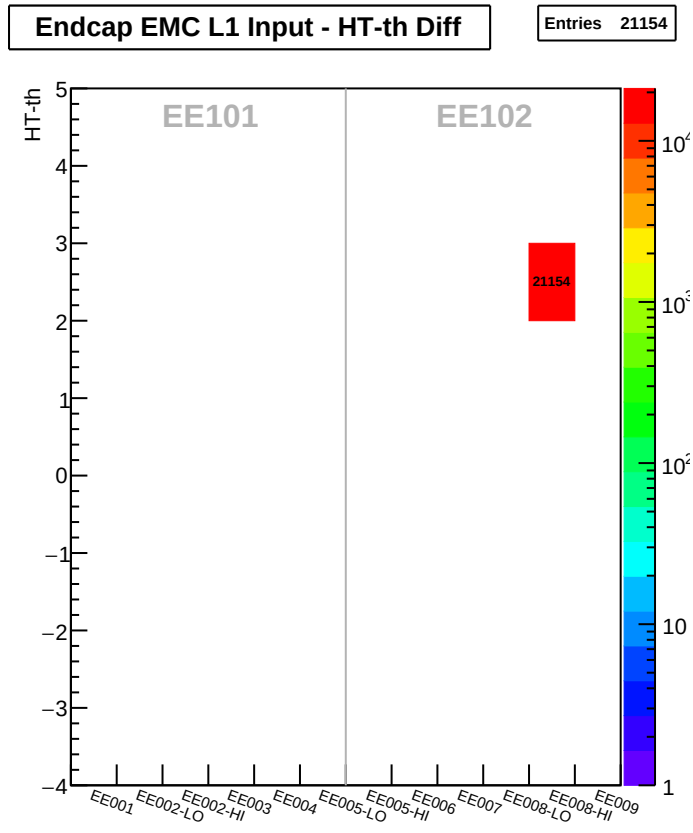

Barrel EMC L1 Input - HT Bits
Entries 2.493104e+07
HT-th Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

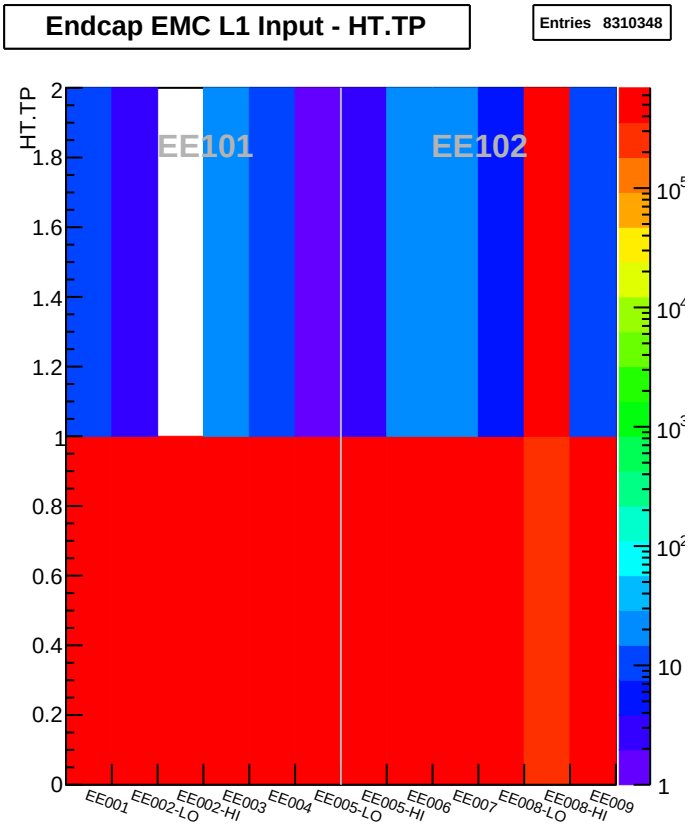

Barrel EMC L1 Input - HT Bits
Entries 0
Real - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

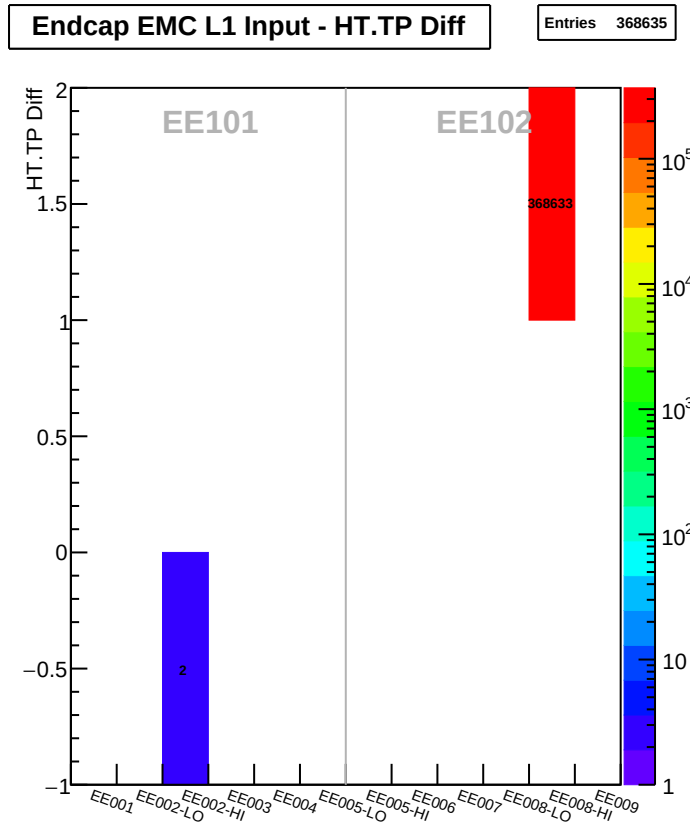

Barrel EMC L1 Input - HT.TP Bit
Entries 2.493104e+07
HT.TP-th Bit
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

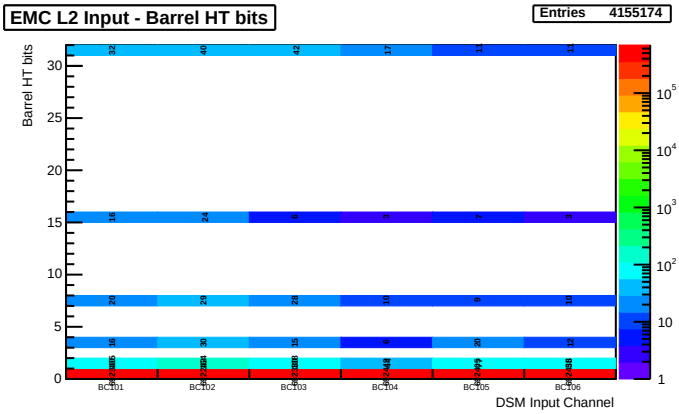

Barrel EMC L1 Input - HT.TP Bit
Entries 0
Real - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

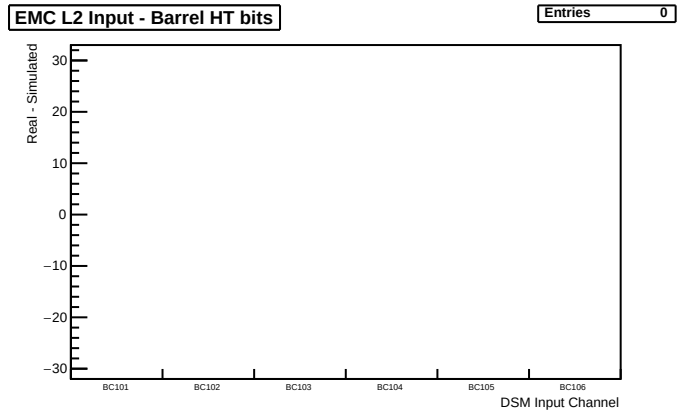

Endcap EMC L1 Input - HT-th
Entries 8310348
HT-th
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

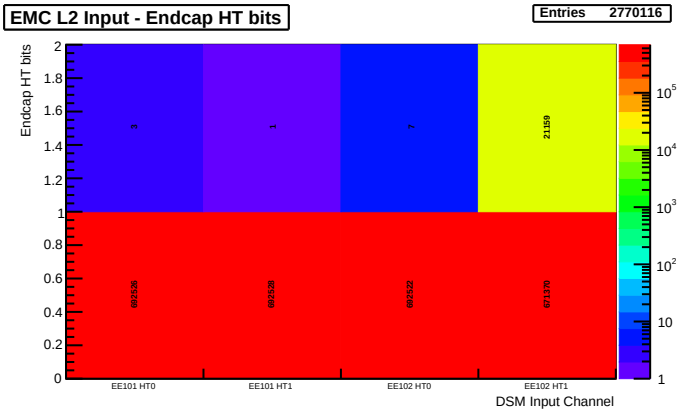

Endcap EMC L1 Input - HT-th Diff
Entries 21154
HT-th
EE101
EE102
21154
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

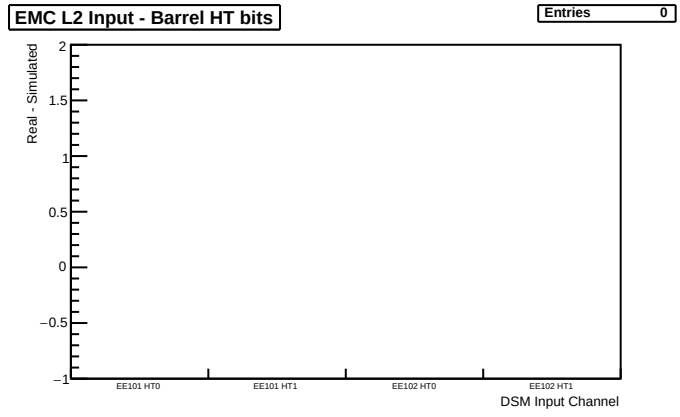

Endcap EMC L1 Input - HT.TP
Entries 8310348
HT.TP
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

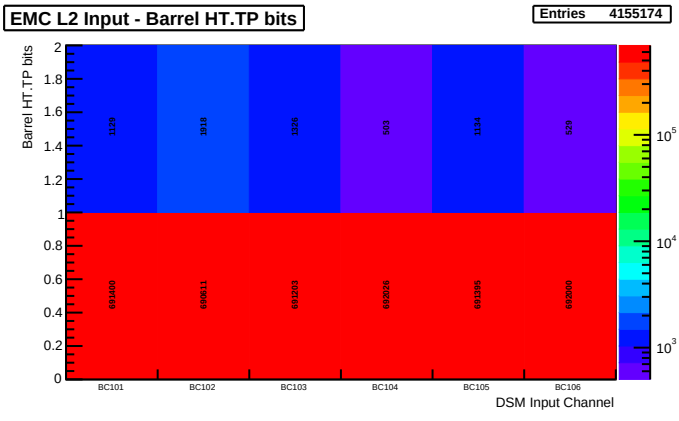

Endcap EMC L1 Input - HT.TP Diff
Entries 368635
HT.TP Diff
EE101
EE102
368633
2
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

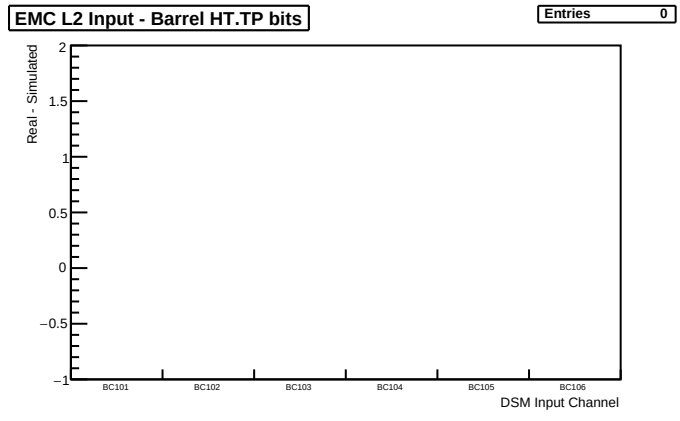

EMC L2 Input - Barrel HT bits
Entries 4155174
Barrel HT bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

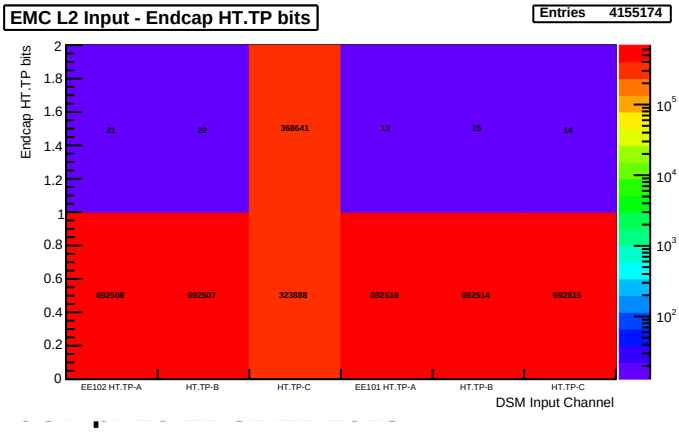

EMC L2 Input - Barrel HT bits
Entries 0
Real - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

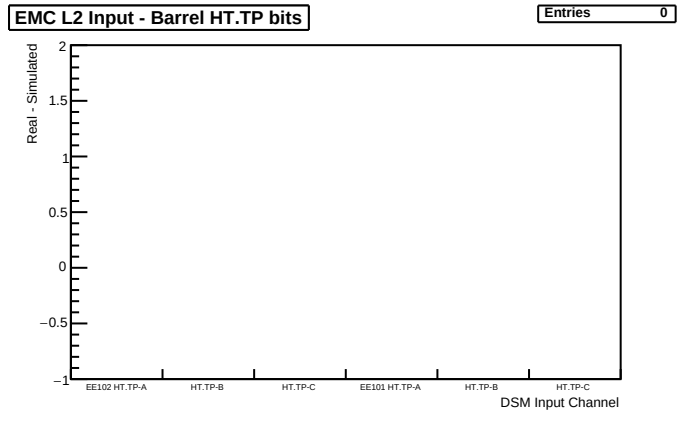

EMC L2 Input - Endcap HT bits
Entries 2770116
Endcap HT bits
DSM Input Channel
EE101 HT0
EE101 HT1
EE102 HT0
EE102 HT1

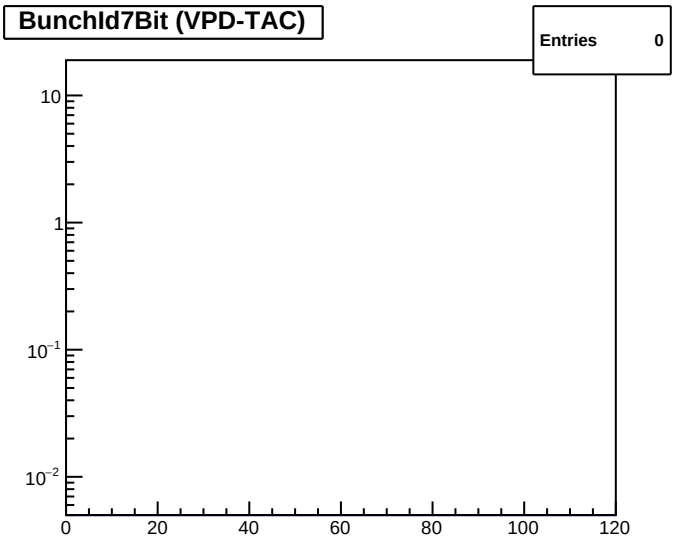

EMC L2 Input - Barrel HT bits
Entries 0
Real - Simulated
DSM Input Channel
EE101 HT0
EE101 HT1
EE102 HT0
EE102 HT1

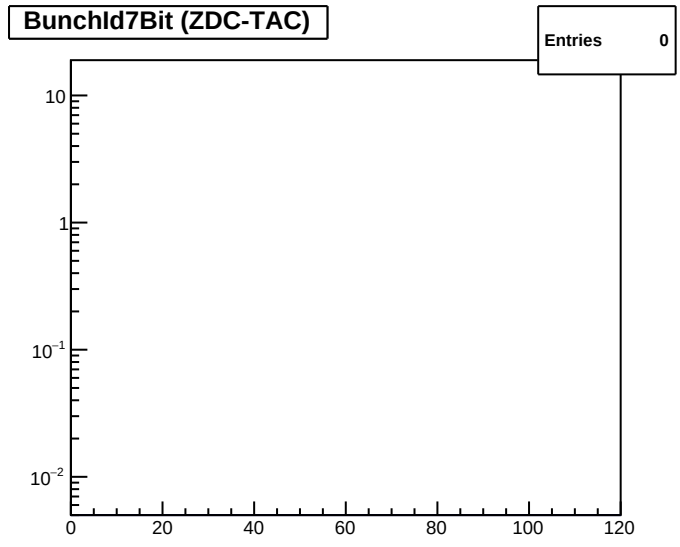

EMC L2 Input - Barrel HT.TP bits
Entries 4155174
Barrel HT.TP bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

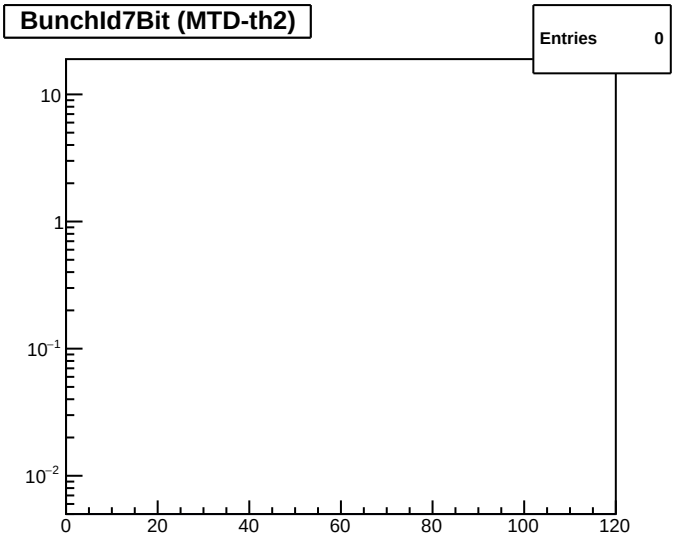

EMC L2 Input - Barrel HT.TP bits
Entries 0
Real - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

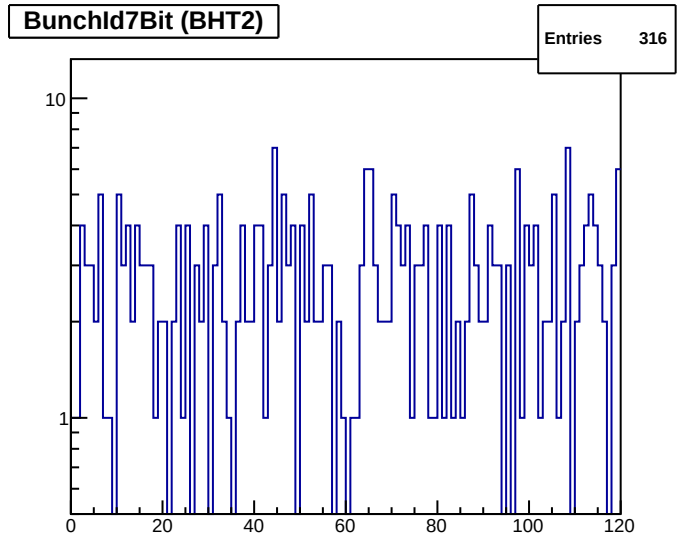

EMC L2 Input - Endcap HT.TP bits
Entries 4155174
Endcap HT.TP bits
DSM Input Channel
EE102 HT.TP-A
HT.TP-B
HT.TP-C
EE101 HT.TP-A
HT.TP-B
HT.TP-C

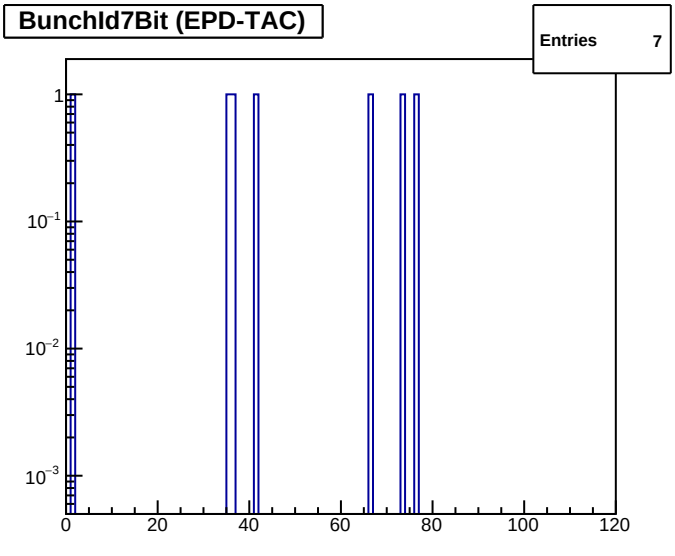

EMC L2 Input - Barrel HT.TP bits
Entries 0
Real - Simulated
DSM Input Channel
EE102 HT.TP-A
HT.TP-B
HT.TP-C
EE101 HT.TP-A
HT.TP-B
HT.TP-C

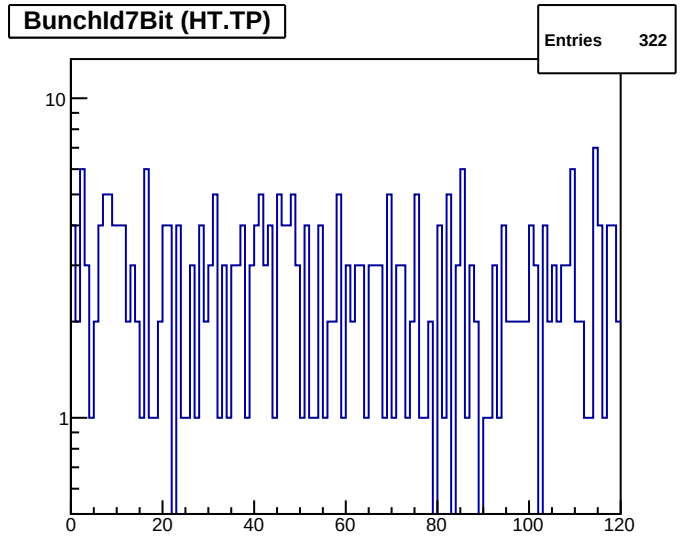

BunchId7Bit (VPD-TAC)
Entries 0

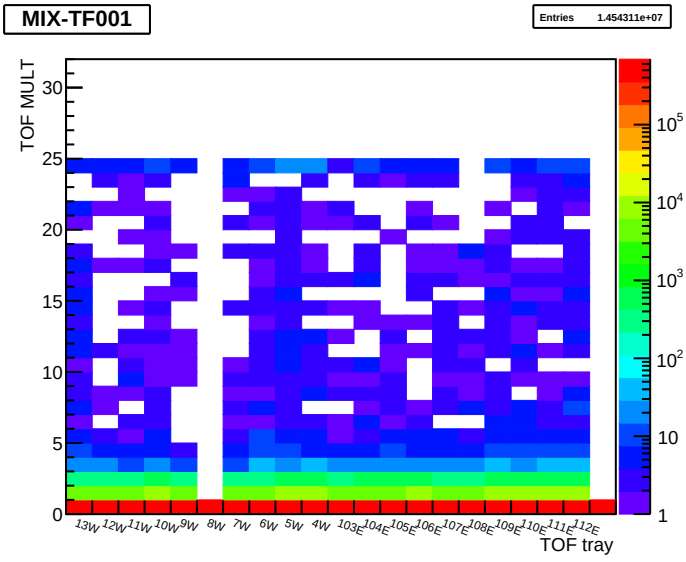

BunchId7Bit (ZDC-TAC)
Entries 0

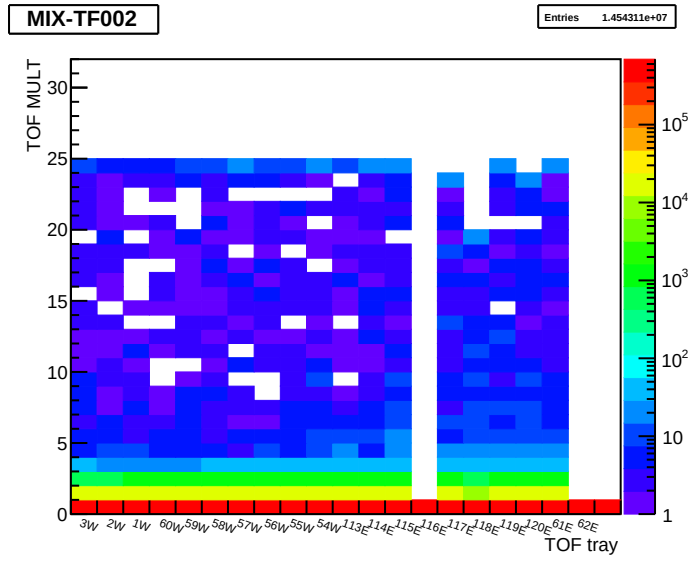

BunchId7Bit (MTD-th2)
Entries 0

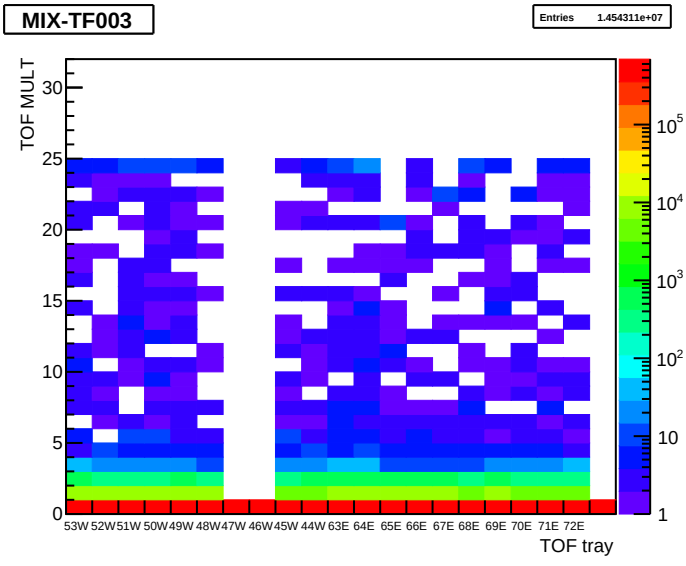

BunchId7Bit (BHT2)
Entries 316

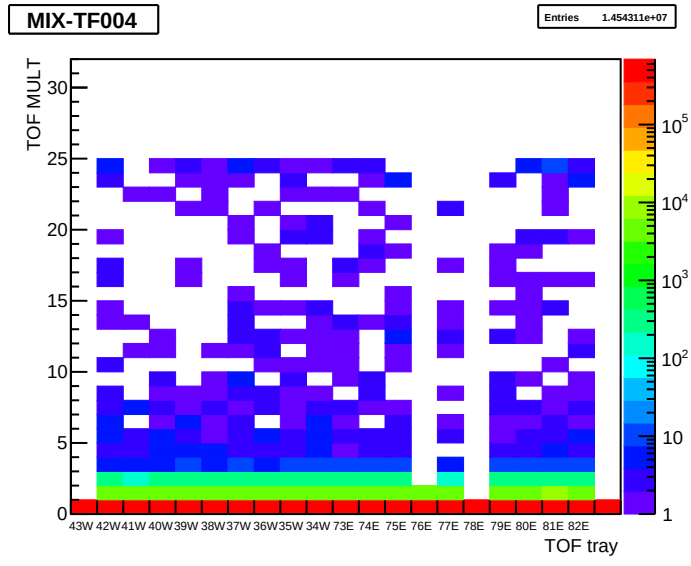

BunchId7Bit (EPD-TAC)
Entries 7

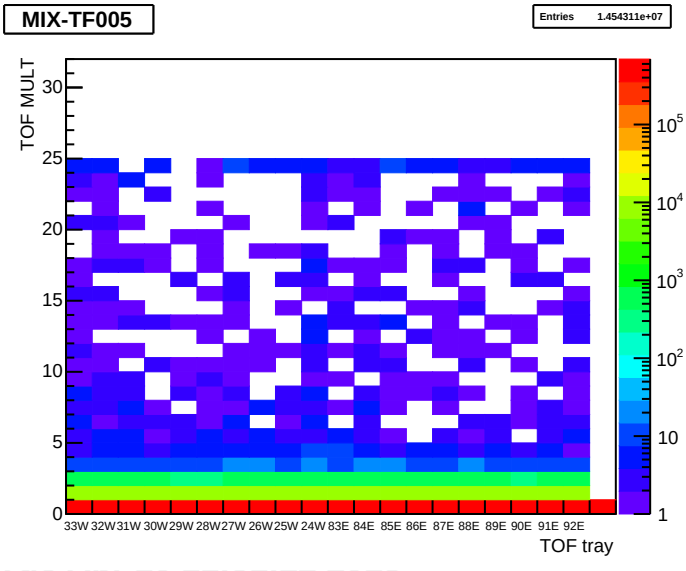

BunchId7Bit (HT.TP)
Entries 322

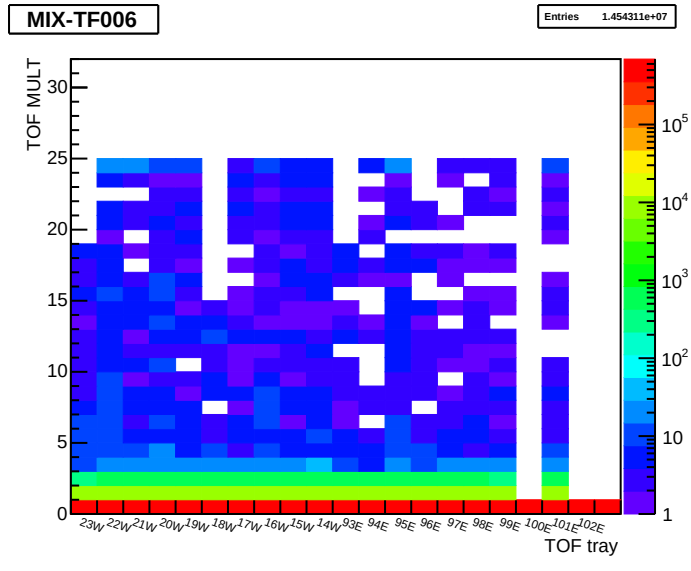

MIX-TF001
Entries 1.454311e+07
TOF MULT
TOF tray

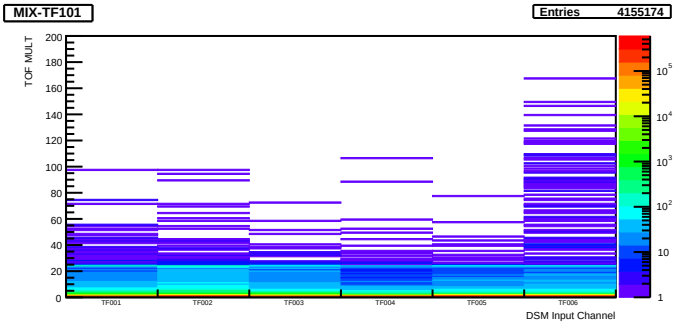

MIX-TF002
Entries 1.454311e+07
TOF MULT
TOF tray

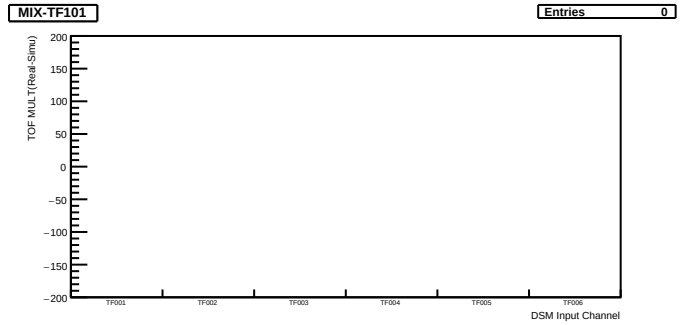

MIX-TF003
Entries 1.454311e+07
TOF MULT
TOF tray

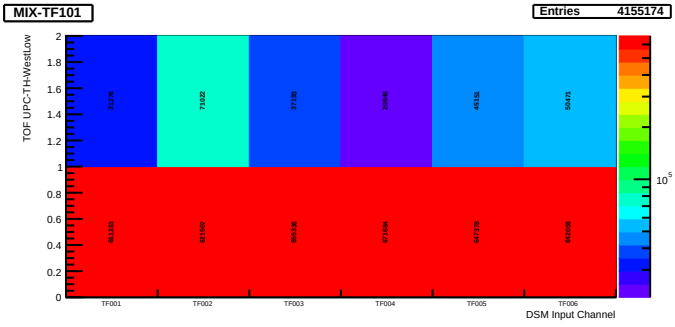

MIX-TF004
Entries 1.454311e+07
TOF MULT
TOF tray

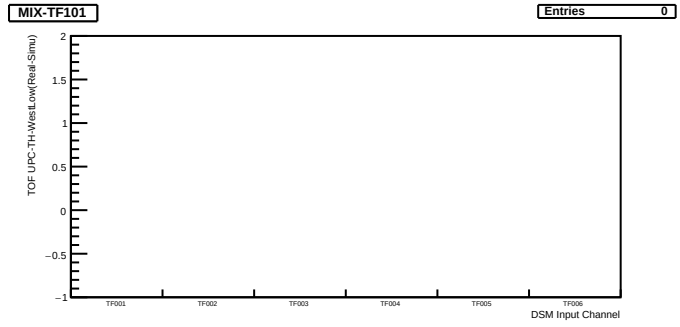

MIX-TF005
Entries 1.454311e+07
TOF MULT
TOF tray

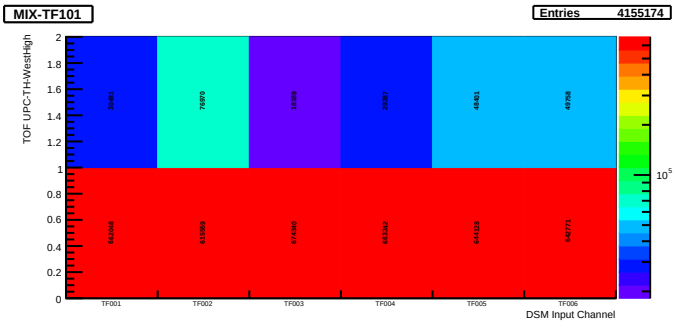

MIX-TF006
Entries 1.454311e+07
TOF MULT
TOF tray

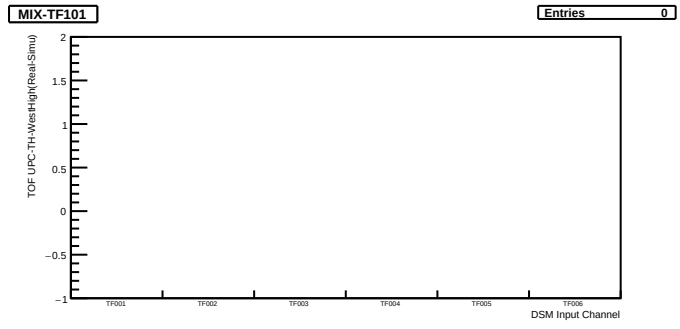

MIX-TF101
Entries 4155174
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

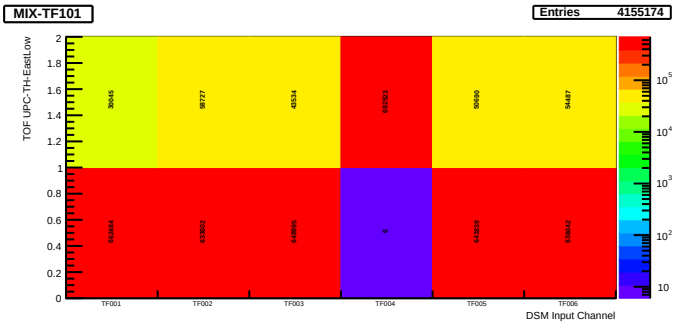

MIX-TF101
Entries 0
TOF MULT(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

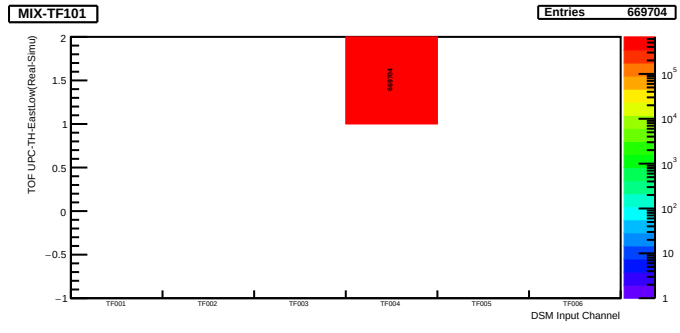

MIX-TF101
Entries 4155174
TOF UPC-TH-WestLow
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

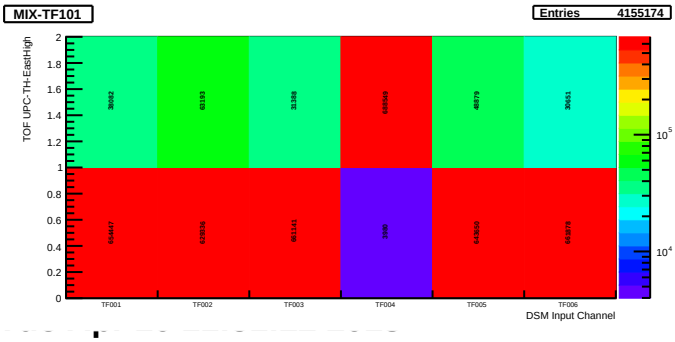

MIX-TF101
Entries 0
TOF UPC-TH-WestLow(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

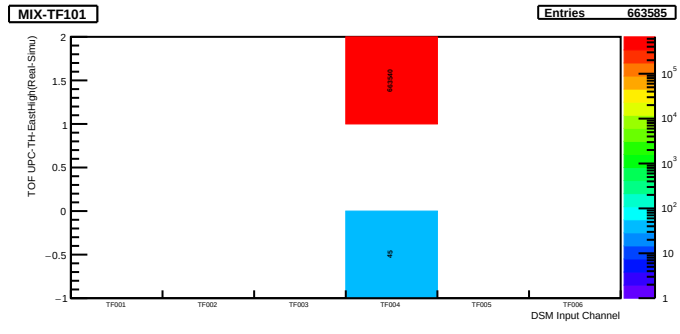

MIX-TF101
Entries 4155174
TOF UPC-TH-WestHigh
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

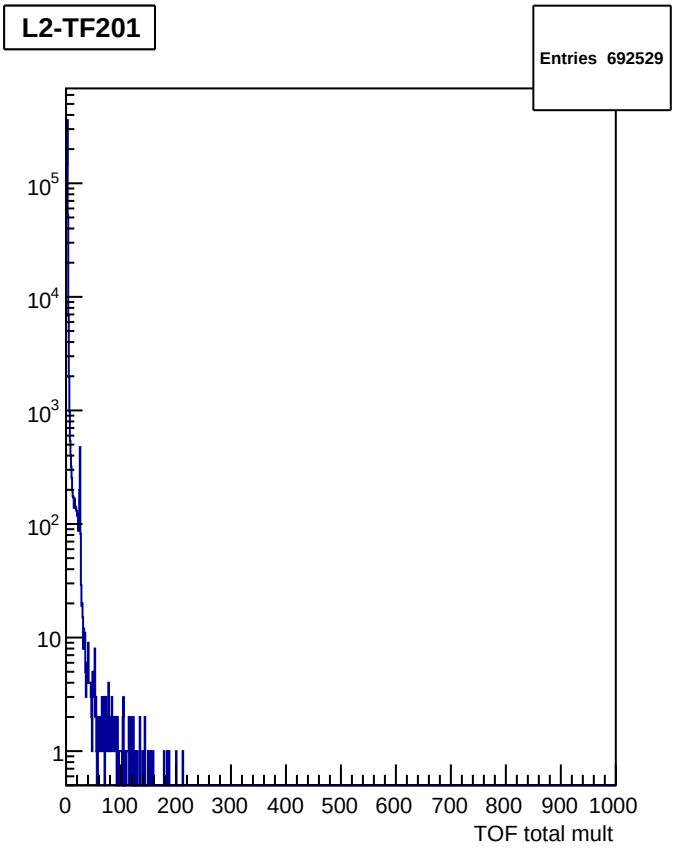

MIX-TF101
Entries 0
TOF UPC-TH-WestHigh(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

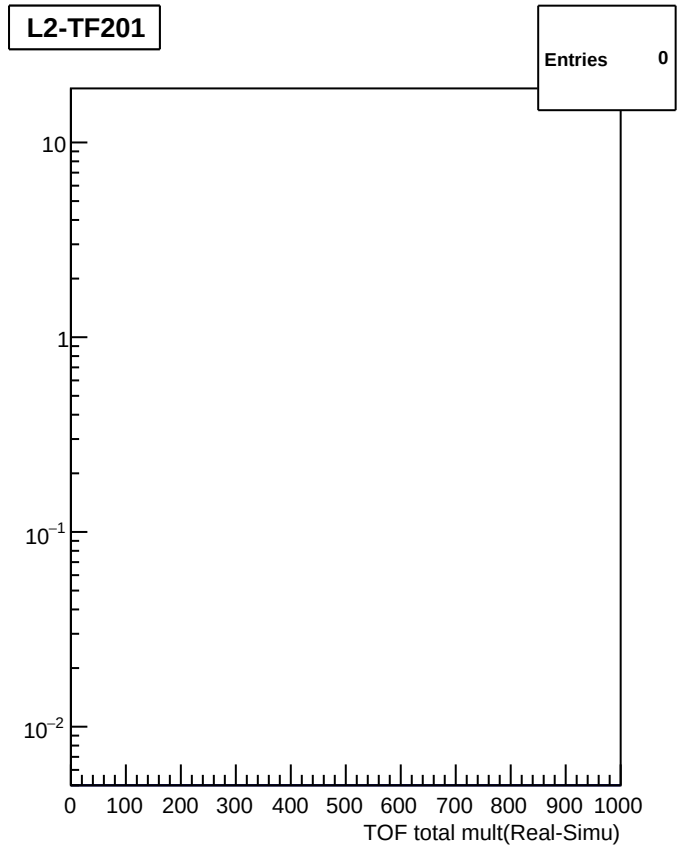

MIX-TF101
Entries 4155174
TOF UPC-TH-EastLow
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

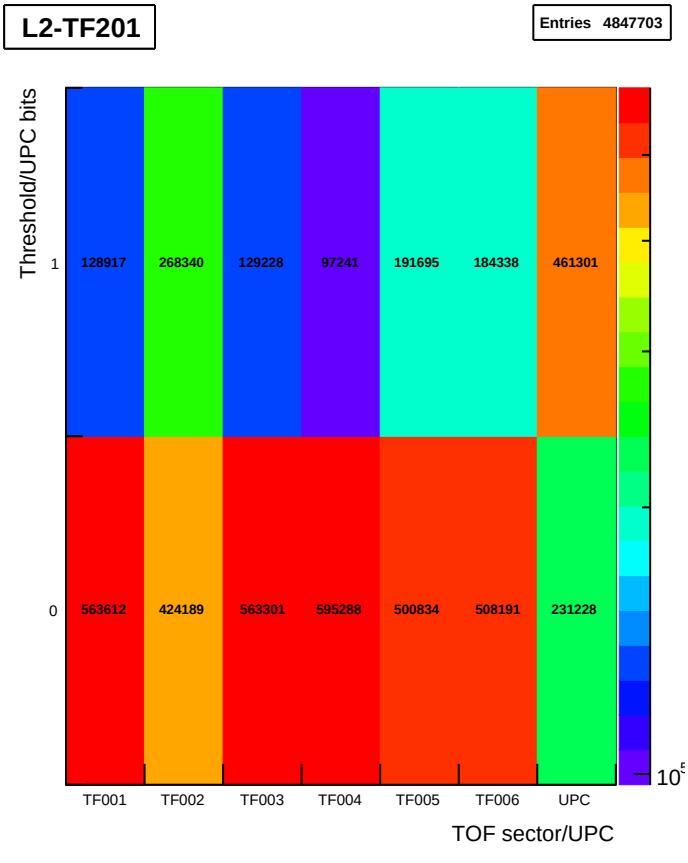

MIX-TF101
Entries 669704
TOF UPC-TH-EastLow(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

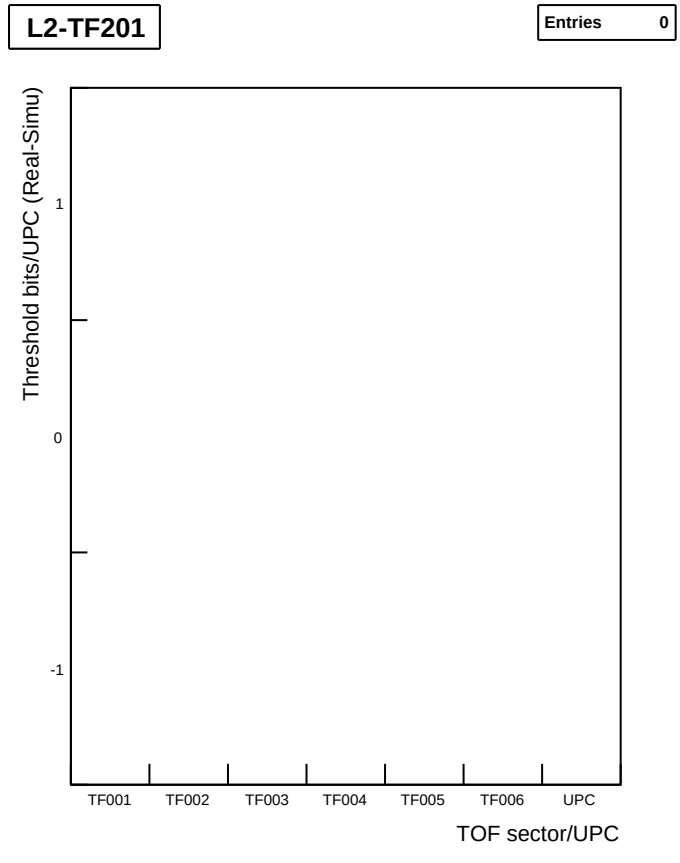

MIX-TF101
Entries 4155174
TOF UPC-TH-EastHigh
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

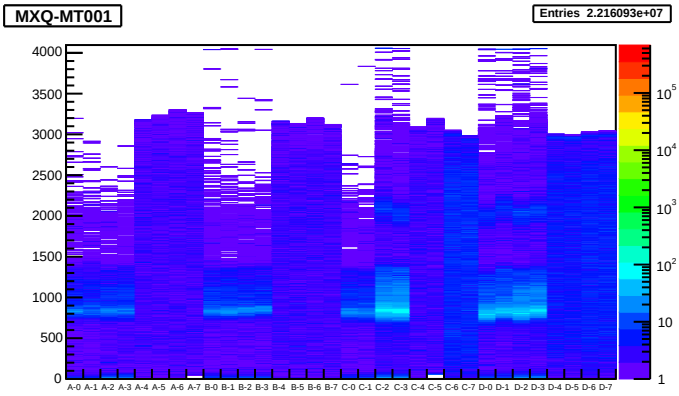

MIX-TF101
Entries 663585
TOF UPC-TH-EastHigh(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

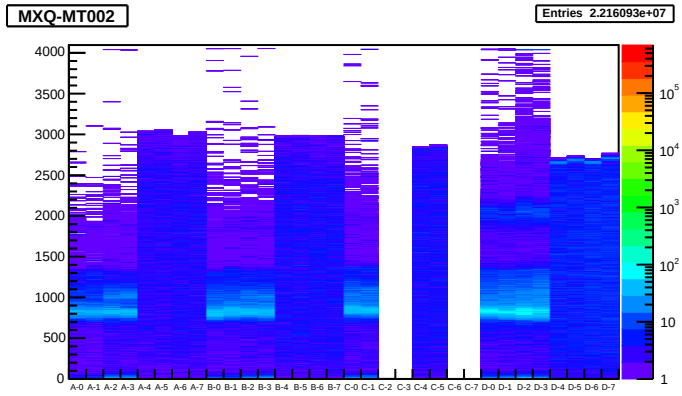

L2-TF201
Entries 692529
TOF total mult

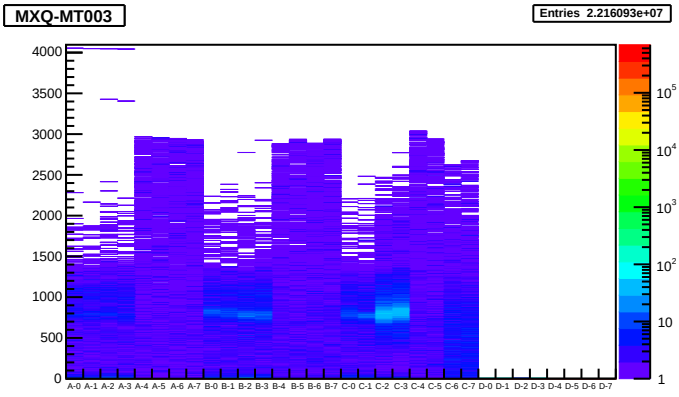

L2-TF201
Entries 0
TOF total mult(Real-Simu)

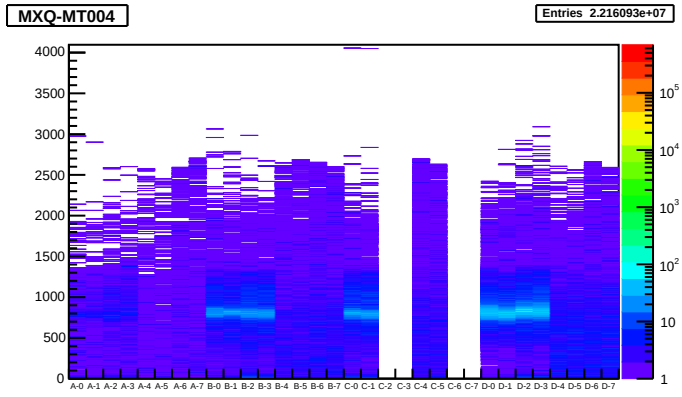

L2-TF201
Entries 4847703
Threshold/UPC bits
128917
268340
129228
97241
191695
184338
461301
563612
424189
563301
595288
500834
508191
231228
TF001
TF002
TF003
TF004
TF005
TF006
UPC
TOF sector/UPC

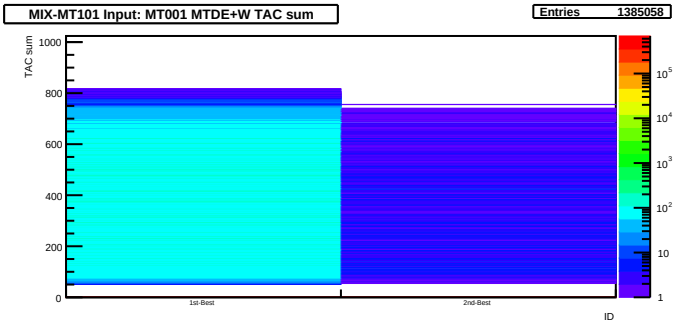

L2-TF201
Entries 0
Threshold bits/UPC (Real-Simu)
TF001
TF002
TF003
TF004
TF005
TF006
UPC
TOF sector/UPC

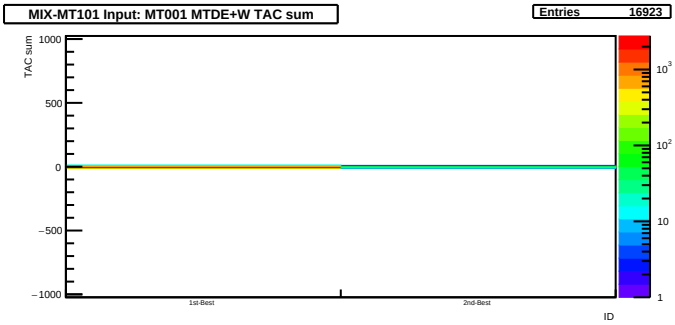

MXQ-MT001
Entries 2.216093e+07

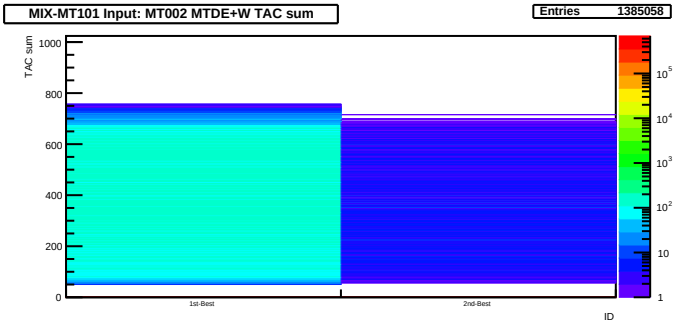

MXQ-MT002
Entries 2.216093e+07

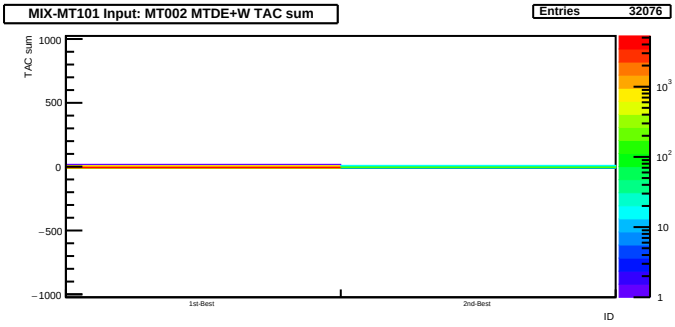

MXQ-MT003
Entries 2.216093e+07

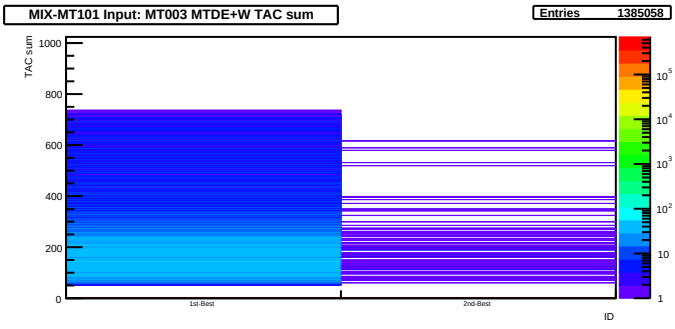

MXQ-MT004
Entries 2.216093e+07

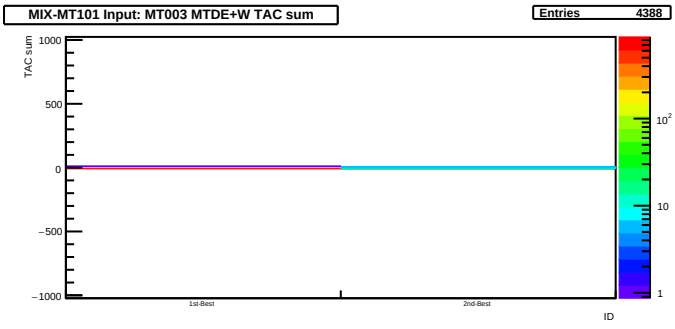

MIX-MT101 Input: MT001 MTDE+W TAC sum
Entries 1385058
TAC sum
1st-Best
2nd-Best
ID

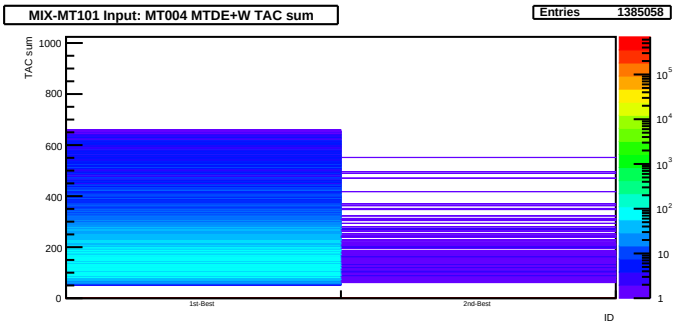

MIX-MT101 Input: MT001 MTDE+W TAC sum
Entries 16923
TAC sum
1st-Best
2nd-Best
ID

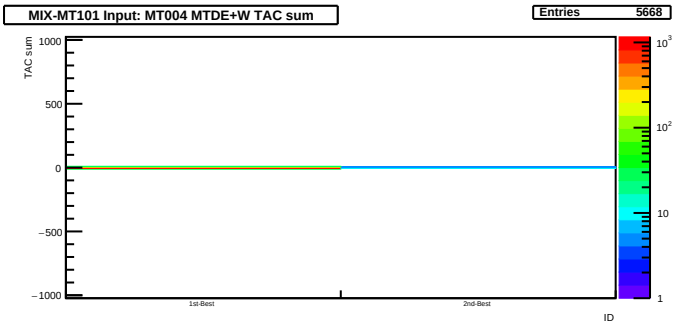

MIX-MT101 Input: MT002 MTDE+W TAC sum
Entries 1385058
TAC sum
1st-Best
2nd-Best
ID

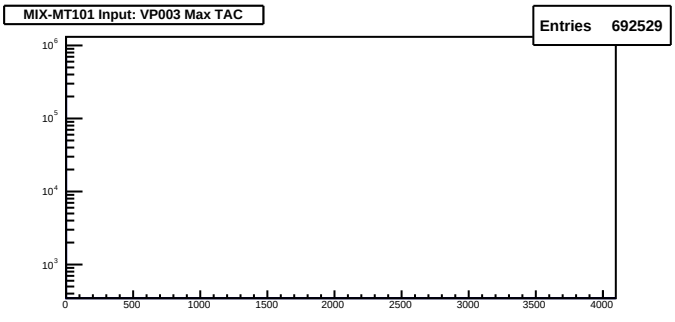

MIX-MT101 Input: MT002 MTDE+W TAC sum
Entries 32076
TAC sum
1st-Best
2nd-Best
ID

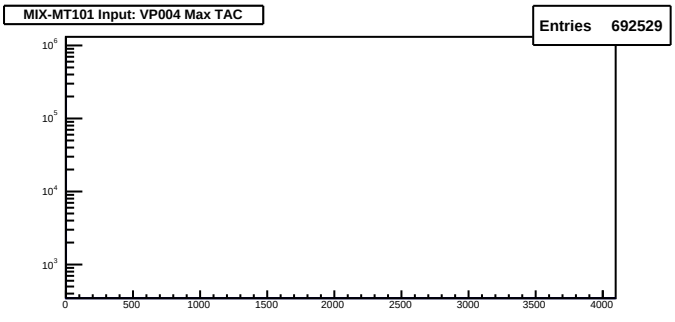

MIX-MT101 Input: MT003 MTDE+W TAC sum
Entries 1385058
TAC sum
1st-Best
2nd-Best
ID

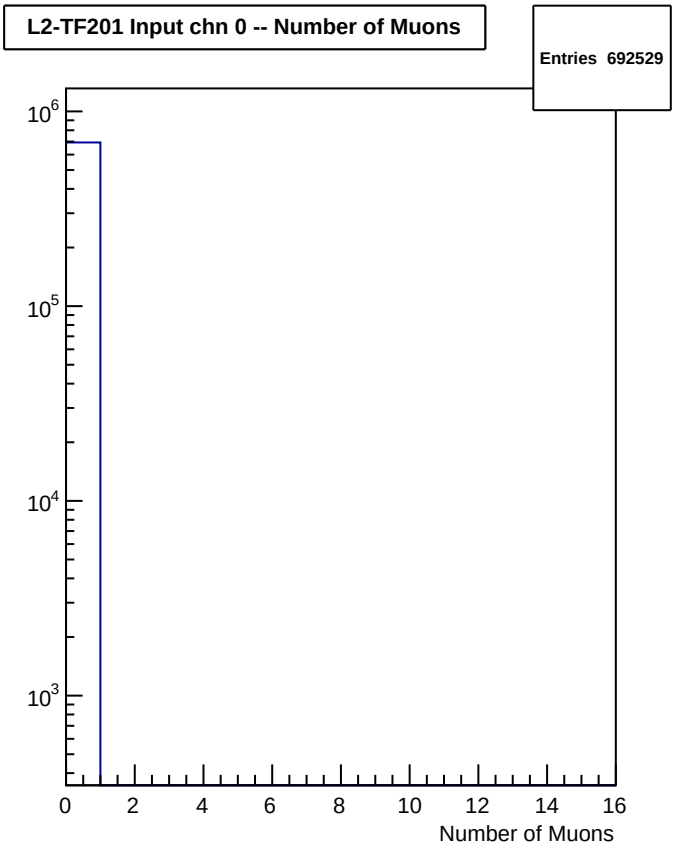

MIX-MT101 Input: MT003 MTDE+W TAC sum
Entries 4388
TAC sum
1st-Best
2nd-Best
ID

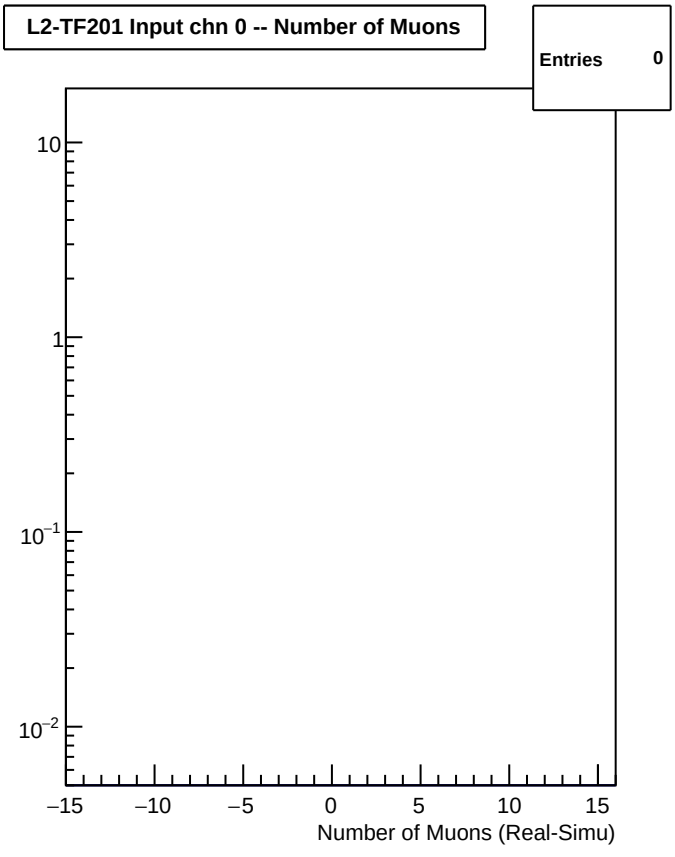

MIX-MT101 Input: MT004 MTDE+W TAC sum
Entries 1385058
TAC sum
1st-Best
2nd-Best
ID

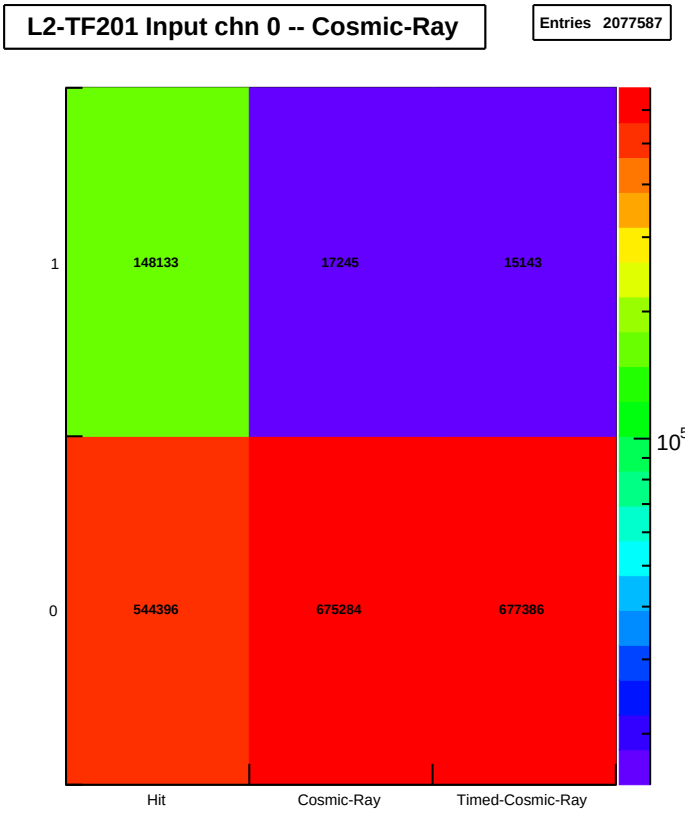

MIX-MT101 Input: MT004 MTDE+W TAC sum
Entries 5668
TAC sum
1st-Best
2nd-Best
ID

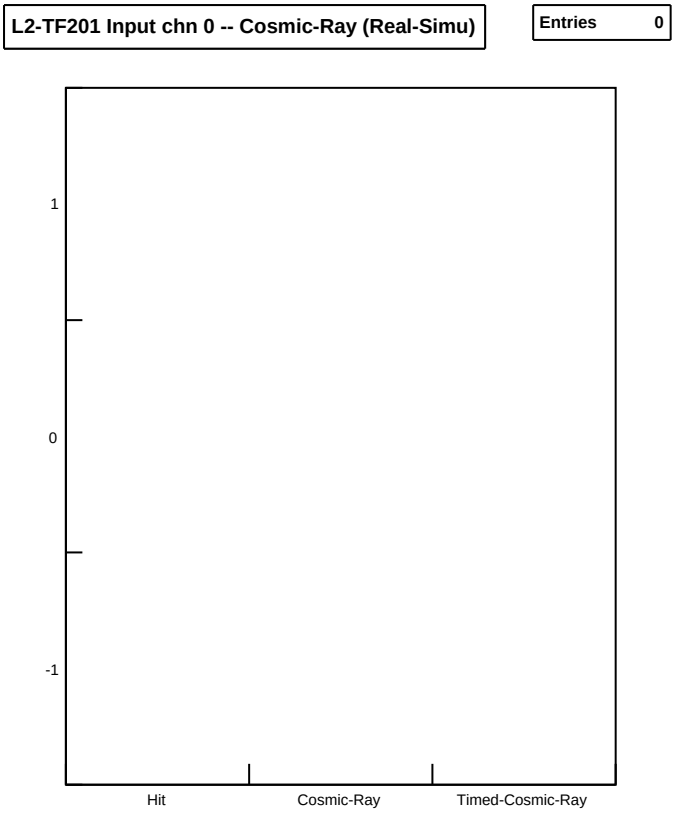

MIX-MT101 Input: VP003 Max TAC
Entries 692529

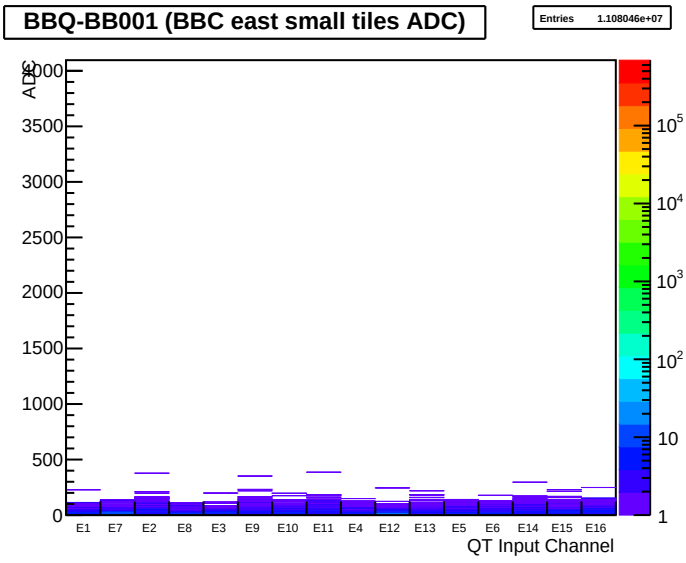

MIX-MT101 Input: VP004 Max TAC
Entries 692529

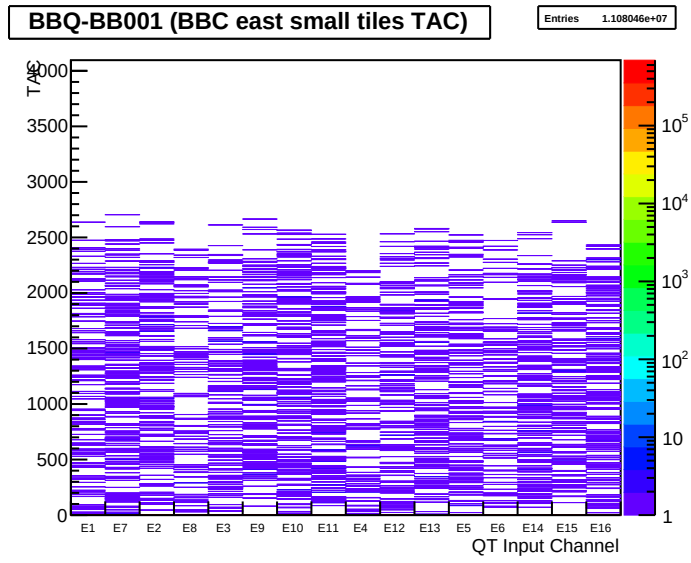

L2-TF201 Input chn 0 -- Number of Muons
Entries 692529
$10^6$
$10^5$
$10^4$
$10^3$
0 2 4 6 8 10 12 14 16
Number of Muons

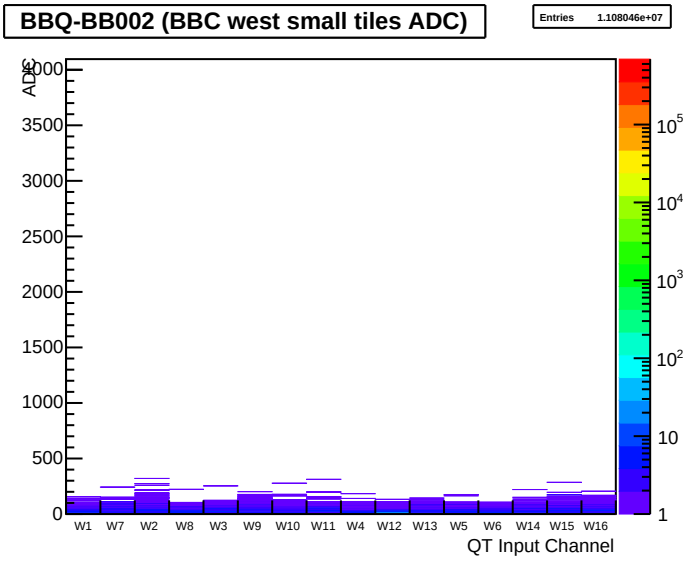

L2-TF201 Input chn 0 -- Number of Muons
Entries 0
10
1
$10^{-1}$
$10^{-2}$
–15 –10 –5 0 5 10 15
Number of Muons (Real-Simu)

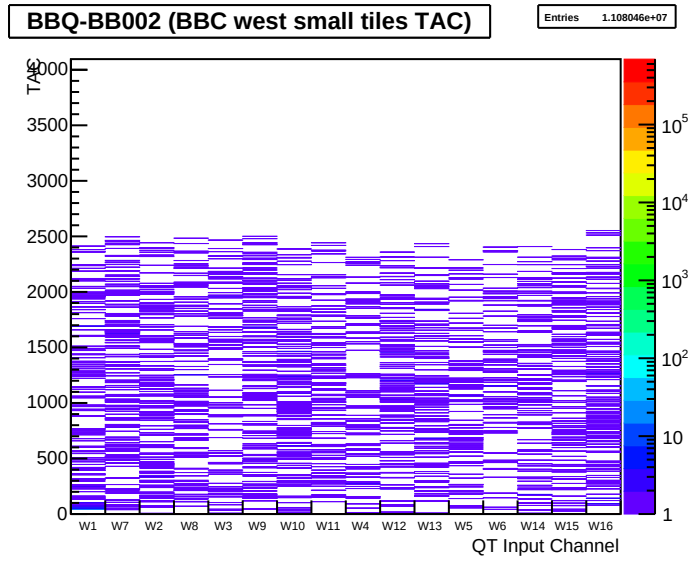

L2-TF201 Input chn 0 -- Cosmic-Ray
Entries 2077587
1
0
148133
17245
15143
544396
675284
677386
Hit
Cosmic-Ray
Timed-Cosmic-Ray

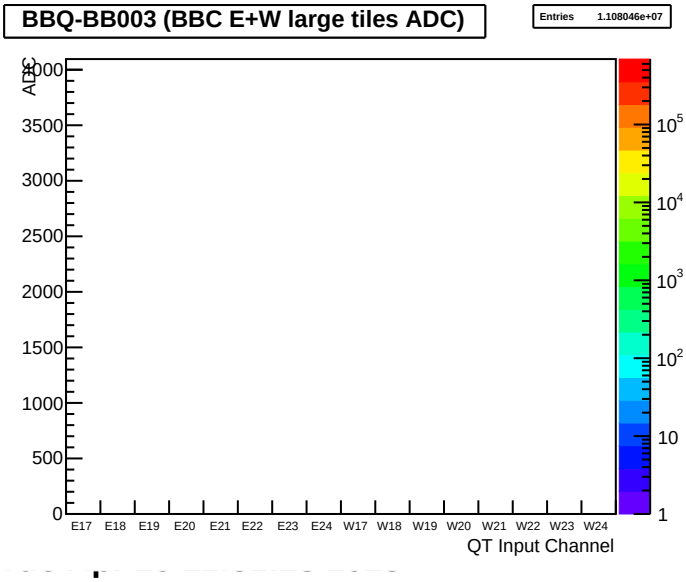

L2-TF201 Input chn 0 -- Cosmic-Ray (Real-Simu)
Entries 0
1
0
-1
Hit
Cosmic-Ray
Timed-Cosmic-Ray

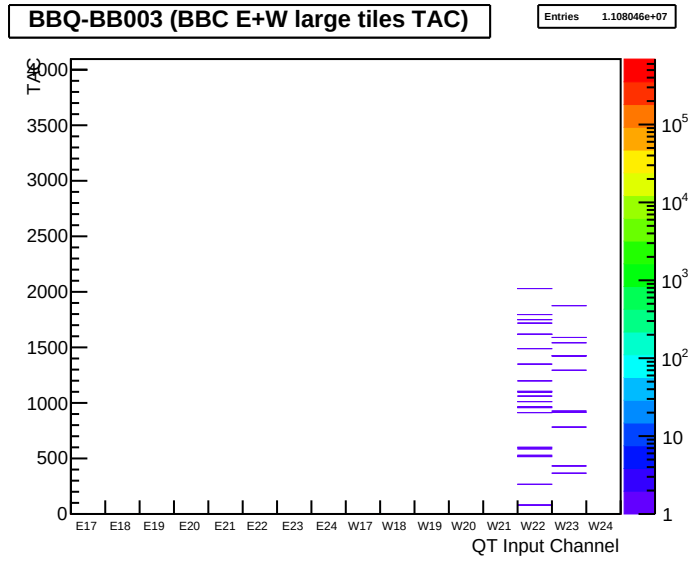

BBQ-BB001 (BBC east small tiles ADC)
Entries 1.108046e+07
ADC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

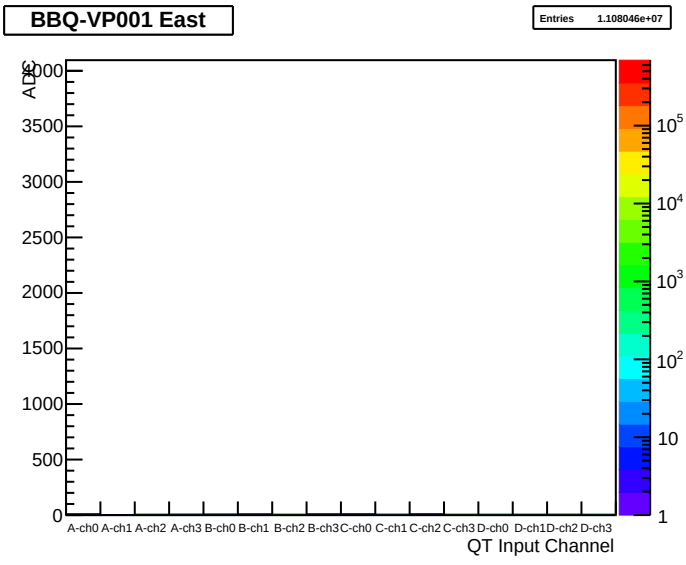

BBQ-BB001 (BBC east small tiles TAC)
Entries 1.108046e+07
TAC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

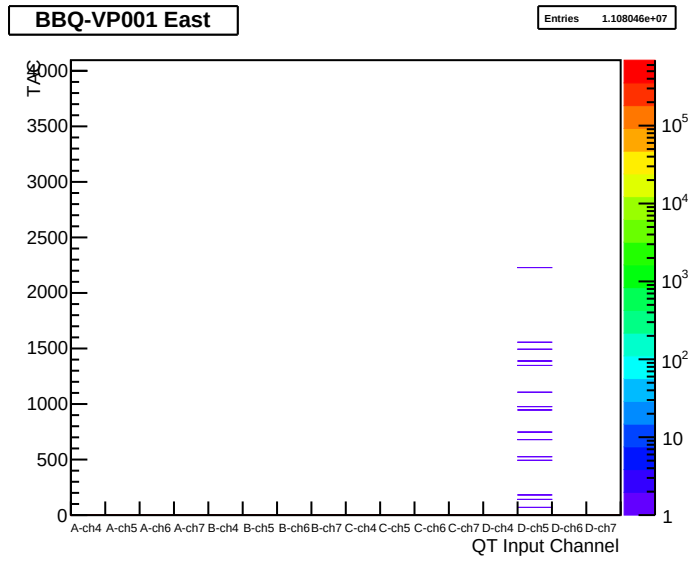

BBQ-BB002 (BBC west small tiles ADC)
Entries 1.108046e+07
ADC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

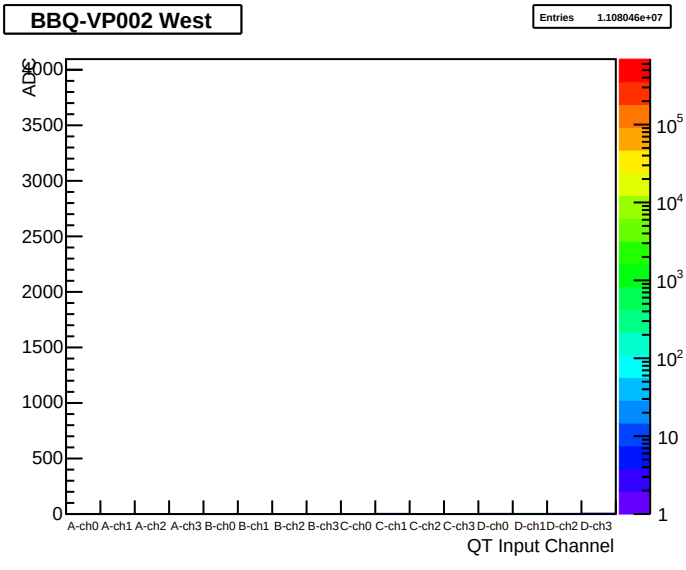

BBQ-BB002 (BBC west small tiles TAC)
Entries 1.108046e+07
TAC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

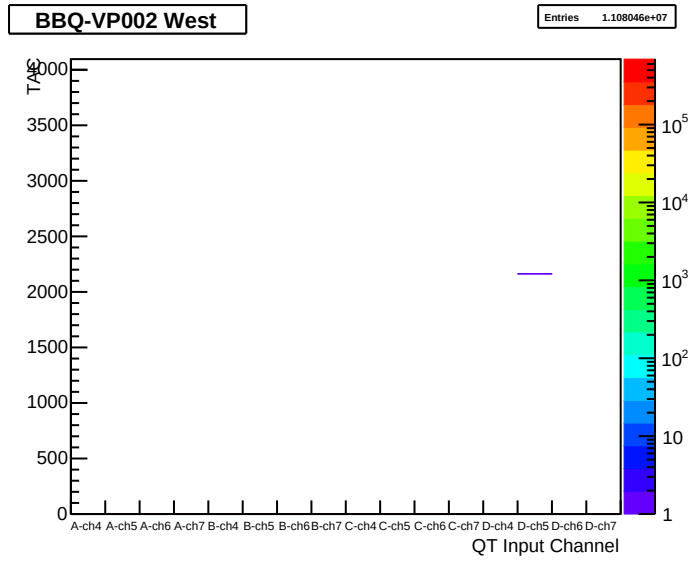

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1.108046e+07
ADC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

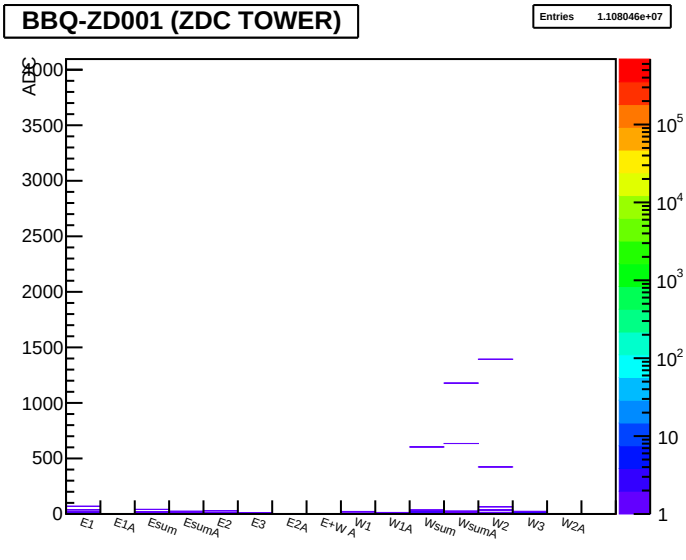

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1.108046e+07
TAC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

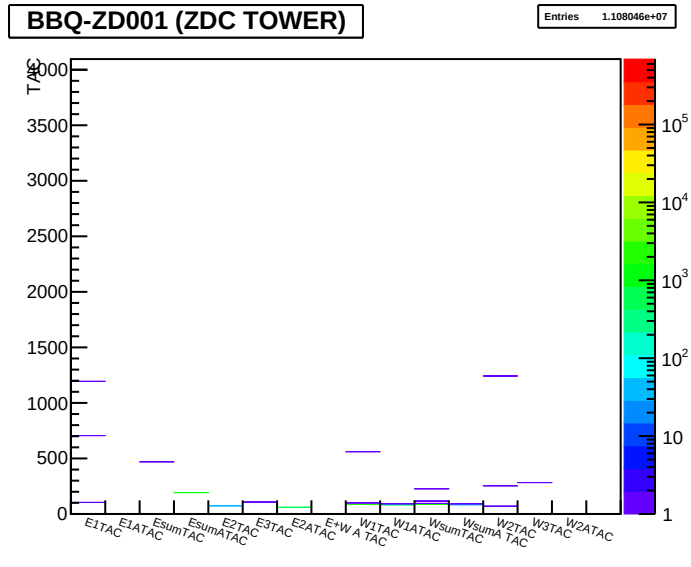

BBQ-VP001 East
Entries 1.108046e+07
ADC
QT Input Channel

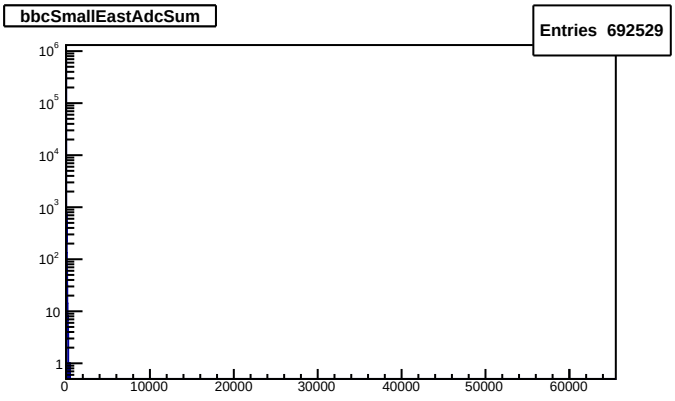

BBQ-VP001 East
Entries 1.108046e+07
TAC
QT Input Channel

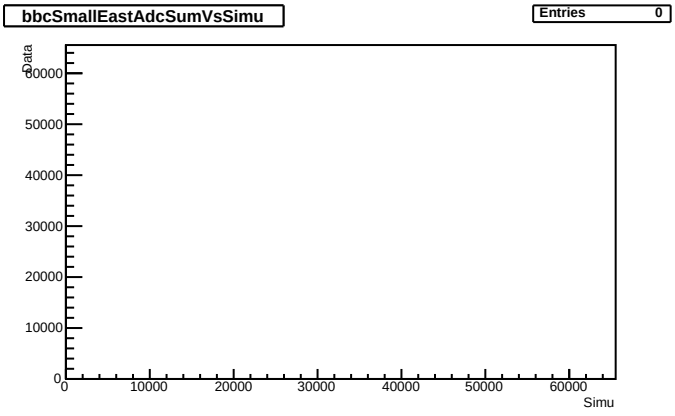

BBQ-VP002 West
Entries 1.108046e+07
ADC
QT Input Channel

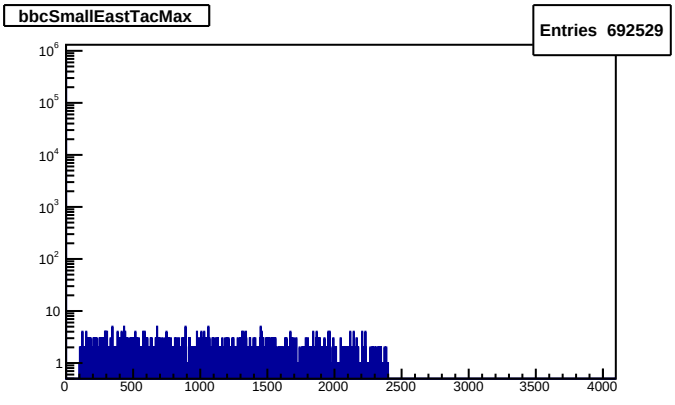

BBQ-VP002 West
Entries 1.108046e+07
TAC
QT Input Channel

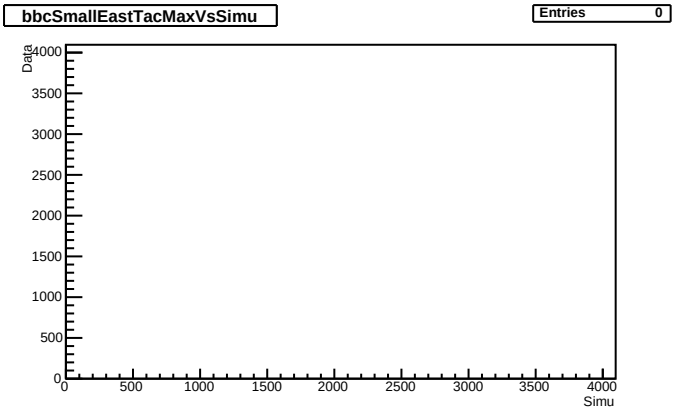

BBQ-ZD001 (ZDC TOWER)
Entries 1.108046e+07
ADC

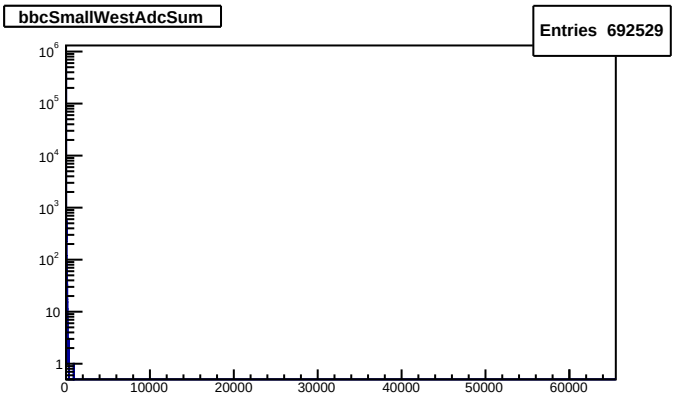

BBQ-ZD001 (ZDC TOWER)
Entries 1.108046e+07
TAC

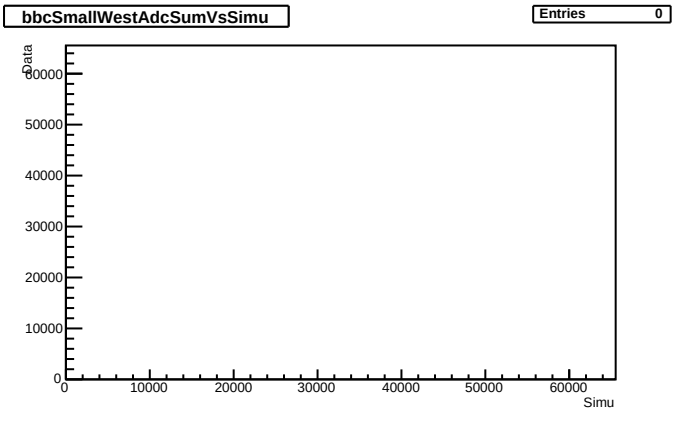

bbcSmallEastAdcSum
Entries 692529

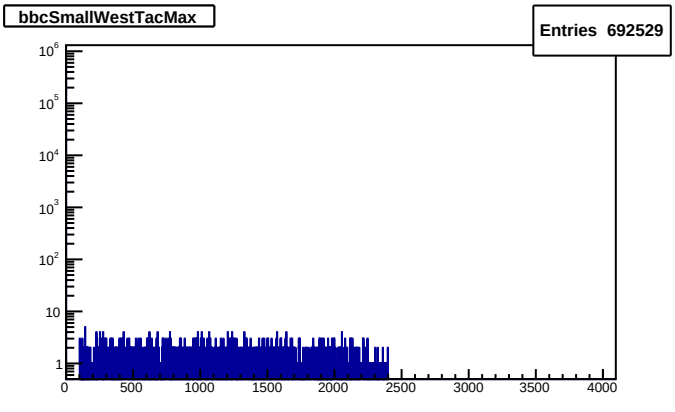

bbcSmallEastAdcSumVsSimu
Entries 0
Data
Simu

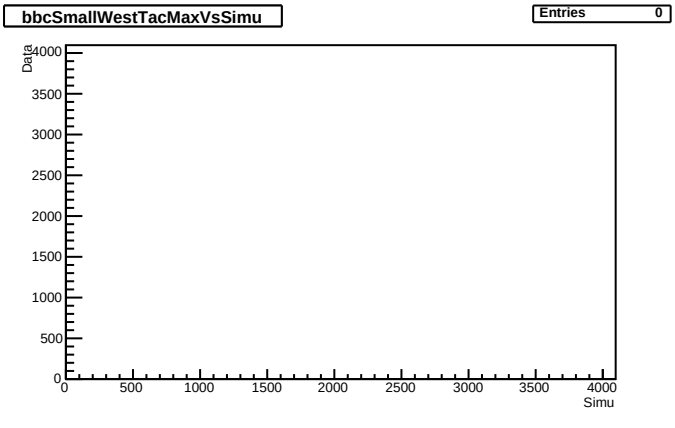

bbcSmallEastTacMax
Entries 692529

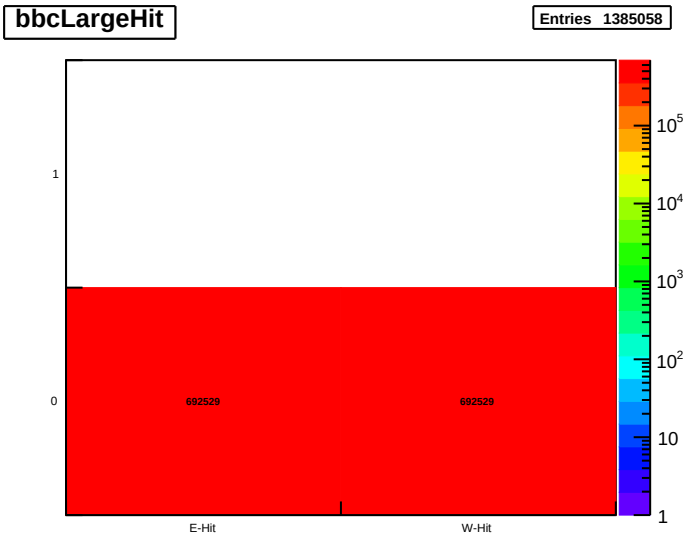

bbcSmallEastTacMaxVsSimu
Entries 0
Data
Simu

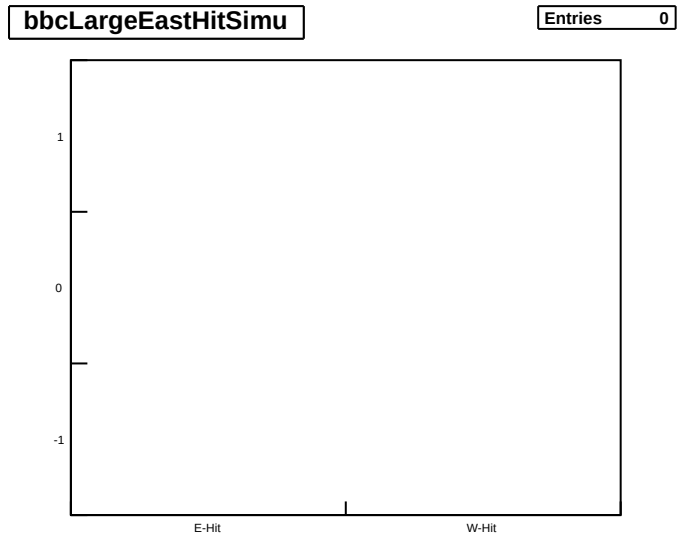

bbcSmallWestAdcSum
Entries 692529

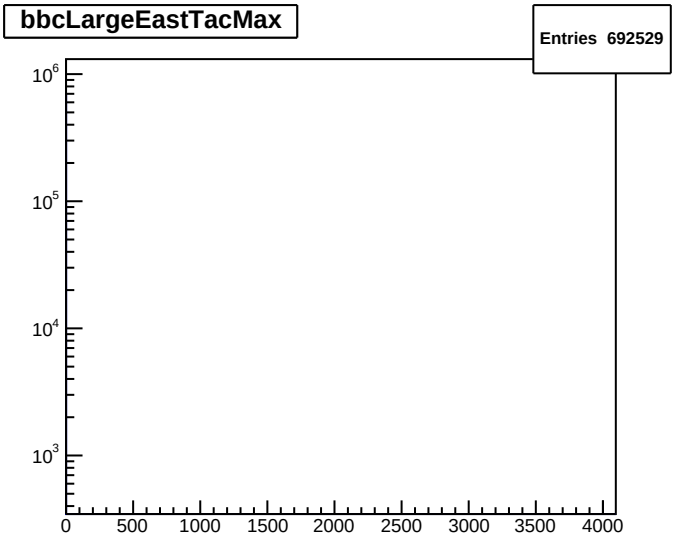

bbcSmallWestAdcSumVsSimu
Entries 0
Data
Simu

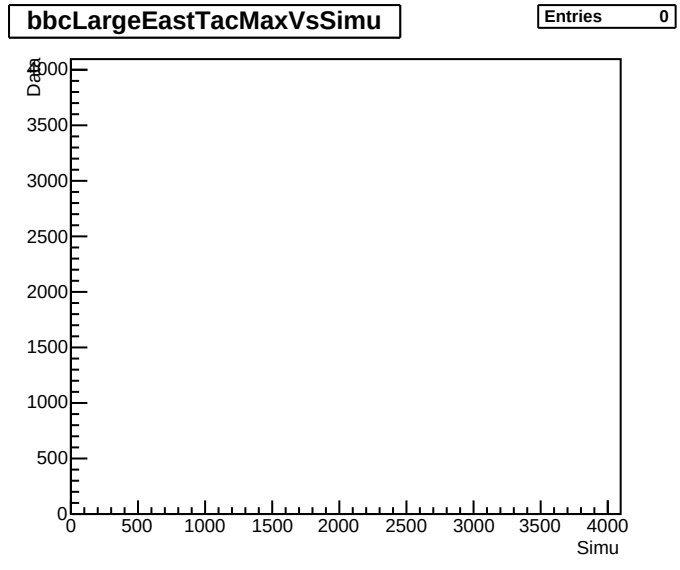

bbcSmallWestTacMax
Entries 692529

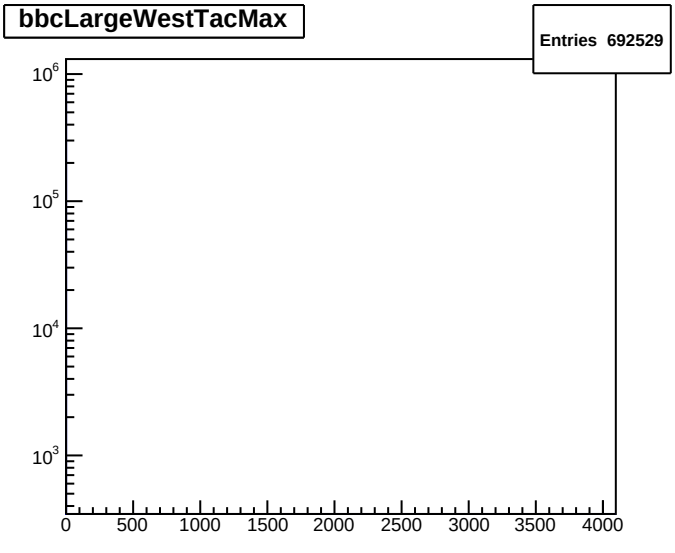

bbcSmallWestTacMaxVsSimu
Entries 0
Data
Simu

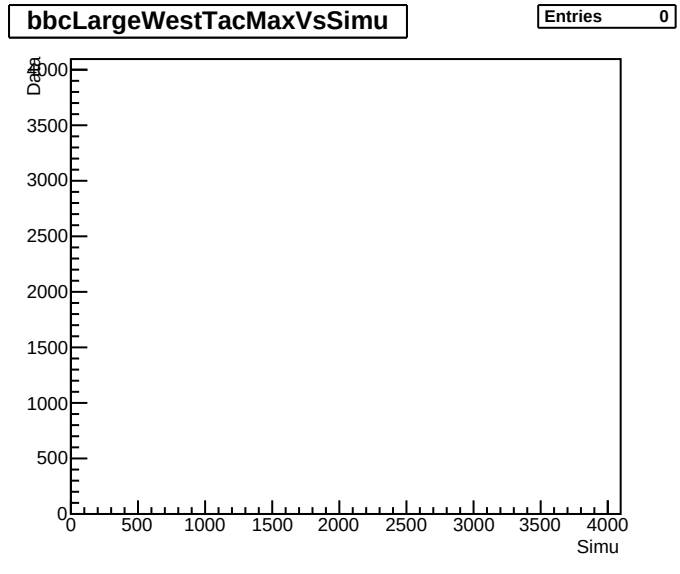

bbcLargeHit
Entries 1385058
692529
692529
E-Hit
W-Hit

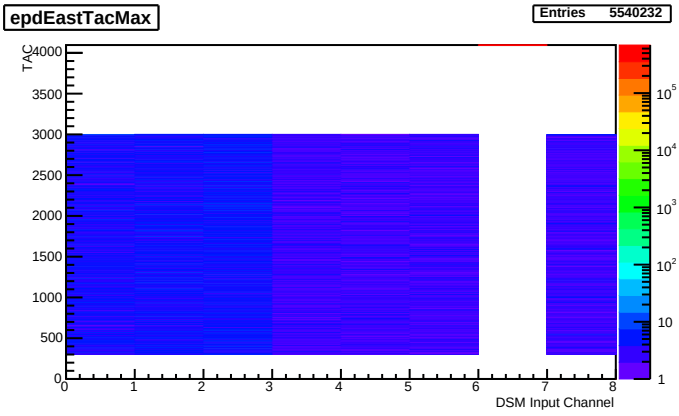

bbcLargeEastHitSimu
Entries 0
E-Hit
W-Hit

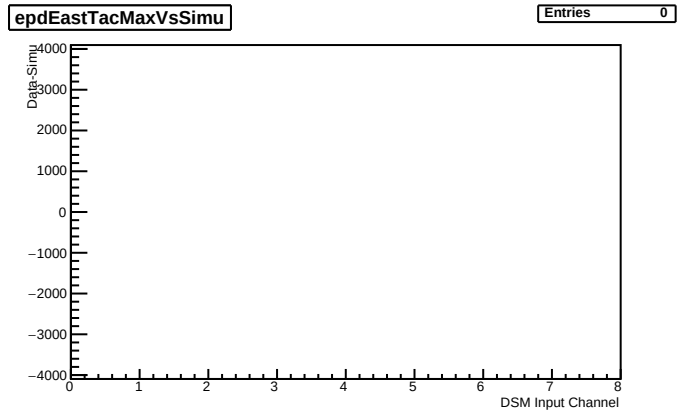

bbcLargeEastTacMax
Entries 692529

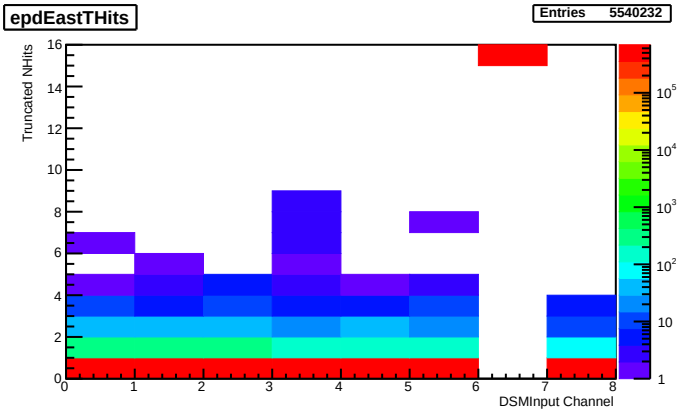

bbcLargeEastTacMaxVsSimu
Entries 0
Data
Simu

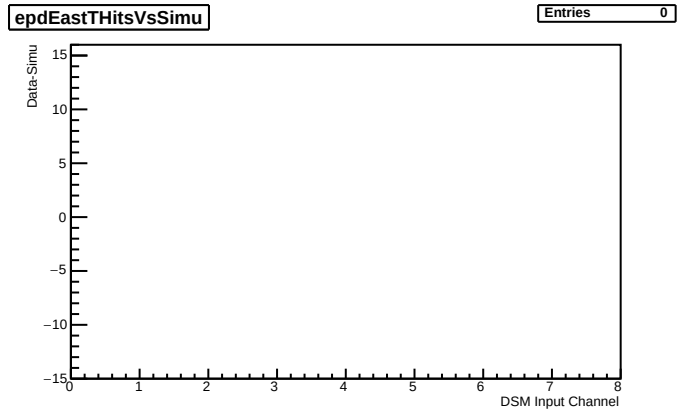

bbcLargeWestTacMax
Entries 692529

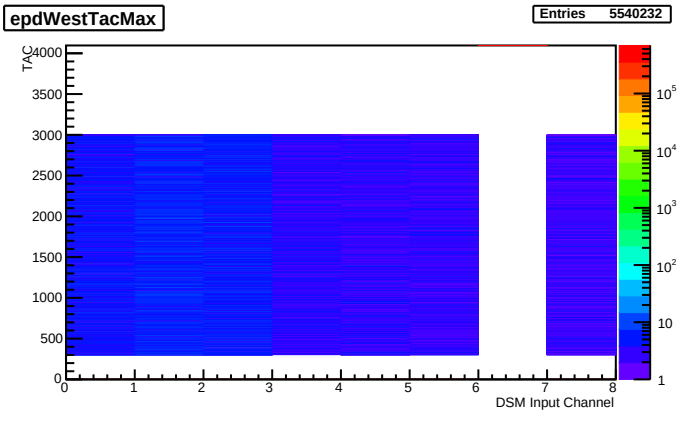

bbcLargeWestTacMaxVsSimu
Entries 0
Data
Simu

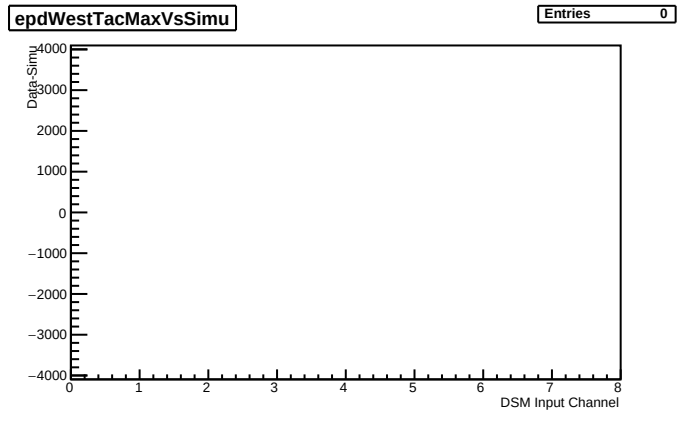

epdEastTacMax
Entries 5540232
TAC
DSM Input Channel

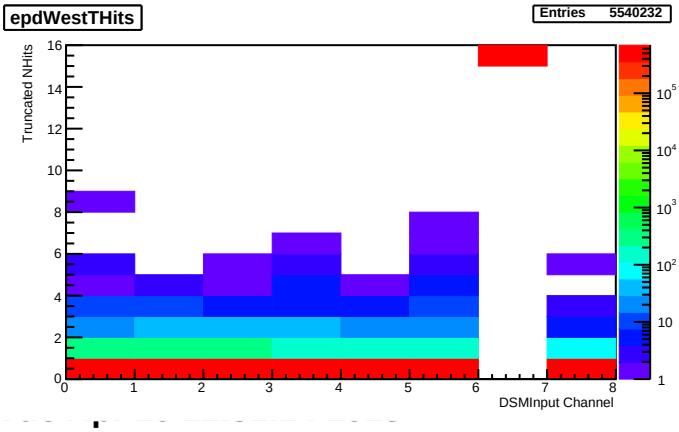

epdEastTacMaxVsSimu
Entries 0
Data-Simu
DSM Input Channel

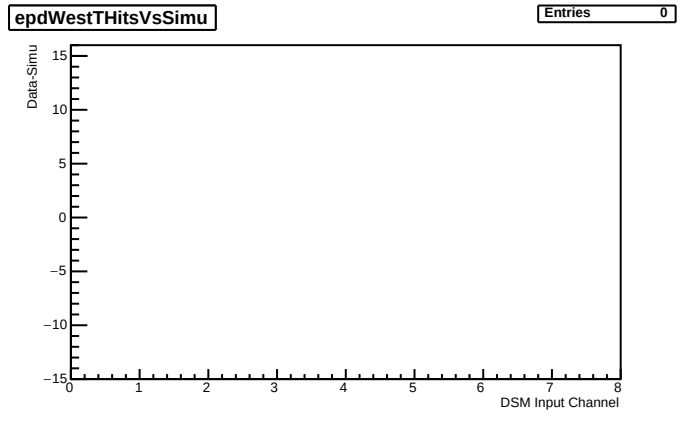

epdEastTHits
Entries 5540232
Truncated NHits
DSMInput Channel

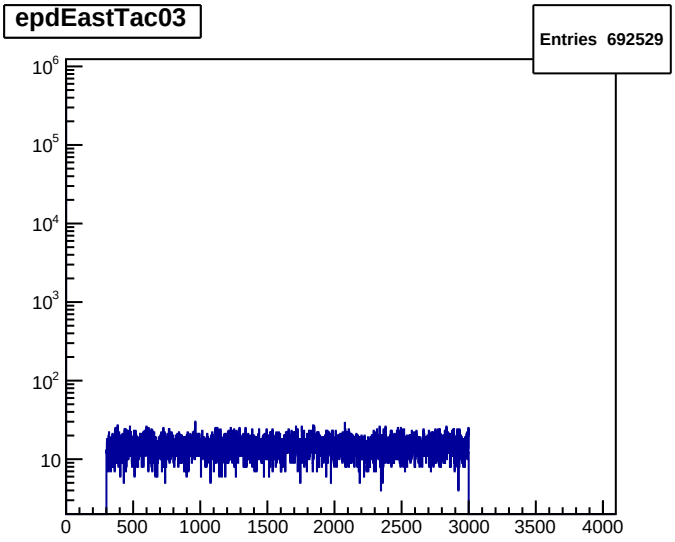

epdEastTHitsVsSimu
Entries 0
Data-Simu
DSM Input Channel

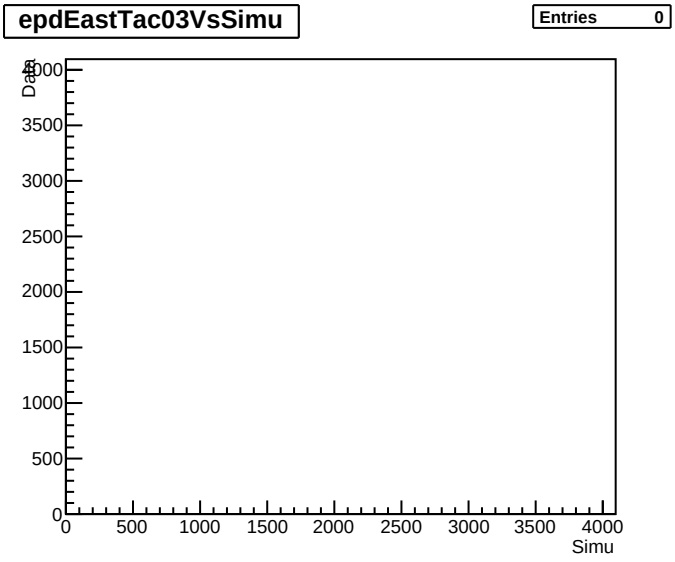

epdWestTacMax
Entries 5540232
TAC
DSM Input Channel

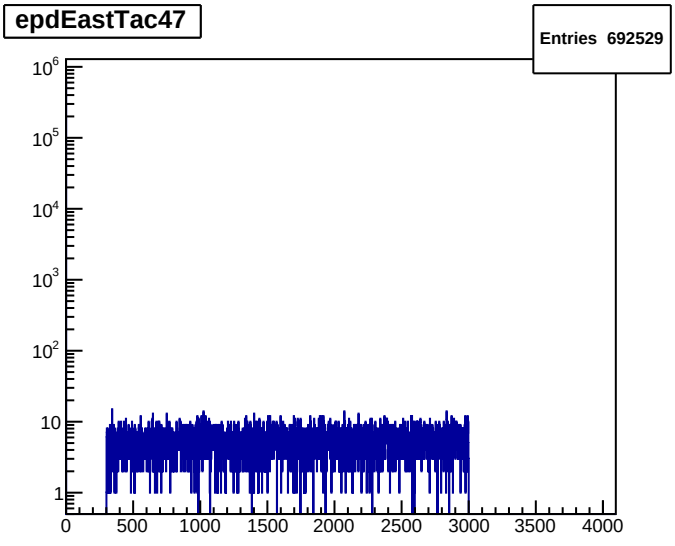

epdWestTacMaxVsSimu
Entries 0
Data-Simu
DSM Input Channel

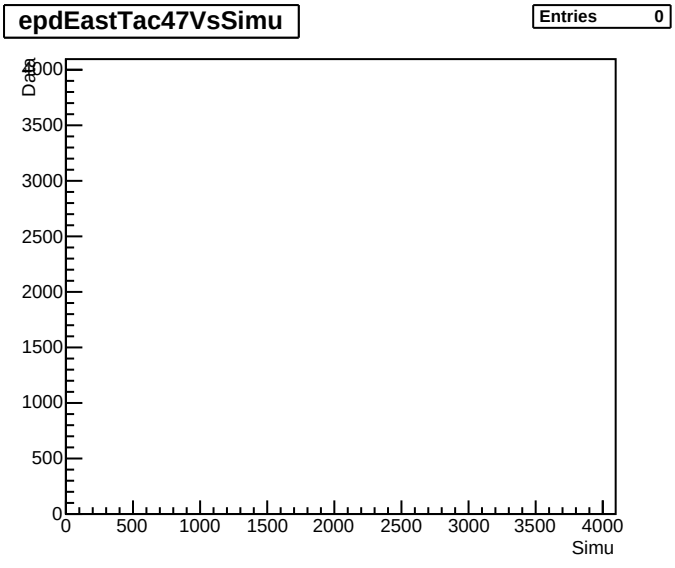

epdWestTHits
Entries 5540232
Truncated NHits
DSMInput Channel

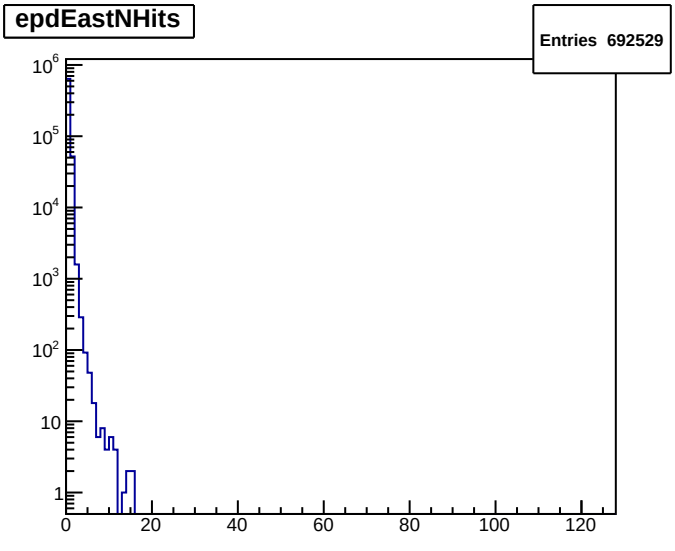

epdWestTHitsVsSimu
Entries 0
Data-Simu
DSM Input Channel

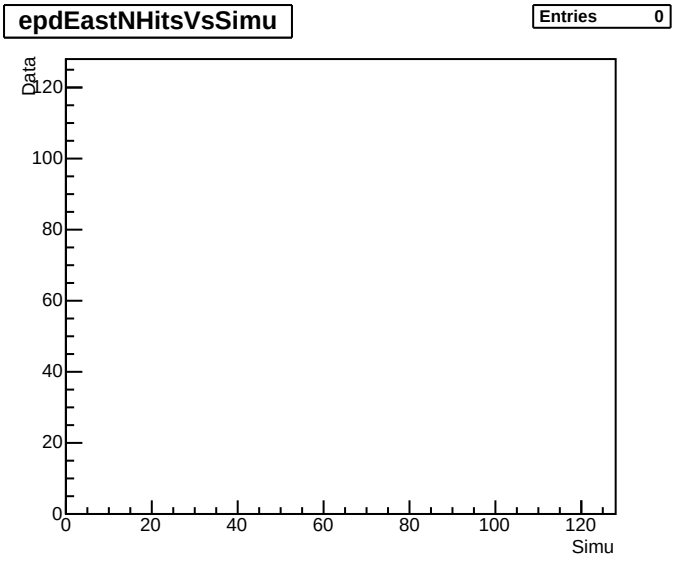

epdEastTac03
Entries 692529

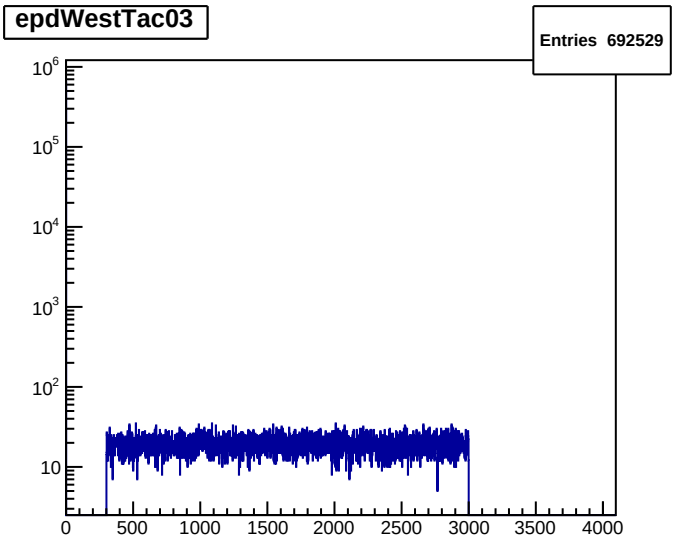

epdEastTac03VsSimu
Entries 0
Data
Simu

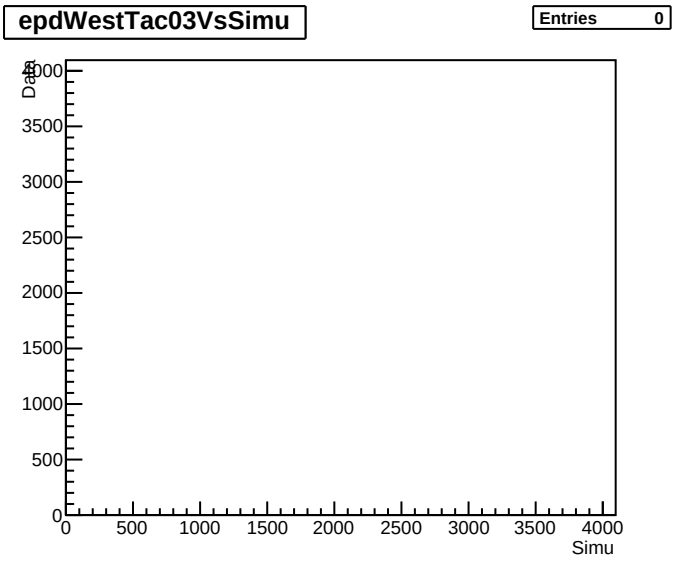

epdEastTac47
Entries 692529

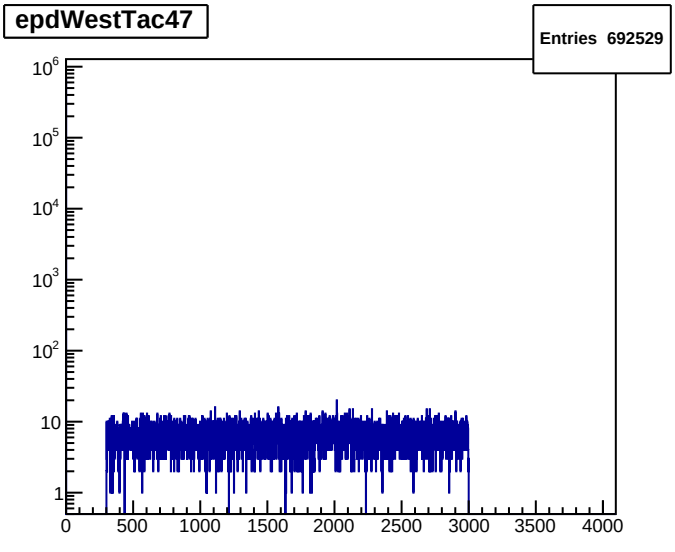

epdEastTac47VsSimu
Entries 0
Data
Simu

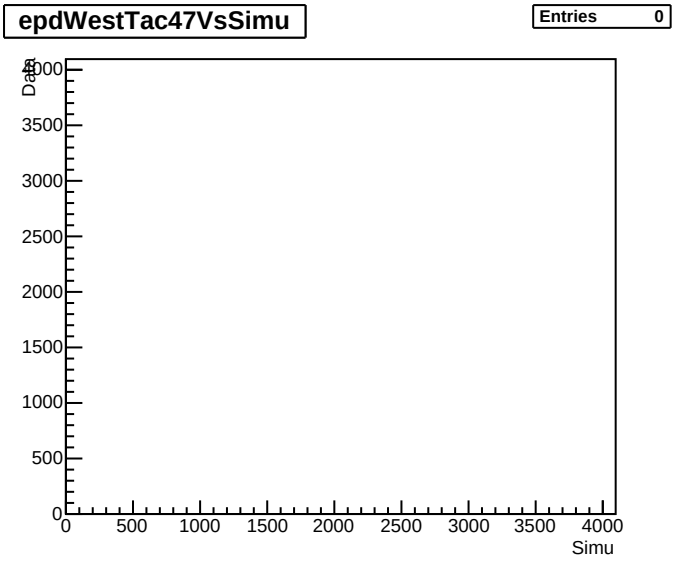

epdEastNHits
Entries 692529

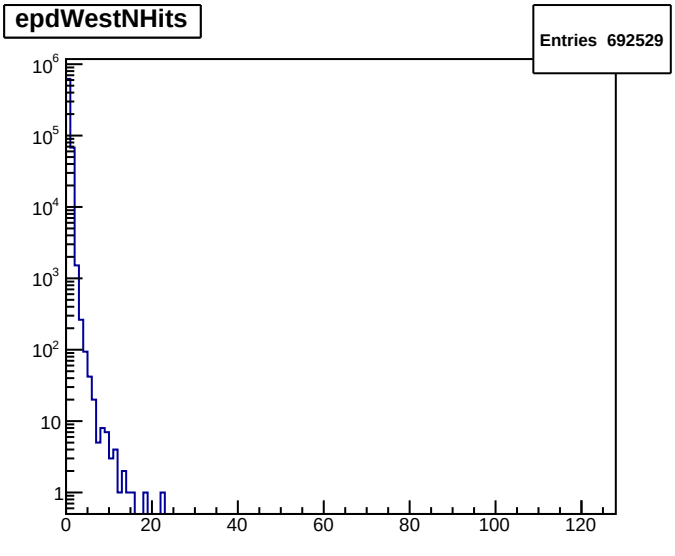

epdEastNHitsVsSimu
Entries 0
Data
Simu

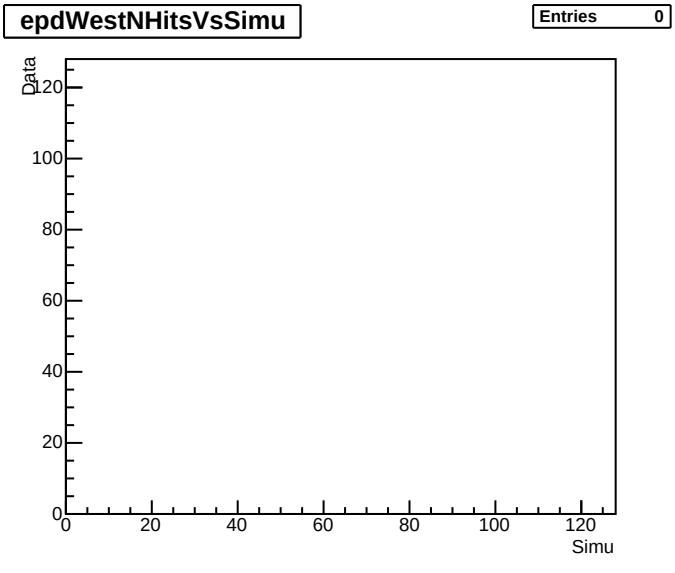

epdWestTac03
Entries 692529

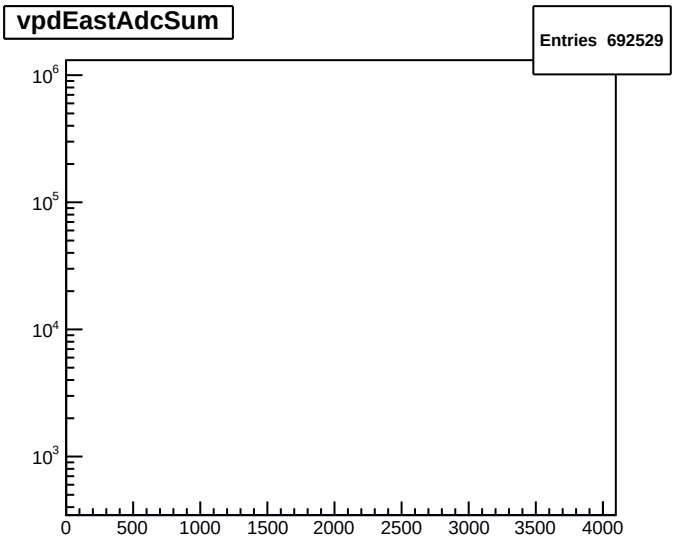

epdWestTac03VsSimu
Entries 0
Data
Simu

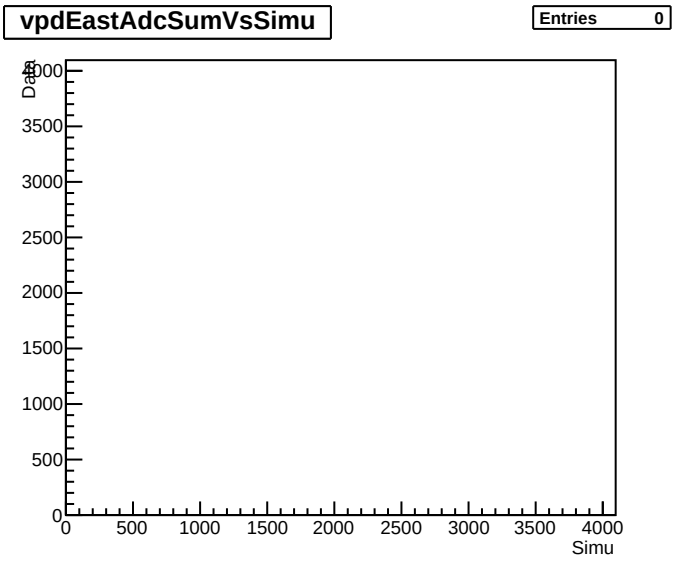

epdWestTac47
Entries 692529

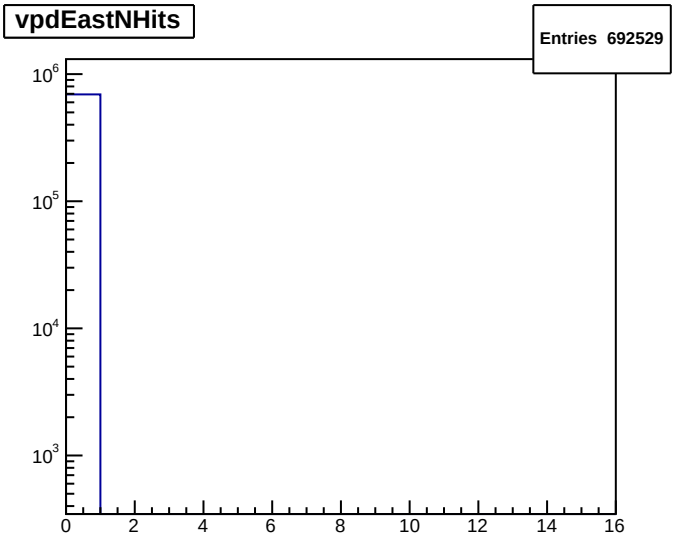

epdWestTac47VsSimu
Entries 0
Data
Simu

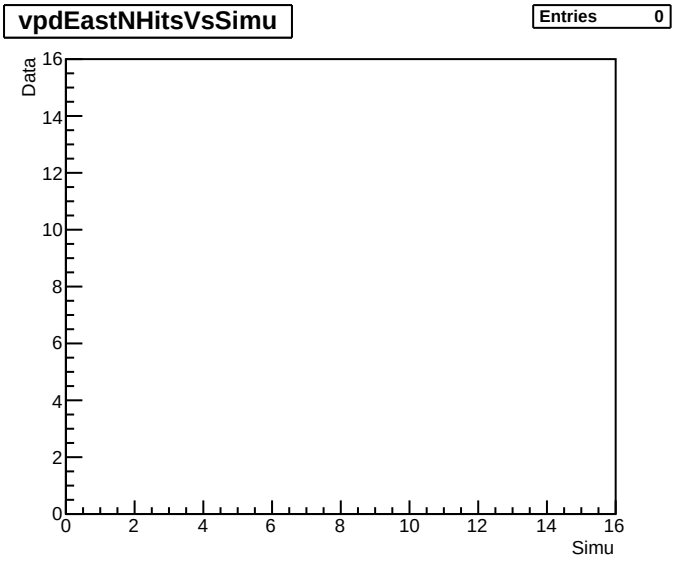

epdWestNHits
Entries 692529

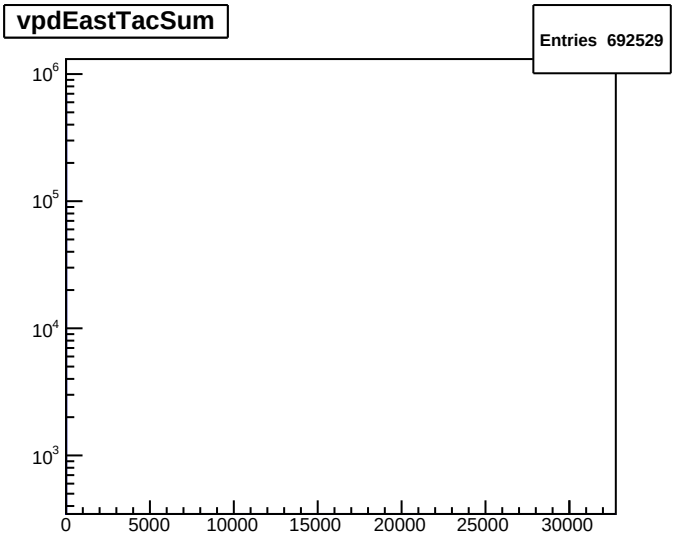

epdWestNHitsVsSimu
Entries 0
Data
Simu

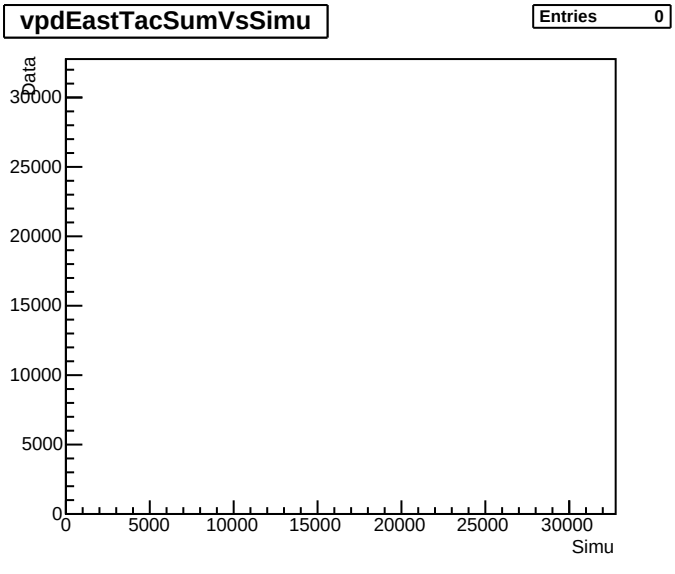

vpdEastAdcSum
Entries 692529

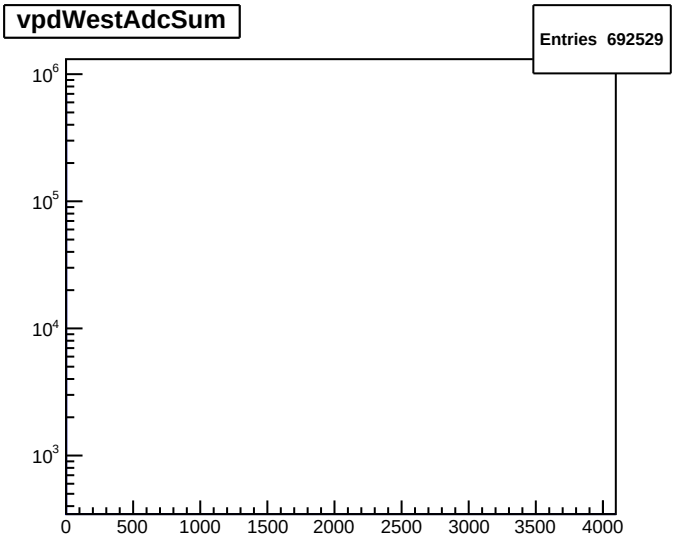

vpdEastAdcSumVsSimu
Entries 0
Data
Simu

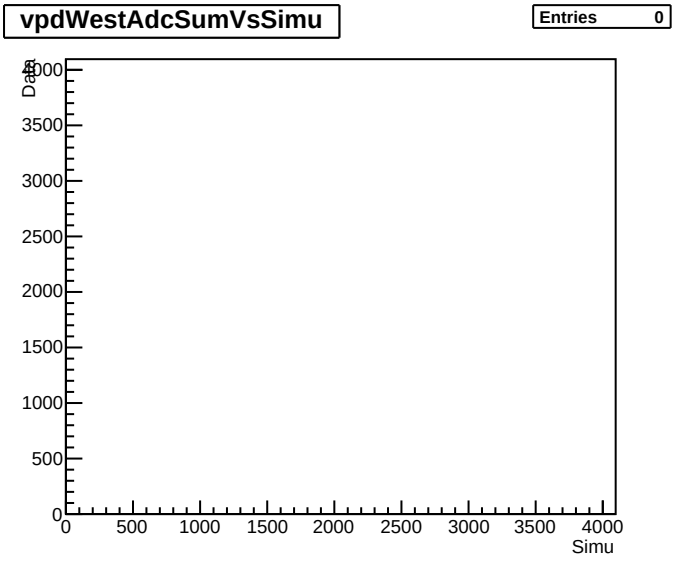

vpdEastNHits
Entries 692529

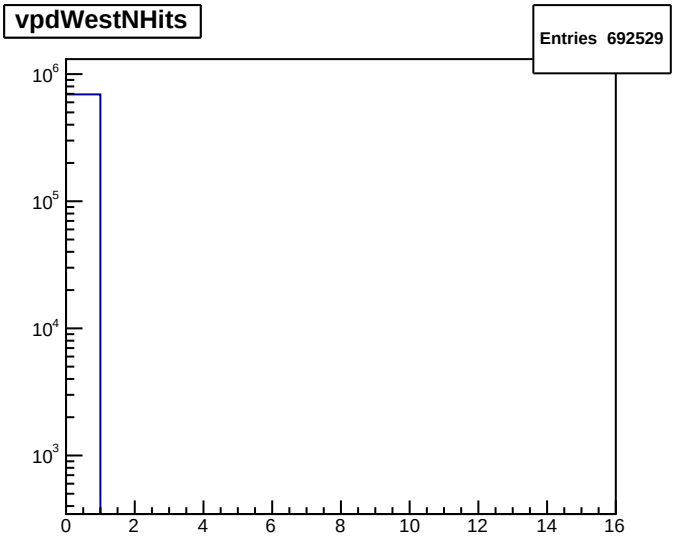

vpdEastNHitsVsSimu
Entries 0
Data
Simu

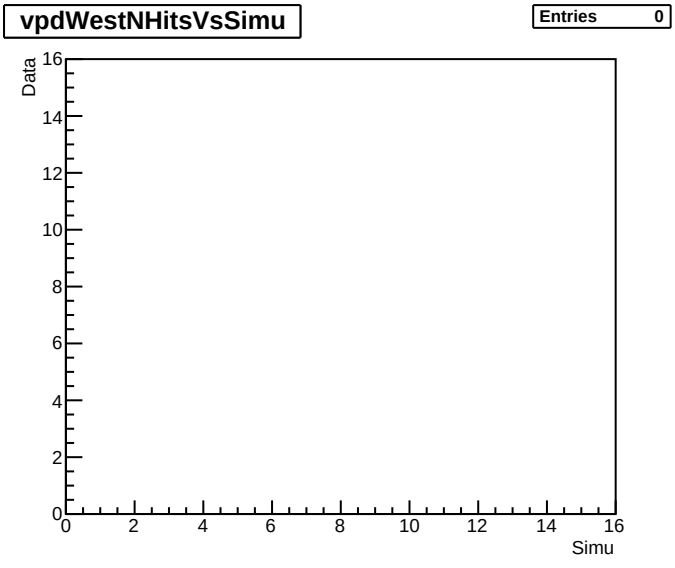

vpdEastTacSum
Entries 692529

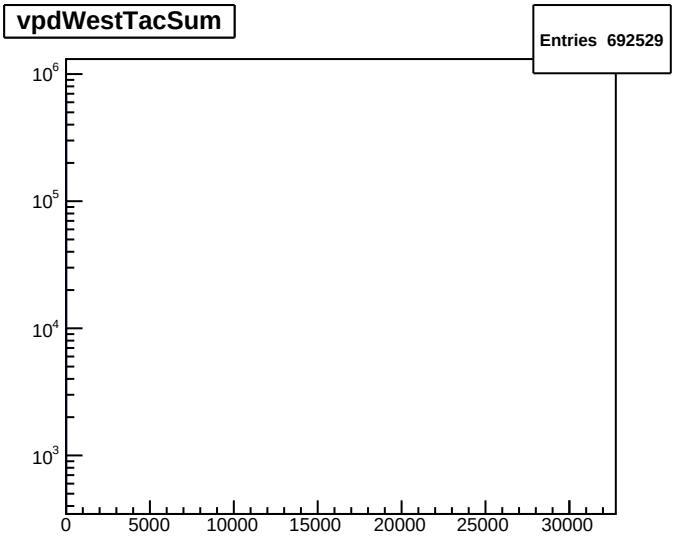

vpdEastTacSumVsSimu
Entries 0
Data
Simu

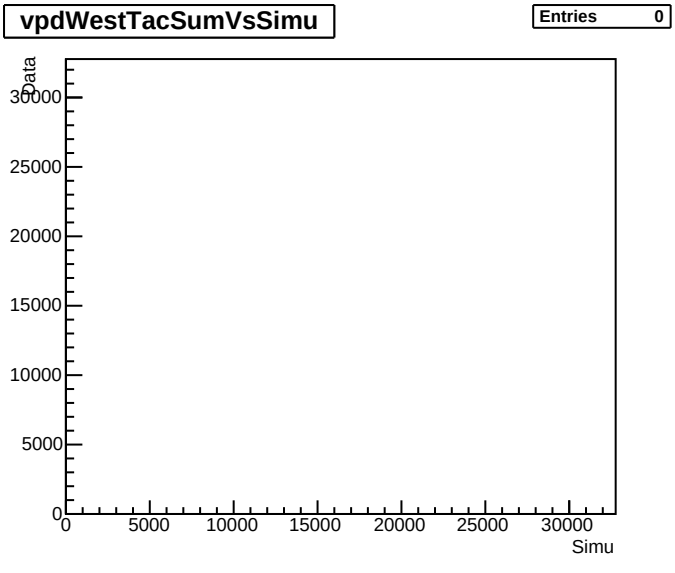

vpdWestAdcSum
Entries 692529

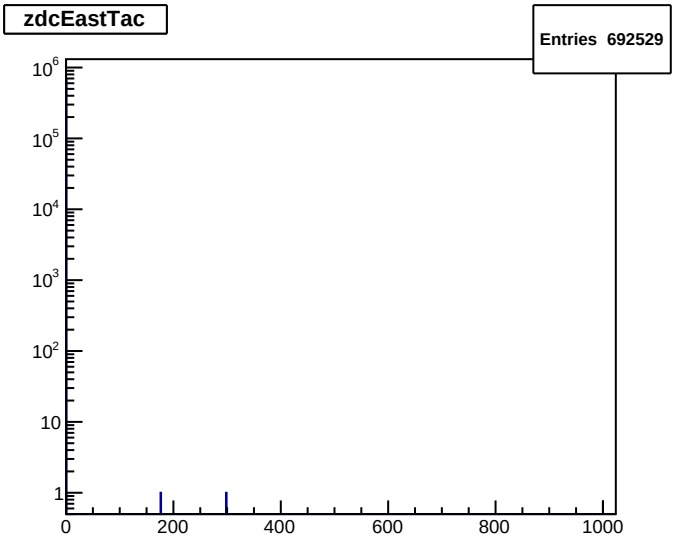

vpdWestAdcSumVsSimu
Entries 0
Data
Simu

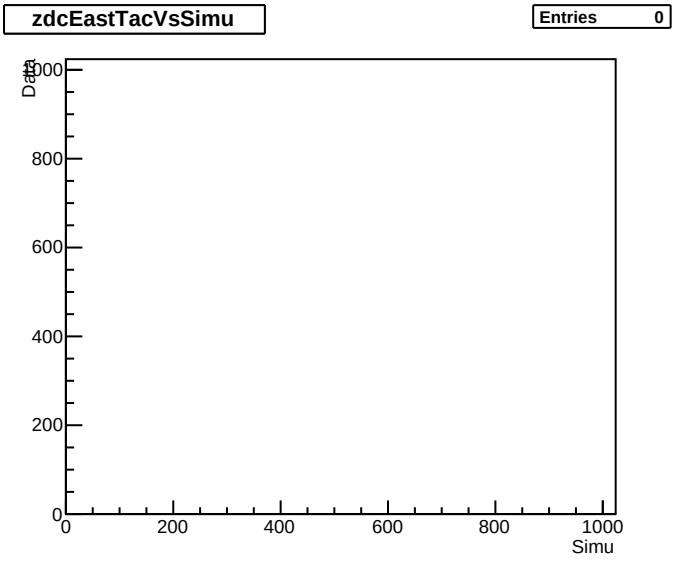

vpdWestNHits
Entries 692529

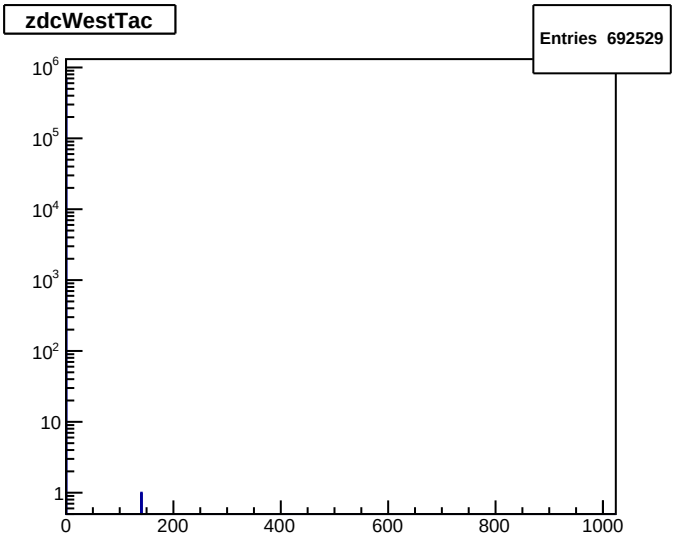

vpdWestNHitsVsSimu
Entries 0
Data
Simu

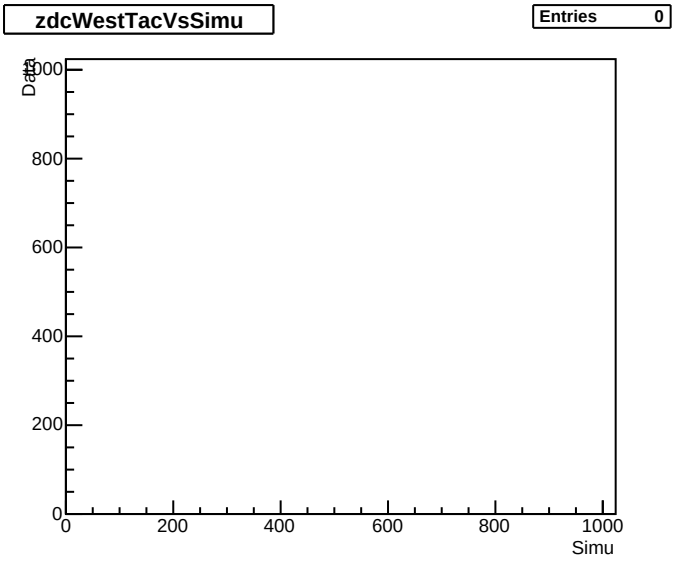

vpdWestTacSum
Entries 692529

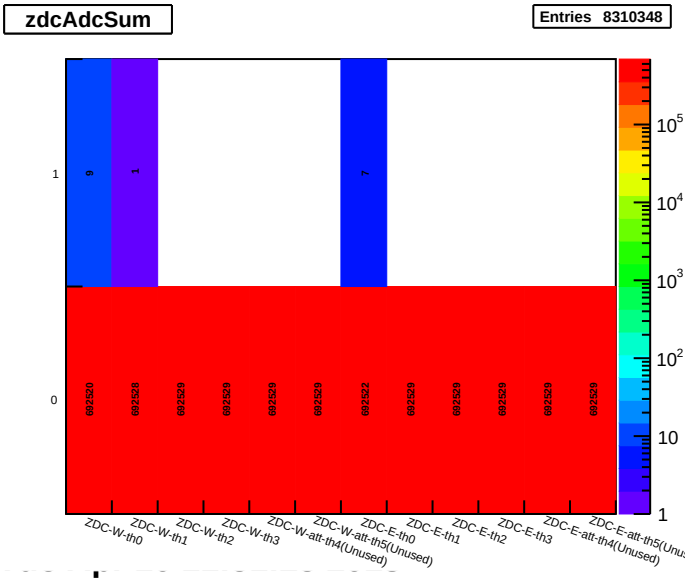

vpdWestTacSumVsSimu
Entries 0
Data
Simu

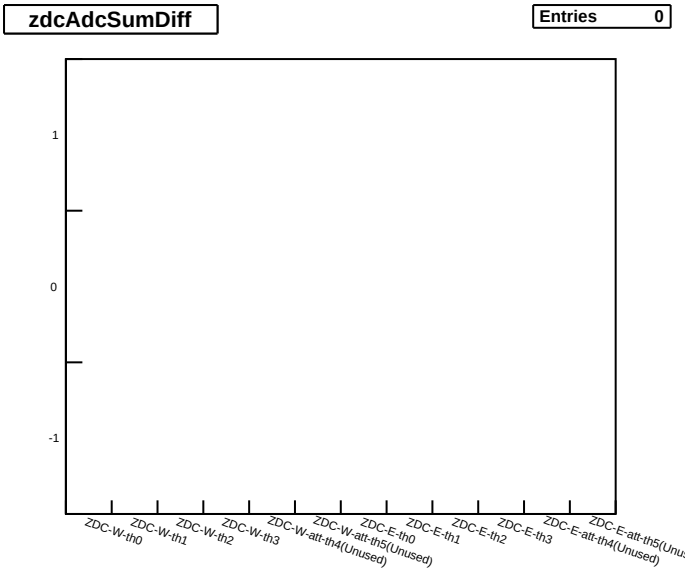

zdcEastTac
Entries 692529
$10^6$
$10^5$
$10^4$
$10^3$
$10^2$
10
1
0
200
400
600
800
1000

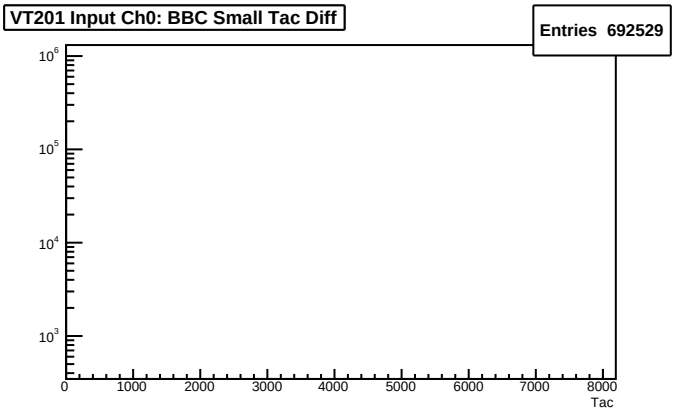

zdcEastTacVsSimu
Entries 0
Data
1000
800
600
400
200
0
0
200
400
600
800
1000
Simu

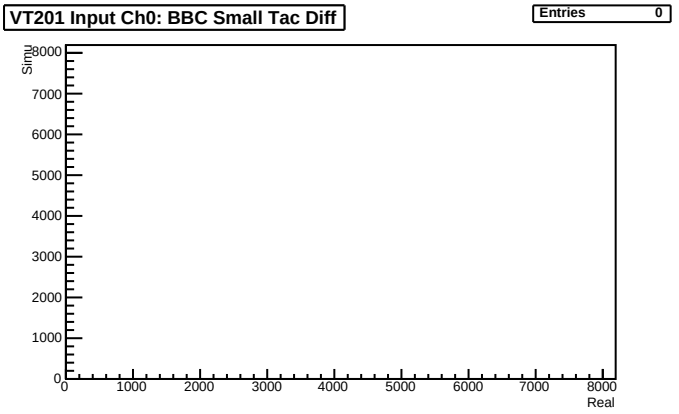

zdcWestTac
Entries 692529
$10^6$
$10^5$
$10^4$
$10^3$
$10^2$
10
1
0
200
400
600
800
1000

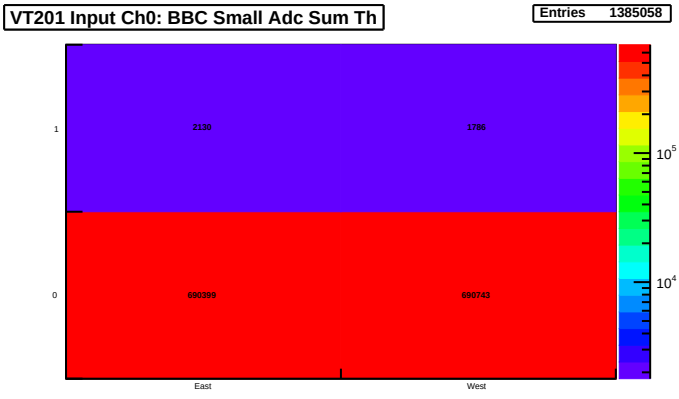

zdcWestTacVsSimu
Entries 0
Data
1000
800
600
400
200
0
0
200
400
600
800
1000
Simu

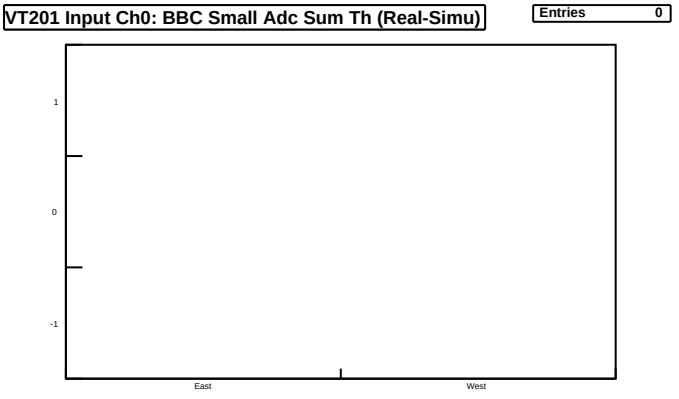

zdcAdcSum
Entries 8310348
1
0
9
1
7
692520
692528
692529
692529
692529
692529
692522
692529
692529
692529
692529
692529
$10^5$
$10^4$
$10^3$
$10^2$
10
1
ZDC-W-th0
ZDC-W-th1
ZDC-W-th2
ZDC-W-th3
ZDC-W-att-th4(Unused)
ZDC-W-att-th5(Unused)
ZDC-E-th0
ZDC-E-th1
ZDC-E-th2
ZDC-E-th3
ZDC-E-att-th4(Unused)
ZDC-E-att-th5(Unu

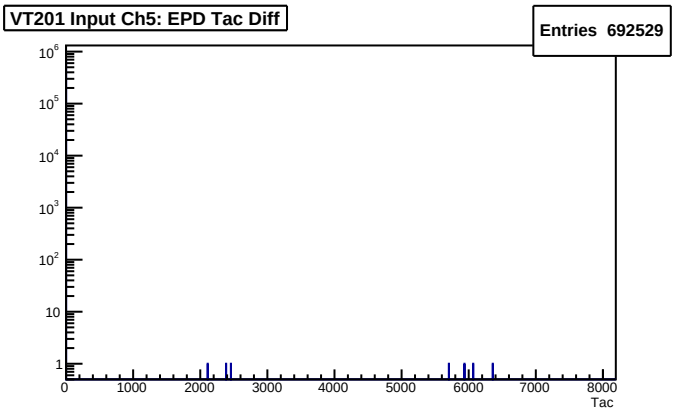

zdcAdcSumDiff
Entries 0
1
0
-1
ZDC-W-th0
ZDC-W-th1
ZDC-W-th2
ZDC-W-th3
ZDC-W-att-th4(Unused)
ZDC-W-att-th5(Unused)
ZDC-E-th0
ZDC-E-th1
ZDC-E-th2
ZDC-E-th3
ZDC-E-att-th4(Unused)
ZDC-E-att-th5(Unu

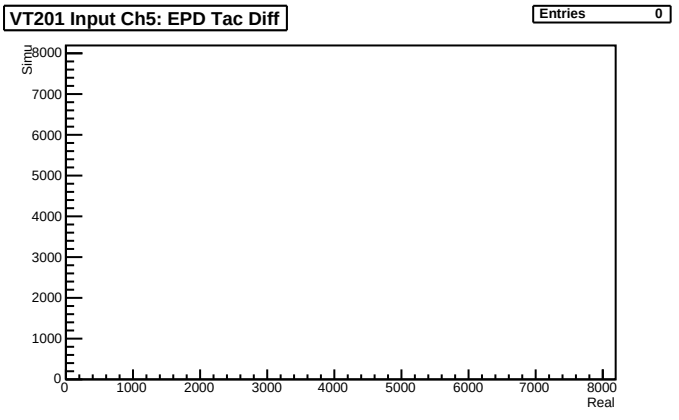

VT201 Input Ch0: BBC Small Tac Diff
Entries 692529
Tac

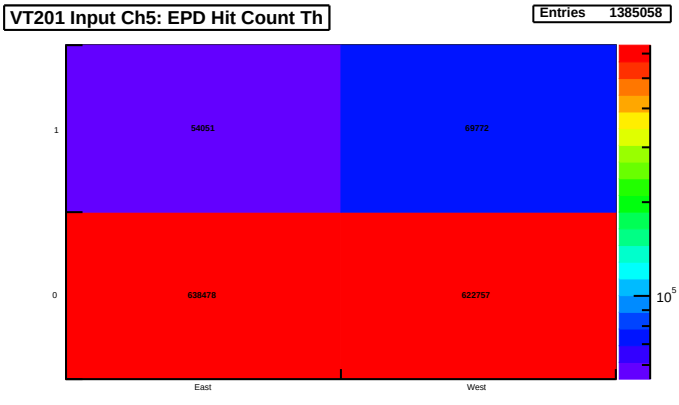

VT201 Input Ch0: BBC Small Tac Diff
Entries 0
Simu
Real

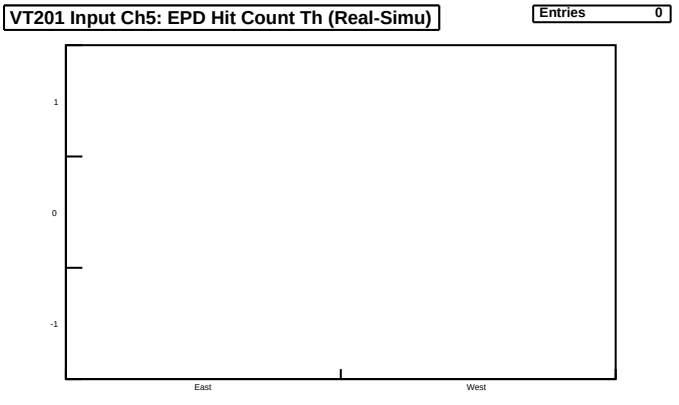

VT201 Input Ch0: BBC Small Adc Sum Th
Entries 1385058
2130
1786
690399
690743
East
West

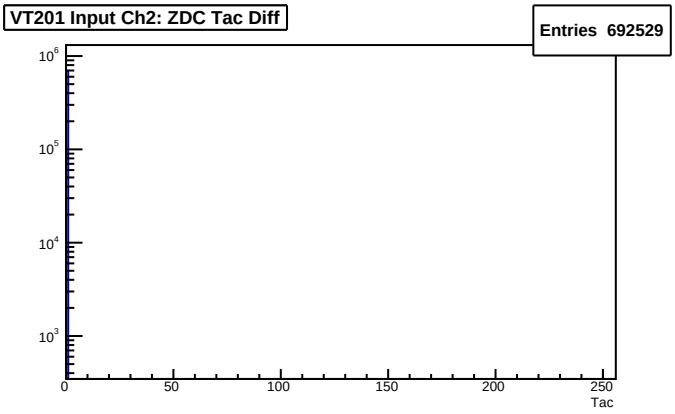

VT201 Input Ch0: BBC Small Adc Sum Th (Real-Simu)
Entries 0
East
West

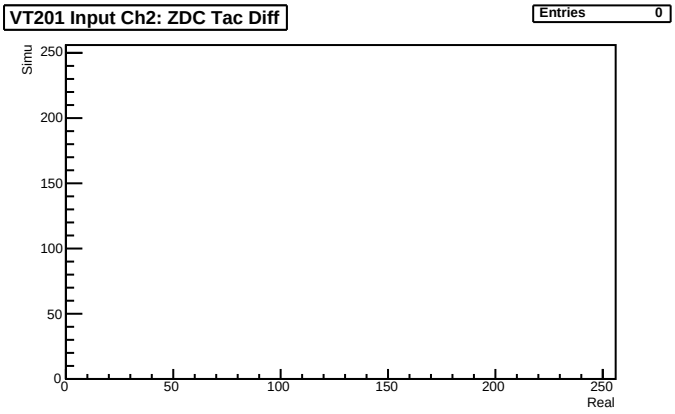

VT201 Input Ch5: EPD Tac Diff
Entries 692529
Tac

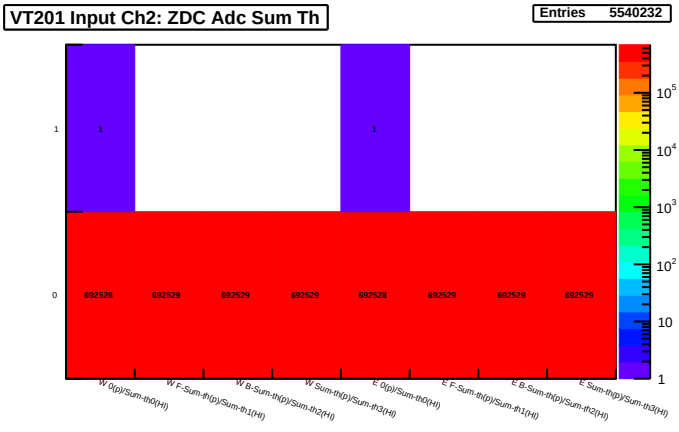

VT201 Input Ch5: EPD Tac Diff
Entries 0
Simu
Real

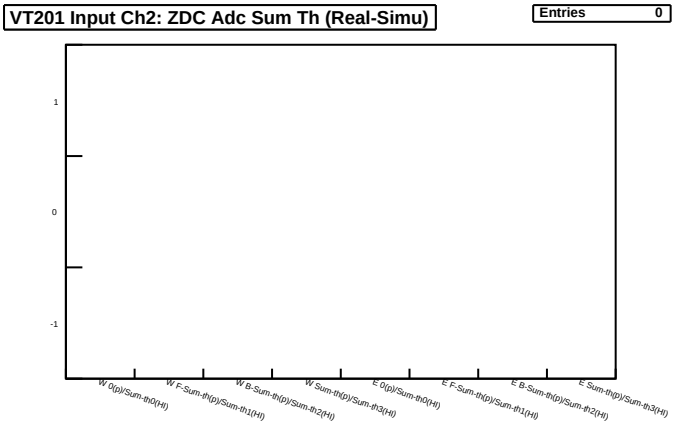

VT201 Input Ch5: EPD Hit Count Th
Entries 1385058
54051
69772
638478
622757
East
West

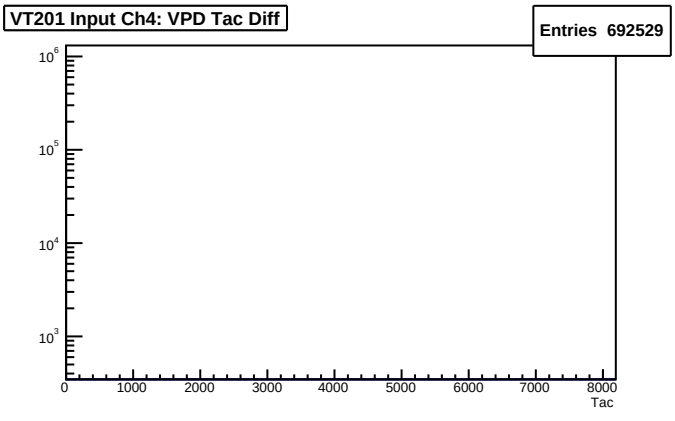

VT201 Input Ch5: EPD Hit Count Th (Real-Simu)
Entries 0
East
West

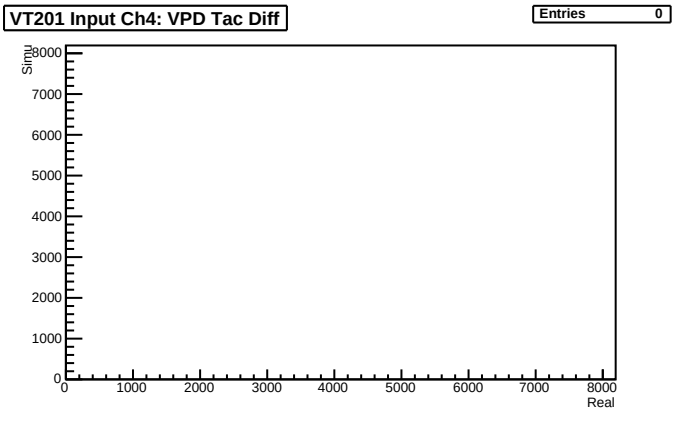

VT201 Input Ch2: ZDC Tac Diff
Entries 692529
Tac

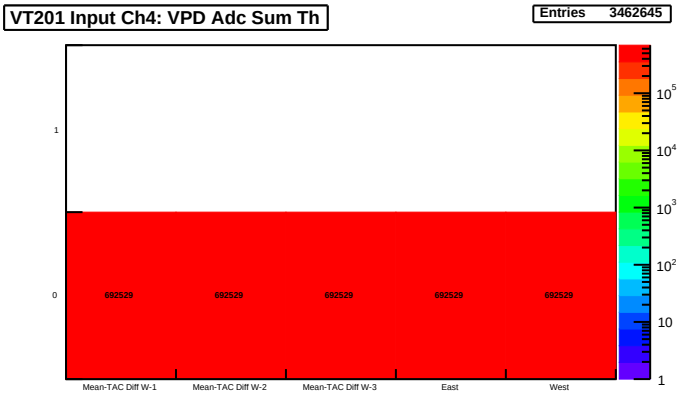

VT201 Input Ch2: ZDC Tac Diff
Entries 0
Simu
Real

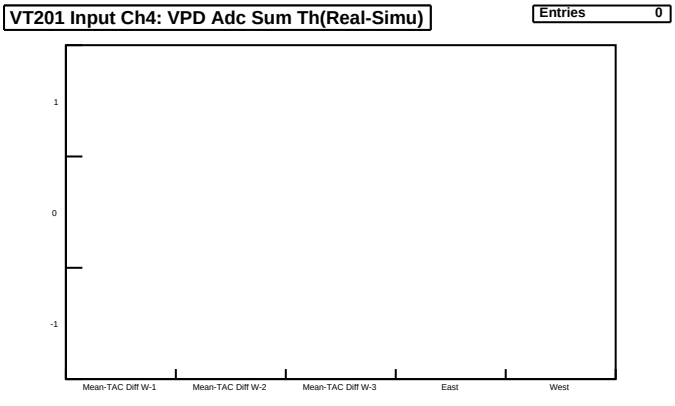

VT201 Input Ch2: ZDC Adc Sum Th
Entries 5540232
692528
692529
W 0(p)/Sum-th0(H)
W F-Sum-th(p)/Sum-th1(H)
W B-Sum-th(p)/Sum-th2(H)
W Sum-th(p)/Sum-th3(H)
E 0(p)/Sum-th0(H)
E F-Sum-th(p)/Sum-th1(H)
E B-Sum-th(p)/Sum-th2(H)
E Sum-th(p)/Sum-th3(H)

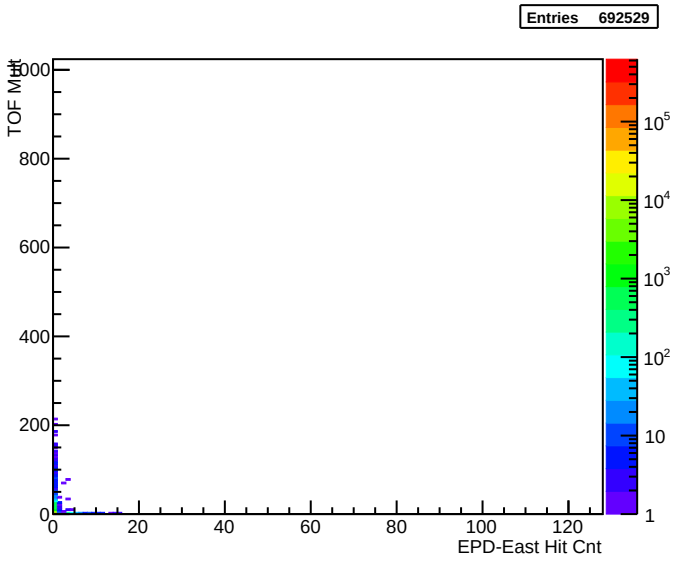

VT201 Input Ch2: ZDC Adc Sum Th (Real-Simu)
Entries 0
W 0(p)/Sum-th0(H)
W F-Sum-th(p)/Sum-th1(H)
W B-Sum-th(p)/Sum-th2(H)
W Sum-th(p)/Sum-th3(H)
E 0(p)/Sum-th0(H)
E F-Sum-th(p)/Sum-th1(H)
E B-Sum-th(p)/Sum-th2(H)
E Sum-th(p)/Sum-th3(H)

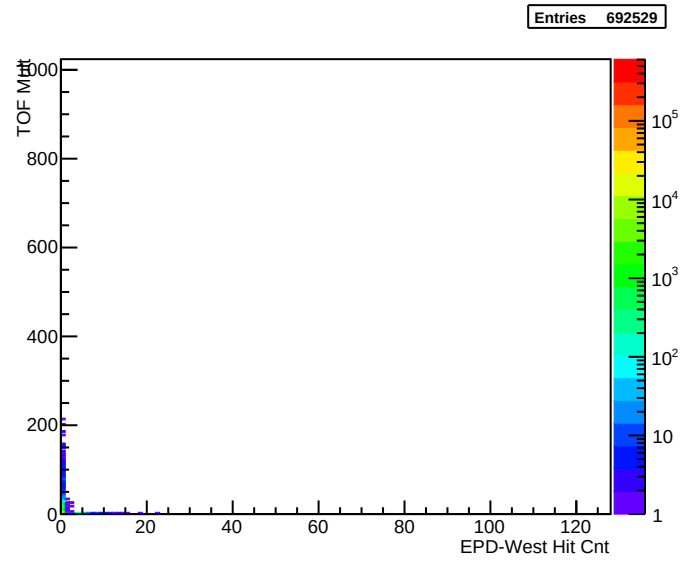

VT201 Input Ch4: VPD Tac Diff
Entries 692529
Tac

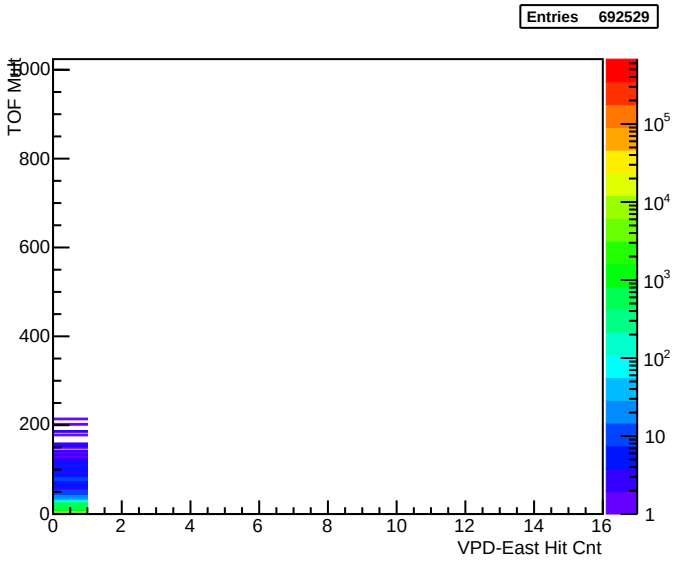

VT201 Input Ch4: VPD Tac Diff
Entries 0
Simu
Real

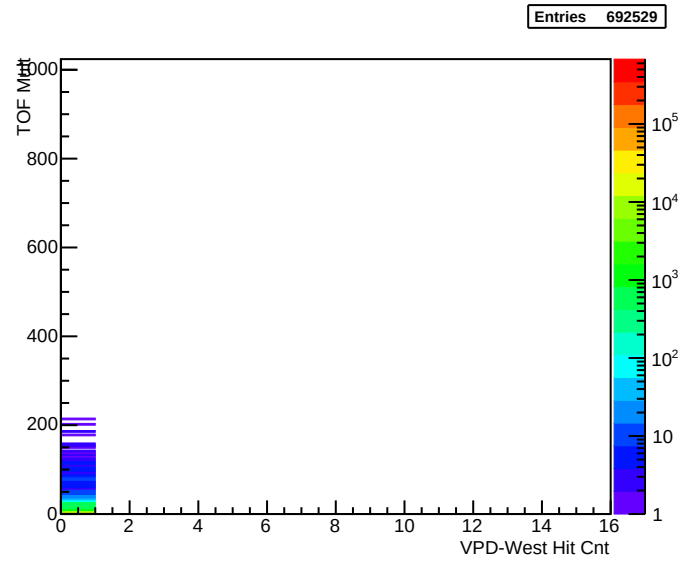

VT201 Input Ch4: VPD Adc Sum Th
Entries 3462645
692529
Mean-TAC Diff W-1
Mean-TAC Diff W-2
Mean-TAC Diff W-3
East
West

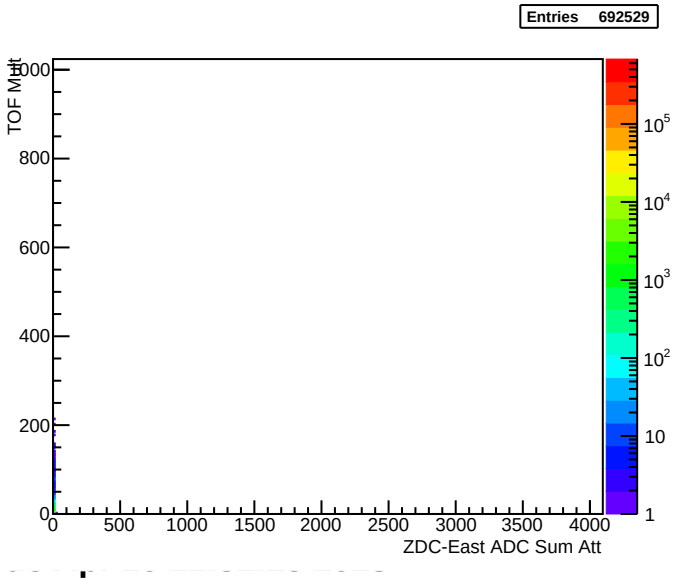

VT201 Input Ch4: VPD Adc Sum Th(Real-Simu)
Entries 0
Mean-TAC Diff W-1
Mean-TAC Diff W-2
Mean-TAC Diff W-3
East
West

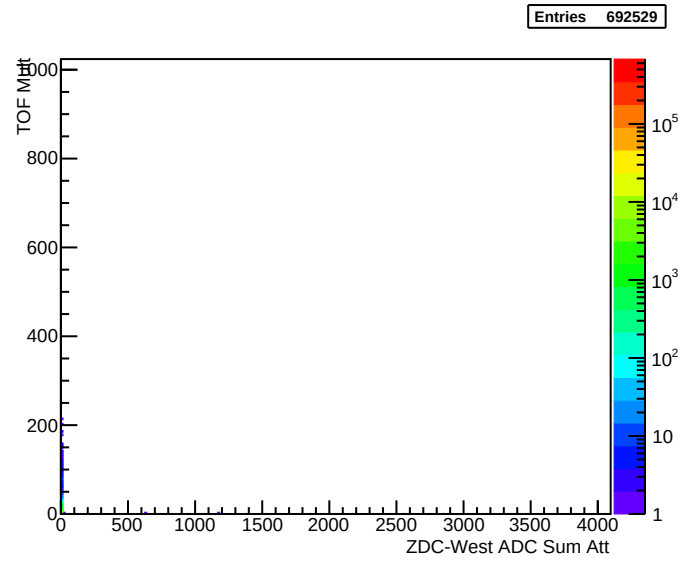

Entries 692529
TOF Mult
EPD-East Hit Cnt

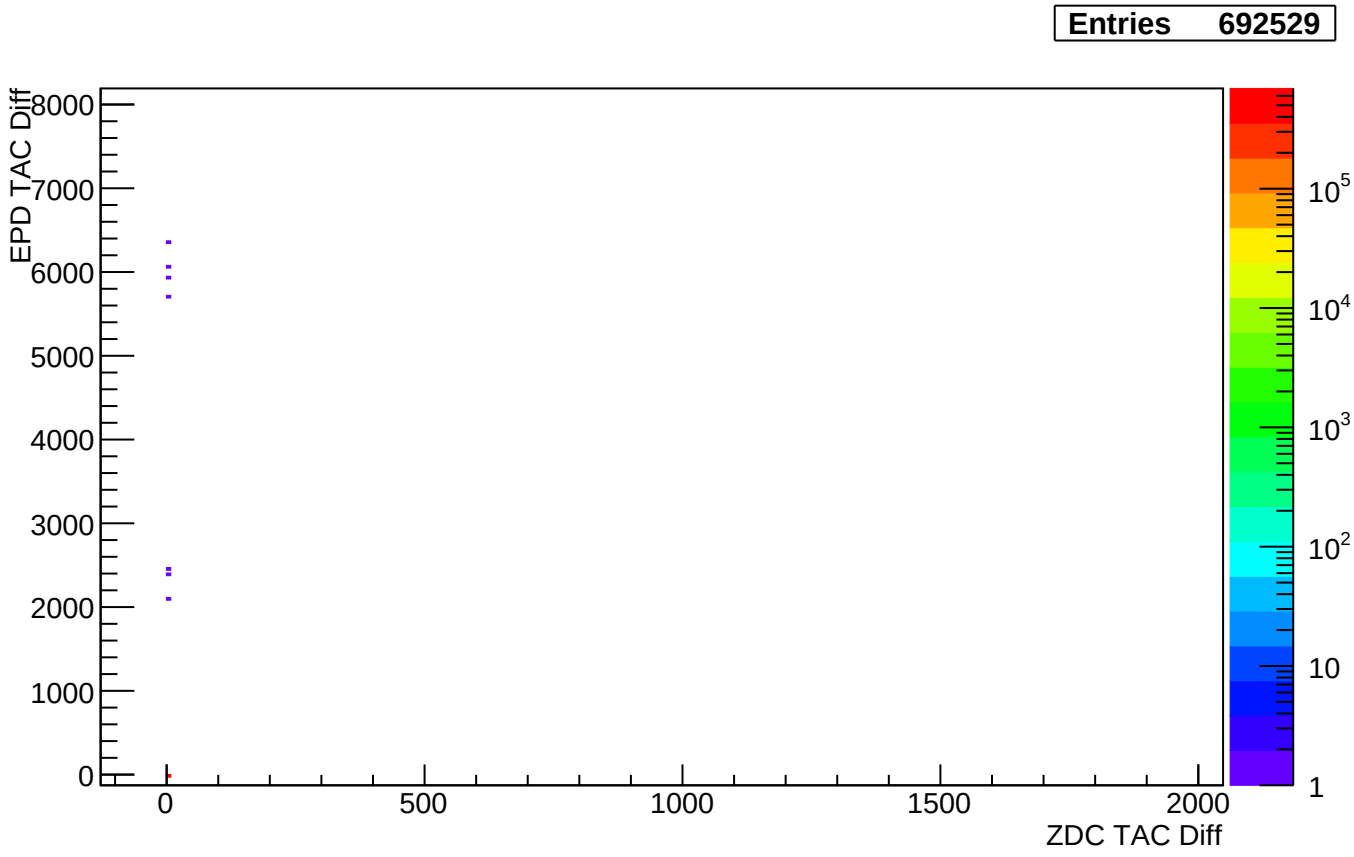

Entries 692529
TOF Mult
EPD-West Hit Cnt

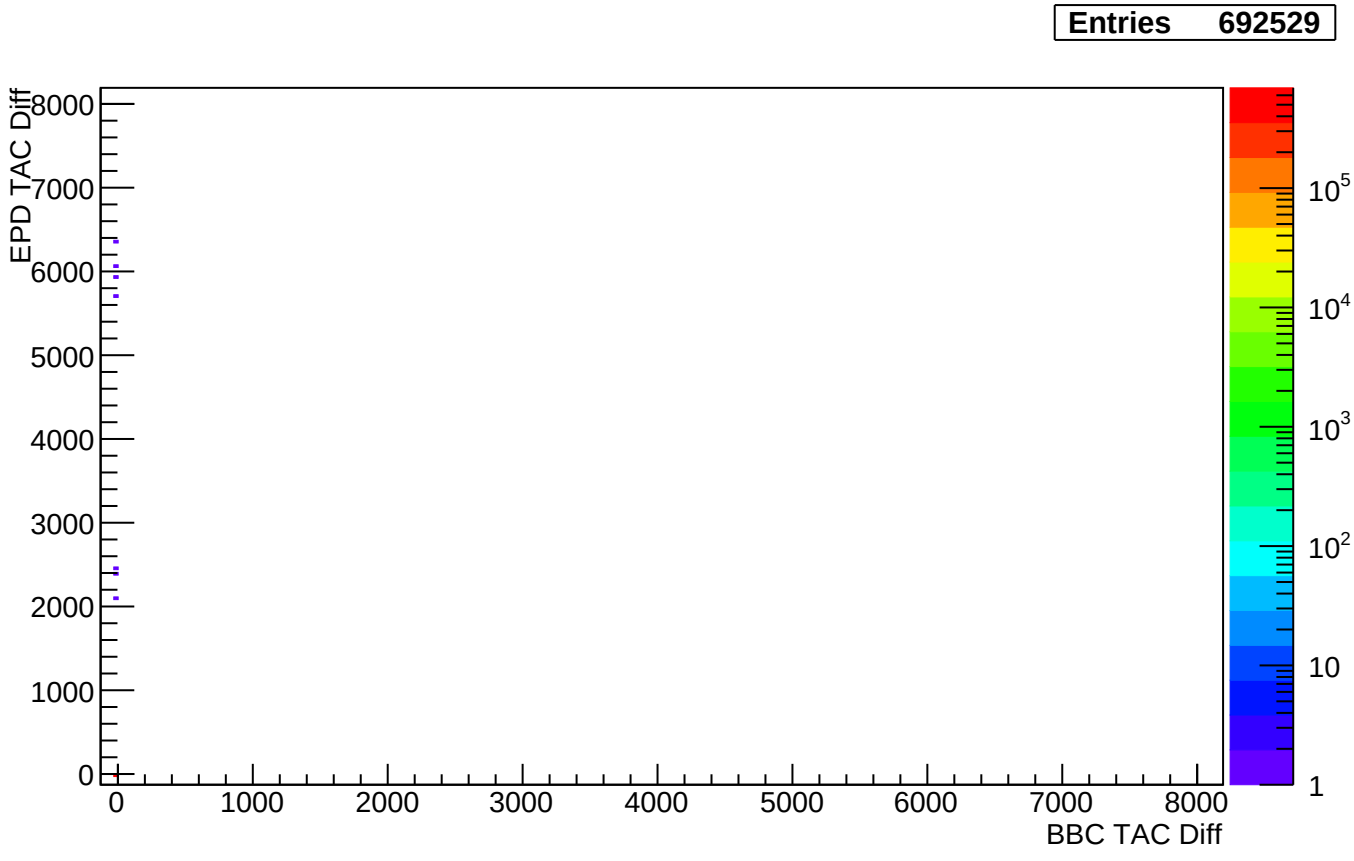

Entries 692529
TOF Mult
VPD-East Hit Cnt

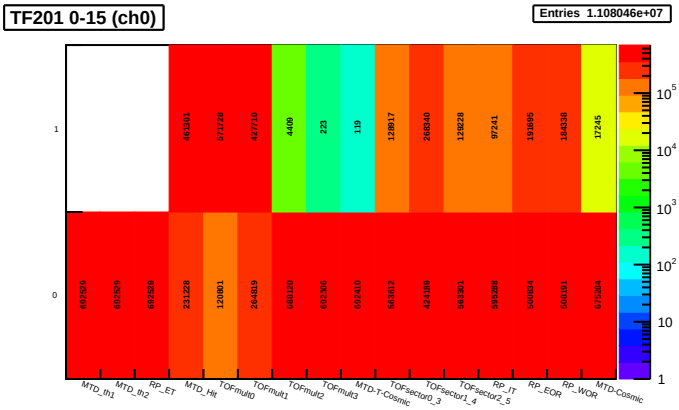

Entries 692529
TOF Mult
VPD-West Hit Cnt

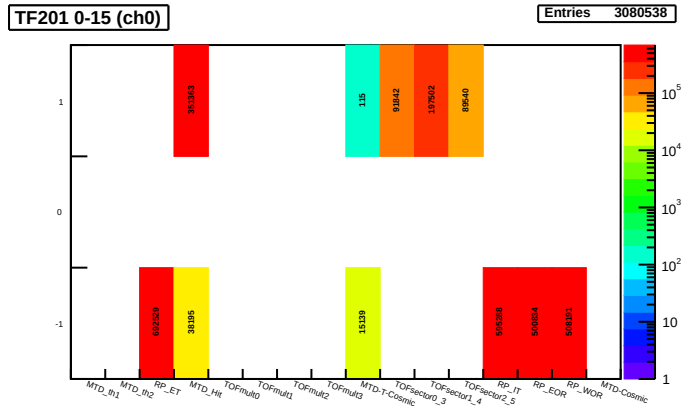

Entries 692529
TOF Mult
ZDC-East ADC Sum Att

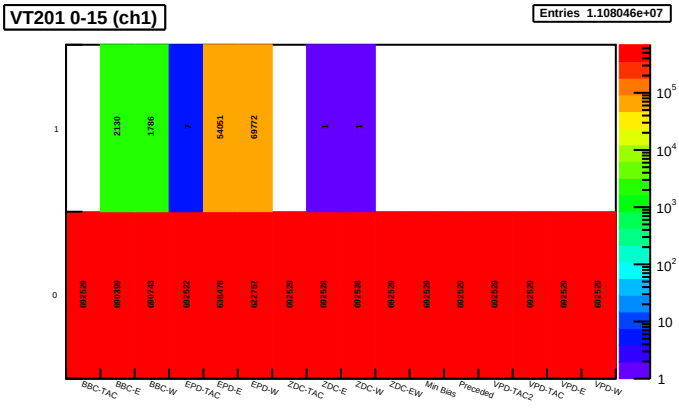

Entries 692529
TOF Mult
ZDC-West ADC Sum Att

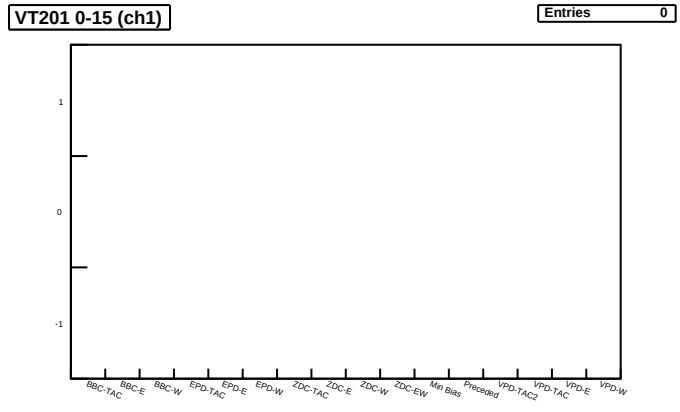

Entries 692529
EPD TAC Diff
ZDC TAC Diff
0
1000
2000
3000
4000
5000
6000
7000
8000
0
500
1000
1500
2000
1
10
$10^2$
$10^3$
$10^4$
$10^5$

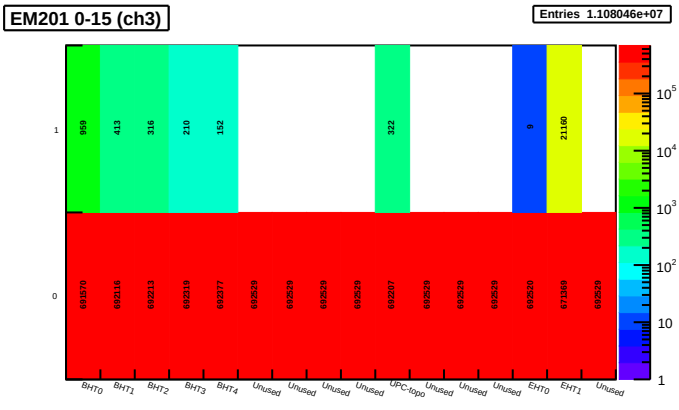

Entries 692529
EPD TAC Diff
BBC TAC Diff
0
1000
2000
3000
4000
5000
6000
7000
8000
0
1000
2000
3000
4000
5000
6000
7000
8000
1
10
$10^2$
$10^3$
$10^4$
$10^5$

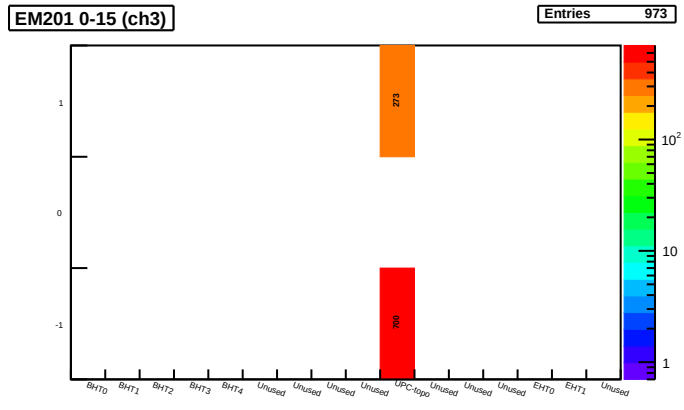

TF201 0-15 (ch0)
Entries 1.108046e+07
1
0
461301 571228 427710 4409 223 119 128817 268840 128228 97241 193695 184338 17245
692529 692529 692529 231228 120801 264819 688120 692306 692410 593612 424189 563301 595288 500834 508191 675284
MTD_tf1 MTD_tf2 RP_ET MTD_Hit TOFmult0 TOFmult1 TOFmult2 TOFmult3 MTD-T-Cosmic TOFsector0_3 TOFsector1_4 TOFsector2_5 RP_IT RP_EOR RP_WOR MTD-Cosmic
1 10 10^2 10^3 10^4 10^5

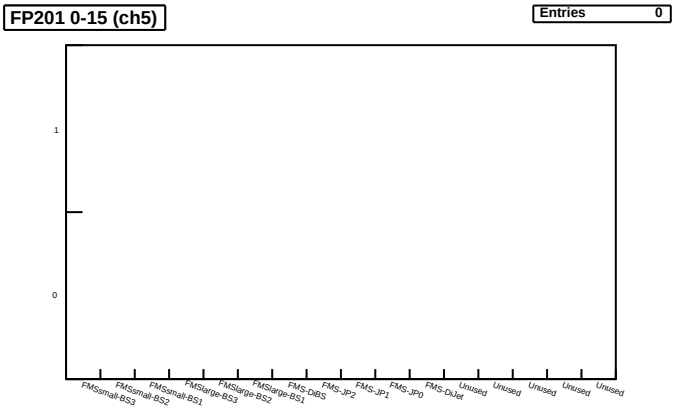

TF201 0-15 (ch0)
Entries 3080538
1
0
-1
351363 115 91842 197502 89540
692529 38395 15139 595288 500834 508191
MTD_tf1 MTD_tf2 RP_ET MTD_Hit TOFmult0 TOFmult1 TOFmult2 TOFmult3 MTD-T-Cosmic TOFsector0_3 TOFsector1_4 TOFsector2_5 RP_IT RP_EOR RP_WOR MTD-Cosmic
1 10 10^2 10^3 10^4 10^5

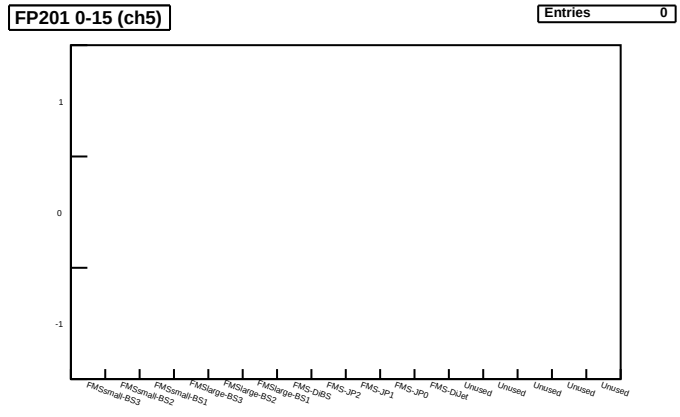

VT201 0-15 (ch1)
Entries 1.108046e+07
1
0
2130 1786 7 54051 69772 1 1
692529 690399 690743 692522 638478 622757 692529 692528 692528 692529 692529 692529 692529 692529 692529 692529
BBC-TAC BBC-E BBC-W EPD-TAC EPD-E EPD-W ZDC-TAC ZDC-E ZDC-W ZDC-EW Min Bias Preceded VPD-TAC2 VPD-TAC VPD-E VPD-W
1 10 10^2 10^3 10^4 10^5


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


EM201 0-15 (ch3)
Entries 1.108046e+07
1
0
959 413 316 210 152 322 9 21160
693570 692116 692213 692219 692377 692529 692529 692529 692529 692207 692529 692529 692529 692520 671369 692529
BHT0 BHT1 BHT2 BHT3 BHT4 Unused Unused Unused Unused UPC-topo Unused Unused Unused EHT0 EHT1 Unused
1 10 10^2 10^3 10^4 10^5


EM201 0-15 (ch3)
Entries 973
1
0
-1
273 700
BHT0 BHT1 BHT2 BHT3 BHT4 Unused Unused Unused Unused UPC-topo Unused Unused Unused EHT0 EHT1 Unused
1 10 10^2


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


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