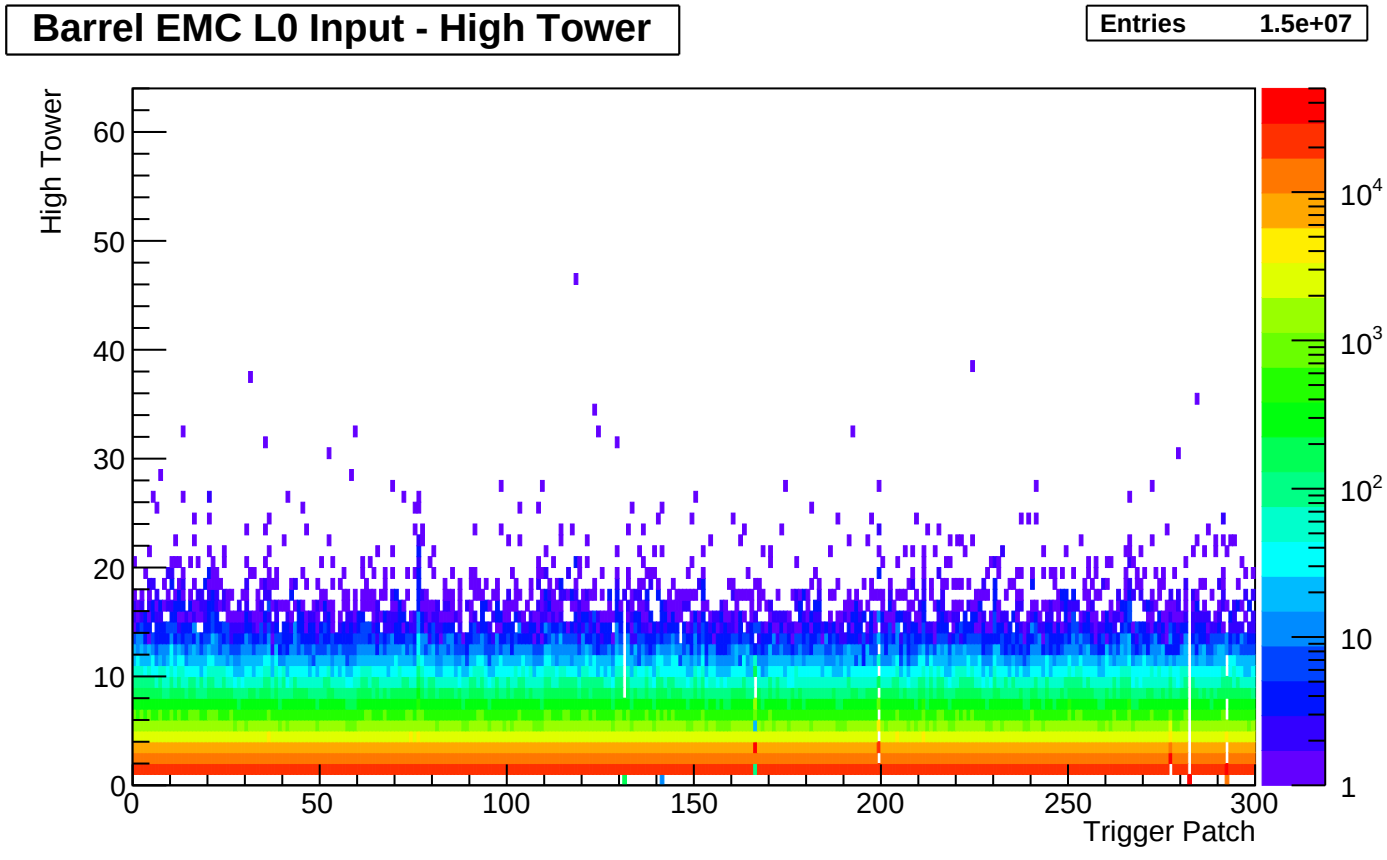
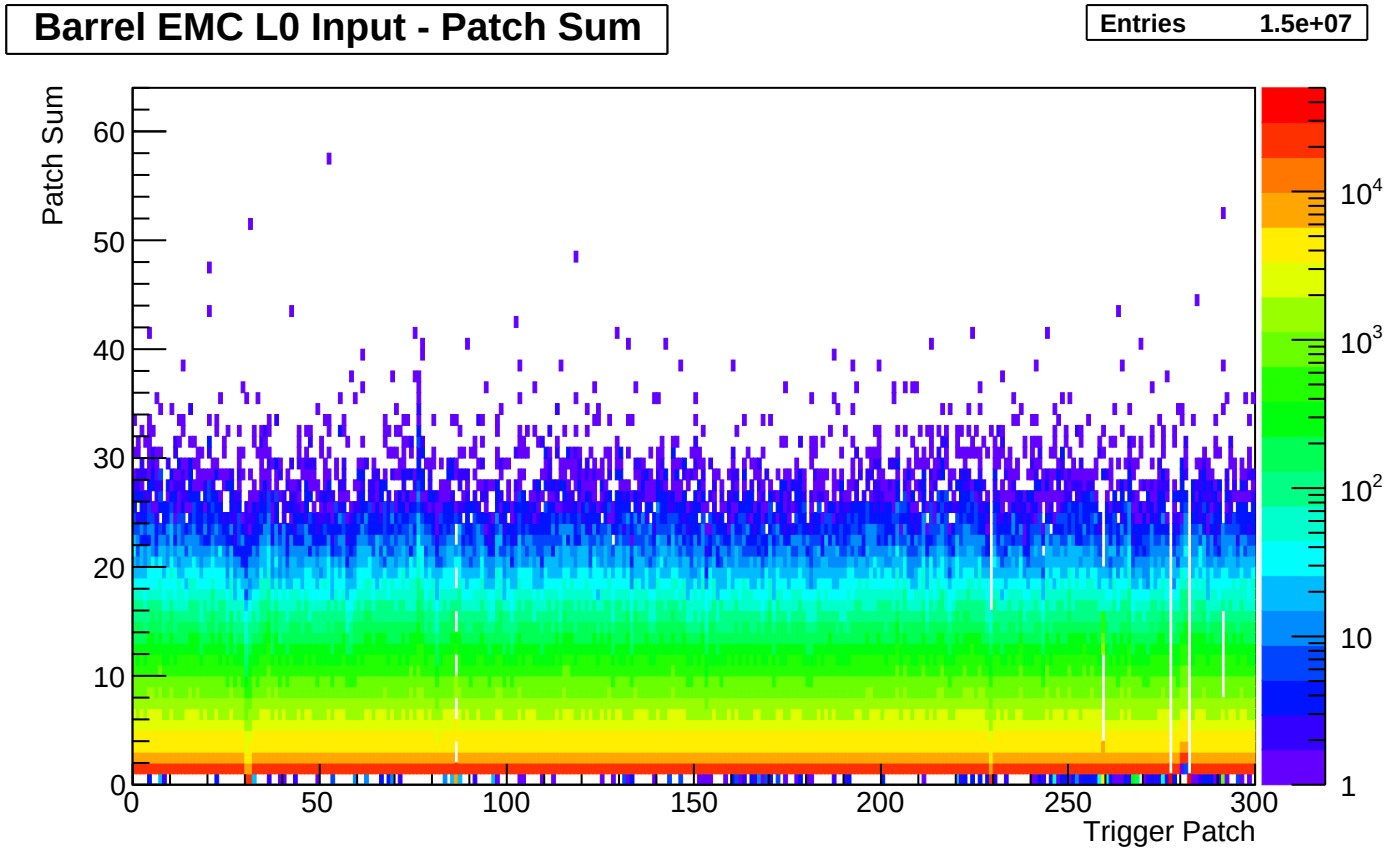
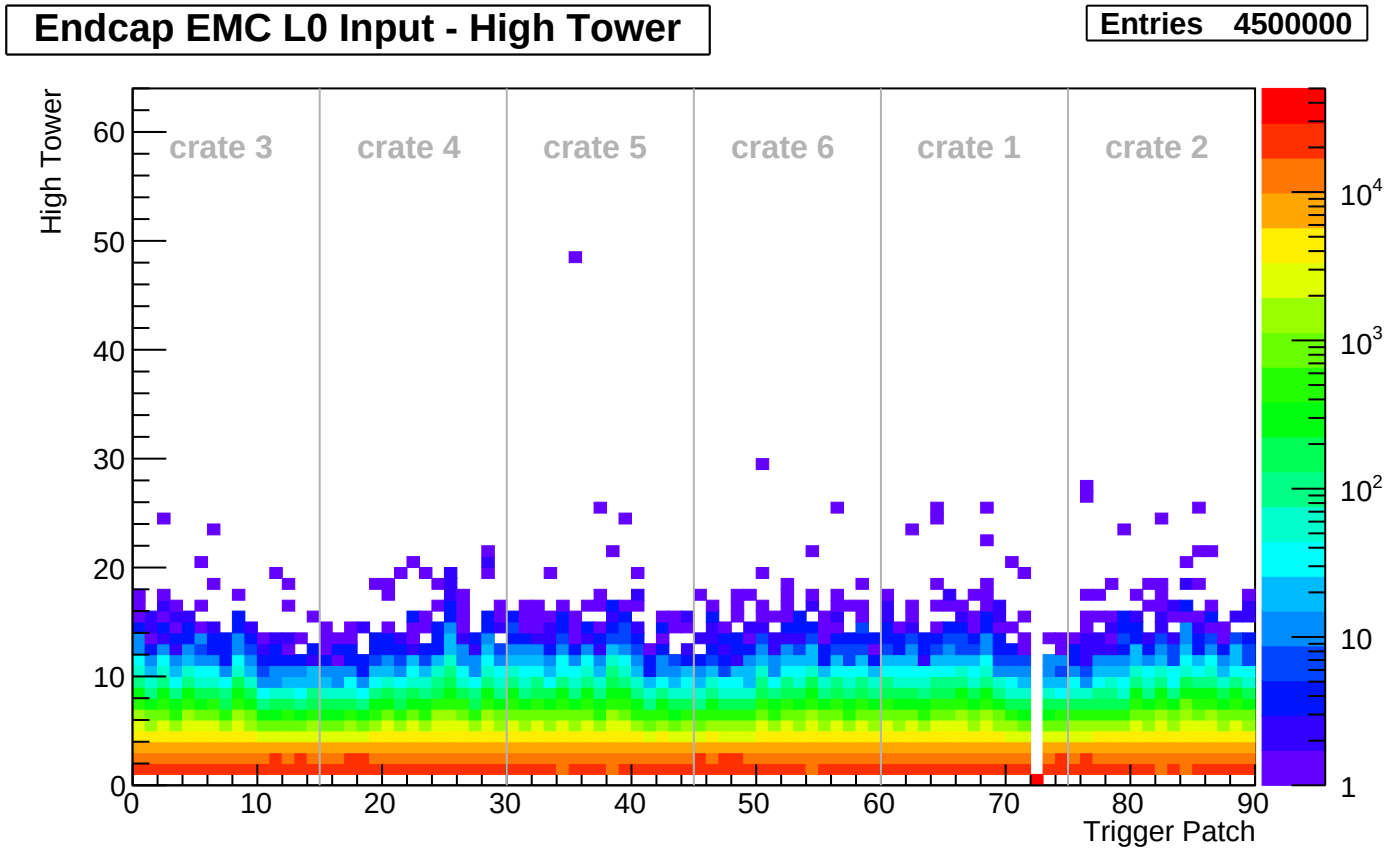
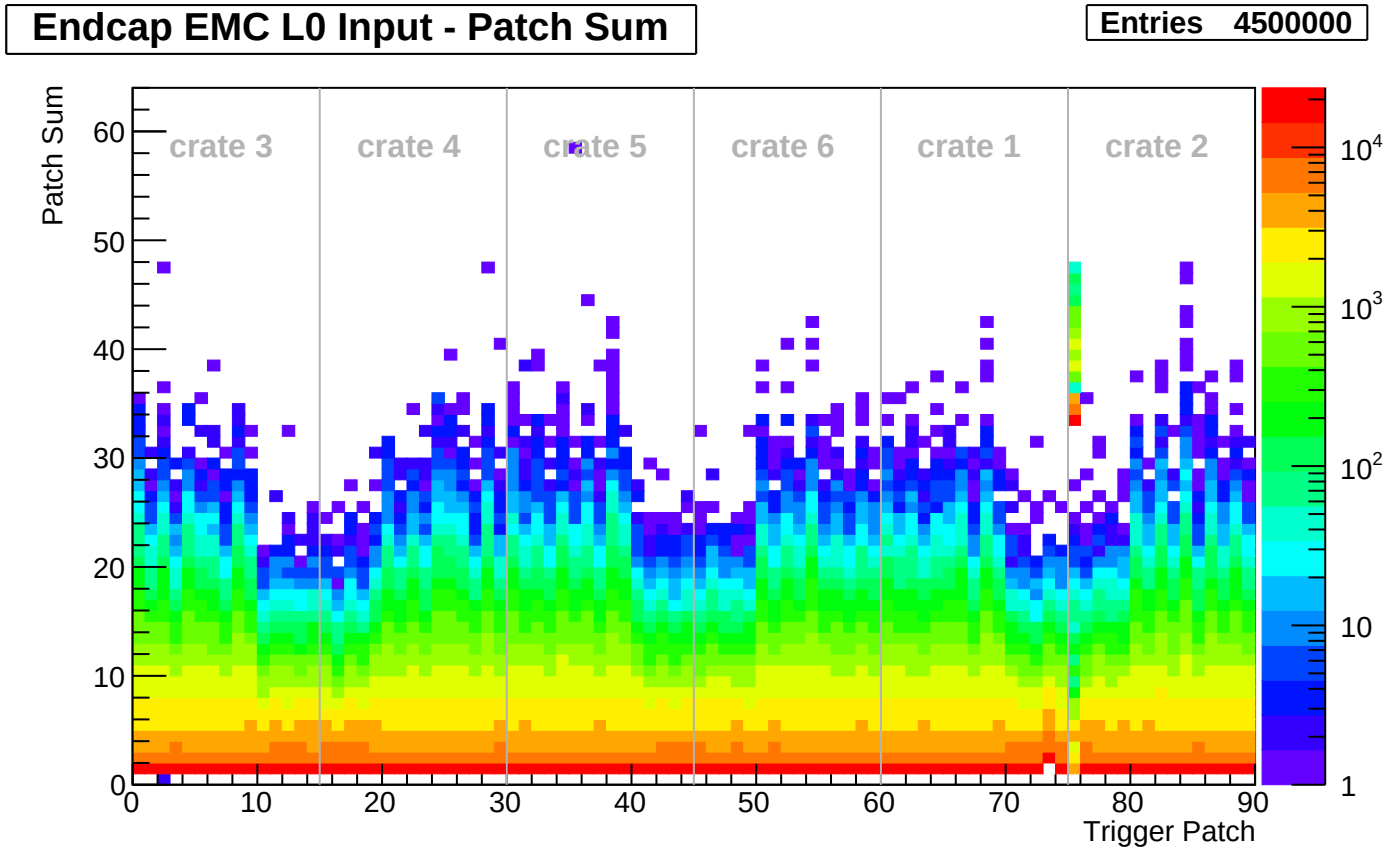
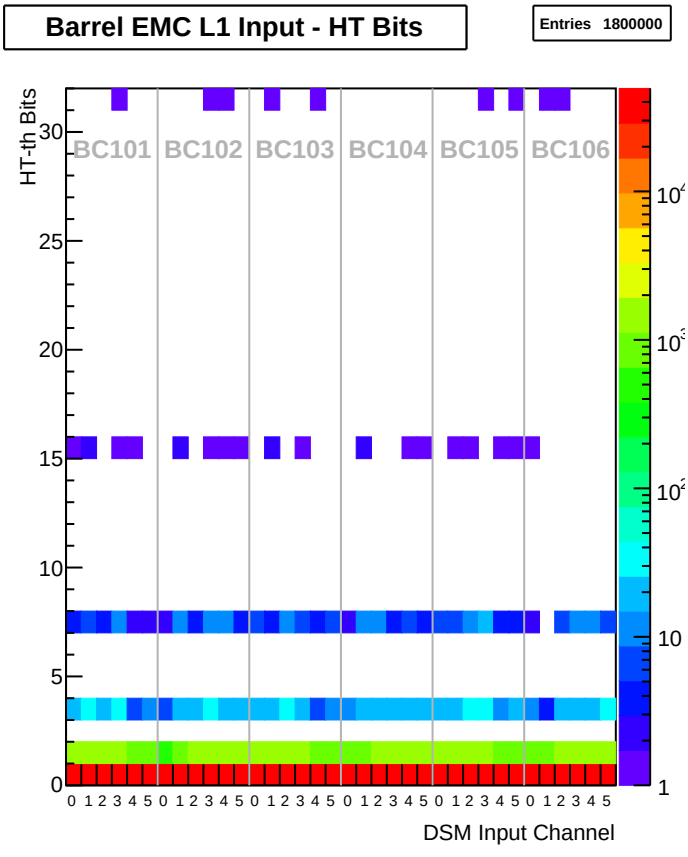
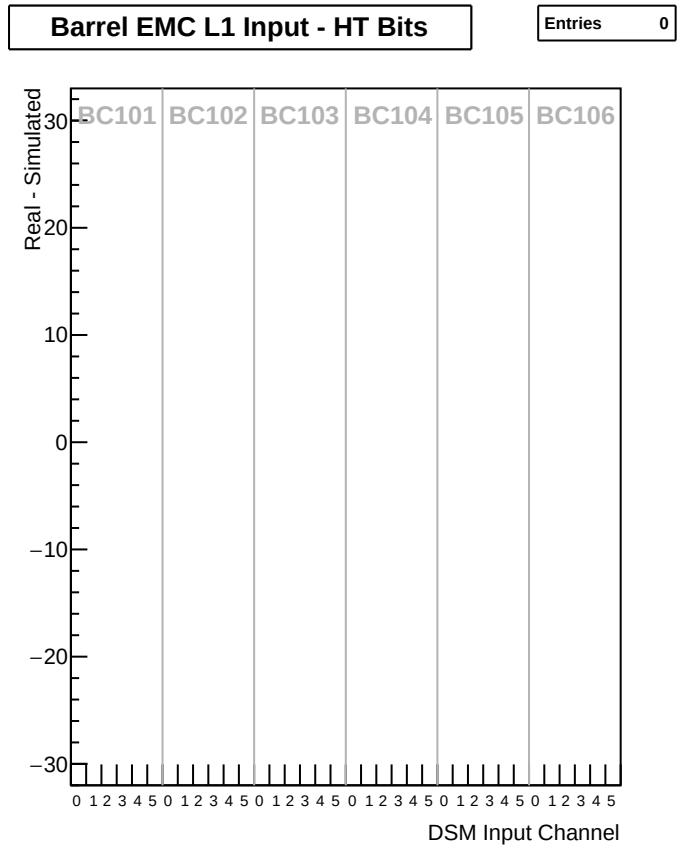

Barrel EMC L0 Input - High Tower
Entries 1.5e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

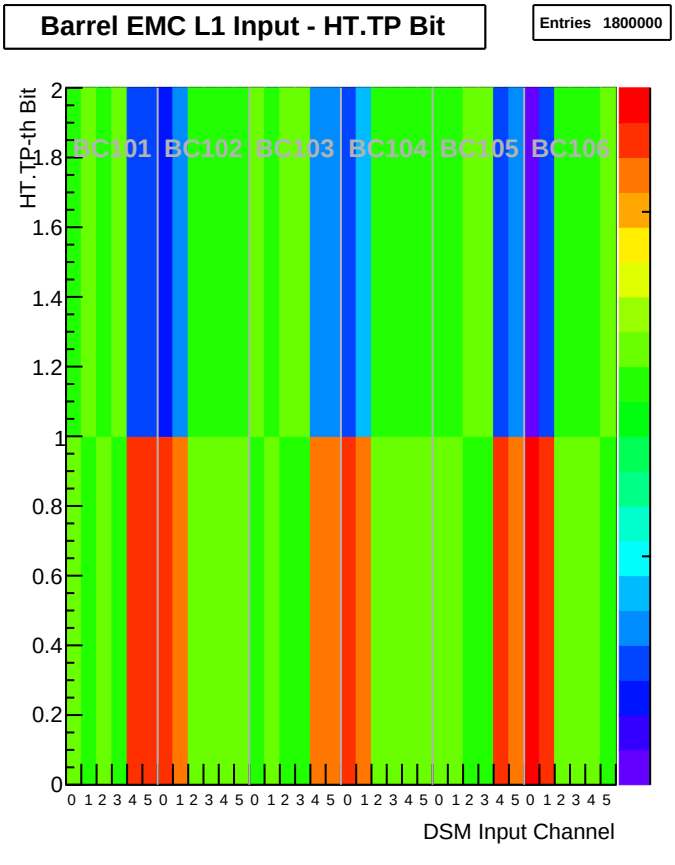

Barrel EMC L0 Input - Patch Sum
Entries 1.5e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

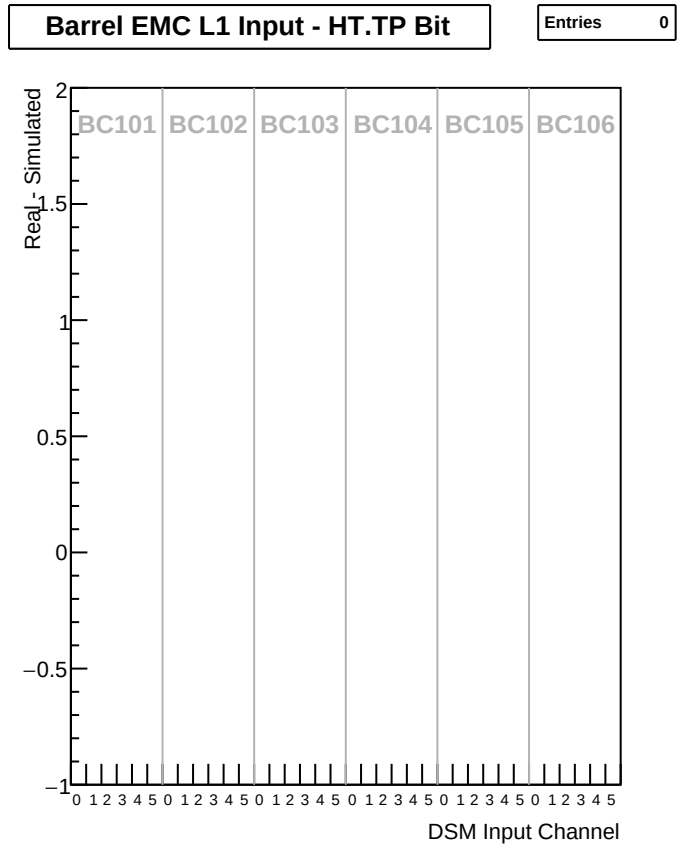

Endcap EMC L0 Input - High Tower
Entries 4500000
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
10^2
10^3
10^4

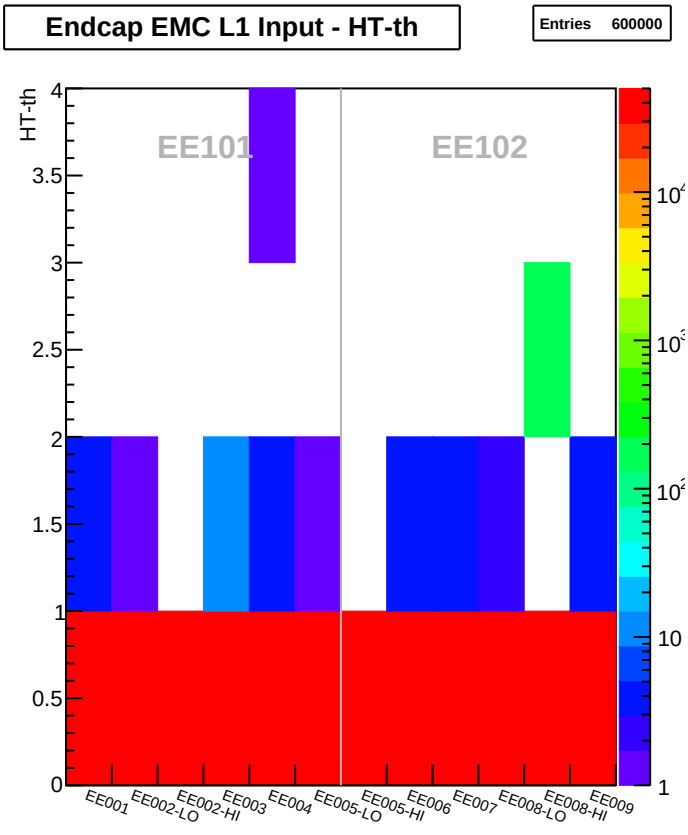

Endcap EMC L0 Input - Patch Sum
Entries 4500000
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch
0
10
20
30
40
50
60
70
80
90
1
10
10^2
10^3
10^4

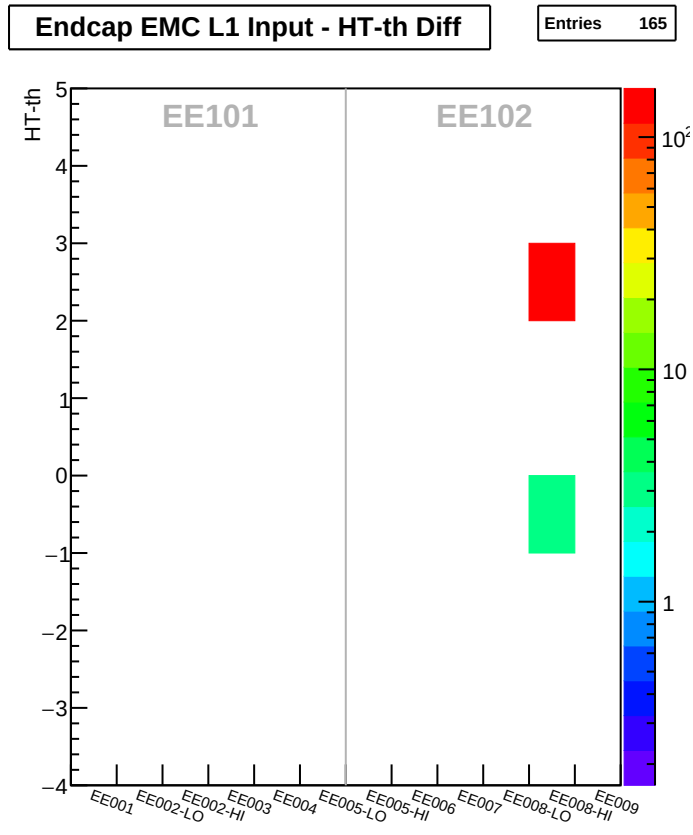

Barrel EMC L1 Input - HT Bits
Entries 1800000
HT-th Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

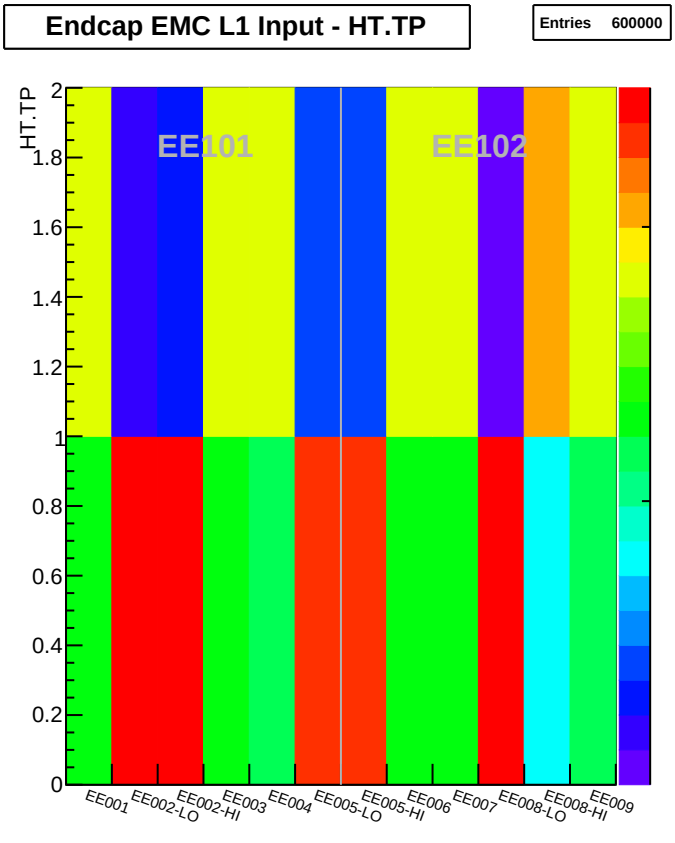

Barrel EMC L1 Input - HT Bits
Entries 0
Real - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

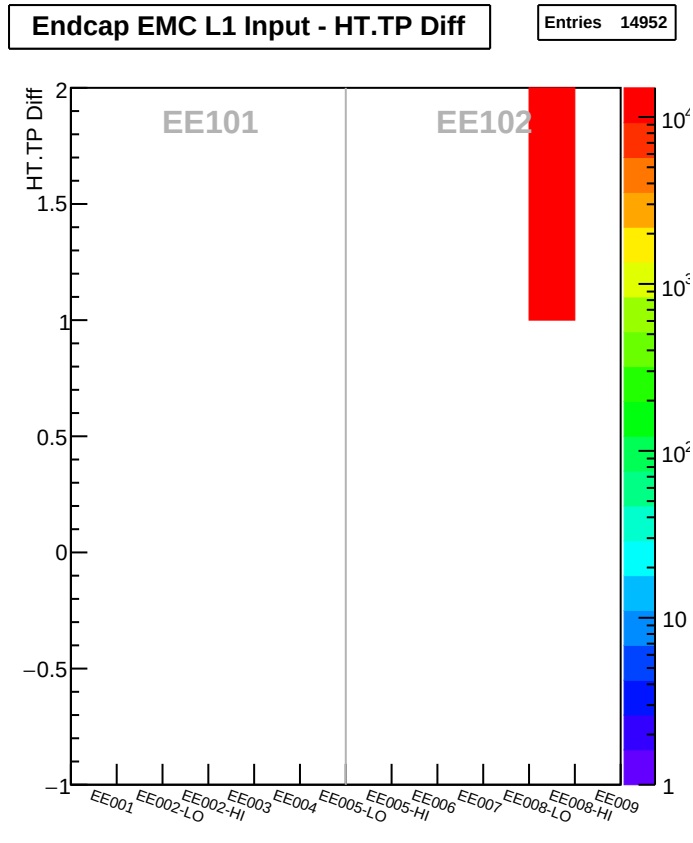

Barrel EMC L1 Input - HT.TP Bit
Entries 1800000
HT.TP-th Bit
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

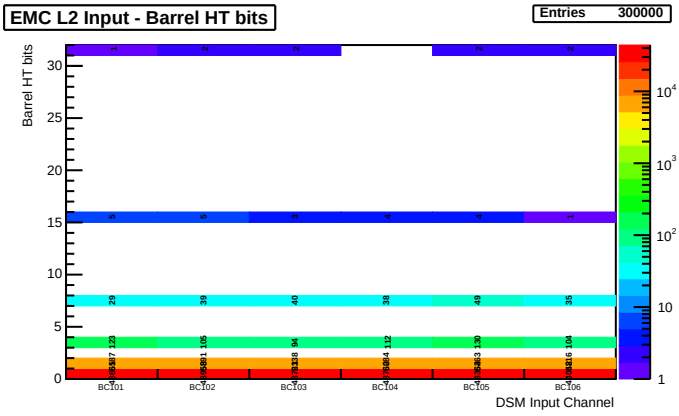

Barrel EMC L1 Input - HT.TP Bit
Entries 0
Real - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

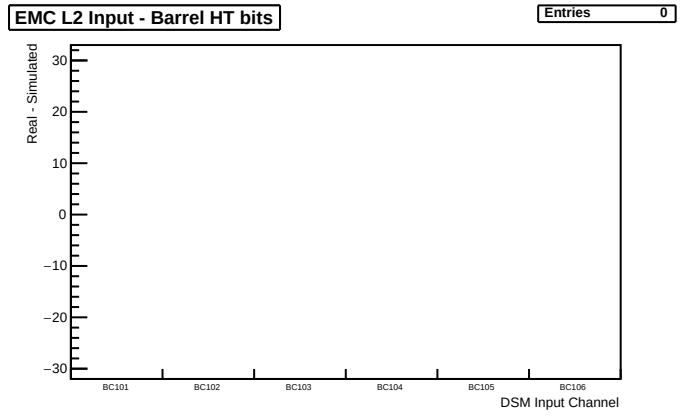

Endcap EMC L1 Input - HT-th
Entries 600000
HT-th
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

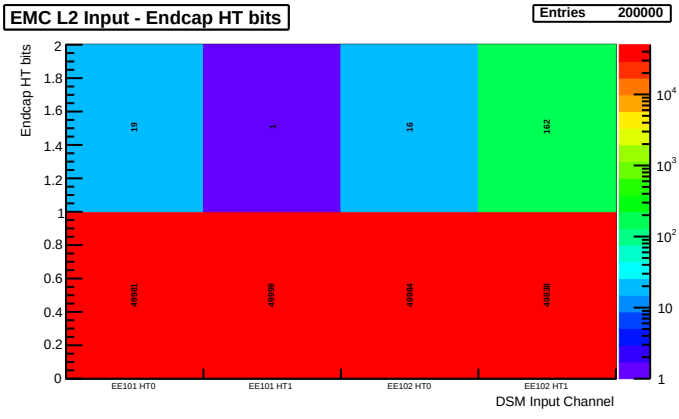

Endcap EMC L1 Input - HT-th Diff
Entries 165
HT-th
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

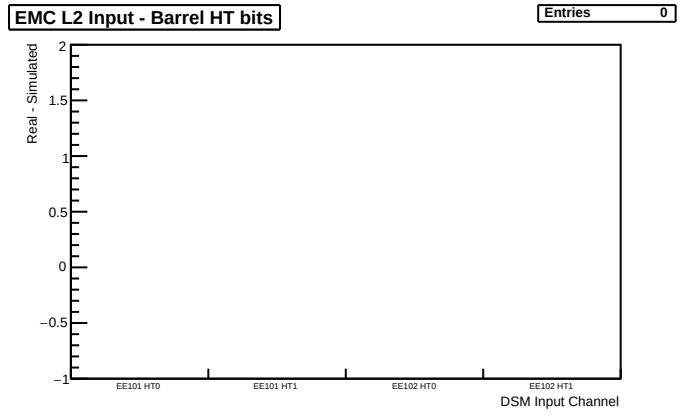

Endcap EMC L1 Input - HT.TP
Entries 600000
HT.TP
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

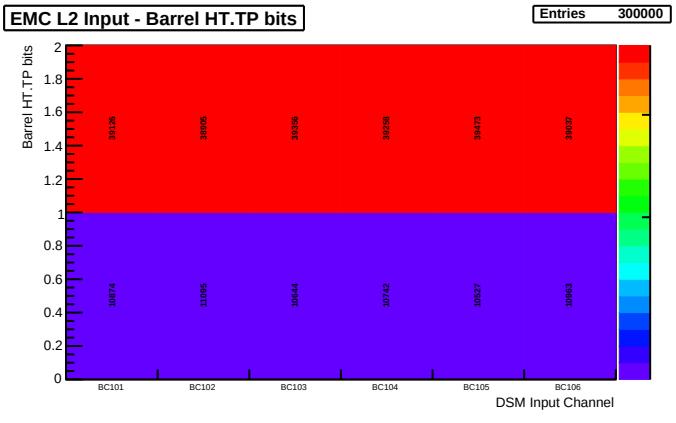

Endcap EMC L1 Input - HT.TP Diff
Entries 14952
HT.TP Diff
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

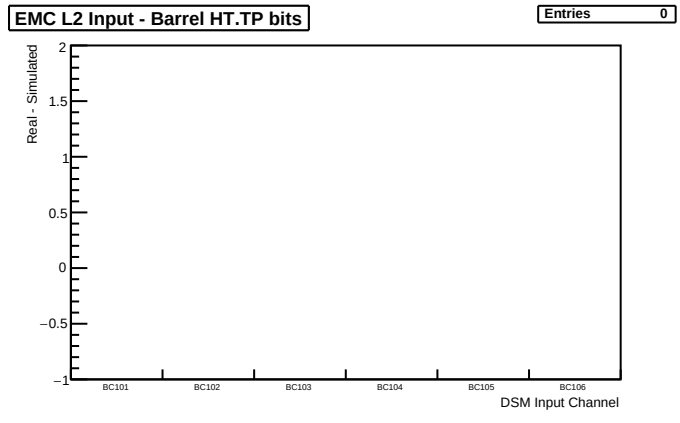

EMC L2 Input - Barrel HT bits
Entries 300000
Barrel HT bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

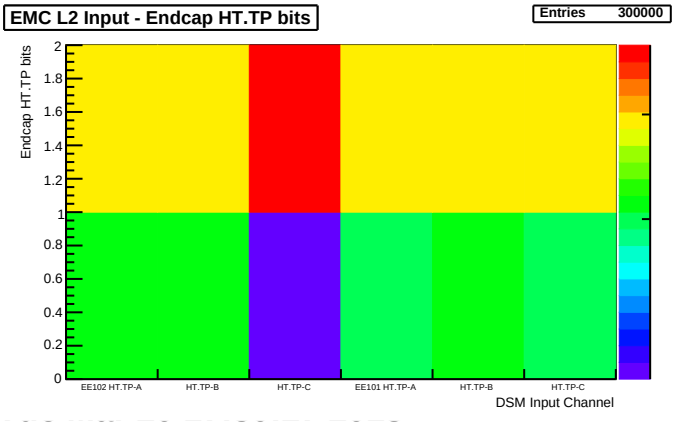

EMC L2 Input - Barrel HT bits
Entries 0
Real - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

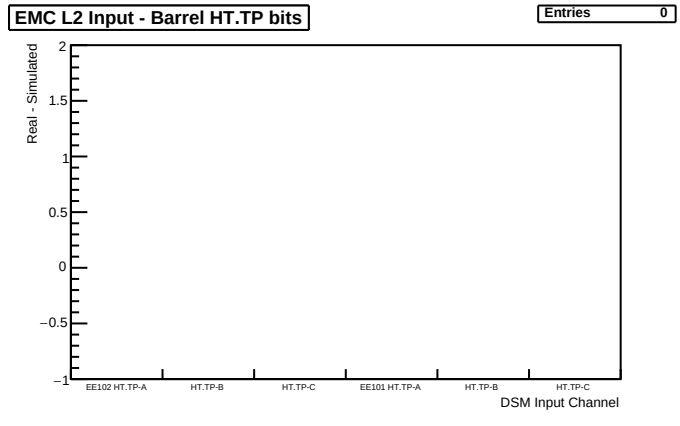

EMC L2 Input - Endcap HT bits
Entries 200000
Endcap HT bits
DSM Input Channel
EE101 HT0
EE101 HT1
EE102 HT0
EE102 HT1

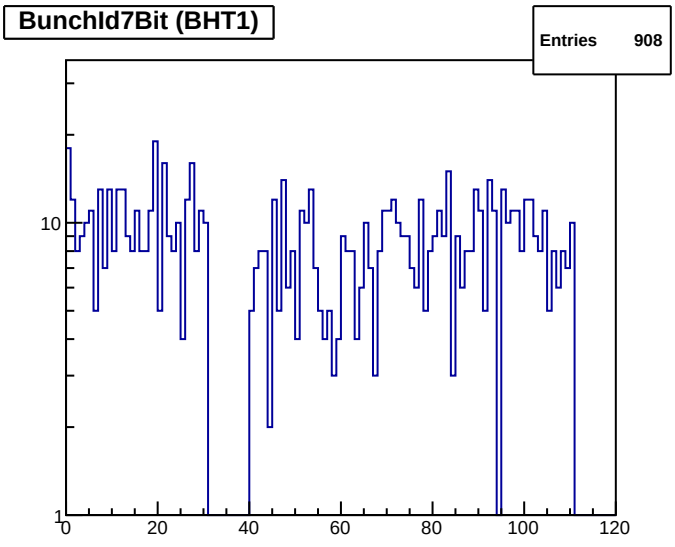

EMC L2 Input - Barrel HT bits
Entries 0
Real - Simulated
DSM Input Channel
EE101 HT0
EE101 HT1
EE102 HT0
EE102 HT1

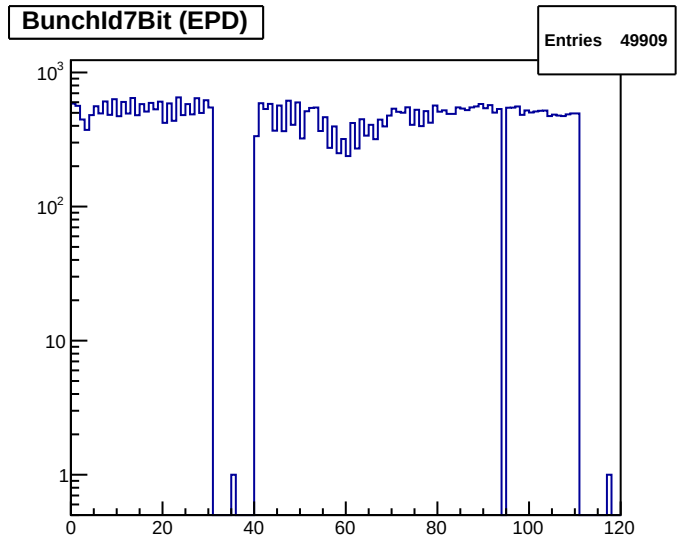

EMC L2 Input - Barrel HT.TP bits
Entries 300000
Barrel HT.TP bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

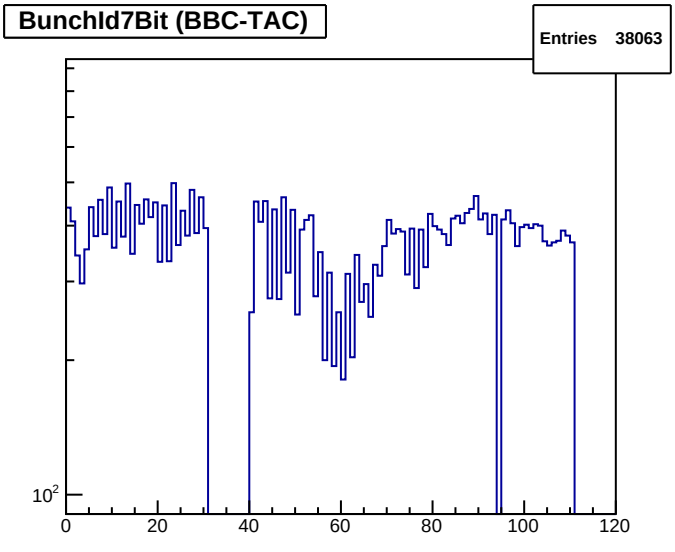

EMC L2 Input - Barrel HT.TP bits
Entries 0
Real - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

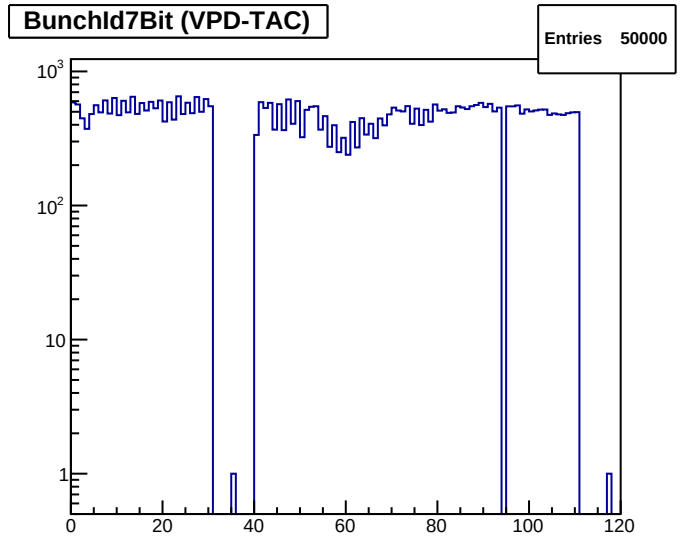

EMC L2 Input - Endcap HT.TP bits
Entries 300000
Endcap HT.TP bits
DSM Input Channel
EE102 HT.TP-A
HT.TP-B
HT.TP-C
EE101 HT.TP-A
HT.TP-B
HT.TP-C

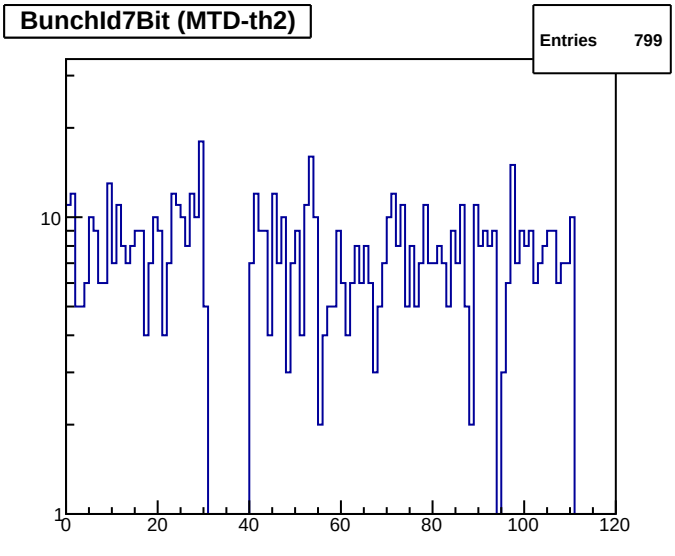

EMC L2 Input - Barrel HT.TP bits
Entries 0
Real - Simulated
DSM Input Channel
EE102 HT.TP-A
HT.TP-B
HT.TP-C
EE101 HT.TP-A
HT.TP-B
HT.TP-C

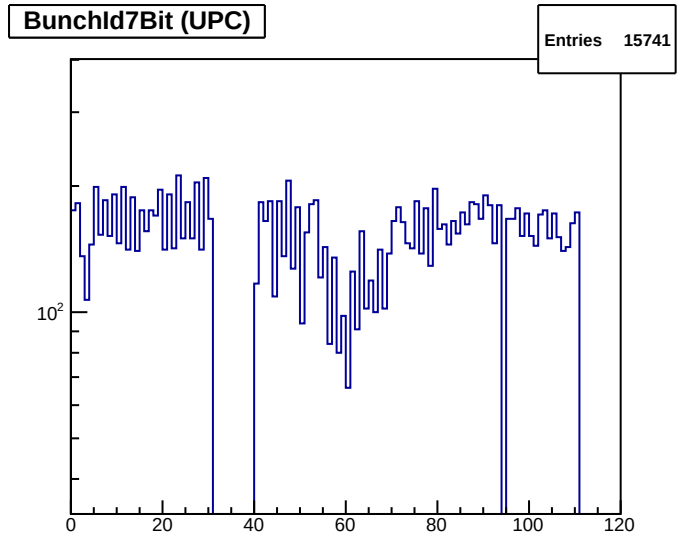

BunchId7Bit (BHT1)
Entries 908

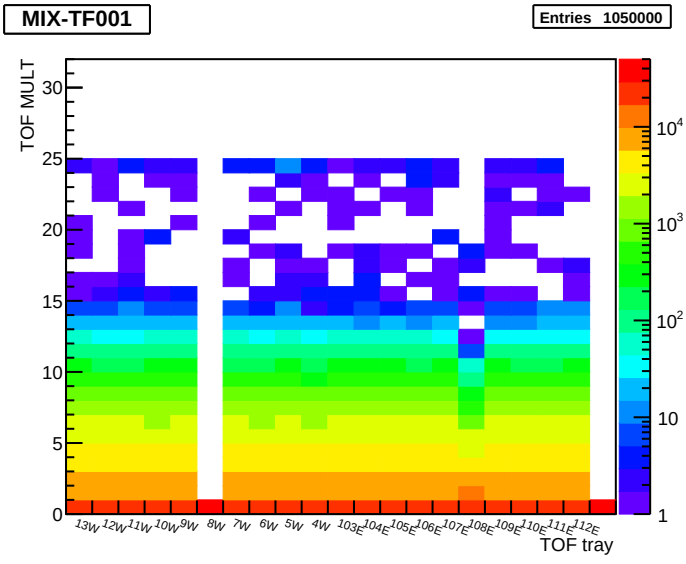

BunchId7Bit (EPD)
Entries 49909

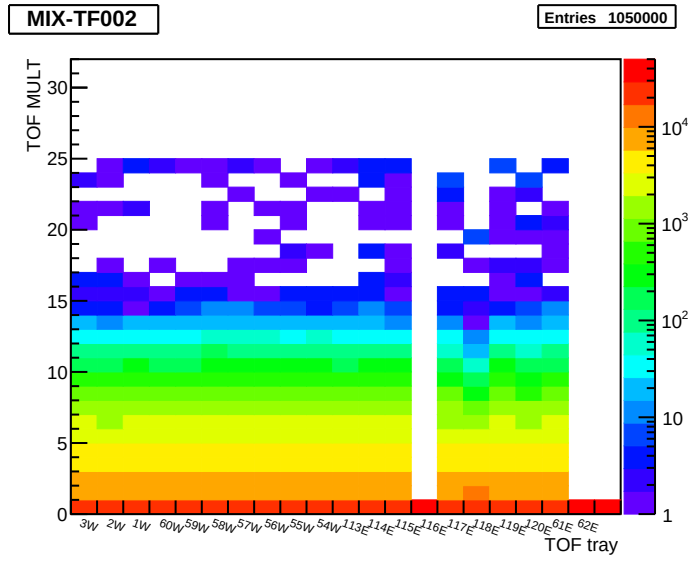

BunchId7Bit (BBC-TAC)
Entries 38063

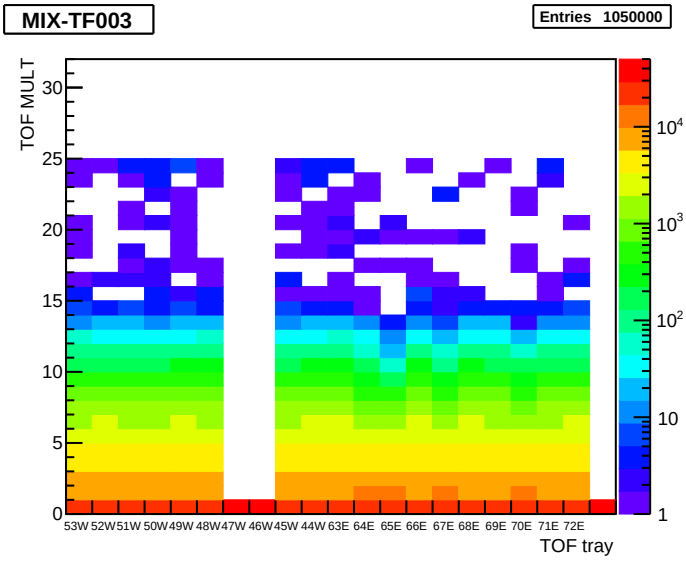

BunchId7Bit (VPD-TAC)
Entries 50000

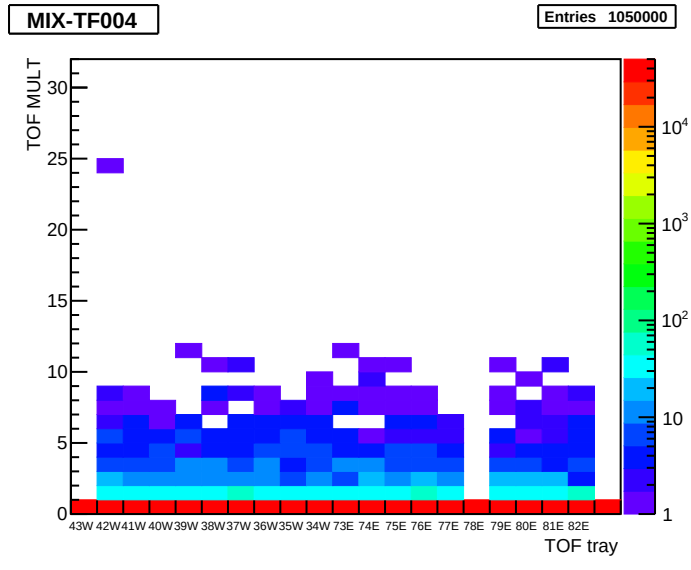

BunchId7Bit (MTD-th2)
Entries 799

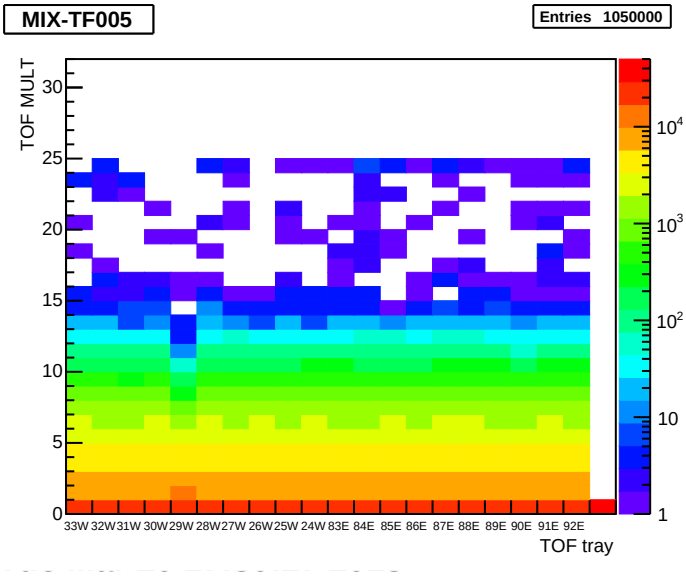

BunchId7Bit (UPC)
Entries 15741

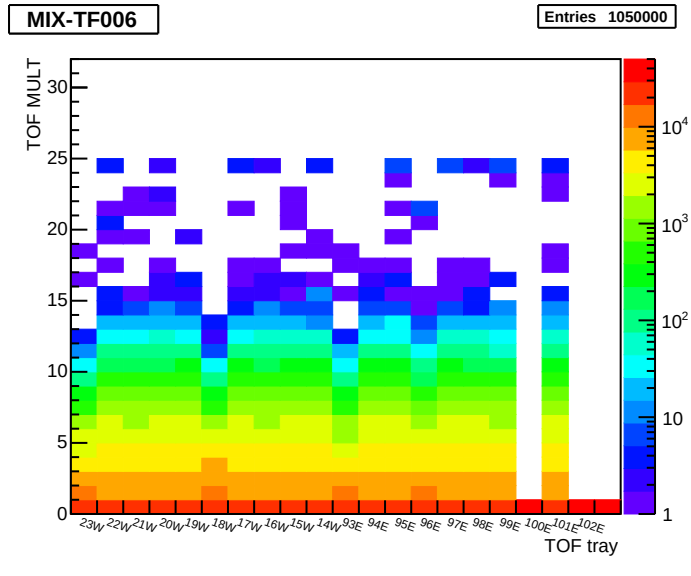

MIX-TF001
Entries 1050000
TOF MULT
TOF tray

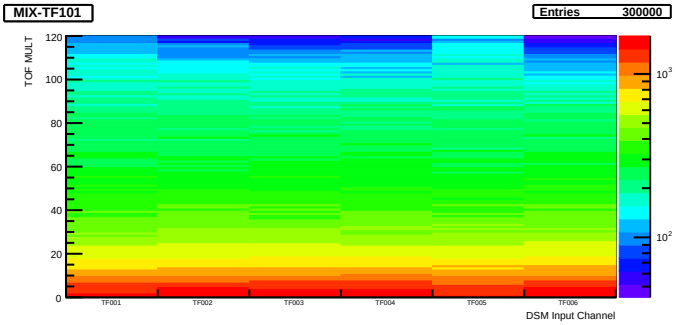

MIX-TF002
Entries 1050000
TOF MULT
TOF tray

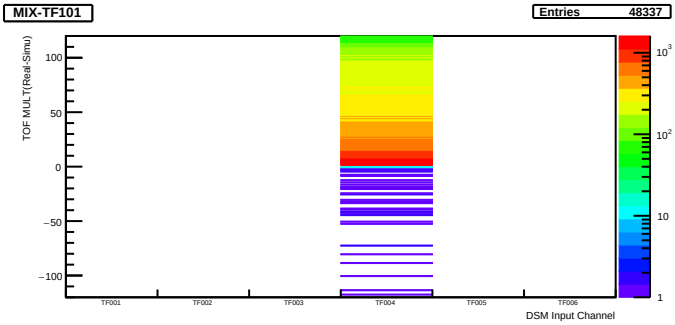

MIX-TF003
Entries 1050000
TOF MULT
TOF tray

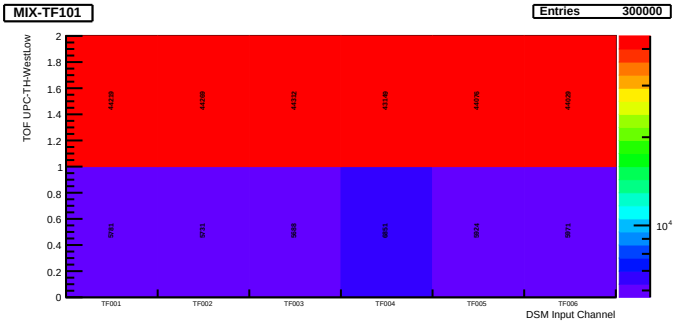

MIX-TF004
Entries 1050000
TOF MULT
TOF tray

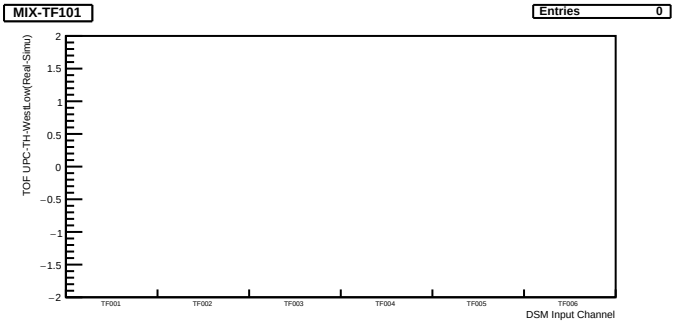

MIX-TF005
Entries 1050000
TOF MULT
TOF tray

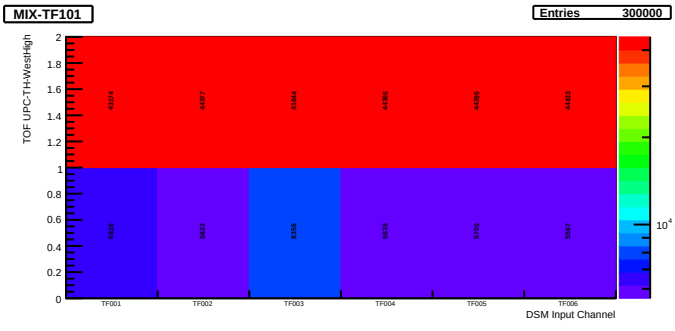

MIX-TF006
Entries 1050000
TOF MULT
TOF tray

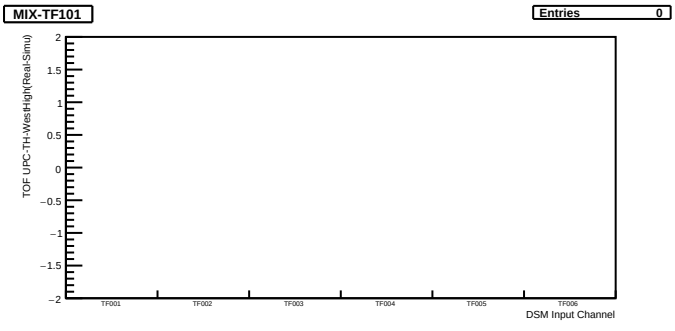

MIX-TF101
Entries 300000
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

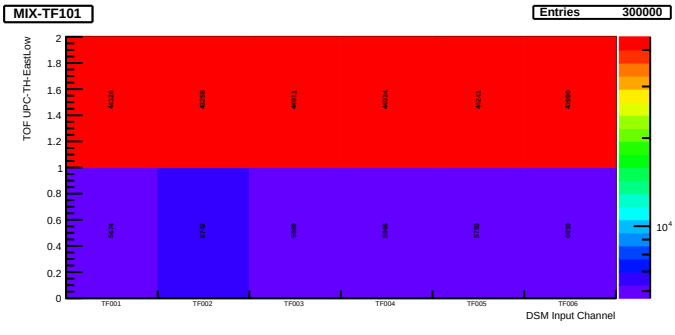

MIX-TF101
Entries 48337
TOF MULT(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

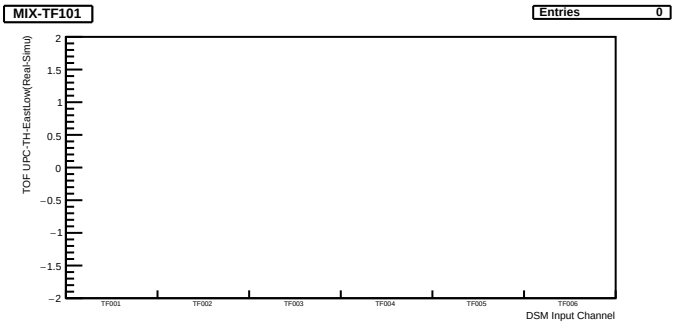

MIX-TF101
Entries 300000
TOF UPC-TH-WestLow
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

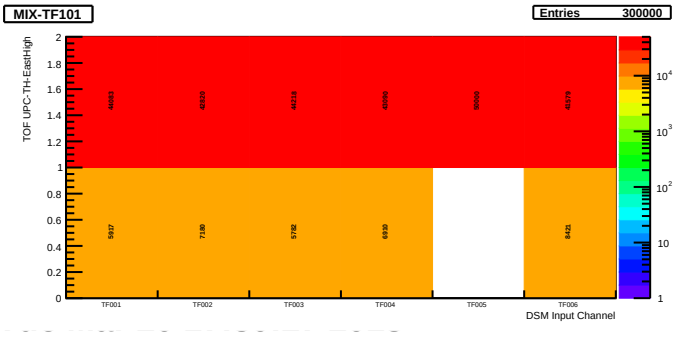

MIX-TF101
Entries 0
TOF UPC-TH-WestLow(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

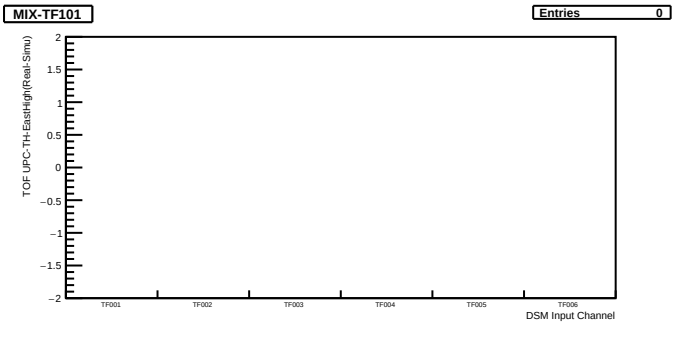

MIX-TF101
Entries 300000
TOF UPC-TH-WestHigh
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

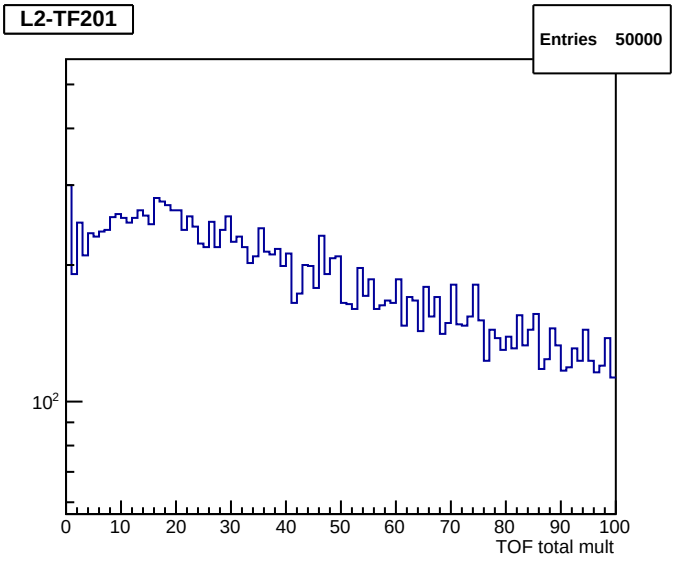

MIX-TF101
Entries 0
TOF UPC-TH-WestHigh(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

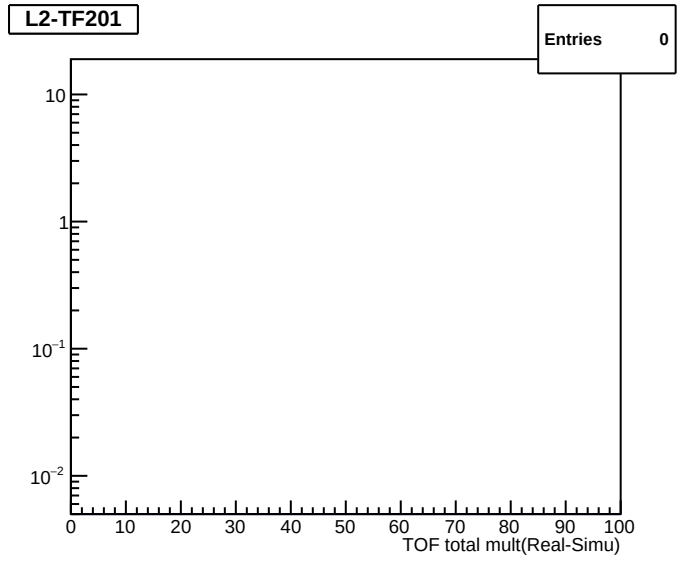

MIX-TF101
Entries 300000
TOF UPC-TH-EastLow
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

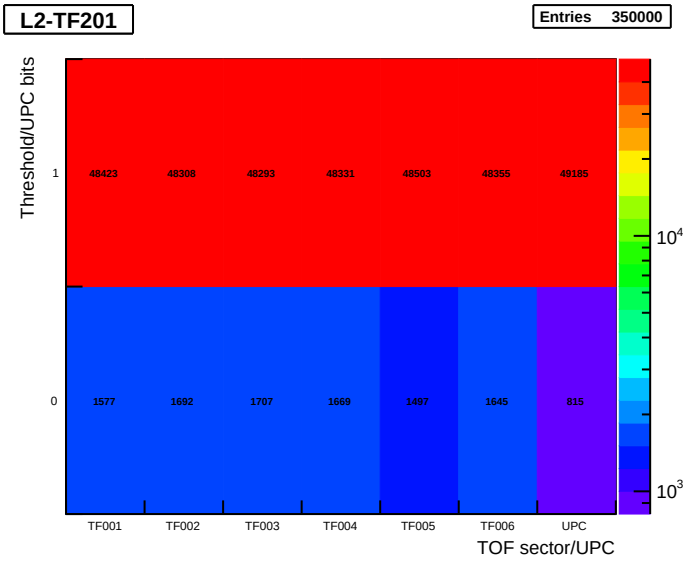

MIX-TF101
Entries 0
TOF UPC-TH-EastLow(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

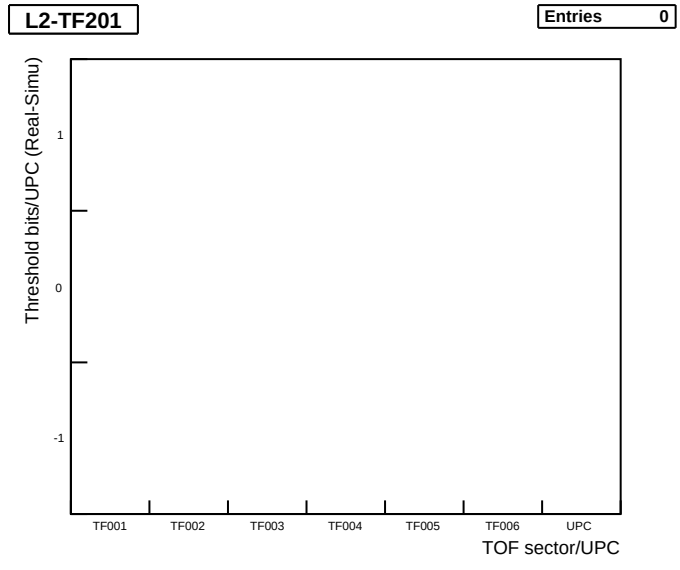

MIX-TF101
Entries 300000
TOF UPC-TH-EastHigh
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

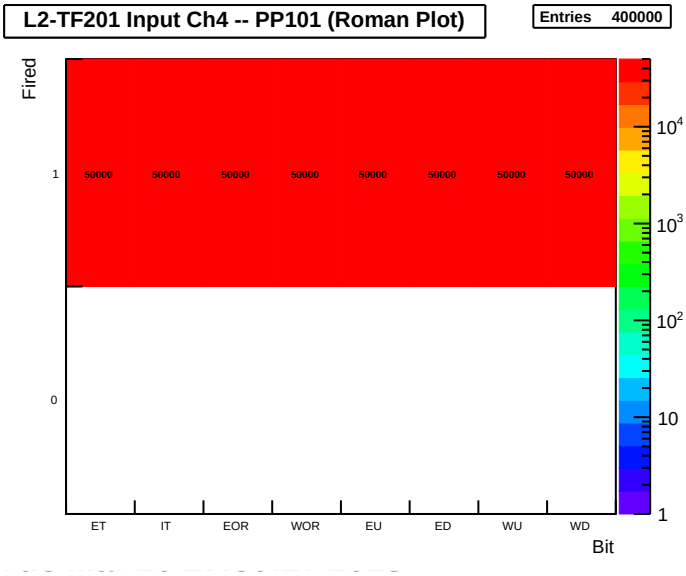

MIX-TF101
Entries 0
TOF UPC-TH-EastHigh(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

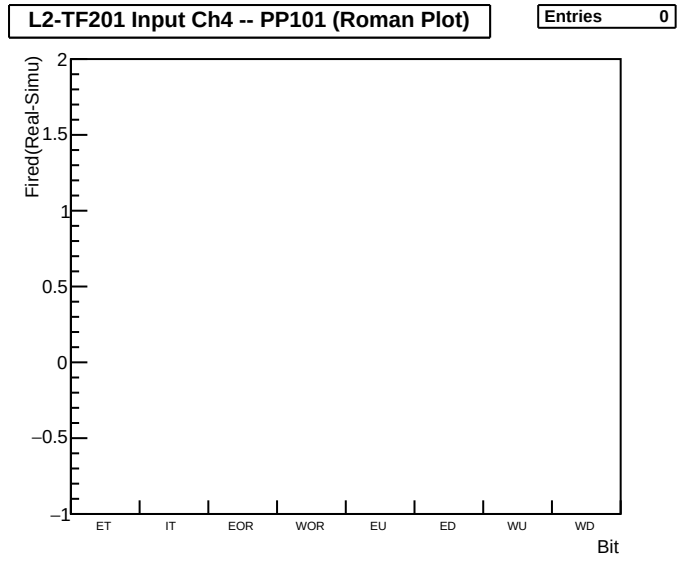

L2-TF201
Entries 50000
10^2
0 10 20 30 40 50 60 70 80 90 100
TOF total mult

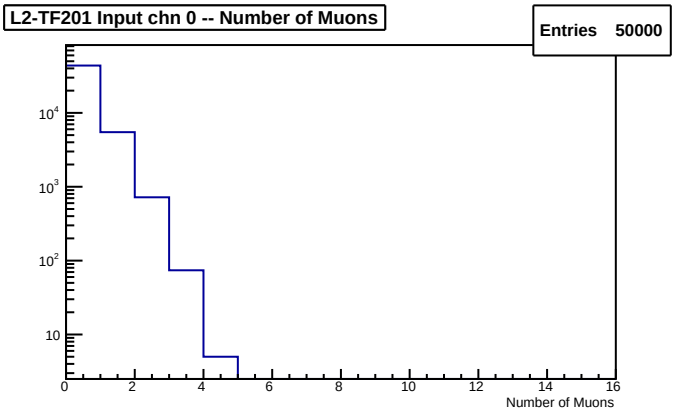

L2-TF201
Entries 0
10
1
10^{-1}
10^{-2}
0 10 20 30 40 50 60 70 80 90 100
TOF total mult(Real-Simu)

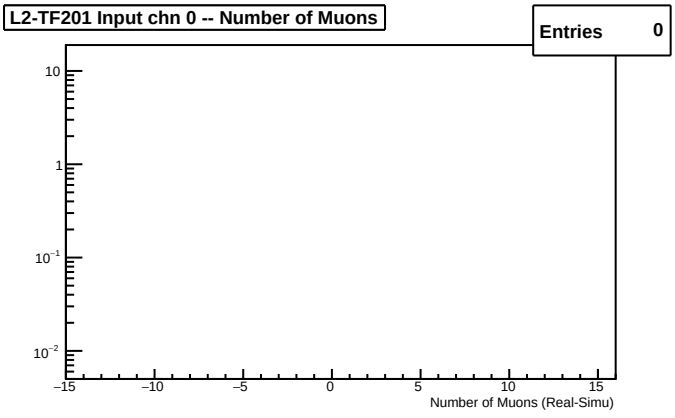

L2-TF201
Entries 350000
Threshold/UPC bits
1
0
48423 48308 48293 48331 48503 48355 49185
1577 1692 1707 1669 1497 1645 815
10^4
10^3
TF001 TF002 TF003 TF004 TF005 TF006 UPC
TOF sector/UPC

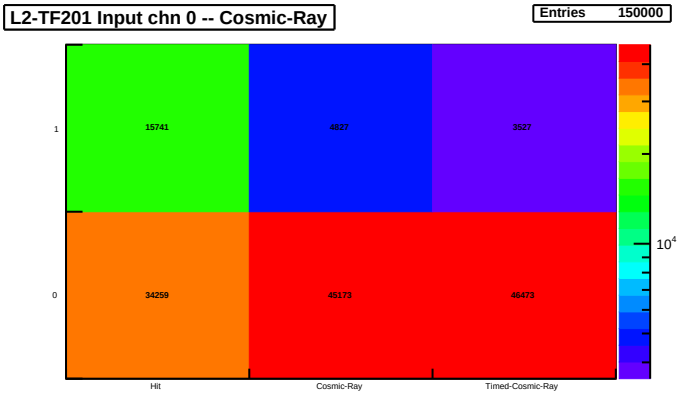

L2-TF201
Entries 0
Threshold bits/UPC (Real-Simu)
1
0
-1
TF001 TF002 TF003 TF004 TF005 TF006 UPC
TOF sector/UPC

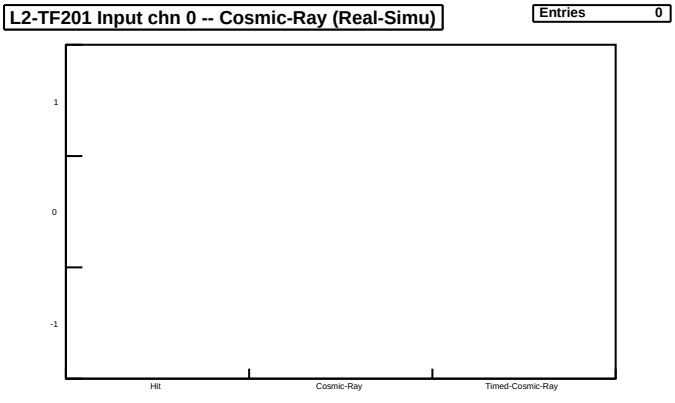

L2-TF201 Input Ch4 -- PP101 (Roman Plot)
Entries 400000
Fired
1
0
50000 50000 50000 50000 50000 50000 50000 50000
10^4
10^3
10^2
10
1
ET IT EOR WOR EU ED WU WD
Bit

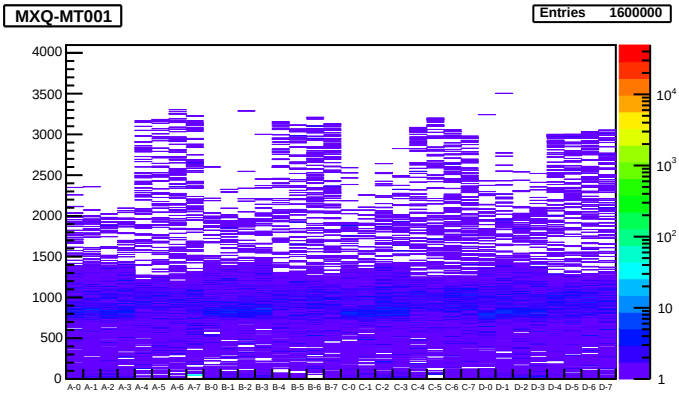

L2-TF201 Input Ch4 -- PP101 (Roman Plot)
Entries 0
Fired(Real-Simu)
2
1.5
1
0.5
0
−0.5
−1
ET IT EOR WOR EU ED WU WD
Bit

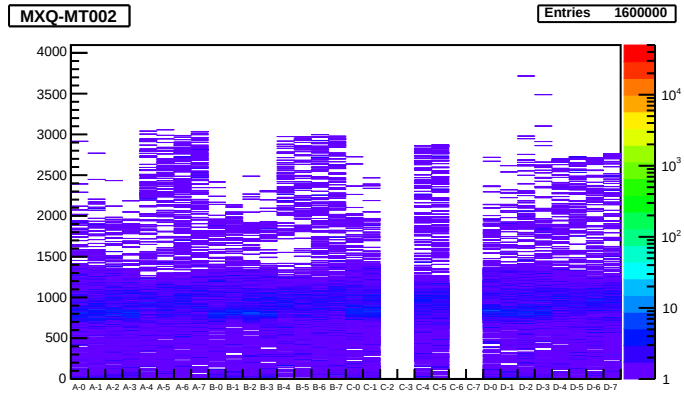

L2-TF201 Input chn 0 -- Number of Muons
Entries 50000
Number of Muons

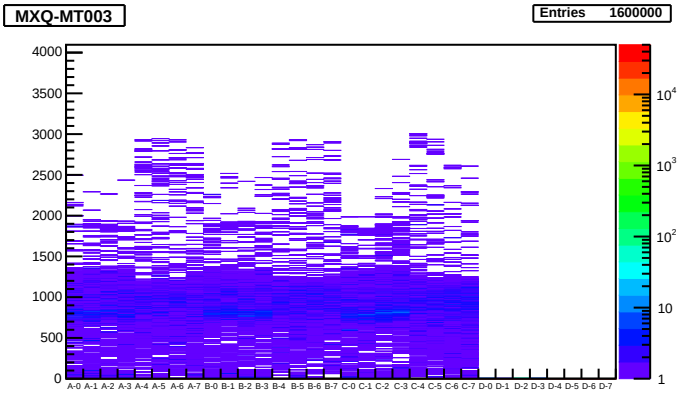

L2-TF201 Input chn 0 -- Number of Muons
Entries 0
Number of Muons (Real-Simu)

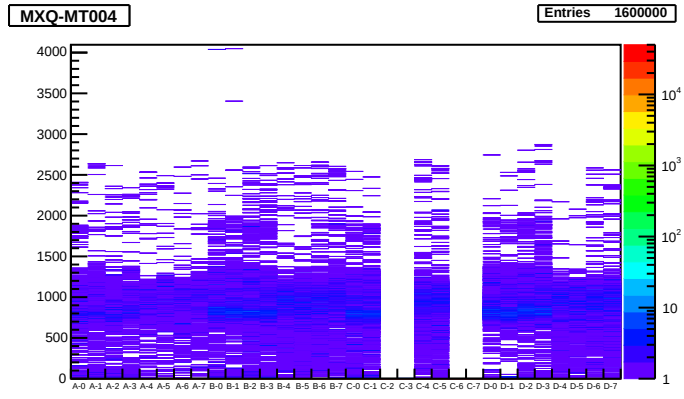

L2-TF201 Input chn 0 -- Cosmic-Ray
Entries 150000
15741
4827
3527
34259
45173
46473
Hit
Cosmic-Ray
Timed-Cosmic-Ray

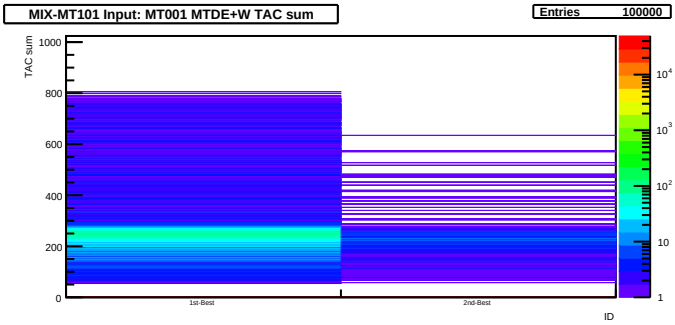

L2-TF201 Input chn 0 -- Cosmic-Ray (Real-Simu)
Entries 0
Hit
Cosmic-Ray
Timed-Cosmic-Ray

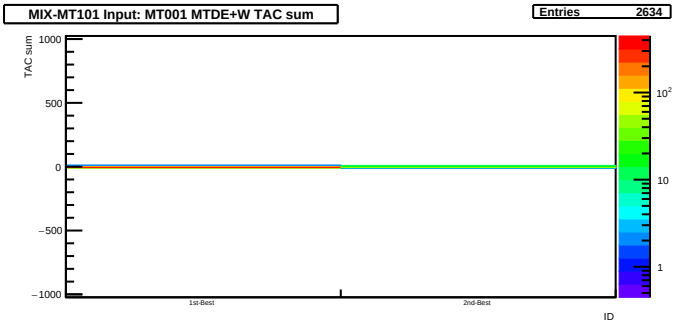

MXQ-MT001
Entries 1600000
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^4
10^3
10^2
10
1

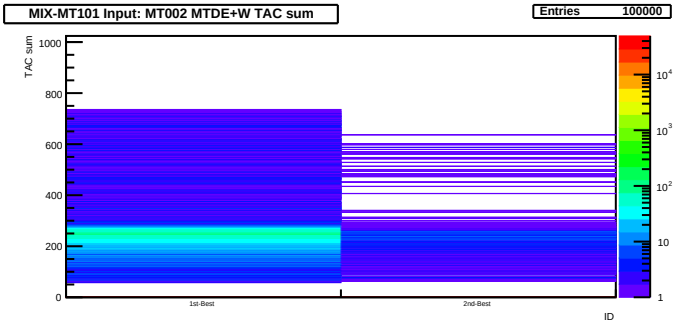

MXQ-MT002
Entries 1600000
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^4
10^3
10^2
10
1

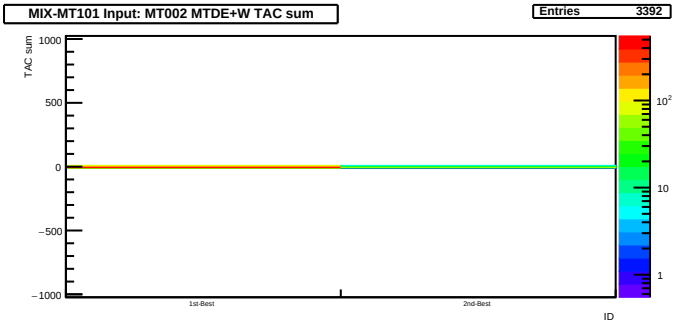

MXQ-MT003
Entries 1600000
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^4
10^3
10^2
10
1

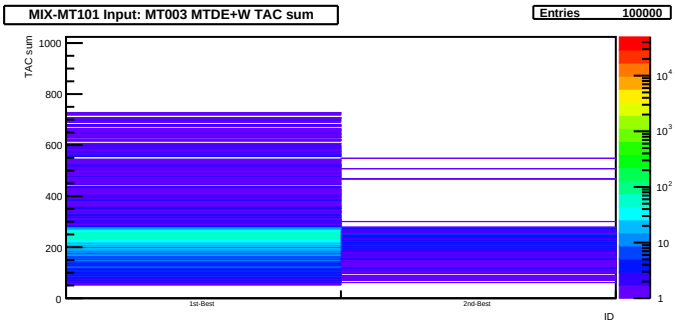

MXQ-MT004
Entries 1600000
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^4
10^3
10^2
10
1

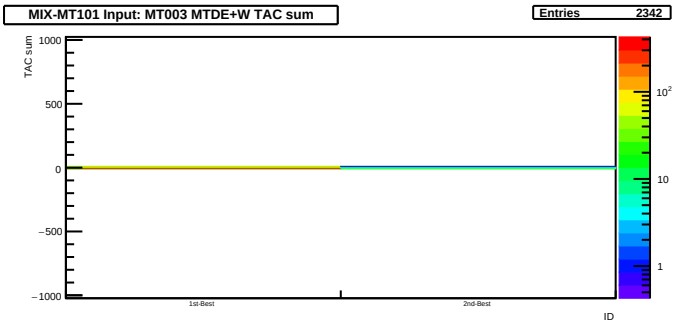

MIX-MT101 Input: MT001 MTDE+W TAC sum
Entries 100000
TAC sum
1st-Best
2nd-Best
ID

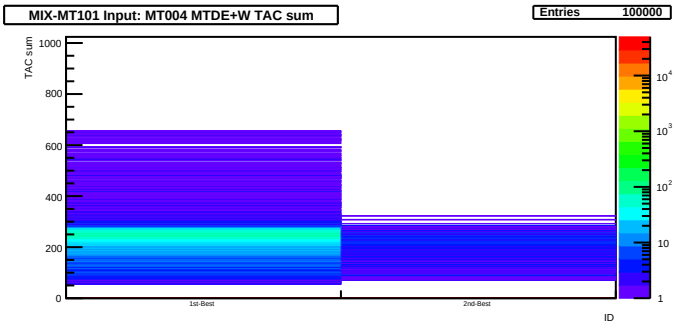

MIX-MT101 Input: MT001 MTDE+W TAC sum
Entries 2634
TAC sum
1st-Best
2nd-Best
ID

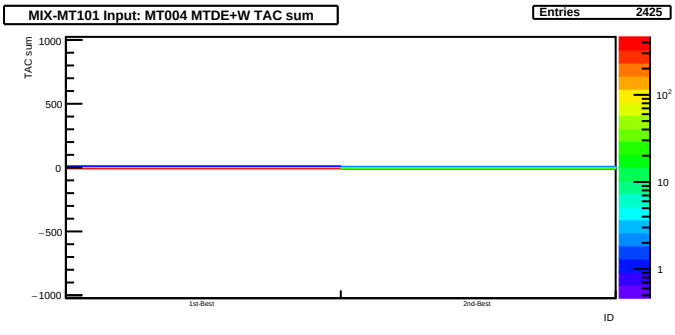

MIX-MT101 Input: MT002 MTDE+W TAC sum
Entries 100000
TAC sum
1st-Best
2nd-Best
ID

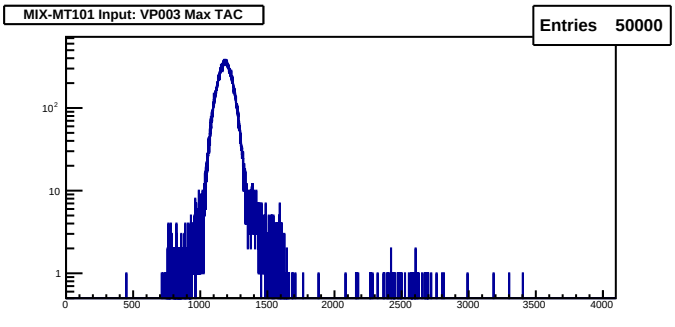

MIX-MT101 Input: MT002 MTDE+W TAC sum
Entries 3392
TAC sum
1st-Best
2nd-Best
ID

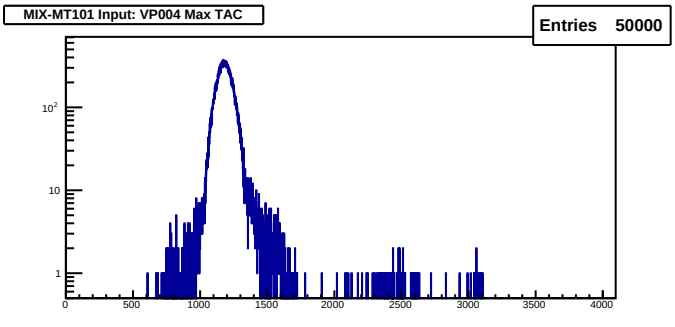

MIX-MT101 Input: MT003 MTDE+W TAC sum
Entries 100000
TAC sum
1st-Best
2nd-Best
ID

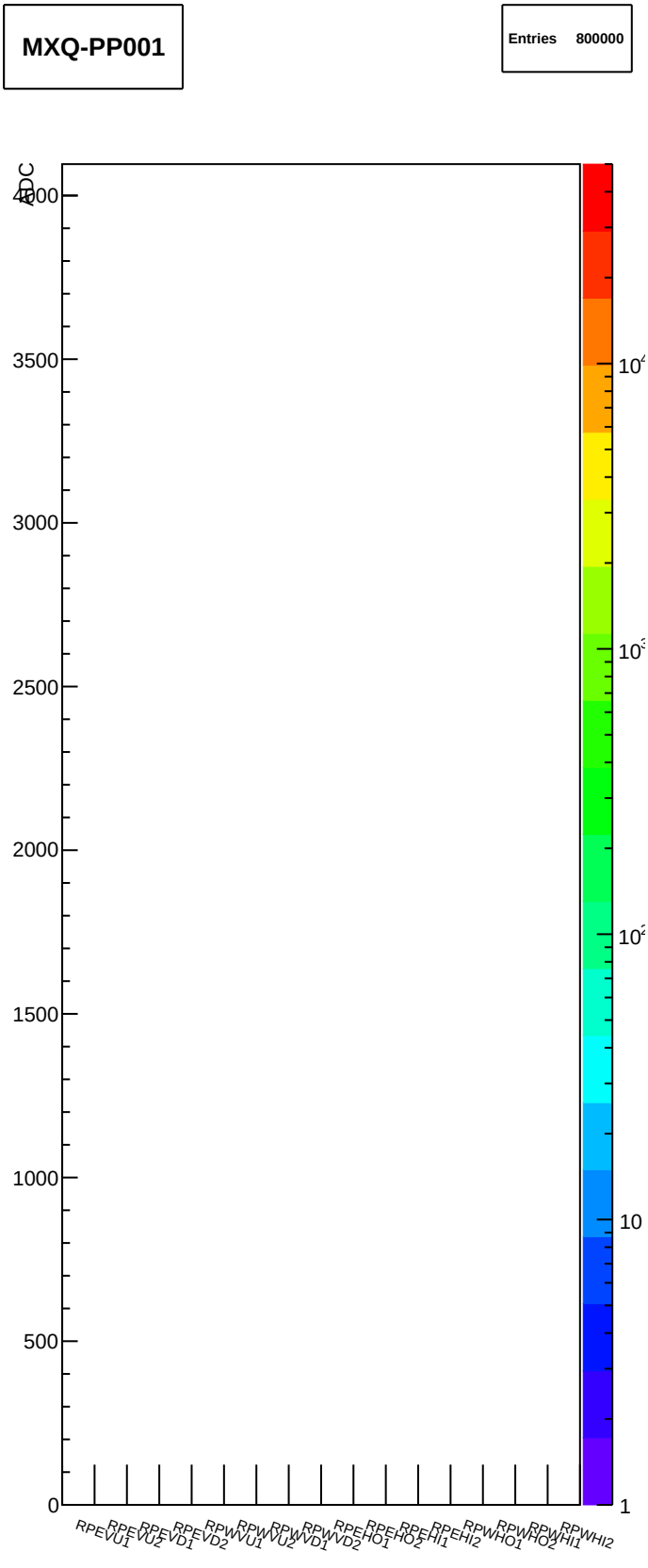

MIX-MT101 Input: MT003 MTDE+W TAC sum
Entries 2342
TAC sum
1st-Best
2nd-Best
ID

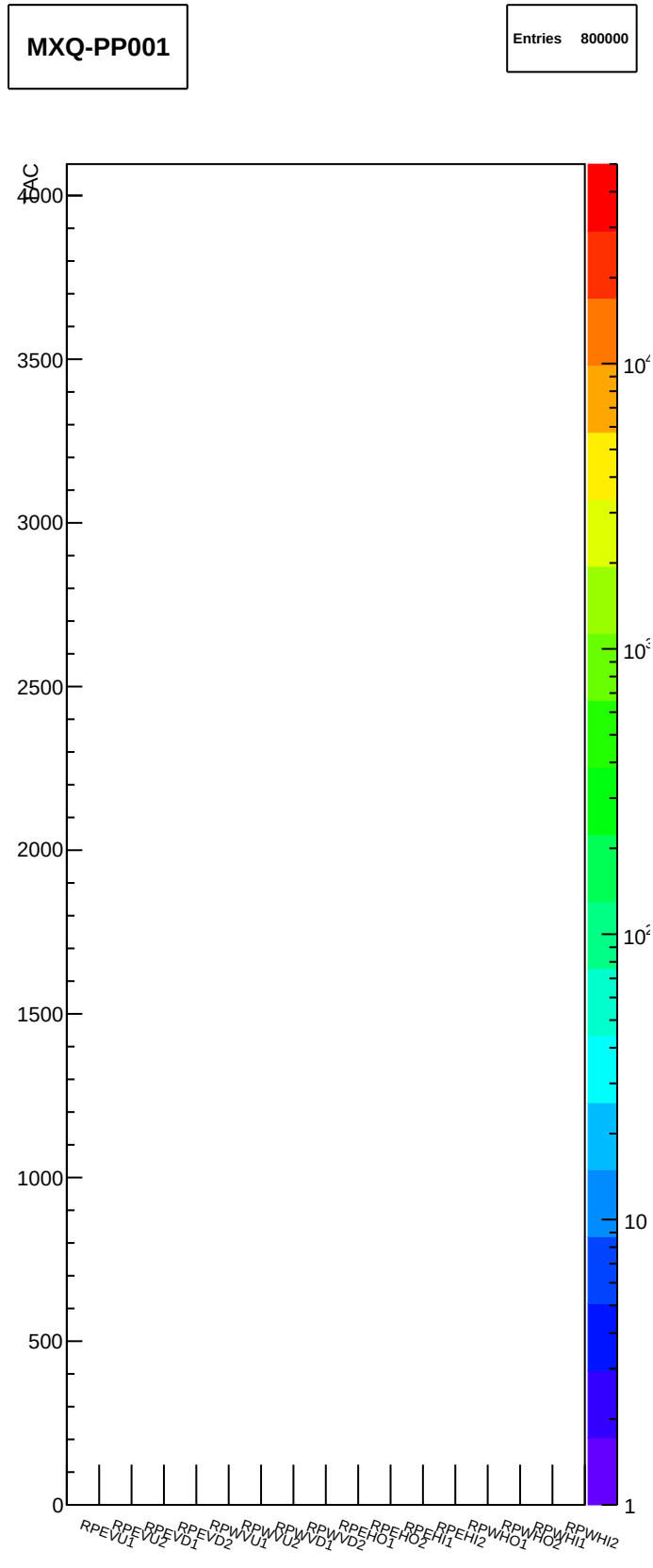

MIX-MT101 Input: MT004 MTDE+W TAC sum
Entries 100000
TAC sum
1st-Best
2nd-Best
ID

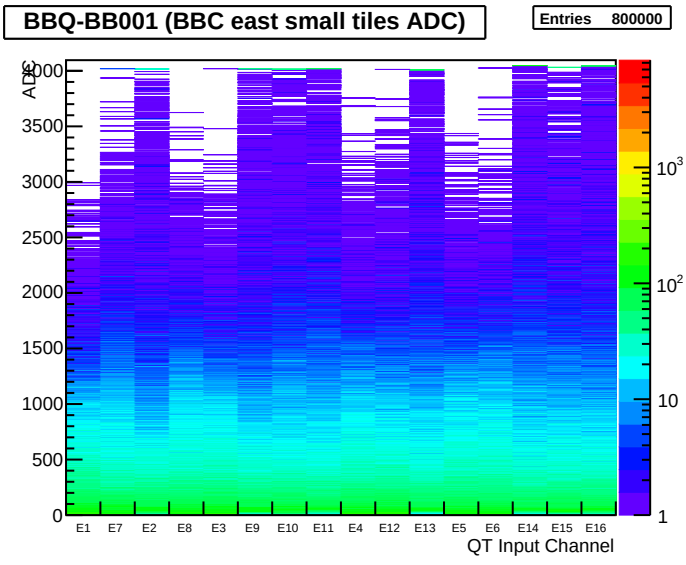

MIX-MT101 Input: MT004 MTDE+W TAC sum
Entries 2425
TAC sum
1st-Best
2nd-Best
ID

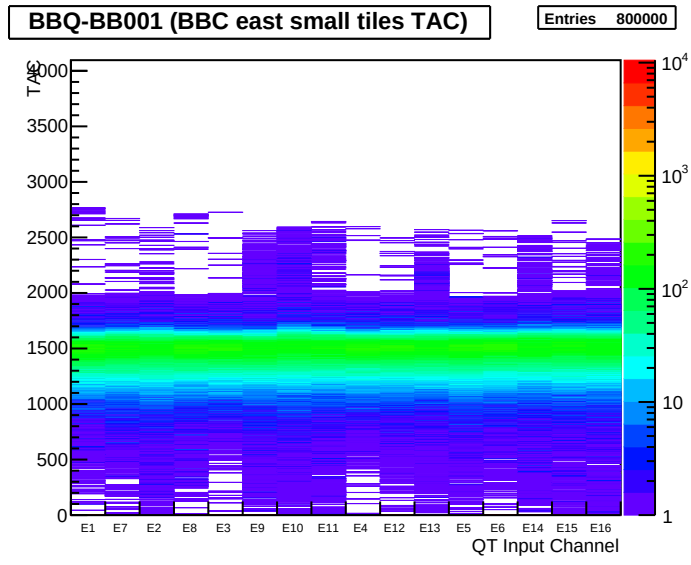

MIX-MT101 Input: VP003 Max TAC
Entries 50000

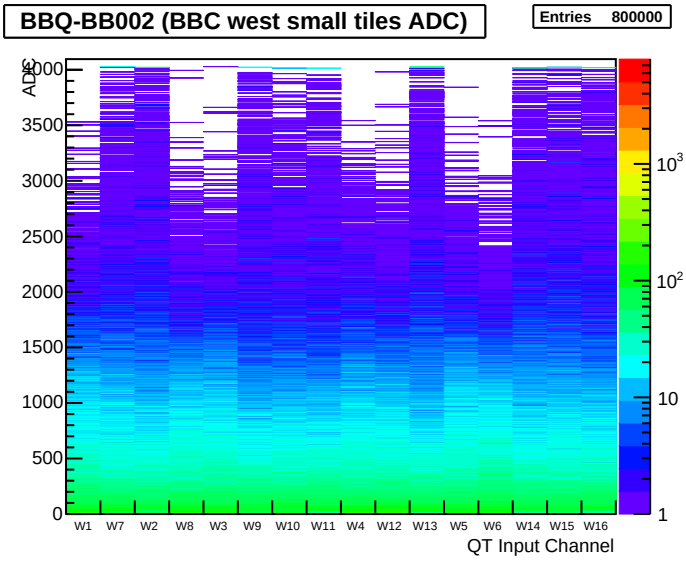

MIX-MT101 Input: VP004 Max TAC
Entries 50000

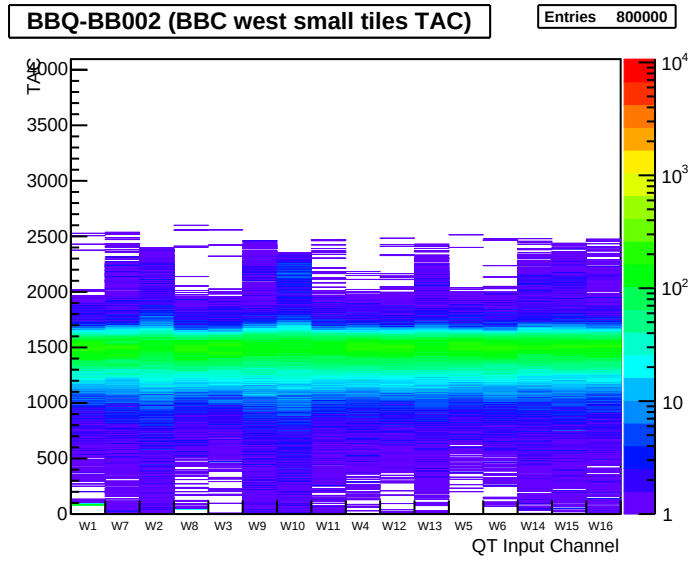

MXQ-PP001
Entries 800000
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
RPEVU1
RPEVU2
RPEVD1
RPEVD2
RPWVU1
RPWVU2
RPWVD1
RPWVD2
RPEHO1
RPEHO2
RPEHI1
RPEHI2
RPWHO1
RPWHO2
RPWHI1
RPWHI2
10
1

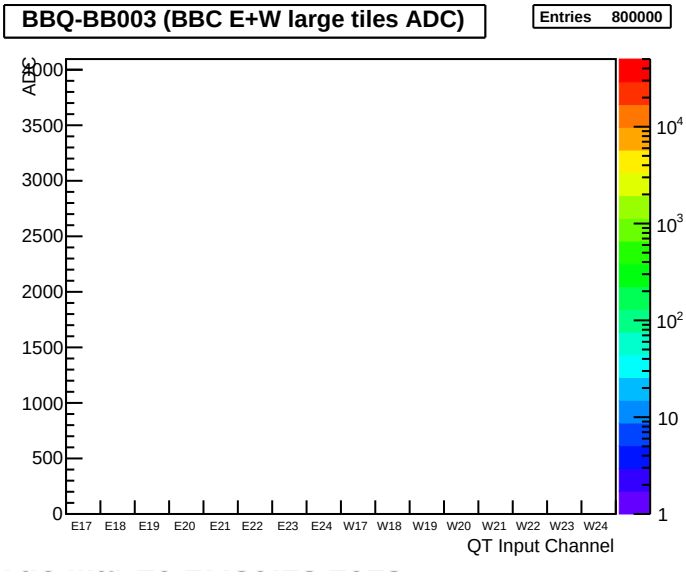

MXQ-PP001
Entries 800000
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
RPEVU1
RPEVU2
RPEVD1
RPEVD2
RPWVU1
RPWVU2
RPWVD1
RPWVD2
RPEHO1
RPEHO2
RPEHI1
RPEHI2
RPWHO1
RPWHO2
RPWHI1
RPWHI2
10
1

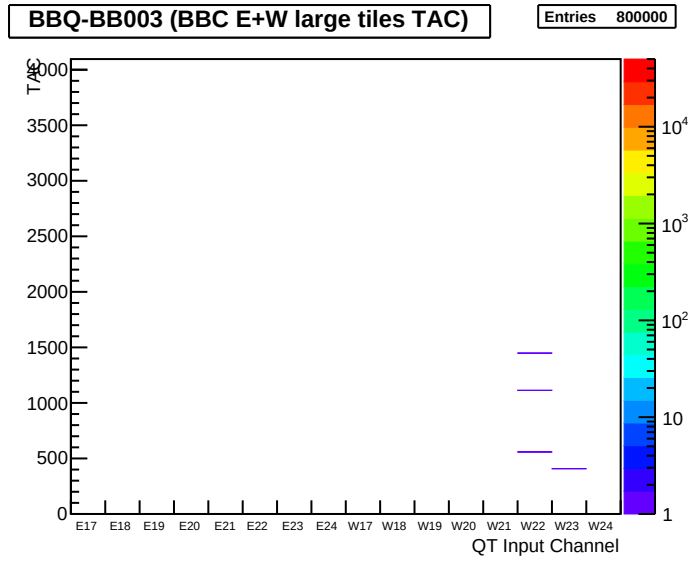

BBQ-BB001 (BBC east small tiles ADC)
Entries 800000
ADC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

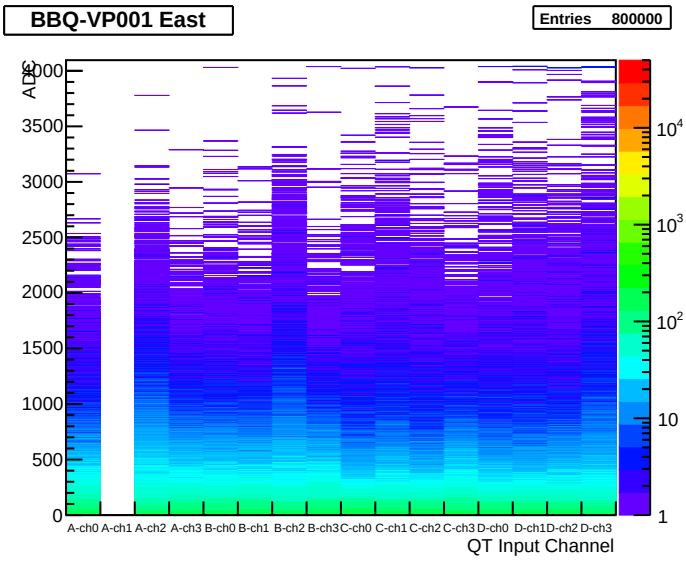

BBQ-BB001 (BBC east small tiles TAC)
Entries 800000
TAC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

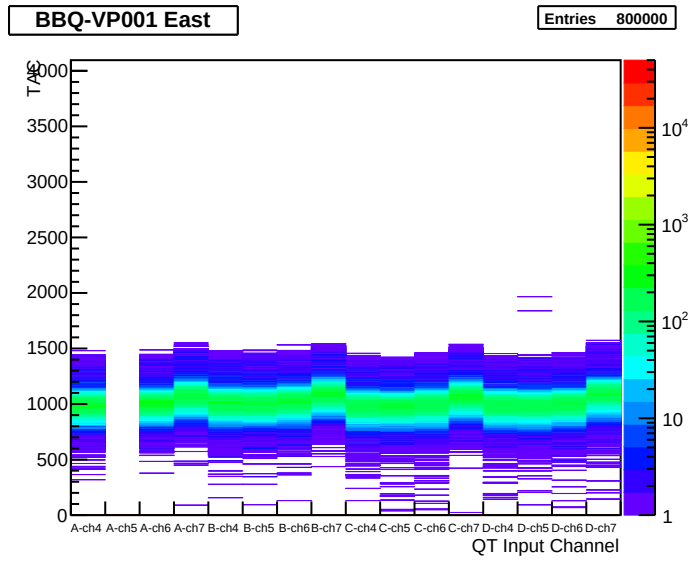

BBQ-BB002 (BBC west small tiles ADC)
Entries 800000
ADC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

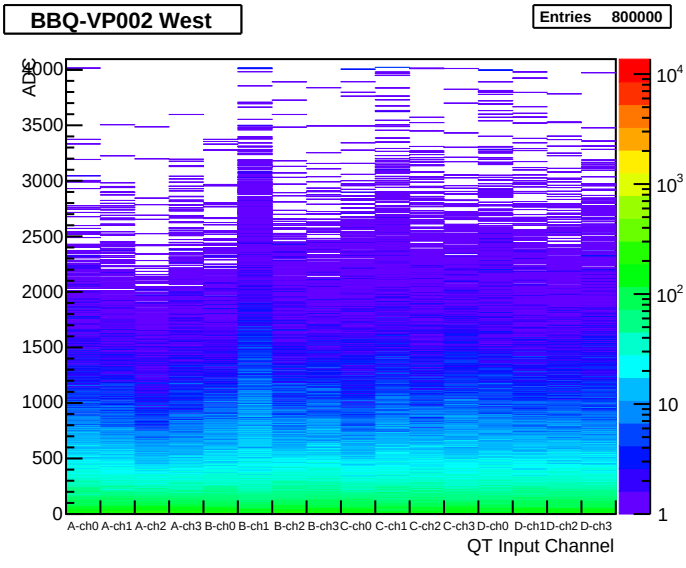

BBQ-BB002 (BBC west small tiles TAC)
Entries 800000
TAC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

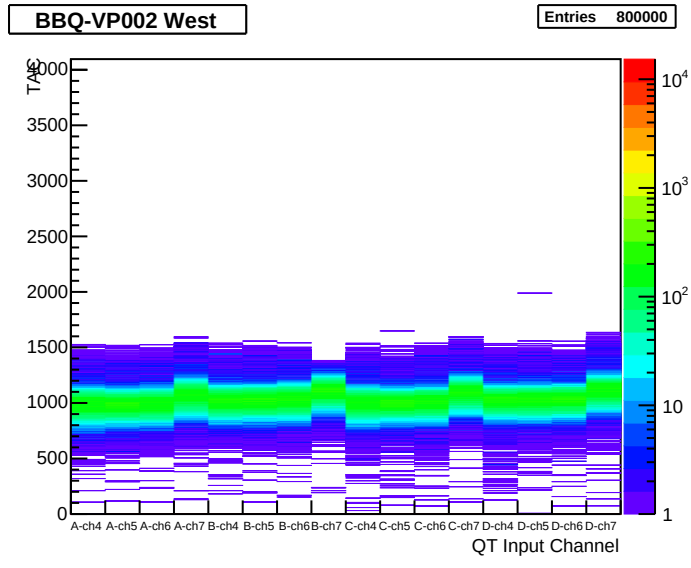

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 800000
ADC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

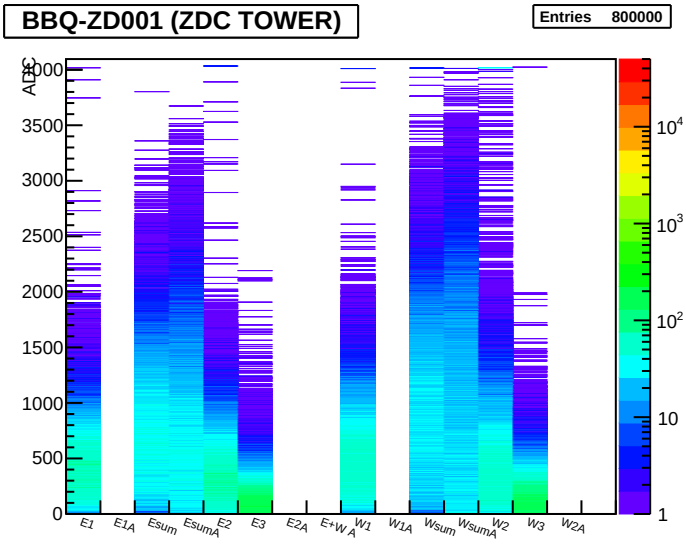

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 800000
TAC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

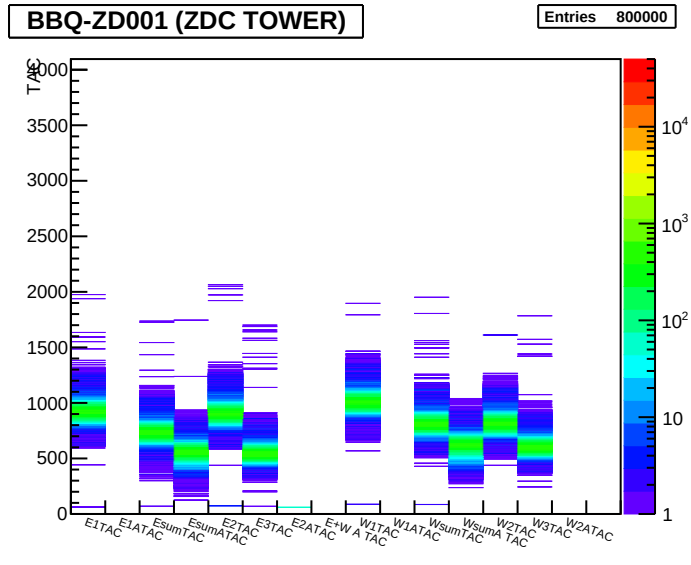

BBQ-VP001 East
Entries 800000
ADC
QT Input Channel

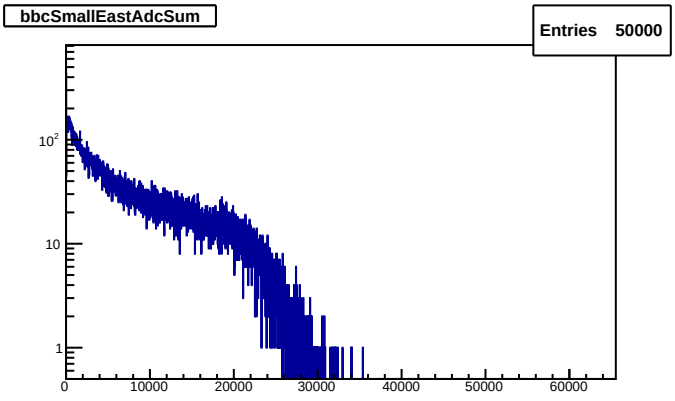

BBQ-VP001 East
Entries 800000
TAC
QT Input Channel

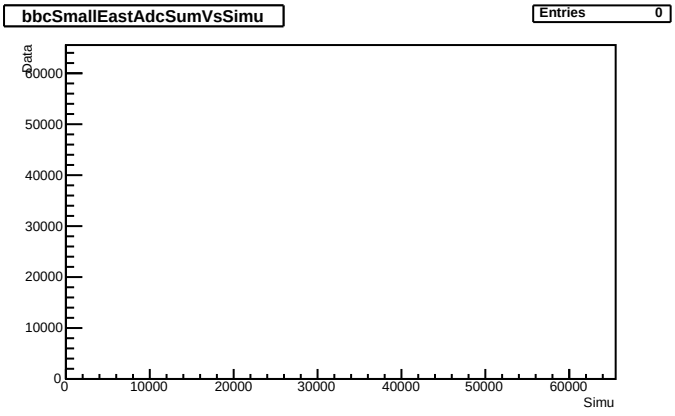

BBQ-VP002 West
Entries 800000
ADC
QT Input Channel

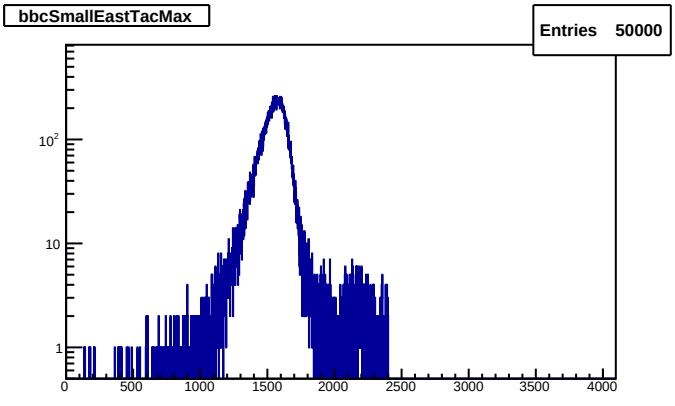

BBQ-VP002 West
Entries 800000
TAC
QT Input Channel

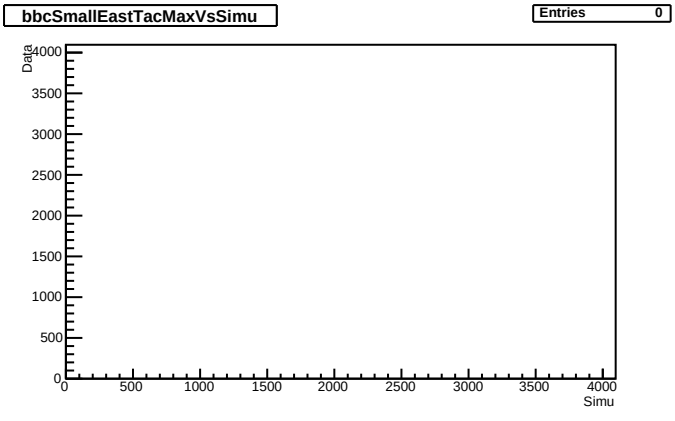

BBQ-ZD001 (ZDC TOWER)
Entries 800000
ADC

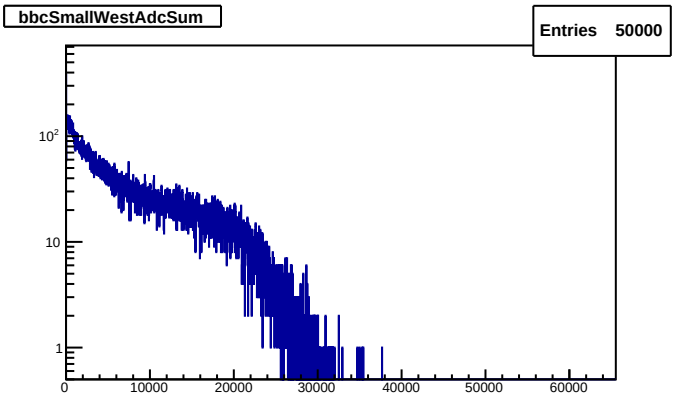

BBQ-ZD001 (ZDC TOWER)
Entries 800000
TAC

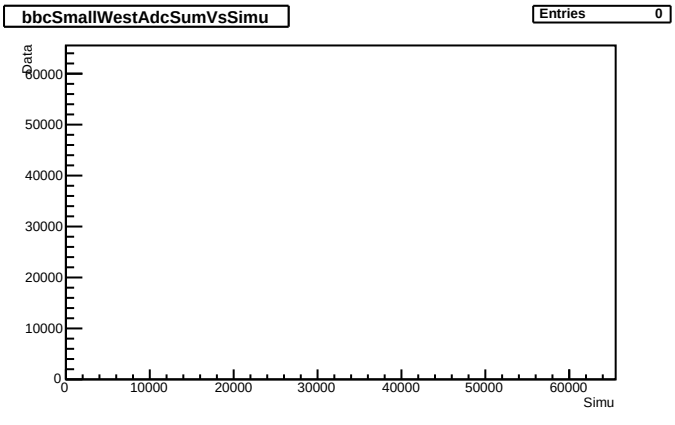

bbcSmallEastAdcSum
Entries 50000

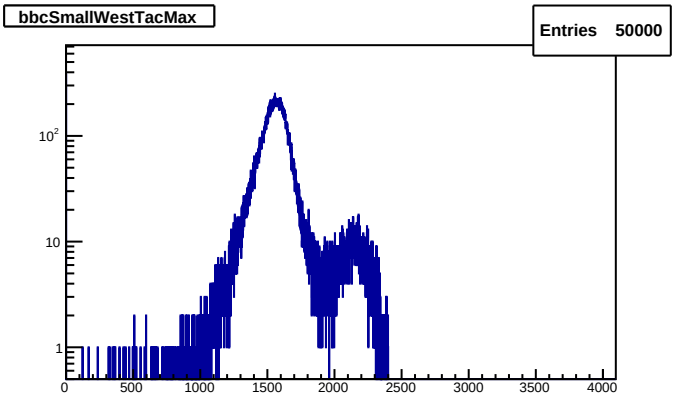

bbcSmallEastAdcSumVsSimu
Entries 0
Data
Simu

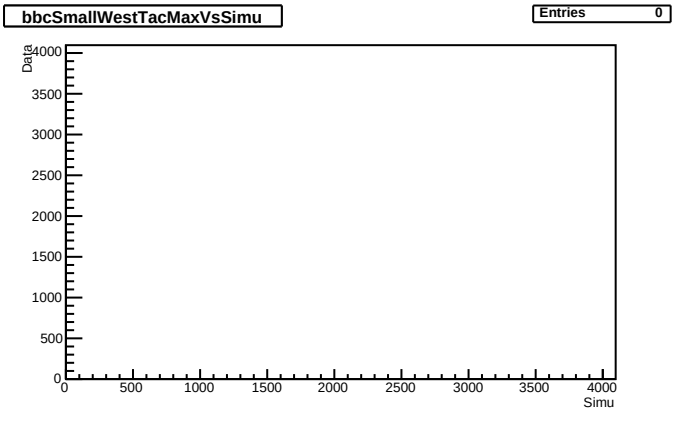

bbcSmallEastTacMax
Entries 50000

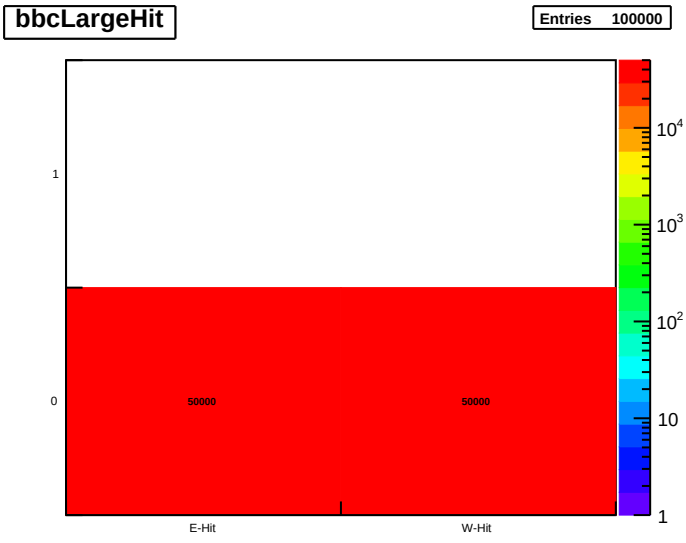

bbcSmallEastTacMaxVsSimu
Entries 0
Data
Simu

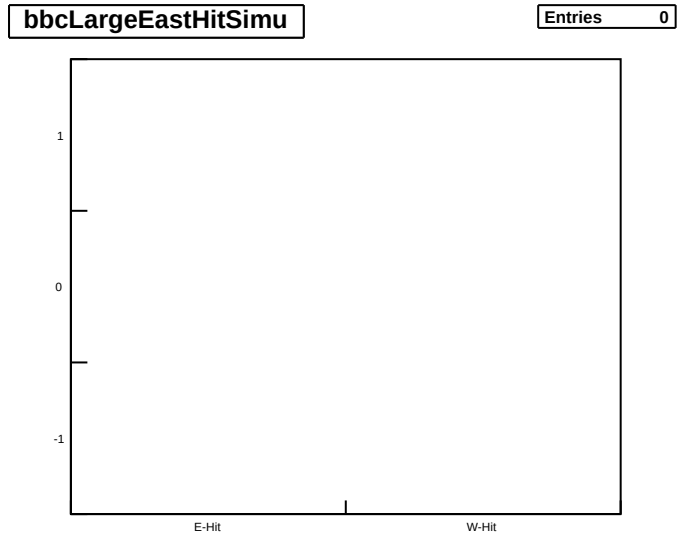

bbcSmallWestAdcSum
Entries 50000

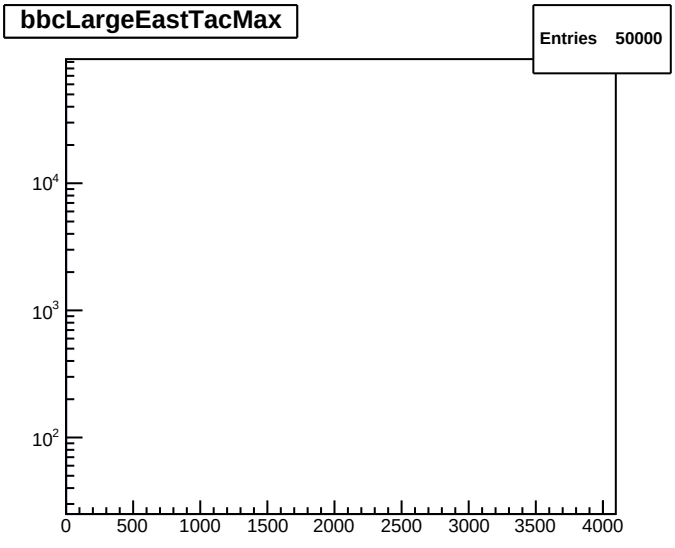

bbcSmallWestAdcSumVsSimu
Entries 0
Data
Simu

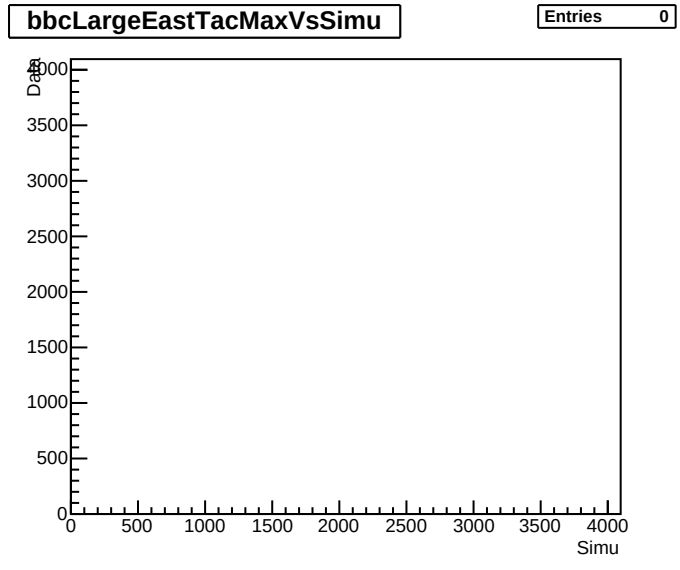

bbcSmallWestTacMax
Entries 50000

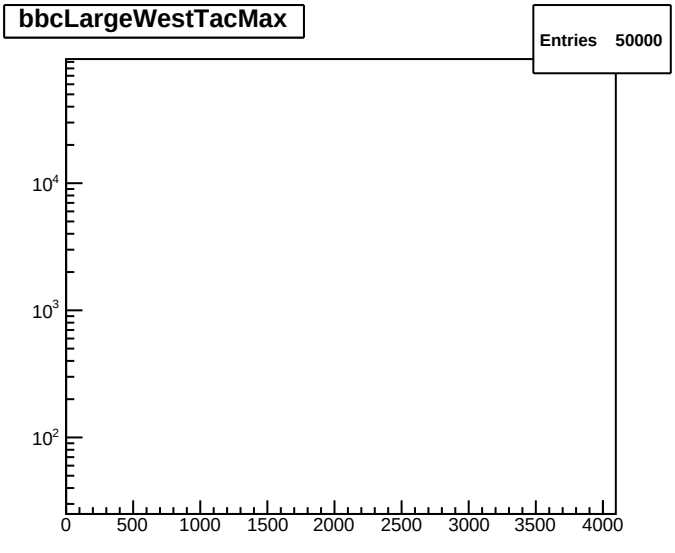

bbcSmallWestTacMaxVsSimu
Entries 0
Data
Simu

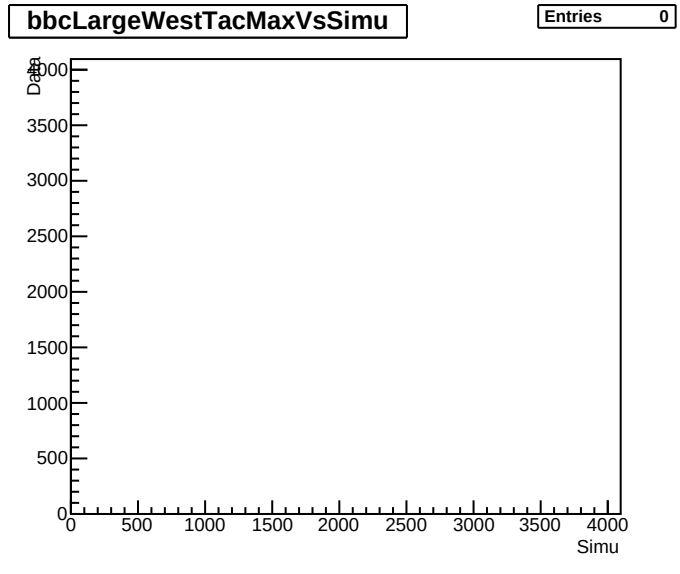

bbcLargeHit
Entries 100000
1
0
50000
50000
E-Hit
W-Hit
10^4
10^3
10^2
10
1

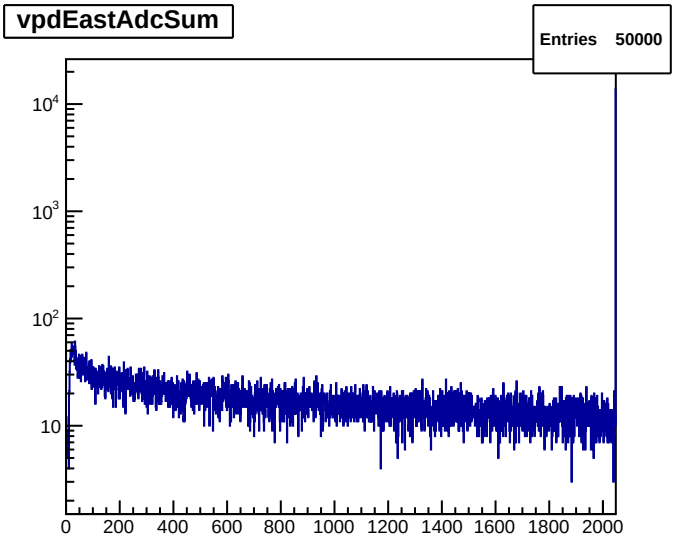

bbcLargeEastHitSimu
Entries 0
1
0
-1
E-Hit
W-Hit

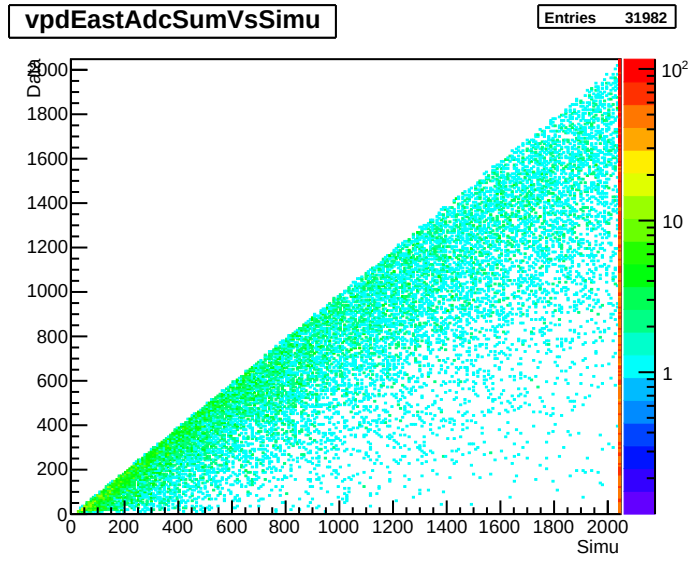

bbcLargeEastTacMax
Entries 50000
10^4
10^3
10^2
0
500
1000
1500
2000
2500
3000
3500
4000

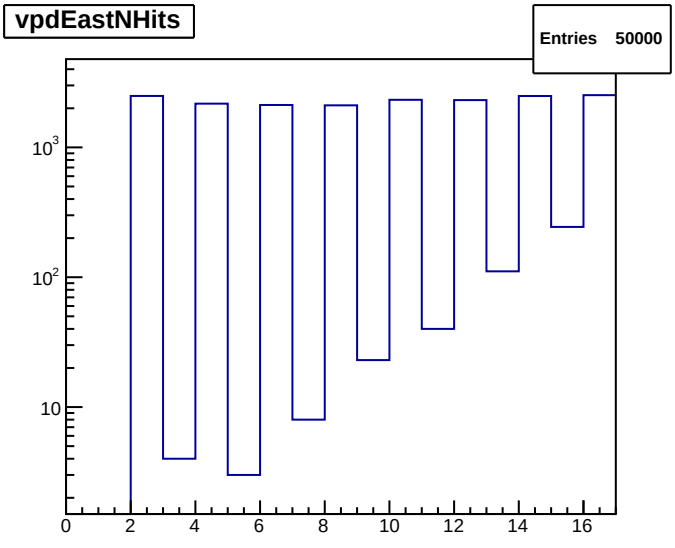

bbcLargeEastTacMaxVsSimu
Entries 0
Data
4000
3500
3000
2500
2000
1500
1000
500
0
0
500
1000
1500
2000
2500
3000
3500
4000
Simu

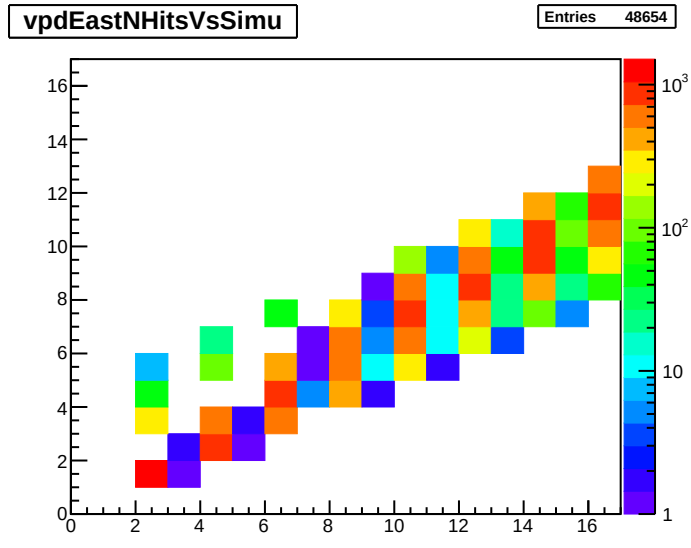

bbcLargeWestTacMax
Entries 50000
10^4
10^3
10^2
0
500
1000
1500
2000
2500
3000
3500
4000

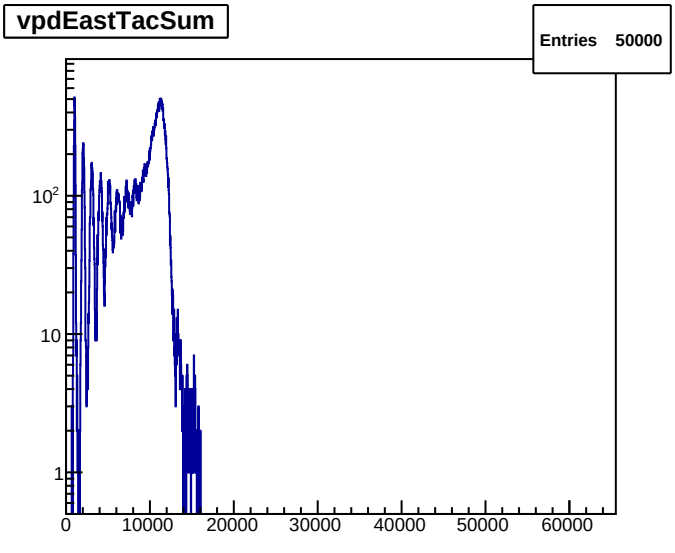

bbcLargeWestTacMaxVsSimu
Entries 0
Data
4000
3500
3000
2500
2000
1500
1000
500
0
0
500
1000
1500
2000
2500
3000
3500
4000
Simu

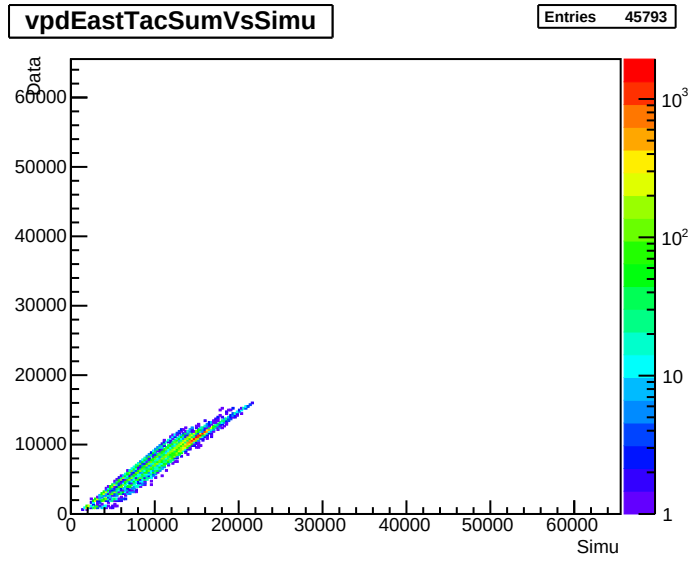

vpdEastAdcSum
Entries 50000

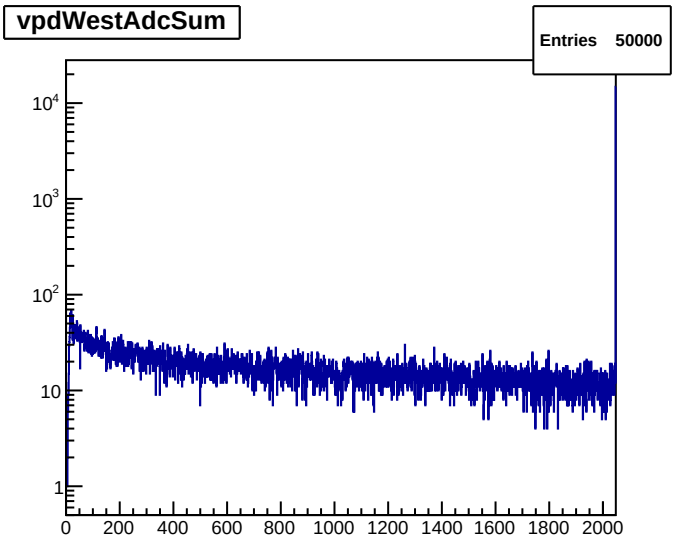

vpdEastAdcSumVsSimu
Entries 31982
Data
Simu

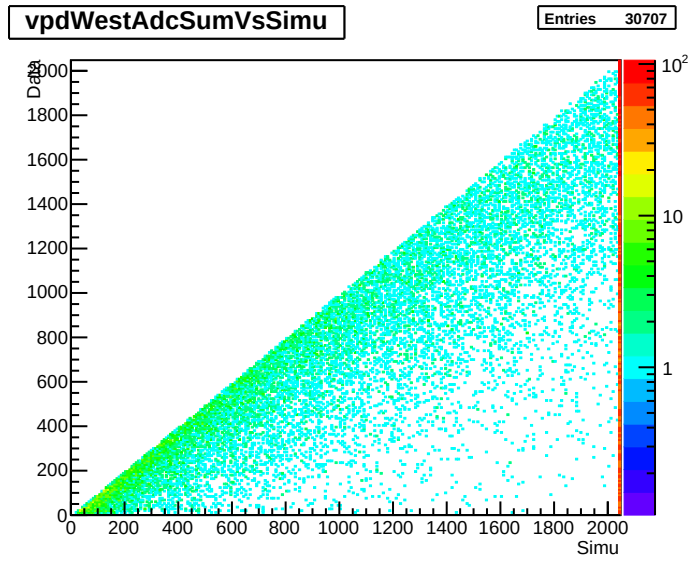

vpdEastNHits
Entries 50000

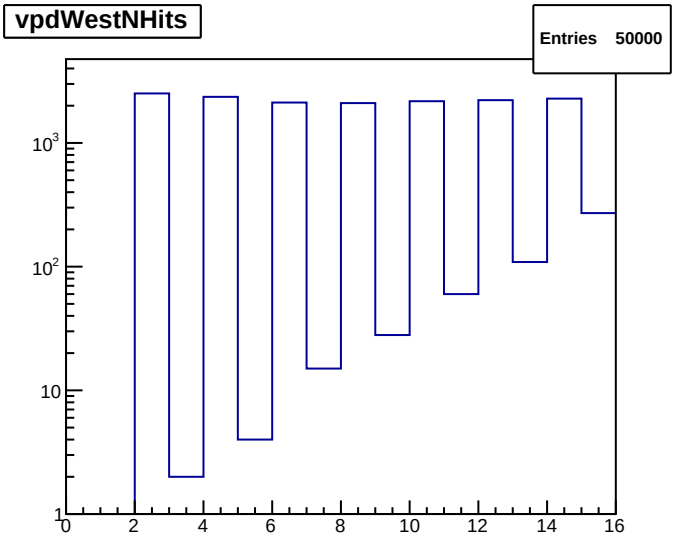

vpdEastNHitsVsSimu
Entries 48654

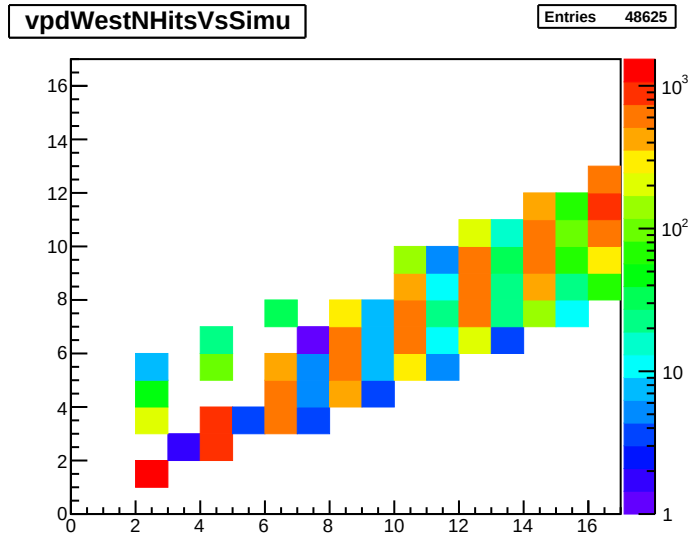

vpdEastTacSum
Entries 50000

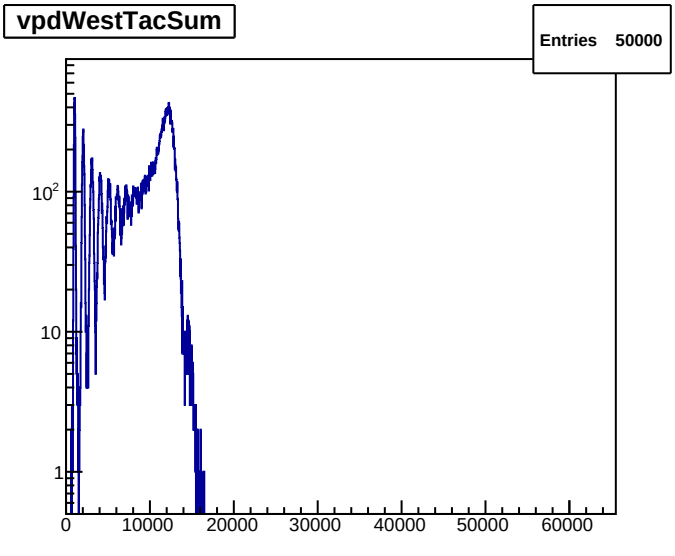

vpdEastTacSumVsSimu
Entries 45793
Data
Simu

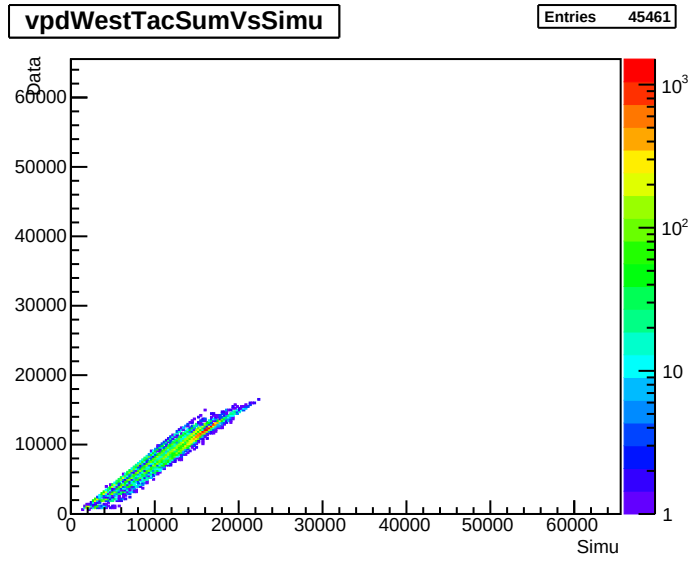

vpdWestAdcSum
Entries 50000

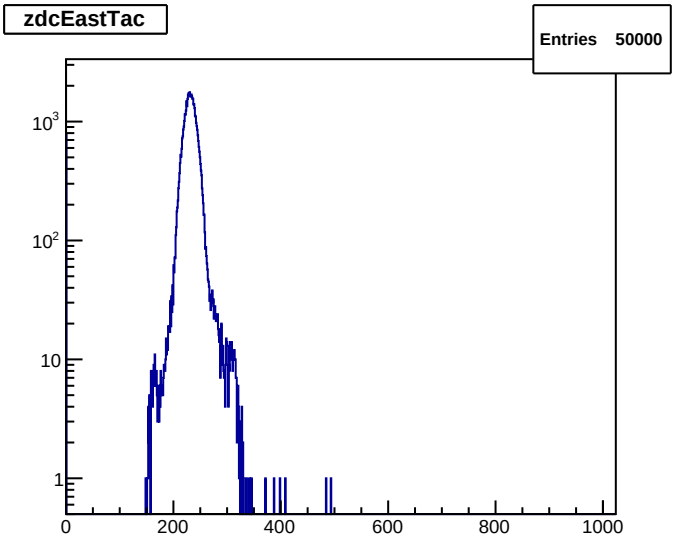

vpdWestAdcSumVsSimu
Entries 30707
Data
Simu

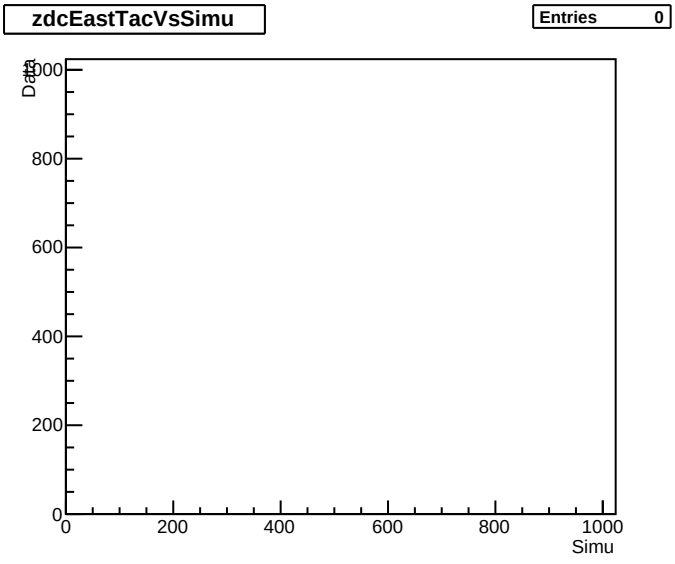

vpdWestNHits
Entries 50000

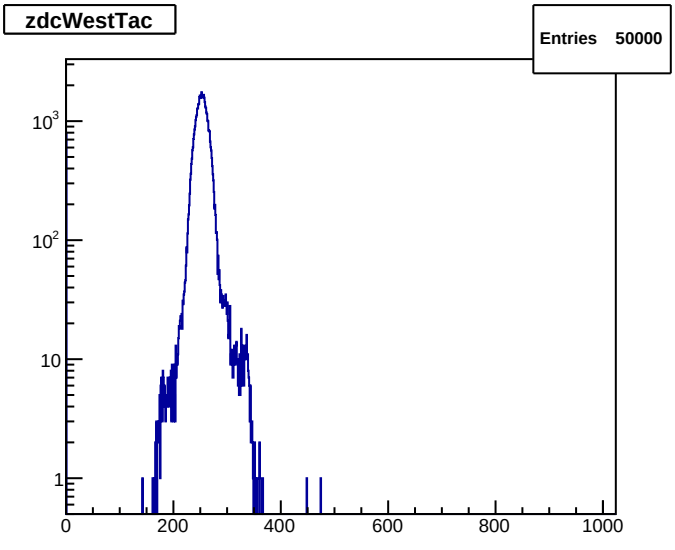

vpdWestNHitsVsSimu
Entries 48625

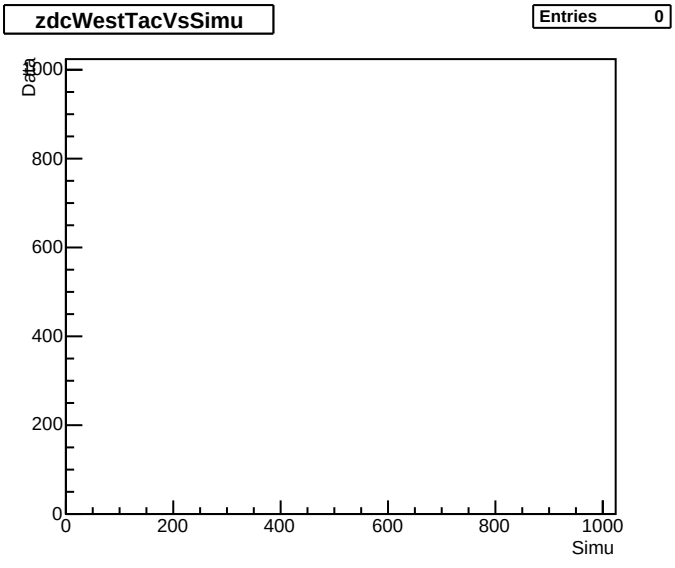

vpdWestTacSum
Entries 50000

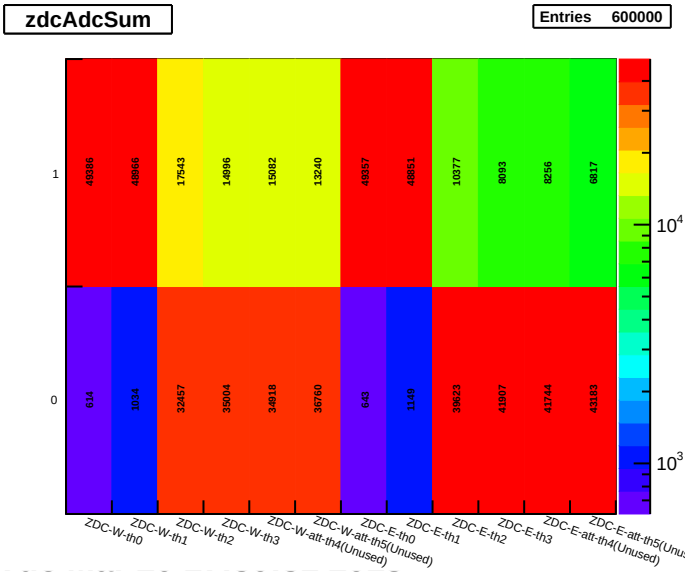

vpdWestTacSumVsSimu
Entries 45461
Data
Simu

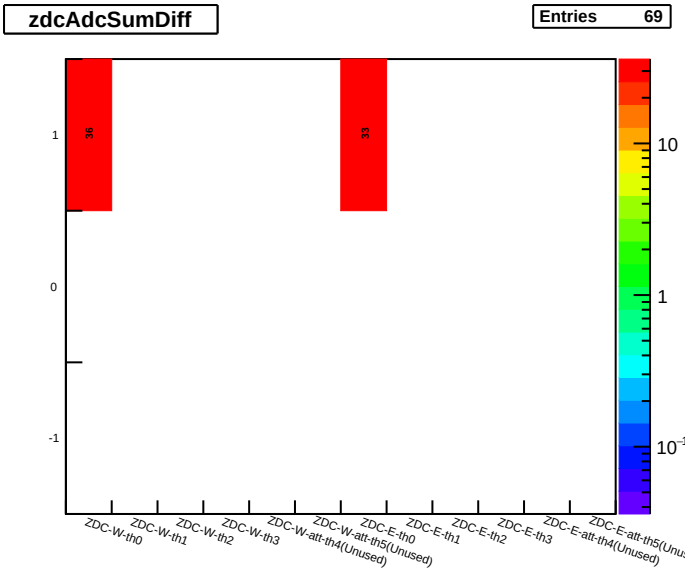

zdcEastTac
Entries 50000
10^3
10^2
10
1
0
200
400
600
800
1000

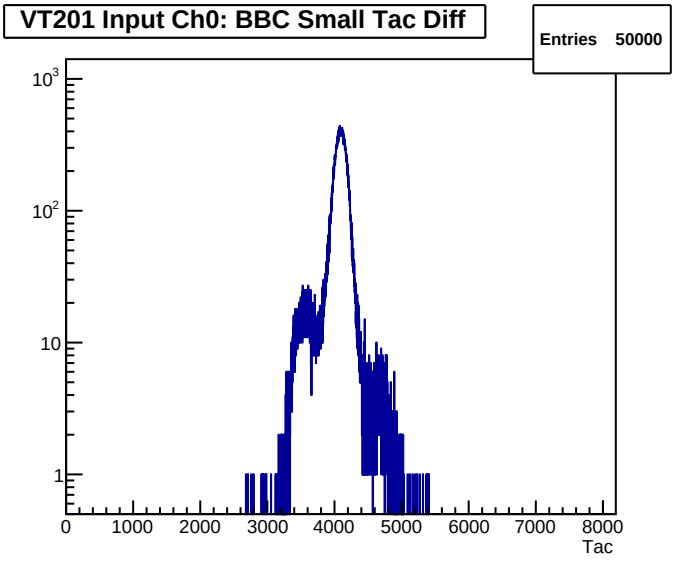

zdcEastTacVsSimu
Entries 0
Data
1000
800
600
400
200
0
0
200
400
600
800
1000
Simu

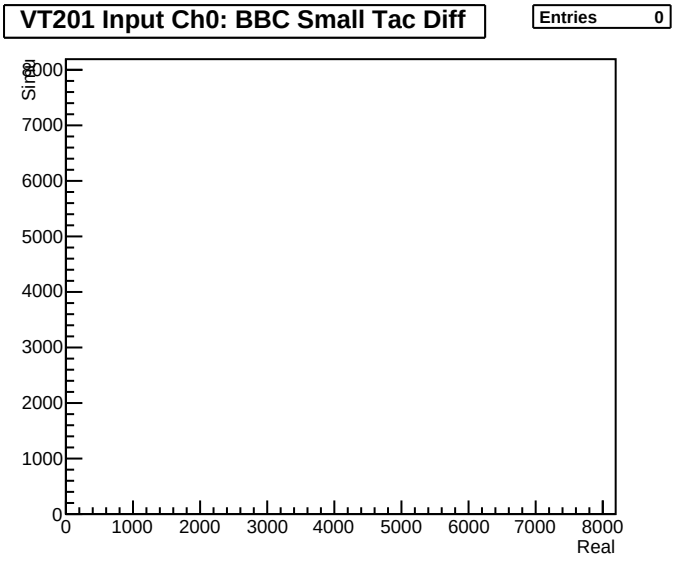

zdcWestTac
Entries 50000
10^3
10^2
10
1
0
200
400
600
800
1000

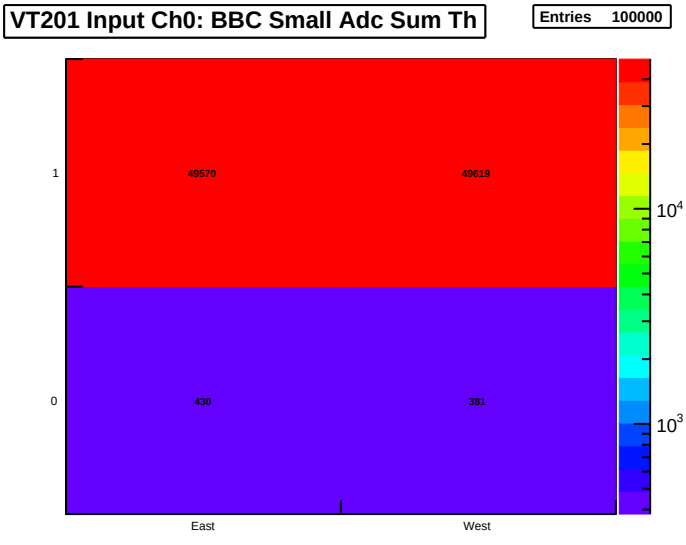

zdcWestTacVsSimu
Entries 0
Data
1000
800
600
400
200
0
0
200
400
600
800
1000
Simu

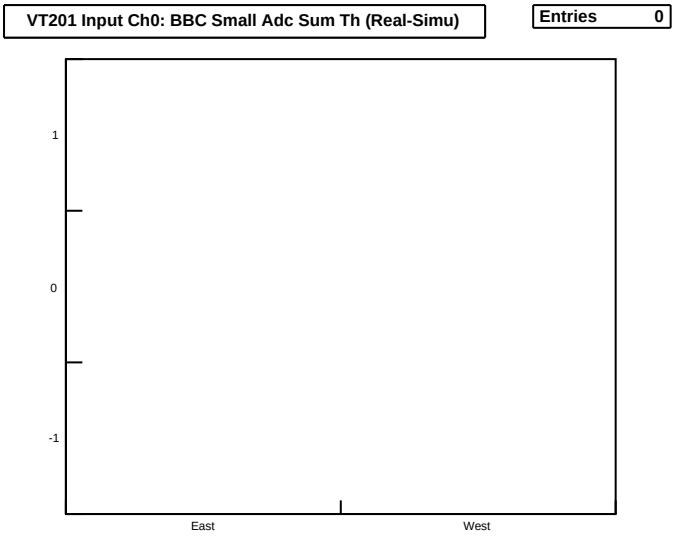

zdcAdcSum
Entries 600000
1
0
49386
48966
17543
14996
15082
13240
49357
48851
10377
8093
8256
6617
614
1034
32457
35004
34918
36760
643
1149
39623
41807
41744
43183
10^4
10^3
ZDC-W-th0
ZDC-W-th1
ZDC-W-th2
ZDC-W-th3
ZDC-W-att-th4(Unused)
ZDC-W-att-th5(Unused)
ZDC-E-th0
ZDC-E-th1
ZDC-E-th2
ZDC-E-th3
ZDC-E-att-th4(Unused)
ZDC-E-att-th5(Unu

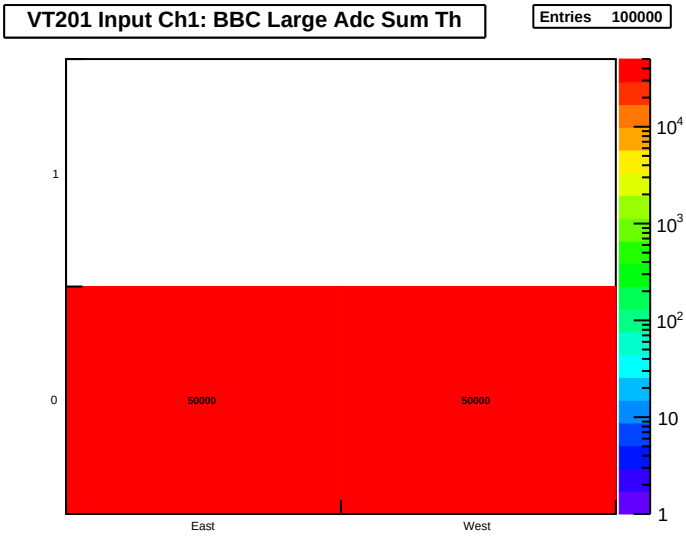

zdcAdcSumDiff
Entries 69
1
0
-1
36
33
10
1
10^{-1}
ZDC-W-th0
ZDC-W-th1
ZDC-W-th2
ZDC-W-th3
ZDC-W-att-th4(Unused)
ZDC-W-att-th5(Unused)
ZDC-E-th0
ZDC-E-th1
ZDC-E-th2
ZDC-E-th3
ZDC-E-att-th4(Unused)
ZDC-E-att-th5(Unu

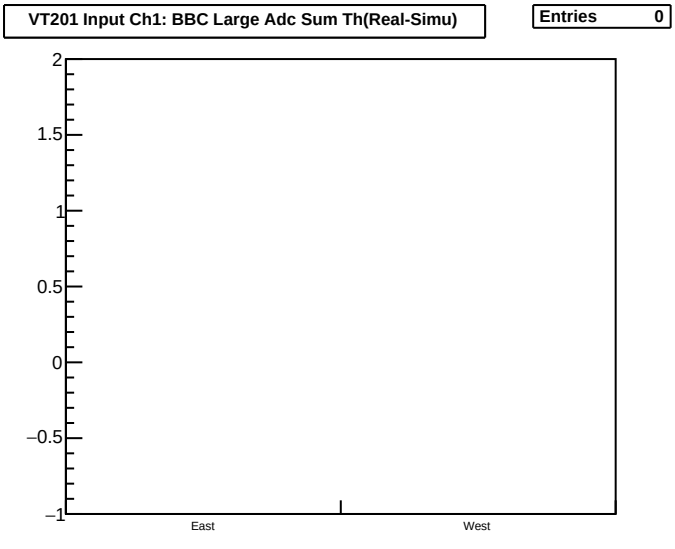

VT201 Input Ch0: BBC Small Tac Diff
Entries 50000
Tac

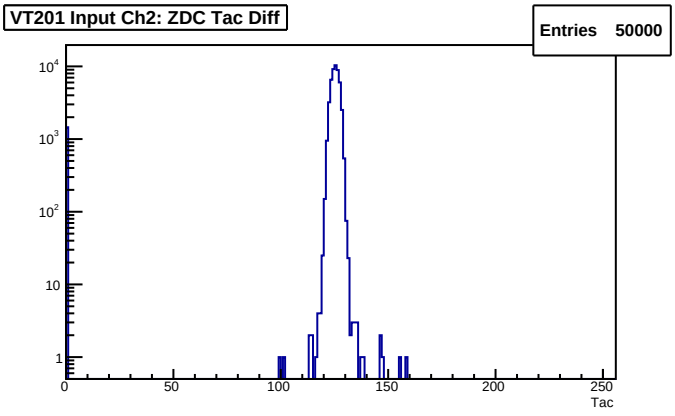

VT201 Input Ch0: BBC Small Tac Diff
Entries 0
Simu
Real

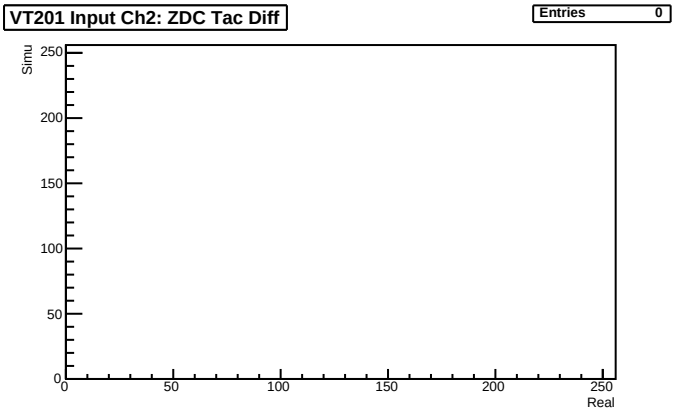

VT201 Input Ch0: BBC Small Adc Sum Th
Entries 100000
49570
49619
430
381
East
West

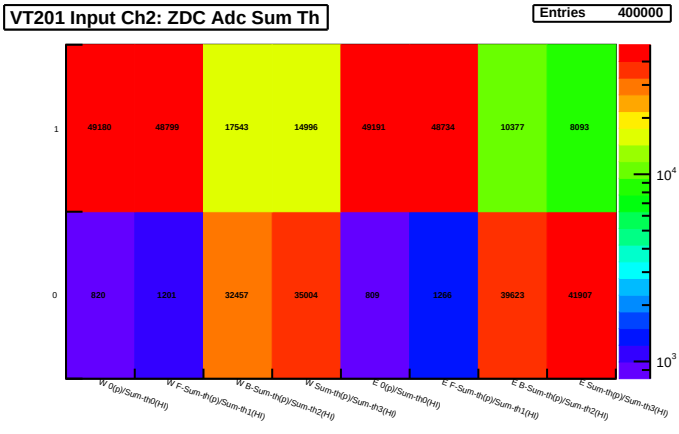

VT201 Input Ch0: BBC Small Adc Sum Th (Real-Simu)
Entries 0
East
West

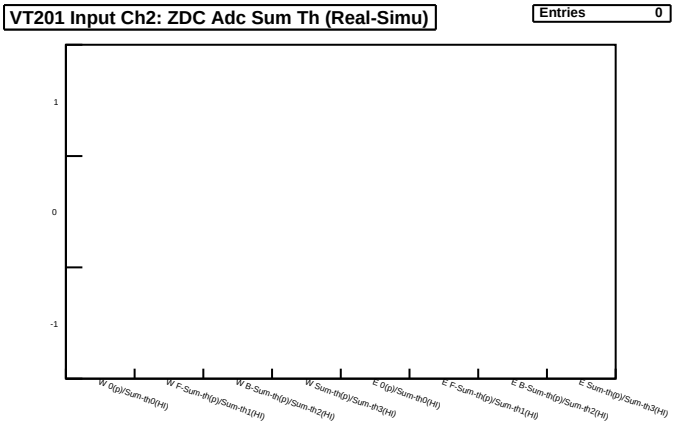

VT201 Input Ch1: BBC Large Adc Sum Th
Entries 100000
50000
50000
East
West

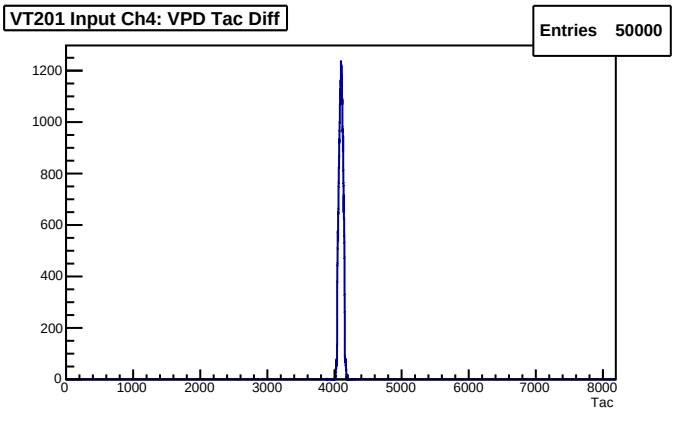

VT201 Input Ch1: BBC Large Adc Sum Th(Real-Simu)
Entries 0
East
West

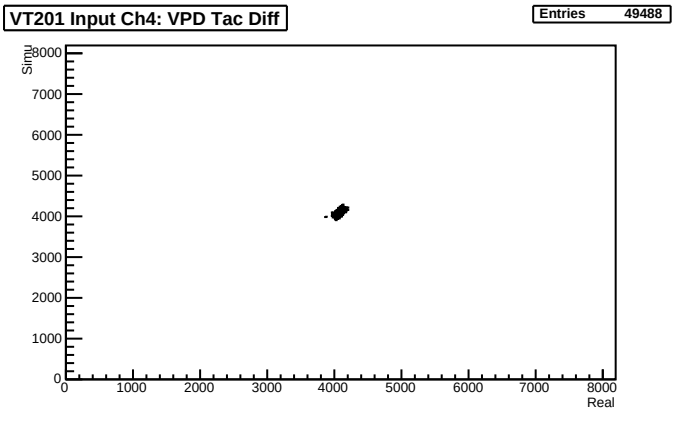

VT201 Input Ch2: ZDC Tac Diff
Entries 50000
Tac

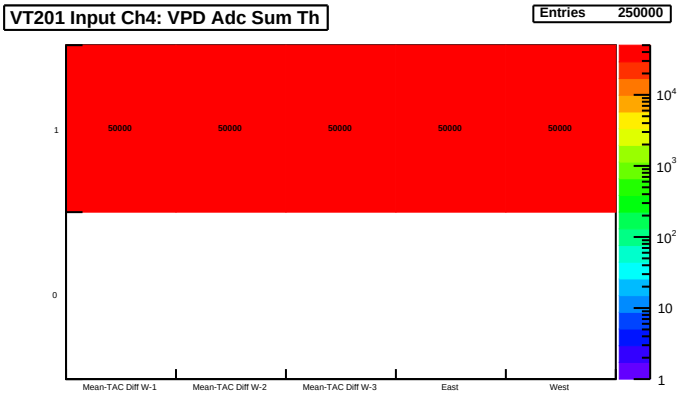

VT201 Input Ch2: ZDC Tac Diff
Entries 0
Simu
Real

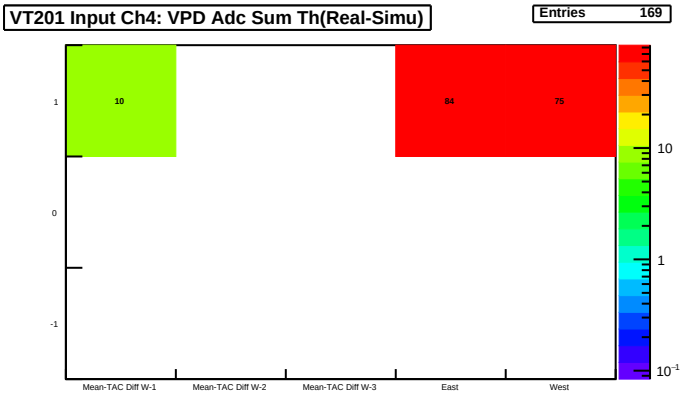

VT201 Input Ch2: ZDC Adc Sum Th
Entries 400000
49180 48799 17543 14996 49191 48734 10377 8093
820 1201 32457 35004 809 1266 39623 41907
W 0(p)/Sum-th0(Hi)
W F-Sum-th(p)/Sum-th1(Hi)
W B-Sum-th(p)/Sum-th2(Hi)
W Sum-th(p)/Sum-th3(Hi)
E 0(p)/Sum-th0(Hi)
E F-Sum-th(p)/Sum-th1(Hi)
E B-Sum-th(p)/Sum-th2(Hi)
E Sum-th(p)/Sum-th3(Hi)

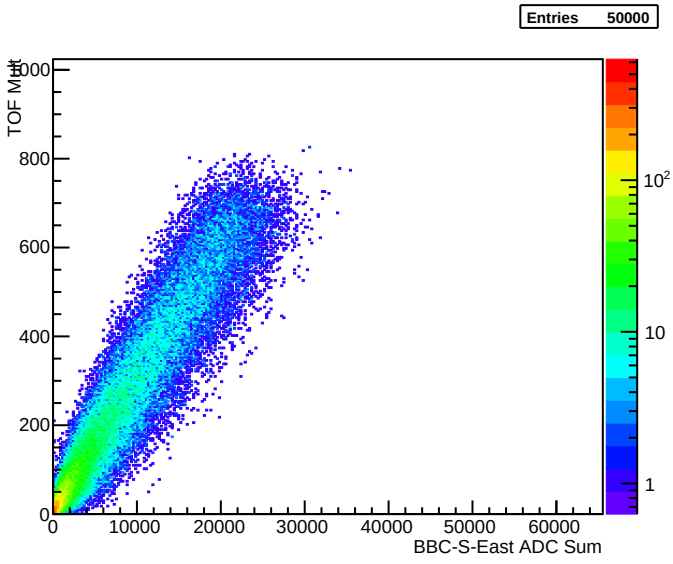

VT201 Input Ch2: ZDC Adc Sum Th (Real-Simu)
Entries 0
W 0(p)/Sum-th0(Hi)
W F-Sum-th(p)/Sum-th1(Hi)
W B-Sum-th(p)/Sum-th2(Hi)
W Sum-th(p)/Sum-th3(Hi)
E 0(p)/Sum-th0(Hi)
E F-Sum-th(p)/Sum-th1(Hi)
E B-Sum-th(p)/Sum-th2(Hi)
E Sum-th(p)/Sum-th3(Hi)

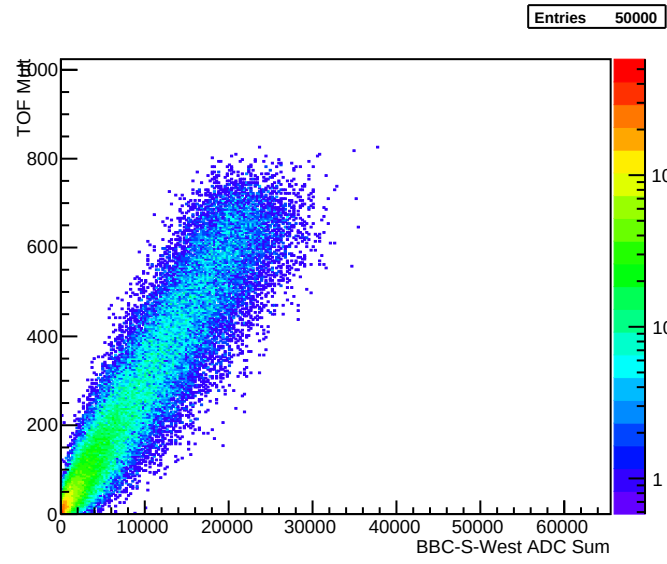

VT201 Input Ch4: VPD Tac Diff
Entries 50000
Tac

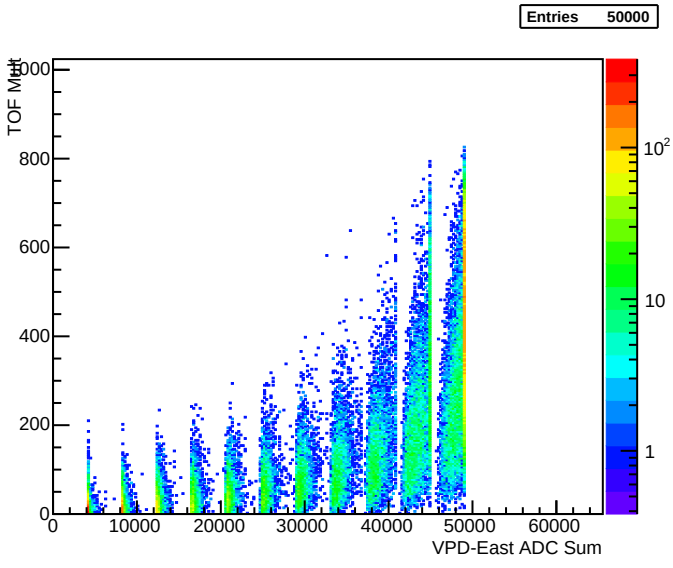

VT201 Input Ch4: VPD Tac Diff
Entries 49488
Simu
Real

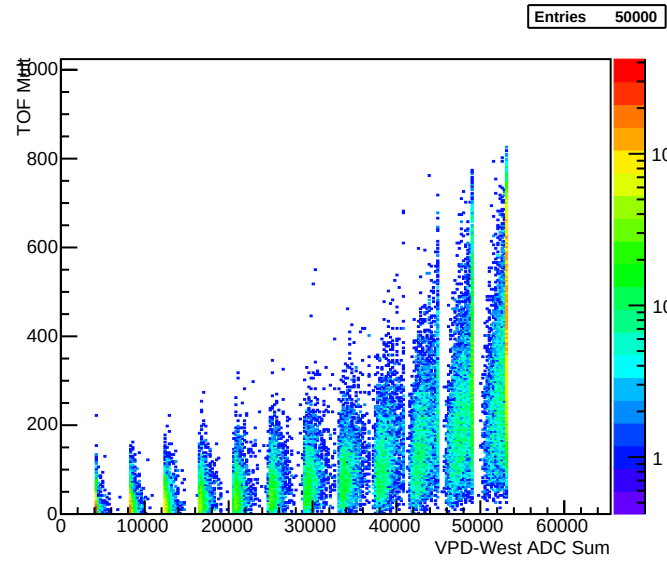

VT201 Input Ch4: VPD Adc Sum Th
Entries 250000
50000 50000 50000 50000 50000
Mean-TAC Diff W-1
Mean-TAC Diff W-2
Mean-TAC Diff W-3
East
West

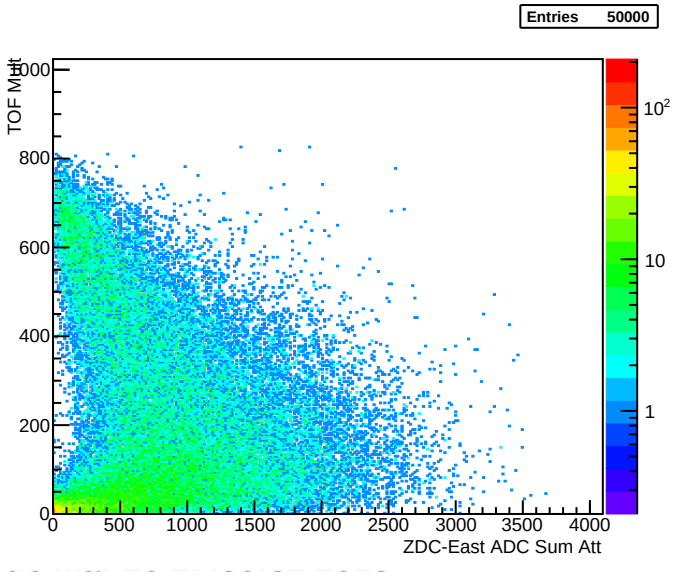

VT201 Input Ch4: VPD Adc Sum Th(Real-Simu)
Entries 169
10 84 75
Mean-TAC Diff W-1
Mean-TAC Diff W-2
Mean-TAC Diff W-3
East
West

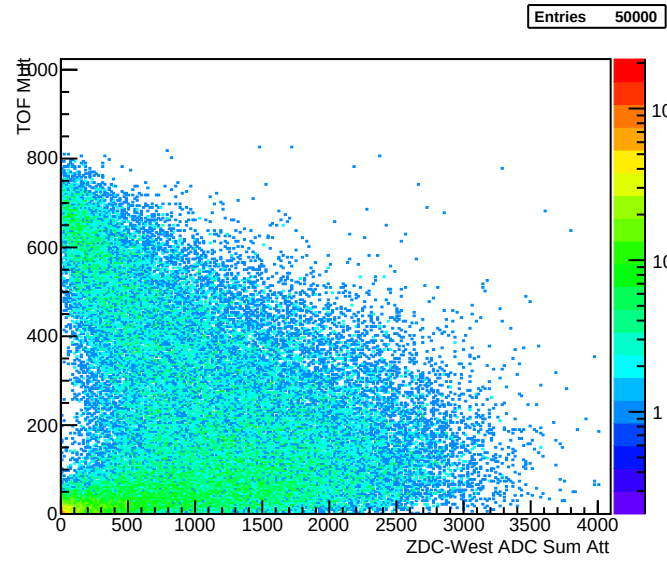

Entries 50000
TOF Mult
BBC-S-East ADC Sum

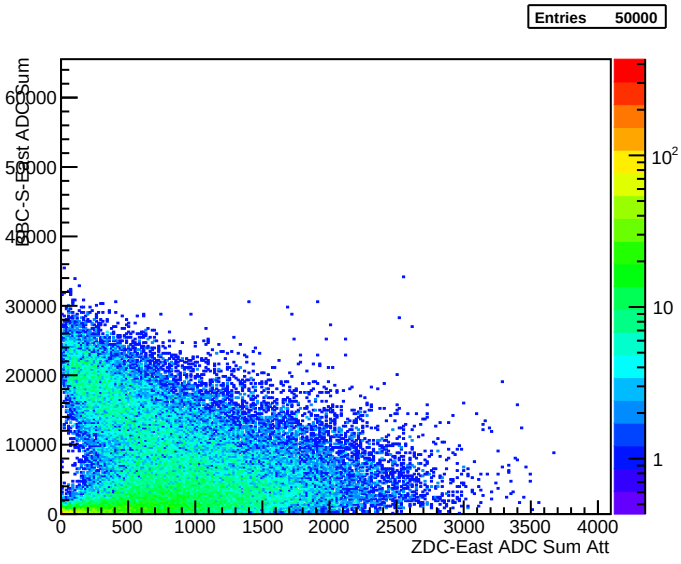

Entries 50000
TOF Mult
BBC-S-West ADC Sum

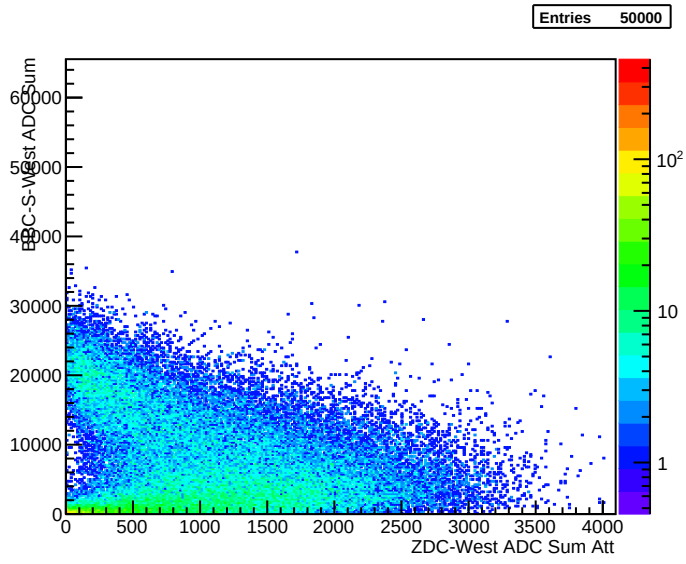

Entries 50000
TOF Mult
VPD-East ADC Sum

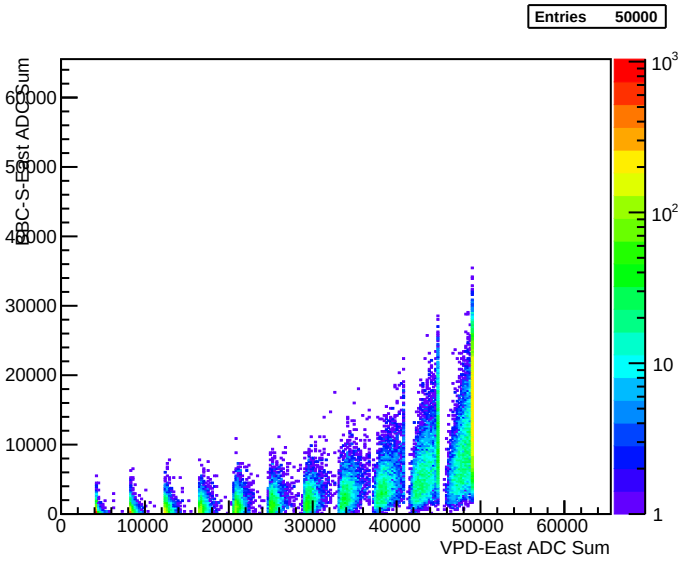

Entries 50000
TOF Mult
VPD-West ADC Sum

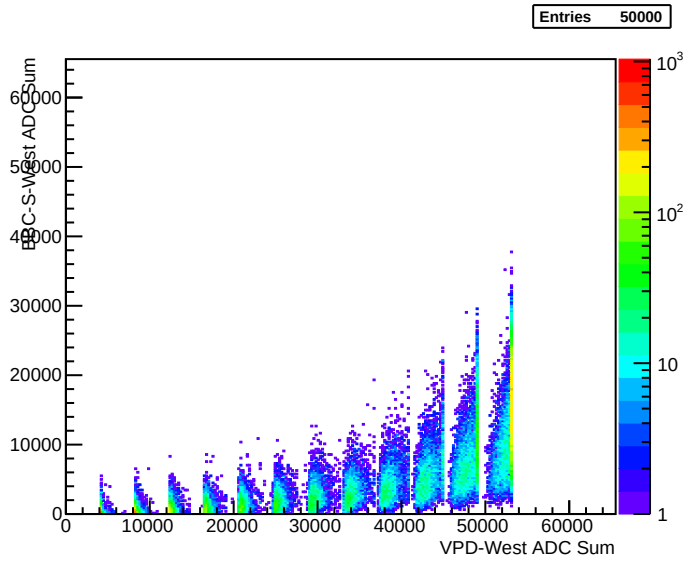

Entries 50000
TOF Mult
ZDC-East ADC Sum Att

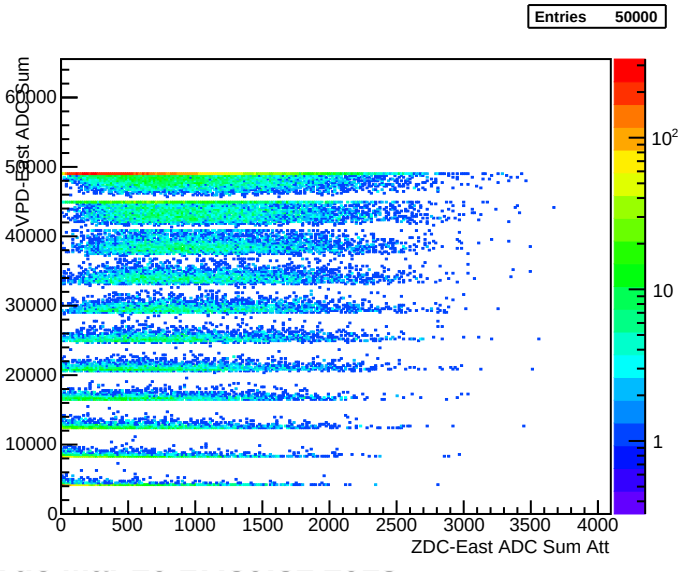

Entries 50000
TOF Mult
ZDC-West ADC Sum Att

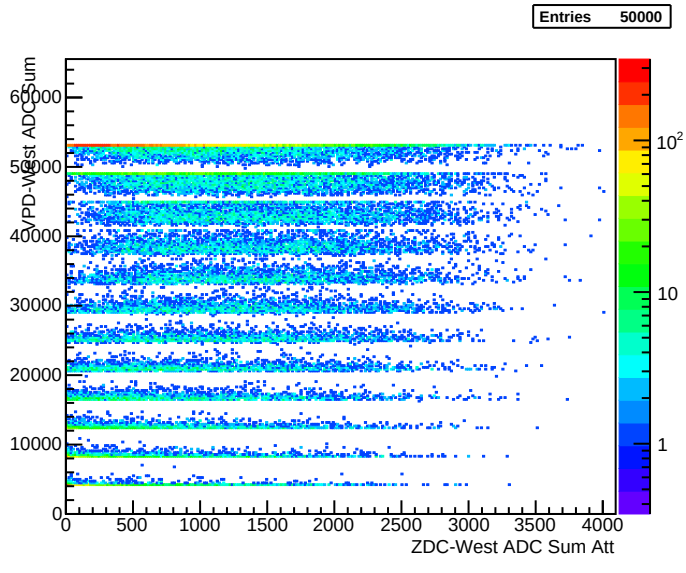

Entries 50000
BBC-S-East ADC Sum
ZDC-East ADC Sum Att


Entries 50000
BBC-S-West ADC Sum
ZDC-West ADC Sum Att


Entries 50000
BBC-S-East ADC Sum
VPD-East ADC Sum


Entries 50000
BBC-S-West ADC Sum
VPD-West ADC Sum


Entries 50000
VPD-East ADC Sum
ZDC-East ADC Sum Att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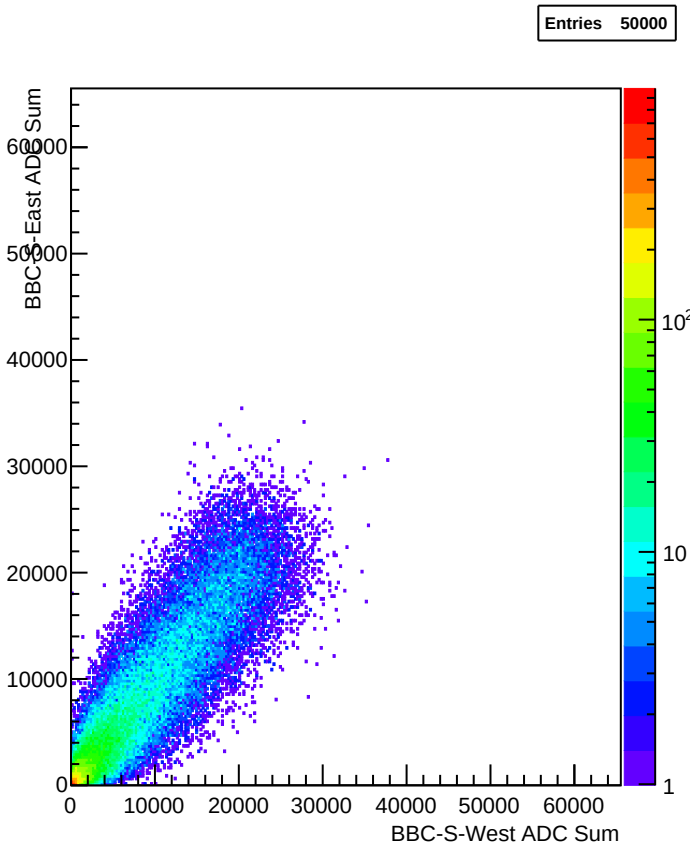
VPD-West ADC Sum
ZDC-West ADC Sum Att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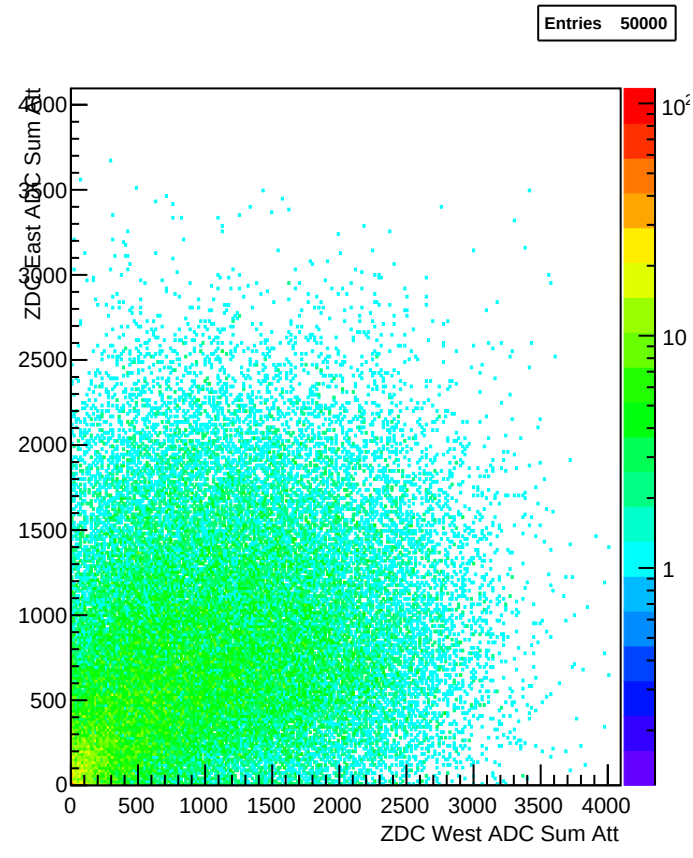
BBC-S-East ADC Sum
BBC-S-West ADC Sum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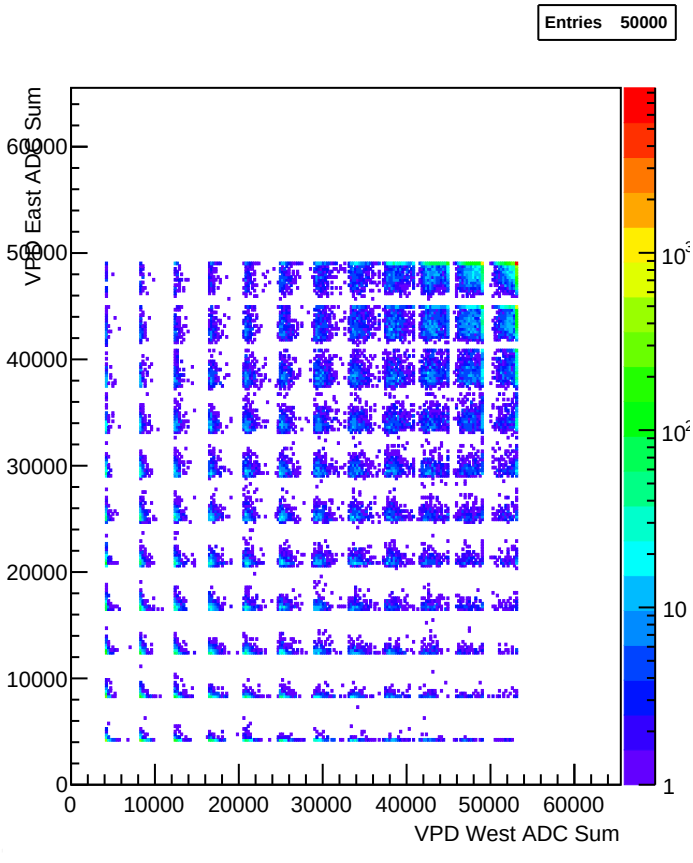
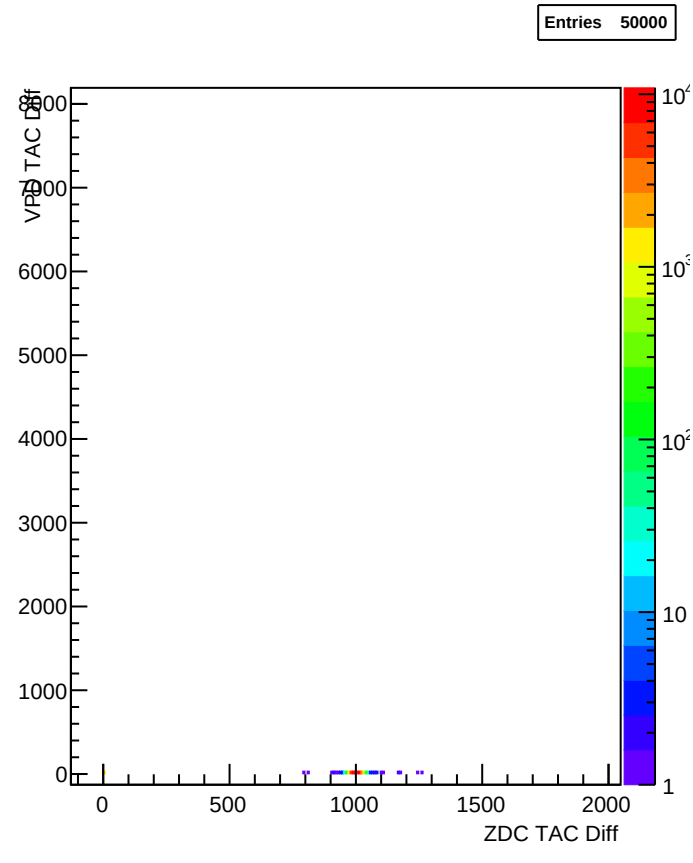
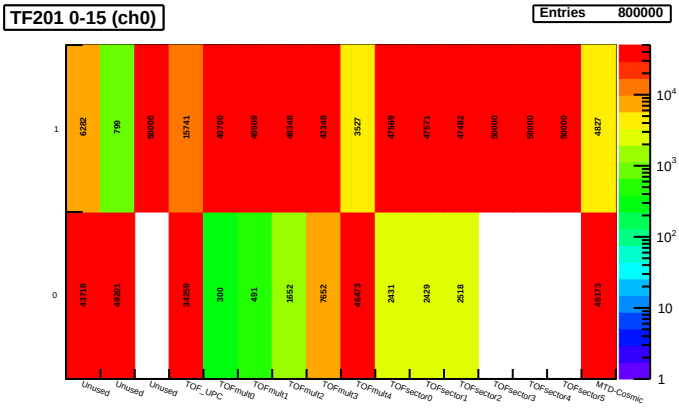
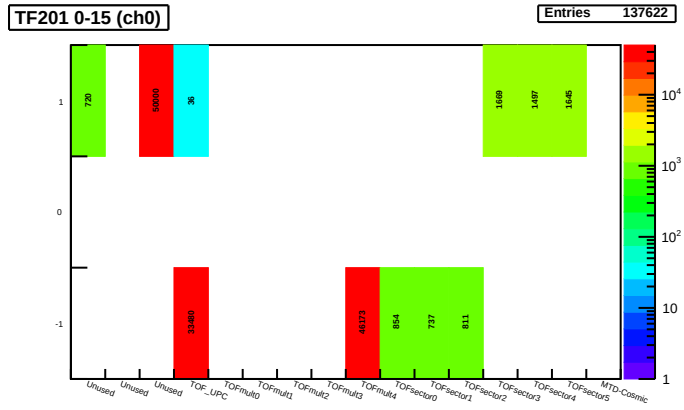
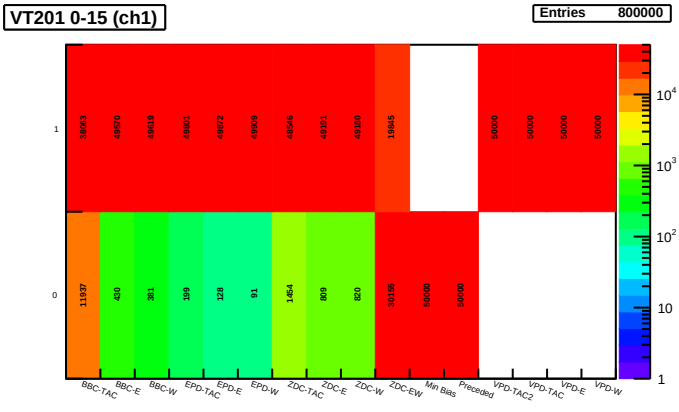
ZDC East ADC Sum Att
ZDC West ADC Sum Att

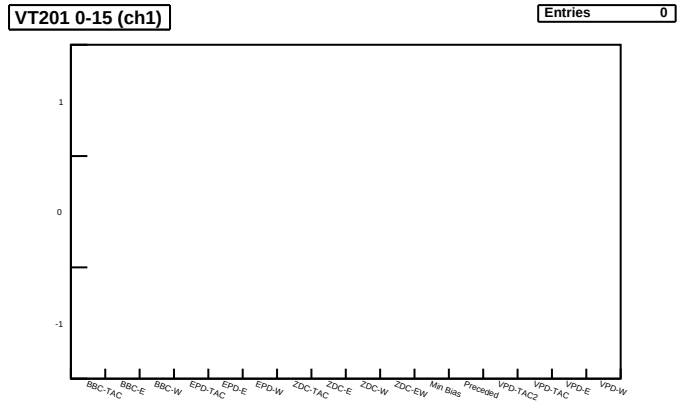

Entries 50000
VPD East ADC Sum
VPD West ADC Sum

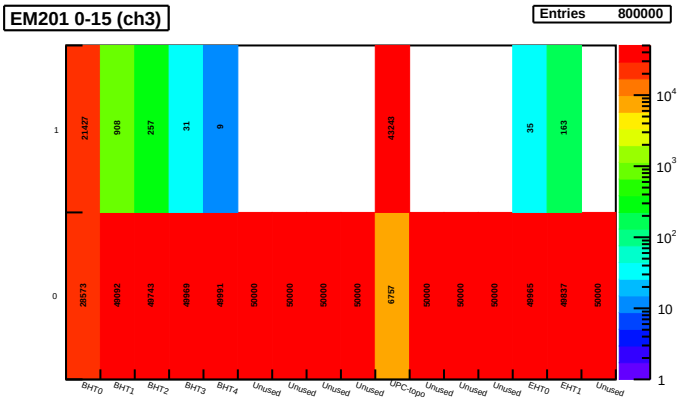

Entries 50000
VPD TAC Diff
ZDC TAC Diff

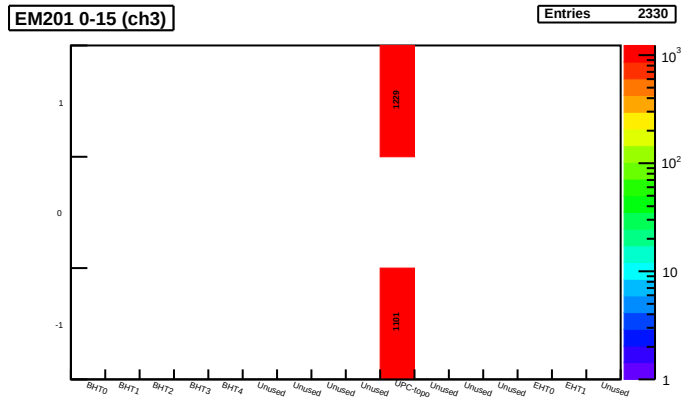

TF201 0-15 (ch0)
Entries 800000
1
0
6282 799 50000 15741 49700 49909 48348 42248 3527 47569 47571 47482 50000 50000 50000 4827
43718 49931 34259 300 491 1652 7652 46473 2431 2429 2518 46173
Unused Unused Unused TOF_UPC TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic
10^4 10^3 10^2 10 1

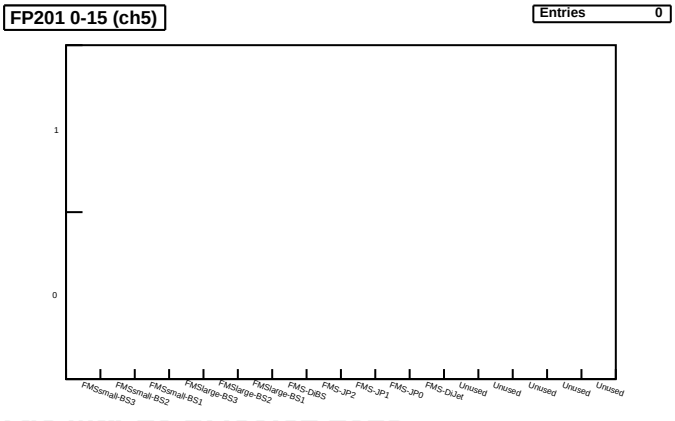

TF201 0-15 (ch0)
Entries 137622
1
0
-1
720 50000 36 1669 1497 1645
33480 46173 854 737 811
Unused Unused Unused TOF_UPC TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic
10^4 10^3 10^2 10 1

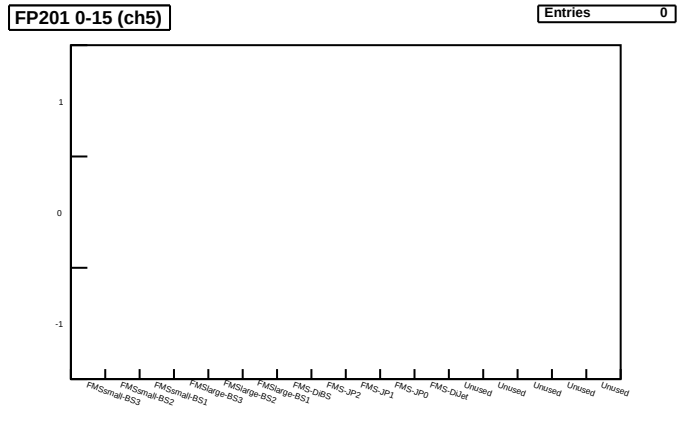

VT201 0-15 (ch1)
Entries 800000
1
0
35063 49570 49619 49801 49872 49909 49546 49191 49190 19945 50000 50000 50000 50000
11937 409 381 199 128 91 1454 809 820 30155 50000 50000
BBC-TAC BBC-E BBC-W EPD-TAC EPD-E EPD-W ZDC-TAC ZDC-E ZDC-W ZDC-EW Min Bias Preceded VPD-TAC2 VPD-TAC VPD-E VPD-W
10^4 10^3 10^2 10 1


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 800000
1
0
21427 908 257 31 9 43243 35 163
28573 49992 49743 49969 49931 50000 50000 50000 50000 6757 50000 50000 50000 49965 49837 50000
BHT0 BHT1 BHT2 BHT3 BHT4 Unused Unused Unused Unused UPC-topo Unused Unused Unused EHT0 EHT1 Unused
10^4 10^3 10^2 10 1


EM201 0-15 (ch3)
Entries 2330
1
0
-1
1229 1101
BHT0 BHT1 BHT2 BHT3 BHT4 Unused Unused Unused Unused UPC-topo Unused Unused Unused EHT0 EHT1 Unused
10^3 10^2 10 1


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