



## Multidimensional Signal Processing and Its Applications

Guest Editors:

**Prof. Dr. Roumen Kountchev**

Faculty of Telecommunications,  
Department of Radio  
Communications and Video  
Technologies, Technical  
University of Sofia, 1000 Sofia,  
Bulgaria

**Dr. Rumen Mironov**

Faculty of Telecommunications,  
Department of Radio  
Communications and Video  
Technologies, Technical  
University of Sofia, 1000 Sofia,  
Bulgaria

Deadline for manuscript  
submissions:  
**closed (31 August 2022)**

### Message from the Guest Editors

One of the main tendencies in signal processing is the creation of new approaches for intelligent processing and analysis of multidimensional (MD) signals in various application areas. The advance of the contemporary computer systems opens new abilities for synergic relation between theoretical approaches and their applications.

Symmetry plays an important role in signal processing as it can be used to reduce the complexity of the problems to be solved in various application areas of modern life.

The aim of this Special Issue is to present investigations and achievements in the area of MD signal processing in various multidisciplinary areas: analysis and recognition of MD images, MD image representation, compression and super-resolution; MD images transmission; MD computer vision; neural networks for MD image processing; generic and fuzzy MD image object segmentation; MD image retrieval and mining; multi-spectral and multi-view intelligent image processing; web-based MD images search; forensic MD analysis; MD image interpolation; MD visualization, virtual and augmented reality and any other topics related to the concept of symmetry in MD signal processing.





an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Sergei D. Odintsov

1. Institució Catalana de Recerca  
i Estudis Avançats (ICREA),  
Passeig Luis Companys, 23,  
08010 Barcelona, Spain  
2. Institute of Space Sciences  
(ICE-CSIC), C. Can Magrans s/n,  
08193 Barcelona, Spain

## 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.

## Author Benefits

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

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

**Journal Rank:** JCR - Q2 (*Multidisciplinary Sciences*) / CiteScore - Q1 (General Mathematics)

## Contact Us

---

*Symmetry* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
www.mdpi.com

mdpi.com/journal/symmetry  
symmetry@mdpi.com  
X@Symmetry\_MDPI