

Special Issue

Nano and Micro Superconducting Quantum Interference Devices

Message from the Guest Editors

Superconducting quantum interference devices (SQUIDs) are among the most sensitive detectors of magnetic flux available, having at the same time high versatility. Being a flux to voltage converter, the SQUID can measure all physical quantities that can be converted into magnetic flux, for example, magnetic field, magnetic field gradients, current, voltage, displacement, or magnetic susceptibility. The SQUID exhibits an equivalent energy sensitivity that approaches the quantum limit; therefore, it is often employed in very interesting experiments of basic physics, including the detection of Hawking radiation, the dynamical Casimir effect, the Majorana fermions investigations, the effects of the quantum gravity, and detection gravitational waves. Thanks to their very high performance together with their robustness and reliability, SQUID-based devices are widely used in several applications, such as biomagnetism, magnetic microscopy, non-destructive evaluation, geophysics, astrophysics, quantum information, and particle physics.

Guest Editors

Dr. Antonio Vettoliere

Institute of Applied Sciences and Intelligent Systems, National Research Council, 80078 Pozzuoli (Napoli), Italy

Dr. Carmine Granata

Institute of Applied Sciences and Intelligent Systems "E. Caianiello", National Research Council, Via Campi Flegrei, 34, 80078 Pozzuoli (Napoli), Italy

Deadline for manuscript submissions

closed (31 October 2021)



Micromachines

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 5.2
Indexed in PubMed



mdpi.com/si/54681

Micromachines
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
micromachines@mdpi.com

[mdpi.com/journal/
micromachines](https://mdpi.com/journal/micromachines)





Micromachines

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 5.2
Indexed in PubMed



[mdpi.com/journal/
micromachines](https://mdpi.com/journal/micromachines)



About the Journal

Message from the Editor-in-Chief

You are invited to contribute research articles or comprehensive reviews for consideration and publication in *Micromachines* (ISSN 2072-666X). *Micromachines* is published in the open access format. Research articles, reviews and other contents are released on the internet immediately after acceptance. The scientific community and the general public have unlimited free access to the content as soon as it is published. As an open access journal, *Micromachines* is supported by the authors or their institutes by payment of article processing charges (APC) for accepted papers. We are pleased to welcome you as our authors.

Editor-in-Chief

Prof. Dr. Ai-Qun Liu

1. Department of Electrical and Electronic Engineering, The Hong Kong Polytechnic University, Hong Kong, China
2. School of Electrical and Electronic Engineering, Nanyang Technological University, Singapore 639798, Singapore

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, dblp, and other databases.

Journal Rank:

JCR - Q2 (Physics, Applied) / CiteScore - Q2 (Mechanical Engineering)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 17.7 days after submission; acceptance to publication is undertaken in 2.5 days (median values for papers published in this journal in the first half of 2024).