

## Special Issue

# Computational Methods for Quantum Matter

### Message from the Guest Editors

In recent years, remarkable experimental breakthroughs achieved with platforms such as atomic gases, trapped ions, and superconducting qubits have allowed for controlled realizations of various intriguing quantum phenomena. These experiments represent the ideal venue to test novel computational methods for quantum many-body systems. This Special Issue aims to showcase relevant computational studies on quantum matter, highlighting successful applications, recent algorithmic advancements, and also the main open challenges. Contributing authors are invited to elucidate physics insights provided by the employed computational techniques and/or to describe enabling technical developments. The further goals are also to provide the community with helpful information for future computational advancements and to bring the open challenges to be addressed by quantum many-body physicists in the near and the midterm future into the spotlight.

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### Guest Editors

Dr. Sebastiano Pilati

Prof. Dr. Bruno Julia-Diaz

Prof. Dr. Stefano Giorgini

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### Deadline for manuscript submissions

closed (31 January 2022)



## Condensed Matter

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*Condensed Matter*  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[condensedmatter@mdpi.com](mailto:condensedmatter@mdpi.com)

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## 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.

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### Editor-in-Chief

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

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