

1. Record Nr.	UNINA9910483961603321
Titolo	Algebra and Coalgebra in Computer Science : Second International Conference, CALCO 2007, Bergen, Norway, August 20-24, 2007, Proceedings // edited by Till Mossakowski, Ugo Montanari, Magne Haveraaen
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2007
ISBN	3-540-73859-2
Edizione	[1st ed. 2007.]
Descrizione fisica	1 online resource (XI, 463 p.)
Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 4624
Disciplina	004.0151
Soggetti	Computer science Machine theory Software engineering Computer science - Mathematics Theory of Computation Computer Science Logic and Foundations of Programming Formal Languages and Automata Theory Software Engineering Symbolic and Algebraic Manipulation
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	Invited Talks -- Regular and Algebraic Words and Ordinals -- Logical Semantics of Types for Concurrency -- Deriving Bisimulation Congruences with Borrowed Contexts -- Symmetry and Concurrency -- Contributed Papers -- Ready to Preorder: Get Your BCCSP Axiomatization for Free! -- Impossibility Results for the Equational Theory of Timed CCS -- Conceptual Data Modeling with Constraints in Maude -- Datatypes in Memory -- Bisimilarity and Behaviour-Preserving Reconfigurations of Open Petri Nets -- Free Modal Algebras: A Coalgebraic Perspective -- Coalgebraic Epistemic Update Without Change of Model -- The Maude Formal Tool Environment -- Bifinite Chu Spaces -- Structured Co-spans: An Algebra of Interaction Protocols -- Graphical Encoding of a Spatial Logic for the λ -Calculus --

Higher Dimensional Trees, Algebraically -- A Semantic Characterization of Unbounded-Nondeterministic Abstract State Machines -- Parametric (Co)Iteration vs. Primitive Recursion -- Bisimulation for Neighbourhood Structures -- Algebraic Models of Simultaneous Multithreaded and Multi-core Processors -- Quasitoposes, Quasiadhesive Categories and Artin Glueing -- Applications of Metric Coinduction -- The Goldblatt-Thomason Theorem for Coalgebras -- Specification-Based Testing for CoCasl's Modal Specifications -- CIRC: A Circular Coinductive Prover -- Observing Distributed Computation. A Dynamic-Epistemic Approach -- Nabla Algebras and Chu Spaces -- An Institutional Version of Gödel's Completeness Theorem -- Coalgebraic Foundations of Linear Systems -- Bootstrapping Types and Cotypes in HasCASL.

Sommario/riassunto

A double-pronged approach makes this book an extremely useful addition to the literature on this highly relevant contemporary topic. Addressing two basic areas of application for algebras and coalgebras - as mathematical objects as well as in the context of their application in computer science - the papers cover topics such as abstract models and logics, specialised models and calculi, algebraic and coalgebraic semantics, and system specification and verification. The book is the refereed proceedings of the second CALCO conference, held in August 2007 in Norway.
