

Foreword

The papers contained in this volume were presented at the 12th Annual Symposium on Combinatorial Pattern Matching, held July 1–4, 2001 at the *Dan Panorama Hotel* in Jerusalem, Israel. They were selected from 35 abstracts submitted in response to the call for papers. In addition, there were invited lectures by Aviezri Fraenkel (*Weizmann Institute of Science*), Zvi Galil (*Columbia*), Rao Kosaraju (*Johns Hopkins University*), and Uzi Vishkin (*Technion and U. Maryland*). This year the call for papers invited short (poster) presentations. They also appear in the proceedings.

Combinatorial Pattern Matching (CPM) addresses issues of searching and matching strings and more complicated patterns such as trees, regular expressions, graphs, point sets, and arrays, in various formats. The goal is to derive non-trivial combinatorial properties of such structures and to exploit these properties in order to achieve superior performance for the corresponding computational problems. On the other hand, an important aim is to analyze and pinpoint the properties and conditions under which searches can not be performed efficiently.

Over the past decade a steady flow of high quality research on this subject has changed a sparse set of isolated results into a full-fledged area of algorithmics. This area is continuing to grow even further due to the increasing demand for speed and efficiency that stems from important applications such as the World Wide Web, computational biology, computer vision, and multimedia systems. These involve requirements for information retrieval in heterogeneous databases, data compression, and pattern recognition. The objective of the annual CPM gathering is to provide an international forum for the presentation of research results in combinatorial pattern matching and related applications.

The first 11 meetings were held in Paris, London, Tucson, Padova, Asilomar, Helsinki, Laguna Beach, Aarhus, Piscataway, Warwick, and Montreal, over the years 1990–2000. After the first meeting, a selection of papers appeared as a special issue of *Theoretical Computer Science* in volume 92. The proceedings of the 3rd to 11th meetings appeared as volumes 644, 684, 807, 937, 1075, 1264, 1448, 1645, and 1848 of the Springer LNCS series. Selected papers of the 12th meeting will appear in a special issue of *Discrete Applied Mathematics*.

The general organization and orientation of the CPM conferences is coordinated by a steering committee composed of Alberto Apostolico (*Padova and Purdue*), Maxime Crochemore (*Marne-la-Vallée*), Zvi Galil (*Columbia*) and Udi Manber (*Yahoo!*).

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Local Organization

Local arrangements were made by the program committee co-chairs. The conference Web site was created and maintained by Revital Erez. Organizational help was provided by Gal Goldschmidt, Noa Gur, Libi Raz, and Daphna Stern.

Sponsoring Institutions

- The Caesarea Edmond Benjamin de Rothschild Foundation, Institute for Interdisciplinary Applications of Computer Science, Haifa University.
- Bar Ilan University.
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