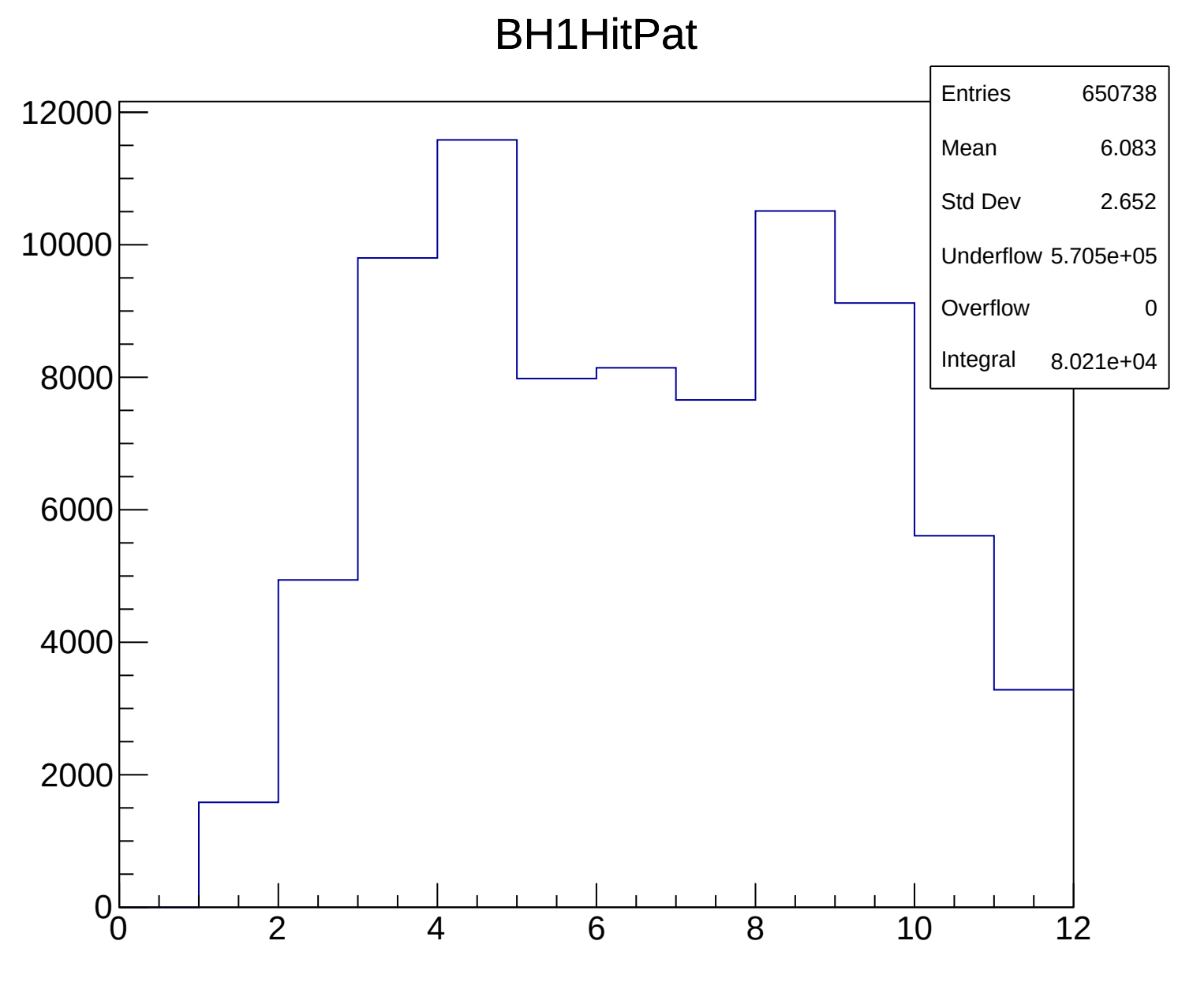
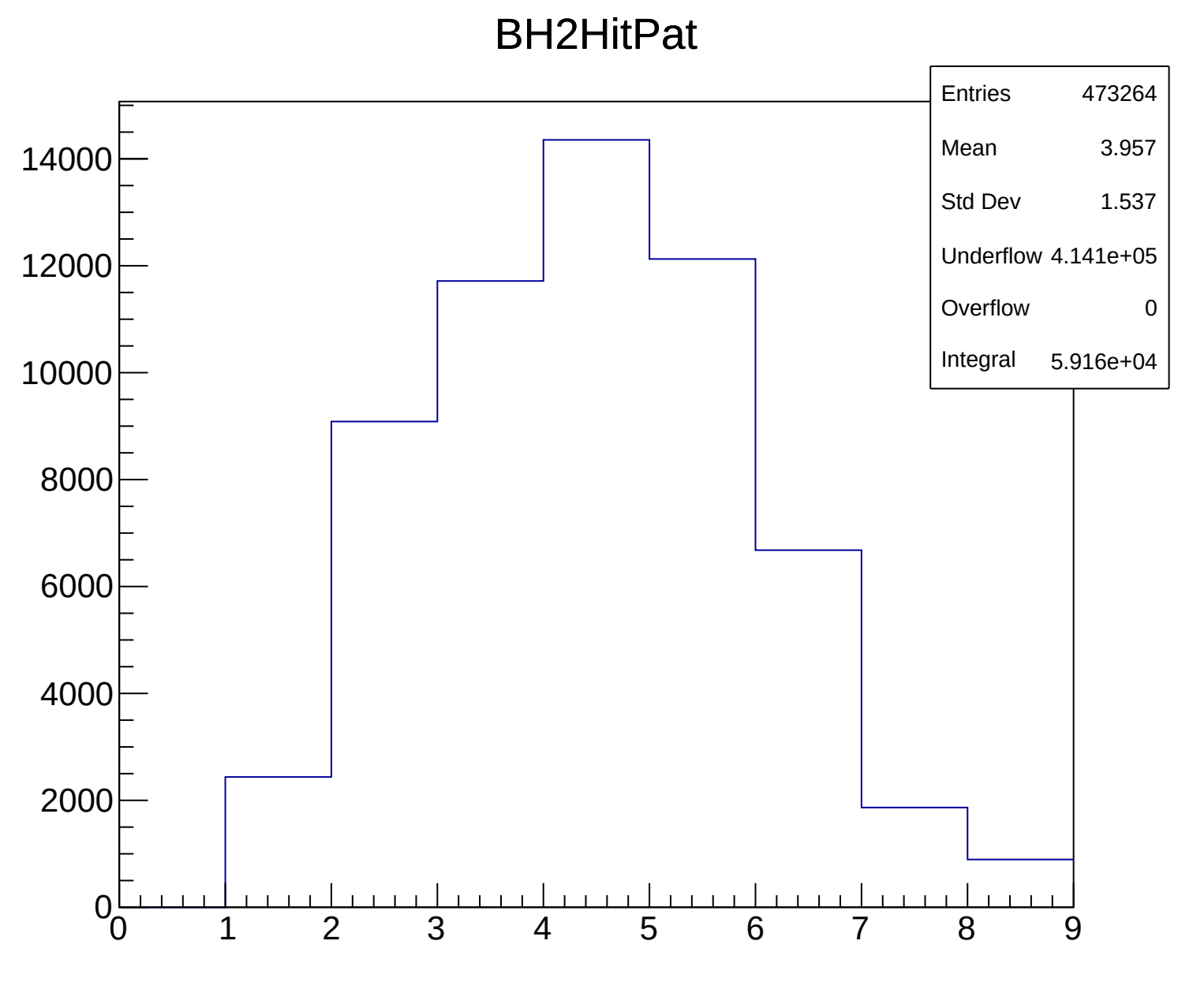
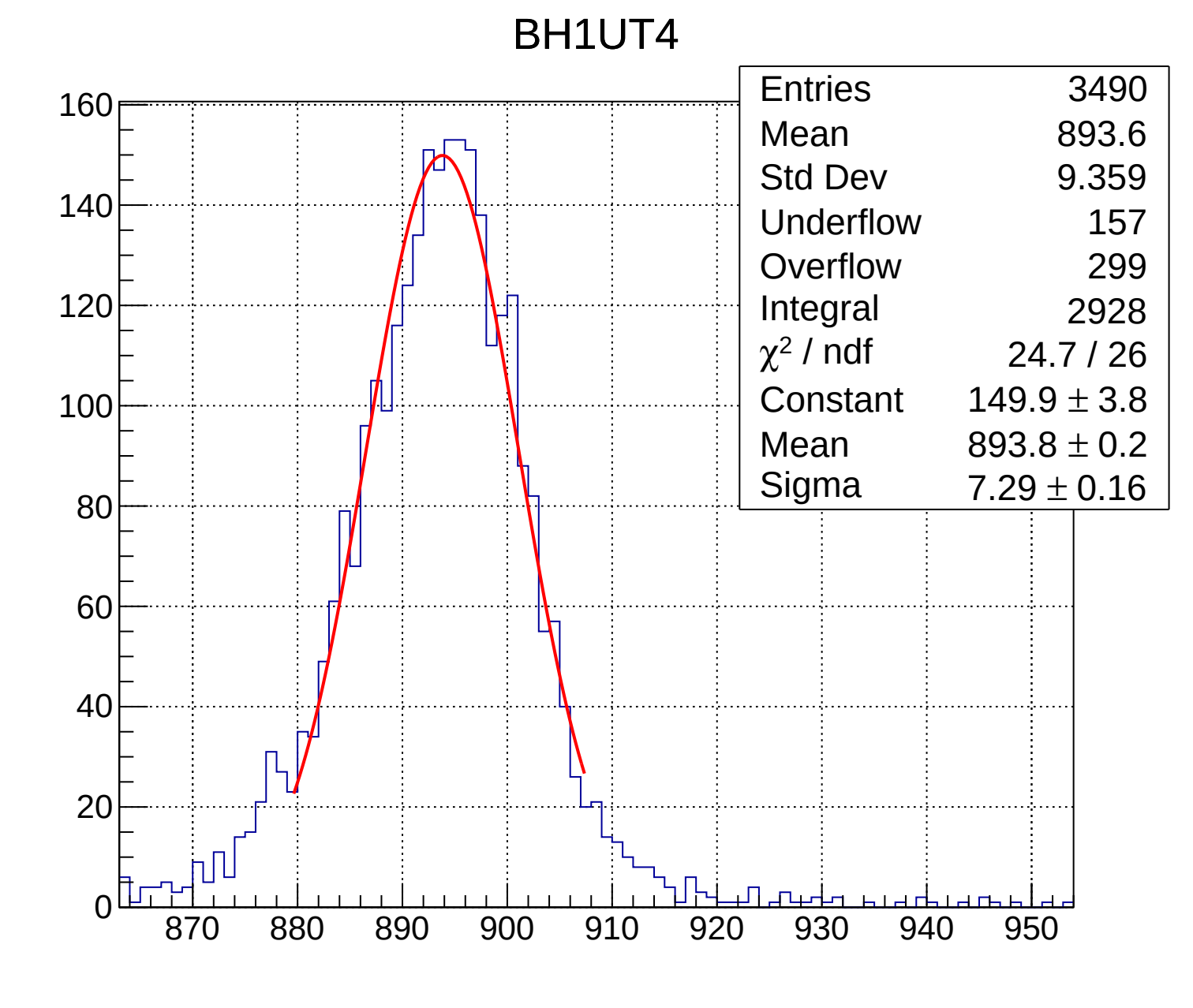
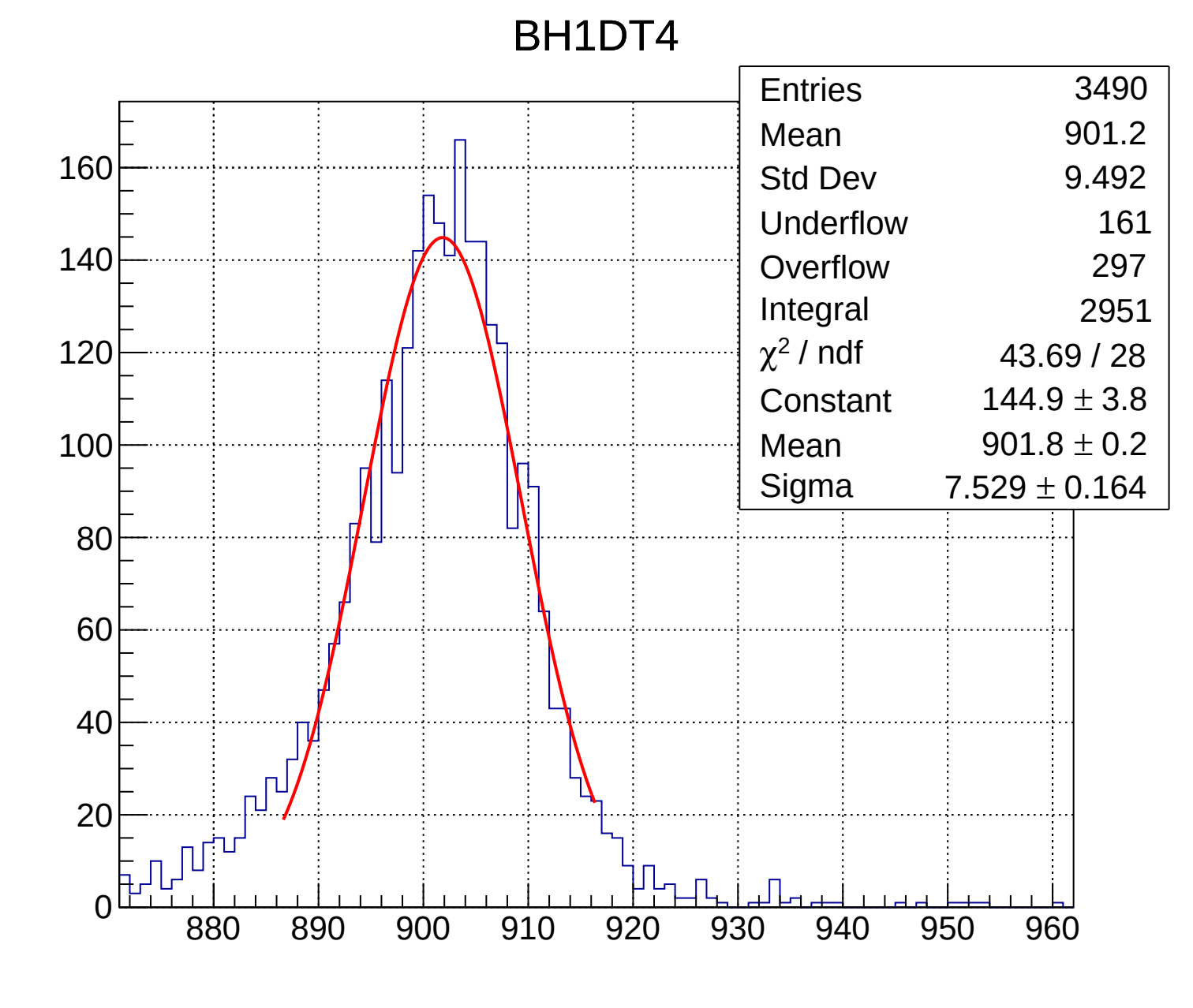
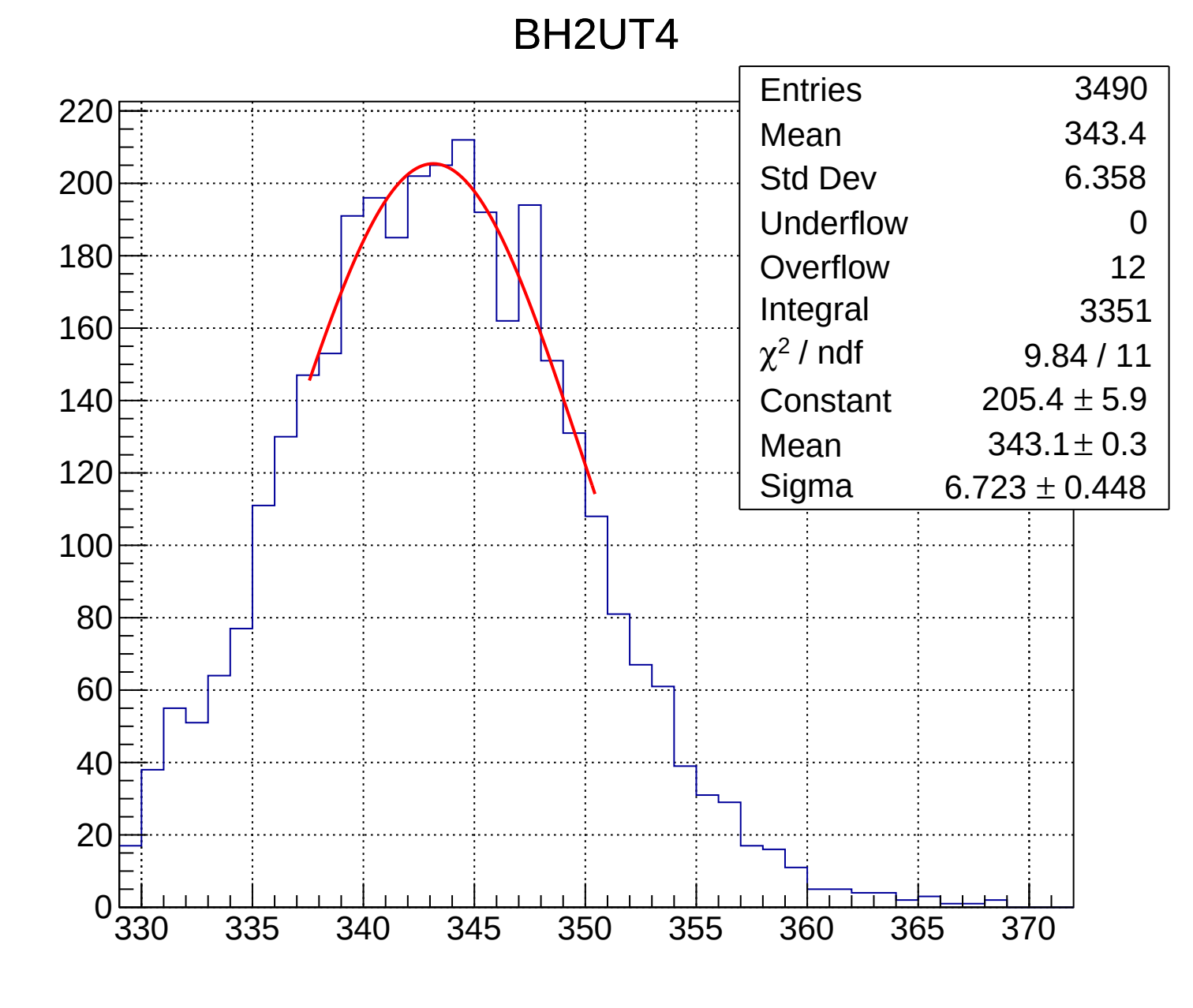
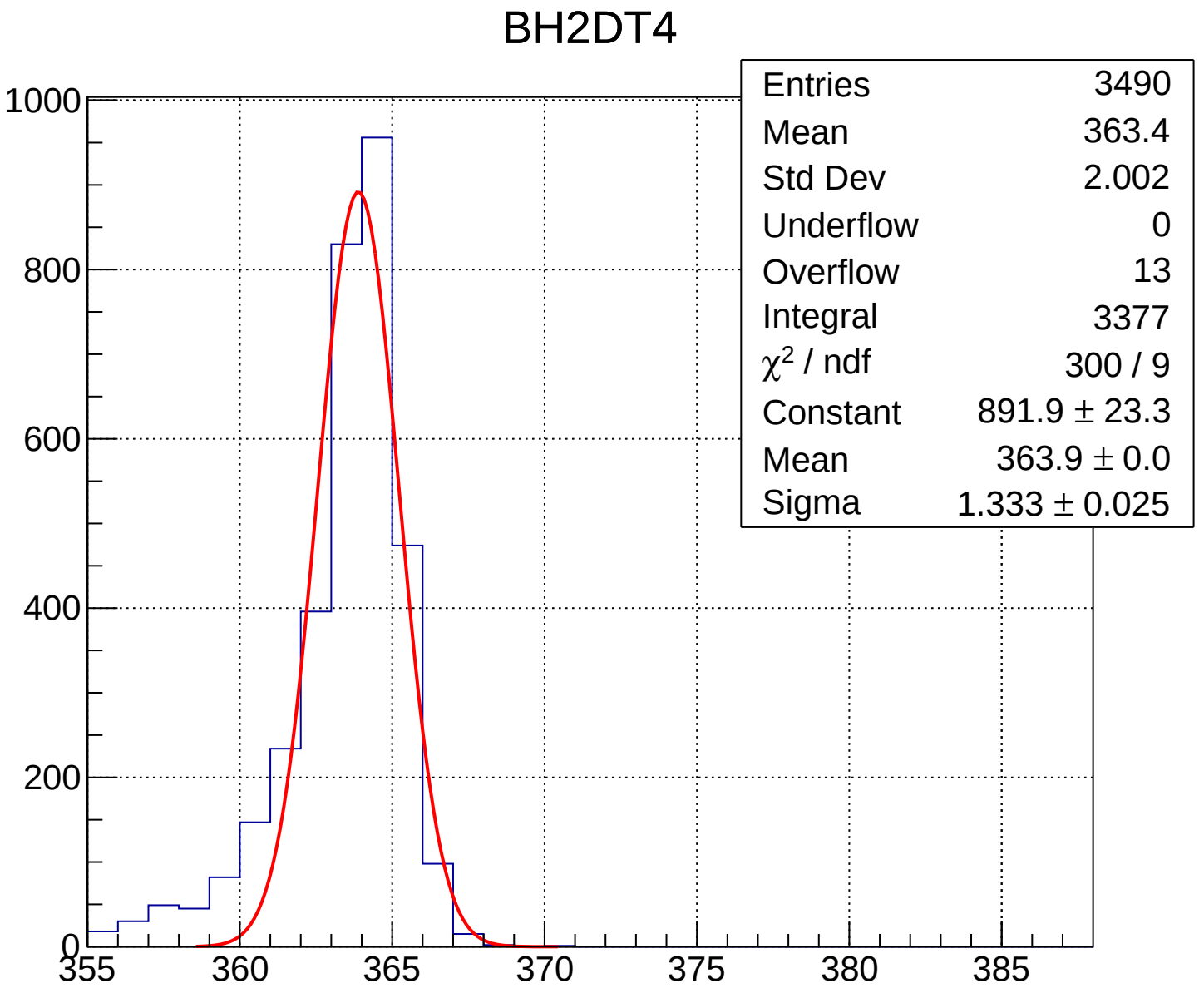

BH1HitPat
Entries 650738
Mean 6.083
Std Dev 2.652
Underflow 5.705e+05
Overflow 0
Integral 8.021e+04
12000
10000
8000
6000
4000
2000
0
0
2
4
6
8
10
12

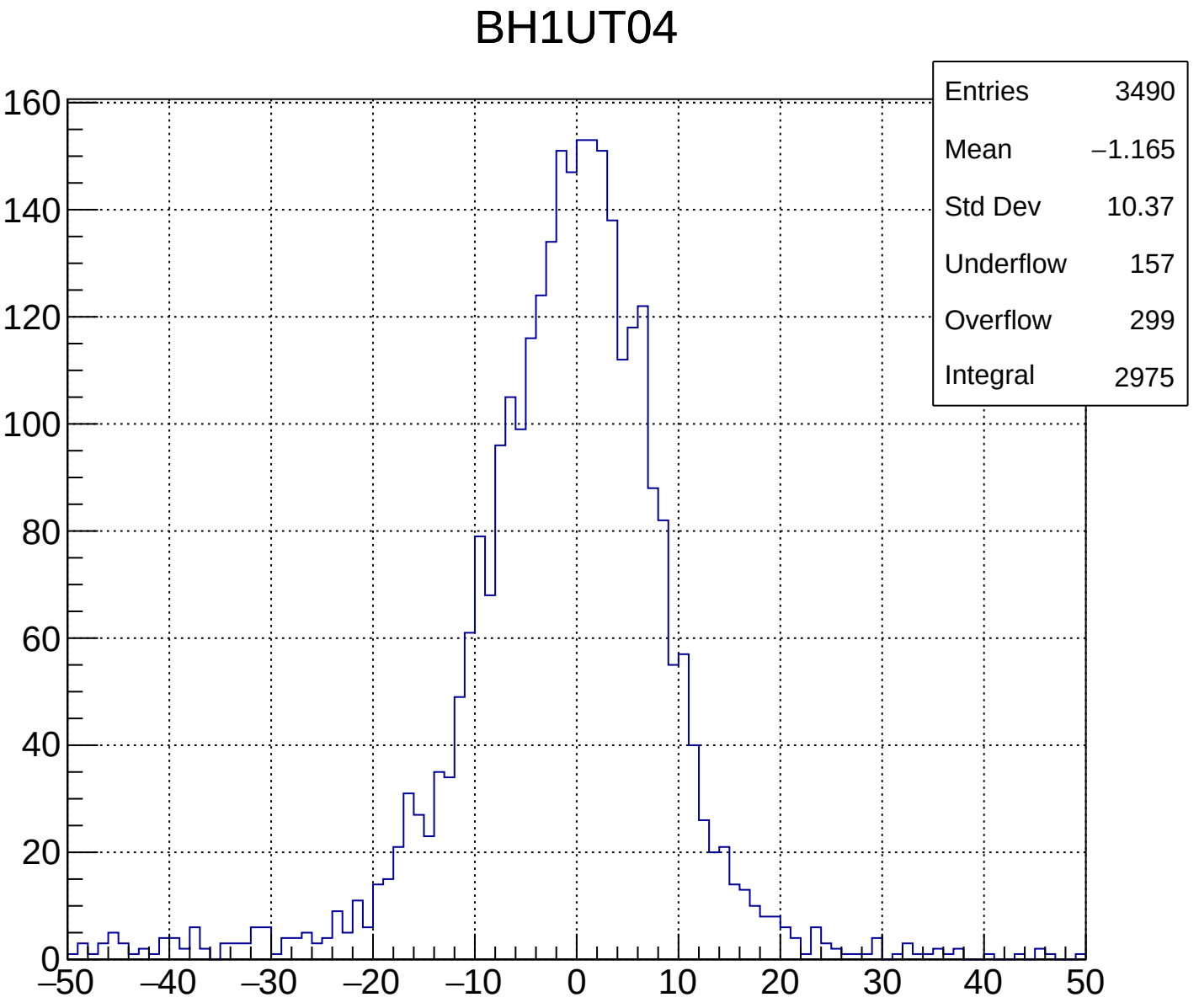

BH2HitPat
Entries 473264
Mean 3.957
Std Dev 1.537
Underflow 4.141e+05
Overflow 0
Integral 5.916e+04
14000
12000
10000
8000
6000
4000
2000
0
0
1
2
3
4
5
6
7
8
9

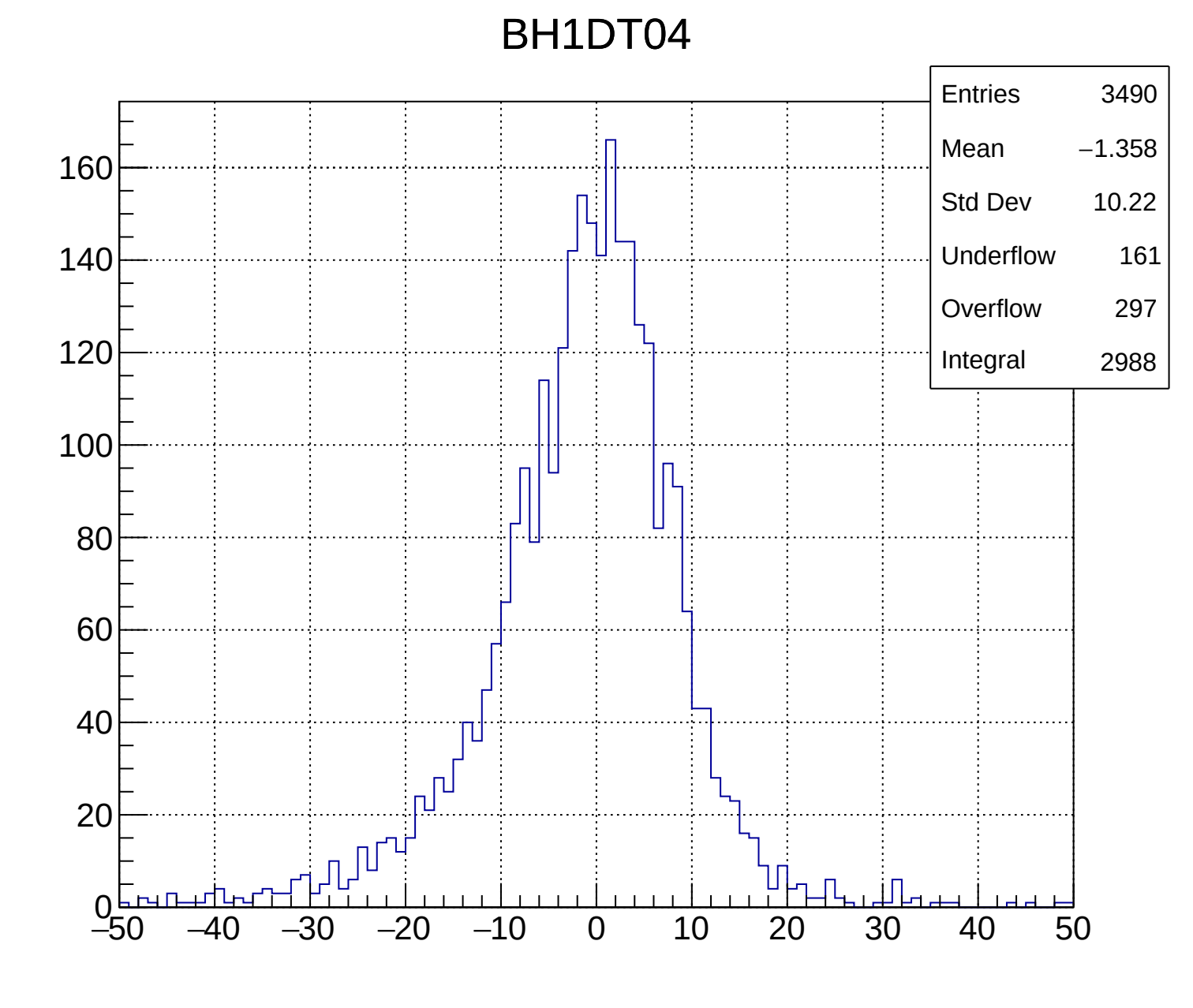

BH1UT4
Entries 3490
Mean 893.6
Std Dev 9.359
Underflow 157
Overflow 299
Integral 2928
χ² / ndf 24.7 / 26
Constant 149.9 ± 3.8
Mean 893.8 ± 0.2
Sigma 7.29 ± 0.16
160
140
120
100
80
60
40
20
0
870
880
890
900
910
920
930
940
950

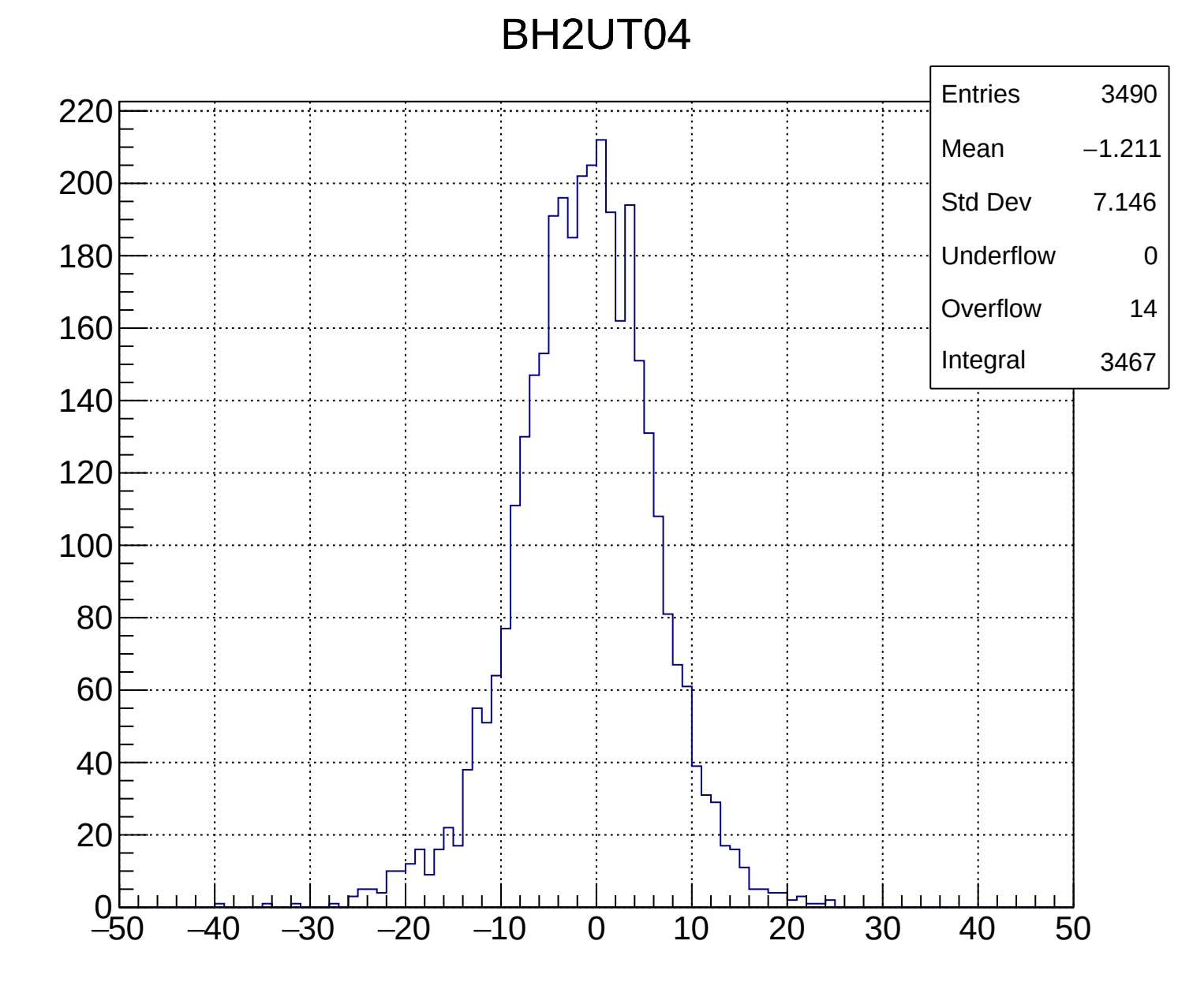

BH1DT4
Entries 3490
Mean 901.2
Std Dev 9.492
Underflow 161
Overflow 297
Integral 2951
χ² / ndf 43.69 / 28
Constant 144.9 ± 3.8
Mean 901.8 ± 0.2
Sigma 7.529 ± 0.164
0
20
40
60
80
100
120
140
160
880
890
900
910
920
930
940
950
960

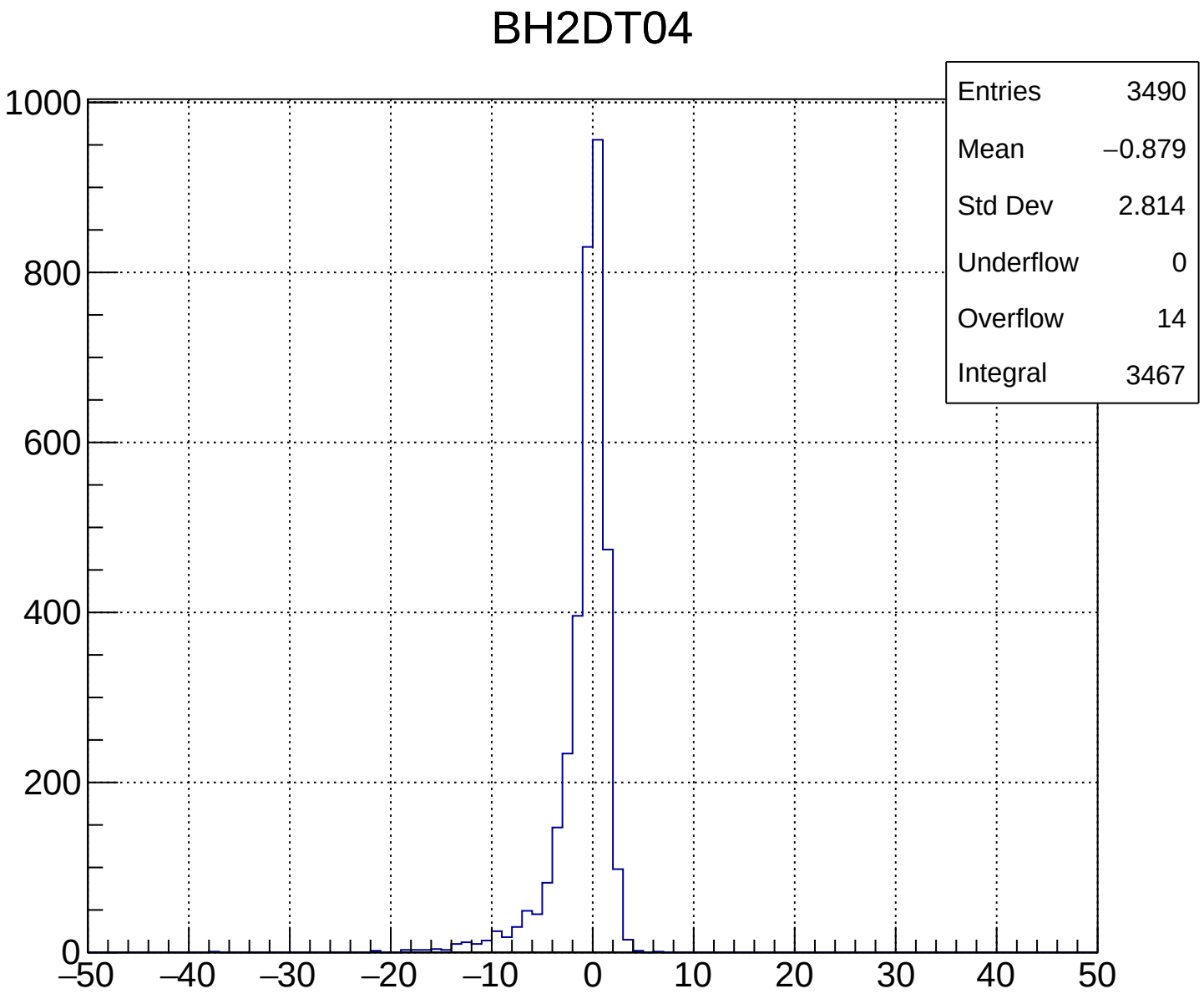

BH2UT4
Entries 3490
Mean 343.4
Std Dev 6.358
Underflow 0
Overflow 12
Integral 3351
χ2 / ndf 9.84 / 11
Constant 205.4 ± 5.9
Mean 343.1 ± 0.3
Sigma 6.723 ± 0.448
220
200
180
160
140
120
100
80
60
40
20
0
330
335
340
345
350
355
360
365
370

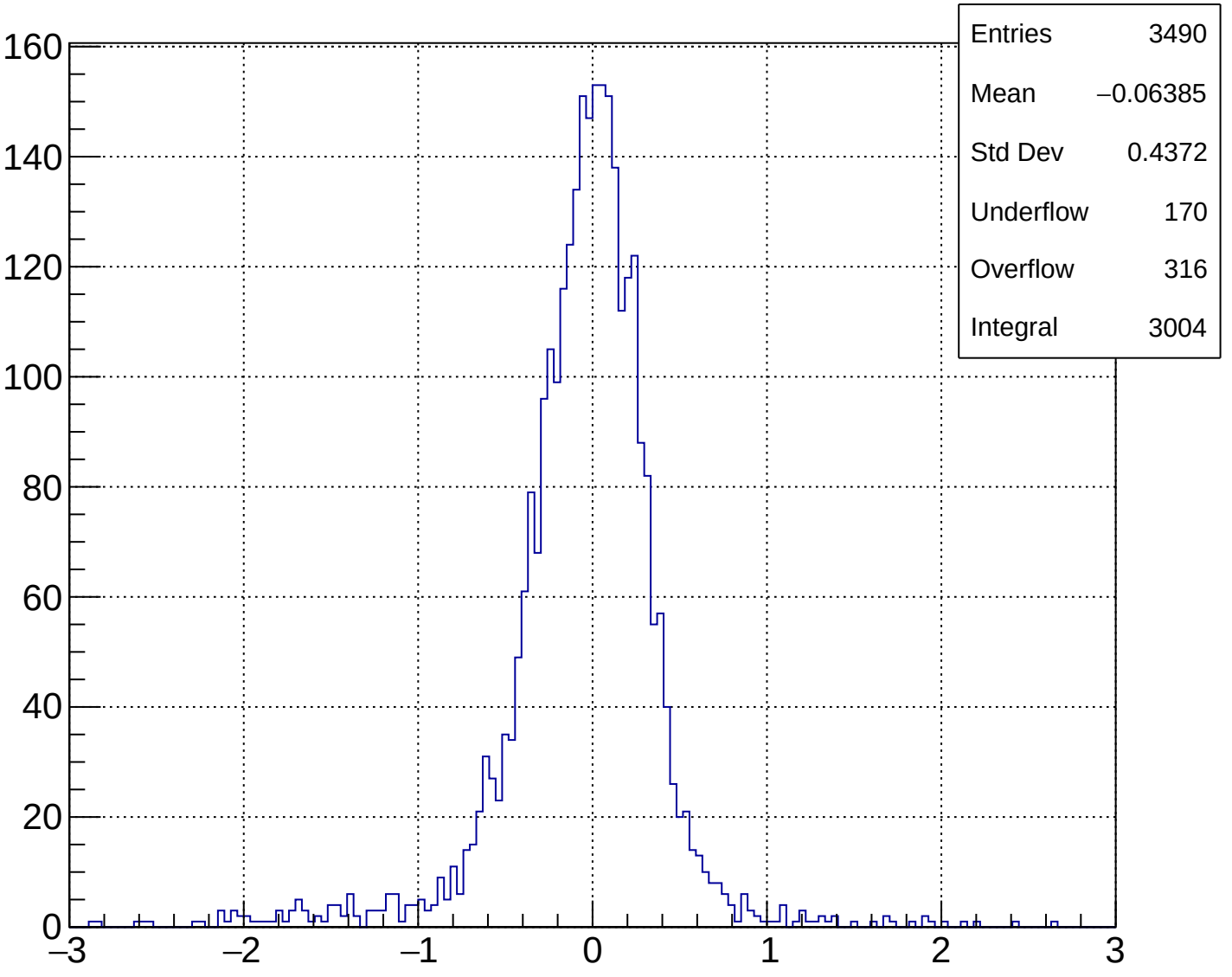

BH2DT4
Entries 3490
Mean 363.4
Std Dev 2.002
Underflow 0
Overflow 13
Integral 3377
χ² / ndf 300 / 9
Constant 891.9 ± 23.3
Mean 363.9 ± 0.0
Sigma 1.333 ± 0.025
1000
800
600
400
200
0
355
360
365
370
375
380
385

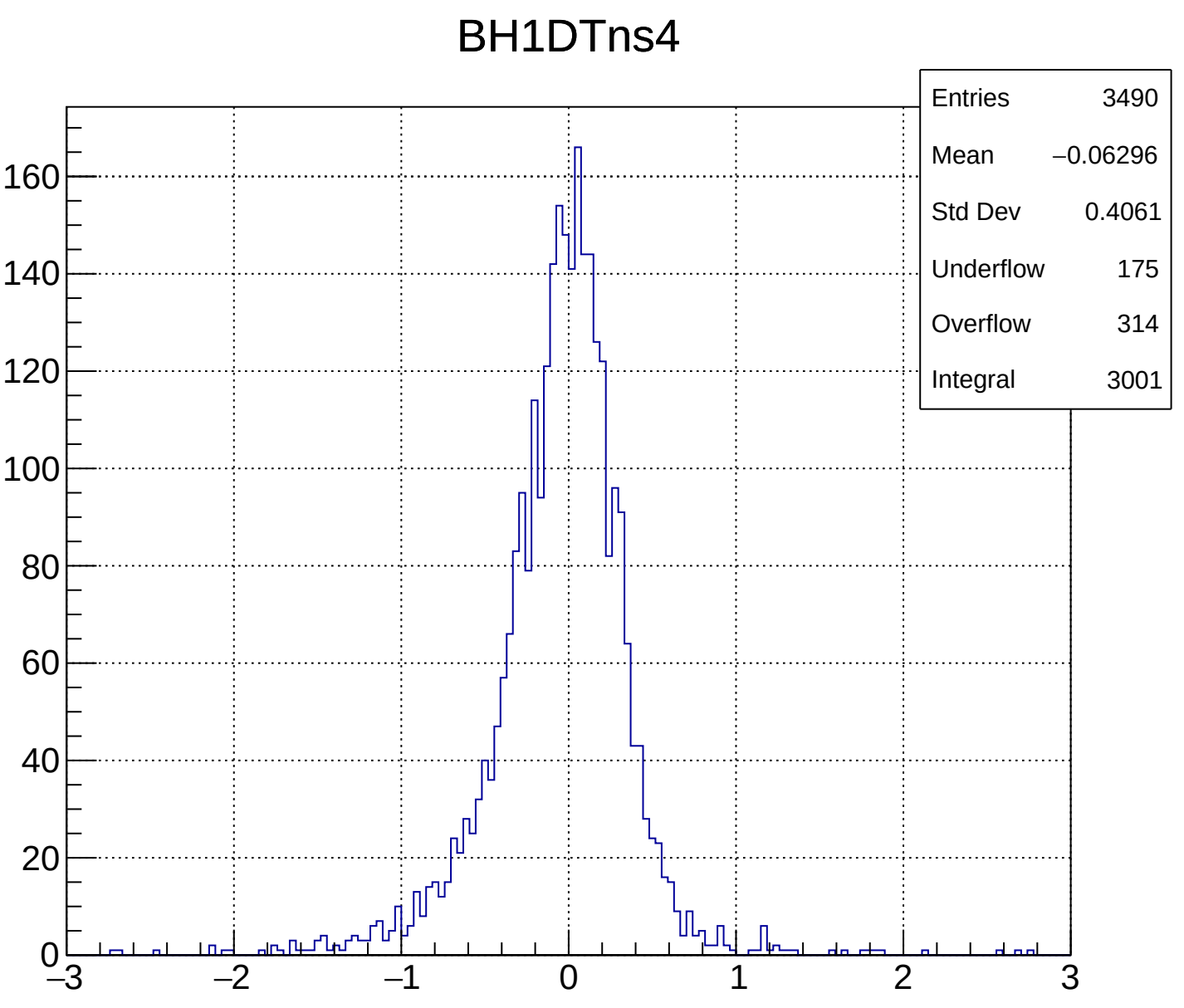

BH1UT04
Entries 3490
Mean −1.165
Std Dev 10.37
Underflow 157
Overflow 299
Integral 2975
160
140
120
100
80
60
40
20
0
−50
−40
−30
−20
−10
0
10
20
30
40
50

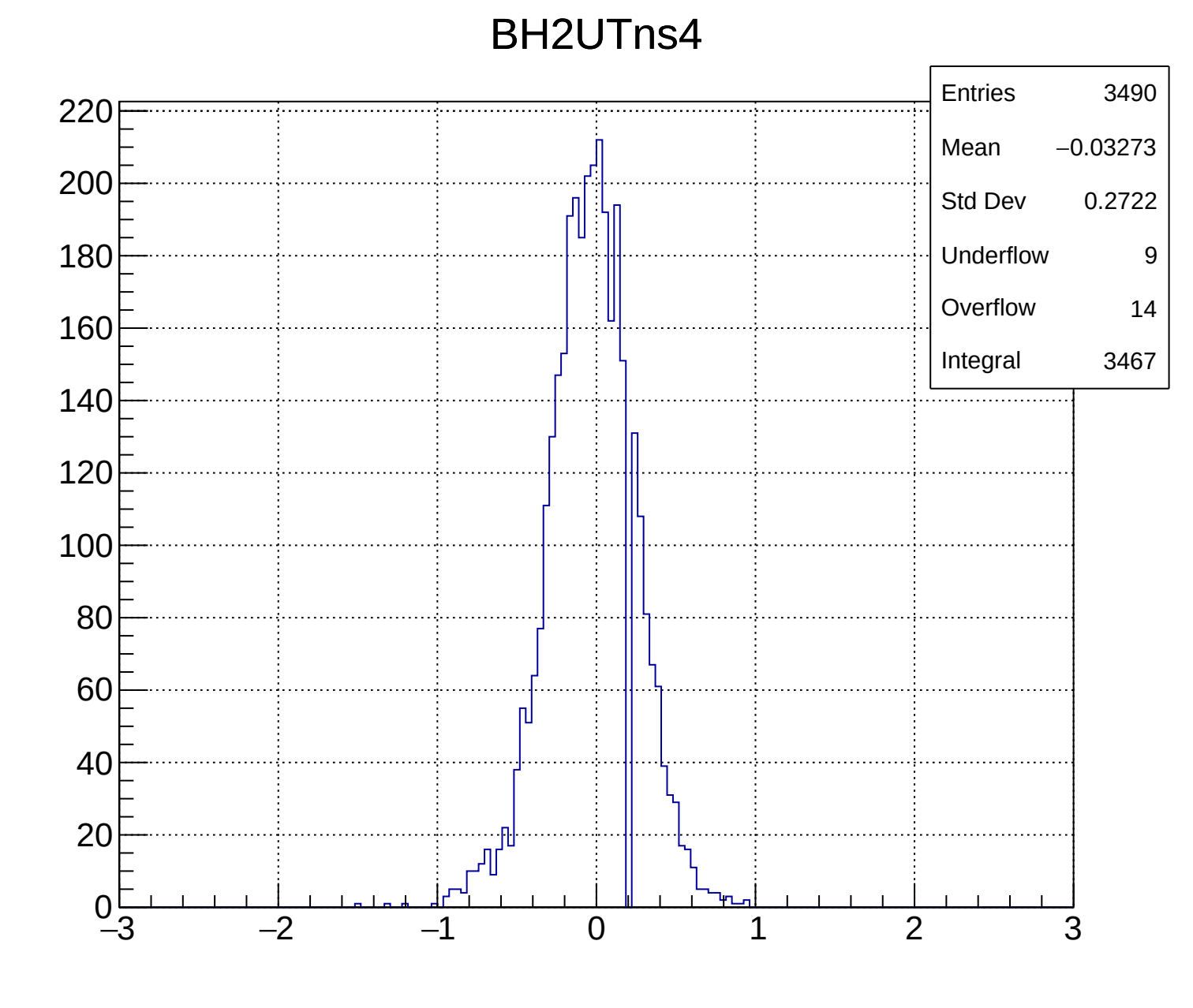

BH1DT04
Entries 3490
Mean −1.358
Std Dev 10.22
Underflow 161
Overflow 297
Integral 2988
160
140
120
100
80
60
40
20
0
−50
−40
−30
−20
−10
0
10
20
30
40
50

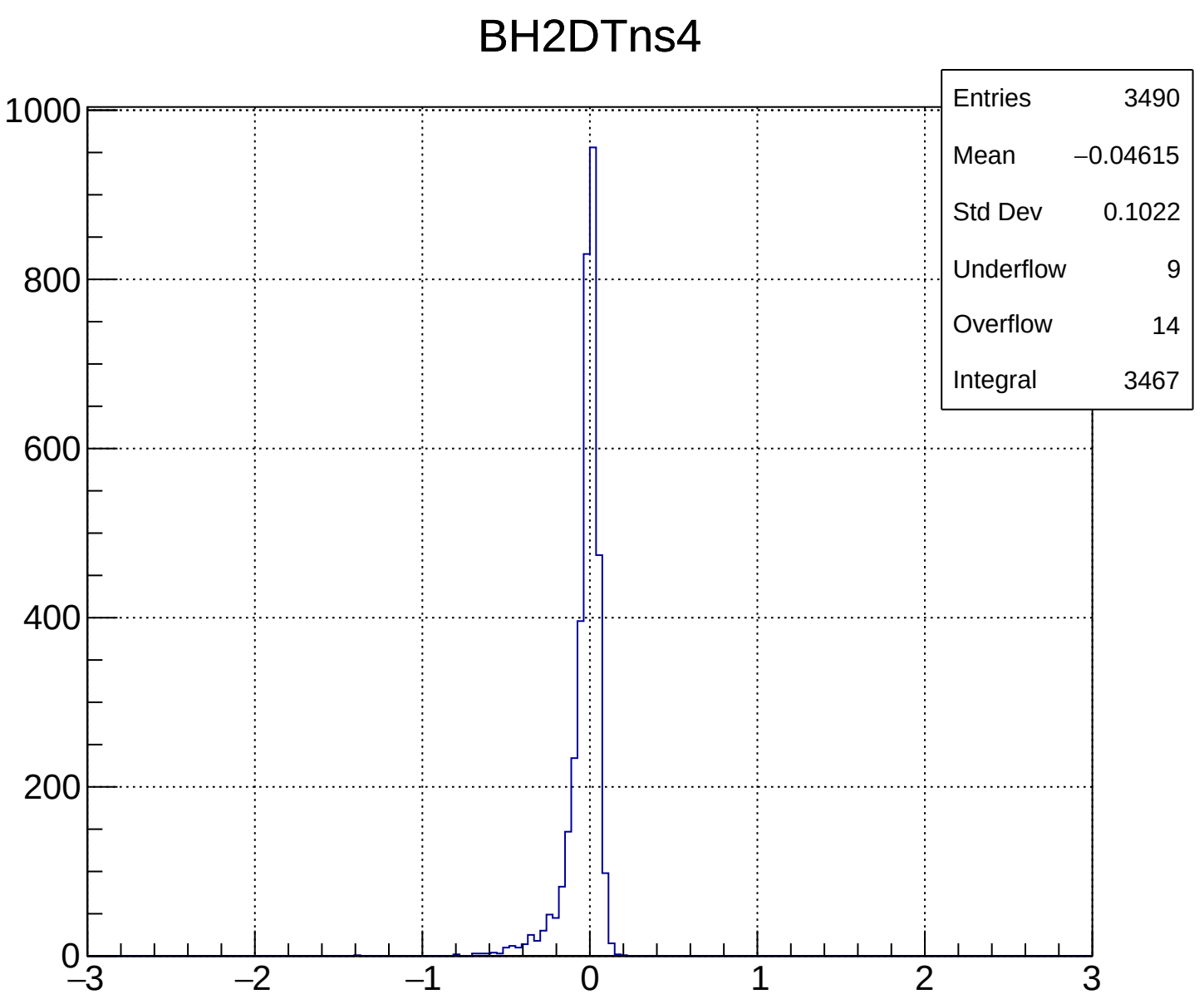

BH2UT04
Entries 3490
Mean −1.211
Std Dev 7.146
Underflow 0
Overflow 14
Integral 3467
220
200
180
160
140
120
100
80
60
40
20
0
−50
−40
−30
−20
−10
0
10
20
30
40
50

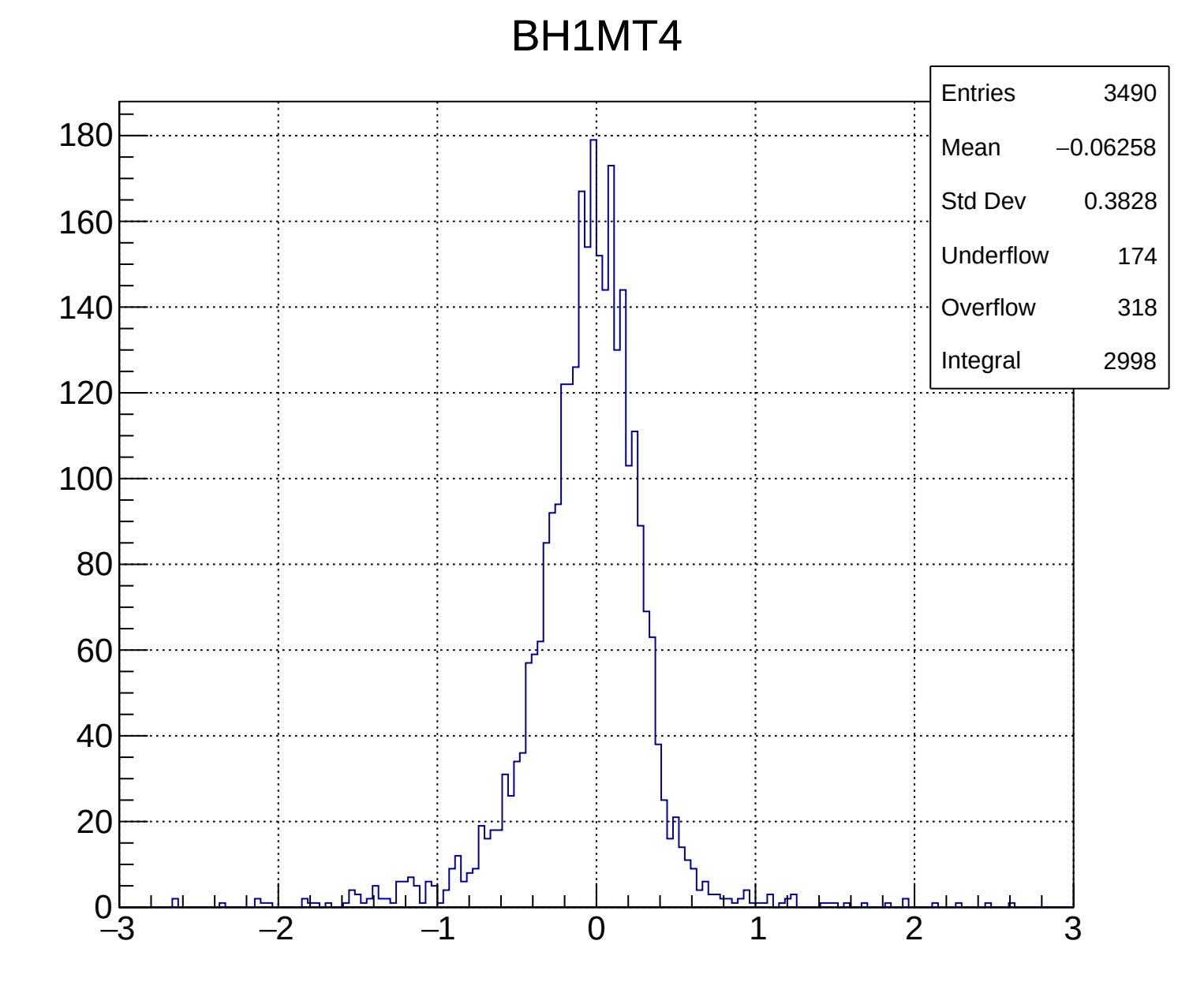

BH2DT04
Entries 3490
Mean −0.879
Std Dev 2.814
Underflow 0
Overflow 14
Integral 3467
1000
800
600
400
200
0
−50
−40
−30
−20
−10
0
10
20
30
40
50

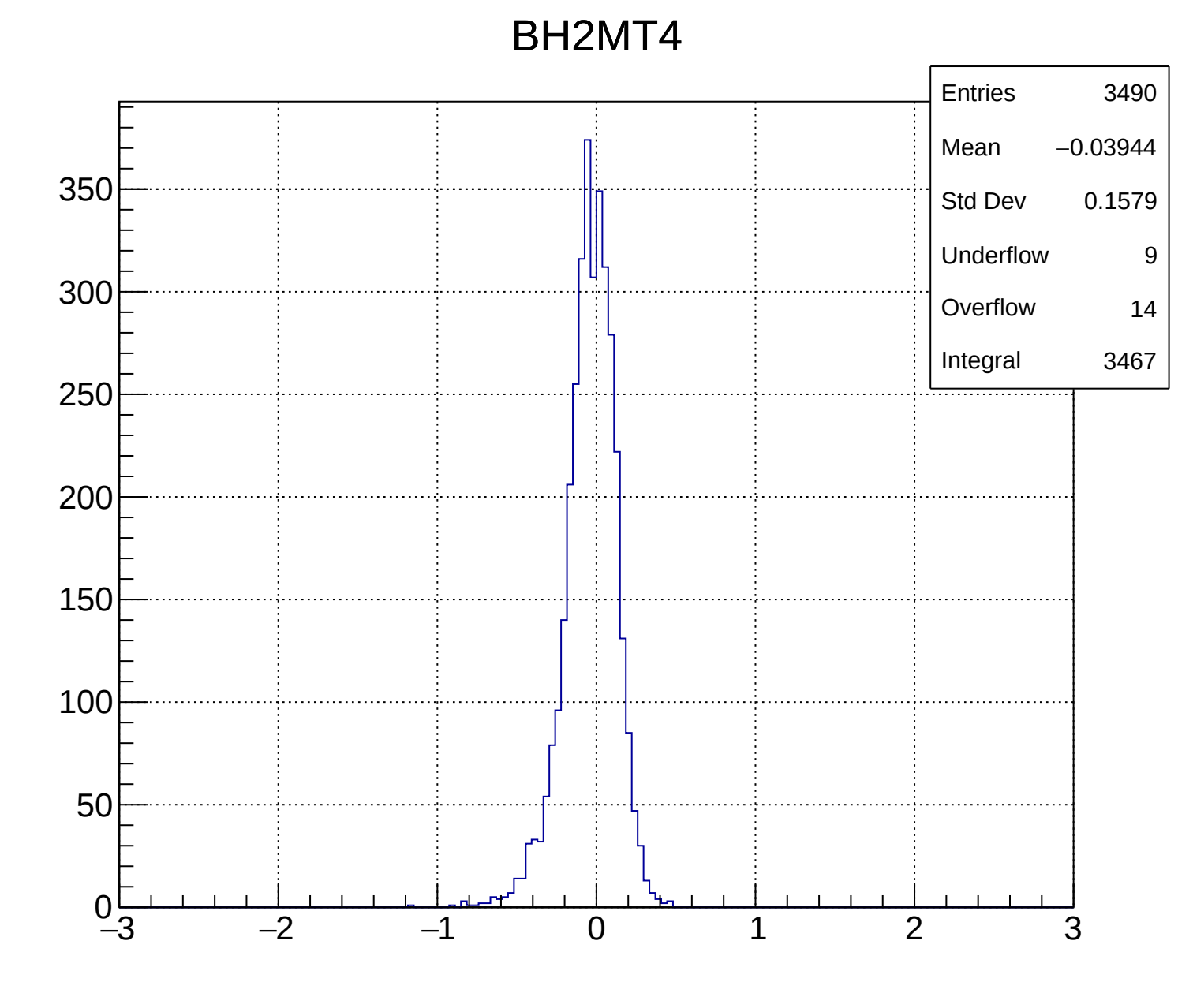

BH1UTns4
Entries 3490
Mean −0.06385
Std Dev 0.4372
Underflow 170
Overflow 316
Integral 3004
160
140
120
100
80
60
40
20
0
−3
−2
−1
0
1
2
3

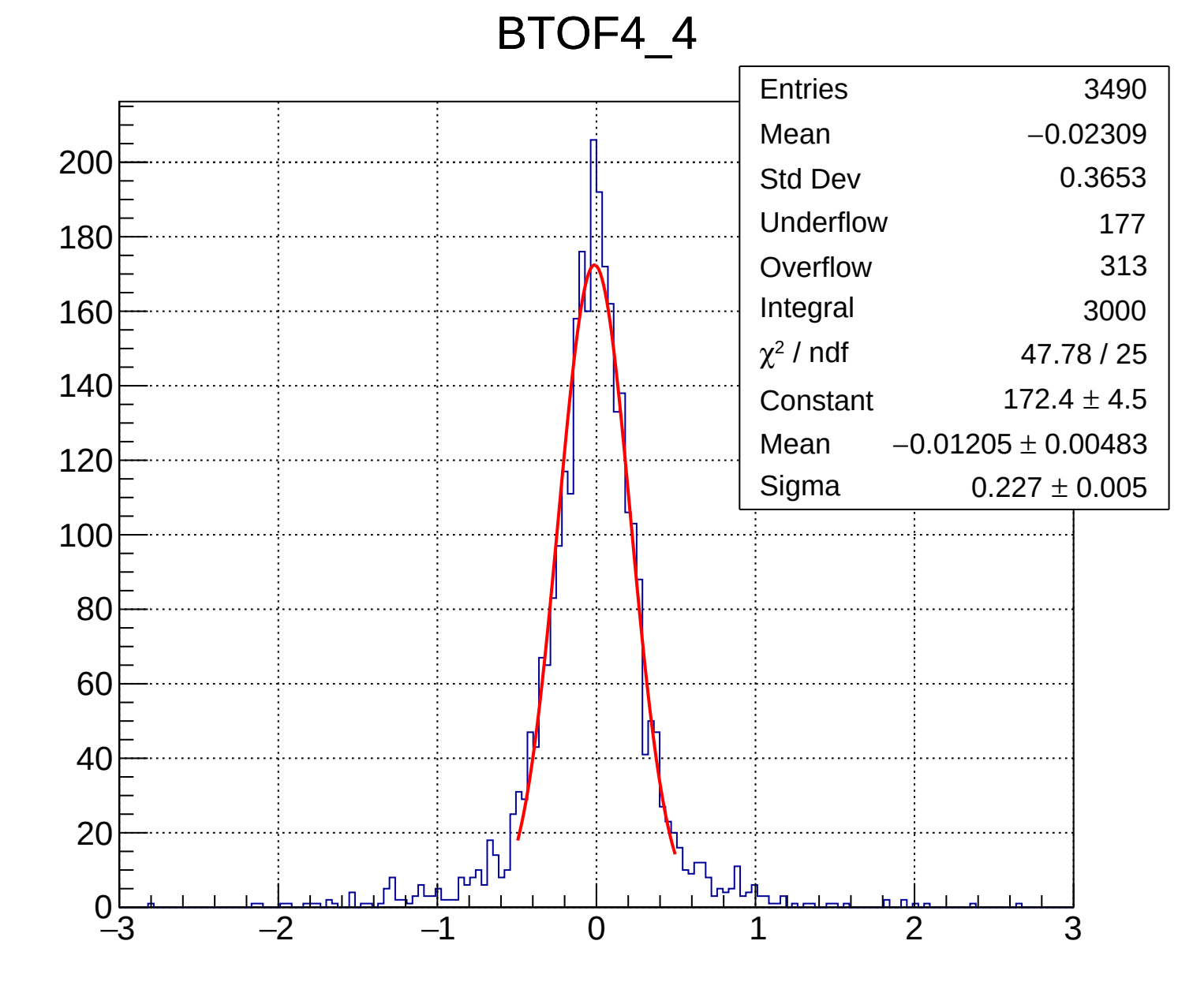

BH1DTns4
Entries 3490
Mean −0.06296
Std Dev 0.4061
Underflow 175
Overflow 314
Integral 3001
160
140
120
100
80
60
40
20
0
−3
−2
−1
0
1
2
3

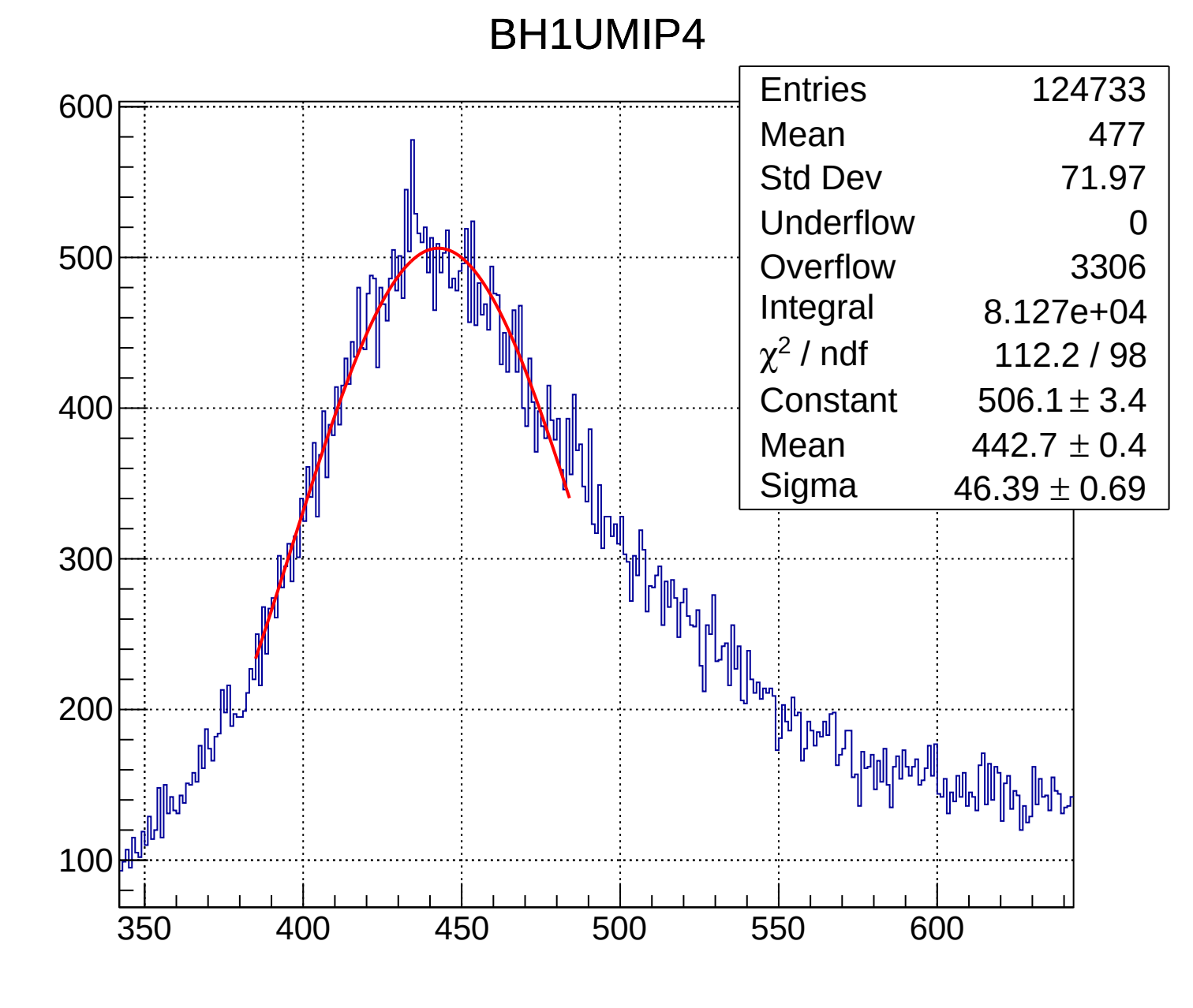

BH2UTns4
Entries 3490
Mean −0.03273
Std Dev 0.2722
Underflow 9
Overflow 14
Integral 3467
220
200
180
160
140
120
100
80
60
40
20
0
−3
−2
−1
0
1
2
3

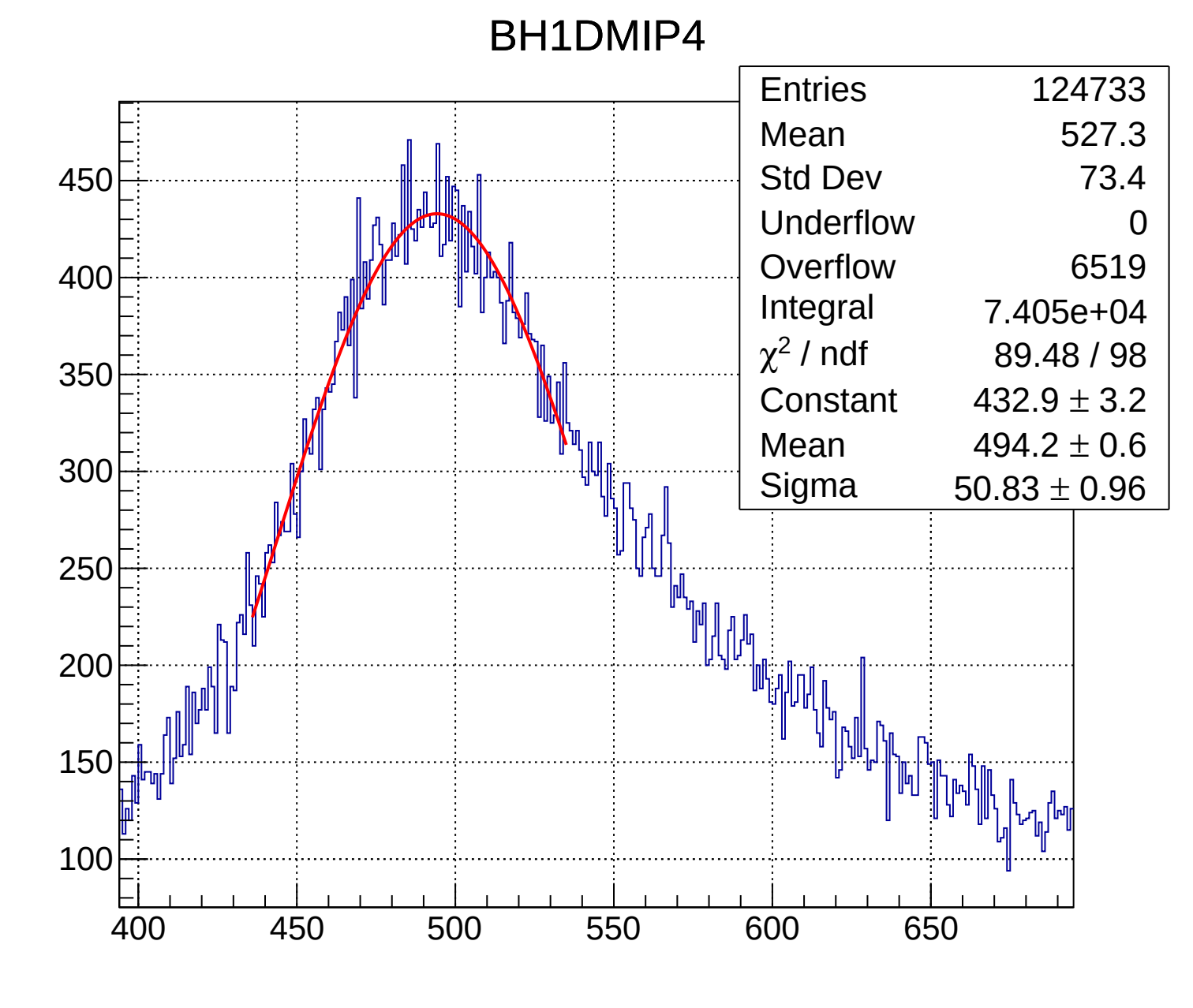

BH2DTns4
Entries 3490
Mean −0.04615
Std Dev 0.1022
Underflow 9
Overflow 14
Integral 3467
1000
800
600
400
200
0
−3
−2
−1
0
1
2
3

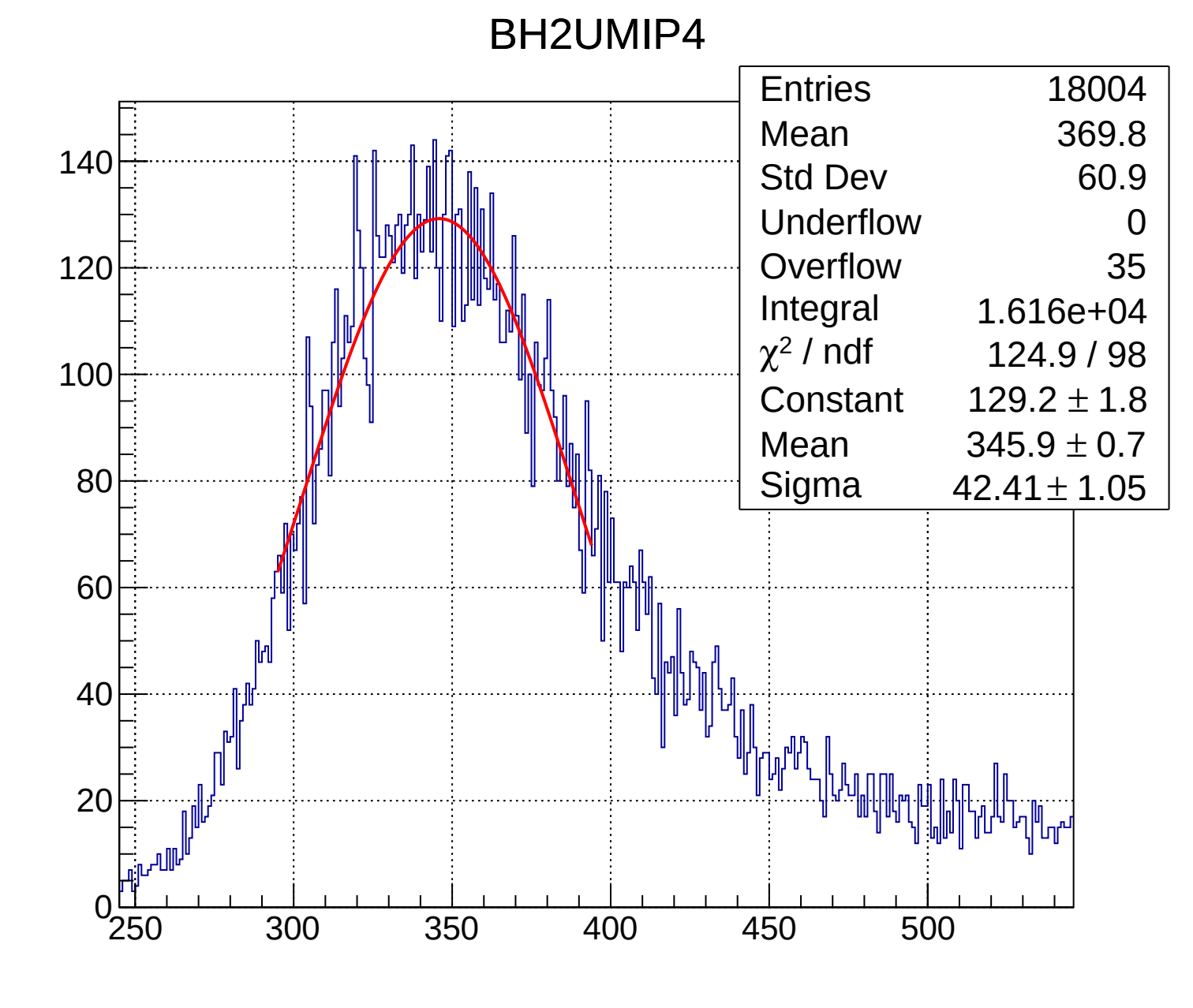

BH1MT4
Entries 3490
Mean −0.06258
Std Dev 0.3828
Underflow 174
Overflow 318
Integral 2998
180
160
140
120
100
80
60
40
20
0
−3
−2
−1
0
1
2
3

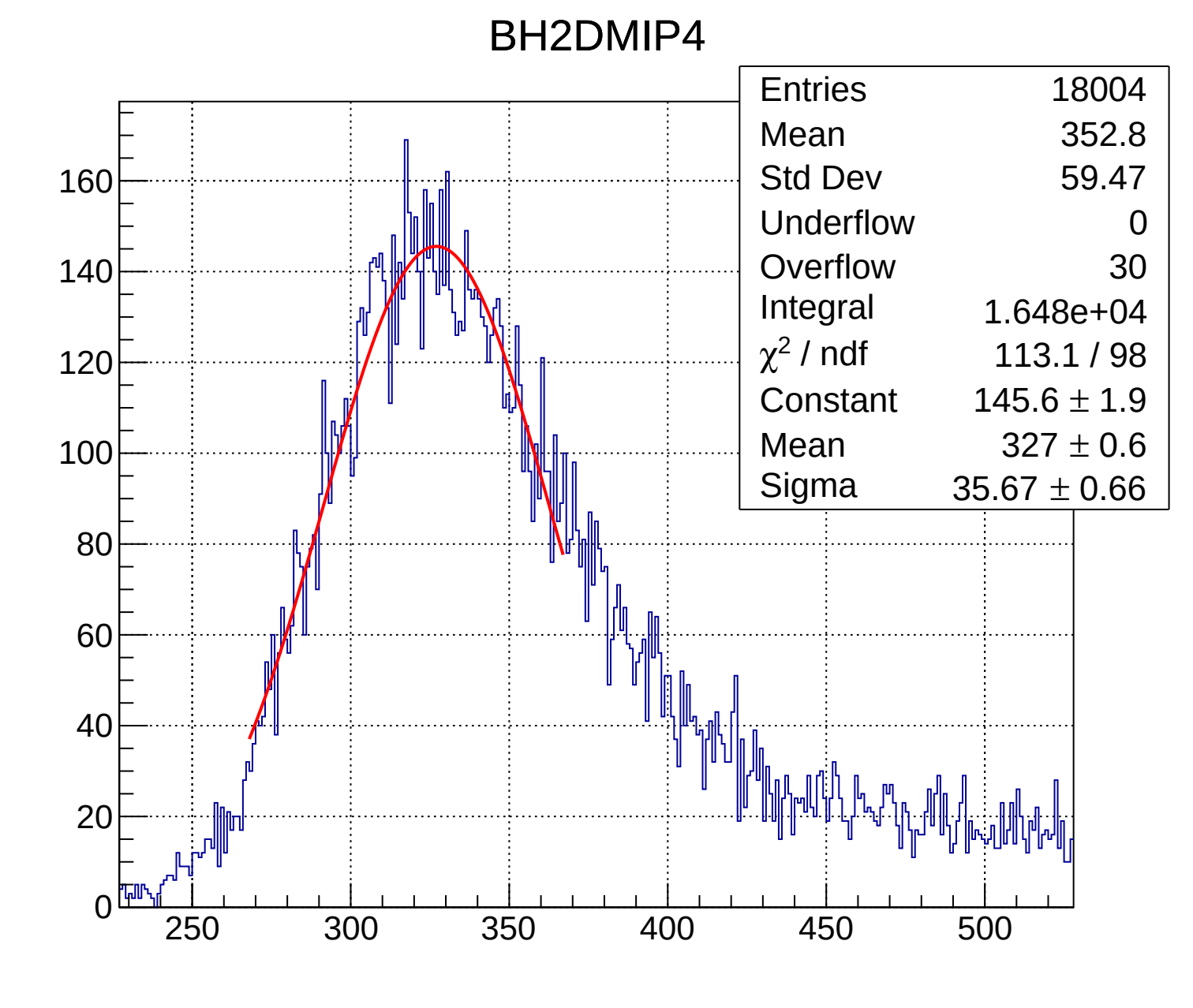

BH2MT4
Entries 3490
Mean −0.03944
Std Dev 0.1579
Underflow 9
Overflow 14
Integral 3467
350
300
250
200
150
100
50
0
−3
−2
−1
0
1
2
3

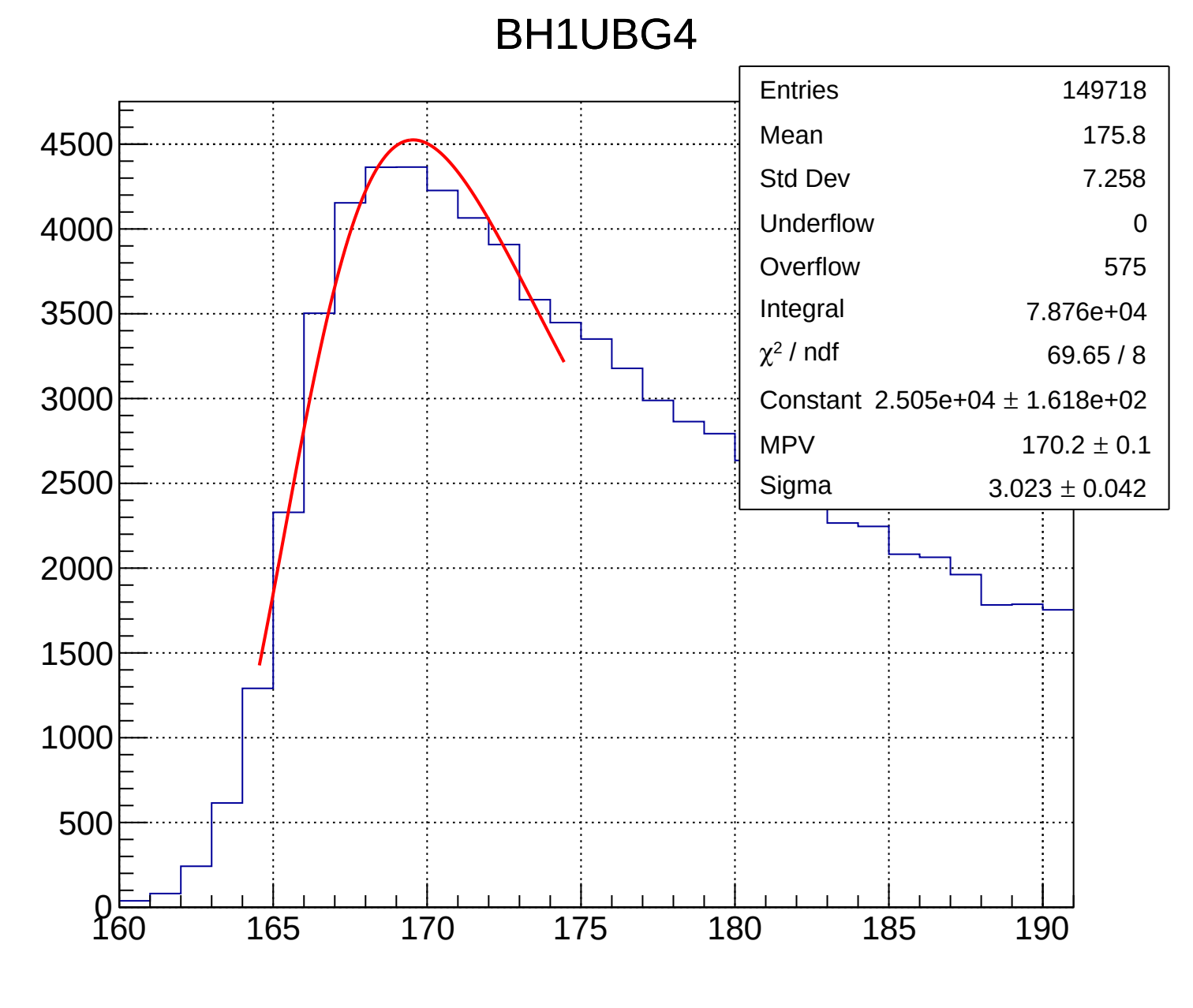

BTOF4_4
Entries 3490
Mean −0.02309
Std Dev 0.3653
Underflow 177
Overflow 313
Integral 3000
χ² / ndf 47.78 / 25
Constant 172.4 ± 4.5
Mean −0.01205 ± 0.00483
Sigma 0.227 ± 0.005
200
180
160
140
120
100
80
60
40
20
0
−3
−2
−1
0
1
2
3

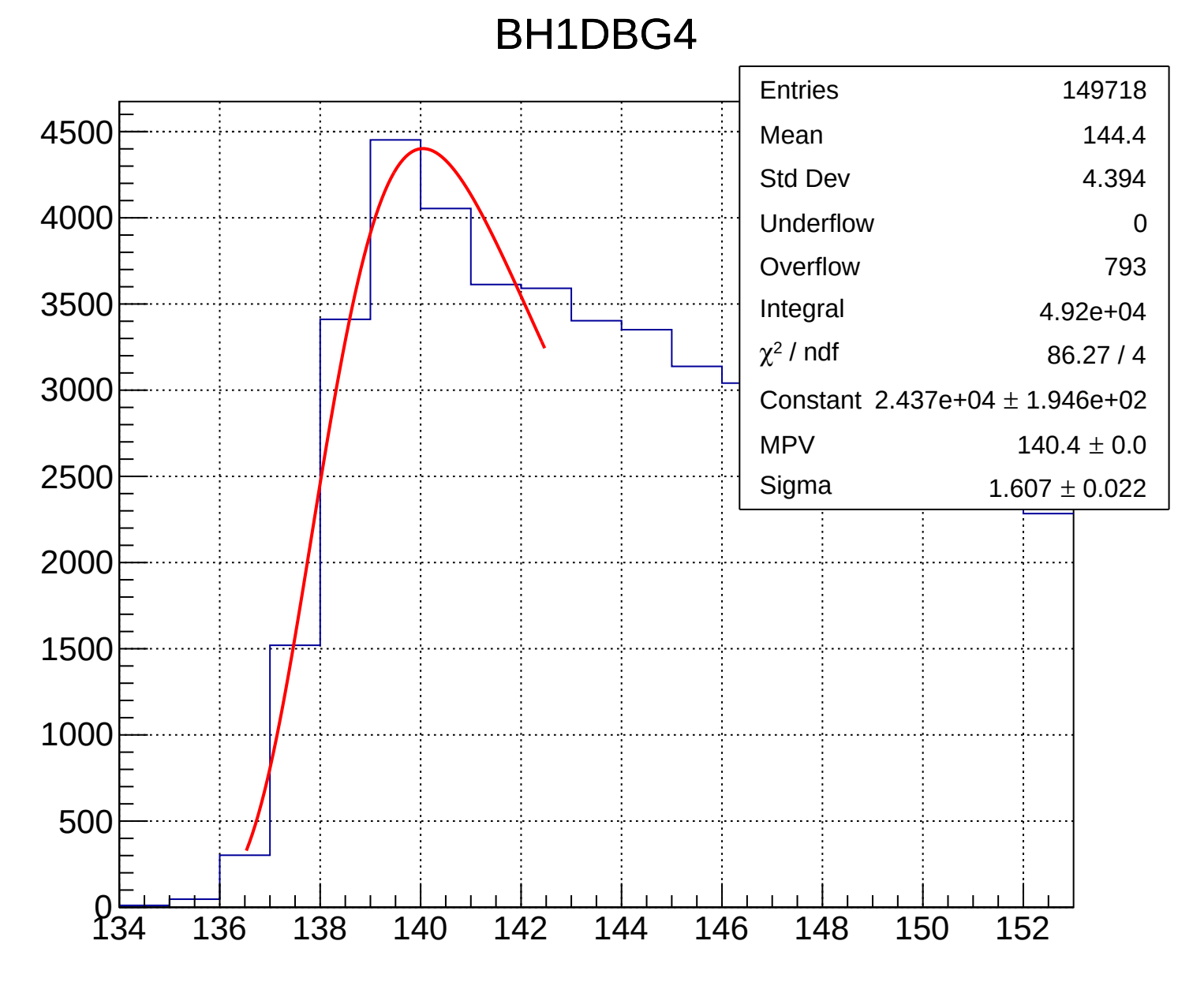

BH1UMIP4
Entries 124733
Mean 477
Std Dev 71.97
Underflow 0
Overflow 3306
Integral 8.127e+04
χ² / ndf 112.2 / 98
Constant 506.1 ± 3.4
Mean 442.7 ± 0.4
Sigma 46.39 ± 0.69
600
500
400
300
200
100
350
400
450
500
550
600

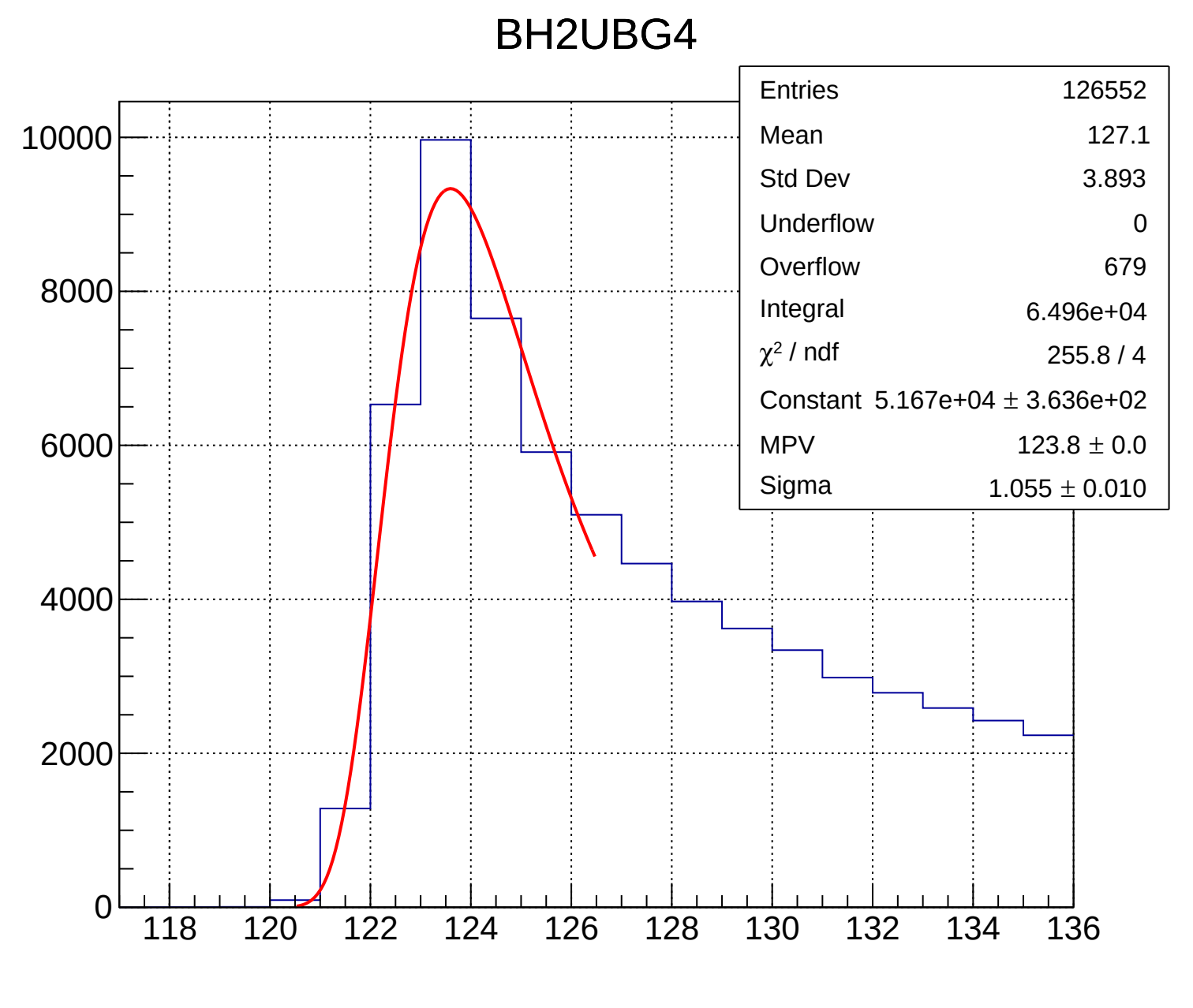

BH1DMIP4
Entries 124733
Mean 527.3
Std Dev 73.4
Underflow 0
Overflow 6519
Integral 7.405e+04
χ² / ndf 89.48 / 98
Constant 432.9 ± 3.2
Mean 494.2 ± 0.6
Sigma 50.83 ± 0.96
450
400
350
300
250
200
150
100
400
450
500
550
600
650

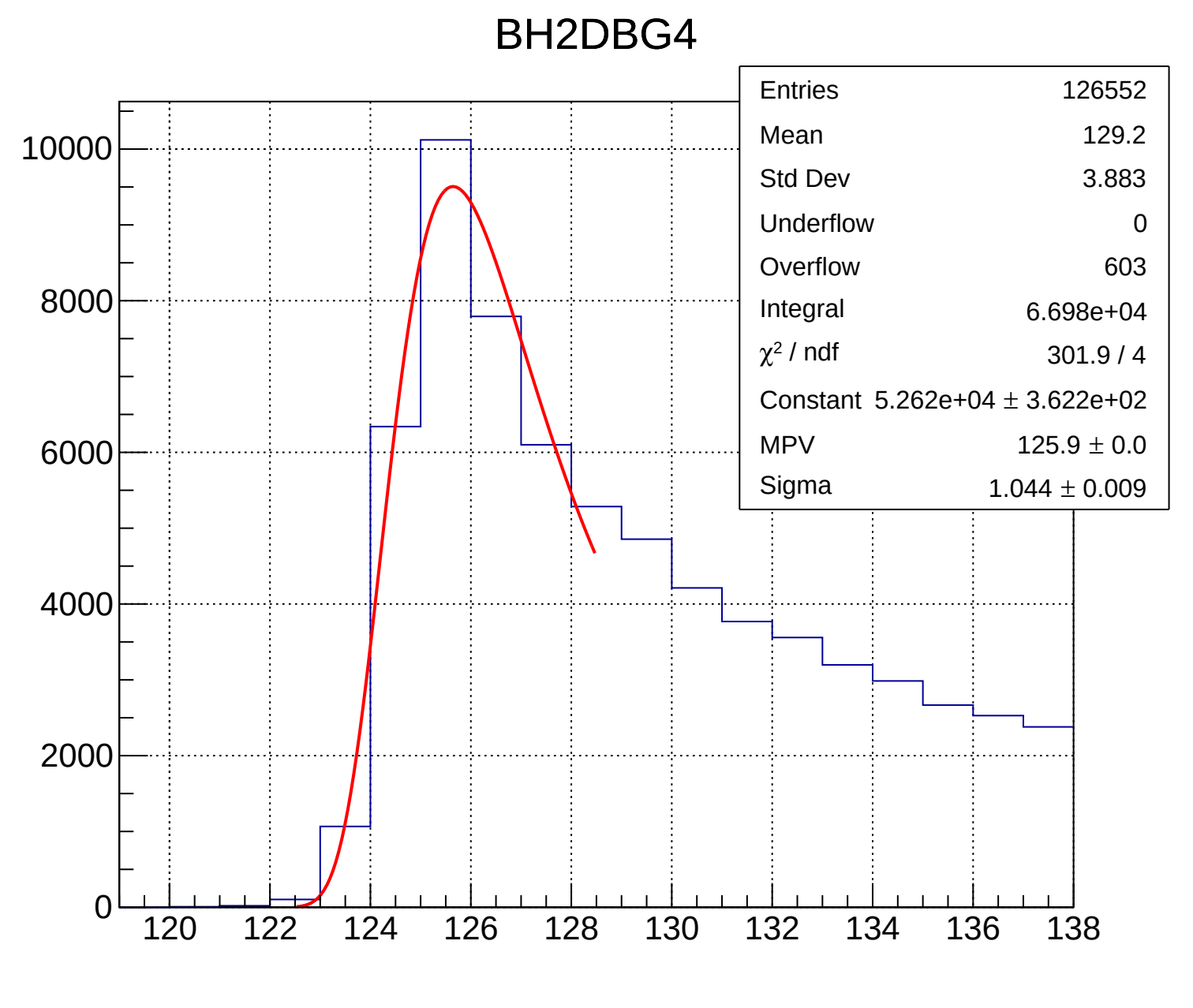

BH2UMIP4
Entries 18004
Mean 369.8
Std Dev 60.9
Underflow 0
Overflow 35
Integral 1.616e+04
χ² / ndf 124.9 / 98
Constant 129.2 ± 1.8
Mean 345.9 ± 0.7
Sigma 42.41 ± 1.05
0
20
40
60
80
100
120
140
250
300
350
400
450
500

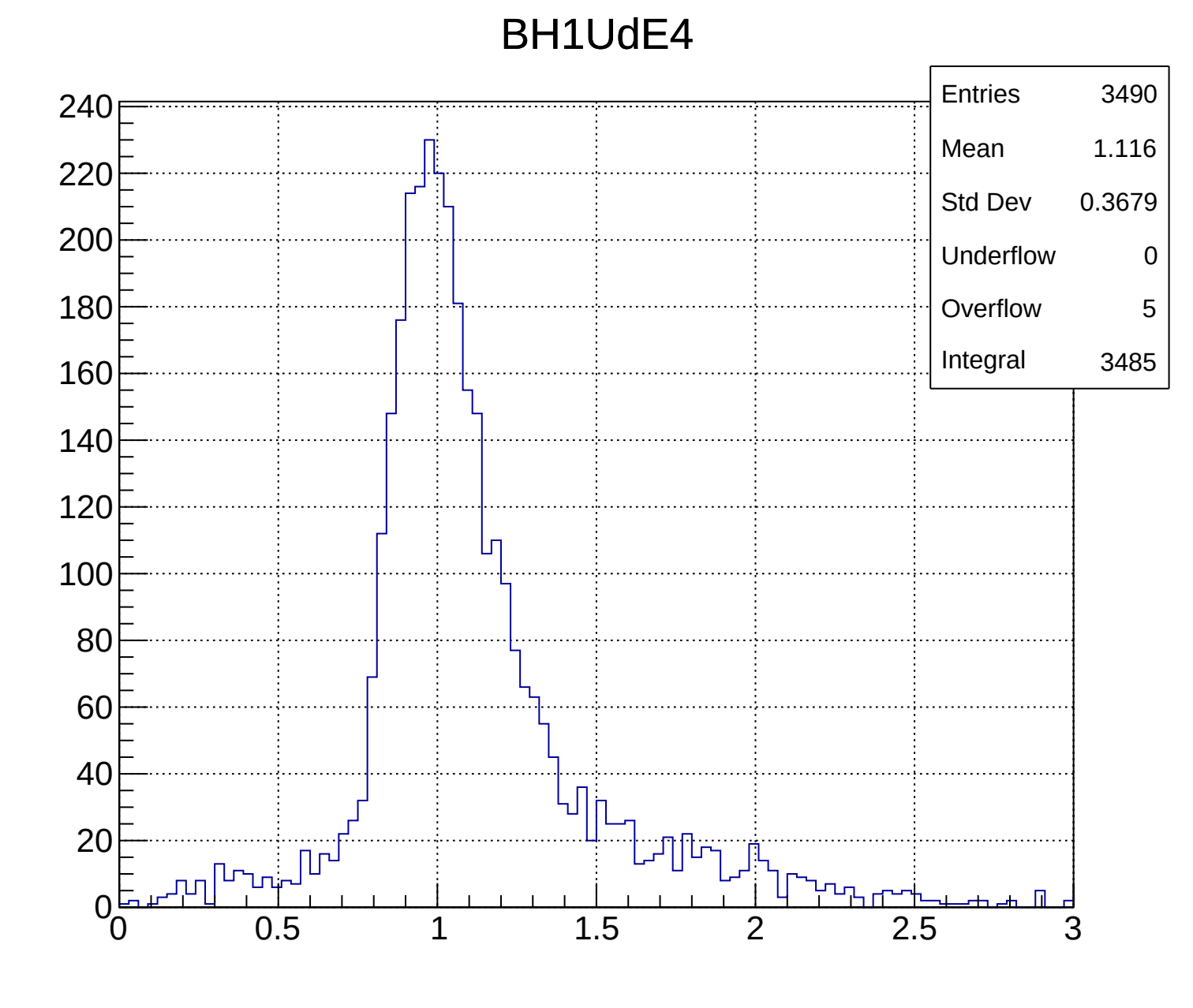

BH2DMIP4
Entries 18004
Mean 352.8
Std Dev 59.47
Underflow 0
Overflow 30
Integral 1.648e+04
χ² / ndf 113.1 / 98
Constant 145.6 ± 1.9
Mean 327 ± 0.6
Sigma 35.67 ± 0.66
0
20
40
60
80
100
120
140
160
250
300
350
400
450
500

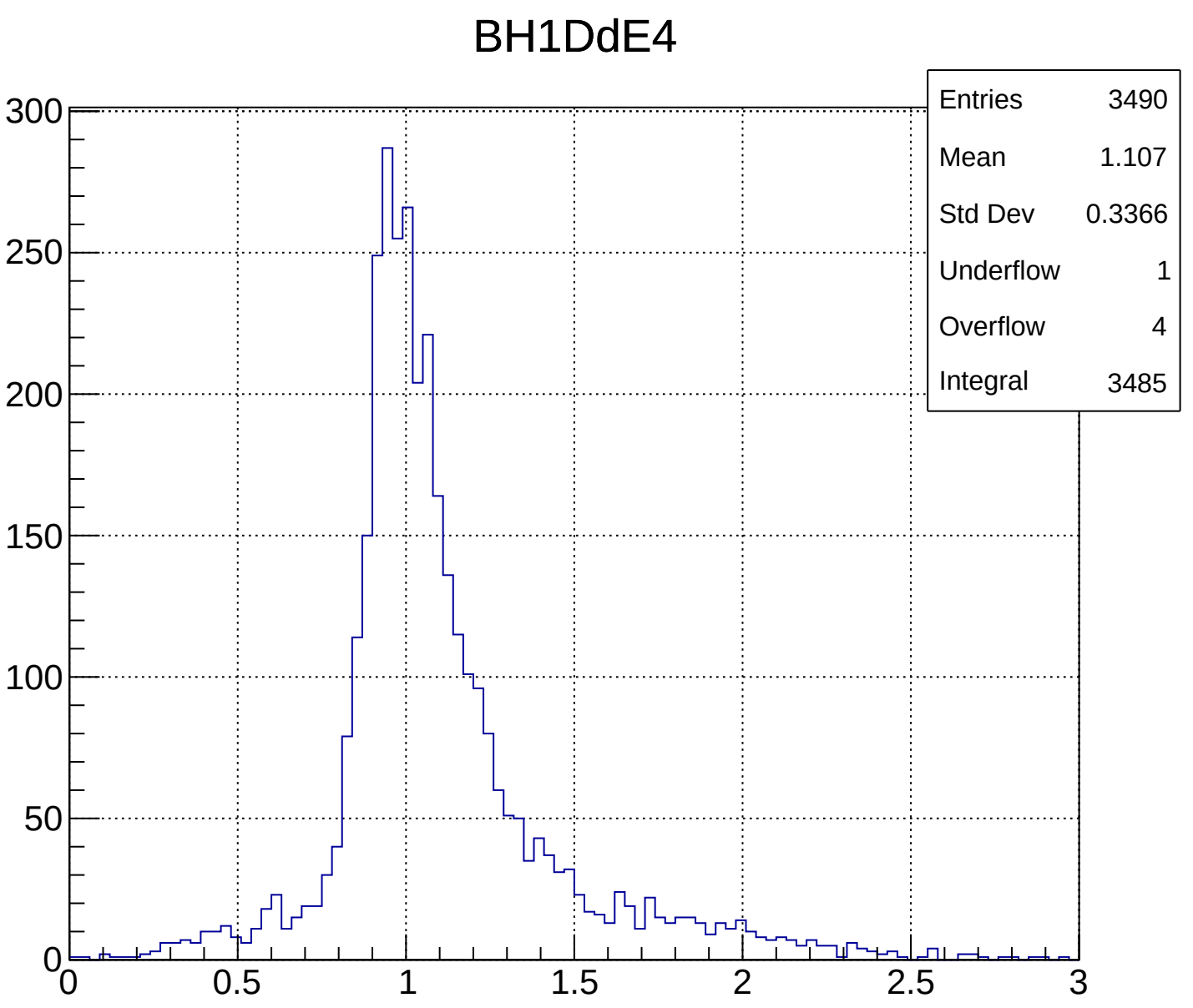

BH1UBG4
Entries 149718
Mean 175.8
Std Dev 7.258
Underflow 0
Overflow 575
Integral 7.876e+04
χ² / ndf 69.65 / 8
Constant 2.505e+04 ± 1.618e+02
MPV 170.2 ± 0.1
Sigma 3.023 ± 0.042
4500
4000
3500
3000
2500
2000
1500
1000
500
0
160
165
170
175
180
185
190

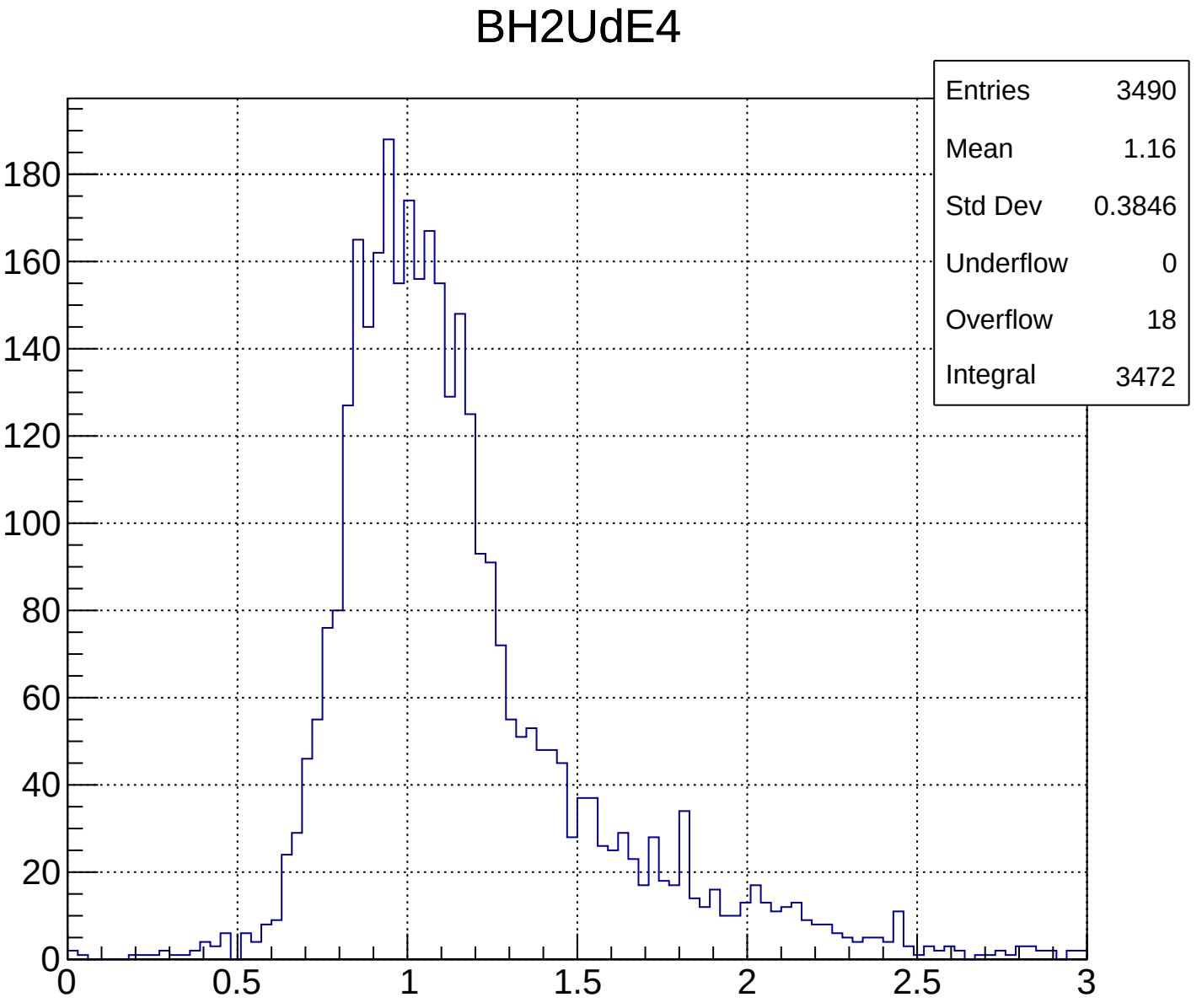

BH1DBG4
Entries 149718
Mean 144.4
Std Dev 4.394
Underflow 0
Overflow 793
Integral 4.92e+04
χ² / ndf 86.27 / 4
Constant 2.437e+04 ± 1.946e+02
MPV 140.4 ± 0.0
Sigma 1.607 ± 0.022
4500
4000
3500
3000
2500
2000
1500
1000
500
0
134
136
138
140
142
144
146
148
150
152

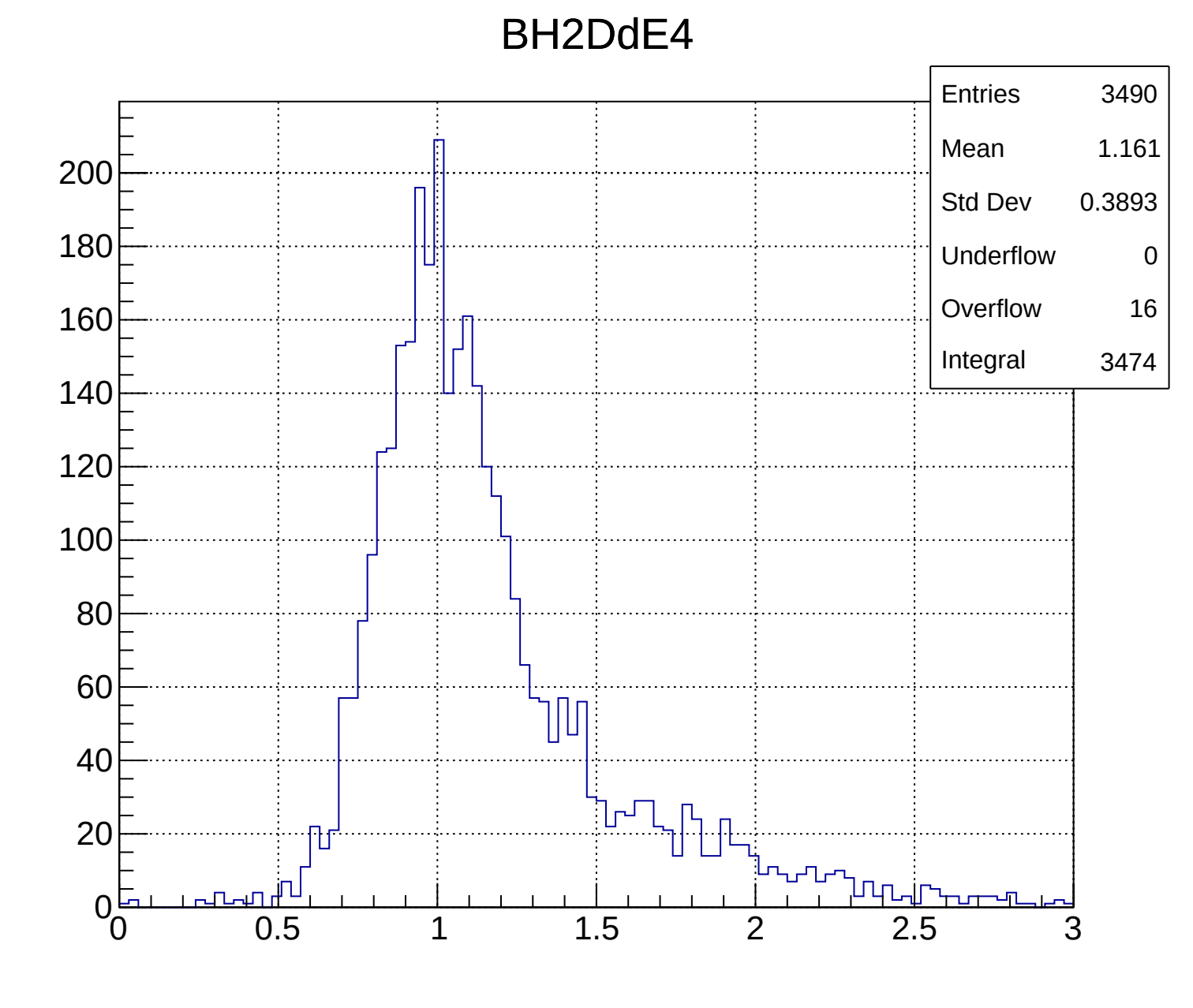

BH2UBG4
Entries 126552
Mean 127.1
Std Dev 3.893
Underflow 0
Overflow 679
Integral 6.496e+04
χ² / ndf 255.8 / 4
Constant 5.167e+04 ± 3.636e+02
MPV 123.8 ± 0.0
Sigma 1.055 ± 0.010
10000
8000
6000
4000
2000
0
118
120
122
124
126
128
130
132
134
136

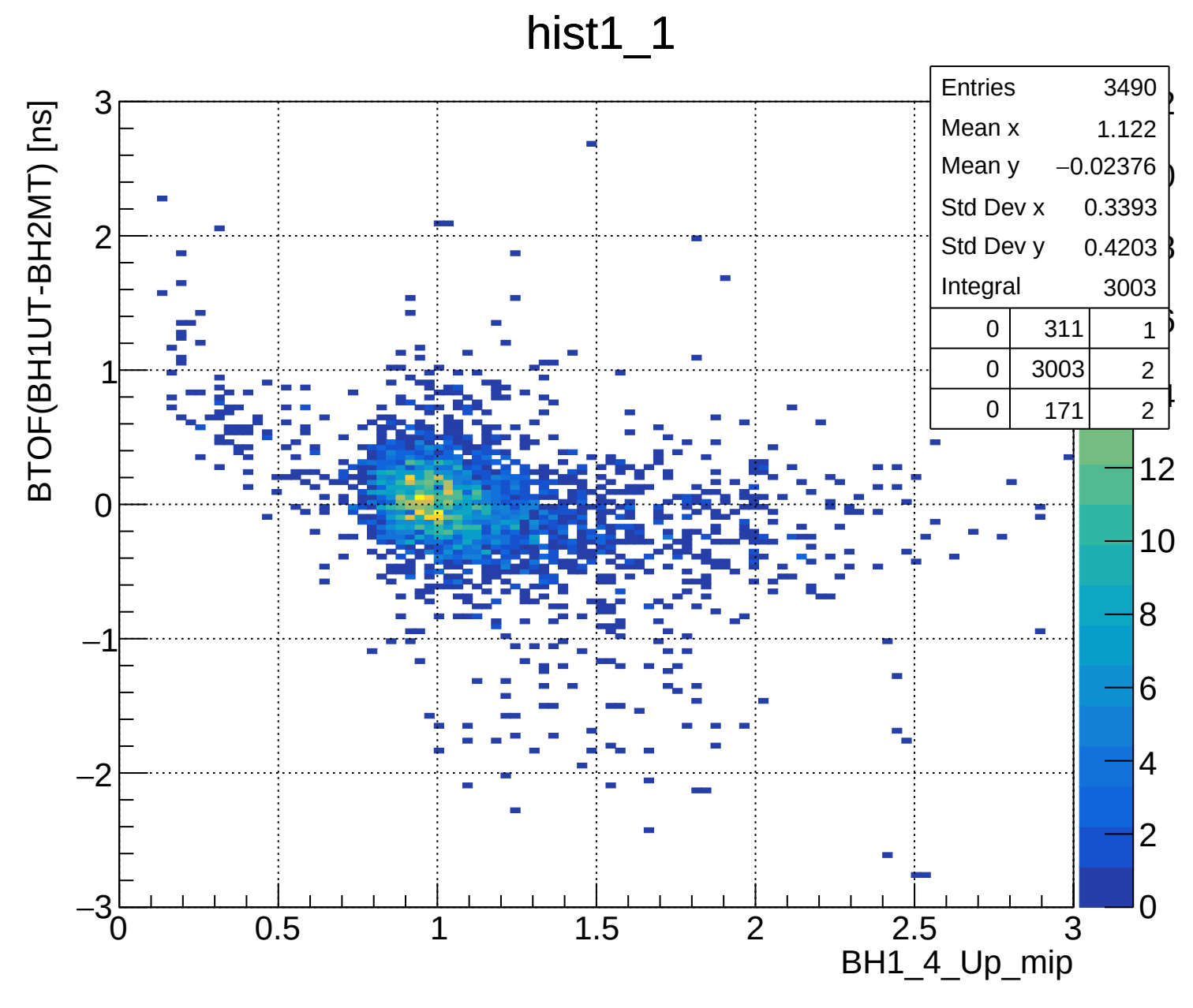

BH2DBG4
Entries 126552
Mean 129.2
Std Dev 3.883
Underflow 0
Overflow 603
Integral 6.698e+04
χ² / ndf 301.9 / 4
Constant 5.262e+04 ± 3.622e+02
MPV 125.9 ± 0.0
Sigma 1.044 ± 0.009
10000
8000
6000
4000
2000
0
120
122
124
126
128
130
132
134
136
138

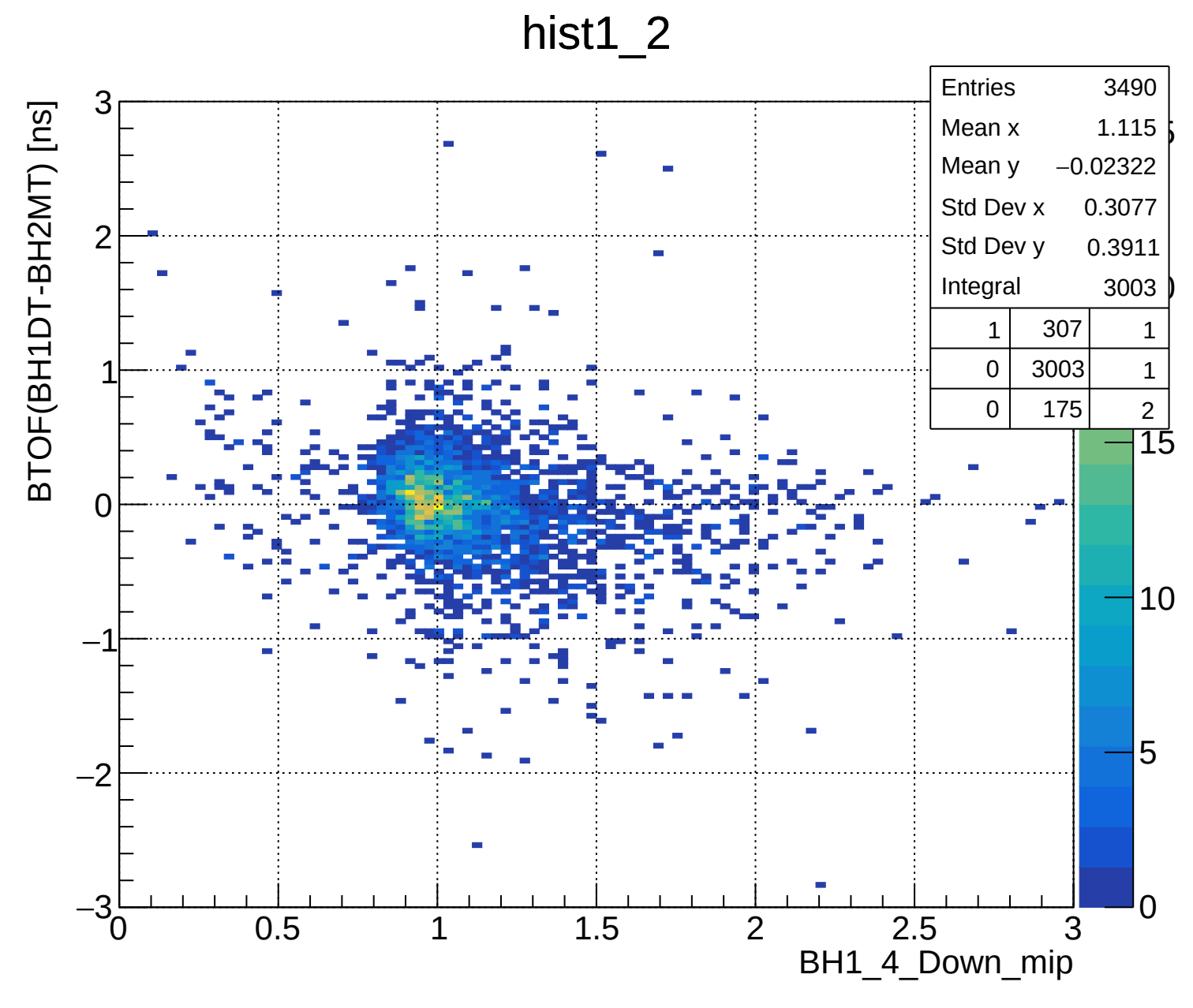

BH1UdE4
Entries 3490
Mean 1.116
Std Dev 0.3679
Underflow 0
Overflow 5
Integral 3485
240
220
200
180
160
140
120
100
80
60
40
20
0
0
0.5
1
1.5
2
2.5
3

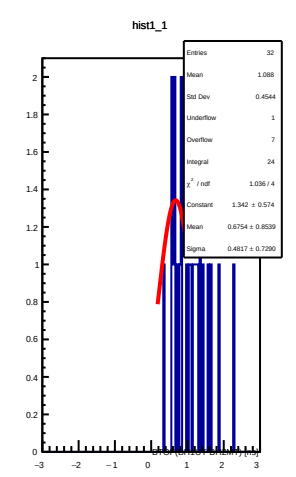

BH1DdE4
Entries 3490
Mean 1.107
Std Dev 0.3366
Underflow 1
Overflow 4
Integral 3485
300
250
200
150
100
50
0
0
0.5
1
1.5
2
2.5
3

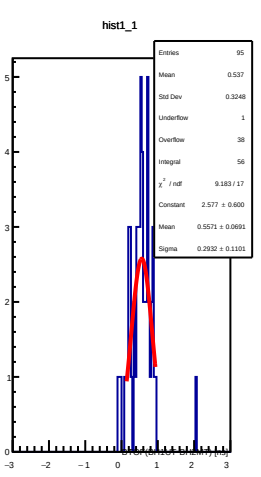

BH2UdE4
Entries 3490
Mean 1.16
Std Dev 0.3846
Underflow 0
Overflow 18
Integral 3472
180
160
140
120
100
80
60
40
20
0
0
0.5
1
1.5
2
2.5
3

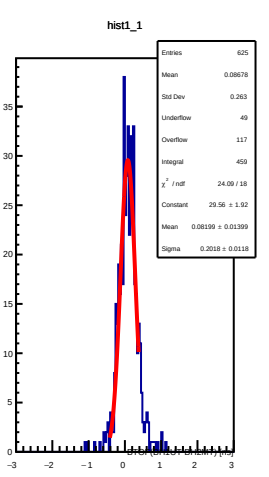

BH2DdE4
Entries 3490
Mean 1.161
Std Dev 0.3893
Underflow 0
Overflow 16
Integral 3474
200
180
160
140
120
100
80
60
40
20
0
0
0.5
1
1.5
2
2.5
3

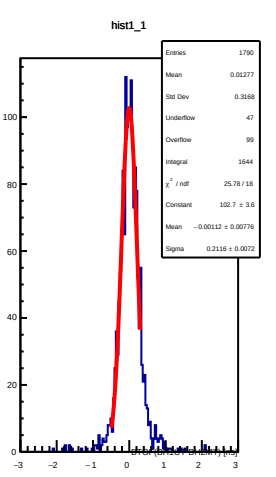

hist1_1
Entries 3490
Mean x 1.122
Mean y −0.02376
Std Dev x 0.3393
Std Dev y 0.4203
Integral 3003
0 311 1
0 3003 2
0 171 2
BTOF(BH1UT-BH2MT) [ns]
BH1_4_Up_mip
3
2
1
0
−1
−2
−3
0
0.5
1
1.5
2
2.5
3
12
10
8
6
4
2
0

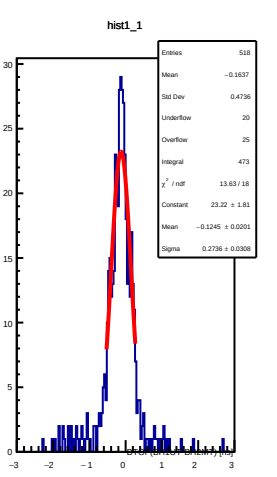

hist1_2
Entries 3490
Mean x 1.115
Mean y −0.02322
Std Dev x 0.3077
Std Dev y 0.3911
Integral 3003
1 307 1
0 3003 1
0 175 2
BTOF(BH1DT-BH2MT) [ns]
BH1_4_Down_mip
3
2
1
0
−1
−2
−3
0
0.5
1
1.5
2
2.5
3
15
10
5
0

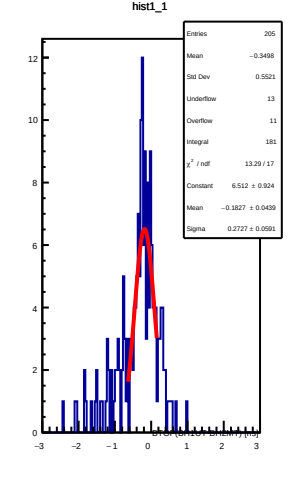

hist1_1
Entries 32
Mean 1.088
Std Dev 0.4544
Underflow 1
Overflow 7
Integral 24
χ² / ndf 1.036 / 4
Constant 1.342 ± 0.574
Mean 0.6754 ± 0.8539
Sigma 0.4817 ± 0.7290

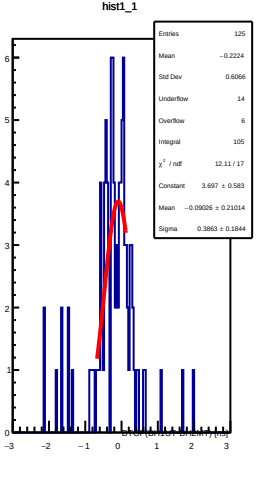

hist1_1
Entries 95
Mean 0.537
Std Dev 0.3248
Underflow 1
Overflow 38
Integral 56
χ² / ndf 9.183 / 17
Constant 2.577 ± 0.600
Mean 0.5571 ± 0.0691
Sigma 0.2932 ± 0.1101

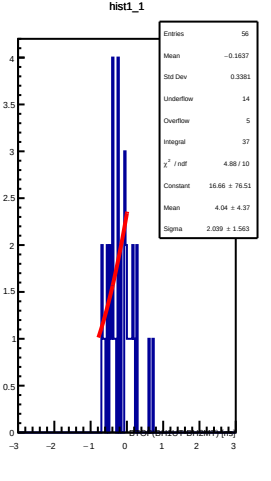

hist1_1
Entries 625
Mean 0.08678
Std Dev 0.263
Underflow 49
Overflow 117
Integral 459
χ² / ndf 24.09 / 18
Constant 29.56 ± 1.92
Mean 0.08199 ± 0.01399
Sigma 0.2018 ± 0.0118

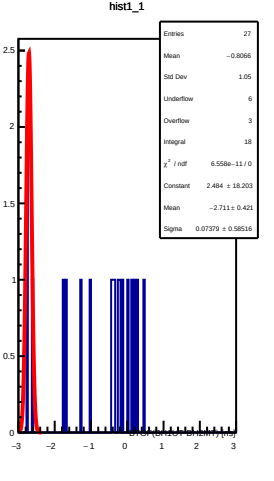

hist1_1
Entries 1790
Mean 0.01277
Std Dev 0.3168
Underflow 47
Overflow 99
Integral 1644
χ² / ndf 25.78 / 18
Constant 102.7 ± 3.6
Mean −0.00112 ± 0.00776
Sigma 0.2116 ± 0.0072

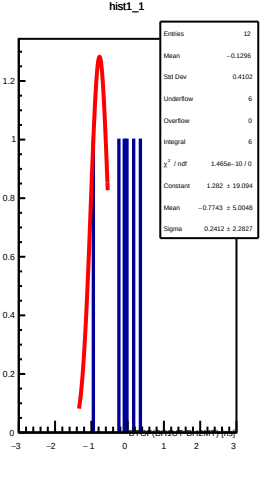

hist1_1
Entries 518
Mean −0.1637
Std Dev 0.4736
Underflow 20
Overflow 25
Integral 473
χ² / ndf 13.63 / 18
Constant 23.22 ± 1.81
Mean −0.1245 ± 0.0201
Sigma 0.2736 ± 0.0308

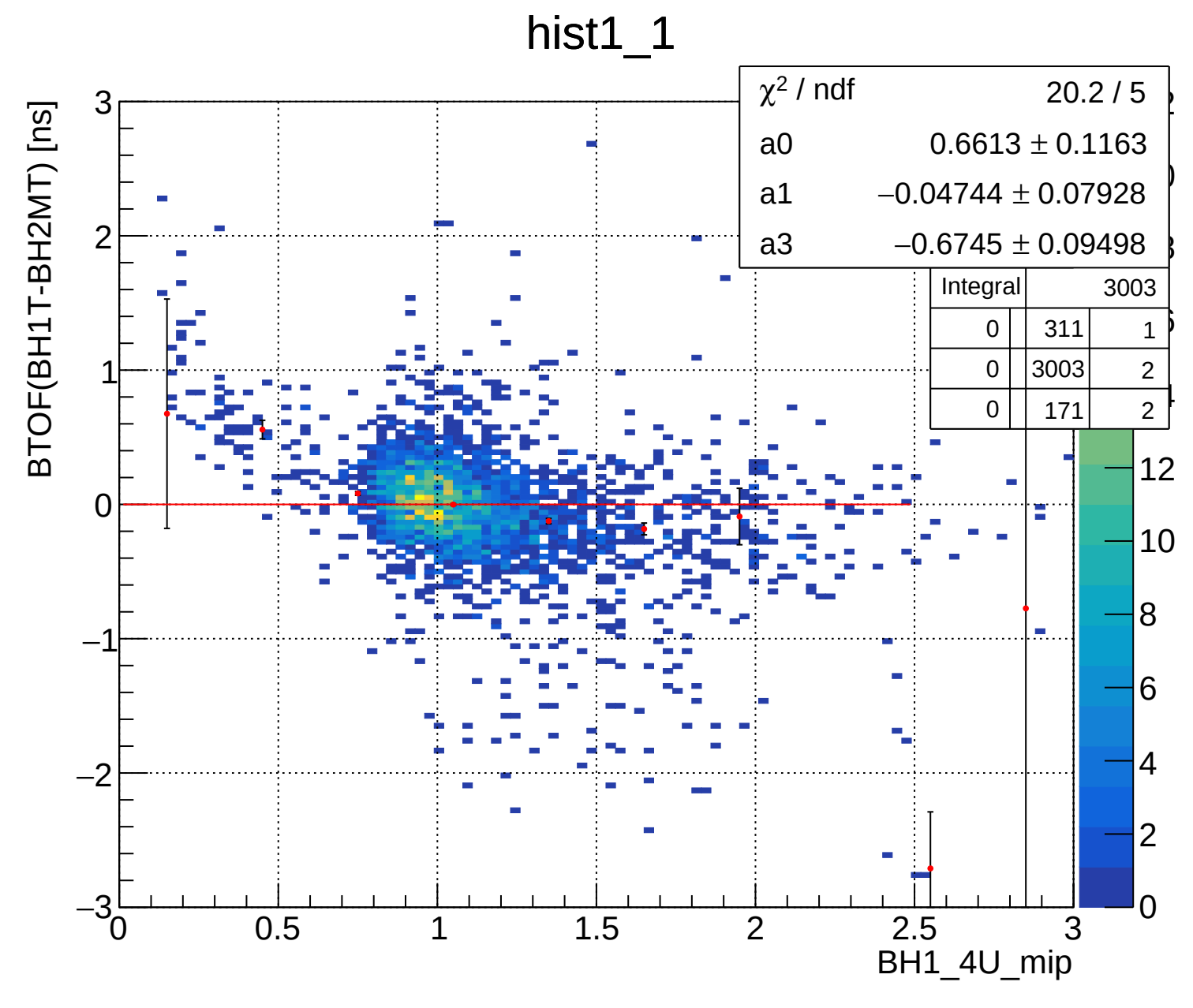

hist1_1
Entries 205
Mean −0.3498
Std Dev 0.5521
Underflow 13
Overflow 11
Integral 181
χ² / ndf 13.29 / 17
Constant 6.512 ± 0.924
Mean −0.1827 ± 0.0439
Sigma 0.2727 ± 0.0591

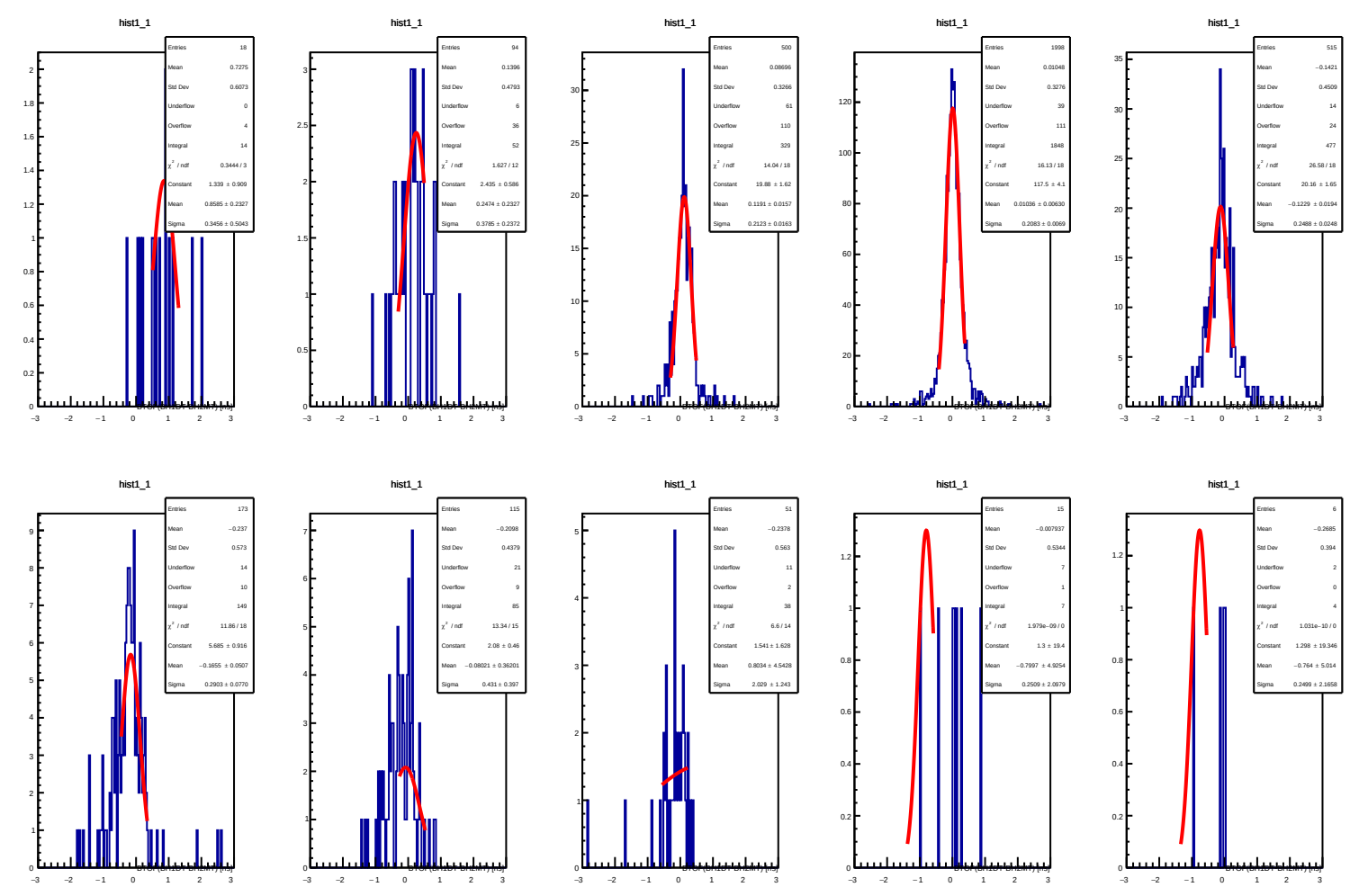

hist1_1
Entries 125
Mean −0.2224
Std Dev 0.6066
Underflow 14
Overflow 6
Integral 105
χ² / ndf 12.11 / 17
Constant 3.697 ± 0.583
Mean −0.09026 ± 0.21014
Sigma 0.3863 ± 0.1844

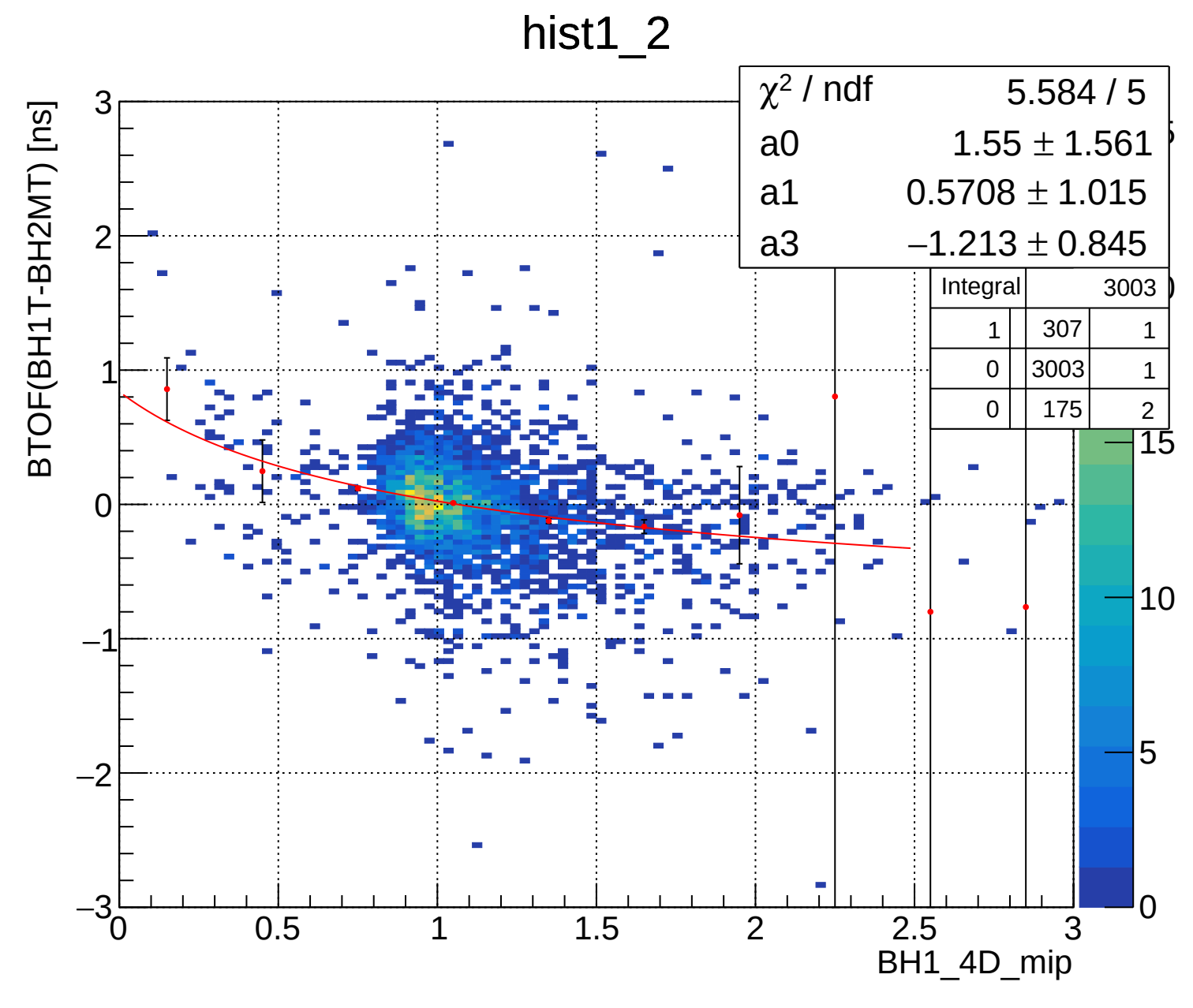

hist1_1
Entries 56
Mean −0.1637
Std Dev 0.3381
Underflow 14
Overflow 5
Integral 37
χ² / ndf 4.88 / 10
Constant 16.66 ± 76.51
Mean 4.04 ± 4.37
Sigma 2.039 ± 1.563

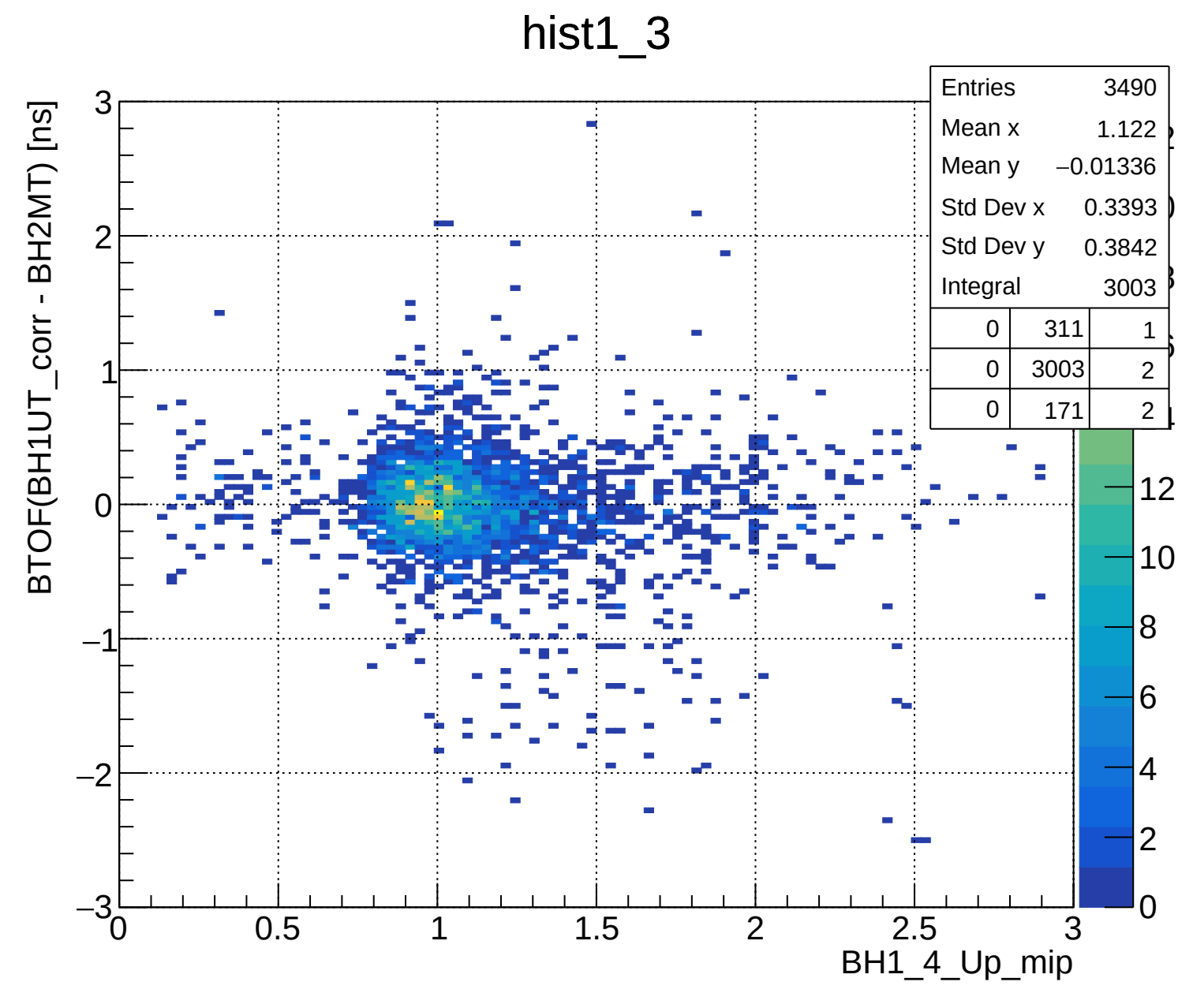

hist1_1
Entries 27
Mean −0.8066
Std Dev 1.05
Underflow 6
Overflow 3
Integral 18
χ² / ndf 6.558e−11 / 0
Constant 2.484 ± 18.203
Mean −2.711 ± 0.421
Sigma 0.07379 ± 0.58516

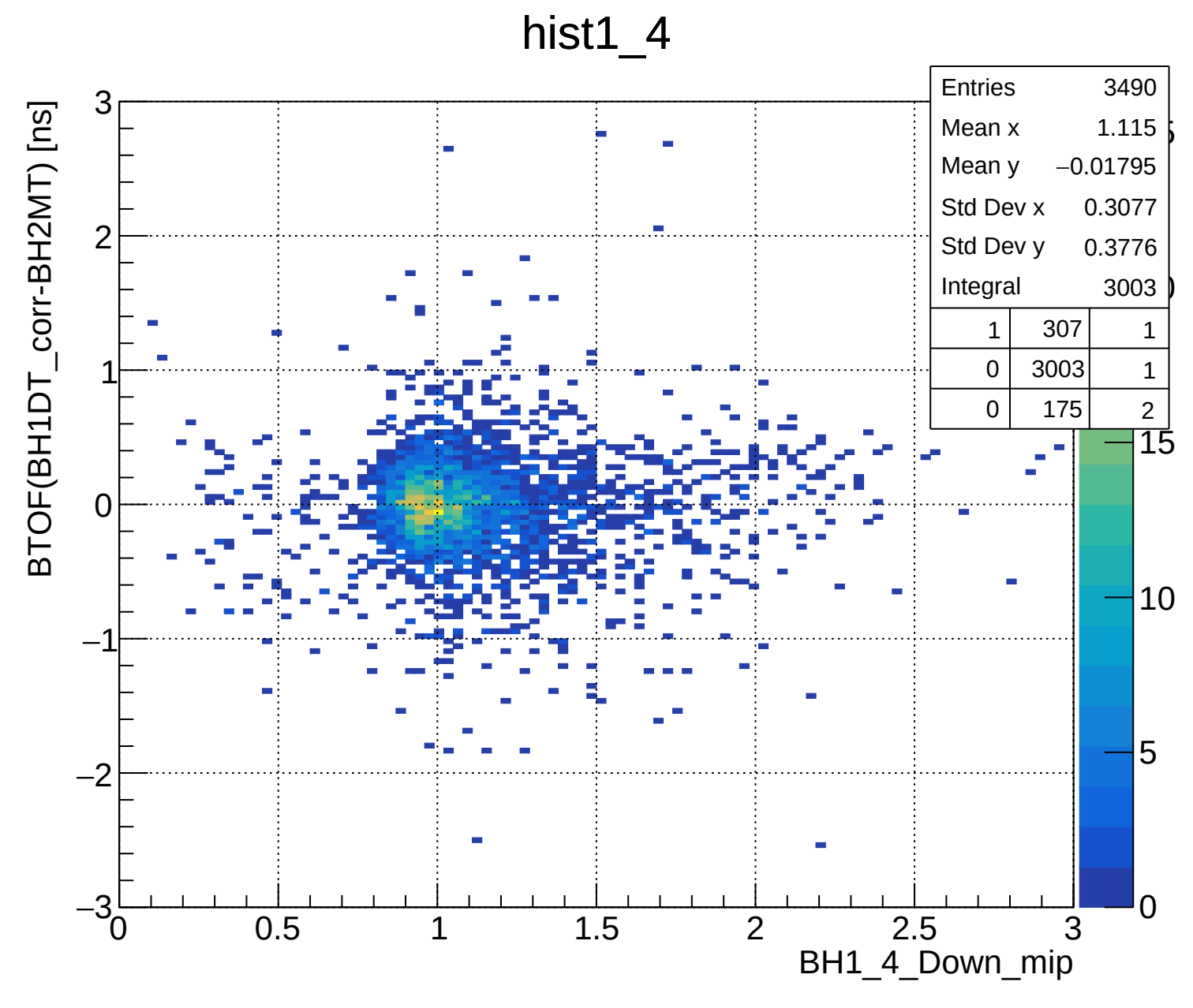

hist1_1
Entries 12
Mean −0.1296
Std Dev 0.4102
Underflow 6
Overflow 0
Integral 6
χ² / ndf 1.465e−10 / 0
Constant 1.282 ± 19.094
Mean −0.7743 ± 5.0048
Sigma 0.2412 ± 2.2827

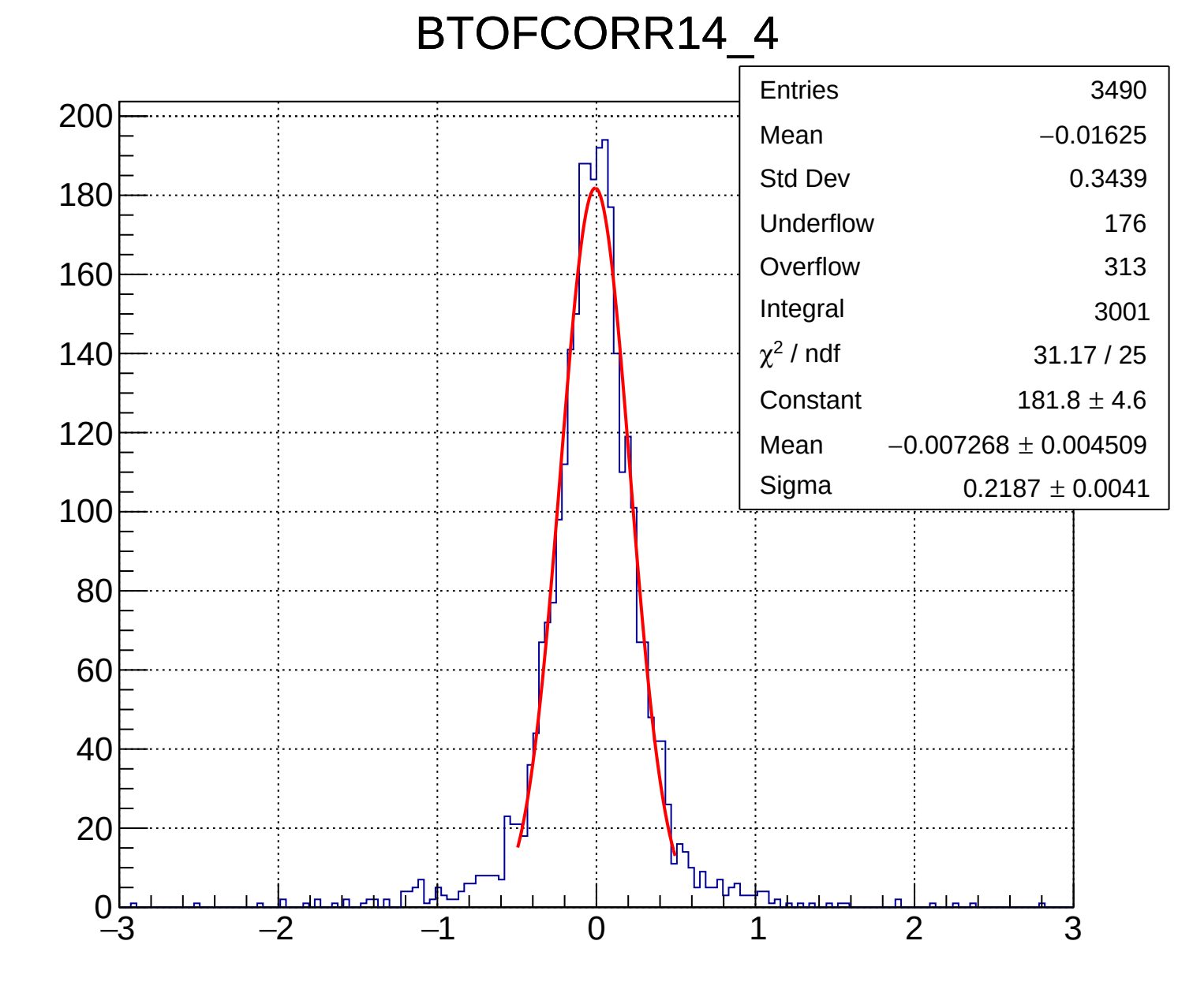

hist1_1
χ² / ndf 20.2 / 5
a0 0.6613 ± 0.1163
a1 −0.04744 ± 0.07928
a3 −0.6745 ± 0.09498
Integral 3003
0 311 1
0 3003 2
0 171 2
BTOF(BH1T-BH2MT) [ns]
BH1_4U_mip
3
2
1
0
−1
−2
−3
0
0.5
1
1.5
2
2.5
3
12
10
8
6
4
2
0

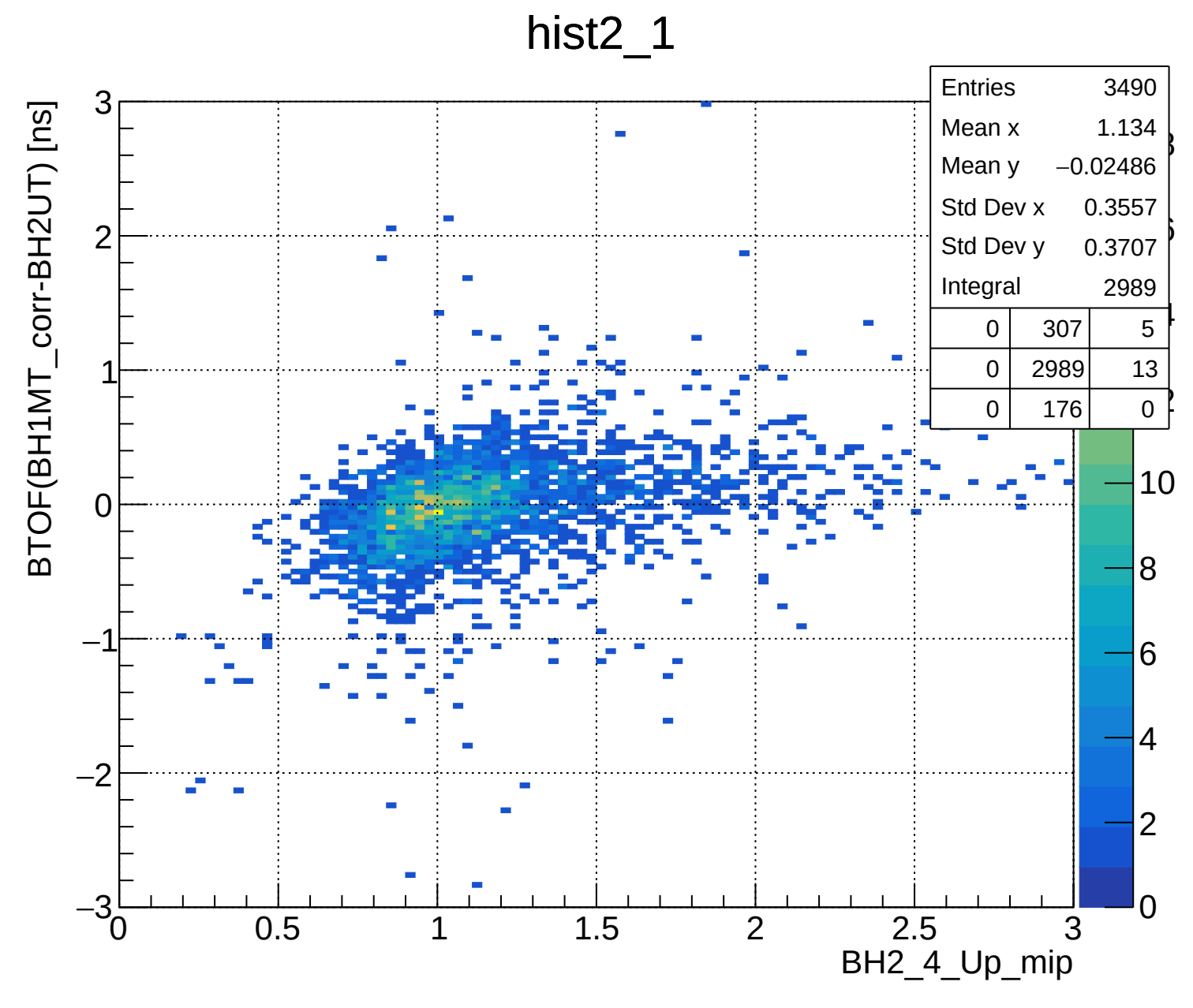

hist1_1
Entries 18
Mean 0.7275
Std Dev 0.6073
Underflow 0
Overflow 4
Integral 14
χ² / ndf 0.3444 / 3
Constant 1.339 ± 0.909
Mean 0.8585 ± 0.2327
Sigma 0.3456 ± 0.5043
hist1_1
Entries 94
Mean 0.1396
Std Dev 0.4793
Underflow 6
Overflow 36
Integral 52
χ² / ndf 1.627 / 12
Constant 2.435 ± 0.586
Mean 0.2474 ± 0.2327
Sigma 0.3785 ± 0.2372
hist1_1
Entries 500
Mean 0.08696
Std Dev 0.3266
Underflow 61
Overflow 110
Integral 329
χ² / ndf 14.04 / 18
Constant 19.88 ± 1.62
Mean 0.1191 ± 0.0157
Sigma 0.2123 ± 0.0163
hist1_1
Entries 1998
Mean 0.01048
Std Dev 0.3276
Underflow 39
Overflow 111
Integral 1848
χ² / ndf 16.13 / 18
Constant 117.5 ± 4.1
Mean 0.01036 ± 0.00630
Sigma 0.2083 ± 0.0069
hist1_1
Entries 515
Mean −0.1421
Std Dev 0.4509
Underflow 14
Overflow 24
Integral 477
χ² / ndf 26.58 / 18
Constant 20.16 ± 1.65
Mean −0.1229 ± 0.0194
Sigma 0.2488 ± 0.0248
hist1_1
Entries 173
Mean −0.237
Std Dev 0.573
Underflow 14
Overflow 10
Integral 149
χ² / ndf 11.86 / 18
Constant 5.685 ± 0.916
Mean −0.1655 ± 0.0507
Sigma 0.2903 ± 0.0770
hist1_1
Entries 115
Mean −0.2098
Std Dev 0.4379
Underflow 21
Overflow 9
Integral 85
χ² / ndf 13.34 / 15
Constant 2.08 ± 0.46
Mean −0.08021 ± 0.36201
Sigma 0.431 ± 0.397
hist1_1
Entries 51
Mean −0.2378
Std Dev 0.563
Underflow 11
Overflow 2
Integral 38
χ² / ndf 6.6 / 14
Constant 1.541 ± 1.628
Mean 0.8034 ± 4.5428
Sigma 2.029 ± 1.243
hist1_1
Entries 15
Mean −0.007937
Std Dev 0.5344
Underflow 7
Overflow 1
Integral 7
χ² / ndf 1.979e−09 / 0
Constant 1.3 ± 19.4
Mean −0.7997 ± 4.9254
Sigma 0.2509 ± 2.0979
hist1_1
Entries 6
Mean −0.2685
Std Dev 0.394
Underflow 2
Overflow 0
Integral 4
χ² / ndf 1.031e−10 / 0
Constant 1.298 ± 19.346
Mean −0.764 ± 5.014
Sigma 0.2499 ± 2.1658

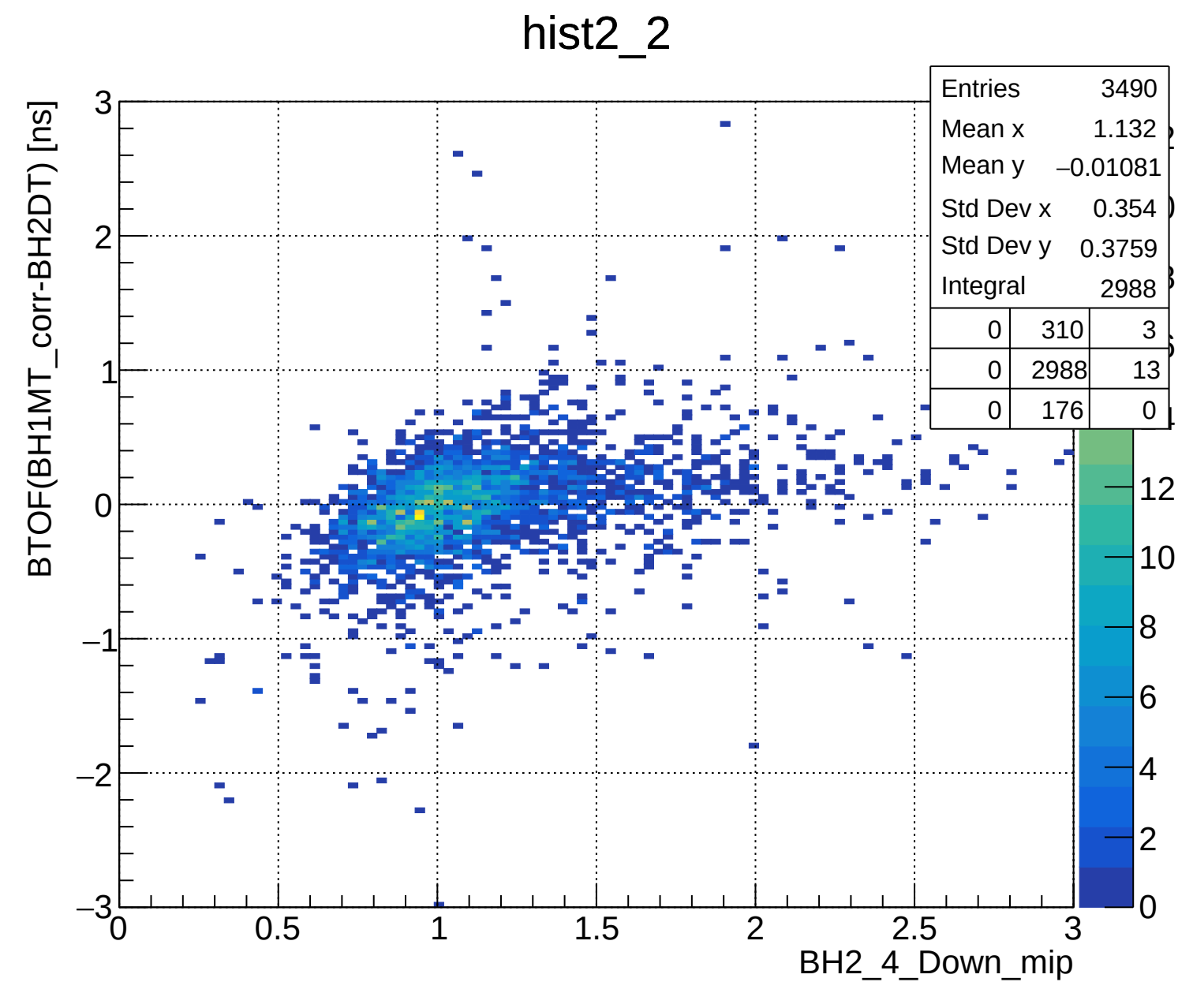

hist1_2
χ² / ndf 5.584 / 5
a0 1.55 ± 1.561
a1 0.5708 ± 1.015
a3 −1.213 ± 0.845
Integral 3003
1 307 1
0 3003 1
0 175 2
BTOF(BH1T-BH2MT) [ns]
BH1_4D_mip
3
2
1
0
−1
−2
−3
0
0.5
1
1.5
2
2.5
3
15
10
5
0

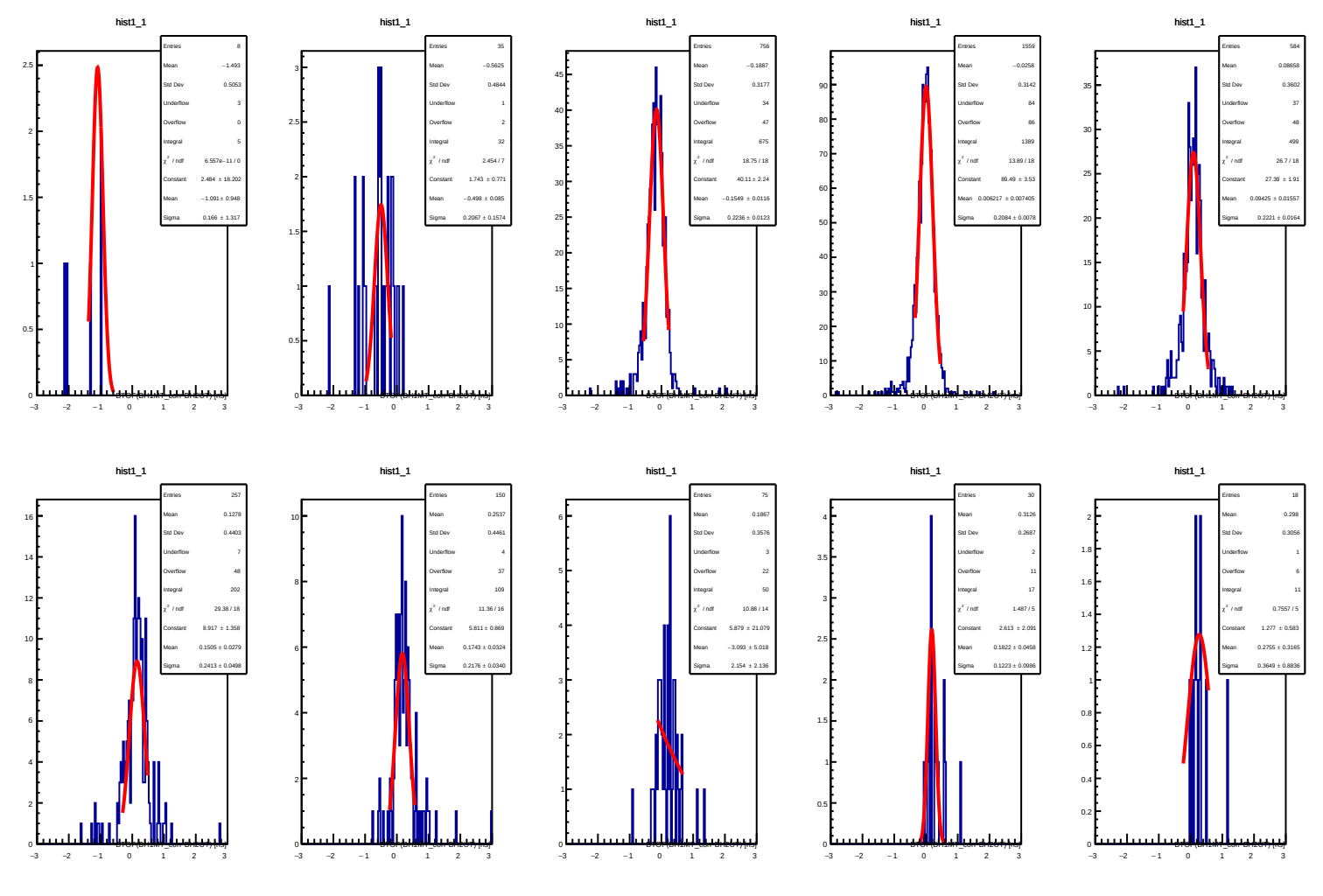

hist1_3
Entries 3490
Mean x 1.122
Mean y −0.01336
Std Dev x 0.3393
Std Dev y 0.3842
Integral 3003
0 311 1
0 3003 2
0 171 2
BTOF(BH1UT_corr - BH2MT) [ns]
BH1_4_Up_mip
3
2
1
0
−1
−2
−3
0
0.5
1
1.5
2
2.5
3
12
10
8
6
4
2
0

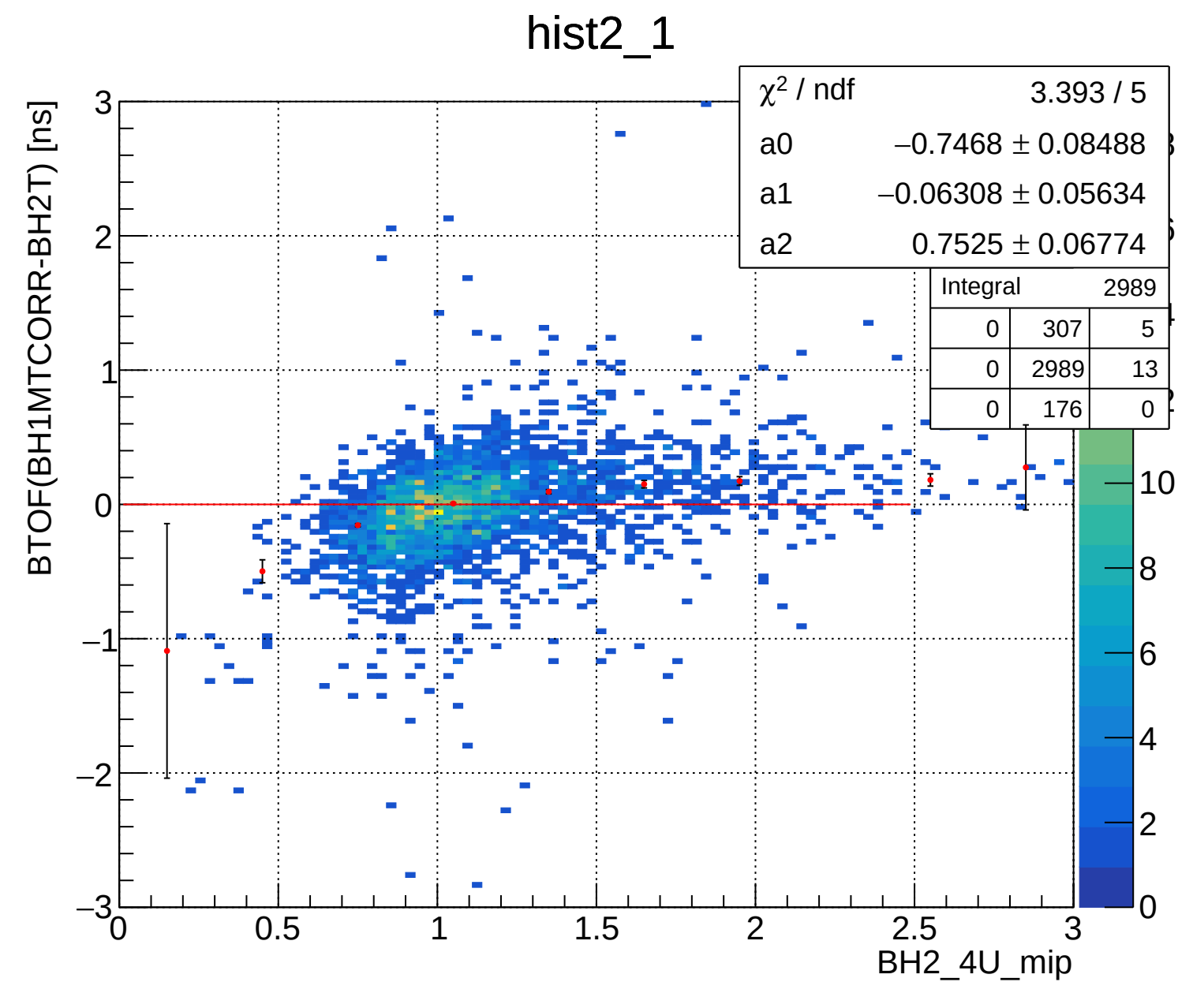

hist1_4
Entries 3490
Mean x 1.115
Mean y −0.01795
Std Dev x 0.3077
Std Dev y 0.3776
Integral 3003
1 307 1
0 3003 1
0 175 2
BTOF(BH1DT_corr-BH2MT) [ns]
BH1_4_Down_mip
3
2
1
0
−1
−2
−3
0
0.5
1
1.5
2
2.5
3
15
10
5
0

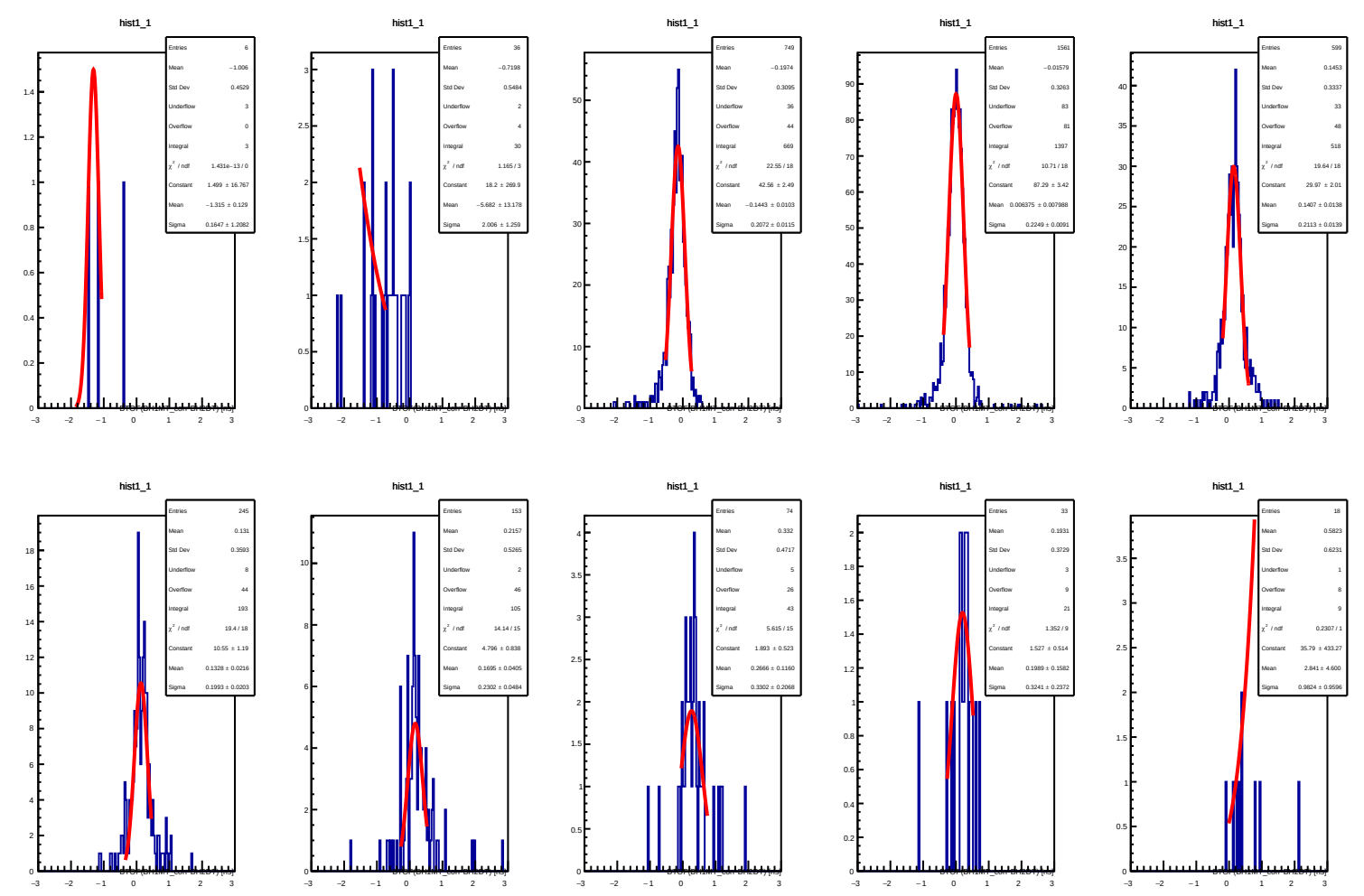

BTOFCORR14_4
Entries 3490
Mean −0.01625
Std Dev 0.3439
Underflow 176
Overflow 313
Integral 3001
χ² / ndf 31.17 / 25
Constant 181.8 ± 4.6
Mean −0.007268 ± 0.004509
Sigma 0.2187 ± 0.0041
200
180
160
140
120
100
80
60
40
20
0
−3
−2
−1
0
1
2
3

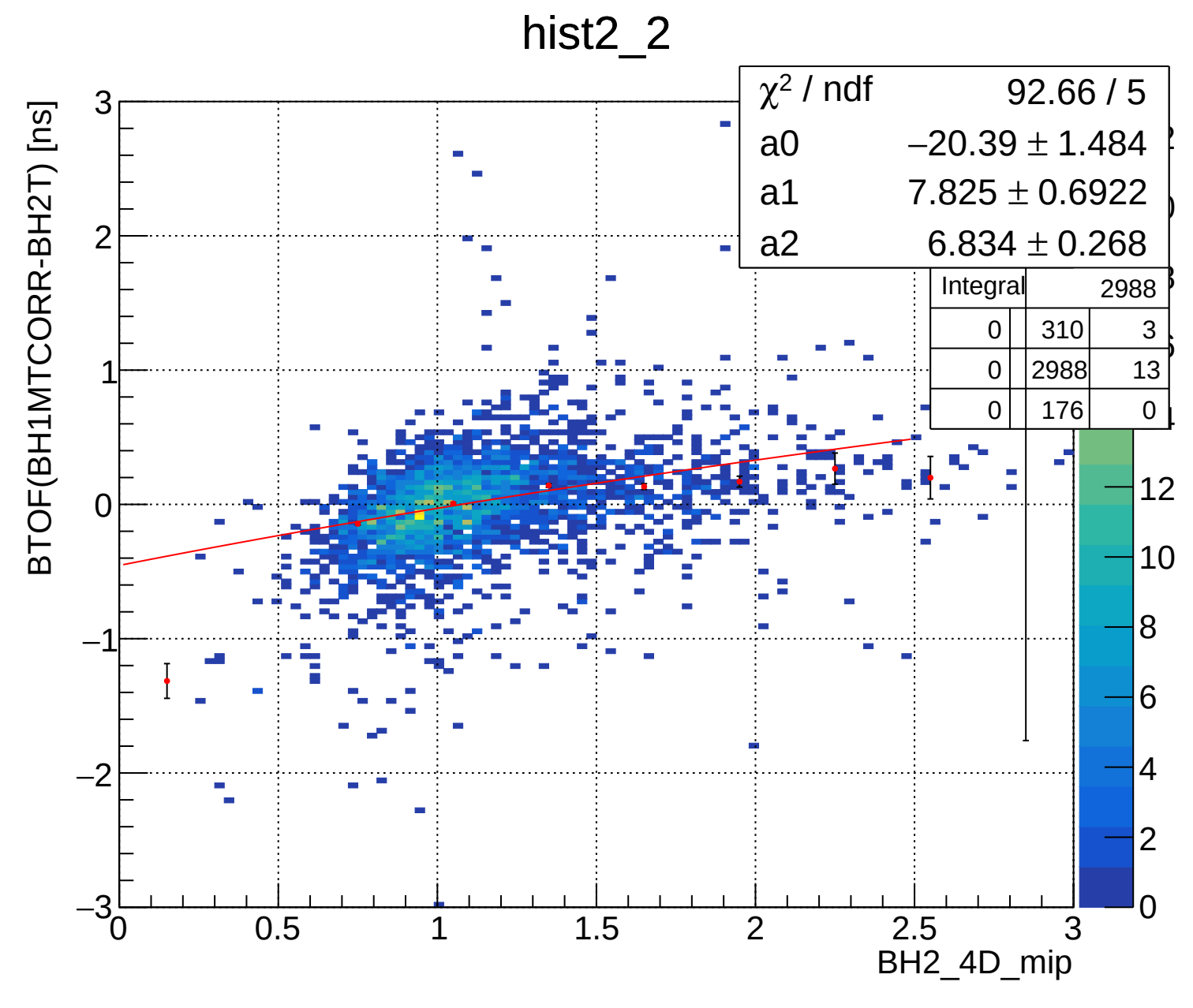

hist2_1
Entries 3490
Mean x 1.134
Mean y −0.02486
Std Dev x 0.3557
Std Dev y 0.3707
Integral 2989
0 307 5
0 2989 13
0 176 0
BTOF(BH1MT_corr-BH2UT) [ns]
BH2_4_Up_mip
3
2
1
0
−1
−2
−3
0
0.5
1
1.5
2
2.5
3
10
8
6
4
2
0

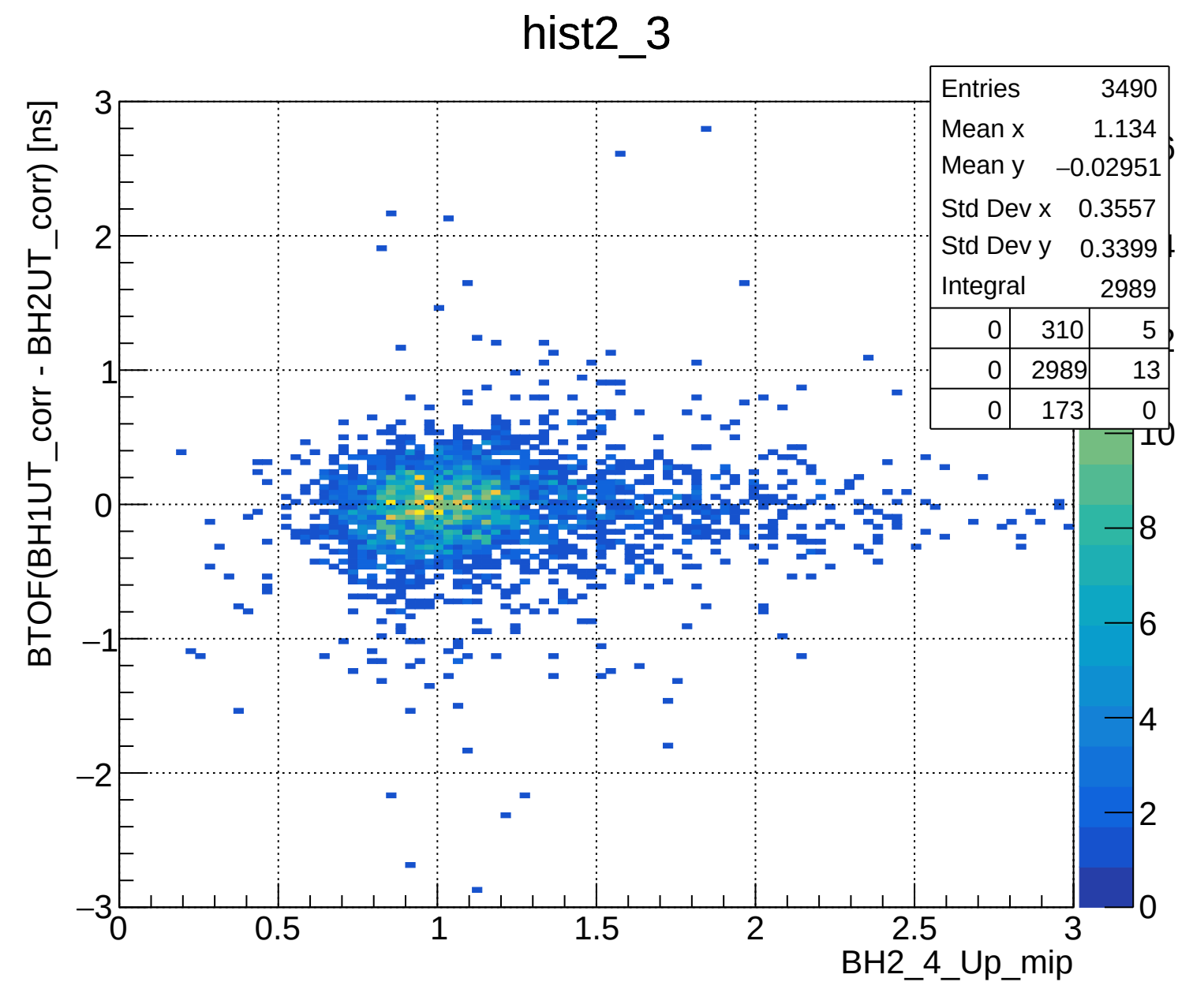

hist2_2
Entries 3490
Mean x 1.132
Mean y −0.01081
Std Dev x 0.354
Std Dev y 0.3759
Integral 2988
0 310 3
0 2988 13
0 176 0
BTOF(BH1MT_corr-BH2DT) [ns]
BH2_4_Down_mip
3
2
1
0
−1
−2
−3
0
0.5
1
1.5
2
2.5
3
12
10
8
6
4
2
0

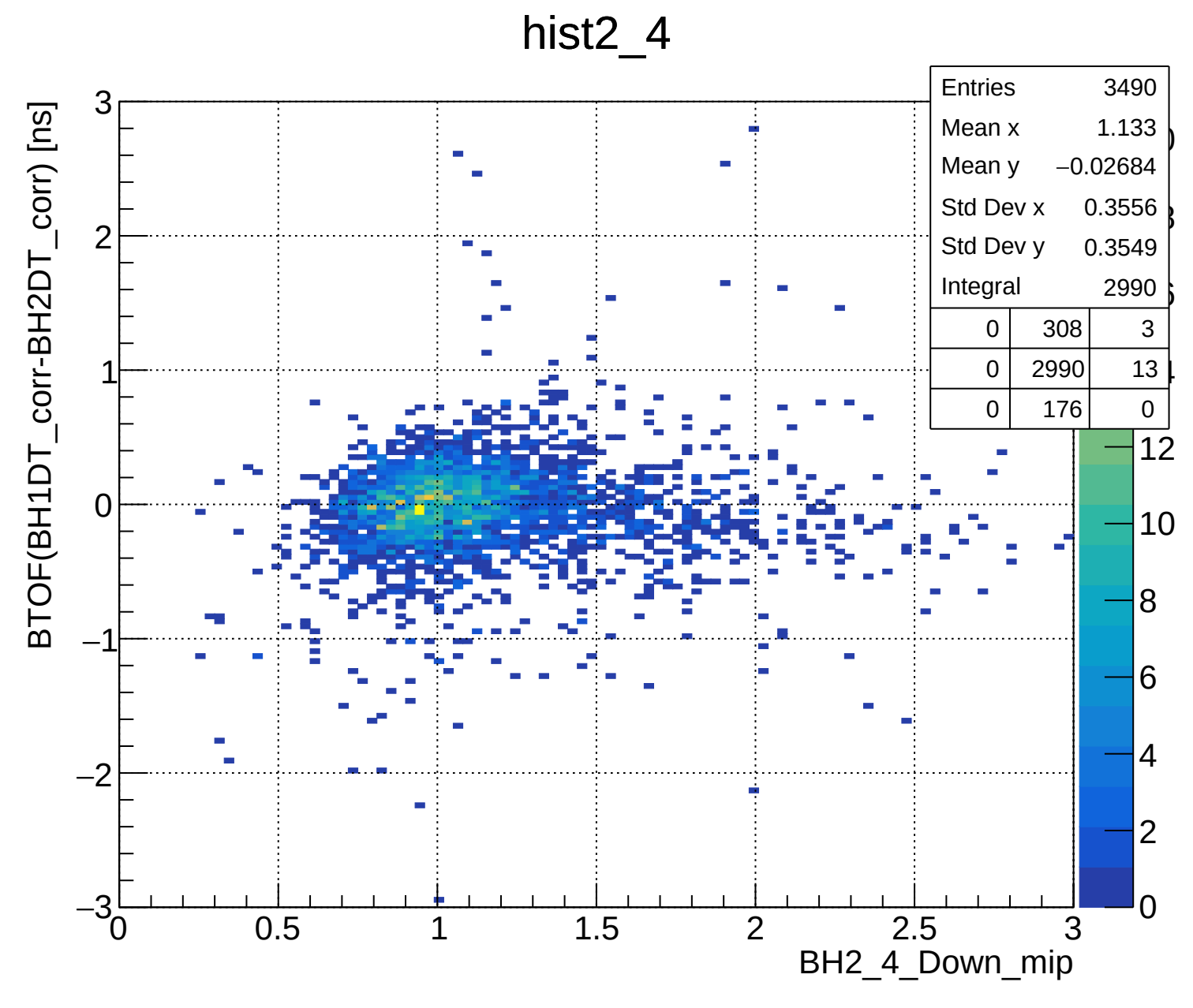

hist1_1
Entries 8
Mean −1.493
Std Dev 0.5053
Underflow 3
Overflow 0
Integral 5
χ² / ndf 6.557e−11 / 0
Constant 2.484 ± 18.202
Mean −1.091 ± 0.948
Sigma 0.166 ± 1.317
hist1_1
Entries 35
Mean −0.5625
Std Dev 0.4844
Underflow 1
Overflow 2
Integral 32
χ² / ndf 2.454 / 7
Constant 1.743 ± 0.771
Mean −0.498 ± 0.085
Sigma 0.2067 ± 0.1574
hist1_1
Entries 756
Mean −0.1887
Std Dev 0.3177
Underflow 34
Overflow 47
Integral 675
χ² / ndf 18.75 / 18
Constant 40.11 ± 2.24
Mean −0.1549 ± 0.0116
Sigma 0.2236 ± 0.0123
hist1_1
Entries 1559
Mean −0.0258
Std Dev 0.3142
Underflow 84
Overflow 86
Integral 1389
χ² / ndf 13.89 / 18
Constant 89.49 ± 3.53
Mean 0.006217 ± 0.007405
Sigma 0.2084 ± 0.0078
hist1_1
Entries 584
Mean 0.08658
Std Dev 0.3602
Underflow 37
Overflow 48
Integral 499
χ² / ndf 26.7 / 18
Constant 27.39 ± 1.91
Mean 0.09425 ± 0.01557
Sigma 0.2221 ± 0.0164
hist1_1
Entries 257
Mean 0.1278
Std Dev 0.4403
Underflow 7
Overflow 48
Integral 202
χ² / ndf 29.38 / 18
Constant 8.917 ± 1.358
Mean 0.1505 ± 0.0279
Sigma 0.2413 ± 0.0498
hist1_1
Entries 150
Mean 0.2537
Std Dev 0.4461
Underflow 4
Overflow 37
Integral 109
χ² / ndf 11.36 / 16
Constant 5.811 ± 0.869
Mean 0.1743 ± 0.0324
Sigma 0.2176 ± 0.0340
hist1_1
Entries 75
Mean 0.1867
Std Dev 0.3576
Underflow 3
Overflow 22
Integral 50
χ² / ndf 10.88 / 14
Constant 5.879 ± 21.079
Mean −3.093 ± 5.018
Sigma 2.154 ± 2.136
hist1_1
Entries 30
Mean 0.3126
Std Dev 0.2687
Underflow 2
Overflow 11
Integral 17
χ² / ndf 1.487 / 5
Constant 2.613 ± 2.091
Mean 0.1822 ± 0.0458
Sigma 0.1223 ± 0.0986
hist1_1
Entries 18
Mean 0.298
Std Dev 0.3056
Underflow 1
Overflow 6
Integral 11
χ² / ndf 0.7557 / 5
Constant 1.277 ± 0.583
Mean 0.2755 ± 0.3165
Sigma 0.3649 ± 0.8836

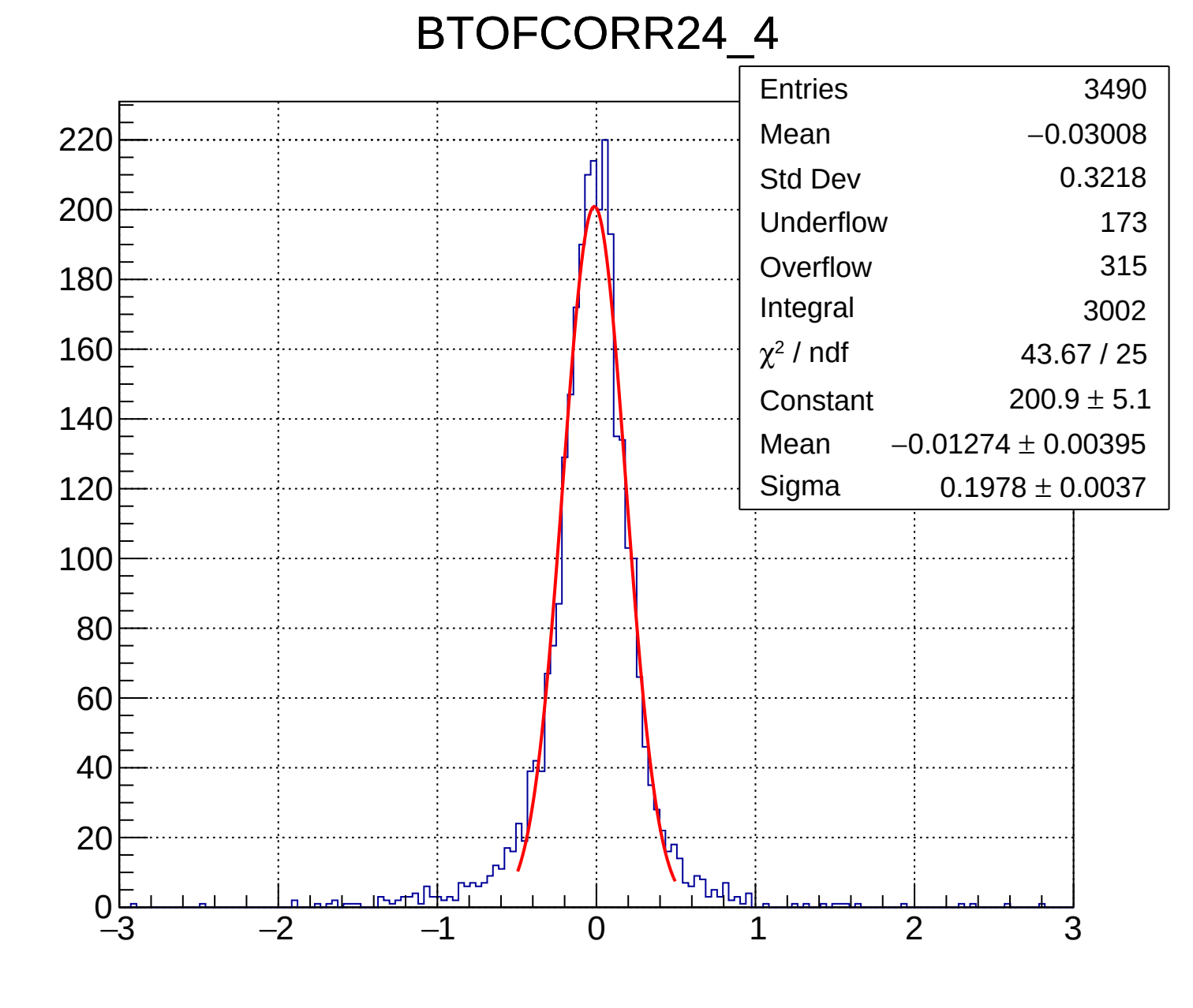

hist2_1
χ² / ndf 3.393 / 5
a0 −0.7468 ± 0.08488
a1 −0.06308 ± 0.05634
a2 0.7525 ± 0.06774
Integral 2989
0 307 5
0 2989 13
0 176 0
BTOF(BH1MTCORR-BH2T) [ns]
BH2_4U_mip
3
2
1
0
−1
−2
−3
0
0.5
1
1.5
2
2.5
3
10
8
6
4
2
0

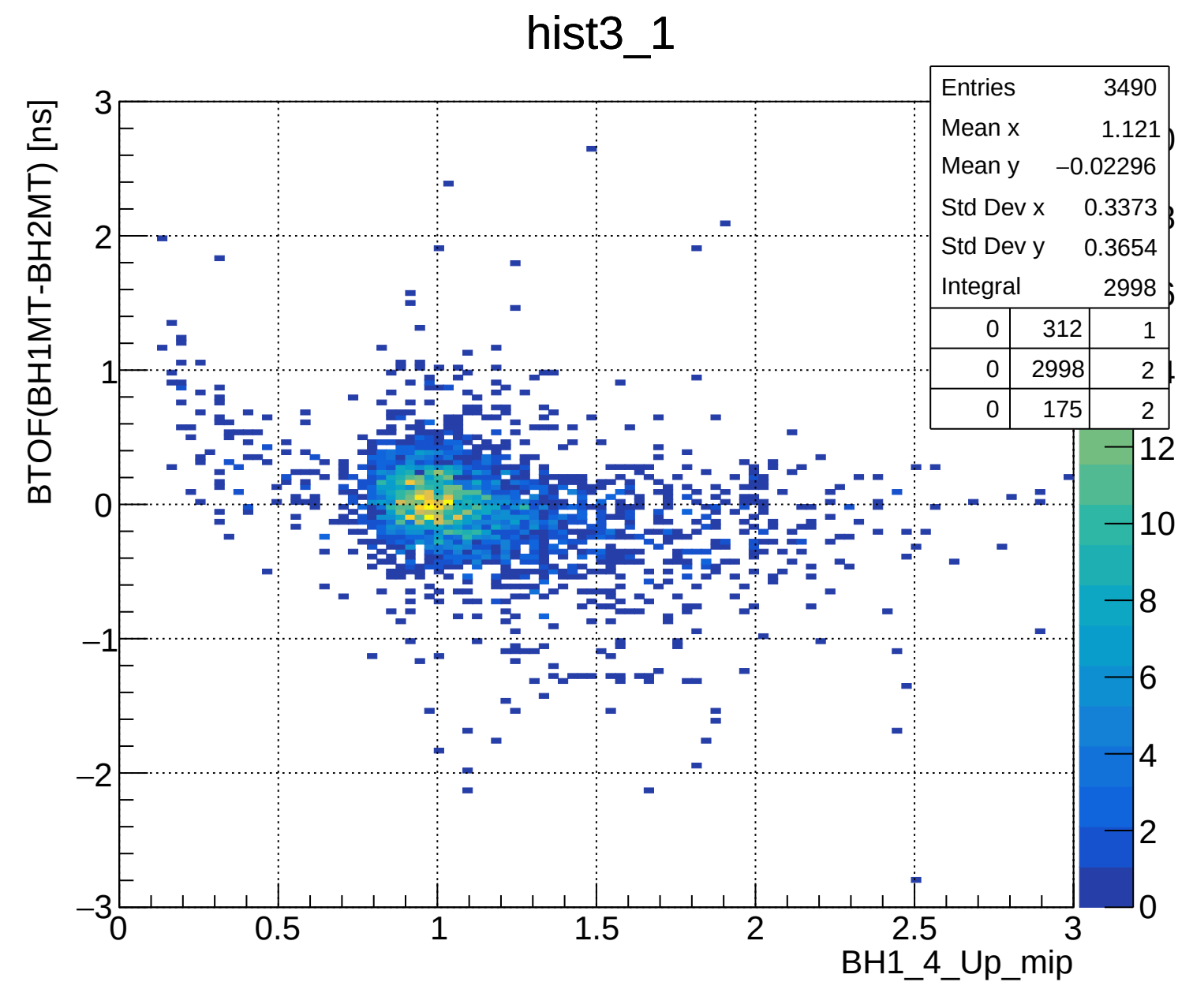

hist1_1
Entries 6
Mean −1.006
Std Dev 0.4529
Underflow 3
Overflow 0
Integral 3
χ² / ndf 1.431e−13 / 0
Constant 1.499 ± 16.767
Mean −1.315 ± 0.129
Sigma 0.1647 ± 1.2082
hist1_1
Entries 36
Mean −0.7198
Std Dev 0.5484
Underflow 2
Overflow 4
Integral 30
χ² / ndf 1.165 / 3
Constant 18.2 ± 269.9
Mean −5.682 ± 13.178
Sigma 2.006 ± 1.259
hist1_1
Entries 749
Mean −0.1974
Std Dev 0.3095
Underflow 36
Overflow 44
Integral 669
χ² / ndf 22.55 / 18
Constant 42.56 ± 2.49
Mean −0.1443 ± 0.0103
Sigma 0.2072 ± 0.0115
hist1_1
Entries 1561
Mean −0.01579
Std Dev 0.3263
Underflow 83
Overflow 81
Integral 1397
χ² / ndf 10.71 / 18
Constant 87.29 ± 3.42
Mean 0.006375 ± 0.007988
Sigma 0.2249 ± 0.0091
hist1_1
Entries 599
Mean 0.1453
Std Dev 0.3337
Underflow 33
Overflow 48
Integral 518
χ² / ndf 19.64 / 18
Constant 29.97 ± 2.01
Mean 0.1407 ± 0.0138
Sigma 0.2113 ± 0.0139
hist1_1
Entries 245
Mean 0.131
Std Dev 0.3593
Underflow 8
Overflow 44
Integral 193
χ² / ndf 19.4 / 18
Constant 10.55 ± 1.19
Mean 0.1328 ± 0.0216
Sigma 0.1993 ± 0.0203
hist1_1
Entries 153
Mean 0.2157
Std Dev 0.5265
Underflow 2
Overflow 46
Integral 105
χ² / ndf 14.14 / 15
Constant 4.796 ± 0.838
Mean 0.1695 ± 0.0405
Sigma 0.2302 ± 0.0484
hist1_1
Entries 74
Mean 0.332
Std Dev 0.4717
Underflow 5
Overflow 26
Integral 43
χ² / ndf 5.615 / 15
Constant 1.893 ± 0.523
Mean 0.2666 ± 0.1160
Sigma 0.3302 ± 0.2068
hist1_1
Entries 33
Mean 0.1931
Std Dev 0.3729
Underflow 3
Overflow 9
Integral 21
χ² / ndf 1.352 / 9
Constant 1.527 ± 0.514
Mean 0.1989 ± 0.1582
Sigma 0.3241 ± 0.2372
hist1_1
Entries 18
Mean 0.5823
Std Dev 0.6231
Underflow 1
Overflow 8
Integral 9
χ² / ndf 0.2307 / 1
Constant 35.79 ± 433.27
Mean 2.841 ± 4.600
Sigma 0.9824 ± 0.9596

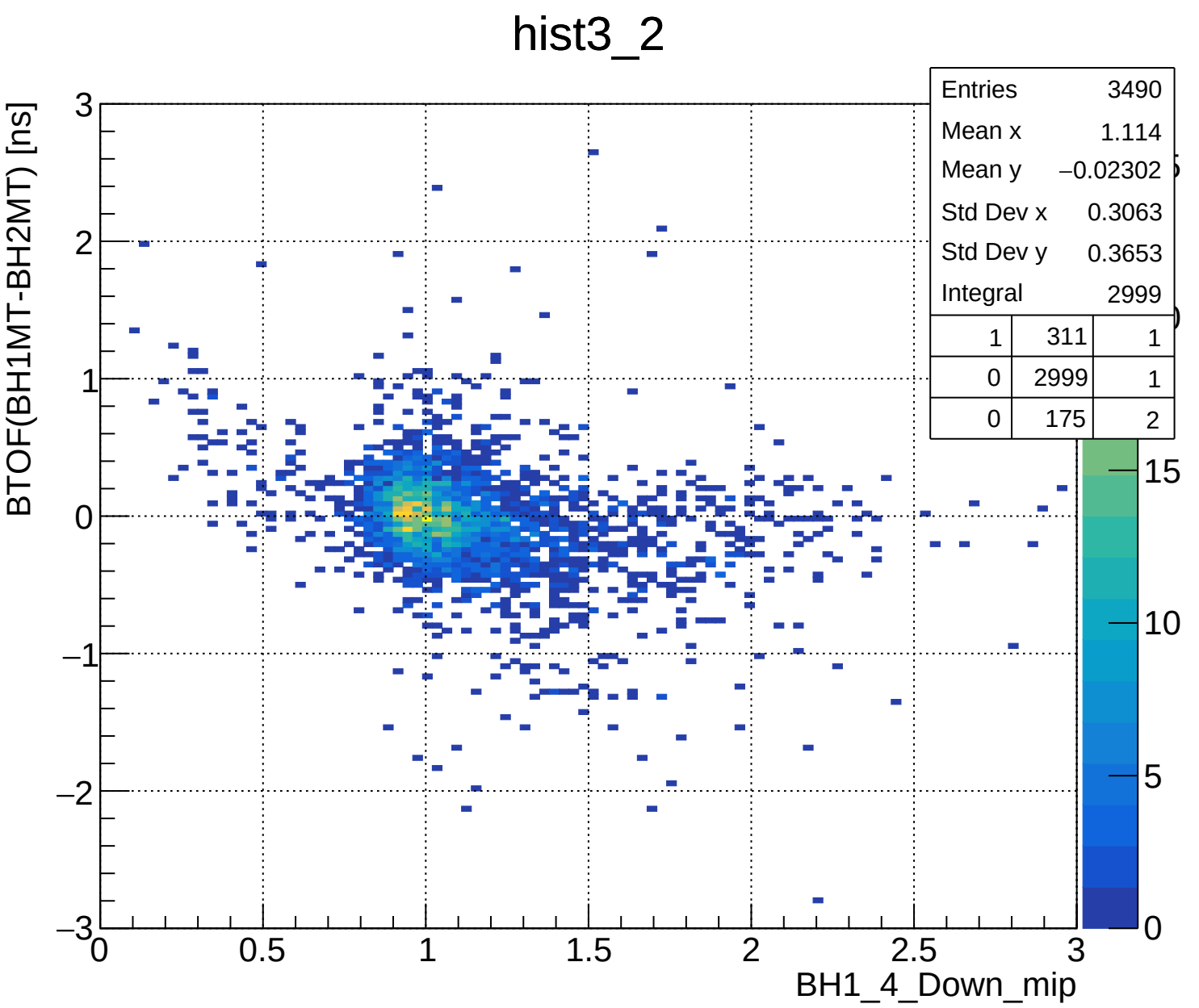

hist2_2
χ² / ndf 92.66 / 5
a0 −20.39 ± 1.484
a1 7.825 ± 0.6922
a2 6.834 ± 0.268
Integral 2988
0 310 3
0 2988 13
0 176 0
BTOF(BH1MTCORR-BH2T) [ns]
BH2_4D_mip
3
2
1
0
−1
−2
−3
0
0.5
1
1.5
2
2.5
3
12
10
8
6
4
2
0

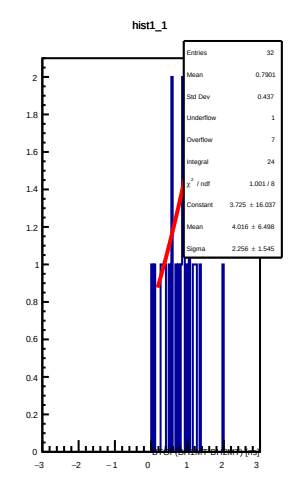

hist2_3
Entries 3490
Mean x 1.134
Mean y −0.02951
Std Dev x 0.3557
Std Dev y 0.3399
Integral 2989
0 310 5
0 2989 13
0 173 0
BTOF(BH1UT_corr - BH2UT_corr) [ns]
BH2_4_Up_mip
3
2
1
0
−1
−2
−3
0
0.5
1
1.5
2
2.5
3
10
8
6
4
2
0

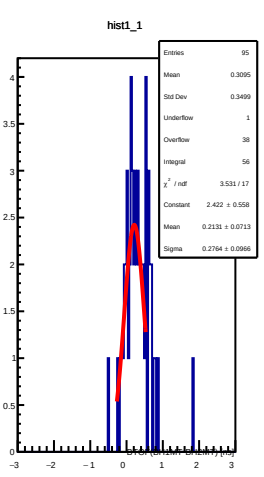

hist2_4
Entries 3490
Mean x 1.133
Mean y −0.02684
Std Dev x 0.3556
Std Dev y 0.3549
Integral 2990
0 308 3
0 2990 13
0 176 0
BTOF(BH1DT_corr-BH2DT_corr) [ns]
BH2_4_Down_mip
3
2
1
0
−1
−2
−3
0
0.5
1
1.5
2
2.5
3
12
10
8
6
4
2
0

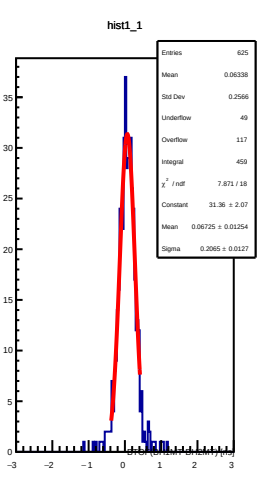

BTOFCORR24_4
Entries 3490
Mean −0.03008
Std Dev 0.3218
Underflow 173
Overflow 315
Integral 3002
χ² / ndf 43.67 / 25
Constant 200.9 ± 5.1
Mean −0.01274 ± 0.00395
Sigma 0.1978 ± 0.0037
220
200
180
160
140
120
100
80
60
40
20
0
−3
−2
−1
0
1
2
3

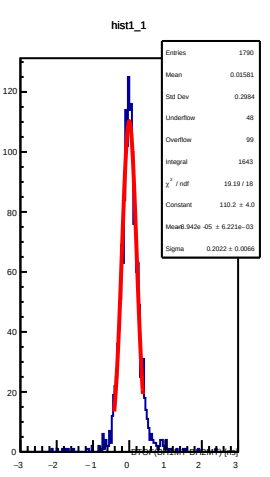

hist3_1
Entries 3490
Mean x 1.121
Mean y −0.02296
Std Dev x 0.3373
Std Dev y 0.3654
Integral 2998
0 312 1
0 2998 2
0 175 2
BTOF(BH1MT-BH2MT) [ns]
BH1_4_Up_mip
3
2
1
0
−1
−2
−3
0
0.5
1
1.5
2
2.5
3
12
10
8
6
4
2
0

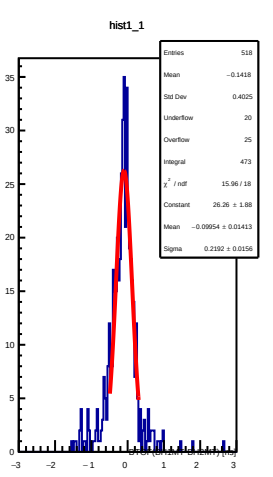

hist3_2
Entries 3490
Mean x 1.114
Mean y −0.02302
Std Dev x 0.3063
Std Dev y 0.3653
Integral 2999
1 311 1
0 2999 1
0 175 2
BTOF(BH1MT-BH2MT) [ns]
BH1_4_Down_mip
3
2
1
0
−1
−2
−3
0
0.5
1
1.5
2
2.5
3
15
10
5
0

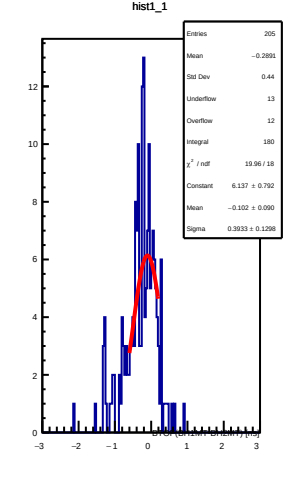

hist1_1
Entries 32
Mean 0.7901
Std Dev 0.437
Underflow 1
Overflow 7
Integral 24
χ² / ndf 1.001 / 8
Constant 3.725 ± 16.037
Mean 4.016 ± 6.498
Sigma 2.256 ± 1.545

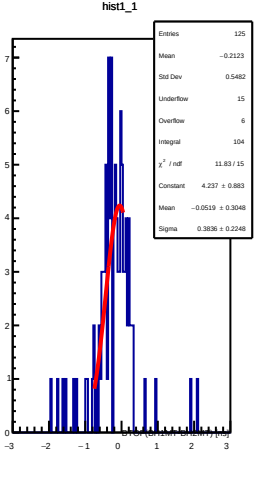

hist1_1
Entries 95
Mean 0.3095
Std Dev 0.3499
Underflow 1
Overflow 38
Integral 56
χ² / ndf 3.531 / 17
Constant 2.422 ± 0.558
Mean 0.2131 ± 0.0713
Sigma 0.2764 ± 0.0966

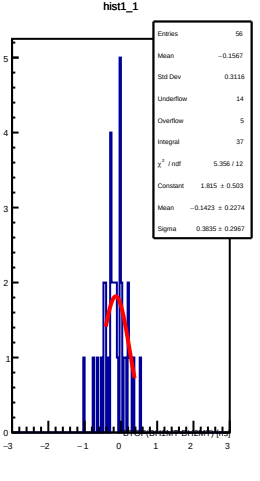

hist1_1
Entries 625
Mean 0.06338
Std Dev 0.2566
Underflow 49
Overflow 117
Integral 459
χ² / ndf 7.871 / 18
Constant 31.36 ± 2.07
Mean 0.06725 ± 0.01254
Sigma 0.2065 ± 0.0127

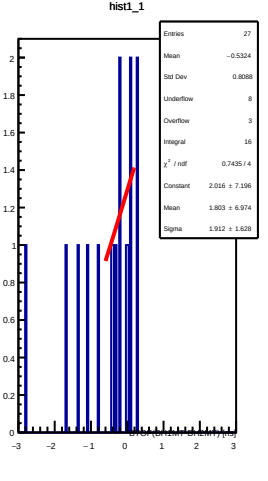

hist1_1
Entries 1790
Mean 0.01581
Std Dev 0.2984
Underflow 48
Overflow 99
Integral 1643
χ² / ndf 19.19 / 18
Constant 110.2 ± 4.0
Mean 8.942e-05 ± 6.221e-03
Sigma 0.2022 ± 0.0066

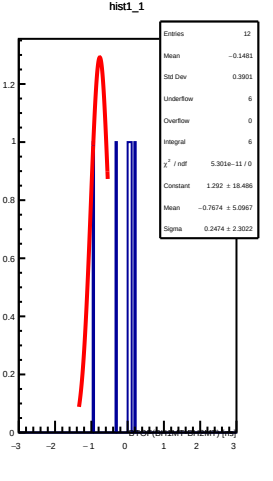

hist1_1
Entries 518
Mean −0.1418
Std Dev 0.4025
Underflow 20
Overflow 25
Integral 473
χ² / ndf 15.96 / 18
Constant 26.26 ± 1.88
Mean −0.09954 ± 0.01413
Sigma 0.2192 ± 0.0156

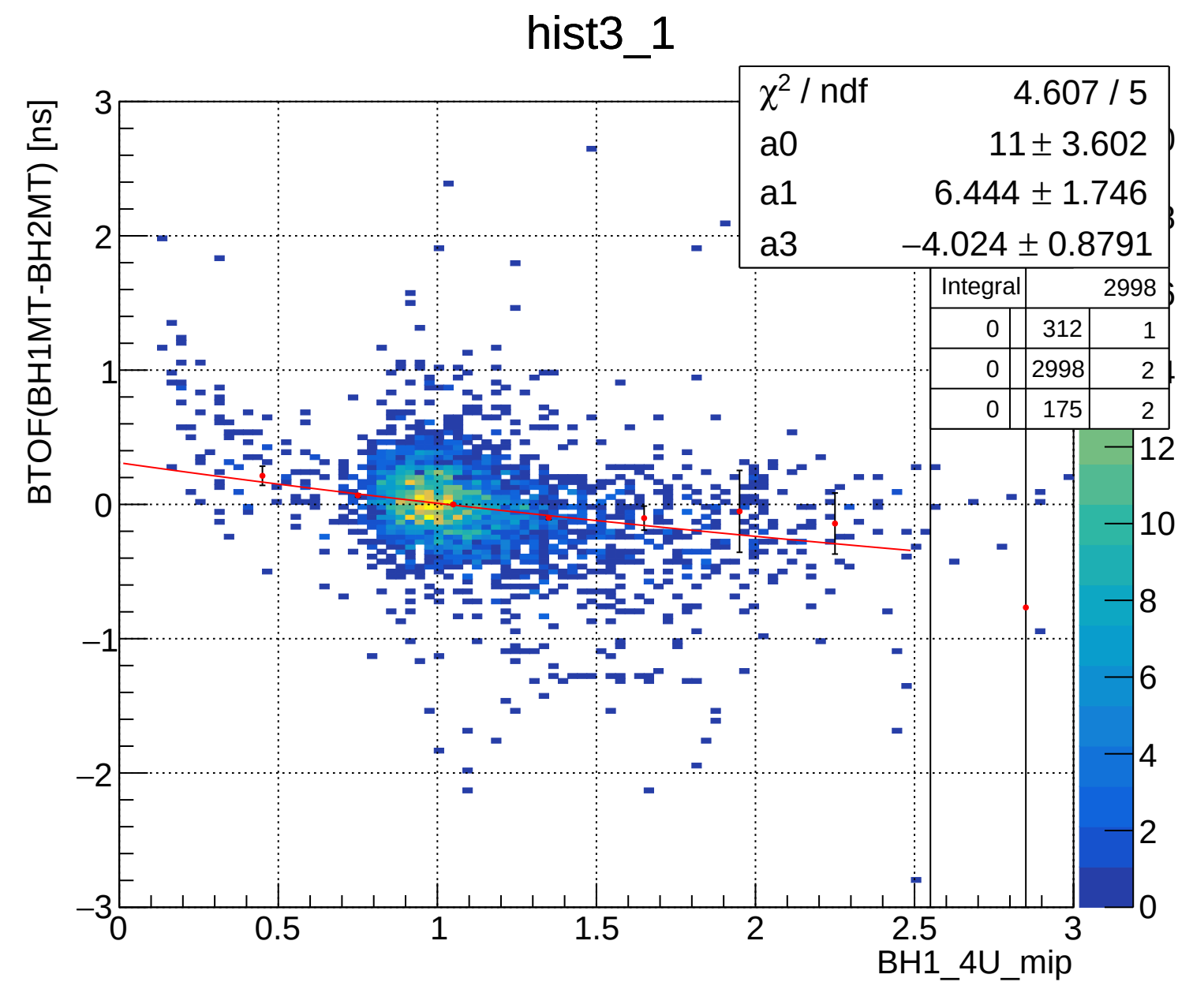

hist1_1
Entries 205
Mean −0.2891
Std Dev 0.44
Underflow 13
Overflow 12
Integral 180
χ² / ndf 19.96 / 18
Constant 6.137 ± 0.792
Mean −0.102 ± 0.090
Sigma 0.3933 ± 0.1298

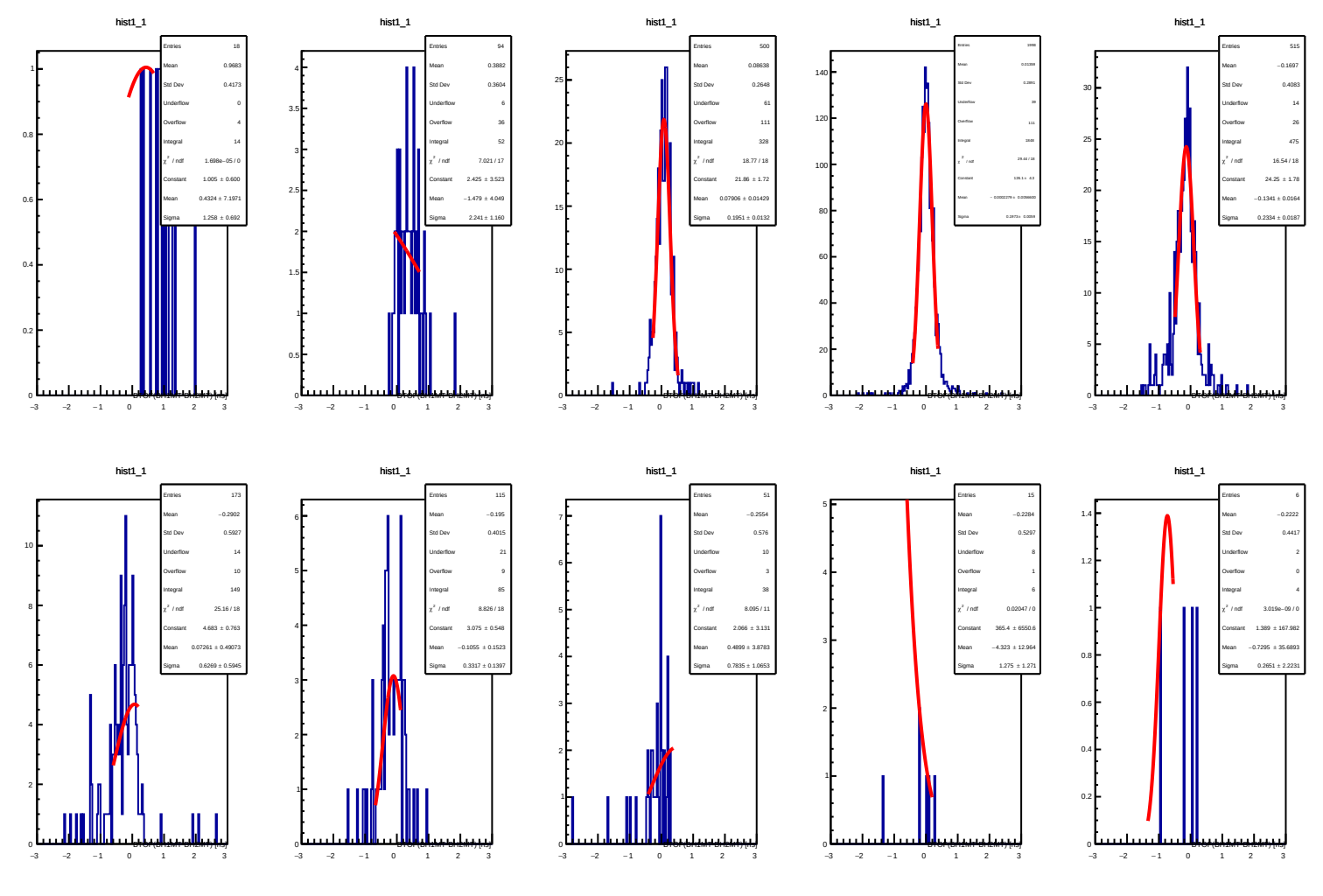

hist1_1
Entries 125
Mean −0.2123
Std Dev 0.5482
Underflow 15
Overflow 6
Integral 104
χ² / ndf 11.83 / 15
Constant 4.237 ± 0.883
Mean −0.0519 ± 0.3048
Sigma 0.3836 ± 0.2248

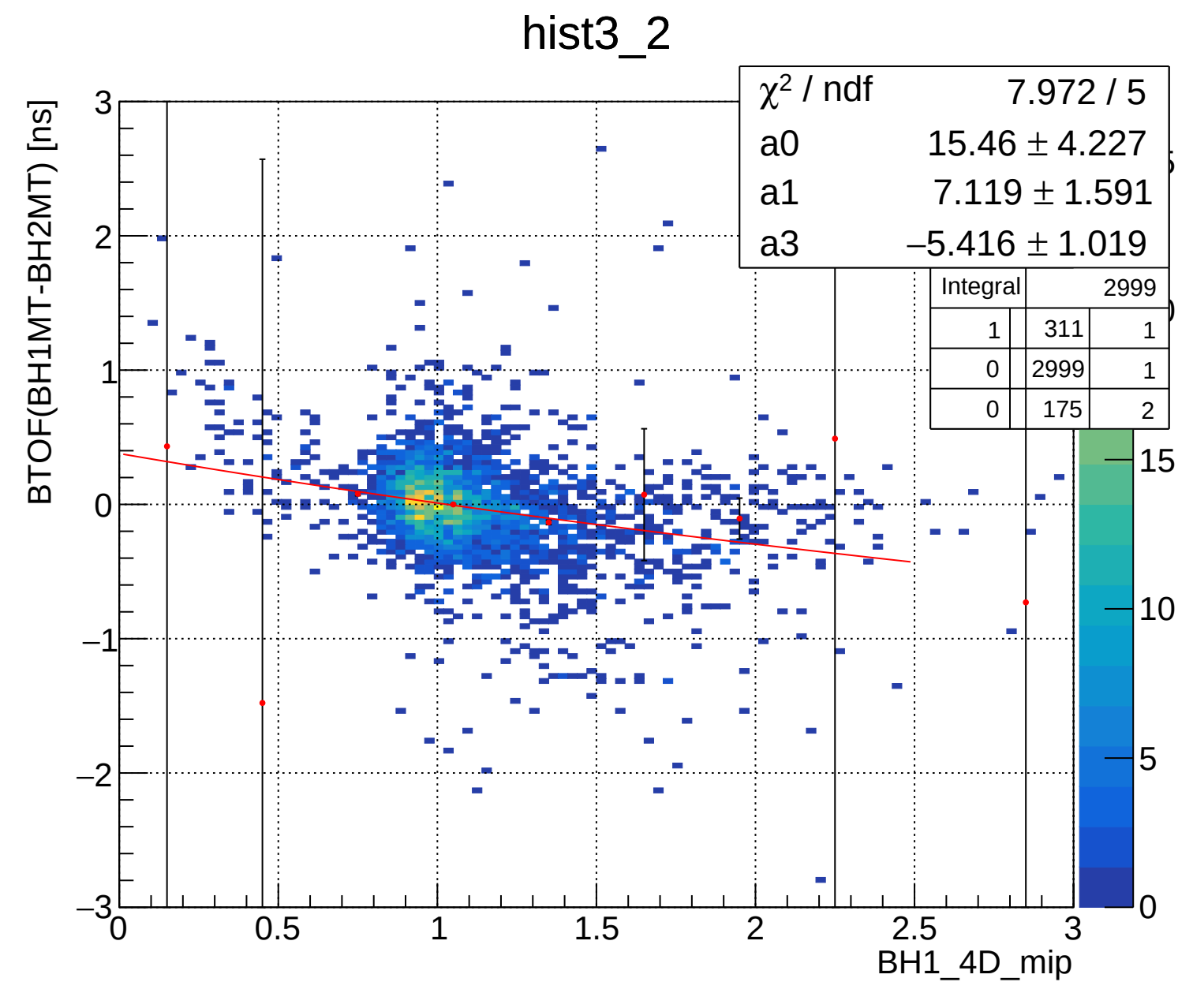

hist1_1
Entries 56
Mean −0.1567
Std Dev 0.3116
Underflow 14
Overflow 5
Integral 37
χ² / ndf 5.356 / 12
Constant 1.815 ± 0.503
Mean −0.1423 ± 0.2274
Sigma 0.3835 ± 0.2967

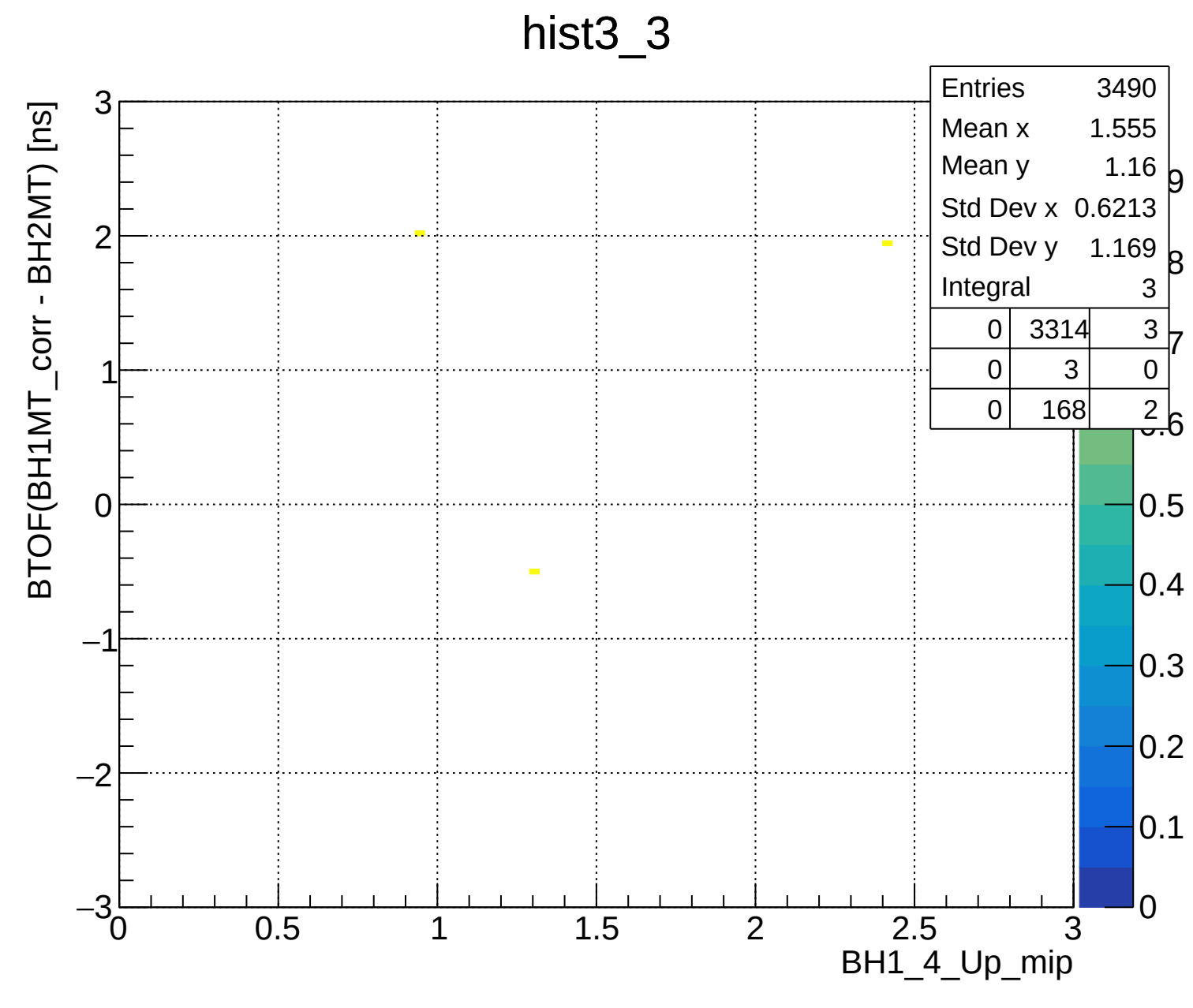

hist1_1
Entries 27
Mean −0.5324
Std Dev 0.8088
Underflow 8
Overflow 3
Integral 16
χ² / ndf 0.7435 / 4
Constant 2.016 ± 7.196
Mean 1.803 ± 6.974
Sigma 1.912 ± 1.628

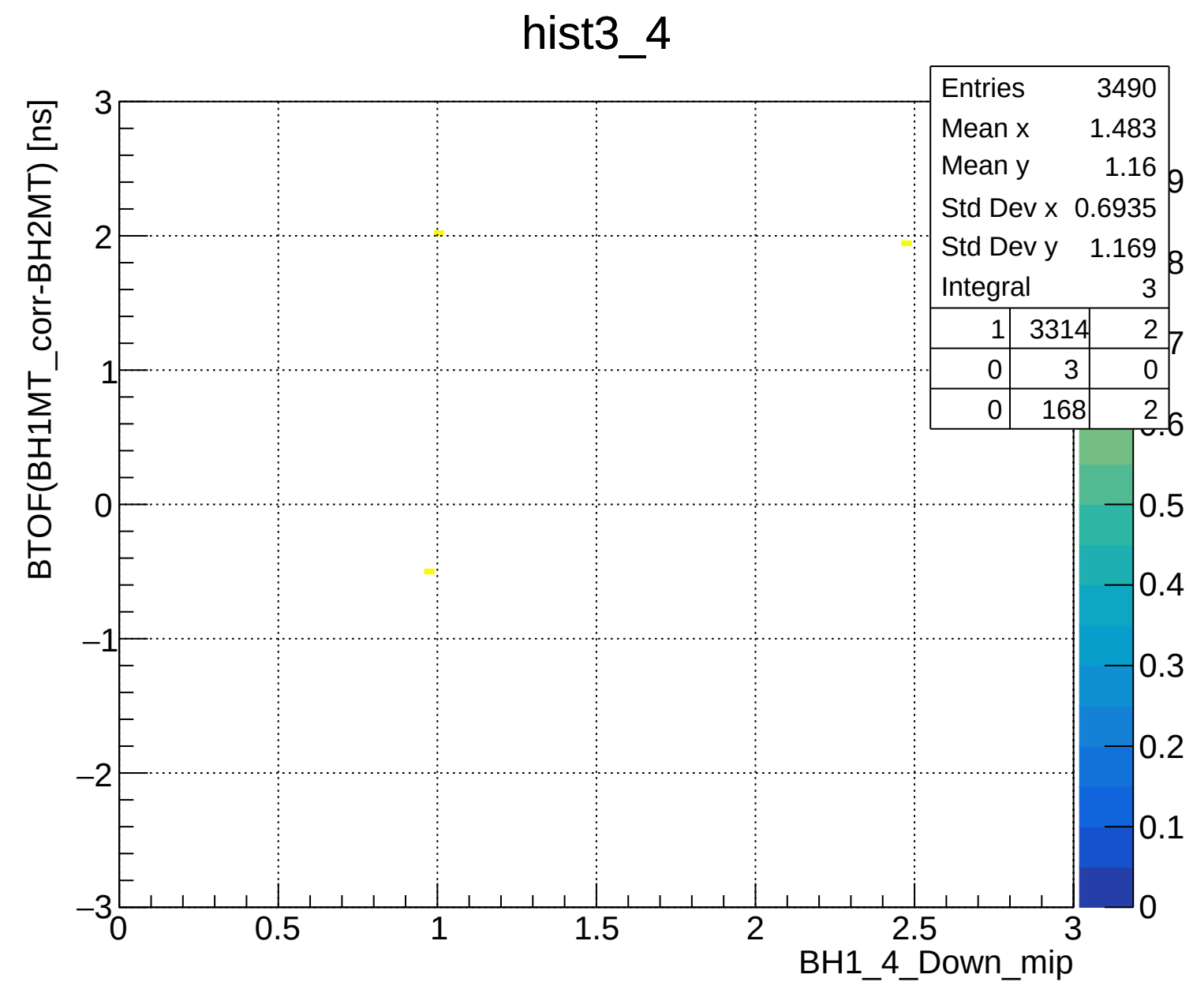

hist1_1
Entries 12
Mean −0.1481
Std Dev 0.3901
Underflow 6
Overflow 0
Integral 6
χ² / ndf 5.301e-11 / 0
Constant 1.292 ± 18.486
Mean −0.7674 ± 5.0967
Sigma 0.2474 ± 2.3022

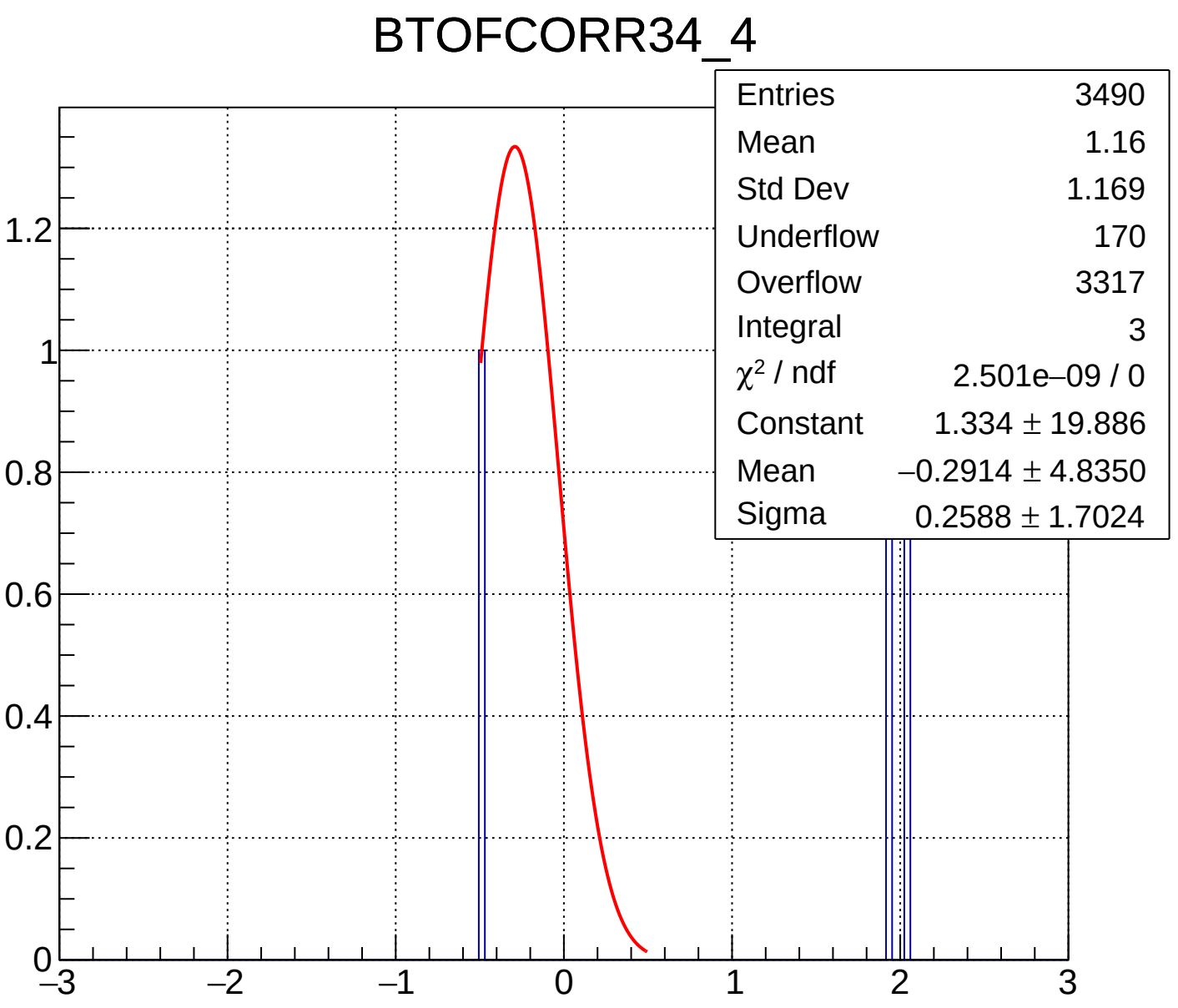

hist3_1
χ² / ndf 4.607 / 5
a0 11 ± 3.602
a1 6.444 ± 1.746
a3 −4.024 ± 0.8791
Integral 2998
0 312 1
0 2998 2
0 175 2
BTOF(BH1MT-BH2MT) [ns]
BH1_4U_mip
3
2
1
0
−1
−2
−3
0
0.5
1
1.5
2
2.5
3
12
10
8
6
4
2
0

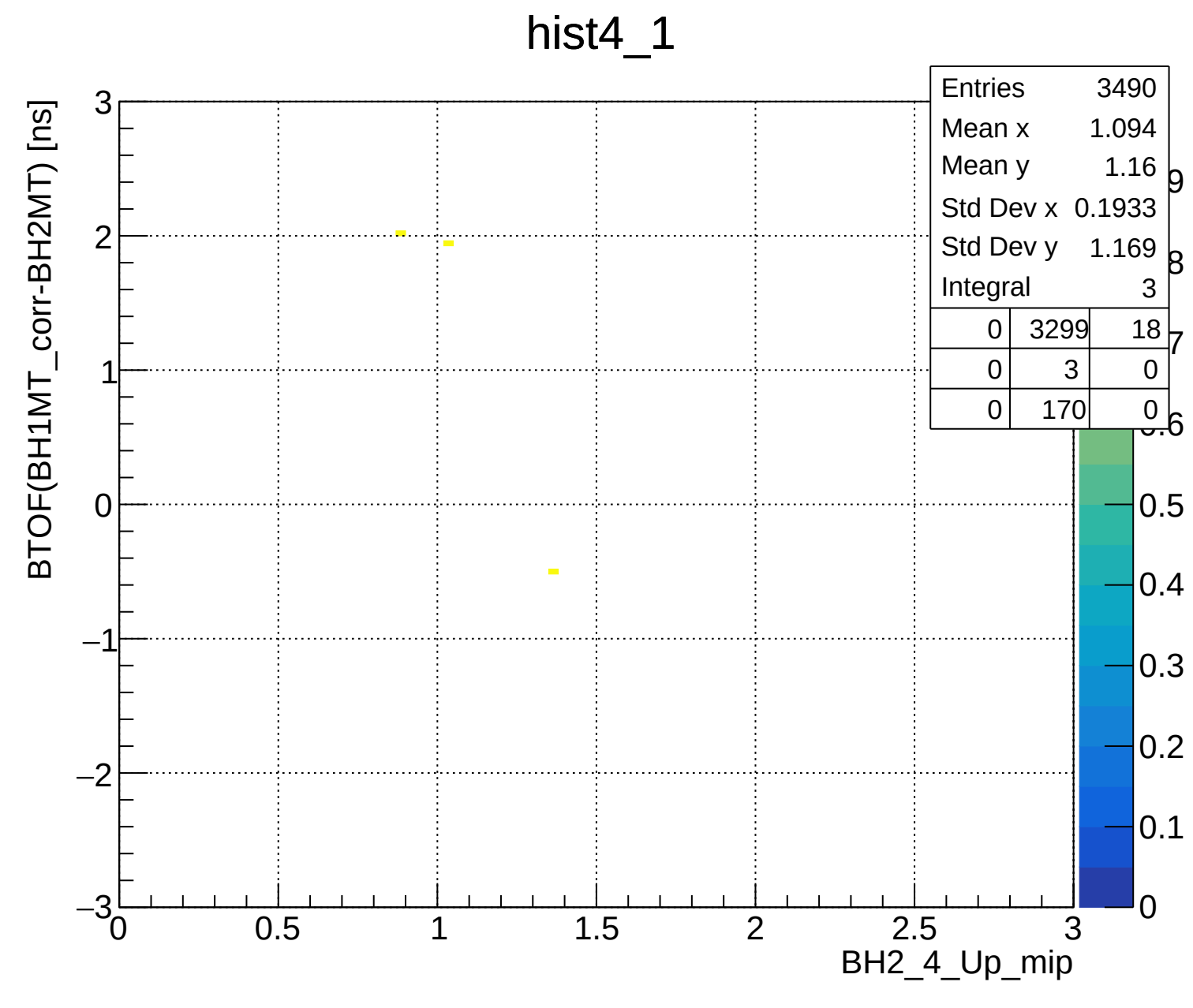

hist1_1
Entries 18
Mean 0.9683
Std Dev 0.4173
Underflow 0
Overflow 4
Integral 14
χ² / ndf 1.698e−05 / 0
Constant 1.005 ± 0.600
Mean 0.4324 ± 7.1971
Sigma 1.258 ± 0.692
hist1_1
Entries 94
Mean 0.3882
Std Dev 0.3604
Underflow 6
Overflow 36
Integral 52
χ² / ndf 7.021 / 17
Constant 2.425 ± 3.523
Mean −1.479 ± 4.049
Sigma 2.241 ± 1.160
hist1_1
Entries 500
Mean 0.08638
Std Dev 0.2648
Underflow 61
Overflow 111
Integral 328
χ² / ndf 18.77 / 18
Constant 21.86 ± 1.72
Mean 0.07906 ± 0.01429
Sigma 0.1951 ± 0.0132
hist1_1
hist1_1
Entries 515
Mean −0.1697
Std Dev 0.4083
Underflow 14
Overflow 26
Integral 475
χ² / ndf 16.54 / 18
Constant 24.25 ± 1.78
Mean −0.1341 ± 0.0164
Sigma 0.2334 ± 0.0187
hist1_1
Entries 173
Mean −0.2902
Std Dev 0.5927
Underflow 14
Overflow 10
Integral 149
χ² / ndf 25.16 / 18
Constant 4.683 ± 0.763
Mean 0.07261 ± 0.49073
Sigma 0.6269 ± 0.5945
hist1_1
Entries 115
Mean −0.195
Std Dev 0.4015
Underflow 21
Overflow 9
Integral 85
χ² / ndf 8.826 / 18
Constant 3.075 ± 0.548
Mean −0.1055 ± 0.1523
Sigma 0.3317 ± 0.1397
hist1_1
Entries 51
Mean −0.2554
Std Dev 0.576
Underflow 10
Overflow 3
Integral 38
χ² / ndf 8.095 / 11
Constant 2.066 ± 3.131
Mean 0.4899 ± 3.8783
Sigma 0.7835 ± 1.0653
hist1_1
Entries 15
Mean −0.2284
Std Dev 0.5297
Underflow 8
Overflow 1
Integral 6
χ² / ndf 0.02047 / 0
Constant 365.4 ± 6550.6
Mean −4.323 ± 12.964
Sigma 1.275 ± 1.271
hist1_1
Entries 6
Mean −0.2222
Std Dev 0.4417
Underflow 2
Overflow 0
Integral 4
χ² / ndf 3.019e−09 / 0
Constant 1.389 ± 167.982
Mean −0.7295 ± 35.6893
Sigma 0.2651 ± 2.2231

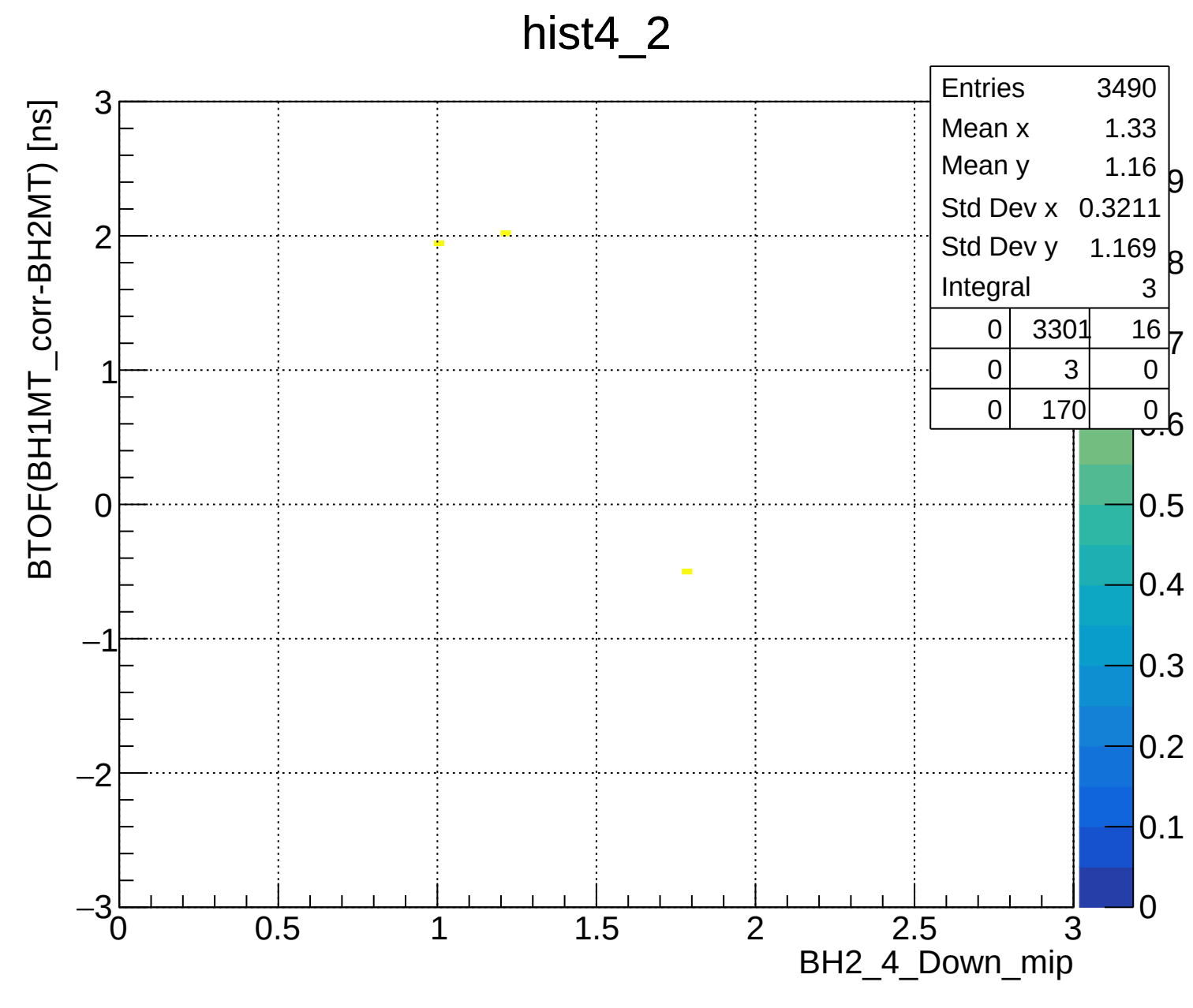

hist3_2
χ² / ndf 7.972 / 5
a0 15.46 ± 4.227
a1 7.119 ± 1.591
a3 –5.416 ± 1.019
Integral 2999
1 311 1
0 2999 1
0 175 2
BTOF(BH1MT-BH2MT) [ns]
BH1_4D_mip
3
2
1
0
–1
–2
–3
0
0.5
1
1.5
2
2.5
3
15
10
5
0

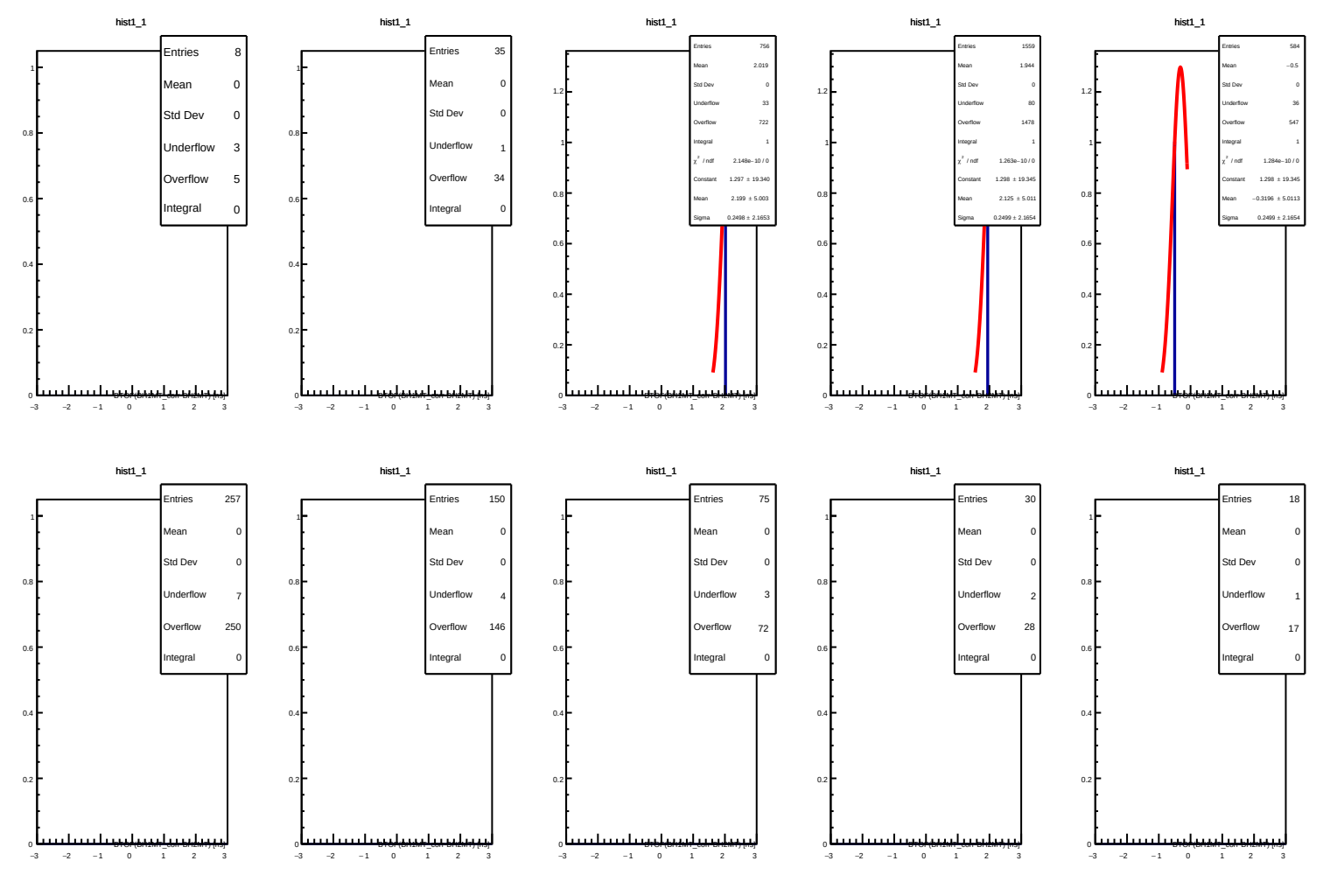

hist3_3
Entries 3490
Mean x 1.555
Mean y 1.16
Std Dev x 0.6213
Std Dev y 1.169
Integral 3
0 3314 3
0 3 0
0 168 2
BTOF(BH1MT_corr - BH2MT) [ns]
BH1_4_Up_mip
3
2
1
0
−1
−2
−3
0
0.5
1
1.5
2
2.5
3
0.5
0.4
0.3
0.2
0.1
0

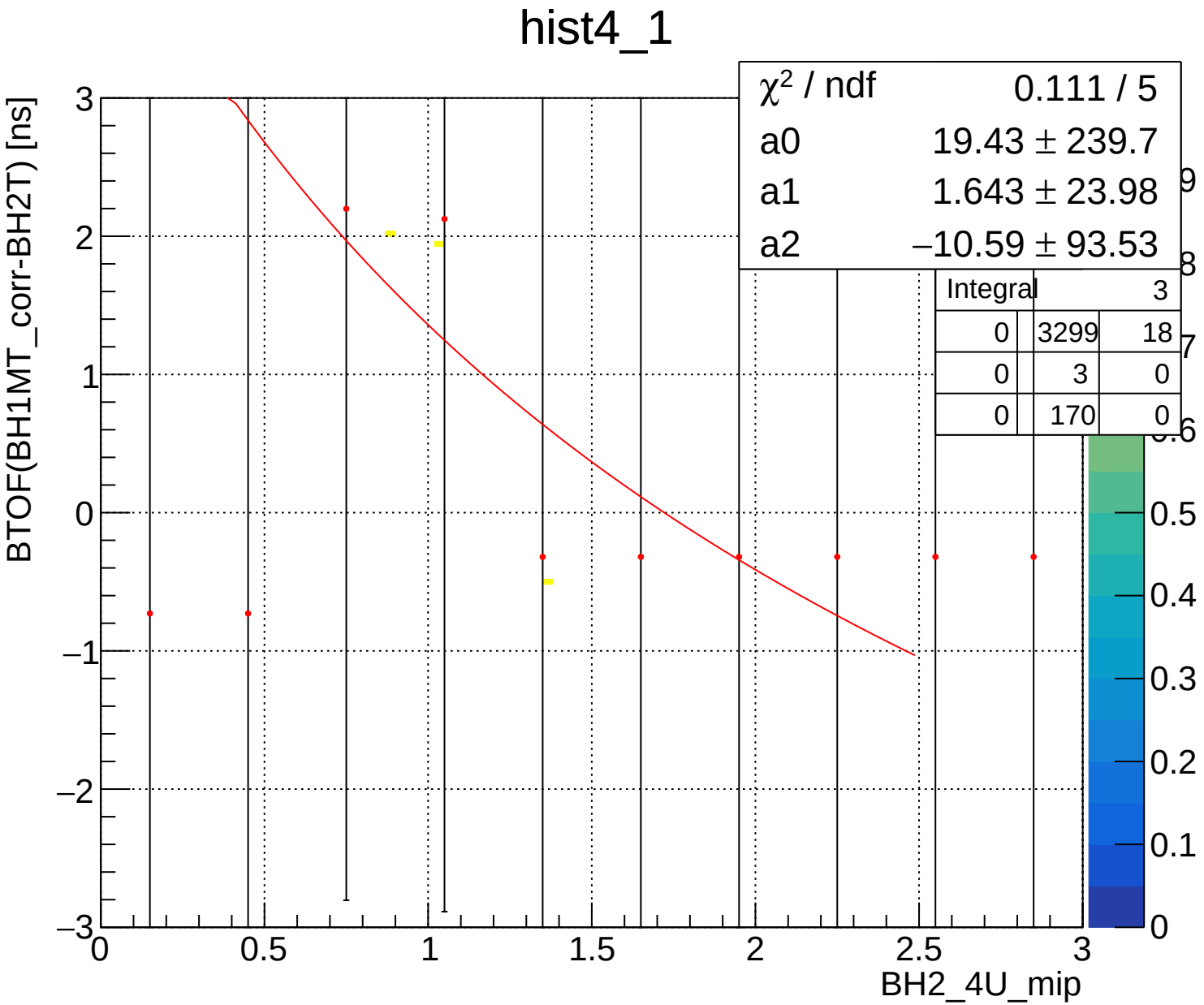

hist3_4
Entries 3490
Mean x 1.483
Mean y 1.16
Std Dev x 0.6935
Std Dev y 1.169
Integral 3
1 3314 2
0 3 0
0 168 2
BTOF(BH1MT_corr-BH2MT) [ns]
BH1_4_Down_mip
3
2
1
0
−1
−2
−3
0
0.5
1
1.5
2
2.5
3
0.5
0.4
0.3
0.2
0.1
0

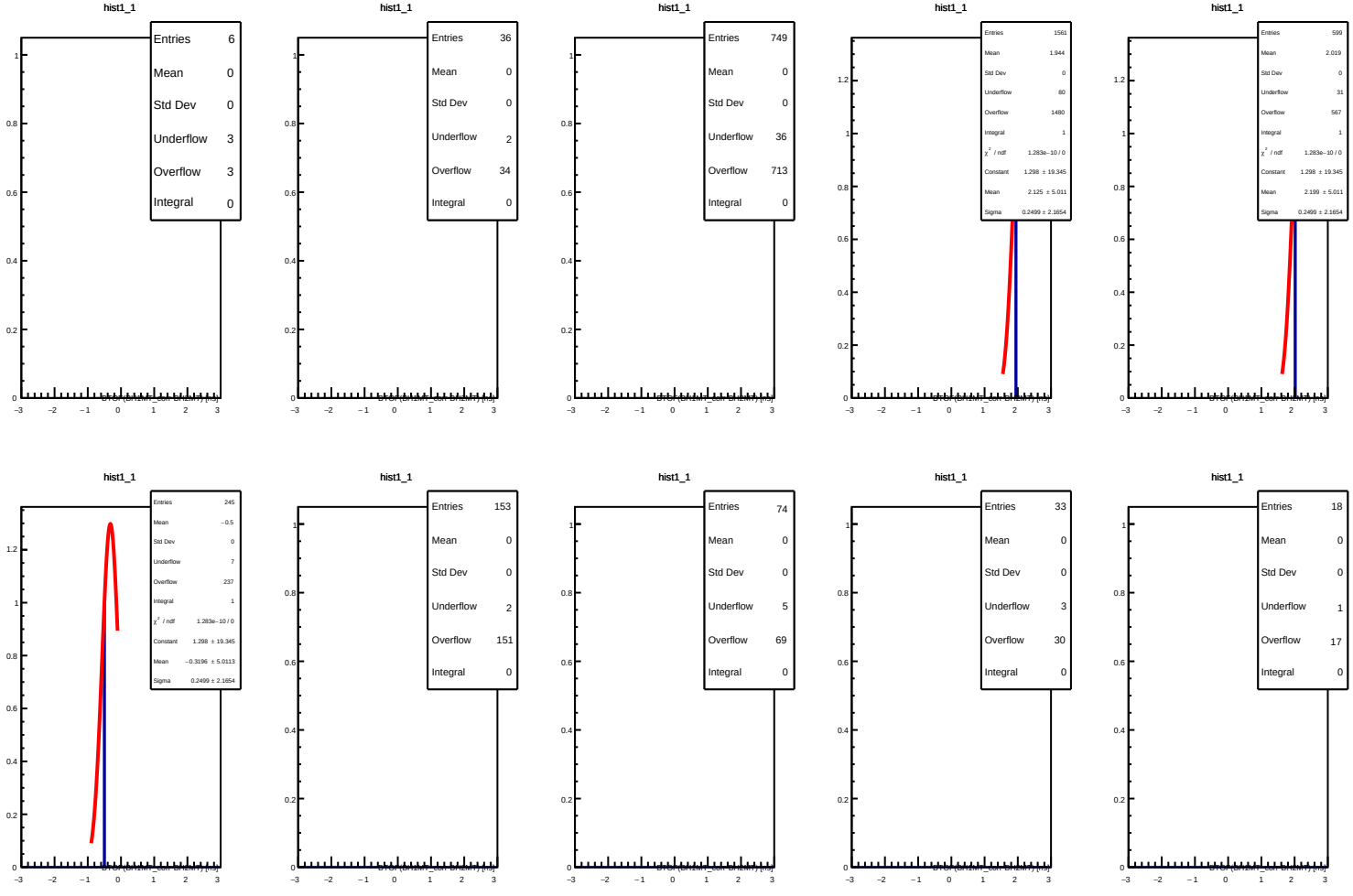

BTOFCORR34_4
Entries 3490
Mean 1.16
Std Dev 1.169
Underflow 170
Overflow 3317
Integral 3
χ² / ndf 2.501e–09 / 0
Constant 1.334 ± 19.886
Mean –0.2914 ± 4.8350
Sigma 0.2588 ± 1.7024
1.2
1
0.8
0.6
0.4
0.2
0
–3
–2
–1
0
1
2
3

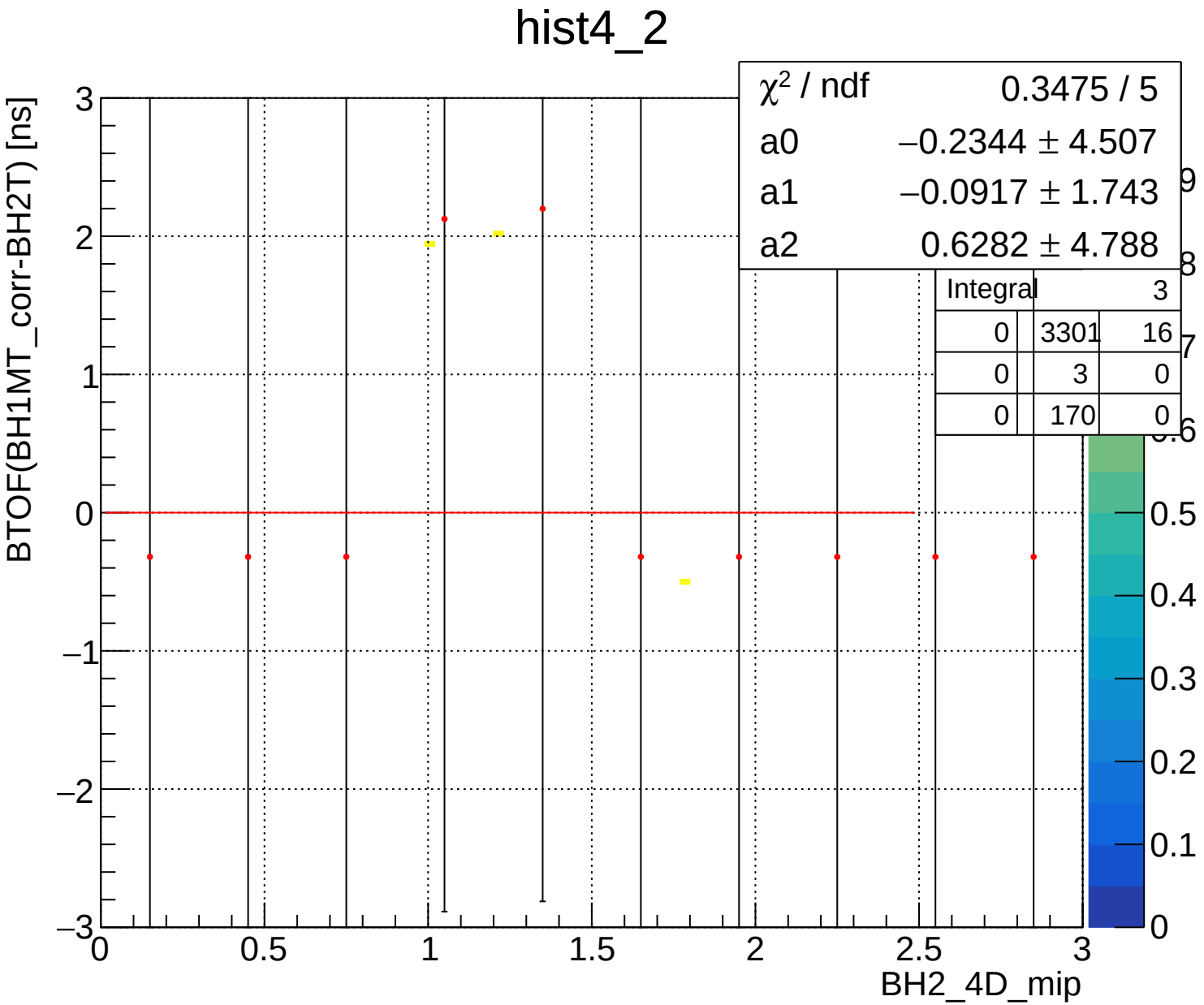

hist4_1
Entries 3490
Mean x 1.094
Mean y 1.16
Std Dev x 0.1933
Std Dev y 1.169
Integral 3
0 3299 18
0 3 0
0 170 0
BTOF(BH1MT_corr-BH2MT) [ns]
BH2_4_Up_mip
3
2
1
0
−1
−2
−3
0
0.5
1
1.5
2
2.5
3
0.5
0.4
0.3
0.2
0.1
0

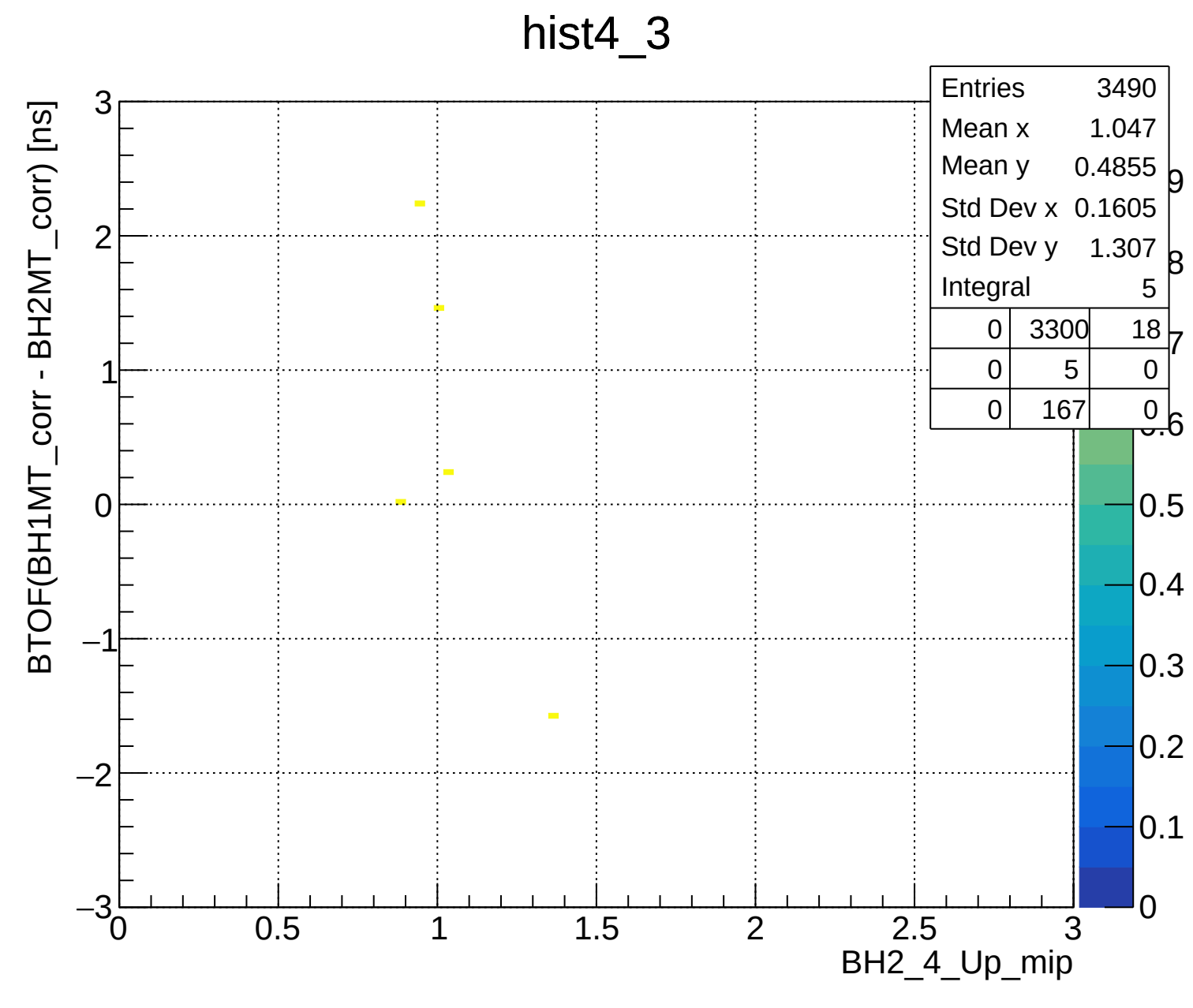

hist4_2
Entries 3490
Mean x 1.33
Mean y 1.16
Std Dev x 0.3211
Std Dev y 1.169
Integral 3
0 3301 16
0 3 0
0 170 0
BTOF(BH1MT_corr-BH2MT) [ns]
BH2_4_Down_mip
3
2
1
0
−1
−2
−3
0
0.5
1
1.5
2
2.5
3
0.5
0.4
0.3
0.2
0.1
0

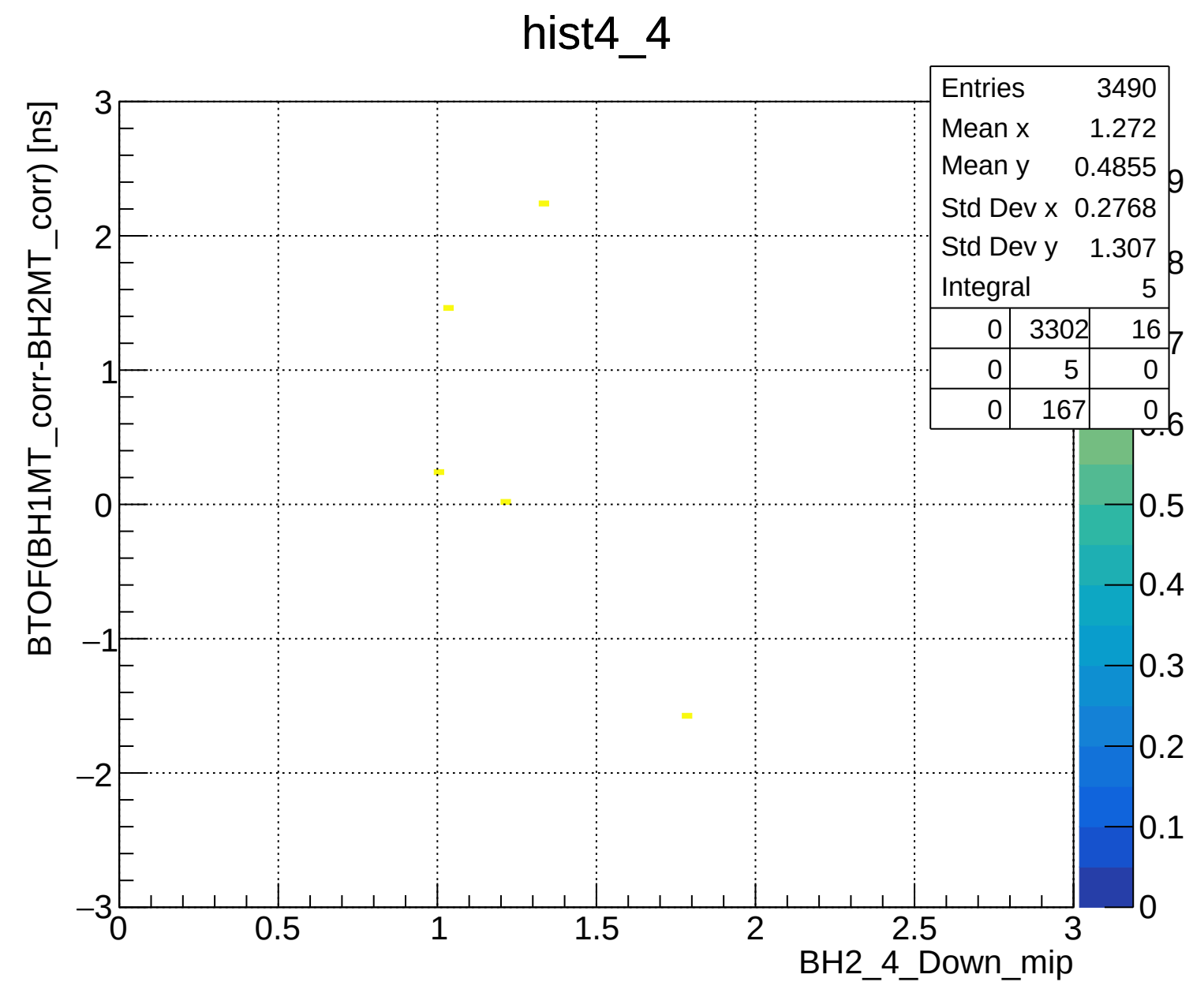

hist1_1
Entries 8
Mean 0
Std Dev 0
Underflow 3
Overflow 5
Integral 0
hist1_1
Entries 35
Mean 0
Std Dev 0
Underflow 1
Overflow 34
Integral 0
hist1_1
Entries 756
Mean 2.019
Std Dev 0
Underflow 33
Overflow 722
Integral 1
χ² / ndf 2.148e-10 / 0
Constant 1.297 ± 19.340
Mean 2.199 ± 5.003
Sigma 0.2498 ± 2.1653
hist1_1
Entries 1559
Mean 1.944
Std Dev 0
Underflow 80
Overflow 1478
Integral 1
χ² / ndf 1.263e-10 / 0
Constant 1.298 ± 19.345
Mean 2.125 ± 5.011
Sigma 0.2499 ± 2.1654
hist1_1
Entries 584
Mean −0.5
Std Dev 0
Underflow 36
Overflow 547
Integral 1
χ² / ndf 1.284e-10 / 0
Constant 1.298 ± 19.345
Mean −0.3196 ± 5.0113
Sigma 0.2499 ± 2.1654
hist1_1
Entries 257
Mean 0
Std Dev 0
Underflow 7
Overflow 250
Integral 0
hist1_1
Entries 150
Mean 0
Std Dev 0
Underflow 4
Overflow 146
Integral 0
hist1_1
Entries 75
Mean 0
Std Dev 0
Underflow 3
Overflow 72
Integral 0
hist1_1
Entries 30
Mean 0
Std Dev 0
Underflow 2
Overflow 28
Integral 0
hist1_1
Entries 18
Mean 0
Std Dev 0
Underflow 1
Overflow 17
Integral 0

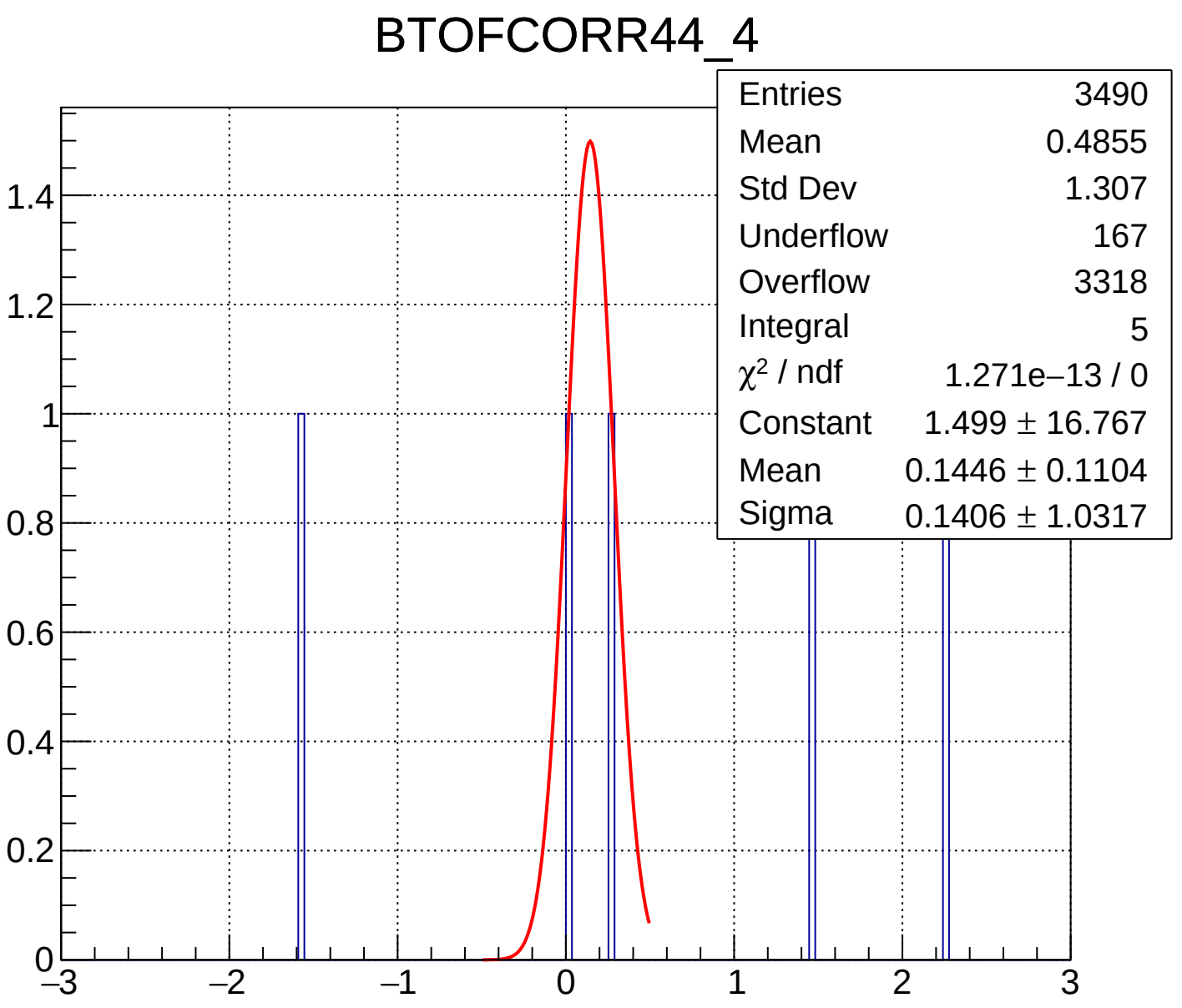

hist4_1
χ² / ndf 0.111 / 5
a0 19.43 ± 239.7
a1 1.643 ± 23.98
a2 −10.59 ± 93.53
Integral 3
0 3299 18
0 3 0
0 170 0
BTOF(BH1MT_corr-BH2T) [ns]
BH2_4U_mip
3
2
1
0
−1
−2
−3
0
0.5
1
1.5
2
2.5
3
0.6
0.5
0.4
0.3
0.2
0.1
0


hist1_1
Entries 6
Mean 0
Std Dev 0
Underflow 3
Overflow 3
Integral 0
hist1_1
Entries 36
Mean 0
Std Dev 0
Underflow 2
Overflow 34
Integral 0
hist1_1
Entries 749
Mean 0
Std Dev 0
Underflow 36
Overflow 713
Integral 0
hist1_1
Entries 1561
Mean 1.944
Std Dev 0
Underflow 80
Overflow 1480
Integral 1
χ² / ndf 1.283e−10 / 0
Constant 1.298 ± 19.345
Mean 2.125 ± 5.011
Sigma 0.2499 ± 2.1654
hist1_1
Entries 599
Mean 2.019
Std Dev 0
Underflow 31
Overflow 567
Integral 1
χ² / ndf 1.283e−10 / 0
Constant 1.298 ± 19.345
Mean 2.199 ± 5.011
Sigma 0.2499 ± 2.1654
hist1_1
Entries 245
Mean −0.5
Std Dev 0
Underflow 7
Overflow 237
Integral 1
χ² / ndf 1.283e−10 / 0
Constant 1.298 ± 19.345
Mean −0.3196 ± 5.0113
Sigma 0.2499 ± 2.1654
hist1_1
Entries 153
Mean 0
Std Dev 0
Underflow 2
Overflow 151
Integral 0
hist1_1
Entries 74
Mean 0
Std Dev 0
Underflow 5
Overflow 69
Integral 0
hist1_1
Entries 33
Mean 0
Std Dev 0
Underflow 3
Overflow 30
Integral 0
hist1_1
Entries 18
Mean 0
Std Dev 0
Underflow 1
Overflow 17
Integral 0


hist4_2
χ² / ndf 0.3475 / 5
a0 −0.2344 ± 4.507
a1 −0.0917 ± 1.743
a2 0.6282 ± 4.788
Integral 3
0 3301 16
0 3 0
0 170 0
BTOF(BH1MT_corr-BH2T) [ns]
BH2_4D_mip
3
2
1
0
−1
−2
−3
0
0.5
1
1.5
2
2.5
3
0.5
0.4
0.3
0.2
0.1
0


hist4_3
Entries 3490
Mean x 1.047
Mean y 0.4855
Std Dev x 0.1605
Std Dev y 1.307
Integral 5
0 3300 18
0 5 0
0 167 0
BTOF(BH1MT_corr - BH2MT_corr) [ns]
BH2_4_Up_mip
3
2
1
0
−1
−2
−3
0
0.5
1
1.5
2
2.5
3
0.5
0.4
0.3
0.2
0.1
0


hist4_4
Entries 3490
Mean x 1.272
Mean y 0.4855
Std Dev x 0.2768
Std Dev y 1.307
Integral 5
0 3302 16
0 5 0
0 167 0
BTOF(BH1MT_corr-BH2MT_corr) [ns]
BH2_4_Down_mip
3
2
1
0
−1
−2
−3
0
0.5
1
1.5
2
2.5
3
0.6
0.5
0.4
0.3
0.2
0.1
0


BTOFCORR44_4
Entries 3490
Mean 0.4855
Std Dev 1.307
Underflow 167
Overflow 3318
Integral 5
χ² / ndf 1.271e−13 / 0
Constant 1.499 ± 16.767
Mean 0.1446 ± 0.1104
Sigma 0.1406 ± 1.0317
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−3
−2
−1
0
1
2
3