# 2025 EUVL and Source Workshop June 21- June 26, 2025 June 21- 22 (Online Short Courses) & June 23-26 (In-Person only at MIT Lincoln Laboratory) LINCOLN LABORATORY MASSACHUSETTS INSTITUTE OF TECHNOLOGY WWW.euvlitho.com

# FIRST CALL FOR PAPERS

The 2025 Extreme Ultraviolet Lithography (EUVL) and Source Workshop will be held at the MIT Lincoln Laboratory, in Lexington, MA from June 21-26, 2025. The annual EUVL Workshop, organized by EUV Litho, Inc., is a unique forum to discuss the challenges and progress of EUVL as it is being implemented in state-of-the-art semiconductor manufacturing. The EUVL Workshop is focused on the fundamental science of EUV Lithography (EUVL) and its continued extension to support Moore's Law. With EUVL scanners in high-volume manufacturing to support the 3 nm node and beyond, the focus of the upcoming workshop is on the lowering of the k1 value and related infrastructure, addressing challenges for high-NA EUVL scanners, and on evaluating technical options beyond high-NA. Specific topics covered during this workshop include, but are not limited to: high power and metrology sources, masks (including pellicles and alternative absorber layers), optics, resists, contamination, metrology, patterning, and stochastics.

**The EUVL Workshop will also focus on emerging new directions**, that would enable semiconductor manufacturing to advance to the end of this decade and well into the 2030s. In particular, leading researchers will present on hyper-NA lithography at 13.5 nm and on the various aspects of lithography at wavelengths below 13.5 nm (Blue-X), including sources, optics, optical design, photomasks, and photoresists, all at wavelengths in the region of 2-7 nm.

The EUVL Workshop also will include **Supplier Showcase** sessions to provide a platform for consumers, suppliers, and researchers to come together for an in-depth discussion on the field from many different perspectives. These sessions have always been a win-win for all in attendance through connecting the supplier community with those who are utilizing and/or researching EUVL technology as part of their everyday work.

This year, the EUVL Workshop is being held along with the annual **EUV and Soft X-ray Source Workshop** (**Source Workshop**). The Source Workshop is a leading annual event that focuses on the latest scientific and technical developments related to extreme ultraviolet (EUV) and soft X-ray sources. This workshop will provide a forum for researchers and end-users in the areas of EUV and Soft X-ray light sources to present their work and discuss a wide range of potential applications. We will focus on the generation of photons in this wavelength region, via laser-produced plasma (LPP), discharge-produced plasma (DPP), high-harmonic generation (HHG), free electron lasers (FEL), synchrotrons and other innovative concepts. We also welcome papers describing applications of these sources in EUV lithography and its extension to shorter wavelengths for scanner and metrology applications, microscopy, analytical instrumentation and in supporting scientific research in materials and biological sciences. In addition to experimental studies, we encourage the submission of theoretical and modeling papers.

We strongly believe that co-hosting the Source Workshop together with the EUVL Workshop, will create a synergy between EUVL community who are dedicated to advancing chip manufacturing, and the Source

community, who are focused on sources and their applications. This synergy is crucial as the wider community investigates shorter wavelength sources (<13.5 nm) and explores alternate source technology (such as FEL) for potential extensions of Moore's Law via lithography at shorter wavelengths in the region of 2-7 nm.

# **Agenda Outline**

The 2025 EUVL and Source Workshop & Supplier Showcase is co-organized by EUV Litho, Inc. and MIT Lincoln Laboratory, with the support of the CH<sup>3</sup>IP consortium. We will begin the workshop with two short online-only courses on Saturday and Sunday (June 21 and 22). The Blue - X consortium will hold its Technical Working Group (TWG) meeting on June 23<sup>rd</sup>, which is open to members of Blue - X TWG only. On the afternoon of June 23rd, a joint reception for Blue-X TWG and EUVL and Source Workshop attendees will be held. The EUVL and Source Workshop will continue Monday through Thursday (June 23-26) with presentations from our speakers in an in-person format only.

### **Instructions for Submissions**

Please submit abstracts of less than 200 words and indicate whether an oral or poster paper is preferred. Abstracts should be submitted using the provided template via email to <a href="mailto:info@euvlitho.com">info@euvlitho.com</a>. The Abstract Submission Deadline is March 21, 2025. For issues concerning logistics, please contact us at <a href="mailto:info@euvlitho.com">info@euvlitho.com</a>.

# **Workshop Chair:**

Vivek Bakshi, EUV Litho, Inc. (vivek.bakshi@euvlitho.com)

## **EUVL Workshop Co-Chair:**

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# **Source Workshop Co-chair(s):**

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