1. Record Nr. UNINA9910254291203321 Autore Gorodentsev Alexey L Titolo Algebra II: Textbook for Students of Mathematics / / by Alexey L. Gorodentsev Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2017 **ISBN** 3-319-50853-9 Edizione [1st ed. 2017.] 1 online resource (XV, 370 p. 155 illus., 2 illus. in color.) Descrizione fisica Disciplina 512.9 Soggetti Algebra Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia §1Tensor Products -- §2 Tensor Algebras -- §3 Symmetric Functions Nota di contenuto -- §4 Calculus of Arrays, Tableaux, and Diagrams -- §5 Basic Notions of Representation Theory -- §6 Representations of Finite Groups in Greater Detail -- §7 Representations of Symmetric Groups -- §8 sl 2-Modules -- §9 Categories and Functors -- §10 Extensions of Commutative Rings -- §11 Affine Algebraic Geometry -- §12 Algebraic Manifolds -- §13 Algebraic Field Extensions -- §14 Examples of Galois Groups -- References -- Hints to Some Exercises -- Index. Sommario/riassunto This book is the second volume of an intensive "Russian-style" twoyear undergraduate course in abstract algebra, and introduces readers to the basic algebraic structures – fields, rings, modules, algebras. groups, and categories - and explains the main principles of and methods for working with them. The course covers substantial areas of advanced combinatorics, geometry, linear and multilinear algebra, representation theory, category theory, commutative algebra, Galois theory, and algebraic geometry – topics that are often overlooked in standard undergraduate courses. This textbook is based on courses the author has conducted at the Independent University of Moscow and at the Faculty of Mathematics in the Higher School of Economics. The main content is complemented by a wealth of exercises for class discussion, some of which include comments and hints, as well as problems for independent study.