Sunday, September 17, 2006

19:00 – 21:00 Welcome Reception and Registration

Monday, September 18, 2006

8:30 – 9:00 Opening

9:00 – 10:40 Session A
Chair:

9:00 **Integrating Edge Routing into Force-Directed Layout**
Tim Dwyer, Kim Marriott, and Michael Wybrow

9:25 **Multipole-Based Force Approximation Revisited - a Simple but Fast Implementation Using a Dynamized Enclosing-Circle-Enhanced k-d-Tree**
Ulrich Lauther

9:50 **SSDE: Fast Graph Drawing Using Sampled Spectral Distance Embedding**
Ali Civril, Malik-Magdon Ismail, and Eli-Bocek Rivele

10:15 **Eigensolver Methods for Progressive Multidimensional Scaling of Large Data**
Ulrik Brandes and Christian Pich

10:40 – 11:10 Coffee Break

11:10 – 12:40 Session B
Chair:

11:10 **Angle and Distance Constraints on Tree Drawings**
Ulrik Brandes and Barbara Schlieper

11:35 **Schematisation of Tree Drawings**
Joachim Gudmundsson, Marc van Kreveld, and Damian Merrick

12:00 **Trees with Convex Faces and Optimal Angles**
Josiah Carlson and David Eppstein

12:25 **Three Dimensional Drawings of Bounded Degree Trees**
Fabrizio Frati and Giuseppe Di Battista

12:40 – 14:00 Lunch

14:00 Invited Talk

The Number of Crossing-Free Configurations on Planar Point Sets
Emo Welzl (ETH Zürich)

15:00 – 15:40 Session C
Chair:

15:00 **Simultaneous Graph Embedding with Bends and Circular Arcs**
Justin Cappos, Alejandro Estrella-Balderrama, Joe Fowler, and Stephen Kobourov

15:25 **Embedding Graphs Simultaneously with Fixed Edges**
Fabrizio Frati

15:40 – 16:10 Coffee Break

16:10 – 17:25 Session D
Chair:

16:10 **Drawing Cubic Graphs with at Most Five Slopes**
Balázs Keszegh, János Pach, Dömötör Pálvölgyi, and Géza Tóth

16:35 **Planarity Testing and Optimal Edge Insertion with Embedding Constraints**
Carsten Gutwenger, Karsten Klein, and Petra Mutzel

17:00 **Open Rectangle-of-Influence Drawings of Inner Triangulated Plane Graphs**
Kazuyuki Miura, Tetsuya Matsuno, and Takao Nishizeki

17:30 – 19:00 Software Demos and Posters

18:00 – 19:00 Graph Drawing Contest

Tuesday, September 19, 2006

9:00 – 10:40 Session E
Chair:

9:00 **Planar Decompositions and the Crossing Number of Graphs with an Excluded Minor (Best Paper)**
David Wood and Jan Arne Telle

9:25 **On the Crossing Number of Almost Planar Graphs**
Petr Hlineny and Gelasio Salazar

9:50 **On the Decay of Crossing Numbers**
Jacob Fox and Csaba Toth

10:15 **Improved Circular Layouts**
Emden R. Gansner and Yehuda Koren

10:40 – 11:10 Coffee Break

11:10 – 12:40 Session F
Chair:

11:10 **Computing Geometric Minimum-Dilation Graphs is NP-Hard**
Rolf Klein and Martin Kutz

11:35 **Chordal Graphs as Intersection Graphs of Pseudosegments**
Cornelia Dangelmayr and Stefan Felsner

12:00 **Parameterized st-Orientations of Graphs: Algorithms and Experiments**
Charalampos Papamanthou and Ioannis G. Tollis

12:25 **Straight-line drawing of Quadrangulations**
Eric Fusy

12:40 – 14:00 Lunch

14:00 Invited Talk

The Algorithmic Beauty of Virtual Nature
Oliver Deussen (Universität Konstanz)

15:00 – 15:40   Session G
Chair:

15:00   **Visualizing Large and Clustered Networks**
Katharina Anna Lehmann and Stephan Kottler
15:25   **Partitioned Drawings**
Martin Siebenhaller

15:40 – 16:10   Coffee Break

16:10 – 17:50   Session H
Chair:

16:10   **Path Simplification for Metro Map Layout**
Damian Merrick and Joachim Gudmundsson
16:35   **Minimizing Intra-Edge Crossings in Wiring Diagrams and Public Transport Maps**
Marc Benkert, Martin Nöllenburg, Takeaki Uno, and Alexander Wolff
17:00   **Upright-Quad Drawing of st-Planar Learning Spaces**
David Eppstein
17:25   **Choosing Colors for Geometric Graphs via Color Space Embeddings**
Michael B. Dillencourt, David Eppstein, and Michael T. Goodrich

19:00   Conference Dinner in Karlsruhe Castle

Wendesday, September 20, 2006

9:00 – 10:40   Session I
Chair:

9:00   **Morphing Planar Graphs in Spherical Space**
Stephen Kobourov and Matthew Landis
9:25   **k-Chromatic Point-Set Embeddability of Outerplanar Graphs**
Stephen Wismath, Emilio Di Giacomo, Walter Didimo, Giuseppe Liotta, Henk Meijer, and Francesco Trotta

9:50   **Thickness of Bar 1-Visibility Graphs**
Mareike Massow and Stefan Felsner
10:15   **A New Approximation Algorithm for Bend Minimization in the Kandinsky Model**
Canan Yildiz, Petra Mutzel, and Wilhelm Barth

10:40 – 11:10   Coffee Break

11:10 – 12:40   Session J
Chair:

11:10   **Radial Drawings of Graphs: Geometric Constraints and Trade-offs**
Emilio Di Giacomo, Walter Didimo, and Giuseppe Liotta
11:35   **Characterization of Unlabeled Level Planar (ULP) Trees**
Alejandro Estrella-Balderrama, Joe Fowler, and Stephen Kobourov
12:00   **Drawing Bipartite Graphs on Two Curves**
Emilio Di Giacomo, Luca Grilli, and Giuseppe Liotta
12:15   **How Important is the "Mental Map"? - an Empirical Investigation of a Dynamic Graph Layout Algorithm**
Helen C. Purchase, Eve Hoggan, and Carsten Goerg

12:40 – 14:00   Lunch

14:00 – 15:30   Session K
Chair:

14:00   **Controllable and Progressive Edge Clustering for Large Networks**
Huamin Qu, Hong Zhou, and Yingcai Wu
14:15   **Biclique Edge Cover Graphs and Confluent Drawings**
Michael Hirsch, Henk Meijer, and David Rappaport
14:40   **Schnyder Woods and Orthogonal Surfaces**
Stefan Felsner and Florian Zickfeld
15:05   **Partitions of Graphs into Trees**
Therese Biedl and Franz J. Brandenburg

14th International Symposium on Graph Drawing

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September 18-20, 2006
Karlsruhe, Germany

Final Program

Regular Papers: 25 minutes
Short Papers: 15 minutes