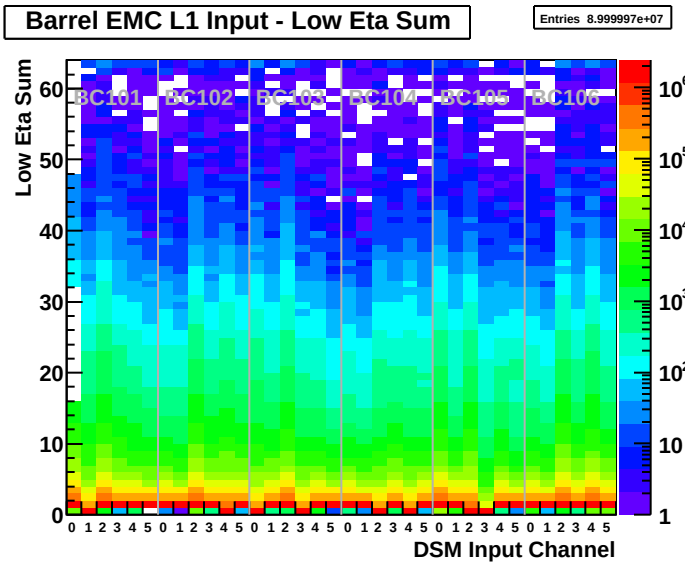
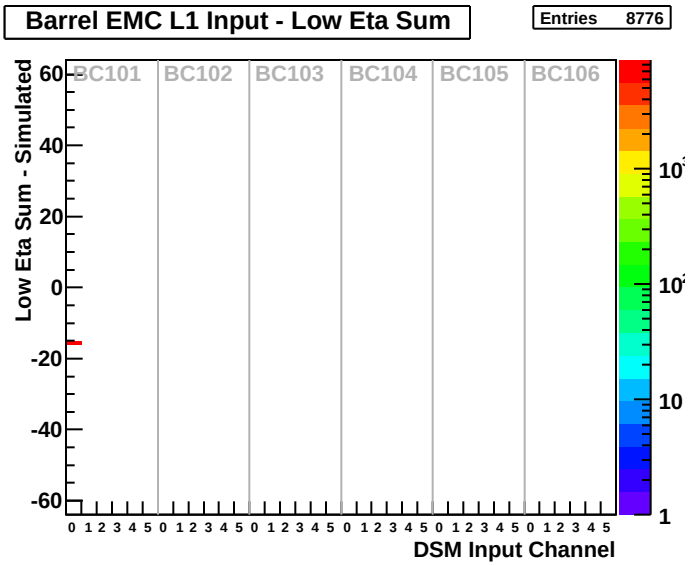
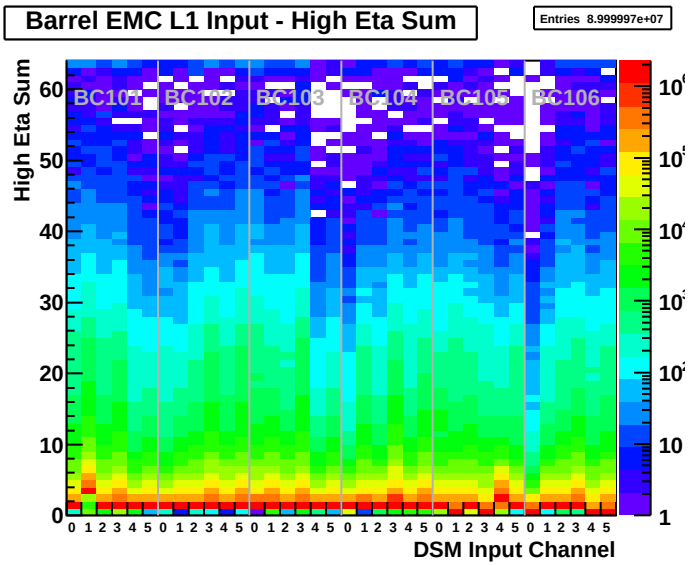
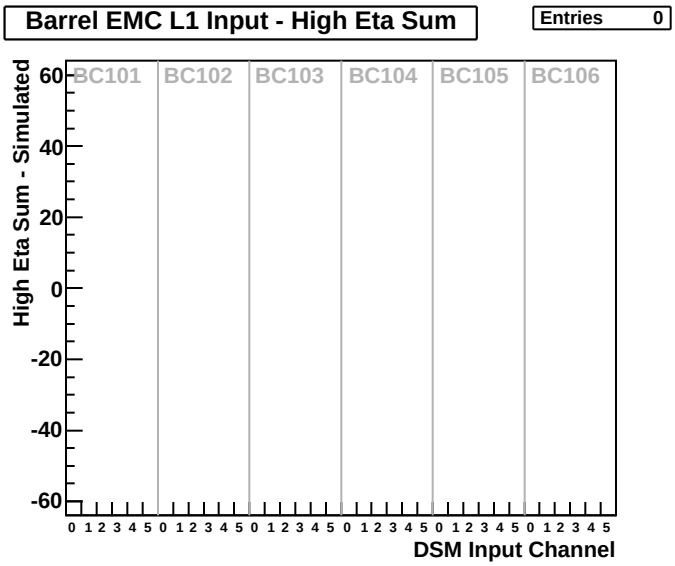
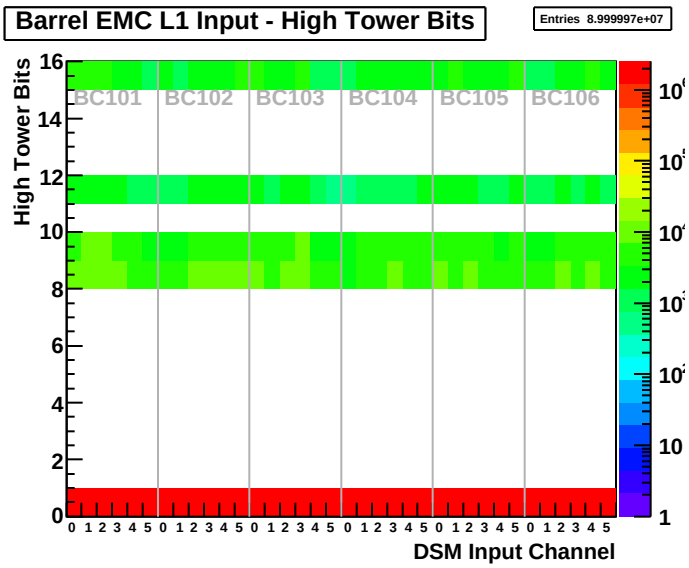
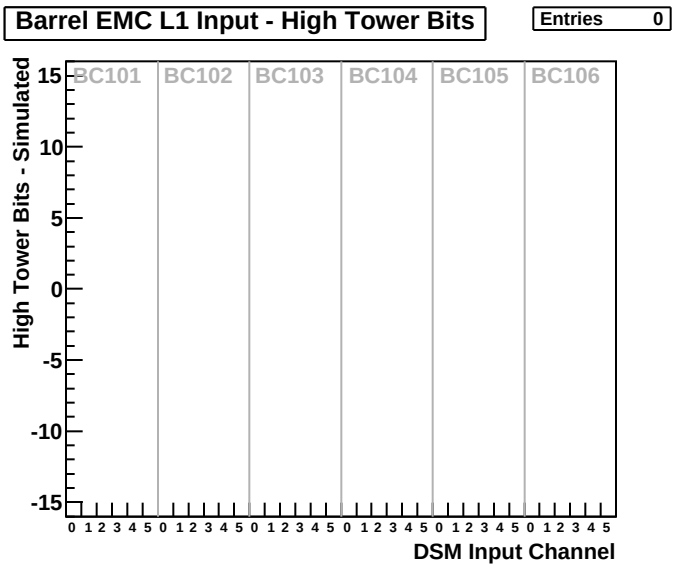

Barrel EMC L1 Input - Low Eta Sum
Entries 8.999997e+07
Low Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

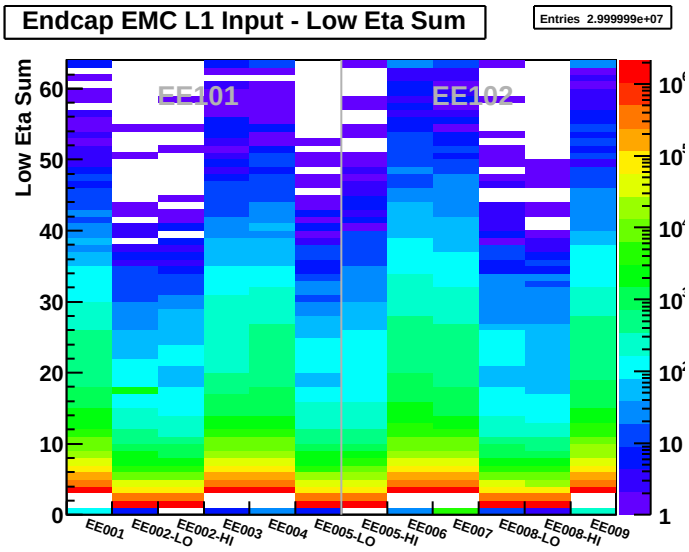

Barrel EMC L1 Input - Low Eta Sum
Entries 8776
Low Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

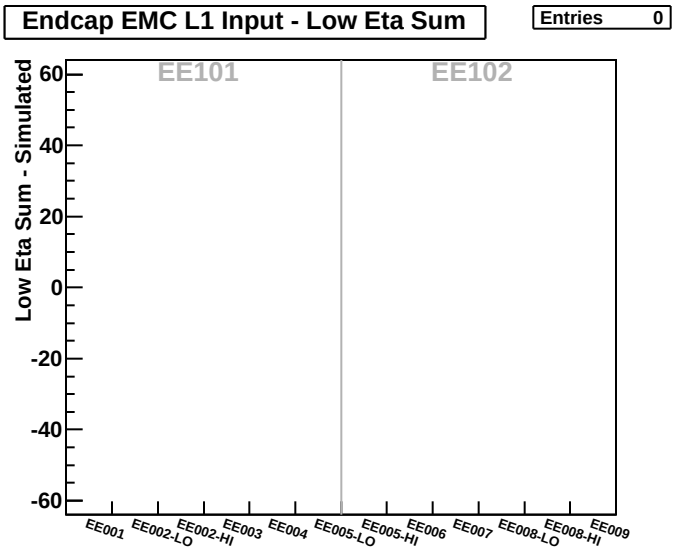

Barrel EMC L1 Input - High Eta Sum
Entries 8.999997e+07
High Eta Sum
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

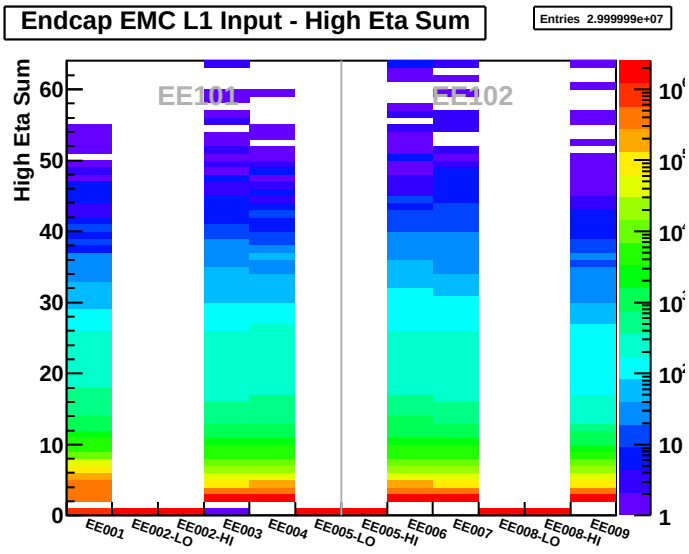

Barrel EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

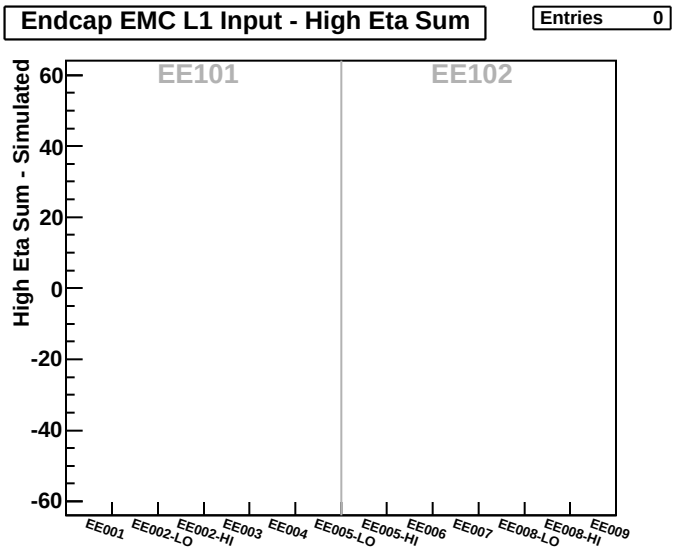

Barrel EMC L1 Input - High Tower Bits
Entries 8.999997e+07
High Tower Bits
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

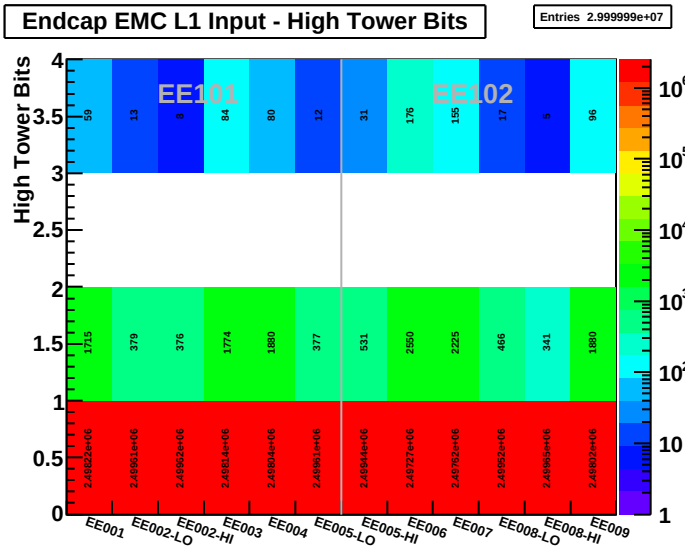

Barrel EMC L1 Input - High Tower Bits
Entries 0
High Tower Bits - Simulated
BC101 BC102 BC103 BC104 BC105 BC106
DSM Input Channel

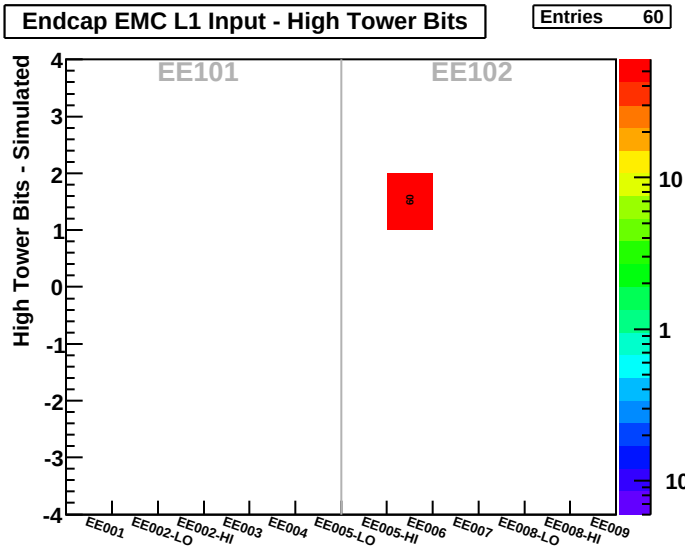

Endcap EMC L1 Input - Low Eta Sum
Entries 2.999999e+07
Low Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

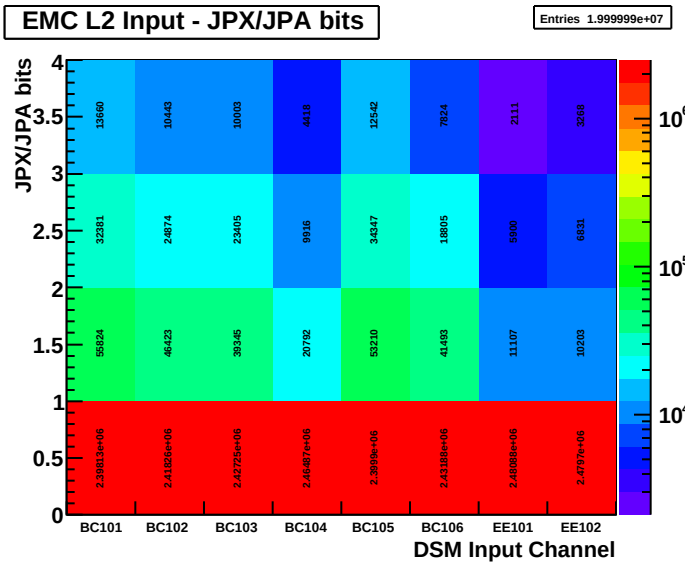

Endcap EMC L1 Input - Low Eta Sum
Entries 0
Low Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

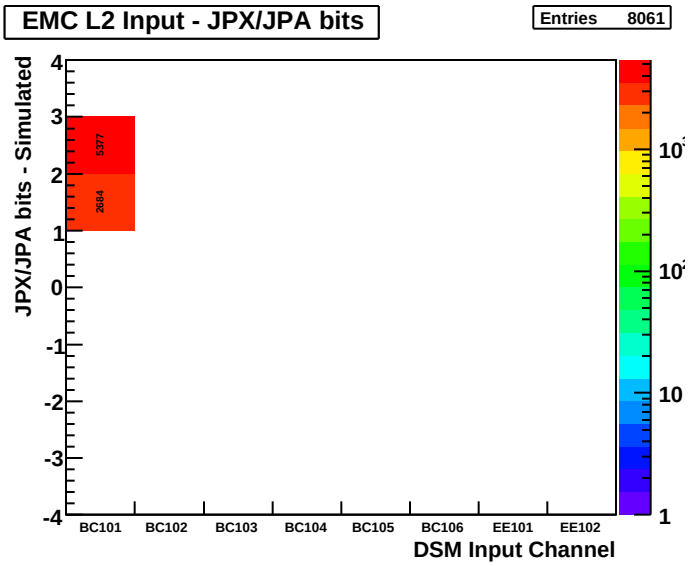

Endcap EMC L1 Input - High Eta Sum
Entries 2.999999e+07
High Eta Sum
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

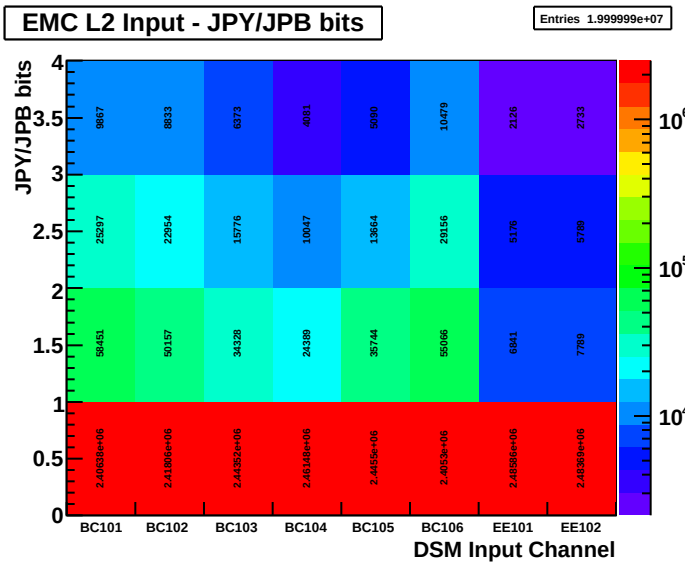

Endcap EMC L1 Input - High Eta Sum
Entries 0
High Eta Sum - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

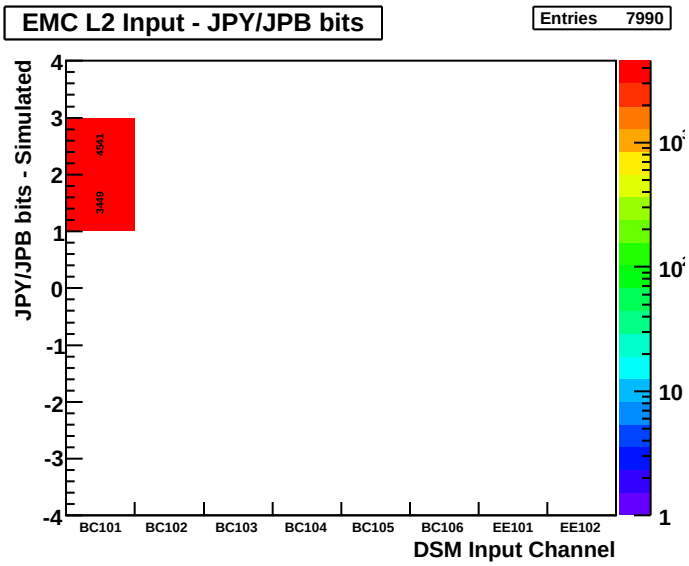

Endcap EMC L1 Input - High Tower Bits
Entries 2.999999e+07
High Tower Bits
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

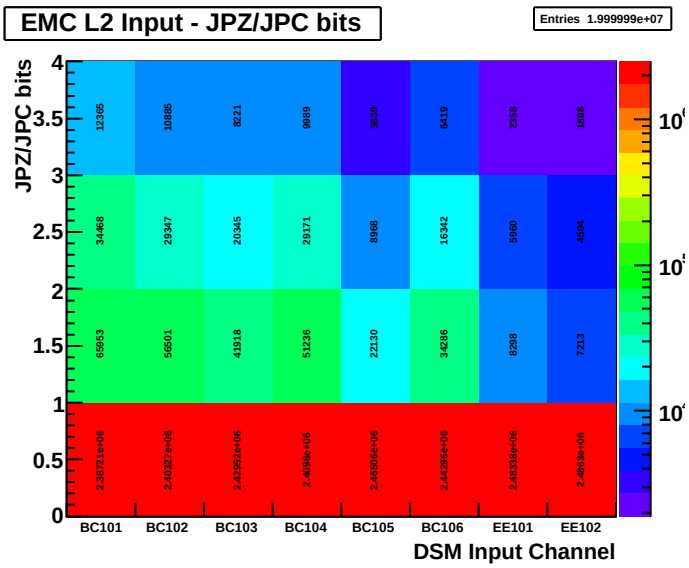

Endcap EMC L1 Input - High Tower Bits
Entries 60
High Tower Bits - Simulated
EE101
EE102
EE001 EE002-LO EE002-HI EE003 EE004 EE005-LO EE005-HI EE006 EE007 EE008-LO EE008-HI EE009

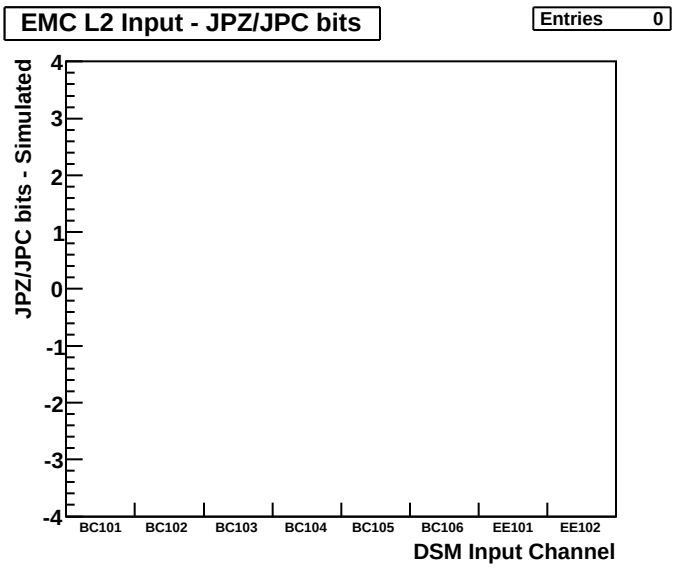

EMC L2 Input - JPX/JPA bits
Entries 1.999999e+07
JPX/JPA bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
13660 10443 10003 4418 12542 7824 2111 3268
32381 24874 23405 9916 34347 18805 5990 6831
55824 46423 39345 20792 53210 41493 11107 10203
2.39813e+06 2.41826e+06 2.42725e+06 2.46487e+06 2.3999e+06 2.43188e+06 2.48088e+06 2.4797e+06

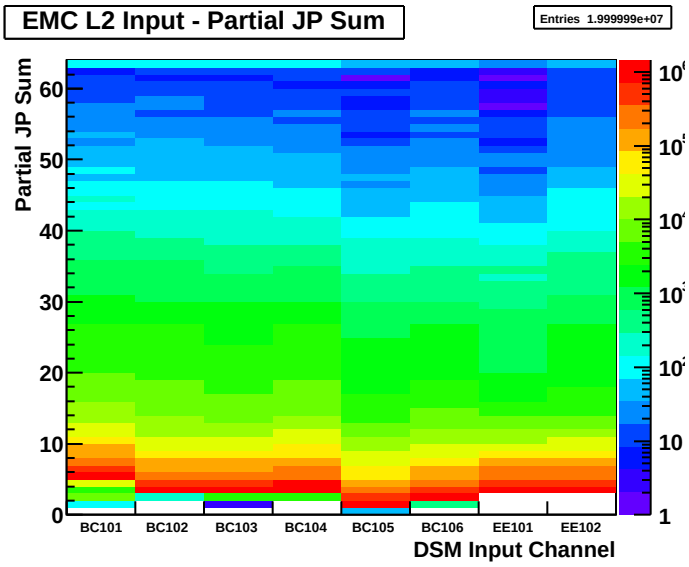

EMC L2 Input - JPX/JPA bits
Entries 8061
JPX/JPA bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
5377
2684

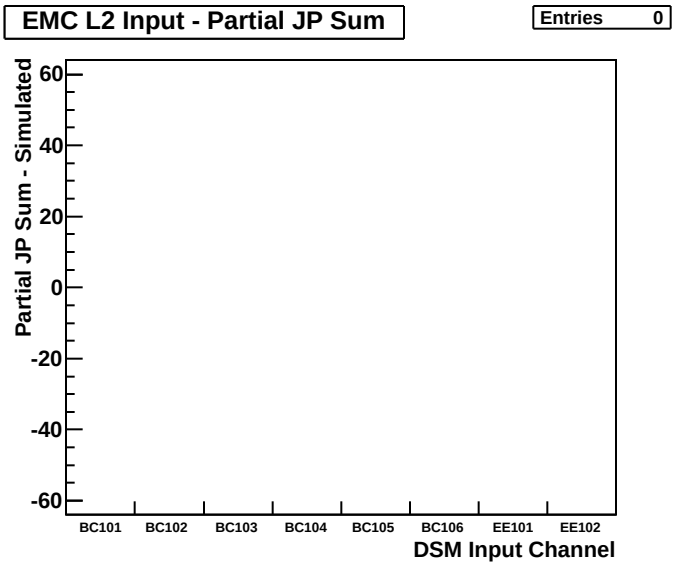

EMC L2 Input - JPY/JPB bits
Entries 1.999999e+07
JPY/JPB bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
9667 8833 6373 4081 5090 10479 2126 2733
25297 22954 15776 10047 13664 29156 5176 5789
58451 50157 34328 24389 35744 55066 6841 7789
2.40638e+06 2.41806e+06 2.44352e+06 2.46148e+06 2.4455e+06 2.4053e+06 2.48586e+06 2.48369e+06

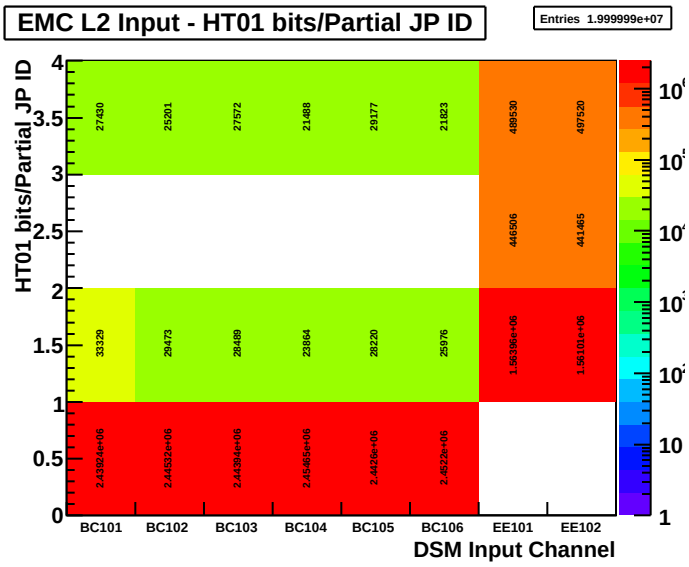

EMC L2 Input - JPY/JPB bits
Entries 7990
JPY/JPB bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
4541
3449

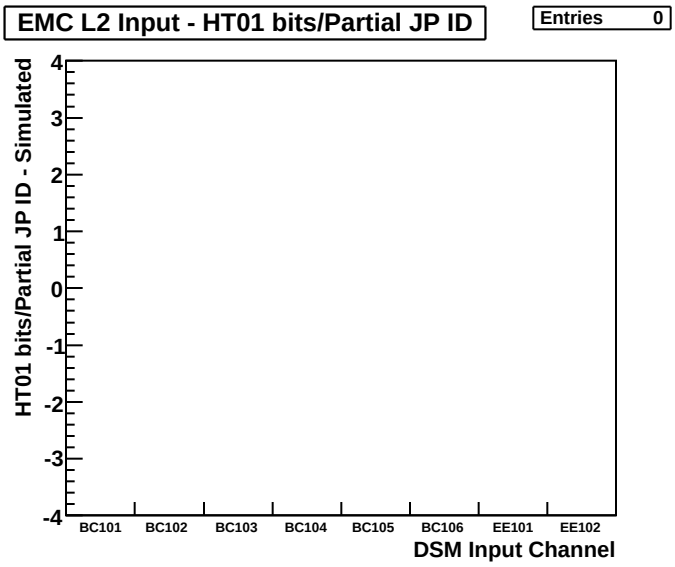

EMC L2 Input - JPZ/JPC bits
Entries 1.999999e+07
JPZ/JPC bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102
12365 10885 8221 9889 3939 6419 2358 1388
34468 29347 20345 29171 8968 16342 5960 4594
69953 56601 41918 51236 22130 34286 8238 7213
2.38721e+06 2.40327e+06 2.42952e+06 2.4096e+06 2.46506e+06 2.44295e+06 2.48338e+06 2.4863e+06

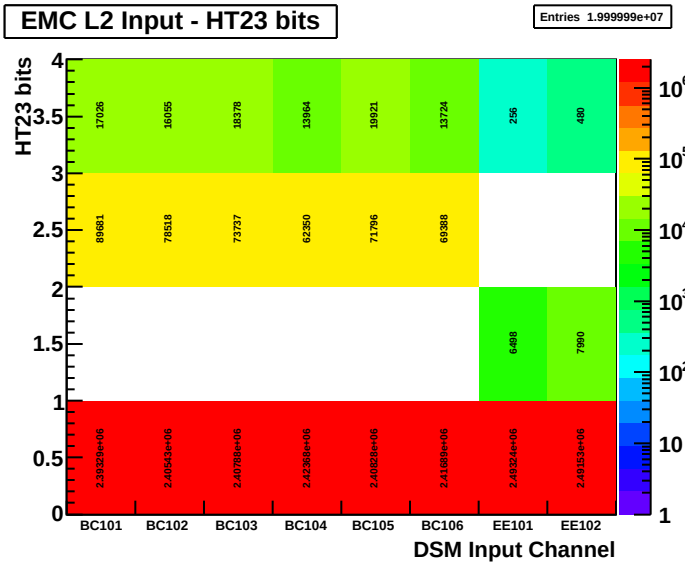

EMC L2 Input - JPZ/JPC bits
Entries 0
JPZ/JPC bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

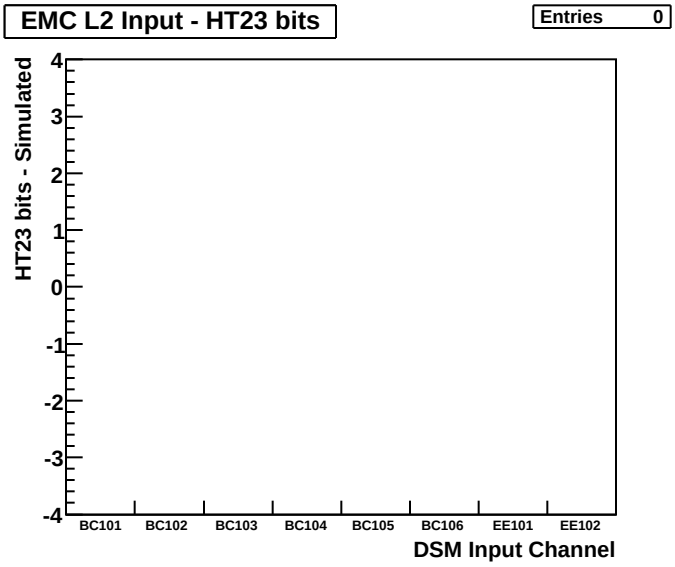

EMC L2 Input - Partial JP Sum
Entries 1.999999e+07
Partial JP Sum
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

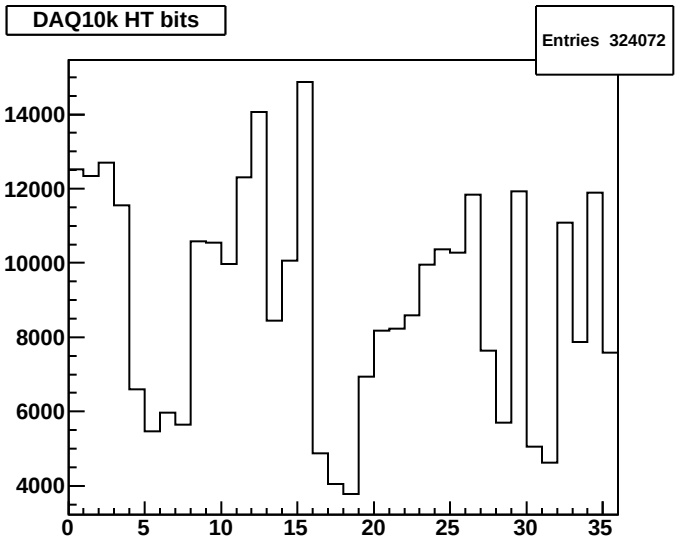

EMC L2 Input - Partial JP Sum
Entries 0
Partial JP Sum - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

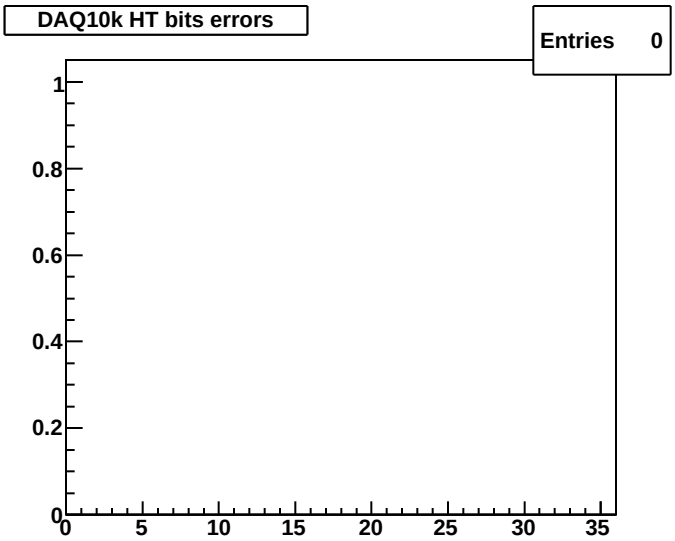

EMC L2 Input - HT01 bits/Partial JP ID
Entries 1.999999e+07
HT01 bits/Partial JP ID
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

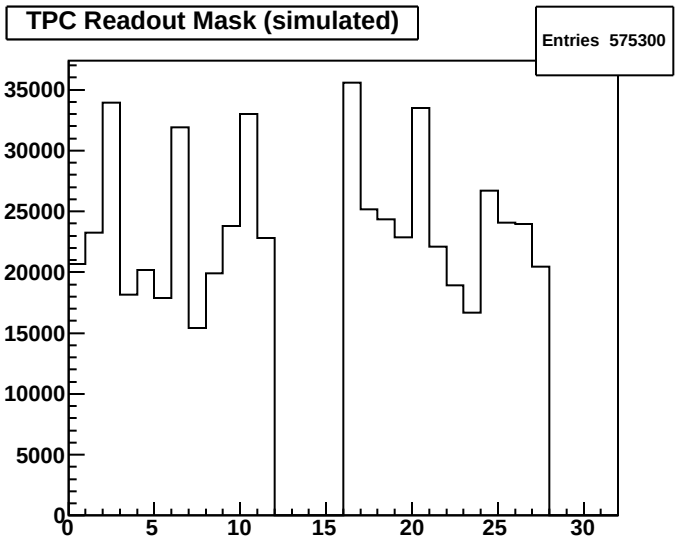

EMC L2 Input - HT01 bits/Partial JP ID
Entries 0
HT01 bits/Partial JP ID - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

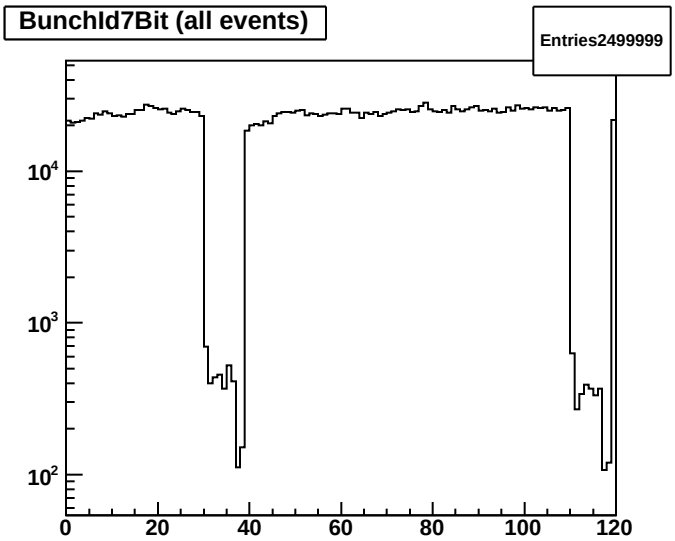

EMC L2 Input - HT23 bits
Entries 1.999999e+07
HT23 bits
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

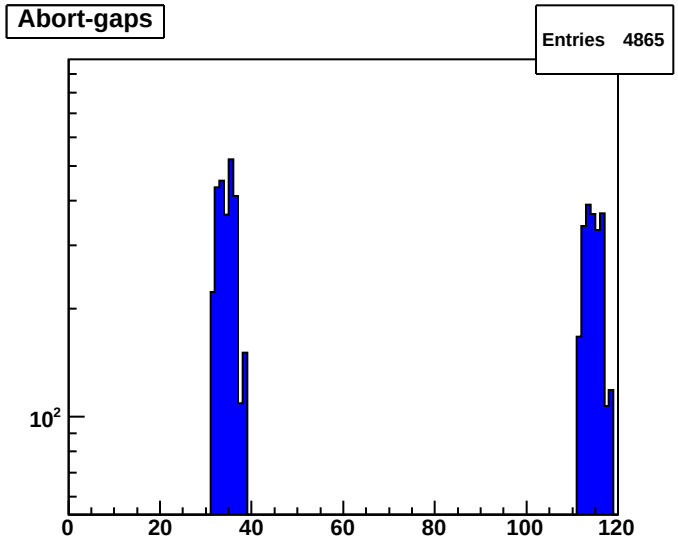

EMC L2 Input - HT23 bits
Entries 0
HT23 bits - Simulated
DSM Input Channel
BC101 BC102 BC103 BC104 BC105 BC106 EE101 EE102

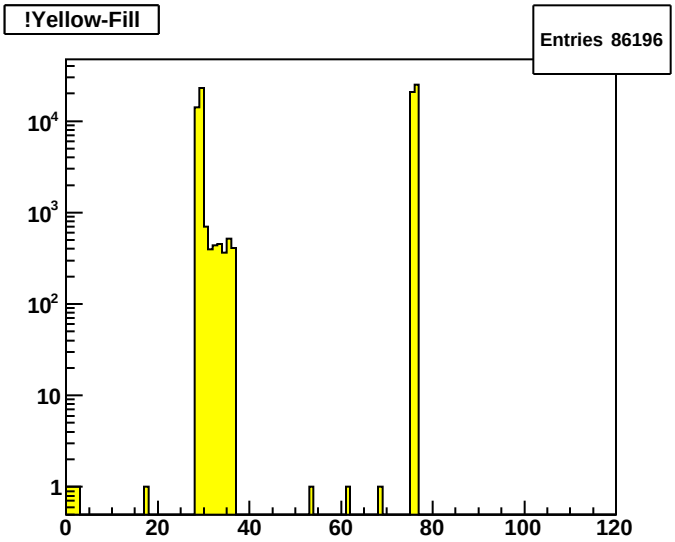

DAQ10k HT bits
Entries 324072
14000
12000
10000
8000
6000
4000
0 5 10 15 20 25 30 35

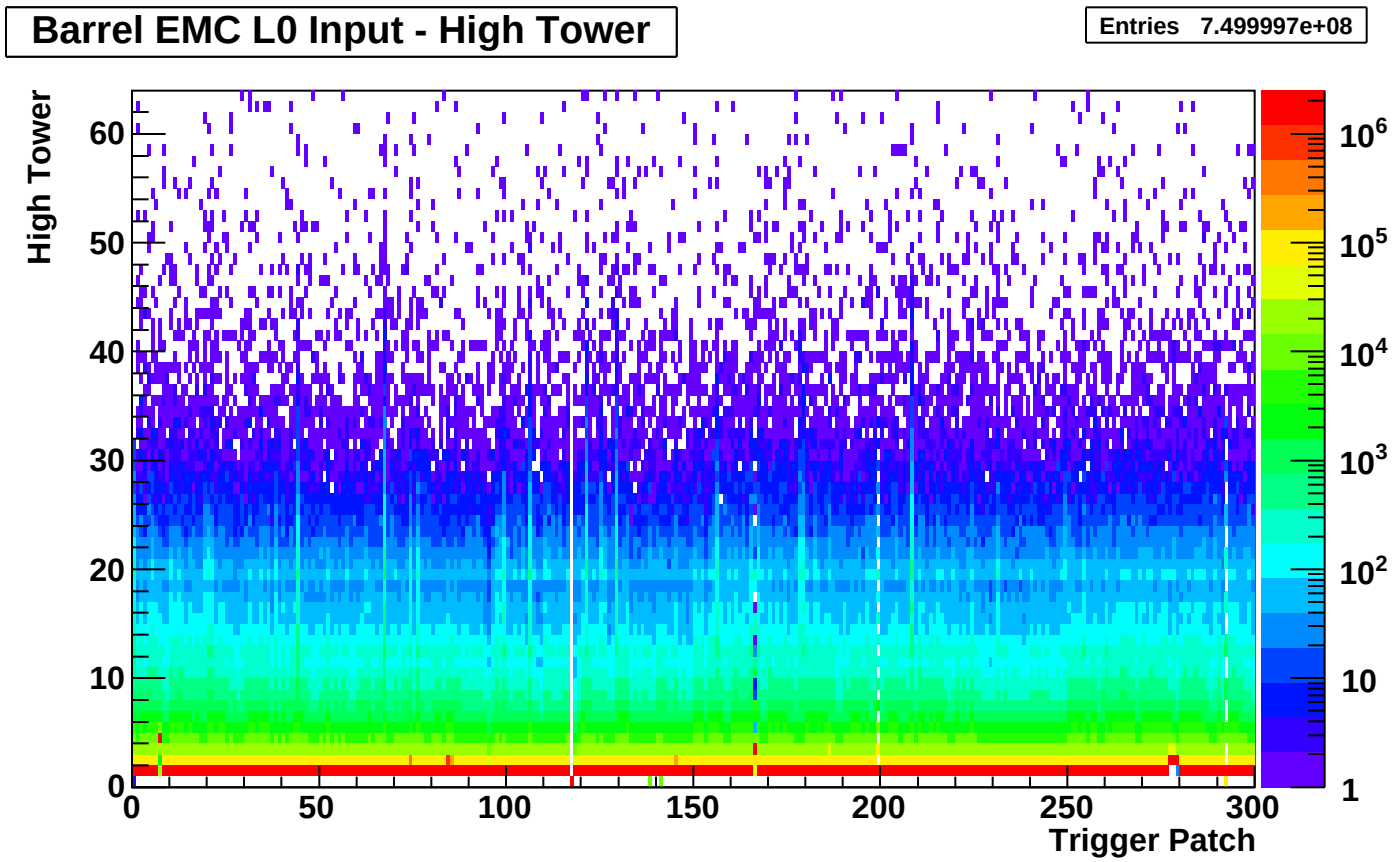

DAQ10k HT bits errors
Entries 0
1
0.8
0.6
0.4
0.2
0
0 5 10 15 20 25 30 35

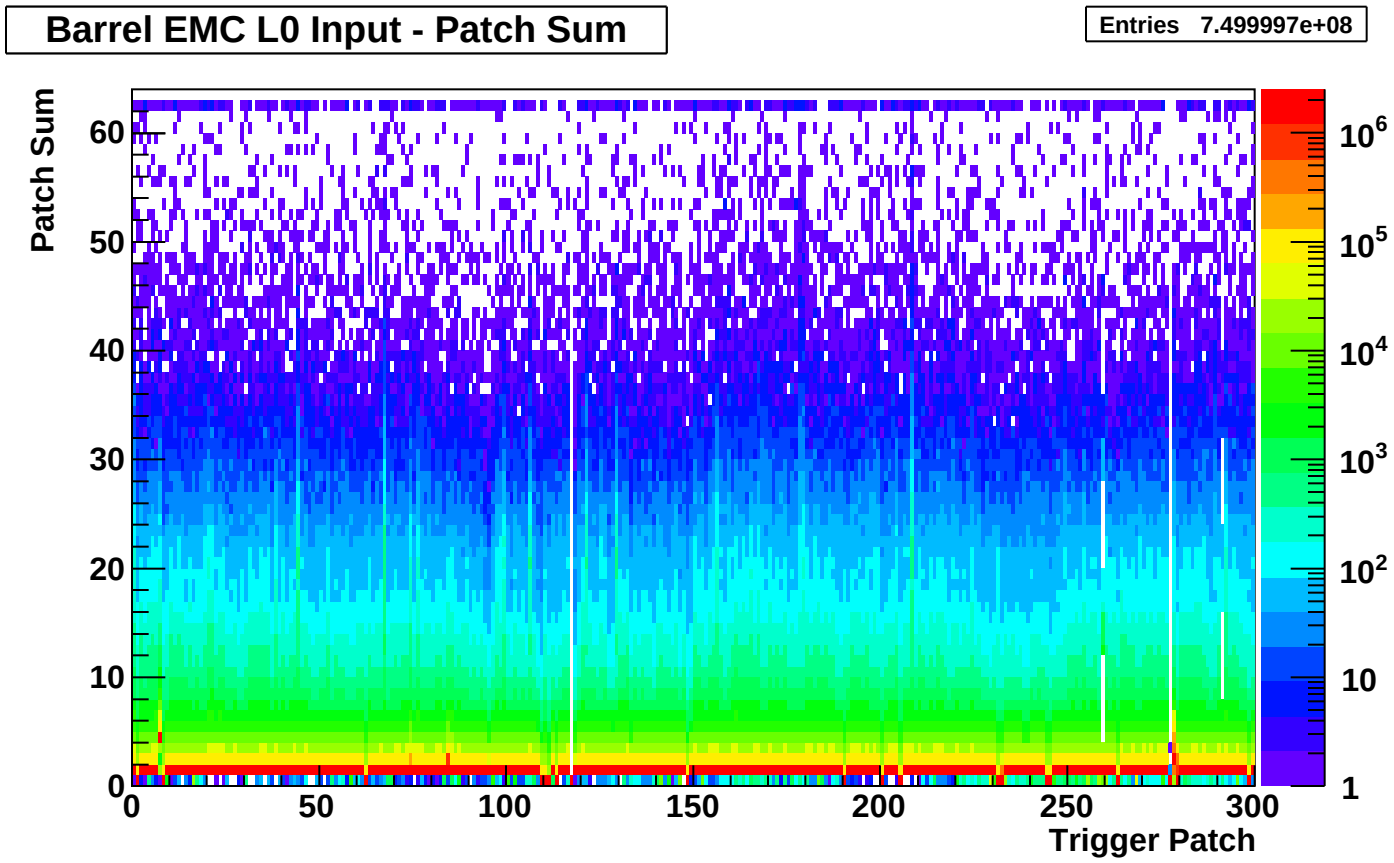

TPC Readout Mask (simulated)
Entries 575300
35000
30000
25000
20000
15000
10000
5000
0
0 5 10 15 20 25 30

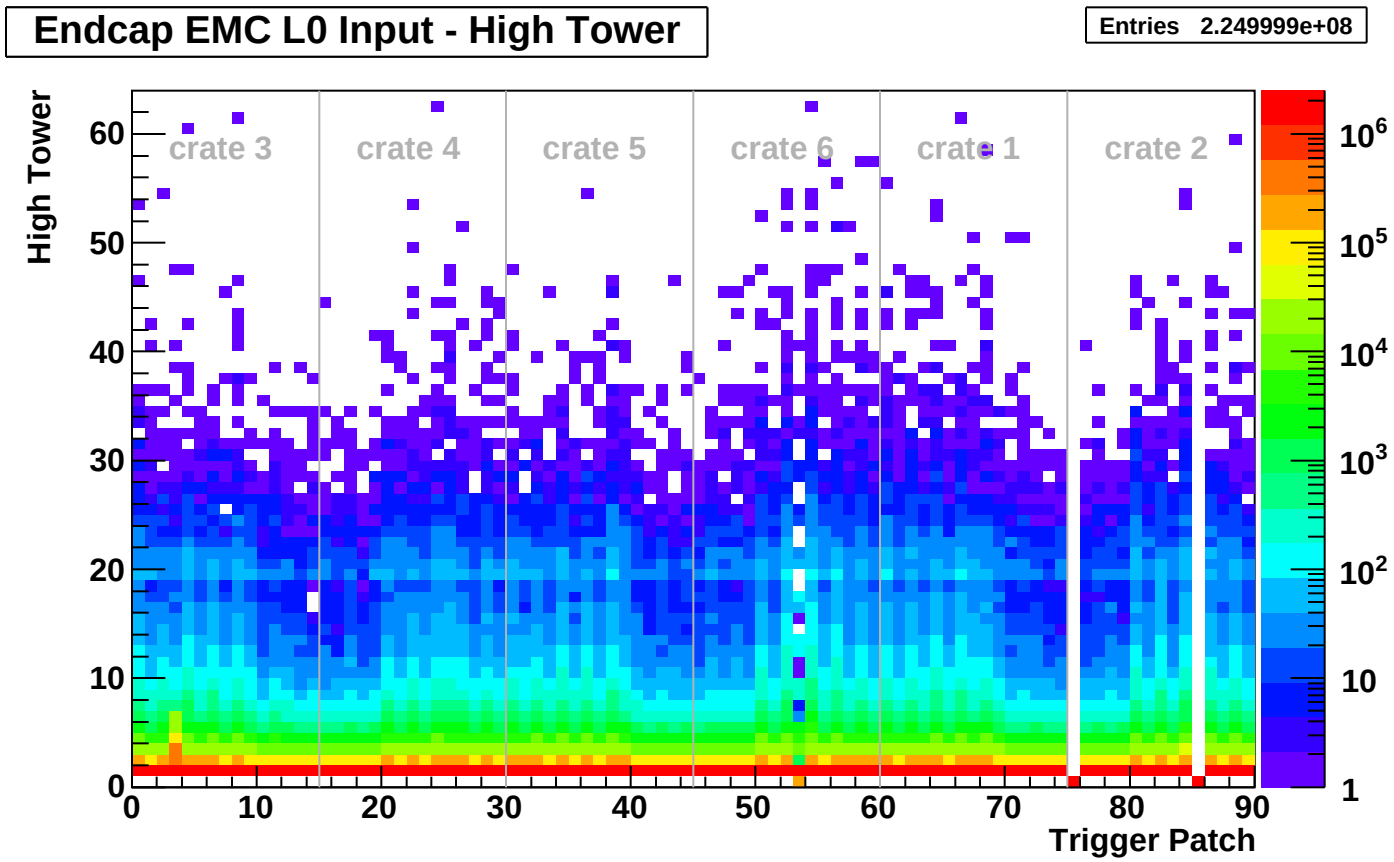

BunchId7Bit (all events)
Entries2499999
10^4
10^3
10^2
0 20 40 60 80 100 120

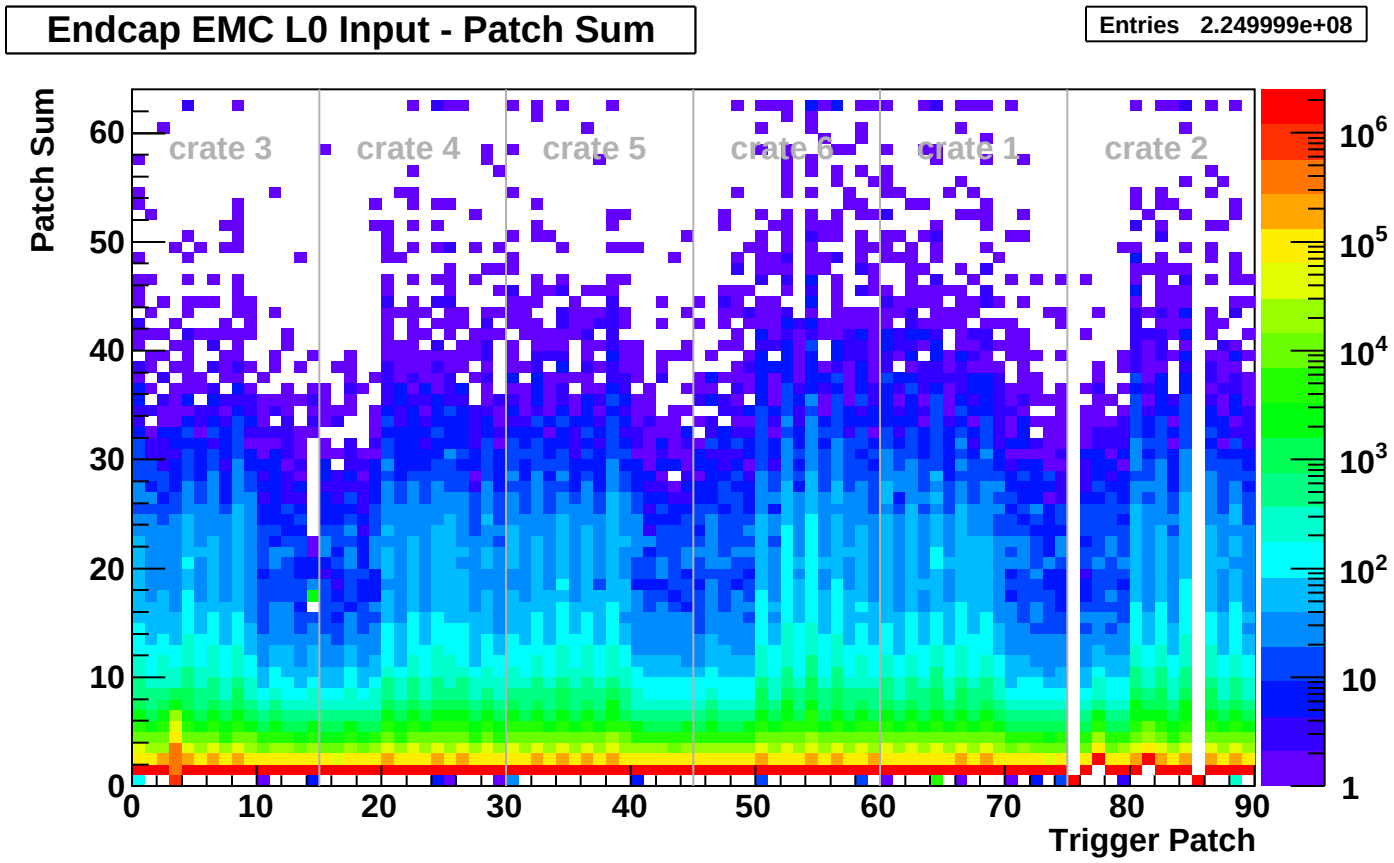

Abort-gaps
Entries 4865
10^2
0 20 40 60 80 100 120

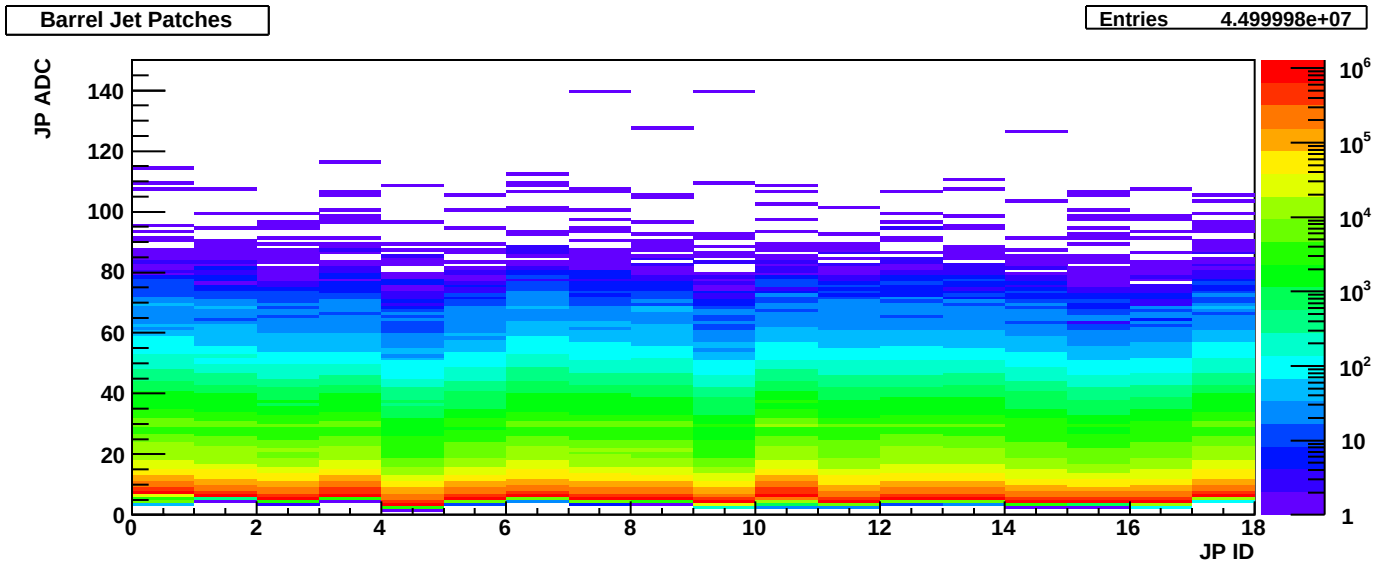

!Yellow-Fill
Entries 86196
10^4
10^3
10^2
10
1
0 20 40 60 80 100 120

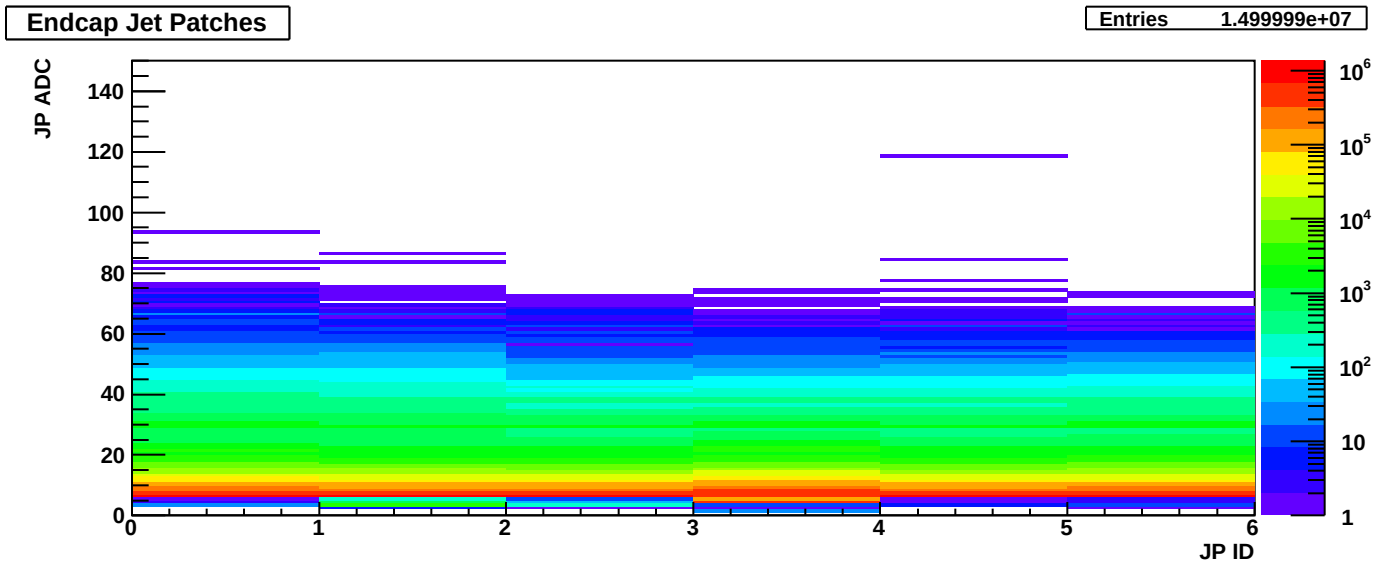

Barrel EMC L0 Input - High Tower
Entries 7.499997e+08
High Tower
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

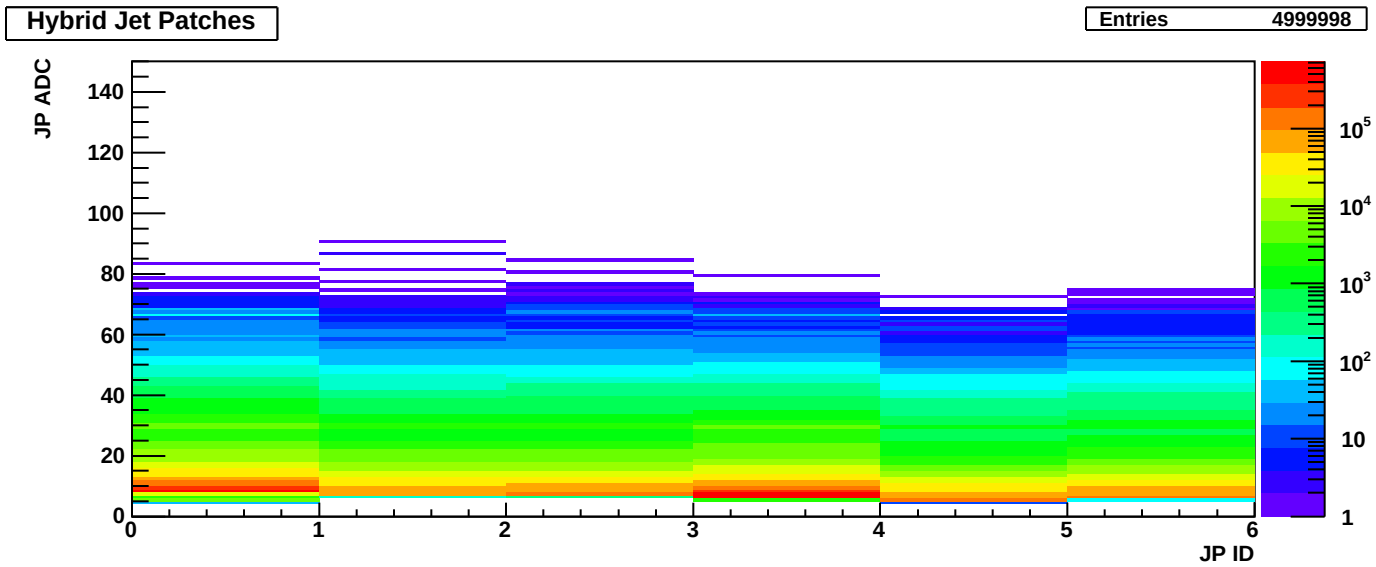

Barrel EMC L0 Input - Patch Sum
Entries 7.499997e+08
Patch Sum
Trigger Patch
0
10
20
30
40
50
60
0
50
100
150
200
250
300
1
10
10^2
10^3
10^4
10^5
10^6

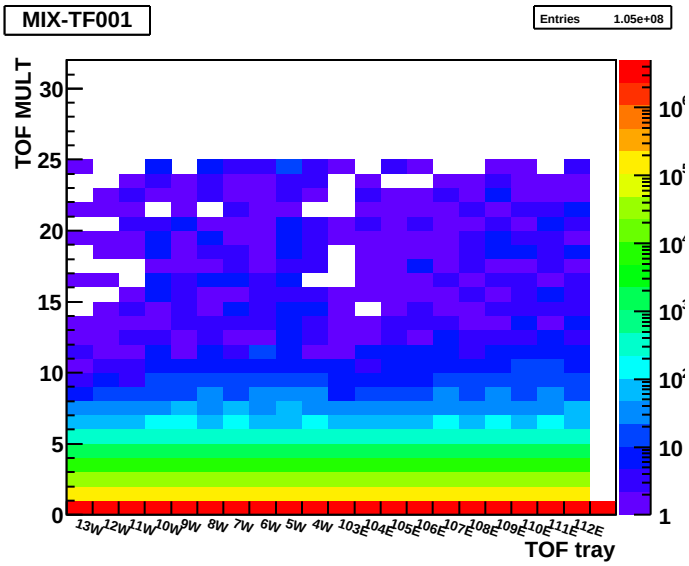

Endcap EMC L0 Input - High Tower
Entries 2.249999e+08
High Tower
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

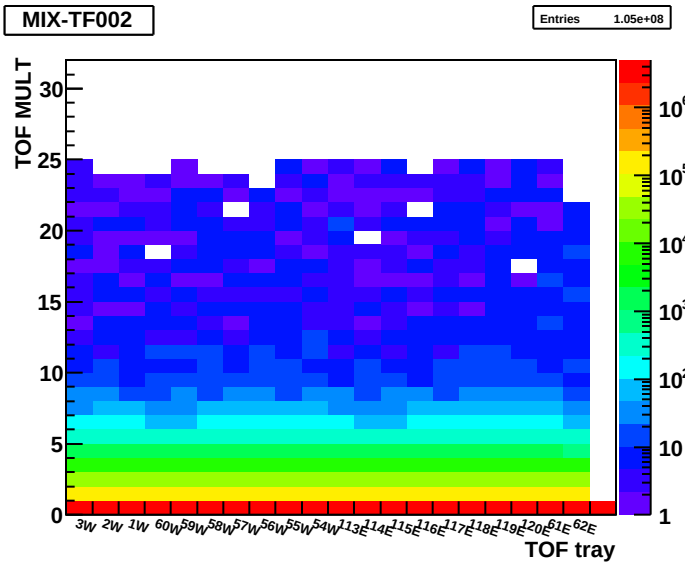

Endcap EMC L0 Input - Patch Sum
Entries 2.249999e+08
Patch Sum
Trigger Patch
crate 3
crate 4
crate 5
crate 6
crate 1
crate 2

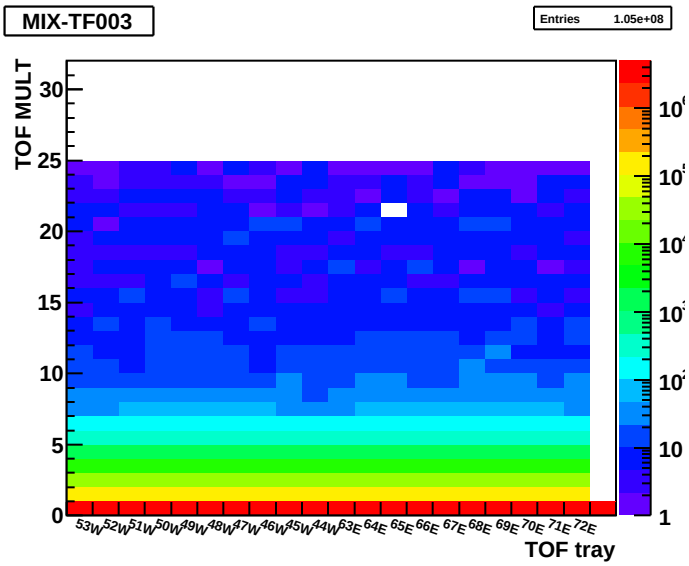

Barrel Jet Patches
Entries 4.499998e+07
JP ADC
JP ID

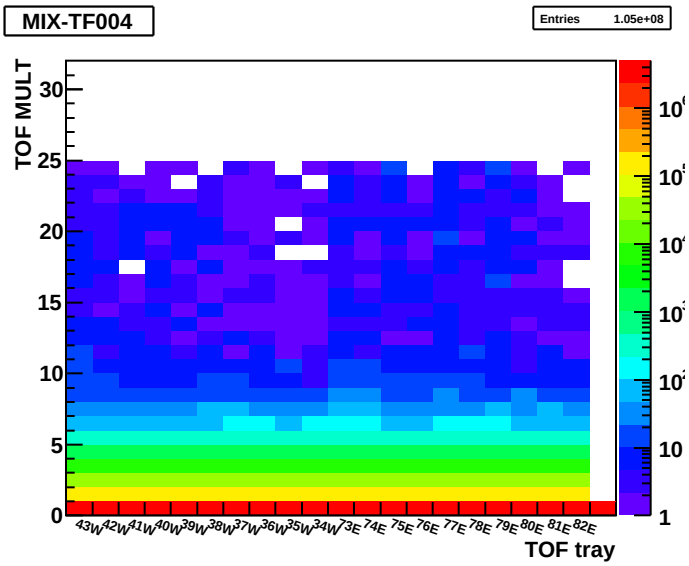

Endcap Jet Patches
Entries 1.499999e+07
JP ADC
JP ID

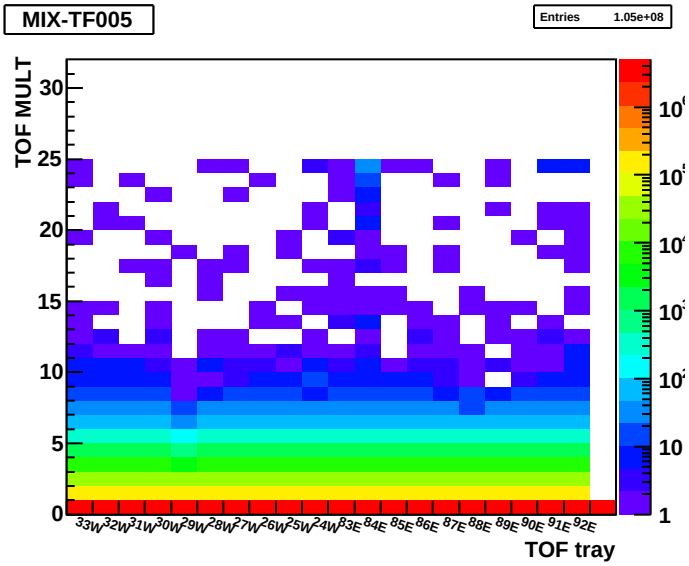

Hybrid Jet Patches
Entries 4999998
JP ADC
JP ID

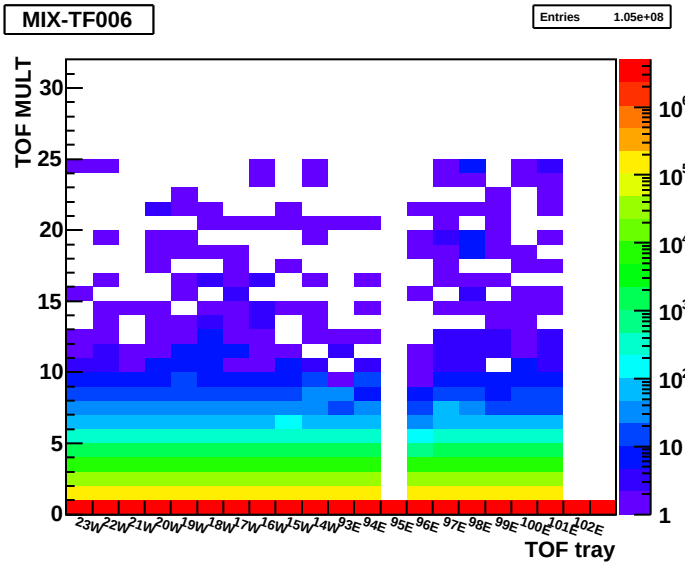

MIX-TF001
Entries 1.05e+08
TOF MULT
TOF tray

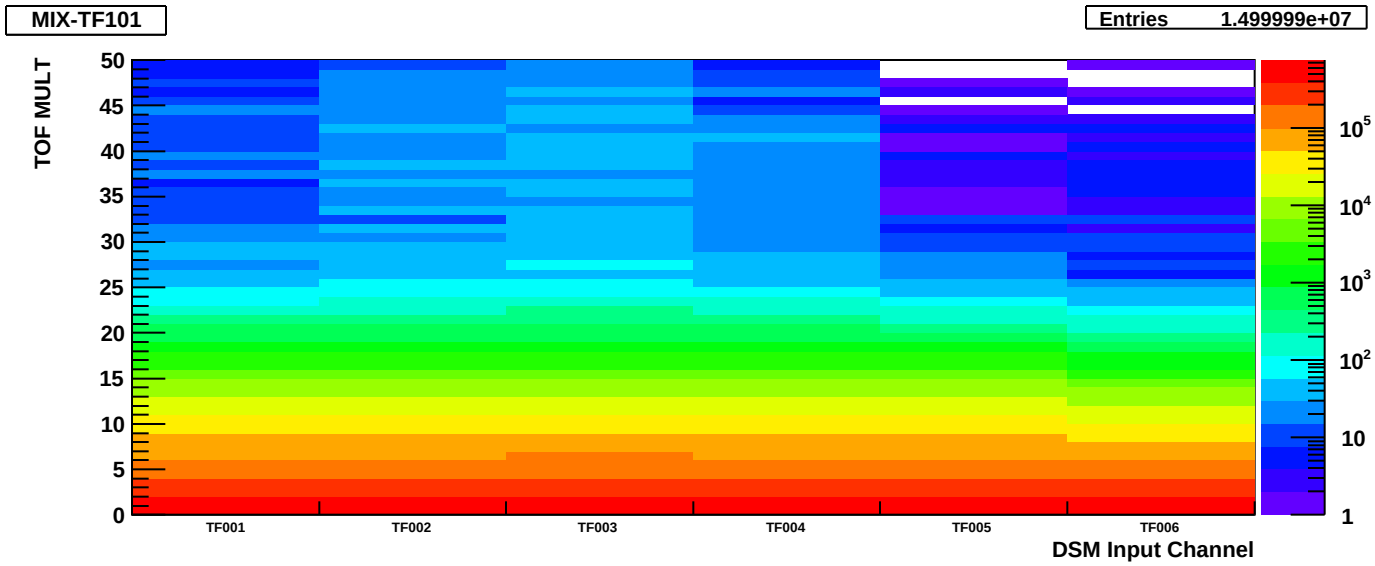

MIX-TF002
Entries 1.05e+08
TOF MULT
TOF tray

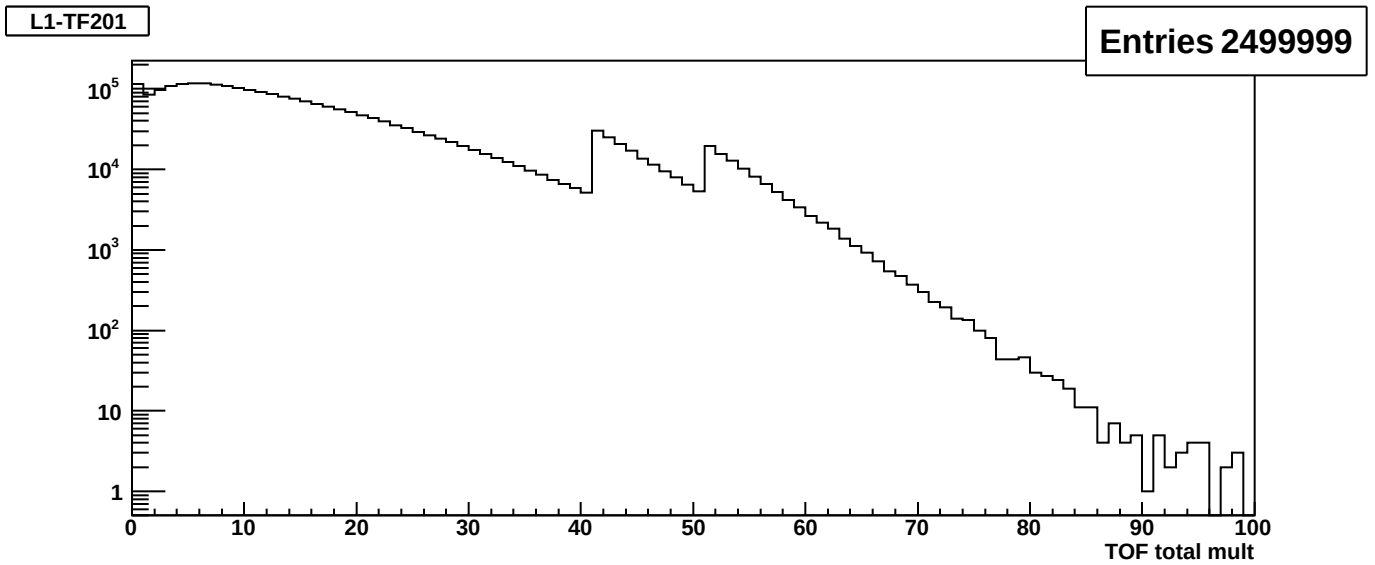

MIX-TF003
Entries 1.05e+08
TOF MULT
TOF tray

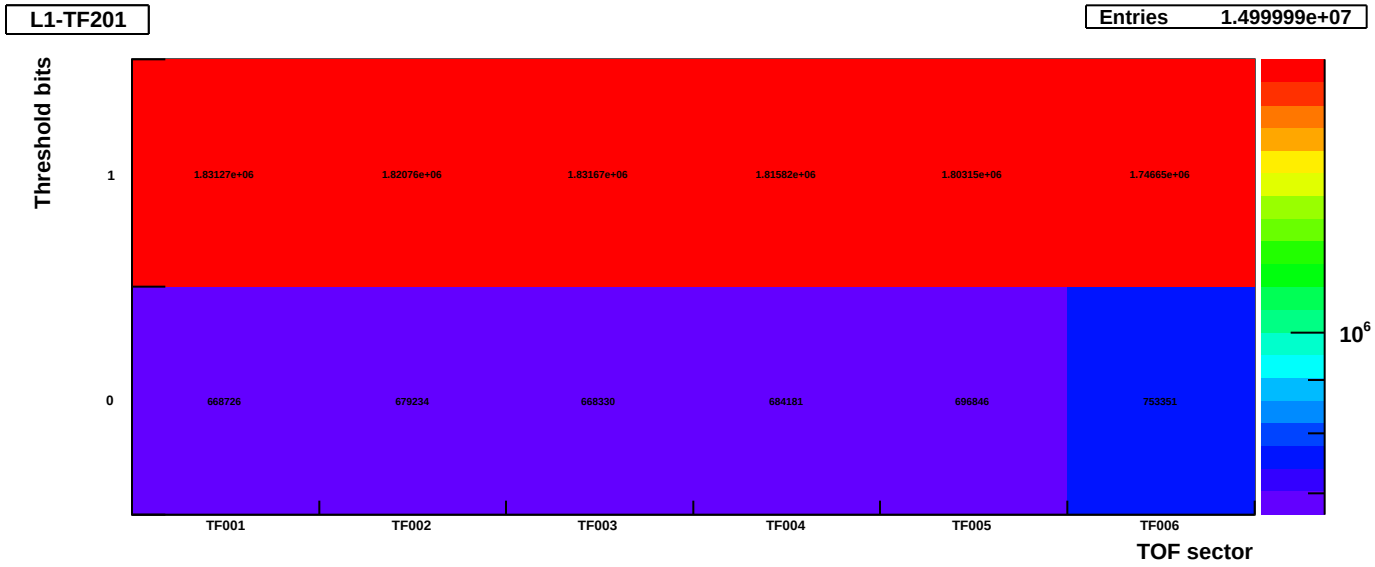

MIX-TF004
Entries 1.05e+08
TOF MULT
TOF tray

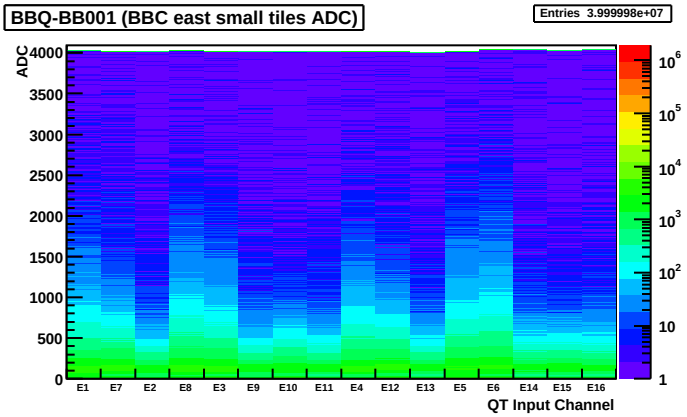

MIX-TF005
Entries 1.05e+08
TOF MULT
TOF tray

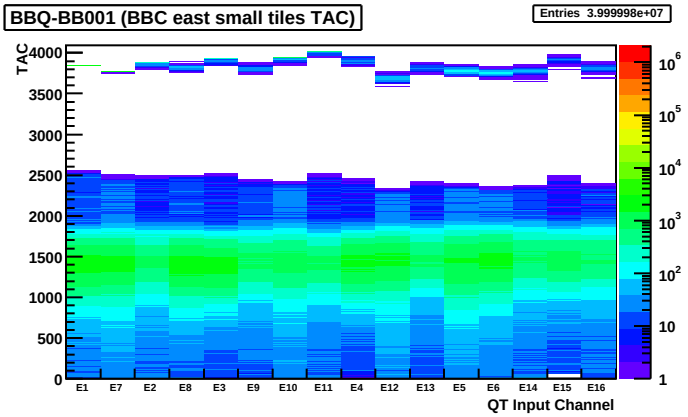

MIX-TF006
Entries 1.05e+08
TOF MULT
TOF tray

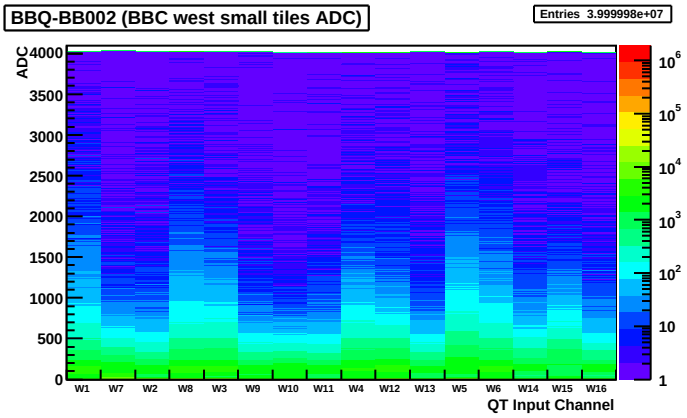

MIX-TF101
Entries 1.499999e+07
TOF MULT
DSM Input Channel
TF001
TF002
TF003
TF004
TF005
TF006

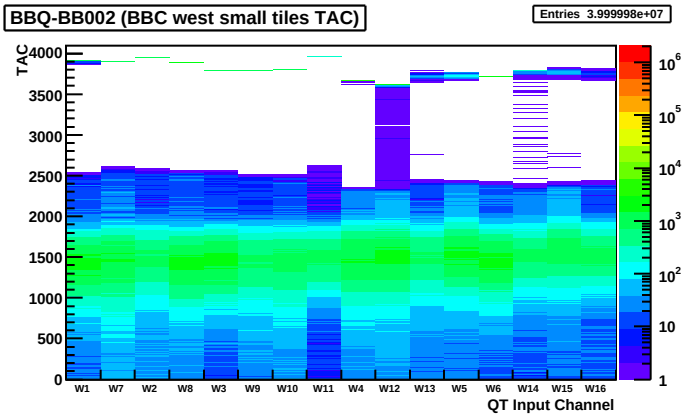

L1-TF201
Entries 2499999
TOF total mult

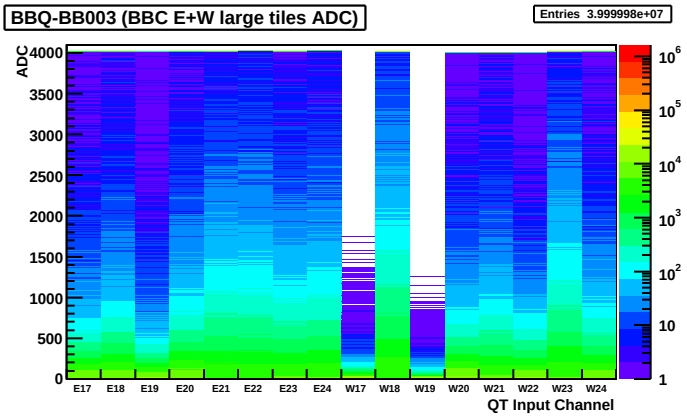

L1-TF201
Entries 1.499999e+07
Threshold bits
1.83127e+06
1.82076e+06
1.83167e+06
1.81582e+06
1.80315e+06
1.74665e+06
668726
679234
668330
684181
696846
753351
TF001
TF002
TF003
TF004
TF005
TF006
TOF sector

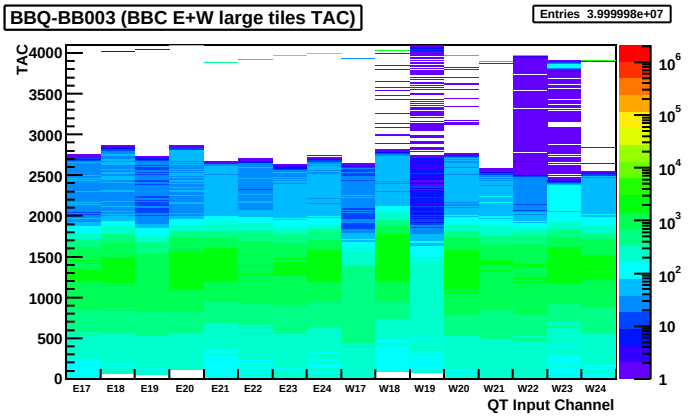

BBQ-BB001 (BBC east small tiles ADC)
Entries 3.999998e+07
ADC
QT Input Channel

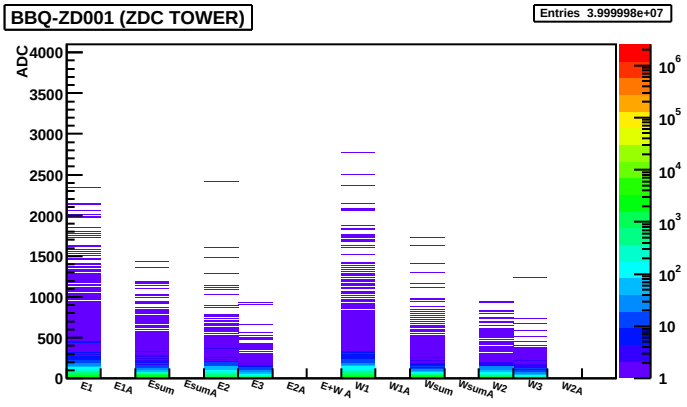

BBQ-BB001 (BBC east small tiles TAC)
Entries 3.999998e+07
TAC
QT Input Channel

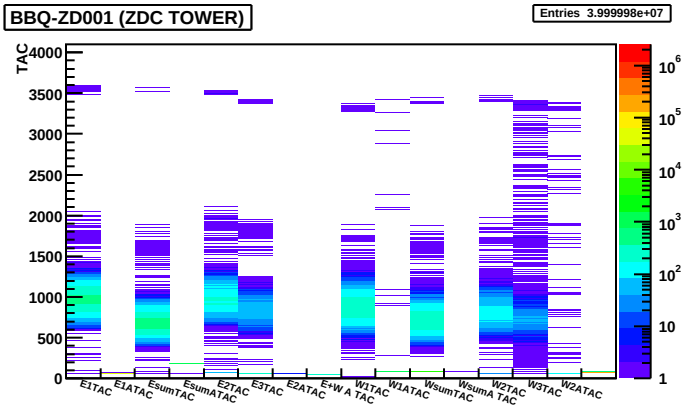

BBQ-BB002 (BBC west small tiles ADC)
Entries 3.999998e+07
ADC
QT Input Channel

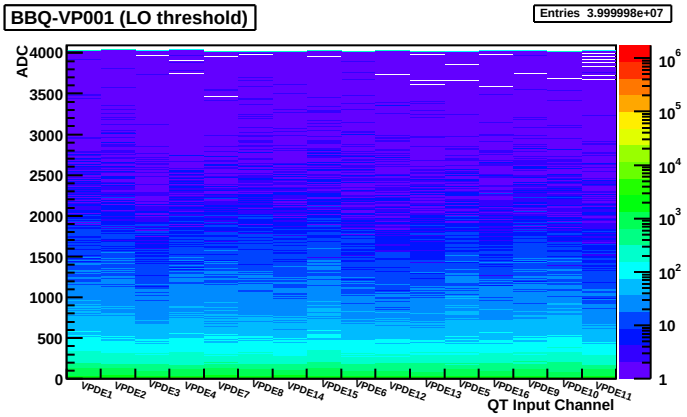

BBQ-BB002 (BBC west small tiles TAC)
Entries 3.999998e+07
TAC
QT Input Channel

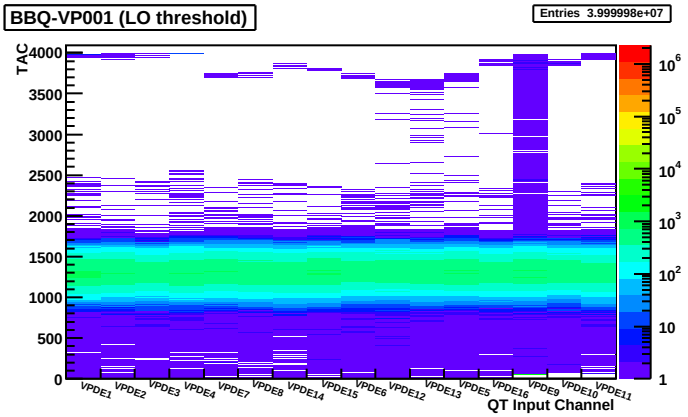

BBQ-BB003 (BBC E+W large tiles ADC)
Entries 3.999998e+07
ADC
QT Input Channel

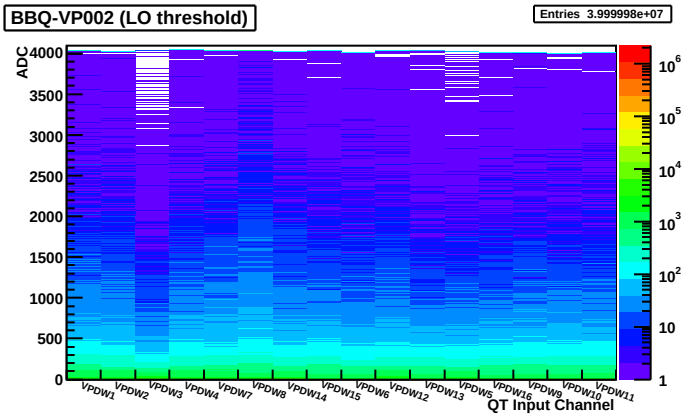

BBQ-BB003 (BBC E+W large tiles TAC)
Entries 3.999998e+07
TAC
QT Input Channel

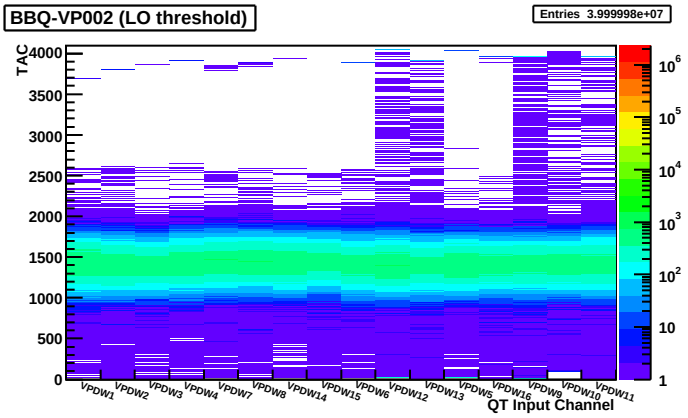

BBQ-ZD001 (ZDC TOWER)
Entries 3.999998e+07
ADC

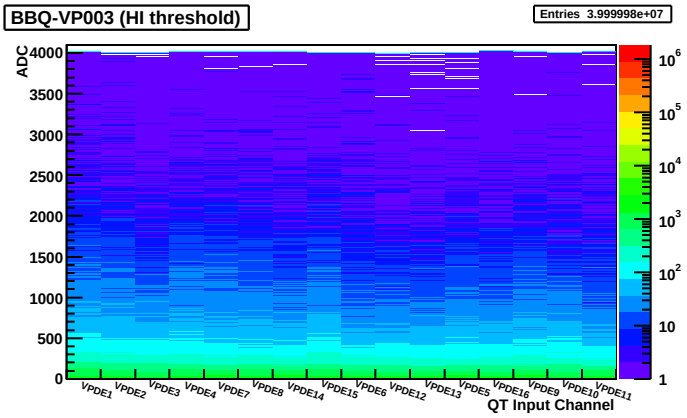

BBQ-ZD001 (ZDC TOWER)
Entries 3.999998e+07
TAC

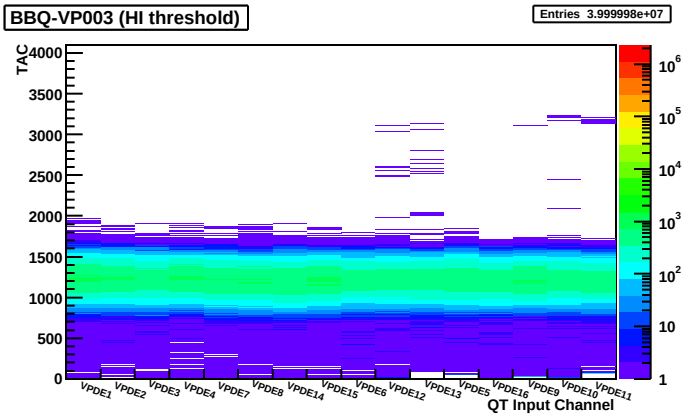

BBQ-VP001 (LO threshold)
Entries 3.999998e+07
ADC
QT Input Channel

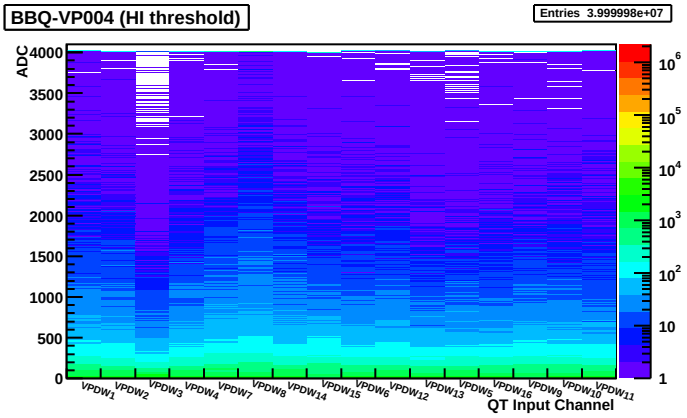

BBQ-VP001 (LO threshold)
Entries 3.999998e+07
TAC
QT Input Channel

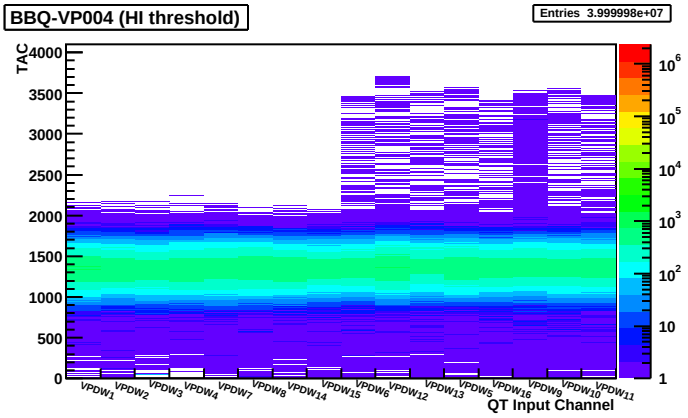

BBQ-VP002 (LO threshold)
Entries 3.999998e+07
ADC
QT Input Channel

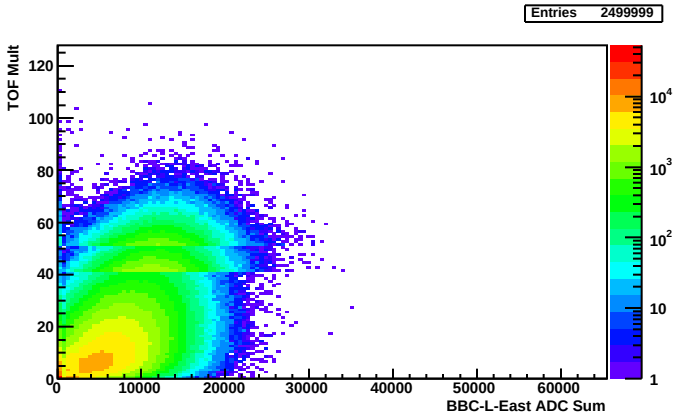

BBQ-VP002 (LO threshold)
Entries 3.999998e+07
TAC
QT Input Channel

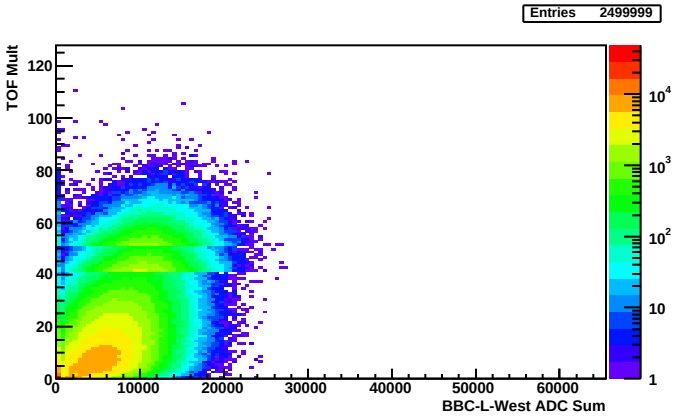

BBQ-VP003 (HI threshold)
Entries 3.999998e+07
ADC
QT Input Channel

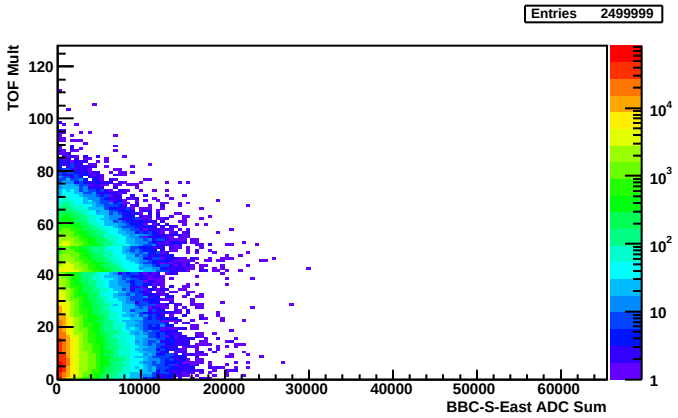

BBQ-VP003 (HI threshold)
Entries 3.999998e+07
TAC
QT Input Channel

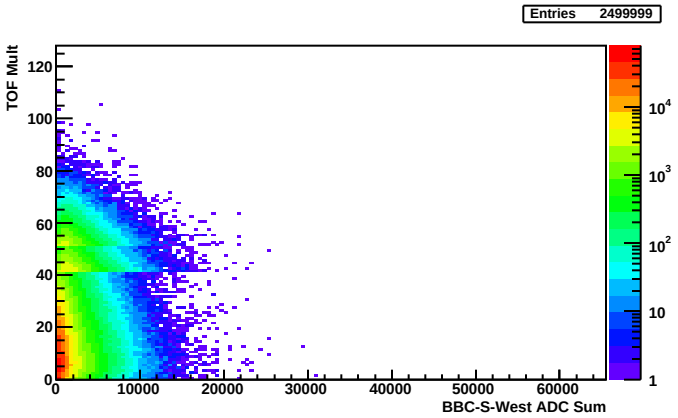

BBQ-VP004 (HI threshold)
Entries 3.999998e+07
ADC
QT Input Channel

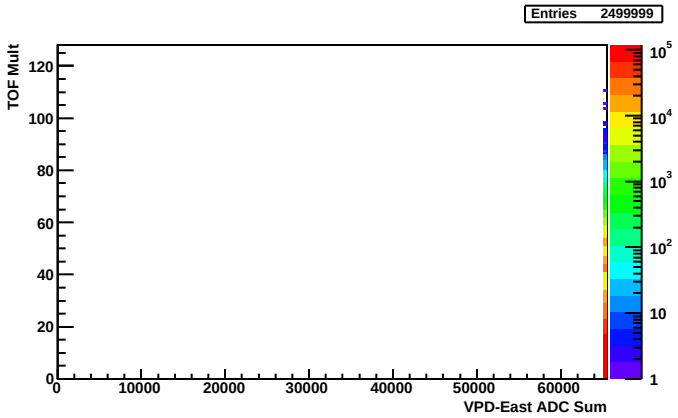

BBQ-VP004 (HI threshold)
Entries 3.999998e+07
TAC
QT Input Channel

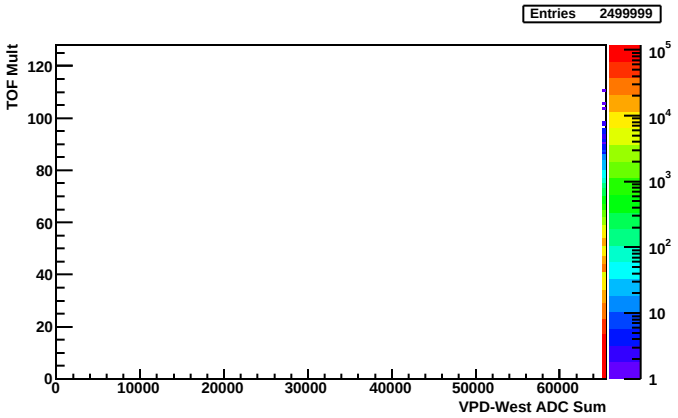

Entries 2499999
TOF Mult
BBC-L-East ADC Sum

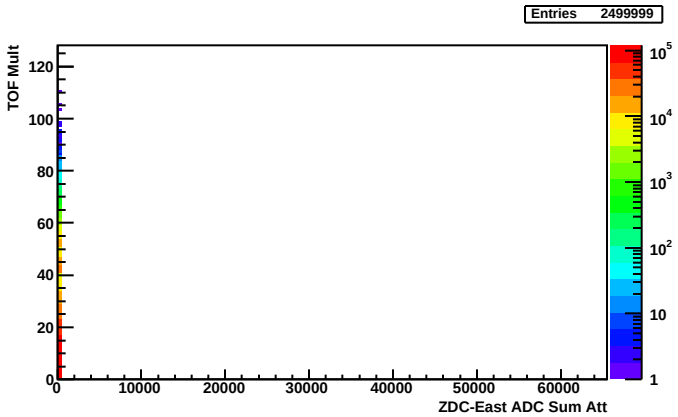

Entries 2499999
TOF Mult
BBC-L-West ADC Sum

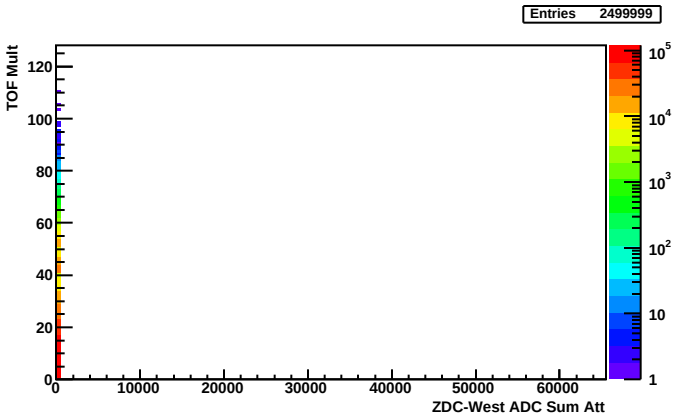

Entries 2499999
TOF Mult
BBC-S-East ADC Sum

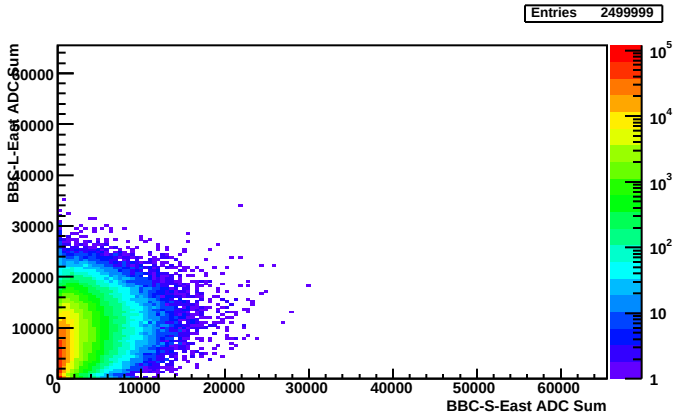

Entries 2499999
TOF Mult
BBC-S-West ADC Sum

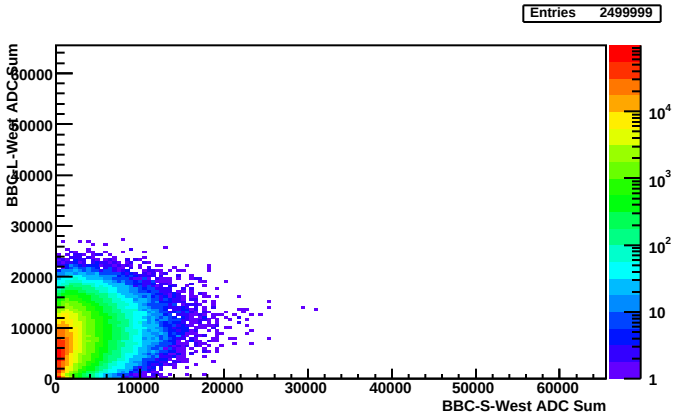

Entries 2499999
TOF Mult
VPD-East ADC Sum

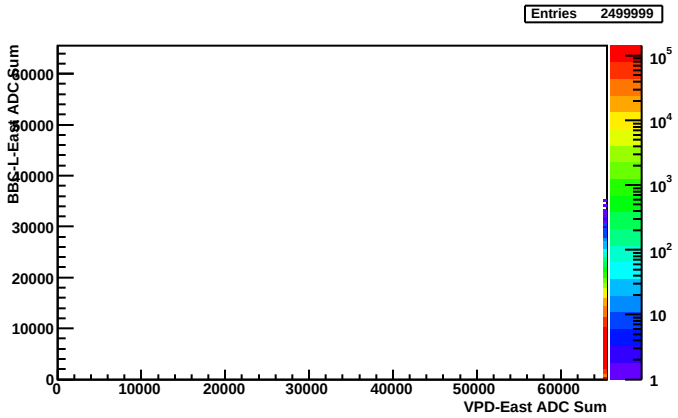

Entries 2499999
TOF Mult
VPD-West ADC Sum

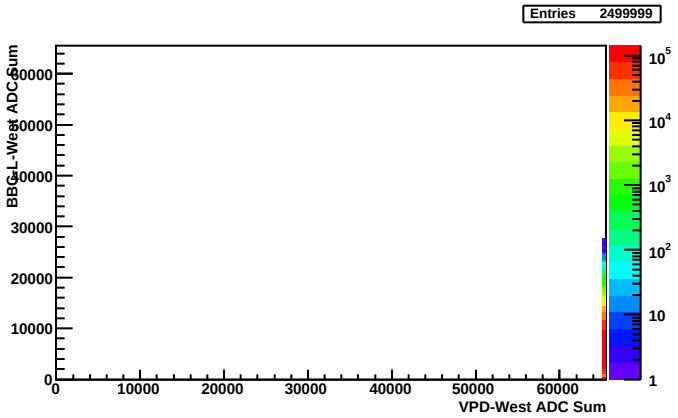

Entries 2499999
TOF Mult
ZDC-East ADC Sum Att

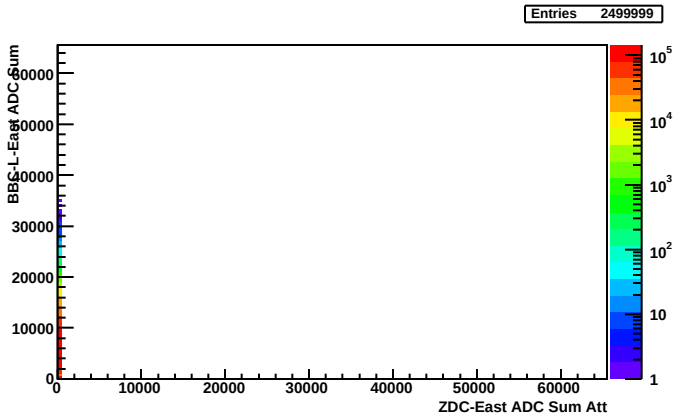

Entries 2499999
TOF Mult
ZDC-West ADC Sum Att

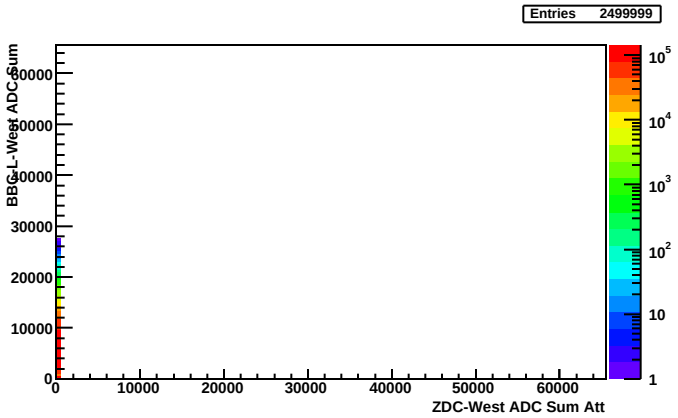

Entries 2499999
BBC-L-East ADC Sum
BBC-S-East ADC Sum

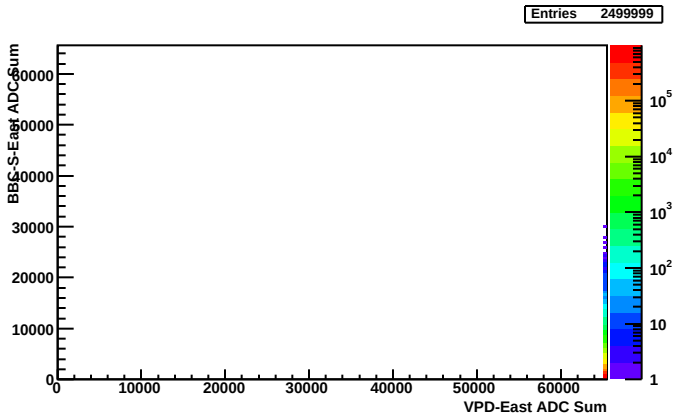

Entries 2499999
BBC-L-West ADC Sum
BBC-S-West ADC Sum

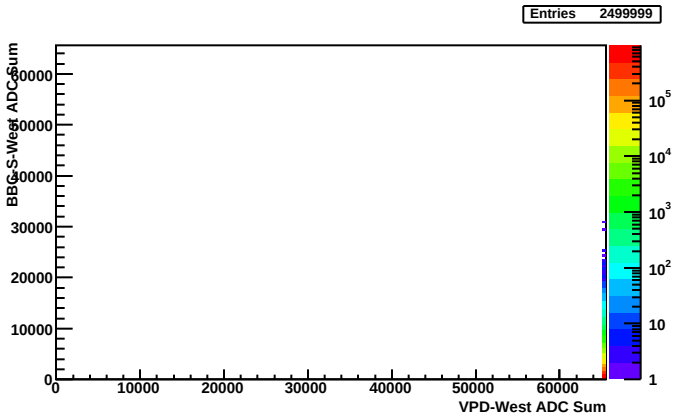

Entries 2499999
BBC-L-East ADC Sum
VPD-East ADC Sum

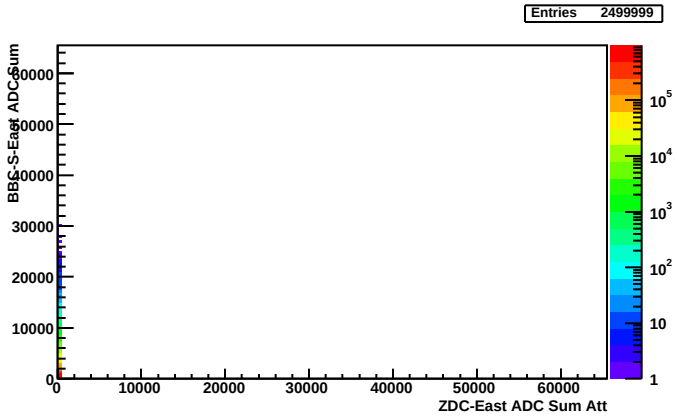

Entries 2499999
BBC-L-West ADC Sum
VPD-West ADC Sum

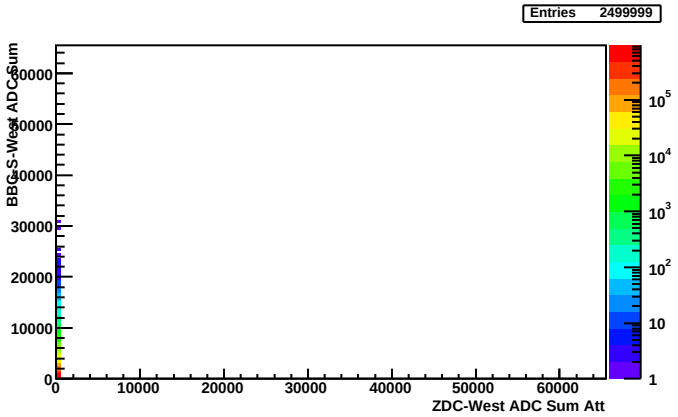

Entries 2499999
BBC-L-East ADC Sum
ZDC-East ADC Sum Att

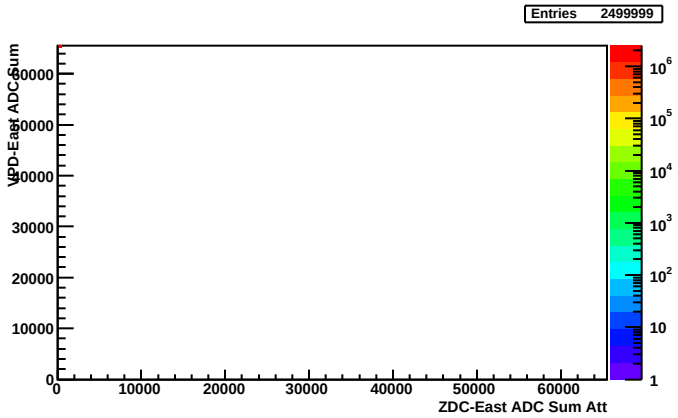

Entries 2499999
BBC-L-West ADC Sum
ZDC-West ADC Sum Att

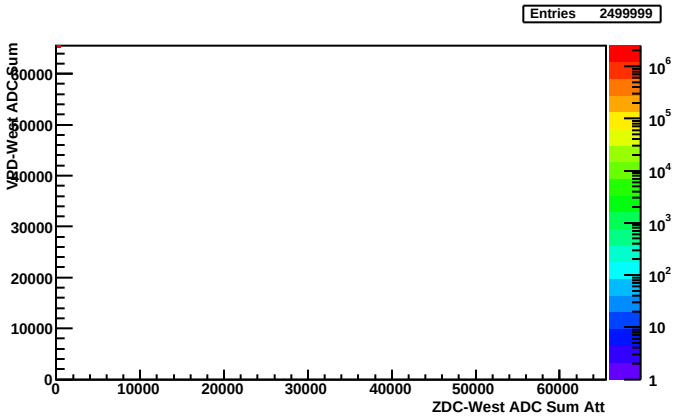

Entries 2499999
BBC-S-East ADC Sum
VPD-East ADC Sum

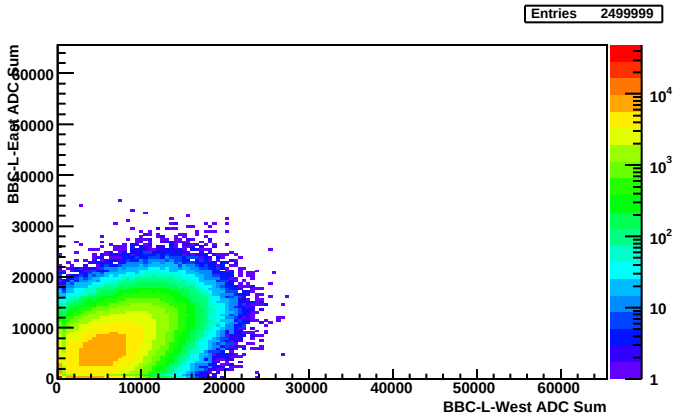

Entries 2499999
BBC-S-West ADC Sum
VPD-West ADC Sum

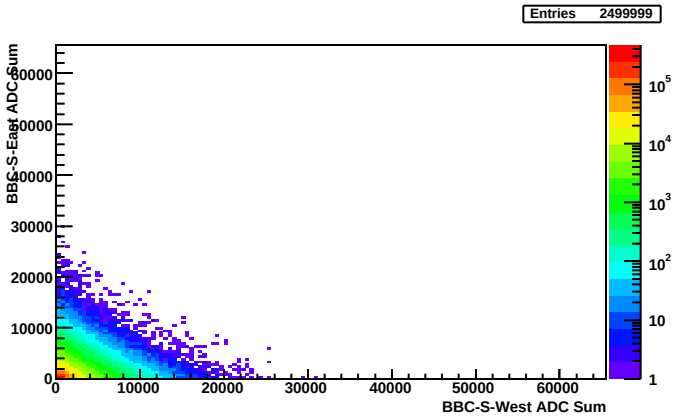

Entries 2499999
BBC-S-East ADC Sum
ZDC-East ADC Sum Att

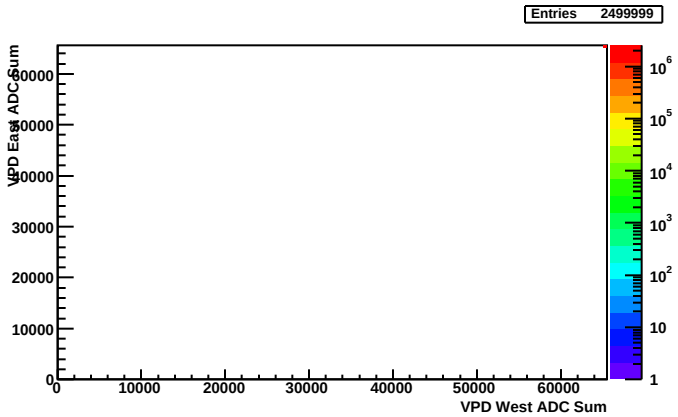

Entries 2499999
BBC-S-West ADC Sum
ZDC-West ADC Sum Att

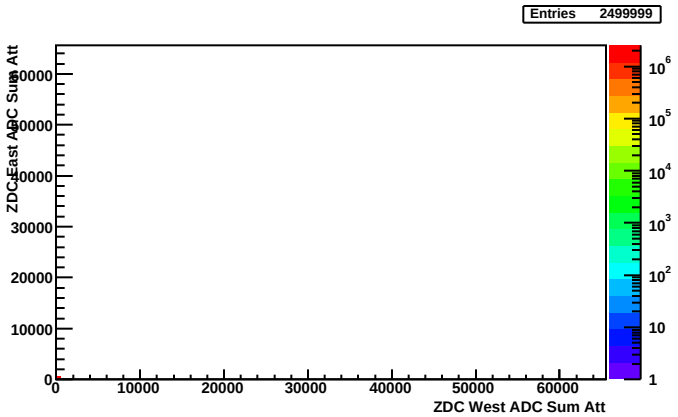

Entries 2499999
VPD-East ADC Sum
ZDC-East ADC Sum Att

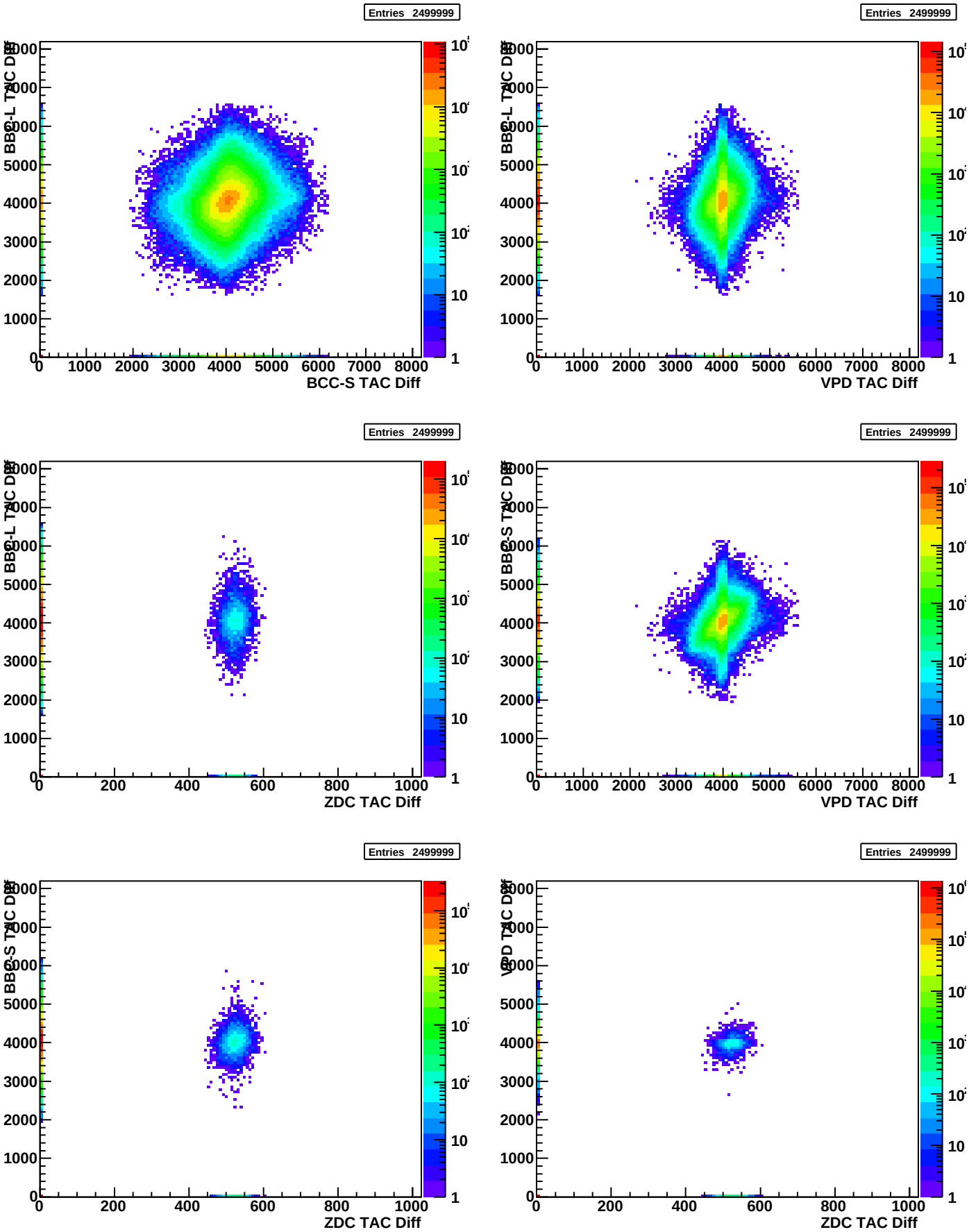

Entries 2499999
VPD-West ADC Sum
ZDC-West ADC Sum Att

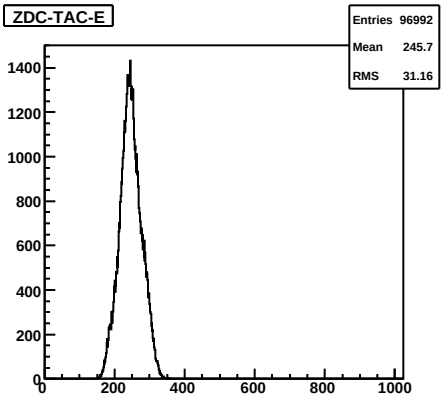

Entries 2499999
BBC-L-East ADC Sum
BBC-L-West ADC Sum

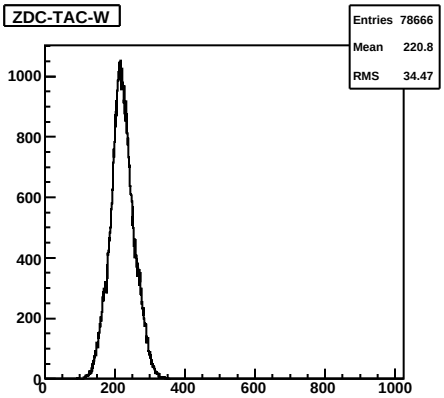

Entries 2499999
BBC-S-East ADC Sum
BBC-S-West ADC Sum

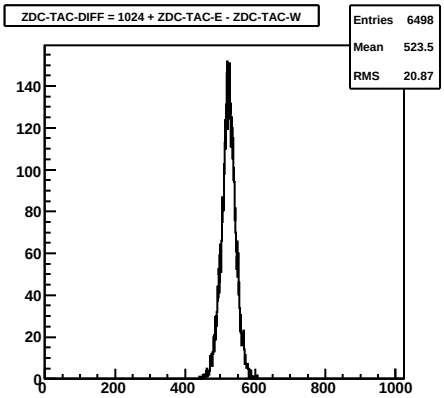

Entries 2499999
VPD East ADC Sum
VPD West ADC Sum

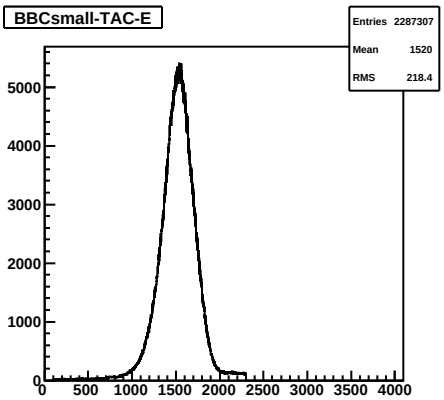

Entries 2499999
ZDC East ADC Sum Att
ZDC West ADC Sum Att

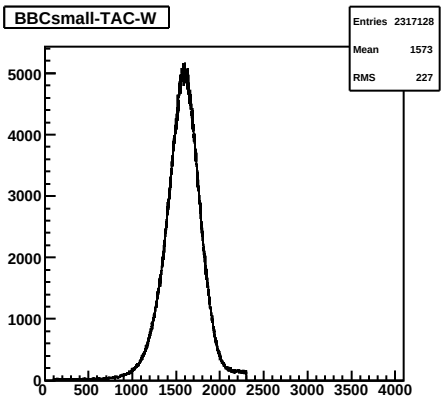

Entries 2499999
BBC-L TAC Diff
BCC-S TAC Diff
Entries 2499999
BBC-L TAC Diff
VPD TAC Diff
Entries 2499999
BBC-L TAC Diff
ZDC TAC Diff
Entries 2499999
BBC-S TAC Diff
VPD TAC Diff
Entries 2499999
BBC-S TAC Diff
ZDC TAC Diff
Entries 2499999
VPD TAC Diff
ZDC TAC Diff

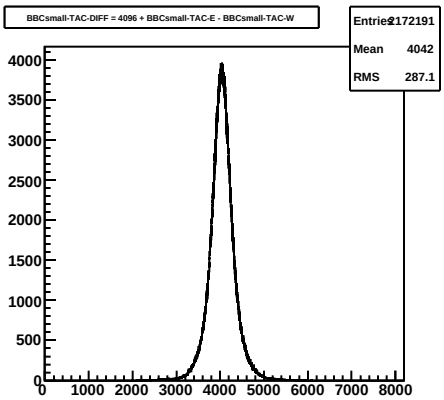

ZDC-TAC-E
Entries 96992
Mean 245.7
RMS 31.16

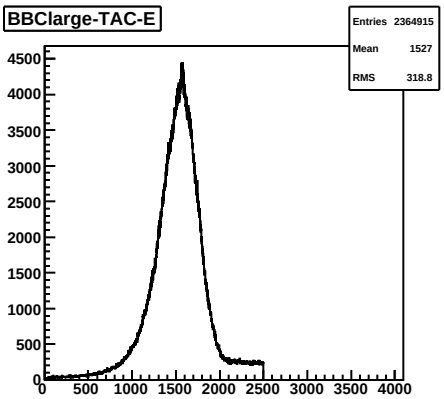

ZDC-TAC-W
Entries 78666
Mean 220.8
RMS 34.47

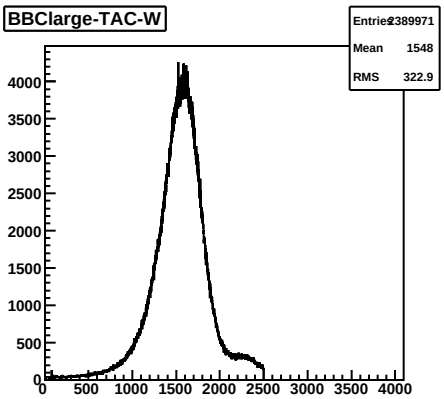

ZDC-TAC-DIFF = 1024 + ZDC-TAC-E - ZDC-TAC-W
Entries 6498
Mean 523.5
RMS 20.87

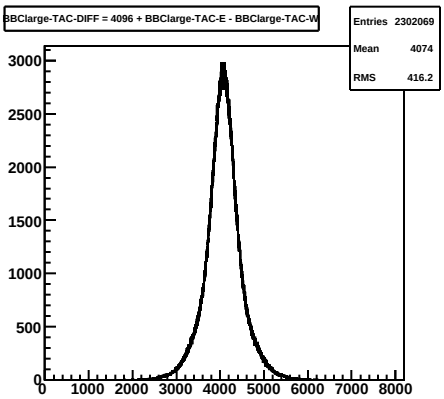

BBCsmall-TAC-E
Entries 2287307
Mean 1520
RMS 218.4

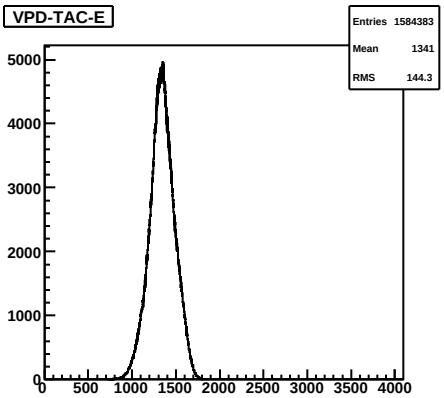

BBCsmall-TAC-W
Entries 2317128
Mean 1573
RMS 227

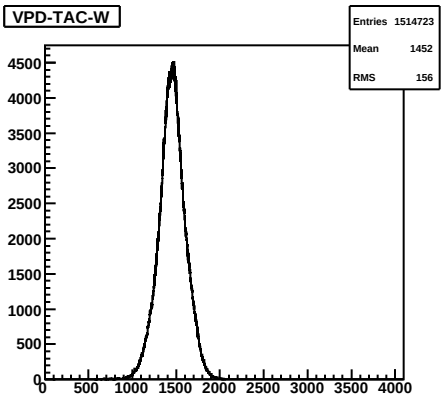

BBCsmall-TAC-DIFF = 4096 + BBCsmall-TAC-E - BBCsmall-TAC-W
Entries 2172191
Mean 4042
RMS 287.1

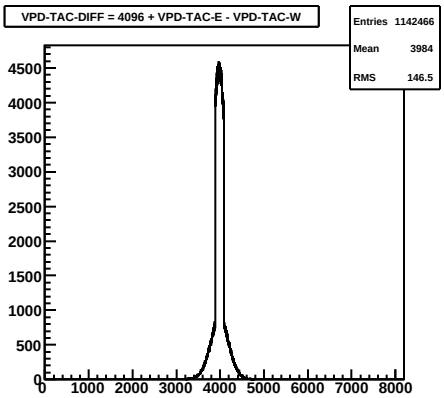

BBClarge-TAC-E
Entries 2364915
Mean 1527
RMS 318.8

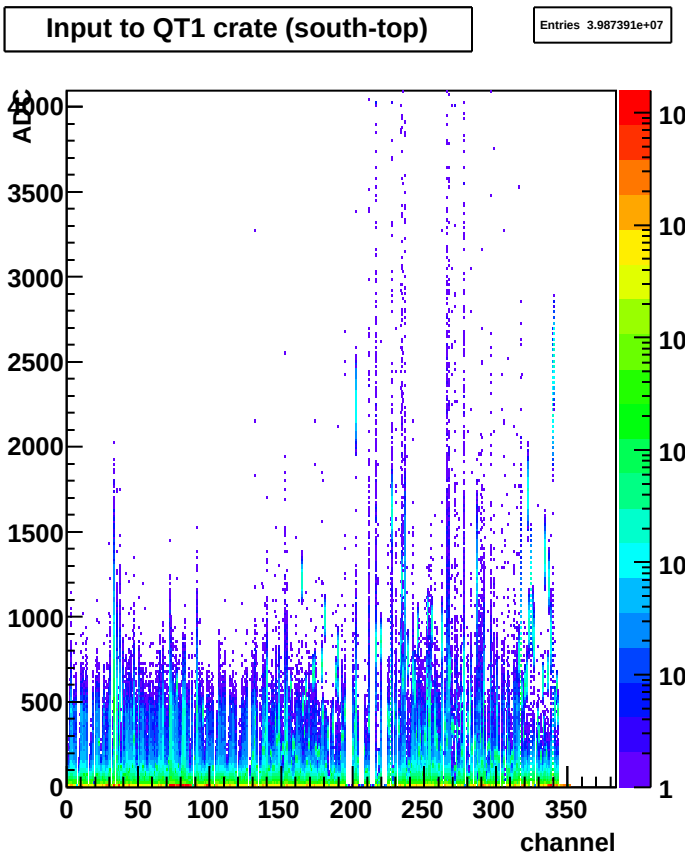

BBClarge-TAC-W
Entries 2389971
Mean 1548
RMS 322.9

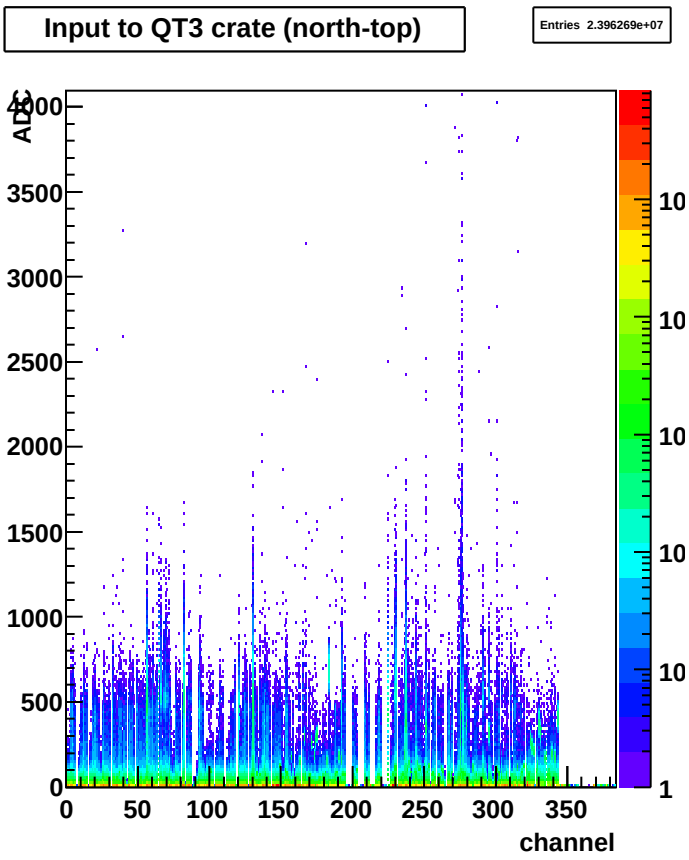

BBClarge-TAC-DIFF = 4096 + BBClarge-TAC-E - BBClarge-TAC-W
Entries 2302069
Mean 4074
RMS 416.2

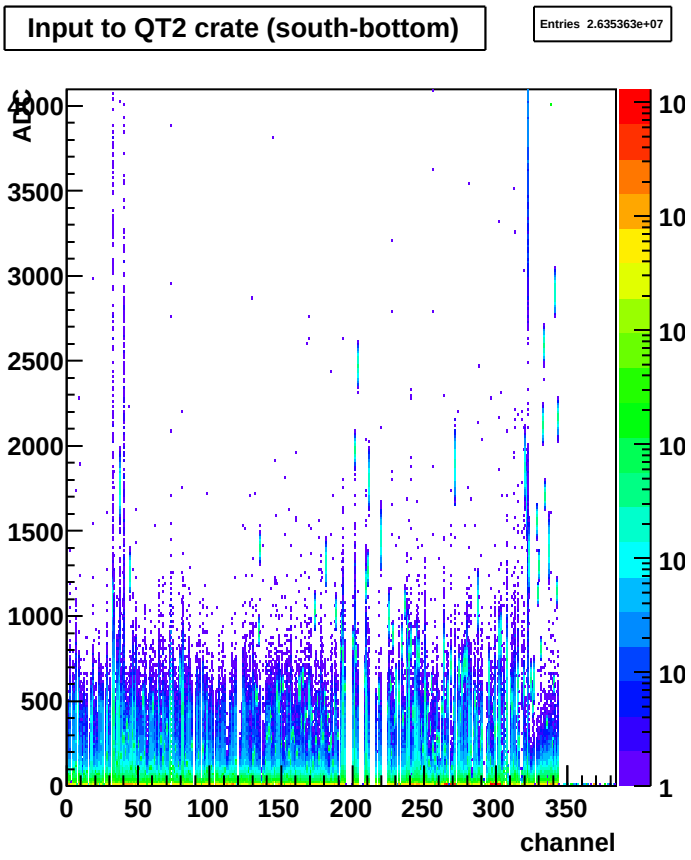

VPD-TAC-E
Entries 1584383
Mean 1341
RMS 144.3

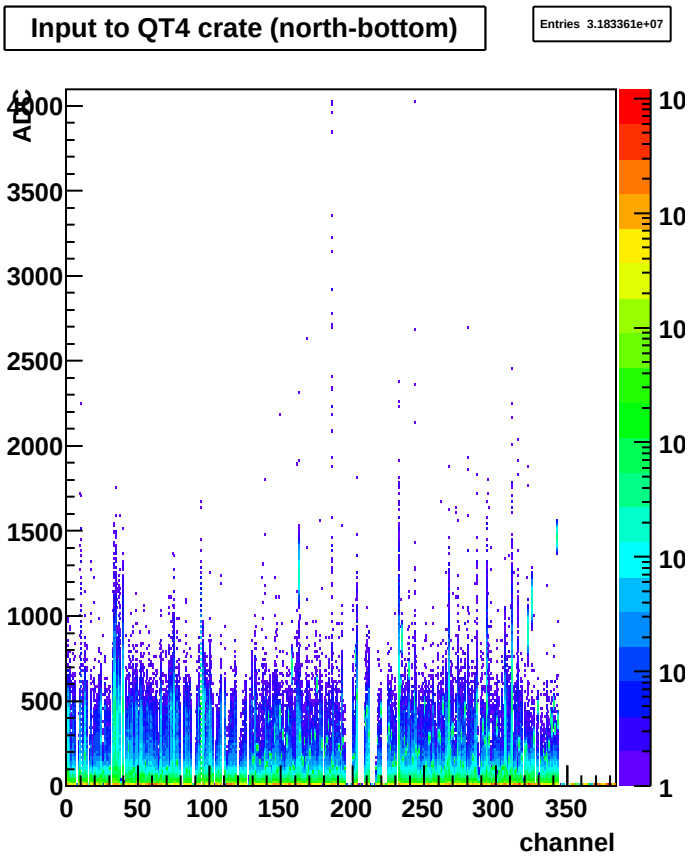

VPD-TAC-W
Entries 1514723
Mean 1452
RMS 156

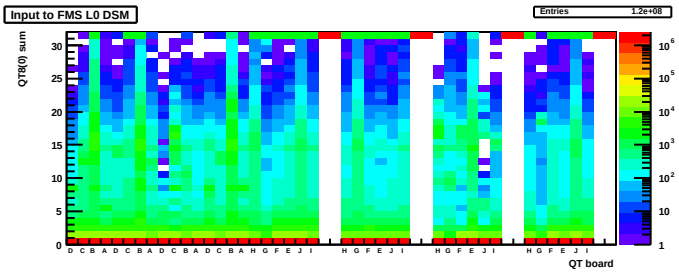

VPD-TAC-DIFF = 4096 + VPD-TAC-E - VPD-TAC-W
Entries 1142466
Mean 3984
RMS 146.5

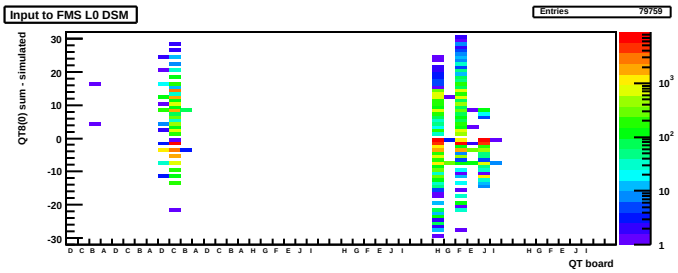

Input to QT1 crate (south-top)
Entries 3.987391e+07
ADC
channel

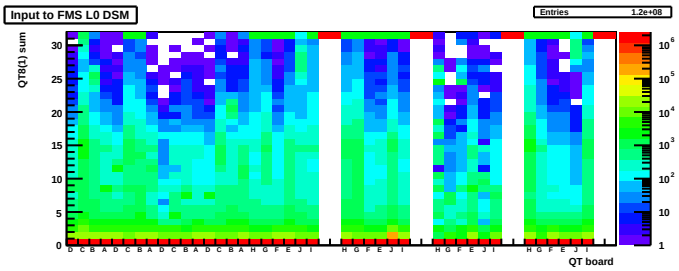

Input to QT3 crate (north-top)
Entries 2.396269e+07
ADC
channel

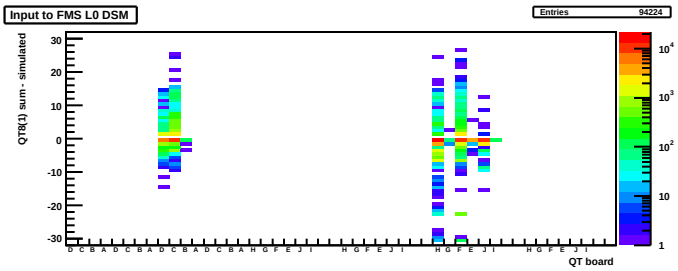

Input to QT2 crate (south-bottom)
Entries 2.635363e+07
ADC
channel

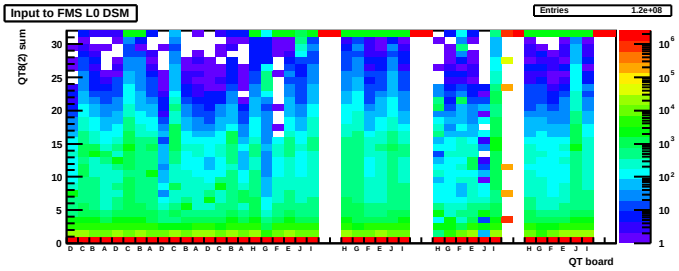

Input to QT4 crate (north-bottom)
Entries 3.183361e+07
ADC
channel

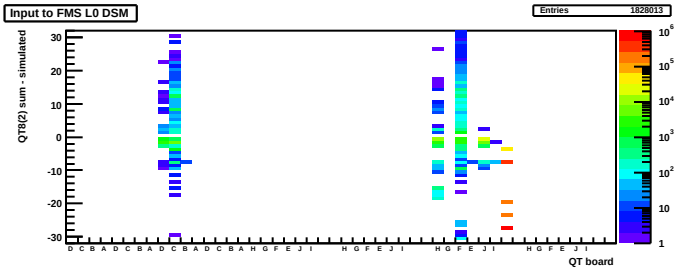

Input to FMS L0 DSM
Entries 1.2e+08
QT8(0) sum
QT board

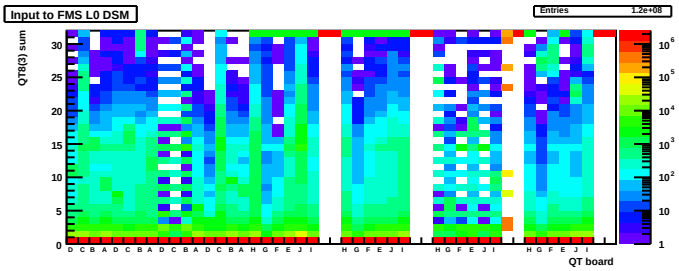

Input to FMS L0 DSM
Entries 79759
QT8(0) sum - simulated
QT board

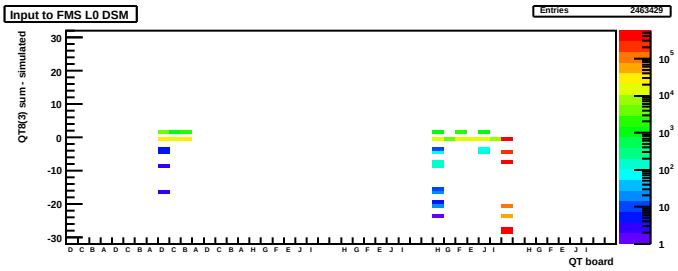

Input to FMS L0 DSM
Entries 1.2e+08
QT8(1) sum
QT board

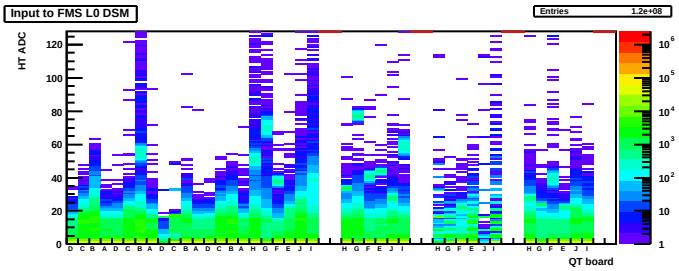

Input to FMS L0 DSM
Entries 94224
QT8(1) sum - simulated
QT board

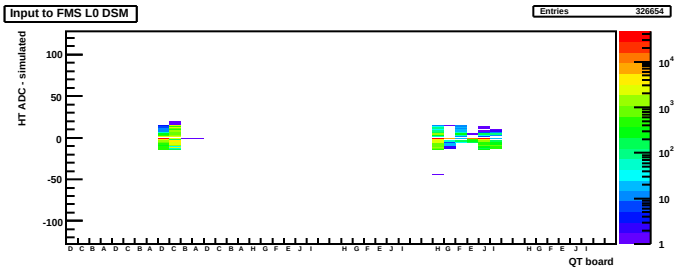

Input to FMS L0 DSM
Entries 1.2e+08
QT8(2) sum
QT board

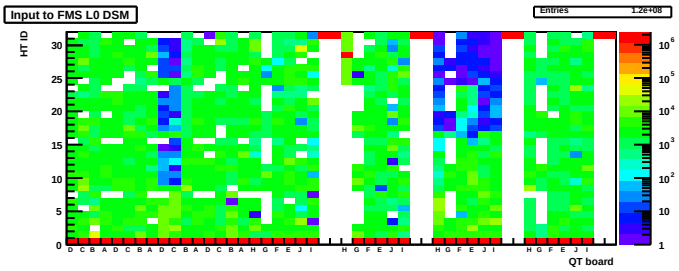

Input to FMS L0 DSM
Entries 1828013
QT8(2) sum - simulated
QT board

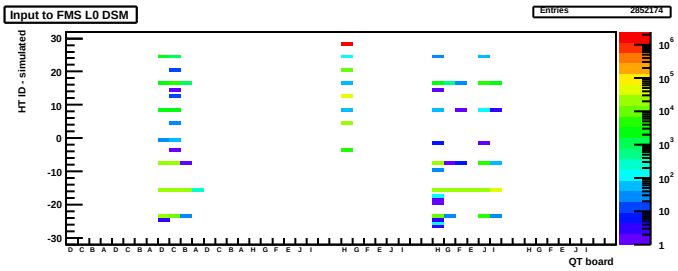

Input to FMS L0 DSM
Entries 1.2e+08
QT8(3) sum
QT board

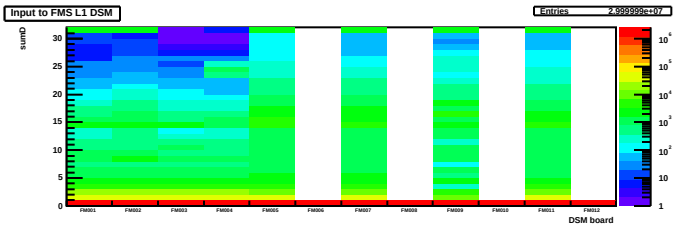

Input to FMS L0 DSM
Entries 2463429
QT8(3) sum - simulated
QT board

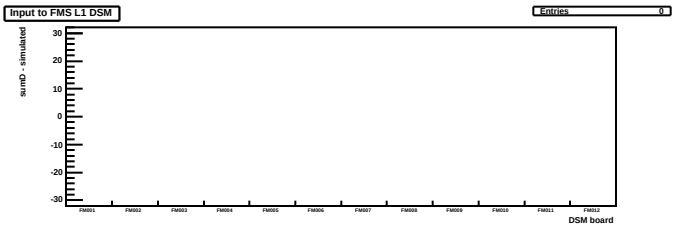

Input to FMS L0 DSM
Entries 1.2e+08
HT ADC
QT board

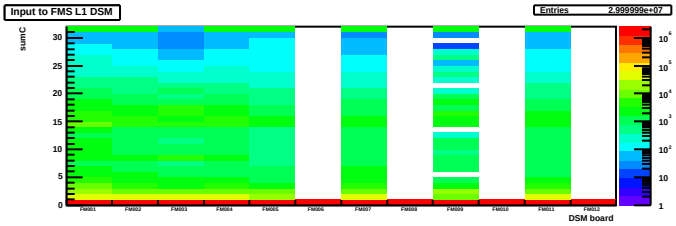

Input to FMS L0 DSM
Entries 326654
HT ADC - simulated
QT board

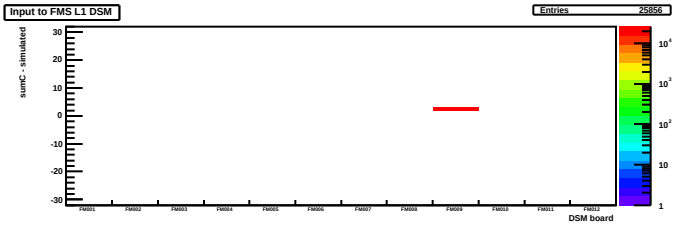

Input to FMS L0 DSM
Entries 1.2e+08
HT ID
QT board

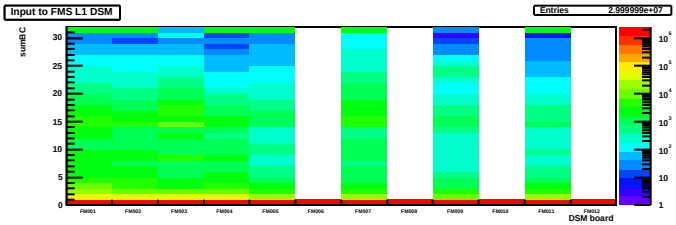

Input to FMS L0 DSM
Entries 2852174
HT ID - simulated
QT board

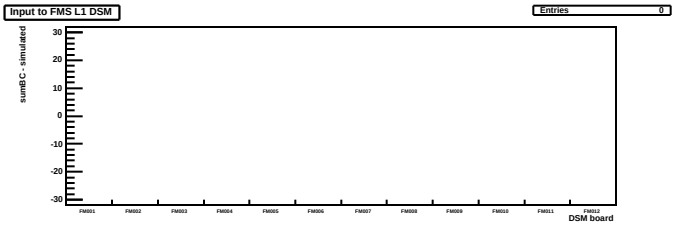

Input to FMS L1 DSM
Entries 2.999999e+07
sumD
DSM board

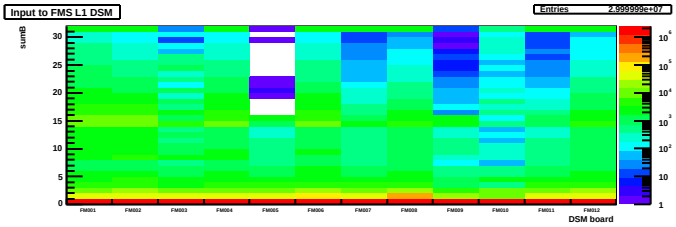

Input to FMS L1 DSM
Entries 0
sumD - simulated
DSM board

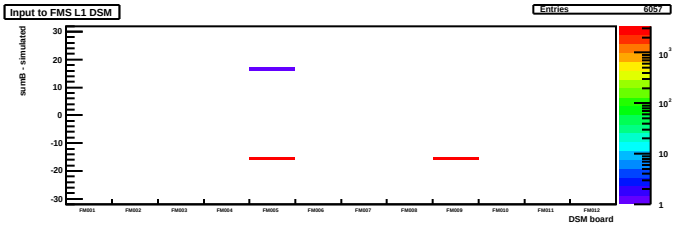

Input to FMS L1 DSM
Entries 2.999999e+07
sumC
DSM board

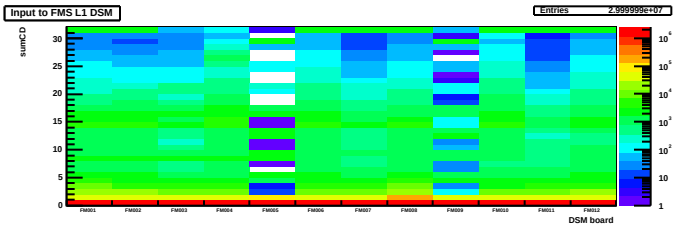

Input to FMS L1 DSM
Entries 25856
sumC - simulated
DSM board

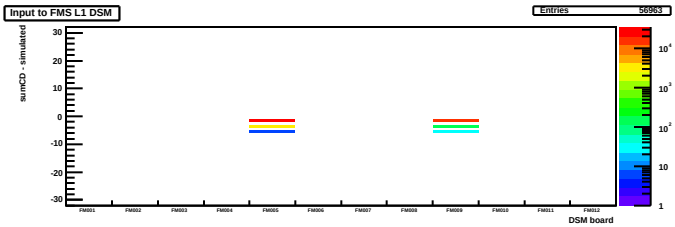

Input to FMS L1 DSM
Entries 2.999999e+07
sumBC
DSM board

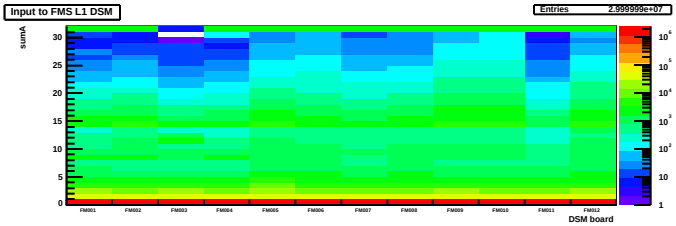

Input to FMS L1 DSM
Entries 0
sumBC - simulated
DSM board

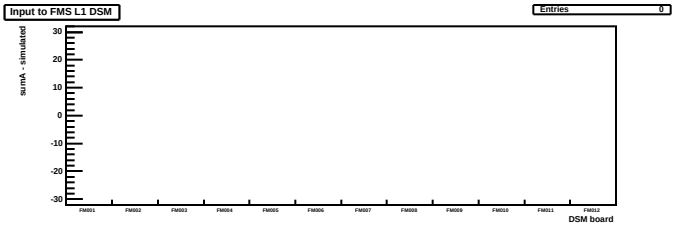

Input to FMS L1 DSM
Entries 2.999999e+07
sumB
DSM board

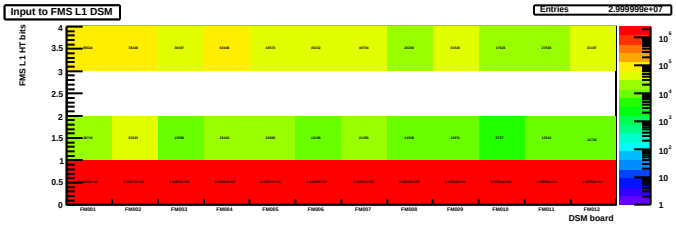

Input to FMS L1 DSM
Entries 6057
sumB - simulated
DSM board

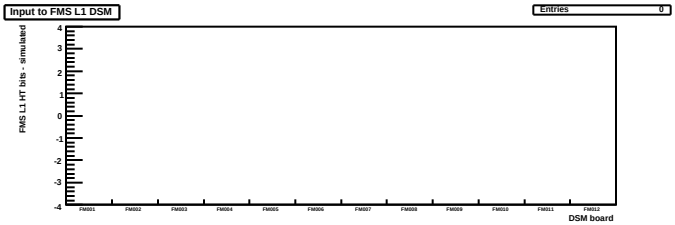

Input to FMS L1 DSM
Entries 2.999999e+07
sumCD
DSM board

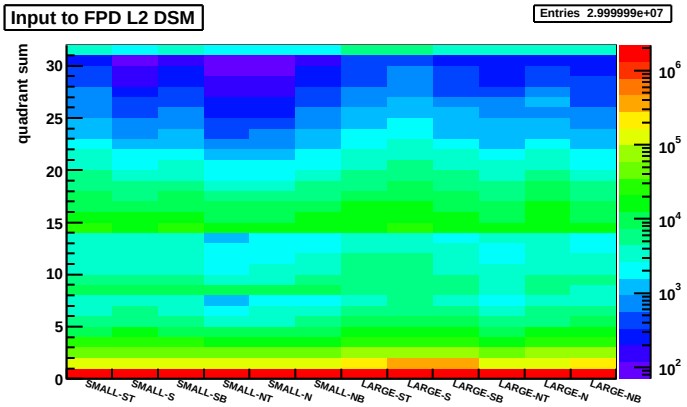

Input to FMS L1 DSM
Entries 56963
sumCD - simulated
DSM board

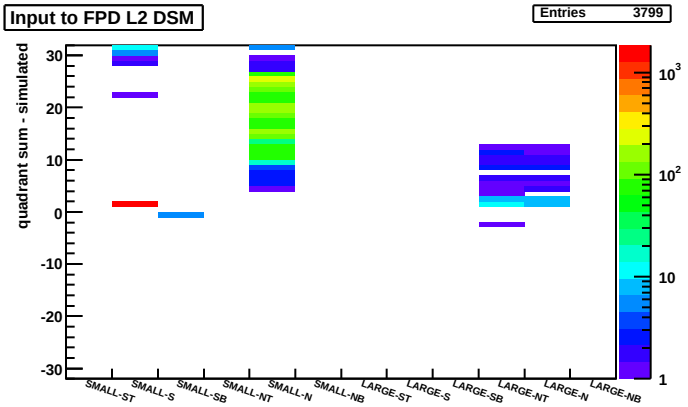

Input to FMS L1 DSM
Entries 2.999999e+07
sumA
DSM board

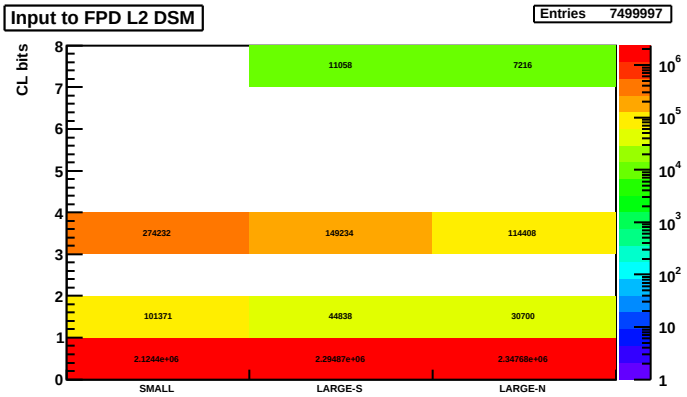

Input to FMS L1 DSM
Entries 0
sumA - simulated
DSM board

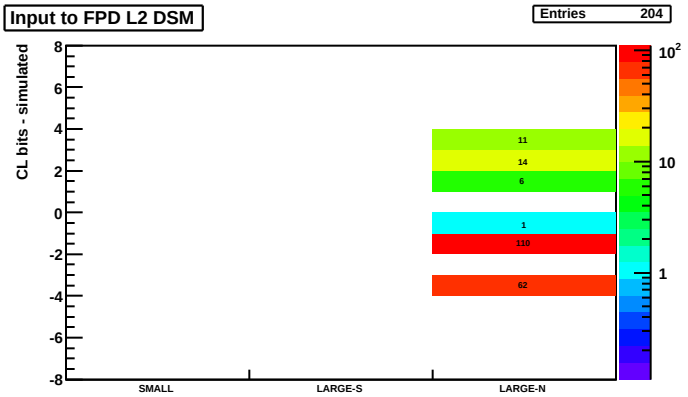

Input to FMS L1 DSM
Entries 2.999999e+07
FMS L1 HT bits
DSM board

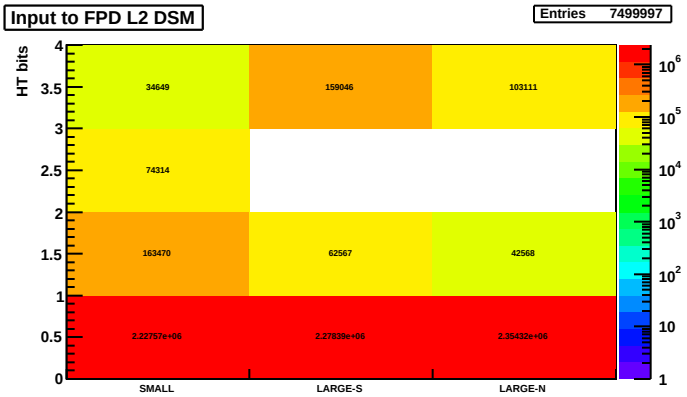

Input to FMS L1 DSM
Entries 0
FMS L1 HT bits - simulated
DSM board

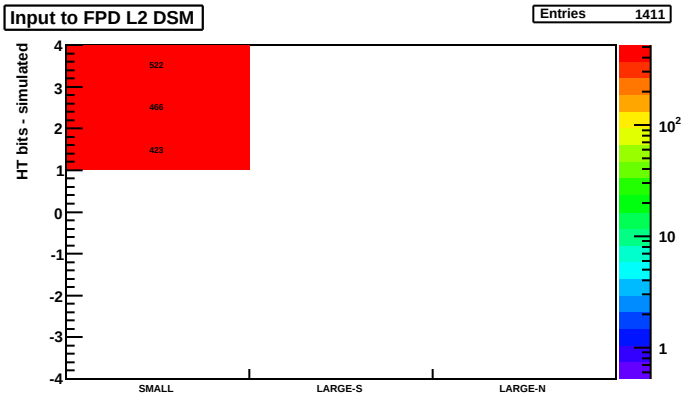

Input to FPD L2 DSM
Entries 2.999999e+07
quadrant sum
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

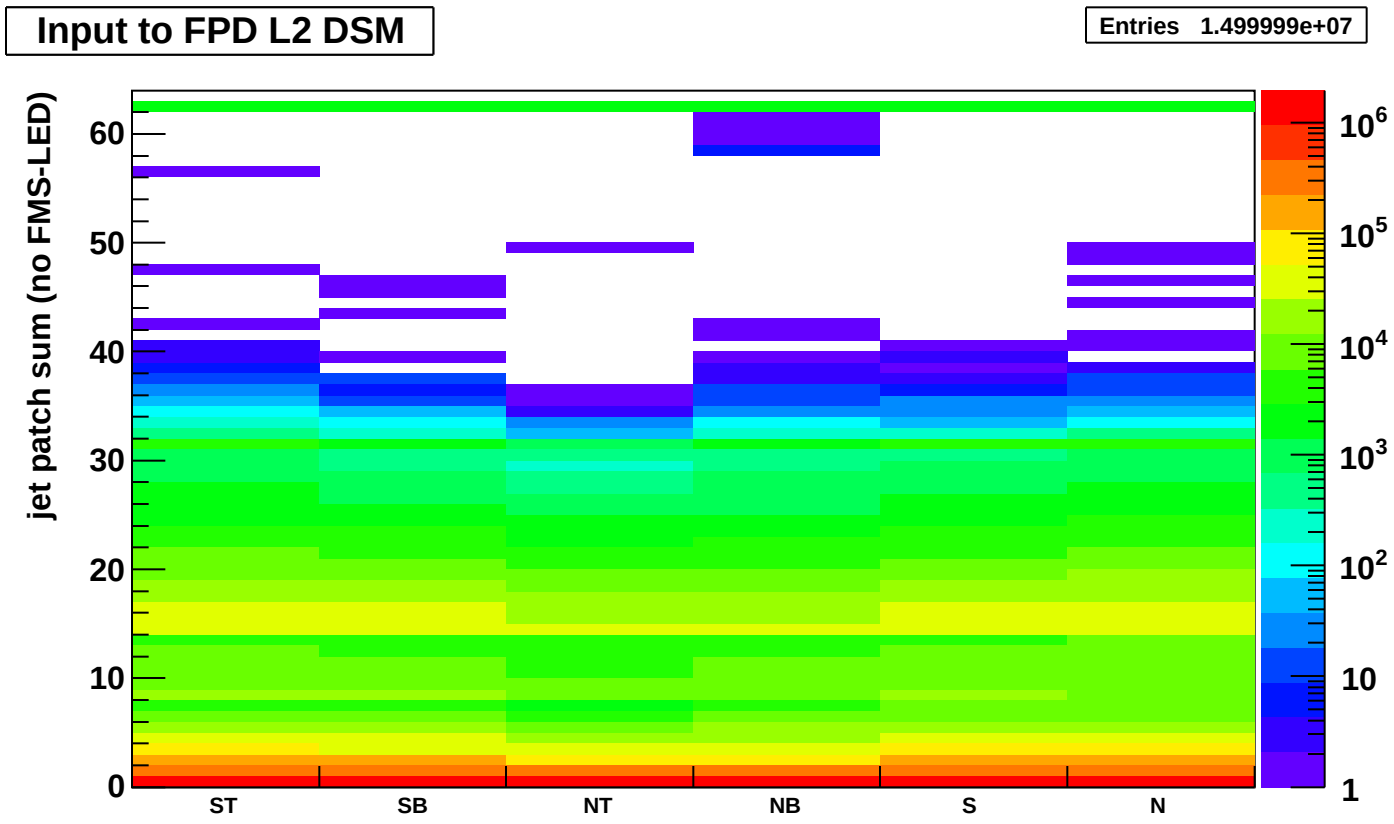

Input to FPD L2 DSM
Entries 3799
quadrant sum - simulated
SMALL-ST
SMALL-S
SMALL-SB
SMALL-NT
SMALL-N
SMALL-NB
LARGE-ST
LARGE-S
LARGE-SB
LARGE-NT
LARGE-N
LARGE-NB

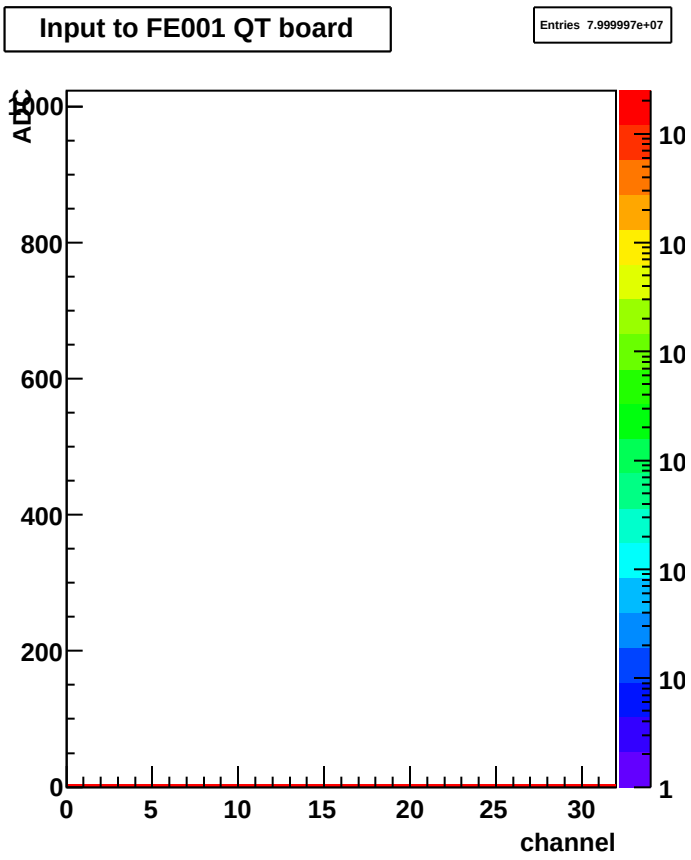

Input to FPD L2 DSM
Entries 7499997
CL bits
11058
7216
274232
149234
114408
101371
44838
30700
2.1244e+06
2.29487e+06
2.34768e+06
SMALL
LARGE-S
LARGE-N

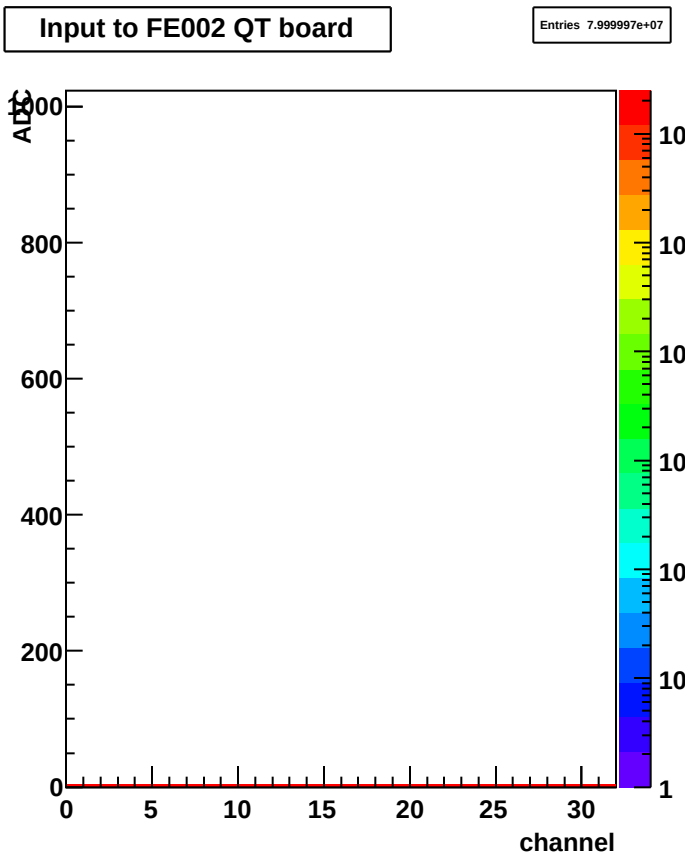

Input to FPD L2 DSM
Entries 204
CL bits - simulated
11
14
6
1
110
62
SMALL
LARGE-S
LARGE-N

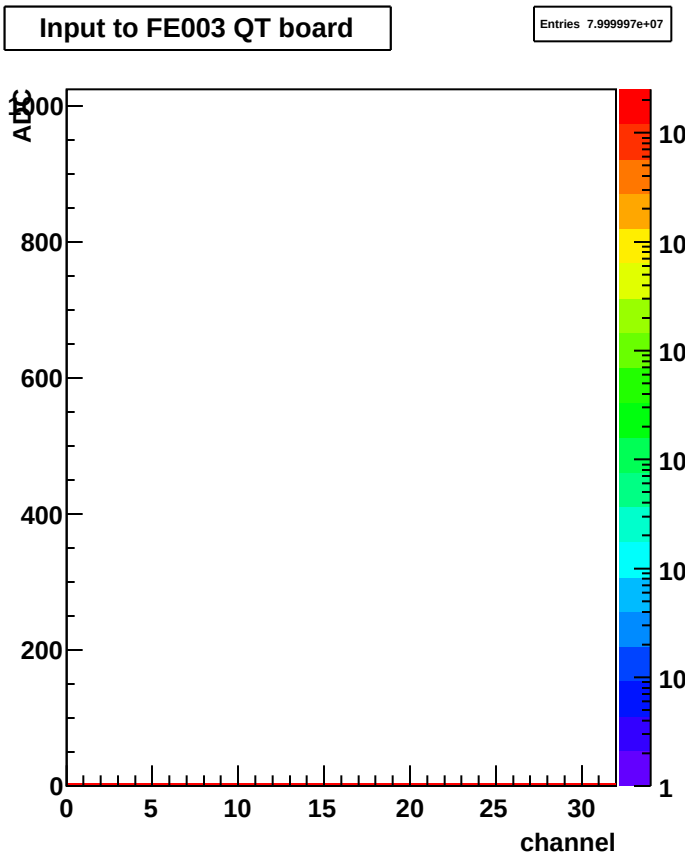

Input to FPD L2 DSM
Entries 7499997
HT bits
34649
159046
103111
74314
163470
62567
42568
2.22757e+06
2.27839e+06
2.35432e+06
SMALL
LARGE-S
LARGE-N

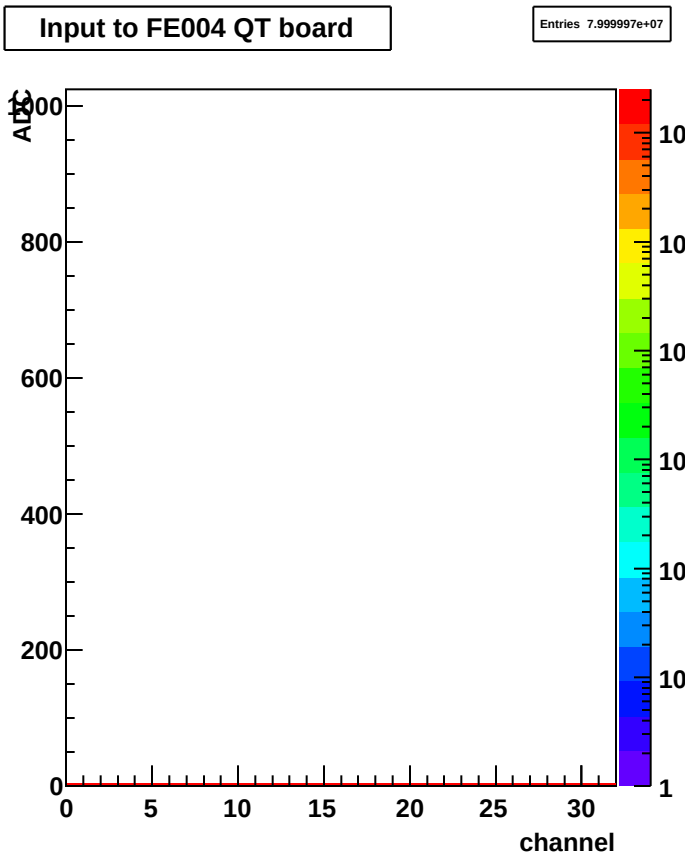

Input to FPD L2 DSM
Entries 1411
HT bits - simulated
522
466
423
SMALL
LARGE-S
LARGE-N

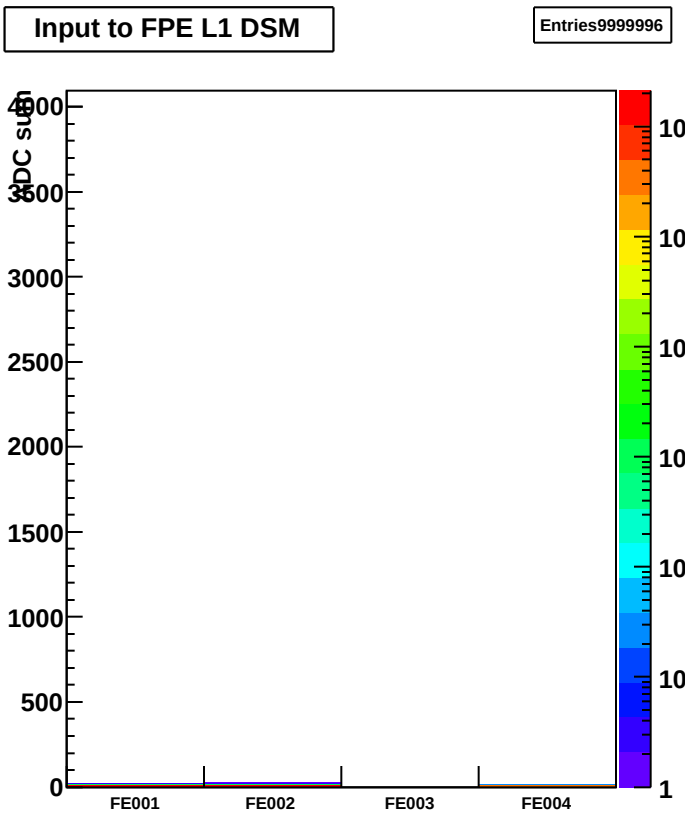

Input to FPD L2 DSM
Entries 1.499999e+07
jet patch sum (no FMS-LED)
0
10
20
30
40
50
60
ST
SB
NT
NB
S
N
1
10
10^2
10^3
10^4
10^5
10^6

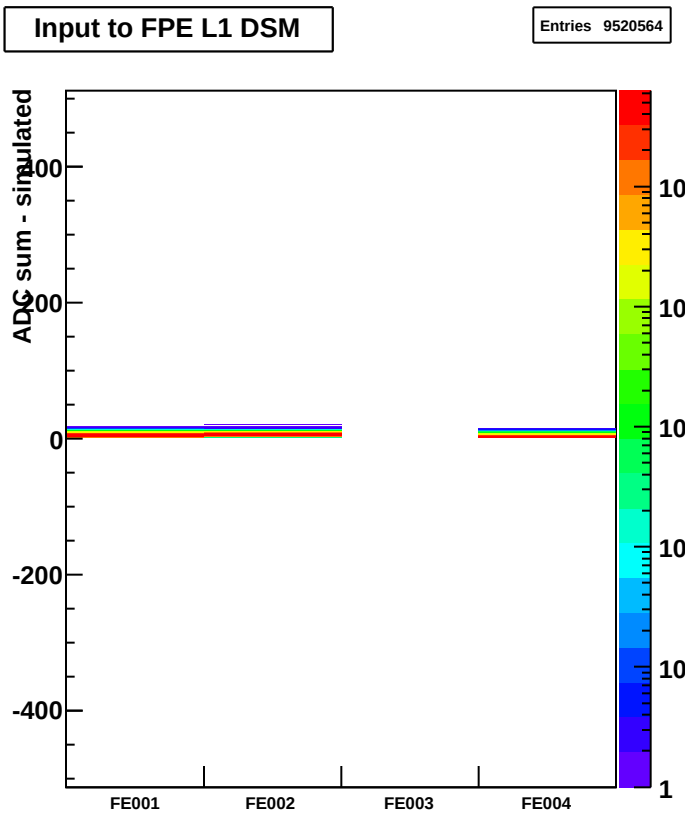

Input to FE001 QT board
Entries 7.999997e+07
ADC
channel

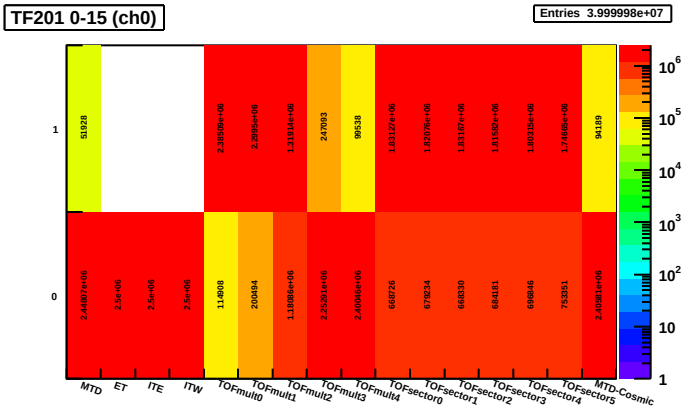

Input to FE002 QT board
Entries 7.999997e+07
ADC
channel


Input to FE003 QT board
Entries 7.999997e+07
ADC
channel


Input to FE004 QT board
Entries 7.999997e+07
ADC
channel


Input to FPE L1 DSM
Entries9999996
ADC sum
4000
3500
3000
2500
2000
1500
1000
500
0
FE001
FE002
FE003
FE004
10
10
10
10
10
10
1


Input to FPE L1 DSM
Entries 9520564
ADC sum - simulated
0
-200
-400
FE001
FE002
FE003
FE004
10
10
10
10
10
1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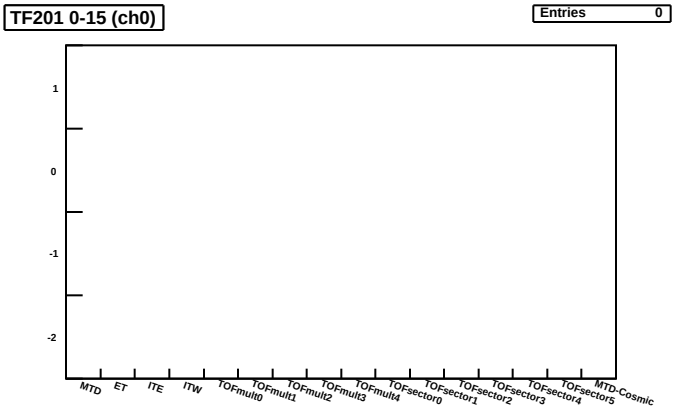
Entries 3.999998e+07
MTD ET ITE ITW TOFmult0 TOFmult1 TOFmult2 TOFmult3 TOFmult4 TOFsector0 TOFsector1 TOFsector2 TOFsector3 TOFsector4 TOFsector5 MTD-Cosmic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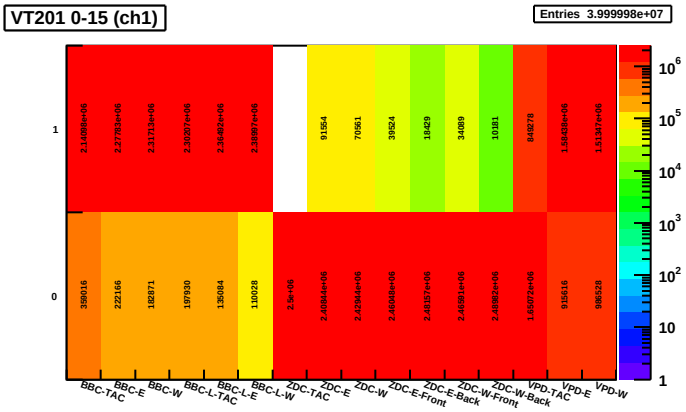
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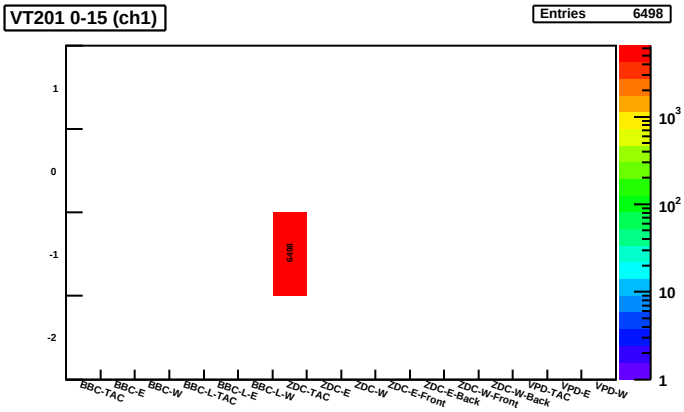
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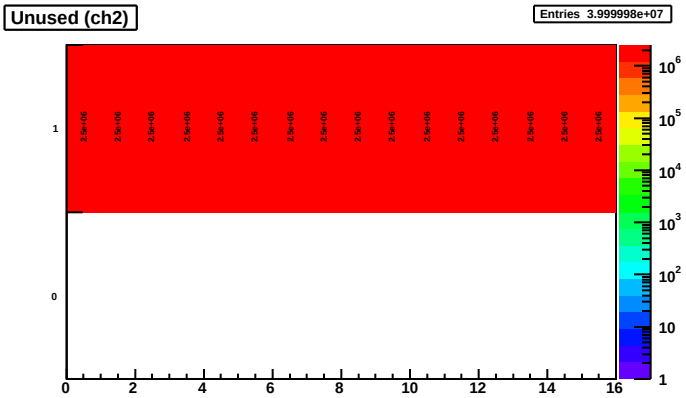
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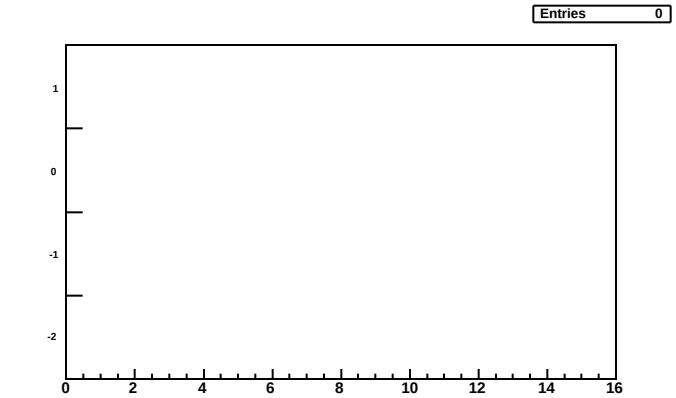
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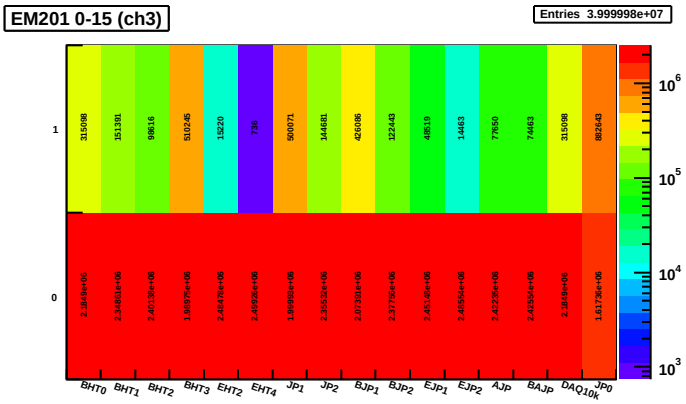
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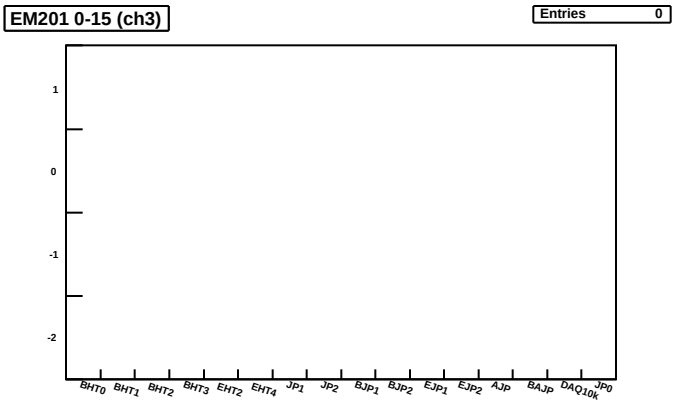
EM201 0-15 (ch3)
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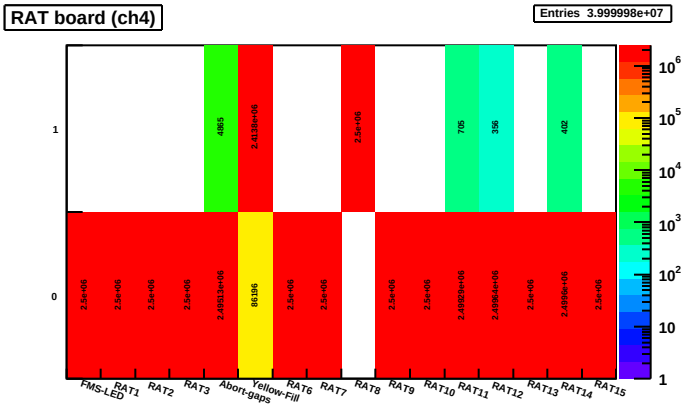
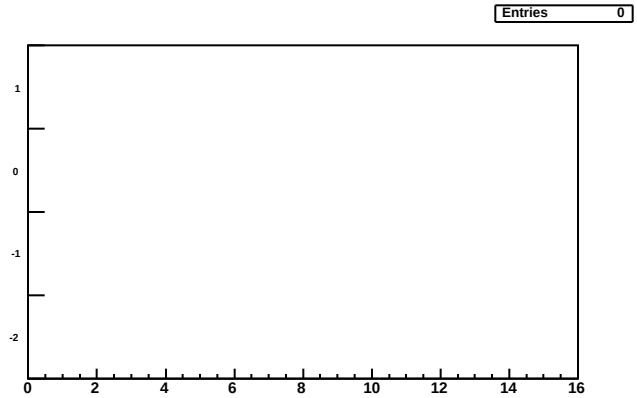
RAT board (ch4)





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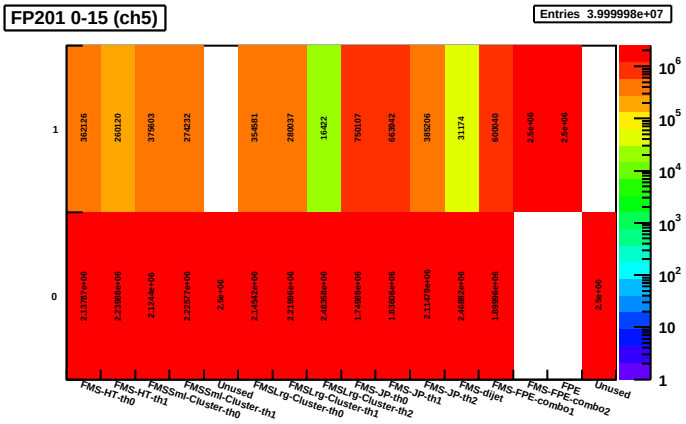

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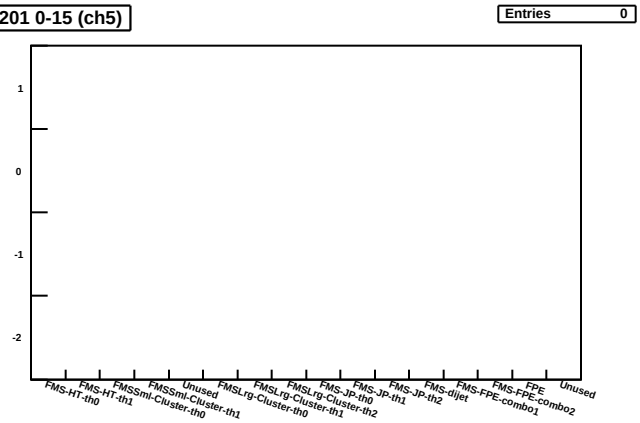
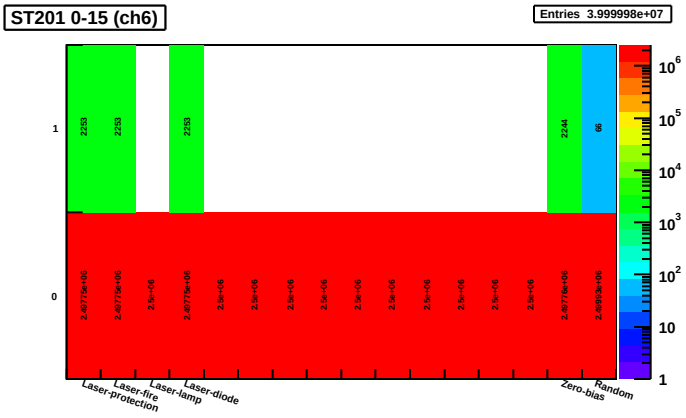
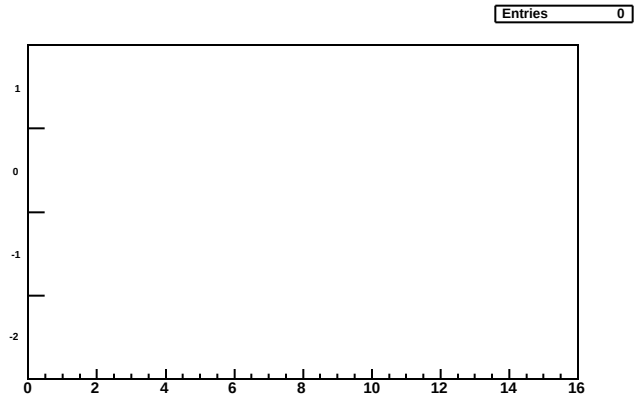
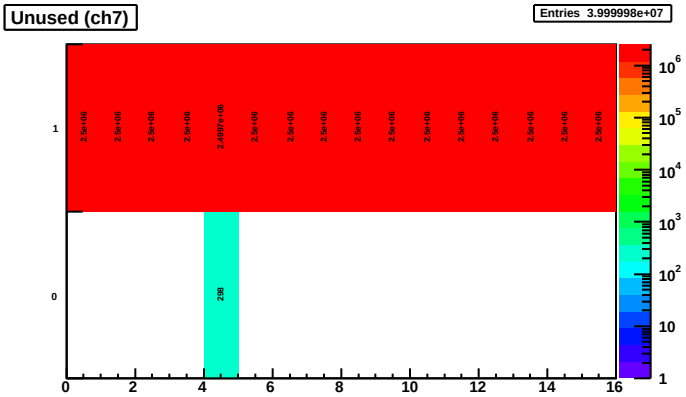
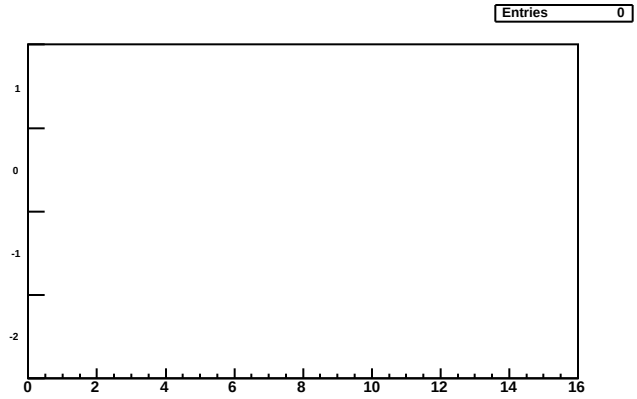


ST201 0-15 (ch6)





Unused (ch7)