

# 19<sup>TH</sup> INTERNATIONAL CONFERENCE ON PLASMA SURFACE ENGINEERING



SEPTEMBER 2 – 5, 2024

TRADE FAIR ERFURT, GERMANY



Photo: Messe Erfurt



Photo: Stadtverwaltung Erfurt

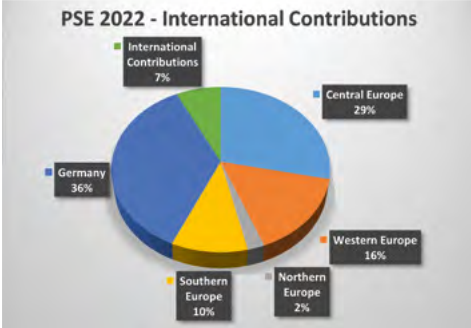


Photos: EFDS



- International Conference
- Industrial Exhibition
- International Matchmaking
- Networking & Team Building
- Education & Tutorials
- Posters & Awards





## The Exhibition

The exhibition is an important part of the conference and provides opportunities to stay informed about new developments as well as innovative products and services, discuss new ideas and cooperations with the experts and gives time to take care of customers. Exhibitors use the chance to present their products and services to the community with growing interest. In this exhibition you find providers of coating systems, components, equipment, materials, vacuum and plasma technologies, analytical measurement instruments, simulation tools, products for process automation and coating services. The exhibition will take place from September 3 – 4, 2024.

## SPONSORING

PSE conferences are supported by industrial partners faithful and continuous for many years. We would like to take the chance to say THANK YOU! Especially in these times it is important to have strong partners who appreciate and support a good conference. You will get the full pro-version of exhibitor presentation in the new conference app exclusively.

## Partner Country 2024 | AUSTRIA

Experts and interested people from Austria are especially welcome to join the conference as well as the exhibition. We will have a closer look at this country's opportunities and expertise. In cooperation with RÜBIG GmbH & Co. KG and The Austrian Society for Metallurgy and Materials – ASMET, Austrian special events like the "Partner Country Workshop", an "Austrian Exhibition Area" and a "Partner Country Session" are planned.

## Social Events & Team Building

On-site-events are very important to get to know each other, learn about issues between the lines and have the chance to get in a deeper discussion. In these conversations, ideas of new inspiring projects thrive particularly well and a personal foundation for later collaboration can be built. New team members get to know partners and can be introduced to the community. Why not bring your team along? In addition to the industrial evening and conference dinner, plan a group excursion to the Rennsteig, Wartburg Castle or the cultural city of Weimar. This will advance your team and the team spirit for the common work.

## Matchmaking

At PSE2024 an International Matchmaking is offered by Enterprise Europe Network (EEN). See who is there and arrange a personal meeting directly. The scheduled individual meetings offer an ideal opportunity to identify potential cooperation partners and to establish interesting business contacts. This offer is free of charge for participants of PSE2024.



## PSE2022 IN NUMBERS

- Nearly 500 international participants from 32 countries
- over 300 technical presentations
- Speakers from 27 countries of 4 continents
- 60 exhibitors from 15 countries
- Five Awards given to outstanding experts in the field of plasma, surface and vacuum technologies

## NEW @ PSE2024

Over the last years committees and organizers discussed frequently about new topics and services a conference should provide to get a satisfied and inspired audience. We are proud to present some new features of PSE2024:

- Visit our new comfortable website at the cutting edge of technology.
- There will be the new conference app with full program and comfortable exhibition plan as well as new features for online product presentations. The conference booklet will be available additionally.
- Posters will be available also at the website and in the conference app.
- A full buffet catering is planned including drinks and food.
- The public transport for Erfurt ticket will be included in the registration.



## The Conference

PSE Conferences are established since 1988. The event provides opportunities to present recent progress in research, development and industrial applications. Its topics span a wide range from fundamentals such as e. g., process modelling and simulations of plasmas or thin film physics, through experimental studies which establish the relationships between process parameters and the structural and functional properties of modified surfaces and/or thin films, towards applications in industrial production.

Abstract Submission @ [www.pse-conferences.net](http://www.pse-conferences.net)  
Abstract Submission Deadline: January 31, 2024

## Education & Tutorials

Here you meet well-known experts, who introduce basic knowledge and new developments and trends to the audience. During and after the tutorials you may ask your questions. The tutorials are included in the conference fee.

*"Fundamentals and Trends of Plasma Surface Engineering"*  
organized by Dirk Hegemann, Empa, Switzerland

*"Diagnostics for Plasma Technologies"*  
organized by Peter Awakowicz, Ruhr Universität Bochum, Germany

*"Fundamentals and Trends for Gas Conversion"*  
organized by Rony Snyders, UMONS, Belgium

## Workshops

Topical issues and themes particularly relevant to the industry will be covered in the PSE workshops. Abstracts can also be submitted for these topics.

### Industrial Workshop

*"Plasma Surface Engineering enabling Sustainability"*  
organized by Jörg Patscheider, Evatec AG, Switzerland

### Trend Topic Workshop

*"Hydrogen Technologies"*  
organized by Sabrina Zellmer, Fraunhofer IST, Germany

## PSE Awards 2024

At PSE 2024 outstanding researchers will be honored by the EJC/PISE with the PSE Awards. The PSE Leading Scientist Award is intended to honor a distinguished researcher with pioneering contributions in science or technology of plasma and ion surface engineering. In addition, three young researchers will be bestowed with the PSE Early Career Award for their work and engagement in the field.

## PSE CONFERENCE TOPICS 2024

- 1 Plasma and ion sources**
  - a. Low pressure plasmas and ion beams
  - b. Atmospheric pressure plasmas
  - c. Plasma volume processes
  - d. Plasmas in liquids
  - e. Particles and powders in plasmas
- 2 Process technologies**
  - a. Plasma treatment, cleaning and etching
  - b. Plasma diffusion technologies
  - c. Physical vapor deposition
  - d. Plasma-enhanced chemical vapor deposition
  - e. Atomic layer deposition and etching
  - f. Other plasma-based surface process technologies
- 3 Properties and applications**
  - a. Protective and tribological surfaces
  - b. Optical, electronic and magnetic coatings
  - c. Biomedical and agriculture applications
  - d. Batteries and green hydrogen
  - e. Gas conversion processes
  - f. Environmental applications
- 4 Characterization and simulation**
  - a. Modelling of film growth, structure and properties
  - b. Modelling and simulation of plasma processes
  - c. Plasma and process diagnostics
  - d. Analytics of film structures and properties
  - e. Artificial intelligence and predictive modelling
- 5 Industrial Workshop**  
Plasma Surface Engineering enabling Sustainability
- 6 Trend Topic Workshop**  
Hydrogen Technologies



## TEAM OF PSE2024

### PSE2024 Chairman

Prof. Holger Kersten  
Christian-Albrechts-Universität  
zu Kiel, Germany

### PSE2024 Co-Chairman

Dr. Jörg Patscheider, Evatec AG,  
Switzerland

### PSE2024 Co-Chairman Asia

Prof. Wonho Choe  
Korea Advanced Institute of Science  
and Technology (KAIST), Korea

### PSE2024 Partner Country Austria

Thomas Müller, Rübigen GmbH & Co KG,  
Austria



## LOCATION

### Trade Fair Erfurt

Messe Erfurt | Gothaer Straße 34 | 99094  
Erfurt (Thuringia) | Germany

Phone: +49 (0)361 400-3000  
[www.messe-erfurt.de](http://www.messe-erfurt.de)



## PARTICIPANT REGISTRATION

### Full Conference Ticket

(including all workshops and tutorials)  
Standard 990 EUR  
Early Bird 850 EUR  
Student 455 EUR

### One-Day Conference Ticket

Standard 455 EUR

### Trend Workshop Ticket

Standard 290 EUR

Admission includes catering, conference  
material and public transport.  
All tickets are free of VAT.

The registration through the PSE2024 website  
will open in spring 2024.

## COMMITTEES

- European Joint Committee on Plasma and Ion Surface Engineering EJC/PISE
- International Program Committee
- Advisory Board

## PSE2024 EXHIBITION

Booth Variant 1 (6m2) | 4.170 EUR Basic Package

Booth Variant 2 (6 m2) | 3.810 EUR Basic Package

The registration is open.  
Detailed information at PSE website.



## ORGANIZER

### European Joint Committee on Plasma and Ion Surface Engineering

EJC/PISE Chairman  
Prof. Michael Thomas  
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## CONFERENCE MANAGEMENT

### European Society of Thin Films EFDS

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Web: [www.efds.org](http://www.efds.org)

## IMPORTANT DATES

Abstract Submission Deadline  
January 31, 2024

PSE Award Recommendation Deadline  
January 31, 2024

Exhibition Registration Deadline  
April 30, 2024