Special Issue

Advances in Optical Wireless Communication: Overcoming Scattering and Turbulence Challenges

Message from the Guest Editor

This Special Issue embarks on a pioneering journey into the realm of free-space optical communications and the intricate modeling of optical turbulence and scattering phenomena. As interest in FSO systems has escalated, the need to address the persistent challenges hindering their optimal performance in severe scattering and turbulent conditions has become more urgent. Our mission is to explore the forefront of technological innovation and to overcome its obstacles with ingenuity and determination. To this end, we advocate for the adoption of groundbreaking methodologies, including the development of advanced modulation formats engineered to mitigate inter-symbol interference amidst turbulent environments. Additionally, we champion the deployment of turbulence-resistant laser beams, wavefront sensors endowed with robust capabilities to counteract scintillation effects, and the seamless integration of adaptive optics technologies.

Guest Editor

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Deadline for manuscript submissions

closed (25 October 2024)

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