



iFM 2013: 10th International Conference on integrated Formal Methods

10 - 14 June 2013, Turku, Finland

<http://www.it.abo.fi/iFM2013/>

Applying formal methods may involve the modeling of different aspects of a system that are expressed through different paradigms. Correspondingly, different analysis techniques will be used to examine differently modeled system views, different kinds of properties, or simply in order to cope with the sheer complexity of the system. The iFM conference series seeks to further research into hybrid approaches to formal modeling and analysis; i.e., the combination of (formal and semi-formal) methods for system development, regarding modeling and analysis, and covering all aspects from language design through verification and analysis techniques to tools and their integration into software engineering practice.

This edition of the integrated Formal Methods conference is dedicated to **Professor Kaisa Sere**, Åbo Akademi University (1954-2012). Professor Emil Sekerinski, one of Kaisa's closest scientific collaborators, will give a short lecture for remembering Kaisa on Wednesday, June 12th, at 5pm.

iFM 2013 Schedule (12-14 June 2013):

The iFM schedule is available at: <http://www.it.abo.fi/iFM2013/schedule.php>.

Invited Speakers:

Jean-Raymond Abrial, Marseille, France: "From Z to B and then Event-B: Assigning Proofs to Meaningful Programs "

Susanne Graf, VERIMAG, France: "Knowledge for the Distributed Implementation of Constrained Systems "

Kim Larsen, Aalborg University, Denmark: "Priced Timed Automata and Statistical Model Checking "

Cosimo Laneve, University of Bologna, Italy: "An Algebraic Theory for Web Services Contracts "

Papers to be presented at the conference:

1. Thai Son Hoang and Simon Hudon. Progress Concerns as Design Guidelines
2. Christian Prehofer. Assume-Guarantee Specifications of State Transition Diagrams for Behavioral Refinement
3. Kenneth Lausdahl. Translating VDM to Alloy
4. Dimitrios Vekris, Frederic Lang, Catalin Dima and Radu Mateescu. Verification of EB3 Specification using CADP
5. Murat Moran, James Heather and Steve Schneider. Automated Anonymity Verification of ThreeBallot Voting System
6. Jean-Vivien Millo, Krishna S, Ganesh Narwane and S Ramesh. Compositional Verification of Software Product Lines
7. Frédéric Gava, Jean Fortin and Michael Guedj. Deductive Verification of State-space Algorithms
8. Daisuke Ishii, Guillaume Melquiond and Shin Nakajima. Inductive Verification of Hybrid Automata with Strongest Postcondition Calculus
9. Songzheng Song, Lin Gui, Jun Sun, Yang Liu and Jin Song Dong. Improved Reachability Analysis in DTMC via Divide and Conquer
10. Andreas Morgenstern, Manuel Gesell and Klaus Schneider. Solving Games Using Incremental Induction
11. Fu Song and Tayssir Touili. Model-Checking Software Library API Usage Rules
12. Dominique Mery and Michael Poppleton. Formal Modelling and Verification of Population Protocols
13. Aymerick Savary, Marc Frappier and Jean-Louis Lanet. Detecting Vulnerabilities in Java-Card Bytecode verifiers using Model-Based Testing
14. Rimvydas Rukšėnas, Paul Curzon and Michael D. Harrison. Integrating Formal Predictions of Interactive System Behaviour with User Evaluation
15. Ramsay Taylor, Kirill Bogdanov and John Derrick. Automatic Inference of Erlang Module Behaviour
16. Manamiary Bruno Andriamiarina, Dominique Mery and Neeraj-Kumar Singh. Integrating Proved State-Based Models for Constructing Correct Distributed Algorithms
17. Elvira Albert, Jesús Correas, German Puebla and Guillermo Román-Díez. Quantified Abstractions of Distributed Syste
18. Kalou Cabrera Castillos, Frederic Dadeau, Jacques Julliand, Bilal Kalso and Safouan Taha. A Compositional Automata-based Semantics for Property Patterns
19. Shuang Liu, Yang Liu, Étienne André, Christine Choppy, Jun Sun, Bimlesh Wadhwa and Jin Song Dong. A Formal Semantics for Complete UML State Machines with Communications
20. Stefan Ciobaca. From Small-step Semantics to Big-step Semantics, Automatically
21. Dorel Lucanu and Vlad Rusu. Program Equivalence by Circular Reasoning
22. Ernst-Ruediger Olderog and Mani Swaminathan. Structural Transformations for Data-Enriched Real-Time Systems
23. Elena Giachino, Carlo A. Grazia, Cosimo Laneve, Michael Lienhardt and Peter Y. H. Wong. Deadlock Analysis of Concurrent Objects: Theory and Practice
24. Roberto Vigo, Flemming Nielson and Hanne Riis Nielson. Broadcast, Denial-of-Service, and Secure Communication
25. Ramiro Demasi, Pablo Castro, Tom Maibaum and Nazareno Aguirre. Characterizing Fault-Tolerant Systems by Means of Simulation Relations

Workshops and Tutorials (10-11 June 2013):

- 4th International Workshop on Computational Models for Cell Processes, CompMod 2013
- 4th Rodin User and Developer Workshop, Rodin 2013
- 16th BCS FACS 2013 Refinement Workshop, REFINE 2013
- Tutorial: Specification and Proof of Programs with Frama-C

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