

Lecture Notes in Computer Science

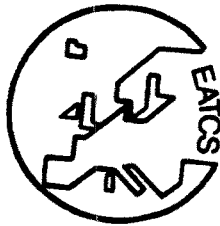
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Automata, Languages and Programming

12th Colloquium

Nafplion, Greece, July 15–19, 1985



Edited by Wilfried Brauer



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ICALP is the annual European summer conference on theoretical computer science sponsored by the European Association for Theoretical Computer Science (EATCS).

ICALP stands for International Colloquium on Automata, Languages and Programming, but this conference series intends to cover all important areas of theoretical informatics such as automata theory, formal language theory, analysis of algorithms, computational complexity, computability theory, mathematical aspects of programming language definition, logic and semantics of programming languages, program specification, theory of data structures, theory of data bases, cryptography, VLSI structures.

Previous colloquia were held in Antwerp (1984), Barcelona (1983), Aarhus (1982), Haifa (1981), Amsterdam (1980), Graz (1979), Udine (1978), Turku (1977), Edinburgh (1976), Saarbrücken (1974) and Paris (1972).

ICALP'86 will again be held in France: from July 15 to July 19, 1986, in Rennes.

ICALP'85 is being organized by the National Technical University of Athens in cooperation with the University of Hamburg. The conference is held at a very attractive location: Nafplion, the first capital of Greece, situated on the Eastern coast of the Peloponnese.

All the work related to the setting up of the scientific program was done in Hamburg. The final selection meeting of the program committee took place in Hamburg on January 28, 1985. The program committee (selection meeting participants underlined) consisted of:

K.R. Apt, Paris	<u>B. Monien</u> , Paderborn	<u>A. Salomaa</u> , Turku
J. Berstel, Paris	C. Papadimitriou, Athens	<u>D.S. Scott</u> , Pittsburgh
<u>C. Böhm</u> , Rome	<u>J. Paredaens</u> , Antwerp	I.H. Sudborough,
<u>W. Brauer</u> , Hamburg	M. Paterson, Warwick	Evanston
J. de Bakker, Amsterdam	<u>A. Paz</u> , Haifa	<u>E. Welzl</u> , Graz
<u>J. Diaz</u> , Barcelona	<u>A.L. Rosenberg</u> , Durham	<u>D. Wood</u> , Waterloo
J. Gruska, Bratislava		<u>Y. Yannakakis</u> , Murry Hill

A great number of referees (see page IX) assisted the program committee members in their hard and difficult task. I would like to express my gratitude to all those persons who participated in the arduous selection process (every paper was sent to 4 program committee members who again often asked competent referees for assistance). In particular I thank those who did the final selection in a very laborious, intense and concentrated meeting. My thanks go also to the members of the Hamburg local arrangements committee: M. Kudlek (chairman), H. Bramhoff, H. Carstensen, V. Diekert, K.-J. Lange, M. Jantzen. In particular I am indebted to the program committee secretary, Mrs. H. Durry, for her special engagement and excellent work.

The organisation of the conference itself is carried out by the Greek organizing committee:

F. Afrati	C.H. Papadimitriou (co-chairman)
L. Kirousis	G. Papageorgiou
F. Makedon	E.N. Protonotarios (co-chairman)
D. Maritsas	D. Tsichritzis

In particular I would like to mention and thank Miss F. Afrati and C. Papadimitriou for their very close and helpful cooperation in dealing with matters concerning the conference.

I would also like to express my thanks to Mr. Th. Ottmann and his crew of the Karlsruhe University for the nice printing and quick distribution of the Call for Papers.

ICALP'85 received the largest number of paper submissions in ICALP history: 205 papers from the following countries:

Australia, Austria, Belgium, Brazil, Bulgaria, Canada, China, Czechoslovakia, Denmark, Federal Republic of Germany, Finland, France, German Democratic Republic, Great Britain, Hungary, Israel, Italy, Japan, Netherlands, Poland, Romania, South Africa, Spain, Sweden, Switzerland, U.S.A.

The time schedule of the conference allowed for the acceptance of only 49 papers. Therefore the selection was very difficult and we had to reject many good papers. The selection criteria were originality, technical quality and relevance; for the final evaluation the referee grading scale published in EATCS Bulletin 20 (June 1983), p. 31, was used. All accepted papers are included in these proceedings - many thanks to their authors for being in time.

I would like to thank very much all those who submitted papers for presentation at ICALP.

As usual, the ICALP'85 program offers two invited lectures: by A. Pnueli and L. Lovász, whose papers are also published in these proceedings; in addition, there is a special invited lecture on "Theory and Practice" given by D. Knuth in the ancient Greek theatre of Epidaurus. The program committee thanks all three invited lecturers for having accepted our invitation.

We are all very grateful for the special support given by the National Technical University of Athens, Ministry of Culture and Science, Ministry of Research and Technology, National Tourist Organization of Greece, OLYMPIC Airways, I.B.M., City of Nafplion and University of Hamburg.

Last but not least I would like to mention the excellent cooperation with Springer-Verlag and in particular with Mrs. I. Mayer.

Hamburg, April 1985

Wilfried Brauer
Program Committee Chairman

12th International Colloquium on
Automata , Languages and Programming

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