

Special Issue

Advances in Combinatorics, Tropical Geometry and Geometry of Matroids

Message from the Guest Editors

This Special Issue aims to bring together a diverse set of contributions that demonstrate the depth and breadth of these interconnected fields, while celebrating 25 years of tropical geometry. Both theoretical and applied perspectives are encouraged. Topics include, but are not limited to, the following:

- Matroid theory, geometry of matroids, and connections to topology and polyhedral geometry;
- Tropical geometry: intersection theory, moduli, invariants (e.g., CSM classes), and applications in algebraic geometry, number theory, and optimization;
- Computational and algorithmic algebraic geometry; symbolic and numeric methods supporting experimentation;
- Chern–Schwartz–MacPherson classes, characteristic cycles, and related invariants;
- Toric and Schubert geometry and interactions with representation theory;
- Combinatorics of polytopes, fans, and Coxeter/cluster structures;
- Enumerative problems in tropical and matroidal settings;
- Algebra and geometry over the “field with one element”;
- Applications to singularity theory, moduli problems, and related areas;
- Connections between tropical geometry, representation theory, and mathematical physics.

Guest Editors

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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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