Special Issue

Atomic Magnetic Sensors

Message from the Guest Editors

The topic of atomic magnetic sensor technology offers two important benefits to the R&D community through technical and fundamental studies. To those inclined towards the practical aspects of measurement, there are well-matured aspects of the technology that enable the exploration of real-life applications for atomic physics concepts. Attractive application areas such as magnetoencephalography (near-zero field) or geomagnetic surveys (earth's field) have been studied extensively. These activities are complemented by the development of sensor components, such as silicon wafer vapour cells and sophisticated magnetic coil designs, that allow the miniaturisation of the measurement unit. However, this is also a fertile topic for those interested in the fundamental aspects of sensor operation. The development of concepts that improve sensor performance beyond the standard quantum limits, the validation of novel modes of operation, and the expansion of sensor functionalities prove that the field of the atomic magnetic sensors offers opportunities to demonstrate transformative ideas that extend beyond atomic, optical, and molecular physics. For more details, please vist here.

Guest Editors

Dr. Witold Chalupczak
National Physical Laboratory, Hampton Road, Teddington TW11 0LW, UK

Dr. Patrick Bevington
National Physical Laboratory, Hampton Road, Teddington TW11 0LW, UK

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

mdpi.com/journal/sensors

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Message from the Editor-in-Chief

Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

Editor-in-Chief

Prof. Dr. Vittorio M. N. Passaro
Dipartimento di Ingegneria Elettrica e dell'Informazione (Department of Electrical and Information Engineering), Politecnico di Bari, Via Edoardo Orabona n. 4, 70125 Bari, Italy

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