Special Issue

Entropy in Biological Systems

Message from the Guest Editors

Currently, a lot of quantitative information concerning biological systems has been accumulated. The molecular level of such systems can be considered well studied, and interactions between proteins and DNA or RNA, as well as between proteins and ligands, have shown the presence of many cooperative effects. Allosteric effects have been extensively studied by oxygen binding to hemoglobin and DNA–ligand interactions. All these effects help to coordinate the organization of biological systems, and thereby lead to a decrease in entropy. The entropic effects are also very important for the interactions between proteins and different RNAs, and thus for the regulation of multiple cellular processes. Physics has helped to uncover the processes of energy transformation over the past centuries, and entropy has been considered as a shadow of energy; however, now, entropy may be considered as the main tool for studying living systems. Entropy can shed light on the foundations of life processes. Your contributions in this “Entropy” Special Issue are highly valuable in order to expand our knowledge on the organization of living systems.

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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.

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