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Nota di contenuto	Tree-Like Structures in Graphs: A Metric Point of View -- Overview of New Approaches for Approximating TSP -- Linear Rank-Width and Linear Clique-Width of Trees -- Threshold-Coloring and Unit-Cube Contact Representation of Graphs -- Rolling Upward Planarity Testing of Strongly Connected Graphs -- Towards a Provably Resilient Scheme for Graph-Based Watermarking -- The Normal Graph Conjecture for Classes of Sparse Graphs -- On the Parameterized Complexity of Computing Graph Bisections -- Fixed-Parameter Tractability and Characterizations of Small Special Treewidth -- The 5-Graph is a Spanner -- Graphs of Edge-Intersecting Non-splitting Paths in a Tree: Towards Hole Representations (Extended Abstract) -- Linear-Time Algorithms for Scattering Number and Hamilton-Connectivity of Interval Graphs -- Equilateral L-Contact Graphs -- Parameterized and Approximation Algorithms for the MAF Problem in Multifurcating Trees

-- Linear Separation of Total Dominating Sets in Graphs -- Sparse Square Roots -- Completing Colored Graphs to Meet a Target Property -- Colouring of Graphs with Ramsey-Type Forbidden Subgraphs -- Lower and Upper Bounds for Long Induced Paths in 3-Connected Planar Graphs -- Computing Minimum Cycle Bases in Weighted Partial 2-Trees in Linear Time -- Thickness and Colorability of Geometric Graphs -- The Same Upper Bound for Both: The 2-Page and the Rectilinear Crossing Numbers of the n-Cube -- FPT Is Characterized by Useful Obstruction Sets -- Excluding Graphs as Immersions in Surface Embedded -- OBDD-Based Representation of Interval Graphs -- Tight Upper Bounds for Minimum Feedback Arc Sets of Regular -- A Linear-Time Kernelization for the Rooted k-Leaf Outbranching Problem -- On Retracts, Absolute Retracts, and Folds in Cographs -- Coloring Triangle-Free Rectangular Frame Intersection Graphs with  $O(\log \log n)$  Colors -- On Finding Tucker Submatrices and Lekkerkerker-Boland Subgraphs -- Certifying 3-Edge-Connectivity -- Parameterized Algorithms for Max Colorable Induced Subgraph Problem on Perfect Graphs -- Characterizing and Computing the Structure of Clique Intersections in Strongly Chordal Graphs -- Beyond Knights and Knaves -- Drawing Graphs with Few Arcs -- Connecting Terminals and 2-Disjoint Connected Subgraphs.

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### Sommario/riassunto

This book constitutes the thoroughly refereed proceedings of the 39th International Workshop on Graph Theoretic Concepts in Computer Science, WG 2013, held in Lübeck, Germany, in June 2013. The 34 revised full papers presented were carefully reviewed and selected from 61 submissions. The book also includes two abstracts. The papers cover a wide range of topics in graph theory related to computer science, such as structural graph theory with algorithmic or complexity applications; design and analysis of sequential, parallel, randomized, parameterized and distributed graph and network algorithms; computational complexity of graph and network problems; computational geometry; graph grammars, graph rewriting systems and graph modeling; graph drawing and layouts; random graphs and models of the web and scale-free networks; and support of these concepts by suitable implementations and applications.

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