Special Issue

Theory of Algorithms and Recursion Theory

Message from the Guest Editor

The theory of algorithms is a part of computer science connected to the development of fast effective algorithms for various classes of tasks of Mathematics and its applications to practical aspects of human activity, such as information defense, searching and sorting algorithms in database systems, machine learning, etc. Theoretical aspects of the theory of algorithms include such directions as classification of algorithms by their complexity, study of unsolvable problems, elaboration of special algorithms for quantum computers, and so on. This Special Issue looks for novel developments in both theoretical and practical aspects of the theory of algorithms, including:

- Complexity theory of algorithms;
- Recursion theory and algebraic aspects of algorithms structures;
- Elaboration of fast algorithms for practical tasks in computer science;
- Cryptographic algorithms for reliable cyphering of crucial data;
- Algorithms for breaking computer ciphers;
- Novel algorithms for quantum computers.

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Deadline for manuscript submissions

closed (30 May 2023)

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Mathematics

an Open Access Journal by MDPI

**Impact Factor 2.2
CiteScore 4.6**

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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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