



## Quantum Information Processing

Guest Editor:

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### Message from the Guest Editor

Quantum information is a growing research field. Indeed, the adoption of quantum resources promises to disclose strong advantages in several fields. Notable examples are communication tasks, the intrinsically secure transmission of information over long distances, improved sensitivity in the estimation of unknown parameters, the simulation of complex physical systems through quantum platforms, or quantum algorithms enabling enhanced performance in computational tasks.

These promises have led to growing research efforts both from a theoretical and an experimental point of view. On the one hand, great interest has been devoted to investigating and developing novel protocols that exploit quantum resources for enhanced information processing. On the other hand, significant advances have been made in the last few years to identify the most suitable platform for each task, as well as to push the technology towards handling progressively larger quantum systems. All these research efforts have contributed to establishing a worldwide growing community working in the field, which is progressively attracting researchers from other fields, disclosing novel platforms and approaches.





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## Editor-in-Chief

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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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