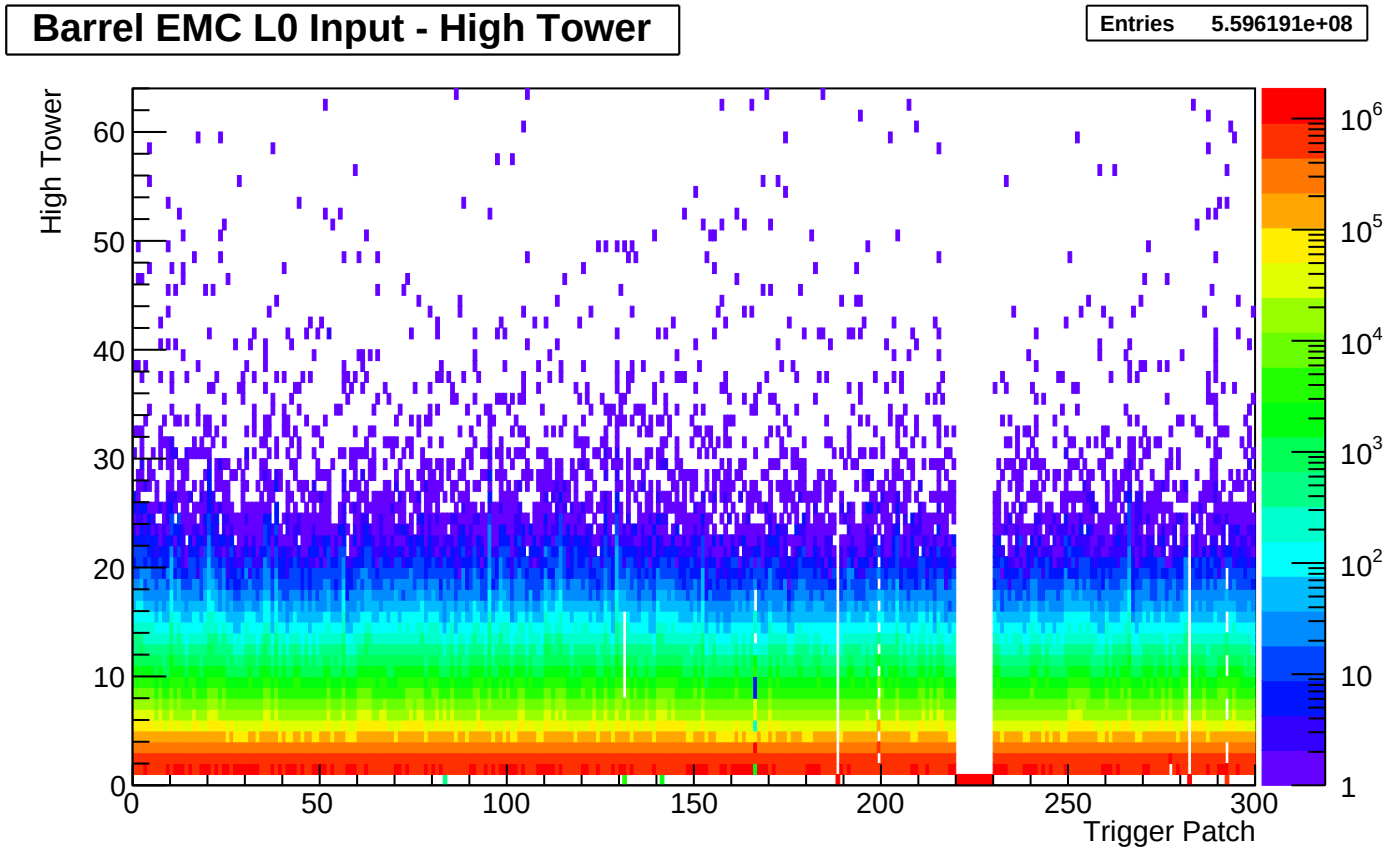
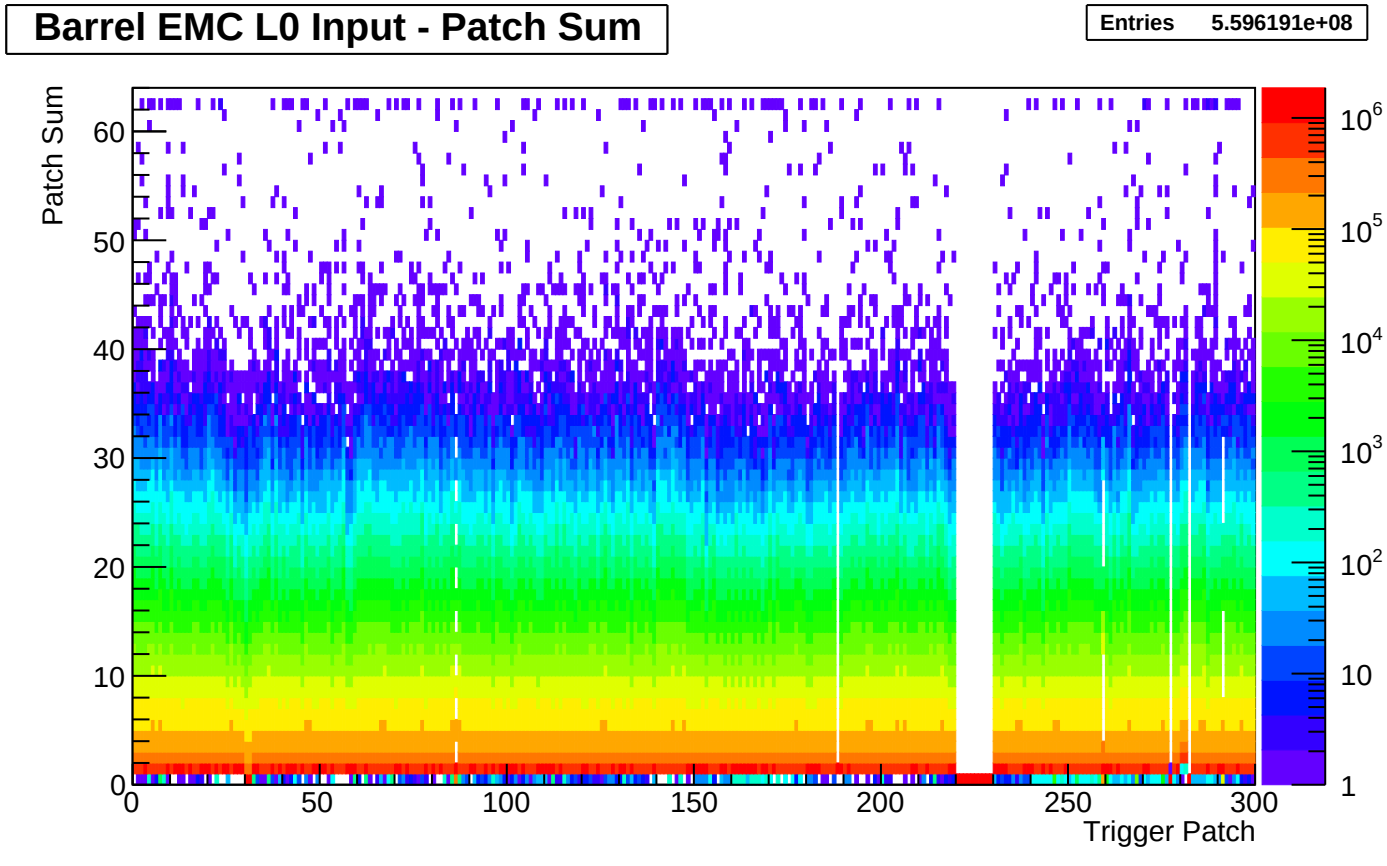
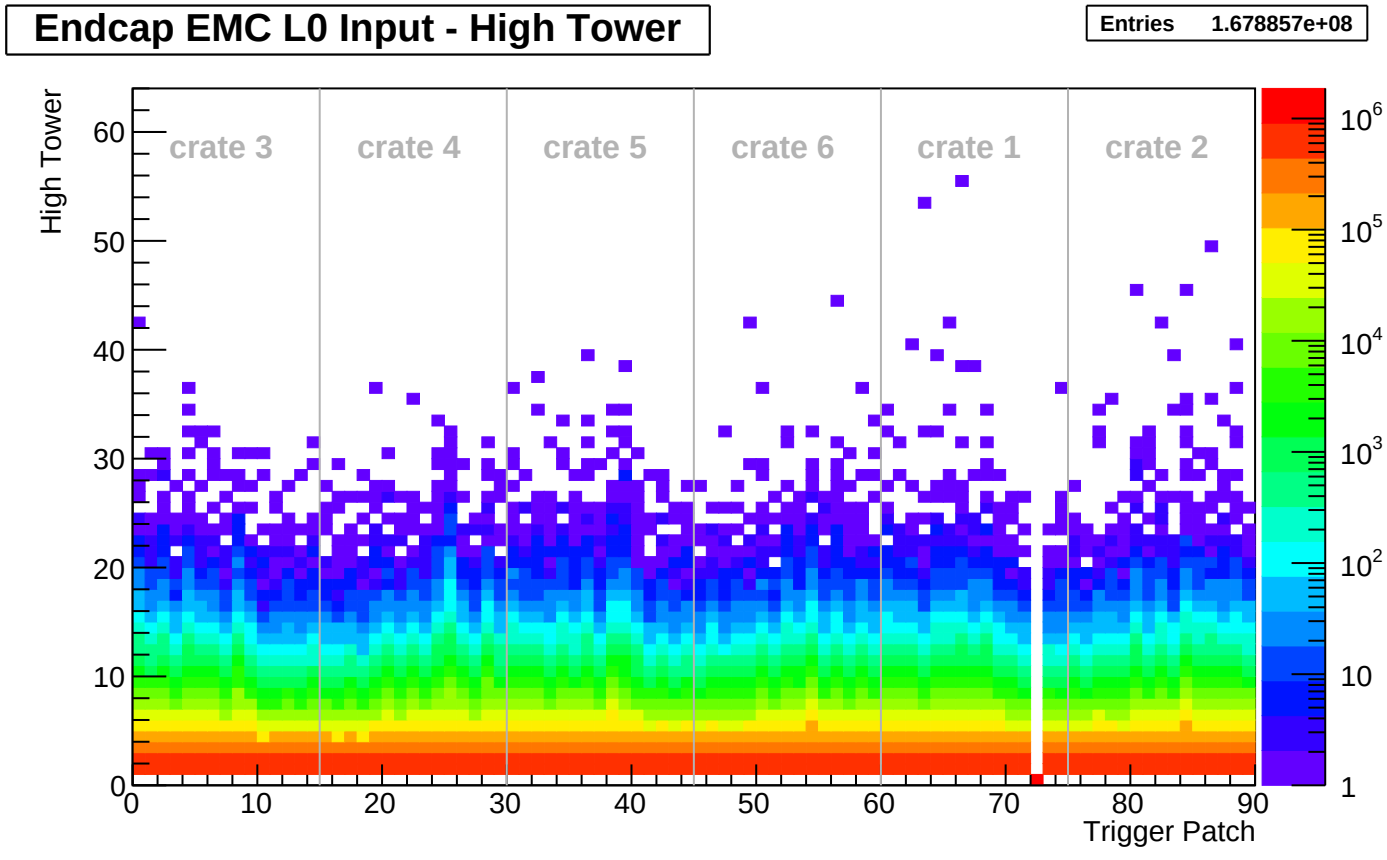
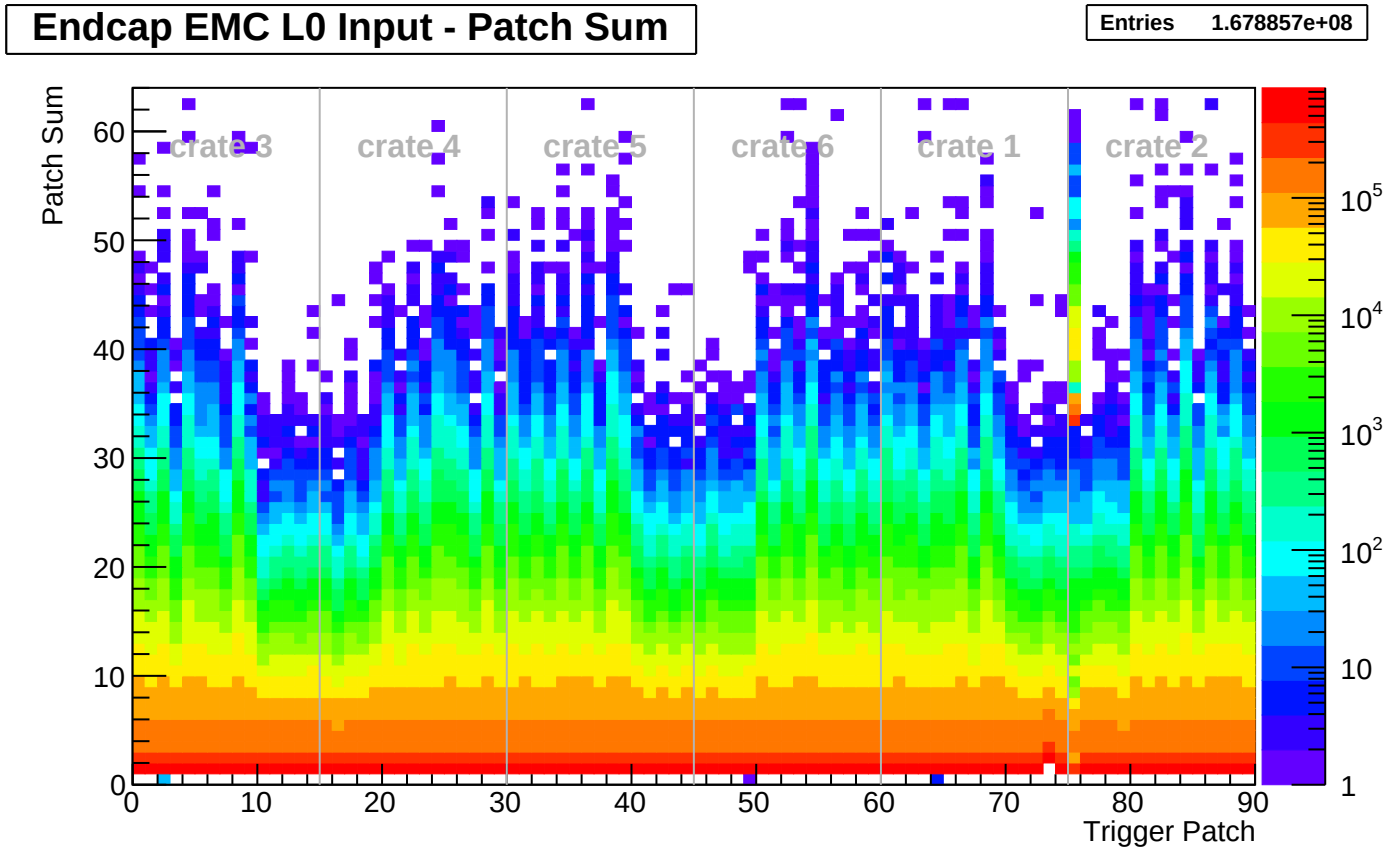
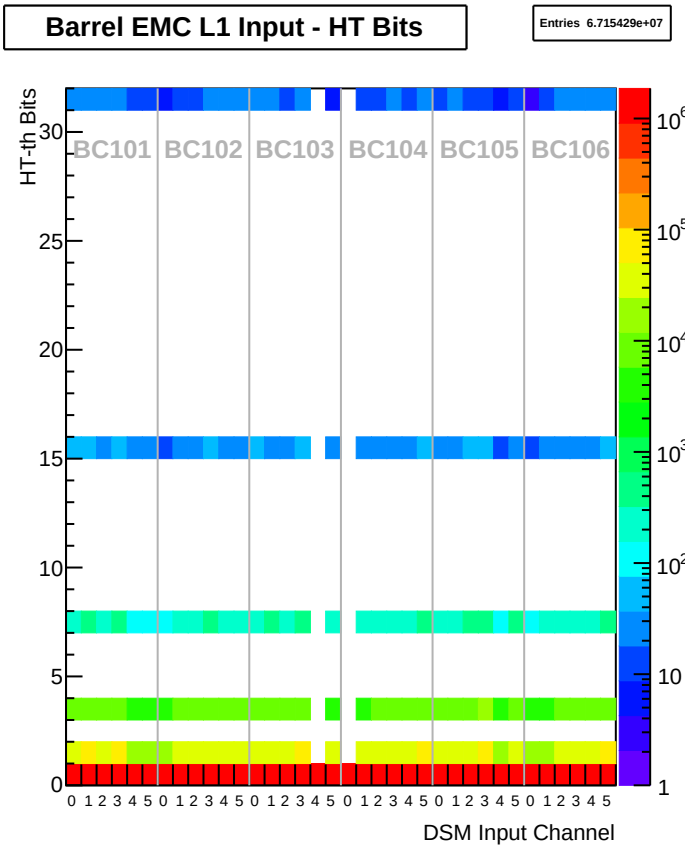
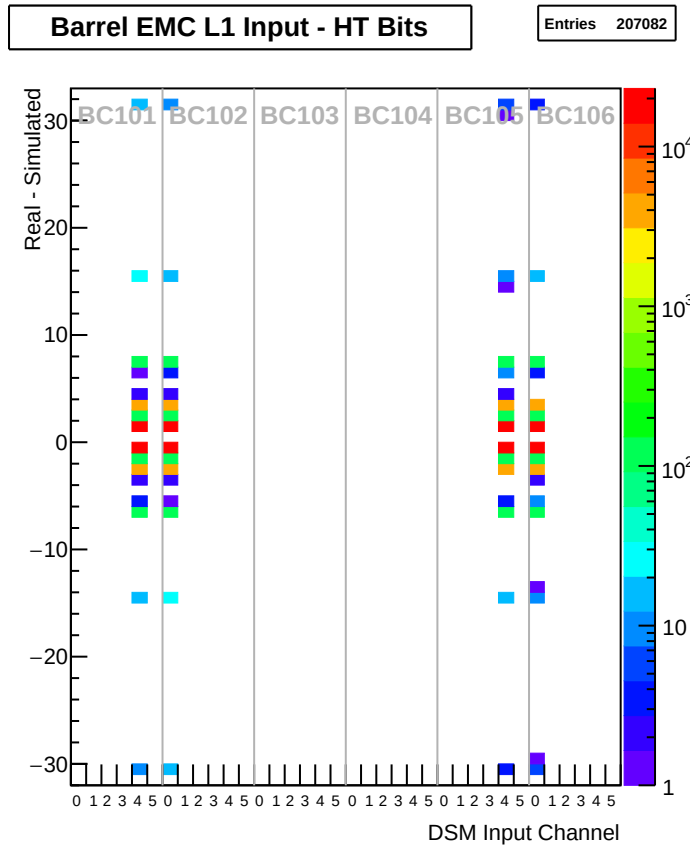

Barrel EMC L0 Input - High Tower
Entries 5.596191e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

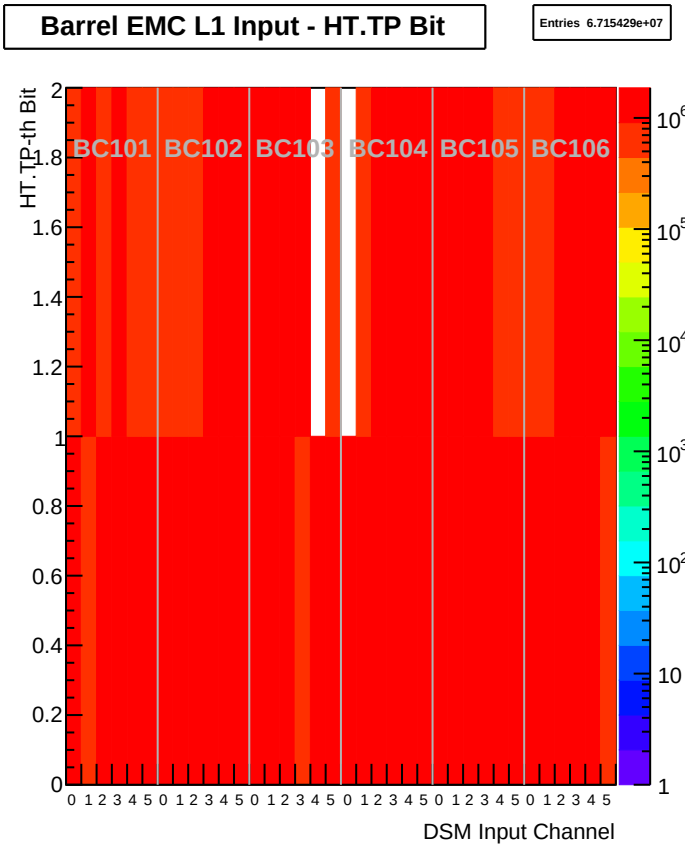

Barrel EMC L0 Input - Patch Sum
Entries 5.596191e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

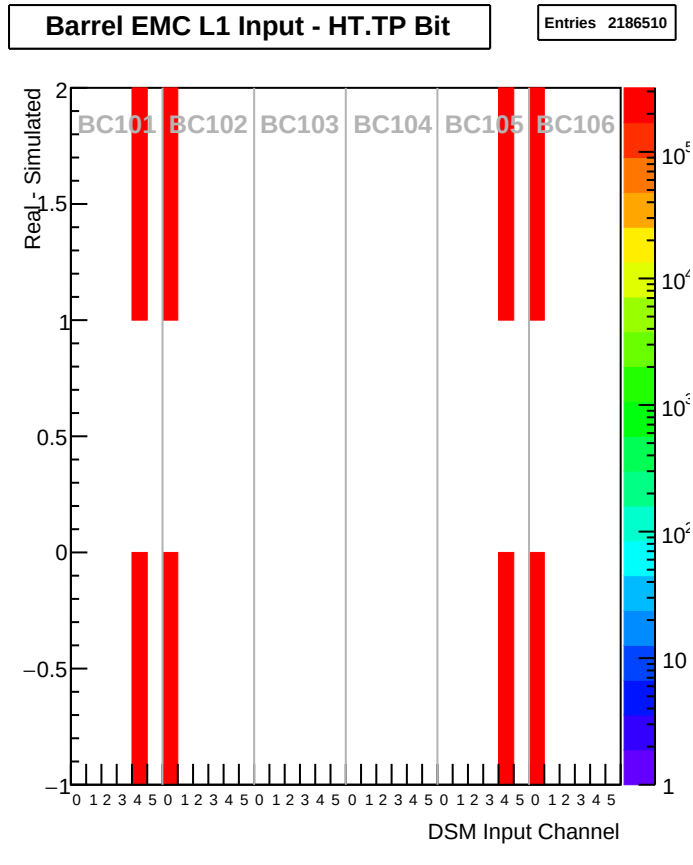

Endcap EMC L0 Input - High Tower
Entries 1.678857e+08
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

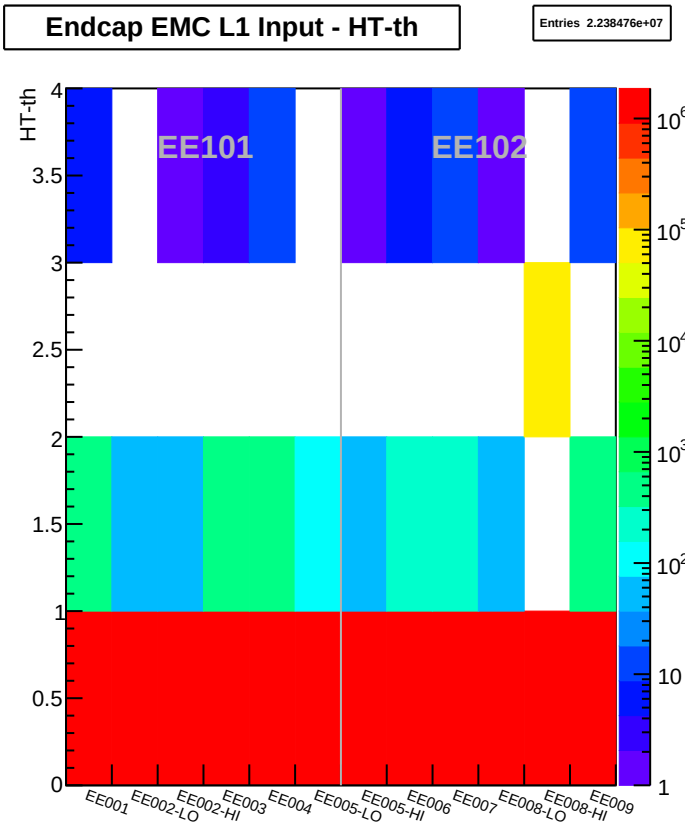

Endcap EMC L0 Input - Patch Sum
Entries 1.678857e+08
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

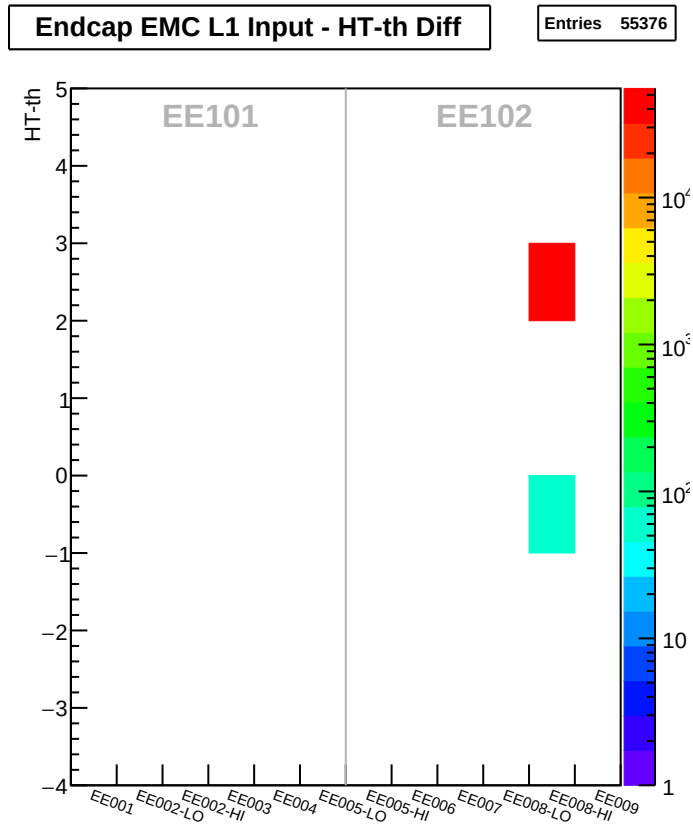

Barrel EMC L1 Input - HT Bits
Entries 6.715429e+07
HT-th Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

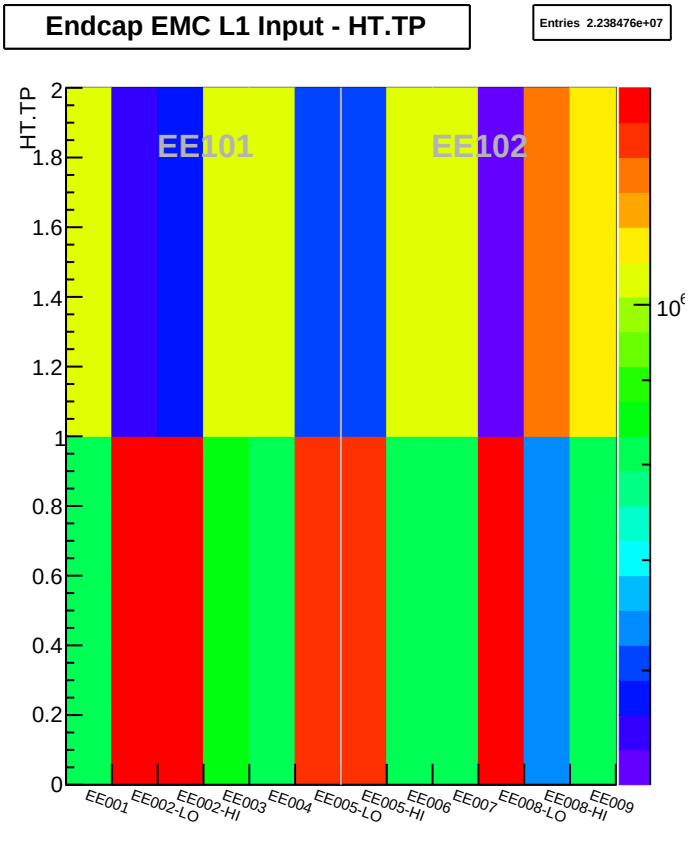

Barrel EMC L1 Input - HT Bits
Entries 207082
Real - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

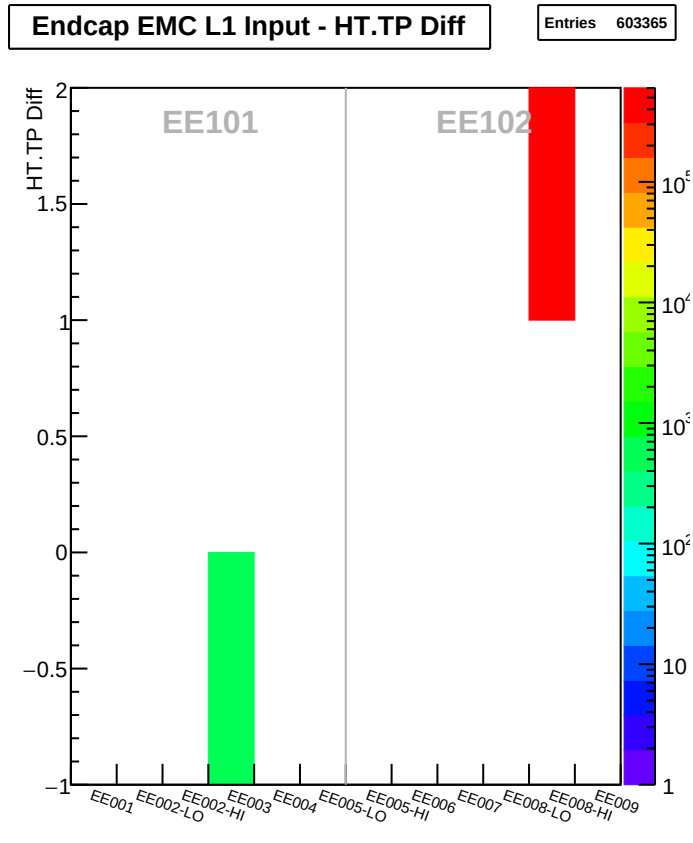

Barrel EMC L1 Input - HT.TP Bit
Entries 6.715429e+07
HT.TP-th Bit
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

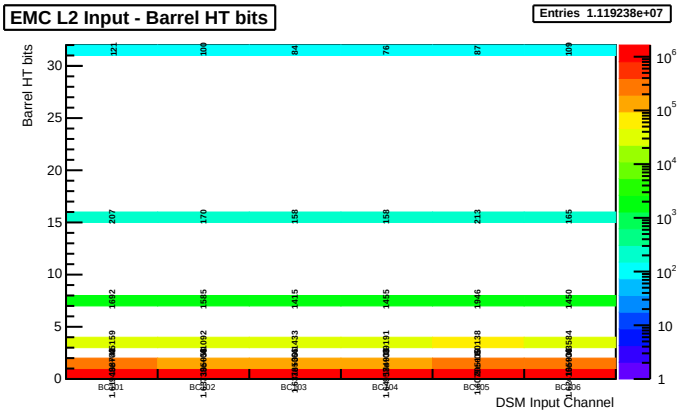

Barrel EMC L1 Input - HT.TP Bit
Entries 2186510
Real - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

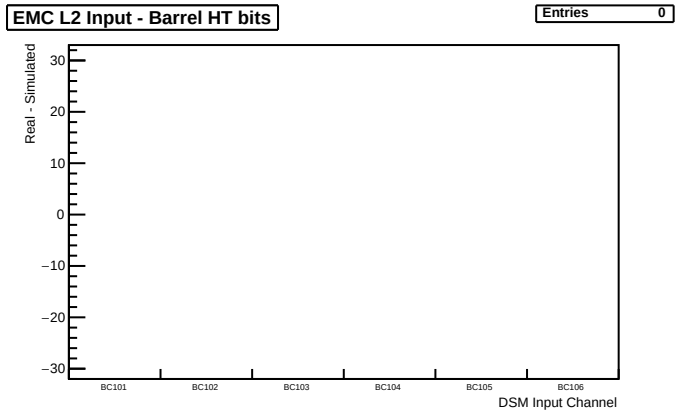

Endcap EMC L1 Input - HT-th
Entries 2.238476e+07
HT-th
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

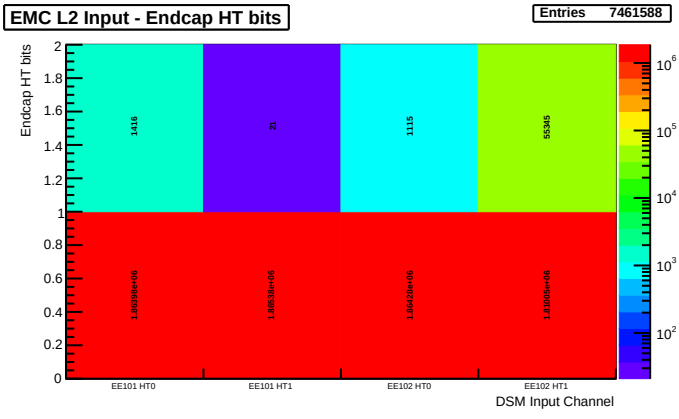

Endcap EMC L1 Input - HT-th Diff
Entries 55376
HT-th
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

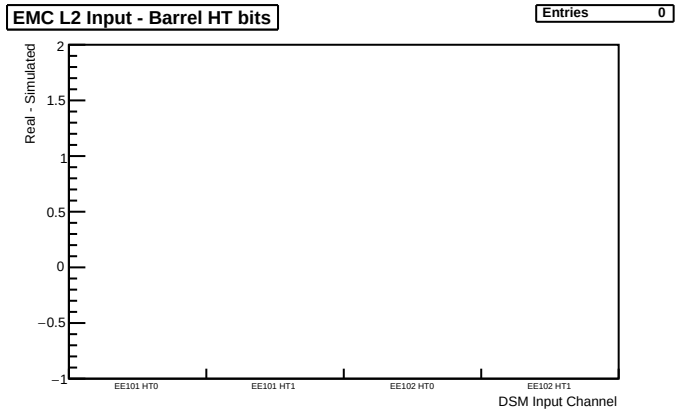

Endcap EMC L1 Input - HT.TP
Entries 2.238476e+07
HT.TP
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

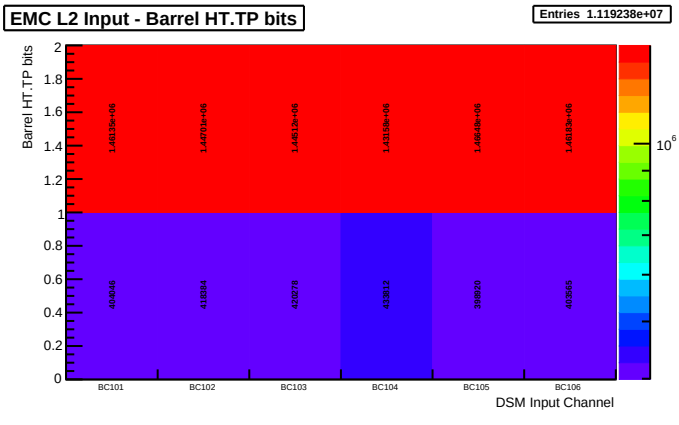

Endcap EMC L1 Input - HT.TP Diff
Entries 603365
HT.TP Diff
EE101
EE102
EE001
EE002-LO
EE002-HI
EE003
EE004
EE005-LO
EE005-HI
EE006
EE007
EE008-LO
EE008-HI
EE009

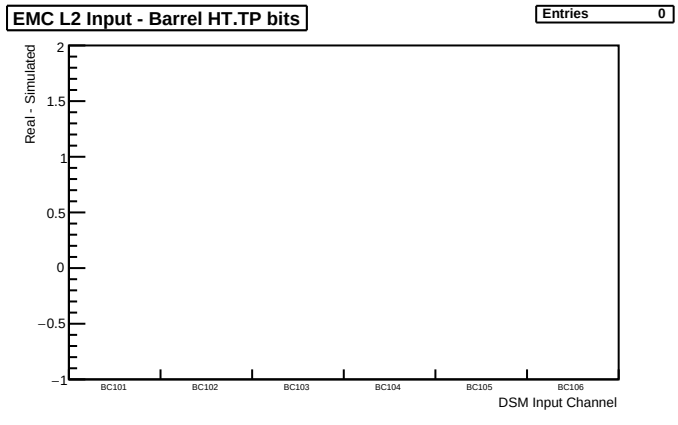

EMC L2 Input - Barrel HT bits
Entries 1.119238e+07
Barrel HT bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

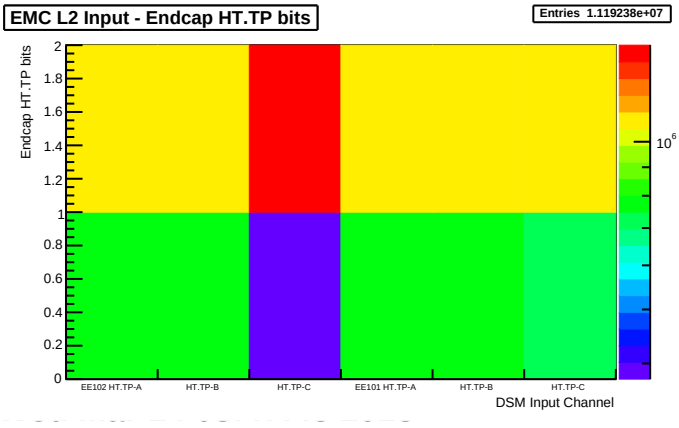

EMC L2 Input - Barrel HT bits
Entries 0
Real - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

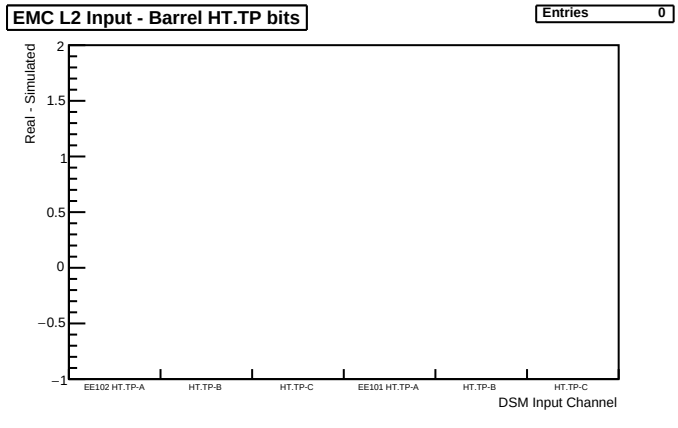

EMC L2 Input - Endcap HT bits
Entries 7461588
Endcap HT bits
DSM Input Channel
EE101 HT0
EE101 HT1
EE102 HT0
EE102 HT1

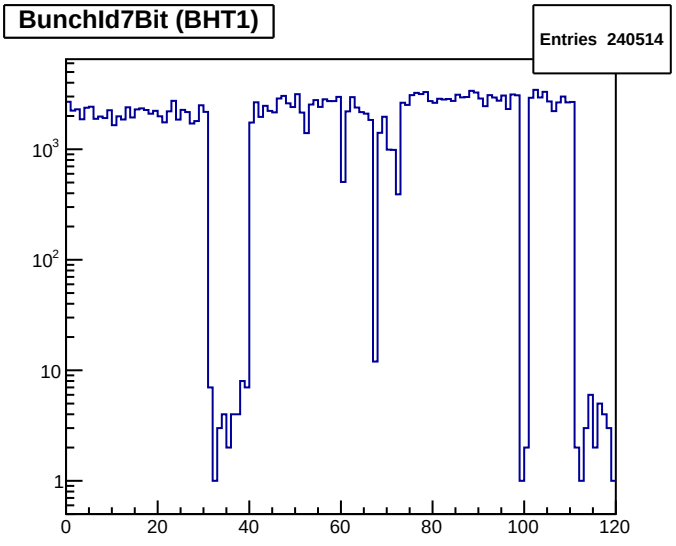

EMC L2 Input - Barrel HT bits
Entries 0
Real - Simulated
DSM Input Channel
EE101 HT0
EE101 HT1
EE102 HT0
EE102 HT1

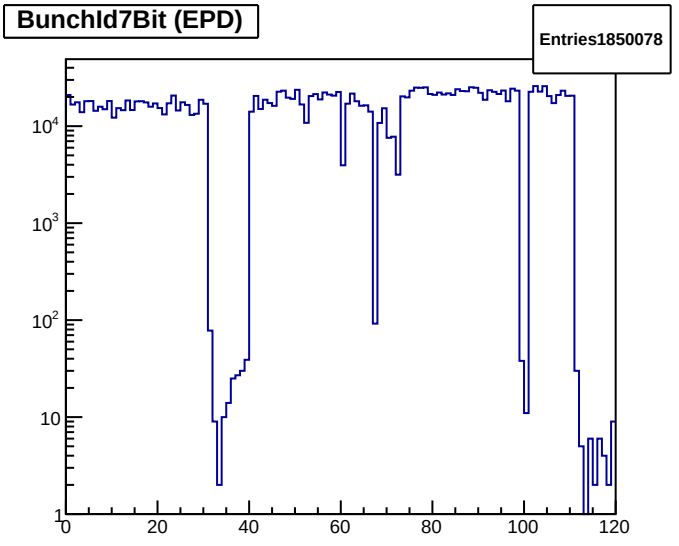

EMC L2 Input - Barrel HT.TP bits
Entries 1.119238e+07
Barrel HT.TP bits
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

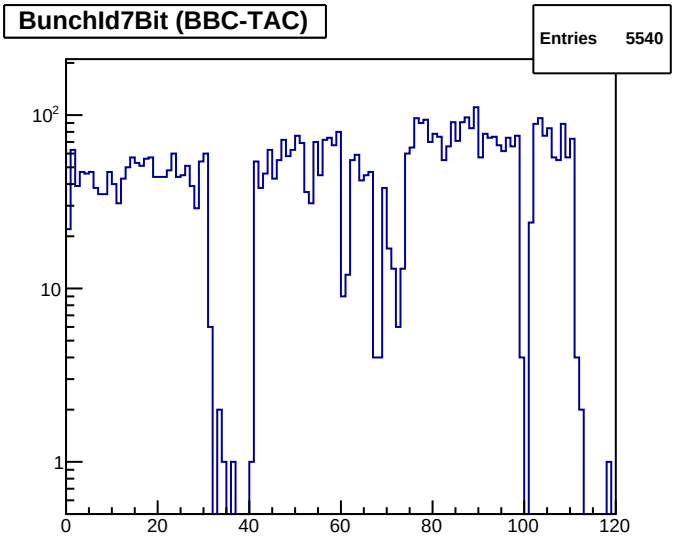

EMC L2 Input - Barrel HT.TP bits
Entries 0
Real - Simulated
DSM Input Channel
BC101
BC102
BC103
BC104
BC105
BC106

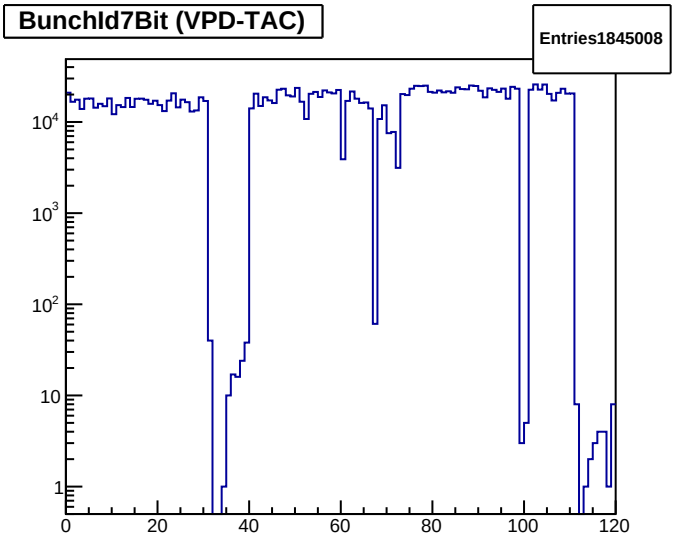

EMC L2 Input - Endcap HT.TP bits
Entries 1.119238e+07
Endcap HT.TP bits
DSM Input Channel
EE102 HT.TP-A
HT.TP-B
HT.TP-C
EE101 HT.TP-A
HT.TP-B
HT.TP-C

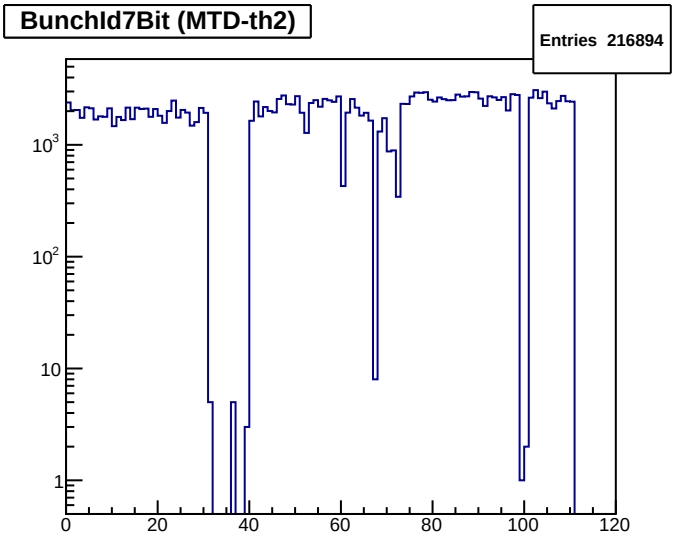

EMC L2 Input - Barrel HT.TP bits
Entries 0
Real - Simulated
DSM Input Channel
EE102 HT.TP-A
HT.TP-B
HT.TP-C
EE101 HT.TP-A
HT.TP-B
HT.TP-C

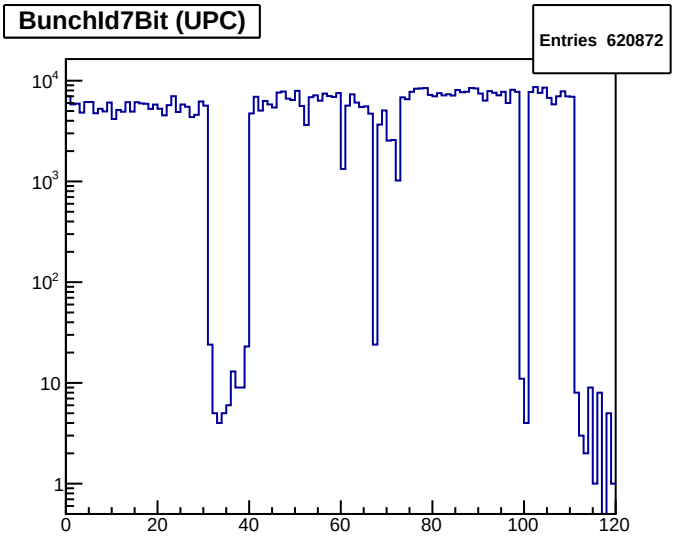

BunchId7Bit (BHT1)
Entries 240514

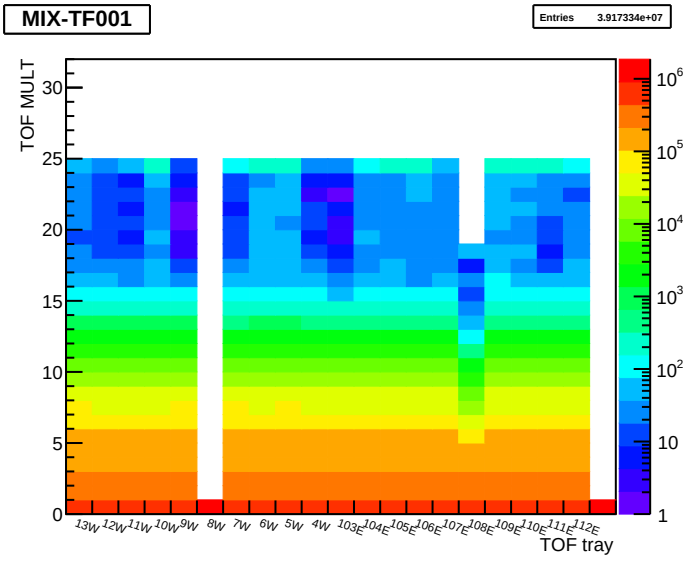

BunchId7Bit (EPD)
Entries1850078

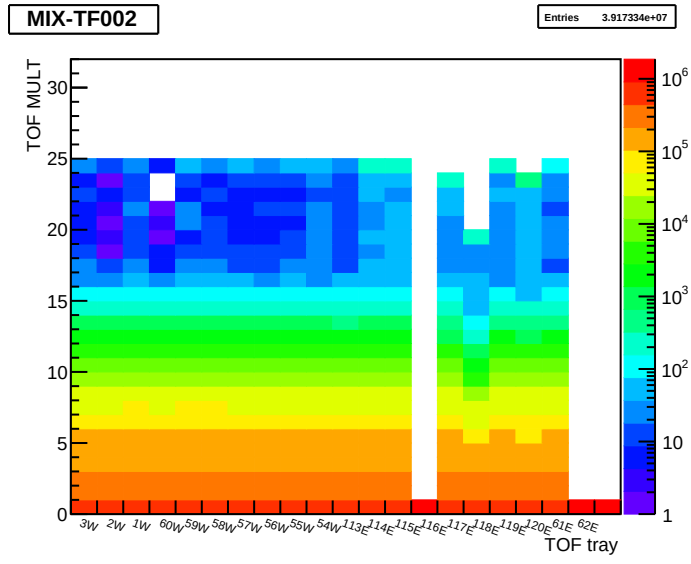

BunchId7Bit (BBC-TAC)
Entries 5540

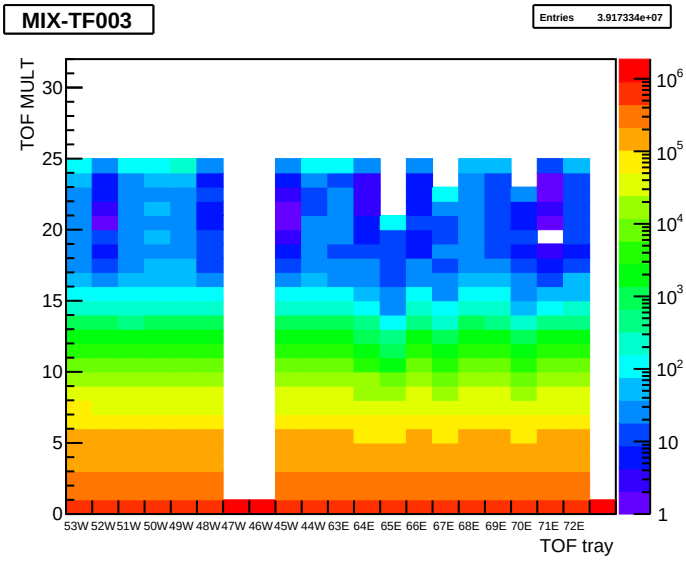

BunchId7Bit (VPD-TAC)
Entries1845008

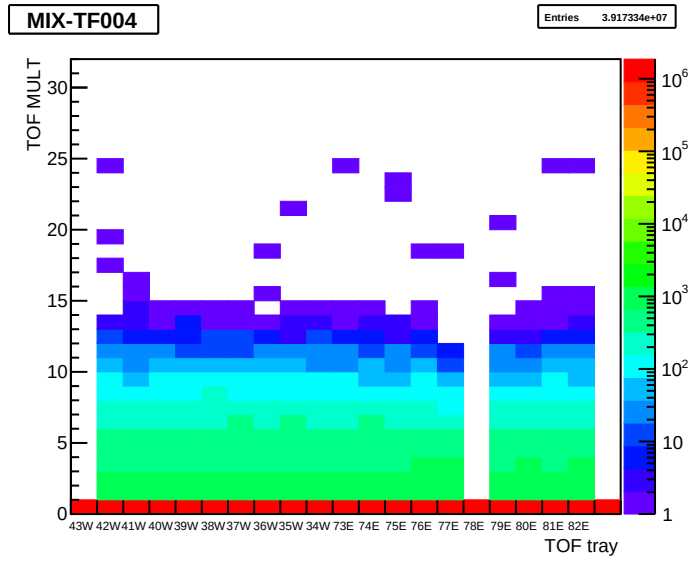

BunchId7Bit (MTD-th2)
Entries 216894

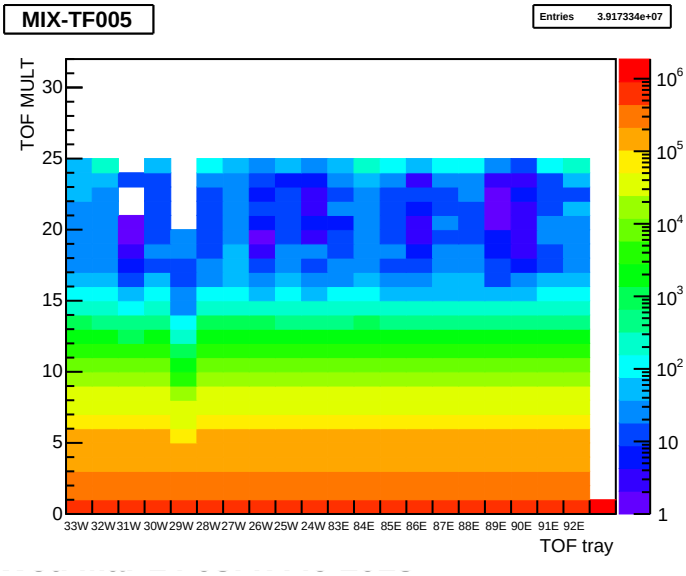

BunchId7Bit (UPC)
Entries 620872

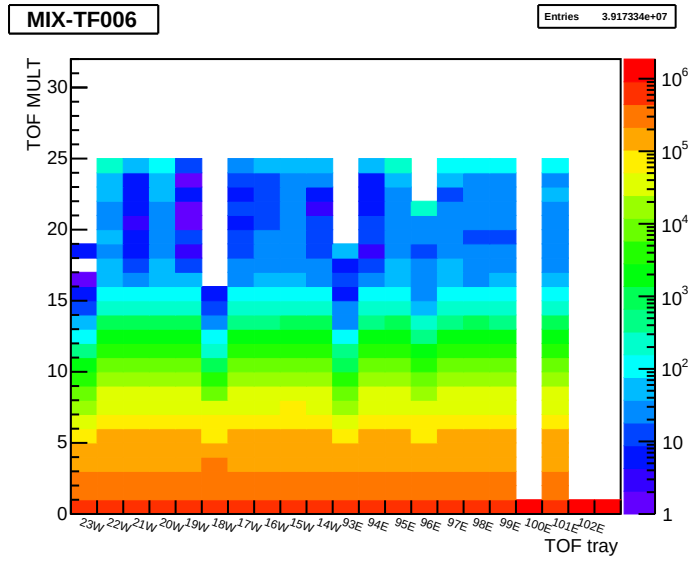

MIX-TF001
Entries 3.917334e+07
TOF MULT
TOF tray

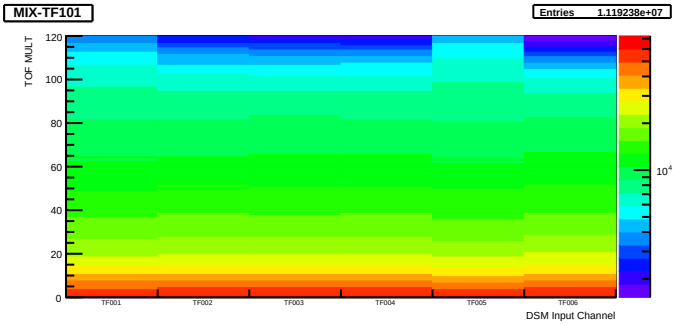

MIX-TF002
Entries 3.917334e+07
TOF MULT
TOF tray

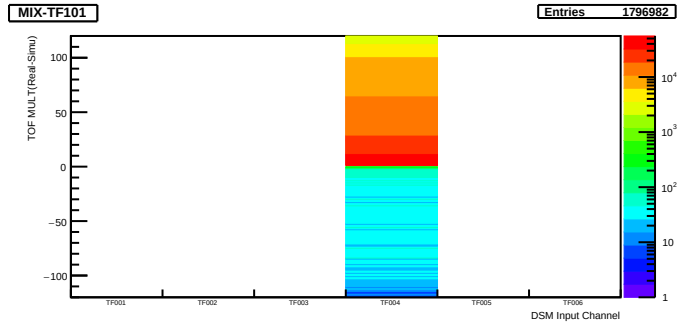

MIX-TF003
Entries 3.917334e+07
TOF MULT
TOF tray

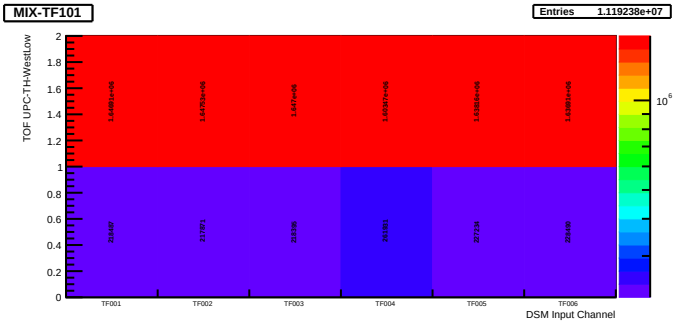

MIX-TF004
Entries 3.917334e+07
TOF MULT
TOF tray

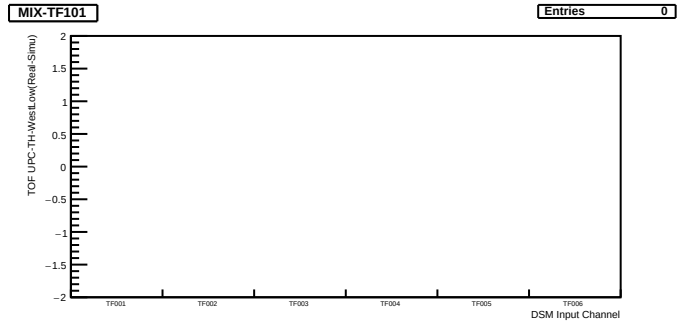

MIX-TF005
Entries 3.917334e+07
TOF MULT
TOF tray

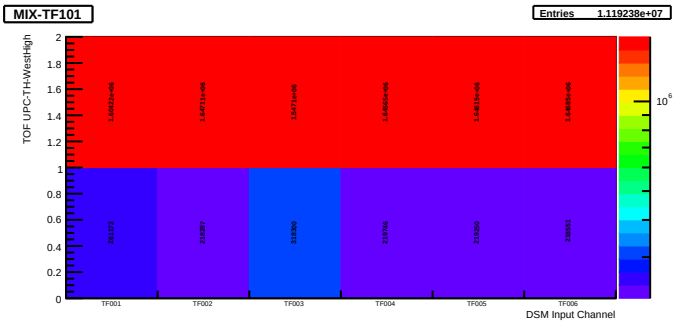

MIX-TF006
Entries 3.917334e+07
TOF MULT
TOF tray

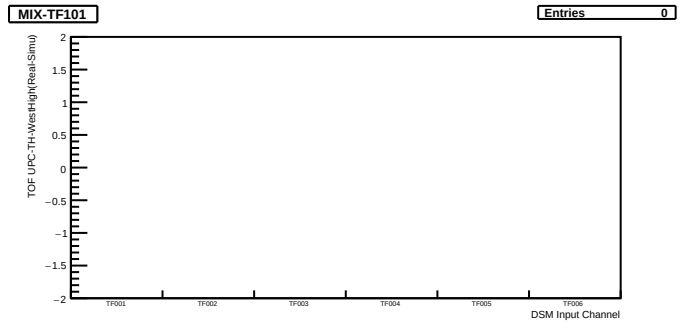

MIX-TF101
Entries 1.119238e+07
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

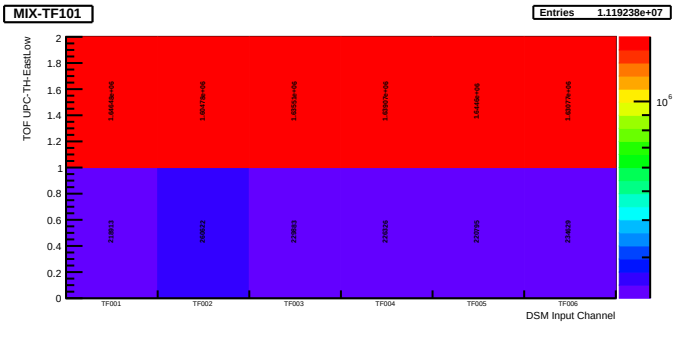

MIX-TF101
Entries 1796982
TOF MULT(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

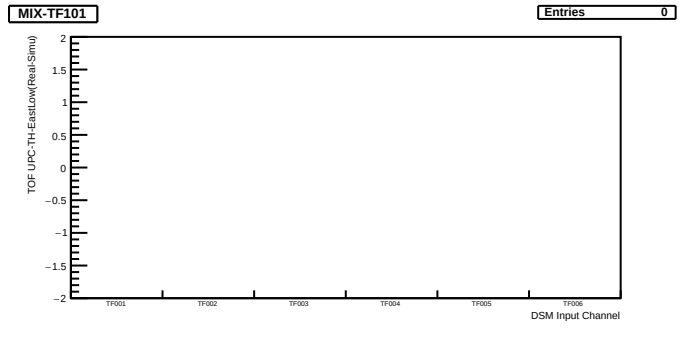

MIX-TF101
Entries 1.119238e+07
TOF UPC-TH-WestLow
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

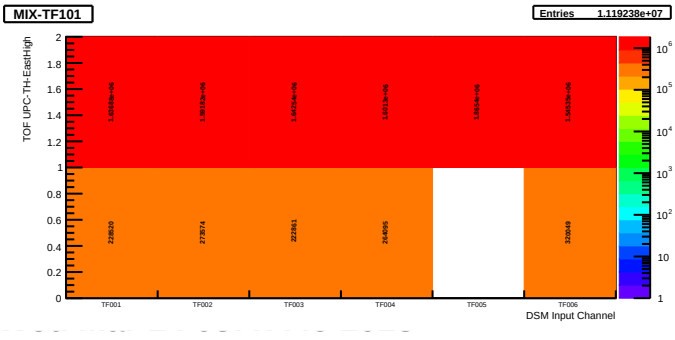

MIX-TF101
Entries 0
TOF UPC-TH-WestLow(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

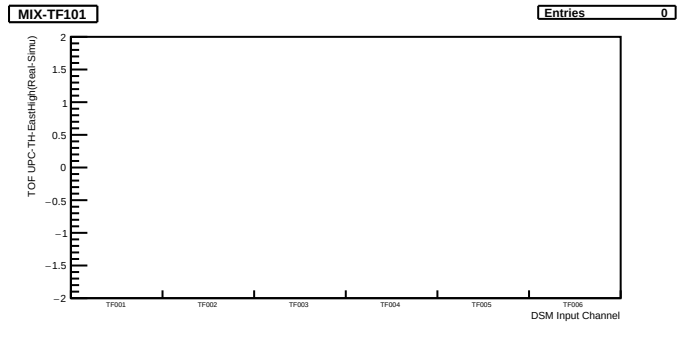

MIX-TF101
Entries 1.119238e+07
TOF UPC-TH-WestHigh
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

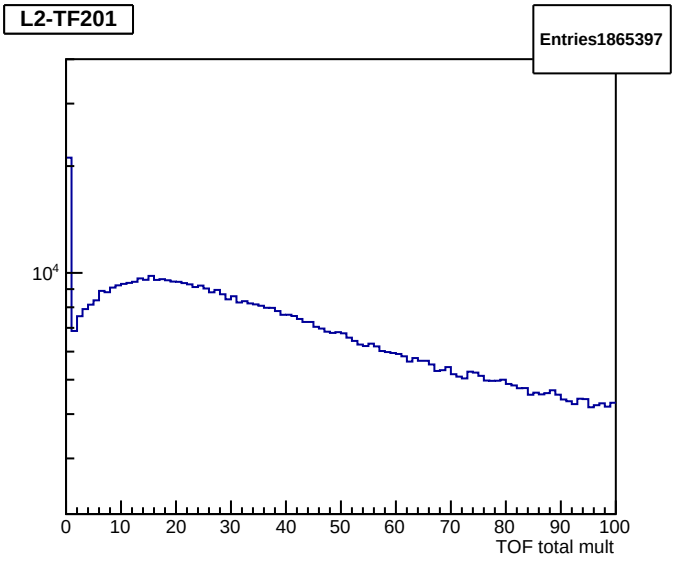

MIX-TF101
Entries 0
TOF UPC-TH-WestHigh(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

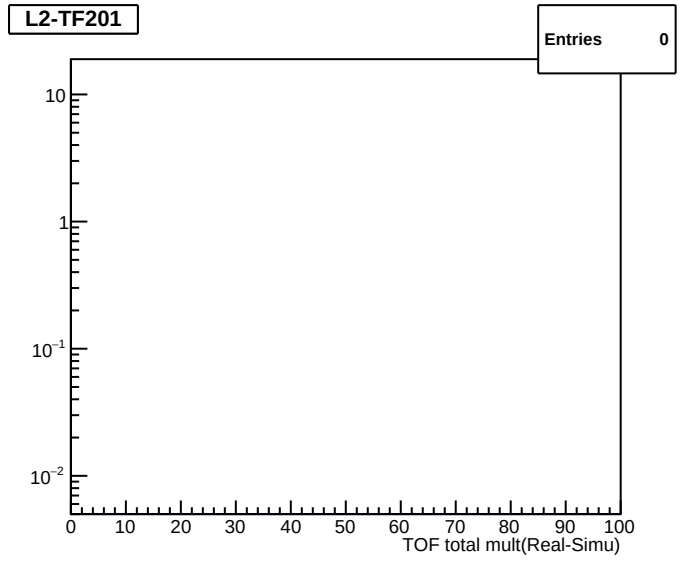

MIX-TF101
Entries 1.119238e+07
TOF UPC-TH-EastLow
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

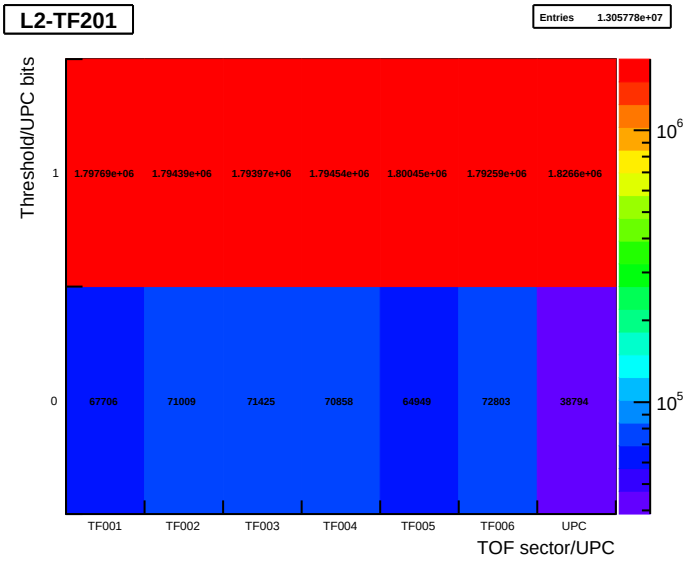

MIX-TF101
Entries 0
TOF UPC-TH-EastLow(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

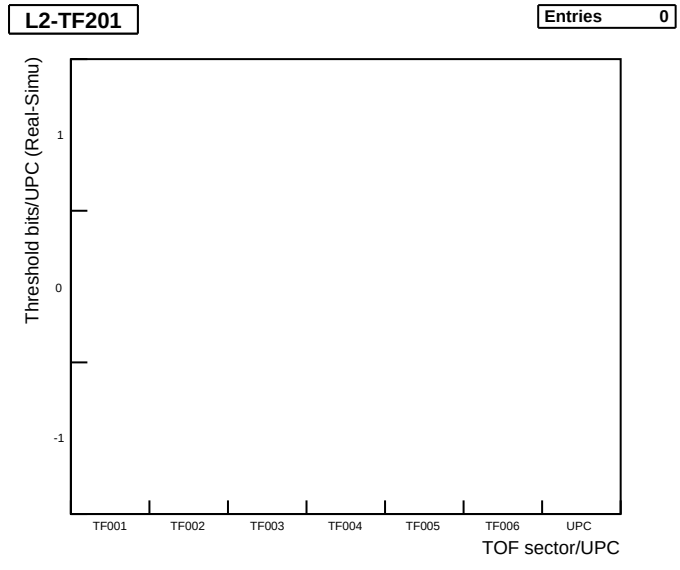

MIX-TF101
Entries 1.119238e+07
TOF UPC-TH-EastHigh
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

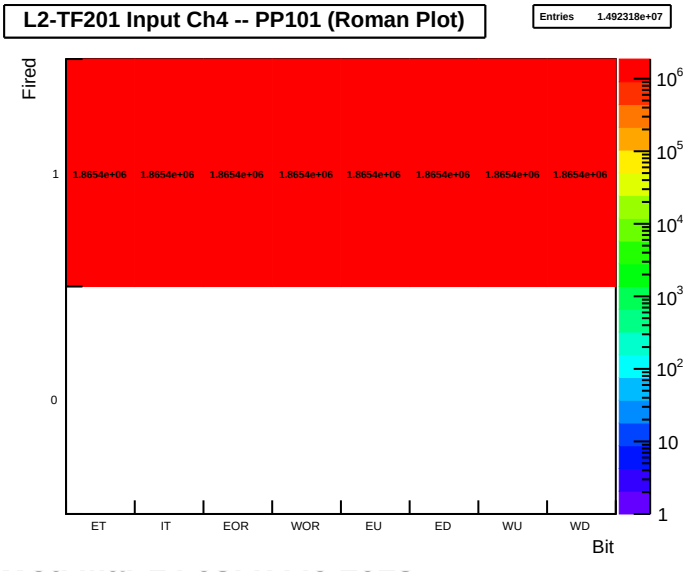

MIX-TF101
Entries 0
TOF UPC-TH-EastHigh(Real-Simu)
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

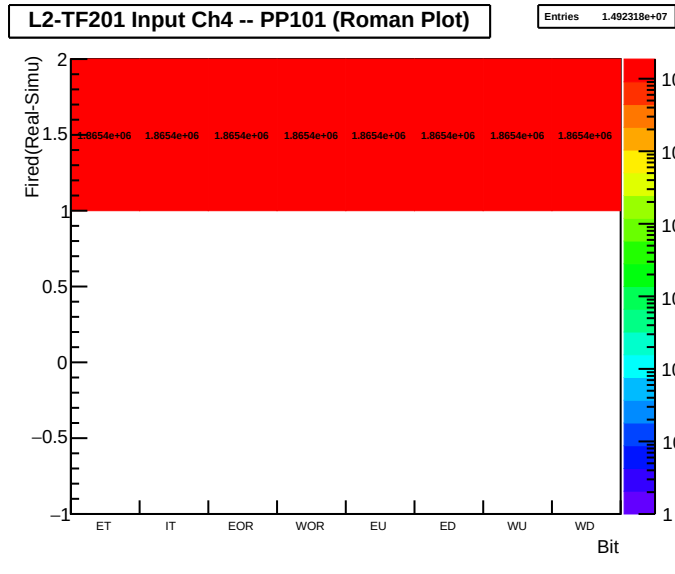

L2-TF201
Entries1865397
10^4
0 10 20 30 40 50 60 70 80 90 100
TOF total mult

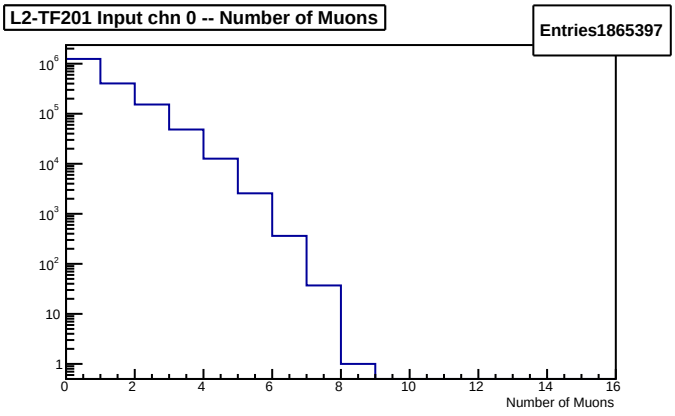

L2-TF201
Entries 0
10
1
10^{-1}
10^{-2}
0 10 20 30 40 50 60 70 80 90 100
TOF total mult(Real-Simu)

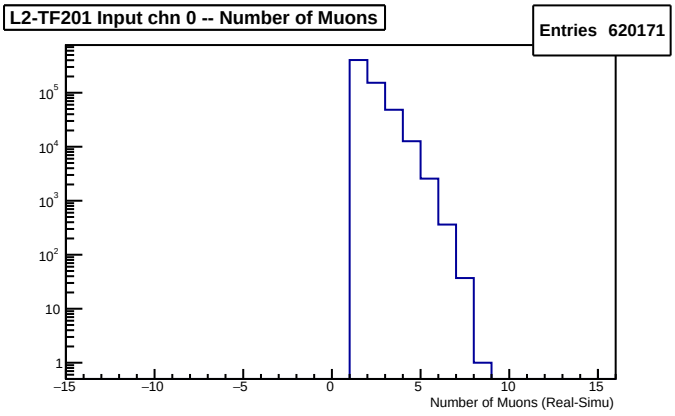

L2-TF201
Entries 1.305778e+07
Threshold/UPC bits
1
0
1.79769e+06 1.79439e+06 1.79397e+06 1.79454e+06 1.80045e+06 1.79259e+06 1.8266e+06
67706 71009 71425 70858 64949 72803 38794
10^6
10^5
TF001 TF002 TF003 TF004 TF005 TF006 UPC
TOF sector/UPC

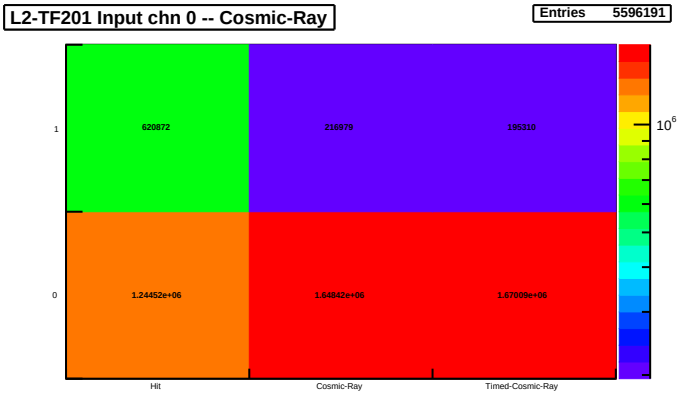

L2-TF201
Entries 0
Threshold bits/UPC (Real-Simu)
1
0
-1
TF001 TF002 TF003 TF004 TF005 TF006 UPC
TOF sector/UPC

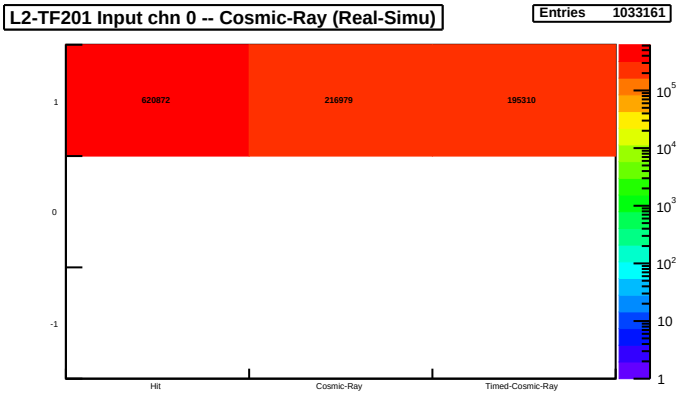

L2-TF201 Input Ch4 -- PP101 (Roman Plot)
Entries 1.492318e+07
Fired
1
0
1.8654e+06 1.8654e+06 1.8654e+06 1.8654e+06 1.8654e+06 1.8654e+06 1.8654e+06 1.8654e+06
10^6
10^5
10^4
10^3
10^2
10
1
ET IT EOR WOR EU ED WU WD
Bit

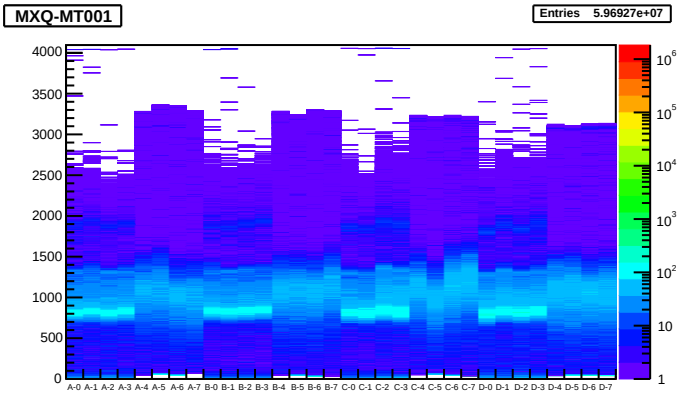

L2-TF201 Input Ch4 -- PP101 (Roman Plot)
Entries 1.492318e+07
Fired(Real-Simu)
2
1.5
1
0.5
0
−0.5
−1
1.8654e+06 1.8654e+06 1.8654e+06 1.8654e+06 1.8654e+06 1.8654e+06 1.8654e+06 1.8654e+06
10^6
10^5
10^4
10^3
10^2
10
1
ET IT EOR WOR EU ED WU WD
Bit

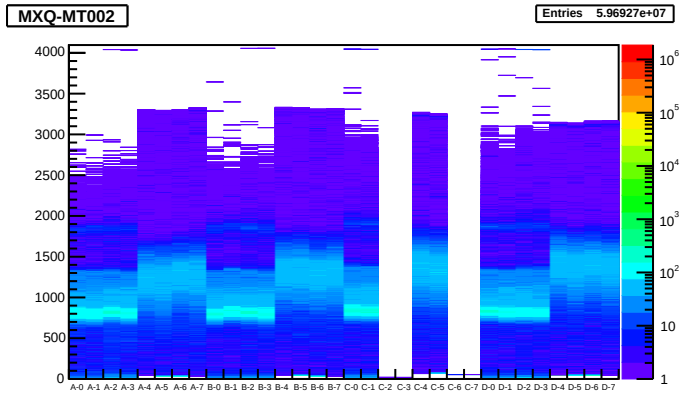

L2-TF201 Input chn 0 -- Number of Muons
Entries1865397
Number of Muons

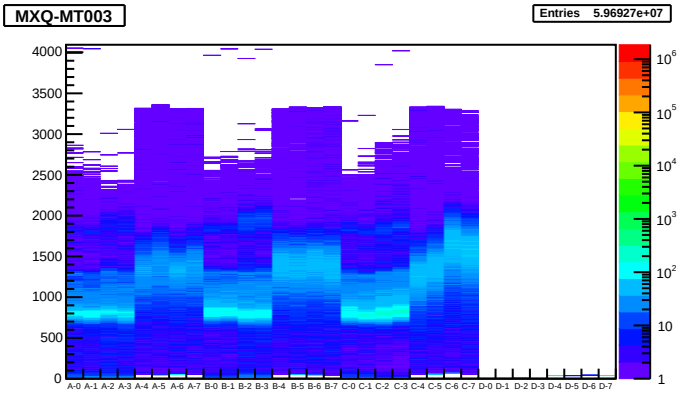

L2-TF201 Input chn 0 -- Number of Muons
Entries 620171
Number of Muons (Real-Simu)

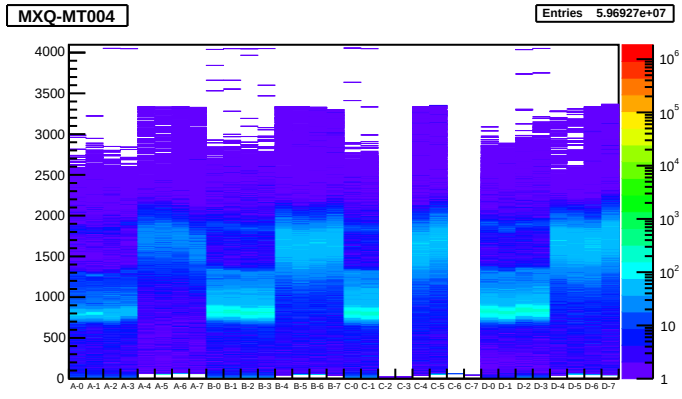

L2-TF201 Input chn 0 -- Cosmic-Ray
Entries 5596191
620872
216979
195310
1.24452e+06
1.64842e+06
1.67009e+06
Hit
Cosmic-Ray
Timed-Cosmic-Ray

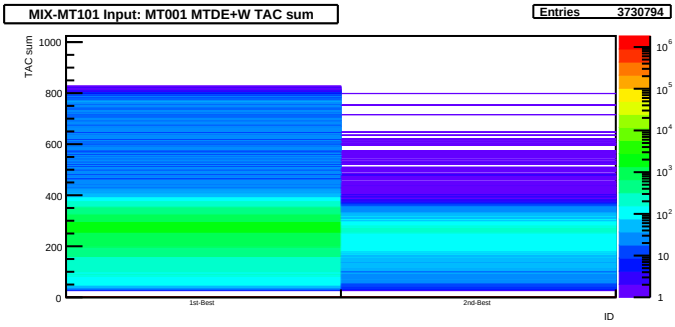

L2-TF201 Input chn 0 -- Cosmic-Ray (Real-Simu)
Entries 1033161
620872
216979
195310
Hit
Cosmic-Ray
Timed-Cosmic-Ray

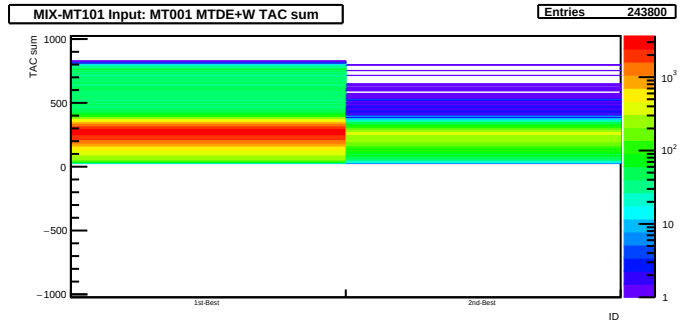

MXQ-MT001
Entries 5.96927e+07
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^6
10^5
10^4
10^3
10^2
10
1

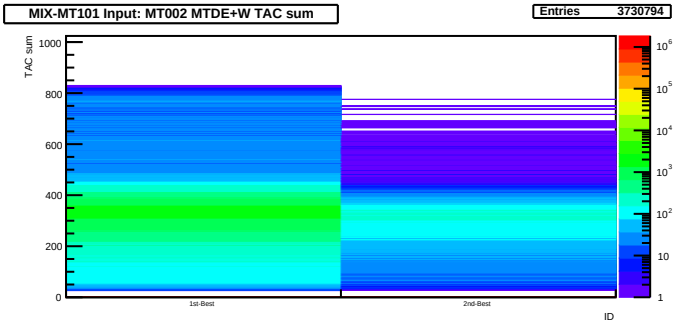

MXQ-MT002
Entries 5.96927e+07
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^6
10^5
10^4
10^3
10^2
10
1

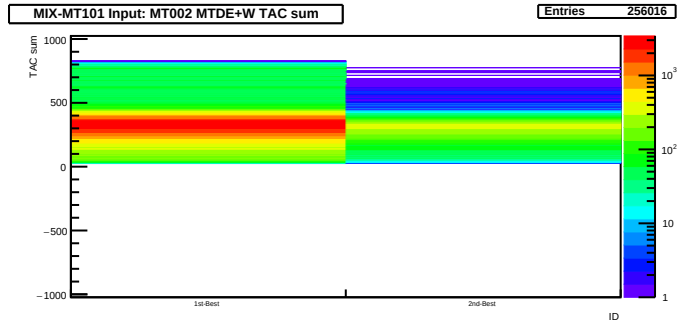

MXQ-MT003
Entries 5.96927e+07
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^6
10^5
10^4
10^3
10^2
10
1

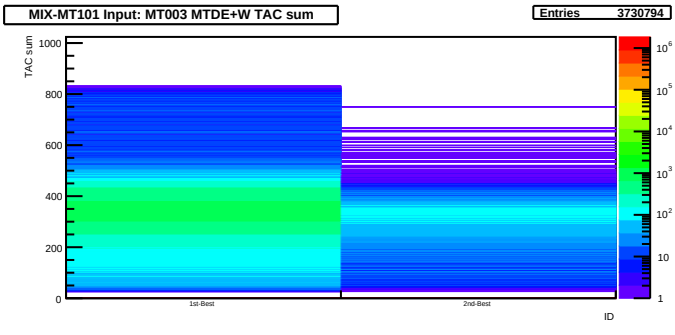

MXQ-MT004
Entries 5.96927e+07
4000
3500
3000
2500
2000
1500
1000
500
0
A-0 A-1 A-2 A-3 A-4 A-5 A-6 A-7 B-0 B-1 B-2 B-3 B-4 B-5 B-6 B-7 C-0 C-1 C-2 C-3 C-4 C-5 C-6 C-7 D-0 D-1 D-2 D-3 D-4 D-5 D-6 D-7
10^6
10^5
10^4
10^3
10^2
10
1

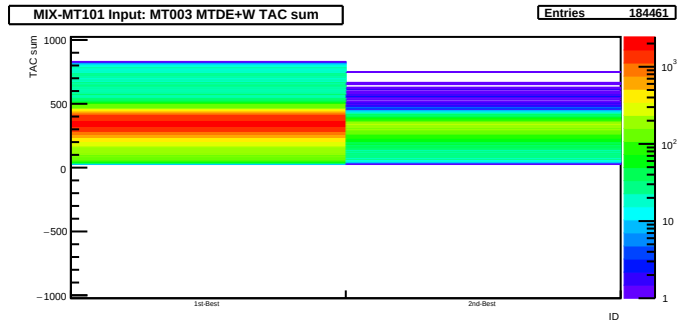

MIX-MT101 Input: MT001 MTDE+W TAC sum
Entries 3730794
TAC sum
1st-Best
2nd-Best
ID

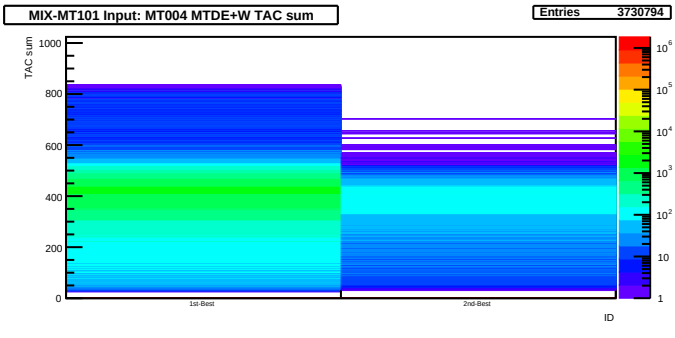

MIX-MT101 Input: MT001 MTDE+W TAC sum
Entries 243800
TAC sum
1st-Best
2nd-Best
ID

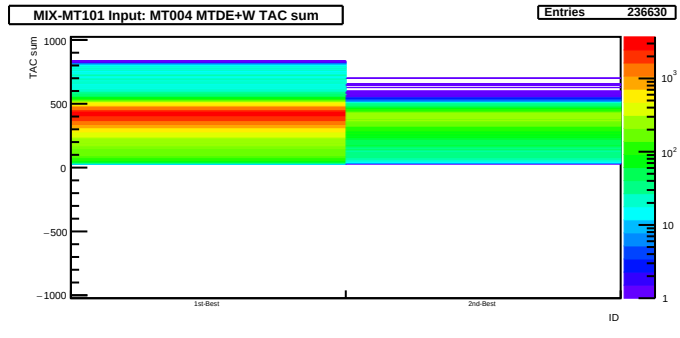

MIX-MT101 Input: MT002 MTDE+W TAC sum
Entries 3730794
TAC sum
1st-Best
2nd-Best
ID

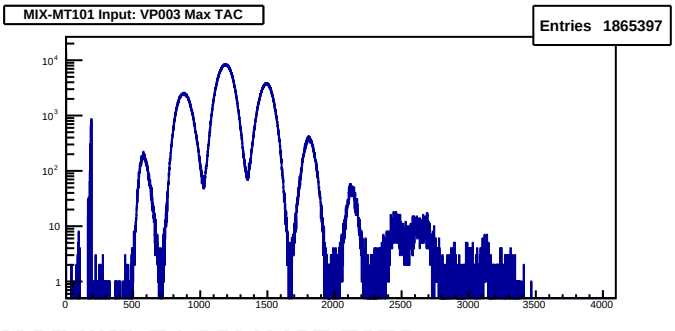

MIX-MT101 Input: MT002 MTDE+W TAC sum
Entries 256016
TAC sum
1st-Best
2nd-Best
ID

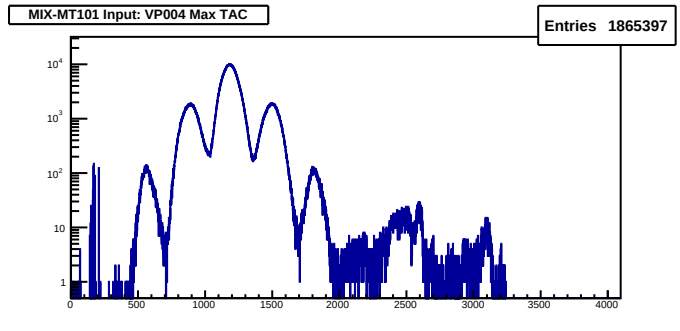

MIX-MT101 Input: MT003 MTDE+W TAC sum
Entries 3730794
TAC sum
1st-Best
2nd-Best
ID

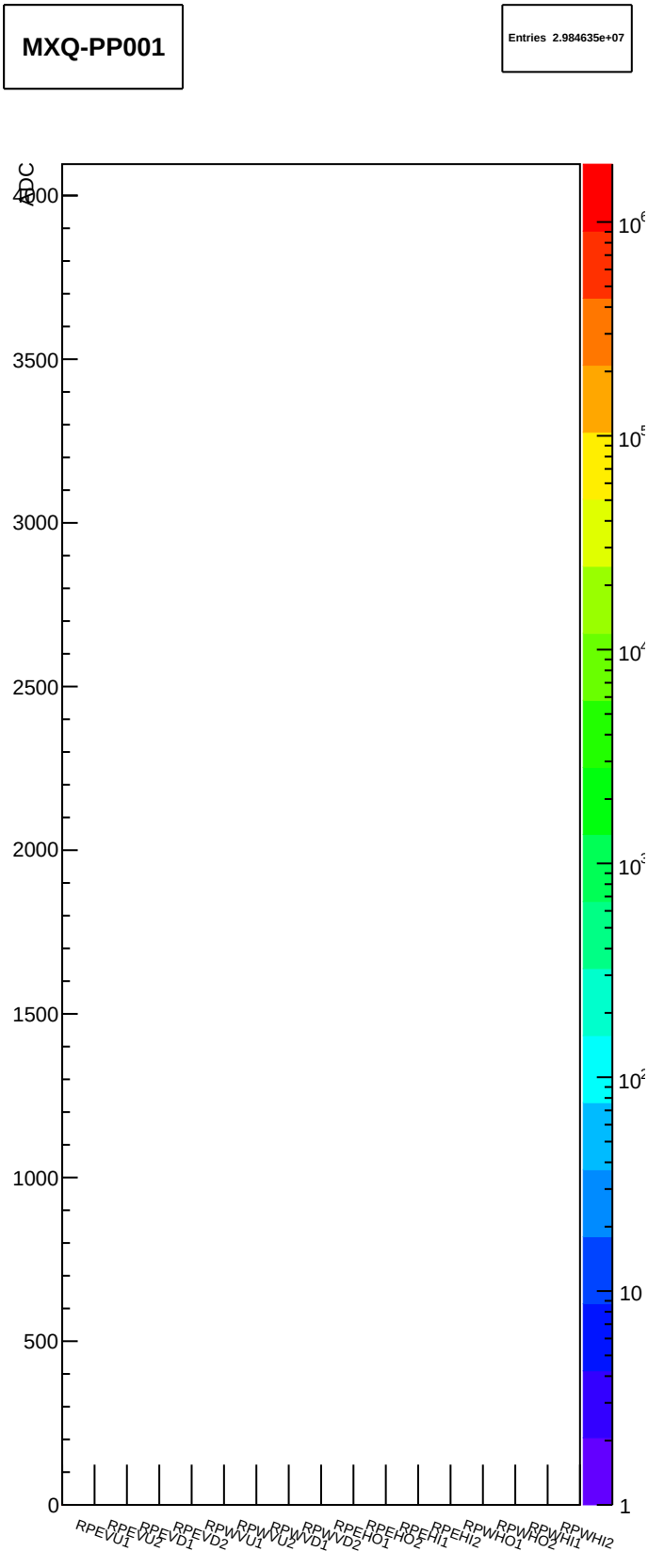

MIX-MT101 Input: MT003 MTDE+W TAC sum
Entries 184461
TAC sum
1st-Best
2nd-Best
ID

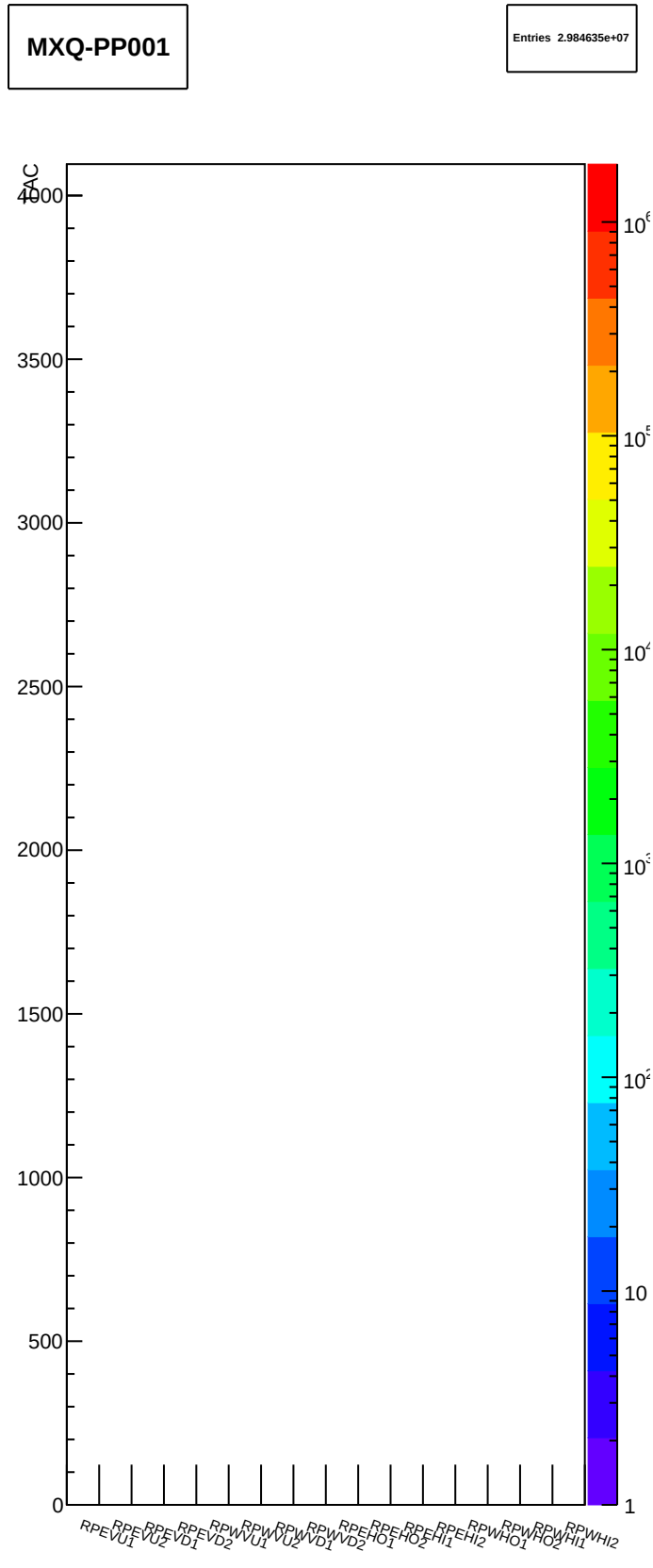

MIX-MT101 Input: MT004 MTDE+W TAC sum
Entries 3730794
TAC sum
1st-Best
2nd-Best
ID

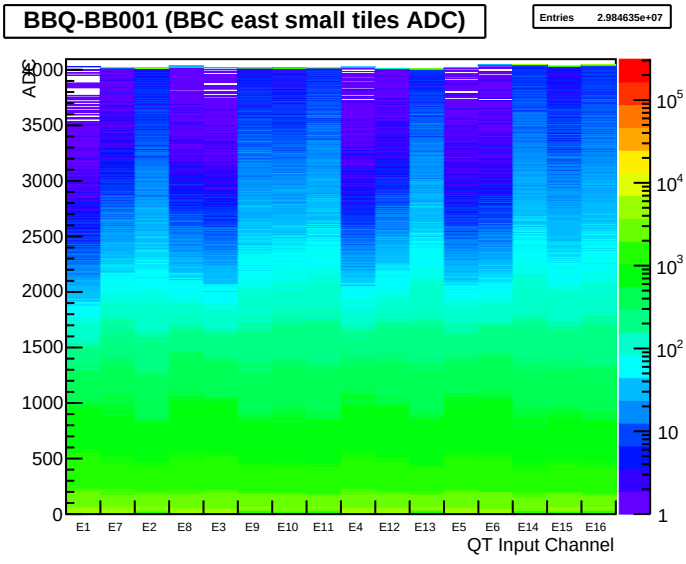

MIX-MT101 Input: MT004 MTDE+W TAC sum
Entries 236630
TAC sum
1st-Best
2nd-Best
ID

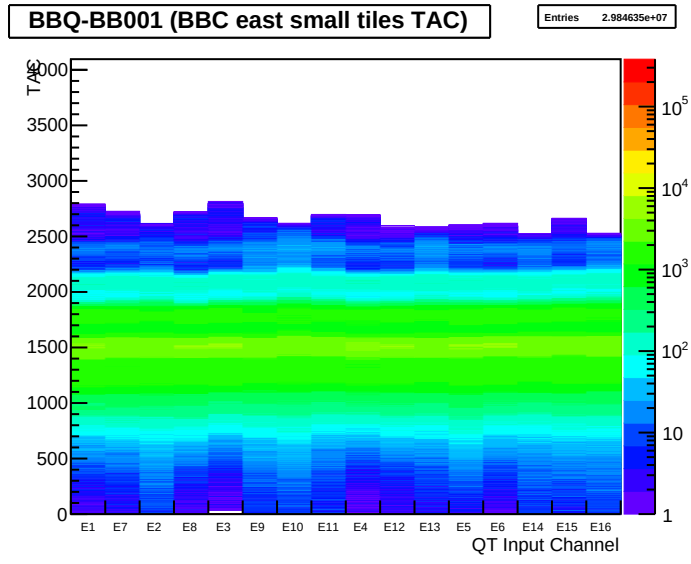

MIX-MT101 Input: VP003 Max TAC
Entries 1865397

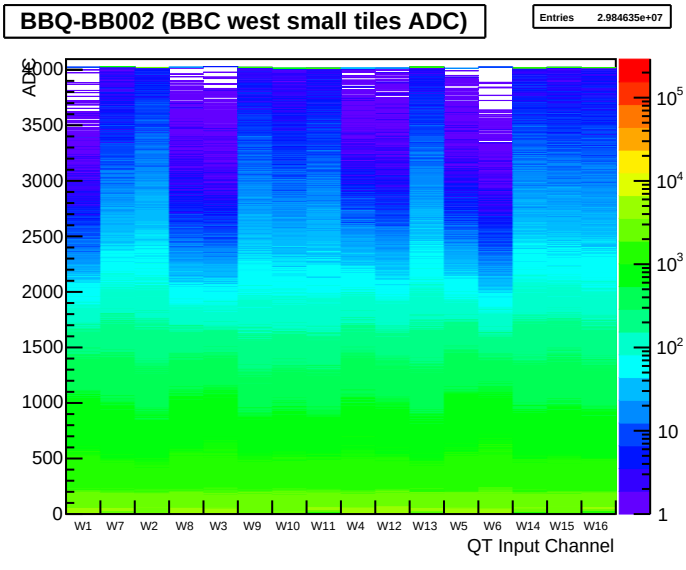

MIX-MT101 Input: VP004 Max TAC
Entries 1865397

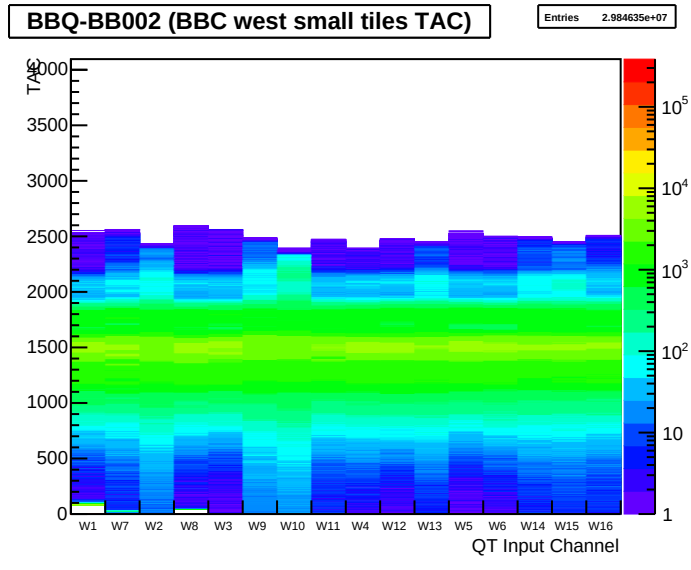

MXQ-PP001
Entries 2.984635e+07
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
RPEVU1
RPEVU2
RPEVD1
RPEVD2
RPWVU1
RPWVU2
RPWVD1
RPWVD2
RPEHO1
RPEHO2
RPEHI1
RPEHI2
RPWHO1
RPWHO2
RPWHI1
RPWHI2
1
10

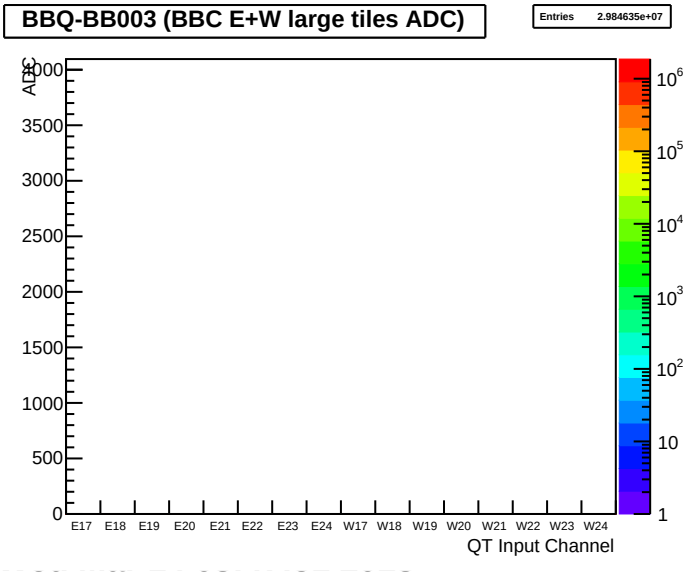

MXQ-PP001
Entries 2.984635e+07
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
RPEVU1
RPEVU2
RPEVD1
RPEVD2
RPWVU1
RPWVU2
RPWVD1
RPWVD2
RPEHO1
RPEHO2
RPEHI1
RPEHI2
RPWHO1
RPWHO2
RPWHI1
RPWHI2
1
10

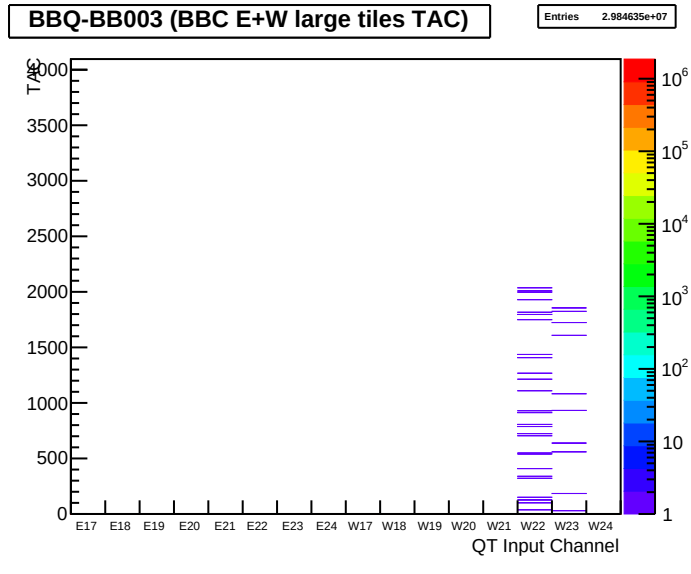

BBQ-BB001 (BBC east small tiles ADC)
Entries 2.984635e+07
ADC
QT Input Channel

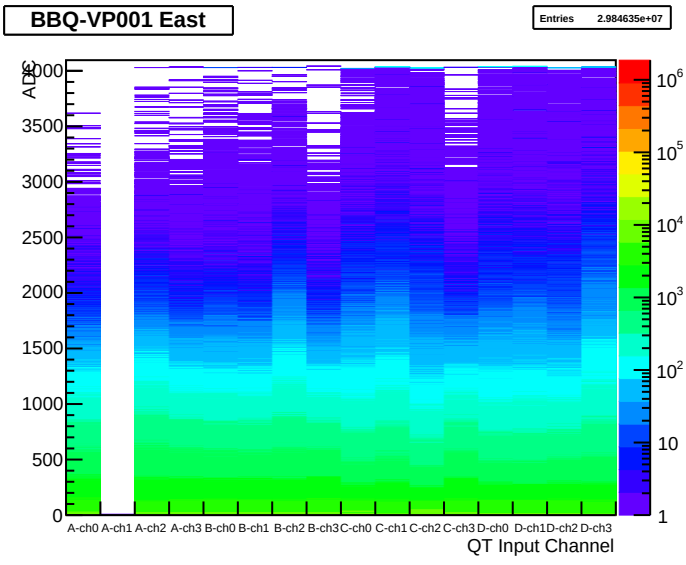

BBQ-BB001 (BBC east small tiles TAC)
Entries 2.984635e+07
TAC
QT Input Channel

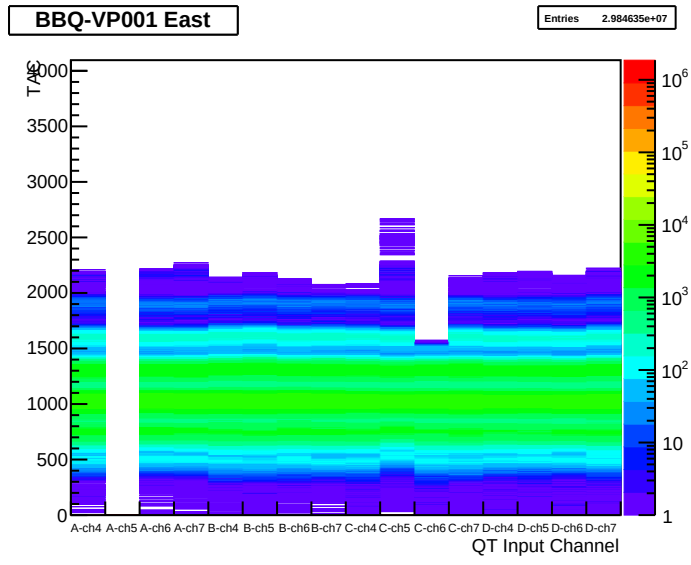

BBQ-BB002 (BBC west small tiles ADC)
Entries 2.984635e+07
ADC
QT Input Channel

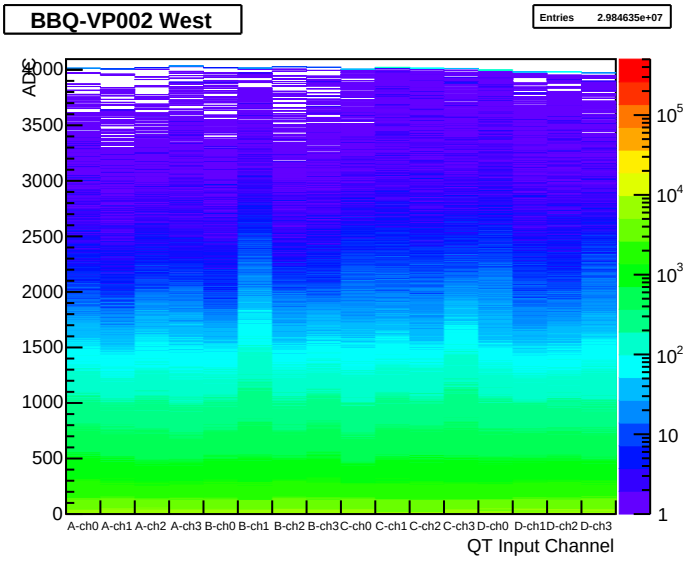

BBQ-BB002 (BBC west small tiles TAC)
Entries 2.984635e+07
TAC
QT Input Channel

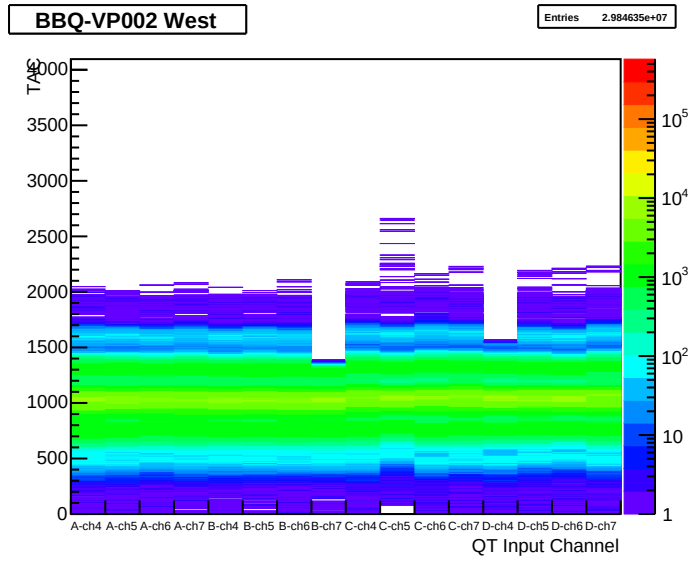

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 2.984635e+07
ADC
QT Input Channel

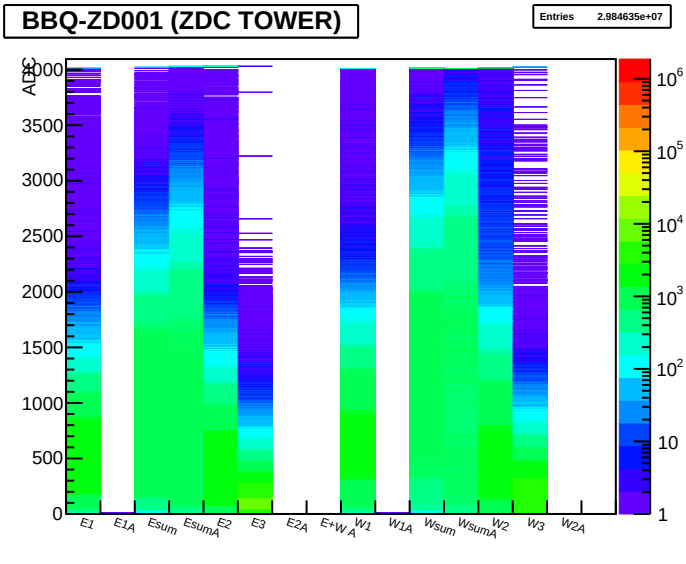

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 2.984635e+07
TAC
QT Input Channel

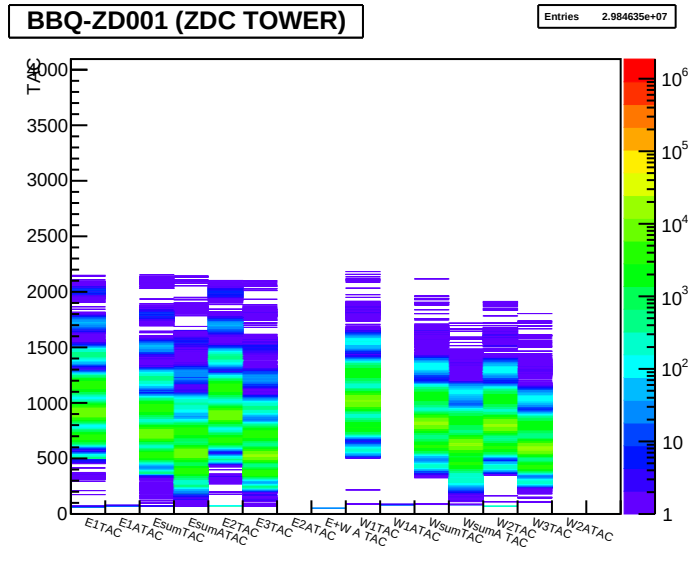

BBQ-VP001 East
Entries 2.984635e+07
ADC
QT Input Channel

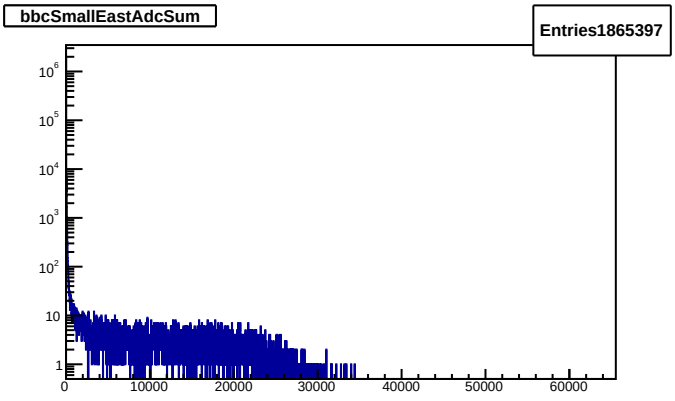

BBQ-VP001 East
Entries 2.984635e+07
TAC
QT Input Channel

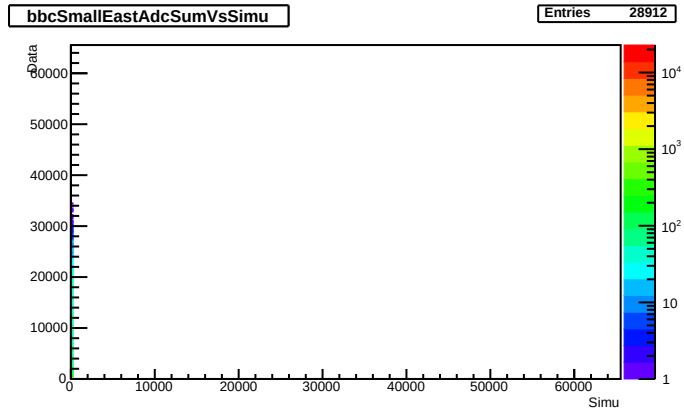

BBQ-VP002 West
Entries 2.984635e+07
ADC
QT Input Channel

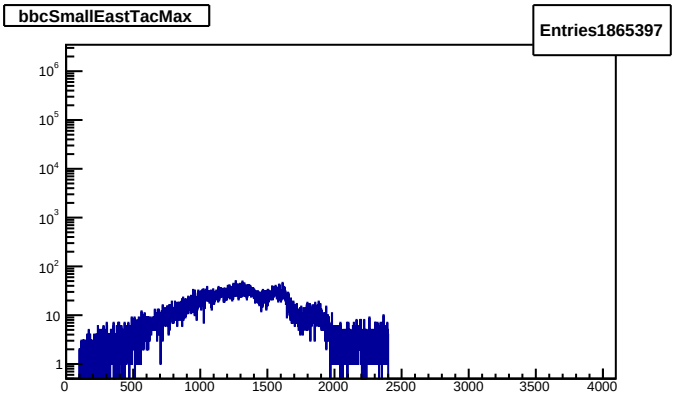

BBQ-VP002 West
Entries 2.984635e+07
TAC
QT Input Channel

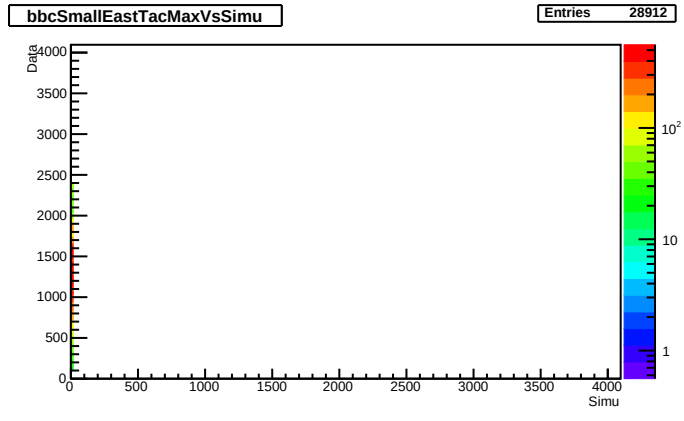

BBQ-ZD001 (ZDC TOWER)
Entries 2.984635e+07
ADC

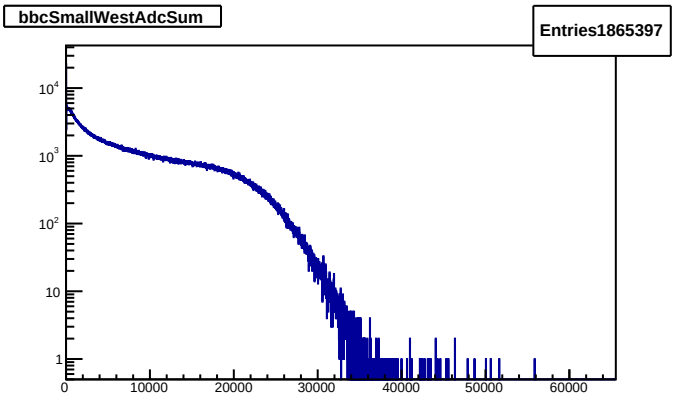

BBQ-ZD001 (ZDC TOWER)
Entries 2.984635e+07
TAC

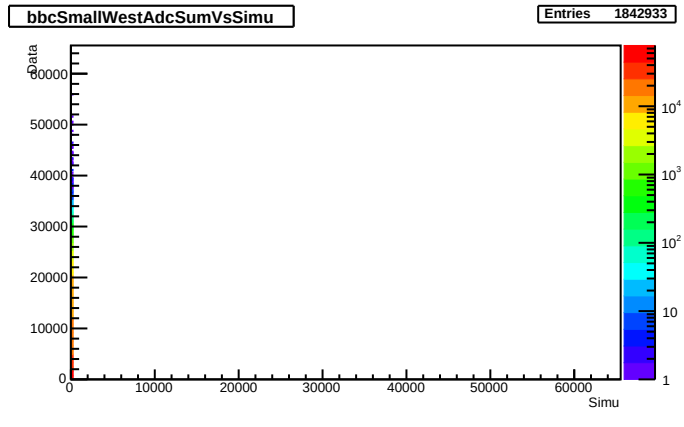

bbcSmallEastAdcSum
Entries1865397

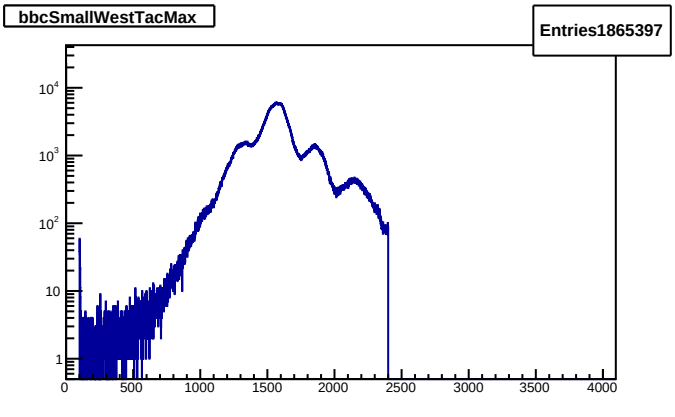

bbcSmallEastAdcSumVsSimu
Entries 28912
Data
Simu

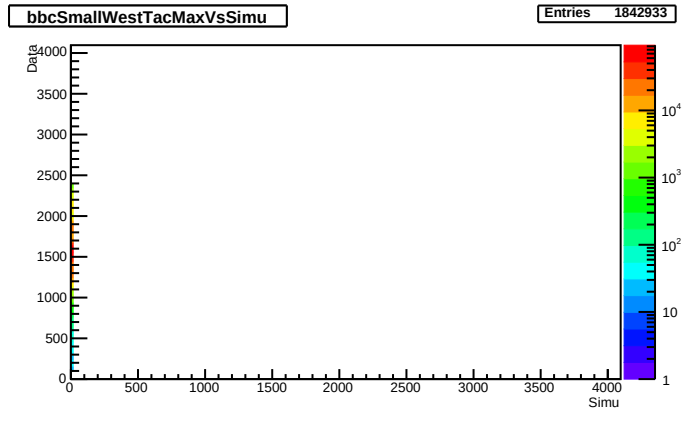

bbcSmallEastTacMax
Entries1865397

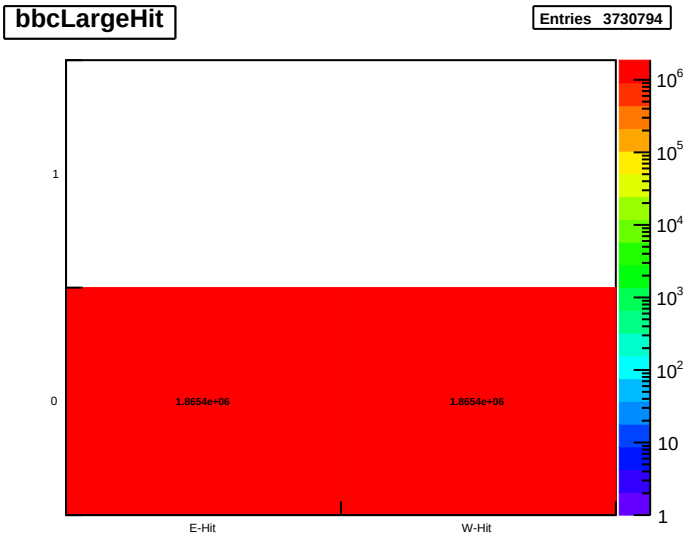

bbcSmallEastTacMaxVsSimu
Entries 28912
Data
Simu

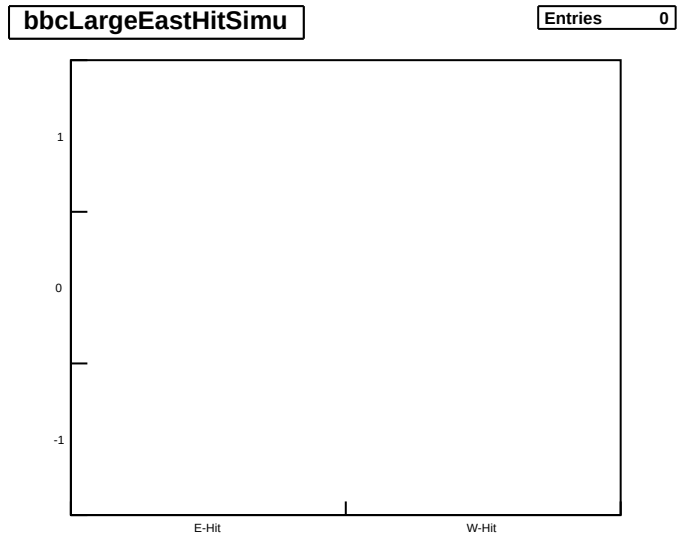

bbcSmallWestAdcSum
Entries1865397

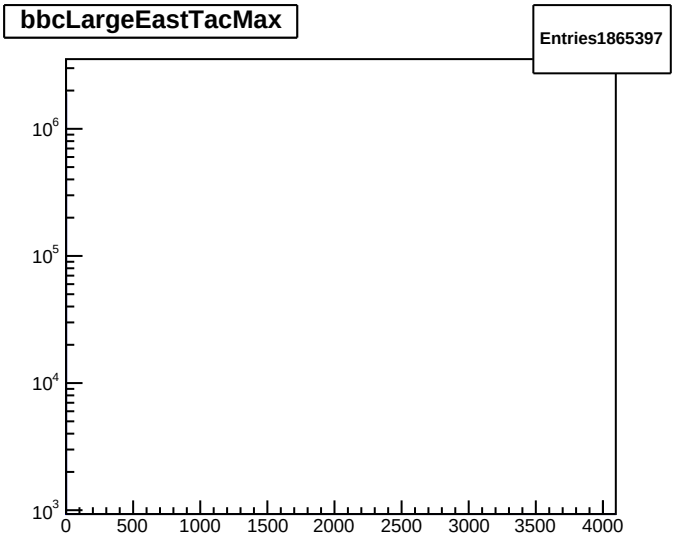

bbcSmallWestAdcSumVsSimu
Entries 1842933
Data
Simu

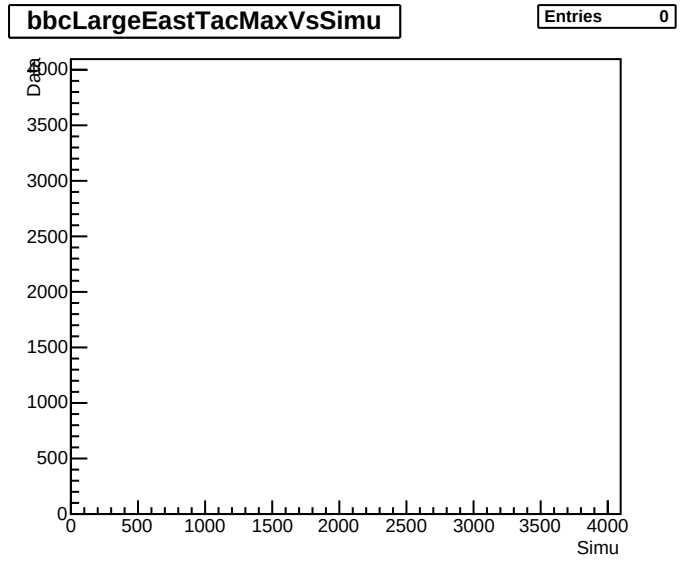

bbcSmallWestTacMax
Entries1865397

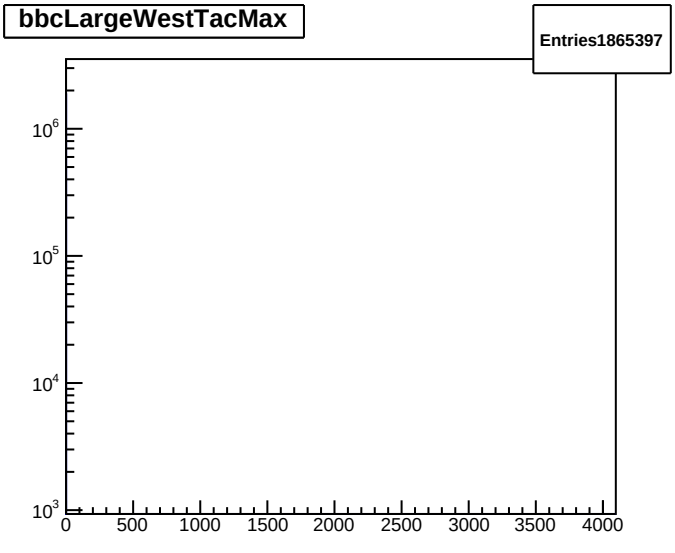

bbcSmallWestTacMaxVsSimu
Entries 1842933
Data
Simu

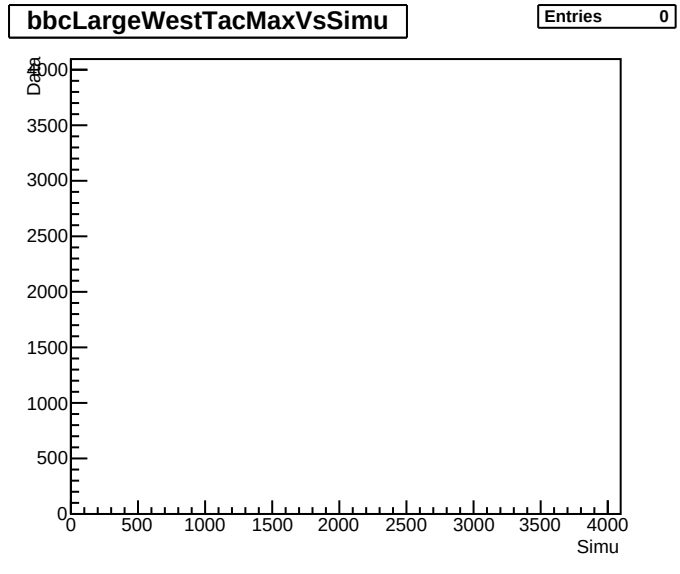

bbcLargeHit
Entries 3730794
1.8654e+06
1.8654e+06
E-Hit
W-Hit

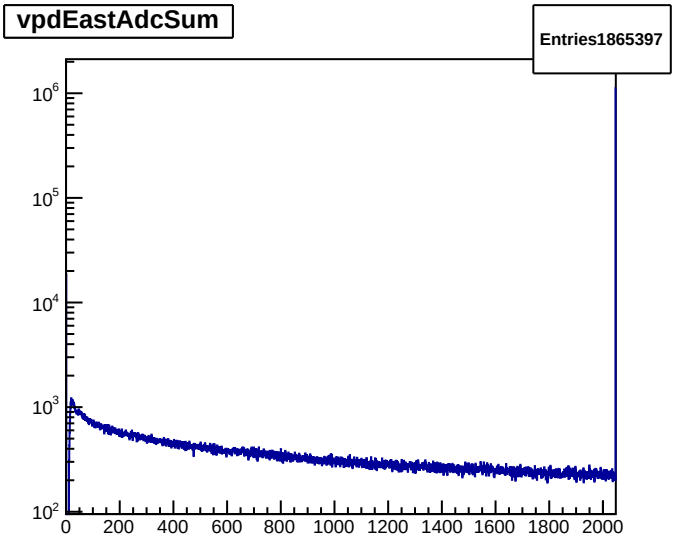

bbcLargeEastHitSimu
Entries 0
E-Hit
W-Hit

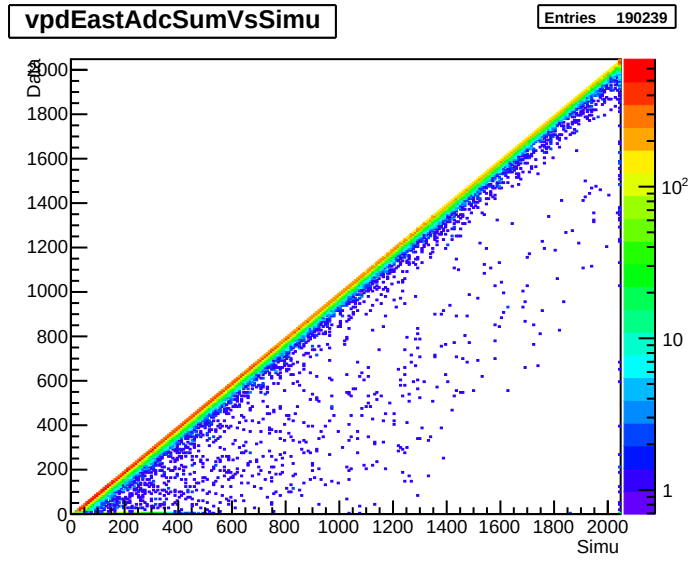

bbcLargeEastTacMax
Entries1865397

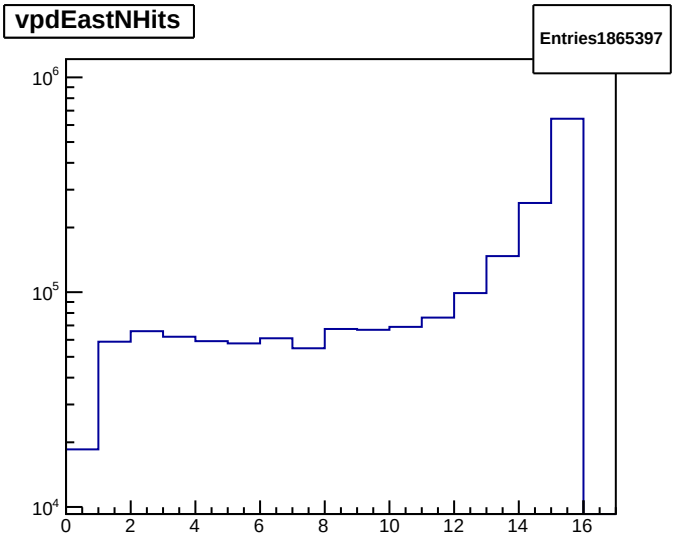

bbcLargeEastTacMaxVsSimu
Entries 0
Data
Simu

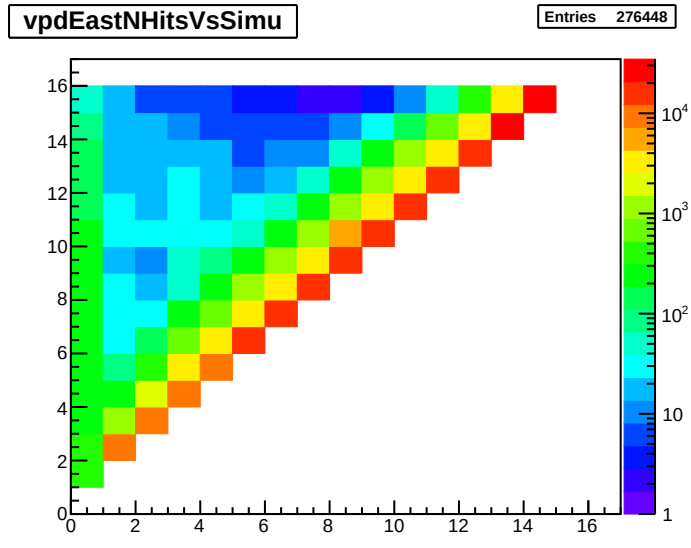

bbcLargeWestTacMax
Entries1865397

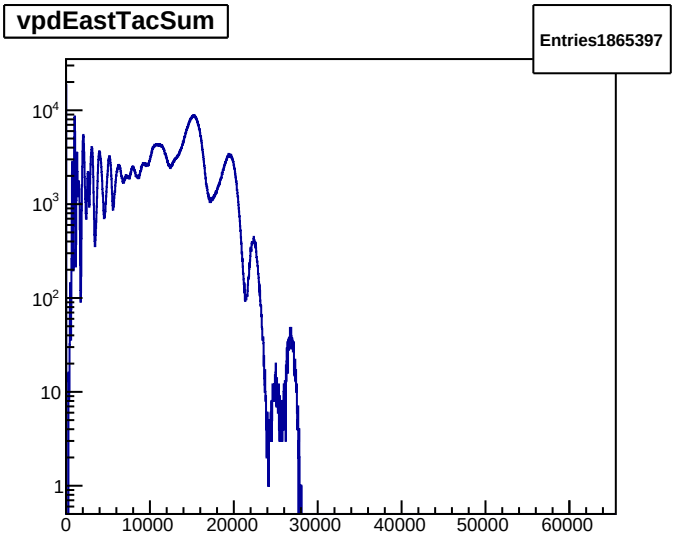

bbcLargeWestTacMaxVsSimu
Entries 0
Data
Simu

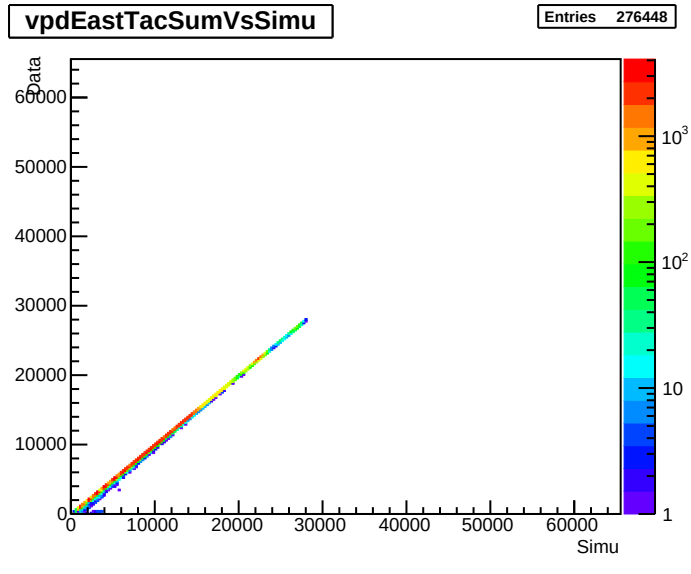

vpdEastAdcSum
Entries1865397

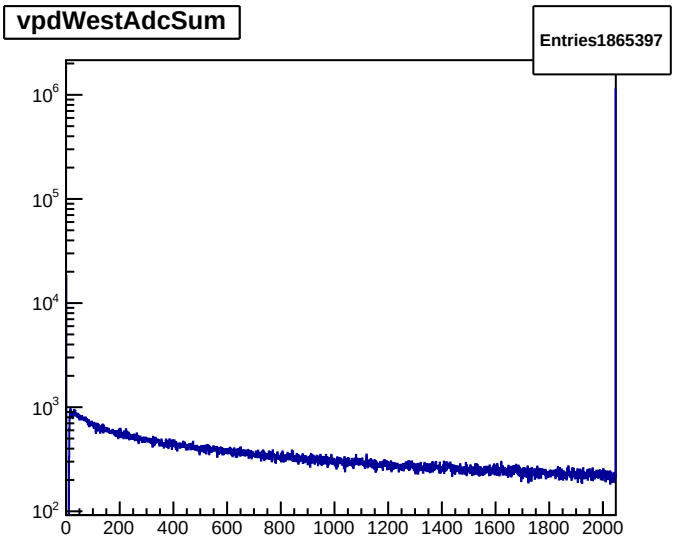

vpdEastAdcSumVsSimu
Entries 190239
Data
Simu

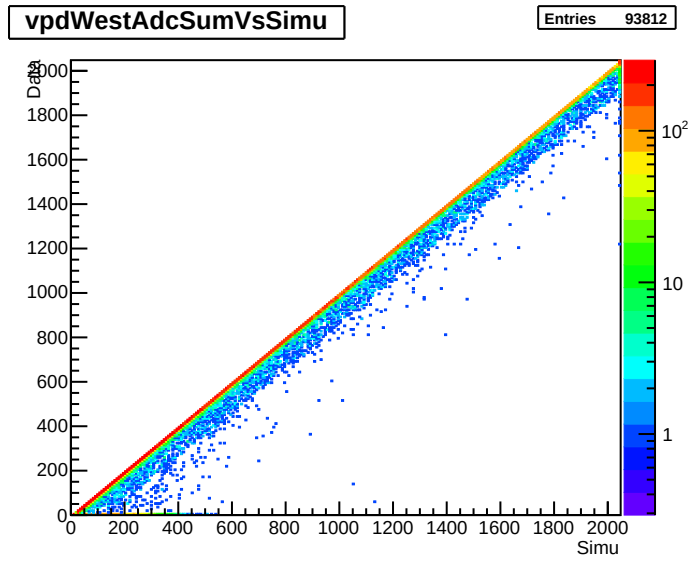

vpdEastNHits
Entries1865397

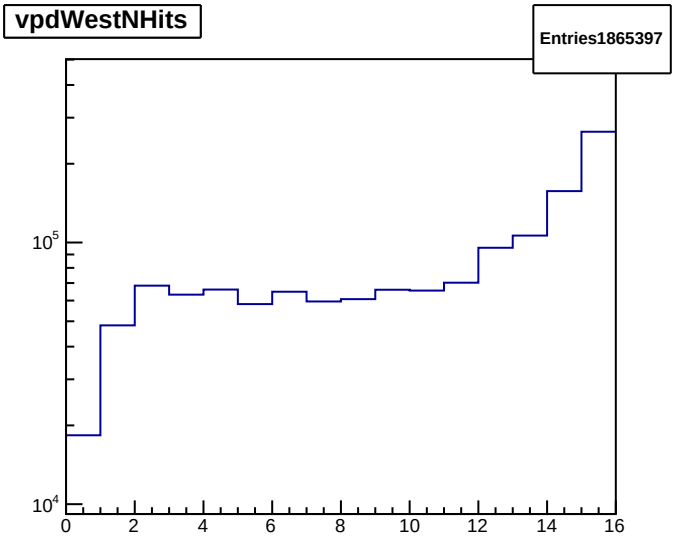

vpdEastNHitsVsSimu
Entries 276448

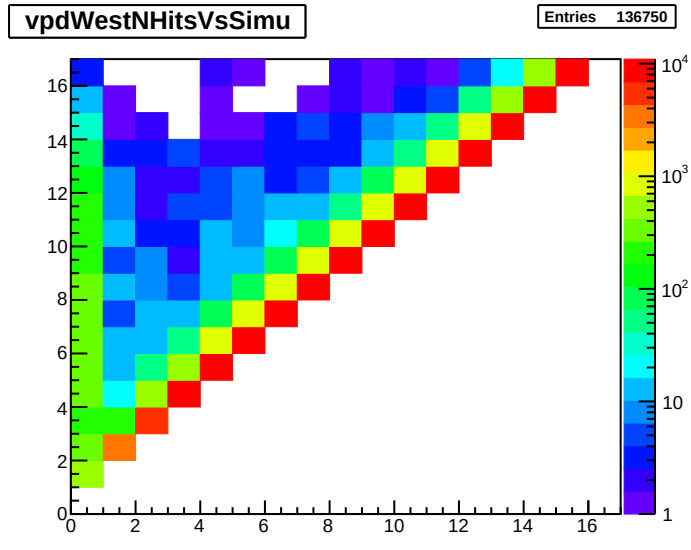

vpdEastTacSum
Entries1865397

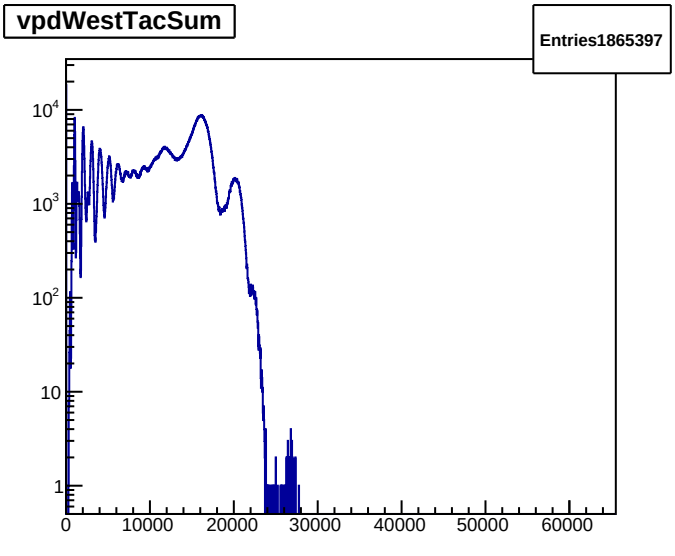

vpdEastTacSumVsSimu
Entries 276448
Data
Simu

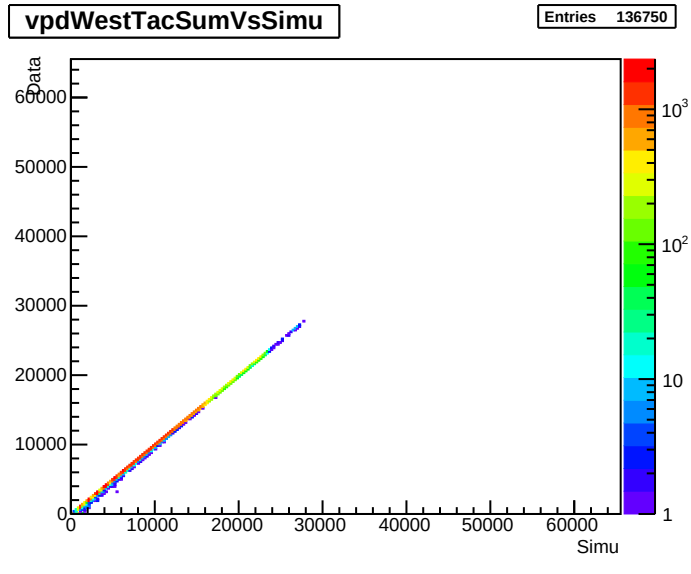

vpdWestAdcSum
Entries1865397

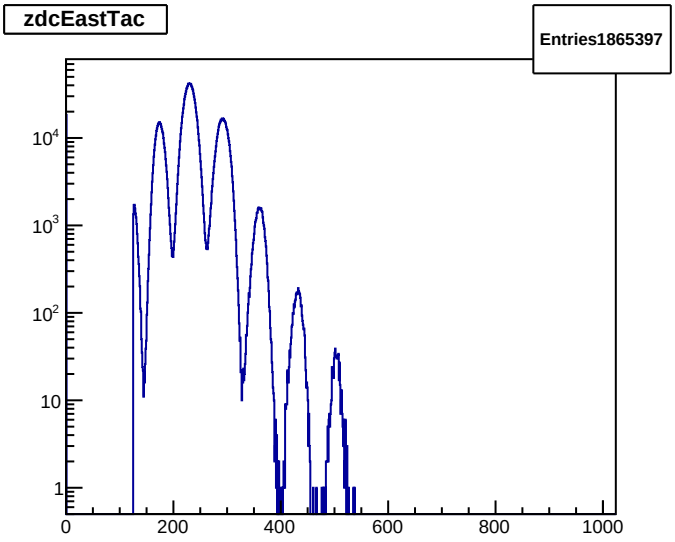

vpdWestAdcSumVsSimu
Entries 93812
Data
Simu

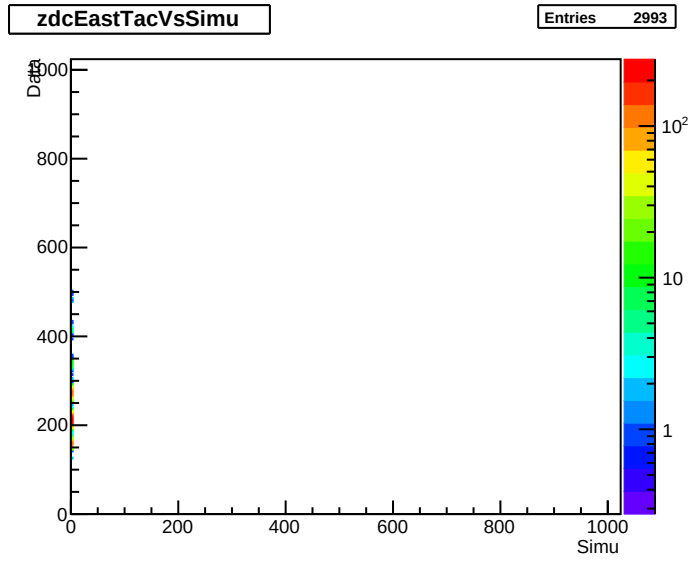

vpdWestNHits
Entries1865397

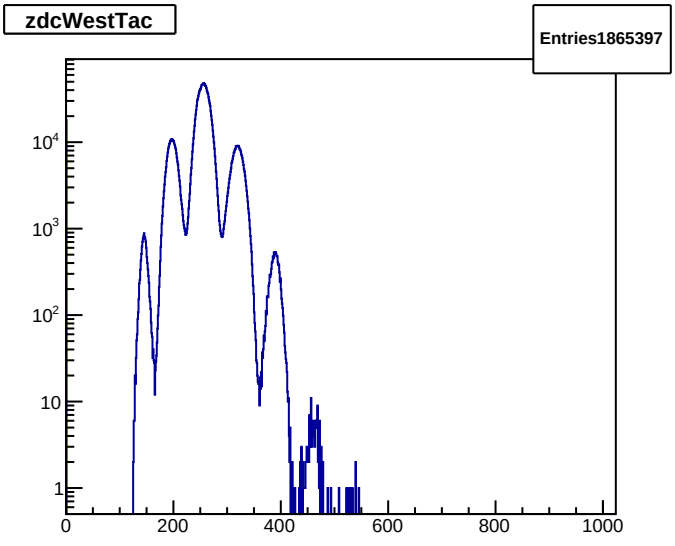

vpdWestNHitsVsSimu
Entries 136750

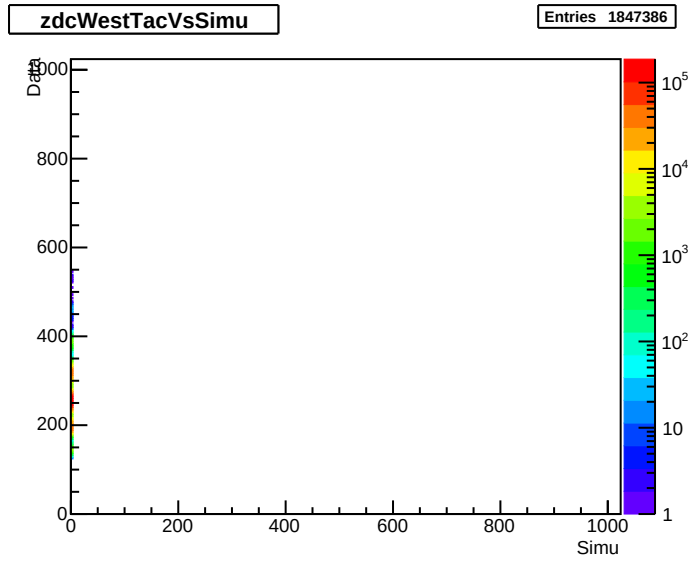

vpdWestTacSum
Entries1865397

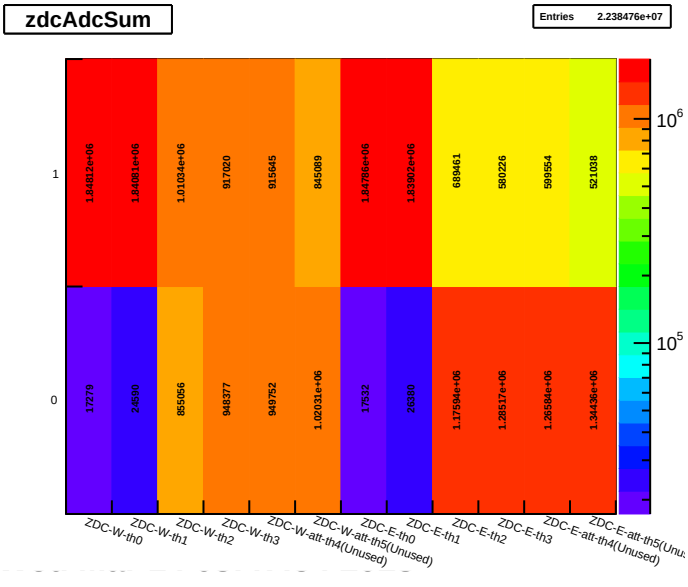

vpdWestTacSumVsSimu
Entries 136750
Data
Simu

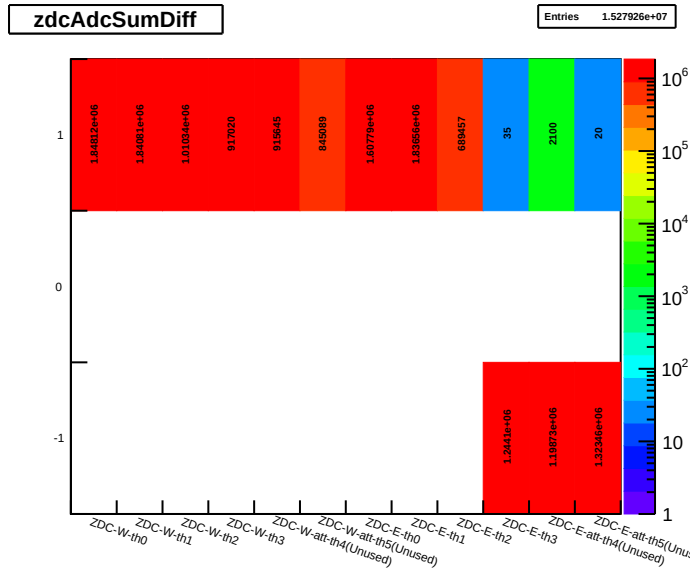

zdcEastTac
Entries1865397

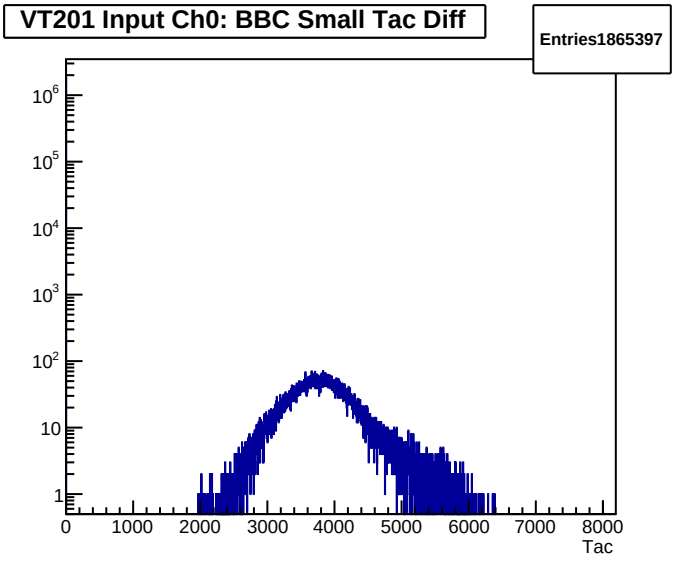

zdcEastTacVsSimu
Entries 2993
Data
Simu

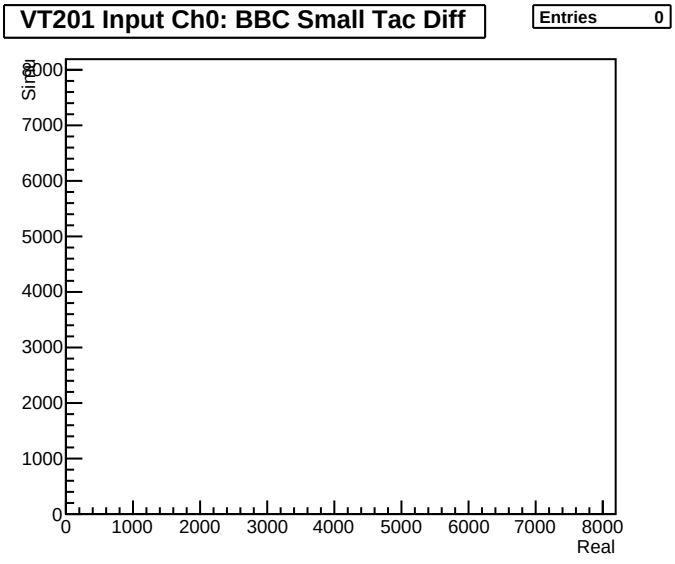

zdcWestTac
Entries1865397

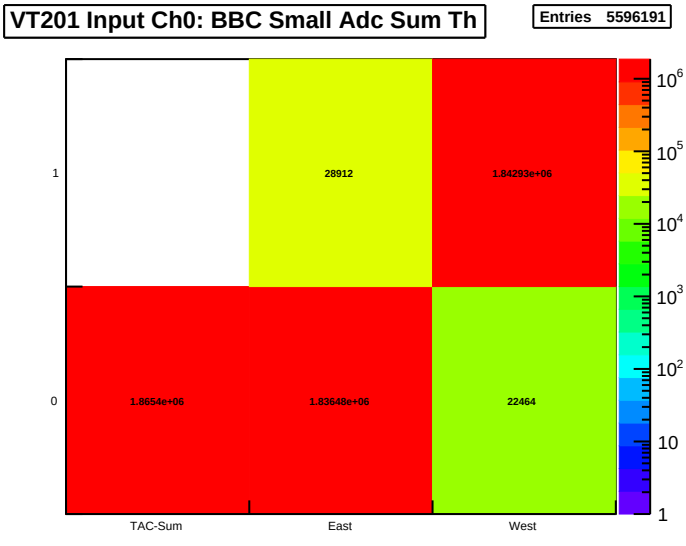

zdcWestTacVsSimu
Entries 1847386
Data
Simu

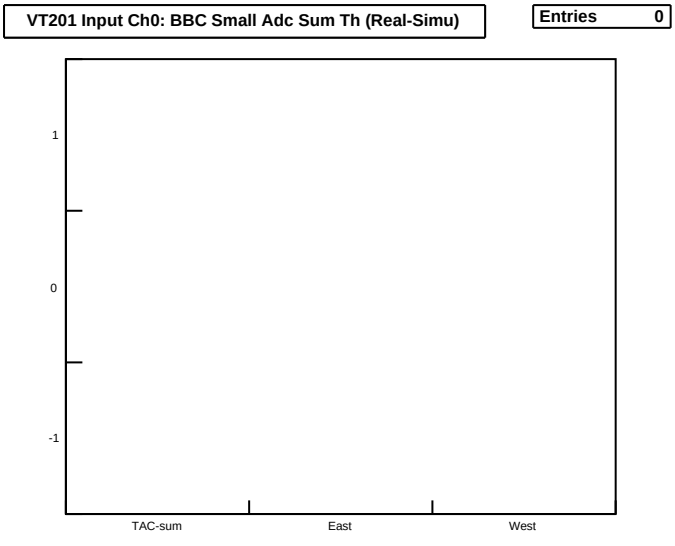

zdcAdcSum
Entries 2.238476e+07
1.84812e+06
1.84081e+06
1.01034e+06
917020
915645
845089
1.84786e+06
1.83962e+06
689461
580226
599554
521038
17279
24500
855056
948377
949752
1.02031e+06
17532
26380
1.17594e+06
1.28517e+06
1.26584e+06
1.34436e+06
ZDC-W-th0
ZDC-W-th1
ZDC-W-th2
ZDC-W-th3
ZDC-W-att-th4(Unused)
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

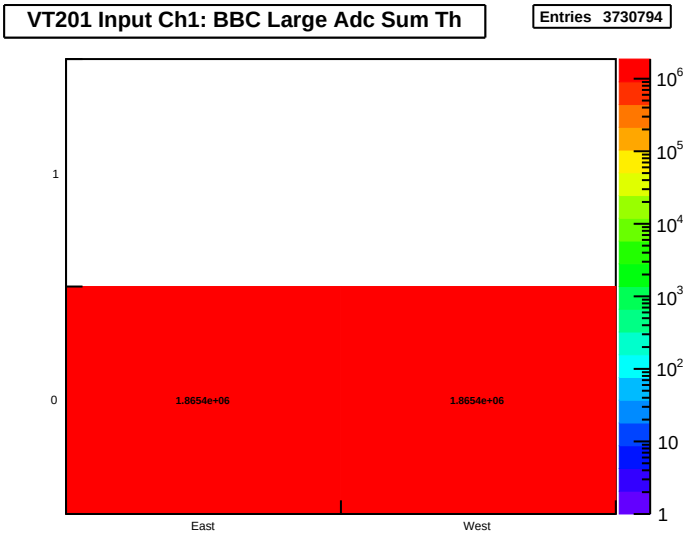

zdcAdcSumDiff
Entries 1.527926e+07
1.84812e+06
1.84081e+06
1.01034e+06
917020
915645
845089
1.60779e+06
1.83656e+06
689457
35
2100
20
1.2441e+06
1.19873e+06
1.32346e+06
ZDC-W-th0
ZDC-W-th1
ZDC-W-th2
ZDC-W-th3
ZDC-W-att-th4(Unused)
ZDC-W-att-th5(Unused)
ZDC-E-th0
ZDC-E-th1
ZDC-E-th2
ZDC-E-th3
ZDC-E-att-th4(Unused)
ZDC-E-att-th5(Unu

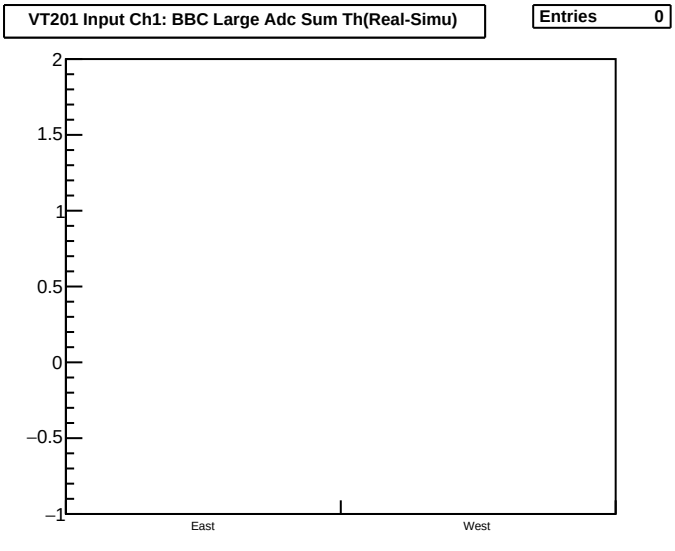

VT201 Input Ch0: BBC Small Tac Diff
Entries1865397
Tac


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

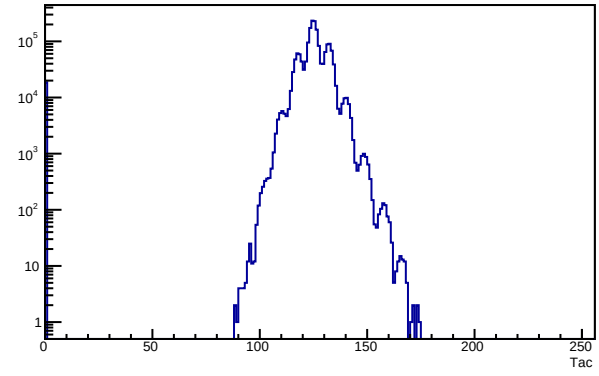

VT201 Input Ch0: BBC Small Adc Sum Th
Entries 5596191
28912
1.84293e+06
1.8654e+06
1.83648e+06
22464
TAC-Sum
East
West


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

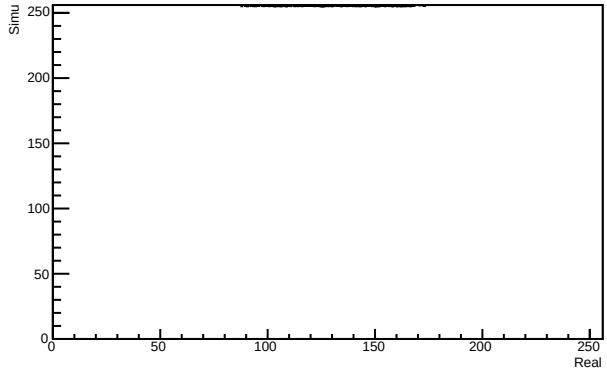

VT201 Input Ch1: BBC Large Adc Sum Th
Entries 3730794
1.8654e+06
1.8654e+06
East
West


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

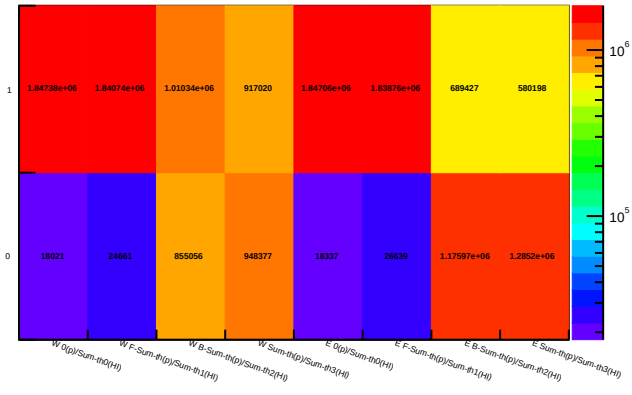
VT201 Input Ch2: ZDC Tac Diff



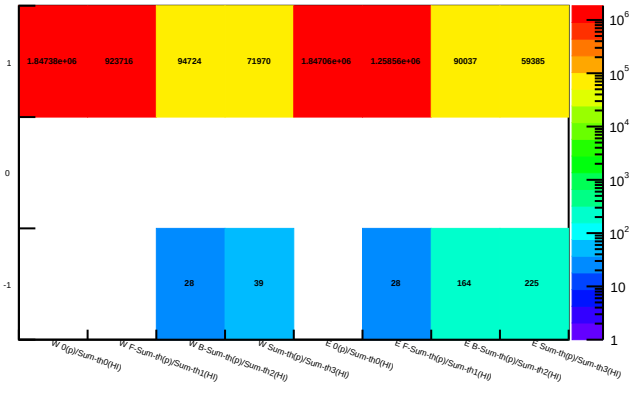
VT201 Input Ch2: ZDC Tac Diff



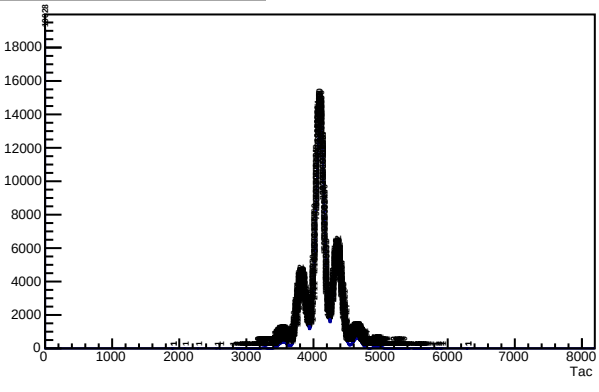
VT201 Input Ch2: ZDC Adc Sum Th



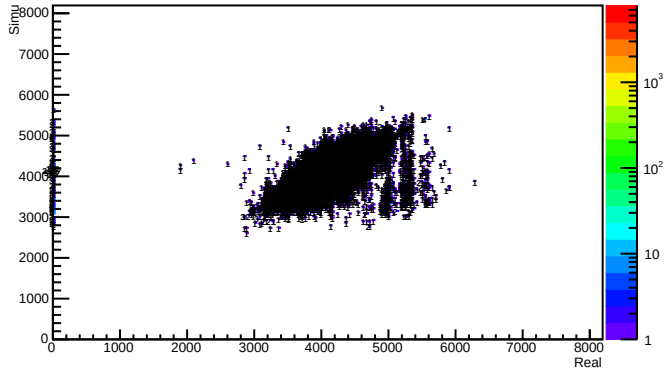
VT201 Input Ch2: ZDC Adc Sum Th (Real-Simu)



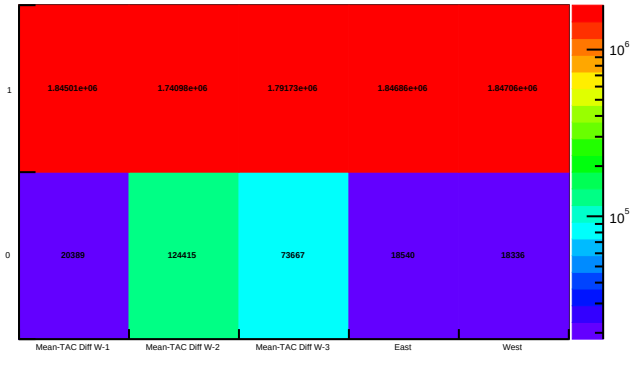
VT201 Input Ch4: VPD Tac Diff



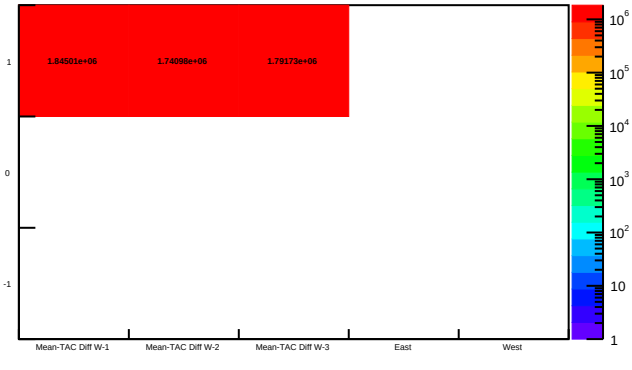
VT201 Input Ch4: VPD Tac Diff

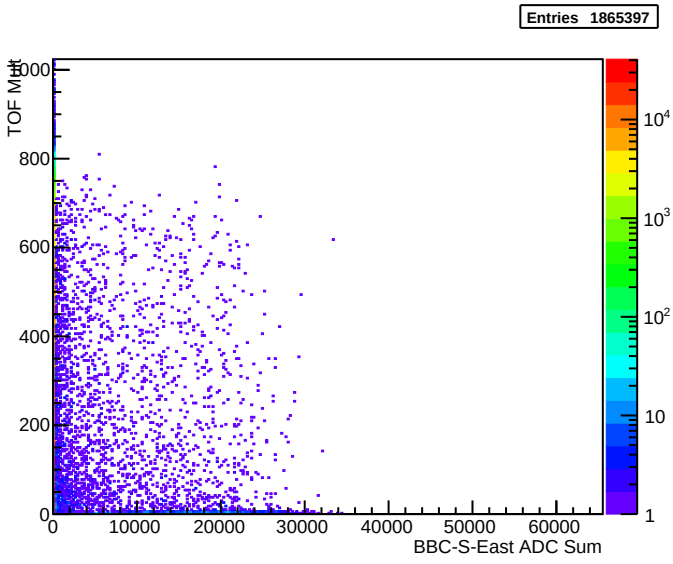


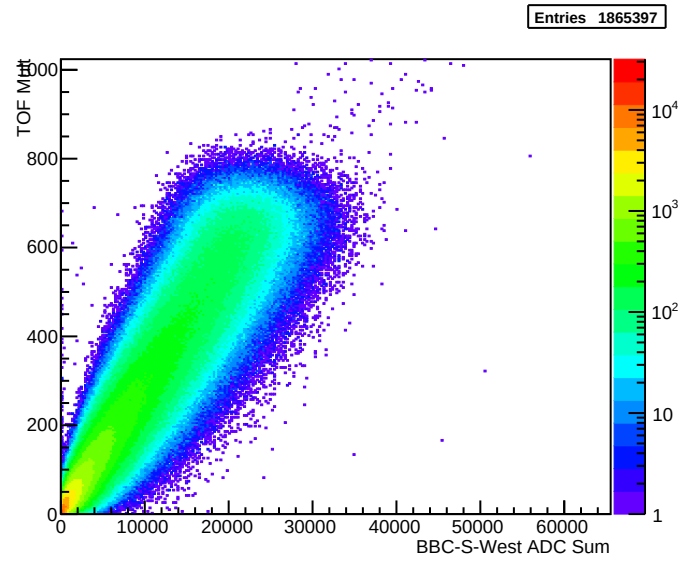
VT201 Input Ch4: VPD Adc Sum Th

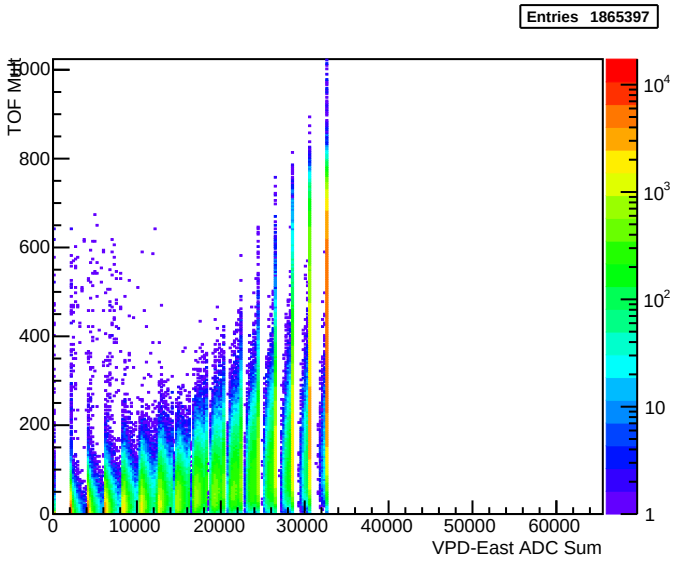


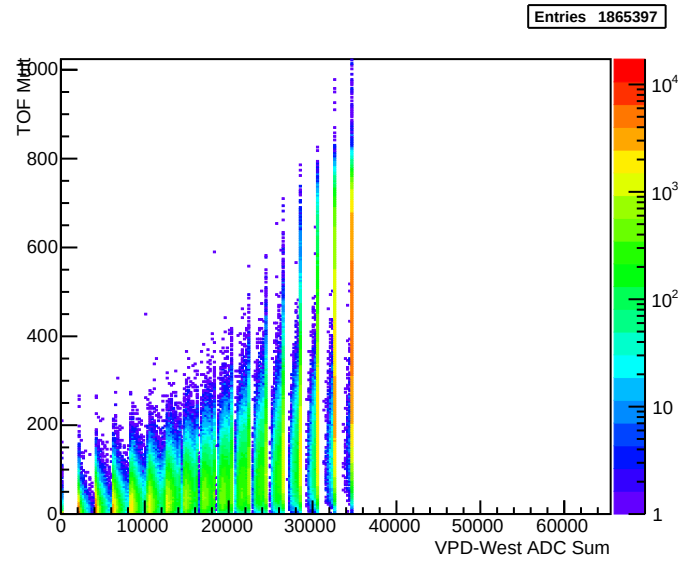
VT201 Input Ch4: VPD Adc Sum Th(Real-Simu)

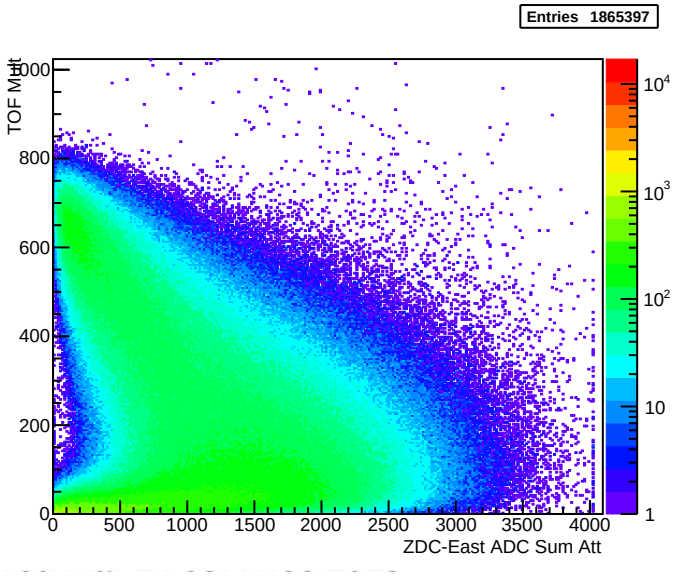


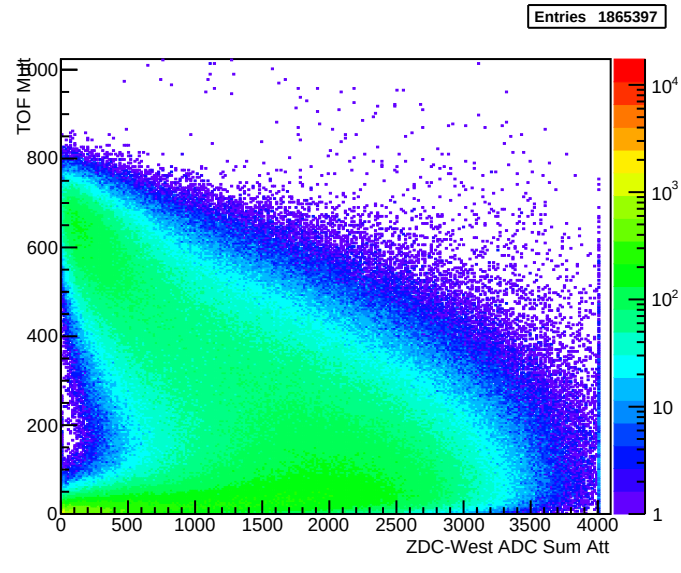

Entries 1865397
TOF Mult
BBC-S-East ADC Sum

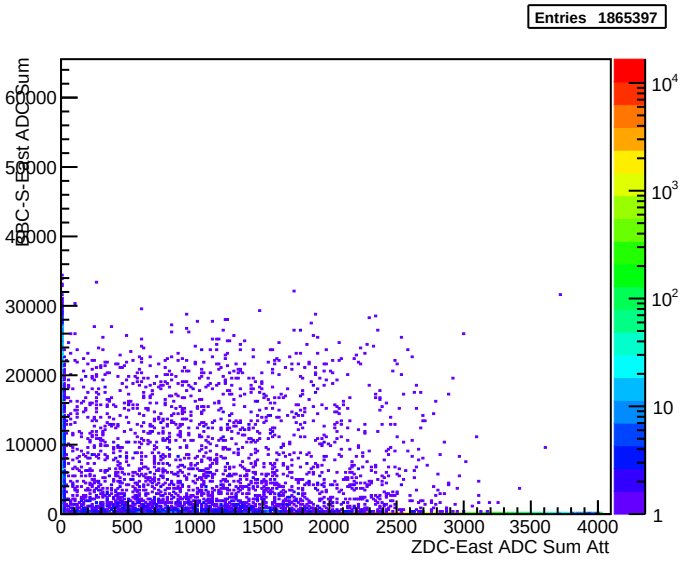

Entries 1865397
TOF Mult
BBC-S-West ADC Sum

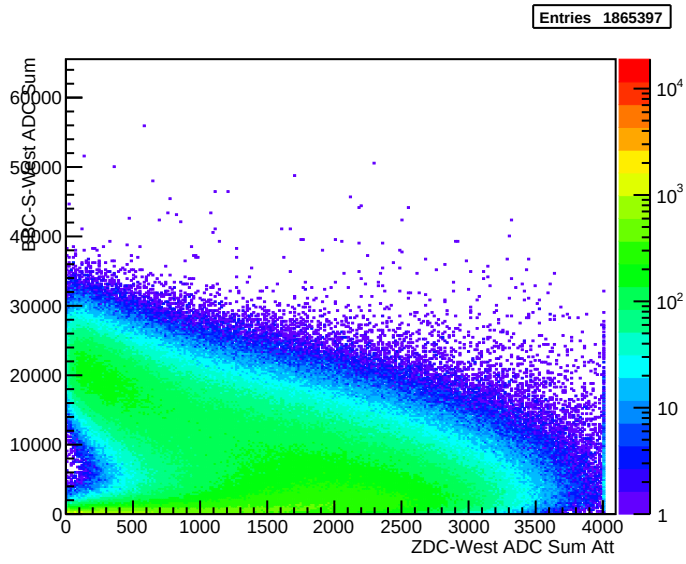

Entries 1865397
TOF Mult
VPD-East ADC Sum

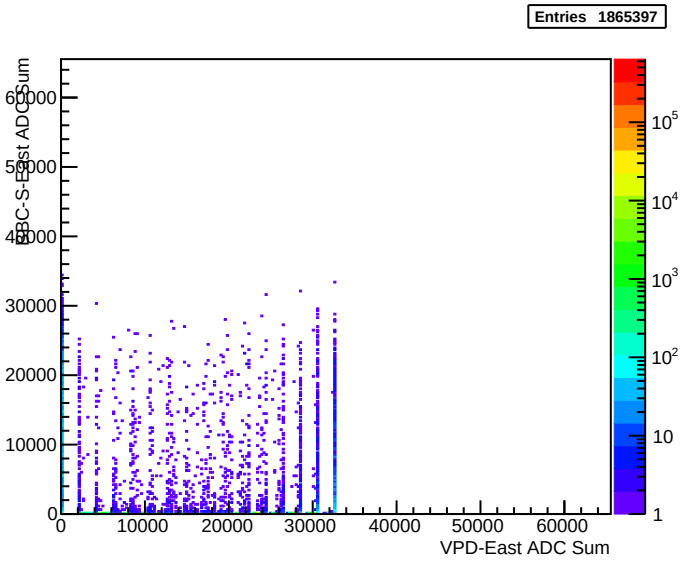

Entries 1865397
TOF Mult
VPD-West ADC Sum

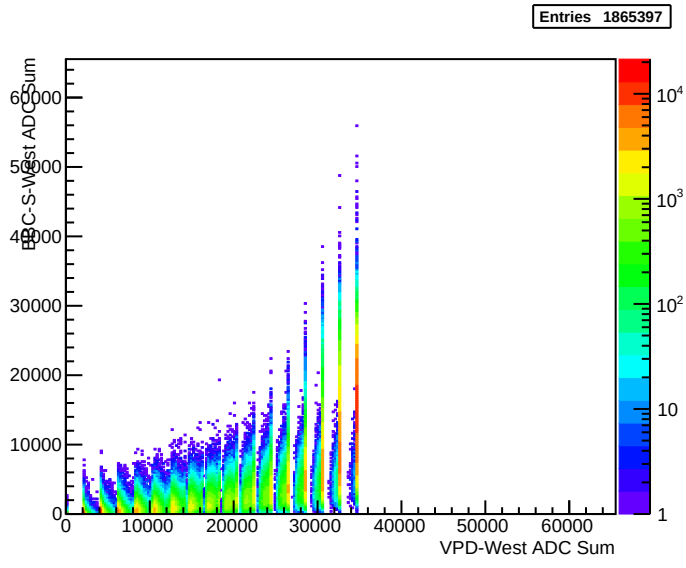

Entries 1865397
TOF Mult
ZDC-East ADC Sum Att

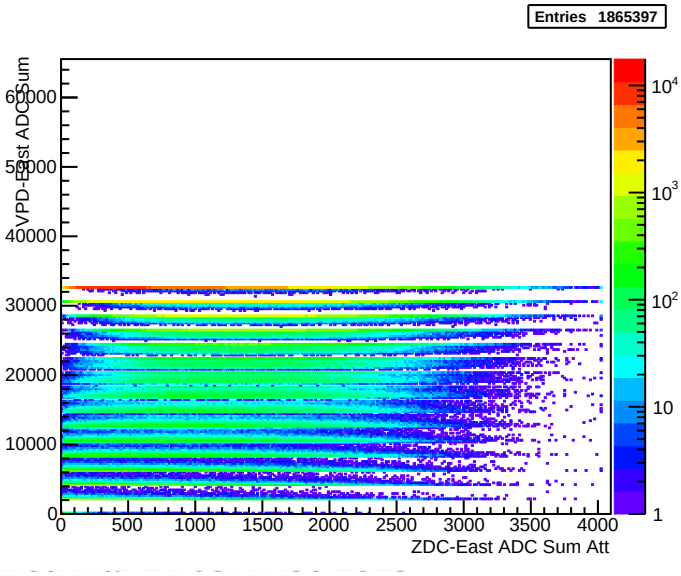

Entries 1865397
TOF Mult
ZDC-West ADC Sum Att

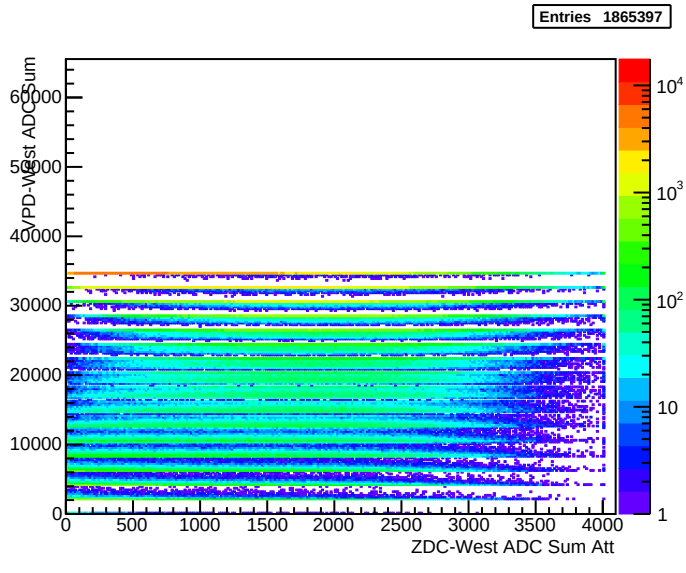

Entries 1865397
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

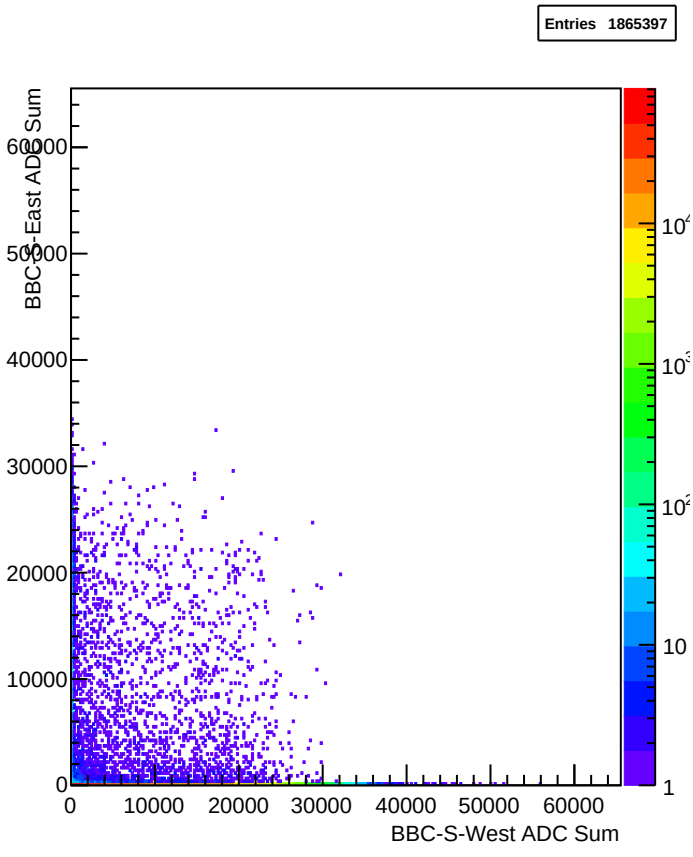

Entries 1865397
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

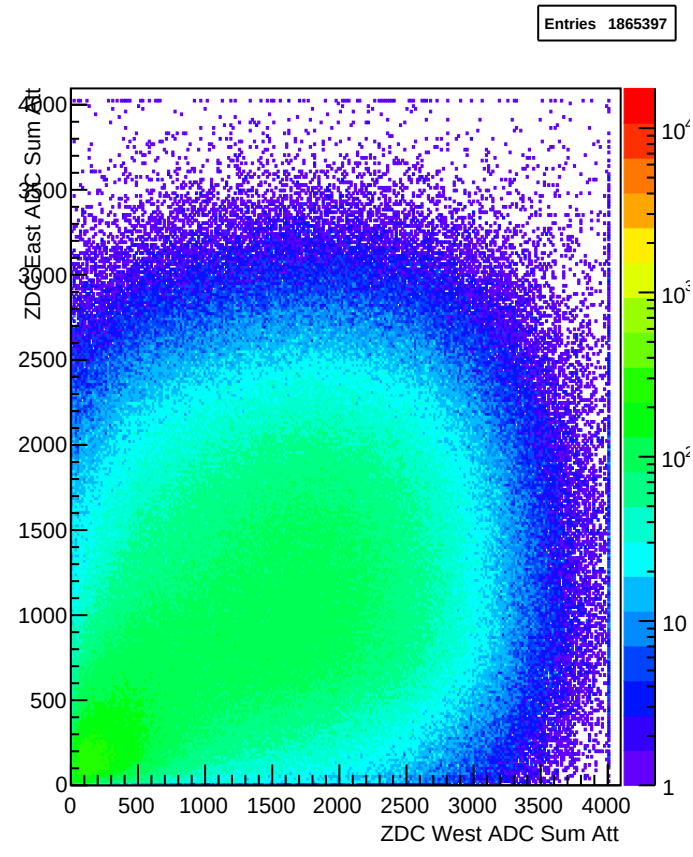

Entries 1865397
BBC-S-East ADC Sum
VPD-East ADC Sum

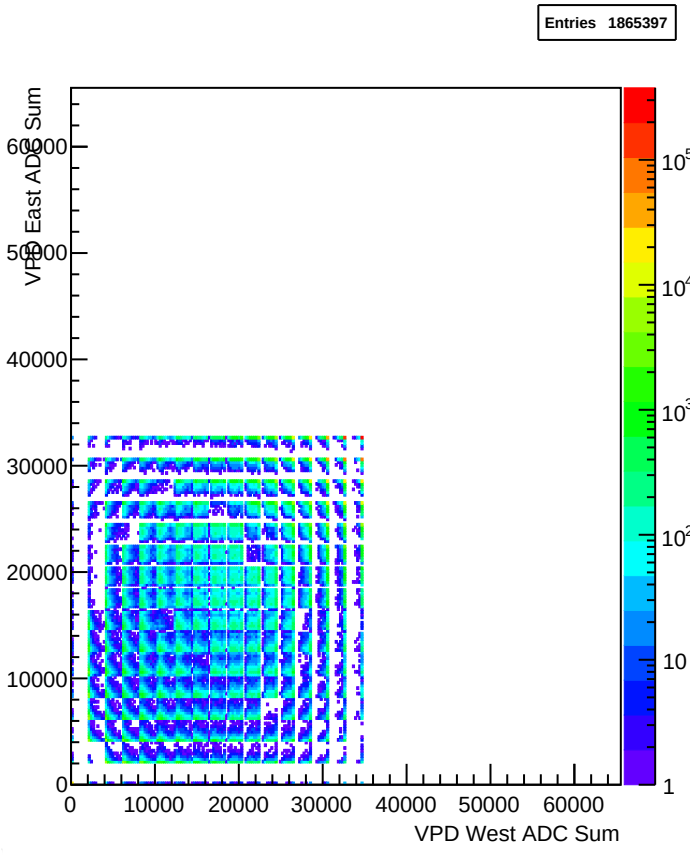

Entries 1865397
BBC-S-West ADC Sum
VPD-West ADC Sum

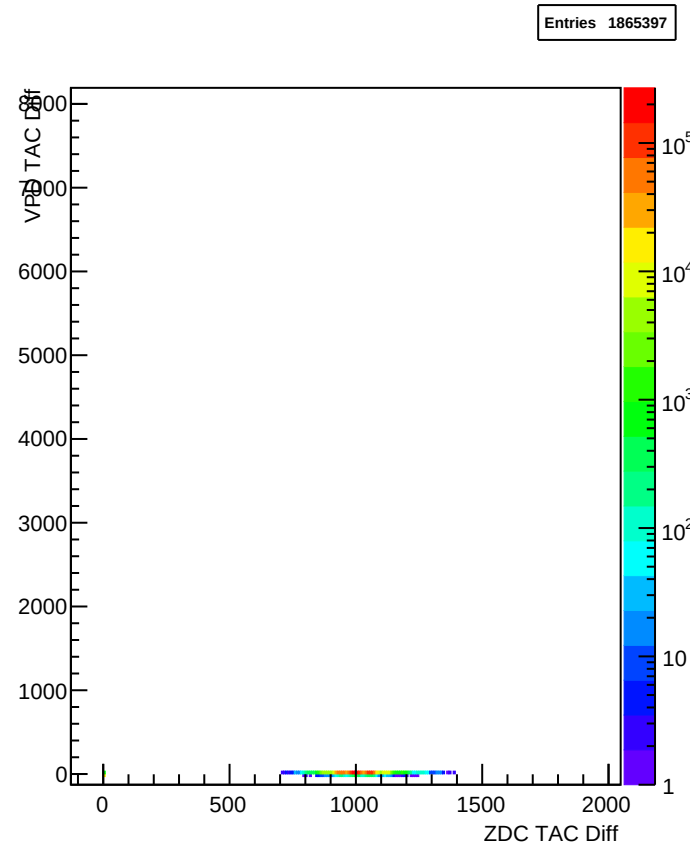

Entries 1865397
VPD-East ADC Sum
ZDC-East ADC Sum Att

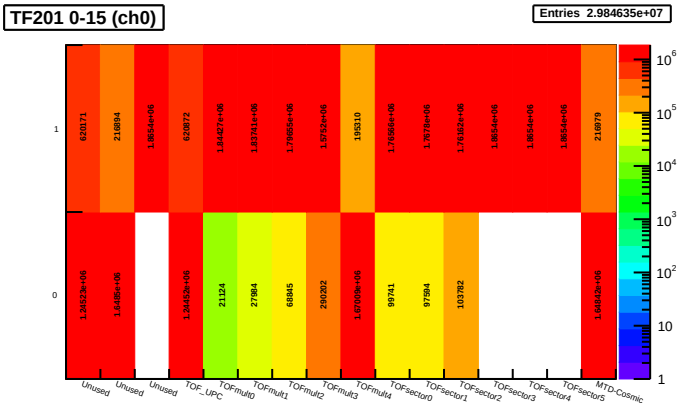

Entries 1865397
VPD-West ADC Sum
ZDC-West ADC Sum Att

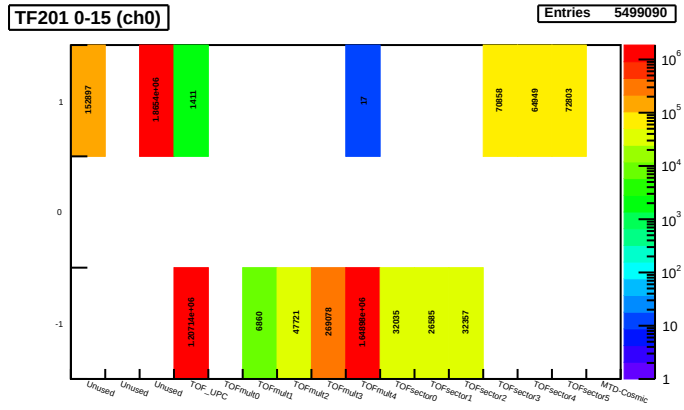

Entries 1865397
BBC-S-East ADC Sum
BBC-S-West ADC Sum


Entries 1865397
ZDC East ADC Sum Att
ZDC West ADC Sum Att


Entries 1865397
VPD East ADC Sum
VPD West ADC Sum


Entries 1865397
VPD TAC Diff
ZDC TAC Diff


TF201 0-15 (ch0)
Entries 2.984635e+07
Unused
Unused
Unused
TOF_-UPC
TOFmult0
TOFmult1
TOFmult2
TOFmult3
TOFmult4
TOFsector0
TOFsector1
TOFsector2
TOFsector3
TOFsector4
TOFsector5
MTD-Cosmic


TF201 0-15 (ch0)
Entries 5499090
Unused
Unused
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TOF_-UPC
TOFmult0
TOFmult1
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TOFsector1
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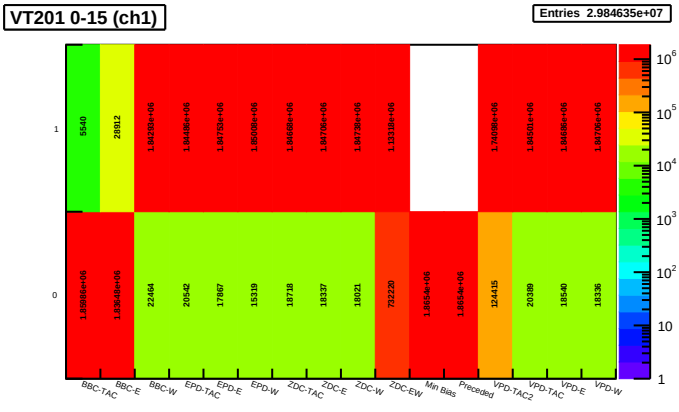
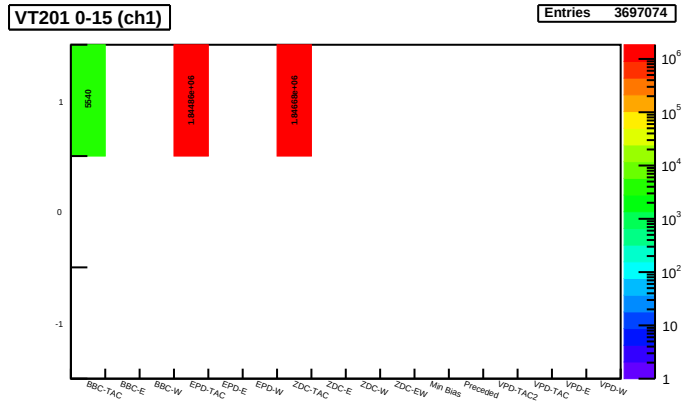
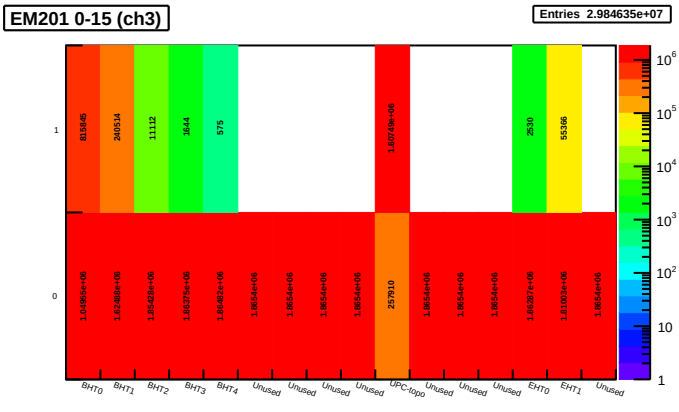
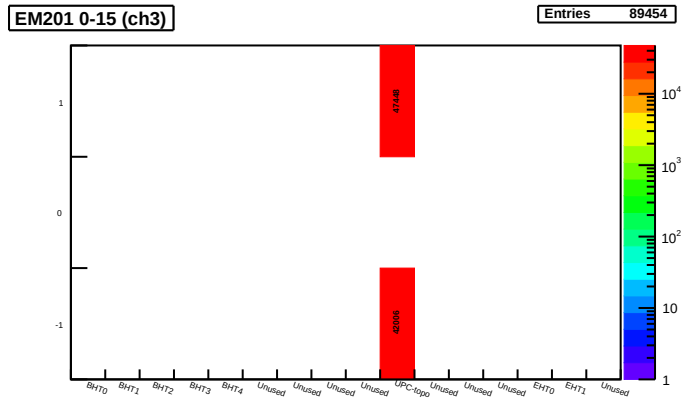
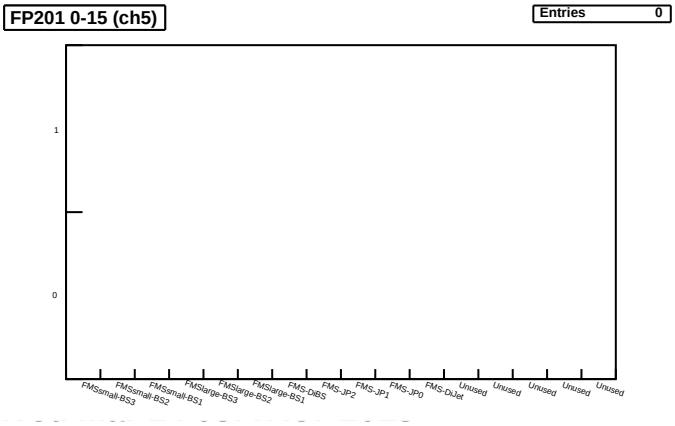
TOFsector3
TOFsector4
TOFsector5
MTD-Cosmic

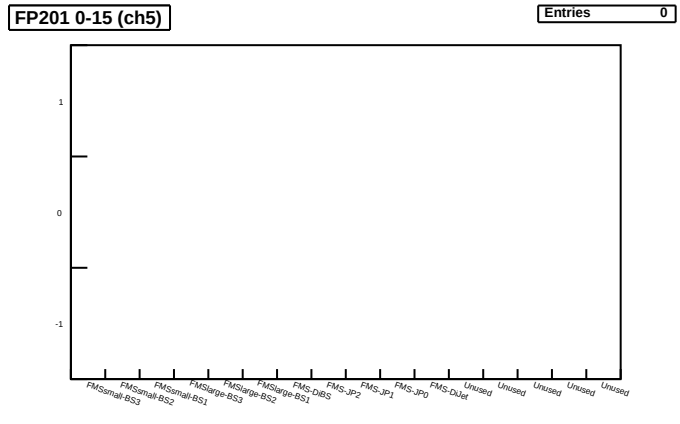

VT201 0-15 (ch1)
Entries 2.984635e+07
BBC-TAC
BBC-E
BBC-W
EPD-TAC
EPD-E
EPD-W
ZDC-TAC
ZDC-E
ZDC-W
ZDC-EW
Min Bias
Preceded
VPD-TAC2
VPD-TAC
VPD-E
VPD-W


VT201 0-15 (ch1)
Entries 3697074
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 2.984635e+07
BHT0
BHT1
BHT2
BHT3
BHT4
Unused
Unused
Unused
Unused
UPC-topo
Unused
Unused
Unused
EHT0
EHT1
Unused


EM201 0-15 (ch3)
Entries 89454
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