

Sunday, September 11, 2005

9:30 – 17:00 Workshop on Network Analysis and Visualisation

19:00 – 21:00 Welcome Reception and Registration

Monday, September 12, 2005

8:30 – 9:00 Opening

9:00 – 10:50 Session 1
Chair: Patrick Healy

Invited Talk: Certifying Algorithms
Kurt Mehlhorn, *Max-Planck-Institut für Informatik*

Crossing Number of Toroidal Graphs
János Pach and Geza Toth

Exact Crossing Minimization
Christoph Buchheim, Dietmar Ebner, Michael Jünger, Gunnar W. Klau, Petra Mutzel, and Rene Weiskircher

10:50 – 11:20 Morning Coffee

11:20 – 12:50 Session 2
Chair: Dorothea Wagner

Hierarchical Layouts of Directed Graphs in Three Dimensions
Seok-Hee Hong and Nikola S. Nikolov

Volume Requirements of 3D Upward Drawings
Emilio Di Giacomo, Giuseppe Liotta, Henk Meijer, and Stephen K. Wismath

Complexity Results for Three-dimensional Orthogonal Graph Drawing
Maurizio Patrignani

Drawing K_n in Three Dimensions with One Bend per Edge
(short paper)
Olivier Devillers, Hazel Everett, Sylvain Lazard, Maria Pentcheva, and Stephen K. Wismath

12:50 – 14:00 Lunch

14:00 – 15:40 Session 3
Chair: Janos Pach

No-Bend Orthogonal Drawings of Series-Parallel Graphs
Md. Saidur Rahman, Noritsugu Egi, and Takao Nishizeki

On Rectilinear Duals for Vertex-Weighted Plane Graphs
Mark de Berg, Elena Mumford, and Bettina Speckmann

An Application of Well-Orderly Trees in Graph Drawing
Huaming Zhang and Xin He

Bar k -Visibility Graphs: Bounds on the Number of Edges, Chromatic Number, and Thickness
Alice M. Dean, William Evans, Ellen Gethner, Joshua D. Laison, Mohammad Ali Safari, and William T. Trotter

15:40 – 16:10 Afternoon Tea

16:10 – 17:50 Session 4
Sponsored by Tom Sawyer Software
Chair: Sue Whitesides

A Hybrid Model for Drawing Dynamic and Evolving Graphs
Marco Gaertler and Dorothea Wagner

Drawing Clustered Graphs in Three Dimensions
Joshua Ho and Seok-Hee Hong

GEOMI: GEOMetry for Maximum Insight
Adel Ahmed, Tim Dwyer, Michael Forster, Xiaoyan Fu, Joshua Ho, Seok-Hee Hong, Dirk Koschützki, Colin Murray, Nikola S. Nikolov, Ronnie Taib, Alexandre Tarassov, and Kai Xu

WhatsOnWeb: Using Graph Drawing to Search the Web
Emilio Di Giacomo, Walter Didimo, Luca Grilli, and Giuseppe Liotta

18:00 – 19:00 Software Demo and
XII Annual Graph Drawing Contest

19:30 Barbeque at The Stables

Tuesday, September 13, 2005

9:00 – 10:50 Session 5
Chair: Peter Eades

Invited Talk: Hierarchy Visualization: From Research to Practice
George Robertson, *Microsoft Research*

C-Planarity of Extrovert Clustered Graphs
Michael T. Goodrich, George S. Lueker, and Jonathan Z. Sun

On Embedding a Cycle in a Plane Graph
Pier Francesco Cortese, Giuseppe Di Battista, Maurizio Patrignani, and Maurizio Pizzonia

10:50 – 11:20 Morning Coffee

11:20 – 13:00 Session 6
Chair: Seok-Hee Hong

Delta-confluent Drawings
David Eppstein, Michael T. Goodrich, and Jeremy Y. Meng

Small Area Drawings of Outerplanar Graphs
Giuseppe Di Battista and Fabrizio Frati

Morphing Planar Graphs While Preserving Edge Directions
Therese Biedl, Anna Lubiw, and Michael Spriggs

Applications of Parameterized st -Orientations in Graph Drawing Algorithms
Charalampos Papamanthou and Ioannis G. Tollis

13:00 – 14:30 Lunch

14:30 – 16:10 Session 7
Chair: Petra Mutzel

Energy-Based Clustering of Graphs with Nonuniform Degrees
Andreas Noack

Drawing Graphs using Modular Decomposition
Charis Papadopoulos and Constantinos Voglis

Dynamic Spectral Layout of Small Worlds
Ulrik Brandes, Daniel Fleischer, and Thomas Puppe

Stress Majorization with Orthogonal Ordering Constraints
Tim Dwyer, Yehuda Koren, and Kim Marriott

16:10 – 16:40 Afternoon Tea

16:40 – 18:20 Session 8
Chair: David Eppstein

On Balloon Drawings of Rooted Trees
Chun-Cheng Lin and Hsu-Chun Yen

Layout Effects on Sociogram Perception
Weidong Huang, Seok-Hee Hong, and Peter Eades

Minimum Depth Graph Embeddings and Quality of the Drawings: an Experimental Analysis
Maurizio Pizzonia

An Experimental Comparison of Fast Algorithms for Drawing General Large Graphs
Stefan Hachul and Michael Jünger

18:20 Bus to Conference Dinner

Wednesday, September 14, 2005

9:00 – 10:40 Session 9
Chair: Stina Bridgeman

Non-Planar Core Reduction of Graphs
Carsten Gutwenger and Markus Chimani

Graph Treewidth and Geometric Thickness Parameters
Vida Dujmović and David R. Wood

Odd Crossing Number Is Not Crossing Number
Michael J. Pelsmajer, Marcus Schaefer, and Daniel Stefankovic

On Edges Crossing Few Other Edges in Simple Topological Complete Graphs
Jan Kynčl and Pavel Valtr

10:40 – 11:10 Morning Coffee

11:10 – 12:50 Session 10
Chair: David Wood

Proper and Planar Drawings of Graphs on Three Layers
Matthew Suderman

Convex Drawings of Plane Graphs of Minimum Outer Apices
Kazuyuki Miura, Machiko Azuma, and Takao Nishizeki

Upward Spirality and Upward Planarity Testing
Walter Didimo, Francesco Giordano, and Giuseppe Liotta

Transversal Structures on Triangulations, with Application to Straight-Line Drawing
Éric Fusy

12:50 – 14:20 Lunch

14:20 – 16:00 Session 11
Chair: Giuseppe Liotta

Two Trees Which Are Self-Intersecting when Drawn Simultaneously
Michael Kaufmann, Imrich Vrt'o, and Markus Geyer

A Mixed-Integer Program for Drawing High-Quality Metro Maps
Martin Nöllenburg and Alexander Wolff

Fast Node Overlap Removal
Tim Dwyer, Kim Marriott, and Peter Stuckey

Incremental Connector Routing
Michael Wybrow, Kim Marriott, and Peter J. Stuckey

16:00 – 16:30 Afternoon Tea

16:30 – 17:50 Session 12
Chair: Michael Kaufmann

Parallel-Redrawing Mechanisms, Pseudo-Triangulations and Kinetic Planar Graphs
Ileana Streinu

Crossings and Permutations
Therese Biedl, Franz J. Brandenburg, and Xiaotie Deng

How to Embed a Path onto Two Sets of Points (short paper)
Emilio Di Giacomo, Giuseppe Liotta, and Francesco Trotta

On Extending a Partial Straight-Line Drawing (short paper)
Maurizio Patrignani

Thursday, September 15, 2005

9:00 Departure on one-day trip in the West of Ireland

13th International Symposium on Graph Drawing



September 12-14, 2005
Limerick, Ireland
www.gd2005.org

Final Program

Regular papers: 25 minutes
Short papers: 15 minutes