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Recent Advances in Nonlinear Optics

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Message from the Guest Editors

Nonlinear optics is the foundation for optical frequency generation in regimes that cannot be covered by laser gain media. It can also be used to enhance resolution in laser micromachining and imaging. Furthermore, nonlinear optics is the basis for nonlinear spectroscopy, including Raman/Brillouin spectroscopy, 2-dimensional spectroscopy and surface second-harmonic generation spectroscopy.

This Special Issue, "Nonlinear Optics", will welcome basic, methodological and applied cutting-edge research contributions, as well as regular and review papers, dealing with (but not limited to):

- New principles and phenomena in nonlinear light–matter interaction.
- Nonlinear photonics in chip-integrated devices including waveguides and cavities.
- Nonlinear dynamics in optical fibers, coherently pumped fiber cavities and fiber lasers.
- Ultrafast dynamics in mode-locked lasers.
- Applications of nonlinear optics in high-resolution imaging and micromachining.
- Nonlinear frequency comb generation in high-Q microcavities.
- Signal processing using nonlinear optics.
- Nonlinear spectroscopy.
- Quantum photonics based on nonlinear optics.

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