

PREFACE

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The field of commutative algebra is a vast one. Its roots lie in the theory of equations, and this common source is reflected in the interplay between algebraic number theory and algebraic geometry. Over the decades, commutative algebra has branched many times. In the 1950s homological algebra developed and evolved from an important tool in the study of algebra and other fields to a discipline in its own right. Technological advances over the last two decades have spawned the new field of computational commutative algebra, which has in turn led to the use of algebra on a broad range of applied problems. In short, contemporary commutative algebra ranges from very axiomatic topics in the spirit of Emmy Noether to topics with origins in applied fields such as mathematical biology and coding theory. This issue you are holding represents this range: there are papers on combinatorial commutative algebra, multiplicative ideal theory, syzygies and free resolutions, integral closures, and idealizations.

The Journal of Commutative Algebra is a research journal that publishes high quality results in commutative algebra and related fields. This is an ambitious task since commutative algebra is intertwined with many fundamental fields of mathematics. In particular, the melting pot of commutative algebra encompasses topics with ramifications that reach into such diverse fields as abelian groups, combinatorics, module theory, K-theory, homological algebra, and number theory, and this only begins to scratch the surface. It is the aim of this journal to become a major source of dissemination of new and profound research in commutative algebra, and to find a place of common ground for this wide and varied field of research. In pursuit of this goal, the Journal of Commutative Algebra welcomes submissions of original and interesting research articles. JCA aims to publish important articles that are of general interest to the extended commutative algebra community. Expository articles of high quality and broad relevance are also welcome. In particular, we would like to encourage submission of survey articles that discuss outstanding problems in the field and are able to provide historical perspective.