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Automata, Languages and Programming

38th International Colloquium, ICALP 2011
Zurich, Switzerland, July 4-8, 2011
Proceedings, Part I

Volume Editors

Luca Aceto
Reykjavik University, School of Computer Science
101 Reykjavík, Iceland
E-mail: luca@ru.is

Monika Henzinger
Universität Wien, Fakultät für Informatik
Universitätsstraße 10/9, 1090 Wien, Österreich
E-mail: monika.henzinger@univie.ac.at

Jiří Sgall
Charles University, Department of Applied Mathematics
Malostranské nám. 25, 118 00 Praha 1, Czech Republic
E-mail: sgall@kam.mff.cuni.cz

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Preface

ICALP 2011, the 38th edition of the International Colloquium on Automata, Languages and Programming, was held in Zürich, Switzerland, during July 4–8, 2011. ICALP is a series of annual conferences of the European Association for Theoretical Computer Science (EATCS) which first took place in 1972. This year, the ICALP program consisted of three tracks: the established Track A (focusing on Algorithms, Complexity and Games) and Track B (focusing on Logic, Semantics, Automata and Theory of Programming), and a Track C focusing on Foundations of Networked Computation: Models, Algorithms and Information Management.

In response to the call for papers, the Program Committee received 398 submissions: 243 for Track A (three of which were later withdrawn), 103 for Track B and 52 for Track C. Out of these, 114 papers were selected for inclusion in the scientific program: 68 papers for Track A, 29 for Track B, and 17 for Track C. The selection was made by the Program Committees based on originality, quality, and relevance to theoretical computer science. The quality of the manuscripts was very high indeed, and many deserving papers could not be selected.

The EATCS sponsored both a best paper and a best student paper (all authors are students) award for each of the three tracks, to be selected by the Program Committees. The best paper awards were given to Malte Becken, Johannes Mittmann, and Nitin Saxena for their paper “Algebraic Independence and Blackbox Identity Testing” (Track A), to Olivier Carton, Thomas Colcombet, and Gabriele Puppis for their paper “Regular Languages of Words Over Countable Linear Orderings” (Track B), and to Martin Hoefler for his paper “Local Matching Dynamics in Social Networks” (Track C). The best student paper awards were given to Shi Li for his paper “A 1.488-Approximation Algorithm for the Uncapacitated Facility Location Problem” (Track A), to Martin Delacourt for his paper “Rice’s Theorem for μ -Limit Sets of Cellular Automata” (Track B), and to Shiri Chechik for her paper “Fault-Tolerant Compact Routing Schemes for General Graphs” (Track C).

ICALP 2011 consisted of five invited lectures and the contributed papers. This volume of the proceedings contains all contributed papers from Track A, except for the two papers that received one of the best paper awards. These two papers are contained in a companion volume, together with all contributed papers from Track B and Track C, and the papers by four of the invited speakers: Rajeev Alur (University of Pennsylvania, USA), Thore Husfeldt (IT University of Copenhagen, Denmark), Catuscia Palamidessi (INRIA Saclay and LIX, France), and Ronen Shaltiel (University of Haifa, Israel). The program had an additional invited lecture by Éva Tardos (Cornell University, USA), which does not appear in the proceedings.

The following workshops were held as satellite events of ICALP 2011:

GA - Graph algorithms and Applications

GT - Group Testing

DCM - 7th International Workshop on Developments of Computational Models

SDKB - 5th International Workshop on Semantics in Data and Knowledge Bases

We wish to thank all the authors who submitted extended abstracts for consideration, the Program Committees for their scholarly effort, and all referees who assisted the Program Committees in the evaluation process.

Thanks to the sponsors (Swiss National Science Foundation and Google) for their support, and to ETH Zürich for hosting ICALP 2011. We are also grateful to all members of the Organizing Committee and to their support staff in the Institute of Theoretical Computer Science at ETH Zürich. The conference-management system EasyChair was used in handling the submissions and the electronic Program Committee meeting, as well as in assisting in the assembly of the proceedings.

May 2011

Luca Aceto
Monika Henzinger
Jiří Sgall

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