Special Issue

Design and Application of Quantum Sensors

Message from the Guest Editor

Quantum sensing takes advantage of the unique properties of quantum systems, including quantum squeezing, superposition, and entanglement, to measure various physical quantities, such as magnetic field, electric field, temperature, acceleration, rotation, time, and frequency. Recent advances in quantum state preparation, control, and detection have enabled quantum sensing applications with unprecedented sensitivity and precision. Quantum sensors have been realized in many physical platforms from photons, neutral atoms, trapped ions, and solid-state spins to superconducting circuits and found novel applications in high-resolution magnetic resonance spectroscopy, noise spectroscopy, and dark matter detection, to name a few. This Special Issue on the "Design and Application of Quantum Sensors" aims to highlight the latest advances of this field and is open to both original research papers and review articles, with particular emphasis on new design and sensing protocols for quantum sensors and their real-world applications. For more information, please see: mdpi.com/si/128094

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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.

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