

4th ICFA Mini-Workshop on Space Charge 2019



Report of Contributions

Contribution ID: 1

Type: **not specified**

Welcome address

Monday, 4 November 2019 09:15 (15 minutes)

Presenter: SCHMIDT, Frank (CERN)

Contribution ID: 2

Type: **not specified**

Workshop dinner

Tuesday, 5 November 2019 19:00 (3 hours)

Contribution ID: 3

Type: **not specified**

Status of the LIU project

Monday, 4 November 2019 09:30 (30 minutes)

Presenter: RUMOLO, Giovanni (CERN)

Session Classification: Introduction and projects

Contribution ID: 4

Type: **not specified**

Status of the FAIR project

Monday, 4 November 2019 10:00 (30 minutes)

Presenter: KORNILOV, Vladimir (GSI Helmholtzzentrum Darmstadt, Germany)

Session Classification: Introduction and projects

Contribution ID: 5

Type: **not specified**

Status of PIP2 at FNAL

Monday, 4 November 2019 11:00 (30 minutes)

Presenter: Dr POZDEYEV, Eduard

Session Classification: Introduction and projects

Contribution ID: 6

Type: **not specified**

Status of the ISIS upgrade

Monday, 4 November 2019 11:30 (30 minutes)

Presenter: WARSOP, Chris

Session Classification: Introduction and projects

Contribution ID: 7

Type: **not specified**

Extraction of transfer map including self-consistent space-charge effects in a symplectic tracking code

Monday, 4 November 2019 13:30 (25 minutes)

Presenter: QIANG, Ji (Lawrence Berkeley National Laboratory)

Session Classification: Space charge modelling and simulation codes

Contribution ID: 8

Type: **not specified**

Initial beam studies using symplectic 2D space charge with open BCs

Monday, 4 November 2019 13:55 (25 minutes)

Presenter: WEBB, Stephen (Radasoft)

Session Classification: Space charge modelling and simulation codes

Contribution ID: 9

Type: **not specified**

Experience with the symplectic 3D space charge kick

Monday, 4 November 2019 14:20 (25 minutes)

Presenter: SCHMIDT, Frank (CERN)

Session Classification: Space charge modelling and simulation codes

Contribution ID: **10**

Type: **not specified**

Space charge and lattice driven resonances in the CERN PS

Monday, 4 November 2019 16:05 (25 minutes)

Presenter: ASVESTA, Foteini (National Technical Univ. of Athens (GR))

Session Classification: Experimental and simulation studies

Contribution ID: 11

Type: **not specified**

PSB simulation studies for post LS2 operation

Monday, 4 November 2019 16:30 (25 minutes)

Presenter: RENNERT, Elisabeth (Vienna University of Technology (AT))

Session Classification: Experimental and simulation studies

Contribution ID: 12

Type: **not specified**

Tune scan experiment at injection in the PS

Monday, 4 November 2019 16:55 (25 minutes)

Presenter: RAFIQUE, Haroon (CERN)

Session Classification: Experimental and simulation studies

Contribution ID: 13

Type: **not specified**

On the boundary between coherent and incoherent effects

Tuesday, 5 November 2019 14:00 (25 minutes)

Presenter: FRANCHETTI, Giuliano (GSI - Helmholtzzentrum für Schwerionenforschung GmbH (DE))

Session Classification: Theory and space charge mechanisms

Contribution ID: 14

Type: **not specified**

Characterization of resonances - coherent versus incoherent

Monday, 4 November 2019 15:10 (25 minutes)

Presenter: OEFTIGER, Adrian (GSI - Helmholtzzentrum für Schwerionenforschung GmbH (DE))

Session Classification: Theory and space charge mechanisms

Contribution ID: 15

Type: **not specified**

Working point and space charge simulation studies for SIS100

Tuesday, 5 November 2019 11:00 (25 minutes)

Presenter: CHETVERTKOVA, Vera (GSI)

Session Classification: Experimental and simulation studies

Contribution ID: 16

Type: **not specified**

Study of the PS integer resonance

Tuesday, 5 November 2019 11:50 (25 minutes)

Presenter: TITZE, Malte (Humboldt University of Berlin (DE))

Session Classification: Experimental and simulation studies

Contribution ID: 17

Type: **not specified**

Studies on tune ripple

Tuesday, 5 November 2019 12:15 (25 minutes)

Presenter: BARTOSIK, Hannes (CERN)

Session Classification: Experimental and simulation studies

Contribution ID: **18**

Type: **not specified**

Modelling of the PS main magnets

Wednesday, 6 November 2019 09:45 (25 minutes)

Presenter: HUSCHAUER, Alexander (CERN)

Session Classification: Machine modelling

Contribution ID: 19

Type: **not specified**

Non-linear model of the SPS main dipoles

Wednesday, 6 November 2019 10:10 (25 minutes)

Presenter: CARLA', Michele (CERN)

Session Classification: Machine modelling

Contribution ID: 20

Type: **not specified**

Development of the SIS100 machine model with measured field errors

Presenter: KORNILOV, Vladimir (GSI Helmholtzzentrum Darmstadt, Germany)

Session Classification: Machine modelling

Contribution ID: 21

Type: **not specified**

Simulations of space charge effect compensations with electron lenses in the presence of lattice imperfections

Wednesday, 6 November 2019 11:05 (25 minutes)

Presenter: Dr STERN, Eric

Session Classification: Space charge and interplay with other effects

Contribution ID: 22

Type: **not specified**

Space charge and IBS effect in LEIR

Wednesday, 6 November 2019 11:30 (25 minutes)

Presenter: SAA HERNANDEZ, Angela (CERN)

Session Classification: Space charge and interplay with other effects

Contribution ID: 23

Type: **not specified**

Modelling of IBS

Wednesday, 6 November 2019 11:55 (25 minutes)

Presenter: ZAMPETAKIS, Michail (University of Crete (GR))

Session Classification: Space charge and interplay with other effects

Contribution ID: 24

Type: **not specified**

Emittance blow-up studies at the transfer from the PSB to the PS

Tuesday, 5 November 2019 11:25 (25 minutes)

Presenter: FRASER, Matthew Alexander (CERN)

Session Classification: Experimental and simulation studies

Contribution ID: 25

Type: **not specified**

Progress toward testing non-linear integrable optics in a Paul trap

Tuesday, 5 November 2019 15:35 (25 minutes)

Presenter: MARTIN, Lucy (University of Oxford)

Session Classification: Special topics

Contribution ID: 26

Type: **not specified**

GPU accelerated space charge simulations using SixTrackLib and PyHEADTAIL

Monday, 4 November 2019 14:45 (25 minutes)

Presenter: OEFTIGER, Adrian (GSI - Helmholtzzentrum für Schwerionenforschung GmbH (DE))

Session Classification: Space charge modelling and simulation codes

Contribution ID: 27

Type: **not specified**

Effects of detuning impedance, chromaticity, transverse damper, linear coupling, Landau damping and space charge on TMCI

Tuesday, 5 November 2019 16:00 (25 minutes)

Presenter: METRAL, Elias (CERN)

Session Classification: Special topics

Contribution ID: 28

Type: **not specified**

Beam profile measurements based on pixel detectors in the PS

Tuesday, 5 November 2019 16:25 (25 minutes)

Presenter: SANDBERG, Hampus (University of Manchester (GB))

Session Classification: Special topics

Contribution ID: 29

Type: **not specified**

Why we need the HL-LHC

Wednesday, 6 November 2019 09:00 (45 minutes)

Presenter: MANGANO, Michelangelo (CERN)

Session Classification: Special topics

Contribution ID: **30**

Type: **not specified**

Space charge effects in Linac4

Tuesday, 5 November 2019 09:30 (30 minutes)

Presenter: NOLL, Daniel (CERN)

Session Classification: Space charge effects in Linacs

Contribution ID: 31

Type: **not specified**

Space charge issues in FFAs

Tuesday, 5 November 2019 16:50 (25 minutes)

Presenters: LAGRANGE, Jean-Baptiste (Science and Technology Facilities Council); MACHIDA, Shinji (STFC/RAL)

Session Classification: Special topics

Contribution ID: 32

Type: **not specified**

Application of SNS beam test facility to halo formation in high-intensity linacs

Tuesday, 5 November 2019 10:00 (30 minutes)

Presenter: RUISARD, Kiersten (SNS)

Session Classification: Space charge effects in Linacs

Contribution ID: 33

Type: **not specified**

Recent developments in PyORBIT

Presenter: TBD

Session Classification: Space charge modelling and simulation codes

Contribution ID: 34

Type: **not specified**

Space Charge in JPARC synchrotrons

Tuesday, 5 November 2019 09:00 (30 minutes)

Presenter: HOTCHI, Hideaki (JPARC)

Session Classification: Introduction and projects

Contribution ID: 35

Type: **not specified**

Space-charge particle resonances and mode parametric resonances

Tuesday, 5 November 2019 14:25 (25 minutes)

Presenter: Dr JEON, Dong-O (RAON)

Session Classification: Theory and space charge mechanisms

Contribution ID: 36

Type: **not specified**

Summary of 2019 Fermilab Booster experiments

Monday, 4 November 2019 17:20 (25 minutes)

Presenter: ELDRED, Jeffrey (Fermilab)

Session Classification: Experimental and simulation studies

Contribution ID: 37

Type: **not specified**

Comments on the coherent and incoherent views

Tuesday, 5 November 2019 14:50 (15 minutes)

Presenter: MACHIDA, Shinji (STFC/RAL)

Session Classification: Theory and space charge mechanisms