Record Nr. UNINA9910784305103321 Autore Goodearl K. R. Titolo An introduction to noncommutative noetherian rings / / K.R. Goodearl, R.B. Warfield, Jr [[electronic resource]] Cambridge: ,: Cambridge University Press, , 2004 Pubbl/distr/stampa **ISBN** 1-107-16158-4 1-280-54067-2 9786610540679 0-511-21550-9 0-511-21729-3 0-511-21192-9 0-511-31588-0 0-511-84169-8 0-511-21369-7 Edizione [Second edition.] Descrizione fisica 1 online resource (xxiv, 344 pages) : digital, PDF file(s) London Mathematical Society student texts;; 61 Collana Disciplina 512/.4 Soggetti Noetherian rings Noncommutative rings Lingua di pubblicazione Inglese Materiale a stampa **Formato** Livello bibliografico Monografia Note generali Title from publisher's bibliographic system (viewed on 05 Oct 2015). Nota di bibliografia Includes bibliographical references (p. [328]-337) and index. Nota di contenuto Cover; Series-title; Title; Copyright; Contents; Introduction to the Second Edition: Introduction to the First Edition: Prologue: 1. A Few Noetherian Rings; 2. Skew Polynomial Rings; 3. Prime Ideals; 4. Semisimple Modules, Artinian Modules, and Torsionfree Modules; 5. Injective Hulls; 6. Semisimple Rings of Fractions; 7. Modules over Semiprime Goldie Rings; 8. Bimodules and A.liated Prime Ideals; 9. Fully Bounded Rings; 10. Rings and Modules of Fractions; 11. Artinian Quotient Rings: 12. Links Between Prime Ideals: 13. The Artin-Rees Property: 14. Rings Satisfying the Second Layer Condition 15. Krull Dimension16. Numbers of Generators of Modules; 17. Transcendental Division Algebras; Appendix. Some Test Problems for

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Sommario/riassunto

This 2004 introduction to noncommutative noetherian rings is intended

to be accessible to anyone with a basic background in abstract algebra. It can be used as a second-year graduate text, or as a self-contained reference. Extensive explanatory discussion is given, and exercises are integrated throughout. Various important settings, such as group algebras, Lie algebras, and quantum groups, are sketched at the outset to describe typical problems and provide motivation. The text then develops and illustrates the standard ingredients of the theory: e.g., skew polynomial rings, rings of fractions, bimodules, Krull dimension, linked prime ideals. Recurring emphasis is placed on prime ideals, which play a central role in applications to representation theory. This edition incorporates substantial revisions, particularly in the first third of the book, where the presentation has been changed to increase accessibility and topicality. Material includes the basic types of quantum groups, which then serve as test cases for the theory developed.