

UCN-count-to-monitor ratio

χ^2 / ndf	8.797 / 6
Prob	0.1853
p0	12.67 ± 0.1107
τ	40.38 ± 0.3347

10

1

0

20

40

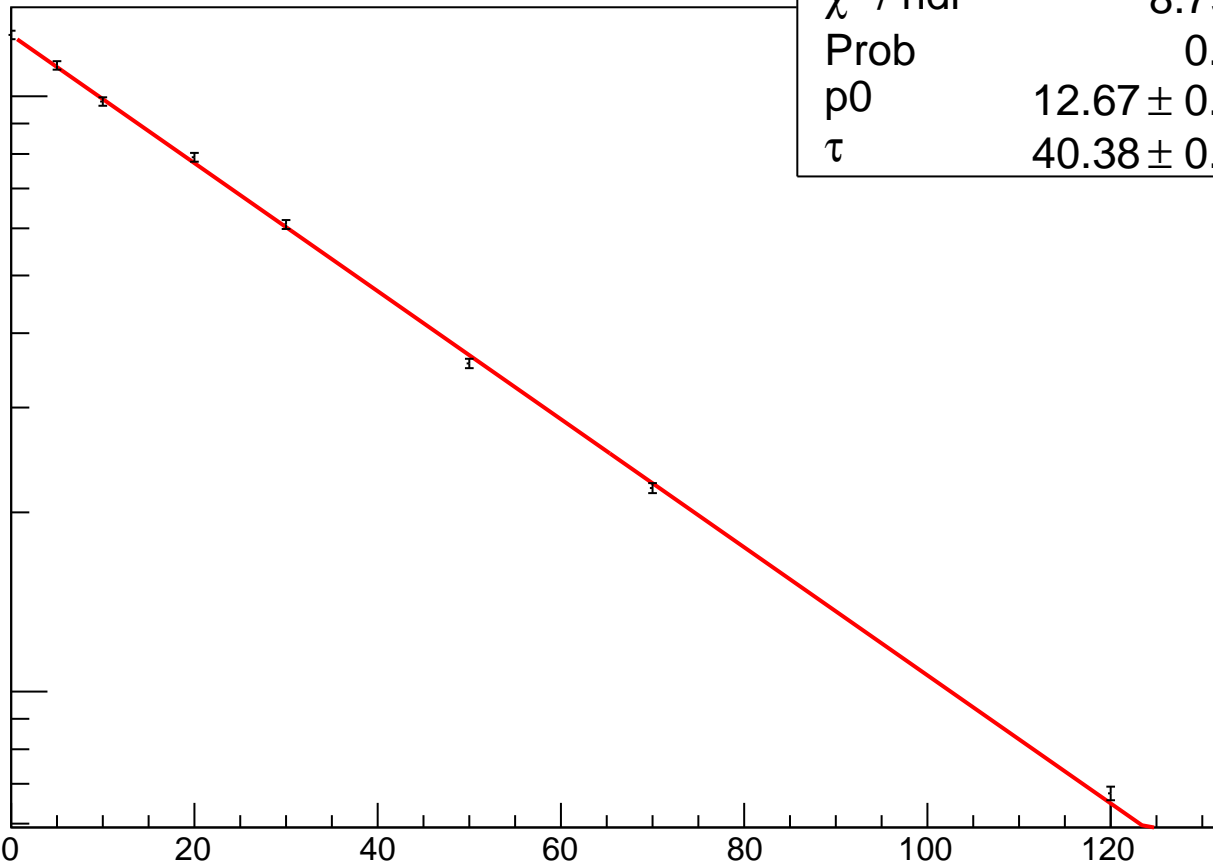
60

80

100

120

Storage time (s)



UCN-count-to-monitor ratio

χ^2 / ndf	8.796 / 5
Prob	0.1175
p0	12.67 ± 0.1306
τ	40.38 ± 0.3648

10

1

0

20

40

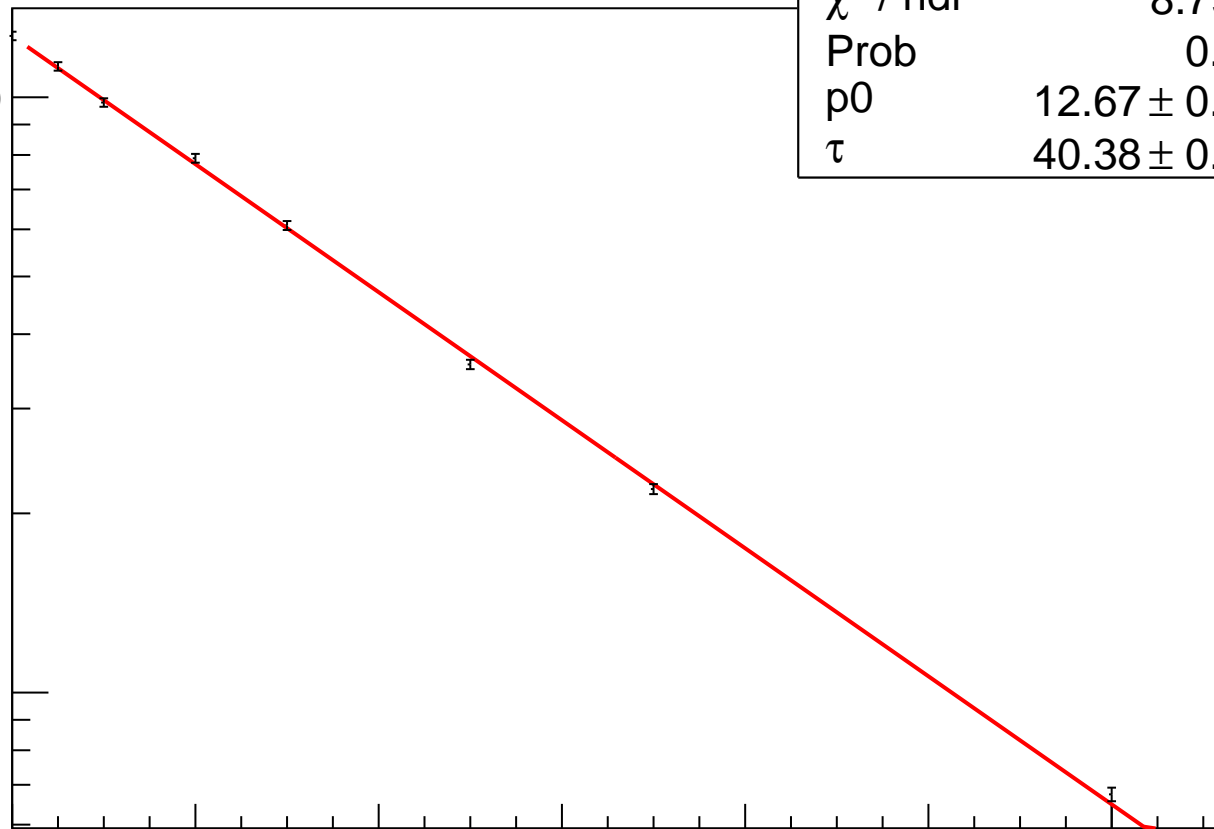
60

80

100

120

Storage time (s)



TCN18-032 (double exponential fit, with background subtracted, normalized to monitor detector)

UCN-count-to-monitor ratio

10

1

0

20

40

60

80

100

120

Storage time (s)

χ^2 / ndf

5.018 / 4

Prob

0.2854

N_1

0.08128 ± 0.04703

τ_1

$1.326\text{e}+04 \pm 7.498\text{e}+05$

N_2

12.71 ± 0.1117

τ_2

39.12 ± 0.7055

TCN18-032 (single exponential fit + background, unnormalized)

UCN count

10^4

0

20

40

60

80

100

120

Storage time (s)

χ^2 / ndf

27.09 / 5

Prob

5.487e-05

p0

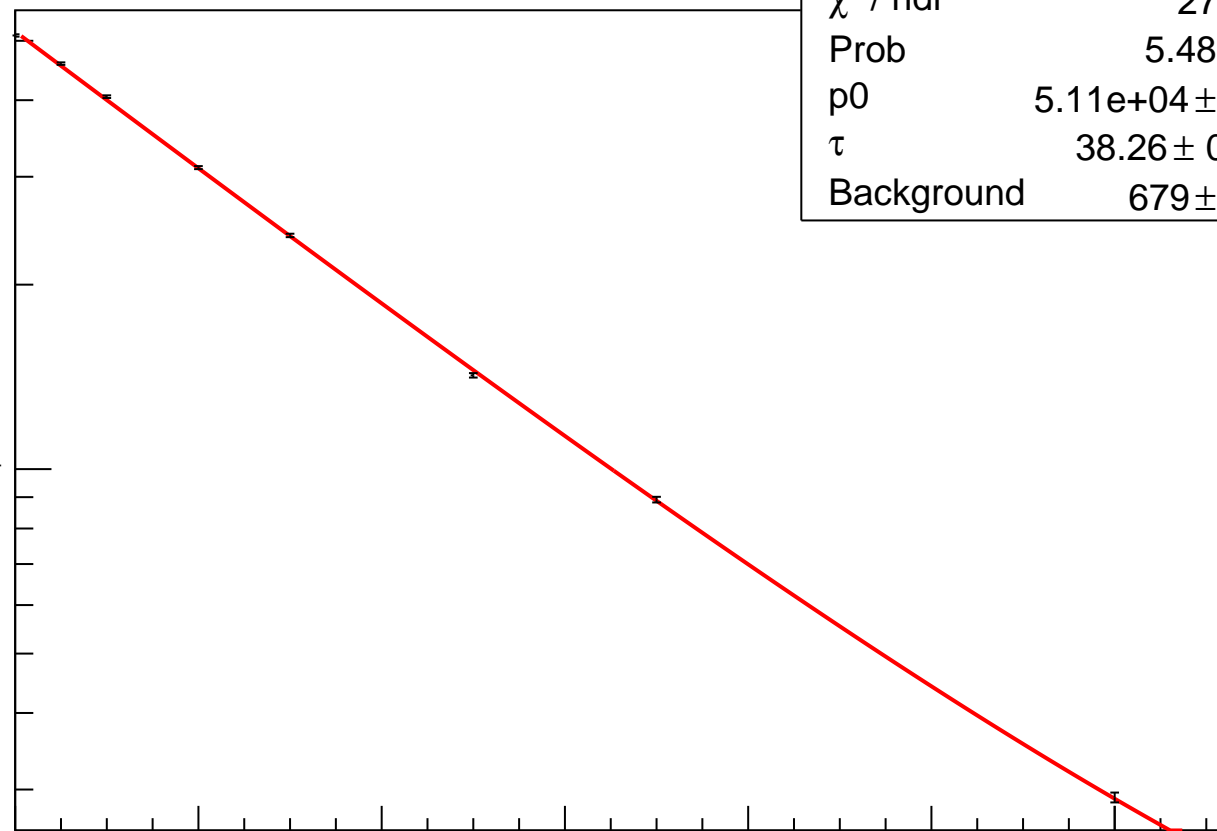
5.11e+04 \pm 147.4

τ

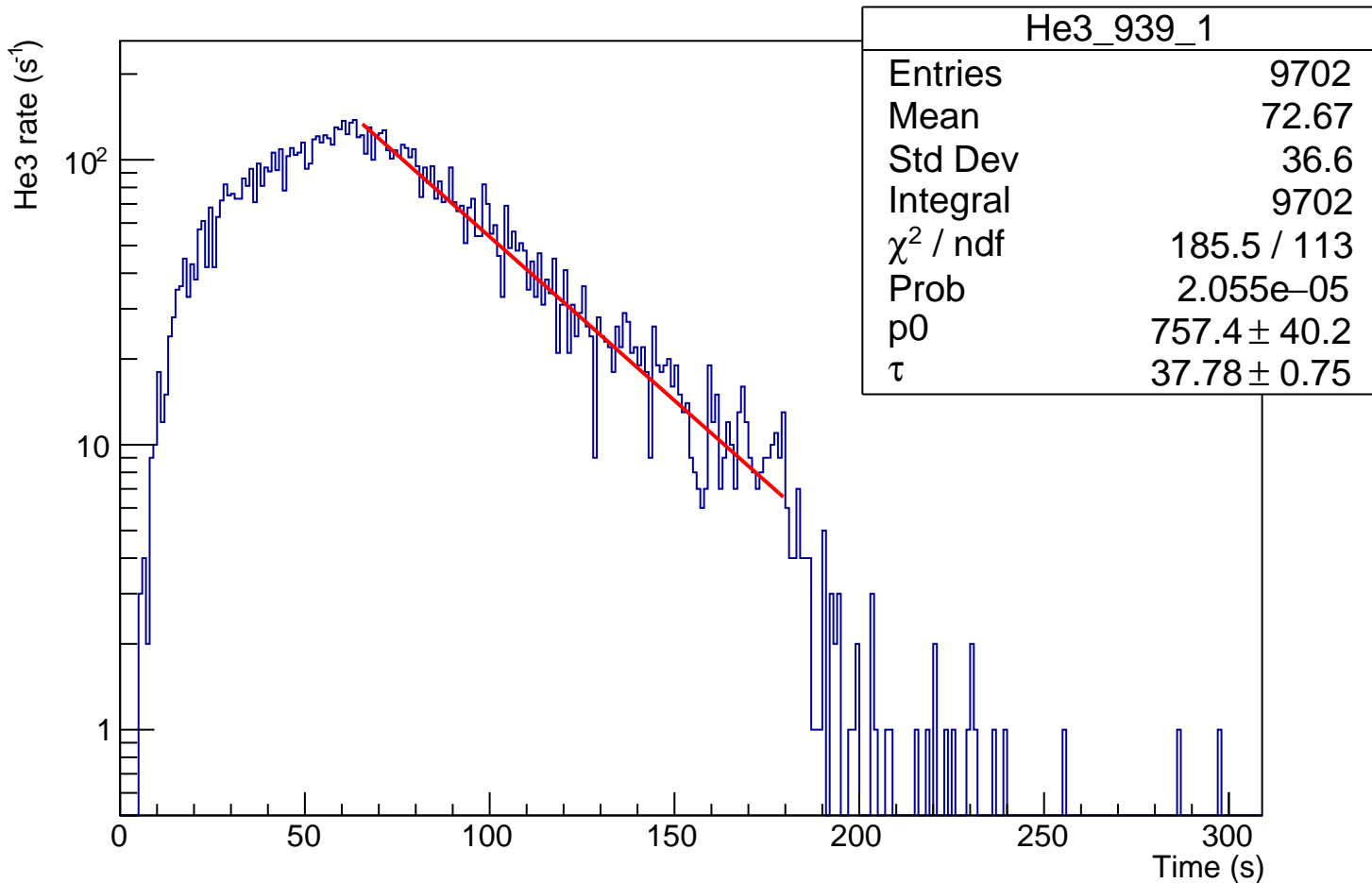
38.26 \pm 0.2978

Background

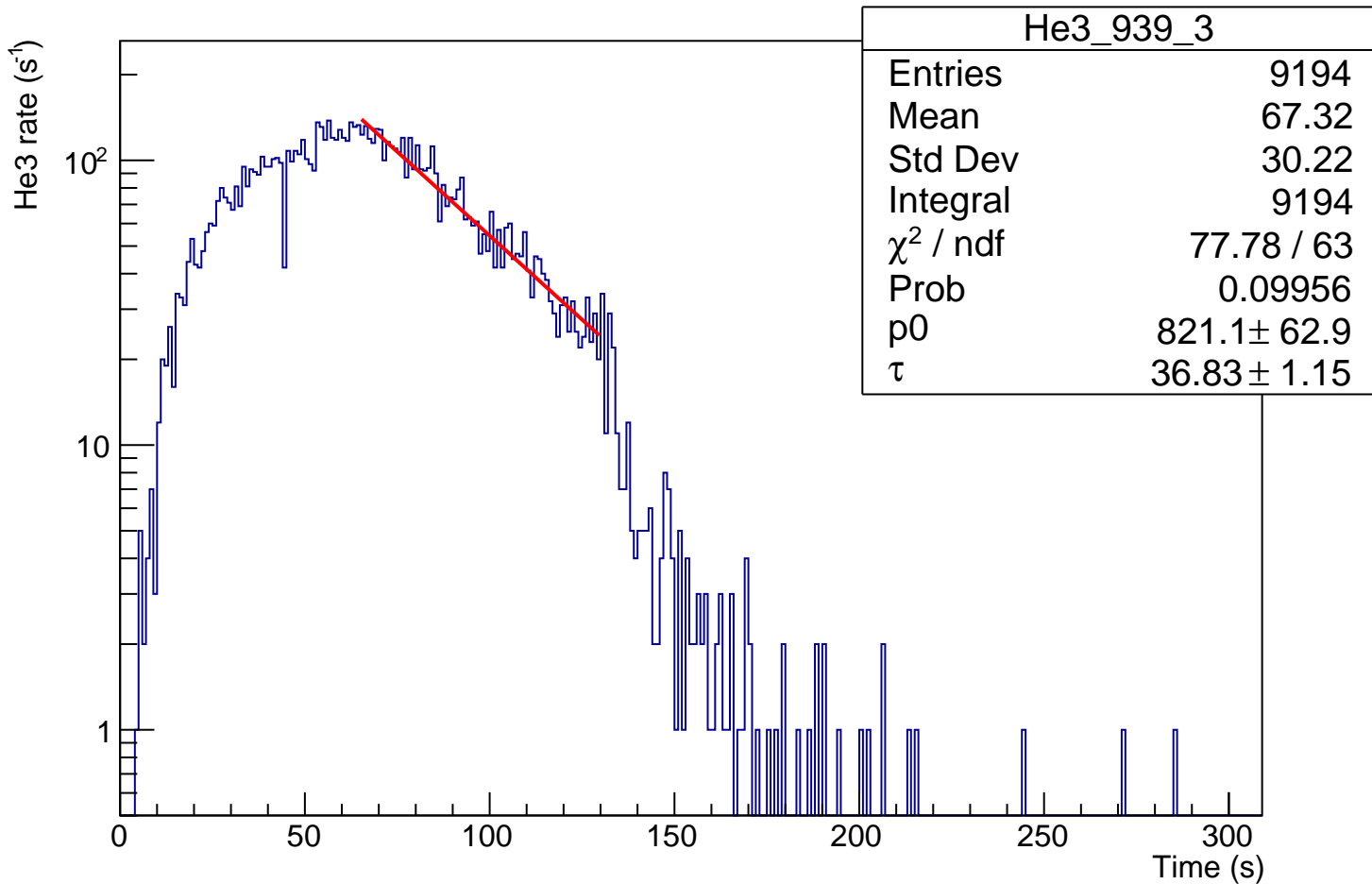
679 \pm 92.34



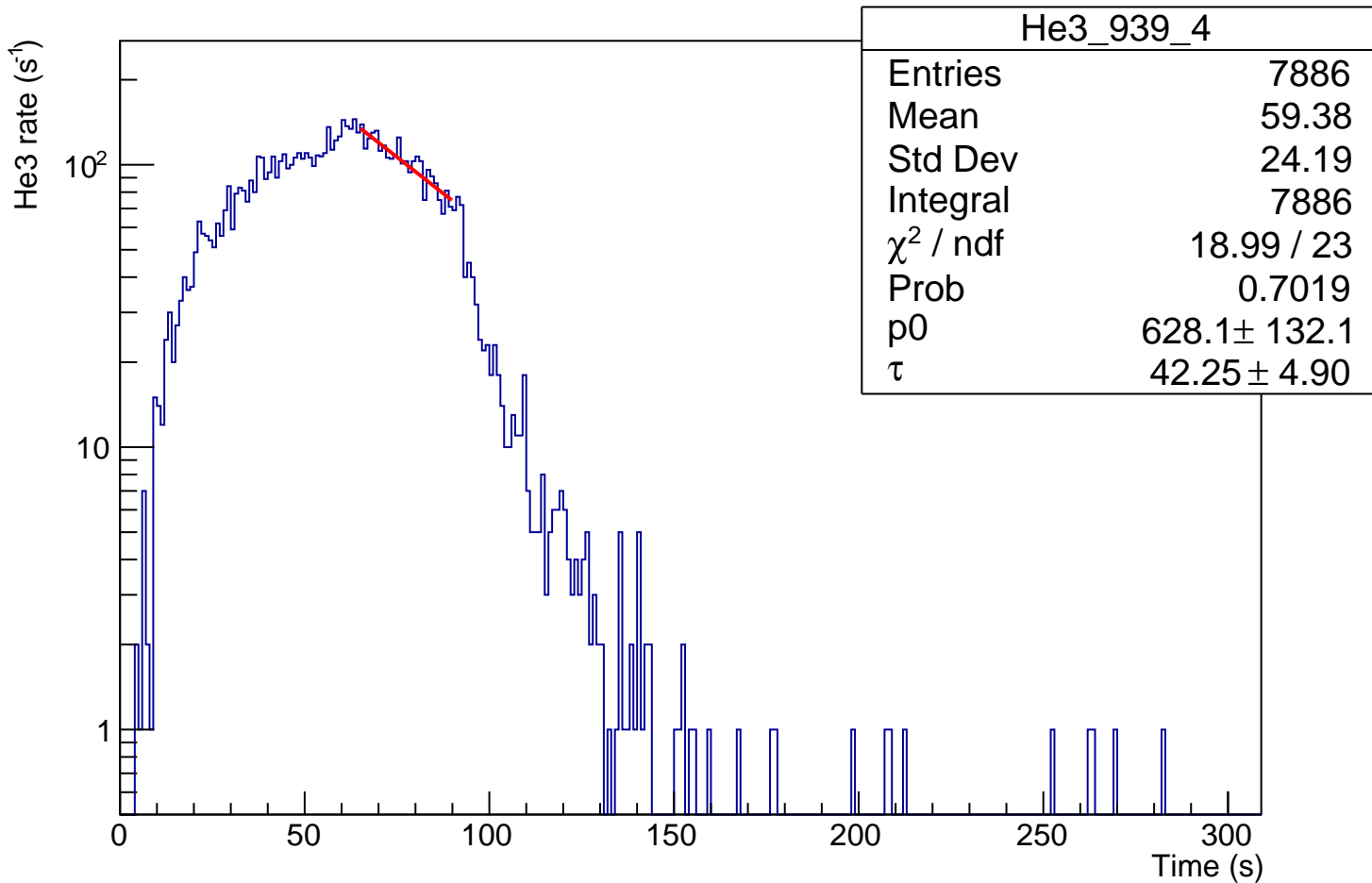
He3 detector rate



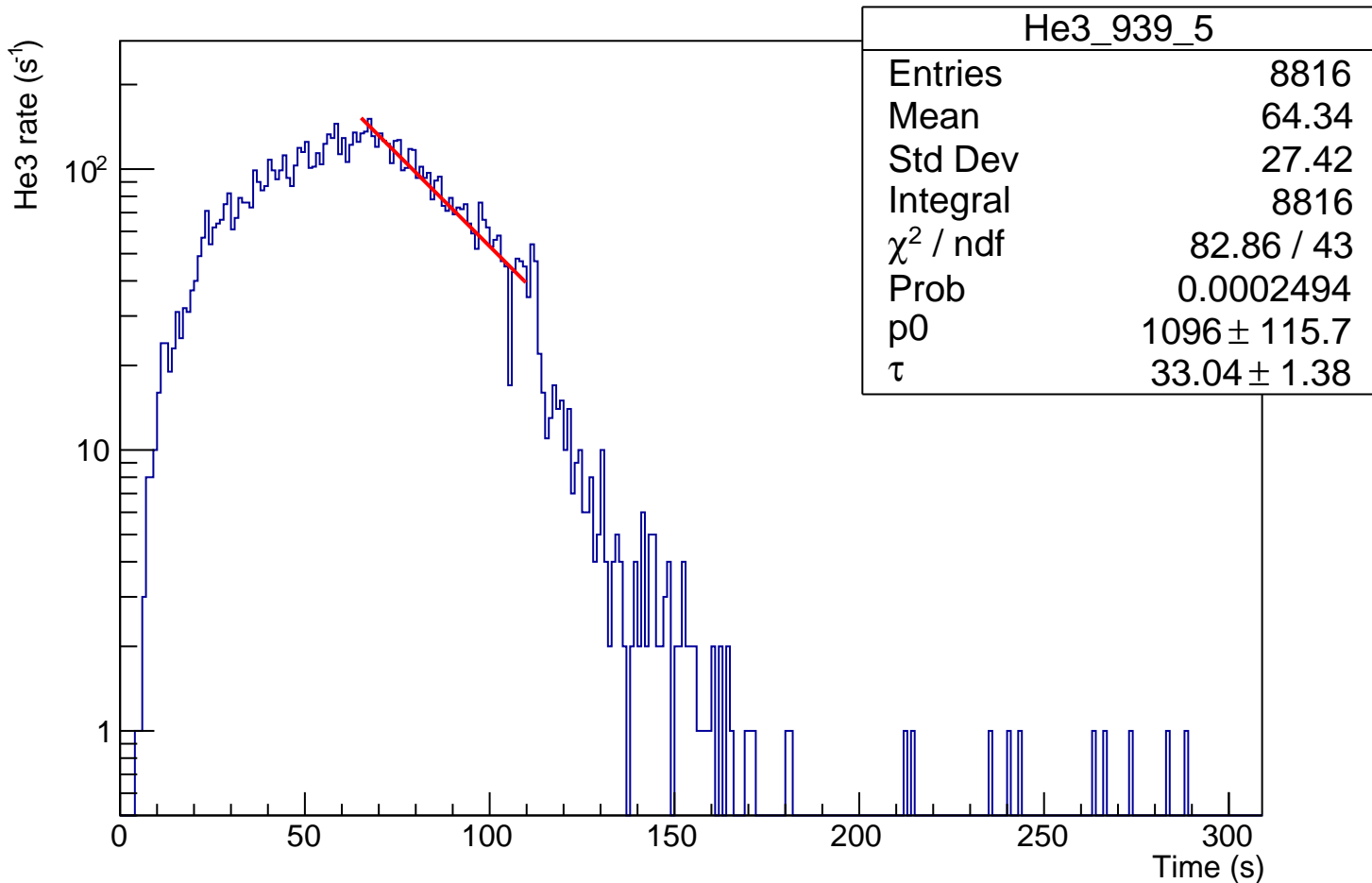
He3 detector rate



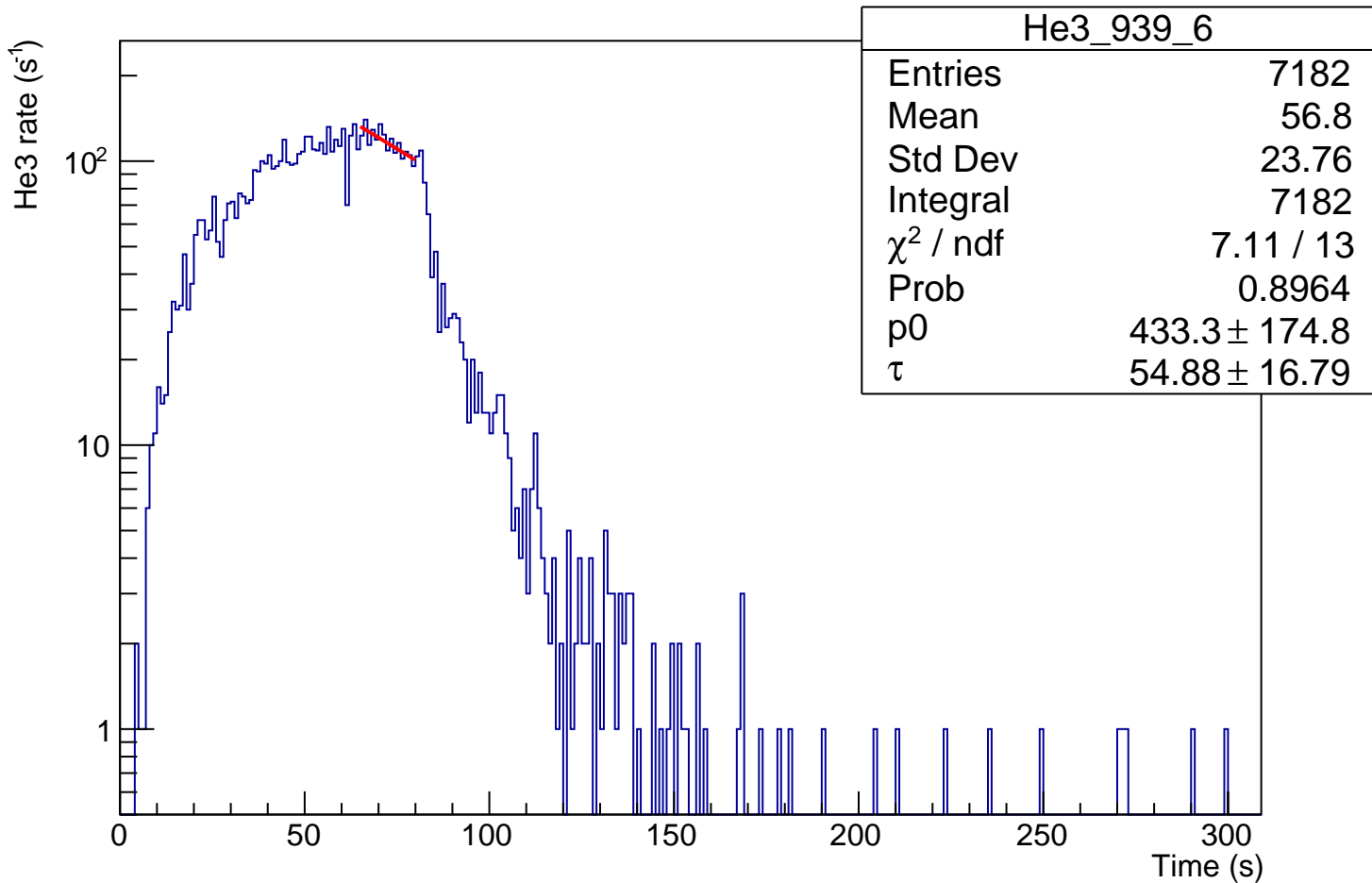
He3 detector rate



He3 detector rate



He3 detector rate



Average lifetime from He3 data:

$$\tau = 36.8249837976 \pm 0.10418422577 \text{ s}$$