Special Issue

Quantum Probability and Randomness IV

Message from the Guest Editors

The last few years have been characterized by tremendous developments in quantum information and probability and their applications, including quantum computing, quantum cryptography, and quantum random generators. Despite the successful development of quantum technology, its foundational basis is still not concrete and contains a few sandy and shaky slices. Quantum random generators are one of the most promising outputs of the recent quantum information revolution. Therefore, it is very important to reconsider the foundational basis of this project, starting with the notion of irreducible quantum randomness. The areas covered in this Special Issue include, but are not limited to: 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-like probabilistic modeling of the process of decision-making under uncertainty;
Quantum probability and information in biology.

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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.

Entropy is an online open access journal providing an advanced forum for the development and/or application of entropic and information-theoretic studies in a wide variety of applications. *Entropy* is inviting innovative and insightful contributions. Please consider *Entropy* as an exceptional home for your manuscript.

Editor-in-Chief

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