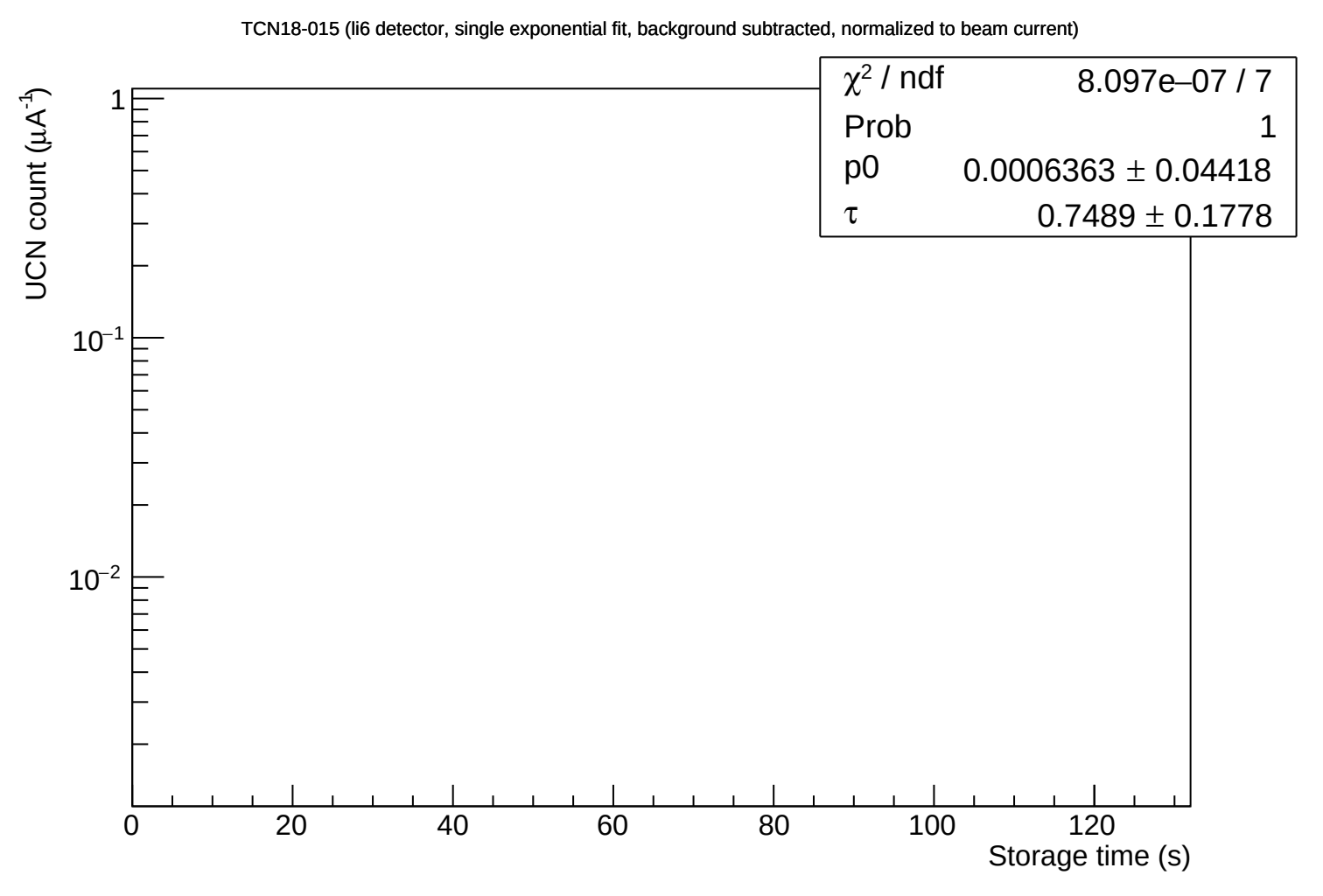
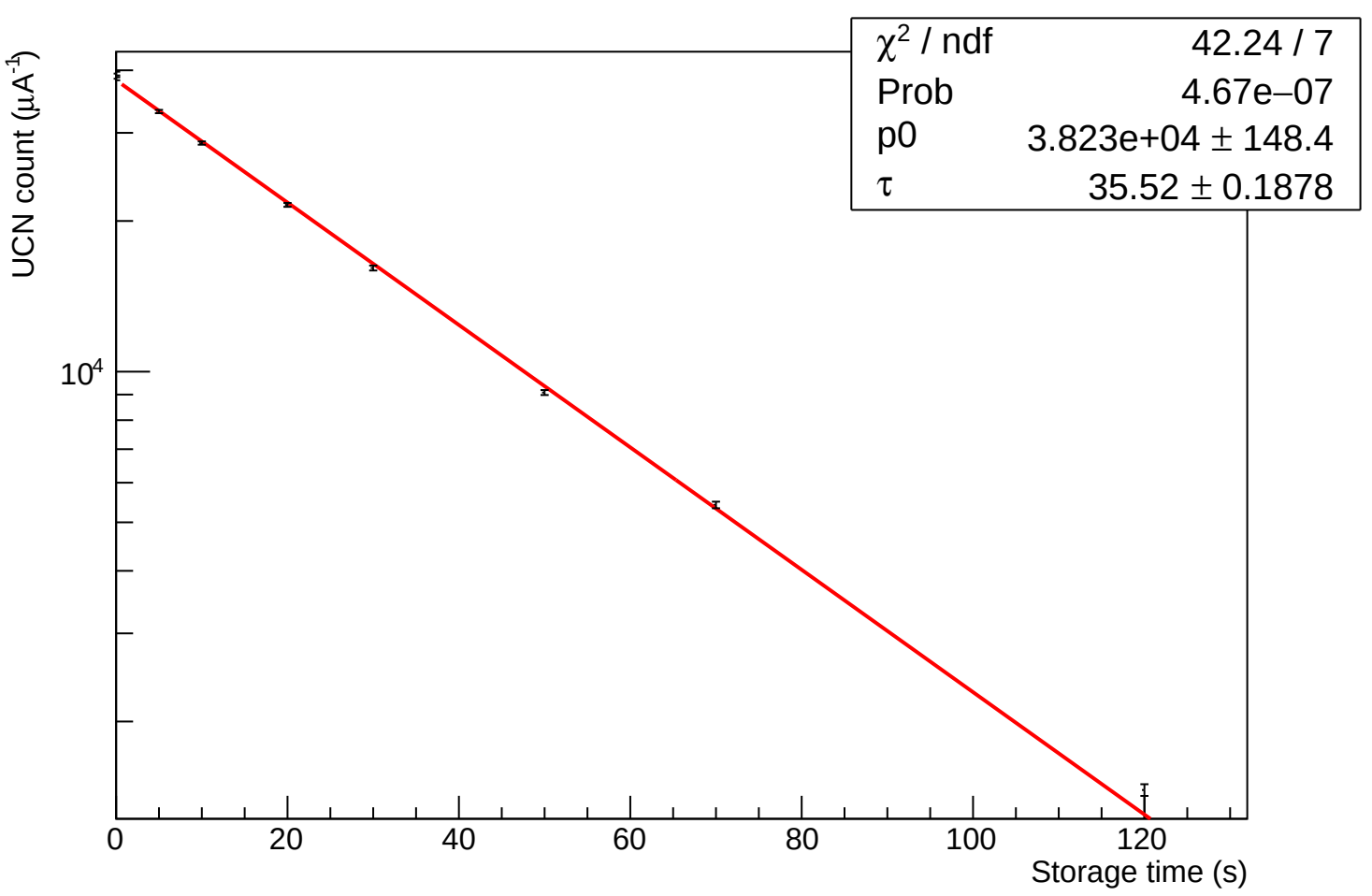
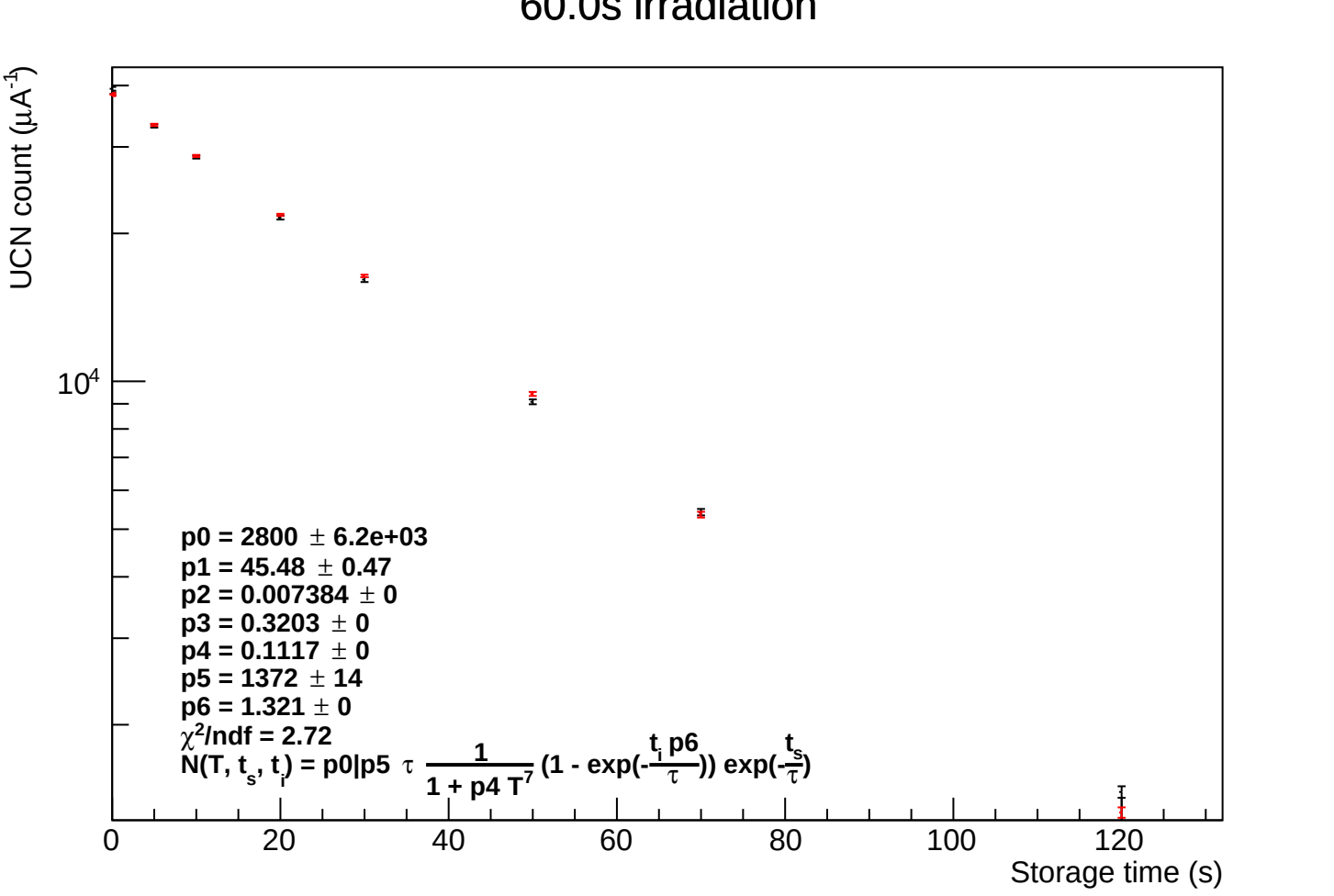
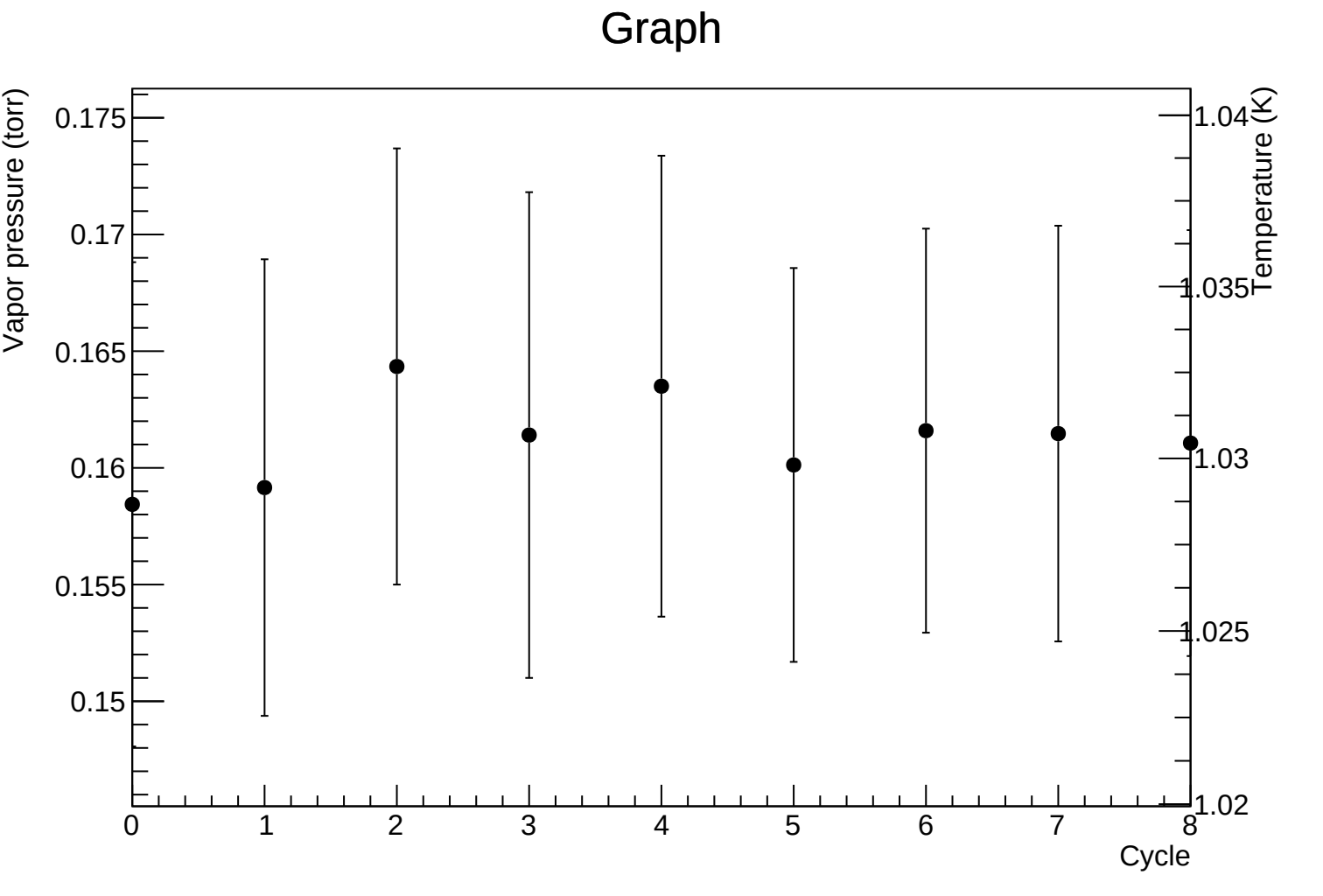
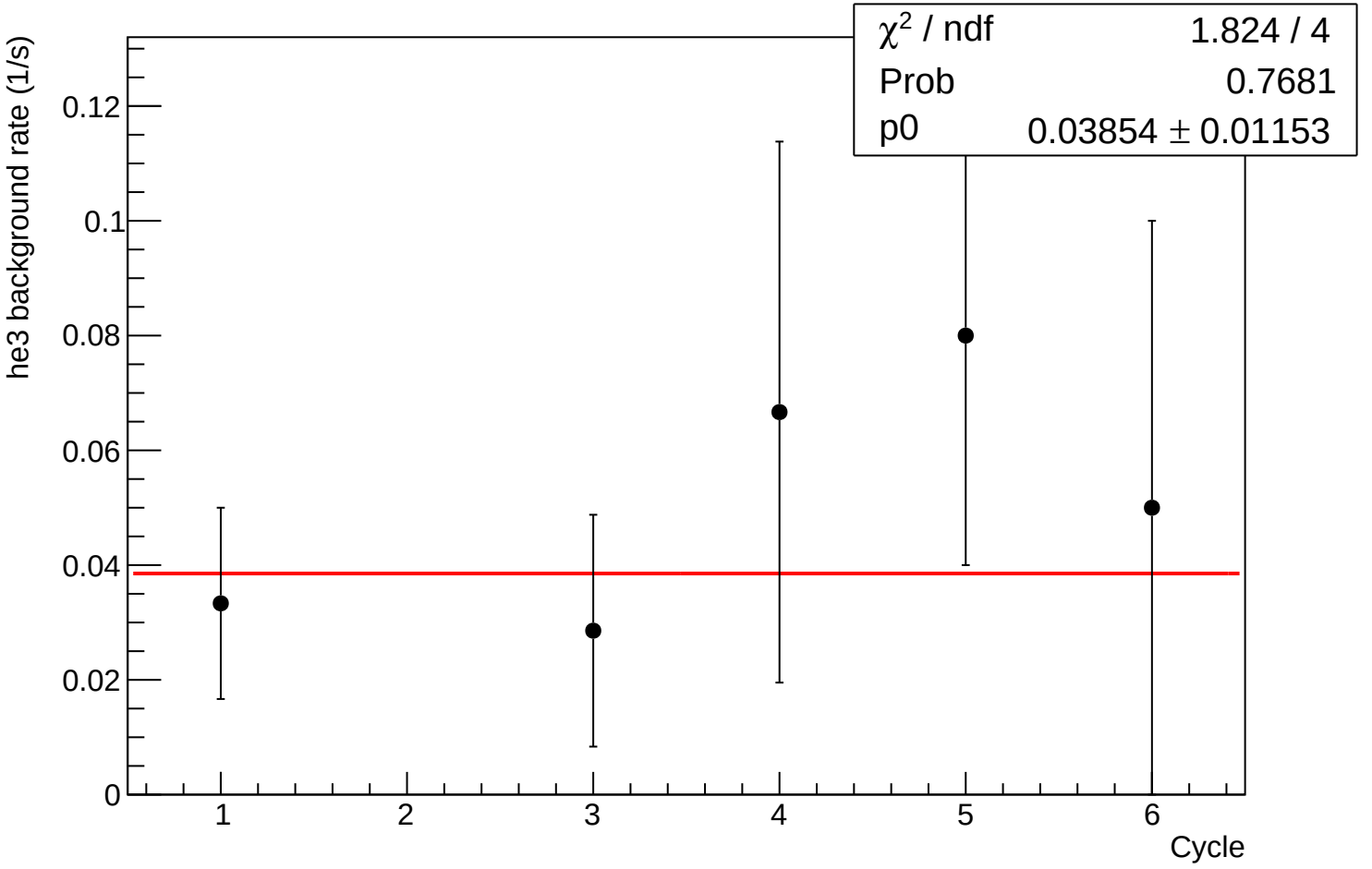
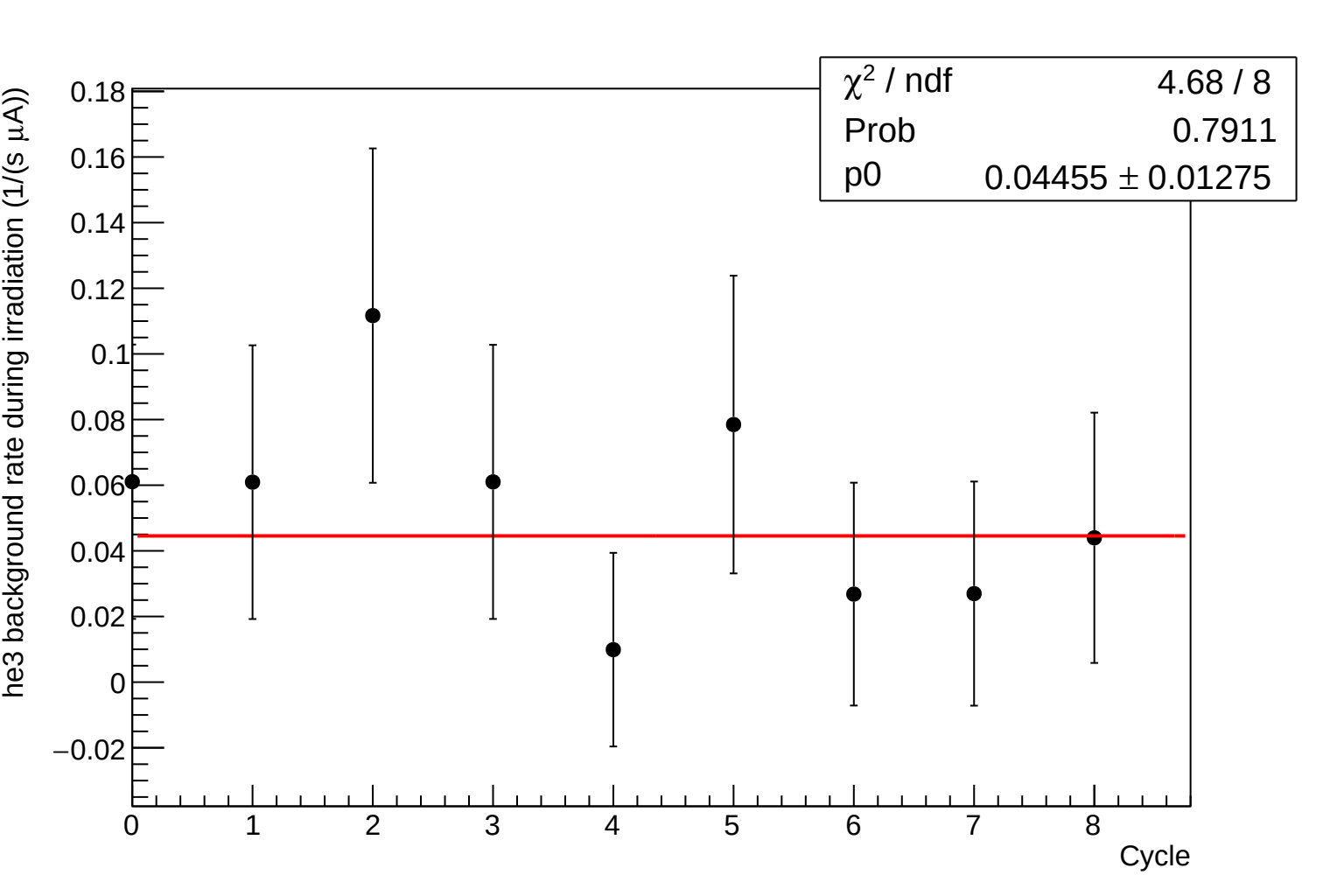

TCN18-015 (li6 detector, single exponential fit, background subtracted, normalized to beam current)
χ² / ndf 8.097e–07 / 7
Prob 1
p0 0.0006363 ± 0.04418
τ 0.7489 ± 0.1778
UCN count (μA⁻¹)
1
10⁻¹
10⁻²
0
20
40
60
80
100
120
Storage time (s)

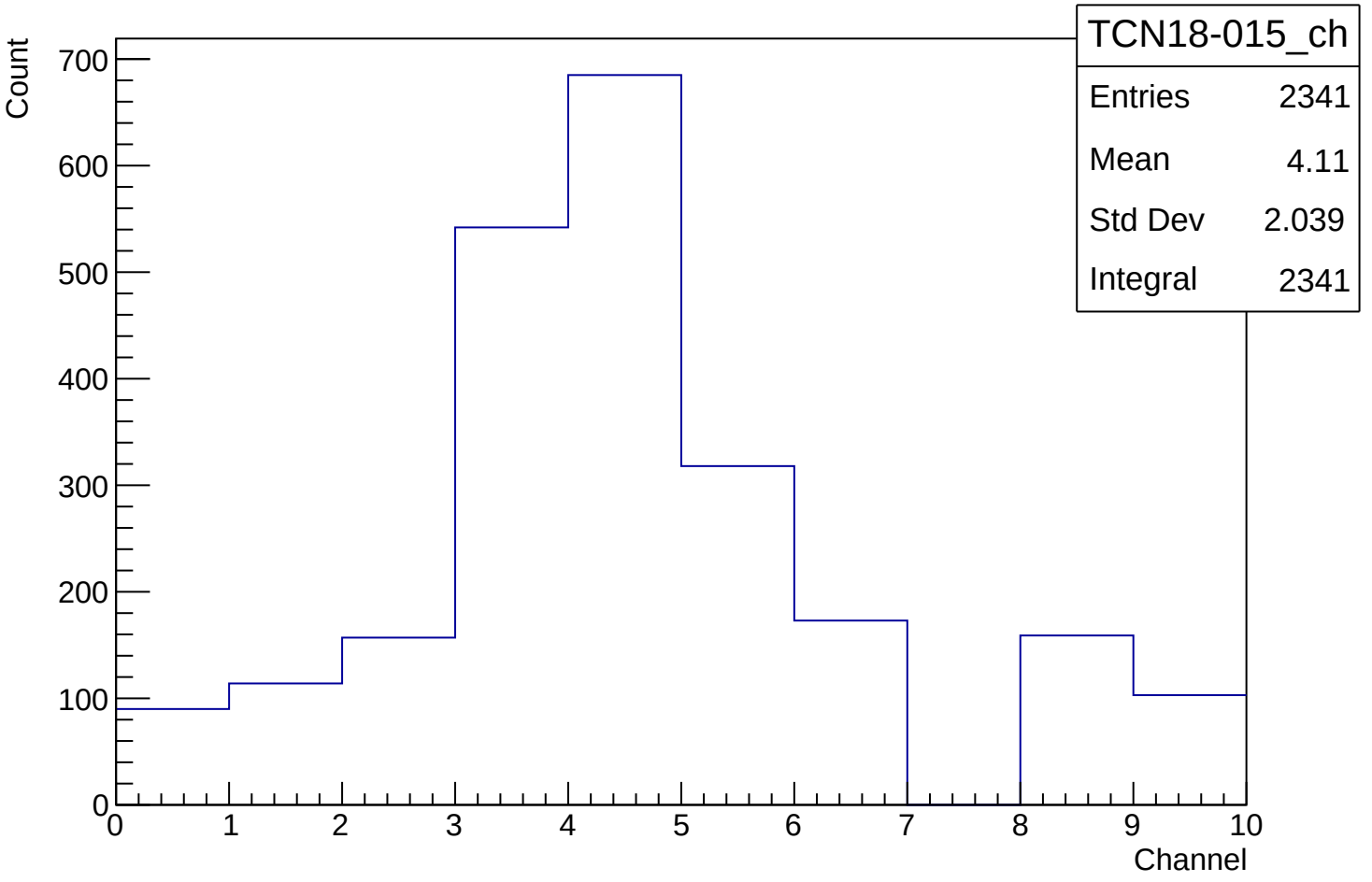

TCN18-015 (he3 detector, single exponential fit, background subtracted, normalized to beam current)
χ² / ndf 42.24 / 7
Prob 4.67e–07
p0 3.823e+04 ± 148.4
τ 35.52 ± 0.1878
UCN count (μA⁻¹)
10⁴
0
20
40
60
80
100
120
Storage time (s)

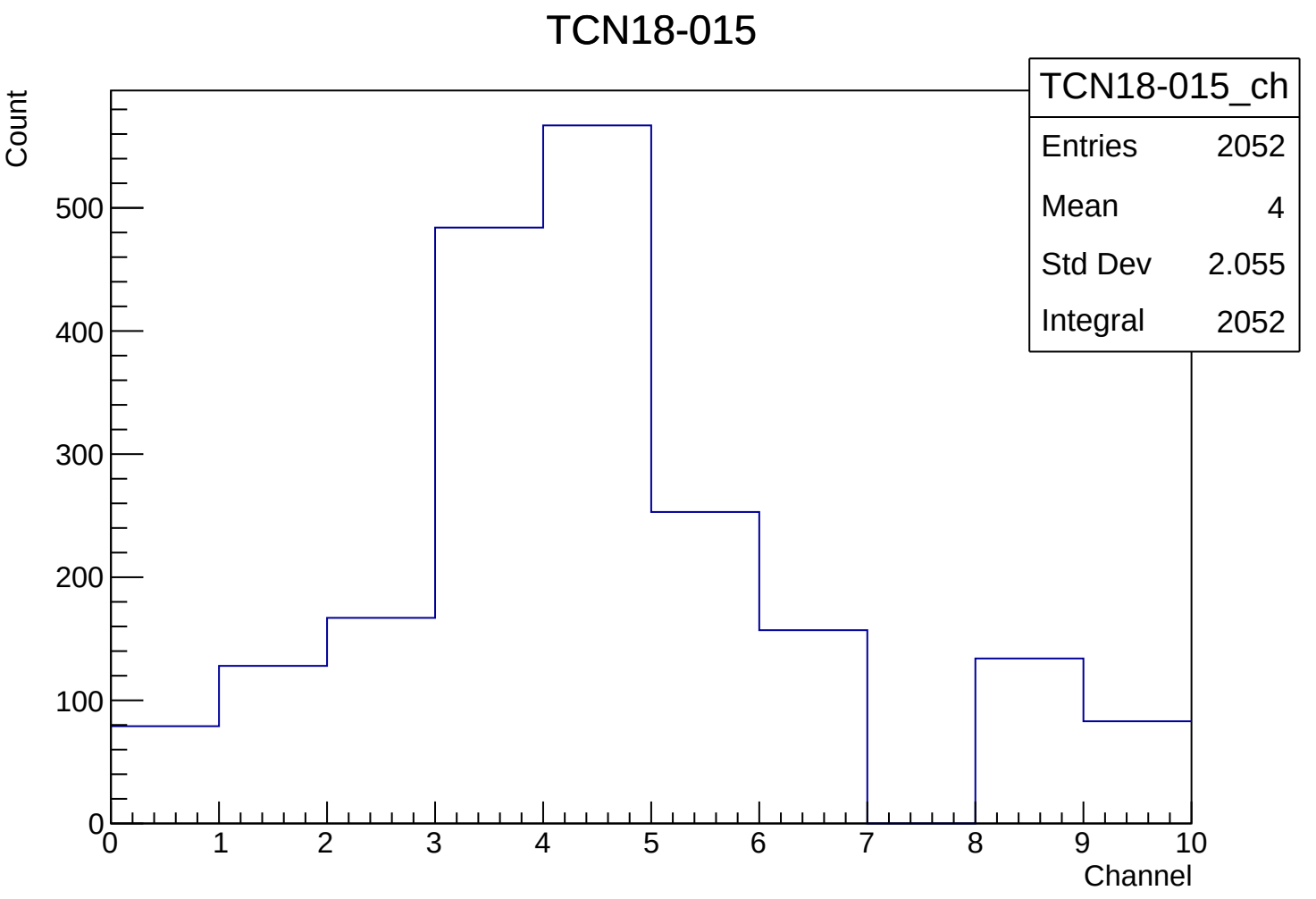

60.0s irradiation
UCN count (μA-1)
10^4
0
20
40
60
80
100
120
Storage time (s)
p0 = 2800 ± 6.2e+03
p1 = 45.48 ± 0.47
p2 = 0.007384 ± 0
p3 = 0.3203 ± 0
p4 = 0.1117 ± 0
p5 = 1372 ± 14
p6 = 1.321 ± 0
χ2/ndf = 2.72
N(T, ts, ti) = p0|p5 τ 1/(1 + p4 T7) (1 - exp(-ti p6/τ)) exp(-ts/τ)

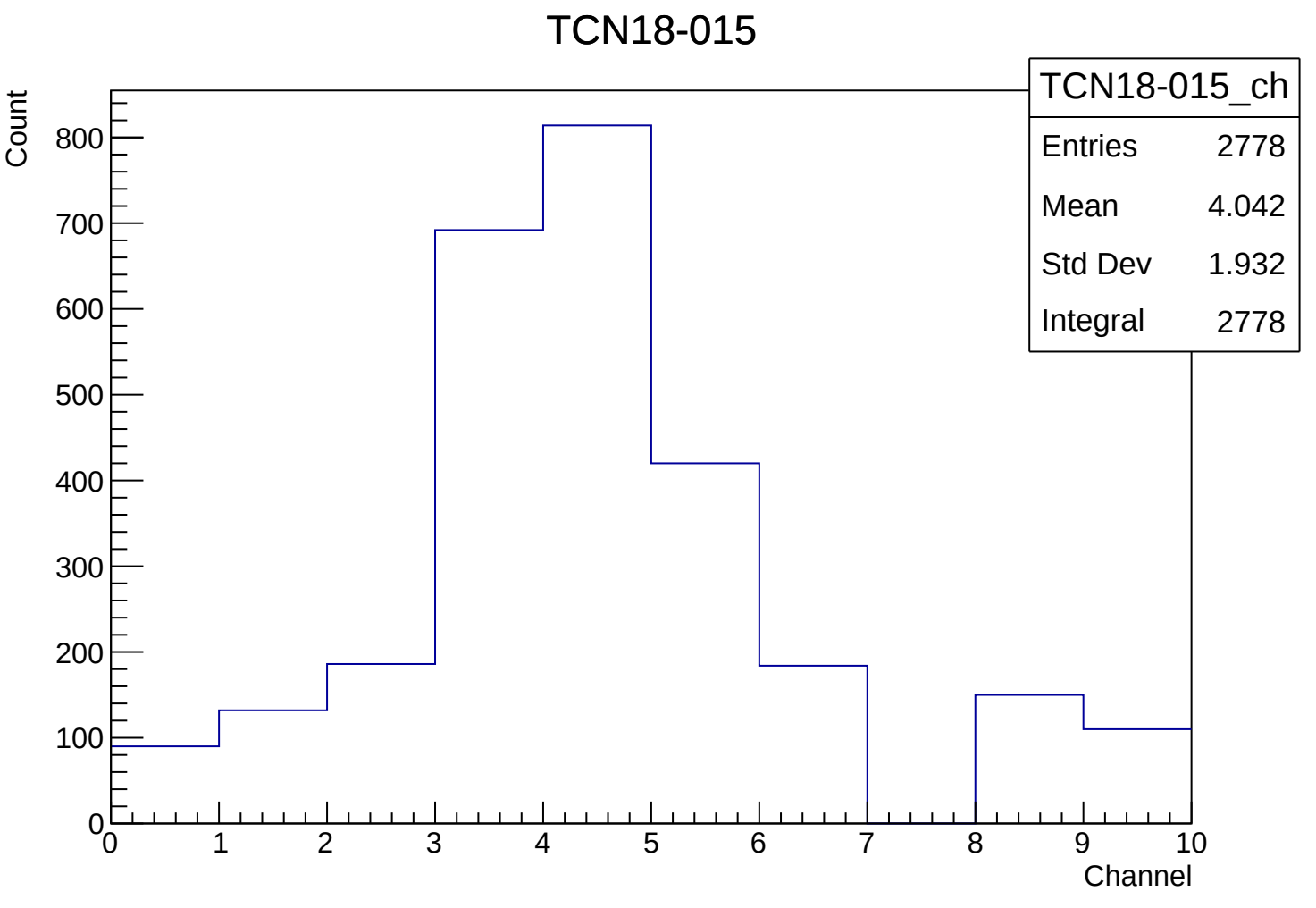

Graph
Vapor pressure (torr)
0.175
0.17
0.165
0.16
0.155
0.15
Temperature (K)
1.04
1.035
1.03
1.025
1.02
0
1
2
3
4
5
6
7
8
Cycle

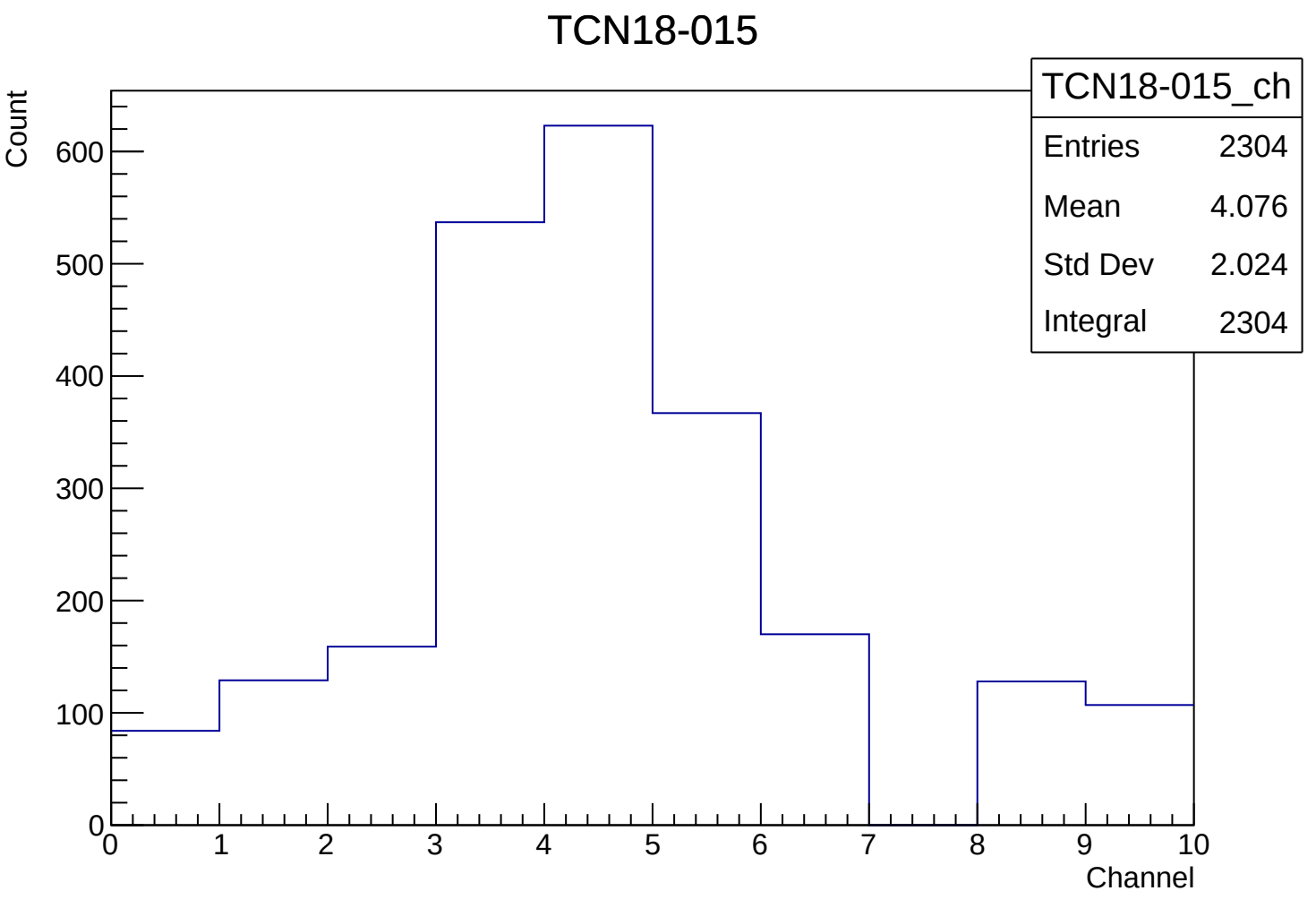

χ² / ndf 1.824 / 4
Prob 0.7681
p0 0.03854 ± 0.01153
he3 background rate (1/s)
0.12
0.1
0.08
0.06
0.04
0.02
0
1
2
3
4
5
6
Cycle

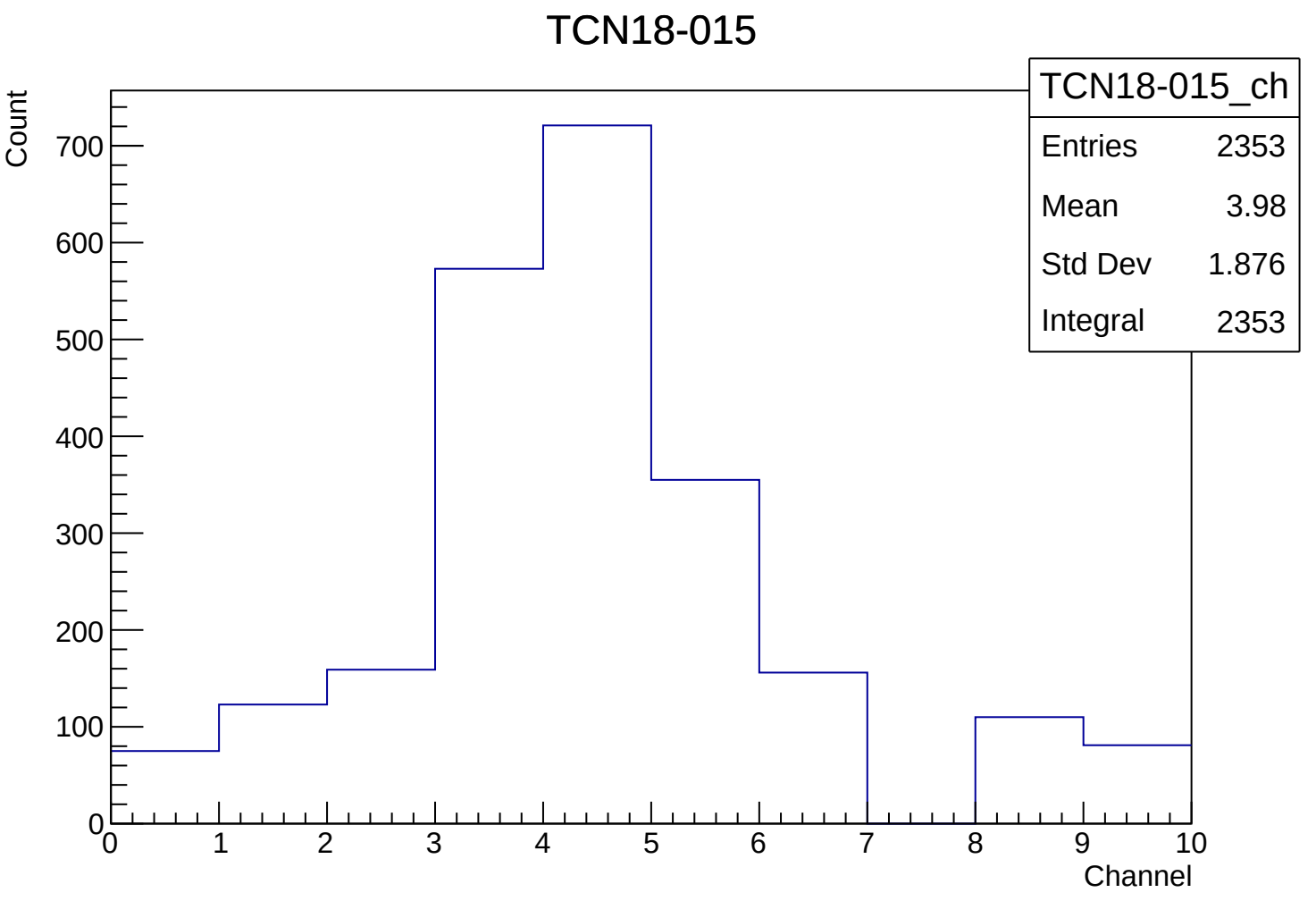

χ² / ndf 4.68 / 8
Prob 0.7911
p0 0.04455 ± 0.01275
he3 background rate during irradiation (1/(s μA))
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
−0.02
0
1
2
3
4
5
6
7
8
Cycle

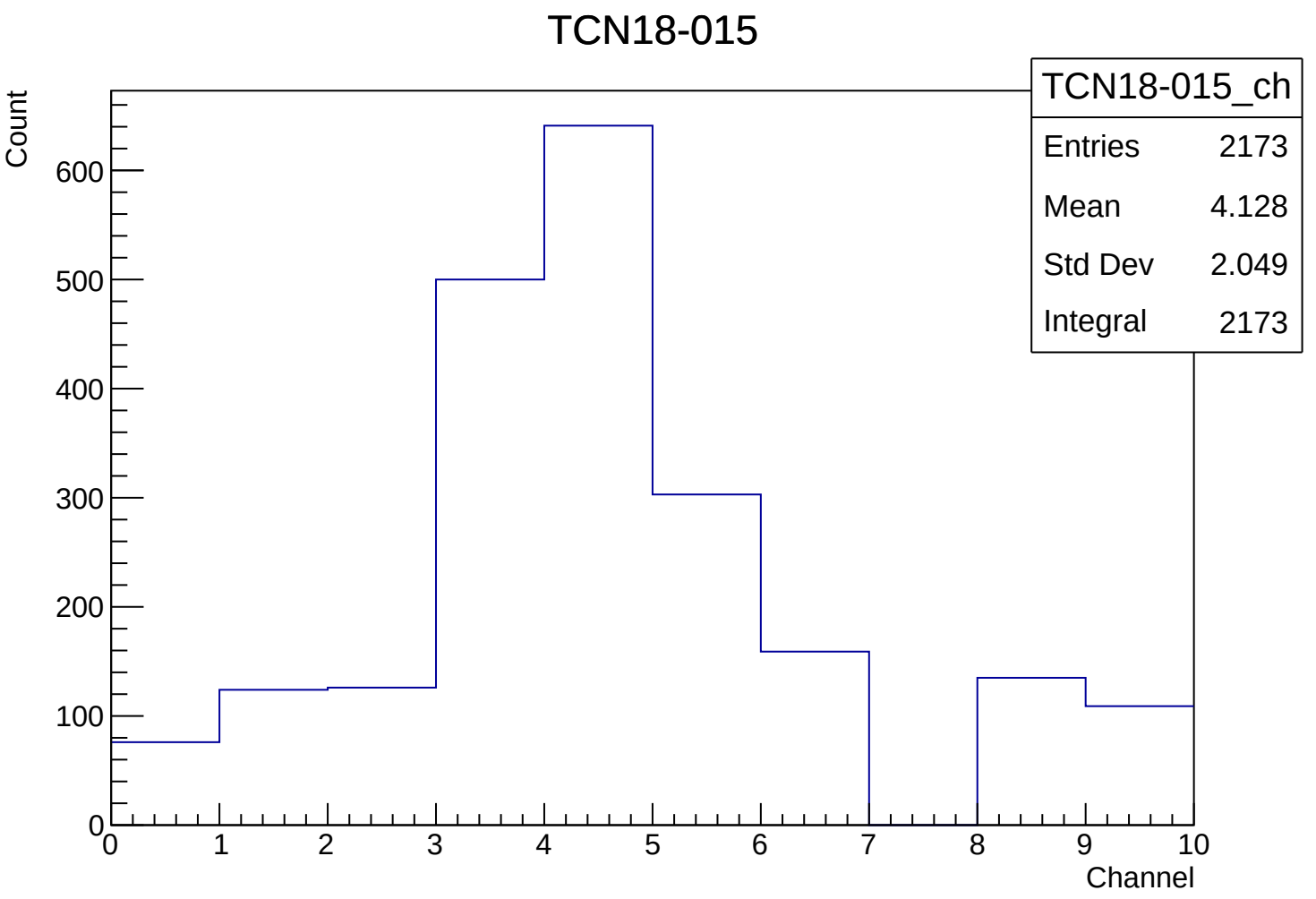

TCN18-015
TCN18-015_ch
Entries 2341
Mean 4.11
Std Dev 2.039
Integral 2341
Count
0
100
200
300
400
500
600
700
0
1
2
3
4
5
6
7
8
9
10
Channel

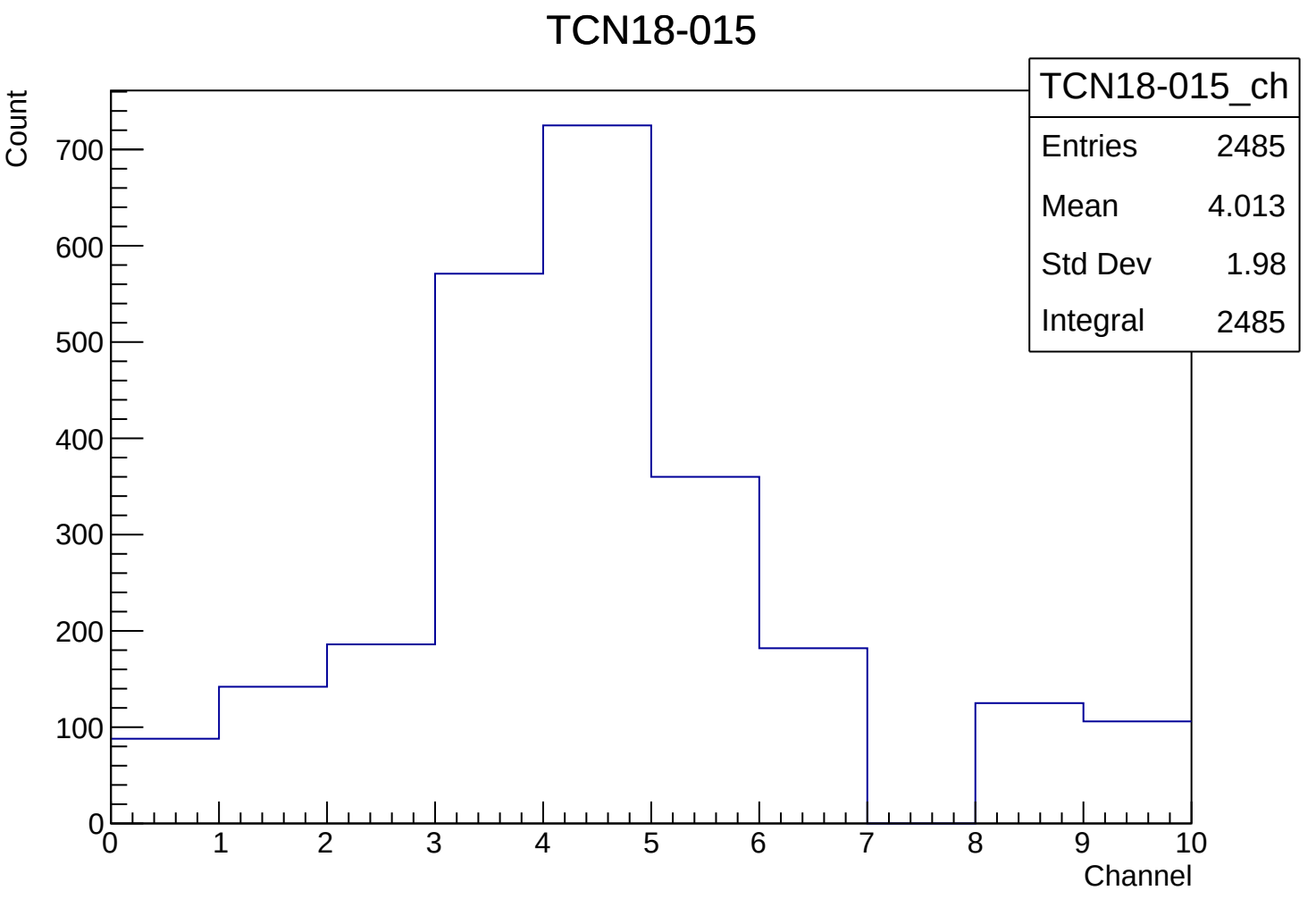

TCN18-015
TCN18-015_ch
Entries 2052
Mean 4
Std Dev 2.055
Integral 2052
Count
0
100
200
300
400
500
0
1
2
3
4
5
6
7
8
9
10
Channel

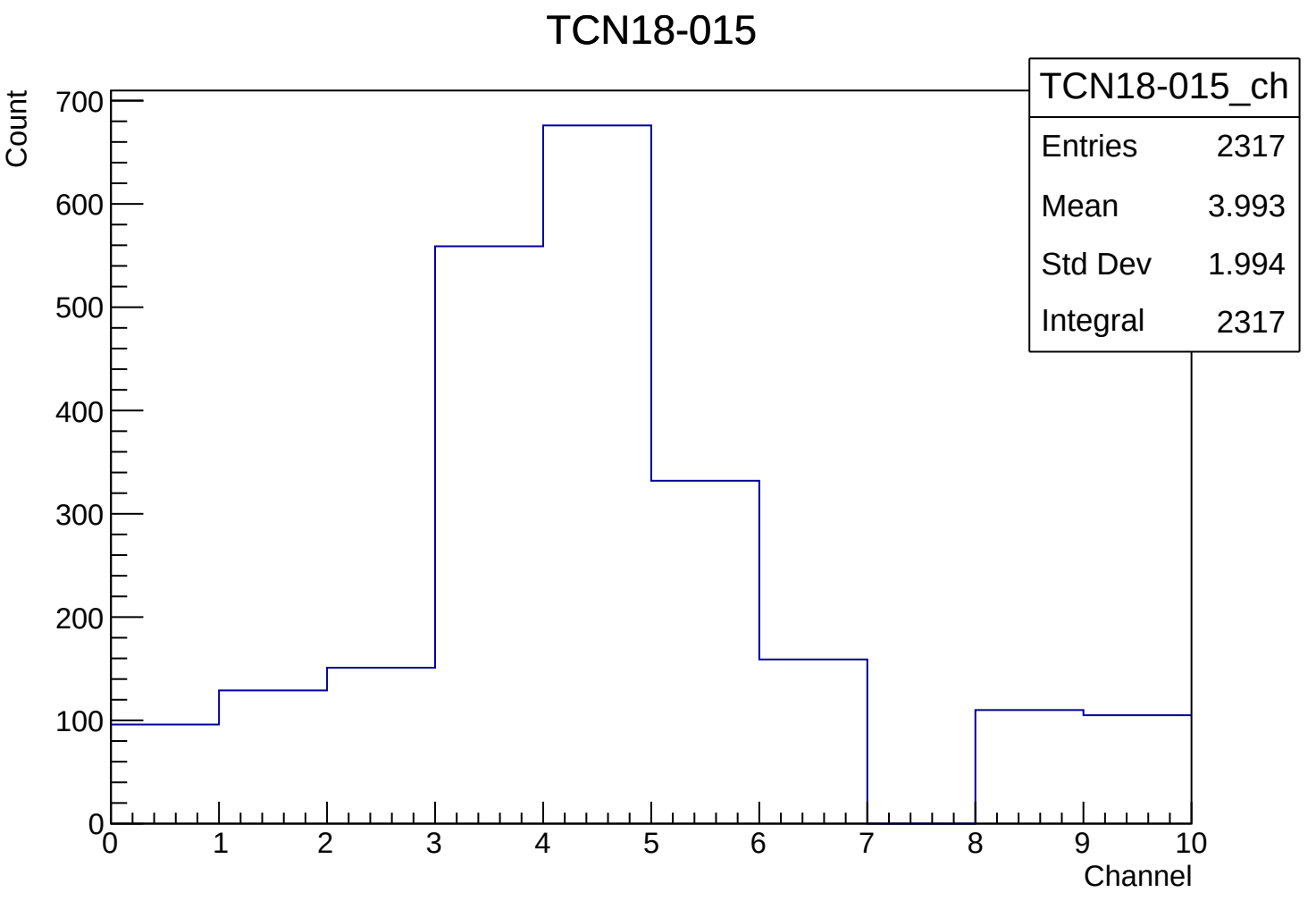

TCN18-015
TCN18-015_ch
Entries 2778
Mean 4.042
Std Dev 1.932
Integral 2778
Count
0
100
200
300
400
500
600
700
800
0 1 2 3 4 5 6 7 8 9 10
Channel

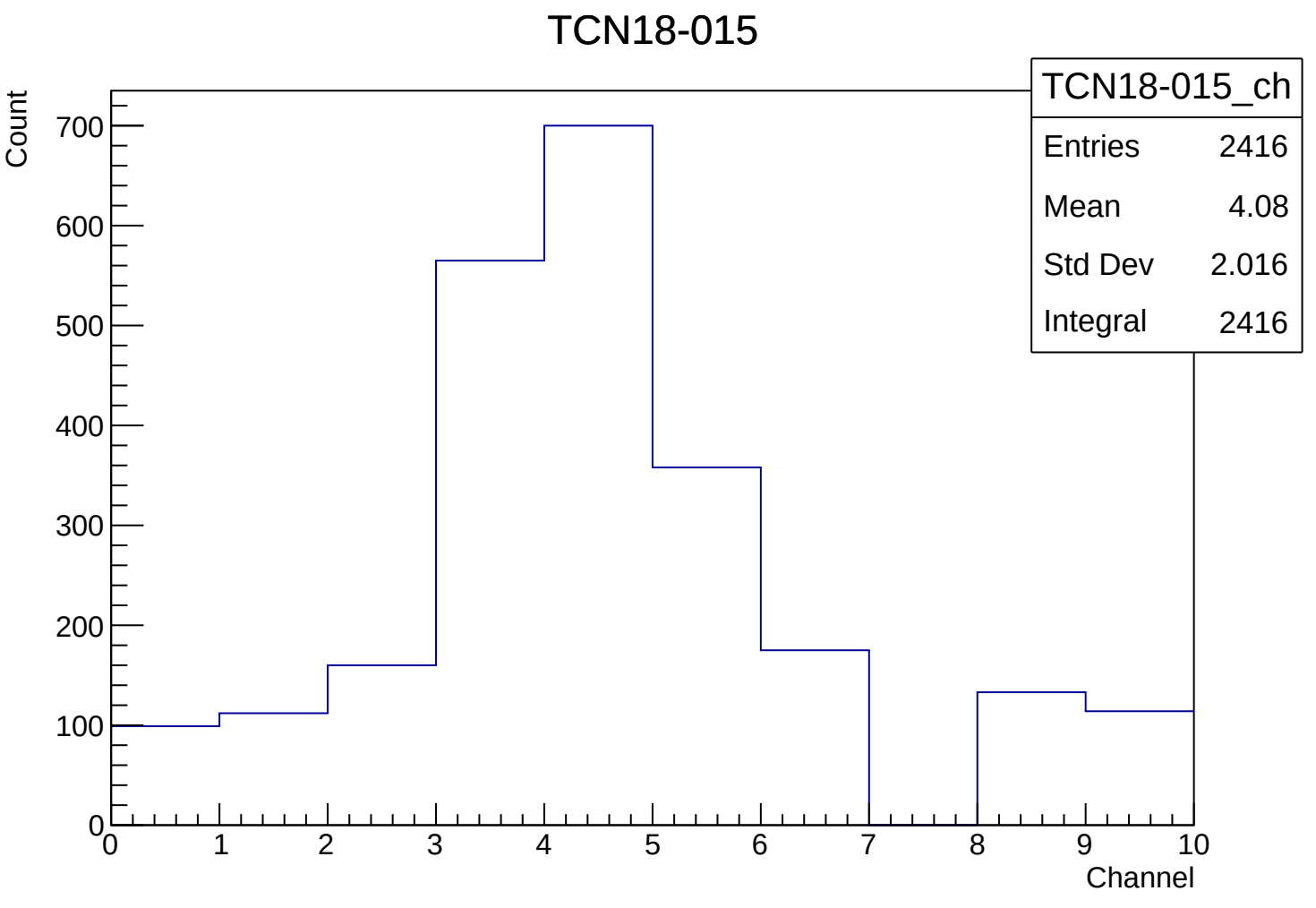

TCN18-015
TCN18-015_ch
Entries 2304
Mean 4.076
Std Dev 2.024
Integral 2304
Count
0
100
200
300
400
500
600
0
1
2
3
4
5
6
7
8
9
10
Channel


TCN18-015
TCN18-015_ch
Entries 2353
Mean 3.98
Std Dev 1.876
Integral 2353
Count
0
100
200
300
400
500
600
700
0
1
2
3
4
5
6
7
8
9
10
Channel


TCN18-015
TCN18-015_ch
Entries 2173
Mean 4.128
Std Dev 2.049
Integral 2173
Count
0
100
200
300
400
500
600
0 1 2 3 4 5 6 7 8 9 10
Channel


TCN18-015
TCN18-015_ch
Entries 2485
Mean 4.013
Std Dev 1.98
Integral 2485
Count
0
100
200
300
400
500
600
700
0
1
2
3
4
5
6
7
8
9
10
Channel


TCN18-015
TCN18-015_ch
Entries 2317
Mean 3.993
Std Dev 1.994
Integral 2317
Count
Channel
0
100
200
300
400
500
600
700
0
1
2
3
4
5
6
7
8
9
10


TCN18-015
TCN18-015_ch
Entries 2416
Mean 4.08
Std Dev 2.016
Integral 2416
Count
0
100
200
300
400
500
600
700
0
1
2
3
4
5
6
7
8
9
10
Channel