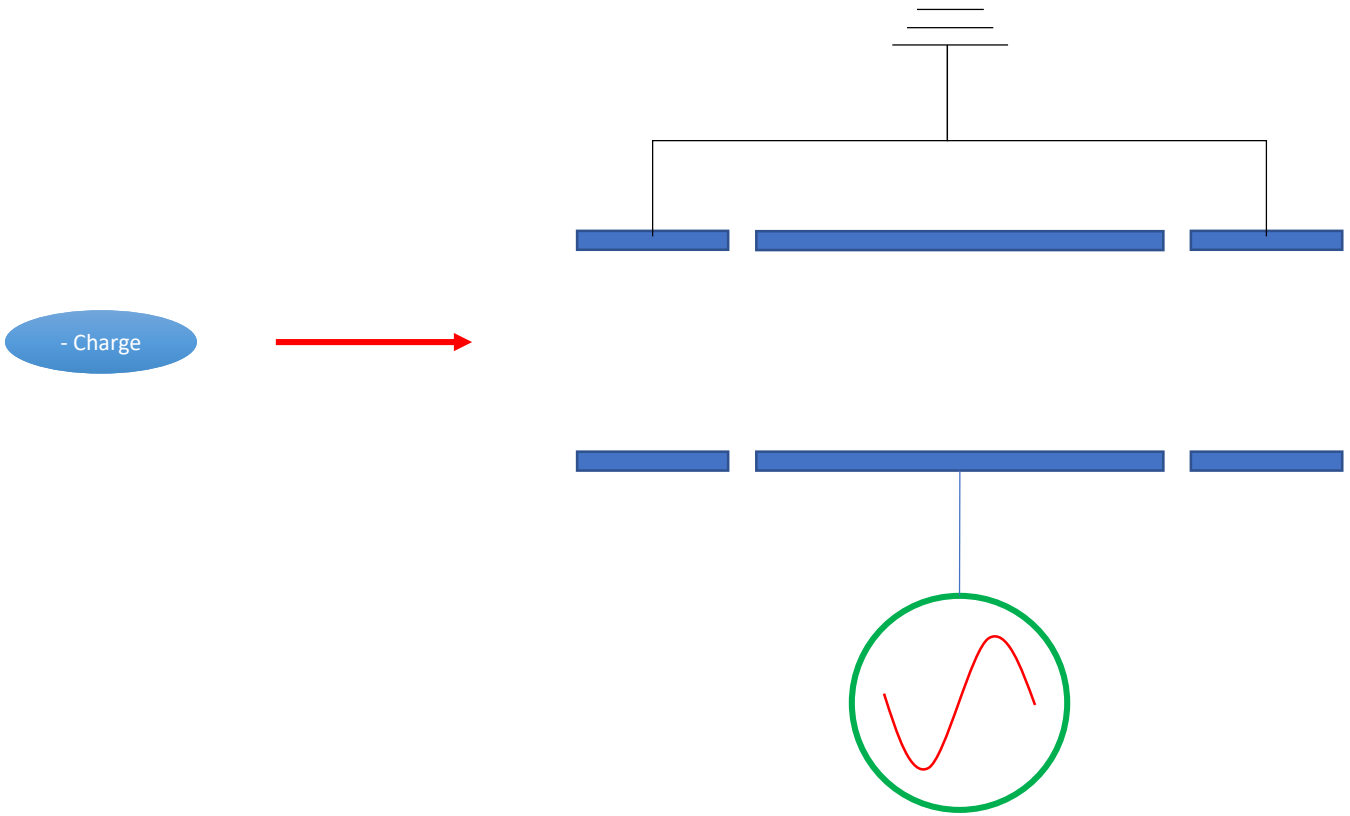
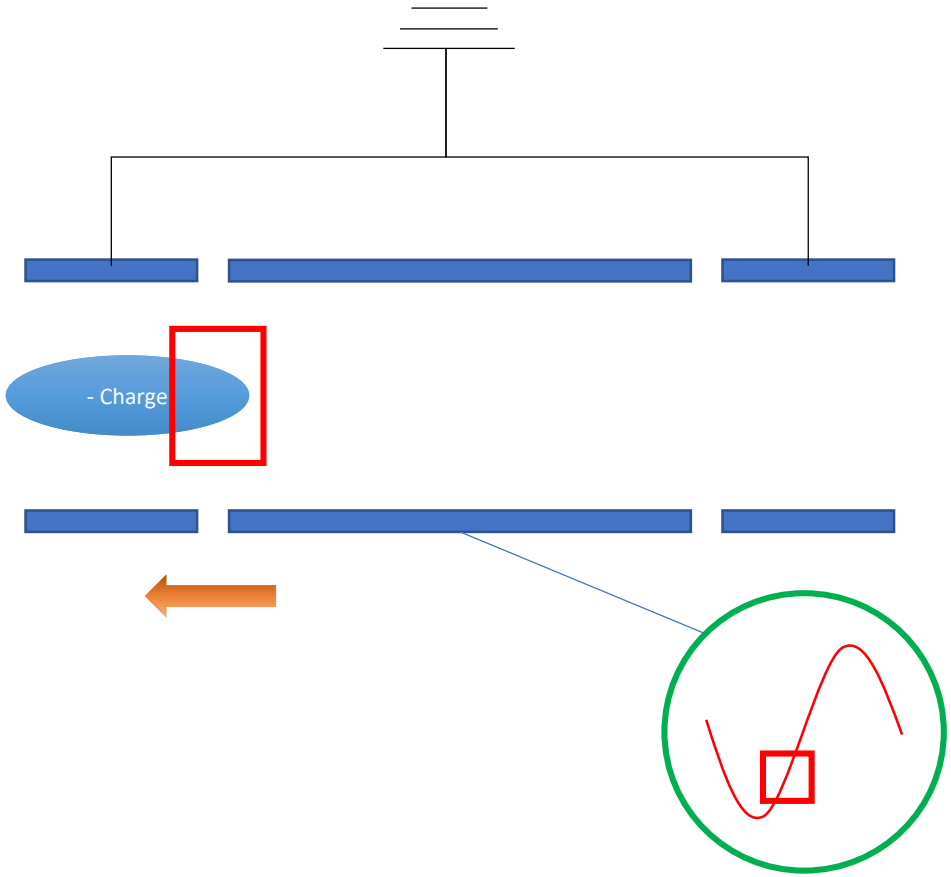
Meeting 0712

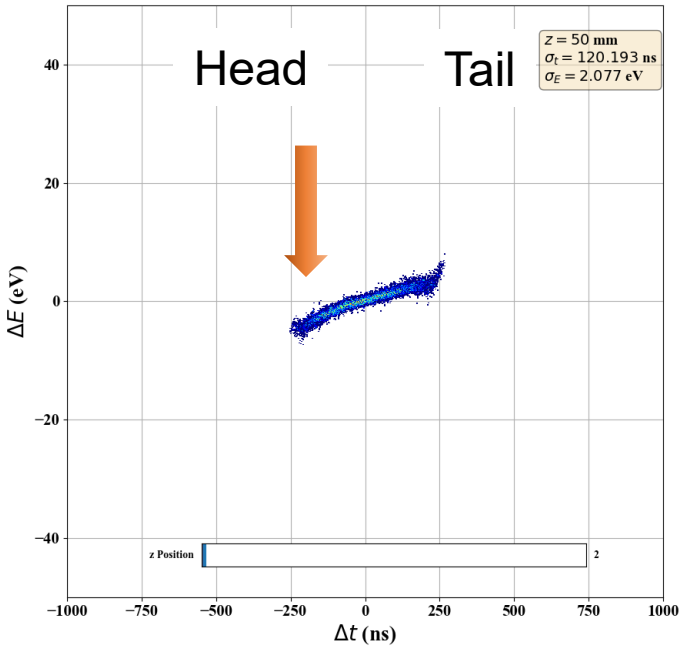
Kyoung-Hun Yoo

Double Gap Buncher

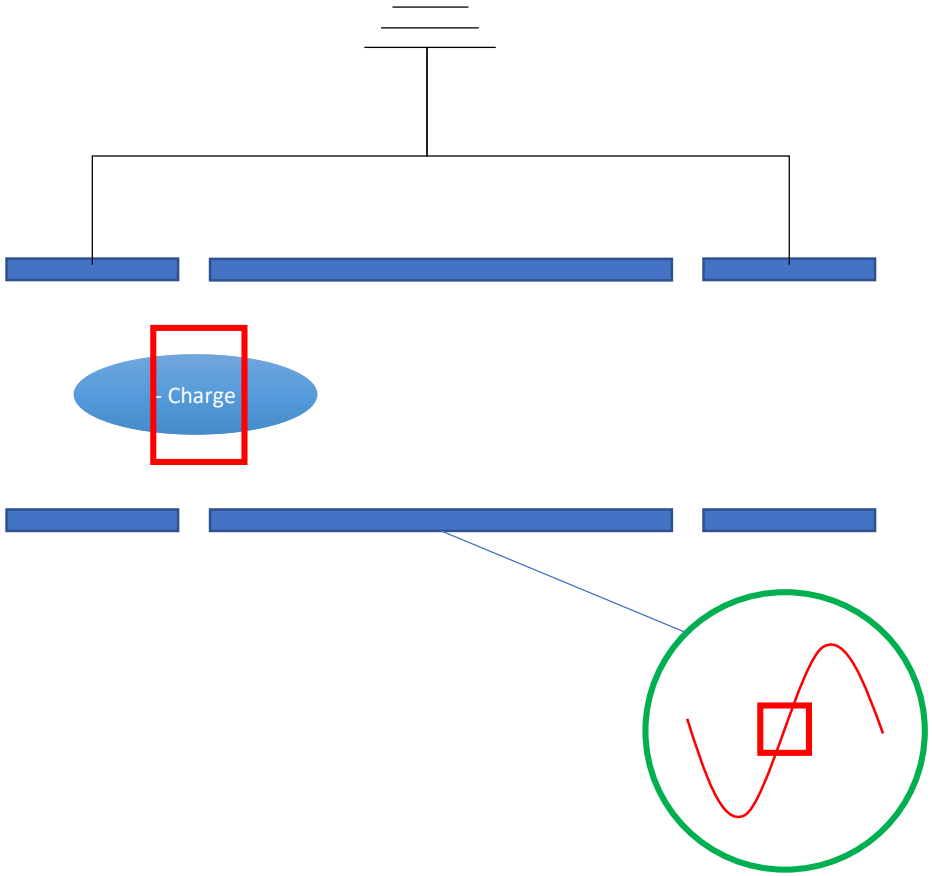


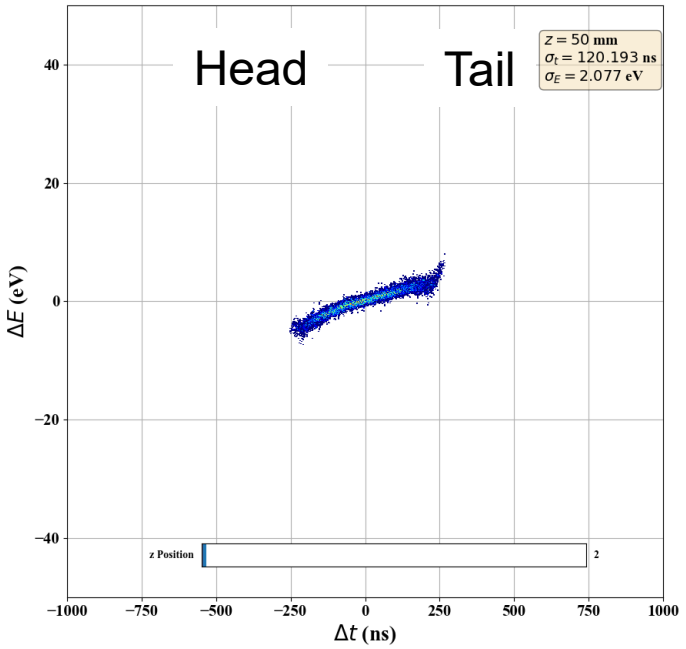
Double Gap Buncher (1st Gap)



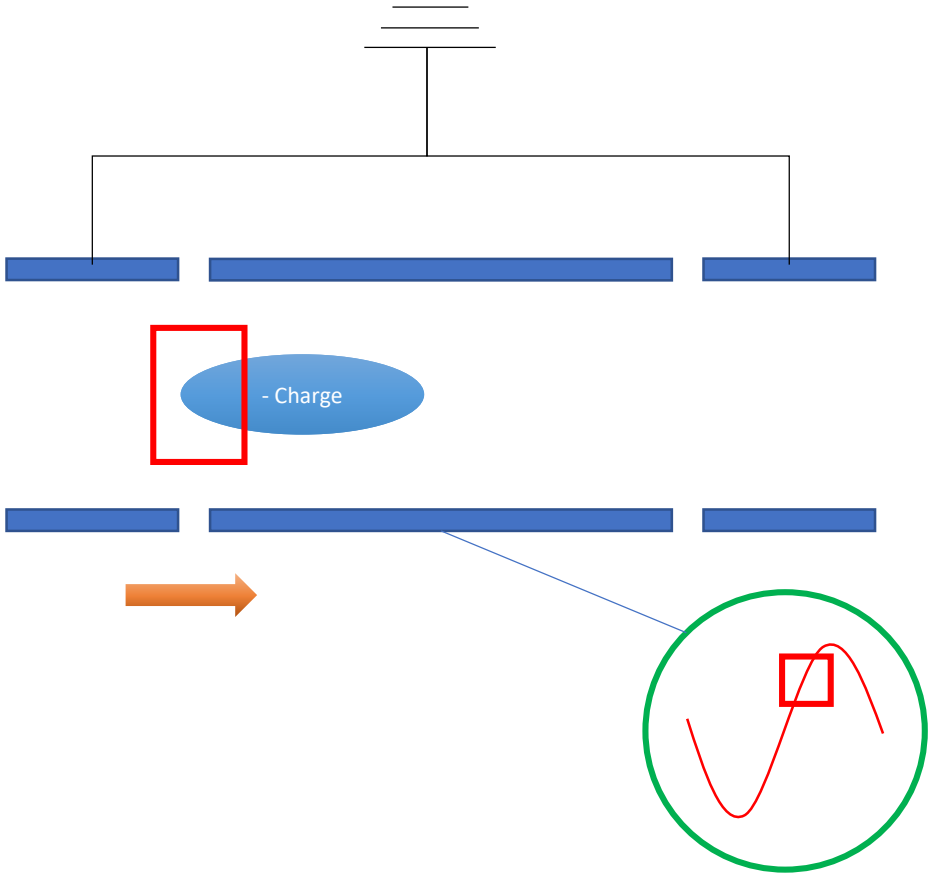


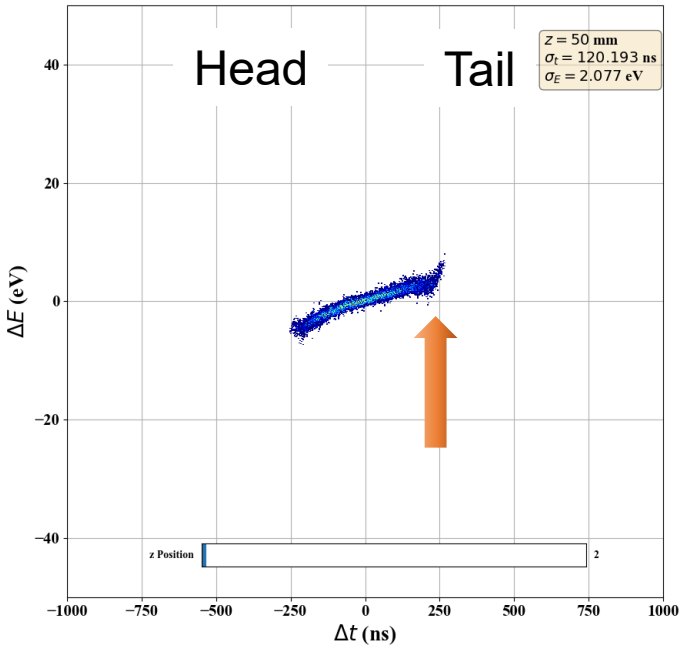
Double Gap Buncher (1st Gap)



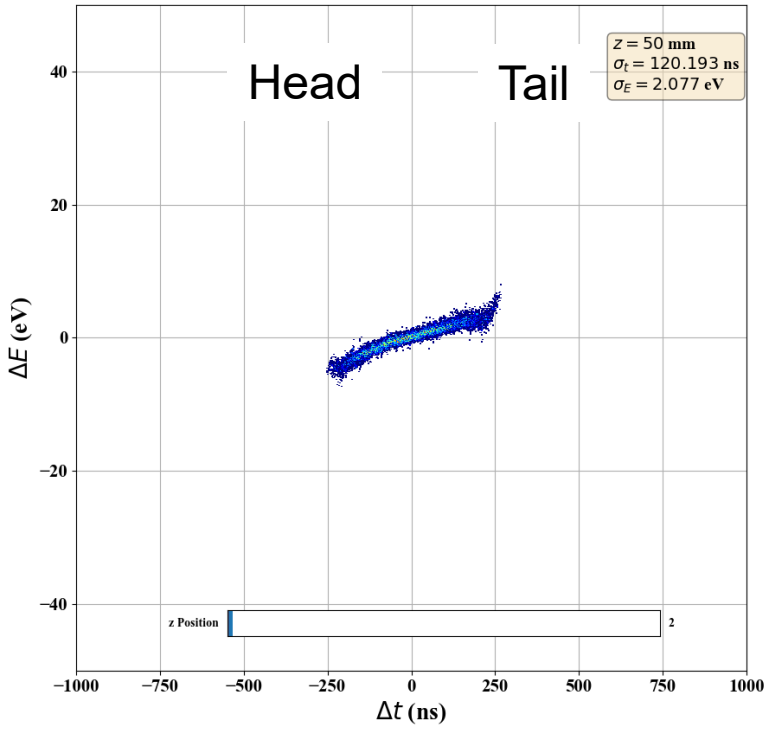


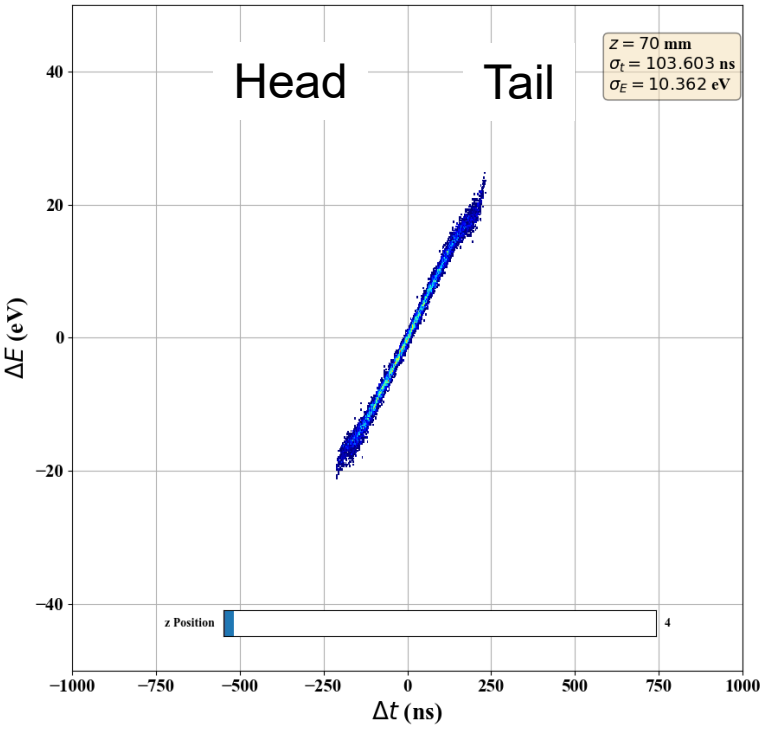
Double Gap Buncher (1st Gap)



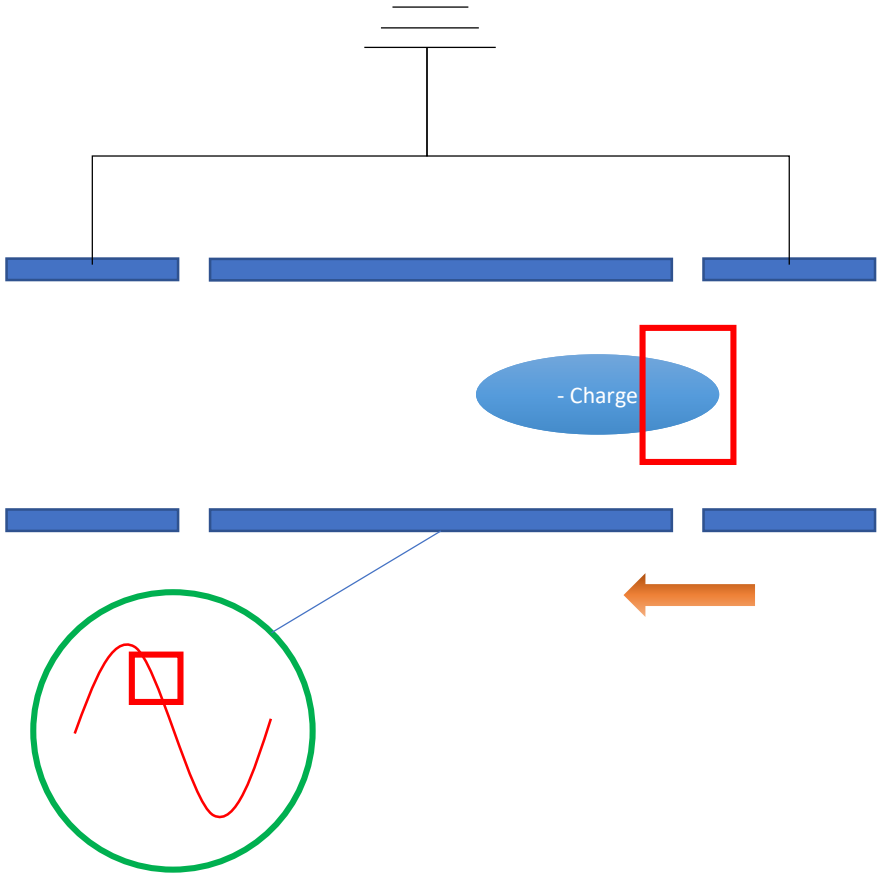


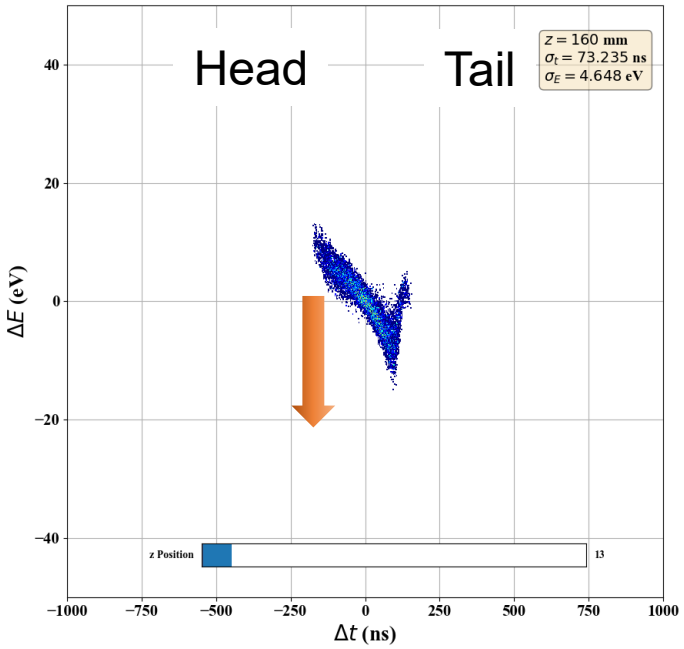
Double Gap Buncher (1st Gap)



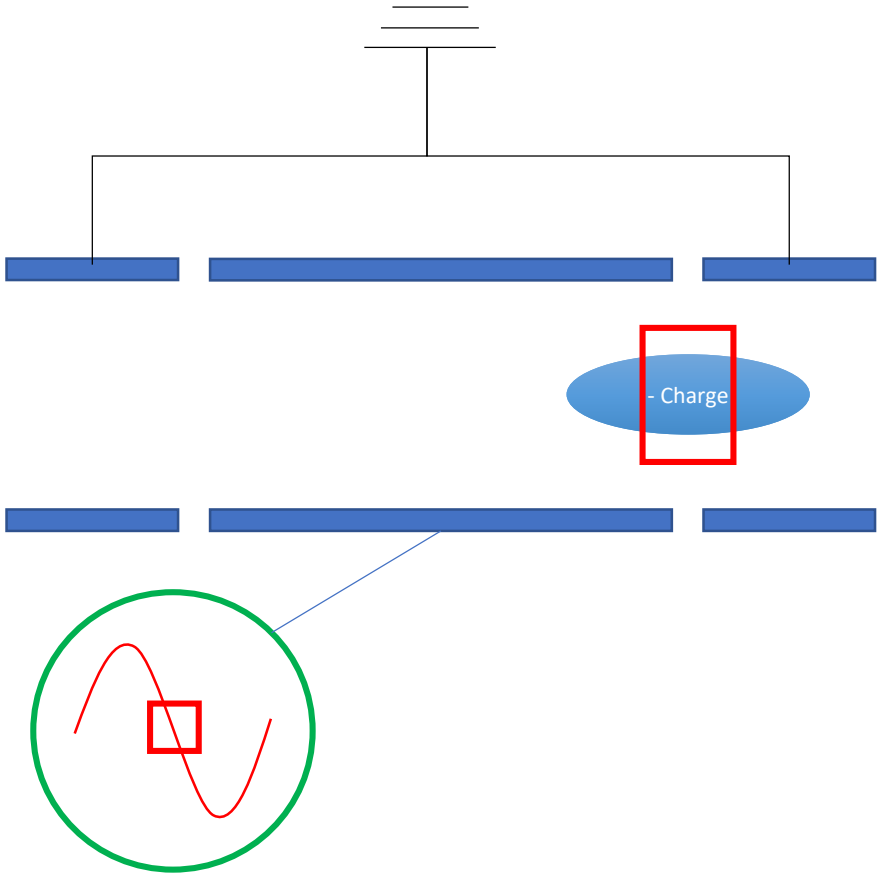


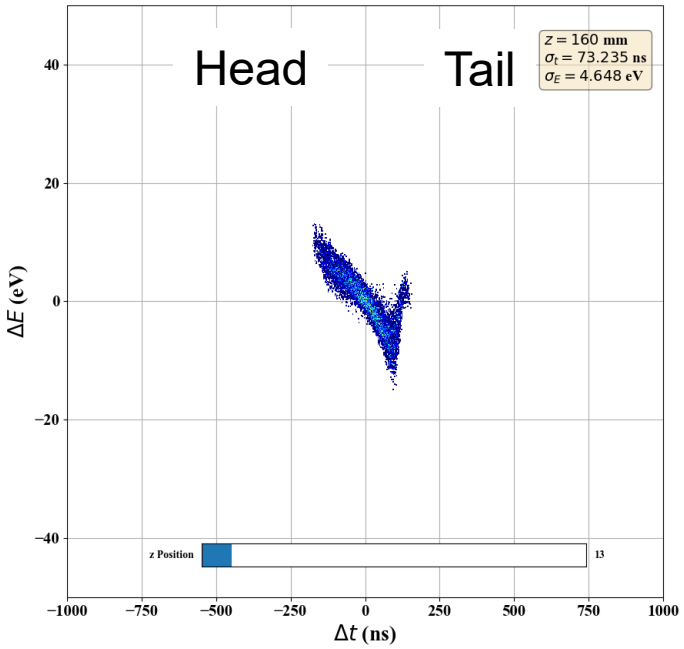
Double Gap Buncher (2nd Gap)



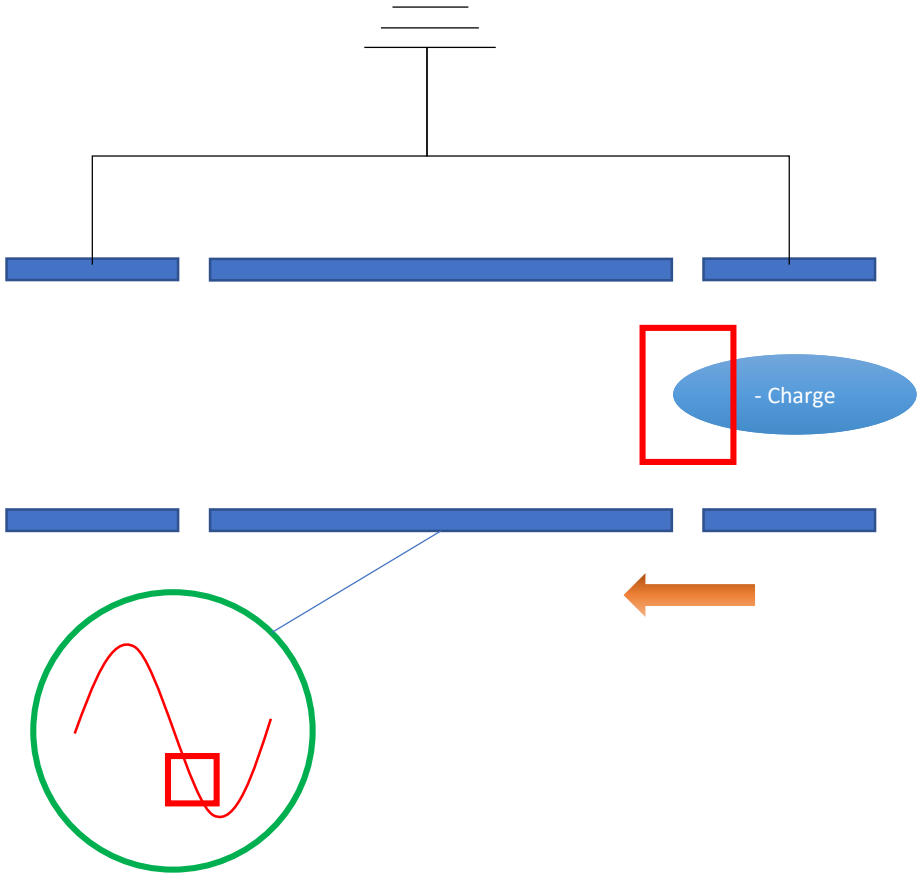


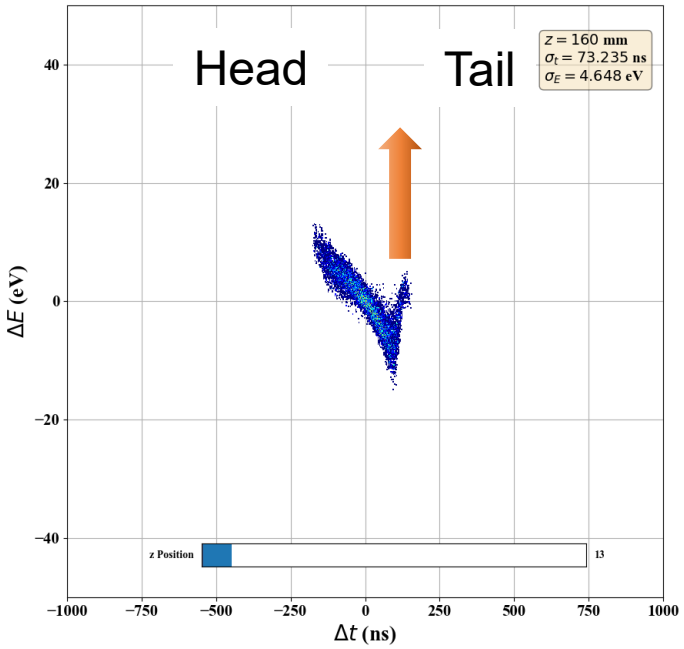
Double Gap Buncher (2nd Gap)



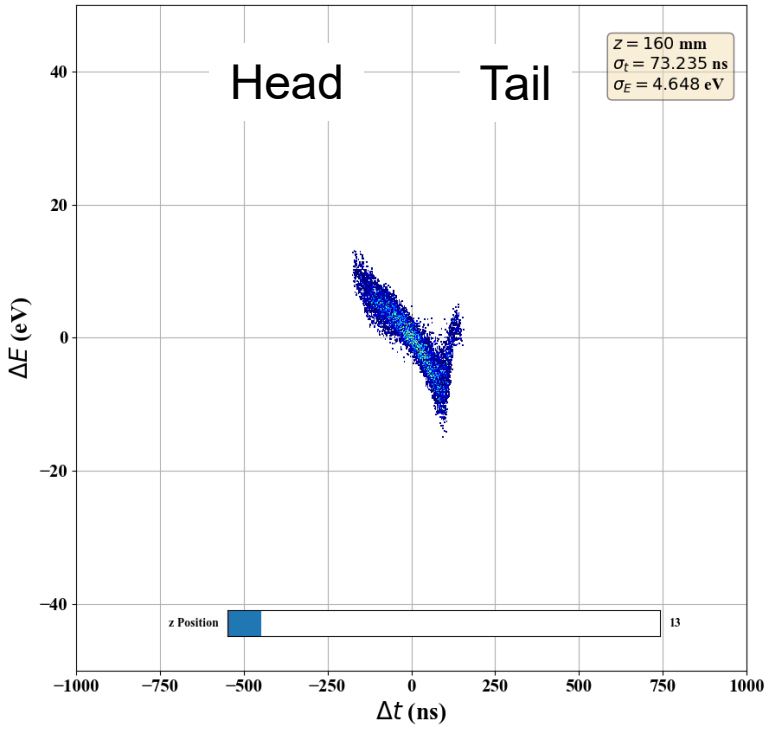


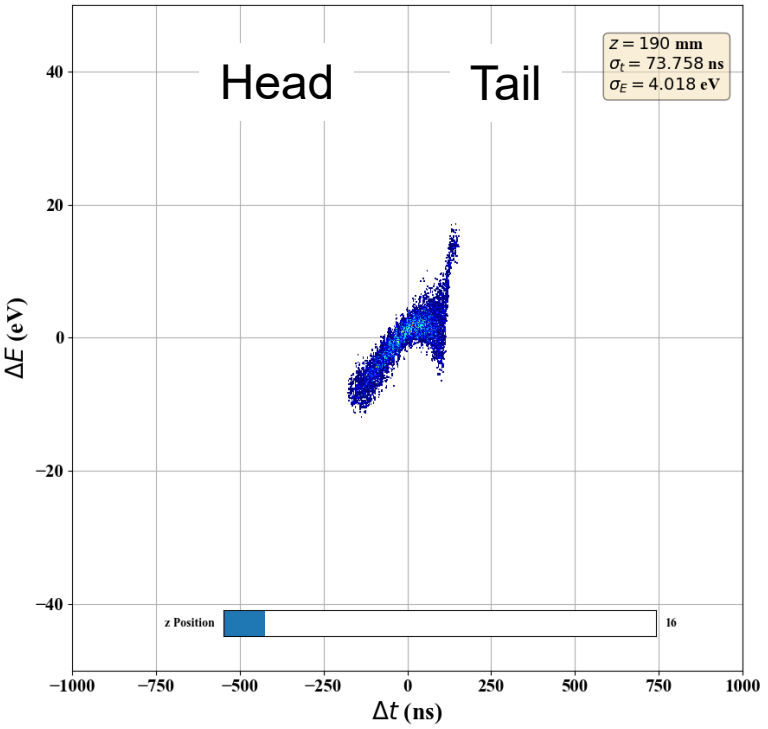
Double Gap Buncher (2nd Gap)





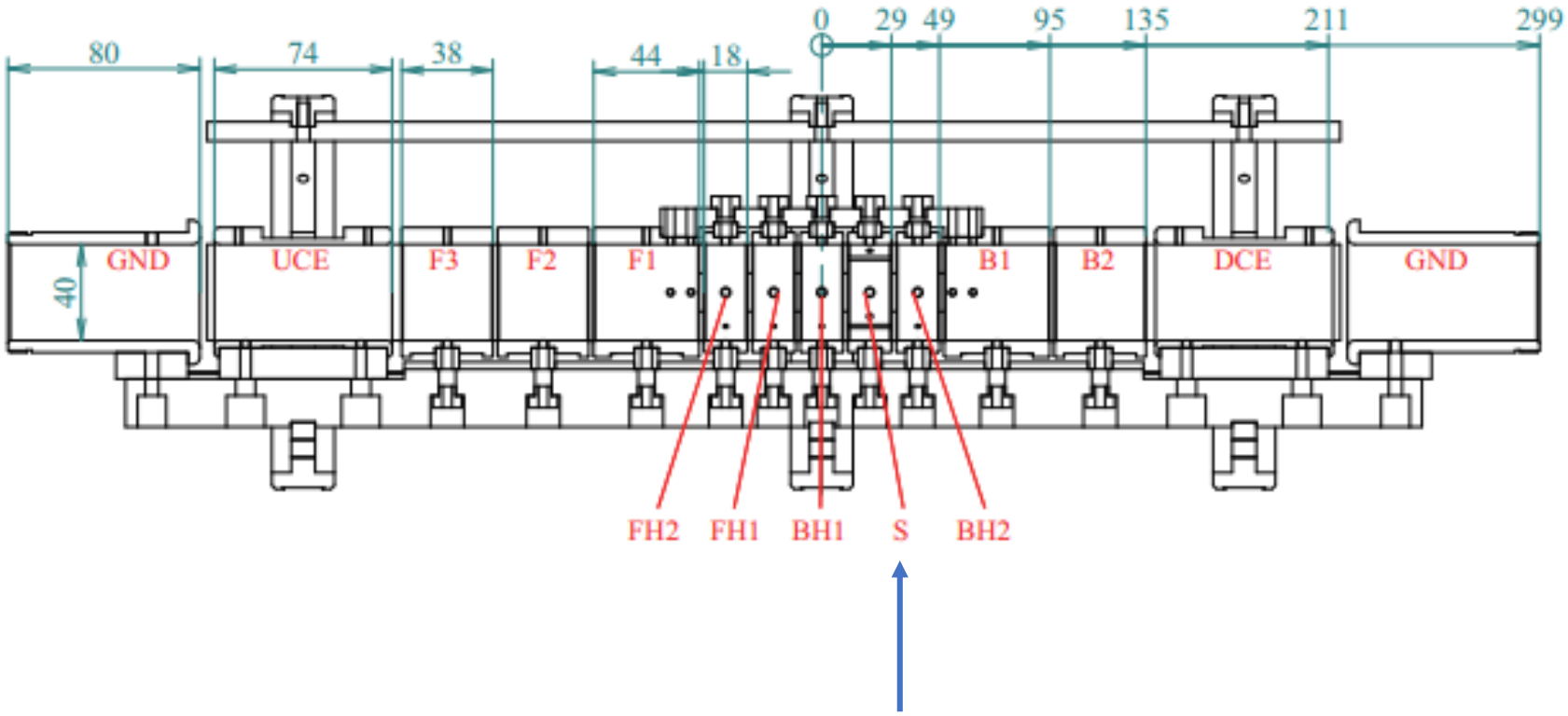
Double Gap Buncher (2nd Gap)





MUSASHI

[Enomoto, Ph.D Thesis]



ALPHA

Rotating Wall

[Andrea, Ph.D Thesis]

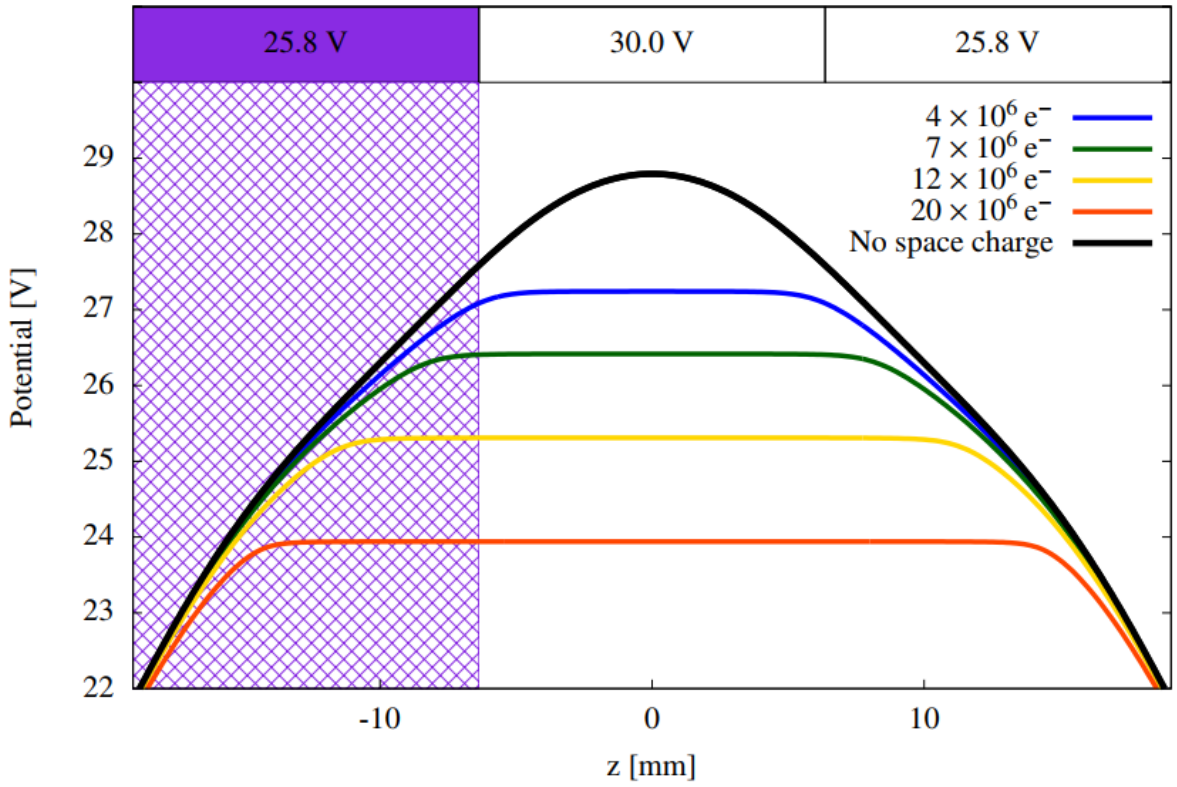
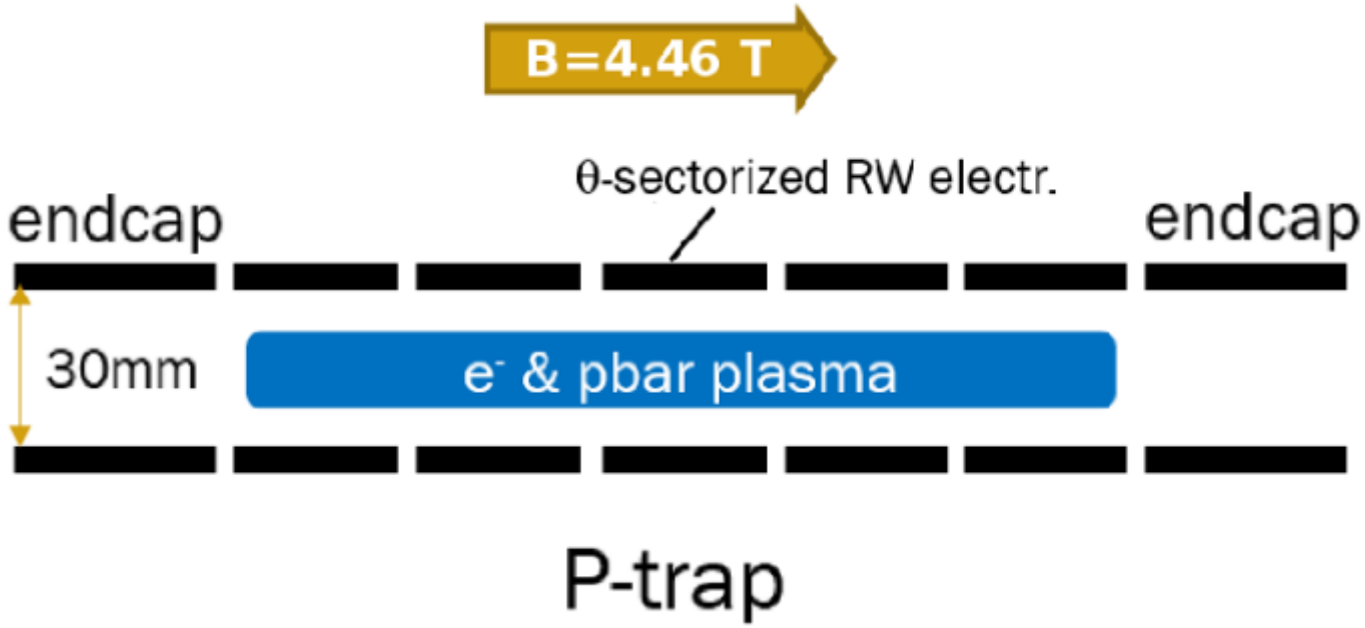


Figure 5.10: Voltage applied to the electrodes and the resulting on axis potential for different numbers of electrons. The potential is calculated by simultaneously solving the Poisson and Boltzmann equations. The purple electrode and hatched region illustrates the position of the rotating wall electrode. The black curve is the vacuum potential.

AEgIS

[Stefano Aghion et al., Compression of a mixed antiproton and electron non-neutral plasma to high densities]



Other Cases

[Trapped Charged Particles, Ch. 11]

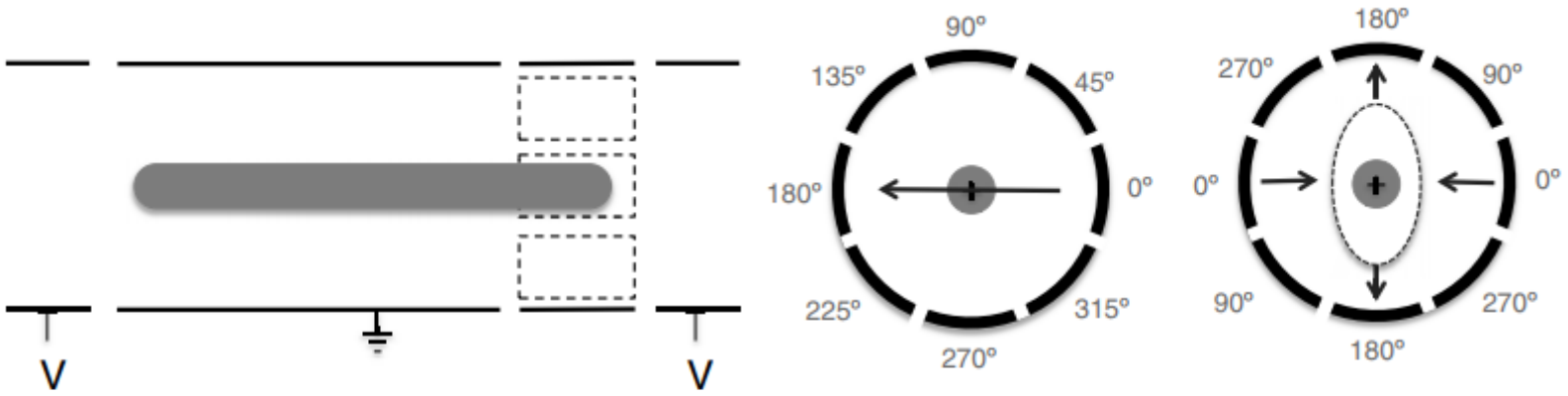


Fig. 2. Segmented electrode to apply "rotating wall" perturbation with dipole $m_\theta = 1$ and quadrupole drive $m_\theta = 2$.

Other Cases

[X.-P. Huang et al., Steady-State Confinement of Non-neutral Plasmas by Rotating Electric Fields]

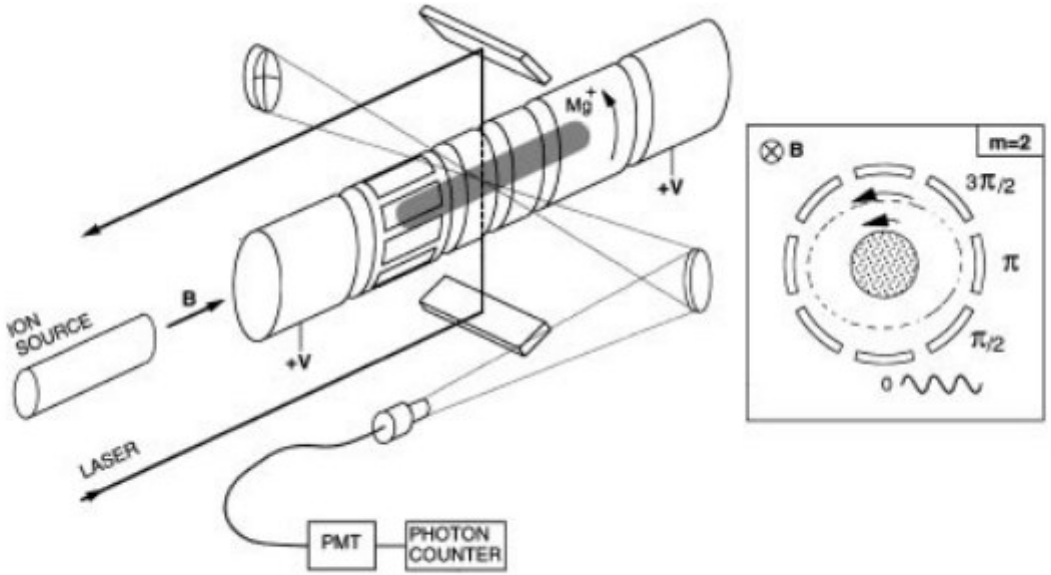


FIG. 1. Ion trap with perpendicular LIF diagnostics, and schematic of $m = 2$ rotating field wall sector signals.

Using Mg+ Ion

Rotating Wall

	Particle	Frequency (f MHz)	Amplitude (V)
MUSASHI	$\bar{p}$	0.247	0.28
ALPHA	$\bar{p} + e^-$	10	-
	$\bar{p} + e^-$	0.1 ~ 0.75	1
AEgIS	-	-	-