Special Issue

Advances and Challenges in Free-Space Optics

Message from the Guest Editor

Free-space optics (FSO) is a technology that uses lasers to transmit information in free space, offering advantages. This Special Issue aims to showcase the latest advances and challenges in the field of FSO, encompassing theoretical innovations, experimental validations, and system applications, among other aspects. The theme closely aligns with the journal's scope in communications technology, optoelectronics, signal processing, and wireless networks, with a focus on areas such as high-performance optical system design, channel modeling, anti-interference techniques, intelligent optimization methods, and technology fusion (e.g., FSO/RF hybrid systems). This Special Issue welcomes original research articles and reviews. Submission topics include, but are not limited to, the following areas: atmospheric channel modeling and turbulence compensation techniques; design of high-performance lasers and photodetectors; adaptive optics and beam control technologies; applications of quantum optical communication in free space; and enhancement schemes for transmission under adverse weather conditions. We look forward to receiving your contributions.

Guest Editor

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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.

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