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Lectures on Recent Experimental Achievements in Quantum-Enhanced Technologies

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Message from the Guest Editors

Thanks to theoretical and technological progress, quantum information protocols have been implemented in many experimental platforms using different types of quantum building blocks in a noisy intermediate-scale regime. Impressive results have been achieved in laboratories to prove that the performance of tasks such as computation, communication, information processing, secure key distribution, complex system simulation or sensing, can outperform classical procedures due to suitable utilization of quantum features.

This Special Issue will gather concise yet informative reviews from the laboratories around the world concerning the most recent experimental achievements and breakthroughs in the quantum technology scenario. This will ultimately serve as a useful, easy-to-read compendium of state-of-art setups and techniques for implementing quantum-enhanced tasks.



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Special Issue



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Message from the Editor-in-Chief

The concept of entropy is traditionally a quantity in physics that has to do with temperature. However, it is now clear that entropy is deeply related to information theory and the process of inference. As such, entropic techniques have found broad application in the sciences.

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