



Quantum Probability and Randomness

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Message from the Guest Editors

Dear Colleagues,

The last few years have been characterized by a tremendous development of quantum information and probability and their applications including quantum computing, quantum cryptography and quantum random generators. In spite of the successful development of quantum technology, its foundational basis is still not concrete and contains a few sandy and shaky slices.

The areas covered include:

- Foundations of quantum information theory and quantum probability;
- Quantum versus classical randomness and quantum random generators;
- Generalized probabilistic models;
- Quantum contextuality and generalized contextual models;
- Bell's inequality, entanglement and randomness;
- Quantum probabilistic modeling of the process of decision making under uncertainty.

Of course, possible topics need not be restricted to the list above; any contribution directed to the improvement of quantum foundations, development of quantum probability and randomness is welcome.

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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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