DOE-NP SBIR/STTR Exchange Meeting

August 13-14, 2020

Via Zoom

Meeting Agenda-Day 1

Rows in blue font will be held in the Session B room Time Dur. **Grant Title** Speaker Organization NP SBIR/STTR **Grant Status** (min) Topic Thursday, August 13, 2020 Welcome and Introductory Remarks 10:00 AM 5 Gillo, Jehanne DOE, Office of Nuclear Physics Welcome and Introductory Remarks Farkhondeh, Manouchehr DOE, Office of Nuclear Physics 10:05 AM 10:10 AM 35 NP SBIR/STTR Program Overview Shinn, Michelle DOE, Office of Nuclear Physics 10:45 AM 20 Manufacturing and Packaging of Reliable Bialkali Photocathodes via Bhandari, Harish Radiation Monitoring Devices, Inc., Accelerator Fnd Year 2 HOM Absorber Design for eRHIC ERL Cavity TJS Technologies, NY 11:05 AM 20 Schultheiss, Thomas Accelerator End Year 1 11:25 AM **Coffee Break** 11:40 AM 35 NP Low Energy Facilities and the SBIR/STTR Program Chipps, Kelly Oak Ridge National Laboratory Techniques for Energetic Ion Assisted in-situ Coating of Long, Small Accelerator End Year 2 12:15 PM 20 Custer, Arthur Poole Ventura Inc, CA Diameter, Beam Pipes with Compacted Thick Crystalline Copper Film Development of Gen-II LAPPDTM Systems For Nuclear Physics 12:35 PM 20 Foley, Michael Incom Inc., MA Instrumentation End Year 1/Ph IIA Experiments 12:55 PM 35 **Lunch Break** Jefferson Lab and the NP SBIR/STTR Program **Thomas Jefferson National** 1:30 PM 35 Spata, Michael **Accelerator Facility** 5 2:05 PM Break - allow movement between sessions as needed 2:10 PM 20 Nuclear Physics Gamma-ray Imaging System for Real-Time Rare Isotope Hull, Ethan PHDs Co., TN Instrumentation End Year 2 Harvesting, Monitoring and Radiochemical Separation 2:10 PM 20 Multi-scale Modeling for Beam-beam Depolarization Zilberter, Ilya Tech-X Corporation, CO Accelerator End Year 2/NCE 2:30 PM 20 Accurate Spin Tracking on Modern Computer Architectures for Electron-Nash, Boaz RadiaSoft LLC, CO Accelerator End Year 2 Ion Colliders 2:50 PM 5 Break - allow movement between sessions as needed 2:55 PM 20 **IP Access Gateway** Radulescu, Radu Telluric Labs, NJ Electronics End Year 2 2:55 PM 20 A Novel Injection-locked Amplitude-Modulated Magnetron at 1497 MHz Neubauer, Mike Muons, Inc., IL Accelerator End Year 2/NCE 3:15 PM 20 Distributed Digital Data Acquisition System with Network Time Hennig, Wolfgang XIA LLC, CA Software End of Year 2 Synchronization Dynamic Friction in Magnetized Electron Coolers for Relativistic Beams Bruhwiler, David RadiaSoft LLC, CO 3:35 PM 20 Accelerator End Year 1 Ph IIA 3:55 PM 20 Radiation Hard High Speed Camera System for Accelerator Beam Engelman, Matt Alphacore Inc, AZ Instrumentation Year II/PH IIA Diagnostics

4:15 PM	5	Break - allow movement between sessions as needed				
4:20 PM	20	A Multi-channel Radiation-tolerant, Low power, High-speed, and	Gui, Ping	TallannQuest LLC, TX	Electronics	End Year 1
		Resolution Analog-to-Digital Converter for Nuclear Physics Detectors				
4:20 PM	20	Software-Driven Network Architecture for Synchronous Data Acquisition	McMillian, Gary	Crossfield Technology LLC, TX	Software	End Year 2/NCE
4:40 PM	20	Automated Preparation of 211AT for Targeted Alpha Theraphy	Marshall, Graham	Global FIA, Inc., WA	Isotope	End Year 1
		Applications				
5:00 PM	5	Break - allow movement between sessions as needed				
5:05 PM	20	Low Cost Data Acquisition Synchronization for Nuclear Physics	Skulski, Wojtek	SkuTek Instrumentation, NY	Software	End Year 1
		Applications				
5:05 PM	20	A Magnetized Injector for Electron Cooling Applications	Smolenski, Karl	Xelera Research LLC, NY	Accelerator	End Year 2/NCE
5:25 PM	20	Modeling Plasma Discharge Cleaning of SRF Cavities	Leddy, Jarrod	Tech-X Corporation, CO	Accelerator	End Year 1
5:45 PM	0	Adjorn				

DOE-NP SBIR/STTR Exchange Meeting

Meeting Agenda-Day 2

Rows in blue font will be held in the Session B room

Time	Dur.	Grant Title	Speaker	Organization	NP SBIR/ STTR	Grant Status		
	(min)				Topic			
Friday, August 14, 2020								
10:00 AM	20	A Scalable Additive Manufacturing Technology For Large Area Printed Circuit Boards	Kumar, Nalin	UHV Technologies, Inc., KY	Electronics	End Year 2		
10:20 AM	20	Scintillating Bolometer Crystal Growth and Purification for Neutrinoless Double Beta Decay Experiments	Squillante, Michael	Radiation Monitoring Devices, Inc., MA	Instrumentation	End Year 1/Ph IIA		
10:40 AM	20	Boron Nitride Nanotube Vibration Damping for SRF Structures	Whitney, Roy	BNNT, LLC, VA	Accelerator	End Year 1		
11:00 AM	15	Coffee Break						
11:15 AM	20	Long-Term Radiation Rugged Rotary Vacuum and Water Seals in Heavy-Ion Accelerators	Lalli, Jennifer	NanoSonic, Inc, VA	Instrumentation	End Year 2		
11:35 AM	35	The Relativistic Heavy Ion Collider Facility and its SBIR/STTR Opportunities	Minty, Michiko	Brookhaven National Laboratory				
12:10 PM	20	12-bit 32 Channel 500MSps Low Latency ADC	Baranauskas, Dalius	Pacific Microchip, CA	Accelerator	End Year 2		
12:30 PM	20	Radiation Hardened Opto-atomic Magnetometer	Choi, Jae	Hedgefog Research Inc., CA	Instrumentation	End Year 1		
12:50 PM	35	Lunch Break						
1:25 PM	20	Multi-Channel Readout IC for Nuclear Physics Experiments	Mikkola, Esko	Alphacore Inc., AZ	Instrumentation	End Year 2		

20 Low Cost, Hi	ation v movement between sessions as needed gh-Density Digital Electronics for Nuclear Physics zing Particle Beam Fluence and Position Detector Array using	Skulski, Wojtek Galyaev, Evgeny	SkuTek Instrumentation, NY Radiation Detection and Imaging	Electronics Instrumentation	End Year 2 Ph IIB End Year 2/NCE
5 Break - allow	v movement between sessions as needed			Electronics	End Year 2 Ph IIB
		,	.,		
Beam Gener	ation	ŕ	.,		
20 Precise and	Jltra-stable Laser Polarization Control for Polarized Electron	Guo, Bo	Raytum Photonics LLC, VA	Instrumentation	End Year 1
	rdened Infrared Focal Plane Arrays	Chang, Yong	Epir, Inc., IL	Instrumentation	End Year 1
20 An ASIC with Measureme	a Low Power Multichannel ADC for Energy and Timing nts	Karnitski, Anton	Pacific Microchip Corporation, CA	Instrumentation	End Year 1
20 Graphene B	acking for Radioisotope Targets	Fink, Richard	Applied Nanotech, Inc., TX	Instrumentation	End Year 2
15 Coffee Brea	(
20 Design and I System	abrication of the ASoC: a System-on-Chip Data Acquisition	Mostafanezhad, Isar	Nalu Scientific, LLC, HI	Electronics	End Year 2/NCE
	DC Conductive Ceramic for High Power Input Coupler · SRF Cavities	Freemire, Ben	Euclid Techlabs LLC, OH	Accelerator	End Year 2 PH IIB
	v movement between sessions as needed				
Target	Extremely Narrow Linewidth Diode Laser for Polarizing ³ He	Lu, Steven	Raytum Photonics, VA	Instrumentation	End Year 2
35 Update on t	ne Department of Energy SBIR/STTR Program, Q/A	Oliver, Manny	DOE, SBIR/STTR Office		
	larimetry and Magnetometry.	Roberts, Brock	Electrodynamic, NM	Accelerator	End Year 2
•	•	Tomsic, Michael	Hyper Tech Research, Inc., OH	Accelerator	End Year 2/NCE
20		Long length Welded NbTi CIC Superconducting Cable for Accelerator Applications			