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Nota di contenuto	Regular Expression Searching over Ziv-Lempel Compressed Text -- Parallel Lempel Ziv Coding (Extended Abstract) -- Approximate Matching of Run-Length Compressed Strings -- What to Do with All this Hardware? (Invited Lecture) -- Efficient Experimental String Matching by Weak Factor Recognition* -- Better Filtering with Gapped q-Grams -- Fuzzy Hamming Distance: A New Dissimilarity Measure (Extended Abstract) -- An Extension of the Periodicity Lemma to Longer Periods (Invited Lecture) -- A Very Elementary Presentation of the Hannenhalli-Pevzner Theory -- Tandem Cyclic Alignment -- An Output-Sensitive Flexible Pattern Discovery Algorithm -- Episode Matching* -- String Resemblance Systems: A Unifying Framework for

String Similarity with Applications to Literature and Music -- Efficient Discovery of Proximity Patterns with Suffix Arrays (Extended Abstract) -- Computing the Equation Automaton of a Regular Expression in  $O(s^2)$  Space and Time -- On-Line Construction of Compact Directed Acyclic Word Graphs\* -- Linear-Time Longest-Common-Prefix Computation in Suffix Arrays and Its Applications -- Multiple Pattern Matching Algorithms on Collage System -- Finding All Common Intervals of  $k$  Permutations -- Generalized Pattern Matching and the Complexity of Unavoidability Testing -- Balanced Suffix Trees (Invited Lecture) -- A Fast Algorithm for Optimal Alignment between Similar Ordered Trees -- Minimum Quartet Inconsistency Is Fixed Parameter Tractable -- Optimally Compact Finite Sphere Packings — Hydrophobic Cores in the FCC.

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#### Sommario/riassunto

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, pointsets, and arrays, in various formats. The goal is to derive 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.

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