Luís Caires
Giuseppe F. Italiano
Luís Monteiro
Catuscia Palamidessi
Moti Yung (Eds.)

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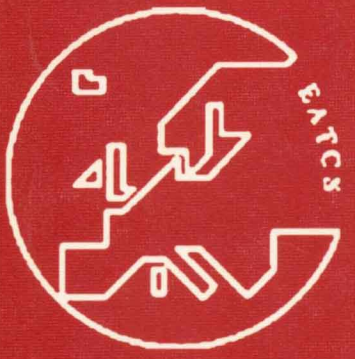
# Automata, Languages and Programming

32nd International Colloquium, ICALP 2005
Lisbon, Portugal, July 2005
Proceedings

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# Automata, Languages and Programming

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# Preface

The 32nd International Colloquium on Automata, Languages and Programming (ICALP 2005) was held in Lisbon, Portugal from July 11 to July 15, 2005. These proceedings contain all contributed papers presented at ICALP 2005, together with the papers by the invited speakers Giuseppe Castagna (ENS), Leonid Libkin (Toronto), John C. Mitchell (Stanford), Burkhard Monien (Paderborn), and Leslie Valiant (Harvard). The program had an additional invited lecture by Adi Shamir (Weizmann Institute) which does not appear in these proceedings.

ICALP is a series of annual conferences of the European Association for Theoretical Computer Science (EATCS). The first ICALP took place in 1972. This year, the ICALP program consisted of the established track A (focusing on algorithms, automata, complexity and games) and track B (focusing on logic, semantics and theory of programming), and innovated on the structure of its traditional scientific program with the inauguration of a new track C (focusing on security and cryptography foundation).

In response to a call for papers, the Program Committee received 407 submissions, 258 for track A, 75 for track B and 74 for track C. This is the highest number of submitted papers in the history of the ICALP conferences. The Program Committees selected 113 papers for inclusion in the scientific program. In particular, the Program Committee for track A selected 65 papers, the Program Committee for track B selected 24 papers, and the Program Committee for track C selected 24 papers. All the work of the Program Committees was done electronically.

ICALP 2005 was held in conjunction with the Annual ACM International Symposium on Principles and Practice of Declarative Programming (PPDP 2005). Additionally, the following workshops were held as satellite events of ICALP 2005: the 2nd Workshop on Automated Reasoning for Security Protocol Analysis (ARSPA), the 1st International Workshop on Verification of COncurrent Systems with dynaMIC Allocated Heaps (COSMICAH), the 1st International Workshop on New Developments in Computational Models (DCM), the 4th International Workshop on Parallel and Distributed Methods in Verification (PDMC), the 4th International Workshop on Proof Theory, Computation, Complexity (PCC), the Workshop on Structures and Deduction — The Quest for the Essence of Proofs (DS), the 2nd Workshop on Structural Operational Semantics (SOS), and the Workshop on Semigroups and Automata (WSA).

We wish to thank all authors who submitted papers for consideration, the Program Committees for their hard work, as well as the external reviewers who assisted the Program Committees in the evaluation process.

We thank the sponsors and the Gulbenkian Foundation of Lisbon for hosting ICALP 2005. We are also grateful to the Department of Informatics of the

Faculty of Sciences and Technology, New University of Lisbon, in particular the administrative office and the technical support service.

Last but not least, we would like to thank Andrei Voronkov for providing the conference management software EasyChair. It was of great help in handling the submissions and the electronic PC meeting.

Luís Caires
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