

# Special Issue

## Applied Cryptography and Blockchain Security

### Message from the Guest Editor

Applied Cryptography is about cryptographic algorithms, protocols, and systems that are used in real-world applications to ensure the confidentiality, integrity, and authenticity of data. Blockchain Security involves the design, analysis, and implementation of security measures that can protect the data and transactions stored on the blockchain from attacks by malicious actors. With the increasing trend in Blockchain applications, it is crucial to develop cryptographic techniques which can be applied in blockchain applications to improve the security and privacy of blockchain systems. This Special Issue will focus on recent studies of cryptographic solutions in enhancing the security of blockchain applications. Topics include but are not limited to

- Cryptographic primitives and protocols for blockchain applications;
- Privacy and anonymity in blockchain systems;
- Consensus algorithms and their security analysis;
- Smart contract security;
- Attacks and vulnerabilities in blockchain systems;
- Blockchain-based solutions for secure and private data sharing.

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### Guest Editor

Dr. Hui Cui  
Faculty of IT, Monash University, Clayton Campus, Melbourne, Australia

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### Deadline for manuscript submissions

closed (31 August 2025)



## Mathematics

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## About the Journal

### 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.

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### Editor-in-Chief

Prof. Dr. Francisco Chiclana  
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#### Rapid Publication:

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