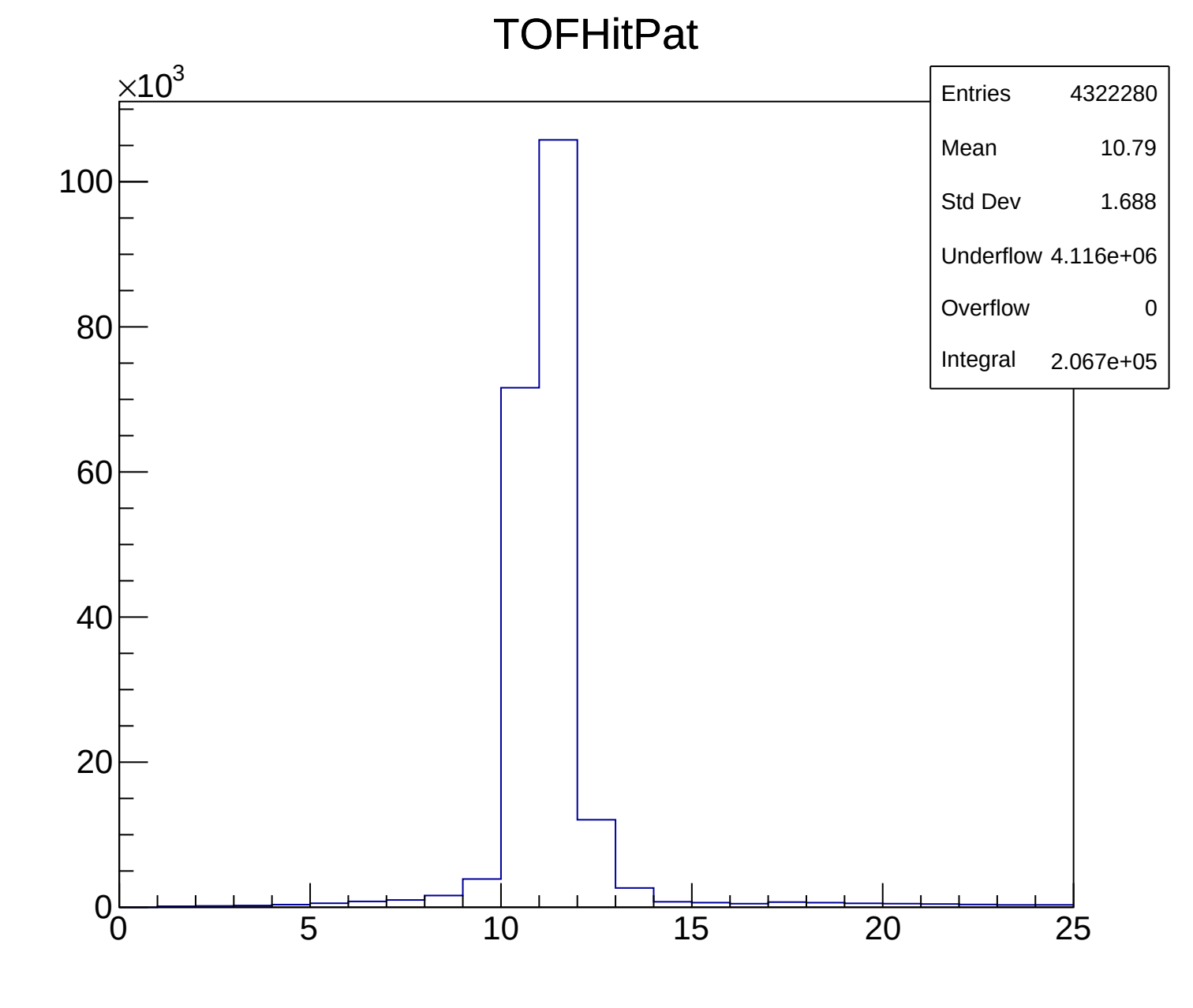
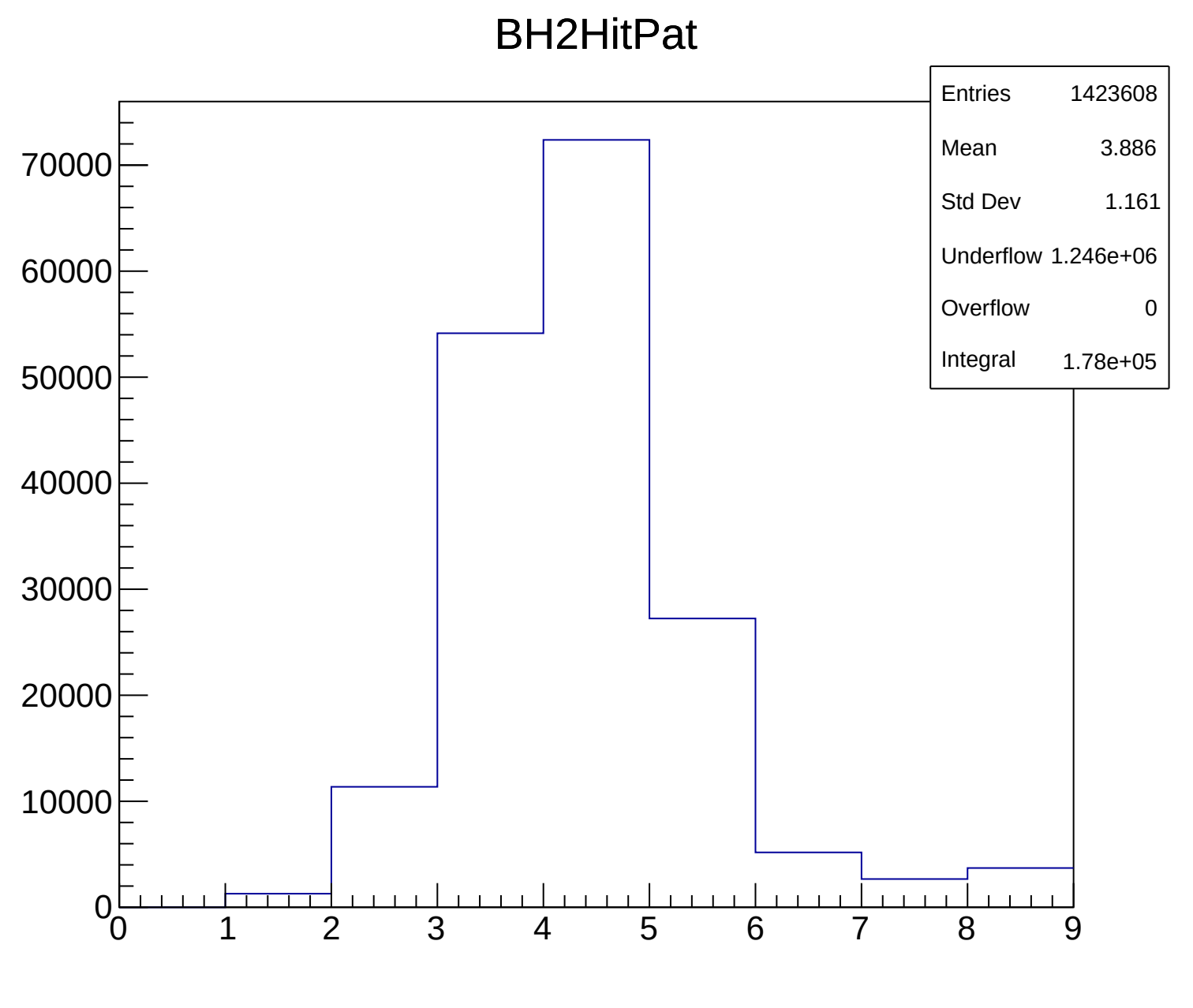
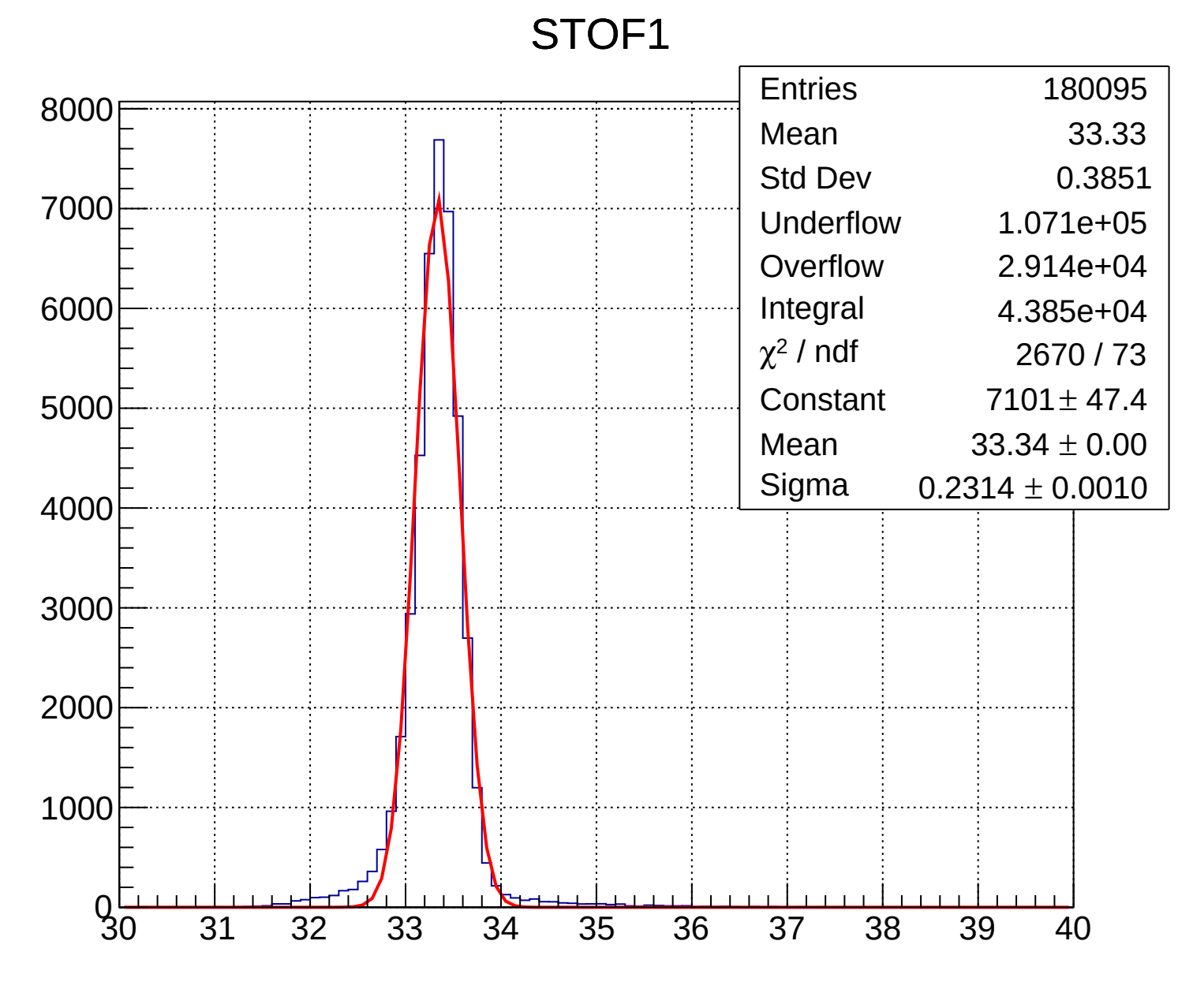
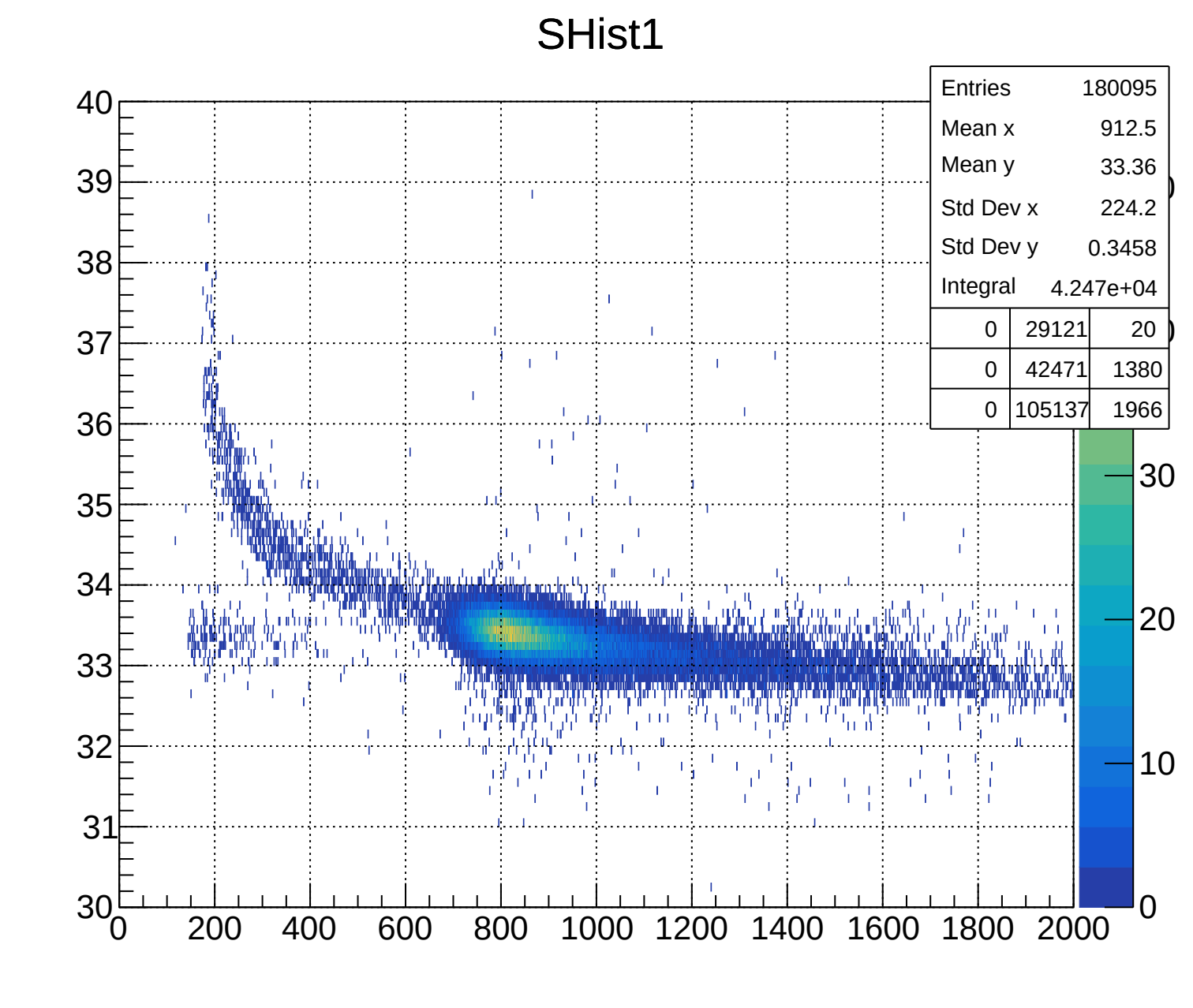
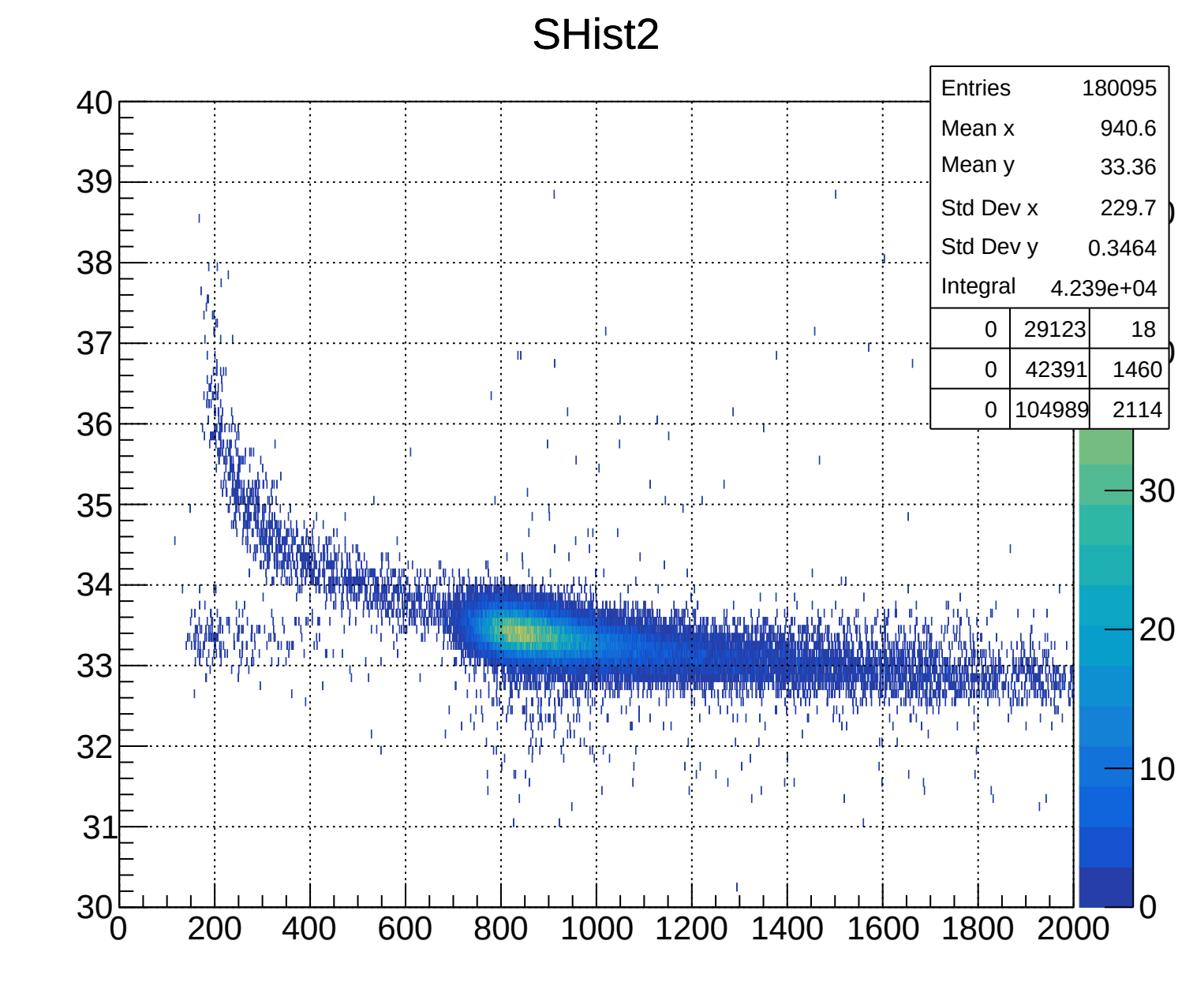
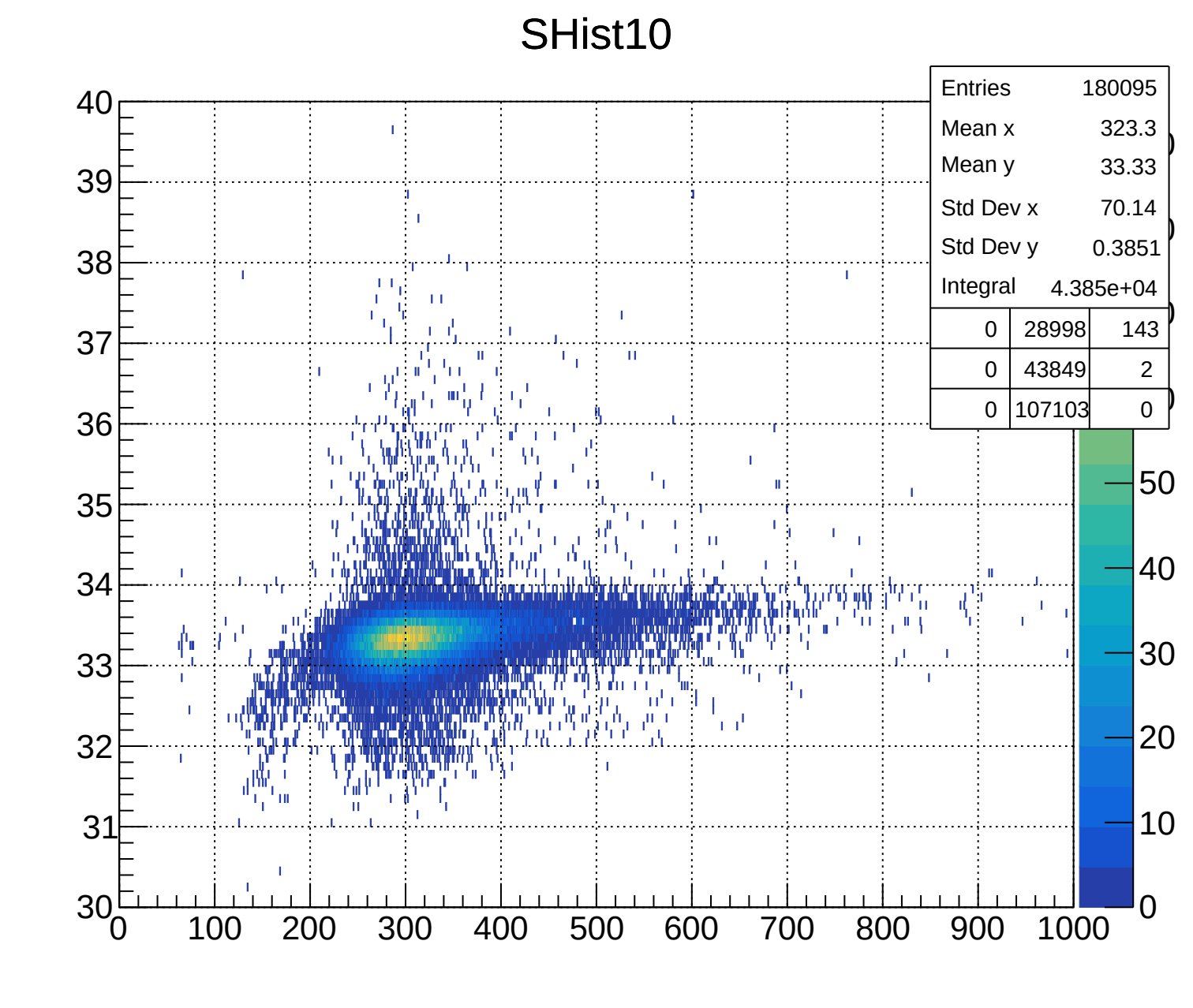

TOFHitPat
×10^3
100
80
60
40
20
0
0
5
10
15
20
25
Entries 4322280
Mean 10.79
Std Dev 1.688
Underflow 4.116e+06
Overflow 0
Integral 2.067e+05

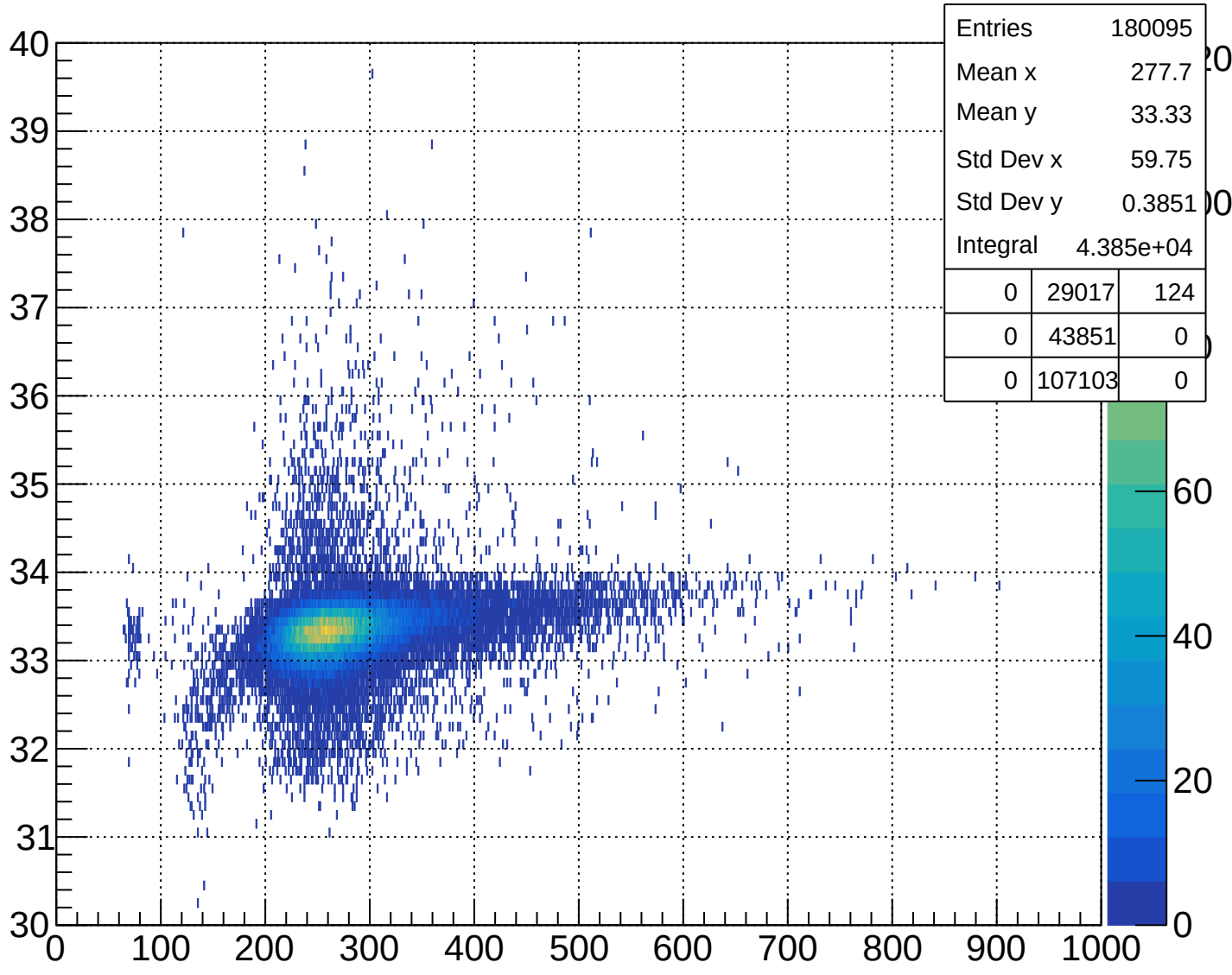

BH2HitPat
Entries 1423608
Mean 3.886
Std Dev 1.161
Underflow 1.246e+06
Overflow 0
Integral 1.78e+05
70000
60000
50000
40000
30000
20000
10000
0
0
1
2
3
4
5
6
7
8
9

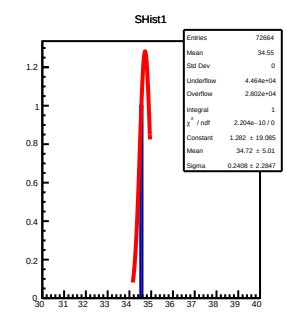

STOF1
Entries 180095
Mean 33.33
Std Dev 0.3851
Underflow 1.071e+05
Overflow 2.914e+04
Integral 4.385e+04
χ² / ndf 2670 / 73
Constant 7101 ± 47.4
Mean 33.34 ± 0.00
Sigma 0.2314 ± 0.0010
8000
7000
6000
5000
4000
3000
2000
1000
0
30
31
32
33
34
35
36
37
38
39
40

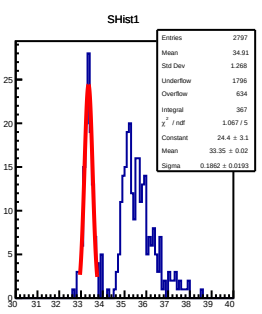

SHist1
Entries 180095
Mean x 912.5
Mean y 33.36
Std Dev x 224.2
Std Dev y 0.3458
Integral 4.247e+04
0 29121 20
0 42471 1380
0 105137 1966
40
39
38
37
36
35
34
33
32
31
30
0
200
400
600
800
1000
1200
1400
1600
1800
2000
30
20
10
0

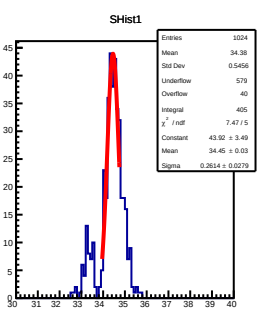

SHist2
Entries 180095
Mean x 940.6
Mean y 33.36
Std Dev x 229.7
Std Dev y 0.3464
Integral 4.239e+04
0 29123 18
0 42391 1460
0 104989 2114
40
39
38
37
36
35
34
33
32
31
30
0
200
400
600
800
1000
1200
1400
1600
1800
2000
30
20
10
0

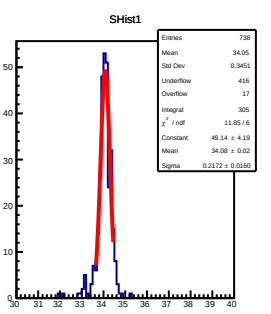

SHist10
Entries 180095
Mean x 323.3
Mean y 33.33
Std Dev x 70.14
Std Dev y 0.3851
Integral 4.385e+04
0 28998 143
0 43849 2
0 107103 0
40
39
38
37
36
35
34
33
32
31
30
0
100
200
300
400
500
600
700
800
900
1000
50
40
30
20
10
0

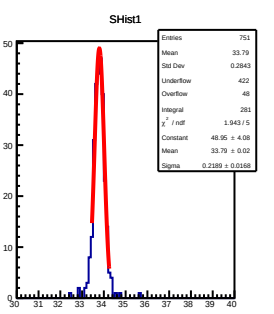

SHist11
Entries 180095
Mean x 277.7
Mean y 33.33
Std Dev x 59.75
Std Dev y 0.3851
Integral 4.385e+04
0 29017 124
0 43851 0
0 107103 0
40
39
38
37
36
35
34
33
32
31
30
0
100
200
300
400
500
600
700
800
900
1000
60
40
20
0

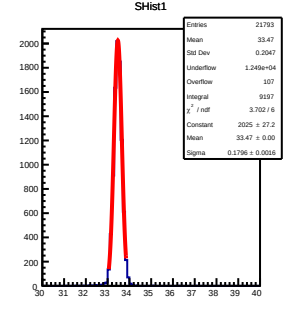

SHist1
Entries 72664
Mean 34.55
Std Dev 0
Underflow 4.464e+04
Overflow 2.802e+04
Integral 1
χ² / ndf 2.204e-10 / 0
Constant 1.282 ± 19.085
Mean 34.72 ± 5.01
Sigma 0.2408 ± 2.2847

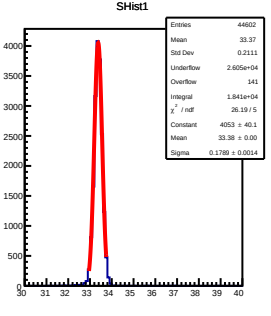

SHist1
Entries 2797
Mean 34.91
Std Dev 1.268
Underflow 1796
Overflow 634
Integral 367
χ² / ndf 1.067 / 5
Constant 24.4 ± 3.1
Mean 33.35 ± 0.02
Sigma 0.1862 ± 0.0193

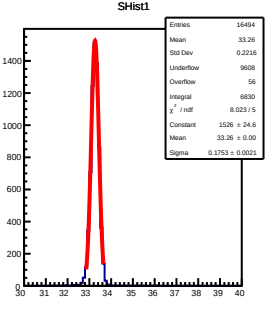

SHist1
Entries 1024
Mean 34.38
Std Dev 0.5456
Underflow 579
Overflow 40
Integral 405
χ² / ndf 7.47 / 5
Constant 43.92 ± 3.49
Mean 34.45 ± 0.03
Sigma 0.2614 ± 0.0279

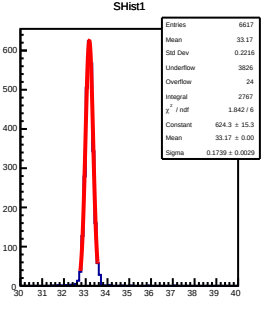

SHist1
Entries 738
Mean 34.05
Std Dev 0.3451
Underflow 416
Overflow 17
Integral 305
χ² / ndf 11.85 / 6
Constant 49.14 ± 4.19
Mean 34.08 ± 0.02
Sigma 0.2172 ± 0.0160

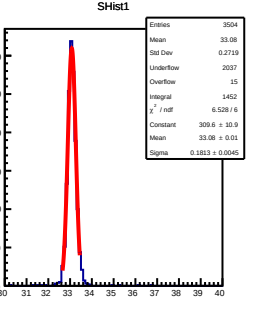

SHist1
Entries 751
Mean 33.79
Std Dev 0.2843
Underflow 422
Overflow 48
Integral 281
χ² / ndf 1.943 / 5
Constant 48.95 ± 4.08
Mean 33.79 ± 0.02
Sigma 0.2189 ± 0.0168

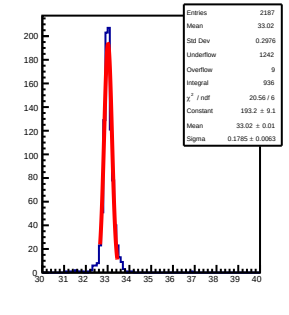

SHist1
Entries 21793
Mean 33.47
Std Dev 0.2047
Underflow 1.249e+04
Overflow 107
Integral 9197
χ² / ndf 3.702 / 6
Constant 2025 ± 27.2
Mean 33.47 ± 0.00
Sigma 0.1796 ± 0.0016

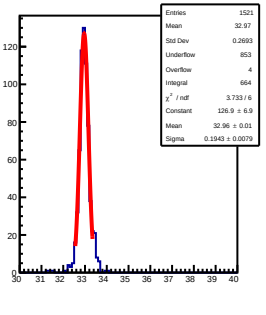

SHist1
Entries 44602
Mean 33.37
Std Dev 0.2111
Underflow 2.605e+04
Overflow 141
Integral 1.841e+04
χ² / ndf 26.19 / 5
Constant 4053 ± 40.1
Mean 33.38 ± 0.00
Sigma 0.1780 ± 0.0014

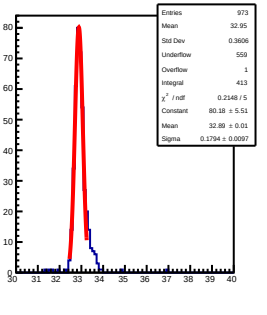

SHist1
Entries 16494
Mean 33.26
Std Dev 0.2216
Underflow 9608
Overflow 56
Integral 6830
χ² / ndf 8.023 / 5
Constant 1526 ± 24.6
Mean 33.26 ± 0.00
Sigma 0.1753 ± 0.0021

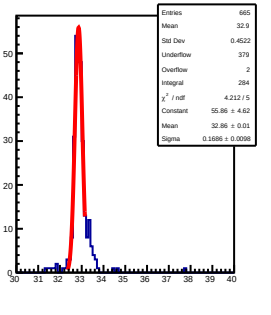

SHist1
Entries 6617
Mean 33.17
Std Dev 0.2216
Underflow 3826
Overflow 24
Integral 2767
χ² / ndf 1.842 / 6
Constant 624.3 ± 15.3
Mean 33.17 ± 0.00
Sigma 0.1739 ± 0.0029

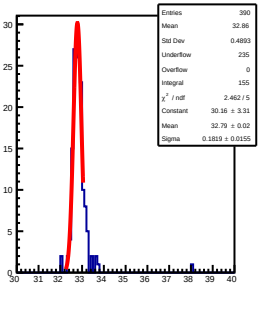

SHist1
Entries 3504
Mean 33.08
Std Dev 0.2719
Underflow 2037
Overflow 15
Integral 1452
χ² / ndf 6.528 / 6
Constant 309.6 ± 10.9
Mean 33.08 ± 0.01
Sigma 0.1813 ± 0.0045

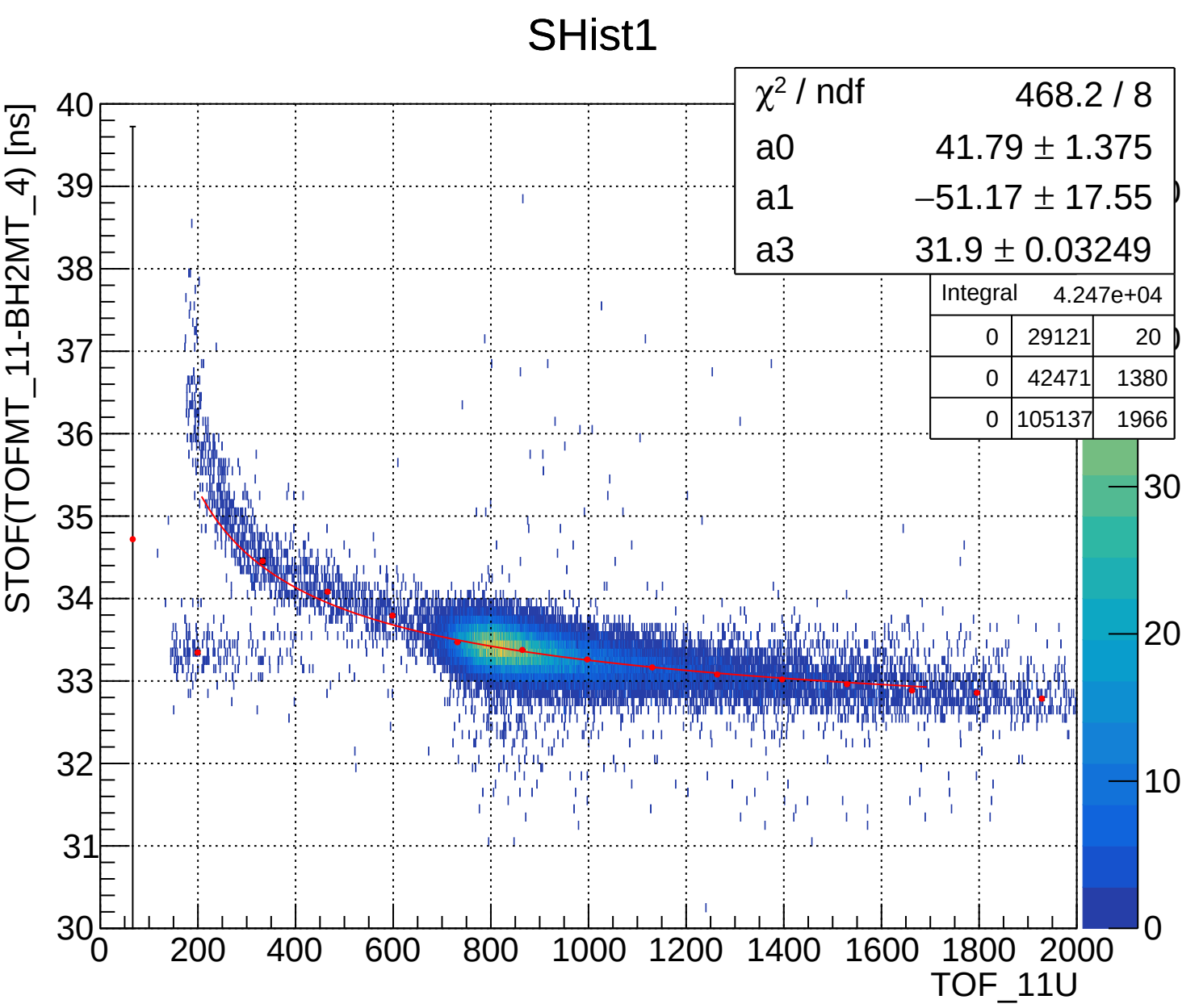

SHist1
Entries 2187
Mean 33.02
Std Dev 0.2976
Underflow 1242
Overflow 9
Integral 936
χ² / ndf 20.56 / 6
Constant 193.2 ± 9.1
Mean 33.02 ± 0.01
Sigma 0.1785 ± 0.0063

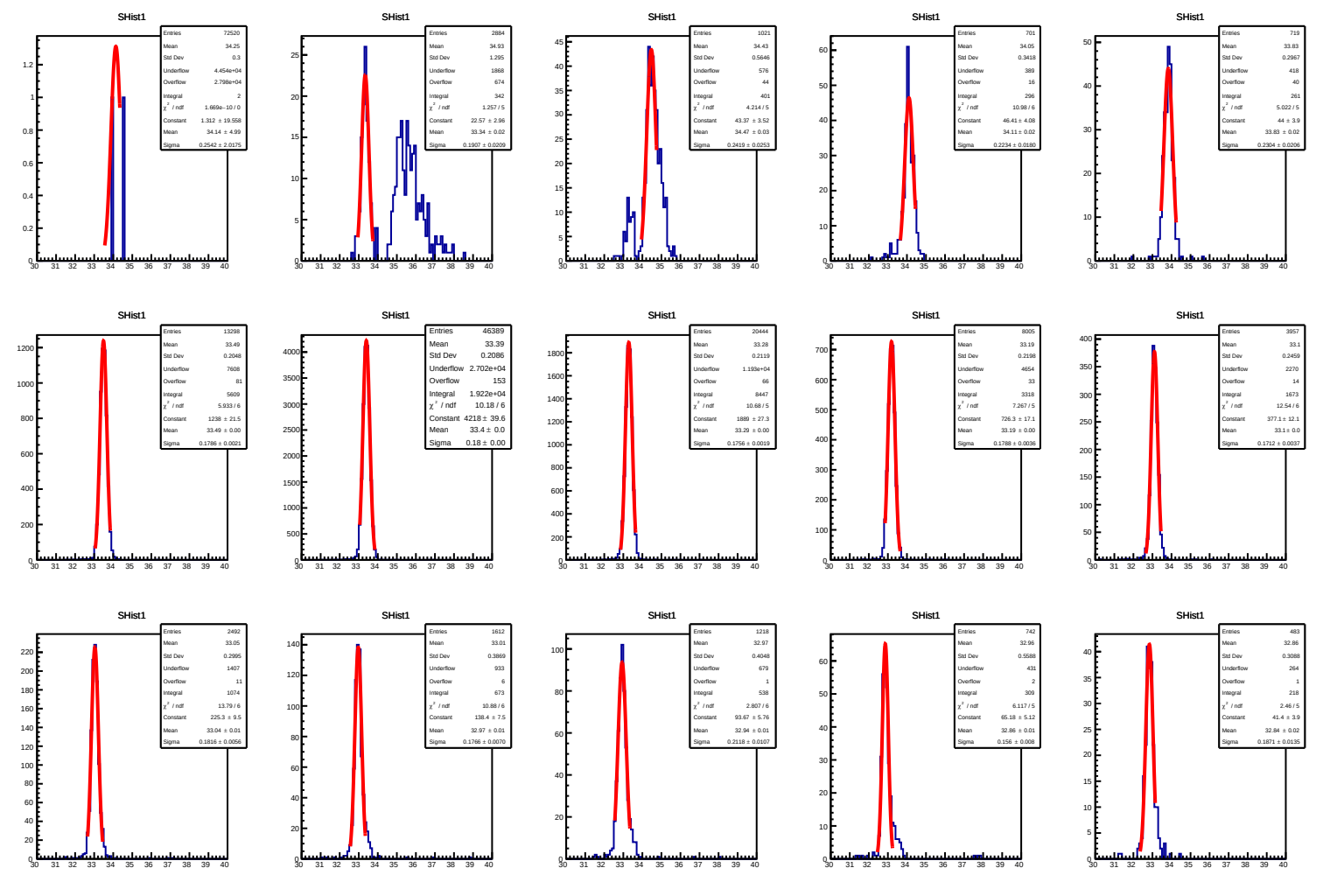

SHist1
Entries 1521
Mean 32.97
Std Dev 0.2693
Underflow 853
Overflow 4
Integral 664
χ² / ndf 3.733 / 6
Constant 126.9 ± 6.9
Mean 32.96 ± 0.01
Sigma 0.1943 ± 0.0079

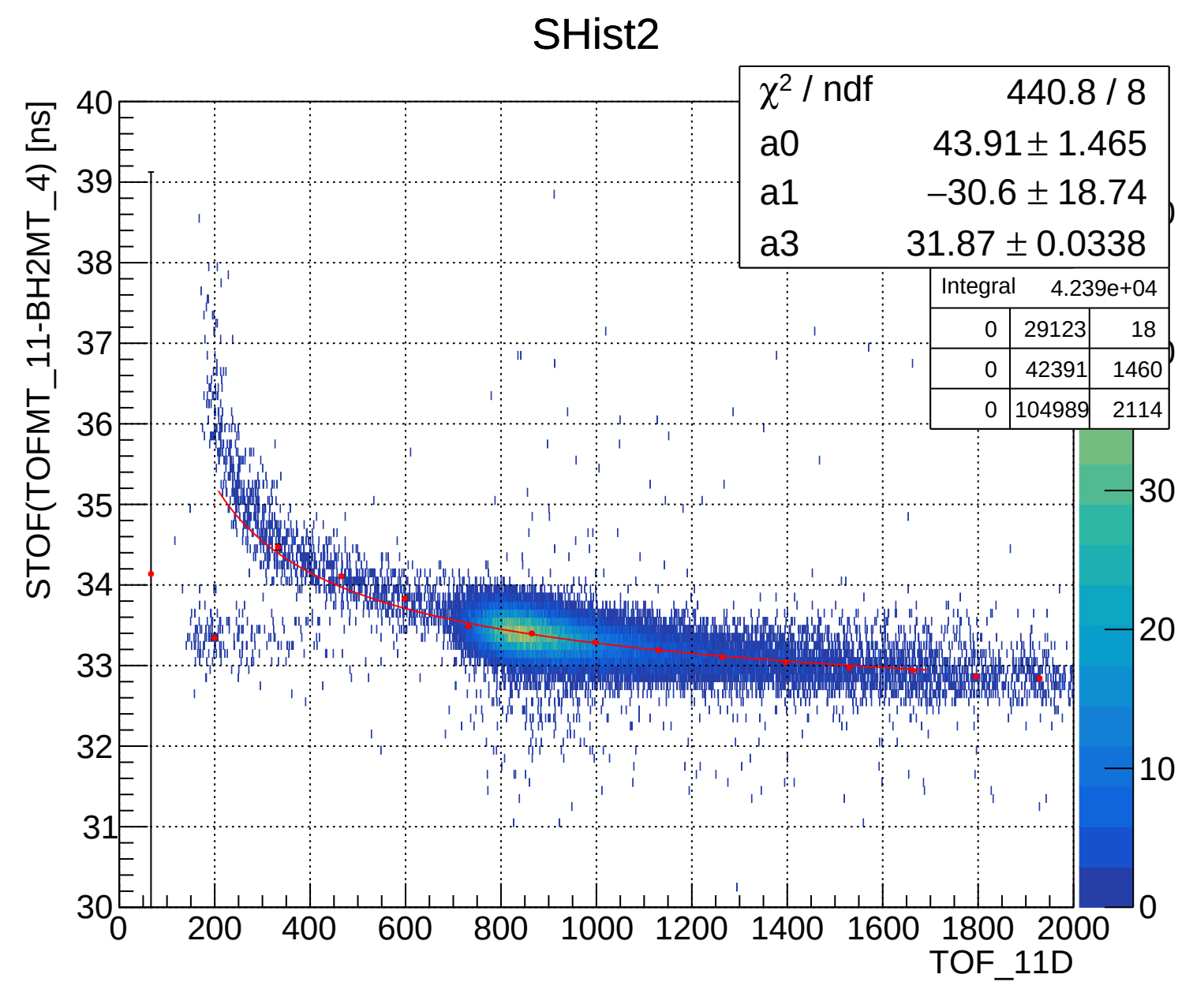

SHist1
Entries 973
Mean 32.95
Std Dev 0.3606
Underflow 559
Overflow 1
Integral 413
χ² / ndf 0.2148 / 5
Constant 80.18 ± 5.51
Mean 32.89 ± 0.01
Sigma 0.1794 ± 0.0097

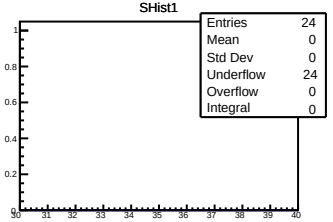

SHist1
Entries 665
Mean 32.9
Std Dev 0.4522
Underflow 379
Overflow 2
Integral 284
χ² / ndf 4.212 / 5
Constant 55.86 ± 4.62
Mean 32.86 ± 0.01
Sigma 0.1686 ± 0.0098

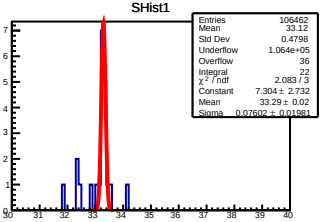

SHist1
Entries 390
Mean 32.86
Std Dev 0.4893
Underflow 235
Overflow 0
Integral 155
χ² / ndf 2.462 / 5
Constant 30.16 ± 3.31
Mean 32.79 ± 0.02
Sigma 0.1819 ± 0.0155

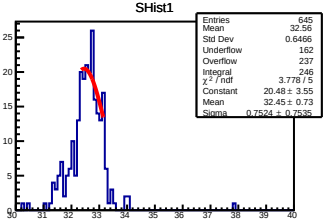

SHist1
χ² / ndf 468.2 / 8
a0 41.79 ± 1.375
a1 −51.17 ± 17.55
a3 31.9 ± 0.03249
Integral 4.247e+04
0 29121 20
0 42471 1380
0 105137 1966
STOF(TOFMT_11-BH2MT_4) [ns]
TOF_11U
40
39
38
37
36
35
34
33
32
31
30
0
200
400
600
800
1000
1200
1400
1600
1800
2000
30
20
10
0

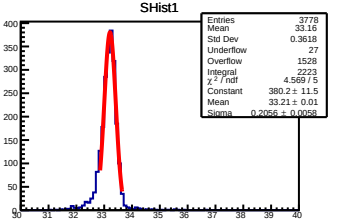

SHist1
Entries 72520
Mean 34.25
Std Dev 0.3
Underflow 4.454e+04
Overflow 2.798e+04
Integral 2
χ² / ndf 1.669e-10 / 0
Constant 1.312 ± 19.558
Mean 34.14 ± 4.99
Sigma 0.2542 ± 2.0175
SHist1
Entries 2884
Mean 34.93
Std Dev 1.295
Underflow 1868
Overflow 674
Integral 342
χ² / ndf 1.257 / 5
Constant 22.57 ± 2.96
Mean 33.34 ± 0.02
Sigma 0.1907 ± 0.0209
SHist1
Entries 1021
Mean 34.43
Std Dev 0.5646
Underflow 576
Overflow 44
Integral 401
χ² / ndf 4.214 / 5
Constant 43.37 ± 3.52
Mean 34.47 ± 0.03
Sigma 0.2419 ± 0.0253
SHist1
Entries 701
Mean 34.05
Std Dev 0.3418
Underflow 389
Overflow 16
Integral 296
χ² / ndf 10.98 / 6
Constant 46.41 ± 4.08
Mean 34.11 ± 0.02
Sigma 0.2234 ± 0.0180
SHist1
Entries 719
Mean 33.83
Std Dev 0.2967
Underflow 418
Overflow 40
Integral 261
χ² / ndf 5.022 / 5
Constant 44 ± 3.9
Mean 33.83 ± 0.02
Sigma 0.2304 ± 0.0206
SHist1
Entries 13298
Mean 33.49
Std Dev 0.2048
Underflow 7608
Overflow 81
Integral 5609
χ² / ndf 5.933 / 6
Constant 1238 ± 21.5
Mean 33.49 ± 0.00
Sigma 0.1786 ± 0.0021
SHist1
Entries 46389
Mean 33.39
Std Dev 0.2086
Underflow 2.702e+04
Overflow 153
Integral 1.922e+04
χ² / ndf 10.18 / 6
Constant 4218 ± 39.6
Mean 33.4 ± 0.0
Sigma 0.18 ± 0.00
SHist1
Entries 20444
Mean 33.28
Std Dev 0.2119
Underflow 1.193e+04
Overflow 66
Integral 8447
χ² / ndf 10.68 / 5
Constant 1889 ± 27.3
Mean 33.29 ± 0.00
Sigma 0.1756 ± 0.0019
SHist1
Entries 8005
Mean 33.19
Std Dev 0.2198
Underflow 4654
Overflow 33
Integral 3318
χ² / ndf 7.267 / 5
Constant 726.3 ± 17.1
Mean 33.19 ± 0.00
Sigma 0.1788 ± 0.0036
SHist1
Entries 3957
Mean 33.1
Std Dev 0.2459
Underflow 2270
Overflow 14
Integral 1673
χ² / ndf 12.54 / 6
Constant 377.1 ± 12.1
Mean 33.1 ± 0.0
Sigma 0.1712 ± 0.0037
SHist1
Entries 2492
Mean 33.05
Std Dev 0.2995
Underflow 1407
Overflow 11
Integral 1074
χ² / ndf 13.79 / 6
Constant 225.3 ± 9.5
Mean 33.04 ± 0.01
Sigma 0.1816 ± 0.0056
SHist1
Entries 1612
Mean 33.01
Std Dev 0.3869
Underflow 933
Overflow 6
Integral 673
χ² / ndf 10.88 / 6
Constant 138.4 ± 7.5
Mean 32.97 ± 0.01
Sigma 0.1766 ± 0.0070
SHist1
Entries 1218
Mean 32.97
Std Dev 0.4048
Underflow 679
Overflow 1
Integral 538
χ² / ndf 2.807 / 6
Constant 93.67 ± 5.76
Mean 32.94 ± 0.01
Sigma 0.2118 ± 0.0107
SHist1
Entries 742
Mean 32.96
Std Dev 0.5588
Underflow 431
Overflow 2
Integral 309
χ² / ndf 6.117 / 5
Constant 65.18 ± 5.12
Mean 32.86 ± 0.01
Sigma 0.156 ± 0.008
SHist1
Entries 483
Mean 32.86
Std Dev 0.3088
Underflow 264
Overflow 1
Integral 218
χ² / ndf 2.46 / 5
Constant 41.4 ± 3.9
Mean 32.84 ± 0.02
Sigma 0.1871 ± 0.0135

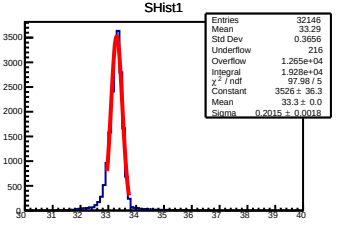

SHist2
χ² / ndf 440.8 / 8
a0 43.91 ± 1.465
a1 −30.6 ± 18.74
a3 31.87 ± 0.0338
Integral 4.239e+04
0 29123 18
0 42391 1460
0 104989 2114
STOF(TOFMT_11-BH2MT_4) [ns]
TOF_11D
40
39
38
37
36
35
34
33
32
31
30
0
200
400
600
800
1000
1200
1400
1600
1800
2000
30
20
10
0

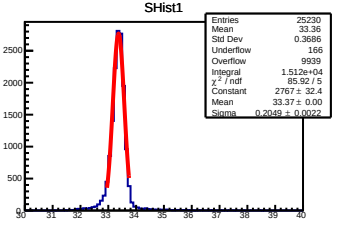

SHist1
Entries 24
Mean 0
Std Dev 0
Underflow 24
Overflow 0
Integral 0

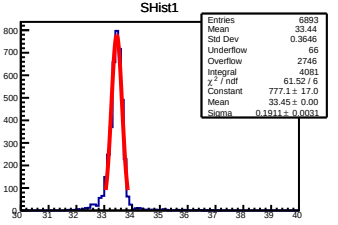

SHist1
Entries 106462
Mean 33.12
Std Dev 0.4798
Underflow 1.064e+05
Overflow 36
Integral 22
χ² / ndf 2.083 / 3
Constant 7.304 ± 2.732
Mean 33.29 ± 0.02
Sigma 0.07602 ± 0.01881

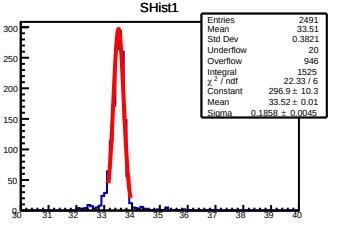

SHist1
Entries 645
Mean 32.56
Std Dev 0.6466
Underflow 162
Overflow 237
Integral 246
χ² / ndf 3.778 / 5
Constant 20.48 ± 3.55
Mean 32.45 ± 0.73
Sigma 0.7524 ± 0.7535

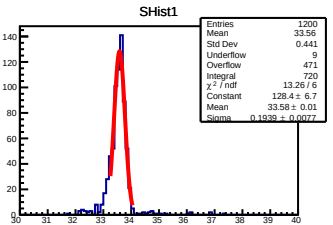

SHist1
Entries 3778
Mean 33.16
Std Dev 0.3618
Underflow 27
Overflow 1528
Integral 2223
χ² / ndf 4.569 / 5
Constant 380.2 ± 11.5
Mean 33.21 ± 0.01
Sigma 0.2056 ± 0.0058

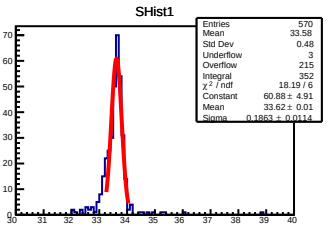

SHist1
Entries 32146
Mean 33.29
Std Dev 0.3656
Underflow 216
Overflow 1.265e+04
Integral 1.928e+04
χ² / ndf 97.98 / 5
Constant 3526 ± 36.3
Mean 33.3 ± 0.0
Sigma 0.2015 ± 0.0018

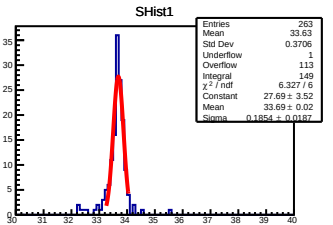

SHist1
Entries 25230
Mean 33.36
Std Dev 0.3686
Underflow 166
Overflow 9939
Integral 1.512e+04
χ² / ndf 85.92 / 5
Constant 2767 ± 32.4
Mean 33.37 ± 0.00
Sigma 0.2049 ± 0.0022

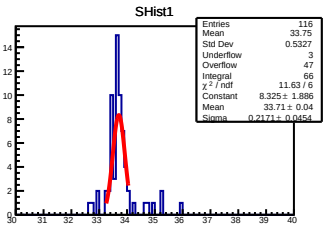

SHist1
Entries 6893
Mean 33.44
Std Dev 0.3646
Underflow 66
Overflow 2746
Integral 4081
χ² / ndf 61.52 / 6
Constant 777.1 ± 17.0
Mean 33.45 ± 0.00
Sigma 0.1911 ± 0.0031

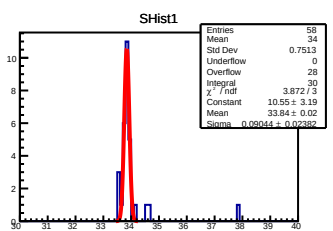

SHist1
Entries 2491
Mean 33.51
Std Dev 0.3821
Underflow 20
Overflow 946
Integral 1525
χ² / ndf 22.33 / 6
Constant 296.9 ± 10.3
Mean 33.52 ± 0.01
Sigma 0.1858 ± 0.0045

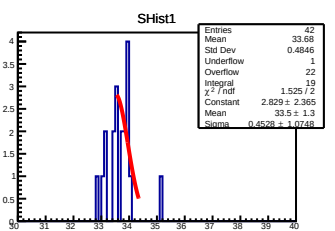

SHist1
Entries 1200
Mean 33.56
Std Dev 0.441
Underflow 9
Overflow 471
Integral 720
χ² / ndf 13.26 / 6
Constant 128.4 ± 6.7
Mean 33.58 ± 0.01
Sigma 0.1939 ± 0.0077

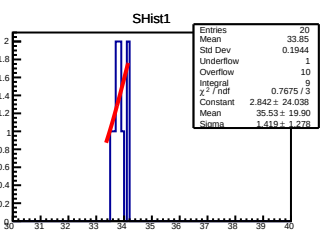

SHist1
Entries 570
Mean 33.58
Std Dev 0.48
Underflow 3
Overflow 215
Integral 352
χ² / ndf 18.19 / 6
Constant 60.88 ± 4.91
Mean 33.62 ± 0.01
Sigma 0.1863 ± 0.0114

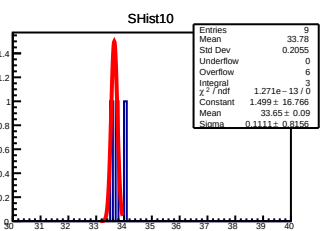

SHist1
Entries 263
Mean 33.63
Std Dev 0.3706
Underflow 1
Overflow 113
Integral 149
χ² / ndf 6.327 / 6
Constant 27.69 ± 3.52
Mean 33.69 ± 0.02
Sigma 0.1854 ± 0.0187

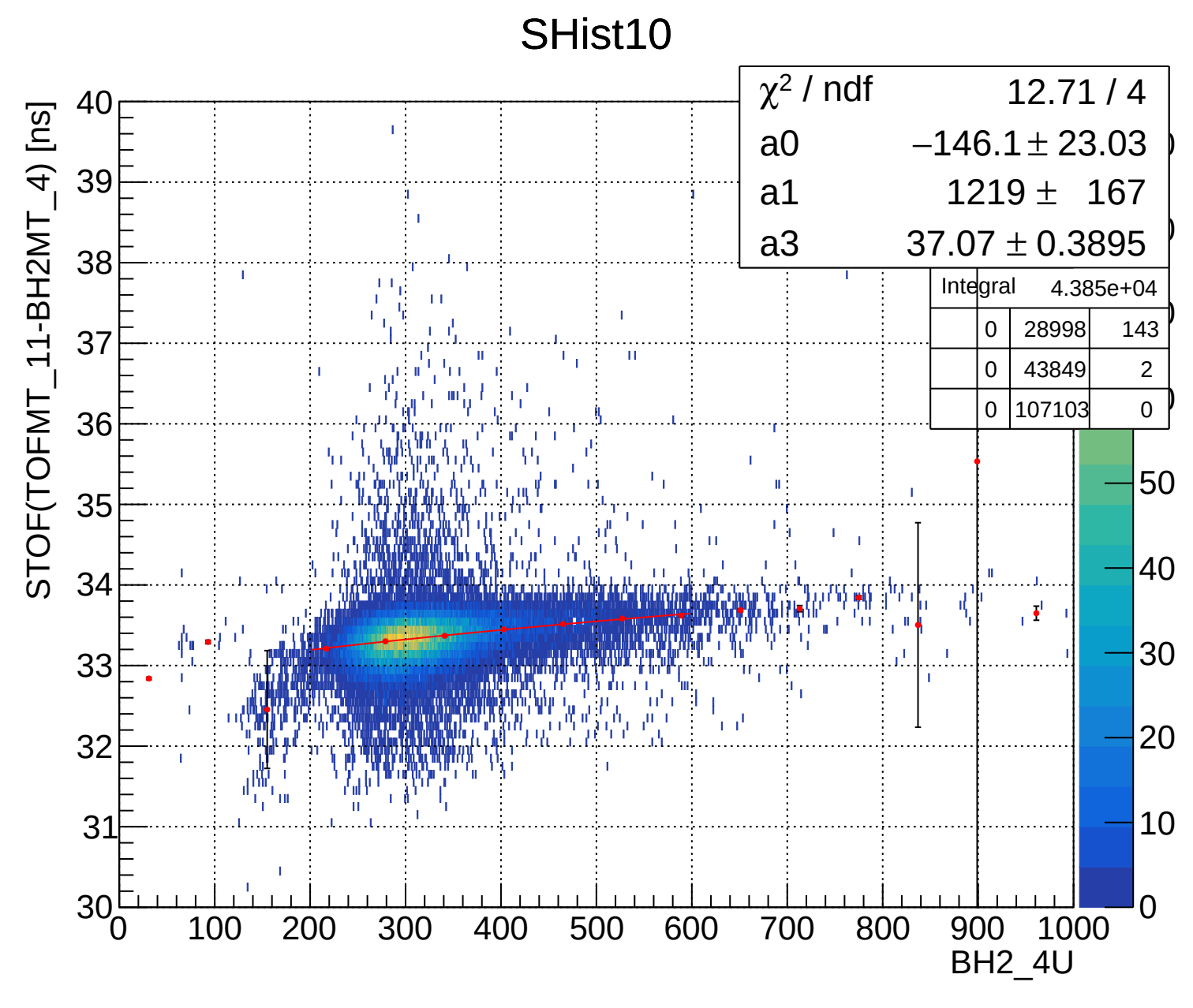

SHist1
Entries 116
Mean 33.75
Std Dev 0.5327
Underflow 3
Overflow 47
Integral 66
χ² / ndf 11.63 / 6
Constant 8.325 ± 1.886
Mean 33.71 ± 0.04
Sigma 0.2171 ± 0.0454

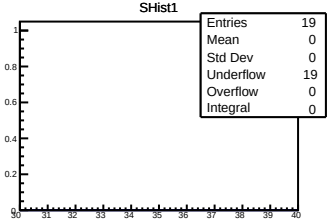

SHist1
Entries 58
Mean 34
Std Dev 0.7513
Underflow 0
Overflow 28
Integral 30
χ² / ndf 3.872 / 3
Constant 10.55 ± 3.19
Mean 33.84 ± 0.02
Sigma 0.09044 ± 0.02382

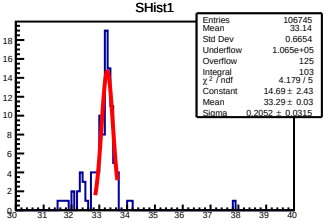

SHist1
Entries 42
Mean 33.68
Std Dev 0.4846
Underflow 1
Overflow 22
Integral 19
χ² / ndf 1.525 / 2
Constant 2.829 ± 2.365
Mean 33.5 ± 1.3
Sigma 0.4528 ± 1.0748

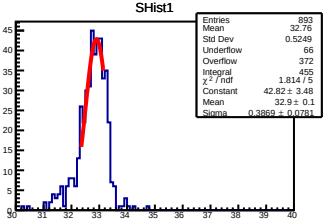

SHist1
Entries 20
Mean 33.85
Std Dev 0.1944
Underflow 1
Overflow 10
Integral 9
χ² / ndf 0.7675 / 3
Constant 2.842 ± 24.038
Mean 35.53 ± 19.90
Sigma 1.419 ± 1.278

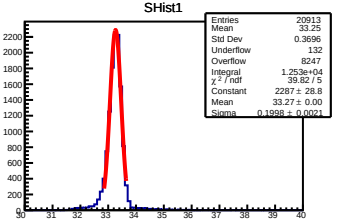

SHist10
Entries 9
Mean 33.78
Std Dev 0.2055
Underflow 0
Overflow 6
Integral 3
χ² / ndf 1.271e−13 / 0
Constant 1.499 ± 16.766
Mean 33.65 ± 0.09
Sigma 0.1111 ± 0.8156

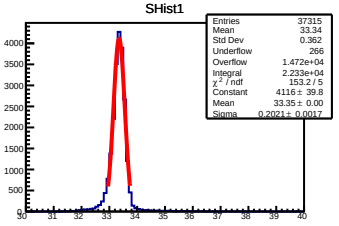

SHist10
χ² / ndf 12.71 / 4
a0 −146.1 ± 23.03
a1 1219 ± 167
a3 37.07 ± 0.3895
Integral 4.385e+04
0 28998 143
0 43849 2
0 107103 0
STOF(TOFMT_11-BH2MT_4) [ns]
BH2_4U
40
39
38
37
36
35
34
33
32
31
30
0
100
200
300
400
500
600
700
800
900
1000
50
40
30
20
10
0

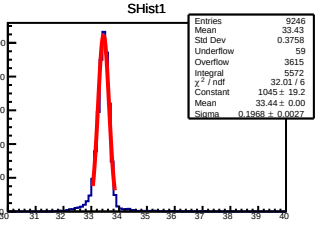

SHist1
Entries 19
Mean 0
Std Dev 0
Underflow 19
Overflow 0
Integral 0

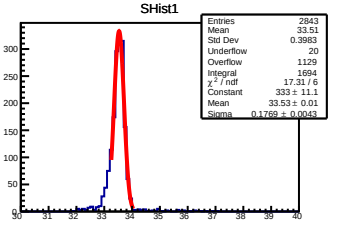

SHist1
Entries 106745
Mean 33.14
Std Dev 0.6654
Underflow 1.065e+05
Overflow 125
Integral 103
χ² / ndf 4.179 / 5
Constant 14.69 ± 2.43
Mean 33.29 ± 0.03
Sigma 0.2052 ± 0.0315

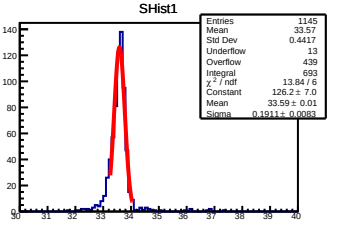

SHist1
Entries 893
Mean 32.76
Std Dev 0.5249
Underflow 66
Overflow 372
Integral 455
χ² / ndf 1.814 / 5
Constant 42.82 ± 3.48
Mean 32.9 ± 0.1
Sigma 0.3869 ± 0.0781

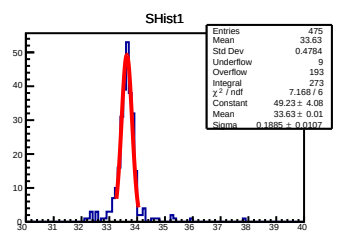

SHist1
Entries 20913
Mean 33.25
Std Dev 0.3696
Underflow 132
Overflow 8247
Integral 1.253e+04
χ² / ndf 39.82 / 5
Constant 2287 ± 28.8
Mean 33.27 ± 0.00
Sigma 0.1998 ± 0.0021

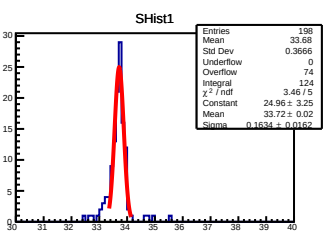

SHist1
Entries 37315
Mean 33.34
Std Dev 0.362
Underflow 266
Overflow 1.472e+04
Integral 2.233e+04
χ² / ndf 153.2 / 5
Constant 4116 ± 39.8
Mean 33.35 ± 0.00
Sigma 0.2021 ± 0.0017

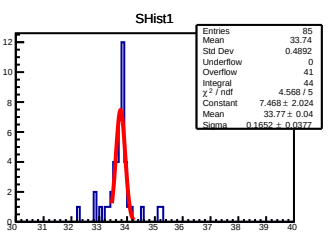

SHist1
Entries 9246
Mean 33.43
Std Dev 0.3758
Underflow 59
Overflow 3615
Integral 5572
χ² / ndf 32.01 / 6
Constant 1045 ± 19.2
Mean 33.44 ± 0.00
Sigma 0.1968 ± 0.0027

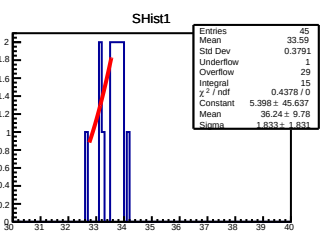

SHist1
Entries 2843
Mean 33.51
Std Dev 0.3983
Underflow 20
Overflow 1129
Integral 1694
χ² / ndf 17.31 / 6
Constant 333 ± 11.1
Mean 33.53 ± 0.01
Sigma 0.1769 ± 0.0043

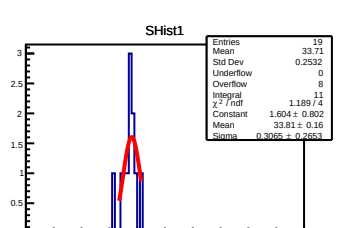

SHist1
Entries 1145
Mean 33.57
Std Dev 0.4417
Underflow 13
Overflow 439
Integral 693
χ² / ndf 13.84 / 6
Constant 126.2 ± 7.0
Mean 33.59 ± 0.01
Sigma 0.1911 ± 0.0083

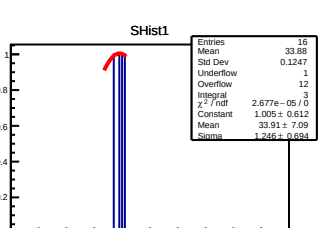

SHist1
Entries 475
Mean 33.63
Std Dev 0.4784
Underflow 9
Overflow 193
Integral 273
χ² / ndf 7.168 / 6
Constant 49.23 ± 4.08
Mean 33.63 ± 0.01
Sigma 0.1885 ± 0.0107

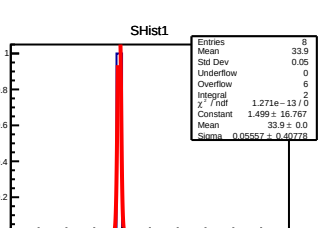

SHist1
Entries 198
Mean 33.68
Std Dev 0.3666
Underflow 0
Overflow 74
Integral 124
χ² / ndf 3.46 / 5
Constant 24.96 ± 3.25
Mean 33.72 ± 0.02
Sigma 0.1634 ± 0.0162

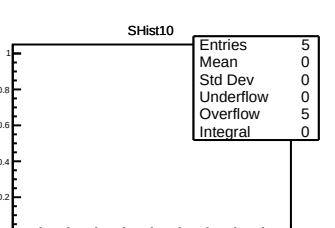

SHist1
Entries 85
Mean 33.74
Std Dev 0.4892
Underflow 0
Overflow 41
Integral 44
χ² / ndf 4.568 / 5
Constant 7.468 ± 2.024
Mean 33.77 ± 0.04
Sigma 0.1652 ± 0.0377

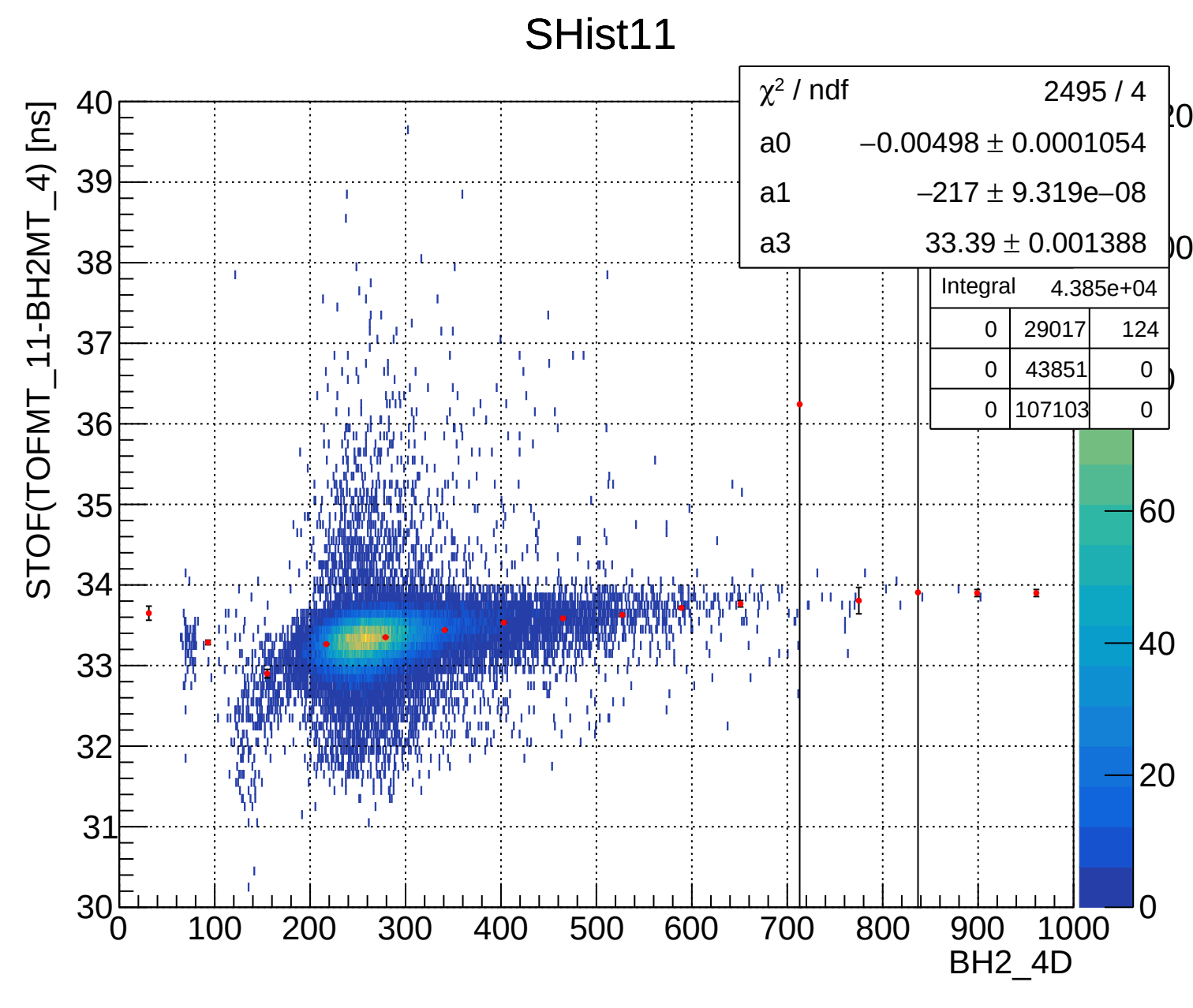

SHist1
Entries 45
Mean 33.59
Std Dev 0.3791
Underflow 1
Overflow 29
Integral 15
χ² / ndf 0.4378 / 0
Constant 5.398 ± 45.637
Mean 36.24 ± 9.78
Sigma 1.833 ± 1.831

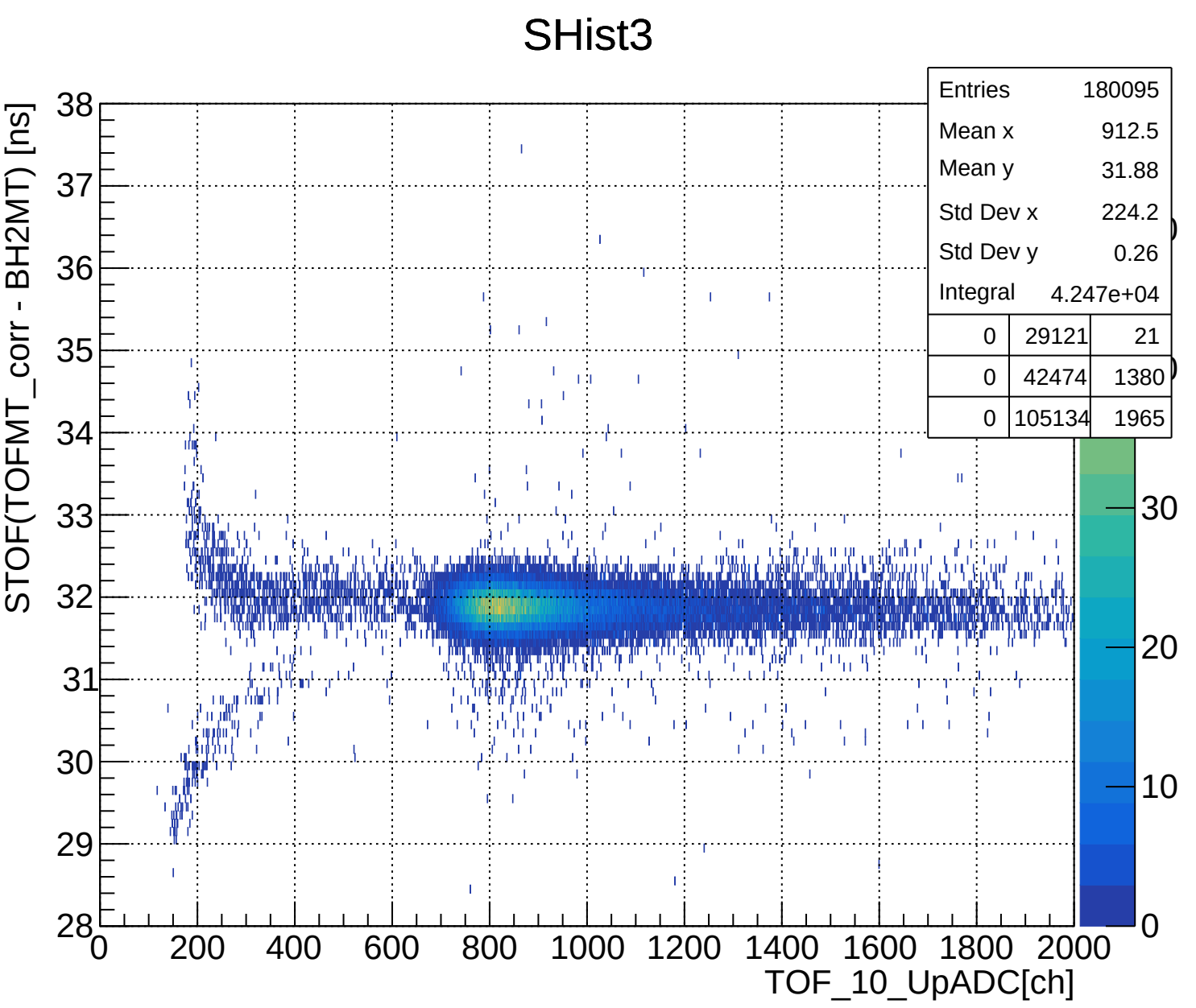

SHist1
Entries 19
Mean 33.71
Std Dev 0.2532
Underflow 0
Overflow 8
Integral 11
χ² / ndf 1.189 / 4
Constant 1.604 ± 0.802
Mean 33.81 ± 0.16
Sigma 0.3065 ± 0.2653

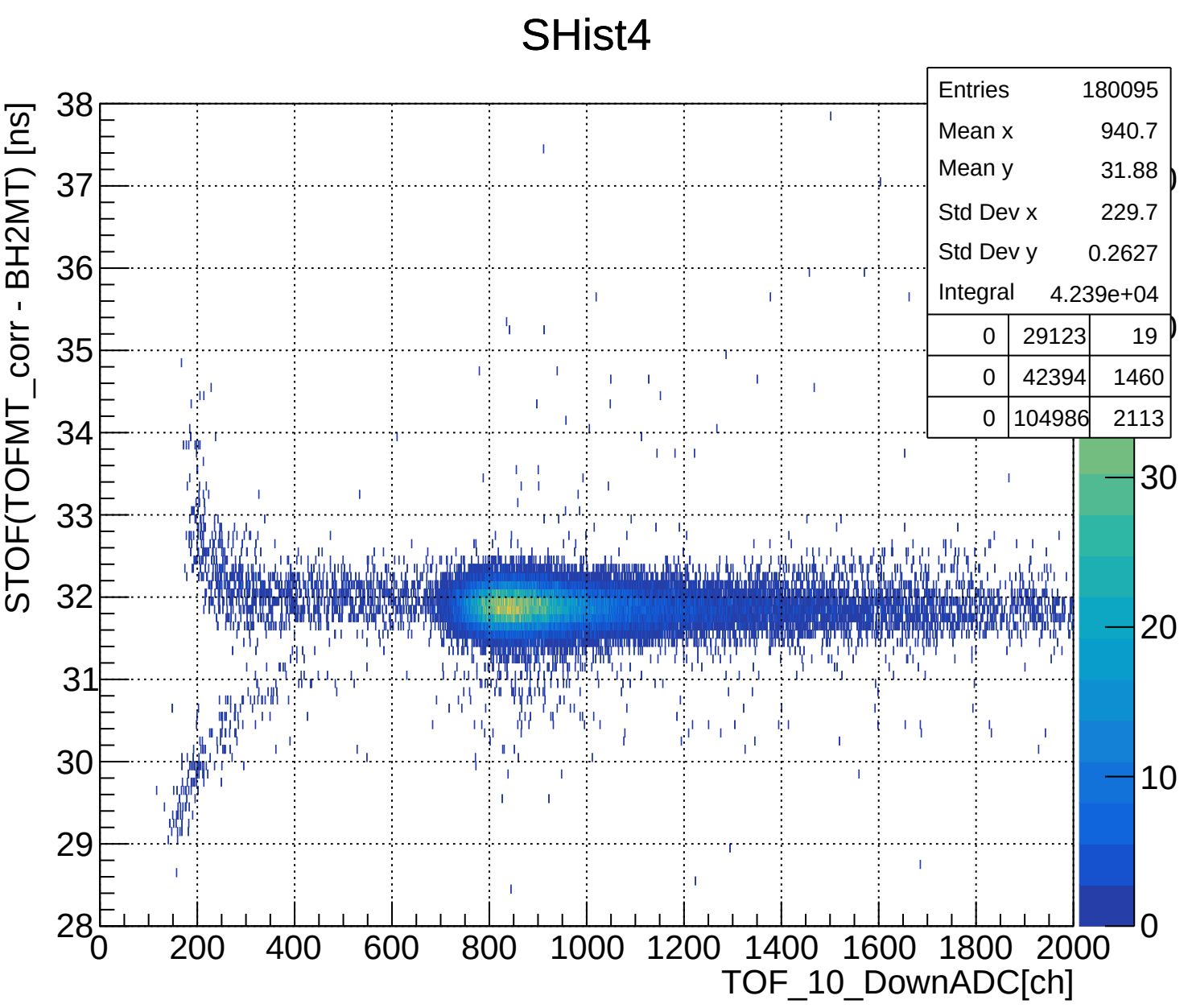

SHist1
Entries 16
Mean 33.88
Std Dev 0.1247
Underflow 1
Overflow 12
Integral 3
χ² / ndf 2.677e−05 / 0
Constant 1.005 ± 0.612
Mean 33.91 ± 7.09
Sigma 1.246 ± 0.694

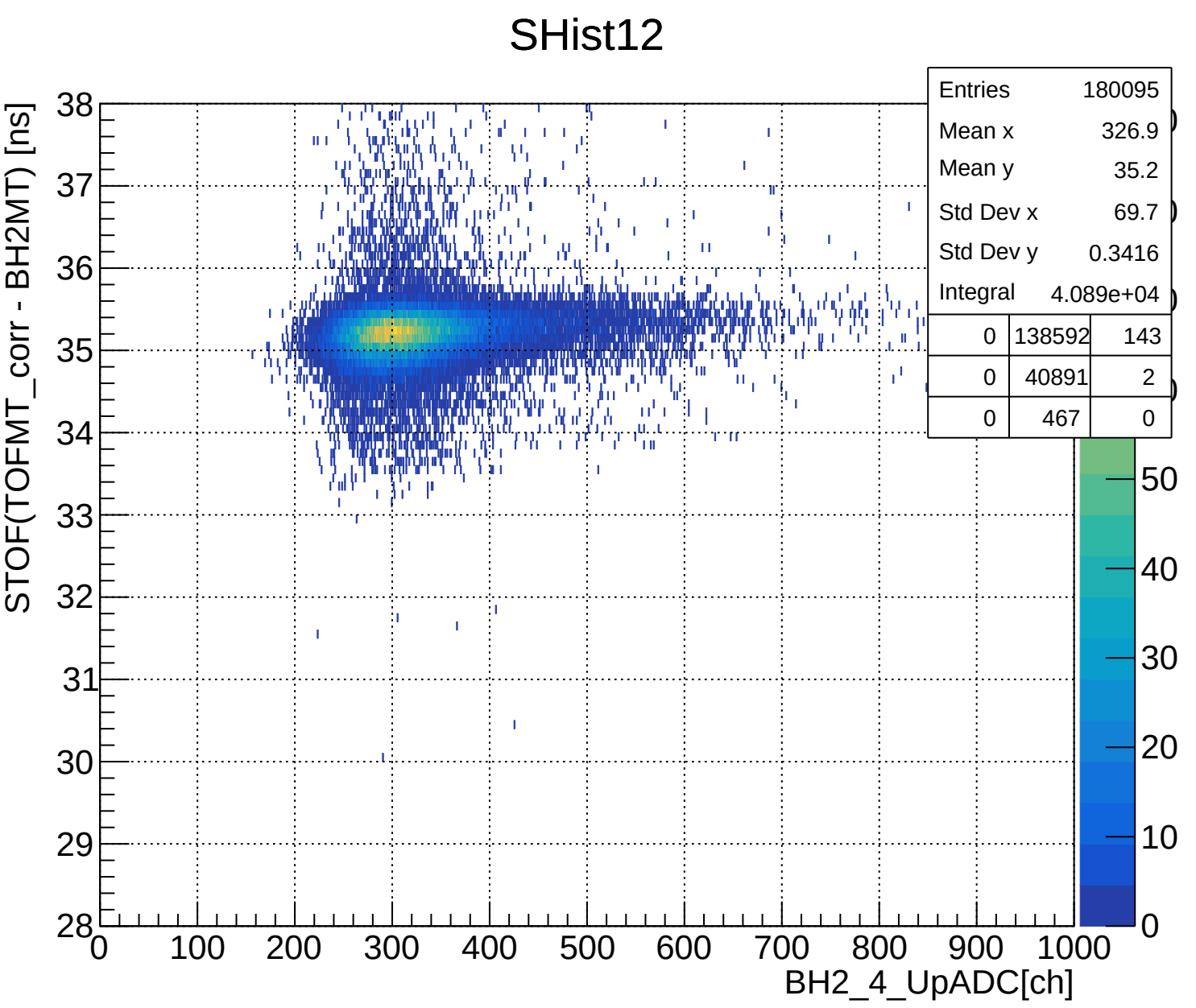

SHist1
Entries 8
Mean 33.9
Std Dev 0.05
Underflow 0
Overflow 6
Integral 2
χ² / ndf 1.271e−13 / 0
Constant 1.499 ± 16.767
Mean 33.9 ± 0.0
Sigma 0.05557 ± 0.40778

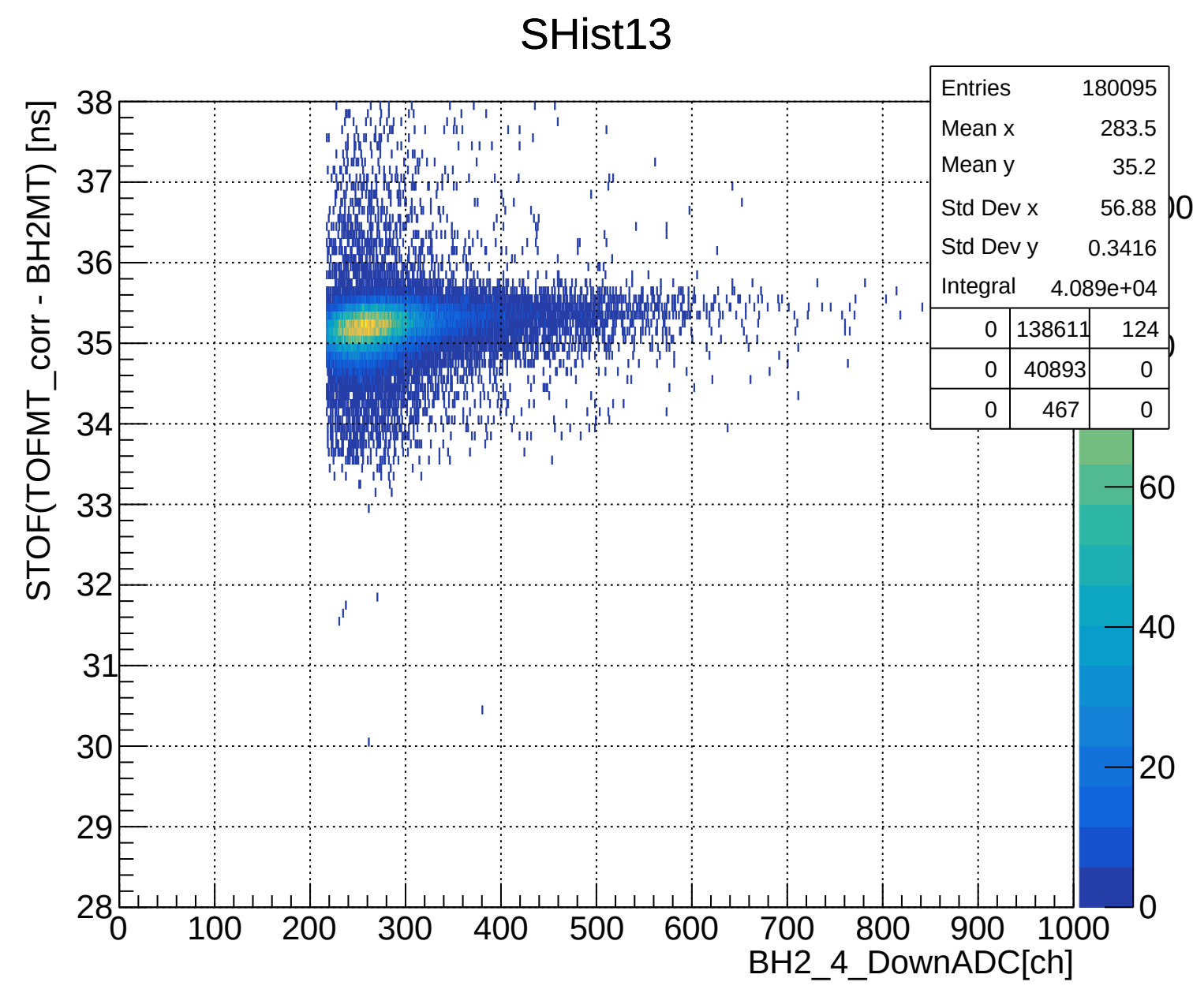

SHist10
Entries 5
Mean 0
Std Dev 0
Underflow 0
Overflow 5
Integral 0

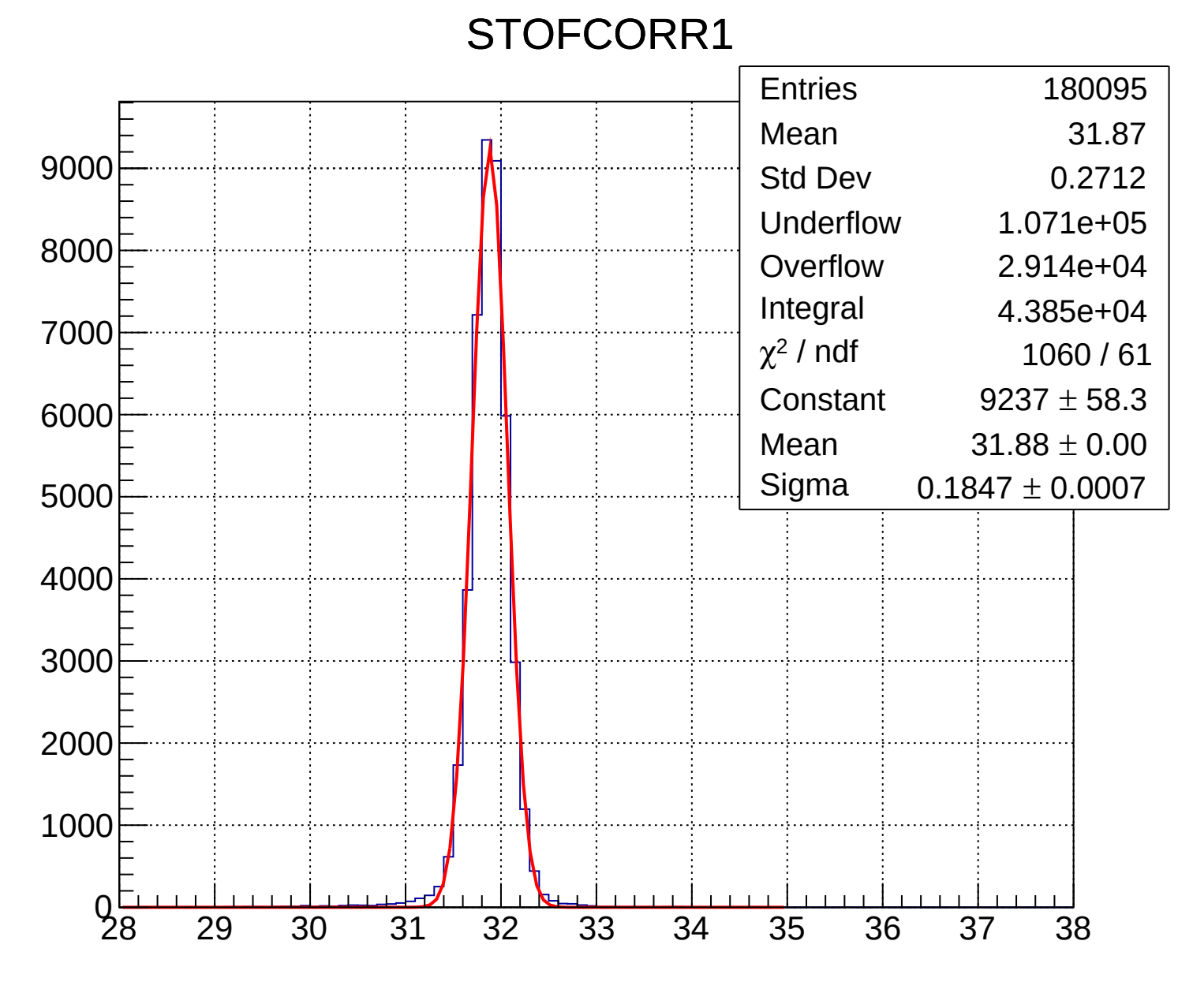

SHist11
χ² / ndf 2495 / 4
a0 −0.00498 ± 0.0001054
a1 −217 ± 9.319e−08
a3 33.39 ± 0.001388
Integral 4.385e+04
0 29017 124
0 43851 0
0 107103 0
STOF(TOFMT_11-BH2MT_4) [ns]
BH2_4D
40
39
38
37
36
35
34
33
32
31
30
0
100
200
300
400
500
600
700
800
900
1000
60
40
20
0

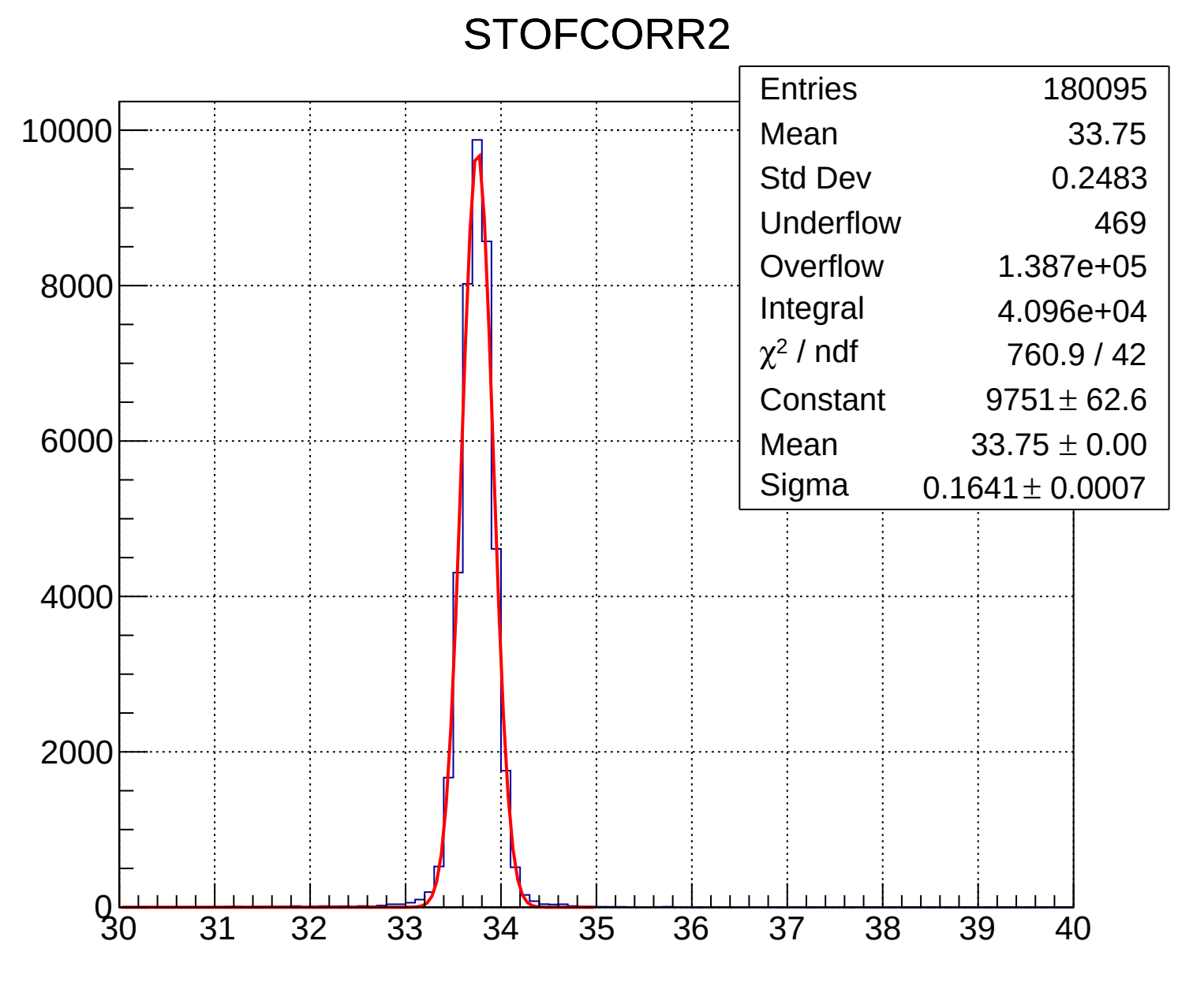

SHist3
Entries 180095
Mean x 912.5
Mean y 31.88
Std Dev x 224.2
Std Dev y 0.26
Integral 4.247e+04
0 29121 21
0 42474 1380
0 105134 1965
STOF(TOFMT_corr - BH2MT) [ns]
TOF_10_UpADC[ch]
38
37
36
35
34
33
32
31
30
29
28
0
200
400
600
800
1000
1200
1400
1600
1800
2000
30
20
10
0


SHist4
Entries 180095
Mean x 940.7
Mean y 31.88
Std Dev x 229.7
Std Dev y 0.2627
Integral 4.239e+04
0 29123 19
0 42394 1460
0 104986 2113
STOF(TOFMT_corr - BH2MT) [ns]
TOF_10_DownADC[ch]
38
37
36
35
34
33
32
31
30
29
28
0
200
400
600
800
1000
1200
1400
1600
1800
2000
30
20
10
0


SHist12
Entries 180095
Mean x 326.9
Mean y 35.2
Std Dev x 69.7
Std Dev y 0.3416
Integral 4.089e+04
0 138592 143
0 40891 2
0 467 0
STOF(TOFMT_corr - BH2MT) [ns]
BH2_4_UpADC[ch]
38
37
36
35
34
33
32
31
30
29
28
0
100
200
300
400
500
600
700
800
900
1000
50
40
30
20
10
0


SHist13
Entries 180095
Mean x 283.5
Mean y 35.2
Std Dev x 56.88
Std Dev y 0.3416
Integral 4.089e+04
0 138611 124
0 40893 0
0 467 0
STOF(TOFMT_corr - BH2MT) [ns]
38
37
36
35
34
33
32
31
30
29
28
0
100
200
300
400
500
600
700
800
900
1000
BH2_4_DownADC[ch]
60
40
20
0


STOFCORR1
Entries 180095
Mean 31.87
Std Dev 0.2712
Underflow 1.071e+05
Overflow 2.914e+04
Integral 4.385e+04
χ² / ndf 1060 / 61
Constant 9237 ± 58.3
Mean 31.88 ± 0.00
Sigma 0.1847 ± 0.0007
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
28
29
30
31
32
33
34
35
36
37
38


STOFCORR2
Entries 180095
Mean 33.75
Std Dev 0.2483
Underflow 469
Overflow 1.387e+05
Integral 4.096e+04
χ² / ndf 760.9 / 42
Constant 9751 ± 62.6
Mean 33.75 ± 0.00
Sigma 0.1641 ± 0.0007
10000
8000
6000
4000
2000
0
30
31
32
33
34
35
36
37
38
39
40