Sunday, June 25, 2023

Mercure Hotel OKINAWA NAHA

Workshop-I			
10:30-12:00	WS-1	Prof. Akiko Kumada Prof. Yuki Inada	Optical Diagnostics of Electrical Discharge and Insulation in Vacuum

IEEE DEIS Young Professional Luncheon			
12:00-14:00	YP-1		

Workshop-II			
14:00-17:20	WS-2	Prof. Raymond L. BOXMAN	Presenting Your Research Effectively

Welcome Reception			
18:30-20:00			

Monday, June 26, 2023

Okinawa Jichikaikan

Opening Session			
9:00-9:20			

Dyke Award Session			
Chair: Shenli JIA			
9:20-10:20	DA-I-01	Prof. Edgar Dullni (Ratingen)	High Current Interruption of Vacuum Interrupters and Voltage Breakdown during Recovery

Group Photo			
10:20-10:30			

Special session & Oral Session 1 (A1)			
Chair: Shenli JIA			
Time	No.	Presenter	Title
11:00-11:25	Special session		
11:25-11:40	A1-O-01	Prof. Guodong Meng (Xi'an Jiaotong University)	Effect of cathode radius on the pre-breakdown characteristics in vacuum nanogaps
11:40-11:55	A1-O-02	Prof. Flyura Djurabekova (University of Helsinki)	Role of surface processes in ignition of vacuum arcing: Atomistic simulation of surface diffusion under electric field gradients
11:55-12:10	A1-O-03	Dr. Souichi Katagiri (University of tsukuba)	Relaxation of electric field by covering cathode-edge with vanadate glass
12:10-12:25	A1-O-04	Dr. Thierry Delachaux (ABB AG, Electrification – Distribution Solutions)	Methods for statistical analysis of the breakdown voltage of vacuum gaps
12:25-12:40	A1-O-05	Dr. Jiangang Ding (State Key Laboratory of Electrical Insulation and Power Equipment, Xi'an Jiaotong University)	Spark Conditioning of Vacuum Interrupters with Very Low Breakdown Energy
12:40-12:55	A1-O-06	Mr. Naoki Kita (Nagoya University)	Electrode Material Adhesion between Anode and Cathode in Spark Conditioning in Vacuum

Chatterton Award Poster session			
Time	No.	Presenter	Title
14:00-15:30	A1-O-01	Prof. Guodong Meng (Xi'an Jiaotong University)	Effect of cathode radius on the pre-breakdown characteristics in vacuum nanogaps
	A1-O-06	Mr. Naoki Kita (Nagoya University)	Electrode Material Adhesion between Anode and Cathode in Spark Conditioning in Vacuum
	A1-O-07	Dr. Matteo Kushoro (Università degli Studi di Milano - Bicocca (UniMiB) , Istituto per la Scienza e Tecnologia dei Plasmi - CNR (ISTP-CNR))	HV Discharges Monitoring at HVPTF through X-ray Spectroscopy
	A1-O-08	Mr. Federico Caruggi (Dipartimento di Fisica "G. Occhialini", Università di Milano-Bicocca, Istituto per la Scienza e Tecnologia dei Plasmi, CNR)	Development of a data analysis software for the XR-GEM installed at HVPTF and preliminary results
	A1-P-05	Ms. Wakakusa Kaneko (Saitama University)	Fundamental Study on Evaluation of Withstand Voltage and Dark Current of Graphite Electrodes in Vacuum
	A1-P-06	Mr. Tatsuya Ito (Saitama University)	Fundamental Study on Suppression Effect of Micro Discharges and Dark Currents in Vacuum Gap by Short Pulse Voltage Conditioning
	A2-O-01	Dr. Moein Borghei (Avalanche Energy)	Impact of Direct Current Conditioning on Cathode Dark Current in High Vacuum

A2-O-02	Dr. Yusuke Nakano (Kanazawa University)	Influence of Insulator Barrier on Surface Flashover Development in Vacuum
A2-O-04	Dr. Thomas Hammer (Technology, Siemens AG)	Modeling of Surface Flashover in Vacuum Interrupters Using 3D Particle-In-Cell Simulation
A2-P-02	Mr. Yuya Sasaki (Saitama university)	Experimental study on relationship between performance of surface flashover voltage and surface charging in a cylindrical insulating system
A2-P-03	Mr. Kazuki Endo (Tokyo City University)	Partial Discharge Detection by Space Charge Distribution Measurement
B1-P-03	Mr. Benjamin Weber (TU Braunschweig, Institute for High Voltage Technology and Electrical Power Systems)	Influence of increased gap lengths above 20 mm for rotation vacuum arcs between TMF-contacts
B1-P-04	Mr. Christian Dorsch (TU Darmstadt)	Cross validation of magnetic and optical localization methods for rotating vacuum arcs
B2-O-02	Mr. Yukihiko Himata (Toshiba Infrastructure Systems & Solutions Corporation)	Transient arc behavior immediately after electrodes separation in axial magnetic field electrode for vacuum interrupter
B2-O-03	Dr. Ziang Tong (Beihang University)	Research on intermediate-frequency vacuum arc recovery characteristics of curved contact
B2-P-03	Ms. Nozomi Ishihara (Tokyo City University)	Non-equilibrium in the Direction of Movement of Cathode Spot with Transverse Magnetic Field
B3-O-02	Dr. Rui Li (Xi'an Jiaotong University)	Hybrid Modelling of Asymmetric Sheath Expansion after Current Zero in Vacuum
B3-O-03	Mr. Masahiro Takagi (Tokyo City University)	Three-dimensional Electromagnetic Magnetic Thermal Fluid Simulation of Cathode Jet Contributing to Motion of Cathode Spots in Vacuum Arc
B3-O-04	Mr. Hongda Wang (State Key Laboratory of Electrical Insulation and Power Equipment, Xi'an Jiaotong University)	Experimental Investigation of Vacuum Arc Under Different Axial Magnetic Field Contacts for 40.5kV Vacuum Interrupters
B3-O-05	Mr. Ryoto Itoh (Saitama-university)	Optical Emission Spectroscopy for Plasma Parameter Characterization of Vacuum Arc Cathode Spot
B3-O-07	Mr. Daisuke Kasui (Kanazawa University)	Numerical Simulation on Copper Vapor Behavior in Vacuum Arcs during Low-Current and Current Decaying Process using Moving Particle Method
B3-O-09	Mr. Pavel Mikhailov (Institute of Electrophysics UB RAS)	Study of vacuum arc threshold current for tungsten fuzz.
B3-O-10	Mr. Sirapat Lookrak (EMONE)	Electrostatic Induction and Electron Beam within The Vacuum Chamber
B3-P-14	Mr. Hiroto Suzuki (Tokyo City University)	Analysis of Electron and Heavy Particle Velocities as Function of Ambient Pressure Changes in Vacuum Arc
B4-O-01	Dr. Runming Zhang (State Key Laboratory of Electrical Insulation and Power Equipment, Xi'an Jiaotong University)	Simulation of Double Cathode Spots with Different Kinds of Protrusions in Vacuum Arc
B4-O-02	Mr. Haonan Yang (Centre for Smart Grid, Department of Engineering, University of Exeter)	Simulation of ion bombardment of dense plasma on cold cathode by Molecular Dynamics
B4-O-04	Mr. Jieli Chen (State Key Laboratory of Electrical Insulation and Power Equipment, Xi'an Jiaotong University)	Three-dimensional MHD Simulation of Arc in 126 kV Vacuum Circuit Breaker Considering Active Anode

	B4-O-05	Mr. Zhefeng Zhang (State Key Laboratory of Electrical Insulation and Power Equipment)	3D Three-fluid Modeling of Ion Separation Phenomenon in Vacuum Arc Ion Sources
	B4-P-04	Mr. Cesar Caballero (University of Granada)	Transient Vacuum study of electric arcs in Radio Frequency Quadrupole of Linear Particle Accelerator IFMIF
	C1-O-03	Ms. Karen Fluegel (Technische Universit ät Braunschweig, elenia Institute for High Voltage Technology and Power Systems)	Overview of Test Methods for Electric Strength ofVacuum Interrupter using Lightning Impulse Voltage.
	C1-O-04	Mr. Kota Hamada (Toshiba Infrastructure Systems & Solutions Corporation)	The influence on partial discharge in vacuum by chromium oxide coating on alumina surface
	C1-O-05	Mr. Yusuke Maede (The University of Tokyo)	Influence of the Microstructure of the Cu-Cr Alloy Electrode on Vacuum Arc
	C1-P-03	Mr. Ryota Konagi (Nagoya University)	Multiple Breakdown Induced by Previous Breakdown in Higher Frequency AC Conditioning
	C1-P-17	Ms. Khin Kyaw (Kanazawa University)	Partial Discharge Characteristics in a Vacuum Interrupter under Different Shield Potentials
	C1-P-24	Prof. Shenli Jia (College of Electrical Engineering, Sichuan University , State Key Laboratory of Electrical Insulation and Power Equipment at Xi'an Jiaotong University of China)	One Test Method for DCCB Based on Vacuum Interrupter
	C3-P-01	Ms. Sachiho Kemmotsu (Tokyo City University)	Investigation of Secondary Electron Emission Coefficients during Geostationary Orbit Operations and Effects of Atmospheric Exposure
	C3-P-02	Mr. Kaito Miura (Department of physics, Tokai Univercity)	Characteristics of negative ion current by control of bias voltage to second anode in Cs-free negative ion source using TPDsheet-U
	C4-P-04	Mr. Rongshi Zhang (Graduate School of Engineering, Nagoya University)	Field emission current from protrusion structure formed by helium plasma with various impurity gases
	C4-P-05	Dr. Dogyun Hwangbo (Faculty of Pure and Applied Sciences, University of Tsukuba)	Arc ignition and hot spot formation on tungsten with nano-tendril bundles under hydrogen plasma exposure
	C4-P-06	Dr. Tommaso Patton (Consorzio RFX)	Electrostatic Design of the MITICA Intermediate Electrostatic Shield
	C5-O-01	Prof. Zhenxing Wang (Xi'an Jiaotong University)	Ignition Stability of Electrothermal Pulsed Plasma Thruster

Oral Session 2 (A1+A2)
Chair: Antonio DE LORENZI

Time	No.	Presenter	Title
15:45-16:00	A1-O-07	Dr. Matteo Kushoro (Università degli Studi di Milano - Bicocca (UniMiB) , Istituto per la Scienza e Tecnologia dei Plasmi - CNR (ISTP-CNR))	HV Discharges Monitoring at HVPTF through X-ray Spectroscopy
16:00-16:15	A1-O-08	Mr. Federico Caruggi (Dipartimento di Fisica "G. Occhialini", Università di Milano-Bicocca, 20125 Milano, Italy , Istituto per la Scienza e Tecnologia dei Plasmi, CNR)	Development of a data analysis software for the XR-GEM installed at HVPTF and preliminary results
16:15-16:30	A1-O-09	Mr. Taiki Donen (MITSUBISHI ELECTRIC Corporation)	Impulse Ratio Measurement Considering De-conditioning Effect in Vacuum
16:30-16:45	A2-O-01	Dr. Moein Borghei (Avalanche Energy)	Impact of Direct Current Conditioning on Cathode Dark Current in High Vacuum

16:45-17:00	A2-O-02	Dr. Yusuke Nakano (Kanazawa University)	Influence of Insulator Barrier on Surface Flashover Development in Vacuum
17:00-17:15	A2-O-03	Dr. Matthew Hopkins (Sandia National Laboratories, Albuquerque)	Investigations of Vacuum Insulator Flashover in Pulsed Power Systems
17:15-17:30	A2-O-04	Dr. Thomas Hammer (Technology, Siemens AG)	Modeling of Surface Flashover in Vacuum Interrupters Using 3D Particle-In-Cell Simulation

Tuesday, June 27, 2023

Okinawa Jichikaikan

Oral Session 3 (B4)
Chair: Raymond L. BOXMAN

Time	No.	Presenter	Title
9:00-9:25	B4-I-01	Prof. Lijun Wang (State Key Laboratory of Electrical Insulation and Power Equipment, Xi'an Jiaotong University)	Numerical simulation of multi-components vacuum arcs with different anode modes: A Review
9:25-9:40	B4-O-01	Dr. Runming Zhang (State Key Laboratory of Electrical Insulation and Power Equipment, Xi'an Jiaotong University)	Simulation of Double Cathode Spots with Different Kinds of Protrusions in Vacuum Arc
9:40-9:55	B4-O-02	Mr. Haonan Yang (Centre for Smart Grid, Department of Engineering, University of Exeter)	Simulation of ion bombardment of dense plasma on cold cathode by Molecular Dynamics
9:55-10:10	B4-O-03	Mr. fan Zhang (school of electrical engineering,Dalian university of technology)	Multi-field Co-simulation on Contact Bounce Suppression for Fast Vacuum Switch
10:10-10:25	B4-O-04	Mr. Jieli Chen (State Key Laboratory of Electrical Insulation and Power Equipment, Xi'an Jiaotong University)	Three-dimensional MHD Simulation of Arc in 126 kV Vacuum Circuit Breaker Considering Active Anode
10:25-10:40	B4-O-05	Mr. Zhefeng Zhang (State Key Laboratory of Electrical Insulation and Power Equipment)	3D Three-fluid Modeling of Ion Separation Phenomenon in Vacuum Arc Ion Sources

Oral Session 4 (B1)
Chair: Matthew M. HOPKINS

Time	No.	Presenter	Title
11:00-11:25	B1-I-01	Dr. Thomas Heinz (Siemens Energy Global GmbH & Co. KG)	Why vacuum technology is not a simple scaling from medium to high voltage?
11:25-11:40	B1-O-01	Dr. Shangwen Xia (Beihang University)	Characteristics of Intermediate Frequency Vacuum Arc at Different Breaking Speeds
11:40-11:55	B1-O-02	Mr. Yuan Jiang (ABB (China) Ltd.Beijing)	Characteristics and Multiphysics Calculation of Variable Intermediate Frequency Vacuum Arc
11:55-12:10	B1-O-03	Dr. Stefan Giere (Siemens Energy Global GmbH & Co. KG)	Post-Arc Currents of High-Voltage Vacuum Interrupters
12:10-12:25	B1-O-04	Dr. Hiroki Ito (Energy & Industrial Systems Group, Mitsubishi Electric Corporation)	Current and voltage behaviours of HVDC circuit breakers
12:25-12:40	B1-O-05	Prof. Dirk Uhrlandt (Leibniz Institute for Plasma Science and Technology (INP))	PROPERTIES OF VACUUM ARCS GENERATED BY SWITCHING RMF CONTACTS WITH PROGRESSING SURFACE DEGRADATION

Poster Session I (A1+A2+B1+B2)

Time	No.	Presenter	Title
14:00-15:30	A1-P-01	Mr. Jingyu Shen (Xi'an Jiaotong University)	Influence of Gap Distance on BD Characteristics of Sphere-plane Electrodes in Vacuum under Constant Electric Field Strength at Cathode
	A1-P-02	Dr. Jiangang Ding (State Key Laboratory of Electrical Insulation and Power Equipment, Xi'an Jiaotong University)	Dynamic Balancing between Thermal-Field Emission Currents of Series-connected Vacuum Gaps
	A1-P-03	Mr. SANDEEP KULKARNI (Schneider Electric)	Voltage conditioning of vacuum interrupters with application of out of phase voltage to the two contacts

A1-P-04	Mr. Hideaki Fukuda (MEIDENSHA CORPORATION)	The fundamental investigation of X-ray emission from high voltage vacuum gap assumed Vacuum Interrupters
A1-P-05	Ms. Wakakusa Kaneko (Saitama University)	Fundamental Study on Evaluation of Withstand Voltage and Dark Current of Graphite Electrodes in Vacuum
A1-P-06	Mr. Tatsuya Ito (Saitama University)	Fundamental Study on Suppression Effect of Micro Discharges and Dark Currents in Vacuum Gap by Short Pulse Voltage Conditioning
A1-P-07	Dr. Masahiro Yamamoto (Accelerator Laboratory, KEK)	Feasibility of Higher Electron Gun Voltage and Higher Electric Field by Suppressing Electron Stimulated Desorption from the Anode
A1-P-08	Ms. nanami morioka (Saitama University)	Study on dielectric breakdown in vacuum of TiZrV coated electrode
A1-P-09	Mr. Tianxing Liu (School of Electrical Engineering, Dalian University of Technology)	Simulation Study on the Post Arc Energy Characteristics of Double Break Vacuum
A1-P-10	Dr. Antonio De Lorenzi (Consorzio RFX)	The Switch-On Mechanism of the Current Emission
A2-P-01	Mr. Naoki Asari (Toshiba Infrastructure Systems & Solutions Corporation)	Investigation of Surface Flashover Characteristics in Vacuum of Alumina with Evaporated Metal Adhering to Surface
A2-P-02	Mr. Yuya Sasaki (Saitama university)	Experimental study on relationship between performance of surface flashover voltage and surface charging in a cylindrical insulating system
A2-P-03	Mr. Kazuki Endo (Tokyo City University)	Partial Discharge Detection by Space Charge Distribution Measurement
B1-P-01	Prof. Shixin Xiu (State Key Laboratory of Electrical Insulation and Power Equipment, Xi'an Jiaotong University)	Simulation of Magnetic Field and Experimental Research of Cup Type Four-slot and Six-slot Axial Magnetic Contact
B1-P-02	Prof. Shixin Xiu (State Key Laboratory of Electrical Insulation and Power Equipment, Xi'an Jiaotong University)	Investigation on magnetic field and arc characteristics of six-slot cup-shaped axial magnetic field contact with different gaps
B1-P-03	Mr. Benjamin Weber (TU Braunschweig, Institute for High Voltage Technology and Electrical Power Systems)	Influence of increased gap lengths above 20 mm for rotation vacuum arcs between TMF-contacts
B1-P-04	Mr. Christian Dorsch (TU Darmstadt)	Cross validation of magnetic and optical localization methods for rotating vacuum arcs
B1-P-05	Dr. Thierry Delachaux (ABB Switzerland, Corporate Research Center)	Influence of anisotropic contact materials on the vacuum arc's chopping behavior
B1-P-06	Dr. Tarek Lamara (SECHERON SA.)	Hybrid DC Current switching in Vacuum under the effect of External Magnetic Field
B1-P-07	Prof. Zongqian Shi (Xi'an Jiaotong University)	Experimental Research on the Characteristics of Low-Current Vacuum Arc in Vacuum OLTC
B2-P-01	Mr. Yuanzhao Li (State Key Laboratory of Electrical Insulation and Power Equipment, Xi'an Jiaotong University)	Experimental investigation of Vacuum Arc Characteristics of a Low Resistance Horseshoe-type Contact with Parallel Slots Structure
B2-P-02	Mr. Peicheng Huang (State Key Laboratory of Electrical Insulation and Power Equipment, Xi'an Jiaotong University)	Study on Excitation Characteristics of 2/3 Coil-type AMF Contacts under Equal Proportion Structure in Vacuum Interrupters
B2-P-03	Ms. Nozomi Ishihara (Tokyo City University)	Non-equilibrium in the Direction of Movement of Cathode Spot with Transverse Magnetic Field

Oral Session 5 (C4+C6)

Chair: Flyura DJURABEKOVA

Time	No.	Presenter	Title
15:45-16:10	C6-I-01	Dr. Soichiro Matsunaga (Research & Development Group, Hitachi Ltd.)	High-voltage engineering in vacuum and with electron beams for Scanning electron microscope
16:10-16:35	C4-I-01	Dr. Gianluigi Serianni (Consorzio RFX)	Overview of the Neutral Beam Injector for ITER
16:35-16:50	C4-O-01	Dr. Nicola Pilan (Consorzio RFX (CNR, ENEA, INFN, Università di Padova, Acciaierie Venete SpA))	Development of X-Ray collimators to identify sources of radiation in devices insulated by large vacuum gaps
16:50-17:05	C6-O-01	Mr. Ren Mutsukawa (Yokohama National University , National Institute of Advanced Industrial Science and Technology)	Protective layer process of graphene-oxide-semiconductor electron emission devices for low earth orbit applications
17:05-17:20	C6-O-02	Prof. Hidetaka Shimawaki (Hachinohe Institute of Technology)	Electron emission characteristics of nc-Si based planar-type electron emission devices
17:20-17:35	C6-O-03	Dr. Hiromasa Murata (National Institute of Advanced Industrial Science and Technology (AIST))	The impact of Titanium nitride coating on emission characteristics in volcano-structured field emitter array

Wednesday, June 28, 2023

Okinawa Jichikaikan

Oral Session 6 (C5)
Chair: Michael KURRAT

Time	No.	Presenter	Title
9:00-9:25	C5-I-01	Prof. Hitoshi Kuninaka (Institute of Space and Astronautical Science)	State-of-the-art of Ion Engine onboard Hayabusa/Hayabusa2 Asteroid Explorers - Design Philosophy for Electrical Insulation -
9:25-9:40	C5-O-01	Prof. Zhenxing Wang (Xi'an Jiaotong University)	Ignition Stability of Electrothermal Pulsed Plasma Thruster
9:40-9:55	C5-O-02	Dr. Kumi Nitta (Japan Aerospace Exploration Agency)	Secondary Electron Emission Measurements of Aluminum plate for on-orbit demonstration evaluation

Poster Session II (B3+B4+B5)

Time	No.	Presenter	Title
10:00-11:30	B3-P-01	Prof. Lijun Wang (Xi'an Jiaotong University)	Numerical simulation of multi-components vacuum arcs with different anode modes: A Review
	B3-P-02	Mr. Konstantin Zabello (Ioffe Institute)	Dependence of the radiation power on the length of a high-current vacuum arc
	B3-P-03	Ms. Yuzi Jiang (State Key Laboratory of Electrical Insulation and Power Equipment, Xi'an Jiaotong University)	Experimental and Simulation Research on Influence of Arc Current on Vacuum Arc Movement
	B3-P-04	Mr. Leming Wei (State Key Laboratory of Electrical Insulation and Power Equipment)	Numerical Simulation Research on Influence of Gap Distance on Vacuum Arc Characteristic between TMF Contacts
	B3-P-05	Dr. Xiaolong Huang (Sichuan University)	Study on the transport characteristics of DC vacuum arc plasma under actual magnetic field conditions
	B3-P-06	Dr. Xiaolong Huang (Sichuan University)	ExperimentalStudy on Spatial andTemporalDistribution ofMetalVaporAtoms inHigh-currentVacuumArc
	B3-P-07	Dr. Xu Peng (Civil Aviation Flight University of China)	Study on the effect of actual transverse magnetic field on vacuum Arc
	B3-P-08	Mr. Yury Zemskov (Institute of Electrophysics, Ural Branch, RAS)	Ion Charge State Variation in the Plasma Flow During the Repeating Microsecond Vacuum Arc Discharge with Nano-structured Tungsten Cathode
	B3-P-09	Mr. Jian Ou (School of Electrical Engineering (Dalian University of Technology))	Measurement and Characteristic Research of Laser Triggered Vacuum Switch On-Resistance
	B3-P-10	Mr. Junxiang Liu (Guangzhou Power Supply Bureau, Guangdong Power Grid Co., Ltd.)	Research on the magnetic field characteristics of a new type cup-shaped longitudinal magnetic contacts with a large slotting rotation angle
	B3-P-11	Prof. Isak Beilis (Tel Aviv University)	Electrodynamic Acceleration of a Dielectric Body by Arc Plasma in a System of Railgun Configuration
	B3-P-12	Mr. Alexander Logachev (Ioffe Institute)	Initiation of a high-current vacuum arc: analysis of the contact gap voltage
	B3-P-13	Dr. Xiaolong Huang (Sichuan university)	Modeling and simulation of vacuum arc under the influence of anode melting pool
	B3-P-14	Mr. Hiroto Suzuki (Tokyo City University)	Analysis of Electron and Heavy Particle Velocities as Function of Ambient Pressure Changes in Vacuum Arc
	B4-P-01	Prof. Roman Zagorski (National Centre for Nuclear Research)	Numerical simulations of the plasma parameters in the SPIDER device

B4-P-02	Dr. Yongpeng Mo (Xi'an Jiaotong University)	Study on the Influence of Ion Charge State Distribution on the Residual Plasma Radial Motion of Vacuum Circuit Breaker
B4-P-03	Dr. Xiao Huang (College of Electrical Engineering, Sichuan University)	Modeling and Simulation Research of High Voltage and High Current Vacuum Arc Based on Real Magnetic Field Boundary
B4-P-04	Mr. Cesar Caballero (University of Granada)	Transient Vacuum study of electric arcs in Radio Frequency Quadrupole of Linear Particle Accelerator IFMIF
B4-P-05	Mr. Yuriy Mamontov (Institute of Electrophysics UB RAS)	Model of electron emission from expanding explosive emission plasma front
B4-P-06	Mr. Yulong Gao (State Key Laboratory of Electrical Insulation and Power Equipment, Xi'an Jiaotong University)	Effect of Micro-particles Impact Phenomena on Contact surface in High Voltage Vacuum Interrupter after Conditioning
B4-P-07	Prof. shenli Jia (College of Electronic Engineering, Sichuan university , State Key Laboratory of Electrical Insulation and Power Equipment at Xi'an Jiaotong University of China)	Electric field simulation and structure optimization of 252kV vacuum interrupter
B4-P-08	Mr. Zeyu Huang (College of Electronic Engineering, Sichuan University)	New Heat Dissipation Technology of High Voltage Vacuum Circuit Breaker Based on Liquid Metal
B4-P-09	Dr. Peiyuan Li (Heibei University of Technology)	Multi-objective optimization and dynamic output characteristics analysis of fast DC vacuum circuit breaker
B4-P-10	Mr. Yue Zheng (State Grid Tianjin Power Company Hebei Power Supply Branch)	Analysis of Physical Parameters of CuCr Metal Vapor Arc Plasma for Vacuum Circuit Breaker
B4-P-11	Mr. Yue Zheng (State Grid Tianjin Power Company Hebei Power Supply Branch)	Research on electromagnetic force interaction mechanism and influencing factors of fast repulsion mechanism for vacuum circuit breaker
B5-P-01	Prof. Minfu Liao (School of Electrical Engineering, Dalian University of Technology)	Effect of Static Voltage Distribution on Trigger Delay Time of Double-gap Laser-triggered Vacuum Switch
B5-P-02	Prof. Minfu Liao (School of Electrical Engineering, Dalian University of Technology)	Structural design of 300kV laser triggered multistage vacuum switch
B5-P-03	Prof. Minfu Liao (School of Electrical Engineering, Dalian University of Technology)	A Miniaturized Surface Flash Triggered Vacuum Switch with Low Trigger Delay Time and High Working Life

Excursion
11:30-18:00

Banquet
18:00-21:00

Thursday, June 29, 2023

Okinawa Jichikaikan

Oral Session 7 (B2)
Chair: TBD

Time	No.	Presenter	Title
9:00-9:25	B2-I-01	Dr. Sergey Gortschakow (Leibniz institute for plasma science and technology (INP))	Optical diagnostics of switching vacuum arcs
9:25-9:40	B2-O-01	Prof. Zongqian Shi (State Key Laboratory of Electrical Insulation and Power Equipment, Xi'an Jiaotong University)	Experimental Investigation on the Characteristics of Vacuum Arc in Coupled AMF Contacts
9:40-9:55	B2-O-02	Mr. Yukihiko Himata (Toshiba Infrastructure Systems & Solutions Corporation)	Transient arc behavior immediately after electrodes separation in axial magnetic field electrode for vacuum interrupter
9:55-10:10	B2-O-03	Dr. Ziang Tong (Beihang University)	Research on intermediate-frequency vacuum arc recovery characteristics of curved contact
10:10-10:25	B2-O-04	Mr. Timo Meyer (TU Braunschweig, elenia – Institute for High Voltage Technology and Electrical Power Systems)	Analysis of the plasma behaviour after current zero phase based on the post-arc current of a vacuum interrupter
10:25-10:40	B2-O-05	Mr. Markus Fischer (University of Stuttgart, Institute of Power Transmission and High Voltage Technology (IEH))	Influence of Switching Contact Materials with Superimposed Axial Magnetic Field on the Vacuum Arc's Chopping Behaviour

Oral Session 8 (B3)
Chair: Dirk UHRLANDT

Time	No.	Presenter	Title
11:00-11:25	B3-I-01	Dr. Andreas Kyritsakis (Institute of Technology, University of Tartu (UT))	Understanding vacuum arc ignition by concurrent multi-physics simulations
11:25-11:40	B3-O-01	Prof. Yasunori Tanaka (Kanazawa University)	Investigation on Low-Current Vacuum Arcs Behavior by Two-Dimensional Spectroscopic Observation and Numerical Modeling using Moving Particle Semi-implicit (MPS) Method
11:40-11:55	B3-O-02	Dr. Rui Li (Xi'an Jiaotong University)	Hybrid Modelling of Asymmetric Sheath Expansion after Current Zero in Vacuum
11:55-12:10	B3-O-03	Mr. Masahiro Takagi (Tokyo City University)	Three-dimensional Electromagnetic Magnetic Thermal Fluid Simulation of Cathode Jet Contributing to Motion of Cathode Spots in Vacuum Arc
12:10-12:25	B3-O-04	Mr. Hongda Wang (State Key Laboratory of Electrical Insulation and Power Equipment, Xi'an Jiaotong University)	Experimental Investigation of Vacuum Arc Under Different Axial Magnetic Field Contacts for 40.5kV Vacuum Interrupters
12:25-12:40	B3-O-05	Mr. Ryoto Itoh (Saitama-university)	Optical Emission Spectroscopy for Plasma Parameter Characterization of Vacuum Arc Cathode Spot

Poster Session III (C1-C6, D)

Time	No.	Presenter	Title
14:00-15:30	C1-P-01	Mr. Feifan Zhang (State Key Laboratory of Electrical Insulation and Power Equipment, Xi'an Jiaotong University)	Research on Equivalent Breaking Test Method of 10kV Mechanical DC Circuit Breaker
	C1-P-02	Mr. Shuo Li (State Key Lab of Electrical Insulation and Power Equipment, Xi'an Jiaotong University)	Simulation Analysis of Electric Field on High Voltage Vacuum Interrupter

C1-P-03	Mr. Ryota Konagi (Nagoya University)	Multiple Breakdown Induced by Previous Breakdown in Higher Frequency AC Conditioning
C1-P-04	Dr. Dietmar Gentsch (Siemens AG)	Interruption performance of vacuum circuit breaker under low- and very low- frequency condition
C1-P-05	Mr. Zhaode Wu (Xi'an Jiaotong University)	Study on the Contact Resistance and Temperature-rise Performance of High-voltage Vacuum Interrupter
C1-P-06	Mr. Qiang Tang (School of Electrical Engineering, Xi'an Jiaotong University)	Comparative Investigation among Different Devices Used to Measure Post Arc Current in DC Interruption with DC Vacuum Interrupters
C1-P-07	Prof. Minfu Liao (School of Electrical Engineering, Dalian University of Technology)	The Influence of Speed Control on Voltage Distribution of Double-break Vacuum Circuit Breaker
C1-P-08	Mr. RONG FAN (Xi'an Jiaotong University)	Intelligent optimization of vacuum circuit breaker closing speed
C1-P-09	Dr. Fedor Korolev (Schneider Electric Industries SAS)	Voltage conditioning process of vacuum interrupters at ultra-high voltages: industrial advantages and technical challenges
C1-P-10	Mr. Jingxia Huang (Test and Research Institute, Guangzhou Power Supply Bureau, Guangdong Power Grid Co., Ltd)	Research on Influence of Structural Size Parameters on Magnetic Field Characteristics of Coil Type Vacuum Interrupter Contact Gap
C1-P-11	Mr. Sreeram V (Central Power Research Institute, Bengaluru)	A study of transients associated with vacuum on-load tap changers in power transformers
C1-P-12	Mr. Pierre Ander Aranaga (Ormazabal)	Design and implementation of the optimal magnetron test for a low voltage small diameter vacuum interrupter with a fixed shield
C1-P-13	Dr. Nicolo' Marconato (Consorzio RFX, Corso Stati Uniti 4, 35127 Padova, Italy , Department of Industrial Engineering, University of Padova)	Analysis and characterization of X-ray events in medium voltage vacuum interrupters under Lightning Impulse Voltage
C1-P-14	Dr. Xavier Godechot (Schneider Electric, Xiamen AVX-E)	MEDIUM VOLTAGE VACUUM CIRCUIT BREAKERS BOUNCING TIME OVERALL STUDY
C1-P-15	Mr. peng li (Shaanxi Sirui advanced material co.,ltd)	Improvement of anti-welding ability of arc-melted CuCr contact material by addition of trace element of Te
C1-P-16	Prof. BangWook Lee (Hanyang University)	Optimal Design of Contact Configuration for High Voltage Vacuum Interrupter Based on Response Surface Method and Multi Objective Genetic Algorithm
C1-P-17	Ms. Khin Kyaw (Kanazawa University)	Partial Discharge Characteristics in a Vacuum Interrupter under Different Shield Potentials
C1-P-18	Mr. Akira Daibo (Toshiba Infrastructure Systems & Solutions Corporation)	Effect of Electrode Surface Temperature on post-arc current in vacuum interrupter
C1-P-19	Dr. Shi Hongfei Shi (Hebei University of Technology)	Analysis of Breakdown Endurance Performance under Coupling Effect of Current Drop Rate and Voltage Rise Rate for DC Vacuum Circuit Breaker
C1-P-20	Prof. Liu Xiaoming Xiaoming (Hebei University of Technology)	Reliability Analysis of DC Vacuum Circuit Breaker Based on Complementary Effect of Mechanism Velocity and Current Drop Rate
C1-P-21	Prof. Liu Xiaoming Liu (Hebei University of Technology)	Electromechanical and Electromagnetic Parameter Design and Breaking Performance Analysis of DC Vacuum Circuit Breaker

C1-P-22	Dr. Hiroaki Cho (Toshiba Infrastructure Systems & Solutions Corporation)	Characteristics and Identification Method of Partial Discharge Signal in Vacuum Interrupter for Medium Voltage Solid Insulated Switchgear
C1-P-23	Prof. Xiong Duan (Dalian University of Technology)	Research on Remanence Detection of Transformer with Phase Selection of Vacuum Switch
C1-P-24	Prof. Shenli Jia (College of Electrical Engineering, Sichuan University , State Key Laboratory of Electrical Insulation and Power Equipment at Xi'an Jiaotong University of China)	One Test Method for DCCB Based on Vacuum Interrupter
C1-P-25	Mr. Gongrun Wang (School of Electrical Engineering, Dalian University of Technology)	Research on a Novel Vacuum Contactor and its Displacement Control
C3-P-01	Ms. Sachiho Kemmotsu (Tokyo City University)	Investigation of Secondary Electron Emission Coefficients during Geostationary Orbit Operations and Effects of Atmospheric Exposure
C3-P-02	Mr. Kaito Miura (Department of physics, Tokai Univercity)	Characteristics of negative ion current by control of bias voltage to second anode in Cs-free negative ion source using TPDsheet-U
C4-P-01	Dr. Daniele Aprile (Consorzio RFX)	Design of electrodes for high voltage tests in MITICA
C4-P-02	Dr. Luigi Cordaro (Consorzio RFX)	Electrical insulation of plasma facing metallic structures for the RFX-mod2 experiment
C4-P-03	Prof. Shin Kajita (The University of Tokyo)	Thermal conductivity measurement of fuzzy W using a thermoreflectance method
C4-P-04	Mr. Rongshi Zhang (Graduate School of Engineering, Nagoya University)	Field emission current from protrusion structure formed by helium plasma with various impurity gases
C4-P-05	Dr. Dogyun Hwangbo (Faculty of Pure and Applied Sciences, University of Tsukuba)	Arc ignition and hot spot formation on tungsten with nano-tendril bundles under hydrogen plasma exposure
C4-P-06	Dr. Tommaso Patton (Consorzio RFX)	Electrostatic Design of the MITICA Intermediate Electrostatic Shield
C4-P-07	Dr. Andrea De Franco (QST)	Insulation and conditioning of an electrostatic bunch length monitor for the Linear IFMIF Prototype Accelerator
C6-P-01	Dr. Katsuhisa Murakami (National Institute of Advanced Industrial Science and Technology)	Development of planar type electron emission devices using a heterostructure of two-dimensional materials
D-P-01	Prof. Xiongying Duan (Dalian University of Technology)	Effect of different electrode materials on the arc energy under arc discharge
D-P-02	Prof. Xiongying Duan (Dalian University of Technology)	Protection Mechanism Analysis and Performance Test of Polyimide under Arc Discharge
D-P-03	Prof. Minfu Liao (School of Electrical Engineering, Dalian University of Technology)	Research on Fault Diagnosis of High Voltage Circuit Breaker Based on Vibration Signal in Low Temperature Environment
D-P-04	Prof. Minfu Liao (School of electrical engineering, Dalian University of Technology)	Research on efficiency of new self-driven fault current limiter based on improved genetic algorithm
D-P-05	Prof. Minfu Liao (School of electrical engineering, Dalian University of Technology)	Research on Arc Restraint in Dynamic Response Process of A New Self-Driving Fault Current Limiter
D-P-06	Prof. Minfu Liao (School of electrical engineering, Dalian University of Technology)	Design and Parameter Characteristics of A New Fault Current Limiter Based on Self-driving Rheostat

	D-P-07	Prof. Xiong duan (Dalian University of Technology)	Occurrence and protection of cable joint faults

Japan Prize Session & Oral Session 9 (B3)

Chair: René P.P. SMEETS

Time	No.	Presenter	Title
15:45-16:10	JP-I-01	Mr. Chen Guan (State Key Laboratory of Electrical Insulation and Power Equipment, Xi'an Jiaotong University)	A Relationship Between Vacuum Arc Characteristics and Short-Circuit Current Interrupting Capability at Minimum Arcing Times
16:10-16:25	B3-O-06	Prof. Akiko Kumada (The University of Tokyo)	The excitation temperature of the neutrals and ions in diffuse-mode vacuum arc
16:25-16:40	B3-O-07	Mr. Daisuke Kasui (Kanazawa University)	Numerical Simulation on Copper Vapor Behavior in Vacuum Arcs during Low-Current and Current Decaying Process using Moving Particle Method
16:40-16:55	B3-O-08	Dr. Ilya Muzyukin (Institute of Electrophysics of the Ural Division of the Russian Academy of Sciences , Ural Federal University)	The cathode spot cell properties in the vacuum arc discharge with W-fuzz cathode.
16:55-17:10	B3-O-09	Mr. Pavel Mikhailov (Institute of Electrophysics UB RAS)	Study of vacuum arc threshold current for tungsten fuzz.
17:10-17:25	B3-O-10	Mr. Sirapat Lookrak (EMONE)	Electrostatic Induction and Electron Beam within The Vacuum Chamber

Friday, June 30, 2023

Okinawa Jichikaikan

Oral Session 10 (B5+C2)
Chair: Edgar DULLNI

Time	No.	Presenter	Title
9:00-9:25	C2-I-01	Prof. Emer. Yoshio Saito (High Energy Accelerator Research Organization (KEK))	Vacuum Technology for Constructing Large-Scaled System
9:25-9:40	B5-O-01	Ms. Guiling Fu (Xi'an Jiaotong University)	Numerical Investigation on Influence of Electric Field Distribution on Energy Deposition Structure in Wire Electrical Explosion in Vacuum
9:40-9:55	C2-O-01	Prof. Masahiro Sasaki (University of Tsukuba)	Transfer of Field-emitted Electrons to Molecules Observed with Feld Emission Microscopy (FEM)
9:55-10:10	C2-O-02	Dr. Fei KONG (Institute of Electrical Engineering, Chinese Academy of Sciences)	Relaxation effect of electric field for Functionally Graded Materials in Vacuum
10:10-10:25	C2-O-03	Dr. Silvia Spagnolo (Consorzio RFX)	X-ray Micro-Discharge fine dynamics in a vacuum High Voltage experiment

Oral Session 11 (C1)
Chair: TBD

Time	No.	Presenter	Title
11:00-11:25	C1-I-01	Dr. Hitoshi Saito (MEIDENSHA CORPORATION)	Development of high voltage VCBs as a candidate for SF6 free switching equipment
11:25-11:40	C1-O-01	Dr. Min Li (Schneider Electric (Xiamen) Switchgear Equipment Co., Ltd.)	The effect of contact structure on vacuum interrupter performance
11:40-11:55	C1-O-02	Dr. Kunihiko TOMIYASU (Hitachi, Ltd.)	Evaluation of efficient electrode conditioning method for vacuum interrupters
11:55-12:10	C1-O-03	Ms. Karen Fluegel (Technische Universit ät Braunschweig, elenia Institute for High Voltage Technology and Power Systems)	Overview of Test Methods for Electric Strength ofVacuum Interrupter using Lightning Impulse Voltage.
12:10-12:25	C1-O-04	Mr. Kota Hamada (Toshiba Infrastructure Systems & Solutions Corporation)	The influence on partial discharge in vacuum by chromium oxide coating on alumina surface
12:25-12:40	C1-O-05	Mr. Yusuke Maede (The University of Tokyo)	Influence of the Microstructure of the Cu-Cr Alloy Electrode on Vacuum Arc

Closing Session

12:40-13:00