



entropy



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Entropy and Complexity in Electrophysiology and Functional Imaging Signal Processing

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Message from the Guest Editors

This Special Issue welcomes original theoretical and experimental contributions proposing entropy-based methods (e.g., permutation entropy, Tsallis entropy) and, more generally, complexity constructs and addressing issues ranging from the mere quantification of observed neural activity to the modeling of fundamental brain principles. Of particular interest are contributions proposing multivariate and multiscale quantifiers, and topics such as the relation between dynamical complexity and spatial disorder or the role of higher-order correlations in large-scale brain activity.

Keywords

- EEG
- MEG
- fMRI
- entropy
- permutation entropy
- Tsallis entropy
- maximum entropy method
- entropy production
- complex networks
- topology-dynamics relationships

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Special Issue



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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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