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Soggetti	Discrete mathematics Pattern recognition Algorithms Natural language processing (Computer science) Information storage and retrieval Coding theory Information theory Discrete Mathematics Pattern Recognition Algorithm Analysis and Problem Complexity Natural Language Processing (NLP) Information Storage and Retrieval Coding and Information Theory
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Practical Software for Aligning ESTs to Human Genome -- Efficient Text Mining with Optimized Pattern Discovery -- Application of Lempel-Ziv Factorization to the Approximation of Grammar-Based Compression -- Block Merging for Off-Line Compression -- String Matching with Stopper Encoding and Code Splitting -- Pattern Matching Problems over 2-Interval Sets -- The Problem of Context Sensitive String Matching -- Two-Pattern Strings -- Edit Distance with Move Operations -- Towards Optimally Solving the Longest Common

Subsequence Problem for Sequences with Nested Arc Annotations in Linear Time -- Local Similarity Based Point-Pattern Matching -- Identifying Occurrences of Maximal Pairs in Multiple Strings -- Space-Economical Algorithms for Finding Maximal Unique Matches -- The Minimum DAWG for All Suffixes of a String and Its Applications -- On the Complexity of Deriving Position Specific Score Matrices from Examples -- Three Heuristics for ϵ -Matching: ϵ -BM Algorithms -- A Better Method for Length Distribution Modeling in HMMs and Its Application to Gene Finding -- Faster Bit-Parallel Approximate String Matching -- One-Gapped q -Gram Filters for Levenshtein Distance -- Optimal Exact and Fast Approximate Two Dimensional Pattern Matching Allowing Rotations -- Statistical Identification of Uniformly Mutated Segments within Repeats -- Simple and Practical Sequence Nearest Neighbors with Block Operations -- Constructing NFAs by Optimal Use of Positions in Regular Expressions.

Sommario/riassunto

The papers contained in this volume were presented at the 13th Annual Symposium on Combinatorial Pattern Matching, held July 3–5, 2002 at the Hotel Uminonakamichi, in Fukuoka, Japan. They were selected from 37 abstracts submitted in response to the call for papers. In addition, there were invited lectures by Shinichi Morishita (University of Tokyo) and Hiroki Arimura (Kyushu University). 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 goal is to analyze and pinpoint the properties and conditions under which searches cannot 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 research in combinatorial pattern matching and related applications.
