

**2021 IOTA/FAST
Collaboration Meeting**

Report of Contributions

Contribution ID: 1

Type: **not specified**

Welcome and Logistics

Wednesday, 27 October 2021 10:00 (10 minutes)

Presenters: VALISHEV, Alexander (Fermilab); LOPEZ, Lisa (Fermilab)

Session Classification: Opening Session and Overview

Contribution ID: 2

Type: **not specified**

Director's Welcome and Remarks

Wednesday, 27 October 2021 10:10 (10 minutes)

Presenters: LYKKEN, Joseph (Fermilab); LOCKYER, Nigel (Fermilab)

Session Classification: Opening Session and Overview

Contribution ID: 3

Type: **not specified**

The IOTA/FAST Science Program

Wednesday, 27 October 2021 10:20 (20 minutes)

Presenter: NAGAITSEV, Sergei (FNAL)

Session Classification: Opening Session and Overview

Contribution ID: 4

Type: **not specified**

Research at IOTA/FAST: Strategy and Priorities

Wednesday, 27 October 2021 10:40 (20 minutes)

Presenter: VALISHEV, Alexander (Fermilab)

Session Classification: Opening Session and Overview

Contribution ID: 5

Type: **not specified**

Planning and Conducting Experiments at IOTA/FAST

Wednesday, 27 October 2021 11:00 (20 minutes)

Presenter: STANCARI, Giulio (Fermilab)

Session Classification: Opening Session and Overview

Contribution ID: 6

Type: **not specified**

Facility Overview: Performance and Upgrades

Wednesday, 27 October 2021 11:20 (30 minutes)

Presenter: BROEMMELSIEK, Daniel (FNAL/AD/AST/FAST Facility Department)

Session Classification: Opening Session and Overview

Contribution ID: 7

Type: **not specified**

Discussion

Wednesday, 27 October 2021 11:50 (5 minutes)

Session Classification: Opening Session and Overview

Contribution ID: 8

Type: **not specified**

Run 3 Operations and Current Shutdown Activities

Wednesday, 27 October 2021 13:00 (30 minutes)

Presenter: SANTUCCI, James K (Fermilab)

Session Classification: Run 3 Reports

Contribution ID: 9

Type: **not specified**

Photostatistics of Undulator Radiation from Single Electrons (URSSE)

Wednesday, 27 October 2021 13:30 (25 minutes)

Presenters: LOBACH, Ihar; LOBACH, Ihar (The University of Chicago)

Session Classification: Run 3 Reports

Contribution ID: **10**

Type: **not specified**

Phase-Space Tracking of Single Electrons (BOPTSE)

Wednesday, 27 October 2021 13:55 (30 minutes)

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

Session Classification: Run 3 Reports

Contribution ID: **11**

Type: **not specified**

Discussion

Wednesday, 27 October 2021 14:25 (5 minutes)

Session Classification: Run 3 Reports

Contribution ID: 12

Type: **not specified**

Long-Range and Short-Range Wakefield Effects in TESLA-Type Cavities (LRW/SRW) and Implications for LCLS-II Commissioning

Wednesday, 27 October 2021 15:00 (50 minutes)

Presenters: LUMPKIN, Alex (Fermilab); SIKORA, John (SLAC); DIAZ CRUZ, Jorge (SLAC); THURMAN-KEUP, Randy (Fermilab); JACOBSON, bryce (slac)

Session Classification: Run 3 Reports

Contribution ID: **13**

Type: **not specified**

Discussion

Wednesday, 27 October 2021 15:50 (10 minutes)

Session Classification: Run 3 Reports

Contribution ID: 14

Type: **not specified**

Results of the Optical Stochastic Cooling Experiment

Thursday, 28 October 2021 10:30 (30 minutes)

Presenter: JARVIS, Jonathan (Fermilab)

Session Classification: Run 3 Reports

Contribution ID: 15

Type: **not specified**

Discussion

Thursday, 28 October 2021 11:00 (7 minutes)

Session Classification: Run 3 Reports

Contribution ID: 16

Type: **not specified**

Status of the IOTA Proton Injector

Thursday, 28 October 2021 11:10 (20 minutes)

Presenters: BROEMMELSIEK, Daniel (FNAL/AD/AST/FAST Facility Department); EDSTROM, Dean (AD/APC/FAST)

Session Classification: Run 4 and Beyond

Contribution ID: 17

Type: **not specified**

Preparing for Proton Operations in IOTA

Thursday, 28 October 2021 11:30 (30 minutes)

Presenters: ROMANOV, Aleksandr (Fermilab/AD/IOTA); VALISHEV, Alexander (Fermilab)

Session Classification: Run 4 and Beyond

Contribution ID: **18**

Type: **not specified**

Nonlinear Integrable Optics in Run 4 with Electrons

Thursday, 28 October 2021 13:00 (30 minutes)

Presenter: VALISHEV, Alexander (Fermilab)

Session Classification: Run 4 and Beyond

Contribution ID: 19

Type: **not specified**

Instability Thresholds with Octupole Channel in Run 4

Thursday, 28 October 2021 13:30 (25 minutes)

Presenter: EDDY, Nathan (Fermilab)

Session Classification: Run 4 and Beyond

Contribution ID: 20

Type: **not specified**

Studies of Proton Beam Instabilities with a Wake-Building Feedback System

Thursday, 28 October 2021 13:55 (30 minutes)

Presenter: AINSWORTH, Robert (Fermilab)

Session Classification: Run 4 and Beyond

Contribution ID: **21**

Type: **not specified**

Discussion

Thursday, 28 October 2021 14:25 (5 minutes)

Session Classification: Run 4 and Beyond

Contribution ID: 22

Type: **not specified**

Two-Photon Interferometry of Undulator Radiation in Run 4

Thursday, 28 October 2021 15:00 (20 minutes)

Presenter: NAGAITSEV, Sergei (FNAL)

Session Classification: Run 4 and Beyond

Contribution ID: 23

Type: **not specified**

TESSA Experiment Proposal for the FAST Linac

Thursday, 28 October 2021 15:20 (30 minutes)

Presenter: MUSUMECI, Pietro (UCLA)

Session Classification: Run 4 and Beyond

Contribution ID: 24

Type: **not specified**

Discussion

Thursday, 28 October 2021 15:50 (10 minutes)

Session Classification: Run 4 and Beyond

Contribution ID: 25

Type: **not specified**

Research with the IOTA Electron Lens: Overview

Friday, 29 October 2021 10:00 (20 minutes)

Presenter: STANCARI, Giulio (Fermilab)

Session Classification: Run 4 and Beyond

Contribution ID: 26

Type: **not specified**

Nonlinear Integrable Optics with the McMillan Electron Lens

Friday, 29 October 2021 10:20 (25 minutes)

Presenter: CATHEY, Brandon

Session Classification: Run 4 and Beyond

Contribution ID: 27

Type: **not specified**

Research on Electron Cooling in IOTA

Friday, 29 October 2021 10:45 (25 minutes)

Presenter: BANERJEE, Nilanjan (University of Chicago)

Session Classification: Run 4 and Beyond

Contribution ID: 28

Type: **not specified**

Tune Spread Generation and Beam Stability with a Landau Electron Lens

Friday, 29 October 2021 11:10 (25 minutes)

Presenter: BUROV, Alexey (AD/APC)

Session Classification: Run 4 and Beyond

Contribution ID: 29

Type: **not specified**

Studies of Space-Charge Compensation

Friday, 29 October 2021 11:35 (25 minutes)

Presenter: STERN, Eric (FNAL)

Session Classification: Run 4 and Beyond

Contribution ID: **30**

Type: **not specified**

Halo Growth of Proton Beams in Nonlinear Lattices

Friday, 29 October 2021 13:00 (30 minutes)

Presenter: MITCHELL, Chad (Lawrence Berkeley National Laboratory)

Session Classification: Run 4 and Beyond

Contribution ID: **31**

Type: **not specified**

Beam Dynamics with Space Charge in IOTA

Friday, 29 October 2021 13:30 (25 minutes)

Presenter: LI, Runze

Session Classification: Run 4 and Beyond

Contribution ID: 32

Type: **not specified**

Studies of Noise in Intense Electron Bunches in the FAST Linac

Friday, 29 October 2021 13:55 (25 minutes)

Presenter: NAGAITSEV, Sergei (FNAL)

Session Classification: Run 4 and Beyond

Contribution ID: **33**

Type: **not specified**

Discussion

Friday, 29 October 2021 14:20 (10 minutes)

Session Classification: Run 4 and Beyond

Contribution ID: 35

Type: **not specified**

Conclusions and Outlook

Friday, 29 October 2021 15:50 (10 minutes)

Presenter: VALISHEV, Alexander (Fermilab)

Session Classification: Conclusion

Contribution ID: 36

Type: **not specified**

Optical Stochastic Cooling: Theory and Design

Thursday, 28 October 2021 10:00 (30 minutes)

Presenter: LEBEDEV, Valeri (Fermilab)

Session Classification: Run 3 Reports

Contribution ID: 37

Type: **not specified**

Collective Effects in the Electron-Ion Collider

Friday, 29 October 2021 15:00 (45 minutes)

Presenter: BLASKIEWICZ, Michael (Brookhaven National Lab)

Session Classification: Conclusion

Contribution ID: **38**

Type: **not specified**

Virtual Group Photo

Wednesday, 27 October 2021 11:55 (5 minutes)

Turn on your lights and cameras! (If you like.) We will take group screenshots of the participants.

Session Classification: Opening Session and Overview

Contribution ID: **39**

Type: **not specified**

Discussion

Friday, 29 October 2021 15:45 (5 minutes)

Session Classification: Conclusion

Contribution ID: **40**

Type: **not specified**

Virtual Group Photo

Thursday, 28 October 2021 11:07 (3 minutes)

Turn on your lights and cameras! (If you like.) We will take group screenshots of the participants.

Session Classification: Run 3 Reports