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EDITORIAL

A special issue: Computer algebra

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Computational methods are now extensively employed across all fields of mathematics, whether for classifications, explicit enumerations, or to assist in experiments that lead to new theoretical insights. Open-source computer algebra systems such as SAGE (https://www.sagemath.org/), OSCAR (https://www.oscar-system.org/) or Macaulay2 (https://macaulay2.com/) provide powerful tools accessible to anyone involved in mathematical research and education. Some members of the editorial board actively contribute to these systems, while others use computational techniques significantly in their work.

The managing editors have encouraged these experts, along with their networks, to contribute high-quality original research articles in the field of computational algebra. The papers in this special issue cover a diverse range of topics related to computational aspects of algebra and geometry, including Gröbner bases techniques, polyhedral geometry, applications to classification problems in algebraic geometry and theoretical physics, and matroid theory, among others.

It is also evident that this collection represents only a fraction of the broad spectrum of mathematical areas and methods currently utilized in algorithmic and computational algebra. All articles in this issue have undergone rigorous peer review, in line with the journal's standards. We hope this special issue highlights the dynamic nature of research involving computational methods and fosters further advancements in this exciting area of algebra and geometry.

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