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Soggetti	Commutative algebra Commutative rings Number theory Group theory Associative rings Rings (Algebra) Algebraic geometry Commutative Rings and Algebras Number Theory Group Theory and Generalizations Associative Rings and Algebras Algebraic Geometry
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Multiplicative Ideal Theory in Non-commutative Rings (E. Akalan, H. Marubayashi) -- About number fields with Pólya group of order 2 (D. Adam, J.-L. Chabert) -- The interplay of Invariant Theory with Multiplicative Ideal Theory and with Arithmetic Combinatorics (K. Ciczler, M. Domokos, A. Geroldinger) -- Ring and semigroup constructions (M. D'Anna) -- New Distinguished Classes of Spectral Spaces (C.A. Finocchiaro, M. Fontana, D. Spirito) -- Relative polynomial closure and monadically Krull monoids of integer-valued polynomials (S. Frisch).-An overview of the computational aspects of nonunique

factorization invariants (P.A. García-Sánchez).-Arithmetic of Mori domains and monoids: The global case (F. Kainrath) -- Prüfer Domains of Integer-Valued Polynomials (K.A. Loper, M. Syvuk) -- Local Properties of Integral Domains (T.G. Lucas) -- Topological aspects of irredundant intersections of ideals and valuation rings (B. Olberding) -- Noetherian semigroup algebras and beyond (J. Okniski) -- Idempotent pairs and PRINC domains (G. Peruginelli, L. Salce, P. Zanardo) -- Some recent results and open problems on sets of lengths of Krull monoids with finite class group (W.A. Schmid) -- Factorizations of elements in noncommutative rings: A survey (D. Smertnig).

Sommario/riassunto

This book consists of both expository and research articles solicited from speakers at the conference entitled "Arithmetic and Ideal Theory of Rings and Semigroups," held September 22–26, 2014 at the University of Graz, Graz, Austria. It reflects recent trends in multiplicative ideal theory and factorization theory, and brings together for the first time in one volume both commutative and non-commutative perspectives on these areas, which have their roots in number theory, commutative algebra, and algebraic geometry. Topics discussed include topological aspects in ring theory, Prüfer domains of integer-valued polynomials and their monadic submonoids, and semigroup algebras. It will be of interest to practitioners of mathematics and computer science, and researchers in multiplicative ideal theory, factorization theory, number theory, and algebraic geometry.
