

Organizers

VDE/VDI-Society Microelectronics,
Microsystems- and Precision Engineering (GMM)

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In cooperation with:

UBC Microelectronics

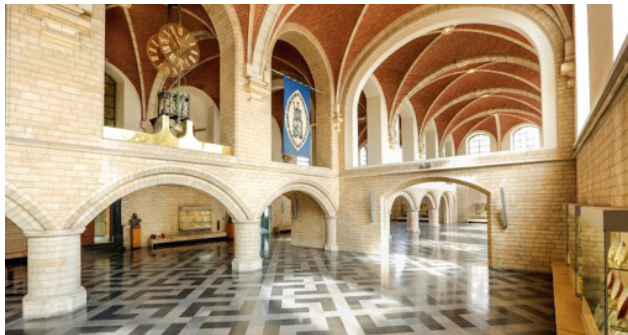
Dr. Uwe Behringer
EMLC 2020 Conference Chair

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Venue



KU Leuven, Belgium (© KU Leuven)



Jubilee Hall for Poster Session and Exhibition (© KU Leuven)

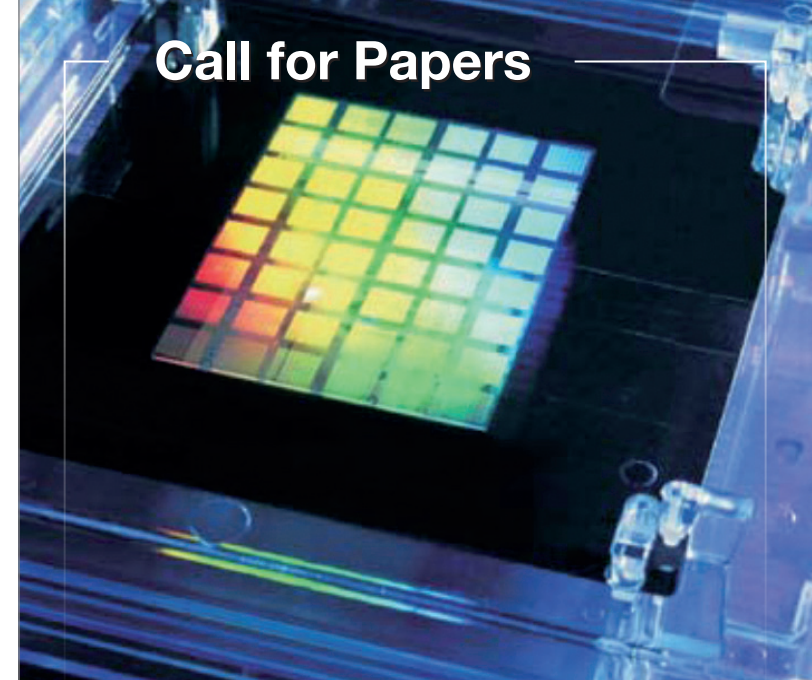
The EMLC 2020 International Program Committee

- Conference Chairs *Behringer, Uwe*, UBC Microelectronics, Ammerbuch, Germany
Finders Jo, ASML, Veldhoven, The Netherlands
- Conference Co-Chairs *Connolly, Brid*, Toppan Photomasks, Dresden, Germany
Gale, Chris, Applied Materials, Dresden, Germany
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- Program Chairs *Stolberg, Ines*, Vistec Electron Beam, Jena, Germany
Erdmann, Andreas, Fraunhofer IISB, Erlangen, Germany
Loeschner, Hans, IMS Nanofabrication, Vienna, Austria
- Program Co-Chairs *Peters, Jan Hendrik*, bmbg Consult, Radebeul, German
Sarlette, Daniel, Infineon, Dresden, Germany

Other Members

Ehrmann, Albrecht, Carl Zeiss SMT, Oberkochen, Germany
Farrar, Dave, Hoya Corporation, London, UK
Galler, Reinhard, Equicon, Jena, Germany
Le Gratiet, Bertrand, STMicroelectronics, Crolles, France
Levinson, Harry J., HJL Lithography, Saratoga, CA, USA
Muehlberger, Michael, Profactor, Steyr-Gleink, Austria
Pain, Laurent, CEA-LETI, Grenoble, France
Ronse, Kurt, IMEC, Leuven, Belgium
Savari, Serap, Texas A&M University College Station, USA
Scheruebl, Thomas, Carl Zeiss SMT, Jena, Germany
Schnabel, Ronald, VDE/VDI-GMM, Frankfurt am Main, Germany
Schulze, Steffen, Mentor Graphics Corp., Wilsonville, OR, USA
Seltmann, Rolf, Dresden Germany
Tschinkl, Martin, AMTC, Dresden, Germany
Waelpoel, Jacques, ASML, Veldhoven, The Netherlands
Wiley, Jim, Santa Clara, CA, USA
Wolf, Hermann, Photonics MZD, Dresden, Germany
Wurm, Stefan, ATICE LLC, Albany, NY, USA
Yoshitake, Shusuke, NuFlare Technology, Yokohama, Japan
Zurbrick, Larry, Keysight Technologies, Santa Clara, CA, USA

Cover picture:
Courtesy of Toppan Photomasks



Call for Papers

The 36th European
Mask and Lithography
Conference

EMLC 2020

June 22 – 24, 2020
KU Leuven, Belgium

www.emlc-conference.com



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

36th European Mask and Lithography Conference, EMLC 2020 KU Leuven, Belgium June 22 - June 24, 2020

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

This conference has annually brought 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.

Conference Schedule

The conference will be opened on Monday, June 22nd, 2020 with a Tutorial at 02:00 PM following a Get Together and a Poster Session at 07:00 PM. On Tuesday, June 23rd, 2020 the conference will be continued at 09:00 AM and the scheduled end of the conference will be at 06:30 PM on Wednesday, June 24th, 2020.

The conference dinner will be held at the Faculty Club located in the magnificent Great Beguinage of Leuven, a UNESCO World Heritage, on Tuesday evening.

Technical Exhibition

On Tuesday and Wednesday (June 23rd and 24th, 2020) there will be a technical exhibition with booth space for about 30 exhibitors. Presentation tables and pin boards will be available. To take part in this Technical Exhibition, please return the **en-closed registration form** to the Conference Exhibition Organization as soon as possible, since exhibition space is limited.

Exhibition Organization

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Abstract Information

Abstract quality will be the basis for selection of conference presentations. The abstracts will be assessed for:

- Originality of work
- Specific results reported
- Potential impact and interest to the attendees.

Therefore, we highly recommend that your abstract contains enough detail to clearly describe the content of your presentation. We recommend an abstract length of **two pages** (including figures, diagrams, formatted text) as Word-doc and PDF.

Commercial papers and papers with no new research / development content will not be accepted.

In order to submit your abstract to SPIE, please open the website www.emlc-conference.com

▪ **Deadline for Abstracts: Friday, April 17th, 2020**

By submitting an abstract you agree to:

- present your work in person at the conference
- and to submit a manuscript and/or your presentation materials in time.

Authors will be notified of the acceptance of their submissions **by Friday, May 8th, 2020**; further manuscript format and layout instructions will be provided at that time.

Please note that we plan to have oral and poster presentations.

Deadline for submission of your manuscripts to SPIE: July 3rd, 2020.

Authors whose abstracts are accepted for presentation at the EMLC 2020 Conference will be asked by SPIE to provide a manuscript for publication in the SPIE Proceedings (published in the SPIE Digital Library).

PDF files of presentation materials, submitted by **Friday, July 31st, 2020** to VDE/VDI-GMM (gmm@vde.com) will be made available to the participants of the conference.

For further information concerning the submission procedure, please visit our homepage www.emlc-conference.com

Important dates:

Deadline for the

- submission of abstracts:April 17th, 2020
- submission of manuscripts to SPIE:July 3rd, 2020
- submission of presentation materials:....July 31st, 2020

Conference Topics

Mask Manufacturing and Mask Business

- Mask Data Preparation
- Pattern Generation: Writing (incl. Multi-Beam), Etch, etc.
- Photomask Processes & Materials
- Metrology Tools & Technologies
- Defect Inspection & Repair
- Cleaning & Haze
- Pellicles & Mask Boxes
- Mask Process Yield & Cycle Time
- Photomasks for RET (OPC, ILT) ; PSM
- Mask Business and Management
- Mask Cost and Mask Development Strategy
- Future Mask Demand

Lithographic Systems and Processes

- Resolution Enhancements Techniques (RET) including Optical Proximity Correction (OPC), Freeform Illumination, Source-Mask-Optimization (SMO) and Inverse Lithography Technology (ILT)
- Material- and Process driven Resolution Enhancements including Multiple Patterning and Chemical Shrinking
- Immersion Lithography including Defectivity
- Lithography Process Control
- Lithography and Etch Simulation including rigorous physical/chemical Models and Compact Models

Emerging Mask and Lithography Technologies

- EUV-Lithography including Masks, Materials Processes and Infrastructure.
- Direct Write/Maskless Technologies including Multi-Beam Technologies
- Nano-Imprint Lithography (NIL), Soft Lithography and Microprinting
- Application of Artificial Intelligence including Deep Learning in Lithography

Emerging Applications

- Non-IC Applications including Si-Photonics, Flat Panel Displays and MEMS/MOEMS
- Lithographic Systems for non-IC Applications, including Laser Direct Write, Interference Lithography, and Mask Aligners