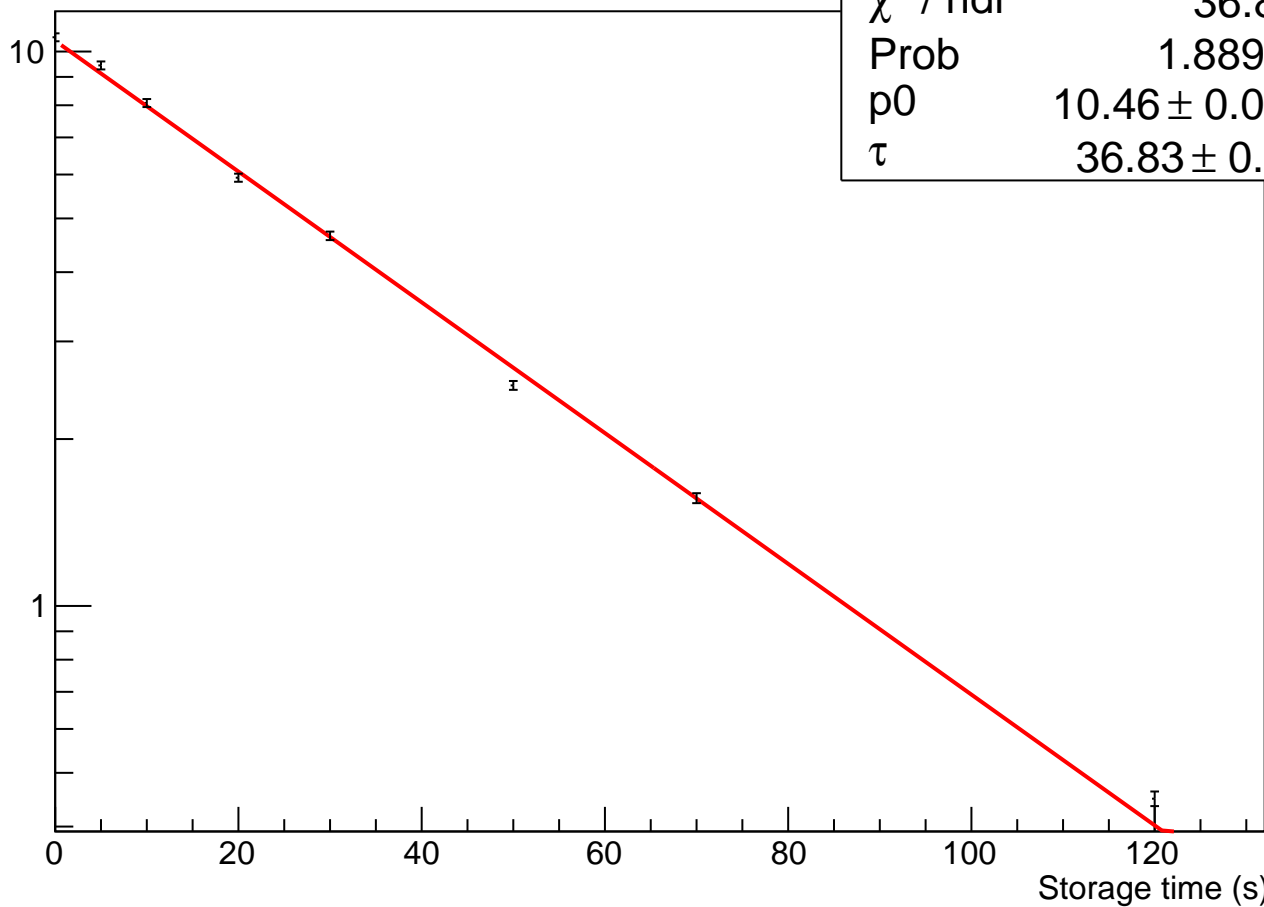


TCN18-025 (single exponential fit, with background subtracted, normalized to monitor detector)

UCN-count-to-monitor ratio

$\chi^2 / \text{ndf}$	36.84 / 6
Prob	1.889e-06
p0	$10.46 \pm 0.09535$
$\tau$	$36.83 \pm 0.3175$



UCN-count-to-monitor ratio

$\chi^2 / \text{ndf}$	35.74 / 5
Prob	1.072e-06
p0	$10.39 \pm 0.1132$
$\tau$	$36.98 \pm 0.3508$

10

1

0

20

40

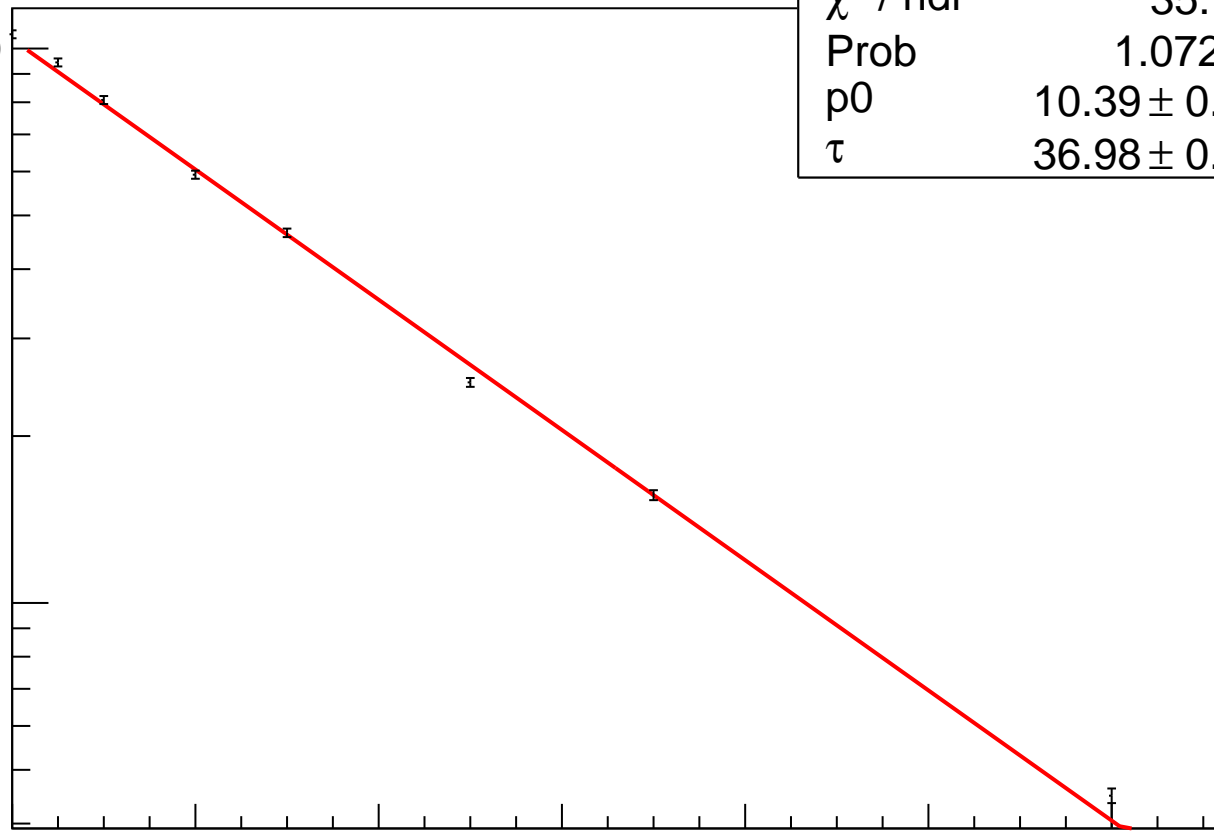
60

80

100

120

Storage time (s)



TCN18-025 (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)

$\chi^2 / \text{ndf}$

11.08 / 4

Prob

0.02571

$N_1$

$2.302 \pm 0.6565$

$\tau_1$

$58 \pm 5.473$

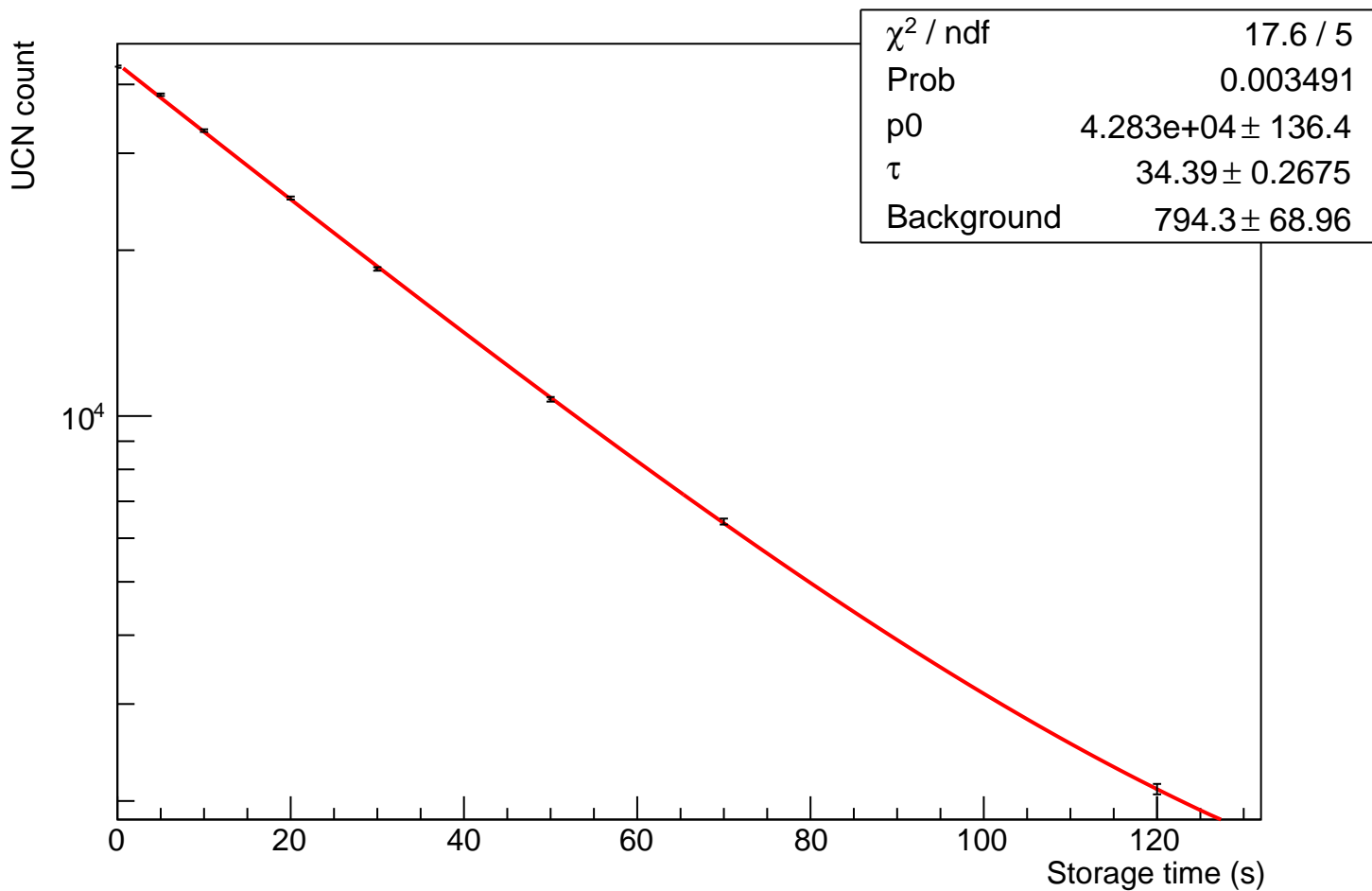
$N_2$

$8.474 \pm 0.6542$

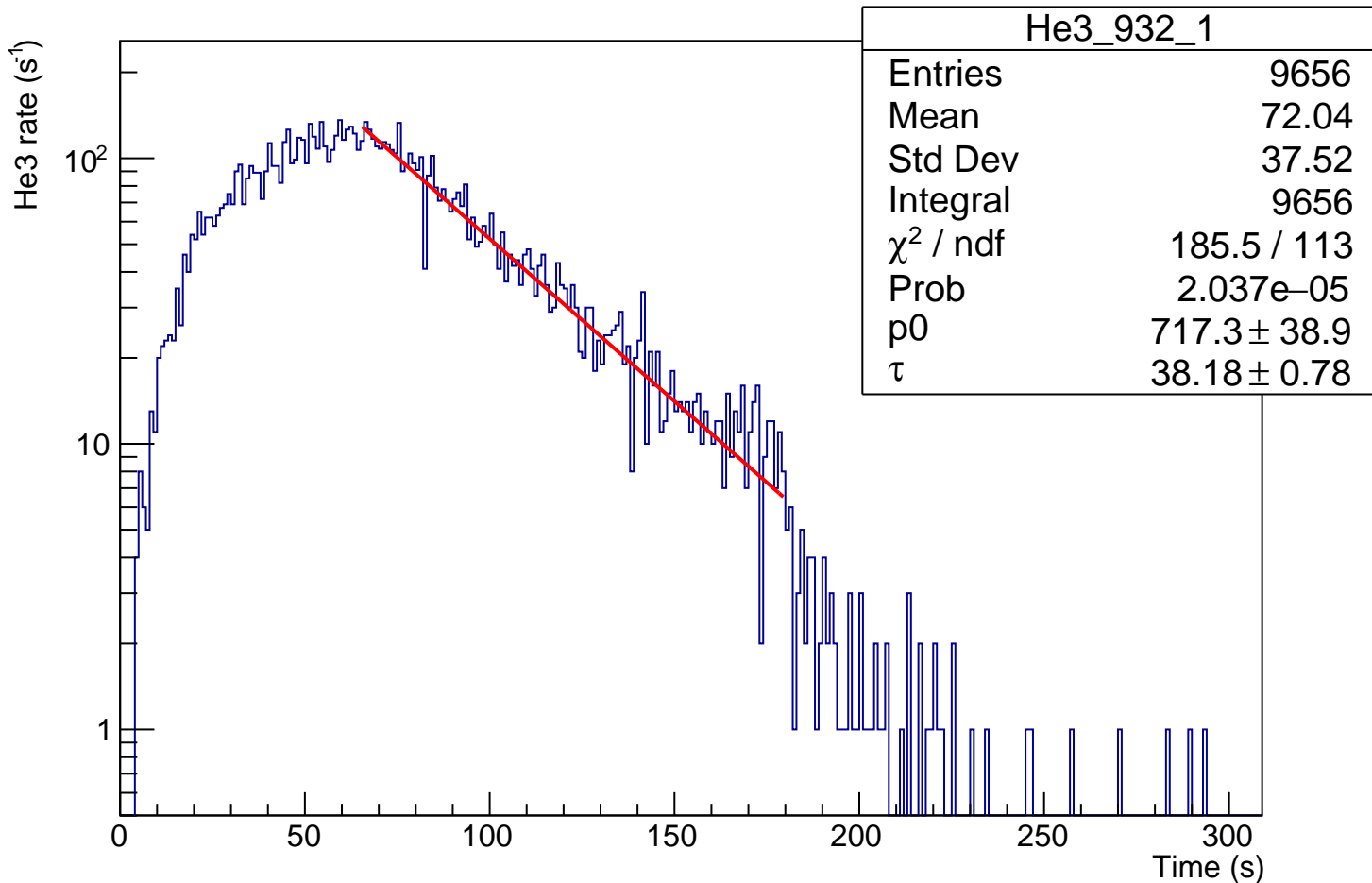
$\tau_2$

$30.24 \pm 1.183$

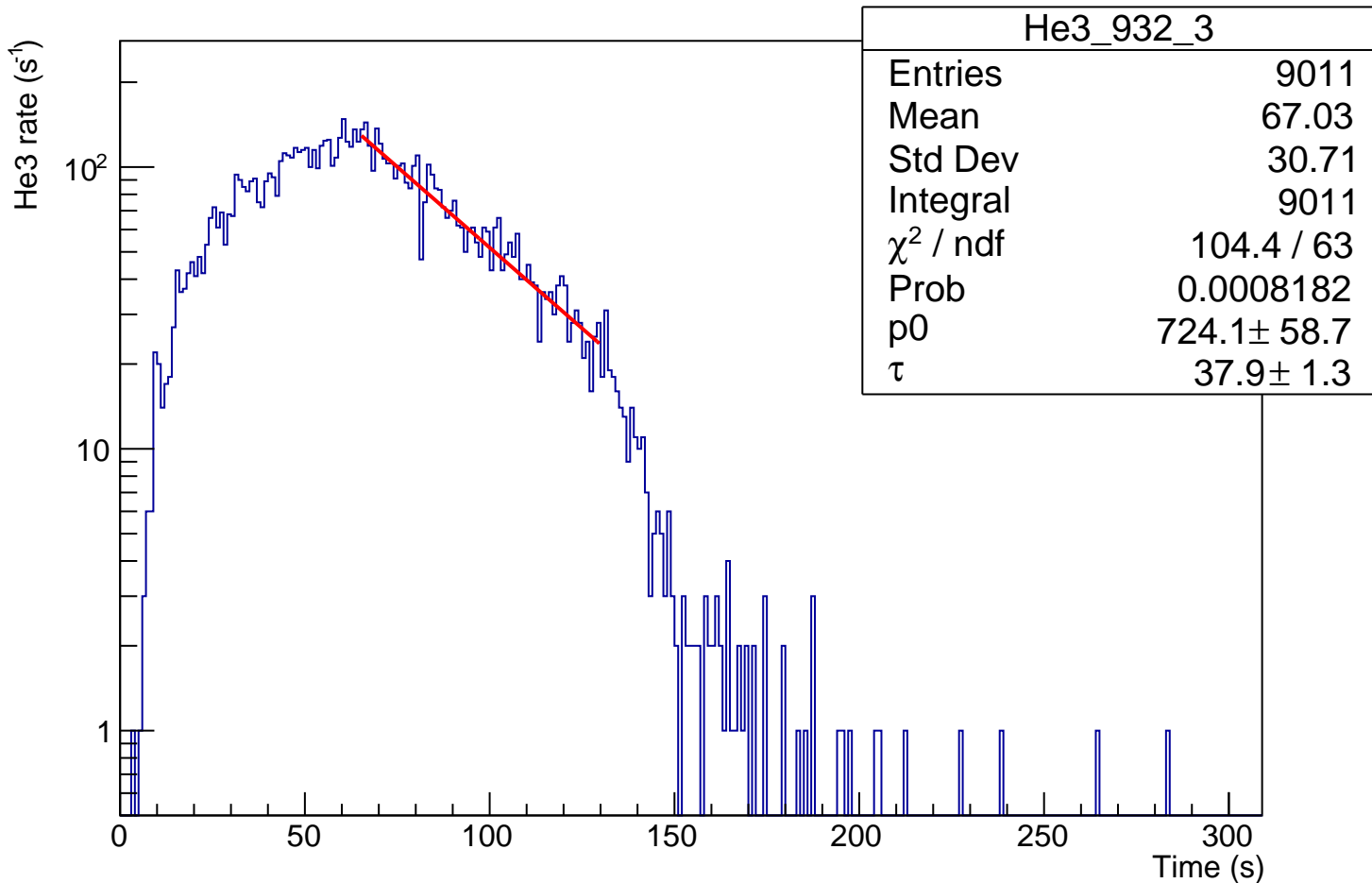
TCN18-025 (single exponential fit + background, unnormalized)



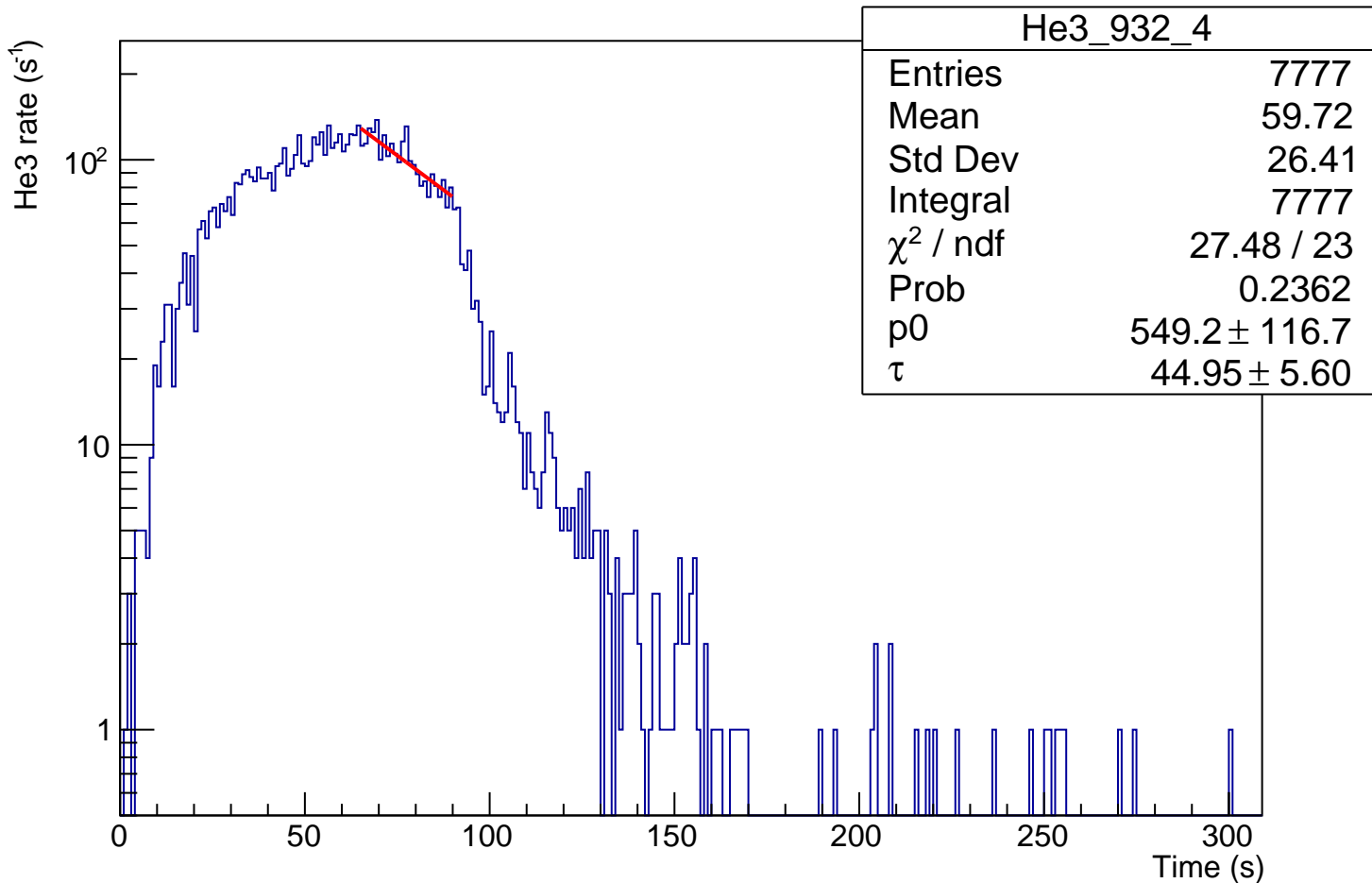
# He3 detector rate



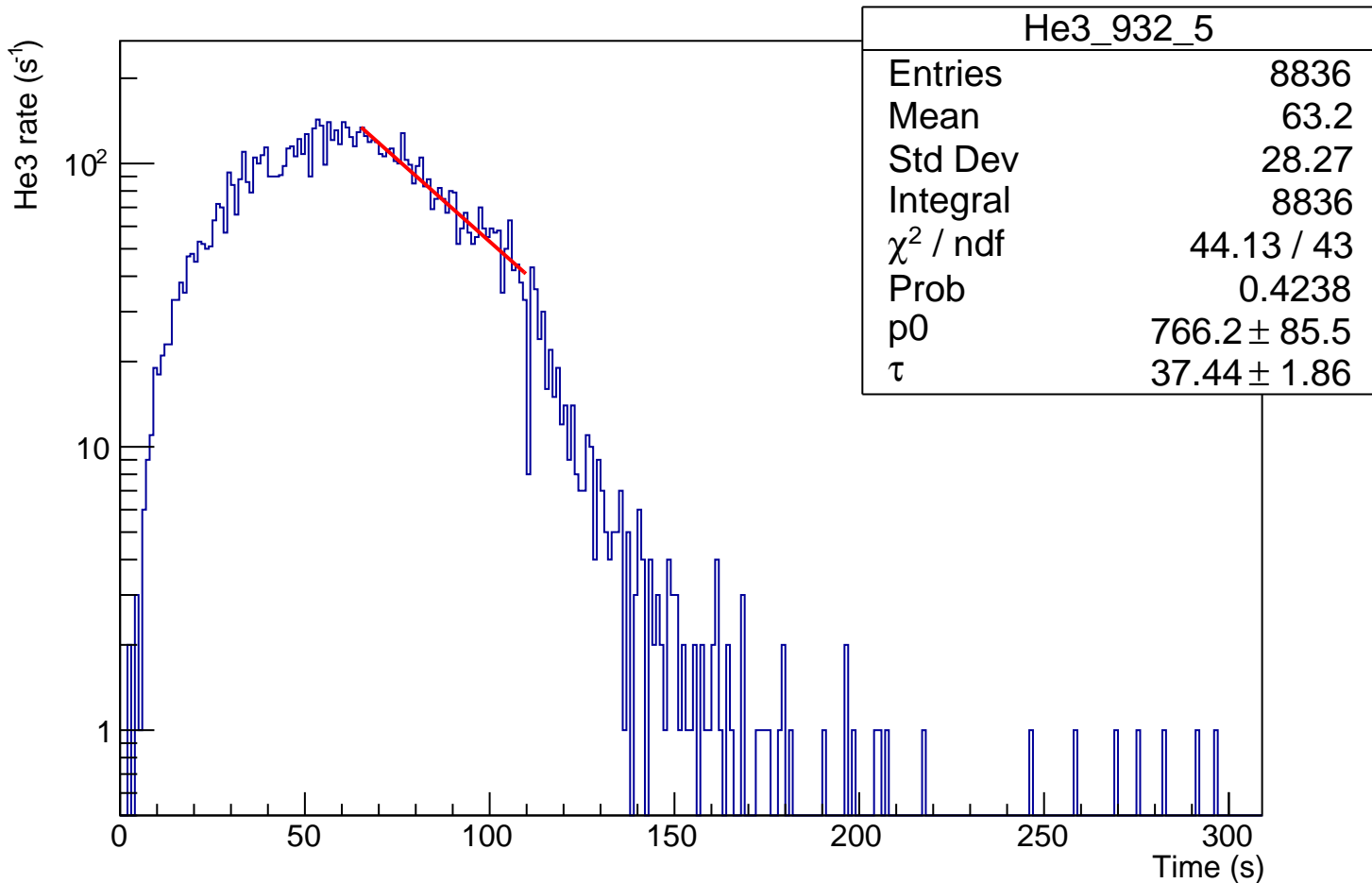
# He3 detector rate



# He3 detector rate

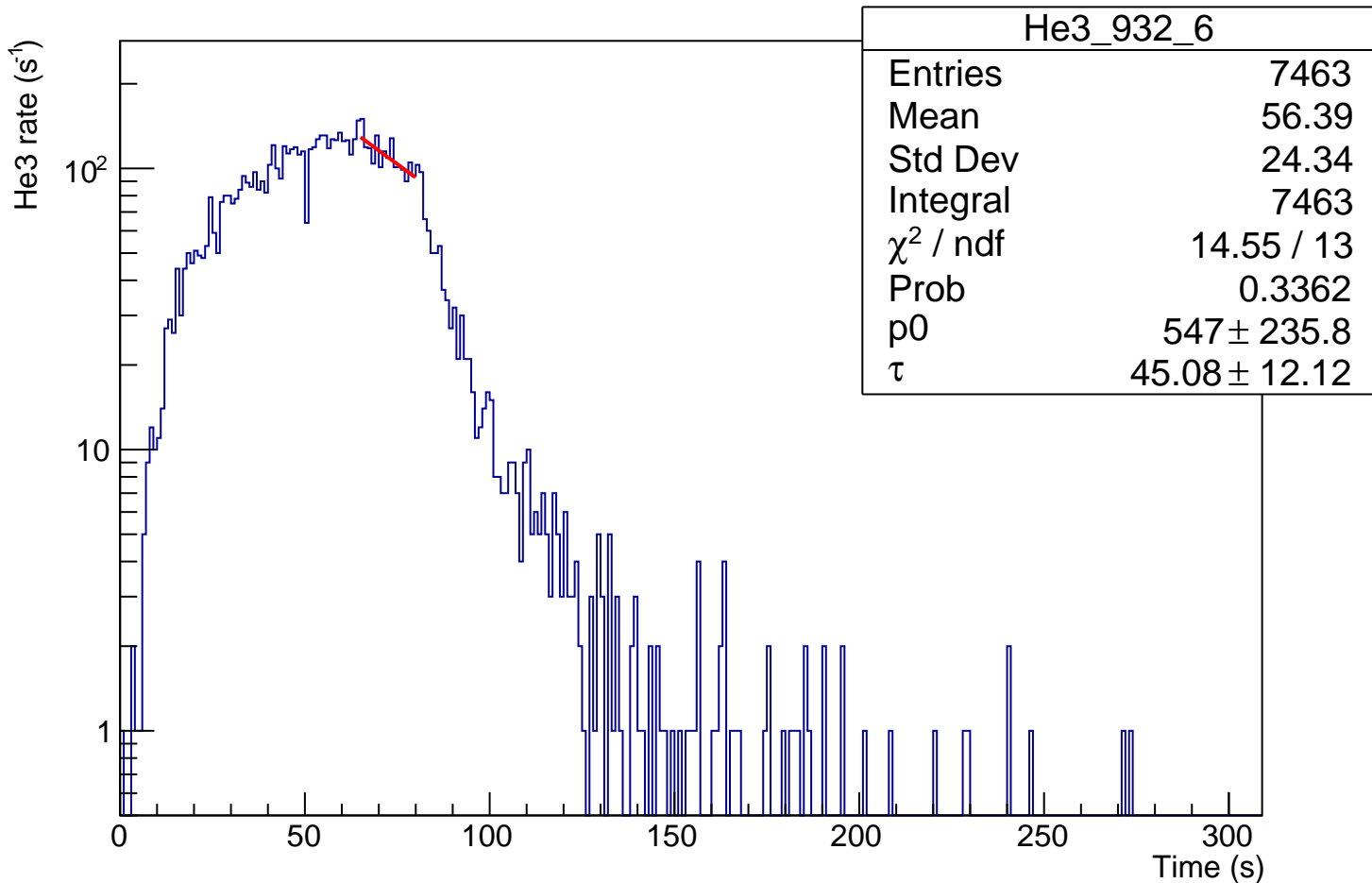


# He3 detector rate





# He3 detector rate



**Average lifetime from He3 data:**

$$\tau = 38.1319579997 \pm 0.152757649764 \text{ s}$$