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Soggetti	Software engineering Computer logic Mathematical logic Computer programming Computer science—Mathematics Software Engineering/Programming and Operating Systems Logics and Meanings of Programs Mathematical Logic and Formal Languages Software Engineering Programming Techniques Symbolic and Algebraic Manipulation
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Nota di contenuto	Invited Talks -- Incremental Software Construction with Refinement Diagrams -- Recursive Program Schemes: Past, Present, and Future -- Monad-Based Logics for Computational Effects -- Contributed Papers -- State Space Representation for Verification of Open Systems -- Data Movement Optimisation in Point-Free Form -- Measuring the Speed of Information Leakage in Mobile Processes -- Formal Islands -- Some Programming Languages for Logspace and Ptime -- Opaque Predicates Detection by Abstract Interpretation -- DO-Casl: An Observer-Based Casl Extension for Dynamic Specifications -- Model Transformations Incorporating Multiple Views -- Hyperfinite Approximations to Labeled Markov Transition Systems -- State Space Reduction of Rewrite

Theories Using Invisible Transitions -- The Essence of Multitasking -- The Substitution Vanishes -- Decomposing Interactions -- Verification of Communication Protocols Using Abstract Interpretation of FIFO Queues -- Assessing the Expressivity of Formal Specification Languages -- Fork Algebras as a Sufficiently Rich Universal Institution -- Realizability Criteria for Compositional MSC -- Quantales and Temporal Logics -- Fractional Semantics -- Reasoning About Data-Parallel Pointer Programs in a Modal Extension of Separation Logic -- Testing Semantics: Connecting Processes and Process Logics -- Tableaux for Lattices -- Accelerated Modal Abstractions of Labelled Transition Systems -- A Compositional Semantics of Plan Revision in Intelligent Agents -- System Descriptions -- ITP/OCL: A Rewriting-Based Validation Tool for UML+OCL Static Class Diagrams -- A Computational Group Theoretic Symmetry Reduction Package for the Spin Model Checker -- Using Category Theory as a Basis for a Heterogeneous Data Source Search Meta-engine: The Prométhée Framework.

Sommario/riassunto

This is the proceedings of the 11th edition of the Algebraic Methodology and Software Technology (AMAST) conference series. The ?rst conference was held in the USA in 1989, and since then AMAST conferences have been held on (or near) ?ve di?erent continents and have been hosted by many of the most prominent people and organizations in the ?eld. The AMAST initiative has always sought to have practical e?ects by dev- oping the science of software and basing it on a ?rm mathematical foundation. AMAST hasinterpretedsoftwaretechnologybroadly,andhas, for example, held AMAST workshops in areas as diverse as real-time systems and (natural) l- guage processing. Similarly, algebraic methodology is interpreted broadly and includes abstract algebra, category theory, logic, and a range of other ma- ematical subdisciplines. The truly distinguishing feature of AMAST is that it seeks rigorous mathematical developments, but always strives to link them to real technological applications. Our meetings frequently include industry-based participants and are a rare opportunity for mathematicians and mathema- callymindedacademicstointeracttechnicallywithindustry-basedtechnologists. Over the years AMAST has included industrial participants from organizations specializing in safety-critical (including medical) systems, transport (including aerospace), and security-critical systems, amongst others.