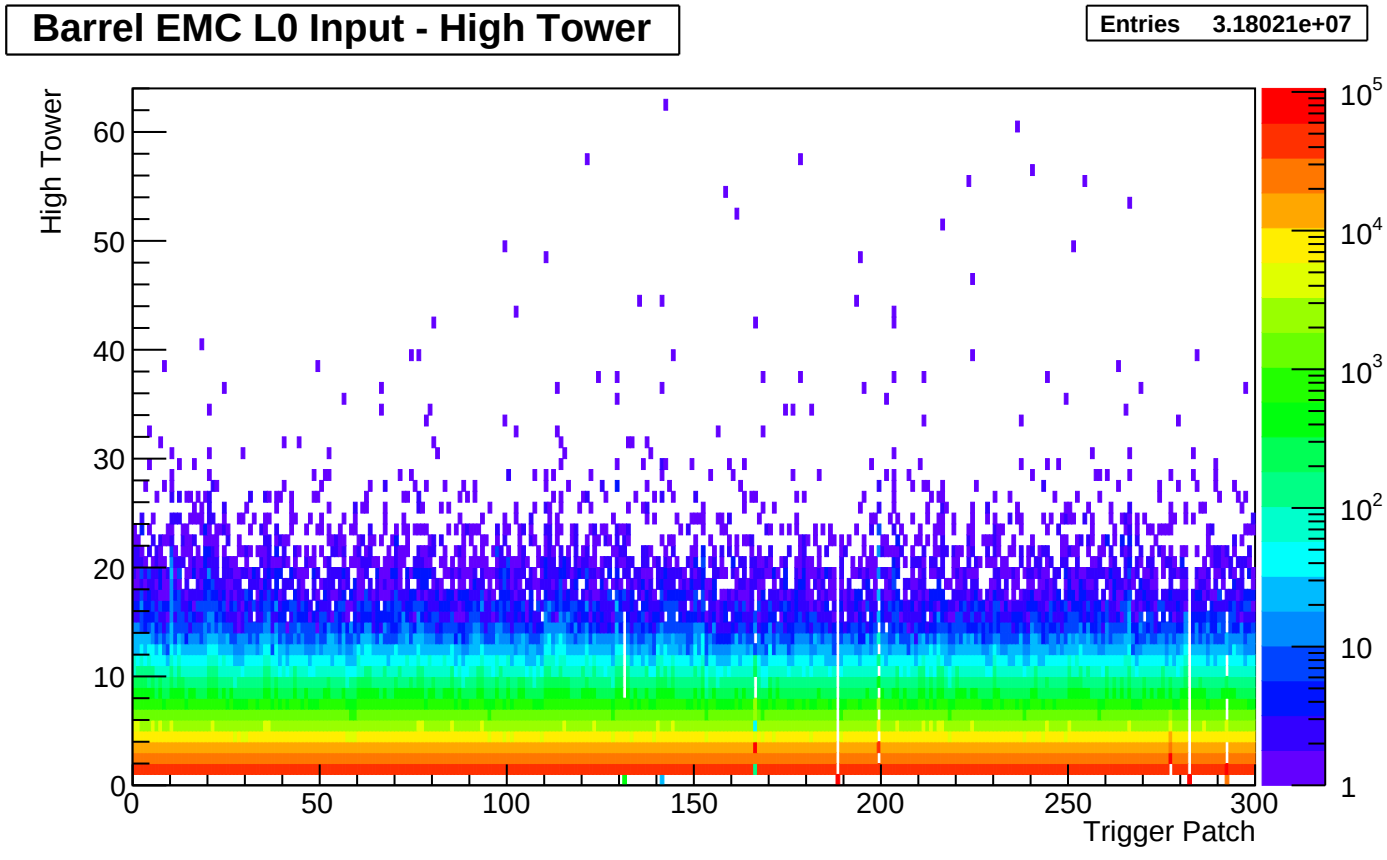
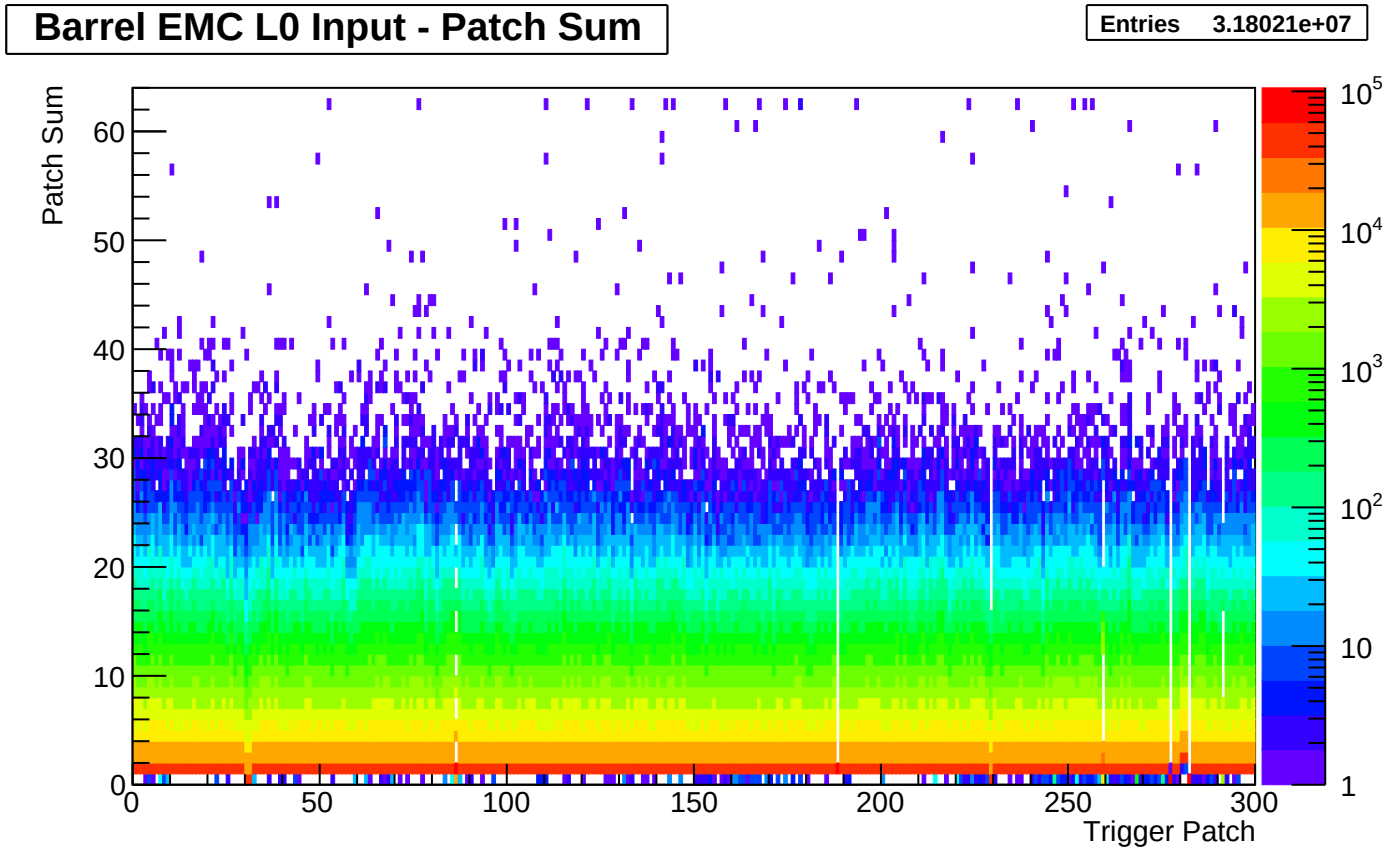
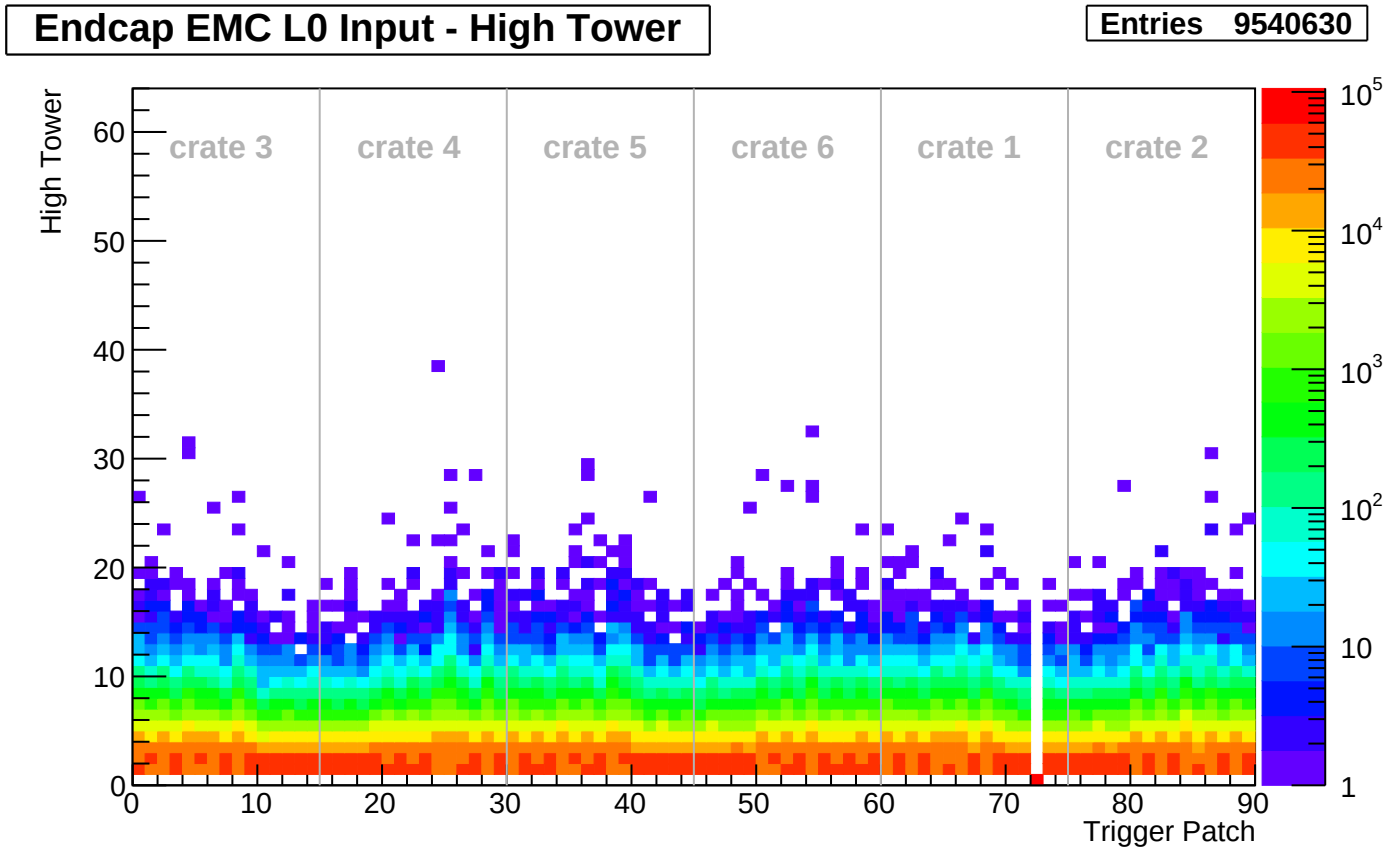
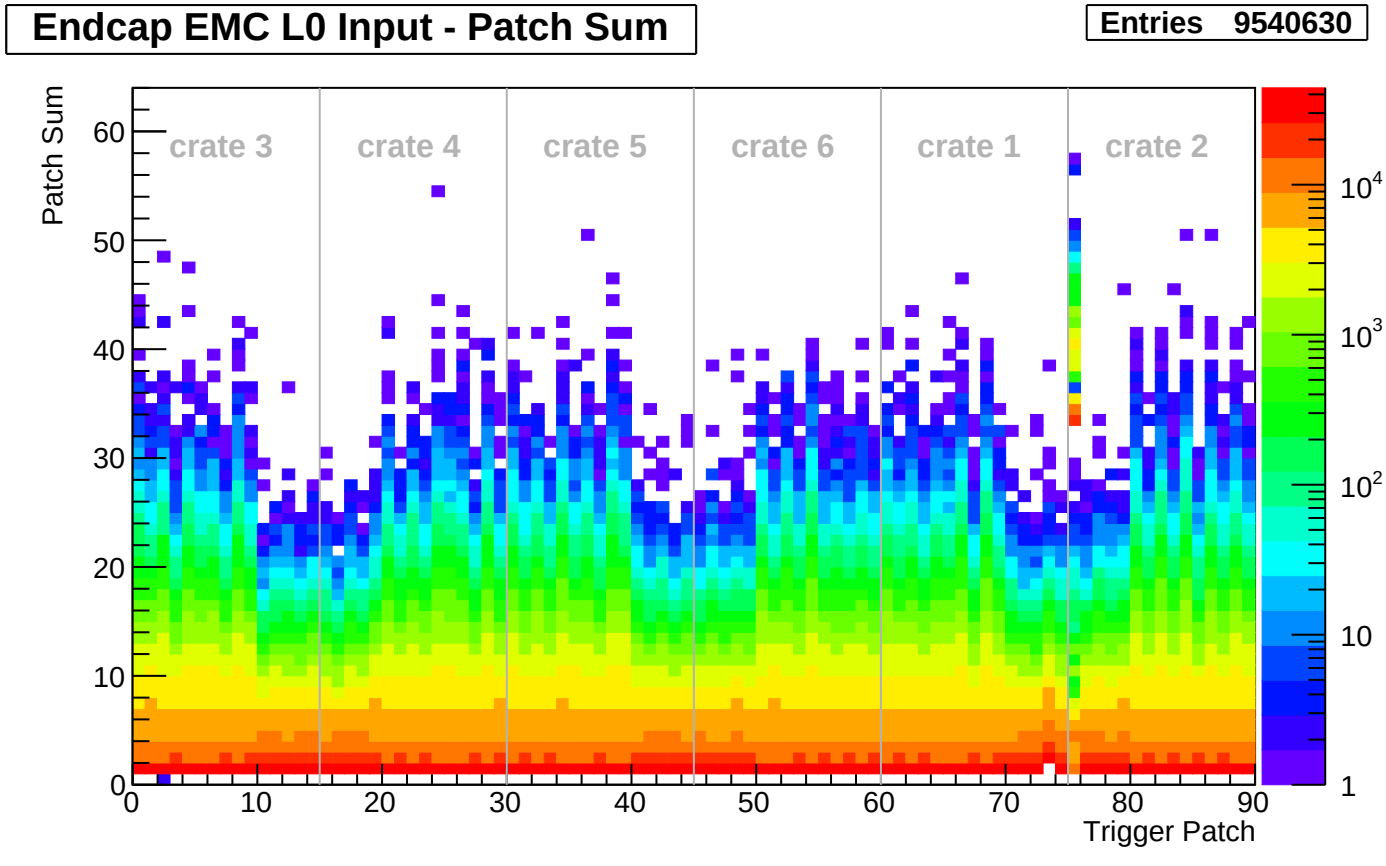
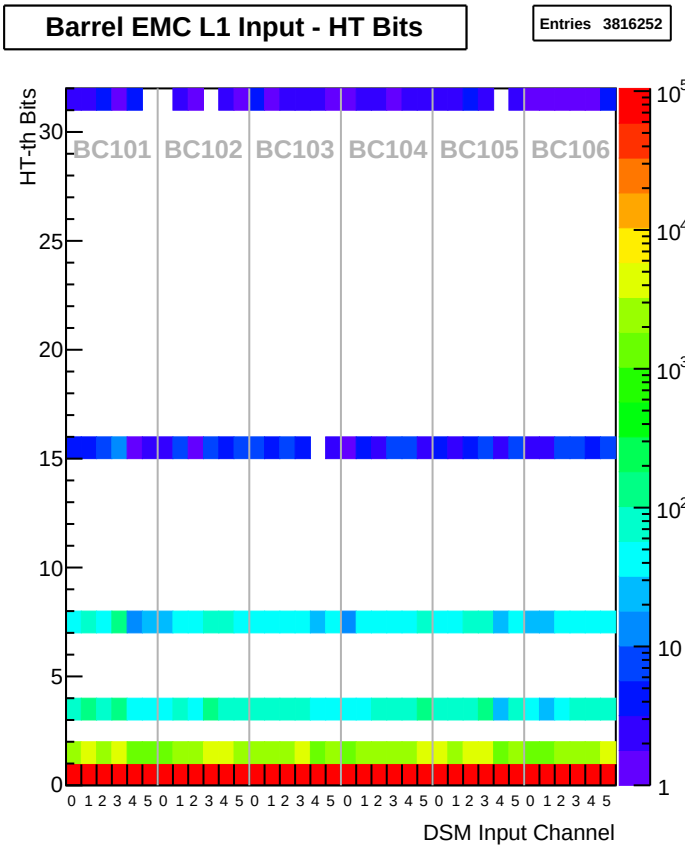
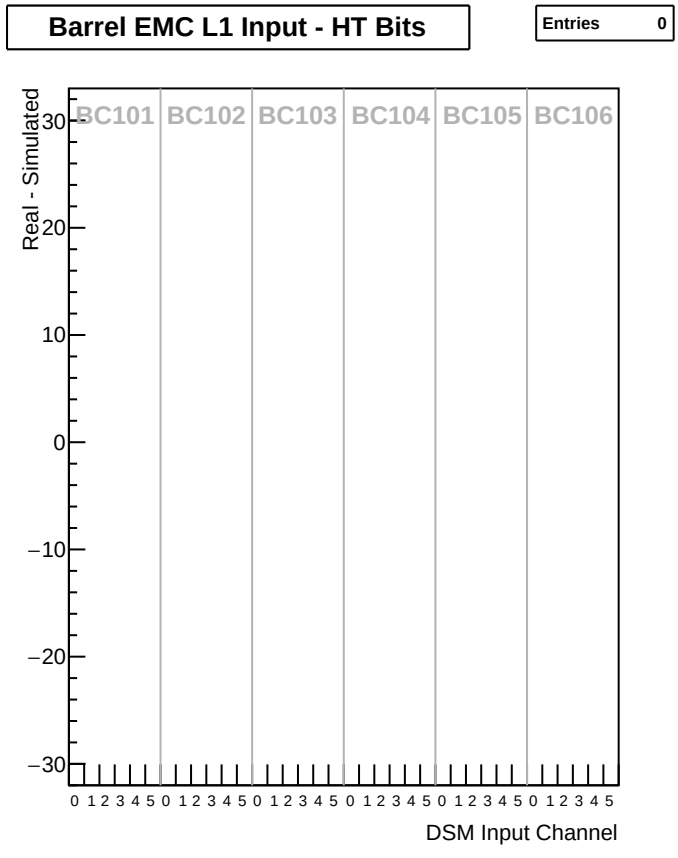

Barrel EMC L0 Input - High Tower
Entries 3.18021e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

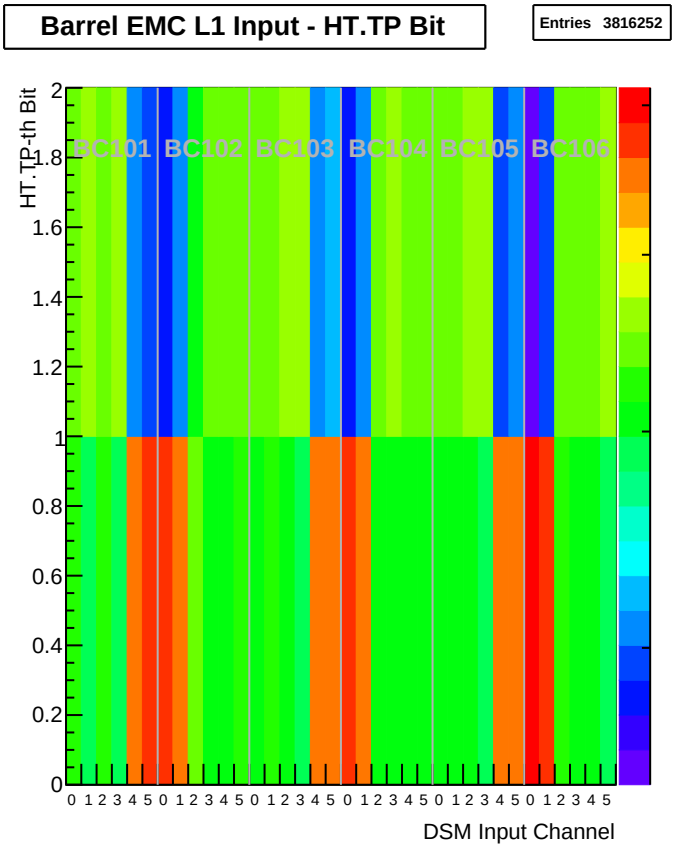

Barrel EMC L0 Input - Patch Sum
Entries 3.18021e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5

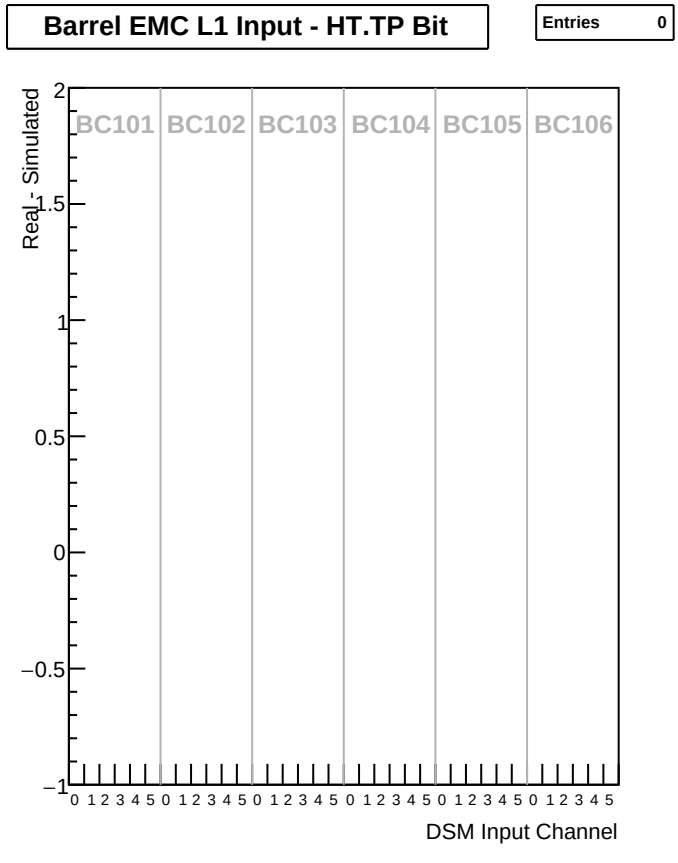

Endcap EMC L0 Input - High Tower
Entries 9540630
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

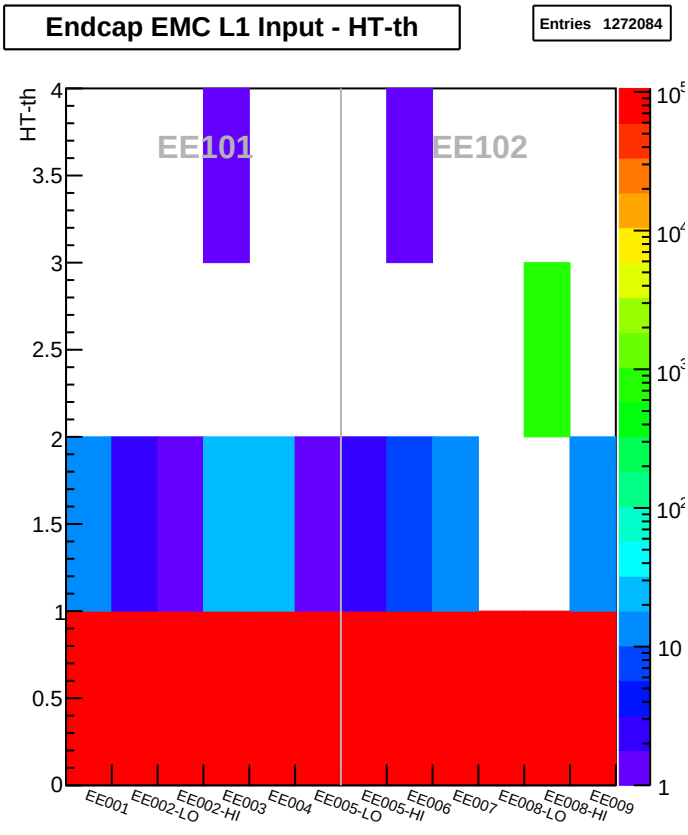

Endcap EMC L0 Input - Patch Sum
Entries 9540630
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

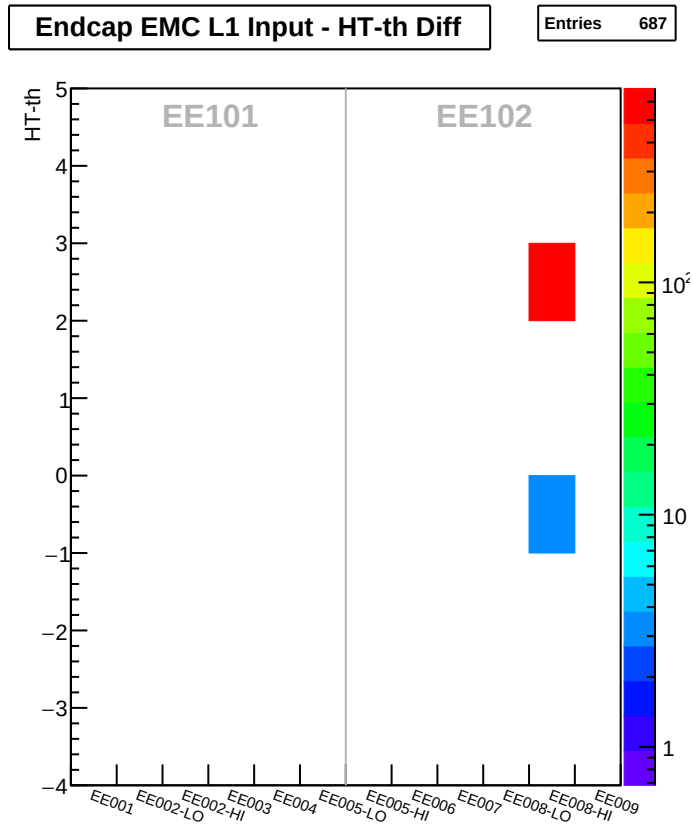

Barrel EMC L1 Input - HT Bits
Entries 3816252
HT-th Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

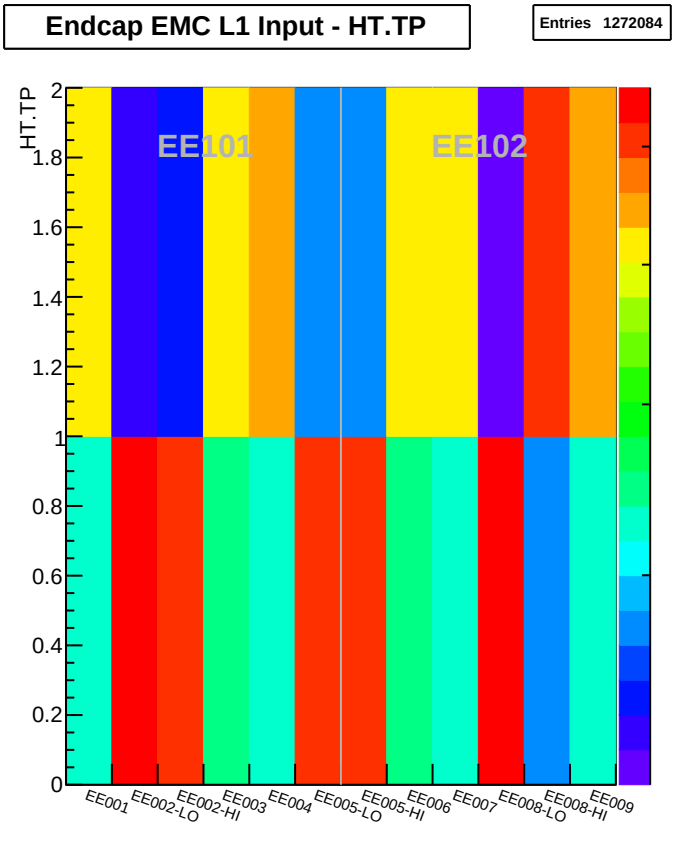

Barrel EMC L1 Input - HT Bits
Entries 0
Real - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

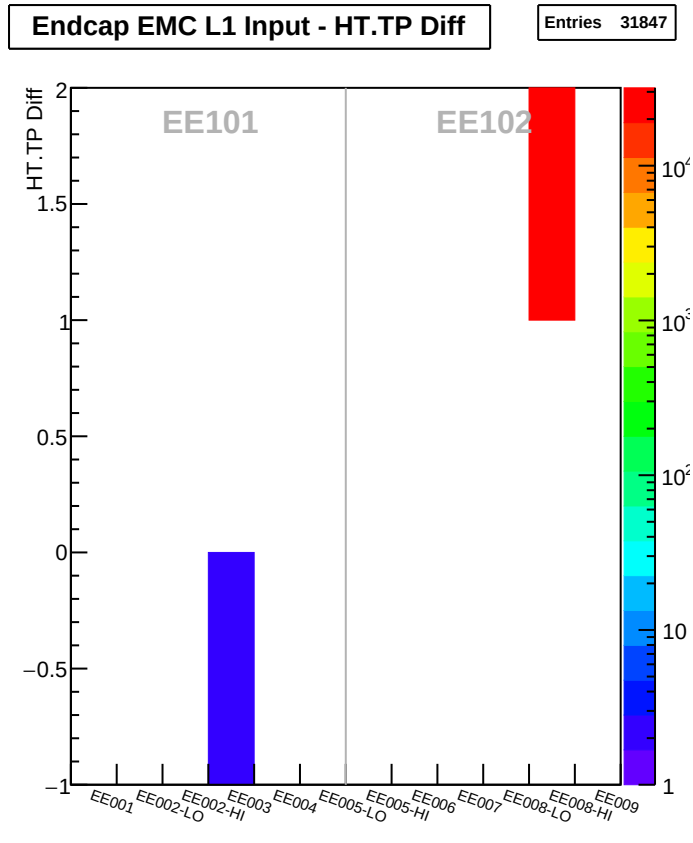

Barrel EMC L1 Input - HT.TP Bit
Entries 3816252
HT.TP-th Bit
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

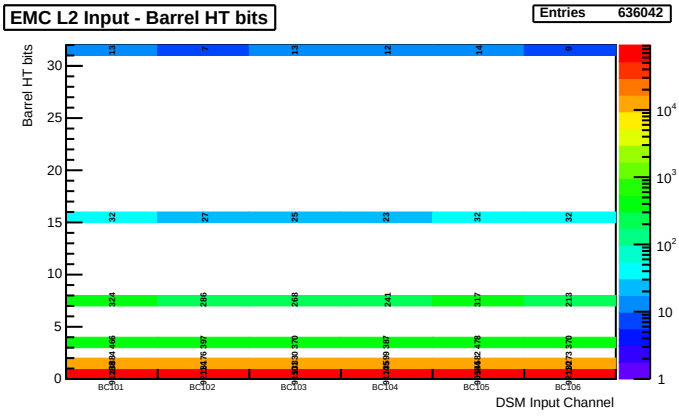

Barrel EMC L1 Input - HT.TP Bit
Entries 0
Real - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

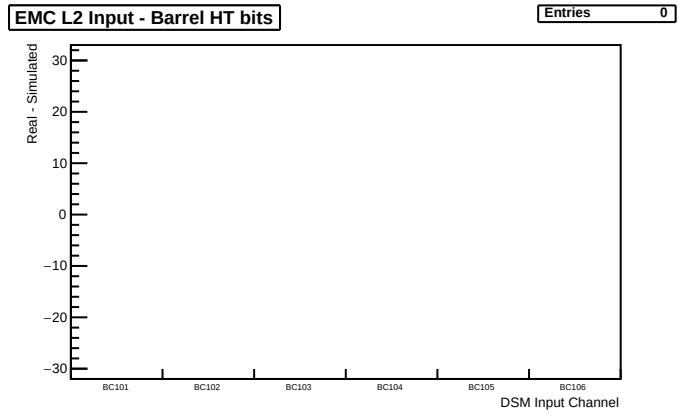

Endcap EMC L1 Input - HT-th
Entries 1272084
HT-th
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

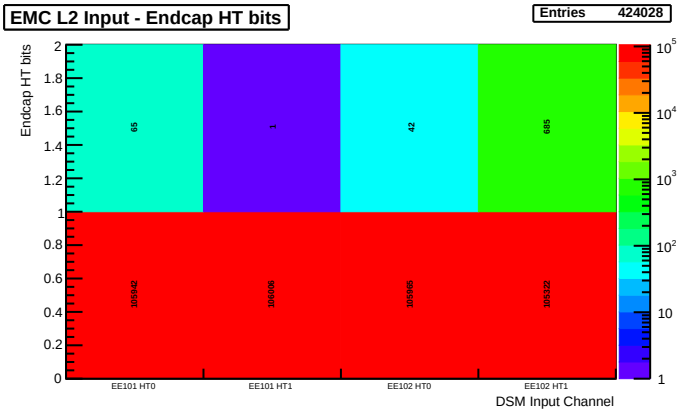

Endcap EMC L1 Input - HT-th Diff
Entries 687
HT-th
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

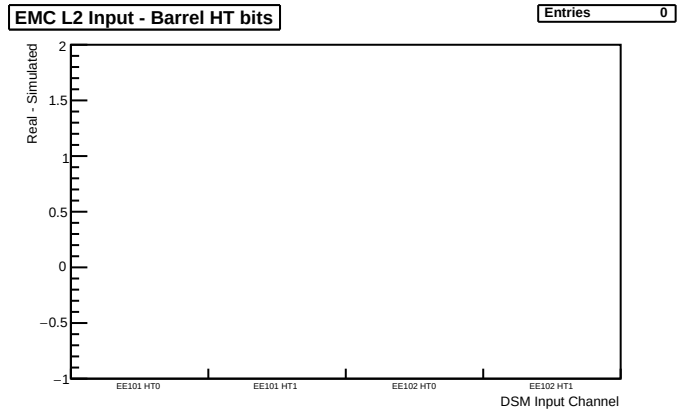

Endcap EMC L1 Input - HT.TP
Entries 1272084
HT.TP
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

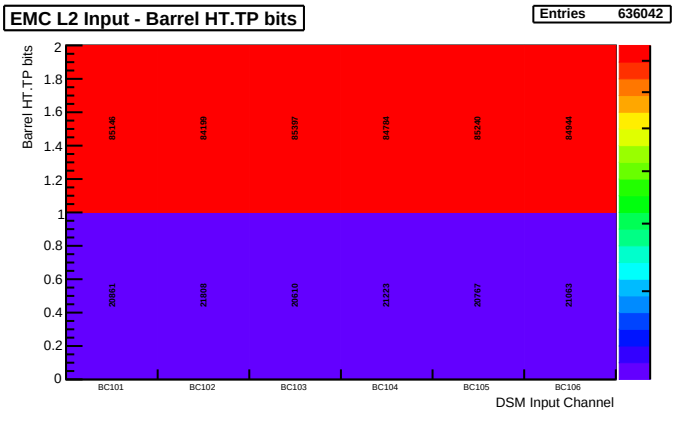

Endcap EMC L1 Input - HT.TP Diff
Entries 31847
HT.TP Diff
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

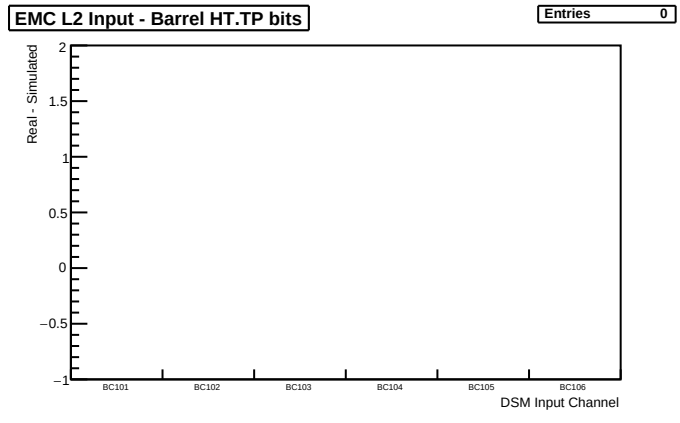

EMC L2 Input - Barrel HT bits
Entries 636042
Barrel HT bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

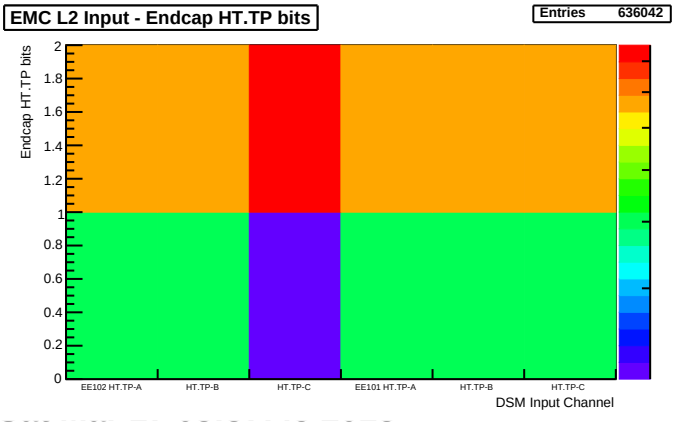

EMC L2 Input - Barrel HT bits
Entries 0
Real - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

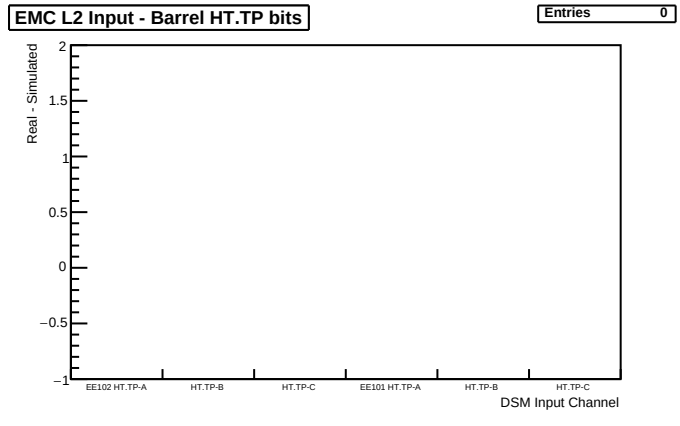

EMC L2 Input - Endcap HT bits
Entries 424028
Endcap HT bits
DSM Input Channel
EE101 HT0
EE101 HT1
EE102 HT0
EE102 HT1

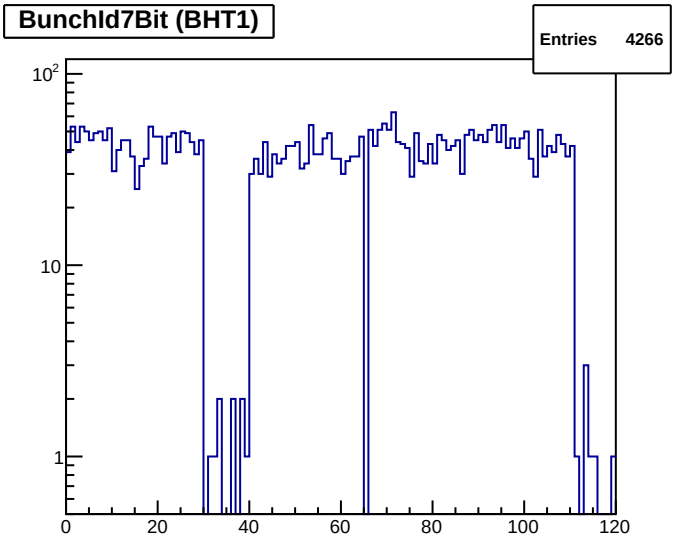

EMC L2 Input - Barrel HT bits
Entries 0
Real - Simulated
DSM Input Channel
EE101 HT0
EE101 HT1
EE102 HT0
EE102 HT1

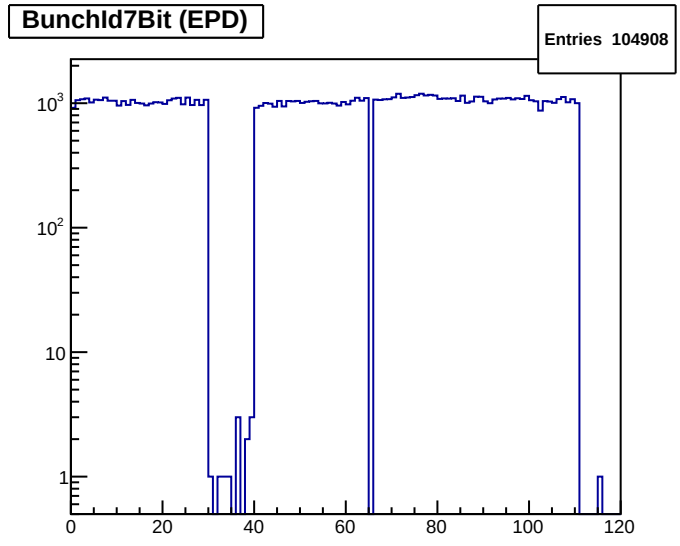

EMC L2 Input - Barrel HT.TP bits
Entries 636042
Barrel HT.TP bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

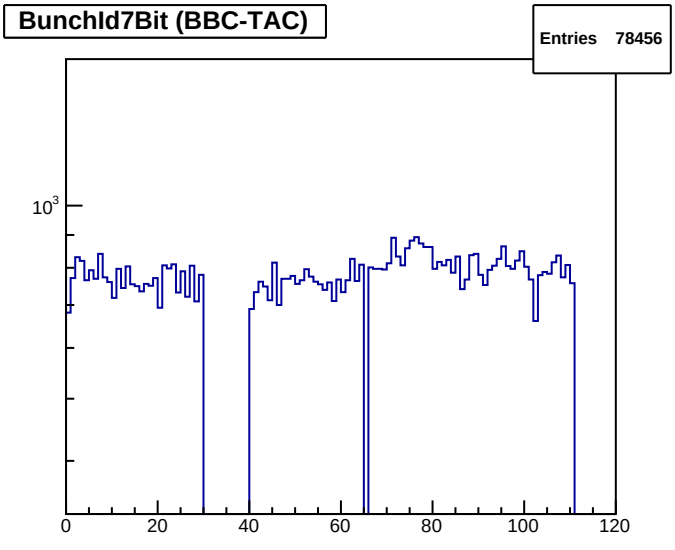

EMC L2 Input - Barrel HT.TP bits
Entries 0
Real - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

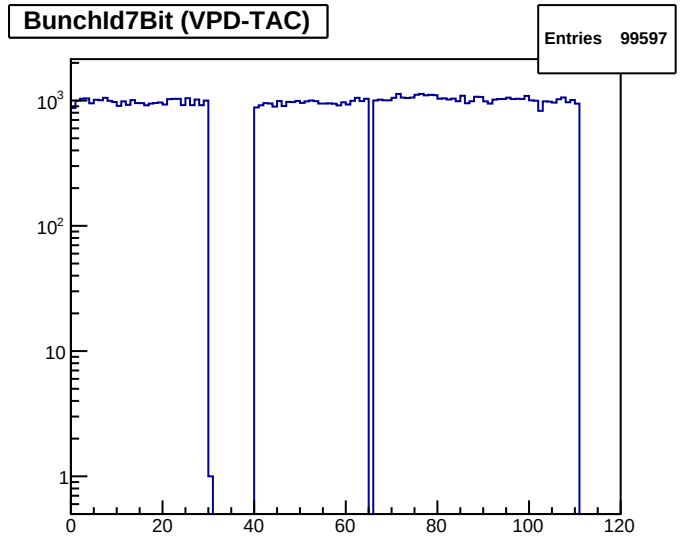

EMC L2 Input - Endcap HT.TP bits
Entries 636042
Endcap HT.TP bits
DSM Input Channel
EE102 HT.TP-A
HT.TP-B
HT.TP-C
EE101 HT.TP-A
HT.TP-B
HT.TP-C

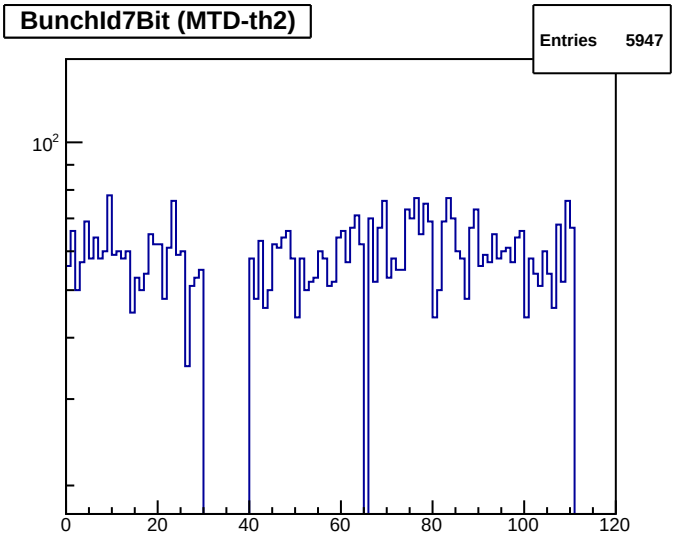

EMC L2 Input - Barrel HT.TP bits
Entries 0
Real - Simulated
DSM Input Channel
EE102 HT.TP-A
HT.TP-B
HT.TP-C
EE101 HT.TP-A
HT.TP-B
HT.TP-C

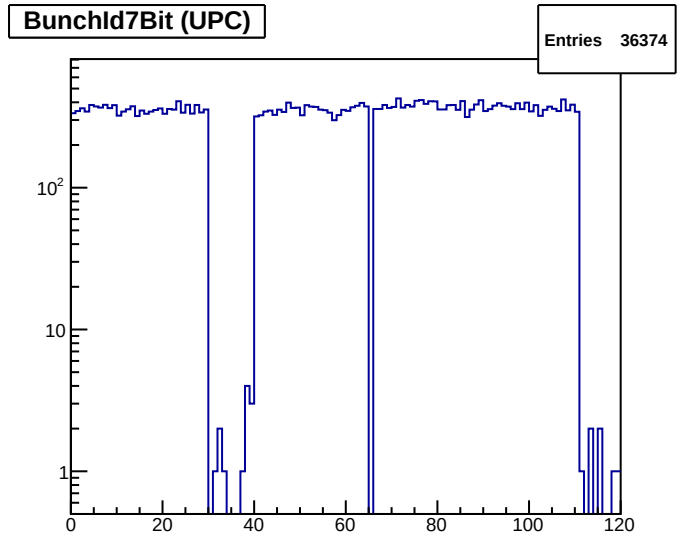

BunchId7Bit (BHT1)
Entries 4266
10^2
10
1
0
20
40
60
80
100
120

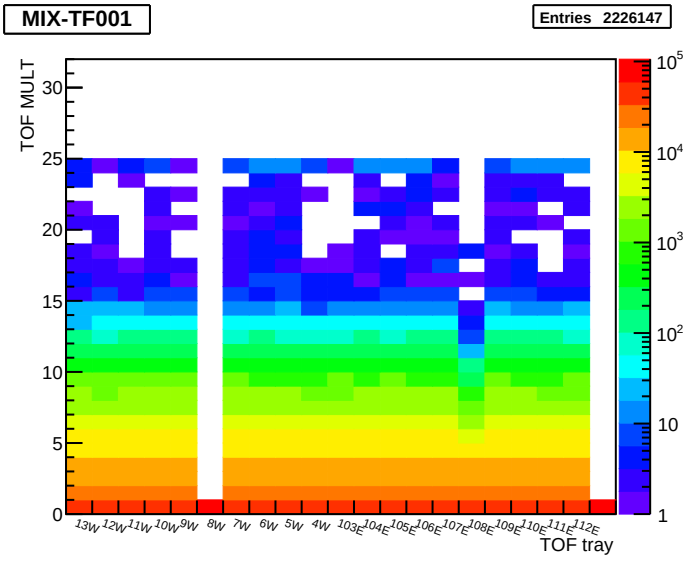

BunchId7Bit (EPD)
Entries 104908
10^3
10^2
10
1
0
20
40
60
80
100
120

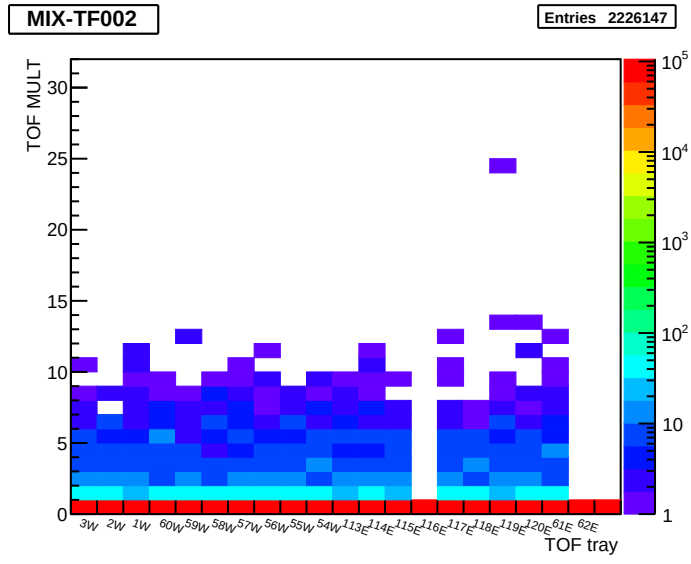

BunchId7Bit (BBC-TAC)
Entries 78456
10^3
0
20
40
60
80
100
120

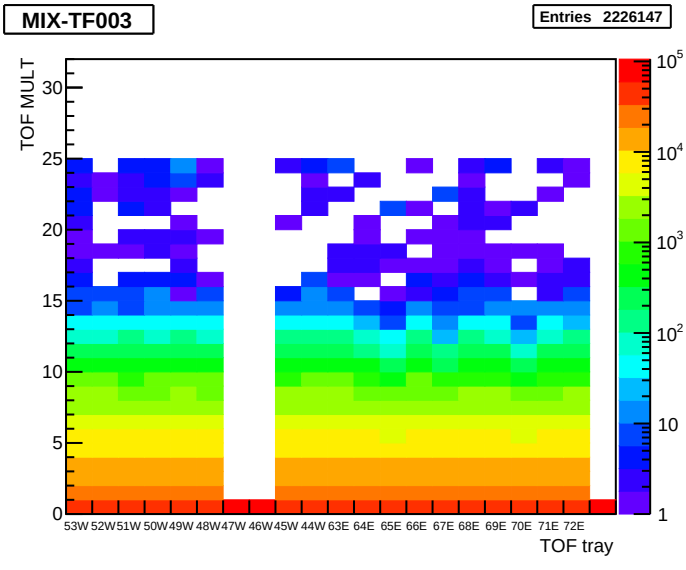

BunchId7Bit (VPD-TAC)
Entries 99597
10^3
10^2
10
1
0
20
40
60
80
100
120

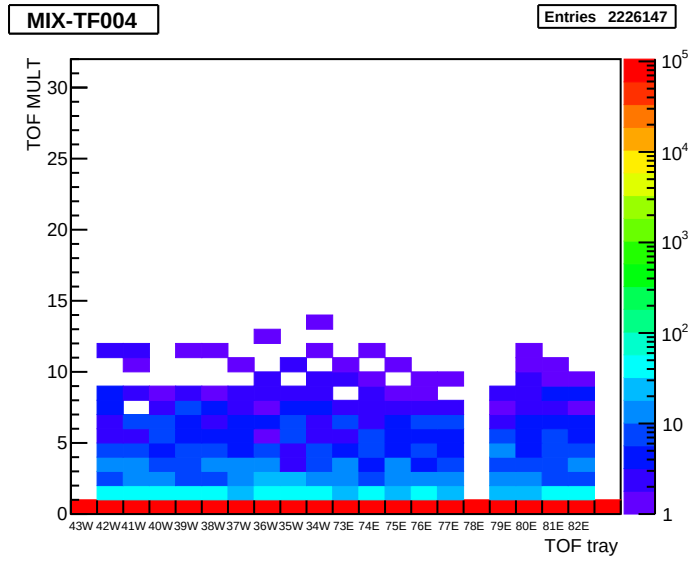

BunchId7Bit (MTD-th2)
Entries 5947
10^2
0
20
40
60
80
100
120

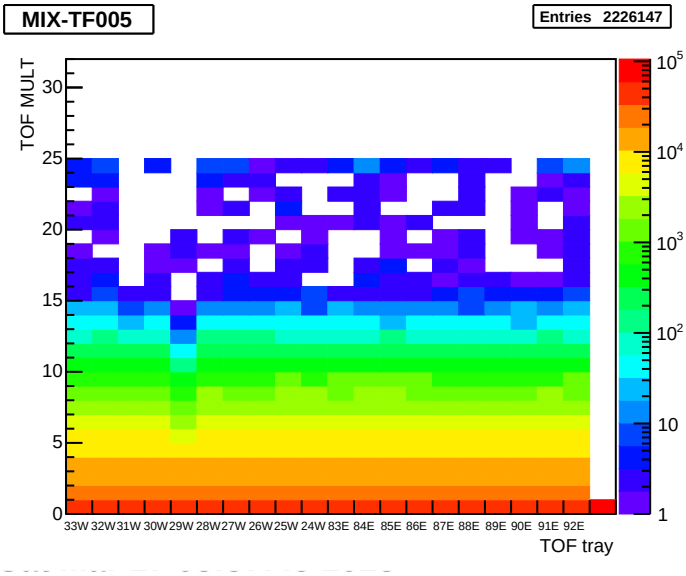

BunchId7Bit (UPC)
Entries 36374
10^2
10
1
0
20
40
60
80
100
120

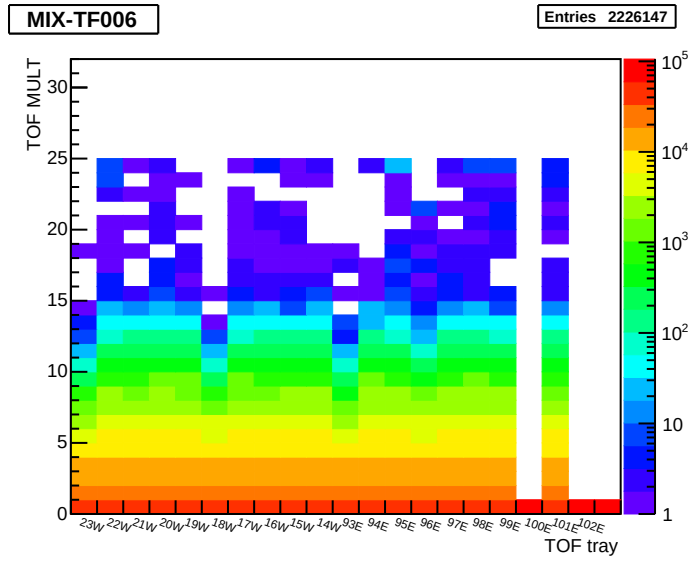

MIX-TF001
Entries 2226147
TOF MULT
TOF tray

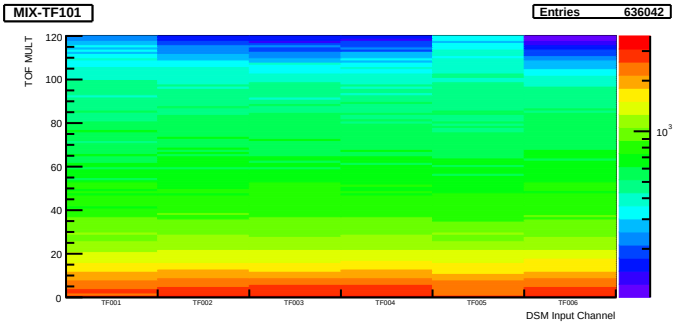

MIX-TF002
Entries 2226147
TOF MULT
TOF tray

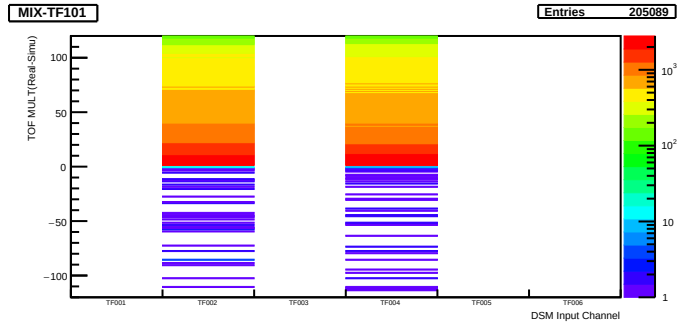

MIX-TF003
Entries 2226147
TOF MULT
TOF tray

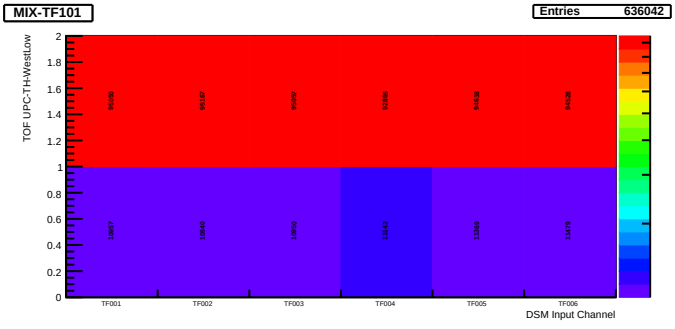

MIX-TF004
Entries 2226147
TOF MULT
TOF tray

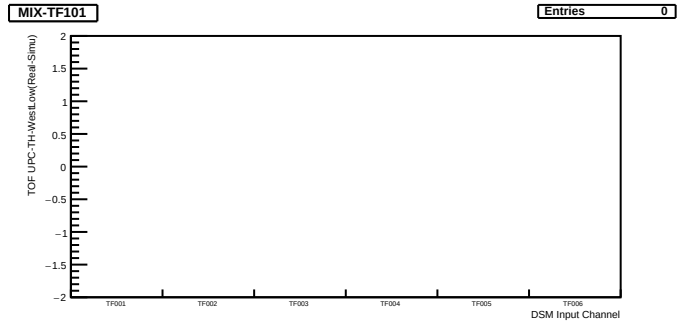

MIX-TF005
Entries 2226147
TOF MULT
TOF tray

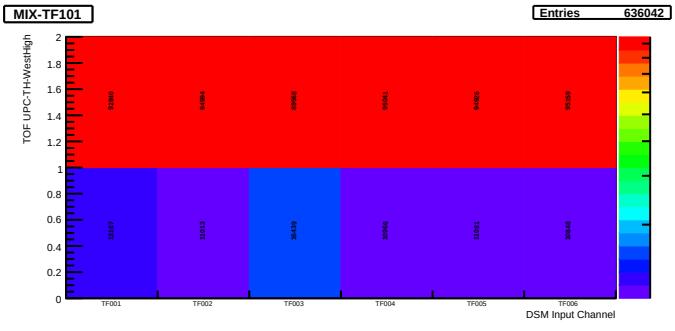

MIX-TF006
Entries 2226147
TOF MULT
TOF tray

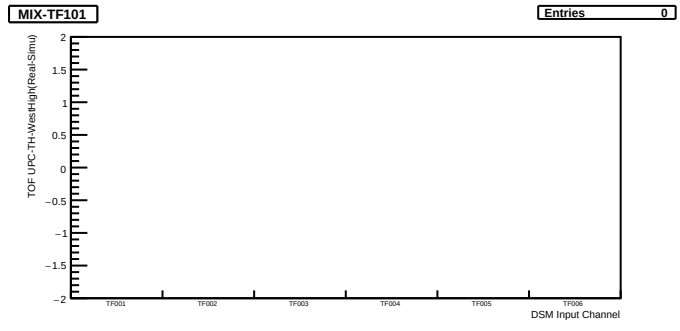

MIX-TF101
Entries 636042
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

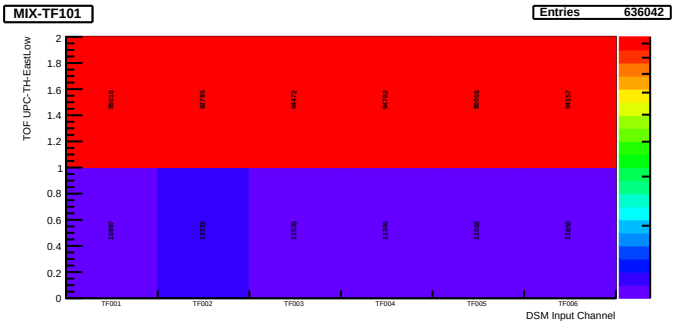

MIX-TF101
Entries 205089
TOF MULT(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

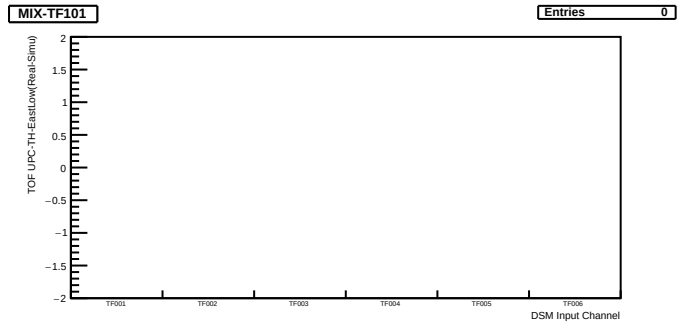

MIX-TF101
Entries 636042
TOF UPC-TH-WestLow
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

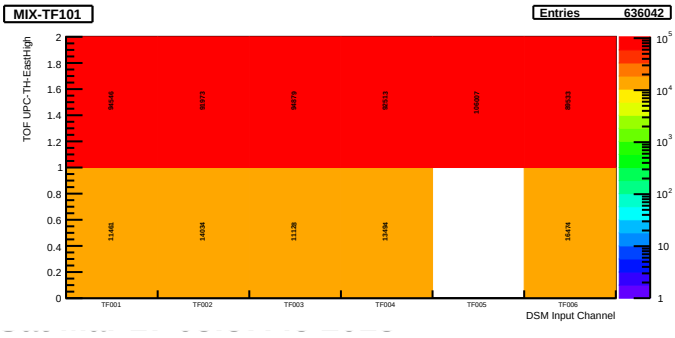

MIX-TF101
Entries 0
TOF UPC-TH-WestLow(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

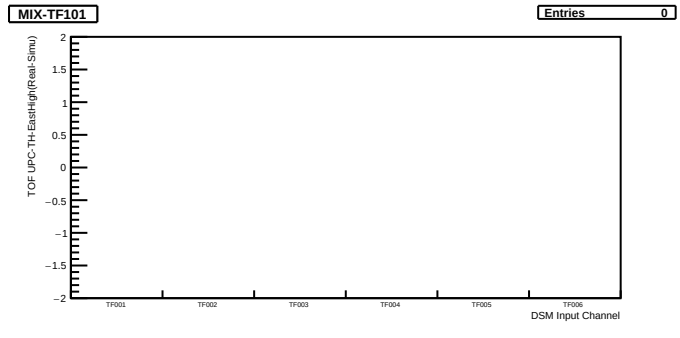

MIX-TF101
Entries 636042
TOF UPC-TH-WestHigh
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

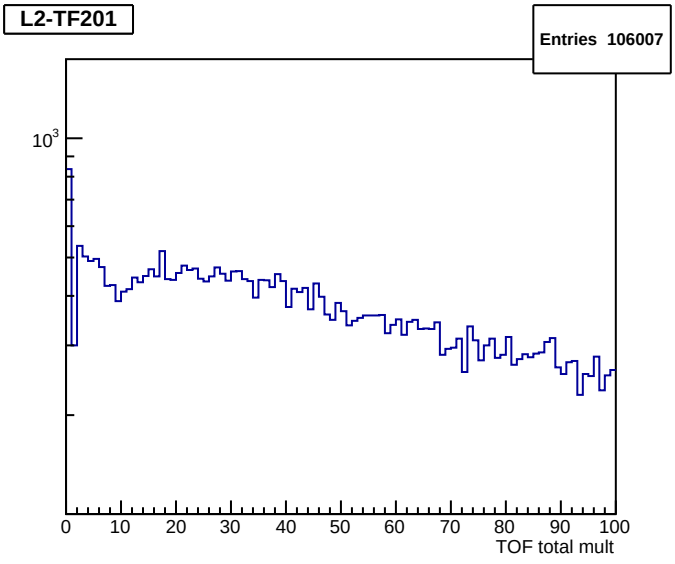

MIX-TF101
Entries 0
TOF UPC-TH-WestHigh(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

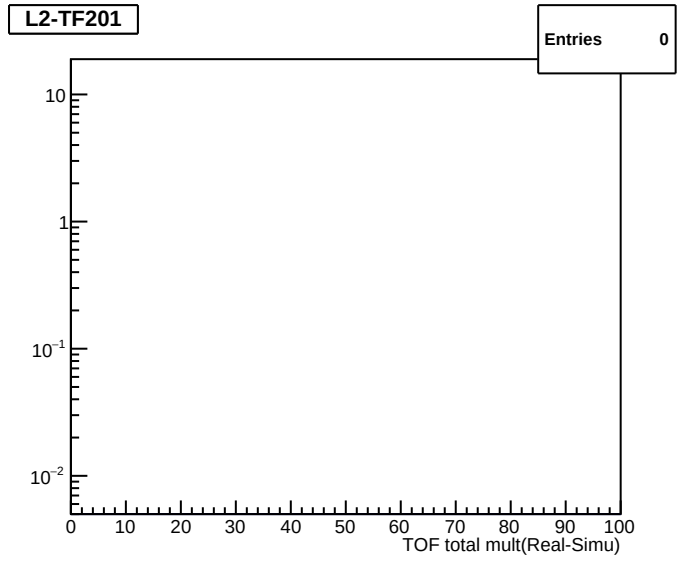

MIX-TF101
Entries 636042
TOF UPC-TH-EastLow
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

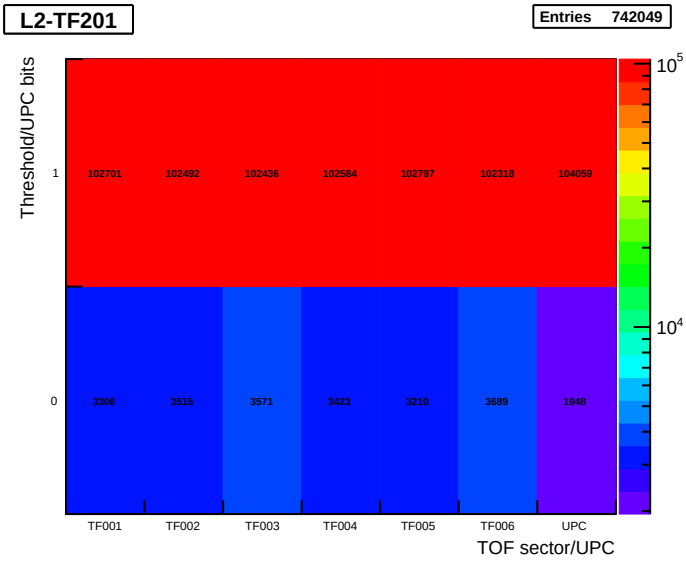

MIX-TF101
Entries 0
TOF UPC-TH-EastLow(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

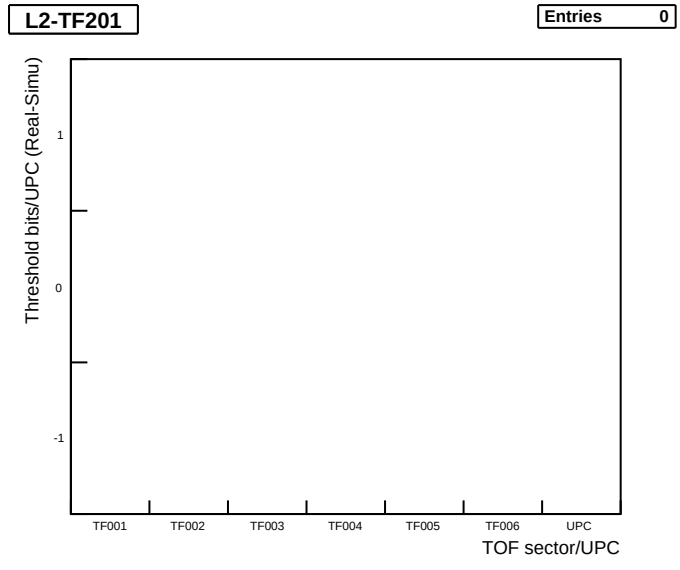

MIX-TF101
Entries 636042
TOF UPC-TH-EastHigh
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

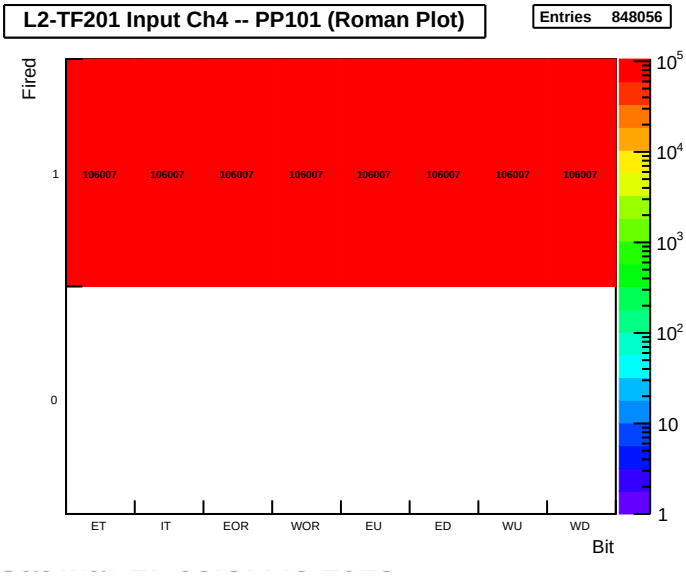

MIX-TF101
Entries 0
TOF UPC-TH-EastHigh(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

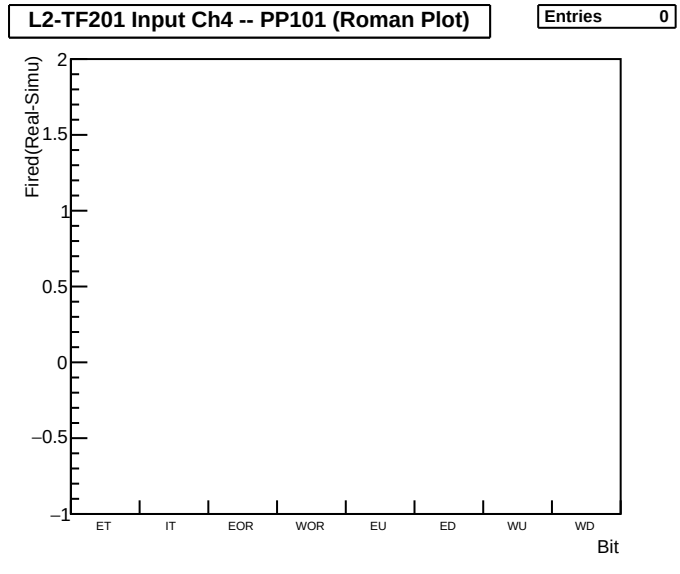

L2-TF201
Entries 106007
10^3
0 10 20 30 40 50 60 70 80 90 100
TOF total mult

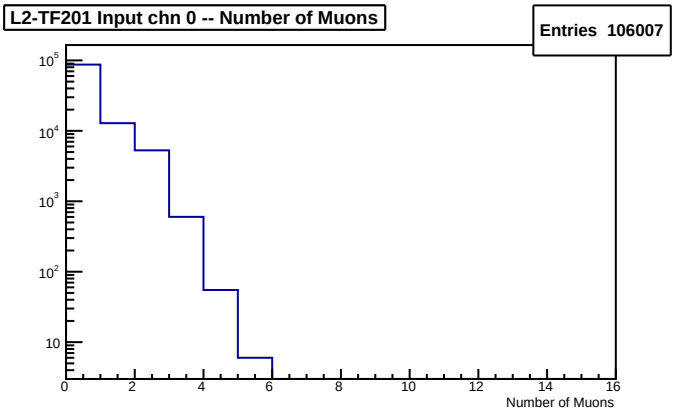

L2-TF201
Entries 0
10
1
10^{-1}
10^{-2}
0 10 20 30 40 50 60 70 80 90 100
TOF total mult(Real-Simu)

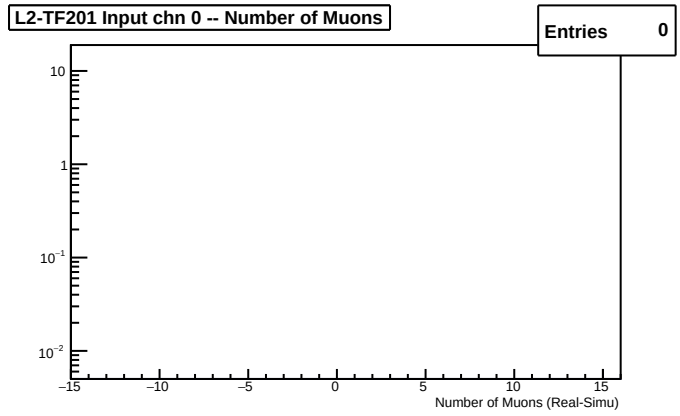

L2-TF201
Entries 742049
Threshold/UPC bits
1
0
102701 102492 102436 102584 102797 102318 104059
3306 3515 3571 3423 3210 3689 1948
TF001 TF002 TF003 TF004 TF005 TF006 UPC
TOF sector/UPC
10^5
10^4

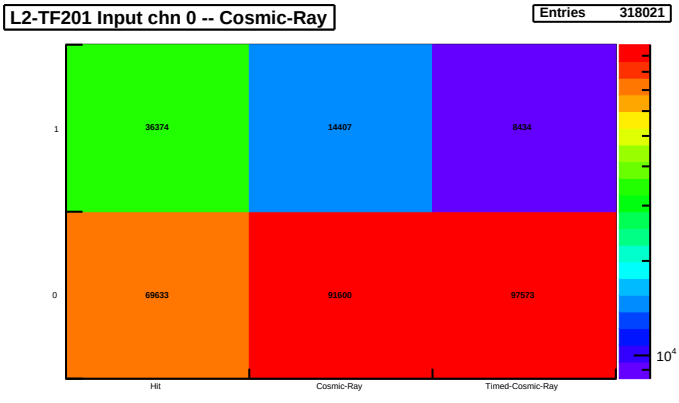

L2-TF201
Entries 0
Threshold bits/UPC (Real-Simu)
1
0
-1
TF001 TF002 TF003 TF004 TF005 TF006 UPC
TOF sector/UPC

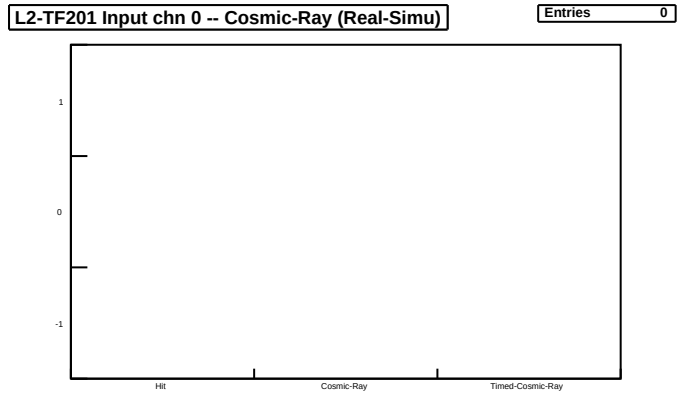

L2-TF201 Input Ch4 -- PP101 (Roman Plot)
Entries 848056
Fired
1
0
106007 106007 106007 106007 106007 106007 106007 106007
ET IT EOR WOR EU ED WU WD
Bit
10^5
10^4
10^3
10^2
10
1

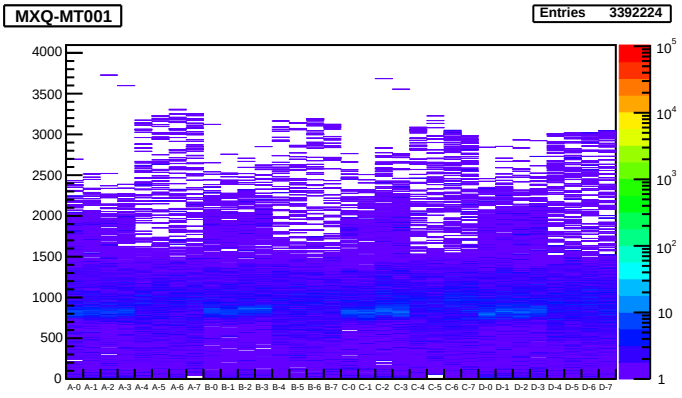

L2-TF201 Input Ch4 -- PP101 (Roman Plot)
Entries 0
Fired(Real-Simu)
2
1.5
1
0.5
0
−0.5
−1
ET IT EOR WOR EU ED WU WD
Bit

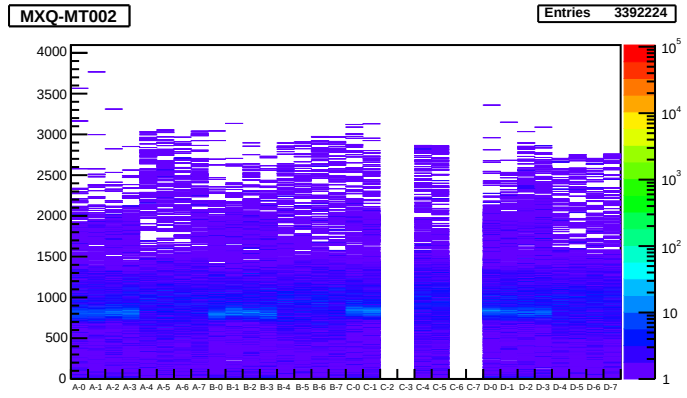

L2-TF201 Input chn 0 -- Number of Muons
Entries 106007
Number of Muons

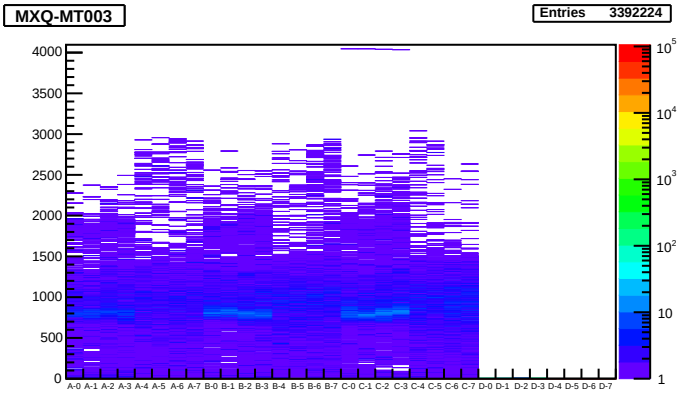

L2-TF201 Input chn 0 -- Number of Muons
Entries 0
Number of Muons (Real-Simu)

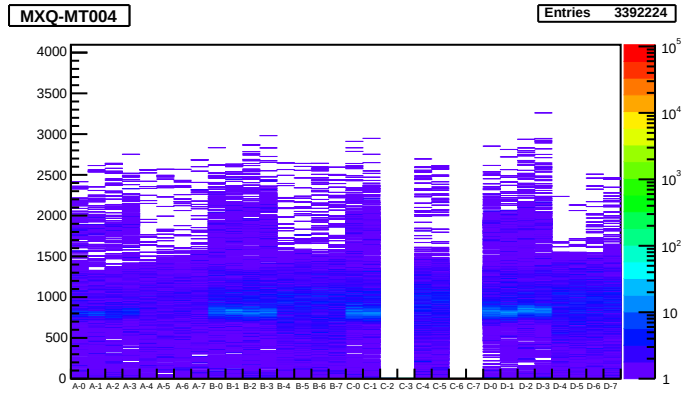

L2-TF201 Input chn 0 -- Cosmic-Ray
Entries 318021
36374
14407
8434
69633
91600
97573
Hit
Cosmic-Ray
Timed-Cosmic-Ray

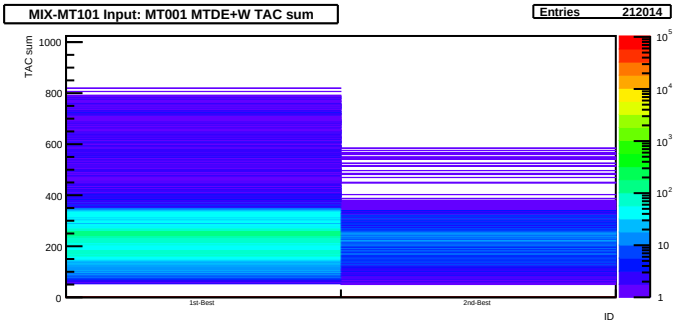

L2-TF201 Input chn 0 -- Cosmic-Ray (Real-Simu)
Entries 0
Hit
Cosmic-Ray
Timed-Cosmic-Ray

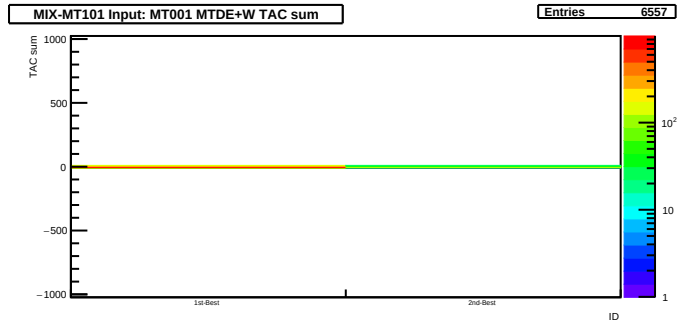

MXQ-MT001
Entries 3392224
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^5
10^4
10^3
10^2
10
1

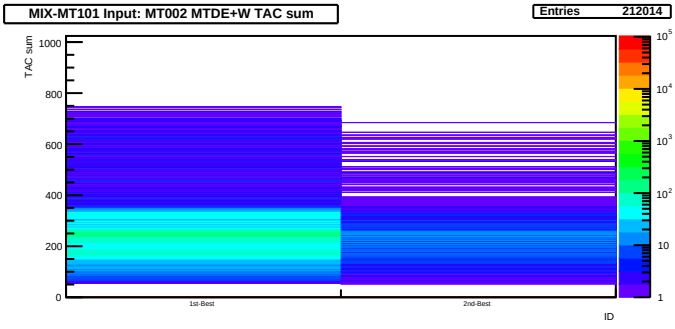

MXQ-MT002
Entries 3392224
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^5
10^4
10^3
10^2
10
1

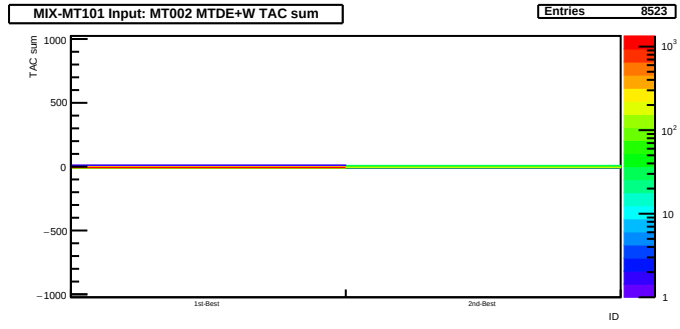

MXQ-MT003
Entries 3392224
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^5
10^4
10^3
10^2
10
1

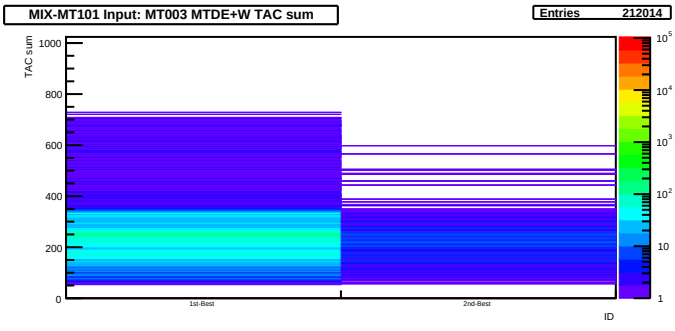

MXQ-MT004
Entries 3392224
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^5
10^4
10^3
10^2
10
1

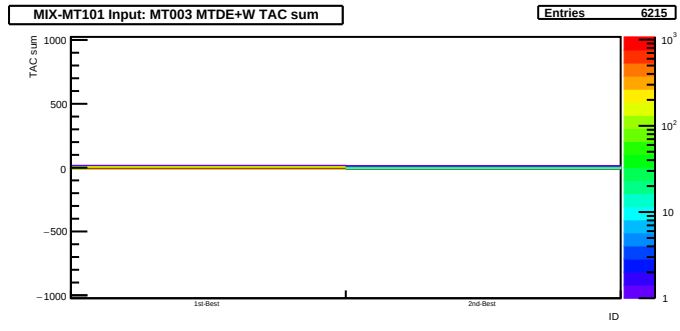

MIX-MT101 Input: MT001 MTDE+W TAC sum
Entries 212014
TAC sum
ID
1st-Best
2nd-Best

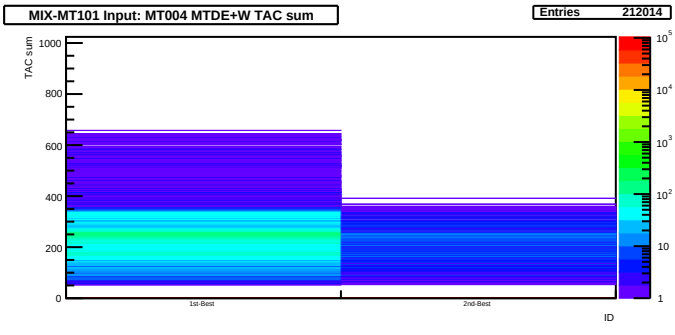

MIX-MT101 Input: MT001 MTDE+W TAC sum
Entries 6557
TAC sum
ID
1st-Best
2nd-Best

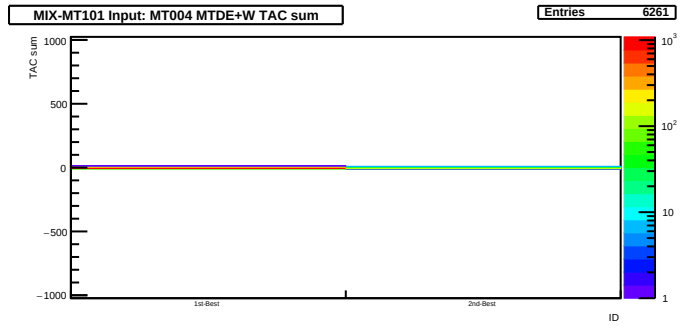

MIX-MT101 Input: MT002 MTDE+W TAC sum
Entries 212014
TAC sum
ID
1st-Best
2nd-Best

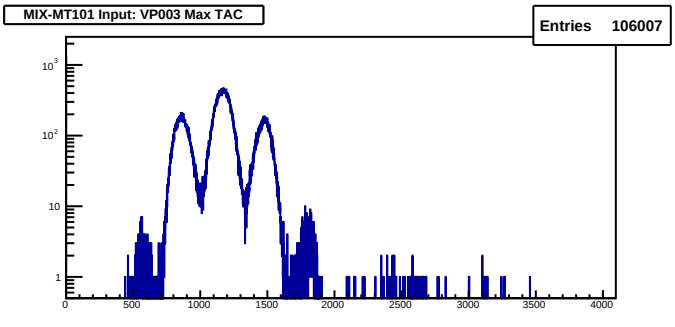

MIX-MT101 Input: MT002 MTDE+W TAC sum
Entries 8523
TAC sum
ID
1st-Best
2nd-Best

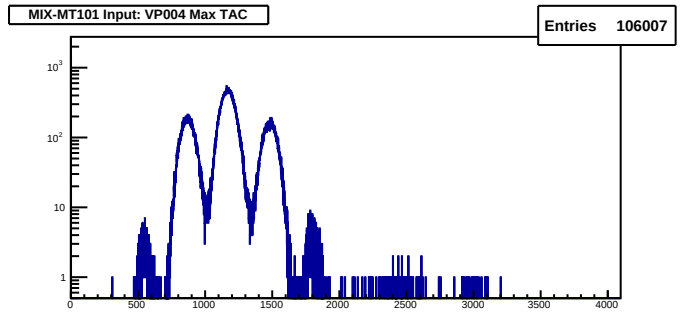

MIX-MT101 Input: MT003 MTDE+W TAC sum
Entries 212014
TAC sum
ID
1st-Best
2nd-Best

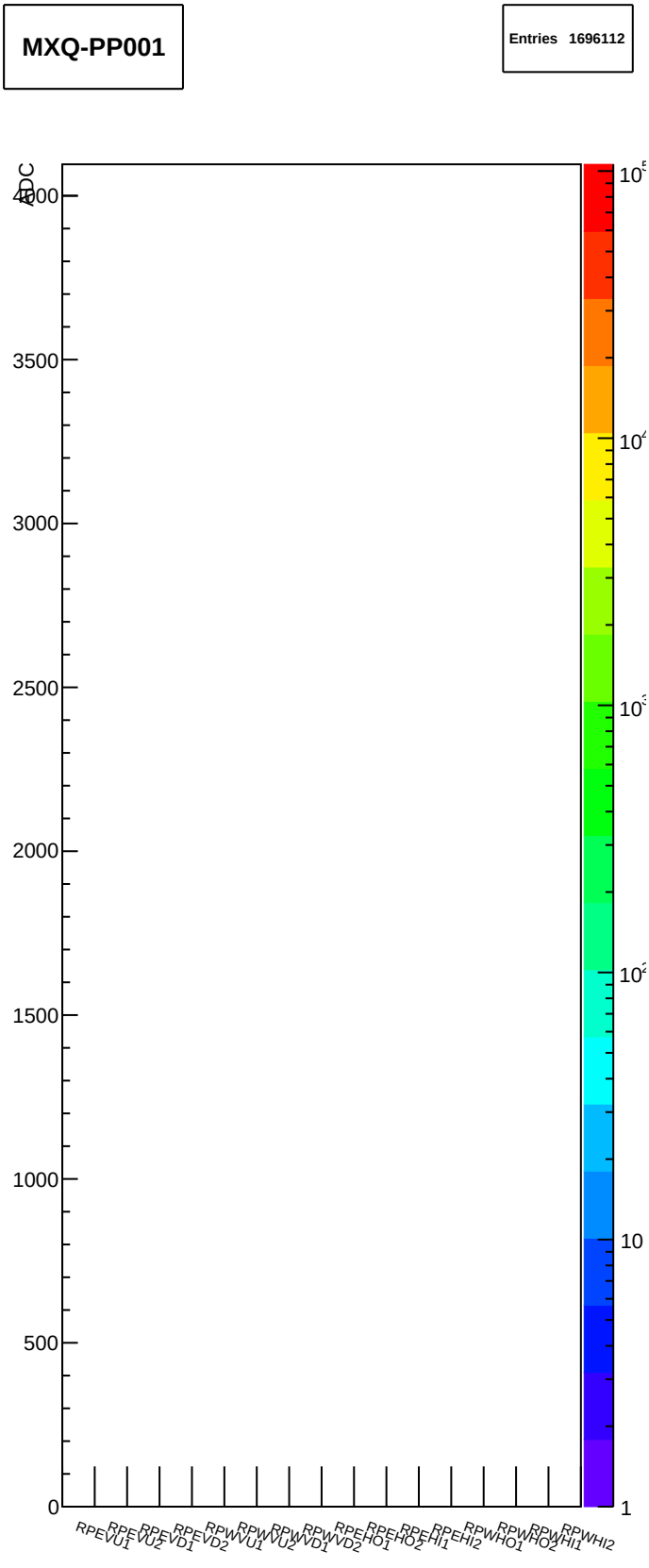

MIX-MT101 Input: MT003 MTDE+W TAC sum
Entries 6215
TAC sum
ID
1st-Best
2nd-Best

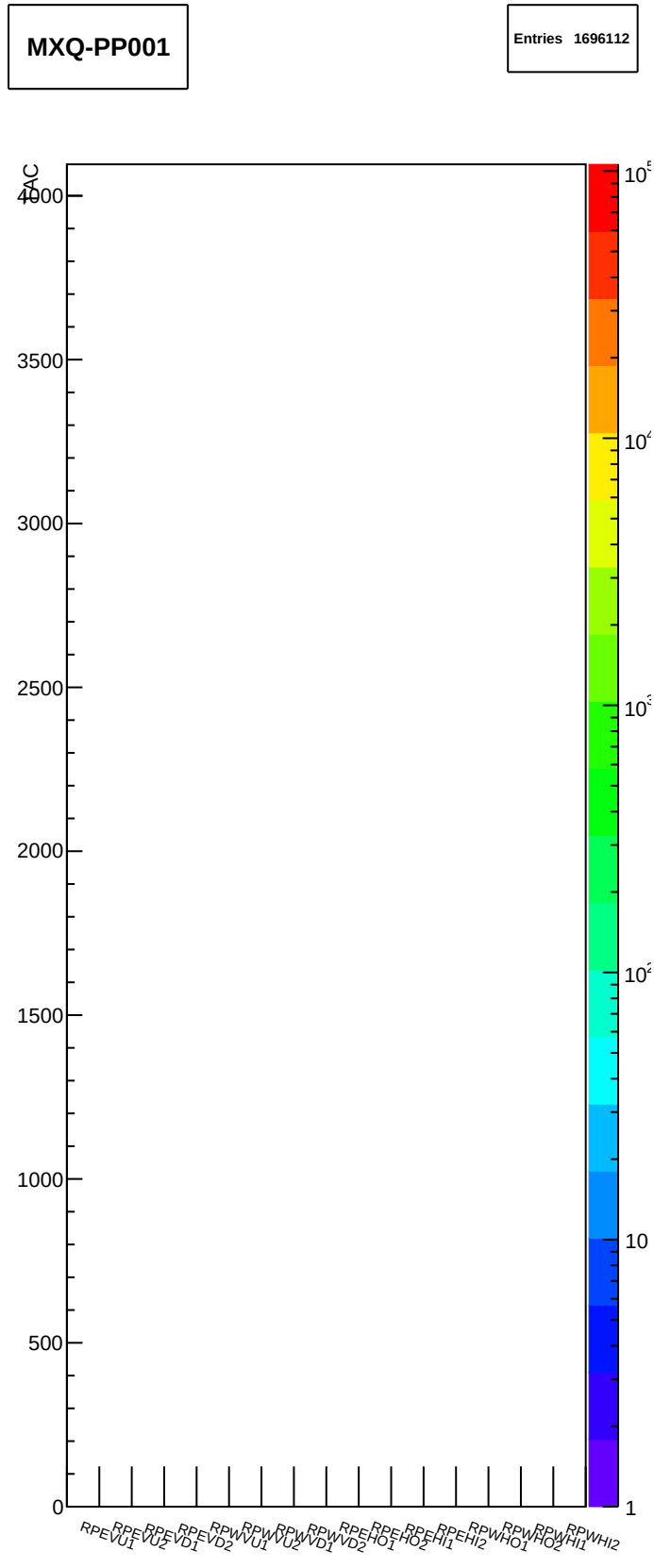

MIX-MT101 Input: MT004 MTDE+W TAC sum
Entries 212014
TAC sum
ID
1st-Best
2nd-Best

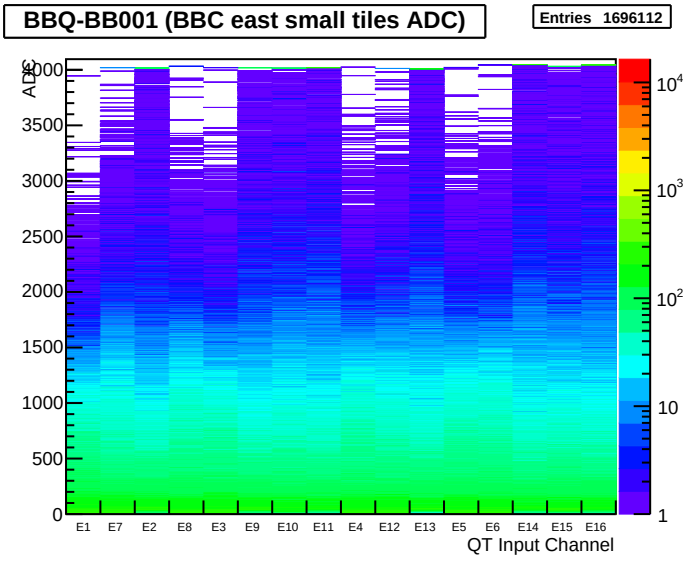

MIX-MT101 Input: MT004 MTDE+W TAC sum
Entries 6261
TAC sum
ID
1st-Best
2nd-Best

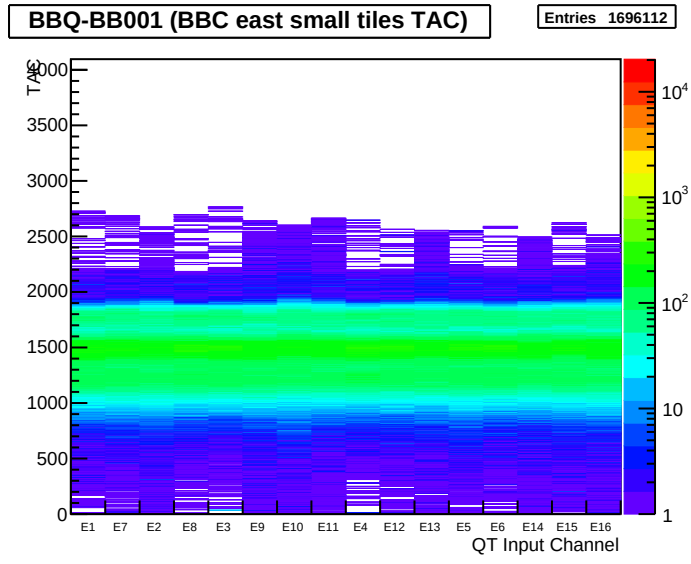

MIX-MT101 Input: VP003 Max TAC
Entries 106007

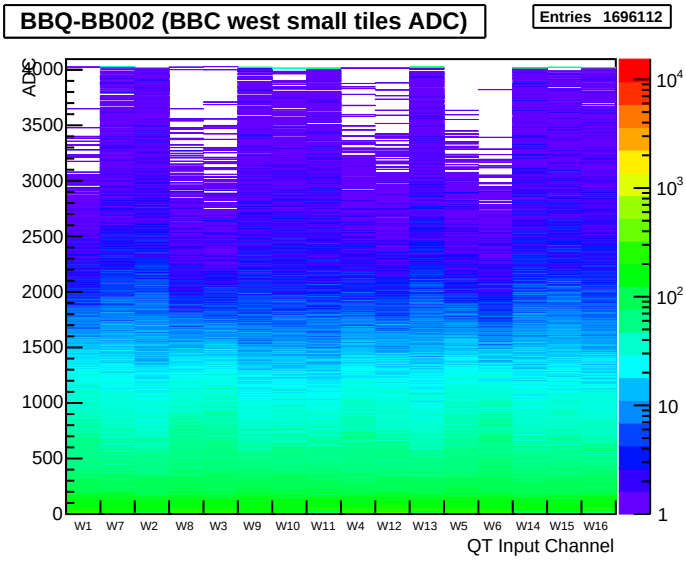

MIX-MT101 Input: VP004 Max TAC
Entries 106007

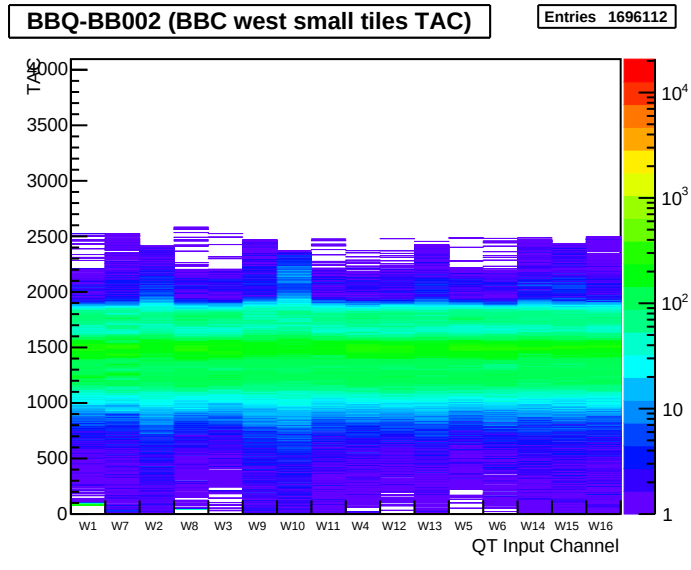

MXQ-PP001
Entries 1696112
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
RPEVU1
RPEVU2
RPEVD1
RPEVD2
RPWVU1
RPWVU2
RPWVD1
RPWVD2
RPEHO1
RPEHO2
RPEHI1
RPEHI2
RPWHO1
RPWHO2
RPWHI1
RPWHI2
10
1

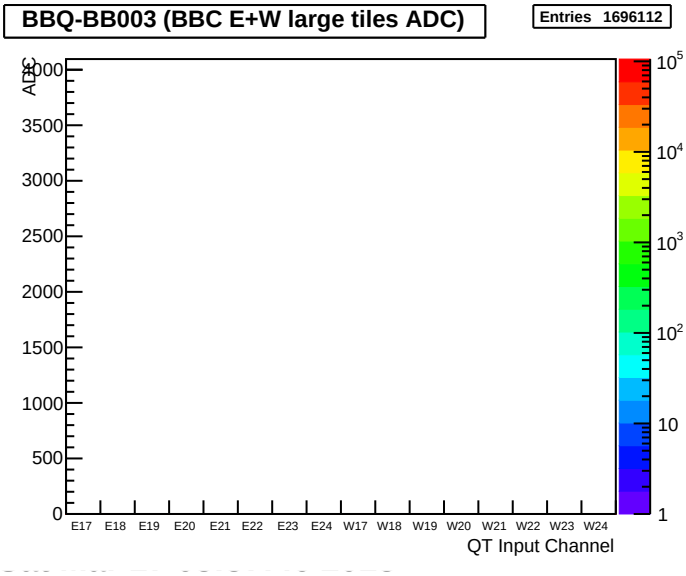

MXQ-PP001
Entries 1696112
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
RPEVU1
RPEVU2
RPEVD1
RPEVD2
RPWVU1
RPWVU2
RPWVD1
RPWVD2
RPEHO1
RPEHO2
RPEHI1
RPEHI2
RPWHO1
RPWHO2
RPWHI1
RPWHI2
10
1

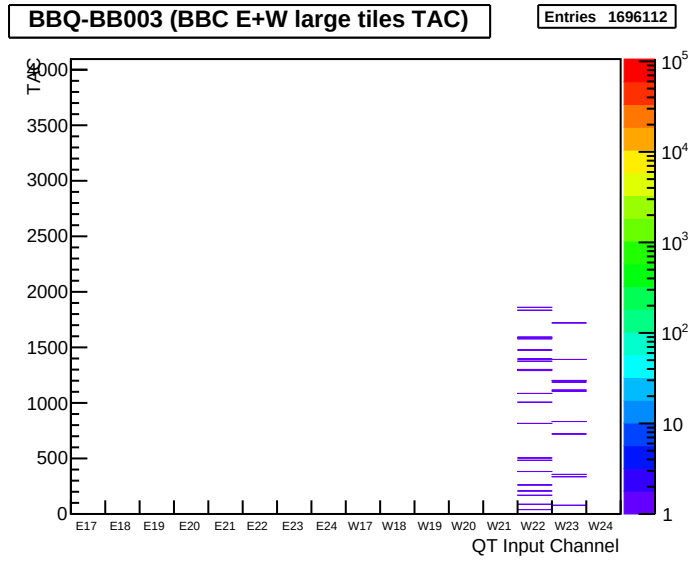

BBQ-BB001 (BBC east small tiles ADC)
Entries 1696112
ADC
QT Input Channel

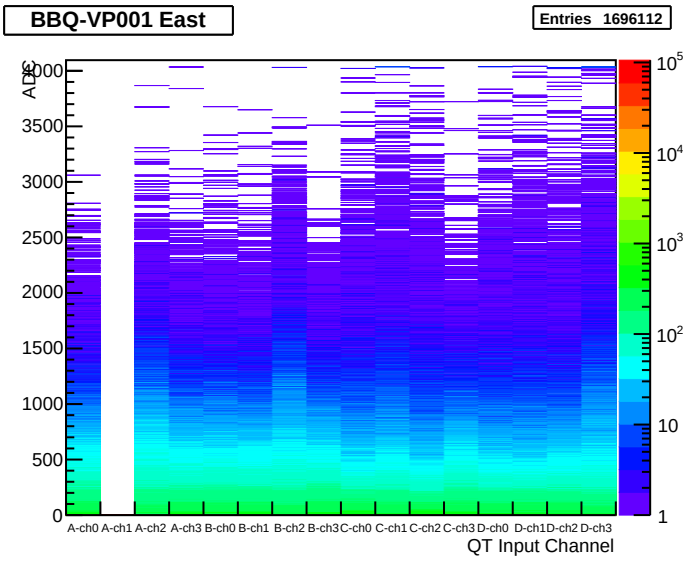

BBQ-BB001 (BBC east small tiles TAC)
Entries 1696112
TAC
QT Input Channel

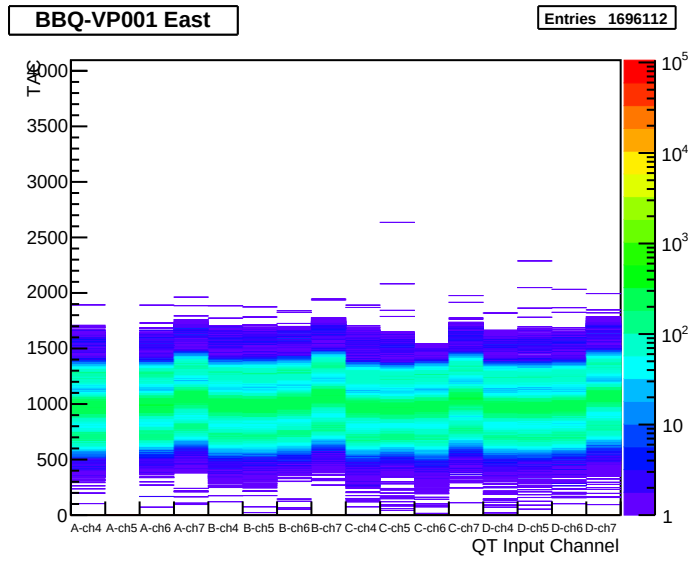

BBQ-BB002 (BBC west small tiles ADC)
Entries 1696112
ADC
QT Input Channel

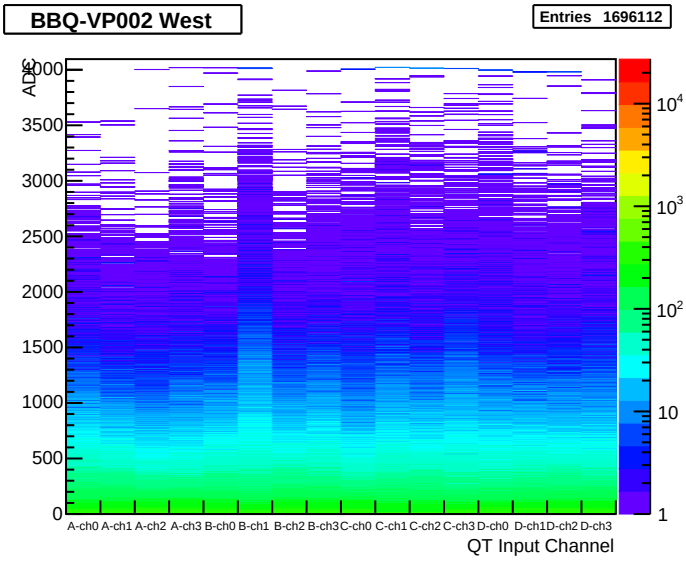

BBQ-BB002 (BBC west small tiles TAC)
Entries 1696112
TAC
QT Input Channel

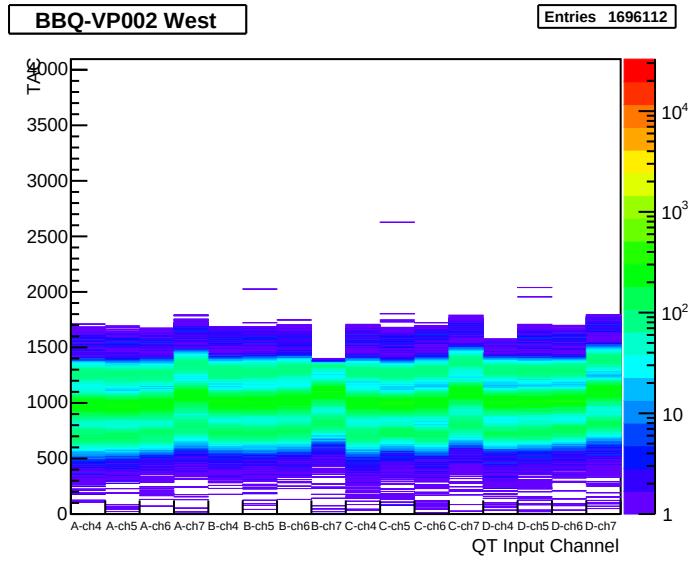

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1696112
ADC
QT Input Channel

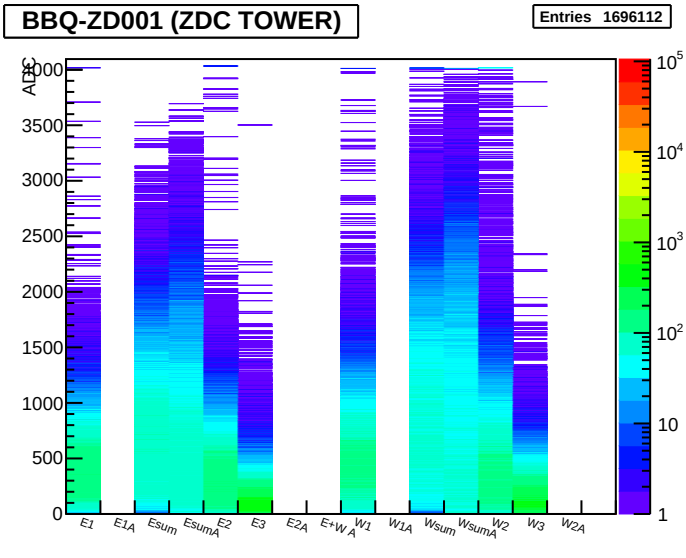

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1696112
TAC
QT Input Channel

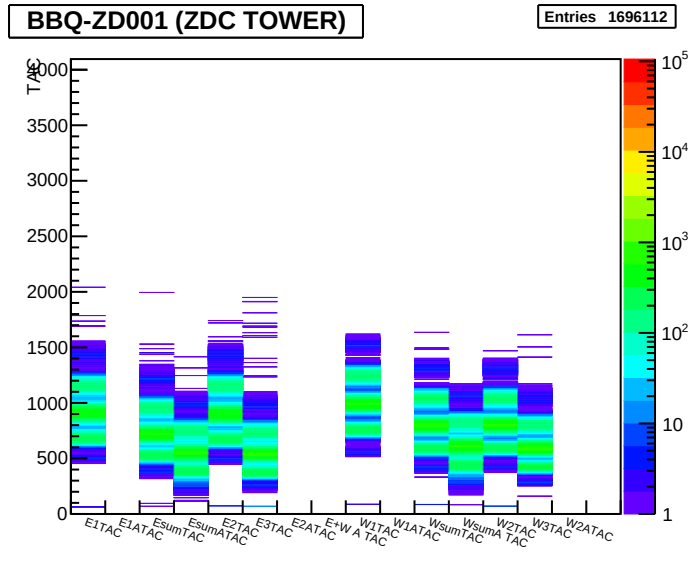

BBQ-VP001 East
Entries 1696112
ADC
QT Input Channel

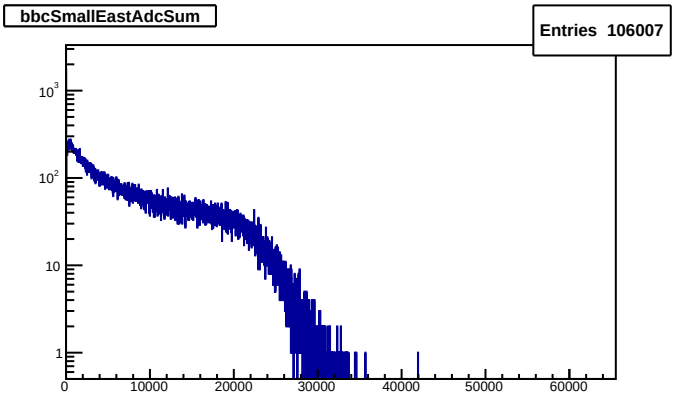

BBQ-VP001 East
Entries 1696112
TAC
QT Input Channel

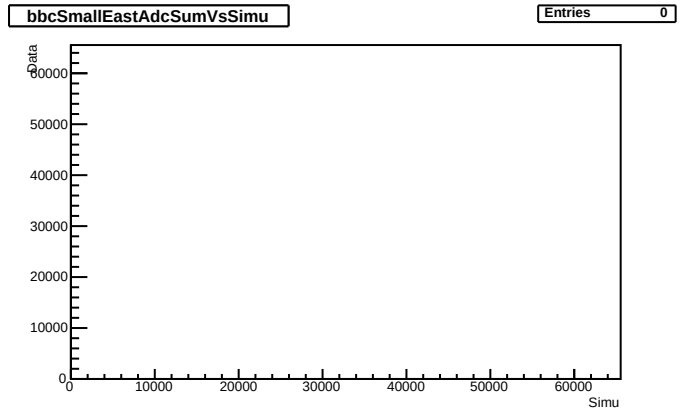

BBQ-VP002 West
Entries 1696112
ADC
QT Input Channel

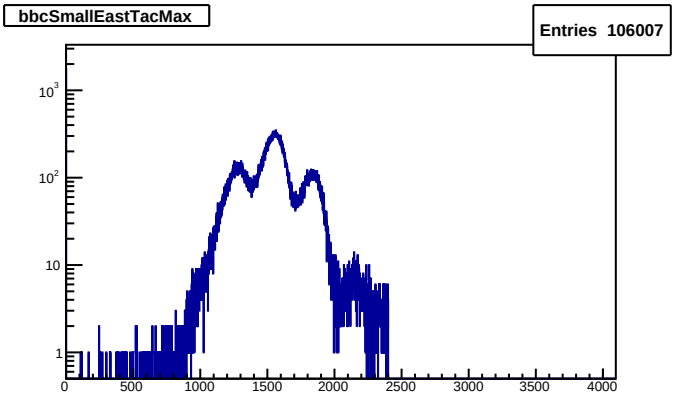

BBQ-VP002 West
Entries 1696112
TAC
QT Input Channel

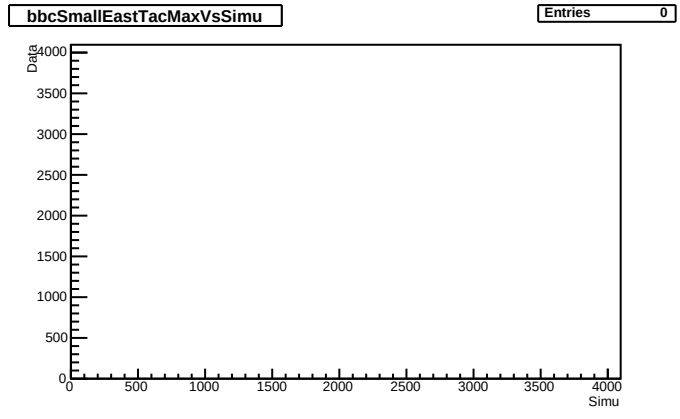

BBQ-ZD001 (ZDC TOWER)
Entries 1696112
ADC

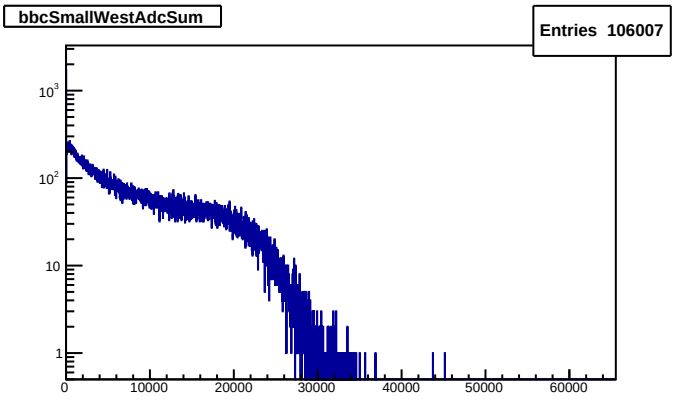

BBQ-ZD001 (ZDC TOWER)
Entries 1696112
TAC

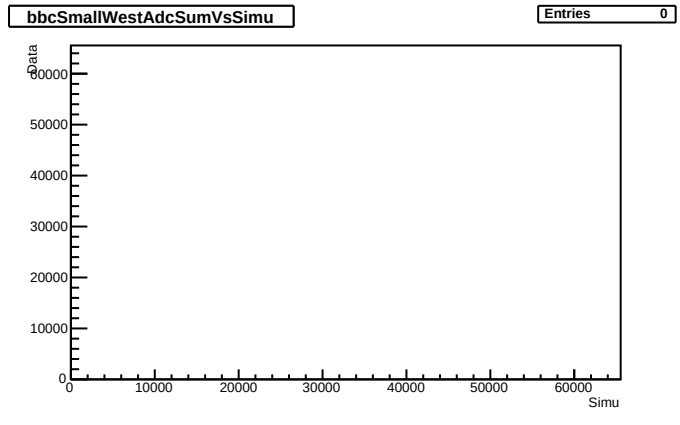

bbcSmallEastAdcSum
Entries 106007

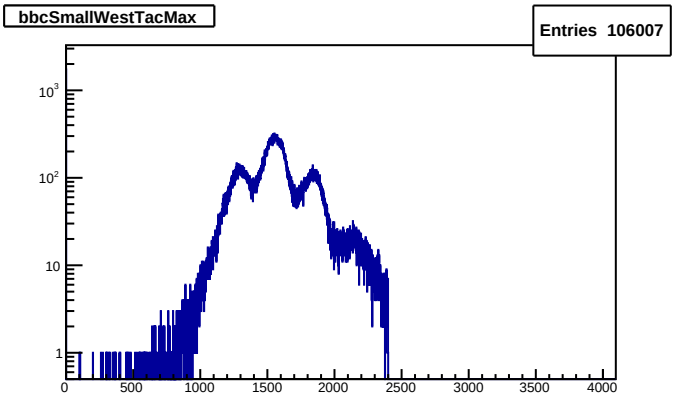

bbcSmallEastAdcSumVsSimu
Entries 0
Data
Simu

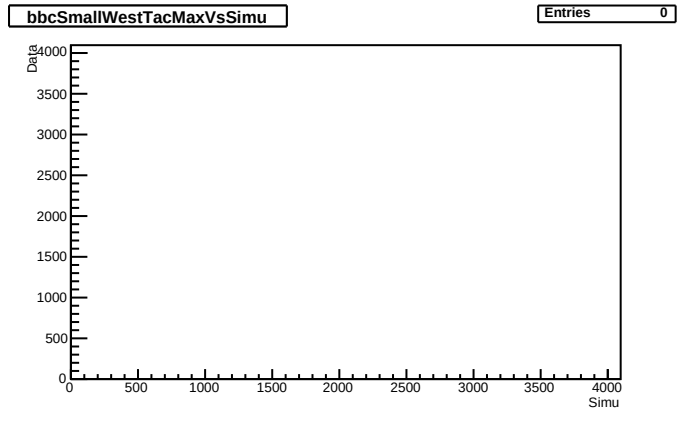

bbcSmallEastTacMax
Entries 106007

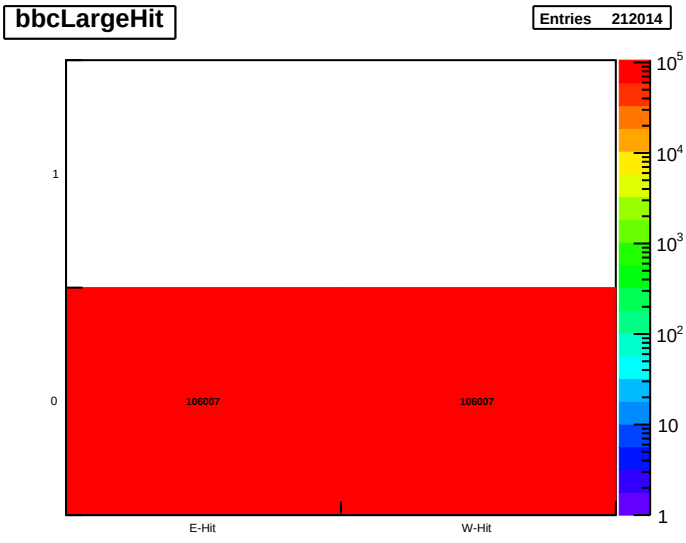

bbcSmallEastTacMaxVsSimu
Entries 0
Data
Simu

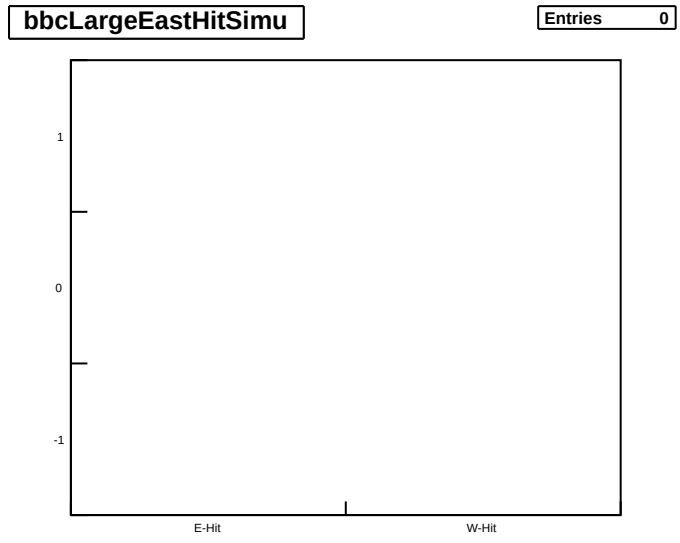

bbcSmallWestAdcSum
Entries 106007

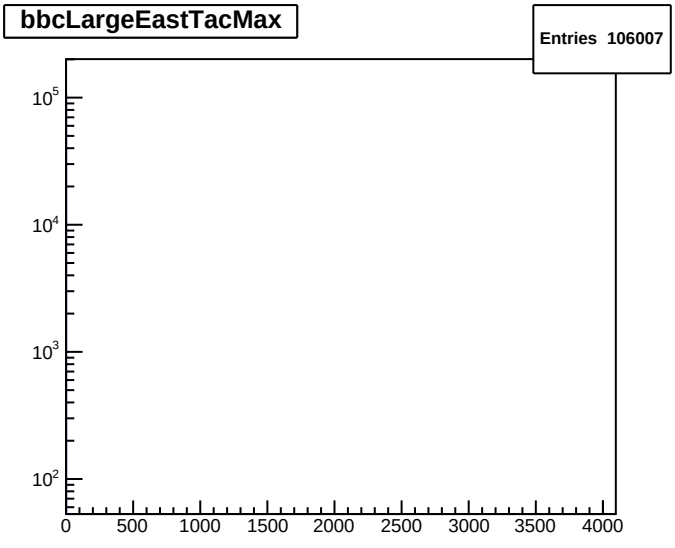

bbcSmallWestAdcSumVsSimu
Entries 0
Data
Simu

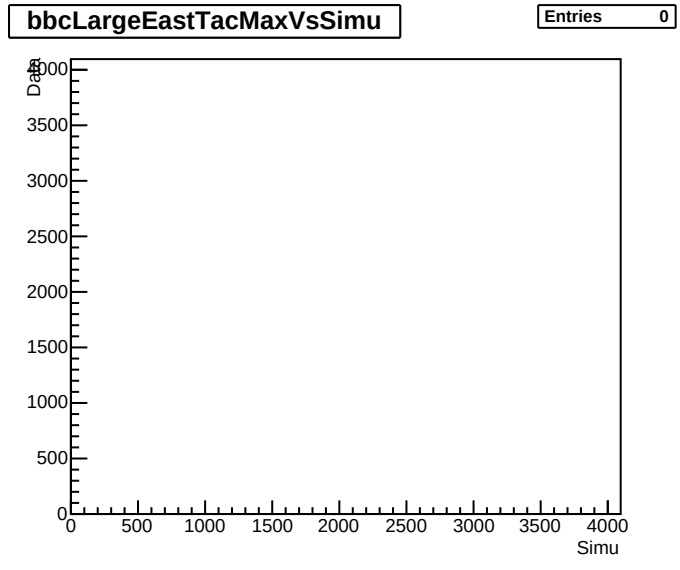

bbcSmallWestTacMax
Entries 106007

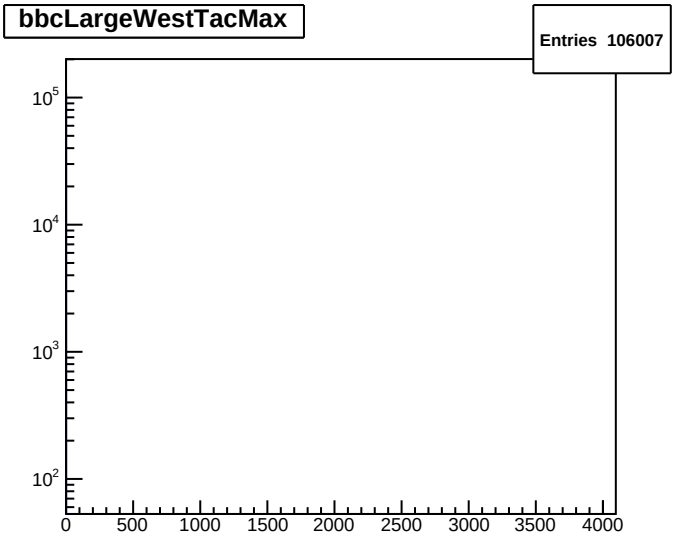

bbcSmallWestTacMaxVsSimu
Entries 0
Data
Simu

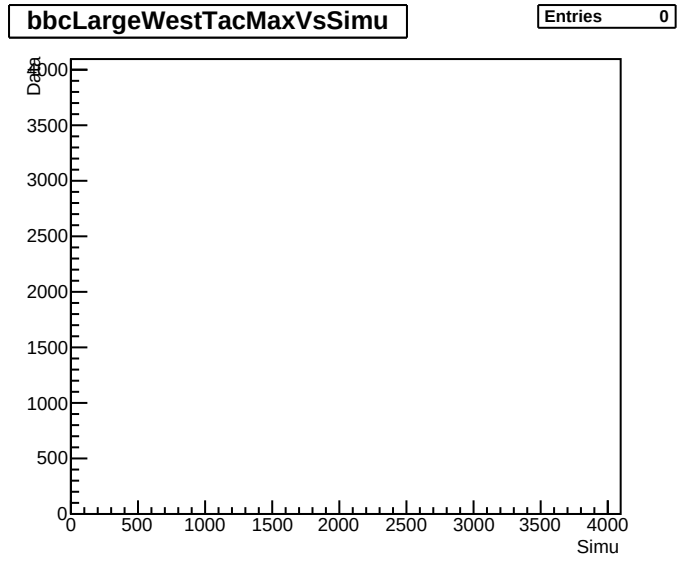

bbcLargeHit
Entries 212014
106007
106007
E-Hit
W-Hit

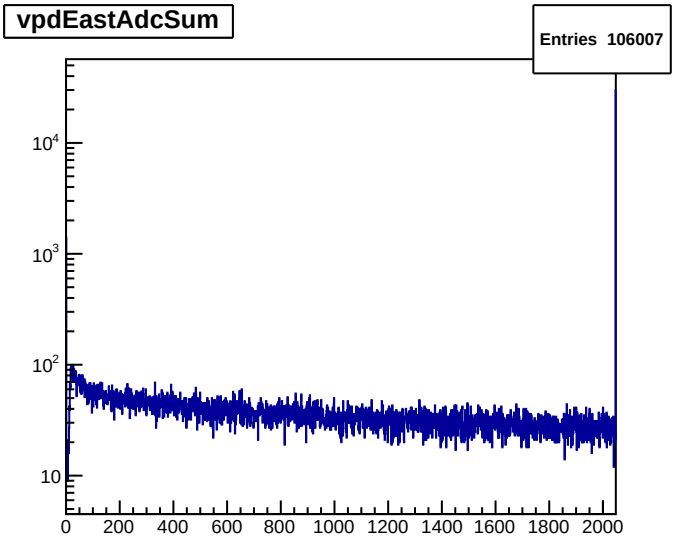

bbcLargeEastHitSimu
Entries 0
E-Hit
W-Hit

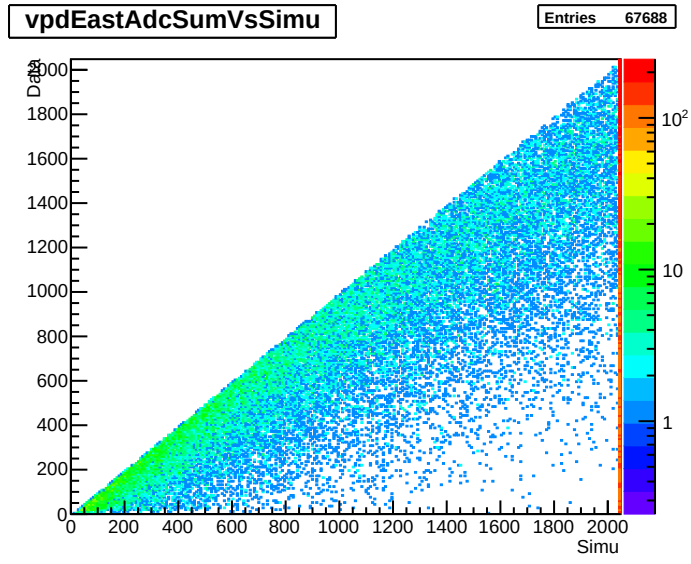

bbcLargeEastTacMax
Entries 106007

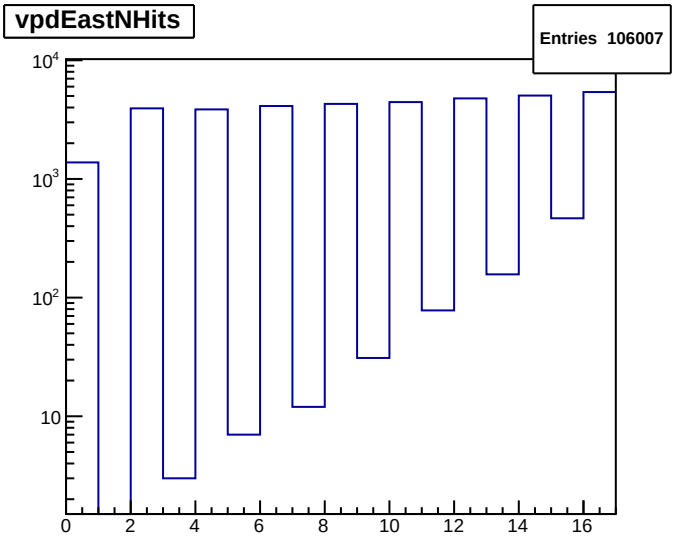

bbcLargeEastTacMaxVsSimu
Entries 0
Data
Simu

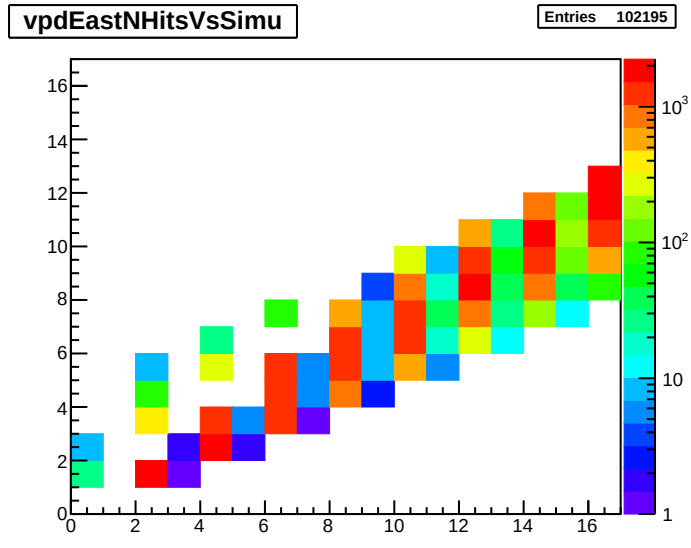

bbcLargeWestTacMax
Entries 106007

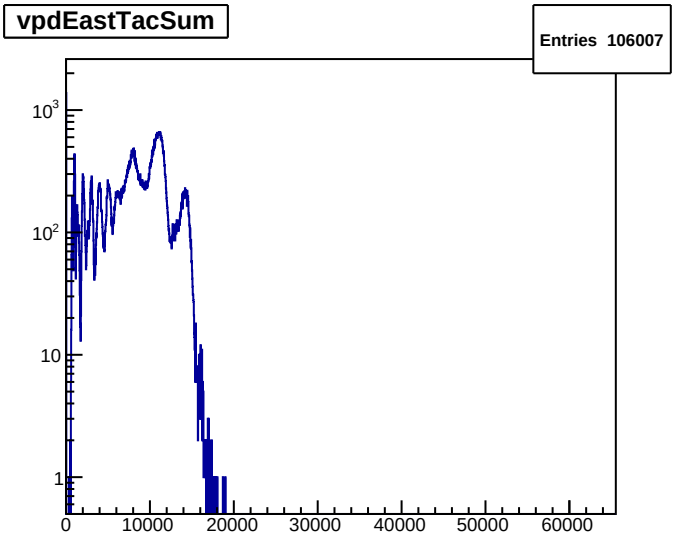

bbcLargeWestTacMaxVsSimu
Entries 0
Data
Simu

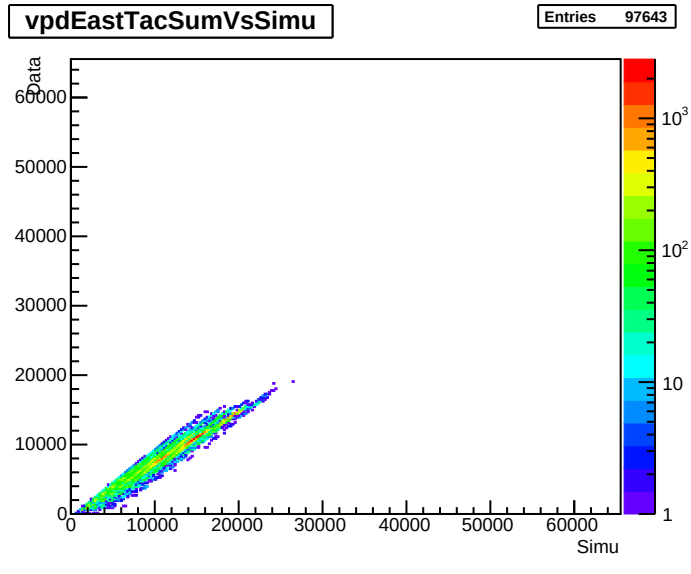

vpdEastAdcSum
Entries 106007

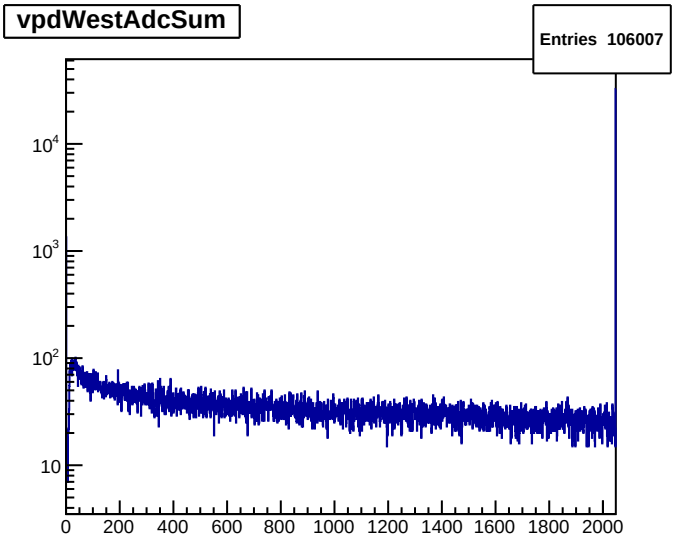

vpdEastAdcSumVsSimu
Entries 67688
Data
Simu

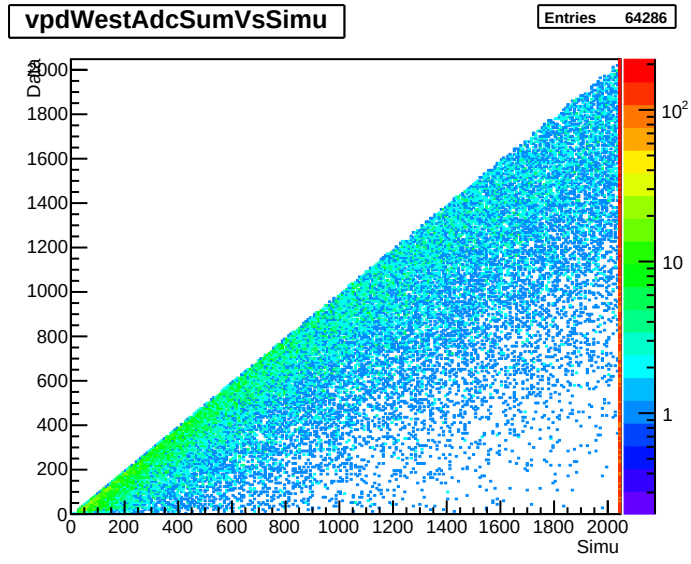

vpdEastNHits
Entries 106007

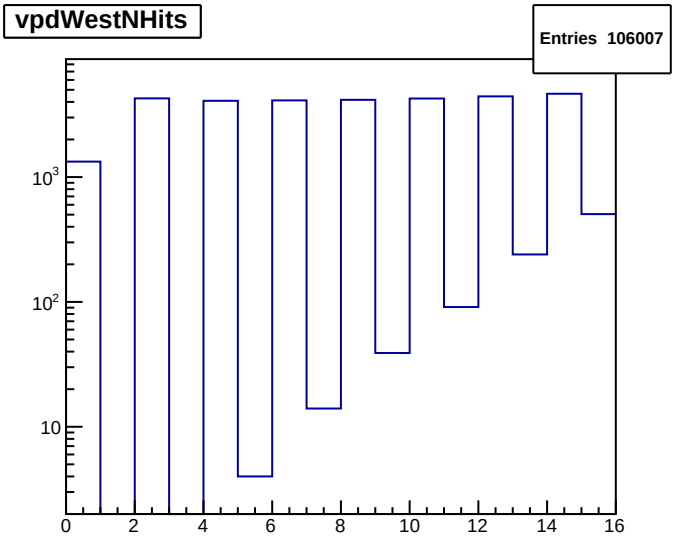

vpdEastNHitsVsSimu
Entries 102195

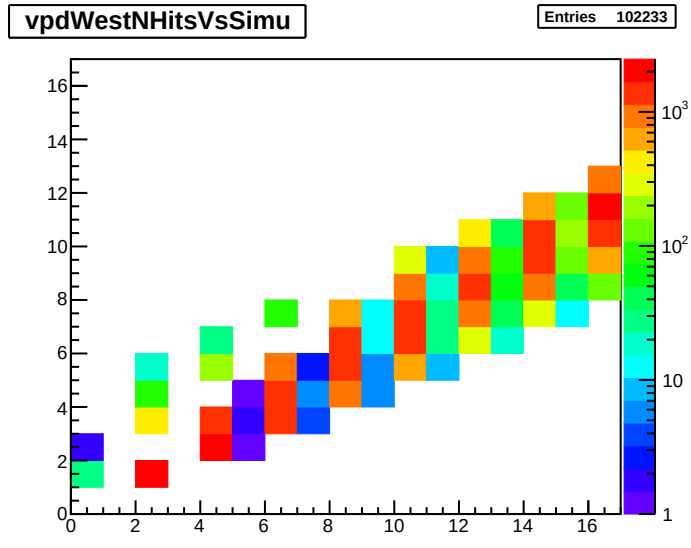

vpdEastTacSum
Entries 106007

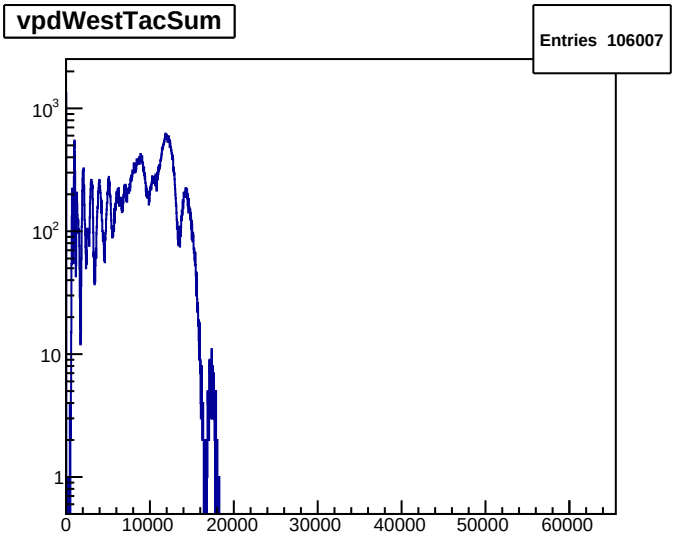

vpdEastTacSumVsSimu
Entries 97643
Data
Simu

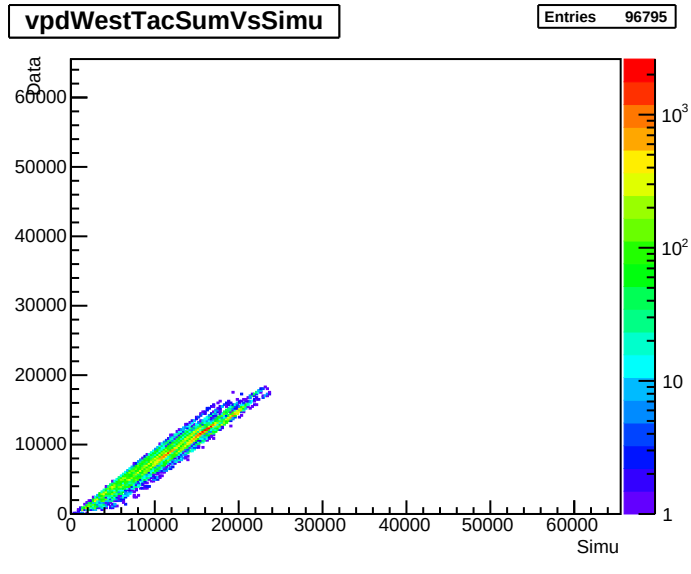

vpdWestAdcSum
Entries 106007

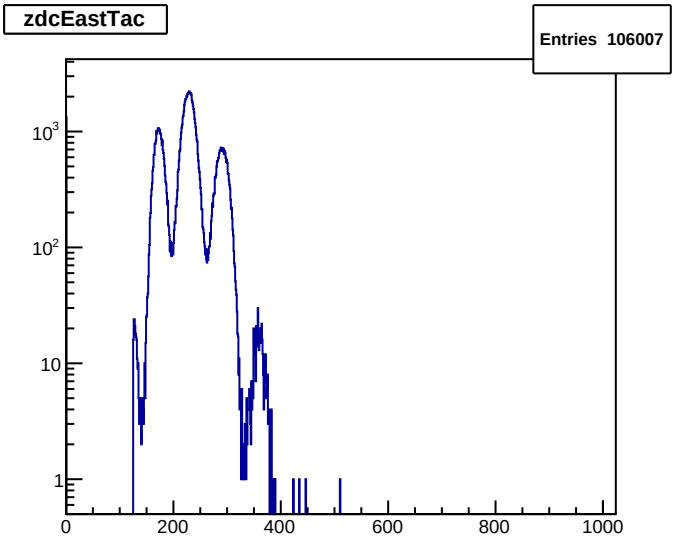

vpdWestAdcSumVsSimu
Entries 64286
Data
Simu

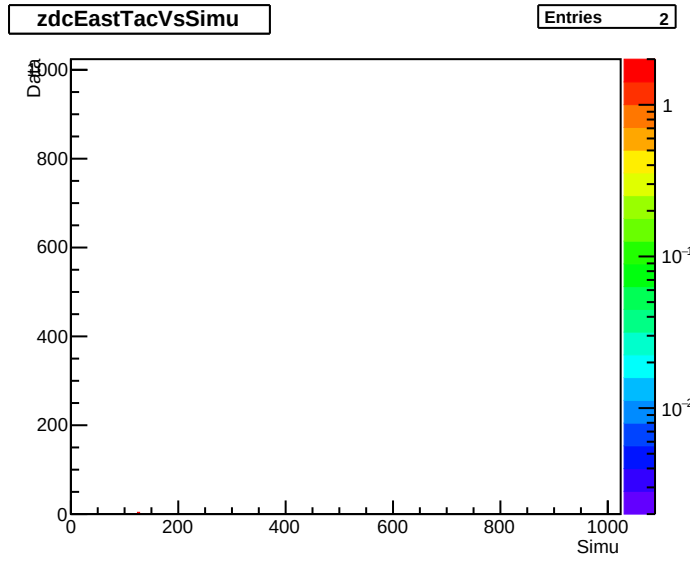

vpdWestNHits
Entries 106007

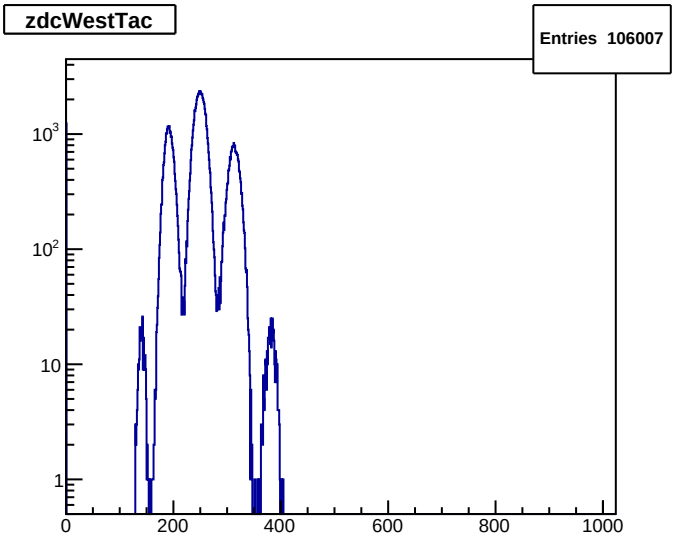

vpdWestNHitsVsSimu
Entries 102233

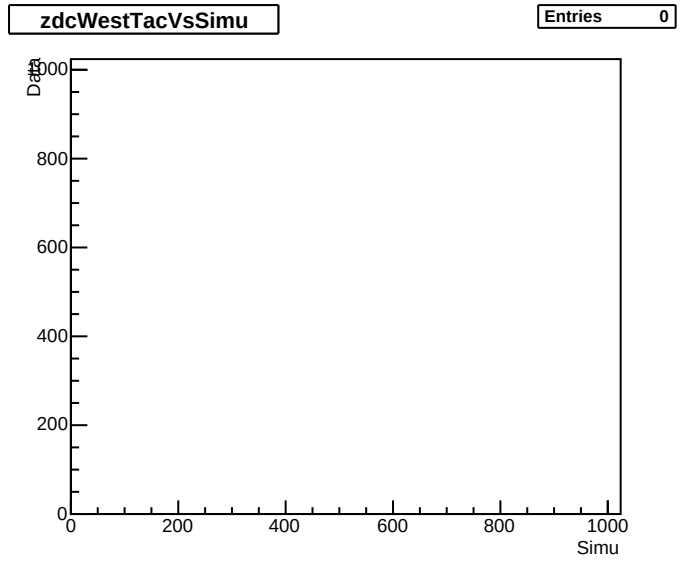

vpdWestTacSum
Entries 106007

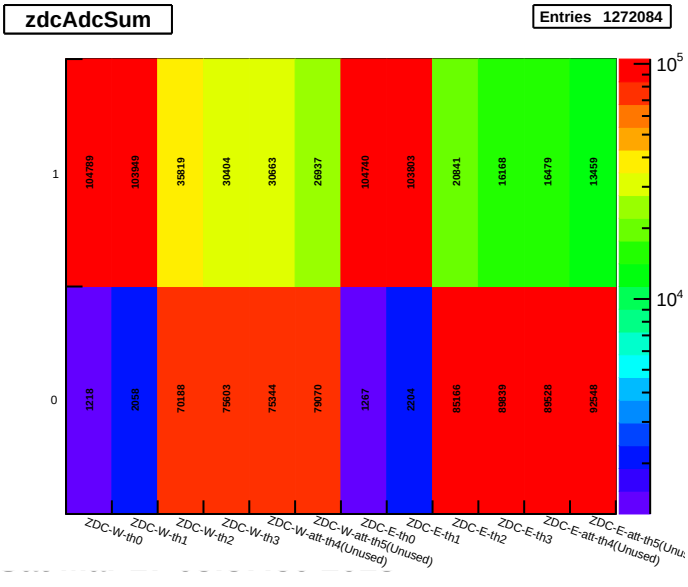

vpdWestTacSumVsSimu
Entries 96795
Data
Simu

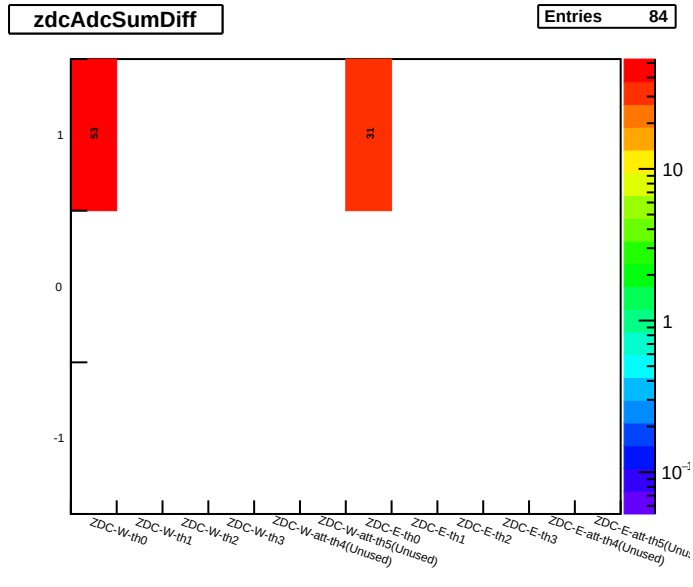

zdcEastTac
Entries 106007
10^3
10^2
10
1
0
200
400
600
800
1000

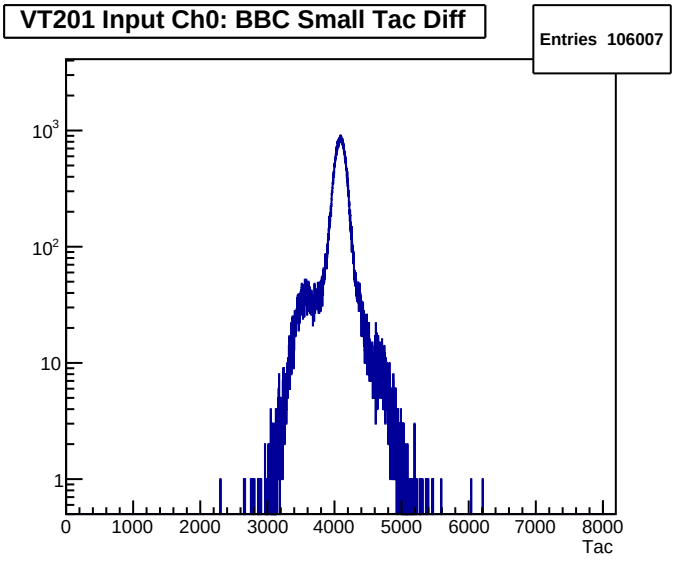

zdcEastTacVsSimu
Entries 2
Data
1000
800
600
400
200
0
Simu
1
10^{-1}
10^{-2}

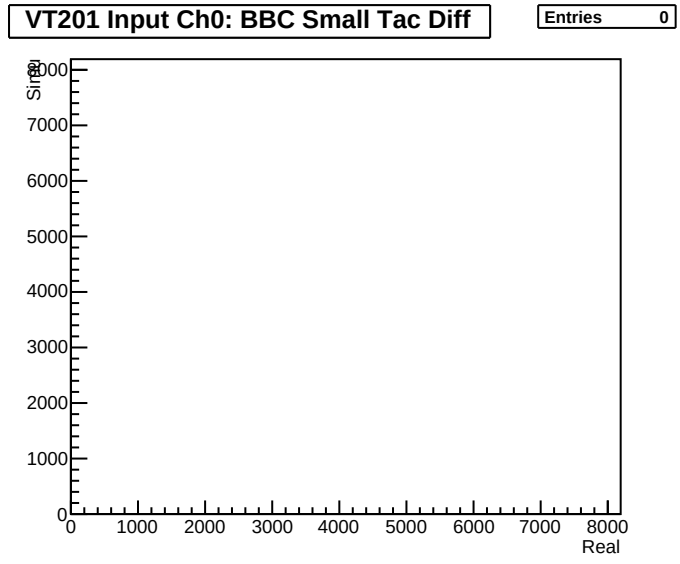

zdcWestTac
Entries 106007
10^3
10^2
10
1
0
200
400
600
800
1000

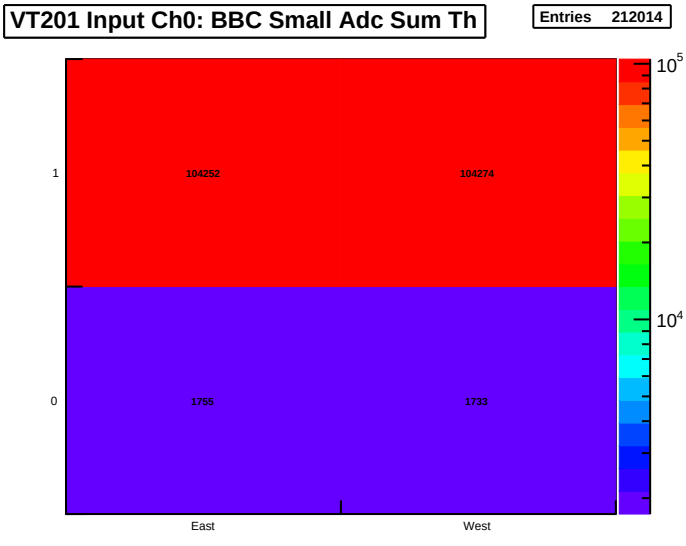

zdcWestTacVsSimu
Entries 0
Data
1000
800
600
400
200
0
Simu

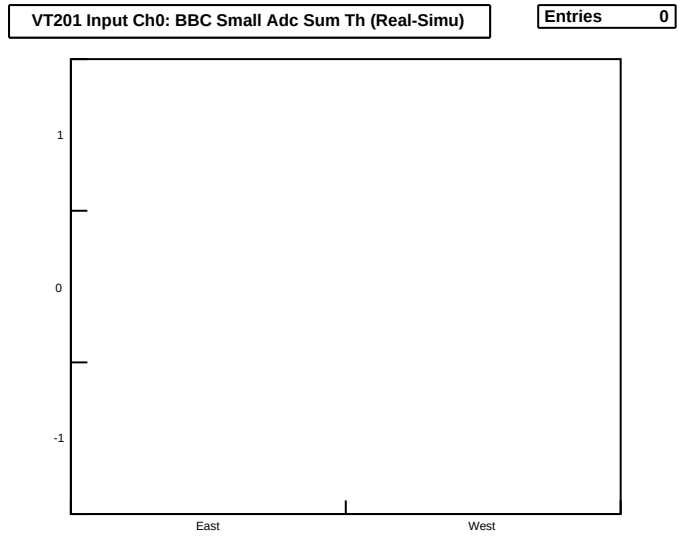

zdcAdcSum
Entries 1272084
1
0
104789
103949
35819
30404
30663
26937
104740
103803
20841
16168
16479
13459
1218
2058
70188
75603
75344
79070
1267
2204
85166
89839
89528
92548
10^5
10^4
ZDC-W-th0
ZDC-W-th1
ZDC-W-th2
ZDC-W-th3
ZDC-W-att-th4(Unused)
ZDC-W-att-th5(Unused)
ZDC-E-th0
ZDC-E-th1
ZDC-E-th2
ZDC-E-th3
ZDC-E-att-th4(Unused)

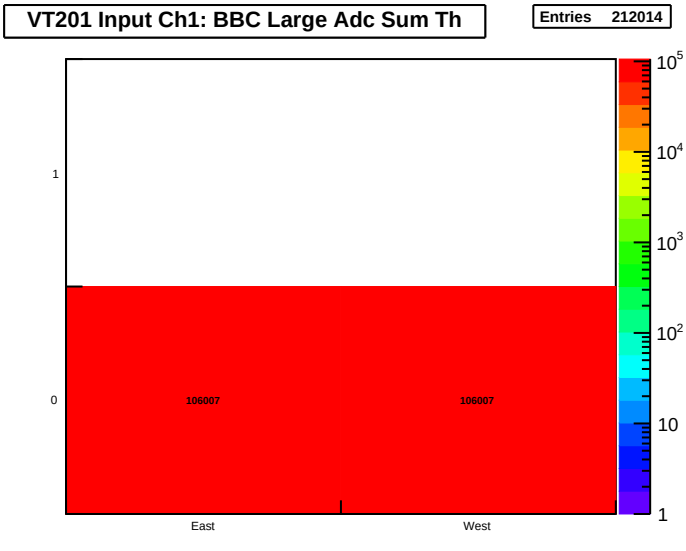

zdcAdcSumDiff
Entries 84
1
0
-1
53
31
10
1
10^{-1}
ZDC-W-th0
ZDC-W-th1
ZDC-W-th2
ZDC-W-th3
ZDC-W-att-th4(Unused)
ZDC-W-att-th5(Unused)
ZDC-E-th0
ZDC-E-th1
ZDC-E-th2
ZDC-E-th3
ZDC-E-att-th4(Unused)

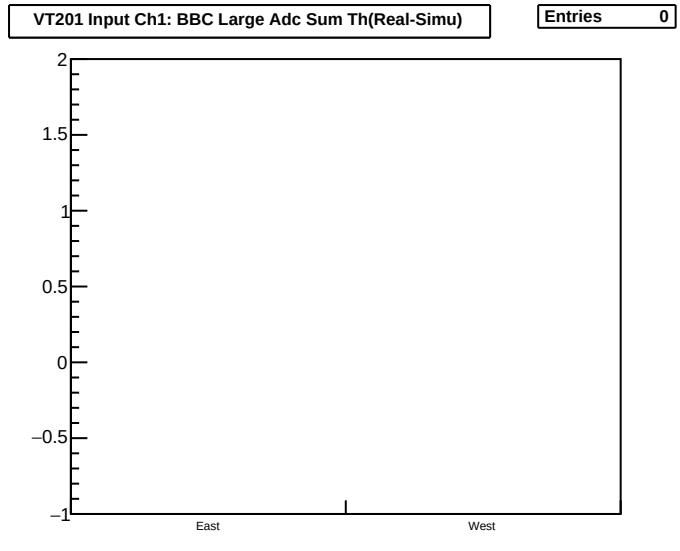

VT201 Input Ch0: BBC Small Tac Diff
Entries 106007
Tac

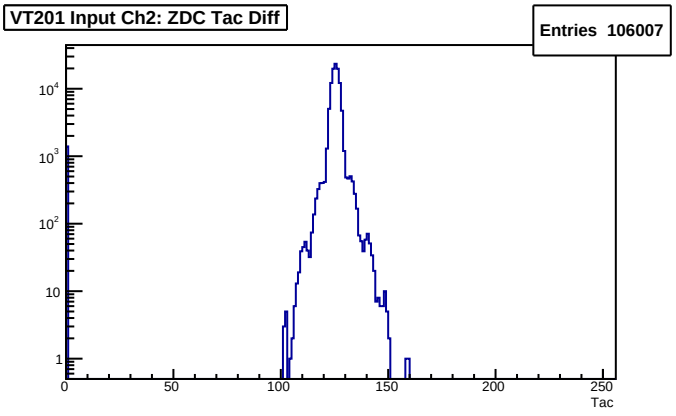

VT201 Input Ch0: BBC Small Tac Diff
Entries 0
Simu
Real

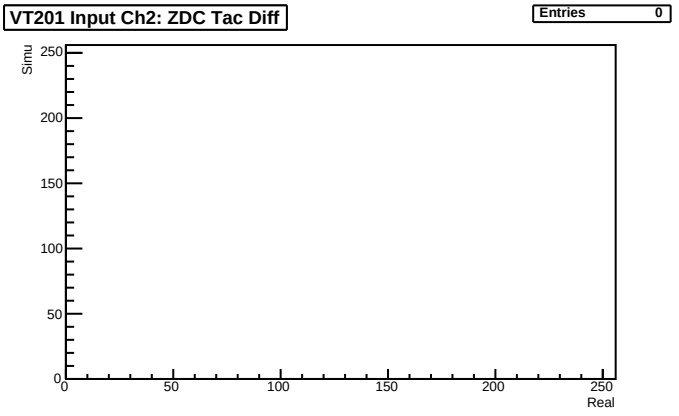

VT201 Input Ch0: BBC Small Adc Sum Th
Entries 212014
104252
104274
1755
1733
East
West

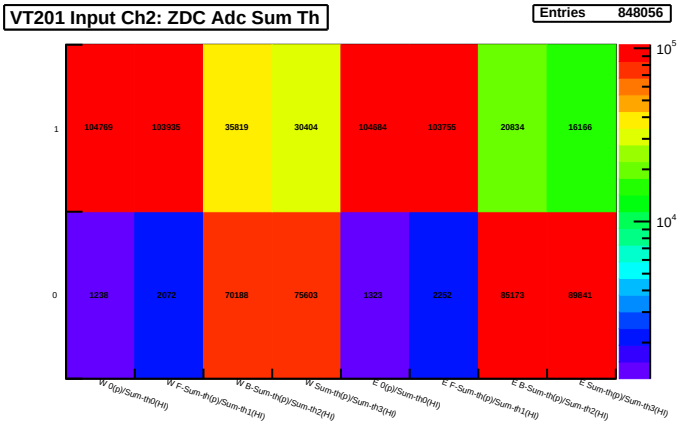

VT201 Input Ch0: BBC Small Adc Sum Th (Real-Simu)
Entries 0
East
West

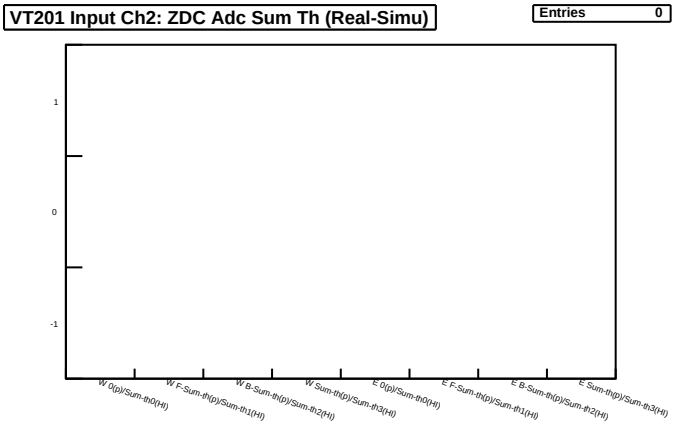

VT201 Input Ch1: BBC Large Adc Sum Th
Entries 212014
106007
106007
East
West

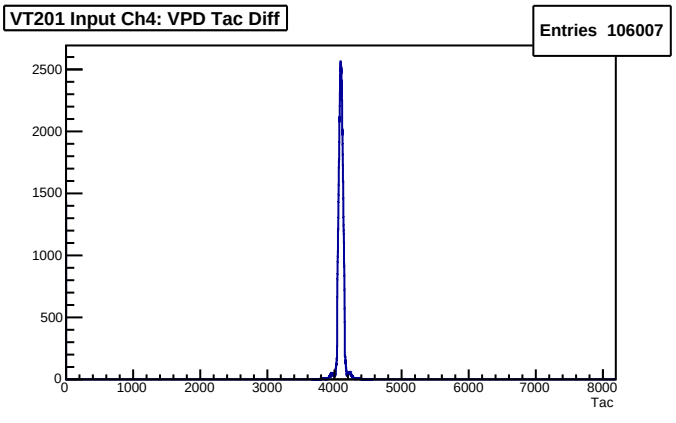

VT201 Input Ch1: BBC Large Adc Sum Th(Real-Simu)
Entries 0
East
West

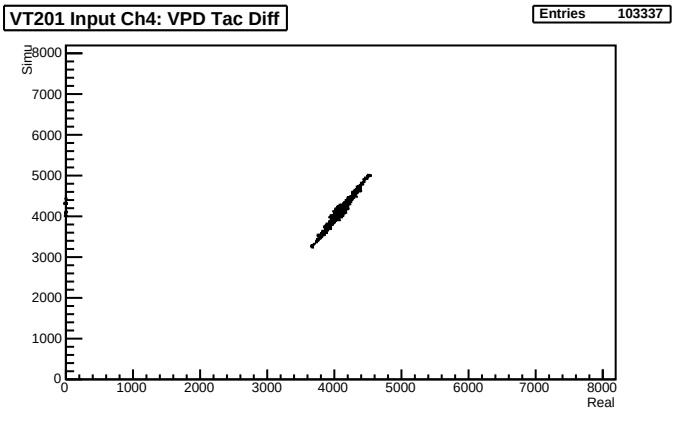

VT201 Input Ch2: ZDC Tac Diff
Entries 106007
Tac

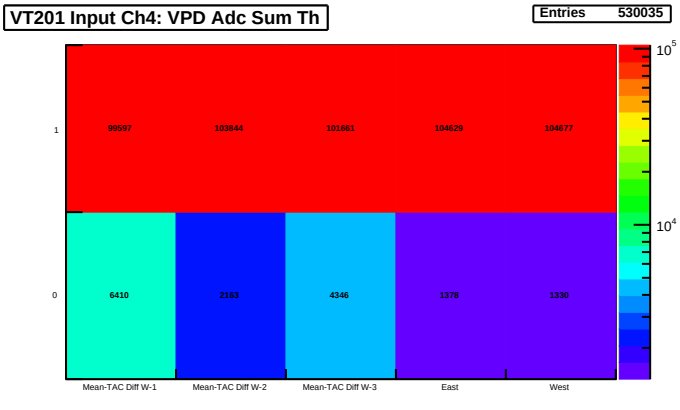

VT201 Input Ch2: ZDC Tac Diff
Entries 0
Simu
Real

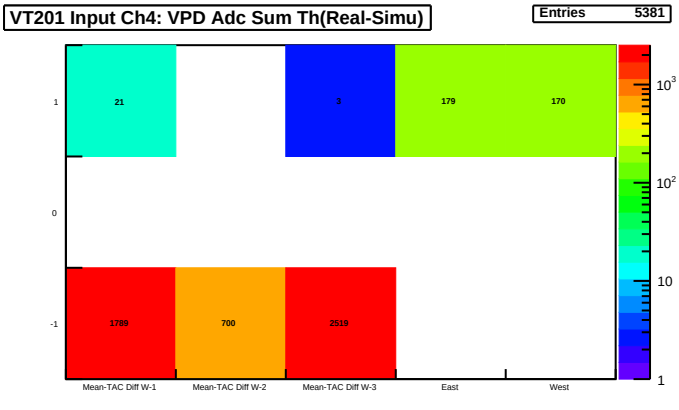

VT201 Input Ch2: ZDC Adc Sum Th
Entries 848056
104769
103935
35819
30404
104684
103755
20834
16166
1238
2072
70188
75603
1323
2252
85173
89841
W 0(p)/Sum-th0(Hl)
W F-Sum-th(p)/Sum-th1(Hl)
W B-Sum-th(p)/Sum-th2(Hl)
W Sum-th(p)/Sum-th3(Hl)
E 0(p)/Sum-th0(Hl)
E F-Sum-th(p)/Sum-th1(Hl)
E B-Sum-th(p)/Sum-th2(Hl)
E Sum-th(p)/Sum-th3(Hl)

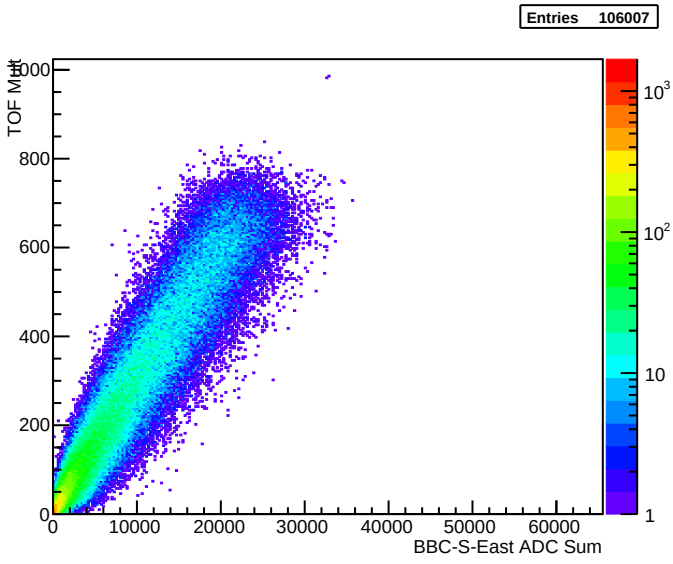

VT201 Input Ch2: ZDC Adc Sum Th (Real-Simu)
Entries 0
W 0(p)/Sum-th0(Hl)
W F-Sum-th(p)/Sum-th1(Hl)
W B-Sum-th(p)/Sum-th2(Hl)
W Sum-th(p)/Sum-th3(Hl)
E 0(p)/Sum-th0(Hl)
E F-Sum-th(p)/Sum-th1(Hl)
E B-Sum-th(p)/Sum-th2(Hl)
E Sum-th(p)/Sum-th3(Hl)

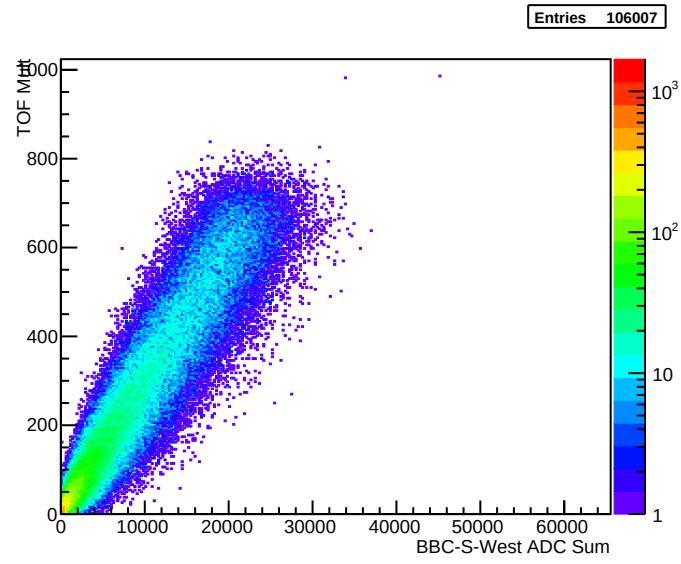

VT201 Input Ch4: VPD Tac Diff
Entries 106007
Tac

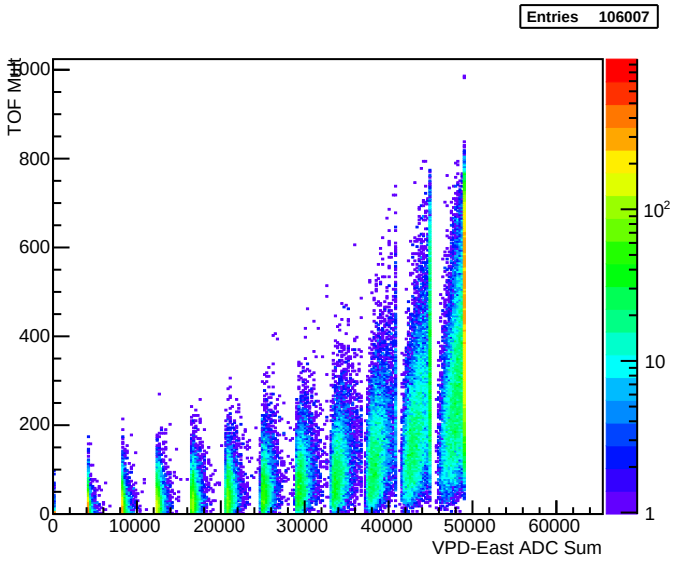

VT201 Input Ch4: VPD Tac Diff
Entries 103337
Simu
Real

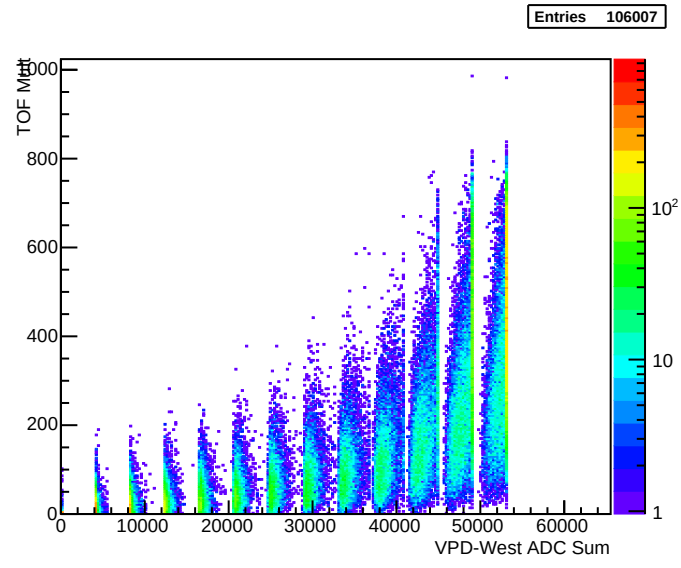

VT201 Input Ch4: VPD Adc Sum Th
Entries 530035
99597
103844
101661
104629
104677
6410
2163
4346
1378
1330
Mean-TAC Diff W-1
Mean-TAC Diff W-2
Mean-TAC Diff W-3
East
West

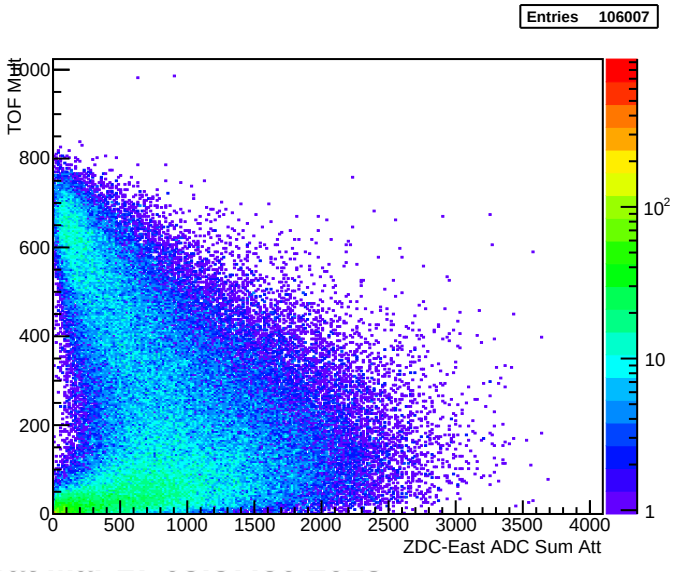

VT201 Input Ch4: VPD Adc Sum Th(Real-Simu)
Entries 5381
21
3
179
170
1789
700
2519
Mean-TAC Diff W-1
Mean-TAC Diff W-2
Mean-TAC Diff W-3
East
West

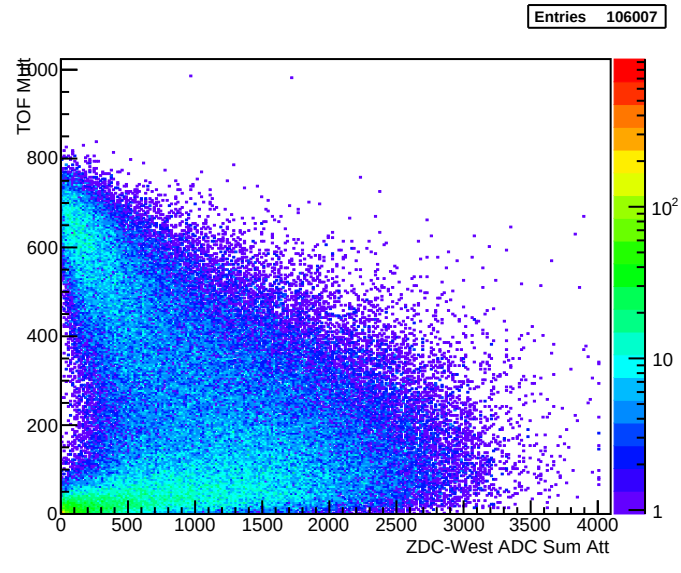

Entries 106007
TOF Mult
BBC-S-East ADC Sum

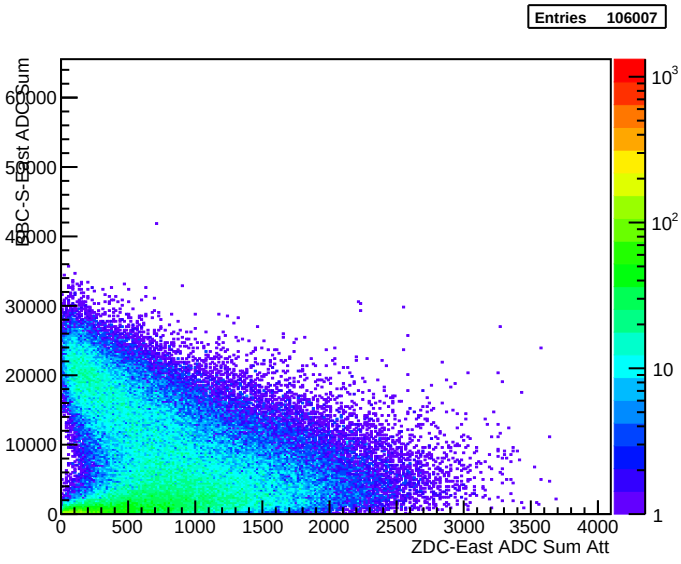

Entries 106007
TOF Mult
BBC-S-West ADC Sum

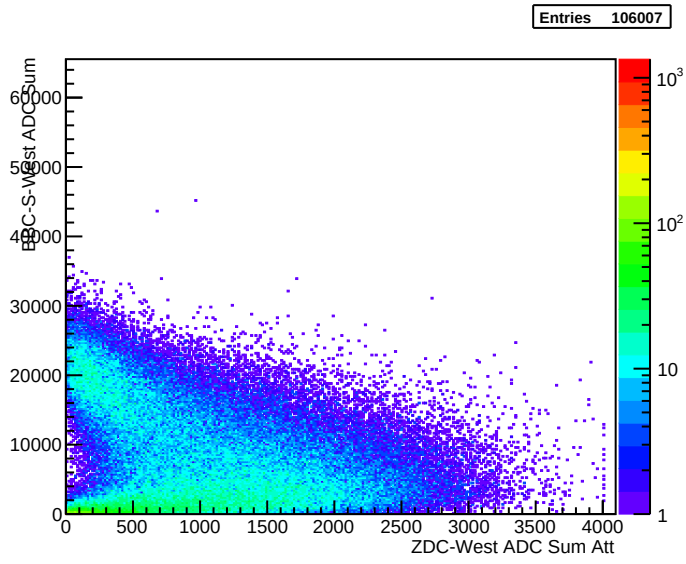

Entries 106007
TOF Mult
VPD-East ADC Sum

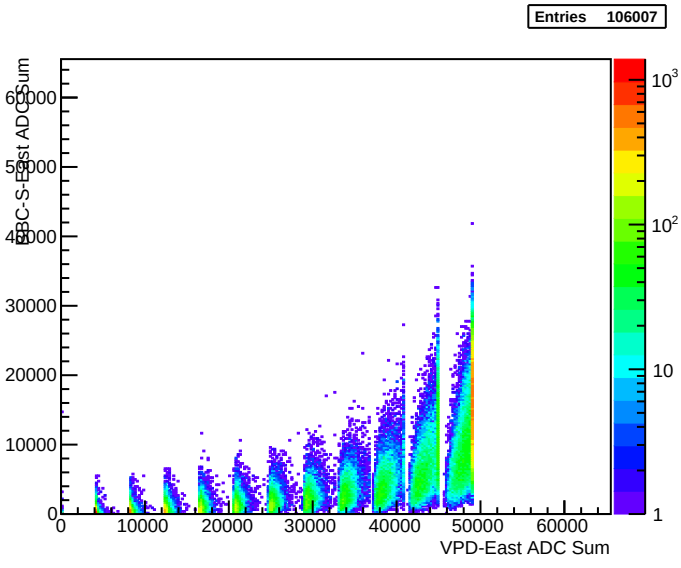

Entries 106007
TOF Mult
VPD-West ADC Sum

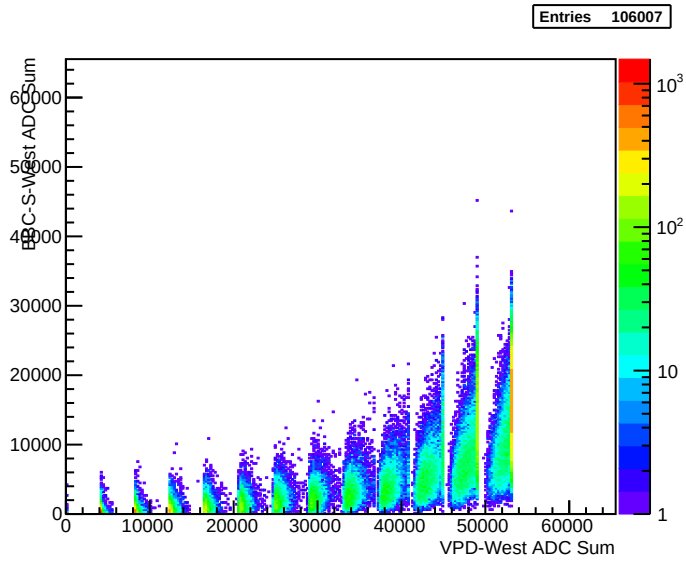

Entries 106007
TOF Mult
ZDC-East ADC Sum Att

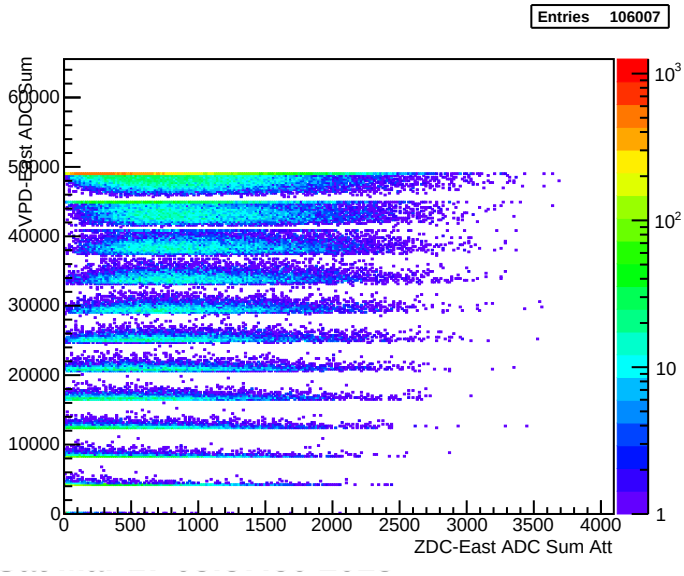

Entries 106007
TOF Mult
ZDC-West ADC Sum Att

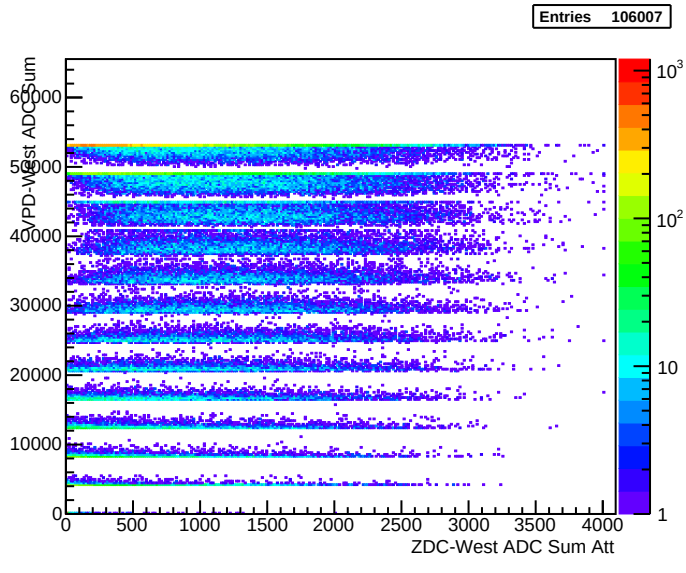

Entries 106007
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

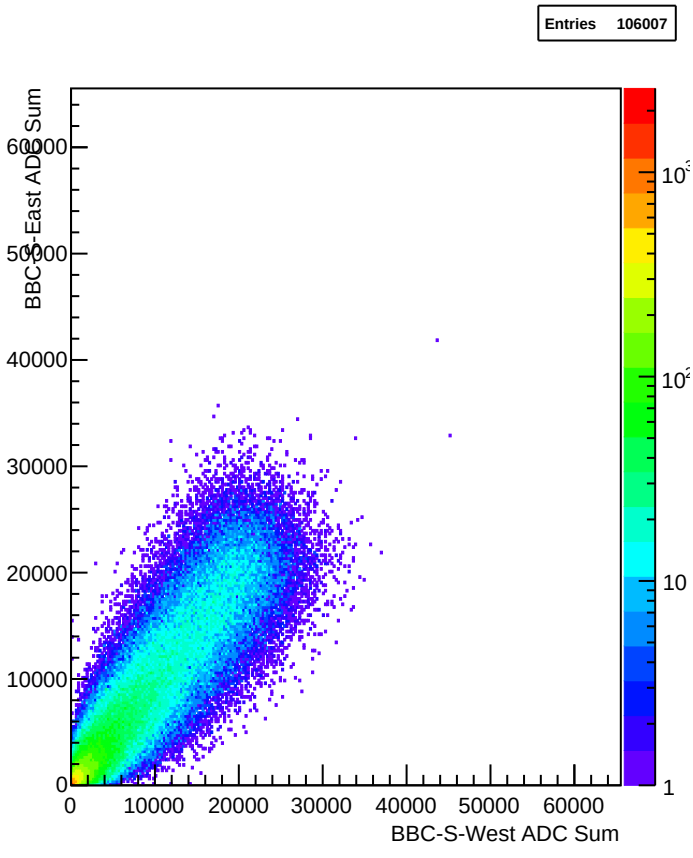

Entries 106007
BBC-S-West ADC Sum
ZDC-West ADC Sum Att


Entries 106007
BBC-S-East ADC Sum
VPD-East ADC Sum


Entries 106007
BBC-S-West ADC Sum
VPD-West ADC Sum


Entries 106007
VPD-East ADC Sum
ZDC-East ADC Sum Att


Entries 106007
VPD-West ADC Sum
ZDC-West ADC Sum Att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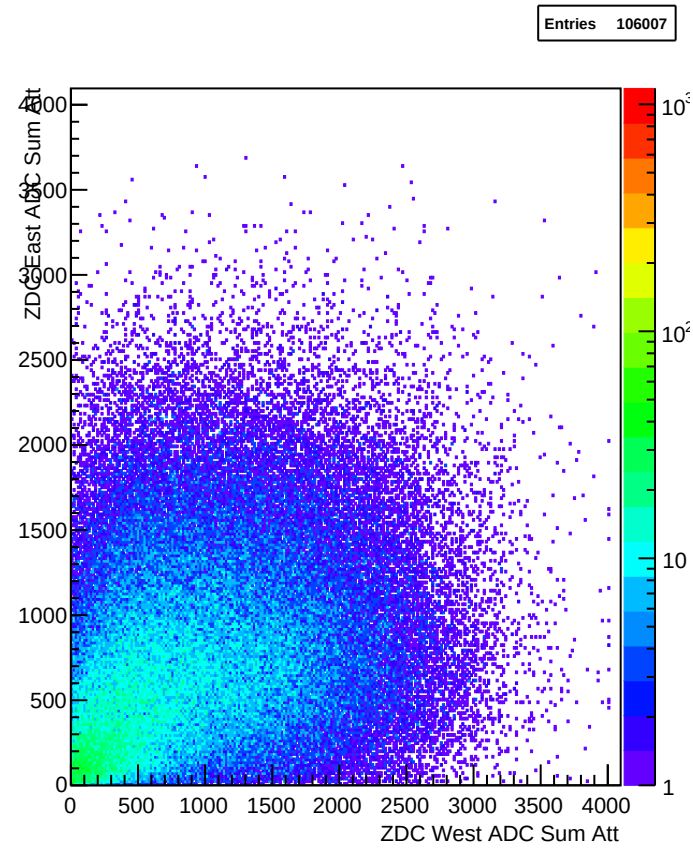
BBC-S-East ADC Sum
BBC-S-West ADC Sum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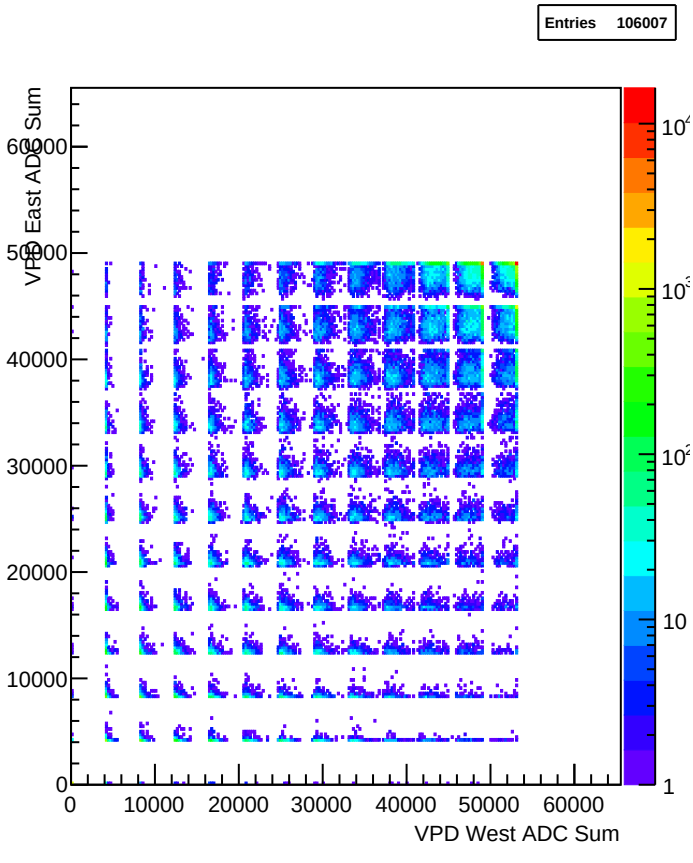
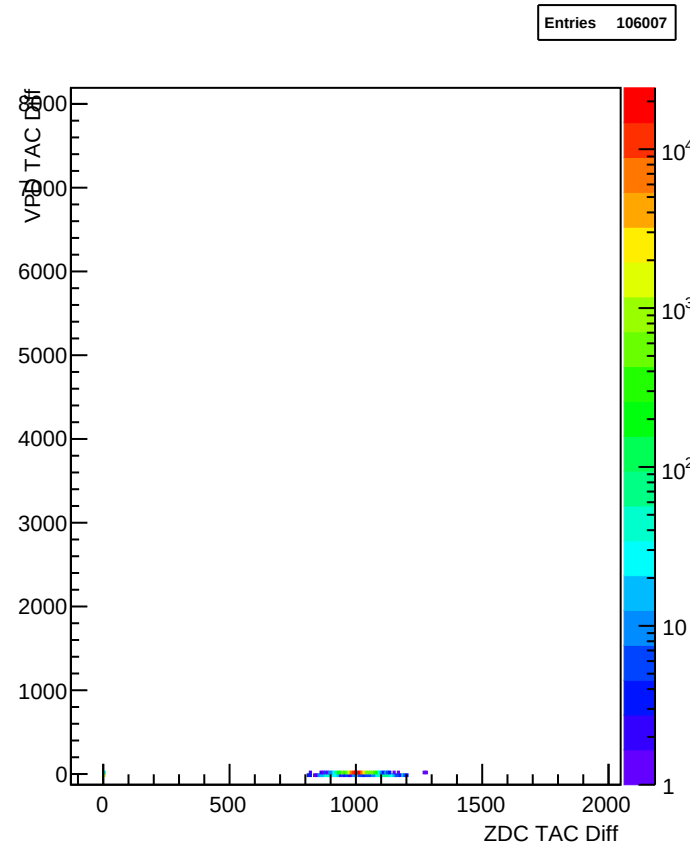
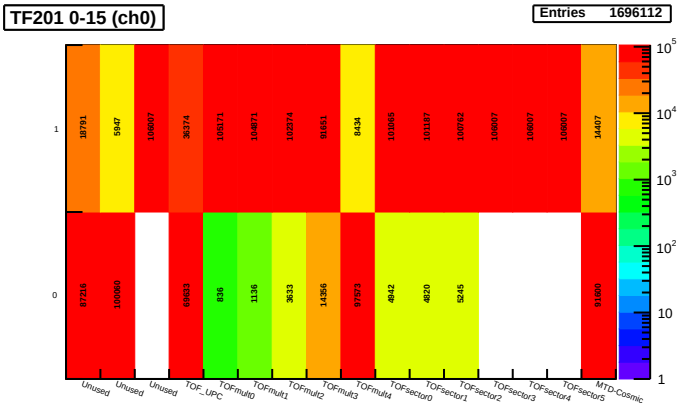
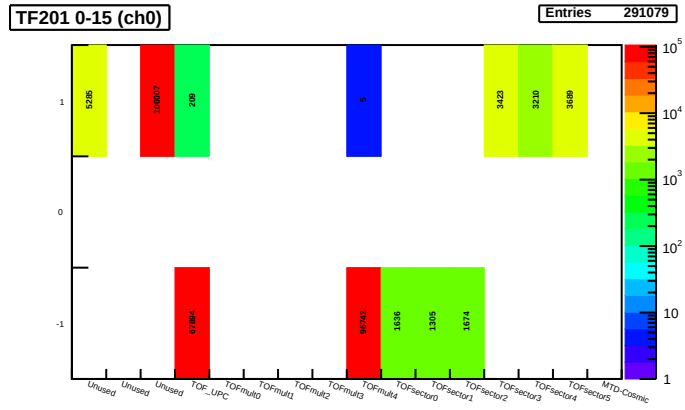
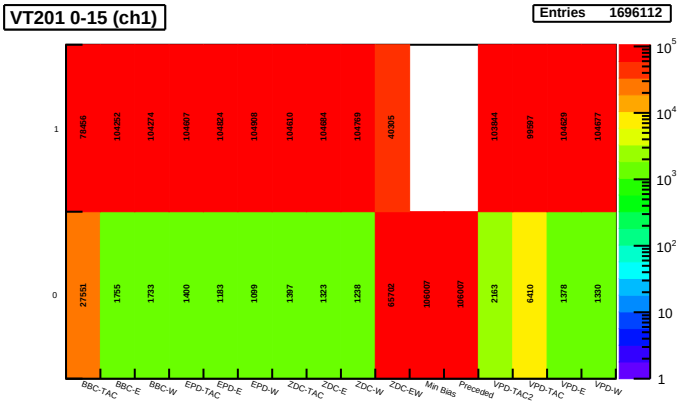
ZDC East ADC Sum Att
ZDC West ADC Sum Att

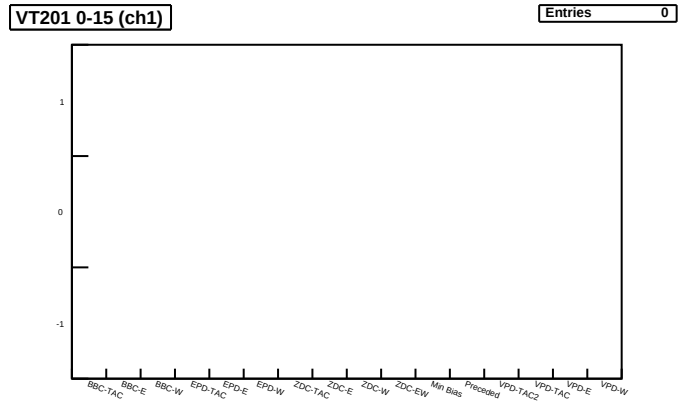

Entries 106007
VPD East ADC Sum
VPD West ADC Sum

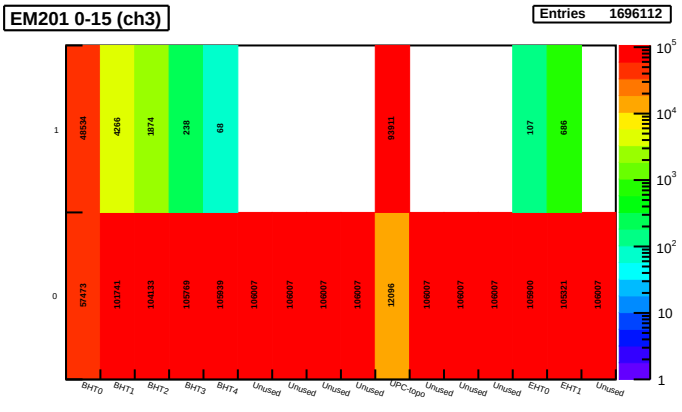

Entries 106007
VPD TAC Diff
ZDC TAC Diff

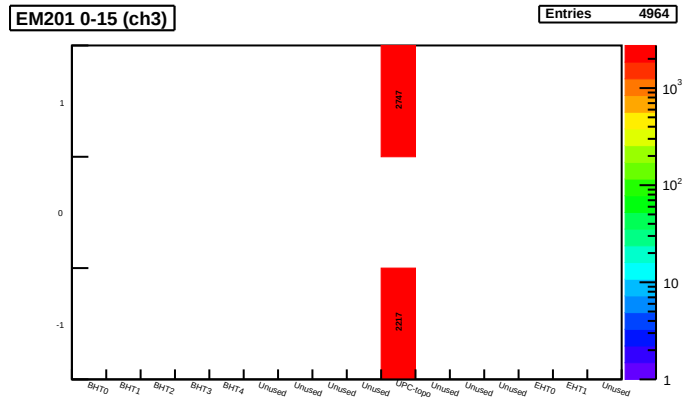

TF201 0-15 (ch0)
Entries 1696112
18791 5947 106007 36374 103171 104471 102274 91651 8434 101965 101187 100762 106007 106007 106007 14407
87216 100060 69633 836 1136 3633 14356 97573 4942 4820 5245 91600
Unused Unused Unused TOF_UPC TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

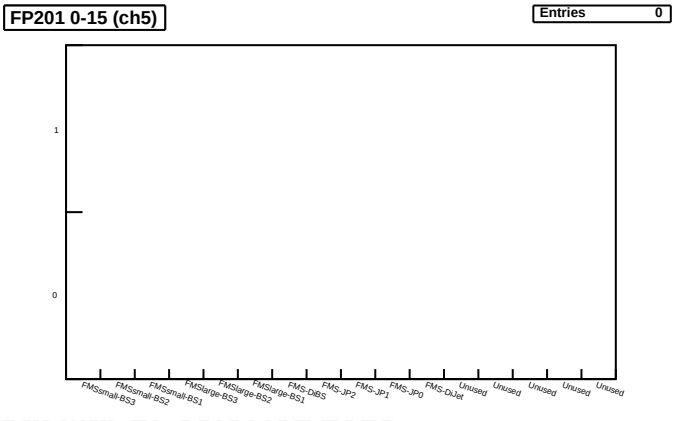

TF201 0-15 (ch0)
Entries 291079
5285 106007 209 5 3423 3210 3689
67894 96742 1636 1305 1674
Unused Unused Unused TOF_UPC TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

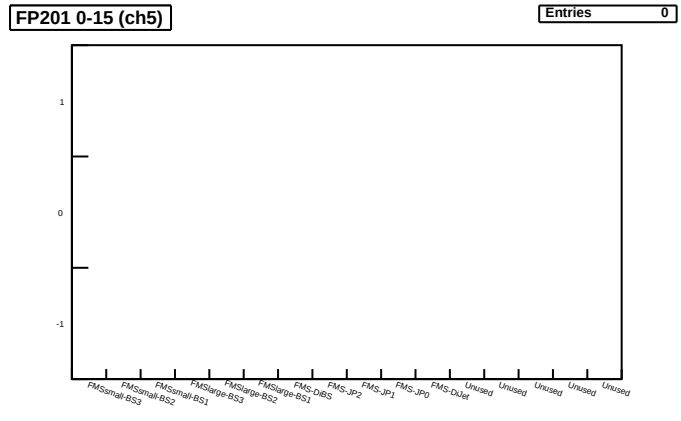

VT201 0-15 (ch1)
Entries 1696112
79456 104252 104274 104607 104824 104908 104610 104694 104759 40305 103844 99997 104629 104677
27551 1755 1733 1400 1183 1099 1397 1323 1238 65702 106007 106007 2163 6410 1378 1330
BBC-TAC BBC-E BBC-W EPD-TAC EPD-E EPD-W ZDC-TAC ZDC-E ZDC-W ZDC-EW Min Bias Preceded VPD-TAC2 VPD-TAC VPD-E VPD-W


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


EM201 0-15 (ch3)
Entries 1696112
48534 4266 1874 238 68 93911 107 686
57473 101741 104133 102769 103939 106007 106007 106007 106007 12096 106007 106007 106007 105900 103221 106007
BHT0 BHT1 BHT2 BHT3 BHT4 Unused Unused Unused Unused UPC-topo Unused Unused Unused EHT0 EHT1 Unused


EM201 0-15 (ch3)
Entries 4964
2747
2217
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