EUROCORES Programme
European Collaborative Research

EuroGIGA

Final report (Sections B and C)

Deadline: 01/12/2014

Section B. Progress report

B1. CRP progress and scientific highlights (max. 1500 words)

1. **The collaborative work (c.400-750 words)**

   a. With reference to the CRP objectives and work plan, describe the work undertaken by the CRP and the contribution of each Individual Project to the collaboration in terms of its specific expertise and tasks/responsibilities. How closely did the partners work together?

The work plan was divided into 13 work-packages, each being supervised by one IP (some IPs were responsible for more work-packages, these were those whose teams consisted of more sites – IP1-CZ was responsible for WP01 (Prague) and WP08 (Brno) and IP2-DE was responsible for WP02 (Wurzburg), WP10 (Berlin), WP11 (Dortmund) and WP12 (Tubingen)). The original work plan from the project proposal contained only 12 work-packages, the last one was added during the life of the project when a new AP4 (Munster) was added. All teams responsible for particular work-packages actively worked in their areas of proposed research, achieved many new results and published many scientific papers. But most importantly, mainly as a result of extensive networking activities, researchers from all IPs and APs actively collaborated and achieved results for different work-packages. For instance, WP01 received contributions from IP1-CZ, IP2-DE, IP5-PL and AP1-IT, WP03 received contributions from IP2-DE, IP3-CH, AP1-IT and AP3-DE, and WP07 received contributions from IP1-CZ, IP2-DE, IP3-CH and AP2-NL. Each Individual Project contributed to at least two work-packages. More details about the results particular work-packages are below.

The main goal of the project was to foster collaborative research in the areas of graph drawing and geometric representations of graphs. This has certainly been achieved. The number of publications stemming from the project speaks for itself. And among 42 accepted papers at the 23rd International Symposium Graph Drawing 2015 (held in Los Angeles), 23 (that is more than 50%) are co-authored by researchers that have been members of GraDR CRP at least for some time of the life of the project. Many of them are former PhD students or postdocs in the project, and this shows that the second main goal of the project (transfer of our knowhow to the next generation) has been successfully fulfilled as well. The fact that the Best paper award at the aforementioned conference GD 2015 goes to a paper coauthored by former GraDR member Martin Balko and ComPoSe member Pavel Valtr is just a cherry on the cake of EUROGIGA success story.

Another outstanding appreciation of the quality of the team was an invitation to deliver an invited lecture at the ICM 2014 in Seoul, Korea. The Principal Investigator of IP4-HU Janos Pach acknowledged the support from GraDR in his paper János Pach: *Geometric intersection patterns and the theory of geometric graphs* Proceedings of the International Congress of Mathematicians 2014 (ICM 2014, Seoul, Korea), Volume IV, pp. 455-474, 2014.

A detailed report about the achievements in particular work-packages appears among the highlighted results in the next section.

2. Scientific highlights (c.400-750 words)

a. Describe the scientific highlights and main achievements of the CRP. What has been the most significant/valuable contribution to knowledge (e.g. results, breakthroughs)?

WP01 Slope number

- upper bound for planar slope number of partial 3-trees improved to a polynomial bound (IP1)
- tight bounds have been determined for outerplanar drawings of outerplanar graphs (IP2+IP5)

WP02 Angular schematization

- new approximation algorithms for generalized minimum Manhattan networks (IP2)
- a new method for subdivision simplification with applications to urban-area generalization (AP2)
- monotone drawings of (embedded) graphs studied (IP2+AP1)
- tight bounds on the area requirements for grid drawings of trees (IP2)
- new results concerning bend-bounded path intersection representations (IP1+IP2)
- new method for automatic drawings (e.g. Metro maps) using cubic Bézier and forces (IP2)

WP03 Simultaneous embeddings

- a comprehensive survey written (IP2+AP3)
- universal point sets (IP3)
- simultaneous embeddings of trees studied (IP3)
- results on simultaneous embedding of embedded planar graphs (AP1+AP3)

WP04 Constrained Embeddings

- a finite number of forbidden obstructions was found with respect to a minor-like ordering of partially embedded graphs; the obstructions can be found efficiently (IP1+AP3)
- linear-time algorithm to decide partially PQ-constrained planarity for biconnected graphs (AP3)
- simultaneous PQ-ordering studied (AP3+IP1)
- conceptually new planar emulators of several non-projective graphs were discovered, showing that the planar emulators problem is very different from Negami's planar cover conjecture (IP1)
- the problem of locally restricted homomorphisms with both graphs as a part of the input is solvable in polynomial time for graphs of bounded degree and bounded (IP1)
- regular covers by planar graphs can be solved faster than general (IP1+ GreGAS)
- a relation exists between colorability of a graph and its grid drawing, when drawing a graph into a grid so that the edges avoid grid points representing other vertices (IP1)
- constructed a subquadratic universal set of points in the plane for straight-line embedding every planar 3-tree with n vertices (IP1)

WP05 Clustered planarity

- algorithms to decide clustered planarity in special cases (AP1)
- the page number of upward planar directed acyclic graphs given (AP1)
- NP-completeness results on graphs admitting different types of clustered drawings; polynomial-time algorithm for testing clustered planarity for biconnected graphs (AP1)
- a Fáry-like theorem (AP1+IP2)

WP06 Quasi- and near-planar graphs

- bounds for maximum number of edges established for topological graphs with different requirements on crossing/touching on every pair of edges (tangles, thrackles) (IP4)
- improved nearly-linear upper bounds on the number of edges in special cases obtained for k-quasi-planar graphs (IP4)

WP07 Region constrained graph drawing

- algorithm for computing cartograms with optimal complexity (IP1+IP2)
- study of how well different classes of planar graphs satisfy parity constraints of a given set of points (IP3+AP2+ComPoSe)
- maximum angles appearing between cyclically-consecutive edges in straight-line drawings of different classes of planar graphs on a given point set studied (IP3+AP2+ComPoSe)

WP08 Crossing numbers

- results on approximation algorithms for the crossing number of restricted graph classes (apex graphs, graphs being a small number of edges from planarity) (IP1+IP2)
- degree-related properties of crossing critical graph families (IP1+GreGAS)
- new useful density measure of embedded graphs: stretch of the embedding; two algorithms for computing the stretch of an embedded graph of arbitrary orientable genus, each based on a different (IP1+GreGAS)
- results on degree properties of crossing-critical graphs (IP1)
- the crossing number in a sense continuously depends on the number of edges (IP1)
- proved Hill's conjecture (1958) for the minimum number of crossings in a drawing of a complete graph for plane drawings in which edges are represented by x-monotone curves (IP1)
- contractibility to planar graphs is also related to crossing number techniques. We proved the fixed-parameter-tractability of this problem (IP1)
- an improved upper bound of cr(G) in terms of pair-cr(G) (IP4)
- the monotone crossing number (requires a drawing with edges as x-monotone curves) can be strictly larger than cr(G), but bounded from above by 2cr(G)2 (IP4)

WP09 Coloring graphs with geometric representations

- construction of triangle-free intersection graphs of line segments with arbitrarily large chromatic number (IP5)
- further generalization of the result to intersection graphs of any arcwise connected compact set under translation and independent horizontal and vertical scaling (IP5)
- the exact asymptotic worst-case chromatic number of n vertex rectangular frame intersection graphs is O(log log n) (IP5)
- simple families of compact sets pierced by a line have bounded chromatic number when the size of the largest clique is bounded (IP5)

WP10 Intersection and contact representations

- several results on extendability of partial representations dealing with classes of function graphs, permutation graphs, chordal graphs, proper and unit interval graphs, interval graphs and circle graphs (IP1+IP2)
- improved the upper bound on size of a separator in every string graph near to the optimum (IP1)
- recognition of string graphs belongs to the class NP, even if we allow the curves to be embedded in an orientable surface of higher genus (IP1)
- explored the k-bend-graphs: all planar graphs are 2-bend graphs; classes k-bend and (k+1)-bend graphs are distinct for all numbers k; on the other hand, every graph belongs to some class of k-bend graphs and we gave a bound for this k; shown the computational complexity of recognizing k-bend graphs; presented more properties of 1-bend graphs. (IP1)
- showed that the complements of all partial 2-trees are segment intersection graphs (IP1)
- shown the computational complexities of bounded representations for several types of interval graphs (IP1)
- solved long-standing open problems on Hamilton-connectivity related questions on interval graphs (IP1)
- studied cops and robbers game on interval graphs and string graphs (IP1)
- shown polynomiality of the clique number for intersection graphs of homothetic polygons and even of intersection graphs of convex polygons whose each side is parallel to one of k given directions (IP1)

WP11 Transfer to Practice

- open-source library (OGDF) of graph layout algorithms and data structures provided; algorithms

obtained as theoretical results in other WPs implemented (drawing metro maps with Bézier curves, partitioned 2-page book embedding, new ILP model for c-planarity testing, simultaneous multiple-edge insertion, approximation algorithm for crossing minimization, etc.) (IP2+AP1)

- implementation of domain-specific tools (e.g. Cytoscape) (IP2)
- setting up a server with web interface for computing the crossing number of a graph (IP2)
- analyzing large molecule libraries as topographic maps (IP2)

WP12 Hypergraphs with applications in bioinformatics

- a plane bus graph is a crossing free embedded bipartite graph with vertices of one partition represented as horizontal or vertical segments; polynomial-time test of existence of a crossing-free bus realization (IP2)
- a new layout for graphs called partial edge drawing has been invented and studied (IP2)

WP13 Perception based graph drawing

- the problem to find an arrangement of "simple" objects (e.g. circular arcs), such that a given planar graph is its 1-skeleton, was studied for different classes of planar graphs; bounds for the number of edges were given (AP4)

b. List up to five of your CRP's most significant joint publications (i.e. involving co-authors from at least two IPs in your CRP or co-authors from other CRPs in the programme).

1. Stefan Felsner, Michael Kaufmann, Pavel Valtr: *Bend-optimal orthogonal graph drawing in the general position model*, Computational Geometry: Theory and Applications: 460–468, 2014 (IP2-DE, ComPoSe)
2. Patrizio Angelini, Giuseppe Di Battista, Fabrizio Frati, Vít Jelínek, Jan Kratochvíl, Maurizio Patrignani, Ignaz Rutter: *Testing Planarity of Partially Embedded Graphs*, ACM Transactions on Algorithms, 11(4): Article No. 32 (2015) (AP1-IT, IP1-CZ, AP3-DE)
3. Martin Fink, Jan-Henrik Haunert, André Schulz, Joachim Spoerhase, Alexander Wolff: *Algorithms for Labeling Focus Regions*, IEEE Trans. Vis. Comput. Graphics 18(12) (2012), 2583–2592 (IP2-DE, AP4)
4. Markus Chimani, Petr Hliněný, Petra Mutzel*: Vertex Insertion approximates the Crossing Number for Apex Graphs*, European J. Combinatorics 33 (2012), 326–335 (IP1-CZ, IP2-DE)
5. Giuseppe Di Battista, Fabrizio Frati, János Pach: *On the Queue Number of Planar Graphs*, SIAM Journal on Computing 42(6):2243–2285, 2013 (AP1-IT, IP4-HU)

B.2. Integration of the CRP in the programme (300-600 words)

1. Describe the contribution of your CRP to the EUROCORES programme. What was the place and role of the CRP in the framework of the programme? From a scientific perspective, how well integrated was your CRP in the programme? How would you describe the intensity of interaction between your CRP and other CRPs in the programme?

The GraDR project was active in (co)organizing networking activities and in this respect played a central role in the framework. Members of other CRPs participated in all workshops and conferences organized by GraDR. From common activities, the scientific cooperation originated as well.

We mention three examples here.

A presentation of a problem of least-squares matching Voronoi diagram by the Voronoi team at EuroGIGA Midterm Conference in Prague attracted a GraDR student B. Keszeg. After a discussion immediately at the conference, the framework enabled him a short-term stay with his collaborators from the Voronoi programme in Berlin and there is a research paper as a result.

At the first Crossing Number Workshop, researchers of GraDR have started collaboration with D. Bokal from Maribor on the topic of crossing critical graphs. After experiencing the easiness of collaboration within the EUROGIGA framework, D. Bokal became a new associated partner of the EuroGIGA programme GreGAS.

The research performed by the participants at Homonolo workshops has led to several research papers co-authored by members of more CRPs. A paper resulting form Homonolo 2014 (one of the last EUROGIGA networking activities) has received the Best Paper Award at Graph Drawing 2015 conference.

Members of the four CRPs cooperated very often. Naturally, not all members collaborated with every other, given to different scientific interests and previously established contacts. But many new contacts have developed thanks to the programme. GraDR programme was mainly theoretically and mathematically aimed and therefore its members cooperated most closely with similarly oriented ComPoSe programme. To lesser extent and mainly thanks to previous common activities also with Voronoi programme. The collaboration with GreGAS was somewhat less intensive, but together we have organized EuroGIGA-Sessions at CSASC 2011 in Krems and CSASC 2013 in Koper. A joint paper of GraDR and GreGAS co-authors has appeared in 2014 at a prestigious computer science conference ICALP.

The EUROGIGA programme as a whole and the collaboration of the CRPs within it was truly beneficial for the young researchers. In several cases they have been accepted as postdocs in two different IPs or CRPs in a row: Their performance and collaboration in the first position increased their chances or the latter one and offered them a more extensive training period.

2. Describe the benefit to your CRP of being part of the EUROCORES programme (e.g. achieving critical mass of expertise, scale and scope, visibility, collaborative opportunities, ideas, etc.).

The biggest advantage of being part of the framework were the collaborative opportunities, namely the possibility of short- and long-term stays for students and young researchers. Thanks to the common networking activities, new contacts have been established and further cooperation was very easy within the framework and even after the end of the programme.

Also achieving a critical mass of expertise at joint activities has led to significant progress. As the EuroGIGA framework contained not only a broad spectrum of teams from many countries, but with different scientific interests as well, common meetings and workshops opened new views and approaches to old problems

and drew attention to new problems from other fields. Several papers on topics of coloring geometric intersection graphs can serve as an example of a successful inspiration by being a part of the programme.

Many IPs benefitted from the possibility of employing new students and post-docs in the framework of EUROGIGA, in many cases participation in the programme was considered that prestigious that the funds were complemented by the hosting universities and the teams of post-docs truly achieved the critical mass.

B.3. Cross-CRP networking, training and dissemination (max. 750 words)

1. Which networking/training/dissemination activities did you or your CRP members participate in? Indicate how many team members participated in each activity.

Common EuroGIGA activities
- EuroGIGA Kick-off Session at the Symposium on Computational Geometry, Paris, 12/6/2011 (1 speaker)
- Special EuroGIGA-Session at the CSASC 2011 in Krems, 26/9/2011 (1 speaker)
- SODO, New Zealand, January 2012 (1 participant)
- EuroGIGA session in connection with EuroCG, the European Workshop on Computational Geometry, Assisi, 22/3/2012 (11 participants)
- EuroGIGA Midterm Conference, Prague, 9–13/7/2012 (34 participants)
- EuroGIGA Fall School on Graph- and Geo-Visualization, Würzburg, 8–12/10/2012 (2 speakers, 14 participants)
- Eurogiga Special day at CSASC 2013 in Koper, 9-13/6/2013 (several participants)
- Workshop on Geometric Graphs (GGWeek 2014), Münster, 8-12/9/2014
- EuroGIGA Final Conference, 17-21/2/2014 Berlin (21 participants)

GraDR activities with participation of other CRP members
- GraDR Kick-off Meeting, Prague, 7–8/7/2011 (36 participants)
- Homonolo, Bedřichov, 5–9/12/2011 (30 participants)
- GraDR Crossing Number Workshop and Minischool, Valtice, 20–24/5/2012 (13 participants)
- GraDR Midterm Meeting, Berlin, 3–5/10/2012 (39 participants)
- Homonolo, Bedřichov, 26–30/11/2012 (8 participants)
- Homonolo, Bedřichov, 2013 (15 participants)
- GraDR final meeting, Kraków, 6/2014 (20+ participants)
- Homonolo, Bedřichov, 8-12/12/2014 (19 participants)
- Mini-symposium: Geometric Representations of Graphs at the Society of Industrial and Applied Mathematics Conference on Discrete Mathematics (SIAM DM), Minneapolis, MN, 6-19/7/2014. (5 speakers)
- Summer School on Order and Geometry, August 7 - 10, 2013, Berlin (several participants)

2. **Networking activities.** Describe *the most important networking activity* for your CRP (in terms of impact, outcome, creation of synergy and cooperation within or outside the programme).

The GraDR Kick-off Meeting in Prague in July 2011 has been instrumental to get the project going. It was the first time that all people from the CRP could meet and exchange ideas. The midterm in Berlin and final in Krakow served equally well to monitor and evaluate the progress and results achieved so far.

Common work on many problems started at the Homonolo meetings (a serious of problem solving workshops targeted primarily on PhD students).

The Crossing Number Workshop in Valtice in 2012 was originally organized as a single event, but since that time has developed into a living series of annual workshops organized independently on the EUROGIGA programme.

In terms of establishing contacts with other CRPs, the EuroGIGA Midterm Conference in Prague in July 2012 was probably the most successful.

3. **Training activities.** Describe *the most useful training activity* to date (workshop, course, school, etc.) undertaken by senior or junior researchers of your CRP.

GraDR has organized three training activities.

The first was the Crossing Number Workshop and Minischool in Valtice in May 2012. This was the third in a line of "crossing number" workshops organized annually since 2010 by various parties (the next one being 2013 in Guanajuato, Mexico, also partly associated with GraDR). There were 21 participants. They attended to a 6-hour basic tutorial given by P. Hliněný and to four keynote research lectures. The students worked together in groups to solve exercises and research problems.

The second training activity members of GraDR organized and participated in was the EuroGIGA Fall School on Graph- and GeoVisualization in Würzburg in October 2012. There were four key-note lecturers and twenty participants (from the CRPs GraDR and VORONOI). This school covered different approaches to geographic data visualization, both from a theoretical and a practical perspective.

The third one was the Summer School on Order and Geometry, held in August 2013 in Berlin. There were four introductory courses with exercises addressed to advanced undergraduate and graduate students with interest in partially ordered sets and discrete geometry.

4. **Dissemination activities.** Describe the *most valuable dissemination activity (or activities)* your team undertook, with respect to (i) the scientific community and (ii) the wider public. Describe the outcome and impact of these activities in terms of promoting your field of research and the EUROCORES programme.

Apart from the EuroGIGA Midterm Conference which propagated GraDR work to scientific community with similar research interests, we (together with the GreGAS programme) have organized special EuroGIGA sessions at CSASC 2011 in Krems, Austria in September 2011 and at CSASC 2013 in Koper, Slovenia in June 2013 for wider scientific community. CSASC is a joint mathematical conference and organizing such a session is an excellent opportunity to attract mathematicians working in other fields to problems of graph theory and discrete geometry. Cooperation with e.g. topologists or algebraists and using methods from their fields can lead to very deep and interesting results.

5. List the cross-CRP activities your CRP organised or co-organised.

We have organised
- Special EuroGIGA-Session at the CSASC 2011 in Krems, 26/9/2011 (with GreGAS),
- EuroGIGA Midterm Conference, Prague, 9–13/7/2012,
- EuroGIGA Fall School on Graph- and Geo-Visualization, Würzburg, 8–12/10/2012,
- EuroGIGA Session at CSASC 2013 in Koper, Slovenia
- Workshop on Geometric Graphs (GGWeek 2014), Münster, Sept. 8-12, 2014 (participants from VORONOI, ComPoSe and GraDr)
- Homonolo workshop, Bedrichov, 8-12/12/2014 (participants from VORONOI, ComPoSe and GraDr)

and several meetings primarily for GraDR members where members of other EuroGIGA projects also participated.

B.4. Publications, dissemination and outreach

***Important**: In your lists, include only those publications which resulted* to a significant extent *from work undertaken in the framework of the CRP or from collaboration with other CRPs. Note that all such publications should bear an acknowledgement of the EuroGRAPHENE programme.*

In addition:

- List *all* authors.
- Identify with an asterisk (*) publications which acknowledge the EUROCORES programme.
- Underline publications/presentations involving co-authors from at least two IPs within your CRP.
- **Mark in bold publications/presentations involving co-authors from other CRPs in the programme.**

Publications

- Articles

Peer-reviewed articles in journals (published, in press or submitted)

(*) **M. Abellanas, M. Claverol, G. Hernandez, F. Hurtado, V. Sacristan, Maria Saumell, R. I. Silveira: *Improving shortest paths in the Delaunay triangulation*, International Journal of Computational Geometry and Applications 22 (2012), no. 6, pp. 559–576.**

(*) **Bernardo M. Abrego, Ruy Fabila-Monroy, Silvia Fernández-Merchant, David Flores-Penaloza, Ferran Hurtado, Henk Meijer, Vera Sacristán, Maria Saumell: *Proximity graphs inside large weighted graphs*, Networks 61 (2013), no. 1, pp. 29–39.**

(*) Eyal Ackerman, János Pach, Rom Pinchasi, Radoš Radoičić, Géza Tóth: *A note on coloring line arrangements*, Electronic Journal of Combinatorics 21(2): Paper 2.23, 4, 2014.

(*) **Oswin Aichholzer, Greg Aloupis, Erik D. Demaine, Martin L. Demaine, Sándor P. Fekete, Michael Hoffmann, Anna Lubiw, Jack Snoeyink, Andrew Winslow: *Covering Folded Shapes*, J. Comput. Geom., Volume 5(1), 2014, 150–168.**

(*) **Oswin Aichholzer, Thomas Hackl, Michael Hoffmann, Clemens Huemer, Attila Pór, Francisco Santos, Bettina Speckmann, Birgit Vogtenhuber: *Maximizing Maximal Angles for Plane Straight Line Graphs*, Computational Geometry: Theory and Applications. 46(1):17–28. 2013.**

(*) **Oswin Aichholzer, Thomas Hackl, Michael Hoffmann, Alexander Pilz, Günter Rote, Bettina Speckmann, Birgit Vogtenhuber: *Plane Graphs with Parity Constraints*, Graphs and Combinatorics 30, 2014, pages 47–69.**

(*) **Oswin Aichholzer, Thomas Hackl, David Orden, Alexander Pilz, Maria Saumell, Birgit Vogtenhuber: *Flips in combinatorial pointed pseudo-triangulations with face degree at most four*, International Journal of Computational Geometry and Applications, 24(3): 197-224, 2014**

(*) **Oswin Aichholzer, Thomas Hackl, David Orden, Pedro Ramos, Günter Rote, André Schulz, Bettina Speckmann: *Flip Graphs of Bounded Degree Triangulations*, Graphs and Combinatorics, 29(6):1577–1593, 2013.**

(*) Md. Jawaherul Alam, Therese Biedl, Stefan Felsner, Andreas Gerasch, Michael Kaufmann, Stephen G. Kobourov: *Linear-Time Algorithms for Rectilinear Hole-free Proportional Contact Representations*, Algorithmica 67:3–22, 2013 .

(*) Md. Jawaherul Alam, Therese Biedl, Stefan Felsner, Michael Kaufmann, Stephen G. Kobourov: *Proportional Contact Representations of Planar Graphs*, Journal of Graph Algorithms and Applications 16: 701–728, 2012.

(*) Md. Jawaherul Alam, Therese Biedl, Stefan Felsner, Michael Kaufmann, Stephen G. Kobourov, Torsten

Ueckerdt: *Computing Cartograms with Optimal Complexity*, Discrete and Computational Geometry 50 (2013), no. 3, pp. 784–810.

(*) Patrizio Angelini, Giuseppe Di Battista, Enrico Colasante, Fabrizio Frati, Maurizio Patrignani: *Monotone Drawings of Graphs*, Journal of Graph Algorithms and Applications 16(1):5–35, 2012.

(*) Patrizio Angelini, Giuseppe Di Battista, Pier Francesco Cortese, Maurizio Patrignani: *Topological Morphing of Planar Graphs*, Theoretical Computer Science 514:2–20, 2013.

(*) Patrizio Angelini, Giuseppe Di Battista, Fabrizio Frati, Vít Jelínek, Jan Kratochvíl, Maurizio Patrignani, Ignaz Rutter: *Testing Planarity of Partially Embedded Graphs*, Transactions on Algorithms, 11(4): Article No. 32 (2015).

(*) Patrizio Angelini, Giuseppe Di Battista, Fabrizio Frati, Giordano Da Lozzo, Maurizio Patrignani, Vincenzo Roselli: *Relaxing the Constraints of Clustered Planarity*, Computational Geometry: Theory and Applications 48(2):42–75, 2015.

(*) Patrizio Angelini, Giuseppe Di Battista, Fabrizio Frati, Maurizio Patrignani, Ignaz Rutter: *Testing the Simultaneous Embeddability of Two Graphs whose Intersection is a Biconnected or a Connected Graph*, Journal of Discrete Algorithms 14:150–172, 2012.

(*) Patrizio Angelini, Giuseppe Di Battista, Fabrizio Frati: *Simultaneous Embedding of Embedded Planar Graphs*, International Journal on Computational Geometry and Applications. 23(2):93–126. 2013.

(*) Patrizio Angelini, Giuseppe Di Battista, Fabrizio Frati: *Succinct Greedy Drawings Do Not Always Exist*, Networks. 59(3):267–274. 2012.

(*) Patrizio Angelini, Till Bruckdorfer, Marco Chiesa, Fabrizio Frati, Michael Kaufmann, Claudio Squarcella: *On the Area Requirements of Euclidean Minimum Spanning Trees*, Computational Geometry: Theory and Applications. 47(2):200–213, 2013.

(*) Patrizio Angelini, Walter Didimo, Stephen Kobourov, Tamara Mchedlidze, Vincenzo Roselli, Antonios Symvonis, Stephen Wismath: *Monotone Drawings of Graphs with Fixed Embedding*, Algorithmica, 2013, pp. 1–25.

(*) Patrizio Angelini, David Eppstein, Fabrizio Frati, Michael Kaufmann, Sylvain Lazard, Tamara Mchedlidze, Monique Teillaud, Alexander Wolff: *Universal Point Sets for Planar Graph Drawings with Circular Arcs*, Journal of Graph Algorithms and Applications 18 (3): 313–324, 2014.

(*) Patrizio Angelini, Fabrizio Frati, Michael Kaufmann: *Straight-Line Rectangular Drawings of Clustered Graphs*, Discrete & Computational Geometry 45(1): 88–140, 2011.

(*) Patrizio Angelini, Markus Geyer, Michael Kaufmann, Daniel Neuwirth: *On a Tree and a Path with no Geometric Simultaneous Embedding*, Journal of Graph Algorithms and Applications 16(1):37–83, 2012.

(*) Patrizio Angelini, Giordano Da Lozzo, Daniel Neuwirth: *Advancements on SEFE and Partitioned Book Embedding Problems*, Theor. Comput. Sci. 575: 71-89 (2015)

(*) **Esther M. Arkin, José Miguel Díaz-Báñez, Ferran Hurtado, Piyush Kumar, Joseph S. B. Mitchell, Belén Palop, Pablo Pérez-Lantero, Maria Saumell, Rodrigo I. Silveira: *Bichromatic 2-center of pairs of points*, Computational Geometry: Theory and Applications 48 (2015), 94–107.**

(*) **Nieves Atienza, Natalia de Castro, Carmen Cortés, M. Angeles Garrido, Clara I. Grima, Gregorio Hernández, Auxiliadora Moreno-González, Alberto Márquez, Martin Nöllenburg, José Ramon Portillo, Pedro Reyes, Jesús Valenzuela, Maria Trinidad Villar, Alexander Wolff: *Cover Contact Graphs*, Journal of Computational Geometry 3(1) (2012) 102-131.**

(*) Martin Balko, Radoslav Fulek, Jan Kynčl: *Crossing Number and Combinatorial Characterization of Monotone Drawings of K_n*, Discrete & Computational Geometry 53 (1), 107–143, 2015.

(*) Martin Balko: *Grid Representations and the Chromatic Number*, Computational Geometry: Theory and Applications 46 (2013), no. 8, pp. 990–1002.

(*) **János Barat, Vida Dujmović, Gwenael Joret, Michael S. Payne, Ludmila Scharf, Daria Schymura, Pavel Valtr, David R. Wood: *Empty pentagons in point sets with collinearities*, SIAM J. Discrete Math. 29(1): 198-209 (2015).**

(*) Tomasz Bartnicki, Bartlomiej Bosek, Sebastian Czerwinski, Jaroslaw Grytczuk, Grzegorz Matecki, Wiktor Zelazny: *Additive colorings of planar graphs*, Graphs and Combinatorics 30: 1087–1098, 2014.

(*) Giuseppe Di Battista, Carla Binucci, Ulrik Brandes, Walter Didimo, Marco Gaertler, Pietro Palladino, Maurizio Patrignani, Antonios Symvonis, Katharina Zweig: *Drawing Trees in a Streaming Model*, Information Processing Letters 112 (2012), 418–422.

(*) Giuseppe Di Battista, Luca Cittadini, Matteo Corea, Massimo Rimondini, Stefano Vissicchio: *From Theory to Practice: Efficiently Checking BGP Configurations for Guaranteed Convergence*, Transactions on Network and Service Management. 8(4):387–400. Dec 2011.

(*) Giuseppe Di Battista, Fabrizio Frati, János Pach: *On the Queue Number of Planar Graphs*, SIAM Journal on Computing 42(6):2243–2285, 2013.

(*) Giuseppe Di Battista, Fabrizio Frati, Maurizio Patrignani: *Non-Convex Representations of Graphs*, SIAM Journal on Discrete Mathematics 26(4):1670–1681, 2012.

(*) Giuseppe Di Battista, Francesco Ingrassia, Giordano Da Lozzo: *Drawing Graphs on a Smartphone*, Journal of Graph Algorithms and Applications 16(1): 109–126, 2012.

(*) Giuseppe Di Battista, Ethan Kim, Giuseppe Liotta, Anna Lubiw, Sue Whitesides: *The Shape of Orthogonal Cycles in Three Dimensions*, Discrete and Computational Geometry 47 (3), 2012, pp. 461–491.

(*) Carla Binucci, Walter Didimo, Maurizio Patrignani: *Upward and Quasi-Upward Planarity Testing of Embedded Mixed Graphs*, Theoretical Computer Science 526:75–89, 2014.

(*) József Békési, Łukasz Jeż, Jarett Schwartz, Jiří Sgall: *Lower bounds for online makespan minimization on a small number of related machines*, Journal of Scheduling 16 (2013), no. 5, pp. 539–547.

(*) **Prosenjit Bose, Sébastien Collette, Ferran Hurtado, Matias Korman, Stefan Langerman, Vera Sacristán, Maria Saumell: *Some properties of k-Delaunay and k-Gabriel graphs*, Computational Geometry: Theory and Applications 46 (2013), no. 2, pp. 131–139.**

(*) **Prosenjit Bose, Vida Dujmović, Ferran Hurtado, John Iacono, Stefan Langerman, Henk Meijer, Vera Sacristán, Maria Saumell, David R. Wood: *Proximity graphs: E, δ, Δ, χ and ω*, International Journal of Computational Geometry and Applications 22 (2012), no. 5, pp. 439–469.**

(*) **Prosenjit Bose, Dana Jansens, André van Renssen, Maria Saumell, Sander Verdonschot: *Making triangulations 4-connected using flips*, Computational Geometry: Theory and Applications 47 (2014), no. 2, pp. 187–197.**

(*) Imre Bárány, János Pach: *Homogeneous selections from hyperplanes*, Journal of Combinatorial Theory Series B 104: 81–87, 2014.

(*) **Jean Cardinal, Kolja Knauer, Piotr Micek, Torsten Ueckerdt: *Making octants colorful, and related covering decomposition problems*, SIAM J. Discrete Math. 28(4): 1948-1959 (2014)**

(*) **Jean Cardinal, Kolja Knauer, Piotr Micek, Torsten Ueckerdt: *Making triangles colorful*, Journal of Computational Geometry 4: 240–246, 2013.**

(*) **Ramon Chalmeta, Ferran Hurtado, Vera Sacristán, Maria Saumell: *Measuring regularity of convex polygons*,**

Computer-Aided Design 45 (2013), pp. 93–104.

(*) Steven Chaplick, Jiří Fiala, Paul van 't Hof, Daniel Paulusma, Martin Tesař: *Locally Constrained Homomorphisms on Graphs of Bounded Treewidth and Bounded Degree*, Theor. Comput. Sci. 590: 86-95 (2015)

(*) Steven Chaplick, Torsten Ueckerdt: *Planar Graphs as VPG-Graphs*, Journal of Graph Algorithms and Applications 17 (2013), no. 4, 475–494.

(*) Victor Chepoi, Stefan Felsner: *Approximating hitting sets of axis-parallel rectangles intersecting a monotone curve*, Computational Geometry: Theory and Applications 46: 1036–1041, 2013.

(*) Markus Chimani, Martin Derka, Petr Hliněný, Matěj Klusáček: *How Not to Characterize Planar-emulable Graphs*, Advances in Applied Mathematics 50 (2013), 46–68.

(*) Markus Chimani, Carsten Gutwenger: *Advances in the Planarization Method: Effective Multiple Edge Insertions*, Journal of Graph Algorithms and Applications, vol. 16, no. 3, pp. 729–757, 2012.

(*) Markus Chimani, Petr Hliněný, Petra Mutzel: *Vertex Insertion approximates the Crossing Number for Apex Graphs*, European J. Combinatorics 33 (2012), 326–335.

(*) M. Chrobak, L. Jez, J. Sgall: *Better Bounds for Incremental Frequency Allocation in Bipartite Graphs*, Theoretical Computer Science 514 (2013), pp. 75–83.

(*) David Conlon, Jacob Fox, János Pach, Benny Sudakov, Andrew Suk: *Ramsey-type results for semi-algebraic relations*, Transactions of the American Mathematical Society 366(9): 5043–5065, 2014.

(*) Laszlo Csirmaz, Peter Ligeti, Gabor Tardos: *Erdos–Pyber Theorem for Hypergraphs and Secret Sharing*, Graphs and Combinatorics: 1–12, 2014.

(*) Aparna Das, Emden R. Gansner, Michael Kaufmann, Stephen Kobourov, Joachim Spoerhase, Alexander Wolff: *Approximating Minimum Manhattan Networks in Higher Dimensions*, Proc. 19th Annu. Europ. Symp. on Algorithms (ESA'11), Lecture Notes in Computer Science 6942 (2011), pp. 49–60. Algorithmica 71(1): 36-52 (2015)

(*) Daniel Delling, Andreas Gemsa, Martin Nollenburg, Thomas Pajor, Ignaz Rutter: *On d-regular Schematization of Embedded Paths*, Computational Geometry: Theory and Applications 47(3A): 381–406, 2014.

(*) Walter Didimo, Michael Kaufmann, Giuseppe Liotta, Yoshio Okamoto, Andreas Spillner: *Vertex angle and crossing angle resolution of leveled tree drawings*, Inf. Process. Lett. 112(16): 630–635, 2012.

(*) T. C. van Dijk, A. van Goethem, J.-H. Haunert, W. Meulemans, B. Speckmann: *Map Schematization with Circular Arcs*, Geographic Information Science 8728: 1–17, 2014.

(*) Adrian Dumitrescu, Daniel Gerbner, Balazs Keszegh, Csaba D. Toth: *Covering paths for planar point sets*, Discrete & Computational Geometry 51(2): 462–484, 2014.

(*) Jakub Černý, Jan Kynčl, Géza Tóth: *Improvement on the decay of crossing numbers*, Graphs and Combinatorics 29 (2013), no. 3, pp. 365–371.

(*) Stefan Felsner: *Exploiting Air-Pressure to Map Floorplans on Point Sets*, Journal of Graph Algorithms and Applications: 233–252, 2014.

(*) Stefan Felsner: *The Order Dimension of Planar Maps Revisited*, SIAM Journal on Discrete Mathematics 28: 1093–1101, 2014.

(*) Stefan Felsner, Michael Kaufmann, Pavel Valtr: *Bend-optimal orthogonal graph drawing in the general position model*, Computational Geometry: Theory and Applications: 460–468, 2014.

(*) **Stefan Felsner, Pavel Valtr: *Coding and Counting Arrangements of Pseudolines*, Discrete and Computational**

Geometry 46(3), 2011, 405–416.

(*) Martin Fink, Jan-Henrik Haunert, André Schulz, Joachim Spoerhase, Alexander Wolff: *Algorithms for Labeling Focus Regions*, IEEE Trans. Vis. Comput. Graphics 18(12) (2012), 2583–2592.

(*) Jacob Fox, Andrey Grinshpun, János Pach: *The Erdos–Hajnal conjecture for rainbow triangles*, Journal of Combinatorial Theory Series B, 111: 75-125 (2015)

(*) Jacob Fox, János Pach: *Applications of a new separator theorem for string graphs*, Combinatorics, Probability and Computing 23(1): 66–74, 2014.

(*) Jacob Fox, János Pach, Benny Sudakov, Andrew Suk: *Erdos–Szekeres-type theorems for monotone paths and convex bodies*, Proceedings of the London Mathematical Society Third Series 105(5): 953–982, 2012.

(*) Jacob Fox, János Pach, Andrew Suk: *The number of edges in k-quasi-planar graphs*, SIAM Journal on Discrete Mathematics 27(1): 550–561, 2013.

(*) Mathew C. Francis, Jan Kratochvíl, Tomáš Vyskočil: *Segment representation of a subclass of co-planar graphs*, Discrete Mathematics 312(10):1815–1818 (2012).

(*) Fabrizio Frati, Michael Kaufmann, János Pach, Csaba D. Toth, David R. Wood: *On the Upward Planarity of Mixed Plane Graphs,* Journal of Graph Algorithms and Applications 18(2): 253–279, 2014.

(*) Radoslav Fulek: *Estimating the Number of Disjoint Edges in Simple Topological Graphs via Cylindrical Drawings*, SIAM J. Discrete Math. 28 (2014), no. 1, pp. 116–121.

(*) Radoslav Fulek, Csaba D. Tóth: *Universal Point Sets for Planar Three-Trees*, Journal of Discrete Algorithms, 30: 101-112 (2015)

(*) **Daniel Gerbner, Viola Meszaros, Dömötör Pálvölgyi, Alexey Pokrovskiy, Günter Rote: *Advantage in the discrete Voronoi game*, 8th Japanese-Hungarian Symposium on Discrete Mathematics and Its Applications, 2013. J. Graph Algorithms Appl. 18(3): 439-457 (2014)**

(*) Roman Glebov, Tibor Szabo, Gabor Tardos: *Conflict-free colouring of graphs*, Combinatorics, Probability and Computing 23(3): 434–448, 2014.

(*) A. van Goethem, H. Haverkort, W. Meulemans, A. Reimer, B. Speckmann.: *Topologically Safe Curved Schematisation*, The Cartographic Journal 50(3):276–285, 2013.

(*) András Gyárfás, Dömötör Pálvölgyi: *Domination in transitive colorings of tournaments*, Journal of Combinatorial Theory Series B 107: 1–11, 2014.

(*) Daniel Heldt, Kolja B. Knauer, Torsten Ueckerdt: *Edge-intersection graphs of grid paths: The bend-number*, Discrete Applied Mathematics 167: 144–162, 2014.

(*) Michael Hoffmann, Csaba D. Toth: *Vertex-Colored Encompassing Graphs*, Graphs Combin. 30(4), 2014, 933–947.

(*) Miklos Hoffmann, Imre Juhasz, Gyula Karolyi: *A control point based curve with two exponential shape parameters*, BIT Numerical Mathematics 54(3): 691–710, 2014.

(*) **F. Hurtado, M. Loffler, I. Matos, V. Sacristan, Maria Saumell, R.I. Silveira, F. Staals: *Terrain visibility with multiple viewpoints*, International Journal of Computational Geometry and Applications, 24(4): 275-306 (2014).**

(*) Vít Jelínek, Eva Jelínková, Jan Kratochvíl, Bernard Lidický, Martin Tesař, Tomáš Vyskočil: *The Planar Slope Number of Planar Partial 3-Trees of Bounded Degree*, Graphs and Combinatorics 29 (2013), no. 4, pp. 981–1005.

(*) Vít Jelínek, Jan Kratochvíl, Ignaz Rutter: *A Kuratowski-Type Theorem for Planarity of Partially Embedded Graphs*, Computational Geometry: Theory & Applications 46(4): 466–492, 2013.

(*) Gyula Karolyi, Geza Toth: *Erdos–Szekeres theorem for point sets with forbidden subconfigurations*, Discrete & Computational Geometry 48(2): 441–452, 2012.

(*) Balazs Keszegh, János Pach, Dömötör Pálvölgyi: *Drawing planar graphs of bounded degree with few slopes*, SIAM Journal on Discrete Mathematics 27(2): 1171–1183, 2013.

(*) Balázs Keszegh, Dömötör Pálvölgyi: *Octants are cover-decomposable into many coverings*, Computational Geometry: Theory and Applications 47(5): 585–588, 2014.

(*) Balazs Keszegh, Balazs Patkos, Xuding Zhu: *Nonrepetitive colorings of lexicographic product of graphs*, Discrete Mathematics and Theoretical Computer Science
(DMTCS), 16(2): 97-110 (2014)

(*) Balazs Keszegh, Dömötör Pálvölgyi: *Convex polygons are self-coverable*, Discrete & Computational Geometry 51(4): 885–895, 2014.

(*) Balazs Keszegh, Dömötör Pálvölgyi: *Octants are cover-decomposable*, Discrete & Computational Geometry 47(3): 598–609, 2012.

(*) Pavel Klavík, Jan Kratochvíl, Yota Otachi, Toshiki Saitoh: *Extending Partial Representations of Subclasses of Chordal Graphs*, Theor. Comput. Sci. 576: 85-101 (2015)

(*) Kolja Knauer, Piotr Micek, Bartosz Walczak: *Outerplanar graph drawing with few slopes*, Computational Geometry 47: 614–624, 2014.

(*) Jakub Kozik, Tomasz Krawczyk, Michał Lasoń, Piotr Micek, Arkadiusz Pawlik, William Tom Trotter, Bartosz Walczak: *Triangle-free geometric intersection graphs with large chromatic number*, Discrete and Computational Geometry 50: 714–726, 2013.

(*) Jakub Kozik, Tomasz Krawczyk, Michał Lasoń, Piotr Micek, Arkadiusz Pawlik, William Tom Trotter, Bartosz Walczak: *Triangle-free intersection graphs of line segments with large chromatic number*, Journal of Combinatorial Theory, Series B 105: 6–10, 2014.

(*) D. Kral, L. Mach, J. S. Sereni: *A new lower bound based on Gromov's method of selecting heavily covered points*, Discrete and Computational Geometry 48 (2012), no. 2, pp. 487–498.

(*) Tomasz Krawczyk, Arkadiusz Pawlik, Bartosz Walczak: *Coloring triangle-free rectangle overlap graphs with O(log log n) colors*, Discrete and Computational Geometry, 53(1): 199-220 (2015)

(*) Jan Kynčl: *Improved enumeration of simple topological graphs*, Discrete and Computational Geometry 50 (2013), no. 3, pp. 727–770.

(*) Jan Kynčl, János Pach, Rados Radoicic, Geza Toth: *Saturated simple and k-simple topological graphs*, Computational Geometry: Theory and Applications 48(4): 295–310, 2015.

(*) Michal Lason, Piotr Micek, Arkadiusz Pawlik, Bartosz Walczak: *Coloring intersection graphs of arcwise connected sets in the plane*, Discrete and Computational Geometry 52: 399–415, 2014.

(*) Jiří Matoušek: *Near-optimal separators in string graphs*, Combinatorics, Probability, and Computing 23 (2014), no. 1, pp. 135–139.

(*) Filip Moric, János Pach: *Remarks on Schur's Conjecture*, Comput. Geom. 48(7): 520-527 (2015)

(*) Filip Moric, János Pach: *Two and a half billion years of distance research*, Geombinatorics 22(EPFL-ARTICLE-200425): 182–191, 2013.

(*) Padmini Mukkamala, János Pach, Dömötör Pálvölgyi: *Lower bounds on the obstacle number of graphs*, Electronic Journal of Combinatorics 19(2): Paper 32, 8, 2012.

(*) Gabriel Nivasch, János Pach, Rom Pinchasi, Shira Zerbib: *The number of distinct distances from a vertex of a convex polygon*, Journal of Computational Geometry 4(1): 1–12, 2013.

(*) Gabriel Nivasch, János Pach, Gabor Tardos: *The visible perimeter of an arrangement of disks*, Computational Geometry: Theory and Applications 47(1): 42–51, 2014.

(*) Martin Nollenburg, Roman Prutkin, Ignaz Rutter: *Edge-weighted Contact Representations of Planar Graphs*, Journal of Graph Algorithms and Applications 17(4): 441–473, 2013.

(*) János Pach, Radoš Radoičić, Géza Tóth: *Tangled thrackles*, Geombinatorics 21 (2011), 157–169.

(*) János Pach, Gabor Tardos: *Piercing quasi-rectangles - on a problem of Danzer and Rogers*, Journal of Combinatorial Theory Series A 119(7): 1391–1397, 2012.

(*) János Pach, Gabor Tardos: *The range of a random walk on a comb*, Electronic Journal of Combinatorics 20(3): Paper 59, 7, 2013.

(*) János Pach, Gabor Tardos: *Tight lower bounds for the size of epsilon-nets*, Journal of the American Mathematical Society 26(3): 645–658, 2013.

(*) János Pach: *The beginnings of geometric graph theory*, Erdos centennial, Bolyai Soc. Math. Stud. 25: 465–484, 2013.

In print:

(*) Md. Jawaherul Alam, Steven Chaplick, Gašper Fijavž, Michael Kaufmann, Stephen G. Kobourov, Sergey Pupyrev, James B. Toeniskoetter: *Threshold-Coloring and Unit-Cube Contact Representation of Planar Graphs*, to appear in Journal of Discrete Applied Mathematics: Andreas Brandstadt Special Issue. Accepted Aug. 2014.

(*) Kathie Cameron, Steven Chaplick, Chính T. Hoàng: *Edge Intersection Graphs of L-Shaped Grid Paths*, to appear in Journal of Discrete Applied Mathematics:

(*) Filip Morić, János Pach: *Large simplices determined by finite point sets*, Beiträge für Algebra und Geometrie, accepted.

(*) János Pach, Konrad J. Swanepoel: *Double-normal pairs in space*, Accepted to Mathematika, 2014.

(*) János Pach, Konrad J. Swanepoel: *Double-normal pairs in the plane and on the sphere*, Accepted to Beitrage zur Algebra und Geometrie, 2014.

(*) János Pach, Géza Tóth: *Monotone crossing number*, Moscow Journal of Combinatorics and Number Theory, to appear.

Published contributions to international conferences

(*) James Abello, Pavel Klavík, Jan Kratochvíl, Tomáš Vyskočil: *MSOL Restricted Contractibility to Planar Graphs*, Parameterized and Exact Computation (IPEC) 2012, Lecture Notes in Computer Science 7535, 2012, pp. 194–205 .

(*) Nieke Aerts, Stefan Felsner: *Henneberg Steps for Triangle Representations*, Proc. EuroComb 2013, CRM series 16: 503–511, 2013.

(*) Nieke Aerts, Stefan Felsner: *Straight Line Triangle Representations*, GD'13, Lecture Notes in Computer Science 8242: 119–130, 2013.

(*) Nieke Aerts, Stefan Felsner: *Vertex Contact Graphs of Paths on a Grid*, WG'14, Lecture Notes in Computer Science 8747, 56–68, 2014.

(*) **Oswin Aichholzer, Jean Cardinal, Vincent Kusters, Stefan Langerman, Pavel Valtr: *Reconstructing Point Set Order Types from Radial Orderings*, ISAAC 2014, Lecture Notes in Computer Science 8889, 15-26, 2014.**

(*) **Oswin Aichholzer, Thomas Hackl, David Orden, Alexander Pilz, Maria Saumell, Birgit Vogtenhuber: *Flips in combinatorial pointed pseudo-triangulations with face degree at most four*, Informal Proc. XV Spanish Meeting on Computational Geometry 2013, Seville Spain, Proceedings (2013), 39–42.**

(*) **Oswin Aichholzer, Michael Hoffmann, Marc van Kreveld, Güter Rote: *Graph Drawings with Relative Edge Length Specifications*, Proc. 26th Canadian Conference on Computational Geometry (CCCG 2014), 2014.**

(*) Soroush Alamdari, Patrizio Angelini, Giuseppe Di Battista, Timothy M. Chan, Fabrizio Frati, Anna Lubiw, Maurizio Patrignani, Vincenzo Roselli, Sahil Singla, Bryan T. Wilkinson: *Morphing Planar Graph Drawings with a Polynomial Number of Steps*, 24th ACM-SIAM Symposium on Discrete Algorithms (SODA'13), pp. 1656–1667, 2013.

(*) Md. Jawaherul Alam, Michael A. Bekos, Michael Kaufmann, Philipp Kindermann, Stephen G. Kobourov, Alexander Wolff: *Smooth Orthogonal Drawings of Planar Graphs*, Proc. 11th Latin American Sympos. Theor. Inform. (LATIN'14), Lecture Notes in Computer Science 8392: 144–155, 2014.

(*) Md. Jawaherul Alam, Therese Biedl, Stefan Felsner, Andreas Gerasch, Michael Kaufmann, Stephen G. Kobourov: *Linear-Time Algorithms for Rectilinear Hole-free Proportional Contact Representations*, Proc. ISAAC 2011, Lecture Notes in Computer Science 7074: 281–291, 2011.

(*) Md. Jawaherul Alam, Therese Biedl, Stefan Felsner, Michael Kaufmann, Stephen G. Kobourov: *Proportional Contact Representations of Planar Graphs*, Proc. Graph Drawing 2011, Lecture Notes in Computer Science 7034: 26–38, 2011.

(*) Md. Jawaherul Alam, Therese Biedl, Stefan Felsner, Michael Kaufmann, Stephen G. Kobourov, Torsten Ueckerdt: *Computing Cartograms with Optimal Complexity*, Proc. SoCG 2012: 21–30, 2012.

(*) Marie Albenque, Kolja B. Knauer: *Convexity in Partial Cubes: The Hull Number*, Proc. LATIN'14, Lecture Notes in Computer Science 8392, 421–432, 2014.

(*) Patrizio Angelini, Marco Di Bartolomeo, Giuseppe Di Battista, Seok-Hee Hong, Giordano Da Lozzo, Maurizio Patrignani, Vincenzo Roselli: *Anchored Drawings of Planar Graphs*, In 22nd International Symposium on Graph Drawing (GD'14), Lecture Notes in Computer Science 8871, pp. 404–415, 2014.

(*) Patrizio Angelini, Marco Di Bartolomeo, Giuseppe Di Battista: *Implementing a Partitioned 2-Page Book Embedding Algorithm*, In 20th International Symposium on Graph Drawing (GD '12), Lecture Notes in Computer Science 7704, pp. 79–89, 2013.

(*) Patrizio Angelini, Giuseppe Di Battista, Walter Didimo, Fabrizio Frati, Seok-Hee Hong, Michael Kaufmann, Giuseppe Liotta, Anna Lubiw: *Large Angle Crossing Drawings of Planar Graphs in Subquadratic Area*, In, A. Marquez, P. Ramos, J. Urrutia, editors, EGC 2011, Special Hurtado Festschrift, Lecture Notes in Computer Science 7579, pp. 200–209, 2012.

(*) Patrizio Angelini, Giuseppe Di Battista, Walter Didimo, Fabrizio Frati, Seok-Hee Hong, Michael Kaufmann, Giuseppe Liotta, Anna Lubiw: *RAC and LAC drawings of planar graphs in subquadratic area*, In 14th Spanish Meeting on Computational Geometry (EGC '11), vol. 8, pp. 125–128, 2011.

(*) Patrizio Angelini, Giuseppe Di Battista, Fabrizio Frati, Giordano Da Lozzo, Maurizio Patrignani, Vincenzo Roselli: *Morphing Planar Graph Drawings Optimally*, In 41st International Colloquium on Automata, Languages and Programming (ICALP'14), Lecture Notes in Computer Science 8572, pp. 126–137, 2014.

(*) Patrizio Angelini, Giuseppe Di Battista, Fabrizio Frati, Giordano Da Lozzo, Vincenzo Roselli: *The Importance of Being Proper (In Clustered-Level Planarity and T-Level Planarity)*, In 22nd International Symposium on Graph

Drawing (GD'14), Lecture Notes in Computer Science 8871, pp. 246–258, 2014.

(*) Patrizio Angelini, Giuseppe Di Battista, Fabrizio Frati, Giordano Da Lozzo: *Strip Planarity Testing*, In 21st International Symposium on Graph Drawing (GD '13), Lecture Notes in Computer Science 8242, pp. 37–48, 2013.

(*) Patrizio Angelini, Giuseppe Di Battista, Fabrizio Frati: *Simultaneous Embedding of Embedded Planar Graphs*, In 22nd International Symposium on Algorithms and Computation (ISAAC '11), Lecture Notes in Computer Science 7074, pp. 271–280, 2011.

(*) Patrizio Angelini, Giuseppe Di Battista, Michael Kaufmann, Tamara Mchedlidze, Vincenzo Roselli, Claudio Squarcella: *Small Point Sets for Simply-Nested Planar Graphs*, In 19th International Symposium on Graph Drawing (GD '11), Lecture Notes in Computer Science, pp. 75–85, 2011.

(*) Patrizio Angelini, Carla Binucci, Walter Didimo, Luca Grilli, Giordano Da Lozzo, Fabrizio Montecchiani, Maurizio Patrignani, Ioannis Tollis: *Drawing Non-planar Graphs with Crossing-free Subgraphs*, In 21st International Symposium on Graph Drawing (GD'13), Lecture Notes in Computer Science 8242, pp. 295–307, 2013.

(*) Patrizio Angelini, Carla Binucci, William Evans, Ferran Hurtado, Giuseppe Liotta, Tamara Mchedlidze, Henk Meijer, Yoshio Okamoto: *Universal Point Subsets for Planar Graphs*, 23rd International Symposium on Algorithms and Computation (ISAAC'12), Lecture Notes in Computer Science 7676, pp. 423–432, 2012.

(*) Patrizio Angelini, Thomas Bläsius, Ignaz Rutter: *Testing Mutual Duality of Planar Graphs*, In 24th International Symposium on Algorithms and Computation (ISAAC'13), Lecture Notes in Computer Science 8283, pp. 350–360, 2013.

(*) Patrizio Angelini, Till Bruckdorfer, Marco Chiesa, Fabrizio Frati, Michael Kaufmann, Claudio Squarcella: *On the Area Requirements of Euclidean Minimum Spanning Trees*, In 12th Algorithms and Data Structures Symposium (WADS '11), Lecture Notes in Computer Science 6844, pp. 25–36, 2011.

(*) Patrizio Angelini, Massimo Candela, Lorenzo Antonetti Clarucci, Maurizio Patrignani, Massimo Rimondini, Roberto Sepe: *BGPlay3D: Exploiting the Ribbon Representation to Show the Evolution of Interdomain Routing*, In 21st International Symposium on Graph Drawing (GD '13), Lecture Notes in Computer Science 8242, pp. 526–527, 2013.

(*) Patrizio Angelini, Walter Didimo, Stephen Kobourov, Tamara Mchedlidze, Vincenzo Roselli, Antonios Symvonis, Stephen Wismath: *Monotone Drawings of Graphs with Fixed Embedding*, In 19th International Symposium on Graph Drawing (GD '11), Lecture Notes in Computer Science, pp. 379–390, 2011.

(*) Patrizio Angelini, David Eppstein, Fabrizio Frati, Michael Kaufmann, Sylvain Lazard, Tamara Mchedlidze, Monique Teillaud, Alexander Wolff: *Universal Point Sets for Planar Graph Drawings with Circular Arcs*, In 25st Canadian Conference on Computational Geometry (CCCG '13), 2013.

(*) Patrizio Angelini, William Evans, Fabrizio Frati, Joachim Gudmundsson: *SEFE with No Mapping via Large Induced Outerplane Graphs in Plane Graphs*, In 24th International Symposium on Algorithms and Computation (ISAAC'13), Lecture Notes in Computer Science 8283, pp. 185–195, 2013.

(*) Patrizio Angelini, Fabrizio Frati, Maurizio Patrignani, Vincenzo Roselli: *Morphing Planar Graph Drawings Efficiently*, In 21st International Symposium on Graph Drawing (GD'13), Lecture Notes in Computer Science 8242, pp. 49–60, 2013.

(*) Patrizio Angelini, Giordano Da Lozzo, Daniel Neuwirth: *On some NP-complete SEFE Problems*, In 8th Workshop on Algorithms and Computation (WALCOM'14), Lecture Notes in Computer Science 8344, pp. 193–205, 2014.

(*) Evmorfia N. Argyriou, Michael A. Bekos, Michael Kaufmann, Antonios Symvonis: *Geometric RAC Simultaneous Drawings of Graphs*, COCOON 2012, Lecture Notes in Computer Science 7434, 287-298, 2012.

(*) **Esther M. Arkin, José Miguel Díaz-Báñez, Ferran Hurtado, Piyush Kumar, Joseph S. B. Mitchell, Belén Palop, Pablo Pérez-Lantero, Maria Saumell, Rodrigo I. Silveira: *Bichromatic 2-center of pairs of points*, LATIN 2012,**

10th Latin American Symposium on Theoretical Informatics, Lecture Notes in Computer Science 7256 (2012), pp. 25–36.

(*) **A. Asinowski, Jean Cardinal, N. Cohen, S. Collette, T. Hackl, M. Hoffmann, Kolja Knauer, S. Langerman, M. Lasoń, P. Micek, G. Rote, Torsten Ueckerdt: *Coloring hypergraphs induced by dynamic point sets and bottomless rectangles*, WADS'13, Lecture Notes in Computer Science 8037: 73–84, 2013.**

(*) Andrei Asinowski, Balazs Keszegh, Tillman Miltzow: *Counting Houses of Pareto Optimal Matchings in the House Allocation Problem*, Fun with Algorithms (FUN 2014), Lecture Notes in Computer Science 8496: 301–312, 2014.

(*) **Martin Balko, Josef Cibulka and Pavel Valtr. Drawing graphs using a small number of obstacles, Graph Drawing 2015 – best paper award**

(*) Martin Balko, Radoslav Fulek, Jan Kynčl: *Monotone crossing number of complete graphs*, Informal Proc. XV Spanish Meeting on Computational Geometry (ECG'13) 2013, pp. 127–130.

(*) Martin Balko, Pavel Klavík, Yota Otachi: *Bounded Representations of Interval and Proper Interval Graphs*, ISAAC 2013, 24th International Symposium on Algorithms and Computation, Lecture Notes in Computer Science 8283 (2013), 535–546.

(*) Luis Barba, Jean-Lou De Carufel, Otfried Cheong, Michael Gene Dobbins, Rudolf Fleischer, Akitoshi Kawamura, Matias Korman, Yoshio Okamoto, János Pach, Yuan Tang, Takeshi Tokuyama, Sander Verdonschot, Tianhao Wang: *Weight Balancing on Boundaries and Skeletons*, Proceedings of the Thirtieth Annual Symposium on Computational Geometry SOCG'14, 436–443, 2014.

(*) Marco Di Bartolomeo, Giuseppe Di Battista, Massimo Candela, Claudio Squarcella: *Dynamic Traceroute Visualization at Multiple Abstraction Levels*, In 21st International Symposium on Graph Drawing (GD '13), Lecture Notes in Computer Science 8242, pp. 500–511, 2013.

(*) Giuseppe Di Battista, Markus Chimani, Fabrizio Frati, Karsten Klein: *Advances on Testing C-Planarity of Embedded Flat Clustered Graphs*, In 22nd International Symposium on Graph Drawing (GD '14), Lecture Notes in Computer Science 8871, pp. 416–427, 2014.

(*) Giuseppe Di Battista, Massimo Rimondini, Giorgio Sadolfo: *Monitoring the Status of MPLS VPN and VPLS Based on BGP Signaling Information*, In Proc. IEEE/IFIP Network Operations and Management Symposium (NOMS 2012), IEEE, pp. 237–244, 2012.

(*) Michael A. Bekos, Thomas C. van Dijk, Martin Fink, Philipp Kindermann, Stephen Kobourov, Sergey Pupyrev, Joachim Spoerhase, Alexander Wolff: *Improved Approximation Algorithms for Box Contact Representations*, Proc. 22nd Annu. Europ. Symp. on Algorithms (ESA'14), Lecture Notes in Computer Science 8737: 87–99, 2014.

(*) Michael A. Bekos, Thomas C. van Dijk, Philipp Kindermann, Alexander Wolff: *Simultaneous Drawing of Planar Graphs with Right-Angle Crossings and Few Bends*, Proc. 9th Int. Workshop Algorithms Comput. (WALCOM'15), Lecture Notes in Computer Science, 2015.

(*) Michael A. Bekos, Michael Kaufmann, Robert Krug, Stefan Naher, Vincenzo Roselli: *Slanted Orthogonal Drawings*, In 21st International Symposium on Graph Drawing (GD '13), Lecture Notes in Computer Science 8242, pp. 428–439, 2013.

(*) Rinat Ben-Avraham, Matthias Henze, Rafel Jaume, Balazs Keszegh, Orit E. Raz, Micha Sharir, Igor Tubis: *Minimum Partial-Matching and Hausdorff RMS-Distance under Translation: Combinatorics and Algorithms*, Algorithms-ESA 2014, Lecture Notes in Computer Science: 100–111, 2014.

(*) Carla Binucci, Walter Didimo, Emilio Di Giacomo, Fabrizio Montecchiani, Maurizio Patrignani, Ioannis G. Tollis: *Fan-planar Graphs: Combinatorial Properties and Complexity Results*, In 22nd International Symposium on Graph Drawing (GD '14), Lecture Notes in Computer Science 8871, pp. 186–197, 2014.

(*) Thomas Bläsius, Guido Bruckner, Ignaz Rutter: *Complexity of Higher-Degree Orthogonal Graph Embedding in*

the Kandinsky Model, Proceedings of the 22nd European Symposium on Algorithms, Lecture Notes in Computer Science 8737, 2014, 161-172.

(*) Thomas Bläsius, Annette Karrer, Ignaz Rutter: *Simultaneous Embedding: Edge Orderings, Relative Positions, Cutvertices*, Proceedings of the 21st International Symposium on Graph Drawing (GD'13), Lecture Notes in Computer Science, 8242: 220–231, 2013.

(*) Thomas Bläsius, Sebastian Lehmann, Ignaz Rutter: *Orthogonal Graph Drawing with Inflexible Edges*, CIAC 2015: Lecture Notes in Computer Science 9097, 61-73, 2015.

(*) Thomas Bläsius, Ignaz Rutter: *A New Perspective on Clustered Planarity as a Combinatorial Embedding Problem*, Proceedings of the 22nd International Symposium on Graph Drawing (GD'14), Lecture Notes in Computer Science 8871, 2014, 440-451.

(*) Thomas Bläsius, Ignaz Rutter: *Disconnectivity and Relative Positions in Simultaneous Embeddings*, Proceedings of the 20th International Symposium on Graph Drawing (GD'12), Lecture Notes in Computer Science 7704: 31–42, 2013.

(*) Thomas Bläsius, Ignaz Rutter: *Simultaneous PQ-Ordering with Applications to Constrained Embedding Problems*, Proceedings of the 24th Annual ACM-SIAM Symposium on Discrete Algorithms (SODA'13), 1030–1043, 2013.

(*) Thomas Bläsius, Ignaz Rutter, Dorothea Wagner: *Optimal Orthogonal Graph Drawing with Convex Bend Costs,* Proceedings of the 40th International Colloquium on Automata, Languages, and Programming, Lecture Notes in Computer Science 7965: 184–195, 2013.

(*) **Prosenjit Bose, Vida Dujmović, Ferran Hurtado, John Iacono, Stefan Langerman, Henk Meijer, Vera Sacristán, Maria Saumell, David R. Wood: *Proximity graphs: E, δ, Δ, χ and ω*, Abstracts from 28th European Workshop on Computational Geometry (EuroCG'12), pp. 217–220, 2012.**

(*) Imre Bárány, János Pach: *Homogeneous selections from hyperplanes*, The Seventh European Conference on Combinatorics, CRM Series 16: 197–201, 2013.

(*) H. Broersma, Jiří Fiala, P. A. Golovach, Tomáš Kaiser, Daniel Paulusma, Andrzej Proskurowski: *Linear-Time Algorithms for Scattering Number and Hamilton-Connectivity of Interval Graphs*, WG 2013, 39th International Workshop on Graph-Theoretic Concepts in Computer Science, Lecture Notes in Computer Science 8165 (2013), pp. 127–138.

(*) Till Bruckdorfer, Sabine Cornelsen, Carsten Gutwenger, Michael Kaufmann, Fabrizio Montecchiani, Martin Nöllenburg, Alexander Wolff: *Progress on Partial Edge Drawings*, Proc. GD 2012, Lecture Notes in Computer Science 7704, 2013, 67-78.

(*) Till Bruckdorfer, Stefan Felsner, Michael Kaufmann: *On the Characterization of Plane Bus Graphs*, Proc. Int. Conf. Alg. and Compl., CIAC 2013, Lecture Notes in Computer Science 7878: 73–84, 2013.

(*) Till Bruckdorfer, Michael Kaufmann: *Mad at Edge Crossings? Break the Edges!*, Proc. FUN 2012, LNCS 7288, 40–50.

(*) Edith Brunel, Andreas Gemsa, Marcus Krug, Ignaz Rutter, Dorothea Wagner: *Generalizing Geometric Graphs*, Proceedings of the 19th International Symposium on Graph Drawing (GD'11), Lecture Notes in Computer Science 7034, 2012, 179-190.

(*) Kevin Buchin, Arthur van Goethem, Michael Hoffmann, Marc van Kreveld, Bettina Speckmann: *Travel-time Maps: Linear Cartograms with Fixed Vertex Locations*, Proc. 8th Internat. Conf. Geographic Inform. Sci. (GIScience '14), Lecture Notes in Computer Science, Volume 8728, 2014, 18–33.

(*) Sergio Cabello, Markus Chimani, Petr Hliněný: *Computing the stretch of an embedded graph*, Informal Proc. XV Spanish Meeting on Computational Geometry 2013, Seville Spain, Proceedings (2013), 39–42.

(*) **Jean Cardinal, Stefan Felsner: *Covering Partial Cubes with Zones*, Proc. Japan Conf. DCGG, Lecture Notes in Computer Science 8845, 2014, 1-13.**

(*) **Jean Cardinal, Michael Hoffmann, Vincent Kusters: *On Universal Point Sets for Planar Graphs*, Presented at TJJCCGG2012. Proc. Thailand-Japan Joint Conference on Computational Geometry and Graphs, Lecture Notes in Computer Science, volume 8296, 2013, pages 30–41.**

(*) **Jean Cardinal, Michael Hoffmann, Vincent Kusters, Csaba D. Toth, Manuel Wettstein: *Arc diagrams, flip distances, and Hamiltonian triangulations*, STACS 2015: LIPICs 30, 197-210, 2015.**

(*) Steven Chaplick, E. Cohen, G. Morgenstern: *Stabbing Polygonal Chains with Rays is Hard to Approximate*, Proceedings of the 25th Canadian Conference On Computational Geometry, CCCG 2013, Waterloo, ON, Canada, Aug. 8–10, 2013, pp.141–144.

(*) Steven Chaplick, Paul Dorbec, Jan Kratochvíl, Mickael Montassier, Juraj Stacho: *Contact Representations of Planar Graphs: Extending a Partial Representation is Hard*, Graph-Theoretic Concepts in Computer Science: 40th International Workshop, WG'14, Lecture Notes in Computer Science 8747: 139–151, 2014.

(*) Steven Chaplick, Jiří Fiala, Paul van 't Hof, Daniel Paulusma, Martin Tesař: *Locally constrained homomorphisms on graphs of bounded degree and bounded treewidth*, FCT 2013,19th International Symposium on Fundamentals of Computation Theory, Lecture Notes in Computer Science 8070 (2013), pp. 121–132.

(*) Steven Chaplick, Radoslav Fulek, Pavel Klavík: *Extending Partial Representations of Circle Graphs*, GD 2013, 21st International Symposium on Graph Drawing, Lecture Notes in Computer Science 8242 (2013), pp. 131–142.

(*) Steven Chaplick, P. Hell, Yota Otachi, Toshiki Saitoh, R. Uehara: *Intersection Dimension of Bipartite Graphs*, Theory and Applications of Models of Computation, Lecture Notes in Computer Science Volume 8402, 2014, pp. 323–340.

(*) Steven Chaplick, Vít Jelínek, Jan Kratochvíl, Tomáš Vyskočil: *Bend-Bounded Path Intersection Graphs: Sausages, Noodles, and Waffles on a Grill*, WG 2012, 38th International Workshop on Graph-Theoretic Concepts in Computer Science, Lecture Notes in Computer Science 7551 (2012), pp. 274–285.

(*) Steven Chaplick, Torsten Ueckerdt: *Planar Graphs as VPG-Graphs*, GD 2012, 20th International Symposium on Graph Drawing, Lecture Notes in Computer Science 7704 (2013), pp. 174–186.

(*) Markus Chimani, Martin Derka, Petr Hliněný, Matěj Klusáček: *How Not to Characterize Planar-emulable Graphs*, IWOCA 2011, Lecture Notes in Computer Science 7056, Springer (2011), 106–120.

(*) Markus Chimani, Carsten Gutwenger: *Advances in the Planarization Method: Effective Multiple Edge Insertions*, In: M. van Kreveld, B. Speckmann (eds.), 19th Symposium on Graph Drawing 2011, Eindhoven Lecture Notes in Computer Science 7034, 2011, pp. 87–98.

(*) Markus Chimani, Petr Hliněný: *A Tighter Insertion-based Approximation of the Crossing Number*, In: ICALP 2011, Part I, Lecture Notes in Computer Science 6755, Springer (2011), 122–134.

(*) David Conlon, Jacob Fox, János Pach, Benny Sudakov, Andrew Suk: *Ramsey-type results for semi-algebraic relations*, Proceedings of the 29th annual symposium on Symposuim on computational geometry: 309–318, 2013.

(*) Aparna Das, Krzysztof Fleszar, Stephen G. Kobourov, Joachim Spoerhase, Sankar Veeramoni, Alexander Wolff: *Approximating the Generalized Minimum Manhattan Network Problem*, Proc. 24th Annu. Int. Symp. Algorithms and Computation (ISAAC'13), Lecture Notes in Computer Science 8283: 722–732, 2013.

(*) Aparna Das, Emden R. Gansner, Michael Kaufmann, Stephen Kobourov, Joachim Spoerhase, Alexander Wolff: *Approximating Minimum Manhattan Networks in Higher Dimensions*, Proc. 19th Annu. Europ. Symp. on Algorithms (ESA'11), Lecture Notes in Computer Science 6942 (2011), pp. 49–60.

(*) Walter Didimo, Giuseppe Liotta, Maurizio Patrignani: *On the Complexity of HV-Rectilinear Planarity Testing*, In

22nd International Symposium on Graph Drawing (GD'14), Lecture Notes in Computer Science 8871, pp. 343–354, 2014.

(*) Stephane Durocher, Stefan Felsner, Saeed Mehrabi, Debajyoti Mondal: *Drawing HV-Restricted Planar Graphs*, Proc. LATIN'14, Lecture Notes in Computer Science 8392: 156–167, 2014.

(*) William Evans, Stefan Felsner, Michael Kaufmann, Stephen G. Kobourov, Debajyoti Mondal, Rahnuma Islam Nishat, Kevin Verbeek: *Table Cartograms*, ESA'13, Lecture Notes in Computer Science 8125: 421–432, 2013.

(*) William Evans, Vincent Kusters, Maria Saumell, Bettina Speckmann: *Column Planarity and Partial Simultaneous Geometric Embedding*, Graph Drawing GD'14, Lecture Notes in Computer Science 8871, 2014, 259-271.

(*) Stefan Felsner: *Exploiting Air-Pressure to Map Floorplans on Point Sets*, GD'13, Lecture Notes in Computer Science 8242: 196–207, 2013.

(*) Stefan Felsner, Mathew C. Francis: *Contact representations of planar graphs with cubes*, Proceedings SoCG '11, 315–320.

(*) Stefan Felsner, Kolja Knauer, George B. Mertzios, Torsten Ueckerdt: *Intersection Graphs of L-Shapes and Segments in the Plane*, Proc. Math. Found. Comp. Sci., Lecture Notes in Computer Science 8635: 299–310, 2014.

(*) Stefan Felsner, George B. Mertzios, Irina Mustata: On the Recognition of Four-Directional Orthogonal Ray Graphs, MFCS 2013, Lecture Notes in Computer Science 8087: 373–384, 2013.

(*) Jiří Fiala, Pavel Klavík, Jan Kratochvíl, Roman Nedela: *Algorithmic Aspects of Regular Graphs Covers with Applications to Planar Graphs*, Automata, Languages, and Programming ICALP'14, Lecture Notes in Computer Science Volume 8572, 2014, pp. 489–501.

(*) Martin Fink, Jan-Henrik Haunert, Tamara Mchedlidze, Joachim Spoerhase, Alexander Wolff: *Drawing Graphs with Vertices at Specified Positions and Crossings at Large Angles*, Proc. Workshop Algorithms Comput. (WALCOM'12), Lecture Notes in Computer Science 7157, 2012, pp. 186–197.

(*) Martin Fink, Herman Haverkort, Martin Nöllenburg, Maxwell Roberts, Julian Schuhmann, Alexander Wolff: *Drawing Metro Maps using Bézier Curves*, In Proc. 20th Int. Sympos. Graph Drawing (GD'12) (Walter Didimo, Maurizio Patrignani, eds.), Lecture Notes in Computer Science 7704, 463–474, 2012.

(*) Jacob Fox, János Pach, Andrew Suk: *Density and regularity theorems for semi-algebraic hypergraps*, SODA'15, 2015, 1517-1530

(*) Fabrizio Frati, Radoslav Fulek, Emilio Di Giacomo, Luca Grilli, Marcus Krug: *Orthogeodesic Point-Set Embedding of Trees*, In 19th International Symposium on Graph Drawing (GD '11), Lecture Notes in Computer Science, pp. 52–63, 2011.

(*) Fabrizio Frati, Radoslav Fulek, Andres Ruiz-Vargas: *On the Page Number of Upward Planar Directed Acyclic Graphs*, In 19th International Symposium on Graph Drawing (GD '11), Lecture Notes in Computer Science, pp. 391–402, 2011.

(*) Fabrizio Frati, Michael Kaufmann, János Pach, Csaba D. Tóth, David R. Wood: *On the Upward Planarity of Mixed Plane Graphs*, Graph Drawing GD'13, Lecture Notes in Computer Science 8242: 1–12, 2013.

(*) Radoslav Fulek, Jan Kynčl, Igor Malinovic, Dömötör Pálvölgyi: *Clustered Planarity Testing Revisited*, Graph Drawing, Lecture Notes in Computer Science Volume 8871, 2014, pp. 428–439.

(*) Radoslav Fulek, A. Ruiz-Vargas: *Topological Graphs: Empty Triangles and Disjoint Matchings*, SoCG'13, Proceedings of the 29th annual symposium on computational geometry, ACM 2014, pp. 259–266.

(*) Radoslav Fulek, Csaba D. Tóth: *Universal Point Sets for Planar Three-Trees*, WADS 2013, 13th International Symposium Algorithms and Data Structures, Lecture Notes in Computer Science 8037 (2013), pp. 341–352.

(*) T. Gavenčiak, V. Jelínek, Pavel Klavík, Jan Kratochvíl: *Cops and Robbers of Intersection Graphs*, ISAAC 2013, 24th International Symposium on Algorithms and Computation, Lecture Notes in Computer Science 8283 (2013), pp. 174–184.

(*) Markus Geyer, Michael Hoffmann, Michael Kaufmann, Vincent Kusters, Csaba D. Tóth: *Planar Packing of Binary Trees*, Algorithms and Data Structures, WADS 2013, Lecture Notes in Computer Science, 8037, 2013, 353–364.

(*) Xavier Goaoc, Jiří Matoušek, Pavel Paták, Zuzana Safernová, Martin Tancer: *Simplifying inclusion-exclusion formulas*, Eurocomb'13, The Seventh European Conference on Combinatorics, Graph Theory and Applications, CRM Series 16, 2013, pp. 559–565.

(*) A. van Goethem, W. Meulemans, B. Speckmann, J. Wood: *Exploring Curved Schematization*, Proc. 7th IEEE Pacific Visualization Symposium (PacificVis'14), pp. 1–8, 2014.

(*) Luca Grilli, Seok-Hee Hong, Jan Kratochvíl, Ignaz Rutter: *Drawing Simultaneously Embedded Graphs with Few Bends*, Proceedings of the 22nd International Symposium on Graph Drawing (GD'14), Lecture Notes in Computer Science 8871, 2014, 40-51.

(*) Daniel Heldt, Kolja Knauer, Torsten Ueckerdt: *On the bend-number of planar and outerplanar graphs*, Proc. 10th Latin American Symposium on Theoretical Informatics (LATIN 2012), Lecture Notes in Computer Science 7256 (2012), pp. 458–469.

(*) **Michael Hoffmann, Marc van Kreveld, Vincent Kusters, Guter Rote: *Quality Ratios of Measures for Graph Drawing Styles*, 26th Canadian Conference on Computational Geometry (CCCG 2014), 2014.**

(*) Michael Hoffmann, Vincent Kusters, Tillmann Miltzow: *Halving Balls in Deterministic Linear Time*, Proc. 22nd European Sympos. Algorithms (ESA '14), Lecture Notes in Computer Science, Volume 8737, Wroclaw, Poland, 2014, 566–578.

(*) **Michael Hoffmann, Vincent Kusters, Güter Rote, Maria Saumell, Rodrigo I. Silveira: *Convex hull alignment through translation*, Proc. 25th Canadian Conference on Computational Geometry (CCCG 2013), 2013, pages 295–300.**

(*) **F. Hurtado, M. Loffler, I. Matos, V. Sacristan, Maria Saumell, R.I. Silveira, F. Staals: *Terrain visibility with multiple viewpoints*, ISAAC 2013, 24th International Symposium on Algorithms and Computation, Lecture Notes in Computer Science 8283 (2013), pp. 317–327.**

(*) Vít Jelínek, Jan Kratochvíl, Giordano Da Lozzo, Ignaz Rutter: *Planar Embeddings with Small and Uniform Faces*, In 25th International Symposium on Algorithms and Computation (ISAAC'14), Lecture Notes in Computer Science 8889, pp. 633–645, 2014.

(*) Vít Jelínek, Jan Kratochvíl, Ignaz Rutter: *A Kuratowski-type theorem for planarity of partially embedded graphs*, Symposium on Computational Geometry 2011: 107–116.

(*) K. Junosza-Szaniawski, Jan Kratochvíl, M. Pergel, P. Rzazewski: *Beyond homothetic polygons: recognition and maximum clique*, ISAAC 2012, 23rd International Symposium on Algorithms and Computation, Lecture Notes in Computer Science 7676 (2012), pp. 619–628.

(*) Balasz Keszegh, Nathan Lemons, Dömötör Pálvölgyi: *Online and quasi-online colorings of wedges and intervals*, SOFSEM 2013: theory and practice of computer science, Lecture Notes in Computer Science 7741: 292–306, 2013.

(*) Balazs Keszegh, János Pach, Dömötör Pálvölgyi: *Drawing planar graphs of bounded degree with few slopes*, Graph drawing GD'11, Lecture Notes in Computer Science 6502: 293–304, 2011.

(*) Philipp Kindermann, Fabian Lipp, Alexander Wolff: *Luatodonotes: Boundary Labeling for Annotations in Texts*, Proc. 22nd Int. Sympos. Graph Drawing (GD'14), Lecture Notes in Computer Science 8871: 76–88, 2014.

(*) Philipp Kindermann, Benjamin Niedermann, Ignaz Rutter, Marcus Schaefer, Andre Schulz, Alexander Wolff: *Two-Sided Boundary Labeling with Adjacent Sides*, Proc. 13th Int. Algorithms Data Struct. Symp. (WADS'13), Lecture Notes in Computer Science 8037, 463–474, 2013.

(*) Philipp Kindermann, Andre Schulz, Joachim Spoerhase, Alexander Wolff: *On Monotone Drawings of Trees*, Proc. 22nd Int. Sympos. Graph Drawing (GD'14), Lecture Notes in Computer Science 8871: 488–500, 2014.

(*) Pavel Klavík, Jan Kratochvíl, Tomasz Krawczyk, Bartosz Walczak: *Extending partial representations of function graphs and permutation graphs*, Algorithms – ESA 2012, Lecture Notes in Computer Science, vol. 7501, pp. 671–682 (2012).

(*) **Pavel Klavík, Jan Kratochvíl, Yota Otachi, Ignaz Rutter, Toshiki Saito, Maria Saumell, Tomas Vyskočil: *Extending Partial Representations of Proper and Unit Interval Graphs*, Proceedings of the 14th Scandinavian Symposium and Workshop on Algorithm Theory (SWAT'14), Lecture Notes in Computer Science 8503: 253–264, 2014.**

(*) Pavel Klavík, Jan Kratochvíl, Yota Otachi, Toshiki Saitoh: *Extending Partial Representations of Subclasses of Chordal Graphs*, ISAAC 2012, 23rd International Symposium on Algorithms and Computation, Lecture Notes in Computer Science 7676 (2012), pp. 444–454.

(*) Pavel Klavík, Jan Kratochvíl, Tomáš Vyskočil: *Extending Partial Representations of Interval Graphs*, TAMC 2011, Lecture Notes in Computer Science 6648, 2011, 276–285.

(*) Kolja Knauer, Piotr Micek, Bartosz Walczak: *Outerplanar graph drawings with few slopes (long version)*, Proc. Computing and Combinatorics - 18th Annual International Conference (COCOON) 2012, Lecture Notes in Computer Science 7434, 2012, 323–334.

(*) Stephen G. Kobourov, Torsten Ueckerdt, Kevin Verbeek: *Combinatorial and geometric properties of planar Laman graphs*, SODA 2013: 1668-1678

(*) Jan Kratochvíl: *Can They Cross? And How? (The Hitchhiker's Guide to the Universe of Geometric Intersection Graphs)*, SoCG'11, Proceedings of the 27th annual Symposium on Computational Geometry, ACM (2011), pp. 75–76.

(*) Jan Kratochvíl, Torsten Ueckerdt: *Non-crossing Connectors in the Plane*, TAMC 2013, 10th International Conference on Theory and Applications of Models of Computation, Lecture Notes in Computer Science 7876 (2013), pp. 108–120.

(*) Tomasz Krawczyk, Arkadiusz Pawlik, Bartosz Walczak: *Coloring triangle-free rectangular frame intersection graphs with O(log log n) colors*, Graph-Theoretic Concepts in Computer Science (WG 2013), Lecture Notes in Computer Science 8165: 333–344, 2013.

(*) Marc J. van Kreveld, Maarten Löffler, János Pach: *How many potatoes are in a mesh?*, In Proc. 23rd International Symposium on Algorithms and Computation (ISAAC 2012), Lecture Notes in Computer Science 7676, 2012, 166–176.

(*) Jan Kynčl: *Improved enumeration of simple topological graphs*, Informal Proc. XV Spanish Meeting on Computational Geometry (ECG'13) 2013, pp. 99–102.

(*) Michal Lason, Piotr Micek, Arkadiusz Pawlik, Bartosz Walczak: *Coloring intersection graphs of arcwise connected sets in the plane*, EuroComb 2013, CRM Series 16: 299–304, 2013.

(*) Jiří Matoušek, Eric Sedgwick, Maritn Tancer, Uli Wagner: *Untangling two systems of noncrossing curves*, GD 2013, 21st International Symposium on Graph Drawing, Lecture Notes in Computer Science 8242 (2013), pp. 472–483.

(*) Tamara Mchedlidze, Martin Nollenburg, Ignaz Rutter: *Drawing Planar Graphs with a Prescribed Inner Face*, Proceedings of the 21st International Symposium on Graph Drawing (GD'13), Lecture Notes in Computer Science

8242: 316–327, 2013.

(*) Filip Moric, János Pach: *Remarks on Schur's Conjecture*, Computational Geometry and Graphs, TJJCCGG 2012, Lecture Notes in Computer Science 8296: 120–131, 2013.

(*) Gabriel Nivasch, János Pach, Gabor Tardos: *The visible perimeter of an arrangement of disks*, Graph drawing GD'13, Lecture Notes in Computer Science 7704: 364–375, 2013.

(*) Martin Nöllenburg, Roman Prutkin, Ignaz Rutter: *Edge-weighted Contact Representations of Planar Graphs*, Proceedings of the 20th International Symposium on Graph Drawing (GD'12), Lecture Notes in Computer Science. 2012.

(*) János Pach: *Geometric intersection patterns and the theory of geometric graphs* Proceedings of the International Congress of Mathematicians 2014 (ICM 2014, Seoul, Korea), Volume IV, pp. 455-474, 2014.

(*) János Pach, Radoš Radoičić, Géza Tóth: *Tangled thrackles*, Proc. XIV Spanish Meeting on Computational Geometry, EGC 2011 (Dedicated to Ferran Hurtado), Lecture Notes in Computer Science 7579, 2012, 45–53.

(*) János Pach, Nathan Rubin, Gabor Tardos: *On the Richter-Thomassen Conjecture about Pairwise Intersecting Closed Curves.* SODA 2015: 1506-1516.

(*) János Pach, Gabor Tardos: *Piercing Quasi-Rectangles: On a Problem of Danzer and Rogers*, Algorithms and Data Structures, WADS 2011, Lecture Notes in Computer Science 6844, 654–654, 2011.

(*) János Pach, Géza Tóth: *Monotone crossing number*, Proc. 19th International Symposium on Graph Drawing (GD'11), Eindhoven 2011, (Marc van Kreveld and Bettina Speckmann, eds.) Lecture Notes in Computer Science 7034 (2012), 278–289.

(*) János Pach, Frank de Zeeuw: *Distinct Distances on Algebraic Curves in the Plane*, Proceedings of the Thirtieth Annual Symposium on Computational Geometry SOCG'14: 2014, 549-557.

(*) Alexandr Rok, Bartosz Walczak: *Outerstring graphs are chi-bounded*, Proceedings of the Thirtieth Annual Symposium on Computational Geometry SoCG'14, 136-143

(*) Andres J. Ruiz-Vargas: *Tangles and Degenerate Tangles*, In Proc. Graph Drawing 2012, Lecture Notes in Computer Science 7704, 346-351.

(*) André Schulz: *Drawing graphs with few arcs*, Graph-Theoretic Concepts in Computer Science - 39th International Workshop, WG'13, Lecture Notes in Computer Science 8165, 2013, 406-417.

(*) Andrew Suk, Bartosz Walczak: *New bounds on the maximum number of edges in k-quasi-planar graphs*, Graph Drawing (GD 2013), Lecture Notes in Computer Science 8242: 95–106, 2013.

(*) Géza Tóth: *A better bound for the pair-crossing number*, Proceedings of the Hungarian-Japanese Symposium on Discrete Mathematics and Its Applications, Kyoto 2011, 473–477.

News & Views-type articles

-

Other articles (*please define*)

-

- Books

As editor(s)

(*) Frank van Ham, Stephen Kobourov, Alexander Wolff, eds.: *Putting Data on the Map (Dagstuhl Seminar 12261)*, Dagstuhl Reports 2(6) (2012), 51–76.

(*) Stephen Wismath, Alexander Wolff, eds.: *Proceedings of the 21st International Symposium on Graph Drawing (GD'13)*, Lecture Notes in Computer Science 8242, 2013.

As author(s) or author(s) of chapters

(*) Giuseppe Di Battista, Fabrizio Frati: *Drawing Trees, Outerplanar Graphs, Series-Parallel Graphs, and Planar Graphs in Small Area*, In *Thirty Essays on Geometric Graph Theory*, (J. Pach, ed.), Springer New York, pp. 121–165, 2012.

(*) Stefan Felsner: *Rectangle and Square Representations of Planar Graphs*, In *Thirty Essays on Geometric Graph Theory* (J. Pach, ed.), Springer New York, 213–248, 2012.

(*) Gyula Károlyi: *Ramsey-type problems for geometric graphs*, In *Thirty essays on geometric graph theory* (J. Pach, ed.), Springer New York, 2012, pp. 371–382.

(*) János Pach, Dömötör Pálvölgyi, Géza Tóth: *Survey on decomposition of multiple coverings*, In *Geometry—Intuitive, Discrete, and Convex* (I. Bárány, K. J. Böröczky et al., eds.), Bolyai Society Mathematical Studies 24: 219–257, 2013.

(*) Géza Tóth: *A better bound for the pair-crossing number*, In *Thirty Essays on Geometric Graph Theory* (J. Pach, ed.), Springer New York, 2012, pp. 563–567.

(*) Alexander Wolff: *Graph Drawing and Cartography*, In *Handbook of Graph Drawing and Visualization* (R. Tamassia, ed.), CRC Press 2013, pp. 697–736, 2013.

- Other

Please define (data products, video, etc.)

-

Presentations in scientific meetings

- Oral presentations (indicate invited / keynote talks)

Patrizio Angelini: *Testing the Simultaneous Embeddability of Two Graphs whose Intersection is a Biconnected Graph or a Tree*, GraDR Kick-off meeting, Prague, 7–8/7/2011.
Patrizio Angelini: *Strip Planarity Testing*, 21st Graph Drawing (GD '13), Bordeaux, 23–25/9/2013.
Patrizio Angelini: *SEFE with No Mapping via Large Induced Outerplane Graphs in Plane Graphs*, 24th Algorithms and Computation (ISAAC '13), Hong Kong, 16–18/12/2013.
Patrizio Angelini: *Testing Mutual Duality of Planar Graphs*, 24th Algorithms and Computation (ISAAC '13), Hong Kong, 16–18/12/2013.
Patrizio Angelini: *Morphing Planar Graph Drawings Optimally*, 41st International Colloquium on Automata, Languages and Programming (ICALP '14), Copenhagen, 7/10/2014.
Andrei Asinowski, Jean Cardinal, Nathann Cohen, Sébastien Collette, Thomas Hackl, Michael Hoffmann, Kolja Knauer, Stefan Langerman, Michał Lasoń, Piotr Micek, Günter Rote and Torsten Ueckerdt,: *Coloring hypergraphs induced by dynamic point sets and bottomless rectangles*, Algorithms and Data Structures Symposium (WADS 2013), London, Canada, 12–14/8/2013.
Martin Balko: *Grid Representations of Graphs and the Chromatic Number*, EuroCG 2012, Assisi, 20/3/2012.

Martin Balko: *Grid Drawings and the Chromatic Number*, Graph Drawing 2012, Redmond, 21/9/2012.
Martin Balko: *Crossing numbers and characterizations of monotone drawings of K_n*, The 30th Annual Symposium on Computational Geometry: Young Researchers, 9/6/2014.
Martin Balko: *Recent progress on Hill's conjecture*, The 2nd Elbe Sandstones Geometry Workshop, Rynartice, 4/8/2014.
Marco Di Bartolomeo: *Implementing a Partitioned 2-Page Book Embedding Algorithm*, 20th Graph Drawing (GD '12), Redmond, 19–21/9/2012.
Marco Di Bartolomeo: *Anchored Drawings of Planar Graphs* , 22nd Graph Drawing (GD '14), Wuerzburg, 24/9/2014.
Giuseppe Di Battista: *Clustered planarity WP05*, EuroGIGA Midterm Conference, Prague, 11/7/2012.
Giuseppe Di Battista: *Status WP05 Clustered planarity*, GraDR Midterm Meeting, Berlin, 3–5/10/2012.
Till Bruckdorfer: *MST embeddings*, GraDR Kick-off meeting, Prague, 7–8/7/2011.
Steven Chaplick: European Workshop on Computational Geometry, .
Steven Chaplick: *Max Point Tolerance Graphs*, CanaDAM, .
Steven Chaplick: *Stabbing Polygonal Chains with Rays is Hard to Approximate*, CCCG 2013, .
Steven Chaplick: *Stabbing Polygonal Chains with Rays is Hard to Approximate*, Summer School on Efficient Data Structures, .
Steven Chaplick: *Bend-Bounded Path Intersection Graphs: Sausages, Noodles, and Waffles on a Grill*, WG 2012, Jerusalem, 28/6/2012.
Steven Chaplick: *Equilateral L-Contact Graphs*, WG 2013, Lübeck, 20/6/2013.
Steven Chaplick: *Extending Partial Representations of Circle Graphs*, Geometric Representations of Graphs Mini-symposium. SIAM DM, Minneapolis, 16–19/6/2014.
Steven Chaplick: *Recognizing and Colouring Claw-Free Graphs Without Even Holes*, Graph Structure and Algorithms Mini-symposium. SIAM DM, Minneapolis, 16–19/6/2014.
Steven Chaplick: *On the Dimension of Geometric Bigraphs*, GraDR Final Conference, Krakow, 4/7/2014.
Steven Chaplick: *On (claw,even-hole)-free graphs*, Midsummer Combinatorial Workshop XX, Prague, 29/7/2014.
Steven Chaplick: *On (odd-apple,even-hole)-free graphs*, Kolloquium über Kombinatorik, Ilmenau, 7/11/2014.
Markus Chimani: *Advances in the Planarization Method: Effective Multiple Edge Insertions*, Graph Drawing 2011, Eindhoven, 21/9/2011.
Markus Chimani: *Exact Computation of Crossing Numbers*, GraDR 2012 Crossing Number Workshop and Minischool, Valtice, 20–25/5/2012 .
Martin Derka: *Status WP08 Crossing number*, GraDR Midterm Meeting, Berlin, 3–5/10/2012.
Stefan Felsner: *WP10*, GraDR Kick-off meeting, Prague, 7–8/7/2011.
Stefan Felsner: *Triangle and Rectangle contact representations*, Bernoulli Reunion Conference on Discrete and Computational Geometry, Lausanne, 28/2/2012.
Stefan Felsner: *The graphs that can be drawn with one bend per edge*, EuroCG, Assisi, 20/3/2012.
Stefan Felsner: *Rectangle and square representations*, Dagstuhl – Putting Data on the Map, 26/6/2012.
Stefan Felsner: *Cartograms and contact representations WP07*, EuroGIGA Midterm Conference, Prague, 11/7/2012.
Stefan Felsner: *News about Semiantichains and Unichain Coverings*, The 7th International Computer Science Symposium in Russia, Nizhny Novgorod, 7/7/2012.
Stefan Felsner: *Status WP10 Contact and intersection representations*, GraDR Midterm Meeting, Berlin, 3–5/10/2012.
Stefan Felsner: *Intersection graphs and order dimension*, EuroGIGA Final Conference in Berlin, 17/2/2014.
Stefan Felsner: *Graphs admitting d-realizers: tree-decomposition and box-representations*, EuroCG, Ein Gedi, 4/3/2014.
Stefan Felsner: *Graphs admitting d-realizers: tree-decomposition and box-representations*, GraDR Final Meeting, Krakow, 4/7/2014.
Jiří Fiala: *The k-on a path problem on claw-free graphs*, CSASC, Krems, 25–28/9/2011.
Jiří Fiala: *Complexity of some covering problems—progress report*, Algebraic, Topological and Complexity Aspects of Graph Covers, 4th ATCAGC, Eugene, 26–31/1/2012.
Jiří Fiala: *Finding contractions in claw-free graphs*, CSGT, Litomyšl, 1/6/2012.
Jiří Fiala: *Linear-time algorithms for scattering number and Hamilton connectivity of interval graphs*, CSGT, Teplice nad Bečvou, 13/6/2014.
Martin Fink: *Drawing Graphs with Vertices at Specified Positions and Crossings at Large Angles*, GraDR Kick-off meeting, Prague, 7–8/7/2011.
Martin Fink: *Drawing Graphs with Vertices at Specified Positions and Crossings at Large Angles*, WALCOM'12, Dhaka, 15–17/2/2012.
Martin Fink: *Drawing Metro Maps using Bézier Curves*, Graph Drawing 2012, Redmond, 21/9/2012.

Martin Fink: *Algorithms for Labeling Focus Regions*, 2012 IEEE Conference on Information Visualization (InfoVis'12), Seattle, 14/10/2012.
Fabrizio Frati: *On the Queue Number of Planar Graphs*, GraDR Kick-off meeting, Prague, 7–8/7/2011.
Radoslav Fulek: *Extending Partial Representations of Circle Graphs*, International Symposium on Graph Drawing, .
Radoslav Fulek: *Topological Graphs: Empty Triangles and Disjoint Matchings*, 29th ACM Symposium on Computational Geometry (SoGC 2013), Rio de Janeiro, 17–20/6/2014.
Radoslav Fulek: *Universal Point sets for Planar Three-Trees*, The Algorithms and Data Structures Symposium - WADS, London ON, Canada, 12–14/8/2014.
Tomáš Gavenčiak: *Cops and Robbers on Intersection Graphs*, 24th International Symposium on Algorithms and Computation (ISAAC 2013), Hong Kong, 16–18/12/2013.
Tomáš Gavenčiak: *Cops and Robbers on Intersection Graphs*, GRASTA 2014, Cargese, Corsica, ?/?/2014.
Tomáš Gavenčiak: *Cops and Robbers on Intersection Graphs*, GraDR Final Conference 2014, Krakow, 1/7/2014.
Tomáš Gavenčiak, Jan Kratochvíl: *Cops and Robbers on special graph classes*, GRASTA, Banff, 10/8/2012.
Dániel Gerbner: *Majority and Plurality Problems*, Search Methodologies III, Bielefeld, 5/9/2012.
Jarek Grytczuk: *Graph coloring with geometric flavor*, EuroGIGA Final Conference in Berlin, 20/2/2014.
Jarosław Grytczuk: *Additive colorings of planar graphs*, 20th Workshop in Graph Theory 2011, Krynica, .
Jarosław Grytczuk,: *Coloring geometric intersection graphs*, GraDR Midterm Meeting, Berlin, Germany., .
Jarosław Grytczuk: *Variations on the theorem of Thue*, Seventh Czech-Slovak Symposium on Graph Theory, Combinatorics, Algorithms and Applications, Košice, 5/7/1905.
Jarosław Grytczuk: *WP9*, GraDR Kick-off meeting, Prague, 7–8/7/2011.
Jarosław Grytczuk: *Status WP09 Coloring graphs with geometric representations*, GraDR Midterm Meeting, Berlin, 3–5/10/2012.
Jarosław Grytczuk: *Nonrepetitive coloring of geometric graphs*, EuroGIGA Final Meeting, Berlin 2014, Germany, 17–21/2/2014.
Jarosław Grytczuk: *Nonrepetitive coloring of line arrangements,*, GraDR Final Meeting, Kraków 2014, Poland, 1/7/2014.
Carsten Gutwenger: *Crossing Minimization in Practice*, Crossing Number Workshop, Valtice, 20–25/5/2012.
Carsten Gutwenger: *The Open Graph Drawing Framework (OGDF)*, Minisymposium on Publicly Available Geometric/Topological Software, Chapel Hill, 17/6/2012.
Carsten Gutwenger: *Planarization methods WP04*, EuroGIGA Midterm Conference, Prague, 11/7/2012.
Petr Hliněný: *A Tighter Insertion-based Approximation of the Graph Crossing Number*, Graph Algorithms and Combinatorial Optimization, NII Shonan Meeting 2011, Japan, 13–18/2/2011 .
Petr Hliněný: *A Tighter Insertion-based Approximation of the Graph Crossing Number*, 7th Slovenian International Conference on Graph Theory, Bled, Slovenia, 19–25/6/2011.
Petr Hliněný: *WP8*, GraDR Kick-off meeting, Prague, 7–8/7/2011.
Petr Hliněný: *On the Crossing Number of Surface-Embedded Graphs*, Crossing Numbers Turn Useful (11w5144), Banff International Research Station, Canada, 21–26/8/2011.
Petr Hliněný: *How Not to Characterize Planar-emulable Graphs*, Workshop on Algebraic, Topological and Complexity Aspects of Graph Covers (ATCAGC 2012), Eugene, 26–31/1/2012 .
Petr Hliněný: *Crossing Number Tutorial*, GraDR 2012 Crossing Number Workshop and Minischool, Valtice, 20–25/5/2012 .
Petr Hliněný: *Planar Emulators Conjecture Is Nearly True for Cubic Graphs*, CSASC 2013 - Joint Mathematical Conference, Koper, 9–13/6/2013.
Petr Hliněný: *Planar Emulators Conjecture Is Nearly True for Cubic Graphs*, Graph Theory and Applications - Eurocomb 2013, Pisa, 9/11/2013.
Petr Hliněný: *Approximating Multiple Edge Insertion and the Crossing Number*, Crossing Number Workshop 2014, Maribor, 11–15/6/2014.
Petr Hliněný: *IP1-Brno, Overview of research and results*, GraDR Final Conference, Krakow, 3/7/2014.
Michael Hoffmann: *Counting Plane Graphs*, The First ETH-Japan Workshop on Science and Computing, Engelberg, 14/3/2012.
Vít Jelínek: *WP1*, GraDR Kick-off meeting, Prague, 7–8/7/2011.
Vít Jelínek: *Bends WP10*, EuroGIGA Midterm Conference, Prague, 11/7/2012.
Michael Kaufmann: *WP12*, GraDR Kick-off meeting, Prague, 7–8/7/2011.
Michael Kaufmann: *Status WP12 Hypergraphs with applications in bioinformatics*, GraDR Midterm Meeting, Berlin, 3–5/10/2012.
Balázs Keszegh: *Unique-maximum and conflict-free coloring for hypergraphs and tree graphs*, Workshop on Discrete Mathematics and Graph Theory, Zhejiang University, Jinhua, 20/4/2012.
Balázs Keszegh: *Online and quasi-online colorings of wedges and intervals*, SOFSEM 2013, Špindlerův Mlýn, 28/1/2013.

Philipp Kindermann: *Smooth orthogonal drawings of planar graphs*, EuroGIGA Final Conference in Berlin, 20/2/2014.
Pavel Klavík: *Polynomial-time Algorithm for Planar Regular Covers*, GEMS 2013, .
Pavel Klavík: *Why PROPER INT is not equal UNIT INT?*, CSGT 2013, Košice, .
Pavel Klavík: *Extending Partial Representations of Interval Graphs*, TAMC 2011, Tokyo, 24/5/2011.
Pavel Klavík: *Extending partial representations*, GraDR Kick-off meeting, Prague, 7–8/7/2011.
Pavel Klavík: *Partial intersection representation extension WP10*, EuroGIGA Midterm Conference, Prague, 11/7/2012.
Pavel Klavík: *MSOL Restricted Contractibility to Planar Graphs*, IPEC 2012, Ljubljana, 14/9/2012.
Pavel Klavík: *Structural Properties of Unit Interval Representations*, Geometry, Structure and Randomness in Combinatorics, Pisa, 7/9/2012.
Pavel Klavík: *Extending Partial Representations of Subclasses of Chordal Graphs*, ISAAC 2012, Taipei, 20/12/2012.
Pavel Klavík: *Bounded Representations of Interval and Proper Interval Graphs*, 24th International Symposium on Algorithms and Computation (ISAAC 2013), Hong Kong, 16–18/12/2013.
Pavel Klavík: *On the Complexity of Planar Regular Covering*, Workshop on Algebraic, Topological and Complexity Aspects of Graph Covers ATCAGC'13, Bovec, 30/1–3/2/2013.
Pavel Klavík, Jan Kratochvíl, Tomasz Krawczyk, Bartosz Walczak,: *Extending partial representations of function graphs and permutation graphs*, 20th European Symposium on Algorithms (ESA 2012), Ljubljana, 10–12/9/2012.
Kolja Knauer: *Track-number and caterpillar-arboricity of graphs of bounded treewidth*, GraDR Kick-off meeting, Prague, 7–8/7/2011.
Kolja Knauer, Piotr Micek, Bartosz Walczak,: *Outerplanar slope number*, EuroGIGA Midterm Conference, Prague, 9–13/7/2012.
Kolja Knauer, Piotr Micek, Bartosz Walczak,: *Outerplanar graph drawings with few slopes*, 18th Annual International Computing and Combinatorics Conference (COCOON 2012), Sydney, 20–22/8/2012.
Kolja Knauer, Piotr Micek, Bartosz Walczak,: *Outerplanar graph drawings with few slopes*, 4th Polish Combinatorial Conference, Będlewo, 17–21/9/2012.
Kolja Knauer, Piotr Micek and Bartosz Walczak,: *Outerplanar graph drawings with few slopes*, 28th European Workshop on Computational Geometry (EuroCG 2012),, 19–21/3/2012.
Stephen G. Kobourov: *Contact Representation of Graphs in 2D and 3D*, GraDR Midterm Meeting, Berlin, 3–5/10/2012 .
Jakub Kozik, Tomasz Krawczyk, Michał Lasoń, Piotr Micek, Arkadiusz Pawlik, William T. Trotter, Bartosz Walczak: *Triangle-free segment graphs with arbitrarily large chromatic number*, 28th European Workshop on Computational Geometry (EuroCG 2012), Assisi, 19–21/3/2012.
Jan Kratochvíl: *Intersection Graphs of Homothetic Polygons*, Canadam 2011 (Canadian Conference on Discrete Mathematics), Victoria, 31/5/2011.
Jan Kratochvíl: *Can they Cross? And How?*, ACM Symposium on Computational Geometry, SoCG 2011, Paris, 13/6/2011 .
Jan Kratochvíl: *Testing Planarity of Partially Embedded Graphs*, CSASC 2011, Krems, 26/9/2011.
Jan Kratochvíl: *Geometric Intersection Graphs: Old Problems, New Approaches (and Vice Versa)*, Euro-CG 2012, Assisi, 20/3/2012 .
Jan Kratochvíl: *Planarity of Partially Embedded Graphs*, East Coast Combinatorics Conference, St. John's, 10/5/2012 .
Jan Kratochvíl: *String Graphs: Old Theme, New Connections*, Czech-Slovak conference on Graph Theory, Litomyšl, 28/5/2012.
Jan Kratochvíl: *Minors of Partially Embedded Graphs*, Conference on Graph Theory celebrating 50th birthday of Robin Thomas, Atlanta, 8/5/2012.
Jan Kratochvíl: *Status WP01 Slope number*, GraDR Midterm Meeting, Berlin, 3–5/10/2012.
Jan Kratochvíl: *Extending partial representations of graphs*, 2nd Bordeaux Graph Theory Workshop, Bordeaux, 23/11/2012 .
Jan Kratochvíl: *Non-crossing Connectors in the Plane*, TAMC 2013, Hong Kong, 20/5/2013.
Jan Kratochvíl: *Geometric Intersection Graphs*, 2. PRIMA (Pacific Rim Mathematical Association Congress), Shanghaj, 20/6/2013.
Jan Kratochvíl: *Geometric Representations of Graphs: Old Problems, New Approaches, and Vice Versa*, Ljubljana-Leoben Graph Theory Seminar, Graz, 16/9/2013.
Jan Kratochvíl: *Beyond homothetic polygons*, Mexican Conference on Discrete Mathematics and Computational Geometry v Oaxaca, 11/12/2013.
Jan Kratochvíl: *Contact representations of planar graphs: Rebuilding is hard*, SIAM Conference on Discrete Mathematics, Minneapolis, 17/6/2014.
Jan Kratochvíl: *Contact representations of planar graphs: Rebuilding is hard*, WG 2014, Orleans, 25/6/2014.

Jan Kratochvíl: *Extending partial representations of planar graphs*, GraDR Final Conference, Kraków, 1/7/2014.
Jan Kratochvíl: *Extending partial geometric representations of graphs*, 7th Krakow Conference on Graph Theory, Rytro, 15/9/2014.
Tomasz Krawczyk: *Coloring graphs on-line*, GraDR Kick-off meeting, Prague, 7–8/7/2011.
Tomasz Krawczyk, Arkadiusz Pawlik, Bartosz Walczak,: *Coloring triangle-free rectangular frame intersection graphs with O(log log n) colors*, FIT 2013, Toruń, 11–14/4/2013.
Tomasz Krawczyk, Arkadiusz Pawlik, Bartosz Walczak,: *Coloring triangle-free rectangular frame intersection graphs with O(log log n) colors*, 39th International Workshop on Graph-Theoretic Concepts in Computer Science (WG 2013), Lübeck, 19–21/6/2013.
Tomasz Krawczyk, Bartosz Walczak:: *Coloring geometric intersection graphs via on-line games*, SummerSchool: Order and Geometry, Berlin, 7–10/9/2013.
Marcus Krug: *Orthogeodesic Embeddings of Planar Graphs*, GraDR Kick-off meeting, Prague, 7–8/7/2011.
Vincent Kusters: *Simultaneous embeddings*, The First ETH-Japan Workshop on Science and Computing, Engelberg, 12/3/2012 .
Vincent Kusters: *WP03 Simultaneous embeddings*, GraDR Midterm Meeting, Berlin, 3–5/10/2012.
Vincent Kusters: *On Universal Point Sets for Planar Graphs*, Thai-Japan Joint Conference on Computational Geometry and Graphs 2012, Bangkok, 8/12/2012.
Jan Kynčl: *Improved enumeration of simple topological graphs*, XV Spanish Meeting on Computational Geometry, Sevilla, 28/6/2013.
Jan Kynčl: *Monotone crossing number of complete graphs*, XV Spanish Meeting on Computational Geometry, Sevilla, 28/6/2013.
Jan Kynčl: *Kolika způsoby lze jednodu?e nakreslit graf?*, Současné Trendy Teoretické Informatiky 2013, Prague, 6/7/2013.
Jan Kynčl: *Clustered Planarity Testing Revisited*, Int. Symp. on Graph Drawing 2014, Würzburg, 24/9/2014.
Michał Lasoń, Piotr Micek, Arkadiusz Pawlik, Bartosz Walczak,: *Coloring intersection graphs of arcwise connected sets in the plane*, 7th European Conference on Combinatorics, Graph Theory and Applications (Eurocomb 2013), Piza, 9–13/9/2013.
Giuseppe Liotta: *Graph drawing beyond planarity: some results and open problems*, EuroGIGA Final Conference in Berlin, 21/2/2014.
Giordano Da Lozzo: *Drawing Non-planar Graphs with Crossing-free Subgraphs*, 21st Graph Drawing (GD '13), Bordeaux, 23–25/9/2013.
Giordano Da Lozzo: *SEFE = C-Planarity?* , 9th International Colloquium on Graph Theory and Combinatorics (ICGT '14), Grenoble, 7/1/2014.
Giordano Da Lozzo: *The Importance of Being Proper (In Clustered-Level Planarity and T-Level Planarity)*, 22nd Graph Drawing (GD '14), Wuerzburg, 24/9/2014.
Lukáš Mach: *A New Lower Bound Based on Gromov's Method of Selecting Heavily Covered Points*, SIAM Conference on Discrete Mathematics, Halifax, 21/6/2012.
Przemysław Mazur, Piotr Micek, Bartosz Walczak: *On-line coloring of rectangle graphs*, 3rd Polish Combinatorial Conference, Będlewo, 24–30/9/2010.
Petra Mutzel: *WP11*, GraDR Kick-off meeting, Prague, 7–8/7/2011.
Petra Mutzel: *Status WP11 Transfer to practice*, GraDR Midterm Meeting, Berlin, 3–5/10/2012.
Martin Nöllenburg: *Schematic Visualization of Geodata*, EuroGIGA Fall School Graph and GeoVisualization, 8–12/10/2012.
János Pach: *Tight Lower Bounds for the Size of epsilonNets*, 27th ACM Symposium on Computational Geometry, Paris, 13–15/6/2011.
János Pach: *Erdős–Szekeres-type theorems for convex bodies*, XIV Spanish Meeting on Computational Geometry, Alcala de Henares, 27–30/6/2011 .
János Pach: *WP6*, GraDR Kick-off meeting, Prague, 7–8/7/2011.
János Pach: *Every graph admits an unambiguous bold drawing*, Graph Drawing 2011, Eindhoven, 21–23/9/2011.
János Pach: *Generalized arithmetic progressions*, ERC Workshop on High-Complexity Discrete Geometry, Berlin, 23–27/10/2011.
János Pach: *String Graphs and Incomparability Graphs*, 28th ACM Symposium on Computational Geometry, Chapel Hill, 16–20/6/2012.
János Pach: Third Workshop on Geometric Graph Theory, Byron Bay, 13–17/8/2012.
János Pach: *Extremal problems for geometric graphs—new methods*, 18th Annual International Computing and Combinatorics Conference (COCOON 2012), Sydney, 20–22/8/2012 .
János Pach: *The origins and big unsolved problems of geometric graph theory*, Workshop Cycles and Colourings 2012, High Tatras, 11/9/2012 .
János Pach: *Big Unsolved Problems in Geometric Graph Theory*, 15th International Workshop on Combinatorial

Image Analysis (IWCIA 2012), Austin, 28/10/2012 .
János Pach: *Back to the future of geometric graph theory*, Thai-Japan Joint Conference on Computational Geometry and Graphs, Bangkok, 6–8/12/2012 .
János Pach: *Big Unsolved Problems in Geometric Graph Theory*, Recent Trends in Discrete Mathematics, Mumbai, 17–20/12/2012 .
János Pach, Bartosz Walczak,: *Decomposition of multiple packings with subquadratic union complexity*, Summit:240, Budapest, 7–11/7/2014.
Dömötör Pálvölgyi: *Drawing cubic graphs with the four basic slopes*, Graph Drawing '11, Eindhoven, 21/9/2011.
Dömötör Pálvölgyi: *Decomposition of multiple coverings by homothetic triangles into several parts*, EuroGIGA Midterm Conference, Prague, 11/7/2012 .
Dömötör Pálvölgyi: *Indecomposable coverings with unit discs*, EuroGIGA Final Conference in Berlin, 18/2/2014.
Maurizio Patrignani: *WP5*, GraDR Kick-off meeting, Prague, 7–8/7/2011.
Maurizio Patrignani: *A Graph Drawing Approach to Geographic Visualization*, EuroGIGA Fall School "Graph and GeoVisualization, 8–12/10/2012.
Maurizio Patrignani: *On the complexity of some simultaneous and clustered planarity problems*, EuroGIGA Final Conference in Berlin, 18/2/2014.
Maurizio Patrignani: *On the Complexity of HV-Rectilinear Planarity Testing* , 22nd Graph Drawing (GD '14), Wuerzburg, 24/9/2014.
Martin Pergel: *On Two Cute Stefan's Problems*, Workshop on Partial Orderings, 7/1/1900.
Martin Pergel: *Beyond Homothetic Polygons: Recognition and Maximum Clique*, ISAAC 2012, Taipei, 21/12/2012.
Alexandre Rok, Bartosz Walczak: *Outerstring graphs are chi-bounded*, 30th Annual Symposium on Computational Geometry (SoCG 2014), Kyoto, 8–11/6/2014.
Vincenzo Roselli: *Morphing Planar Graph Drawings with a Polynomial Number of Steps*, 24th ACM-SIAM Symposium on Discrete Algorithms (SODA '13), New Orleans, 7/1/2013.
Vincenzo Roselli: *Morphing Planar Graph Drawings Efficiently*, 21st Graph Drawing (GD '13), Bordeaux, 23–25/9/2013.
Andres Ruiz-Vargas: *Degenerate Tangles*, 10th Gremo's Workshop on Open Problems 2012, Bergün, 4/6/2012.
Andres Ruiz-Vargas: *Degenerate Tangles*, Graph Drawing 2012, Redmond, 19–21/9/2012.
Andres Ruiz-Vargas: *Empty triangles in complete simple topological graphs*, Spring Seminar, University of Bern, 13–17/1/2013.
Ignaz Rutter: *Planarity of partially embedded graphs*, GraDR Kick-off meeting, Prague, 7–8/7/2011.
Ignaz Rutter: *Simultaneous embeddings WP03*, EuroGIGA Midterm Conference, Prague, 11/7/2012.
Ignaz Rutter: *Status WP04 Constrained embeddings*, GraDR Midterm Meeting, Berlin, 3–5/10/2012.
André Schulz: *Perception based graph drawing*, Midterm GraDr Meeting, Berlin, 3–5/10/2012.
André Schulz: *Status WP13 Perception based graph drawing*, GraDR Midterm Meeting, Berlin, 3–5/10/2012.
André Schulz: *Drawing Graphs with few edges*, Workshop on Graph-theoretic Aspects of Computer Science in Lübeck, 20/6/2013.
André Schulz: *Drawings with Low Visual Complexity*, Recent Trends in Graph Drawing - Curves, Crossings, and Constraints in Würzburg, 22/9/2014.
Bettina Speckmann: *WP3*, GraDR Kick-off meeting, Prague, 7–8/7/2011.
Bettina Speckmann: *WP7*, GraDR Kick-off meeting, Prague, 7–8/7/2011.
Joachim Spoerhase: *Approximating Minimum Manhattan Networks in Higher Dimensions*, GraDR Kick-off meeting, Prague, 7–8/7/2011.
Joachim Spoerhase: *Approximating Minimum Manhattan Networks in Higher Dimensions*, ESA'11, Saarbrücken, 5–9/9/2011.
Claudio Squarcella: *Dynamic Traceroute Visualization at Multiple Abstraction Levels*, 21st Graph Drawing (GD '13), Bordeaux, 23–25/9/2013.
Andrew Suk, Bartosz Walczak,: *New bounds on the maximum number of edges in k-quasi-planar graphs*, 21st Graph Drawing (GD 2013), Bordeaux, 23–25/9/2013.
Géza Tóth: *Monotone crossing number*, Graph Drawing '11, Eindhoven, 21/9/2011.
Géza Tóth: *Crossing numbers, graph drawing, Status Report*, GraDR Midterm Meeting, Berlin, 3–5/10/2012.
Dorothea Wagner: *WP4*, GraDR Kick-off meeting, Prague, 7–8/7/2011.
Bartek Walczak: *Outerplanar slope WP01*, EuroGIGA Midterm Conference, Prague, 11/7/2012.
Bartosz Walczak: *Chromatic number of geometric intersection graphs*, GraDR Kick-off meeting, Prague, 7–8/7/2011.
Bartosz Walczak: *Coloring geometric intersection graphs via on-line games*, EuroGIGA Final Conference in Berlin, 18/2/2014.
Bartosz Walczak: *Coloring geometric intersection graphs via on-line games*, EuroGIGA Final Conference, Berlin, 17–21/2/2014.

Bartosz Walczak: *Coloring geometric intersection graphs via on-line games*, SIAM Conference on Discrete Mathematics, Minneapolis, 16–19/6/2014.
Bartosz Walczak,: *Coloring geometric intersection graphs and related problems*, 5th Polish Combinatorial Conference, Będlewo, 22–26/9/2014.
Alexander Wolff: *WP2*, GraDR Kick-off meeting, Prague, 7–8/7/2011.
Alexander Wolff: *Approximating Minimum Manhattan Networks in Higher Dimensions WP02*, EuroGIGA Midterm Conference, Prague, 11/7/2012.
Alexander Wolff: *Status WP02 Angular schematization*, GraDR Midterm Meeting, Berlin, 3–5/10/2012.
Alexander Wolff: *Drawing Transportation Maps*, Primer Congreso Nacional de Diseño E Ingenierías Fisicomecánicas, Bucaramanga, 14/11/2012.
Alexander Wolff: *Angular schematization*, EuroGIGA Final Conference in Berlin, 20/2/2014.

- Posters

(*) Michael A. Bekos, Thomas C. van Dijk, Philipp Kindermann, Alexander Wolff: *Simultaneous Drawing of Planar Graphs with Right-Angle Crossings and Few Bends*, Proc. 22nd Int. Sympos. Graph Drawing (GD'14), Lecture Notes in Computer Science 8871: 515–516, poster 2014.

(*) T. C. van Dijk, A. van Goethem, J.-H. Haunert, W. Meulemans, B. Speckmann: *An Automated Method for Circular-Arc Metro Maps*, Proc. 1st Schematic Mapping Workshop (SMW'14), poster, Wivenhoe Park (2014).

(*) D. Dransch, W. Meulemans, A. Reimer, A. Unger: *Schematized Small Multiples for the Visual Comparison of Geospatial Data*, Abstr. IEEE VisWeek (InfoVis poster), 2 pages, 2011.

(*) D. Eppstein, M. van Garderen, B. Speckmann, Torsten Ueckerdt: *Convex-arc drawings of pseudolines*, Proc. 21st Int. Symp. Graph Drawing (GD'13), Lecture Notes in Computer Science 8242, pp. 522–523, poster, 2013.

(*) Marco Di Bartolomeo, Valentino Di Donato, Maurizio Pizzonia: *Visual Correlation Of Large-Scale Network Measurements With TPlay*, In 23rd European Conference on Networks and Communications (EuCNC '14), Poster, 2014.

(*) Martin Fink, Magnus Lechner, Alexander Wolff: *Concentric Metro Maps*, Proc. Schematic Mapping Workshop (SMW'14), poster, Wivenhoe Park, 2014.

- Other (*please define*)

Seminar talks:

Martin Balko: *Monotone crossing number of K_n and Recent progress on Hill's Conjecture*, Geometry Seminar, Rényi Institute, Budapest, 29/11/2013.
Steven Chaplick: *Extending Partial Representations of Circle Graphs*, Paris, .
Steven Chaplick: *Equilateral L-Contact Graphs*, Ryerson University, Toronto, ?/6/2013.
Stefan Felsner: *Torus Squarings*, Research Training Group: Methods for Discrete Structures, Berlin, 11/06/12.
Jiří Fiala: *The k-in-a-path problem for claw-free graphs*, Combinatorics Seminar, University of Illinois at Urbana-Champaign, 11/12/2012.
Jiří Fiala: *Algorithms for Scattering Number and Hamilton-Connectivity of Interval Graphs*, Eugene, 13/10/2014.
Jiří Fiala: *Algoritmy pro tříštivost a hamiltonovskou souvislost v intervalových grafech*, Ostrava, 30/10/2014.
Dániel Gerbner: *An analogue of the Erdős-Ko-Rado theorem for multisets*, Combinatorics Seminar, University of Illinois at Urbana-Champaign, 6/12/2012.
Michael Hoffmann: *Counting Plane Graphs: Pseudo-Flippability and Applications*, Combinatorics and Discrete Geometry Seminar, University of Calgary, Canada, 20/1/2012.
Michael Hoffmann: *On Universal Point Sets for Planar Graphs*, Mittagsseminar, TU Graz, Austria, 20/11/2012.
Balázs Keszegh: *Online and quasi-online colorings of wedges and intervals*, Combinatorics seminar, JiaoTong University, Shanghai, 28/4/2012.
Balázs Keszegh: *Online and quasi-online colorings of wedges and intervals*, Combinatorics seminar, Zhejiang Normal University, Jinhua, 5/4/2012.

Balázs Keszegh: *Non-crossing covering paths for planar point sets*, Methods for Discrete Structures Colloquium, Berlin, 12/11/2012.
Balázs Keszegh: *Search for the end of a path in the d-dimensional grid and in other graphs*, Theoretical Computer Science Work Group Noon Seminar, Freie Universität Berlin, ??/11/2012.
Jan Kratochvíl: *Testing Planarity of Partially Embedded Graphs*, West Virginia University Computer Science Colloquium, Morgantown, 18/4/2011.
Jan Kratochvíl: *Geometric Intersection Graphs*, Computer Science Colloquium, University of Oregon, Eugene, 8/9/2013.
Jan Kratochvíl: *Extending partial geometric representations of graphs*, Computer Science Colloquium, University of Oregon, Eugene, 10/10/2014.
Jan Kynčl: *How many ways can one simply draw a graph?*, Joint DCG-DisOpt seminar, Ecole Polytechnique Federale de Lausanne, 11/12/2014.
Lukáš Mach: *A new lower bound using Gromov's topological method*, seminar talk, LIRMM, 23/5/2012.
Petra Mutzel: *Recent Advances in Crossing Minimization*, Colloquium presentation, University of Hamburg, 23/6/2014.
Ágnes Tóth: *The asymptotic value of the independence ratio for categorical graph power*, Combinatorics Seminar, University of Illinois at Urbana-Champaign, 4/12/2012.
Géza Tóth: *Degenerate thrackles*, Combinatorics Seminar, EPFL Lausanne, 8/11/2011.
Géza Tóth: *Monotone crossing number*, Combinatorics Seminar, EPFL Lausanne, 24/2/2012.

Public outreach

- Press releases

-

- National / international newspaper articles (presenting your CRP or part of your work)

-

- TV appearance

-

- Radio appearance

-

- Other (*please define*)

-

Other activities / outputs

- Patents

-

- Websites

http://kam.mff.cuni.cz/gradr/

- Other (please define)

Website for calling an algorithm for computing the crossing number of a graph (for academic purposes).
http://webcompute.ae.uni-jena.de/

Software development:
Cytoscape-Plugins (Dortmund team)

Open Graph Drawing Framework
http://www.ogdf.net/doku.php
current extensions of OGDF (work by Carsten Gutwenger and Markus Chimani)

- integration of COIN and Abacus

- parallelization of crossing minimization heuristics
- better results with exact algorithm for crossing number (due to better heuristics)

B.5. Feedback on the EUROCORES programme and EUROCORES scheme (up to 300 words)

Any other comments on the EUROCORES programme in particular or the EUROCORES scheme in general.

The bottom-up scheme of identifying prospective topics for EUROCORES calls was extremely useful. It is very valuable to let the community suggest which areas are promissing and in need of concentrated effort and support.

The emphasis on networking activities brought a very positive effect. Making the researchers meet and talk in person is very useful. Especially for the young scientists, post-docs and PhD students.

It has been very appreciated that the networking money were available even some months after the official end date of the projects.

The only drawback of the scheme was the financing via national science foundations, in a manner when different IPs ran in different time periods. And also during the second round of the decision process, it was somewhat awkward that some NSFs decided not to support some or all projects, IPs have been changing to APs, etc.

Section C. Self-assessment and follow-up

C.1. Overall self assessment on the accomplishments of the CRP (up to 600 words)

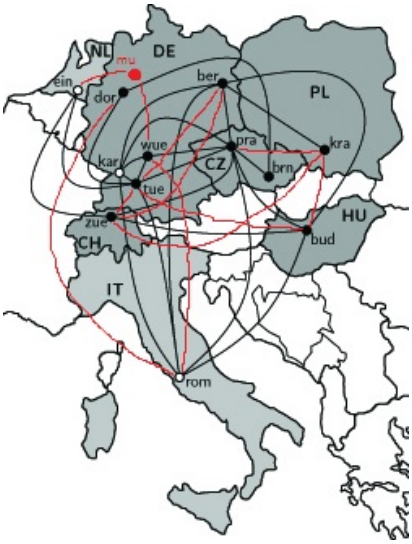
Please provide your self assessment of the overall CRP from beginning to end in relation to your Full Proposal. Please describe how well the CRP has achieved its stated objectives and milestones as well as any changes or deviations that may have occurred.

All IPs and APs have been very active during the entire period of the project. Naturally, the larger teams show larger output, and generally, the output of IPs is stronger than for most of the APs (where there is money to employ more PhD students or even post-docs, there are more papers published), one of the exceptions being the Italian team AP1-IT with its impressive publication score.

No team has dropped out, moreover, a new AP has joined the CRP during the second year of the project (AP4-DE).

The teams of IP1-CZ, IP2-DE, IP5-PL were very active in organized joint activities within the CRP and also cross-CRP ones. Among the APs it was the newly added one, AP4-DE, who also organized a cross-CRP workshop.

All IPs and APs followed the proposed lines of research, they have managed their work-packages and contributed to others. For the list of results achieved see section B.1.2. In all work-packages, most of the milestones were fulfilled. Not all of them, but this is not surprising when theoretical research is involved – one can hardly predict the complexity and correct answer to open problems. On the other hand, many teams constributed to more work-packages and open problems than what was expected in the proposal. And during the work on the project, new open problems appeared and new directions of research opened up. These directions have been explored and many results were obtained that were not thought of during the preparation of the proposal.



Collaboration within the CRP was both a means of achieving progress in the research and a goal in its own. It was written in the project that “In terms of graph drawing, one of the goals of this CRP is to turn the collaboration graph into a dense hypergraph.” Before the start of the project, we have noted 30 joint papers co-authored by members of different teams, the list of publications stemming from the project shows 50 new ones! And if the collaboration graph had 20 edges before the start of the project, the four years of our collaboration have brought in 9 new ones, almost a 50% increase (new links are marked in

red). The collaboration was intensive and fruitful.

C.2. Follow-up activities emerged as a result of the CRP and the programme (up to 300 words)

Please provide details of the most important new initiatives either in the national or an international context that have emerged as a result of the collaboration of this CRP and the programme.

Though we currently do not see a call for projects that would be suitable for our topic (Horizon2020 is more applied- oriented), we keep eyes open for at least bilateral projects. Despite of the no-funding situation at the moment, the collaboration continues on a more informal level.

C.3. Forward looking perspectives enabled by the programme (up to 300 words)

Please provide your views on how the CRP or the programme may have paved the way for enabling future initiatives, possibilities or breakthroughs.

The programme has significantly contributed to the prestige and visibility of European Graph Drawing school in the world. As mentioned above, more than 50% of the contributions accepted at Graph Drawing 2015 are co-authored by former GraDR researchers, post-docs or students.

Thanks to the networking support, the Crossing number workshop has evolved into an annual meeting that regularly brings together researchers working in this area of graph drawing. And the last year networking support to the Bertinoro Graph Drawing workshop made this attractive for researchers that had not been among the participants before. We hope that these trends will continue.