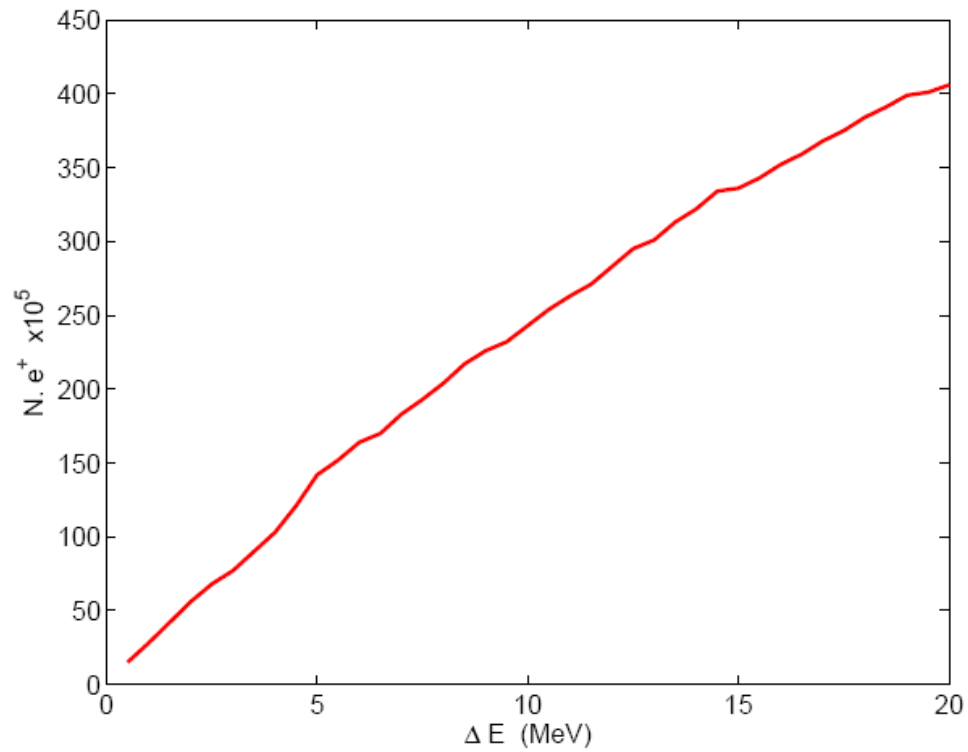


Capture Simulation Update

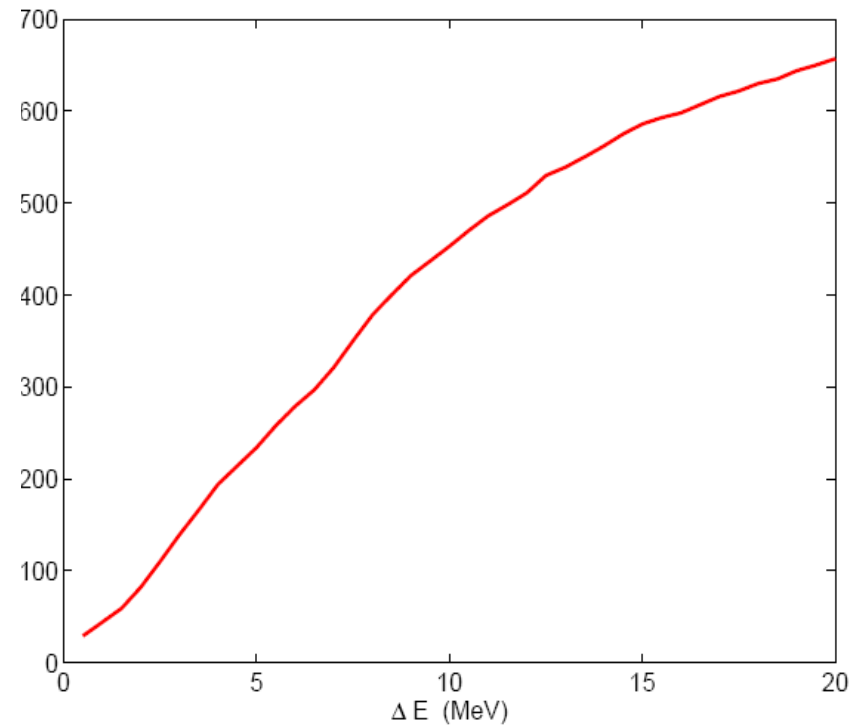
Alessandro Vivoli, Robert Chehab, Alessandro Variola

Type	N. e ⁺	ϵ_x π mm mrad	ϵ_y π mm mrad	ϵ_z π cm MeV	σ_z cm	σ_E MeV	σ_x cm	σ_y cm
1.8 / 5 182 MeV	6.85 10 ⁷	20	15	2.66	0.53	5.16	0.48	0.39
1.8 / 5 4.996 GeV	6.24 10 ⁷	1.16	0.96	30.96	0.49	63.75	0.74	0.70
1.8 / 5 177 MeV	7.01 10 ⁷	19	16	2.62	0.30	9.03	1.10	0.46
1.8 / 5 4.981 GeV	6.81 10 ⁷	1.52	0.83	9.42	0.30	31.1	0.80	0.59
1.8 / 5 177 MeV	7.01 10 ⁷	19	17	3.5	0.28	12.87	1.50	0.63
1.8 / 5 3.861 GeV	6.40 10 ⁷	2.4	1.2	7.1	0.27	28.1	0.94	0.65



N. e^+ in 5000 ± 2 MeV : $0.56 \cdot 10^7$ (8.2 %)

N. e^+ in 5000 ± 3 MeV : $0.77 \cdot 10^7$ (11.3 %)



N. e^+ in 3861 ± 2 MeV : $0.42 \cdot 10^7$ (6.5 %)

N. e^+ in 3861 ± 3 MeV : $0.70 \cdot 10^7$ (10.9 %)

To reduce the energy spread

- Employment of a shorter beam at the beginning of the LINAC.
- Insertion of an energy compressor at 5 GeV.