Record Nr. UNINA9910349386503321 Graph Drawing and Network Visualization: 26th International Titolo Symposium, GD 2018, Barcelona, Spain, September 26-28, 2018. Proceedings / / edited by Therese Biedl, Andreas Kerren Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2018 **ISBN** 3-030-04414-9 Edizione [1st ed. 2018.] 1 online resource (XVIII, 666 p. 427 illus., 198 illus. in color.) Descrizione fisica Collana Theoretical Computer Science and General Issues, , 2512-2029;; 11282 005.1 Disciplina Soggetti Algorithms Computer science—Mathematics Discrete mathematics Artificial intelligence—Data processing Computer graphics Artificial intelligence Discrete Mathematics in Computer Science **Data Science** Computer Graphics Artificial Intelligence Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Invited Talk -- Image-Based Graph Visualization: Advances and Challenges -- Planarity Variants -- Clustered Planarity = Flat Clustered Planarity -- Level Planarity: Transitivity vs. Even Crossings -- Short Plane Supports for Spatial Hypergraphs -- Turning Cliques into Paths to Achieve Planarity -- Upward Drawings -- Universal Slope Sets for Upward Planar Drawings -- Upward Planar Morphs -- Visualizing the Template of a Chaotic Attractor -- RAC drawings -- On RAC Drawings of Graphs with one Bend per Edge -- Compact Drawings of 1-Planar Graphs with Right-Angle Crossings and Few Bends -- Drawing Subcubic 1-Planar Graphs with Few Bends, Few Slopes, and Large

Angles -- Best paper Track 2 -- Aesthetic Discrimination of Graph

Layouts -- Orders -- A Flow Formulation for Horizontal Coordinate Assignment with Prescribed Width -- The Queue-Number of Posets of Bounded Width or Height -- Queue Layouts of Planar 3-Trees --Crossings -- Crossing Minimization in Perturbed Drawings -- The Number of Crossings in Multigraphs with No Empty Lens -- Crossing Numbers and Stress of Random Graphs -- Crossing angles -- A Heuristic Approach towards Drawings of Graphs with High Crossing Resolution -- A Greedy Heuristic for Crossing-Angle Maximization --Contact representations -- Recognition and Drawing of Stick Graphs --On Contact Graphs of Paths on a Grid -- Specialized graphs and trees -- On the Area-Universality of Triangulations -- Monotone Drawings of k-Inner Planar Graphs -- On L-shaped Point Set Embeddings of Trees: First Non-embeddable Examples -- How to Fit a Tree in a Box -- Best paper Track 1 -- Pole Dancing: 3D Morphs for Tree Drawings --Partially fixed drawings -- The Complexity of Drawing a Graph in a Polygonal Region -- Inserting an Edge into a Geometric Embedding ---Stars or On Extending a Drawing of a Connected Subgraph --Experiments -- Perception of Symmetries in Drawings of Graphs --Network Alignment by Discrete Ollivier-Ricci Flow -- Same Stats, Different Graphs (Graph Statistics and Why We Need Graph Drawings) -- Orthogonal drawings -- Bend-minimum Orthogonal Drawings in Quadratic Time -- Greedy Rectilinear Drawings -- Orthogonal and Smooth Orthogonal Layouts of 1-Planar Graphs with Low Edge Complexity -- Ortho-polygon Visibility Representations of 3-connected 1-plane Graphs -- Realizability -- Realization and Connectivity of the Graphs of Origami Flat Foldings -- Arrangements of Pseudocircles: On Circularizability -- The Weighted Barycenter Drawing Recognition Problem -- Miscellaneous -- Algorithms and Bounds for Drawing Directed Graphs -- Optimal Grid Drawings of Complete Multipartite Graphs and an Integer Variant of the Algebraic Connectivity -- Graph Drawing Contest Report. .

Sommario/riassunto

This book constitutes the refereed proceedings of the 26th International Symposium on Graph Drawing and Network Visualization, GD 2018, held in Barcelona, Spain, in September 2018. The 41 full papers presented in this volume were carefully reviewed and selected from 85 submissions. They were organized in topical sections named: planarity variants; upward drawings; RAC drawings; orders; crossings; crossing angles; contact representations; specialized graphs and trees; partially fixed drawings, experiments; orthogonal drawings; realizability; and miscellaneous. The book also contains one invited talk in full paper length and the Graph Drawing contest report.