Record Nr. UNINA9910460805403321 Autore Jespers Eric Titolo Group ring groups . Volume 2 Structure theorems of unit groups // Eric Jespers, Angel del Rio Mateos Pubbl/distr/stampa Berlin, Germany;; Boston, [Massachusetts]:,: De Gruyter,, 2016 ©2016 **ISBN** 3-11-041150-4 3-11-041275-6 Descrizione fisica 1 online resource (228 pages): illustrations Collana De Gruyter Graduate Disciplina 512.4 Group rings Soggetti Rings (Algebra) Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Bibliographic Level Mode of Issuance: Monograph Note generali Includes bibliographical references and indexes. Nota di bibliografia Nota di contenuto Front matter -- Preface -- Contents -- 14. Free Groups -- 15. Hyperbolic geometry -- 16. Poincaré's Theorem -- 17. Fundamental polyhedra -- 18. Unit groups of orders in quaternion algebras -- 19. Virtually free-by-free groups -- References -- Index of Notation --Index This two-volume graduate textbook gives a comprehensive, state-of-Sommario/riassunto the-art account of describing large subgroups of the unit group of the integral group ring of a finite group and, more generally, of the unit group of an order in a finite dimensional semi-simple rational algebra. Since the book is addressed to graduate students as well as young researchers, all required background on these diverse areas, both old and new, is included. Supporting problems illustrate the results and complete some of the proofs. Volume 1 contains all the details on describing generic constructions of units and the subgroup they generate. Volume 2 mainly is about structure theorems and geometric methods. Without being encyclopedic, all main results and techniques used to achieve these results are included. Basic courses in group

theory, ring theory and field theory are assumed as background.