Record Nr. UNINA9910463483903321 Autore Enochs Edgar E Titolo Relative homological algebra . Volume 1 [[electronic resource] /] / Edgar E. Enochs, Overtoun M.G. Jenda Berlin; ; Boston, : De Gruyter, c2011 Pubbl/distr/stampa **ISBN** 1-283-42903-9 9786613429032 3-11-021521-7 Edizione [2nd rev. and extended ed.] Descrizione fisica 1 online resource (376 p.) Collana De Gruyter expositions in mathematics;; 30 Classificazione SK 260 Altri autori (Persone) JendaOvertoun M. G 512/.64 Disciplina Soggetti Algebra, Homological Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Front matter -- Preface -- Preface to the Second Edition -- Contents --Chapter 1. Basic Concepts -- Chapter 2. Flat Modules, Chain Conditions and Prime Ideals -- Chapter 3. Injective and Flat Modules --Chapter 4. Torsion Free Covering Modules -- Chapter 5. Covers --Chapter 6. Envelopes -- Chapter 7. Covers, Envelopes, and Cotorsion Theories -- Chapter 8. Relative Homological Algebra and Balance --Chapter 9. Iwanaga-Gorenstein and Cohen-Macaulay Rings and Their Modules -- Chapter 10. Gorenstein Modules -- Chapter 11. Gorenstein Covers and Envelopes -- Chapter 12. Balance over Gorenstein and Cohen-Macaulay Rings -- Bibliographical Notes -- Bibliography --Index Sommario/riassunto This is the second revised edition of an introduction to contemporary relative homological algebra. It supplies important material essential to understand topics in algebra, algebraic geometry and algebraic topology. Each section comes with exercises providing practice problems for students as well as additional important results for specialists. In this new edition the authors have added well-known additional material in the first three chapters, and added new material

that was not available at the time the original edition was published. In particular, the major changes are the following: Chapter 1: Section 1.2

has been rewritten to clarify basic notions for the beginner, and this has necessitated a new Section 1.3. Chapter 3: The classic work of D. G. Northcott on injective envelopes and inverse polynomials is finally included. This provides additional examples for the reader. Chapter 11: Section 11.9 on Kaplansky classes makes volume one more up to date. The material in this section was not available at the time the first edition was published. The authors also have clarified some text throughout the book and updated the bibliography by adding new references. The book is also suitable for an introductory course in commutative and ordinary homological algebra.