

# CERN Involvement in the ILC Final Focus System studies

Javier Barranco García, Hector García Morales, Rogelio Tomás

**CLIC Collaboration Working meeting**

May 10, 2012

# Motivation

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Reinforce existing CLIC-ILC collaborations via contribution in different ILC beam delivery system design tasks, because:

- ILC missing manpower for FFS studies,
- Beam delivery system design presents a lot of synergies between both projects.

Timeline,

- 1 Kick-off WebEx meeting mid April.
- 2 Talk by Rogelio in KILC12 end April.
- 3 Second WebEx meeting early this week.

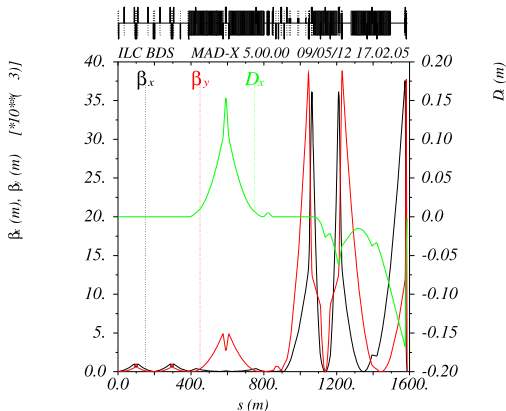
# Collaborators

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- DESY  
Nick Walker, Benno List
- John Adams Institute  
Andrei Seryi, Larisa Malysheva
- Daresbury Laboratory  
Deepa Angal-Kalinin
- CERN  
Steinar Stapnes, Rogelio Tomás, Daniel Schulte, Javier Barranco García, Hector García Morales

# Working Plan

- ILC lattice files conversion MAD8 to MADX almost finished.
- Studies agreed so far,
  - Rematch IP  $\beta_{x,y}^*$  for 3 different ILC FFS lattice versions to new 5 target values (200, 230, 250, 350 and 500 GeV). Already started.



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  - Rematch to  $D^*=0$  at the IP. Original ILC lattices present a  $D^*=-0.0017$  m.
  - Shortening of the FFS beam line length by  $\Delta L=-5$ m to meet the Accelerator Design and Integration (ADI) team requested value of  $L=1582.23$  m.
  - Split QF1 and QD0 coils to reduce the strength in low energy scenarios.
- File repository set up (SVN or similar).

## Next Meetings

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- Larisa Malyheva (JAI) is visiting CERN next week to get started with MADX files.
- Next WebEx meeting in 4 weeks time. First optics studies results to be presented then.