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Nota di contenuto	Computational Complexity of Generalized Domination: A Complete Dichotomy for Chordal Graphs -- Recognizing Bipartite Tolerance Graphs in Linear Time -- Graph Searching in a Crime Wave -- Monotonicity of Non-deterministic Graph Searching -- Tree-Width and Optimization in Bounded Degree Graphs -- On Restrictions of Balanced 2-Interval Graphs -- Graph Operations Characterizing Rank-Width and Balanced Graph Expressions -- The Clique-Width of Tree-Power and Leaf-Power Graphs -- NLC-2 Graph Recognition and Isomorphism -- A

Characterisation of the Minimal Triangulations of Permutation Graphs -- The 3-Steiner Root Problem -- On Finding Graph Clusterings with Maximum Modularity -- On Minimum Area Planar Upward Drawings of Directed Trees and Other Families of Directed Acyclic Graphs -- A Very Practical Algorithm for the Two-Paths Problem in 3-Connected Planar Graphs -- Approximation Algorithms for Geometric Intersection Graphs -- An Equivalent Version of the Caccetta-Haggkvist Conjecture in an Online Load Balancing Problem -- Mixing 3-Colourings in Bipartite Graphs -- Minimum-Weight Cycle Covers and Their Approximability -- On the Number of  $\tau$ -Orientations -- Complexity and Approximation Results for the Connected Vertex Cover Problem -- Segmenting Strings Homogeneously Via Trees -- Characterisations and Linear-Time Recognition of Probe Cographs -- Recognition of Polygon-Circle Graphs and Graphs of Interval Filaments Is NP-Complete -- Proper Helly Circular-Arc Graphs -- Pathwidth of Circular-Arc Graphs -- Characterization and Recognition of Digraphs of Bounded Kelly-width -- How to Use Planarity Efficiently: New Tree-Decomposition Based Algorithms -- Obtaining a Planar Graph by Vertex Deletion -- Mixed Search Number and Linear-Width of Interval and Split Graphs -- Lower Bounds for Three Algorithms for the Transversal Hypergraph Generation -- The Complexity of Bottleneck Labeled Graph Problems.

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### Sommario/riassunto

The 33rd International Conference "Workshop on Graph-Theoretic Concepts in Computer Science" (WG 2007) took place in the Conference Center in old castle in Dornburg near Jena, Germany, June 21–23, 2007. The approximately 80 participants came from various countries all over the world, among them Brazil, Canada, the Czech Republic, France, UK, Greece, Hungary, Italy, Japan, The Netherlands, Norway, Sweden, Taiwan, and the USA. WG 2007 continued the series of 32 previous WG conferences. Since 1975, the WG conference has taken place 20 times in Germany, four times in The Netherlands, twice in Austria as well as once in Italy, Slovakia, Switzerland, the Czech Republic, France and in Norway. The WG conference traditionally aims at uniting theory and practice by demonstrating how graph-theoretic concepts can be applied to various areas in computer science, or by extracting new problems from applications. The goal is to present recent research results and to identify and explore directions of future research. The continuing interest in the WG conferences was reflected in the high number of submissions; 99 papers were submitted and in an evaluation process with four reports per submission, 30 papers were accepted by the Program Committee for the conference. Due to the high number of submissions and the limited schedule of 3 days, various good papers could not be accepted. There were invited talks by Ming-Yang Kao (Evanston, Illinois) on algorithmic DNA assembly, and by Klaus Jansen (Kiel, Germany) on approximation algorithms for geometric intersection graphs.

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