



Entropy and Irreversibility in Biological Systems

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Message from the Guest Editors

The last few years have seen a dramatic increase in the availability of biological data, thanks to the introduction of new large-scale techniques, to screening programs applied to the general population, and to the availability of open-access data banks. However, the collection of data is not equivalent to the acquisition of knowledge, and data are only as significant as the analyses performed on them. When the objective of the analysis is to detect patterns, subsequently, the most crucial concepts are entropy and irreversibility.

In this Special Issue, we welcome contributions applying the concepts of entropy and irreversibility to biological systems at all scales, from processes inside the cell to the whole human body, in health and pathologies. Potential topics of the Special Issue include, but are not limited to, the following: metrics of entropy and irreversibility for biological time series; analysis of EEG, MEG, and EKG data; and analysis of postural and gait data. SI's scope includes but not limits to:

- entropy
- irreversibility
- neuroscience
- biology
- pathologies

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entropy



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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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