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Nota di contenuto	Marrying Words and Trees -- Simulation Using Orchestration -- Liberate Computer User from Programming -- An Algebra for Features and Feature Composition -- Petri Nets Are Dioids -- Towards an Efficient Implementation of Tree Automata Completion -- Calculating Invariants as Coreflexive Bisimulations -- Types and Deadlock Freedom in a Calculus of Services, Sessions and Pipelines -- A Declarative Debugger for Maude -- Long-Run Cost Analysis by Approximation of Linear Operators over Dioids -- Towards Validating a Platoon of Cristal

Vehicles Using CSP//B -- Explaining Verification Conditions -- Towards Formal Verification of ToolBus Scripts -- A Formal Analysis of Complex Type Flaw Attacks on Security Protocols -- Abstract Interpretation Plugins for Type Systems -- Separation Logic Contracts for a Java-Like Language with Fork/Join -- An Algebraic Semantics for Contract-Based Software Components -- Implementing a Categorical Information System -- Constant Complements, Reversibility and Universal View Updates -- Coinductive Properties of Causal Maps -- Extending Timed Process Algebra with Discrete Stochastic Time -- Vx86: x86 Assembler Simulated in C Powered by Automated Theorem Proving -- Evolving Specification Engineering -- Verification of Java Programs with Generics -- Domain Axioms for a Family of Near-Semirings -- Generating Specialized Rules and Programs for Demand-Driven Analysis -- Non Expansive ?-Bisimulations -- A Hybrid Approach for Safe Memory Management in C -- Service Specification and Matchmaking Using Description Logic -- System Demonstration of Spiral: Generator for High-Performance Linear Transform Libraries -- The Verification of the On-Chip COMA Cache Coherence Protocol.

Sommario/riassunto

This book constitutes the refereed proceedings of the 12th International Conference on Algebraic Methodology and Software Technology, AMAST 2008, held in Urbana, IL, USA, in July 2008. The 28 revised full papers presented together with 3 invited talks were carefully reviewed and selected from 58 submissions. Among the topics covered are all current issues in formal methods related to algebraic and logical foundations, software technology, and to programming methodology including concurrent and reactive systems, evolutionary software/adaptive systems, logic and functional programming, object paradigms, constraint programming and concurrency, program verification and transformation, programming calculi, specification languages and tools, formal specification and development case studies, logic, category theory, relation algebra, computational algebra, algebraic foundations for languages and systems, coinduction, theorem proving and logical frameworks for reasoning, logics of programs, as well as algebra and coalgebra.