Special Issue

Fundamentals and Applications of Vortex Beams

Message from the Guest Editor

Several decades have passed since the realization that vortex beams, light fields with an azimuthally varying phase, carry Orbital Angular Momentum (OAM). This event opened a new era of fundamental and applied research, with applications in optical manipulations, optical communications, optical metrology, imaging and laser remote sensing, amongst many others. This Special Issue seeks contributions from across the different fields related to vortex beams, from fundamental research, generation and characterization techniques, to applications in the different fields, as well as novel types of vortex beams. We expect contributions from the fields listed below, but we are not limited to these:

- Light beam shaping
- Structured light
- Vector beams
- Polarisation singularities
- Optical metrology
- Optical manipulations
- Optical communications
- Quantum Optics
- Imaging
- Optical fibers
- Metasurfaces
- Liquid crystal spatial light modulators

Guest Editor

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closed (1 June 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 peerreviewed 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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