

# **21st ATF Users' Meeting**

## **Report of Contributions**

Contribution ID: 0

Type: **not specified**

## Welcome

*Wednesday, 14 November 2018 09:15 (10 minutes)*

### Summary

**Presenter:** TRIBBLE, Robert (BNL)

**Session Classification:** Opening and Operations Updates

Contribution ID: 2

Type: **not specified**

## **ATF Operations Status**

*Wednesday, 14 November 2018 10:10 (25 minutes)*

### **Summary**

**Presenter:** SWINSON, Christina (BNL)

**Session Classification:** Opening and Operations Updates

Contribution ID: 3

Type: **not specified**

## **ATF Outlook and Plans**

*Wednesday, 14 November 2018 09:25 (20 minutes)*

**Presenter:** Dr PALMER, Mark (BNL)

**Session Classification:** Opening and Operations Updates

Contribution ID: 5

Type: **not specified**

# **Energy coupling and wave-particle interactions in Magnetized plasmas driven by relativistic ultrashort laser and electron beam**

*Wednesday, 14 November 2018 11:10 (25 minutes)*

## **Summary**

**Presenter:** SAHAI, Aakash (Imperial College London)

**Session Classification:** New Proposals

Contribution ID: 6

Type: **not specified**

## **Clearing a path through fog droplets using a short pulse (sub-nsec) CO2 laser**

*Wednesday, 14 November 2018 11:35 (25 minutes)*

### **Summary**

**Presenter:** Dr FISCHER, Richard (NRL)

**Session Classification:** New Proposals

Contribution ID: 7

Type: **not specified**

## **Direct Measurement of Fields and Radiation in Self-Modulated Plasma Wakefield Regime**

*Wednesday, 14 November 2018 12:00 (25 minutes)*

### **Summary**

**Presenter:** VAF AEI-NAJAFABADI, Navid (SBU)

**Session Classification:** New Proposals

Contribution ID: **10**

Type: **not specified**

# **Materials Study and Experimental Demonstration of CO<sub>2</sub>-Laser-Driven Dielectric Laser Accelerator**

*Wednesday, 14 November 2018 14:10 (25 minutes)*

## **Summary**

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

**Session Classification:** New Proposals



Contribution ID: 11

Type: **not specified**

## **Optical diagnosis of Self-Modulated CO<sub>2</sub>-laser driven plasma wakes**

*Wednesday, 14 November 2018 13:45 (25 minutes)*

### **Summary**

**Presenter:** ZGADZAJ, Rafal (The University of Texas at Austin)

**Session Classification:** New Proposals

Contribution ID: 12

Type: **not specified**

## **Study of nonequilibrium lattice dynamics in low dimensional 3D-Dirac semimetals**

*Wednesday, 14 November 2018 14:35 (25 minutes)*

### **Summary**

**Presenter:** KONSTANTINOVA, Tatiana (BNL)

**Session Classification:** New Proposals

Contribution ID: **20**

Type: **not specified**

## **AE78: eRHIC BPM**

**Presenter:** MINTY, Michiko (BNL)

Contribution ID: 22

Type: **not specified**

## **AE71: CO2-Laser-Driven GeV Wakefield Accelerators with External Injection / Key Physics Study of Laser Wakefield**

**Presenter:** WELCH, James (Cornell University)

Contribution ID: 26

Type: **not specified**

## **UE82 - Thermal Transport in Thermoelectric Materials**

*Wednesday, 14 November 2018 16:20 (15 minutes)*

### **Summary**

**Presenter:** LI, Junjie (BNL)

**Session Classification:** New Proposals & Status Reports

Contribution ID: 35

Type: **not specified**

## **ATF and the Accelerator Stewardship Program**

Remote Presentation

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

Contribution ID: **36**

Type: **not specified**

## **Status Report on the B820 CO2 Laser R&D Program**

*Thursday, 15 November 2018 14:00 (30 minutes)*

**Presenter:** POLYANSKIY, Mikhail (BNL)

**Session Classification:** ATF Facility R&D Program and Upgrade Status

Contribution ID: 37

Type: **not specified**

## **Next Steps for CO2 System at B820**

*Thursday, 15 November 2018 14:30 (30 minutes)*

**Presenter:** POGORELSKY, Igor (BNL/CAD)

**Session Classification:** ATF Facility R&D Program and Upgrade Status



Contribution ID: 41

Type: **not specified**

## Comments from the US DOE

*Wednesday, 14 November 2018 10:35 (20 minutes)*

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

**Session Classification:** Opening and Operations Updates

Contribution ID: 42

Type: **not specified**

## **AE71 - CO2-Laser-Driven GeV Wakefield Wakefield Accelerators with External Injection**

*Wednesday, 14 November 2018 15:15 (15 minutes)*

### **Summary**

**Presenter:** ZGADZAJ, Rafal (The University of Texas at Austin)

**Session Classification:** New Proposals & Status Reports

Contribution ID: 43

Type: **not specified**

## **AE66 - Modification of Gas Jet Density Profile with Hydrodynamic Shocks for CO<sub>2</sub> Laser Ion Acceleration Experiment**

*Wednesday, 14 November 2018 15:30 (15 minutes)*

### **Summary**

**Presenter:** NAJMUDIN, Zulfikar (Imperial College London)

**Session Classification:** New Proposals & Status Reports

Contribution ID: 44

Type: **not specified**

## **AE86 - Plasma Ion Channel Undulator using Electron Beam in CO2 Laser-Driven Channel**

*Wednesday, 14 November 2018 15:45 (15 minutes)*

No beam time provided in 2018

### **Summary**

**Presenter:** NAJMUDIN, Zulfikar (Imperial College London)

**Session Classification:** New Proposals & Status Reports

Contribution ID: 45

Type: **not specified**

## **UE80 - Non-Equilibrium Phenomena w/UED**

*Wednesday, 14 November 2018 16:35 (15 minutes)*

### **Summary**

**Presenter:** LI, Junjie (BNL)

**Session Classification:** New Proposals & Status Reports

Contribution ID: 46

Type: **not specified**

## **AE68 - Ramped Beam Generation Using Dielectric Wakefield Structures**

*Wednesday, 14 November 2018 16:00 (15 minutes)*

### **Summary**

**Presenter:** ANDONIAN, Gerard (UCLA)

**Session Classification:** New Proposals & Status Reports

Contribution ID: 47

Type: **not specified**

## **AE62 - Sub-Femtosecond Beam Line Diagnostics**

*Wednesday, 14 November 2018 16:15 (5 minutes)*

No beam time provided in 2018

### **Summary**

**Presenter:** ANDONIAN, Gerard (UCLA)

**Session Classification:** New Proposals & Status Reports

Contribution ID: 48

Type: **not specified**

## **UE84 - UED Thin Film Melting**

*Wednesday, 14 November 2018 16:50 (5 minutes)*

No beam time provided (to date) in 2018

### **Summary**

**Presenter:** TADESSE, Assefa (BNL)

**Session Classification:** New Proposals & Status Reports



Contribution ID: 50

Type: **not specified**

## **TBA based on Active Medium**

*Thursday, 15 November 2018 08:45 (25 minutes)*

### **Summary**

**Presenter:** Prof. SCHACHTER, Levi (Technion)

**Session Classification:** New Proposals & Status Reports

Contribution ID: 51

Type: **not specified**

## **Electron Beam Formation via Ionization Injection for Next Generation Accelerator R&D**

*Thursday, 15 November 2018 09:10 (25 minutes)*

### **Summary**

**Presenter:** SWINSON, Christina (BNL)

**Session Classification:** New Proposals & Status Reports

Contribution ID: 52

Type: **not specified**

# Plasma Compression for Terawatt Long Wavelength Lasers

*Thursday, 15 November 2018 09:35 (25 minutes)*

## Summary

**Presenter:** GORDON, Daniel (Naval Research Laboratory)

**Session Classification:** New Proposals & Status Reports

Contribution ID: 55

Type: **not specified**

## **AE63 - Stony Brook Accelerator Laboratory Course, CASE@ATF**

*Thursday, 15 November 2018 10:00 (5 minutes)*

No beam time provided in 2018

### **Summary**

**Presenter:** FEDURIN, Mikhail (BNL)

**Session Classification:** New Proposals & Status Reports

Contribution ID: 57

Type: **not specified**

## **AE64 - Surface Wave Accelerator**

*Thursday, 15 November 2018 10:05 (5 minutes)*

for G. Shvets

No beam time provided in 2018 [Terminating]

### **Summary**

**Presenter:** FEDURIN, Mikhail (BNL)

**Session Classification:** New Proposals & Status Reports

Contribution ID: **60**

Type: **not specified**

## **AE76 - High Duty Cycle IFEL**

*Thursday, 15 November 2018 11:55 (15 minutes)*

### **Summary**

**Presenter:** OVODENKO, Andrey (RadiaBeam Technologies)

**Session Classification:** New Proposals & Status Reports

Contribution ID: **61**

Type: **not specified**

## **AE75 - MEMS Undulator for EUV Lasers**

*Thursday, 15 November 2018 11:30 (5 minutes)*

No beam time in 2018

### **Summary**

**Session Classification:** New Proposals & Status Reports

Contribution ID: **62**

Type: **not specified**

## **Phase 1 LDRD for UED**

*Thursday, 15 November 2018 11:00 (15 minutes)*

### **Summary**

**Presenter:** YANG, Xi (USC/ISI)

**Session Classification:** New Proposals & Status Reports



Contribution ID: **63**

Type: **not specified**

## **AE87 - Hard X-ray ICS**

*Thursday, 15 November 2018 11:20 (5 minutes)*

Beam time upcoming in 2018

### **Summary**

**Presenter:** SAKAI, Yusuke (UCLA)

**Session Classification:** New Proposals & Status Reports

Contribution ID: 65

Type: **not specified**

## **AE73 - Energy Chirp Compensation in Plasma**

*Thursday, 15 November 2018 11:25 (5 minutes)*

No Beam Time in 2018 - Terminating

### **Summary**

**Session Classification:** New Proposals & Status Reports

Contribution ID: **66**

Type: **not specified**

## **AE77 - Advanced IFEL (Part 1)**

*Thursday, 15 November 2018 11:35 (5 minutes)*

No Beam Time in 2018

### **Summary**

**Session Classification:** New Proposals & Status Reports

Contribution ID: 67

Type: **not specified**

## **AE85 - Multiatmospheric CO2 Amplifier Optically Pumped by a 4.3 micron FeZnSe Laser**

*Thursday, 15 November 2018 11:40 (15 minutes)*

No Beam Time in 2018

### **Summary**

**Presenter:** TOCHITSKY, Sergei (UCLA)

**Session Classification:** New Proposals & Status Reports

Contribution ID: **68**

Type: **not specified**

## **ATF Electron Beamline and Diagnostics Updates**

*Thursday, 15 November 2018 15:00 (30 minutes)*

**Presenter:** FEDURIN, Mikhail (BNL)

**Session Classification:** ATF Facility R&D Program and Upgrade Status

Contribution ID: **69**

Type: **not specified**

## **UED Status & Upgrades**

*Thursday, 15 November 2018 15:30 (30 minutes)*

**Presenter:** BABZIEN, Marcus (BNL)

**Session Classification:** ATF Facility R&D Program and Upgrade Status

Contribution ID: 70

Type: **not specified**

## **ATF Facility Updates**

*Wednesday, 14 November 2018 09:45 (25 minutes)*

### **Summary**

**Presenter:** CULLEN, Christian (BNL)

**Session Classification:** Opening and Operations Updates

Contribution ID: 71

Type: **not specified**

## Process to Update the ATF Program Plan

*Thursday, 15 November 2018 16:30 (20 minutes)*

### Summary

**Presenter:** Dr PALMER, Mark (BNL)

**Session Classification:** Defining a New Path for the ATF



Contribution ID: 72

Type: **not specified**

## Discussion with the ATF User Community

*Thursday, 15 November 2018 16:50 (40 minutes)*

### Summary

**Session Classification:** Defining a New Path for the ATF

Contribution ID: 73

Type: **not specified**

## **AE67 - Space Radiation Effects Experiments**

*Thursday, 15 November 2018 10:10 (15 minutes)*

for W. Kim and B. Jun

**Presenter:** FEDURIN, Mikhail (BNL)

**Session Classification:** New Proposals & Status Reports

Contribution ID: 74

Type: **not specified**

## Looking Ahead: IFEL Acceleration with Optical Energy Recovery

*Thursday, 15 November 2018 12:10 (15 minutes)*

Potential future experiment

### Summary

**Presenter:** MUROKH, Alex (RadiaBeam Technologies)

**Session Classification:** New Proposals & Status Reports