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Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 4281
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	Invited Papers -- Verifying a Hotel Key Card System -- Z/Eves and the Mondex Electronic Purse -- Verification Constraint Problems with Strengthening -- Semantics -- Quantitative $\lambda$ -Calculus Analysis of Power Management in Wireless Networks -- Termination and Divergence Are Undecidable Under a Maximum Progress Multi-step Semantics for LinCa -- A Topological Approach of the Web Classification -- Concurrency -- Bisimulation Congruences in the Calculus of Looping Sequences -- Stronger Reduction Criteria for Local First Search -- A Lattice-Theoretic Model for an Algebra of Communicating Sequential Processes -- A Petri Net Translation of $\lambda$ - Calculus Terms -- Model Checking -- Handling Algebraic Properties in Automatic Analysis of Security Protocols -- A Compositional Algorithm

for Parallel Model Checking of Polygonal Hybrid Systems -- Thread-Modular Verification Is Cartesian Abstract Interpretation -- Formal Languages -- Capture-Avoiding Substitution as a Nominal Algebra -- Prime Decomposition Problem for Several Kinds of Regular Codes -- A New Approach to Determinisation Using Bit-Parallelism -- Logic and Type Theory -- Proving  $ATL^*$  Properties of Infinite-State Systems -- Type Safety for FJ and FGJ -- Partizan Games in Isabelle/HOLZF -- Proof-Producing Program Analysis -- Real-Time and Mobility -- Reachability Analysis of Mobile Ambients in Fragments of AC Term Rewriting -- Interesting Properties of the Real-Time Conformance Relation tioco -- Model Checking Duration Calculus: A Practical Approach -- Spatio-temporal Model Checking for Mobile Real-Time Systems -- Tutorials: Extended Abstracts -- Tutorial on Formal Methods for Distributed and Cooperative Systems -- Decision Procedures for the Formal Analysis of Software.

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## Sommario/riassunto

The International Colloquium on Theoretical Aspects of Computing (ICTAC) held in 2006 in Tunis, Tunisia, was the third of a series of events created by the International Institute for Software Technology of the United Nations University. The aim of the colloquium is to bring together researchers from academia, industry, and government to present their results, and exchange experience, ideas, and solutions for their problems in theoretical aspects of computing. The previous events were held in Guiyang, China (2004), and Hanoi, Vietnam (2005). Beyond its scholarly goals, another main purpose of ICTAC is to promote cooperation in research and education between participants and their institutions, from developing and industrial countries, as in the mandate of the United Nations University. These proceedings record the contributions from the invited speakers and from the technical sessions. We present four invited papers, 21 technical papers, selected out of 78 submissions from 24 countries, and two extended abstracts of tutorials. The Programme Committee includes researchers from 27 countries. Each of the 78 papers was evaluated by at least three reviewers. After the evaluation, reports were returned to the Programme Committee for discussion and resolution of conflicts. Based on their recommendations, we concluded the consensus process, and selected the 21 papers that we present here. For the evaluation of the submitted tutorials, this year we had the help of a separate Programme Committee especially invited for that purpose.

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