



Advances in Cryptography and Blockchain: Mathematics for Healthcare Security

Guest Editors:

Dr. Tuan-Vinh Le

Prof. Dr. Chien-Lung Hsu

Prof. Dr. Ming Hour Yang

Dr. Chung-Fu Lu

Deadline for manuscript
submissions:

closed (31 August 2024)

Message from the Guest Editors

Emerging blockchain technology provides a decentralized platform ensuring transparency, data integrity, patient anonymity, traceability, and nonrepudiation. Furthermore, mathematics is essential in providing increased security and confirming the validity of any cryptographic or blockchain-based design.

This Special Issue seeks papers on innovative cryptographic methods, new blockchain designs, or creative integrations of cryptography and blockchains in a single design to address related issues. Topics of interest include, but are not limited to, the following:

1. Mathematics-based security designs for smart healthcare;
2. Secure cryptographic tools or protocols for healthcare systems;
3. Applied cryptography for healthcare;
4. Lightweight cryptography for IoT-based healthcare communications;
5. Post-quantum cryptography for healthcare;
6. Secure Internet of Medical Things (IoMT);
7. Blockchain-enabled designs for smart healthcare;
8. Security and privacy in blockchain-based smart healthcare;
9. Blockchain-based trusted protocols for healthcare communications;
10. New consensus mechanisms for healthcare blockchains;
11. Reliable smart contracts for healthcare communications.





Editor-in-Chief

Prof. Dr. Francisco Chiclana

School of Computer Science and
Informatics, De Montfort
University, The Gateway,
Leicester LE1 9BH, UK

Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

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), RePEc, and other databases.

Journal Rank: JCR - Q1 (Mathematics) / CiteScore - Q1 (General Mathematics)

Contact Us

Mathematics Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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

mdpi.com/journal/mathematics
mathematics@mdpi.com
[X@MathematicsMDPI](https://twitter.com/MathematicsMDPI)