Record Nr. UNINA9910483945703321 Graph-Theoretic Concepts in Computer Science: 34th International **Titolo** Workshop, WG 2008, Durham, UK, June 30 -- July 2, 2008, Revised Papers // edited by Hajo Broersma, Thomas Erlebach, Tom Friedetzky, **Daniel Paulusma** Pubbl/distr/stampa Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, 2008 **ISBN** 3-540-92248-2 Edizione [1st ed. 2008.] Descrizione fisica 1 online resource (XIII, 386 p.) Theoretical Computer Science and General Issues, , 2512-2029;; 5344 Collana Classificazione **DAT 537f** MAT 055f SS 4800 Disciplina 004.015115 Soggetti Algorithms Computer science—Mathematics Discrete mathematics Numerical analysis Artificial intelligence—Data processing Computer graphics Discrete Mathematics in Computer Science **Numerical Analysis Data Science** Computer Graphics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Proceedings of the "34th International Workshop, WG 2008, Durham, UK, June 30-July 2, 2008". Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Invited Contributions -- (Un)-Stable Routing in the Internet: A Survey from the Algorithmic Perspective -- Memory Efficient Anonymous Graph Exploration -- Algorithmic Meta Theorems -- Regular Papers --A Most General Edge Elimination Polynomial -- Approximating the Metric TSP in Linear Time -- The Valve Location Problem in Simple

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Polynomial-Time Algorithm for Computing Ecological Colorings --Faster Exact Bandwidth -- Additive Spanners for Circle Graphs and Polygonal Graphs -- Upward Straight-Line Embeddings of Directed Graphs into Point Sets -- Complexity of the Packing Coloring Problem for Trees -- Characterizations of Restricted Pairs of Planar Graphs Allowing Simultaneous Embedding with Fixed Edges -- A Lower Bound on the Area Requirements of Series-Parallel Graphs -- On Independent Sets and Bicliques in Graphs -- Evaluations of Graph Polynomials --Parameterized Complexity for Domination Problems on Degenerate Graphs -- An Algorithm for Finding Input-Output Constrained Convex Sets in an Acyclic Digraph -- Cutwidth of Split Graphs, Threshold Graphs, and Proper Interval Graphs -- The Rank-Width of the Square Grid -- Improved Upper Bounds for Partial Vertex Cover -- On the Expressive Power of CNF Formulas of Bounded Tree- and Clique-Width -- Planar Feedback Vertex Set and Face Cover: Combinatorial Bounds and Subexponential Algorithms -- What Is between Chordal and Weakly Chordal Graphs? -- Parameterized Graph Cleaning Problems -- Traffic Grooming in Unidirectional WDM Rings with Bounded Degree Request Graph -- Fast Robber in Planar Graphs -- From a Circular-Arc Model to a Proper Circular-Arc Model -- Digraph Decompositions and Monotonicity in Digraph Searching -- Searching for a Visible, Lazv Fugitive -- A Faster Shortest-Paths Algorithm for Minor-Closed Graph Classes -- Local Construction and Coloring of Spanners of Location Aware Unit Disk Graphs.

## Sommario/riassunto

This book constitutes the thoroughly refereed post-conference proceedings of the 34th International Workshop on Graph-Theoretic Concepts in Computer Science, WG 2008, held in Durham, UK, in June/July 2008. The 30 revised full papers presented together with 3 invited paper were carefully reviewed and selected from 76 submissions. The papers feature original results on all aspects of graph-theoretic concepts in Computer Science, e.g. structural graph theory, sequential, parallel, and distributed graph and network algorithms and their complexity, graph grammars and graph rewriting systems, graph-based modeling, graph-drawing and layout, diagram methods, and support of these concepts by suitable implementations.