Special Issue

Information Processing in Complex Biological Systems

Message from the Guest Editor

This Special Issue focuses on theoretical and experimental approaches to understanding information processing in complex biological and artificial systems, with particular emphasis on entropy-based analysis and optimization. We welcome contributions that advance our understanding of how biological and artificial systems encode, process, and transmit information, particularly emphasizing the following:

- Information theory applications in biological and artificial neural systems;
- Knowledge distillation and model compression techniques in neural networks;
- Entropy-based approaches to understanding system complexity and efficiency;
- Information processing optimization in resource-constrained environments;
- Bio-inspired approaches to efficient information processing;
- Computational modeling of information flow in complex systems;
- Low-rank and sparse representations in biological and artificial systems;
- Multi-scale information integration and processing;
- Energy-efficient information processing in biological and artificial systems;
- Quantitative measures of information compression and preservation.

Guest Editor

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About the Journal

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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