

1. Record Nr.	UNINA9910144902403321
Titolo	Algebraic Methodology and Software Technology [[electronic resource]] : 6th International Conference, AMAST '97, Sydney, Australia, Dezember 13-17, 1997. Proceedings // edited by Michael Johnson
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 1997
ISBN	3-540-69661-X
Edizione	[1st ed. 1997.]
Descrizione fisica	1 online resource (X, 602 p.)
Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 1349
Disciplina	005.1/01/512
Soggetti	Software engineering Computers Computer logic Computers, Special purpose Logic, Symbolic and mathematical Software Engineering/Programming and Operating Systems Theory of Computation Software Engineering Logics and Meanings of Programs Special Purpose and Application-Based Systems Mathematical Logic and Formal Languages
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Software configuration with information systems -- Head-tactics simplification -- Iteration 2-theories: Extended Abstract -- Model checking and fault tolerance -- Deadlock analysis for a fault-tolerant system -- From sequential to multi-threaded Java: An event-based operational semantics -- Permissive subsorted partial logic in CASL -- Specification of timing constraints within the circal process algebra -- On the specification and verification of performance properties for a timed process algebra -- Abstract interpretation of algebraic polynomial systems (Extended abstract) -- Modular refinement and model building -- A linear temporal logic approach to objects with transactions -- Software design, specification, and verification: Lessons

learned from the Rether case study -- Refinement rules for real-time multi-tasking programs -- Rigorous object-oriented modeling: Integrating formal and informal notations -- Completeness in abstract interpretation: A domain perspective -- Floating point verification in HOL light: The exponential function -- Verification of distributed real-time and fault-tolerant protocols -- Invariants, bisimulations and the correctness of coalgebraic refinements -- On bisimulation, fault-monotonicity and provable fault-tolerance -- Span(Graph): A categorical algebra of transition systems -- Representing place/transition nets in Span(Graph) -- Invariants of parameterized binary tree networks as greatest fixpoints -- Modelling specification construction by successive approximations -- On partial validation of logic programs -- Preservation and reflection in specification -- Case studies in using a meta-method for formal method integration -- The update calculus -- Selective attribute elimination for categorical data specifications -- ATM switch design: Parametric high-level modeling and formal verification -- The hidden function question revisited -- Synchronization of logics with mixed rules: Completeness preservation -- Symbolic bisimulation for Full LOTOS -- Algebraic composition and refinement of proofs -- Ensuring streams flow -- Extending process languages with time -- Parametric analysis of computer systems -- CAMILA: Prototyping and refinement of constructive specifications -- PAMELA+PVS -- The circal system -- A refinement-type checker for standard ML -- Recording HOL proofs in a structured browsable format -- Analysing multi-agent system traces with IDaF -- DOVE: A tool for design oriented verification and evaluation -- The B method and the B toolkit -- An algebraic language processing environment -- The Cogito development system.

Sommario/riassunto

This book constitutes the refereed proceedings of the 6th International Conference on Algebraic Methodology and Software Engineering, AMAST'97, held in Sydney, Australia, in December 1997. The volume presents 48 revised full papers selected from an unusually high number of submissions. One of the outstanding features of AMAST is its mix of serious mathematical development of formal methods in software engineering with practical concerns, tools, case studies, and industrial development. The volume addresses all current aspects of formal methods in software engineering and programming methodology, with a certain emphasis on algebraic and logical foundations.
