Special Issue

Spectroscopy, Metrology and Quantum Technology for Space Science and Astrophysics

Message from the Guest Editors

Advances in laser technology (laser miniaturization, optical frequency combs, quantum cascade lasers, interband cascade lasers, etc.) have renewed some applications that were previously based on different technologies (e.g., optical telecommunication has replaced radio communication, optical interferometry has replaced radio interferometry, and optical clocks have replaced microwave clocks). This Special Issue will focus on state-of-the-art research in space-related optics, spectroscopy, and photonics. Both original research papers and review articles describing state-of-the-art innovations in this research field are welcome. Potential topics include, but are not limited to:

- optics-based inertial sensors;
- optochemical gas sensors;
- cold atom interferometer-based gradiometry;
- atmospheric and planetary gas spectroscopy;
- adaptive optics for telescopes;
- time and frequency metrology;
- optical fiber-based ground segments;
- satellite laser ranging;
- quantum key distribution; and
- infrared heterodyne interferometry for astronomical aperture synthesis.

Guest Editors

Dr. Stefano Lettieri

Dr. Luigi Santamaria Amato

Dr. Gabriele Rosi

Dr. Romina Rega

Deadline for manuscript submissions

closed (28 February 2021)

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About the Journal

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.

Editor-in-Chief

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