Session Program

22–28 Jun 2019

PPPS 2019

Poster - Microwave Generation and Plasma Interactions and Pulsed Power Switches and Components

DoubleTree at the Entrance to Universal Orlando
5780 Major Blvd. Orlando, Florida, 32819, USA

Tuesday 25 June

13:00

Poster - Microwave Generation and Plasma Interactions and Pulsed Power Switches and Components

Poster Session | **Location:** Universal Center | **Conveners:** Joel Ennis, Jason Sanders, Jose Rossi

2P75 - THE DISCHARGE CHARACTERISTICS OF C5 AND ITS MIXTURES IN UNIFORM FIELD UNDER AC VOLTAGE

Speaker
Jiayin Yan

2P69 - A sequential characterization method for the insulation evaluation of the rod-plane gap under repetitive frequency nanosecond pulses in high-pressure nitrogen

Speaker
Mr Zheng Zhao

2P45 - High performance triggering transformer for stack of series connected thyristors

Speaker
Viliam Senaj

2P53 - The Influence of Electrode Profile on Repetition Performance of Corona-stabilized Switch

Speakers
Longjie Li, Mr Yongsheng Wang

2P46 - Data acquisition system for HEH monitor

Speaker
David Cabrerizo Pastor

2P49 - Performance of 20-kV, 20-A Silicon Carbide High-Voltage Modules

Speaker
Miguel Hinojosa

2P54 - Polarity Effect of Repetitive Corona Stabilization Breakdown

Speaker
Dr Longjie Li

2P70 - Experimental approach of the dielectric strength of a vacuum insulator

Speaker
Baptiste Cadilhon

2P77 - Investigation of impulsive breakdown of interfaces formed by ester insulating liquids and solid dielectrics

Speaker
Mr Chris Williamson

2P68 - Design of a Dielectric Compression Bushing for Compact, High-Voltage Applications

Speaker
Dr Michael Butcher

2P29 - Fast A-Stable Implicit Scheme and Scalable Software MOLTN For Electromagnetics

Speaker
Mathialakan Thavappiragsam

2P55 - On the performance of triggered closing switches deployed in high explosive pulsed power experiments*

Speaker
Dr Andrew Young

2P51 - Comparison of Lateral and Vertical Photoconductive Semiconductor Switches Fabricated on 4H-SiC

Speaker
Pyeunghwi Choi

2P50 - Surface Passivation of GaAs Photoconductive Semiconductor Switches with Silicon Resin

Speaker
Mr Yong-Pyo Kim

2P48 - DIFFERENT PATTERNS OF CURRENT QUENCHING PHENOMENA DURING PSEUDOSPARK DISCHARGE

Speaker
Jiaqi Yan

2P57 - Silicon Carbide drift step recovery diode structures evaluated as >10kV nanosecond pulse power switches using Mixed-Mode simulation

Speaker
Mr Stephen Arthur

2P47 - Development and Switching Characterization Study of Hot Cathode Thyratron for Pulse Modulator Applications in Linear Accelerator

Speaker
Udit Narayan Pal

2P72 - INFLUENCE OF THE CREEPAGE DISTANCE ON SURFACE FLASHOVER OF THE EPOXY INSULATION UNDER AC VOLTAGE IN C4F7N-CO2 MIXTURES

Speaker
Zhongbo Zheng

2P80 - Insulator Technologies to Achieve Maximum Electric Field Holdoff

Speaker
Mr Cameron Harjes

2P76 - C5F10O/N2 GAS MIXTURE TO SUBSTITUTE SF6 IN HIGH VOLTAGE APPLICATIONS

Speaker
Jiaqi Yan

2P74 - STUDY OF DISSOCIATION CHARACTERISTIC OF SF6-N2 MIXTURES UNDER CORONA DISCHARGE WITH PIN-TO-PLATE ELECTRODE

Speaker
Ms Jiayin Yan

2P44 - Perspectives of Supercritical Fluids for Switching Applications

Speaker
Prof. Guus Pemen

2P19 - 3D ICEPIC SIMULATION OF AN X-BAND RELATIVISTIC TWISTRON

Speaker
Dr Paul Gensheimer

2P56 - MODERNIZATION OF THE MARX AND RIMFIRE TRIGGERING SYSTEMS FOR THE HERMES-III ACCELERATOR

Speaker
Dr Chris Grabowski

2P81 - Impact on electrodes during plasma decomposition of carbon dioxide

Speaker
Dr Kamau Wright

2P04 - Development and testing of the 190 GHz dual mode OAM gyrotron with axial output

Speaker
Ashwini Sawant

2P26 - Plasma Simulation and Modeling of Pseudospark Discharge for High Density and Energetic Electron Beam Generation

Speaker
Varun .

2P21 - Beam-Current Loss in Emittance-Dominated High-Frequency Tubes

Speaker
Muhammed Zuboraj

2P20 - Simulations of Surface Inhomogeneities in Field Emission

Speaker
Dr Kristinn Torfason

2P18 - E-band Overmoded Relativistic Backward Wave Oscillator

Speakers
Liangjie Bi, Ahmed Elfrgani

2P17 - Pulsed RF Signal Irradiation Using a Low Voltage NLTL Coupled to a DRG Antenna*

Speakers
Dr Jose O. Rossi, Edl Schamiloglu

2P32 - Study of two-surface multipactor susceptibility using Monte Carlo simulation

Speaker
Mr Zizhuo Huang

2P33 - High Power Radio Frequency Pulse Shaping For a 1.5MW S Band Magnetron Source

Speaker
Michael Butcher

2P37 - Multipactor in Coaxial Transmission Lines

Speaker
Dr Nicholas M. Jordan

2P39 - Suppressing single-surface multipactor discharges using non-sinusoidal electric field

Speaker
Dr Deqi Wen

2P34 - Feasibility Study of Guiding High Power Microwave with Laser Created Plasma Ring Channels or Photonic Crystals in Air

Speaker
Prof. Shen Shou Max Chung

2P36 - Electron Temperature and Density Measurements of Plasma Generated at the Focus of a CW Microwave Beam

Speaker
Adrian Lopez

2P40 - Linear plasma experiment for non-linear microwave interaction experiments

Speaker
colin whyte

2P59 - A High-gain nanosecond pulse generator based on inductor energy storage and pulse forming line voltage superposition

Speaker
Jianhao Ma

2P61 - STUDY ON SHEATH INDUCED VOLTAGE AND SPATIAL TEMPERATURE FIELD OF LONG-DISTANCE 330/110KV CABLE SHARED THE SAME PIPE JACKING

Speaker
Mr Shuhan Liu

2P62 - A comprehensive design procedure for high voltage pulse power transformers

Speaker
Dr Michael Jaritz

2P65 - Design of A Long Pulse High Energy Water Transmission Line to Drive HPM Sources

Speaker
Dr Salvador Portillo

2P66 - A 1 MV Tesla pulsed transformer

Speaker
Mr Matthew Woodyard

2P35 - Investigation into the Propagation of Electron Beams of Different Shapes through Gas-Filled Space Using PIC Simulations

Speaker
Udit Narayan Pal

2P24 - Hybrid Quantum-Hydrodynamics/Kinetics Model for Dense Plasma Mixtures

Speaker
Mr Lucas J. Stanek

2P27 - PIC-DSMC numerical grid heating in collisional plasmas: Application to streamer discharge simulations

Speaker
Chris Moore

2P30 - Electrostatic Finite Element Numerical Modeling of Spark Gap and Related Accelerator Structures

Speaker
Ms Rena Berdine

2P31 - Modeling of gas recirculation effects in nanosecond-pulsed high-frequency discharges

Speaker
Asher Straubing

2P16 - Simulations of a W-Band Circular TWT

Speaker
Khandakar Nusrat Islam

2P15 - Operation of a Gyromagnetic Line with Magnetic Axial Bias

Speakers
Fernanda Yamasaki, Jose Rossi, Edl Schamiloglu

2P14 - W-band 2D Periodic Lattice Oscillator

Speaker
Dr Colin Whyte

2P13 - Hybrid Kinetic-Fluid Simulations of a Ku-band MILO

Speaker
Peter Stoltz

2P12 - The Influence of Magnetic Field Profile on the Downstream Electrons and the Output Mode of MDO

Speaker
Prof. Shen Shou Max Chung

2P11 - NLTL Frequency Chirp through Dynamic Bias of Inductor Cores

Speaker
Emily Schrock

2P10 - Simulation of an Industrial Magnetron Using Cathode Modulation

Speaker
Mr Andong Yue

2P09 - Cold Test Validation of Metamaterial Based Rectangular Slow Wave Structure for High Power Backward-Wave Oscillators

Speaker
Ms Doğancan Eser

2P08 - Metamaterial Based RF Source

Speaker
Simon Foulkes

2P07 - Examination of stability against beam parameters in a Ku band helix TWT

Speaker
Prof. Lutfi Oksuz

2P06 - Frequency tunable X-band Relativistic Backward Wave Oscillator

Speaker
jean-christophe diot

2P05 - Fast-Wave and Slow-Wave Interactions in the Rippled-Field Magnetron

Speakers
Artem Kuskov, Ms Stacie Hernandez

2P03 - Effects of the Mesh Anode Transparency on the Operation Characteristics of the Virtual Cathode Oscillator

Speaker
Mr Se-Hoon Kim

2P02 - Modeling the wakefield excitation by a 28 GHz microwave pulse in a plasma filled waveguide

Speaker
J.G. Leopold

2P01 - Modeling a compact A6 relativistic magnetron operating with permanent magnets

Speaker
Dr John Leopold

2P28 - Dispersion Engineering for O and M-Types High Power Microwave Sources

Speaker
Artem Kuskov

14:30