

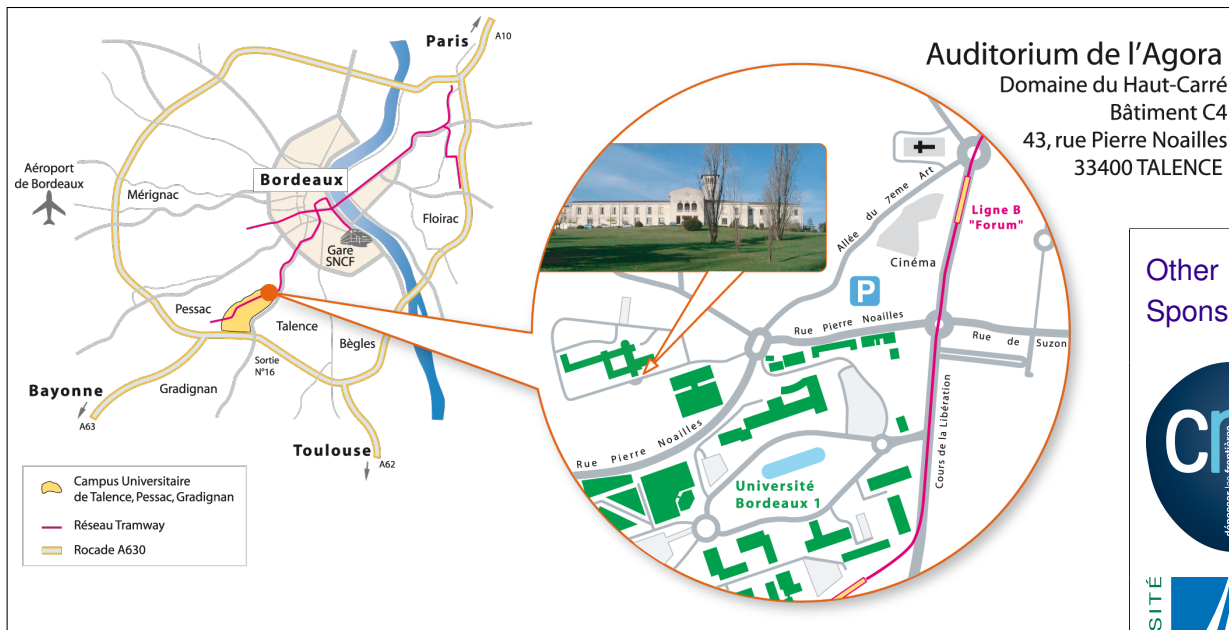


GRAPH DRAWING 2013 – PROGRAM

21st International Symposium on Graph Drawing · September 23–25, 2013 · Bordeaux, France

<http://gd2013.labri.fr>

Agora Conference Center · Domaine du Haut-Carré · 43, rue de Noailles · Talence (Bordeaux)



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Sunday, September 22, 2013

18:30–22:00 Welcome Reception at *Café Via Luna*, 9 place Jean Jaurès. From *Gare St. Jean*, walk 2.5 km along the Garonne or take tram C (pink line) to *Place de la Bourse* (5 stops).

Monday, September 23, 2013

Session I Upward Drawings (Chair: Emilio Di Giacomo)

09:00–09:20 Opening

09:20–09:40 On the Upward Planarity of Mixed Plane Graphs

Fabrizio Frati · Michael Kaufmann · János Pach · Csaba D. Tóth · David Wood

09:40–10:00 Upward Planarity Testing: A Computational Study

Markus Chimani · Robert Zeranski

Session II Planarity (Chair: Seok-Hee Hong)

10:20–10:40 Characterizing Planarity by the Splittable Deque

Christopher Auer · Franz J. Brandenburg · Andreas Gleißner · Kathrin Hanauer

10:40–11:00 Strip Planarity Testing

Patrizio Angelini · Giordano Da Lozzo · Giuseppe Di Battista · Fabrizio Frati

11:00–11:20 Morphing Planar Graph Drawings Efficiently

Patrizio Angelini · Fabrizio Frati · Maurizio Patrignani · Vincenzo Roselli

Invited Talk I – Featured by Microsoft Inc. – (Chair: David Auber)

11:40–12:45 Graph Drawing Through the Lens of a Framework for Analyzing -Visualization Methods

Tamara Munzner (University of British Columbia)

12:45–14:00 **Lunch** (Agora)

Session III Beyond Planarity (Chair: Tamara Mchedlidze)

14:00–14:20 A Linear-Time Algorithm for Testing Outer-1-Planarity

Seok-Hee Hong · Peter Eades · Naoki Kato · Giuseppe Liotta · Pascal Schweitzer · Yusuke Suzuki

14:20–14:40 Straight-Line Grid Drawings of 3-Connected 1-Planar Graphs

Md. Jawaherul Alam · Franz J. Brandenburg · Stephen G. Kobourov

14:40–15:00 New Bounds on the Maximum Number of Edges in k -Quasi-Planar Graphs

Andrew Suk · Bartosz Walczak

15:00–15:20 Recognizing Outer 1-Planar Graphs in Linear Time

Christopher Auer · Christian Bachmaier · Franz J. Brandenburg · Andreas Gleißner · Kathrin Hanauer · Daniel Neuwirth · Josef Reislhuber

Session IV	Geometric Representations	(Chair: Ignaz Rutter)
15:40–16:00	Straight Line Triangle Representations <i>Nieke Aerts · Stefan Felsner</i>	
16:00–16:20	Extending Partial Representations of Circle Graphs <i>Steven Chaplick · Radoslav Fulek · Pavel Klavík</i>	
16:20–16:40	On Balanced +-Contact Representations <i>Stephane Durocher · Debajyoti Mondal</i>	
16:40–16:55	Strongly-Connected Outerplanar Graphs with Proper Touching Triangle Representations <i>J. Joseph Fowler</i>	
Posters & Contest		
17:00–17:30	Poster Presentation	
17:30–19:00	Graph Drawing Contest	
Tuesday, September 24, 2013		
Session V	3d et al.	(Chair: Stefan Felsner)
09:00–09:20	Achieving Good Angular Resolution in 3D Arc Diagrams <i>Michael Goodrich · Paweł Pszozna</i>	
09:20–09:40	A Duality Transform for Constructing Small Grid Embeddings of 3D Polytopes <i>Alexander Igamberdiev · André Schulz</i>	
09:40–10:00	Block Additivity of \mathbb{Z}_2 -Embeddings <i>Marcus Schaefer · Daniel Štefankovič</i>	
Session VI	Universality	(Chair: Fabrizio Frati)
10:20–10:40	Exploiting Air-Pressure to Map Floorplans on Point Sets <i>Stefan Felsner</i>	
10:40–11:00	Superpatterns and Universal Point Sets <i>Michael J. Bannister · Zhanpeng Cheng · William E. Devanny · David Eppstein</i>	
11:00–11:20	Simultaneous Embedding: Edge Orderings, Relative Positions, Cutvertices <i>Thomas Bläsius · Annette Karrer · Ignaz Rutter</i>	
Invited Talk II	– Featured by Tom Sawyer Software –	(Chair: Alexander Wolff)
11:40–12:45	The Counting of Crossing-Free Geometric Graphs—Algorithms and Combinatorics <i>Emo Welzl (ETH Zurich)</i>	

12:45–14:00	Lunch (Agora)	
Session VII	Practical Graph Drawing	(Chair: Bettina Speckmann)
14:00–14:20	Sketched Graph Drawing: a Lesson in Empirical Studies <i>Helen Purchase</i>	
14:20–14:40	Many-to-One Boundary Labeling with Backbones <i>Michael A. Bekos · Sabine Cornelsen · Martin Fink · Seok-Hee Hong · Michael Kaufmann · Martin Nöllenburg · Ignaz Rutter · Antonios Symvonis</i>	
14:40–15:00	Streamed Graph Drawing and the File Maintenance Problem <i>Michael Goodrich · Paweł Pszozna</i>	
15:00–15:20	COAST: A Convex Optimization Approach to Stress-Based Embedding <i>Emden Gansner · Yifan Hu · Shankar Krishnan</i>	
Session VIII	Subgraphs	(Chair: Franz Brandenburg)
15:40–16:00	Colored Spanning Graphs for Set Visualization <i>Ferran Hurtado · Matias Korman · Marc Van Kreveld · Maarten Löffler · Vera Sacristan · Rodrigo Silveira · Bettina Speckmann</i>	
16:00–16:20	Drawing Non-planar Graphs with Crossing-free Subgraphs <i>Patrizio Angelini · Carla Binucci · Giordano Da Lozzo · Walter Didimo · Luca Grilli · Fabrizio Montecchiani · Maurizio Patrignani · Ioannis Tollis</i>	
16:20–16:40	Exploring Complex Drawings via Edge Stratification <i>Emilio Di Giacomo · Walter Didimo · Giuseppe Liotta · Fabrizio Montecchiani · Ioannis Tollis</i>	
16:40–17:00	Drawing Planar Graphs with a Prescribed Cycle <i>Tamara Mchedlidze · Martin Nöllenburg · Ignaz Rutter</i>	
Business Meeting & Conference Dinner		
17:05–18:00	Business Meeting	(Chair: Giuseppe Liotta)
19:00–22:00	Conference Dinner at the <i>Café des Sciences</i> , Hangar 20, Quai de Bacalan. Take tram B (red line) from <i>Forum</i> to <i>Bassins à flot</i> (27 min).	
Wednesday, September 25, 2013		
Session IX	Crossings	(Chair: Andreas Spillner)
09:00–09:20	Metro-Line Crossing Minimization: Hardness, Approximations, and Tractable Cases <i>Martin Fink · Sergey Pupyrev</i>	
09:20–09:40	Fixed Parameter Tractability of Crossing Minimization of Almost-Trees <i>Joseph A. Simons · Michael J. Bannister · David Eppstein</i>	
09:40–10:00	Strict Confluent Drawing <i>David Eppstein · Danny Holten · Maarten Löffler · Martin Nöllenburg · Bettina Speckmann · Kevin Verbeek</i>	

Session X	Geometric Graphs & Geographic Networks	(Chair: Helen Purchase)
10:20–10:40	A Ramsey-Type Result for Geometric ℓ -Hypergraphs <i>Andrew Suk · Dhruv Mubayi</i>	
10:40–11:00	Minimum Length Embedding of Planar Graphs at Fixed Vertex Locations <i>Timothy M. Chan · Hella-Franziska Hoffmann · Stephen Kiazzyk · Anna Lubiw</i>	
11:00–11:20	Stub Bundling and Confluent Spirals for Geographic Networks <i>Arlind Nocaj · Ulrik Brandes</i>	
Invited Talk III		(Chair: Stephen Wismath)
11:40–12:45	The Value of Research <i>Joe Marks (Upfront Analytics Ltd.)</i>	
12:45–14:00	Lunch (Agora)	
Session XI	Angular Restrictions	(Chair: Antonios Symvonis)
14:00–14:20	On Orthogonally Convex Drawings of Plane Graphs <i>Yi-Jun Chang · Hsu-Chun Yen</i>	
14:20–14:40	Planar and Plane Slope Number of Partial 2-Trees <i>William Lenhart · Giuseppe Liotta · Debajyoti Mondal · Rahnuma Islam Nishat</i>	
14:40–15:00	Slanted Orthogonal Drawings <i>Michael A. Bekos · Michael Kaufmann · Robert Krug · Stefan Näher · Vincenzo Roselli</i>	
Session XII	Grids	(Chair: Ulrik Brandes)
15:20–15:40	Drawing Arrangement Graphs in Small Grids, or How to Play Planarity <i>David Eppstein</i>	
15:40–16:00	Incremental Grid-Like Layout Using Soft and Hard Constraints <i>Steve Kieffer · Tim Dwyer · Kim Marriott · Michael Wybrow</i>	
16:00–16:20	Using ILP/SAT to Determine Pathwidth, Visibility Representations, and Other Grid-Based Graph Drawings <i>Therese Biedl · Thomas Bläsius · Benjamin Niedermann · Martin Nöllenburg · Roman Prutkin · Ignaz Rutter</i>	
Session XIII	Curves & Routes	(Chair: Martin Nöllenburg)
16:40–17:00	Untangling Two Systems of Noncrossing Curves <i>Jiří Matoušek · Eric Sedgwick · Martin Tancer · Uli Wagner</i>	
17:00–17:20	Drawing Permutations with Few Corners <i>Sergey Bereg · Alexander Holroyd · Lev Nachmanson · Sergey Pupyrev</i>	
17:20–17:40	Dynamic Traceroute Visualization at Multiple Abstraction Levels <i>Massimo Candela · Marco Di Bartolomeo · Giuseppe Di Battista · Claudio Squarcella</i>	

Closing

17:40–17:45 Best Presentation Award

(Chair: Alexander Wolff)