



## Symmetry, Stability and Sustainability Issues Concerning Derivations

Guest Editors:

**Dr. Zbigniew Lesniak**

Mathematics Department,  
Pedagogical University of  
Kraków, 30-084 Kraków, Poland

**Prof. Dr. Janusz Brzdęk**

Faculty of Applied Mathematics,  
AGH University of Science and  
Technology, Aleja Adama  
Mickiewicza 30, 30-059 Kraków,  
Poland

**Prof. Dr. Ajda Fosner**

Faculty of Management,  
University of Primorska, SI-6104  
Koper, Slovenia

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

### Message from the Guest Editors

Dear Colleagues,

This Special Issue aims to focus on the derivations, various generalized notions of derivation, and the problem of their stability in the Ulam sense. Potential topics include properties and applications of different types of derivations (in the broad sense of the notion), including Lie derivation, Jordan derivations, and various characterizations of derivations by means of functional equations.

We also invite contributions related to the concept of Ulam type stability and concerning subjects such as approximate derivations, asymptotically approximate generalized derivations, and various stability, hyperstability, and superstability issues connected with derivations.

The concept of symmetry often plays an important role in the study of derivations, as can be seen, for example, in the case of biderivations and more generally  $n$ -derivations defined on various algebraic structures. Moreover, in the stability results, the distances between the approximate solution and the exact solution of the considered equations are mainly measured by functions that are symmetric in some ways.





## Editor-in-Chief

### Prof. Dr. Sergei D. Odintsov

1. Institutió 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*); Q1 (*Physics and Astronomy*); Q1 (*Computer Science*)

## Contact Us

Symmetry Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

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

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