

**Fermilab Workshop on
Megawatt Rings & IOTA/FAST
Collaboration Meeting**

Report of Contributions

Contribution ID: 0

Type: **not specified**

Plans for ramping up the complex before PIP II

Tuesday, 8 May 2018 08:15 (30 minutes)

Presenter: Dr CONVERY, Mary (Fermilab)

Contribution ID: 1

Type: **not specified**

Booster Upgrades to Achieve ~MW Beam in the Fermilab Complex

Tuesday, 8 May 2018 08:45 (30 minutes)

Presenter: Dr BHAT, Chandra (Fermilab)

Contribution ID: 2

Type: **not specified**

MI and Recycler in 1MW+ era

Tuesday, 8 May 2018 09:15 (30 minutes)

Primary author: Dr AINSWORTH, Rob (Fermilab)

Presenter: Dr AINSWORTH, Rob (Fermilab)

Contribution ID: 3

Type: **not specified**

PIP II Project

Tuesday, 8 May 2018 09:45 (30 minutes)

Presenter: Dr MERMINGA, Lia (FNAL)

Contribution ID: 4

Type: **not specified**

Concepts of an RCS for a multi-MW facility at Fermilab

Tuesday, 8 May 2018 16:15 (30 minutes)

Presenter: Dr ELDRED, Jeffrey (Fermilab)

Contribution ID: 5

Type: **not specified**

High Power Beam Operation of the J-PARC: Present Status and Outlook

Tuesday, 8 May 2018 10:45 (30 minutes)

Presenter: Dr SATO, Yoichi

Contribution ID: 6

Type: **not specified**

SNS experience with high intensity beams

Tuesday, 8 May 2018 11:15 (30 minutes)

Presenter: Dr EVANS, Nicholas (University of Texas at Austin)

Contribution ID: 7

Type: **not specified**

Space charge effects in CERN machines

Tuesday, 8 May 2018 13:45 (30 minutes)

Presenter: Dr SCHMIDT, Frank (CERN)

Contribution ID: 8

Type: **not specified**

Instabilities: observations and projections

Tuesday, 8 May 2018 14:45 (30 minutes)

Presenter: Dr BUROV, Alexey (AD/RR)

Contribution ID: 9

Type: **not specified**

Instabilities in CERN machines

Tuesday, 8 May 2018 14:15 (30 minutes)

Presenter: Dr METRAL, Elias (CERN)

Contribution ID: **11**

Type: **not specified**

Closeout

Tuesday, 8 May 2018 16:45 (15 minutes)

Contribution ID: 12

Type: **not specified**

Welcome

Monday, 7 May 2018 08:30 (15 minutes)

Presenter: LINDGREN, Michael (Fermilab)

Contribution ID: 13

Type: **not specified**

PIP Summary

Monday, 7 May 2018 08:45 (30 minutes)

Presenter: Mr PELLICO, William (FNAL)

Contribution ID: 14

Type: **not specified**

Laser notcher

Monday, 7 May 2018 09:45 (30 minutes)

Presenter: JOHNSON, David (Fermilab)

Contribution ID: 15

Type: **not specified**

Booster upgrades

Monday, 7 May 2018 10:45 (30 minutes)

Presenter: CHAURIZE, Salah (Fermilab Proton Source Booster)

Contribution ID: 16

Type: **not specified**

Replacement/Refurbishment cavities

Monday, 7 May 2018 11:15 (30 minutes)

Presenter: Mr SLABAUGH, Matt

Contribution ID: 17

Type: **not specified**

Perpendicular 2nd Harmonic

Monday, 7 May 2018 11:45 (30 minutes)

Presenter: MADRAK, Robyn (FNAL)

Contribution ID: **18**

Type: **not specified**

Linac upgrades

Monday, 7 May 2018 09:15 (30 minutes)

Presenter: GALLINUCCI GARCIA, Fernanda (Fermilab)

Contribution ID: **19**

Type: **not specified**

Injection and capture

Monday, 7 May 2018 14:15 (30 minutes)

Presenter: Dr BHAT, Chandra (Fermilab)

Contribution ID: 20

Type: **not specified**

Beam physics - Lattice Corrections

Monday, 7 May 2018 13:45 (30 minutes)

Presenters: Dr TAN, Cheng-Yang (Fermilab); Dr SEIYA, Kiyomi (Fermilab)

Contribution ID: 21

Type: **not specified**

Beam physics - Beam Simulations

Monday, 7 May 2018 14:45 (30 minutes)

Presenters: Dr MACRIDIN, Alexandru (Fermilab); ALEXAHIN, Yuri (Fermilab)

Contribution ID: 22

Type: **not specified**

Beam instability issues and measures at high intensity operations of J-PARC RCS

Monday, 7 May 2018 15:15 (30 minutes)

Presenter: Dr SAHA, Pranab (J-PARC)

Contribution ID: 23

Type: **not specified**

Discussion period

Monday, 7 May 2018 16:15 (30 minutes)

Presenter: Dr ZWASKA, Bob (Fermilab)

Contribution ID: 24

Type: **not specified**

Closeout

Monday, 7 May 2018 16:45 (15 minutes)

Presenter: Mr PELLICO, William (FNAL)

Contribution ID: 25

Type: **not specified**

Fermilab Accelerator Science Initiative and IOTA/FAST

Thursday, 10 May 2018 08:30 (30 minutes)

Presenter: NAGAITSEV, Sergei (FNAL)

Contribution ID: 26

Type: **not specified**

IOTA/FAST program : Plans and Goals

Wednesday, 9 May 2018 08:30 (15 minutes)

Presenter: Dr SHILTSEV, Vladimir (FNAL)

Contribution ID: 27

Type: **not specified**

Welcome

Tuesday, 8 May 2018 08:00 (15 minutes)

Presenter: Dr LYKKEN, Joseph (Fermilab)

Contribution ID: 28

Type: **not specified**

PIP III options and overview

Tuesday, 8 May 2018 15:45 (30 minutes)

Presenter: Dr LEBEDEV, Valeri (Fermilab)

Contribution ID: 29

Type: **not specified**

Resonant dynamics in presence of space charge

Tuesday, 8 May 2018 13:15 (30 minutes)

Presenter: Dr FRANCHETTI, Giuliano (GSI, Darmstadt)

Contribution ID: **30**

Type: **not specified**

IOTA Construction Status

Wednesday, 9 May 2018 08:45 (45 minutes)

Presenter: VALISHEV, Alexander (Fermilab)

Contribution ID: **31**

Type: **not specified**

FAST Linac Capabilities and 2017 Operations

Thursday, 10 May 2018 09:00 (20 minutes)

Presenter: RUAN, Jinhao (Fermilab)

Contribution ID: 32

Type: **not specified**

2018 Readiness for beam in IOTA (Instr, magnets, etc)

Contribution ID: 33

Type: **not specified**

HOM and beam diagnostics in SRF cavities

Thursday, 10 May 2018 10:40 (20 minutes)

Presenter: NAPOLY, Olivier

Contribution ID: 34

Type: **not specified**

2017 Beam Experiments #1: Magnetized and Flat beams

Thursday, 10 May 2018 10:20 (20 minutes)

Presenter: Mr HALAVANAU, Aliaksei (APC)

Contribution ID: 35

Type: **not specified**

FAST Capability: Phase-space tomography

Thursday, 10 May 2018 09:20 (20 minutes)

Presenter: ROMANOV, Alexander (Fermilab/AD/IOTA)

Contribution ID: 36

Type: **not specified**

Synchrotron light detection for FAST and IOTA experiments

Thursday, 10 May 2018 09:40 (20 minutes)

Presenter: STANCARI, Giulio (Fermilab)

Contribution ID: 37

Type: **not specified**

Propagation of Magnetized Beams for an EIC Bunched Beam Cooler

Thursday, 10 May 2018 11:35 (25 minutes)

Presenter: Dr BENSON, Stephen (Jefferson Lab)

Contribution ID: 38

Type: **not specified**

A new approach to calculating dynamic friction for magnetized electron coolers – relevance to future IOTA experiments and to EIC designs

Wednesday, 9 May 2018 10:20 (30 minutes)

Presenter: Dr BRUHWILER, David (RadiaSoft LLC)

Contribution ID: 39

Type: **not specified**

Investigating Nonlinear Integrable Optics with Space Charge in IOTA Using IMPACT-Z

Wednesday, 9 May 2018 09:30 (30 minutes)

Presenter: MITCHELL, Chad (Lawrence Berkeley National Laboratory)

Contribution ID: 40

Type: **not specified**

Experimental Demonstration of Optical Stochastic Cooling at the IOTA Ring

Wednesday, 9 May 2018 15:20 (40 minutes)

Presenter: Dr JARVIS, Jonathan (Fermilab)

Contribution ID: 41

Type: **not specified**

IOTA Electron Lenses

Wednesday, 9 May 2018 13:00 (30 minutes)

Presenter: STANCARI, Giulio (Fermilab)

Contribution ID: 42

Type: **not specified**

High Efficiency Free-electron Lasers

Thursday, 10 May 2018 13:00 (30 minutes)

Presenter: EMMA, Claudio

Contribution ID: 43

Type: **not specified**

S-based symplectic tracking with space charge and applications to IOTA

Wednesday, 9 May 2018 10:50 (30 minutes)

Presenter: Dr COOK, Nathan (RadiaSoft)

Contribution ID: 44

Type: **not specified**

Single particle beam dynamics studies for the IOTA ring with COSY infinity code

Wednesday, 9 May 2018 11:20 (15 minutes)

Presenter: PATAPENKA, Andrei

Contribution ID: 45

Type: **not specified**

Numerical Simulations of Space Charge Compensation with Electron Lenses

Wednesday, 9 May 2018 13:30 (30 minutes)

Presenter: Dr STERN, Eric (FNAL)

Contribution ID: 46

Type: **not specified**

Simulations of the Electron Column in IOTA

Wednesday, 9 May 2018 14:00 (30 minutes)

Presenter: FREEMIRE, Ben (Northern Illinois University)

Contribution ID: 47

Type: **not specified**

Gas Sheet Beam Profile Monitor for IOTA

Wednesday, 9 May 2018 14:30 (30 minutes)

Presenter: SZUSTKOWSKI, Sebastian (Northern Illinois University)

Contribution ID: 48

Type: **not specified**

Beam Optics, Optimization and Tuning for Optical Stochastic Cooling in the IOTA Ring

Wednesday, 9 May 2018 16:00 (30 minutes)

Presenter: ROMANOV, Alexander (Fermilab/AD/IOTA)

Contribution ID: 49

Type: **not specified**

Single-Electron Experiments at IOTA

Wednesday, 9 May 2018 16:30 (30 minutes)

Presenter: NAGAITSEV, Sergei (FNAL)

Contribution ID: 50

Type: **not specified**

Neural Network Based Virtual Diagnostics at FAST

Thursday, 10 May 2018 11:00 (15 minutes)

Presenter: EDELEN, Jonathan

Contribution ID: 51

Type: **not specified**

Inverse Compton Scattering at FAST

Thursday, 10 May 2018 11:15 (20 minutes)

Presenter: Dr MUROKH, Alex (RadiaBeam Technologies, LLC.)

Contribution ID: 52

Type: **not specified**

Self-consistent beam equilibria for nonlinear systems: calculation and testing

Wednesday, 9 May 2018 11:35 (20 minutes)

Presenter: Prof. CARY, John (University of Colorado)

Contribution ID: 53

Type: **not specified**

High field, high repetition rate dielectric wakefield acceleration experiments

Thursday, 10 May 2018 13:30 (30 minutes)

Presenter: Dr O'SHEA, Brendan (SLAC National Laboratory)

Contribution ID: 54

Type: **not specified**

Advance Dielectric Wakefield Accelerator Structures

Thursday, 10 May 2018 14:00 (30 minutes)

Presenter: ANDONIAN, Gerard (Radiabeam)

Contribution ID: 55

Type: **not specified**

From spatiotemporal plasma-based alignment to high rep-rate PWFA at IOTA/FAST

Thursday, 10 May 2018 14:30 (30 minutes)

Presenter: HIDDING, Bernhard

Contribution ID: 56

Type: **not specified**

Plasma Beam Modulator and Afterburner at FAST

Thursday, 10 May 2018 15:00 (30 minutes)

Presenter: Prof. LITOS, Michael (University of Colorado Boulder)