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Collana	Ergebnisse der Mathematik und ihrer Grenzgebiete. 3. Folge / A Series of Modern Surveys in Mathematics, , 0071-1136 ; ; 66
Disciplina	512.2
Soggetti	Topological groups Lie groups Graph theory Group theory Topological Groups, Lie Groups Graph Theory Group Theory and Generalizations
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Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	1 Preliminaries -- Part I Basic Theory -- 2 Profinite Graphs -- 3 The Fundamental Group of a Profinite Graph -- 4 Profinite Groups Acting on C-Trees -- 5 Free Products of Pro-C Groups -- 6 Graphs of Pro-C Groups -- Part II Applications to Profinite Groups -- 7 Subgroups of Fundamental Groups of Graphs of Groups -- 8 Minimal Subtrees -- 9 Homology and Graphs of Pro-C Groups -- 10 The Virtual Cohomological Dimension of Profinite Groups -- Part III Applications to Abstract Groups -- 11 Separability Conditions in Free and Polycyclic Groups -- 12 Algorithms in Free Groups and Monoids -- 13 Abstract Groups vs their Profinite Completions -- 14 Conjugacy in Free Products and in Free-by-finite Groups -- 15 Conjugacy Separability in Amalgamated Products -- Appendix A Abstract Graphs -- Appendix B Rational Sets in Free Groups and Automata -- Bibliography -- Index.
Sommario/riassunto	This book offers a detailed introduction to graph theoretic methods in profinite groups and applications to abstract groups. It is the first to provide a comprehensive treatment of the subject. The author begins

by carefully developing relevant notions in topology, profinite groups and homology, including free products of profinite groups, cohomological methods in profinite groups, and fixed points of automorphisms of free pro- $p$  groups. The final part of the book is dedicated to applications of the profinite theory to abstract groups, with sections on finitely generated subgroups of free groups, separability conditions in free and amalgamated products, and algorithms in free groups and finite monoids. Profinite Graphs and Groups will appeal to students and researchers interested in profinite groups, geometric group theory, graphs and connections with the theory of formal languages. A complete reference on the subject, the book includes historical and bibliographical notes as well as a discussion of open questions and suggestions for further reading.

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