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Advances and Application of Structured Light

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Deadline for manuscript submissions:
closed (10 November 2023)

Message from the Guest Editors

Structured light is derived from the ability to tailor light and usually refers to the spatial control of amplitude, phase, and polarization. Microscopes, holography, optical communications, and laser machining are just several of the domains that have evolved over the past decade owing to the advances in wavefront-shaping platforms. Recently, spatiotemporally coupled wave packets have been reported and offer an unprecedented level of light manipulation in space and time. Nevertheless, with the deepening and extension of research, many new problems and challenges have emerged. The aim of this Topic is to provide the latest theoretical and experimental methods for the creation, detection, and control of the structured light.

This publication will consist of topical research including (but not limited to) the following areas:

- High-dimensional structured light
- Spatiotemporal optical vortex
- Light shaping
- Vortex laser
- OAM entanglement
- Machine learning
- Nonlinear optics
- Photonic spin–orbit interaction
- Topology of structured light
- Optical imaging
- Optical manipulation

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