

Session Program

10-14 Jun 2024



FCC Week 2024

FCC accelerators

The Westin St. Francis San Francisco on Union Square
335 Powell St, San Francisco, CA 94102, United States

Monday 10 June

08:30

FCC accelerators: FCC-ee baseline design & optics, top-up

Session | Location: Elizabethan B | Convener: Dr Angeles Faus-Golfe

08:30–09:00 GHC optics and collider parameters

Speaker

Dr Katsunobu Oide

09:00–09:20 Beam-beam studies for FCC-ee

Speaker

Peter Kicsiny

09:20–09:40 FCC-ee collimation

Speaker

Giacomo Broggi

09:40–10:00 Top-up injection into the collider

Speaker

Yann Dutheil

10:00

10:30

FCC accelerators: Optics alternatives & lessons

Session | Location: Elizabethan B | Convener: Mika Masuzawa

10:30–11:00 LCC Optics

Speaker

Dr Pantaleo Raimondi

11:00–11:20 Nested Magnet Optics for FCC-ee

Speaker

Leon Van Riesen-Haupt

11:20–11:40 Monochromatization Optics for FCC-ee

Speaker

Dr Angeles Faus-Golfe

11:40–12:00

The IOTA Research Program and Possible Studies Relevant for the FCC

Speaker

Giulio Stancari

12:00

13:30

FCC accelerators: FCC-ee injector incl. booster (i)

Session | Location: Elizabethan B | Convener: Dr Mark Palmer

13:30–13:55 High-energy booster overview

Speaker

Adnan Ghribi

13:55-14:10 RF-based optimisation of the booster cycle**Speaker**

Alice Lucie Vanel

14:10-14:25 Booster and collider filling scheme**Speaker**

Hannes Bartosik

14:25-14:45 Injector complex: status and outlook**Speaker**

Paolo Craievich

14:45-15:00 Injection/extraction systems across the complex**Speaker**

Sen Yue

15:00

15:30

FCC accelerators: FCC-ee injector incl. booster (ii)**Session** | **Location:** Elizabethan B | **Convener:** Sakhorn Rimjaem**15:30-15:50****Static and dynamic beam dynamic effects in the e-, common and HE-linacs****Speaker**

Simona Bettoni

15:50-16:05**RF Design Studies of Accelerating Structures for the FCC-ee Pre-injector Complex****Speaker**

Adnan Kurtulus

16:05-16:25**Positron source and capture system (HTS-solenoid vs FC options)****Speaker**

Dr Iryna Chaikovska

16:25-16:45**Damping ring: status and outlook (including DR at higher energy)****Speaker**

Antonio De Santis

16:45-17:00**Positron bunch and energy compressor (to/from damping ring)****Speaker**

Simone Spampinati

17:00

17:30

FCC accelerators: FCC-ee injector incl. booster (iii)**Session** | **Location:** Elizabethan B | **Convener:** Dr Iryna Chaikovska**17:30-17:50****PSI Positron Production (P-cubed) project****Speaker**

Nicolas Vallis

17:50-18:10**Development of p-cubed and FCCee positron source targets at CERN****Speaker**

Ramiro Francisco Mena Andrade

18:10-18:30

Positron source design and experiment for FCC, SuperKEKB and ILC

Speaker

Yoshinori Enomoto

18:30-18:50

Polarized injector for CEPC

Speaker

Zhe Duan

19:00

Tuesday 11 June

08:30

FCC accelerators: Collective Effects

Session | **Location:** Elizabethan B | **Convener:** John Byrd

08:30–08:50 **FCC-ee single beam collective effects**

Speaker

Mauro Migliorati

08:50–09:10 **Collective effects in the high energy booster**

Speaker

Adnan Ghribi

09:10–09:30

Xsuite simulations of beam-beam effects with impedance contribution

Speaker

Roxana Soos

09:30–09:45 **Transverse feedback options for FCC**

Speaker

Dmitry Teytelman

09:45–10:00 **Electron Cloud studies for the FCC-ee**

Speaker

Luca Sabato

10:00

10:30

FCC accelerators: FCC-ee optics correction & tuning

Session | **Location:** Elizabethan B | **Convener:** Prof. Mark James Boland

10:30–11:00 **Status of optics correction studies**

Speaker

Rogelio Tomas Garcia

11:00–11:20 **EIC Dynamic aperture optimization & implications for FCC**

Speaker

Yunhai Cai

11:20–11:40 **Beam-based alignment simulations**

Speaker

Xiaobiao Huang

11:40–12:00 **Update on the vibration work for the FCC-ee**

Speaker

Freddy Albert Poirier

12:00

Wednesday 12 June

08:30

FCC accelerators: FCC-ee code development and other themes

Session | **Location:** Elizabethan B | **Convener:** Yunhai Cai

08:30–08:50 **Status, results and plans for xsuite**

Speaker

Giovanni Iadarola

08:50–09:05

New simulation tools for beam-beam collisions at the interaction point

Speaker

Arianna Formenti

09:05–09:25

Bmad for the FCC, and a future Bmad Julia for Machine Learning

Speaker

Georg Hoffstaetter de Torquat

09:25–09:45

SuperKEKB beam diagnostics & fast losses

Speaker

Hitomi Ikeda

09:45–10:00

Update on the resistive wall code development

Speaker

Ali Rajabi

10:00

10:30

FCC accelerators: FCC-hh design

Session | **Location:** Elizabethan B | **Convener:** Giorgio Apollinari

10:30–10:55

FCC-hh overview, main parameters & hh lattice

Speaker

Gustavo Perez Segurana

10:55–11:15

FCC injection lines for ee and hh

Speaker

Wolfgang Bartmann

11:15–11:30

FCC-hh collimation - brief status

Speaker

Dr Roderik Bruce

11:30–12:00

High field magnet efforts at NHMFL, BNL & industry

Speaker

Kathleen Amm

12:00

13:30
15:00
15:30
17:00

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| FCC accelerators: High-Field Magnets for FCC-hh (i) Session Location: Elizabethan B Convener: Soren Prestemon | |
| 13:30-14:00 | HL-LHC MQXF results and lessons learnt Speaker Paolo Ferracin |
| 14:00-14:30 | LTS option for FCC-hh and the HFM program Speaker Dr Ezio Todesco |
| 14:30-15:00 | HTS option for FCC-hh and the HFM program Speaker Bernhard Auchmann |
| FCC accelerators: High-Field Magnets for FCC-hh (ii) Session Location: Elizabethan B Convener: Attilio Milanese | |
| 15:30-16:00 | US Magnet Development Program and synergies with FCC-hh Speaker Soren Prestemon |
| 16:00-16:30 | Magnet protection considerations for FCC-hh Speaker Dr Emmanuele Ravaioli |
| 16:30-17:00 | Conductor challenges for FCC-hh Speaker Lance Cooley |