Special Issue

Applications of Cold-Atom-Based Quantum Technology

Message from the Guest Editors

Quantum technologies based on the use of cold atoms are rapidly advancing in their technical maturity. Quantum sensors have, in many cases, surpassed their classical counterparts in terms of precision achieved in the laboratory. Currently, experimental prototypes are leaving the lab, and commercial products are emerging in the field of atomic clocks and gravity sensors. However, there are still technological challenges to be overcome in order for the full benefits of quantum technology to be realized in a full range of competitive commercial products. This Special Issue aims to bring together state-of-the-art research and development contributions that address the technological and research challenges in atom-based quantum technologies. In this Special Issue, we solicit papers covering all aspects of atom-based quantum sensors. Submissions should clearly indicate which open challenges in quantum sensors the work is addressing. Authors are encouraged to contact the guest editors prior to submission if they are uncertain whether their work falls within the general scope of this Special Issue.

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Deadline for manuscript submissions

closed (30 September 2023)

Atoms

an Open Access Journal by MDPI

Impact Factor 1.5
CiteScore 3.1

mdpi.com/si/98989

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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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