Special Issue

Diffractive Optics for Generation and Transformation of Structured Light

Message from the Guest Editor

Today, structured laser beams are widely used in optical and quantum communications, the laser processing of materials, optical microscopy, and biophotonics. The possibility of controlling not only the distribution of the generated laser beam intensity but also its phase distribution and polarization state is critically important and can be effectively performed using diffractive optical elements (DOEs). This Special Issue introduces new theoretical aspects of diffractive optics and practical applications of DOEs in the generation, transformation, and control of structured beams. This Special Issue will focus on state-of-the-art research on diffractive optics and diffractive optics-based devices. In this Special Issue, original research articles, letters, and reviews are welcome. Research areas may include (but are not limited to) the following:

- General aspects of diffractive optics;
- Optical elements;
- Diffractive optics-based devices;
- Design algorithms;
- Phase and amplitude encoding;
- Structured light beams;
- Polarization transformation;
- Superresolution;
- Optical processing.

Guest Editor

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Deadline for manuscript submissions

closed (20 January 2023)

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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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