

Special Issue

Symmetry and Asymmetry in Cryptography and Cyber Security

Message from the Guest Editor

Symmetry and asymmetry lie at the heart of cryptography, shaping the landscape of modern cybersecurity. The dichotomy between symmetric and asymmetric cryptographic schemes underscores their fundamental roles in securing digital communications and data. In the realm of cybersecurity, the dynamics of symmetry and asymmetry dictate the balance of power between attackers and defenders, influencing the effectiveness of defensive measures and the resilience of systems against malicious actors. This Special Issue seeks to explore the nuanced interplay of symmetry and asymmetry in cybersecurity. We invite contributions that delve into various facets of this theme, including but not limited to novel cryptographic techniques, comparative analyses of symmetric and asymmetric protocols, the implications of quantum computing on cryptographic resilience, and strategies for mitigating emerging cyber threats through advanced cryptographic methodologies.

Guest Editor

Dr. Ruslan Shevchuk

1. Department of Computer Science and Automatics, Faculty of Mechanical Engineering and Computer Science, University of Bielsko-Biala, 43-309 Bielsko-Biala, Poland

2. Department of Computer Science, West Ukrainian National University, 46009 Ternopil, Ukraine

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Symmetry
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
symmetry@mdpi.com

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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.

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

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