Learn about the latest challenges of EUVL and how we will address them in the EUVL Workshop next week –
now held online

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EUVL is in fabs making leading edge products, and the number of advanced layers that EUVL is being used for continues to grow. Like any leading-edge technology, it has many challenges to solve and people want to know what is the latest, and how we will get to the next node to keep moving forward with Moore's Law. At the 2020 EUVL Workshop, now being held online June 7–11, you can find answers to these questions. In this blog, I will summarize what you can expect to learn there.

There are five keynote talks from technology leaders this year:

- Steven Carson of Intel will tell us about technology status of EUVL at 0.33 NA and challenges ahead. I always count on Intel's perspective for an objective evaluation of EUVL status.
- Nak Seong will tell us how ASML plans to continue improving its EUVL scanner to continue to enable increasingly lower k1 values, so that we can print smaller and smaller features with a given scanner.
- Emily Gallagher of IMEC will talk about the role materials will play in the success of EUVL.
- Tim Weidman of LAM will go over the lithographic performance of a new, entirely dry EUV photoresist platform. As the challenges of stochastics grow, this new approach to resist technology may open the door to extending EUVL to 2nm and beyond!
- The keynote session will end with a talk on the role of Deep Learning for Sciences by Prabhat of LBL. Deep learning has revolutionized the fields of Computer Vision, Speech Recognition and Robotics, and I will enjoy learning about this new field.

Overall, I'm looking forward to a great keynote session!

In addition to the keynotes, the Workshop offers many exciting papers. The gathering begins with a showcase session on leading EUVL research at CXRO, co-organizer of the Workshop. There will be ten presentations on leading mask, resist, metrology and material research in a session co-chaired by Patrick Naulleau and Isvar Cordova of CXRO. The next session focuses on EUV masks. Topics that include defect reduction, PSM, new absorber materials, stochastics modeling, mask metrology and contamination will be given by AMAT, Veeco, Synopsys, Hanyang University, E-sol and Hyogo University.

We also have a very nice EUV source session with an update by Gigaphoton on their HVM source; several papers on sources for enabling future power scaling via FEL (Tsinghua university); 2 micron laser drivers for power scaling (ARCNL and LLNL); and physics of electrodeless plasmas (Energetiq). Also, Carl Zeiss will give an update on the latest on EUV optics, KJ Innovation will present an alternate optical design for EUVL based imaging, and Charles Tarrio of NIST will speak on optics contamination.

We have the most papers this year on the topic of EUV resist, which has emerged as the leading challenge for extension of EUVL to future nodes. There will be papers on high NA resists by Anna Lio of Intel and Jara Santa Clara of ASML; papers by IBM, IIT, Inha University, Brookhaven National lab and Irresistible Materials on new EUV resists; the New Flood exposure technique (FACET) by TEL; and fundamentals of EUV resists by Molecular foundry and Hyogo university.

The workshop ends Thursday with updates from ASML on High NA scanner, CXRO on MET5, a new system for testing EUVL components by Fraunhofer, and ultimate resolution in lithography by Yasin Ekinchi of PSI.

We also have seven poster papers which will be presented in the "speed presentation" session. Posters will be published in advance to allow attendees to review them before the meeting. As the online workshop is taking place live around the world, we have divided the sessions into AM (US and Europe) and PM (US and Asia). Workshop attendees who miss some presentations will have access to recordings for a limited time.

This meeting structure surely is a new way to organizing events and bring the EUVL community together in these times. I look forward to seeing many of you in the virtual meeting room. And yes, on June 7, for first time ever we are offering the EUVL short course online! I hope you take advantage of this opportunity.

Please visit www.eulitho.com for detailed program agenda, list of abstracts, and registration information.