Special Issue

Optical Technology for Challenging Conditions Methods and Applications

Message from the Guest Editors

With the ongoing advancements in manufacturing technology and information processing technology, advanced optical imaging/measurement techniques play irreplaceable roles in many fields. However, these applications often face complex challenges in terms of application scenarios and environments. The purpose of this Special Issue is to provide a platform for researchers to share and discuss their important discoveries, theoretical and experimental advances, technical breakthroughs, methodological innovations, application developments, viewpoints, and perspectives to the community of optical imaging/measurement. All theoretical, numerical, and experimental works related to optical techniques used in complex conditions are accepted. Topics include, but are not limited to, the following:

- Optics in complex media (scattering tissues, turbid water, cloud, fog, etc.);
- Imaging in adverse weather conditions;
- Photometry and lighting technology;
- Optical remote sensing;
- Optical super-resolution, dehazing, denoising/despeckling, and deblurring;
- Target detection in challenging conditions.

Guest Editors

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Deadline for manuscript submissions

closed (20 May 2025)

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Message from the Editor-in-Chief

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.

Editor-in-Chief

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