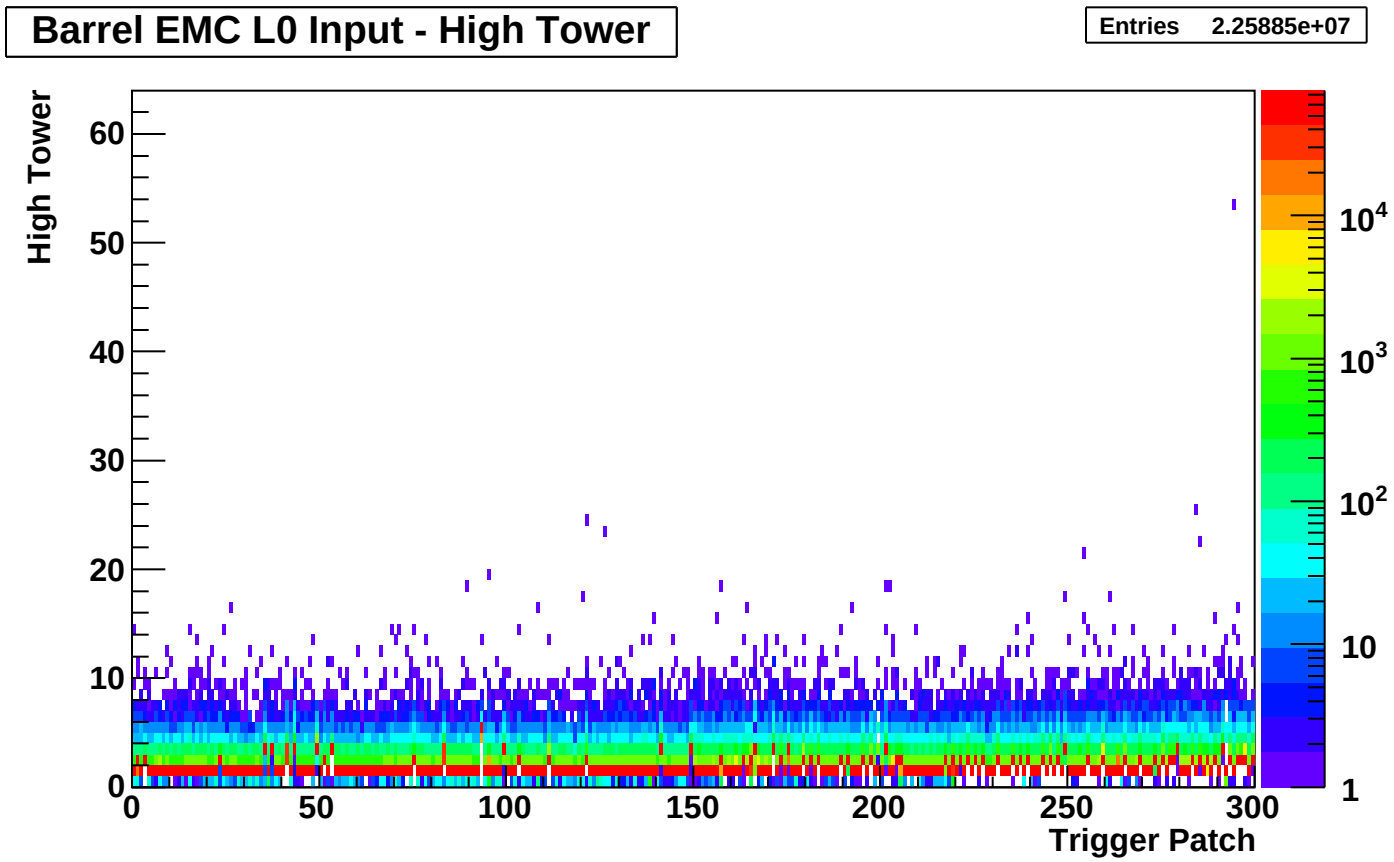
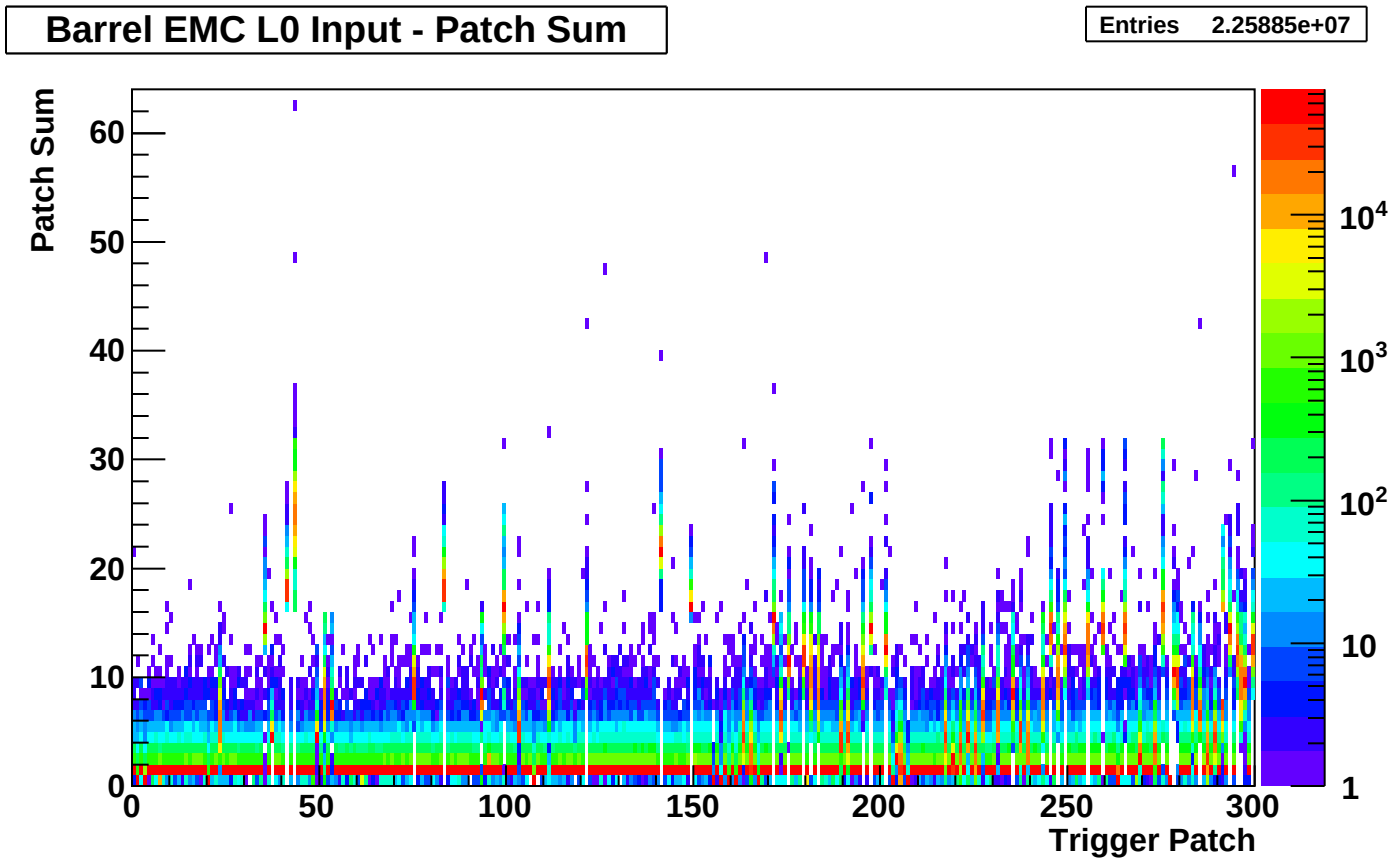
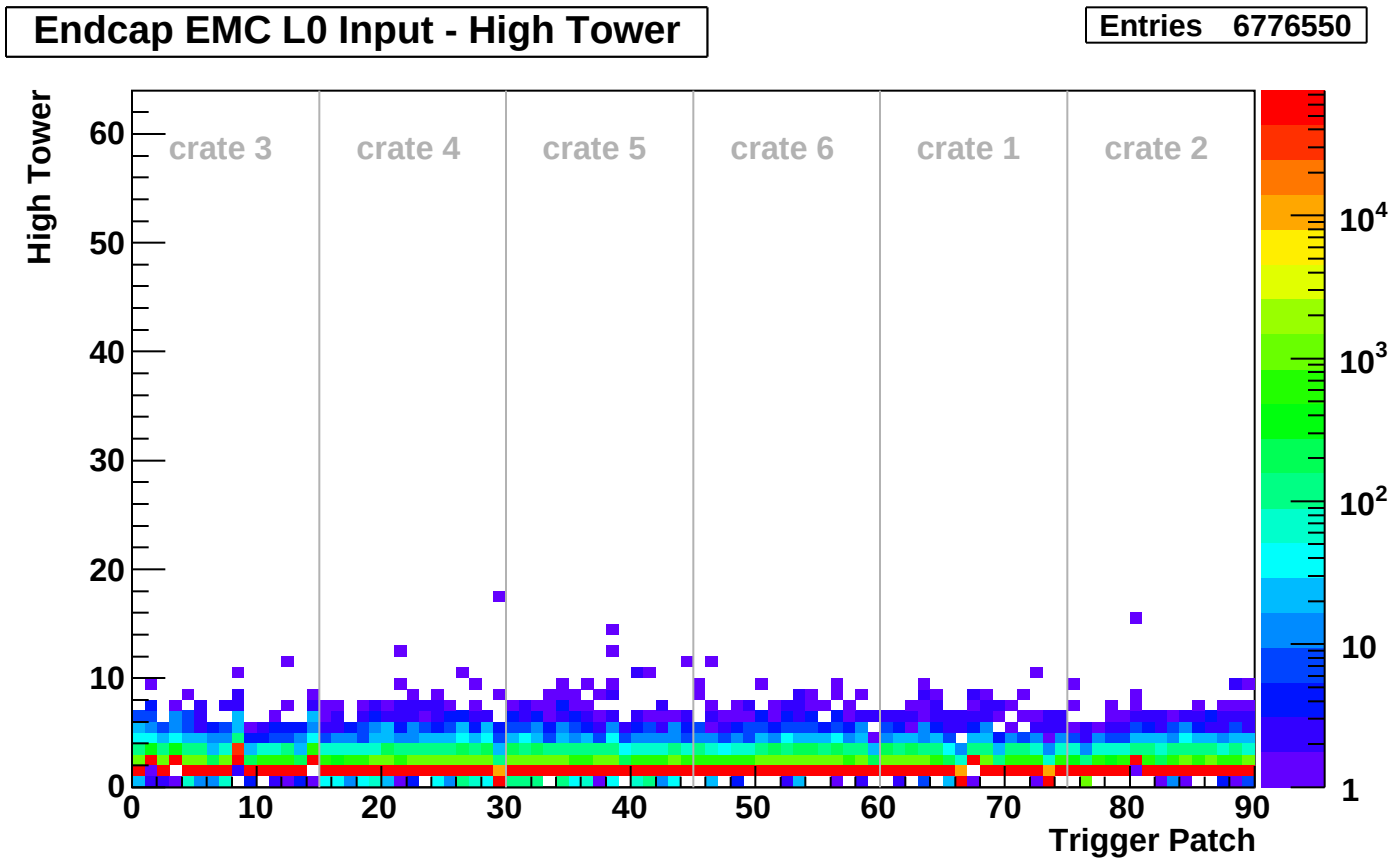
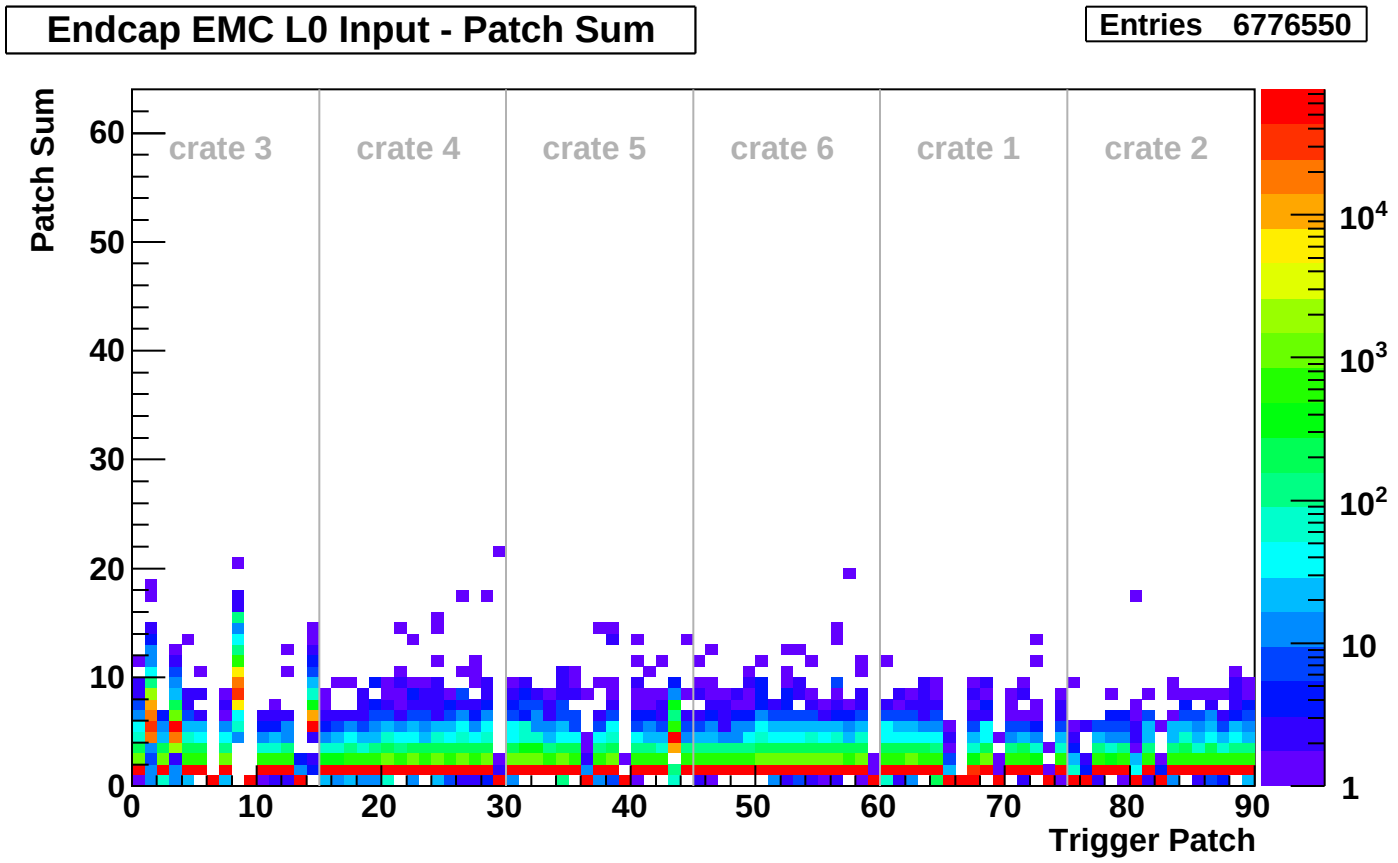
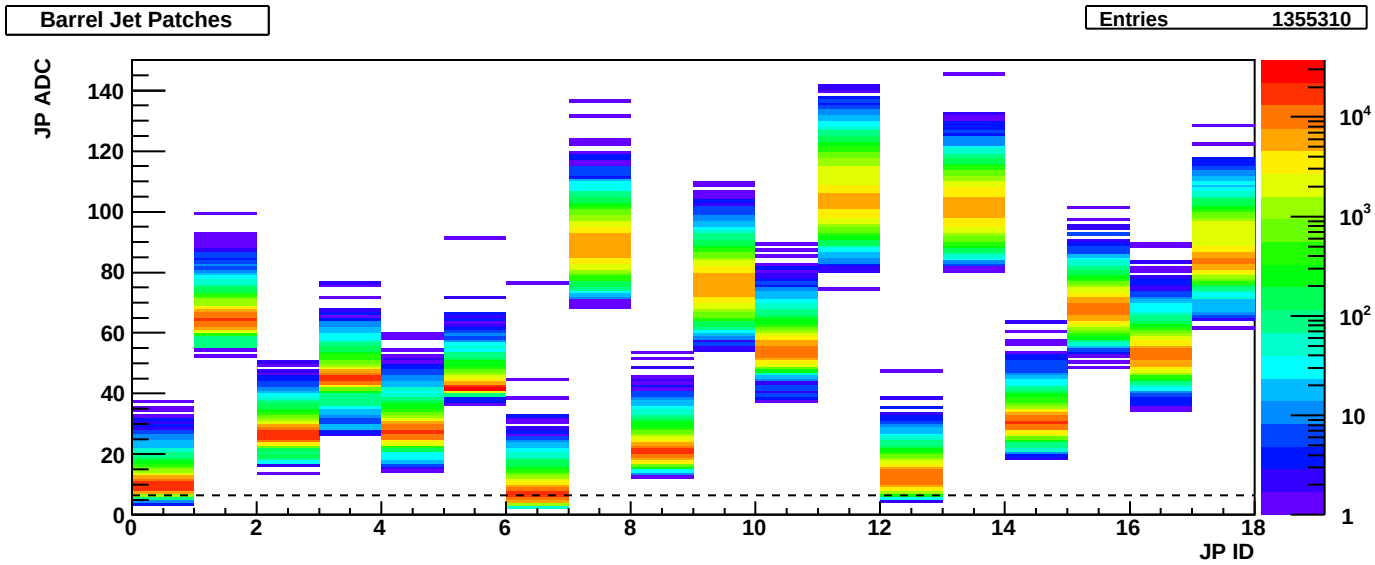
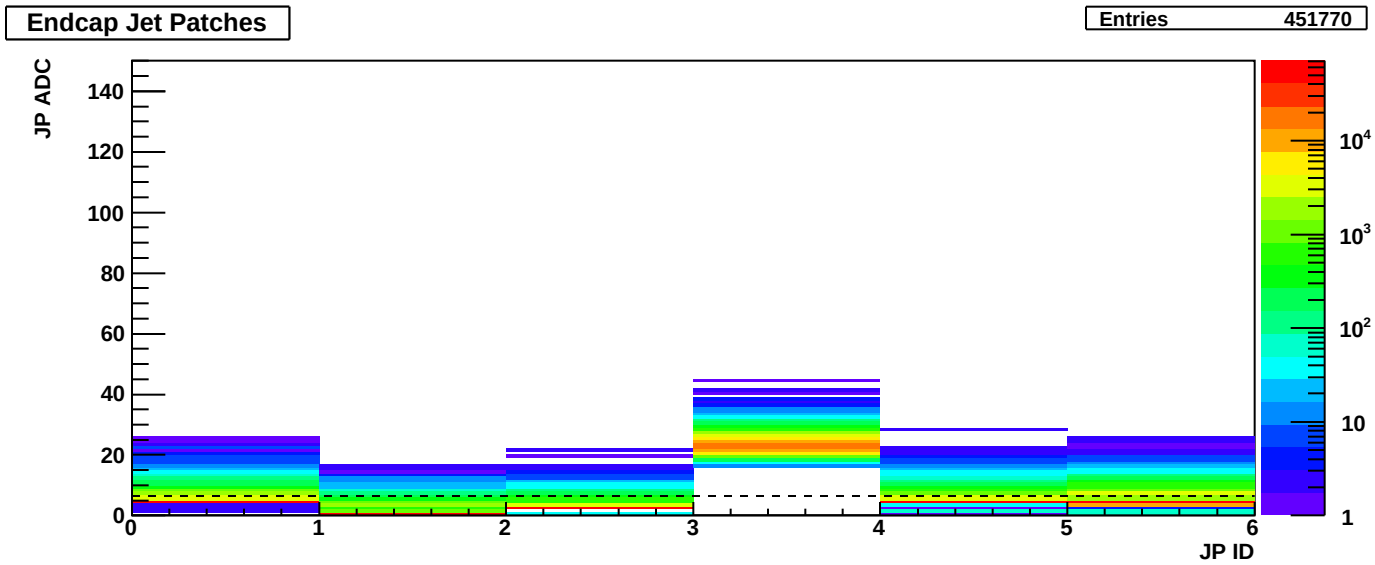

Barrel EMC L0 Input - High Tower
Entries 2.25885e+07
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

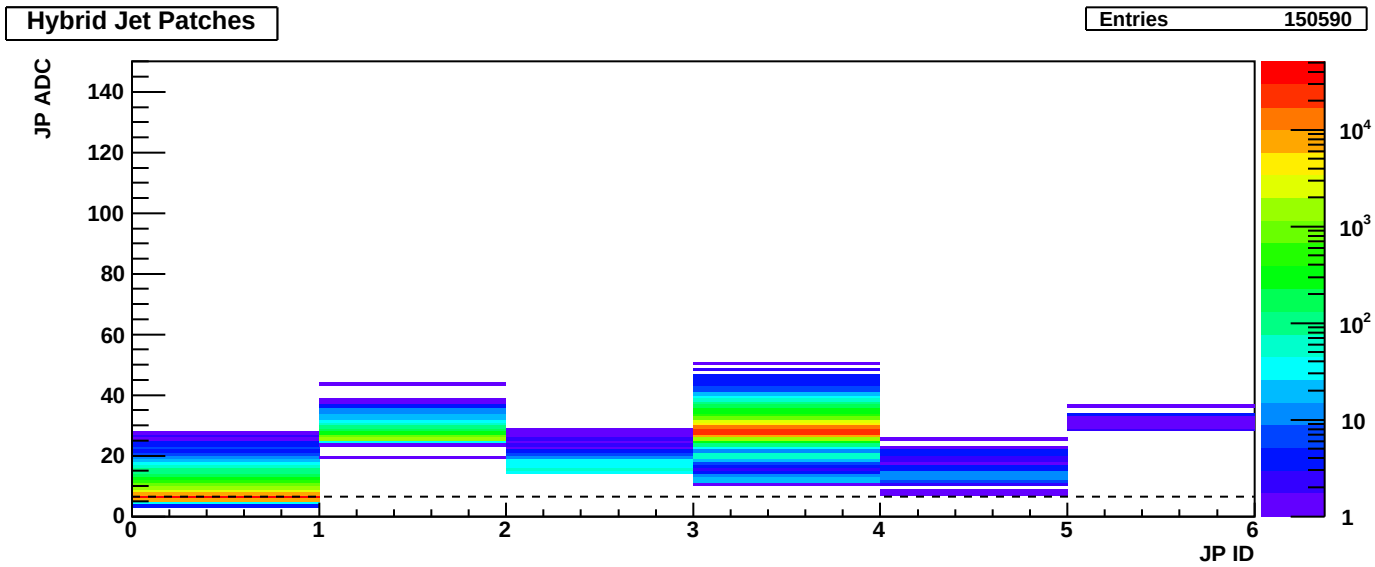

Barrel EMC L0 Input - Patch Sum
Entries 2.25885e+07
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4

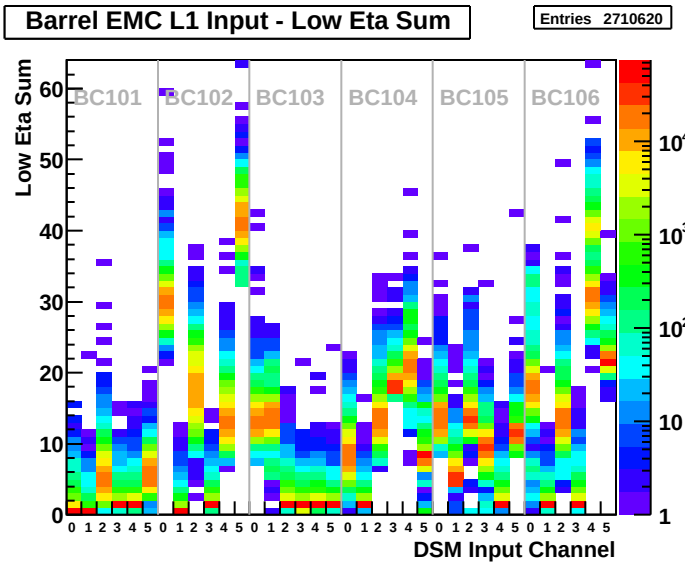

Endcap EMC L0 Input - High Tower
Entries 6776550
High Tower
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

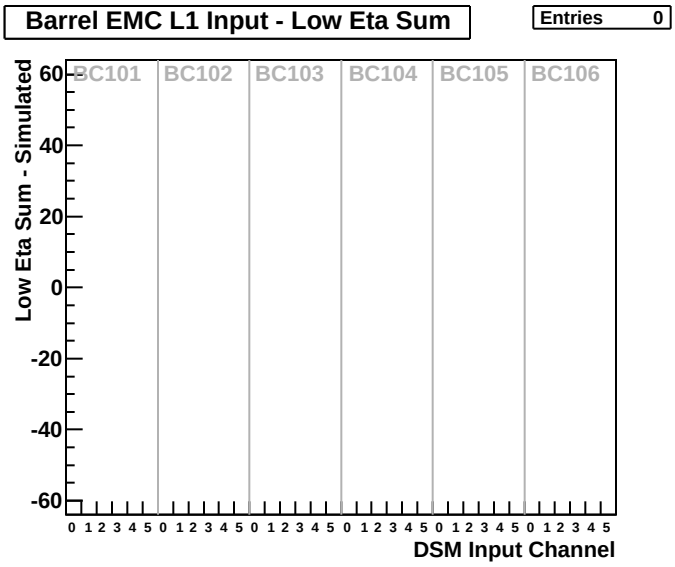

Endcap EMC L0 Input - Patch Sum
Entries 6776550
Patch Sum
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2
Trigger Patch

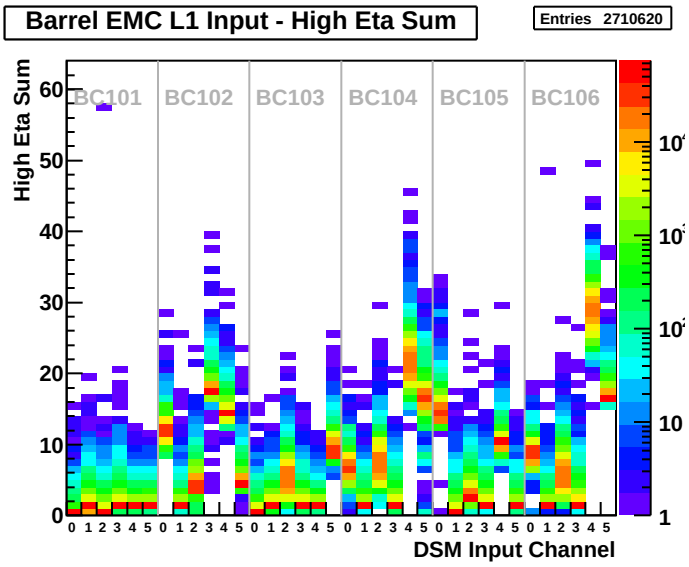

Barrel Jet Patches
Entries 1355310
JP ADC
JP ID

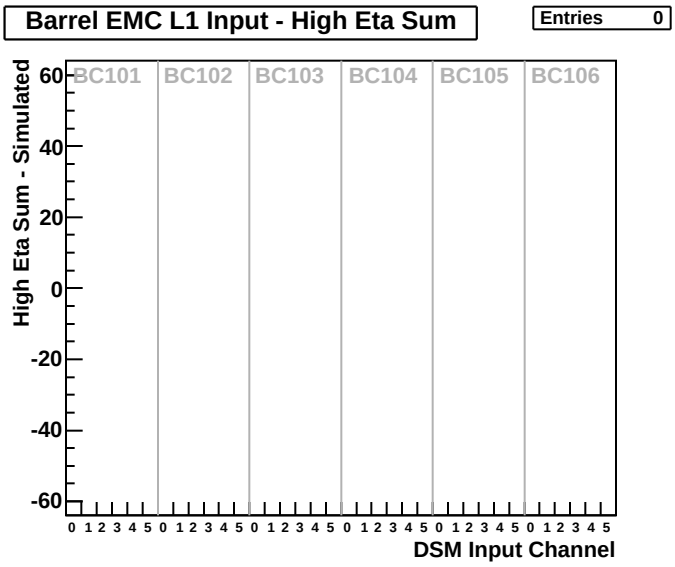

Endcap Jet Patches
Entries 451770
JP ADC
JP ID

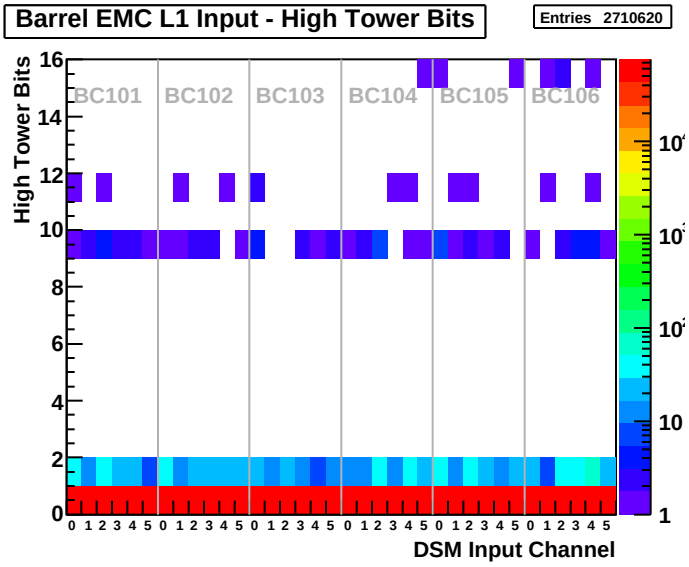

Hybrid Jet Patches
Entries 150590
JP ADC
JP ID

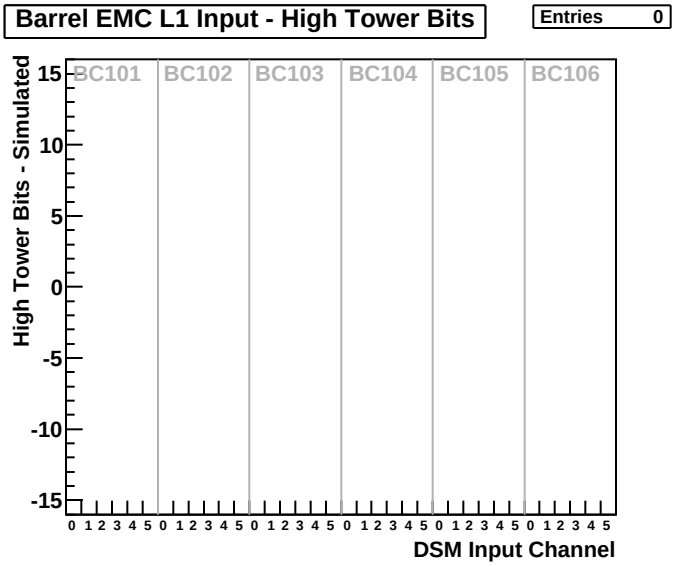

Barrel EMC L1 Input - Low Eta Sum
Entries 2710620
Low Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

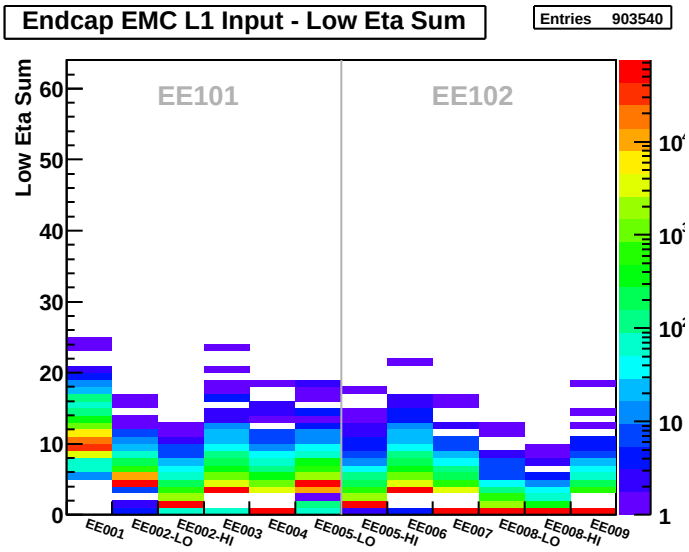

Barrel EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

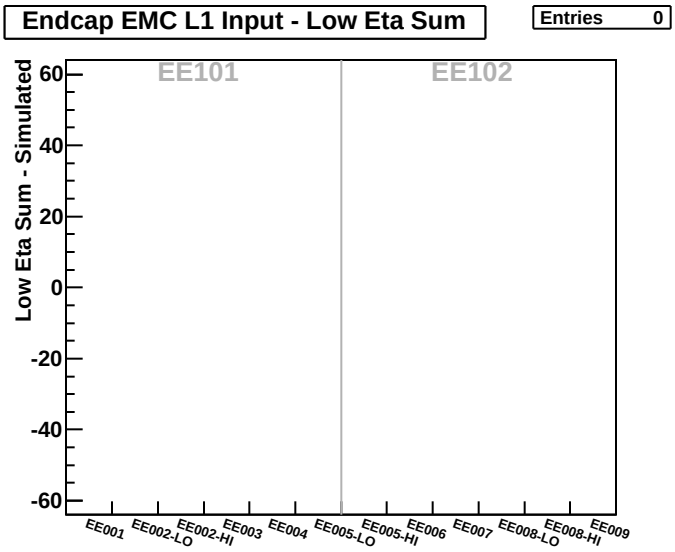

Barrel EMC L1 Input - High Eta Sum
Entries 2710620
High Eta Sum
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

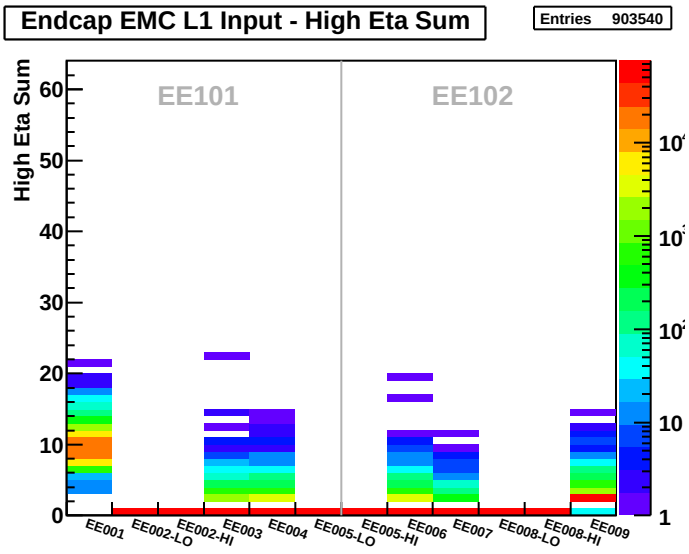

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

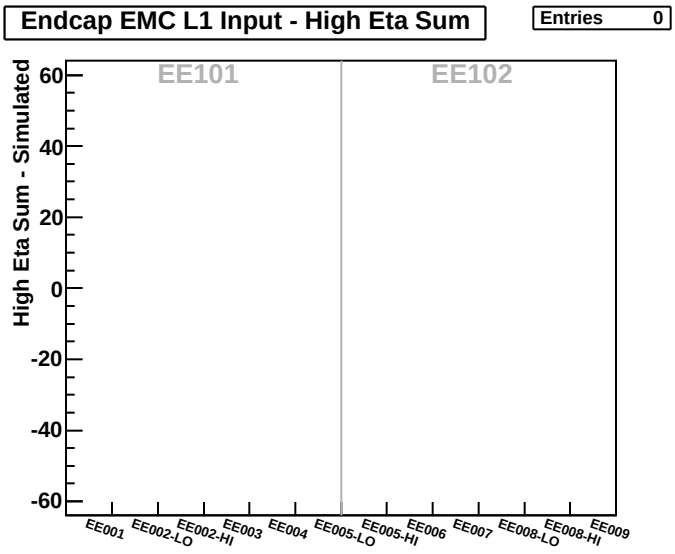

Barrel EMC L1 Input - High Tower Bits
Entries 2710620
High Tower Bits
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

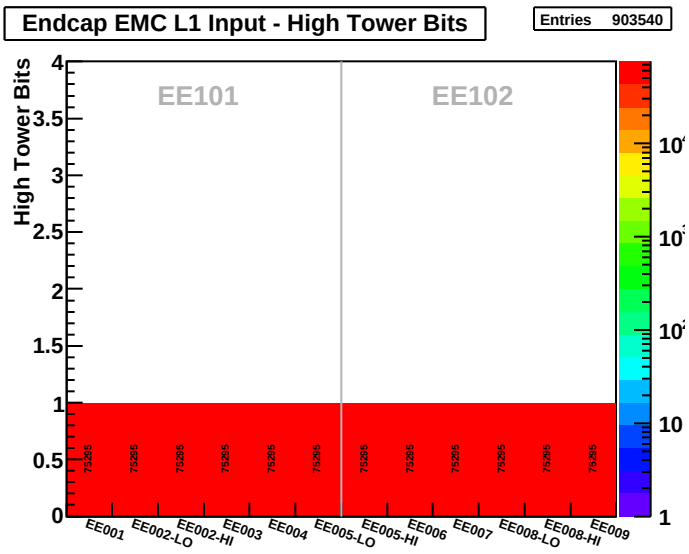

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101
BC102
BC103
BC104
BC105
BC106
DSM Input Channel

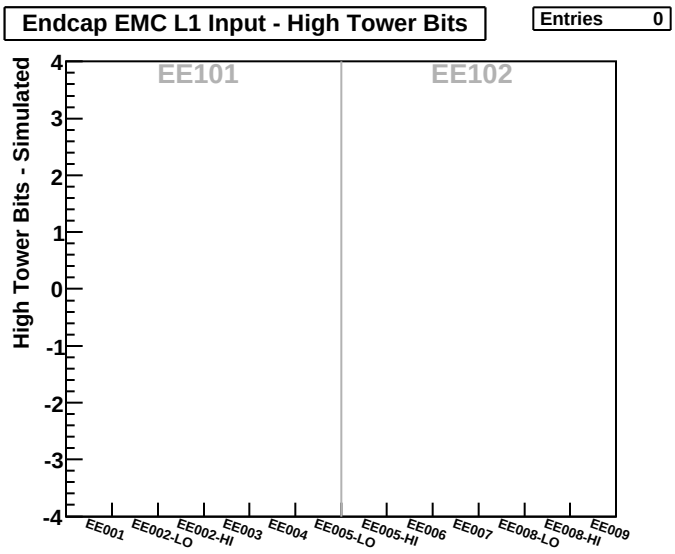

Endcap EMC L1 Input - Low Eta Sum
Entries 903540
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

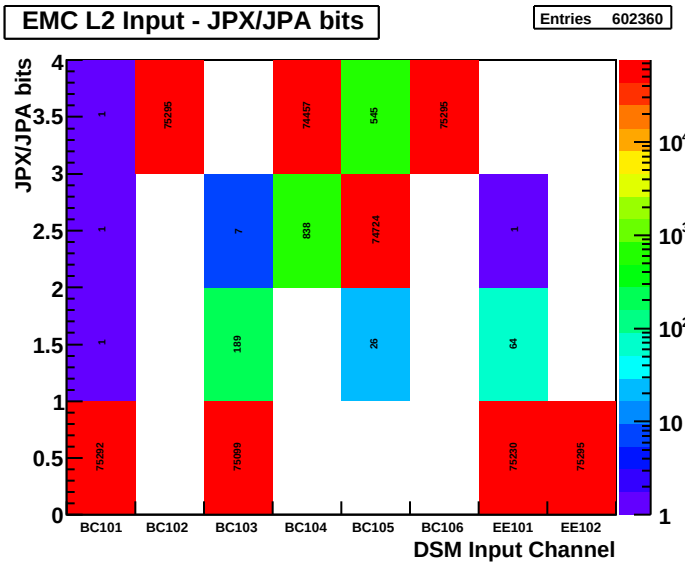

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

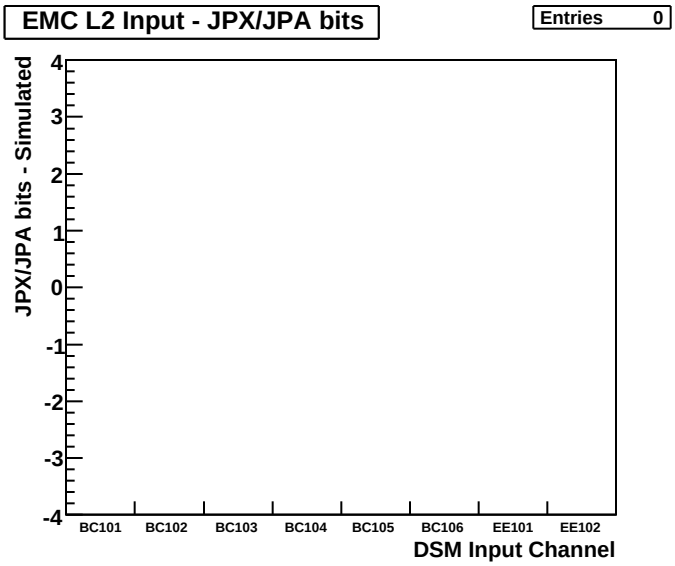

Endcap EMC L1 Input - High Eta Sum
Entries 903540
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

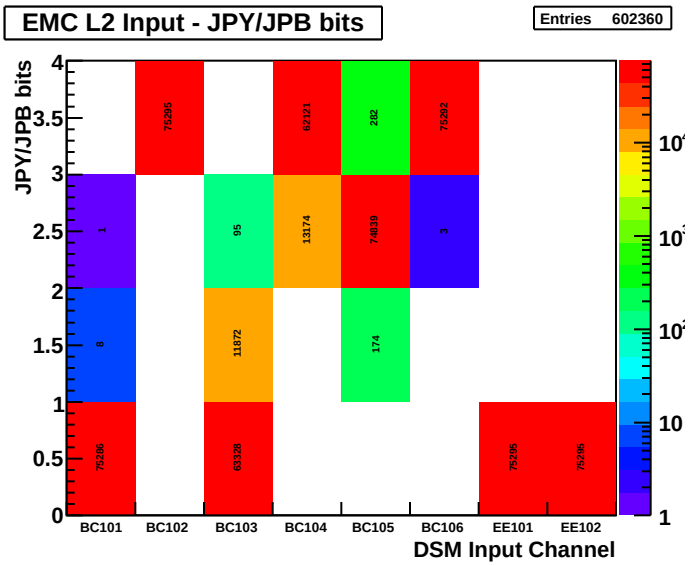

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

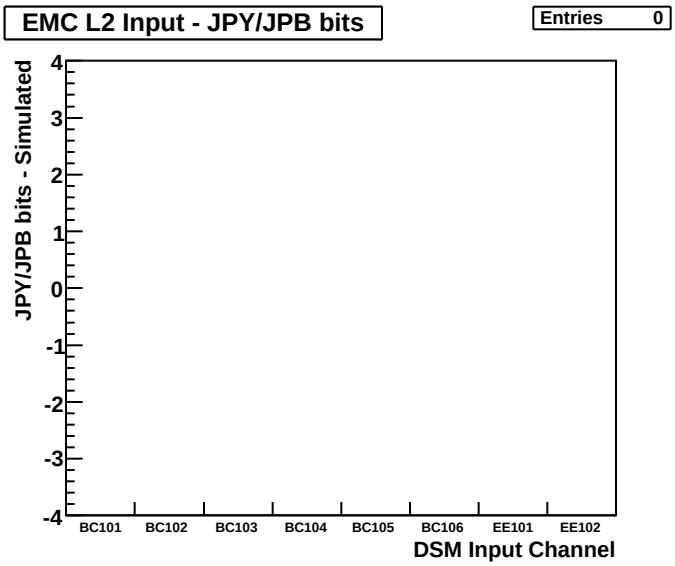

Endcap EMC L1 Input - High Tower Bits
Entries 903540
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

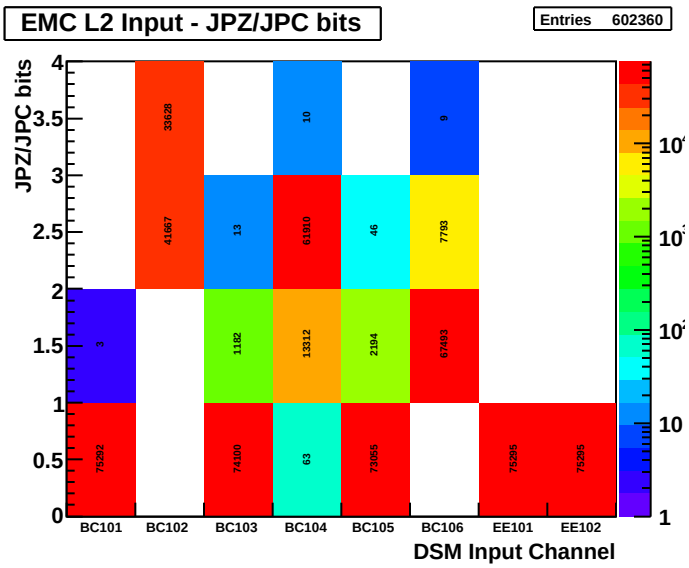

Endcap EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

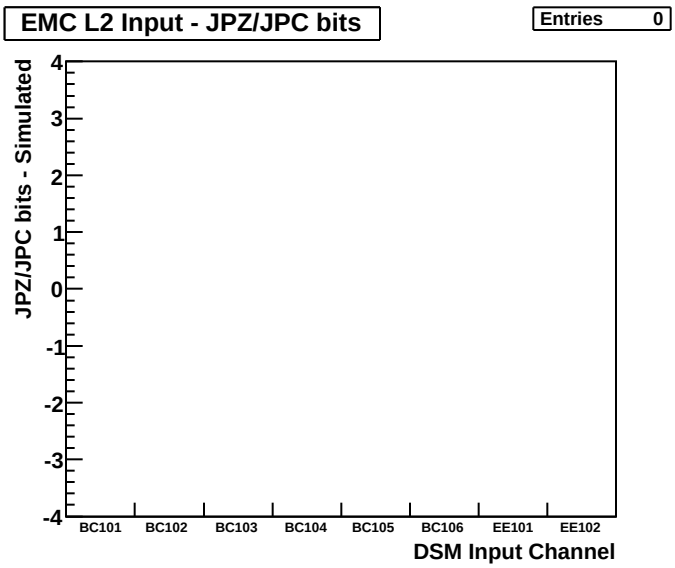

EMC L2 Input - JPX/JPA bits
Entries 602360
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

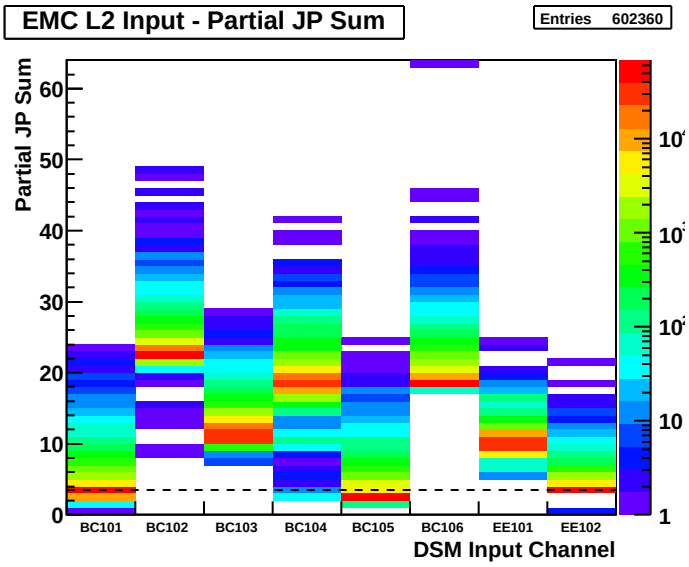

EMC L2 Input - JPX/JPA bits
Entries 0
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

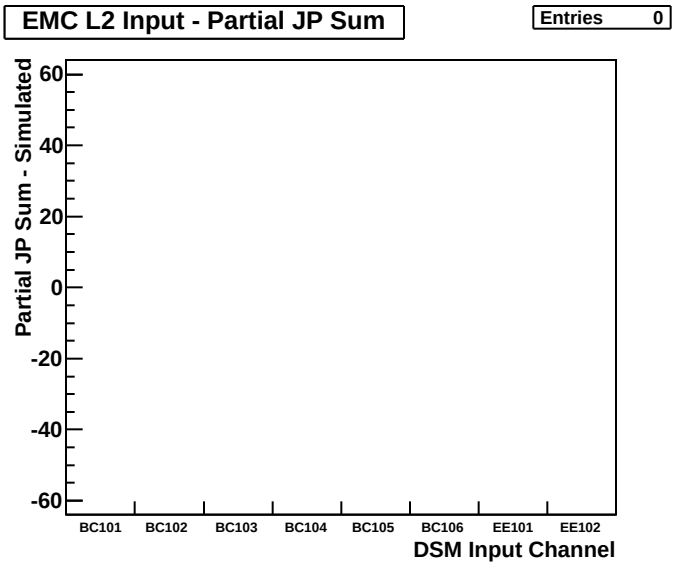

EMC L2 Input - JPY/JPB bits
Entries 602360
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

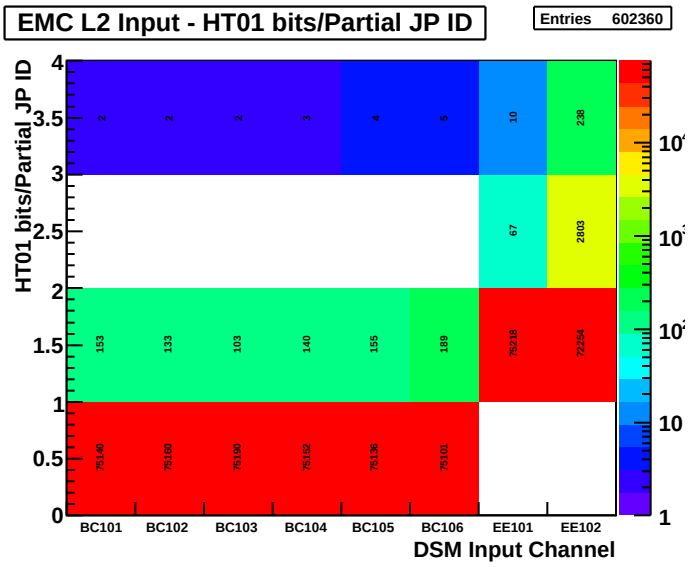

EMC L2 Input - JPY/JPB bits
Entries 0
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

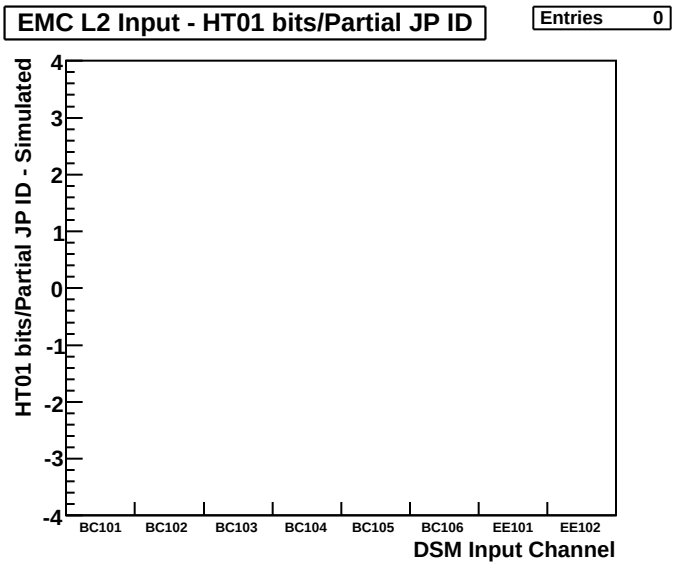

EMC L2 Input - JPZ/JPC bits
Entries 602360
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

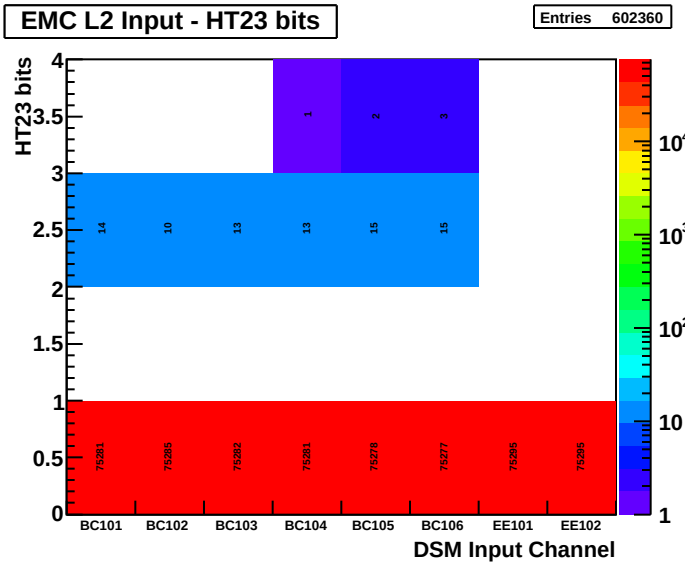

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

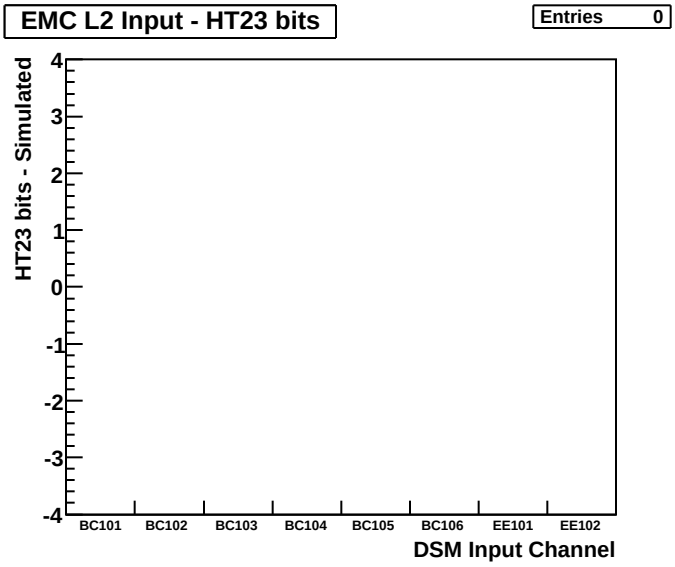

EMC L2 Input - Partial JP Sum
Entries 602360
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

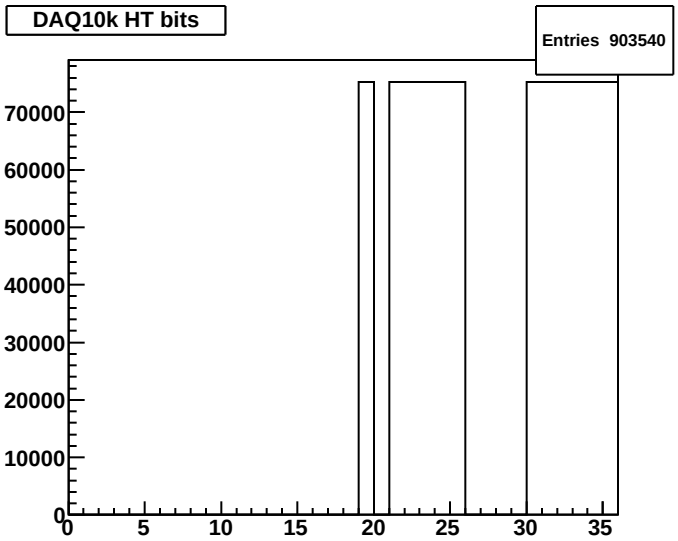

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

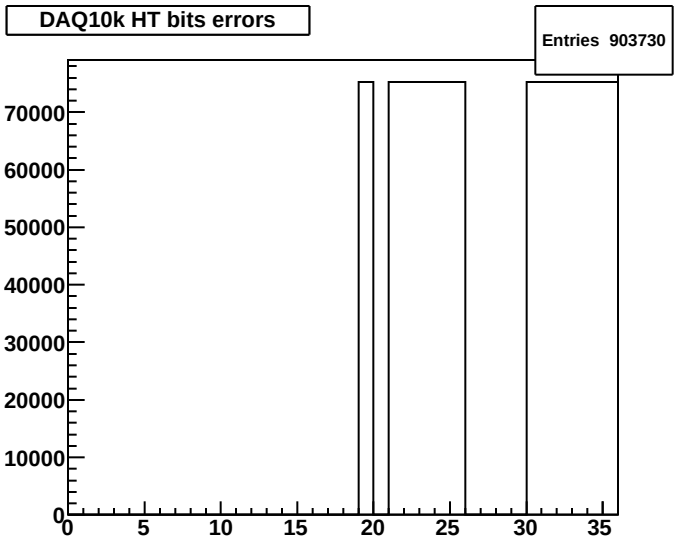

EMC L2 Input - HT01 bits/Partial JP ID
Entries 602360
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

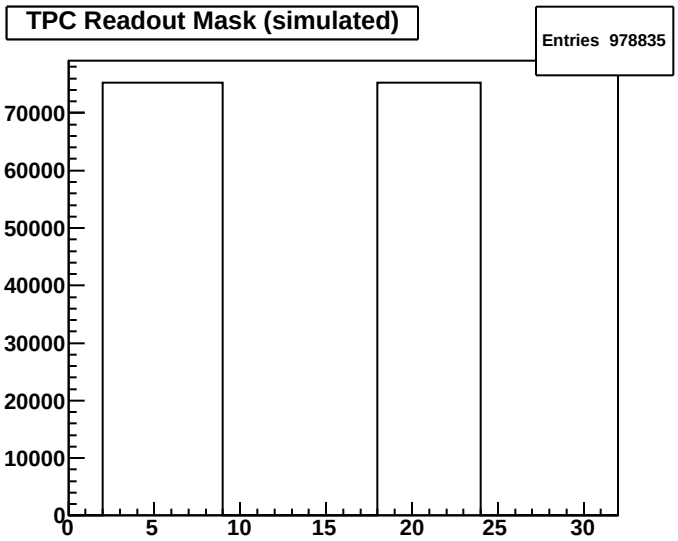

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

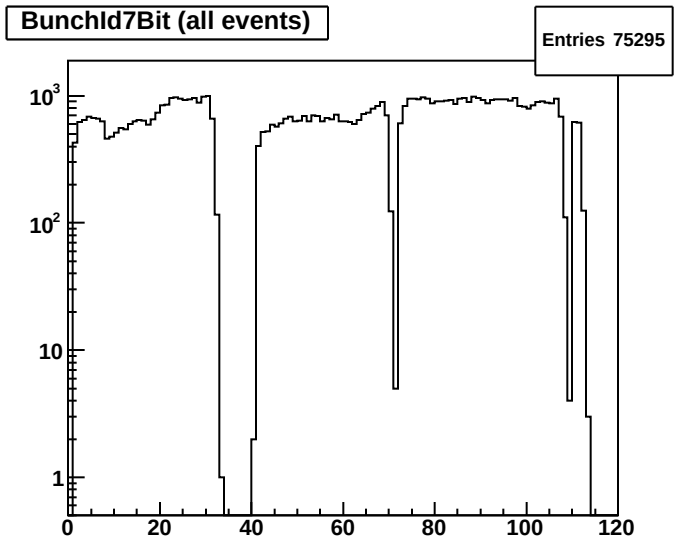

EMC L2 Input - HT23 bits
Entries 602360
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

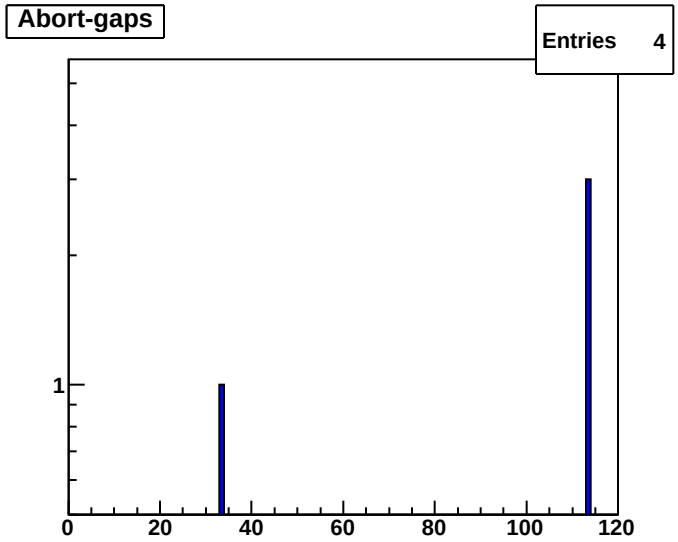

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

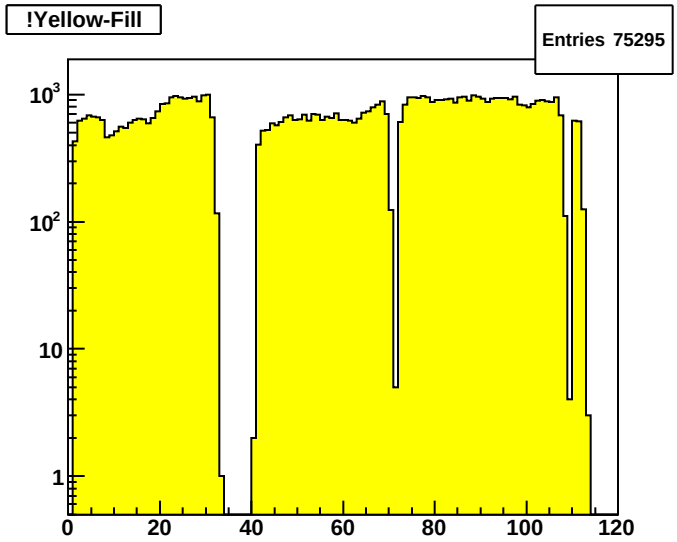

DAQ10k HT bits
Entries 903540
70000
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

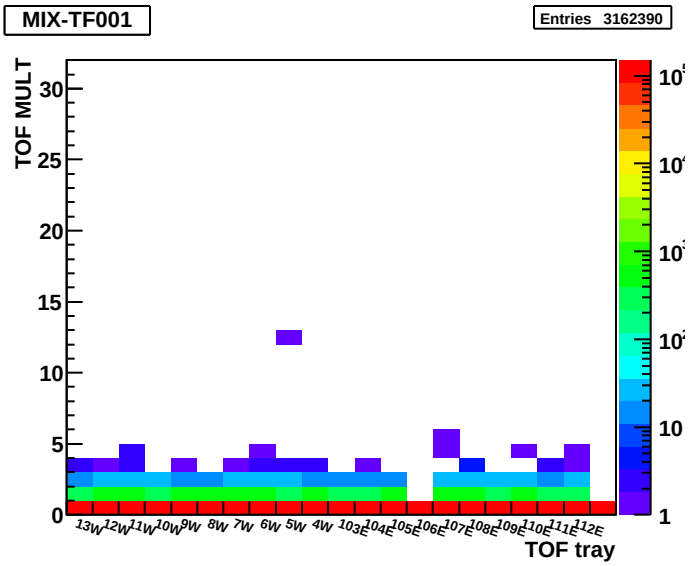

DAQ10k HT bits errors
Entries 903730
70000
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30 35

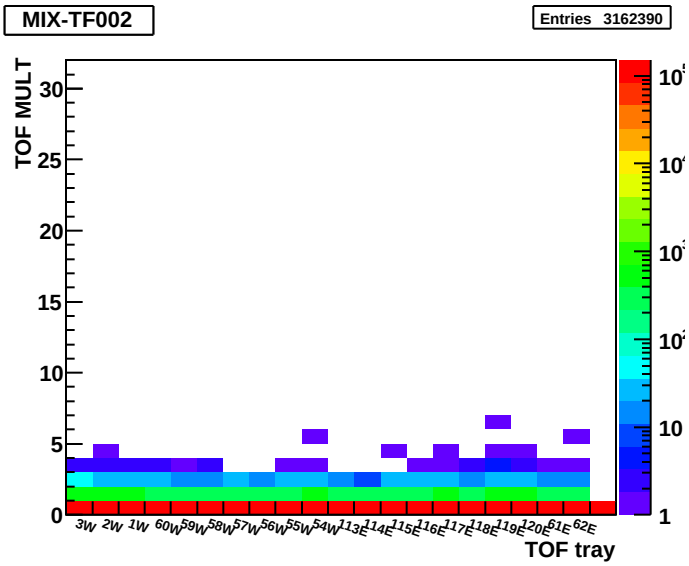

TPC Readout Mask (simulated)
Entries 978835
70000
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25 30

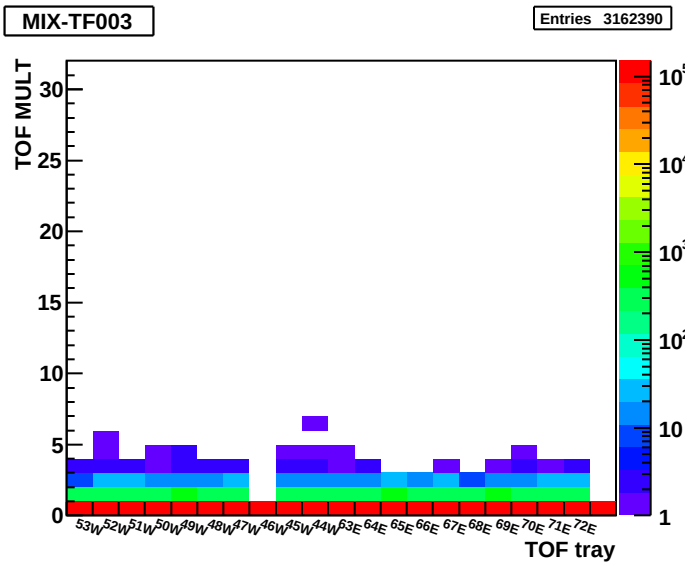

BunchId7Bit (all events)
Entries 75295
10^3
10^2
10
1
0 20 40 60 80 100 120

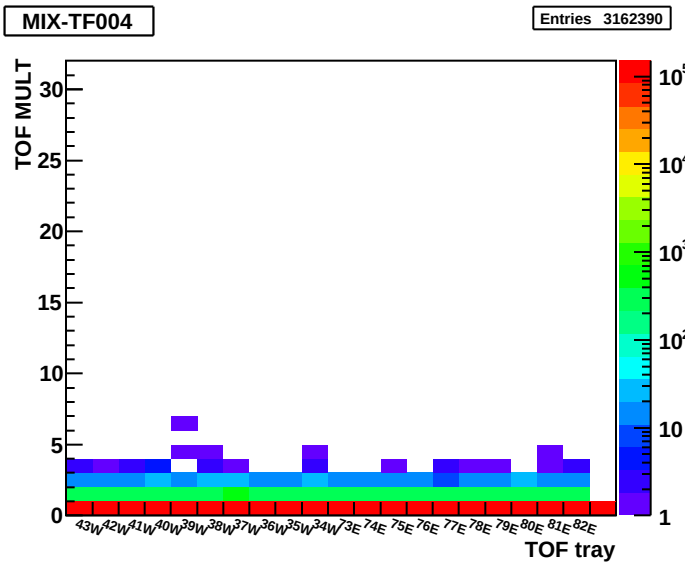

Abort-gaps
Entries 4
1
0 20 40 60 80 100 120

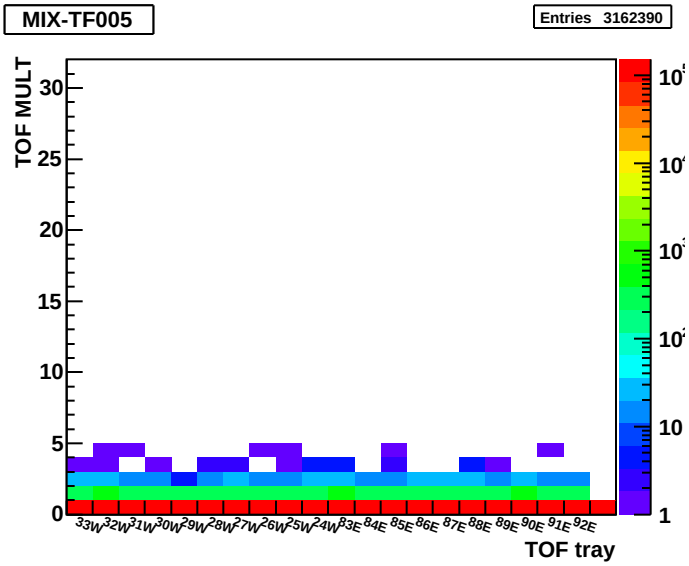

!Yellow-Fill
Entries 75295
10^3
10^2
10
1
0 20 40 60 80 100 120

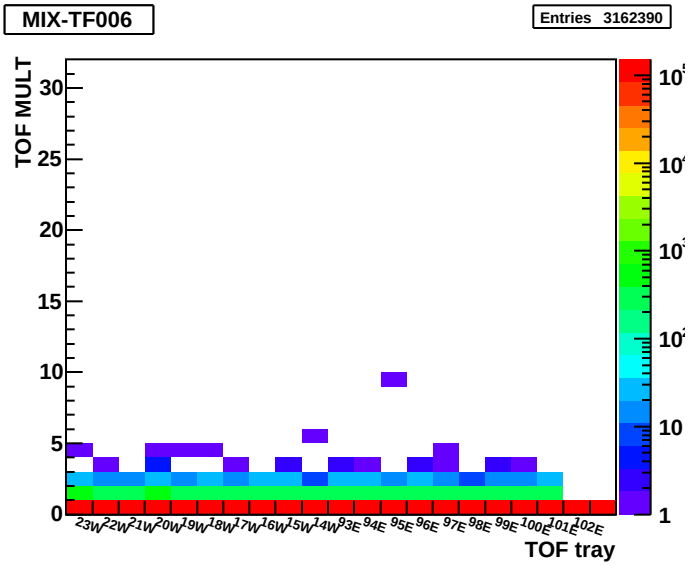

MIX-TF001
Entries 3162390
TOF MULT
TOF tray

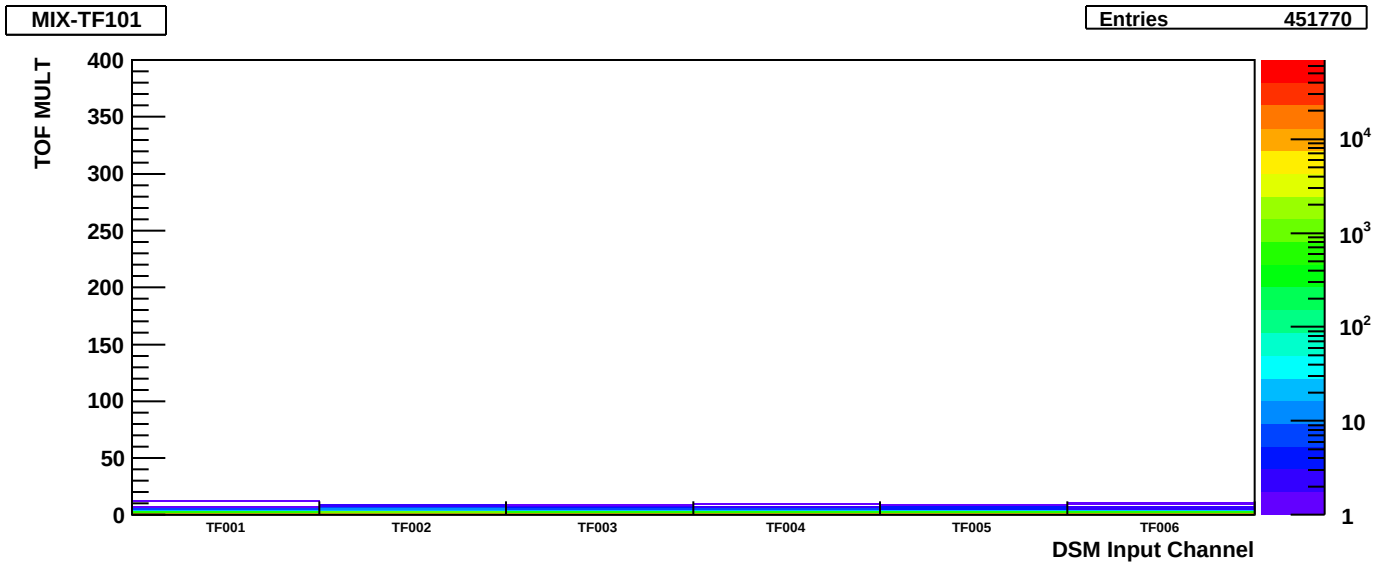

MIX-TF002
Entries 3162390
TOF MULT
TOF tray

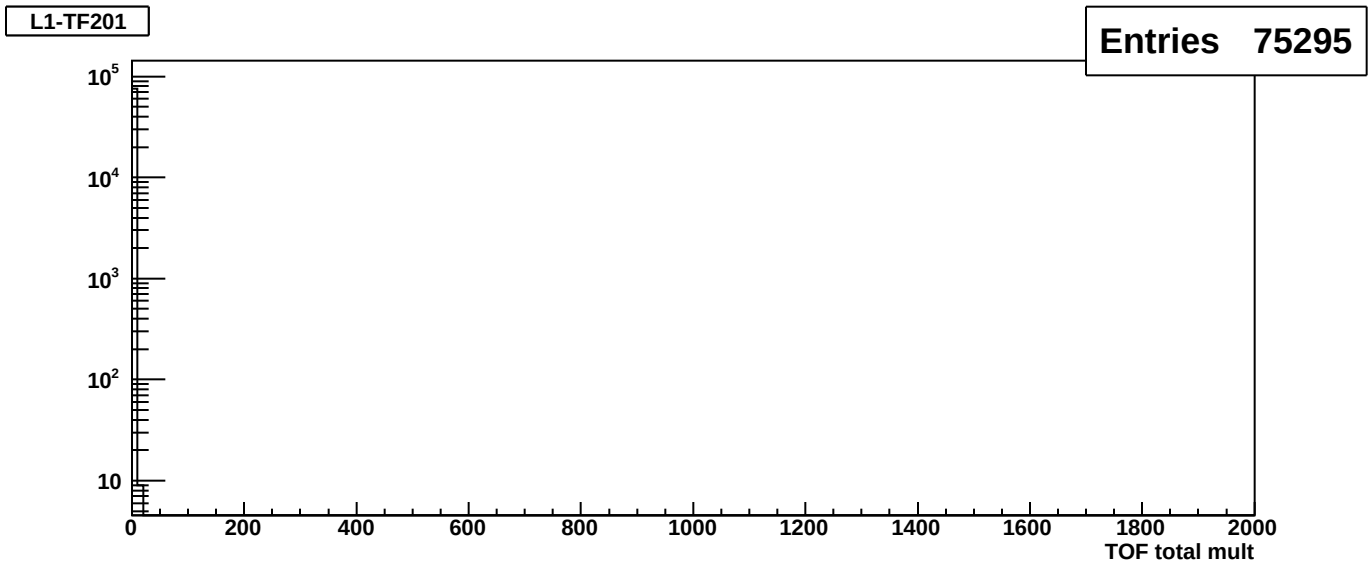

MIX-TF003
Entries 3162390
TOF MULT
TOF tray

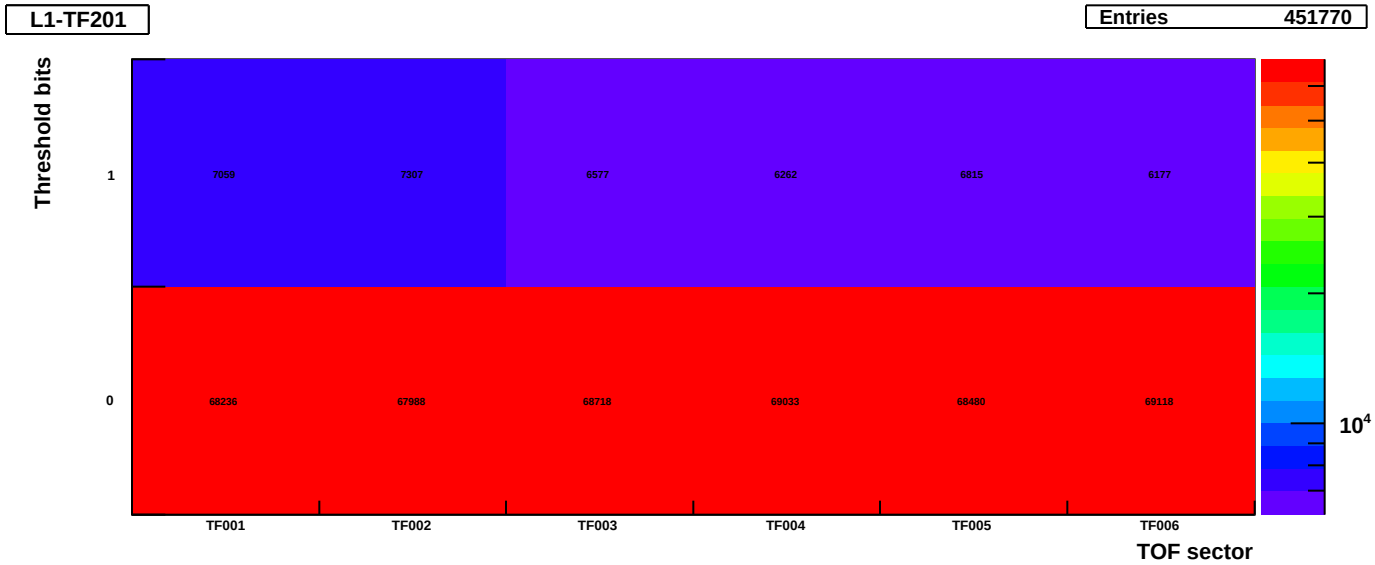

MIX-TF004
Entries 3162390
TOF MULT
TOF tray

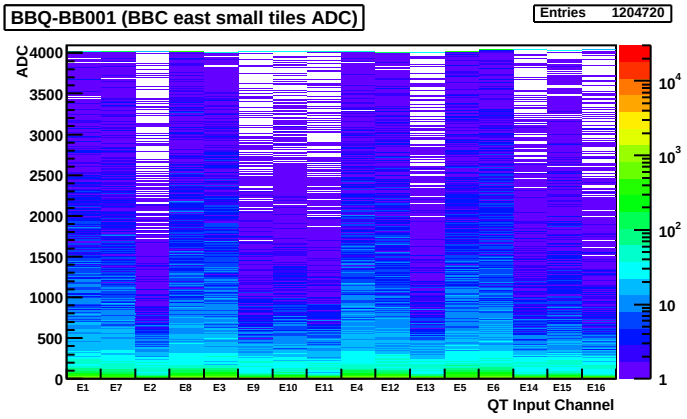

MIX-TF005
Entries 3162390
TOF MULT
TOF tray

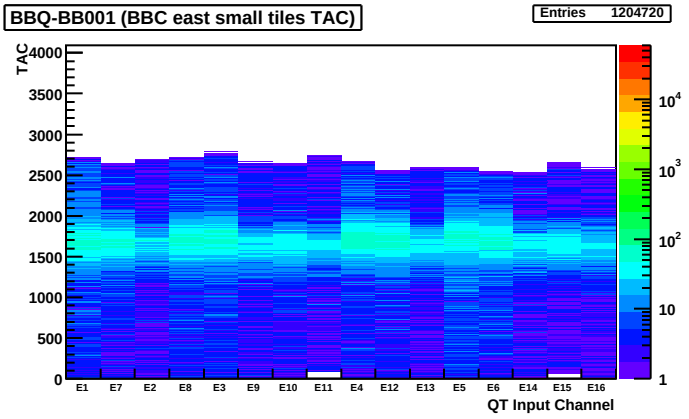

MIX-TF006
Entries 3162390
TOF MULT
TOF tray

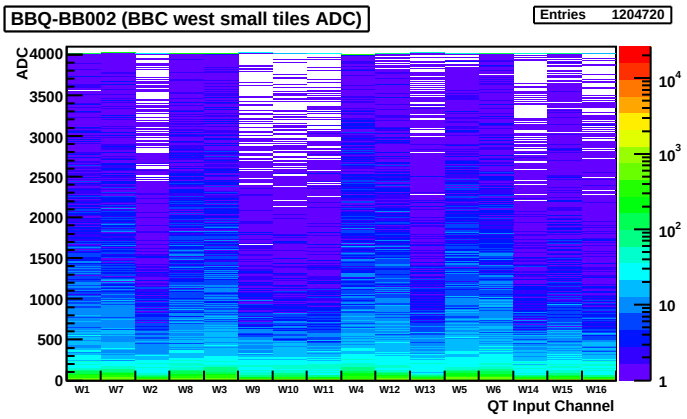

MIX-TF101
Entries 451770
TOF MULT
400
350
300
250
200
150
100
50
0
TF001
TF002
TF003
TF004
TF005
TF006
DSM Input Channel
10^4
10^3
10^2
10
1

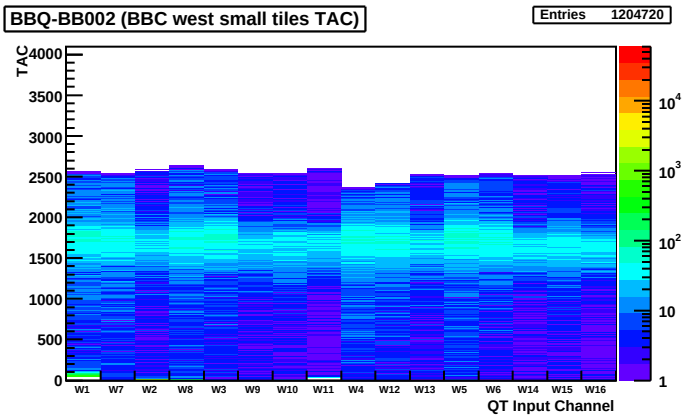

L1-TF201
Entries 75295
10^5
10^4
10^3
10^2
10
0
200
400
600
800
1000
1200
1400
1600
1800
2000
TOF total mult

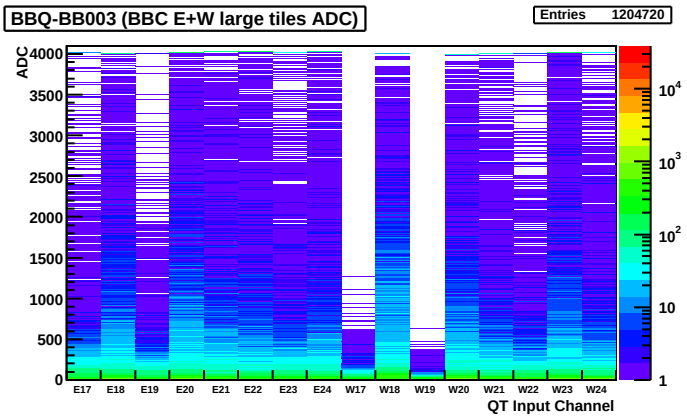

L1-TF201
Entries 451770
Threshold bits
1
0
7059
7307
6577
6262
6815
6177
68236
67988
68718
69033
68480
69118
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector
10^4

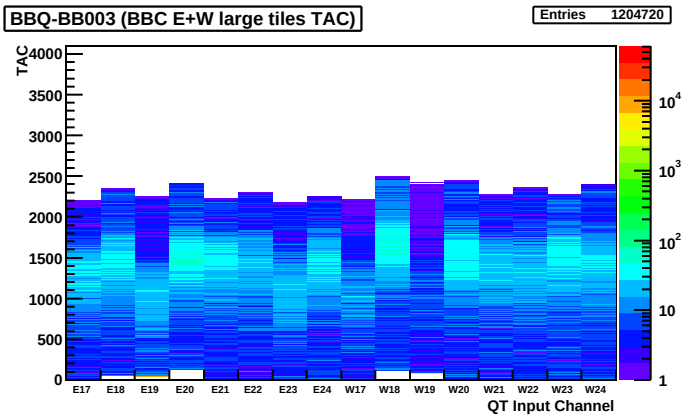

BBQ-BB001 (BBC east small tiles ADC)
Entries 1204720
ADC
QT Input Channel

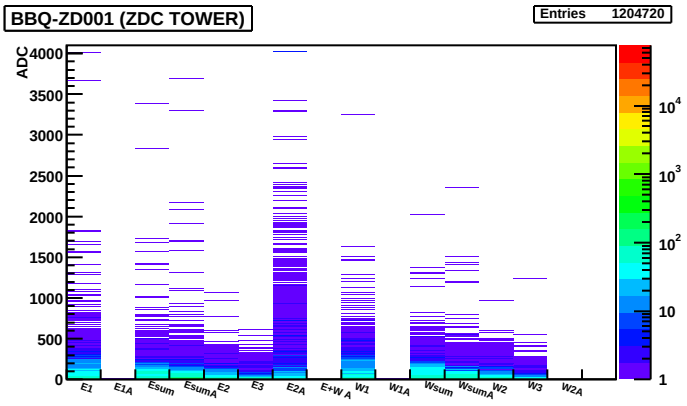

BBQ-BB001 (BBC east small tiles TAC)
Entries 1204720
TAC
QT Input Channel

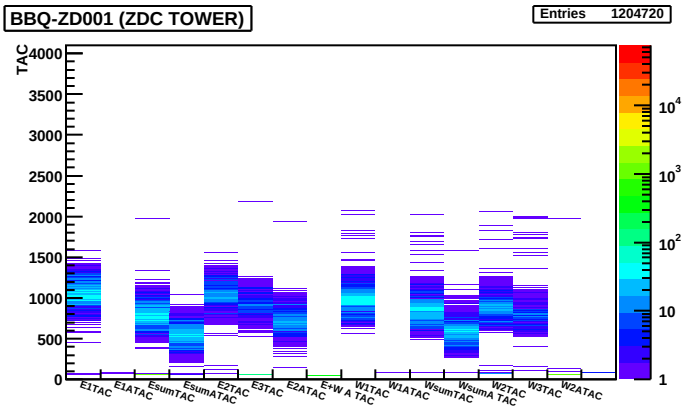

BBQ-BB002 (BBC west small tiles ADC)
Entries 1204720
ADC
QT Input Channel

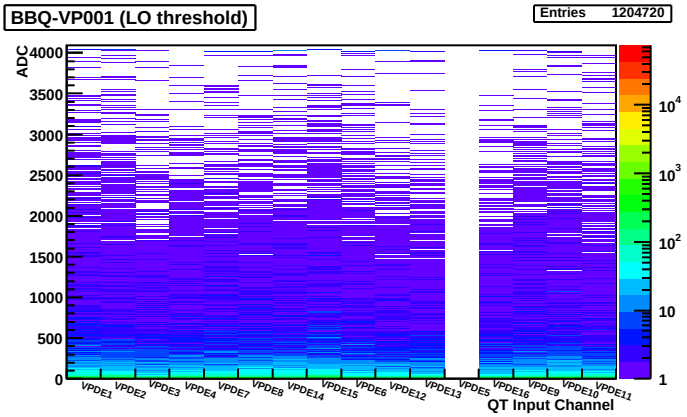

BBQ-BB002 (BBC west small tiles TAC)
Entries 1204720
TAC
QT Input Channel

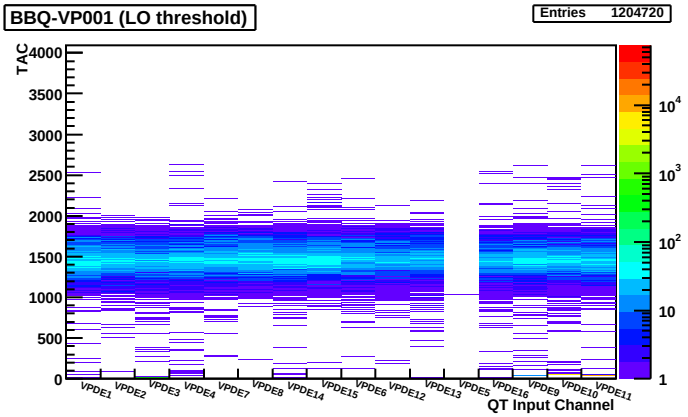

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 1204720
ADC
QT Input Channel

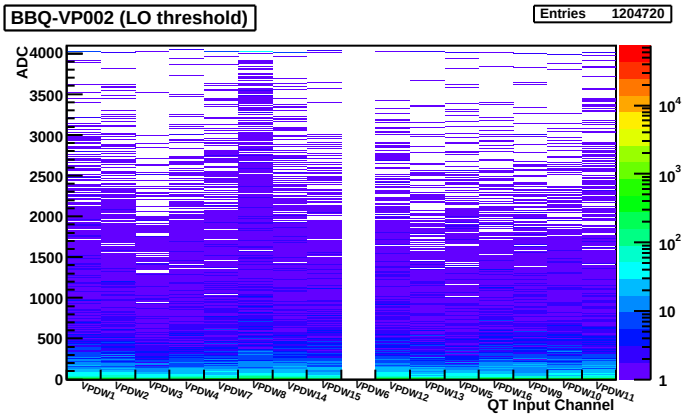

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 1204720
TAC
QT Input Channel

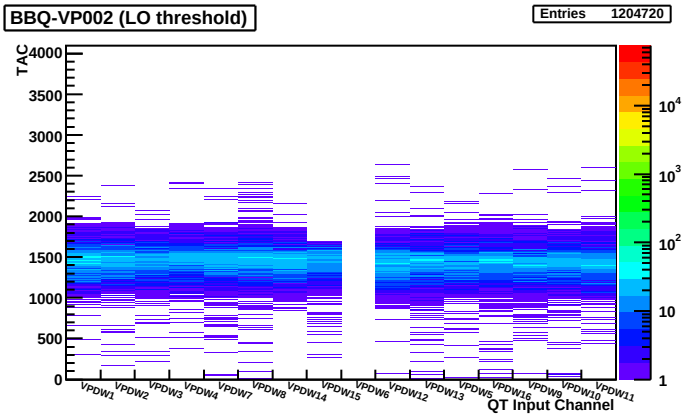

BBQ-ZD001 (ZDC TOWER)
Entries 1204720
ADC

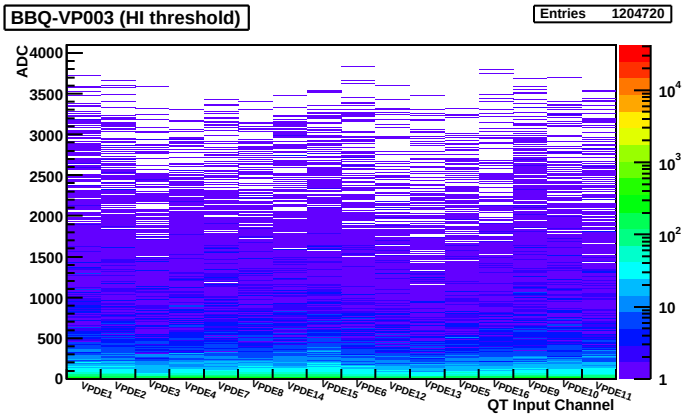

BBQ-ZD001 (ZDC TOWER)
Entries 1204720
TAC

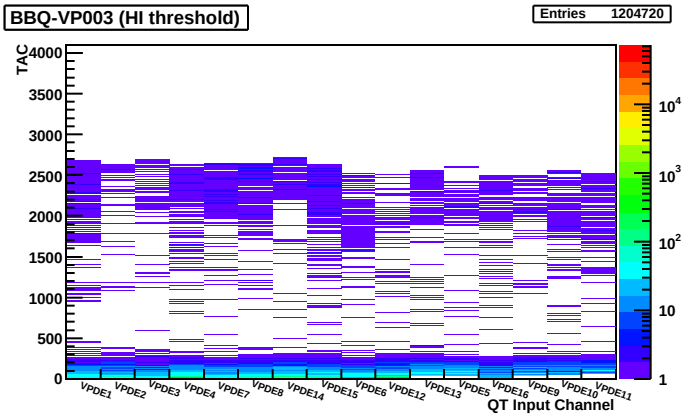

BBQ-VP001 (LO threshold)
Entries 1204720
ADC
QT Input Channel

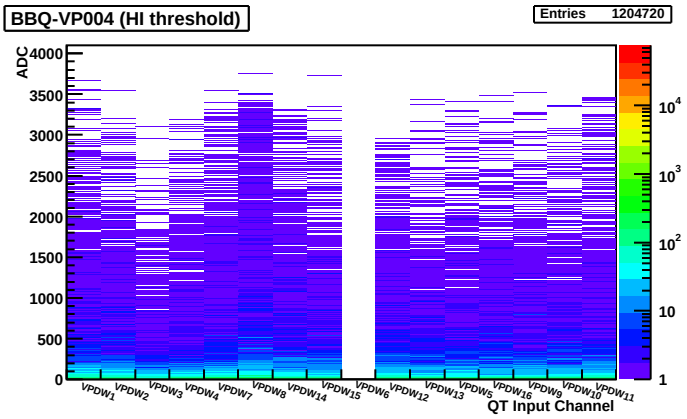

BBQ-VP001 (LO threshold)
Entries 1204720
TAC
QT Input Channel

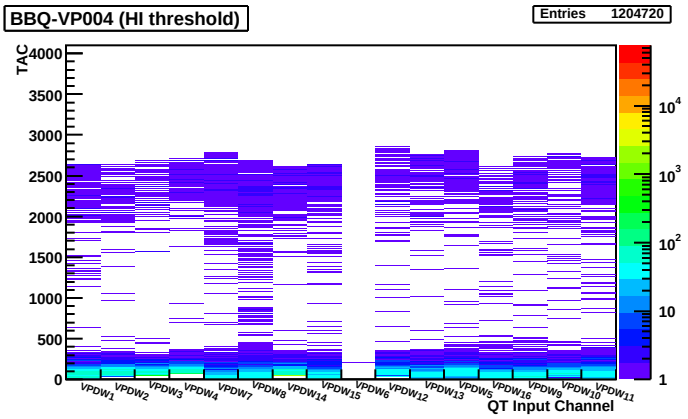

BBQ-VP002 (LO threshold)
Entries 1204720
ADC
QT Input Channel

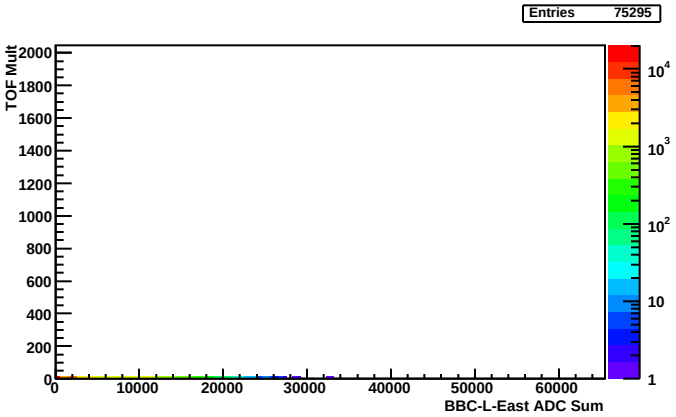

BBQ-VP002 (LO threshold)
Entries 1204720
TAC
QT Input Channel

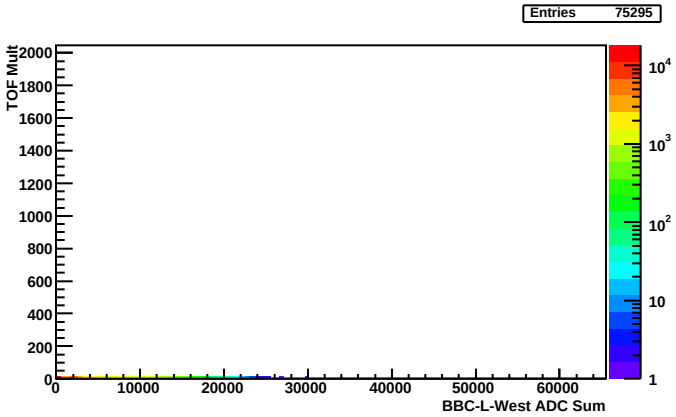

BBQ-VP003 (HI threshold)
Entries 1204720
ADC
QT Input Channel

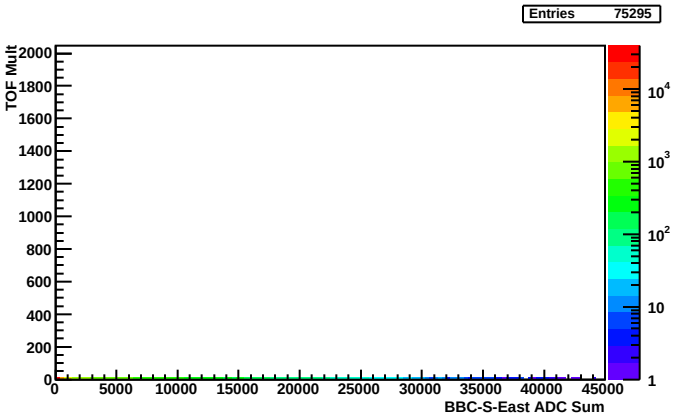

BBQ-VP003 (HI threshold)
Entries 1204720
TAC
QT Input Channel

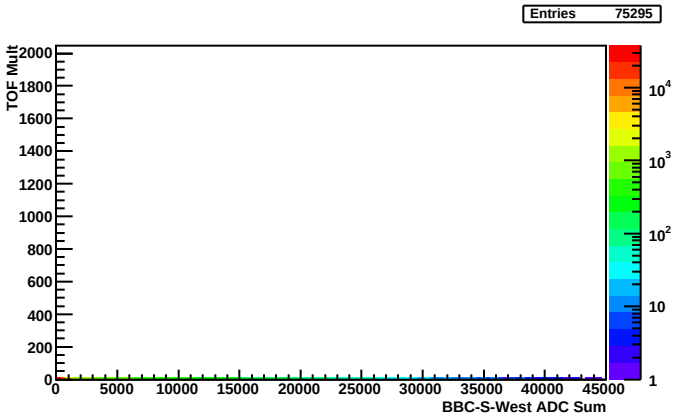

BBQ-VP004 (HI threshold)
Entries 1204720
ADC
QT Input Channel

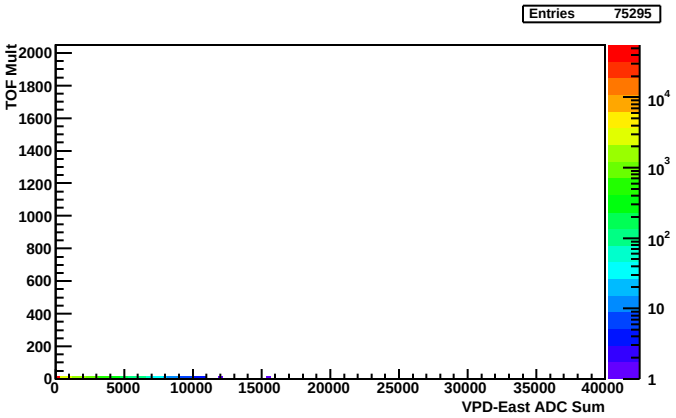

BBQ-VP004 (HI threshold)
Entries 1204720
TAC
QT Input Channel

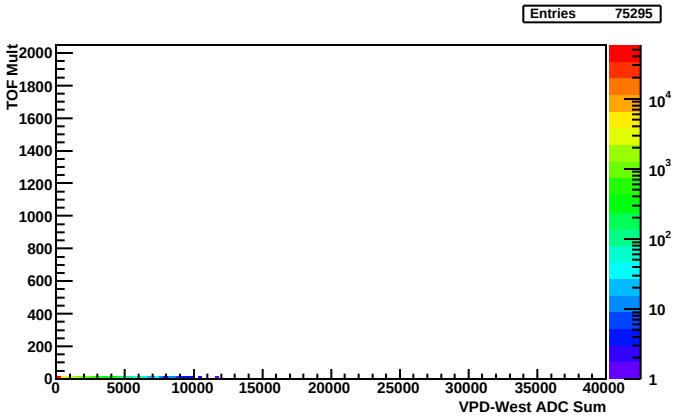

Entries 75295
TOF Mult
BBC-L-East ADC Sum

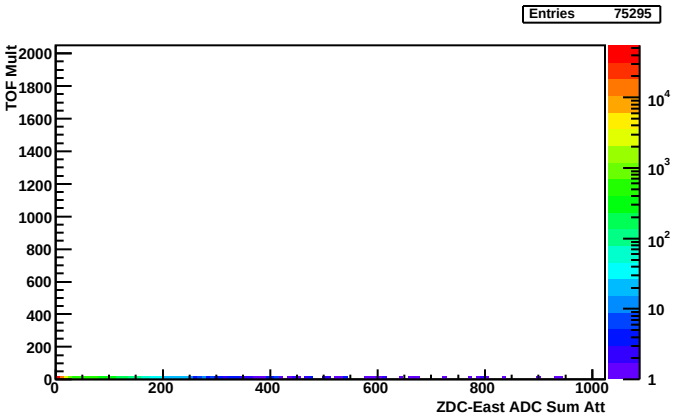

Entries 75295
TOF Mult
BBC-L-West ADC Sum

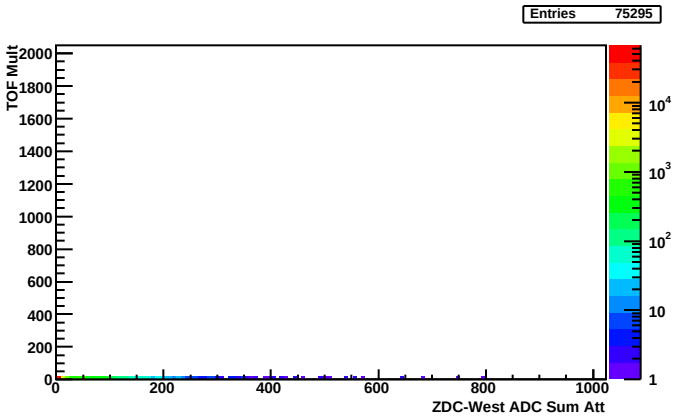

Entries 75295
TOF Mult
BBC-S-East ADC Sum

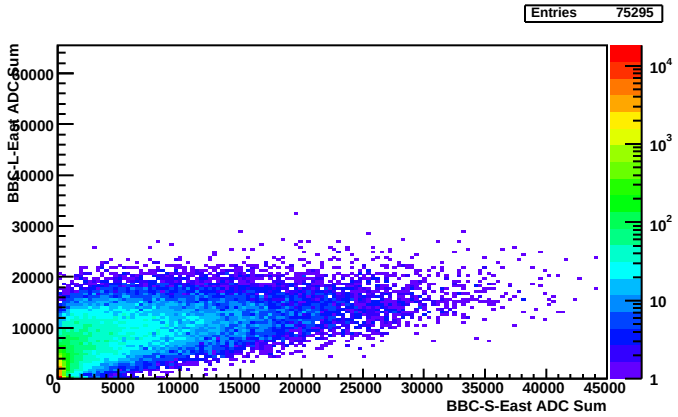

Entries 75295
TOF Mult
BBC-S-West ADC Sum

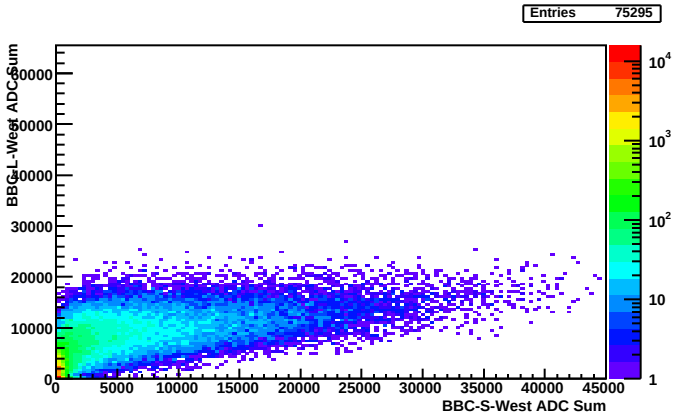

Entries 75295
TOF Mult
VPD-East ADC Sum

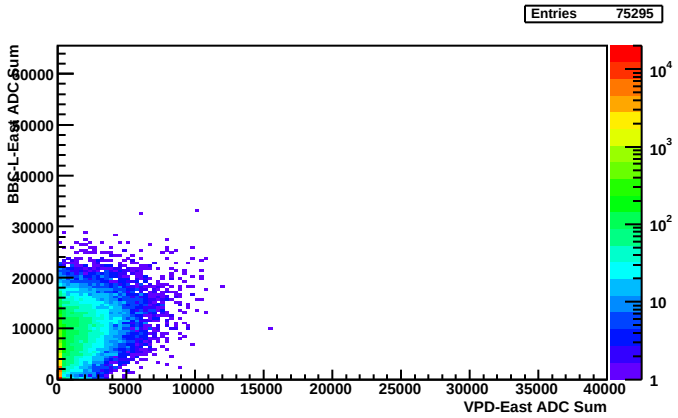

Entries 75295
TOF Mult
VPD-West ADC Sum

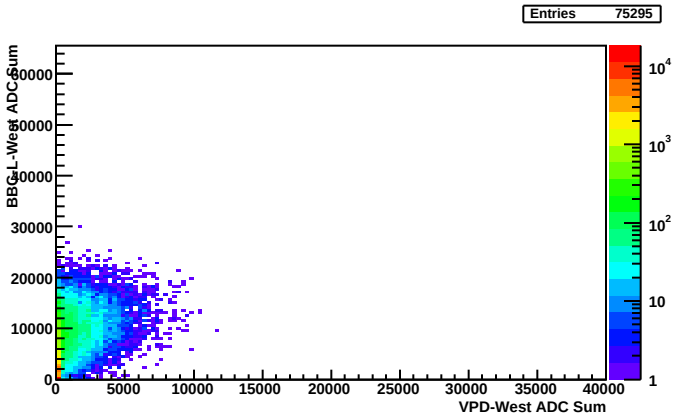

Entries 75295
TOF Mult
ZDC-East ADC Sum Att

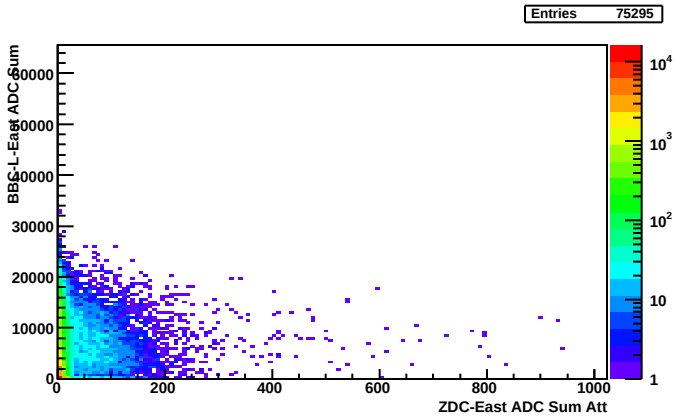

Entries 75295
TOF Mult
ZDC-West ADC Sum Att

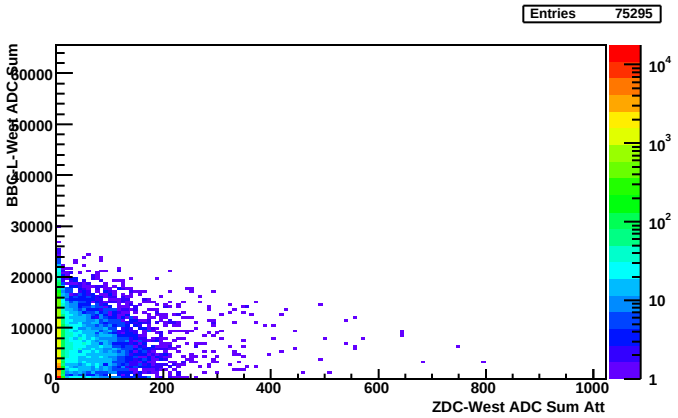

Entries 75295
BBC-L-East ADC Sum
BBC-S-East ADC Sum

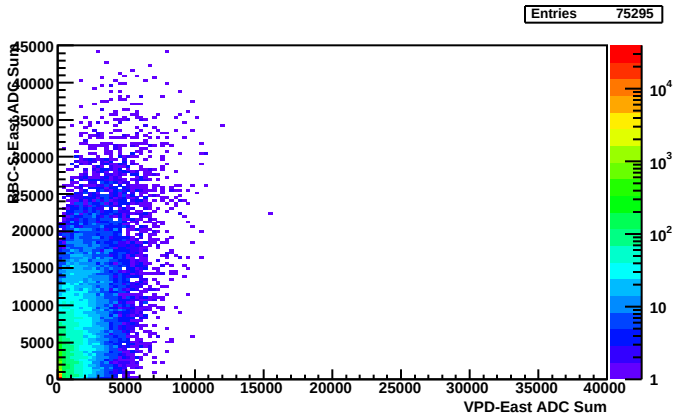

Entries 75295
BBC-L-West ADC Sum
BBC-S-West ADC Sum

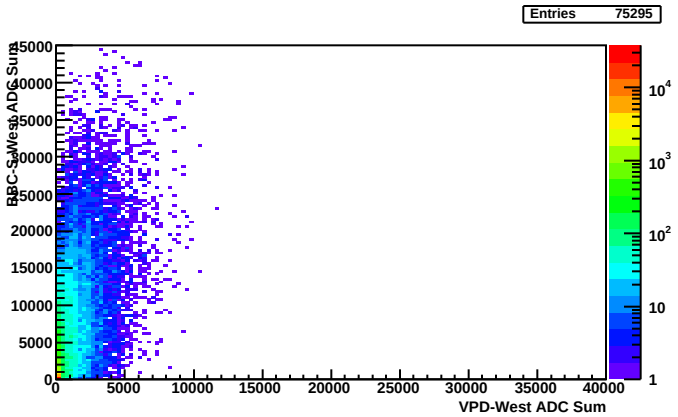

Entries 75295
BBC-L-East ADC Sum
VPD-East ADC Sum

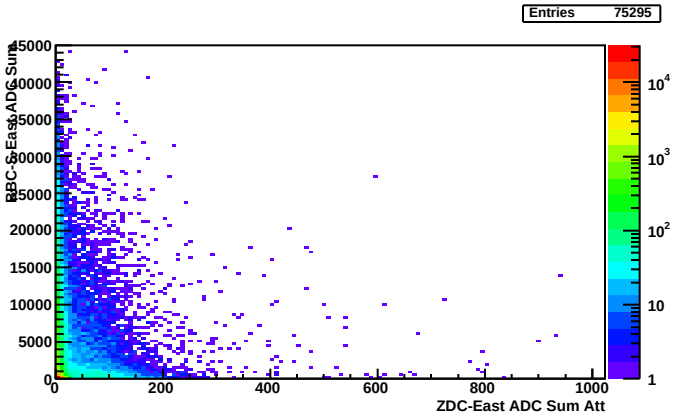

Entries 75295
BBC-L-West ADC Sum
VPD-West ADC Sum

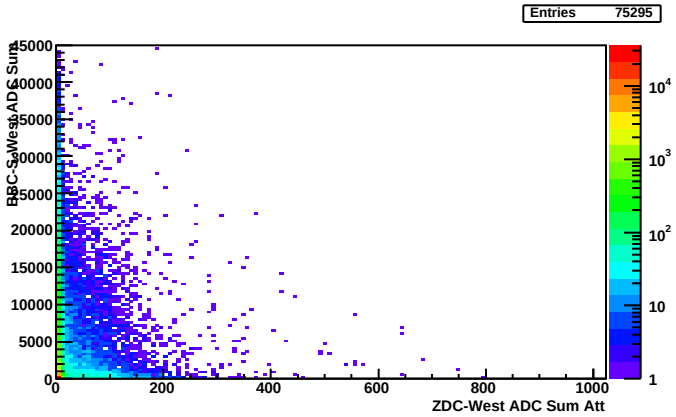

Entries 75295
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

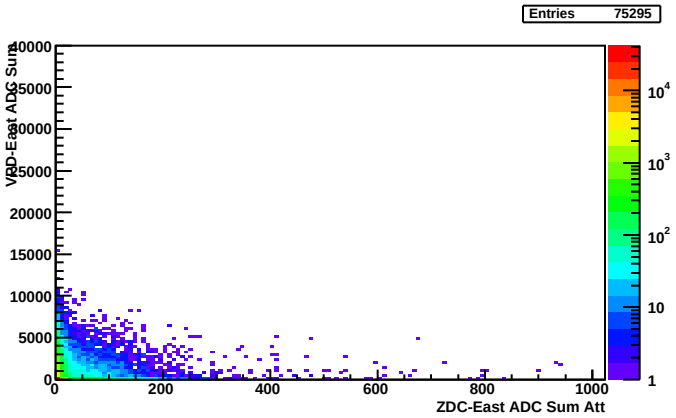

Entries 75295
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

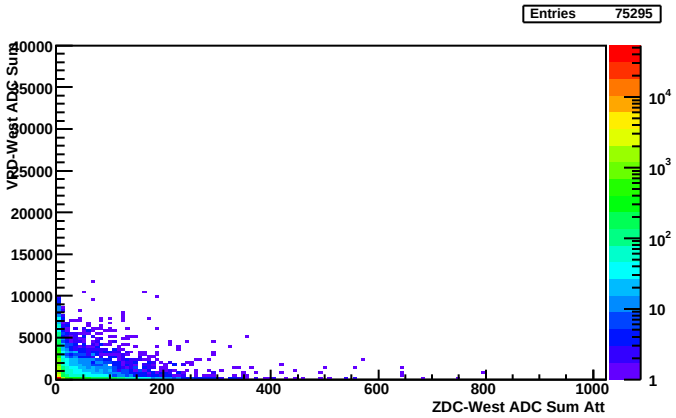

Entries 75295
BBC-S-East ADC Sum
VPD-East ADC Sum

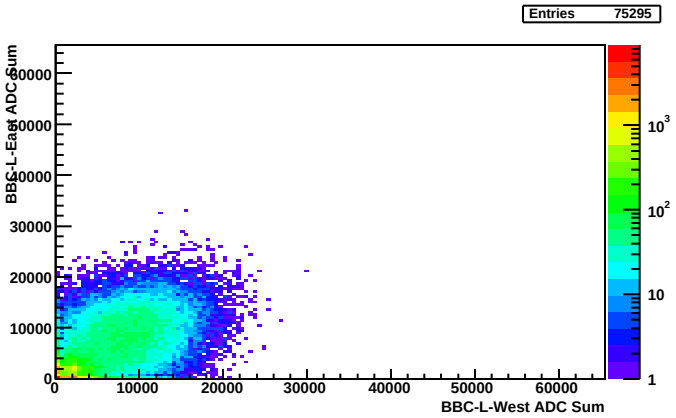

Entries 75295
BBC-S-West ADC Sum
VPD-West ADC Sum

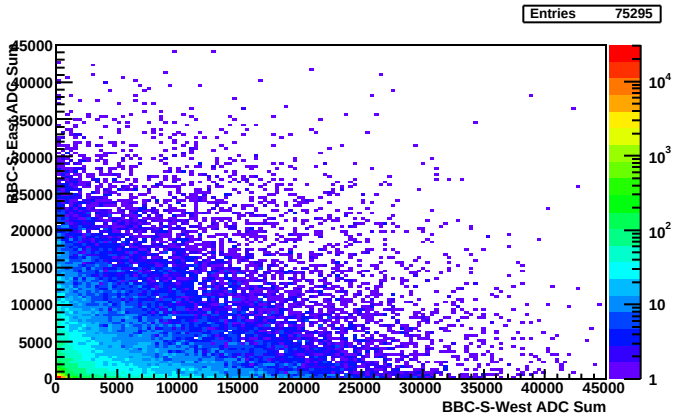

Entries 75295
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

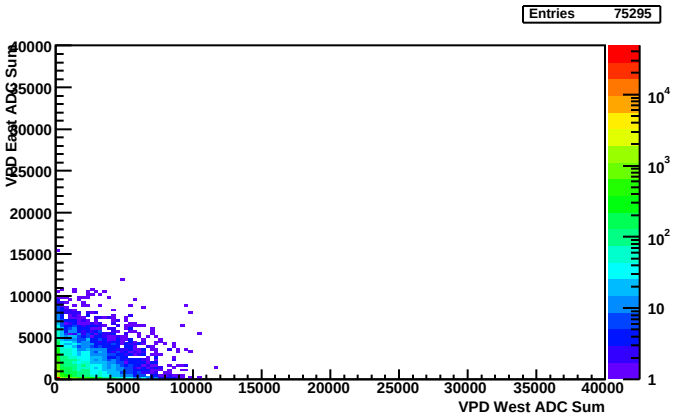

Entries 75295
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

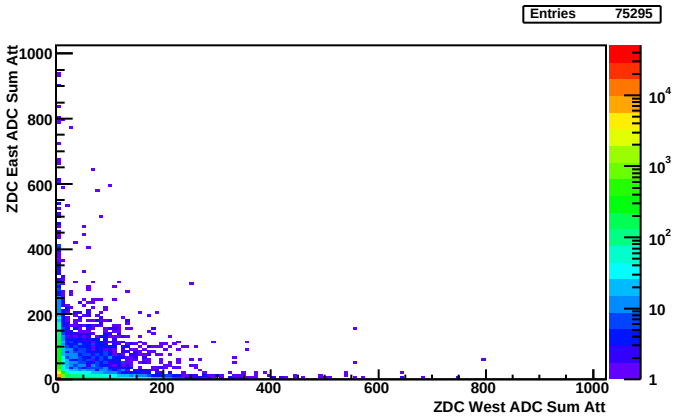

Entries 75295
VPD-East ADC Sum
ZDC-East ADC Sum Att

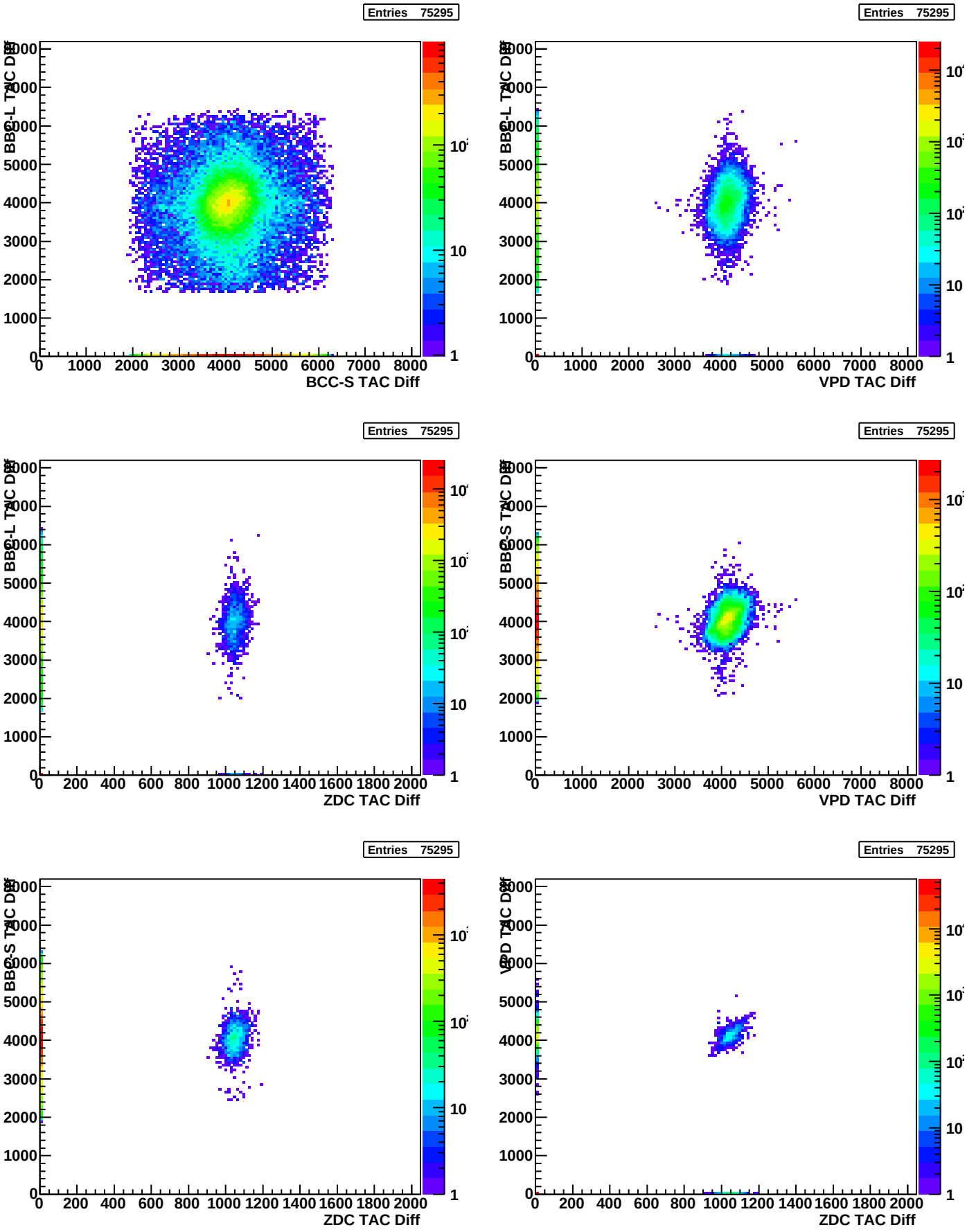

Entries 75295
VPD-West ADC Sum
ZDC-West ADC Sum Att

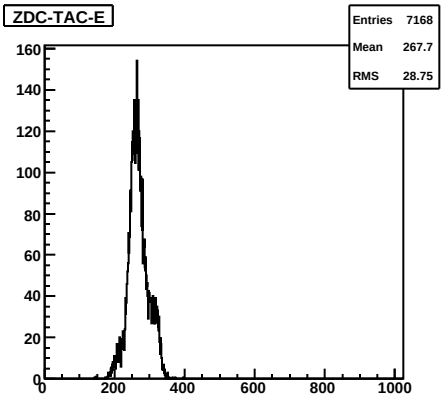

Entries 75295
BBC-L-East ADC Sum
BBC-L-West ADC Sum

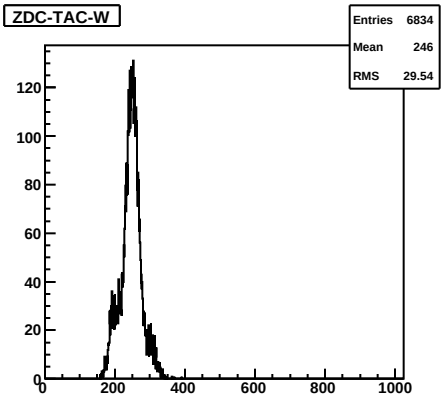

Entries 75295
BBC-S-East ADC Sum
BBC-S-West ADC Sum

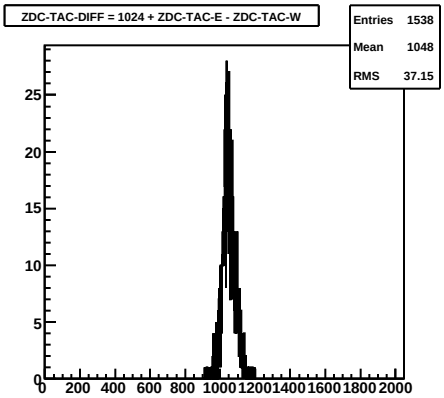

Entries 75295
VPD East ADC Sum
VPD West ADC Sum

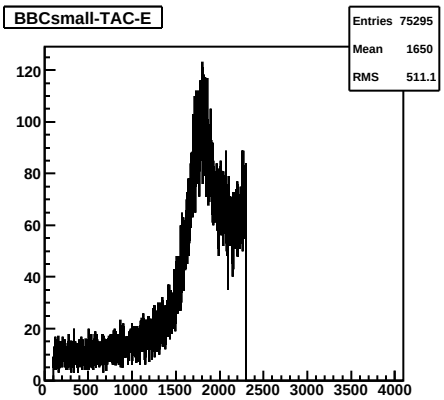

Entries 75295
ZDC East ADC Sum Att
ZDC West ADC Sum Att

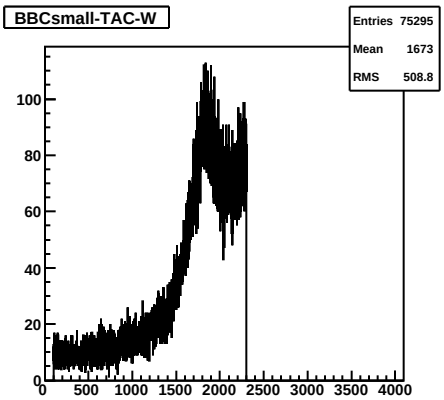

Entries 75295
BBC-L TAC Diff
BCC-S TAC Diff
Entries 75295
BBC-L TAC Diff
VPD TAC Diff
Entries 75295
BBC-L TAC Diff
ZDC TAC Diff
Entries 75295
BBC-S TAC Diff
VPD TAC Diff
Entries 75295
BBC-S TAC Diff
ZDC TAC Diff
Entries 75295
VPD TAC Diff
ZDC TAC Diff

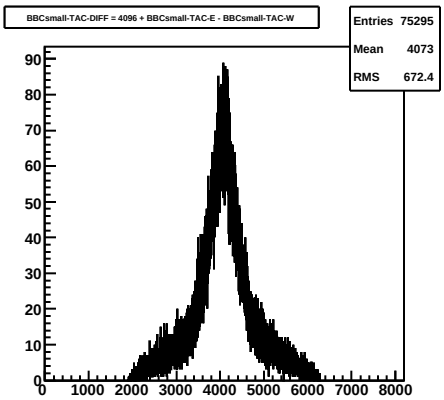

ZDC-TAC-E
Entries 7168
Mean 267.7
RMS 28.75

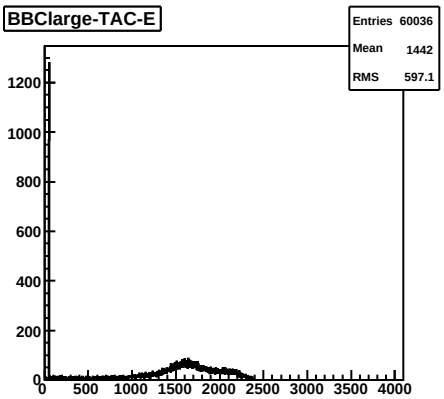

ZDC-TAC-W
Entries 6834
Mean 246
RMS 29.54

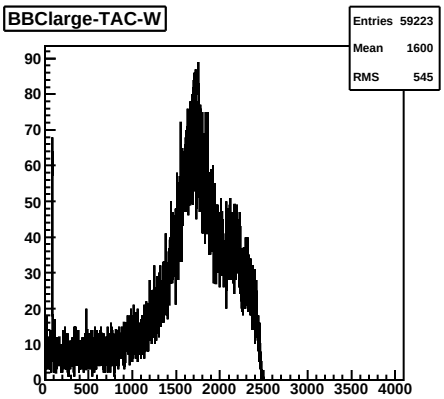

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 1538
Mean 1048
RMS 37.15

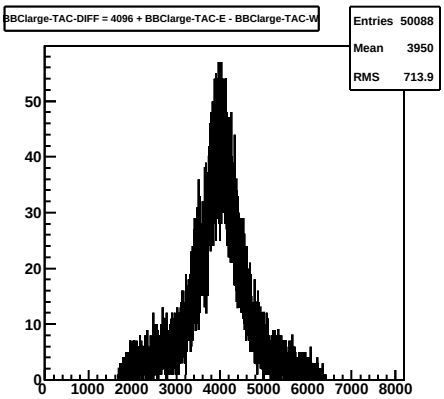

BBCsmall-TAC-E
Entries 75295
Mean 1650
RMS 511.1

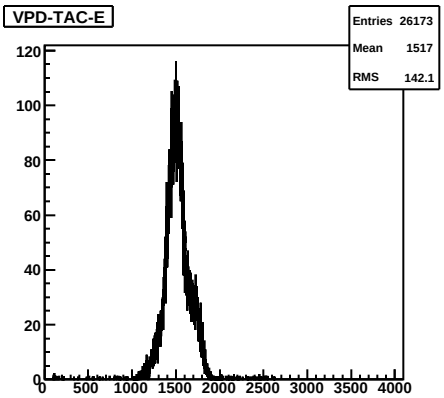

BBCsmall-TAC-W
Entries 75295
Mean 1673
RMS 508.8

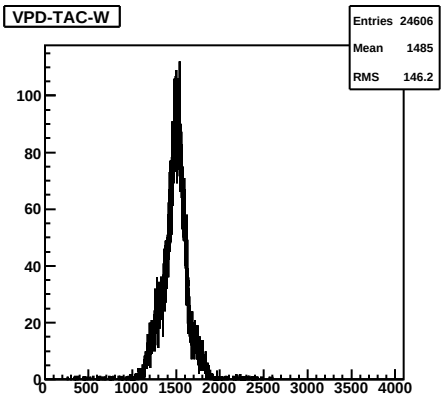

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 75295
Mean 4073
RMS 672.4

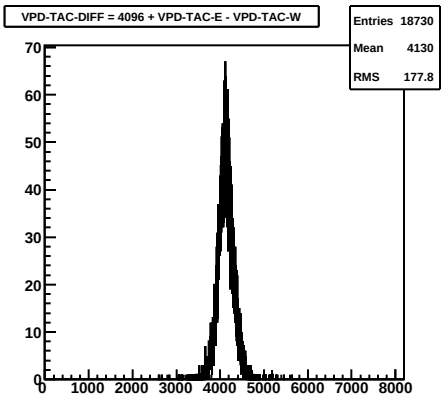

BBClarge-TAC-E
Entries 60036
Mean 1442
RMS 597.1

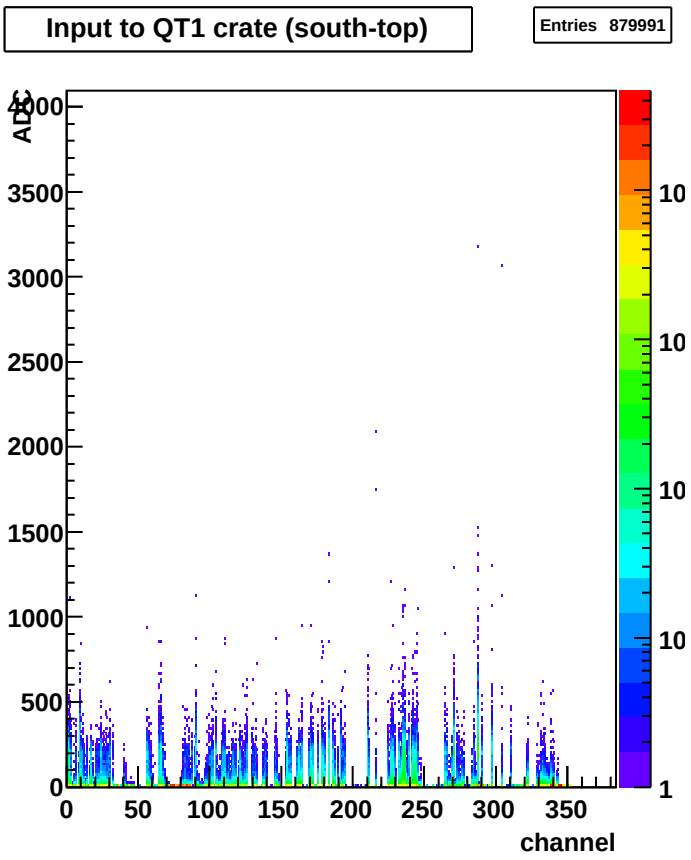

BBClarge-TAC-W
Entries 59223
Mean 1600
RMS 545

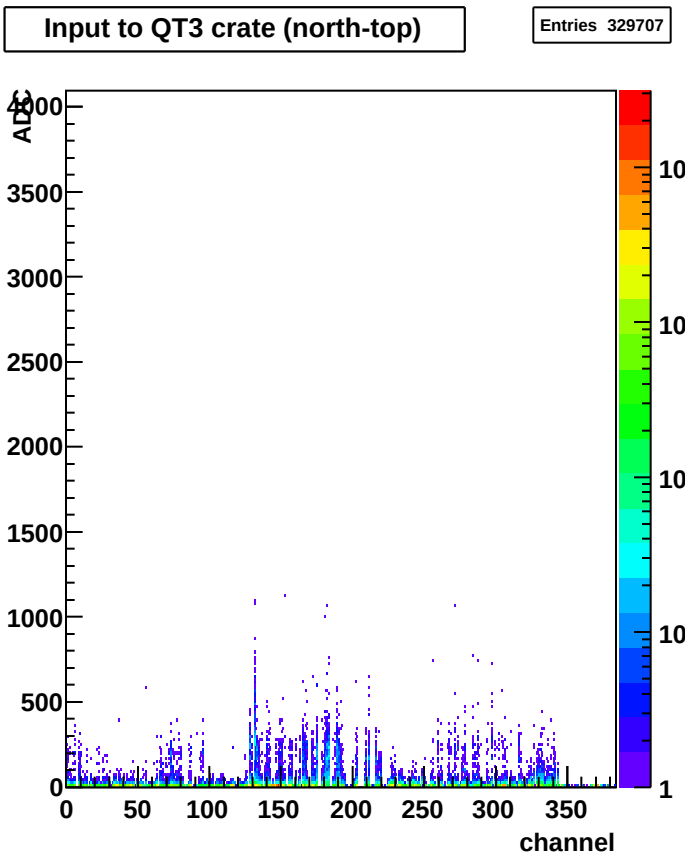

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 50088
Mean 3950
RMS 713.9

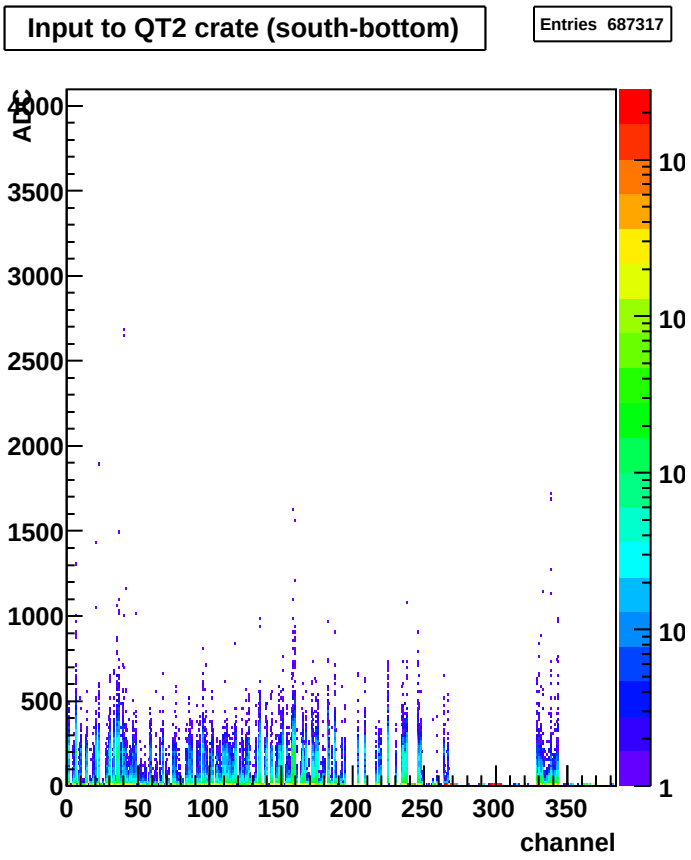

VPD-TAC-E
Entries 26173
Mean 1517
RMS 142.1

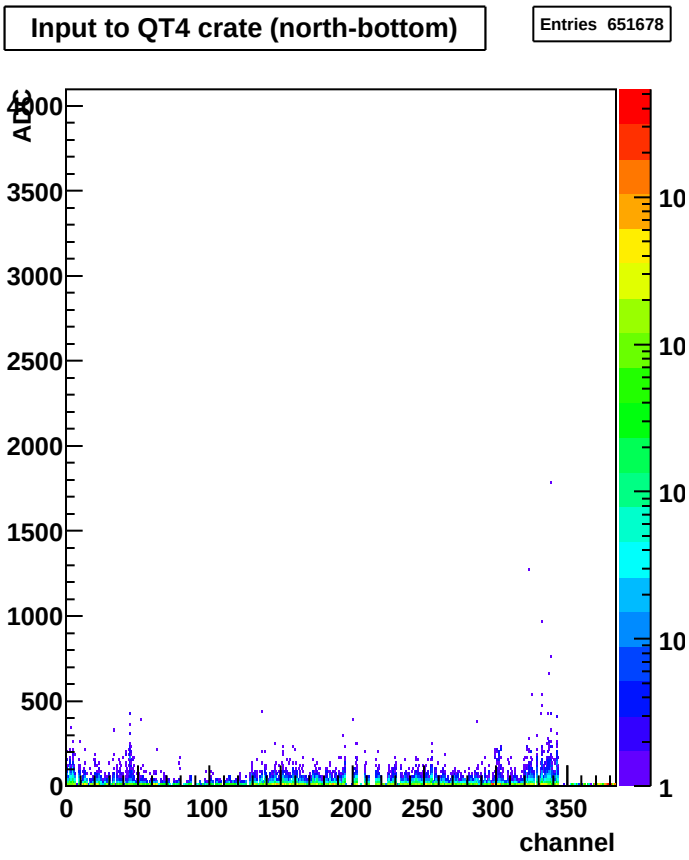

VPD-TAC-W
Entries 24606
Mean 1485
RMS 146.2

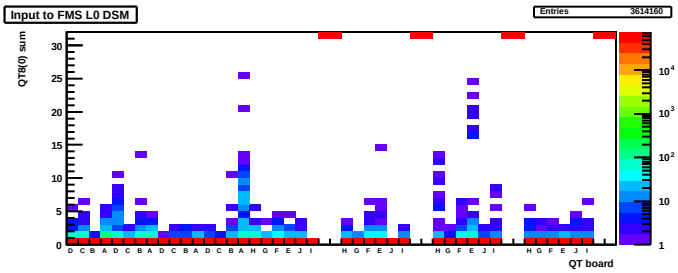

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 18730
Mean 4130
RMS 177.8

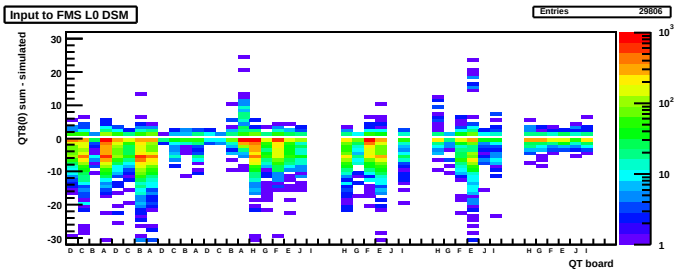

Input to QT1 crate (south-top)
Entries 879991
ADC
channel

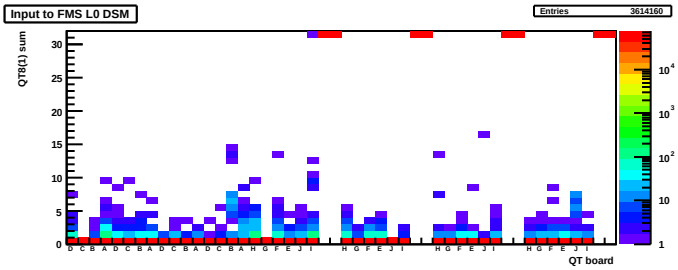

Input to QT3 crate (north-top)
Entries 329707
ADC
channel

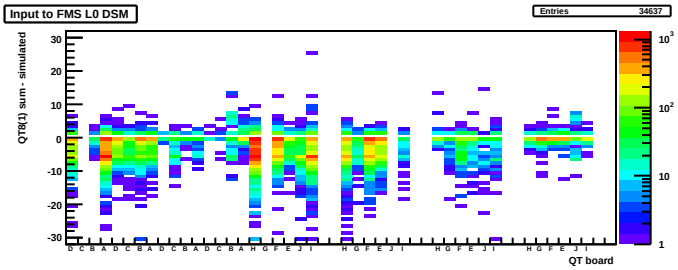

Input to QT2 crate (south-bottom)
Entries 687317
ADC
channel

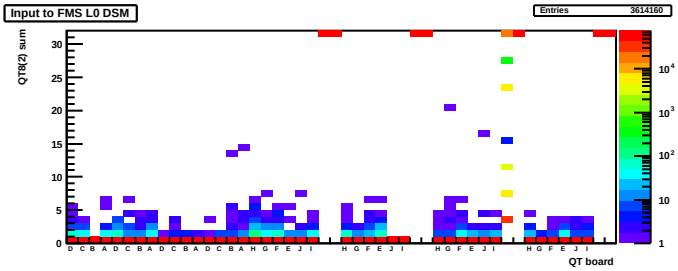

Input to QT4 crate (north-bottom)
Entries 651678
ADC
channel

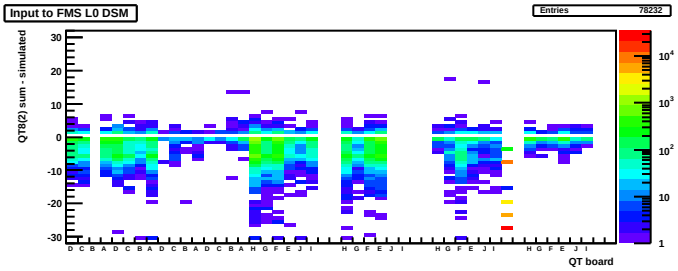

Input to FMS L0 DSM
Entries 3614160
QT8(0) sum
QT board

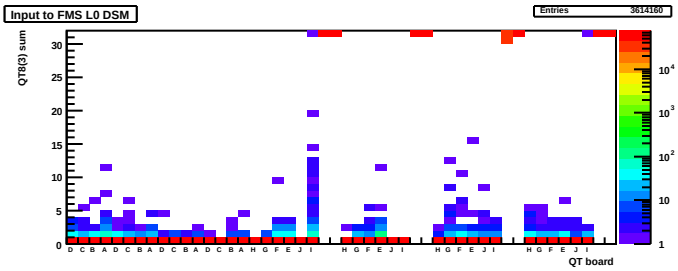

Input to FMS L0 DSM
Entries 29806
QT8(0) sum - simulated
QT board

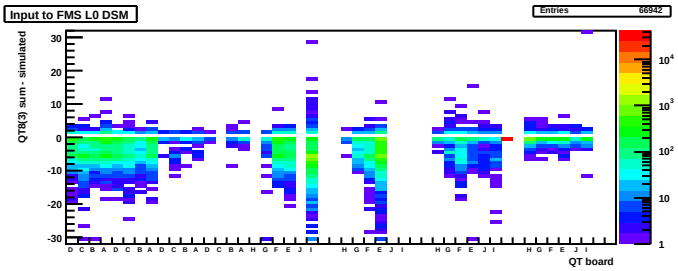

Input to FMS L0 DSM
Entries 3614160
QT8(1) sum
QT board

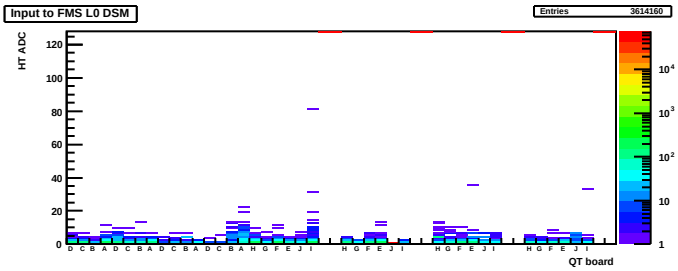

Input to FMS L0 DSM
Entries 34637
QT8(1) sum - simulated
QT board

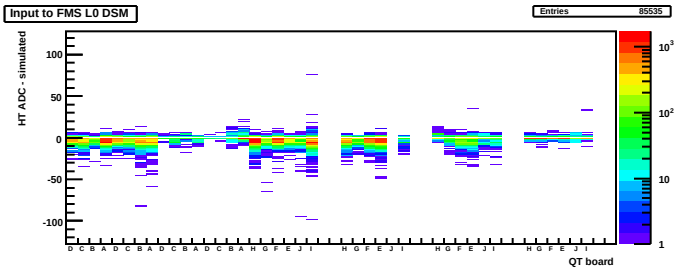

Input to FMS L0 DSM
Entries 3614160
QT8(2) sum
QT board

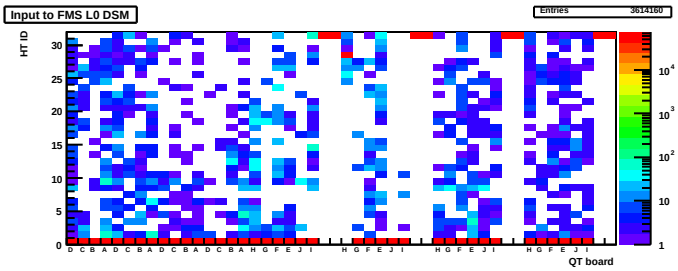

Input to FMS L0 DSM
Entries 78232
QT8(2) sum - simulated
QT board

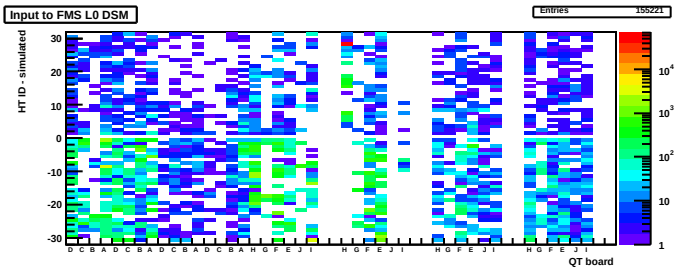

Input to FMS L0 DSM
Entries 3614160
QT8(3) sum
QT board

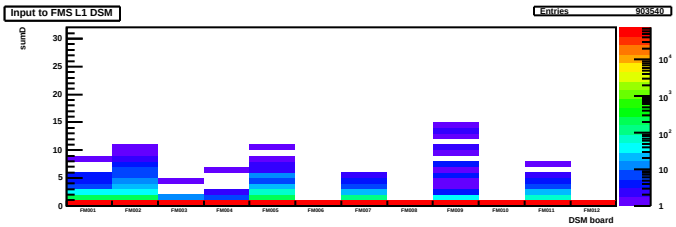

Input to FMS L0 DSM
Entries 66942
QT8(3) sum - simulated
QT board

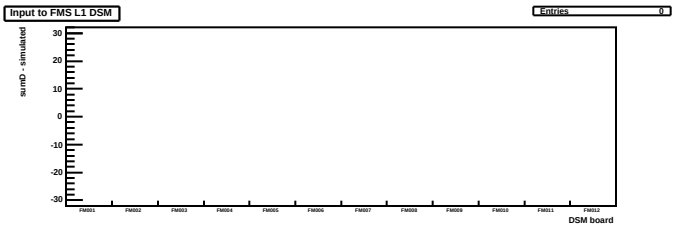

Input to FMS L0 DSM
Entries 3614160
HT ADC
QT board

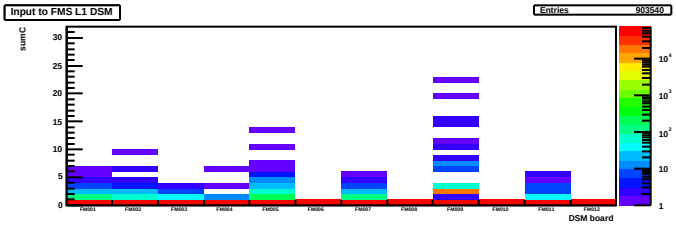

Input to FMS L0 DSM
Entries 85535
HT ADC - simulated
QT board

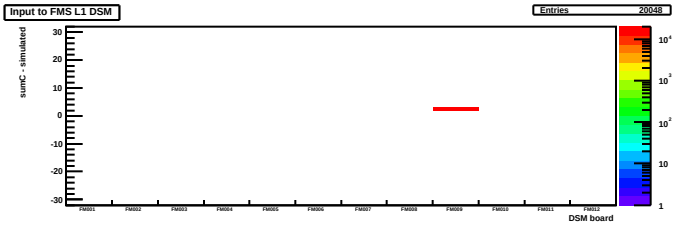

Input to FMS L0 DSM
Entries 3614160
HT ID
QT board

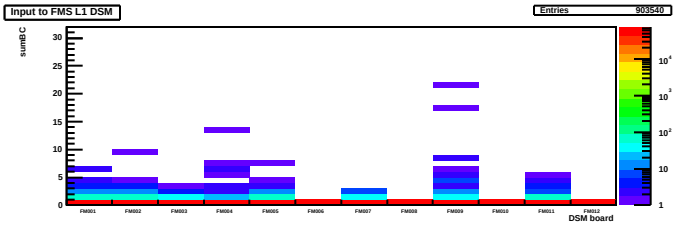

Input to FMS L0 DSM
Entries 155221
HT ID - simulated
QT board

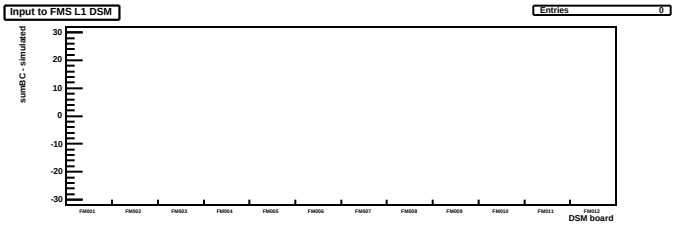

Input to FMS L1 DSM
Entries 903540
sumD
DSM board

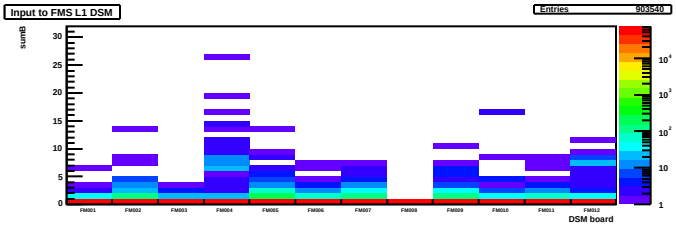

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

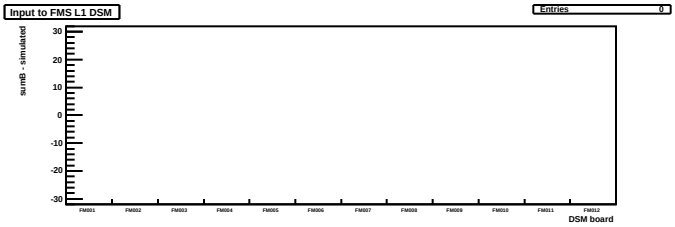

Input to FMS L1 DSM
Entries 903540
sumC
DSM board

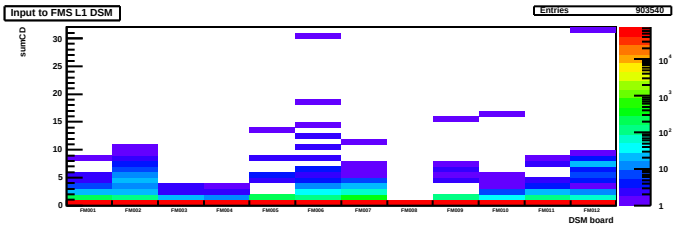

Input to FMS L1 DSM
Entries 20048
sumC - simulated
DSM board

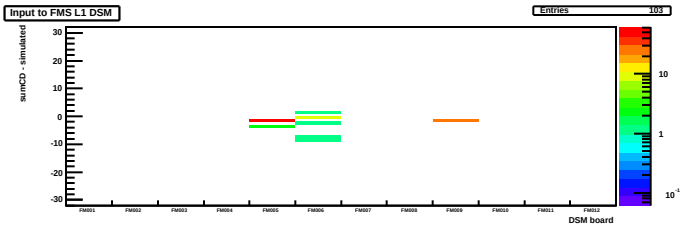

Input to FMS L1 DSM
Entries 903540
sumBC
DSM board

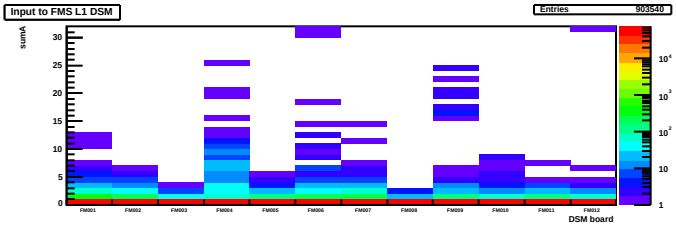

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

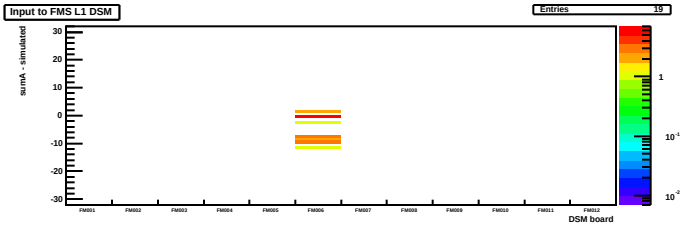

Input to FMS L1 DSM
Entries 903540
sumB
DSM board

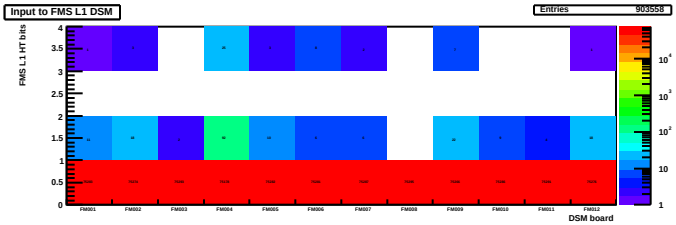

Input to FMS L1 DSM
Entries 0
sumB - simulated
DSM board

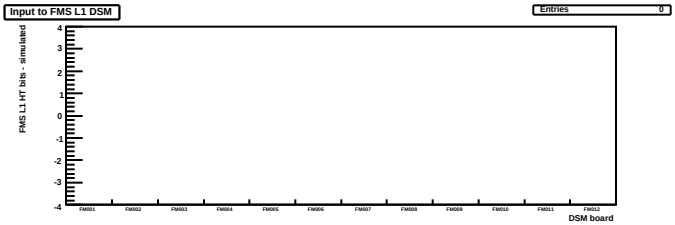

Input to FMS L1 DSM
Entries 903540
sumCD
DSM board

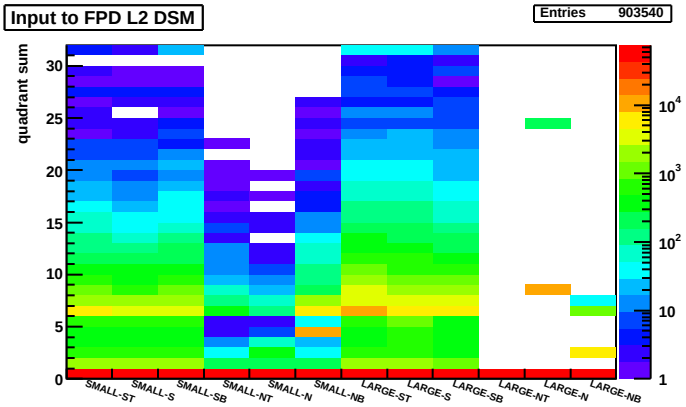

Input to FMS L1 DSM
Entries 103
sumCD - simulated
DSM board

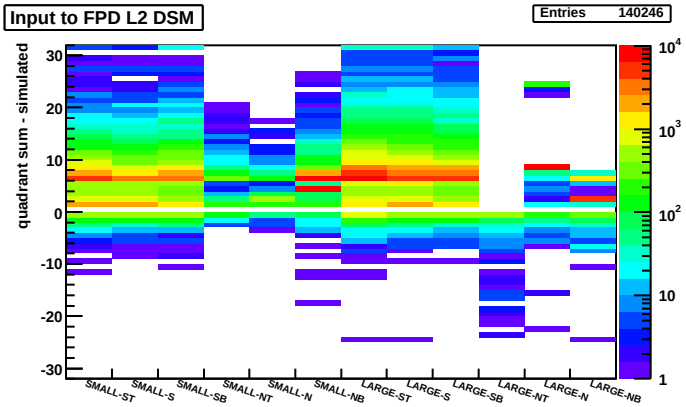

Input to FMS L1 DSM
Entries 903540
sumA
DSM board

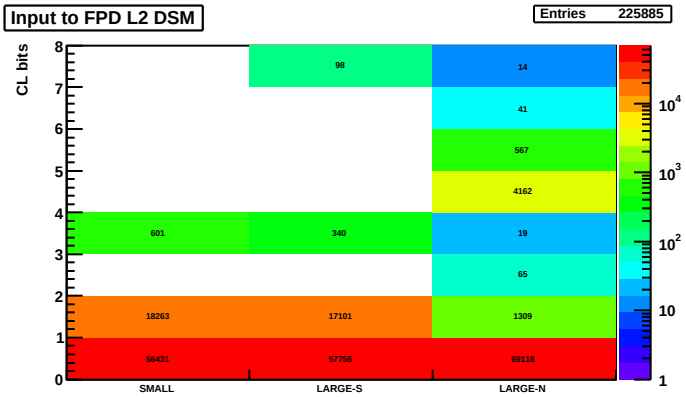

Input to FMS L1 DSM
Entries 19
sumA - simulated
DSM board

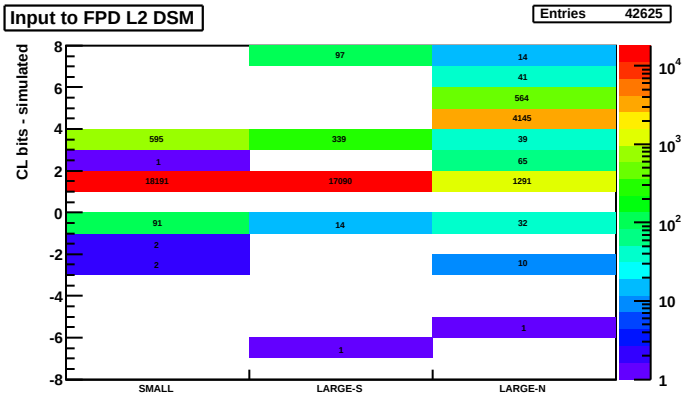

Input to FMS L1 DSM
Entries 903558
FMS L1 HT bits
DSM board

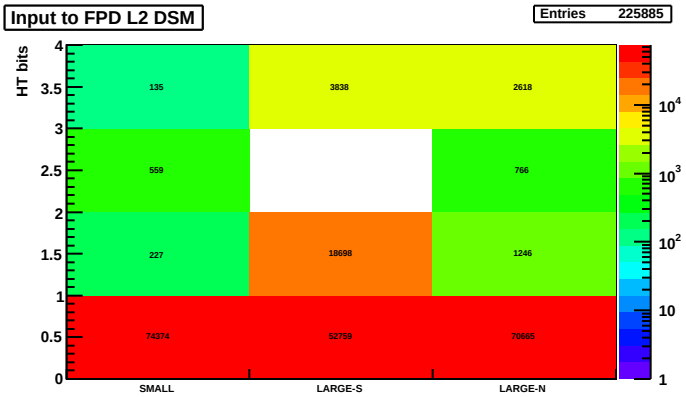

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

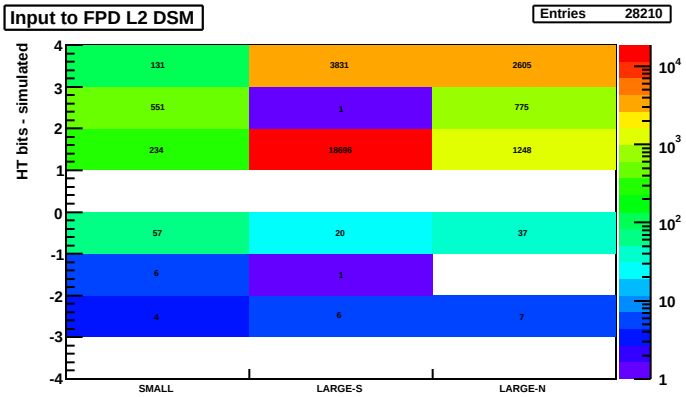

Input to FPD L2 DSM
Entries 903540
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

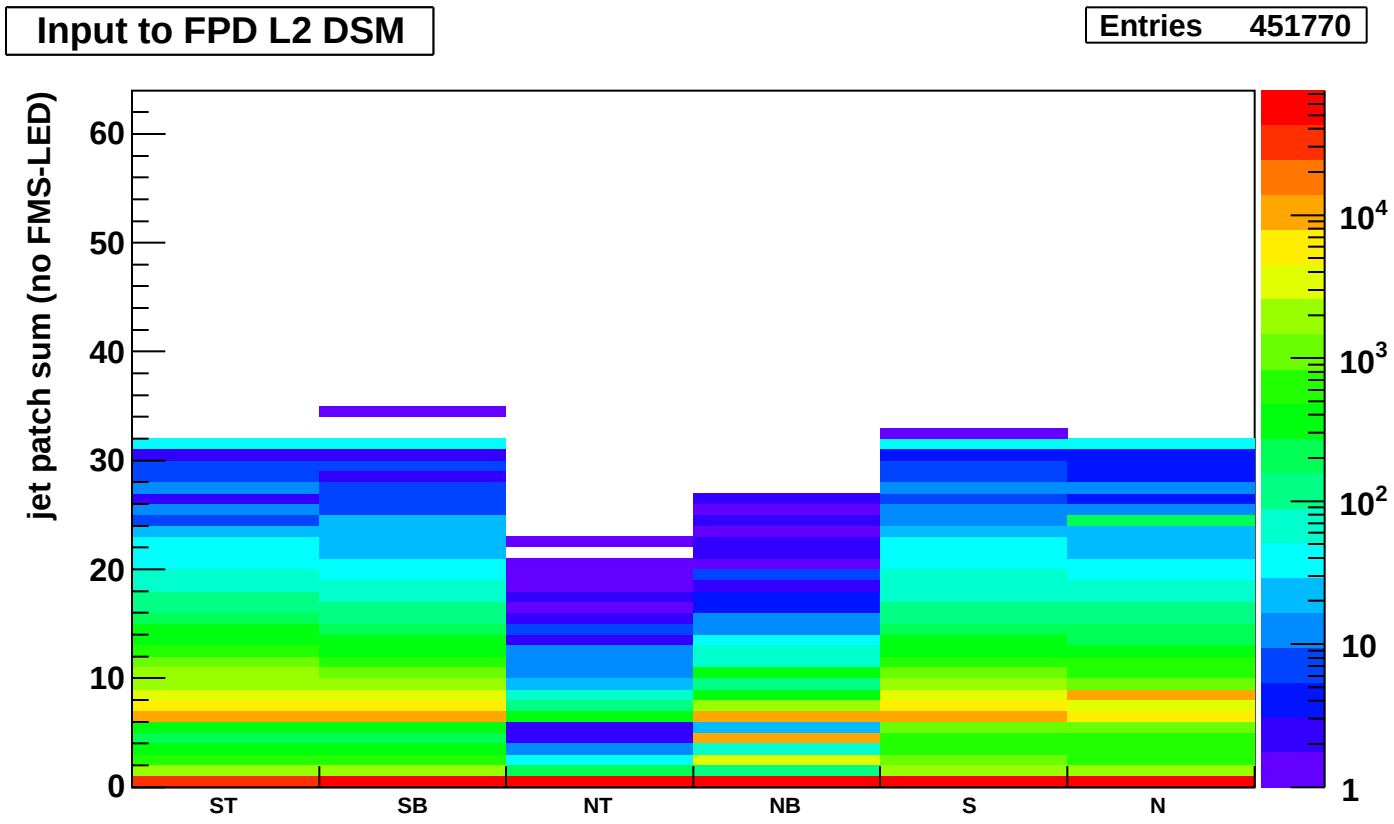

Input to FPD L2 DSM
Entries 140246
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

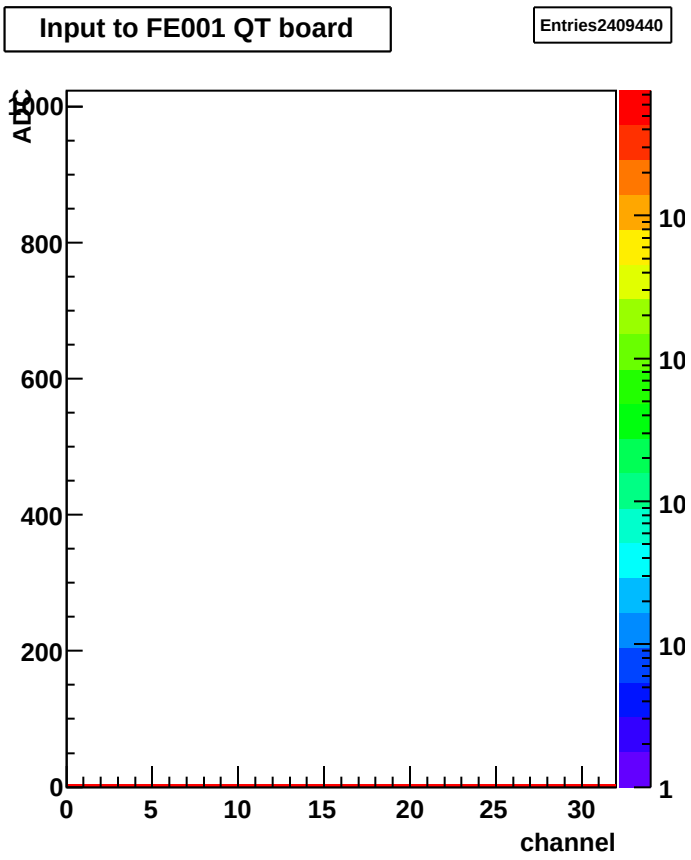

Input to FPD L2 DSM
Entries 225885
CL bits
SMALL
LARGE-S
LARGE-N

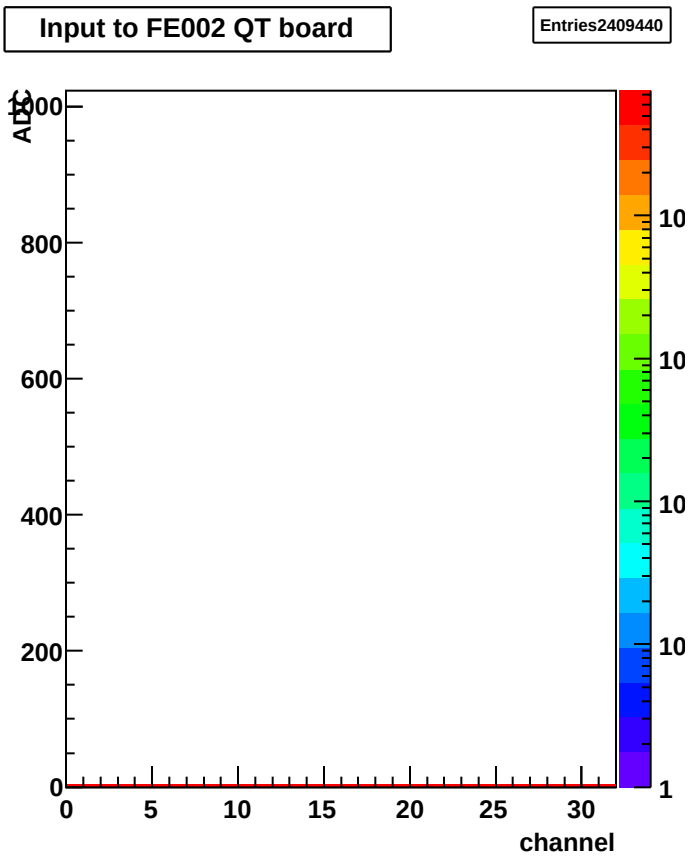

Input to FPD L2 DSM
Entries 42625
CL bits - simulated
SMALL
LARGE-S
LARGE-N

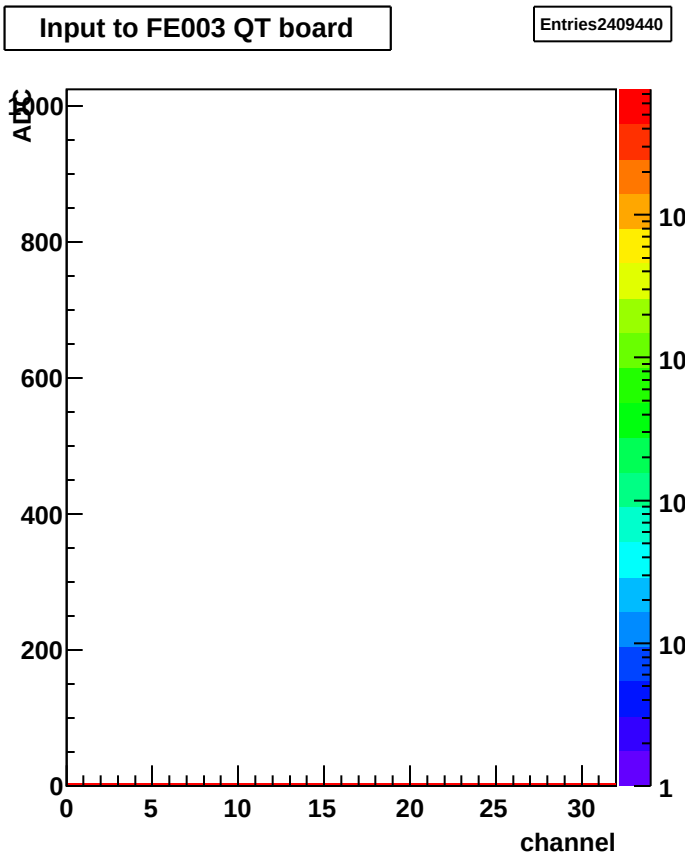

Input to FPD L2 DSM
Entries 225885
HT bits
SMALL
LARGE-S
LARGE-N

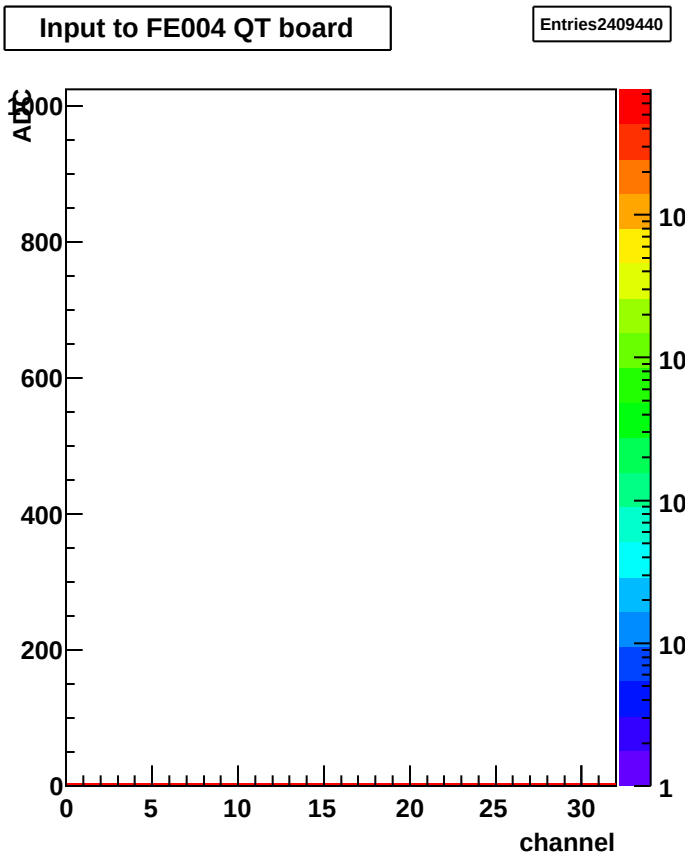

Input to FPD L2 DSM
Entries 28210
HT bits - simulated
SMALL
LARGE-S
LARGE-N

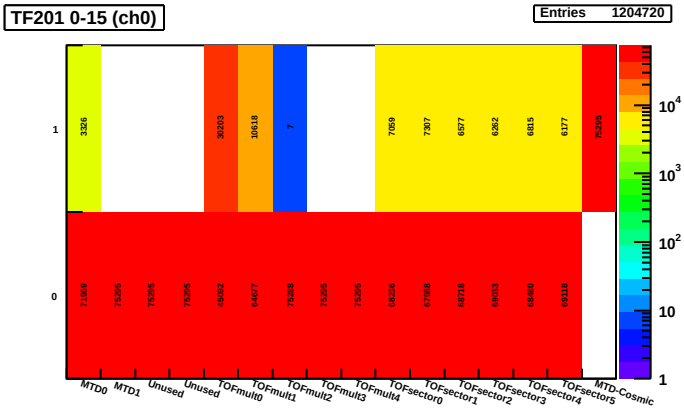

Input to FPD L2 DSM
Entries 451770
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4

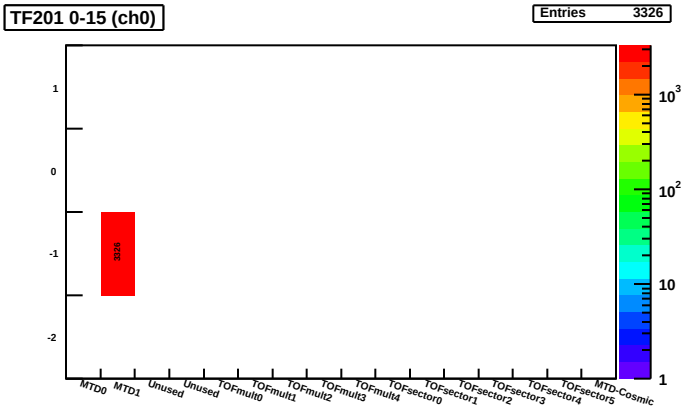

Input to FE001 QT board
Entries2409440
ADC
channel

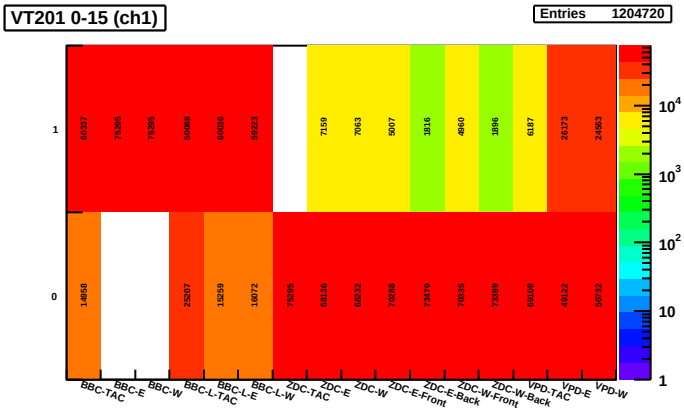

Input to FE002 QT board
Entries2409440
ADC
channel

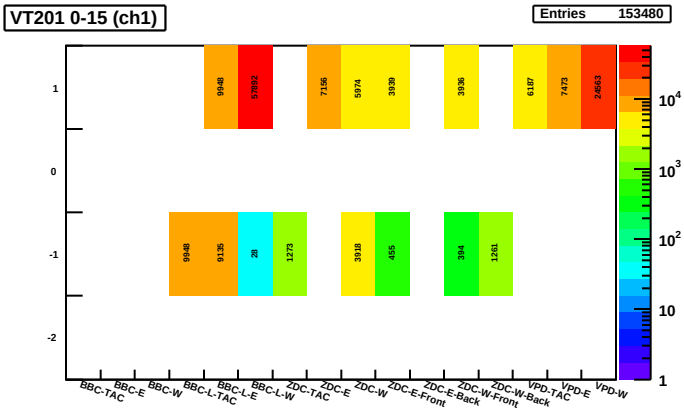

Input to FE003 QT board
Entries2409440
ADC
channel

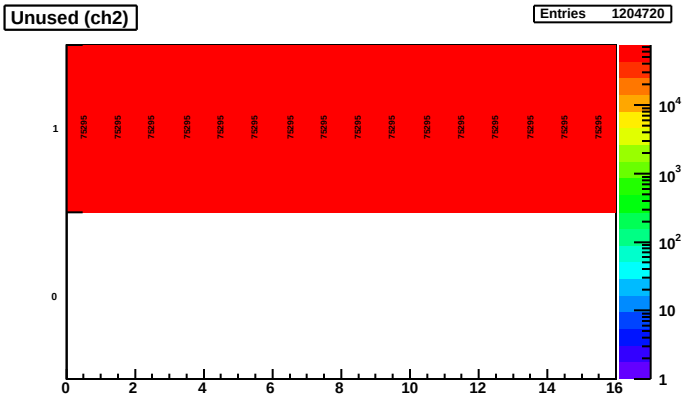

Input to FE004 QT board
Entries2409440
ADC
channel

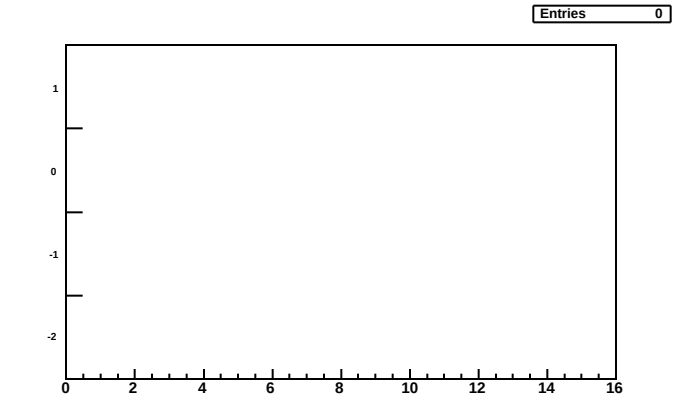

TF201 0-15 (ch0)
Entries 1204720
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic

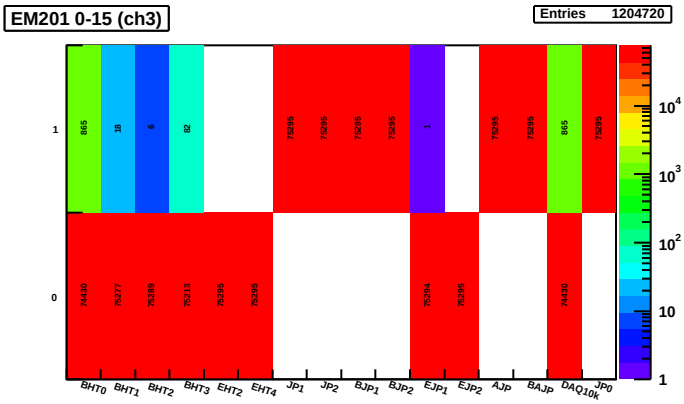

TF201 0-15 (ch0)
Entries 3326
MTD0 MTD1 Unused Unused TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic


VT201 0-15 (ch1)
Entries 1204720
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 153480
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 1204720


Entries 0


EM201 0-15 (ch3)
Entries 1204720
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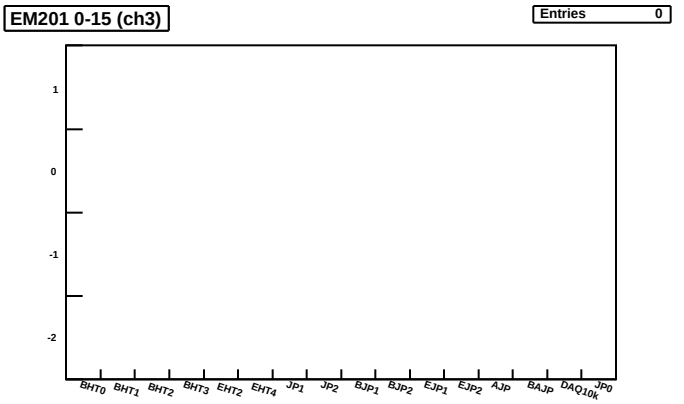
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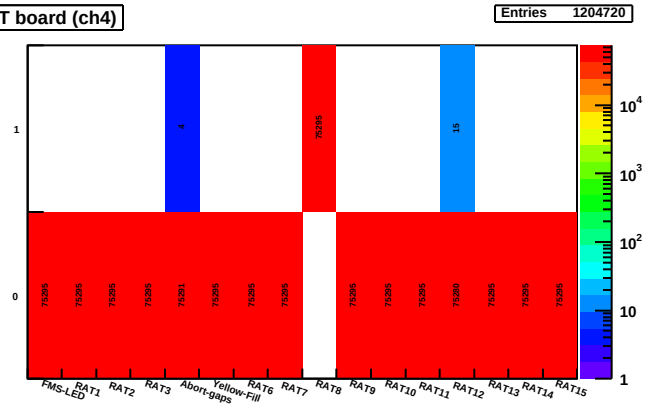
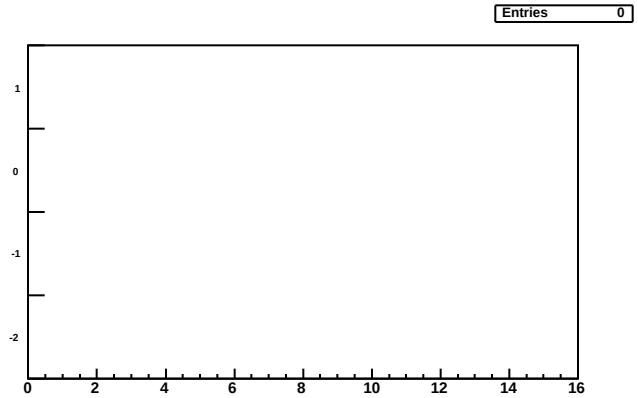
RAT board (ch4)





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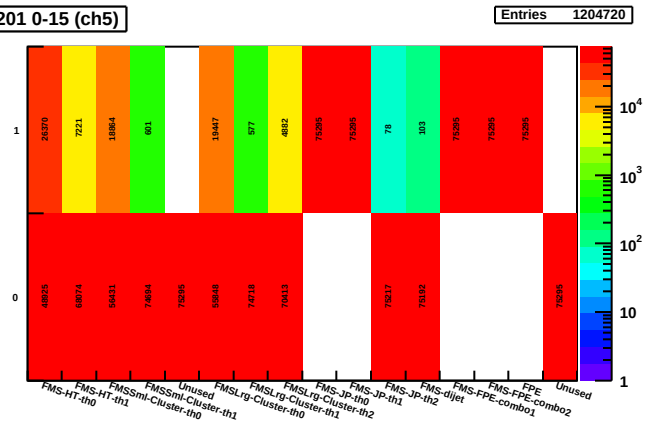

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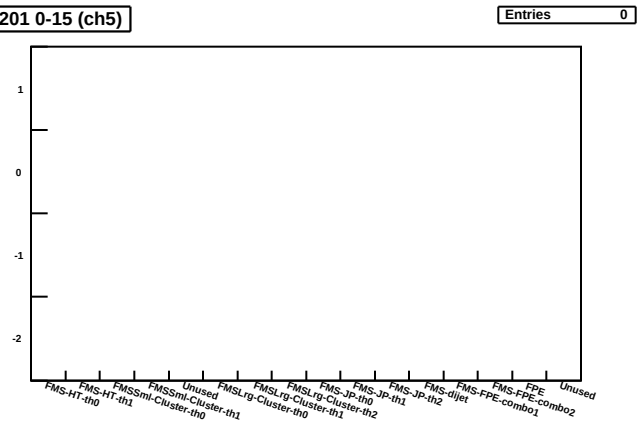

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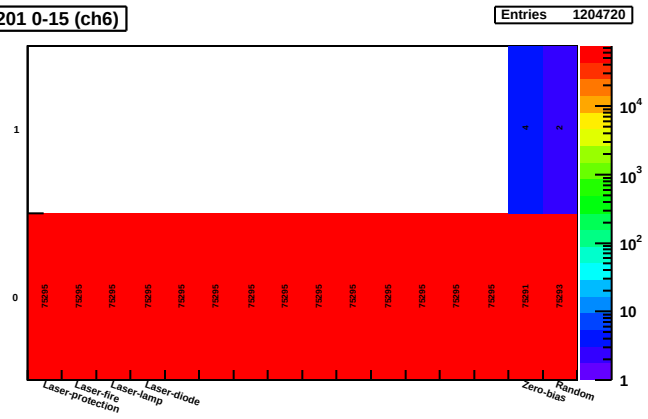

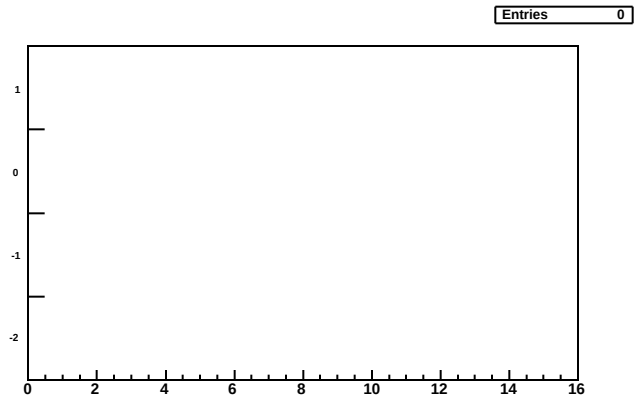
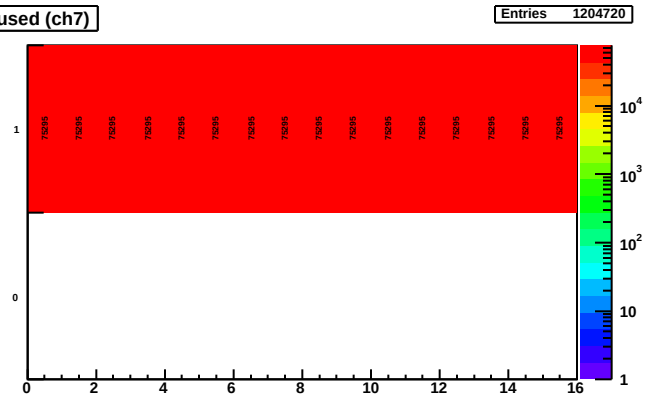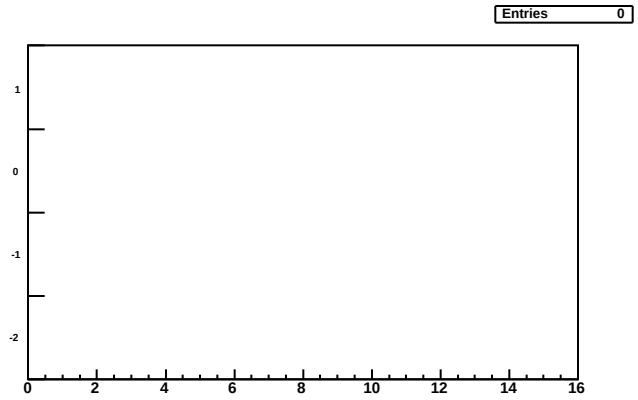
Unused (ch7)