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	Nota di contenuto	Contribution to a Rigorous Analysis of Web Application Frameworks / Egon Borger, Antonio Cisternino and Vincenzo Gervasi -- Integrated Operational Semantics: Small-Step, Big-Step and Multi-step / Ian J. Hayes and Robert J. Colvin -- Test Generation for Sequential Nets of Abstract State Machines / Paolo Arcaini, Francesco Bolis and Angelo Gargantini -- ASM and Controller Synthesis / Richard Banach, Huibiao Zhu, Wen Su and Xiaofeng Wu -- Continuous ASM, and a Pacemaker Sensing Fragment / Richard Banach, Huibiao Zhu, Wen Su and Xiaofeng Wu -- An ASM Model of Concurrency in a Web Browser / Vincenzo Gervasi -- Modeling the Supervisory Control Theory with Alloy / Benoit Fraikin, Marc Frappier and Richard St-Denis -- Preventing Arithmetic Overflows in Alloy / Aleksandar Milicevic and Daniel Jackson -- Extending Alloy with Partial Instances / Vajih Montaghami and Derek

Rayside -- Toward a More Complete Alloy / Timothy Nelson, Daniel J. Dougherty, Kathi Fisler and Shriram Krishnamurthi -- Temporal Logic Model Checking in Alloy / Amirhossein Vakili and Nancy A. Day -- Active Attacking Multicast Key Management Protocol Using Alloy / Ting Wang and Dongyao Ji -- Formalizing Hybrid Systems with Event-B / Jean-Raymond Abrial, Wen Su and Huibiao Zhu -- SMT Solvers for Rodin / David Deharbe, Pascal Fontaine, Yoann Guyot and Laurent Voisin -- Refinement Plans for Informed Formal Design / Gudmund Grov, Andrew Ireland and Maria Teresa Llano -- Refinement by Interface Instantiation / Stefan Hallerstede and Thai Son Hoang -- Discharging Proof Obligations from Atelier B Using Multiple Automated Provers / David Mentre, Claude Marche, Jean-Christophe Filliatre and Masashi Asuka -- A Semantic Analysis of Logics That Cope with Partial Terms / Cliff B. Jones, Matthew J. Lovert and L. Jason Steggles -- Combining VDM with Executable Code / Claus Ballegaard Nielsen, Kenneth Lausdahl and Peter Gorm Larsen -- Extending the Test Template Framework to Deal with Axiomatic Descriptions, Quantifiers and Set Comprehensions / Maximiliano Cristia and Claudia Frydman -- A Tool Chain for the Automatic Generation of Circus Specifications of Simulink Diagrams / Chris Marriott, Frank Zeyda and Ana Cavalcanti -- Verification of Hardware Interaction Properties of Software / Ramsay Taylor -- Using the Arbitrator Pattern for Dynamic Process-Instance Extension in a Work-Flow Management System / Matthes Elstermann, Detlef Seese and Albert Fleischmann -- A Unified Processor Model for Compiler Verification and Simulation Using ASM / Roland Lezuo and Andreas Krall -- Modeling Synchronization/Communication Patterns in Vision-Based Robot Control Applications Using ASMs / Andrea Luzzana, Mattia Rossetti, Paolo Righettini and Patrizia Scandurra -- A Reliability Prediction Method for Abstract State Machines / Raffaela Mirandola, Pasqualina Potena and Patrizia Scandurra -- A Simplified Parallel ASM Thesis / Klaus-Dieter Schewe and Qing Wang -- Refactoring Abstract State Machine Models / Hamed Yaghoubi Shahir, Roozbeh Farahbod and Uwe Glasser -- Continuous Behaviour in Event-B: A Sketch / Richard Banach, Huibiao Zhu, Wen Su and Xiaofeng Wu -- Formal Verification of PLC Programs Using the B Method / Haniel Barbosa and David Deharbe -- A Practical Event-B Refinement Method Based on a UML-Driven Development Process / Thiago C. de Sousa, Paulo Sergio Muniz Silva and Colin F. Snook -- Learn and Test for Event-B -- A Rodin Plugin / Ionut Dinca, Florentin Ipate, Laurentiu Mierla and Alin Stefanescu -- Event-B Code Generation: Type Extension with Theories / Andrew Edmunds, Michael Butler, Issam Maamria, Renato Silva and Chris Lovell -- Formal Proofs for the NYCT Line 7 (Flushing) Modernization Project / Denis Sabatier, Lilian Burdy, Antoine Requet and Jerome Guery -- A Pattern for Modelling Fault Tolerant Systems in Event-B / Gintautas Sulskus and Michael Poppleton.

| Sommario/riassunto | This book constitutes the proceedings of the Third International Conference on Abstract State Machines, B, VDM, and Z, which took place in Pisa, Italy, in June 2012. The 20 full papers presented together with 2 invited talks and 13 short papers were carefully reviewed and selected from 59 submissions. The ABZ conference series is dedicated to the cross-fertilization of five related state-based and machine-based formal methods: Abstract State Machines (ASM), Alloy, B, VDM, and Z. They share a common conceptual foundation and are widely used in both academia and industry for the design and analysis of hardware and software systems. The main goal of this conference series is to contribute to the integration of these formal methods, clarifying their commonalities and differences to better understand how to combine different approaches for accomplishing the various tasks in |

modeling, experimental validation and mathematical verification of reliable high-quality hardware/software systems.