

1. Record Nr.	UNINA9910824922703321
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Titolo	Formal languages, automata and numeration systems 2 // Michel Rigo
Pubbl/distr/stampa	London, England ; ; Hoboken, New Jersey : , : ISTE : , : Wiley, , 2014 ©2014
ISBN	1-119-04286-0 1-119-04285-2 1-119-04295-X
Descrizione fisica	1 online resource (274 p.)
Collana	Networks and Telecommunications Series
Disciplina	001.642
Soggetti	Computer programming Formal languages Machine theory
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	Cover page; Half-Title page; Title page; Copyright page; Contents; Foreword; Introduction; I.1. What this book is or is not about; I.2. A few words about what you will find; I.3. How to read this book; I.4. Acknowledgments; 1: Crash Course on Regular Languages; 1.1. Automata and regular languages; 1.2. Adjacency matrix; 1.3. Multidimensional alphabet; 1.4. Two pumping lemmas; 1.5. The minimal automaton; 1.6. Some operations preserving regularity; 1.7. Links with automatic sequences and recognizable sets; 1.8. Polynomial regular languages; 1.8.1. Tiered words 1.8.2. Characterization of regular languages of polynomial growth 1.8.3. Growing letters in morphic words; 1.9. Bibliographic notes and comments; 2: A Range of Numeration Systems; 2.1. Substitutive systems; 2.2. Abstract numeration systems; 2.2.1. Generalization of Cobham's theorem on automatic sequences; 2.2.2. Some properties of abstract numeration systems; 2.3. Positional numeration systems; 2.4. Pisot numeration systems; 2.5. Back to -expansions; 2.5.1. Representation of real numbers; 2.5.2. Link between representations of integers and real numbers 2.5.3. Ito-Sadahiro negative base systems 2.6. Miscellaneous systems;

2.7. Bibliographical notes and comments; 3: Logical Framework and Decidability Issues; 3.1. A glimpse at mathematical logic; 3.1.1. Syntax; 3.1.2. Semantics; 3.2. Decision problems and decidability; 3.3. Quantifier elimination in Presburger arithmetic; 3.3.1. Equivalent structures; 3.3.2. Presburger's theorem and quantifier elimination; 3.3.3. Some consequences of Presburger's theorem; 3.4. Buchi's theorem; 3.4.1. Definable sets; 3.4.2. A constructive proof of Buchi's theorem; 3.4.3. Extension to Pisot numeration systems; 3.5. Some applications 3.5.1. Properties about automatic sequences; 3.5.2. Overlap-freeness; 3.5.3. Abelian unbordered factors; 3.5.4. Periodicity; 3.5.5. Factors; 3.5.6. Applications to Pisot numeration systems; 3.6. Bibliographic notes and comments; 4: List of Sequences; Bibliography; Index; Volume 1 - Contents; Volume 1 - Index

Sommario/riassunto

The interplay between words, computability, algebra and arithmetic has now proved its relevance and fruitfulness. Indeed, the cross-fertilization between formal logic and finite automata (such as that initiated by J.R. Buchi) or between combinatorics on words and number theory has paved the way to recent dramatic developments, for example, the transcendence results for the real numbers having a "simple" binary expansion, by B. Adamczewski and Y. Bugeaud. This book is at the heart of this interplay through a unified exposition. Objects are considered with a perspective that comes both from
