



Complexity in Quantum Materials: In Honor of Prof. K.A. Muller

Guest Editors:

Prof. Dr. Antonio Bianconi

Rome International Center for
Materials Science Superstripes
(RICMASS), Via dei Sabelli 119A,
00185 Roma, Italy

Prof. Dr. Annette Busmann-Holder

Max-Planck-Institut für
Festkörperforschung,
Heisenbergstr.1, D-70569
Stuttgart, Germany

Deadline for manuscript
submissions:

closed (31 May 2025)

Message from the Guest Editors

This Special Issue of the *Condensed Matter* journal is dedicated to *Complexity in Quantum Materials* collecting the papers presented at the K. Alex Müller Workshop held in Erice-Sicily August 3-9, 2023, and related matter. The topics cover in advances in understanding the key role of quantum complexity and intrinsic role of heterogeneity in unconventional quantum functionalities in condensed matter made of multiple chemical and electronic components at the nanoscale. The topics cover studies on first order structural phase transitions with emerging chemical nanoscale phase separation, dynamics of non-linear systems, Rashba spin-orbit coupling at interfaces in low dimension, pseudo Jahn Teller polarons, Majorana fermions, Majorana exchange interaction, unconventional electron-phonon interaction, electronic inhomogeneities, polarons condensation and pairing, symmetry and heterogeneity, superstripes, multi-condensates, BEC-BCS crossover, topological materials, ferroelectrics, and so on.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Antonio Bianconi

Rome International Center for
Materials Science Superstripes
(RICMASS), Via dei Sabelli 119A,
00185 Roma, Italy

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.

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](#), [CAPus / SciFinder](#), and [other databases](#).

Rapid Publication: manuscripts are peer-reviewed and a first decision is provided to authors approximately 20.1 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).

Contact Us

Condensed Matter Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/condensedmatter
condensedmatter@mdpi.com