Special Issue

Computational Imaging for Semiconductor Devices Metrology Applications

Message from the Guest Editor

For decades, the fabrication of semiconductor devices has been driven by Moore's law and has been powered by advancements in photolithography. The ecosystem of a modern semiconductor devices foundry includes metrology tools for every step of the fabrication process, from the control of the photomask and the EUV pellicle, to the characterization of every layer of the printed wafer. This special issue aims to investigate the opportunities and the possibilities offered by computational imaging in addressing the raising challenges in the metrology required by the semiconductor industry. Topics of interest include, but are not limited to:

- Computational imaging techniques for EUV photomask and pellicle inspection
- High-resolution lensless imaging for semiconductor wafers
- New algorithms and methods for improving metrology accuracy
- Applications of machine learning in semiconductor metrology
- Cost-effective metrology tools for scaling semiconductor devices
- Novel approaches to overcoming challenges in high-resolution semiconductor imaging

Guest Editor

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Deadline for manuscript submissions

31 December 2025

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You are invited to contribute a research article or a comprehensive review for consideration and publication in *Photonics* (ISSN 2304-6732). *Photonics* is an online open access journal covering both the fundamental and applications of optics and photonics. *Photonics* strives to provide an avenue to allow authors to disseminate their scientific findings—both theoretical/ simulations and experimental works—in highly accessible peer-reviewed journal publications. The manuscript in *Photonics* will be handled with quick turnaround production processing time. We welcome authors to submit their manuscripts for publications in *Photonics*. Our goal in *Photonics* is to enable fast dissemination of high impact works to the scientific community.

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