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Nota di contenuto	Planarity and Planar Drawings -- Confluent Drawings: Visualizing Non-planar Diagrams in a Planar Way -- An Experimental Study of Crossing Minimization Heuristics -- Stop Minding Your P's and Q's: Implementing a Fast and Simple DFS-Based Planarity Testing and Embedding Algorithm -- Bounds and Methods for k-Planar Crossing Numbers -- Geometric Graph Theory -- How Many Ways Can One Draw a Graph? -- Two Results on Intersection Graphs of Polygons -- Stretching of Jordan Arc Contact Systems -- Noncrossing Hamiltonian Paths in Geometric Graphs -- Applications and Systems – Part I -- GraphAEL: Graph Animations with Evolving Layouts -- Visualizing Related Metabolic Pathways in Two and a Half Dimensions -- GoVisual for CASE Tools Borland Together ControlCenter and Gentleware

Poseidon – System Demonstration -- Straight-Line, Circular, and Circular-Arc Drawings -- Area-Efficient Drawings of Outerplanar Graphs -- A Framework for User-Grouped Circular Drawings -- Fixed-Location Circular-Arc Drawing of Planar Graphs -- A More Practical Algorithm for Drawing Binary Trees in Linear Area with Arbitrary Aspect Ratio -- Symmetries -- An Integer Programming Approach to Fuzzy Symmetry Detection -- Barycentric Drawings of Periodic Graphs -- 3D-Drawings -- Three-Dimensional Grid Drawings with Sub-quadratic Volume -- Laying Out Iterated Line Digraphs Using Queues -- Track Drawings of Graphs with Constant Queue Number -- 3D Visibility Representations of Complete Graphs -- Drawing Series-Parallel Graphs on Restricted Integer 3D Grids -- Nearly Optimal Three Dimensional Layout of Hypercube Networks -- Embeddings and Triangulations -- Graph Embedding with Minimum Depth and Maximum External Face -- More Efficient Generation of Plane Triangulations -- Planar Embeddings of Graphs with Specified Edge Lengths -- Applications and Systems – Part II -- BGPlay: A System for Visualizing the Interdomain Routing Evolution -- GraphEx: An Improved Graph Translation Service -- A Constrained, Force-Directed Layout Algorithm for Biological Pathways -- Intersection-Free Morphing of Planar Graphs -- Fixed Parameter Tractability -- Fixed Parameter Algorithms for one-sided crossing minimization Revisited -- Experiments with the Fixed-Parameter Approach for Two-Layer Planarization -- Clusters, Cuts, and Orthogonal Drawings -- Characterizing Families of Cuts That Can Be Represented by Axis-Parallel Rectangles -- Convex Drawing for c-Planar Biconnected Clustered Graphs -- Layout of Directed Hypergraphs with Orthogonal Hyperedges -- No-Bend Orthogonal Drawings of Subdivisions of Planar Triconnected Cubic Graphs -- k-Level Drawings -- Radial Level Planarity Testing and Embedding in Linear Time -- An Improved Approximation to the One-Sided Bilayer Drawing -- Straight-Line Drawings of 2-Outerplanar Graphs on Two Curves -- Force Directed and Energy-Based Techniques -- An Energy Model for Visual Graph Clustering -- Simultaneous Graph Drawing: Layout Algorithms and Visualization Schemes -- Axis-by-Axis Stress Minimization -- Drawing Graphs with Nonuniform Nodes Using Potential Fields -- Surfaces and Diagrams -- Drawing Area-Proportional Venn and Euler Diagrams -- Optimal Pants Decompositions and Shortest Homotopic Cycles on an Orientable Surface -- Posters -- Degree Navigator TM : The Journey of a Visualization Software -- HexGraph: Applying Graph Drawing Algorithms to the Game of Hex -- GLuskap: Visualization and Manipulation of Graph Drawings in 3-Dimensions -- Web-Linkage Viewer: Drawing Links in the Web Based on a Site-Oriented Framework -- The Puzzle Layout Problem -- Visual Data Mining with ILOG Discovery -- Graph Drawing Contest -- Graph Drawing Contest Report -- Invited Talks -- Engineering and Visualizing Algorithms -- Report on the Invited Lecture by Pat Hanrahan, Titled “On Being in the Right Space” -- Open Problems -- Selected Open Problems in Graph Drawing.

Sommario/riassunto

The 11th International Symposium on Graph Drawing (GD 2003) was held on September 21–24, 2003, at the Universit` a degli Studi di Perugia, Perugia, Italy. GD 2003 attracted 93 participants from academic and industrial institutions in 17 countries. In response to the call for papers, the program committee received 88 re-larsubmissionsdescribingoriginalresearchand/orsystemdemonstrations. Each submission was reviewed by at least 4 program committee members and c- ments were returned to the authors. Following extensive e-mail discussions, the program committee accepted 34 long

papers (12 pages each in the proceedings) and 11 short papers (6 pages each in the proceedings). Also, 6 posters (2 pages each in the proceedings) were displayed in the conference poster gallery. In addition to the 88 submissions, the program committee also received a submission of special type, one that was not competing with the others for a time slot in the conference program and that collects selected open problems in graph drawing. The aim of this paper, which was refereed with particular care andUNCHANGEDtworoundsofrevisions, istostimulatefutureresearchinthe graph drawing community. The paper presents 42 challenging open problems in di? erentareasofgraphdrawingandcontainsmorethan120references. Although the length of the paper makes it closer to a journal version than to a conference extended abstract, we decided to include it in the conference proceedings so that it could easily reach in a short time the vast majority of the graph drawing community.