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Nota di contenuto	Invited Papers -- From Specifications to Code in Casl -- Automata and Games for Synthesis -- Pragmatics of Modular SOS -- Tool-Assisted Specification and Verification of the JavaCard Platform -- Higher-Order Quantification and Proof Search* -- Algebraic Support for Service-Oriented Architecture -- Regular Papers -- Fully Automatic Adaptation of Software Components Based on Semantic Specifications* -- HasCasl: Towards Integrated Specification and Development of Functional Programs -- Removing Redundant Arguments of Functions* -- A Class of Decidable Parametric Hybrid Systems -- Vacuity Checking in the Modal Mu-Calculus* -- On Solving Temporal Logic Queries --

Modelling Concurrent Behaviours by Commutativity and Weak Causality Relations\* -- An Algebra of Non-safe Petri Boxes -- Refusal Simulation and Interactive Games -- A Theory of May Testing for Asynchronous Calculi with Locality and No Name Matching -- Equational Axioms for Probabilistic Bisimilarity -- Bisimulation by Unification\* -- Transforming Processes to Check and Ensure Information Flow Security\* -- On Bisimulations for the Spi Calculus\* -- Specifying and Verifying a Decimal Representation in Java for Smart Cards\* -- A Method for Secure Smartcard Applications -- Extending JML Specifications with Temporal Logic -- Algebraic Dynamic Programming -- Analyzing String Buffers in C -- A Foundation of Escape Analysis\* -- A Framework for Order-Sorted Algebra -- Guarded Transitions in Evolving Specifications -- Revisiting the Categorical Approach to Systems\* -- Proof Transformations for Evolutionary Formal Software Development -- Sharing Objects by Read-Only References -- Class-Based versus Object-Based: A Denotational Comparison -- System Descriptions -- BRAIN: Backward Reachability Analysis with Integers -- The Development Graph Manager Maya.

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### Sommario/riassunto

This volume contains the proceedings of AMAST 2002, the 9th International Conference on Algebraic Methodology and Software Technology, held during September 9–13, 2002, in Saint-Gilles-les-Bains, Réunion Island, France. The major goal of the AMAST conferences is to promote research that may lead to setting software technology on a firm mathematical basis. This goal is achieved through a large international cooperation with contributions from both academia and industry. Developing a software technology on a mathematical basis produces software that is: (a) correct, and the correctness can be proved mathematically, (b) safe, so that it can be used in the implementation of critical systems, (c) portable, i. e. , independent of computing platforms and language generations, (d) evolutionary, i. e. , it is self-adaptable and evolves with the problem domain. All previous AMAST conferences, which were held in Iowa City (1989, 1991), Twente (1993), Montreal (1995), Munich (1996), Sydney (1997), Manaus (1999), and Iowa City (2000), made contributions to the AMAST goals by reporting and disseminating academic and industrial achievements within the AMAST area of interest. During these meetings, AMAST attracted an international following among researchers and practitioners interested in software technology, programming methodology, and their algebraic, and logical foundations.

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