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Titolo	Computation and Logic in the Real World : Third Conference on Computability in Europe, CiE 2007, Siena, Italy, June 18-23, 2007, Proceedings / / edited by Barry S. Cooper, Benedikt Löwe, Andrea Sorbi
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Descrizione fisica	1 online resource (XVIII, 826 p.)
Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 4497
Disciplina	511.352
Soggetti	Computer science Algorithms Computer science - Mathematics Artificial intelligence Bioinformatics Theory of Computation Mathematics of Computing Artificial Intelligence
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Shifting and Lifting of Cellular Automata -- Learning as Data Compression -- Reachability Problems: An Update -- RZ: A Tool for Bringing Constructive and Computable Mathematics Closer to Programming Practice -- Producer/Consumer in Membrane Systems and Petri Nets -- A Minimal Pair in the Quotient Structure M/NCup -- Constructive Dimension and Weak Truth-Table Degrees -- A Classification of Viruses Through Recursion Theorems -- Borel Complexity of Topological Operations on Computable Metric Spaces -- Colocatedness and Lebesgue Integrability -- Computing with Genetic Gates -- Resource Restricted Computability Theoretic Learning: Illustrative Topics and Problems -- Characterizing Programming Systems Allowing Program Self-reference -- K-Trivial Closed Sets and Continuous Functions -- Pseudojump Operators and Classes -- Sofic Trace Subshift of a Cellular Automaton -- Thin Maximal Antichains in

the Turing Degrees -- Effective Computation for Nonlinear Systems --
 On Rules and Parameter Free Systems in Bounded Arithmetic -- The
 New Promise of Analog Computation -- Comparing C.E. Sets Based on
 Their Settling Times -- Time-Complexity Semantics for Feasible Affine
 Recursions -- Algebraic Model of an Arithmetic Unit for TTE-
 Computable Normalized Rational Numbers -- Feasible Depth --
 Abstract Geometrical Computation and the Linear Blum, Shub and
 Smale Model -- A Continuous Derivative for Real-Valued Functions --
 Refocusing Generalised Normalisation -- The Complexity Ecology of
 Parameters: An Illustration Using Bounded Max Leaf Number --
 Parameterized Complexity and Logic -- Index Sets of Computable
 Structures with Decidable Theories -- Minimal Representations for
 Majority Games -- Linear Transformations in Boolean Complexity
 Theory -- Exact Pair Theorem for the Σ_1^1 -Enumeration Degrees --
 Operational Semantics for Positive Relevant Logics Without Distribution
 -- Multi-valued Logics, Effectiveness and Domains -- Internal
 Computability -- Post's Problem for Ordinal Register Machines --
 Unique Existence and Computability in Constructive Reverse
 Mathematics -- Input-Dependence in Function-Learning -- Some
 Notes on Degree Spectra of the Structures -- Confluence of Cut-
 Elimination Procedures for the Intuitionistic Sequent Calculus -- The
 Polynomial and Linear Hierarchies in V_0 -- The Uniformity Principle for
 Σ_1^1 -Definability with Applications to Computable Analysis -- Circuit
 Complexity of Regular Languages -- Definability in the Homomorphic
 Quasiorder of Finite Labeled Forests -- Physics and Computation: The
 Status of Landauer's Principle -- Strict Self-assembly of Discrete
 Sierpinski Triangles -- Binary Trees and (Maximal) Order Types -- A
 Weakly 2-Random Set That Is Not Generalized Low -- Speed-Up
 Theorems in Type-2 Computation -- The Complexity of Quickly ORM-
 Decidable Sets -- On Accepting Networks of Splicing Processors of Size
 3 -- Liquid Computing -- Quotients over Minimal Type Theory --
 Hairpin Completion Versus Hairpin Reduction -- Hierarchies in
 Fragments of Monadic Strict NP -- Membrane Systems and Their
 Application to Systems Biology -- Some Aspects of a Complexity
 Theory for Continuous Time Systems -- Enumerations and Torsion Free
 Abelian Groups -- Locally Computable Structures -- Logic and Control
 -- Nash Stability in Additively Separable Hedonic Games Is NP-Hard --
 Comparing Notions of Computational Entropy -- From Logic to Physics:
 How the Meaning of Computation Changed over Time -- Theories and
 Ordinals: Ordinal Analysis -- Computable Riemann Surfaces -- Rank
 Lower Bounds for the Sherali-Adams Operator -- Infinite Computations
 and a Hierarchy in Σ_1^1 -- Natural Computing: A Natural and
 Timely Trend for Natural Sciences and Science of Computation --
 Biochemical Reactions as Computations -- Doing Without Turing
 Machines: Constructivism and Formal Topology -- Problems as
 Solutions -- A Useful Undecidable Theory -- On the Computational
 Power of Flip-Flop Proteins on Membranes -- Computability and
 Incomputability -- A Jump Inversion Theorem for the Degree Spectra --
 Cupping Enumeration Degrees to 0_e -- What Is the Lesson of
 Quantum Computing? -- Does the Cell Compute? -- Computational
 Complexity of Constraint Satisfaction -- Finding Most Likely Solutions
 -- Turing Unbound: Transfinite Computation -- Computability in
 Amorphous Structures -- The Complexity of Small Universal Turing
 Machines -- Approximating Generalized Multicut on Trees -- (Short)
 Survey of Real Hypercomputation -- Characterizing Programming
 Systems Allowing Program Self-reference.

Sienna, Italy, in June 2007. The 50 revised full papers presented together with 36 invited papers were carefully reviewed and selected from 167 submissions.
