Call for Papers

The 40th European Mask and Lithography Conference

EMLC 2025



Hilton Hotel Dresden, Germany • June 16-18, 2025

The VDE/VDI-Society Microelectronics, Microsystems and Precision Engineering (GMM) in cooperation with BACUS, PMJ, and SPIE are pleased to announce the

40th European Mask and Lithography Conference, EMLC 2025 at Hilton Hotel in Dresden, Germany, June 16 – 18, 2025

The focus of the 2½ day conference is state-ofthe-art of mask technology and lithography, such as mask manufacturing and applications, mask business, DUV and EUV lithography and mask applications, emerging mask and lithography technologies, as well as mask and lithography equipment.

This conference annually brings together scientists, researchers, engineers and developers from around the world to present papers at the forefront of research, manufacturing and application. It provides a place where both specialists from industry and advanced research as well as equipment and software providers become acquainted with new developments and results.

Tutorials

On Monday, June 16th, the conference offers tutorials on relevant [aktuelle] topics. Tutorials are included in the conference fee.

Technical Exhibition

On Tuesday and Wednesday (June 17th and 18th, 2025) there will be a technical exhibition with booth space for about 30 exhibitors. Please register at the EMLC website at www.emlc-conference.com.

Abstract and Manuscript Information

Experts from industry and research institutes wishing to present the results of their recent research are cordially invited to submit a paper. Accepted submissions will be presented in either oral or poster sessions.

Please submit a PDF formatted abstract in English with a length of two pages (400 – 600 words) including figures, tables & references showing summary, motivation, approach and results. The paper should be headed by title, authors' names and affiliations.

Abstracts with no new research/development or commercial content will not be accepted.

All accepted abstracts (i.e. the 2-page PDF file) will be made available in digital form to the conference participants, one week prior to the conference start.

EMLC is cooperating with SPIE and uses the SPIE tool for abstract submission and reviewing.

After acceptance of the abstract, authors are invited to submit a manuscript for the SPIE Proceedings of the EMLC 2025 Conference. By submitting your manuscript, the SPIE Copyright agreement is accepted.

In order to submit your abstract to the SPIE tool, please find instructions at www.emlc-conference.com.

Important Dates

27 January 2025...submission of abstracts14 April 2025...... notification of acceptance25 June 2025...... submission of manuscripts

www.emlc-conference.com

VDE VDI GMM

Conference Topics

Mask Manufacturing and Mask Business

- Photomasks and EUV masks
- Mask Data Preparation
- Pattern Generation: Laser and Electron single & multi-beam mask writing
- Photomask Processes & Materials inc. cleaning
- Defect Inspection & Repair
- Mask Handling, Pellicles & Mask Boxes
- Mask Process Yield & Cycle Time
- Mask Business & Future Mask Demand
- Curvilinear mask: data preparation, patterning & metrology

Lithographic Systems and Processes

- i-line, DUV, Immersion, EUV exposure systems
- Optical resolution enhancement techniques including OPC, free-form illumination, Source-Mask-optimization (SMO), Inverse Lithography Technology (ILT) and Al enhancement
- Material- and process driven Resolution Enhancement techniques including new resist developments, Multiple Patterning and Chemical Shrinking
- Lithography process control & pattern fidelity
- Computational lithography and etch-simulation, inverse lithography technology (ILT)
- Sustainability

Emerging Mask and Lithography Technologies

- High- and Hyper-NA EUV-Lithography including Masks, Materials Processes and Infrastructure.
- Future light sources
- Directed Self-Assembly (DSA) including High Chi Materials, Defectivity Control and new Processes
- Direct Write / Maskless Technologies including Laser and electron Multi-Beam Technologies
- Nano-Imprint Lithography (NIL), Soft Lithography and Microprinting
- Two-photon lithography

Metrology Tools and Technologies for Mask and Lithography Processes

Emerging Applications

- Non-IC Applications including Si-photonics, bio and life science applications, flat panel displays & MEMS, fabrication of metasurfaces, VR/AR
- Lithography for Quantum Technology
- Lithography for future Al
- Advanced packaging
- 3D patterning & integration incl. backsite patterning

The EMLC 2025 International Program Committee

Conference Chairs

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EMLC 2025 Organizer

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