



International Conference on Extreme Ultraviolet Lithography 2024 (EUV01)

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SPIE Photomask Technology + EUV Lithography 2024 is a global forum with two concurrent and tightly integrated conferences held in Monterey, California. It is an excellent opportunity for scientists, engineers, and industry leaders to meet, present and discuss results, challenges, and potential solutions in optical and EUV masks and lithography. Registration and travel support is available to encourage student participation in the conferences. Additionally, the symposium provides two industry-sponsored student presentation awards.

The International Conference on Extreme Ultraviolet Lithography provides a forum to discuss and assess the worldwide status of EUV Lithography technology and associated infrastructure readiness. Scientists, engineers, and industry leaders meet to present and discuss new and unpublished materials, addressing the main challenges associated with the extendibility of the technology to smaller dimensions.

The 2023 conference highlighted the continued increasing maturity of EUV lithography as well as further increased adoption for high volume manufacturing. Despite the steady progress both at 0.33 NA as well as 0.55-NA optic and scanner development, the consensus of the EUVL Steering Committee was that there were no significant breakthroughs reported in the areas of critical infrastructure required to support 0.55 NA. In particular, the topics of high-NA resists and next generation masks were called out as topics of significant concern. Specific continuing concerns were stochastics in resist materials/processes (which can lead to roughness and failures thereby affecting yield), mask defectivity (including alternative pellicle developments), and the extension of EUV mask infrastructure and technology (including alternative mask absorber developments including phase shift masks).

For the 2024 Symposium, papers that address all aspects of EUV lithography are again solicited with special interest on topics addressing the primary concerns called out above. While the conference does focus on technologies that are close to manufacturing, we also strongly encourage papers that address new and exploratory concepts in EUV. Representative EUV topics of interest include:

- Readiness and insertion in manufacturing
- Lithography tools, including sources and optics
- Mask metrology, inspection, and imaging
- Mask lifetime, protection, and pellicles
- Mask architecture and alternative materials
- Resist and underlayer materials/process and contamination
- Process control and stochastics
- Patterning and process enhancement
- EUV lithography extendibility and 0.55-NA EUV
- Large masks for high NA EUV to avoid stitching
- Hyper NA EUV challenges and opportunities

As in past years, the International Conference on Extreme-Ultraviolet Lithography program will be tightly integrated with the co-located Photomask conference.

Present your research at SPIE Photomask Technology + EUV Lithography

Below are abstract submission instructions, the accompanying submission agreement, conference presentation guidelines, and guidelines for publishing in the Proceedings of SPIE on the SPIE Digital Library. Submissions subject to chair approval.

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EUV LITHOGRAPHY

ABSTRACT SUBMISSION GUIDELINES

Important dates

Abstracts due	15 May 2024
Registration opens	July 2024
Authors notified and program posts online	8 July 2024
Submission system opens for manuscripts and poster PDFs*	29 July 2024
Poster PDFs due for spie.org preview and publication	4 September 2024
Manuscripts due	11 September 2024

*Contact author or speaker must register prior to uploading

What you will need to submit

- Presentation title
- Author(s) information
- Speaker biography (1000-character max including spaces)
- Abstract for technical review (200-300 words; text only)
- Summary of abstract for display in the program (50-150 words; text only)
- Keywords used in search for your paper (optional)
- Check the individual conference call for papers for additional requirements (i.e., special abstract requirements or instructions for award competitions)

Note: Only original material should be submitted. Commercial papers, papers with no new research/development content, and papers with proprietary restrictions will not be accepted for presentation.

How to submit your abstract

- Visit the conference page: www.spie.org/puv
- You may submit more than one abstract but submit each abstract only once
- Click the "Submit An Abstract" button on the conference page
- Sign in to your SPIE account or create an account if you do not already have one
- Follow the steps in the submission wizard until the submission process is completed

Submission agreement

All presenting authors, including keynote, invited, oral, and poster presenters, agree to the following conditions by submitting an abstract:

- Register and pay the author registration fee
- Oral presenters: recording and publication of your onsite presentation (slides synched with voice) for publication in the Proceedings of SPIE in the SPIE Digital Library
- Poster presenters: submit a poster PDF by the advertised due dates for publication in the Proceedings of SPIE in the SPIE Digital Library; poster PDFs may also be published and viewable in the spie.org program during and immediately after the event. Each poster must have a unique presenter; one person may not present more than one poster
- Email messaging for the conference series
- Submit a manuscript by the advertised due date for publication in the Proceedings of SPIE in the SPIE Digital Library
- Obtain funding for registration fees, travel, and accommodations
- Attend the meeting
- Present at the scheduled time

Review and program placement

- To ensure a high-quality conference, all submissions will be assessed by the conference chair/editor for technical merit and suitability of content
- Conference chairs/editors reserve the right to reject for presentation any paper that does not meet content or presentation expectations
- Final placement in an oral or poster session is subject to chair discretion

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Contact information

For questions about your presentation, submitting an abstract post-deadline, or the meeting, contact your Conference Program Coordinator.

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