

## Special Issue

# Recent Advances in Quantum Information Processing

### Message from the Guest Editors

After decades of development, quantum information science has made great progress. However, some basic concepts in quantum information theory (such as quantum correlation, quantum entanglement, quantum Markovianity, quantum thermodynamics, etc.) still need to be explored in depth. On the other hand, in order to meet the requirements of quantum hardware at this stage, it also poses more challenges to the theory of quantum information (for example, the quantum algorithm applicable to NISQ). This Special Issue focuses on the recent advances in quantum information processing. We invite all kinds of contributions devoted to quantum information theory which includes but is not limited to:

- Quantum walk;
- Quantum algorithm;
- Quantum noise;
- Quantum thermodynamics;
- Quantum correlation;
- Quantum entanglement;
- Quantum nonlocality;
- Quantum discord;
- Quantum coherence;
- Quantum Markovianity;
- Quantum channel;
- Quantum states discrimination;
- von Neumann entropy.

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### Deadline for manuscript submissions

closed (31 March 2024)



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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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