## **PREFACE**

This volume of Logical Methods in Computer Science offers selected papers of Track B ("Logic, Semantics, and Programming") of the  $36^{th}$  International Colloquium on Automata, Languages and Programming (ICALP), held on the island of Rhodes in July 2009. The eight papers that are now published span a wide spectrum of fields:

- Manuel Bodirsky, Peter Jonsson and Timo von Oertzen: Essential Convexity and Complexity of Semi-Algebraic Constraints
- Thomas Colcombet: Regular Cost Functions, Part I: Logic and Algebra over Words
- Alain Finkel and Jean Goubault-Larrecq: Forward Analysis for WSTS, Part II: Complete WSTS
- Noaki Kobayashi and C. -H. Luke Ong: Complexity of Model Checking Recursion Schemes for Fragments of the Modal Mu-Calculus
- Lars Kuhtz and Bernd Finkbeiner: Efficient Parallel Path Checking for Linear-Time Temporal Logic With Past and Bounds
- Ugo Dal Lago and Simone Martini: On Constructor Rewrite Systems and the Lambda Calculus
- Pawel Parys and Igor Walukiewicz: Weak Alternating Timed Automata
- Thomas Place and Luc Segoufin: A Decidable Characterization of Locally Testable Tree Languages

The authors invested a lot of effort in revising and extending the short communications that were published in the conference proceedings (Springer Lecture Notes in Computer Science, vol. 5556). Much work was then spent by the reviewers who contributed considerably to the quality of the papers, in some cases over two rounds of revision. All this took considerable time. I have to thank both, the authors and the reviewers, for their magnificent work which finally led to a volume with papers of the highest standard.

Wolfgang Thomas PC Chair of ICALP 2009, Track B

All articles have already been published in the regular issues of Logical Methods in Computer Science.

