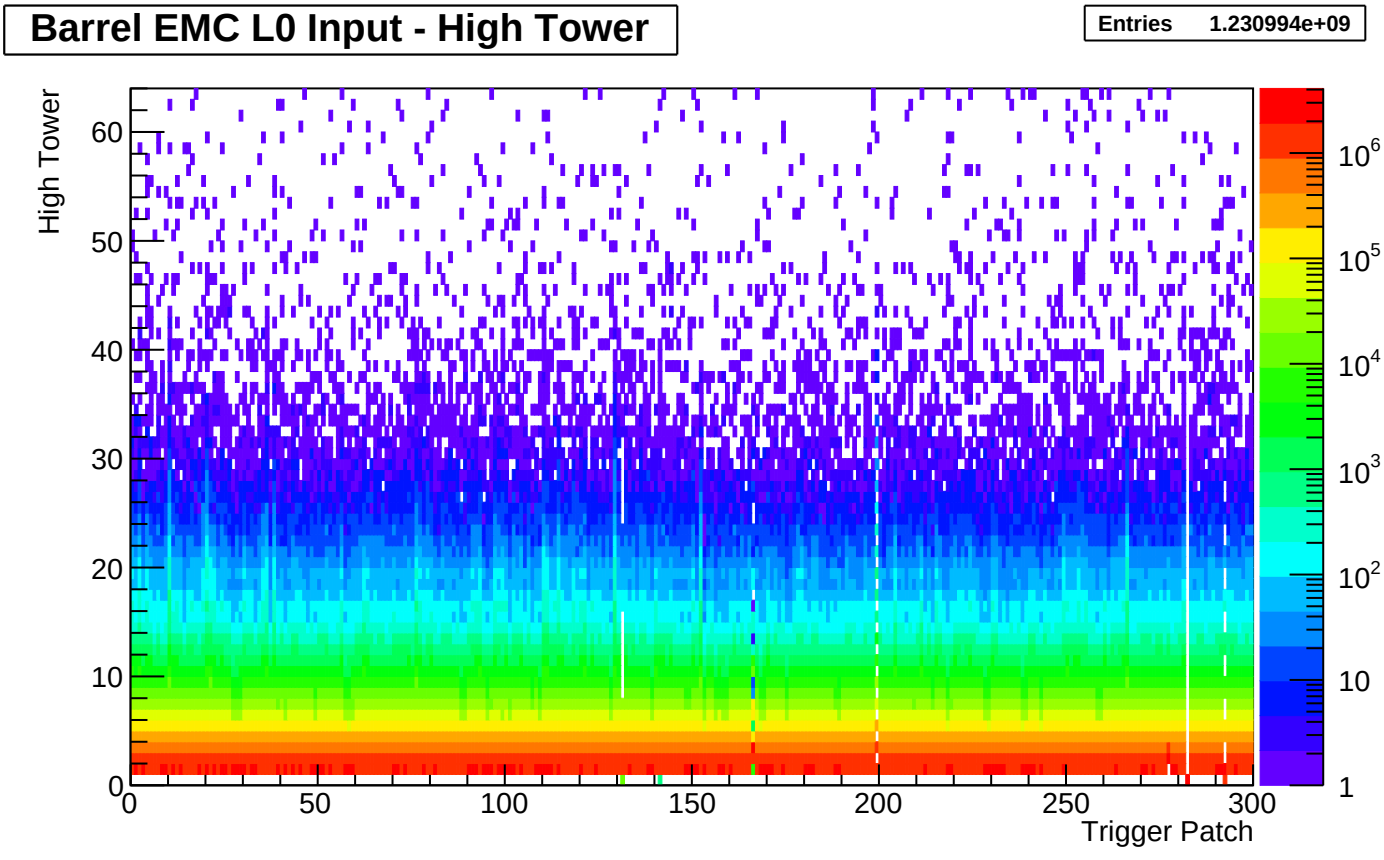
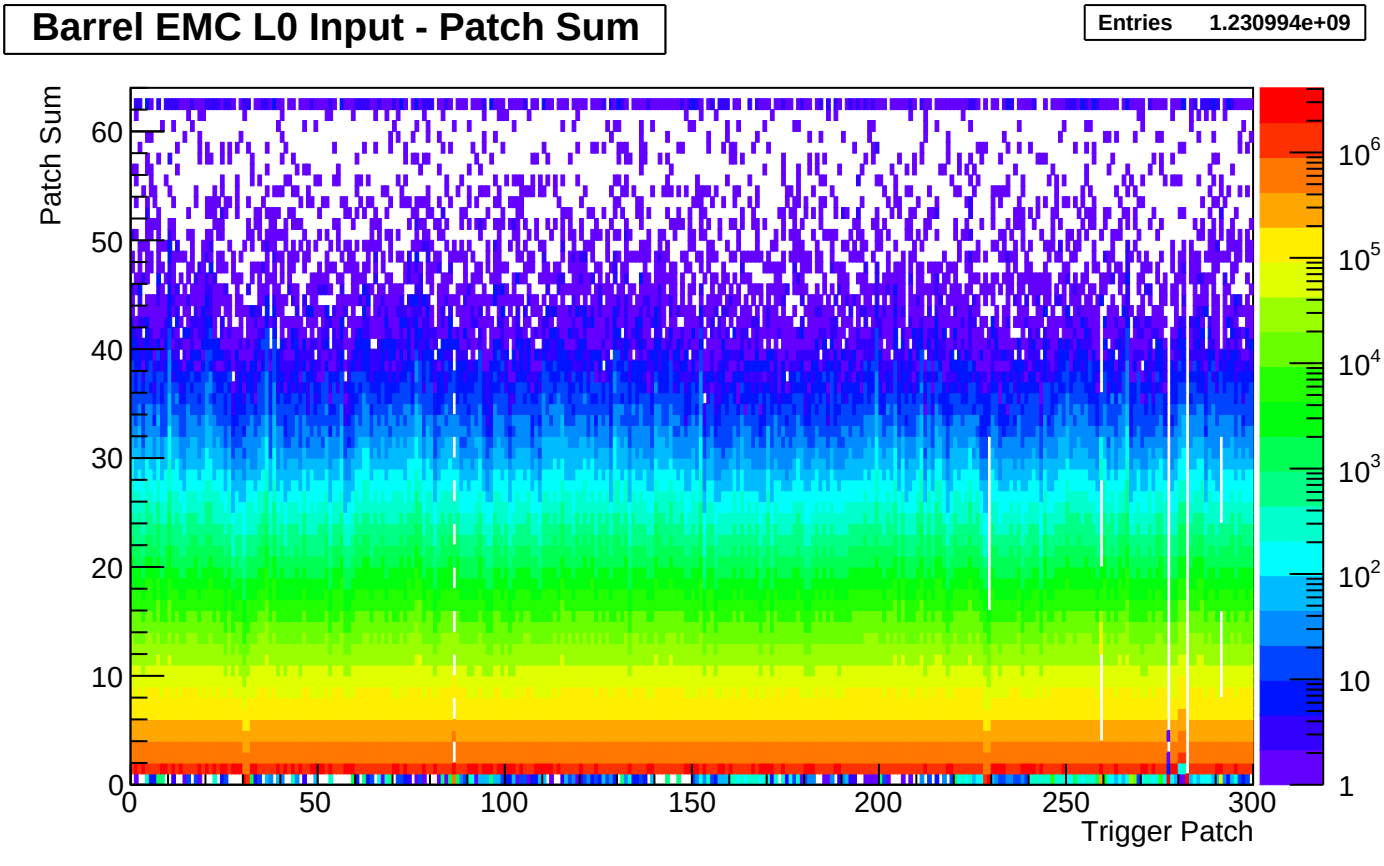
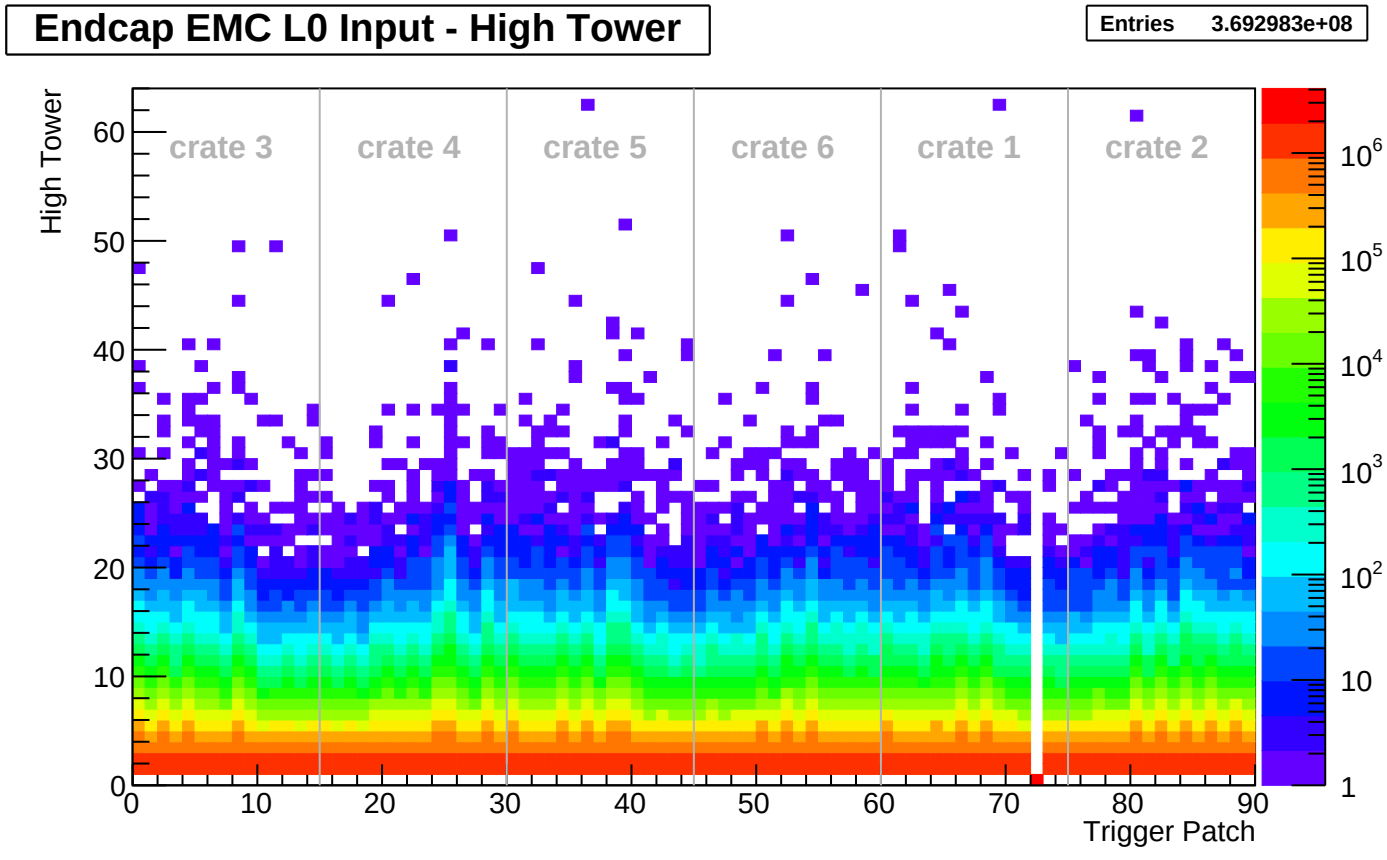
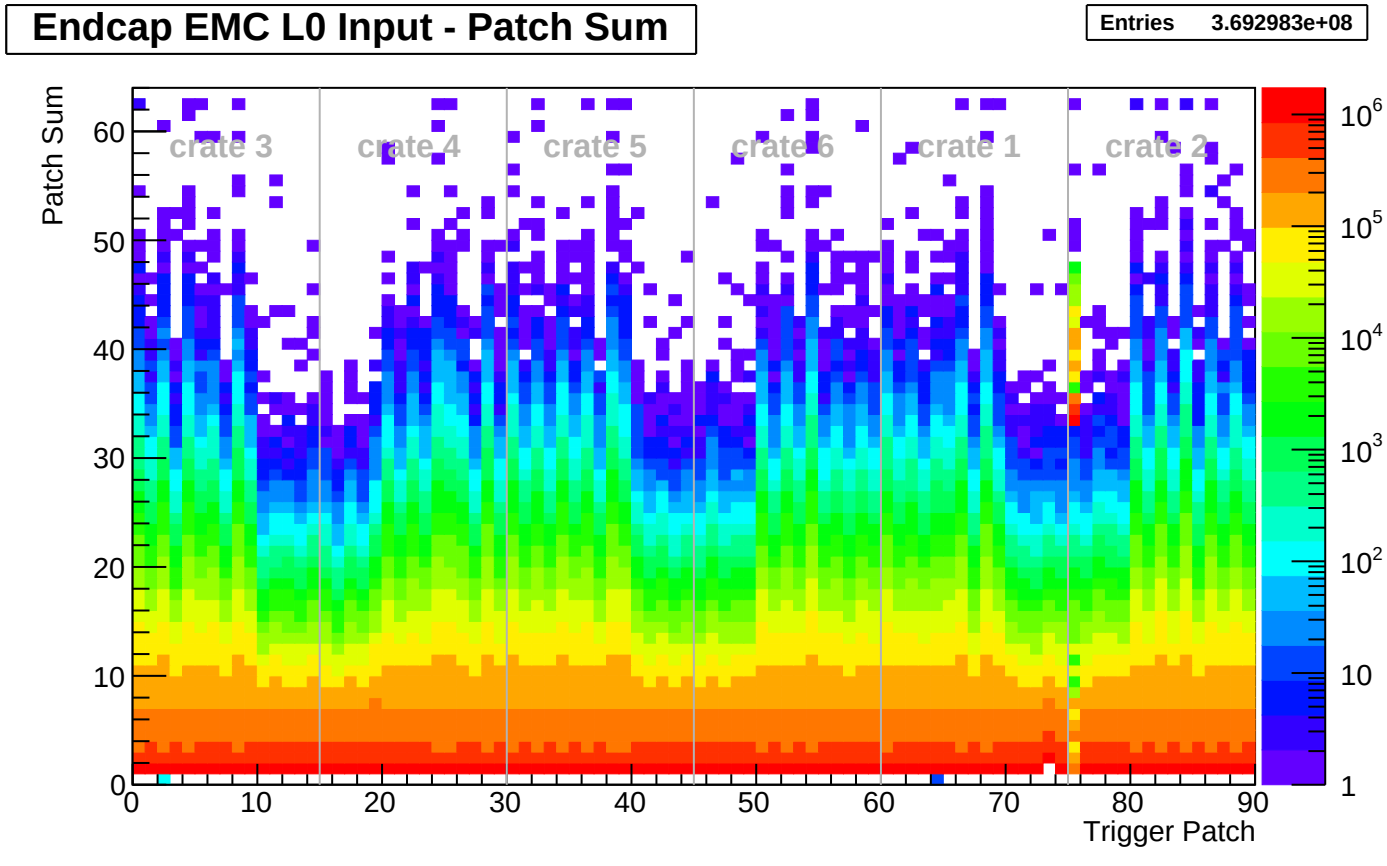
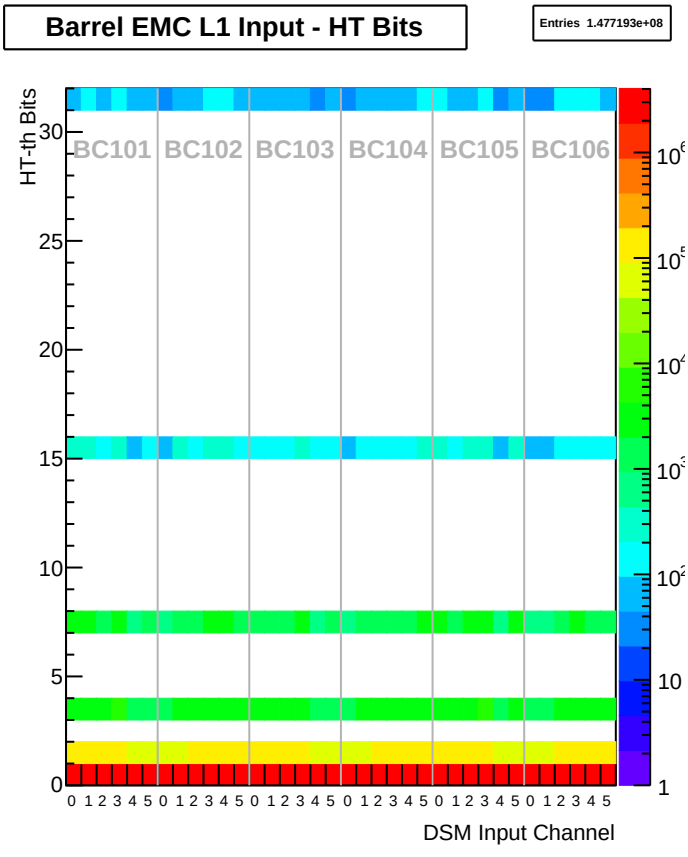
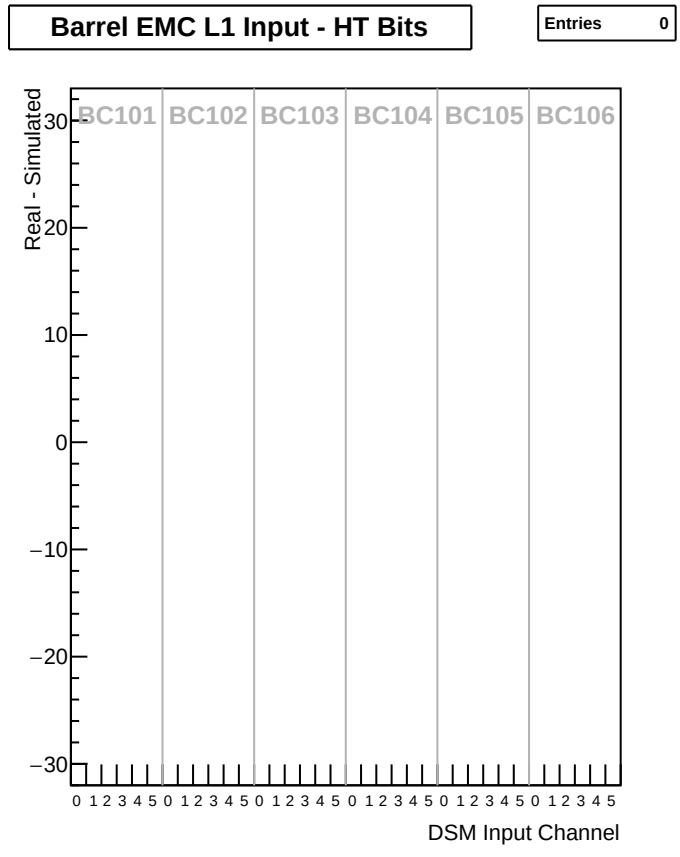

Barrel EMC L0 Input - High Tower
Entries 1.230994e+09
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

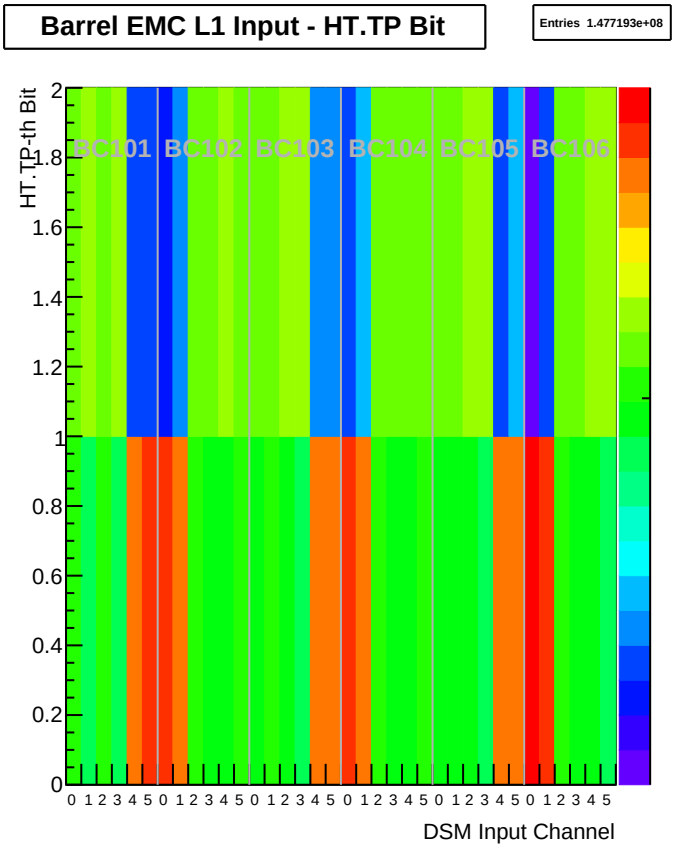

Barrel EMC L0 Input - Patch Sum
Entries 1.230994e+09
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

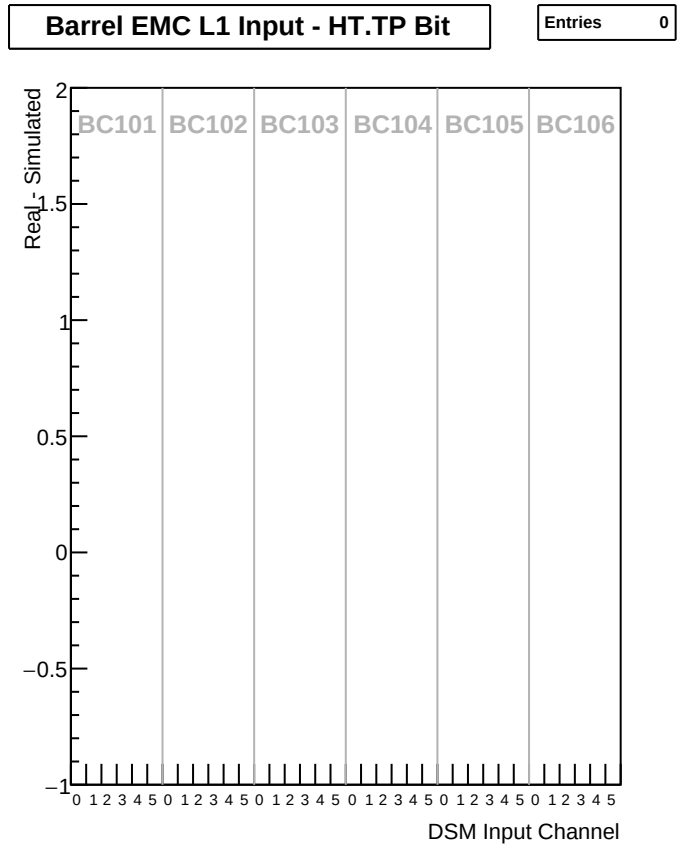

Endcap EMC L0 Input - High Tower
Entries 3.692983e+08
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

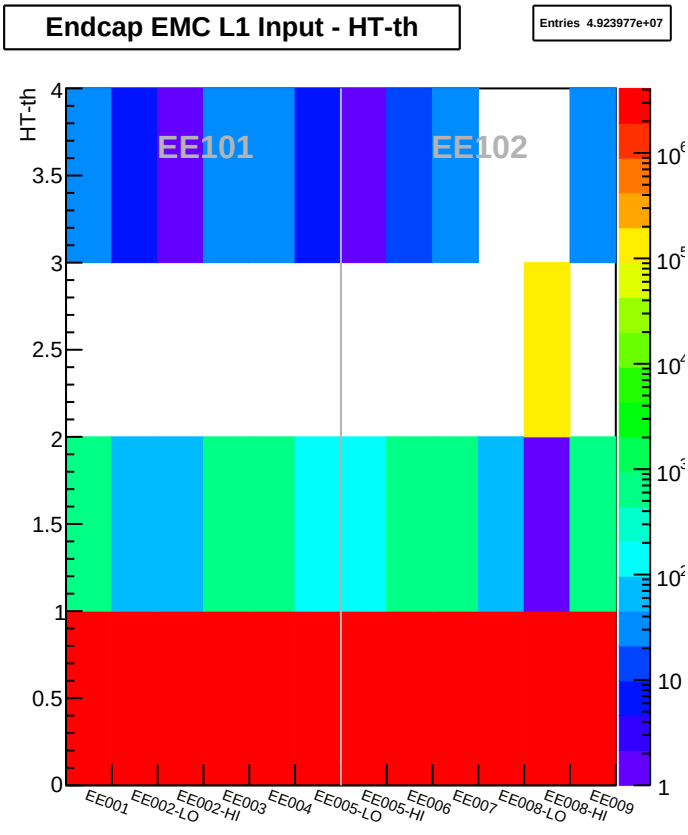

Endcap EMC L0 Input - Patch Sum
Entries 3.692983e+08
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

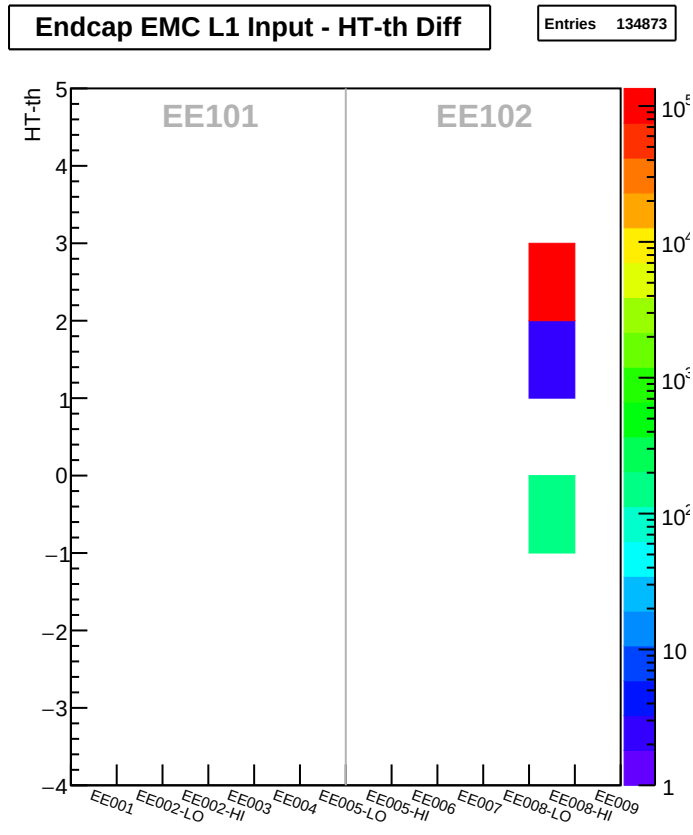

Barrel EMC L1 Input - HT Bits
Entries 1.477193e+08
HT-th Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

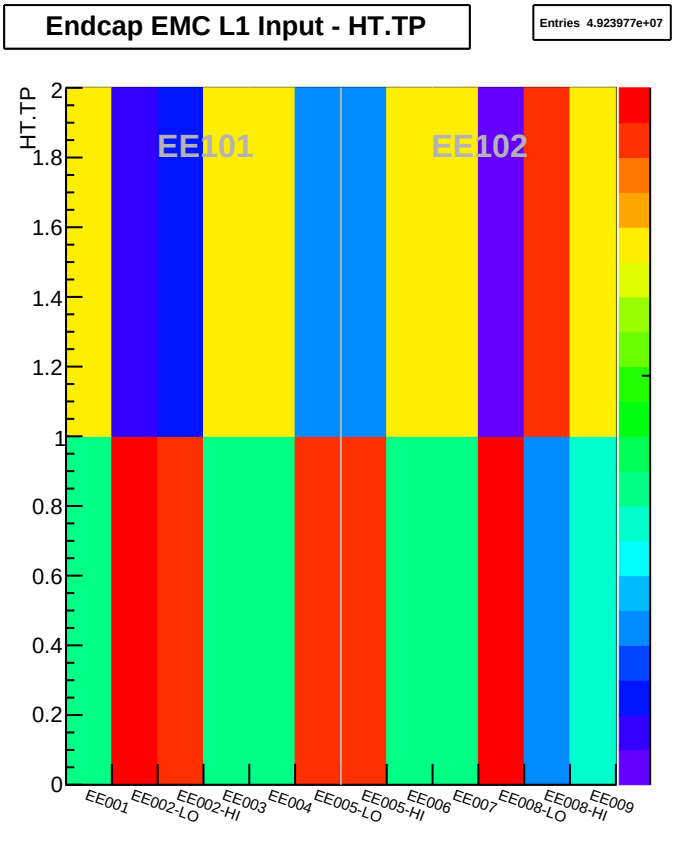

Barrel EMC L1 Input - HT Bits
Entries 0
Real - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

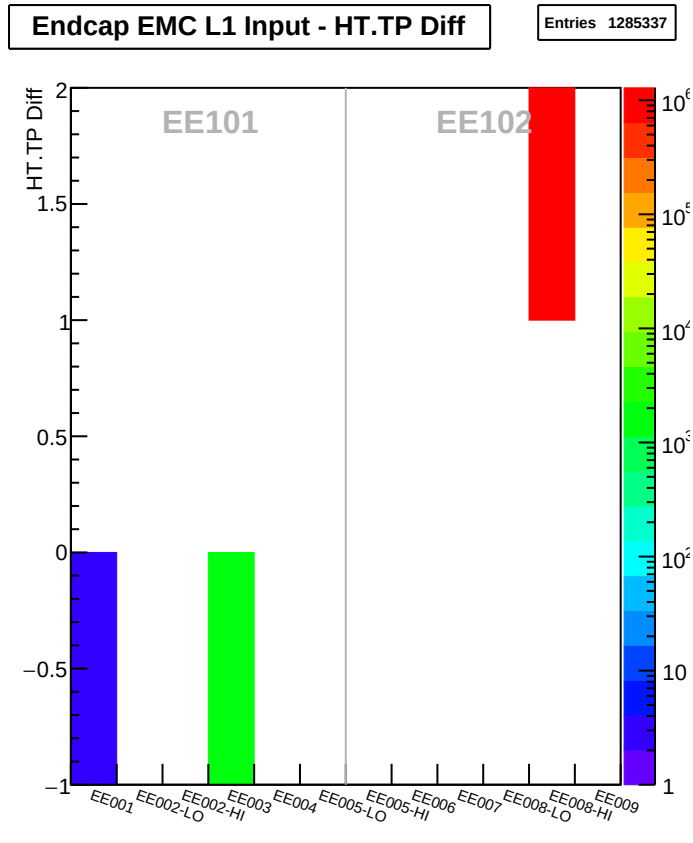

Barrel EMC L1 Input - HT.TP Bit
Entries 1.477193e+08
HT.TP-th Bit
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

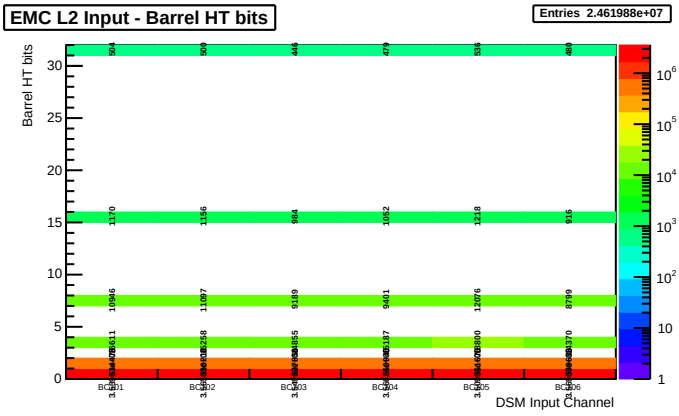

Barrel EMC L1 Input - HT.TP Bit
Entries 0
Real - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

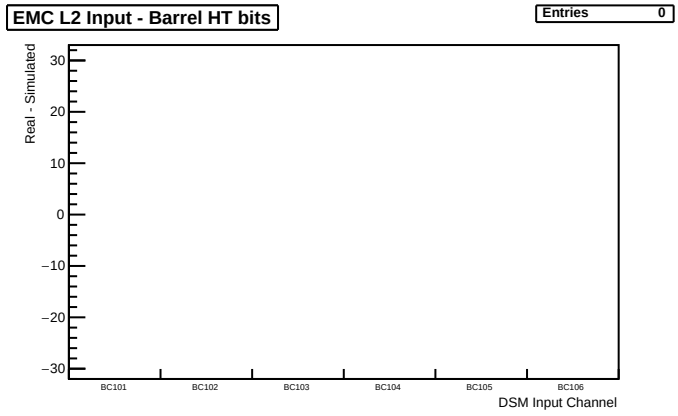

Endcap EMC L1 Input - HT-th
Entries 4.923977e+07
HT-th
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

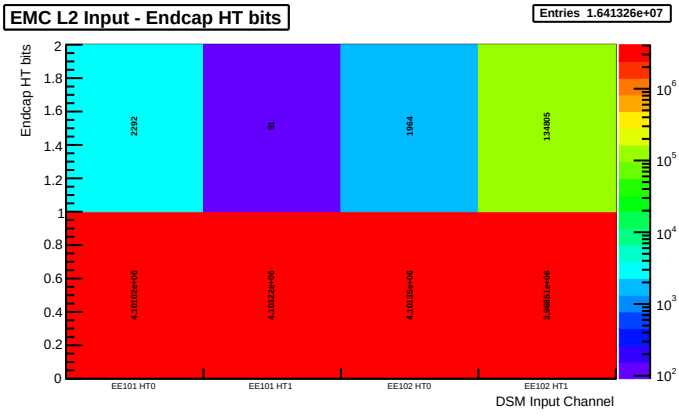

Endcap EMC L1 Input - HT-th Diff
Entries 134873
HT-th
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

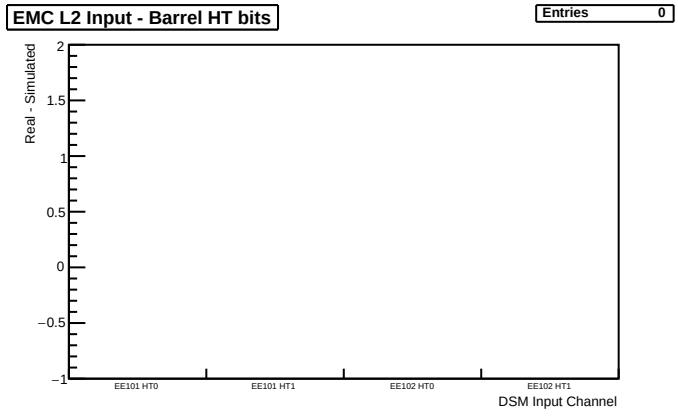

Endcap EMC L1 Input - HT.TP
Entries 4.923977e+07
HT.TP
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

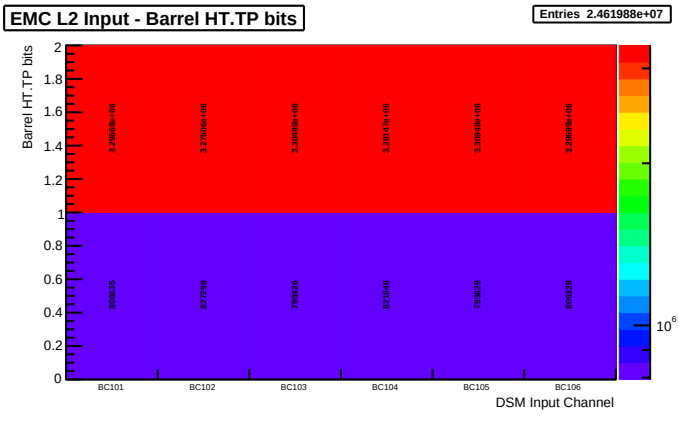

Endcap EMC L1 Input - HT.TP Diff
Entries 1285337
HT.TP Diff
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

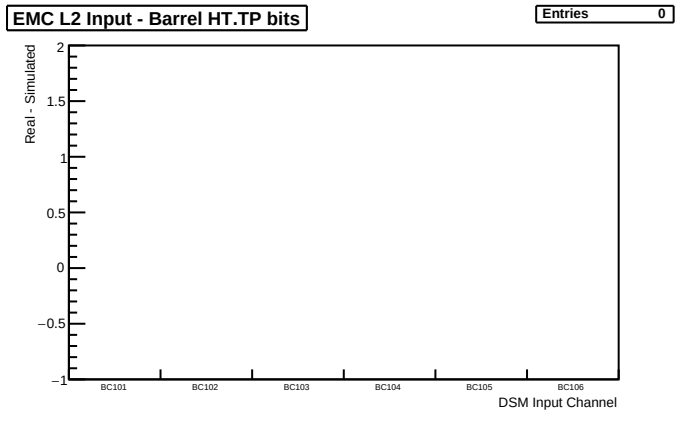

EMC L2 Input - Barrel HT bits
Entries 2.461988e+07
Barrel HT bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

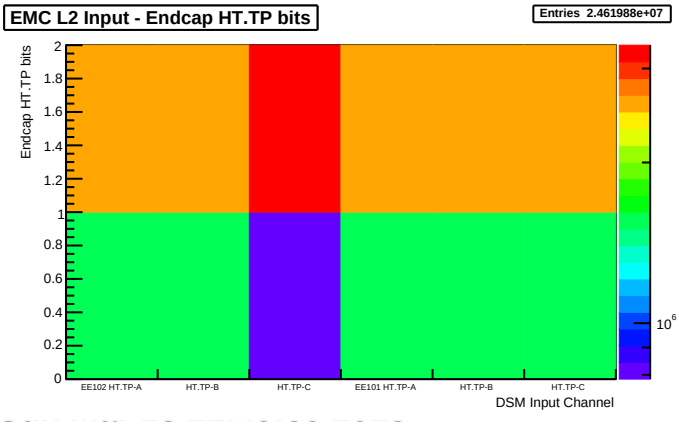

EMC L2 Input - Barrel HT bits
Entries 0
Real - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

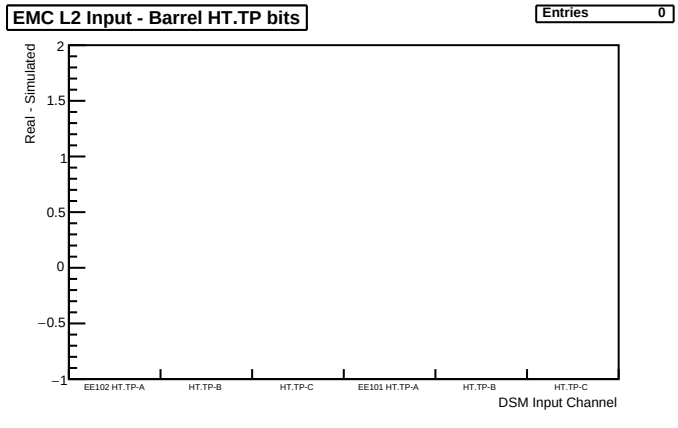

EMC L2 Input - Endcap HT bits
Entries 1.641326e+07
Endcap HT bits
DSM Input Channel
EE101 HT0
EE101 HT1
EE102 HT0
EE102 HT1

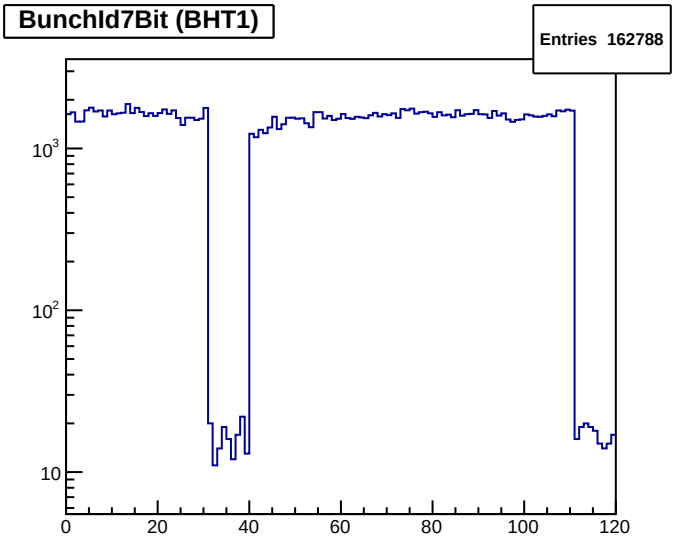

EMC L2 Input - Barrel HT bits
Entries 0
Real - Simulated
DSM Input Channel
EE101 HT0
EE101 HT1
EE102 HT0
EE102 HT1

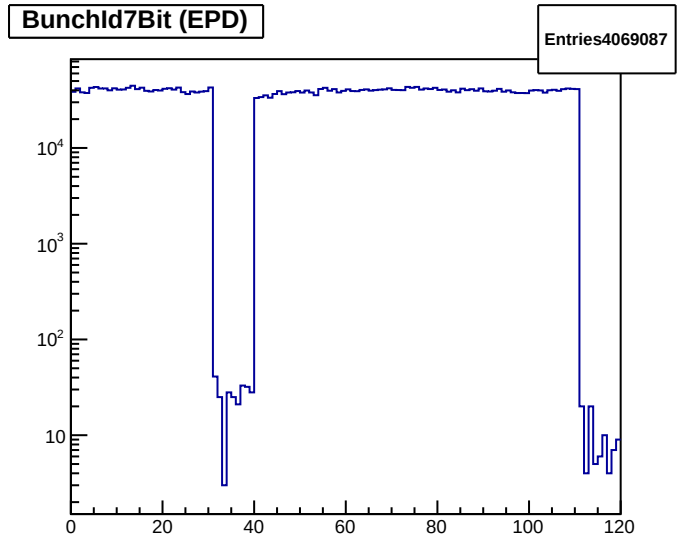

EMC L2 Input - Barrel HT.TP bits
Entries 2.461988e+07
Barrel HT.TP bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

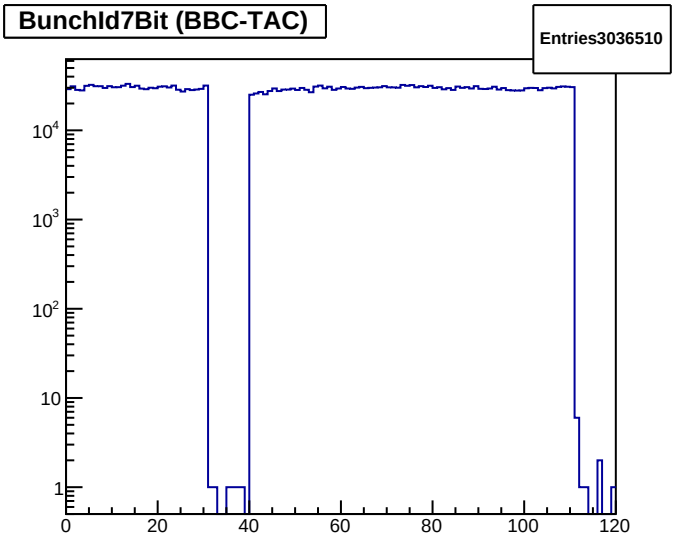

EMC L2 Input - Barrel HT.TP bits
Entries 0
Real - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

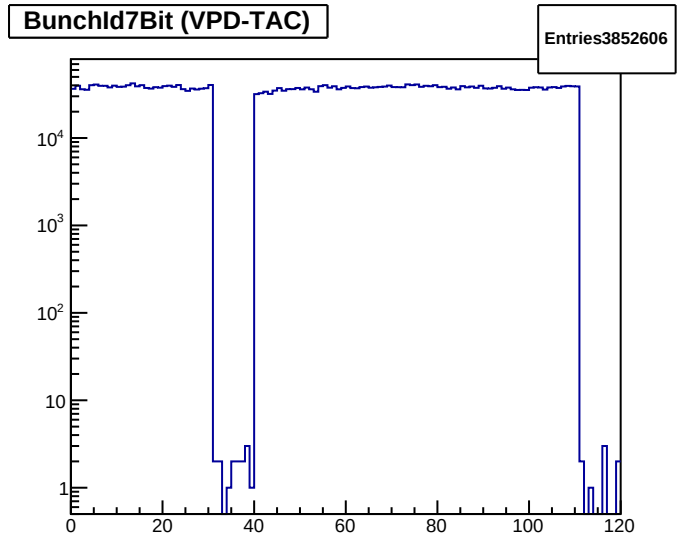

EMC L2 Input - Endcap HT.TP bits
Entries 2.461988e+07
Endcap HT.TP bits
DSM Input Channel
EE102 HT.TP-A
HT.TP-B
HT.TP-C
EE101 HT.TP-A
HT.TP-B
HT.TP-C

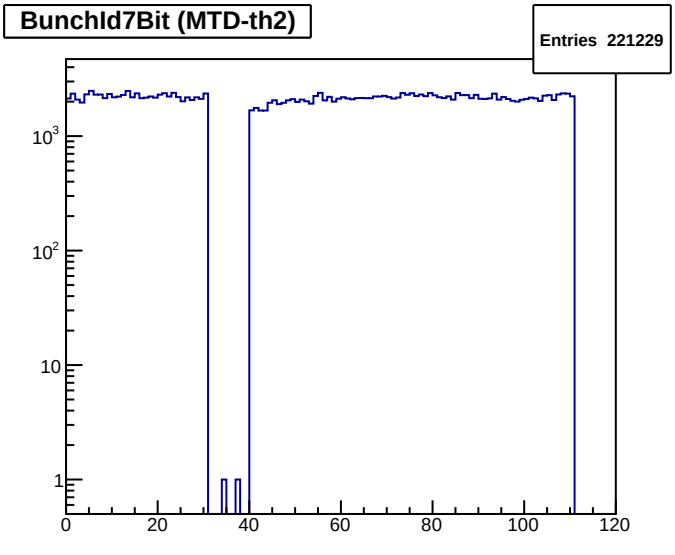

EMC L2 Input - Barrel HT.TP bits
Entries 0
Real - Simulated
DSM Input Channel
EE102 HT.TP-A
HT.TP-B
HT.TP-C
EE101 HT.TP-A
HT.TP-B
HT.TP-C

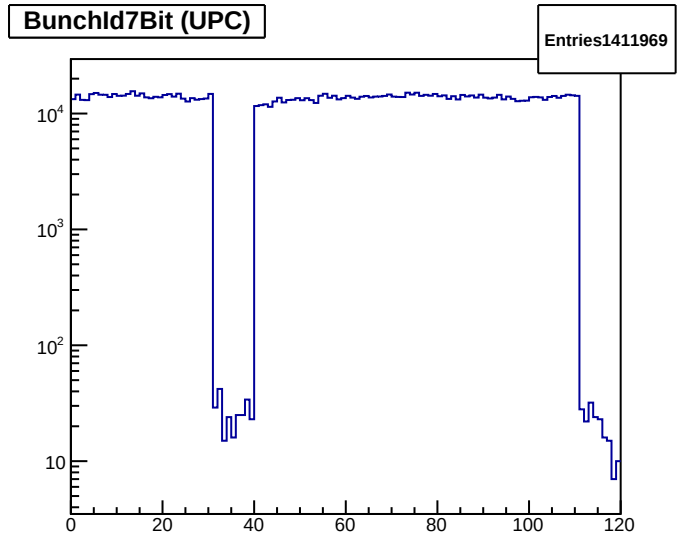

BunchId7Bit (BHT1)
Entries 162788
10^3
10^2
10
0
20
40
60
80
100
120

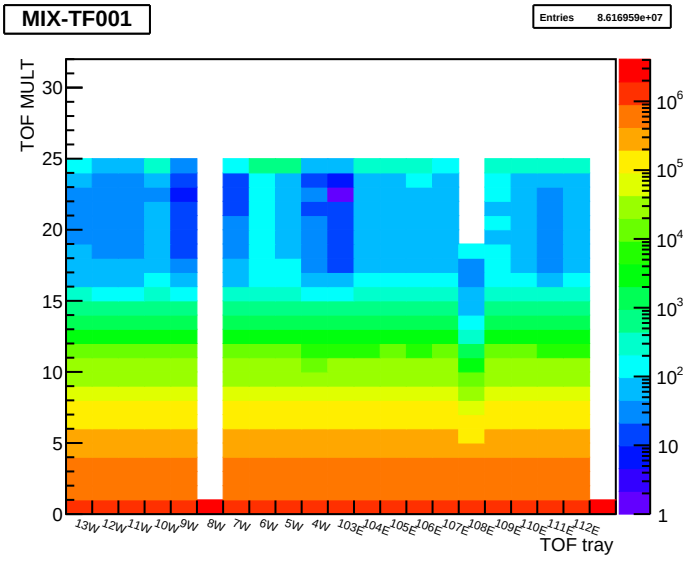

BunchId7Bit (EPD)
Entries4069087
10^4
10^3
10^2
10
0
20
40
60
80
100
120

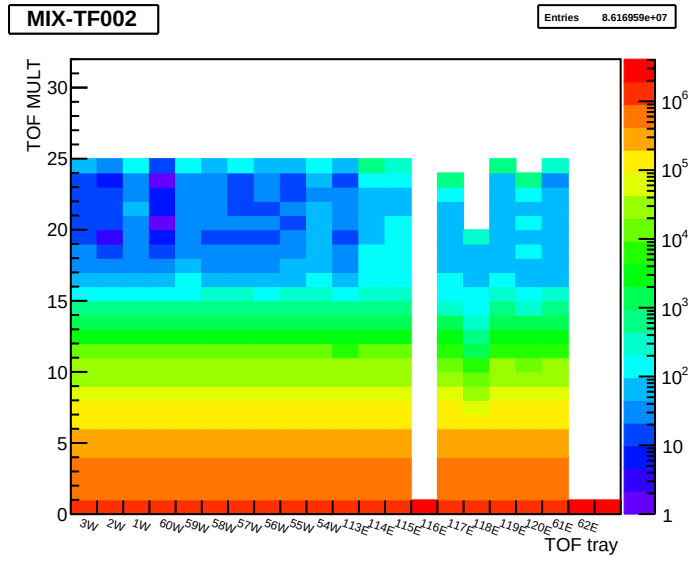

BunchId7Bit (BBC-TAC)
Entries3036510
10^4
10^3
10^2
10
1
0
20
40
60
80
100
120

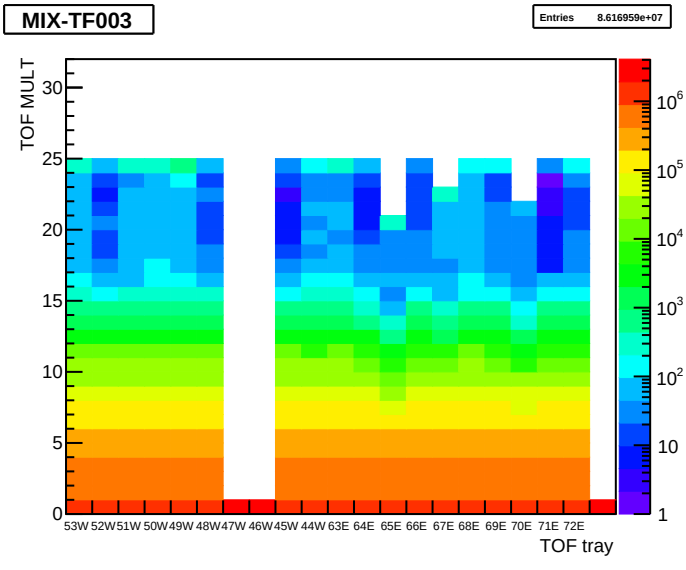

BunchId7Bit (VPD-TAC)
Entries3852606
10^4
10^3
10^2
10
1
0
20
40
60
80
100
120

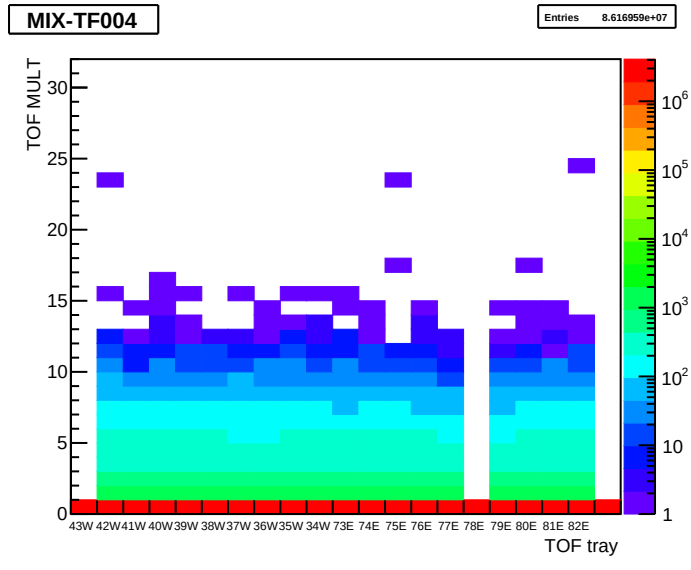

BunchId7Bit (MTD-th2)
Entries 221229
10^3
10^2
10
1
0
20
40
60
80
100
120

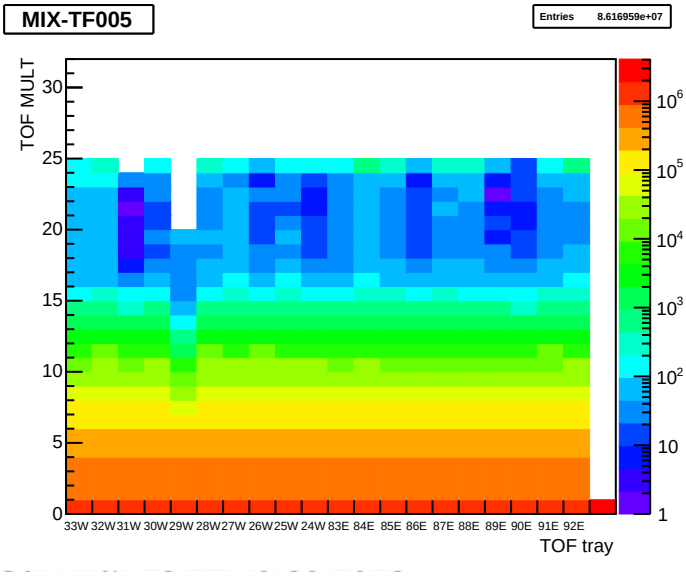

BunchId7Bit (UPC)
Entries1411969
10^4
10^3
10^2
10
0
20
40
60
80
100
120

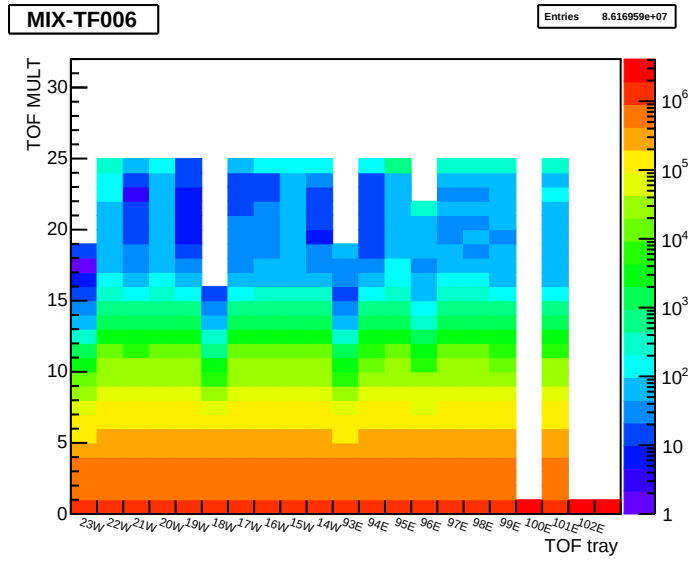

MIX-TF001
Entries 8.616959e+07
TOF MULT
TOF tray

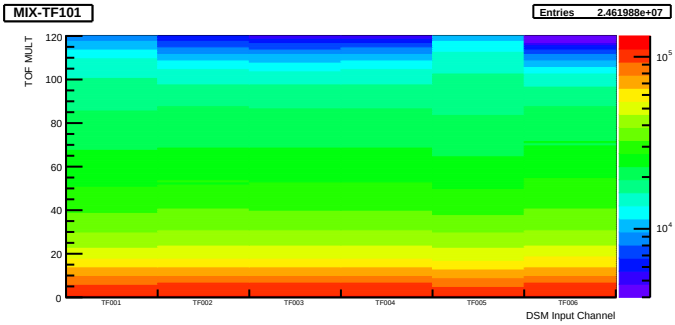

MIX-TF002
Entries 8.616959e+07
TOF MULT
TOF tray

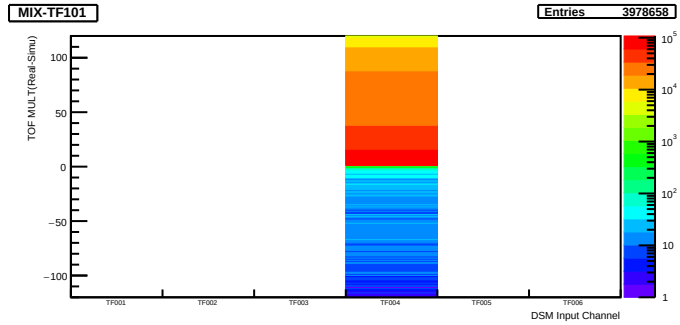

MIX-TF003
Entries 8.616959e+07
TOF MULT
TOF tray

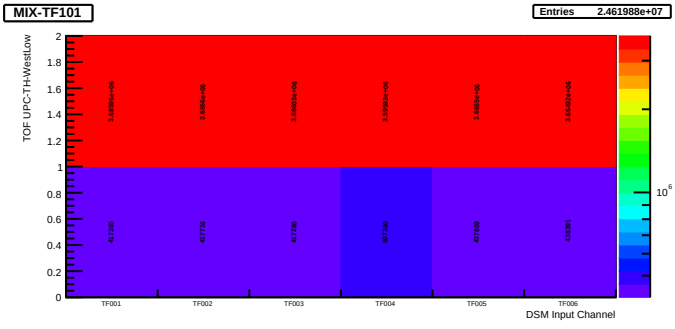

MIX-TF004
Entries 8.616959e+07
TOF MULT
TOF tray

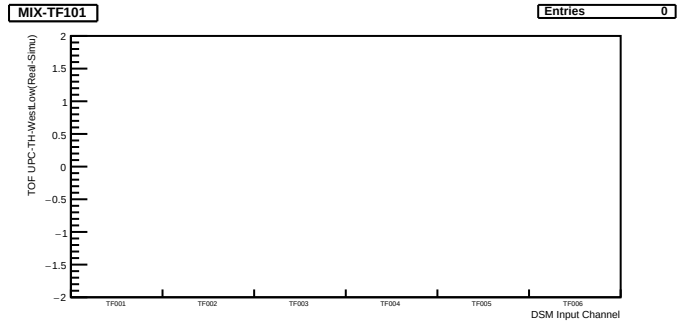

MIX-TF005
Entries 8.616959e+07
TOF MULT
TOF tray

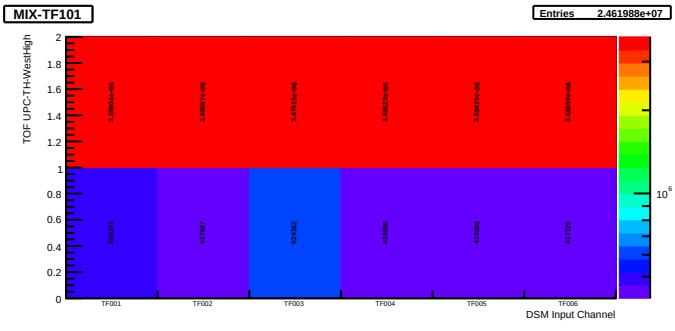

MIX-TF006
Entries 8.616959e+07
TOF MULT
TOF tray

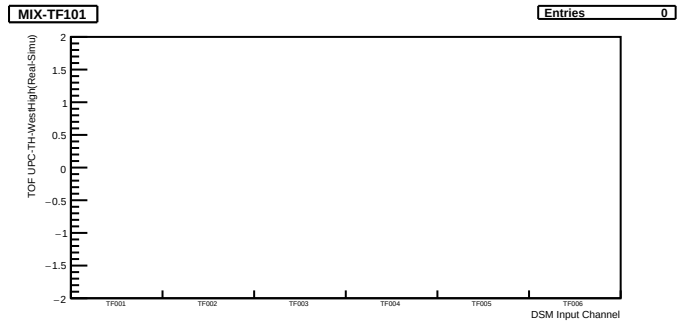

MIX-TF101
Entries 2.461988e+07
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

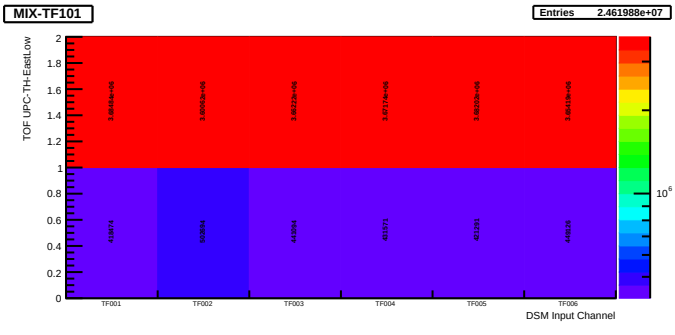

MIX-TF101
Entries 3978658
TOF MULT(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

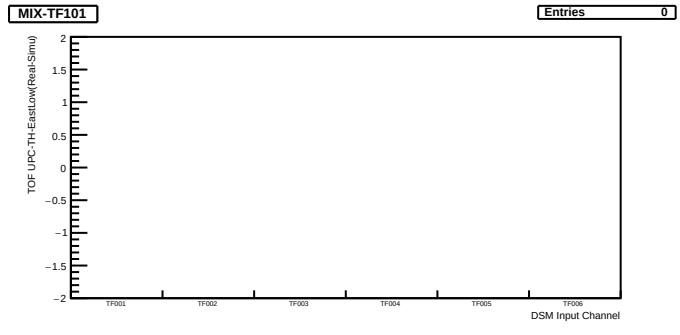

MIX-TF101
Entries 2.461988e+07
TOF UPC-TH-WestLow
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

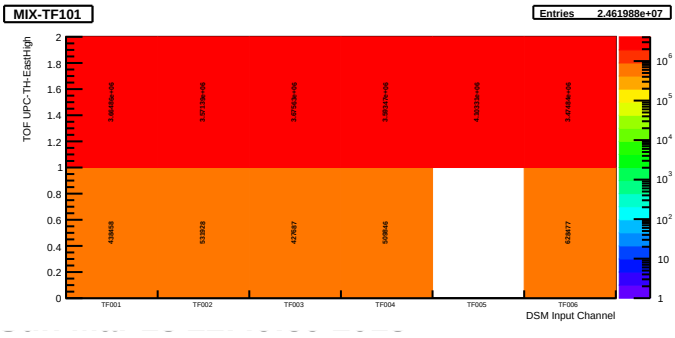

MIX-TF101
Entries 0
TOF UPC-TH-WestLow(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

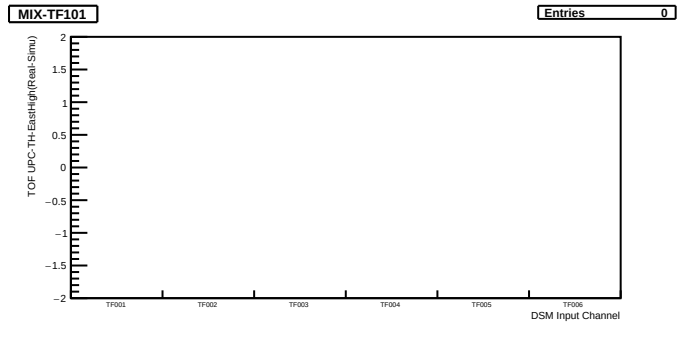

MIX-TF101
Entries 2.461988e+07
TOF UPC-TH-WestHigh
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

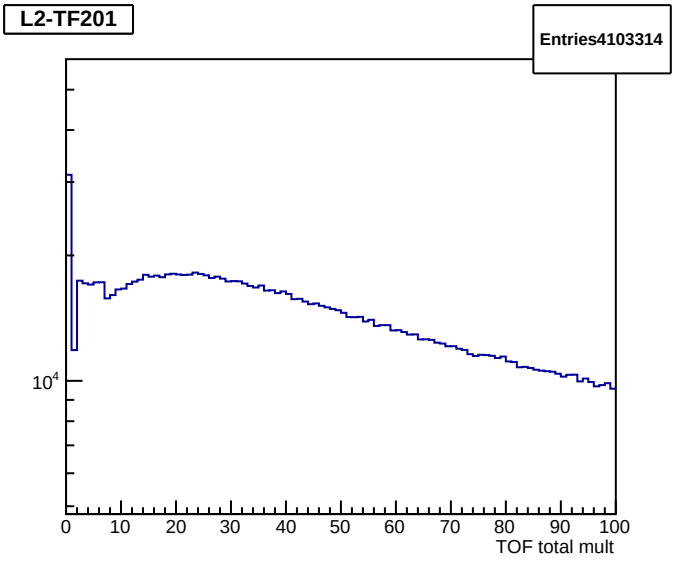

MIX-TF101
Entries 0
TOF UPC-TH-WestHigh(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

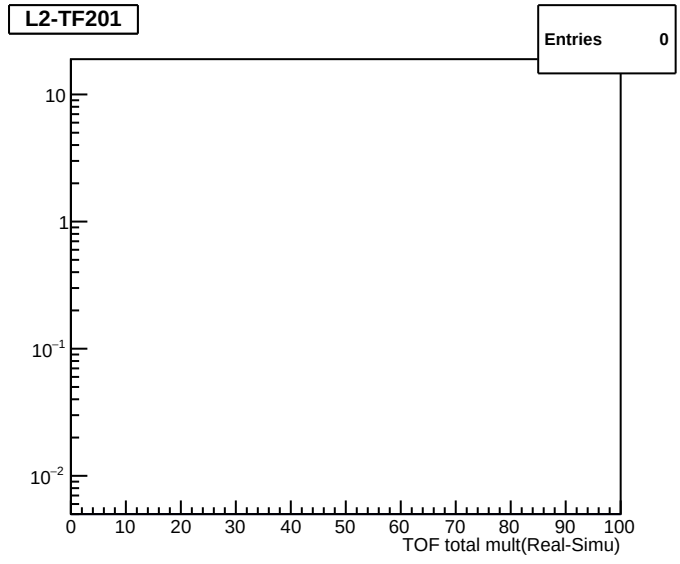

MIX-TF101
Entries 2.461988e+07
TOF UPC-TH-EastLow
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

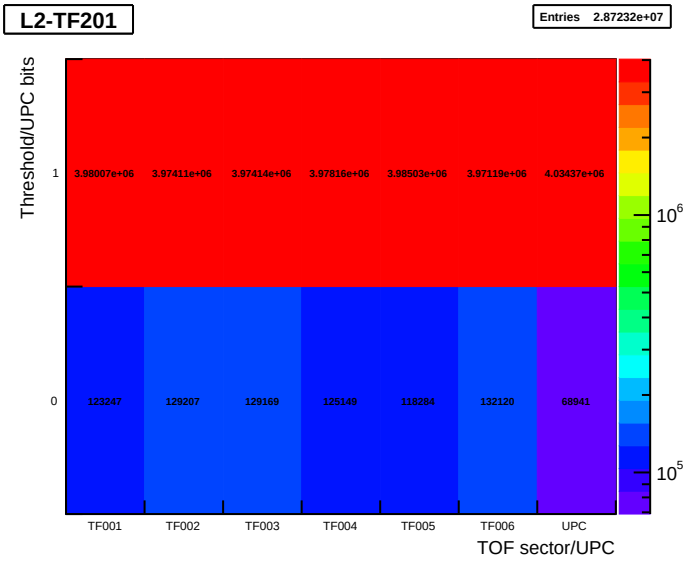

MIX-TF101
Entries 0
TOF UPC-TH-EastLow(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

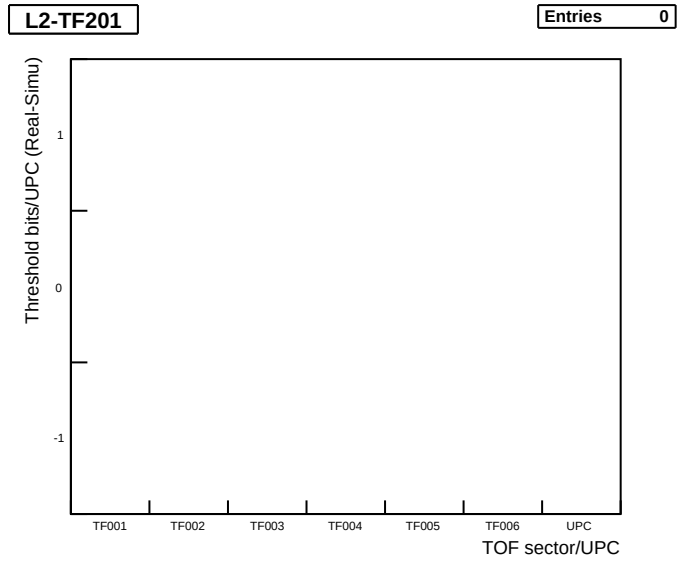

MIX-TF101
Entries 2.461988e+07
TOF UPC-TH-EastHigh
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

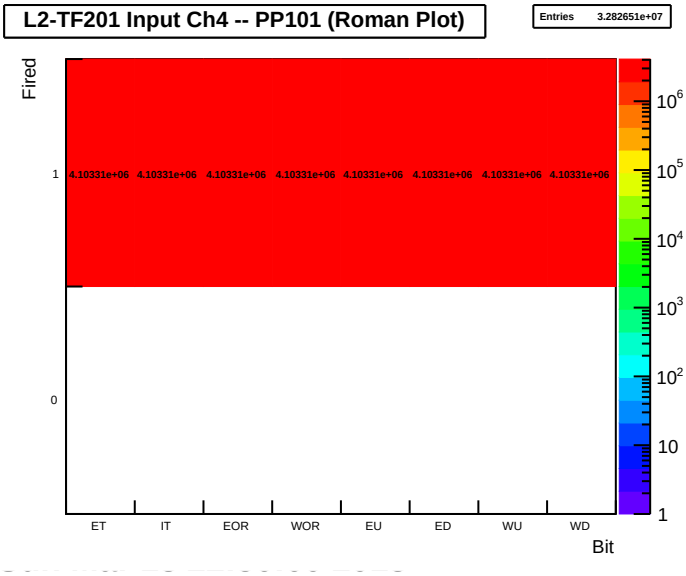

MIX-TF101
Entries 0
TOF UPC-TH-EastHigh(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

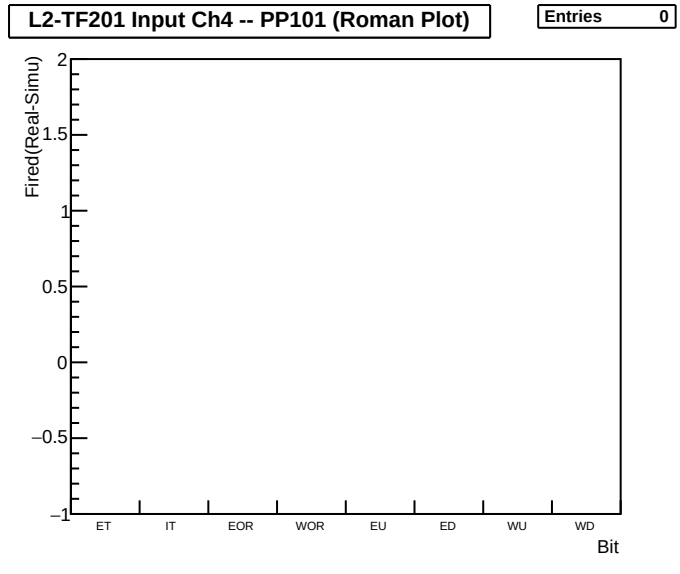

L2-TF201
Entries4103314
10^4
0 10 20 30 40 50 60 70 80 90 100
TOF total mult

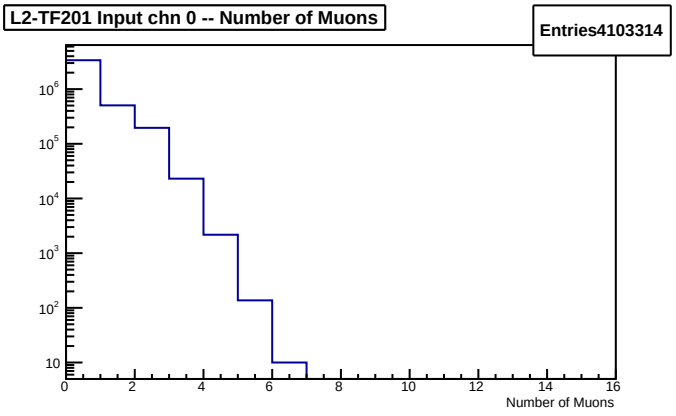

L2-TF201
Entries 0
10
1
10^{-1}
10^{-2}
0 10 20 30 40 50 60 70 80 90 100
TOF total mult(Real-Simu)

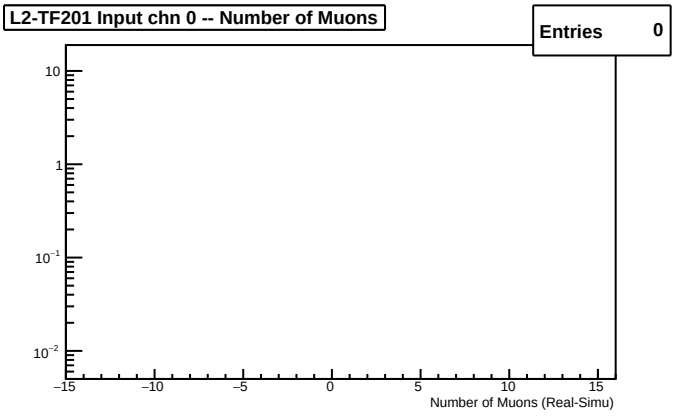

L2-TF201
Entries 2.87232e+07
Threshold/UPC bits
1
0
3.98007e+06 3.97411e+06 3.97414e+06 3.97816e+06 3.98503e+06 3.97119e+06 4.03437e+06
123247 129207 129169 125149 118284 132120 68941
10^6
10^5
TF001 TF002 TF003 TF004 TF005 TF006 UPC
TOF sector/UPC

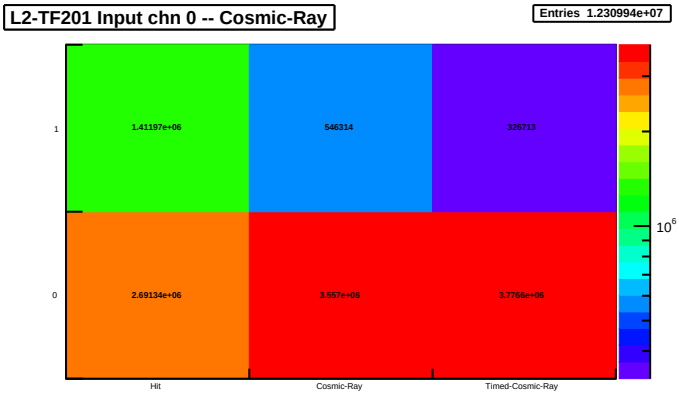

L2-TF201
Entries 0
Threshold bits/UPC (Real-Simu)
1
0
-1
TF001 TF002 TF003 TF004 TF005 TF006 UPC
TOF sector/UPC

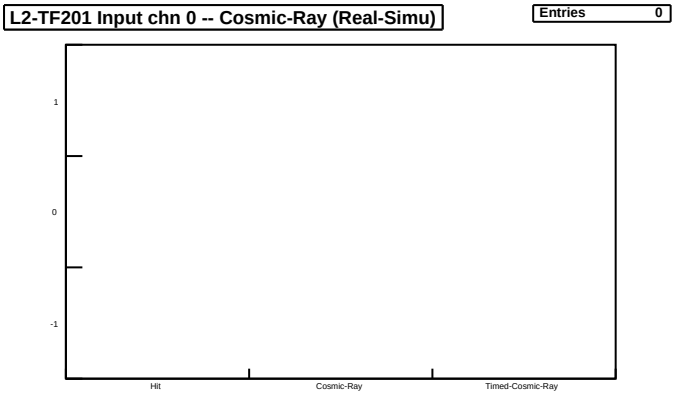

L2-TF201 Input Ch4 -- PP101 (Roman Plot)
Entries 3.282651e+07
Fired
1
0
4.10331e+06 4.10331e+06 4.10331e+06 4.10331e+06 4.10331e+06 4.10331e+06 4.10331e+06 4.10331e+06
10^6
10^5
10^4
10^3
10^2
10
1
ET IT EOR WOR EU ED WU WD
Bit

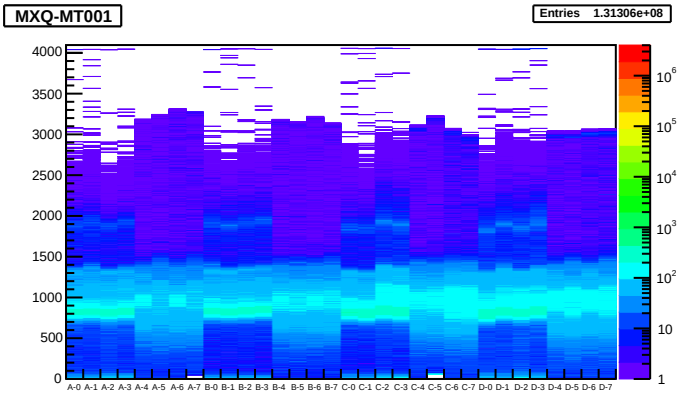

L2-TF201 Input Ch4 -- PP101 (Roman Plot)
Entries 0
Fired(Real-Simu)
2
1.5
1
0.5
0
−0.5
−1
ET IT EOR WOR EU ED WU WD
Bit

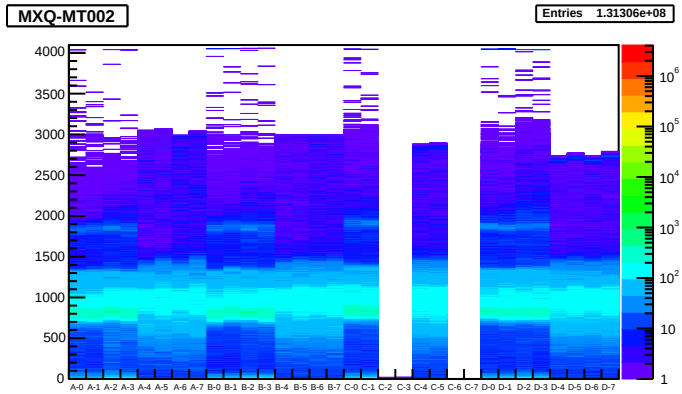

L2-TF201 Input chn 0 -- Number of Muons
Entries4103314
Number of Muons

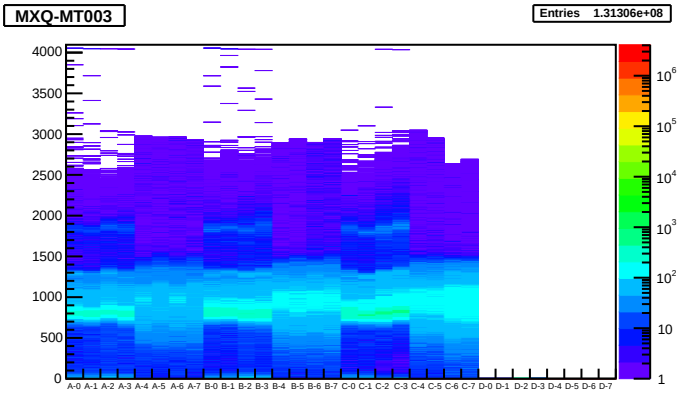

L2-TF201 Input chn 0 -- Number of Muons
Entries 0
Number of Muons (Real-Simu)

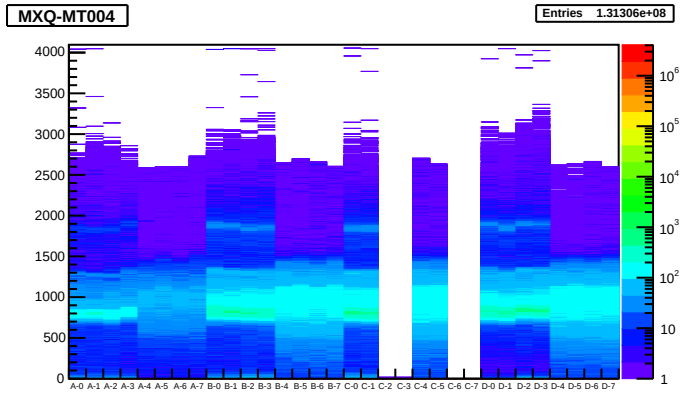

L2-TF201 Input chn 0 -- Cosmic-Ray
Entries 1.230994e+07
1.41197e+06
546314
326713
2.69134e+06
3.557e+06
3.7766e+06
Hit
Cosmic-Ray
Timed-Cosmic-Ray

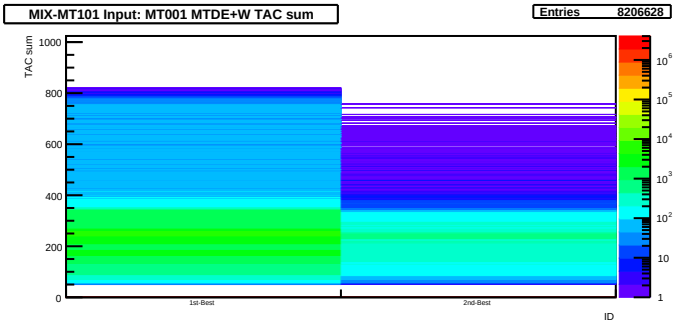

L2-TF201 Input chn 0 -- Cosmic-Ray (Real-Simu)
Entries 0
Hit
Cosmic-Ray
Timed-Cosmic-Ray

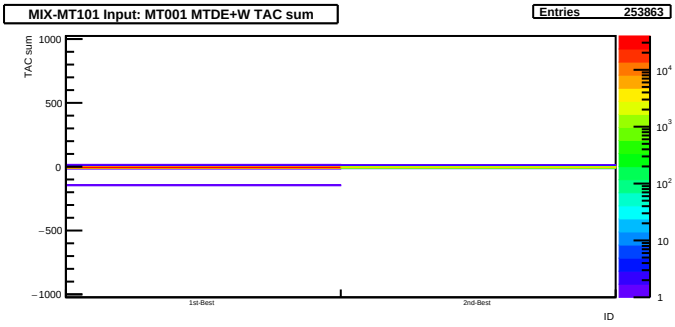

MXQ-MT001
Entries 1.31306e+08

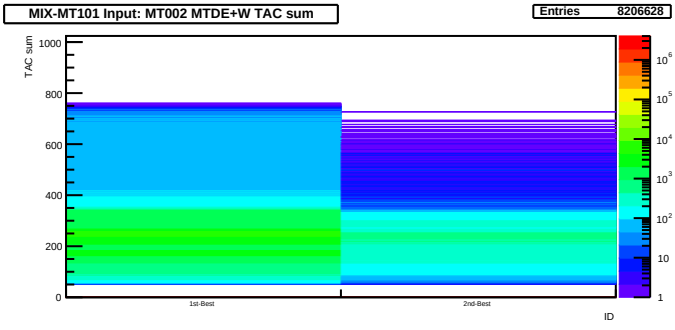

MXQ-MT002
Entries 1.31306e+08

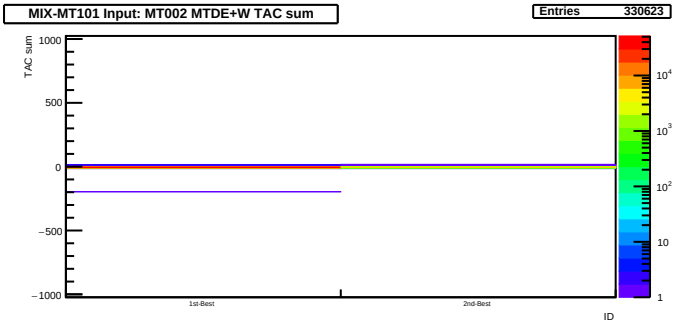

MXQ-MT003
Entries 1.31306e+08

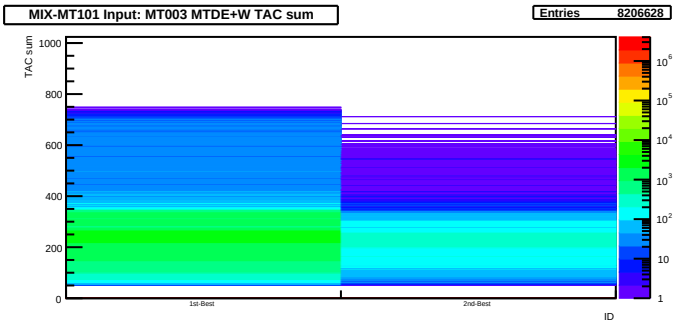

MXQ-MT004
Entries 1.31306e+08

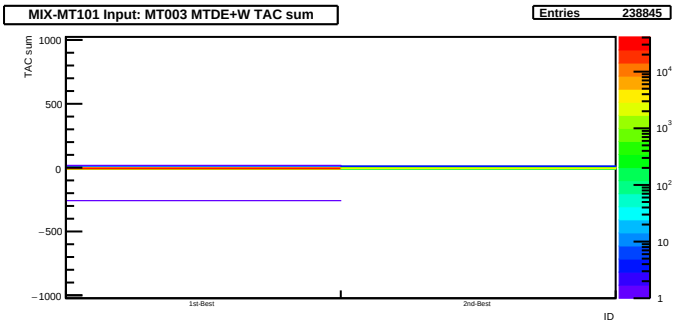

MIX-MT101 Input: MT001 MTDE+W TAC sum
Entries 8206628
TAC sum
1st-Best
2nd-Best
ID

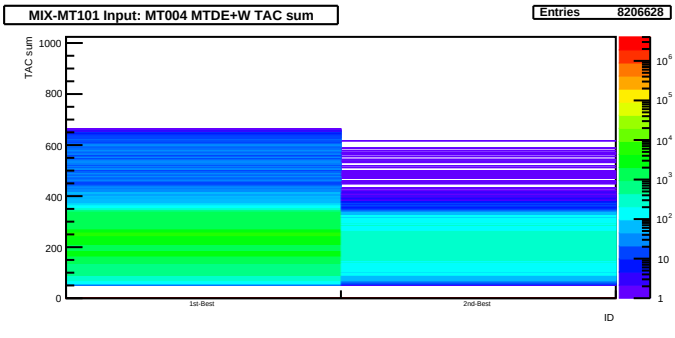

MIX-MT101 Input: MT001 MTDE+W TAC sum
Entries 253863
TAC sum
1st-Best
2nd-Best
ID

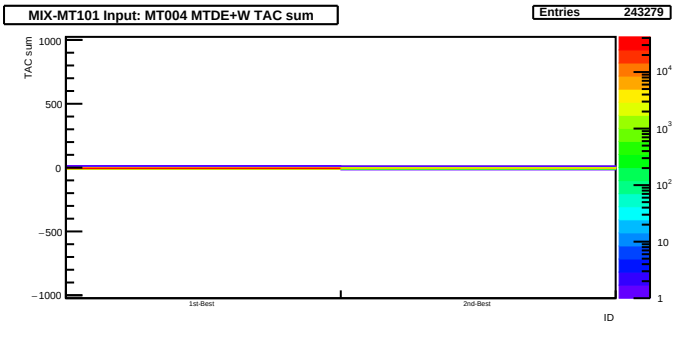

MIX-MT101 Input: MT002 MTDE+W TAC sum
Entries 8206628
TAC sum
1st-Best
2nd-Best
ID

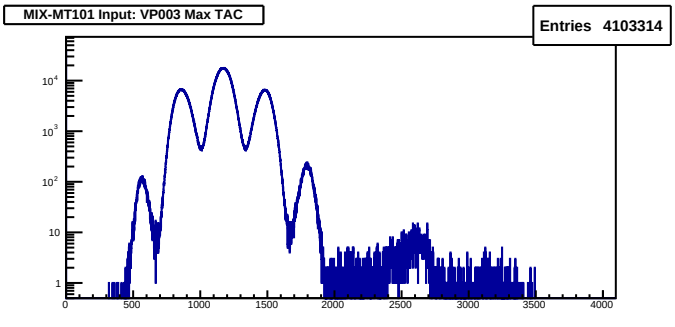

MIX-MT101 Input: MT002 MTDE+W TAC sum
Entries 330623
TAC sum
1st-Best
2nd-Best
ID

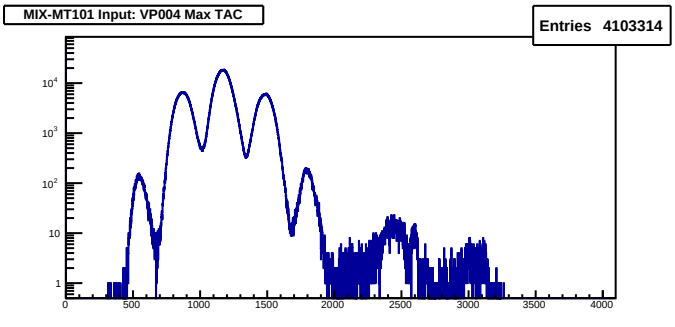

MIX-MT101 Input: MT003 MTDE+W TAC sum
Entries 8206628
TAC sum
1st-Best
2nd-Best
ID

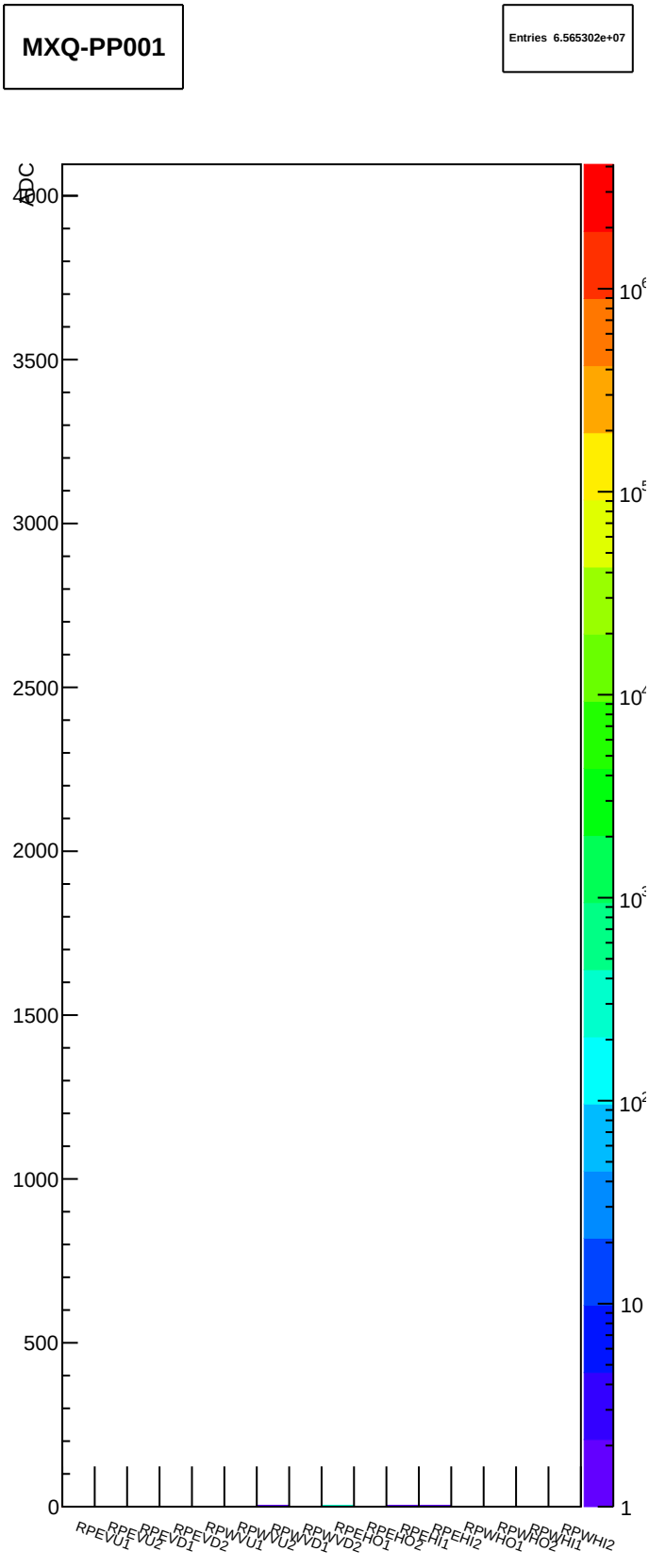

MIX-MT101 Input: MT003 MTDE+W TAC sum
Entries 238845
TAC sum
1st-Best
2nd-Best
ID

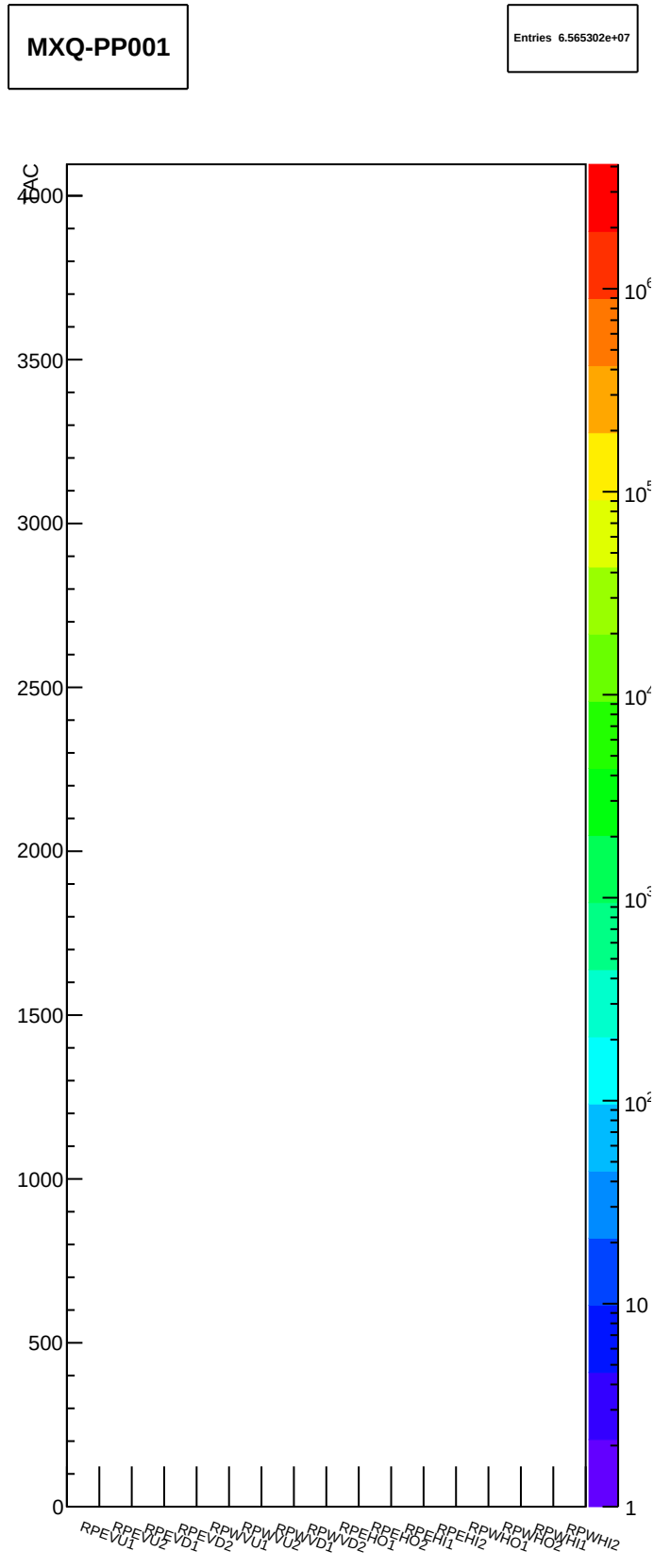

MIX-MT101 Input: MT004 MTDE+W TAC sum
Entries 8206628
TAC sum
1st-Best
2nd-Best
ID

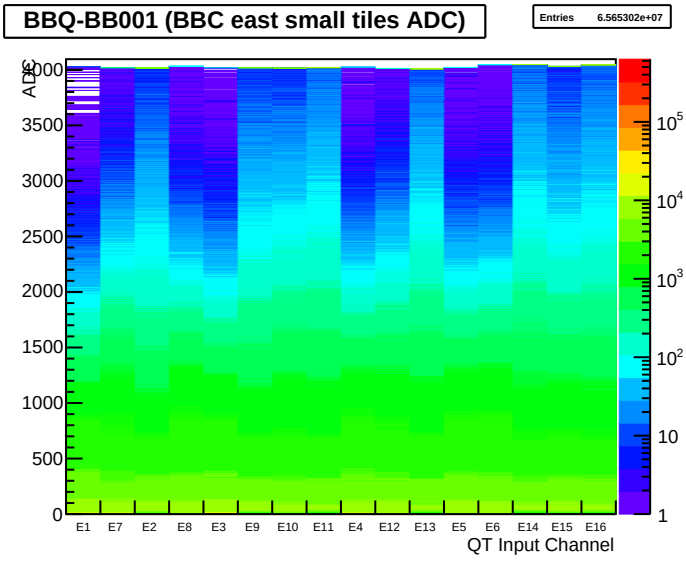

MIX-MT101 Input: MT004 MTDE+W TAC sum
Entries 243279
TAC sum
1st-Best
2nd-Best
ID

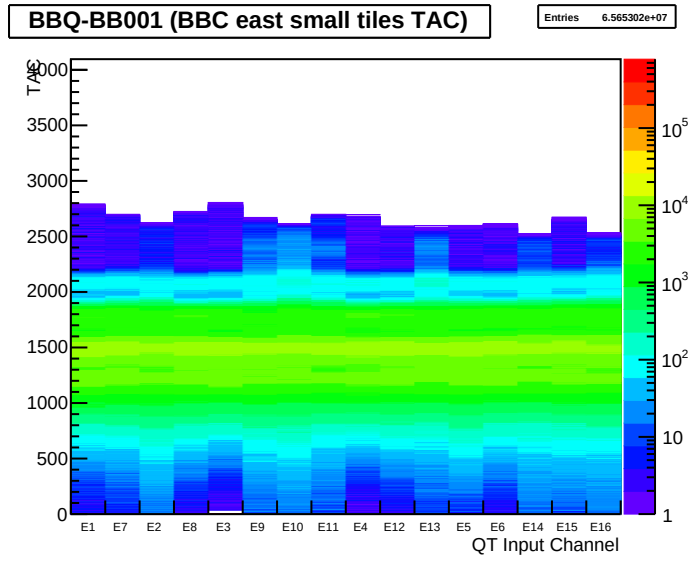

MIX-MT101 Input: VP003 Max TAC
Entries 4103314

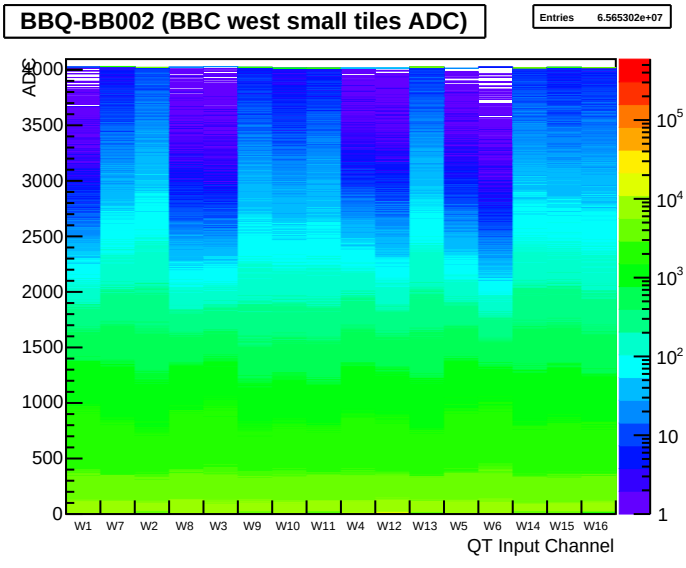

MIX-MT101 Input: VP004 Max TAC
Entries 4103314

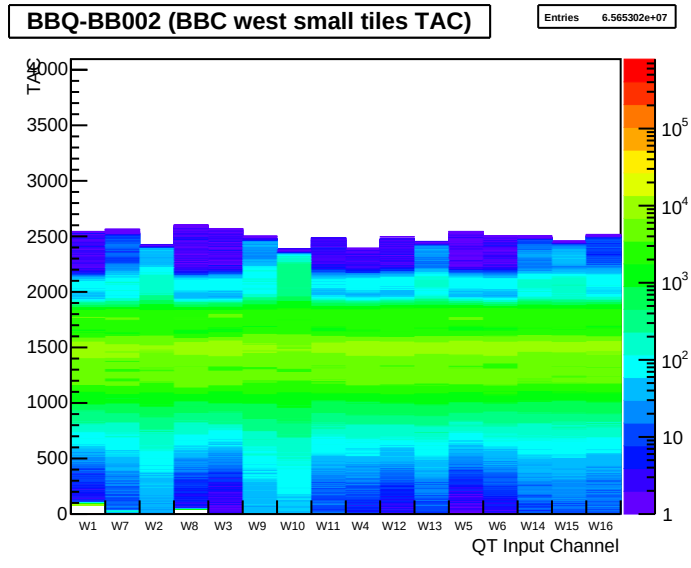

MXQ-PP001
Entries 6.565302e+07
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
RPEVU1
RPEVU2
RPEVD1
RPEVD2
RPWVU1
RPWVU2
RPWVD1
RPWVD2
RPEHO1
RPEHO2
RPEHI1
RPEHI2
RPWHO1
RPWHO2
RPWHI1
RPWHI2
1
10

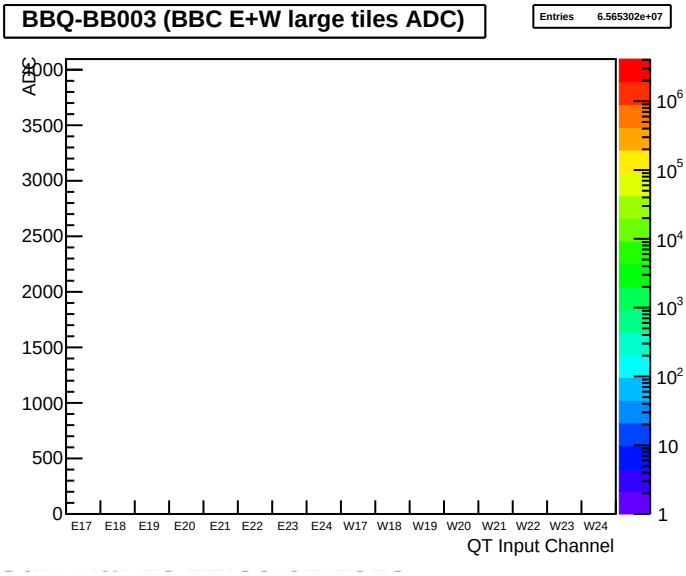

MXQ-PP001
Entries 6.565302e+07
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
RPEVU1
RPEVU2
RPEVD1
RPEVD2
RPWVU1
RPWVU2
RPWVD1
RPWVD2
RPEHO1
RPEHO2
RPEHI1
RPEHI2
RPWHO1
RPWHO2
RPWHI1
RPWHI2
1
10

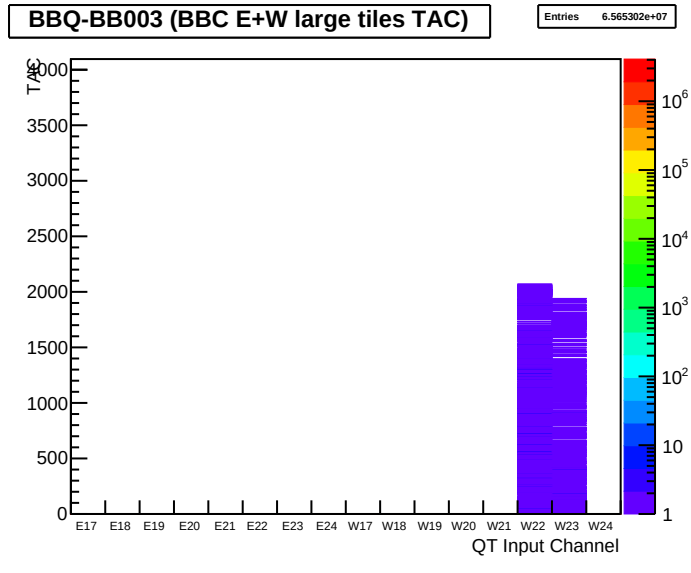

BBQ-BB001 (BBC east small tiles ADC)
Entries 6.565302e+07
ADC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

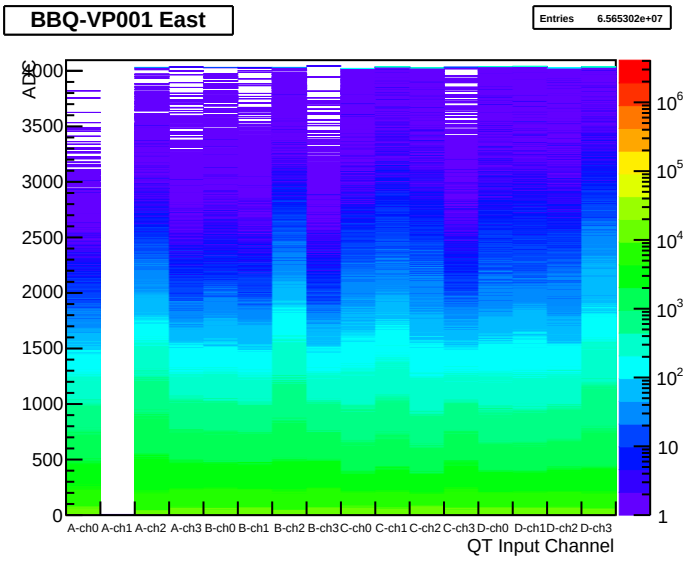

BBQ-BB001 (BBC east small tiles TAC)
Entries 6.565302e+07
TAC
QT Input Channel
E1 E7 E2 E8 E3 E9 E10 E11 E4 E12 E13 E5 E6 E14 E15 E16

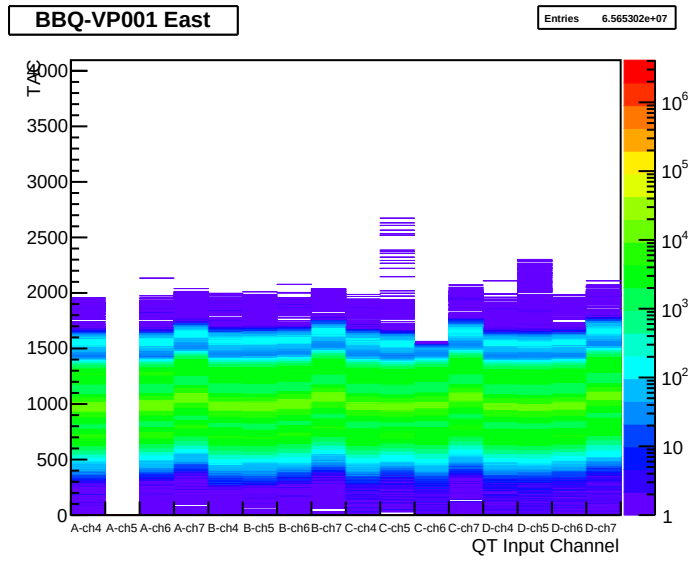

BBQ-BB002 (BBC west small tiles ADC)
Entries 6.565302e+07
ADC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

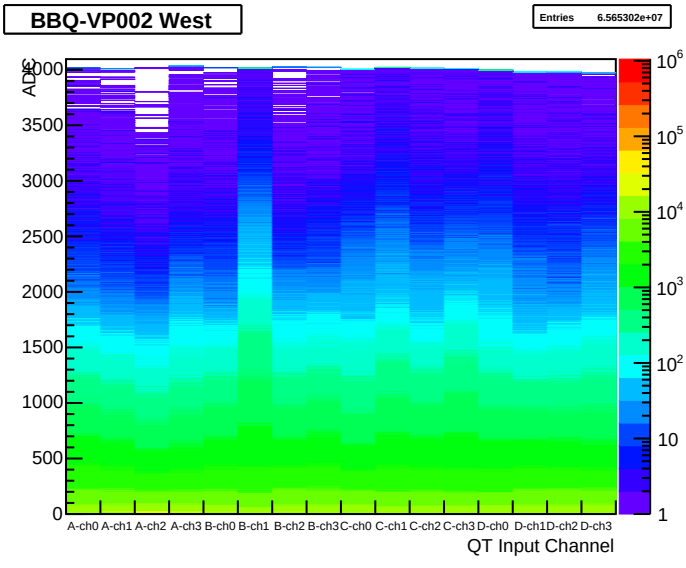

BBQ-BB002 (BBC west small tiles TAC)
Entries 6.565302e+07
TAC
QT Input Channel
W1 W7 W2 W8 W3 W9 W10 W11 W4 W12 W13 W5 W6 W14 W15 W16

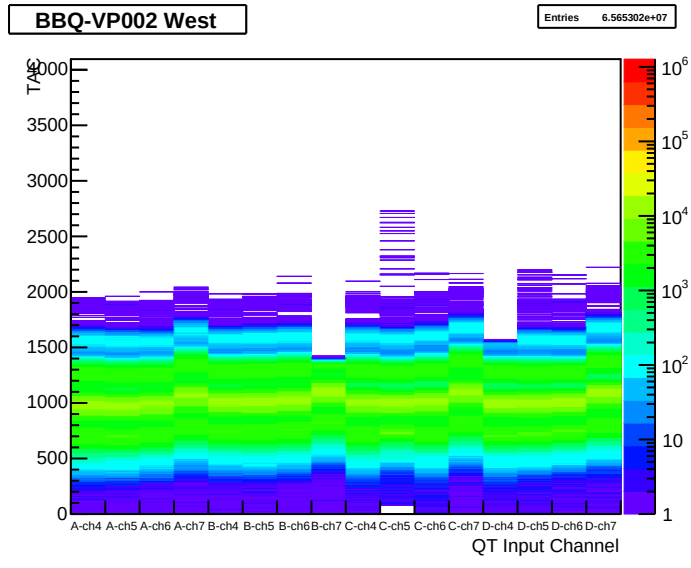

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 6.565302e+07
ADC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

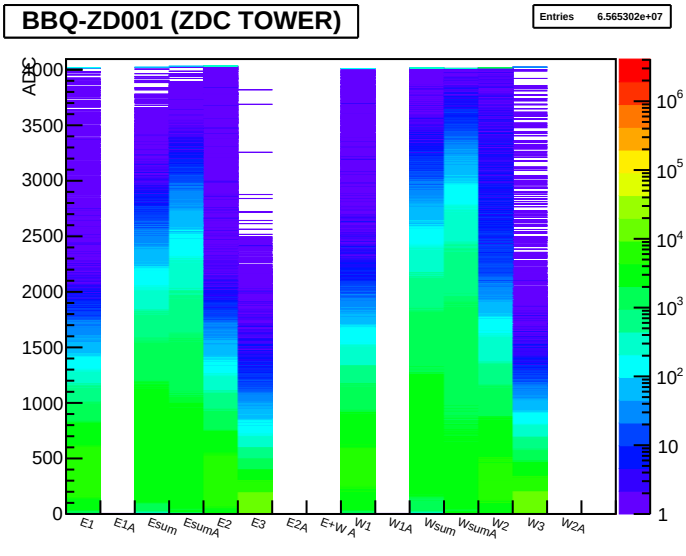

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 6.565302e+07
TAC
QT Input Channel
E17 E18 E19 E20 E21 E22 E23 E24 W17 W18 W19 W20 W21 W22 W23 W24

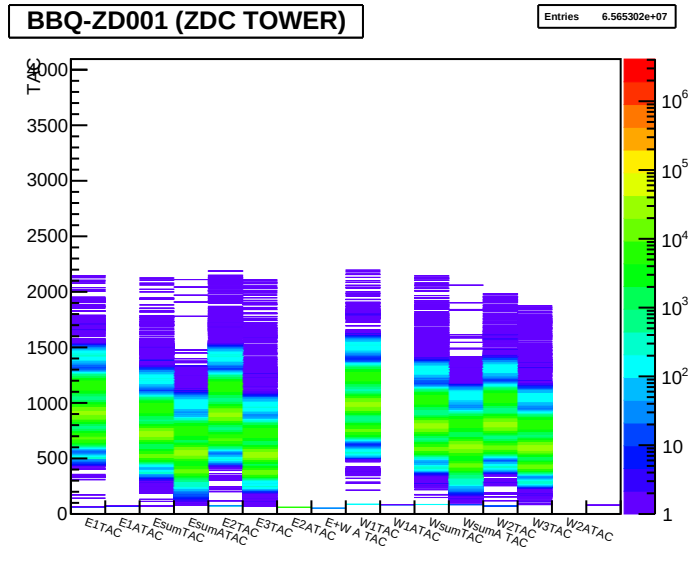

BBQ-VP001 East
Entries 6.565302e+07
ADC
A-ch0 A-ch1 A-ch2 A-ch3 B-ch0 B-ch1 B-ch2 B-ch3 C-ch0 C-ch1 C-ch2 C-ch3 D-ch0 D-ch1 D-ch2 D-ch3
QT Input Channel

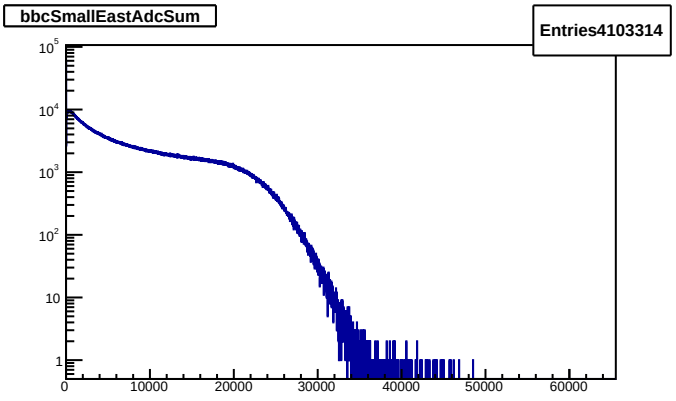

BBQ-VP001 East
Entries 6.565302e+07
TAC
A-ch4 A-ch5 A-ch6 A-ch7 B-ch4 B-ch5 B-ch6 B-ch7 C-ch4 C-ch5 C-ch6 C-ch7 D-ch4 D-ch5 D-ch6 D-ch7
QT Input Channel

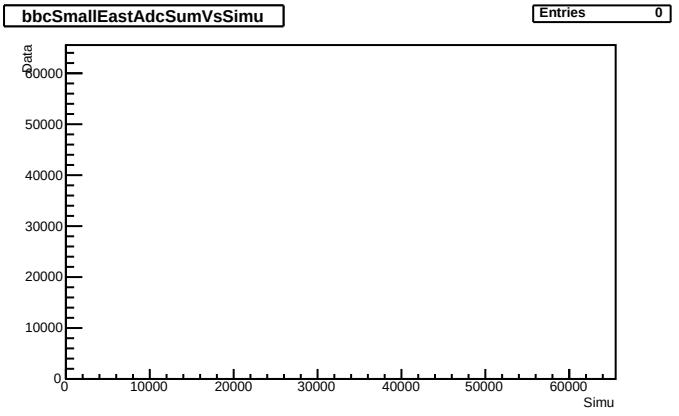

BBQ-VP002 West
Entries 6.565302e+07
ADC
A-ch0 A-ch1 A-ch2 A-ch3 B-ch0 B-ch1 B-ch2 B-ch3 C-ch0 C-ch1 C-ch2 C-ch3 D-ch0 D-ch1 D-ch2 D-ch3
QT Input Channel

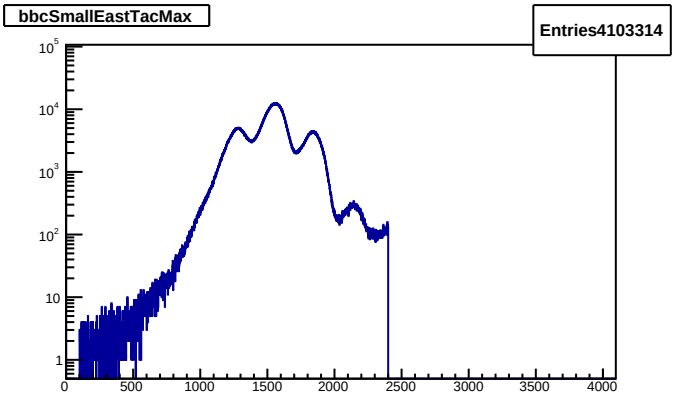

BBQ-VP002 West
Entries 6.565302e+07
TAC
A-ch4 A-ch5 A-ch6 A-ch7 B-ch4 B-ch5 B-ch6 B-ch7 C-ch4 C-ch5 C-ch6 C-ch7 D-ch4 D-ch5 D-ch6 D-ch7
QT Input Channel

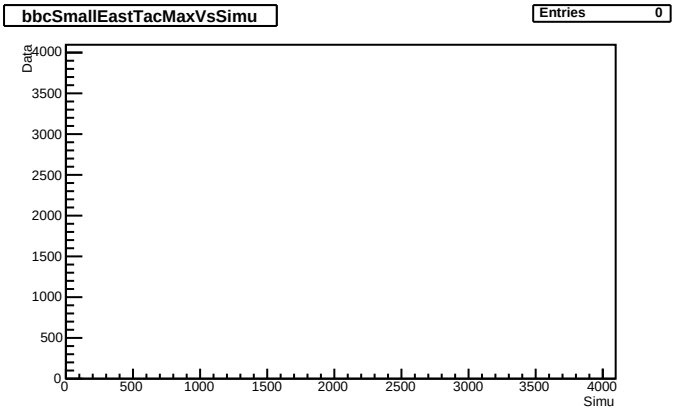

BBQ-ZD001 (ZDC TOWER)
Entries 6.565302e+07
ADC
E1 E1A Esum EsumA E2 E3 E2A E+W A W1 W1A Wsum WsumA W2 W3 W2A

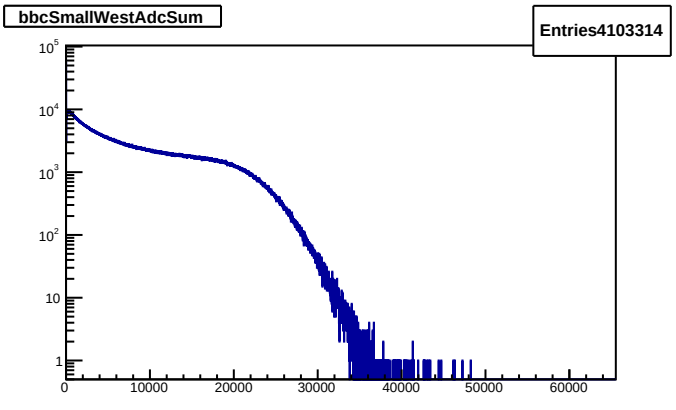

BBQ-ZD001 (ZDC TOWER)
Entries 6.565302e+07
TAC
E1TAC E1ATAC EsumTAC EsumATAC E2TAC E3TAC E2ATAC E+W A TAC W1TAC W1ATAC WsumTAC WsumA TAC W2TAC W3TAC W2ATAC

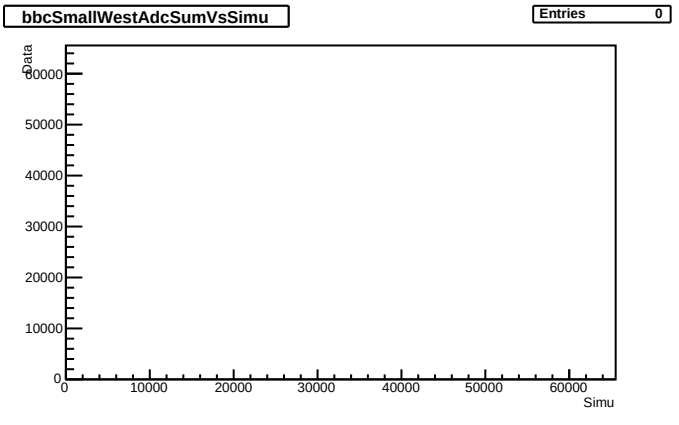

bbcSmallEastAdcSum
Entries4103314

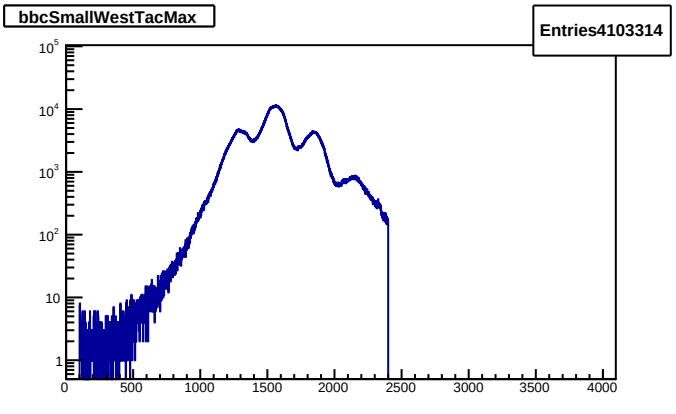

bbcSmallEastAdcSumVsSimu
Entries 0
Data
Simu

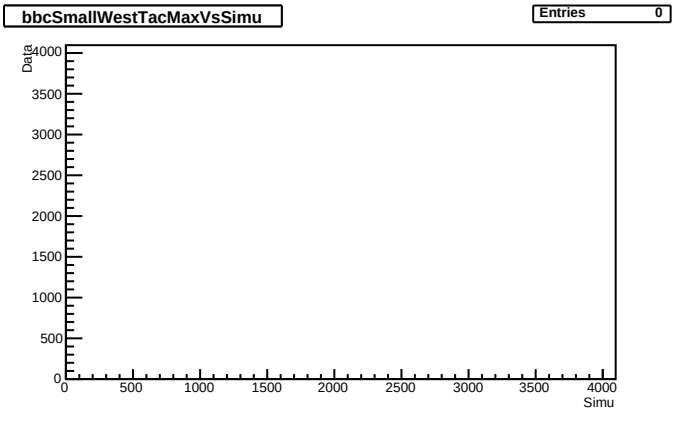

bbcSmallEastTacMax
Entries4103314

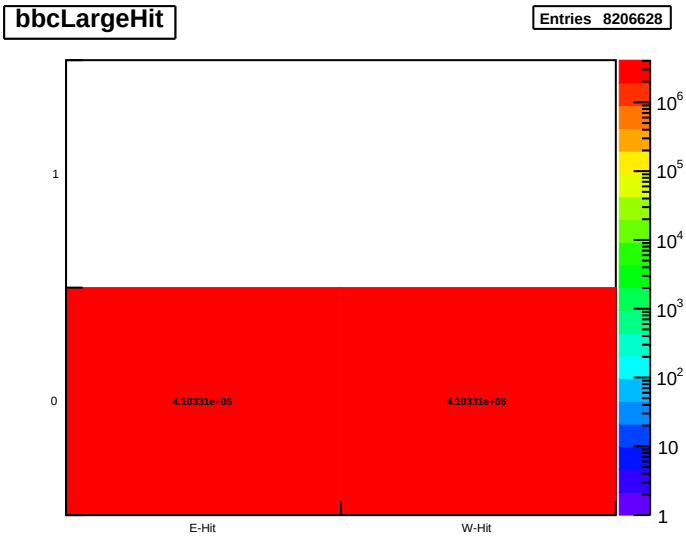

bbcSmallEastTacMaxVsSimu
Entries 0
Data
Simu

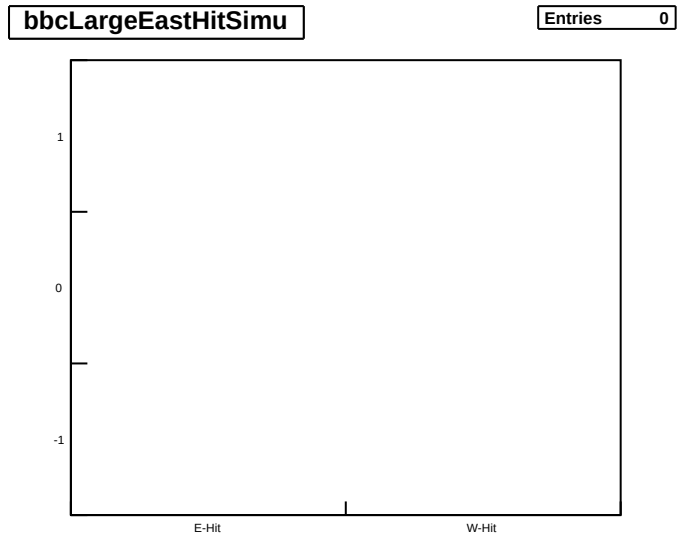

bbcSmallWestAdcSum
Entries4103314

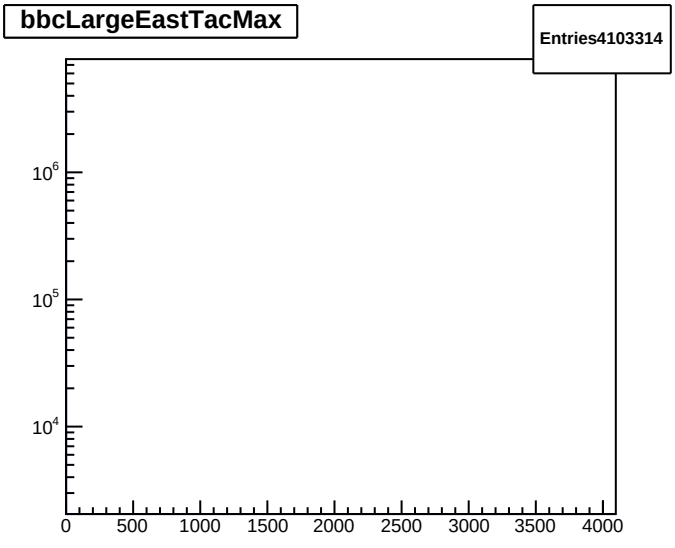

bbcSmallWestAdcSumVsSimu
Entries 0
Data
Simu

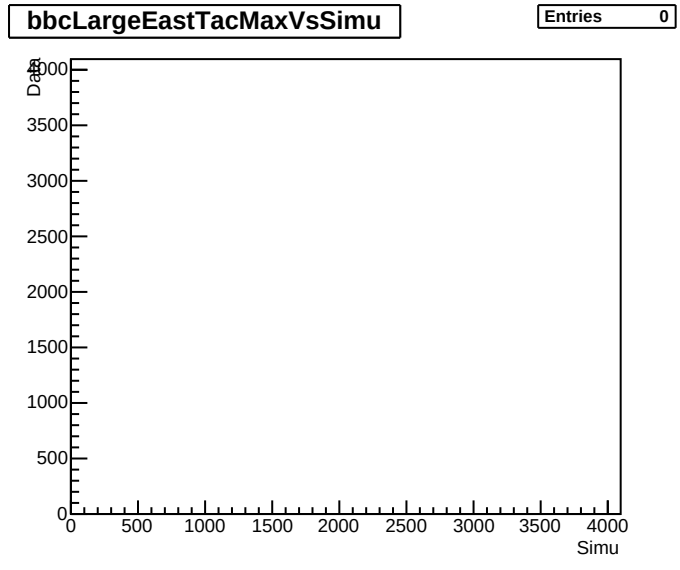

bbcSmallWestTacMax
Entries4103314

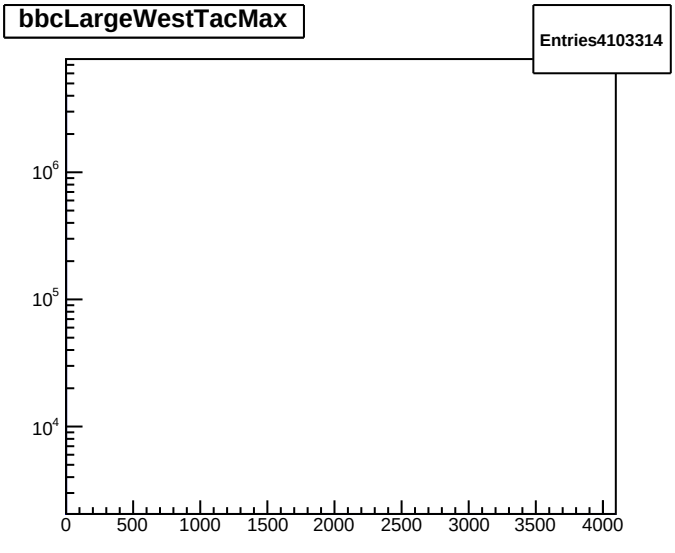

bbcSmallWestTacMaxVsSimu
Entries 0
Data
Simu

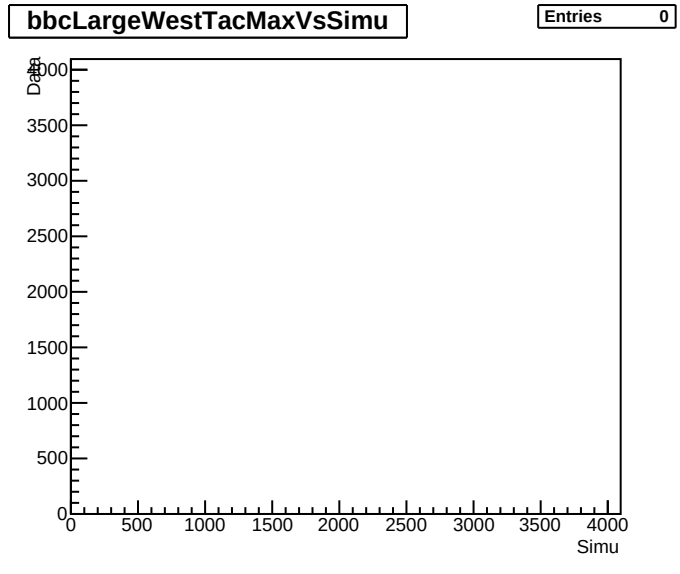

bbcLargeHit
Entries 8206628
4.10331e+06
4.10331e+06
E-Hit
W-Hit

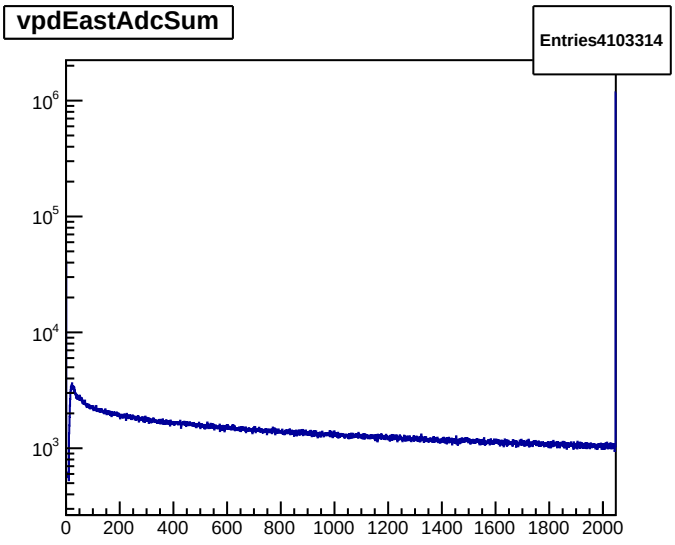

bbcLargeEastHitSimu
Entries 0
E-Hit
W-Hit

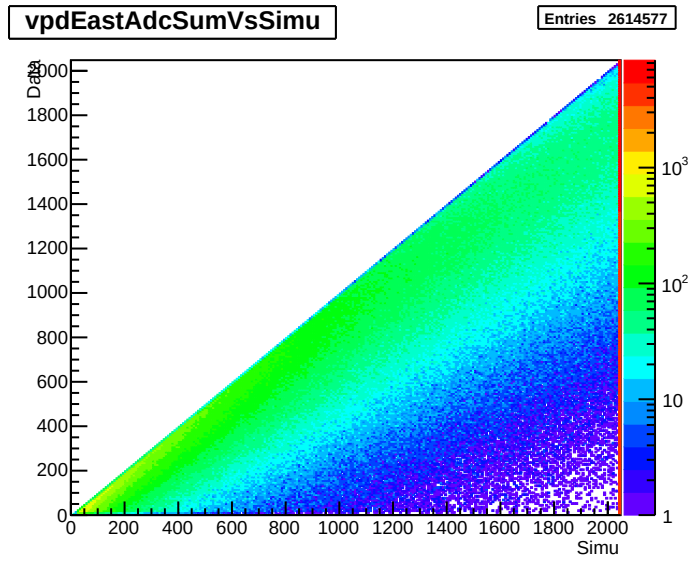

bbcLargeEastTacMax
Entries4103314

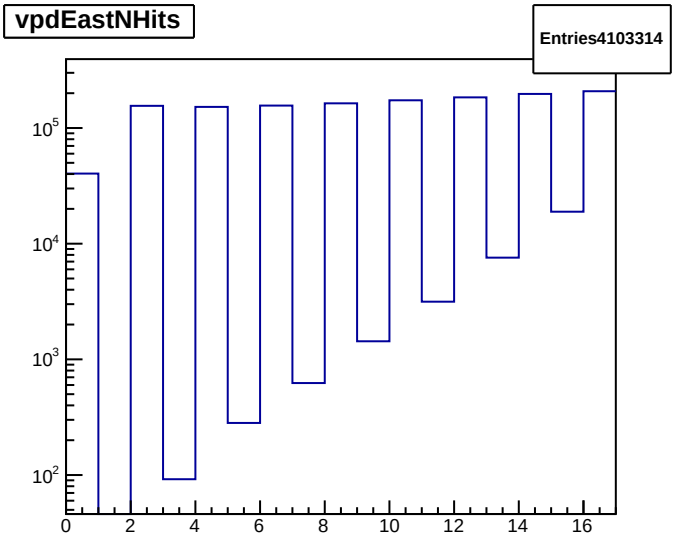

bbcLargeEastTacMaxVsSimu
Entries 0
Data
Simu

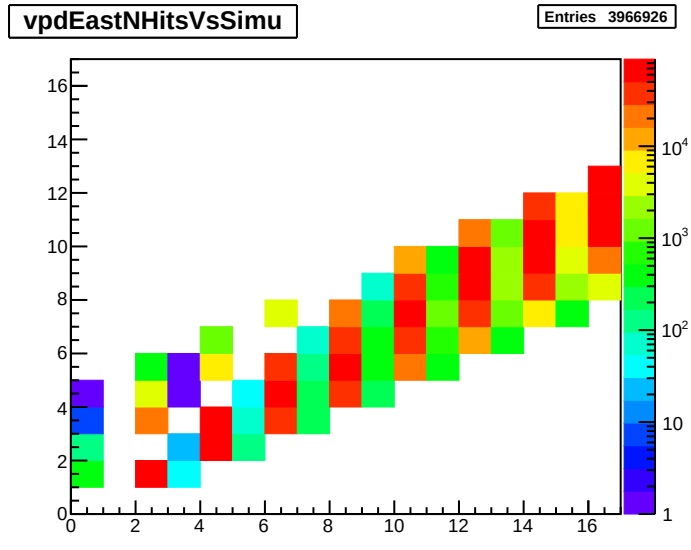

bbcLargeWestTacMax
Entries4103314

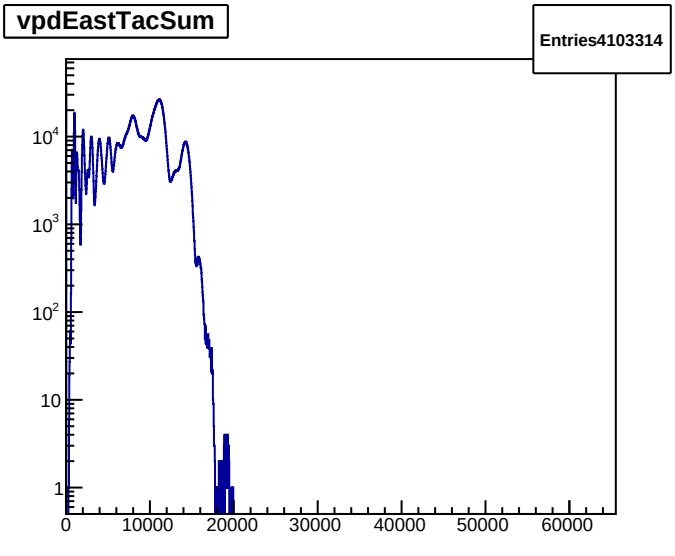

bbcLargeWestTacMaxVsSimu
Entries 0
Data
Simu

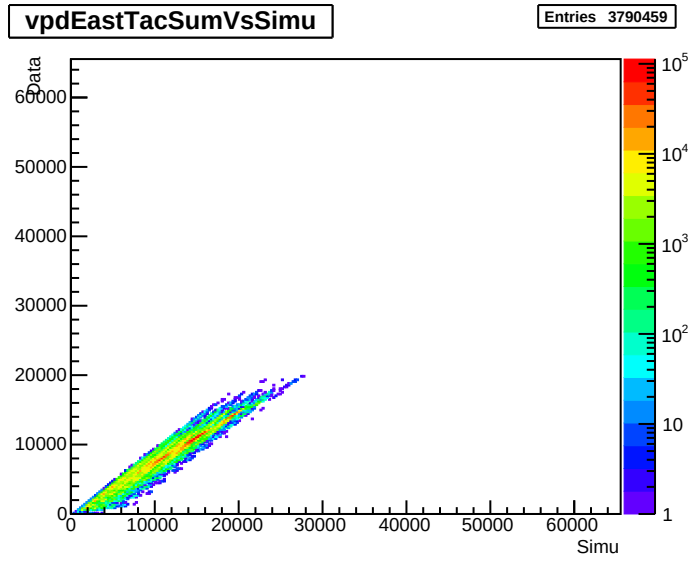

vpdEastAdcSum
Entries4103314

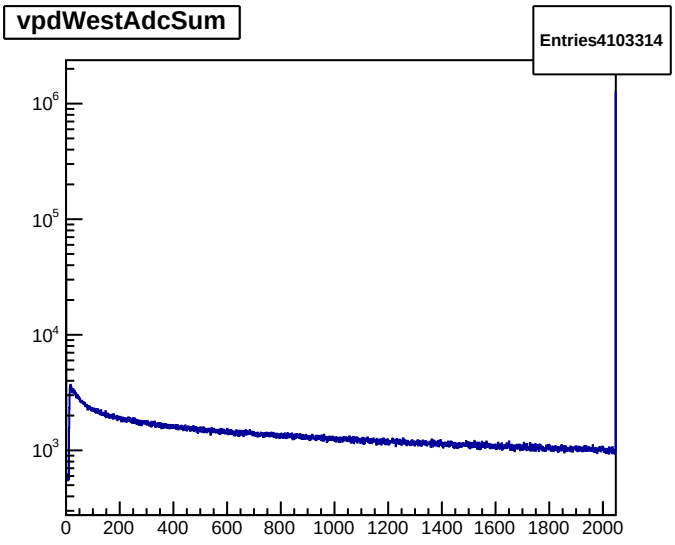

vpdEastAdcSumVsSimu
Entries 2614577
Data
Simu

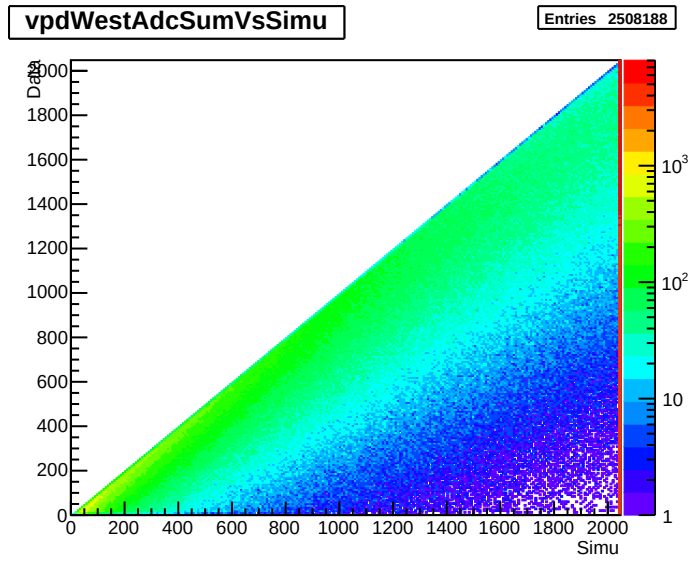

vpdEastNHits
Entries4103314

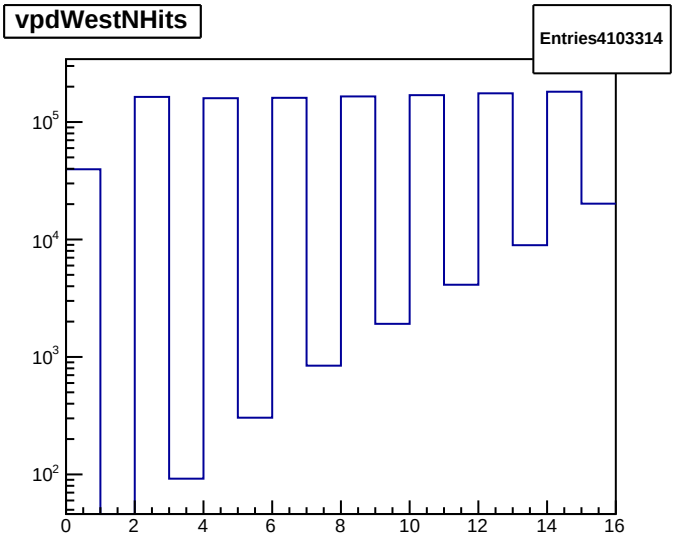

vpdEastNHitsVsSimu
Entries 3966926

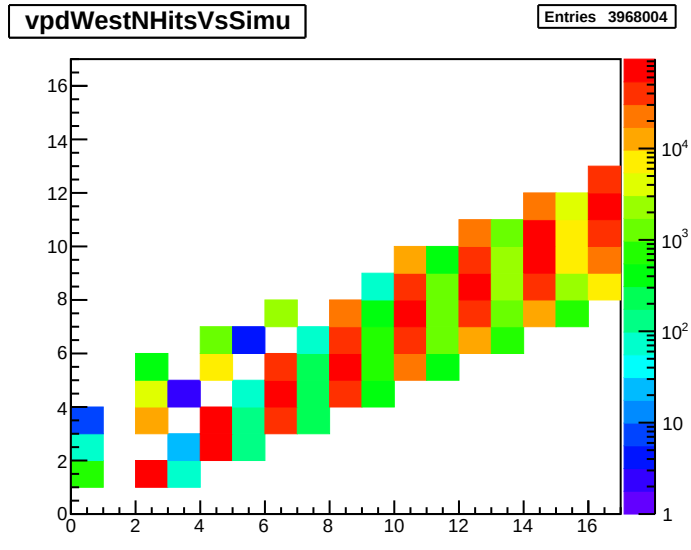

vpdEastTacSum
Entries4103314

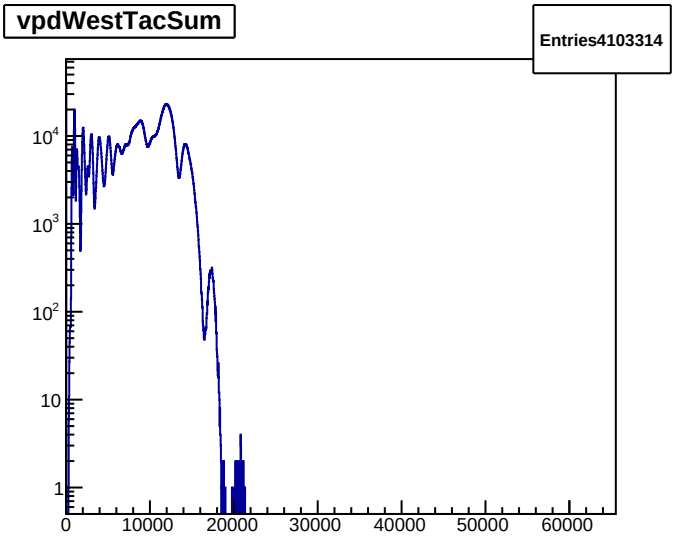

vpdEastTacSumVsSimu
Entries 3790459
Data
Simu

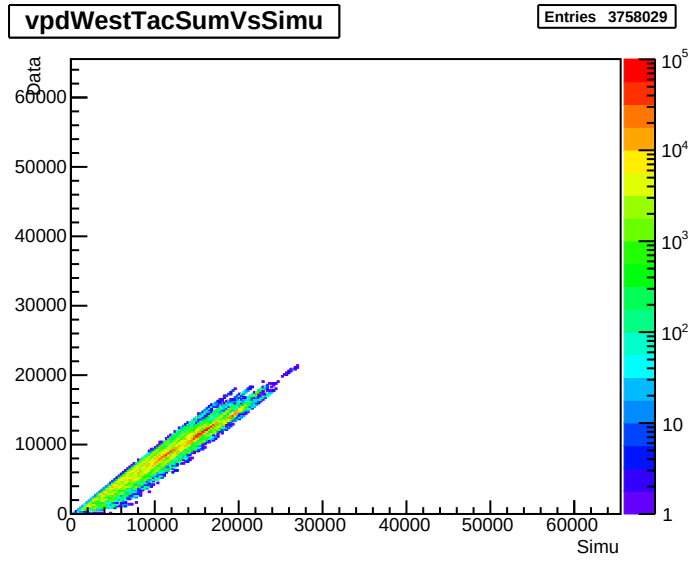

vpdWestAdcSum
Entries4103314

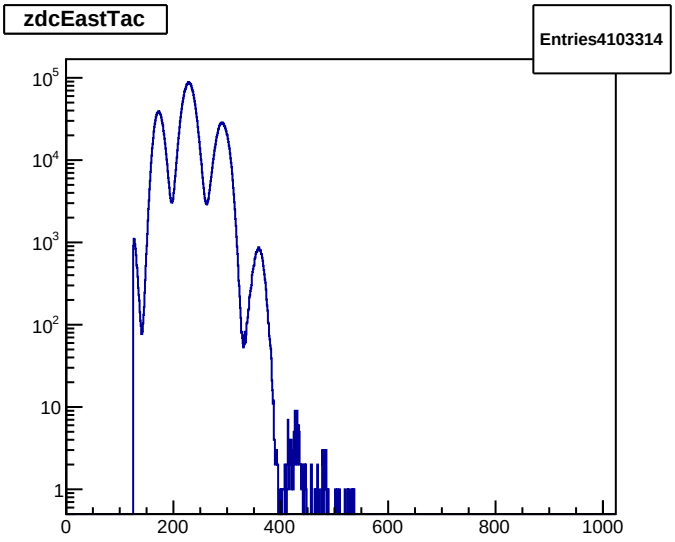

vpdWestAdcSumVsSimu
Entries 2508188
Data
Simu

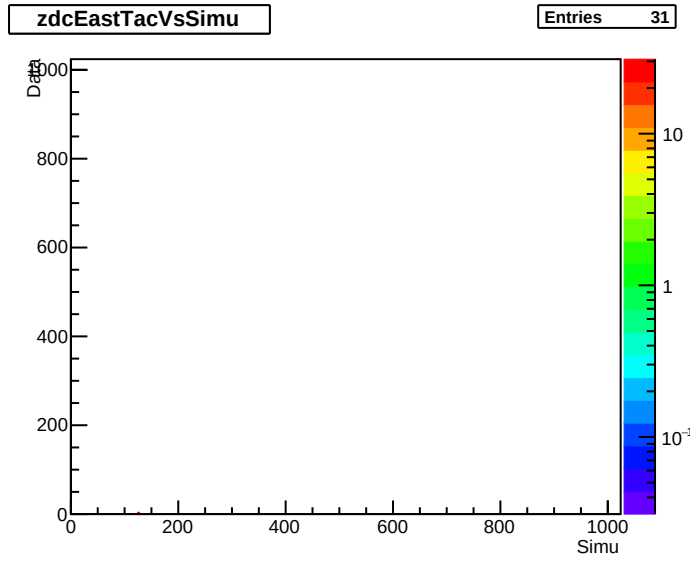

vpdWestNHits
Entries4103314

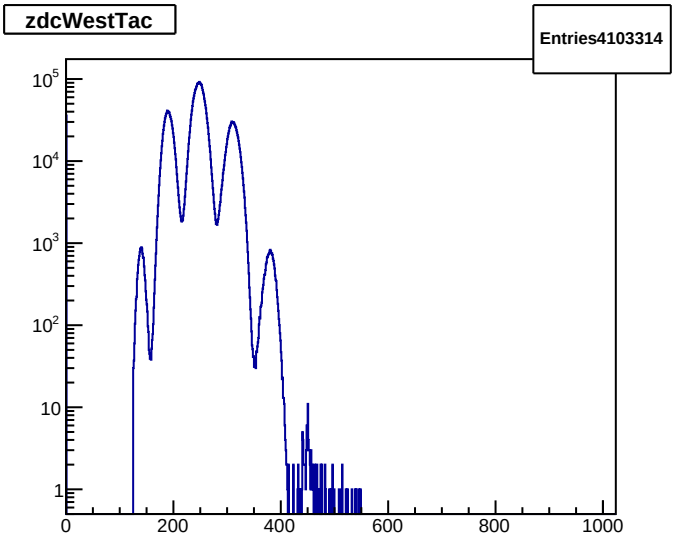

vpdWestNHitsVsSimu
Entries 3968004

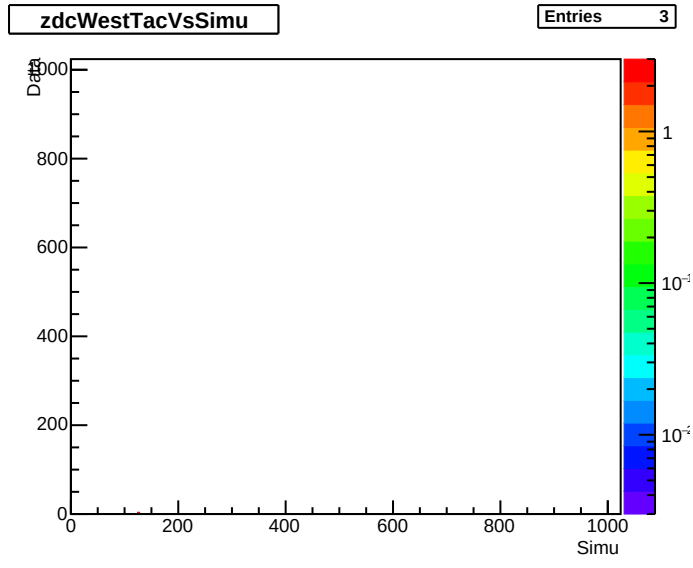

vpdWestTacSum
Entries4103314

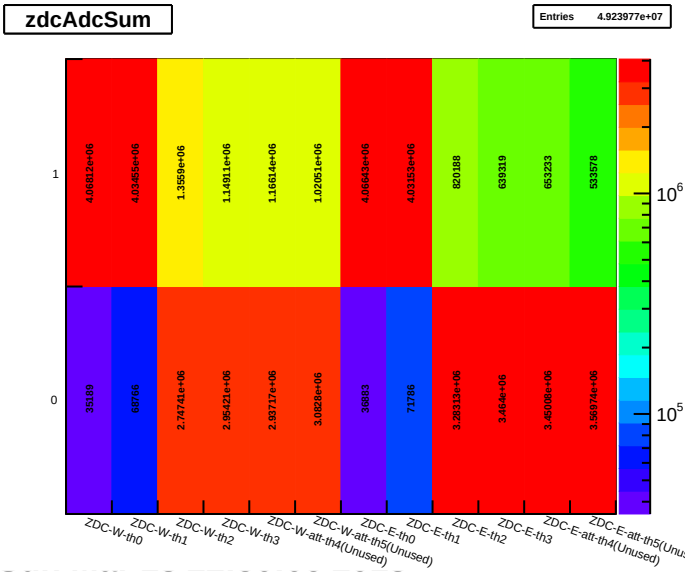

vpdWestTacSumVsSimu
Entries 3758029
Data
Simu

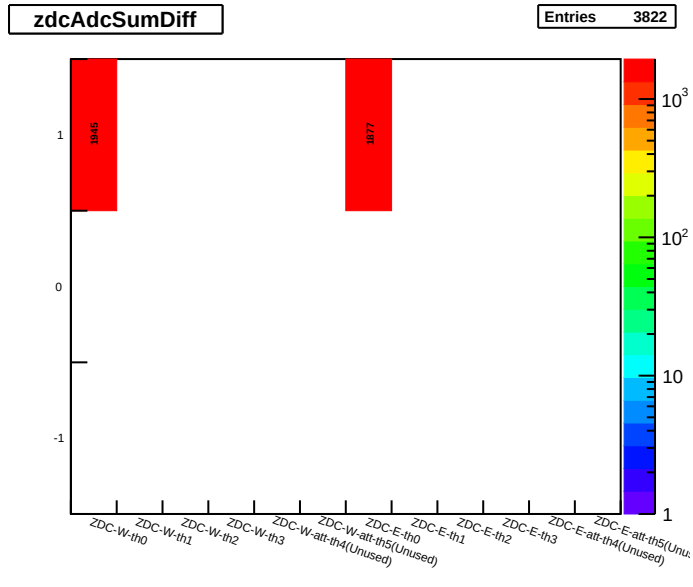

zdcEastTac
Entries4103314

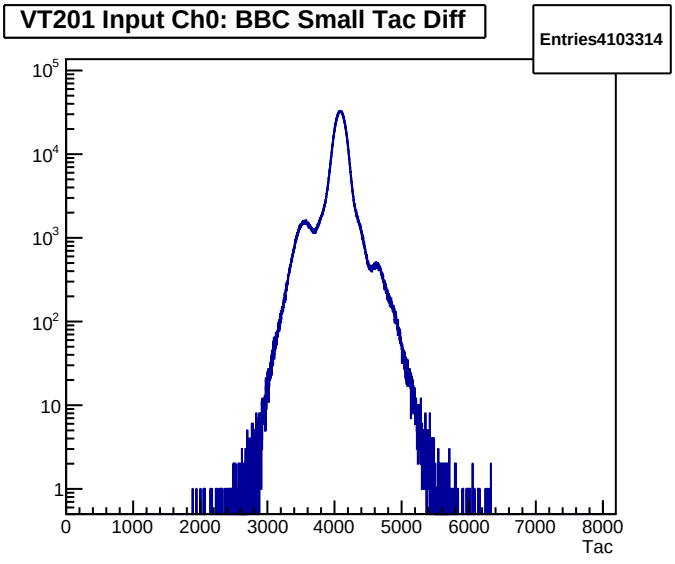

zdcEastTacVsSimu
Entries 31
Data
Simu

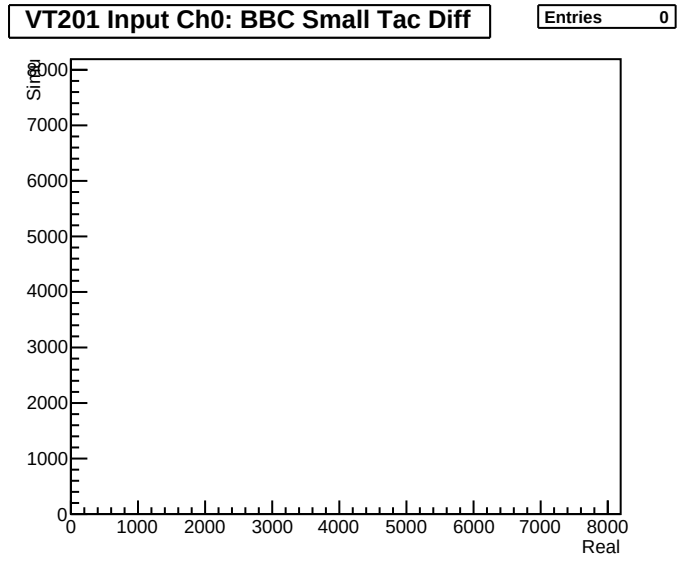

zdcWestTac
Entries4103314

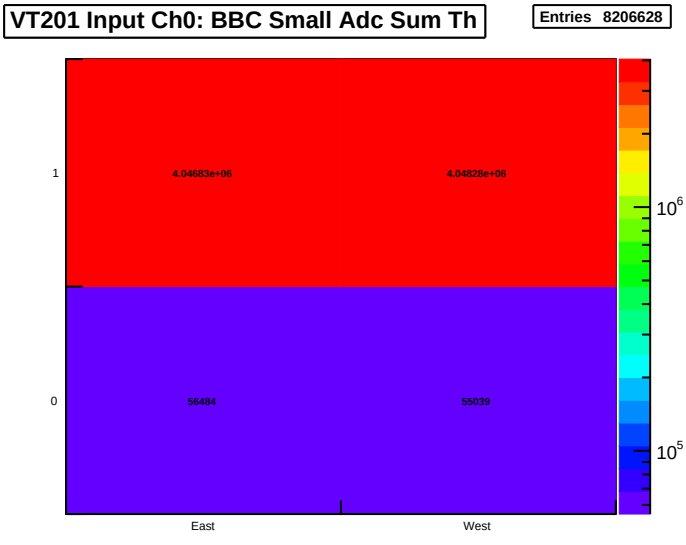

zdcWestTacVsSimu
Entries 3
Data
Simu

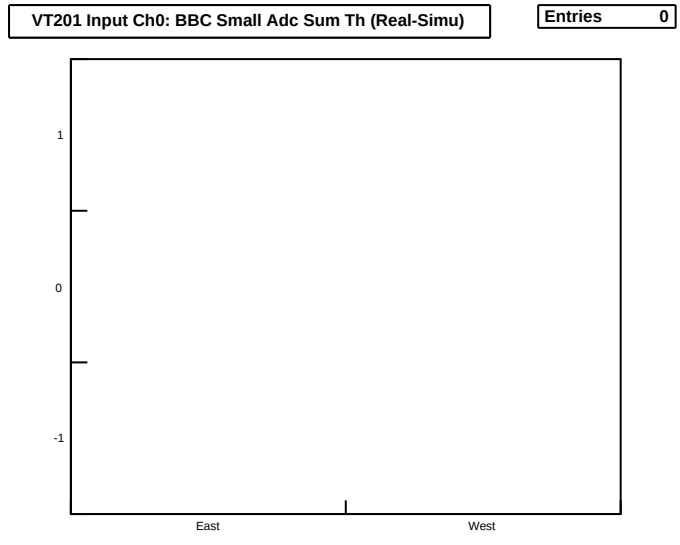

zdcAdcSum
Entries 4.923977e+07
4.06812e+06
4.03455e+06
1.3559e+06
1.14911e+06
1.16614e+06
1.02051e+06
4.06643e+06
4.03153e+06
820188
639319
653233
533578
35189
65766
2.74741e+06
2.95421e+06
2.93717e+06
3.0828e+06
36883
71786
3.28313e+06
3.464e+06
3.45008e+06
3.56974e+06
ZDC-W-th0
ZDC-W-th1
ZDC-W-th2
ZDC-W-th3
ZDC-W-att-th4(Unused)
ZDC-W-att-th5(Unused)
ZDC-E-th0
ZDC-E-th1
ZDC-E-th2
ZDC-E-th3
ZDC-E-att-th4(Unused)
ZDC-E-att-th5(Unu

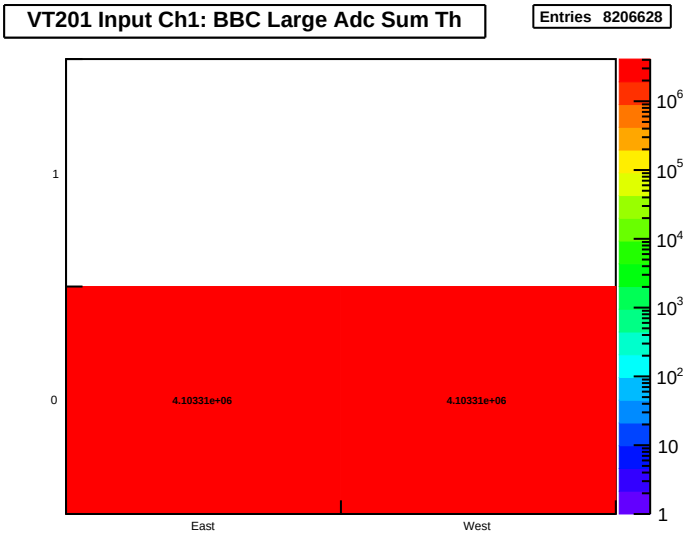

zdcAdcSumDiff
Entries 3822
1945
1877
ZDC-W-th0
ZDC-W-th1
ZDC-W-th2
ZDC-W-th3
ZDC-W-att-th4(Unused)
ZDC-W-att-th5(Unused)
ZDC-E-th0
ZDC-E-th1
ZDC-E-th2
ZDC-E-th3
ZDC-E-att-th4(Unused)
ZDC-E-att-th5(Unu

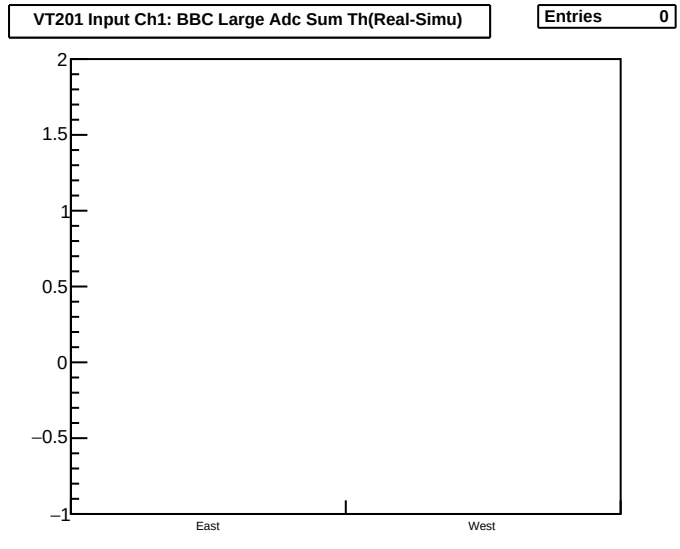

VT201 Input Ch0: BBC Small Tac Diff
Entries4103314
Tac

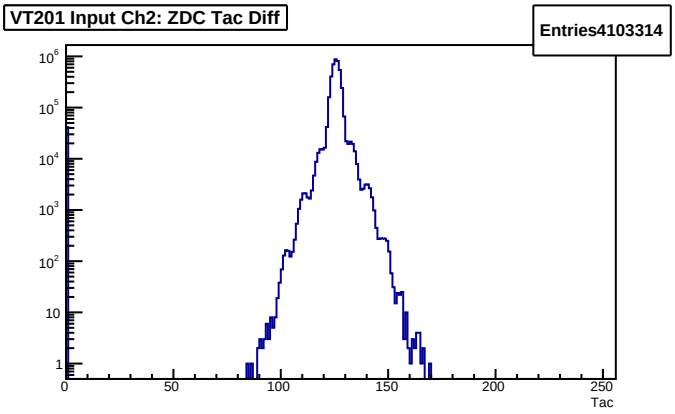

VT201 Input Ch0: BBC Small Tac Diff
Entries 0
Simu
Real

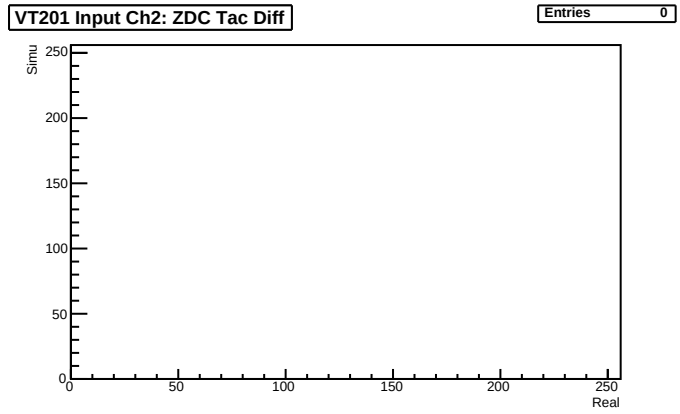

VT201 Input Ch0: BBC Small Adc Sum Th
Entries 8206628
4.04683e+06
4.04828e+06
56484
55039
East
West

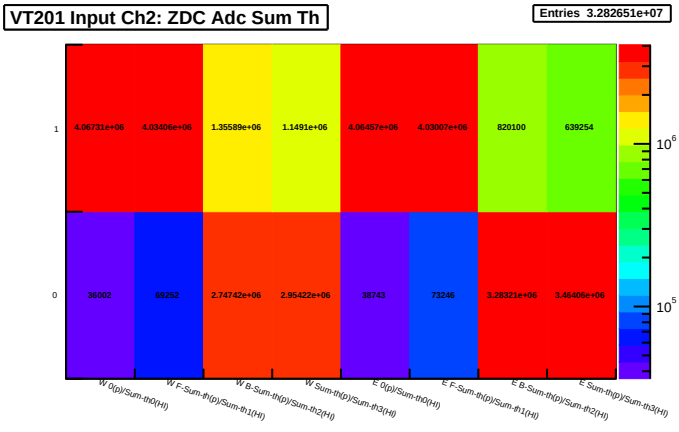

VT201 Input Ch0: BBC Small Adc Sum Th (Real-Simu)
Entries 0
East
West

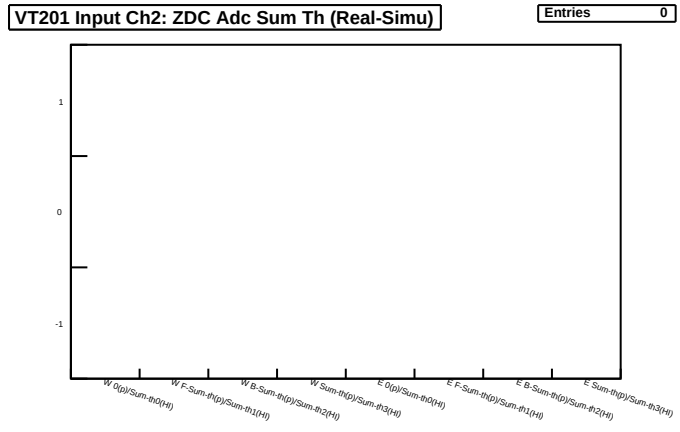

VT201 Input Ch1: BBC Large Adc Sum Th
Entries 8206628
4.10331e+06
4.10331e+06
East
West

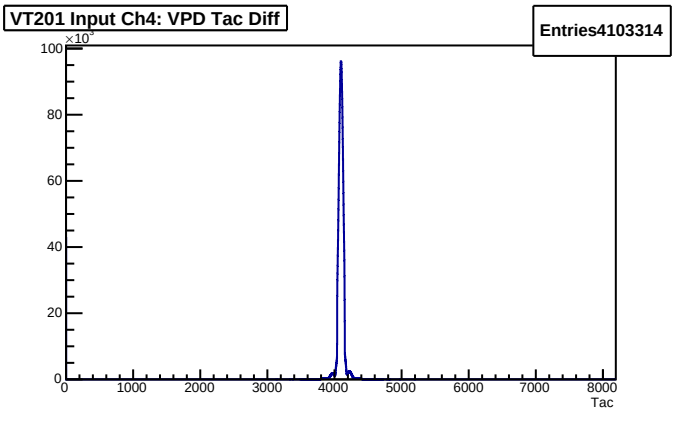

VT201 Input Ch1: BBC Large Adc Sum Th(Real-Simu)
Entries 0
East
West

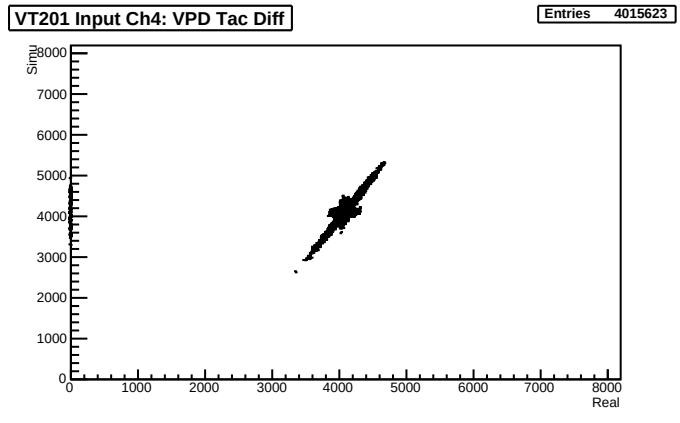

VT201 Input Ch2: ZDC Tac Diff
Entries4103314
Tac

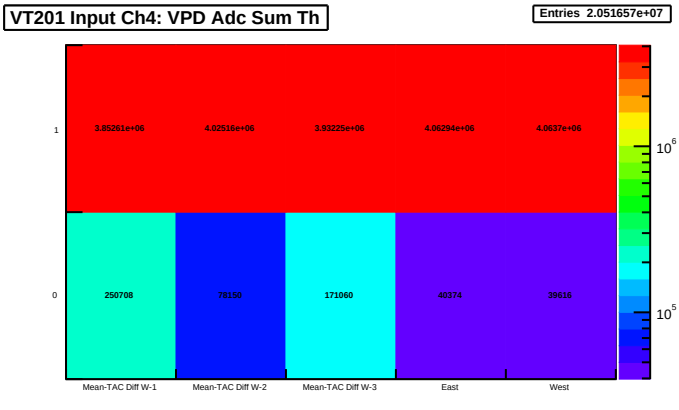

VT201 Input Ch2: ZDC Tac Diff
Entries 0
Simu
Real

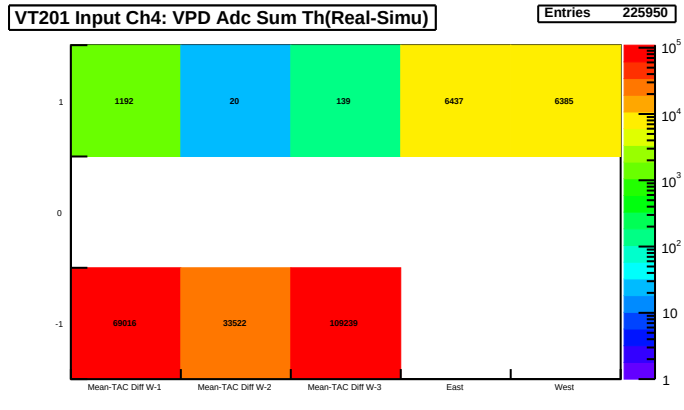

VT201 Input Ch2: ZDC Adc Sum Th
Entries 3.282651e+07
4.06731e+06
4.03406e+06
1.35589e+06
1.1491e+06
4.06457e+06
4.03007e+06
820100
639254
36002
69252
2.74742e+06
2.95422e+06
38743
73246
3.28321e+06
3.46406e+06
W 0(p)/Sum-th0(Hl)
W F-Sum-th(p)/Sum-th1(Hl)
W B-Sum-th(p)/Sum-th2(Hl)
W Sum-th(p)/Sum-th3(Hl)
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)

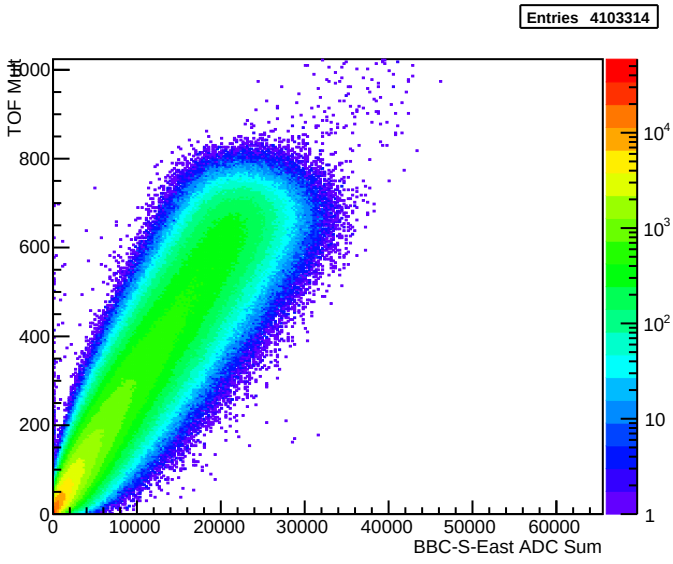

VT201 Input Ch2: ZDC Adc Sum Th (Real-Simu)
Entries 0
W 0(p)/Sum-th0(Hl)
W F-Sum-th(p)/Sum-th1(Hl)
W B-Sum-th(p)/Sum-th2(Hl)
W Sum-th(p)/Sum-th3(Hl)
E 0(p)/Sum-th0(Hl)
E F-Sum-th(p)/Sum-th1(Hl)
E B-Sum-th(p)/Sum-th2(Hl)
E Sum-th(p)/Sum-th3(Hl)

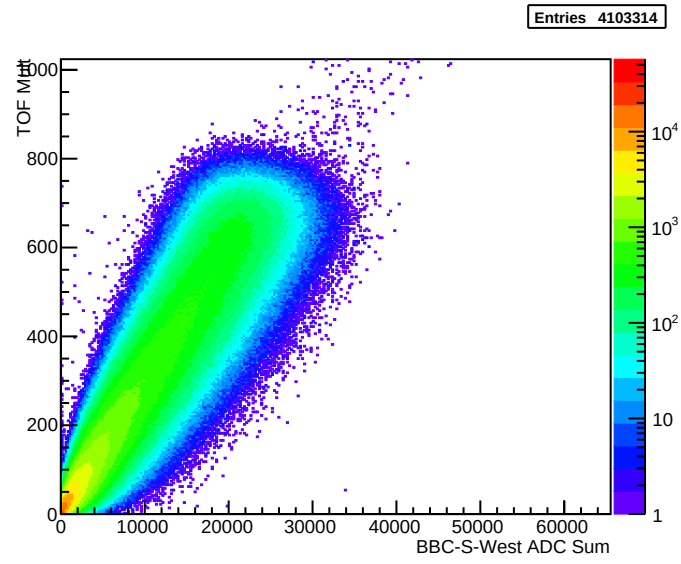

VT201 Input Ch4: VPD Tac Diff
Entries4103314
Tac

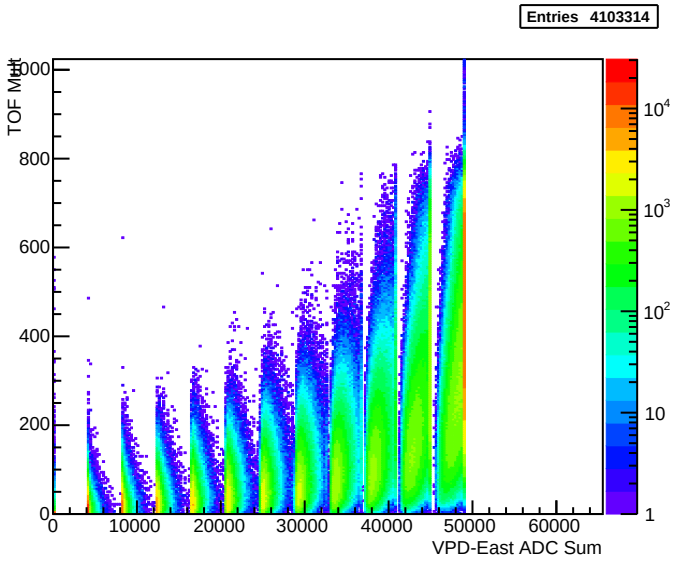

VT201 Input Ch4: VPD Tac Diff
Entries 4015623
Simu
Real

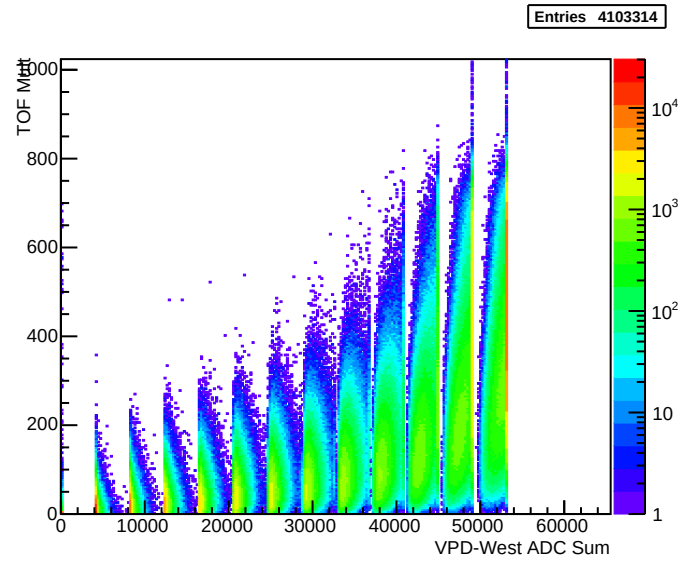

VT201 Input Ch4: VPD Adc Sum Th
Entries 2.051657e+07
3.85261e+06
4.02516e+06
3.93225e+06
4.06294e+06
4.0637e+06
250708
78150
171060
40374
39618
Mean-TAC Diff W-1
Mean-TAC Diff W-2
Mean-TAC Diff W-3
East
West

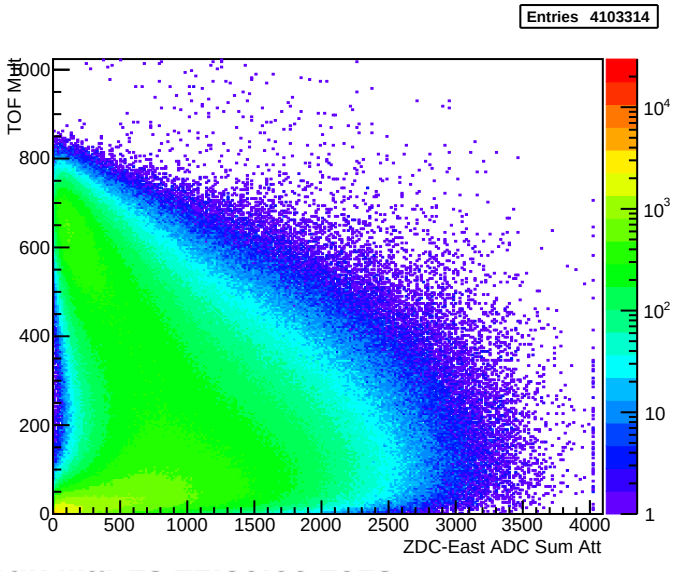

VT201 Input Ch4: VPD Adc Sum Th(Real-Simu)
Entries 225950
1192
20
139
6437
6385
69016
33522
109239
Mean-TAC Diff W-1
Mean-TAC Diff W-2
Mean-TAC Diff W-3
East
West

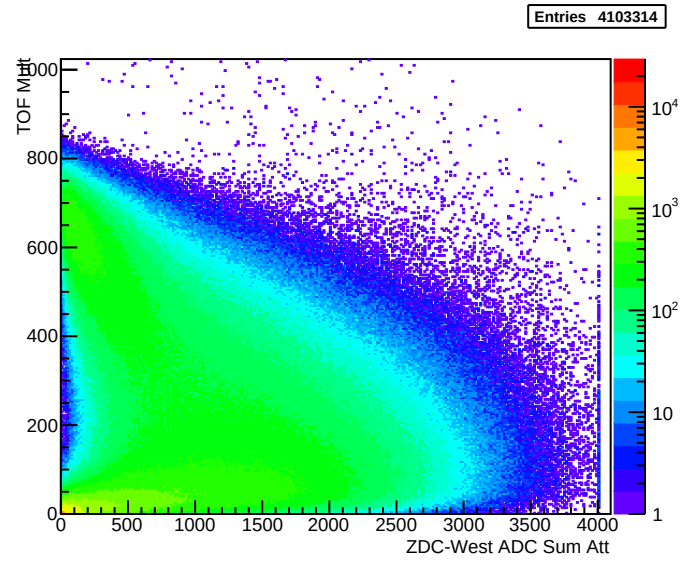

Entries 4103314
TOF Mult
BBC-S-East ADC Sum

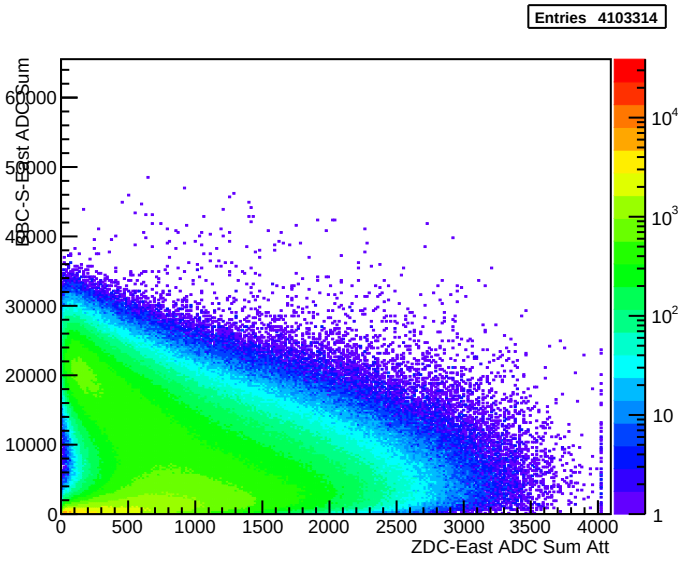

Entries 4103314
TOF Mult
BBC-S-West ADC Sum

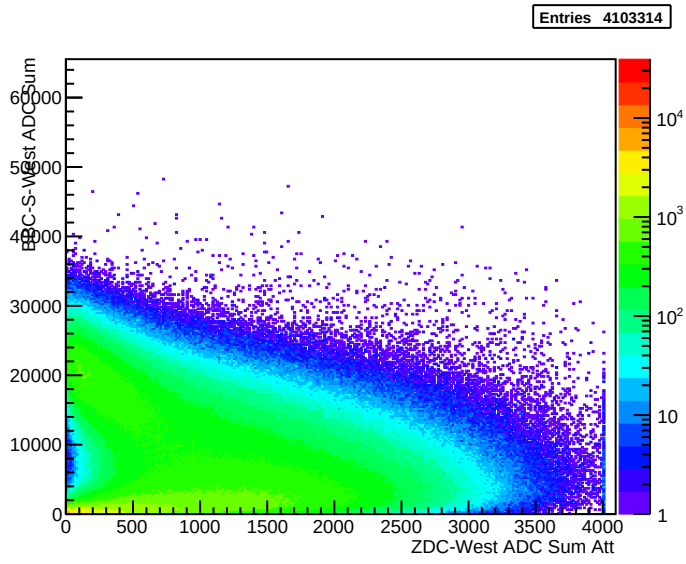

Entries 4103314
TOF Mult
VPD-East ADC Sum

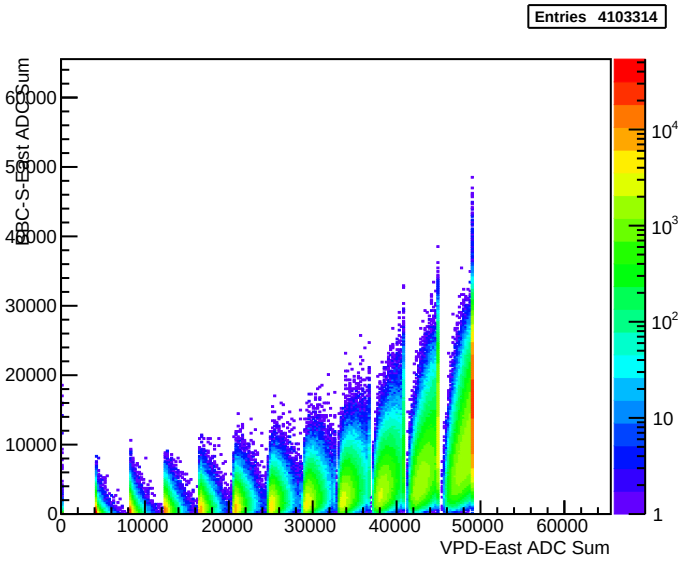

Entries 4103314
TOF Mult
VPD-West ADC Sum

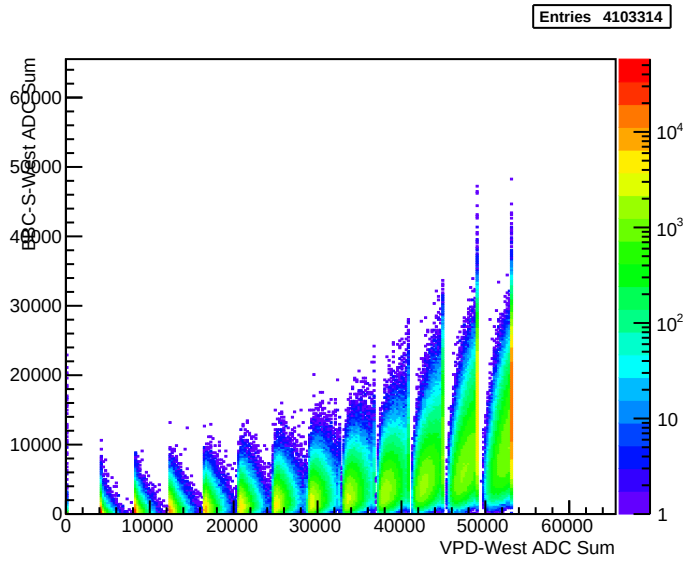

Entries 4103314
TOF Mult
ZDC-East ADC Sum Att


Entries 4103314
TOF Mult
ZDC-West ADC Sum Att


Entries 4103314
BBC-S-East ADC Sum
ZDC-East ADC Sum Att


Entries 4103314
BBC-S-West ADC Sum
ZDC-West ADC Sum Att


Entries 4103314
BBC-S-East ADC Sum
VPD-East ADC Sum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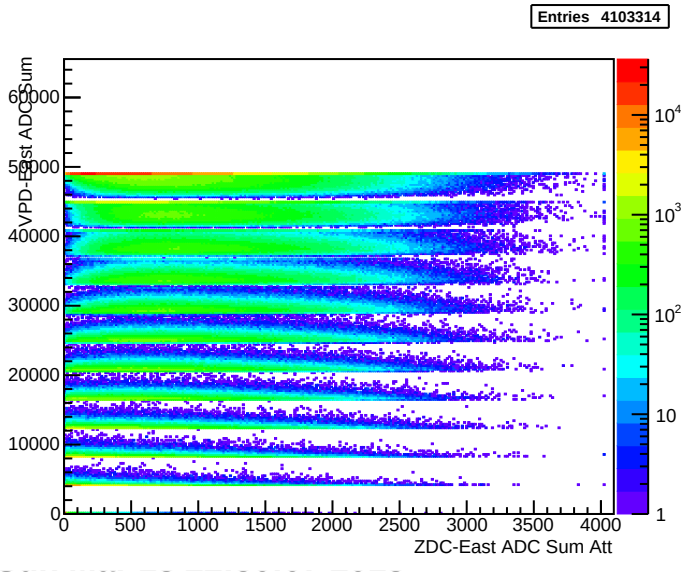
BBC-S-West ADC Sum
VPD-West ADC Sum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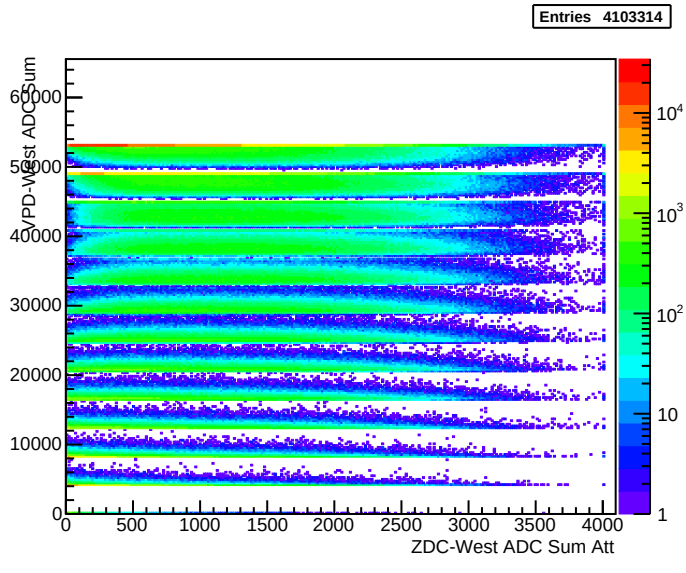
VPD-East ADC Sum
ZDC-East ADC Sum Att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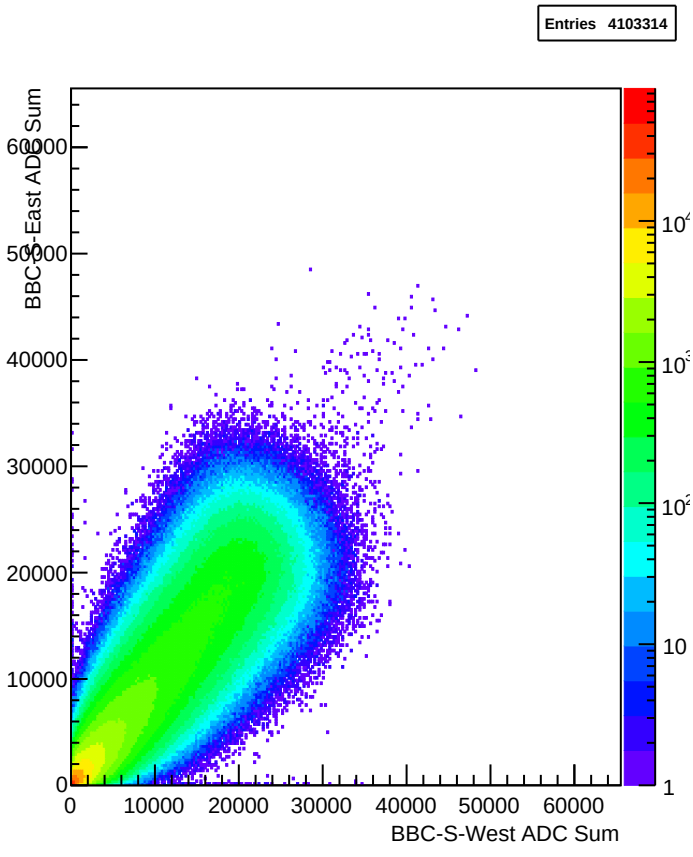
VPD-West ADC Sum
ZDC-West ADC Sum Att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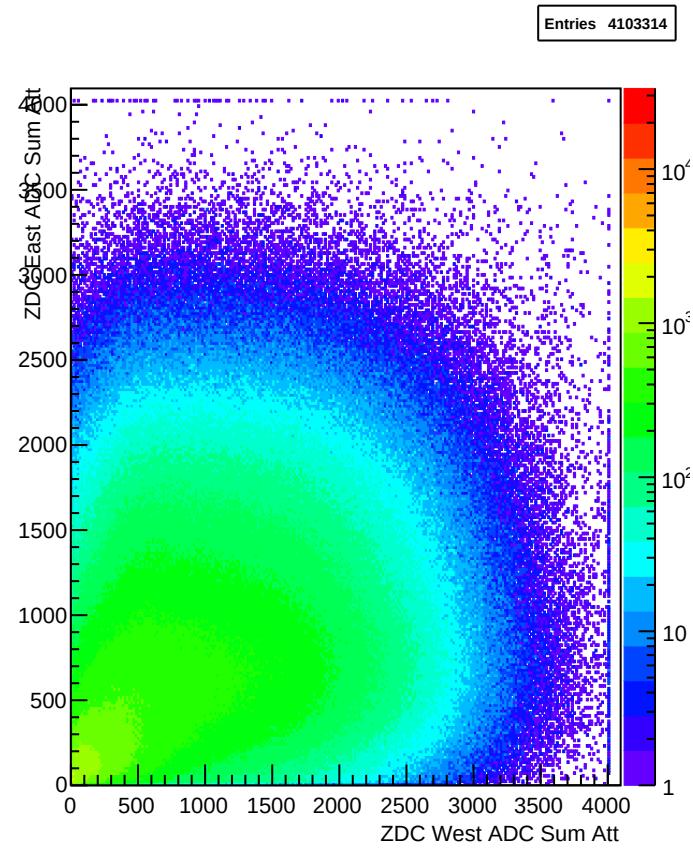
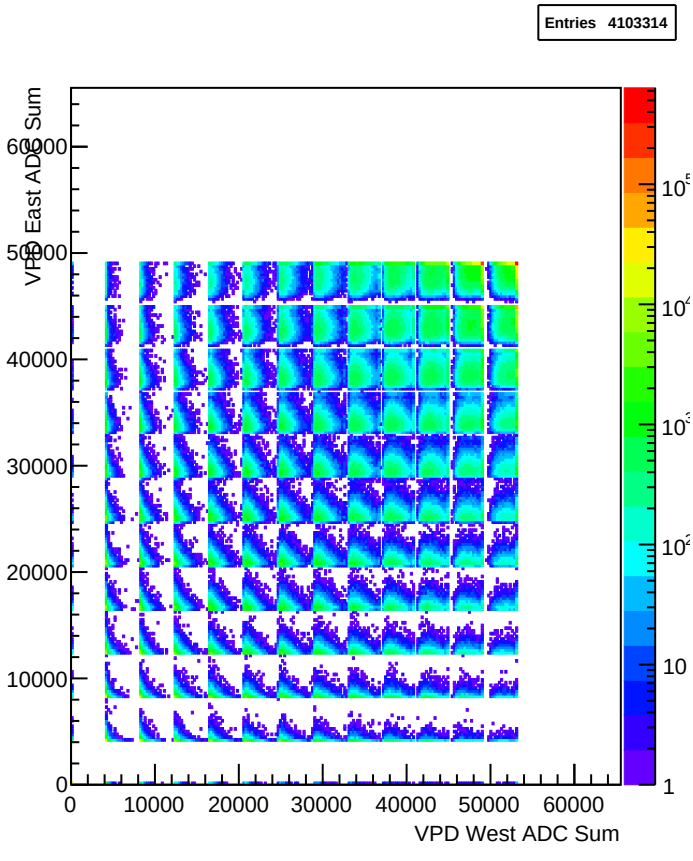
BBC-S-East ADC Sum
BBC-S-West ADC Sum


Entries 4103314
ZDC East ADC Sum Att
ZDC West ADC Sum Att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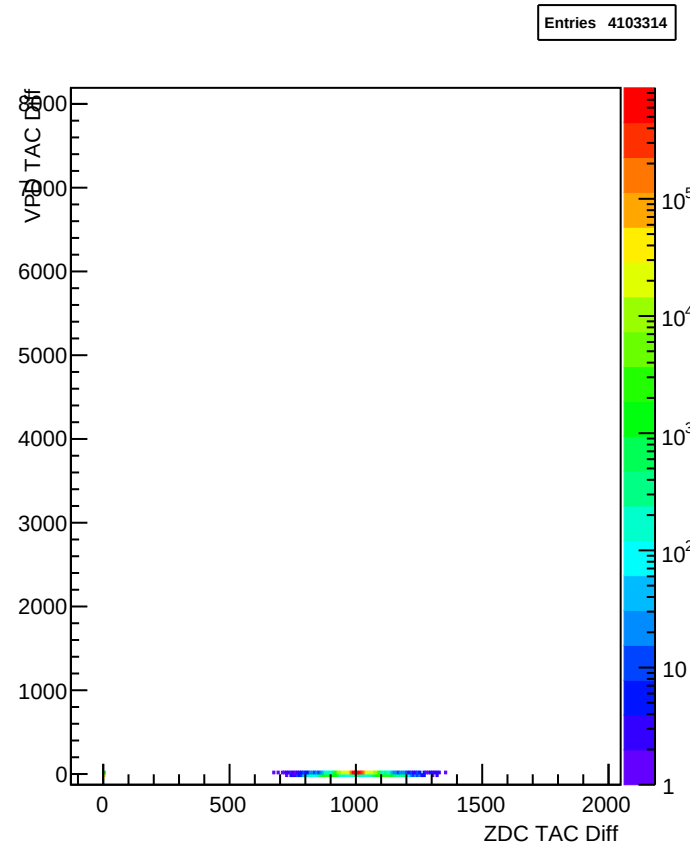
VPD East ADC Sum
VPD West ADC Sum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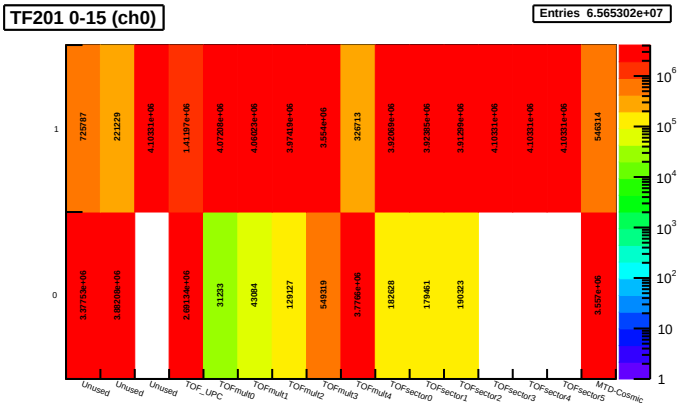
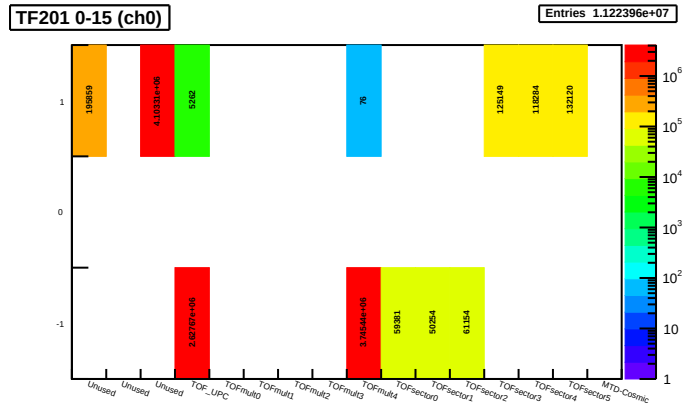
VPD TAC Diff
ZDC TAC Diff


TF201 0-15 (ch0)
Entries 6.565302e+07
Unused
TOF_UPC
TOFmult0
TOFmult1
TOFmult2
TOFmult3
TOFmult4
TOFsector0
TOFsector1
TOFsector2
TOFsector3
TOFsector4
TOFsector5
MTD-Cosmic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Entries 1.122396e+07
Unused
TOF_UPC
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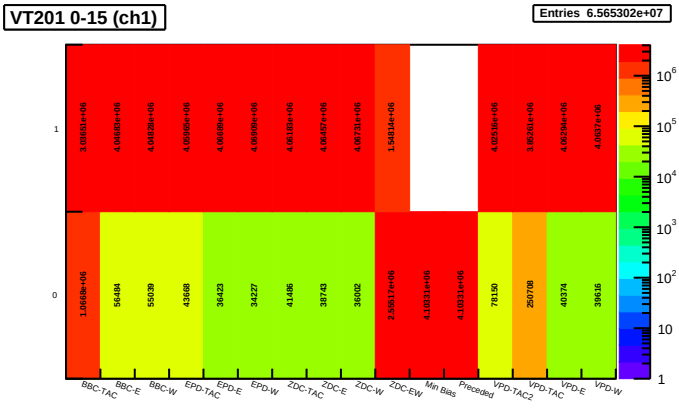
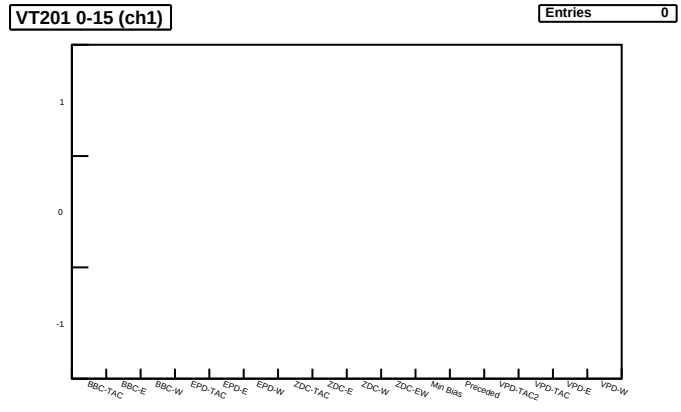
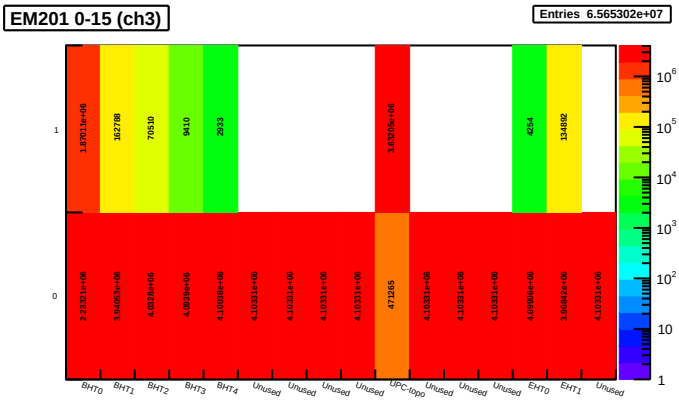
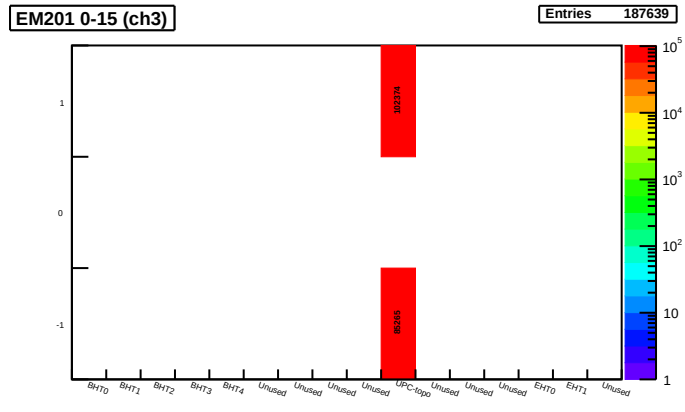
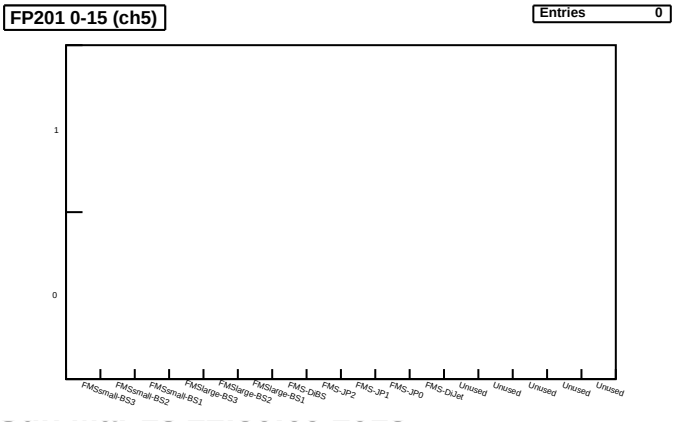
TOFsector0
TOFsector1
TOFsector2
TOFsector3
TOFsector4
TOFsector5
MTD-Cosmic

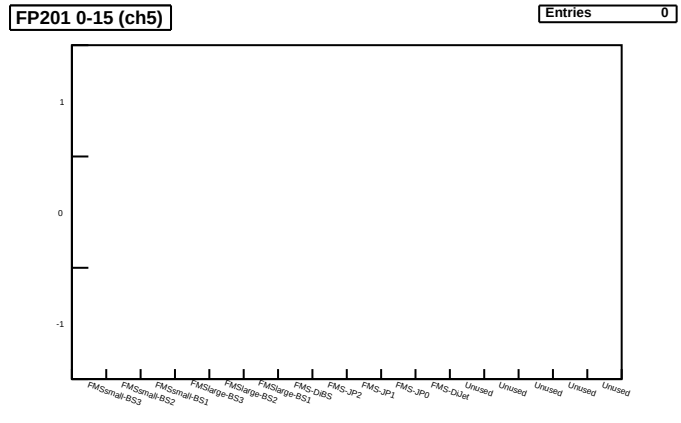

VT201 0-15 (ch1)
Entries 6.565302e+07
BBC-TAC
BBC-E
BBC-W
EPD-TAC
EPD-E
EPD-W
ZDC-TAC
ZDC-E
ZDC-W
ZDC-EW
Min Bias
Preceded
VPD-TAC2
VPD-TAC
VPD-E
VPD-W


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 6.565302e+07
BHT0
BHT1
BHT2
BHT3
BHT4
Unused
UPC-topo
EHT0
EHT1


EM201 0-15 (ch3)
Entries 187639
BHT0
BHT1
BHT2
BHT3
BHT4
Unused
UPC-topo
EHT0
EHT1


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


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