

## Special Issue

# Symmetry and Asymmetry in Cyber Security, IoTs and Privacy

### Message from the Guest Editors

In cybersecurity, there is often a symmetrical aspect to defense and attack strategies. Attackers may seek corresponding weaknesses or vulnerabilities to exploit for every security measure implemented to protect computer systems. This ongoing back-and-forth between defenders and attackers resembles the concept of symmetry in adversarial relationships. The vulnerability discovery process exemplifies this dynamic. While security researchers work to identify vulnerabilities and create patches, attackers race to exploit these weaknesses before fixes are released. IoT security also presents an inherent asymmetry, where resource-constrained devices face adversaries with more significant resources and time, creating an imbalanced power dynamic. Additionally, privacy issues, including cyber threats' legal and ethical implications, can be examined through symmetrical and asymmetrical lenses. Understanding these aspects of symmetry and asymmetry in cybersecurity is crucial for researchers and practitioners in the field.

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### Guest Editors

Prof. Dr. Rodrigo Sanches Miani

School of Computer Science, Federal University of Uberlândia, Uberlândia 38408-100, Brazil

Dr. Bruno Bogaz Zarpelão

Computer Science Department, State University of Londrina (UEL), Londrina 86057-970, Brazil

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## Symmetry

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

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### 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

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

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