Special Issue

Novel Deep Learning Approaches for Photoacoustic Imaging and Sensing

Message from the Guest Editors

Photoacoustic imaging (PAI) is an emerging imaging modality availing the benefits of optical contrast and acoustic depth of penetration. PAI is very promising for a range of biomedical applications.

The growth of the PAI community is steady. In the past decade, we have witnessed condinued developments in key components, reconstruction algorithms, quantification accuracy, novel contrast agents, and clinical applications of PAI. One of the most exciting research areas is combining deep learning (DL) and PAI for improved image quality, higher quantification accuracy, faster speed, and reduced system cost. By leveraging the ever-increasing computing power and image data, DL helps to bridge the gap between laboratory demos and real-world applications and promises to accelerate PAI's commercialization. It is anticipated that PAI will one day establish itself as a regular imaging system in clinical practices. This Special Issue aims to provide a comprehensive collection of the latest advances in exploiting DL for better PAI performance.

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Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

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