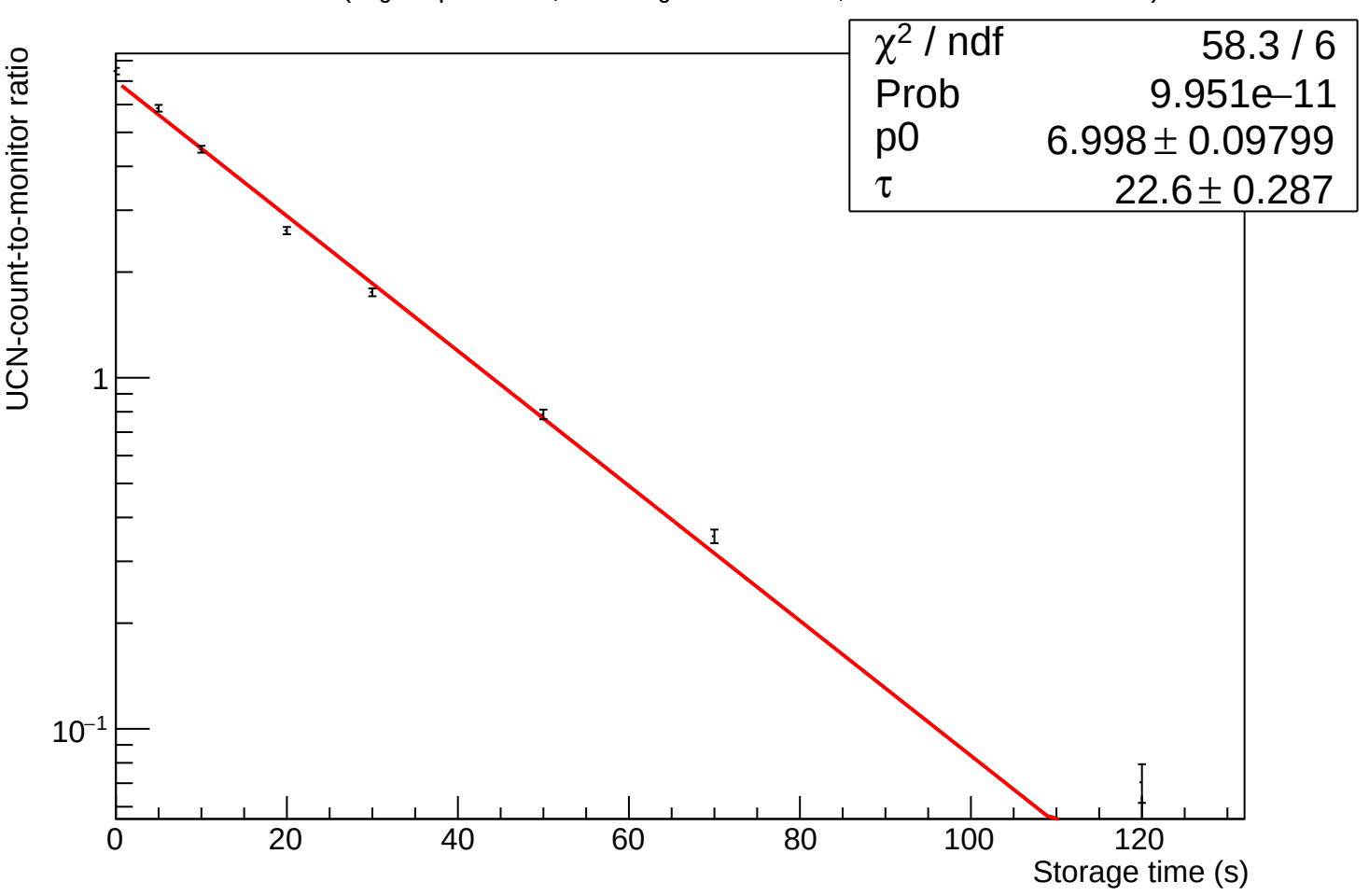
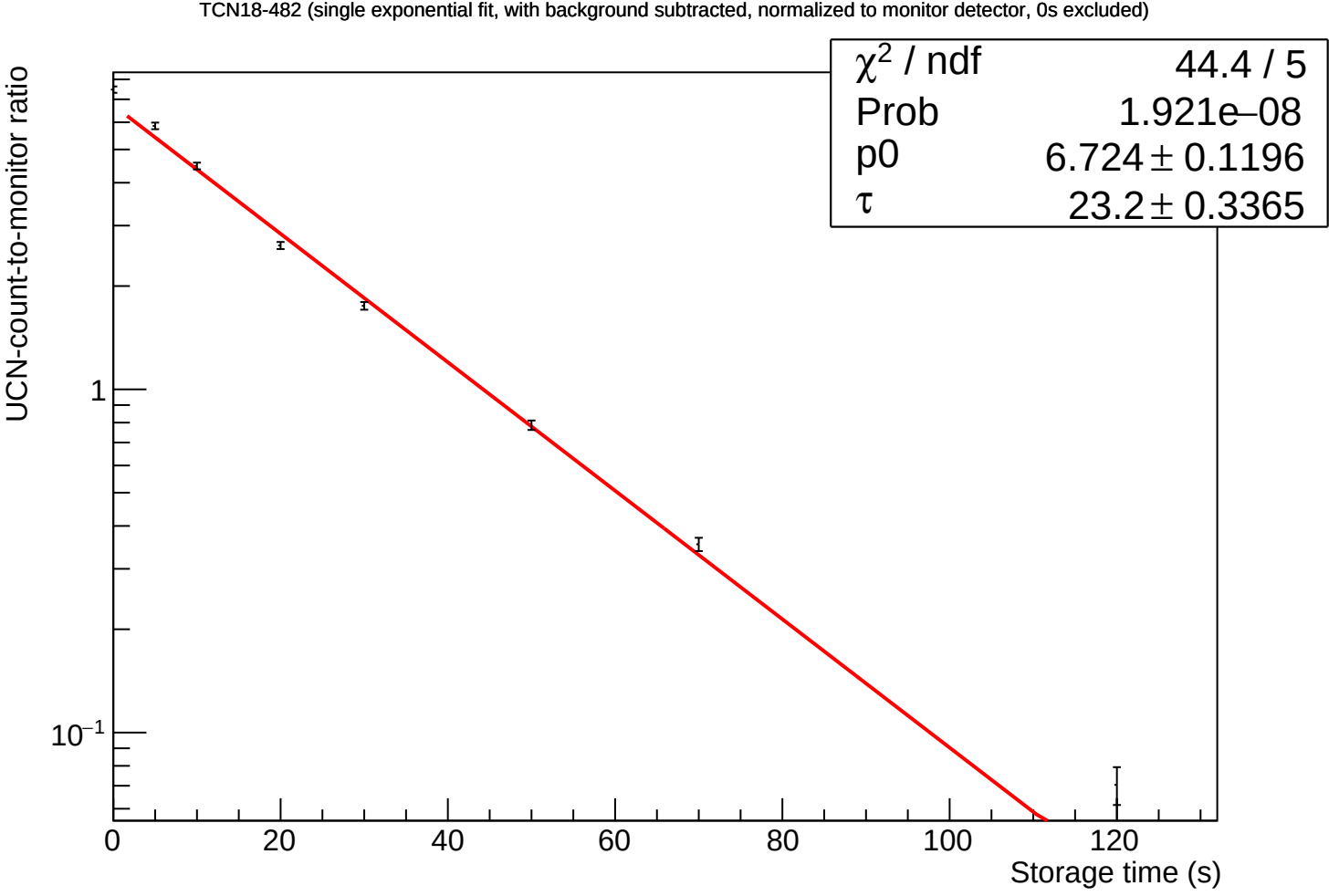
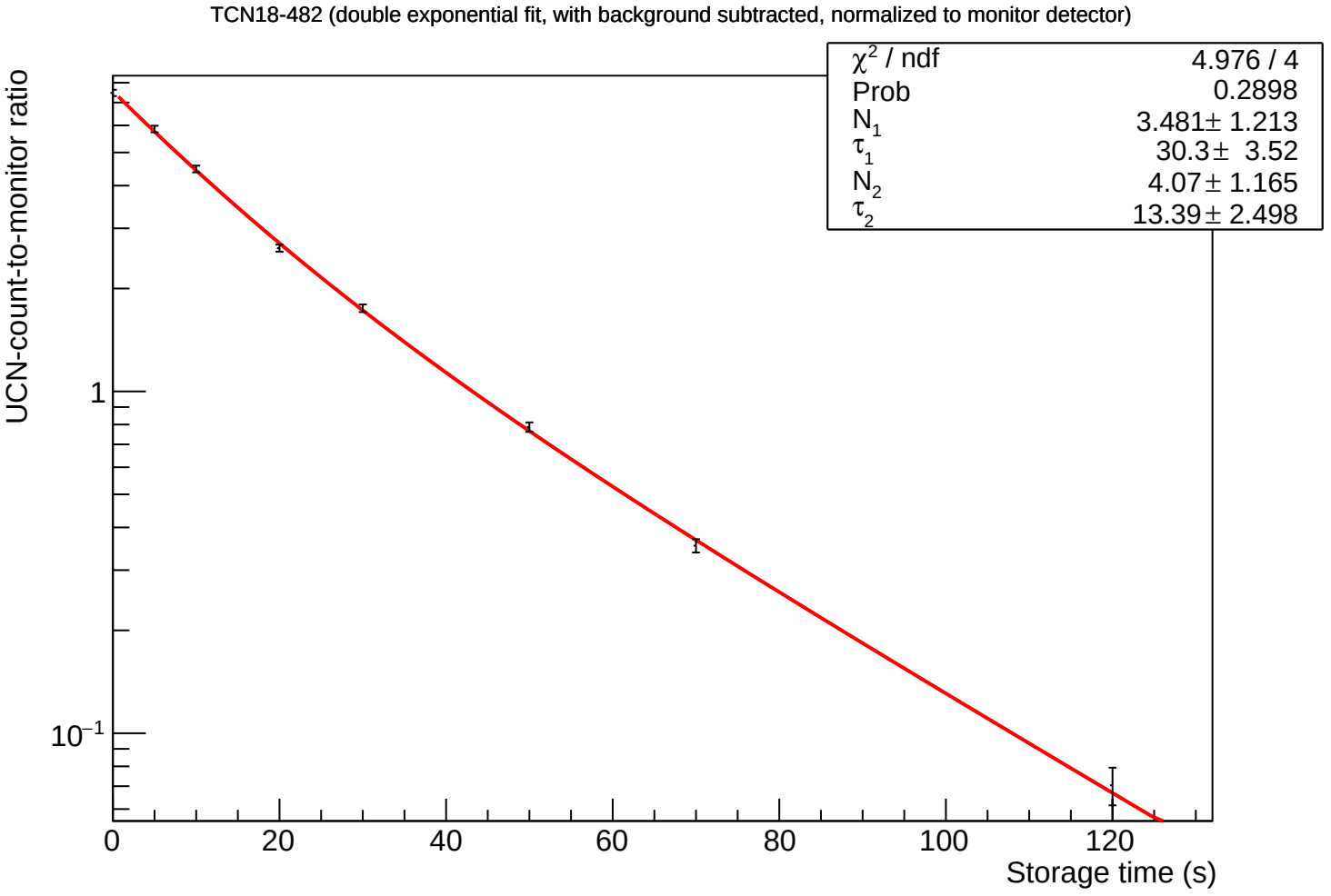
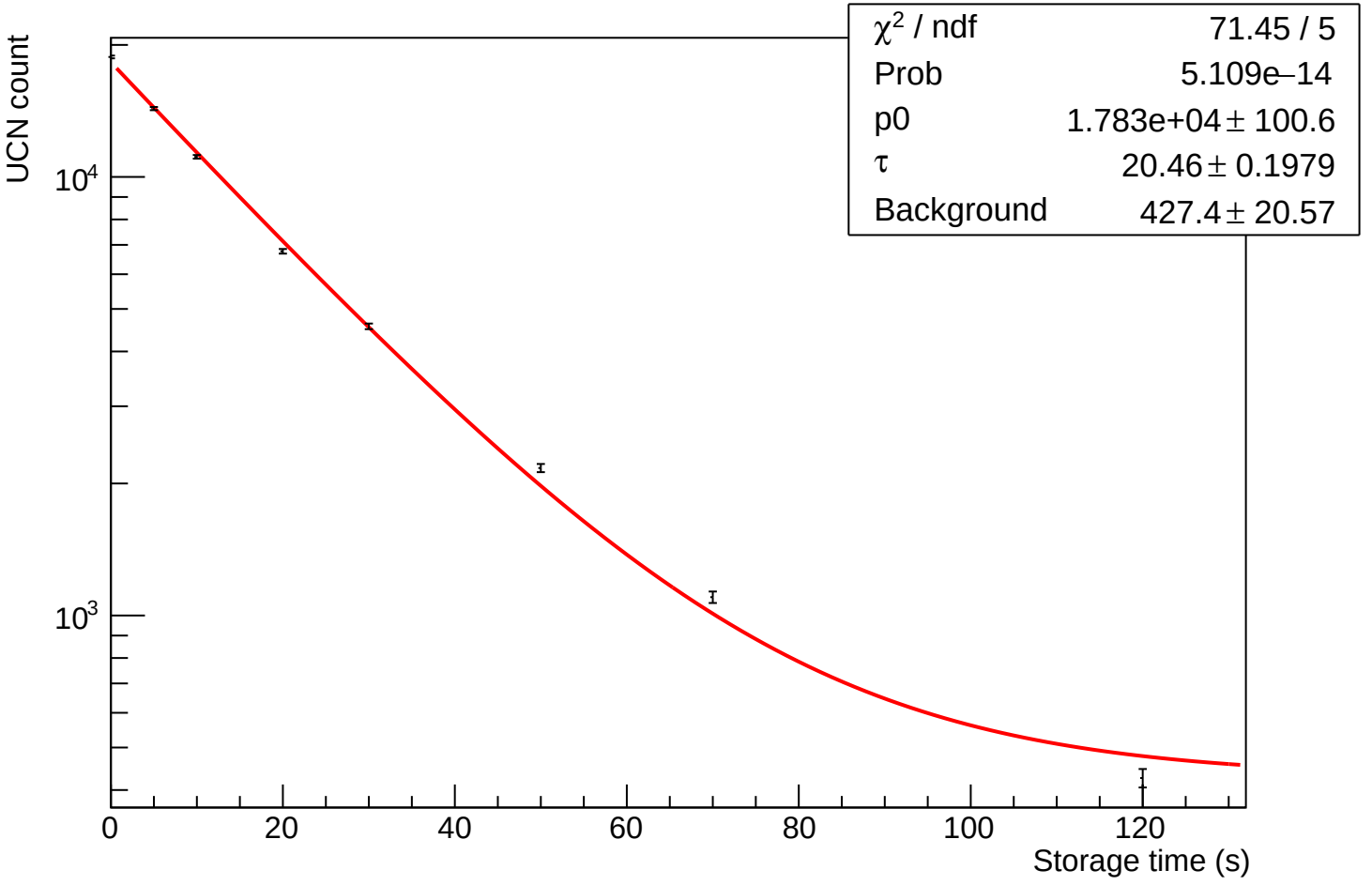
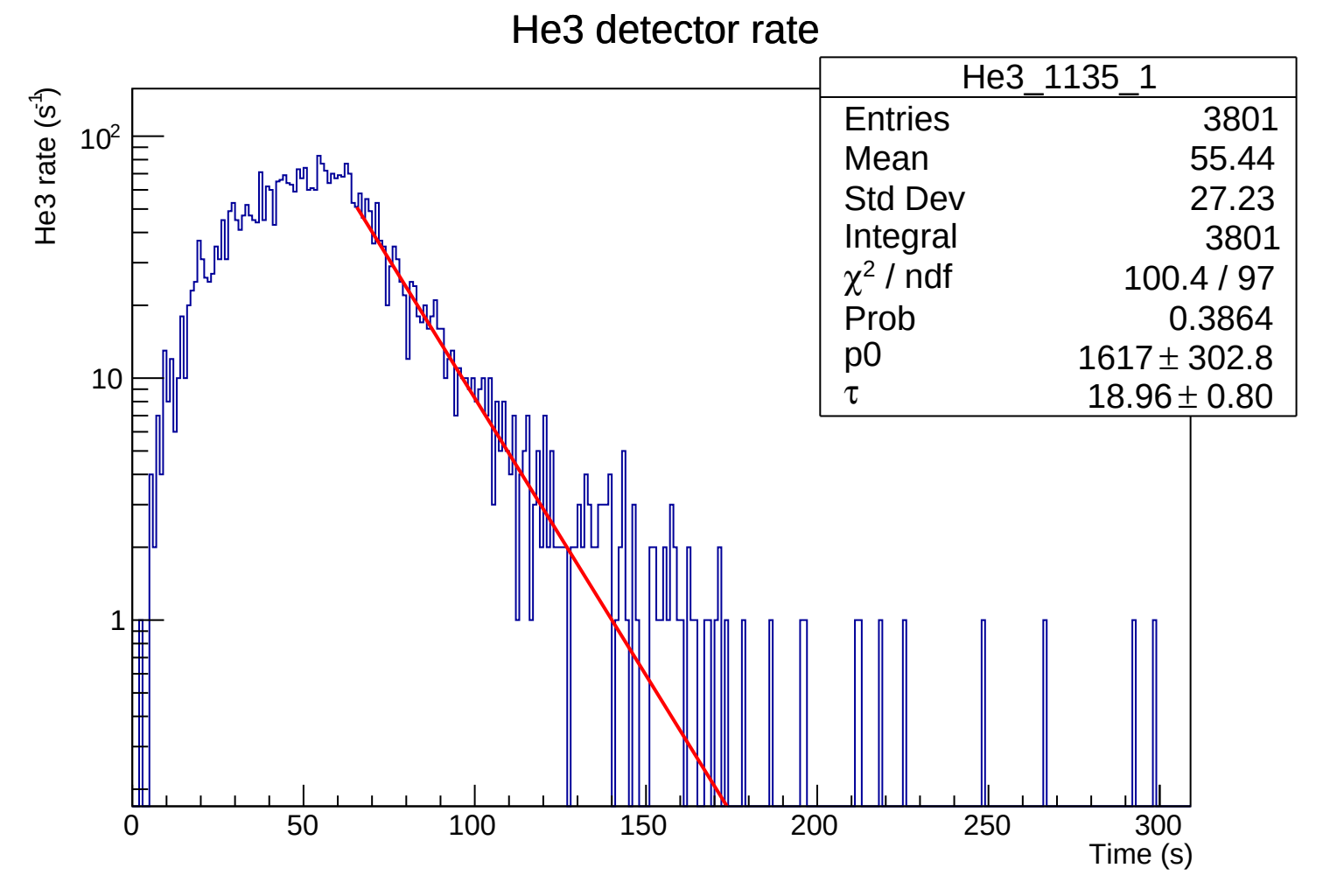
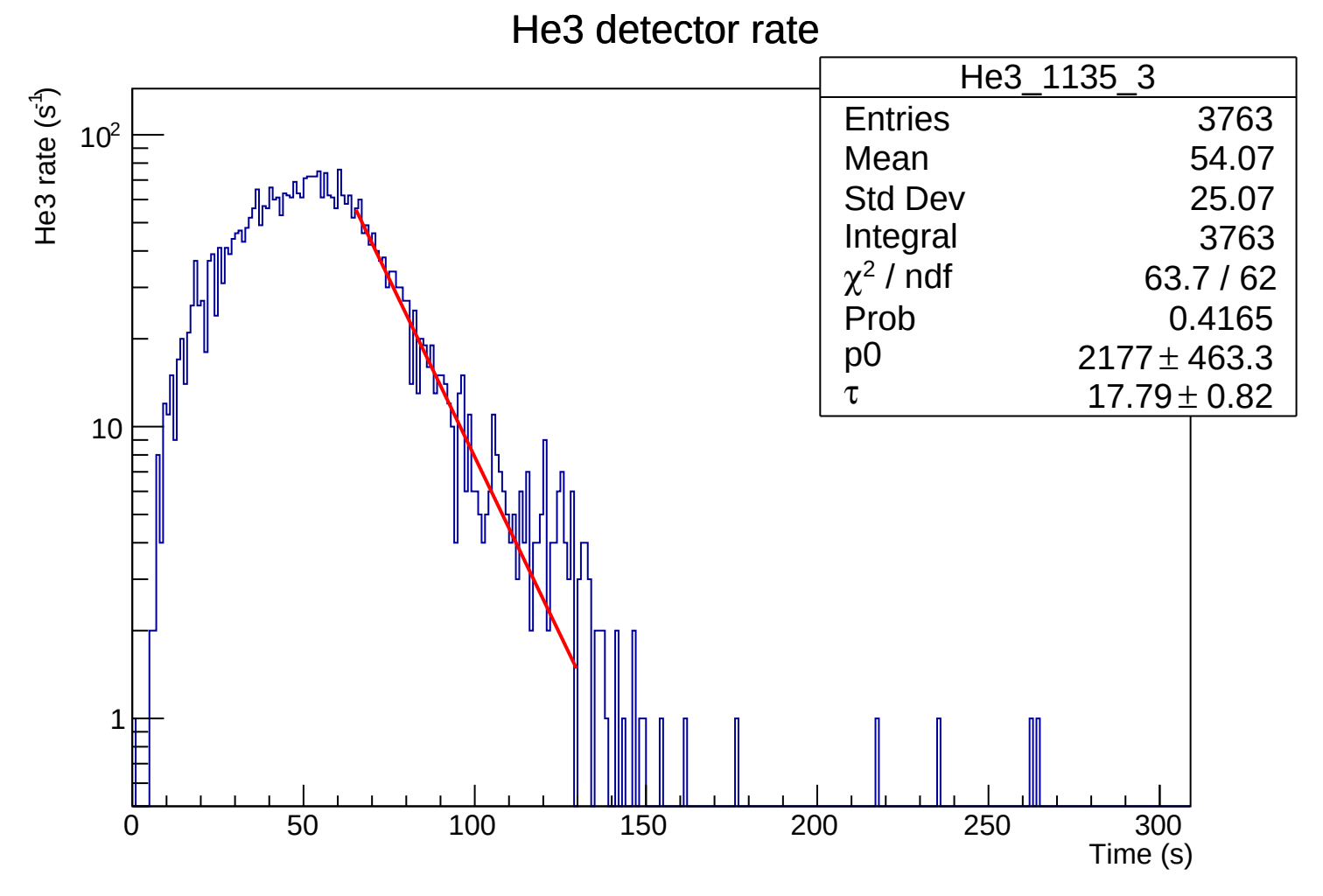

TCN18-482 (single exponential fit, with background subtracted, normalized to monitor detector)
χ² / ndf 58.3 / 6
Prob 9.951e−11
p0 6.998 ± 0.09799
τ 22.6 ± 0.287
UCN-count-to-monitor ratio
1
10⁻¹
0
20
40
60
80
100
120
Storage time (s)

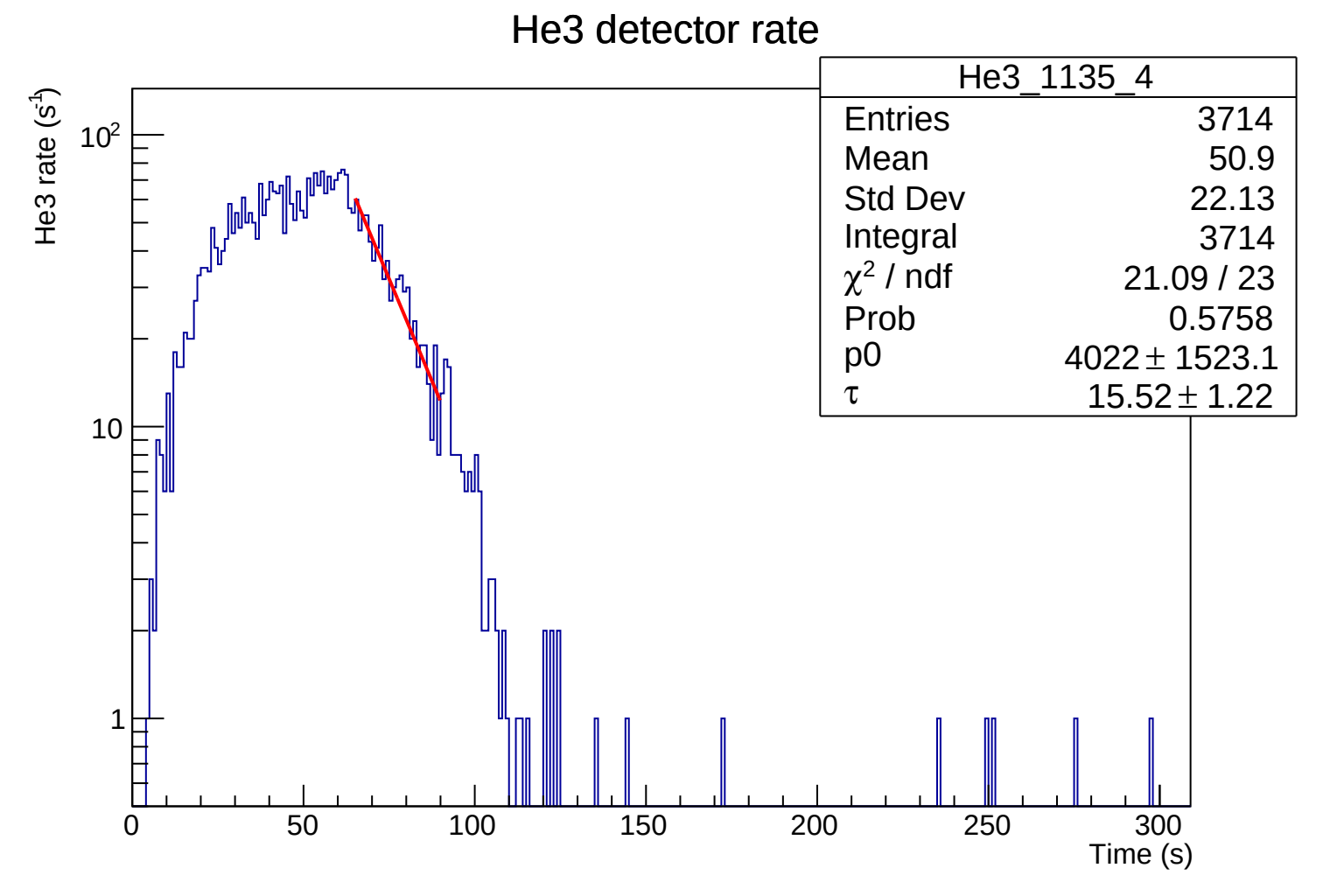

TCN18-482 (single exponential fit, with background subtracted, normalized to monitor detector, 0s excluded)
χ² / ndf 44.4 / 5
Prob 1.921e−08
p0 6.724 ± 0.1196
τ 23.2 ± 0.3365
UCN-count-to-monitor ratio
1
10⁻¹
0
20
40
60
80
100
120
Storage time (s)

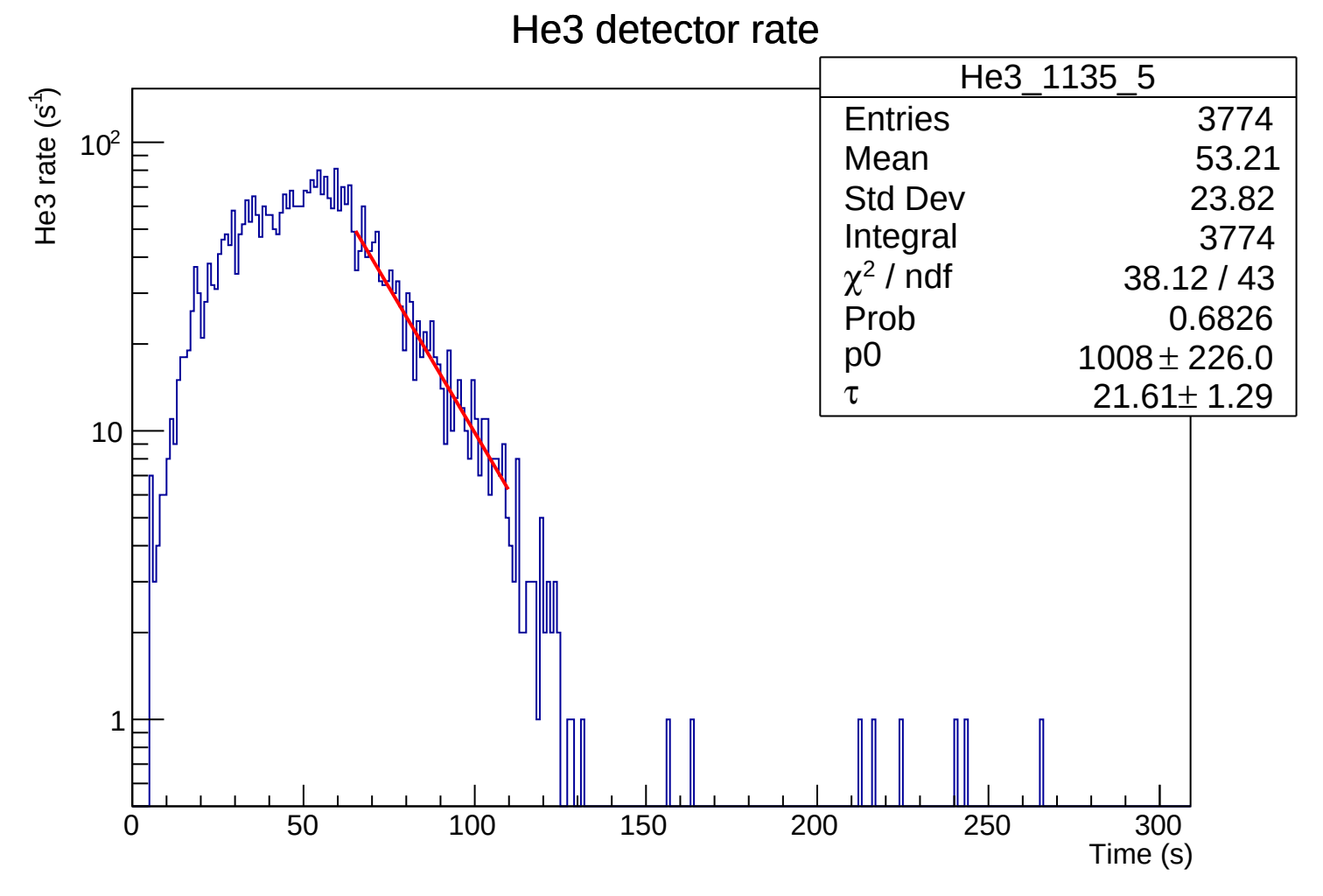

TCN18-482 (double exponential fit, with background subtracted, normalized to monitor detector)
χ² / ndf 4.976 / 4
Prob 0.2898
N1 3.481± 1.213
τ1 30.3± 3.52
N2 4.07± 1.165
τ2 13.39± 2.498
UCN-count-to-monitor ratio
1
10⁻¹
0
20
40
60
80
100
120
Storage time (s)

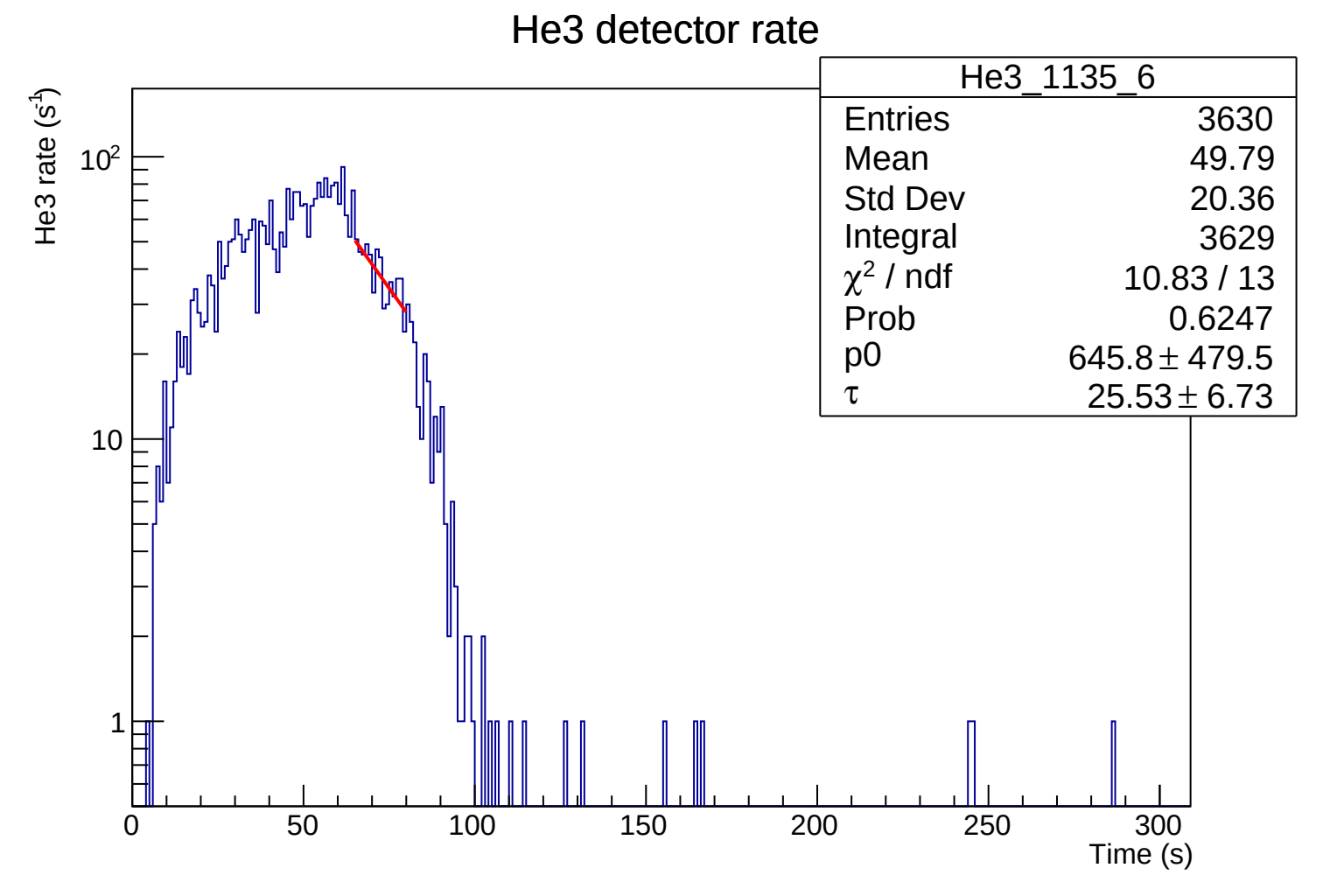

TCN18-482 (single exponential fit + background, unnormalized)
χ² / ndf 71.45 / 5
Prob 5.109e−14
p0 1.783e+04 ± 100.6
τ 20.46 ± 0.1979
Background 427.4 ± 20.57
UCN count
10⁴
10³
0
20
40
60
80
100
120
Storage time (s)


He3 detector rate
He3_1135_1
Entries 3801
Mean 55.44
Std Dev 27.23
Integral 3801
χ² / ndf 100.4 / 97
Prob 0.3864
p0 1617 ± 302.8
τ 18.96 ± 0.80
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)


He3 detector rate
He3_1135_3
Entries 3763
Mean 54.07
Std Dev 25.07
Integral 3763
χ² / ndf 63.7 / 62
Prob 0.4165
p0 2177 ± 463.3
τ 17.79 ± 0.82
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)


He3 detector rate
He3_1135_4
Entries 3714
Mean 50.9
Std Dev 22.13
Integral 3714
χ² / ndf 21.09 / 23
Prob 0.5758
p0 4022 ± 1523.1
τ 15.52 ± 1.22
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)


He3 detector rate
He3_1135_5
Entries 3774
Mean 53.21
Std Dev 23.82
Integral 3774
χ² / ndf 38.12 / 43
Prob 0.6826
p0 1008 ± 226.0
τ 21.61 ± 1.29
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)


He3 detector rate
He3_1135_6
Entries 3630
Mean 49.79
Std Dev 20.36
Integral 3629
χ² / ndf 10.83 / 13
Prob 0.6247
p0 645.8 ± 479.5
τ 25.53 ± 6.73
He3 rate (s⁻¹)
10²
10
1
0
50
100
150
200
250
300
Time (s)

Average lifetime from He3 data:

τ = 18.4283022765 +/- 0.0528471850056 s