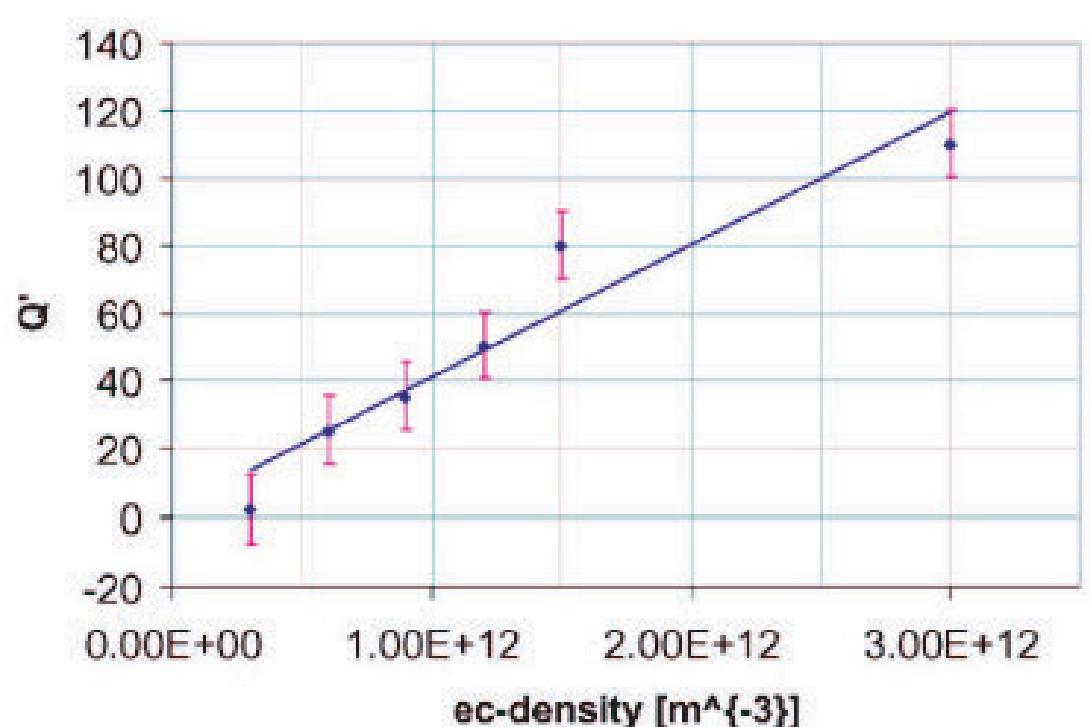
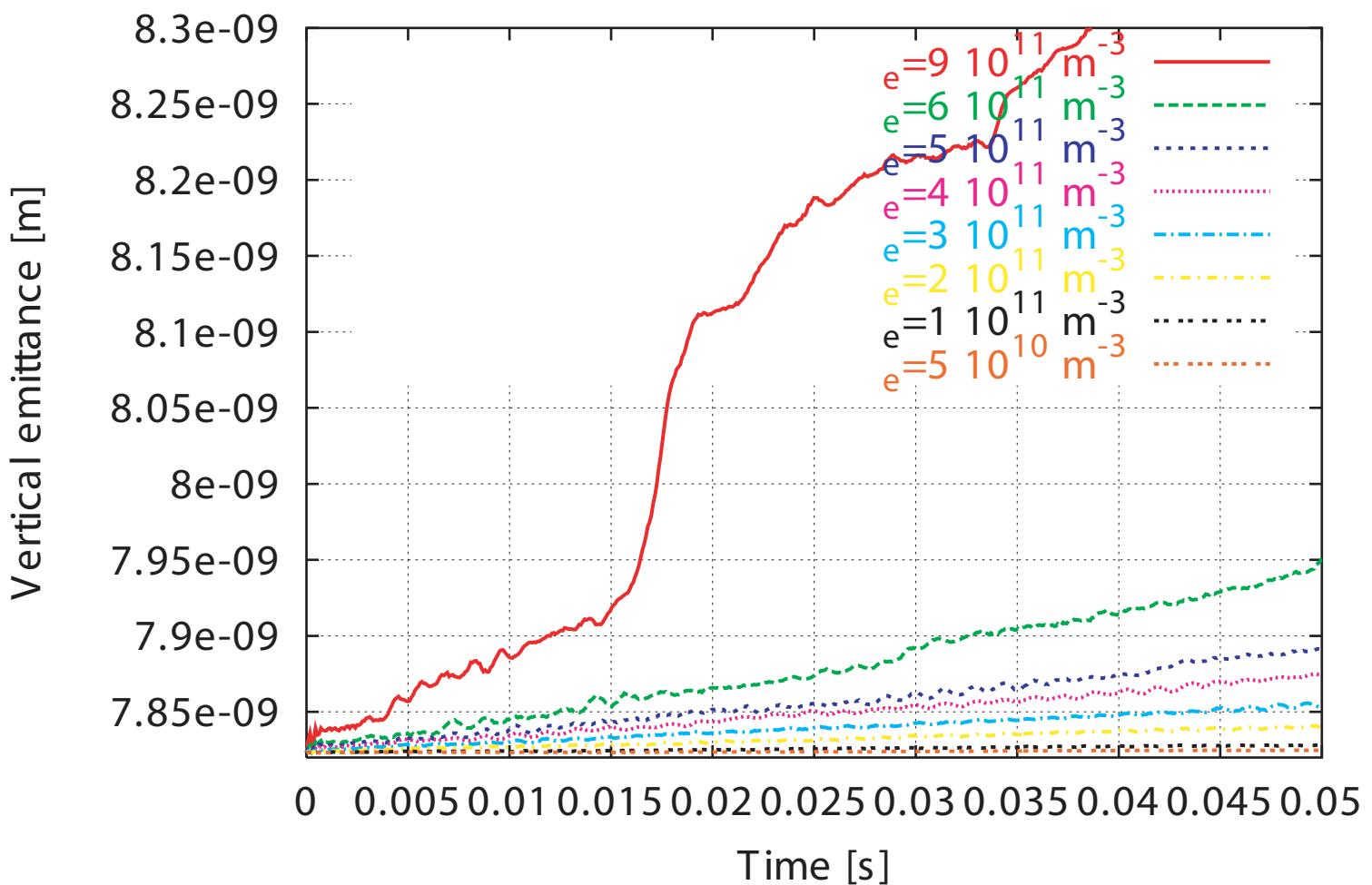


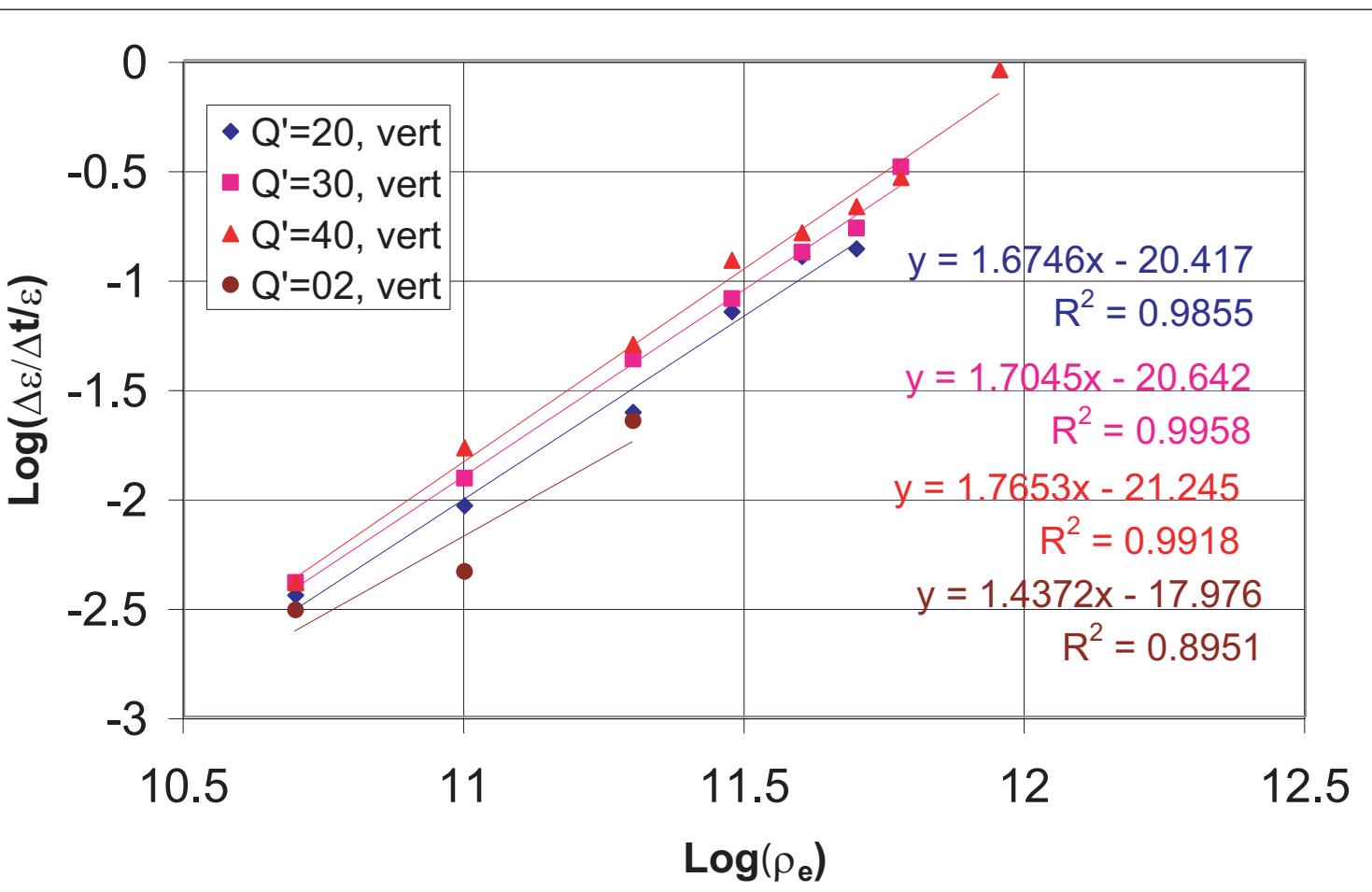
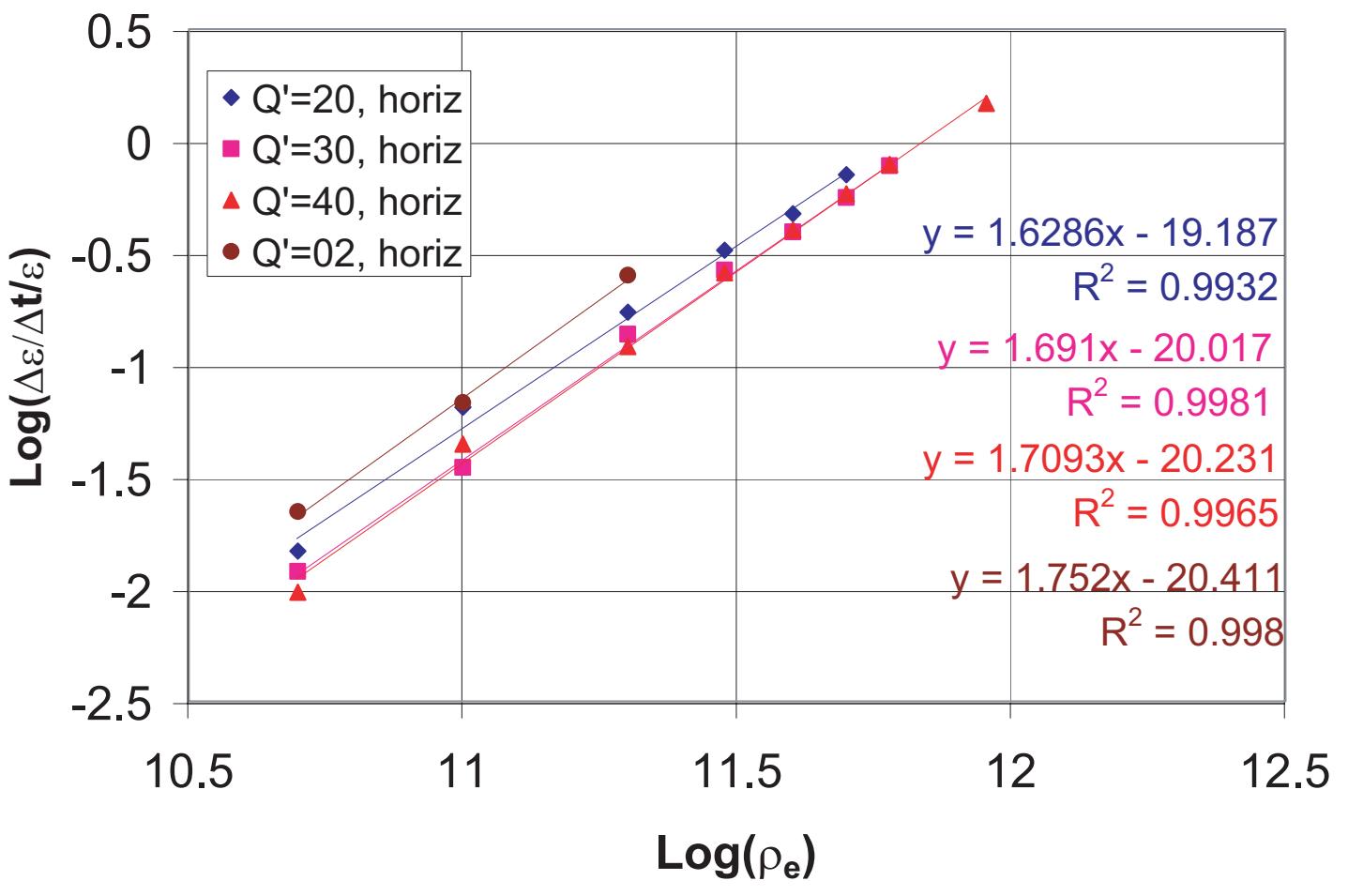
Emittance growth vs. time (for parametres of LHC @ injection)  
 variing the chromaticity  
 ->EVIDENCE OF A SLOW GROWTH REGIME



Chromaticity at witch the transition between the two regimes  
 occur as a function of the electron cloud density

Chromaticity  $Q' = 30$ ,  
decreasing electron cloud density below the threshold

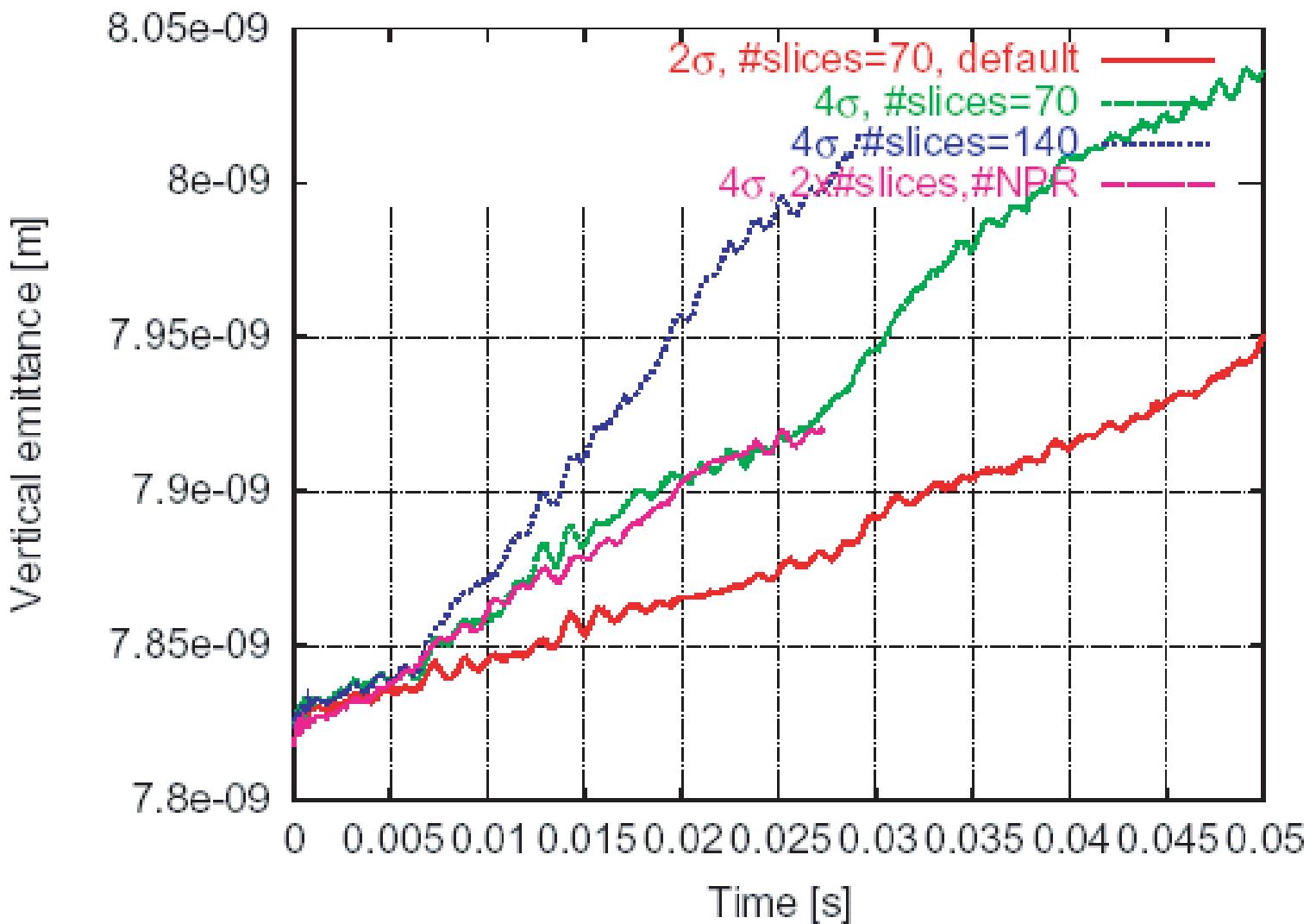




## BELOW THE THRESHOLD

Effect of the longitudinal bunch extension taken into account into the simulation:

- default=  $\pm 2 \sigma$
- tryed with  $\pm 4 \sigma$
- increased number of slices
- # of macroparticles



The bunch is Gaussian, so in tails at  $4 \sigma$   
I have only a few particles  
-> is it the reason why it is unstable?