

1. Record Nr.	UNINA9910482956503321
Titolo	Theoretical Aspects of Computing - ICTAC 2007 : 4th International Colloquium, Macau, China, September 26-28, 2007, Proceedings // edited by Cliff B. Jones, Zhiming Liu, Jones Woodcock
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2007
ISBN	3-540-75292-7
Edizione	[1st ed. 2007.]
Descrizione fisica	1 online resource (XI, 486 p.)
Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 4711
Disciplina	004
Soggetti	Computer science Machine theory Compilers (Computer programs) Software engineering Theory of Computation Computer Science Logic and Foundations of Programming Formal Languages and Automata Theory Compilers and Interpreters Software Engineering
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	Domain Theory: Practice and Theories A Discussion of Possible Research Topics -- Linking Semantic Models -- Discovering Non-linear Ranking Functions by Solving Semi-algebraic Systems -- Mobile Ambients with Timers and Types -- Automatic Refinement of Split Binary Semaphore -- Stepwise Development of Simulink Models Using the Refinement Calculus Framework -- Bisimulations for a Distributed Higher Order $\lambda$ -Calculus -- A Complete and Compact Propositional Deontic Logic -- Verifying Lock-Freedom Using Well-Founded Orders -- Tree Components Programming: An Application to XML -- A Framework for Incorporating Trust into Formal Systems Development -- A Higher-Order Demand-Driven Narrowing Calculus with Definitional Trees -- Distributed Time-Asynchronous Automata -- Skolem Machines and Geometric Logic -- A Logical Calculus for

Modelling Interferences -- Reflection and Preservation of Properties in Coalgebraic (bi)Simulations -- Controlling Process Modularity in Mobile Computing -- Failures: Their Definition, Modelling and Analysis -- CWS: A Timed Service-Oriented Calculus -- Regular Linear Temporal Logic -- Algebraic Semantics for Compensable Transactions -- Axiomatizing Extended Temporal Logic Fragments Via Instantiation -- Deciding Weak Bisimilarity of Normed Context-Free Processes Using Tableau -- Linear Context Free Languages -- FM for FMS: Lessons Learned While Applying Formal Methods to the Study of Flexible Manufacturing Systems -- On Equality Predicates in Algebraic Specification Languages -- Data-Distributions in PowerList Theory -- Quasi-interpretation Synthesis by Decomposition -- Composing Transformations to Optimize Linear Code -- Building Extended Canonizers by Graph-Based Deduction -- A Randomized Algorithm for BBCSPs in the Prover-Verifier Model -- On the Expressive Power of QLTL.

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Sommario/riassunto

This book constitutes the refereed proceedings of the 4th International Colloquium on Theoretical Aspects of Computing, ICTAC 2007 held in Macau, China in September 2007. The 29 revised full papers presented together with 3 invited talks and summaries of 2 tutorials were carefully reviewed and selected from 69 submissions. The aim of the colloquium is to bring together practitioners and researchers from academia, industry and government to present research results, and exchange experience, ideas, and solutions for their problems in theoretical aspects of computing such as automata theory and formal languages, principles and semantics of programming languages, software architectures and their description languages, software specification, refinement, and verification, model checking and theorem proving, real-time, embedded and hybrid systems, theory of parallel, distributed, and internet-based (grid) computing, simulation and modeling, and service-oriented development.

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