ISDEIV 2018

28th International Symposium on Discharges and Electrical Insulation in Vacuum

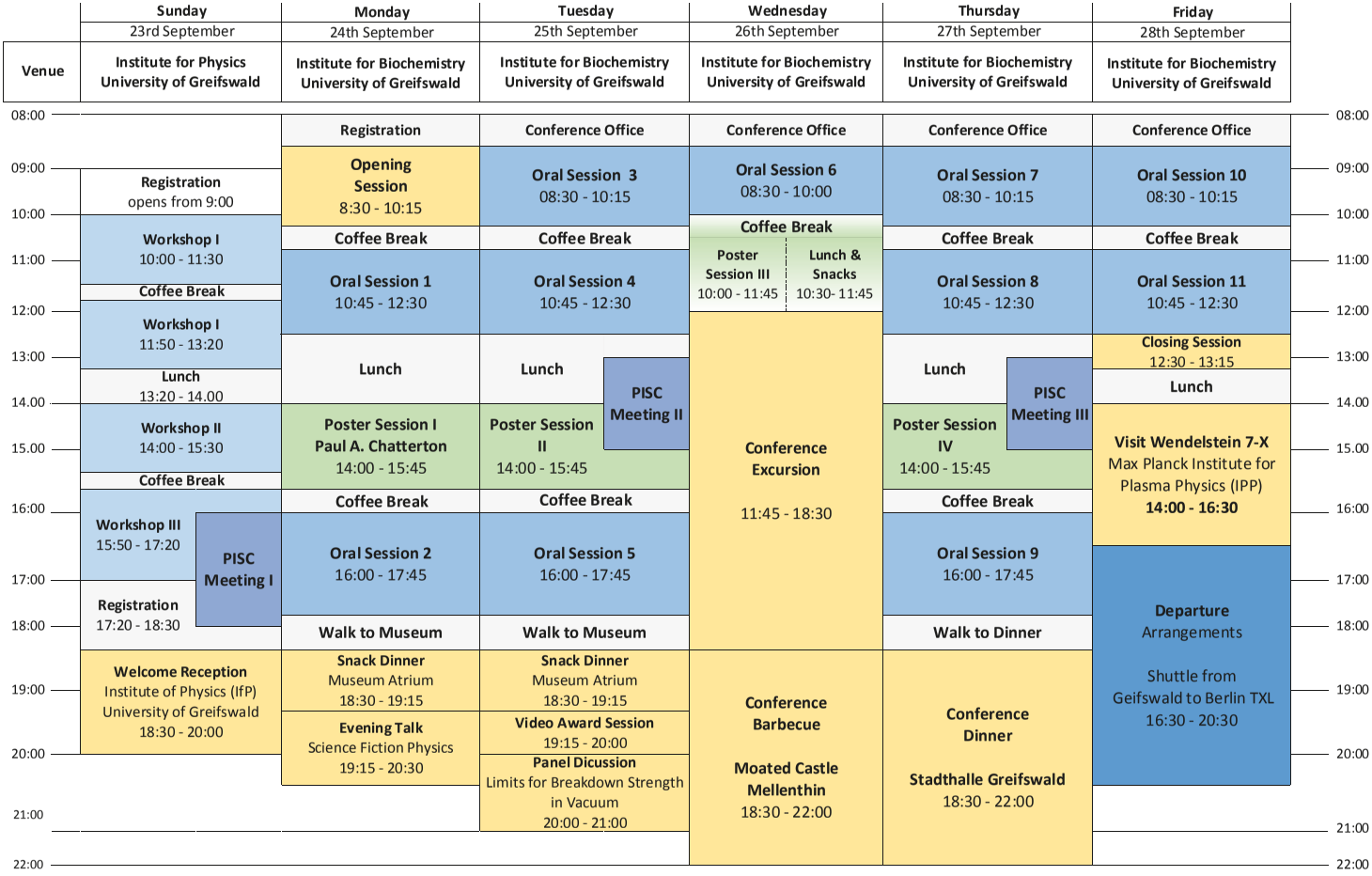
September 23rd-28th, 2018
Greifswald, Germany

INP FROM IDEA TO PROTOTYPE

DEIS

IEEE

UNIVERSITÄT GREIFSWALD
Wissen lockt. Seit 1456


Sunday
23rd September
Monday
24th September
Tuesday
25th September
Wednesday
26th September
Thursday
27th September
Friday
28th September
Venue
Institute for Physics University of Greifswald
Institute for Biochemistry University of Greifswald
Institute for Biochemistry University of Greifswald
Institute for Biochemistry University of Greifswald
Institute for Biochemistry University of Greifswald
Institute for Biochemistry University of Greifswald
08:00
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16:00
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19:00
20:00
21:00
22:00
Registration
opens from 9:00
Workshop I
10:00 - 11:30
Coffee Break
Workshop I
11:50 - 13:20
Lunch
13:20 - 14.00
Workshop II
14:00 - 15:30
Coffee Break
Workshop III
15:50 - 17:20
PISC Meeting I
Registration
17:20 - 18:30
Welcome Reception
Institute of Physics (IfP)
University of Greifswald
18:30 - 20:00
Registration
Opening Session
8:30 - 10:15
Coffee Break
Oral Session 1
10:45 - 12:30
Lunch
Poster Session I
Paul A. Chatterton
14:00 - 15:45
Coffee Break
Oral Session 2
16:00 - 17:45
Walk to Museum
Snack Dinner
Museum Atrium
18:30 - 19:15
Evening Talk
Science Fiction Physics
19:15 - 20:30
Conference Office
Oral Session 3
08:30 - 10:15
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19:15 - 20:00
Panel Dicussion
Limits for Breakdown Strength in Vacuum
20:00 - 21:00
Conference Office
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08:30 - 10:00
Coffee Break
Poster Session III
10:00 - 11:45
Lunch & Snacks
10:30- 11:45
Conference Excursion
11:45 - 18:30
Conference Barbecue
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18:30 - 22:00
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Oral Session 9
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18:30 - 22:00
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08:30 - 10:15
Coffee Break
Oral Session 11
10:45 - 12:30
Closing Session
12:30 - 13:15
Lunch
Visit Wendelstein 7-X
Max Planck Institute for Plasma Physics (IPP)
14:00 - 16:30
Departure
Arrangements
Shuttle from Geifswald to Berlin TXL
16:30 - 20:30

Preface

Dear colleagues and participants of ISDEIV 2018!

On behalf of the Local Organization Committee, I am glad to welcome you in Greifswald, Germany, at the 28th International Symposium on Discharges and Electrical Insulation in Vacuum, ISDEIV 2018. For the fourth time in Germany, the symposium takes place from September 23rd to 28th, 2018. Over 190 delegates from 16 different countries on almost all continents attend.

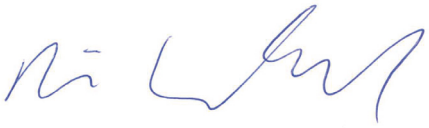
The ISDEIV is an interdisciplinary forum in the field of electrical discharges and insulation in vacuum. It covers the fundamental topics of breakdown, flashover and arc establishment in vacuum as well as applications from vacuum interrupters, surface modification, beam sources, accelerators and fusion related topics up to space related technologies.

Held under the auspices of the IEEE and DEIS, the 28th ISDEIV is jointly hosted by the Leibniz Institute for Plasma Science and Technology (INP) and the Institute of Physics of the Greifswald University. Oral sessions, poster sessions and an industrial exhibition take place at the Institute of Biochemistry of the University of Greifswald, whose support the organizers greatly acknowledge. In addition, a one-day tutorial workshop and a panel discussion 'Limits for Breakdown Strength in Vacuum' are offered to the symposium participants.

The LOC greatly acknowledges the sponsorship of the companies Plansee, ABB, Siemens and Specialised Imagingas well as the support of other industrial exhibitors. We are also grateful for the support provided by the German Science Foundation. Thanks to the financial support, the reduced fee for almost 40 young scientists, the organization of the tutorial workshop, of invited talks and the social program are made possible. The LOC highly acknowledges the help and guidance provided by the PISC members for the organization of the scientific program. We are also very grateful for the review of almost 200 scientific papers, submitted for the conference proceeding, by the Scientific Advisory Board.

We hope that this symposium will provide a great opportunity to exchange and discuss the latest research results and new scientific ideas as well as state-of-the-art technologies, new approaches and challenges for the future to support the progress in this field of activity. Lastly, we wish all participants a pleasant stay in Greifswald.

September 2018
Dirk Uhrlandt
Chairman of LOC



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Permanent International Scientific Committee

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Scientific Program

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

Awards

WALTER P. DYKE AWARD 2018
Isak I. Beilis, Tel Aviv University - Israel

ISDEIV BEST PAPER AWARD – JAPAN PRIZE 2016
Haruki Ejiri, University of Tokyo - Japan

PAUL A. CHATTERTON YOUNG INVESTIGATORS AWARD 2018
Awardees will be selected during the symposium

BEST VIDEO AWARD 2018
Awardees will be selected during the symposium

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

Workshops

Sunday, 23rd September, 10:00 am - 5:00 pm
Institute for Physics

W I SHORT COURSE SCIENTIFIC WRITING
Raymond Boxman and Edith Boxman - Tel Aviv University, Israel

W II INTRODUCTION INTO PLASMA PHYSICS
Andre Melzer - Institute for Physics, University of Greifswald, Germany

W III OPTICAL METHODS IN PLASMA DIAGNOSTICS
Dirk Uhrlandt - Leibniz Institute for Plasma Science and Technology, Greifswald, Germany

Video Award Session

Tuesday 25th Sepetmber, 7:15 pm - 8:00 pm
Pommersches Landesmuseum

Please hand over your video contribution until 24th of September 4 pm to the conference office.

Panel Discussion

Tuesday 25th Sepetmber, 8:00 pm - 9:00 pm
Pommersches Landesmuseum

LIMITS FOR BRAKDOWN STRENGTH IN VACUUM

Flyura Djurabekova, University of Helsinki, Finland

Margarita Baeva, Leibniz Institute for Plasma Science and Technology, Greifswald, Germany

Alexander Batrakov, Institute of High Current Electronics, Tomsk, Russia

Matthew Hopkins, Sandia National Laboratories, Albuquerque, New Mexico, USA

Proceedings

Paper submission and review procedure are closed. All accepted contributions will be published in the ISDEIV conference proceeding, which will be provided in printed and electronic form at the beginning of the conference.

Oral Sessions

Opening Session - Monday 24th September // 08:30 - 10:15 - Insitute for Biochemistry Chair: Dirk Uhrlandt & René Smeets					
No.	**Time**	**Title**	**Presenter**		**Page**
Opening Session	08:30-08:40	Welcome & Opening - Chair of LOC	Uhrlandt	Dirk	Opening Session
	08:40:08:50	Greeting - Vice Chancellor of the Universtiy Greifswald	Riedel	Katharina	
	08:50-09:00	Greeting - Director of the INP	Weltmann	Klaus-Dieter	
	09:00-09:10	Greeting - PISC Chairman	Falkingham	Leslie	
	09:10-09:20	Opening - Dyke Award Session	Smeets	René	
	09:20-10:15	Vacuum Arc Cathode Spot Theory. History and Evolution of the Mechanisms	Beilis	Isak	XXV

Oral Session 1 - Monday 24th September // 10:45 - 12:30 - Insitute for Biochemistry Chair: Leslie Falkingham					
No.	**Time**	**Title**	**Presenter**		**Page**
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B3-O-01	11:15 - 11:30	Investigation of Vacuum Arc Extinction Process by Planar Laser-Induced Fluorescence	Wang	Haoran	169
B3-O-02	11:30 - 11:45	Vacuum Arc with Boron-Containing Cathode	Oks	Efim	173
B3-O-03	11:45 - 12:00	Spatial Imaging of the Electron Density Depending on Cathode Material in Vacuum Arc Discharge Observed with a Mach-Zehnder Interferometer	Yang	Lin	177
B3-O-04	12:00 - 12:15	Diameters and Velocities of Droplets Emitted from the Cu Cathode of a Vacuum Arc	Laux	Michael	181
B3-O-05	12:15 - 12:30	Analysis of Cathode Surface State and Cathode Temperature Distribution After Current Zero of AMF-Contacts	Logachev	Alexander	185

Oral Session 2 - Monday 24th September // 16:00 - 17:45 - Insitute for Biochemistry Chair: N.N.					
No.	**Time**	**Title**	**Presenter**		**Page**
C2-I-01	**16:00 - 16:30**	**Technological Challenges for Large Scale Industrial Systems for Tribological and Decorative Coatings**	**Tietema**	**Roel**	**679**
C2-O-01	16:30 - 16.45	Improved Surface Electrical Properties of Polystyrene in Vacuum by Plasma Modification	Kong	Fei	681
C2-O-02	16:45 - 17:00	Chromium-Copper Surface Alloy Produced on Copper Electrodes by Electron-Beam Mixing of Deposited Films	Markov	Alexey	685
C2-O-03	17:00 - 17:15	Investigation of Physical and Mechanical Properties of Coatings Based on Ti-Al Intermetallic Compounds Synthesized in a Nitrogen Environment	Ramazanov	Kamil	689
C3-O-01	17:15 - 17:30	Advanced Vacuum Arc Plasma Source: Principles and Perspective Applications	Goncharev	Alexey	731
C3-O-02	17:30 - 17:45	Formation of a Focused High-Current Quasi-Continuous Electron Beam by a Forevacuum Plasma-Cathode Source Based on Cathodic Arc	Kazakov	Andrey	735

Oral Session 3 - Tuesday 25th September // 8:30 - 10:15 - Insitute for Biochemistry Chair: Alexander Batrakov					
No.	**Time**	**Title**	**Presenter**		**Page**
A1-O-01	**08:30 - 09:15**	**Breakdown Phenomena Triggered by Microparticle in Vacuum Gap (ISDEIV Best Paper Award - Japan Prize)**	**Ejiri**	**Haruki**	**7**
A1-O-02	09:15 - 09:30	Theoretical Basis and Experimental Validation of the BIRD Model	Spada	Emanuele	11
A1-O-03	09:30 - 09:45	Recent Progress in Vacuum Breakdown at Nanoscale: Experiment and Simulation	Meng	Guodong	15
A1-O-04	09:45 - 10:00	The Effect of Contact Material on Particles Behavior in High-Current Vacuum Arcs	Yan	Wenlong	19
A1-O-05	10:00 - 10:15	High-Speed Spectroscopy of Vacuum Breakdown Process between CuCr Electrode	Nagai	Hiroyuki	23

Oral Session 4 - Tuesday 25th September // 10:45 - 12:30 - Insitute for Biochemistry Chair: Andreas Lawall					
No.	**Time**	**Title**	**Presenter**		**Page**
	10:45 - 11:00	Obituary on the decease of Werner Hartmann	Wenzel	Norbert	XII
C1-O-01	11:00 - 11:15	X-Radiation Emission of High-Voltage Vacuum Interrupters: Dose Rate Control under Testing and Operating Conditions	Giere	Stefan	523
C1-O-02	11:15 - 11:30	System Design of Fast Actuator for Vacuum Interrupter in DC Applications	Augustin	Tim	527
C1-O-03	11:30 - 11:45	Measuring External Dielectric Strength of the Vacuum Interrupter Envelope	Li	Wangpei	531
C1-O-04	11:45 - 12:00	Control of Vacuum Arcs in High-Voltage Vacuum Interrupters by Suitable Stroke Trajectories of Opening AMF Contacts	Heinz	Thomas	535
C1-O-05	12:00 - 12:15	Welding on RMF Contact during STC Test Due to Rotation Phenomena	Bono	Mathieu	539
B1-O-01	12:15 - 12:30	Optical and Electrical Investigation of High-Current Arcing Modes and Correlation with Contact Microstructure after Single Current Interruption	Böning	Mike	169

Oral Session 5 - Tuesday 25th September // 16:00 - 17:45 - Institute for Biochemistry Chair: Andre Melzer					
No.	**Time**	**Title**	**Presenter**		**Page**
A1-I-01	**16:00 - 16:30**	**Ignition and Behavior of Arc Spots under Fusion Relevant Condition**	**Kajita**	**Shin**	**1**
A2-I-01	**16:30 - 17:00**	**Spark Detection and Search for High-Voltage Paschen Leaks in a Large Superconducting Coil System**	**Baldzuhn**	**Juergen**	**107**
A2-O-01	17:00 - 17:15	Surface Flashover of Alumina Ceramic Insulators in Vacuum	Cheng	Yanlin	111
A2-O-02	17:15 - 17:30	Surface Conductivity Investigations of Deposition Layers on VCB Ceramics	Kurrat	Michael	115
B5-O-01	17:30 - 17:45	Influences of Target Configuration on the Working Performance of Laser Triggered Vacuum Switch	Chen	Zhanqing	507

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No.	**Time**	**Title**	**Presenter**		**Page**
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B2-O-01	09:00 - 09:15	Influence of Axial Self-Magnetic Field Component on Vacuum Arc Transition to Diffuse Mode of Transverse Magnetic Field (TMF) Contacts	Xiu	Shixin	251
B2-O-02	09:15 - 09:30	Investigations of Cathode Spots Behavior in Transverse Magnetic Fields	Delachaux	Thierry	255
B2-O-03	09:30 - 09:45	Influence of External Synchronous AMF on the Characteristics of Vacuum Arc with Butt Electrodes	Popov	Sergey	259
B2-O-04	09:45 - 10:00	Comparison of Arc Motion in Lifetime Sealed Vacuum Interrupters with Different Bottle Geometries	Janssen	Henning	263

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No.	**Time**	**Title**	**Presenter**		**Page**
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B1-O-03	09:15 - 09:30	Calculations on the Potential Role of Emission Currents on Restrikes after Capacitor Switching Using Vacuum Interrupters	Slade	Paul	177
B1-O-04	09:30 - 09:45	Cu and Cr Density Determination during High-Current Discharge Modes in Vacuum Arcs	Khakpour	Alireza	181
B1-O-05	09:45 - 10:00	Compact Vacuum Interruption with Microsecond Accuracy	Muir	Mark	185
B1-O-06	10:00 - 10:15	Determination of Anode Surface Temperature on Horseshoe-Type Electrodes after Current Zero	Li	Haomin	189

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B3-O-07	11:00 - 11:15	Model of the Formation of Liquid-Metal Jets in the Cathode Spot of a Vacuum Arc Discharge	Zubarev	Nikolay	337
B3-O-08	11:15 - 11:30	Vacuum Arc Cathode Spot Explosive Electron Emission Cell Plasma Momentum and Erosion Rate	Tsventoukh	Mikhail	341
B3-O-09	11:30 - 11:45	Improved Cathode Spot Crater Model in Vacuum Arc	Zhang	Xiao	345
B3-O-10	11:45 - 12:00	Stepwise Simulation on the Robson Drift of a Single Cathode Spot of Vacuum Arc	Xu	Pengfei	349
B3-O-11	12:00 - 12:15	On the Mechanism of Retrograde Motion of Cathode Spots of Vacuum Arcs	Benilov	Mikhail	353

Important Notes

Please hand over your presentation to the conference office one day before your session.

Required file: .pdf, .ppt, .pptx Required Format: 4:3 (16:9 also possible)
Invited talks: 25 minutes + 5 minutes discussion
Talks: 12 minutes + 3 minutes discussion

Oral Session 9 - Thursday 27th September // 15:30 - 17:15 - Institute for Biochemistry Chair: Shenli Jia					
No.	**Time**	**Title**	**Presenter**		**Pgae**
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B4-O-01	16:00 - 16:15	Numerical Investigation of Collective Motion of Cathode Spots	Kharicha	Abdellah	467
B4-O-02	16:15 - 16:30	Investigations of Arc Motion on RMF Contacts using Hybrid FEM-Analytical Modeling Approach	Bhat	Raul	471
B4-O-03	16:30 - 16:45	Advanced Modeling of Plasma-Cathode Interaction in Vacuum and Low-Pressure Arcs	Kaufmann	Helena	475
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B1-O-07	09:00 - 09:15	Experimental Research of Post-Arc Currents in Vacuum Circuit Breakers	Mo	Yongpeng	193
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B1-O-09	09:30 - 09:45	Mechanical Shocks as a Possible Cause for Restrikes During Capacitive Switching of Vacuum Interrupters with Fixed Fractures	Ding	Jian'gang	201
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C1-O-07	12:00 - 12:15	Temperature-Rise Performance of 126 kV Single-Break Vacuum Circuit Breakers with 4 Types of AMF Contacts	Liu	Shaowei	547
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	12:40-12:50	Invitation to next ISDEIV - Chair of next ISDEIV	de Lorenzi	Antonio	
	12:50-13:00	Closing & Farewell - Chair of LOC	Uhrlandt	Dirk	

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A1-P-01	Investigation of Pre-Breakdown Current Based on Difference of Elapsed Time from Current Zero in VCB	Sakaguchi	Wataru	27
B3-P-01	Dynamics of Molten Metal Jet Formation in the Cathode Spot of Vacuum Arc Discharge	Gashkov	Mikhail	365
B4-P-01	Hybrid Numerical Simulation of the Nanosecond Discharge in Gas-Filled Diode with Plane-Grid Cathode	Kokovin	Aleksandr	483
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C1-P-22	Appearance and Motion of Vacuum Arc in Variable Frequency Aviation Power Supply System	Jiang	Yuan	639

Paul A. Chatterton Award applicants

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Important Notes

Please place your poster on the poster board until the first coffee break ends.
The poster boards are numbered in order of the proceeding numbers.
The poster sessions are located in the 1st floor of the Institute for Biochemistry.
Please contact the conference office if you need to print out your poster.

Required poster format: A0 w 84,1 cm x h 118,9 cm (portrait)

Social Program

Welcome Reception

The welcome reception will take place at the Institute for Physics on Sunday, 24th of September, 6:30 pm.

Scientific Evening Talk

Rainer Schimming will give the talk "Science Fiction Physics" at Pommersches Landesmuseum on Monday, 24th of September.

Conference Excursion

We organized three excursion tours on Wednesday, 26th of September, to different interesting cultural institutions and technical facilities in the surrounding areas of Greifswald. After the excursions we meet at the moated castle Mellenthin on the island Usedom to enjoy a casual barbecue.

Find the Conference Excursion Plan on page 42

TOUR 1:
Historical Castle – Project Wind to Hydrogen – Boat Tour

The tour leads you to the historical castle of Klempenow, where you have the opportunity for a short walk around the castle from the 13th century. Following you visit the innovation project "Re-generative Hydrogen – RH2". The facility is located in close proximity to one of the biggest wind parks in Germany from which the electrical energy comes to produce the hydrogen. Thereafter you make a boat tour in the conservation area Peene River.

The tour ends on the Moated Castle Mellenthin on Usedom for a casual barbecue.

Departure:

Tour 1 A: 11:45 am
Tour 1 B: 12:00 am

Meeting Point: Institute for Biochemistry – Foyer

TOUR 2:

Former Nuclear Power Plant – Boat Tour – Test Facility and Museum Peenemünde

You will visit the former nuclear power plant in Lubmin, which was shut down before the completion of the plant. You get an unique insight into the structure components of a nuclear power plant. Afterwards you make a short boat tour from the small fishing harbor Freest to the nearby island Usedom to visit the technical museum Peenemünde on the premises of the former "Heeresversuchsanstalt Peenemünde" where the Nazi regime produced and tested missiles and weapons during the Second World War.

The tour ends on the Moated Castle Mellenthin on Usedom for a casual barbecue.

Departure:

Tour 2 A: 11:30 am
Tour 2 B: 11:45 am

Meeting Point: Institute for Biochemistry – Foyer

TOUR 3:

Tour Greifswald – Historical Submarine – Test Facility and Museum Peenemünde

You start the excursion with a guided tour in the old town in Greifswald to learn more about the impressive Brick Gothic and the history of Greifswald. Afterwards the excursion leads you to the island Usedom to visit a russian submarine and the technical museum Peenemünde on the premises of the former "Heeresversuchs-anstalt Peenemünde" where the Nazi regime produced and tested missiles and weapons during the Second World War.

The tour ends on the Moated Castle Mellenthin on Usedom for a casual barbecue.

Departure:

Tour 3: 11:45 am

Meeting Point: Institute for Biochemistry – Foyer

Conference Banquet

The conference banquet will be held at the Stadthalle Greifswald on Thursday, 27th of September.

Visit Wendelstein 7-X at IPP

Visit of the stellarator experiment Wendelstein 7-X at the IPP will be possible. After the last session on Friday, 28th of September, all interested participants will be transferred by bus to the IPP.
A preregistration is mandatory. Busshuttle from conference venue to IPP

Visit the Leibniz Institute for Plasma Science and Technology - INP

A visit of the laboratories of the INP will be possible during the lunch breaks. Times will be announced at the beginning of the conference.

Accompanying Person Program

Monday, September 24th: Stralsund

12:30 Optional: Lunch at Institute for Biochemistry – Foyer
13:15 Departure (Transfer to Stralsund)
Meeting Point: Institute for Biochemistry – Foyer

Stralsund is a hanseatic town in Mecklenburg-Western Pomerania, located at the coast of the Strelasund (strait of the Baltic Sea). Since 2002, Stralsund's old town is honored as a UNESCO World Heritage.

We will visit one of the most famous attractions in Stralsund: the Ozeaneum - a public aquarium that received the European Museum of the Year Award in 2010. Afterwards we will discover the beauty of Stralsund during a guided walk.

18:30 Arrival in Greifswald
The tour ends at the Pomeranian State Museum in Greifswald.
There you can join the evening program of the conference.

Tuesday, September 25th: Island of Rügen

10:15 Optional: Coffee Break at Institute for Biochemistry – Foyer
10:45 Departure (Transfer to Rügen)
Meeting Point: Institute for Biochemistry – Foyer

Germany's largest island by area is located off the Pomeranian coast in the Baltic Sea. The island is a very popular tourist destination and UNESCO awarded the status of a World Heritage Site to the Jasmund National Park. We start our excursion with a visit to the famous "Königsstuhl" (King's Chair): the best-known chalk cliff in the Jasmund National Park. In the afternoon we will visit the Treetop Path and discover the region's unique flora and fauna at eye-level with the treetops.

18:30 Arrival in Greifswald
The tour ends at the Pomeranian State Museum in Greifswald.
There you can join the evening program of the conference.

Thursday, September 27th: Greifswald

12:30 Optional: Lunch at Institute for Biochemistry – Foyer
13:00 Departure
Meeting Point: Institute for Biochemistry – Foyer

We will start our Greifswald-Tour with a visit to the Caspar David Friedrich Center, which recalls the great painter and the greatest son of Greifswald. After a guided tour, you will gain an idea of the historical ambiance of soap-making in a reconstructed workshop. Founded in 1456, the University of Greifswald is one of the oldest universities in Germany and the Baltic Sea Region. During a guided tour, you will discover the magnificent Baroque hall and the former student jail.

Conference Excursion Plan – Wednesday, September 26th

Tour 1 A Bus 1	
11:45	Boarding - Bus
12:00	Bus Transfer
13:00	Historical Castle of Klempenow
13:45	Bus Transfer
14:30	Wind to Hydrogen Innovation Project Regenarative Hydrogen
15:30	Bus Transfer
16:30	Boat Tour Conservation area Peene River
18:00	Bus Transfer
19:30	Barbecue Moated Castle Mellenthin
22:00	Bus Transfer to Greifswald

Tour 1 B Bus 2	
12:00	Boarding - Bus
12:15	Bus Transfer
13:30	Boat Tour Conservation area Peene River
15:00	Bus Transfer
16:00	Wind to Hydrogen Innovation Project Regenarative Hydrogen
17:00	Bus Transfer
17:30	Historical Castle of Klempenow
18:00	Bus Transfer
19:30	Barbecue Moated Castle Mellenthin
22:00	Bus Transfer to Greifswald

Tour 2 A Bus3	
11:45	Boarding - Bus
12:00	Bus Transfer
13:00	Guided Tour on former Nuclear Power Plant
14:30	Bus Transfer
15:20	Ferry Trip
15:50	Walk to Museum
16:00	Museum Peenemünde
18:00	Bus Transfer
19:30	Barbecue Moated Castle Mellenthin
22:00	Bus Transfer to Greifswald

Tour 2 B Bus 4	
11:30	Boarding - Bus
11:45	Bus Transfer
13:00	Museum Peenemünde
14:30	Walk to harbour
14:45	Ferry Trip
15:20	Bus Transfer
16:00	Guided Tour on former Nuclear Power Plant
17:30	Bus Transfer
19:30	Barbecue Moated Castle Mellenthin
22:00	Bus Transfer to Greifswald

Tour 3 Bus 5	
11:45	Boarding - Bus
12:00	Bus Transfer
12:15	City Tour Greifswald
13:30	Boarding Bus
13:45	Bus Transfer
15:00	Walk to Submarine
15:15	Submarine Peenemünde
16:15	Walk to museum
16:30	Museum Peenemünde
18:00	Bus Transfer
19:30	Barbecue Moated Castle Mellenthin
22:00	Bus Transfer to Greifswald

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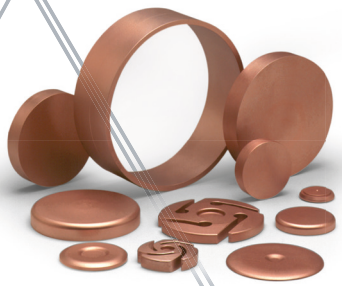

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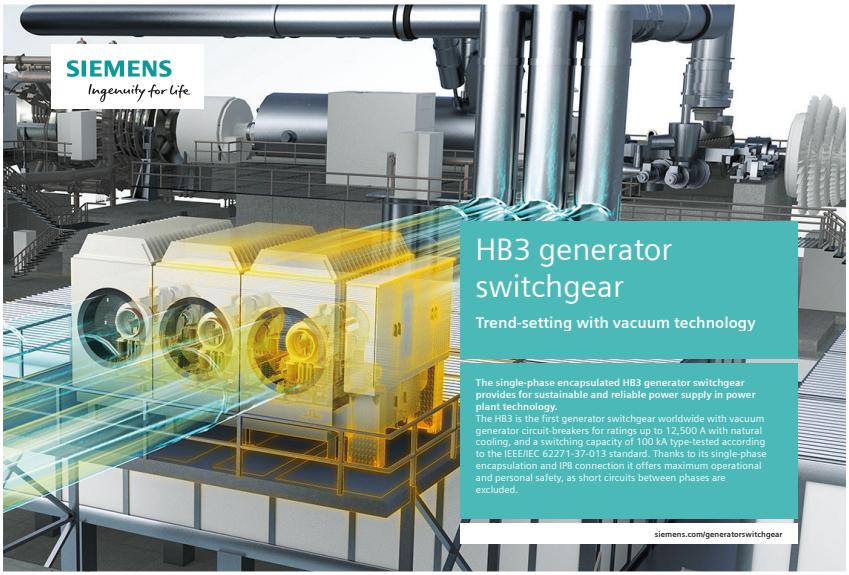

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General Information

Conference Venue

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

Institute of Physics // University of Greifswald
Felix-Hausdorff-Str. 6
17487 Greifswald

Leibniz Institute for Plasma Science
and Technology // INP
Felix-Hausdorff-Str. 2
17489 Greifswald

Registration

Sunday 23rd of September from 9:00 am
Institute of Physics // University of Greifswald
Felix-Hausdorff-Str. 6
17487 Greifswald

Monday 24th to Friday 28th from 8:00 am
Institute for Biochemistry // University of Greifswald
Felix-Hausdorff-Str. 4
17487 Greifswald
1st Floor – Room D 112 - D 113

Common Office

Monday 24th to Friday 28th from 8:00 am
Institute for Biochemistry // University of Greifswald
Felix-Hausdorff-Str. 4
17487 Greifswald
1st Floor – Room D 115

Conference Office

Institute for Biochemistry // University of Greifswald
Felix-Hausdorff-Str. 4
17487 Greifswald
1st Floor – Room D 112 - D 113

Services:
Registration
Payments
Oral Session (Data preparation)
Poster Session (Print)
Tour Booking
Name Badges
General Support
Video Hand Over

Payment

Please pay the conference fee at your earliest convenience. We can only provide credit card or paypal payment on-site in Greifswald. If you have problems with the payment procedure, please contact the conference office or mail to conferences@inp-greifswald.de

Conference Wi-Fi

Wi-Fi: Tagung
Password: xNZ473Wb

Conference Contact

phone: +49 3834 554 3979
mobile: +49 162 655 04 87
mail: conferences@inp-greifswald.de

Accomodation

Europa Hotel
Hans-Beimler-Straße 1-3
17491 Greifswald
Tel: (+49)3834 / 8010
Mail: info@EUROPA-HOTEL-Greifswald.de
www.europa-hotel-greifswald.de/

Mercure Greifswald (Conference Shuttle)
Am Gorzberg,
17489 Greifswald
Tel: (+49)3834 / 5440
Mail: H5388@accor.com
www.mercure.com/gb/hotel-5388-mercure-hotel-greifswald-am-gorzberg/index.shtml

Hotel Galerie
Mühlenstraße 10
17489 Greifswald
Tel: (+49)3834 / 7737830
Mail: info@hotelgalerie-greifswald.de
www.hotelgalerie.de/willkommen.html

Hotel Kronprinz
Lange Str. 22
17489 Greifswald
Tel: (+49)3834 / 7900
Mail: hotel-kronprinz@t-online.de
www.hotelkronprinz.de/en/

Hotel Adler
Hans-Fallada-Straße 4
17489 Greifswald
Tel: (+49)3834 / 77850
Mail: info@hotel-adler-garni.de
www.hotel-adler-garni.de

Hotel am Dom
Lange Str. 44
17489 Greifswald
Tel: (+49)3834 / 77850
Mail: info@hotel-am-dom-greifswald.de
www.hotel-am-dom-greifswald.de/

Conference shuttle in Greifswald

Sunday 23rd of September
8:45 am from Hotel Mercure to Conference Venue
8:15 pm from Conference Venue to Hotel Mercure

Monday 24th of September
7:45 am from Hotel Mercure to Conference Venue
8:45 pm from Conference Venue to Hotel Mercure

Tuesday 25th of September
7:45 am from Hotel Mercure to Conference Venue
9:15 pm from Museum to Hotel Mercure

Wednesday 26th of September
7:45 am from Hotel Mercure to Conference Venue
Bus shuttle from Conference Barbecue to Hotels

Thursday 27th of September
7:45 am from Hotel Mercure to Conference Venue
10:15 pm from Stadthalle to Hotel Mercure

Friday 28th of September
7:45 am from Hotel Mercure to Conference Venue
3:00 pm from Conference Venue to Wendelstein 7-X
4:30 pm from Wendelstein 7-X to Conference Venue

Bus transfer – airport

Important Note: *For using the bus shuttle, a registration and booking is mandatory.*

ARRIVAL

Bus 1-A

Saturday the 22nd of September, 6:30 pm from Berlin Südkreuz
Please use the train S45 from platform 11 – train station Berlin Schönefeld SXF to Berlin Südkreuz. (33 minutes)

The bus station is on the Hildegard-Knef-Platz directly next to the railway station

Bus 2-A

Saturday the 22nd of September, 7:00 pm
from airport Berlin Tegel (TXL)
The bus station is next to the main entrance

Bus 3-A

Sunday the 23rd of September, 3:30 pm
from airport Berlin Tegel (TXL)
The bus station is next to the main entrance

DEPARTURE

Bus 1-D

Friday the 28th of September, 1:30 pm
from conference venue to Berlin TXL
Arrival at Airport Berlin Tegel - 4:30 pm

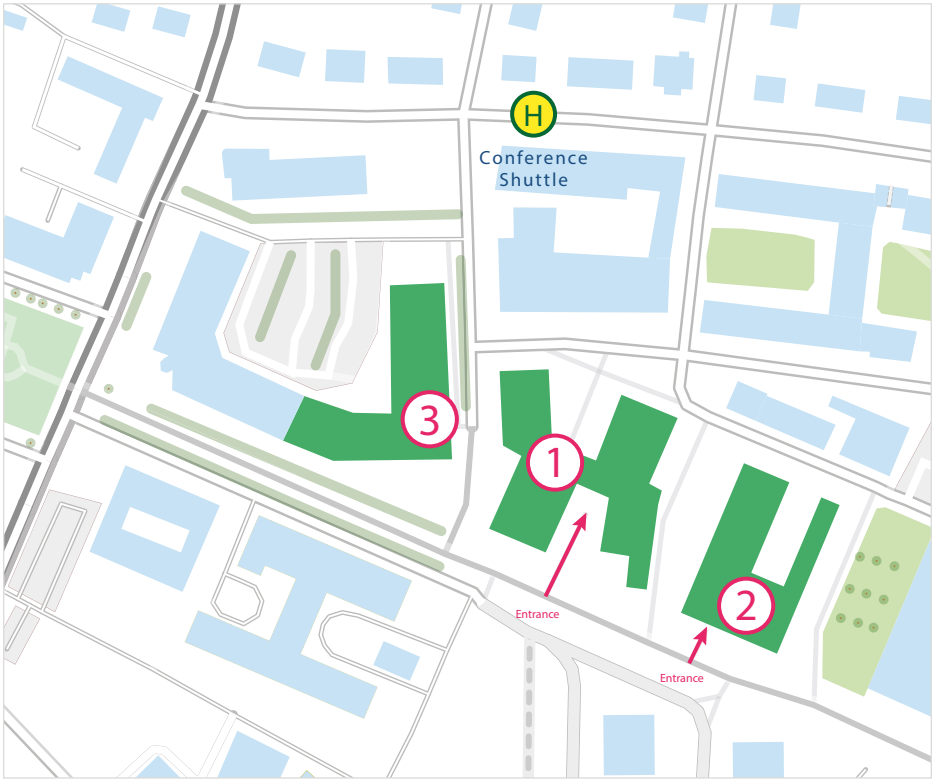
Bus 2-D

Friday the 28th of September, 4:30 pm
from Max Planck Institute (Wendelstein) to Berlin TXL
Arrival at Airport Berlin Tegel - 19:30 pm

Bus 3-D

Saturday the 29th of September, 8:30 am
from conference venue to Berlin TXL
Arrival at Airport Berlin Tegel - 11:30 am

Venue Map



1	Institute for Biochemistry
2	Institute of Physics
3	INP

City Map

1 Institute for Biochemistry

2 Institute of Physics

3 INP

4 Pommersches Landesmuseum

5 Stadthalle Greifswald

6 Europa Hotel

7 Mercure Greifswald

8 Hotel Galerie

9 Hotel Kronprinz

10 Hotel am Dom

11 Hotel Adler

Ryck
Ryck
Hafenstraße
Hafenstraße
Marienstraße
An den Wurthen
Gertrudenstr.
Hugo-Helfritz-Str.
Am Sankt Georgsfeld
Zum Ryckwäldchen
Hornschuchstr.
Wolgaster Straße
Wolgaster Straße
Wolgaster Straße
Käthe-Kollwitz-Str.
Breitscheid-Straße
Rudolf-
Schillstraße
Straße
F.-Krüger-Straße
Am Skt. Georgsfeld
Gerdingstraße
Conference Shuttle
Friedrich-Ludwig-Jahn-Str.
H
Rudolf-
Petershagen-
Allee
Johann-Stelling-Straße
Walter-Rathenau-Straße
Felix-Hausdorff Str.
3
1
2
Berthold-Beitz-Platz
Brinkstraße
Mittelstraße
Vulkanstraße
P.-Warschow-Str.
Fleischmannstraße
Bugenhagenstr.
Karl-Liebknecht-Ring
Pappelallee
Mehring-Straße
Franz-
Vulkanstraße
Straße
Straße
6
Geschwister-Scholl-Straße
Anklamer Straße
F.-Sauerbruch-Straße
Gerhardt-Katsch-Str.
P.-Uhlenhuth-Str.
Erich-Weinert-
Hans-Beimler-Straße
Karl-Krull-Straße
Makarenkostraße
Victor-Klemperer Straße
Birnenweg
Anklamer Straße
Makarenkostraße
Hoher Weg
Ernst-Thälmann-Ring
Einstein-
Einsteinstraße
Dubnaring
Kirschenweg
Kirschenweg
Lomonossowallee
Dubnaring
Rosenweg
Am Grünland
Nelkenweg
Apfelweg
Ernst-Thälmann-Ring
Fliederweg
Hans-Beimler-Straße
J.-Curie-Str.
Heinrich-Hertz-Straße
South Railway Station
Schönwalder
Landstraße
Conference Shuttle
Querfeld
Gorzberg
7
H

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.

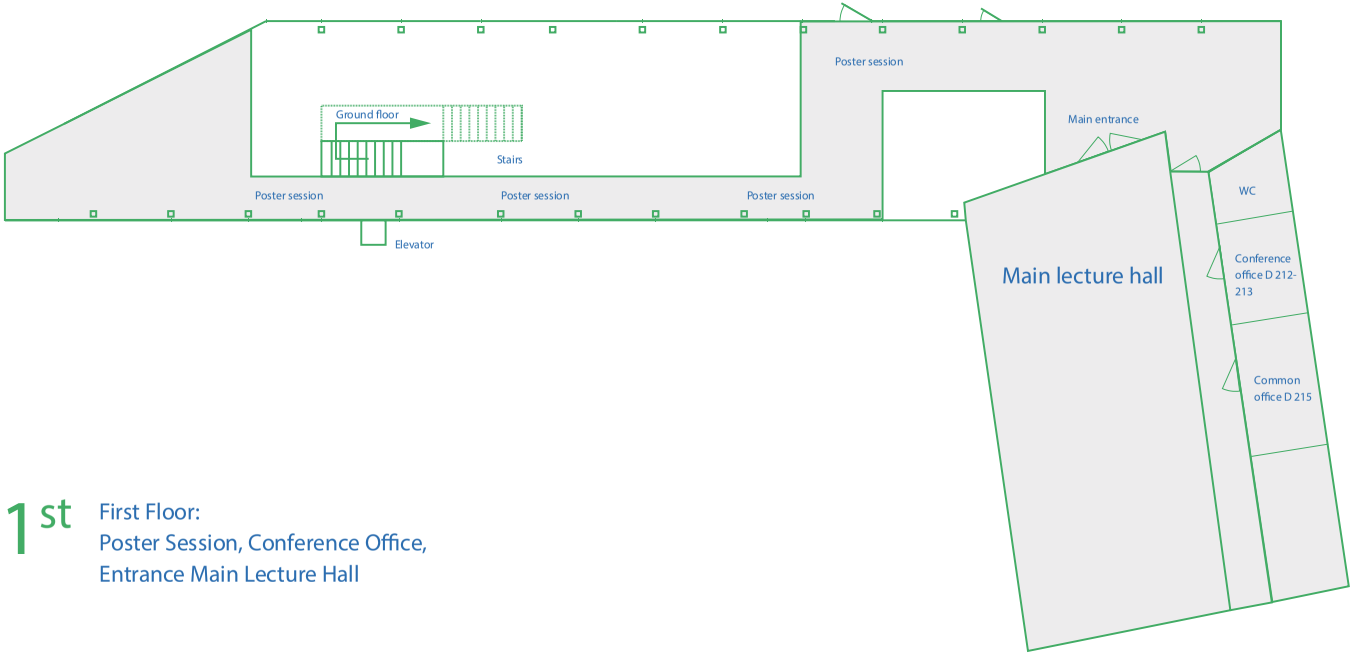
Close to the Baltic Sea, today Greifswald provides the 57.000 inhabitants and 13.000 students an hanseatic appeal and maritime lifestyle. We are pleased to welcome you and our international community in Greifswald.

Notes

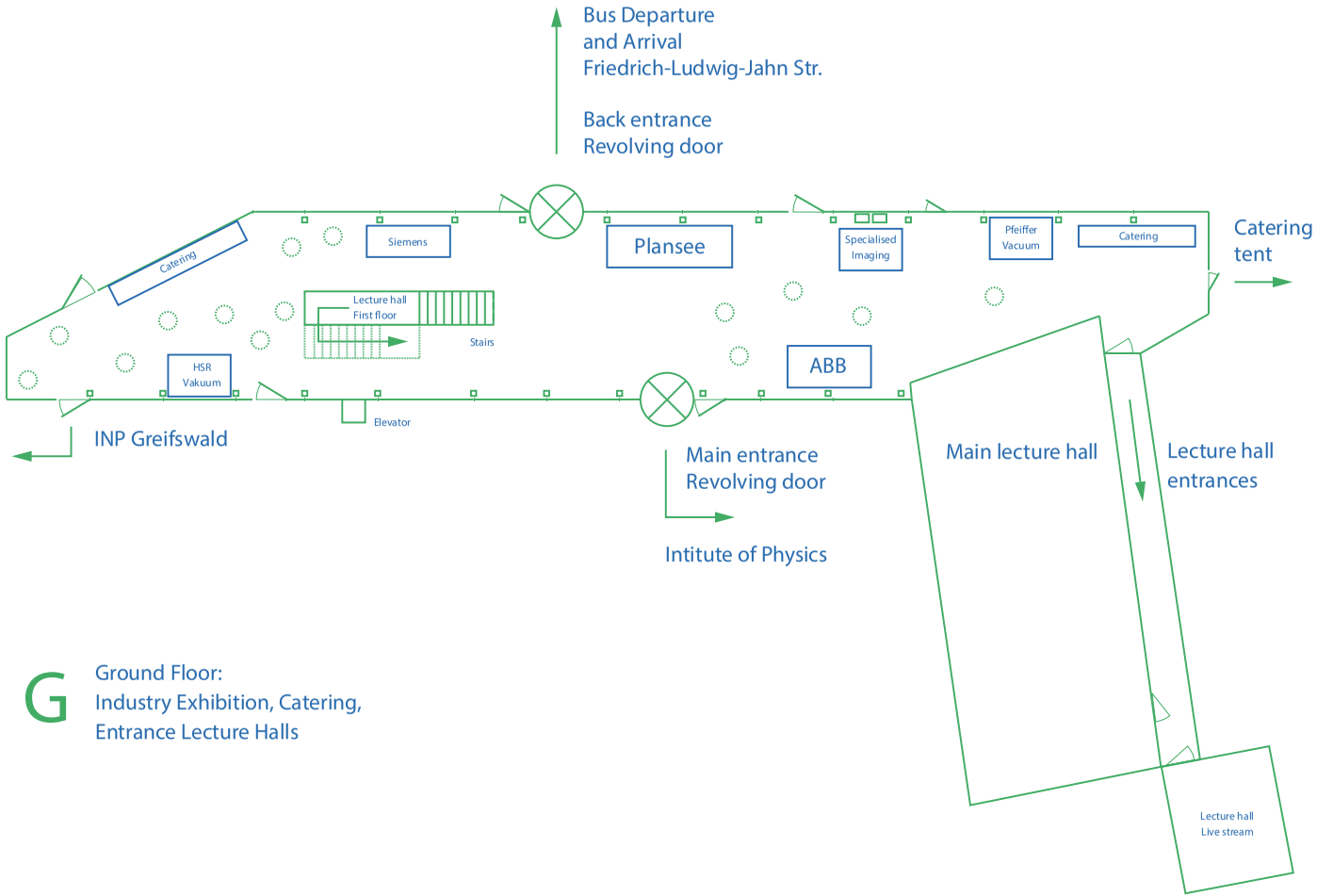
Notes

Notes

Floor Plan Conference Venue
Institute for Biochemistry



1st First Floor:
Poster Session, Conference Office,
Entrance Main Lecture Hall



G Ground Floor:
Industry Exhibition, Catering,
Entrance Lecture Halls

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