

September 15 Tuesday

8:30 - 9:30		Plenary Session 2	NC Hall
	PL-2	Semiconductor-based Marx Modulator - a gateway to commercial and industrial applications Luis Redondo (Lisbon School of Engineering (ISEL) and EnergyPulse Systems (EPS), Portugal)	
9:30 - 10:00		Coffee Break	
EAPPC		Oral Session C1	NC Hall
10:00 - 10:30	C1-1 (Invited)	Voltage Addition within an IVA Mark Sinclair (AWE Nuclear Security Technologies, United Kingdom)	
10:30 - 10:45	C1-2	600 kV Multiplier Power Supply (MPS) Rebecca Simpson (Diversified Technologies, Inc., United States of America)	
10:45 - 11:00	C1-3	Design and Development of the Laser-Triggered Gas Switch for the Gamble III Pulsed Power Facility Brett Huhman (U.S. Naval Research Laboratory, United States of America)	
11:00 - 11:15	C1-4	Development of a Compact 20kV High Voltage Resonant Power Supply Deepak Kaushik (Eindhoven University of Technology, Netherlands)	
11:15 - 11:30	C1-5	Design of a High-Current Pulsed Power Supply Based on GTO-like Thyristors for Compact Torus Fueling Ang Lu (SEEE, HUST, China)	
11:30 - 11:45	C1-6	A Centralized Control, Safety, and Data Acquisition Architecture for the Gamble III Pulsed-Power System Brett Huhman (US Naval Research Laboratory, United States of America)	
11:45 - 12:00	C1-7	Pulsed Power Generation Using Marx/LTD Convertible Circuit Juan Wen (Nagaoka University of Technology, Japan)	
EML		Oral Session C2	Kashiwa
10:00 - 10:15	C2-1	Electrical characteristics of a rep-rate small scale railgun system Tahara Yoshiki (GSRC ATLA, Japan)	
10:15 - 10:30	C2-2	Improved Current Filament Method and Adaptive Launch Strategy for Multi-Stage Induction Coilguns via Bayesian Optimization Chenghan Ding (SEEE,HUST, China)	
10:30 - 11:00	C2-3 (Invited)	Armature-rail contact studies aiming to increase muzzle velocity Bernhard Reck (French-German Research Institute of Saint-Louis, France)	
11:00 - 11:15	C2-4	Development of a muzzle arc suppressor device based on solid-state switches for railgun operations Vincent Andraud (French German Institute of Saint-Louis, France)	
11:15 - 11:30	C2-5	Mathematical analysis of the railgun performance under different type of material profile for rails and armature Zahra Bahrami (University of Tehran (UT), Iran)	
11:30 - 11:45	C2-6	Regulation of Melt Erosion Patterns at the Armature/Rail Interface with Convex Rail Configurations Jinghan Xu (Dalian University of Technology, China)	
11:45 - 12:00	C2-7	Electromagnetic Launch Infrastructure for Interplanetary Transport – The Technical and Economic Realities Philip Swan (The Atlantis Project, United States of America)	

12:00 - 13:00

Lunch Break

13:00 - 14:30

Poster Session 2

Yukitsubaki

EAPPC

- P2-1** **Commissioning of a new 30kA pulsed power generator for an eddy current septum magnet in the CERN PS extraction**
Gregor Grawer (CERN, Switzerland)
- P2-2** **A new generator for the LHC AC Dipole**
Gregor Grawer (CERN, Switzerland)
- P2-3** **Development of an Isolated Auxiliary Power Supply for 100 kV-Class Solid State Marx Generators**
Deepak Kaushik (Eindhoven University of Technology, Netherlands)
- P2-4** **Development of a Waveform-Variable Bipolar Marx Generator Board using SiC MOSFETs**
Takuya Yamai (Pulsed Power Japan Laboratory Ltd., Japan)
- P2-5** **A 300 kV Sub-Nanosecond Magnetic Compression Line Driven by an SOS Generator**
Mohamed Hajjej (University of Pau, Laboratory of SIAME, Pau, France, France)
- P2-6** **Compact Battery-Powered 400-kV Integrated Pulsed Power System for UWB Applications**
Woo-Cheol Jeong (Korea Electrotechnology Research Institute (KERI), Republic of Korea)
- P2-7** **Characterization of a Compact Gigawatt-Level Pulsed Power System**
Yudai Nishijima (Nagaoka University of Technology, Japan)
- P2-8** **Experimental Investigation of Magnetic Core Saturation Dynamics under Pulsed Excitation for Switching and Pulse Compression Applications**
Sai Kiran Panda (Homi Bhabha National Institute, India)
- P2-9** **Development of a Solid-State Pulsed Power Modular Circuit with Flexibility and Stability**
Wenzhen Hou (Nagaoka University of Technology, Japan)
- P2-10** **Pulsed Power Generation Using Hybrid Energy Storage**
Xijie Wang (Nagaoka University of Technology, Japan)
- P2-11** **Pulsed Power Generator Based on an SOS and a Magnetic Switch for Laser Oscillation**
Rikiya Yamamoto (Nagaoka University of Technology, Japan)
- P2-12** **Development of a High-Current, Fast-Rise-Time Inductive Energy Storage Pulsed Power Generator Using GaN FETs with Pulse Shaping via Current Addition**
Ryuto Fujita (National Institute of Technology, Oyama College, Japan)
- P2-13** **Performance Improvement of a CLC Resonant Charging Pulsed Power Generator Using High-Speed GaN and SiC FETs**
Ginta Sawagashira (National Institute of Technology, Oyama College, Japan)
- P2-14** **Nanosecond Pulsed Current Rating Evaluation of MOSFETs with Novel Current Sharing Technique for Parallel kA Configurations**
Seyed Mohsen Mortazavi (Eindhoven University of Technology (TU/e), Netherlands)
- P2-15** **Minimizing switch inductance in spiral generators: from gas discharge tubes to coaxial spark gaps**
Philippe Vanderbemden (University of Liège, Belgium)
- P2-16** **A 30kV Solid State Switch for a Compact Low Impedance PFN-Marx Generator**
Simon Bland (Imperial College London, United Kingdom)
- P2-17** **Degradation Analysis of SiC MOSFETs Under Sub-Nanosecond Pulsed Operation**
Alan Kaufman (CERN: European Organization for Nuclear Research, Switzerland)

- P2-18 Pulsed Electron Beam Irradiation of Plasma-Facing Materials Using the ETIGO-II Pulsed Power Generator: Construction of a Diagnostic System**
Yuki Uchida (National Institute of Technology, Nagaoka College, Japan)
- P2-19 Numerical analysis of current distribution in a solid-state switch for ignitron replacement**
Naoya Ikoma (Pulsed Power Japan Laboratory, Japan)
- P2-20 Effect of Humidity Conditions on the Self-Breakdown Voltage Distribution of an Air Gap Switch**
Kyosuke Nakata (Pulsed Power Japan Laboratory Ltd. , Japan)
- P2-21 Sub-nanosecond Time-Resolved Optical Emission Spectroscopy of Nanosecond Pulsed Streamer Discharges in Various N_2/O_2 Mixtures**
Keidai Matsumoto (Kumamoto University, Japan)
- P2-22 Voltage and Current probes for 200-kV nanosecond signals**
Luke Silvestre (Eindhoven University of Technology, Netherlands)
- P2-23 Accelerated Ageing of $La_{1-x}Sr_xMnO_3$ Thin Films for High-Field CMR Sensor Applications**
Vilius Vertelis (Center for Physical Sciences and Technology, Lithuania)
- P2-24 Shock Wave Characteristics of Natural Ester Insulating Oils under Thermo-Moisture Coupling Conditions**
Jinlu Li (Huazhong University of Science & Technology, China)
- P2-25 Electrical Characterization of Glycerol-Pure Water Mixtures**
Yukiko Hirose (Pulsed Power Japan Laboratory Ltd., Japan)
- P2-26 Characterization of Supercapacitor Aging under Pulsed Power Discharges via Electrochemical Impedance Spectroscopy**
Oliver Liebfried (French-German Research Institute of Saint-Louis (ISL), France)
- P2-27 Development of Compact Pulsed Electron Beam Power Supply Using Aqueous Glycerin Solution**
Tsubasa Hiraoka (Nagaoka University of Technology, Japan)
- P2-28 Spiral Pulse Forming Line for a Compact Transportable High-Voltage Pulsed Power Supply: Comparison of Test Results and Electromagnetic Simulation**
Hiroaki Kamezaki (Pulsed Power Japan Laboratory Ltd., Japan)
- P2-29 High repetition rate spark discharge behaviours under active airflows**
Iliane Hifi (University of Strathclyde, Institute for Energy and Environment, United Kingdom)
- P2-30 Development of a Bacterial Inactivation Method Using Pulsed Electric Fields with Aminoglycoside Antibiotics**
Raul Emilio Macias Estrada (Nagaoka University of Technology, Mexico)
- P2-31 Effects of additives and flow rates on silver nanoparticle synthesis by discharge plasma in a slug-flow reactor**
Futa Abe (Kindai University, Japan)
- P2-32 Non-thermal Extraction of Proteins from *Saccharomyces cerevisiae* using 100 kV/cm Electrical Pulses**
Kazuma Hata (Graduate School of Science and Technology, Kumamoto University, Japan)
- P2-33 Elucidation of the mechanism of cell death by applying pulsed electric field - Investigation of the state of cell death by applying pulsed electric field under ROS (OH radical) suppression -**
Keiya Maeda (Yamagata University, Japan)

EML

- P2-34 Evolution Laws and Optimization Control of Multi-physics Coupling Characteristics in Armature-Rail Sliding Electrical Contact with FGM Coatings**
Xuan Xu (State Key Laboratory of High-Density Electrical Energy Conversion, China)

- P2-35 Research on the Multi-physics Evolution Laws of Armature-Rail Sliding Electrical Contact with Layered and Segmented Rail Cladding**
Xuan Xu (State Key Laboratory of High-Density Electrical Energy Conversion, China)
- P2-36 Influence of Concave Arc Tail Structure on Electromagnetic Characteristics of Non-ideal Contact Interface**
Jiayue Sun (Dalian University of Technology, China)
- P2-37 Simulation of Contact Conductance Between Armature and Rail in Electromagnetic Railgun**
Haowen Feng (Huazhong University of Science and Technology, China)
- P2-38 Two-Stage Equivalent Load Modeling for Open-Loop Calculation of CPPS Systems**
Songyuan Xuan (Dept. of Electrical Engineering, Tsinghua University, China)
- P2-39 Research on Electromagnetic Distribution Characteristics of Rotating Armature Electromagnetic Rail Launcher**
Haowen Feng (State Key Laboratory of High-Density Electrical Energy Conversion, China)
- P2-40 Two-stage Electromagnetic Injection System Based on Magnetic Deceleration**
Zisheng Liu (Key Laboratory of Advanced Electromagnetic Engineering and Technology, China)
- P2-41 Research on Torque Ripple Suppression in Axial Switched Reluctance Launcher Based on Rotor Slot Structure**
Hao Chen (China University of Mining and Technology, China)
- P2-42 Thermal Analysis of Novel Tubular Linear Rotary Switched Reluctance Launcher**
Hao Chen (School of Electrical Engineering, China)
- P2-43 PI-Pa-DeepONet: Physics-informed adaptive-weight parallel deep operator networks for solving electromagnetic rail-launch PDEs**
Hongkun Ouyang (Key Laboratory of Advanced Electromagnetic Engineering and Technology, China)

14:30 - 15:00 **Coffee Break**

EAPPC	Oral Session D1	NC Hall
15:00 - 15:15	D1-1 Study on the Self-Healing Behavior and Performance Evolution of Metallized Film Capacitors Under Pulse Overvoltage Chuansheng Zhang (Institute of Electrical Engineering, Chinese Academy of Sciences, China)	
15:15 - 15:30	D1-2 Pulsed Gas Discharge Driven by Burst Pulse Using Solid-State Linear Transformer Driver Junxiang Yang (University of South China, China)	
15:30 - 15:45	D1-3 Effect of repetition rate in a nanosecond pulsed streamer discharge on the ozone yield in a cylinder-wire reactor Siyuan Fan (Wuhan University, China)	
15:45 - 16:00	D1-4 High-Velocity Vortex Ring Bubble Generation via Constrained Underwater Spark Discharges for Multiphase Environmental and Biological Applications Shuran Li (Zhejiang University, China)	
16:00 - 16:15	D1-5 Evolution of Laser-Induced Plasmas in Laser-Triggered Gas Switches using Quantum Mechanical Models Timothy Wong (University of Strathclyde, United Kingdom)	
16:15 - 16:30	D1-6 Explorations of anomalous low-voltage self-closure in spark gaps for large pulsed power networks Max Flynn (Sandia National Laboratories, United States of America)	
16:30 - 16:45	D1-7 Research on Non-electrical Detection Methods and Mechanisms of Metallized Pulsed Capacitors Yibo Wu (Huazhong University of Science and Technology, China)	

16:45 - 17:00 **D1-8 Detailed Analysis of an LC Resonant High-Power Capacitor Charger with a Focus on High Dower Density**
Felix Haag (French-German Research Institute of Saint-Louis, France)

BEAMS	Oral Session D2		Kashiwa
15:00 - 15:30	D2-1 (Invited)	The Combined Radiation Environments for Survivability Testing Facility Bryan Oliver (Sandia National Laboratories, United States of America)	
15:30 - 15:45	D2-2	Velocity multiplication via double-shell cylindrical liner implosions on M3 Oliver Nash (First Light Fusion, United Kingdom)	
15:45 - 16:00	D2-3	Ion distribution of high-current heavy-ion beam transported through background plasma in reactor for heavy-ion inertial fusion Takashi Kikuchi (Nagaoka University of Technology, Japan)	
16:00 - 16:15	D2-4	Experimental measurements of current-voltage (I-V) characteristics of two nested, magnetically insulated coaxial diodes (MICDs) driven by SINUS-6 electron beam accelerator Edl Schamiloglu (University of New Mexico, United States of America)	
16:15 - 16:30	D2-5	Angular Distribution of Magnetically Deflected Ablation Plasma in a Laser Ion Source Kazumasa Takahashi (Nagaoka University of Technology, Japan)	
16:30 - 16:45	D2-6	Ion Beam Quality and Magnetic Null Dynamics in Cylindrical Pinched-Beam Diodes: A 2D/3D Particle-in-Cell Investigation Luke Tyree (Air Force Institute of Technology, United States of America)	
16:45 - 17:00	D2-7	Development of an Ion Cyclotron Auto-Resonance Accelerator Jun Hasegawa (Institute of Science Tokyo, Japan)	