International Workshop on

Advanced Patterning Solutions

International Workshop on Advanced Patterning Solutions
国际先进光刻技术研讨会

October 18-19, 2018, DoubleTree by Hilton Hotel Xiamen-Haicang, Xiamen, China

2018 年 10 月 18 日至 19 日，厦门海沧正元希尔顿逸林酒店

Agenda

Program Chairs: Yayi Wei, Kafai Lai, Ted Liang

Registration		
17 Oct. 2018	**09:00-18:00**	**@酒店大厅 The hotel lobby**
18-19 Oct. 2018	**08:00-17:00**	**@酒店大厅 The hotel lobby**

DAY 1: **18 Oct., 2018 (Thursday)** **Wanyue Room, DoubleTree by Hilton Hotel Xiamen-Haicang** **万悦厅，厦门海沧正元希尔顿逸林酒店**	
DAY 1–Morning	
08:30-08:50	**Opening Ceremony (Chair: Yayi Wei)**
	Welcome address
08:50-10:20	**Plenary Section (Chair: Ted Liang)**
	5 minutes Q&A for each talk
08:50-09:35	**Mark C. Phillips (Intel Corporation):** Lithography and metrology for future process nodes
09:35-10:20	**Heike Riel (IBM T.J. Watson Research Center):** Towards Next Generation of Computing
10:20-10:50	**Group Photo & Coffee Break**
10:50-12:00	**Enabling Technology Section (Chair: Kafai Lai 黎家辉)**
	5 minutes Q&A for each talk
10:50-11:25	**Wim de Boeij (ASML):** Immersion and dry scanner innovations to support next generation device nodes
11:25-12:00	**Gandharv Bhatara (Mentor Graphics):** Enabling efficient IC Lifecycle Development at Advanced Technology Nodes with the Calibre Platform

12:00-13:30	**Lunch**
DAY 1-Afternoon	
13:30-15:15	**Computational Lithography Section (Chair: Yaobin Feng 冯耀斌)**
	5 minutes Q&A for each talk
13:30-14:05	**Yu Cao (Brion):** New Trends in Computational Lithography – Data, Algorithms, and Applications
14:05-14:40	**Yongdong Wang (Synopsys):** Achieving the Best Quality Masks with Neural Networks
14:40-15:15	**Qiang Wu 伍强 (ICRD):** The variables and invariants in the evolution of logic photolithography process
15:15-15:35	**Coffee Break**
15:35-17:20	**Mask Section (Chair: Lifeng Duan, 段立峰)**
	5 minutes Q&A for each talk
15:35-16:10	**Chris Progler (Photronics):** Progress in ArF and EUV Mask Technology
16:10-16:45	**Tom Obayashi (Toppan):** Toppan Advanced Photomask Technology
16:45-17:20	**Thomas Scherübl (Carl Zeiss):** Aerial Imaging Technology for EUV Mask Making
19:00-21:00	**Banquet**
Day 2: **19 Oct., 2018 (Friday)** **Wanyue Room, DoubleTree by Hilton Hotel Xiamen-Haicang** **万悦厅，厦门海沧正元希尔顿逸林酒店**	
DAY 2–Morning	
08:30-10:15	**Material Section (Chair: Zhibiao Mao 毛智彪)**
	5 minutes Q&A for each talk
08:30-09:05	**Toru Kimura (JSR):** Advanced Lithography Material Status toward 5nm Node and beyond
09:05-09:40	**Zhijian (George) Lu (吕志坚) (DowDuPont Inc.):** Advanced photoresist technology
09:40-10:15	**Chi-I Lang (Applied Materials):** Materials Enabled Patterning
10:15-10:35	**Coffee Break**

10:35-12:20	**Simulation and Optimization Section (Chair: Qiang Wu 伍强)**
	5 minutes Q&A for each talk
10:35-11:10	**Will Conley (Cymer):** Simulation and experimental studies on imaging impact of light source bandwidth
11:10-11:45	**Yanqiu Li 李艳秋 (Beijing Institute of Technology 北京理工大学):** Co-design and optimization for advanced lithography
11:45-12:20	**Gonzalo R. Arce (Univ. of Delaware):** Fast Lithographic Source Optimization based on Compressive Sensing
12:20-13:40	**Lunch**
DAY 2-Afternoon	
13:40-15:10	**Inspection and Metrology Section (Chair: Yanqiu Li 李艳秋)**
	5 minutes Q&A for each talk
13:40-14:15	**Satya Kurada (KLA-Tencor):** Discovery at the Speed of Light: Optical Inspection for Process Optimization
14:15-14:50	**Barak Bringoltz (Nova Measuring Instruments):** Using machine learning techniques in optical CD metrology
14:50-15:10	**Bi-Qiu (Dylan) Liu 刘必秋 (HLMC):** Addressing lithography challenges with advanced in-line overlay control to enable 14nm and beyond technology
15:10-15:30	**Coffee Break**
15:30-16:45	**Equipment Section (Chair: Jin Li 李劲)**
	5 minutes Q&A for each talk
15:30-16:05	**Hiromitsu Maejima (Tokyo Electron Limited):** Latest Coater/Developer System for Future Demand
16:05-16:25	**Sophia Hu 胡雅惠 (Gigaphoton Inc.):** Reliability improvement measure and its availability impact analysis for cutting-edge ArFi Light source
16:25-16:45	**Keita Sakai (Canon):** High Volume Semiconductor Manufacturing using Nanoimprint Lithography
16:45-17:00	**Closing Plenary Address (Ted Liang)** **闭幕致辞 (Ted Liang)**

Parallel Session 并行报告会场
19 Oct., 2018 (Friday) -Afternoon
No. 10-11 Room, DoubleTree by Hilton Hotel Xiamen-Haicang
第 10-11 会议室，厦门海沧正元希尔顿逸林酒店

13:40-15:10	**Promising Technology Section 1 (Chair: Kafai Lai 黎家辉)**
	5 minutes Q&A for each talk
13:40-14:10	**Shisheng Xiong (Fudan University 复旦大学):** Directed self-assembly of block copolymers for sub-10nm fabrication
14:10-14:40	**David Wang (Mentor):** Design to Silicon: Integrated RET platform to solve patterning challenges in semiconductor memory fabrication
14:40-15:10	**Zongsong Gan (Huazhong University of Science and Technology):** Three-dimensional nanolithography by overcoming the optical diffraction limit
15:10-15:30	**Coffee Break**
15:30-16:50	**Promising Technology Section 2 (Chair: Recoo Zhang 张立国)**
	5 minutes Q&A for each talk
15:30-15:50	**Mark Neisser (Kempur Microelectronics):** The 2017 IRDS Lithography Roadmap
15:50-16:10	**Huiling Zhu (Energetiq Technology):** Laser-Driven Light Sources for Nanometrology Applications
16:10-16:30	**Chenghao Xiang (Hamamatsu Photonics):** Optical Solutions of Inspection, Metrology and Monitoring to improve yield and accuracy for semiconductor processes
16:30-16:50	**Xing-Yu Zhou (Tongji University 同济大学):** Hotspot Detection of Semiconductor Lithography Circuits Based on Convolutional Neural Network
16:50-17:00	**Closing Plenary Address (Kafai Lai)** **闭幕致辞 (Kafai Lai)**