Applications of Symmetry in Computational Biology

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Message from the Guest Editors

Dear Colleagues,

In this Special Issue of *Symmetry*, we delve into the intricate role symmetry plays within the field of computational biology. Symmetry, a recurring theme in biological structures and processes, provides a unique perspective through which computational biological techniques can be applied to study a variety of biological problems. This issue aims to showcase innovative research where symmetry principles are applied to solve complex biological problems, ranging from molecular simulations to system-level analyses. The convergence of computational power and symmetrical models has the potential to unlock new understandings in areas such as macromolecular structures, genetic networks, mathematical biology, developmental biology, and evolution. Through original research articles as well as review articles, we invite contributors to explore the transformative impact of symmetry in computational biology research, fostering a deeper comprehension of life's underlying patterns and processes.

We are looking for submissions that cover a wide range of topics at the intersection of symmetry and computational biology, including but not limited to…

Special Issue

Editor-in-Chief

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Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

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