Record Nr. UNISA996198521103316 Combinatorial Pattern Matching [[electronic resource]]: 26th Annual **Titolo** Symposium, CPM 2015, Ischia Island, Italy, June 29 -- July 1, 2015, Proceedings / / edited by Ferdinando Cicalese, Ely Porat, Ugo Vaccaro Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2015 **ISBN** 3-319-19929-3 Edizione [1st ed. 2015.] Descrizione fisica 1 online resource (XIX, 412 p. 69 illus.) Theoretical Computer Science and General Issues, , 2512-2029;; 9133 Collana 005.1 Disciplina Soggetti Pattern recognition systems Algorithms Numerical analysis Computer science—Mathematics Discrete mathematics Artificial intelligence—Data processing **Bioinformatics Automated Pattern Recognition Numerical Analysis** Discrete Mathematics in Computer Science **Data Science** Computational and Systems Biology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di contenuto On the Hardness of Optimal Vertex Relabeling and Restricted Vertex Relabeling -- A Framework for Space-Efficient String Kernels --Composite Repetition-Aware Data Structures -- Efficient Construction of a Compressed de Bruijn Graph for Pan-Genome Analysis -- Longest Common Extensions in Trees -- Longest Common Extensions in Sublinear Space -- Ranked Document Retrieval with Forbidden Pattern -- Parameterized Complexity of Superstring Problems -- On the Fixed

Parameter Tractability and Approximability of the Minimum Error Correction Problem -- Fast String Dictionary Lookup with One Error --

On the Readability of Overlap Digraphs -- Improved Algorithms for the Boxed-Mesh Permutation Pattern Matching Problem -- Range Minimum Query Indexes in Higher Dimensions -- Alphabet-Dependent String Searching with Wexponential Search Trees -- Lempel Ziv Computation in Small Space (LZ-CISS) -- Succinct Non-overlapping Indexing --Encodings of Range Maximum-Sum Segment Queries and Applications -- Compact Indexes for Flexible Top-k Retrieval -- LZD Factorization: Simple and Practical Online Grammar Compression with Variable-to-Fixed Encoding -- Combinatorial RNA Design: Designability and Structure-Approximating Algorithm -- Dictionary Matching with Uneven Gaps -- Partition into Heapable Sequences, Heap Tableaux and a Multiset Extension of Hammersley's Process -- The Approximability of Maximum Rooted Triplets Consistency with Fan Triplets and Forbidden Triplets -- String Powers in Trees -- Online Detection of Repetitions with Backtracking -- Greedy Conjecture for Strings of Length 4 -- Tighter Bounds for the Sum of Irreducible LCP Values --Parallel External Memory Suffix Sorting -- On Maximal Unbordered Factors -- Semi-dynamic Compact Index for Short Patterns and Succinct van Emde Boas Tree -- Reporting Consecutive Substring Occurrences Under Bounded Gap Constraints -- A Probabilistic Analysis of the Reduction Ratio in the Suffix-Array IS Algorithm -- Encoding Nearest Larger Values -- Sorting by Cuts, Joins and Whole Chromosome Duplications.

## Sommario/riassunto

This book constitutes the refereed proceedings of the 26th Annual Symposium on Combinatorial Pattern Matching, CPM 2015, held on Ischia Island, Italy, in June/July 2015. The 34 revised full papers presented together with 3 invited talks were carefully reviewed and selected from 83 submissions. The papers address issues of searching and matching strings and more complicated patterns such as trees; regular expressions; graphs; point sets; and arrays. The goal is to derive combinatorial properties of such structures and to exploit these properties in order to achieve superior performance for the corresponding computational problems. The meeting also deals with problems in computational biology; data compression and data mining; coding; information retrieval; natural language processing; and pattern recognition.