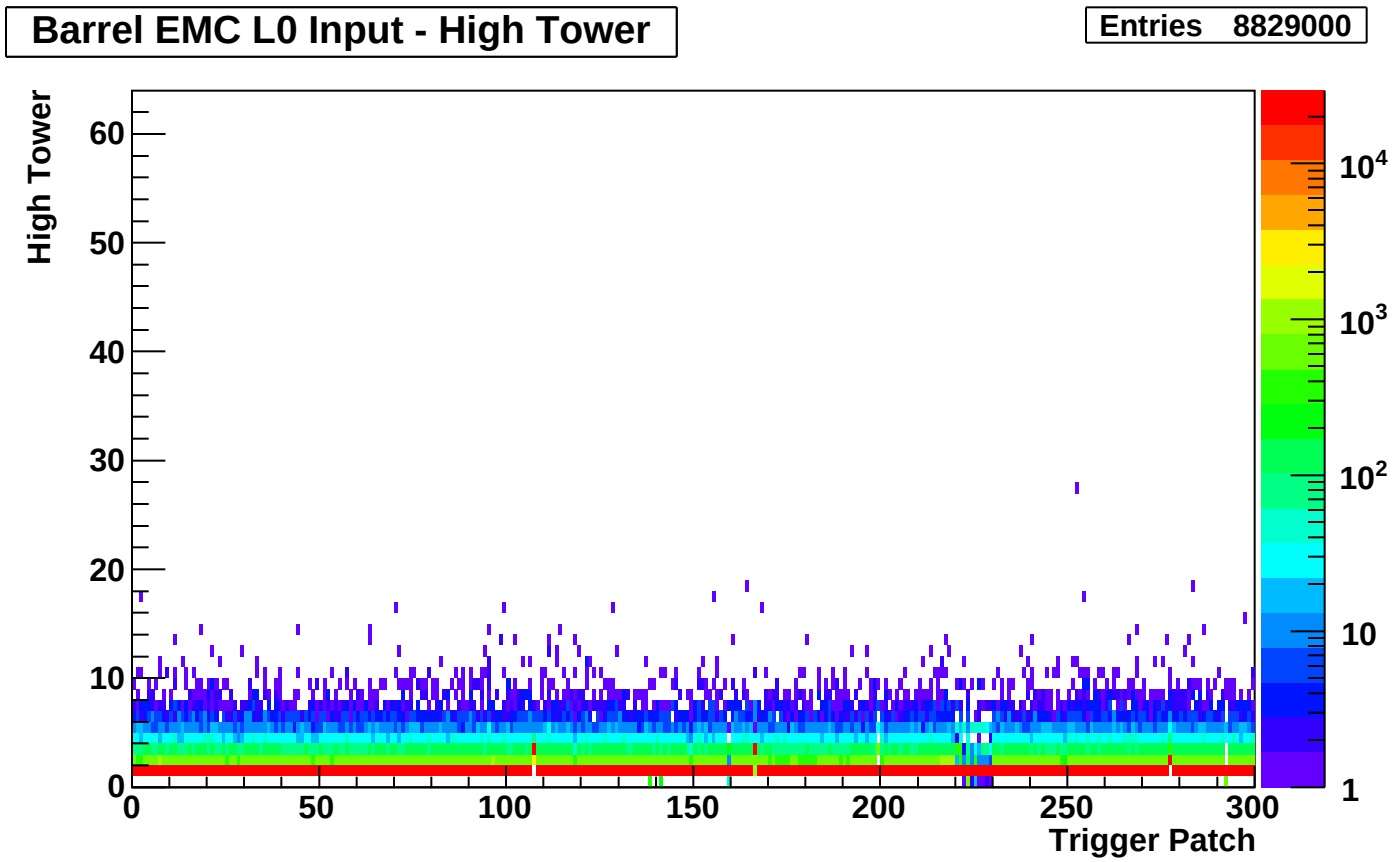
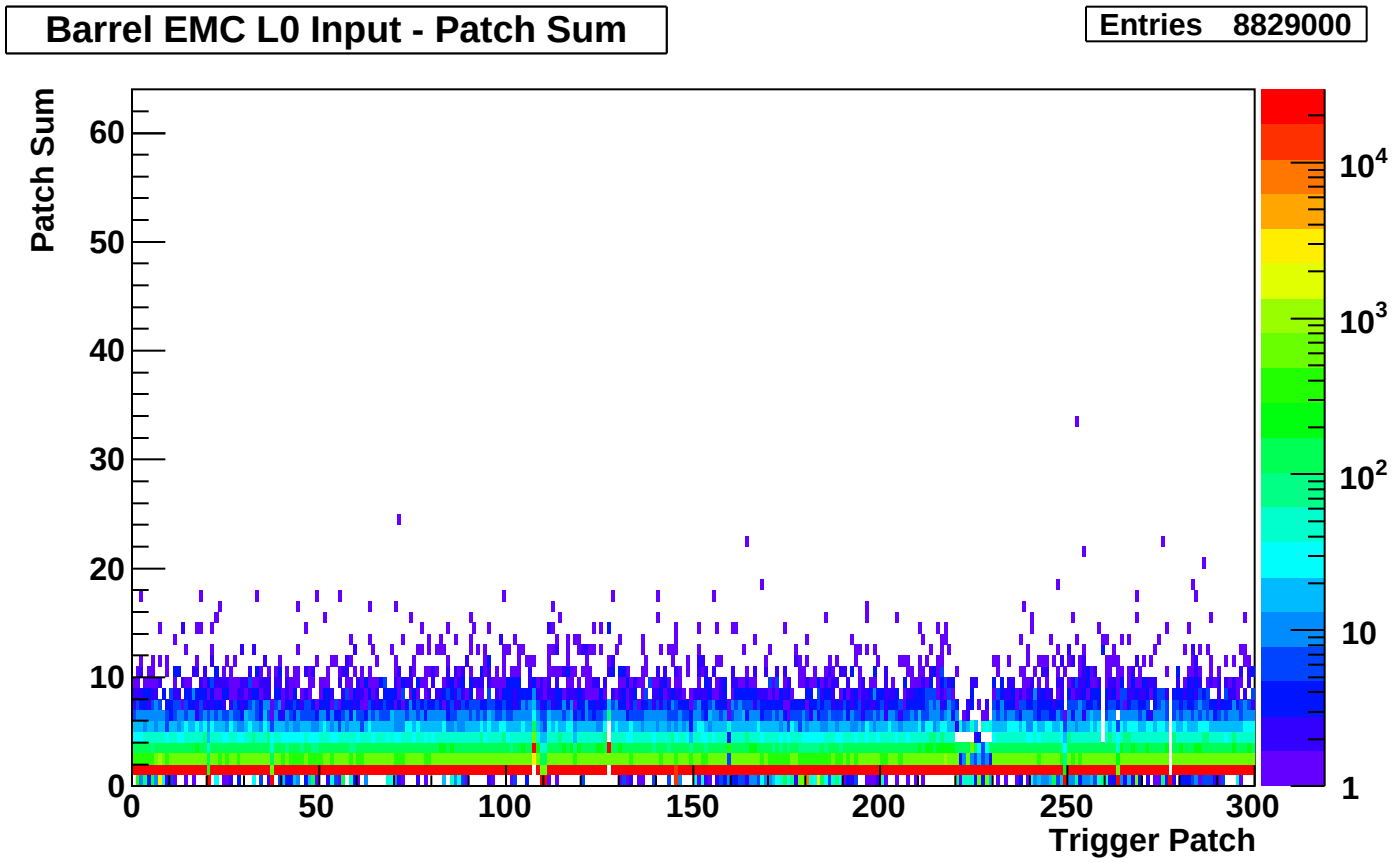
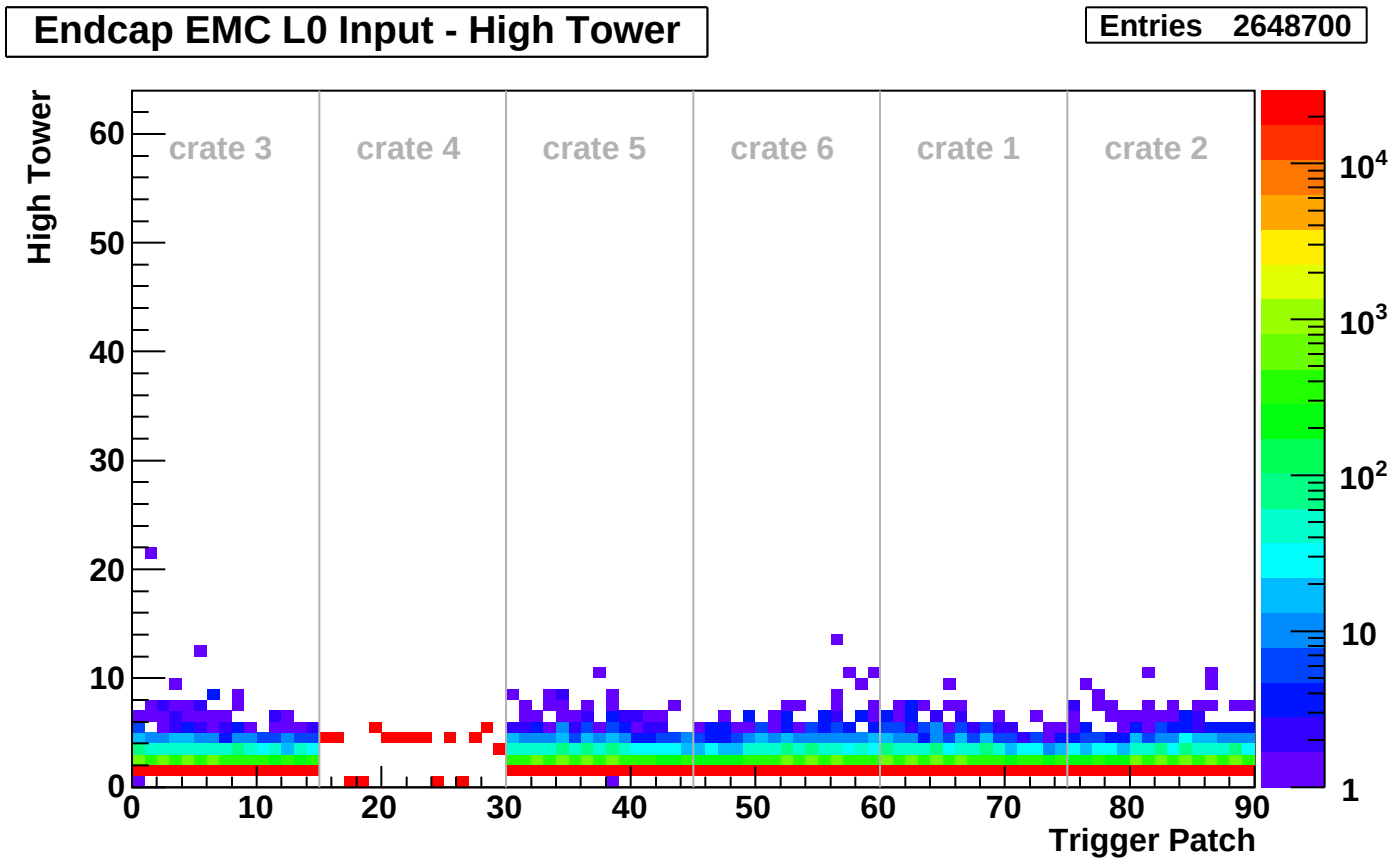
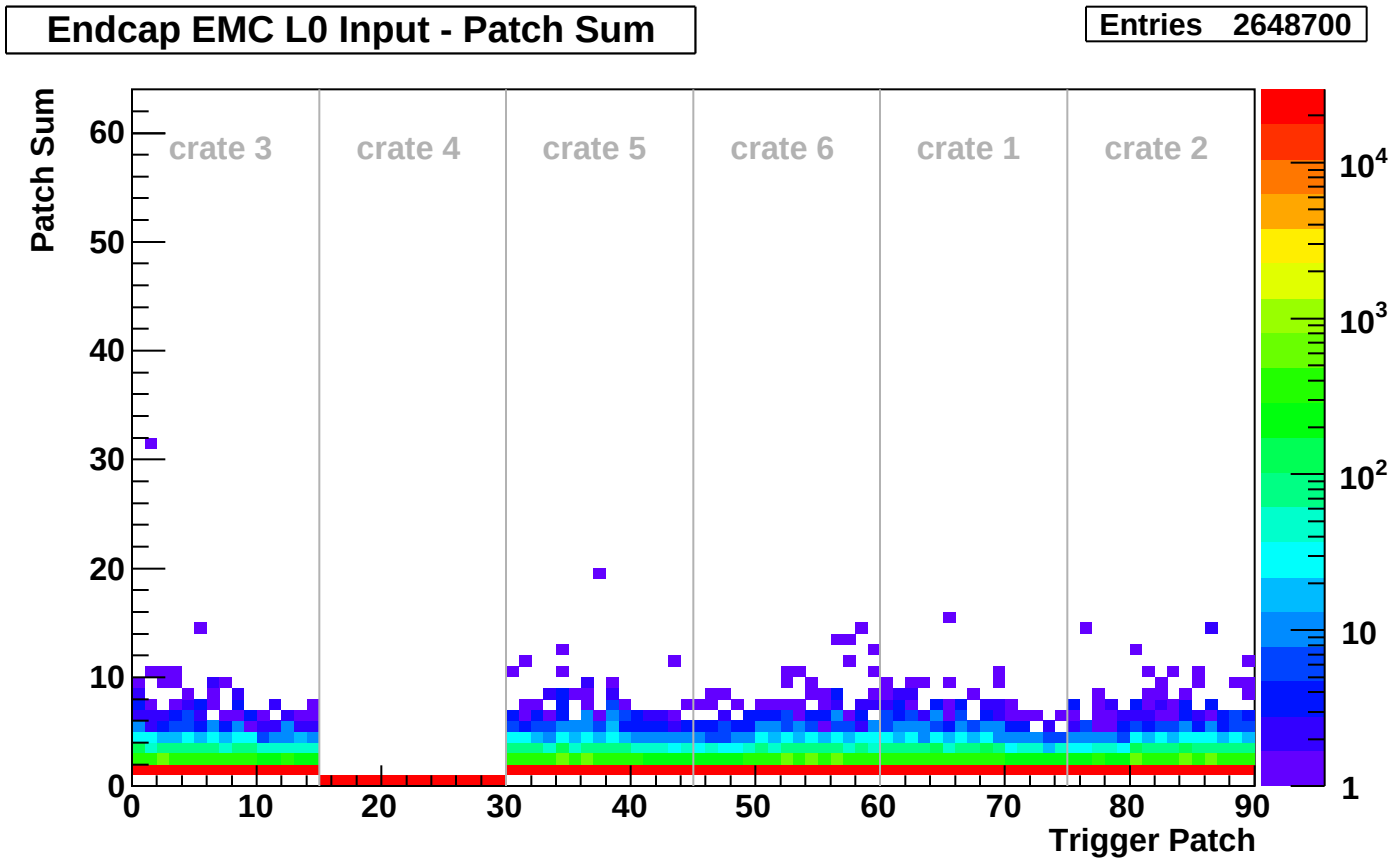
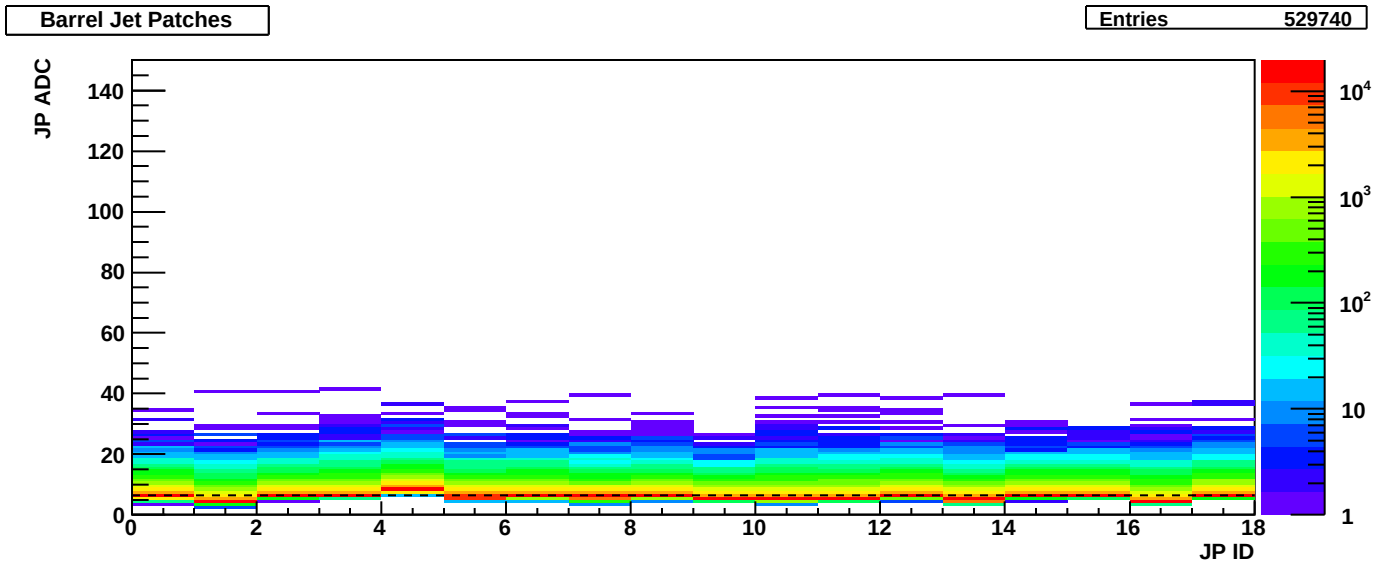
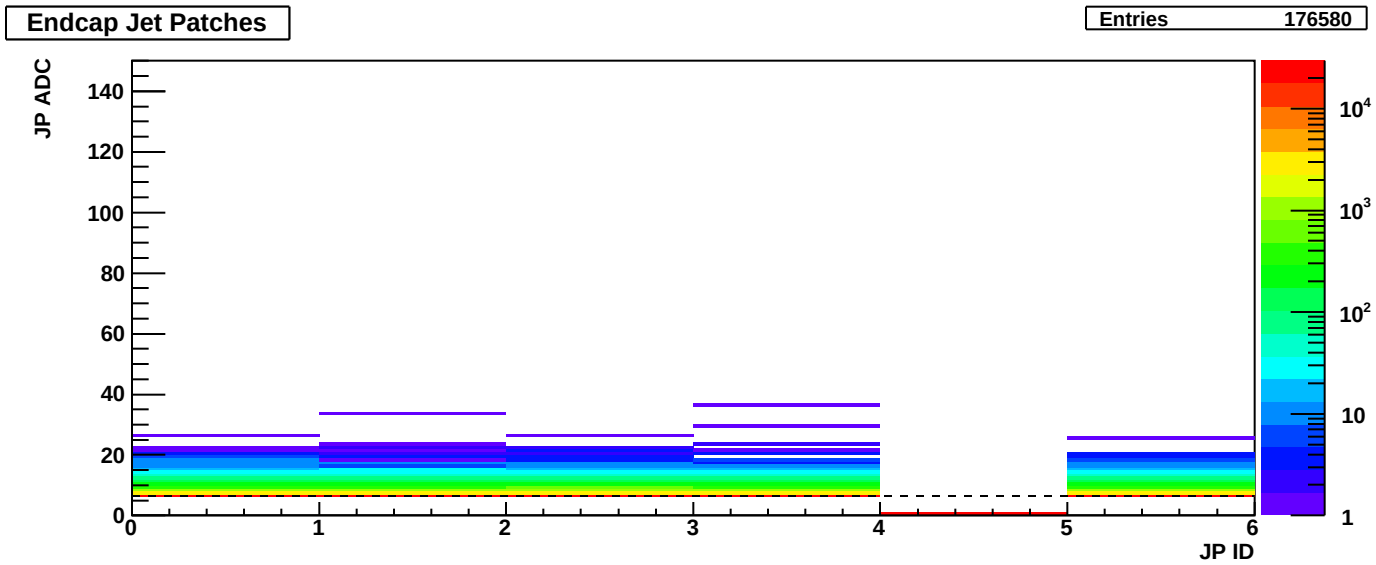

Barrel EMC L0 Input - High Tower
Entries 8829000
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

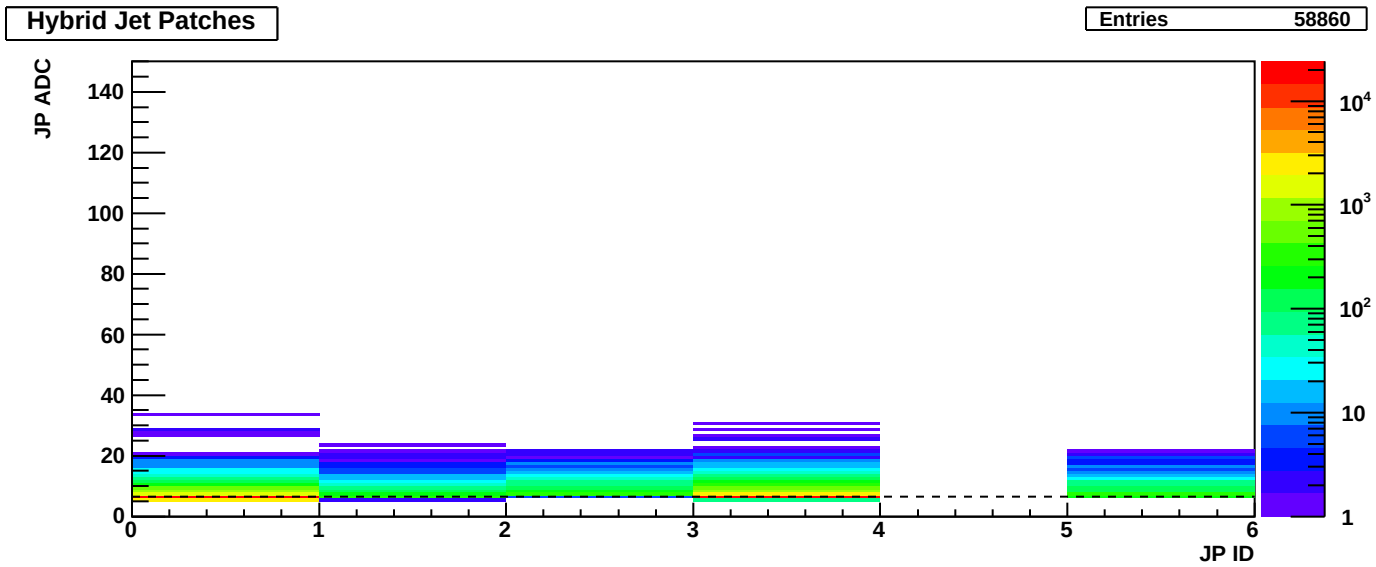

Barrel EMC L0 Input - Patch Sum
Entries 8829000
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

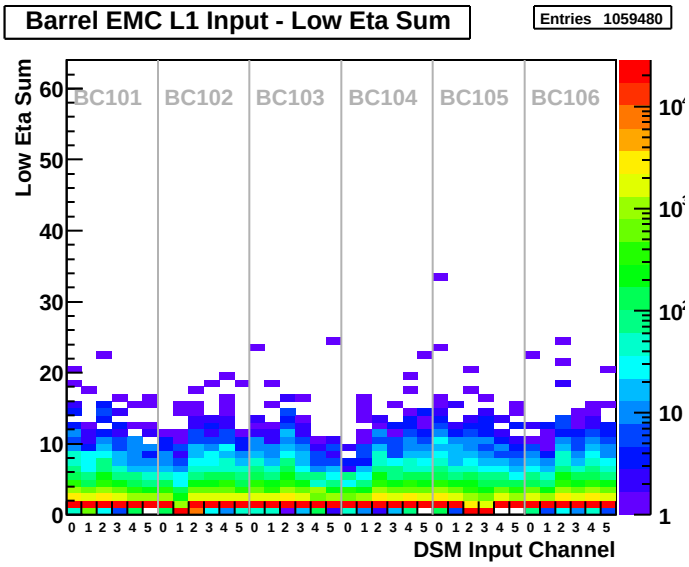

Endcap EMC L0 Input - High Tower
Entries 2648700
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

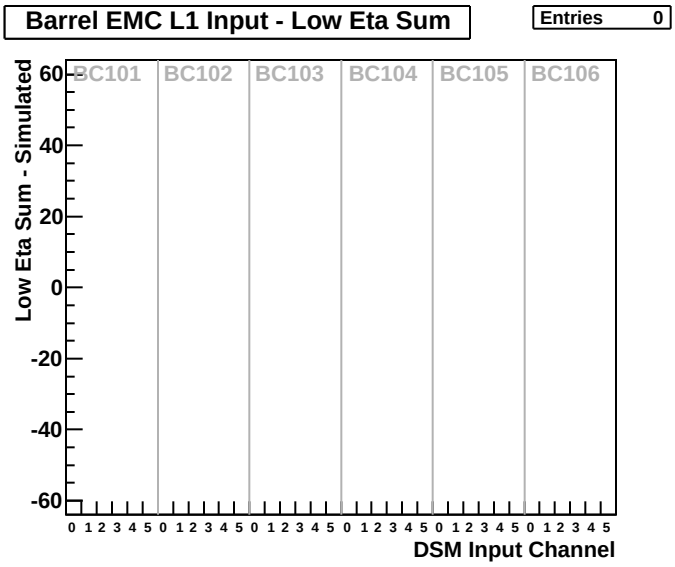

Endcap EMC L0 Input - Patch Sum
Entries 2648700
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

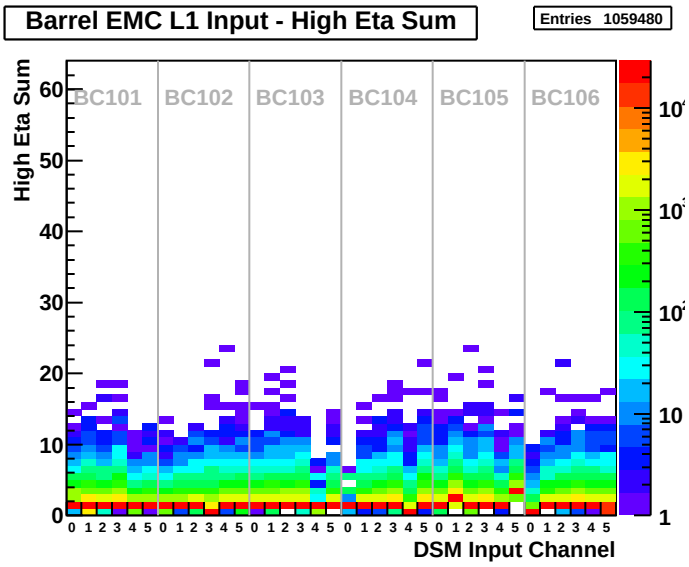

Barrel Jet Patches
Entries 529740
JP ADC
JP ID

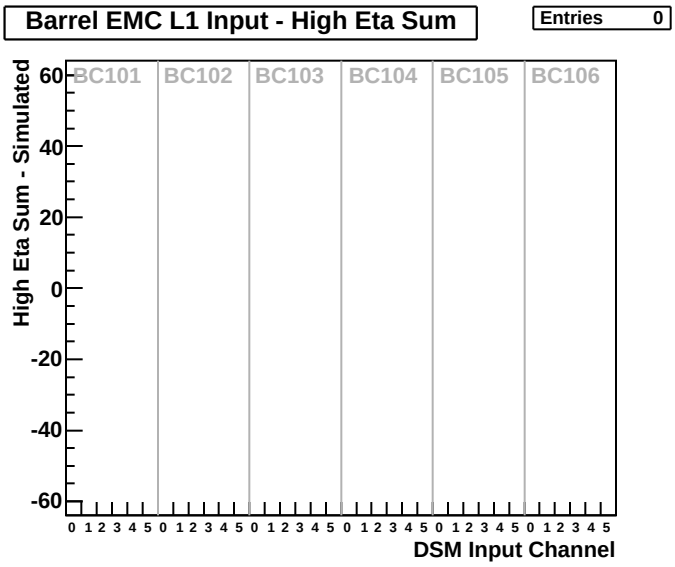

Endcap Jet Patches
Entries 176580
JP ADC
JP ID

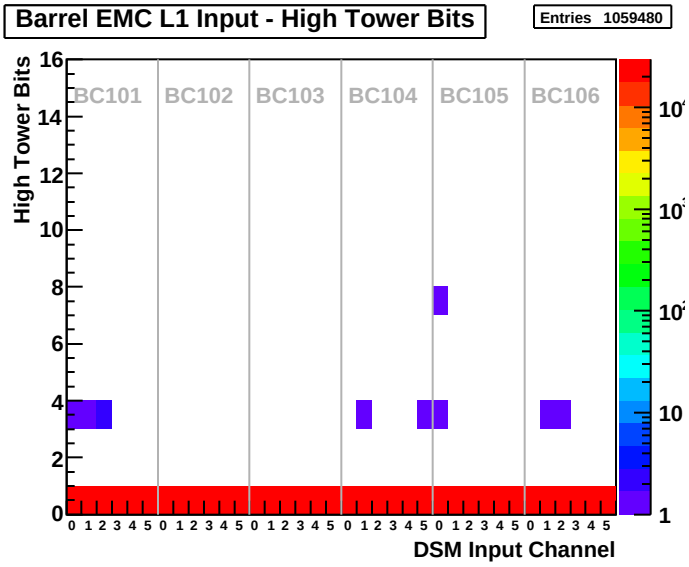

Hybrid Jet Patches
Entries 58860
JP ADC
JP ID

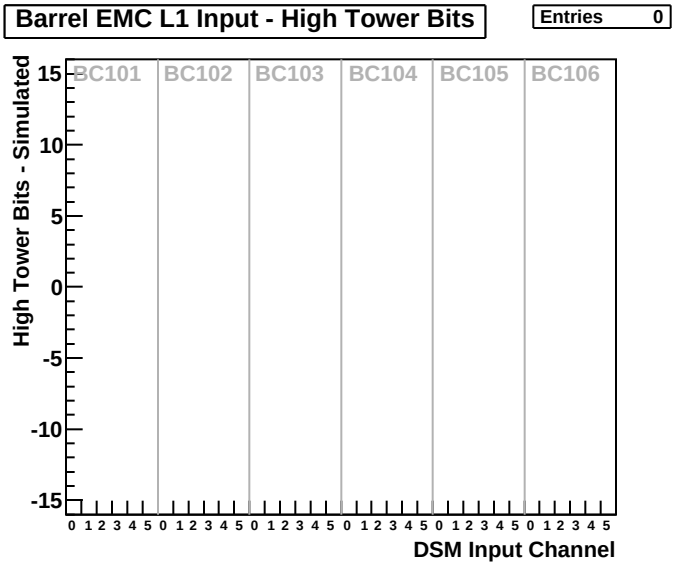

Barrel EMC L1 Input - Low Eta Sum
Entries 1059480
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

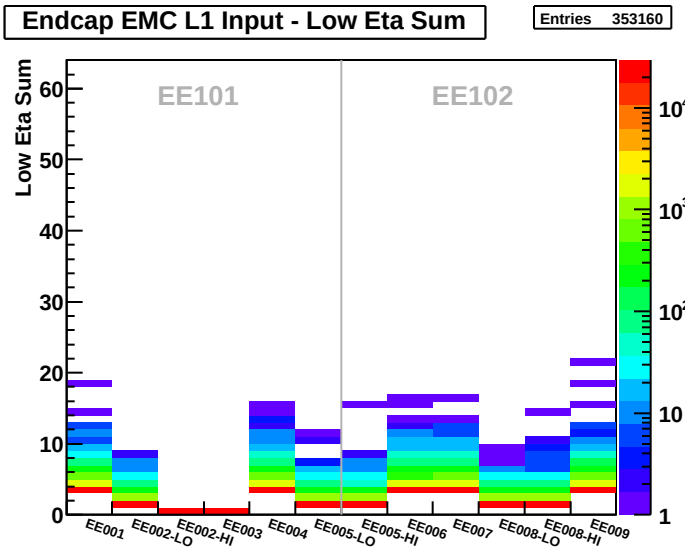

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

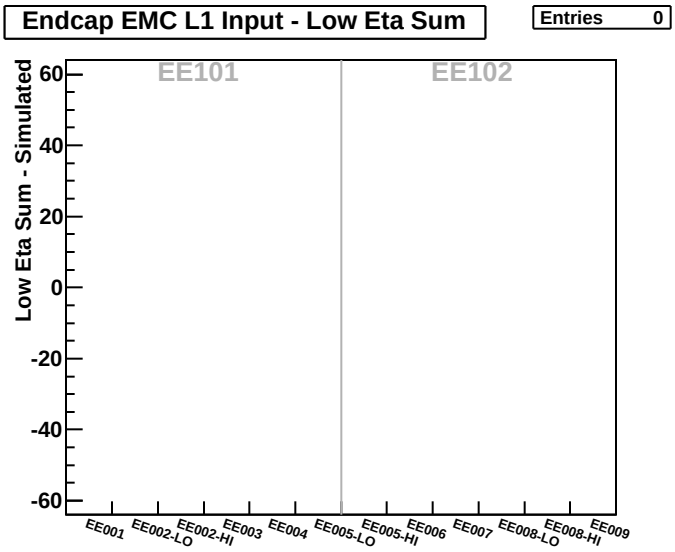

Barrel EMC L1 Input - High Eta Sum
Entries 1059480
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

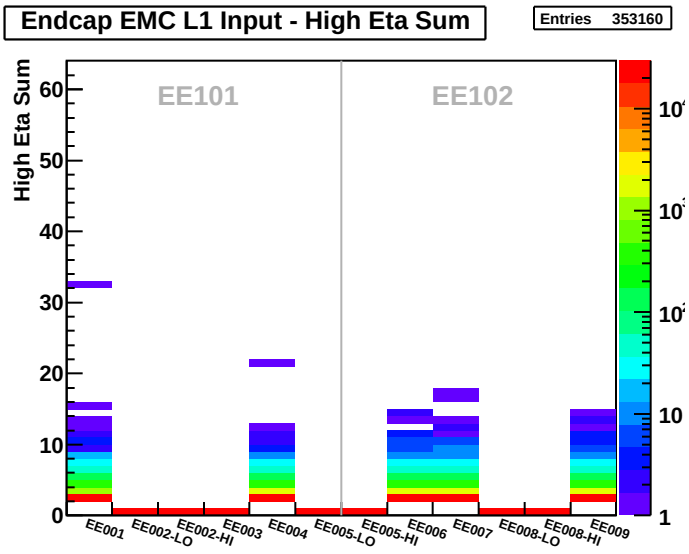

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

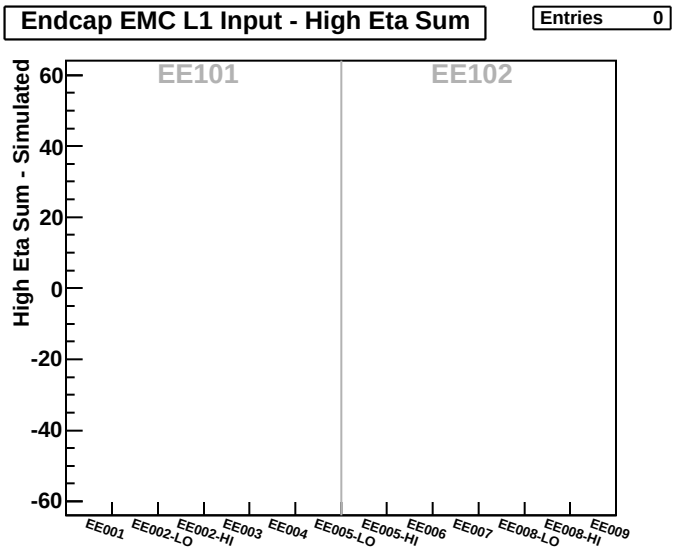

Barrel EMC L1 Input - High Tower Bits
Entries 1059480
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

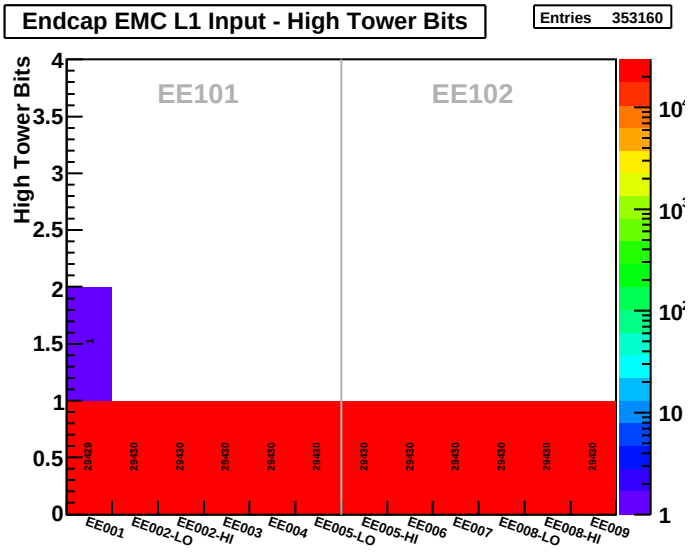

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

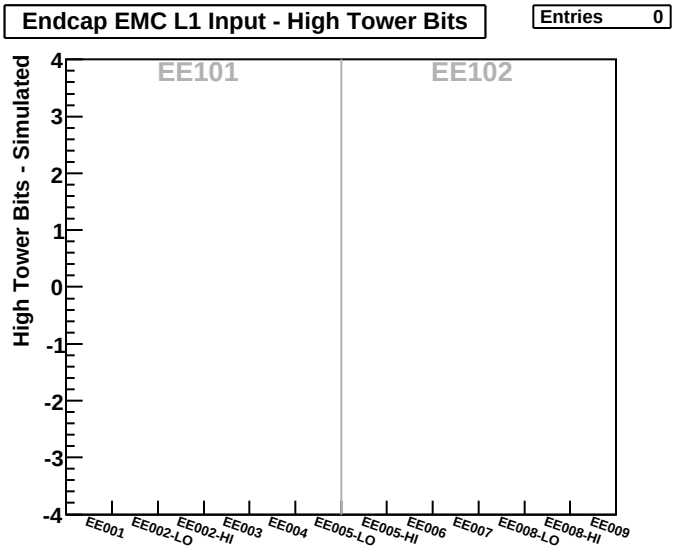

Endcap EMC L1 Input - Low Eta Sum
Entries 353160
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

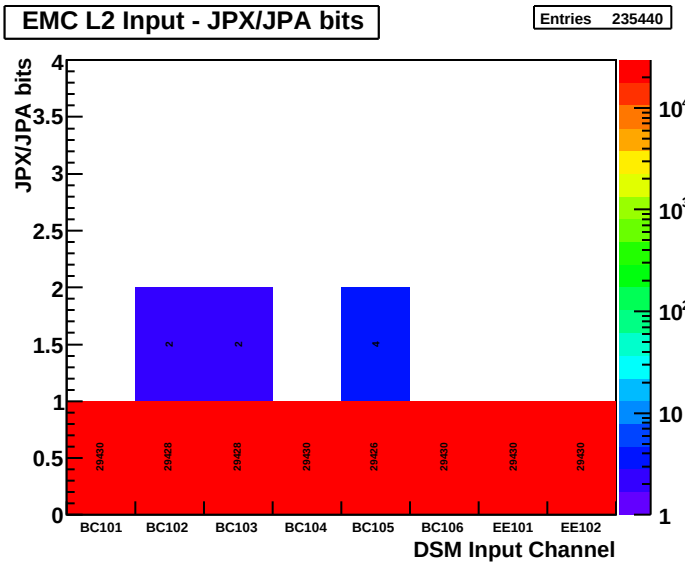

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

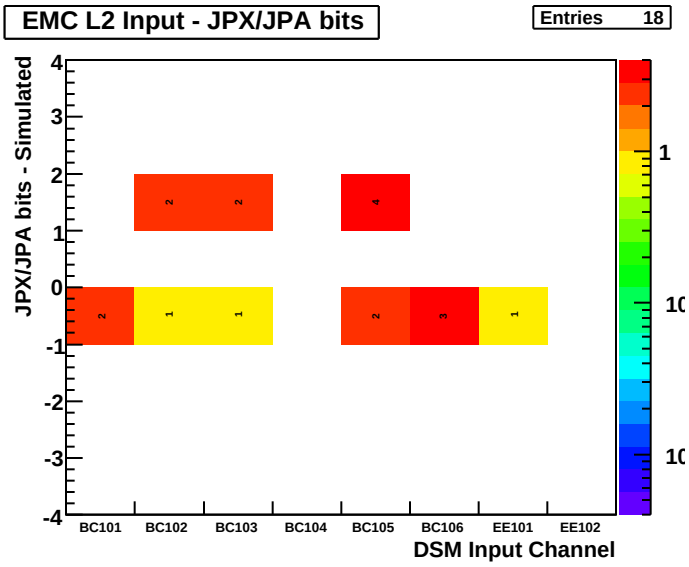

Endcap EMC L1 Input - High Eta Sum
Entries 353160
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

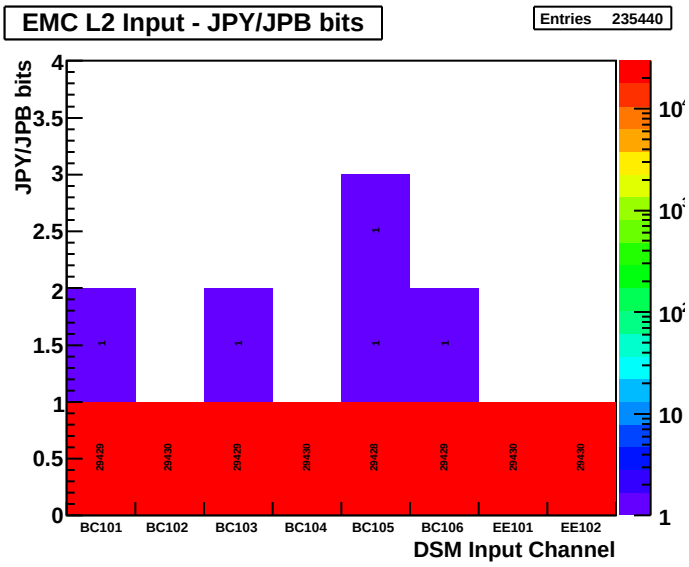

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

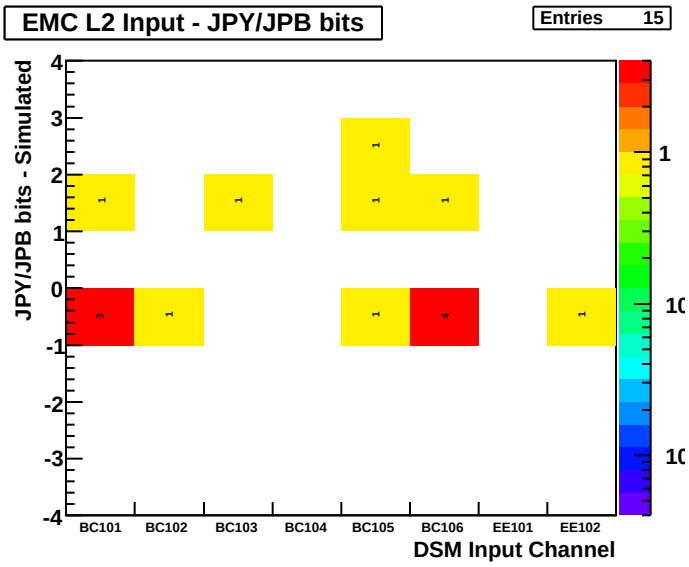

Endcap EMC L1 Input - High Tower Bits
Entries 353160
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

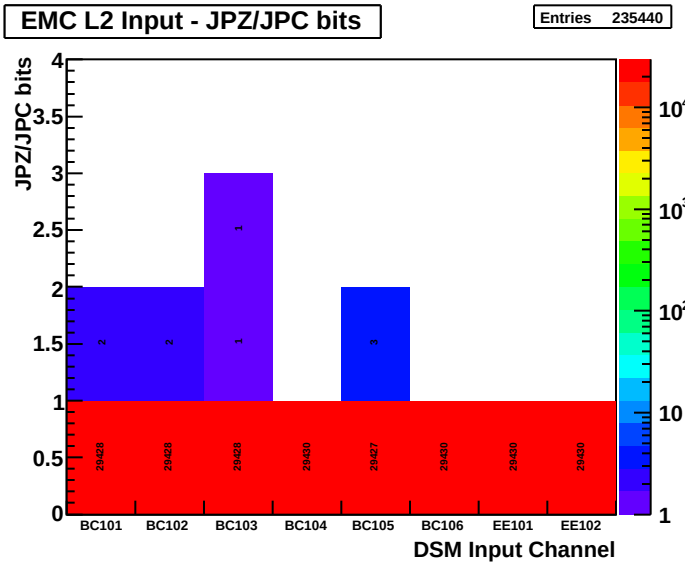

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

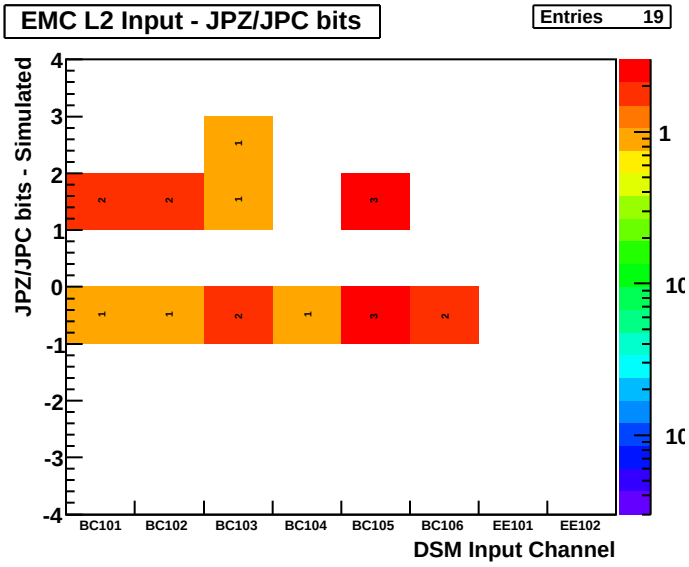

EMC L2 Input - JPX/JPA bits
Entries 235440
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

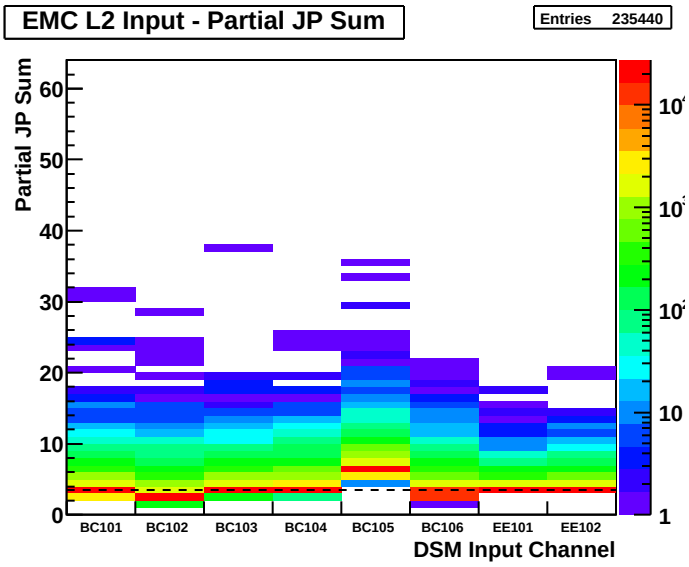

EMC L2 Input - JPX/JPA bits
Entries 18
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

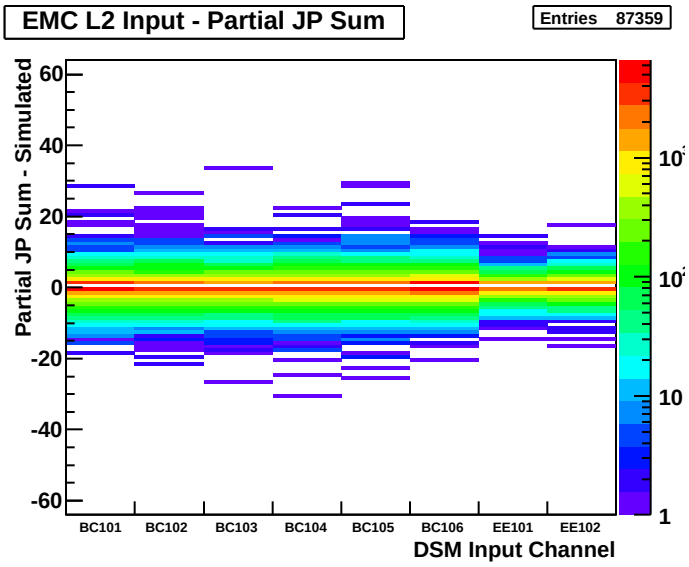

EMC L2 Input - JPY/JPB bits
Entries 235440
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

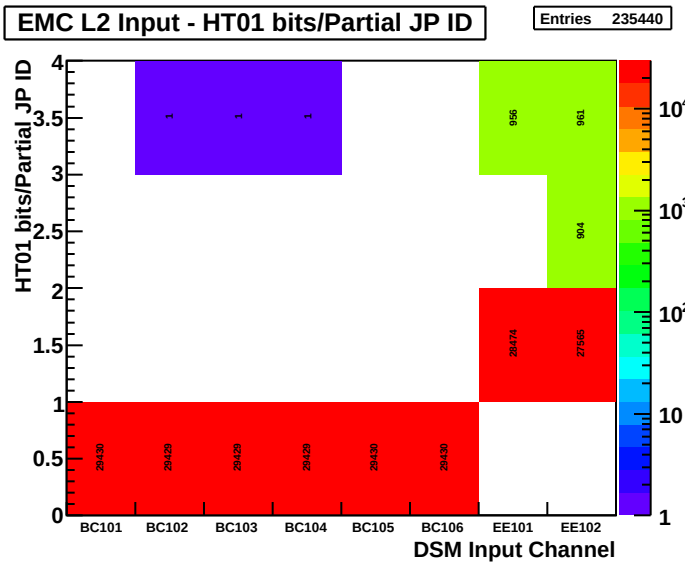

EMC L2 Input - JPY/JPB bits
Entries 15
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

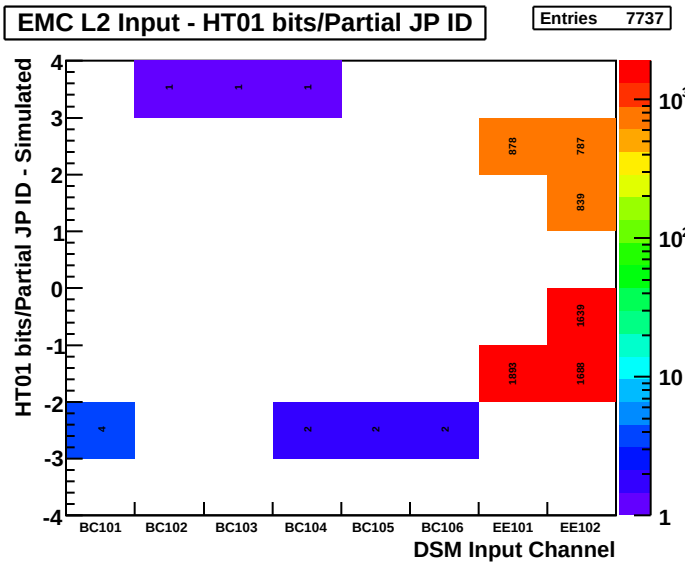

EMC L2 Input - JPZ/JPC bits
Entries 235440
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

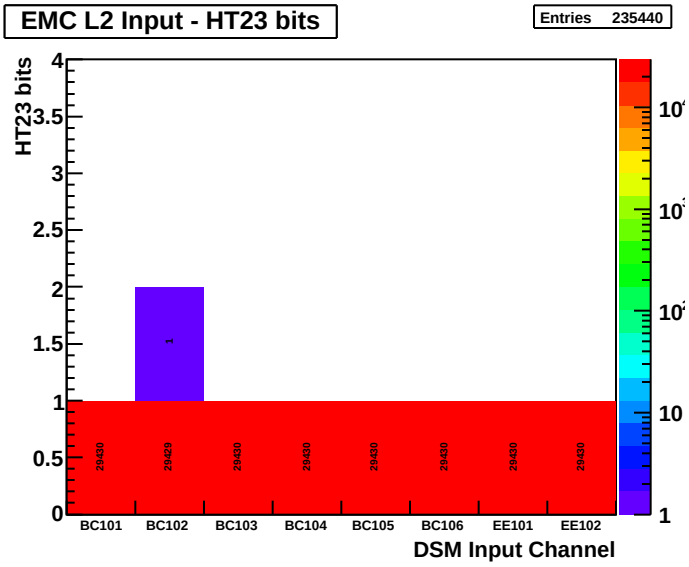

EMC L2 Input - JPZ/JPC bits
Entries 19
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

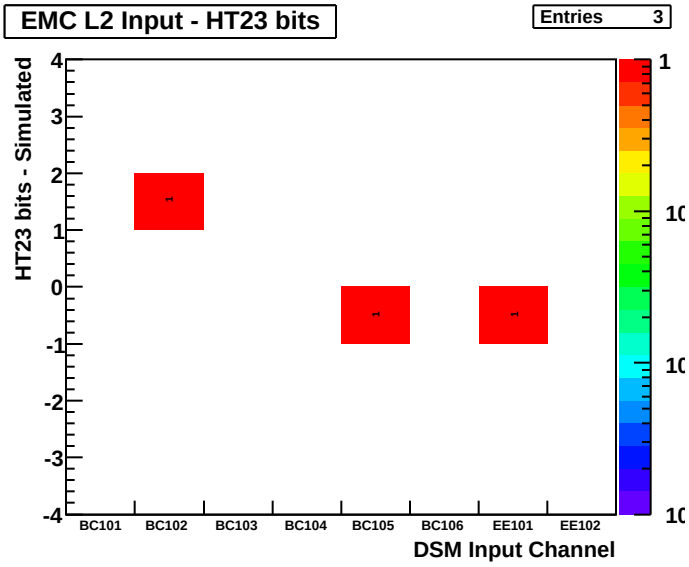

EMC L2 Input - Partial JP Sum
Entries 235440
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

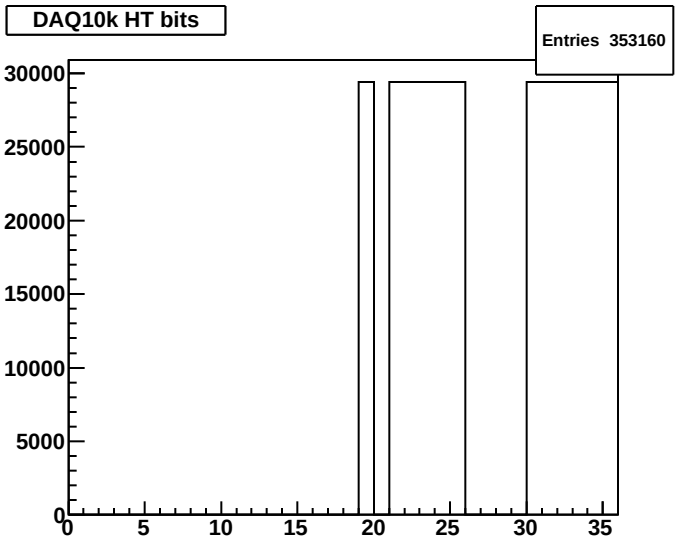

EMC L2 Input - Partial JP Sum
Entries 87359
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

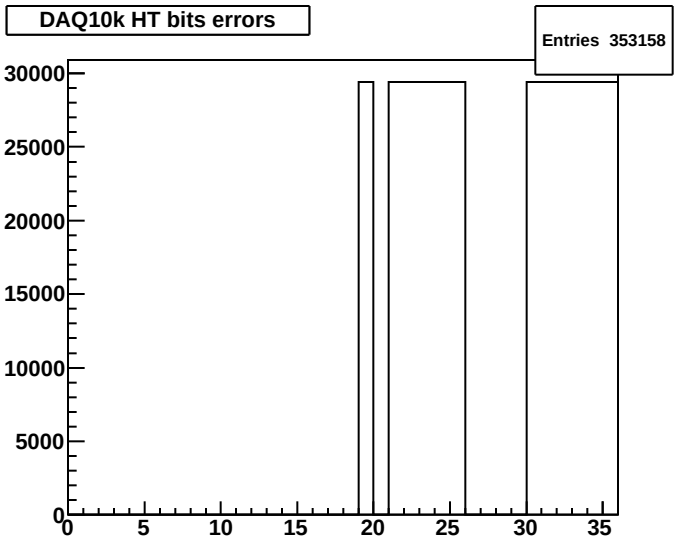

EMC L2 Input - HT01 bits/Partial JP ID
Entries 235440
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

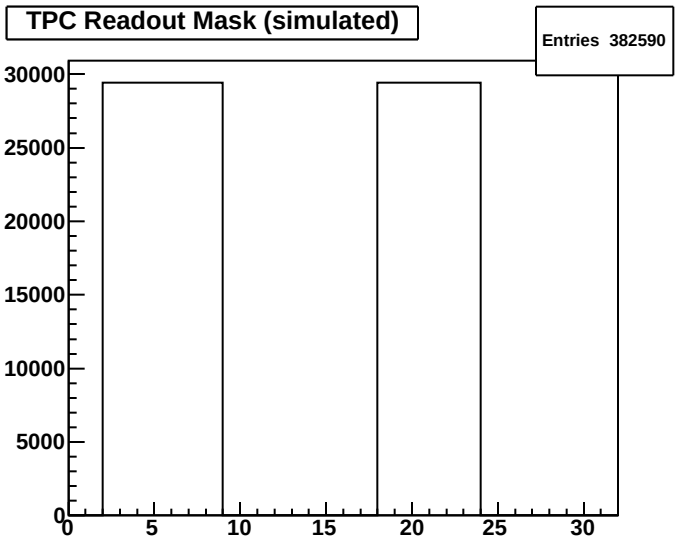

EMC L2 Input - HT01 bits/Partial JP ID
Entries 7737
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

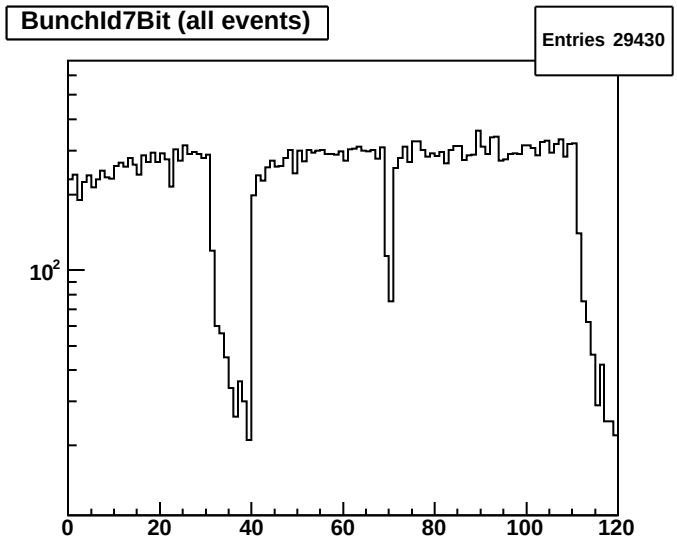

EMC L2 Input - HT23 bits
Entries 235440
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

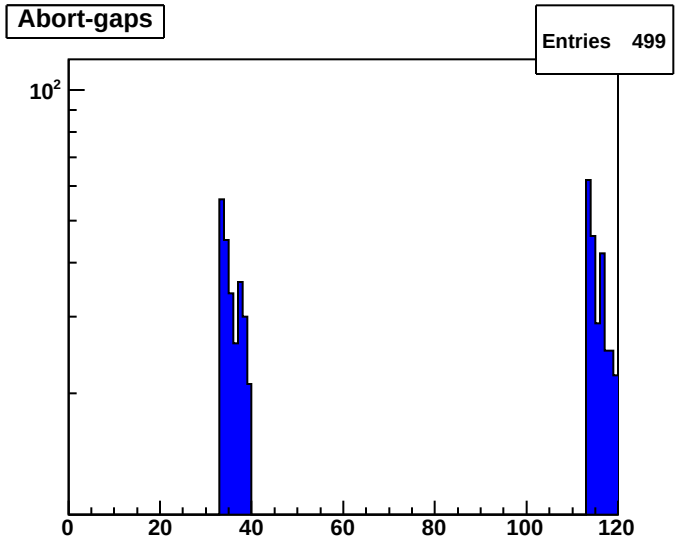

EMC L2 Input - HT23 bits
Entries 3
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

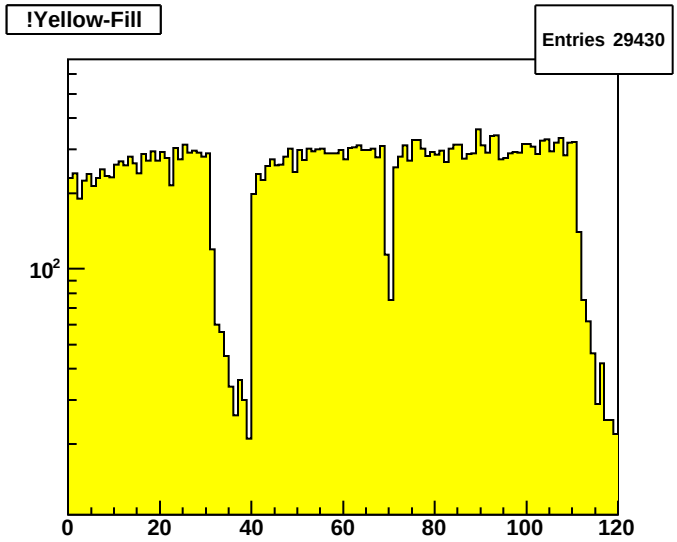

DAQ10k HT bits
Entries 353160
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

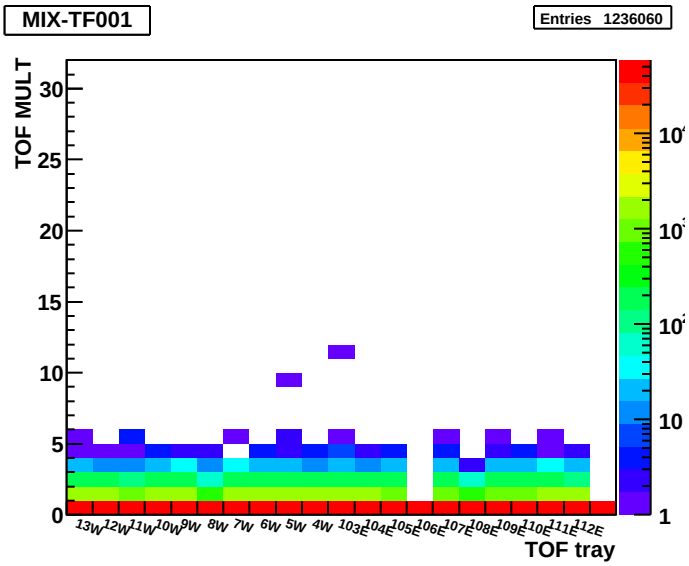

DAQ10k HT bits errors
Entries 353158
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30 35

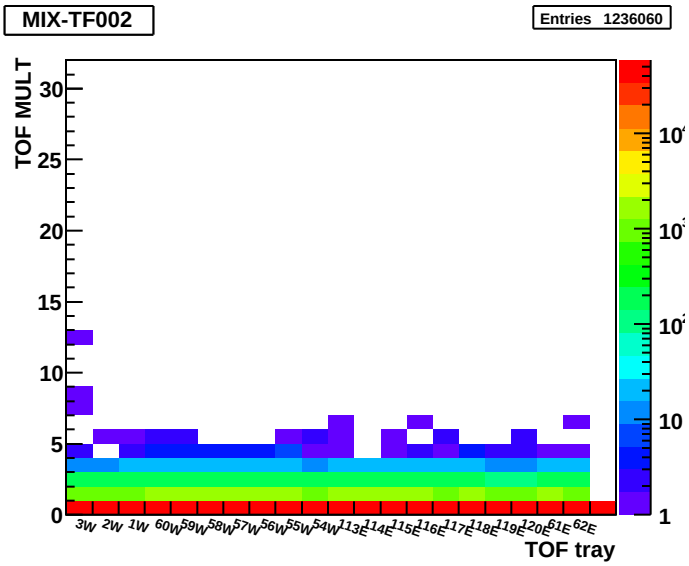

TPC Readout Mask (simulated)
Entries 382590
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

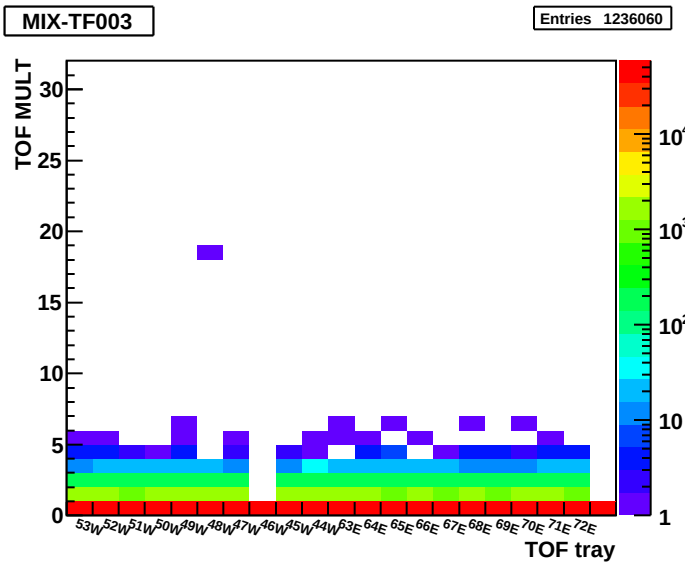

BunchId7Bit (all events)
Entries 29430
10^2
0 20 40 60 80 100 120

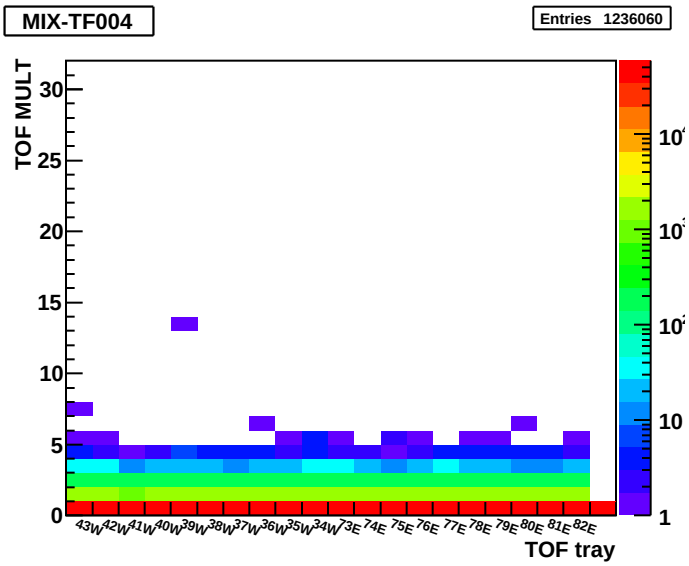

Abort-gaps
Entries 499
10^2
0 20 40 60 80 100 120

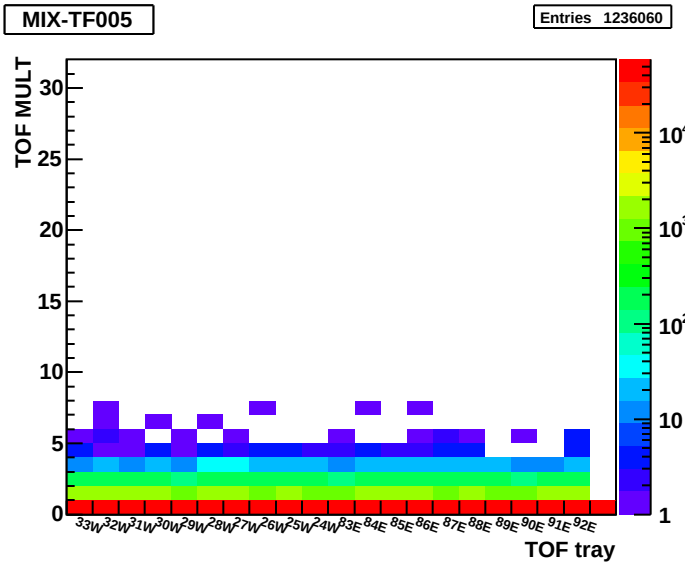

!Yellow-Fill
Entries 29430
10^2
0 20 40 60 80 100 120

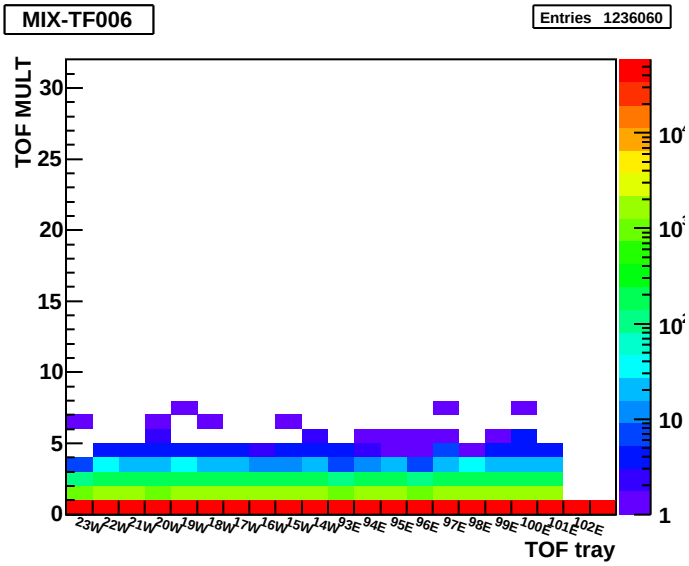

MIX-TF001
Entries 1236060
TOF MULT
TOF tray

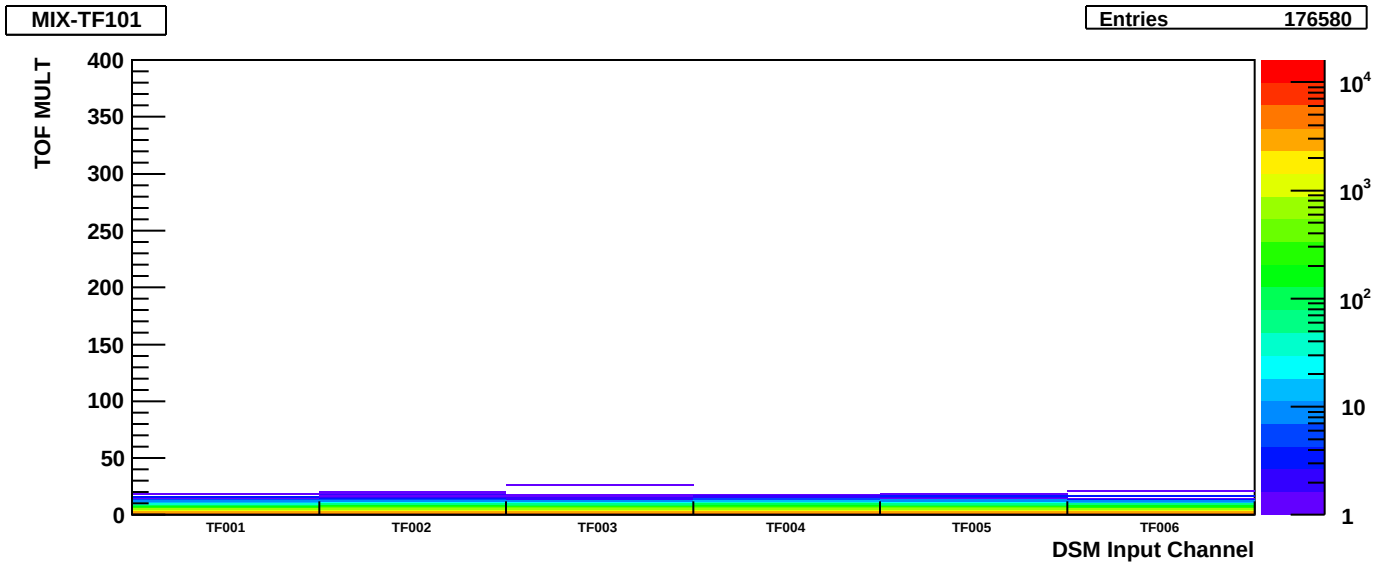

MIX-TF002
Entries 1236060
TOF MULT
TOF tray

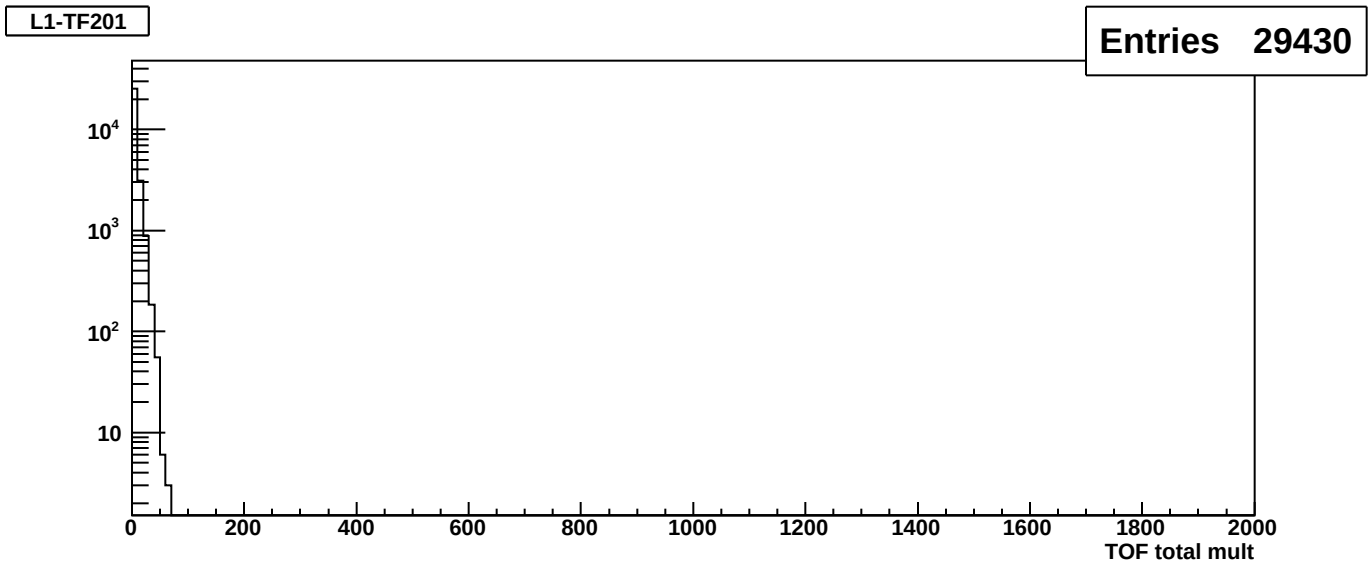

MIX-TF003
Entries 1236060
TOF MULT
TOF tray

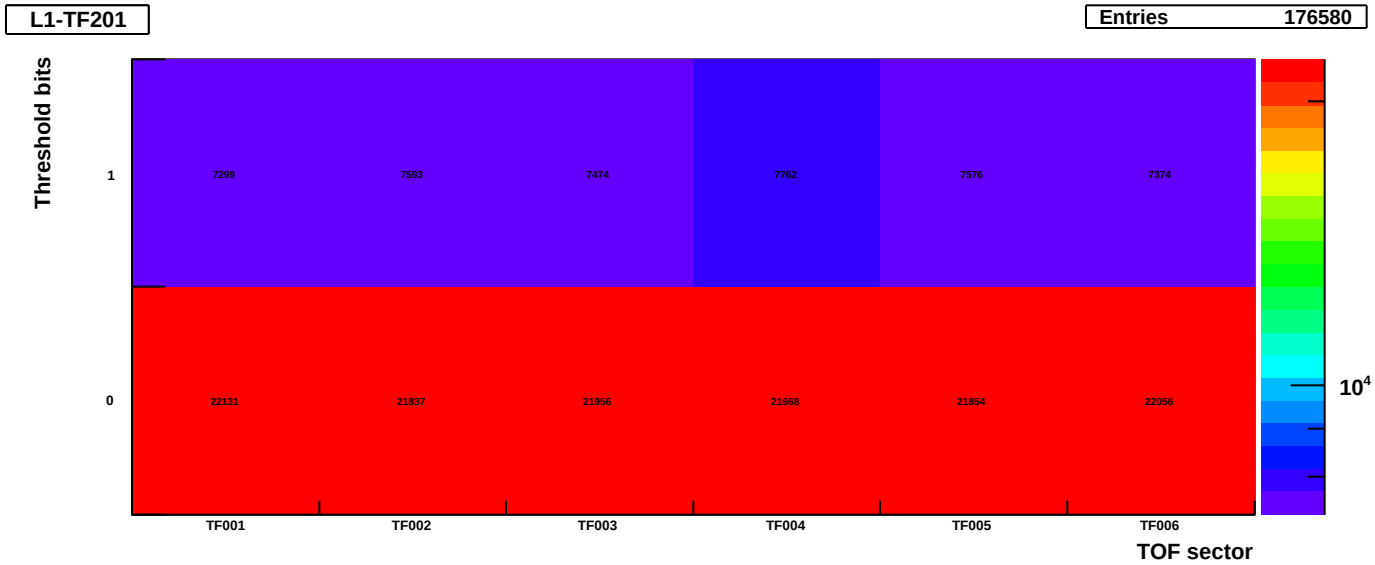

MIX-TF004
Entries 1236060
TOF MULT
TOF tray

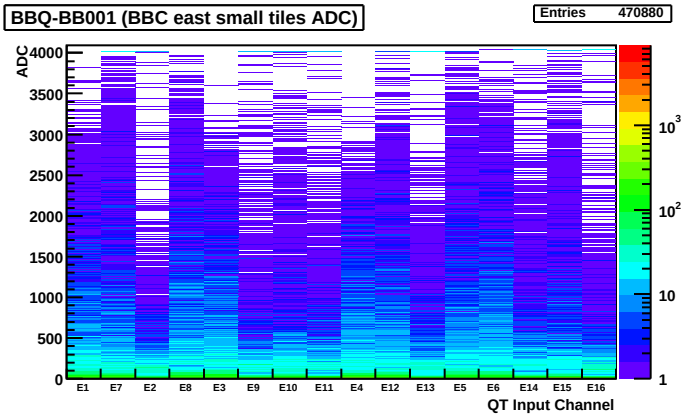

MIX-TF005
Entries 1236060
TOF MULT
TOF tray

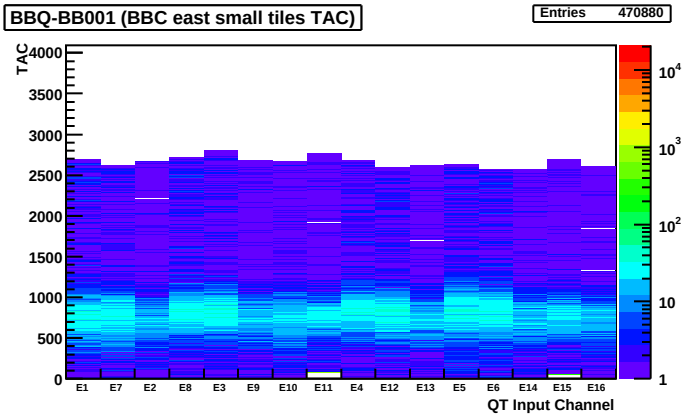

MIX-TF006
Entries 1236060
TOF MULT
TOF tray

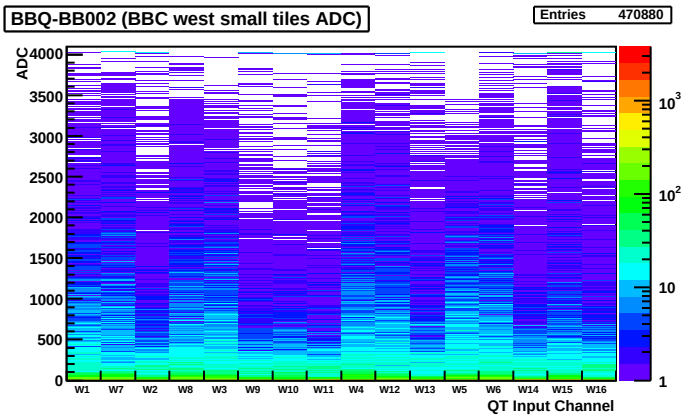

MIX-TF101
Entries 176580
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

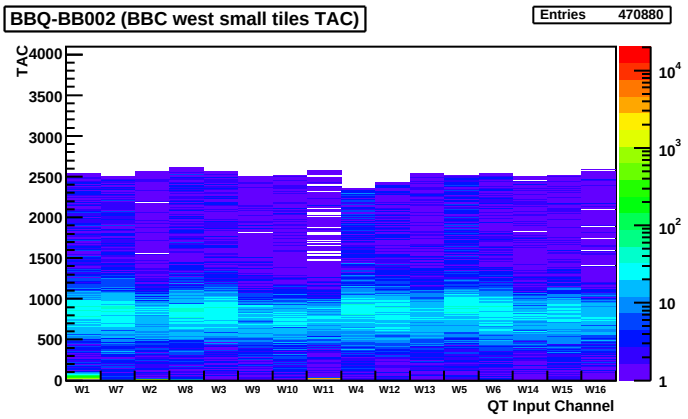

L1-TF201
Entries 29430
10^4
10^3
10^2
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

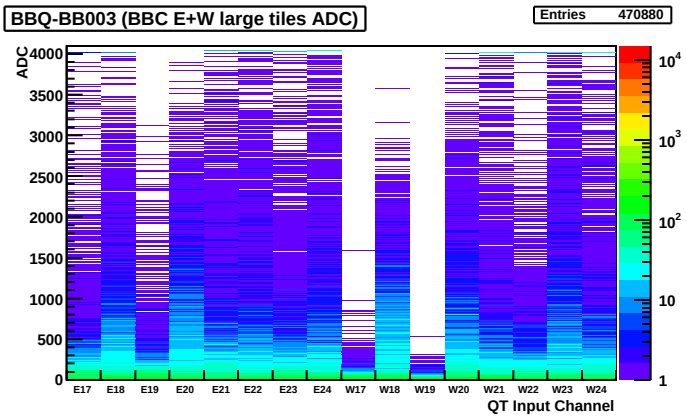

L1-TF201
Entries 176580
Threshold bits
1
0
7299
7593
7474
7762
7576
7374
22131
21837
21956
21668
21854
22056
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

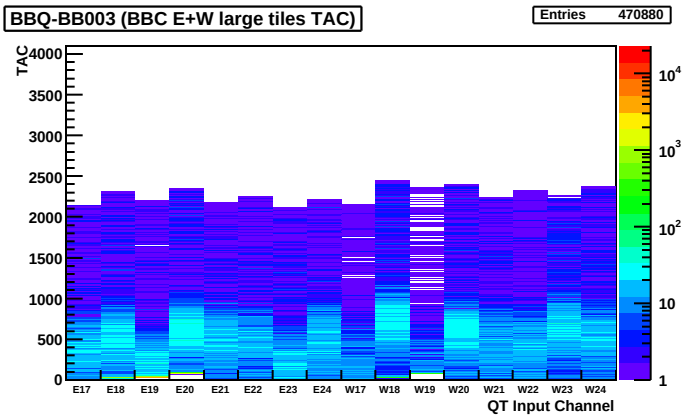

BBQ-BB001 (BBC east small tiles ADC)
Entries 470880
ADC
QT Input Channel

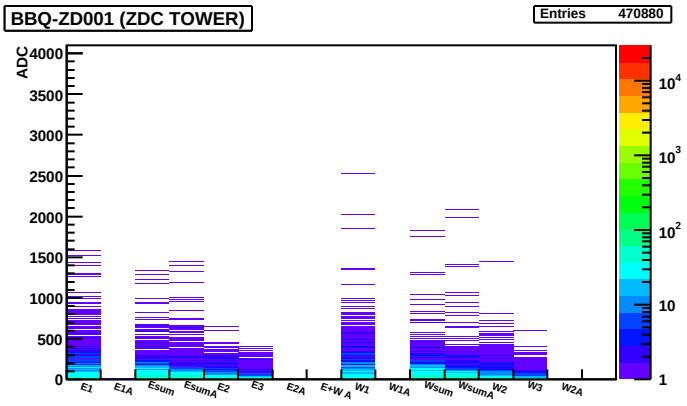

BBQ-BB001 (BBC east small tiles TAC)
Entries 470880
TAC
QT Input Channel

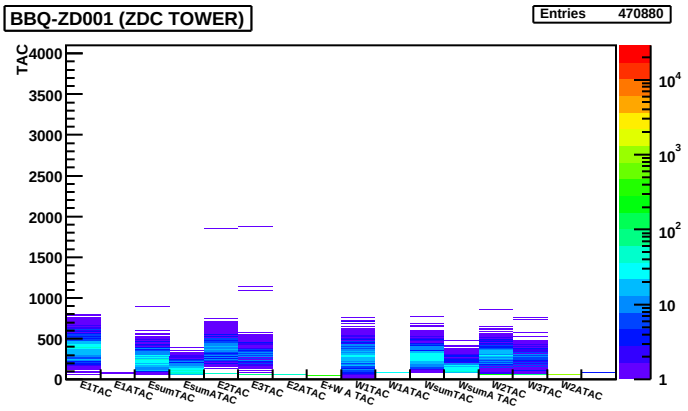

BBQ-BB002 (BBC west small tiles ADC)
Entries 470880
ADC
QT Input Channel

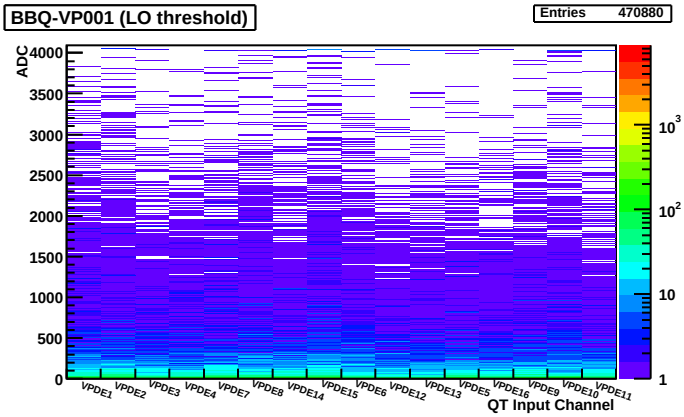

BBQ-BB002 (BBC west small tiles TAC)
Entries 470880
TAC
QT Input Channel

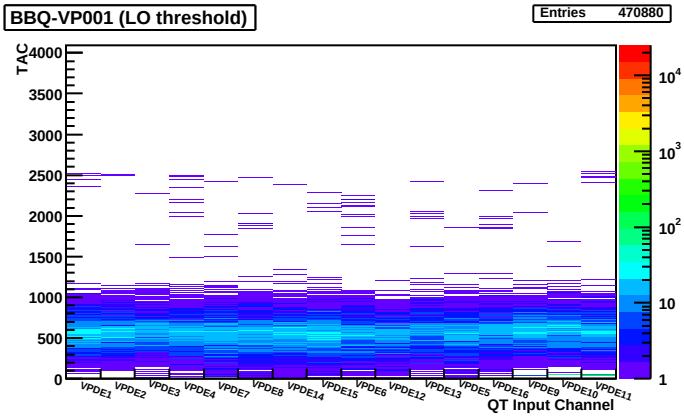

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 470880
ADC
QT Input Channel

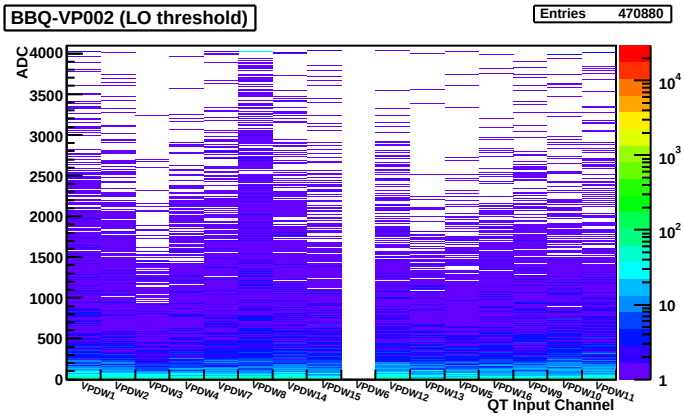

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 470880
TAC
QT Input Channel

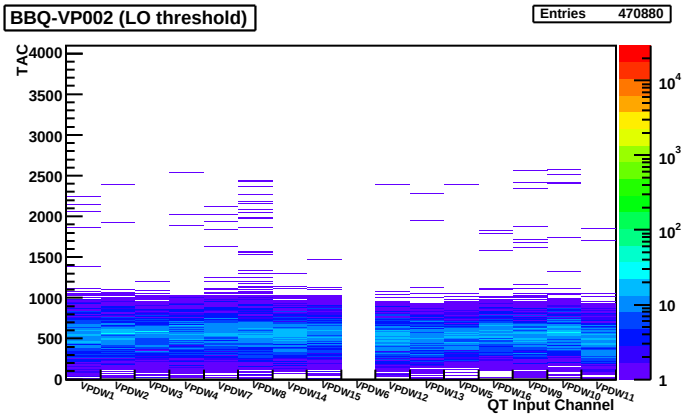

BBQ-ZD001 (ZDC TOWER)
Entries 470880
ADC

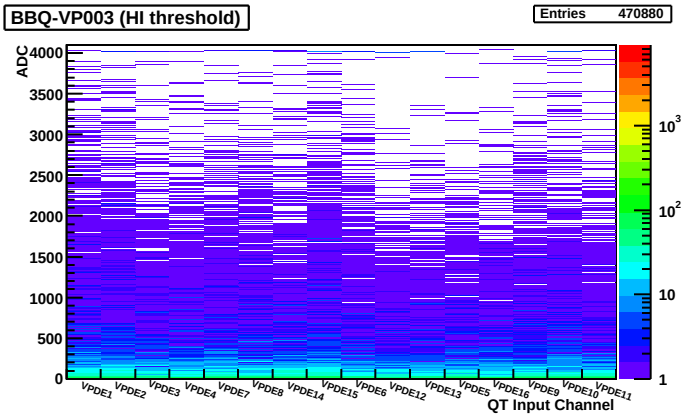

BBQ-ZD001 (ZDC TOWER)
Entries 470880
TAC

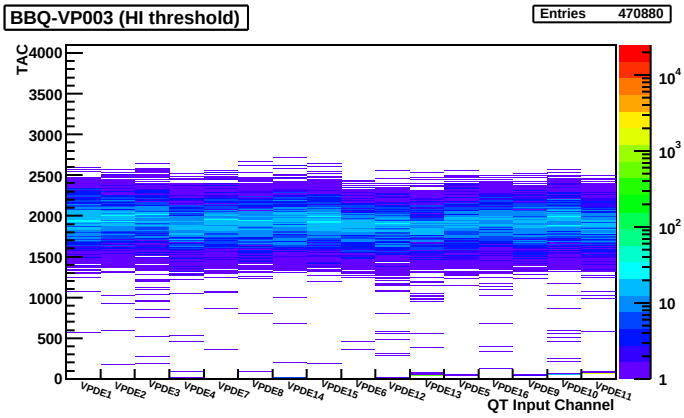

BBQ-VP001 (LO threshold)
Entries 470880
ADC
QT Input Channel

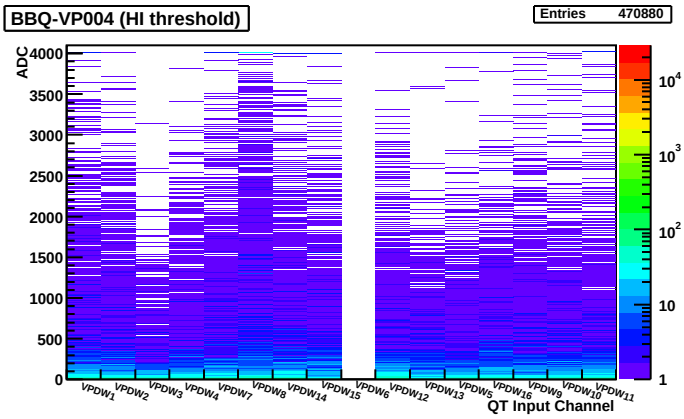

BBQ-VP001 (LO threshold)
Entries 470880
TAC
QT Input Channel

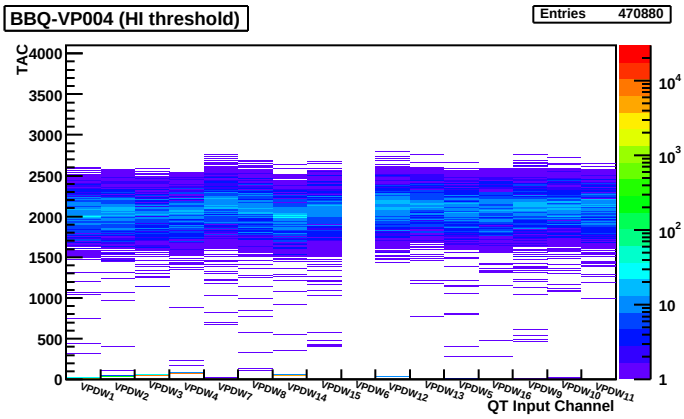

BBQ-VP002 (LO threshold)
Entries 470880
ADC
QT Input Channel

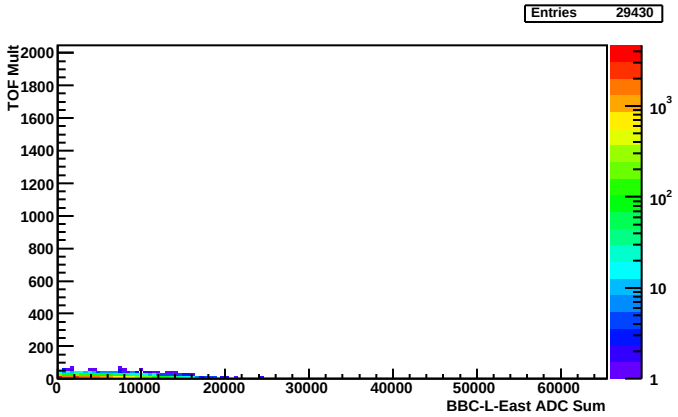

BBQ-VP002 (LO threshold)
Entries 470880
TAC
QT Input Channel

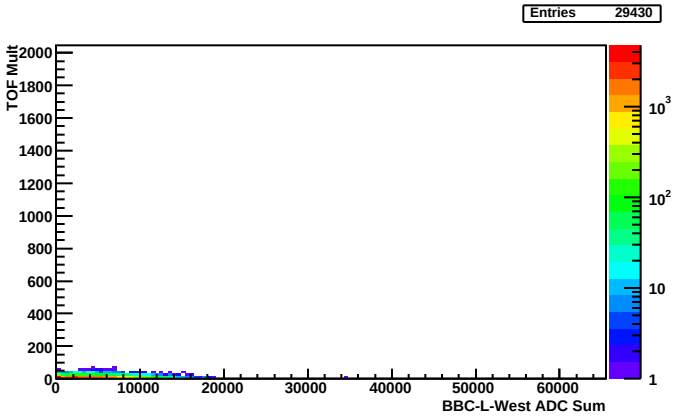

BBQ-VP003 (HI threshold)
Entries 470880
ADC
QT Input Channel

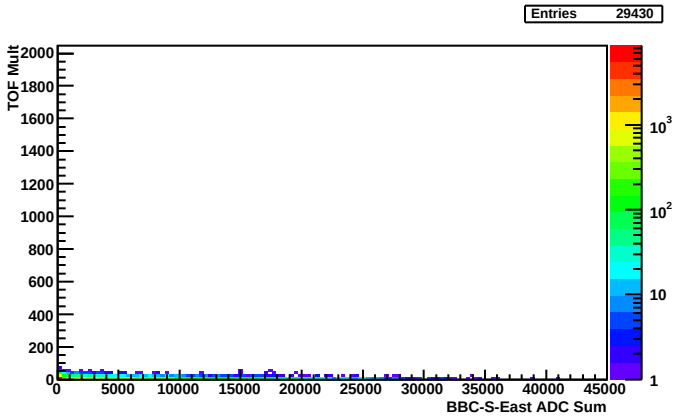

BBQ-VP003 (HI threshold)
Entries 470880
TAC
QT Input Channel

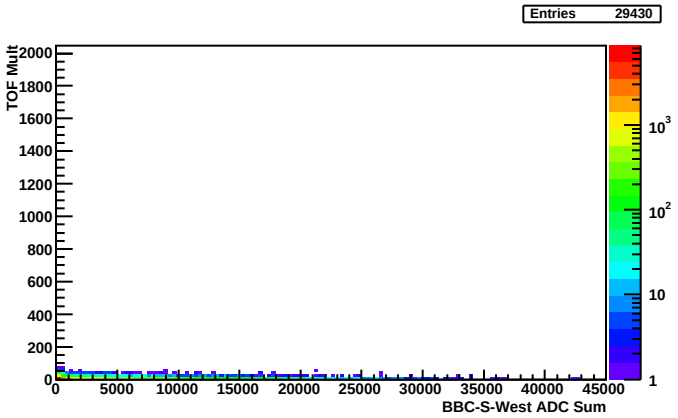

BBQ-VP004 (HI threshold)
Entries 470880
ADC
QT Input Channel

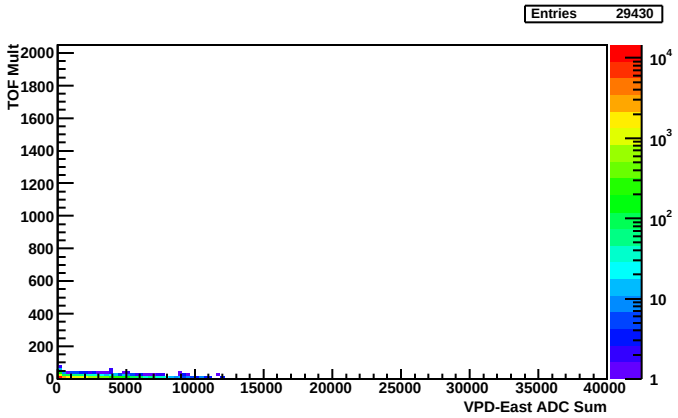

BBQ-VP004 (HI threshold)
Entries 470880
TAC
QT Input Channel

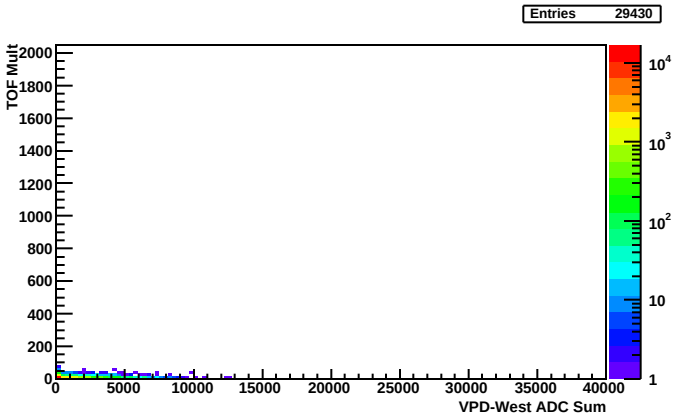

Entries 29430
TOF Mult
BBC-L-East ADC Sum

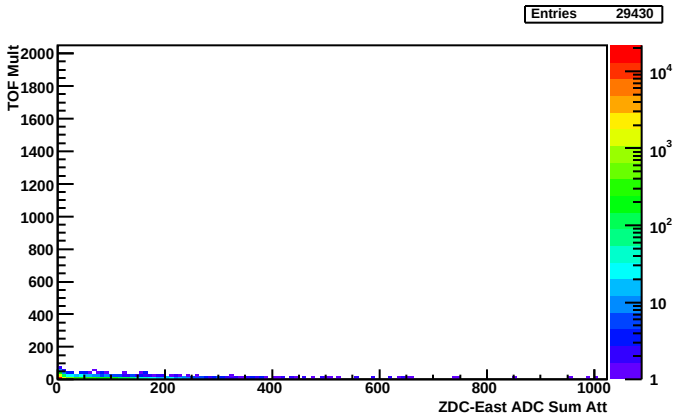

Entries 29430
TOF Mult
BBC-L-West ADC Sum

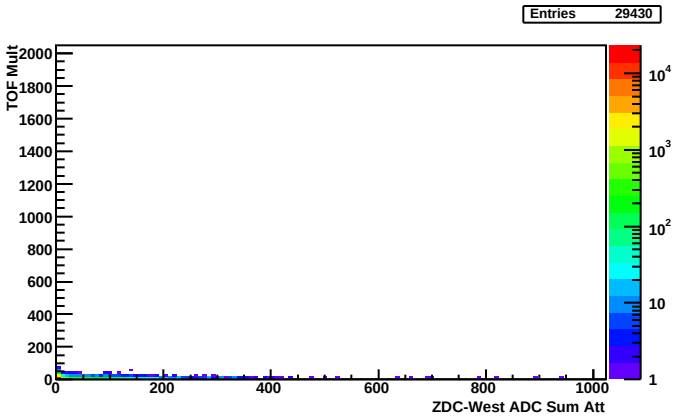

Entries 29430
TOF Mult
BBC-S-East ADC Sum

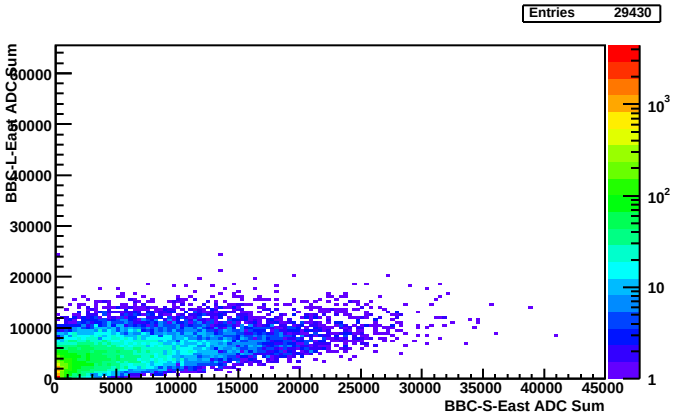

Entries 29430
TOF Mult
BBC-S-West ADC Sum

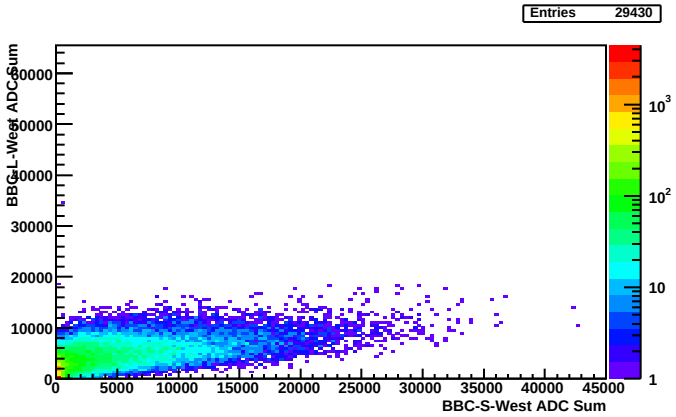

Entries 29430
TOF Mult
VPD-East ADC Sum

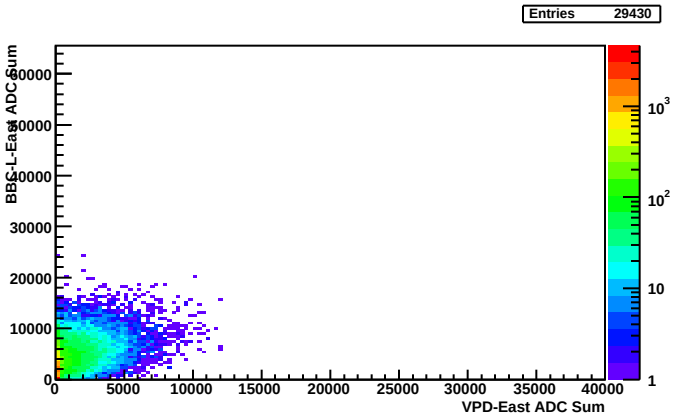

Entries 29430
TOF Mult
VPD-West ADC Sum

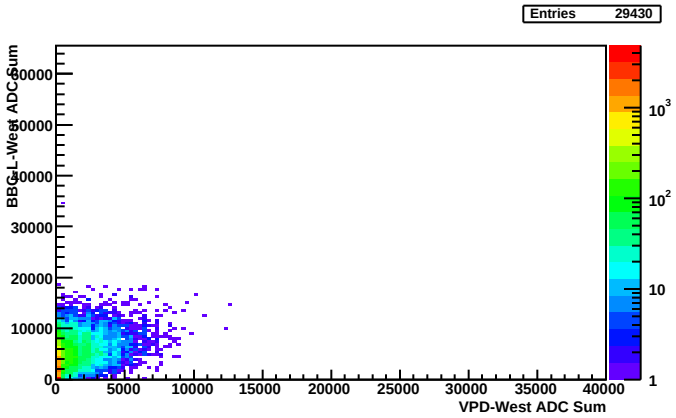

Entries 29430
TOF Mult
ZDC-East ADC Sum Att

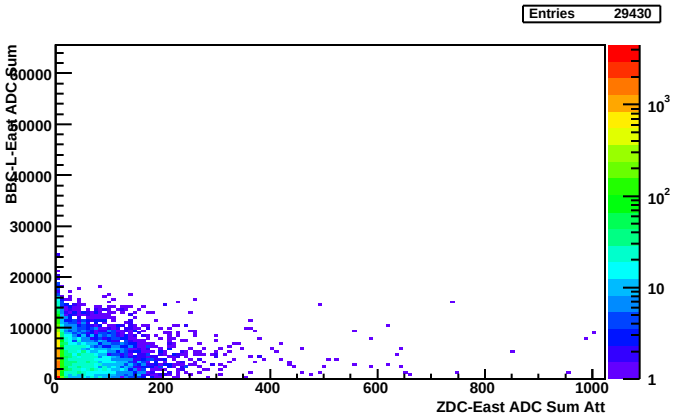

Entries 29430
TOF Mult
ZDC-West ADC Sum Att

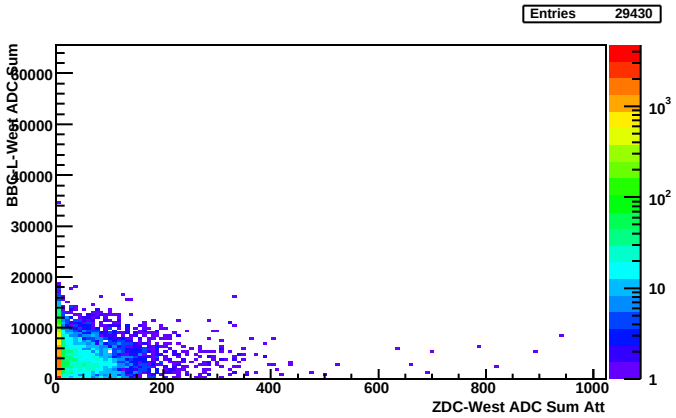

Entries 29430
BBC-L-East ADC Sum
BBC-S-East ADC Sum

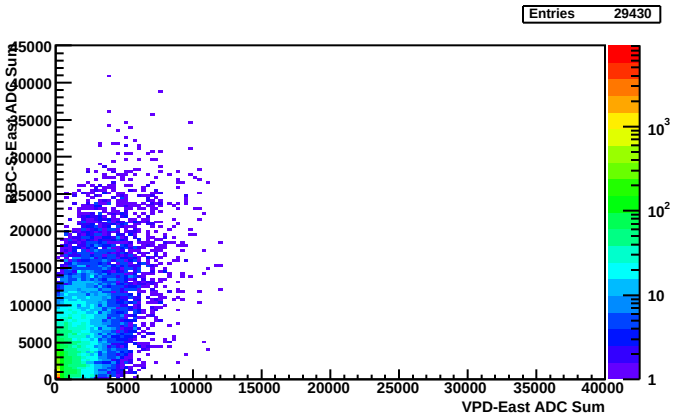

Entries 29430
BBC-L-West ADC Sum
BBC-S-West ADC Sum

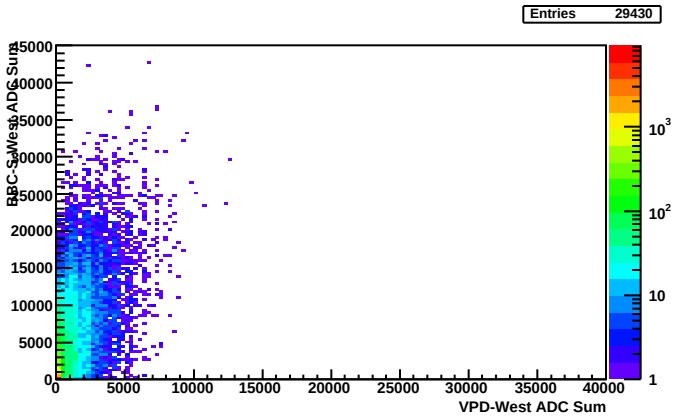

Entries 29430
BBC-L-East ADC Sum
VPD-East ADC Sum

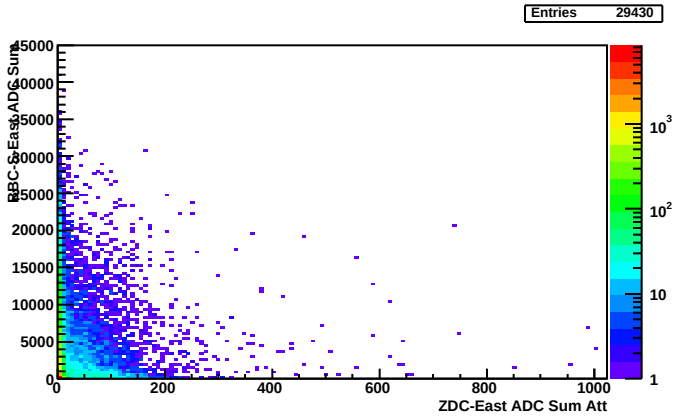

Entries 29430
BBC-L-West ADC Sum
VPD-West ADC Sum

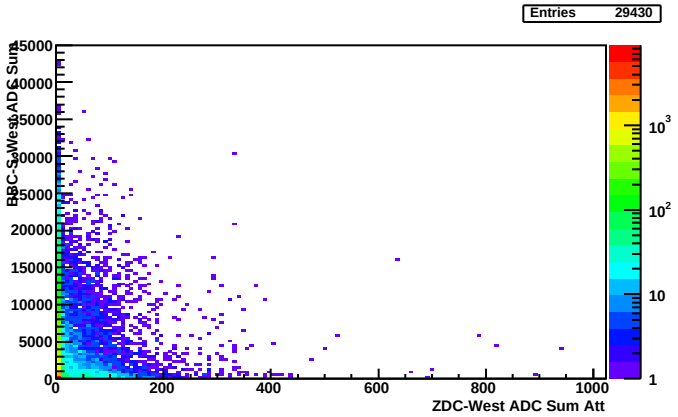

Entries 29430
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

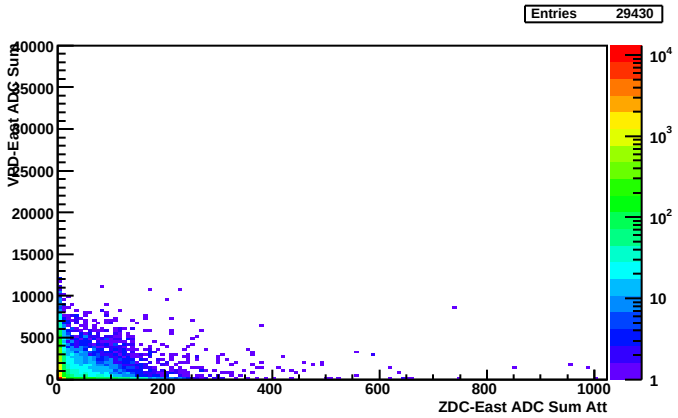

Entries 29430
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

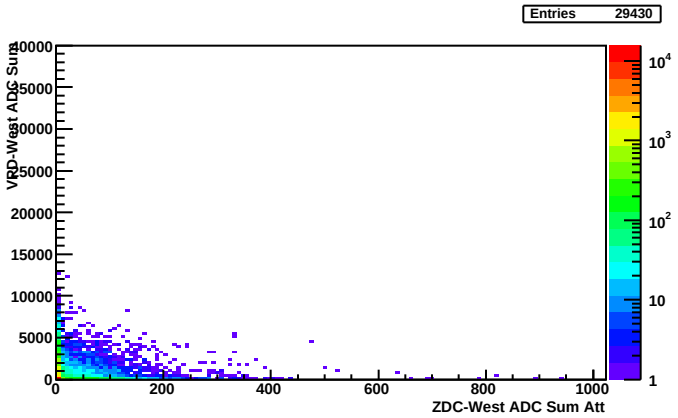

Entries 29430
BBC-S-East ADC Sum
VPD-East ADC Sum

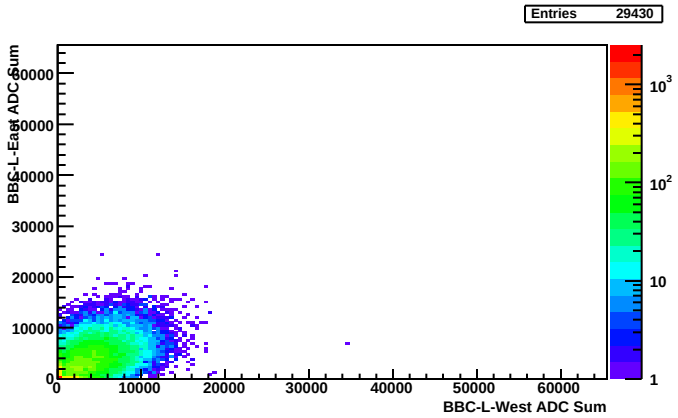

Entries 29430
BBC-S-West ADC Sum
VPD-West ADC Sum

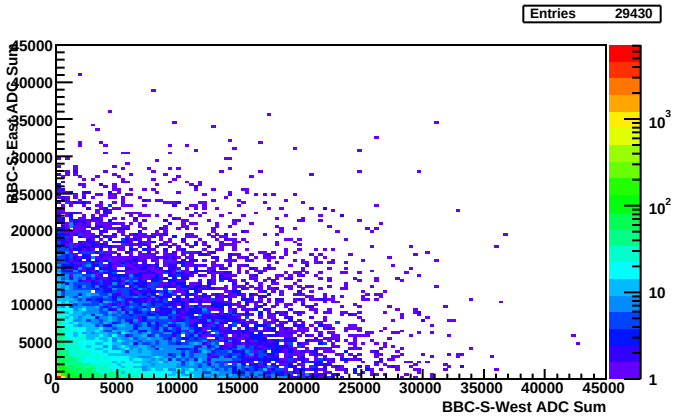

Entries 29430
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

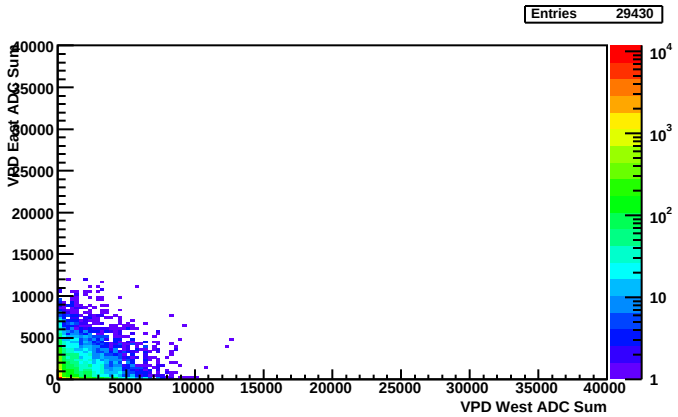

Entries 29430
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

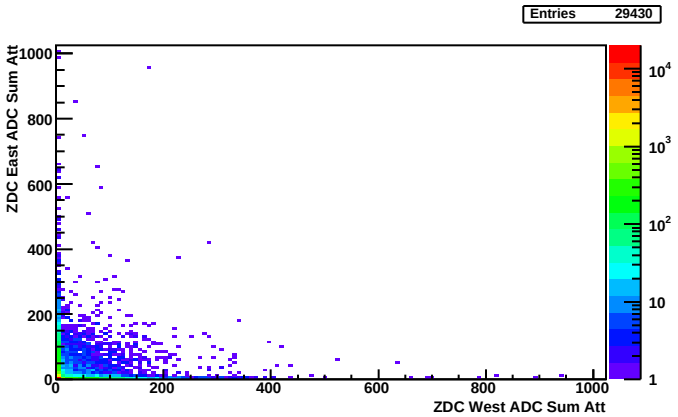

Entries 29430
VPD-East ADC Sum
ZDC-East ADC Sum Att

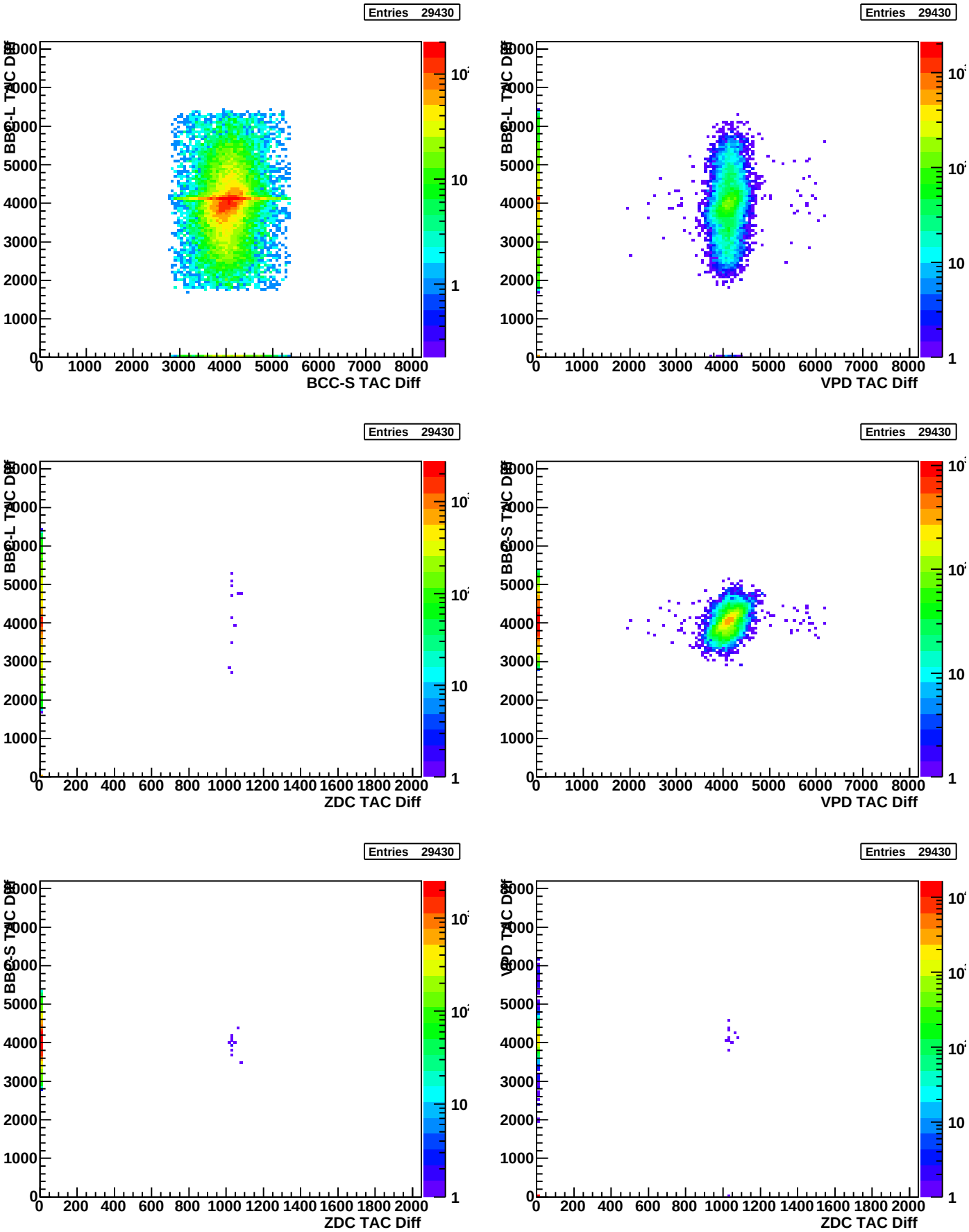

Entries 29430
VPD-West ADC Sum
ZDC-West ADC Sum Att

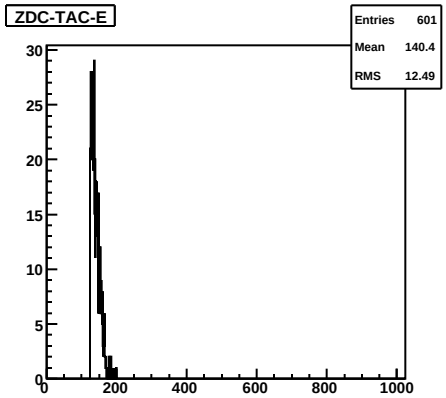

Entries 29430
BBC-L-East ADC Sum
BBC-L-West ADC Sum

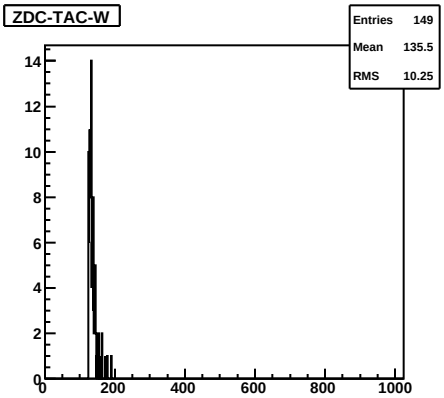

Entries 29430
BBC-S-East ADC Sum
BBC-S-West ADC Sum

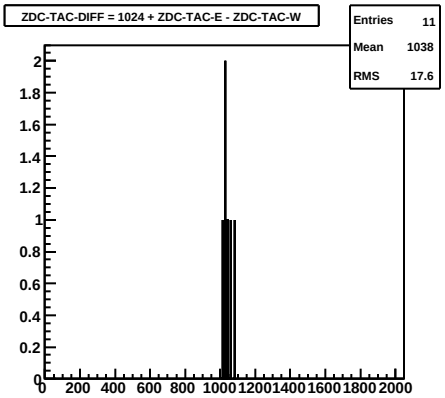

Entries 29430
VPD East ADC Sum
VPD West ADC Sum

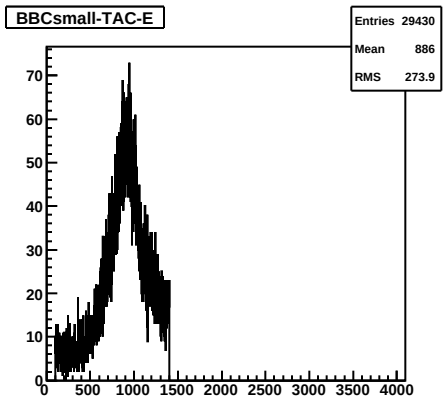

Entries 29430
ZDC East ADC Sum Att
ZDC West ADC Sum Att

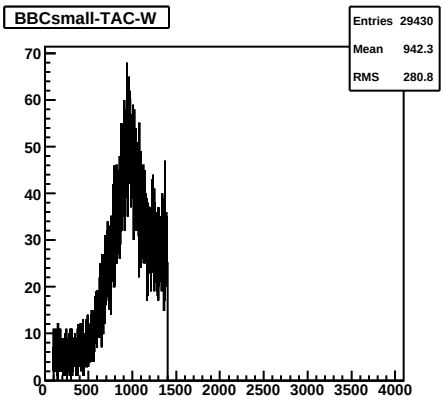

Entries 29430
BBC-L TAC Diff
BCC-S TAC Diff
Entries 29430
BBC-L TAC Diff
VPD TAC Diff
Entries 29430
BBC-L TAC Diff
ZDC TAC Diff
Entries 29430
BBC-S TAC Diff
VPD TAC Diff
Entries 29430
BBC-S TAC Diff
ZDC TAC Diff
Entries 29430
VPD TAC Diff
ZDC TAC Diff

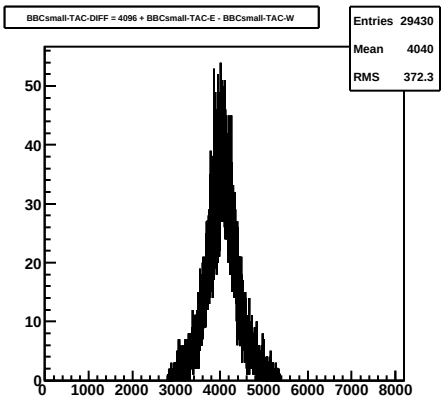

ZDC-TAC-E
Entries 601
Mean 140.4
RMS 12.49

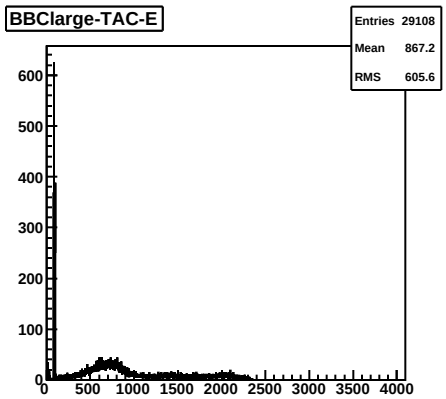

ZDC-TAC-W
Entries 149
Mean 135.5
RMS 10.25

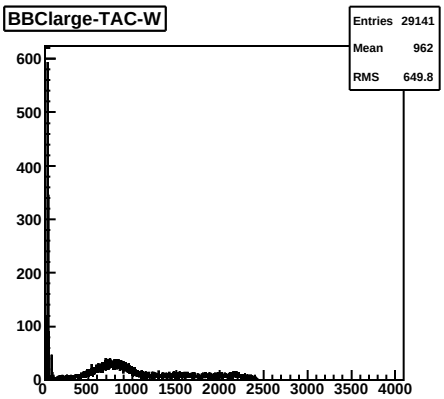

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 11
Mean 1038
RMS 17.6

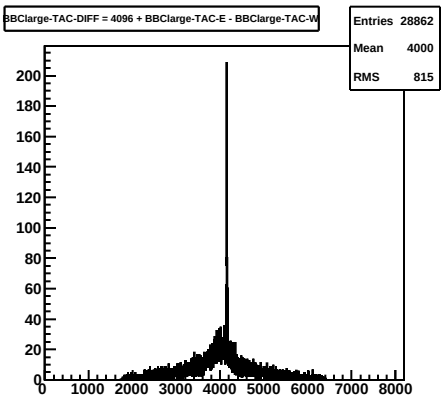

BBCsmall-TAC-E
Entries 29430
Mean 886
RMS 273.9

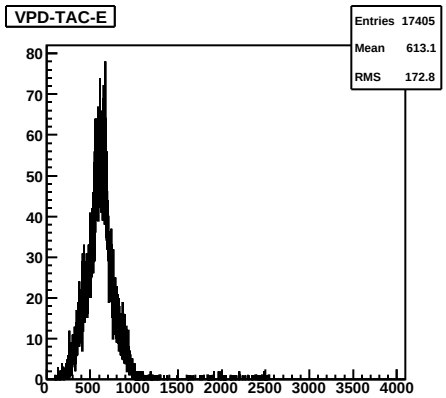

BBCsmall-TAC-W
Entries 29430
Mean 942.3
RMS 280.8

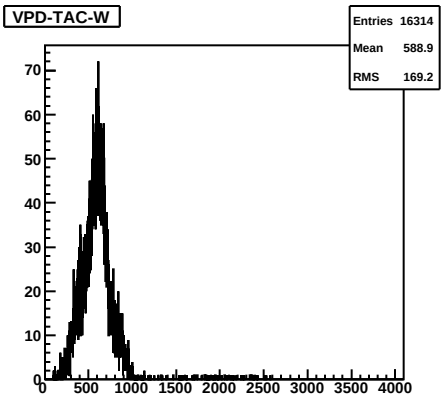

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 29430
Mean 4040
RMS 372.3

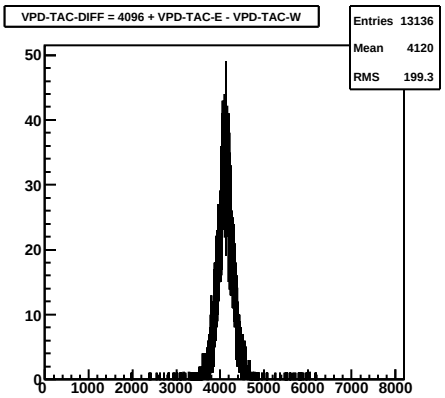

BBClarge-TAC-E
Entries 29108
Mean 867.2
RMS 605.6

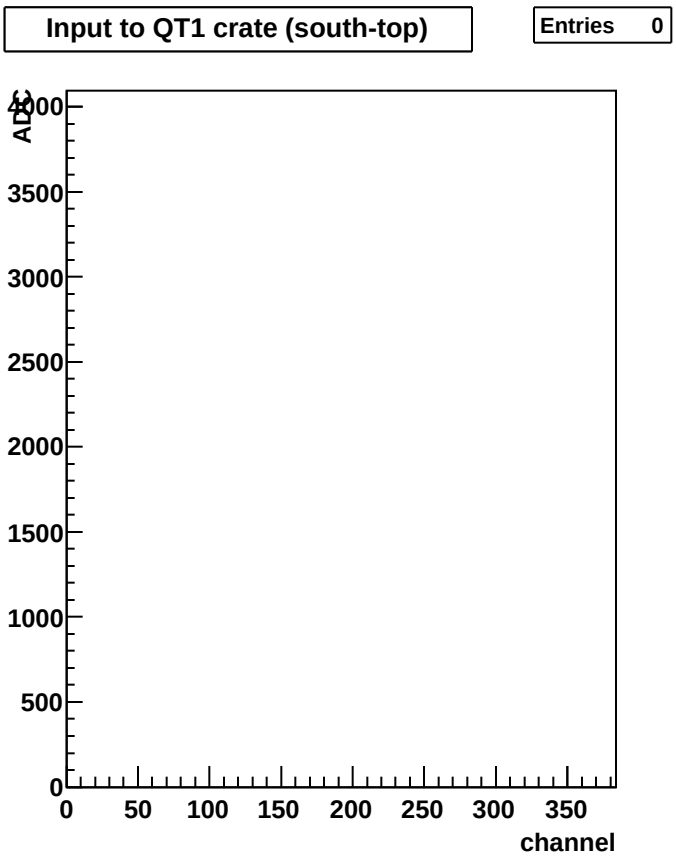

BBClarge-TAC-W
Entries 29141
Mean 962
RMS 649.8

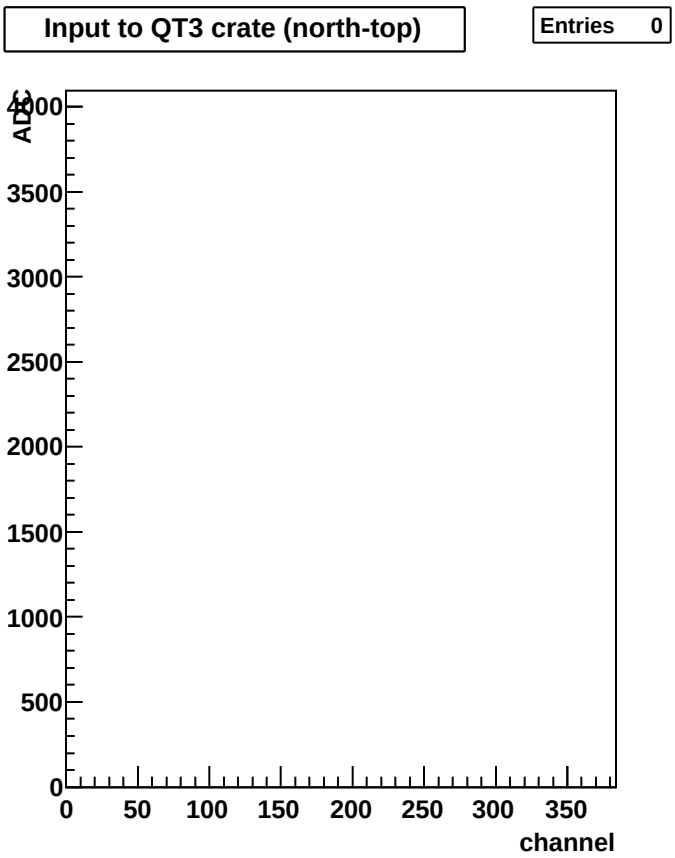

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 28862
Mean 4000
RMS 815

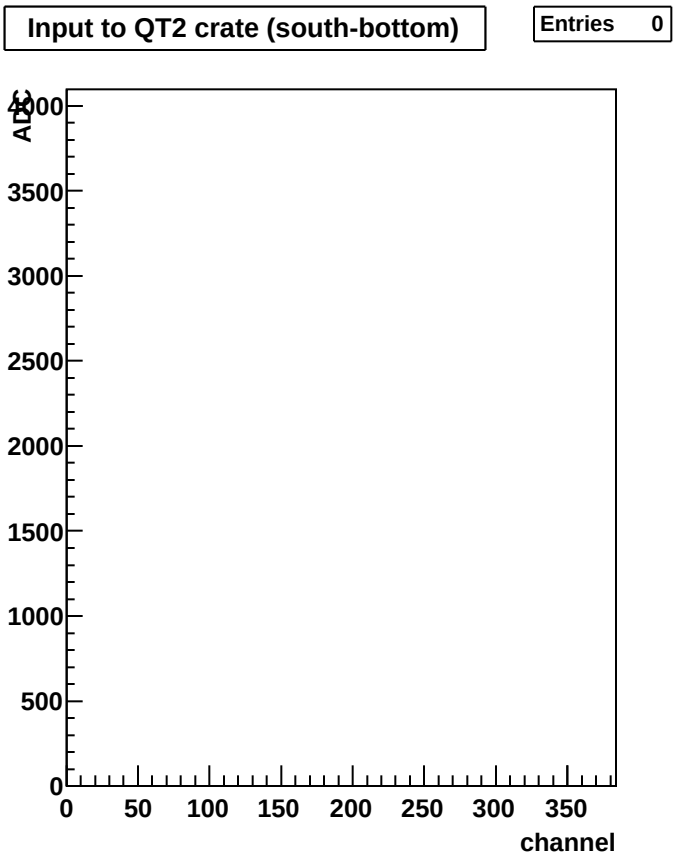

VPD-TAC-E
Entries 17405
Mean 613.1
RMS 172.8

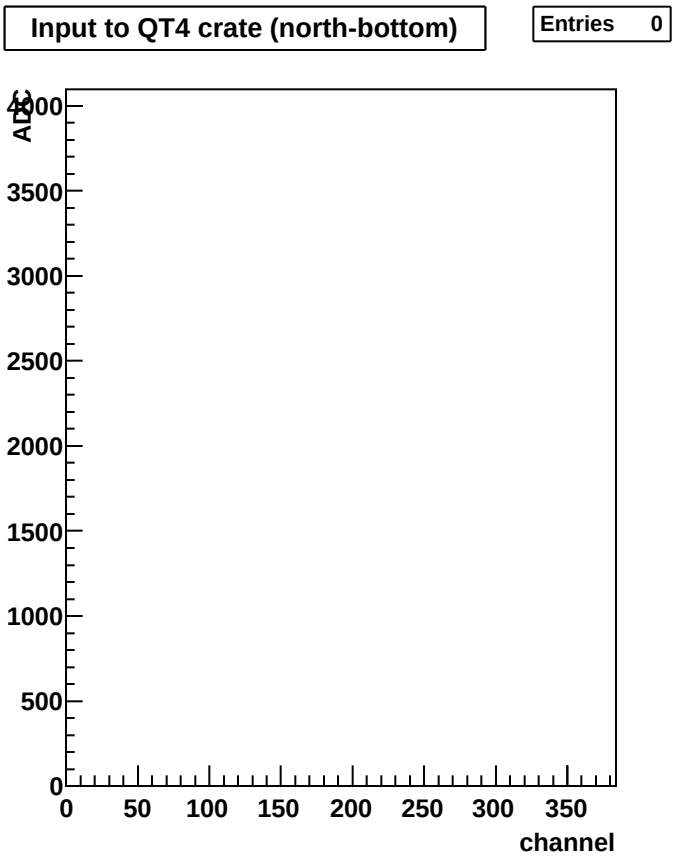

VPD-TAC-W
Entries 16314
Mean 588.9
RMS 169.2

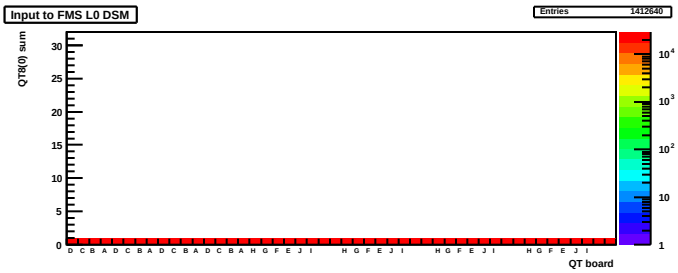

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 13136
Mean 4120
RMS 199.3

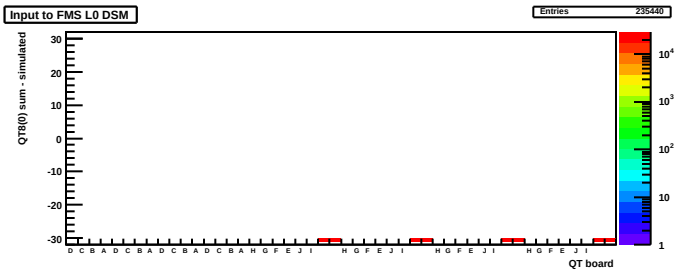

Input to QT1 crate (south-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

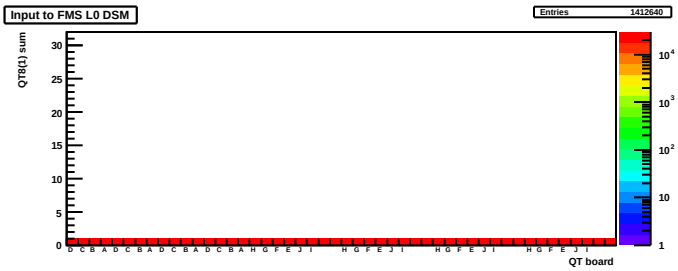

Input to QT3 crate (north-top)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

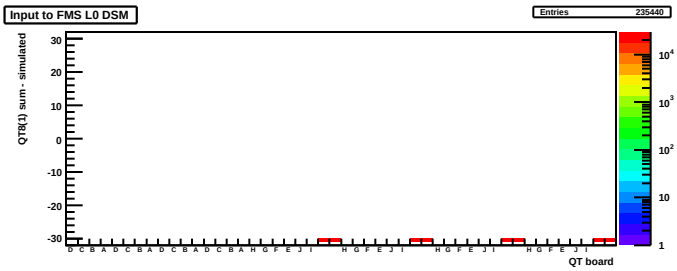

Input to QT2 crate (south-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

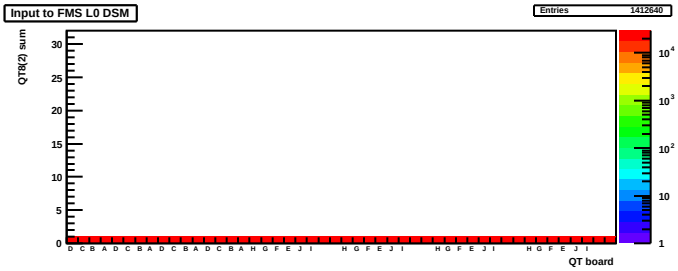

Input to QT4 crate (north-bottom)
Entries 0
ADC
4000
3500
3000
2500
2000
1500
1000
500
0
0 50 100 150 200 250 300 350
channel

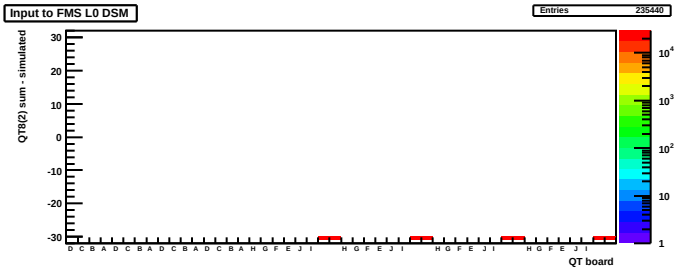

Input to FMS L0 DSM
Entries 1412640
QT8(0) sum
QT board

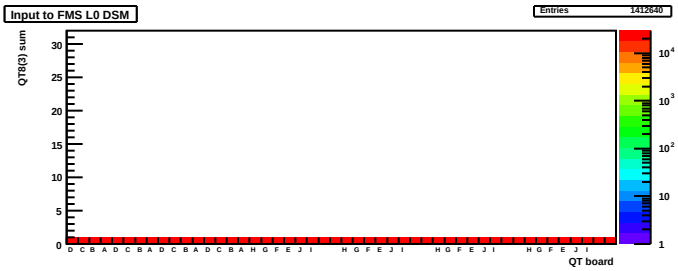

Input to FMS L0 DSM
Entries 235440
QT8(0) sum - simulated
QT board

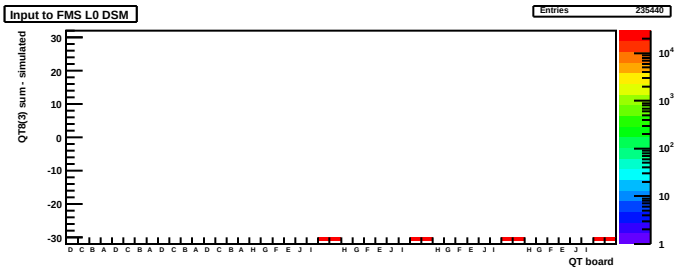

Input to FMS L0 DSM
Entries 1412640
QT8(1) sum
QT board

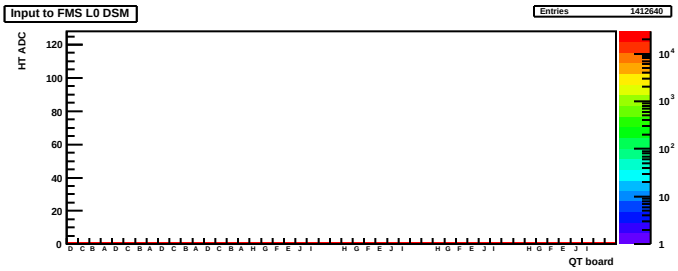

Input to FMS L0 DSM
Entries 235440
QT8(1) sum - simulated
QT board

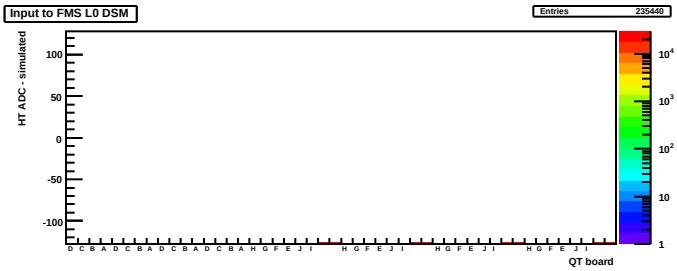

Input to FMS L0 DSM
Entries 1412640
QT8(2) sum
QT board

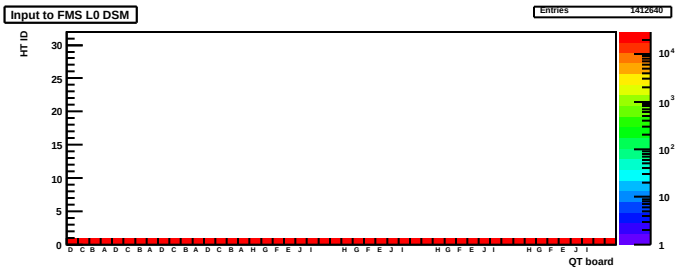

Input to FMS L0 DSM
Entries 235440
QT8(2) sum - simulated
QT board

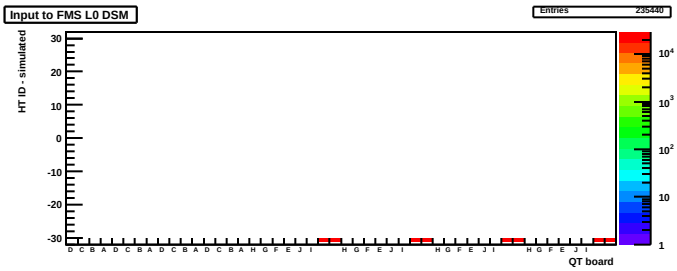

Input to FMS L0 DSM
Entries 1412640
QT8(3) sum
QT board

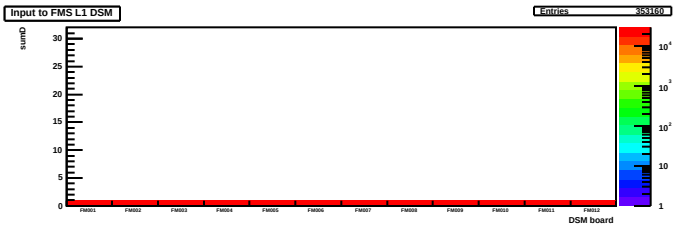

Input to FMS L0 DSM
Entries 235440
QT8(3) sum - simulated
QT board

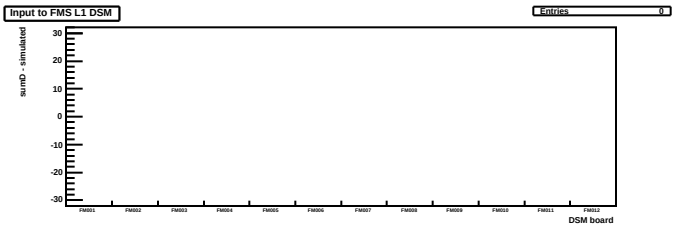

Input to FMS L0 DSM
Entries 1412640
HT ADC
QT board

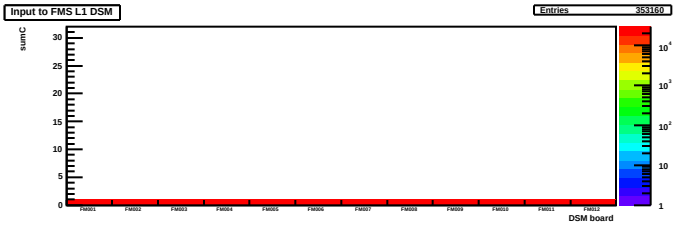

Input to FMS L0 DSM
Entries 235440
HT ADC - simulated
QT board

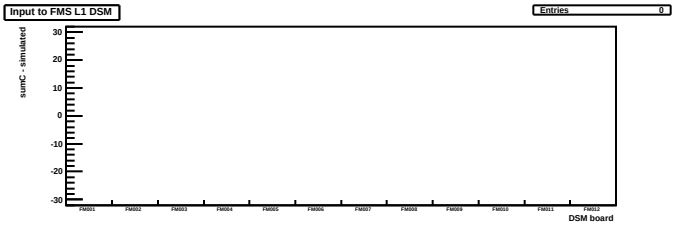

Input to FMS L0 DSM
Entries 1412640
HT ID
QT board

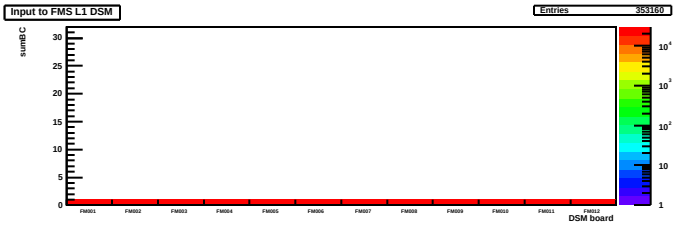

Input to FMS L0 DSM
Entries 235440
HT ID - simulated
QT board

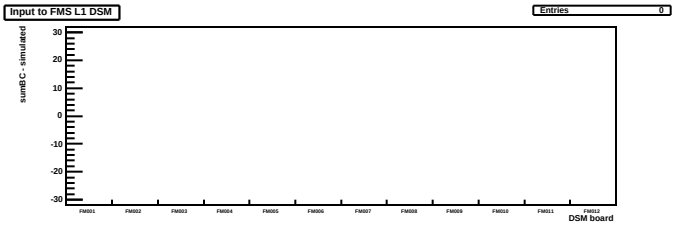

Input to FMS L1 DSM
Entries 353160
sumD
DSM board

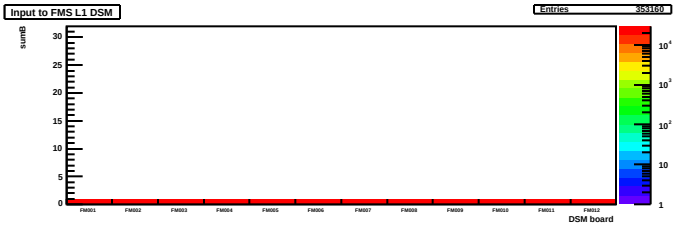

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

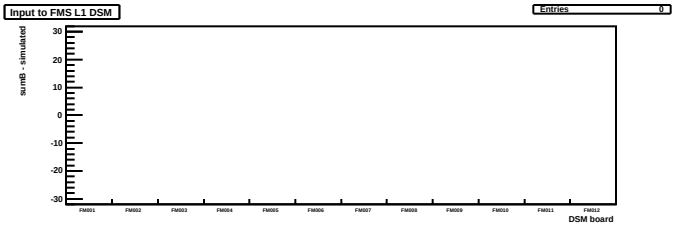

Input to FMS L1 DSM
Entries 353160
sumC
DSM board

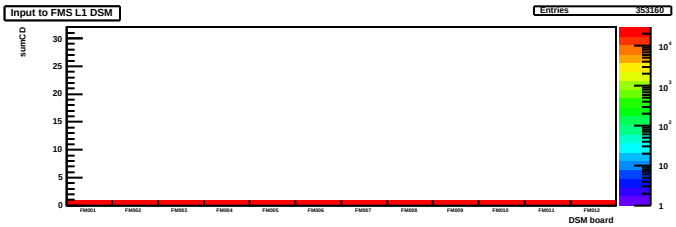

Input to FMS L1 DSM
Entries 0
sumC - simulated
DSM board

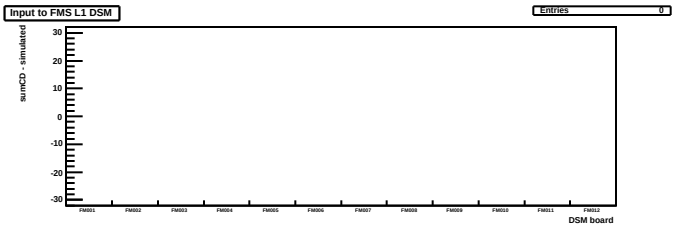

Input to FMS L1 DSM
Entries 353160
sumBC
DSM board

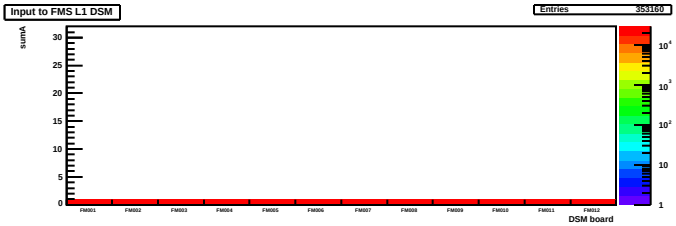

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

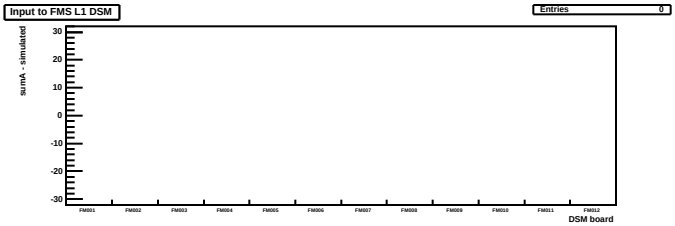

Input to FMS L1 DSM
Entries 353160
sumB
DSM board

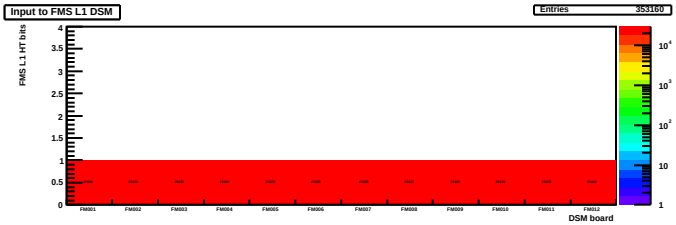

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

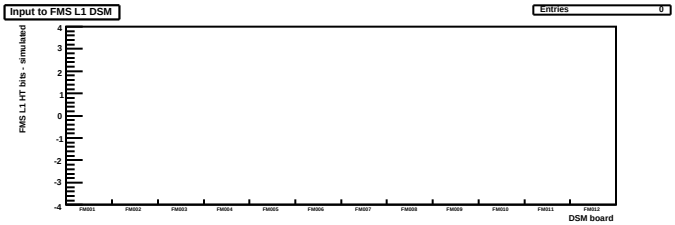

Input to FMS L1 DSM
Entries 353160
sumCD
DSM board

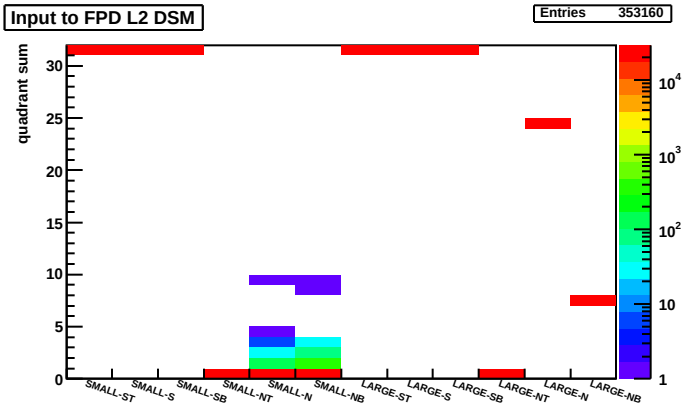

Input to FMS L1 DSM
Entries 0
sumCD - simulated
DSM board

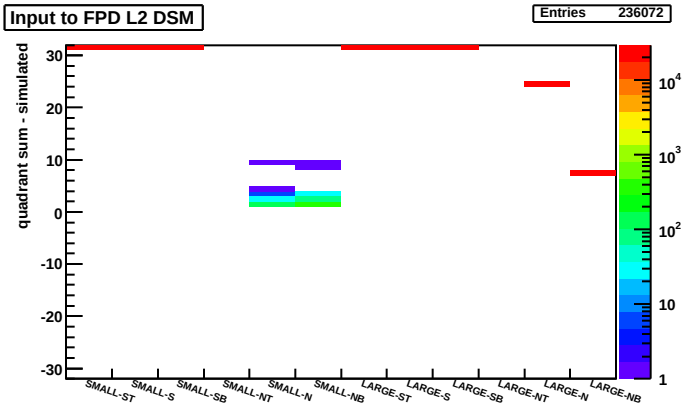

Input to FMS L1 DSM
Entries 353160
sumA
DSM board

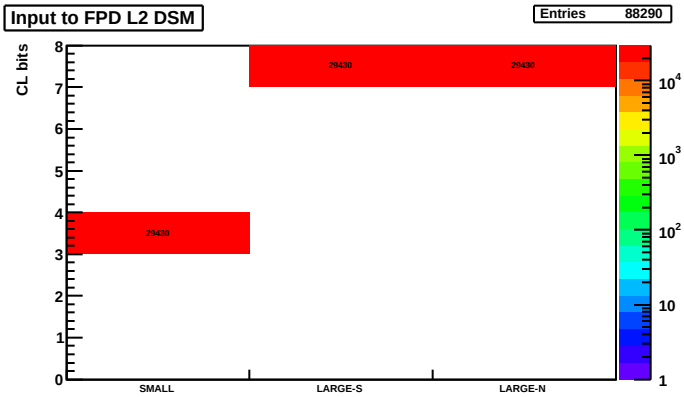

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

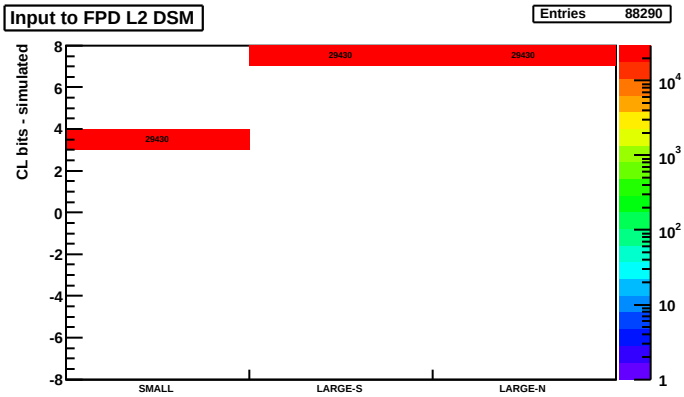

Input to FMS L1 DSM
Entries 353160
FMS L1 HT bits
DSM board

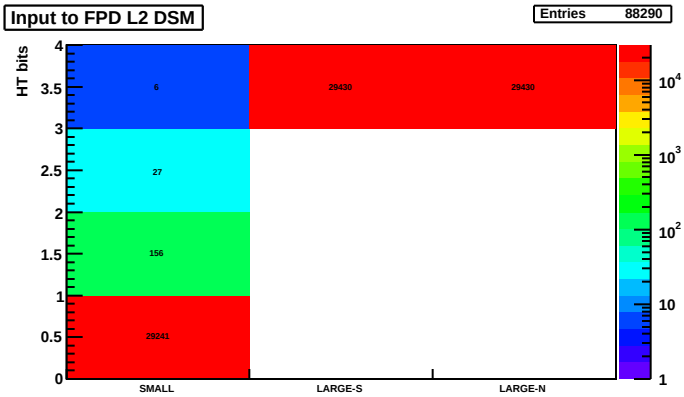

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

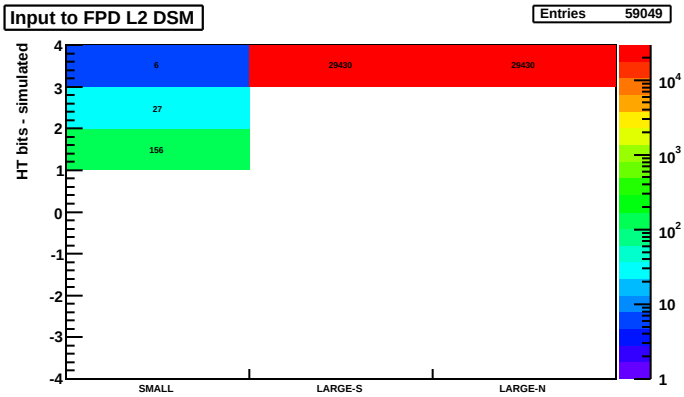

Input to FPD L2 DSM
Entries 353160
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

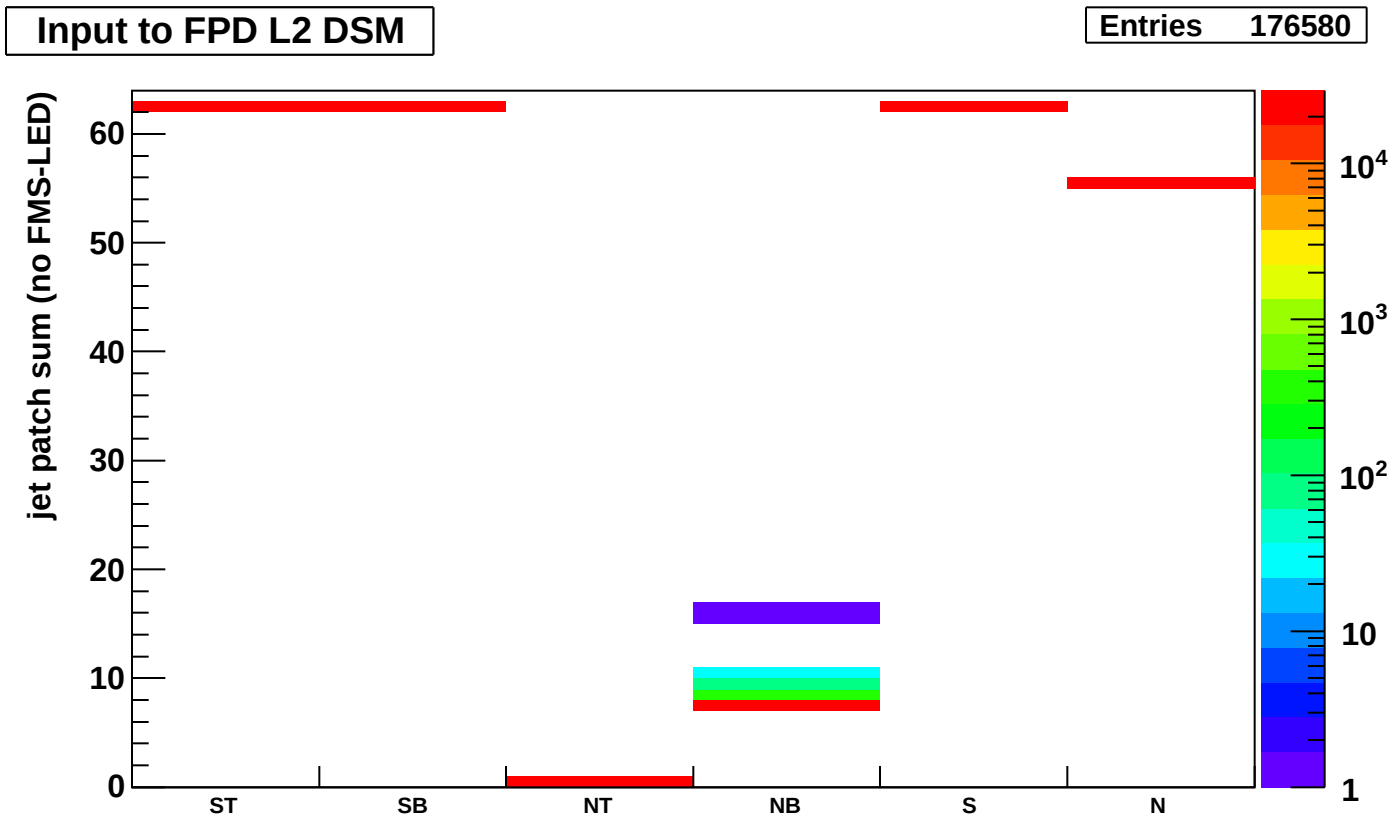

Input to FPD L2 DSM
Entries 236072
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

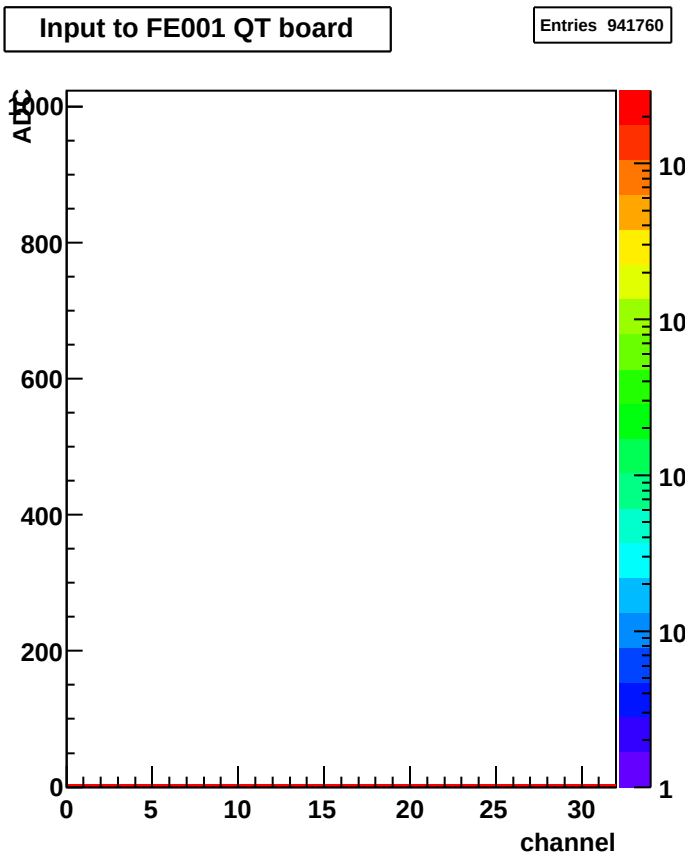

Input to FPD L2 DSM
Entries 88290
CL bits
29430
29430
29430
SMALL
LARGE-S
LARGE-N

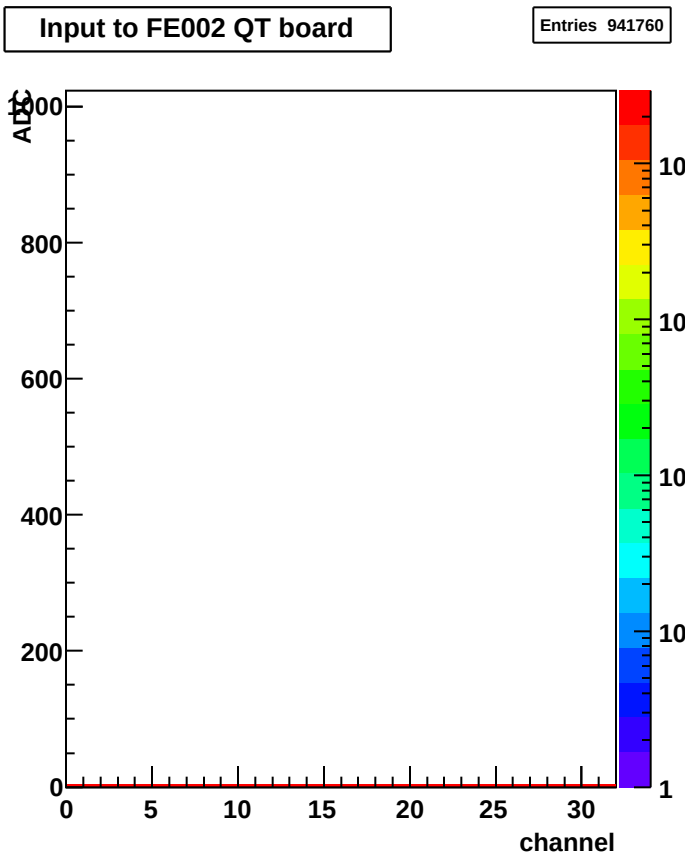

Input to FPD L2 DSM
Entries 88290
CL bits - simulated
29430
29430
29430
SMALL
LARGE-S
LARGE-N

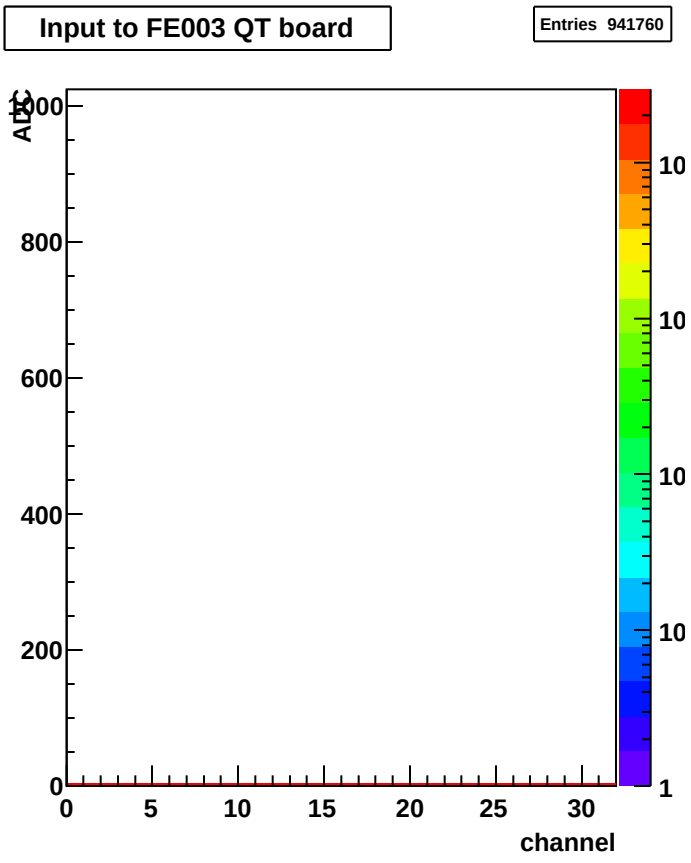

Input to FPD L2 DSM
Entries 88290
HT bits
6
27
156
29241
29430
29430
SMALL
LARGE-S
LARGE-N

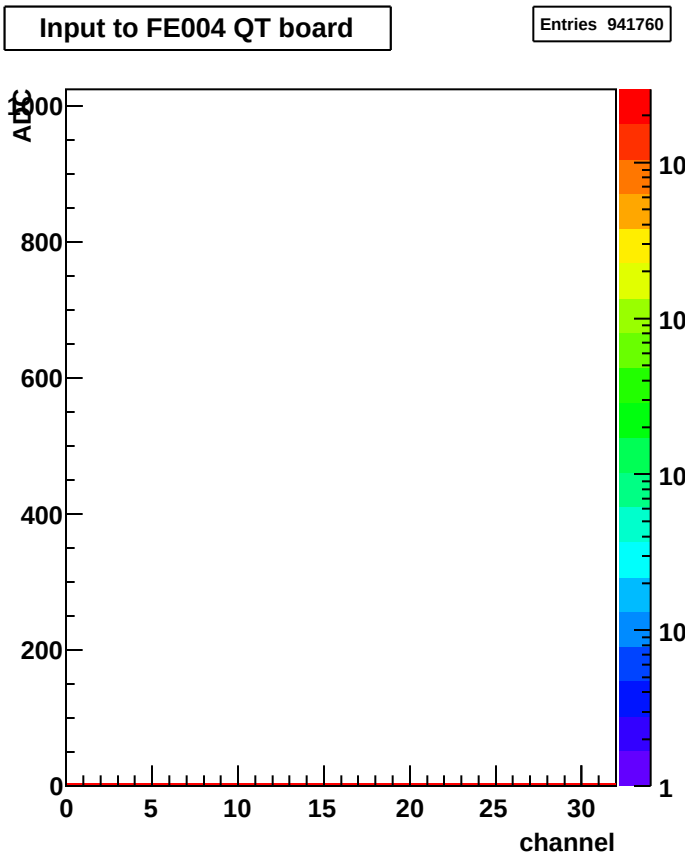

Input to FPD L2 DSM
Entries 59049
HT bits - simulated
6
27
156
29430
29430
SMALL
LARGE-S
LARGE-N

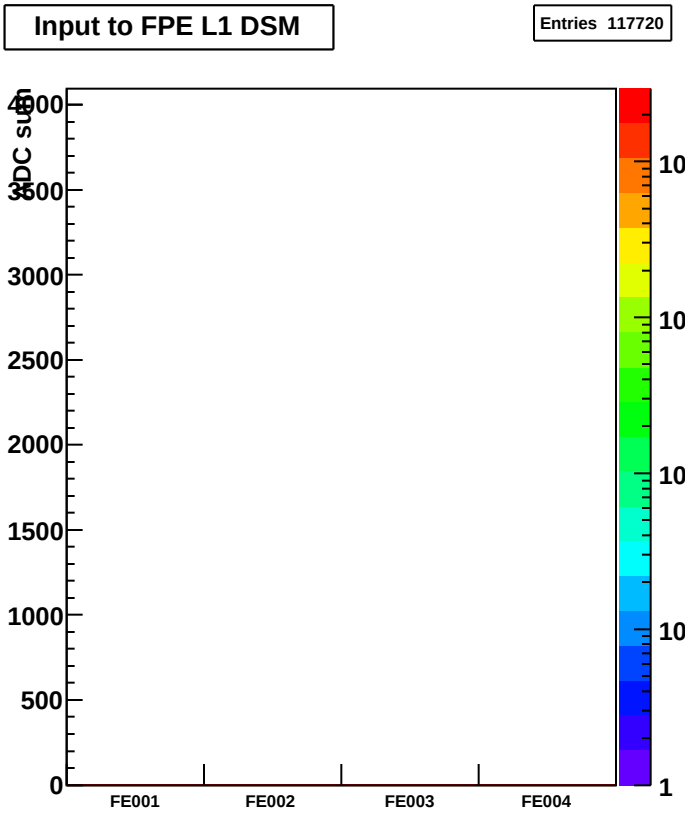

Input to FPD L2 DSM
Entries 176580
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

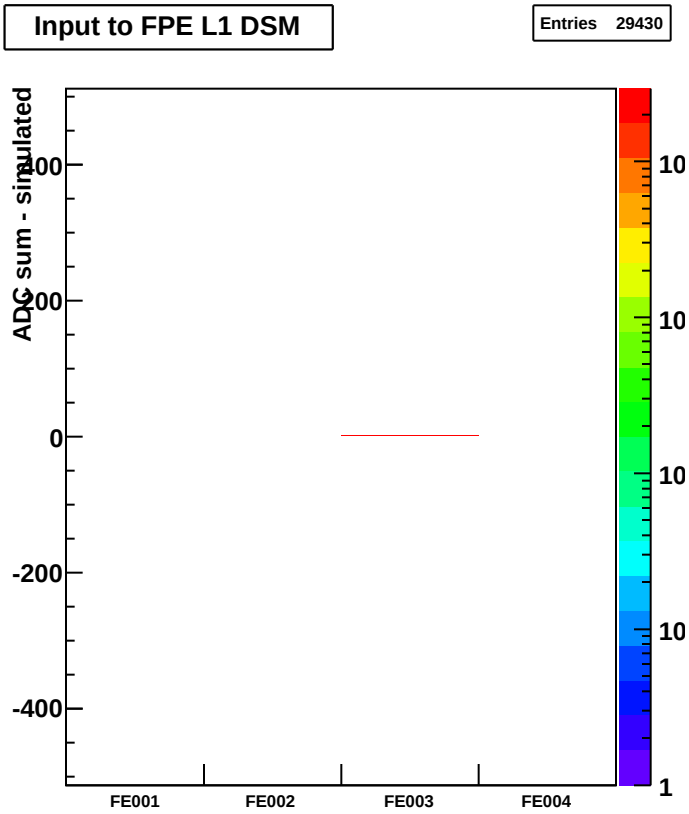

Input to FE001 QT board
Entries 941760
ADC
channel

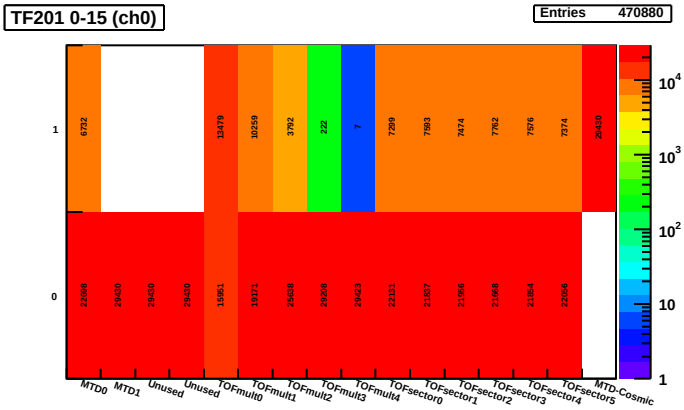

Input to FE002 QT board
Entries 941760
ADC
channel

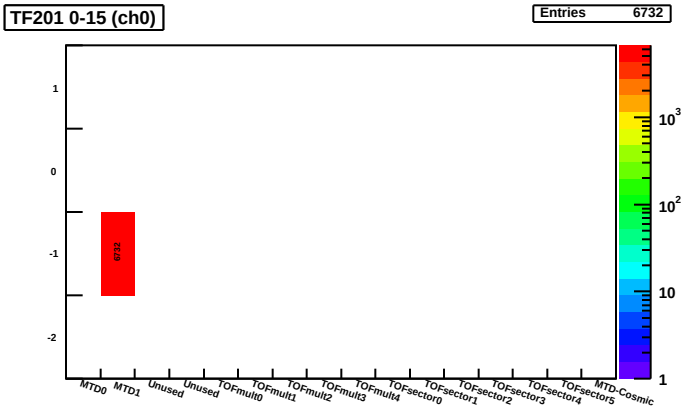

Input to FE003 QT board
Entries 941760
ADC
channel

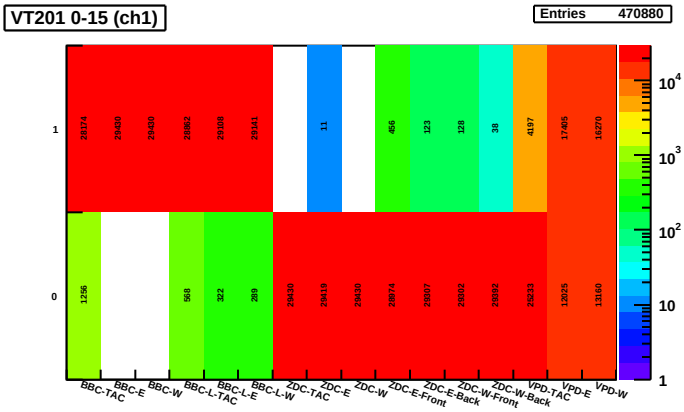

Input to FE004 QT board
Entries 941760
ADC
channel

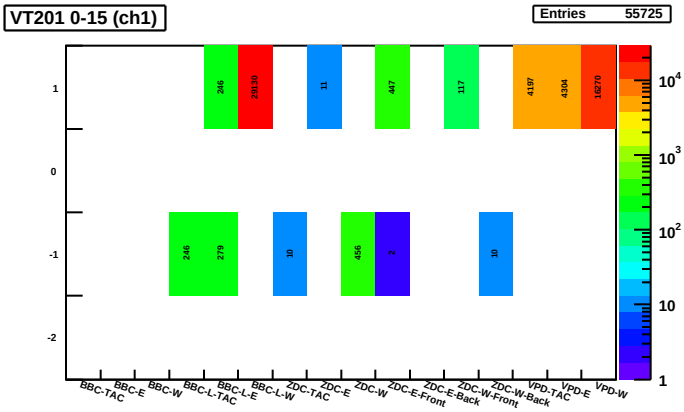

Input to FPE L1 DSM
Entries 117720
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
1

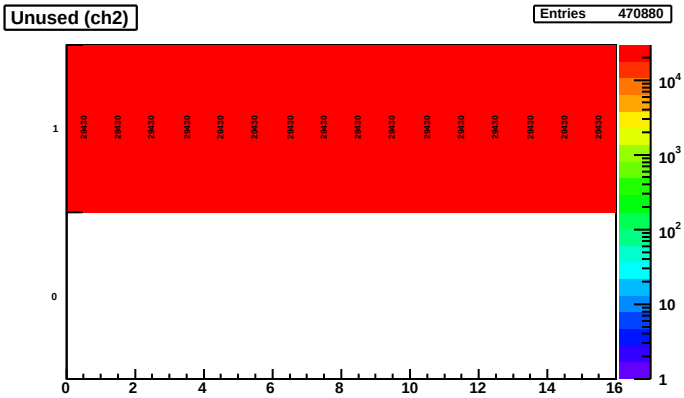

Input to FPE L1 DSM
Entries 29430
ADC sum - simulated
200
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
1

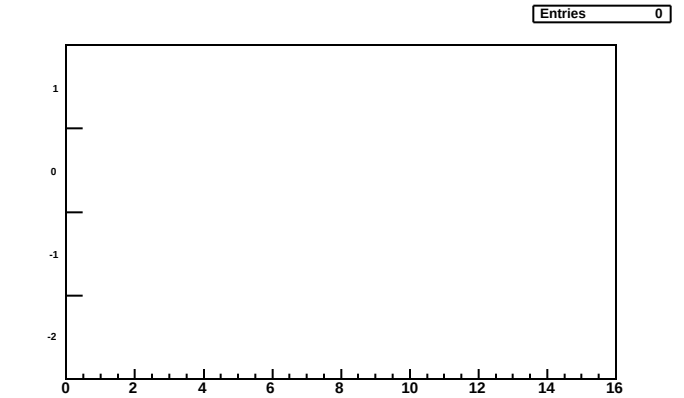

TF201 0-15 (ch0)
Entries 470880
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

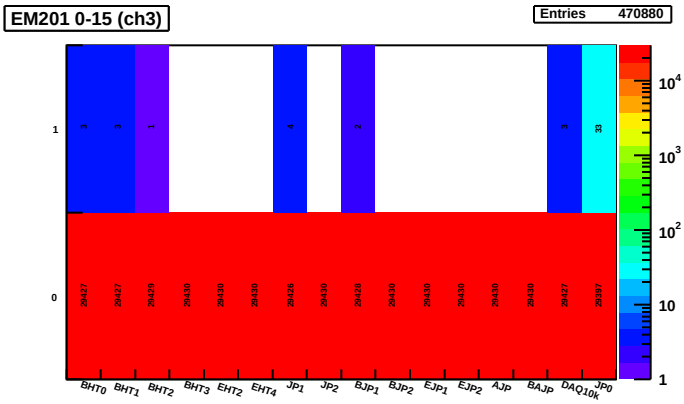

TF201 0-15 (ch0)
Entries 6732
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

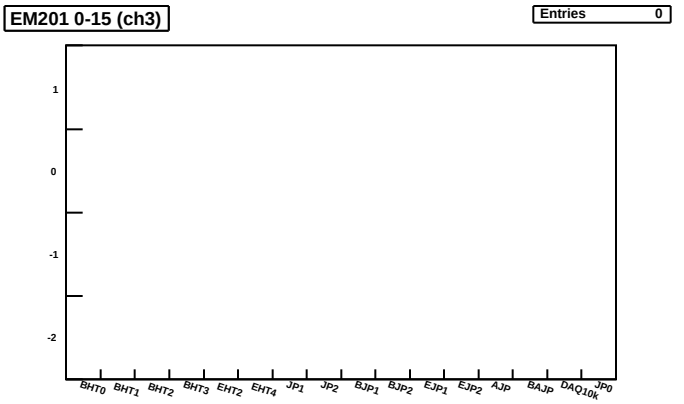

VT201 0-15 (ch1)
Entries 470880
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

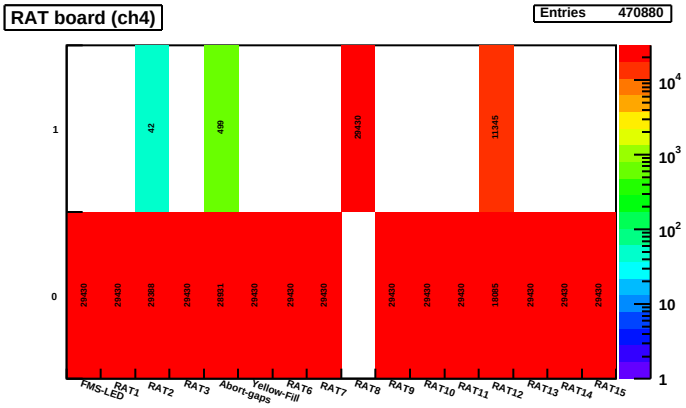

VT201 0-15 (ch1)
Entries 55725
BBC-TAC BBC-E BBC-W BBC-L-TAC BBC-L-E BBC-L-W ZDC-TAC ZDC-E ZDC-W ZDC-E-Front ZDC-E-Back ZDC-W-Front ZDC-W-Back VPD-TAC VPD-E VPD-W

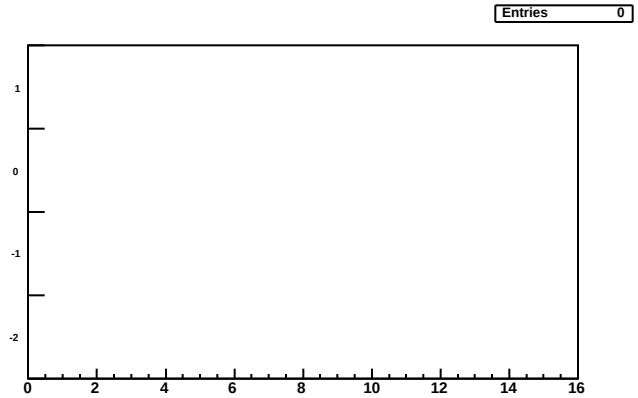

Unused (ch2)
Entries 470880

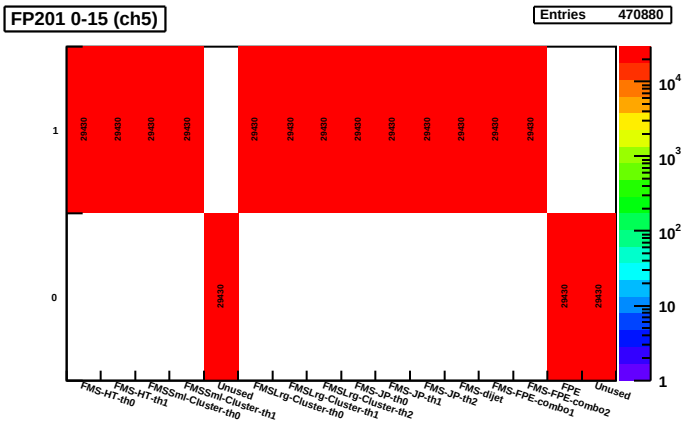

Entries 0

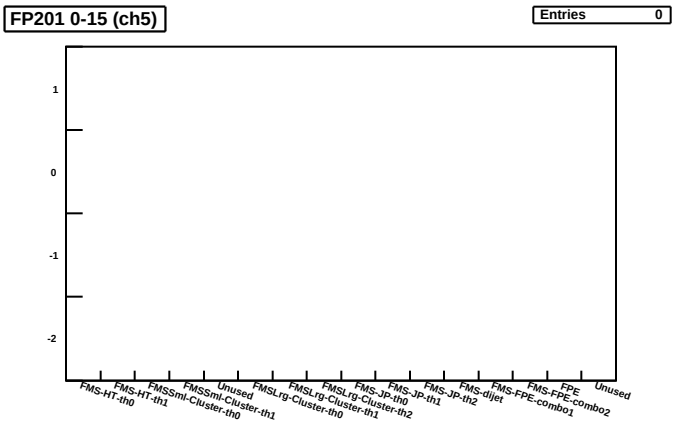

EM201 0-15 (ch3)
Entries 470880
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

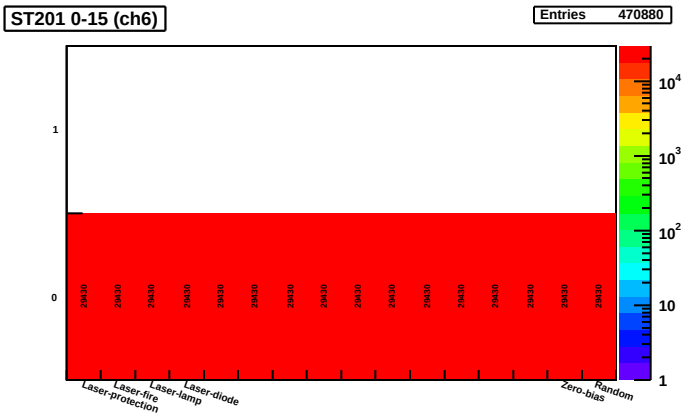

EM201 0-15 (ch3)
Entries 0
BHT0 BHT1 BHT2 BHT3 EHT2 EHT4 JP1 JP2 BJP1 BJP2 EJP1 EJP2 AJP BAJP DAQ10k JP0

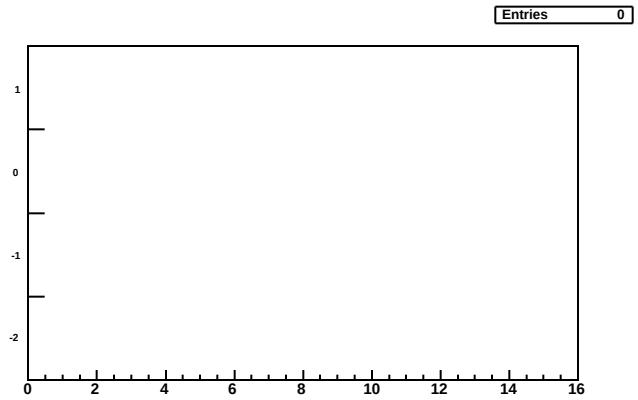

RAT board (ch4)
Entries 470880
FMS-LED
RAT1
RAT2
RAT3
Abort-gaps
Yellow-Fill
RAT6
RAT7
RAT8
RAT9
RAT10
RAT11
RAT12
RAT13
RAT14
RAT15

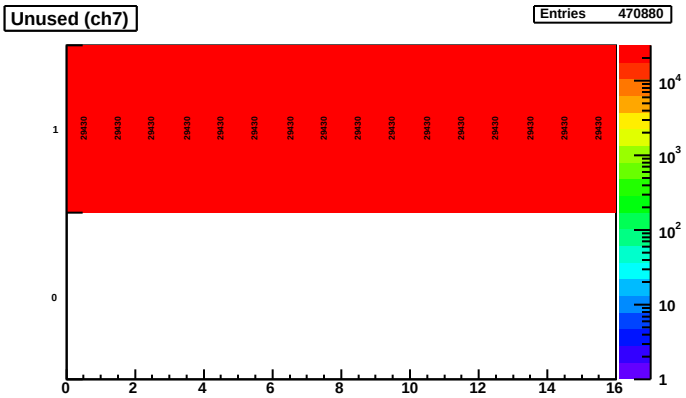

Entries 0

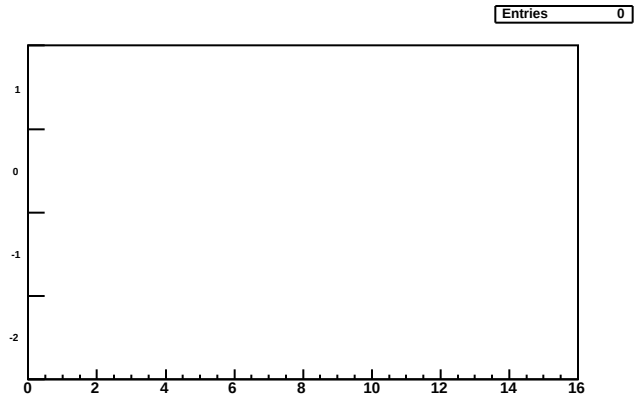

FP201 0-15 (ch5)
Entries 470880
FMS-HT-th0
FMS-HT-th1
FMSSml-Cluster-th0
FMSSml-Cluster-th1
Unused
FMSLrg-Cluster-th0
FMSLrg-Cluster-th1
FMS-JP-th0
FMS-JP-th1
FMS-JP-th2
FMS-dijet
FMS-FPE-combo1
FPE
FMS-FPE-combo2
Unused


FP201 0-15 (ch5)
Entries 0
FMS-HT-th0
FMS-HT-th1
FMSSml-Cluster-th0
FMSSml-Cluster-th1
Unused
FMSLrg-Cluster-th0
FMSLrg-Cluster-th1
FMS-JP-th0
FMS-JP-th1
FMS-JP-th2
FMS-dijet
FMS-FPE-combo1
FPE
FMS-FPE-combo2
Unused


ST201 0-15 (ch6)
Entries 470880
Laser-protection
Laser-fire
Laser-lamp
Laser-diode
Zero-bias
Random


Entries 0


Unused (ch7)
Entries 470880


Entries 0