Special Issue

Silicon Photomultiplier-Based Systems for Particle and Radiation Detection

Message from the Guest Editors

We are pleased to announce this Special Issue devoted to instruments based on silicon photomultipliers (SiPMs) for particle and radiation detection. The focus will be on original research and state-of-the-art instruments that take advantage of SiPMs' capabilities. Reviews of the requirements and solutions for specific application fields are also welcome. We especially invite you to contribute papers on the following subjects:

- SiPMs in particle physics detectors;
- SiPMs in astronomy and astrophysics;
- SiPMs in medical imaging detectors or biomedical applications;
- SiPMs in space detectors;
- SiPMs in radiation protection and homeland security;
- SiPMs in LiDAR systems;
- Other instruments based on SiPMs;
- Mass production of instruments and mass characterization procedures;
- SiPM-dedicated electronics (readout, control systems, etc.);
- Calibration methods and results;
- Simulation packages for SiPM systems

This is an excellent opportunity to get your new ideas on the map (and establish intellectual property at the same time), for selected contributed papers. Material from white papers can of course be used, if at peer-reviewable level.

Guest Editors

Prof. Dr. Erika Garutti
Institute for Experimental Physics, University of Hamburg, 22761 Hamburg, Germany
Dr. Yuri Musienko
University of Notre Dame, Notre Dame, IN 46556, USA

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Instruments
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
instruments@mdpi.com

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About the Journal

Message from the Editor-in-Chief

The realization of dedicated instrumentation has always been a collateral aspect of experimental research. In addition, many groups dedicate efforts and resources solely to the development of new devices, sensors, equipment and large infrastructure, theoretical and numerical studies, and novel experimental methodologies. With *Instruments* we wish to address both established and emerging communities, also to favor the creation of innovative trans-disciplinary approaches. We see *Instruments* as an exciting high-impact journal that will soon hold a leading position in disseminating cutting edge scientific and technological research.

Editor-in-Chief

Prof. Dr. Antonio Ereditato
Enrico Fermi Institute, The University of Chicago, Chicago, IL 60637, USA

Author Benefits

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 21.1 days after submission; acceptance to publication is undertaken in 3.8 days (median values for papers published in this journal in the first half of 2025).

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