EMLC - Online Event 2021

36th European Mask and Lithography Conference

Tuesday, June 22nd, 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
Video movies of the Panel Sessions will be uploaded to: www.vistec-semi.com

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

08:00 – 11:15 **PART 1**

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

08:00 CEST

meeting is opened by VDE-GMM meeting host Ms Hatice Altintas.
In case of questions, contact Ms Claudia Braeuer: claudia.braeuer@vde.com

08:05 – 08:15

Welcome by Uwe Behringer / UBC, EMLC 2021 Chair

08:15 – 09:30 **1st EMLC 2021 PANEL on EUV LITHOGRAPHY**

Panel Chair: Jo Finders / ASML (The Netherlands)

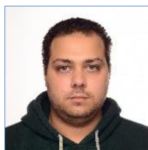
Panel Co-Chair: Albrecht Ehrmann / Carl Zeiss SMT (Germany)

PANEL TOPIC: EUV Lithography towards 2030.

PANELIST: Gijsbert Rispens / 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 – 09:45 ***Break***

09:45 – 11:15 **2nd 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 SMT (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, CNP pellicle, contour metrology, OPC

PANELIST: Dong Gun Lee / ESOL (South Korea)
EUV phase shift measurements

11:15 – 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 – 17:45 PART 2

Pacific Time	Eastern Time	Ireland UK	CEST Israel	Russia Turkey	China Taiwan	Korea Japan
start: June 22nd 05:30 AM	start: June 22nd 08:30 AM	start: June 22nd 01:30 PM	start: June 22nd 02:30 PM	start: June 22nd 03:30 PM	start: June 22nd 08:30 PM	start: June 22nd 09:30 PM

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

14:35 – 14:45

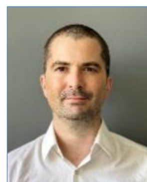
Welcome by Uwe Behringer / UBC, EMLC 2021 Chair

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

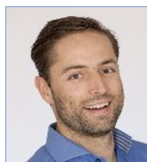
Panel Chair: Bertrand Le Gratiet / ST Microelectronics (France)

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

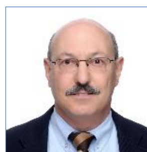
PANEL TOPIC: Turning Data into Silicon: The Digital Transformation of the Wafer Fabrication Processes



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

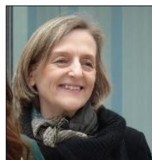
PANELIST: Jelle Nije / ASML (The Netherlands)
Sr product manager, Advanced Analytics portfolio enabling fast time to insight and optimize decision making

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

16:00 – 16:15 ***Break***

16:15 – 17:30 **4th EMLC 2021 PANEL on CAREER OPTIONS for YOUNG SCIENTISTS in the SEMICONDUCTOR LITHOGRAPHY INDUSTRY**

Panel Chair: Andreas Erdmann / Fraunhofer IISB (Germany)
Head of Frauhofer IISB lithography and optics group



Panel Co-Chair: Ines Stolberg / Vistec Electron Beam (Germany)
Manager Sales & Marketing

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 Operations

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

17:30 – 17:45 Final Remarks by Uwe Behringer / UBC, EMLC 2021 Chair

- **Announcement of SPIE Photomask Technology ('BACUS') 2021**
- **Announcement of PMJ (PhotoMask Japan) 2022**
- **Announcement of EMLC 2022 conference at KU Leuven, Belgium, Monday, June 20th - Wednesday, June 22nd, 2022, and (optional) Visit at IMEC on Thursday, June 23rd, 2022**

Co-operation Partners

Sponsors of the EMLC 2021