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## Quantum Decision-Making: From Cognitive Psychology and Social Science to Artificial Intelligent Systems

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### Message from the Guest Editor

The aim of this issue is to provide an overview of the latest challenges and achievements in the domain of the application of quantum models in a wide range of sciences, including but not limited to cognitive psychology, behavioral economics, biology, and artificial intelligence.

While being perfectly linear, quantum probabilistic models naturally cover such unorthodox phenomena as the question-order effect, conjunction and disjunction effects, positive or negative interference, update on zero prior, etc. At the same time, in certain aspects quantum models may be more restrictive than classical ones.

Variability and randomness are of a different nature in classical and quantum models.

There are known cases when quantum model research in cognitive psychology stimulated research in quantum physics, in particular, on the problem of combining the question-order effect and response replicability.

We hope that this issue will advance awareness and stimulate further development of the quantum model applications to decision-making under uncertainty.



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# Special Issue



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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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