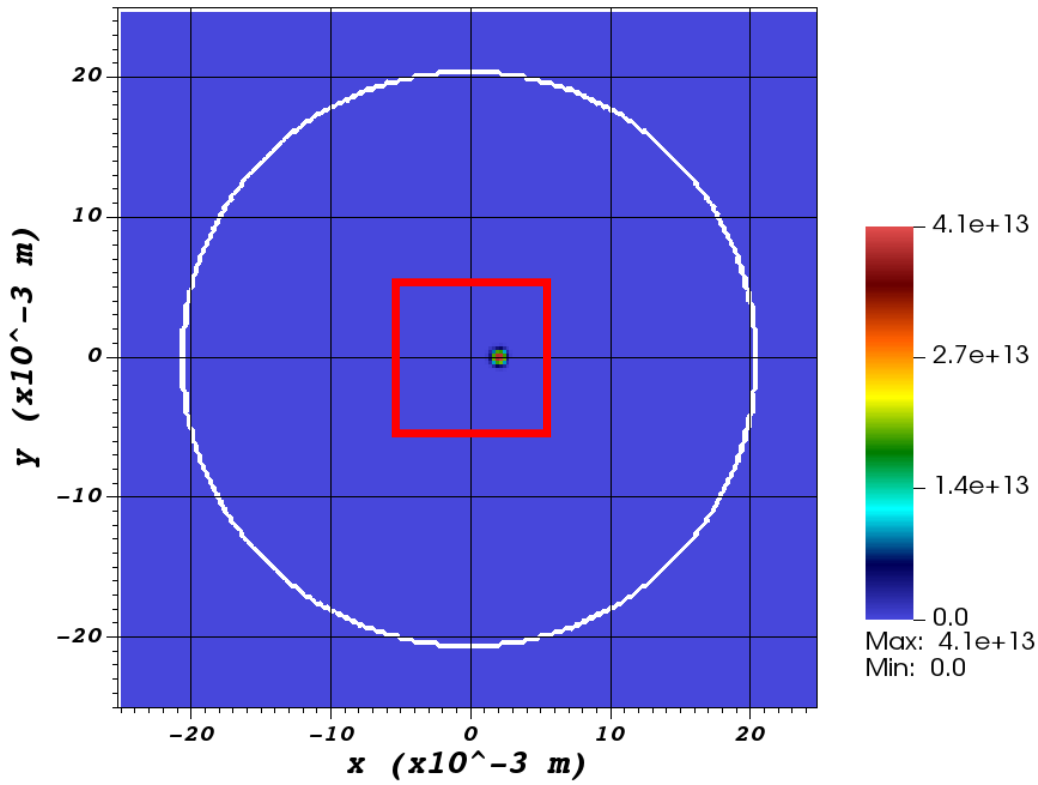


LhARA Capture Meeting

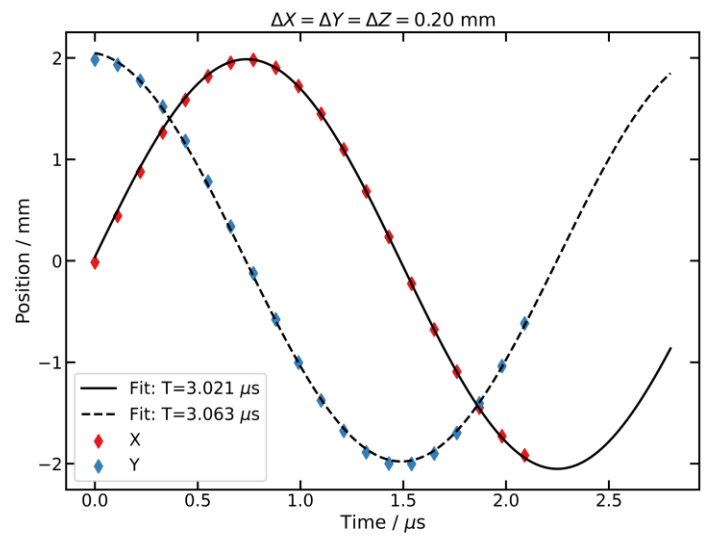
13th January 2022

Titus Dascalu

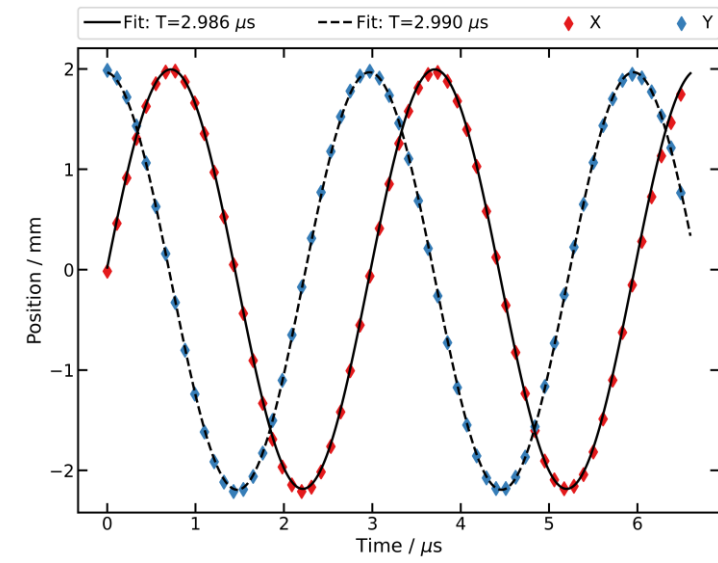
Speed up single simulation



- Fields are kept constant throughout the simulation (no effect of the charges induced in anode wall, ~ 1 kHz for rigid plasma column)

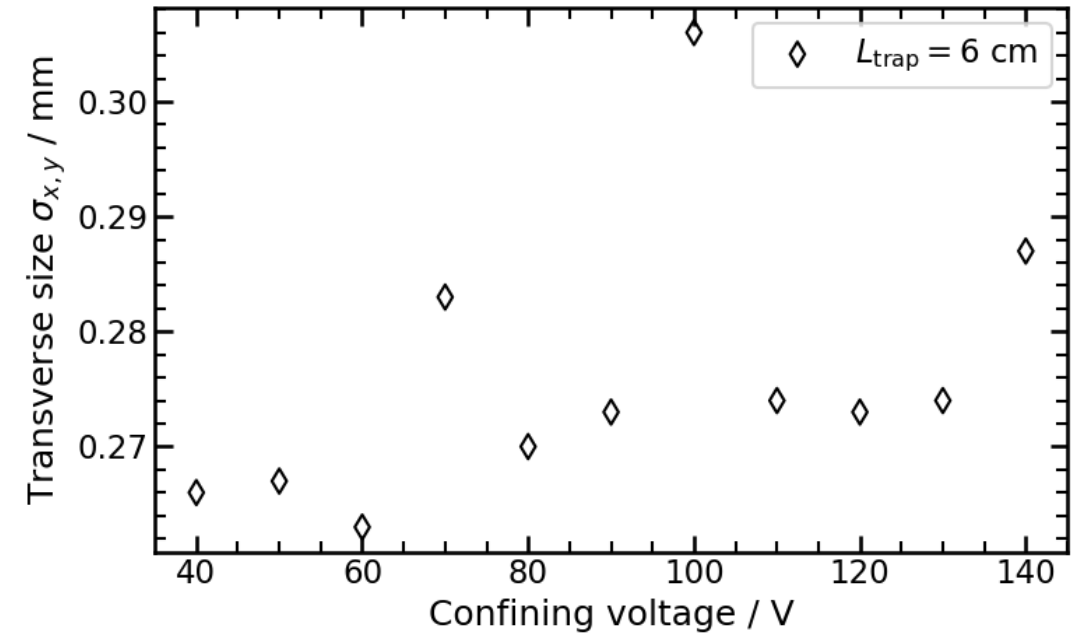
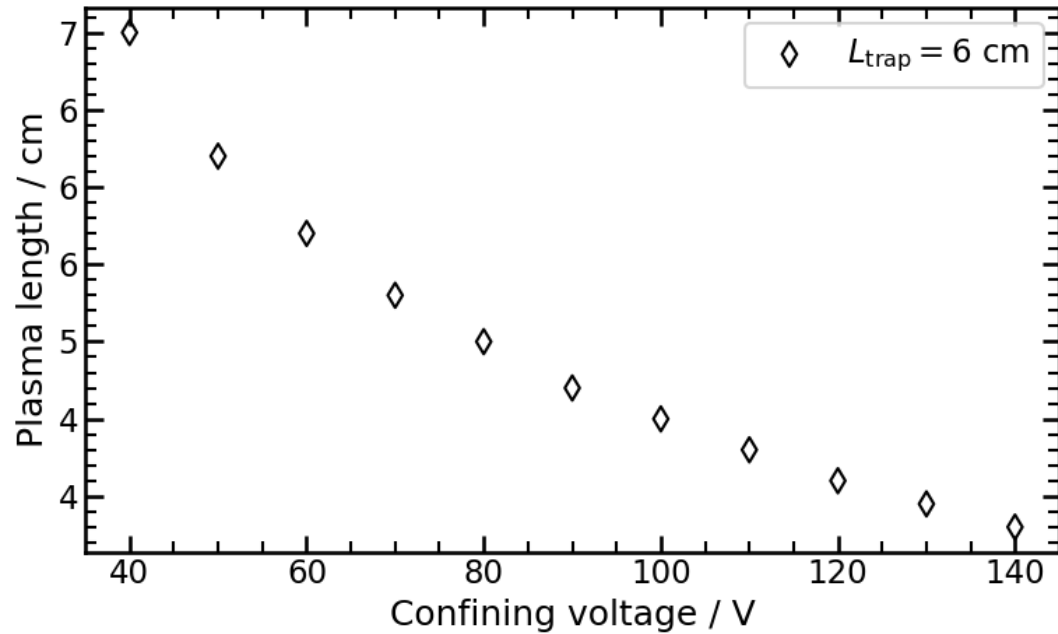


~ 48 hours
(16 CPUs)



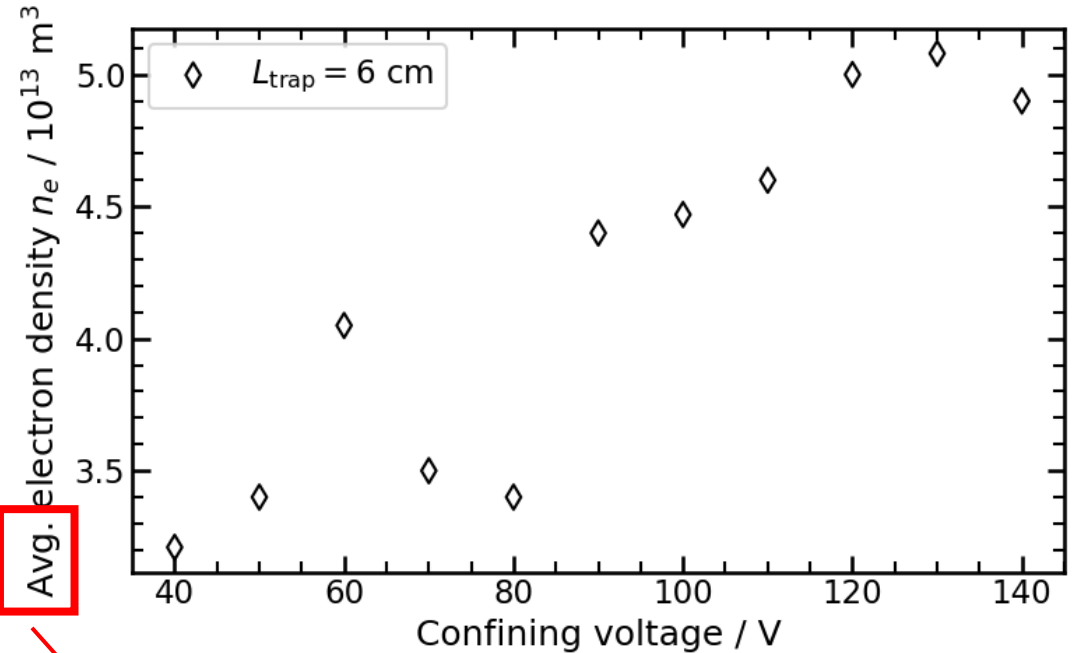
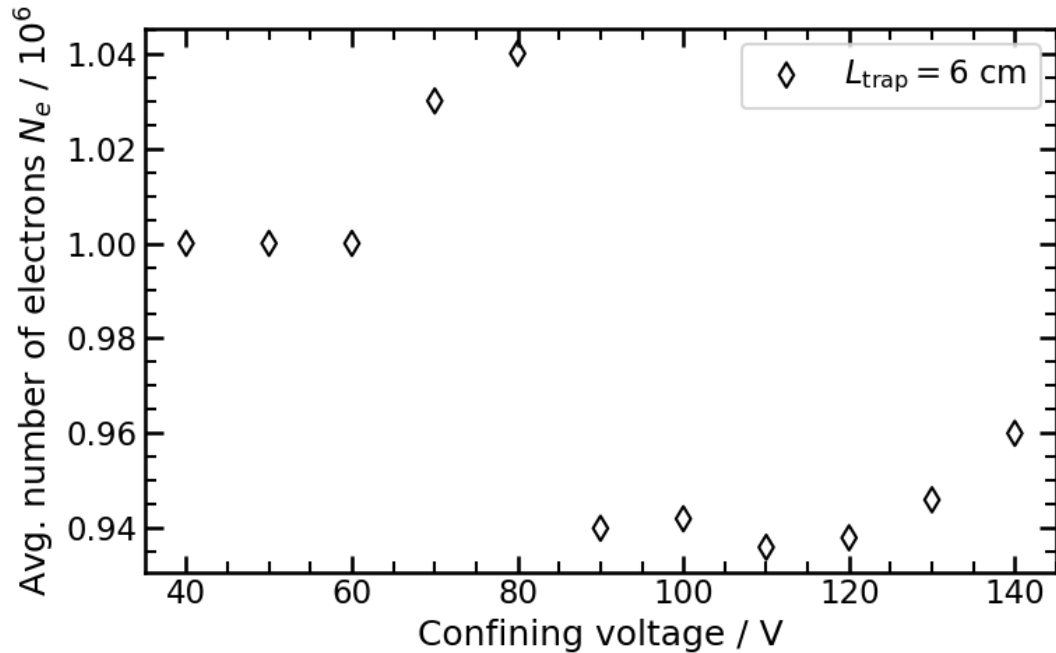
~ 24 hours
(16 CPUs)

Characterisation of observed 'plasmas'



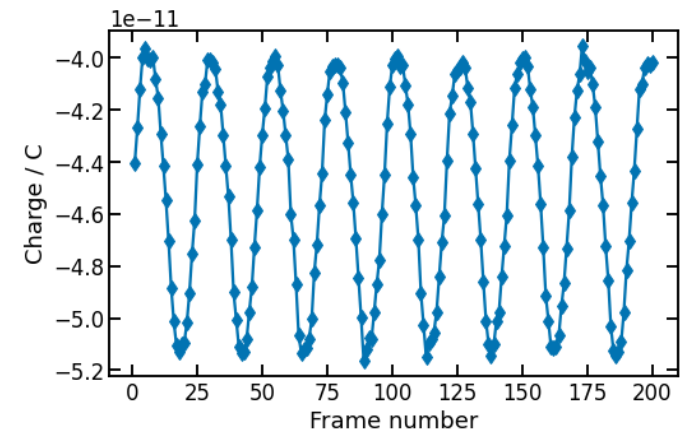
- Plasma length calculated based on
 - average beam energy: 25 eV
 - confining potential in the trap

Characterisation of observed 'plasmas'



- Plasma length calculated based on
 - average beam energy: 25 eV
 - confining potential in the trap

Avg. electron density



Preliminary comparison to simulation

