



# 25th Accelerator Test Facility Users' Meeting

## Tuesday, 28 February 2023

### Status Reports & New Proposals - Berkner Hall (Bldg. 488), Rooms B (13:00 - 15:00)

time	[id] title	presenter
13:00	[13] AE63 - Stony Brook Accelerator Laboratory Course	FEDURIN, Mikhail
13:25	[14] AE85 - Multi atmospheric CO2 Amplifier Optically Pumped by a 4.3 micron FeZnSe Laser	TOCHITSKY, Sergei
13:50	[16] AE89 – Plasma Compression for Terawatt Long Wavelength Lasers	GORDON, Daniel
14:10	[17] AE93 - Direct Measurement of Fields and Radiation in the Self-Modulated Plasma Wakefield Regime	PETRUSHINA, Irina

### Status Reports & New Proposals - Berkner Hall (Bldg. 488), Rooms B (15:30 - 17:00)

time	[id] title	presenter
15:30	[18] AE95 - Optical Diagnosis of Self-Modulated CO2-laser Driven Plasma Wakes	ZGADZAJ, Rafal
15:50	[19] AE98 – Probing electron Weibel instability in optical field-ionized plasmas using ultrashort electron bunches	ZHANG, Chaojie
16:10	[20] AE99 – Directional X-ray radiation produced by an ultra-short period plasma magneto-static undulator	WU, Yipeng
16:30	[21] AE101 - Optical Materials for Ultrahigh-Power Long-Wave Infrared Lasers	POLYANSKIY, Mikhail

# Wednesday, 1 March 2023

## Status Reports & New Proposals - Berkner Hall (Bldg. 488), Rooms B (09:00 - 12:15)

time	[id] title	presenter
09:00	[24] Announcements & Session Intro	POGORELSKY, Igor
09:05	[22] AE100 – The Study of High-Intensity Laser Pulse Interactions with Near-Critical Density Plasmas	DOVER, Nicholas
09:25	[23] AE108 – Development of Wavelength Conversion Techniques for Generation of Coherent Radiation at the Mid- to Long-wave Infrared	LI, William
09:45	[27] AE119 – Radiofrequency Emission from 10 Micron Short Pulse Laser Ionized Gases and Solids	ERIN, Thornton
10:05	[28] AE122 – Remote Detection of Radioactive Materials Using Long Wave Infrared Laser-driven Avalanche Breakdown	ZINGALE, Anthony
10:25	Coffee Break	
10:45	[25] Advanced Accelerator and Laser Laboratory Course	FEDURIN, Mikhail POLYANSKIY, Mikhail
11:15	[26] Two Color Injection of Bright Electron Beams	VAF AEI-NAJAFABADI, Navid LI, William
11:45	[30] Generation of fast neutrons with ions accelerated by a far-infrared laser	KAROLY, Osvay

## Status Reports & New Proposals - Berkner Hall (Bldg. 488), Rooms B (13:15 - 17:50)

time	[id] title	presenter
13:15	[31] UE104 – Structure phase transition on Weyl semimetal MoTe <sub>2</sub>	LI, Junjie
13:40	[32] UE111 – Ultrafast Electron Microscopy with Flux Concentrator Objective Lens	JING, Chunguang
14:05	[34] UE110 – Baseline materials for characterizing the MUED configuration, their role verifying daily alignment and in operation and implementation of a non-destructive real-time machine learning diagnostic for ensuring beam stability	BOLIN, Trudy
14:25	[39] UE117 – Advanced Control of the ATF MUED Electron Beam Using Automation, Artificial Intelligence, and High-Performance Computing	BOLIN, Trudy
14:45	[29] AE124 – Simulation-aided Instrument Optimization using Artificial Intelligence and Machine Learning Methods	RAKITIN, Maksim
15:05	Coffee Break	
15:30	[44] Benchmarking the radiation dose simulator around the CO <sub>2</sub> laser IP	ROSENSTROM, Andrew
16:00	[38] Broadband microwave emissions from LWIR picosecond laser ablation with pre-ionization	GOERS, Andy
16:30	[37] Ionization Currents and Secondary Radiation from Two-Color Pulses at Long Laser Wavelengths	ENGLESBE, Alexander

# Thursday, 2 March 2023

## Status Reports & New Proposals - Berkner Hall (Bldg. 488), Rooms B (09:00 - 11:05)

time	[id] title	presenter
09:00	[41] Announcements & Session Intro	
09:10	[40] Tunable positron source: trapping ATF electron beam driven shower positrons	SAHAI, Aakash
09:40	[42] Novel Application of a Pulsed Electron Linear Accelerator as a Single Event Effects Simulator	ALLEN, Greg
10:10	[43] AE87 (Hard X-Ray ICS) and New ICS Proposal	SAKAI, Yusuke
10:45	[33] UE109 – Study of ultrafast Light Induced Structural Phase Transition (SPT) and ultrafast modulation of domains in Weyl Semimetal, MoTe <sub>2</sub> ,	FREELON, Byron