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Nota di contenuto	Contents ; Preface ; Part 1. Abelian Covers ; Chapter 1. Links ; 1.1. Basic notions ; 1.2. The link group ; 1.3. Homology boundary links ; 1.4. Z/2Z-boundary links ; 1.5. Isotopy concordance and π_1 -equivalence ; 1.6. Link homotopy and surgery ; 1.7. Ribbon links 1.8. Link-symmetric groups 1.9. Link composition ; Chapter 2. Homology and Duality in Covers ; 2.1. Homology and cohomology with local coefficients ; 2.2. Covers of link exteriors ; 2.3. Poincare duality and the Blanchfield pairings ; 2.4. The total linking number cover 2.5. The maximal abelian cover 2.6. Concordance ; 2.7. Additivity ; 2.8. The Seifert approach for boundary 1-links ; 2.9. Signatures ; Chapter 3. Determinantal Invariants ; 3.1. Elementary ideals ; 3.2. The Elementary Divisor Theorem ; 3.3. Extensions 3.4. Reidemeister-Franz torsion 3.5. Steinitz- Fox-Smythe invariants ; 3.6. 1- and 2- dimensional rings ; 3.7. Bilinear pairings ; Chapter 4. The Maximal Abelian Cover ; 4.1. Metabelian groups and the Crowell sequence

; 4.2. Free metabelian groups ; 4.3. Link module sequences
4.4. Localization of link module sequences
4.5. Chen groups ; 4.6. Applications to links
; 4.7. Chen groups nullity and longitudes ;
4.8. I-equivalence ; 4.9. The sign-determined Alexander polynomial ; 4.10. Higher dimensional links ; Chapter 5. Sublinks and Other Abelian Covers
5.1. The Torres conditions

Sommario/riassunto

This book is intended as a reference on links and on the invariants derived via algebraic topology from covering spaces of link exteriors. It emphasizes features of the multicomponent case not normally considered by knot theorists, such as longitudes, the homological complexity of many-variable Laurent polynomial rings, free coverings of homology boundary links, the fact that links are not usually boundary links, the lower central series as a source of invariants, nilpotent completion and algebraic closure of the link group, and disc links. Invariants of the types considered here play an esse
