Curriculum Vitae

of

FABRIZIO MONTECCHIANI

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SHORT BIO

Fabrizio Montecchiani received his PhD in Information Engineering at the University of Perugia in 2014, under the supervision of Prof. Walter Didimo and Prof. Giuseppe Liotta. He is currently a Postdoc fellow at the University of Perugia, Engineering Department. In 2018, he took the Italian national scientific habilitation for the role of Associate Professor of Information Engineering.

During his PhD, he spent three weeks (November 2012) as a visiting PhD student at the Brain Research Center of the National Tsing Hua University of Taiwan, working under the supervision of Prof. Ann-Shyn Chiang. He then spent three months (January to April 2013) as a visiting PhD student at the University of Tübingen in Germany, working under the supervision of Prof. Michael Kaufmann. More recently, he spent two months (September to October 2015) as a visiting Postdoc fellow at the University of Waterloo in Canada, under the supervision of Prof. Therese Biedl.

His main research interests lie within the fields of graph algorithms and graph drawing, computational geometry, information visualization and visual analytics, algorithm engineering and system development. On the above topics he wrote more than 50 papers, he collaborated with several international researchers, he participated to numerous grants, and he developed software systems that have been commercialized by an academic spin-off company. He has teaching experience at the undergraduate, graduate and professional level, as well as in supervising students.

From 2011 to 2014, he also collaborated as a software engineer with the academic spin-off Vis4 Srl, an ICT company providing advanced solutions for the visual analysis of complex data sets. In 2017, he co-founded the academic spin-off CON-TATTI yi-zhong-yi Srl, a company made up by engineers and linguists that offers advanced ICT solutions and smart technologies to promote and develop tourism in Italy, with a particular focus on Chinese tourists.

CONTACTS

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CURRENT POSITION

Since 2014, I am a Postdoc Research Fellow (Assegnista di Ricerca) at the University of Perugia, Engineering Department (DI).

EDUCATION

- I received my PhD (European Doctorate Program) in Information Engineering at the University of Perugia in 2014.
 - Thesis title: "Crossing Complexity in Graph Drawing"
 - Advisors: Prof. Walter Didimo, Prof. Giuseppe Liotta
 - Committee: Prof. Roberto Grossi, Prof. Michael Kaufmann, Prof. Giuseppe Liotta
- I received my Master's Degree (Laurea Specialistica) in Computer and Telecommunications Engineering at the University of Perugia in 2010. The thesis won the national prize "*Premi di Laurea Giorgio Santini 2010*" for the best thesis in Computer Engineering. The software system developed within the thesis activity has been further engineered by the academic spin-off Vis4, and in 2011 the software became a commercial product.
 - Thesis title: "Analysis, design and development of a software system for the visual analysis of financial crime networks"
 - Advisor: Prof. Walter Didimo
 - Final mark: 110/110 cum laude

AWARDS

- July 26th 2018. Italian national scientific habilitation for the role of Associate Professor of Information Engineering.
- June 2016. Winner of the "2016 Algorithms Travel Award" sponsored by Algorithms, an international open access journal, which provides an advanced forum for studies related to algorithms and their applications, published quarterly online by MDPI.
- February 2011. Winner of the national prize "Premi di Laurea Giorgio Santini 2010" for the best thesis in Computer Engineering.

RESEARCH EXPERIENCE ABROAD

- September October 2015 Visiting Postdoc fellow at the David R. Cheriton School of Computer Science, University of Waterloo, Canada. During this period I collaborated with Prof. Therese Biedl and joined the Algorithms and Complexity group.
- January to April 2013 Visiting PhD student at the Wilhelm-Schickard-Institut für Informatik, University of Tübingen, Germany. During this period I joined the group leaded by Prof. Michael Kaufmann, whose activity is focused on the following research fields: Graph Drawing, Information Visualization, Computational Geometry, Algorithms and Complexity, Combinatorics Optimization.
- November 2012 Visiting PhD student at the Brain Research Center of the National Tsing Hua University of Taiwan. During this period I worked under the supervision of Prof. Ann-Shyn Chiang, on a project whose goal was the visual analysis of biological data.

RESEARCH INTERESTS

My research interests lie within the following fields.

- Graph algorithms and graph drawing.
- Computational geometry.
- Information visualization and visual analytics.
- Algorithm engineering and system development for Big Data.

On the above topics I wrote more than 50 papers, I collaborated with several international researchers, I participated to numerous grants, and I developed software systems that have been commercialized by an academic spin-off company.

GRANTS

• Participant of the scientific Project "Analysis, design, and development of algorithms and interfaces for the visual analysis of data within the Knowledge

Discovery system PiattaformaPA and B2". Contract (35,000 EUR) between the Department of Engineering of the University of Perugia and the company ETI3 Srl, within the regional program POR FESR Umbria 2014-2020.

- Participant of the scientific project "Models and techniques for document categorization/indexing in the GLOBAL DOC system". Contract (20,000 EUR) between the Department of Engineering of the University of Perugia and the company Sistematica SpA, within the regional call, Innovative Actions, FESR 2007-2013.
- Participant of the scientific project "INFINITY Models and algorithms for the visual representation of information on the driving styles of a big dataset of drivers". Contract (30,000 EUR) between the Department of Engineering of the University of Perugia and the company Sistematica SpA, within the regional call, Innovative Actions, FESR 2007-2013.
- Participant of the MIUR PON project (247,680 EUR) Smart Cities and Communities and Social Innovation, "INTOUR: Intelligent Platform for Tourism", ref. SCN_00166.
- Participant of the MIUR PRIN 2012 project (55,000 EUR), "AMANDA: Algorithmics for MAssive and Networked DAta", prot. 2012C4E3KT 001. Website: http://www.dia.uniroma3.it/~amanda/index.php
- Participant of the scientific project, "VITA: Information Visualization and Assistive Technologies", funded by the Umbria Region (100,000 EUR).

EDITORSHIPS FOR INT'NL JOURNALS

• Guest Editor of the special issue on "Graph Drawing Beyond Planarity" of the Journal Of Graph Algorithms and Applications.

COMMITTEES OF INT'NL CONFERENCES

- Program committee member of the 25th International Symposium on Graph Drawing & Network Visualization (GD 2017), Boston (USA), September 25-27, 2017. Website: gd2017.ccis.northeastern.edu
- Program committee member of the Graph and Network Visualization Special Session hosted by the 7th International Conference on Information, Intelligence, Systems and Applications (IISA 2016), Chalikidiki (Greece), July 13–15, 2016.

• Organizing committee member of the 28th European Workshop on Computational Geometry (EuroCG 2012), Assisi (Italy), March 19–21, 2012.

INVITED TALKS AND LECTURES

- Invited lecture at the FernUniversität in Hagen, Germany, 3 July 2017.
- Invited talk at the NII Shonan Meeting Seminar 089 "Algorithmics for Beyond Planar Graphs", Shonan Village Center, Japan, 27 Nov. – 1 Dec. 2016.
- Invited talk at the 3^{rd} meeting of the ANR Project Embedded Graphs and their Oriented Structures (EGOS), Bordeaux, France, 5 7 Nov. 2014.

INT'NL CONFERENCES AND WORKSHOPS AT-TENDED

The following is a list of attended conferences and workshops. For each entry, the symbol * indicates that I gave a talk.

- 2017: *25st Int. Symposium on Graph Drawing & Network Visualization (GD 2017), Boston, USA; Workshop on Graph Drawing and Network Visualization 2017 (GNV 2017), Heiligkreuztal, Germany; Bertinoro Workshop on Graph Drawing 2017 (BWGD 2017), Bertinoro, Italy.
- 2016: *NII Shonan Meeting Seminar 089 "Algorithmics for Beyond Planar Graphs", Shonan Village Center, Japan; Dagstuhl Seminar 16452 "Beyond-Planar Graphs: Algorithmics and Combinatorics", Schloss Dagstuhl, Germany; *24st Int. Symposium on Graph Drawing & Network Visualization (GD 2016), Athens, Greece; 19th Korean Workshop on Computational Geometry (KWCG 2016), Würzburg, Germany; *32nd International Symposium on Computational Geometry (SoCG 2016), Boston, USA; *32nd European Workshop on Computational Geometry (EuroCG 2016), Lugano, Switzerland; Bertinoro Workshop on Graph Drawing 2016 (BWGD 2016), Bertinoro, Italy.
- 2015: *23st Int. Symposium on Graph Drawing & Network Visualization (GD 2015), Los Angeles, USA; *6th Int. Conference on Information, Intelligence, Systems and Applications (IISA 2015), Corfù, Greece; *41th Int. Workshop on Graph Theoretic Concepts in Computer Science (WG 2015), Munich, Germany; Bertinoro Workshop on Graph Drawing 2015 (BWGD 2015), Bertinoro, Italy.

- 2014: IEEE Information Visualization Conference (INFOVIS 2014), Paris, France; *3rd meeting of the ANR Project Embedded Graphs and their Oriented Structures (EGOS), Bordeaux, France; *22st Int. Symposium on Graph Drawing (GD 2014), Würzburg, Germany; *5th Int. Conference on Information, Intelligence, Systems and Applications (IISA 2014), Crete, Greece; Bertinoro Workshop on Graph Drawing 2014 (BWGD 2014), Bertinoro, Italy; *11th Latin American Theoretical INformatics Symposium (LATIN 2014), Montevideo, Uruguay.
- 2013: *21st Int. Symposium on Graph Drawing (GD 2013), Bordeaux, France; *2nd IEEE International Workshop on Network Science (NSW 2013), West Point NY, USA; *29th European Workshop on Computational Geometry (EuroCG 2013), Braunschweig, Germany; Bertinoro Workshop on Graph Drawing 2013 (BWGD 2013), Bertinoro, Italy.
- 2012: *13th Italian Conference on Theoretical Computer Science (ICTCS 2012), Varese, Italy; 28th European Workshop on Computational Geometry (EuroCG 2012), Assisi, Italy; *16th Int. Conference Information Visualisation (IV 2012), Montpellier, France; *38th Int. Workshop on Graph Theoretic Concepts in Computer Science (WG 2012), Jerusalem, Israel; Bertinoro Workshop on Graph Drawing 2012 (BWGD 2012), Bertinoro, Italy; *7th Int. Joint Conferences on Computer Vision, Imaging and Computer Graphics Theory And Applications (VISIGRAPP 2012), Rome, Italy.
- 2011: *4
th IEEE Pacific Visualization Symposium (PACIFICVIS 2011), Hong-Kong.

SCIENTIFIC REVIEW ACTIVITY

International journals (alphabetical order): Algorithmica; Computer Graphics Forum; Computational Geometry: Theory and Applications; Discrete Applied Mathematics; Discrete Mathematics and Theoretical Computer Science; Journal of Computational Geometry; Journal of Graph Algorithms and Applications; Journal of Visual Languages and Computing.

International conferences (alphabetical order): EuroCG (2012, 2018); GD (2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018); ICALP (2014); ISAAC (2011, 2016, 2017); PACIFICVIS (2012, 2015, 2016); SEA (2018); SoCG (2017); SWAT (2016); VISIGRAPP (2012); WALCOM (2015).

TEACHING EXPERIENCE

The following teaching activity took place at the Department of Engineering at the University of Perugia.

- Course Big Data Management Year: 2017–2018
 Degree: Master's Degree in Computer and Robotics Engineering (Laurea Magistrale in Ingegneria Informatica e Robotica)
 Role: Teacher.
- Course: Lab of Information Visualization Year: 2011–present
 Degree: Master's Degree in Computer and Robotics Engineering (Laurea Magistrale in Ingegneria Informatica e Robotica)
 Role: Lab Teacher.
- Course Visual analytics Year: 2017
 Degree: Post-graduate Master (Master di II° livello) in "Data Science"¹ Role: Teacher.
- Course: Models and Technologies for Big Data Year: 2016–2017
 Degree: Doctorate Course in Industrial and Information Engineering (for PhD candidates only) Role: Teacher.
- Course ICT for Smart Cities
 Year: 2015
 Degree: Post-graduate Master (Master di II° livello) in "Designing Smart Cities"²
 Role: Invited Lecturer.
- Course: **Analysis II** Year: 2011–2012 Degree: Bachelor's Degree (Laurea Triennale) Role: Tutor.
- Course: **Geometry** Year: 2011–2012 Degree: Bachelor's Degree (Laurea Triennale) Role: Tutor.

¹http://masterds.unipg.it/

 $^{^{2} \}rm http://www.smartcities.unipg.it/$

I co-tutored several students during their Bachelor or Master thesis. Among them (in alphabetic order): Marco Aquilanti, Alessio Arleo, Betim Beja, Paolo Bicchielli, Stefano Capotosti, Felice De Luca, Maria Elisa Ganci, Francesco Giacchè, Paride Paffarini, Daniele Portarena, Andrea Stronati, Alessandra Tappini.

The following teaching activity took place at the ECIPA Umbria³, an association that organizes training courses at national and European levels.

• Course: **Big Data Management** Year: 2017 Role: Teacher.

The following teaching activity took place at the Tiber Umbria Comett Education Programme⁴, an association between Universities and Enterprises created in 1992 under a former Comett project. The main activity of TUCEP is the organization and management of training courses at national and European levels.

• Course: **Development of Software Systems** Year: 2015 Role: Teacher.

³http://www.ecipaumbria.it/ ⁴http://www.tucep.org/

PROFESSIONAL EXPERIENCE & TECHNOLOGY TRANSFER

In December 2017, I co-founded CONTATTI yi-zhong-yi Srl, a spin-off company of the University of Perugia. The company is made up by engineers and linguists and it is aimed at offering advanced ICT solutions and smart technologies to promote and develop tourism in Italy. In particular, the company has Chinese tourists as main target for its solutions and services.

From 2011 to 2014, I collaborated as a Software Engineer with the academic spin-off Vis4 Srl⁵, an IT company providing advanced solutions for the visual analysis of complex data sets. Vis4, founded in 2009, established relevant contracts and collaborations with national and international companies and institutions, like the Financial Intelligence Agency (AIF) of the San Marino Republic, and Fabrica, the advertisement company of the Benetton group. Vis4 is also one of the founding member companies of the GGB Consortium (Genomics, Genetics, and Biology), founded in the 2010 with the financial support of the Umbria Region; GGB is a center of technological excellence, both in the national and in the international contexts. In January 2014 I have been appointed as administrator of the company, and I left this position in December 2014. In November 2014, all the academic members of Vis4 have sold their shares to private entrepreneurs⁶.

In 2013 I collaborated as consultant with the Umbria Region for the assessment of the regional community network⁷.

During my studies I had internships with Angelantoni Industrie Spa, Sintesi Srl, and Jobnet Srl.

 $^{^5\}mathrm{http://www.vis4you.com}$ - This website may no longer be available.

⁶The company has changed its name, see http://www.esapio.com

⁷http://www.sir.umbria.it/cnumbria

PUBLICATIONS

[JOUR] International Journals

- [JOUR-30] S. W. Bae, J.-F. Baffier, J. Chun, P. Eades, K. Eickmeyer, L. Grilli, S.-H. Hong, M. Korman, F. Montecchiani, I. Rutter, C. D. Tóth, "Gap-planar Graphs". *Theoretical Computer Science*, Published online (2018).
- [JOUR-29] T. Biedl, T. M. Chan, S. Lee, S. Mehrabi, F. Montecchiani and H. Vosoughpour. "Guarding Orthogonal Art Galleries with Sliding k-Transmitters: Hardness and Approximation". Algorithmica, Published online (2018).
- [JOUR-28] T. Biedl, , G. Liotta, F. Montecchiani. "Embedding-Preserving Rectangle Visibility Representations of Nonplanar Graphs" Discrete & Computational Geometry, Published online (2017).
- [JOUR-27] A. Arleo, W. Didimo, G. Liotta, F. Montecchiani. "Profiling distributed graph processing systems through visual analytics". *Future Generation Computer Systems*, 87: 43–57 (2018).
- [JOUR-26] E. Di Giacomo, W. Didimo, W. S. Evans, G. Liotta, H. Meijer, F. Montecchiani, S. K. Wismath. "Ortho-polygon Visibility Representations of Embedded Graphs" *Algorithmica*, 80(8): 2345–2383 (2018).
- [JOUR-25] W. Didimo, L. Giamminonni, G. Liotta, F. Montecchiani and D. Pagliuca. "A visual analytics system to support tax evasion discovery". *Decision Support Systems*, 110: 71–83 (2018).
- [JOUR-24] A. Arleo, C. Binucci, E. Di Giacomo, W. S. Evans, L. Grilli, G. Liotta, H. Meijer, F. Montecchiani, S. Whitesides, S. K. Wismath, "Visibility Representations of Boxes in 2.5 Dimensions" *Computational Geometry*, 72: 19–33 (2018).
- [JOUR-23] W. Didimo, E. M. Kornaropoulos, F. Montecchiani, I. G. Tollis, "A Visualization Framework and User Studies for Overloaded Orthogonal Drawings" *Computer Graphics Forum*, 37(1): 288–300 (2018).
- [JOUR-22] E. Di Giacomo, G. Liotta, F. Montecchiani "Drawing subcubic planar graphs with four slopes and optimal angular resolution" *Theoretical Computer Science*, 714: 51–73 (2018).
- [JOUR-21] E. Di Giacomo, W. Didimo, W. S. Evans, G. Liotta, H. Meijer, F. Montecchiani, S. K. Wismath "New Results on Edge Partitions of 1-plane Graphs" *Theoretical Computer Science*, 713: 78–84 (2018).

- [JOUR-20] T. Bruckdorfer, S. Cornelsen, C. Gutwenger, M. Kaufmann, F. Montecchiani, M. Nöllenburg, A. Wolff, "Progress on Partial Edge Drawings" *Journal of Graph Algorithms and Applications*, 21(4): 757-786 (2017).
- [JOUR-19] S. G. Kobourov, G. Liotta, F. Montecchiani. "An annotated bibliography on 1-planarity" Computer Science Review, 25: 49–67 (2017).
- [JOUR-18] M. Bekos, W. Didimo, G. Liotta, S. Mehrabi, F. Montecchiani. "On RAC Drawings of 1-Planar Graphs" *Theoretical Computer Science*, 689: 48–57 (2017).
- [JOUR-17] C. Binucci, F. De Luca, E. Di Giacomo, G. Liotta, F. Montecchiani. "Designing the Content Analyzer of a Travel Recommender System" *Expert Systems with Applications*, 87: 199–208 (2017).
- [JOUR-16] P. Angelini, M. A. Bekos, F. De Luca, W. Didimo, M. Kaufmann, S. Kobourov, F. Montecchiani, C. N. Raftopoulou, V. Roselli, A. Symvonis. "Vertex-Coloring with Defects". Journal of Graph Algorithms and Applications (Special Issue on Selected Papers from the 10th International Conference and Workshops on Algorithms and Computation, WALCOM 2016), 21(3): 313-340 (2017).
- [JOUR-15] E. Di Giacomo, W. Didimo, G. Liotta and F. Montecchiani. "Areathickness Trade-offs for Straight-line Drawings of Planar Graphs". *The Computer Journal*, 60(1): 135–142 (2017).
- [JOUR-14] C. Binucci, M. Chimani, W. Didimo, M. Gronemann, K. Klein, J. Kratochvil, F. Montecchiani and I.G. Tollis, "2-Layer Fan-planarity: From Caterpillar to Stegosaurus". Journal of Graph Algorithms and Applications (Special Issue on Selected Papers from the 23st International Symposium on Graph Drawing, GD 2015), 21(1): 81-102 (2017).
- [JOUR-13] W. J. Lenhart, G. Liotta and F. Montecchiani. "On Partitioning the Edges of 1-Plane Graphs". *Theoretical Computer Science*, 662: 59–65 (2017).
- [JOUR-12] A. Arleo, W. Didimo, G. Liotta and F. Montecchiani. "Large Graph Visualizations Using a Distributed Computing Platform". *Information Sci*ences, 381: 124-141 (2017).
- [JOUR-11] W. S. Evans, G. Liotta and F. Montecchiani. "Simultaneous Visibility Representations of Plane st-graphs Using L-shapes". Theoretical Computer Science, 645: 100–111 (2016).
- [JOUR-10] F. J. Brandenburg, W. Didimo, W. S. Evans, P. Kindermann, G. Liotta and F. Montecchiani, "Recognizing and Drawing IC-planar Graphs". *Theoretical Computer Science*, 636: 1–16 (2016).

- [JOUR-09] G. Liotta, F. Montecchiani, "L-Visibility Drawings of IC-planar Graphs". Information Processing Letters, 116(3): 217-222 (2016).
- [JOUR-08] E. Di Giacomo, G. Liotta, F. Montecchiani, "Drawing Outer 1-planar graphs with few slopes". Journal of Graph Algorithms and Applications (Special Issue on Selected Papers from the 22st International Symposium on Graph Drawing, GD 2014), 19(2): 707-741 (2015).
- [JOUR-07] P. Angelini, C. Binucci, G. Da Lozzo, W. Didimo, L. Grilli, F. Montecchiani, M. Patrignani, I. G. Tollis "Algorithms and Bounds for Drawing Non-planar Graphs with Crossing-free Subgraphs". *Computational Geom*etry, 50: 34-48 (2015).
- [JOUR-06] C. Binucci, E. Di Giacomo, W. Didimo, F. Montecchiani, M. Patrignani, A. Symvonis, I. G. Tollis, "Fan-planarity: Properties and complexity". *Theoretical Computer Science*, 589 (0): 76-86 (2015).
- [JOUR-05] E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani, I. G. Tollis, "Techniques for Edge Stratification of Complex Graph Drawings". Journal of Visual Languages and Computing, 25(4): 433-451 (2014).
- [JOUR-04] W. Didimo, G. Liotta, F. Montecchiani, "Network visualization for financial crime detection". Journal of Visual Languages and Computing, 25(4): 533-543 (2014).
- [JOUR-03] T. Bruckdorfer, M. Kaufmann, F. Montecchiani, "1-Bend Orthogonal Partial Edge Drawing". Journal of Graph Algorithms and Applications, 18(1): 111-131 (2014).
- [JOUR-02] W. Didimo, F. Montecchiani, "Fast Layout Computation of Clustered Networks: Algorithmic Advances and Experimental Analysis". *Information Sciences*, 260: 185-199 (2014).
- [JOUR-01] E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani, "Area requirement of graph drawings with few crossings per edge". Computational Geometry, 46(8): 909-916 (2013). This paper was recognized as one of the 5 most highly cited papers published in Computational Geometry during 2014, 2015 and up until June 2016.

[CONF] International Conferences

[CONF-45] M. Bekos, E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani, C. Raftopoulou, "Edge Partitions of Optimal 2-plane and 3-plane Graphs". In 44th International Workshop on Graph-Theoretic Concepts in Computer Science (WG 2018), Accepted, 2018.

- [CONF-44] P. Bose, P. Carmi, V. Dujmovic, S. Mehrabi, F. Montecchiani, P. Morin, L. F. Schultz Xavier da Silveira:, "Geodesic Obstacle Representation of Graphs". In 45th International Colloquium on Automata, Languages, and Programming (ICALP 2018), volume 107 of LIPIcs, pp. 23:1–23:13. Schloss Dagstuhl Leibniz-Zentrum fuer Informatik, 2018.
- [CONF-43] M. Kaufmann, J. Kratochvil, F. Lipp, F. Montecchiani, C. N. Raftopoulou, P. Valtr, "Bounded Stub Resolution for Some Maximal 1-Planar Graphs". In 4th International Conference on Algorithms and Discrete Applied Mathematics (CALDAM 2018), volume 10743 of LNCS, pp. 214-220. Springer, 2018.
- [CONF-42] A. Arleo, W. Didimo, G. Liotta and F. Montecchiani, "GiViP: A Visual Profiler for Distributed Graph Processing Systems". In 26th International Symposium on Graph Drawing & Network Visualization (GD 2017), volume 10692 of LNCS, pp. 256-271. Springer, 2017.
- [CONF-41] S. W. Bae, J.-F. Baffier, J. Chun, P. Eades, K. Eickmeyer, L. Grilli, S.-H. Hong, M. Korman, F. Montecchiani, I. Rutter, C. D. Tóth, "Gap-planar Graphs". In 26th International Symposium on Graph Drawing & Network Visualization (GD 2017), volume 10692 of LNCS, pp. 531-545. Springer, 2017.
- [CONF-40] P. Angelini, M. A. Bekos, M. Kaufmann and F. Montecchiani, "3D Visibility Representation of 1-planar Graphs". In 26th International Symposium on Graph Drawing & Network Visualization (GD 2017), volume 10692 of LNCS, pp. 102-109. Springer, 2017.
- [CONF-39] P. Angelini, M. A. Bekos, F. J. Brandenburg, G. Da Lozzo, G. Di Battista, W. Didimo, G. Liotta, F. Montecchiani and I. Rutter, "On the Relationship between k-Planar and k-Quasi Planar Graphs". In 43rd International Workshop on Graph-Theoretic Concepts in Computer Science (WG 2017), volume 10520 of LNCS, pp. 59-74. Springer, 2017.
- [CONF-38] P. Angelini, M. A. Bekos, F. J. Brandenburg, G. Da Lozzo, G. Di Battista, W. Didimo, G. Liotta, F. Montecchiani and I. Rutter, "On the Relationship between k-Planar and k-Quasi Planar Graphs". In 33rd European Workshop on Computational Geometry (EuroCG 2017), 2017.
- [CONF-37] P. Angelini, M. A. Bekos, G. Liotta and F. Montecchiani, "A Universal Slope Set for 1-Bend Planar Drawings". 33nd International Symposium on Computational Geometry (SoCG 2017), volume 77 of LIPIcs, pp. 9:1–9:16. Schloss Dagstuhl - Leibniz-Zentrum fuer Informatik, 2017.
- [CONF-36] T. Biedl, T. M. Chan, S. Lee, S. Mehrabi, F. Montecchiani and H. Vosoughpour, "On Guarding Orthogonal Polygons with Sliding Cameras".

11th International Conference and Workshop on Algorithms and Computation (WALCOM 2017), volume 10167 of LNCS, pp. 54-65. Springer, 2017.

- [CONF-35] E. Di Giacomo, W. Didimo, W. S. Evans, G. Liotta, H. Meijer, F. Montecchiani, S. K. Wismath, "Ortho-polygon Visibility Representations of Embedded Graphs". 24th International Symposium on Graph Drawing & Network Visualization (GD 2016), volume 9801 of LNCS, pp. 280-294. Springer, 2016.
- [CONF-34] A. Arleo, C. Binucci, E. Di Giacomo, W. S. Evans, L. Grilli, G. Liotta, H. Meijer, F. Montecchiani, S. Whitesides, S. K. Wismath, "Visibility Representations of Boxes in 2.5 Dimensions". 24th International Symposium on Graph Drawing & Network Visualization (GD 2016), volume 9801 of LNCS, pp. 251-265. Springer, 2016.
- [CONF-33] A. Arleo, W. Didimo, G. Liotta, F. Montecchiani, "A Distributed Multilevel Force-directed Algorithm". 24th International Symposium on Graph Drawing & Network Visualization (GD 2016), volume 9801 of LNCS, pp. 3-17. Springer, 2016.
- [CONF-32] C. Binucci, M. Chimani, W. Didimo, G. Liotta, F. Montecchiani, "Placing Arrows in Directed Graph Drawings". 24th International Symposium on Graph Drawing & Network Visualization (GD 2016), volume 9801 of LNCS, pp. 44-51. Springer, 2016.
- [CONF-31] W. Didimo, G. Liotta, S. Mehrabi, F. Montecchiani, "1-Bend RAC Drawings of 1-Planar Graphs". 24th International Symposium on Graph Drawing & Network Visualization (GD 2016), volume 9801 of LNCS, pp. 335-343. Springer, 2016.
- [CONF-30] E. Di Giacomo, G. Liotta, F. Montecchiani, "1-Bend Upward Planar Drawings of SP-digraphs". 24th International Symposium on Graph Drawing & Network Visualization (GD 2016), volume 9801 of LNCS, pp. 123-130. Springer, 2016.
- [CONF-29] Carla Binucci, Giuseppe Liotta, Fabrizio Montecchiani, and Alessandra Tappini. "Partial Edge Drawing: Homogeneity is more Important than Crossings and Ink". 7th International Conference on Information, Intelligence, Systems and Applications (IISA 2016), pp. 1-6. IEEE, 2016.
- [CONF-28] T. C. Biedl, G. Liotta and F. Montecchiani, "On Visibility Representations of Non-planar Graphs". 32nd International Symposium on Computational Geometry (SoCG 2016), volume 51 of LIPIcs, pp. 19:1–19:16. Schloss Dagstuhl - Leibniz-Zentrum fuer Informatik, 2016.

- [CONF-27] E. Di Giacomo, G. Liotta, F. Montecchiani, "1-bend Upward Planar Drawings of SP-digraphs with the Optimal Number of Slopes". In 32th European Workshop on Computational Geometry (EuroCG 2016), 2016.
- [CONF-26] C. Binucci, M. Chimani, W. Didimo, M. Gronemann, K. Klein, J. Kratochvil, F. Montecchiani and I.G. Tollis, "2-Layer Fan-planarity: From Caterpillar to Stegosaurus". 23nd International Symposium on Graph Drawing (GD 2015), volume 9411 of LNCS, pp. 281-294. Springer, 2015.
- [CONF-25] F. J. Brandenburg, W. Didimo, W. S. Evans, P. Kindermann, G. Liotta and F. Montecchiani, "Recognizing and Drawing IC-planar Graphs". 23nd International Symposium on Graph Drawing (GD 2015), volume 9411 of LNCS, pp. 295-308. Springer, 2015.
- [CONF-24] A. Arleo, W. Didimo, G. Liotta, F. Montecchiani, "A Million Edge Drawing for a Fistful of Dollars". 23nd International Symposium on Graph Drawing (GD 2015), volume 9411 of LNCS, pp. 44-51. Springer, 2015.
- [CONF-23] W. Didimo, F. Giacchè, F. Montecchiani, "Kojaph: Visual Definition and Exploration of Patterns in Graph Databases". 23nd International Symposium on Graph Drawing (GD 2015), volume 9411 of LNCS, pp. 272-278. Springer, 2015.
- [CONF-22] G. Liotta, F. Montecchiani, "L-Visibility Drawings of IC-Planar Graphs". 23nd International Symposium on Graph Drawing (GD 2015), volume 9411 of LNCS, pp. 545-547. Springer, 2015.
- [CONF-21] C. Binucci, F. De Luca, E. Di Giacomo, G. Liotta and F. Montecchiani. "VisFLOWer: Visual Analysis of Touristic Flows". 6th International Conference on Information, Intelligence, Systems and Applications (IISA 2015), pp. 1-6. IEEE, 2015.
- [CONF-20] E. Di Giacomo, W. Didimo, G. Liotta and F. Montecchiani. "Network Visualization Retargeting". 6th International Conference on Information, Intelligence, Systems and Applications (IISA 2015), pp. 1-6. IEEE, 2015.
- [CONF-19] W. S. Evans, G. Liotta and F. Montecchiani. "Simultaneous Visibility Representations of Plane st-graphs Using L-shapes". 41st International Workshop on Graph Theoretic Concepts in Computer Science (WG 2015), volume 9224 of LNCS, pp. 252-265. Springer, 2015.
- [CONF-18] W. Didimo, F. Montecchiani, E. Pallas and I. G. Tollis. "A User Study on the Visualization of Directed Graphs". 22nd International Symposium on Graph Drawing (GD 2014), volume 8871 of LNCS, pp. 507-508. Springer, 2014.

- [CONF-17] A. Arleo, F. De Luca, G. Liotta, F. Montecchiani and I. G. Tollis. "GraphBook: Making Graph Paging Real". 22nd International Symposium on Graph Drawing (GD 2014), volume 8871 of LNCS, pp. 509-510. Springer, 2014.
- [CONF-16] C. Binucci, E. Di Giacomo, W. Didimo, F. Montecchiani, M. Patrignani and I. G. Tollis, "Fan-planar Graphs: Combinatorial Properties and Complexity Results". 22nd International Symposium on Graph Drawing (GD 2014), volume 8871 of LNCS, pp. 186-197. Springer, 2014.
- [CONF-15] E. Di Giacomo, G. Liotta, F. Montecchiani, "Drawing Outer 1-planar graphs with few slopes". 22nd International Symposium on Graph Drawing (GD 2014), volume 8871 of LNCS, pp. 174-185. Springer, 2014.
- [CONF-14] E. Di Giacomo, W. Didimo, M. Kaufmann, G. Liotta, F. Montecchiani, "Upward-rightward planar drawings". 5th International Conference on Information, Intelligence, Systems and Applications (IISA 2014), pp. 145-150. IEEE, 2014.
- [CONF-13] W. Didimo, F. Montecchiani, E. Pallas, I. G. Tollis, "How to visualize directed graphs: A user study". 5th International Conference on Information, Intelligence, Systems and Applications (IISA 2014), pp. 152-157. IEEE, 2014.
- [CONF-12] E. Di Giacomo, G. Liotta, F. Montecchiani, "The Planar Slope Number of Subcubic Graphs". 11th Latin American Theoretical INformatics Symposium (LATIN 2014), volume 8392 of LNCS, pp. 132-143. Springer, 2014.
- [CONF-11] P. Angelini, C. Binucci, G. Da Lozzo, W. Didimo, L. Grilli, F. Montecchiani, M. Patrignani, I. G. Tollis, "Drawings of Non-planar Graphs with Crossing-free Subgraphs". 21th International Symposium on Graph Drawing (GD 2013), volume 8242 of LNCS, pp. 292-303. Springer, 2013.
- [CONF-10] E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani, I. G. Tollis, "Exploring Complex Drawings via Edge Stratification". 21th International Symposium on Graph Drawing (GD 2013), volume 8242 of LNCS, pp. 304-315. Springer, 2013.
- [CONF-09] H.-M. Chang, A.-S. Chiang, W. Didimo, C.-Y. Lin, G. Liotta, F. Montecchiani, "On the robustness of the Drosophila Neural Network". the IEEE 2nd International Workshop on Network Science (NSW 2013), pp. 168-171. IEEE, 2013.
- [CONF-08] C. Binucci, W. Didimo, G. Liotta, F. Montecchiani, M. Sartore, "TRART: A system to support territorial policies". In *Workshop Proc. of*

the 9th International Conference on Intelligent Environments, volume 17 of Ambient Intelligence and Smart Environments, pp. 629-634. IOS Press, 2013.

- [CONF-07] E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani, "Area requirement of graph drawings with few crossings per edge". In 29th European Workshop on Computational Geometry (EuroCG 2013), pp. 135-138, 2013.
- [CONF-06] T. Bruckdorfer, S. Cornelsen, C. Gutwenger, M. Kaufmann, F. Montecchiani, M. Nöllenburg, A. Wolff, "Progress on Partial Edge Drawings". 20th International Symposium on Graph Drawing (GD 2012), volume 7704 of LNCS, pp. 67-78. Springer, 2013.
- [CONF-05] E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani, "h-quasi planar Drawings of Bounded Treewidth Graphs in Linear Area". 13th Italian Conference on Theoretical Computer Science (ICTCS 2012), pp. 106-109, 2012.
- [CONF-04] E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani, "h-quasi planar Drawings of Bounded Treewidth Graphs in Linear Area". 38th International Workshop on Graph Theoretic Concepts in Computer Science (WG 2012), volume 7551 of LNCS, pp. 91-102. Springer, 2012.
- [CONF-03] W. Didimo, F. Montecchiani, "Fast Layout Computation of Hierarchically Clustered Networks: Algorithmic Advances and Experimental Analysis". 16th International Conference Information Visualization (IV 2012), pp. 18-23. IEEE, 2012.
- [CONF-02] W. Didimo, G. Liotta, F. Montecchiani, "Vis4AUI: Visual Analysis of Banking Activity Networks". 7th International Joint Conferences on Computer Vision, Imaging and Computer Graphics Theory And Applications (VISIGRAPP 2012), pp. 799-802. SciTePress, 2012.
- [CONF-01] W. Didimo, G. Liotta, F. Montecchiani, P. Palladino, "An Advanced Network Visualization System for Financial Crime Detection". 4th IEEE Pacific Visualization Symposium (PACIFICVIS 2011), pp. 203-210. IEEE, 2011.