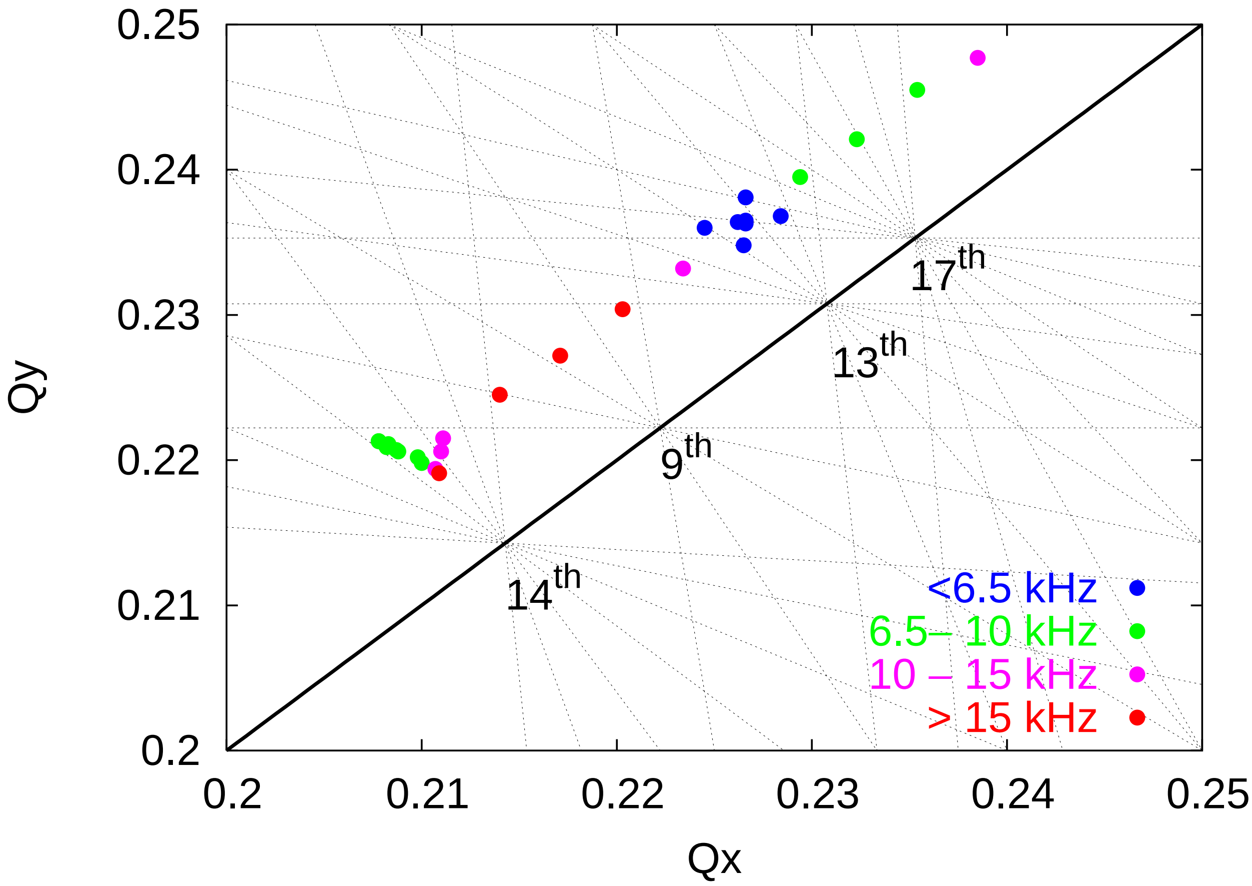
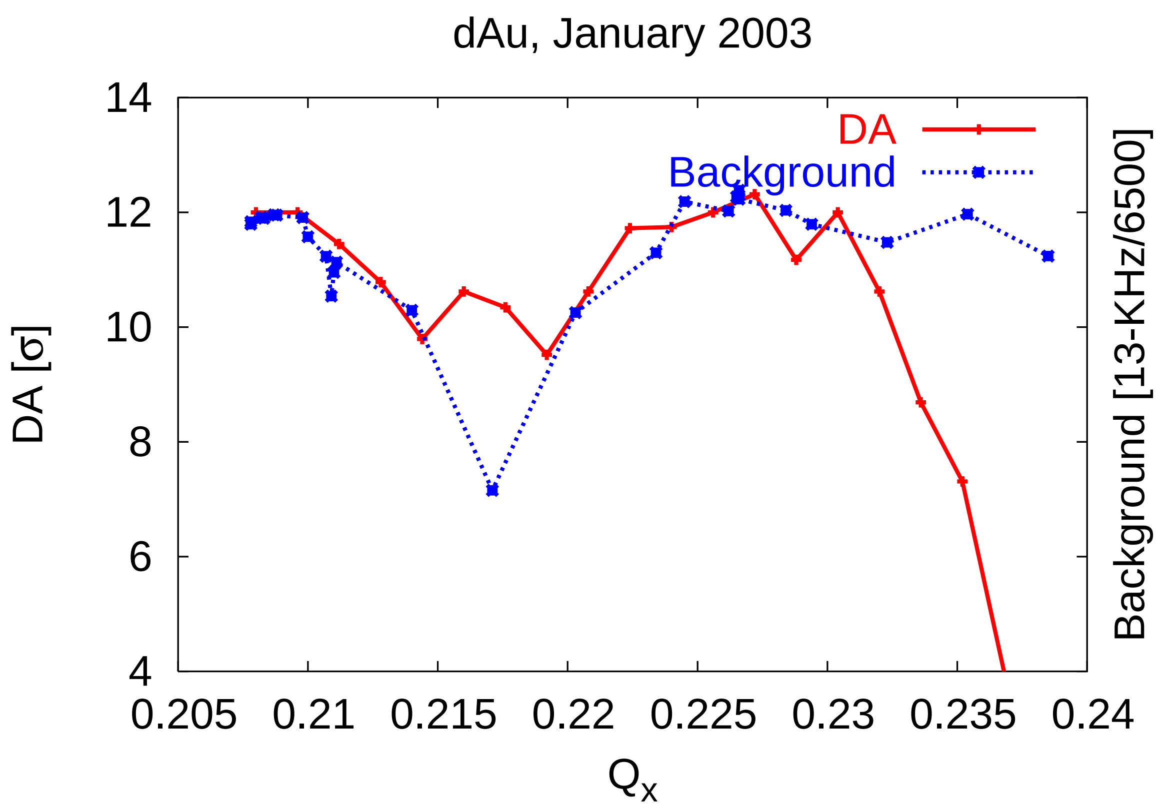
Contents

- Background measurements vs. Dynamic Aperture
- Beam Beam effect on Dynamic Aperture
- Possible working points
- IR Task Force preliminary study

dAu, January 2003

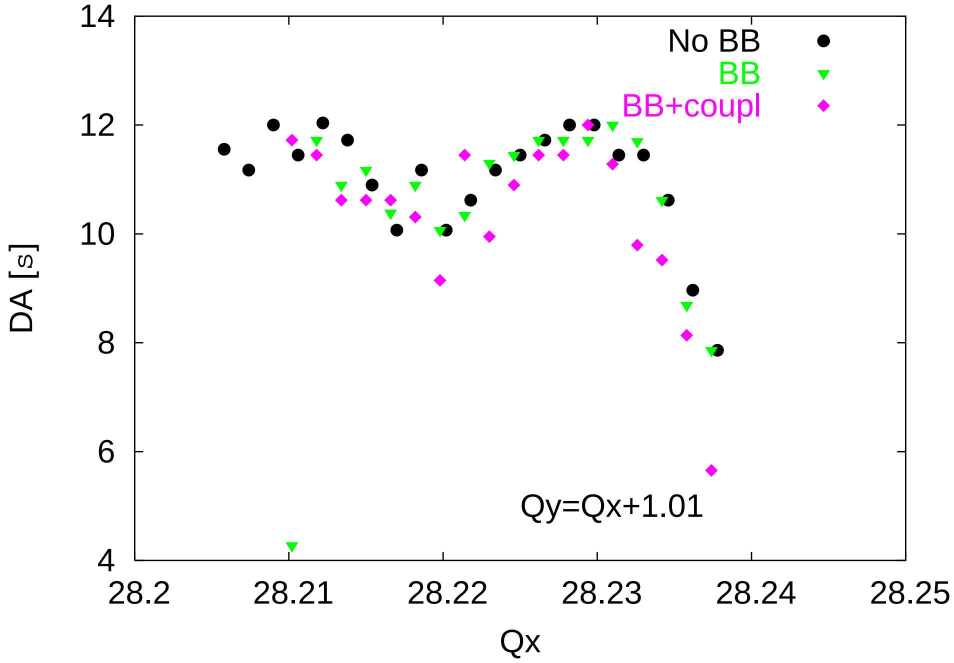


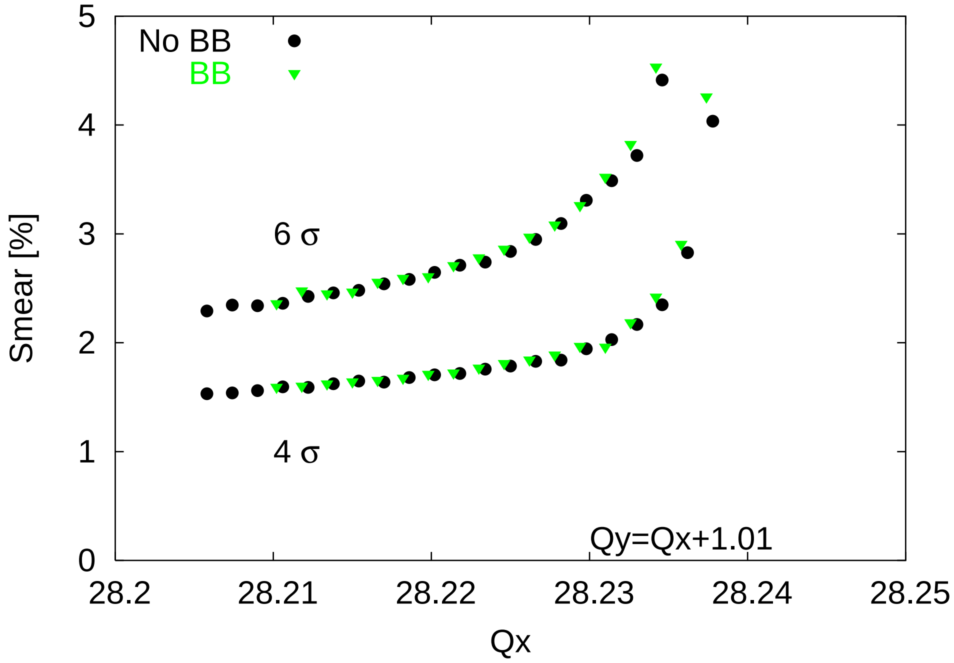
Background measurements vs. DA



The model contains beam-beam, triplet errors, 5% σ low frequency orbit modulation, and power supply ripples (no correctors).

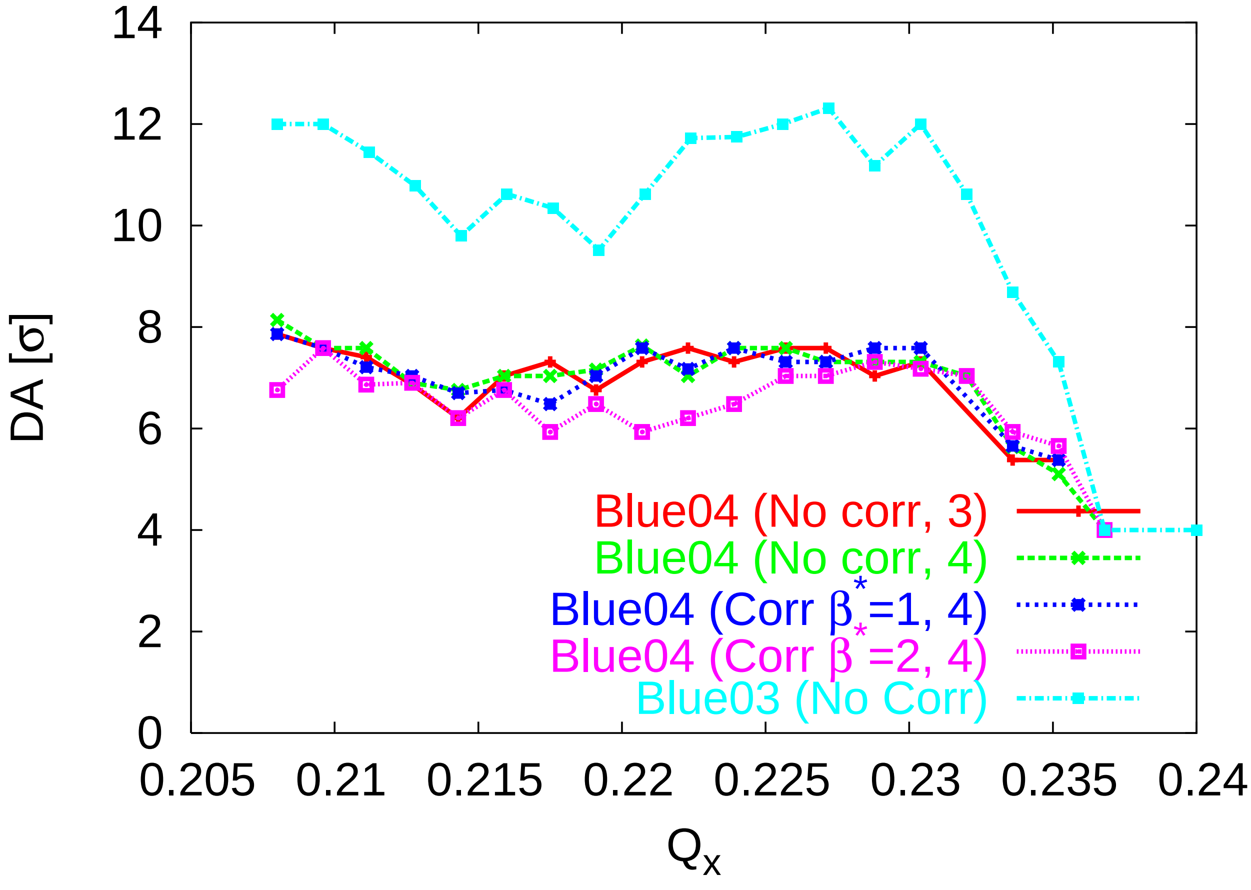
Problem: Beam-Beam does not dominate





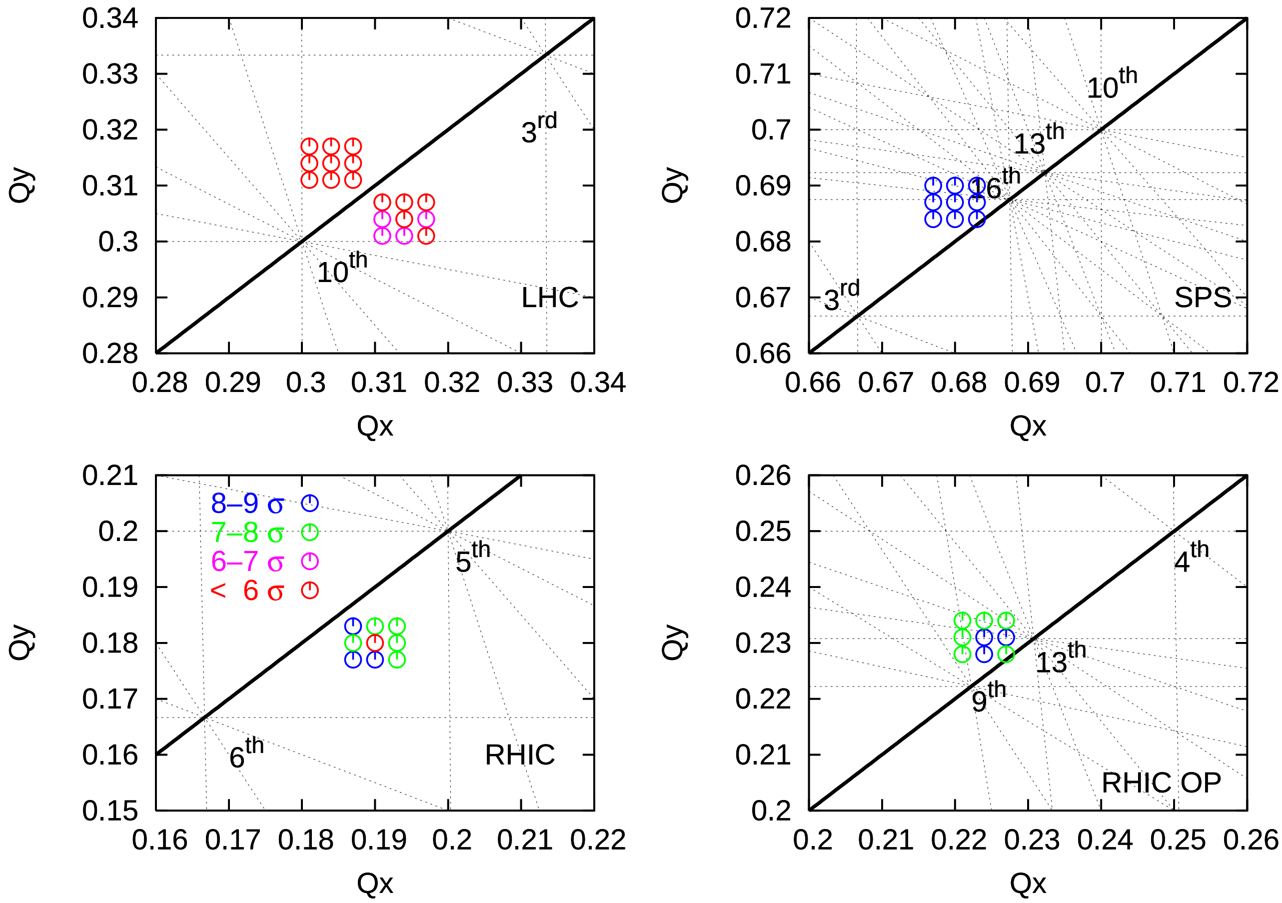
Next year lattice - DA

β^*'s = 1 1 4 5 3 5 and 1 1 3 5 3 5



⇒IR non-linear correction is needed

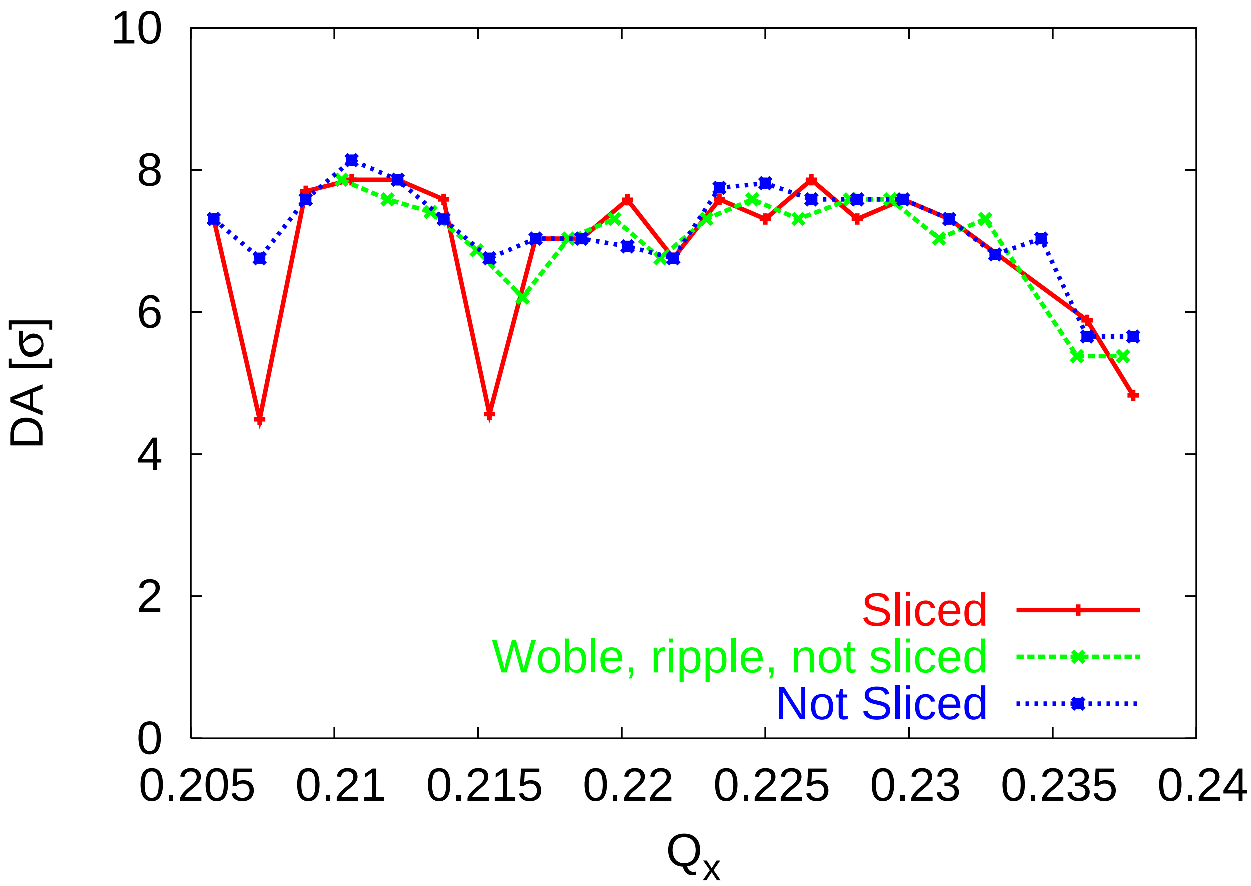
Possible working points - 113535



⇒ SPS working point seems a good candidate (ISR w.p.≈ 0.95 will be considered too)

IR Task Force preliminary study

Improvement of the model by a simple slicing of the triplet quadrupoles leads to changes:



⇒ A more refined model of the IR non-linearities is needed and is presently under construction.

Summary

- Simulations and observations show limited agreement

- Beam Beam does not dominate in simulations

$\Rightarrow$ Improved model under construction

- DA could be enlarged in two ways:
  - by non-linear correction in the IRs
  - by changing the tunes to SPS ones, ≈ 0.68. (ISR tunes, ≈ 0.95, need further consideration too).