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	Nota di contenuto	Invited Talks -- A Structure for Dependability Arguments -- Formal Probabilistic Analysis: A Higher-Order Logic Based Approach -- ASM Papers -- Synchronous Message Passing and Semaphores: An Equivalence Proof -- AsmL-Based Concurrency Semantic Variations for Timed Use Case Maps -- Bârun: A Scripting Language for CoreASM -- AsmetaSMV: A Way to Link High-Level ASM Models to Low-Level NuSMV Specifications -- An Executable Semantics of the SystemC UML Profile -- Alloy Papers -- Specifying Self-configurable Component-Based Systems with FracToy -- Trace Specifications in Alloy -- An Imperative Extension to Alloy -- Towards Formalizing Network Architectural Descriptions -- Lightweight Modeling of Java Virtual Machine Security

Constraints -- Alloy+HotCore: A Fast Approximation to Unsat Core -- B Papers -- Supporting Reuse in Event B Development: Modularisation Approach -- Reasoned Modelling Critics: Turning Failed Proofs into Modelling Guidance -- Applying the B Method for the Rigorous Development of Smart Card Applications -- Automatic Verification for a Class of Proof Obligations with SMT-Solvers -- A Refinement-Based Correctness Proof of Symmetry Reduced Model Checking -- Development of a Synchronous Subset of AADL -- Matelas: A Predicate Calculus Common Formal Definition for Social Networking -- Structured Event-B Models and Proofs -- Refinement-Animation for Event-B — Towards a Method of Validation -- Reactivising Classical B -- Event-B Decomposition for Parallel Programs -- Z Papers -- Communication Systems in ClawZ -- Formalising and Validating RBAC-to-XACML Translation Using Lightweight Formal Methods -- Towards Formally Templated Relational Database Representations in Z -- Translating Z to Alloy -- ABZ Short Papers (Abstracts) -- B-ASM: Specification of ASM à la B -- A Case for Using Data-FlowAnalysis to Optimize Incremental Scope-Bounded Checking -- On the Modelling and Analysis of Amazon Web Services Access Policies -- Architecture as an Independent Variable for Aspect-Oriented Application Descriptions -- ParAlloy: Towards a Framework for Efficient Parallel Analysis of Alloy Models -- Introducing Specification-Based Data Structure Repair Using Alloy -- Secrecy UML Method for Model Transformations -- Improving Traceability between KAOS Requirements Models and B Specifications -- Code Synthesis for Timed Automata: A Comparison Using Case Study -- Towards Validation of Requirements Models -- A Proof Based Approach for Formal Verification of Transactional BPEL Web Services -- On an Extensible Rule-Based Prover for Event-B -- B Model Abstraction Combining Syntactic and Semantic Methods -- A Basis for Feature-Oriented Modelling in Event-B -- Using Event-B to Verify the Kmelia Components and Their Assemblies -- Starting B Specifications from Use Cases -- Integrating SMT-Solvers in Z and B Tools -- Formal Analysis in Model Management: Exploiting the Power of CZT.

| Sommario/riassunto | ABZ 2010 was held in the beautiful natural setting of Orford in the Eastern Townships of Qu´ ebec,during February22--25,2010, midwaythroughthe Ca- dian winter and the 21st Winter Olympics, bringing participants from all over the world to brave this rigorous climate. ABZcoversrecentadvancesinfourequallyrigorousmethodsforsoftwareand hardware development: Abstract State Machines (ASM), Alloy, B and Z. They shareacommonconceptualframework,centeredaroundthe notionsofstateand operation, andpromotemathematicalprecisioninthemodeling,veri'cation,and construction of highly dependable systems. These methods have continuously matured over the past decade, reaching a stage where they have been successfully integrated into industrial practice in various areas like trains, automobiles, aerospace, smart cards, virtual machines, and business processes. Their development is in'uenced by both research and practice, which mutually nurture each other. ABZ has both a long and a short history. With the aim of stimulating cro- fertilization between these four methods, it has merged their individual conf- ence and workshopseries which started in 1986 for Z, 1994 for ASM, 1996 for B, and 2006 for Alloy. The ?rst ABZ conference was held in London in 2008; ABZ 2010 is the second edition. The conference remains organized as four separate Program Committees. |