

27th Accelerator Test Facility Users' Meeting

Report of Contributions

Contribution ID: 6

Type: **not specified**

Welcome by Lab Director

Tuesday 29 April 2025 10:40 (10 minutes)

Presenter: HEWETT, JoAnne (Brookhaven National Laboratory)

Session Classification: Opening Session

Contribution ID: 7

Type: **not specified**

Meeting Logistics and Opening Remarks

Tuesday 29 April 2025 10:00 (5 minutes)

Presenter: POGORELSKY, Igor (BNL/ATF)

Session Classification: Opening Session

Contribution ID: 8

Type: **not specified**

ATF Introduction and FY24 Operations

Tuesday 29 April 2025 10:05 (20 minutes)

Presenter: POGORELSKY, Igor (BNL/ATF)

Session Classification: Opening Session

Contribution ID: 9

Type: **not specified**

New Conduct of Operations and Accelerator Readiness Review

Tuesday 29 April 2025 10:25 (15 minutes)

Presenter: KUSCHE, Karl (BNL/ATF)

Session Classification: Opening Session

Contribution ID: **10**

Type: **not specified**

Facility Maintenance Status and Updates

Tuesday 29 April 2025 10:50 (20 minutes)

Presenter: SIMMONDS, Andrew (Brookhaven National Laboratory)

Session Classification: Opening Session

Contribution ID: **11**

Type: **not specified**

FY25/26 Running Plans

Tuesday 29 April 2025 11:10 (15 minutes)

Presenter: POGORELSKY, Igor (BNL/ATF)

Session Classification: Opening Session

Contribution ID: **12**

Type: **not specified**

Comments from DOE

Tuesday 29 April 2025 11:25 (15 minutes)

Presenter: COLBY, Eric (DOE)

Session Classification: Opening Session

Contribution ID: 13

Type: **not specified**

AE108 –Development of Wavelength Conversion Techniques for Generation of Coherent Radiation at the Mid- to Long-wave Infrared

Tuesday 29 April 2025 12:40 (25 minutes)

Presenter: LI, William (BNL/ATF)

Session Classification: Status reports and Closeouts

Contribution ID: 14

Type: **not specified**

AE119 –Radiofrequency Emission from 10 Micron Short Pulse Laser Ionized Gases and Solids

Tuesday 29 April 2025 13:25 (25 minutes)

Presenter: ELLE, Jennifer (AFRL)

Session Classification: Status reports and Closeouts

Contribution ID: 15

Type: **not specified**

AE89 –Plasma compression for terawatt long wave infrared lasers

Wednesday 30 April 2025 14:00 (25 minutes)

Presenter: Dr GORDON, Dan (NRL)

Session Classification: Status reports and Closeouts

Contribution ID: 16

Type: **not specified**

AE124 –Simulation-aided Instrument Optimization using Artificial Intelligence and Machine Learning Methods

Presenter: MORRIS, Thomas (BNL)

Session Classification: Status reports and Closeouts

Contribution ID: 17

Type: **not specified**

AE125 –Broadband microwave emissions from LWIR picosecond laser ablation with pre-ionization

Tuesday 29 April 2025 15:40 (25 minutes)

Presenter: GOERS, Andy (JHU)

Session Classification: Status reports and Closeouts

Contribution ID: **18**

Type: **not specified**

AE126 –Remote detection of radioactive materials using long wave infrared laser-driven avalanche breakdown

Tuesday 29 April 2025 15:00 (25 minutes)

Presenter: MILCHBERG, Howard (UMD)

Session Classification: Status reports and Closeouts

Contribution ID: **19**

Type: **not specified**

AE127 –Two Color Injection of Bright Electron Beams

Tuesday 29 April 2025 14:40 (20 minutes)

Presenter: LI, William (BNL)

Session Classification: Status reports and Closeouts

Contribution ID: 21

Type: **not specified**

AE128 –Ionization Currents and Secondary Radiation from Two-Color Pulses at Long Laser Wavelengths

Wednesday 30 April 2025 10:30 (20 minutes)

Presenter: ENGLESBE, Alex (NRL)

Session Classification: Status reports and Closeouts

Contribution ID: 22

Type: **not specified**

AE129 –Advanced Accelerator and Laser Laboratory Course

Wednesday 30 April 2025 10:50 (20 minutes)

Presenter: LI, William (BNL/ATF)

Session Classification: Status reports and Closeouts

Contribution ID: 23

Type: **not specified**

AE130 –Novel Application of a Pulsed Electron Linear Accelerator as a Single Event Effects Simulator

Presenter: ALLEN, G (NASA/JPL)

Session Classification: Status reports and Closeouts

Contribution ID: 24

Type: **not specified**

AE131 –Harmonic Nonlinear Inverse Compton Scattering

Wednesday 30 April 2025 11:10 (20 minutes)

Presenter: SAKAI, Yusuke (Brookhaven National Laboratory)

Session Classification: Status reports and Closeouts

Contribution ID: 25

Type: **not specified**

AE132 –Benchmarking the Radiation Dose Simulator Around the CO2 Laser IP

Wednesday 30 April 2025 13:00 (20 minutes)

Presenter: ROSENSTROM, Andrew (SLAC)

Session Classification: Status reports and Closeouts

Contribution ID: 26

Type: **not specified**

AE133 –High-intensity laser interactions with near-critical density plasmas

Wednesday 30 April 2025 11:30 (20 minutes)

Presenter: DOVER, Nicholas (ICL)

Session Classification: Status reports and Closeouts

Contribution ID: 27

Type: **not specified**

AE134 –Optical probing of simultaneous Biermann battery and Weibel instability generated magnetic fields in over critical density plasma

Wednesday 30 April 2025 13:20 (20 minutes)

Presenter: FARRELL, Audrey (UCLA)

Session Classification: Status reports and Closeouts

Contribution ID: **28**

Type: **not specified**

AE136 –Ultrafast Electron Radiography of LWFA

Presenter: VAF AEI-HAJAFABADI, Navid (SBU)

Session Classification: Status reports and Closeouts

Contribution ID: 29

Type: **not specified**

AE137 - Optical diagnosis of CO₂-laser-driven plasma wakes

Wednesday 30 April 2025 13:40 (20 minutes)

Presenter: DOWNER, Mike (UT Austin)

Session Classification: Status reports and Closeouts

Contribution ID: **30**

Type: **not specified**

AE138 –Enabling R&D for Advanced M/L-WIR Laser Concepts

Tuesday 29 April 2025 13:05 (20 minutes)

Presenter: CHOGE, Dismas (BNL/ATF)

Session Classification: Status reports and Closeouts

Contribution ID: **31**

Type: **not specified**

AF135/NP-318756 –Tunable Laser Positron Source

Presenter: SAHAI, Aakash (UC Denver)

Session Classification: Status reports and Closeouts

Contribution ID: 32

Type: **not specified**

NP-316748: Demonstration of CO₂ laser-pumped multi-mJ-level ultrafast terahertz sources

Presenter: POLONYI, Gyula (Un of Pecs, Hungary)

Session Classification: New Proposals

Contribution ID: 33

Type: **not specified**

NP-318719: Direct measurement of pulse length and retrieval of longitudinal phase space distribution of electron beams with laser pulses

Wednesday 30 April 2025 15:10 (30 minutes)

Presenter: MA, Yong (University of Michigan)

Session Classification: New Proposals

Contribution ID: 34

Type: **not specified**

NP-318747: Efficient and Stable Acceleration of Electrons in Laser Wakefield Accelerators

Thursday 1 May 2025 10:00 (30 minutes)

Presenter: VAF AEI-NAJAFABADI, Navid (SBU)

Session Classification: New Proposals

Contribution ID: 35

Type: **not specified**

NP-318759: Gas-Based Plasma Optics for Steering and Shaping High-Power Long-Wave-Infrared Laser Pulses

Thursday 1 May 2025 10:30 (30 minutes)

Presenter: MIKHAILOVA, Julia (Princeton Un)

Session Classification: New Proposals

Contribution ID: 36

Type: **not specified**

LWIR laser Status and Upgrades

Thursday 1 May 2025 11:15 (20 minutes)

Presenter: POLYANSKIY, Misha (BNL/ATF)

Session Classification: Closing Session

Contribution ID: 37

Type: **not specified**

BeamNetUS and ATF Science Planning Workshop News

Thursday 1 May 2025 11:35 (20 minutes)

Presenter: VAFAEI-HAJAFABADI, Navid (SBU)

Session Classification: Closing Session

Contribution ID: **38**

Type: **not specified**

Closeout

Thursday 1 May 2025 11:55 (5 minutes)

Presenter: POGORELSKY, Igor (BNL/ATF)

Session Classification: Closing Session

Contribution ID: **39**

Type: **not specified**

Group Photo

Contribution ID: **40**

Type: **not specified**

Group Photo

Contribution ID: 41

Type: **not specified**

NP-318758: Solid-State High Harmonic Generation with Long-Wave Infrared Source for Quantum Materials Characterization

Thursday 1 May 2025 09:30 (30 minutes)

Presenter: MIKHAILOVA, Julia

Session Classification: New Proposals

Contribution ID: 42

Type: **not specified**

AF135/NP-318679 Tunable laser positron source

Wednesday 30 April 2025 14:40 (30 minutes)

Presenter: SAHAI, Aakash (Un Colorado)

Session Classification: New Proposals

Contribution ID: 43

Type: **not specified**

NP-318791: SC-IFEL: A superradiant Compton experiment driven by IFEL bunched electrons

Wednesday 30 April 2025 15:40 (30 minutes)

Presenter: SCHAAP, Brian (UCLA)

Session Classification: New Proposals

Contribution ID: 44

Type: **not specified**

NP-318011: Advanced Accelerator Training for CityTech Students under the RENEW Program

Tuesday 29 April 2025 15:25 (15 minutes)

Presenter: VLADUTESCU, Viviana (CityTech)

Session Classification: Status reports and Closeouts