

News on the Baseline Design

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CLIC Project Meeting July 8th, 2011

Damping Ring

- CDR
 - low emittance generation now available
 - contributions to 500GeV and energy scanning available
- First results on non-linear dynamics optimisation of the damping rings were produced (frequency and diffusion maps for "perfect" lattice and one including alignment errors).
- TIARA SVET
 - First bi-annual report written and published
 - Meeting with beam instrumentation experts was organised at SLS to trace the road-map for the emittance monitor upgrade (work under TIARA-SVET)
- The program of LOWeRING 2011 is being finalised
- An ESGARD meeting is scheduled next week for finalising the details of a proposal for a Low Emittance Rings' European Network.

BDS

- CDR writing (draft available)
- Understood luminosity reduction with crab cavity and recovered almost all luminosity
- Preparation of SLAC collimator tests
- New quadrupole(s) for ATF2 FD
 - Showed potential improvement
 - CERN will provide these magnets (Michele Modena)
- Help to define sorting of ATF2 existing quadrupoles
- Currently testing BBA in CTF3 (quad-shunting)
- Organization of the BDS WG in Granada

MDI/Background

- Pre-alignment (the collaboration with NIKHEF) leading to an update of one of our CDR paragraphs
- QD0 prototype work is ongoing with first measurements of the gradient w/o coils for the moment, could have synergy with CERN ATF2 magnet
- The anti-solenoid optimization with 3D simulations (see Fridays MDI presentation by A.Bartalesi)
- Stabilisation and pre-isolation with some inputs/iterations for the overall simulations
- Further improvements in muon rate estimate
 - Tighter specifications from physics (1 muon per BX)

Drive Beam

- Finished the study of the extraction system of the spent Drive Beam and specified the Dump itself. CLIC Note is being written
- Chapter on drive beam dump lines for the CDR to be written in its final state by end July.

RTML and Code

- New version of CDR chapter submitted
- Several improvements in PLACET
 - Multiple multipoles
 - HTGEN support
 - Implementation of the PETS-induced wakefields in the ML cavities
 - The multipolar kick in the accelerating cavities (with Alexej Grudiev) is a little behind and not yet completely implemented, but it's certainly on the way to work (for single sided coupler)
- Collaboration with the UK for Crab Cavity simulations
- Preparation for the FACET collaboration

Other

- Further improvements of dynamic imperfection studies
- A number of tolerances re-calculated for latest lattice
- Draft of the emittance preservation/luminosity chapter submitted
- Update on 500GeV and energy scan chapter
- Missing for CDR (i.e. no draft yet)
 - Drive Beam generation and Main Beam RF power production
 - Damping rings
 - Drive beam extraction lines
 - Basic parameters for other intermediate energies

Granada Agenda

Monday	Tuesday	Wednesday	Thursday	Friday
Red	Blue	Green	Green	Blue
Red	Green	Green	Green	Red
Red	Green	Green	Green	Red
Blue	Green	Green	Green	White



Plenary



Accelerator Plenary



Working groups

9:00-10:30	Session (1.5h)
10:30-11:00	Coffee break
11:00-13:30	Session (2.5h)
13:30-15:00	Lunch
15:00-16:30	Session (1.5h)
16:30-17:00	Coffee break
17:00-19:30	Session (2.5h)

Accelerator Working Groups

Sources	W. Gai, T. Omori, Steffen Doebert, A. Variola
Damping Rings	S. Guiducci, M. Palmer, Y. Papaphilippou, J. Urakawa
Super Conducting RF	H. Hayano, P. Pierini, C. Nantista, J. Kerby
Normal Conducting RF	F. Pauger, T. Higo, W. Wuensch
Beam Delivery	L. Gatignon, A. Seryi, R. Tomas
CLIC Drive beam	K. Kubo, N. Solyak, A. Latina
Low emittance - beam dynamics	J.-B. Jeanneret, R. Ruber, Piotr Akowornski
Instrumentation and Technical systems	M. Wendt, Ph. Burrows, L. Soby
Conventional Facilities and Siting	A. Enomoto, V. Kuchler, J. Osborne