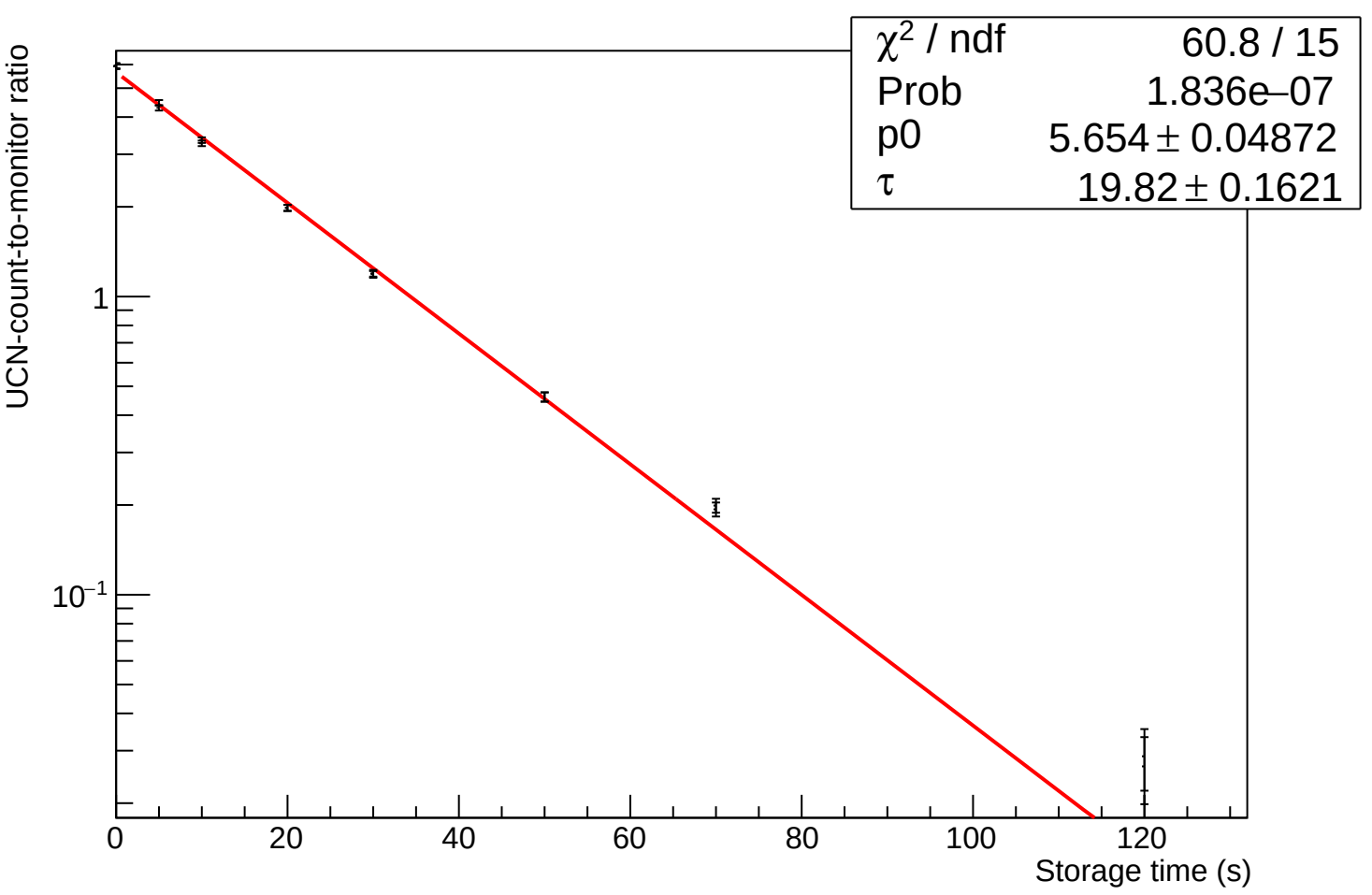
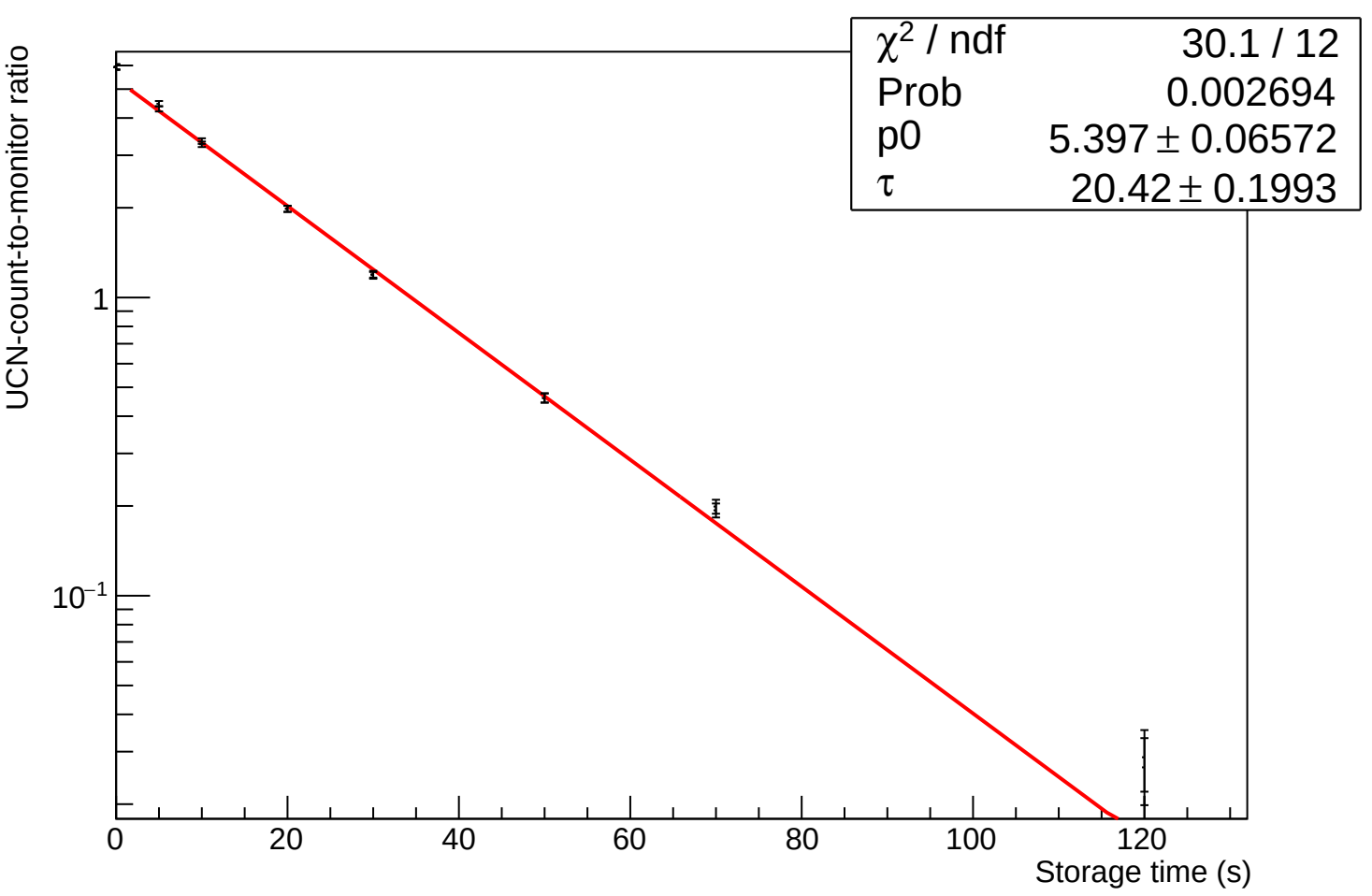
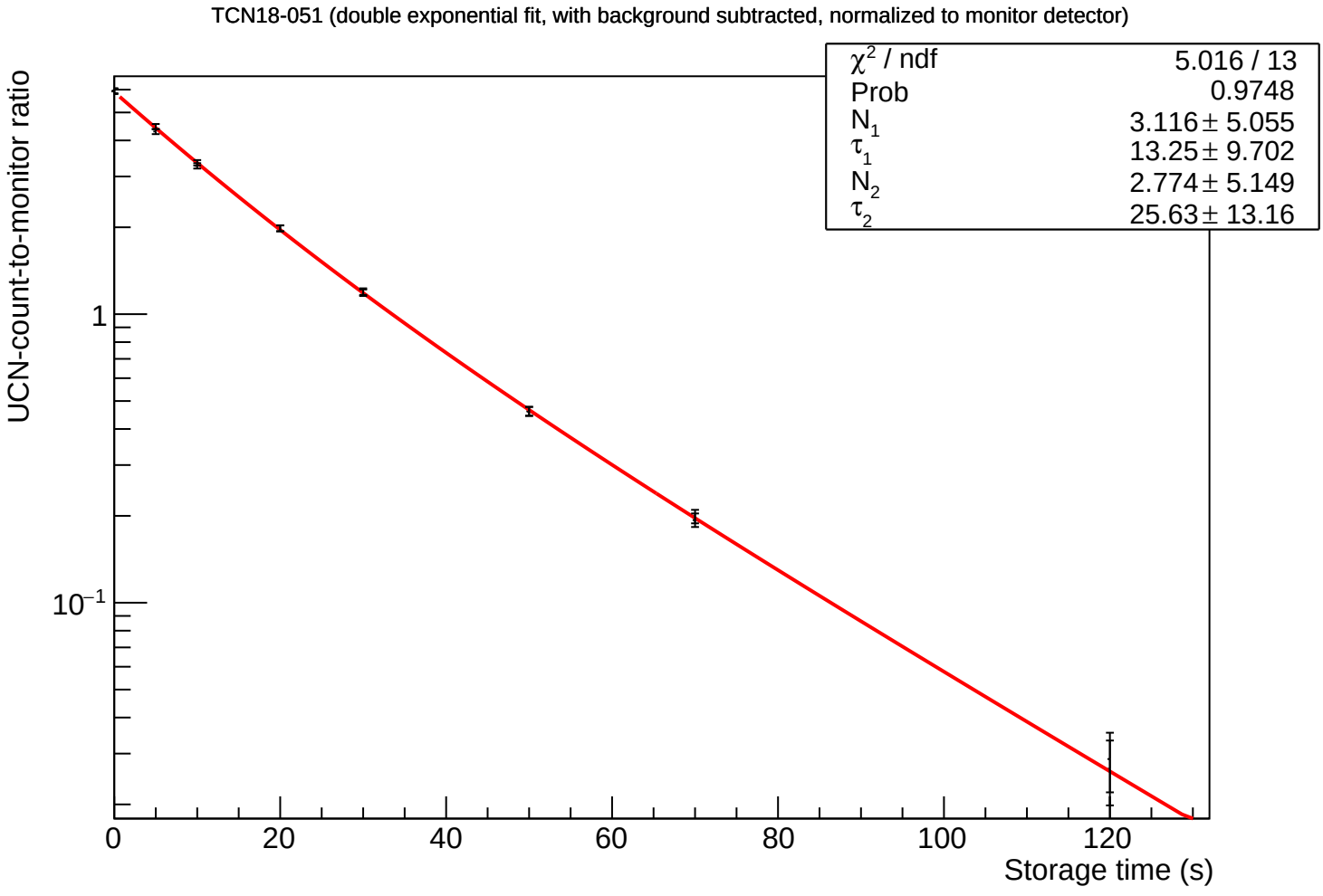
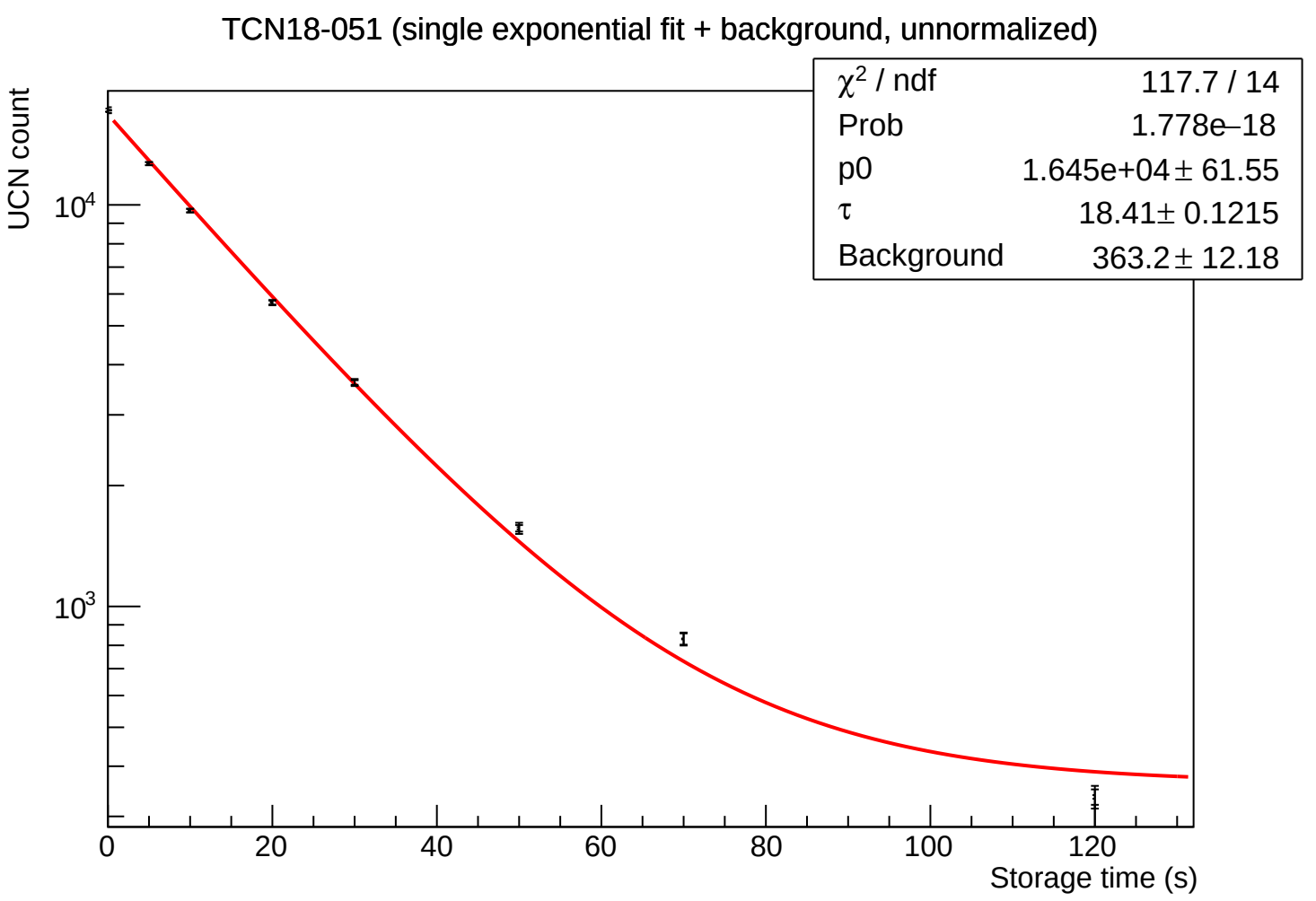
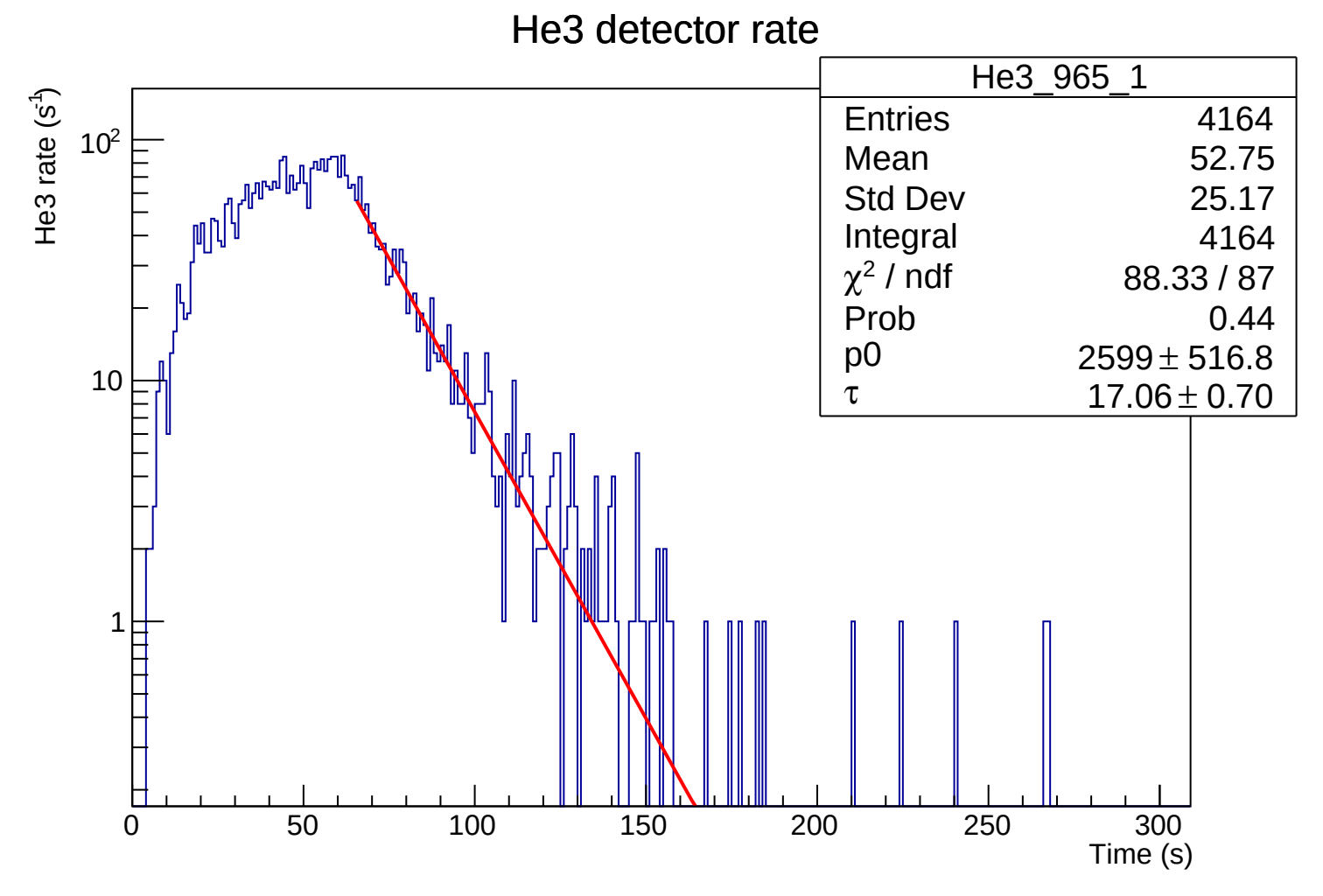
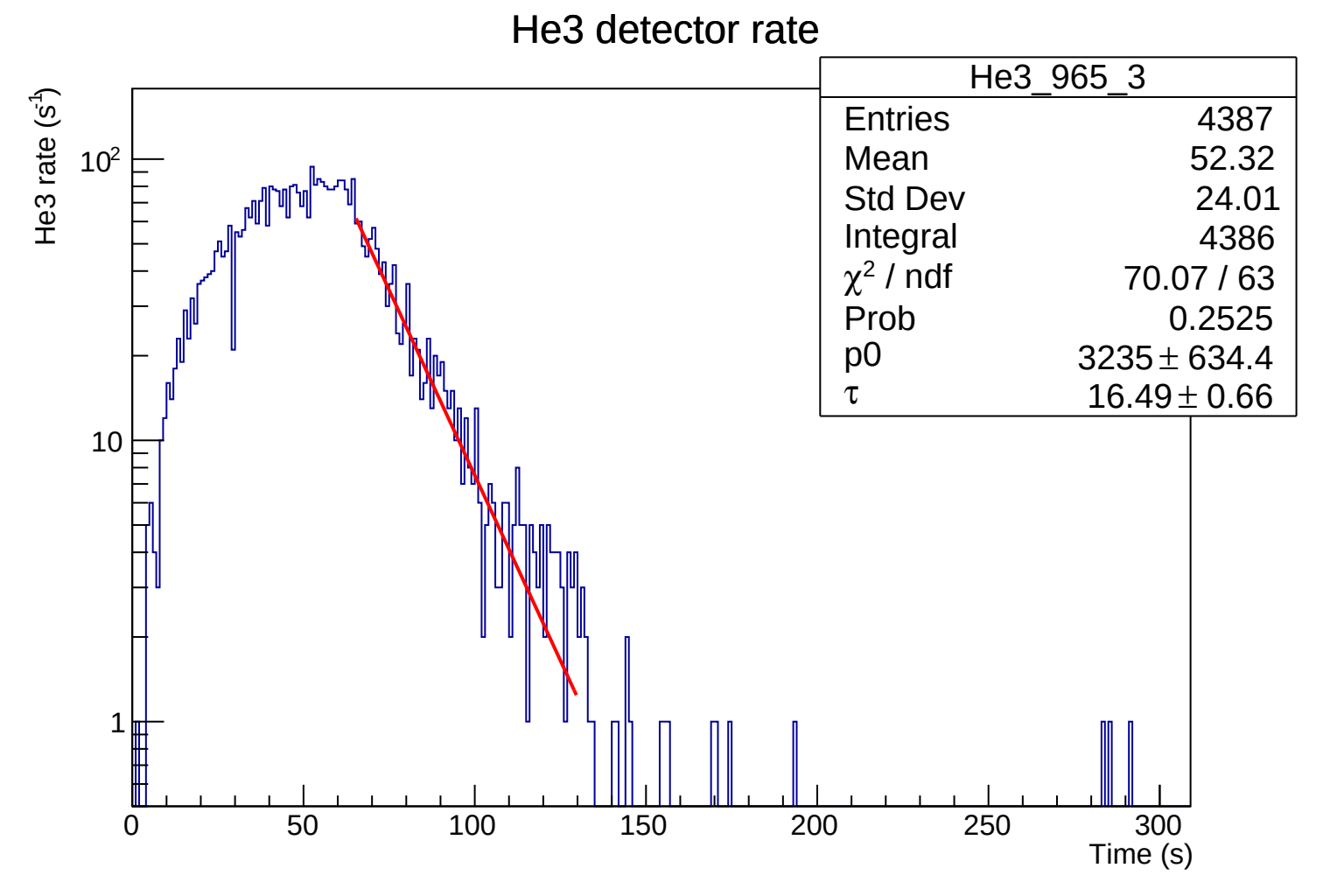

TCN18-051 (single exponential fit, with background subtracted, normalized to monitor detector)
χ² / ndf 60.8 / 15
Prob 1.836e–07
p0 5.654 ± 0.04872
τ 19.82 ± 0.1621
UCN-count-to-monitor ratio
1
10⁻¹
0
20
40
60
80
100
120
Storage time (s)

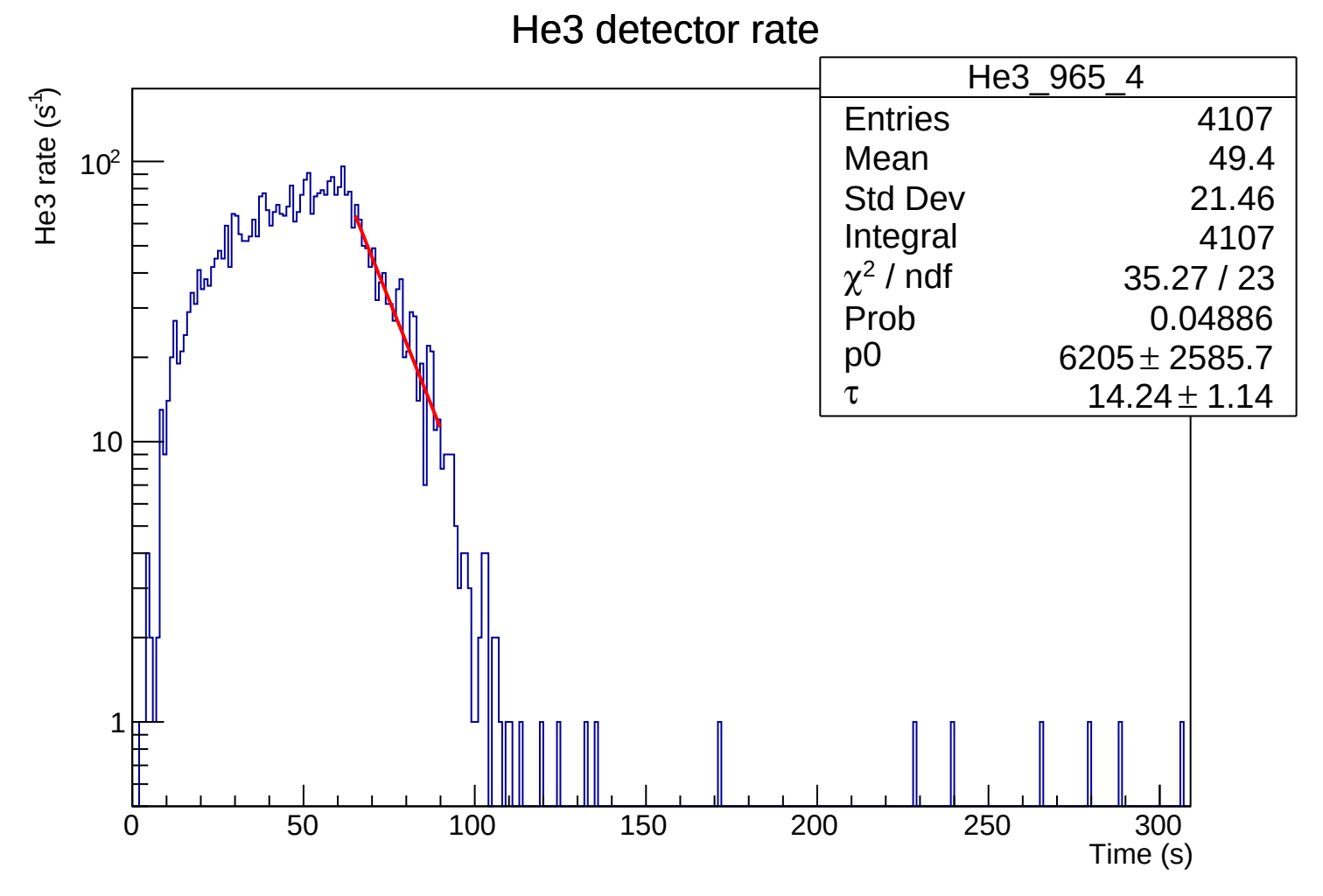

TCN18-051 (single exponential fit, with background subtracted, normalized to monitor detector, 0s excluded)
χ² / ndf 30.1 / 12
Prob 0.002694
p0 5.397 ± 0.06572
τ 20.42 ± 0.1993
UCN-count-to-monitor ratio
1
10⁻¹
0
20
40
60
80
100
120
Storage time (s)

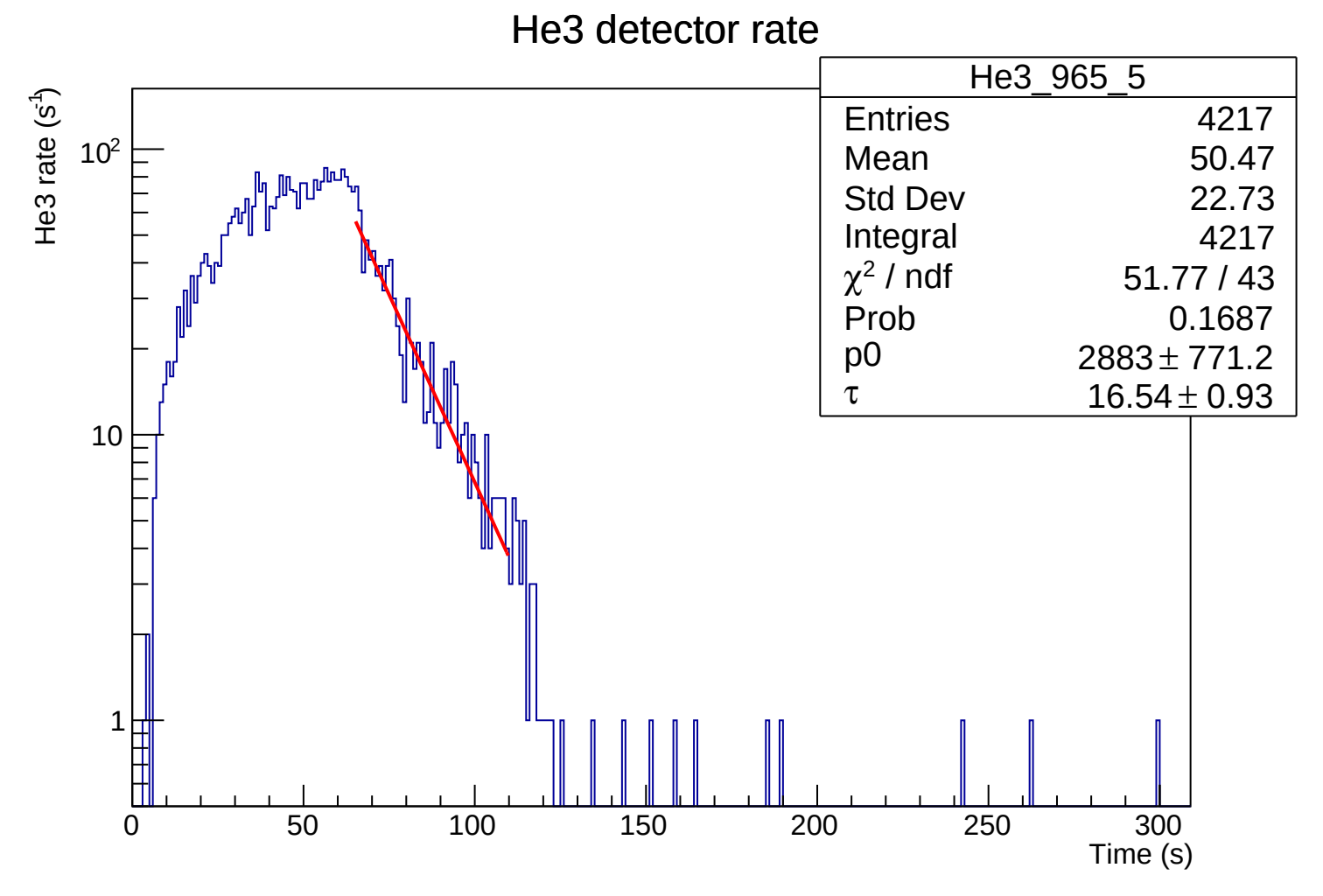

TCN18-051 (double exponential fit, with background subtracted, normalized to monitor detector)
χ² / ndf 5.016 / 13
Prob 0.9748
N1 3.116 ± 5.055
τ1 13.25 ± 9.702
N2 2.774 ± 5.149
τ2 25.63 ± 13.16
UCN-count-to-monitor ratio
1
10⁻¹
0
20
40
60
80
100
120
Storage time (s)

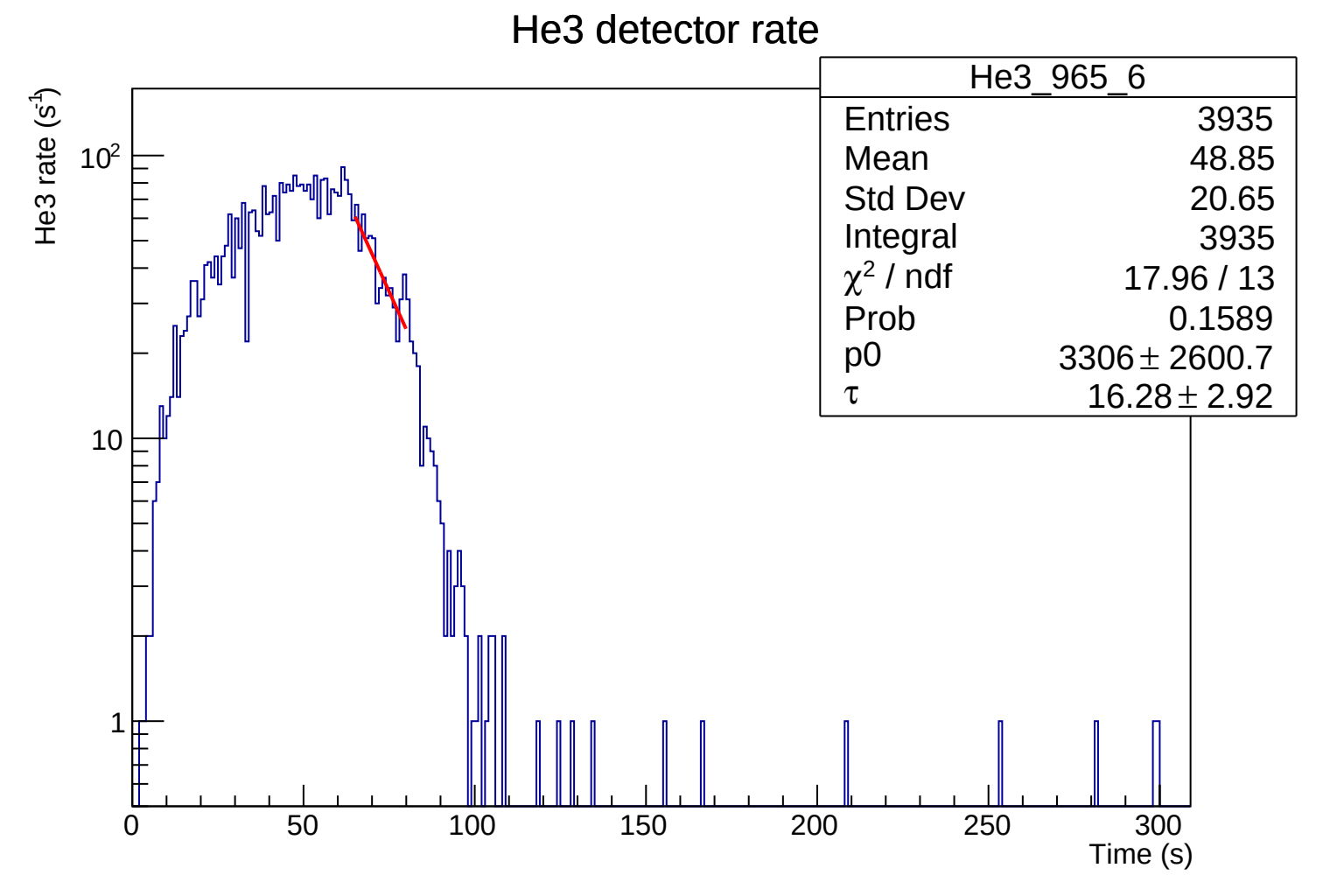

TCN18-051 (single exponential fit + background, unnormalized)
χ² / ndf 117.7 / 14
Prob 1.778e−18
p0 1.645e+04 ± 61.55
τ 18.41 ± 0.1215
Background 363.2 ± 12.18
UCN count
10⁴
10³
0
20
40
60
80
100
120
Storage time (s)

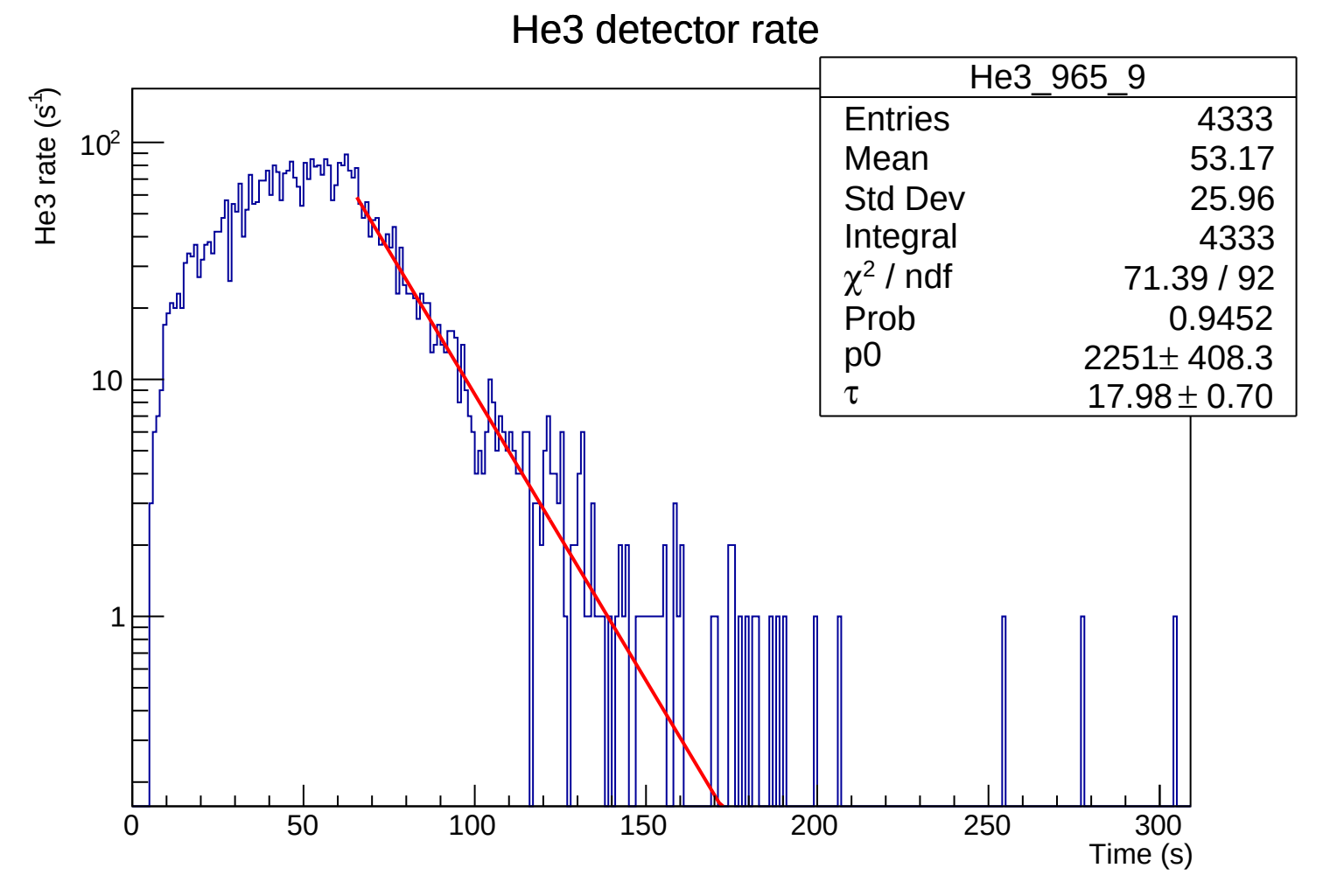

He3 detector rate
He3_965_1
Entries 4164
Mean 52.75
Std Dev 25.17
Integral 4164
χ² / ndf 88.33 / 87
Prob 0.44
p0 2599 ± 516.8
τ 17.06 ± 0.70
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

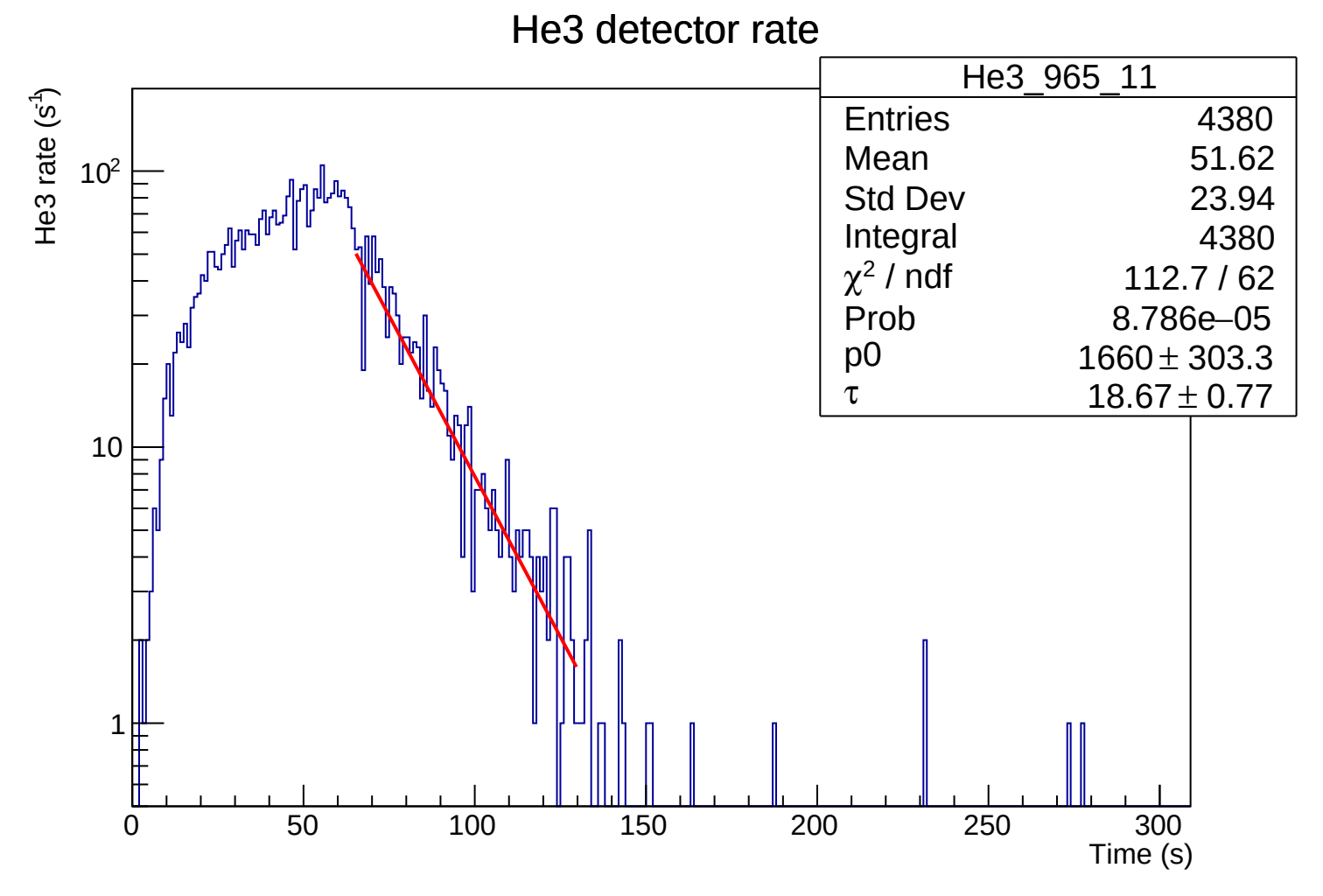

He3 detector rate
He3_965_3
Entries 4387
Mean 52.32
Std Dev 24.01
Integral 4386
χ² / ndf 70.07 / 63
Prob 0.2525
p0 3235 ± 634.4
τ 16.49 ± 0.66
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

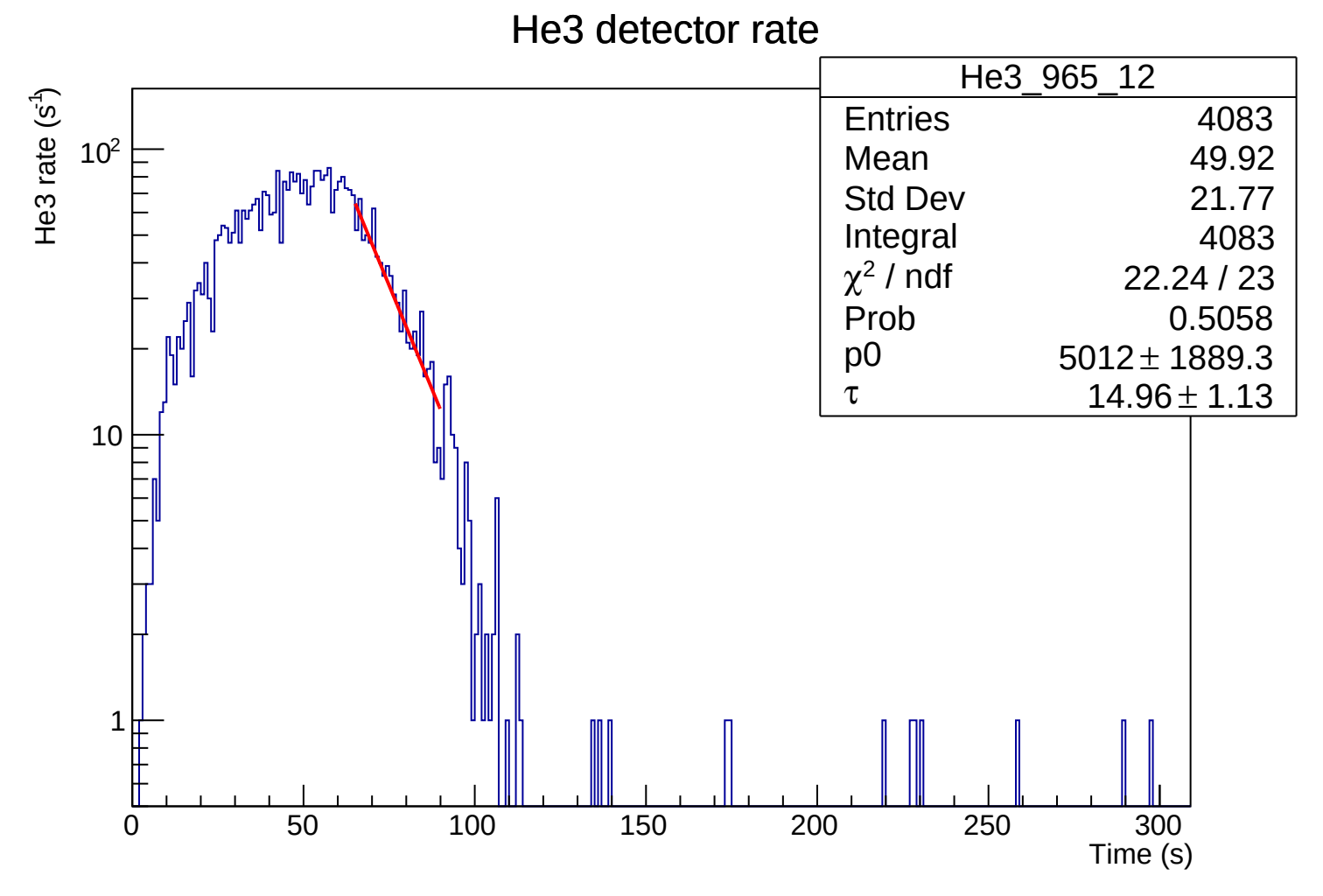

He3 detector rate
He3_965_4
Entries 4107
Mean 49.4
Std Dev 21.46
Integral 4107
χ² / ndf 35.27 / 23
Prob 0.04886
p0 6205 ± 2585.7
τ 14.24 ± 1.14
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

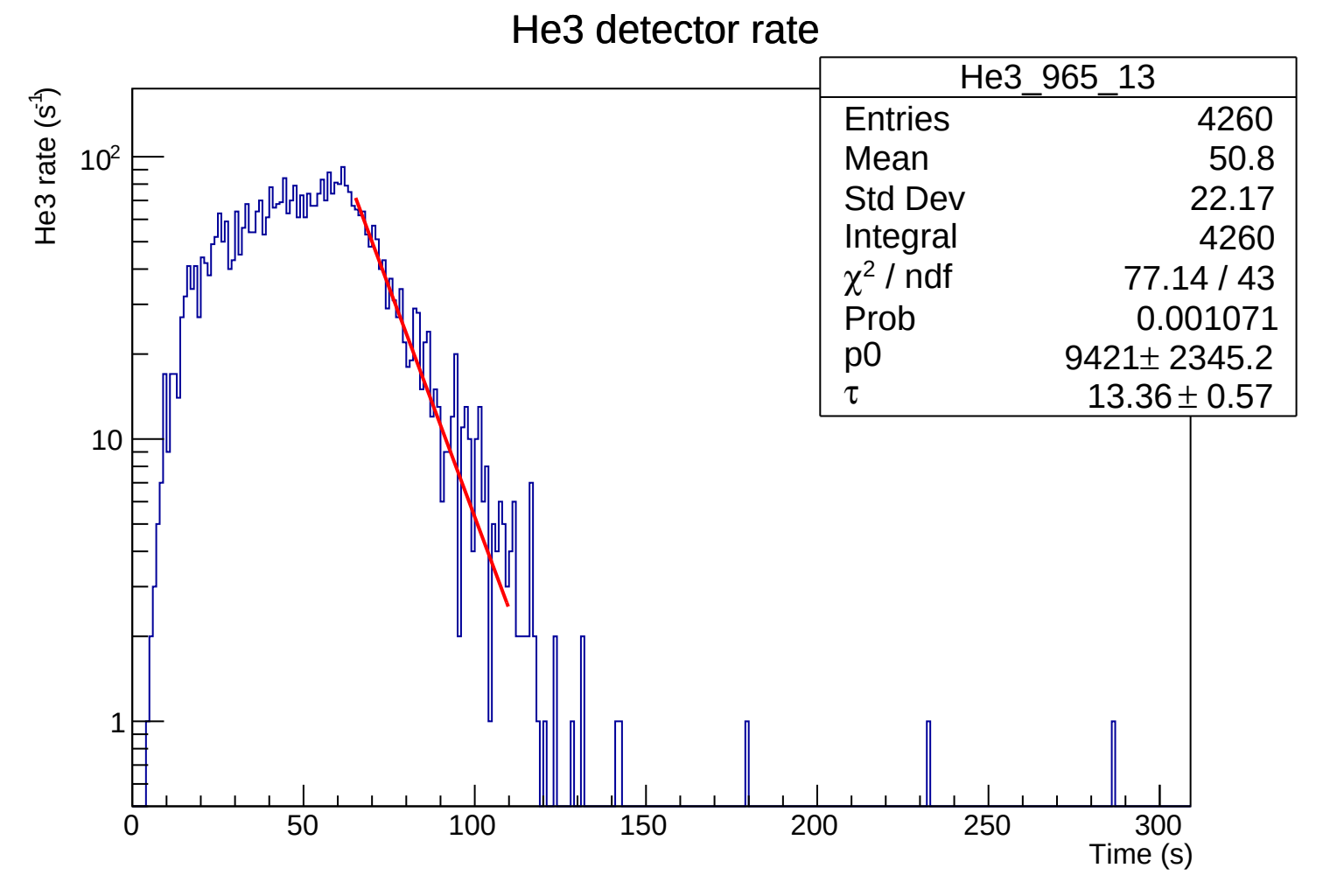

He3 detector rate
He3_965_5
Entries 4217
Mean 50.47
Std Dev 22.73
Integral 4217
χ² / ndf 51.77 / 43
Prob 0.1687
p0 2883 ± 771.2
τ 16.54 ± 0.93
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

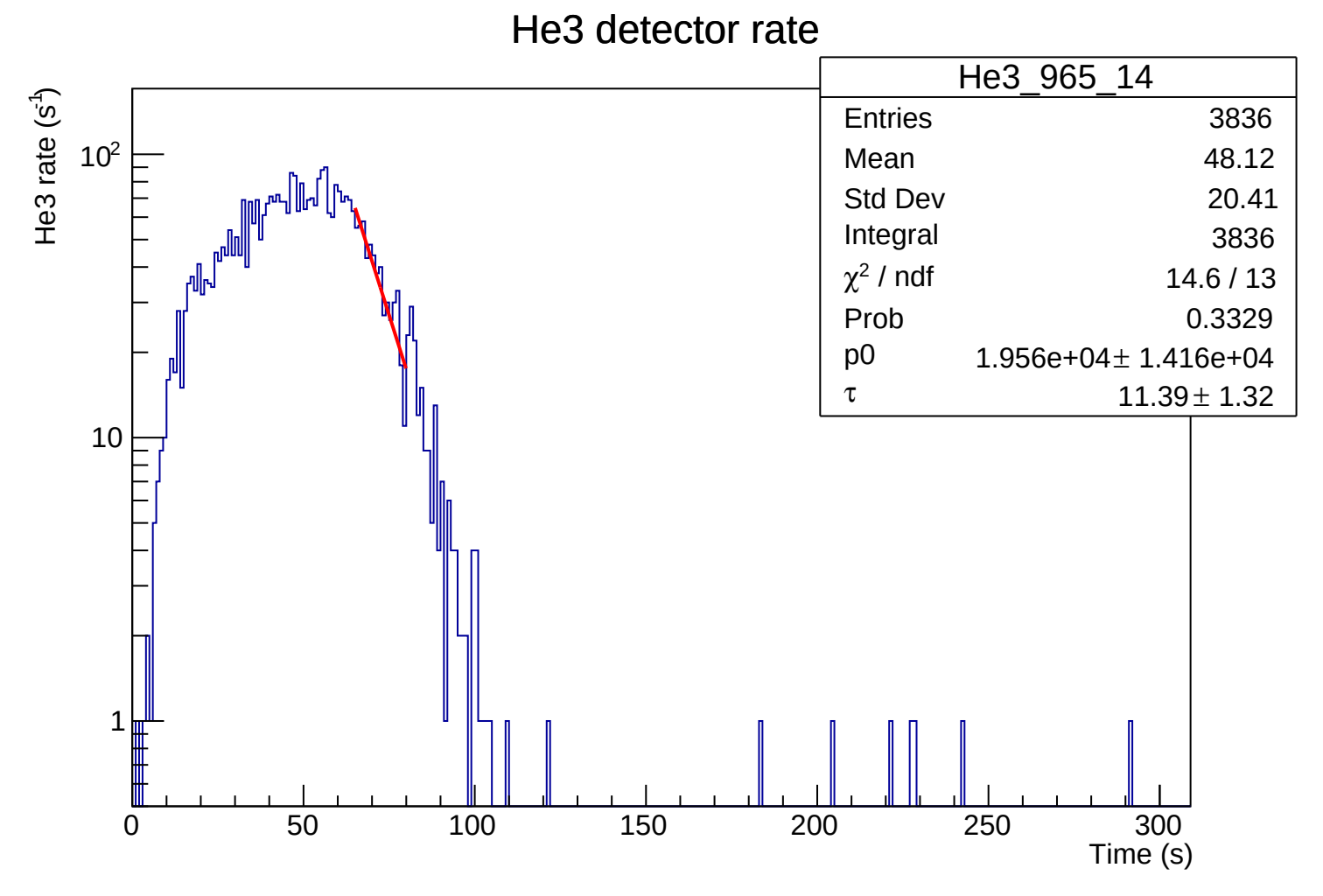

He3 detector rate
He3_965_6
Entries 3935
Mean 48.85
Std Dev 20.65
Integral 3935
χ² / ndf 17.96 / 13
Prob 0.1589
p0 3306 ± 2600.7
τ 16.28 ± 2.92
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)


He3 detector rate
He3_965_9
Entries 4333
Mean 53.17
Std Dev 25.96
Integral 4333
χ² / ndf 71.39 / 92
Prob 0.9452
p0 2251 ± 408.3
τ 17.98 ± 0.70
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)


He3 detector rate
He3_965_11
Entries 4380
Mean 51.62
Std Dev 23.94
Integral 4380
χ² / ndf 112.7 / 62
Prob 8.786e–05
p0 1660 ± 303.3
τ 18.67 ± 0.77
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)


He3 detector rate
He3_965_12
Entries 4083
Mean 49.92
Std Dev 21.77
Integral 4083
χ² / ndf 22.24 / 23
Prob 0.5058
p0 5012 ± 1889.3
τ 14.96 ± 1.13
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)


He3 detector rate
He3_965_13
Entries 4260
Mean 50.8
Std Dev 22.17
Integral 4260
χ² / ndf 77.14 / 43
Prob 0.001071
p0 9421± 2345.2
τ 13.36 ± 0.57
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)


He3 detector rate
He3_965_14
Entries 3836
Mean 48.12
Std Dev 20.41
Integral 3836
χ² / ndf 14.6 / 13
Prob 0.3329
p0 1.956e+04 ± 1.416e+04
τ 11.39 ± 1.32
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

Average lifetime from He3 data:

τ = 15.9783884507 +/- 0.00474492448239 s