

Lectures on Recent Experimental Achievements in Quantum-Enhanced Technologies

Guest Editors:

Prof. Dr. Valentina Parigi

Laboratoire Kastler Brossel,
Sorbonne Université, CNRS, ENS-
PSL Research University, Collège
de France, 4 Place Jussieu, F-
75252 Paris, France

Prof. Dr. Fabio Sciarrino

Dipartimento di Fisica, Sapienza
Università di Roma, Piazzale Aldo
Moro 5, 00185 Rome, Italy

Prof. Dr. Rosario Lo Franco

Dipartimento di Ingegneria,
Università degli Studi di Palermo,
Viale delle Scienze, Edificio 6,
90128 Palermo, Italy

Deadline for manuscript
submissions:

closed (20 March 2023)

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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Editor-in-Chief

Prof. Dr. Kevin H. Knuth

Department of Physics, University
at Albany, 1400 Washington
Avenue, Albany, NY 12222, USA

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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Entropy Editorial Office
MDPI, St. Alban-Anlage 66
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