

# EMLC - Online Event 2021

36<sup>th</sup> European Mask and Lithography Conference

**Tuesday, June 22<sup>nd</sup>, 2021**

**Live PANEL SESSIONS with Live Q&A**

Panel Session timing is chosen in order to allow live participation worldwide as much as possible.

After the event, Panel presentation slides will be uploaded to: [www.emlc-conference.com](http://www.emlc-conference.com)

Video movies of the Panel Sessions will be uploaded to: [www.vistec-semi.com](http://www.vistec-semi.com)

Panel Session times are indicated in the Central European Summer Time (CEST) zone.

## 08:00 – 11:00 PART 1

Pacific Time	Eastern Time	Ireland UK	CEST Israel	Russia Turkey	China Taiwan	Korea Japan
start: June 21 <sup>st</sup> 11:00 PM	start: June 22 <sup>nd</sup> 02:00 AM	start: June 22 <sup>nd</sup> 07:00 AM	start: June 22 <sup>nd</sup> 08:00 AM	start: June 22 <sup>nd</sup> 09:00 AM	start: June 22 <sup>nd</sup> 02:00 PM	start: June 22 <sup>nd</sup> 03:00 PM

### 08:00 CEST

 [hopin](https://hopin.com) meeting is opened by VDE-GMM meeting host Ms Hatice Altintas.

In case of questions, contact Ms Claudia Braeuer: [claudia.braeuer@vde.com](mailto:claudia.braeuer@vde.com)

### 08:05 – 08:15



**Welcome by Uwe Behringer / UBC, EMLC 2021 Chair**

### 08:15 – 09:30 1<sup>st</sup> EMLC 2021 PANEL on EUV LITHOGRAPHY



Panel Chair: Jo Finders / ASML (The Netherlands)



Panel Co-Chair: Albrecht Ehrmann / Carl Zeiss SMT (Germany)

PANEL TOPIC: EUV Lithography towards 2030.



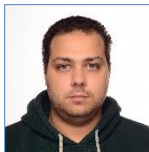
PANELIST: Gijbert Rispen / ASML (The Netherlands)  
*EUV system engineering imaging and resist*



PANELIST: Ardavan Niroomand / IMEC (Belgium)  
*Program director for ASML/IMEC Advanced Patterning Center*



PANELIST: Heiko Feldmann / Carl Zeiss SMT (Germany)  
*Head of Roadmap, initiating technology and product developments for semiconductor manufacturing equipment*



PANELIST: Hazem Mesilhy / Fraunhofer IISB (Germany)  
*PhD student / researcher, computational lithography, High-NA EUV, mask 3D, optical simulations, multi-objective optimization*



PANELIST: Renzo Capelli / Carl Zeiss SMS (Germany)  
*System Engineering, ZEISS Semiconductor Mask Solutions (SMS), EUV mask metrology*

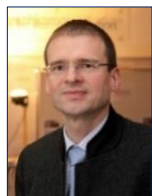


PANELIST: Jan van Schoot/ASML (The Netherlands)  
*Director EUV System Engineering*

**09:30 – 11:00 2<sup>nd</sup> EMLC 2021 PANEL on EUV MASK TOPICS**



Panel Chair: Jan Hendrik Peters / BMBG Consult (Germany)



Panel Co-Chair: Martin Tschinkl / TOPPAN Europe (Germany)

PANEL TOPIC: Readiness of the mask and lithography infrastructure for current and future EUV (phase shift masks and anamorphic) and suitable tools for mask making in EUV



PANELIST: Tilmann Heil / Carl Zeiss SMS (Germany)  
*Mask Repair; Mask Qualification; EUV: scaling for advanced nodes, High NA, phase shifting masks*



PANELIST: Eelco van Setten / ASML (The Netherlands)  
*EUV imaging - specifically High-NA, mask contribution to imaging or EPE*



PANELIST: Takahiro Onoue / HOYA (Japan)  
*EUV materials, especially PSM, transparent backside*



PANELIST: Kei Hattori / SHIBAURA (Japan)  
*EUV clean and etch, material properties, layout requirements*



PANELIST: Joost Bekaert / IMEC (Belgium)  
*Stitching and black borders, CNT pellicle, contour metrology, OPC*



PANELIST: Don Gun Lee / ESOL (South Korea)  
*EUV phase shift measurements, microscope, pellicle transmission*

**11:00 – 14:30 CASUAL MEETINGS during the BREAK**

Between the morning and afternoon session you have the possibility to casually meet with your peers in the [meeting space](#) wonder.me provided by the conference committee.

Just join with audio and video connected, move around and join in small discussion circles. You will be automatically placed in a zoom like video chat with your colleagues within these circles.

**14:30 – 17:30 PART 2**

<b>Pacific Time</b> start: June 22 <sup>nd</sup> 05:30 AM	<b>Eastern Time</b> start: June 22 <sup>nd</sup> 08:30 AM	<b>Ireland UK</b> start: June 22 <sup>nd</sup> 01:30 PM	<b>CEST Israel</b> start: June 22 <sup>nd</sup> 02:30 PM	<b>Russia Turkey</b> start: June 22 <sup>nd</sup> 03:30 PM	<b>China Taiwan</b> start: June 22 <sup>nd</sup> 08:30 PM	<b>Korea Japan</b> start: June 22 <sup>nd</sup> 09:30 PM
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**14:30 CEST** [hopin](#) meeting is opened by VDE-GMM meeting host Ms Hatice Altintas.

In case of questions, contact Ms Claudia Braeuer: [claudia.braeuer@vde.com](mailto:claudia.braeuer@vde.com)

14:35 – 14:45



Welcome by Uwe Behringer / UBC, EMLC 2021 Chair

14:45 – 16:00 **3<sup>rd</sup> EMLC 2021 PANEL on MANUFACTURING DATA ANALYTICS**



Panel Chair: Bertrand Le Gratiot / ST Microelectronics (France)

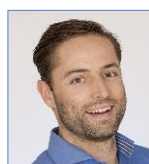


Panel Co-Chair: Serap Savari / Texas A&M University (USA)

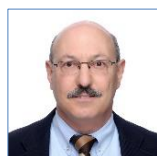
PANEL TOPIC: Turning Data into Silicon: The Digital Transformation of the Wafer Fabrication Processes



PANELIST: Philippe Leduc / STMicroelectronics (Singapore)  
*Principal Engineer in Applied Mathematics & Scientific Computing,  
Technical advisor for the Manufacturing Data Analytics program*



PANELIST: Benjamin Lenz / Infineon (Germany)  
*Infineon Technologies AG Head of Operations AI and Analytics*



PANELIST: Harry J Levinson / HJL Lithography (USA)  
*HJL lithography, LLC provides consulting and training services in lithography and lithography process control*



PANELIST: Jelle Nije / ASML (The Netherlands)  
*Sr product manager, Advanced Analytics portfolio enabling fast time to insight and optimize decision making*

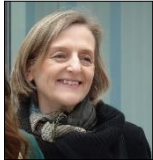


PANELIST: Clemens Utzny / KLA - QONIAC (Germany)  
*Qoniac provides revolutionary lithography & patterning optimization for the semiconductor industry*

**16:00 – 17:15 4<sup>th</sup> EMLC 2021 PANEL on CAREER OPTIONS for YOUNG SCIENTISTS in the SEMICONDUCTOR LITHOGRAPHY INDUSTRY**



Panel Chair: Andreas Erdmann / Fraunhofer IISB (Germany)



Panel Co-Chair: Ines Stolberg / Vistec Electron Beam (Germany)

PANEL TOPIC: Career opportunities for university young scientists and engineers in semiconductor lithography and mask industry



PANELIST: Rene Carpaij / ASML (The Netherlands)  
*Group Lead EUV Imaging*



PANELIST: Jan Hoentschel / GLOBALFOUNDRIES (Germany)  
*Director Integration & Technology*



PANELIST: Bertrand Le Gratiet / STMicroelectronics (France)  
*Fellow Lithography / Metrology*



PANELIST: Hans-Jürgen Stock / Synopsys Munich (Germany)  
*Manager Research and Prototyping*



PANELIST: Michael Woittennek / X-Fab (Germany)  
*Manager Process Engineering*



PANELIST: Holger Jennewein / Carl Zeiss SMT (Germany)  
*Director Optics Metrology*

17:15 – 17:30 Final Remarks by Uwe Behringer / UBC, EMLC 2021 Chair



and

Announcement of EMLC 2022 conference at KU Leuven, Belgium,  
Monday, June 20<sup>th</sup> - Wednesday, June 22<sup>nd</sup>, 2022, and (optional)  
Visit at IMEC on Thursday, June 23<sup>rd</sup>, 2022

## Co-operation Partners



## Sponsors of the EMLC 2021

