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Collana	Lecture Notes in Computer Science ; ; v.13077
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Soggetti	Software engineering Formal methods (Computer science) Component software
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Intro -- Preface -- Organization -- Parametric and Interval Model Checking: Recent Advances and Applications (Abstract of Invited Paper) -- Contents -- Invited Paper -- Learning Assumptions for Verifying Cryptographic Protocols Compositionally -- 1 Introduction -- 2 Background -- 2.1 Labeled Transition Systems -- 2.2 Assumption Learning and Alphabet Refinement -- 3 An Overview of Taglierino -- 4 The Attacker Model and Its Correctness -- 5 Protocol Analysis -- 5.1 Evaluation Setup -- 5.2 Needham-Schroeder-Lowe -- 5.3 Denning-Sacco -- 5.4 Woo-Lam -- 5.5 Kerberos -- 5.6 Performance Evaluation Results -- 6 Related Work -- 7 Conclusion -- References -- Modelling and Composition -- Component-Based Approach Combining UML and BIP for Rigorous System Design -- 1 Introduction -- 2 System Modeling with UML -- 2.1 Case Study -- 2.2 Architecture Model -- 2.3 Behavior Models -- 3 From UML to BIP -- 4 System Simulation and Verification -- 5 Related Work -- 6 Conclusion -- References -- Composable Partial Multiparty Session Types -- 1 Introduction -- 2 A Calculus for Processes over Multiparty Sessions -- 3 Partial Multiparty Session Types -- 4 Type System -- 5 Merging Partial Session Types -- 5.1 Mapping Merging Functions over Session Types -- 5.2 Merging Communications and Session Types -- 6 Subject Reduction and Progress -- 7 Related

Work -- 8 Conclusions -- References -- A Canonical Algebra of Open Transition Systems -- 1 Introduction -- 1.1 State from Feedback -- 1.2 The Algebra of Transition Systems -- 1.3 Stateful and Stateless Components -- 1.4 Canonicity and Our Original Contribution -- 1.5 Related Work -- 1.6 Synopsis -- 1.7 Conventions -- 2 Preliminaries: Categories with Feedback -- 2.1 Categories with Feedback -- 2.2 Traced Monoidal Categories -- 2.3 Delay and Feedback -- 2.4  $\text{St}()$ , the Free Category with Feedback -- 2.5 Examples.

3 Span(Graph): An Algebra of Transition Systems -- 3.1 The Algebra of Span(Graph) -- 3.2 The Components of Span(Graph) -- 3.3 Span(Graph) as a Category with Feedback -- 3.4 Cospan(Graph) as a Category with Feedback -- 3.5 Syntactical Presentation of Cospan (FinGraph) -- 4 Conclusions and Further Work -- References --

Corinne, a Tool for Choreography Automata -- 1 Introduction -- 2 Choreography Automata -- 3 Corinne -- 4 Conclusion, Related Work, and Future Work -- References -- Verification -- Specification and Safety Verification of Parametric Hierarchical Distributed Systems -- 1 Introduction -- 2 Preliminaries -- 3 A Term Algebra of Behaviors -- 4 The Parametric Safety Problem -- 4.1 Encoding Invariants and Error Configurations -- 4.2 The Flow of a Behavioral Term -- 5 Experimental Evaluation -- 6 Related Work -- 7 Conclusions and Future Work -- References -- A Linear Parallel Algorithm to Compute Bisimulation and Relational Coarsest Partitions -- 1 Introduction -- 2 Preliminaries -- 2.1 The PRAM Model -- 2.2 Strong Bisimulation -- 3 Relational Coarsest Partition Problem -- 3.1 The Sequential Algorithm -- 3.2 The PRAM Algorithm -- 3.3 Correctness -- 3.4 Complexity Analysis -- 4 Bisimulation Coarsest Refinement Problem -- 4.1 The PRAM Algorithm -- 4.2 Complexity and Correctness -- 5 Experimental Results -- 5.1 Experimental Comparison -- 6 Conclusion -- References -- Automated Generation of Initial Configurations for Testing Component Systems -- 1 Introduction -- 2 Background -- 3 Component-Based Model -- 4 Generation of Initial Configurations -- 4.1 Combinatorial Algorithm -- 4.2 Initial Configuration Sampling -- 4.3 Integration into the Online Test Generation Process -- 5 Experimentation -- 6 Related Work -- 7 Conclusion and Future Works -- References -- Monitoring Distributed Component-Based Systems -- 1 Introduction.

2 Preliminaries and Notations -- 3 Distributed CBS -- 3.1 Semantics -- 3.2 Traces -- 4 Efficient Construction of the Computation Lattice -- 4.1 Computation Lattice -- 4.2 Intermediate Operations -- 4.3 Algorithms for Constructing the Computation Lattice -- 5 Properties of the Constructed Lattice -- 5.1 Insensitivity to Communication Delay -- 5.2 Correctness of Lattice Construction -- 6 Related Work -- 7 Conclusions -- References -- Author Index.

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