2019 ATF Science Planning Workshop

Report of Contributions

Contribution ID: **1**
Type: **not specified**

ATF Electron Beam Capabilities

Wednesday, 16 October 2019 11:15 (30 minutes)

Presenter: FEDURIN, Mikhail (BNL)

Session Classification: Electron Beam Capabilities

Contribution ID: **2**   Type: **not specified**

Dielectric Wakefield acceleration and phase space manipulation

Wednesday, 16 October 2019 11:45 (20 minutes)

Presenter: ANDONIAN, Gerard (UCLA)

Session Classification: Electron Beam Capabilities

Contribution ID: **6**   Type: **not specified**

Stable positron acceleration in self-generated quasi-hollow channels

Wednesday, 16 October 2019 13:50 (20 minutes)

Presenter: SILVA, Thales (Instituto Superior Técnico)

Session Classification: Electron Beam Capabilities

Contribution ID: **7**   Type: **not specified**

Beam-Driven Structure-Based Bimodal and Dielectric Wakefield Plasma-Filled Accelerators

Wednesday, 16 October 2019 14:10 (20 minutes)

Presenters: HIRSHFIELD, Jay L. (Yale Univ. & Omega-P R&D, Inc.); SHCHELKUNOV, Sergey (Yale University, Omega-P R&D, inc)

Session Classification: Electron Beam Capabilities

Contribution ID: **9**   Type: **not specified**

Discussion and Report Planning

Wednesday, 16 October 2019 17:00 (30 minutes)

Presenter: VAFAEI-NAJAFABADI, Navid (Stony Brook University)

Session Classification: Laser-Electron Beam Capabilities

Contribution ID: **10**

Type: **not specified**

Welcome

Tuesday, 15 October 2019 13:00 (15 minutes)

Presenter: TRIBBLE, Robert (Brookhaven National Labratory)

Session Classification: Introduction

Contribution ID: **11**   Type: **not specified**

The 2019 ATF Science Planning Workshop

Tuesday, 15 October 2019 13:15 (20 minutes)

Presenter: PALMER, Mark (BNL)

Session Classification: Introduction

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Contribution ID: **14**   Type: **not specified**

Plasma Optics for Guiding, Focusing, and Compression

Tuesday, 15 October 2019 14:45 (20 minutes)

Presenter: GORDON, Daniel (United States Naval Research Laboratory (NRL))

Session Classification: LWIR Laser Capabilities

Contribution ID: **16**   Type: **not specified**

Femtosecond NIR laser at ATF: opportunities

Tuesday, 15 October 2019 15:05 (20 minutes)

Presenter: CHEN, Yu-hsin (Naval Research Laboratory)

Session Classification: LWIR Laser Capabilities

Contribution ID: **19**   Type: **not specified**

Laser-matter interactions at the extreme

Wednesday, 16 October 2019 10:55 (20 minutes)

Presenter: VRANIC, Marija (IST)

Session Classification: LWIR Laser Capabilities

Contribution ID: **20**

Type: **not specified**

Applications of machine learning and active feedback in laser-plasma wakefield accelerators

Wednesday, 16 October 2019 10:00 (20 minutes)

Presenter: MANGLES, Stuart (Imperial College London)

Session Classification: LWIR Laser Capabilities

Contribution ID: **23**   Type: **not specified**

Laser-Electron Beam Capabilities and Plan

Wednesday, 16 October 2019 14:50 (30 minutes)

Presenter: POGORELSKY, Igor (BNL/CAD)

Session Classification: Laser-Electron Beam Capabilities

Contribution ID: **24** Type: **not specified**

Ion Acceleration Opportunities at ATF

Wednesday, 16 October 2019 15:40 (20 minutes)

Presenter: ETTLINGER, Oliver (Imperial College London)

Session Classification: Laser-Electron Beam Capabilities

Contribution ID: 25   Type: **not specified**

Sub-fs modulated beams using LWIR laser, plasma and beam interactions

Wednesday, 16 October 2019 16:20 (20 minutes)

Presenter: SAHAI, Aakash (University of Colorado)

Session Classification: Laser-Electron Beam Capabilities

Contribution ID: **26**　　　　　　　　　　　　　　　　　　Type: **not specified**

Advanced Inverse Compton Scattering Experiments

Thursday, 17 October 2019 09:00 (20 minutes)

Presenter: ROSENZWEIG, James (UCLA)

Session Classification: Laser-Electron Beam Capabilities

Contribution ID: **27**   Type: **not specified**

Dielectric Laser Acceleration

Wednesday, 16 October 2019 14:30 (20 minutes)

Presenter: ENGLAND, R. Joel (SLAC National Accelerator Laboratory)

Session Classification: Electron Beam Capabilities

Contribution ID: **33** Type: **not specified**

ATF B820 Integrated Plan

Thursday, 17 October 2019 10:55 (30 minutes)

Presenter: PALMER, Mark (BNL)

Session Classification: ATF B820 Integrated Plan

Contribution ID: **34**   Type: **not specified**

Discussion and Report Planning

Thursday, 17 October 2019 11:25 (35 minutes)

Presenter: VAFAEI-NAJAFABADI, Navid (Stony Brook University)

Session Classification: ATF B820 Integrated Plan

Contribution ID: **40**   Type: **not specified**

LWIR Laser Capabilities and Plan

Tuesday, 15 October 2019 14:15 (30 minutes)

Presenter: POLYANSKIY, Mikhail (Brookhaven National Laboratoty)

Session Classification: LWIR Laser Capabilities

Contribution ID: **41**
Type: **not specified**

Facility Upgrade Thrusts

Tuesday, 15 October 2019 13:35 (20 minutes)

Presenter: CULLEN, Christian (BNL)

Session Classification: Introduction

Contribution ID: 42   Type: **not specified**

The Future of Advanced Accelerator R&D

Tuesday, 15 October 2019 13:55 (20 minutes)

Presenter: COLBY, Eric (U. S. DOE)

Session Classification: Introduction

Contribution ID: **43**   Type: **not specified**

Laser Microfabrication for Advanced Accelerator Components

Wednesday, 16 October 2019 13:30 (20 minutes)

Presenter: ANTIPOV, Sergey (Euclid Techlabs LLC / Argonne National Laboratory)

Session Classification: Electron Beam Capabilities

Contribution ID: 44   Type: **not specified**

High-rep-rate systems for LWFA science

Wednesday, 16 October 2019 09:40 (20 minutes)

Presenter: GEDDES, Cameron (Lawrence Berkeley National Laboratory)

Session Classification: LWIR Laser Capabilities

Contribution ID: **45** Type: **not specified**

High rep-rate laser wakefield acceleration

Wednesday, 16 October 2019 10:35 (20 minutes)

Presenter: MA, Yong (University of Michigan)

Session Classification: LWIR Laser Capabilities

Contribution ID: **46**
Type: **not specified**

Radiation Reaction and Nonlinear Compton Scattering in Intense Laser Interactions with Relativistic Electrons

Tuesday, 15 October 2019 16:55 (20 minutes)

Presenter: SEIPT, Daniel (University of Michigan)

Session Classification: LWIR Laser Capabilities

Contribution ID: **47** Type: **not specified**

Frontiers of mid-IR lasers based on transition metal doped chalcogenides

Tuesday, 15 October 2019 15:55 (20 minutes)

Presenter: MIROV, Sergey B. (University of Alabama at Birmingham)

Session Classification: LWIR Laser Capabilities

Contribution ID: **49**   Type: **not specified**

Probing Weibel instability in CO2 ionized plasmas using ultrashort electron beams

Thursday, 17 October 2019 09:20 (20 minutes)

Presenter: ZHANG, Chaojie (University of California, Los Angeles)

Session Classification: Laser-Electron Beam Capabilities

Contribution ID: **51**   Type: **not specified**

Modeling Classical Undulator Radiation with a Parallel Lienard-Wiechert Code

Thursday, 17 October 2019 09:40 (20 minutes)

Presenter: RYNE, Robert (Lawrence Berkeley National Laboratory)

Session Classification: Laser-Electron Beam Capabilities

Contribution ID: **52**   Type: **not specified**

X-ray sources driven by self-modulated laser wakefield acceleration

Tuesday, 15 October 2019 16:35 (20 minutes)

Presenter: ALBERT, Felicie (Lawrence Livermore National Laboratory (LLNL))

Session Classification: LWIR Laser Capabilities

Contribution ID: **53**   Type: **not specified**

External injection of an electron beam in LWIR-driven LWFA

Wednesday, 16 October 2019 15:20 (20 minutes)

Presenter: VAFAEI-NAJAFABADI, Navid (Stony Brook University)

Session Classification: Laser-Electron Beam Capabilities

Contribution ID: 54   Type: **not specified**

Numerical simulations for CO2 laser plasma interaction

Wednesday, 16 October 2019 09:00 (20 minutes)

Presenter: THEVENET, Maxence (Lawrence Berkeley National Laboratory)

Session Classification: LWIR Laser Capabilities

Contribution ID: **55**   Type: **not specified**

Plasma diagnostics for ATF

Wednesday, 16 October 2019 09:20 (20 minutes)

Presenter: DOWNER, Michael (University of Texas at Austin)

Session Classification: LWIR Laser Capabilities

Contribution ID: **56**   Type: **not specified**

Potpourri of New Accelerator R&D Opportunities

Wednesday, 16 October 2019 16:40 (20 minutes)

Presenter: KIMURA, Wayne (STI Optronics, Inc.)

Session Classification: Laser-Electron Beam Capabilities

Contribution ID: **57**   Type: **not specified**

Simulation capabilities for ATF experiments

Thursday, 17 October 2019 10:15 (20 minutes)

Presenter: COWAN, Benjamin (Tech-X Corporation)

Session Classification: Laser-Electron Beam Capabilities

Contribution ID: **58**　　　　　　　　　　　　　　　　　　Type: **not specified**

Opportunities and Challenges for Simulation at ATF

Thursday, 17 October 2019 10:35 (20 minutes)

Presenter: COOK, Nathan (Radiasoft)

Session Classification: Laser-Electron Beam Capabilities

Contribution ID: **60**   Type: **not specified**

Scalable High-Power Laser Architectures for Wavelength-Scaled Laser-Plasma Accelerators

Tuesday, 15 October 2019 16:15 (20 minutes)

Presenters: SIDERS, Craig (Lawrence Livermore National Laboratory (LLNL)); LINK, Emily (Lawrence Livermore National Laboratory (LLNL))

Session Classification: LWIR Laser Capabilities