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Recent Advances in Multiphoton Microscopy

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Message from the Guest Editors

Multiphoton microscopy enables sub-micron-scale spatial resolution of structures deep within scattering media that are inaccessbile via other imaging modalities. Researchers and scientists around the world continue to develop multiphoton microscope technology that enables the interrogation of wider fields of view, larger depths, and/or faster dynamics for various applications.

This multi-disciplinary pursuit involves a broad range of scientists from technology innovators to researchers working in very niche fields. This Special Issue invites researchers to cross-pollinate the broader field of multiphoton microscopy with their technological advancements. Topics of interest include but are not limited to:

- Three-photon microscopy;
- Third-harmonic generation microscopy;
- Wide-field multi-photon microscopy;
- High-speed/high-throughput imaging;
- Contrast enhancement in multiphoton microscopy;
- New techniques or implementations of light manipulation;
- Hardware miniaturization;
- Advances in image processing or detector technology.



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