Special Issue

Biomolecular Structure and Interactions with Symmetry

Message from the Guest Editors

This Special Issue “Biomolecular Structure and Interactions with Symmetry” endeavors to probe the elaborate relationships between molecular symmetry and biomolecular functions. Symmetry is of crucial significance in dictating the structural organization and dynamic interactions of biomolecules, exerting a profound influence on processes such as protein folding, enzyme activity, and molecular recognition. Notably, the emerging concept of two-scale fractals in biomolecular systems adds an additional layer of complexity and fascination. It has been found that certain biomolecules exhibit fractal patterns at both the micro- and macro-scale, which may interact with symmetry principles in ways that are yet to be fully understood. This Special Issue solicits contributions that amalgamate computational, experimental, and theoretical approaches to decipher how symmetry principles and two-scale fractal characteristics jointly drive biomolecular interactions and stability. By unraveling these intricate connections, this Special Issue aims to foster novel insights into the molecular mechanisms underlying biological phenomena, opening new areas of exploration...

Guest Editors

Dr. Yixin (Chloe) Xie

Dr. Nazmus Sakib

Dr. Chen Zhao

Dr. Seyedamin Pouriyeh

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Symmetry
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
symmetry@mdpi.com

mdpi.com/journal/symmetry

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About the Journal

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.

Editor-in-Chief

Prof. Dr. Sergei Odintsov
1. ICREA, 08010 Barcelona, Spain
2. Institute of Space Sciences (IEEC-CSIC), C. Can Magrans s/n, 08193 Barcelona, Spain

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