Special Issue

Privacy-Preserving Techniques in AI, Blockchain and Cloud Systems with Formal Mathematical Analysis

Message from the Guest Editors

This Special Issue aims to bring together researchers and practitioners to tackle these research frontiers and challenges. By fostering collaboration between academia and industry, this Special Issue seeks to contribute to the development of secure, privacy-preserving and trustworthy application systems. Topics of interest for this Special Issue include, but are not limited to, the following:

- AI-driven threat detection and mitigation in blockchain networks and cloud communications, utilizing statistical methods and machine learning techniques.
- Privacy-enhancing cryptography for AI, blockchain, and cloud applications, with a focus on the mathematical foundations of cryptographic protocols and secure multi-party computation.
- Privacy-preserving federated learning in distributed environments, incorporating secure aggregation and homomorphic encryption.
- Trust and reputation mechanisms in AI, blockchain and cloud systems.
- Privacy and security challenges in flexible and scalable applications (e.g., healthcare, finance, supply chain), exploring the mathematical foundations of risk assessment and threat modeling.

Guest Editors

Dr. Jialing He

Prof. Dr. Zhi Fang

Dr. Chunhai Li

Deadline for manuscript submissions

closed (30 November 2024)

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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