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Topical Problems of Biophotonics

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Message from the Guest Editors

Dear Colleagues,

This special issue will comprise papers related to recent achievements in biophotonics, including both optical diagnostics modalities and laser-based treatment approaches. The issue aims at the state-of-the art research in the area of biomedical optics. The scope of this Special Issue covers the topics that are traditionally discussed within the frames of the international symposium on Topical Problems of Biophotonics held biannualy in Russia and gathering leading scientists in the area of biomedical optics. The Special Issue scope includes but is not limited to following topics:

- Coherence-based imaging and elastographic techniques;
- Microcirculation and laser speckle contrast imaging;
- Diffuse spectroscopy modalities;
- Fluorescence imaging;
- Optical nonlinear microscopy;
- Optoacoustics;
- Polarization Imaging;
- Laser tweezers and micromanipulation;
- Nanobiophotonics;
- Translational biophotonics;
- Photodynamic therapy;
- Laser surgery;
- Numerical simulations in optical diagnostics;
- Machine and deep learning for optical diagnostics and imaging.