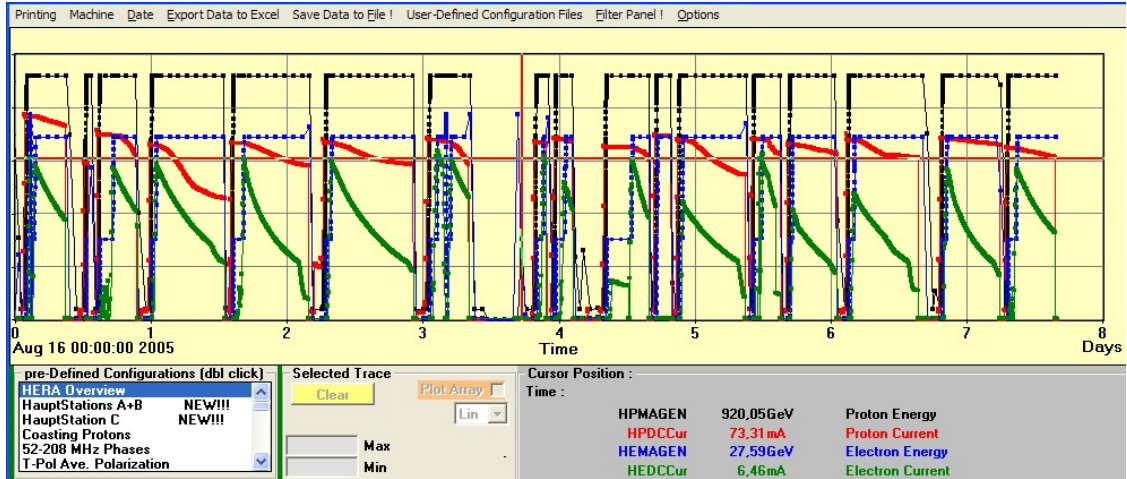


HERA Overview: Week 33



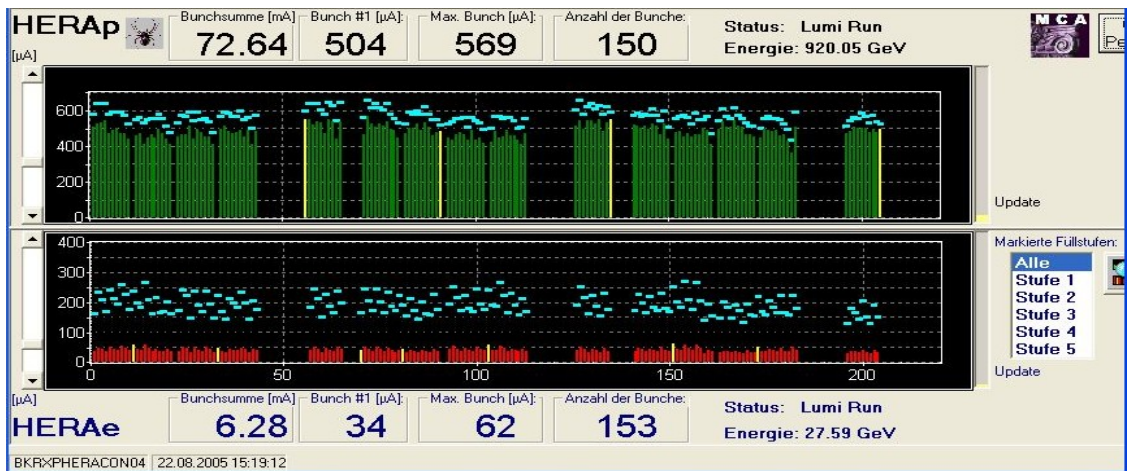
HERA delivered 13 Luminosity runs during the past week.

Typical proton beam currents: $I_p = 78 \dots 92 \text{ mA}$
 Electron beam currents: $I_e = 27 \dots 38 \text{ mA}$
 in 150 Bunches.

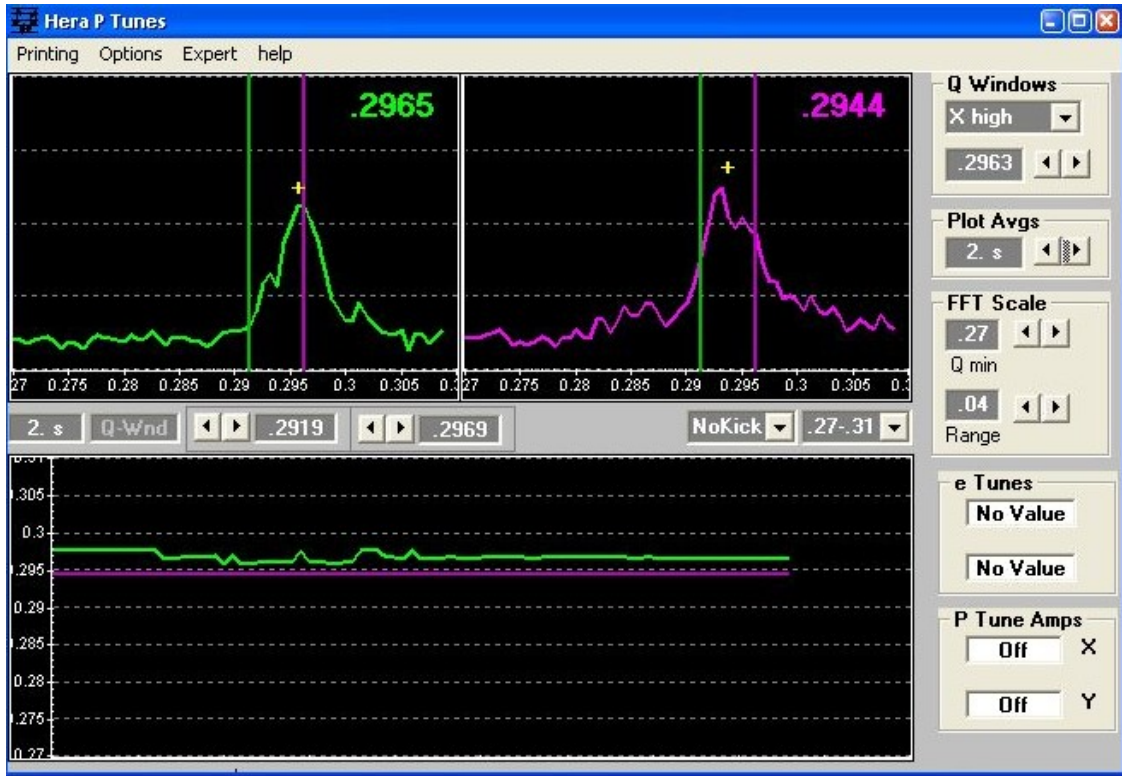
The major problem during the week: Low proton beam lifetime during collisions.
 The problem has been studied parasitically during luminosity operation.

Bunch currents of protons & electrons after a long luminosity run:

If properly tuned, the proton pilot bunches and the colliding bunches have approximately the same lifetime.
 Indicating that the proton beam is – as far as we can judge – not stronger limited by beam beam forces than usual.



A new working point in the proton ring has been established on Monday morning (22.Aug. 2005) that leads to better proton beam lifetime and lower background rates. The machine is operated – with good experience until now using these new settings.



Lifetime of the protons during collision when the new working point had been established: With a stored beam current of 75mA the lifetime grows from 20h to 250 h.

