

1. Record Nr.	UNINA9910788660403321
Titolo	Groups, languages, algorithms : AMS-ASL Joint Special Session on Interactions between Logic, Group Theory, and Computer Science, January 16-19, 2003, Baltimore, Maryland / / Alexandre V. Borovik, editor
Pubbl/distr/stampa	Providence, Rhode Island : , : American Mathematical Society, , [2005] ©2005
ISBN	0-8218-7968-5 0-8218-3618-8
Descrizione fisica	1 online resource (360 p.)
Collana	Contemporary mathematics, , 0271-4132 ; ; 378
Disciplina	512.2
Soggetti	Group theory Finite groups Infinite groups
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.
Nota di contenuto	""Contents""; ""Preface""; ""Formal languages and their application to combinatorial group theory""; ""1. Introduction""; ""2. Notation and definitions""; ""3. Regular languages""; ""4. Rational sets""; ""5. Context free languages""; ""7. Other language classes""; ""References""; ""Regular free length functions on Lyndon's free $Z[t]$ -group $FZ[t]$ ""; ""1. Introduction""; ""2. Preliminaries""; ""3. A-words""; ""4. A free Lyndon length function on $CDR(A, X)$ ""; ""5. Lyndon's Exponentiation""; ""6. Extensions of centralizers""; ""7. Embedding of $Fz[t]$ into $CDR(Z[t], X)$ "" ""8. Algorithmic problems for $FZ[t]$ """"References""; ""A-free groups and tree-free groups""; ""Effective JSJ decompositions""; ""Introduction""; ""1. Preliminaries""; ""2. Splittings""; ""3. Algorithms over fully residually free groups""; ""4. Generalized equations over free groups""; ""5. Elimination process: construction of $T(a??)$ ""; ""6. Elimination process: periodic structures""; ""7. Elimination process: splittings of coordinate groups""; ""8. Structure of solutions, the solution tree $Tsol(a??, A)$ ""; ""9. Maximal standard quotients and canonical embeddings of F -groups"" ""10. Effective free decompositions""""11. Homomorphisms of finitely

generated groups into fully residually free groups""; ""12. Free Lyndon length functions on NTQ groups.""; ""13. Effective construction of JSJ decompositions of groups from F.""; ""14. Homomorphisms into NTQ groups""; ""15. Some applications to equations in F-groups"";
""References""; ""Algebraic geometry over free groups: Lifting solutions into generic points""; ""Introduction""; ""1. Scheme of the proof""; ""2. Elementary properties of liftings""; ""3. Cut equations""
""4. Basic automorphisms of orientable quadratic equations""""5. Generic solutions of orientable quadratic equations""; ""6. Small cancellation solutions of standard orientable equations""; ""7. Implicit function theorem for quadratic equations""; ""8. Implicit function theorem for NTQ systems""; ""9. Groups that are elementary equivalent to a free group""; ""References""; ""Divisibility theory and complexity of algorithms for free partially commutative groups""; ""1. Introduction"";
""2. Free partially commutative groups""; ""3. Divisibility Theory""
""4. Normal forms arising from H N N extensions""""5. Conjugacy problem""; ""6. Complexity of algorithms: some estimates"";
""References""
