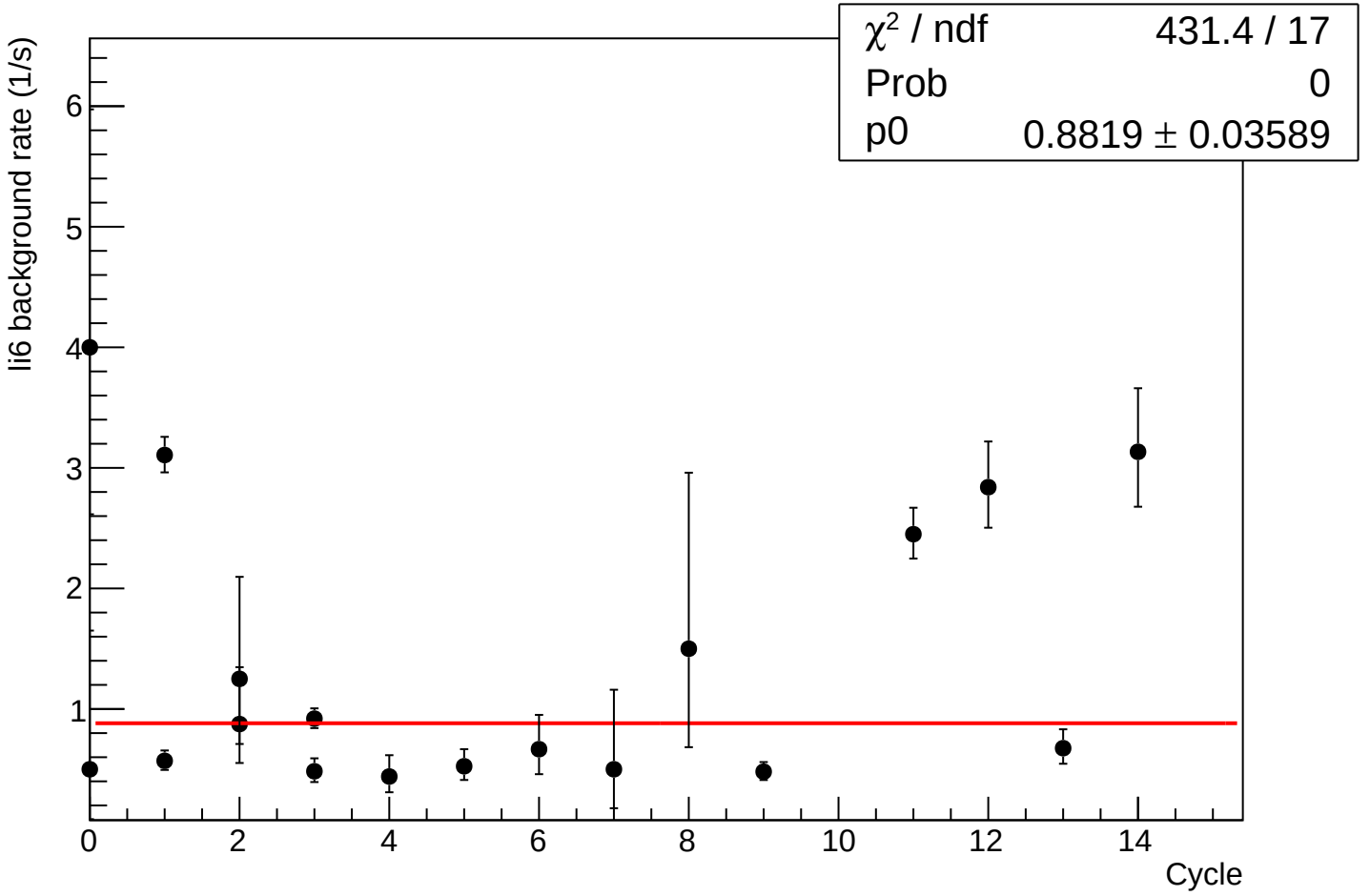
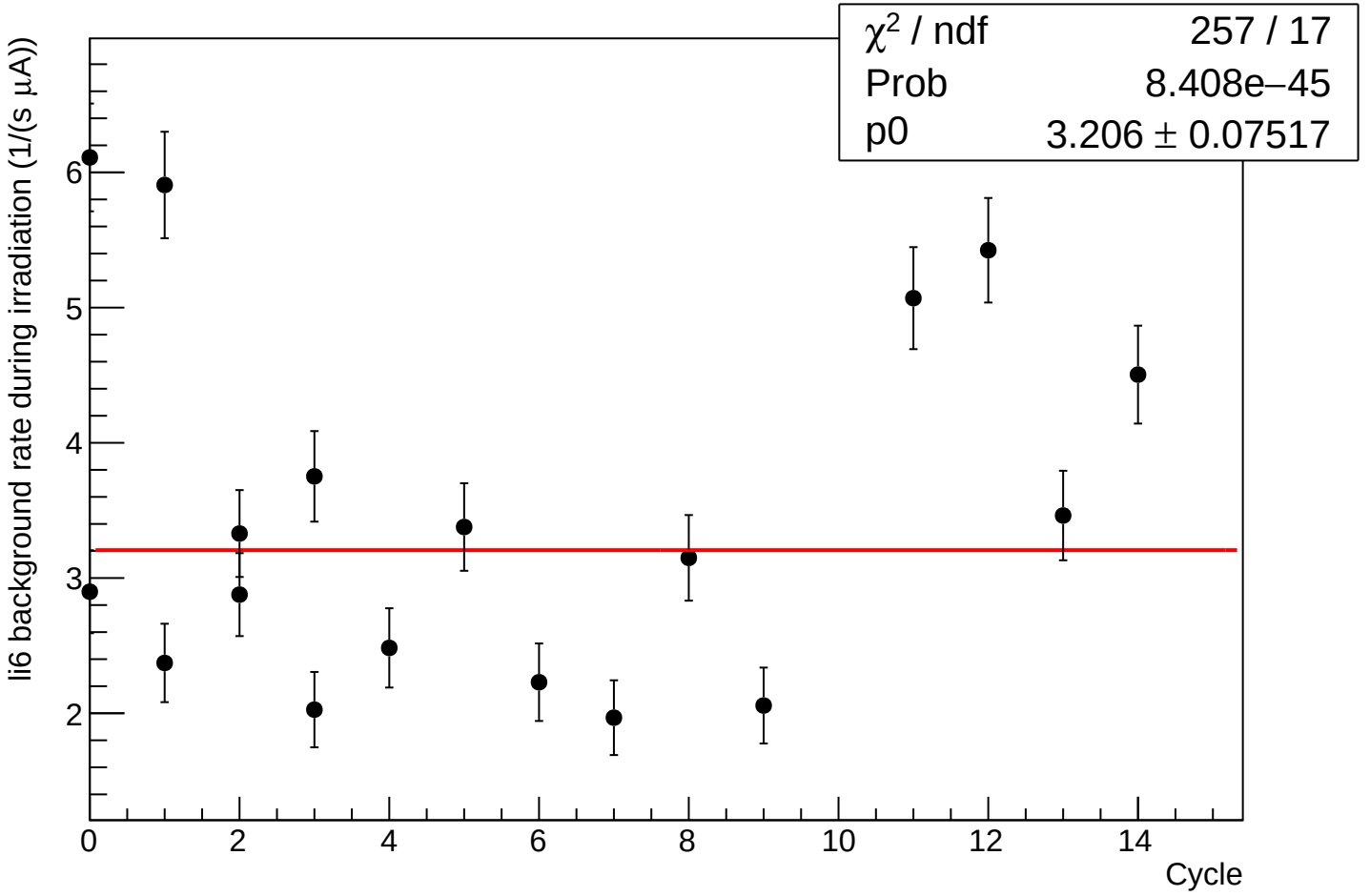
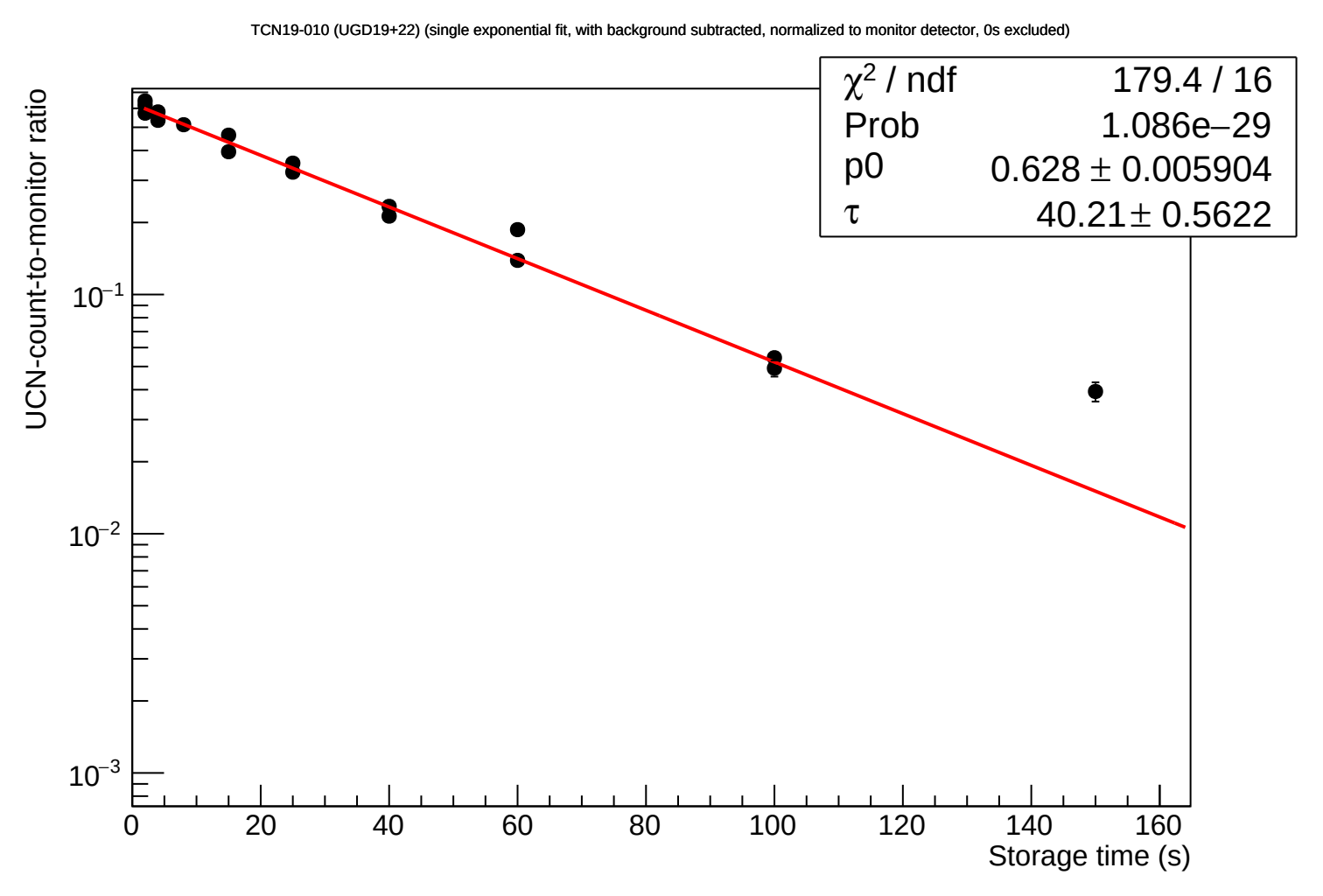
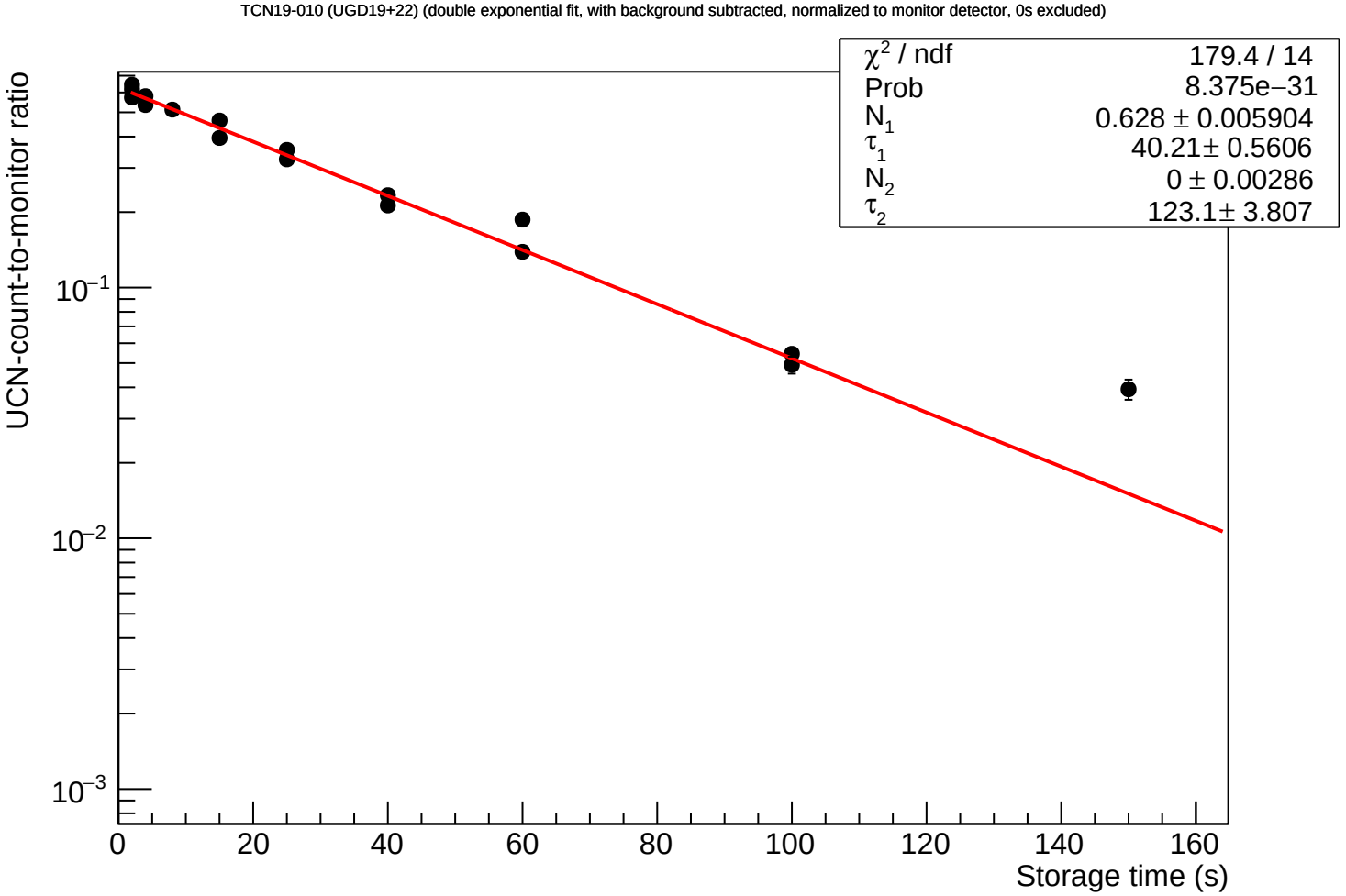
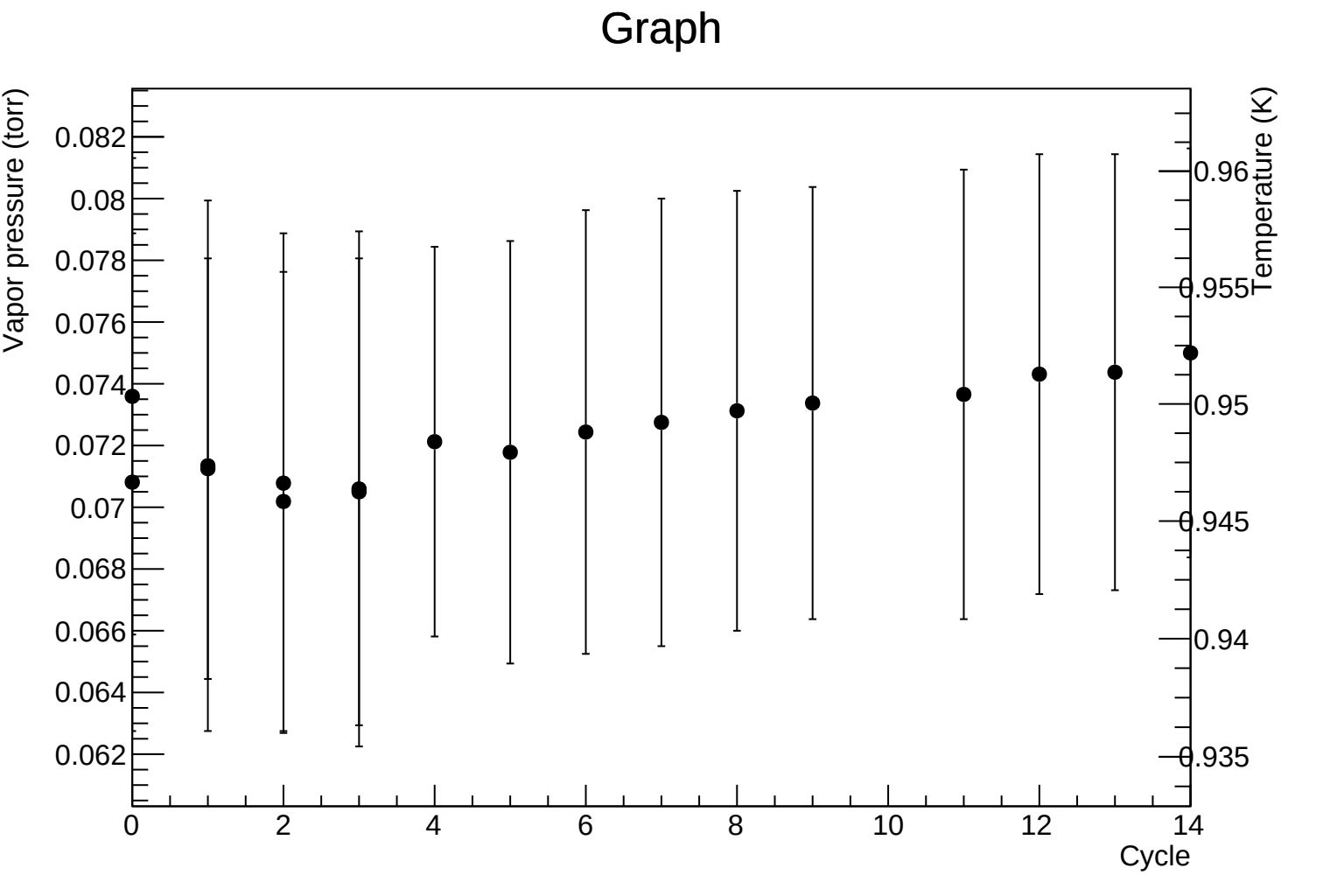
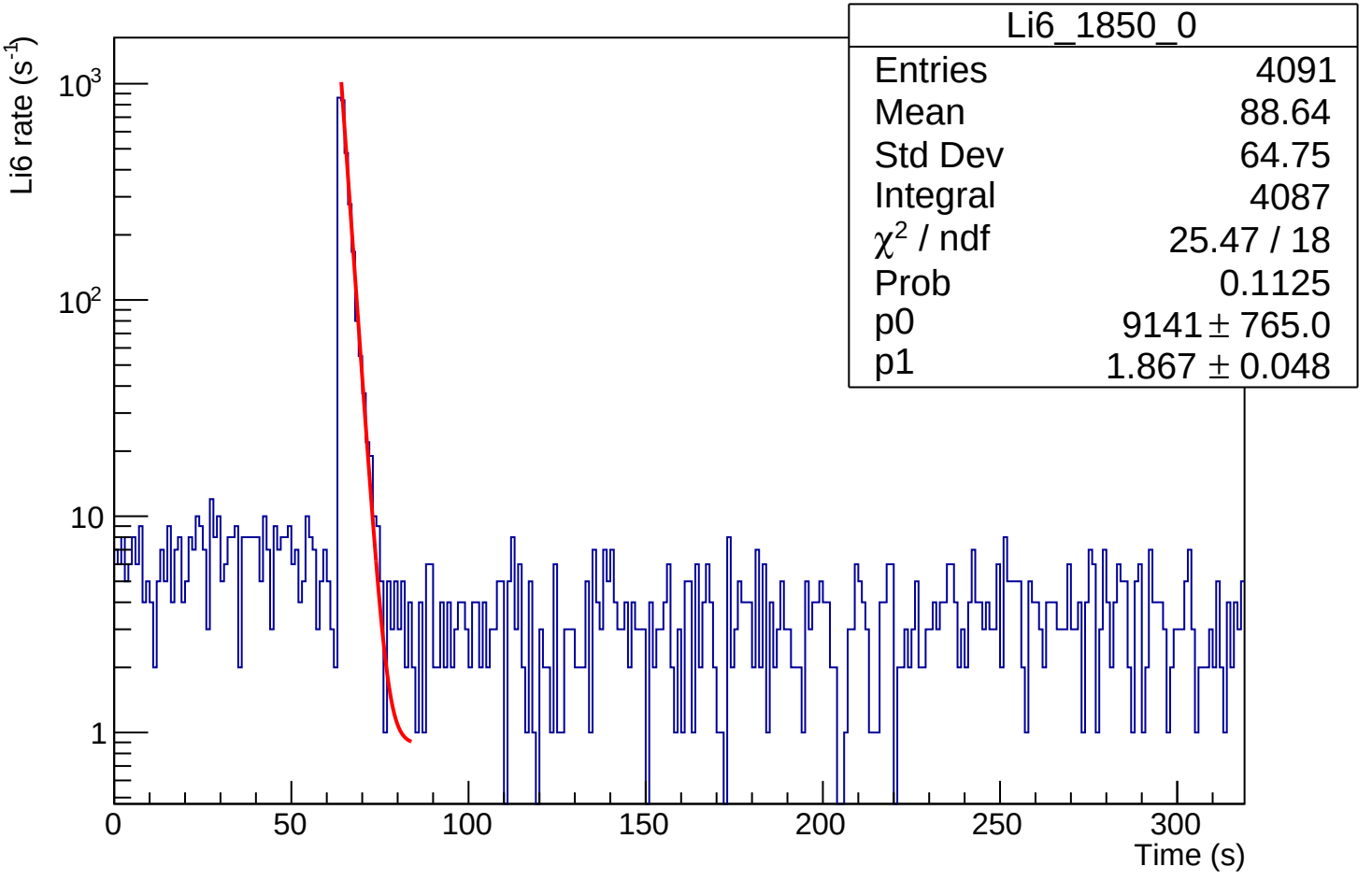

$\chi^2$ / ndf 431.4 / 17
Prob 0
p0 0.8819 ± 0.03589
li6 background rate (1/s)
Cycle
0
2
4
6
8
10
12
14
1
2
3
4
5
6

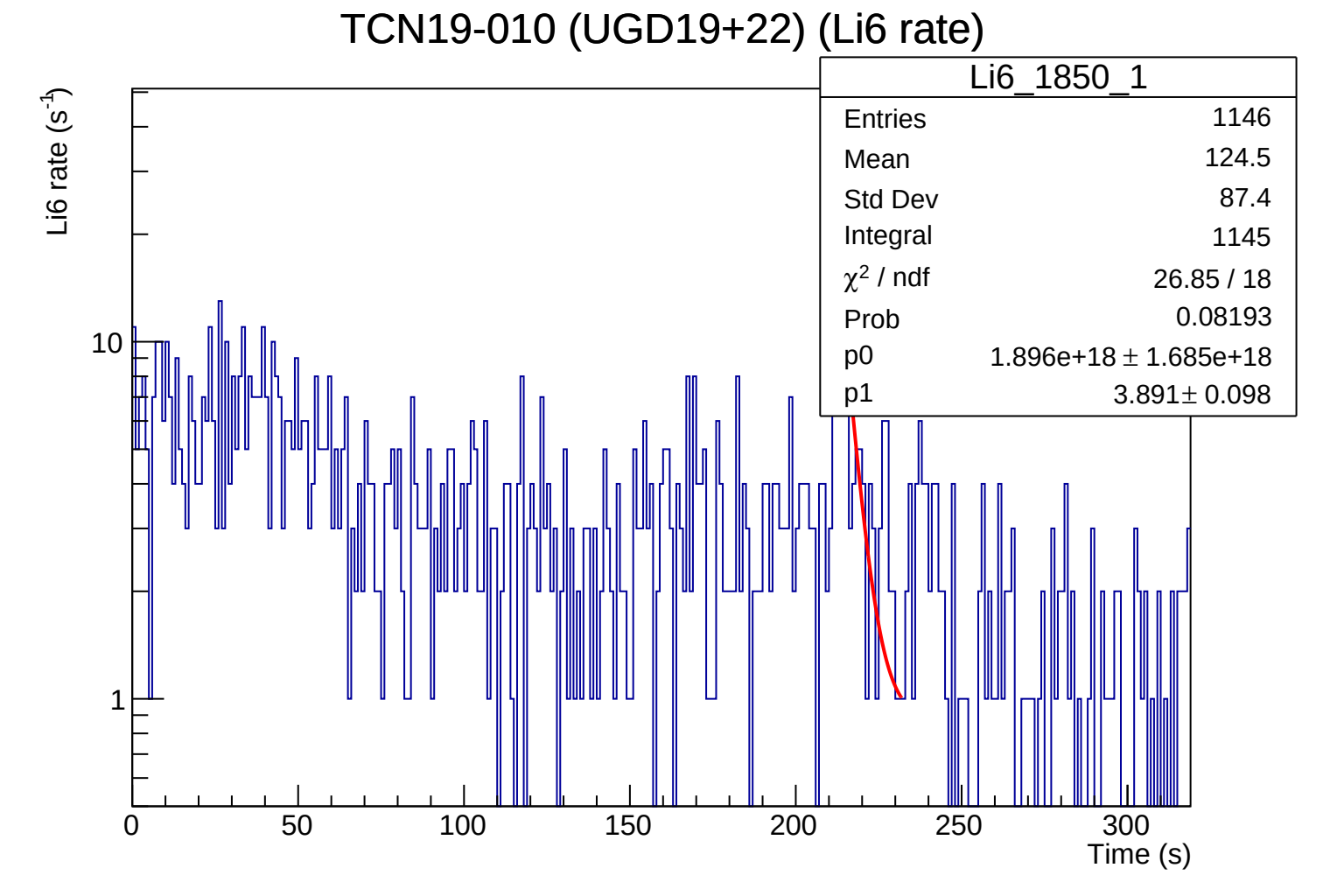

χ² / ndf 257 / 17
Prob 8.408e−45
p0 3.206 ± 0.07517
li6 background rate during irradiation (1/(s μA))
Cycle
0
2
4
6
8
10
12
14
2
3
4
5
6

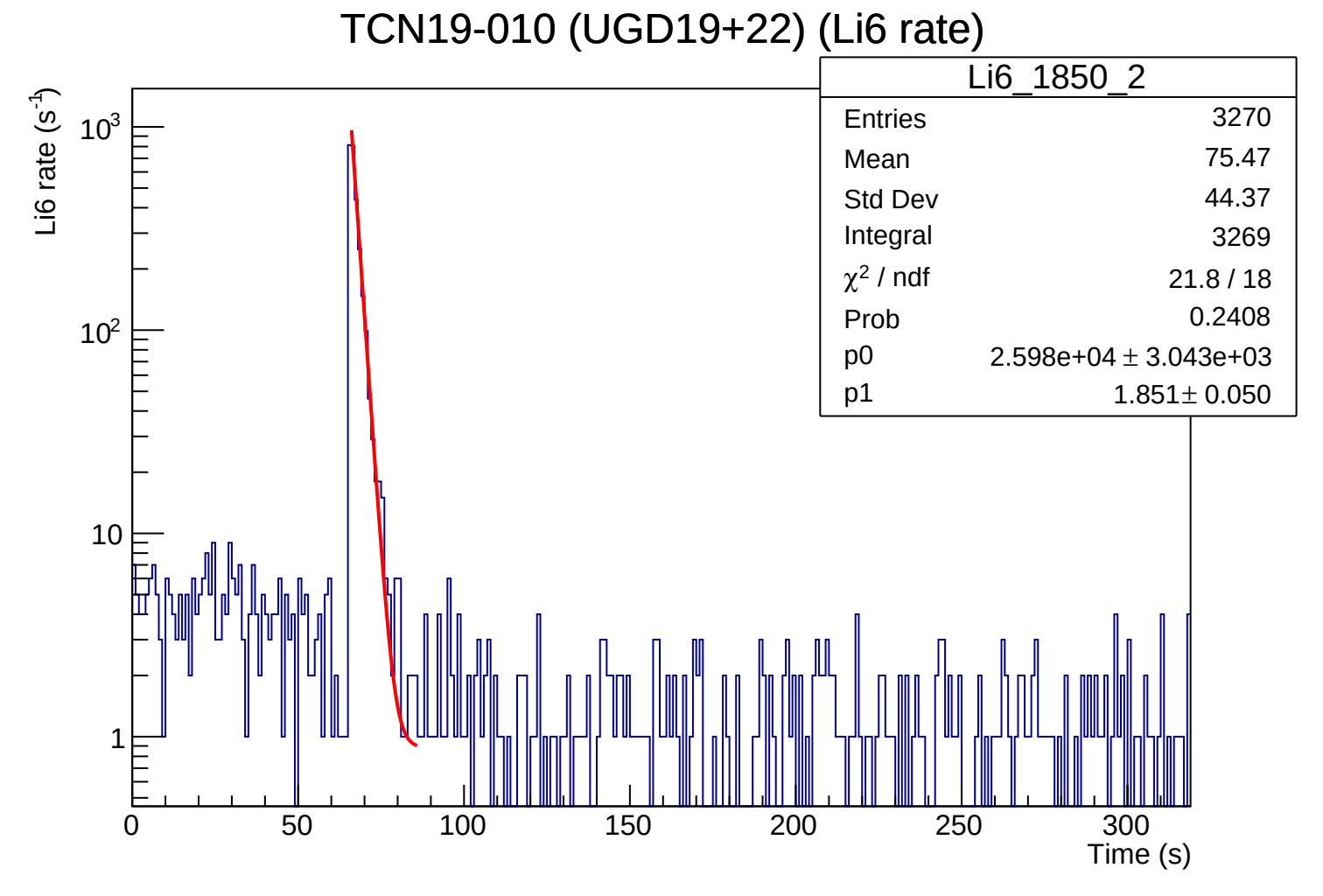

TCN19-010 (UGD19+22) (single exponential fit, with background subtracted, normalized to monitor detector, 0s excluded)
χ² / ndf 179.4 / 16
Prob 1.086e−29
p0 0.628 ± 0.005904
τ 40.21 ± 0.5622
UCN-count-to-monitor ratio
10⁻¹
10⁻²
10⁻³
0
20
40
60
80
100
120
140
160
Storage time (s)

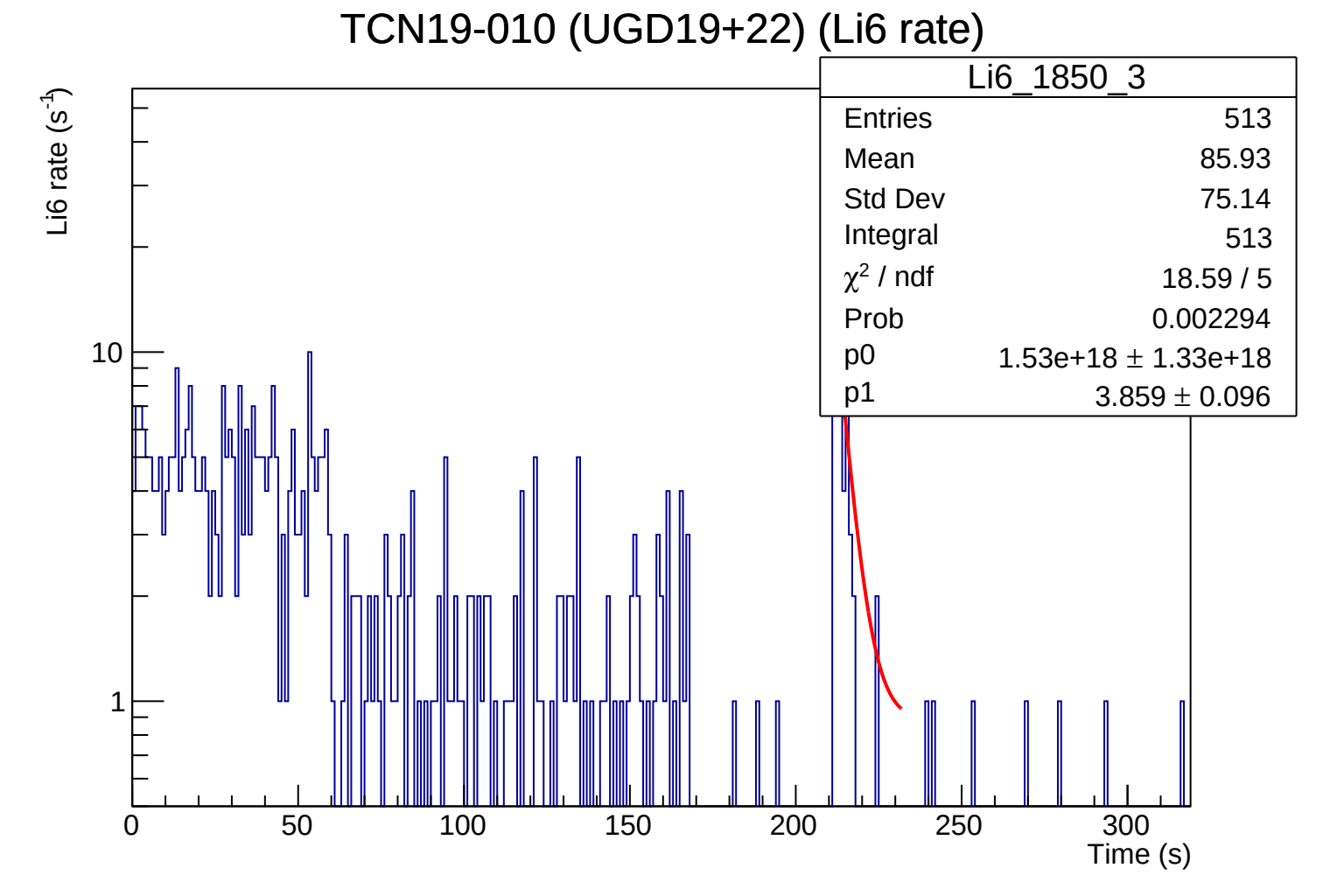

TCN19-010 (UGD19+22) (double exponential fit, with background subtracted, normalized to monitor detector, 0s excluded)
χ² / ndf 179.4 / 14
Prob 8.375e−31
N1 0.628 ± 0.005904
τ1 40.21± 0.5606
N2 0 ± 0.00286
τ2 123.1± 3.807
UCN-count-to-monitor ratio
10−1
10−2
10−3
0
20
40
60
80
100
120
140
160
Storage time (s)

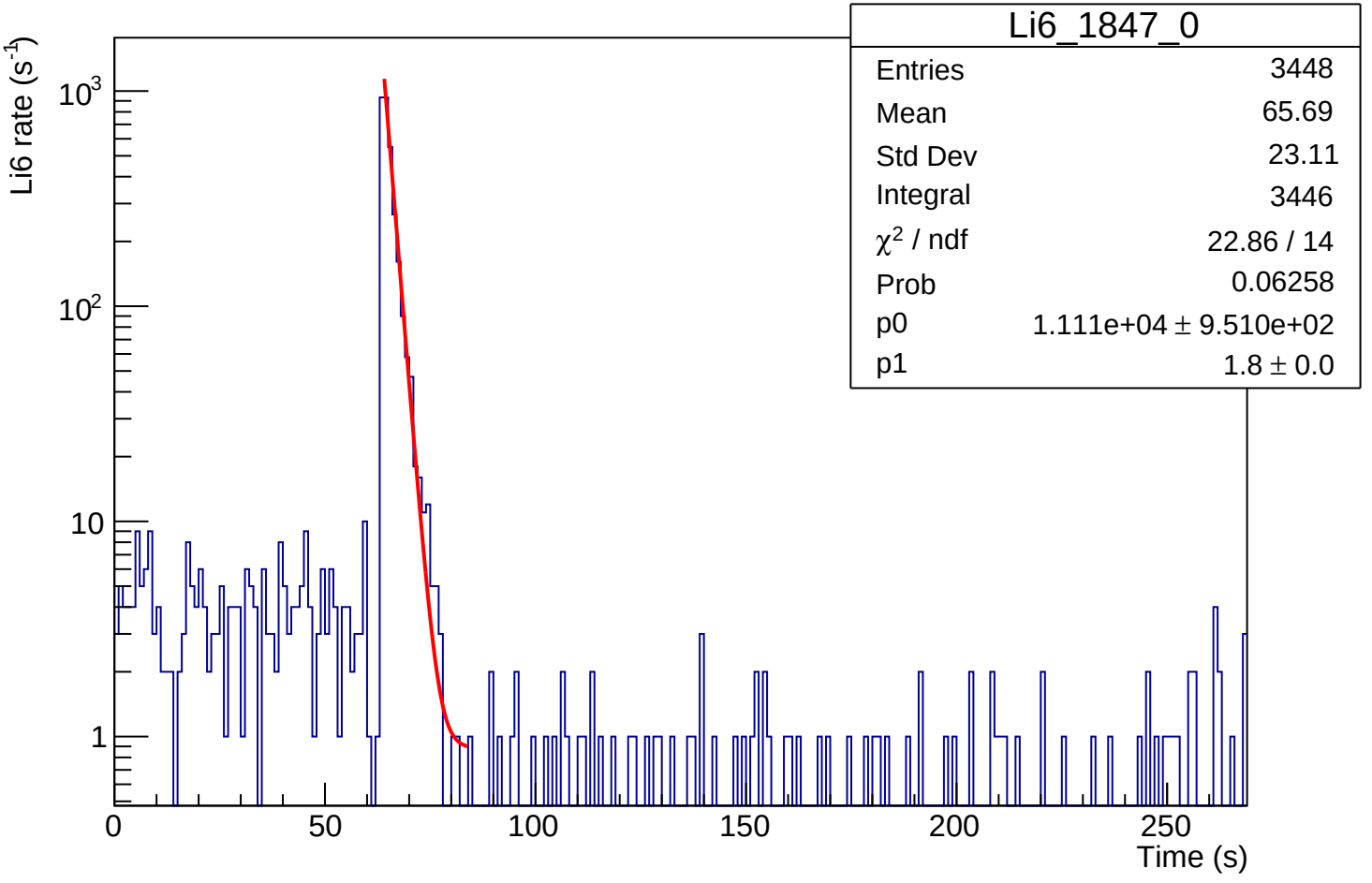

Graph
Vapor pressure (torr)
0.082
0.08
0.078
0.076
0.074
0.072
0.07
0.068
0.066
0.064
0.062
Temperature (K)
0.96
0.955
0.95
0.945
0.94
0.935
0
2
4
6
8
10
12
14
Cycle

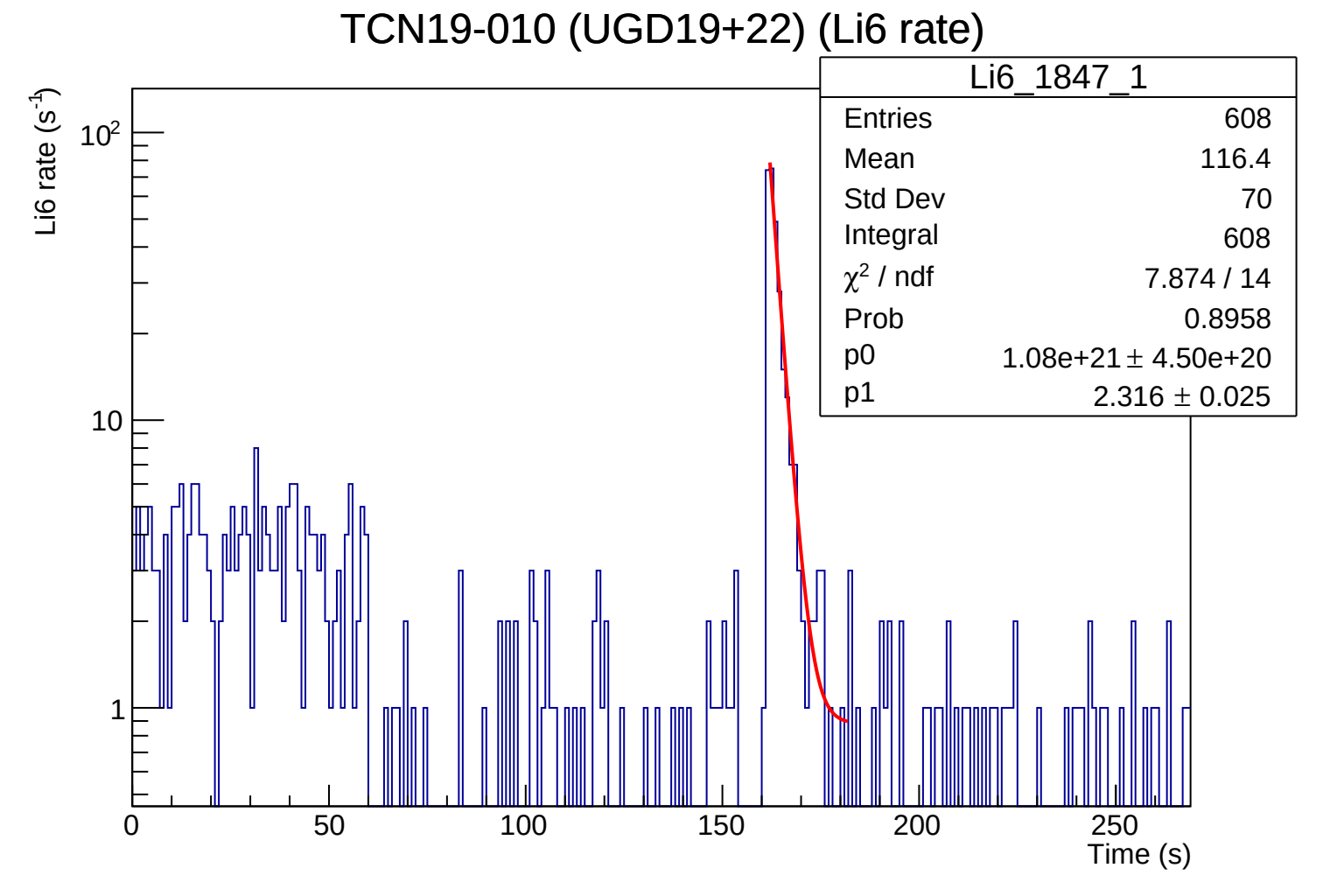

TCN19-010 (UGD19+22) (Li6 rate)
Li6_1850_0
Entries 4091
Mean 88.64
Std Dev 64.75
Integral 4087
χ² / ndf 25.47 / 18
Prob 0.1125
p0 9141 ± 765.0
p1 1.867 ± 0.048
Li6 rate (s⁻¹)
10³
10²
10
1
0
50
100
150
200
250
300
Time (s)

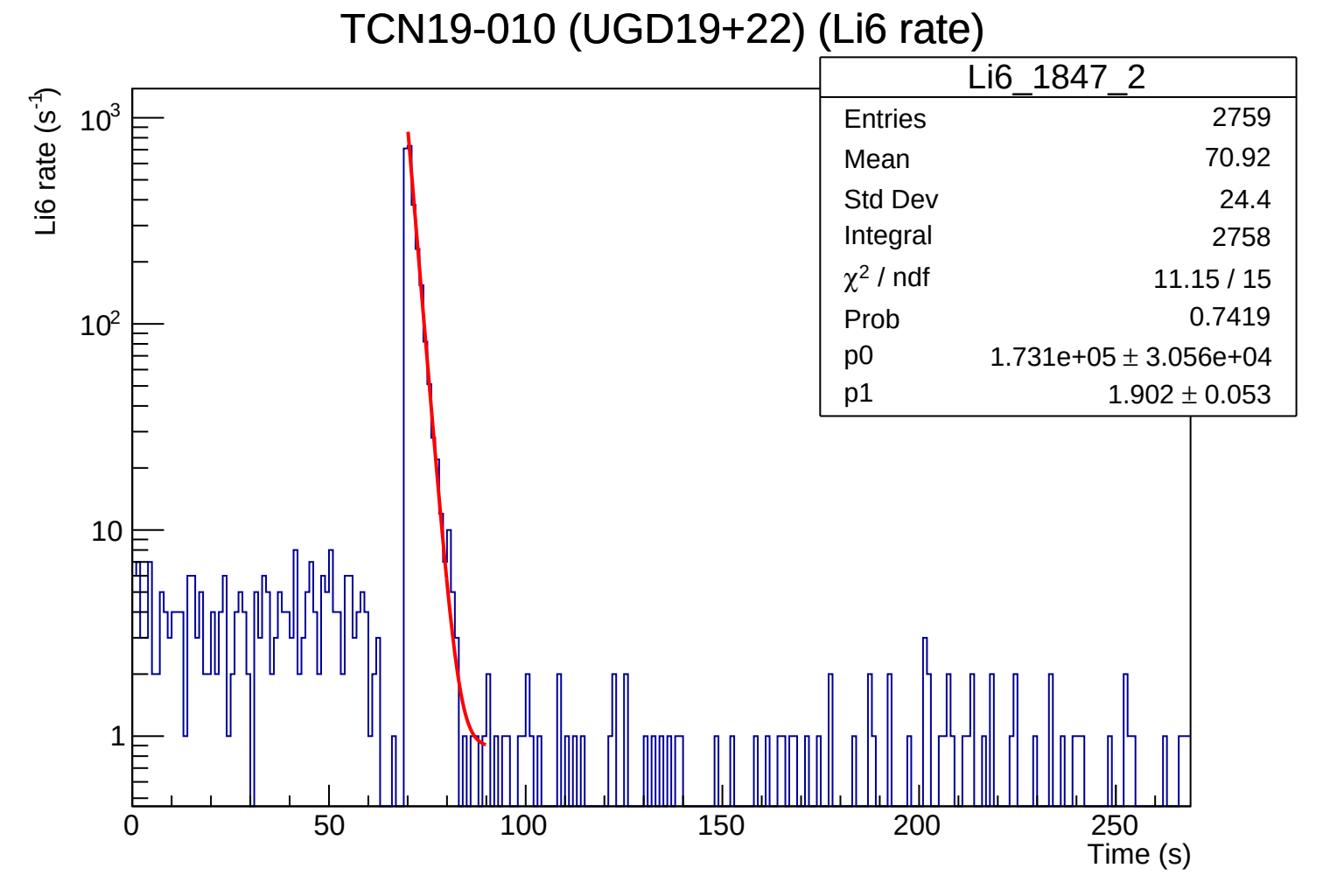

TCN19-010 (UGD19+22) (Li6 rate)
Li6_1850_1
Entries 1146
Mean 124.5
Std Dev 87.4
Integral 1145
χ2 / ndf 26.85 / 18
Prob 0.08193
p0 1.896e+18 ± 1.685e+18
p1 3.891± 0.098
Li6 rate (s-1)
10
1
0
50
100
150
200
250
300
Time (s)

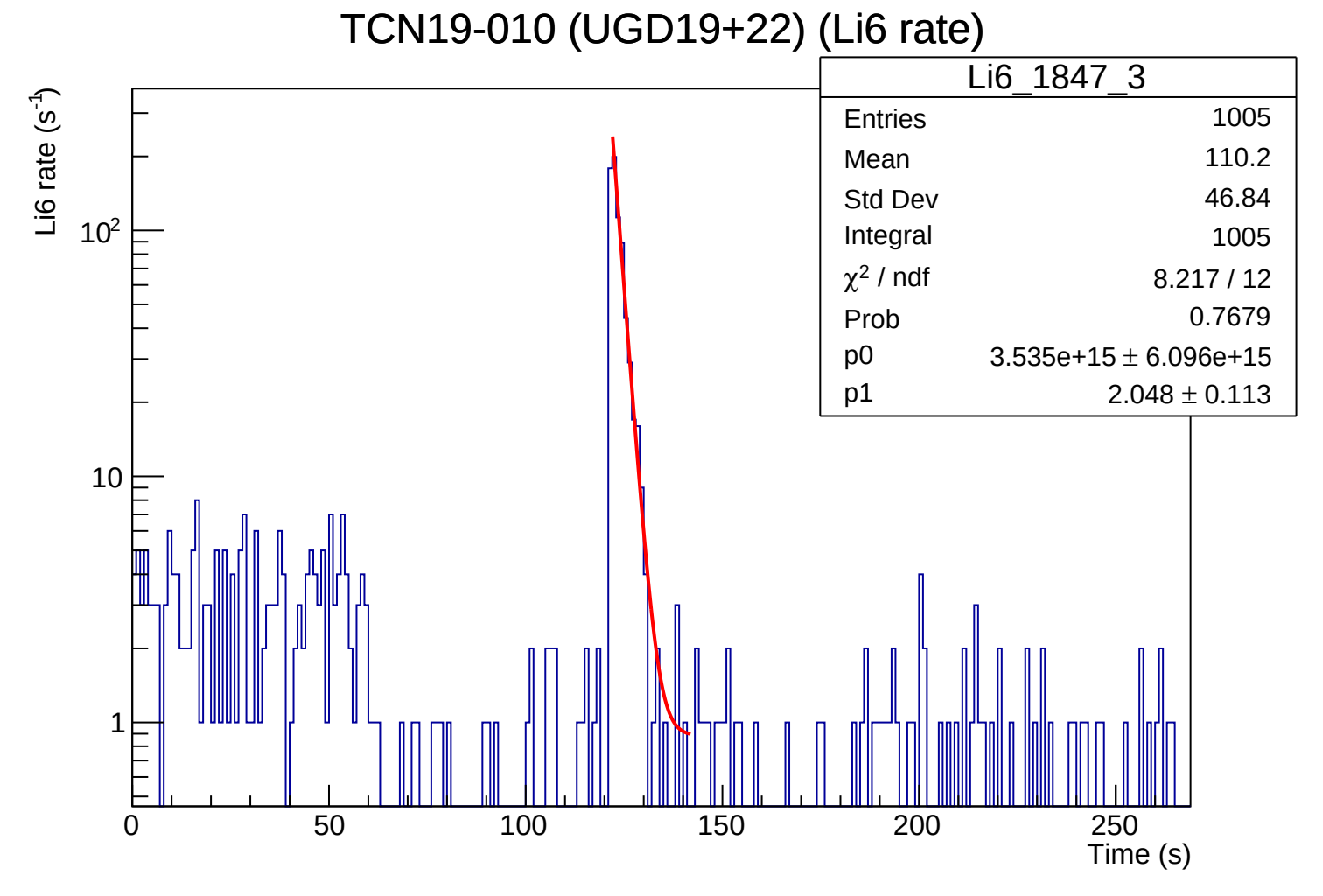

TCN19-010 (UGD19+22) (Li6 rate)
Li6_1850_2
Entries 3270
Mean 75.47
Std Dev 44.37
Integral 3269
χ² / ndf 21.8 / 18
Prob 0.2408
p0 2.598e+04 ± 3.043e+03
p1 1.851± 0.050
Li6 rate (s⁻¹)
10³
10²
10
1
0
50
100
150
200
250
300
Time (s)

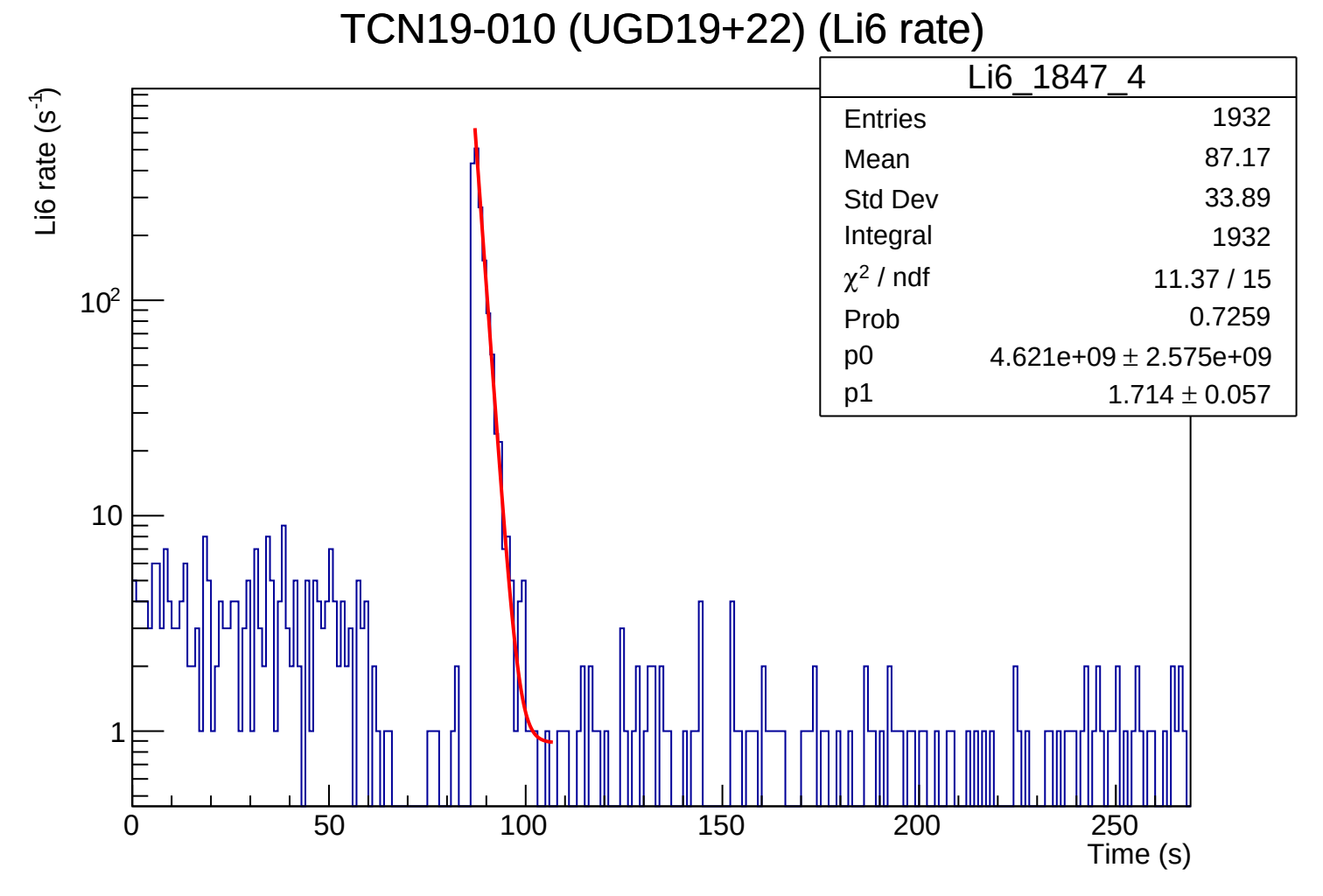

TCN19-010 (UGD19+22) (Li6 rate)
Li6_1850_3
Entries 513
Mean 85.93
Std Dev 75.14
Integral 513
χ² / ndf 18.59 / 5
Prob 0.002294
p0 1.53e+18 ± 1.33e+18
p1 3.859 ± 0.096
Li6 rate (s⁻¹)
10
1
0
50
100
150
200
250
300
Time (s)

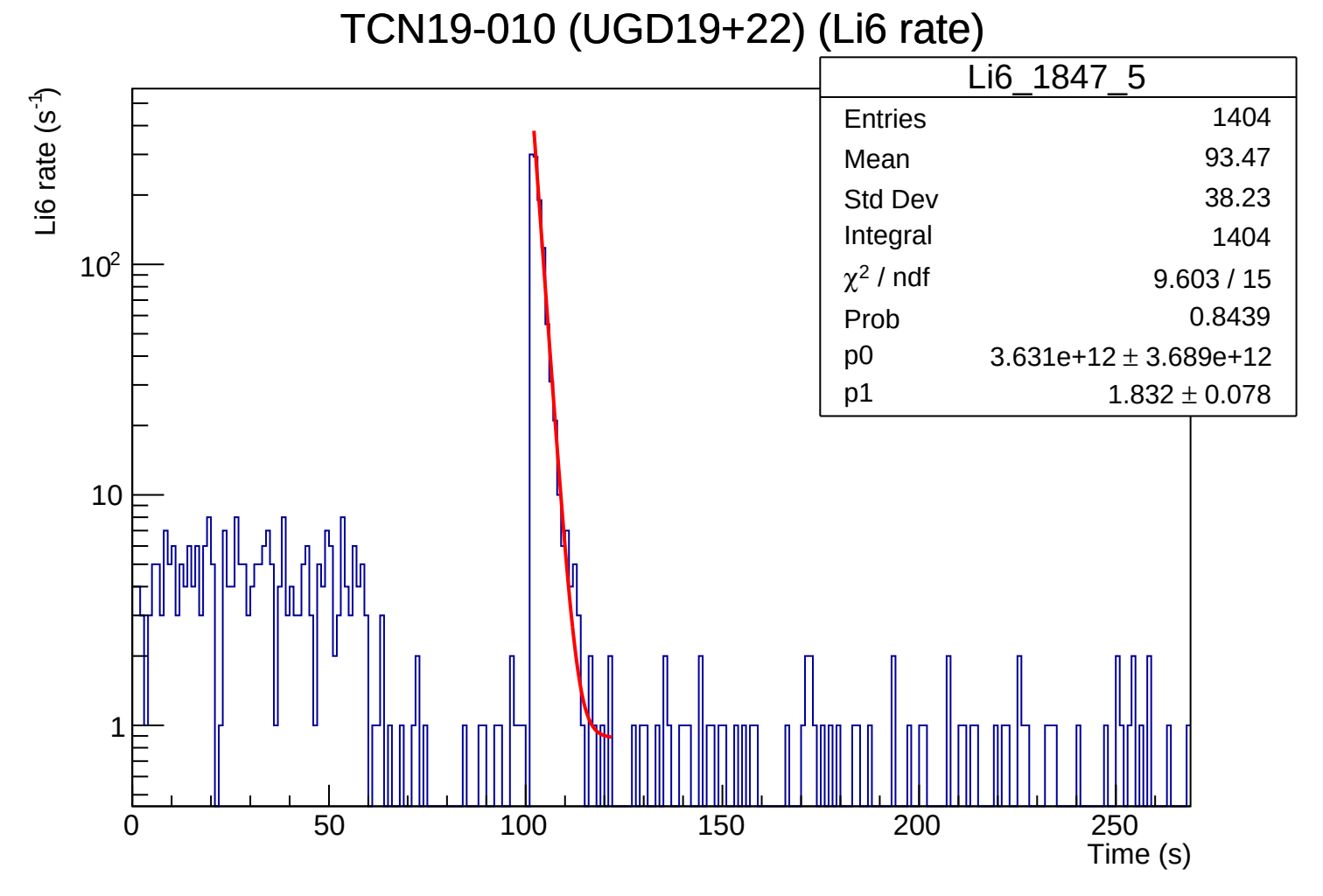

TCN19-010 (UGD19+22) (Li6 rate)
Li6_1847_0
Entries 3448
Mean 65.69
Std Dev 23.11
Integral 3446
χ² / ndf 22.86 / 14
Prob 0.06258
p0 1.111e+04 ± 9.510e+02
p1 1.8 ± 0.0
Li6 rate (s⁻¹)
10³
10²
10
1
0
50
100
150
200
250
Time (s)

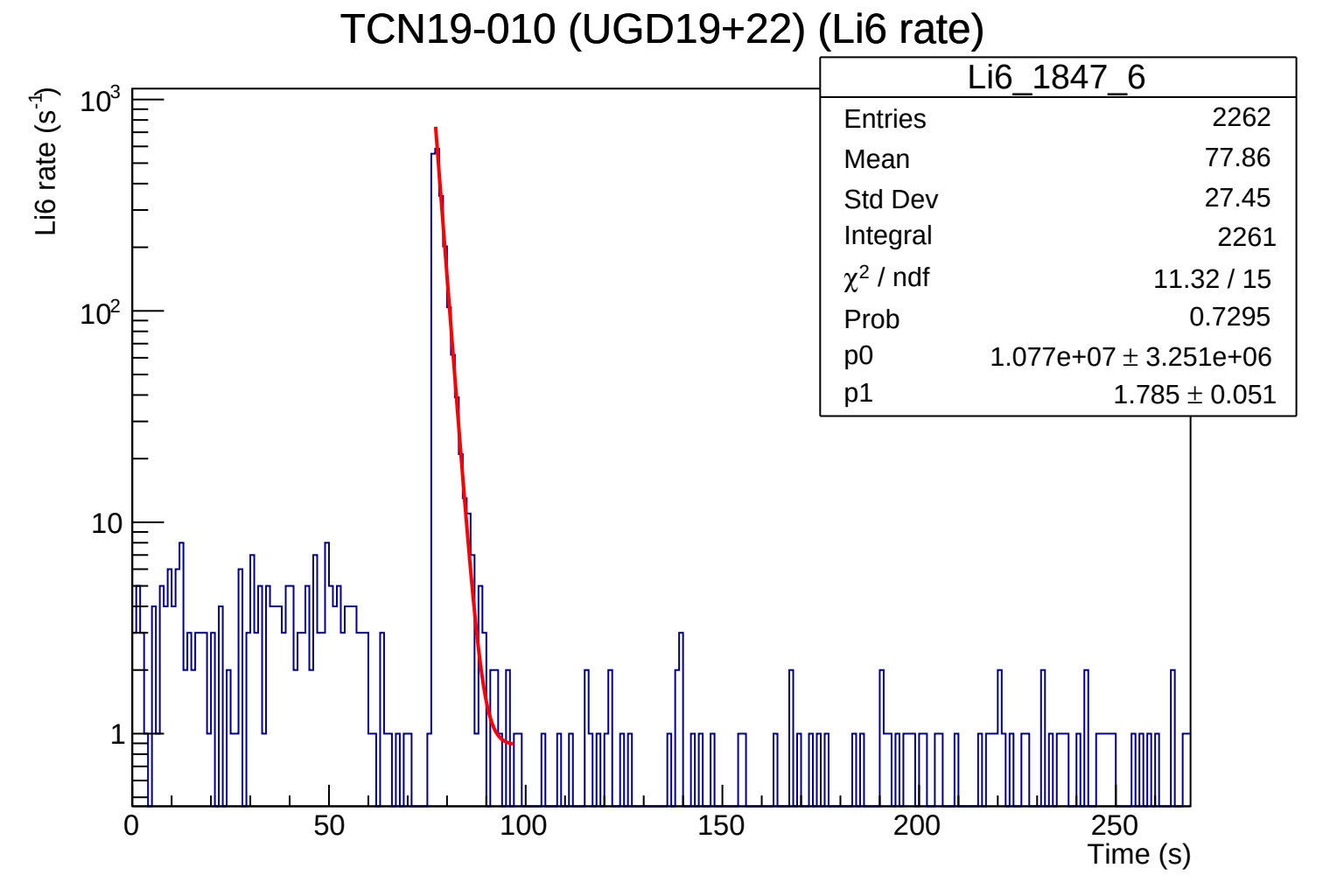

TCN19-010 (UGD19+22) (Li6 rate)
Li6_1847_1
Entries 608
Mean 116.4
Std Dev 70
Integral 608
χ² / ndf 7.874 / 14
Prob 0.8958
p0 1.08e+21 ± 4.50e+20
p1 2.316 ± 0.025
Li6 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

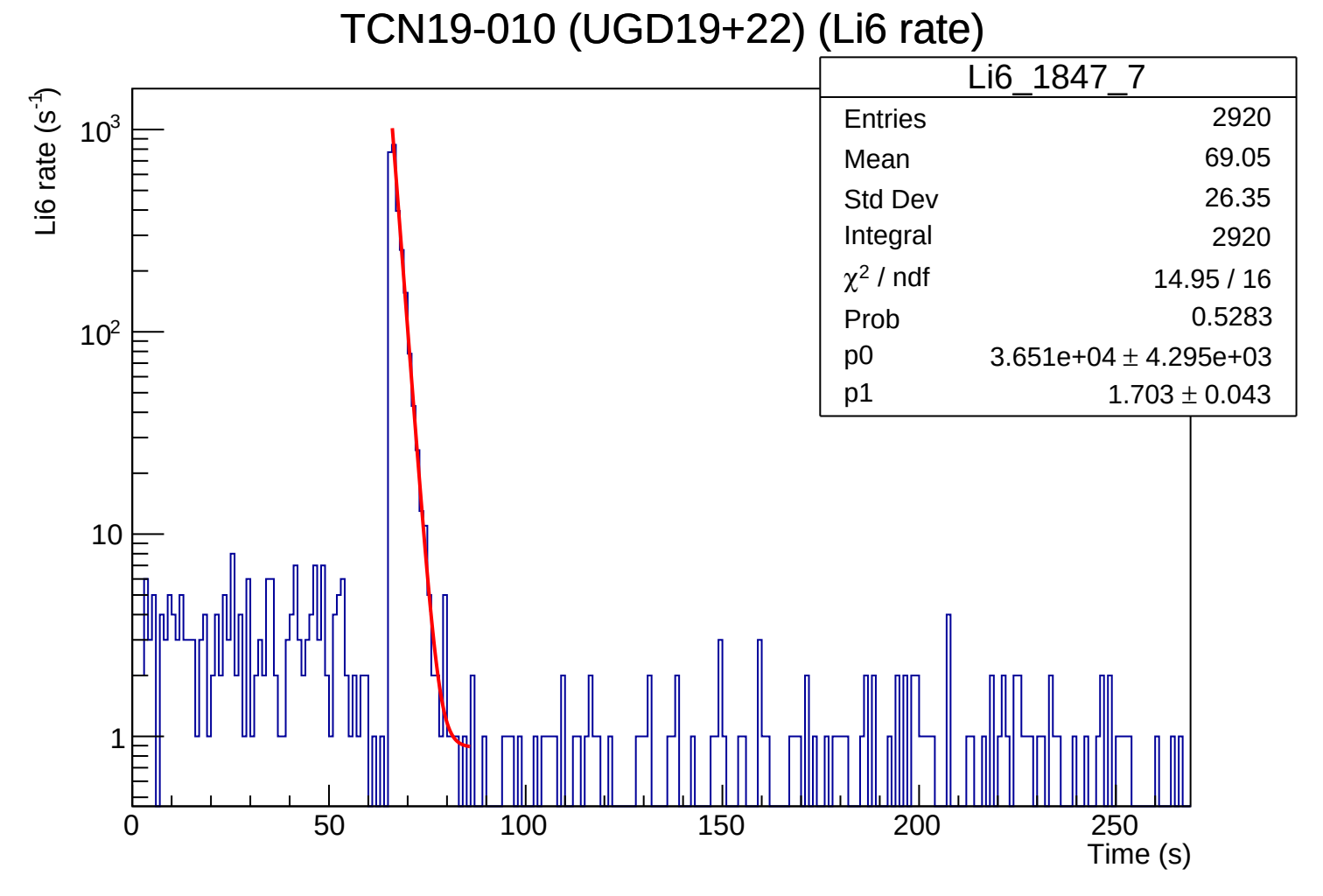

TCN19-010 (UGD19+22) (Li6 rate)
Li6_1847_2
Entries 2759
Mean 70.92
Std Dev 24.4
Integral 2758
χ² / ndf 11.15 / 15
Prob 0.7419
p0 1.731e+05 ± 3.056e+04
p1 1.902 ± 0.053
Li6 rate (s⁻¹)
10³
10²
10
1
0
50
100
150
200
250
Time (s)

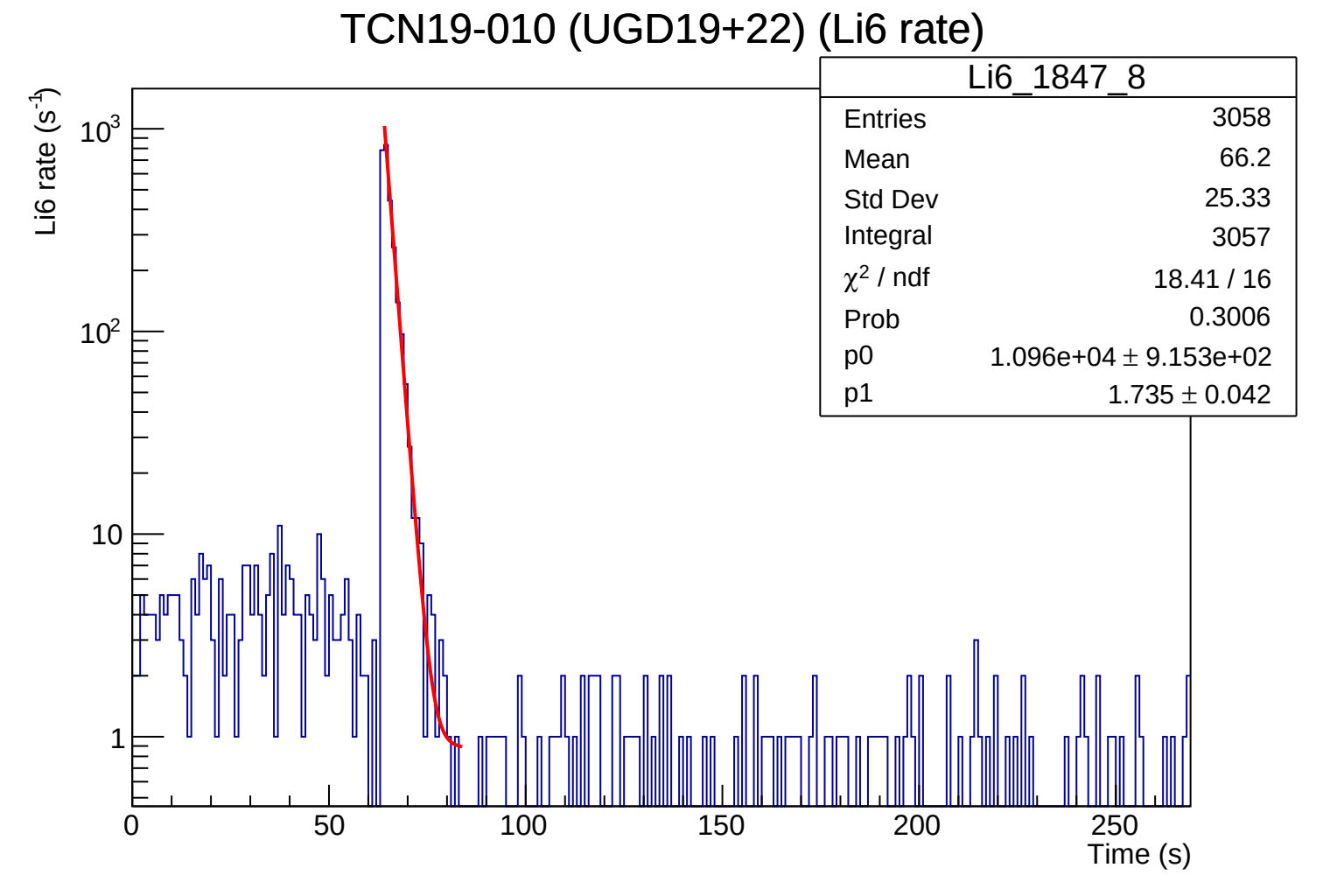

TCN19-010 (UGD19+22) (Li6 rate)
Li6_1847_3
Entries 1005
Mean 110.2
Std Dev 46.84
Integral 1005
χ2 / ndf 8.217 / 12
Prob 0.7679
p0 3.535e+15 ± 6.096e+15
p1 2.048 ± 0.113
Li6 rate (s-1)
10^2
10
1
0
50
100
150
200
250
Time (s)

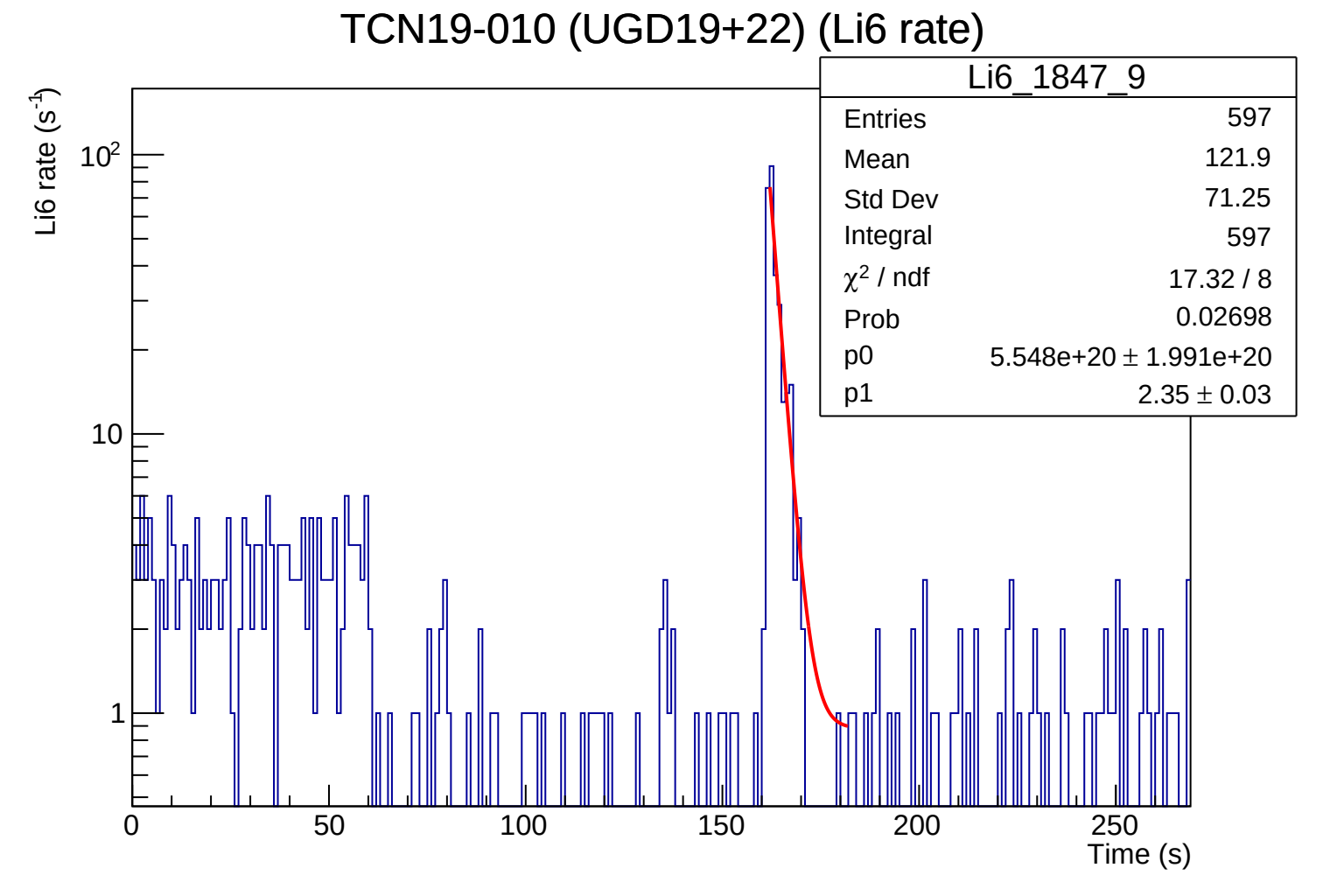

TCN19-010 (UGD19+22) (Li6 rate)
Li6_1847_4
Entries 1932
Mean 87.17
Std Dev 33.89
Integral 1932
χ² / ndf 11.37 / 15
Prob 0.7259
p0 4.621e+09 ± 2.575e+09
p1 1.714 ± 0.057
Li6 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

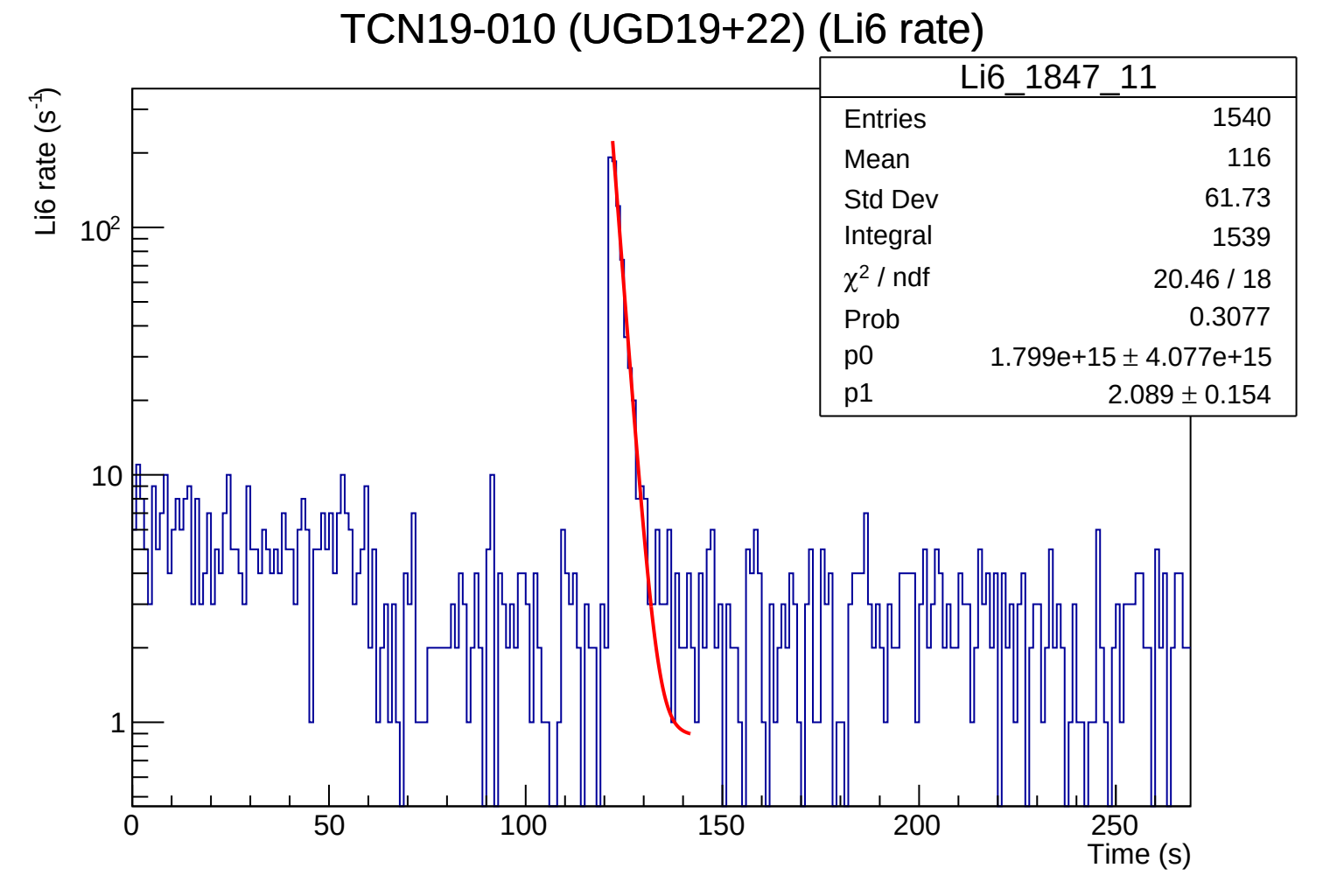

TCN19-010 (UGD19+22) (Li6 rate)
Li6_1847_5
Entries 1404
Mean 93.47
Std Dev 38.23
Integral 1404
χ² / ndf 9.603 / 15
Prob 0.8439
p0 3.631e+12 ± 3.689e+12
p1 1.832 ± 0.078
Li6 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

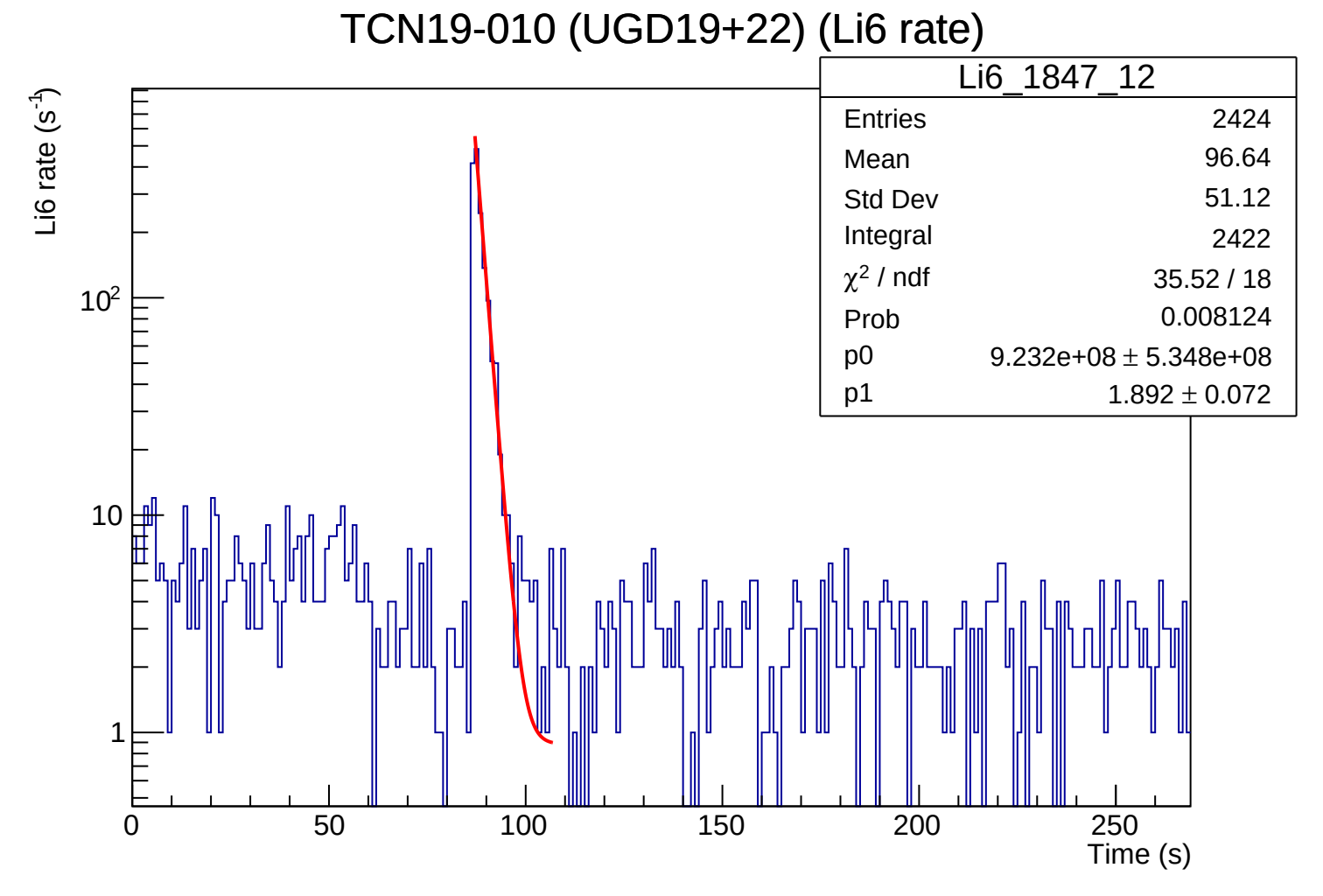

TCN19-010 (UGD19+22) (Li6 rate)
Li6_1847_6
Entries 2262
Mean 77.86
Std Dev 27.45
Integral 2261
χ² / ndf 11.32 / 15
Prob 0.7295
p0 1.077e+07 ± 3.251e+06
p1 1.785 ± 0.051
Li6 rate (s⁻¹)
10³
10²
10
1
0
50
100
150
200
250
Time (s)

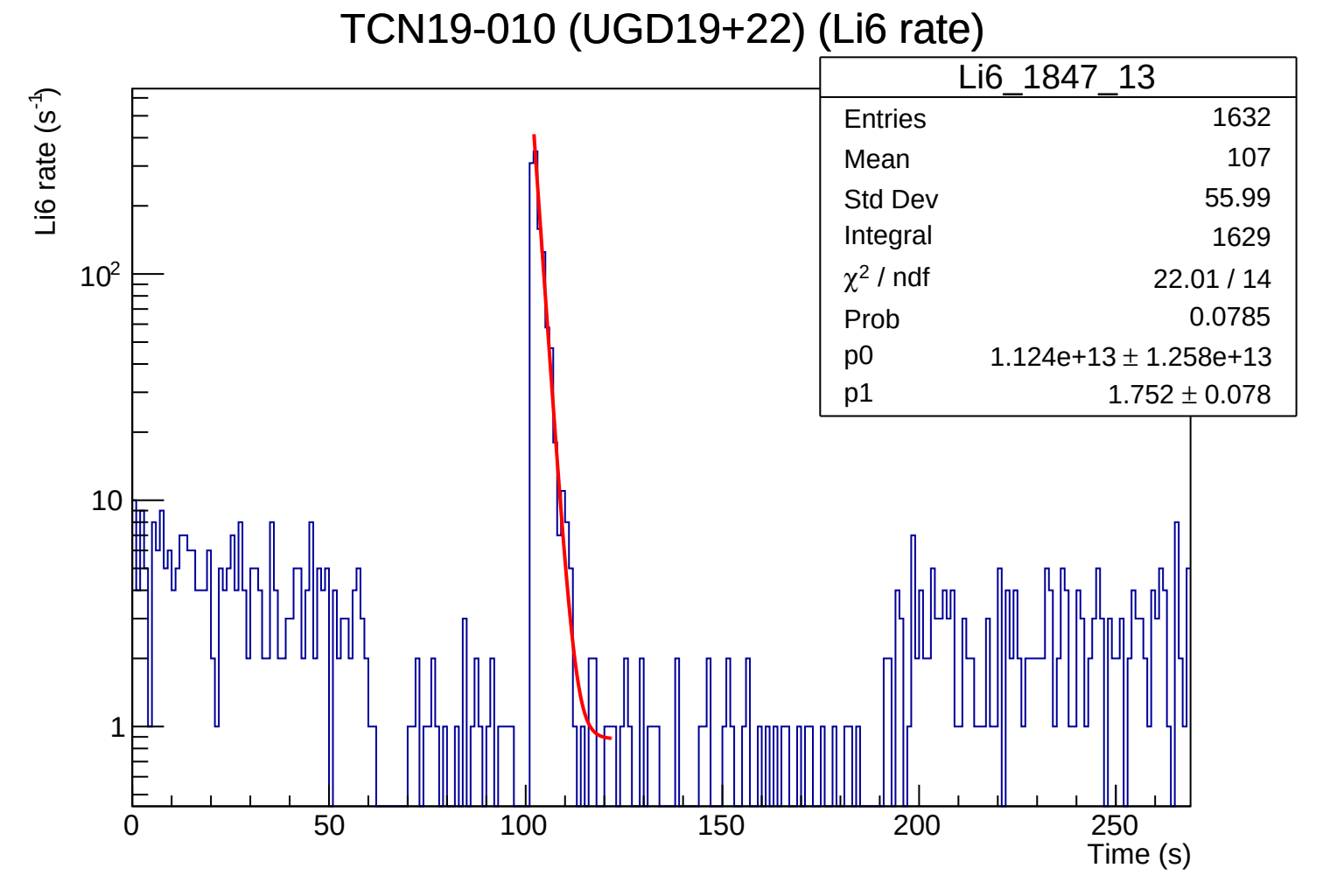

TCN19-010 (UGD19+22) (Li6 rate)
Li6_1847_7
Entries 2920
Mean 69.05
Std Dev 26.35
Integral 2920
χ² / ndf 14.95 / 16
Prob 0.5283
p0 3.651e+04 ± 4.295e+03
p1 1.703 ± 0.043
Li6 rate (s⁻¹)
10³
10²
10
1
0
50
100
150
200
250
Time (s)

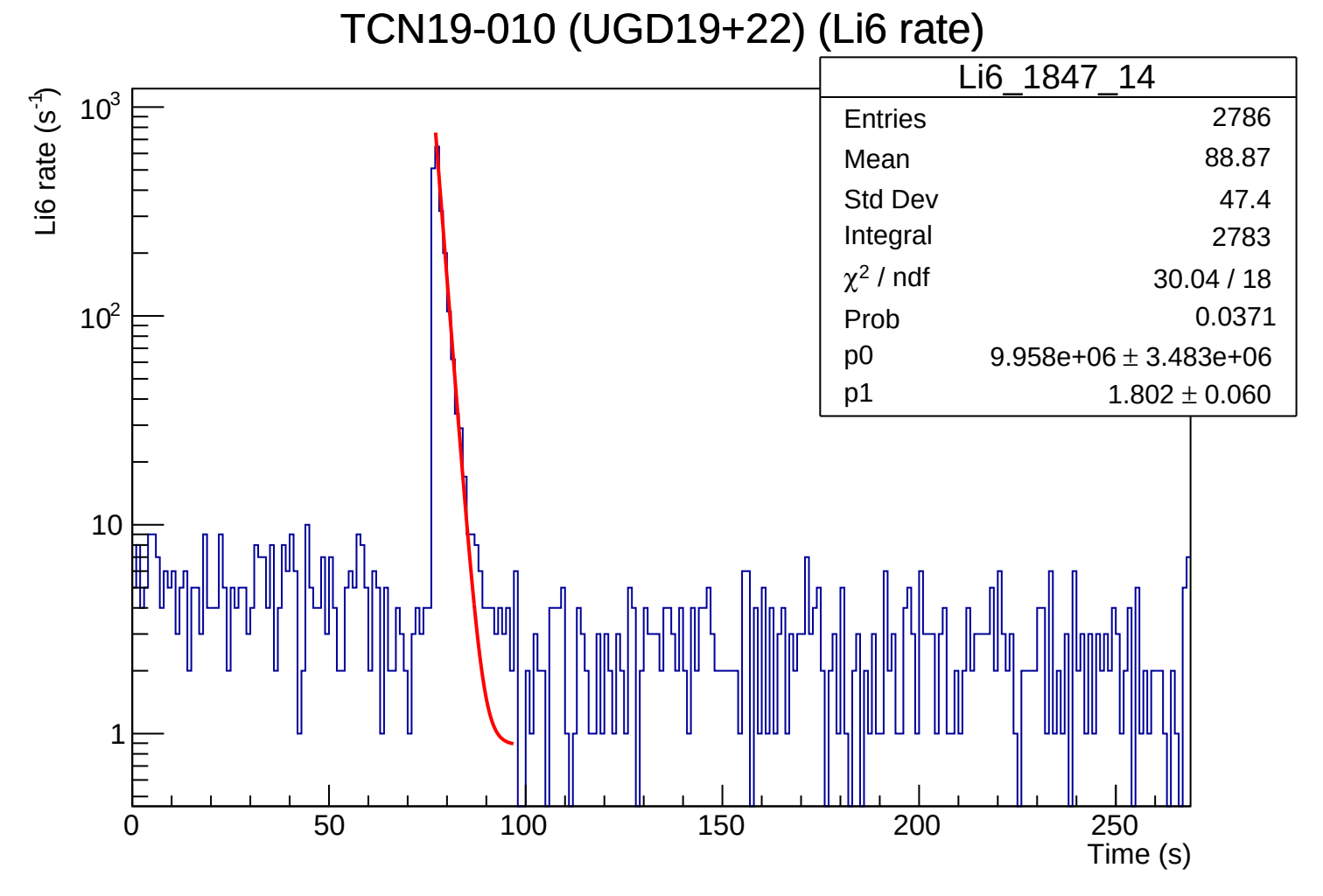

TCN19-010 (UGD19+22) (Li6 rate)
Li6_1847_8
Entries 3058
Mean 66.2
Std Dev 25.33
Integral 3057
χ2 / ndf 18.41 / 16
Prob 0.3006
p0 1.096e+04 ± 9.153e+02
p1 1.735 ± 0.042
Li6 rate (s-1)
10^3
10^2
10
1
0
50
100
150
200
250
Time (s)

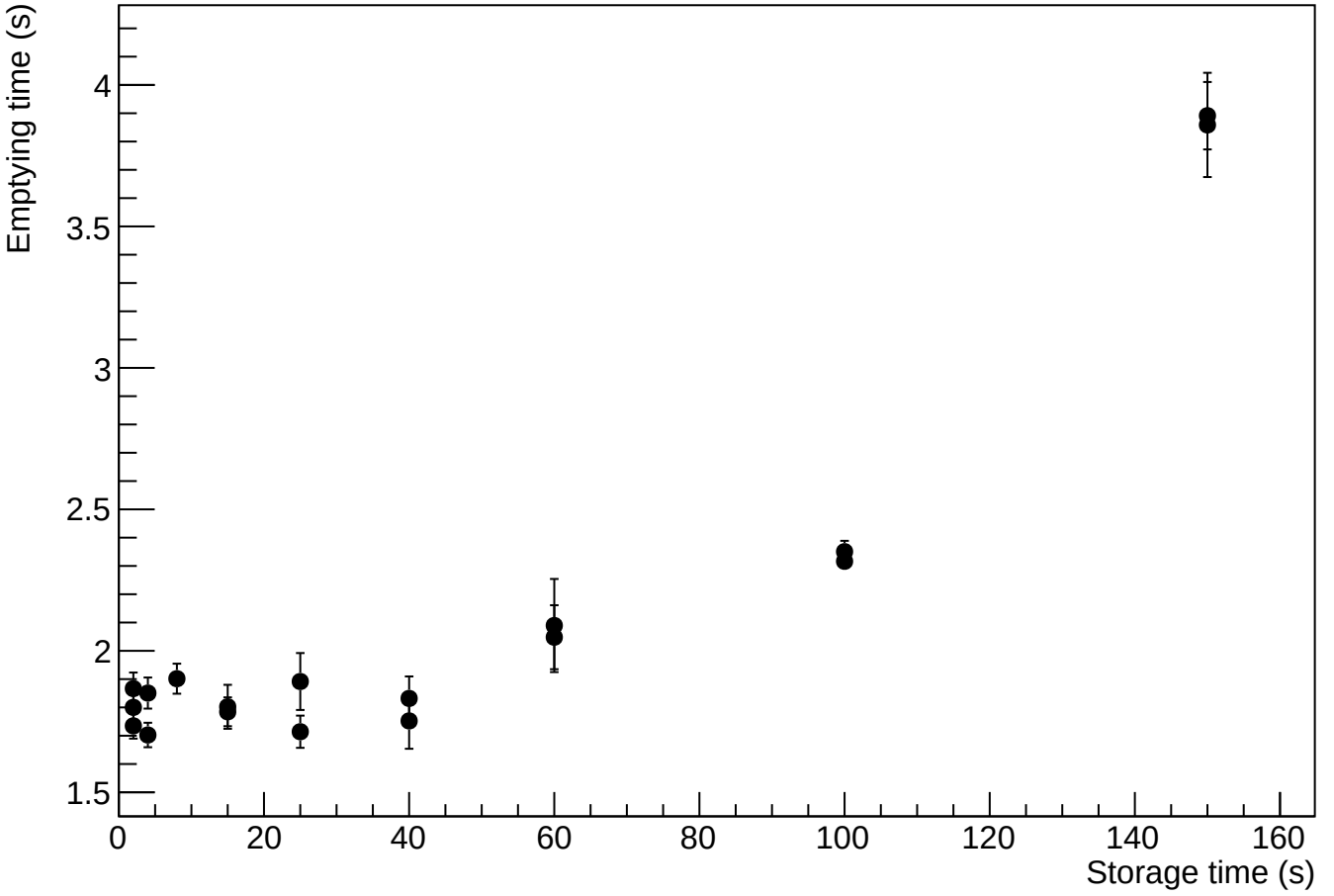

TCN19-010 (UGD19+22) (Li6 rate)
Li6_1847_9
Entries 597
Mean 121.9
Std Dev 71.25
Integral 597
χ2 / ndf 17.32 / 8
Prob 0.02698
p0 5.548e+20 ± 1.991e+20
p1 2.35 ± 0.03
Li6 rate (s-1)
10^2
10
1
0
50
100
150
200
250
Time (s)

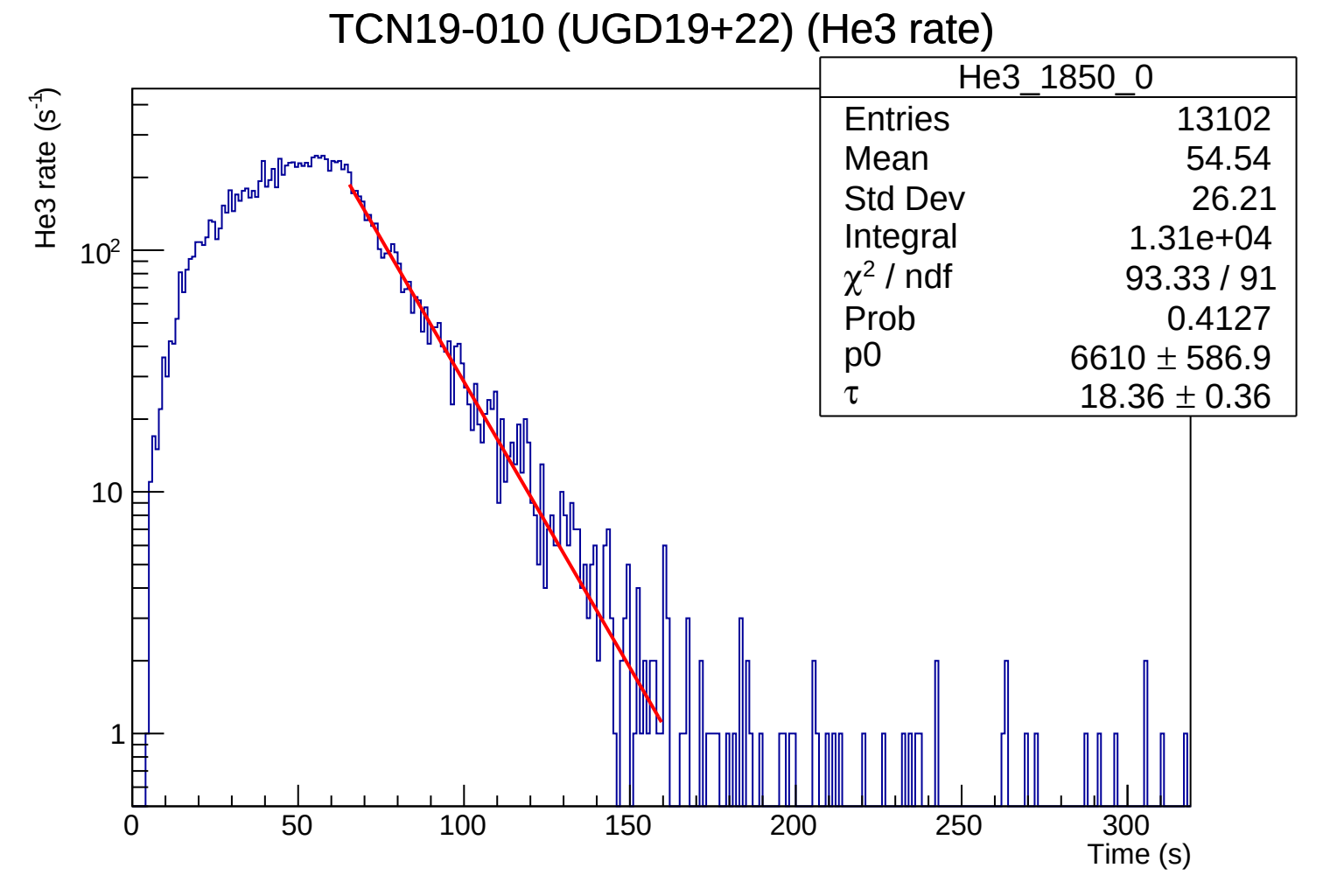

TCN19-010 (UGD19+22) (Li6 rate)
Li6_1847_11
Entries 1540
Mean 116
Std Dev 61.73
Integral 1539
χ2 / ndf 20.46 / 18
Prob 0.3077
p0 1.799e+15 ± 4.077e+15
p1 2.089 ± 0.154
Li6 rate (s-1)
10^2
10
1
0
50
100
150
200
250
Time (s)

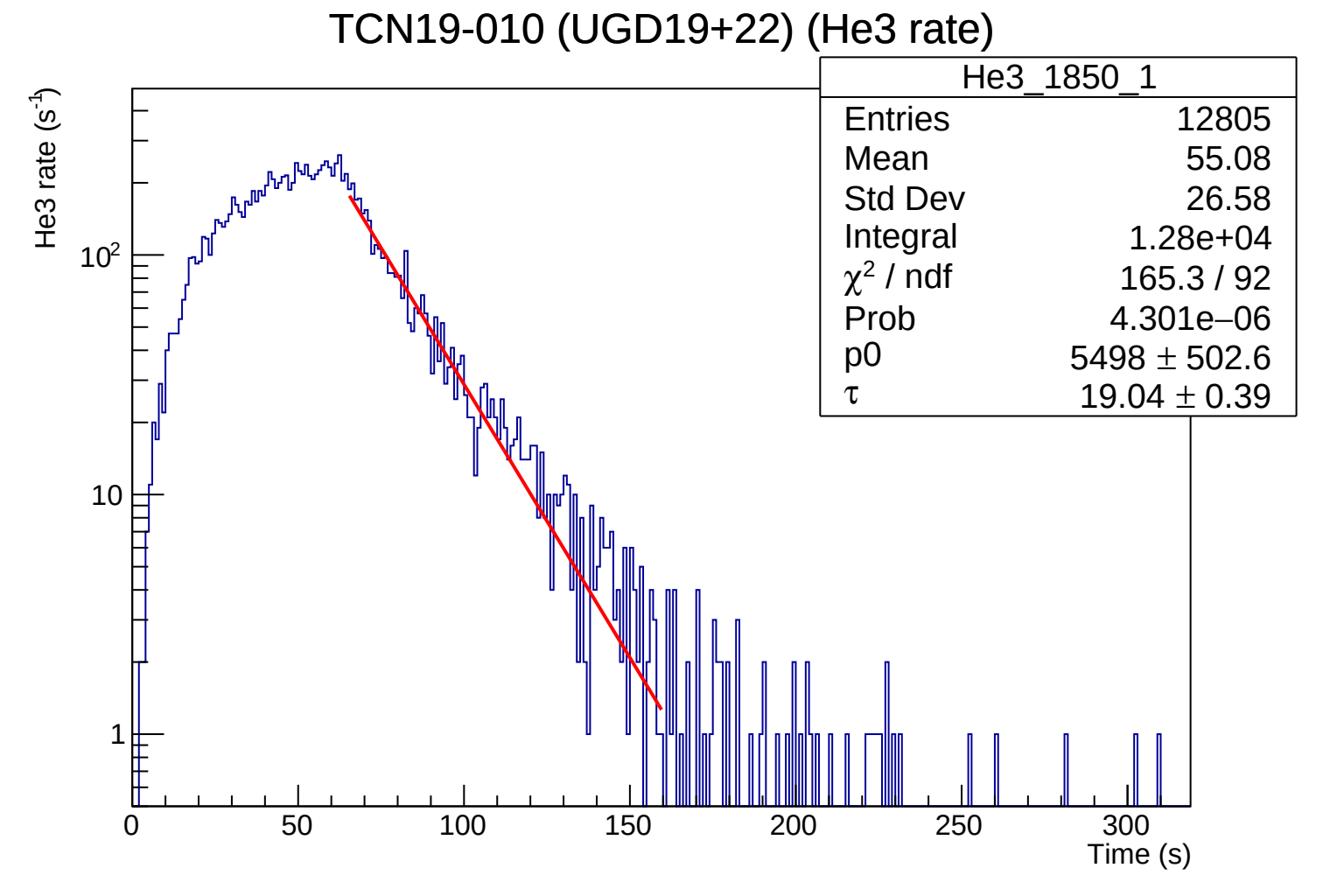

TCN19-010 (UGD19+22) (Li6 rate)
Li6_1847_12
Entries 2424
Mean 96.64
Std Dev 51.12
Integral 2422
χ² / ndf 35.52 / 18
Prob 0.008124
p0 9.232e+08 ± 5.348e+08
p1 1.892 ± 0.072
Li6 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

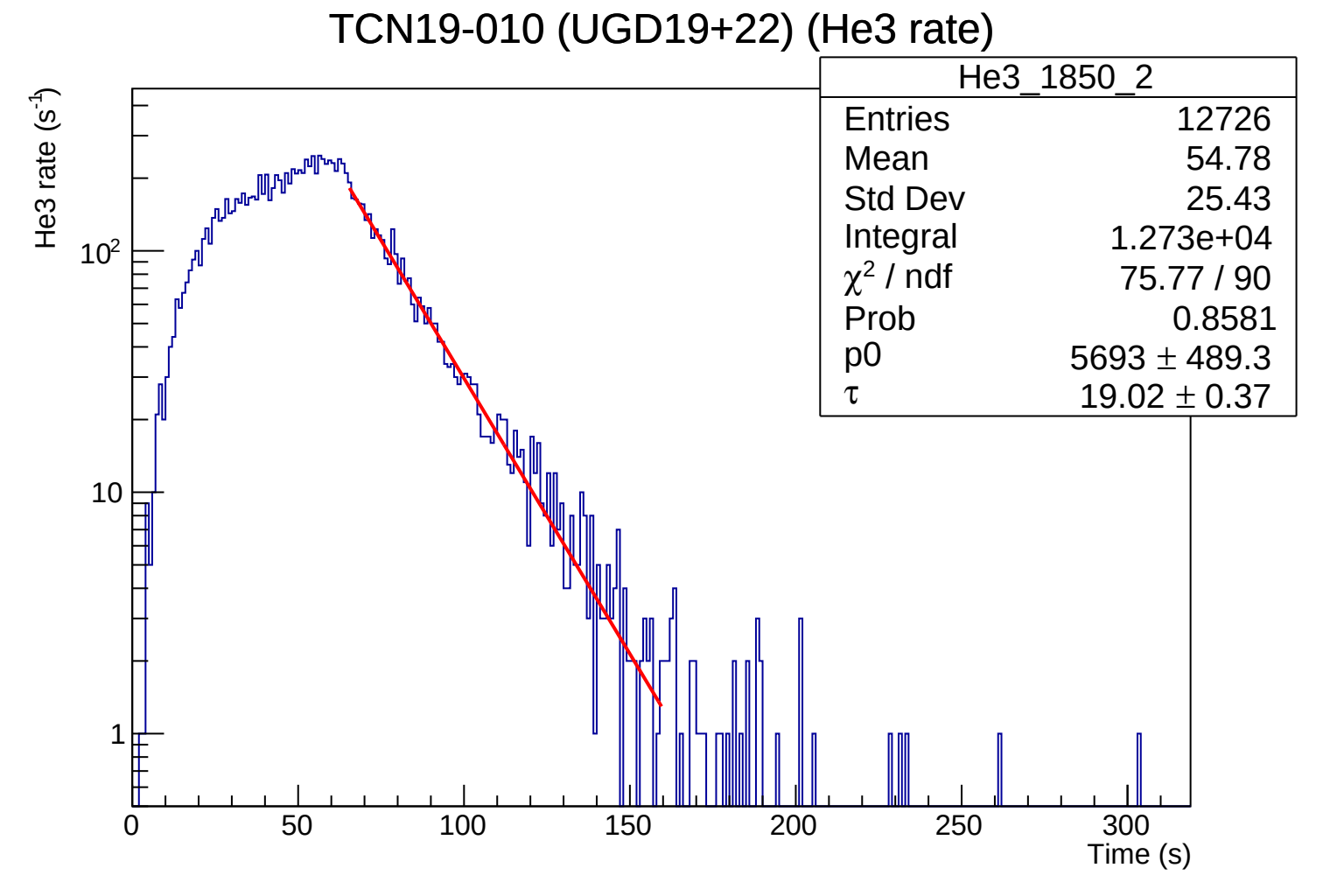

TCN19-010 (UGD19+22) (Li6 rate)
Li6_1847_13
Entries 1632
Mean 107
Std Dev 55.99
Integral 1629
χ2 / ndf 22.01 / 14
Prob 0.0785
p0 1.124e+13 ± 1.258e+13
p1 1.752 ± 0.078
Li6 rate (s-1)
10^2
10
1
0
50
100
150
200
250
Time (s)

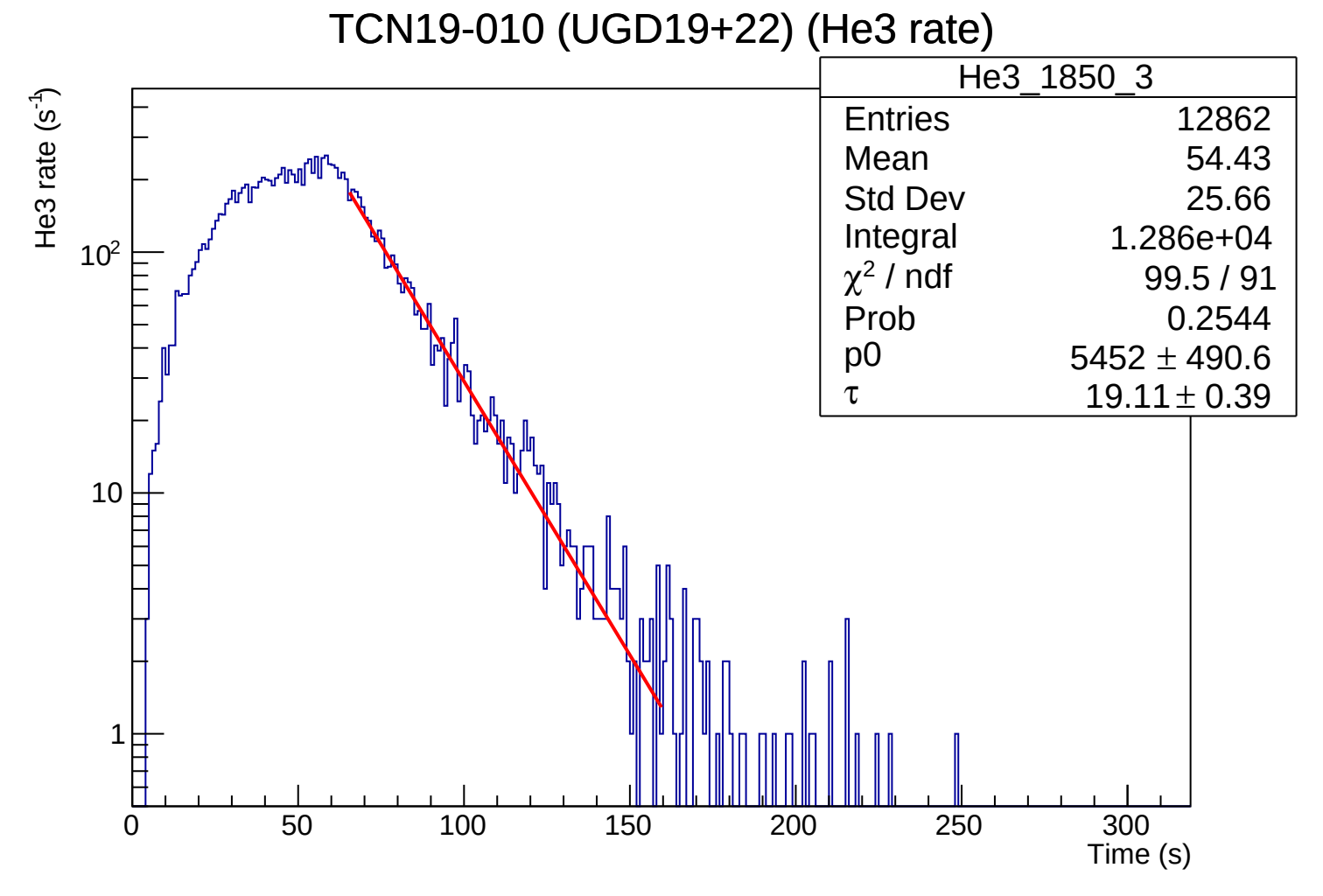

TCN19-010 (UGD19+22) (Li6 rate)
Li6_1847_14
Entries 2786
Mean 88.87
Std Dev 47.4
Integral 2783
χ² / ndf 30.04 / 18
Prob 0.0371
p0 9.958e+06 ± 3.483e+06
p1 1.802 ± 0.060
Li6 rate (s⁻¹)
10³
10²
10
1
0
50
100
150
200
250
Time (s)

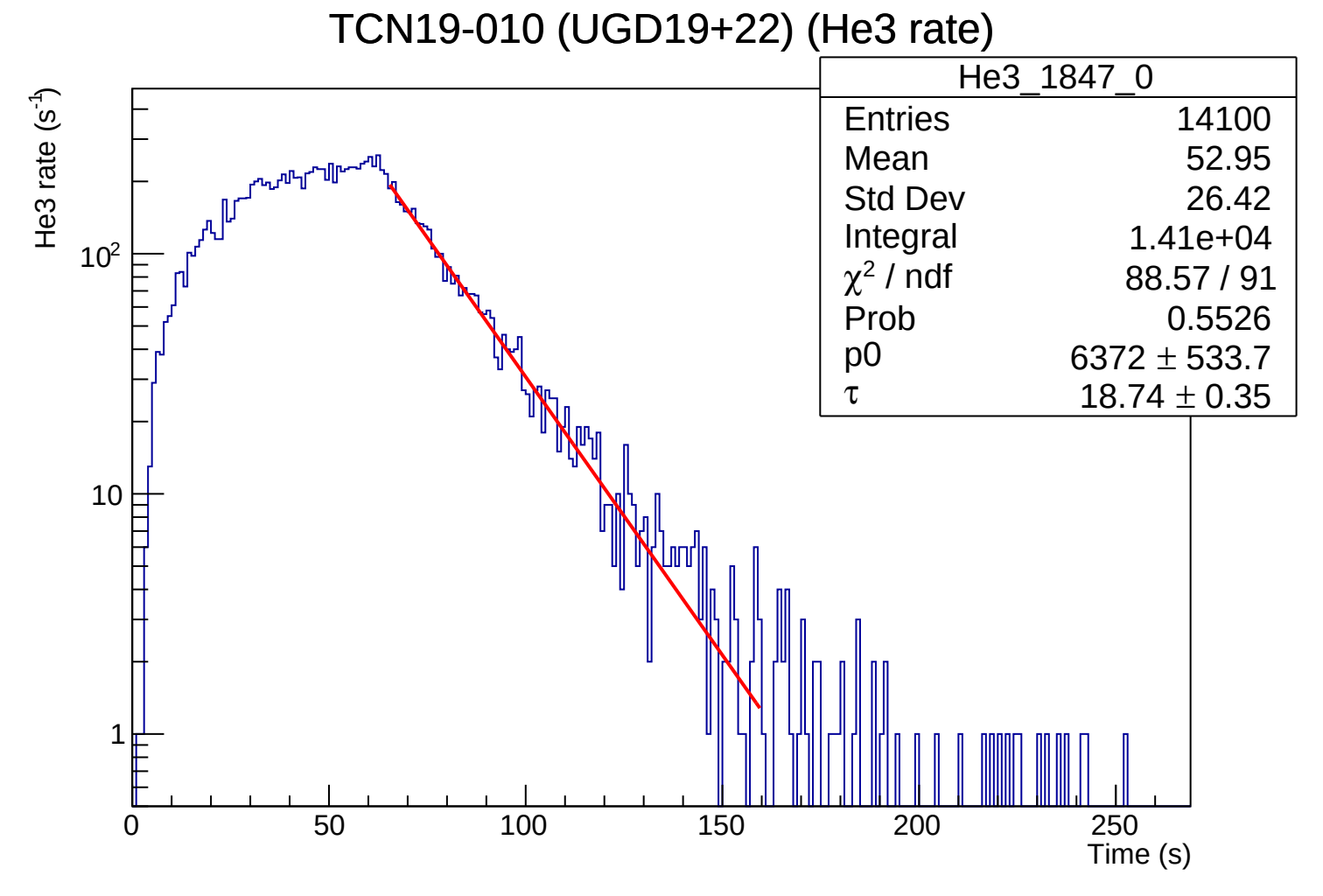

Emptying time (s)
4
3.5
3
2.5
2
1.5
0
20
40
60
80
100
120
140
160
Storage time (s)

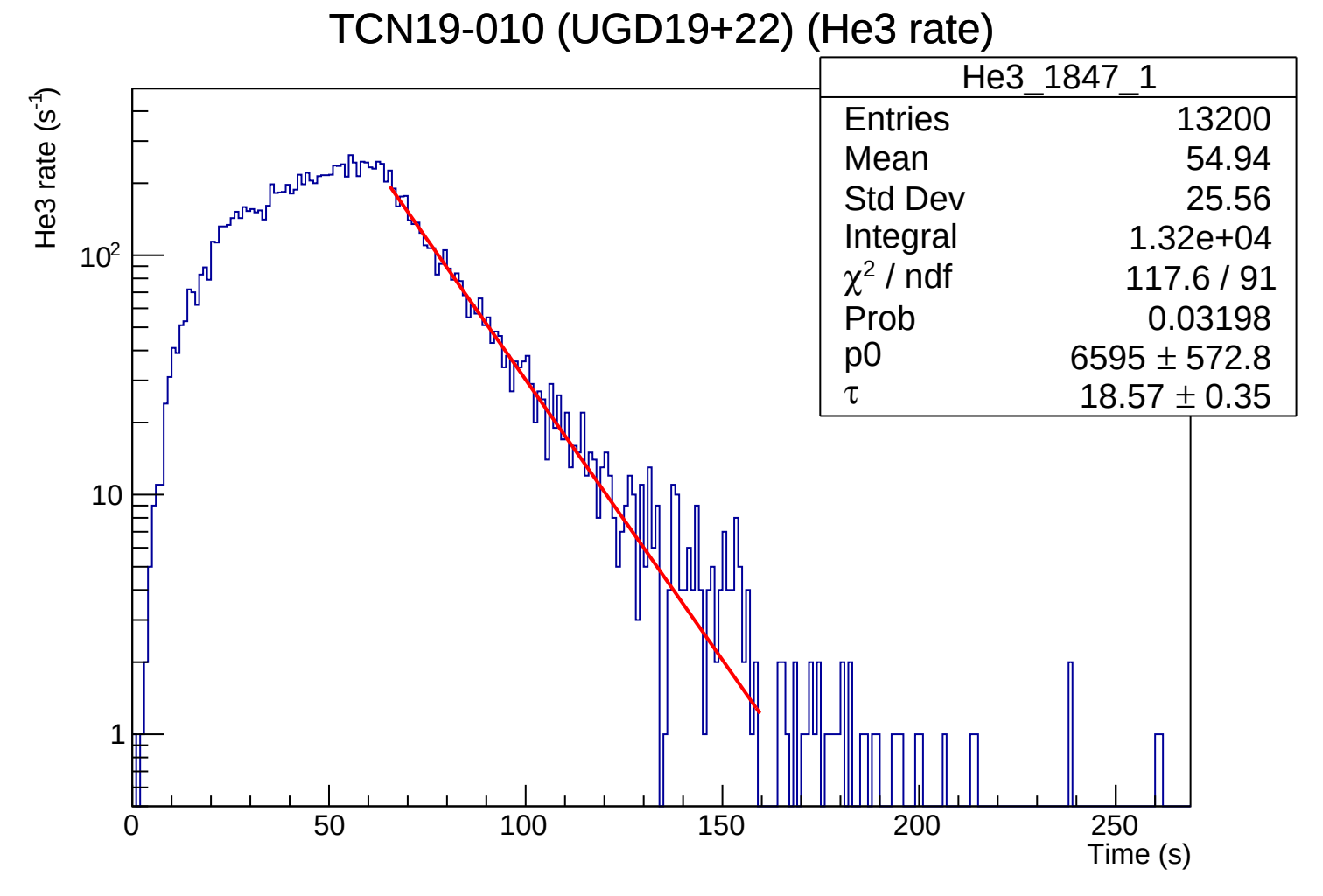

TCN19-010 (UGD19+22) (He3 rate)
He3_1850_0
Entries 13102
Mean 54.54
Std Dev 26.21
Integral 1.31e+04
χ² / ndf 93.33 / 91
Prob 0.4127
p0 6610 ± 586.9
τ 18.36 ± 0.36
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

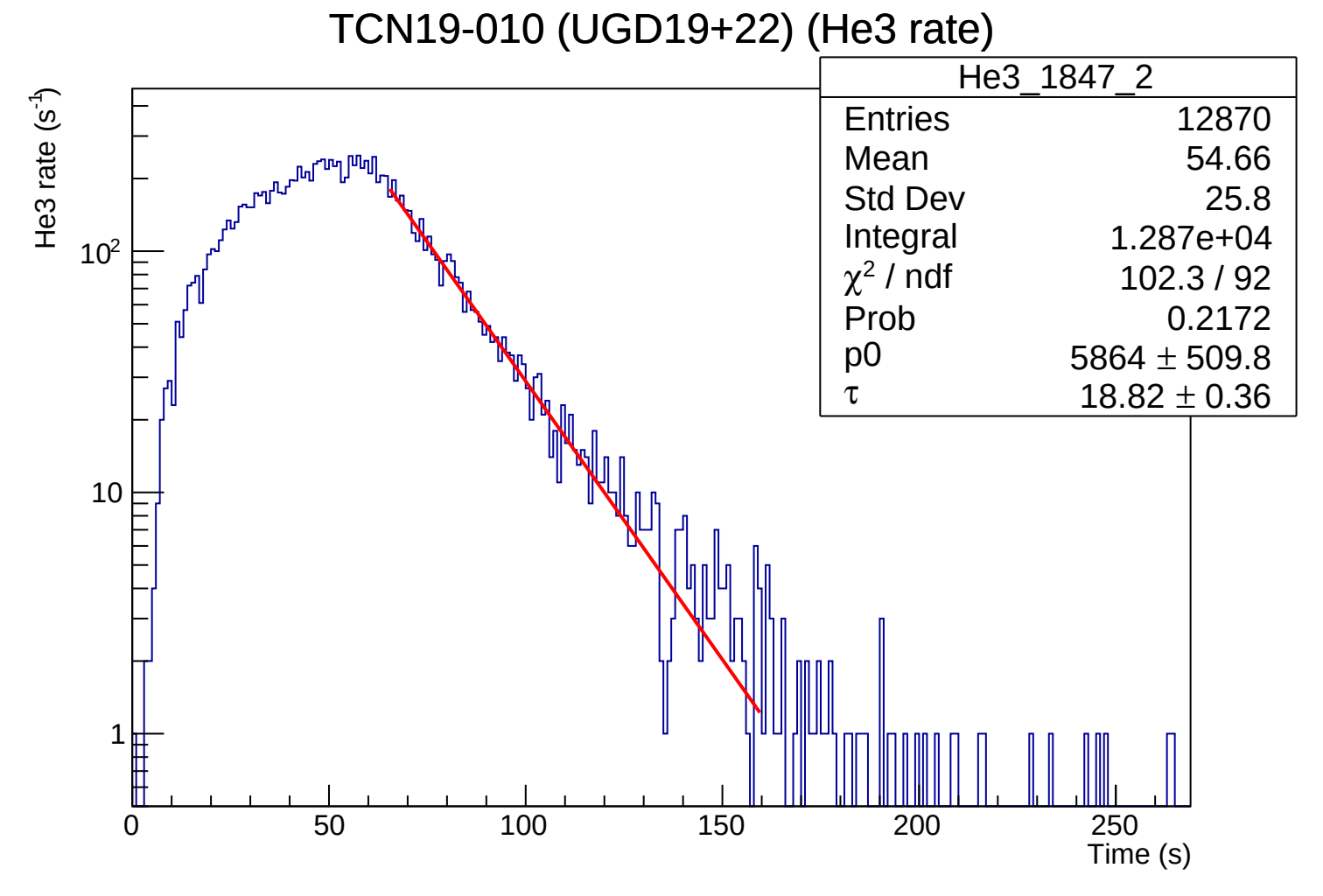

TCN19-010 (UGD19+22) (He3 rate)
He3_1850_1
Entries 12805
Mean 55.08
Std Dev 26.58
Integral 1.28e+04
χ² / ndf 165.3 / 92
Prob 4.301e−06
p0 5498 ± 502.6
τ 19.04 ± 0.39
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

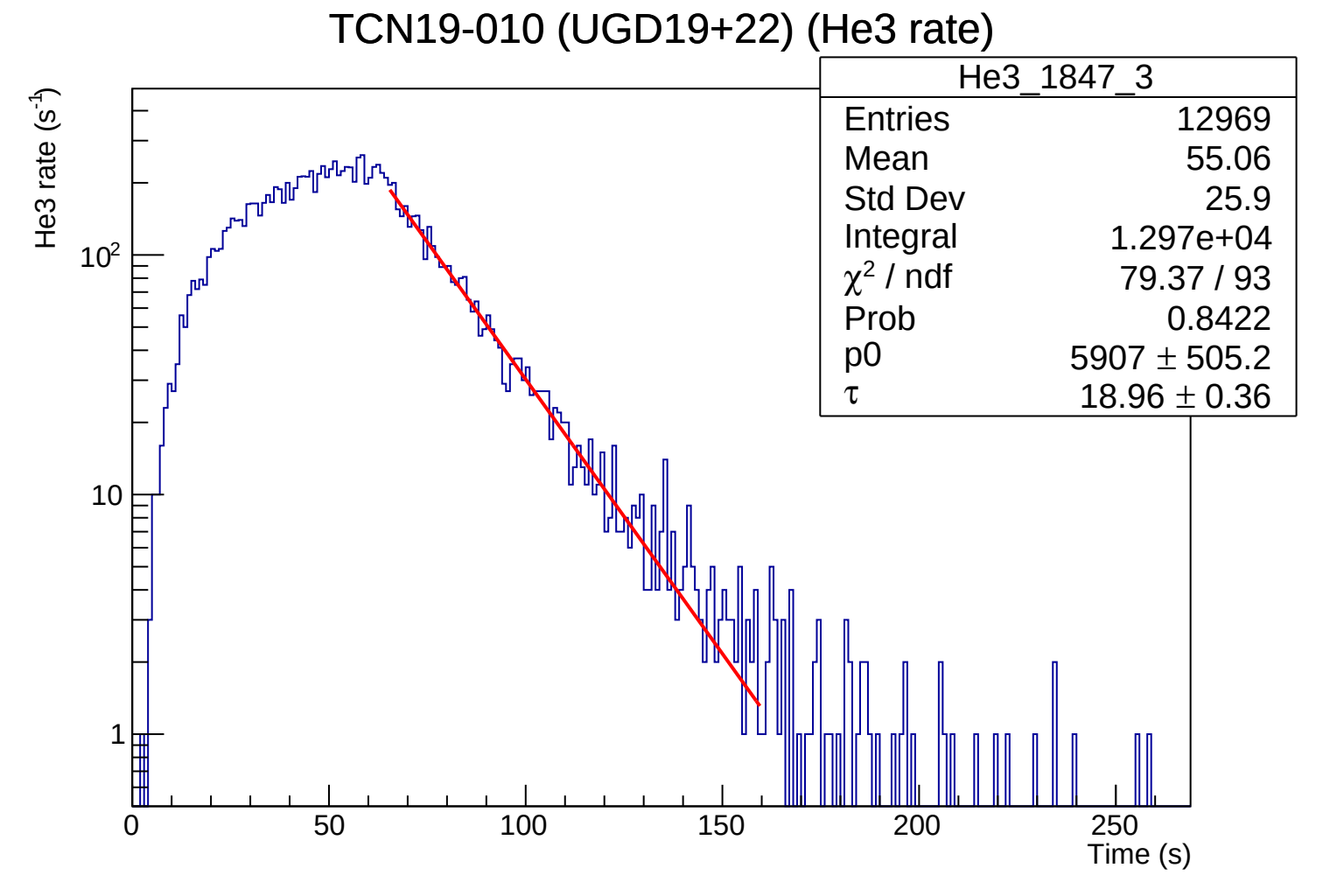

TCN19-010 (UGD19+22) (He3 rate)
He3_1850_2
Entries 12726
Mean 54.78
Std Dev 25.43
Integral 1.273e+04
χ² / ndf 75.77 / 90
Prob 0.8581
p0 5693 ± 489.3
τ 19.02 ± 0.37
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

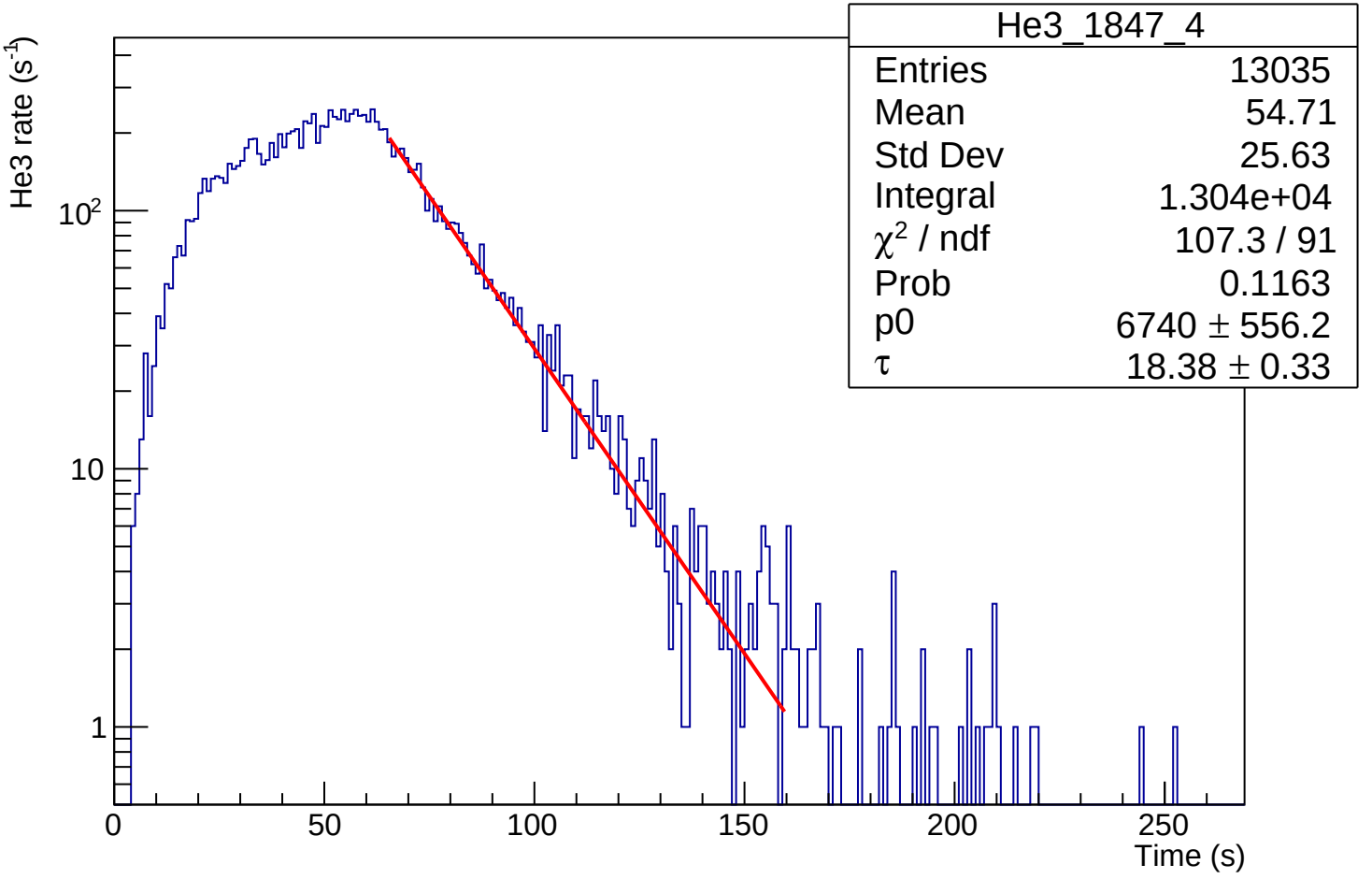

TCN19-010 (UGD19+22) (He3 rate)
He3_1850_3
Entries 12862
Mean 54.43
Std Dev 25.66
Integral 1.286e+04
χ² / ndf 99.5 / 91
Prob 0.2544
p0 5452 ± 490.6
τ 19.11 ± 0.39
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

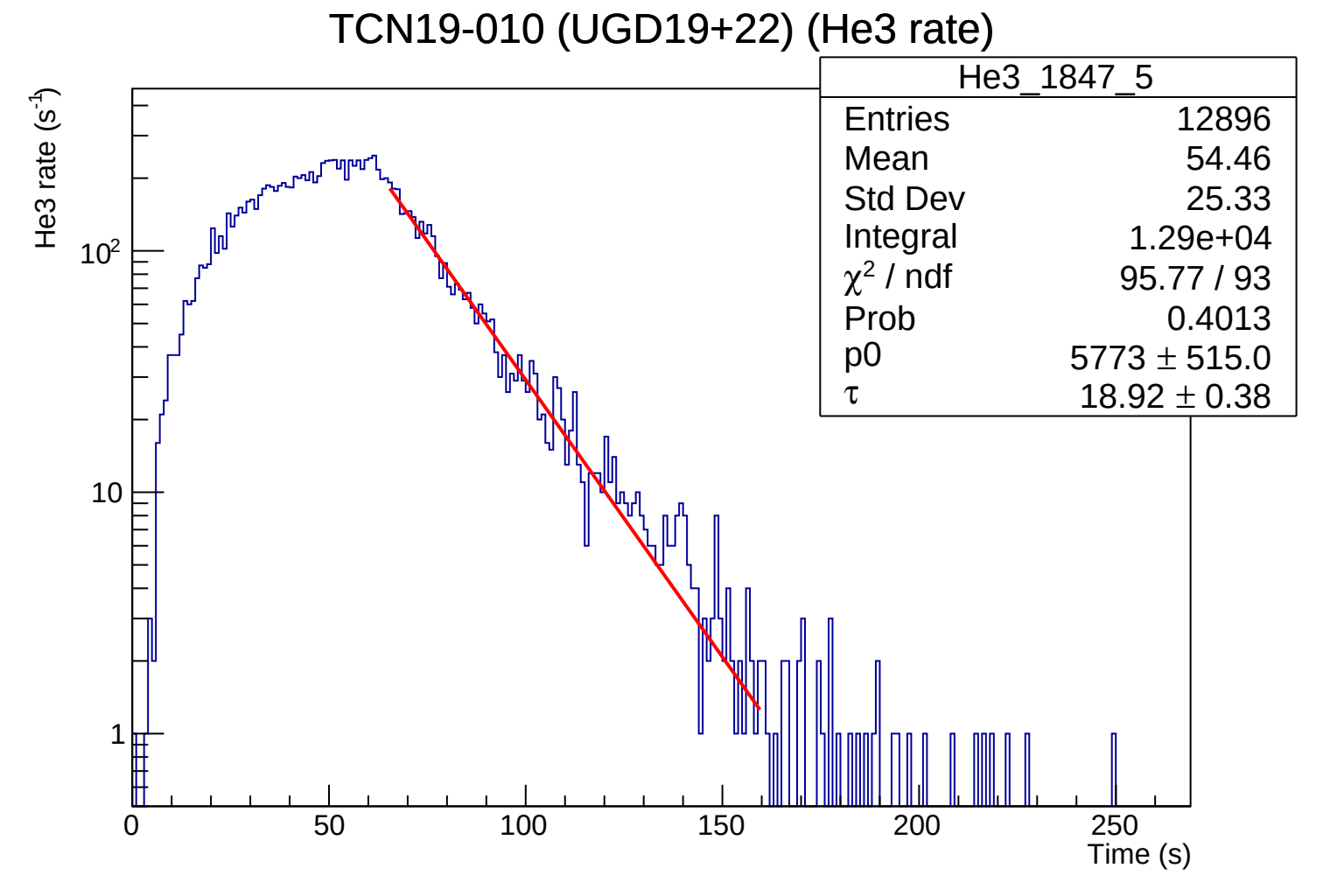

TCN19-010 (UGD19+22) (He3 rate)
He3_1847_0
Entries 14100
Mean 52.95
Std Dev 26.42
Integral 1.41e+04
χ² / ndf 88.57 / 91
Prob 0.5526
p0 6372 ± 533.7
τ 18.74 ± 0.35
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

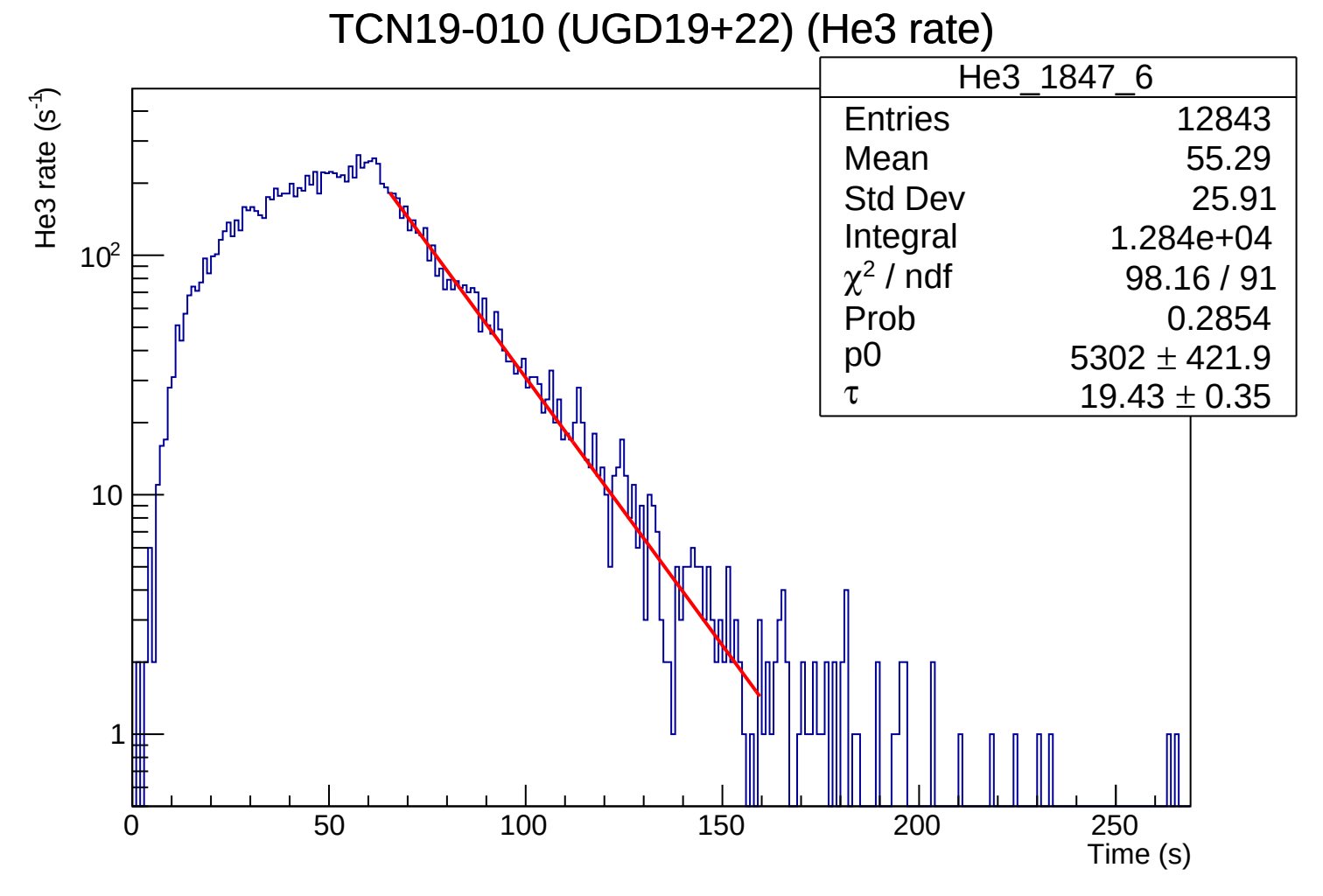

TCN19-010 (UGD19+22) (He3 rate)
He3_1847_1
Entries 13200
Mean 54.94
Std Dev 25.56
Integral 1.32e+04
χ² / ndf 117.6 / 91
Prob 0.03198
p0 6595 ± 572.8
τ 18.57 ± 0.35
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

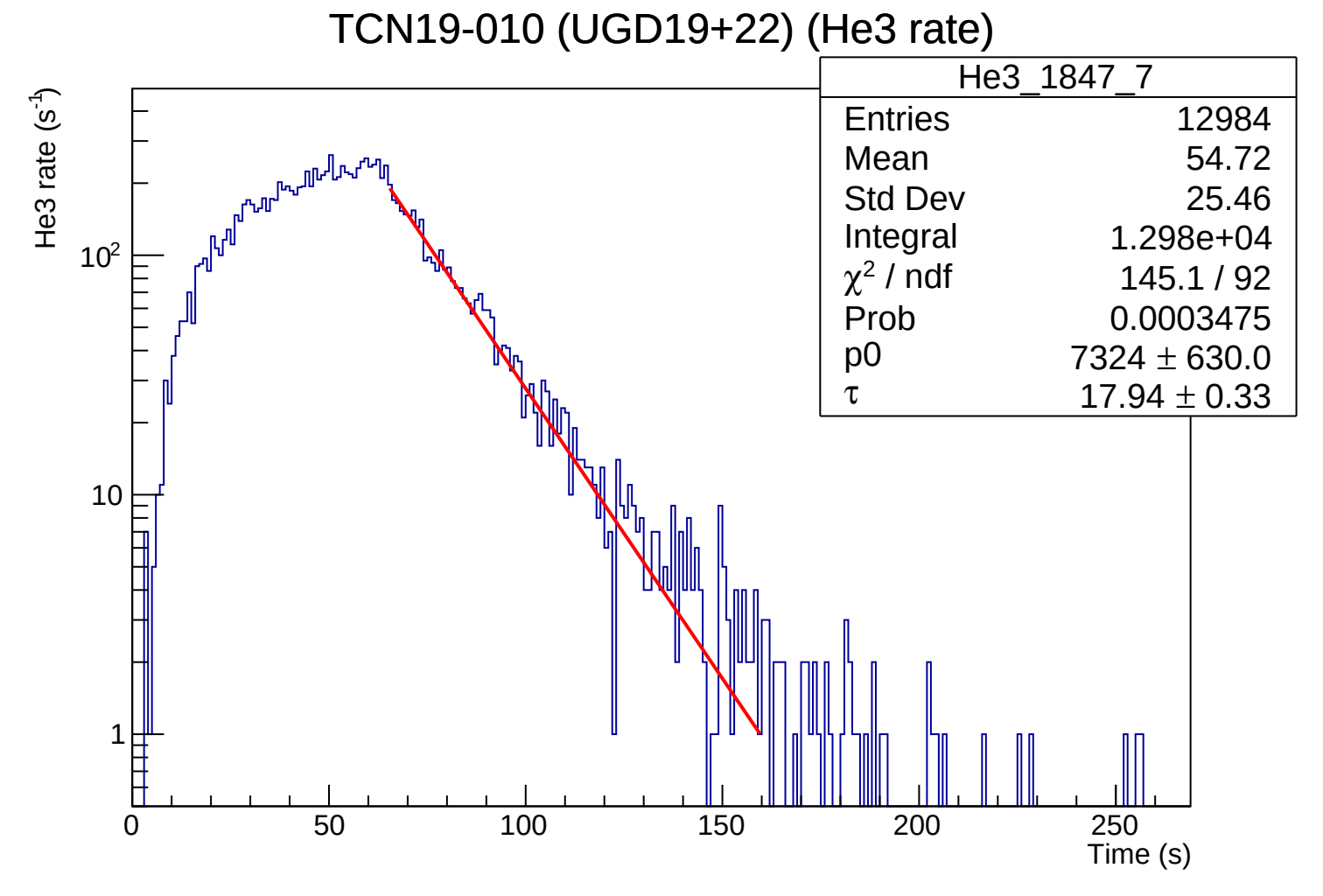

TCN19-010 (UGD19+22) (He3 rate)
He3_1847_2
Entries 12870
Mean 54.66
Std Dev 25.8
Integral 1.287e+04
χ² / ndf 102.3 / 92
Prob 0.2172
p0 5864 ± 509.8
τ 18.82 ± 0.36
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

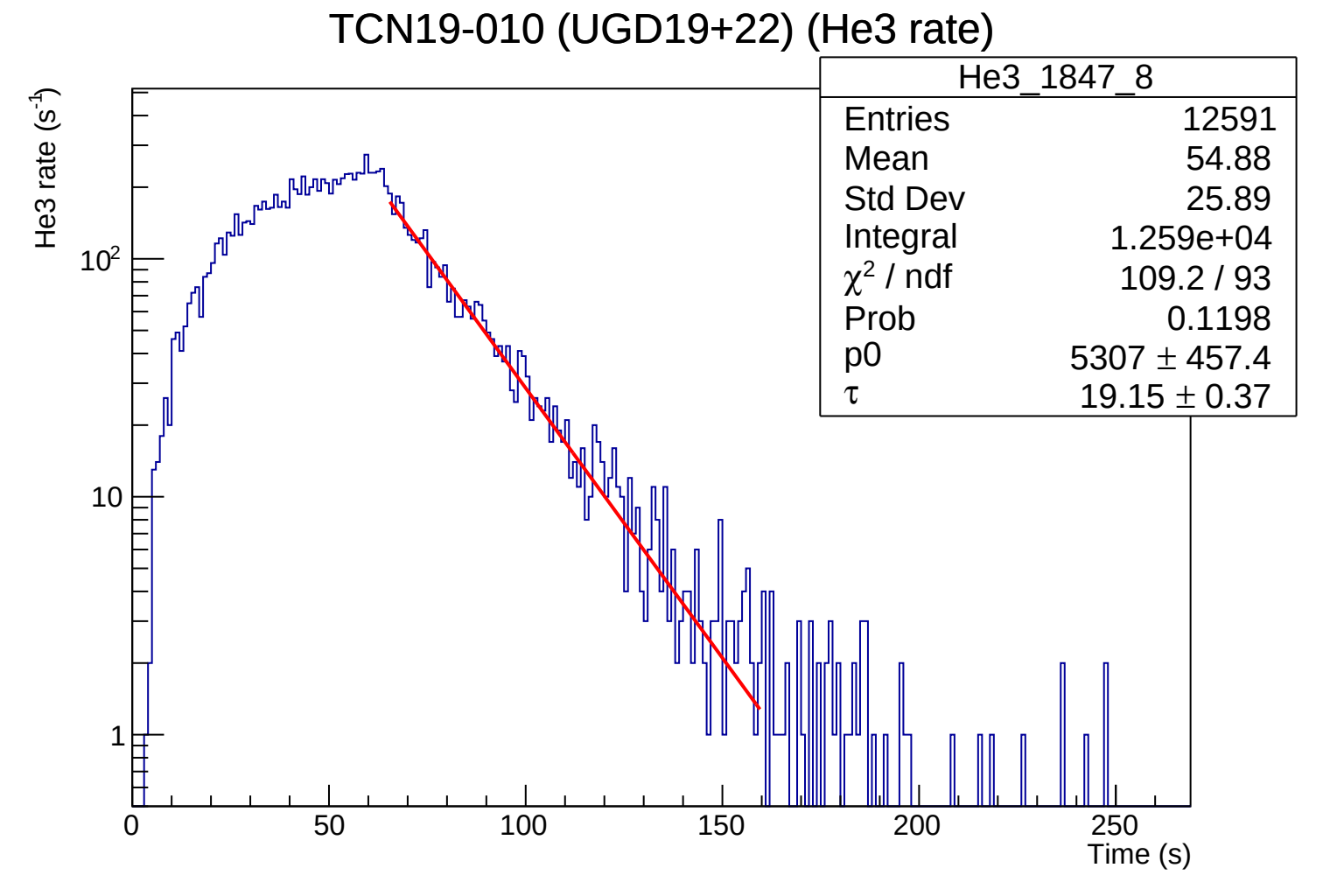

TCN19-010 (UGD19+22) (He3 rate)
He3_1847_3
Entries 12969
Mean 55.06
Std Dev 25.9
Integral 1.297e+04
χ² / ndf 79.37 / 93
Prob 0.8422
p0 5907 ± 505.2
τ 18.96 ± 0.36
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

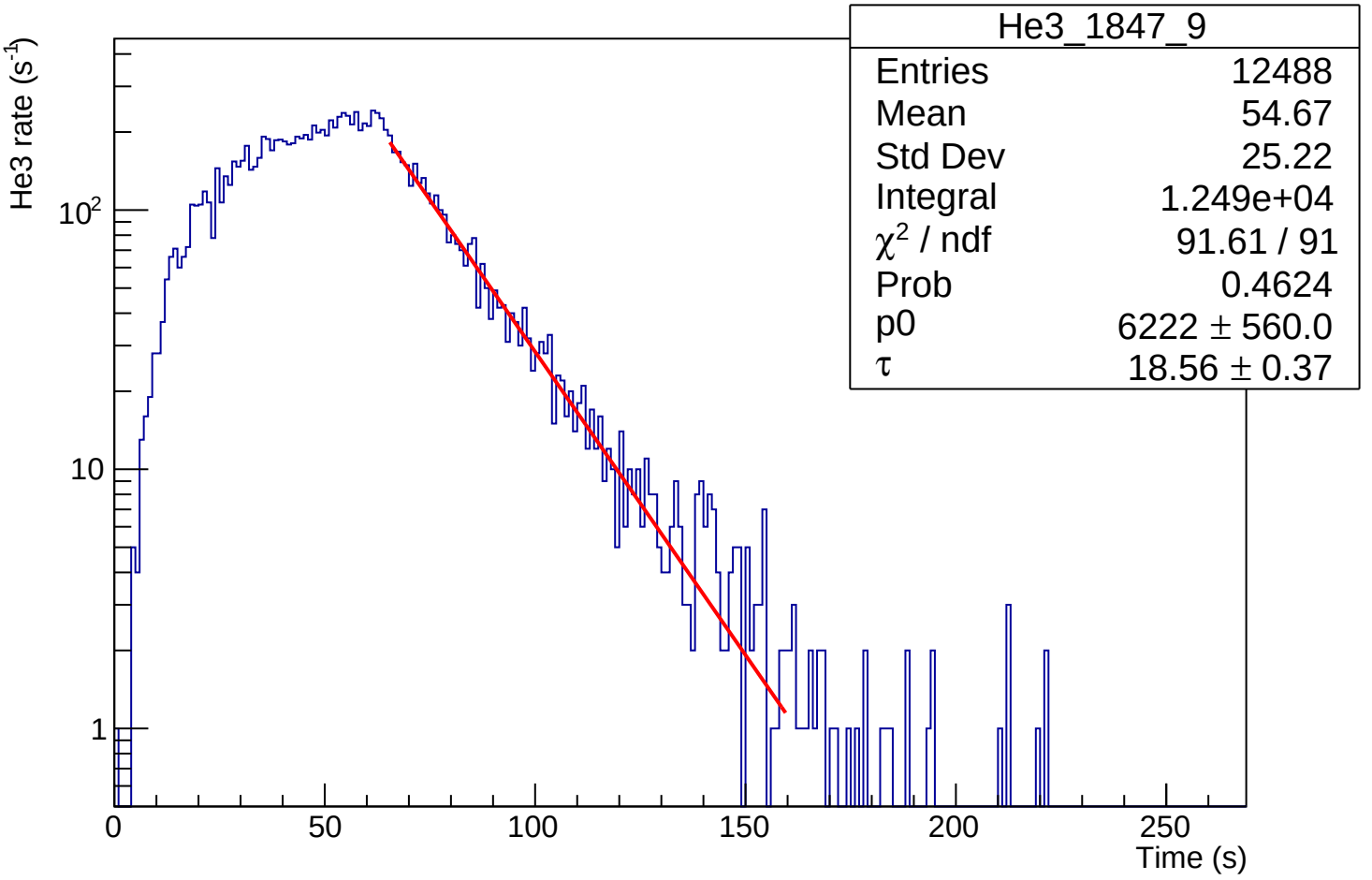

TCN19-010 (UGD19+22) (He3 rate)
He3_1847_4
Entries 13035
Mean 54.71
Std Dev 25.63
Integral 1.304e+04
χ² / ndf 107.3 / 91
Prob 0.1163
p0 6740 ± 556.2
τ 18.38 ± 0.33
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

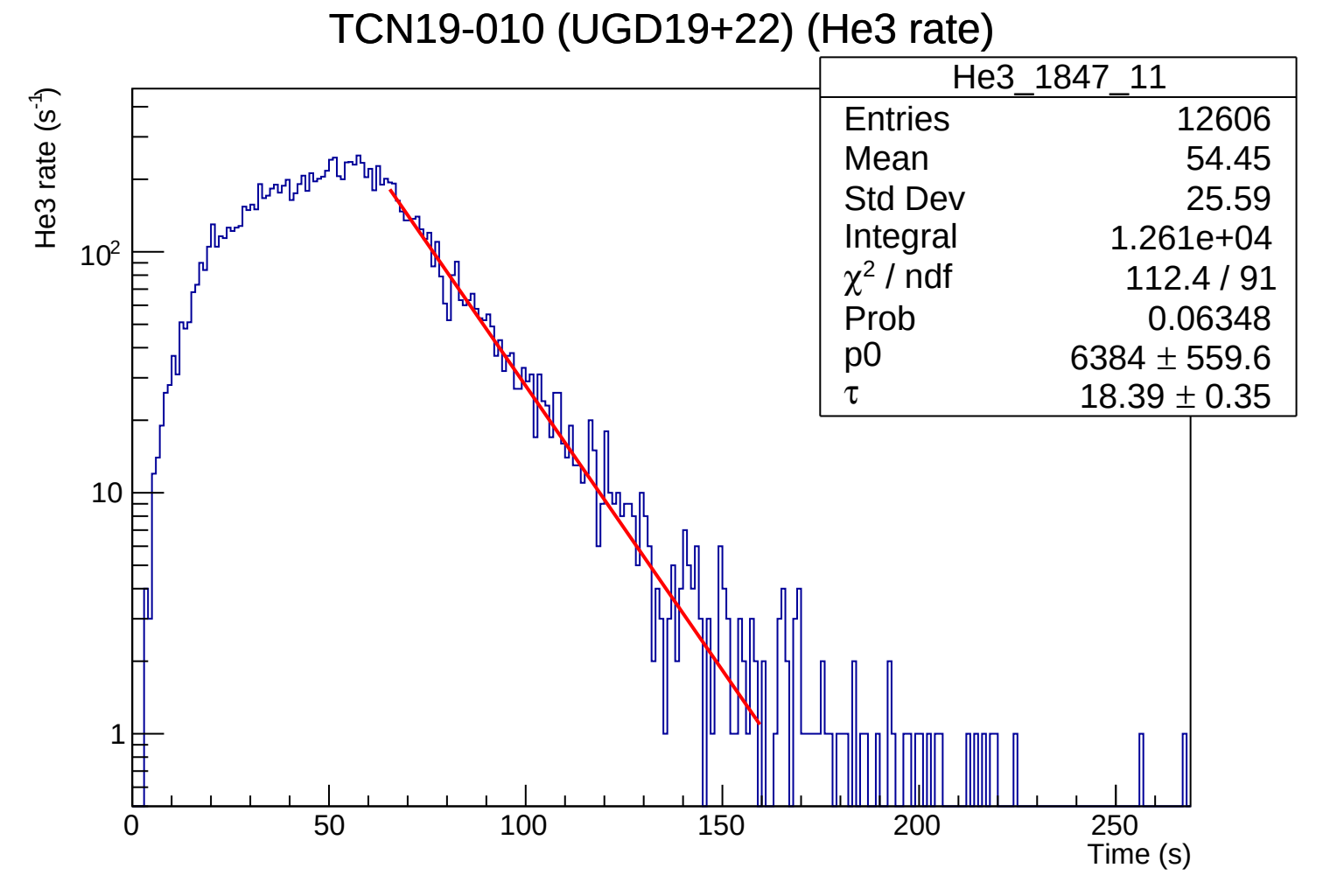

TCN19-010 (UGD19+22) (He3 rate)
He3_1847_5
Entries 12896
Mean 54.46
Std Dev 25.33
Integral 1.29e+04
χ² / ndf 95.77 / 93
Prob 0.4013
p0 5773 ± 515.0
τ 18.92 ± 0.38
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

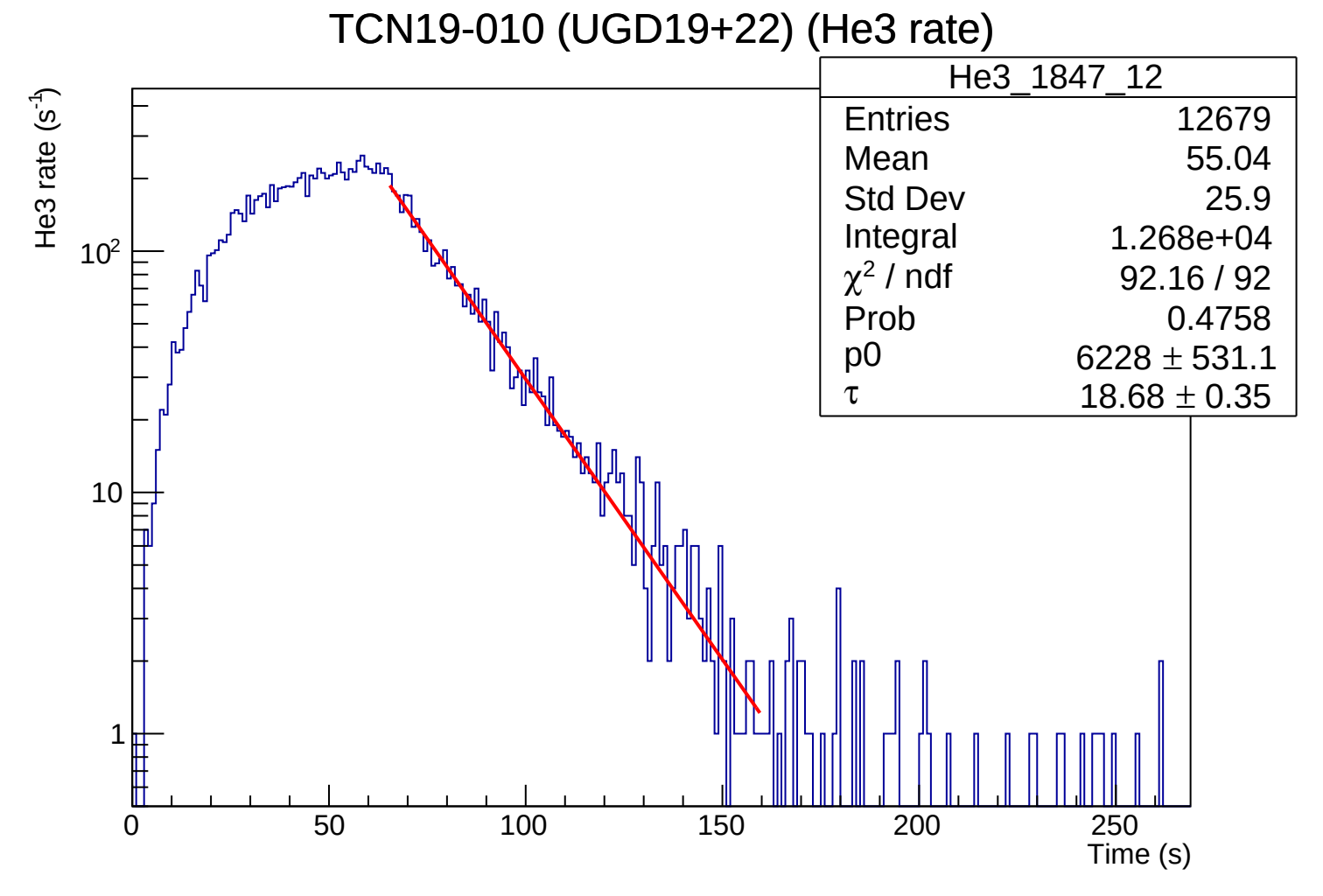

TCN19-010 (UGD19+22) (He3 rate)
He3_1847_6
Entries 12843
Mean 55.29
Std Dev 25.91
Integral 1.284e+04
χ² / ndf 98.16 / 91
Prob 0.2854
p0 5302 ± 421.9
τ 19.43 ± 0.35
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

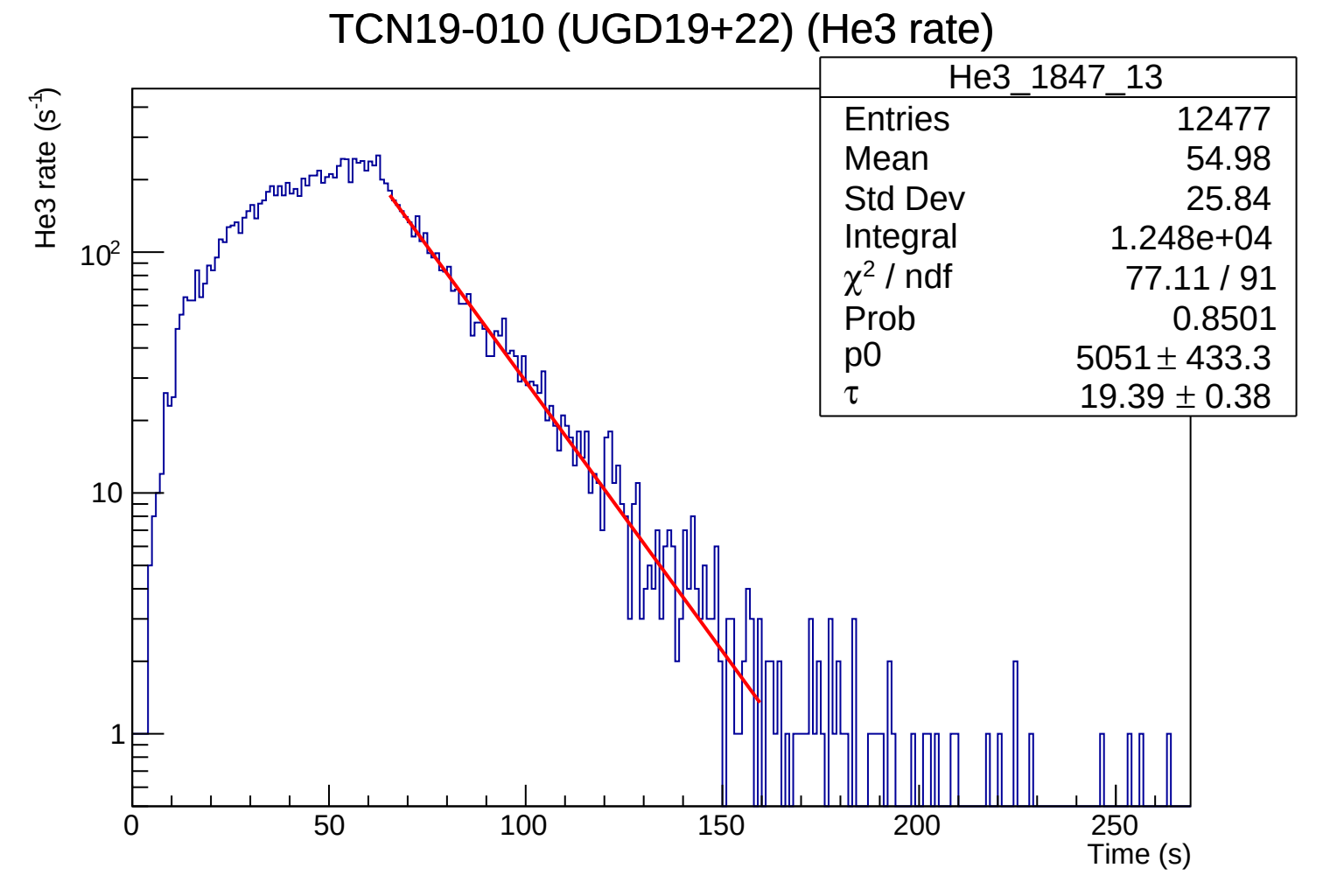

TCN19-010 (UGD19+22) (He3 rate)
He3_1847_7
Entries 12984
Mean 54.72
Std Dev 25.46
Integral 1.298e+04
χ² / ndf 145.1 / 92
Prob 0.0003475
p0 7324 ± 630.0
τ 17.94 ± 0.33
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

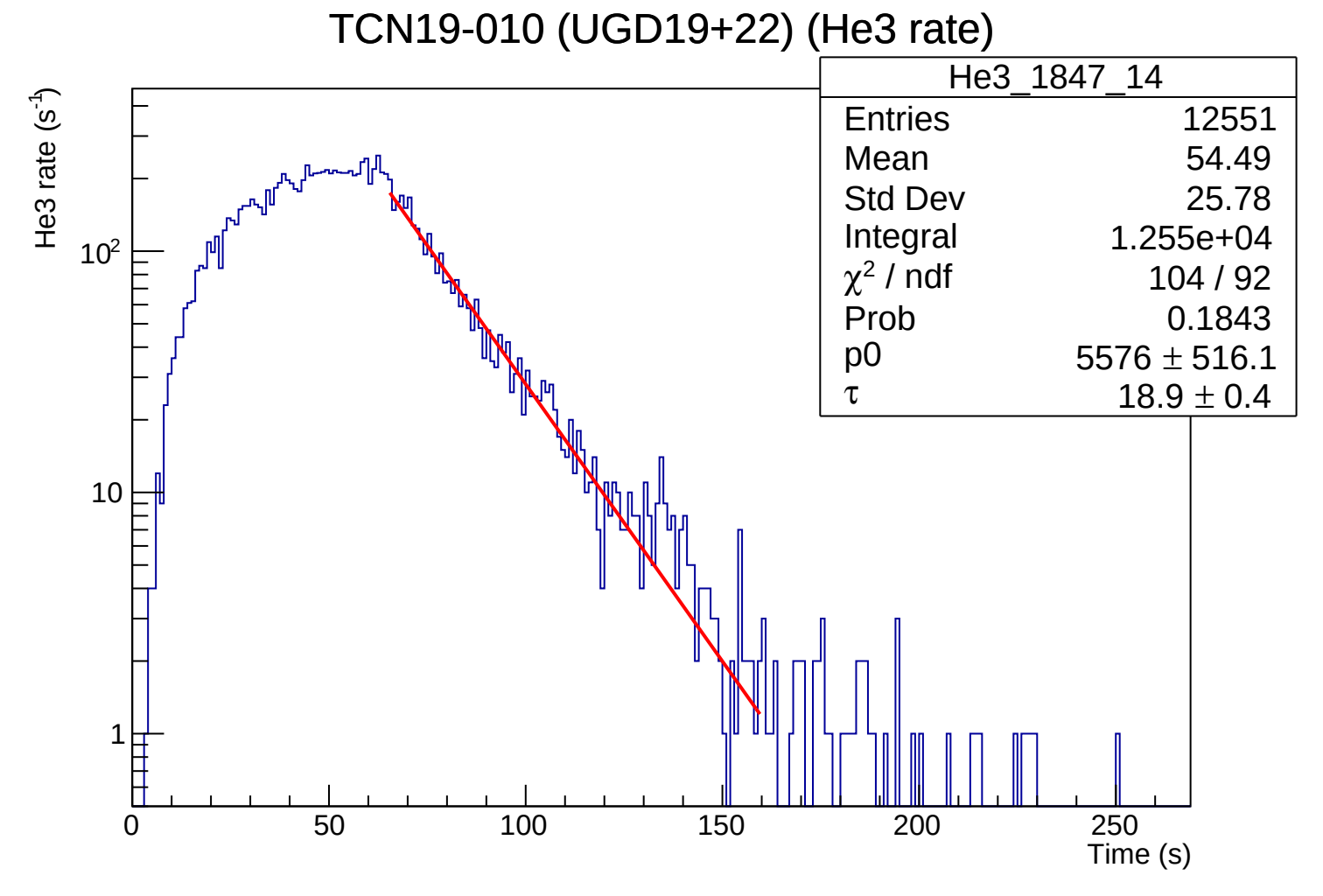

TCN19-010 (UGD19+22) (He3 rate)
He3_1847_8
Entries 12591
Mean 54.88
Std Dev 25.89
Integral 1.259e+04
χ² / ndf 109.2 / 93
Prob 0.1198
p0 5307 ± 457.4
τ 19.15 ± 0.37
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

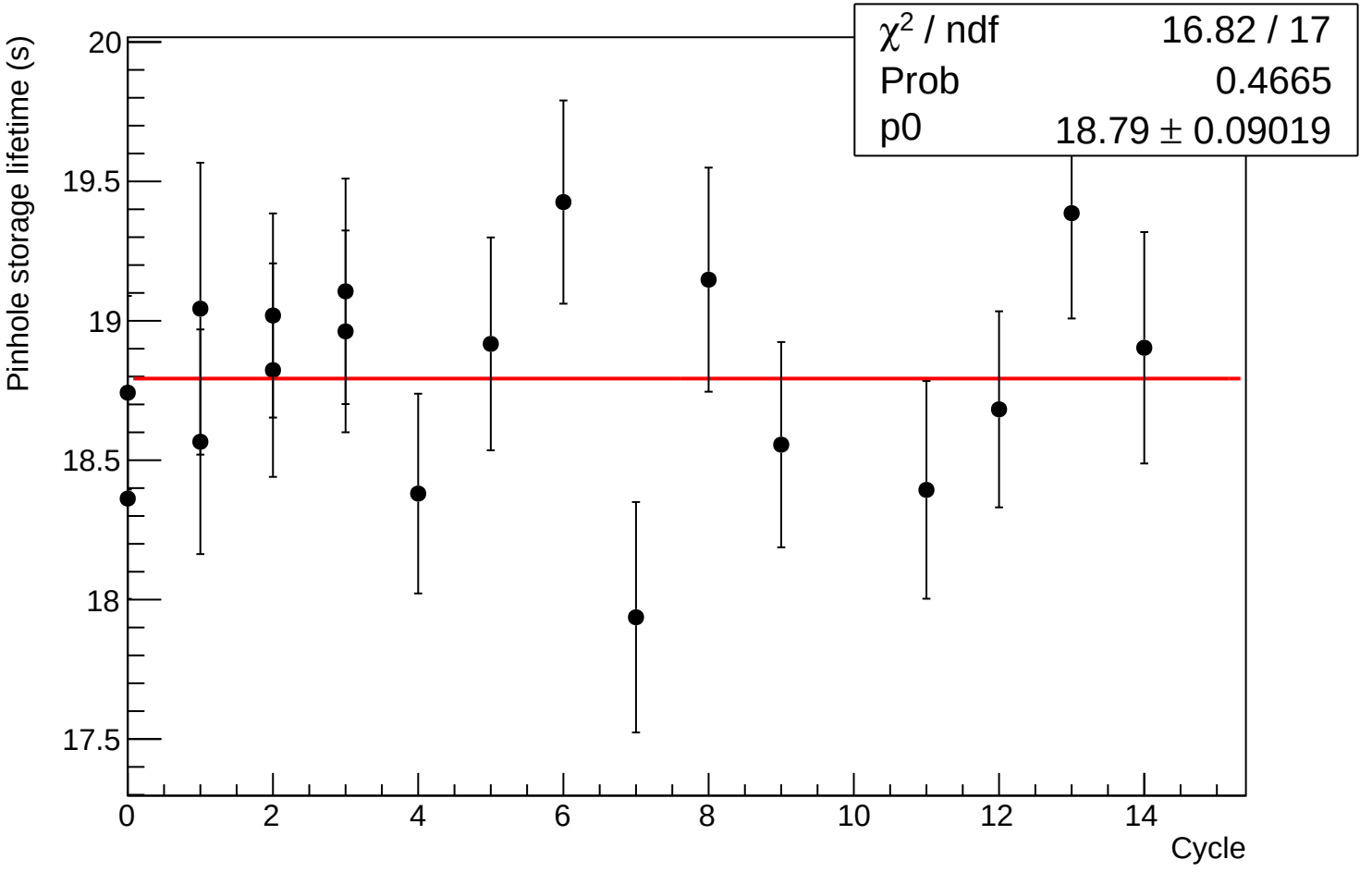

TCN19-010 (UGD19+22) (He3 rate)
He3_1847_9
Entries 12488
Mean 54.67
Std Dev 25.22
Integral 1.249e+04
χ² / ndf 91.61 / 91
Prob 0.4624
p0 6222 ± 560.0
τ 18.56 ± 0.37
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)

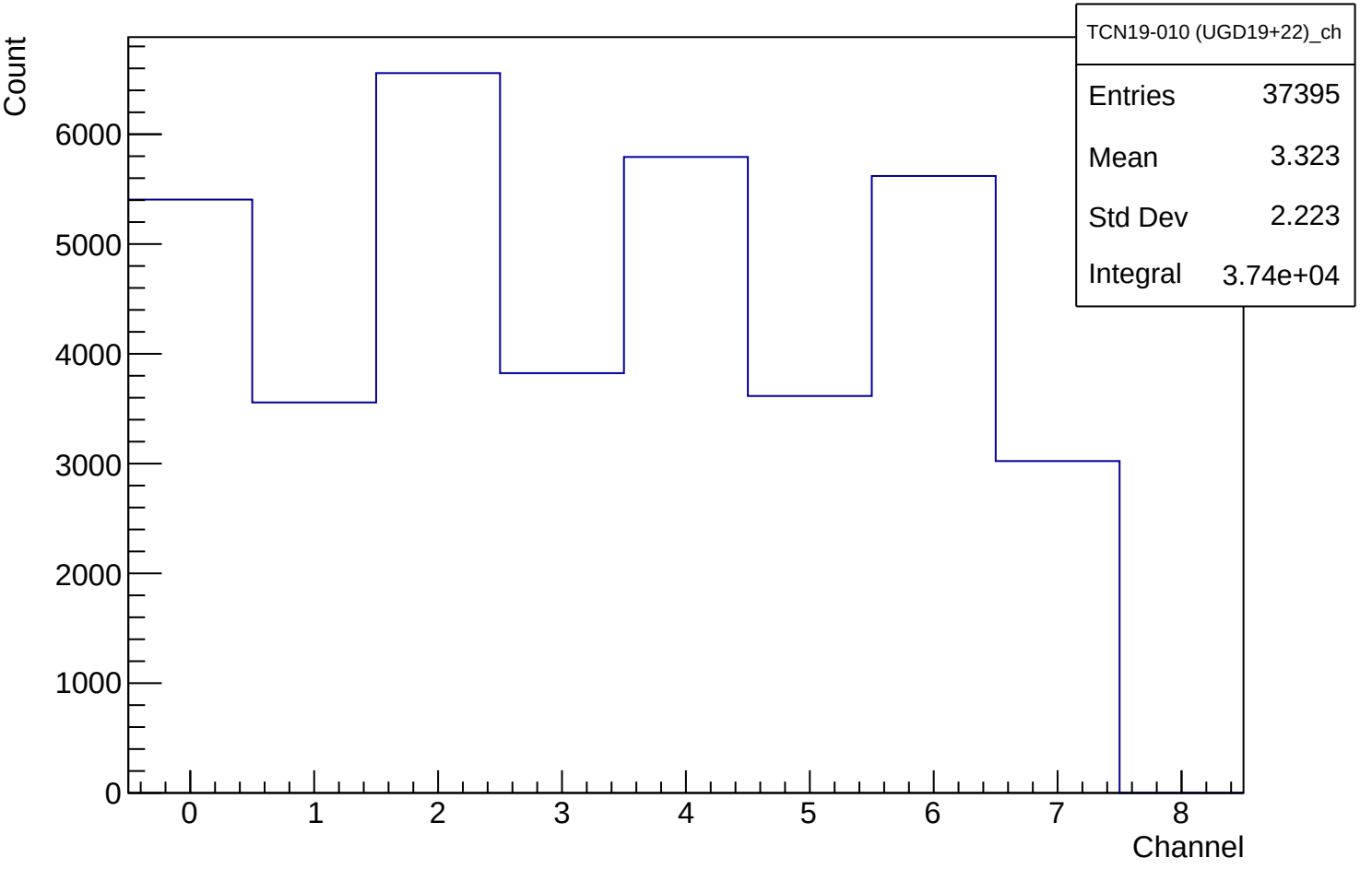

TCN19-010 (UGD19+22) (He3 rate)
He3_1847_11
Entries 12606
Mean 54.45
Std Dev 25.59
Integral 1.261e+04
χ² / ndf 112.4 / 91
Prob 0.06348
p0 6384 ± 559.6
τ 18.39 ± 0.35
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)


TCN19-010 (UGD19+22) (He3 rate)
He3_1847_12
Entries 12679
Mean 55.04
Std Dev 25.9
Integral 1.268e+04
χ² / ndf 92.16 / 92
Prob 0.4758
p0 6228 ± 531.1
τ 18.68 ± 0.35
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)


TCN19-010 (UGD19+22) (He3 rate)
He3_1847_13
Entries 12477
Mean 54.98
Std Dev 25.84
Integral 1.248e+04
χ² / ndf 77.11 / 91
Prob 0.8501
p0 5051 ± 433.3
τ 19.39 ± 0.38
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)


TCN19-010 (UGD19+22) (He3 rate)
He3_1847_14
Entries 12551
Mean 54.49
Std Dev 25.78
Integral 1.255e+04
χ² / ndf 104 / 92
Prob 0.1843
p0 5576 ± 516.1
τ 18.9 ± 0.4
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
Time (s)


$\chi^2$ / ndf 16.82 / 17
Prob 0.4665
p0 18.79 ± 0.09019
Pinhole storage lifetime (s)
20
19.5
19
18.5
18
17.5
0
2
4
6
8
10
12
14
Cycle


TCN19-010 (UGD19+22)
TCN19-010 (UGD19+22)_ch
Entries 37395
Mean 3.323
Std Dev 2.223
Integral 3.74e+04
Count
0
1000
2000
3000
4000
5000
6000
0
1
2
3
4
5
6
7
8
Channel