



Quantum Photonics: Information Processing and Quantum Corrections

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Deadline for manuscript submissions:
closed (30 April 2021)



Message from the Guest Editors

Dear Colleagues,

Among the new industries originating during the second half of the last century, photonics is now a multi-billion dollar market that has significantly changed our society. We are now experiencing the inception of a new generation of photonics devices, capable of producing and controlling quantum light. Quantum photonics will enable better sensing, imaging, metrology, data communication, and processing. In combination with biotechnology and renewable energy, quantum photonics will emerge as one of the key industries of the 21st century.

This Special Issue of Photonics, entitled Quantum Photonics Information Processing and Error Corrections, will focus on the challenges in achieving scalable quantum photonic technologies. This endeavor is a multi-disciplinary effort, encompassing fundamental and applied sciences. We expect to cover a variety of topics, including the generation of quantum states of light and applications, quantum sensing and imaging, integrated quantum photonics for quantum information processing, hybrid interfaces with quantum photonics, and quantum error correction.

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