Curriculum Vitae and List of Publications

Giuseppe Liotta

Dipartimento di Ingegneria
Università di Perugia
Via G. Duranti 93, 06125 Perugia
+39-075-585-3685 (voice)
+39-348-151-6423 (mobile)
giuseppe.liotta@unipg.it
https://www.unipg.it/personale/giuseppe.liotta/en/

October 4, 2023

Brief Biography

Giuseppe Liotta is a professor of computer science at the Department of Engineering of the University of Perugia, Italy. He received his PhD degree from "Sapienza", University of Rome. His post-doc appointment was at Brown University, US. He spent long term research visits at McGill University (Canada) and at the University of Sydney (Australia) and short term visits in several research institutions worldwide. His research interests are mainly directed at the analysis and design of algorithms and systems that have applications in the fields of information visualization and visual analytics, computational geometry, network analysis, and graph drawing. On these topics he edited special issues, wrote surveys papers, book chapters, and published more than 300 research papers. He regularly serves in national and international scientific boards, program committees, and is a member of the Graph Drawing Advisory Board. From 2014 to 2023 he was the editor in chief of the Journal of Graph Algorithms and Applications and since 2021 he serves as co-editor in chief of Computer Science Review. During the years Giuseppe's research has been partly supported by several grants, issued by both public and private sponsors.

Education

1995-96 : Post-doc, Department of Computer Science, Brown University.

1995 : Ph.D. in Computer Engineering, University of Rome "La Sapienza".

1990 : Laurea (M.Sc. Degree) in Electrical Engineering, University of Rome "La Sapienza".

Research Interests

Graph Algorithms and Graph Drawing.

Visual Computing and Human-Centered Technology.

Algorithm Engineering and System Development.

Geometric Graph Theory and Computational Geometry.

Professional Appointments

2002 - : Professor, Department of Engineering, University of Perugia.

1998 - 2002 : Associate professor, Faculty of Engineering, University of Perugia.

1996 - 1998 : Assistant Professor, Faculty of Engineering, University of Rome "La Sapienza".

Academic Service

Department Level

2020 - present: Director of the PhD School in Industrial and Information Engineering, Department of Engineering, University of Perugia. The school consists of 47 faculties in several disciplines of industrial engineering and of information engineering, including computer science.

2013 - 2014: Vice-director, Department of Engineering, University of Perugia. With more than 80 faculty members, the department is the second largest of the University of Perugia.

2002 - 2006 : Chair of the undergraduate programs in Computer and Electrical Engineering, Department of Engineering, University of Perugia. The student body of the program is between five and six hundred.

University Level

2014 - 2019: Deputy chancellor (rector delegate) for the ICT infrastructure and the information system of the University of Perugia. The deputy chancellor has a staff of 27 technical and administrative personnel.

2010 - 2013: Member of the Academic Senate of the University of Perugia. With about 1800 faculty members and about 25000 students, the Academic Senate includes representatives of the administrative staff and of the student body.

National Level

2018 - present: Member of the executive board of GII (*Giunta GII – Gruppo di Ingegneria Informatica*). The GII is the academic body of the more than 900 faculty members in Computer Engineering working in the Italian universities. It discusses topics of national interest about teaching and curricula design in computer engineering, interacting with the main Italian governmental bodies. See also https://www.gii.it/index.php/gii/organi/giunta

2022 - present: Member of the Board of Directors of the *National Interuniversity Consortium for Informatics (CINI)*. The consortium is the main point of reference for the Italian academic research in the field of Computer Science and Engineering.See also https://www.consorzio-cini.it/index.php/it/chi-siamo-left2/organi/consiglio-direttivo

Research Evaluation and Habilitation Committees

National

2020 - 2022 : Member of the *GEV 09 Committee*. The committee is appointed by the Italian Ministry of Research and Univeristy (MUR) and has the goal of evaluating the research performance of all Italian universities in the broad area of Industrial and Information Engineering.

2016 - 2018 : Member of the *ASN Committee 09/H1*. The committee is appointed by the Italian Ministry of Research and University (MUR) and it gives the Italian habilitation to full professorship and associate professorship in computer engineering.

International

2023 : Member of the *CORE Committee* for the scientific area "Theory of computation". The committee provides assessments of major conferences in the area of theoretical computer science.

Editorial Service

2021 - : Co-editor in chief of *Computer Science Review*. (The journal is currently ranked sixth by Scimago in the Theoretical Computer Science Category; see

https://www.scimagojr.com/journalrank.php?category=2614).

2014 - June 2023 : Editor in chief of the *Journal of Graph Algorithms and Applications*, a diamond open access journal.

2023-2024 : Guest-editor of *Algorithmica*.

2009 - 2010 : Associate editor of *Computing*.

2002 - 2014 : Associate editor of *Journal of Graph Algorithms and Applications*.

2014 : Guest-editor of *Computational Geometry: Theory and Applications*

2007 : Guest-editor of *Discrete Applied Mathematics*.

2003 - 2006 : Editor of conference proceedings and article collections for Springer Verlag and for World Scientific.

Steering Committees

2020 - present: Member of the Steering Committee of the *International Conference on Algorithms and Complexity, WALCOM*.

2014 - 2019 : Chair-person of the Steering Committee of the *International Symposium on Graph Drawing and Network Visualization*.

2007 - 2014 : Member of the Steering Committee of the *International Symposium on Graph Drawing and Network Visualization*.

Grants

2023 - 2026 : Italian Ministry of University and Research (MUR), PRIN-Program. Title of the Project: "EXPAND: scalable algorithms for EXPloratory Analyses of heterogeneous and dynamic Networked Data". Co-principal Investigator. Budget: € 71,678. (Project in collaboration with other Italian universities; total budget of the project: €388,337.)

2022 - 2025 : Italian Ministry of University and Research (MUR). MUR-Cultural Heritage Program, Project ARS01-00540. Title of the Project: "RASTA - Augmented Reality and Automated Storytelling for the Intelligent Platform for the enhancement of cultural and environmental assets in Italy". Co-principal Investigator. Budget: €245,519. (Project in collaboration with other Italian universities and companies; total budget of the project: € 1,982,00.)

2022 - 2023 : Italian Ministry of Justice - Azione 1.4.1 PON Governance 2014-2020. Title of the Project: "Per una giustizia giusta: Innovazione ed efficienza negli uffci giudiziari - Giustizia AGILE". Co-principal Investigator. Budget: €111,500. (Project in collaboration with other Italian universities and companies; total budget of the project: € 8,072,079.90)

2019 - 2023 : Italian Ministry of University and Research (MUR). MUR-Smart Cities and Communities Program, Project SCN-00166. Title of the Project: "SMARTOUR - Intelligent Platform for Tourism". Co-principal Investigator. Budget: €309,600. (Project in collaboration with other Italian universities and companies; total budgetof the project: € 12,597,009.)

2019 - 2022 : Italian Ministry of University and Research (MUR). PRIN-Program. Title of the Project: "AHeAD: efficient Algorithms for HArnessing networked Data". Co-principal Investigator. Budget: € 131,000. (Project in collaboration with other Italian universities; total budget of the project: €594,860.)

2019 - 2022 : Umbria Region POR-FESR Program 2014 - 2020, Project PRJ-1507. Title of the Project: "CARE: Un Sistema Informativo Regionale per lo Scompenso Cardiaco e le Patologie Vascolari". Co-principal Investigator. Budget: Euro 113,780. (Project in collaboration with other departments of the University of Perugia; total budget of Euro 550,000.)

2015 - 2017 : Italian Government, Region of Umbria. Title of the Project: "Misurare L'Agenda Digitale dell'Umbria (Evaluating the State of the Digital Agenda in Umbria)". Principal Investigator. Budget: €50,000.

2016 : Contract of technology transfer with the company ETI3 s.r.l. Title of the Project: "Analisi, progetto e sviluppo di algoritmi e interfacce di analisi visuale di dati nell'ambito del sistema di Knowledge Discovery Piattaforma PA and B2B", Co-principal Investigator. Budget: €35,000.

2013 - 2016 : Italian Ministry of Research (MIUR). MIUR-Cofin Program. Title of the Project: "AMANDA: Algorithmics for MAssive and Networked DAta". Co-principal Investigator. Budget: €55,713. (Project in collaboration with other Italian universities; total budget of €477,537.)

2014 - 2015 : Italian Government, Region of Umbria. Title of the Project: "The Design of a Web Portal for Tourism in Umbria". Principal Investigator. Budget: €50,000.

2013 - 2014 : Italian Government, Region of Umbria. Title of the Project: "VITA: Visualizzazione dell'Informazione e Tecnologie Assistive (Information Visualization and Assistive Technologies)". Co-principal Investigator. Budget: €50,000. (Project in collaboration with a research unit of cognitive psychology of the University of Perugia ; total budget of €100,000.)

2011 - 2012 : Italian Government, Region of Umbria. Title of the Project: "TRART: Telematic Representation-Augmented Reality-Territories", a project for smart cities and communities. Principal Investigator. Budget: €50,000.

2010 - 2012 : Italian Ministry of Research (MIUR). MIUR-Cofin Program. Title of the Project: "AlgoDEEP, Algorithmic Challenges for Data Intensive Processing on Emerging Computing Platforms". Co-principal Investigator. Budget: €20,000. (Project in collaboration with other Italian universities; total budget of about €130,000.)

2009 - 2010: Italian Government, Region of Umbria, ARPA Office. Title of the Project: "Design of visual interfaces for the Regional Environmental Software Platform". Principal Investigator. Budget: about €35,000.

2009 - 2010 : Italian Government, Province of Perugia. Title of the Project: "A cost-benefit study for the adoption of FLOSS in the Province of Perugia". Principal Investigator. Budget: about €22,000.

2009 - 2010: Fondazione Cassa di Risparmio di Perugia. Title of the Project: "TaleNet: Didattiche collaborative in rete, codice etico e problemi ermeneutici". Investigator (in collaboration with colleagues from the Faculty of Education of the University of Perugia). Total Budget: about €60,000.

2008 - 2009: Italian Government, Region of Umbria. Collaborative Research Program FESR. Title of the Project: "COWA: COnceptual Web Analyzer". Principal Investigator. Budget: about €65,000.

2006 - 2008 : Italian Ministry of Research (MIUR). MIUR-Cofin Program. Title of the Project: "MAINSTREAM: Algorithms for massive information structures and data streams". Co-principal Investigator. Budget: €19,000. (Project in collaboration with other Italian universities; total budget of about €187,000.)

2003 - 2007 : European Union. EU @LIS Program ALA 2002/048-222/3124. Title of the project: "HEALT for ALL in LA: Improving Health Care Access and Management through e-Learning for Continuous Professional Development of Family Doctors in Latin America". Co-principal Investigator. Budget: €390,000. (Project in collaboration with other European and South American universities and research centers; total budget of about €2.7M.)

2006 - 2007 : Italian Government, Umbria Region. Title of the Project: "AREA: Design of an Interactive Platform for Environmental Education in the Umbria Region". Principal Investigator. Budget: €47,000.

2004 - 2006 : Italian Ministry of Research (MIUR). MIUR-Cofin 2004 Program. Title of the Project: "ALGO-NEXT, Algorithms for the Next Generation Internet and Web: Methodologies, Design and Experiments". Co-principal Investigator. Budget: €17,000. (Project in collaboration with other Italian universities; total budget of about €100,000.)

2002 - 2005 : Italian Ministry of Research MIUR n. S606/Project. Title of the project: "Automatic Systems for storing and accessing DNA, Blood, and other biological materials" ("Sistemi robotizzati per la conservazione di DNA, sangue e materiali biologici"). Co-principal Investigator. Budget: €186,590. (Project is in collaboration with other Italian universities and industries;total budget of about €5.6M.)

2002 - 2004 : Italian Ministry of Research (MIUR). MIUR-Cofin 2002 Program. Title of the Project: "ALINWEB, Algorithms for the Internet and the Web". Co-principal In-

vestigator. Budget: €17,000. (Project in collaboration with other Italian universities; total budget of about €100,000.)

2002 : Angelantoni Industries, s.r.l.. Title of the project: "Database System for the HEMOSAFE Project". Principal Investigator. Budget: €23,000.

2001 : Italian Government, Province of Perugia. Title of the project: "Reviewing and Testing the performances of the Intranet of the Public Administration in the Province of Perugia". Principal Investigator. Budget: €36,000.

2000 - 2002 : Italian Ministry of Research and Education (MIUR). MIUR-Cofin 2000 Program. Project Title: "Algorithms for Large Data Sets: Science and Engineering". Co-principal Investigator. Budget: €15,000. (Project in collaboration with other Italian universities; total budget of about €100,000.)

1998 - 2000 : Italian National Research Council (CNR). Project Title: "Robust Geometric Computing and its applications to computer graphics and CAD". Co-principal Investigator. Budget: €12,000. (Project in collaboration with Univ. of Rome "La Sapienza" and with Univ. of Rome "Roma Tre"; total budget of about €36,000.)

1998 - 2000 : Univ.of Perugia. Project Title: "Heterogeneous Systems for Multimedia Applications" Principal Investigator. Budget: €25,000.

1997 - 1999 : Italian Ministry of Research and Education (MIUR). MIUR-Cofin 1997 Program. Project Title: "On-line Algorithms for Autonomous Agents". Co-principal Investigator. Budget: €20,000. (Project in collaboration with other Italian universities; total budget of about €130,000.)

PC Chair and Conference Organization

2023 : *Workshop on Algorithms and Computation, WALCOM 2023*, Feb. 2023, program committee chair (in collaboration with C.C. Lin, B. Lin).

2020 : *Shonan Meeting on Trends and Perspectives for Graph Drawing and Network Visualization*, co-organizer (in collaboration with S. Chaplick, H.L. Ma, I. Rutter, and T. Itoh).

2016 : *Shonan Meeting on Dynamic Networks Visual Analytics: Approaches to facilitate visual analysis of complex and dynamic network data*, co-organizer (in collaboration with Karsten Klein and Takayuki Itoh).

2012 : *European Workshop on Computational Geometry, EuroCG 2012*, April 2012, program committee chair.

2006 - 2019 : *Bertinoro Workshop on Graph Drawing*, co-organizer (in collaboration with W. Didimo).

2015 : *Shonan Meeting on Big Graph Drawing: Metrics and Methods*, co-organizer (in collaboration with Karsten Klein and Takayuki Itoh).

2005 : *ACM Symposium on Computational Geometry, SoCG05*, June 2005, general co-chair (in collaboration with M. Pellegrini).

2003 : *International Symposium on Graph Drawing, GD 2003*, Sept. 2003, program committee chair.

Invited Talks (selection)

2019 : Slovenian International Conference in Graph Theory, Special Session on Discrete and Computational Geometry, Bled, Slovenia.

2017 : Computational Geometry Week; Workshop on Visualization and Geometric Graphs, Brisbane, Australia.

2016 : Seminar on Graph Drawing Beyond Planarity, Dagstuhl, Germany.

2014 : Workshop on solving graph, homomorphism and geometrical problems, HOMONOLO 2014, Czech Replublic .

2014 : EuroGIGA Final Conference, Berlin, Germany.

2014 : 15th Italian Conference on Theoretical Computer Science, ICTCS'14, Perugia, Italy.

2012 : Workshop on Theory and Practice of Graph Drawing, Redmond, US.

2012 : 9th International Conference Computer Graphics, Imaging and Visualization, CGiV2012, Hsinchu, Taiwan.

2011 : Seminar on Graph Drawing with Algorithm Engineering Methods, Dagstuhl, Germany.

2010 : Conference on Geometric Graph Theory Lausanne, Switzerland.

2010 : University of Sydney, Australia.

2010 : Workshop on Algorithms and Complexity, WALCOM 2010, Dhaka, Bangladesh.

Program Committees

2024 : *IEEE Pacific Visualization Symposium, PacificVis 2024*, Apr. 2024, PC member.

2024 : *Workshop on Algorithms and Computation, WALCOM 2024*, Feb. 2024, PC member.

2023 : *IEEE Pacific Visualization Symposium, PacificVis 2023*, Apr. 2023, PC member.

2023 : *48th International Conference on Current Trends in Theory and Practice of Computer Science, SOFSEM 2023*, January 2023, PC member.

2022 : *IEEE Pacific Visualization Symposium, PacificVis 2022*, Apr. 2022, PC member.

2022 : *Workshop on Algorithms and Computation, WALCOM 2022*, Feb. 2022, PC member.

2021 : *International Symposium on Graph drawing and Network Visualization, GD 2021*, Sept. 2021, PC member.

2021 : *Workshop on Algorithms and Computation, WALCOM 2021*, Feb. 2021, PC member.

2020 : *Workshop on Graph-theoretic Concepts in Computer Science, WG 2020*, June 2020, PC member.

2020 : *IEEE Pacific Visualization Symposium, PacificVis 2020*, Apr. 2020, PC member.

2020 : *Workshop on Algorithms and Computation, WALCOM 2020*, Feb. 2020, PC member.

2019 : *IEEE Pacific Visualization Symposium, PacificVis 2019*, Apr. 2019, PC member.

2019 : *Workshop on Algorithms and Computation, WALCOM 2019*, Feb. 2019, PC member.

2018 : *International Workshop on Visual Analytics for Big Networks (BigNet)*, Dec. 2018, PC member.

2018 : *Symposium on Experimental Algorithms, SEA 2018*, July 2018, PC member.

2018 : *IEEE Pacific Visualization Symposium, PacificVis 2018*, Apr. 2018, PC member.

2018 : *Workshop on Algorithms and Computation, WALCOM 2018*, Feb. 2018, PC member.

2017 : *Workshop on Algorithms and Computation, WALCOM 2017*, Feb. 2017, PC member.

2017 : *International Conference on Health Informatics, HEALTHINF 2017*, January 2017, PC member.

2016 : *27th International Symposium on Algorithms and Computation, ISAAC 2016*, December 2016, PC member.

2016 : *32nd European Workshop on Computational Geometry, EuroCG 2016*, March-April 2016, PC member.

2016 : *IEEE Pacific Visualization 2016 conference, PacificVis 2016*, April 2016, PC member.

2016 : *International Conference on Information Visualization: Theory and Applications, IVAPP 2016*, March 2016, PC member.

2016 : *International Conference on Physiological Computing Systems, PhyCS 2016*, January 2016, PC member.

2016 : *International Conference on Health Informatics, HEALTHINF 2016*, January 2016, PC member.

2015 : *International Conference on Information, Intelligence, Systems and Applications, IISA 2015*, July 2015, PC member.

2015 : *IEEE Pacific Visualization Symposium*, March 2015, PC member.

2015 : *Workshop on Algorithms and Computation, WALCOM 2015*, Feb. 2015, PC member.

2015 : *International Conference on Health Informatics, HEALTHINF 2015*, January 2015, PC member.

2015 : *International Conference on Information Visualization: Theory and Applications, IVAPP 2015*, March 2015, PC member.

2015 : *International Conference on Physiological Computing Systems, PhyCS 2015*, January 2015, PC member.

2014 : *International Conference on Information, Intelligence, Systems and Applications, IISA 2014*, July 2014, PC member.

2014 : *Symposium on Graph Drawing, GD 2014*, Sept. 2014, PC member.

2014 : *IEEE Pacific Visualization Symposium*, March 2014, PC member.

2014 : *Workshop on Algorithms and Computation, WALCOM 2014*, Feb. 2014, PC member.

2014 : *International Conference on Health Informatics, HEALTHINF 2014*, January 2014, PC member.

2014 : *International Conference on Information Visualization: Theory and Applications, IVAPP 2014*, March 2014, PC member.

2014 : *International Conference on Physiological Computing Systems, PhyCS 2014*, January 2014, PC member.

2013 : *International Conference on Information Visualization: Theory and Applications, IVAPP 2013*, March 2013, PC member.

2013 : *International Conference on Health Informatics, HEALTHINF 2013*, January 2013, PC member.

2012 : *28th European Workshop on Computational Geometry, EuroCG 2012*, March 2012, PC co-chair (with W. Didimo).

2012 : *Workshop on Algorithms and Computation, WALCOM 2012*, Feb. 2012, PC member.

2012 : *International Conference on Information Visualization: Theory and Applications, IVAPP 2012*, March 2012, PC member.

2012 : *International Conference on Health Informatics, HEALTHINF 2012*, January 2012, PC member.

2011 : *ACM Conference on Information and Knowledge Management, CIKM 2011.* October 2011, PC member.

2011 : *22nd International Symposium on Algorithms and Computation, ISAAC 2011*, December 2011, PC member.

2011 : *International Conference on Information Visualization: Theory and Applications, IVAPP 2011*, March 2011, PC member.

2011 : *International Conference on Health Informatics, HEALTHINF 2011*, January 2011, PC member.

2010 : *Symposium on Graph Drawing, GD 2010*, Sept. 2010, PC member.

2010 : *IEEE Pacific Visualization Symposium*, April 2010, PC member.

2010 : *Workshop on Algorithms and Computation, WALCOM 2010*, Feb. 2010, PC member.

2009 : *Symposium on Graph Drawing, GD 2009*, Sept. 2009, PC member.

2009 : *Computer Graphics and Visualization, CGV2009*, July 2009, PC member.

2009 : *IEEE Pacific Visualization Symposium*, April 2009, PC member.

2008 : *19th International Symposium on Algorithms and Computation, ISAAC 2008*, Dec. 2008, PC member.

2008 : *Workshop on Algorithms and Computation, WALCOM 2008*, Feb. 2008, PC member.

2007 : *Symposium on Graph Drawing, GD 2007*, Sept. 2007, PC member.

2007 : *Computer Graphics and Visualization, CGV2007*, July 2007, PC member.

2005 : *Symposium on Graph Drawing, GD 2005*, Sept. 2005, PC member.

2005 : *Annual Conference on Current Trends in Theory and Practice of Informatics, SOFSEM 2005*, January 2005, PC member.

2004 : *European Symposium on Algorithms, ESA 2004*, Sept. 2004, PC member.

2004 : *Symposium on Graph Drawing, GD 2004*, Sept. 2004, PC member.

2003 : *Symposium on Graph Drawing, GD 2003*, Sept. 2003, PC-chair.

2002 : *Symposium on Graph Drawing, GD 2002*, August 2002, PC member.

2001 : *Workshop on Algorithms and Data Structures, WADS 2001*, August 2001, PC member.

2001 : *Symposium on Graph Drawing, GD 2001*, September 2001, PC member.

2000 : *Symposium on Graph Drawing, GD 2000*, September 2000, PC member.

1998 : *Symposium on Graph Drawing, GD 1998*, August 1998, PC member and organizing committee member.

Ph.D. Advising

Current Ph.D Students

- Tommaso Piselli (M.Sc. 2022), currently working on parameterized algorithms.

Former Ph.D Students

- Giacomo Ortali (M.Sc. 2018), Year of Ph.D.: 2022, currently a post-doc at the University of Perugia.
- Daniele Pagliuca. Year of Ph.D.: 2020, currently a data scientist at the European Commission, Directorate-General for Communications Networks, Content and Technology, Luxembourg.
- Alessandra Tappini. Year of Ph.D.: 2020, currently a post-doc at the University of Perugia.
- Felice De Luca. Year of Ph.D.: 2018, currently a research scientist at Memento Lab Abu Dhabi, working in cybersecurity.
- Alessio Arleo. Year of Ph.D.: 2018, currently a post-doc at TU Wien (Austria), will start as assistant professor at Eindhoven University in March 2024.
- Fabrizio Montecchiani. Year of Ph.D.: 2014, currently an associate professor (with habilitation to full professor) at the University of Perugia.
- Salvatore A. Romeo. Year of Ph.D.: 2012, currently a software consultant.
- Pietro Palladino. Year of Ph.D.: 2010, currently a high school teacher and a software consultant.

- Francesco Trotta. Year of Ph.D.: 2008, currently a machine learning solution architect at AGS S.p.A. in Milan.
- Francesco Giordano. Year of Ph.D.: 2008, currently an enterprise and solution architect at Banca Mediolanum in Milan.
- Luca Grilli. Year of Ph.D.: 2007, currently a tenured lecturer (with habilitation to associate professor) at the University of Perugia.
- Emilio di Giacomo. Year of Ph.D.: 2003, currently an associate professor (with habilitation to full professor) at the University of Perugia.
- Carla Binucci. Year of Ph.D.: 2002, currently a tenured lecturer (with habilitation to associate professor) at the University of Perugia.

External Ph.D./Habilitation Committees

- Philipp Kindermann. Member of his Habilitation Committee, Univ. of Wuerzburg, Germany. The habilitation of Dr. Kindermann is in progress.
- Panagiotis Lionakis. Member of the committee supervising his PhD activity at the University of Crete..
- Christian Bachmaier. Habilitation Thesis, Univ. of Passau, Germany. Discussed in 2010.
- Damian Merrick. Ph.D. at Univ. of Sydney, Australia. Year of Ph.D. : 2008.
- Karol Lynch. Ph.D. at the University of Limerick, Ireland. Year of Ph.D.: 2006.
- Timothy Dwyer. Ph.D. at Univ. of Sydney, Australia. Year of Ph.D. : 2004. Now with Microsoft Research in Redmond, USA.
- Adrian Rusu. Ph.D. at Univ. of Buffalo, US. Year of Ph.D.: 2003. Now an associate professor at the Rowan University, US.

International Visits to my Lab

Several colleagues from all around the world regularly visit my lab to work on research themes of common interest. Some of them stay for relatively short periods of time (7-10 days) and come to visit every few months; some others spend (part of) their sabbatical working in my research lab. I wish to thank all of my research colleagues for the many wonderful hours that we spent together and for the many ideas and techniques that I learned working with them. A limited list of the colleagues who have visited my research lab is given below. Note: the list may be incomplete; it is in no particular order; it reports the current affiliation of the colleagues.

Sylvain Lazard (INRIA, Nancy, France);

Steve Chaplick (DKE, Maastricht University);

Michael Kaufmann (University of Tuebingen, Germany);

Stephen Kobourov (University of Arizona, Texas);

William Lenhart (Williams College, US);

Sue Whitesides (Victoria University, Canada);

Stephen Wismath (University of Lethbridge, Canada);

Henk Meijer (University College Roosevelt, The Netherlands);

Tetsuo Asano (JAIST, Japan);

Tamara Mchedlidze (University of Karlsruhe, Germany);

Peter Eades (Unversity of Sydney, Australia);

Stephen Kobourov (University of Arizona, US);

Ioannis Tollis (FORTH and University of Crete, Greece);

Matthew Sudermann (University of Bristol, UK);

Seokhee Hong (University of Sydney, Australia);

Marc van Kreveld (Utrecht University, The Netherlands);

Bettina Speckmann (University of Eindhoven, The Netherlands);

Will Evans (University of British Columbia, Canada);

David R. Wood (Monash University , Australia).

Teaching

`2001 - present:` Database Management Systems (advanced undergraduate level).

`2004 - present:` Algorithms for Network Visualization and Analysis (graduate level).

`1998 - 2006 :` Introduction to OO programming (undergraduate level).

`1998 - 2008 :` Algorithms and Data Structures (advanced undergraduate level).

`2000 -2001 :` Introduction to Digital Systems (undergraduate level).

`1996 - 1998 :` Computer Architecture (advanced undergraduate level).

`1996 - 1997 :` Data Structures and Programming (undergraduate level).

Technology Transfer

2017 - 2020: Vice-president of the *Umbria Digital Innovation Hub*, a body of the Industrial Association that implements the Industry 4.0 Program promoted by the Italian Government.

2009 - 2015: President and co-founder of *VIS4 s.r.l.*, a spin-off company of the University of Perugia in the area of algorithm engineering and information visualization. The company has been successfully sold in 2015.

Consulting

2019 : Confindustria: Head of the scientific committee for the design of ITS courses on Digital Technologies.

2016 : Umbria Region: Member of the scientific committee for the public selection of part-time employees of the Umbria Region (CTSPRA), as specified in the DGR 178-2016.

2013-14 : Ministry of Environment of Italy, President of the Testing Committee of the SISTRI Platform.

2013 : Umbria Region, Member of the Scientific Committee for the *Umbrian Digital Agenda* (*Agenda Digitale dell'Umbria*).

2011 : Huddle, London. Information analysis for the automatic detection of experts and interested users in Huddle.

2011 : Benetton Group. Design of a HCI system to edit movies on moving screens.

2009 - 2014 : Central Bank of S. Marino. Analysis and design of a fraud detection system.

2006 - 2016 : Umbria Region, Italy. Member of the executive committee for the adoption of open source software in the Public Administration (CCOS).

2006 - 2014 : Sintesi Industries s.r.l., Perugia, Italy. Design of a diagrammatic interface for reverse engineering applications.

2007 - 2009 : Italian Government. National Testing Committee of the Italian Public Connectivity System (SPC-CNIPA).

2004 : Senate of the Italian Republic (Senato della Repubblica Italiana), Italian Government. Member of a committee for the selection of qualified personnel for the computer science division of the Italian Senate.

2003 - 2005 : Angelantoni Industries s.r.l., Perugia, Italy. Automation of robotic systems to store and access bio-medical data and materials.

2003 : Province of Perugia, Perugia, Italy. Member of the committee for testing and validating the COM-NET-UMBRIA network.

2001 : Società Villa Umbra, Perugia, Italy. Responsible for the design of courses on computer science for public employees.

1999 : School of Public Administration of the Italian Government (Scuola della Pubblica Amministrazione Italiana), Rome, Italy. Courses on models and methodologies for information systems design.

Honors and Awards

2023 : Appointed as a member of the *Graph Drawing Advisory board (GD Advisory Board)* The GD Advisory Board membership is considered "an exceptional honor to persons who have contributed very substantially to the development of the field" (see http://www.graphdrawing.org).

2010 : International Visiting Research Fellowship, Australian Ministry of Education; spent three months at the Faculty of Engineering and Information Technologies of the University of Sydney.

2008 : AIP (Italian ICT Professionals) "Fibonacci Prize" for the research achievements in visual analytics.

2005 : ACM service award.

1995 : EATCS award for the best Ph.D. thesis on theoretical computer science in Italy for the years 1994 and 1995.

1994 : Advanced Fellowships Programme CNR-NATO.

1991 : Best student paper at the IEEE Workshop on Visual Languages, VL'91.

LIST OF PUBLICATIONS

[EBP] Edited Books and Proceedings

[EBP-6] Chun-Cheng Lin, Bertrand M. T. Lin, Giuseppe Liotta, eds. *WALCOM: Algorithms and Computation - 17th International Conference and Workshops, Proceedings.* Lecture Notes in Computer Science, vol. 13973, Springer 2023.

[EBP-5] G. Liotta, R. Tamassia, I.G. Tollis, eds., "Graph Algorithms and Applications 5," World Scientific Publishing Co., 2006.

[EBP-4] G. Liotta, R. Tamassia, I.G. Tollis, eds., "Graph Algorithms and Applications 4," World Scientific Publishing Co., 2006.

[EBP-3] G. Liotta, R. Tamassia, I.G. Tollis, eds., "Graph Algorithms and Applications 3," World Scientific Publishing Co., 2004.

[EBP-2] G. Liotta, R. Tamassia, I.G. Tollis, eds., "Graph Algorithms and Applications 2," World Scientific Publishing Co., 2004.

[EBP-1] G. Liotta ed., "Graph Drawing," *Proceedings of the Symposium on Graph Drawing, GD '03*, Lecture Notes in Computer Science, vol. 2912, Springer 2003.

[ESI] Edited Special Issues

[ESI-5] W. Didimo and G. Liotta, "Special Issue on the 28th European Workshop on Computational Geometry," *Computational Geometry: Theory and Applications*, Vol. 47, no. 3, 2014.

[ESI-4] G. Liotta and H. Meijer, "Special Issue on Graph Drawing Guest Editors' Foreword," *Discrete Applied Mathematics*, Vol. 155, no. 9, 2007.

[ESI-3] G. Liotta, "Special Issue on Selected Papers from the Eleventh International Symposium on Graph Drawing, GD 2003 Guest Editor's Foreword," *Journal of Graph Algorithms and Applications*, Vol. 9, no. 1, pp. 3-5, 2005.

[ESI-2] G. Liotta and I.G. Tollis, "Advances in Graph Algorithms: Special Issue on Selected Papers from the Workshop on Algorithms and Data Structures WADS 2001, Guest Editors' Foreword," *Journal of Graph Algorithms and Applications*, vol. 7, no. 2, pp. 101-103, 2003.

[ESI-1] G. Liotta and S.H. Whitesides, "Advances in Graph Drawing: Special Issue on Selected Papers from the Sixth International Symposium on Graph Drawing GD'98, Guest Editors' Foreword," *Journal of Graph Algorithms and Applications*, Vol. 4, no. 3, pp. 1-3, 2000.

[BC] Book Chapters

[BC-9] G. Liotta, F. Montecchiani "Edge Partitions and Visibility Representations of 1-planar Graphs," *Beyond Planar Graphs*, Springer Nature Singapore Pte Ltd., Chapter 6, 2020.

[BC-8] G. Liotta, "Proximity Drawings," *Handbook of Graph Drawing and Visualization*, R. Tamassia editor, CRC Press, pp. 115–146, 2013.

[BC-7] E. Di Giacomo, W. Didimo, and G. Liotta, "Spine and Radial Drawings," *Handbook of Graph Drawing and Visualization*, R. Tamassia editor, CRC Press, pp. 247–281, 2013.

[BC-6] E. Di Giacomo, G. Liotta, R. Tamassia, 'Drawings of Graphs," *Handbook of Graph Theory, 2nd Edition*, J. Gross and J. Yellen eds., CRC Press, pp. 1239-1290, 2013.

[BC-5] W. Didimo and G. Liotta, "The Crossing Angle Resolution in Graph Drawing," *Thirty Essays on Geometric Graph Theory*, Janos Pach editor, Springer, pp. 167–184, 2012.

[BC-4] G. Liotta, E. Di Giacomo, R. Magni, and F. Corradi, "Web Solutions for Rehabilitation and Daily Life," *Assistive Technology Assessment Handbook*, S. Federici and M.J. Scherer editors, CRC Press Series in Rehabilitation Science in Practice, pp. 361–376, 2012.

[BC-3] W. Didimo and G. Liotta, "Graph Visualization and Data Mining," *Mining Graph Data*, D. Cook and L. Holder editors, Wiley, pp. 35–63, 2006.

[BC-2] R. Tamassia and G. Liotta, "Graph Drawing," *Handbook of Discrete and Computational Geometry, 2nd Edition*, J. O'Rourke ed., pp. 1163–1187, CRC Press, 2004.

[BC-1] G. Liotta, R. Tamassia "Drawings of Graphs," *Handbook of Graph Theory*, J. Gross and J. Yellen eds., CRC Press, pp. 1042–1073, 2003.

[JP] Journal Papers

[JP-137] C. Binucci, E. Di Giacomo, W.J. Lenhart, G. Liotta, F. Montecchiani, M. Nllenburg, A. Symvonis, "On the Complexity of the Storyplan Problem", *Journal of Computer and System Sciences*, in print.

[JP-136] C. Binucci, E. Di Giacomo, M. Kaufmann, G. Liotta, A. Tappini, "k-planar Placement and Packing of Δ-regular Caterpillars", *International Journal of Foundations of Computer Science,* Special Issue in the Memory of Prof. Takao Nishizeki, in print.

[JP-135] W. Didimo, E. Di Giacomo, G. Liotta, F. Montecchiani, A. Tappini, "Comparative Study and Evaluation of Hybrid Visualizations of Graphs", *IEEE Transactions on Visualization and Computer Graphics,* in print.

[JP-134] W.Didimo, M. Kaufmann, G. Liotta, G. Ortali, "Rectilinear Planarity of Partial 2-Trees", *Journal of Graph Algorithms and Applications, Special Issue devoted to GD 2022,* in print.

[JP-133] W.J. Lenhart, G. Liotta, "Mutual Witness Gabriel Drawings of Complete Bipartite Graphs", *Theoretical Computer Science,* vol. 974, 2023.

[JP-132] W. Didimo, M. Kaufmann, G. Liotta, G. Ortali, "Computing Bend-Minimum Orthogonal Drawings of Plane Series-Parallel Graphs in Linear Time", *Algorithmica,* vol. 85, no. 9, pp. 2605-2666, 2023.

[JP-131] W.J. Lenhart, G. Liotta, D. Mondal, R.I. Nishat, "Drawing Partial 2-Trees with Few Slopes", *Algorithmica,* vol. 85, no.5, pp. 1156–1175, 2023.

[JP-130] G. Liotta, I. Rutter, A. Tappini "Parameterized Complexity of Graph Planarity with Restricted Cyclic Orders", *Journal of Computer And System Sciences,* vol. 135, pp. 125–144, 2023.

[JP-129] L. Consalvi, W. Didimo, G. Liotta, F. Montecchiani, "BrowVis: Visualizing Large Graphs in the Browser", *IEEE Access,* vol. 10, pp. 115776–115786, 2022.

[JP-128] A. Arleo, W. Didimo, G. Liotta, S. Miksch, F. Montecchiani, "Influence Maximization with Visual Analytics", *IEEE Transactions on Visualization and Computer Graphics*, vol. 28, no.10, pp. 3429–3440, 2022.

[JP-127] M. Bekos, W. Didimo, E. Di Giacomo, G. Liotta, F. Montecchiani, "Universal Slope Sets for Upward Planar Drawings", *Algorithmica,* vol. 84, no. 9, pp. 2556-2580, 2022.

[JP-126] C. Binucci, W. Didimo, M. Kaufmann, G. Liotta, F. Montecchiani, "Placing Arrows in Directed Graph Layouts: Algorithms and Experiments", *Computer Graphics Forum,* vol. 41, no. 1, pp. 364–376, 2022.

[JP-125] E. Di Giacomo, G. Liotta, F. Montecchani, "Orthogonal Planarity Testing of Bounded Treewidth Graphs", *Journal of Computer and System Sciences,* vol. 125, pp. 129–148, 2022.

[JP-124] V. Blazej, J. Fiala, G. Liotta, "On Edge-Length Ratios of Partial 2-Trees", *International Journal of Computational Geometry and Applications,* vol. 31, pp. 141–162, 2021.

[JP-123] E. Di Giacomo, J. Hančl, G. Liotta, " 2-colored Point-set Embeddings of Partial 2-trees", *Theoretical Computer Science,* vol. 896, pp. 31–45, 2021.

[JP-122] E. Di Giacomo, W.J. Lenhart, G. Liotta, T. Randolph, A. Tappini, "(k,p)-Planarity: A Relaxation of Hybrid Planarity", *Theoretical Computer Science,* vol. 896, pp. 19–30, 2021.

[JP-121] G. Liotta, I. Rutter, A. Tappini, "Simultaneous FPQ-Ordering and Hybrid Planarity Testing", *Theoretical Computer Science*, vol. 874, pp. 59-79, 2021.

[JP-120] E. Di Giacomo, W.Didimo, M. Kaufmann, G. Liotta, "Stable Visualization of Connected Components in Dynamic Graphs", *Information Visualization,* vol. 20, no.1, pp. 3–19, 2021.

[JP-119] G. Liotta, F. Montecchiani, A. Tappini, "Ortho-polygon Visibility Representations of 3-connected 1-plane Graphs", *Theoretical Computer Science*, vol. 863, pp. 40–52, 2021.

[JP-118] E. Di Giacomo, Leszek Gasieniec, G. Liotta, A. Navarra, "On the Curve Complexity of 3-Colored Point-set Embeddings", *Theoretical Computer Science,* vol. 846, pp. 114–140, 2020.

[JP-117] E. Di Giacomo, G. Liotta, F. Montecchani, "1-bend upward planar slope number of SP-digraphs" *Computational Geometry: Theory and Applications,* vol. 90, 2020. in print.

[JP-116] C. Binucci, E. Di Giacomo, S.H. Hong, G. Liotta, H. Meijer, V. Sacristan, S. Wismath "Colored anchored visibility representations in 2D and 3D space", *Computational Geometry: Theory and Applications,* vol. 89, 2020.

[JP-115] P. Angelini, M. Bekos, F. Brandenburg, G. Da Lozzo, G. Di Battista, W. Didimo, M. Hoffmann, G. Liotta, F. Montecchiani, I. Rutter, C. Toth, "Simple k-planar graphs are simple (k+1)-quasiplanar", *Journal of Combinatorial Theory Series B,* vol. 142, pp. 1-35, 2020.

[JP-114] W. Didimo, L. Grilli, G. Liotta, L. Menconi, F. Montecchiani, D. Pagliuca, "Combining Network Visualization and Data Mining for Tax Risk Assessment", *IEEE Access,* vol. 8, pp. 16073–16086, 2020.

[JP-113] E. Di Giacomo, P. Eades, G. Liotta, H. Meijer, F. Montecchiani, "Polyline Drawings with Topological Constraints", *Theoretical Computer Science,* vol. 809, pp. 250–264, 2020.

[JP-112] P. Angelini, P. Eades, S.H. Hong, K. Klein, S. G. Kobourov, G. Liotta, A. Navarra, A. Tappini, "Graph Planarity by Replacing Cliques with Paths", *Algorithms* vol. 13, no. 8, 2020.

[JP-111] W. Didimo, G. Liotta, F. Montecchiani,"A Survey on Graph Drawing Beyond Planarity", *ACM Computing Surveys,* vol. 52, no. 1, pp. 1–37, 2019.

[JP-110] E. Di Giacomo, G. Liotta, M. Patrignani, I. Rutter, A. Tappini, "NodeTrix Planarity Testing with Small Clusters", *Algorithmica,* vol. 81, no. 6, pp.2527–2556.

[JP-109] S.Lazard, W. Lenhart, G. Liotta, "On the edge-length ratio of outerplanar graphs," *Theoretical Computer Science,* vol. 770, pp. 88–94, 2019.

[JP-108] P. Angelini, M.A. Bekos, G. Liotta, F. Montecchiani, "Universal Slope Sets for 1-Bend Planar Drawings", *Algorithmica,* vol. 81, no. 6, pp. 2527–2556, 2019.

[JP-107] A. Arleo, W. Didimo, G. Liotta, F. Montecchiani,"A Distributed Multilevel Force-directed Algorithm", *IEEE Transactions on Parallel and Distributed Systems,* vol. 30, no. 4, pp. 754–765, 2019.

[JP-106] W. Didimo, L. Grill, G. Liotta, F. Montecchiani, D. Pagliuca"Visual Querying and Analysis of Temporal Fiscal Networks", *Information Sciences,* vol. 505, pp. 406–421, 2019.

[JP-105] W. Didimo, G. Liotta, M. Patrignani, "HV-Planarity: Algorithms and Complexity", *Journal of Computer and System Sciences*, vol. 90, pp. 72–90, 2019.

[JP-104] M.A. Bekos, E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani, C. Raftopoulou, "Edge Partitions of Optimal 2-plane and 3-plane Graphs", *Discrete Mathematics,* vol. 342, no 4, pp. 1038–1047, 2019.

[JP-103] F. De Luca, E. Di Giacomo, W. Didimo, S. Kobourov, G. Liotta, "An Experimental Study on the Ply Number of Straight-line Drawings", *Journal of Graph Algorithms and Applications*, vol. 23, no. 1, pp. 71–91, 2019.

[JP-102] T. Biedl, G. Liotta, F. Montecchiani, "Embedding-preserving Rectangle Visibility Representations of Nonplanar Graphs", *Discrete and Computational Geometry,* vol. 60, no. 2, pp. 345–380, 2018.

[JP-101] A. Arleo, C. Binucci, E. Di Giacomo, W. S.Evans, L. Grilli, G. Liotta, H. Meijer, F. Montecchiani, S. H. Whitesides, S. Wismath "Visibility representations of boxes in 2.5 dimensions", *Computational geometry: Theory and Applications*, vol. 72, pp. 19–33, 2018.

[JP-100] A. Arleo, W. Didimo, G. Liotta, F. Montecchiani, "Profiling Distributed Graph Processing Systems through Visual Analytics" *Future Generation Computer Systems*, vol. 87, pp. 43–57, 2018.

[JP-99] S. Chaplick, G. Guspiel, G. Gutowski, T. Krawczyk, G. Liotta, "The Partial Visibility Representation Extension Problem", *Algorithmica,* vol. 80, no. 8, pp. 2286–2323, 2018.

[JP-98] E. Di Giacomo, W. Didimo, W. Evans, G. Liotta, H. Meijer, F. Montecchiani, S. Wismath, "Ortho-polygon Visibility Representations of Embedded Graphs", *Algorithmica,* vol. 80, no. 8, pp. 2345–2383, 2018.

[JP-97] W. Didimo, L. Giamminonni, G. Liotta, F. Montecchiani, D. Pagliuca "A Visual Analytics System to Support Tax Evasion Discovery", *Decision Support Systems,* vol. 110, pp. 71–83, 2018.

[JP-96] E. Di Giacomo, G. Liotta, F. Montecchiani, "Drawing Subcubic Planar Graphs with Four Slopes and Optimal Angular Resolution", *Theoretical Computer Science,* vol. 714, pp. 51–73, 2018.

[JP-95] D. Eppstein, P. Kindermann, S. Kobourov, G. Liotta, A. Lubiw, A. Maignann, D. Mondal, H. Vosoughpour, S. H. Whitesides, S. Wismath, "On the Planar Split Thickness of Graphs", *Algorithmica,* vol. 80, no.3, pp. 977–994, 2018.

[JP-94] 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,* vol. 713, pp. 78–84, 2018.

[JP-93] D. Bremner, O. Devillers, M. Glisse, S. Lazard, G. Liotta, T. Mchedlidze, G. Moroz, S.H. Whitesides, S. Wismath, "Monotone Simultaneous Paths Embeddings in R^d", *Discrete Mathematics & Theoretical Computer Science,* vol. 20, no. 1, pp. 1-12, 2018.

[JP-92] C. Binucci, E. Di Giacomo, Md.I.Hossain, and G. Liotta,"1-page and 2-page Drawings with Bounded Number of Crossings per Edge", *European Journal of Combinatorics,* Special Issue on Combinatorial Algorithms (IWOCA 2014 and 2015), vol. 68, pp. 24-37, 2018.

[JP-91] S. Kobourov, G. Liotta, F. Montecchiani, "An annotated bibliography on 1-planarity", *Computer Science Review,* vol. 25, pp. 49-67, 2017.

[JP-90] M. Bekos, W. Didimo, G. Liotta; S. Mehrabi, F. Montecchiani,"On RAC drawings of 1-planar graphs", *Theoretical Computer Science,* vol. 689, pp. 48–57, 2017.

[JP-89] 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,* vol. 87, pp. 199–208, 2017

[JP-88] W. Lenhart, G. Liotta, and F. Montecchiani, "On Partitioning the Edges of 1-Plane Graphs", *Theoretical Computer Science,* vol. 662, pp. 59–65, 2017.

[JP-87] E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani, "Area-thickness Trade-offs for Straight-line Drawings of Planar Graphs", *The Computer Journal,* vol. 60, no.1, pp. 135–142, 2017.

[JP-86] A. Arleo, W. Didimo, G. Liotta, and F. Montecchiani,"Large Graph Visualizations Using a Distributed Computing Platform", *Information Sciences,* vol. 381, pp. 124–141, 2017.

[JP-85] W. Evans, G. Liotta, H. Meijer, S. Wismath, "Alternating Paths and Cycles of Minimum Length", *Computational Geometry: Theory and Applications,* vol. 58, pp. 124–135, 2016.

[JP-84] W. S. Evans, G. Liotta, F. Montecchiani,"Simultaneous visibility representations of plane st-graphs using L-shapes", *Theoretical Computer Science,* vol. 645, pp. 100–111, 2016.

[JP-83] E. Di Giacomo, G. Liotta, T. Mchedlidze, "Lower and Upper Bounds for Long Induced Paths in 3-connected Planar Graphs", *Theoretical Computer Science,* vol. 636, pp. 47–55, 2016.

[JP-82] F. J. Brandenburg, W. Didimo, W. S. Evans, P. Kindermann, G. Liotta, F. Montecchiani, "Recognizing and Drawing IC-planar Graphs", *Theoretical Computer Science,* vol. 636, pp. 1–16, 2016.

[JP-81] G. Liotta, F. Montecchiani, "L-Visibility Drawings of IC-planar Graphs", *Information Processing Letters*, vol. 116, no. 3, pp. 217–222, 2016.

[JP-80] E. Di Giacomo, W. Didimo, G. Liotta, H. Meijer, S. K. Wismath, "Planar and Quasi-planar Simultaneous Geometric Embedding", *The Computer Journal*, vol. 58, no. 11, pp. 3126–3140, 2015.

[JP-79] E. Di Giacomo, G. Liotta, F. Montecchiani, "Drawing Outer 1-planar Graphs with Few Slopes", *Journal of Graph Algorithms and Applications*, Special Issue on GD 2014, vol. 19, no. 2, pp. 707–741, 2015.

[JP-78] S.H. Hong, P. Eades, N. Katoh, G. Liotta, P. Schweitzer, Y. Suzuki,"A Linear-Time Algorithm for Testing Outer-1-Planarity," *Algorithimca*, vol. 72, no. 4, pp. 1033–1054, 2015.

[JP-77] E. Di Giacomo, W. Didimo, L. Grilli, G. Liotta, S. Romeo, "Heuristics for the Maximum 2-Layer RAC Subgraph Problem," *The Computer Journal*, vol. 8, no. 5, pp. 1085–1098, 2015.

[JP-76] E. Di Giacomo, G. Liotta, H. Meijer, "The Approximate Rectangle of Influence Drawability Problem," *Algorithmica*, vol. 72, no. 2, pp. 620–655, 2015.

[JP-75] F. Giordano, G. Liotta, T. Mchedlidze, A. Symvonis, S.H. Whitesides, "Computing Upward Topological Book Embeddings of Upward Planar Digraphs," *Journal of Discrete Algorithms*, vol. 30, pp. 45–69, 2015.

[JP-74] W. Didimo, G. Liotta, F. Montecchiani, "Network Visualization for Financial Crime Detection," *Journal of Visual Languages and Computing*, Special Issue on Representation Environments for User-driven Development of Service Applications, vol. 25, pp. 433–451, 2014.

[JP-73] 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*, Special Issue on Representation Environments for User-driven Development of Service Applications, vol. 25, pp. 533–543, 2014.

[JP-72] E. Di Giacomo, W. Didimo, P. Eades, G. Liotta, "2-Layer Right Angle Crossing Drawings," *Algorithmica*, vol. 68, no. 4, pp. 954–997, 2014.

[JP-71] F. Hurtado, G. Liotta, D. Wood, "Proximity Drawings of High-degree Trees," *International Journal of Computational Geometry and Applications*, vol. 23, no.3, pp. 213–230, 2013.

[JP-70] P. Eades, S.H. Hong, N. Katoh, G. Liotta, P. Schweitzer, Y. Suzuki, "A linear time algorithm for testing maximal 1-planarity of graphs with a rotation system," *Theoretical Computer Science*, vol. 513, pp. 65–76, 2013.

[JP-69] E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani,"Area Requirement of Graph Drawings with Few Crossings per Edge," *Computational Geometry: Theory and Applications*, vol. 46, no. 8, pp. 909–916, 2013.

[JP-68] W. Evans, E. Gansner, M. Kaufmann, G. Liotta, H. Meijer, A. Spillner,"Approximate Proximity Drawings," *Computational Geometry: Theory and Applications*, vol. 46, no. 6, pp. 604–614, 2013.

[JP-67] P. Eades, G. Liotta, "Right Angle Crossing Graphs and 1-planarity," *Discrete Applied Mathematics*, vol. 161, no. 7–8, pp. 961–969, 2013.

[JP-66] V. Dujimovic, W. Evans, S. Lazard, W. Lenhart, G. Liotta, D. Rappaport, S. Wismath, "On point-sets that support planar graphs," *Computational Geometry: Theory and Applications*, vol. 43, no. 1, pp. 29–50, 2013.

[JP-65] W. Didimo, M. Kaufmann, G. Liotta, Y. Okamoto, A. Spillner, "Vertex Angle and Crossing Angle Resolution of Leveled Tree Drawings," *Information Processing Letters*, vol. 112, no. 16, pp. 630–635, 2012.

[JP-64] E. Di Giacomo, L. Grilli, M. Krug, G. Liotta, I. Rutter, "Hamiltonian Orthogeodesic Alternating Paths," *Journal of Discrete Algorithms*, Special issue devoted to IWOCA 2011, vol. 16, pp. 34–52, 2012.

[JP-63] G. Di Battista, E. Kim, G. Liotta, A. Lubiw, S. H. Whitesides "The Shape of Orthogonal Cycles in Three Dimensions," *Discrete and Computational Geometry*, vol. 47, no. 3, pp. 461–491, 2012.

[JP-62] E. Di Giacomo, W. Didimo, G. Liotta, H. Meijer, "Drawing a Tree as a Minimum Spanning Tree Approximation," *Journal of Computer and System Sciences*, vol. 78, pp.491–503, 2012.

[JP-61] E. Di Giacomo, W. Didimo, P. Eades, S.H. Hong, G. Liotta, "Bounds on the Crossing Resolution of Complete Geometric Graphs," *Discrete Applied Mathematics,* vol. 160, pp.132–139, 2012.

[JP-60] M. van Garderen, G. Liotta, H. Meijer, "Universal Point sets for 2-coloured Trees," *Information Processing Letters*, vol. 112, no. 8-9, pp. 346–350, 2012.

[JP-59] V. Batagelj, F. J. Brandenburg, W. Didimo, G. Liotta, P. Palladino, M. Patrignani, "Visual Analysis of Large Graphs Using (X,Y)-clustering and Hybrid Visualizations," *IEEE Transactions on Visualization and Computer Graphics*, vol. 17, no. 11, pp. 1587–1598, 2011.

[JP-58] E. Di Giacomo, F. Giordano, G. Liotta, "Upward Topological Book Embeddings of DAGs," *SIAM Journal of Discrete Mathematics*, vol. 25, no. 2, pp. 479–489, 2011.

[JP-57] W. Didimo, G. Liotta, P. Eades, "Drawing Graphs with Right Angle Crossings," *Theoretical Computer Science*, vol. 412, pp. 5156–5166, 2011.

[JP-56] E. Di Giacomo, W. Didimo, G. Liotta, H. Meijer, "Area, Curve Complexity, and Crossing Resolution of Non-Planar Graph Drawings," *Theory of Computing Systems*, vol. 49, no. 3, pp 565–575, 2011.

[JP-55] W. Didimo, G. Liotta, S. Romeo, "A Graph Drawing Application to Web Site Traffic Analysis" *Journal of Graph Algorithms and Applications*, vol. 15, no. 2, pp. 229–251, 2011.

[JP-54] U. Brandes, C. Erten, A. Estrella-Balderrama, J. Fowler, F. Frati, M. Geyer, C. Gutwenger, S.H. Hong, M. Kaufmann, Michael, S. Kobourov, G. Liotta, P. Mutzel, A.Symvonis, "Colored Simultaneous Geometric Embeddings and Universal Pointsets", *Algorithmica*, vol. 60, no. 3, pp. 569–592, 2011.

[JP-53] S. Cabello, M. van Kreveld, G. Liotta, H. Meijer, B. Speckmann, K. Verbeek,"Geometric Simultaneous Embeddings of a Graph and a Matching," *Journal of Graph Algorithms and Applications*, Special Issue on GD 2009, vol. 15, no. 1, pp. 79-96, 2011.

[JP-52] E. Di Giacomo, W. Didimo, G. Liotta, H. Meijer, S. Wismath, "Constrained point-set embeddability of planar graphs," *International Journal of Computational Geometry and Applications*, vol. 20, no. 5, pp. 577–600, 2010.

[JP-51] E. Di Giacomo, G. Liotta, F. Trotta, "Drawing Colored Graphs with Constrained Vertex Positions and Few Bends per Edge," *Algorithmica*, vol. 57, no. 4, pp. 796-818, 2010.

[JP-50] W. Didimo, P.Eades, G. Liotta, "A characterization of complete bipartite RAC graphs," *Information Processing Letters*, vol. 116, no. 16, pp. 687-691, 2010.

[JP-49] L. Grilli, S.H. Hong, G. Liotta, H. Meijer, S. Wismath "Matched Drawability of Graph Pairs and of Graph Triples," *Computational Geometry: Theory and Applications*, vol. 43, no. 6-7, pp. 611-634, 2010.

[JP-48] S. Lazard, H. Everett, G. Liotta, S. Wismath, "Universal Sets of n Points for One-bend Drawings of Planar Graphs with n Vertices," *Discrete and Computational Geometry*, vol. 43, no. 2, pp. 272-288, 2010.

[JP-47] E. Di Giacomo, W. Didimo,G. Liotta, P.Palladino, "Visual Analysis of One-To-Many Matched Graphs," *Journal of Graph Algorithms and Applications*, Special Issue on GD 2008, vol. 14, no. 1, pp. 97-119, 2010.

[JP-46] C. Binucci, E. Di Giacomo, W. Didimo, A. Estrella-Balderrama, F. Frati, S. G. Kobourov, G. Liotta, "Upward Straight-line Embeddings of Directed Graphs into Point Sets," *Computational Geometry: Theory and Applications*, Vol. 43, no. 2, pp. 219-232, 2010.

[JP-45] W. Didimo, F. Giordano, G. Liotta, "Upward Spirality and Upward Planarity Testing," *SIAM Journal on Discrete Mathematics*, vol. 23, no. 4, pp. 1842-1899, 2009.

[JP-44] E. Di Giacomo, W. Didimo, M. v. Kreveld, G. Liotta, B. Speckmann, "Matched Drawings of Planar Graphs," *Journal of Graph Algorithms and Applications*, Special Issue on GD 2007, vol. 13, no. 3, pp. 423-445, 2009.

[JP-43] E. Di Giacomo, W. Didimo, G. Liotta, H. Meijer, S. Wismath, "Point-set Embeddings of Trees with Given Partial Drawings," *Computational Geometry: Theory and Applications*, vol. 42, no. 9, pp. 664-676, 2009.

[JP-42] A. Rugo, A., M. L. Mele, G. Liotta, F. Trotta, E. Di Giacomo, S. Borsci, S. Federici, " A Visual Sonificated Web Search Clustering Engine," *Cognitive Processing*, vol. 10, no. 2, pp. 286-289, 2009.

[JP-41] E. Di Giacomo, G. Liotta, H. Meijer, S. Wismath, "Volume Requirements of 3D Upward Drawings," *Discrete Mathematics*, vol. 309, no. 7, pp. 1824-1837, 2009.

[JP-40] M. Badent, E. Di Giacomo, G. Liotta, "Drawing Colored Graphs on Colored Points," *Theoretical Computer Science*, vol. 408, no. 2-3, pp. 129-142, 2008.

[JP-39] W. Didimo, F. Giordano, G. Liotta, "Overlapping Cluster Planarity," *Journal of Graph Algorithms and Applications*, Special Issue on APVIS 2007, vol. 12, no. 3, pp. 267-291, 2008.

[JP-38] V. Dujmovic, M. Fellows, M. Kitching, G. Liotta, C. McCartin, N. Nishimura, P. Ragde, F. Rosamond, S. Whitesides, and D. R. Wood, "On the Parameterized Complexity of Layered Graph Drawing," *Algorithmica*, vol. 52, no. 2, pp. 267-292, 2008.

[JP-37] E. Di Giacomo, L. Grilli, G. Liotta, "Drawing Bipartite Graphs on Two Parallel Convex Curves," *Journal of Graph Algorithms and Applications*, Special Issue on GD 2006, Vol. 12, no. 1, pp. 97-112, 2008.

[JP-36] E. Di Giacomo, W. Didimo, G. Liotta, H. Meijer, S. Wismath, S. Trotta, "k-colored Point-set Embeddability of Outerplanar Graphs," *Journal of Graph Algorithms and Applications*, Special Issue on GD 2006, Vol. 12, no. 1, pp. 29-49, 2008.

[JP-35] E. Di Giacomo, W. Didimo, G. Liotta, "Radial Drawings of Graphs: Geometric Constraints and Trade-offs," *Journal of Discrete Algorithms*, vol. 6, pp. 109-124, 2008.

[JP-34] E. Di Giacomo, G. Liotta "Simultaneous Embedding of Outerplanar Graphs, Paths, and Cycles," *International Journal of Computational Geometry and Applications*, vol. 17, no. 2, pp. 139-160, 2007.

[JP-33] E. Di Giacomo, W. Didimo, L. Grilli, G. Liotta "Graph Visualization Techniques for Web Meta-search Clustering Engines," *IEEE Transactions on Visualization and Computer Graphics*, vol. 13, no. 2, pp. 294-304, 2007.

[JP-32] E. Di Giacomo, G. Liotta, F. Trotta "On Embedding a Graph on Two Sets of Points," *International Journal of Foundations of Computer Science*, Special Issue on Graph Drawing, vol. 17, no. 5, pp. 1071-1094, 2006.

[JP-31] E. Di Giacomo, W. Didimo, G. Liotta, M. J. Suderman "k-spine, 1-bend Planarity," *Theoretical Computer Science*, vol. 359, no. 1-3, pp. 148-175, 2006.

[JP-30] G. Di Battista, G. Liotta, and S. Whitesides "The Strength of Weak Proximity," *Journal of Discrete Algorithms*, vol. 4, no. 3, pp. 337-498, 2006.

[JP-29] E. Di Giacomo, W. Didimo, G. Liotta, and S. Wismath "Book Embeddings of Series-parallel Digraphs," *Algorithmica*, vol. 45, no. 4, pp. 531-547, 2006.

[JP-28] V. Dujmovic, M. Fellows, M. Hallett, M. Kitching, G. Liotta, C. McCartin, N. Nishimura, P. Ragde, F. Rosamond, M. Suderman, S. Whitesides, and D. R. Wood, "A Fixed-Parameter Approach to Two-Layer Planarization," *Algorithmica*, vol. 45, no. 2, pp. 159-182, 2006.

[JP-27] W. Didimo, E. Di Giacomo, G. Liotta, and H. Meijer "Computing Radial Drawings of Graphs on the Minimum Number of Circles," *Journal of Graph Algorithms and Applications*, Special Issue on the 12th Symposium on Graph Drawing, GD 2004, vol. 9, no. 3, pp. 365-389, 2005.

[JP-26] C. Binucci, W. Didimo, G. Liotta, and M. Nonato "Orthogonal Drawings of Graphs with Vertex and Edge Labels," *Computational Geometry: Theory and Applications*, vol. 32, no. 2, pp.71-114, 2005.

[JP-25] E. Di Giacomo, G. Liotta, and H. Meijer "Computing Straight-line 3D Grid Drawings of Graphs in Linear Voulme," *Computational Geometry: Theory and Applications*, vol. 32, no.1, pp.26-58, 2005.

[JP-24] E. Di Giacomo, W. Didimo, G. Liotta, and S. Wismath "Curve-Constrained Drawings of Planar Graphs," *Computational Geometry: Theory and Applications*, vol. 30, no.1, pp.1-23, 2005.

[JP-23] E. Di Giacomo, G. Liotta, and M. Patrignani "A Note on 3D Orthogonal Drawings with Direction Constrained Edges," *Information Processing Letters*, vol. 90, no.2, pp.97-101, 2004.

[JP-22] S. Felsner, G. Liotta, S. Wismath "Straight-Line Drawings on Restricted Integer Grids in Two and Three Dimensions," *Journal of Graph Algorithms and Applications*, Special Issue on GD 2001, P. Mutzel editor, vol. 7, no. 4, pp. 363-398, 2003.

[JP-21] G. Liotta, H. Meijer, "Voronoi Drawings of Trees," *Computational Geometry: Theory and Applications*, vol. 24, no.3, pp.147-178, 2003.

[JP-20] F. Hurtado, G. Liotta, H. Meijer, "Optimal and Suboptimal Robust Algorithms for Proximity Graphs," *Computational Geometry: Theory and Applications*, vol. 25, no. 1/2, pp. 35-49, 2003.

[JP-19] G. Liotta, M. Mongiardo, L. Tarricone, "Object Oriented Paradigm for Full-Wave Microwave CAD: an Introductory Review," *International Journal of RF and Microwave Computer-Aided Engineering*, vol. 12, pp. 341-353, 2002.

[JP-18] W.Lenhart, G. Liotta, "The Drawability Problem for Minimum Weight Triangulations," *Theoretical Computer Science*, vol. 270, pp. 261–286, 2002.

[JP-17] G. Di Battista, G. Liotta, A. Lubiw, S. Whitesides, "Embedding Problems for Paths with Direction Constrained Edges," *Theoretical Computer Science*, vol. 289, pp. 897–917, 2002.

[JP-16] G. Di Battista, A. Garg, G. Liotta, A. Parise, R. Tamassia, E. Tassinari, F. Vargiu, L. Vismara, "Drawing Directed Graphs: An experimental Study," *International Journal of Computational Geometry and Applications*, vol. 10, no. 6, pp. 623-648, 2000.

[JP-15] S. Bridgeman, G. Di Battista, W. Didimo, G. Liotta, R. Tamassia, L. Vismara "Turn Regularity and Optimal Area Drawings of Orthogonal Representations," *Computational Geometry: Theory and Applications*, vol. 16, pp. 53-93, 2000.

[JP-14] L. Vismara, G. Di Battista, A. Garg, G. Liotta, R. Tamassia, and F. Vargiu, "Experimental Studies on Graph Drawing Algorithms," *Software Practice and Experience*, Special Issue on Discrete Algorithms Engineering, vol. 30, no. 11, pp. 1235-1284, 2000.

[JP-13] J. E. Baker, I. F. Cruz, G. Liotta, R. Tamassia, "Visualizing Geometric Algorithms over the Web," *Computational Geometry: Theory and Applications*, vol. 12, pp. 125-152, 1999, Special Issue on the 12th ACM Symposium on Computational Geometry.

[JP-12] G. Liotta, F. P. Preparata, R. Tamassia "Robust Proximity Queries: An Illustration of Degree-driven Algorithms Design," *SIAM Journal on Computing*, vol. 28, no. 3, pp. 864–889, 1998.

[JP-11] G. Di Battista, G. Liotta, F. Vargiu, "Spirality and Optimal Orhogonal Drawings," *SIAM Journal on Computing*, vol. 27, no. 6, pp. 1764–1811, 1998.

[JP-10] O. Devillers, G. Liotta, F. P. Preparata, R. Tamassia, "Checking the Convexity of Polytopes and the Planarity of Subdivisions," *Computational Geometry: Theory and Applications*, vol. 11, pp. 187-208, 1998.

[JP-9] G. Liotta, A. Lubiw, H. Meijer, and S.H. Whitesides, "The Rectangle of Influence Drawability Problem," *Computational Geometry: Theory and Applications*, vol. 10, pp. 1-22, 1998.

[JP-8] G. Kant, G. Liotta, R. Tamassia, I.G. Tollis, "Area Requirement of Visibility Representations of Trees," *Information Processing Letters*, vol. 62, pp. 81-88, 1997.

[JP-7] G. Di Battista, A. Garg, G. Liotta, R. Tamassia, E. Tassinari, F. Vargiu "An Experimental Comparison of Four Graph Drawing Algorithms," *Computational Geometry: Theory and Applications* vol. 7, pp. 303-325, 1997.

[JP-6] W. Lenhart, G. Liotta, "Drawing Outerplanar Minimum Weight Triangulations," *Information Processing Letters*, vol. 57, pp. 253-260, 1996.

[JP-5] P. Bose, W. Lenhart, G. Liotta, "Characterizing Proximity Trees," *Algorithmica*, Special Issue on Graph Drawing, vol. 16, no. 1, pp. 83-110, 1996.

[JP-4] P. Bertolazzi, G. Di Battista, G. Liotta, "Parametric Graph Drawing," *IEEE Transactions on Software Engineering*, vol. 21, no. 8, pp. 662-673, 1995.

[JP-3] J. E. Baker, I. F. Cruz, G. Liotta, R. Tamassia, "A New Model for Algorithm Animation Over the WWW", *ACM Computing Surveys*, vol. 27, no. 4, pp. 568-572, 1995.

[JP-2] G. Di Battista, G. Liotta, F. Vargiu, "Diagram Server" *Journal of Visual Languages and Computing*, Special Issue on Graph Visualization, vol. 6, pp. 275-298, 1995.

[JP-1] P. Bertolazzi, G. Di Battista, G. Liotta, C. Mannino "Upward Drawings of Triconnected Digraphs," *Algorithmica* vol. 12, pp. 476-497, 1994.

[CP] Conference Papers

[CP-173] L. Khazaliya, P. Kindermann, G. Liotta, F. Montecchiani, K. Simonov, "The st-Planar Edge Completion Problem is Fixed-Parameter Tractable", *34th International Symposium on Algorithms and Computation, ISAAC 2023)*, LIPIcs, to appear.

[CP-172] W. Didimo, M. Kaufmann, G. Liotta, G. Ortali, M. Patrignani, "Rectilinear-Upward Planarity Testing of Digraphs", *34th International Symposium on Algorithms and Computation, ISAAC 2023)*, LIPIcs, to appear.

[CP-171] C. Haase, P. Kindermann, W.J. Lenhart, G. Liotta,"Mutual Witness Proximity Drawings of Isomorphic Trees", *Proceedings of the 30th International Symposium on Graph Drawing and Network Visualization, GD'22*, Lecture Notes in Computer Science, Springer-Verlag, to appear.

[CP-170] P. Kindermann, J. Kratochvil, G. Liotta, P. Valtr, "Three Edge-disjoint Plane Spanning Paths in a Point Set", *Proceedings of the 30th International Symposium on Graph Drawing and Network Visualization, GD'22*, Lecture Notes in Computer Science, Springer-Verlag, to appear.

[CP-169] E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani, G. Ortali, "On the Parameterized Complexity of Bend-Minimum Orthogonal Planarity", *Proceedings of the 30th International Symposium on Graph Drawing and Network Visualization, GD'22*, to appear.

[CP-168] B.M.P. JansenL, L. Khazaliya, P. Kindermann, G. Liotta, F. Montecchiani, K. Simonov,"Upward and Orthogonal Planarity are W[1]-hard Parameterized by Treewidth", *Proceedings of the 30th International Symposium on Graph Drawing and Network Visualization, GD'22*, Lecture Notes in Computer Science, Springer-Verlag, to appear.

[CP-167] C. Binucci, A. Bngener, G. Di Battista, W. Didimo, V. Dujmovi, S.H. Hong, M. Kaufmann, G. Liotta, P. Morin, A. Tappini,"Min-k-planar Drawings of Graphs",

Proceedings of the 30th International Symposium on Graph Drawing and Network Visualization, GD'22, Lecture Notes in Computer Science, Springer-Verlag, to appear.

[CP-166] C. Binucci, G. Di Battista, W. Didimo, S.H. Hong, M. Kaufmann, G. Liotta, P. Morin, A. Tappini, "Nonplanar Graph Drawings with k Vertices per Face", *Proceedings of the 49th International Workshop on Graph-Theoretic Concepts in Computer Science, WG 2023*, Lecture Notes in Computer Science, Springer-Verlag, to appear.

[CP-165] C. Binucci, G. Liotta, G. Ortali, F. Montecchiani, T. Piselli, "On the Parameterized Complexity of Computing st-Orientations with Few Transitive Edges", *Proceedings of the 48th International Symposium on Mathematical Foundations of Computer Science, MFCS 2023*, LIPIcs, vol. 272, 2023.

[CP-164] W. Didimo, S. Gupta, P. Kindermann, G. Liotta, A. Wolff, M. Zehavi, "Parameterized Approaches to Orthogonal Compaction", *Proceedings of the 48th International Conference on Current Trends in Theory and Practice of Computer Science SOFSEM 2023*, Lecture Notes in Computer Science, Springer-Verlag, vol. 13878, pp. 111–125, 2023.

[CP-163] W.J. Lenhart, G. Liotta, "Mutual Witness Gabriel Drawings of Complete Bipartite Graphs", *Proceedings of the 30th International Symposium on Graph Drawing and Network Visualization, GD'22*, vol. 13764, pp. 25–39, 2022.

[CP-162] W. Didimo, M. Kaufmann, G. Liotta, G. Ortali, "Rectilinear Planarity of Partial 2-Trees", *Proceedings of the 30th International Symposium on Graph Drawing and Network Visualization, GD'22*, Lecture Notes in Computer Science, Springer-Verlag, vol. 13764, pp. 157–172, 2022.

[CP-161] C. Binucci, E. Di Giacomo, W.J. Lenhart, G. Liotta, F. Montecchiani, M. Nllenburg, A. Symvonis, "On the Complexity of the Storyplan Problem", *Proceedings of the 30th International Symposium on Graph Drawing and Network Visualization, GD'22*, Lecture Notes in Computer Science, Springer-Verlag, vol. 13764, pp. 304–318, 2022.

[CP-160] G. Liotta, I. Rutter, A. Tappini, "Parameterized Complexity of Graph Planarity with Restricted Cyclic Orders", *Proceedings of the 48th Workshop on Graph-theoreric Concepts in Computer Science, WG'22*, Lecture Notes in Computer Science, Springer-Verlag, vol. 13453, pp. 383–397, 2022.

[CP-159] T. Biedl, G. Liotta, J. Lynch, F. Montecchiani, "Generalized LR-Drawings of Trees", *Proceedings of the 33rd Canadian Conference on Computational Geometry, CCCG 2021*, pp. 78–88, 2021.

[CP-158] T. Biedl, G. Liotta, J. Lynch, F. Montecchiani, "Optimal-area visibility representations of outer-1-plane graphs", *Proceedings of the 30th International Symposium on Graph Drawing and Network Visualization, GD'21*, Lecture Notes in Computer Science, Springer-Verlag, vol. 12868, pp. 287–303, 2021.

[CP-157] C. Binucci, E. Di Giacomo, G. Liotta, A. Tappini, "Quasi-upward Planar Drawings with Minimum Curve Complexitys", *Proceedings of the 29th International Symposium on Graph Drawing and Network Visualization, GD'21*, Lecture Notes in Computer Science, Springer-Verlag, vol. 12868, pp. 195–209, 2021.

[CP-156] S. Chaplick, G. Da Lozzo, E. Di Giacomo, G. Liotta, F. Montecchiani, "Planar Drawings with Few Slopes of Halin Graphs and Nested Pseudotrees", *Proceedings of the 17th Algorithms and Data Structures Symposium, WADS 2021*, Lecture Notes in Computer Science, Springer-Verlag, vol. 12808, pp. 271–285, 2021.

[CP-155] E. Di Giacomo, J. Hancl, G. Liotta, "2-Colored Point-Set Embeddings of Partial 2-Trees", *Proceedings of the 15th International Conference and Workshops on Algorithms and Computation, WALCOM 2021*, Lecture Notes in Computer Science, Springer-Verlag, vol. 12635, pp. 247–259, 2021.

[CP-154] V. Blazej, J. Fiala, G. Liotta, "On the Edge-Length Ratio of 2-Trees", *Proceedings of the 28th International Symposium on Graph Drawing and Network Visualization, GD'20*, Lecture Notes in Computer Science, Springer-Verlag, vol. 12590, pp. 85–98, 2020.

[CP-153] A. Arleo, W. Didimo, G. Liotta, S. Miksch, F. Montecchiani, "VAIM: Visual Analytics for Influence Maximization", *Proceedings of the 28th International Symposium on Graph Drawing and Network Visualization, GD'20*, Lecture Notes in Computer Science, Springer-Verlag, vol. 12590, pp. 115–123, 2020.

[CP-152] E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani, A. Tappini, "Storyline Visualizations with Ubiquitous Actors", *Proceedings of the 28th International Symposium on Graph Drawing and Network Visualization, GD'20*, Lecture Notes in Computer Science, Springer-Verlag, vol. 12590, pp. 324–332, 2020.

[CP-151] W. Didimo, M. Kaufmann, G., G. Ortali, " Rectilinear Planarity Testing of Plane Series-Parallel Graphs in Linear Time", *Proceedings of the 28th International Symposium on Graph Drawing and Network Visualization, GD'20*, Lecture Notes in Computer Science, Springer-Verlag, vol. 12590, pp. 436–449, 2020.

[CP-150] W. Didimo, G. Liotta, G. Ortali, M. Patrignani, "Optimal Orthogonal Drawings of Planar 3-Graphs in Linear Time", *Proceedings of the ACM-SIAM Symposium on Discrete Algorithms SODA 2020*, SIAM, pp. 806–825, 2020.

[CP-149] G. Liotta, I. Rutter, A. Tappini, "Simultaneous FPQ-Ordering and Hybrid Planarity Testing", *Proceedings of 46th International Conference on Current Trends in Theory and Practice of Computer Science SOFSEM 2020*, Lecture Notes in Computer Science, Springer-Verlag, vol. 12011, pp. 617–626, 2020.

[CP-148] F. De Luca, E. Di Giacomo, S.H. Hong, S. Kobourov, W. Lenhart, G. Liotta, H. Meijer, A. Tappini and S. Wismath. "Packing Trees into 1-planar Graphs", *Proceedings of the 14th International Conference and Workshops on Algorithms and Com-*

putation, WALCOM 2020, Lecture Notes in Computer Science, Springer-Verlag, vol. 12049, pp. 81–93, 2020.

[CP-147] E. Di Giacomo, G. Liotta, F. Montecchiani. "Sketched Representations and Orthogonal Planarity of Bounded Treewidth Graphs", *Proceedings of the 27th International Symposium on Graph Drawing and Network Visualization, GD'19*, Lecture Notes in Computer Science, Springer-Verlag, vol. 11904, pp. 279–392, 2019.

[CP-146] P. Angelini, H. Foerster, M. Hoffmann, M. Kaufmann, S. Kobourov, G. Liotta and M. Patrignani. "The QuaSEFE Problem", *Proceedings of the 27th International Symposium on Graph Drawing and Network Visualization, GD'19*, Lecture Notes in Computer Science, Springer-Verlag, vol. 11904, pp. 268–275, 2019.

[CP-145] E. Di Giacomo, W. Lenhart , G. Liotta, T. Randolph, A. Tappini, "(k, p)-Planarity: A Relaxation of Hybrid Planarity", *Proceedings of the 13th International Conference on Algorithms and Computation, WALCOM 2019*, Lecture Notes in Computer Science, Springer-Verlag, vol. 11355, pp. 148–159 ,2019.

[CP-144] E. Di Giacomo, P. Eades, G. Liotta, H. Meijer, F. Montecchiani, "Polyline Drawings with Topological Constraints", *Proceedings of the 29th International Symposium on Algorithms and Computation, ISAAC 2018*, LIPIcs 123, Schloss Dagstuhl - Leibniz-Zentrum fuer Informatik, pp. 1–13, 2018.

[CP-143] G. Liotta, F. Montecchiani, A. Tappini, "Ortho-Polygon Visibility Representations of 3-Connected 1-Plane Graphs", *Proceedings of the 26th International Symposium on Graph Drawing and Network Visualization, GD'18*, Lecture Notes in Computer Science, Springer-Verlag, vol. 11282, pp. 524–537, 2018.

[CP-142] W. Didimo, G. Liotta, M. Patrignani, "Bend-Minimum Orthogonal Drawings in Quadratic Time", *Proceedings of the 26th International Symposium on Graph Drawing and Network Visualization, GD'18*, Lecture Notes in Computer Science, Springer-Verlag, vol. 11282, pp. 481–494, 2018.

[CP-141] M.A. Bekos, E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani, "Universal Slope Sets for Upward Planar Drawings", *Proceedings of the 26th International Symposium on Graph Drawing and Network Visualization, GD'18*, Lecture Notes in Computer Science, Springer-Verlag, vol. 11282, pp. 77–91, 2018.

[CP-140] P. Angelini, P. Eades, S.H. Hong, K. Klein, S.G. Kobourov, G. Liotta, A. Navarra, A. Tappini, " Turning Cliques into Paths to Achieve Planarity", *Proceedings of the 26th International Symposium on Graph Drawing and Network Visualization, GD'18*, Lecture Notes in Computer Science, Springer-Verlag, vol. 11282, pp. 67–74, 2018.

[CP-139] M. A. Bekos, E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani, C. N. Raftopoulou, "Edge Partitions of Optimal 2-plane and 3-plane Graphs", *Proceedings of the 44th International Workshop on Graph-Theoretic Concepts in Computer Science, WG 2018*, Lecture Notes in Computer Science, Springer-Verlag, vol. 11159, pp.27–39, 2018.

[CP-138] S. Lazard, W. Lenhart, G. Liotta, "On the Edge-Length Ratio of Outerplanar Graphs", *Proceedings of the 25th International Symposium on Graph Drawing and Network Visualization, GD'17*, Lecture Notes in Computer Science, Springer-Verlag, vol. 10692, pp. 17–23, 2017.

[CP-137] A. Arleo, W. Didimo, G. Liotta, F. Montecchiani, "GiViP: A Visual Profiler for Distributed Graph Processing Systems", *Proceedings of the 25th International Symposium on Graph Drawing and Network Visualization, GD'17*, Lecture Notes in Computer Science, Springer-Verlag, vol. 10692, pp. 256–271, 2017.

[CP-136] E. Di Giacomo, L. Gasieniec, G. Liotta, A. Navarra, "Colored Point-Set Embeddings of Acyclic Graphs", *Proceedings of the 25th International Symposium on Graph Drawing and Network Visualization, GD'17*, Lecture Notes in Computer Science, Springer-Verlag, vol. 10692, pp. 413–425, 2017.

[CP-135] E. Di Giacomo, G. Liotta, M. Patrignani, A. Tappini, "NodeTrix Planarity Testing with Small Clusters", *Proceedings of the 25th International Symposium on Graph Drawing and Network Visualization, GD'17*, Lecture Notes in Computer Science, Springer-Verlag, vol. 10692, pp. 479–491, 2017.

[CP-134] S. Chaplick, M. Kryven, G. Liotta, A. Lffler, A. Wolff, "Beyond Outerplanarity", *Proceedings of the 25th International Symposium on Graph Drawing and Network Visualization, GD'17*, Lecture Notes in Computer Science, Springer-Verlag, vol. 10692, pp. 546–559, 2017.

[CP-133] F. De Luca, E. Di Giacomo, W. Didimo, S. G. Kobourov, G. Liotta, "An Experimental Study on the Ply Number of Straight-Line Drawings", *Proceedings of the 11th International Workshop on Algorithms and Computation, WALCOM17*, Lecture Notes in Computer Science, Springer-Verlag, vol. 10167, pp. 135–148, 2017.

[CP-132] P. Angelini, M. 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", *Proceedings of the 43rd International Workshop on Graph-Theoretic Concepts in Computer Science, WG17*, Lecture Notes in Computer Science, Springer-Verlag, vol. 10520, pp. 59–74, 2017.

[CP-131] P. Angelini, M. Bekos, G. Liotta, F. Montecchiani, "A Universal Slope Set for 1-bend Planar Drawings", *Proceedings of the 33rd International Symposium on Computational Geometry, SoCG2017*, *Proceedings of the 33rd International Symposium on Computational Geometry, SoCG2017*, pp. 9:1–9:16, 2017.

[CP-130] T. Biedl, G. Liotta, F. Montecchiani, "On Visibility Representations of Non-planar Graphs", *Proceedings of the 32nd International Symposium on Computational Geometry, SoCG2016*, pp. 19:1–16, 2016.

[CP-129] A. Arleo, W. Didimo, G. Liotta, F. Montecchiani, "A Distributed Multilevel Force-Directed Algorithm", *Proceedings of the 24th International Symposium on Graph*

Drawing and Network Visualization, GD'15 Lecture Notes in Computer Science, Springer-Verlag, vol. 9801, pp. 3–17, 2016.

[CP-128] C. Binucci, M. Chimani, W. Didimo, G. Liotta, F. Montecchiani, "Placing Arrows in Directed Graph Drawings", *Proceedings of the 24th International Symposium on Graph Drawing and Network Visualization, GD'15* Lecture Notes in Computer Science, Springer-Verlag, vol. 9801, pp. 44–51, 2016.

[CP-127] E. Di Giacomo, G. Liotta, F. Montecchiani, "1-Bend Upward Planar Drawings of SP-Digraphs", *Proceedings of the 24th International Symposium on Graph Drawing and Network Visualization, GD'15* Lecture Notes in Computer Science, Springer-Verlag, vol. 9801, pp. 123–130, 2016.

[CP-126] 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", *Proceedings of the 24th International Symposium on Graph Drawing and Network Visualization, GD'15* Lecture Notes in Computer Science, Lecture Notes in Computer Science, Springer-Verlag, vol. 9801, pp. 335–343, 2016.

[CP-125] D. Bremner, O. Devillers, M. Glisse, S. Lazard, G. Liotta, T. Mchedlidze, S. Whitesides, S. K. Wismath, " Monotone Simultaneous Embeddings of Paths in d Dimensions", *Proceedings of the 24th International Symposium on Graph Drawing and Network Visualization, GD'15* Lecture Notes in Computer Science, Springer-Verlag, vol. 9801, pp. 546–553, 2016.

[CP-124] C. Binucci, G. Liotta, F. Montecchiani, A. Tappini, "Partial edge drawing: Homogeneity is more important than crossings and ink", *Proceedings of the 7th International Conference on Information, Intelligence, Systems and Applications, IISA 2016*, IEEE Press, pp. 1–6, 2016.

[CP-123] D. Eppstein, P. Kindermann, S.G. Kobourov, G. Liotta, A. Lubiw, A. Maignan, D. Mondal, H. Vosoughpour, S. Whitesides, S. K. Wismath, "On the Planar Split Thickness of Graphs", *Proceedings of the 12th Latin American Theoretical INformatics, LATIN2016*, Lecture Notes in Computer Science, Springer-Verlag, vol. 9644, pp. 403–415, 2016.

[CP-122] W.S. Evans, G. Liotta, H. Meijer, S. Wismath, "Alternating Paths and Cycles of Minimum Length", *Proceedings of the 23rd International Symposium on Graph Drawing and Network Visualization, GD'15*, Lecture Notes in Computer Science, Springer-Verlag, vol. 9411, pp. 383–394, 2015.

[CP-121] F. J. Brandenburg, W. Didimo, W. S. Evans, P. Kindermann, G. Liotta, F. Montecchiani, "Recognizing and Drawing IC-planar Graphs", *Proceedings of the 23rd International Symposium on Graph Drawing and Network Visualization, GD'15*, Lecture Notes in Computer Science, Springer-Verlag, vol. 9411, pp. 295–308, 2015.

[CP-120] A. Arleo, W. Didimo, G. Liotta, F. Montecchiani, "A Million Edge Drawing for a Fistful of Dollars", *Proceedings of the 23rd International Symposium on Graph Drawing and Network Visualization, GD'15*, Lecture Notes in Computer Science, Springer-Verlag, vol. 9411, pp. 44–51, 2015.

[CP-119] P. Eades, S.H. Hong, G. Liotta, N. Katoh, S.H. Poon, "Straight-line Drawability of a Planar Graph Plus an Edge", *Proceedings of the Algorithms and Data Structures Symposium, WADS 2015*, Lecture Notes in Computer Science, Springer-Verlag, vol. 9214, pp. 301–313, 2015.

[CP-118] W. Evans, G. Liotta, F. Montecchiani, "Simultaneous Visibility Representations of Plane *st*-graphs Using L-shapes", *Proceedings of the 40th International Workshop on Graph Theoretic Concepts in Computer Science, WG 2015*, Lecture Notes in Computer Science, Springer-Verlag, vol. 9224, pp. 252–265, 2015.

[CP-117] W. Didimo, G. Liotta, M. Patrignani, "On the Complexity of HV-rectilinear Planarity Testing", *Proceedings of the 22nd International Symposium on Graph Drawing, GD '14*, Lecture Notes in Computer Science, Springer-Verlag, vol. 8871, pp. 343–354, 2014.

[CP-116] E. Di Giacomo, G. Liotta, F. Montecchiani, "Drawing Outer 1-planar Graphs with Few Slopes", *Proceedings of the 22nd International Symposium on Graph Drawing, GD '14*, Lecture Notes in Computer Science, Springer-Verlag, vol. 8871, pp. 174–185, 2014.

[CP-115] E. Di Giacomo, W. Didimo, G. Liotta, H. Meijer, S. K. Wismath, "Planar and Quasi Planar Simultaneous Geometric Embedding", *Proceedings of the 22nd International Symposium on Graph Drawing, GD '14*, Lecture Notes in Computer Science, Springer-Verlag, vol. 8871, pp. 52–63, 2014.

[CP-114] G. Liotta, "Graph drawing beyond planarity: some results and open problems", *Proceedings of the 15th Italian Conference on Theoretical Computer Science, ICTCS 2014*, CEUR Workshop Proceedings, pp. 3–8, 2014.

[CP-113] Md. J. Alam, S. G. Kobourov, G. Liotta, S. Pupyrev, S. Veeramoni, "3D Proportional Contact Representations of Graphs", *Proceedings of the 5th International Conference on Information, Intelligence, Systems and Applications, IISA 2014*, IEEE Press, pp. 27–32, 2014.

[CP-112] E. Di Giacomo, W. Didimo, M. Kaufmann, G. Liotta, F. Montecchiani, "Upward-rightward Planar Drawings", *Proceedings of the 5th International Conference on Information, Intelligence, Systems and Applications, IISA 2014*, IEEE Press, pp. 145–150, 2014.

[CP-111] E. Di Giacomo, G. Liotta, F. Montecchiani, "The Planar Slope Number of Subcubic Graphs", *Proceedings of the 11th Latin American Theoretical INformatics, LATIN2014*, Lecture Notes in Computer Science, Springer-Verlag, vol. 8392, pp. 132–143, 2014.

[CP-110] S. Federici, M. L. Mele, S. A. Romeo, W. Didimo, G. Liotta, S. Borsci, F. Meloni, " A Model of Web-Based Follow-Up to Reduce Assistive Technology Abandonment", *Proceedings of the 16th International Conference on Human-Computer Interaction, HCI 2014*, Lecture Notes in Computer Science, Springer-Verlag, vol. 8512, pp. 674–682, 2014.

[CP-109] S.H. Hong, P. Eades, N. Katoh, G.. Liotta, P. Schweitzer, Y.. Suzuki, " A Linear-Time Algorithm for Testing Outer-1-Planarity", *Proceedings of the 21st International Symposium on Graph Drawing, GD '13*, Lecture Notes in Computer Science, Springer-Verlag, vol. 8242, pp. 71–82, 2013.

[CP-108] E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani, I. G. Tollis, "Exploring Complex Drawings via Edge Stratification", *Proceedings of the 21st International Symposium on Graph Drawing, GD '13*, Lecture Notes in Computer Science, Springer-Verlag, vol. 8242, 304–315, 2013.

[CP-107] W. Lenhart, G. Liotta, D. Mondal, R. I. Nishat, "Planar and Plane Slope Number of Partial 2-Trees", *Proceedings of the 21st International Symposium on Graph Drawing, GD '13*, Lecture Notes in Computer Science, Springer-Verlag, vol. 8242, 412–423, 2013.

[CP-106] E. Di Giacomo, G. Liotta, T. Mchedlidze, "Lower and Upper Bounds for Long Induced Paths in 3-Connected Planar Graphs", *Proceedings of the 38th International Workshop on Graph Theoretic Concepts in Computer Science, WG 2013*, Lecture Notes in Computer Science, Springer-Verlag, vol. 8165, pp. 213-224, 2013.

[CP-105] C. Binucci, W. Didimo, G. Liotta, F. Montecchiani, M. Sartore, "TRART : A System to Support Territorial Policies", *Intelligent Environments 2013 Workshop*, Ambient Intelligence and Smart Environments Series of IOS - Press , vol. 17, pp. 629 - 634, 2013.

[CP-104] H.M. Chang, A.S. Chiang, W. Didimoy, C.Y. Linz, G. Liotta, F. Montecchiani, "On the Robustness of the Drosophila Neural Network". *IEEE Netwok Science Workshop*, IEEE Press, pp. 168 - 171, 2013.

[CP-103] P. Angelini, C. Binucci, W. Evans, F. Hurtado, G. Liotta, T. Mchedlidze, H. Meijer, and Y. Okamoto, "Universal Point Subsets for Planar Graphs," *Algorithms and Computation - 23rd International Symposium, ISAAC 2012*, Lecture Notes in Computer Science, Springer-Verlag, vol. 7676, pp. 423–432, 2012.

[CP-102] F. Frati, M. Glisse, W. Lenhart, G. Liotta, T. Mchedlidze, R. I. Nishat, "Point-Set Embeddability of 2-Colored Trees," *Proceedings of the 20th International Symposium on Graph Drawing, GD '12*, Lecture Notes in Computer Science, Springer-Verlag, vol. 7704, pp. 291–302, 2012.

[CP-101] P. Eades, S.H. Hong, N. Katoh, G. Liotta, P. Schweitzer, Y. Suzuki, "Testing Maximal 1-planarity of Graphs with a Rotation System in Linear Time," *Proceedings*

of the 20th International Symposium on Graph Drawing, GD '12, Lecture Notes in Computer Science, Springer-Verlag, vol. 7704, pp. 339–345, 2012.

[CP-100] E. Di Giacomo, G. Liotta, H. Meijer, "The Approximate Rectangle of Influence Drawability Problem," *Proceedings of the 20th International Symposium on Graph Drawing, GD '12*, Lecture Notes in Computer Science, Springer-Verlag, vol. 7704, pp. 114–125, 2012.

[CP-99] D. Bremner, W. Evans, F. Frati, L. Heyer, S. Kobourov, W. Lenhart, G. Liotta, D. Rappaport, S. Whitesides "On Representing Graphs by Touching Cuboids," *Proceedings of the 20th International Symposium on Graph Drawing, GD '12*, Lecture Notes in Computer Science, Springer-Verlag, ol. 7704, pp. 187–198, 2012.

[CP-98] E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani, "h-quasi planar Drawings of Bounded Treewidth Graphs in Linear Area," *Proceedings of the 38th International Workshop on Graph Theoretic Concepts in Computer Science, WG 2012*, Lecture Notes in Computer Science, Springer-Verlag, Springer-Verlag, vol. 7551, pp. 91–102, 2012.

[CP-97] S. Hong, P. Eades, G. Liotta, S.H. Poon, " Fáry's Theorem for 1-Planar Graphs," *Proceedings of the 18th Annual International Computing and Combinatorics Conference, COCOON 2012*, Lecture Notes in Computer Science, Springer-Verlag, Springer-Verlag, vol. 7434, pp. 335–346, 2012.

[CP-96] W. Didimo, G. Liotta, F. Montecchiani, "VIS4AUI: Visual Analysis of Banking Activity Networks", *GRAPP & IVAPP 2012: Proceedings of the Internationa Conference on Computer Graphics Theory and Applications and International Conference on Information Visualization Theory and Applications*,SciTePress, pp. 799–802, 2012.

[CP-95] E. Di Giacomo, W.Didimo, L. Grilli, G. Liotta, S. Romeo, "Heuristics for the Maximum 2-Layer RAC Subgraph Problem", *Proceedings of the Workshop on Algorithms and Computation, WALCOM 2012*, Lecture Notes in Computer Science, Springer-Verlag, Springer-Verlag, vol. 7157, pp. 211-216, 2012.

[CP-94] P. Eades, G. Liotta, "Right Angle Crossing Graphs and 1-planarity", *Proceedings of the 19th International Symposium on Graph Drawing, GD '11*, Lecture Notes in Computer Science, Springer-Verlag, vol. 7034, pp. 148-153, 2011.

[CP-93] W. Evans, E. Gansner, M. Kaufmann, G. Liotta, H. Meijer, A. Spillner, "Approximate Proximity Drawings", *Proceedings of the 19th International Symposium on Graph Drawing, GD '11*, Lecture Notes in Computer Science, Springer-Verlag, vol. 7034, pp. 166-178, 2011.

[CP-92] V. Dujmovic, W. Evans, S. Lazard, W. Lenhart, G. Liotta, D. Rappaport, S. Wismath, "On Point-sets that Support Planar Graphs", *Proceedings of the 19th International Symposium on Graph Drawing, GD '11*, Lecture Notes in Computer Science, Springer-Verlag, vol. 7034, pp. 64-74, 2011.

[CP-91] E. Di Giacomo, W. Didimo, P. Eades, G. Liotta, "2-Layer Right Angle Crossing Drawings", *Proceedings of the International Workshop on Combinatorial Algorithms, IWOCA 2011*, Lecture Notes in Computer Science, Springer-Verlag, vol. 7056, pp. 156–169, 2011.

[CP-90] E. Di Giacomo, L. Grilli, M. Krug, G. Liotta, I. Rutter, "Hamiltonian Orthogeodesic Alternating Paths ", *Proceedings of the International Workshop on Combinatorial Algorithms, IWOCA 2011*, Lecture Notes in Computer Science, Springer-Verlag, vol. 7056, pp. 170–181, 2011.

[CP-89] W. Didimo, G. Liotta, F. Montecchiani, P. Palladino, "Advanced Network Visualization System for Financial Crime Detection", *Proceedings of the IEEE Pacific Visualization Symposium, PacificVis 2011*, IEEE Press, pp. 203–210, 2011.

[CP-88] P. Angelini, G. Di Battista, W. Didimo, F. Frati, S.H. Hong, M. Kaufmann, G. Liotta, A. Lubiw, "Large Angle Crossing Drawings of Planar Graphs in Subquadratic Area", *Computational Geometry - XIV Spanish Meeting on Computational Geometry, EGC 2011, Dedicated to Ferran Hurtado*, Lecture Notes in Computer Science, Springer-Verlag, vol. 7579, pp. 200–209, 2011.

[CP-87] E. Di Giacomo, W. Didimo, G. Liotta, H. Meijer, "Drawing a Tree as a Minimum Spanning Tree Approximation", *Proceedings of the 21st International Symposium on Algorithms and Computation, ISAAC '10*, Lecture Notes in Computer Science, Springer-Verlag, vol. 6507, pp. 51–72, 2010.

[CP-86] W. Didimo, G. Liotta, and S. Romeo, "Topology-driven Force-directed Algorithms", *Proceedings of the 18th International Symposium on Graph Drawing, GD '10*, Lecture Notes in Computer Science, Springer-Verlag, vol. 6502, pp. 165–176, 2010.

[CP-85] V. Dujmović, W. Evans, S. Kobourov, G. Liotta, C. Weibel, and S. Wismath,"On Graphs Supported by Line Sets", *Proceedings of the 18th International Symposium on Graph Drawing, GD '10*, Lecture Notes in Computer Science, Springer-Verlag, vol. 6502, pp. 177–182, 2010.

[CP-84] Mereke van Garderen, Giuseppe Liotta, and Henk Meijer, "Universal Pointsets for 2-coloured Trees", *Proceedings of the 18th International Symposium on Graph Drawing, GD '10*, Lecture Notes in Computer Science, Springer-Verlag, vol. 6502, pp. 365–370, 2010.

[CP-83] M. L. Mele, S. Federici, S. Borsci, G. Liotta, "Beyond a visuocentric way of a visual Web search clustering engine: The sonification of WhatsOnWeb," *Proceedings of the 12th International Conference on Computers Helping People with Special Needs, ICCHP 2010*, Lecture Notes in Computer Science, Springer-Verlag, vol. 6179, pp. 351–357, 2010.

[CP-82] E. Di Giacomo, W. Didimo, G. Liotta, P. Palladino, "Visual Analysis of Financial Crimes," *Proceedings of Advanced Visual Interfaces, AVI 2010*, ACM-Press, pp. 393-394, 2010.

[CP-81] E. Di Giacomo, G. Liotta, S. Federici, "Information Visualization Techniques for Motion Impaired People, " *Proceedings of the 3rd International Conference on Health Informatics, HEALTHINF 2010*, pp. 361-366, INSTICC Press, 2010.

[CP-80] W. Didimo, G. Liotta, S. Romeo, "Graph Visualization Techniques for Conceptual Web Site Traffic Analysis," *Proceedings of the IEEE Pacific Visualization Symposium, PacificVis 2010*, pp. 193-200, IEEE press, 2010.

[CP-79] E. Di Giacomo, G. Liotta, "The Hamiltonian Augmentation Problem and its Applications to Graph Drawing, " Proceedings of the *4th Workshop on Algorithms and Complexity, WALCOM '10*, Lecture Notes in Computer Science, vol. 5942, Springer-Verlag, pp. 35–46, 2010.

[CP-78] V. Batagelj, W. Didimo, G. Liotta, P. Palladino, M. Patrignani, "Visual Analysis of Large Graphs Using (X,Y)-clustering and Hybrid Visualizations," *Proceedings of the IEEE Pacific Visualization Symposium, PacificVis 2010*, pp. 193-200, IEEE press, 2010.

[CP-77] S. Cabello, M. van Kreveld, G. Liotta, H. Meijer, B. Speckmann, K. Verbeek "Geometric Simultaneous Embeddings of a Graph and a Matching," *Proceedings of the 17th International Symposium on Graph Drawing, GD '09*, Lecture Notes in Computer Science, Springer-Verlag, vol. 5849, Springer-Verlag, pp. 183–194, 2009.

[CP-76] C. Binucci, E. Di Giacomo, W. Didimo, A. Estrella-Balderrama, F. Frati, S. Kobourov, G. Liotta, "Directed Graphs with an Upward Straightline Embedding into Every Point Set", *Canadian Conference on Computational Geometry, CCCG 2009*, 2009.

[CP-75] E. Di Giacomo, W. Didimo, G. Liotta, H. Meijer, "Area, Curve Complexity, and Crossing Resolution of Non-Planar Graph Drawings," *Proceedings of the 17th International Symposium on Graph Drawing, GD '09*, Lecture Notes in Computer Science, vol. 5849, Springer-Verlag, pp. 15–20, 2009.

[CP-74] W. Didimo, P. Eades, G. Liotta, "Drawing Graphs with Right Angle Crossings," *Proceedings of the Algorithms and Data Structures Symposium, WADS 2009*, Lecture Notes in Computer Science, vol. 5664, Springer-Verlag, pp. 206–217, 2009.

[CP-73] L. Grilli, S.H. Hong, G. Liotta, H. Meijer, S. Wismath "Matched Drawability of Graph Pairs and of Graph Triples," *Proceedings of the 3rd Workshop on Algorithms and Complexity, WALCOM '09*, Lecture Notes in Computer Science, vol. 5431, Springer-Verlag, pp. 322–333, 2009.

[CP-72] E. Di Giacomo, W. Didimo, G. Liotta, H. Meijer, S. Wismath "Constrained Point-Set Embeddability of Planar Graphs," *Proceedings of the 16th International Symposium on Graph Drawing, GD '08*, Lecture Notes in Computer Science, vol. 5417, Springer-Verlag, pp. 360–371, 2008.

[CP-71] E. Di Giacomo, W. Didimo, G. Liotta, P. Palladino, "Visual Analysis of One-To-Many Matched Graphs," *Proceedings of the 16th International Symposium on Graph Drawing, GD '08*, Lecture Notes in Computer Science, vol. 5417, Springer-Verlag, pp. 133–144, 2008.

[CP-70] F. Giordano, G. Liotta, S.H. Whitesides, "Embeddability Problems for Upward Planar Digraphs," *Proceedings of the 16th International Symposium on Graph Drawing, GD '08*, Lecture Notes in Computer Science, vol. 5417, Springer-Verlag, pp. 242–253, 2008.

[CP-69] D. Bremner, J. Lenchner, G. Liotta, C. Paul, M. Pouget, S. Stolpner, S. Wismath, "A note on alpha-drawable k-trees," *Proceedings of the 20th Canadian Conference on Computational Geometry*, Montreal, 2008, pp. 23-27.

[CP-68] E. Di Giacomo, W. Didimo, L. Grilli, G. Liotta, P. Palladino, "WhatsOnWeb+: An Enhanced Visual Search Clustering Engine," *Proceedings of the IEEE Pacific Visualization Symposium, PacificVis 2008*, IEEE press, pp. 167–174, 2008.

[CP-67] F. Giordano, G. Liotta, T. Mchedlidze, A. Symvonis, "Computing Upward Topological Book Embeddings of Upward Planar Digraphs," *Proceedings of the 18th International Symposium on Algorithms and Computation, ISAAC '07*, Lecture Notes in Computer Science, vol. 4835, Springer-Verlag, pp. 172–183, 2007.

[CP-66] E. Di Giacomo, W. Didimo, G. Liotta, H. Meijer, S. Wismath, "Point-Set Embedding of Trees with Edge Constraints," *Proceedings of the 15th International Symposium on Graph Drawing, GD '07*, Lecture Notes in Computer Science, vol. 4875, Springer-Verlag, pp. 113–124, 2007.

[CP-65] E. Di Giacomo, W. Didimo, M. van Kreveld, G. Liotta, B. Speckmann, "Matched Drawings of Planar Graphs," *Proceedings of the 15th International Symposium on Graph Drawing, GD '07*, Lecture Notes in Computer Science, vol. 4875, Springer-Verlag, pp. 183–194, 2007.

[CP-64] H. Everett, S. Lazard, G. Liotta, S. Wismath, "Universal Sets of n Points for 1-bend Drawings of Planar Graphs with n Vertices," *Proceedings of the 15th International Symposium on Graph Drawing, GD '07*, Lecture Notes in Computer Science, vol. 4875, Springer-Verlag, pp. 345–351, 2007.

[CP-63] E. Di Giacomo, G. Liotta, F. Trotta, "Drawing Colored Graphs with Constrained Vertex Positions and Few Bends per Edge," *Proceedings of the 15th International Symposium on Graph Drawing, GD '07*, Lecture Notes in Computer Science, vol. 4875, Springer-Verlag, pp. 315–326, 2007.

[CP-62] E. Kim, G. Liotta, S. H. Whitesides, "A Note on Drawing Direction-constrained Paths in 3D," *Proceedings of the 19th Canadian Conference on Computatitional Geometry, CCCG '07*, pp. 193-196, 2007.

[CP-61] M. Badent, E. Di Giacomo, G. Liotta, "Drawing Colored Graphs on Colored Points," *Proceedings of the 10th Workshop on Algorithms and Data Structures, WADS '07*, Lecture Notes in Computer Science, vol. 4619, Springer-Verlag, pp. 102-113, 2007.

[CP-60] U. Brandes, C. Erten, J. Fowler, F. Frati, M. Geyer, C. Gutwenger, S.H. Hong, M. Kaufmann, S. Kobourov, G. Liotta, P. Mutzel, A. Symvonis, "Colored Simultaneous Geometric Embeddings," *Proceedings of the 13th Annual International Computing and Combinatorics Conference, COCOON '07*, Lecture Notes in Computer Science, vol. 4598, Springer-Verlag, pp. 254–263, 2007.

[CP-59] W. Didimo, F. Giordano,G. Liotta, "Overlapping Cluster Planarity," *Proceedings of the Australian-Pacific Symposium on Visualization, APVIS '07*, IEEE, pp. 73-80, 2007.

[CP-58] E. Di Giacomo, L. Grilli, G. Liotta, "Drawing Bipartite Graphs on Two Curves," *Proceedings of 14th Symposium on Graph Drawing, GD '06*, Lecture Notes in Computer Science, vol. 4372, Springer-Verlag, pp. 380-385, 2006.

[CP-57] E. Di Giacomo, W. Didimo, G. Liotta, "Radial Drawings of Graphs: Geometric Constraints and Trade-offs," *Proceedings of 14th Symposium on Graph Drawing, GD '06*, Lecture Notes in Computer Science, vol. 4372, Springer-Verlag, pp. 355-366, 2006.

[CP-56] E. Di Giacomo, W. Didimo, G. Liotta, H. Meijer, F. Trotta, and S. Wismath, "k-chromatic Point-set Embeddability of Outerplanar Graphs," *Proceedings of 14th Symposium on Graph Drawing, GD '06*, Lecture Notes in Computer Science, vol. 4372, Springer-Verlag, pp. 318-329, 2006.

[CP-55] P. F. Cortese, G. Di Battista, F. Frati, L. Grilli, K. A. Lehmann, G. Liotta, M. Patrignani, I. G. Tollis, F. Trotta, "On the Topologies of Local Minimum Spanning Trees," *Workshop on Combinatorial and Algorithmic Aspects of Networking, CAAN 2006*, Lecture Notes in Computer Science, vol. 4235, Springer-Verlag, pp. 31-44, 2006.

[CP-54] E. Di Giacomo, G. Liotta, H. Meijer, S. Wismath, "Volume Requirements of 3D Upward Drawings," *Proceedings of 13th Symposium on Graph Drawing, GD '05*, Lecture Notes in Computer Science, vol. 3843, Springer-Verlag, pp. 101-110, 2005.

[CP-53] E. Di Giacomo, G. Liotta, F. Trotta, "How to Embed a Path onto Two Sets of Points," *Proceedings of 13th Symposium on Graph Drawing, GD '05*, Lecture Notes in Computer Science, vol. 3843, Springer-Verlag, pp. 111-116, 2005.

[CP-52] W. Didimo, F. Giordano, G. Liotta, "Upward Spirality and Upward Planarity Testing," *Proceedings of 13th Symposium on Graph Drawing, GD '05*, Lecture Notes in Computer Science, vol. 3843, Springer-Verlag, pp. 117-128, 2005.

[CP-51] E. Di Giacomo, W. Didimo, L. Grilli, G. Liotta, "WhatsOnWeb: Using Graph Drawing to Search the Web," *Proceedings of 13th Symposium on Graph Drawing,*

GD '05, Lecture Notes in Computer Science, vol. 3843, Springer-Verlag, pp. 480-491, 2005.

[CP-50] E. Di Giacomo, W. Didimo, L. Grilli, G. Liotta, "A Topology-driven Approach to the Design of Web Meta-Search Clustering Engines," *Proceedings of SOFSEM 2005*, Lecture Notes in Computer Science, vol. 3381, Springer-Verlag, pp. 106-116, 2005.

[CP-49] E. Di Giacomo, W. Didimo, G. Liotta, H. Meijer, "Computing Radial Drawings on the minimum number of circles," *Proceedings of the 12th Symposium on Graph Drawing, GD '04*, Lecture Notes in Computer Science, Springer-Verlag, vol. 3393, pp. 251-261, 2004.

[CP-48] E. Di Giacomo, W. Didimo, G. Liotta, M.J. Suderman, "Hamiltonian-with-handles Graphs and the k -spine Drawability Problem," *Proceedings of the 12th Symposium on Graph Drawing, GD '04*, Lecture Notes in Computer Science, vol. 3393, Springer-Verlag, pp. 262-272, 2004.

[CP-47] F. Brandenburg, D. Eppstein, M. Goodrich, S. Kobourov, G. Liotta, P. Mutzel, "Selected Open Problems in Graph Drawing," *Proceedings of the 11th Symposium on Graph Drawing, GD '03*, Lecture Notes in Computer Science, vol. 2912, Springer-Verlag, pp. 515-539, 2003.

[CP-46] E. Di Giacomo, W. Didimo, G. Liotta, S.K. Wismath, "Drawing Planar Graphs on a Curve," *Proceedings of the Workshop on Graph Theoretic Concepts in Computer Science, WG '03*, Lecture Notes in Computer Science, vol. 2880, Springer-Verlag, pp. 192-204, 2003.

[CP-45] E. Di Giacomo, W. Didimo, G. Liotta, S.K. Wismath, "Book Embeddings and Point-set Embeddings of Series-parallel Digraphs," *Proceedings of the Symposium on Graph Drawing, GD '02*, Lecture Notes in Computer Science, vol. 2528, Springer-Verlag, pp. 162-173, 2002.

[CP-44] C. Binucci, W. Didimo, G. Liotta, M. Nonato, "Computing Labeled Orthgonal Drawings," *Proceedings of the Symposium on Graph Drawing, GD '02*, Lecture Notes in Computer Science, vol. 2528, Springer-Verlag, pp. 66-73, 2002.

[CP-43] F. Hurtado, G. Liotta, H. Meijer, "Optimal, Suboptimal, and Robust Algorithms for Proximity Graphs," *Proceedings of the Workshop on Algorithms and Data Structures, WADS 01*, Lecture Notes in Computer Science, Springer-Verlag, vol. 2125, pp. 2–13, 2001.

[CP-42] V. Dujimovic, M. Fellows, M. Hallet, M. Kitching, G. Liotta, C. McCartin, N. Nishimura, P. Ragde, F. Rosamond, M. Suderman, S. Whitesides "On the Parameterized Complexity of Layered Graph Drawing," *Proceedings of the European Symposium on Algorithms, ESA '01*, Lecture Notes in Computer Science, vol. 2161, Springer-Verlag, pp. 488-499, 2001.

[CP-41] C. Binucci, W. Didimo, G. Liotta, M. Nonato, "Edge Labeling Heuristics for the Topology-Shape-Metrics Approach," *Proceedings of the Symposium on Graph Drawing, GD '01*, Lecture Notes in Computer Science, vol. 2265, Springer-Verlag, pp. 139-153, 2001.

[CP-40] E. Di Giacomo, G. Liotta, "WAVE," *Proceedings of the Symposium on Graph Drawing, GD '01*, Lecture Notes in Computer Science, Springer-Verlag, pp. 440-441, 2001.

[CP-39] V. Dujimovic, M. Fellows, M. Hallet, M. Kitching, G. Liotta, C. McCartin, N. Nishimura, P. Ragde, F. Rosamond, M. Suderman, S. Whitesides "A Fixed Parameter Approach to Two-layer Planarization," *Proceedings of the Symposium on Graph Drawing, GD '01*, Lecture Notes in Computer Science, vol. 2265, Springer-Verlag, pp. 1-15, 2001.

[CP-38] S. Felsner, G. Liotta, S. Wismath, "Straight-Line Drawings on Restricted Integer Grids in Two and Three Dimensions," *Proceedings of the Symposium on Graph Drawing, GD '01*, Lecture Notes in Computer Science, vol. 2265, Springer-Verlag, pp. 328-342, 2001.

[CP-37] W.Lenhart, G. Liotta, "Minimum Weight Drawings of Maximal Triangulations," *Proceedings of the Symposium on Graph Drawing, GD '00*, Lecture Notes in Computer Science, Springer-Verlag, vol. 1984, pp. 338-349, 2000.

[CP-36] C. Demetrescu, I. Finocchi, G. Liotta, "Visualizing Algorithms Over the Web with the Publication Driven Approach ," *Proceedings of the Workshop on Algorithm Engineering, WAE 2000*, Lecture Notes in Computer Science, Springer-Verlag, vol. 1982, pp. 147-158, 2000.

[CP-35] G. Di Battista, G. Liotta, A. Lubiw, S. Whitesides, "Orthogonal Drawings of Cycles in 3D Space," *Proceedings of the Symposium on Graph Drawing, GD '00*, Lecture Notes in Computer Science, Springer-Verlag, vol. 1984, pp. 272-283, 2000.

[CP-34] G. Di Battista, G. Liotta, A. Lubiw, S. Whitesides, "Embedding Problems for Paths with Direction Constrained Edges," *Proceedings of the Annual International Computing and Combinatorics Conference, COCOON'00*, Lecture Notes in Computer Science, Springer-Verlag, vol. 1858, pp. 64-73, 2000.

[CP-33] A. Garg, G. Liotta, "Almost Bend-Optimal Planar Orthogonal Drawings of Biconnected Degree-3 Planar Graphs in Quadratic Time," *Proceedings of the Symposium on Graph Drawing, GD'99*, Lecture Notes in Computer Science, Springer-Verlag, vol. 1731, pp. 38-48, 1999.

[CP-32] G. Liotta, H. Meijer "Voronoi Drawings of Trees," *Proceedings of the Symposium on Graph Drawing, GD'99*, Lecture Notes in Computer Science, Springer-Verlag, vol. 1731, pp. 369-378, 1999.

[CP-31] S. Bridgeman, G. Di Battista, W. Didimo, G. Liotta, R. Tamassia, L. Vismara "Turn Regularity and Planar Orthogonal Drawings," *Proceedings of the Symposium*

on Graph Drawing, GD'99, Lecture Notes in Computer Science, Springer-Verlag, vol. 1731, pp. 8-26, 1999.

[CP-30] C. Demetrescu, G. Di Battista, I. Finocchi, G. Liotta, M. Patrignani, M. Pizzonia "Infinite Trees and the Future," *Proceedings of the Symposium on Graph Drawing, GD'99*, Lecture Notes in Computer Science, Springer-Verlag, vol. 1731, pp. 379-391, 1999.

[CP-29] W. Didimo, G. Liotta "Optimal Orthogonal Drawings in a Variable Embedding Setting," *Proceedings of the Ninth Annual International Symposium on Algorithms and Computation, ISAAC'98*, Lecture Notes in Computer Science, Springer-Verlag, vol. 1533, pp. 79–87, 1998.

[CP-28] G. Di Battista, G. Liotta "Upward Planariy Checking: "Faces are more than Polygons"," *Proceedings of the Symposium on Graph Drawing, GD'98*, Lecture Notes in Computer Science, Springer-Verlag, Springer-Verlag, vol. 1547, pp. 72–86, 1998.

[CP-27] F. d'Amore, P.G. Franciosa, G. Liotta "A Robust Region Approach to Computing Proximity Graphs," *Proceedings of the European Symposium on Algorithms ESA'98*, Lecture Notes in Computer Science, Springer-Verlag. vol. 1353, pp. 1–12, 1998.

[CP-26] G. Liotta "A Note on Checking Proximity Graphs," *Proceedings of the Tenth Canadian Conference on Computational Geometry*, 1998.

[CP-25] W. Lenhart, G. Liotta, "Drawable and Forbidden Minimum Weight Triangulations," *Proceedings of the Symposium on Graph Drawing, GD'97*, Lecture Notes in Computer Science, Springer-Verlag, vol. 1353, pp. 1–12, 1997.

[CP-24] O. Devillers, G. Liotta, F. P. Preparata, R. Tamassia, "Checking the Convexity of Polytopes and the Planarity of Subdivisions," *Proceedings of the Fifth Workshop on Algorithms and Data Structures, WADS'97*, Lecture Notes in Computer Science, Springer-Verlag, vol. 1272, pp. 186–199, 1997.

[CP-23] G. Liotta, F. P. Preparata, R. Tamassia "Robust Proximity Queries: An Illustration of Degree-driven Algorithm Design," *Proceedings of the 13th Annual Symposium on Computational Geometry*, ACM Press, pp. 156–165, 1997.

[CP-22] G. Liotta, R. Tamassia, I.G. Tollis, P. Vocca, "Area requirement of Proximity Drawings," *Proceedings of the 3rd Italian Conference on Algorithms and Complexity*, Lecture Notes in Computer Science, Springer-Verlag, vol. 1203, pp. 135–146, 1997.

[CP-21] W. Lenhart, G. Liotta, "Proximity Drawings of Outerplanar Graphs," *Proceedings of the Symposium on Graph Drawing, GD'96*, Lecture Notes in Computer Science, Springer-Verlag vol. 1190, pp. 286–302, 1996.

[CP-20] G. Di Battista, A. Garg, G. Liotta, A. Parise, R. Tamassia, E. Tassinari, F. Vargiu, L. Vismara, "Drawing Directed Graphs: An experimental Study," *Proceedings of the Symposium on Graph Drawing, GD'96*, Lecture Notes in Computer Science, Springer-Verlag, vol. 1190, pp. 76–91, 1996.

[CP-19] J. E. Baker, I. F. Cruz, G. Liotta, R. Tamassia, "Algorithm Animation Over the World Wide Web", *Proceedings of the Workshop on Advanced Visual Interfaces, AVI'96*, ACM Press, pp. 203–212, 1996.

[CP-18] J. E. Baker, I. F. Cruz, G. Liotta, R. Tamassia, "Animating Geometric Algorithms Over the Web", *Proceedings of 12th Annual Symposium on Computational Geometry*, ACM Press, pp. C3–C4, 1996.

[CP-17] J. E. Baker, I. F. Cruz, G. Liotta, R. Tamassia, "The Mocha Algorithm Animation System", *Proceedings of the Workshop on Advanced Visual Interfaces, AVI'96*, ACM Press, pp. 248–250, 1996.

[CP-16] G. Liotta, G. Di Battista, "Computing Proximity Drawings of Trees in the 3-Dimensional Space," *Proceedings of Algorithms and Data Structures, 5th International Workshop, WADS'95*, Lecture Notes in Computer Science, Springer-Verlag, vol. 955, pp. 239–250, 1995.

[CP-15] W. Lenhart, G. Liotta, "How to Draw Outerplanar Minimum Weight Triangulations", *Proceedings of the Symposium on Graph Drawing, GD'95*, Lecture Notes in Computer Science, Springer-Verlag, vol. 1027, pp. 373-384, 1995.

[CP-14] G. Di Battista, G. Liotta, S. Whitesides, "The Strength of Weak Proximity", *Proceedings of the Symposium on Graph Drawing, GD'95*, Lecture Notes in Computer Science, Springer-Verlag, vol. 1027, pp. 178–189, 1995.

[CP-13] G. Di Battista, A. Garg, G. Liotta, R. Tamassia, E. Tassinari, F. Vargiu, "An Experimental Comparison of Three Graph Drawing Algorithms," *Proceedings of the 11th Annual Symposium on Computational Geometry*, ACM Press, pp. 306–315, 1995.

[CP-12] L. Buti, G. Di Battista, G. Liotta, E. Tassinari, F. Vargiu, L. Vismara, "GD-Workbench: a System for Prototyping and Testing Graph Drawing Algorithms", *Proceedings of the Symposium on Graph Drawing, GD'95*, Lecture Notes in Computer Science, Springer-Verlag, vol. 1027, pp. 111–122, 1995.

[CP-11] G. Liotta, and F. Vargiu, G. Di Battista, "Orthogonal Drawings with the Minimum Number of Bends," *Proceedings of the 6th Canadian Conference on Computational Geometry*, Saskatoon, pp. 281-286, 1994.

[CP-10] P. Bose, G. Di Battista, W. Lenhart, G. Liotta, "Proximity Constraints and Representable Trees," *Proceedings of the Symposium on Graph Drawing, GD'94*, Lecture Notes in Computer Science, Springer-Verlag, vol. 894, pp. 340-351, 1994.

[CP-9] G. Di Battista, W. Lenhart, G. Liotta, "Proximity Drawability: a Survey," *Proceedings of the Symposium on Graph Drawing, GD'94*, Lecture Notes in Computer Science, Springer-Verlag, vol. 894, pp. 328-339, 1994.

[CP-8] H. ElGindy, G. Liotta, A. Lubiw, H. Meijer, S.H. Whitesides, "Recognizing Rectangle of Influence Drawable Graphs," *Proceedings of the Symposium on Graph Drawing,*

GD'94, Lecture Notes in Computer Science, Springer-Verlag, vol. 894, pp. 352-363, 1994.

[CP-7] G. Di Battista, G. Liotta, F. Vargiu, "Spirality of Orthogonal Representations and Optimal Drawings of Series Parallel Graphs and 3-planar Graphs," *Proceedings of Algorithms and Data Structures, 3rd International Workshop, WADS'93*, Lecture Notes in Computer Science, Springer-Verlag, vol. 709, pp. 151-162, 1993.

[CP-6] G. Kant, G. Liotta, R. Tamassia, I.G. Tollis, "Area Requirement of Visibility Representations of Trees," *Proceedings of the 5th Canadian Conference on Computational Geometry*, Waterloo, pp. 192-197, 1993.

[CP-5] P. Bose, W. Lenhart, G. Liotta, "Characterizing Proximity Trees," *Proc. of the International Workshop on Graph Drawing*, pp. 9-11, 1993.

[CP-4] G. Liotta, F. Vargiu, G. Di Battista, "Convex and non-Convex Cost Functions of Orthogonal representations," *Proc. of the International Workshop on Graph Drawing*, pp. 67-69, 1993.

[CP-3] G. Di Battista, G. Liotta, M. Strani, F. Vargiu, "Diagram Server," *Proceedings of the Workshop on Advanced Visual Interfaces, AVI'92*, World Scientific Series in Computer Science, pp. 415-417, 1992.

[CP-2] G. Di Battista, G. Liotta, M. Strani, F. Vargiu, "Diagram Services for Diagram Managing Systems," *Proc. Workshop on Software Evolution*, pp. 87-101, Bari, 1992.

[CP-1] M. Beccaria, P. Bertolazzi, G. Di Battista, G. Liotta, "A Tailorable and Extensible Automatic Layout Facility," *Proceedings IEEE Workshop on Visual Languages, VL'91*, IEEE Computer Society Press, pp. 68-73, 1991.