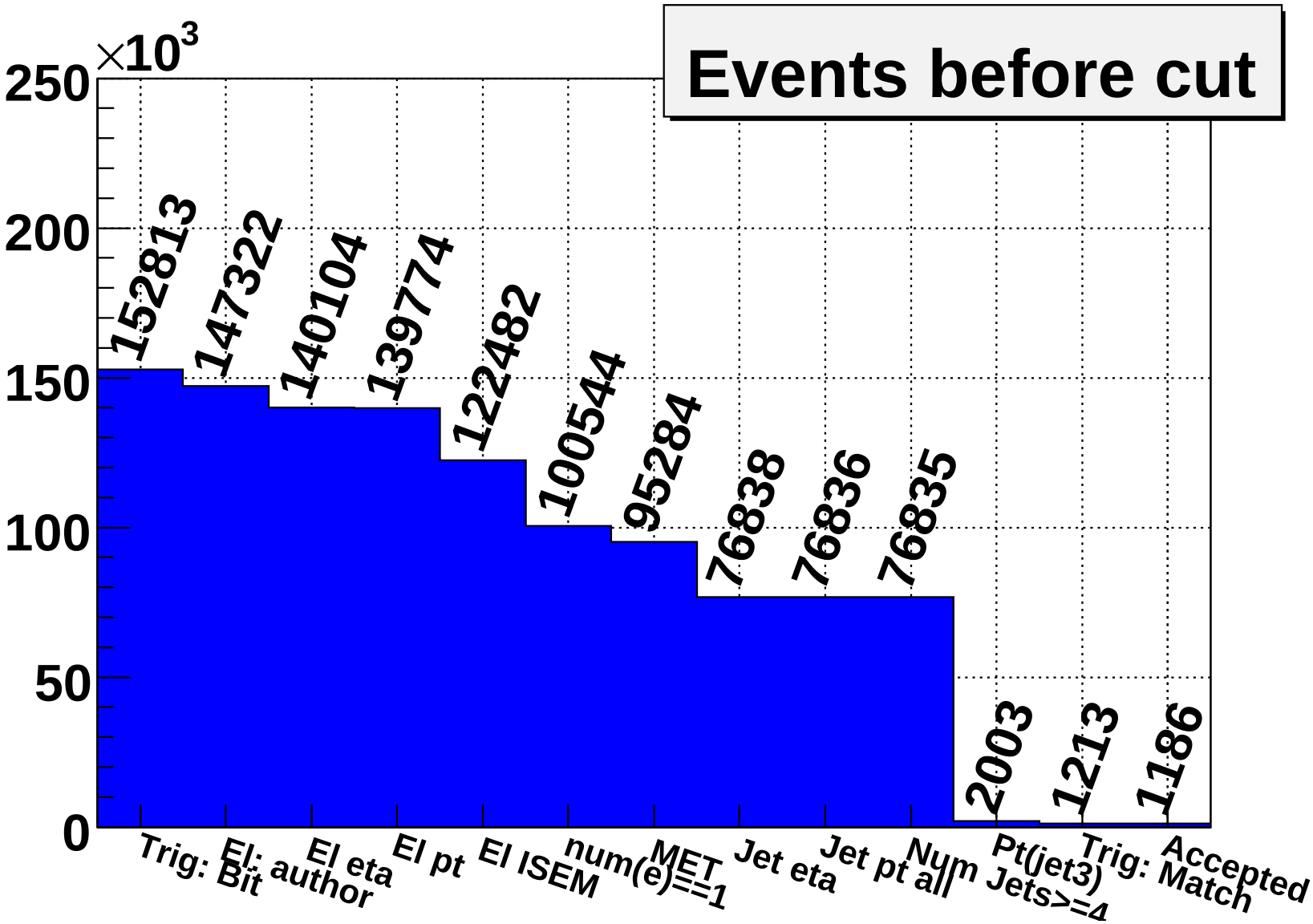
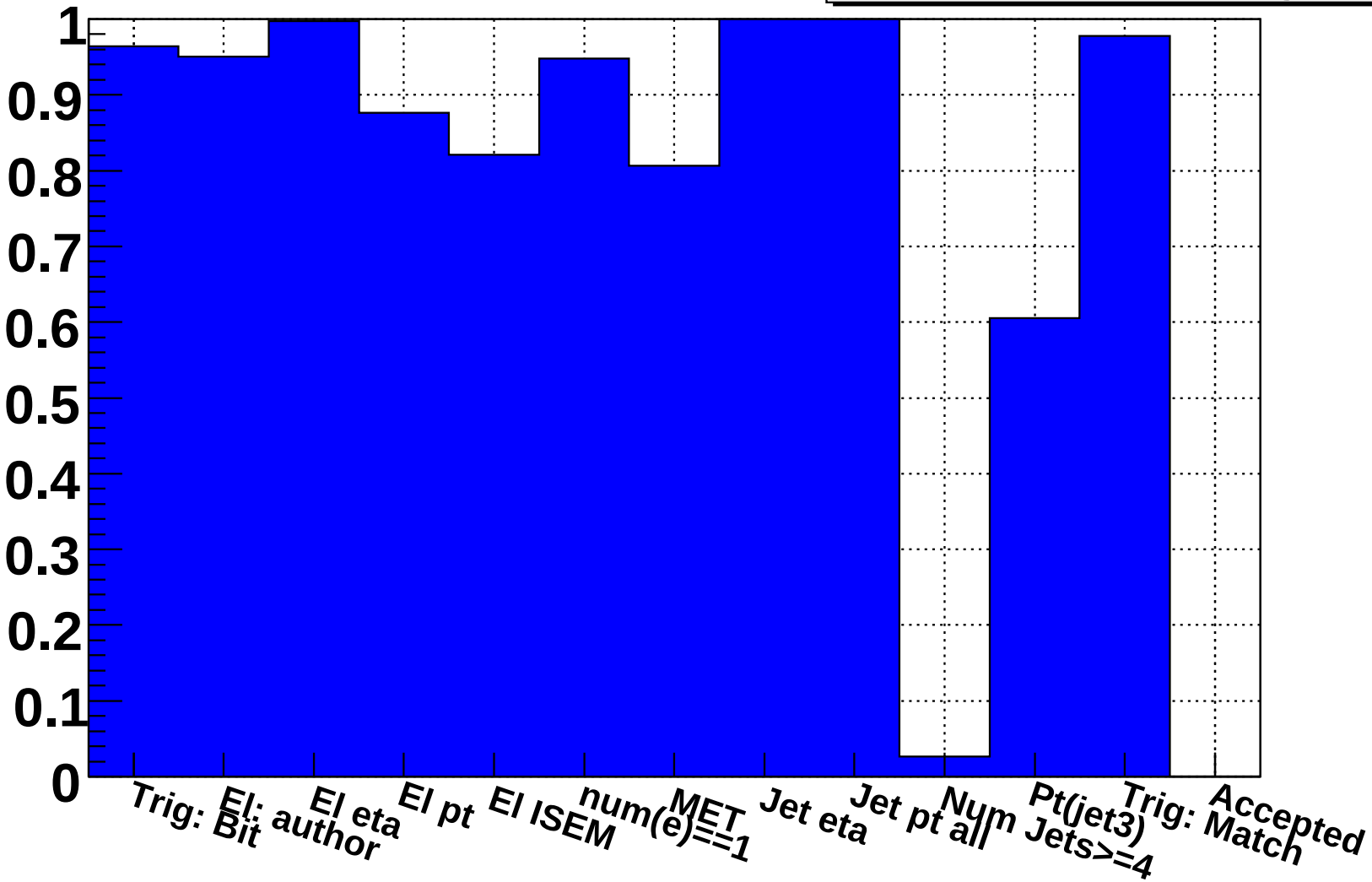
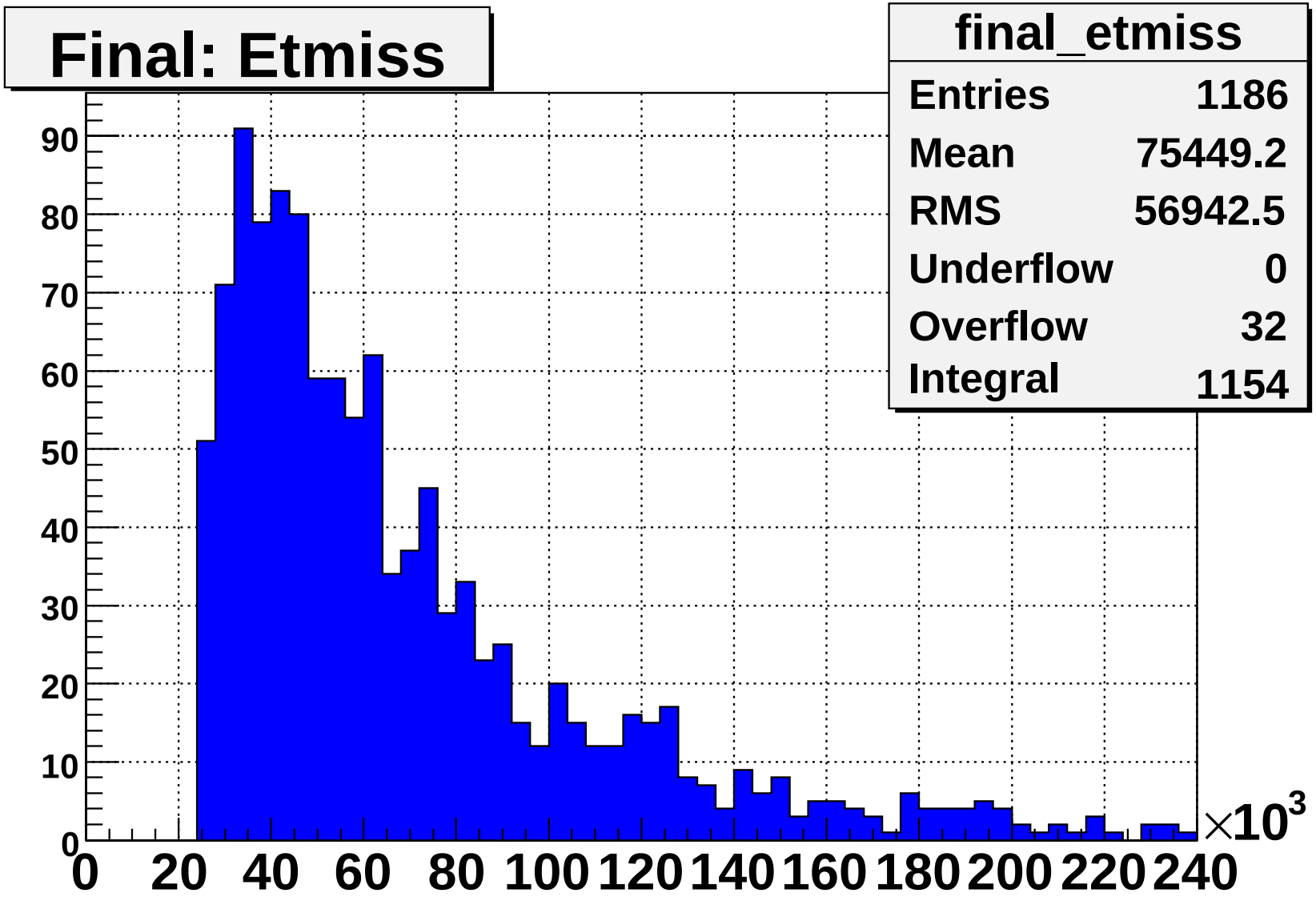
# Overview

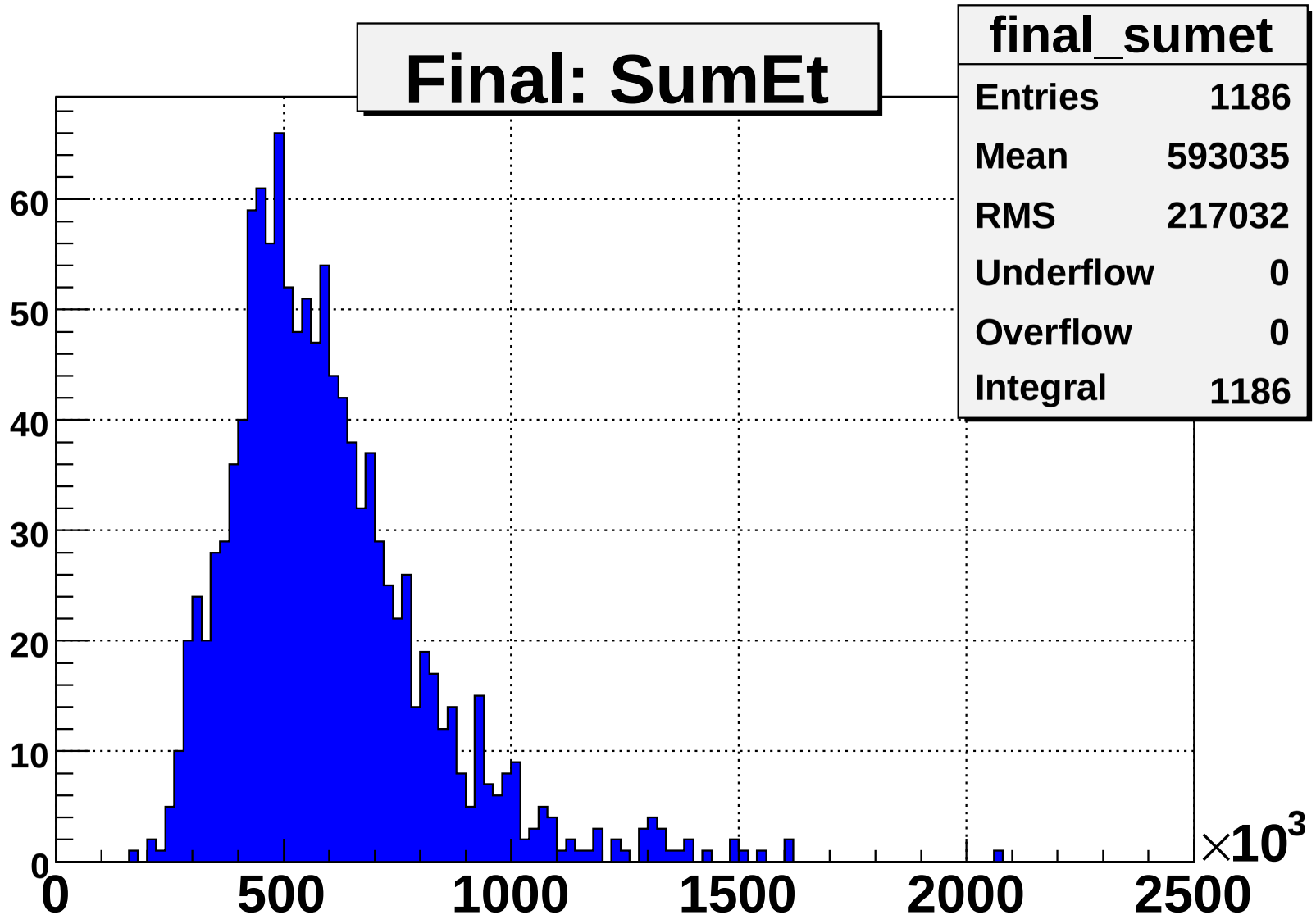
- Input data: inclusive electron stream.
- Analysis: the usual "commissioning" one, (3 jets with the highest $\sum \vec{p_T}$ make the hadronic top).
- Cuts:
  - Trigger: `L2_e25i`
  - Electrons: author=egamma, `isEM&0x7FF`, 25 GeV, $|\eta| < 2.5$, no crack cuts.
  - Missing Et $> 25$ GeV.
  - Jets: $3 \times 40$ GeV $+ 1 \times 20$ GeV, $|\eta| < 2.5$.
  - Matching of reco to trigger electron.

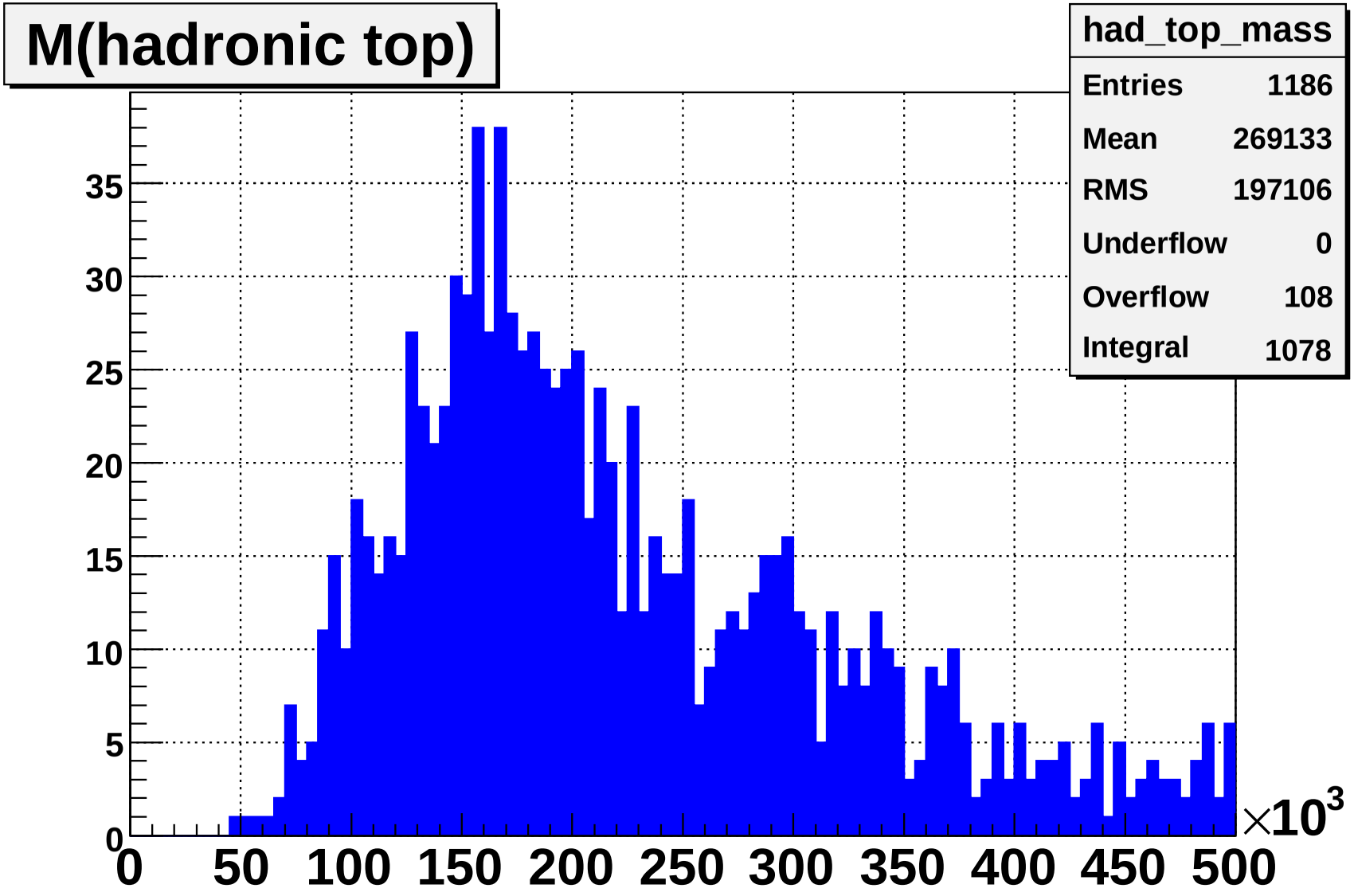

Events before cut
×10^3
250
200
150
100
50
0
152813
147322
140104
139774
122482
100544
95284
76838
76836
76835
2003
1213
1186
Trig: Bit
El: author
El eta
El pt
El ISEM
num(e)==1
MET
Jet eta
Jet pt all
Num Jets>=4
Pt(jet3)
Trig: Match
Accepted

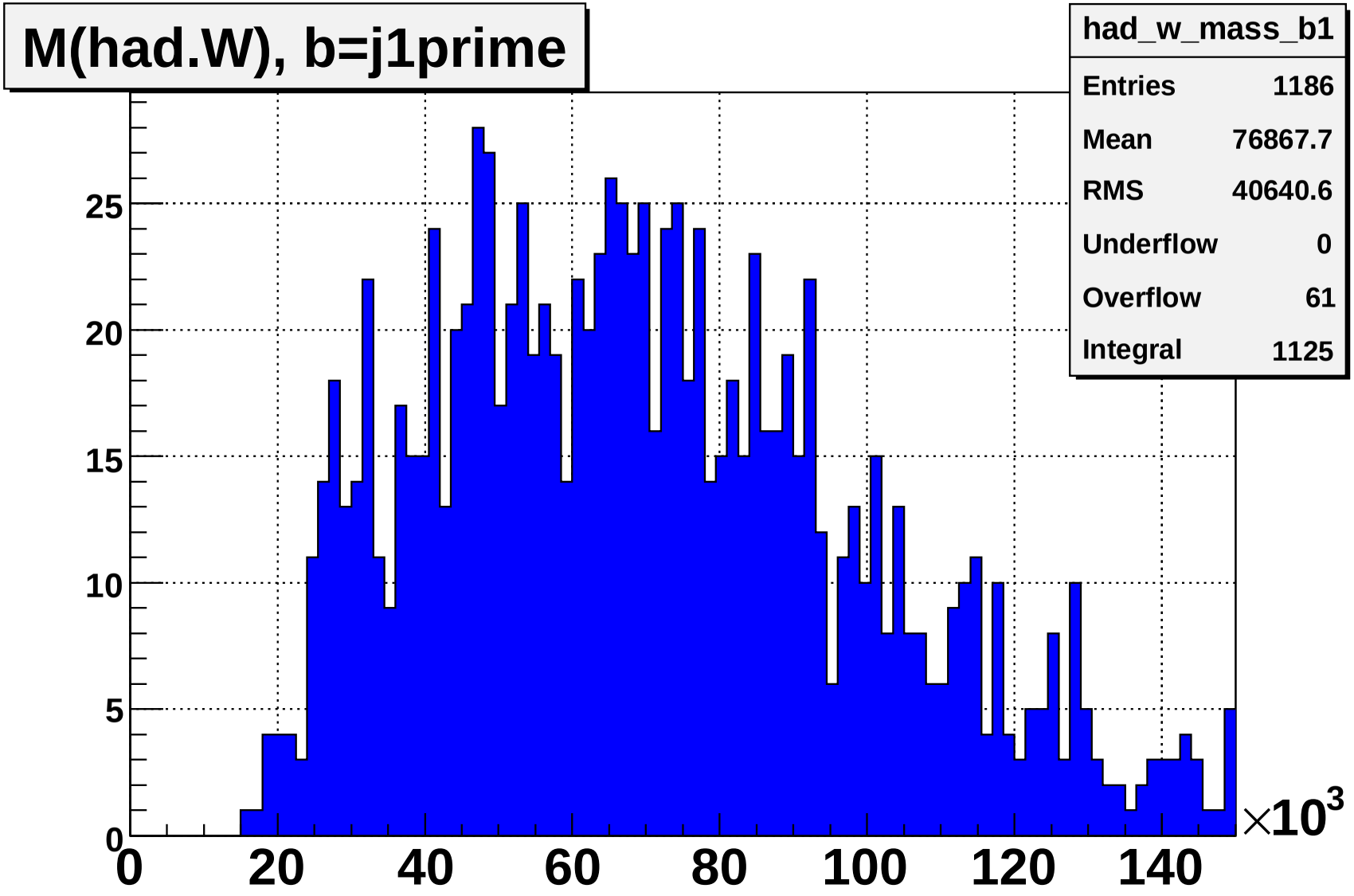
# Cut efficiency



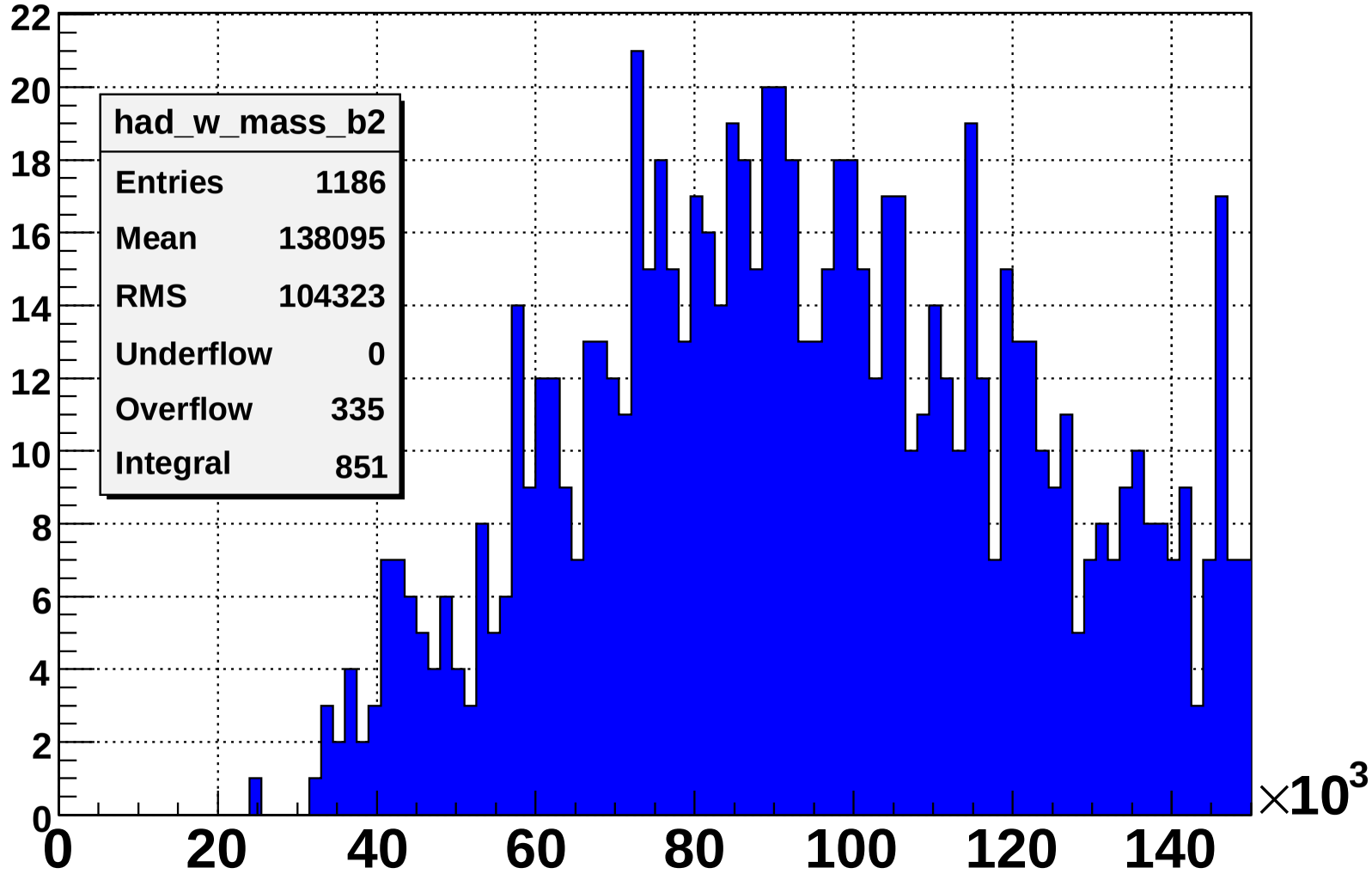

Final: Etmiss
final_etmiss
Entries 1186
Mean 75449.2
RMS 56942.5
Underflow 0
Overflow 32
Integral 1154
0
10
20
30
40
50
60
70
80
90
0 20 40 60 80 100 120 140 160 180 200 220 240
×10^3


Final: SumEt
final_sumet
Entries 1186
Mean 593035
RMS 217032
Underflow 0
Overflow 0
Integral 1186
0
10
20
30
40
50
60
0
500
1000
1500
2000
2500
×10^3

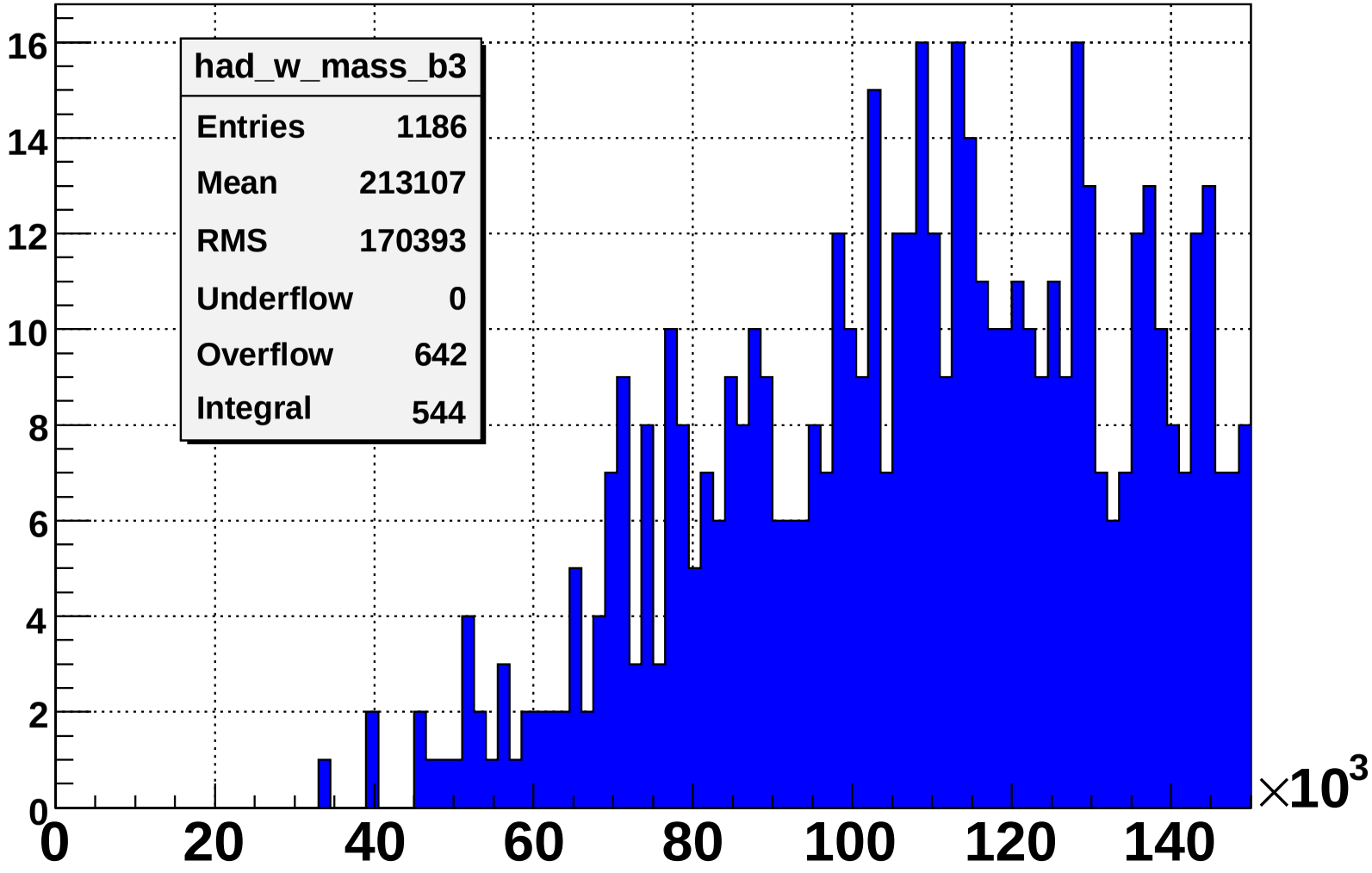

M(hadronic top)
had_top_mass
Entries 1186
Mean 269133
RMS 197106
Underflow 0
Overflow 108
Integral 1078
0
5
10
15
20
25
30
35
0
50
100
150
200
250
300
350
400
450
500
×10^3

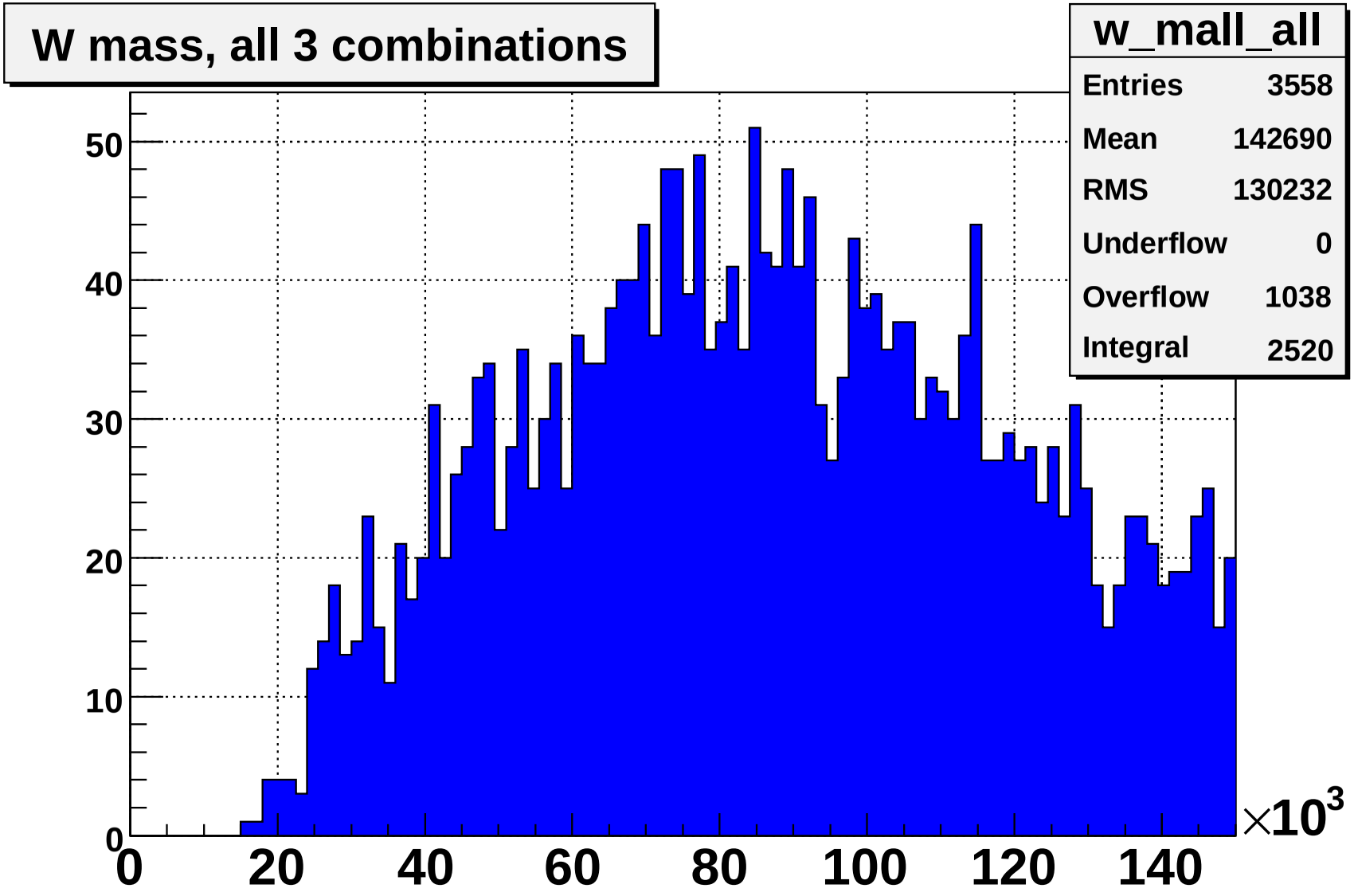

M(had.W), b=j1prime
had_w_mass_b1
Entries 1186
Mean 76867.7
RMS 40640.6
Underflow 0
Overflow 61
Integral 1125
0
5
10
15
20
25
0
20
40
60
80
100
120
140
×10^3

# M(had.W), b=j2prime

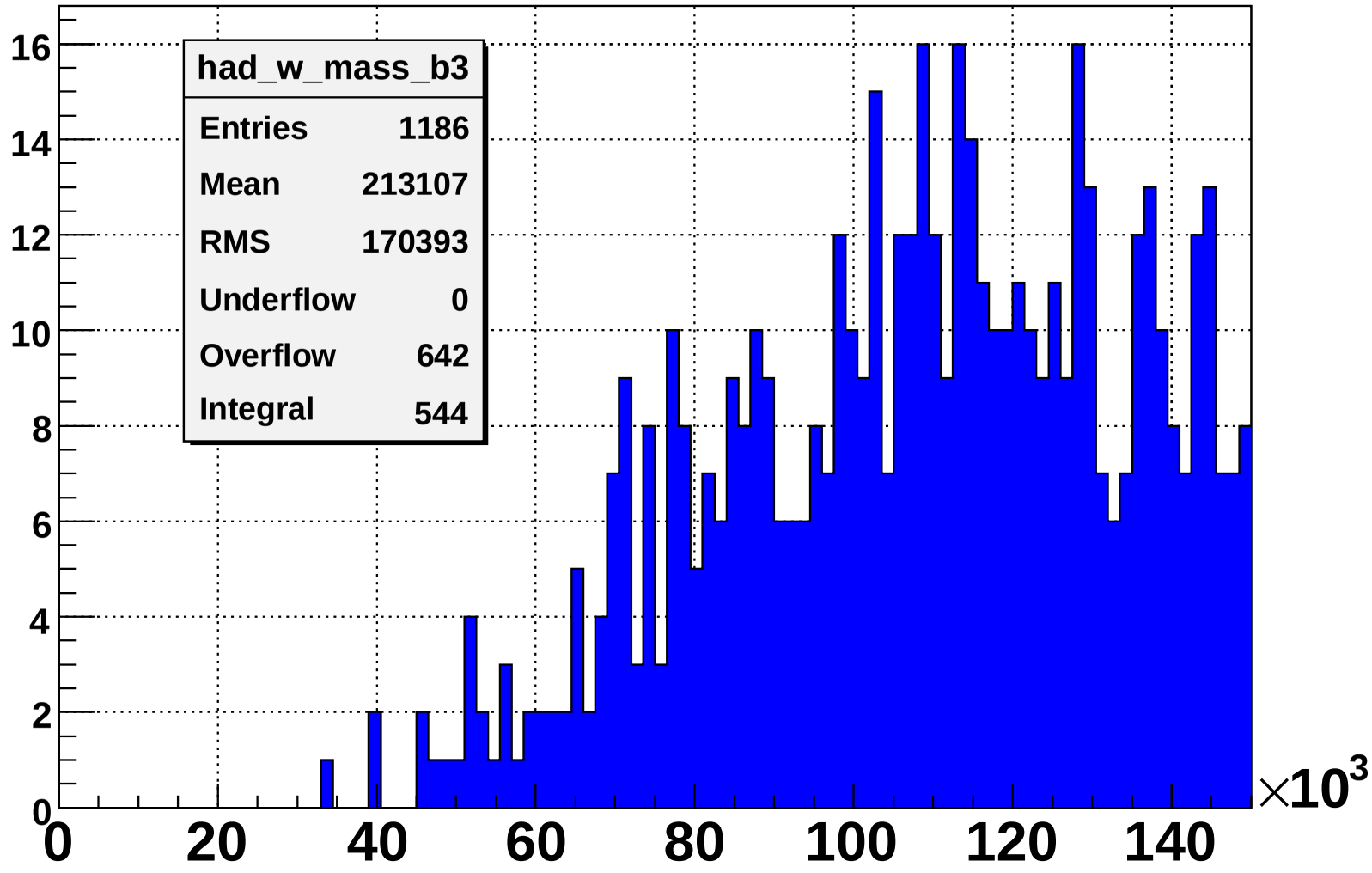


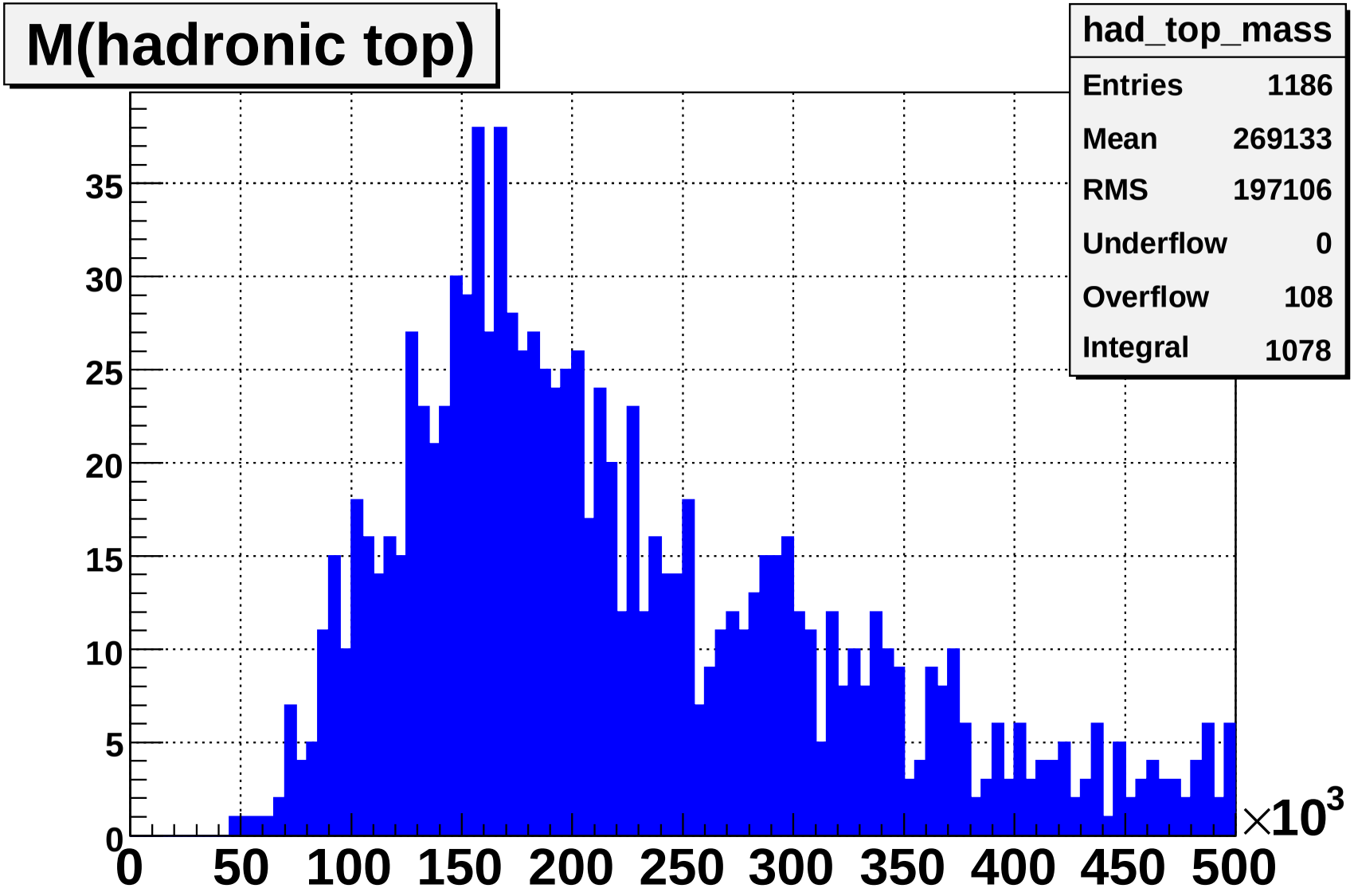
# M(had.W), b=j3prime

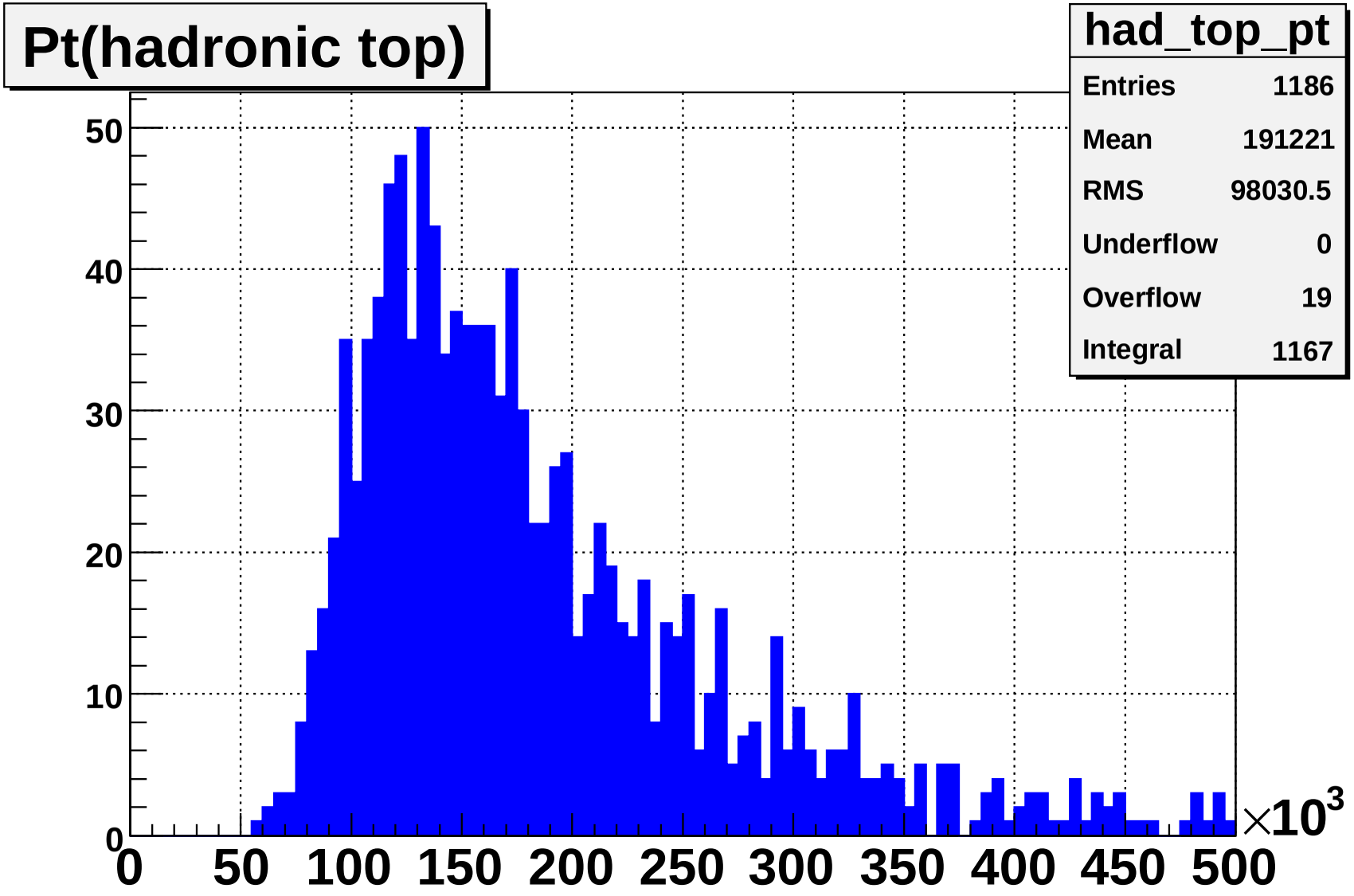


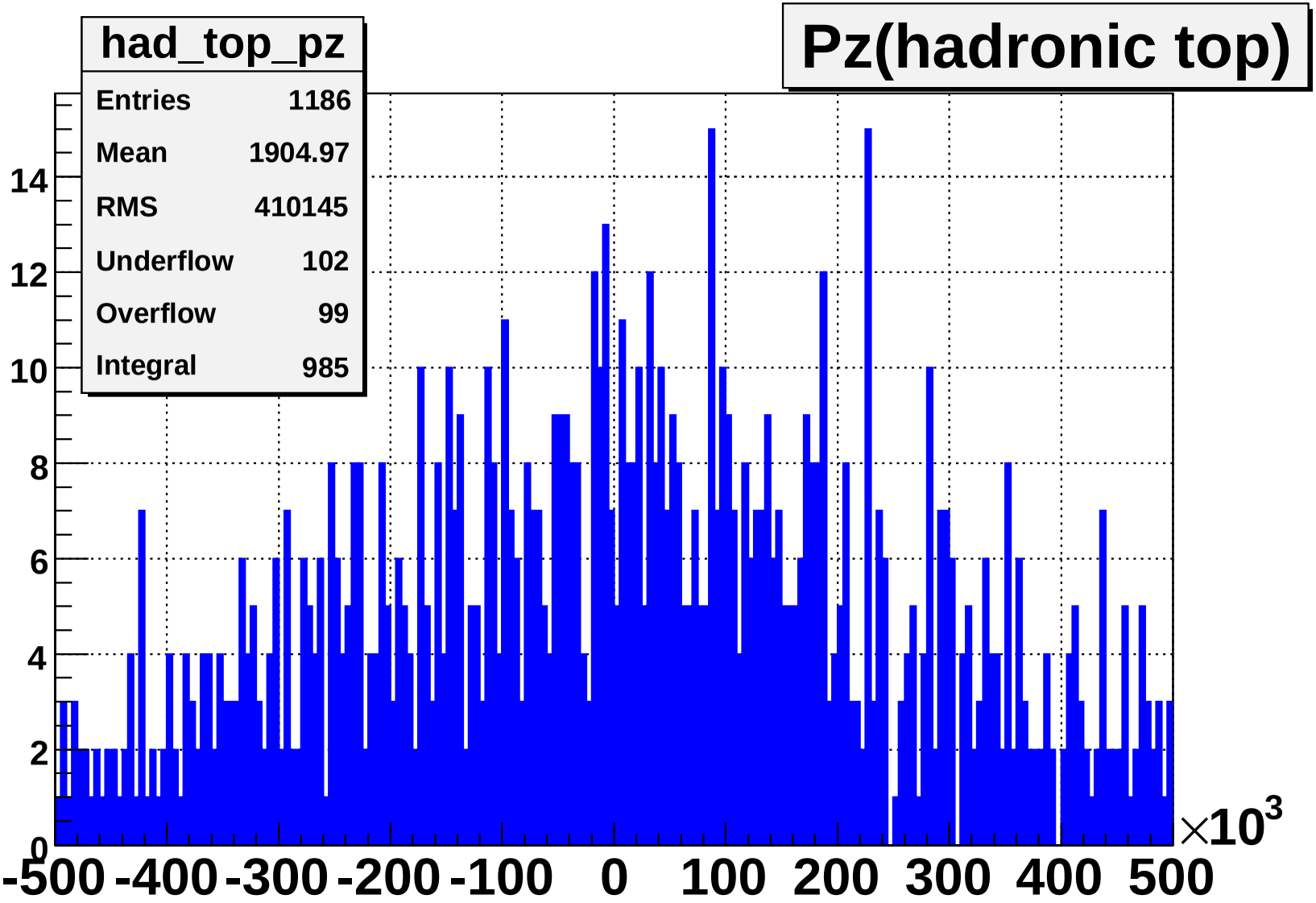

W mass, all 3 combinations
w_mall_all
Entries 3558
Mean 142690
RMS 130232
Underflow 0
Overflow 1038
Integral 2520
0
10
20
30
40
50
0
20
40
60
80
100
120
140
×10^3

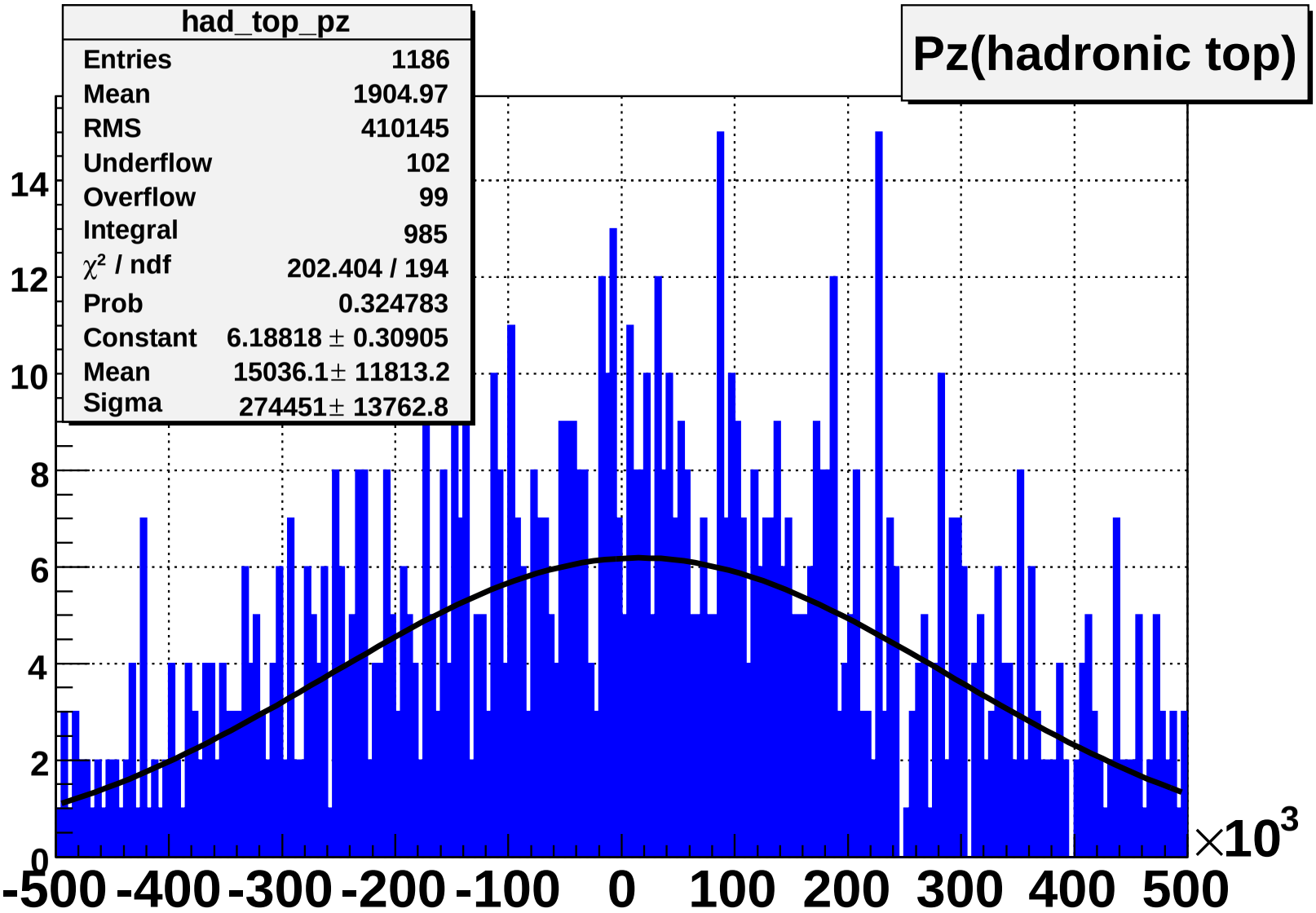
# M(had.W), b=j3prime




M(hadronic top)
had_top_mass
Entries 1186
Mean 269133
RMS 197106
Underflow 0
Overflow 108
Integral 1078
0
5
10
15
20
25
30
35
0
50
100
150
200
250
300
350
400
450
500
×10^3


Pt(hadronic top)
had_top_pt
Entries 1186
Mean 191221
RMS 98030.5
Underflow 0
Overflow 19
Integral 1167
0
10
20
30
40
50
0
50
100
150
200
250
300
350
400
450
500
×10^3


had_top_pz
Entries 1186
Mean 1904.97
RMS 410145
Underflow 102
Overflow 99
Integral 985
Pz(hadronic top)
0
2
4
6
8
10
12
14
-500 -400 -300 -200 -100 0 100 200 300 400 500
×10^3


had_top_pz
Entries 1186
Mean 1904.97
RMS 410145
Underflow 102
Overflow 99
Integral 985
$\chi^2$ / ndf 202.404 / 194
Prob 0.324783
Constant 6.18818 ± 0.30905
Mean 15036.1± 11813.2
Sigma 274451± 13762.8
Pz(hadronic top)
0
2
4
6
8
10
12
14
-500 -400 -300 -200 -100 0 100 200 300 400 500
$\times 10^3$