

1. Record Nr.	UNISA996465986503316
Titolo	Integrated formal methods : Third International Conference, IFM 2002, Turku, Finland, May 15-18, 2002 : proceedings / / Michael Butler, Luigia Petre, Kaisa Sere, eds
Pubbl/distr/stampa	Berlin, Germany ; ; New York, New York : , : Springer, , [2002] Â©2002
ISBN	3-540-47884-1
Edizione	[1st ed. 2002.]
Descrizione fisica	1 online resource (X, 401 p.)
Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 2335
Disciplina	004/.01/51
Soggetti	Formal methods (Computer science)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Invited Talk: Eran Gery -- Rhapsody: A Complete Life-Cycle Model-Based Development System -- Integration, Simulation, Animation -- An Integrated Semantics for UML Class, Object and State Diagrams Based on Graph Transformation -- Stochastic Process Algebras Meet Eden -- From Specification to Verification -- From Implicit Specifications to Explicit Designs in Reactive System Development -- Basic-REAL: Integrated Approach for Design, Specification and Verification of Distributed Systems -- Assume-Guarantee Algorithms for Automatic Detection of Software Failures -- Statecharts and B: Integration and Translation -- Contributions for Modelling UML State-Charts in B -- Translating Statecharts to B -- Invited Talk: Shmuel Katz -- A Framework for Translating Models and Specifications -- Model Checkers and Theorem Provers -- Model Checking Object-Z Using ASM -- Formalization of Cadence SPW Fixed-Point Arithmetic in HOL -- Formally Linking MDG and HOL Based on a Verified MDG System -- Links between Object-Z and CSP -- Refinement in Object-Z and CSP -- Combining Specification Techniques for Processes, Data and Time -- An Integration of Real-Time Object-Z and CSP for Specifying Concurrent Real-Time Systems -- Invited Talk: Stuart Kent -- Model Driven Engineering -- Combining Graphical and Formal Approaches -- The Design of a Tool-Supported Graphical Notation for Timed CSP -- Combining Graphical and Formal Development of Open Distributed

Systems -- Translations between Textual Transition Systems and Petri Nets -- Refinement and Proof -- Specification and Proof of Liveness Properties under Fairness Assumptions in B Event Systems -- Minimally and Maximally Abstract Retrenchments.

---

## Sommario/riassunto

The third in a series of international conferences on Integrated Formal Methods, IFM 2002, was held in Turku, Finland, May 15–17, 2002. Turku, situated in the south western corner of the country, is the former capital of Finland. The ? conference was organized jointly by Abo Akademi University and Turku Centre for Computer Science. The theme of IFM 1999 was the integration of state and behavioral based formalisms. For IFM 2000 this was widened to include all aspects pertaining to the integration of formal methods and formal notations. One of the goals of IFM 2002 was to further investigate these themes. Moreover, IFM 2002 explored the relations between formal methods and graphical notations, especially the industrial standard language for software design, the Unified Modeling Language (UML). The themes of IFM 2002 reflect what we believe is a growing trend in the Formal Methods and Software Engineering research communities. Over the last three decades, computer scientists have developed a range of formalisms focusing on particular aspects of behavior or analysis, such as sequential program structures, concurrent program structures, data and information structures, temporal reasoning, deductive proof, and model checking. Much effort is now being devoted to integrating these methods in order to combine their advantages and ensure they scale up to industrial needs. Graphical notations are now widely used in software engineering and there is growing recognition of the importance of providing these with the formal underpinnings and formal analysis capabilities found in formal methods.

---