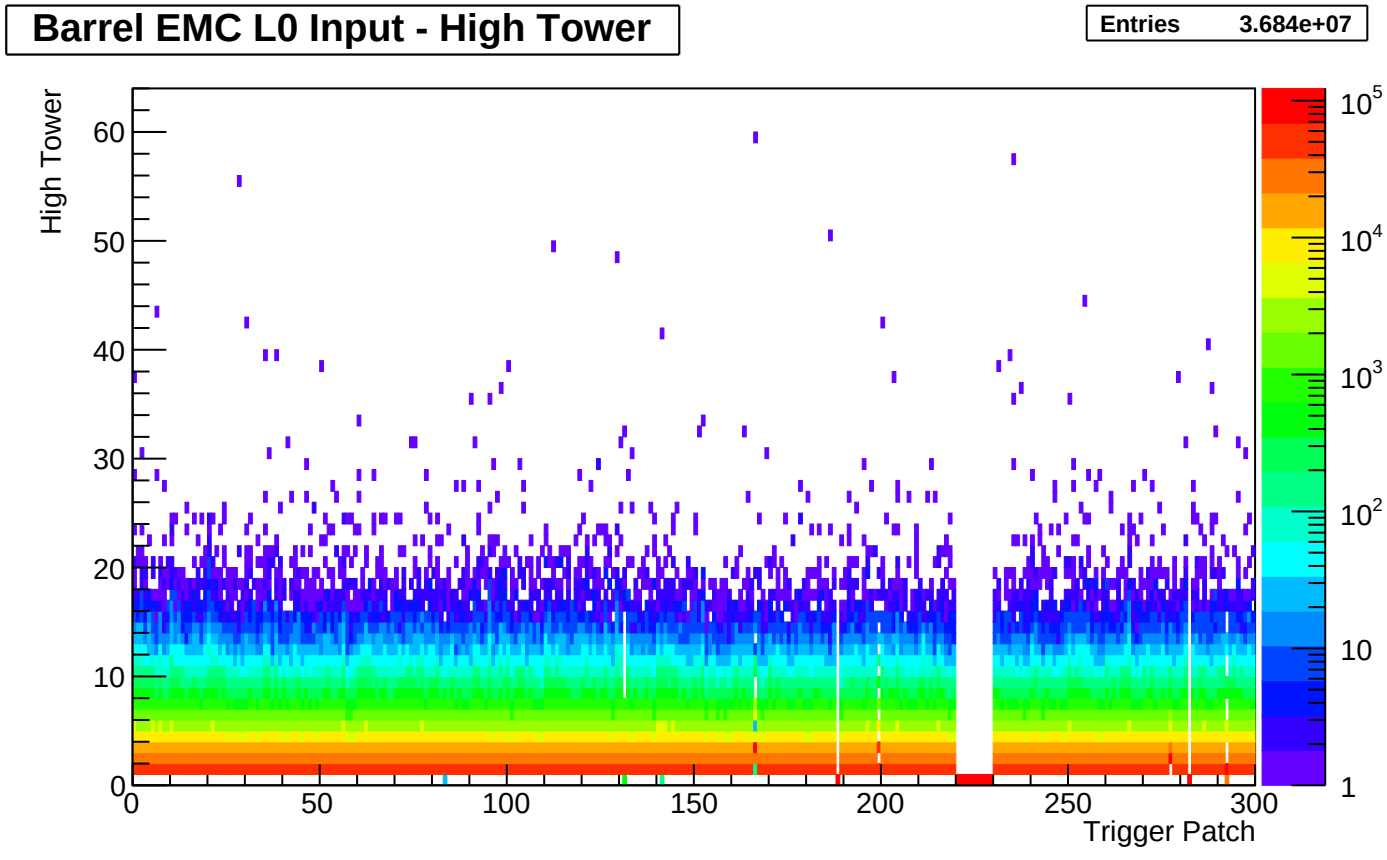
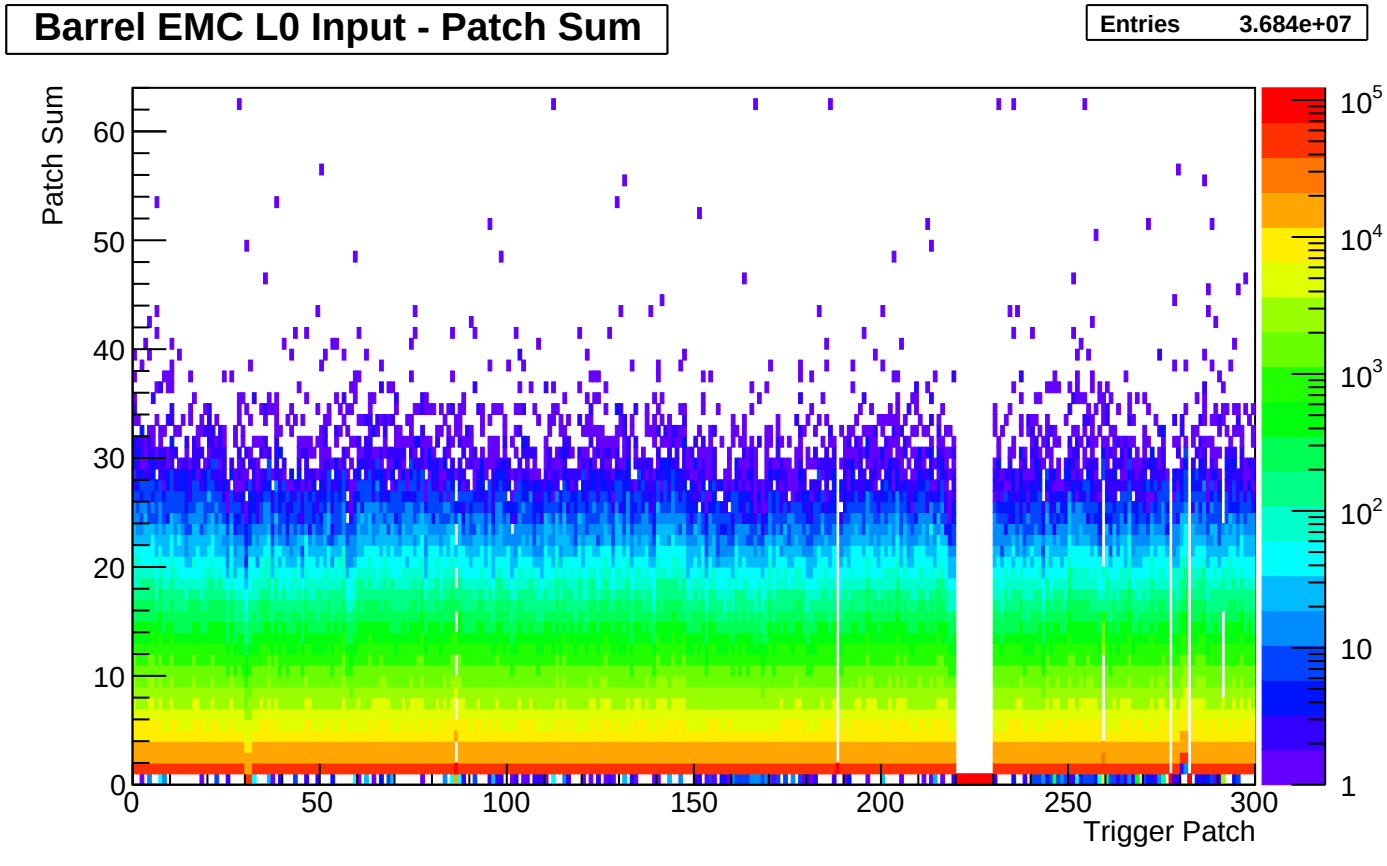
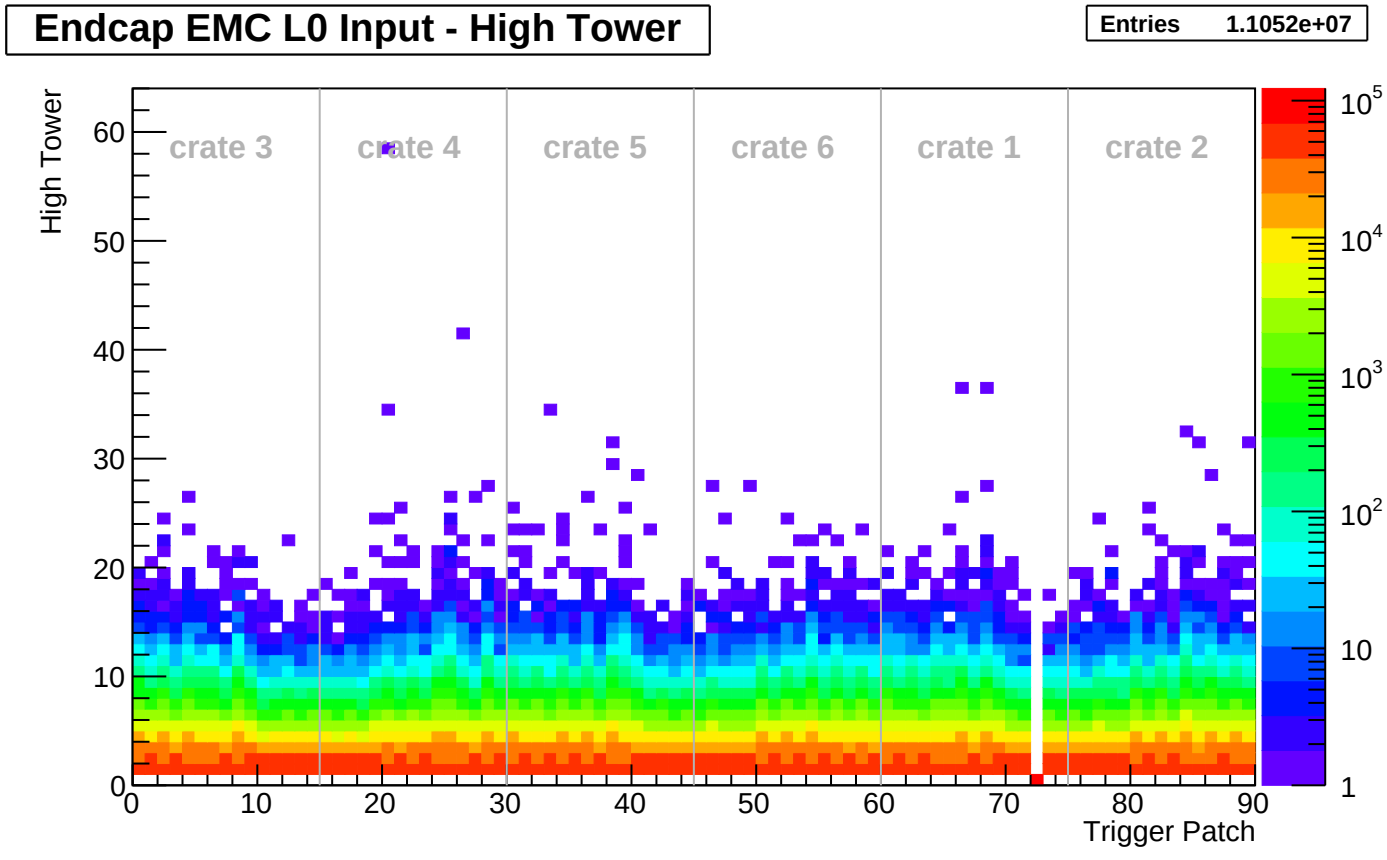
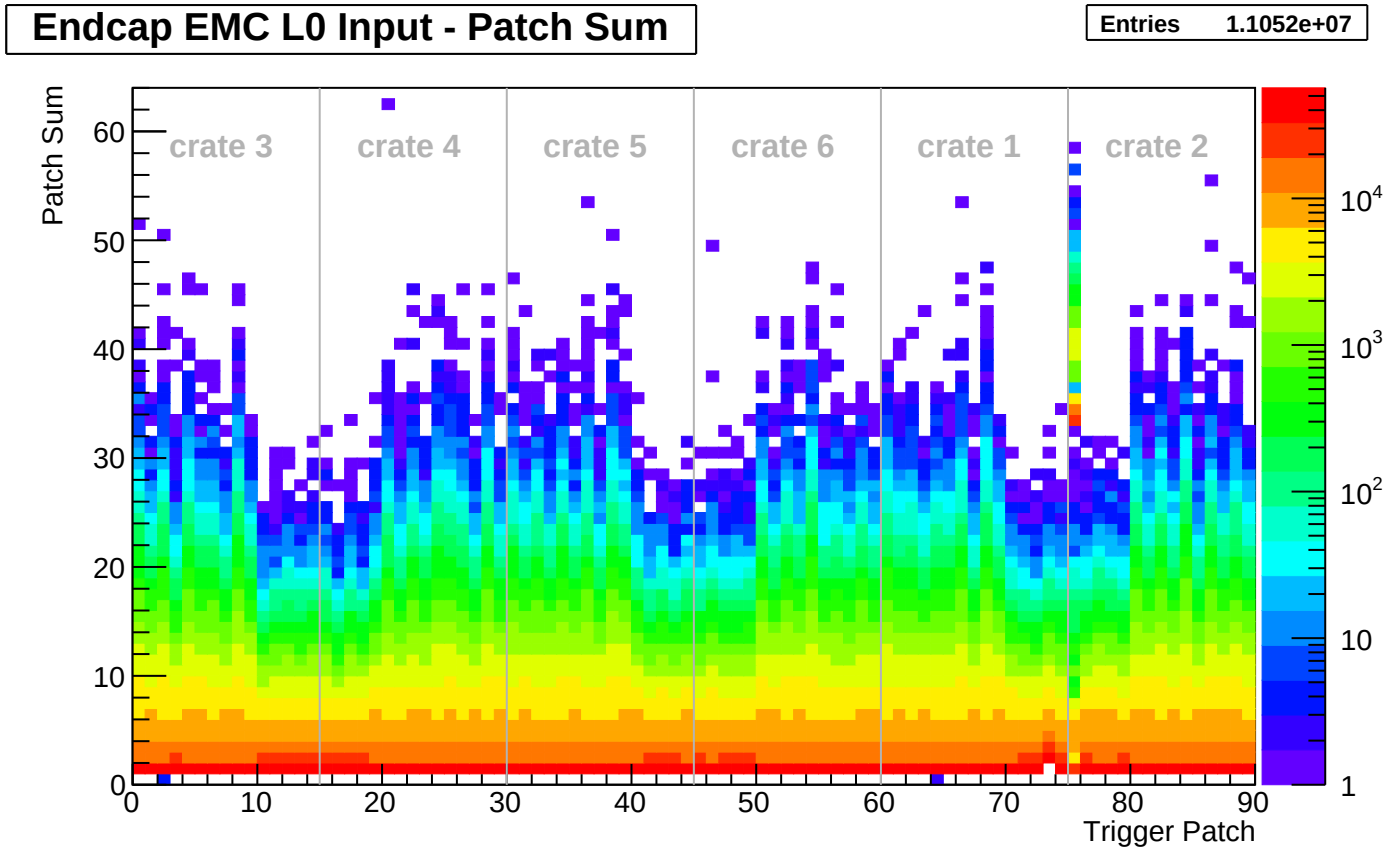
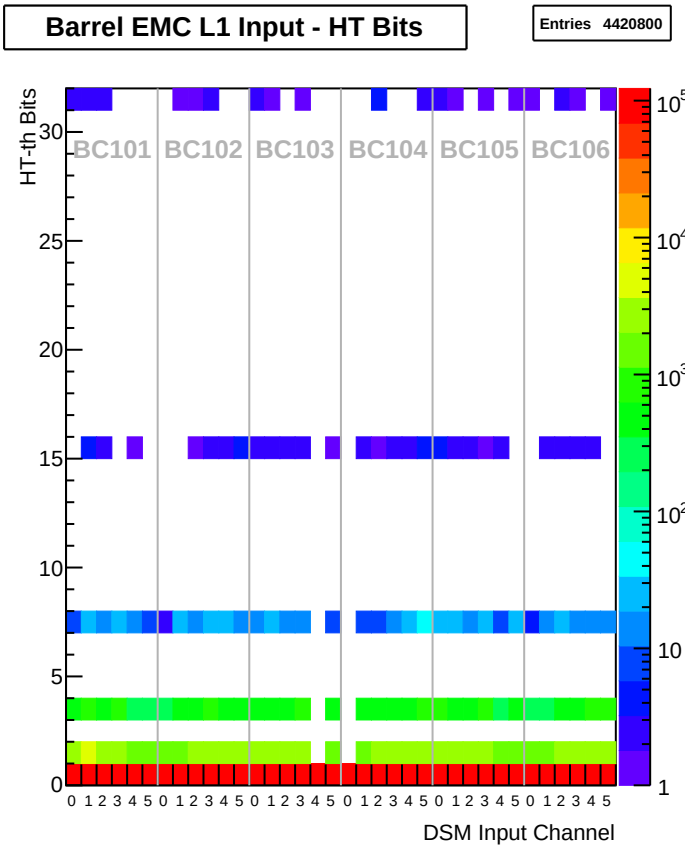
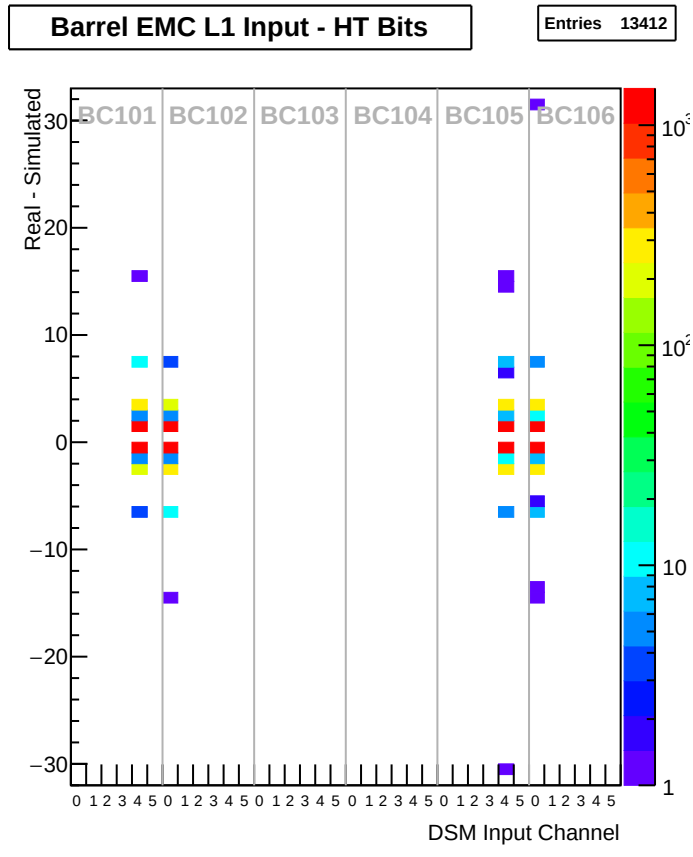

Barrel EMC L0 Input - High Tower
Entries 3.684e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

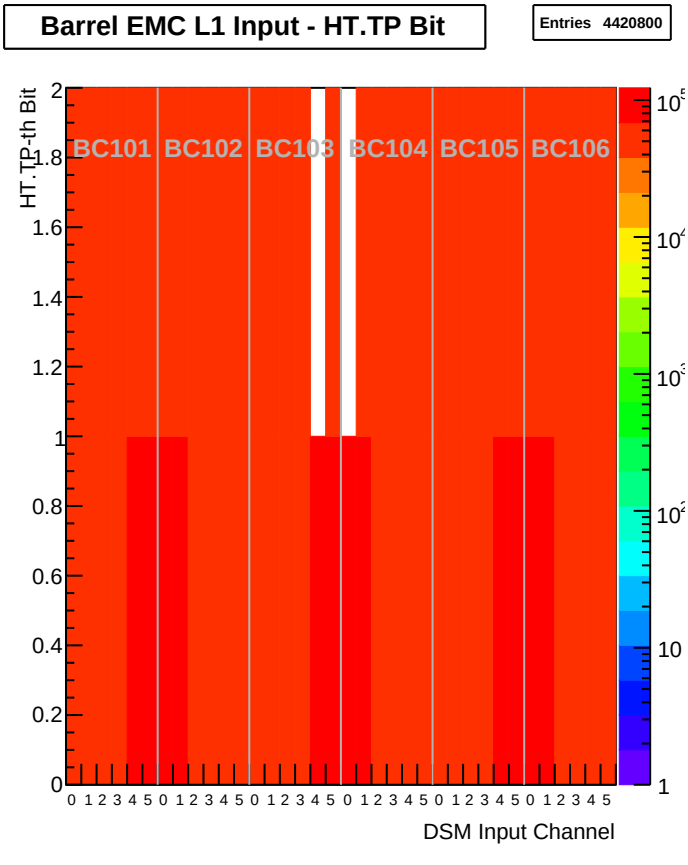

Barrel EMC L0 Input - Patch Sum
Entries 3.684e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

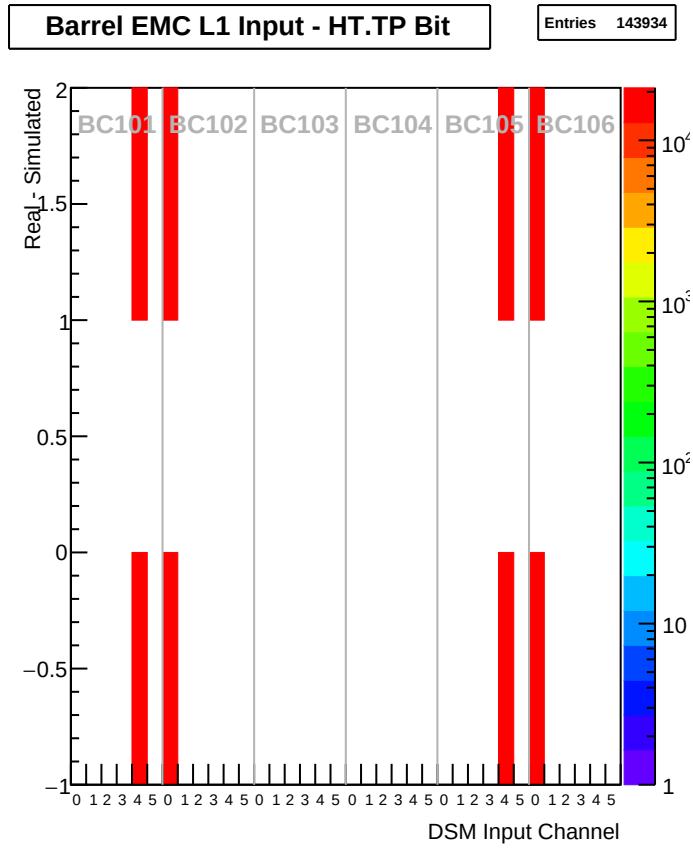

Endcap EMC L0 Input - High Tower
Entries 1.1052e+07
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

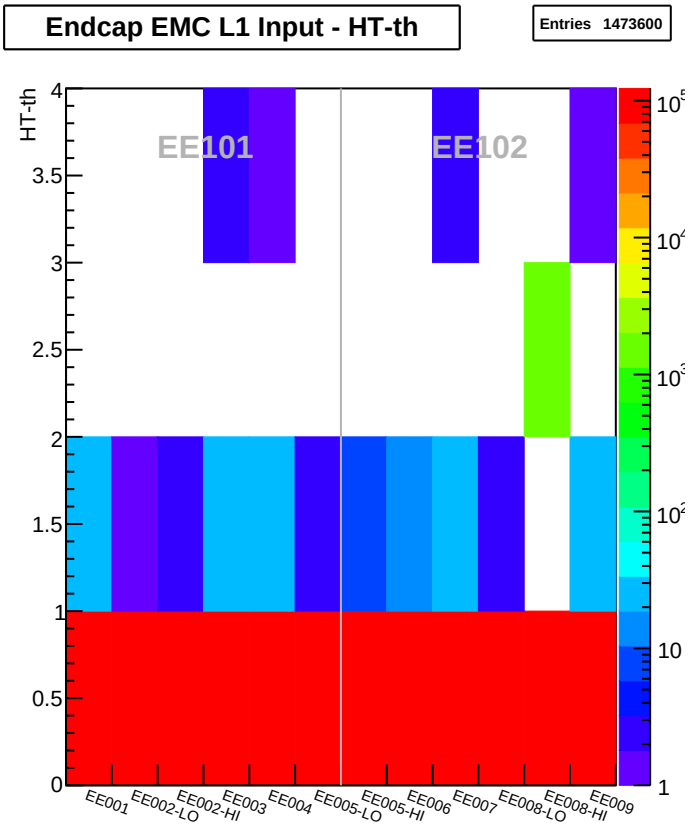

Endcap EMC L0 Input - Patch Sum
Entries 1.1052e+07
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

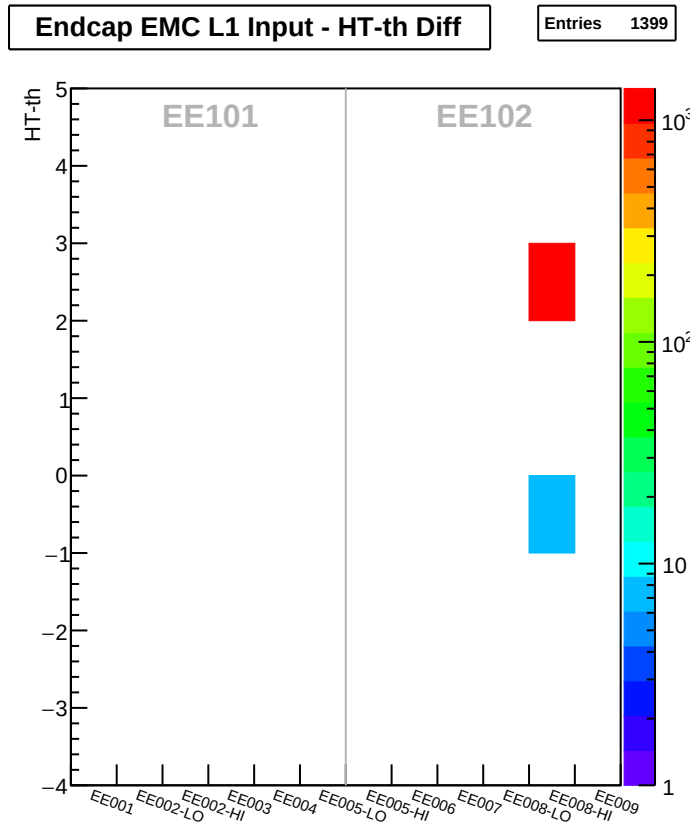

Barrel EMC L1 Input - HT Bits
Entries 4420800
HT-th Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

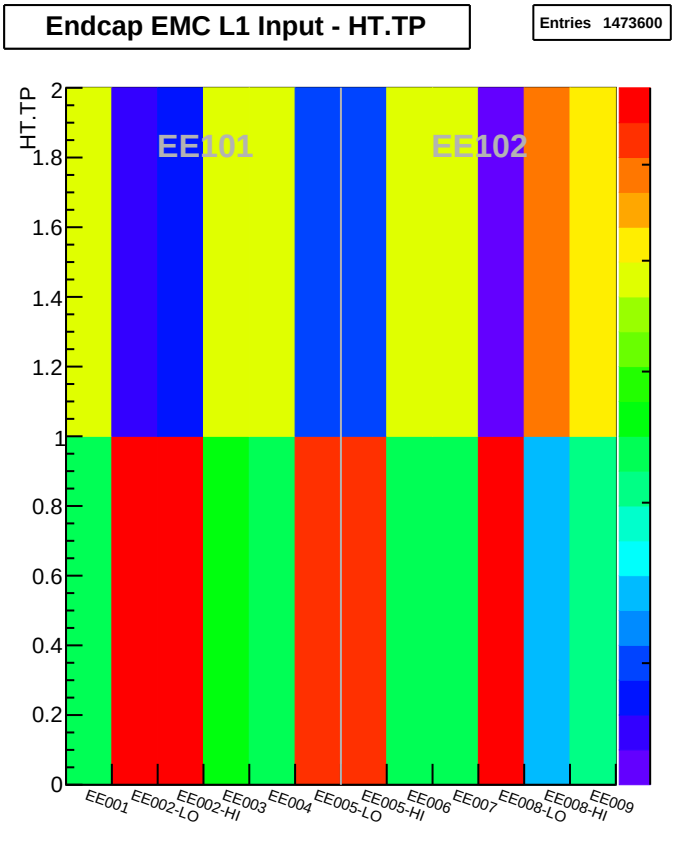

Barrel EMC L1 Input - HT Bits
Entries 13412
Real - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

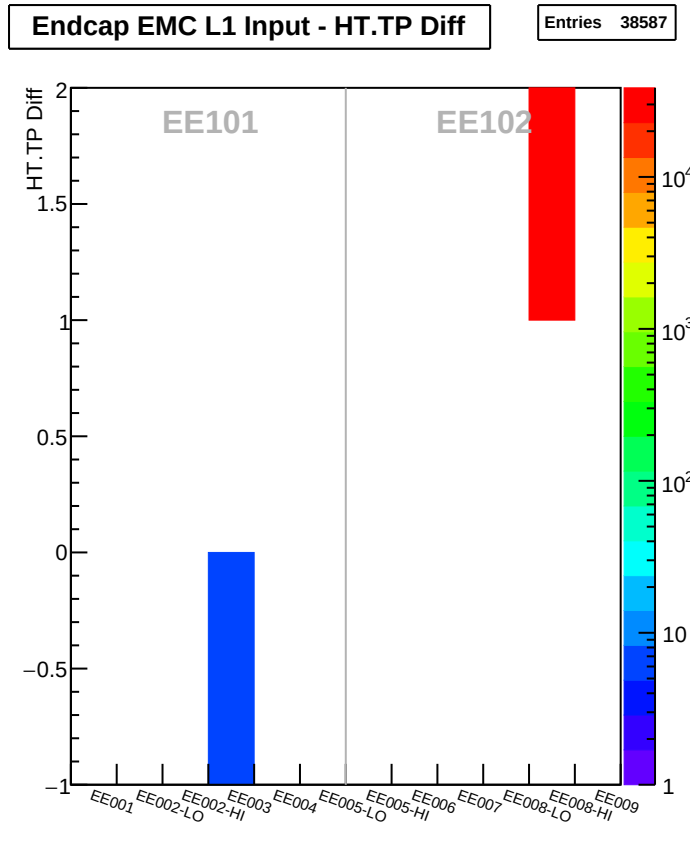

Barrel EMC L1 Input - HT.TP Bit
Entries 4420800
HT.TP-th Bit
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

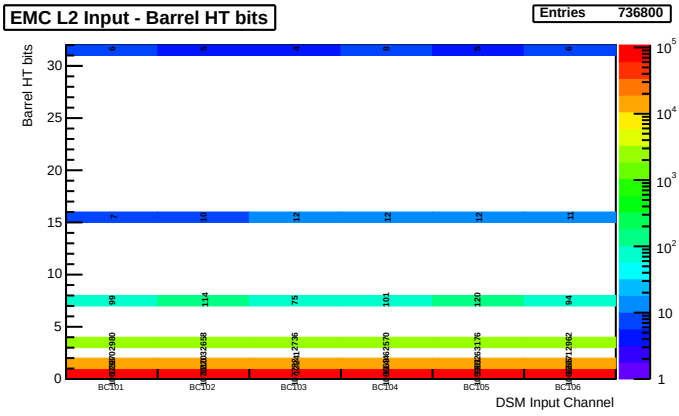

Barrel EMC L1 Input - HT.TP Bit
Entries 143934
Real - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

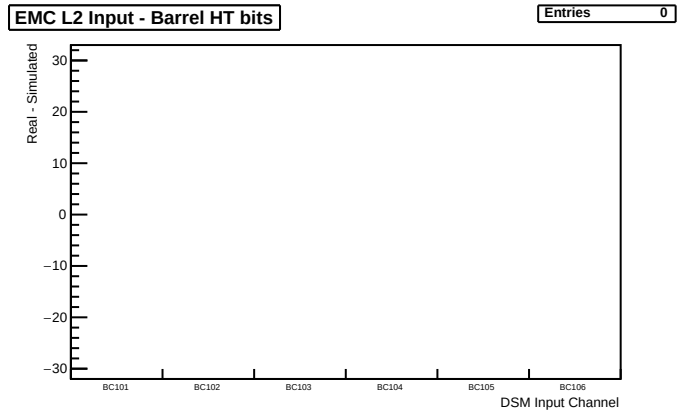

Endcap EMC L1 Input - HT-th
Entries 1473600
HT-th
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

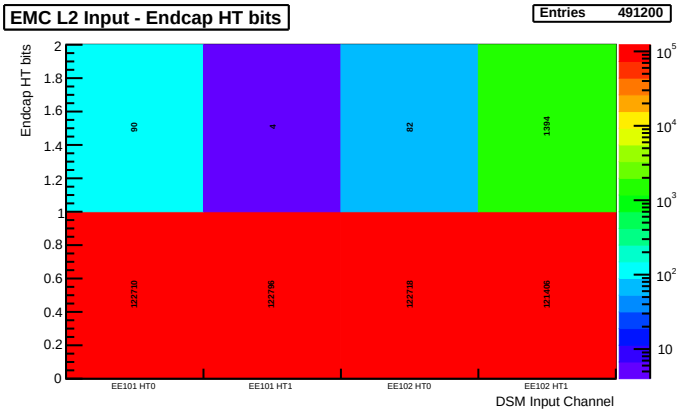

Endcap EMC L1 Input - HT-th Diff
Entries 1399
HT-th
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

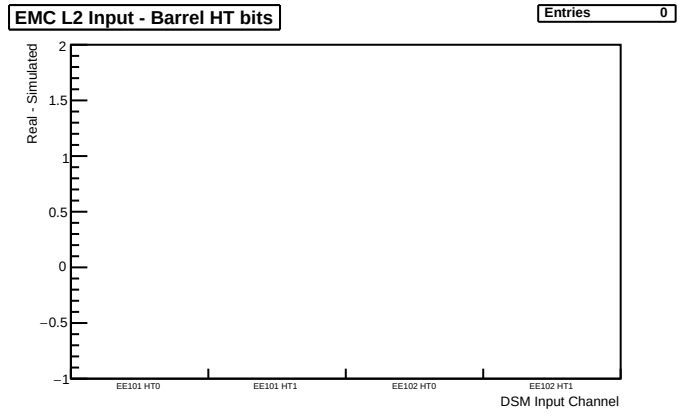

Endcap EMC L1 Input - HT.TP
Entries 1473600
HT.TP
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

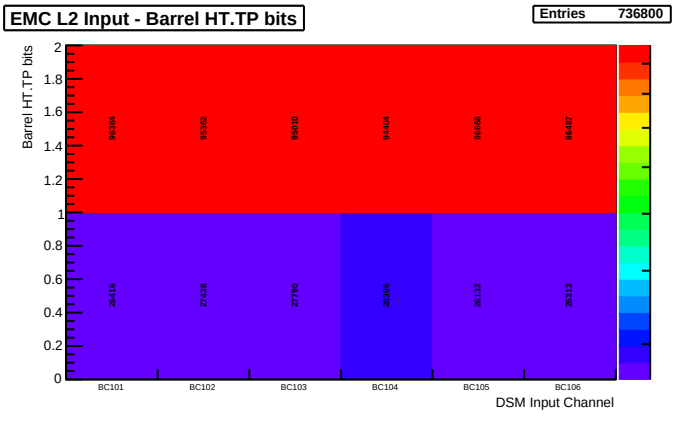

Endcap EMC L1 Input - HT.TP Diff
Entries 38587
HT.TP Diff
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

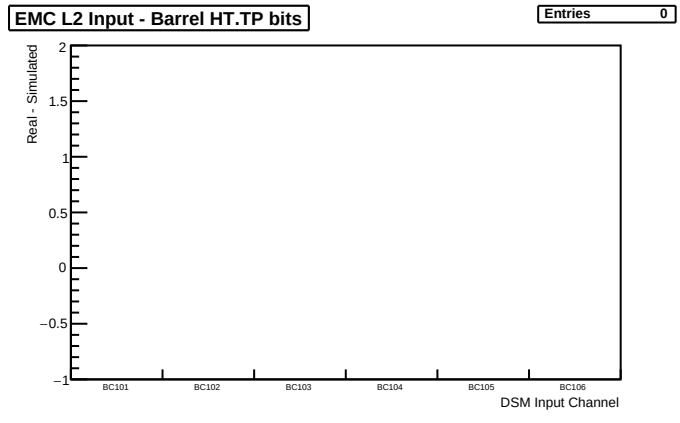

EMC L2 Input - Barrel HT bits
Entries 736800
Barrel HT bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

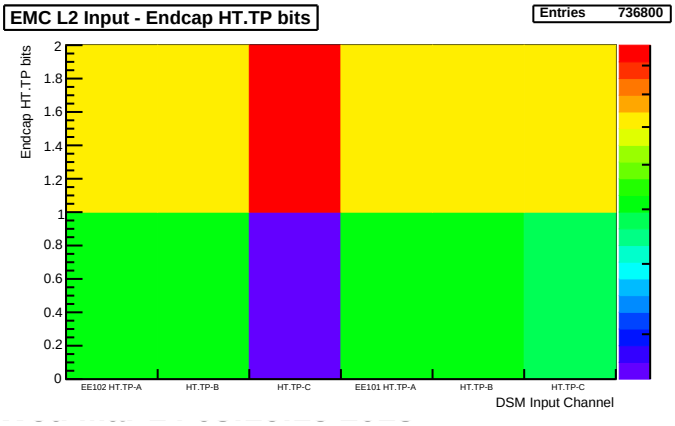

EMC L2 Input - Barrel HT bits
Entries 0
Real - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

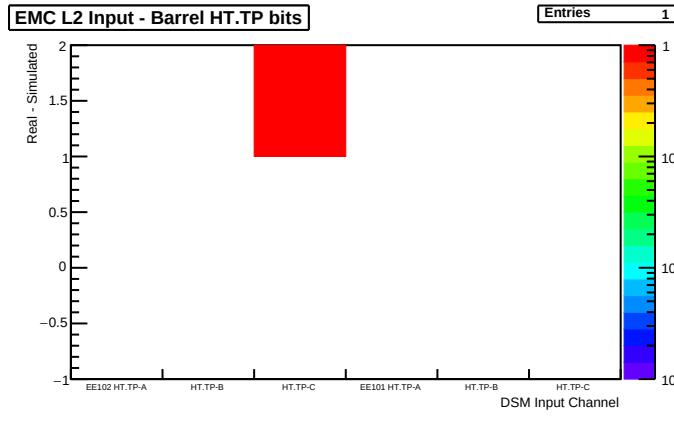

EMC L2 Input - Endcap HT bits
Entries 491200
Endcap HT bits
DSM Input Channel
EE101 HT0
EE101 HT1
EE102 HT0
EE102 HT1

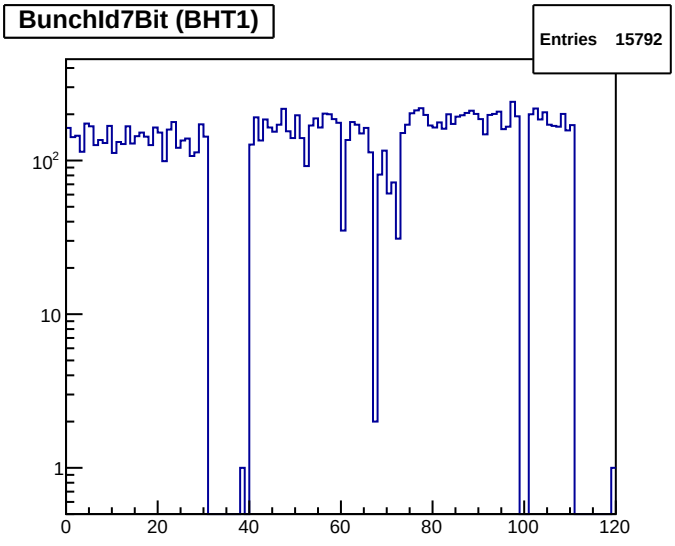

EMC L2 Input - Barrel HT bits
Entries 0
Real - Simulated
DSM Input Channel
EE101 HT0
EE101 HT1
EE102 HT0
EE102 HT1

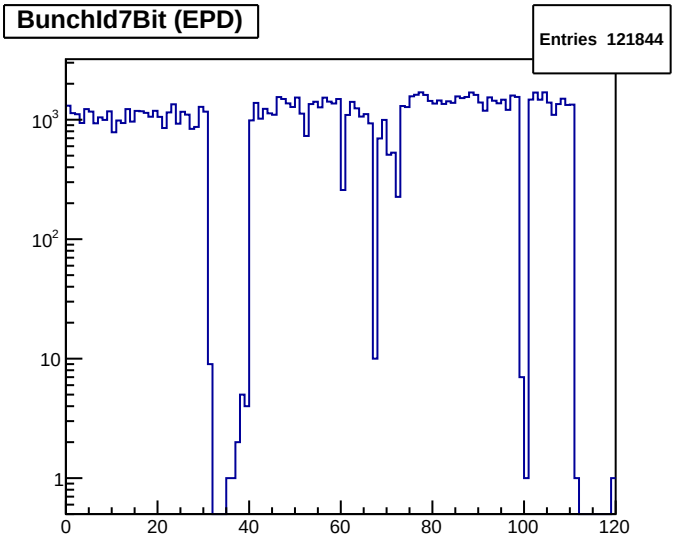

EMC L2 Input - Barrel HT.TP bits
Entries 736800
Barrel HT.TP bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

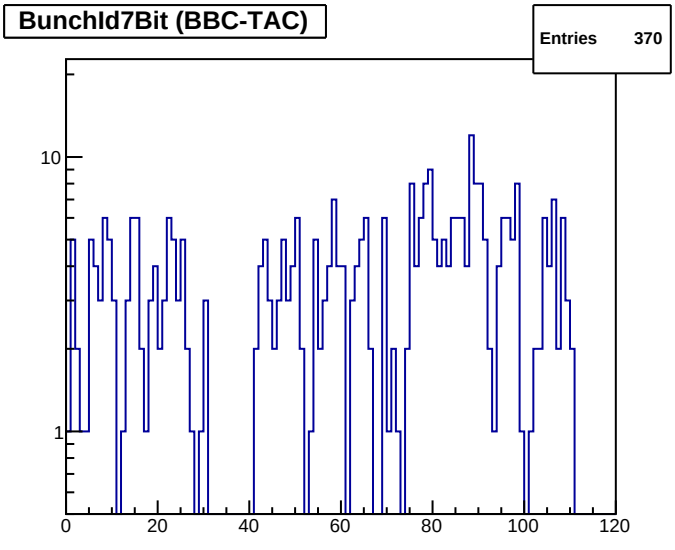

EMC L2 Input - Barrel HT.TP bits
Entries 0
Real - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

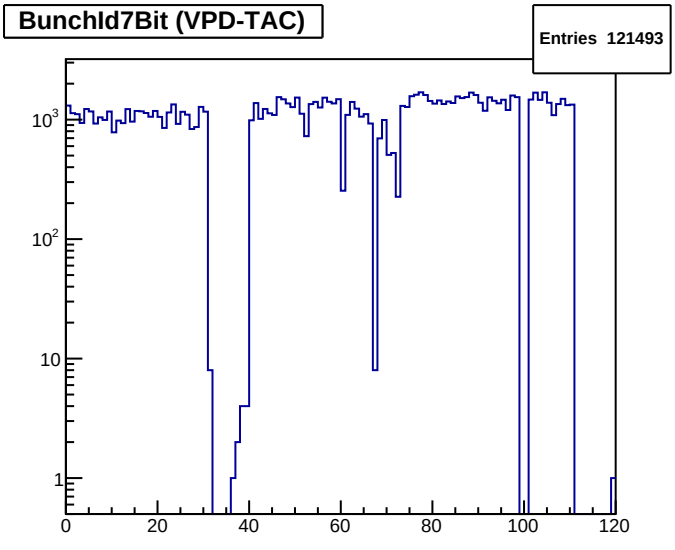

EMC L2 Input - Endcap HT.TP bits
Entries 736800
Endcap HT.TP bits
DSM Input Channel
EE102 HT.TP-A
HT.TP-B
HT.TP-C
EE101 HT.TP-A
HT.TP-B
HT.TP-C

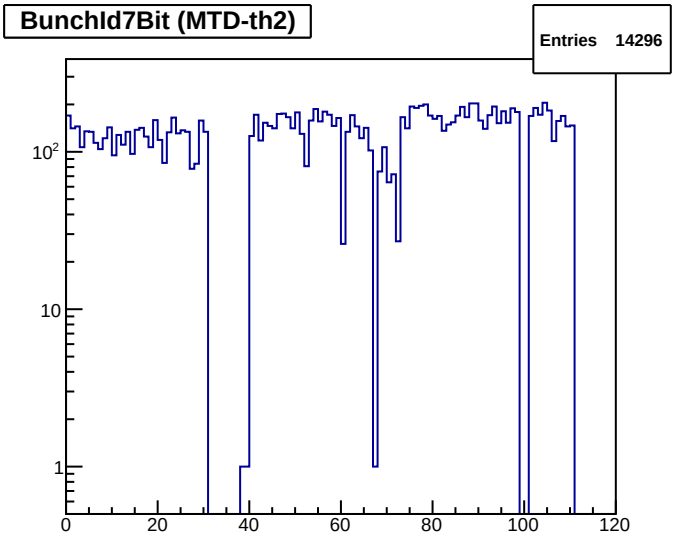

EMC L2 Input - Barrel HT.TP bits
Entries 1
Real - Simulated
DSM Input Channel
EE102 HT.TP-A
HT.TP-B
HT.TP-C
EE101 HT.TP-A
HT.TP-B
HT.TP-C

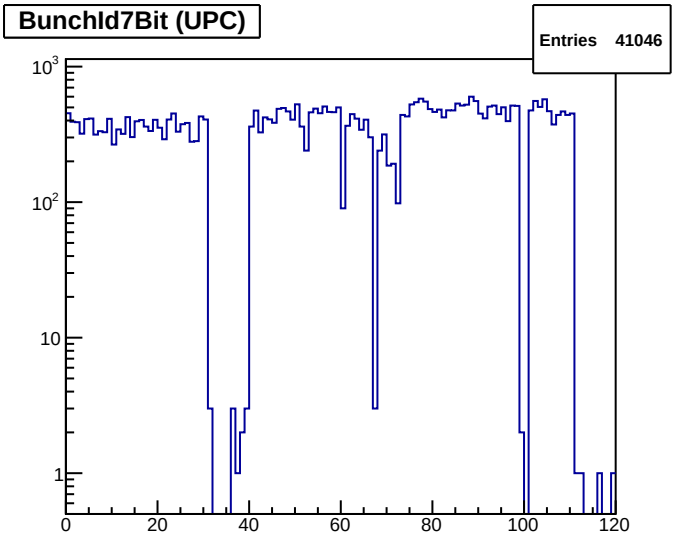

BunchId7Bit (BHT1)
Entries 15792

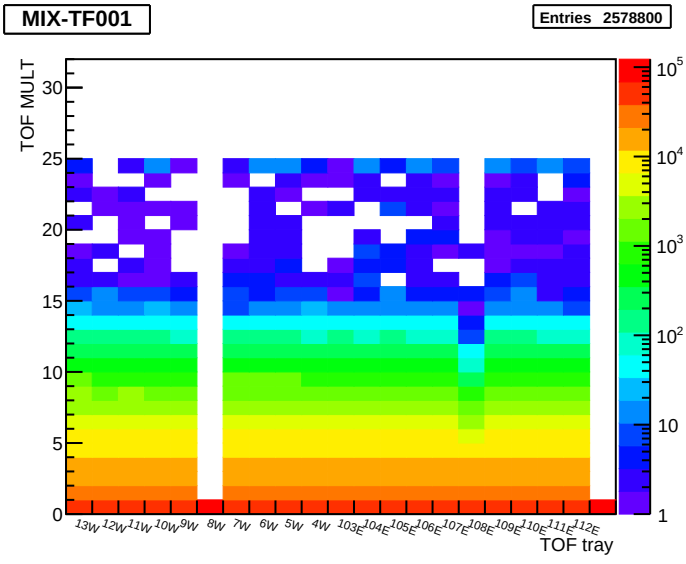

BunchId7Bit (EPD)
Entries 121844

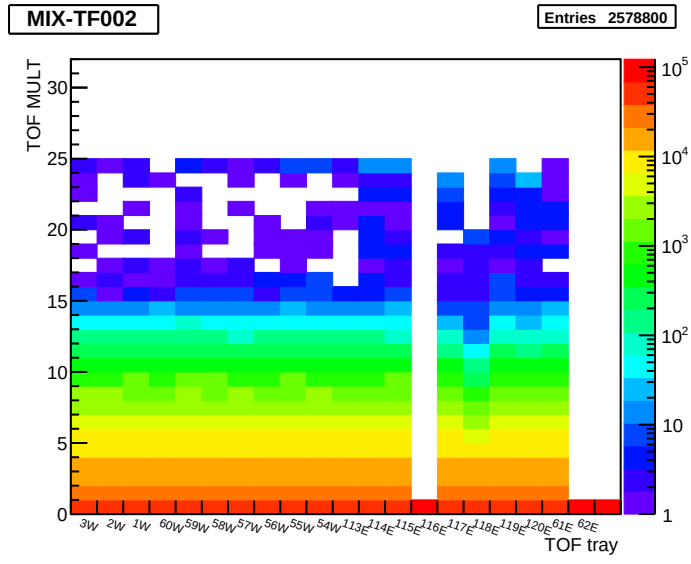

BunchId7Bit (BBC-TAC)
Entries 370

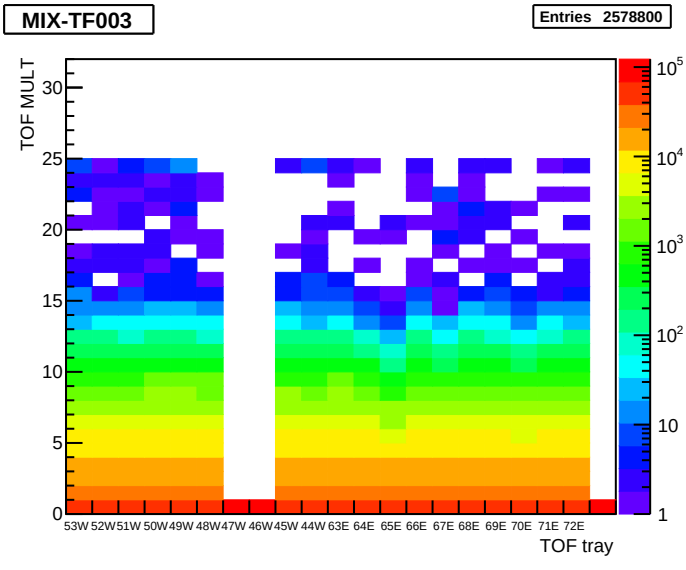

BunchId7Bit (VPD-TAC)
Entries 121493

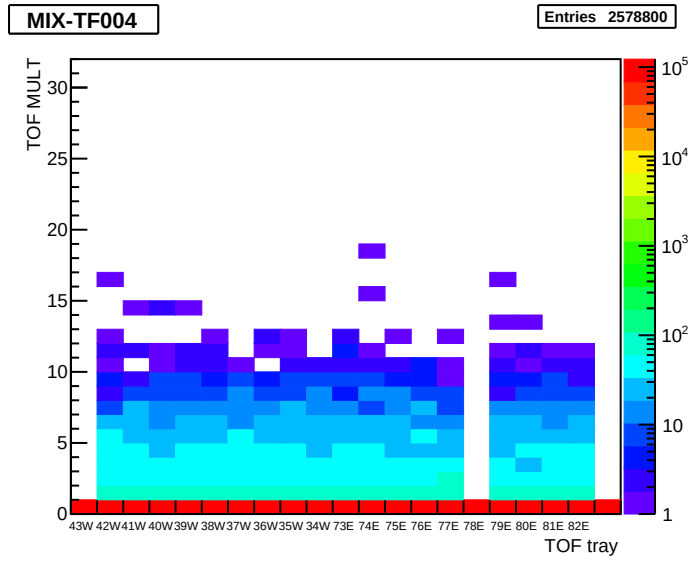

BunchId7Bit (MTD-th2)
Entries 14296

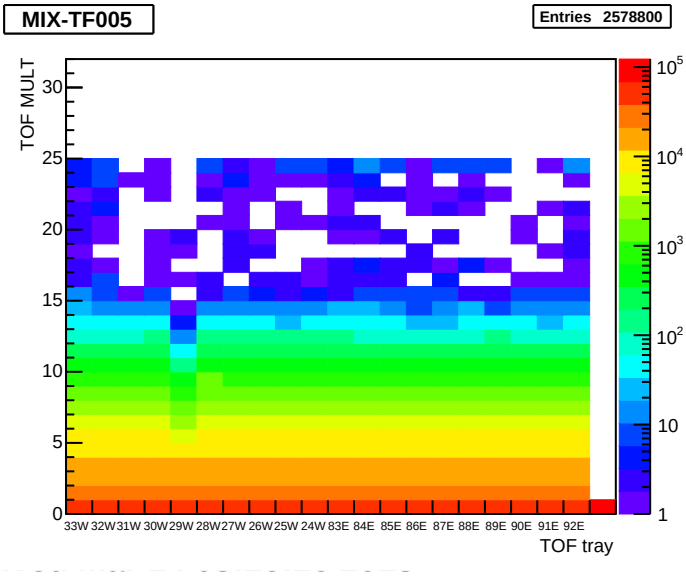

BunchId7Bit (UPC)
Entries 41046

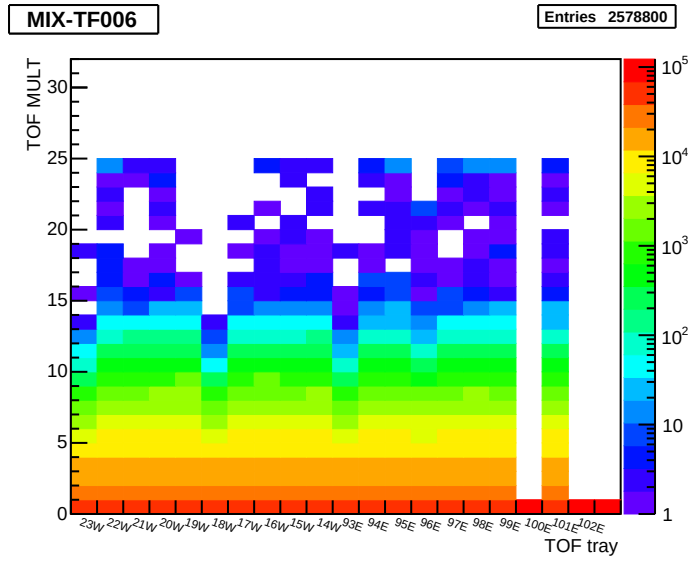

MIX-TF001
Entries 2578800
TOF MULT
TOF tray
13W 12W 11W 10W 9W 8W 7W 6W 5W 4W 103E 104E 105E 106E 107E 108E 109E 110E 111E 112E

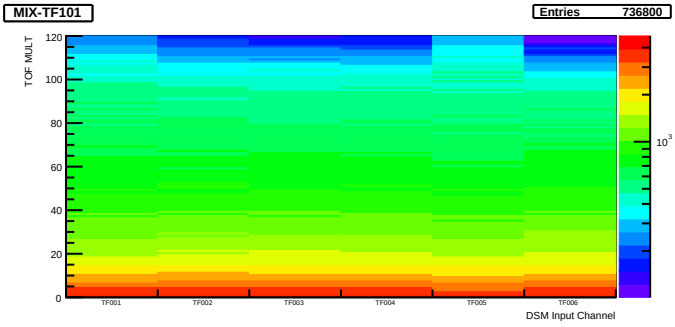

MIX-TF002
Entries 2578800
TOF MULT
TOF tray
3W 2W 1W 60W 59W 58W 57W 56W 55W 54W 113E 114E 115E 116E 117E 118E 119E 120E 61E 62E

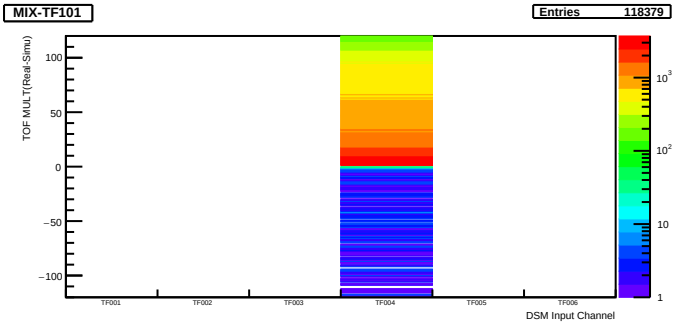

MIX-TF003
Entries 2578800
TOF MULT
TOF tray
53W 52W 51W 50W 49W 48W 47W 46W 45W 44W 63E 64E 65E 66E 67E 68E 69E 70E 71E 72E

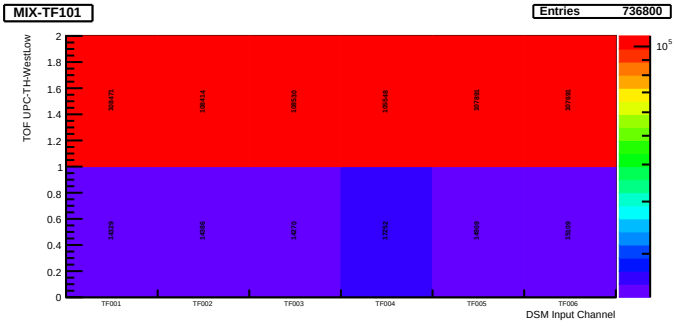

MIX-TF004
Entries 2578800
TOF MULT
TOF tray
43W 42W 41W 40W 39W 38W 37W 36W 35W 34W 73E 74E 75E 76E 77E 78E 79E 80E 81E 82E

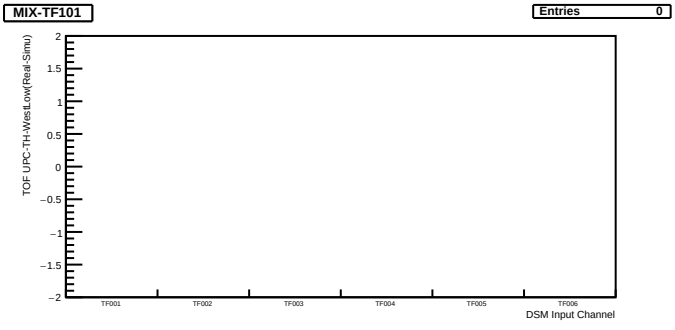

MIX-TF005
Entries 2578800
TOF MULT
TOF tray
33W 32W 31W 30W 29W 28W 27W 26W 25W 24W 83E 84E 85E 86E 87E 88E 89E 90E 91E 92E

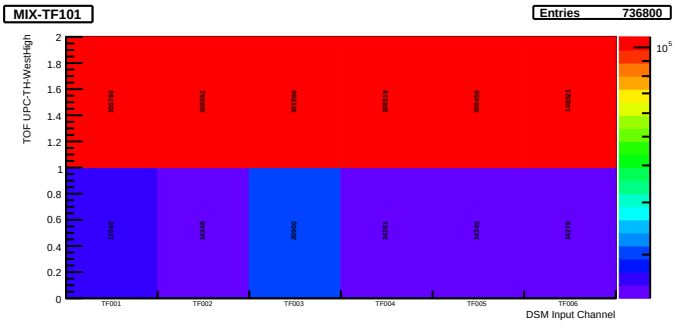

MIX-TF006
Entries 2578800
TOF MULT
TOF tray
23W 22W 21W 20W 19W 18W 17W 16W 15W 14W 93E 94E 95E 96E 97E 98E 99E 100E 101E 102E

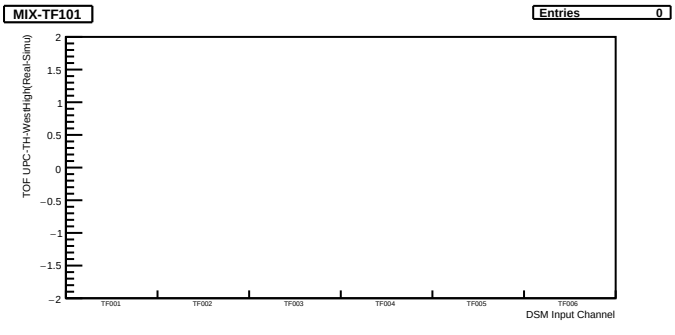

MIX-TF101
Entries 736800
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

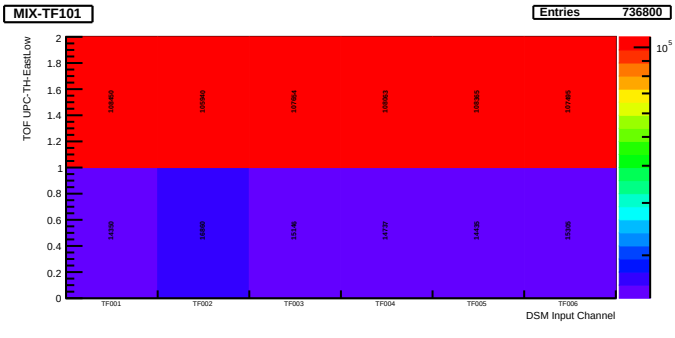

MIX-TF101
Entries 118379
TOF MULT(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

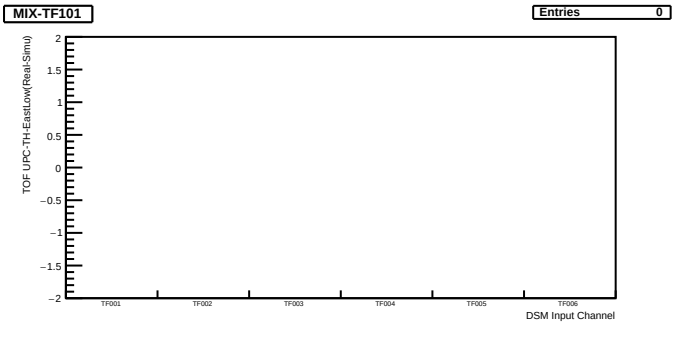

MIX-TF101
Entries 736800
TOF UPC-TH-WestLow
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

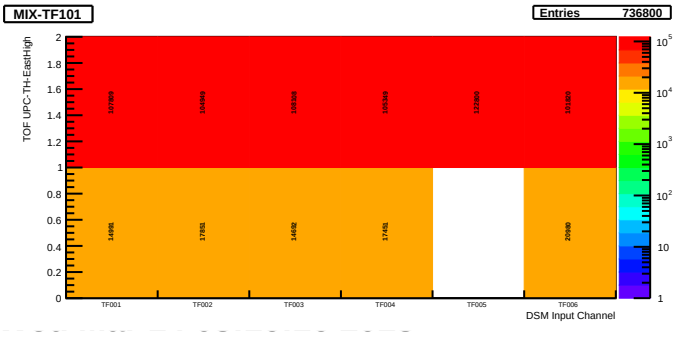

MIX-TF101
Entries 0
TOF UPC-TH-WestLow(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

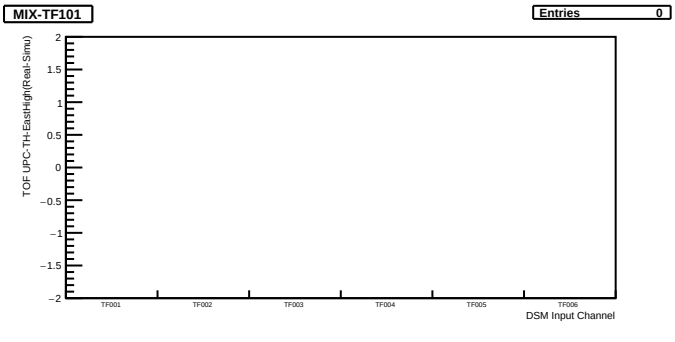

MIX-TF101
Entries 736800
TOF UPC-TH-WestHigh
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

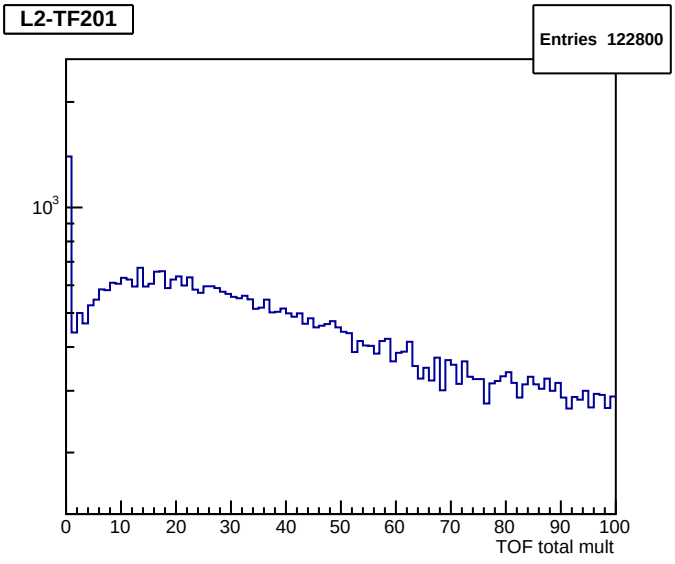

MIX-TF101
Entries 0
TOF UPC-TH-WestHigh(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

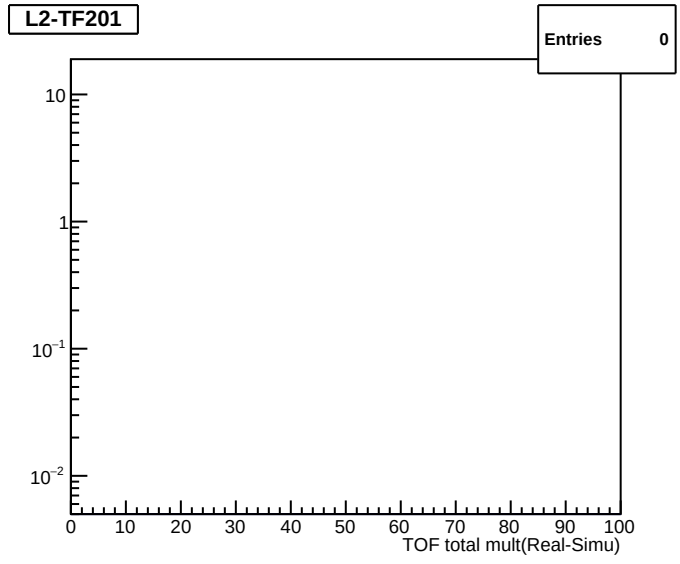

MIX-TF101
Entries 736800
TOF UPC-TH-EastLow
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

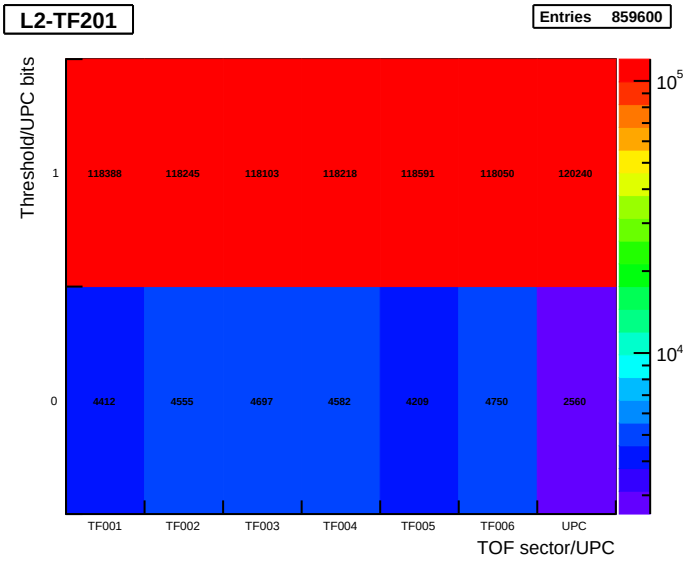

MIX-TF101
Entries 0
TOF UPC-TH-EastLow(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

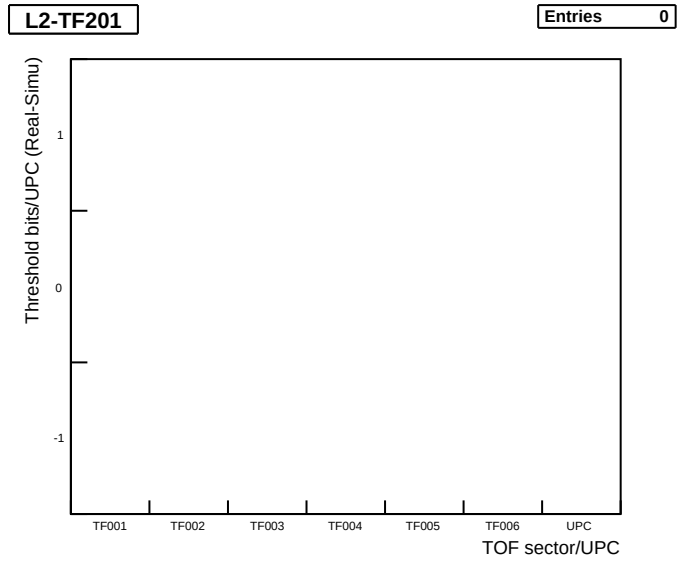

MIX-TF101
Entries 736800
TOF UPC-TH-EastHigh
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

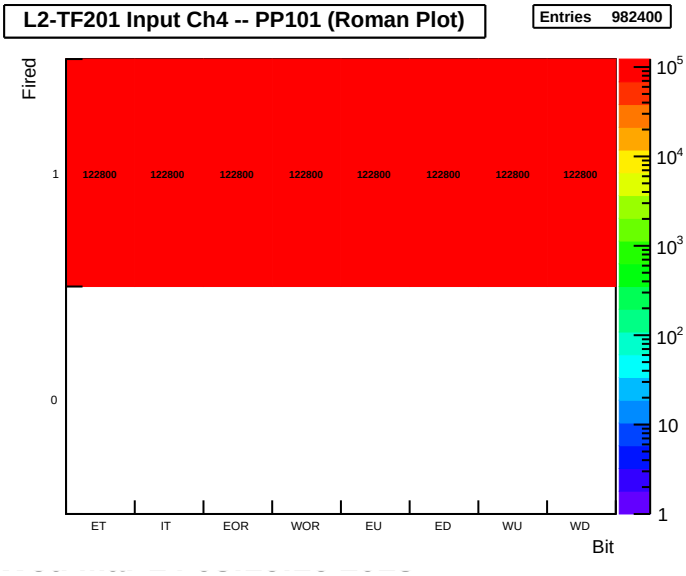

MIX-TF101
Entries 0
TOF UPC-TH-EastHigh(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

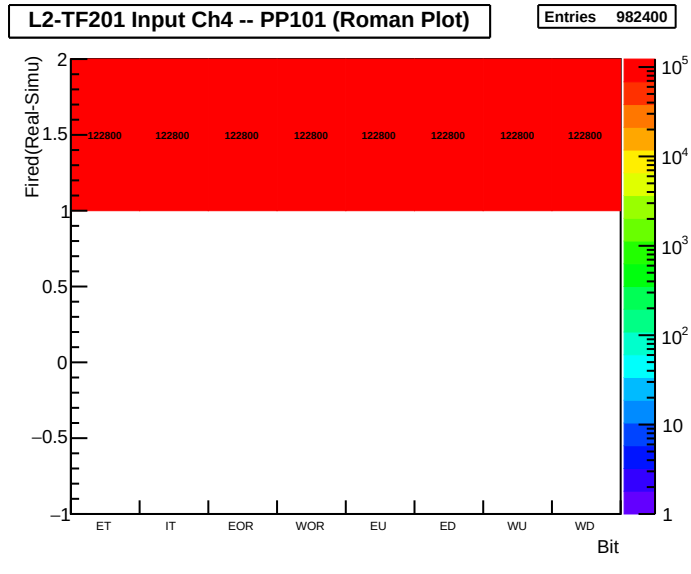

L2-TF201
Entries 122800
10^3
0 10 20 30 40 50 60 70 80 90 100
TOF total mult

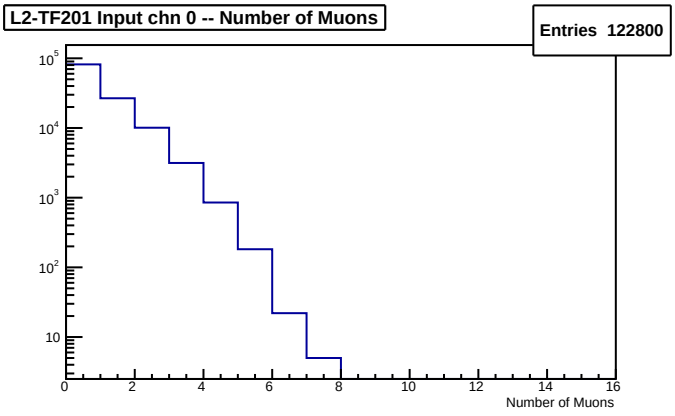

L2-TF201
Entries 0
10
1
10^{-1}
10^{-2}
0 10 20 30 40 50 60 70 80 90 100
TOF total mult(Real-Simu)

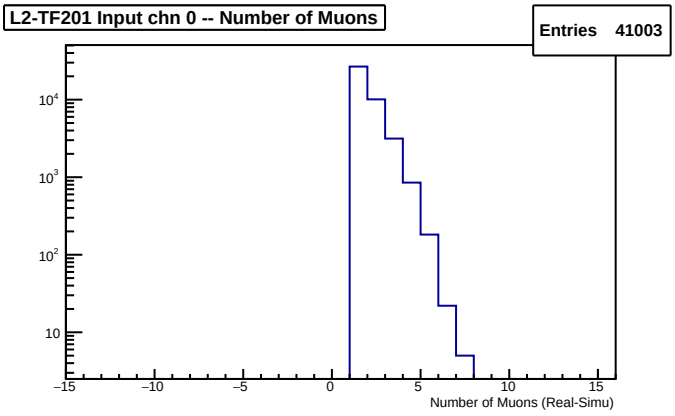

L2-TF201
Entries 859600
Threshold/UPC bits
1
0
118388 118245 118103 118218 118591 118050 120240
4412 4555 4697 4582 4209 4750 2560
TF001 TF002 TF003 TF004 TF005 TF006 UPC
TOF sector/UPC
10^5
10^4

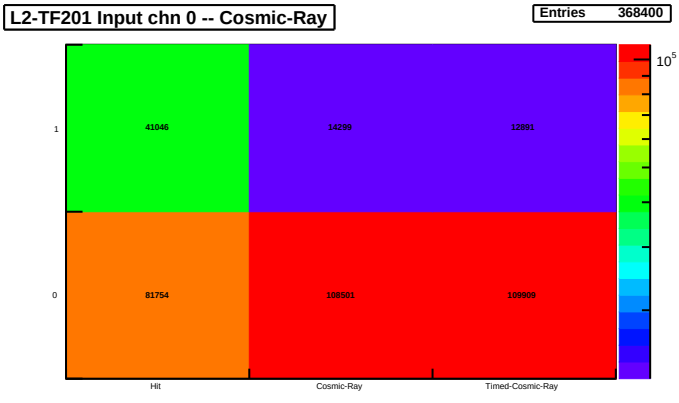

L2-TF201
Entries 0
Threshold bits/UPC (Real-Simu)
1
0
-1
TF001 TF002 TF003 TF004 TF005 TF006 UPC
TOF sector/UPC

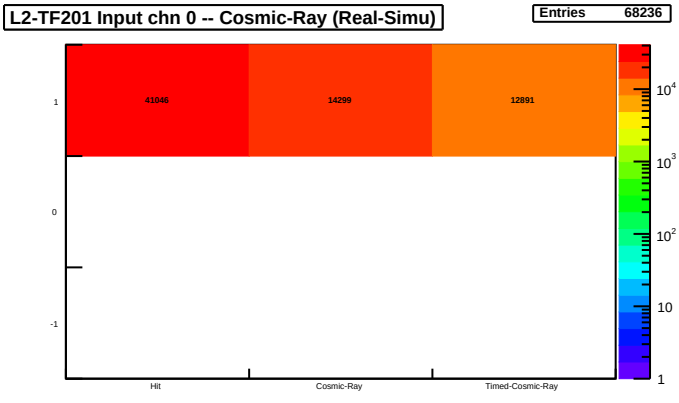

L2-TF201 Input Ch4 -- PP101 (Roman Plot)
Entries 982400
Fired
1
0
122800 122800 122800 122800 122800 122800 122800 122800
ET IT EOR WOR EU ED WU WD
Bit
10^5
10^4
10^3
10^2
10
1

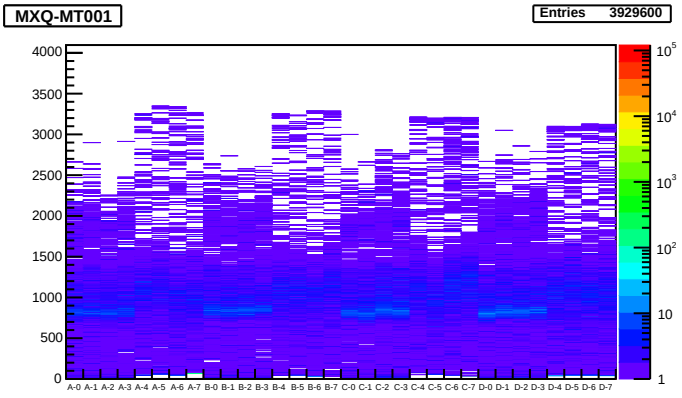

L2-TF201 Input Ch4 -- PP101 (Roman Plot)
Entries 982400
Fired(Real-Simu)
2
1.5
1
0.5
0
−0.5
−1
122800 122800 122800 122800 122800 122800 122800 122800
ET IT EOR WOR EU ED WU WD
Bit
10^5
10^4
10^3
10^2
10
1

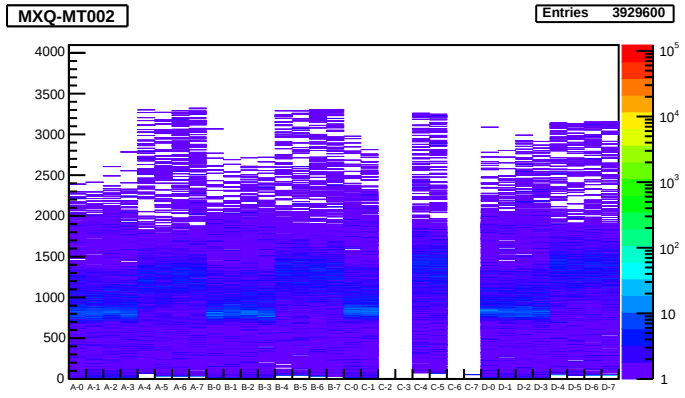

L2-TF201 Input chn 0 -- Number of Muons
Entries 122800
Number of Muons

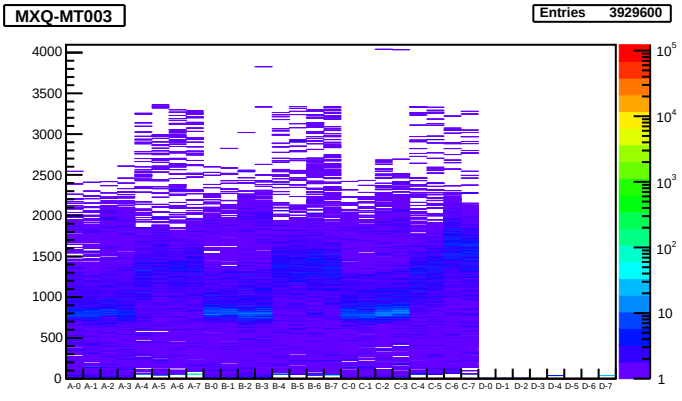

L2-TF201 Input chn 0 -- Number of Muons
Entries 41003
Number of Muons (Real-Simu)

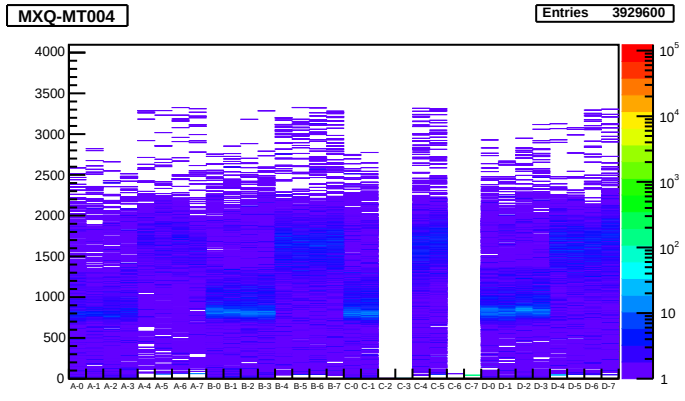

L2-TF201 Input chn 0 -- Cosmic-Ray
Entries 368400
41046
14299
12891
81754
108501
109909
Hit
Cosmic-Ray
Timed-Cosmic-Ray

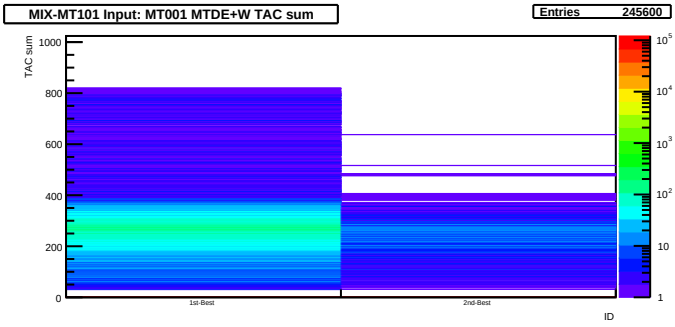

L2-TF201 Input chn 0 -- Cosmic-Ray (Real-Simu)
Entries 68236
41046
14299
12891
Hit
Cosmic-Ray
Timed-Cosmic-Ray

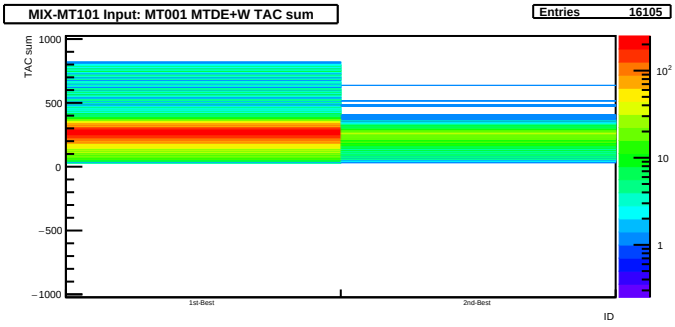

MXQ-MT001
Entries 3929600
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^5
10^4
10^3
10^2
10
1

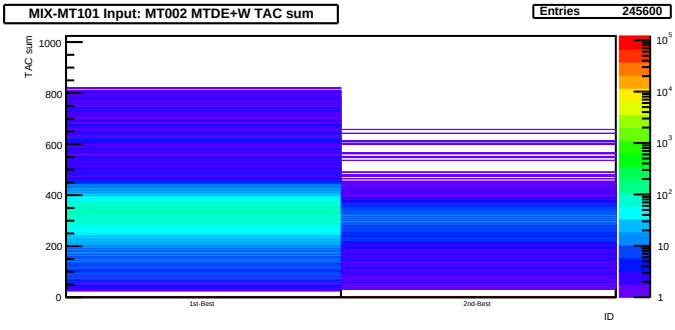

MXQ-MT002
Entries 3929600
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^5
10^4
10^3
10^2
10
1

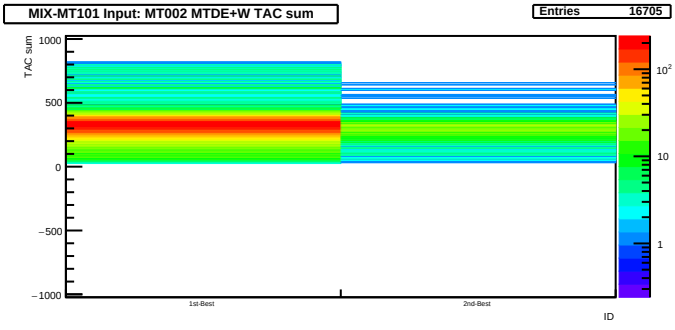

MXQ-MT003
Entries 3929600
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^5
10^4
10^3
10^2
10
1

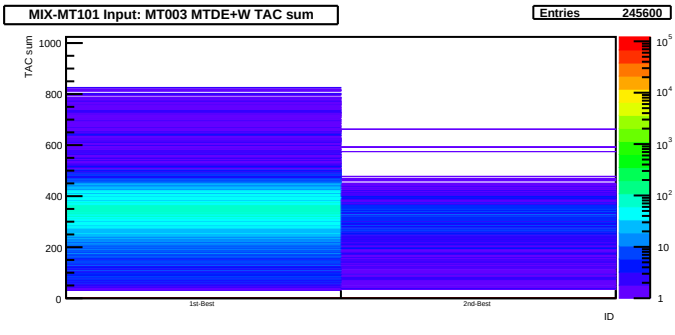

MXQ-MT004
Entries 3929600
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^5
10^4
10^3
10^2
10
1

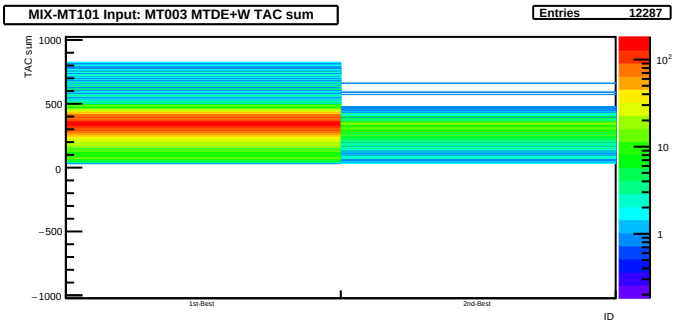

MIX-MT101 Input: MT001 MTDE+W TAC sum
Entries 245600
TAC sum
1st-Best
2nd-Best
ID

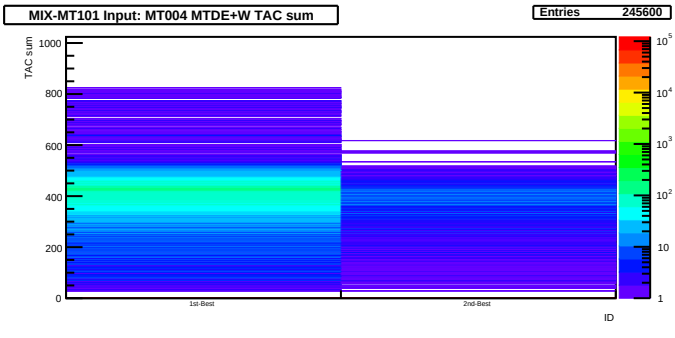

MIX-MT101 Input: MT001 MTDE+W TAC sum
Entries 16105
TAC sum
1st-Best
2nd-Best
ID

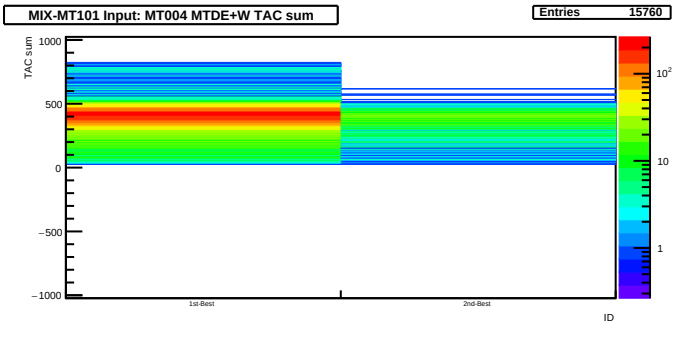

MIX-MT101 Input: MT002 MTDE+W TAC sum
Entries 245600
TAC sum
1st-Best
2nd-Best
ID

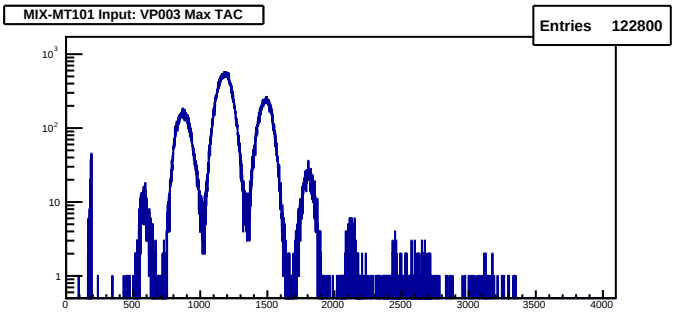

MIX-MT101 Input: MT002 MTDE+W TAC sum
Entries 16705
TAC sum
1st-Best
2nd-Best
ID

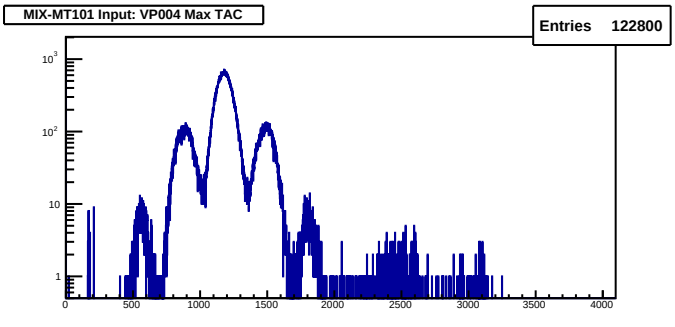

MIX-MT101 Input: MT003 MTDE+W TAC sum
Entries 245600
TAC sum
1st-Best
2nd-Best
ID

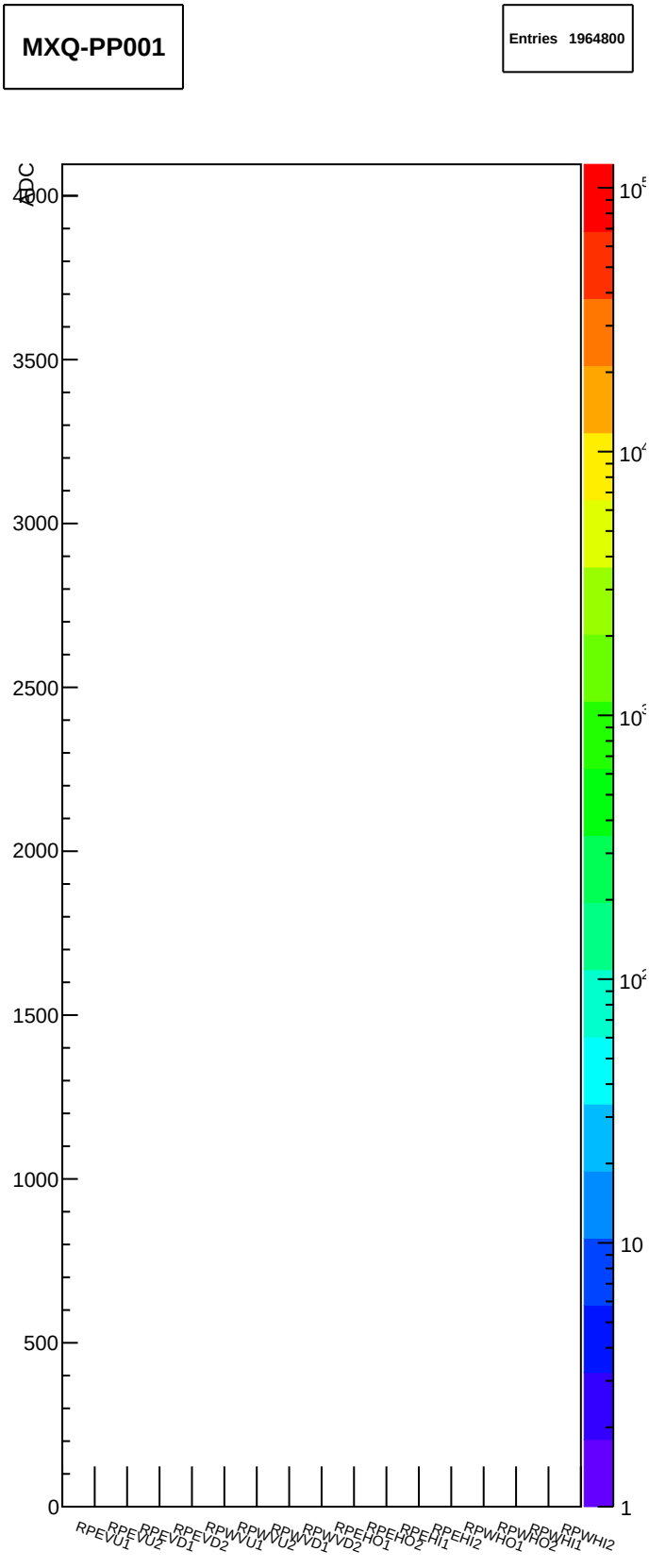

MIX-MT101 Input: MT003 MTDE+W TAC sum
Entries 12287
TAC sum
1st-Best
2nd-Best
ID

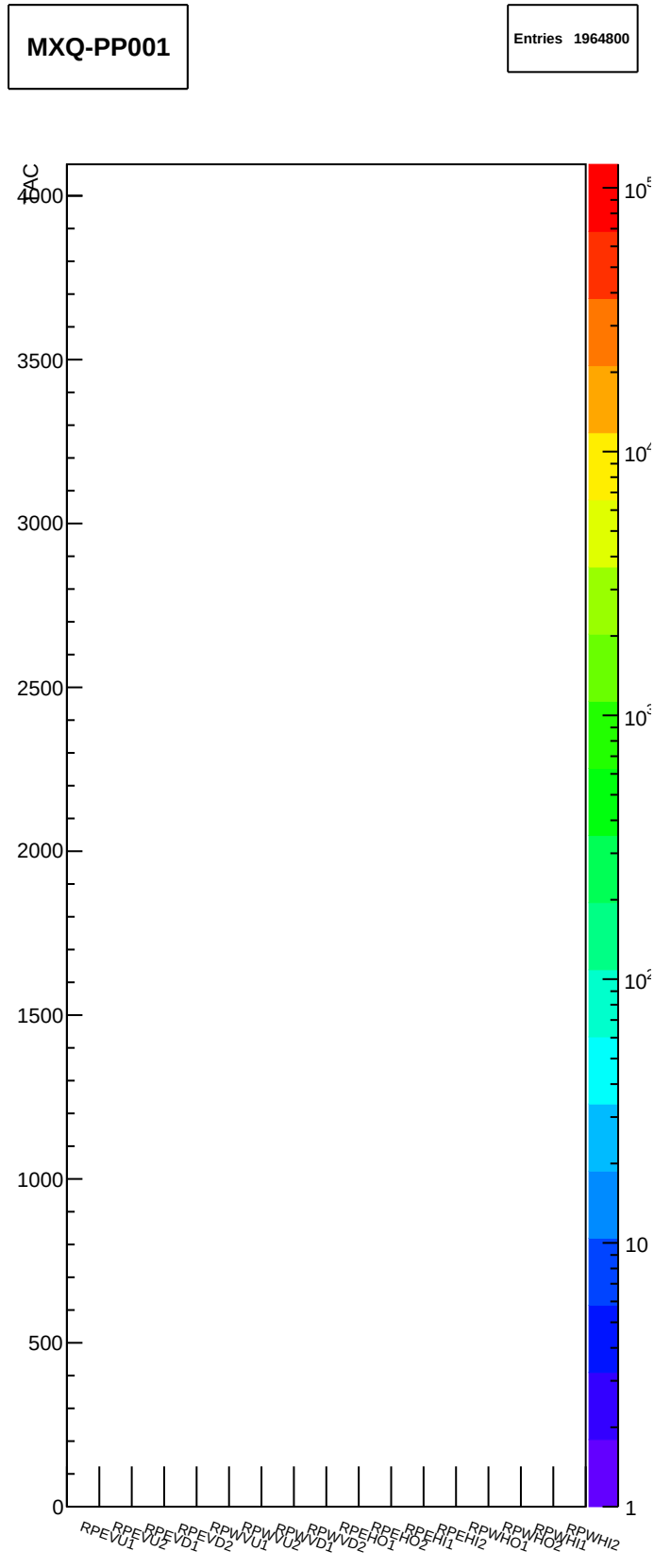

MIX-MT101 Input: MT004 MTDE+W TAC sum
Entries 245600
TAC sum
1st-Best
2nd-Best
ID

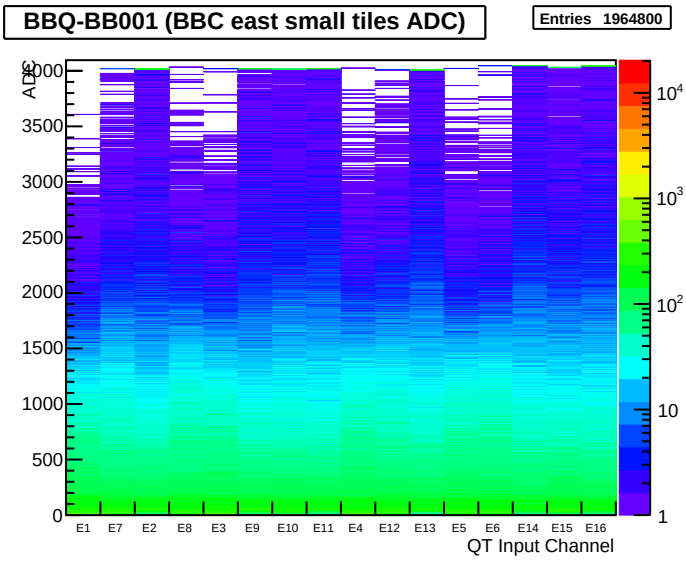

MIX-MT101 Input: MT004 MTDE+W TAC sum
Entries 15760
TAC sum
1st-Best
2nd-Best
ID

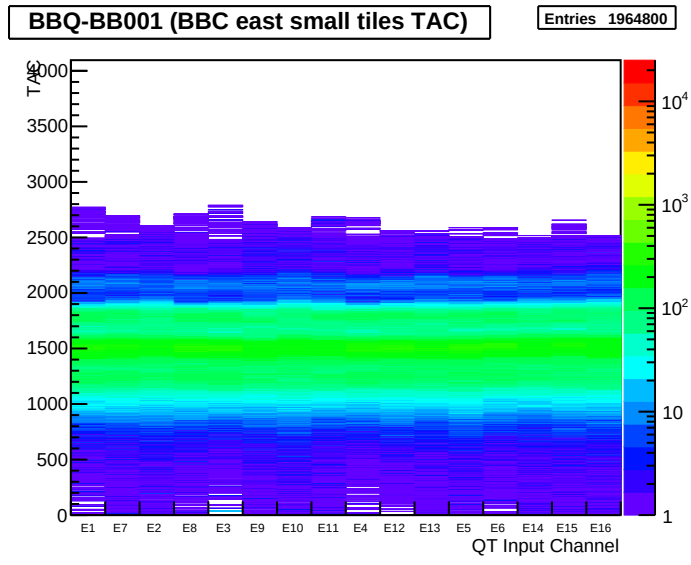

MIX-MT101 Input: VP003 Max TAC
Entries 122800

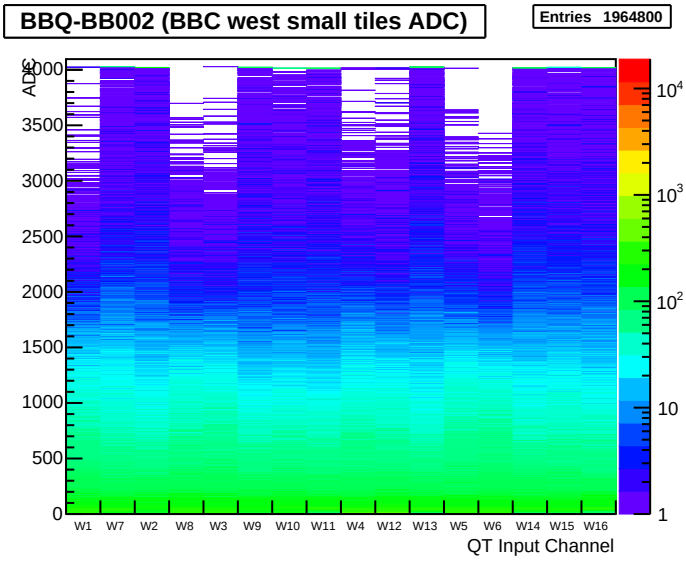

MIX-MT101 Input: VP004 Max TAC
Entries 122800

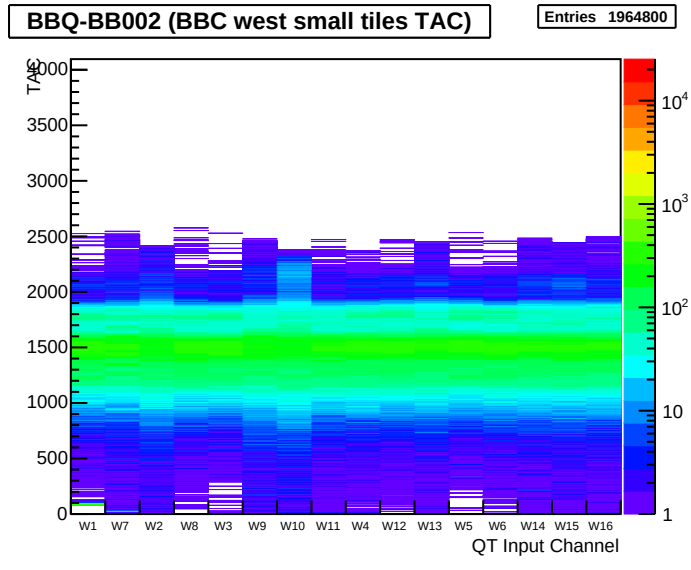

MXQ-PP001
Entries 1964800
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
RPEVU1
RPEVU2
RPEVD1
RPEVD2
RPWVU1
RPWVU2
RPWVD1
RPWVD2
RPEHO1
RPEHO2
RPEHI1
RPEHI2
RPWHO1
RPWHO2
RPWHI1
RPWHI2
10
1

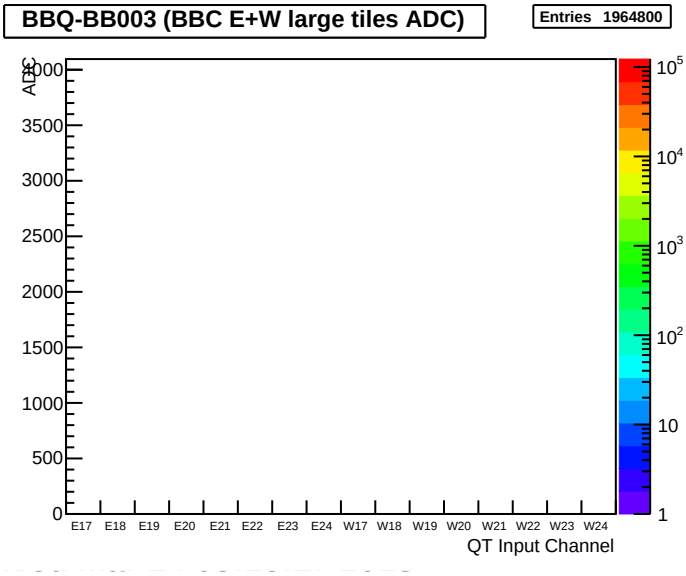

MXQ-PP001
Entries 1964800
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
RPEVU1
RPEVU2
RPEVD1
RPEVD2
RPWVU1
RPWVU2
RPWVD1
RPWVD2
RPEHO1
RPEHO2
RPEHI1
RPEHI2
RPWHO1
RPWHO2
RPWHI1
RPWHI2
10
1

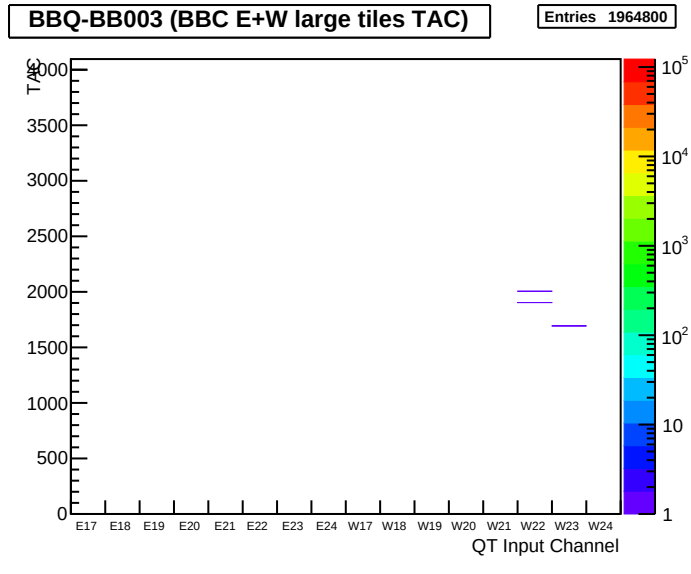

BBQ-BB001 (BBC east small tiles ADC)
Entries 1964800
ADC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

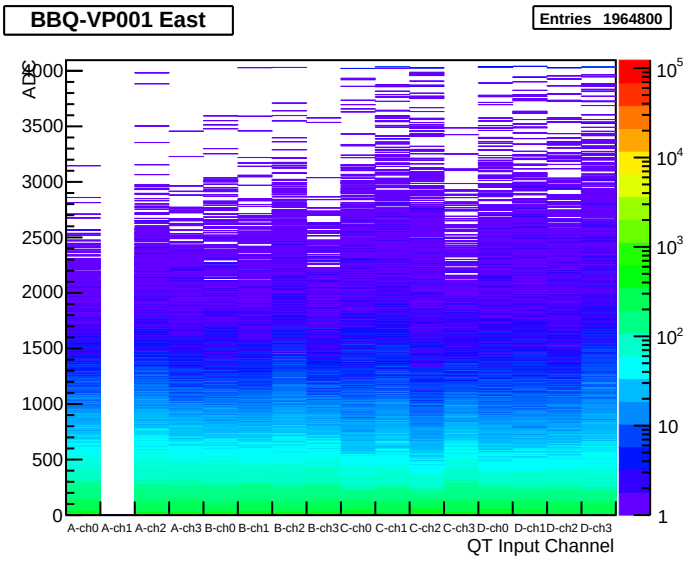

BBQ-BB001 (BBC east small tiles TAC)
Entries 1964800
TAC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

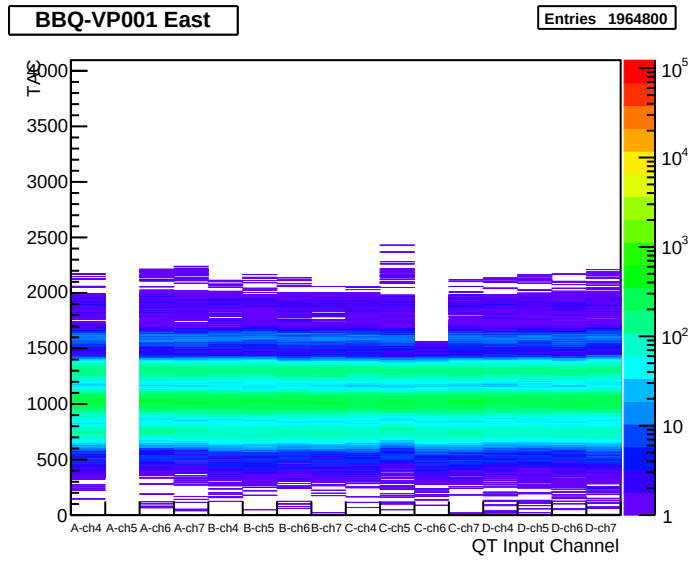

BBQ-BB002 (BBC west small tiles ADC)
Entries 1964800
ADC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

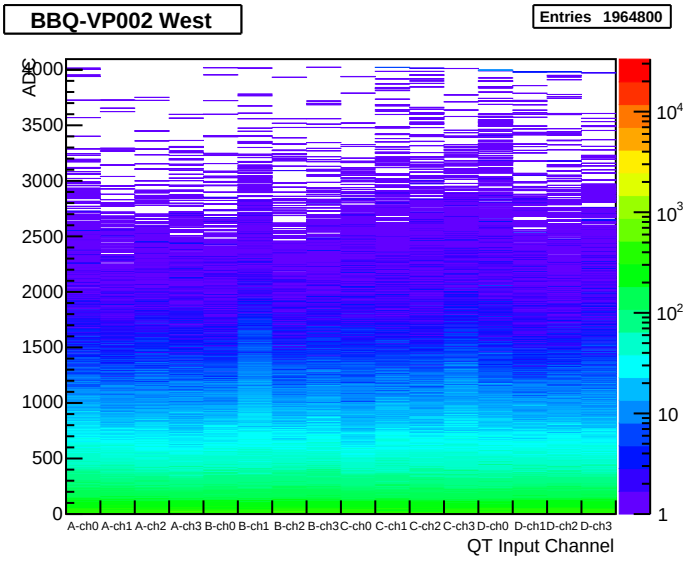

BBQ-BB002 (BBC west small tiles TAC)
Entries 1964800
TAC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

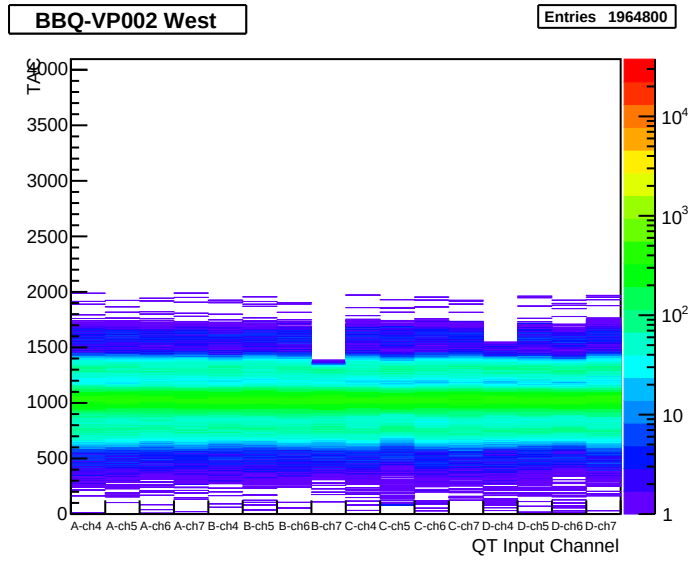

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1964800
ADC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

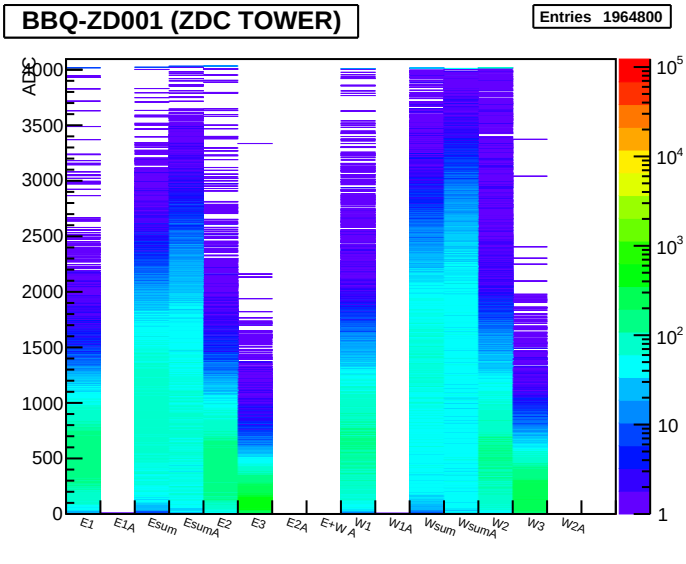

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1964800
TAC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

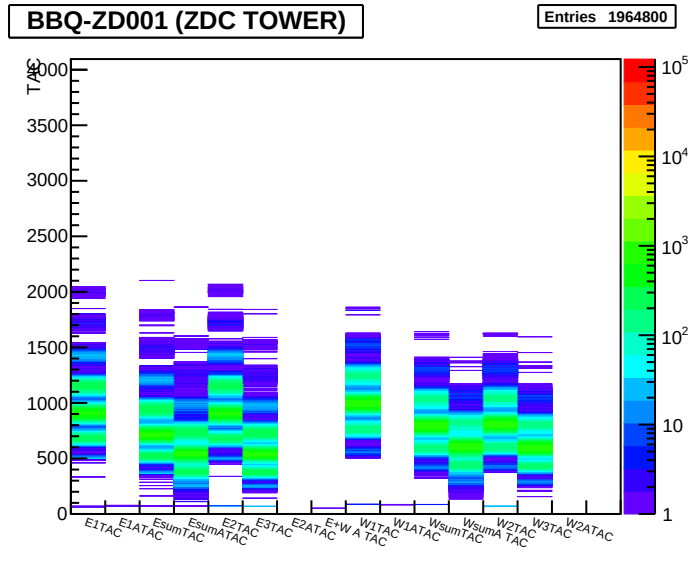

BBQ-VP001 East
Entries 1964800
ADC
QT Input Channel

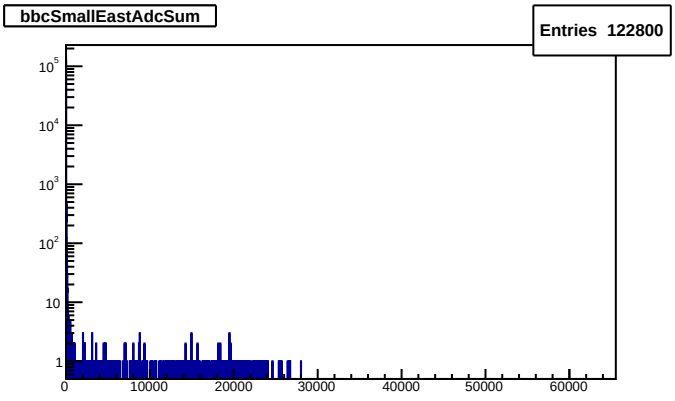

BBQ-VP001 East
Entries 1964800
TAC
QT Input Channel

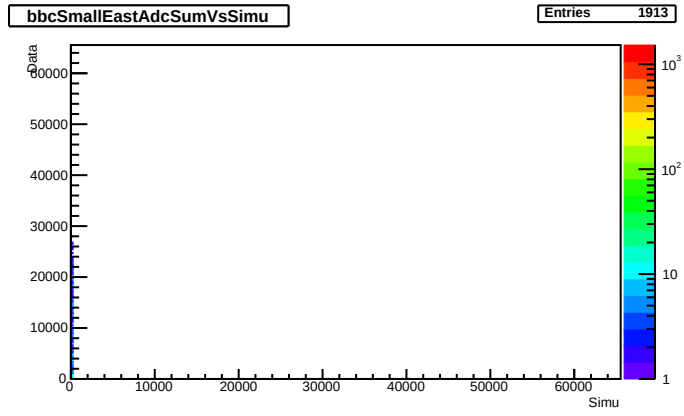

BBQ-VP002 West
Entries 1964800
ADC
QT Input Channel

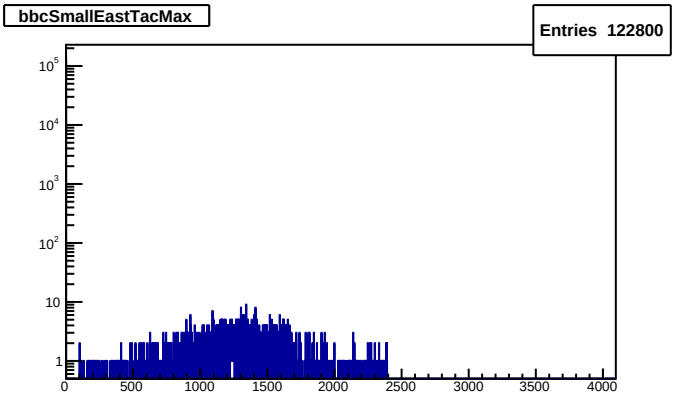

BBQ-VP002 West
Entries 1964800
TAC
QT Input Channel

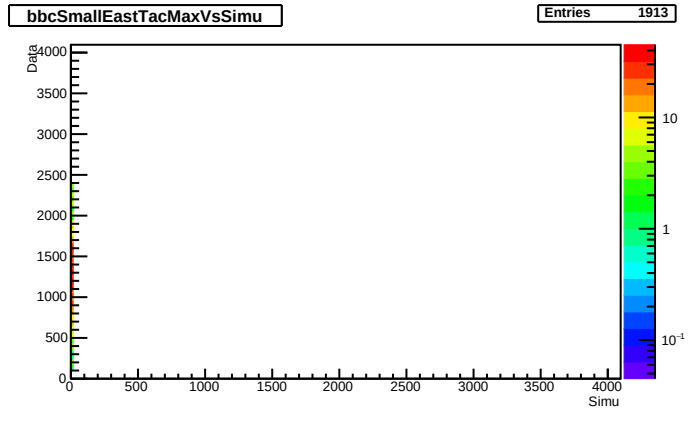

BBQ-ZD001 (ZDC TOWER)
Entries 1964800
ADC

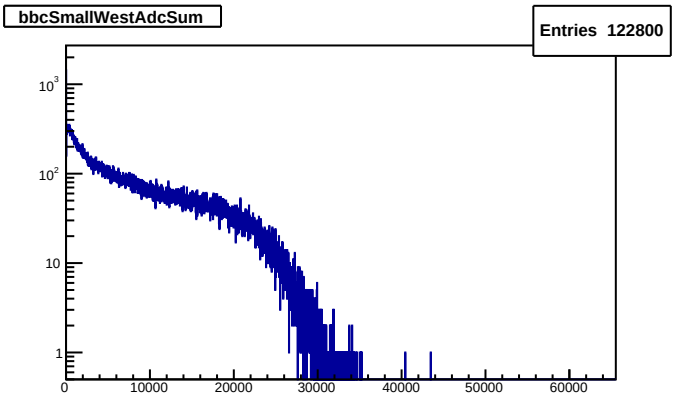

BBQ-ZD001 (ZDC TOWER)
Entries 1964800
TAC

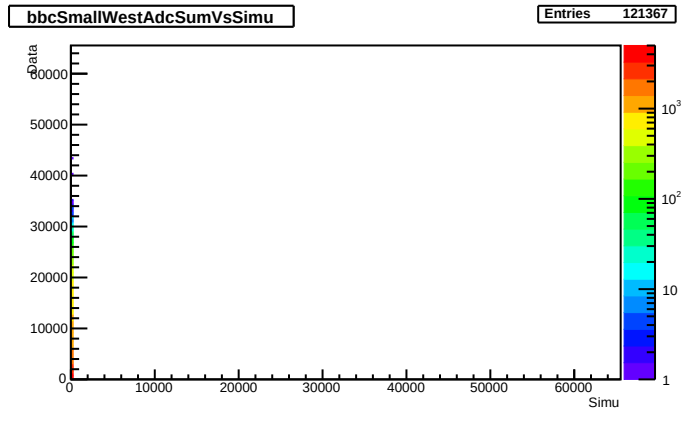

bbcSmallEastAdcSum
Entries 122800

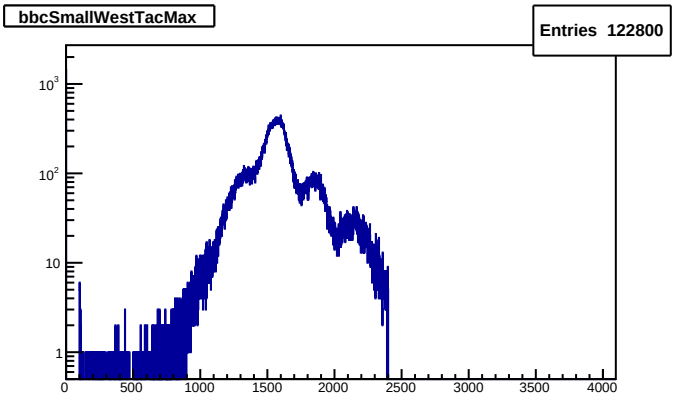

bbcSmallEastAdcSumVsSimu
Entries 1913
Data
Simu

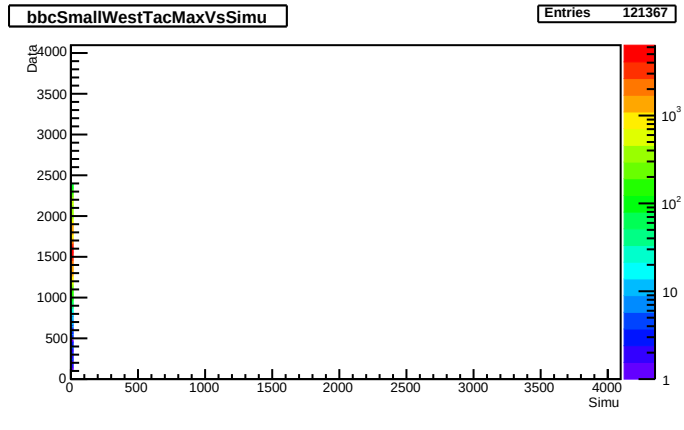

bbcSmallEastTacMax
Entries 122800

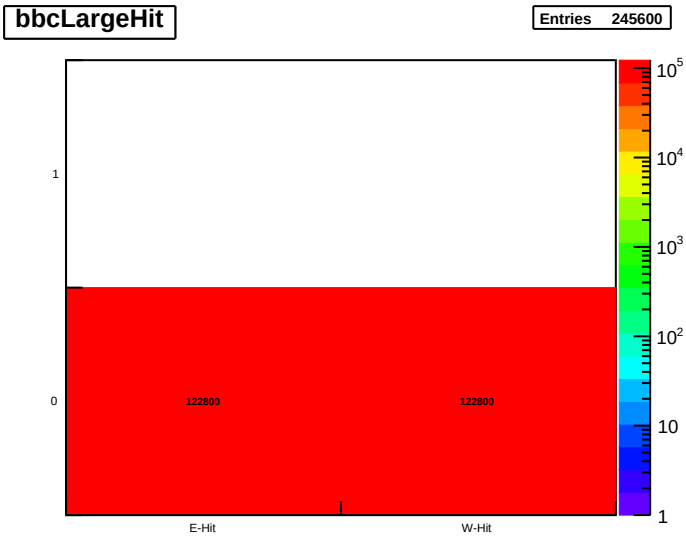

bbcSmallEastTacMaxVsSimu
Entries 1913
Data
Simu

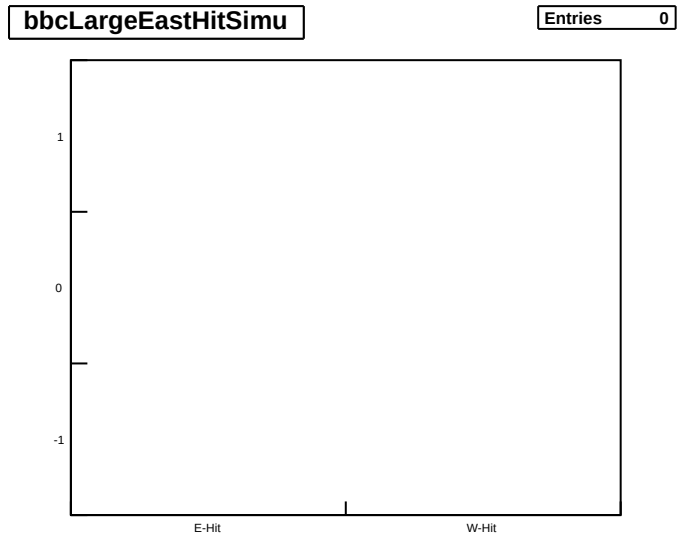

bbcSmallWestAdcSum
Entries 122800

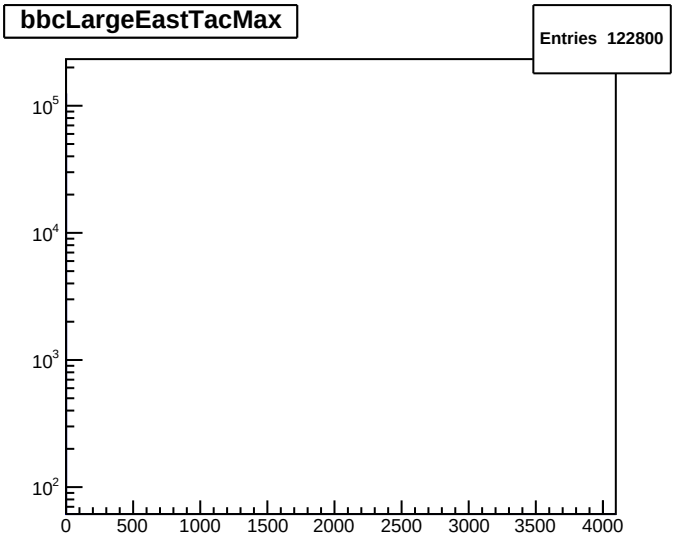

bbcSmallWestAdcSumVsSimu
Entries 121367
Data
Simu

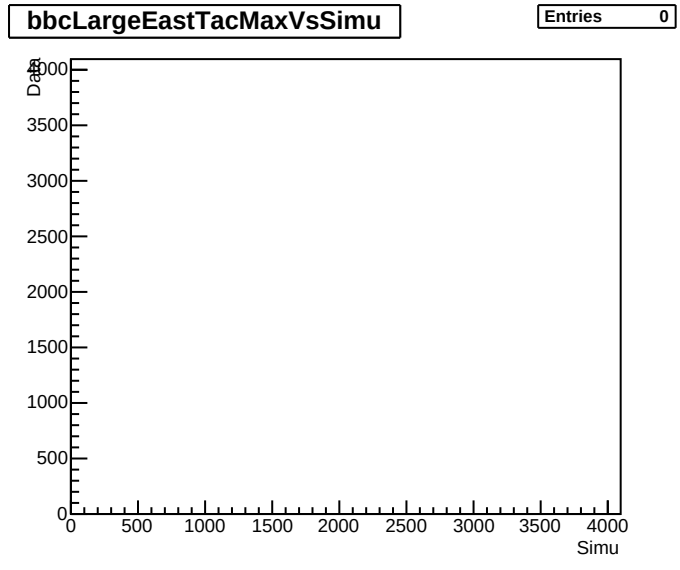

bbcSmallWestTacMax
Entries 122800

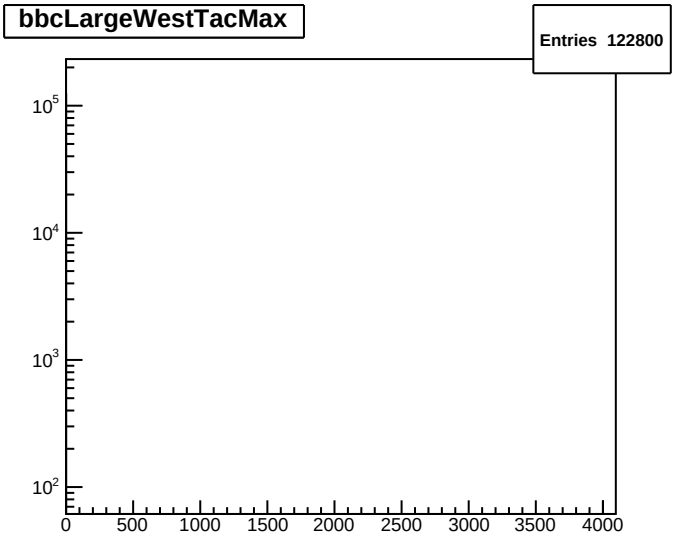

bbcSmallWestTacMaxVsSimu
Entries 121367
Data
Simu

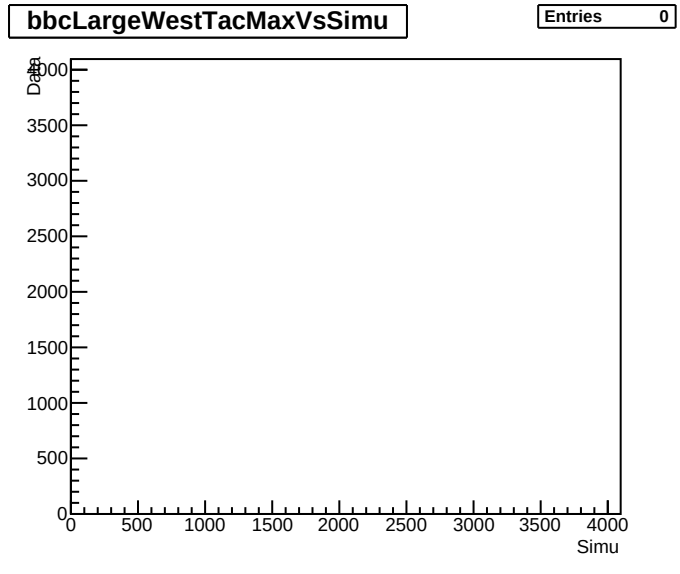

bbcLargeHit
Entries 245600
122800
122800
E-Hit
W-Hit

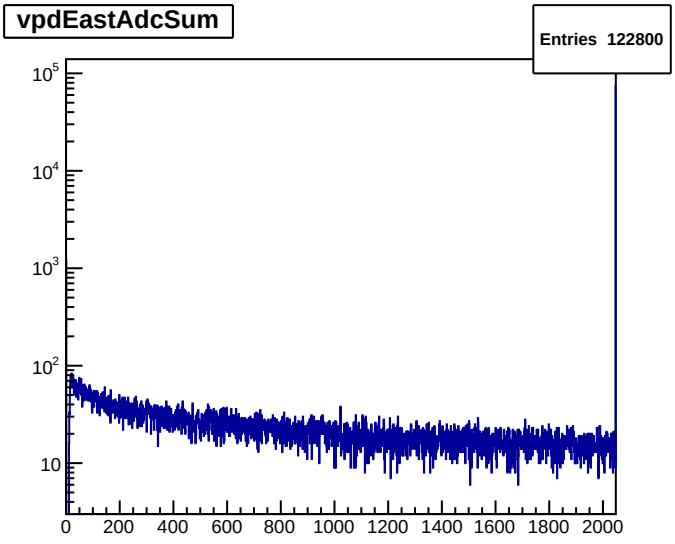

bbcLargeEastHitSimu
Entries 0
E-Hit
W-Hit

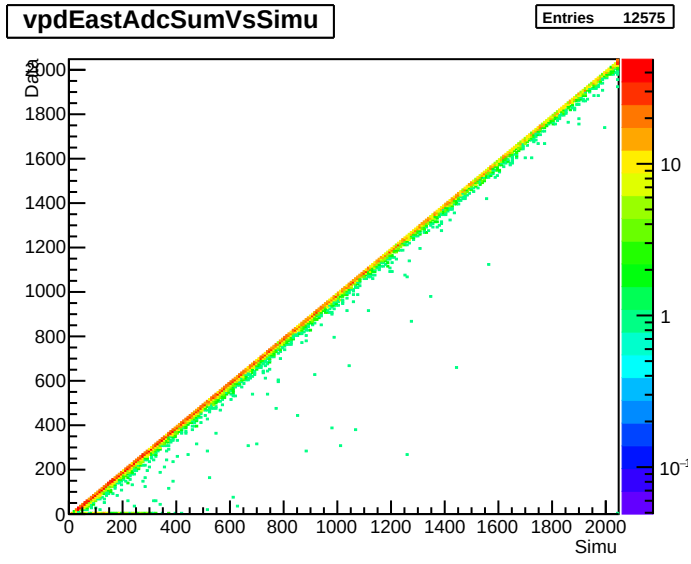

bbcLargeEastTacMax
Entries 122800

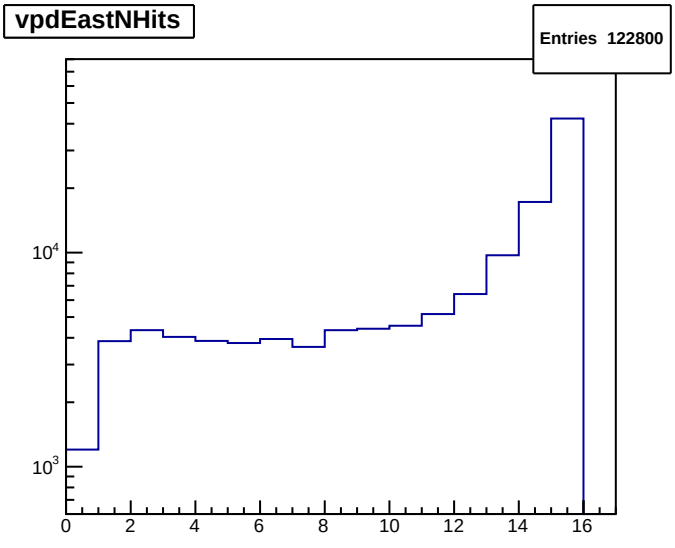

bbcLargeEastTacMaxVsSimu
Entries 0
Data
Simu

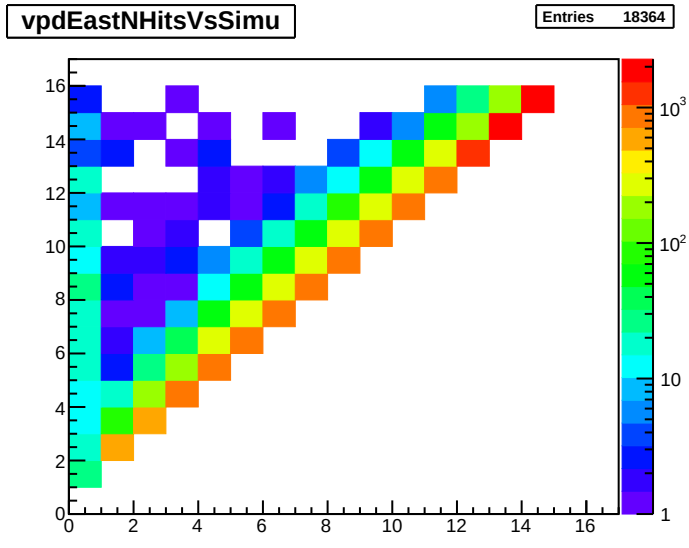

bbcLargeWestTacMax
Entries 122800

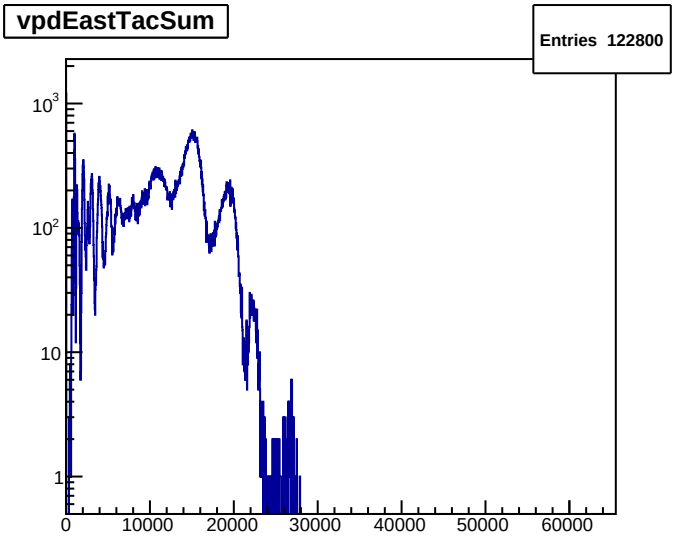

bbcLargeWestTacMaxVsSimu
Entries 0
Data
Simu

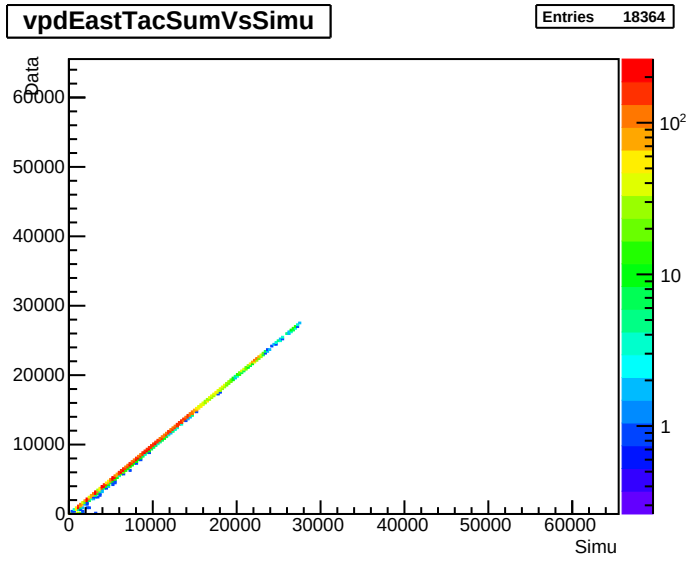

vpdEastAdcSum
Entries 122800

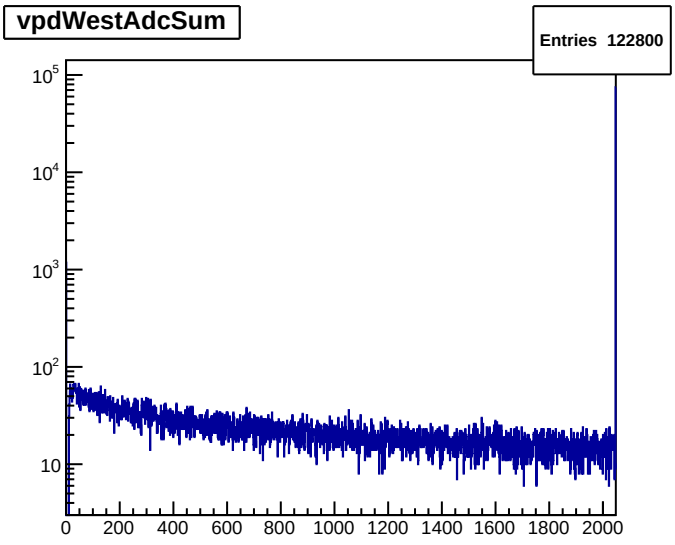

vpdEastAdcSumVsSimu
Entries 12575
Data
Simu

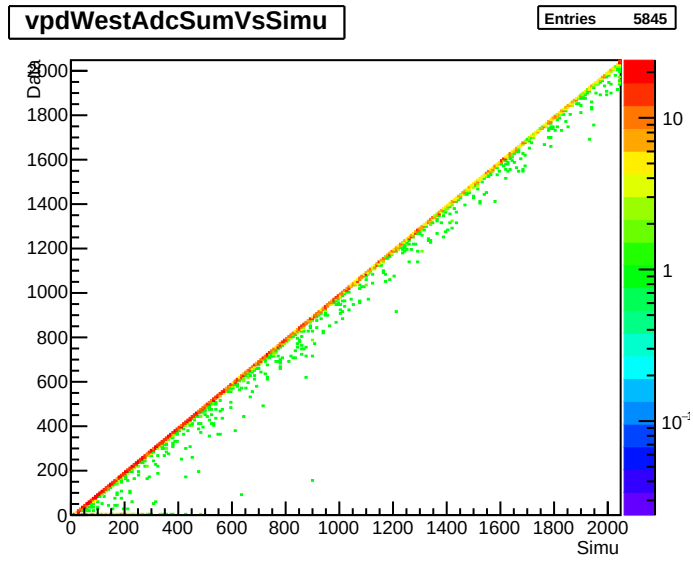

vpdEastNHits
Entries 122800

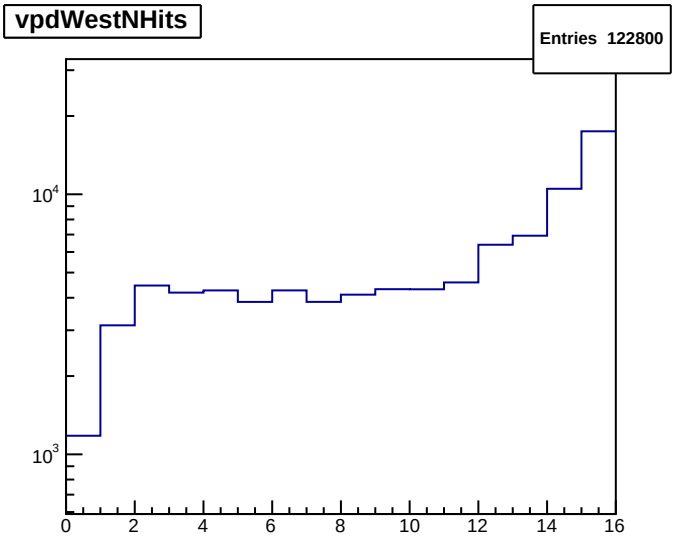

vpdEastNHitsVsSimu
Entries 18364

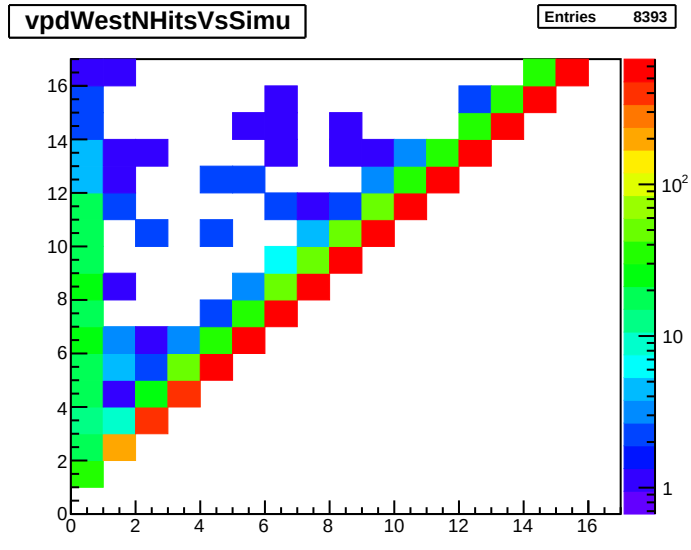

vpdEastTacSum
Entries 122800

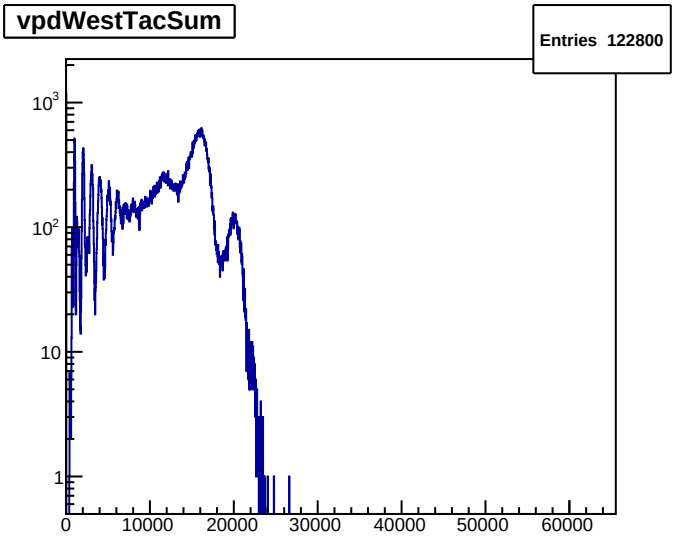

vpdEastTacSumVsSimu
Entries 18364
Data
Simu

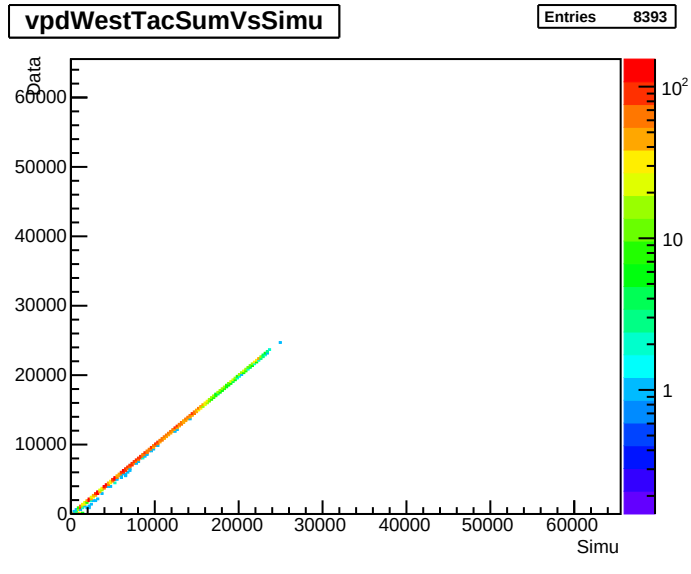

vpdWestAdcSum
Entries 122800

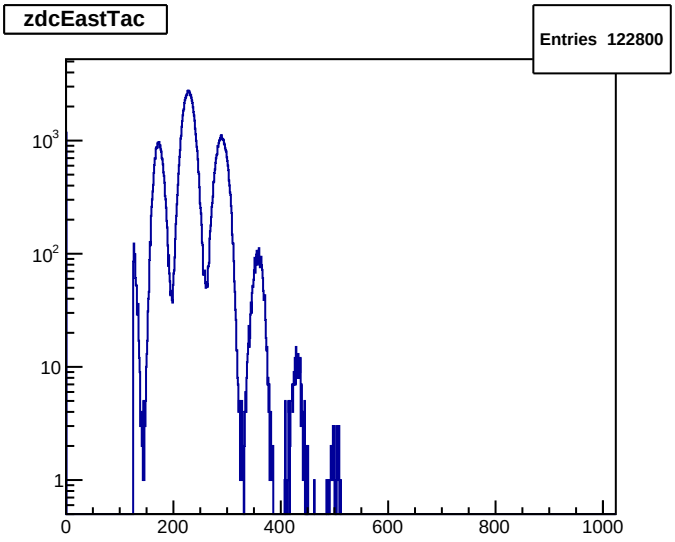

vpdWestAdcSumVsSimu
Entries 5845
Data
Simu

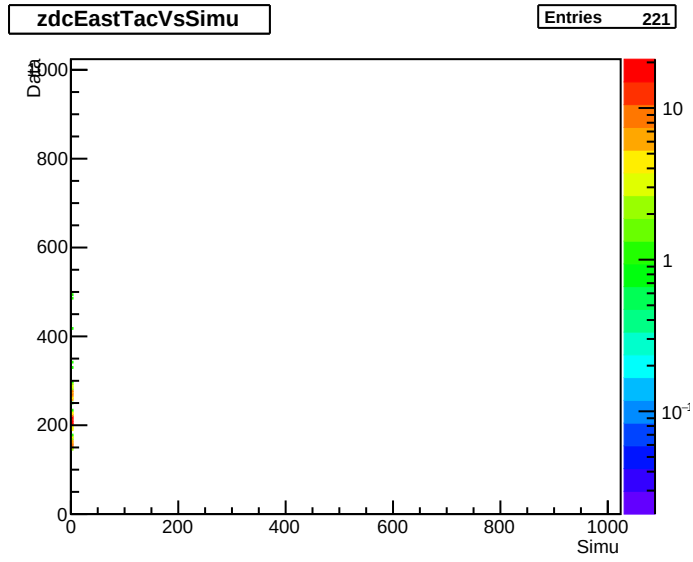

vpdWestNHits
Entries 122800

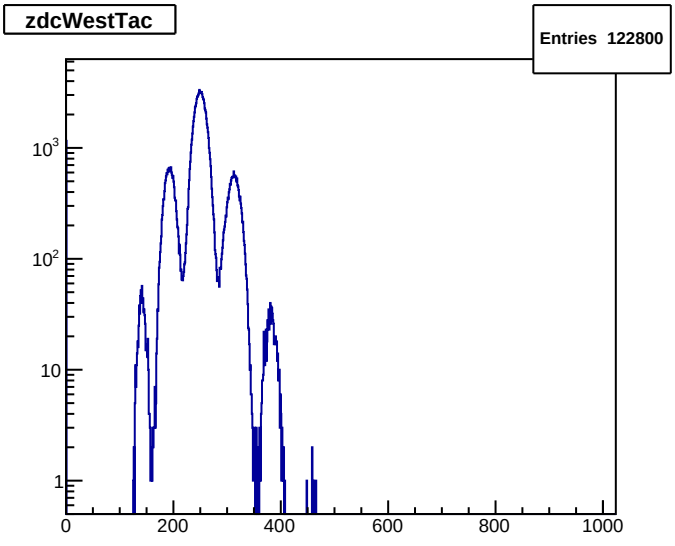

vpdWestNHitsVsSimu
Entries 8393

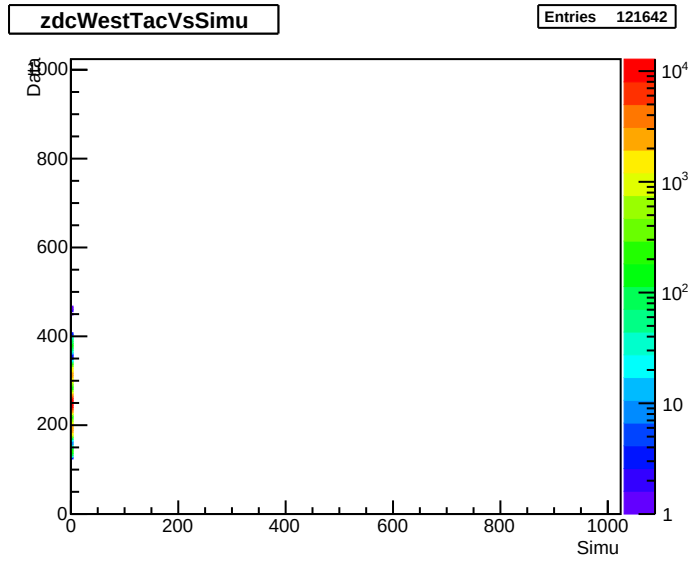

vpdWestTacSum
Entries 122800

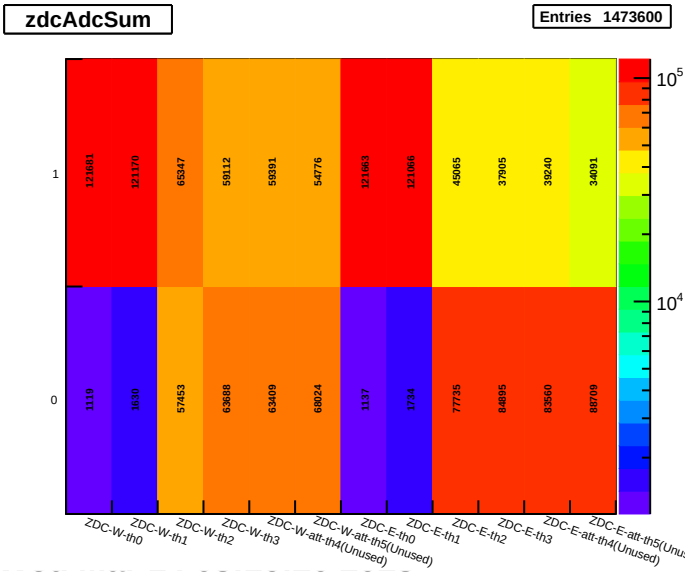

vpdWestTacSumVsSimu
Entries 8393
Data
Simu

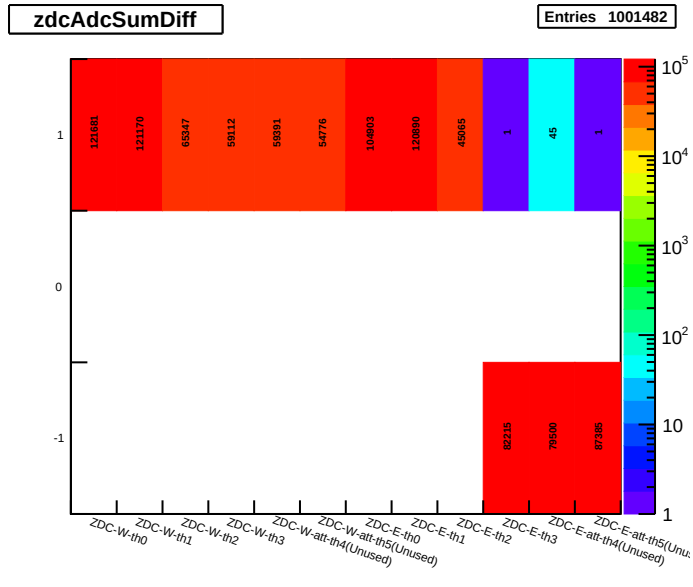

zdcEastTac
Entries 122800

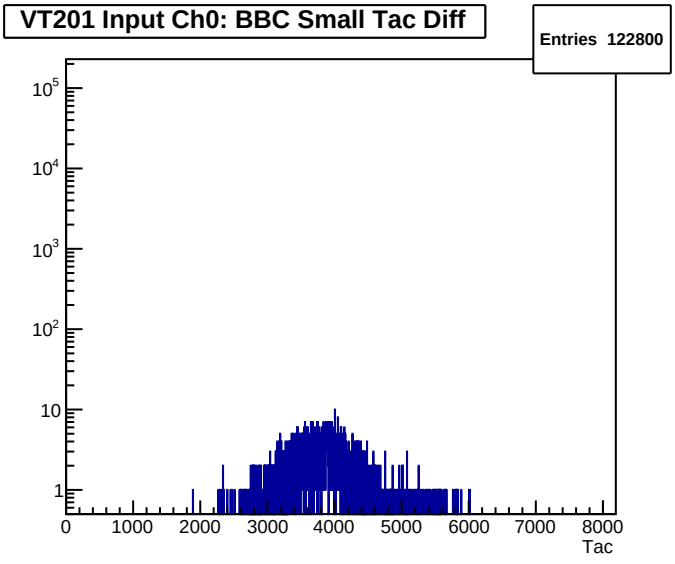

zdcEastTacVsSimu
Entries 221
Data
Simu

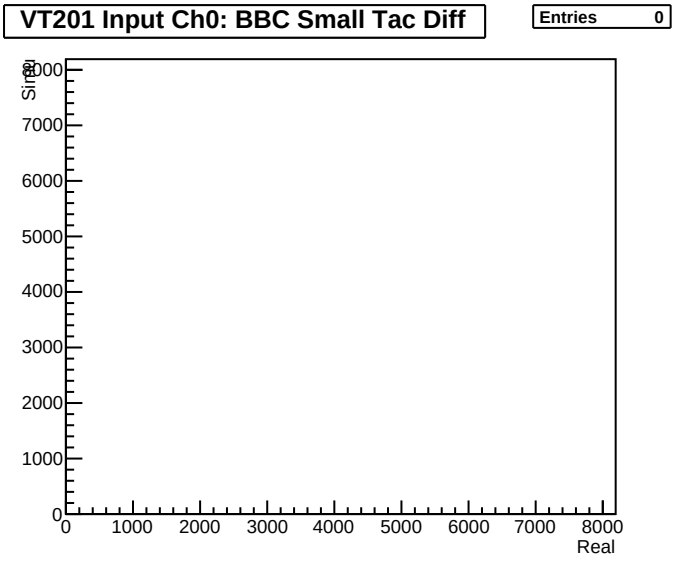

zdcWestTac
Entries 122800

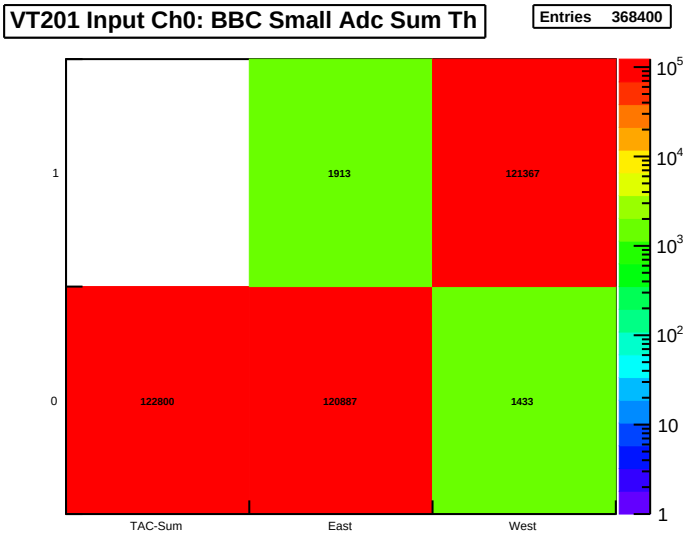

zdcWestTacVsSimu
Entries 121642
Data
Simu

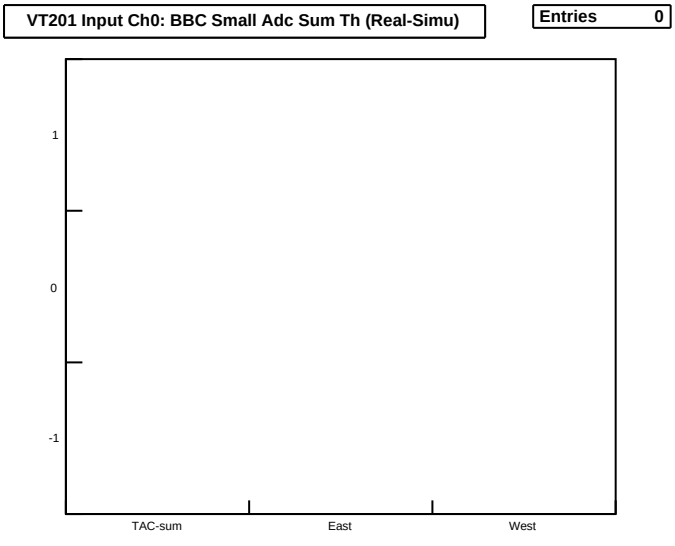

zdcAdcSum
Entries 1473600
121681
121170
65347
59112
59391
54776
121663
121066
45065
37905
39240
34091
1119
1630
57453
63888
63409
68024
1137
1734
77735
84895
83560
88709
ZDC-W-th0
ZDC-W-th1
ZDC-W-th2
ZDC-W-th3
ZDC-W-att-th4(Unused)
ZDC-W-att-th5(Unused)
ZDC-E-th0
ZDC-E-th1
ZDC-E-th2
ZDC-E-th3
ZDC-E-att-th4(Unused)

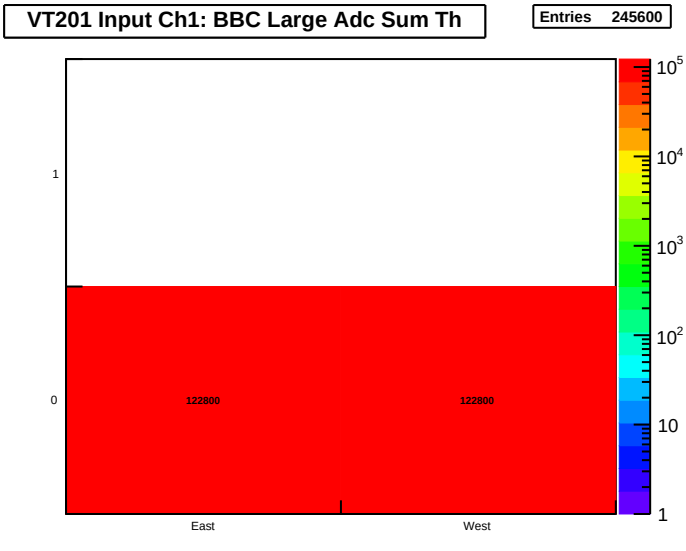

zdcAdcSumDiff
Entries 1001482
121681
121170
65347
59112
59391
54776
104803
120890
45065
1
45
1
82215
79500
87385
ZDC-W-th0
ZDC-W-th1
ZDC-W-th2
ZDC-W-th3
ZDC-W-att-th4(Unused)
ZDC-W-att-th5(Unused)
ZDC-E-th0
ZDC-E-th1
ZDC-E-th2
ZDC-E-th3
ZDC-E-att-th4(Unused)

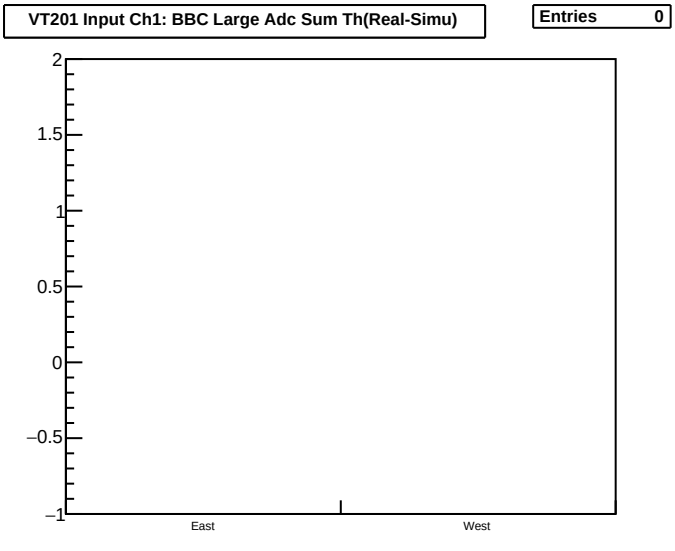

VT201 Input Ch0: BBC Small Tac Diff
Entries 122800
Tac


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

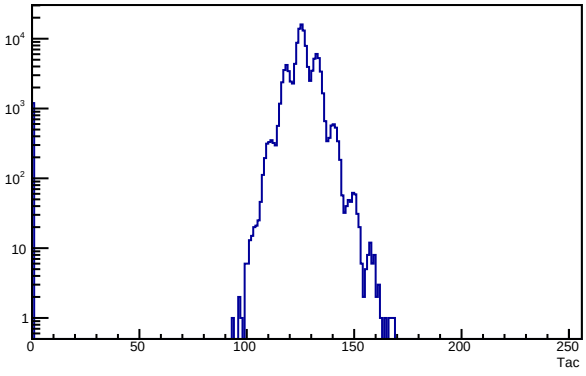

VT201 Input Ch0: BBC Small Adc Sum Th
Entries 368400
1913
121367
122800
120887
1433
TAC-Sum
East
West


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

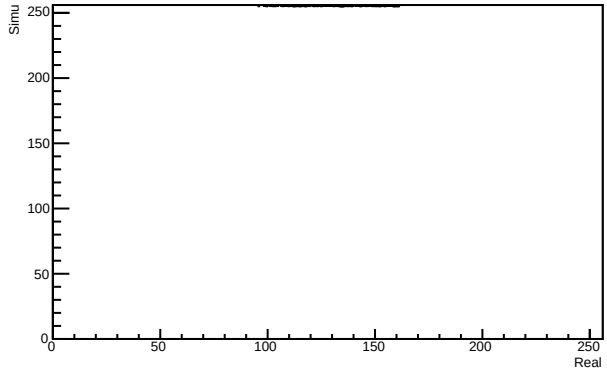

VT201 Input Ch1: BBC Large Adc Sum Th
Entries 245600
122800
122800
East
West


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

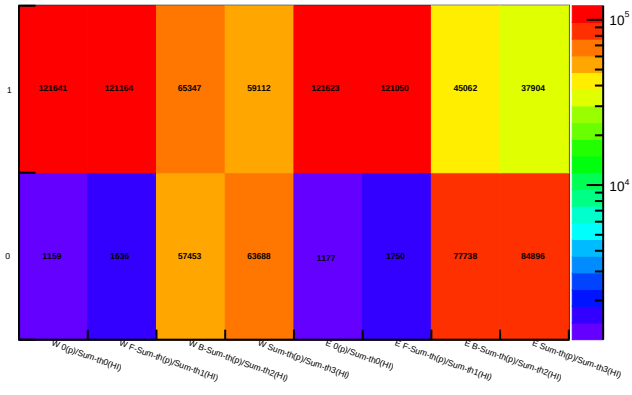
VT201 Input Ch2: ZDC Tac Diff



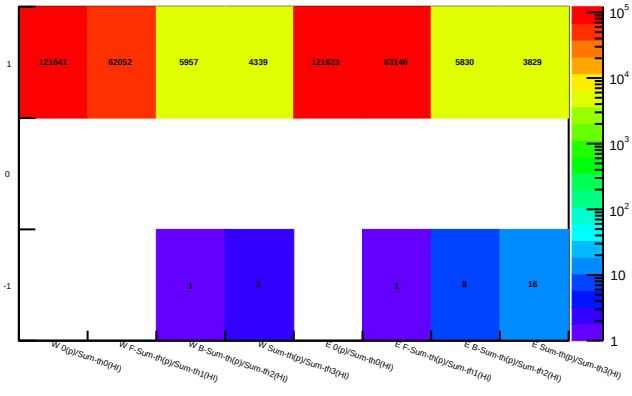
VT201 Input Ch2: ZDC Tac Diff



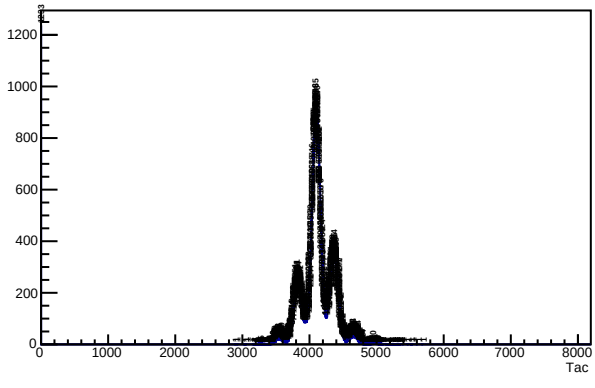
VT201 Input Ch2: ZDC Adc Sum Th



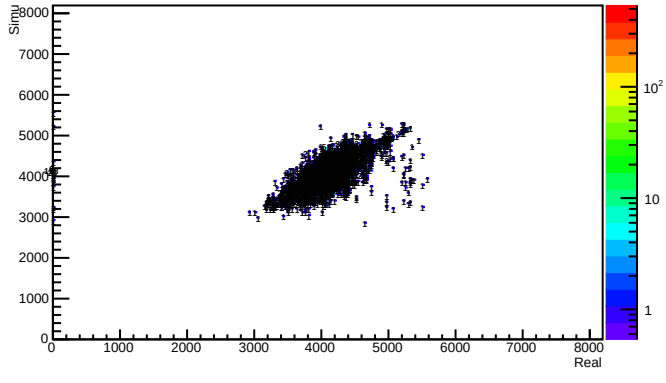
VT201 Input Ch2: ZDC Adc Sum Th (Real-Simu)



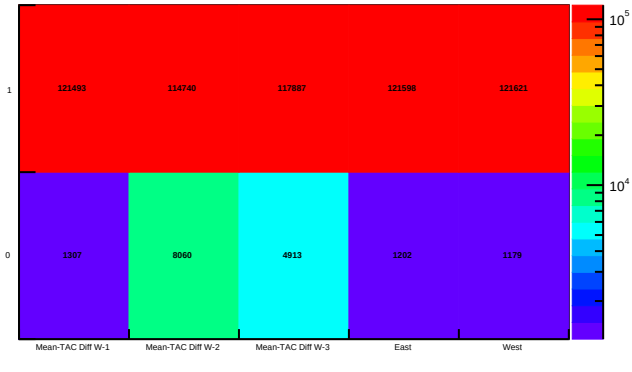
VT201 Input Ch4: VPD Tac Diff



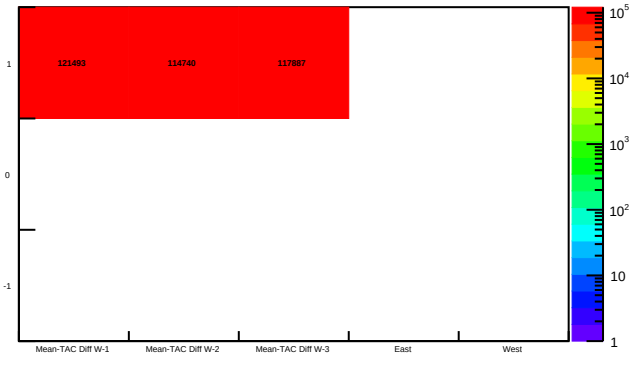
VT201 Input Ch4: VPD Tac Diff

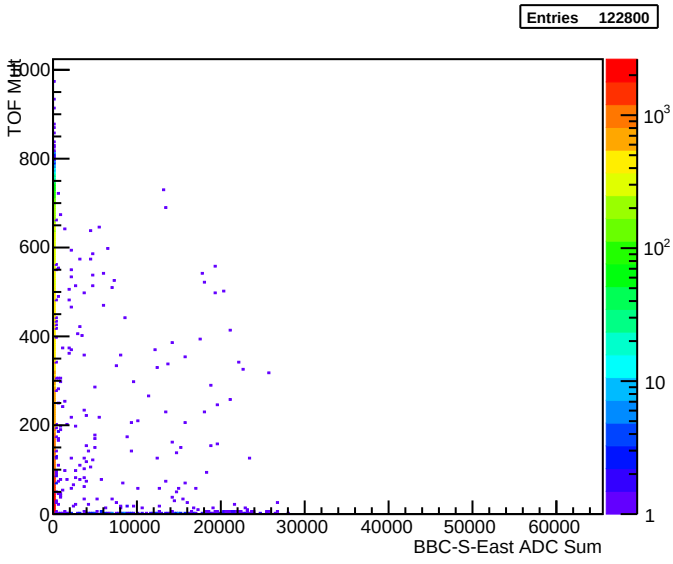


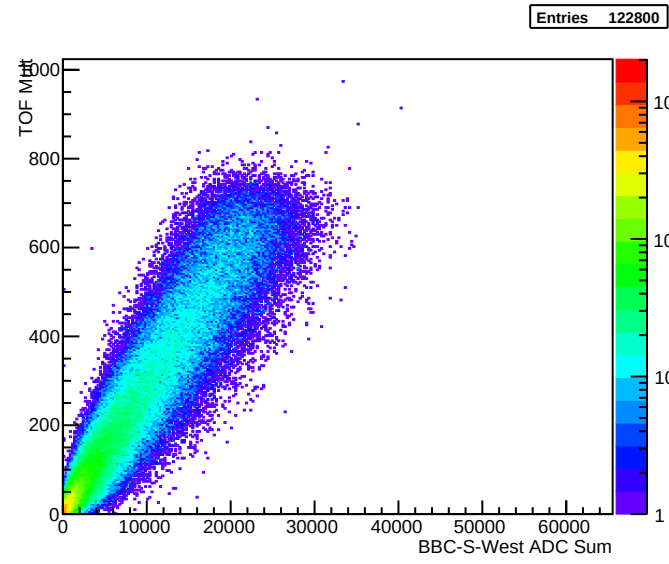
VT201 Input Ch4: VPD Adc Sum Th

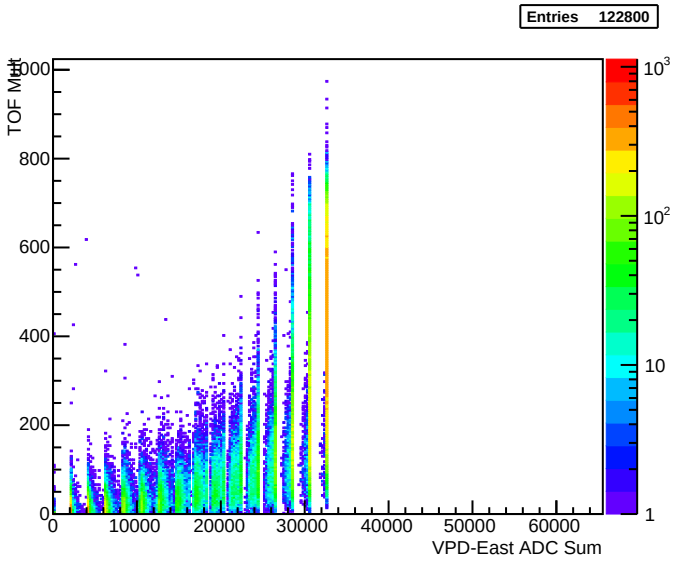


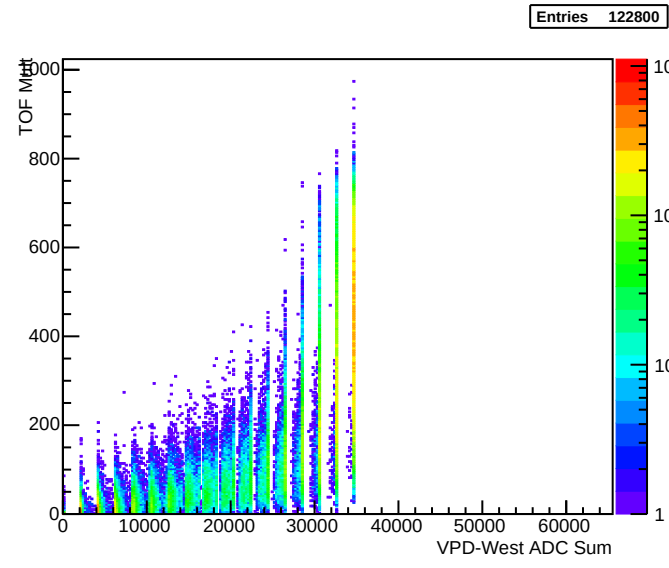
VT201 Input Ch4: VPD Adc Sum Th(Real-Simu)

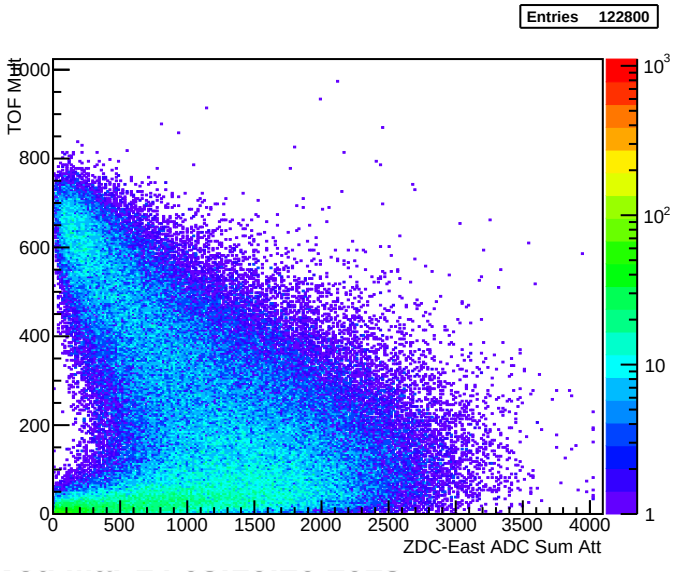


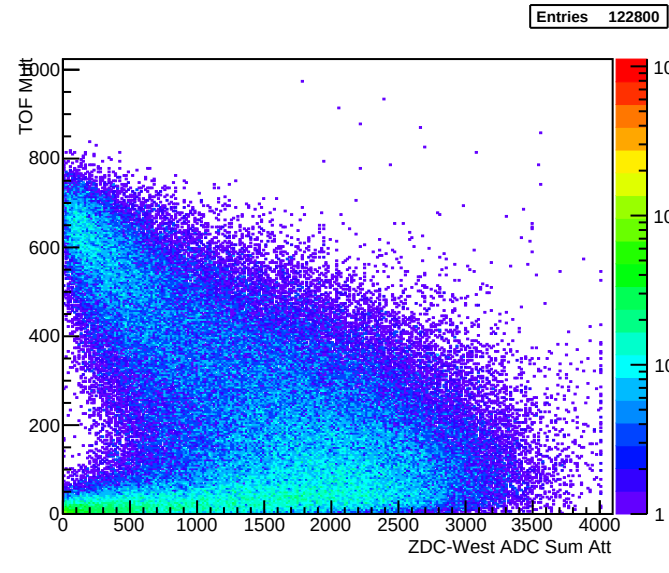

Entries 122800
TOF Mult
BBC-S-East ADC Sum

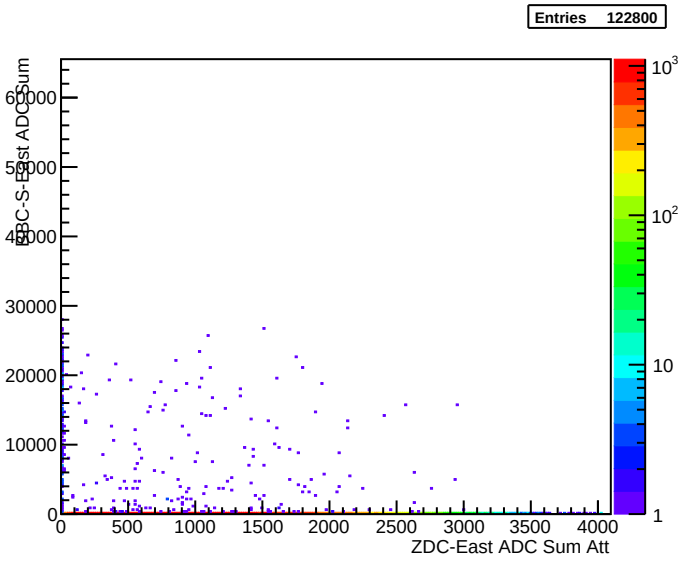

Entries 122800
TOF Mult
BBC-S-West ADC Sum

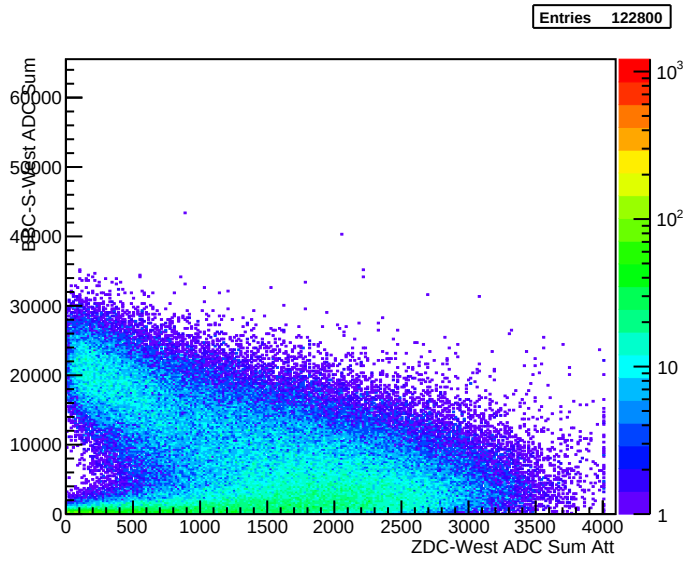

Entries 122800
TOF Mult
VPD-East ADC Sum

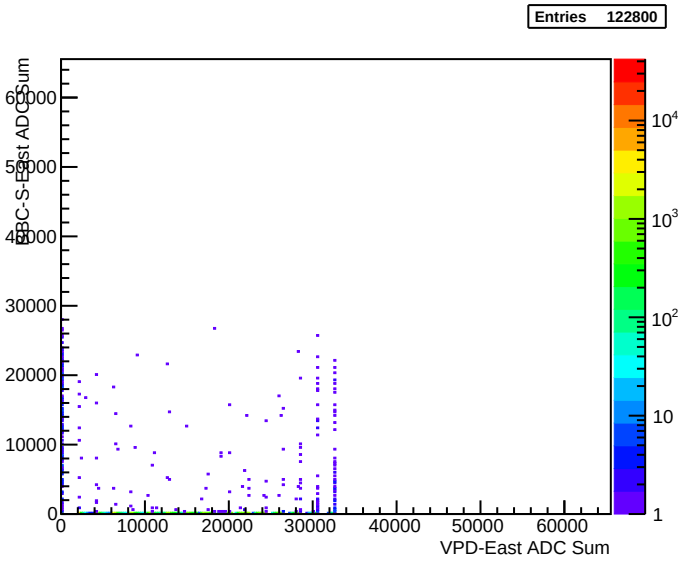

Entries 122800
TOF Mult
VPD-West ADC Sum

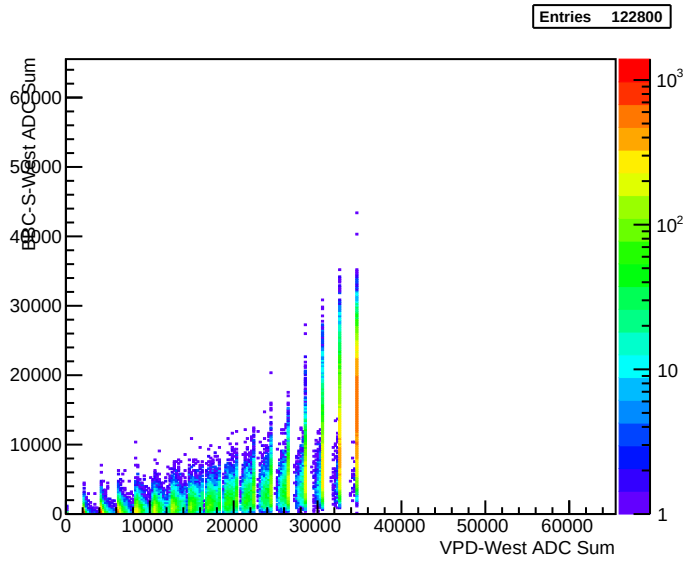

Entries 122800
TOF Mult
ZDC-East ADC Sum Att

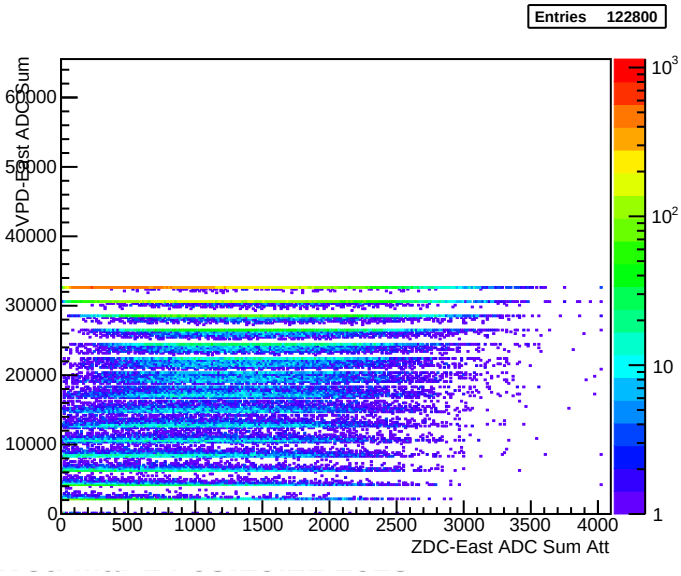

Entries 122800
TOF Mult
ZDC-West ADC Sum Att

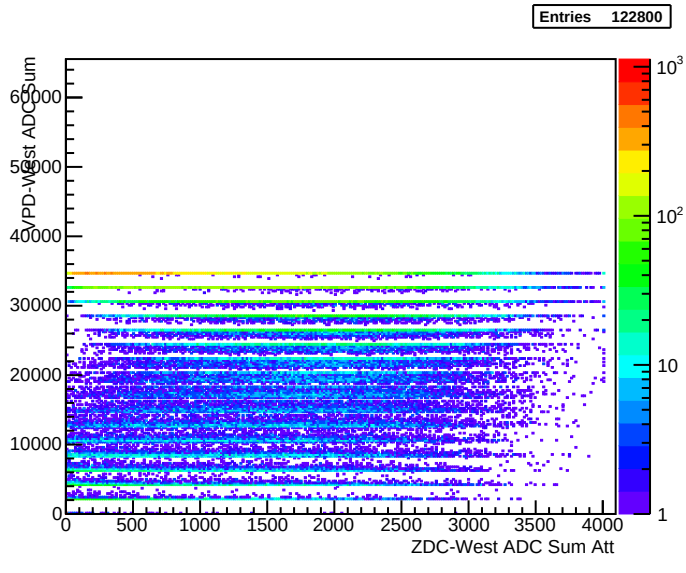

Entries 122800
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

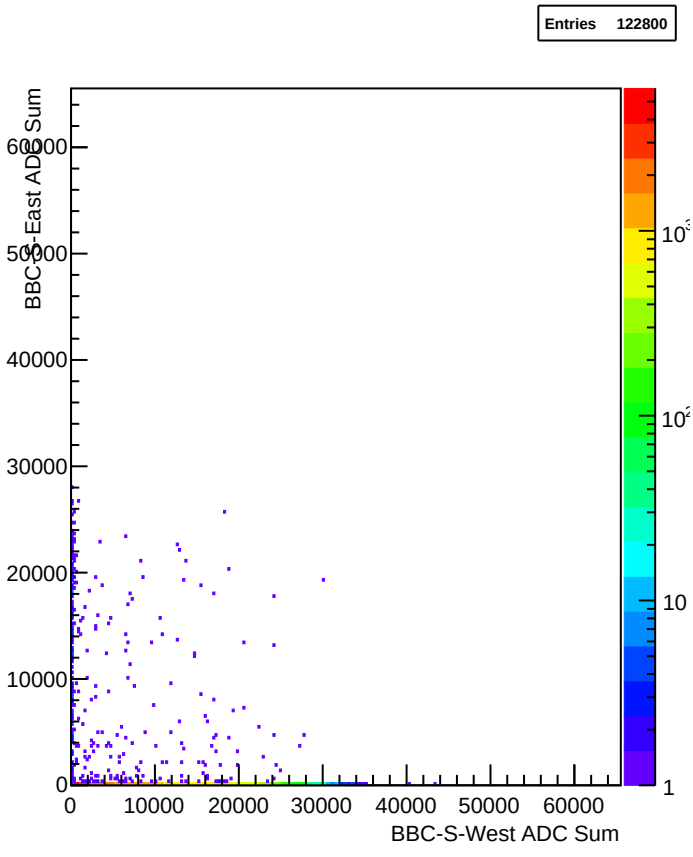

Entries 122800
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

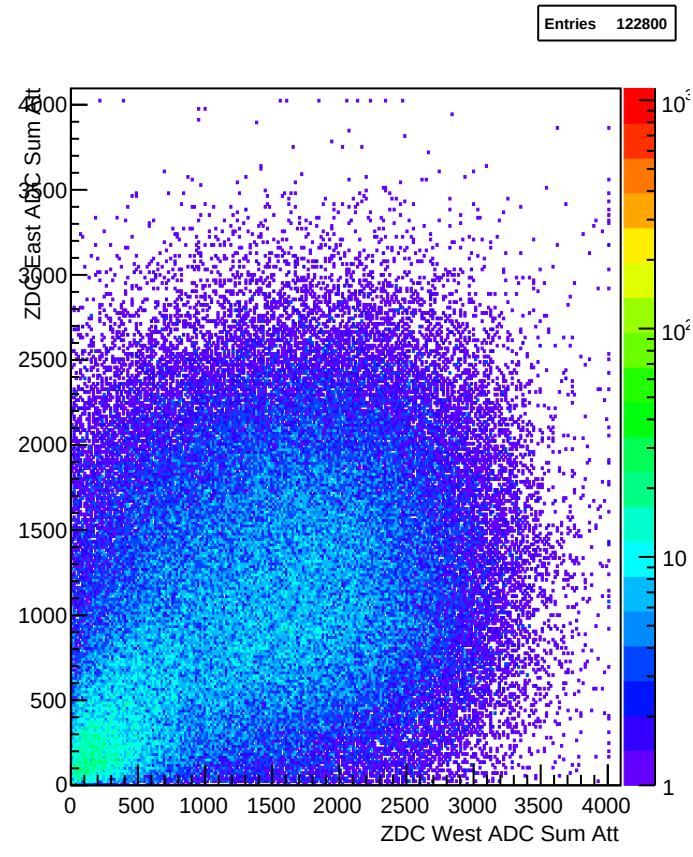

Entries 122800
BBC-S-East ADC Sum
VPD-East ADC Sum

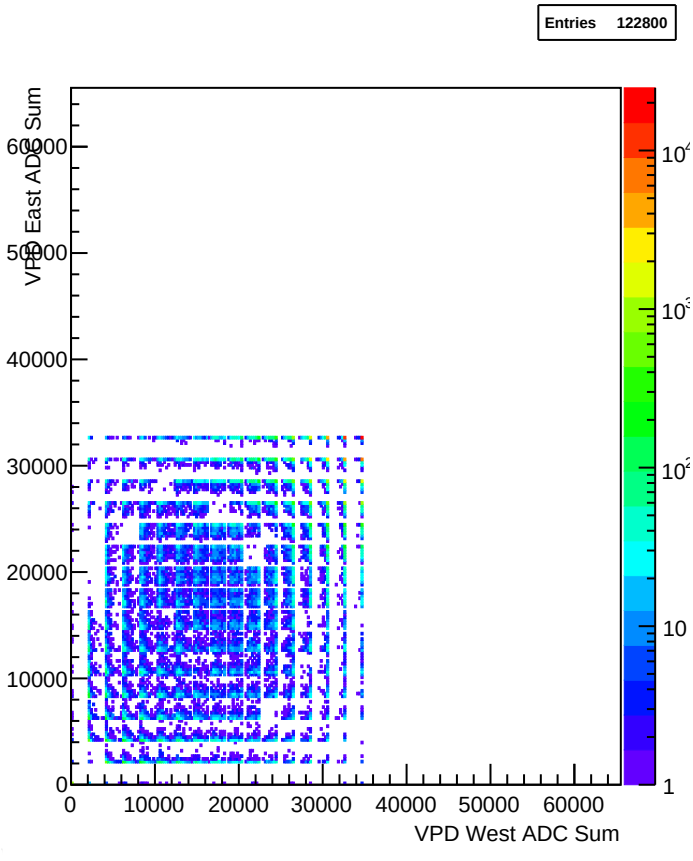

Entries 122800
BBC-S-West ADC Sum
VPD-West ADC Sum

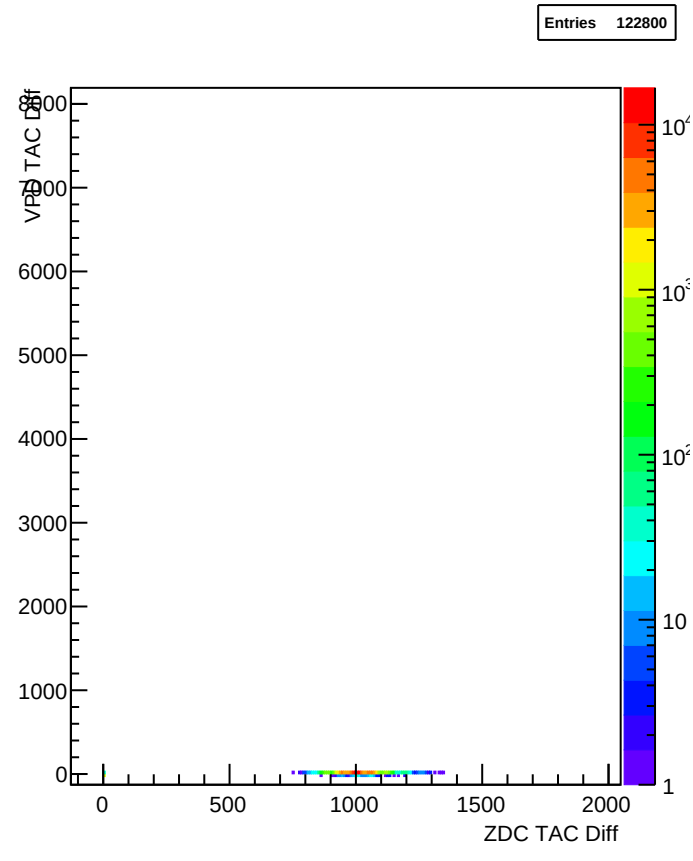

Entries 122800
VPD-East ADC Sum
ZDC-East ADC Sum Att

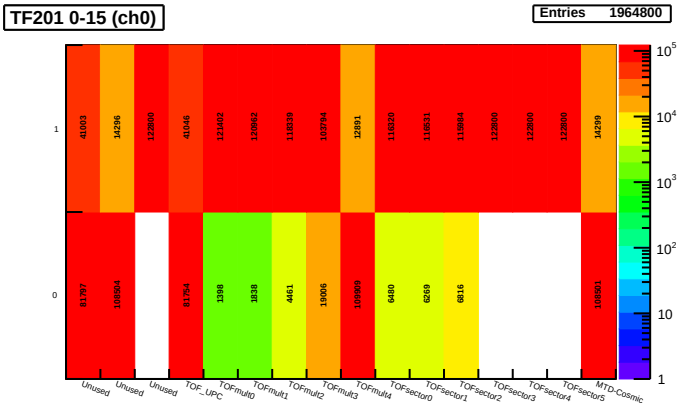

Entries 122800
VPD-West ADC Sum
ZDC-West ADC Sum Att

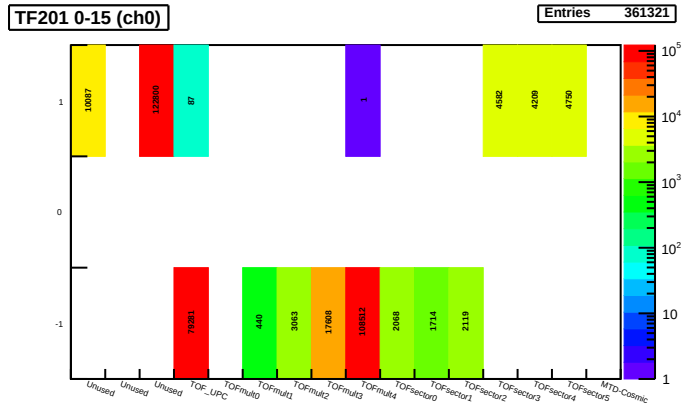

Entries 122800
BBC-S-East ADC Sum
BBC-S-West ADC Sum

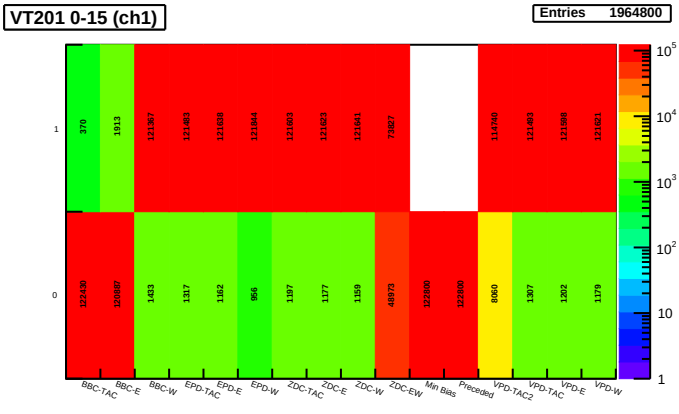

Entries 122800
ZDC East ADC Sum Att
ZDC West ADC Sum Att

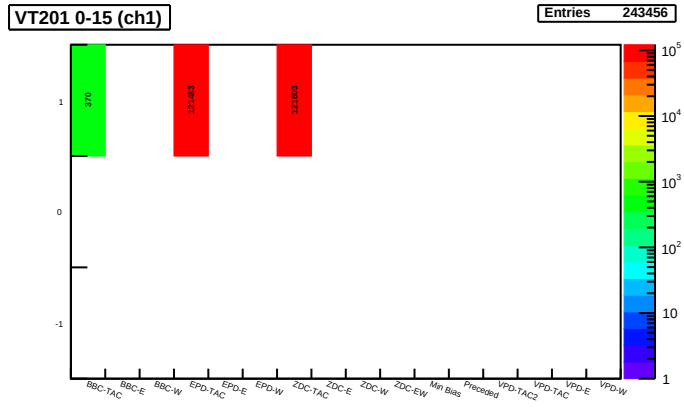

Entries 122800
VPD East ADC Sum
VPD West ADC Sum

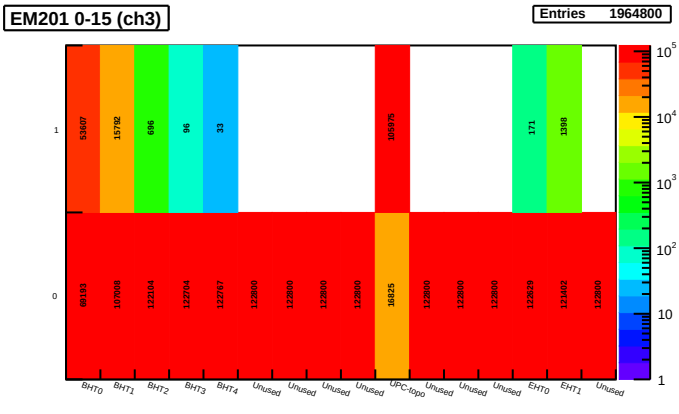

Entries 122800
VPD TAC Diff
ZDC TAC Diff

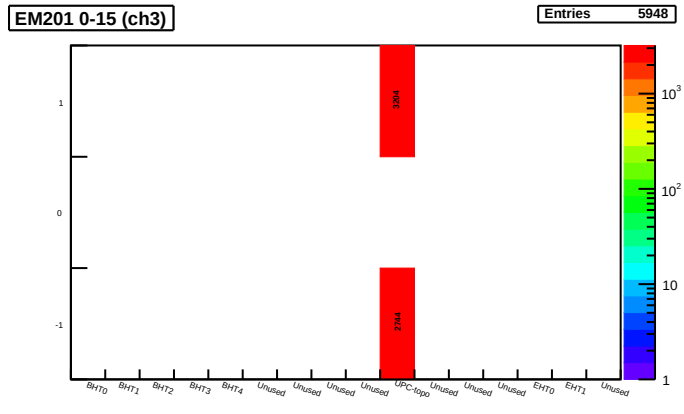

TF201 0-15 (ch0)
Entries 1964800
41003 14296 122800 41046 121402 120962 118339 103794 12891 116320 116531 115864 122800 122800 122800 14299
81797 108504 81754 1398 1838 4461 19006 109909 6480 6269 6816 108931
Unused Unused Unused TOF_UPC TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

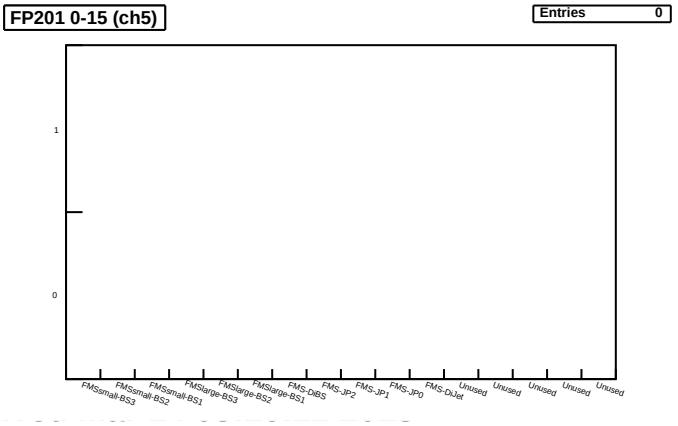

TF201 0-15 (ch0)
Entries 361321
10087 122800 87 1 4582 4209 4750
79331 440 3063 17608 108512 2068 1714 2119
Unused Unused Unused TOF_UPC TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

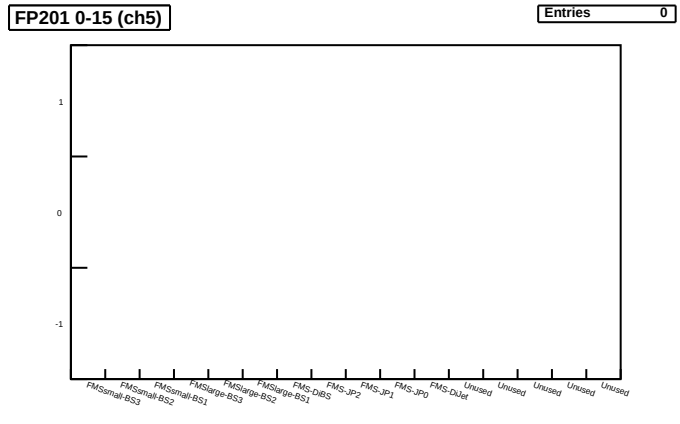

VT201 0-15 (ch1)
Entries 1964800
370 1913 121367 121483 121608 121944 121603 121623 121641 73827 114740 121483 121598 121621
122430 120887 1423 1317 1152 966 1197 1177 1159 48973 122800 122800 8060 1307 1202 1179
BBC-TAC BBC-E BBC-W EPD-TAC EPD-E EPD-W ZDC-TAC ZDC-E ZDC-W ZDC-EW Min Bias Preceded VPD-TAC2 VPD-TAC VPD-E VPD-W


VT201 0-15 (ch1)
Entries 243456
370 121483 121603
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 1964800
53607 15792 696 96 33 105975 171 1398
69193 107008 122104 122704 122767 122800 122800 122800 122800 16525 122800 122800 122800 123529 121402 122800
BHT0 BHT1 BHT2 BHT3 BHT4 Unused Unused Unused Unused UPC-topo Unused Unused Unused EHT0 EHT1 Unused


EM201 0-15 (ch3)
Entries 5948
3204
2744
BHT0 BHT1 BHT2 BHT3 BHT4 Unused Unused Unused Unused UPC-topo Unused Unused Unused EHT0 EHT1 Unused


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


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