



## Foundations of Quantum Computing

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Deadline for manuscript  
submissions:

**closed (31 January 2020)**

### Message from the Guest Editors

The advent of quantum information theory and the possibility of developing quantum computers gave rise to a rich and multidisciplinary field of research, gathering experts from physics, computer science, mathematics and logic. This peer-reviewed Special Issue is focused in both, the mathematical and physical foundations of quantum computing. Researchers are welcome to present their original and recent developments, as well as review papers, on the topics listed below.

- Foundations of Quantum Computing
- Quantum Information Theory
- Quantum Algorithms
- Computational Logic
- Mathematical Logic
- Lambda Calculus and Type Theory
- Logical Frameworks
- Domain Theory and Categorical Models
- Quantum Communication
- Quantum Correlations
- Uncertainty relations
- Violation of Bell Inequalities
- Decoherence and Classical Limit
- Quantum Contextuality
- Quantum Logic

