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New Insights into Ultracold Matter

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Deadline for manuscript submissions:
30 September 2024

Message from the Guest Editors

Dear Colleagues,

The potential to cool matter down to remarkably cold temperatures has opened the door to the discovery of a plethora of phenomena in quantum mechanical platforms that can currently be routinely observed, controlled, and manipulated with unprecedented precision. Furthermore, research on ultracold-matter systems displays an incredible theoretical–experimental synergy that pushes forward our understanding of the quantum world.

In this Special Issue, we welcome original and review articles at the forefront of ultracold-matter research from both the theoretical and experimental side. Examples of topics include, but are not limited to, quantum mixtures, supersolidity, dipolar interactions, spin–orbit coupling, solitons, vortices, and superfluid turbulence. We also encourage the submission of manuscripts on the subjects of quantum magnetism, Rydberg atoms, polarons, exciton–polaritons, artificial gauge fields, many-body localization, and ultracold-matter-based quantum technologies, such as atomtronic devices.

For more details: https://www.mdpi.com/si/192906

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Message from the Editor-in-Chief

The scope of *Atoms* is deliberately wide and encompasses a large part of theoretical and experimental atomic, molecular, nuclear, and chemical physics in order to encourage cross-disciplinary connections, while supporting the more traditional idea of individual subfields. The journal is also interested in papers concerning the computation and compilation of data related to applications in the above areas. Details of experimental methods and codes are welcome. Your research is taken seriously and peer-reviewed with care. I encourage you to contact me or any of the Editorial Board Members for further information.

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