Special Issue

Multi-Scale Information Dynamics in Neural Circuits: Theoretical, Computational and Experimental Perspectives

Message from the Guest Editors

This Special Issue aims to enhance our comprehension of the storage, processing, and transfer of information in neural circuits across different scales. We welcome submissions embracing various methods and disciplines. We invite submissions that utilize a wide range of methodologies, particularly studies that move beyond traditional pairwise interactions and investigate high-order information transfer with advanced mathematical frameworks such as, but not limited to, information theory and hypergraphs. We strongly encourage contributions that integrate theoretical, computational, and statistical approaches. We aim to provide a comprehensive and transversal exploration of information transfer in networks of neurons. We seek contributions that explore the following fields:

- Theoretical Neuroscience
- Computational Neuroscience
- Experimental Neuroscience
- Cognitive Neuroscience

Guest Editors

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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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