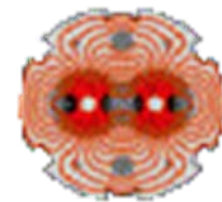


LHC Commissioning preparation



■ Definition/refinement of commissioning scenarios.

■ Preparation/consolidation of tools for beam commissioning (e.g., beta-beating and on-line model).

■ Maintenance of LHC databases:

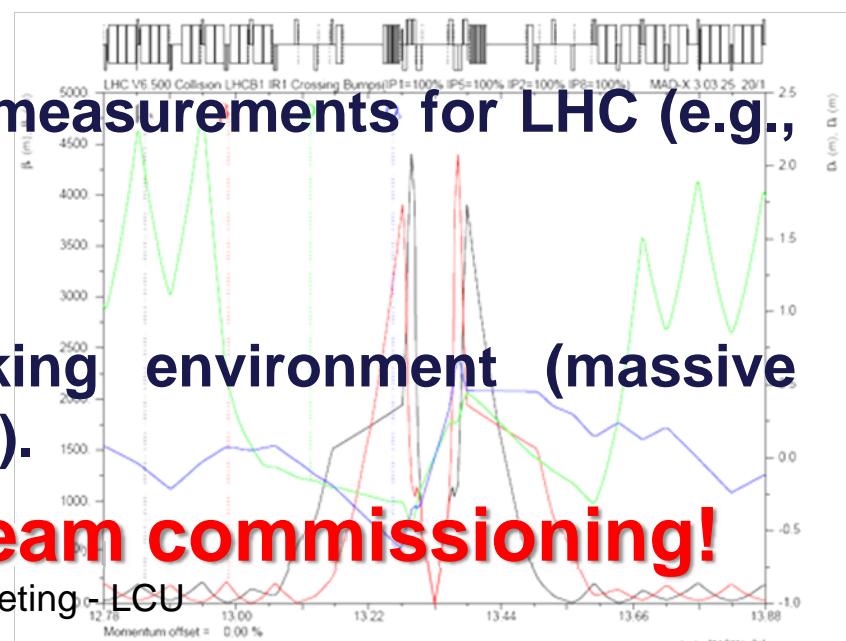
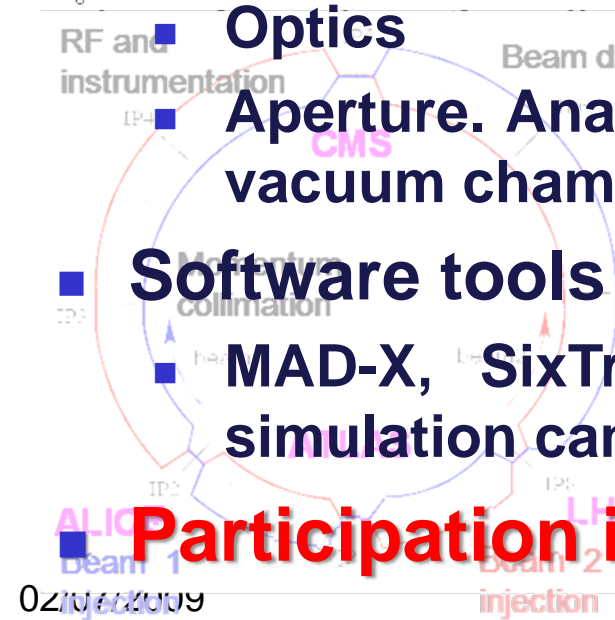
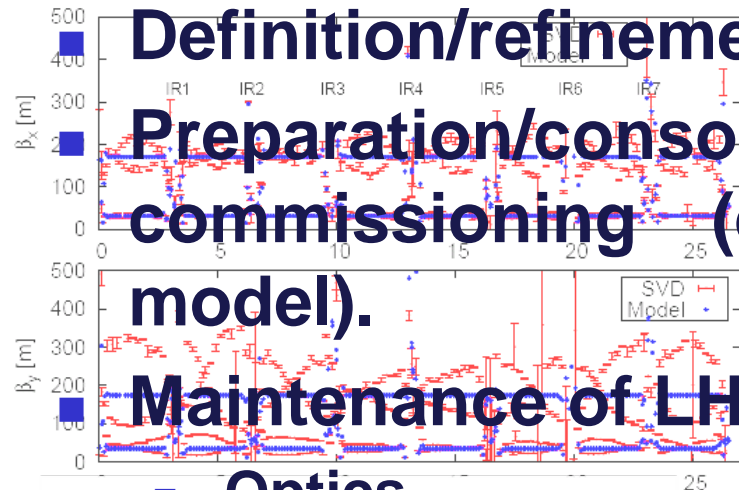
■ Optics

■ Aperture. Analysis of survey measurements for LHC (e.g., vacuum chambers in LSS).

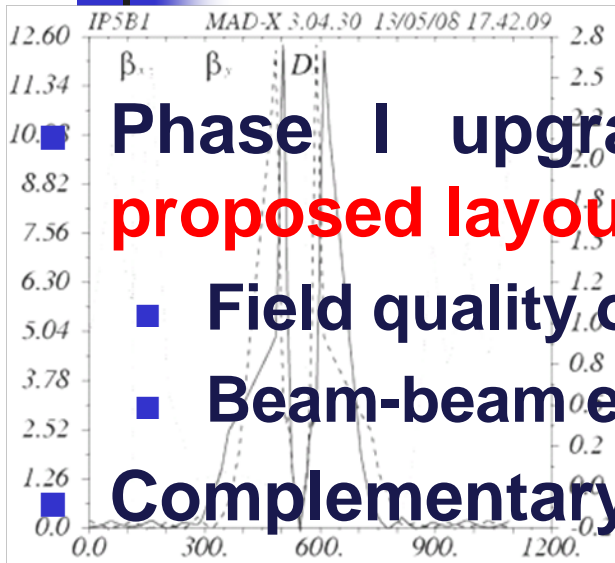
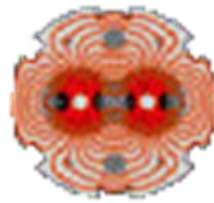
■ Software tools

■ MAD-X, SixTrack, and tracking environment (massive simulation campaigns needed).

■ Participation in the LHC beam commissioning!



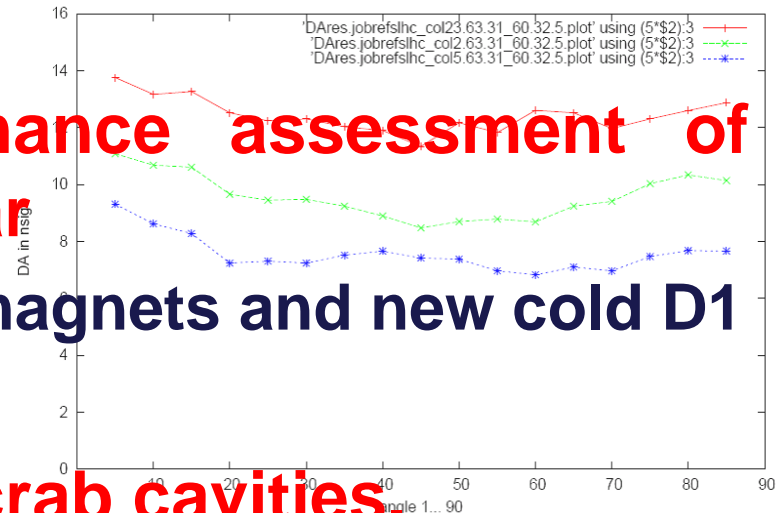
LHC Upgrade activities



Phase I upgrade: performance assessment of proposed layout, in particular

- Field quality of new triplet magnets and new cold D1
- Beam-beam effects

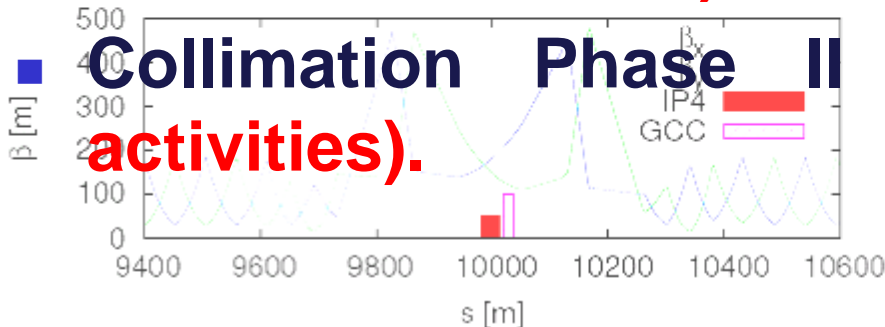
Complementary scenarios: crab cavities.



Phase II upgrade: pursue the definition of possible scenarios for a tenfold luminosity increase (also EUCARD activities).



Collimation Phase II upgrade (also EUCARD activities).



Phase II upgrade (also EUCARD activities).

