Special Issue

Topological and Quantum Materials for Energy and Information: Spectroscopy and Computation Approaches

Message from the Guest Editors

This Special Issue welcomes studies that combine or advance spectroscopic and computational techniques to deepen the understanding and design of topological and quantum materials for next generation energy and information technologies. Suitable submissions include, but are not limited to, computational investigations employing first principles, many body, or machine learning approaches, and experimental studies using techniques such as angle-resolved photoemission spectroscopy (ARPES), resonant inelastic X ray scattering (RIXS), Compton scattering, positron-annihilation spectroscopy, transport, and advanced microscopy. Target systems include, but are not limited to, electrodes and solid electrolytes, qubit systems, superconductors and Josephson devices, topological semimetals, and insulators, Kagome and other layered compounds, and two dimensional heterostructures. Priority themes include quantitative links among spectral functions, momentum densities, and quantum geometry that control oxygen redox, interfacial stability, dendrite initiation, ion mobility, and unconventional transport, as well as the materials origins of coherence and decoherence in qubits and quantum circuits.

Guest Editors

Dr. Wei-Chi Chiu

1. Department of Physics, Northeastern University, Boston, MA 02115, USA
2. Quantum Materials and Sensing Institute, Northeastern University, Burlington, MA 01803, USA

Prof. Dr. Bernardo Barbiellini

Department of Physics, School of Engineering Science, LUT University, FI-53851 Lappeenranta, Finland

Deadline for manuscript submissions

30 June 2026

Condensed Matter

an Open Access Journal by MDPI

Impact Factor 1.5
CiteScore 2.7

mdpi.com/si/259055

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

mdpi.com/journal/condensedmatter

Condensed Matter

an Open Access Journal by MDPI

Impact Factor 1.5
CiteScore 2.7

mdpi.com/journal/condensedmatter

MDPI

About the Journal

Message from the Editor-in-Chief

Welcome to *Condensed Matter* (ISSN 2410-3896)! It gives me great pleasure to invite you to publish in the journal. We are looking to build a collection of high quality research articles, supported by a community from across the field of condensed matter physics. In this task, I will be assisted by a highly qualified editorial board. We accept papers on basic research as well as applications, and experimental or theoretical work. Currently the journal is indexed by ESCI (Web of Science) and hope you can consider *Condensed Matter* as an exceptional home for your manuscript.

Editor-in-Chief

Prof. Dr. Antonio Bianconi
Rome International Center for Materials Science Superstripes (RICMASS), Via dei Sabelli 119A, 00185 Rome, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, ESCI (Web of Science), Inspec, CAPlus / SciFinder, and other databases.

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 20.8 days after submission; acceptance to publication is undertaken in 3.4 days (median values for papers published in this journal in the second half of 2025).