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.

Guest Editor

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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.

Editor-in-Chief

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.4 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).