Special Issue

Combinatorics and Computation in Commutative Algebra

Message from the Guest Editors

Commutative algebra is a classical area of mathematics that studies algebraic structures over commutative rings. From its early stage, commutative algebra has also had deep interactions with other disciplines of mathematics such as algebraic geometry, number theory, representation theory, algebraic topology and, more recently, algebraic combinatorics, computational algebra, coding theory or cryptography. Commutative algebra has, in particular, a strong interplay with combinatorics, from which it extracts and to which it transfers ideas, results, and techniques. On the other hand, algorithmic methods have acquired an important role in commutative algebra due to the development of techniques based on Gröbner bases, which have allowed the creation of powerful algorithms. The aim of this Special Issue of *Mathematics* is to show recent trends on combinatorial and computational aspects of commutative algebra and its applications. We cordially invite you to present your recent contributions to this Special Issue.

Guest Editors

Prof. Dr. Philippe Gimenez

Prof. Dr. Ignacio García Marco

Prof. Dr. Eduardo Sáenz De Cabezón

Deadline for manuscript submissions closed (29 February 2024)



an Open Access Journal by MDPI

Impact Factor 2.2 CiteScore 4.6



mdpi.com/si/90517

Mathematics Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 mathematics@mdpi.com

mdpi.com/journal/ mathematics



Σ

Mathematics

an Open Access Journal by MDPI

Impact Factor 2.2 CiteScore 4.6



mathematics



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

Prof. Dr. Francisco Chiclana School of Computer Science and Informatics, De Montfort University, The Gateway, Leicester LE1 9BH, UK

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), RePEc, and other databases.

Journal Rank:

JCR - Q1 (Mathematics) / CiteScore - Q1 (General Mathematics)

Rapid Publication:

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).