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Zoltán Ésik Zoltán Fülöp (Eds.)

# Developments in Language Theory

7th International Conference, DLT 2003  
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Proceedings



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# Preface

DLT 2003 was the 7th Conference on Developments in Language Theory. It was intended to cover all important areas of language theory, such as grammars, acceptors and transducers for strings, trees, graphs, arrays, etc., algebraic theories for automata and languages, combinatorial properties of words and languages, formal power series, decision problems, efficient algorithms for automata and languages, relations to complexity theory and logic, picture description and analysis, DNA computing, quantum computing, cryptography, and concurrency.

DLT 2003 was held at the University of Szeged, Hungary, from July 7 to 11, 2003. Previous DLTs were held in Turku (1993), Magdeburg (1995), Thessaloniki (1997), Aachen (1999), Vienna (2001), and Kyoto (2002). Since 2001, a DLT conference takes place in every odd year in Europe, and in every even year in Asia.

Altogether 57 papers were submitted. Each submission was evaluated by at least four members of the Program Committee, who were often assisted by their referees. This volume contains the 27 selected papers and the texts of the seven invited presentations.

We would like to thank the members of the Program Committee for the evaluation of the submissions and the numerous referees who assisted in this work. The list of referees is as complete as we could achieve and we apologize for any omissions and errors. We are grateful to the contributors of DLT 2003, in particular to the invited speakers for their willingness to present interesting new developments. We also thank the members of the Organizing Committee and all those whose work behind the scenes contributed to this volume.

DLT 2003 was sponsored by the Department of Informatics, University of Szeged, the Ministry of Education of Hungary, the Fund for Szeged, and Hewlett-Packard Hungary, Ltd.

April 2003

Zoltán Ésik and Zoltán Fülöp

# **Organization**

DLT 2003 was organized by the Department of Computer Science, University of Szeged, Hungary.

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A. Bertoni (Milan)  
J. Esparza (Stuttgart)  
F. Gécseg (Szeged)  
F. Otto (Kassel)  
J.-É. Pin (Paris)  
W. Plandowski (Warsaw)  
H. Vollmer (Hannover)

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