

Special Issue

Emerging Topics in Single-Photon Detectors

Message from the Guest Editor

In recent times, there has been a noticeable surge in research interest surrounding photodetectors designed to achieve single-photon sensitivity. Two prominent examples of such detectors include single-photon avalanche diodes (SPADs) and superconducting nanowire single-photon detectors (SNSPDs). We extend a warm invitation for submissions to this Special Issue, entitled "Emerging Topics in Single-Photon Detectors".

Both research papers and comprehensive review articles are welcome, addressing the following areas:

- Fundamental research delving into the physics and signal processing techniques that account for the quantum nature of single-photon detection;
- Modeling and fabrication techniques for single-photon detectors;
- Exploring advanced sensing modalities made possible by single-photon detectors;
- Advancements in the development of multimodal, multispectral, and/or multiscale sensing systems leveraging single-photon detectors;
- Innovative data processing methodologies, including the application of advanced algorithms;
- Validation studies showcasing the effectiveness of single-photon detection methods in the context of biomedical and clinical research.

Guest Editor

Dr. Zheng Li

Research Laboratory of Electronics, Department of Electrical Engineering and Computer Science, Massachusetts Institute of Technology, Cambridge, MA 02139, USA

Deadline for manuscript submissions

closed (15 December 2024)



Photonics

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CiteScore 3.5



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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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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.

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Prof. Dr. Nelson Tansu

School of Electrical and Electronic Engineering (EEE), The University of Adelaide, Adelaide, SA 5005, Australia

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