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Soggetti	Software engineering Computer science Machine theory Compilers (Computer programs) Database management Software Engineering Computer Science Logic and Foundations of Programming Formal Languages and Automata Theory Compilers and Interpreters Database Management
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Nota di contenuto	1. ABZ Invited Talks -- Complex Hardware Modules Can Now be Made Free of Functional Errors without Sacrificing Productivity -- The High Road to Formal Validation: -- Modeling Workflows, Interaction Patterns, Web Services and Business Processes: The ASM-Based Approach -- Refinement of State-Based Systems: ASMs and Big Commuting Diagrams (Abstract) -- 2. ASM Papers -- Model Based Refinement and the Tools of Tomorrow -- A Concept-Driven Construction of the

Mondex Protocol Using Three Refinements -- A Scenario-Based Validation Language for ASMs -- Data Flow Analysis and Testing of Abstract State Machines -- A Verified AsmL Implementation of Belief Revision -- Direct Support for Model Checking Abstract State Machines by Utilizing Simulation -- 3. B Papers -- On the Purpose of Event-B Proof Obligations -- Generating Tests from B Specifications and Test Purposes -- Combining Scenario- and Model-Based Testing to Ensure POSIX Compliance -- UseCase-Wise Development: Retrenchment for Event-B -- Towards Modelling Obligations in Event-B -- A Practical Single Refinement Method for B -- The Composition of Event-B Models -- Reconciling Axiomatic and Model-Based Specifications Revisited -- A Verifiable Conformance Relationship between Smart Card Applets and B Security Models -- Modelling Attacker's Knowledge for Cascade Cryptographic Protocols -- Using EventB to Create a Virtual Machine Instruction Set Architecture -- 4. Z Papers -- Z2SAL - Building a Model Checker for Z -- Formal Modeling and Analysis of a Flash Filesystem in Alloy -- Unit Testing of Z Specifications -- Autonomous Objects and Bottom-Up Composition in ZOO Applied to a Case Study of Biological Reactivity -- 5. ABZ Short Papers -- Integrating Z into Large Projects Tools and Techniques -- A First Attempt to Express KAOS Refinement Patterns with Event B -- Verification and Validation of Web Service Composition Using Event B Method -- Stability of Real-Time Abstract State Machines under Desynchronization -- XML Database Transformations with Tree Updates -- Dynamic Resource Configuration & Management for Distributed Information Fusion in Maritime Surveillance -- UML-B: A Plug-in for the Event-B Tool Set -- BART: A Tool for Automatic Refinement -- Model Checking Event-B by Encoding into Alloy -- A Roadmap for the Rodin Toolset -- Exploiting the ASM Method for Validation & Verification of Embedded Systems -- Tool Support for the Circus Refinement Calculus -- Separation of Z Operations -- BSmart: A Tool for the Development of Java Card Applications with the B Method -- From ABZ to Cryptography -- Using ASM to Achieve Executability within a Family of DSL -- Using Satisfiability Modulo Theories to Analyze Abstract State Machines (Abstract) -- Formal Verification of ASM Models Using TLA⁺ -- DIR 41 Case Study -- FDIR Architectures for Autonomous Spacecraft: Specification and Assessment with Event-B -- Object Modelling in the SystemB Industrial Project -- 6. VSR Day -- Splitting Atoms with Rely/Guarantee Conditions Coupled with Data Reification -- ABZ2008 VSR-Net Workshop.

Sommario/riassunto

This book constitutes the refereed proceedings of the First International Conference of Abstract State Machines, B and Z, ABZ 2008, held in London, UK, in September 2008. The conference simultaneously incorporated the 15th International ASM Workshop, the 17th International Conference of Z Users and the 8th International Conference on the B Method. The 44 revised full papers presented together with 4 invited contributions were carefully reviewed and selected from numerous submissions. The conference fosters the cross-fertilization of three rigorous methods for the design and analysis of hardware and software systems - both in academia and industry - namely Abstract State Machines, B, and Z. Covering a wide range of research spanning from theoretical and methodological foundations to tool support and practical applications, the contributions are organized in topical sections on abstract state machines, B papers, Z papers, ABZ short papers, and the papers of the Verified Software Repository Network (VSR-net) workshop.
