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Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 967
Disciplina	005.1
Soggetti	Software engineering Programming languages (Electronic computers) Computer science—Mathematics Computer programming Combinatorics Software Engineering/Programming and Operating Systems Programming Languages, Compilers, Interpreters Software Engineering Symbolic and Algebraic Manipulation Programming Techniques
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Nota di contenuto	Language-free mathematical methods for software design extended abstract -- A formal approach to software design: The Clepsydra methodology -- Refining database systems -- Structuring a Z specification to provide a formal framework for autonomous agent systems -- On the use of formal specifications in the design and simulation of artificial neural networks -- Structuring specification in Z to build a unifying framework for hypertext systems -- Mechanizing formal methods: Opportunities and challenges -- An algebraic proof in VDM ? -- Testing as abstraction -- Improving software tests using Z Specifications -- Compilation of Z specifications into C for automatic test result evaluation -- Equal rights for schemas in Z -- Structuring Z

specifications: Some choices -- Experiments with the Z interchange format and SGML -- The future of industrial formal methods -- Specifications and their use in defining subtypes -- How firing conditions help inheritance -- Extending W for Object-Z -- A formal semantics for a language with type extension -- From Z to code: A graphical user interface for a radiation therapy machine -- The French population census for 1990 -- Implementing Z in Isabelle -- The Z-into-Haskell tool-kit: An illustrative case study -- Types and sets in Gödel and Z -- Exploring specifications with Mathematica -- Using Z to rigorously review a specification of a Network Management System -- A two-dimensional view of integrated formal and informal specification techniques -- Viewpoints and objects -- Teaching programming as engineering -- A course on formal methods in software engineering: Matching requirements with design -- Hints for writing specifications -- Mental models of Z: I — Sets and logic -- Equational logic: A great pedagogical tool for teaching a skill in logic -- Z Browser — Tool for visualisation of Z specifications -- Select Z bibliography -- Comp. specification.z and Z forum frequently asked questions.

Sommario/riassunto

This book presents the proceedings of the 9th International Conference of Z Users, ZUM '95, held in Limerick, Ireland in September 1995. The book contains 34 carefully selected papers on Z, using Z, applications of Z, proof, testing, industrial usage, object orientation, animation of specification, method integration, and teaching formal methods. Of particular interest is the inclusion of an annotated Z bibliography listing 544 entries. While focussing on Z, by far the most commonly used "formal method" both in industry and application, the volume is of high relevance for the whole formal methods community.
