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ISBN	3-319-43601-5
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (XVIII, 321 p. 1 illus.)
Disciplina	512.24
Soggetti	Commutative algebra Commutative rings Matrix theory Algebra Commutative Rings and Algebras Linear and Multilinear Algebras, Matrix Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Foreword -- Introduction -- 1 Endomorphisms -- 2 Families of Commuting Endomorphisms -- 3 Special Families of Endomorphisms -- 4 Zero-Dimensional Affine Algebras -- 5 Computing Primary and Maximal Components -- 6 Solving Zero-Dimensional Polynomial Systems -- Notation -- References -- Index.
Sommario/riassunto	This book combines, in a novel and general way, an extensive development of the theory of families of commuting matrices with applications to zero-dimensional commutative rings, primary decompositions and polynomial system solving. It integrates the Linear Algebra of the Third Millennium, developed exclusively here, with classical algorithmic and algebraic techniques. Even the experienced reader will be pleasantly surprised to discover new and unexpected aspects in a variety of subjects including eigenvalues and eigenspaces of linear maps, joint eigenspaces of commuting families of endomorphisms, multiplication maps of zero-dimensional affine algebras, computation of primary decompositions and maximal ideals, and solution of polynomial systems. This book completes a trilogy

initiated by the uncharacteristically witty books Computational Commutative Algebra 1 and 2 by the same authors. The material treated here is not available in book form, and much of it is not available at all. The authors continue to present it in their lively and humorous style, interspersing core content with funny quotations and tongue-in-cheek explanations.
