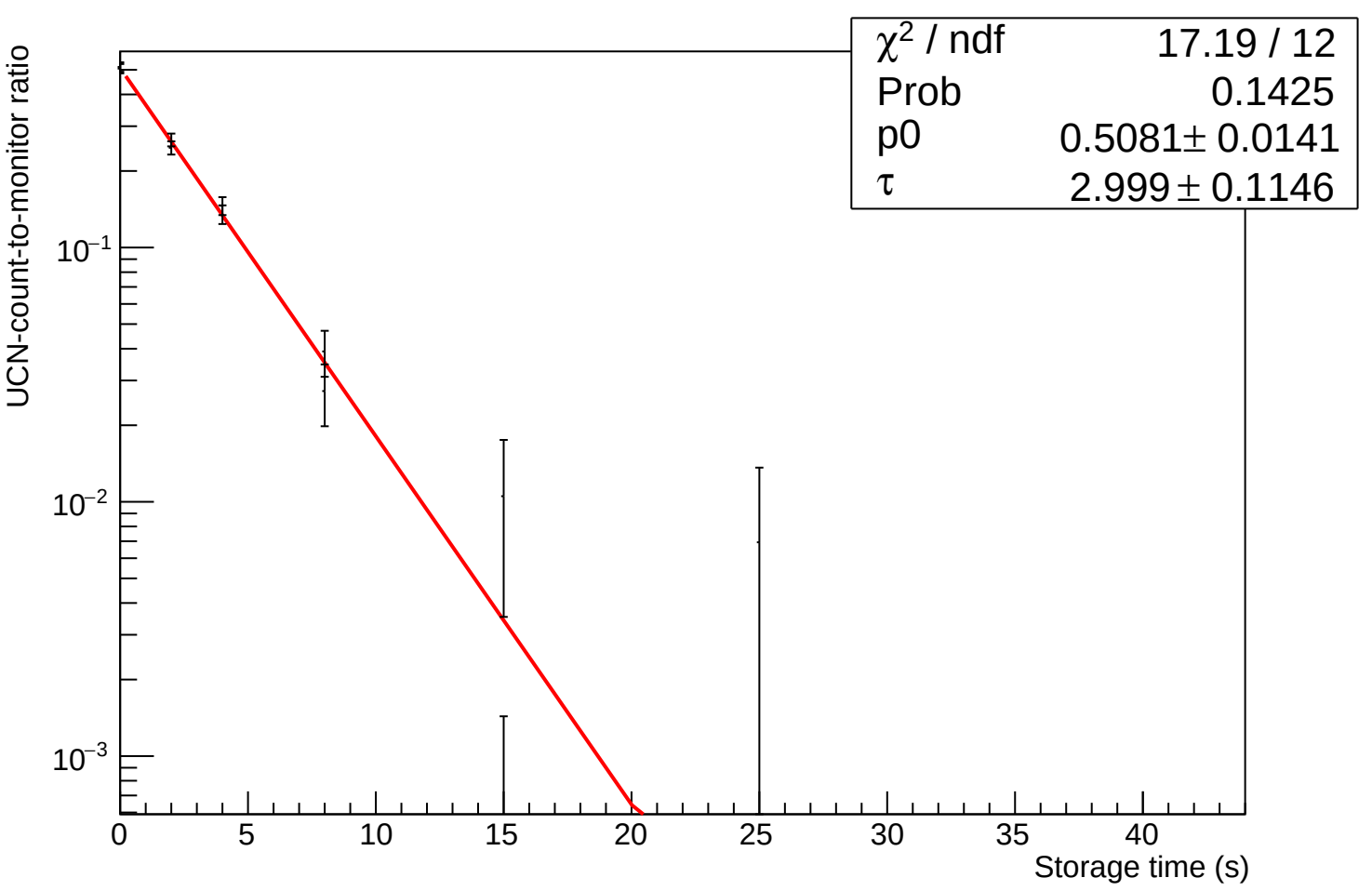
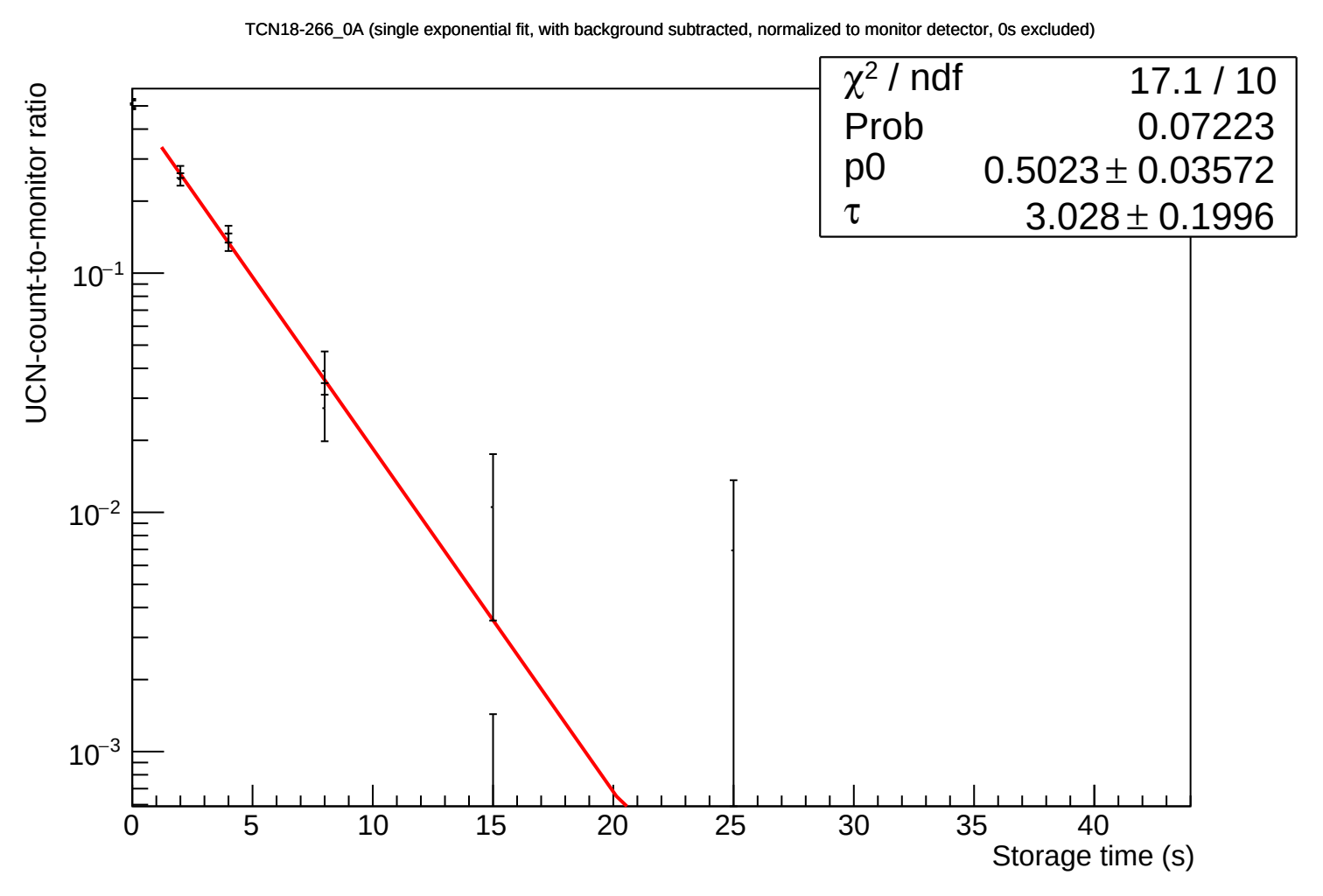
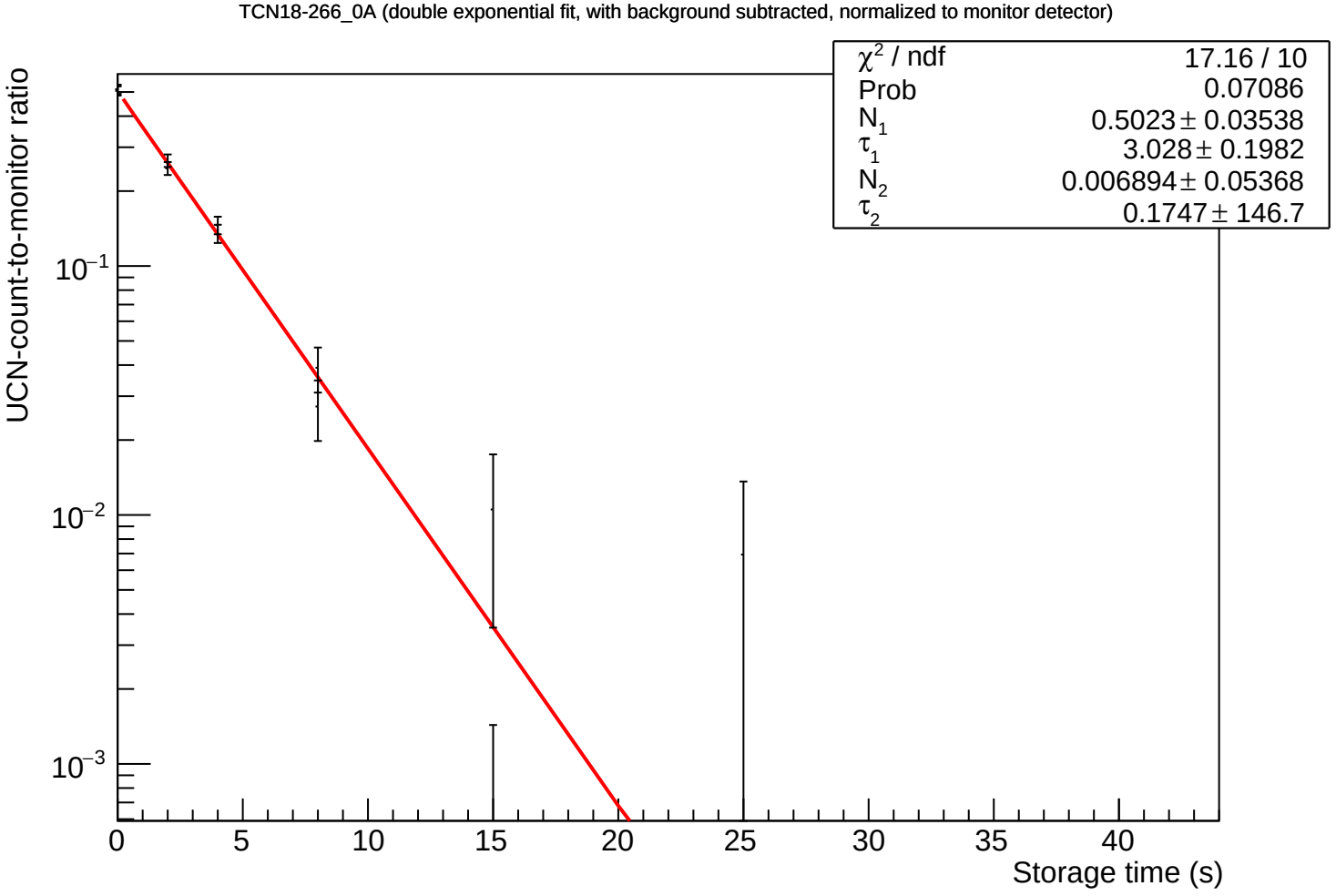
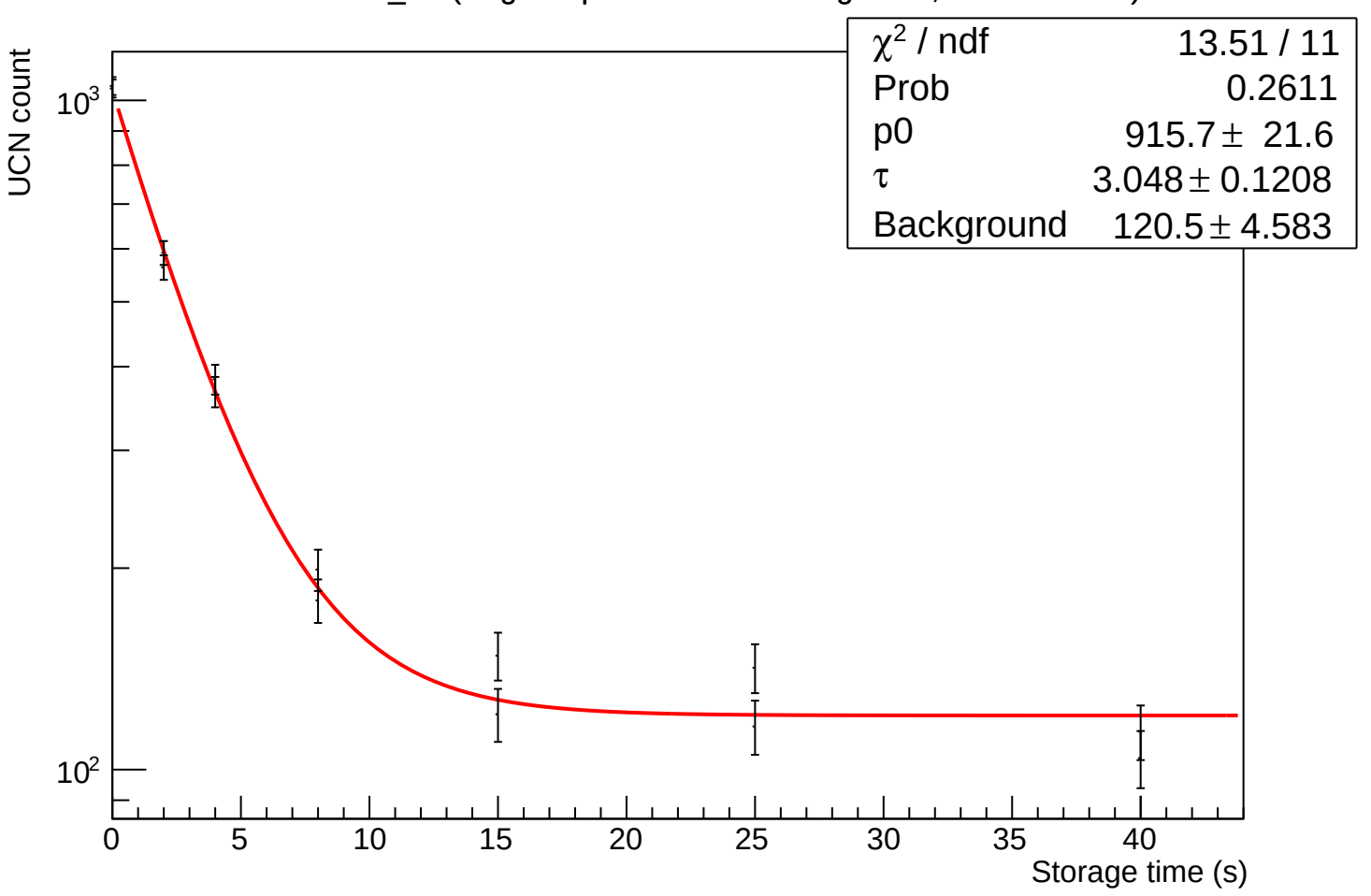
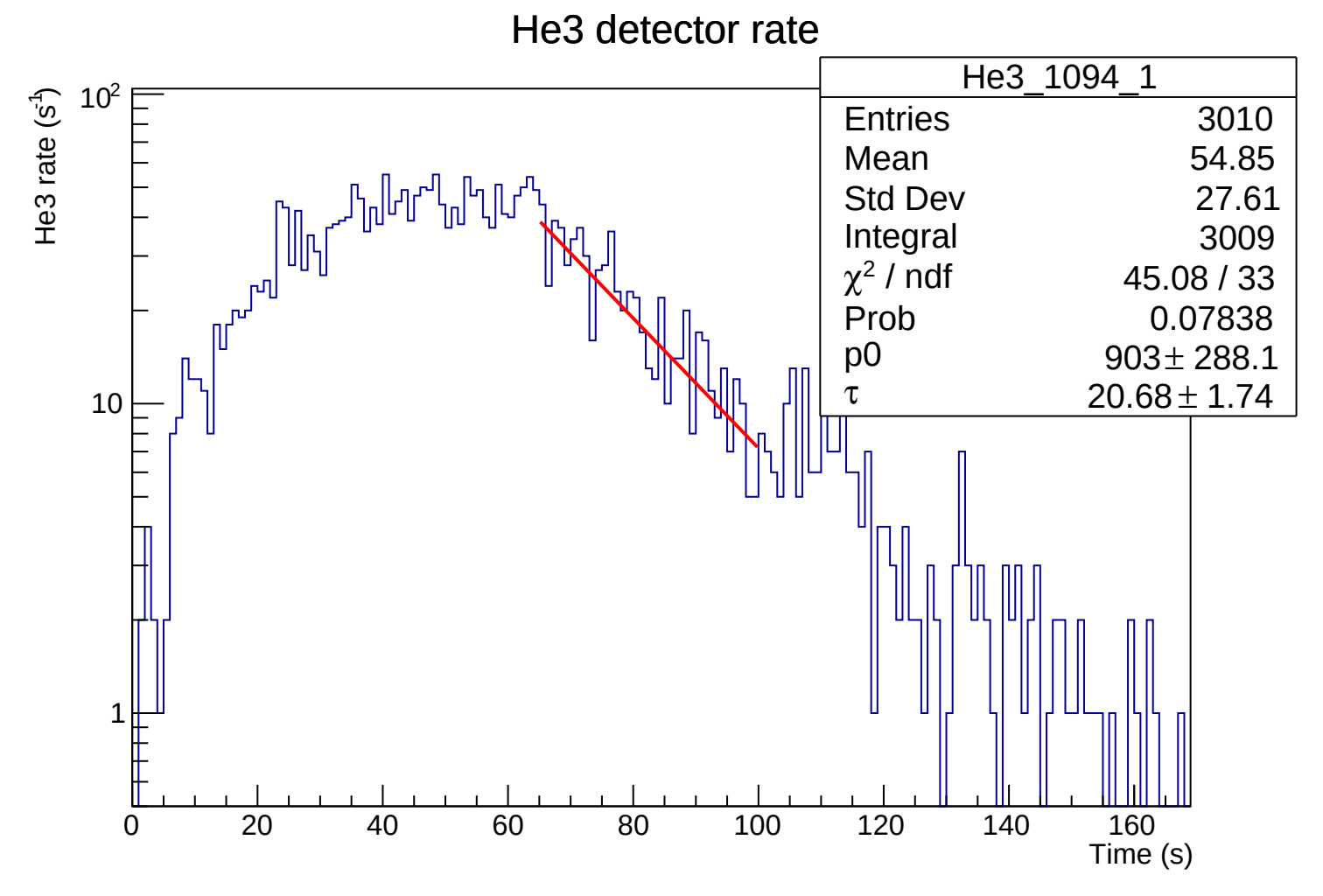
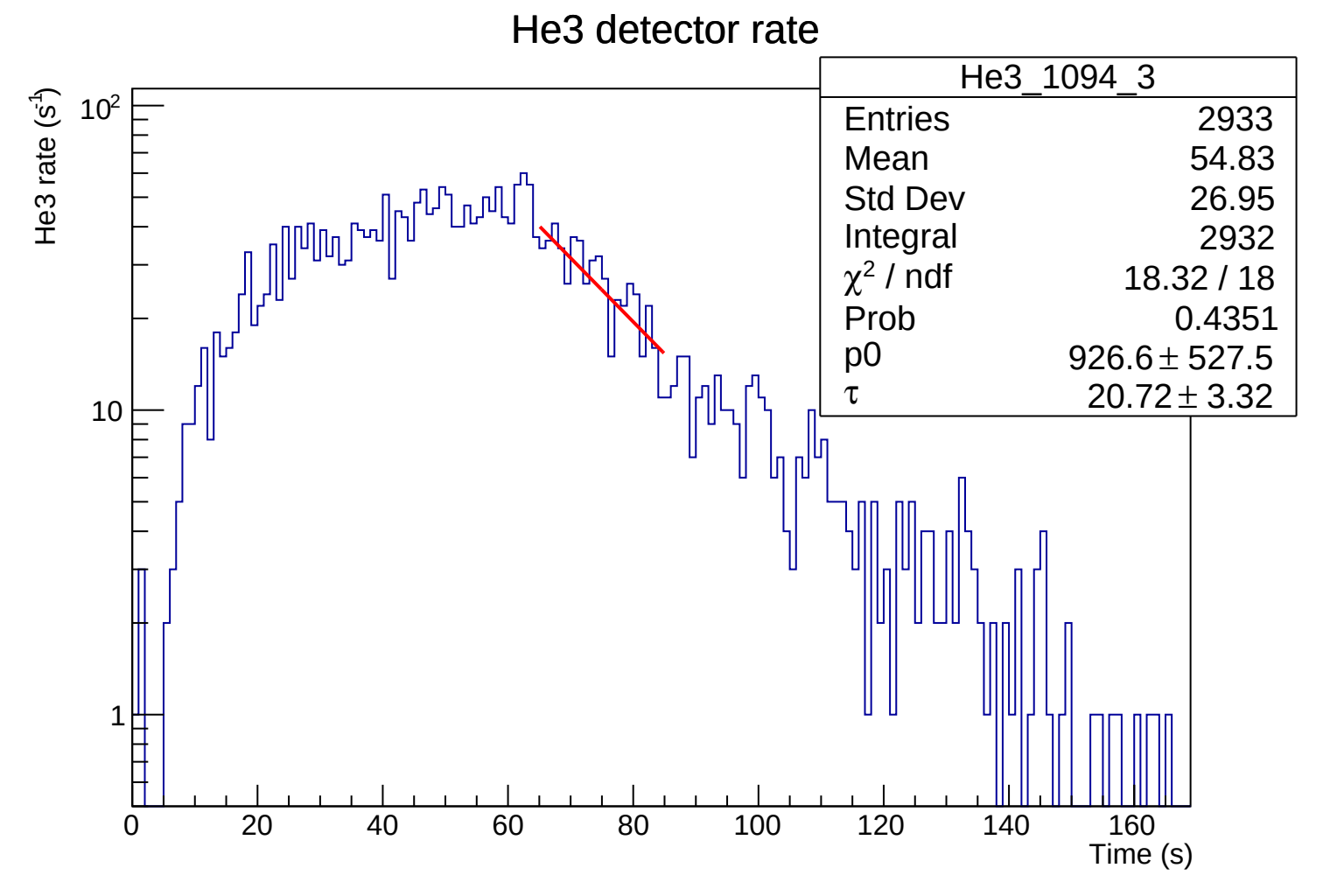

TCN18-266_0A (single exponential fit, with background subtracted, normalized to monitor detector)
χ² / ndf 17.19 / 12
Prob 0.1425
p0 0.5081 ± 0.0141
τ 2.999 ± 0.1146
UCN-count-to-monitor ratio
10⁻¹
10⁻²
10⁻³
0
5
10
15
20
25
30
35
40
Storage time (s)

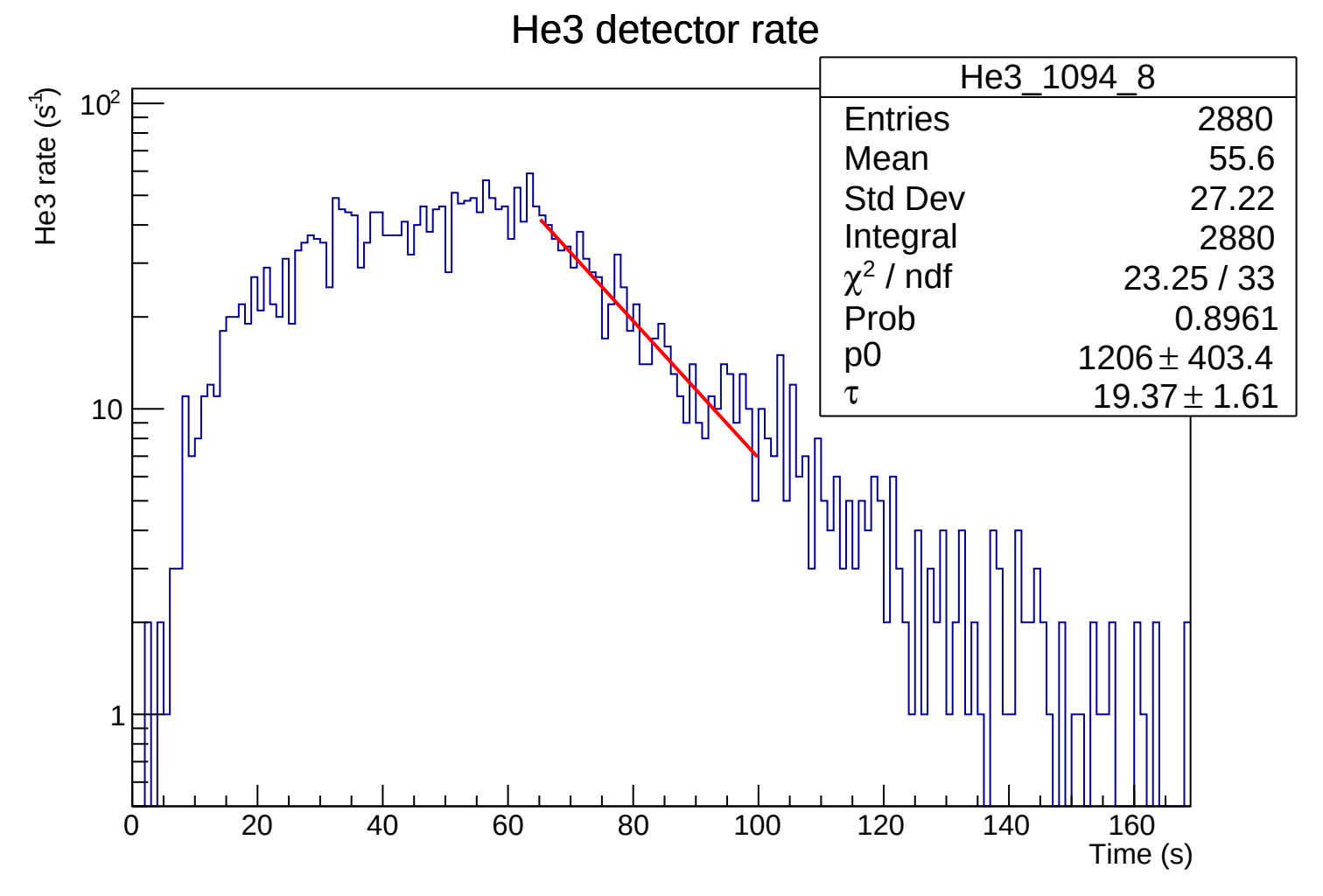

TCN18-266_0A (single exponential fit, with background subtracted, normalized to monitor detector, 0s excluded)
χ² / ndf 17.1 / 10
Prob 0.07223
p0 0.5023 ± 0.03572
τ 3.028 ± 0.1996
UCN-count-to-monitor ratio
10⁻¹
10⁻²
10⁻³
0
5
10
15
20
25
30
35
40
Storage time (s)

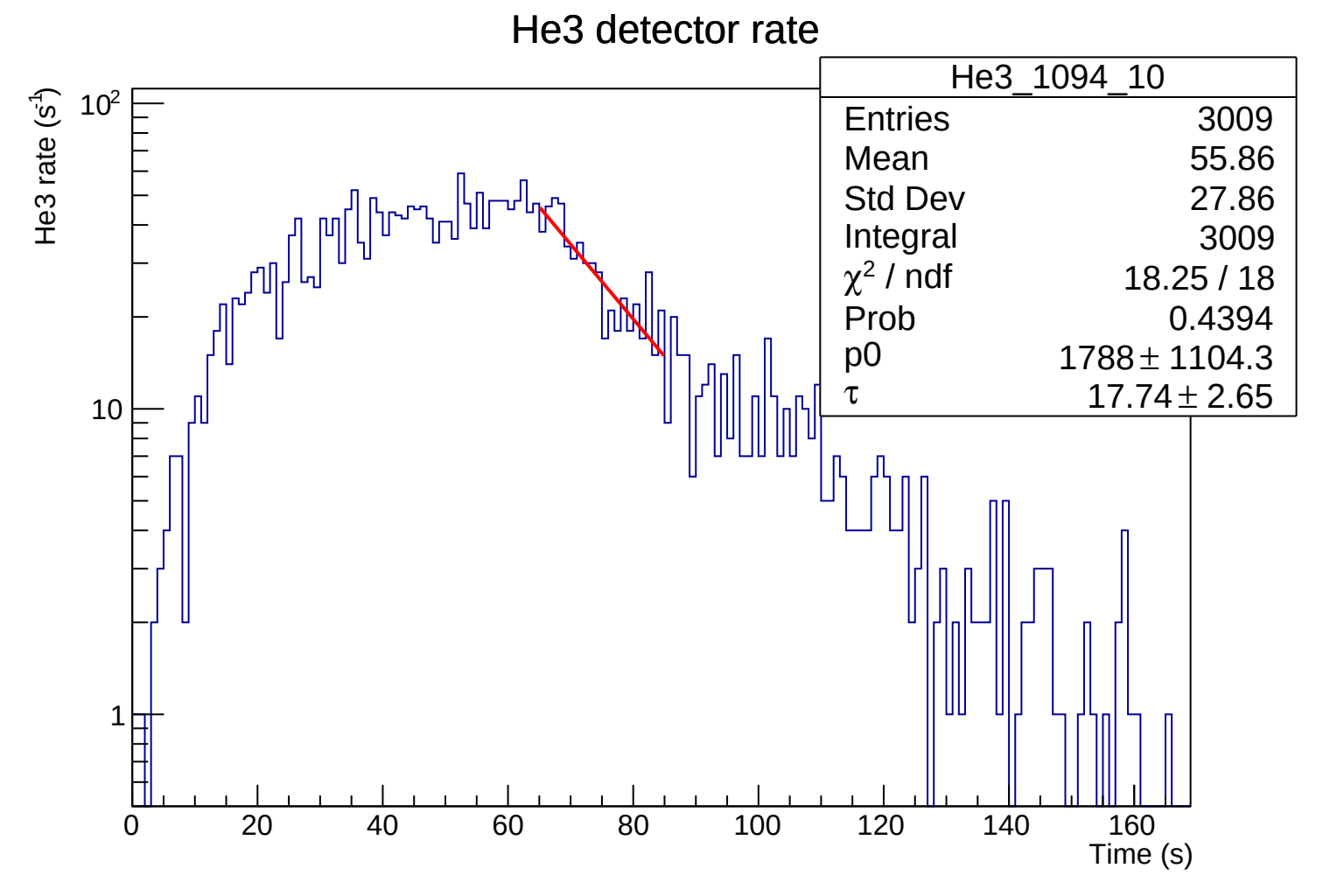

TCN18-266_0A (double exponential fit, with background subtracted, normalized to monitor detector)
χ² / ndf 17.16 / 10
Prob 0.07086
N1 0.5023 ± 0.03538
τ1 3.028 ± 0.1982
N2 0.006894 ± 0.05368
τ2 0.1747 ± 146.7
UCN-count-to-monitor ratio
10⁻¹
10⁻²
10⁻³
0
5
10
15
20
25
30
35
40
Storage time (s)


TCN18-266_0A (single exponential fit + background, unnormalized)
χ² / ndf 13.51 / 11
Prob 0.2611
p0 915.7 ± 21.6
τ 3.048 ± 0.1208
Background 120.5 ± 4.583
UCN count
10³
10²
0
5
10
15
20
25
30
35
40
Storage time (s)


He3 detector rate
He3_1094_1
Entries 3010
Mean 54.85
Std Dev 27.61
Integral 3009
χ² / ndf 45.08 / 33
Prob 0.07838
p0 903 ± 288.1
τ 20.68 ± 1.74
He3 rate (s⁻¹)
10²
10
1
0
20
40
60
80
100
120
140
160
Time (s)


He3 detector rate
He3_1094_3
Entries 2933
Mean 54.83
Std Dev 26.95
Integral 2932
χ² / ndf 18.32 / 18
Prob 0.4351
p0 926.6 ± 527.5
τ 20.72 ± 3.32
He3 rate (s⁻¹)
10²
10
1
0
20
40
60
80
100
120
140
160
Time (s)


He3 detector rate
He3_1094_8
Entries 2880
Mean 55.6
Std Dev 27.22
Integral 2880
χ² / ndf 23.25 / 33
Prob 0.8961
p0 1206 ± 403.4
τ 19.37 ± 1.61
He3 rate (s⁻¹)
10²
10
1
0
20
40
60
80
100
120
140
160
Time (s)


He3 detector rate
He3_1094_10
Entries 3009
Mean 55.86
Std Dev 27.86
Integral 3009
χ² / ndf 18.25 / 18
Prob 0.4394
p0 1788 ± 1104.3
τ 17.74 ± 2.65
He3 rate (s⁻¹)
10²
10
1
0
20
40
60
80
100
120
140
160
Time (s)

**Average lifetime from He3 data:**

**$\tau$ = 19.710224404 +/- 1.10842802191 s**