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F. Meyer auf der Heide B. Monien (Eds.)

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Paderborn, Germany, July 8-12, 1996
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Volume Editors

Friedhelm Meyer auf der Heide

Burkhard Monien

Heinz Nixdorf Institut und FB Mathematik-Informatik

Universität-GH Paderborn

D-33095 Paderborn, Germany

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Foreword

The International Colloquium on Automata, Languages, and Programming (ICALP) is the annual conference series of the European Association for Theoretical Computer Science (EATCS). It is intended to cover all important areas of theoretical computer science, such as: computability, parallel and distributed computation, automata, formal languages, term rewriting, analysis of algorithms, computational geometry, computational complexity, symbolic and algebraic computation, cryptography, data types and data structures, theory of data bases and knowledge bases, semantics of programming languages, program specification, transformation and verification, foundations of logic programming, theory of logical design and layout, theory of concurrency, theory of robotics. ICALP '96 was held at Paderborn University, Germany, from July 8th to July 12th, 1996.

Previous colloquia were held in Szeged (1995), Jerusalem (1994), Lund (1993), Wien (1992), Madrid (1991), Warwick (1990), Stresa (1989), Tampere (1988), Karlsruhe (1987), Rennes (1986), Nafplion (1985), Antwerpen (1984), Barcelona (1983), Århus (1982), Haifa (1981), Amsterdam (1980), Graz (1979), Udine (1978), Turku (1977), Edinburgh (1976), Saarbrücken (1974), and Paris (1972). ICALP '97 will be held in Bologna, Italy, from July 7th to July 11th, 1997.

The Program Committee selected 52 papers from a total of 172 submissions. Authors of submitted papers came from 38 countries on 5 continents. Each submitted paper was sent to at least four Program Committee members, who were often assisted by their referees. The Program Committee meeting took place in Paderborn on February 2nd and 3rd, 1996. This volume contains the 52 papers selected at the meeting plus four invited papers.

We would like to thank all the Program Committee members and the referees who assisted them in their work.

The members of the Program Committee and the Organizing Committee, as well as further members of the theory groups and the "Paderborn Center for Parallel Computing" (PC²) in Paderborn deserve our gratitude for their contributions throughout the preparations.

We gratefully acknowledge support from the Deutsche Forschungsgemeinschaft, Stiftung Westfalen, Paderborn University, PESAG Paderborn, Volksbank Paderborn e. G., Sparkasse Paderborn, Weidmüller Interface GmbH, Miele & Cie. GmbH & Co., and the City of Paderborn.

April 1996

Friedhelm Meyer auf der Heide and Burkhard Monien
Paderborn University

Invited Lecturers

Harald Ganzinger, Saarbrücken
Véronique Bruyère, Mons, and Michel Latteux, Lille
Michael Rabin, Jerusalem and Harvard
Abhiram Ranade, Berkeley and Bombay
Alexander Razborov, Moscow

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