FCC IS WP2 “Working Weeks” with integrated “FCC Accelerators & Beam Physics Day”
29 November – 10 December 2021

Frank Zimmermann, FCC Optics design meeting, 4 November 2021
with input from Michael Hofer, Manuela Boscolo et al.
thanks to Julie Hadre and Suzanne Chibli
motivation & goals

get together of key WP2 contributors from member labs (students, postdocs, supervisors at DESY, INFN, KIT, CNRS, CEA, Oxford. ...) and meeting with “core team” at CERN

engagement of, and requesting help from, ABP group in integrated dedicated day

in-person/hybrid events, spread out over two weeks
Monday 29 November “Introduction”
- **Welcome, FCC-ee status, timeline and open topics**, Frank Zimmermann
- **Parameter optimisation at different working points**, Dmitry Shatilov

Tuesday 30 November “Optics” & “Code Development”
- **Status of the FCC-ee optics and next steps**, Katsunobu Oide
- **Optics correction**, Tessa Charles
- **FCC-ee software framework**, Felix Simon Carlier
- **Code comparison and lattice models**, Leon Van Riesen-Haupt

Wednesday 1 December “Collimation” & “Beam-Beam”
- **Collimation**, Andrey Abramov, Roderik Bruce
- **Beam-beam**, Peter Kicsiny, Xavier Buffat, Dmitry Shatilov
Draft agenda WP2 working week 1 – part 2

Thursday 2 December “FCC Accelerators & Beam Physics Day”
• Open points - where the BE/ABP group, or others, could contribute and help – *see separate dedicated slide*

Friday 3 December “Machine Detector Interface”
• MDI status and plans, Manuela Boscolo
• Mechanical model, Francesco Fransesini
• Alignment and Vibration, Leonard Watrelot
• Strategy for Vibration suppression, Laurent Brunetti
Draft agenda WP2 working week 2 – part 1

Monday 6 December “Highlights from the first week”
• **Highlights and actions from FCCIS WP2 working week #1**

Tuesday 7 December “Booster” & “Injection”
• **Booster design**, Antoine Chance, Barbara Dalena, Herve Josselin De Grandsaignes D'Hauterives
• **Injection**, Patrick James Hunchak, Rebecca Louise Ramjiawan
• **Extraction**, Alexander Krainer

Wednesday 8 December “Collective Effects”
• **Overview**, Mauro Migliorati
• **Impedance model & TMCI threshold**, Emanuela Carideo
• **Impedance of bellows and flanges**, Chiara Antuonu
• **Electron cloud in the arcs**, Fatih Yaman, Damian Ayim, Karla Cantun
Thursday 9 December “Vacuum”, “Radiation Environment”, “Polarisation”

• **FCC-ee vacuum system & pressure forecast**, Roberto Kersevan

• **Energy deposition & radiation levels in the arcs**, Barbara Humann

• **Precision energy calibration and polarisation**, Alain Blondel, Jorg Wenninger, Jacqueline Keintzel

Friday 10 December “Closing”

• **Overall summary, actions, plans & outlook**, volunteers

FCCIS WP2 working weeks indico site
[https://indico.cern.ch/event/1085318/](https://indico.cern.ch/event/1085318/)
under construction
FCC Accelerators and Beam Physics Day
https://indico.cern.ch/event/1090005/ (max. 41 live persons)

Preliminary Agenda

0. Welcome and goals, Yannis Papaphilippou
1. FCC Accelerator Pillar - Plan and milestones, Tor Raubenheimer
2. ee Collider Design - Open points and where help is needed, Katsunobu Oide
3. FCC-hh design - Open points and where help is needed, Massimo Giovannozzi
4. Booster Design - Open points and where help is needed, Antoine Chance
5. Collective Effects - Open points and where help is needed, Mauro Migliorati
6. Collimation for ee and hh - Open points & where help is needed, Roderik Bruce
7. MDI - Open points and where help is needed, Manuela Boscolo
8. Pre-injector complex - Open points and where help is needed, Paolo Craievich
9. Energy calibration - Open points and where help is needed, Alain Blondel
10. Code development - Felix Carlier
11. Other open points, Frank Zimmermann
12. FCC FS - Motivations, goals, timeline, org., collaborations, Michael Benedikt