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Nota di contenuto	The Combinatorics of Sequencing the Corn Genome -- Online Frequency Assignment in Wireless Communication Networks -- Information Distance from a Question to an Answer -- A New Field Splitting Algorithm for Intensity-Modulated Radiation Therapy -- A New Recombination Lower Bound and the Minimum Perfect Phylogenetic Forest Problem -- Seed-Based Exclusion Method for Non-coding RNA Gene Search -- A New Quartet Approach for Reconstructing Phylogenetic Trees: Quartet Joining Method -- Integer Programming Formulations and Computations Solving Phylogenetic and

Population Genetic Problems with Missing or Genotypic Data -- Improved Exact Algorithms for Counting 3- and 4-Colorings -- Connected Coloring Completion for General Graphs: Algorithms and Complexity -- Quadratic Kernelization for Convex Recoloring of Trees -- On the Number of Cycles in Planar Graphs -- An Improved Exact Algorithm for Cubic Graph TSP -- Geometric Intersection Graphs: Do Short Cycles Help? -- Dimension, Halfspaces, and the Density of Hard Sets -- Isolation Concepts for Enumerating Dense Subgraphs -- Alignments with Non-overlapping Moves, Inversions and Tandem Duplications in  $O(n^4)$  Time -- Counting Minimum Weighted Dominating Sets -- Online Interval Scheduling: Randomized and Multiprocessor Cases -- Scheduling Selfish Tasks: About the Performance of Truthful Algorithms -- Volume Computation Using a Direct Monte Carlo Method -- Improved Throughput Bounds for Interference-Aware Routing in Wireless Networks -- Generating Minimal  $k$ -Vertex Connected Spanning Subgraphs -- Finding Many Optimal Paths Without Growing Any Optimal Path Trees -- Enumerating Constrained Non-crossing Geometric Spanning Trees -- Colored Simultaneous Geometric Embeddings -- Properties of Symmetric Incentive Compatible Auctions -- Finding Equilibria in Games of No Chance -- Efficient Testing of Forecasts -- When Does Greedy Learning of Relevant Attributes Succeed? -- The Informational Content of Canonical Disjoint NP-Pairs -- On the Representations of NC and Log-Space Real Numbers -- Bounded Computable Enumerability and Hierarchy of Computably Enumerable Reals -- Streaming Algorithms Measured in Terms of the Computed Quantity -- A Randomized Approximation Algorithm for Parameterized 3-D Matching Counting Problem -- Optimal Offline Extraction of Irredundant Motif Bases -- Linear Algorithm for Broadcasting in Unicyclic Graphs -- An Improved Algorithm for Online Unit Clustering -- Linear Time Algorithms for Finding a Dominating Set of Fixed Size in Degenerated Graphs -- Single-Edge Monotonic Sequences of Graphs and Linear-Time Algorithms for Minimal Completions and Deletions -- On the Hardness of Optimization in Power Law Graphs -- Can a Graph Have Distinct Regular Partitions? -- Algorithms for Core Stability, Core Largeness, Exactness, and Extendability of Flow Games -- Computing Symmetric Boolean Functions by Circuits with Few Exact Threshold Gates -- On the Complexity of Finding an Unknown Cut Via Vertex Queries -- "Resistant" Polynomials and Stronger Lower Bounds for Depth-Three Arithmetical Formulas -- An Improved Algorithm for Tree Edit Distance Incorporating Structural Linearity -- Approximation Algorithms for Reconstructing the Duplication History of Tandem Repeats -- Priority Algorithms for the Subset-Sum Problem -- Distributed Approximation Algorithms for Weighted Problems in Minor-Closed Families -- A 1-Local 13/9-Competitive Algorithm for Multicoloring Hexagonal Graphs -- Improved Algorithms for Weighted and Unweighted Set Splitting Problems -- An  $\alpha$ -Approximation Algorithm for a Hard Variant of Stable Marriage -- Approximation Algorithms for the Black and White Traveling Salesman Problem.

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## Sommario/riassunto

The Annual International Computing and Combinatorics Conference is an annual forum for exploring research, development, and novel applications of computing and combinatorics. It brings together researchers, professionals and industrial practitioners to interact and exchange knowledge, ideas and progress. The topics cover most aspects of theoretical computer science and combinatorics related to computing. The 13th Annual International Computing and Combinatorics Conference (COCOON 2007) was held in Banff, Alberta during July 16–19, 2007. This was the first time that COCOON was held in Canada. We

received 165 submissions, among which 11 were withdrawn for various reasons. The remaining 154 submissions under full consideration came from 33 countries and regions: Australia, Brazil, Canada, China, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hong Kong, India, Iran, Ireland, Israel, Italy, Japan, the Netherlands, Norway, Pakistan, Poland, Romania, Russia, Slovakia, South Korea, Spain, Sweden, Switzerland, Taiwan, Turkey, the UK, the USA, and the US minor outlying islands.

After a six week period of careful reviewing and discussions, the program committee accepted 51 submissions for oral presentation at the conference. Based on the affiliations, 1.08 of the accepted papers were from Australia, 7.67 from Canada, 3.08 from China, 1 from the Czech Republic, 2 from Denmark, 1 from France, 5.42 from Germany, 0.08 from Greece, 2.18 from Hong Kong, 0.33 from India, 0.17 from Ireland, 1.83 from Israel, 1.5 from Italy, 2.9 from Japan, 0.17 from the Netherlands, 2.67 from Norway, 0.

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