

## Special Issue

# Symmetry Principles in the Nuclear Magnetic Resonance

### Message from the Guest Editor

Symmetry is a theoretical concept with applications in all major scientific domains. The notion lies at the heart of fundamental laws of nature and serves as an important tool for understanding the properties of complex systems, both classical and quantum. In nuclear magnetic resonance, symmetry has been applied to both liquid and solid-state investigations. As an example, it has been used to classify NMR spectra in complex spin systems, the nature of long-lived nuclear spin probes, and it is at the very core of a number of relevant and cutting-edge techniques, such as PHIP, SABRE and DNP, currently used to elucidate a number of important problems. The aim of the present Special Issue is to emphasize the role of symmetry in modern NMR investigations. Specifically, it will consider how the manifestation of symmetry and symmetry-breaking laws can help in conceiving, designing and interpreting many important chemical and physical problems.

---

### Guest Editor

Dr. Gabriele Stevanato

Max Planck Institute for Biophysical Chemistry, 37077 Göttingen, Germany

---

### Deadline for manuscript submissions

closed (31 May 2023)



## Symmetry

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.2  
CiteScore 5.3



[mdpi.com/si/72839](https://mdpi.com/si/72839)

*Symmetry*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[symmetry@mdpi.com](mailto:symmetry@mdpi.com)

[mdpi.com/journal/  
symmetry](https://mdpi.com/journal/symmetry)





# Symmetry

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.2  
CiteScore 5.3



[mdpi.com/journal/  
symmetry](https://mdpi.com/journal/symmetry)



## 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

---

### Author Benefits

#### Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

#### High Visibility:

indexed within SCIE (Web of Science), Scopus, CAPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

#### Journal Rank:

JCR - Q2 (Multidisciplinary Sciences) / CiteScore - Q1 (General Mathematics)