



# ISDEIV 2018

28<sup>th</sup> International Symposium on Discharges  
and Electrical Insulation in Vacuum

*September 23-28, 2018  
Greifswald, Germany*



ERNST MORITZ ARNDT  
UNIVERSITÄT GREIFSWALD



Wissen  
lockt.  
Seit 1456



# ISDEIV 2018

## 2<sup>nd</sup> Call for Papers

### Important dates

Abstract Submission opens	1 <sup>st</sup> November 2017
Deadline for submission of abstracts	31 <sup>st</sup> January 2018
Notification of Acceptance	1 <sup>st</sup> March 2018
Deadline for submission of Full Papers	15 <sup>th</sup> June 2018
Early Registration Deadline	30 <sup>th</sup> June 2018
Notification of Acceptance of Full Papers	15 <sup>th</sup> July
Final Announcement	31 <sup>st</sup> July 2018

Abstract Submission: **[www.isdeiv2018.org](http://www.isdeiv2018.org)**

### About ISDEIV

The International Symposia on Discharge and Electrical Insulation in Vacuum (IS-DEIV) is a non-profit, international organization whose purpose is to encourage the advancement of the science and application of electrical insulation and discharges in vacuum, primarily by conducting symposia for the exchange of scientific information.

The Symposia are held biennially (even-numbered years). The symposia are interdisciplinary meetings for the exchange of results, presentation of progress, and discussion of ideas and challenges for the future in the field of electrical discharges and insulation in vacuum. Both fundamental and applied aspects are covered. Symposia program consist of invited talks, invited oral contributions, and posters. Minicourses and informal discussions on relevant topics may also be offered in addition to the regular Symposium schedule.

### Committees

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*Eiji Kaneko, (Vice Chairman), Japan*  
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## Topics

### A: BREAKDOWN AND FLASHOVER

- A1. Vacuum breakdown and pre-breakdown phenomena
- A2. Surface discharges and flashover phenomena

### B: VACUUM ARCS

- B1. Switching in vacuum and related phenomena
- B2. Interaction of vacuum arcs with magnetic fields
- B3. Vacuum arc physics
- B4. Computer modeling and computer aided design
- B5. Pulsed power physics and technology

### C: APPLICATIONS

- C1. Vacuum interrupters and their applications
- C2. Surface modification and related technologies
- C3. Electron, ion, neutron, X-ray and other beam and light sources
- C4. Accelerators and fusion reactor related issues
- C5. Space related technologies

## General Program // Awards

Oral Presentation  
Poster Presentation  
Panel Discussion  
Workshop  
Exhibitions  
Cultural Program

BEST VIDEO AWARD  
WALTER P. DYKE AWARD 2018  
ISDEIV BEST PAPER AWARD – JAPAN PRIZE  
PAUL A. CHATTERTON YOUNG INVESTIGATORS AWARD

## Invited Speakers

### VACUUM-ARC ANODE PHENOMENA: NEW FINDINGS AND NEW APPLICATIONS

Alexander Batrakov – Russian Academy of Sciences

### ACTIVE SPECTROSCOPIC METHODS FOR DENSITY AND TEMPERATURE MEASUREMENTS

Jürgen Baldzuhn - Max-Planck-Institut für Plasmaphysik

### LASER DIAGNOSTICS FOR ELUCIDATION OF VACUUM ARC BEHAVIOR

Akiko Kumada - The University of Tokyo

### MODELING OF HIGH-CURRENT VACUUM ARC BEHAVIOR UNDER AXIAL MAGNETIC FIELDS

Lijun Wang - Xi'an Jiaotong University

### IGNITION AND BEHAVIOR OF ARC SPOTS UNDER FUSION RELEVANT CONDITION

Shin Kajita - Nagoya University

### TECHNOLOGICAL CHALLENGES FOR LARGE-SCALE INDUSTRIAL SYSTEMS FOR TRIBOLOGICAL AND DECORATIVE PVD-COATINGS

Roel Tietema - IHI Hauzer Techno Coating B.V.

### DISCHARGES IN SPACE: PLASMAS FOR SATELLITE PROPULSION

Jochen Schein - Universität der Bundeswehr München

### VACUUM BREAKDOWN IN HIGH-GRADIENT PARTICLE ACCELERATORS.

Walter Wünsch - CERN

### HV HOLDING IN VACUUM, A KEY ISSUE FOR THE ITER NEUTRAL BEAM INJECTOR

Antonio de Lorenzi - Consorzio RFX

## City Information

The university and Hanseatic City of Greifswald is situated in the state Mecklenburg-Vorpommern at an equal distance of about 250 kilometres (160 mi) from Germany's two largest cities, Berlin and Hamburg, and 80 km (50 mi) from the Polish border. The town flanks the Baltic Sea, and is crossed by a small river, the Ryck. It is also located near Germany's two largest islands, Rügen and Usedom, and it is close to three of Germany's 14 national parks.

Greifswald was founded in 1199 when Cistercian monks founded the Eldena Abbey. In 1456, Greifswald's mayor Heinrich Rubenow laid the foundations of one of the oldest universities in the world, the University of Greifswald, which was one of the first in Germany, and was, successively, the single oldest in Sweden and Prussia.

Close to the Baltic Sea, today Greifswald provides the 57.000 inhabitants and 13.000 students an hanseatic appeal and maritime lifestyle. We are pleased to welcome you and our international community in Greifswald.

## Venue

Institute of Biochemistry // University of Greifswald  
Felix-Hausdorff-Str. 4  
17487 Greifswald

## Hotels // Accommodation

For the conference period various hotels in Greifswald are available. Please use the buzzword **ISDEIV 2018** for your reservations. Certain contingents of rooms are reserved. Further Informations can be found on [www.isdeiv2018.org](http://www.isdeiv2018.org)

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