

## Special Issue

# Symmetry in Metaheuristics: Combinatorial Optimization and Data Mining

### Message from the Guest Editors

We are pleased to invite you to contribute to this Special Issue, which explores the role of symmetry in metaheuristic algorithms for combinatorial optimization and data mining, especially in high-dimensional and many-objective contexts. Symmetry, whether present in solution spaces, objective functions, or data structures, can be leveraged to enhance diversity, improve convergence, and reduce computational complexity.

This Special Issue aims to bring together theoretical and applied research on how symmetry influences or can be exploited in metaheuristic algorithm design. We encourage submissions that address not only the presence and application of symmetry, but also its partial, hidden, or complete absence, which presents important challenges in real-world scenarios.

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### Guest Editors

Dr. Christian Daniel Von Lucken Martinez

Dr. Ana Lucila Sandoval Orozco

Prof. Dr. Enrique Dávalos

Dr. Nery Riquelme-Granada

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### Deadline for manuscript submissions

31 July 2026



## 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.

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### Editor-in-Chief

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