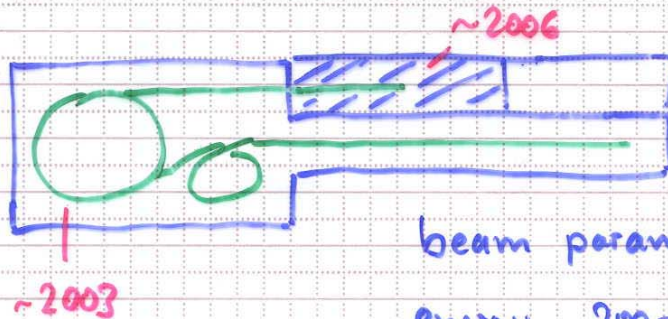


possible nanobeam studies @ CTF3



beam parameters:

energy 200-400 MeV

σ_{\perp} 1-4 μm

σ_z 1 ps

σ_r 0.1-0.25%

charge 1-5 nC

topics of interest (incomplete):

compact final focus $\sigma_y \approx 0.2 - 1.0 \mu\text{m}$

octupole tail folding, tuning schemes

nonlinear collimation

solenoid, crossing angle, crab cavities

rf BPMs (resol., stability, tilt, slope-meas.)

stabilization & vibration, wake fields

flat-beam gun, dc gun

profile diagnostics, tail dynamics, ...