

Final histograms vertex cuts dependencies (z cut and r cut)

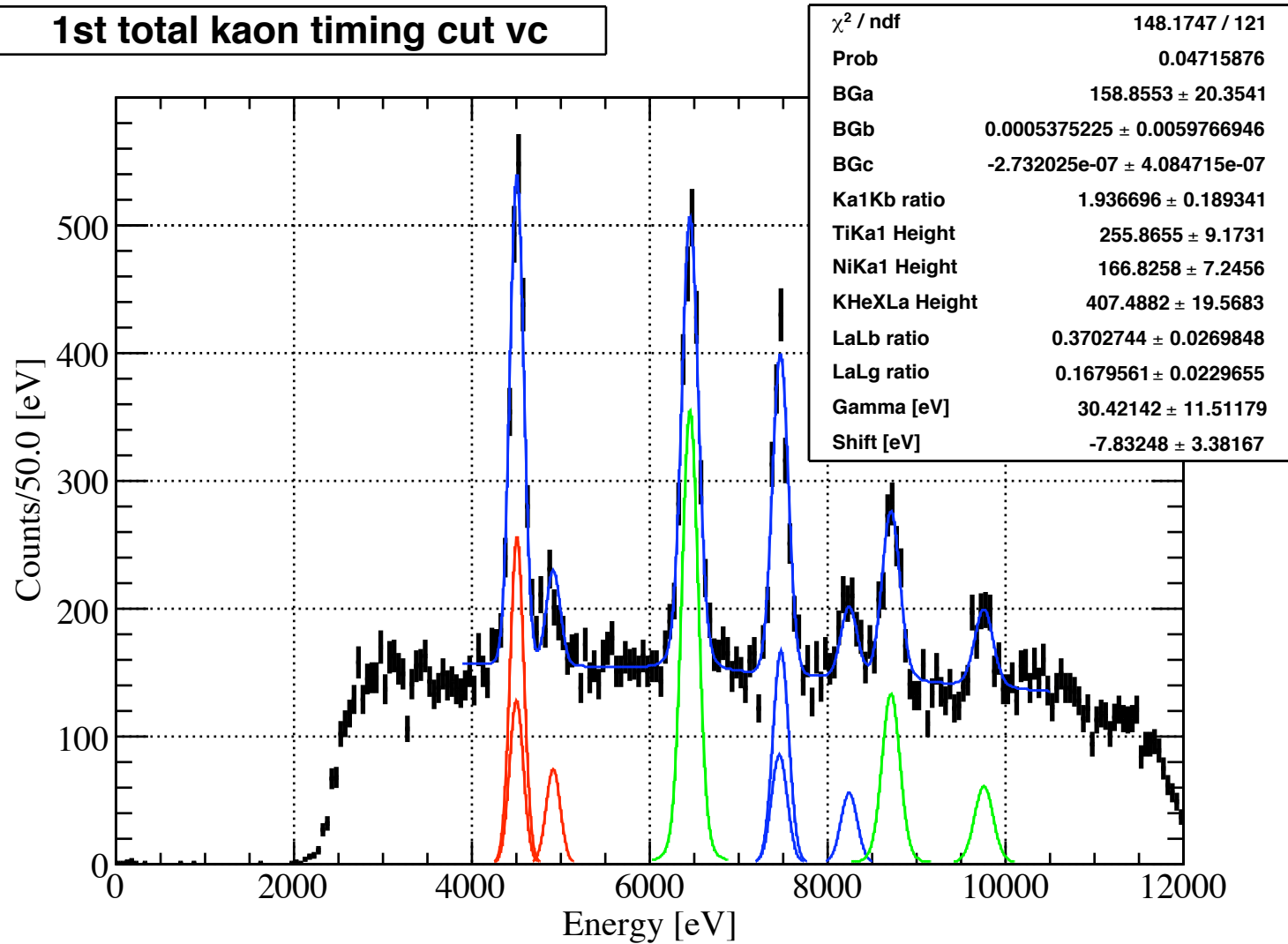
Four types histograms are shown,

- 1.TDC kaons timing cut* only,
- 2.TDC kaons timing cut & z-vertex cut (target region),
- 3.TDC kaons timing cut & r-direction cut (loosely),
- 4.TDC kaons timing cut & r-direction cut (tightly)

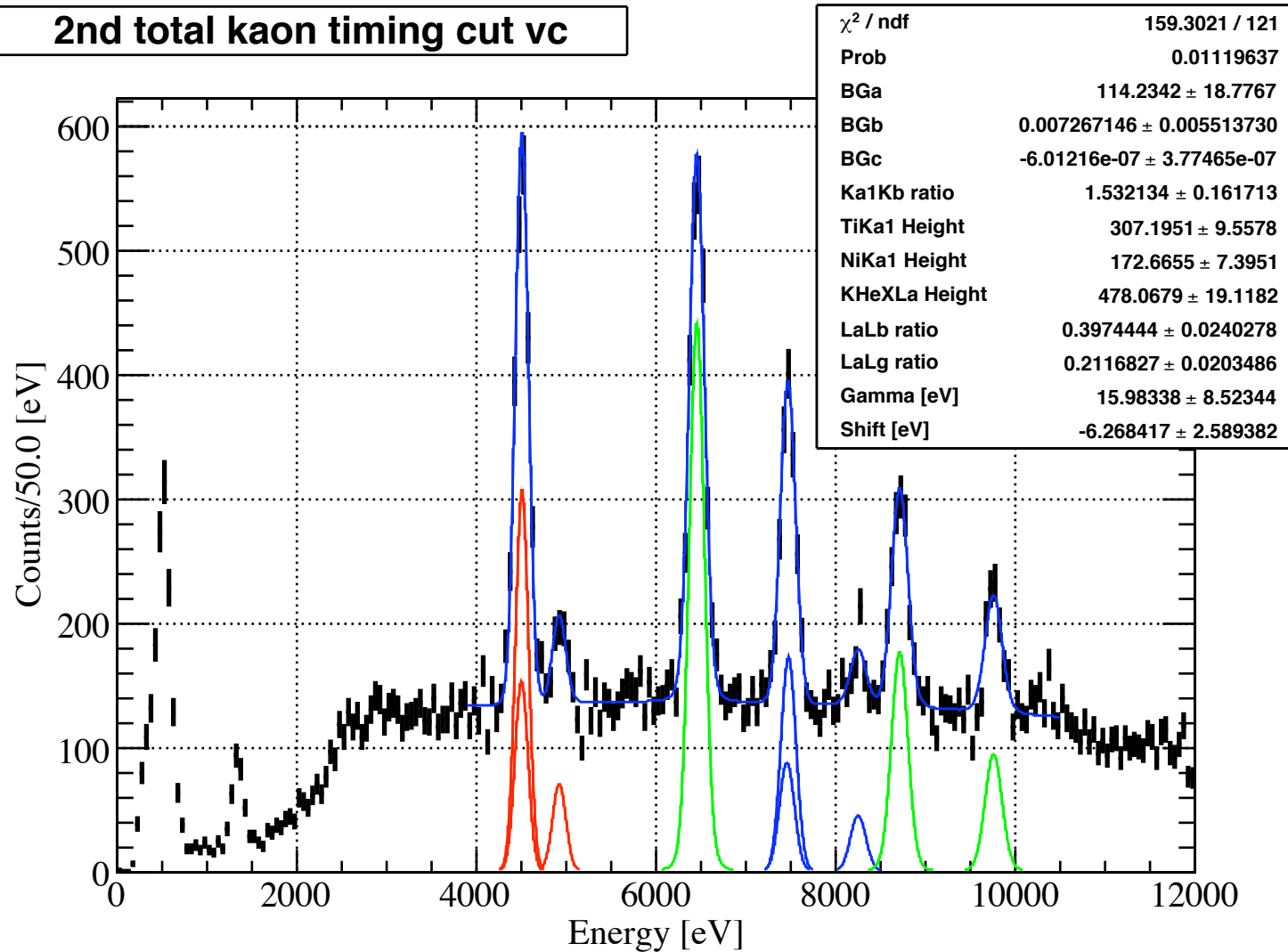
*The TDC cuts are defined SDD by SDD loosely

The summary of fitting these histograms are shown in the last page.

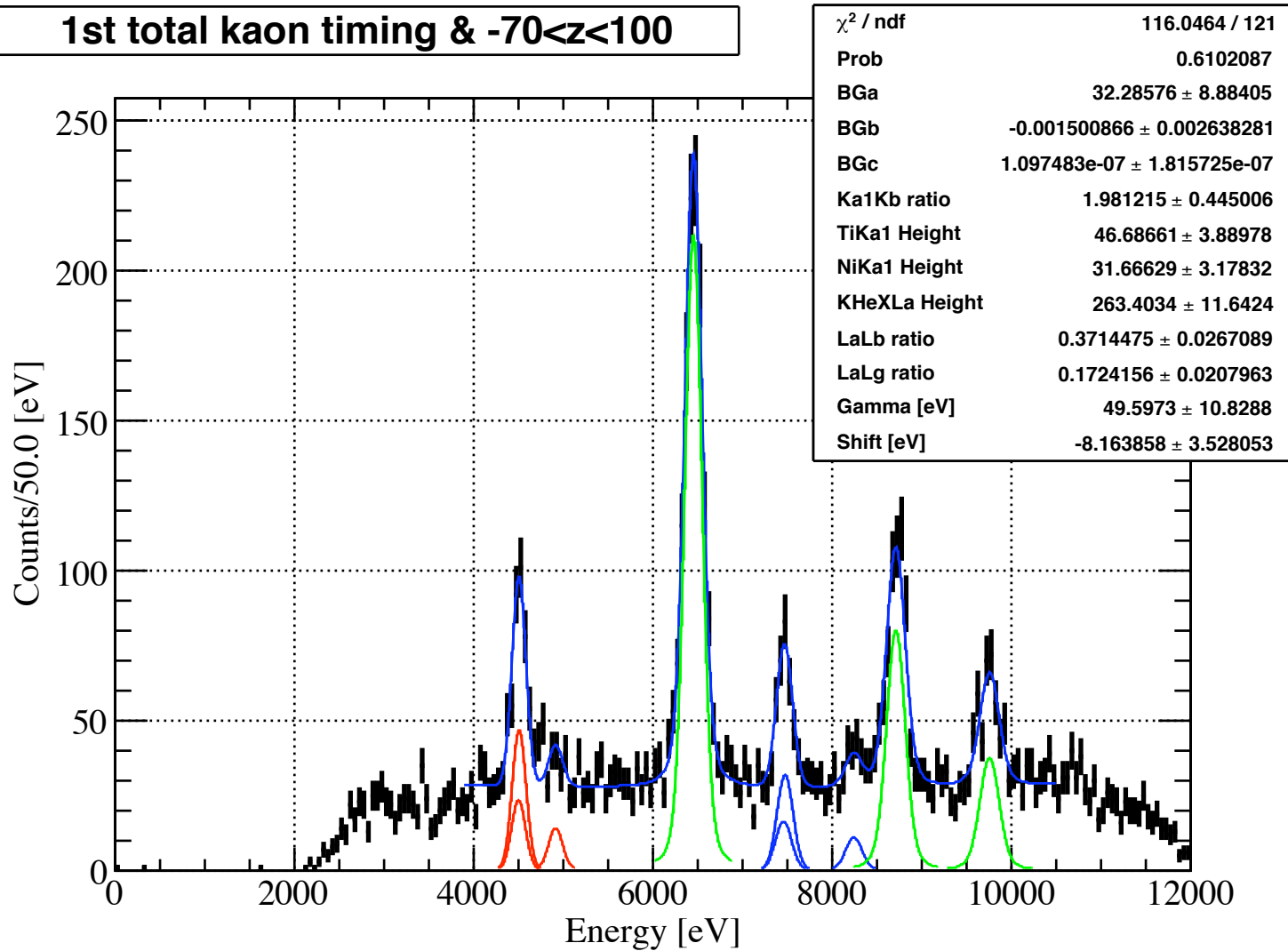
TDC kaons timing cut only 1st cycle



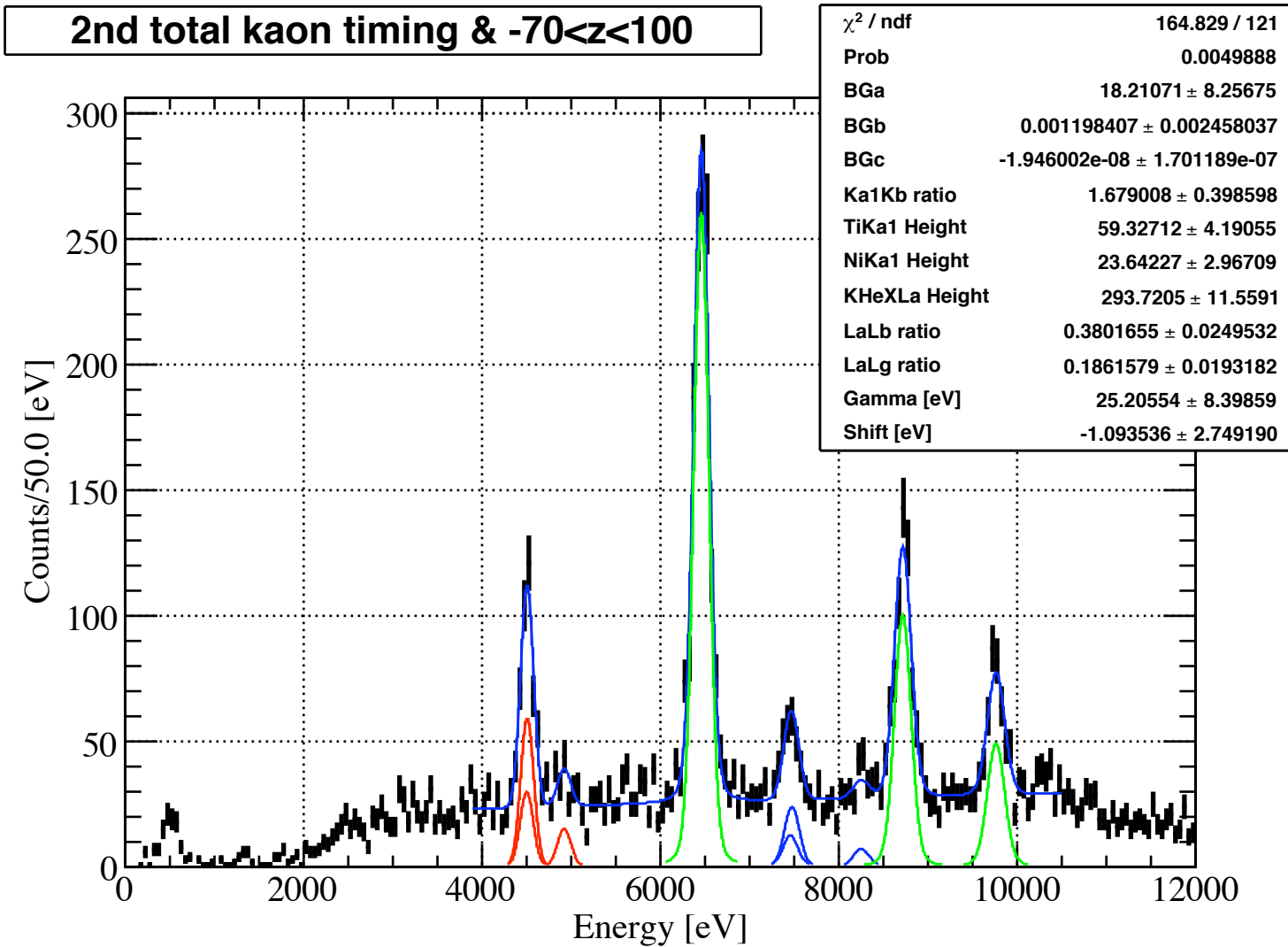
TDC kaons timing cut only 2nd cycle



TDC kaons timing cut & $-70 \text{ mm} < z < 100 \text{ mm}$ 1st cycle

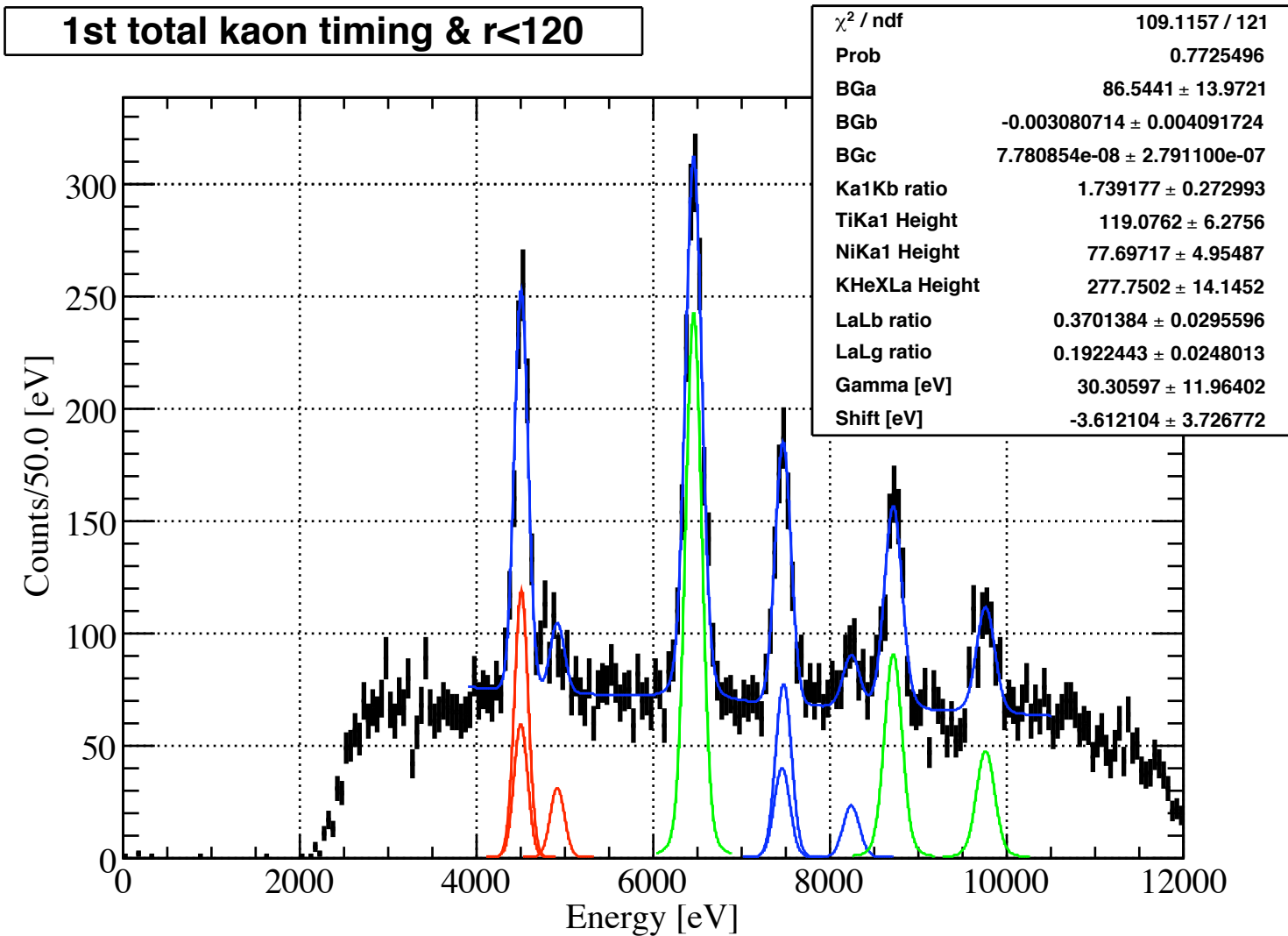


TDC kaons timing cut & $-70 \text{ mm} < z < 100 \text{ mm}$ 2nd cycle

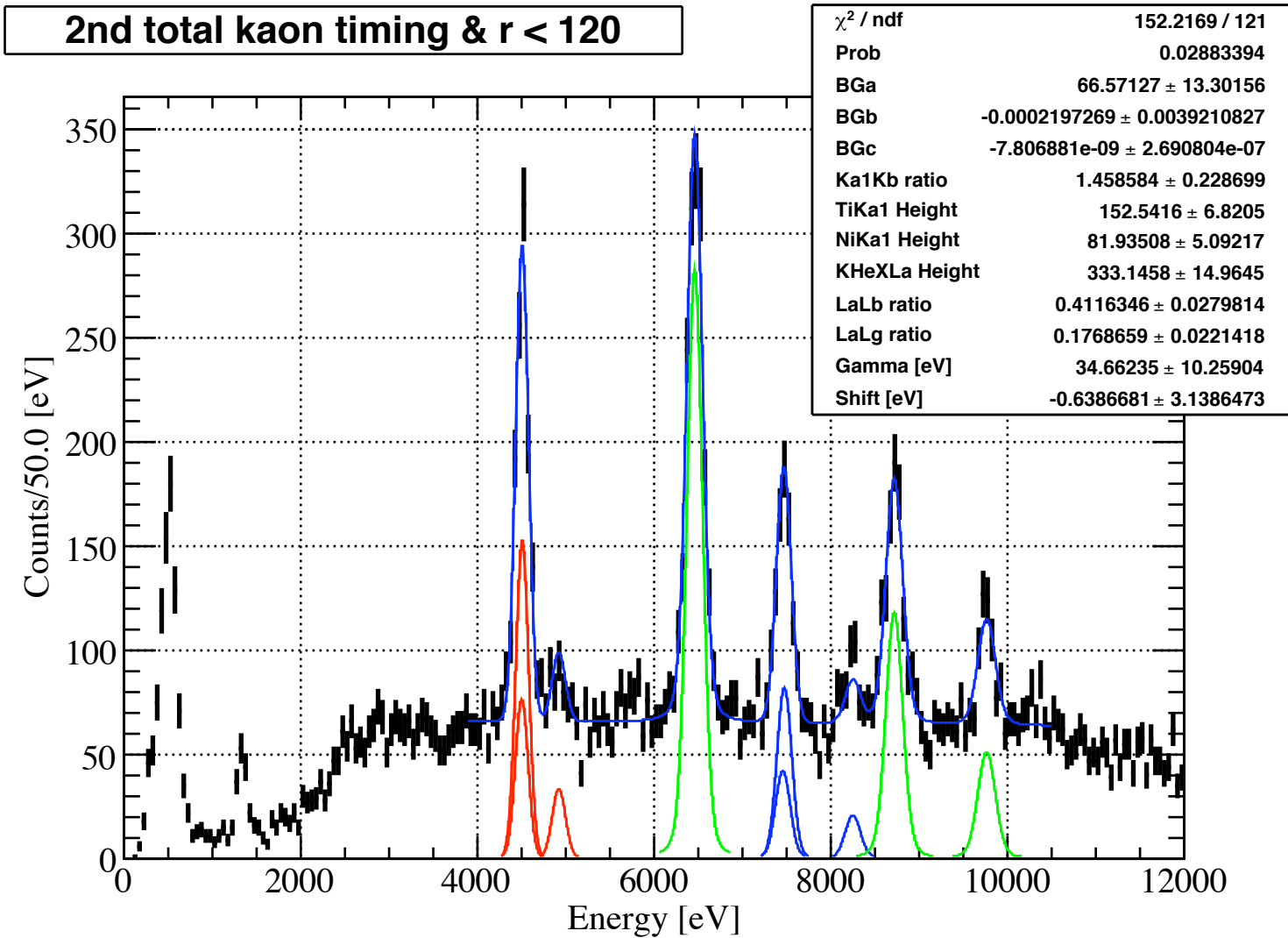


TDC kaons timing cut & r < 120 mm

1st cycle

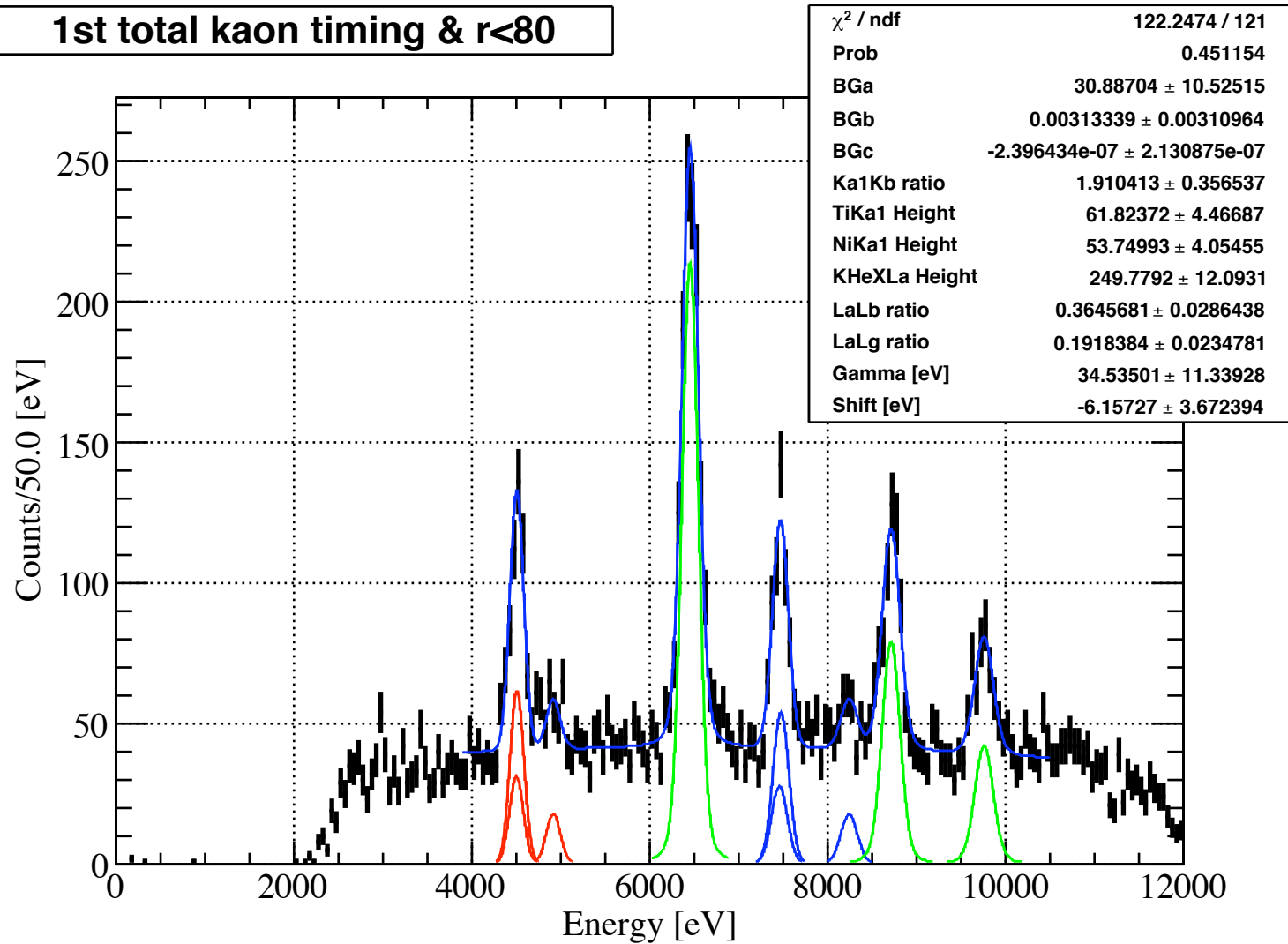


TDC kaons timing cut & r < 120 mm 2nd cycle



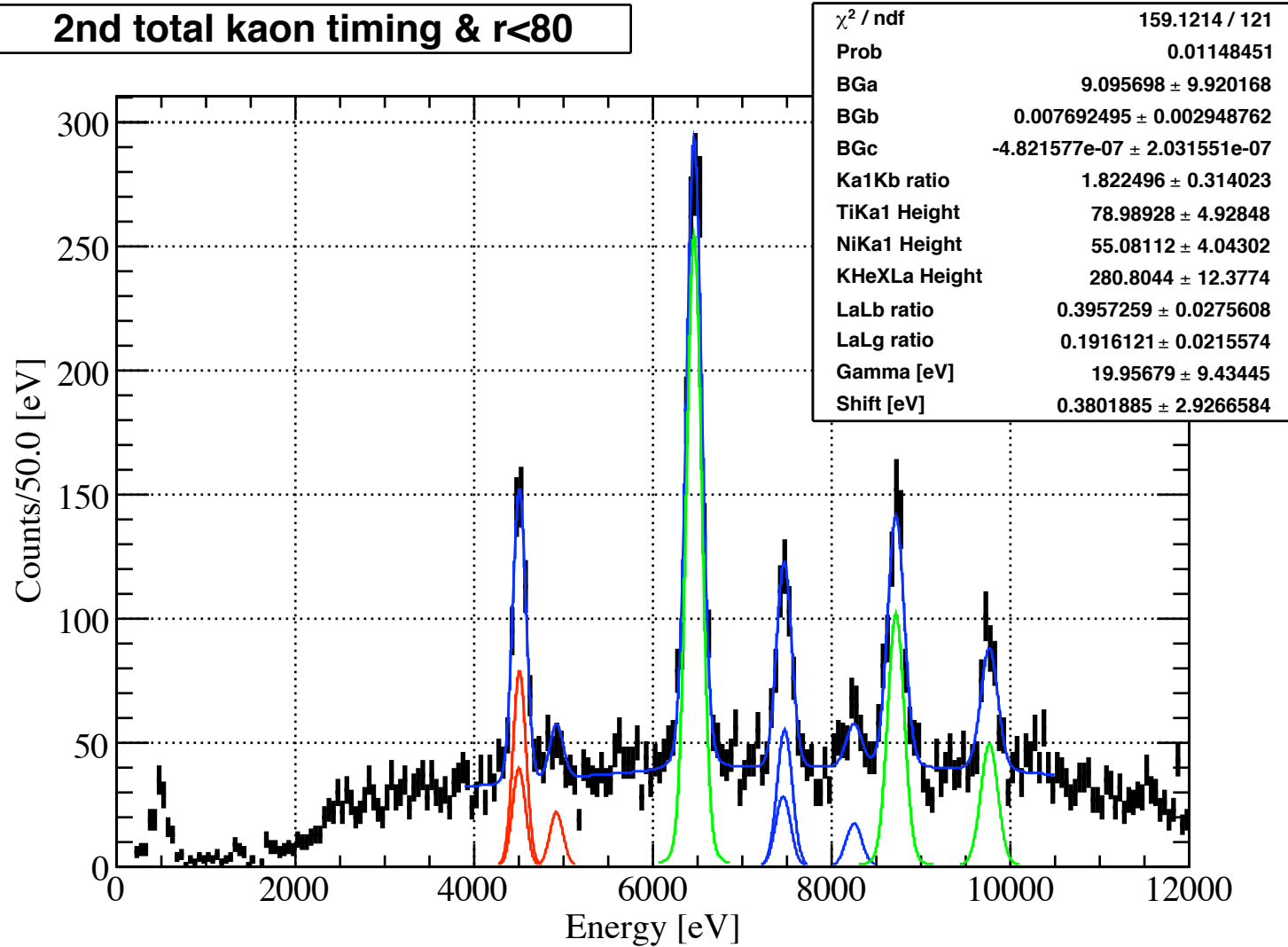
TDC kaons timing cut & r < 80 mm

1st cycle



TDC kaons timing cut & r < 80 mm

2nd cycle



Summary

The shift of KHeX La energy (modified)

	<i>cuts</i>	<i>shift from 6464 eV</i>	<i>statistical error (1σ)</i>
1st cycle	TDC only	-7.83	3.38
	TDC & z	-8.16	3.53
	TDC & r (1)	-3.61	3.72
	TDC & r (2)	-6.16	3.67
2nd cycle	TDC only	-6.27	2.59
	TDC & z	-1.09	2.75
	TDC & r (1)	-0.64	3.14
	TDC & r (2)	0.38	2.93