Curriculum Vitae of

EMILIO DI GIACOMO

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Emilio Di Giacomo received the Laurea degree in Electronic Engineering from the University of Rome "La Sapienza" in 2000 and the PhD degree in Information Engineering from the University of Perugia in 2003. From 2005 to 2015 he is an assistant professor of computer science at the Department of Engineering of the University of Perugia. In 2015 he becomes associate professor at the same department.

His research interests include Graph Drawing, Computational Geometry, Information Visualization, and Algorithm Engineering. He collected more than 130 international publications in the above areas. He also wrote a textbook for the course of Fondamenti di Informatica (Fundamentals of Computer Science). He served in the scientific and organizing committees of several international conferences including the International Symposium on Graph Drawing, the IEEE Pacific Visualization Symposium, and the ACM Symposium on Computational Geometry. Since 2021 he is a member of the Steering Committee of the International Symposium on Graph Drawing and Network Visualization. In 2015 he served as PC co-chair of 23^{rd} International Symposium on Graph Drawing and Network Visualization and in 2022 as PC co-chair of the 38^{th} European Workshop on Computational Geometry. Since 2023 he is co-Editor in chief of the Journal of Graph Algorithms and Applications.

He have been also involved in several national and international research projects, including projects supported by the Italian Ministry of Education and by the European Community. He is also a co-funded of the Vis4 s.r.l. company, started as a spin-off of the University of Perugia.

Emilio's career milestones:

2000: Laurea Degree in Electronic Engineering (Univ. of Rome "La Sapienza")

2003: PhD in Information Engineering (University of Perugia)

2003-2004: Post-doc (University of Perugia)

2005-2015: Assistant Professor (University of Perugia)

2015-: Associate Professor (University of Perugia)

EDUCATION

2003: PhD in Information Engineering at the University of Perugia.

2000: Laurea Degree in Electronic Engineering at University of Rome "La Sapienza",

final grade: 110/110 cum laude.

SCIENTIFIC INTERESTS

Emilio Di Giacomo's research interests are in the general area of Algorithm Engineering, with particular focus to the following fields:

- · Graph Drawing,
- Computational Geometry,
- Information Visualization.

CONFERENCE COMMITTEES

Steering Committee

- **2021-present:** Member of the Steering Committee of the International Symposium on Graph Drawing and Network Visualization.
- **2014-2016:** Member of the Steering Committee of the International Symposium on Graph Drawing and Network Visualization.

Program Committees

- **2025:** PC member of the 18^{th} IEEE Pacific Visualization Symposium (Pacific Vis 2025), Taipei, Taiwan, 22–25 April 2025.
- **2024:** PC member of the 17th IEEE Pacific Visualization Symposium (PacificVis 2024), Tokyo, Japan, 23–26 April 2024.
- **2023:** PC member of the 31^{st} International Symposium on Graph Drawing (GD 2023), Palermo, Italy, 20–22 September 2023.
- **2022:** PC co-chair of the 38th European Workshop on Computational Geometry (Euro-CG 2022), Perugia, Italy, 14–16 March 2022.
- **2020:** PC member of the 36th European Workshop on Computational Geometry (Euro-CG 2020), Würzburg, Germany, 16–18 March 2020.
- **2019:** PC member of the 27th International Symposium on Graph Drawing (GD 2019), Prague, Czech Republic, 17–20 September 2019.
- **2015:** PC chair of the 23th International Symposium on Graph Drawing and Network Visualization (GD 2015), Los Angeles, USA, 24–26 September 2015.
- **2013:** PC member of the 21th International Symposium on Graph Drawing (GD 2013), Bordeaux, France, 23–25 September 2013.
- **2012:** PC member of the 2012 International Workshop on Computer Image and its Applications (CIA 2012) Vancouver, Canada, 26–28 June 2012.

- PC member of the 5^{th} IEEE Pacific Visualization Symposium (Pacific Vis 2012) 2012: Songdo, South Korea, 28 February-2 March 2012.
- 2011: PC member of the 2011 International Workshop on Computer Image and its Applications (CIA 2011) Busan, South Korea, 26–28 May 2011.
- PC member of the 18^{th} International Symposium on Graph Drawing (GD 2010), 2010: Konstanz, Germany, 21–24 September 2010.

Organizing Committee

- Co-chair of the organizing committee of the 31^{st} Symposium on Graph Drawing and Network Visualization (GD 2023), Palermo 20–22 September 2023.
- Co-chair of the organizing committee of the 38^{th} European Workshop on Com-2022: putational Geometry (EuroCG 2022), Perugia 14–16 March 2022.
- 2012: Publicity chair of the 20^{th} Symposium on Graph Drawing (GD 2012), Redmond, WA, USA, 19-21 September 2012.
- Organizing committee member of the 28^{th} European Workshop on Computatio-2012: nal Geometry (EuroCG 2012), Assisi 19-21 March 2012.
- Publicity chair of the 1^{st} International ICST Conference on Practice and Theory 2011: of Algorithms in (Computer) Systems (TAPAS 2011), Rome 18-20 April 2011.
- Publicity chair of the 16th Symposium on Graph Drawing (GD 2008), Crete, 2008: Greece, 21-24 September 2008.
- 2005: Organizing committee member of the ACM Symposium on Computational Geometry (SoCG 2005), Pisa 6-8 June 2005.
- Organizing committee member of the 11^{th} Symposium on Graph Drawing (GD 2003: 2003), Perugia 21–24 September 2003.

EDITORIAL ACTIVITY

- **2023-present:** Co-Editor in Chief of the "Journal of Graph Algorithms and Applications" (http://jgaa.info).
- 2005-2023: Publication Editor of the "Journal of Graph Algorithms and Applications" (http://jgaa.info).

RESEARCH PROJECTS

- **2024-2025:** "Progettazione e Realizzazione Applicativo MDD per Sottosistema di Diagnostica ACC" Research contract between CINI and RFI Principal investigator.
- **2023-2025:** "Progettazione e Realizzazione HMI per sottosistema di diagnostica ACC" Research contract between CINI and RFI Principal investigator.
- **2022-2025:** "STEAMigPOWER: STEAM approaches at higher education for mIGrants, refugees and asylum seekers' emPOWERment", Erasmus+ KA220-HED Cooperation partnerships in higher education –Participant
- 2022-2023: "Per una giustizia giusta: Innovazione ed efficienza negli uffici giudiziari /Giustizia AGILE", PON Governance e Capacità Istituzionale 2014-2020 Participant.
- **2022-2025:** "RASTA Realtà Aumentata e Story-Telling Automatizzato per la valorizzazione di Beni Culturali ed Itinerari", PON 2015-2020 Task Leader of OR 1.3.
- **2019-2022:** "AHeAD: efficient Algorithms for HArnessing networked Data" MIUR PRIN 2017 Participant.
- **2018-2021:** "CARE: Un sistema informativo regionale per lo scompenso cardiaco e la patolgie vascolari" POR-FESR 2014 2020 Participant
- **2018-2019:** "ColleGALi" Research contract with Comune di Perugia (within project PSR UMBRIA 2014/2020) Principal investigator
- 2017-2018: "Kinetic sistema integrato hardware e software per la misurazione di gesti atletici tramite l'acquisizione e l'elaborazione di dati provenienti da sensori inerziali indossati da atleti". Research contract with Laytech s.r.l. (within program POR FESR 2014 2020) Principal investigator
- **2014-2017:** "AMANDA: Algorithmics for MAssive and Networked DAta", MIUR PRIN 2012 Participant.
- **2014-2016:** "SMARTOUR: Intelligent Platform for Tourism, MIUR Smart Cities and Communities and Social Innovation Participant.
 - **2013:** "INFINITY Models and algorithms for the visual representation of information on the driving styles of a big dataset of drivers.", contract between the Department of Engineering of the University of Perugia and the company Sistematica SpA, within the regional call, Innovative Actions, FESR 2007-2013 Participant

- 2010-2012: "ALGODEEP: Algorithmic Challenges for Data-intensive Processing on Emerging Computing Platforms", MIUR PRIN 2008 – Participant.
- 2007-2009: "MAINSTREAM: Algorithms for massive information structures and data streams", MIUR PRIN 2006 – Participant.
- 2006-2007: "AREA: Information System for Experiences of Environmental Education and Sustainable Development", CRIDEA Umbria Regional Project – Participant
- 2004-2006: "ALGO-NEXT: Algorithms for the Next Generation Internet and Web: Methodologies, Design and Experiments", MIUR PRIN 2004 – Participant.
- 2003-2006: "HEALT for ALL in LA: Improving Health Care Access and Management through eLearning for Continuous Professional Development of Family Doctors in Latin America", European Project, @LIS Program - Participant.
- 2003-2004: "Design and implementation of software prototypes within the program: Robotic systems for preserving DNA, blood and biological materials at low temperature", MIUR Project S606/P - Participant
- 2002-2004: "ALINWEB: Algorithms for Internet and the Web", MIUR PRIN 2002 – Participant.

TEACHING ACTIVITY

Emilio Di Giacomo teaches and taught in several undergraduate and master courses of the Engineering Faculty of the University of Perugia. In detail:

- 2009-today: Teacher of **Fundamentals of Computer Science** (Undergraduate Course in Information and Electronic Engineering)
- 2010-today: Teacher of Algorithms and Data Structures (Undergraduate Course in Information and Electronic Engineering)
 - 2008: Teacher of Fundamentals of Computer Science I (Undergraduate Course in Information and Electronic Engineering)
 - 2006: Tacher of Fundamentals of Computer Science II (Undergraduate Course in Management Engineering)
- 2006-2007: Teacher of **Information Systems** (Undergraduate Course in Management Engineering)

- **2005-2009:** Teacher of **Algorithms for Internet and Web** (Undergraduate Course in Information and Electronic Engineering)
- **2005-2009:** Co-teacher of **Guidance for the Project of Computing Systems** (Master Course in Information and Telecommunication Engineering)

He also collaborated and collaborates to the teaching activity of other courses giving some lectures and doing some class exercises. In particular:

- 2022-2023: Collaboration to the teaching of **Information Visualization and Visual**Analytics (Master Course in Information and Robotics Engineering)
- **2010-2015:** Collaboration to the teaching of **Databases** (Master Course in Information and Automation Engineering)
- **2002-2009:** Collaboration to the teaching of **Information Systems** (Undergraduate Course in Information and Electronic Engineering)
 - **2003:** Collaboration to the teaching of **Logic Networks** (Undergraduate Course in Information Engineering)
- **2002-2003:** Collaboration to the teaching activity of **Information Science Methodologies for Internet** (Undergraduate Course in Information Engineering)

He has been supervisor of about 40 undergraduate and master students dissertations.

TECHNOLOGY TRANSFER

2009-2014: Emilio Di Giacomo is a co-founder of the Vis4 Srl company, started as a spin-off of the University of Perugia, and working in the Information Visualization and Visual Analytics fields. The spin-off, founded in 2009, established relevant contracts and collaborations with national and international companies and institutions, like the Financial Intelligence Agency (AIF) of the San Marino Republic and Fabrica, the advertisement company of the Benetton group. Vis4 is also one of the founding member companies of the GGB Consortium (Genomics, Genetics, and Biology), founded in the 2010 with the financial support of the Umbria Region. In November 2014, all the academic members of Vis4 have sold their shares to private entrepreneurs, and the company has changed is name.

PUBLICATIONS

Books and Book Chapters

- [B4] E. Di Giacomo, W. Didimo "Fondamenti di Informatica in Java" Maggioli Editore, 2013.
- [B3] E. Di Giacomo, G. Liotta, R. Tamassia, "Drawings of Graphs" Handbook of Graph Theory, Second Edition, J. Gross, J. Yellen, and P. Zhang eds., CRC Press, 2013.
- [B2] E. Di Giacomo, W. Didimo, and G. Liotta, "Spine and Radial Drawings" Handbook of Graph Drawing and Visualization, R. Tamassia editor, CRC Press, 2013.
- [B1] 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, Taylor-Francis Group LLC, 2012.

Edited Proceedings and Special Issues

- [E2] E. Di Giacomo, A. Lubiw, "Special Issue of Selected Papers from the 23rd International Symposium on Graph Drawing and Network Visualization (GD 2015). Guest Editors' Foreword" Journal of Graph Algorithms and Applications, 21(1) 1-3, 2017.
 - **DOI**:10.7155/jgaa.00404.
- [E1] E. Di Giacomo, A. Lubiw, "Graph Drawing and Network Visualization 23rd International Symposium, GD 2015, Los Angeles, CA, USA, September 24-26, 2015, Revised Selected Papers" LNCS 9411, Springer, 2015, ISBN 978-3-319-27260-3. **DOI**:10.1007/978-3-319-27261-0

Journal Papers

- [J62] S. Chaplick, G. Da Lozzo, E. Di Giacomo, G. Liotta, F. Montecchiani: "Planar Drawings with Few Slopes of Halin Graphs and Nested Pseudotrees" Algorithmica 86(8); 2413-2447, 2024.
 - **DOI**:10.1007/S00453-024-01230-7.
- [J61] C. Binucci, E. Di Giacomo, W. J. Lenhart, G. Liotta, F. Montecchiani, M. Nöllenburg, A. Symvonis "On the complexity of the storyplan problem" Journal of Computer and System Sciences 139; 103466, 2024. **DOI**:10.1016/J.JCSS.2023.103466.
- [J60] E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani, A. Tappini "Comparative Study and Evaluation of Hybrid Visualizations of Graphs" IEEE Transactions on

Visualizaton and Computer Graphics 30(7); 3503-3515, 2024. **DOI**:10.1109/TVCG.2022.3233389.

[J59] C. Binucci, G. Da Lozzo, E. Di Giacomo, W. Didimo, T. Mchedlidze, M. Patrignani "Upward Book Embeddability of st-Graphs: Complexity and Algorithms" *Algorithmica* 85(12); 3521-3571, 2023.

DOI:10.1007/S00453-023-01142-Y.

[J58] 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* 34(7); 875-902, 2023.
DOI:10.1142/S0129054123420042.

- [J57] M. A. Bekos, E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani "Universal Slope Sets for Upward Planar Drawings" *Algorithmica*, 84(9); 2556-2580, 2022.
 DOI:10.1007/s00453-022-00975-3.
- [J56] E. Di Giacomo, G. Liotta, F. Montecchiani "Orthogonal planarity testing of bounded treewidth graphs" *Journal of Computer and System Sciences*, 125: 129-148, 2022.

DOI:10.1016/j.jcss.2021.11.004.

[J55] E. Di Giacomo, W. Didimo, M. Kaufmann, G. Liotta "Stable visualization of connected components in dynamic graphs" *Information Visualization*, 20(1): 3-19, 2021.

DOI:10.1177/1473871620972339.

- [J54] F. De Luca, E. Di Giacomo, S.-H. Hong, S. G. Kobourov, W. J. Lenhart, G. Liotta, H. Meijer, A. Tappini, S. K. Wismath "Packing Trees into 1-planar Graphs" *Journal of Graph Algorithms and Applications*, 25(2): 605-624, 2021. DOI:10.7155/jgaa.00574.
- [J53] Emilio Di Giacomo, William J. Lenhart, Giuseppe Liotta, Timothy W. Randolph, Alessandra Tappini: "(k,p)-planarity: A relaxation of hybrid planarity". *Theoretical Computer Science*, 896: 19-30, 2021. **DOI**:10.1016/j.tcs.2021.09.044.
- [J52] E. Di Giacomo, J. Hančl Jr., G. Liotta: "2-colored point-set embeddings of partial 2-trees". *Theoretical Computer Science*, 896: 31-45, 2021.
 DOI:10.1016/j.tcs.2021.09.045.
- [J51] C. Binucci, E. Di Giacomo, S.-H. Hong, G. Liotta, H. Meijer, V. Sacristán, S. K. Wismath "Colored anchored visibility representations in 2D and 3D space" *Computational Geometry*, 89: 101592, 2020.
 DOI:10.1016/j.comgeo.2019.101592.

- [J50] E. Di Giacomo, G. Liotta, F. Montecchiani "1-bend upward planar slope number of SP-digraphs" Computational Geometry, 90: 101628, 2020. **DOI**:10.1016/j.comgeo.2020.101628.
- [J49] E. Di Giacomo, P. Eades, G. Liotta, H. Meijer, F. Montecchiani "Polyline drawings with topological constraints" Theoretical Computer Science, 809: 250-264, 2020. **DOI**:10.1016/j.tcs.2019.12.016.
- [J48] E. Di Giacomo, L. Gasieniec, G. Liotta, A. Navarra "On the curve complexity of 3colored point-set embeddings" Theoretical Computer Science, 846: 114-140, 2020. **DOI**:10.1016/j.tcs.2020.09.027.
- [J47] E. Di Giacomo, G. Liotta, M. Patrignani, I. Rutter, A. Tappini "NodeTrix Planarity Testing with Small Clusters" Algorithmica, 81(9) 3464-3493, 2019. **DOI**:10.1007/s00453-019-00585-6.
- [J46] 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" Discrete Mathematics, 342(4) 1038-1047, 2019. **DOI**:10.1016/j.disc.2018.12.002.
- [J45] F. De Luca, E. Di Giacomo, W. Didimo, S. G. Kobourov, G. Liotta "An Experimental Study on the Ply Number of Straight-line Drawings" Journal of Graph Algorithms and Applications, 23(1) 71-91, 2019. **DOI**:10.7155/jgaa.00484.
- [J44] A. Arleo, C. Binucci, E. Di Giacomo, W. S. Evans, L. Grilli, G. Liotta, H. Meijer, F. Montecchiani, S. Whitesides, S. K. Wismath "Visibility Representations of Boxes in 2.5 Dimensions" Computational Geometry, 72: 19-33, 2018.
- [J43] E. Di Giacomo, W. Didimo, W. S. Evans, G. Liotta, H. Meijer, F. Montecchiani, S. K. Wismath "Ortho-polygon Visibility Representations of Embedded Graphs" Algorithmica, 80(8): 2345-2383, 2018. **DOI**:10.1007/s00453-017-0324-2.
- [J42] E. Di Giacomo, W. Didimo, W. S. Evans, G. Liotta, H. Meijer, F. Montecchiani, S. K. Wismath "New results on edge partitions of 1-plane graphs" Theoretical Computer Science, 713: 78-84, 2018. **DOI**:10.1016/j.tcs.2017.12.024.
- [J41] E. Di Giacomo, G. Liotta, F. Montecchiani "Drawing subcubic planar graphs with four slopes and optimal angular resolution "Theoretical Computer Science, 714: 51-73, 2018.

DOI:10.1016/j.tcs.2017.12.004.

[J40] C. Binucci, E. Di Giacomo, M. I. Hossain, G. Liotta "1-page and 2-page drawings with bounded number of crossings per edge" *European Journal of Combinatorics*, 68: 24–37, 2018.

DOI:10.1016/j.ejc.2017.07.009.

[J39] E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani "Area-Thickness Trade-Offs for Straight-Line Drawings of Planar Graphs" *The Computer Journal*, 60(1): 135–142, 2017.

DOI:10.1093/comjnl/bxw075.

[J38] C. Binucci, F. De Luca, E. Di Giacomo, G. Liotta, F. Montecchiani "Designing the Content Analyzer of a Travel Recommender System" *Expert Systems with Applica*tions, 87: 199–208, 2016.

DOI:10.1016/j.eswa.2017.06.028.

[J37] E. Di Giacomo, G. Liotta, T. Mchedlidze "Lower and upper bounds for long induced paths in 3-connected planar graphs" *Theoretical Computer Science*, 636: 47–55, 2016.

DOI:10.1016/j.tcs.2016.04.034.

- [J36] E. Di Giacomo, G. Liotta, F. Montecchiani "Drawing Outer 1-planar Graphs with Few Slopes" *Journal of Graph Algorithms and Applications*, 19(2) 707-741, 2015. **DOI**:10.7155/jgaa.00376.
- [J35] E. Di Giacomo, W. Didimo, G. Liotta, H. Meijer, S. K. Wismath "Planar and Quasi-Planar Simultaneous Geometric Embedding" *The Computer Journal*, 58 (11): 3126-3140, 2015.

DOI:10.1093/comjnl/bxv048.

- [J34] C. Binucci, E. Di Giacomo, W. Didimo, F. Montecchiani, M. Patrignani, A. Symvonis, I. G. Tollis "Fan-planarity: Properties and complexity" *Theoretical Computer Science*, 589: 76–86, 2015.
 DOI:10.1016/j.tcs.2015.04.020.
- [J33] E. Di Giacomo, W. Didimo, L. Grilli, G. Liotta, and S. A. Romeo "Heuristics for the Maximum 2-Layer RAC Subgraph Problem" *The Computer Journal*, 58 (5): 1085–1098, 2015.

DOI:10.1093/comjnl/bxu017.

- [J32] E. Di Giacomo, G. Liotta, and H. Meijer "The Approximate Rectangle of Influence Drawability Problem" *Algorithmica*, 72 (2): 620–655, 2015. **DOI**:10.1007/s00453-013-9866-0.
- [J31] E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani, I. G. Tollis "Techniques for Edge Stratification of Complex Graph Drawing" *Journal of Visual Languages and*

Computing, 25 (4): 533-543, 2014. **DOI**:10.1016/j.jvlc.2014.05.001.

- [J30] E. Di Giacomo, W. Didimo, P. Eades, and G. Liotta "2-Layer Right Angle Crossing Drawings" Algorithmica, 68(4), pp. 954-997, 2014. **DOI**:10.1007/s00453-012-9706-7.
- [J29] E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani "Area requirement of graph drawings with few crossings per edge" Computational Geometry, 46 (8), pp. 909-916, 2013. **DOI**:10.1016/j.comgeo.2013.03.001.
- [J28] E. Di Giacomo, F. Frati, R. Fulek, L. Grilli, M. Krug "Orthogeodesic point-set embedding of trees". Computational Geometry, 46 (8), pp. 929–944, 2013. **DOI**:10.1016/j.comgeo.2013.04.003.
- [J27] E. Di Giacomo, L. Grilli, M. Krug, G. Liotta, I. Rutter "Hamiltonian orthogeodesic alternating paths" Journal of Discrete Algorithms, 16, 34–52, 2012. **DOI**:10.1016/j.jda.2012.04.012.
- [J26] E. Di Giacomo, W. Didimo, P. Eades, S.-H. Hong, G. Liotta "Bounds on the crossing resolution of complete geometric graphs" Discrete Applied Mathematics, 160(1-2) 132-139, 2012. **DOI**:10.1016/j.dam.2011.09.016.
- [J25] E. Di Giacomo, W. Didimo, G. Liotta, H. Meijer "Drawing a Tree as a Minimum Spanning Tree Approximation" Journal of Computer and System Sciences, 78(2) 491-503, 2012. **DOI**:10.1016/j.jcss.2011.06.001.
- [J24] C. Binucci, E. Di Giacomo, W. Didimo, A. Rextin "Switch-Regular Upward Planar Embeddings of Directed Trees" Journal of Graph Algorithms and Applications, 15(5) 587-629, 2011. **DOI**:10.7155/jgaa.00241.
- [J23] E. Di Giacomo, F. Giordano, G. Liotta "Upward Topological Book Embeddings of DAGs" SIAM Journal on Discrete Mathematics, 25(2), pp. 479-489, 2011. **DOI**:10.1137/080731128.
- [J22] E. Di Giacomo, W. Didimo, G. Liotta, H. Meijer "Area, Curve Complexity, and Crossing Resolution of Non-Planar Graph Drawings" Theory of Computing Systems, 49(3), pp. 565-575, 2011. **DOI**:10.1007/s00224-010-9275-6.

- [J21] E. Di Giacomo, W. Didimo, G. Liotta, H. Meijer, S. K. Wismath "Constrained Point-Set Embeddability of Planar Graphs" *International Journal of Computational Geometry and Applications*, 20(5), pp. 577-600, 2010. DOI:10.1142/S021819591000344X.
- [J20] E. Di Giacomo, W. Didimo, G. Liotta, P. Palladino "Visual Analysis of One-To-Many Matched Graphs". *Journal of Graph Algorithms and Applications*, 14(1), pp. 97–119, 2010.
 DOI:10.7155/jgaa.00200.
- [J19] E. Di Giacomo, G. Liotta, F. Trotta "Drawing Colored Graphs with Constrained Vertex Positions and Few Bends per Edge" *Algorithmica*, 57(4), pp. 796–818, 2010. DOI:10.1007/s00453-008-9255-2.
- [J18] 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*, 43 (2), pp. 219-232, 2010.
 DOI:10.1016/j.comgeo.2009.07.002.
- [J17] A. Rugo, M. L. Mele, G. Liotta, F. Trotta, E. Di Giacomo, S. Borsci, S. Federici "A visual sonificated web search clustering engine" *Cognitive Processing*, 10(2), pp. 286-289, 2009.
 DOI:10.1007/s10339-009-0317-4.
- [J16] E. Di Giacomo, W. Didimo, G. Liotta, H. Meijer, S. K. Wismath "Point-Set Embeddings of Trees with Given Partial Drawings". *Computational Geometry*, 42 (6-7), pp. 664-676, 2009.
 DOI:10.1016/j.comgeo.2009.01.001.
- [J15] E. Di Giacomo, W. Didimo, M. van Kreveld, G. Liotta, B. Speckmann "Matched Drawings of Planar Graphs". *Journal of Graph Algorithms and Applications*, 13 (3), pp. 423-445, 2009.
 DOI:10.7155/jgaa.00193.
- [J14] E. Di Giacomo, G. Liotta, H. Meijer, S. K. Wismath "Volume Requirements of 3D Upward Drawings" *Discrete Mathematics*, 309 (8), pp. 1824-1837, 2009.
 DOI:10.1016/j.disc.2007.12.061.
- [J13] M. Badent, E. Di Giacomo, G. Liotta "Drawing colored graphs on colored points" Theoretical Computer Science, 408(2-3), pp. 129-142, 2008.
 DOI:10.1016/j.tcs.2008.08.004.
- [J12] E. Di Giacomo, L. Grilli, G. Liotta "Drawing Bipartite Graphs on Two Parallel Convex Curves" *Journal of Graph Algorithms and Applications*, 12(1), pp. 97-112,

2008.

DOI:10.7155/jgaa.00161.

- [J11] E. Di Giacomo, W. Didimo, G. Liotta, H. Meijer, F. Trotta, S. K. Wismath "kcolored Point-set Embeddability of Outerplanar Graphs" Journal of Graph Algorithms and Applications, 12(1), pp. 29-49, 2008. **DOI**:10.7155/jgaa.00158.
- [J10] E. Di Giacomo, W. Didimo, G. Liotta "Radial drawings of graphs: Geometric constraints and trade-offs" Journal of Discrete Algorithms, 6(1), pp. 109-124, 2008. **DOI**:10.1016/j.jda.2006.12.007.
- [J9] E. Di Giacomo, W. Didimo, L. Grilli, G. Liotta "Graph Visualization Techniques for Web Clustering Engines" IEEE Transactions on Visualization and Computer Graphics, 13(2), pp. 294-304, 2007. DOI:10.1109/TVCG.2007.40.
- [J8] E. Di Giacomo, G. Liotta "Simultaneous Embedding of Outerplanar Graphs, Paths, and Cycles" International Journal of Computational Geometry and Applications, 17(2), pp. 139-160, 2007. **DOI**:10.1142/S0218195907002276.
- [J7] E. Di Giacomo, G. Liotta, F. Trotta "On Embedding a Graph on Two Sets of Points" International Journal of Foundations of Computer Science, 17(5), pp. 1071-1094, 2006. **DOI**:10.1142/S0129054106004273.
- [J6] E. Di Giacomo, W. Didimo, G. Liotta, M. J. Suderman "k-Spine, 1-bend planarity" Theoretical Computer Science, 359(1-3), pp. 148-175, 2006. **DOI**:10.1016/j.tcs.2006.02.024.
- [J5] E. Di Giacomo, W. Didimo, G. Liotta, S. K. Wismath "Book Embeddability of Series-Parallel Digraphs", Algorithmica, 45(4), pp. 531-547, 2006. **DOI**:10.1007/s00453-005-1185-7.
- [J4] E. Di Giacomo, W. Didimo, G. Liotta, H. Meijer "Computing Radial Drawings on the Minimum Number of Circles" Journal of Graph Algorithms and Applications, 9(3), pp. 365-389, 2005. **DOI**:10.7155/jgaa.00114.
- [J3] E. Di Giacomo, G. Liotta, H. Meijer "Computing Straight-line 3D Grid Drawings of Graphs in Linear Volume". Computational Geometry, 32(1), pp. 26-58, 2005. **DOI**:10.1016/j.comgeo.2004.11.003.

- [J2] E. Di Giacomo, W. Didimo, G. Liotta, S. K. Wismath "Curve-Constrained Drawings of Planar Graphs". *Computational Geometry*, 30(2), pp. 1-23, 2005. DOI:10.1016/j.comgeo.2004.04.002.
- [J1] E. Di Giacomo, G. Liotta, M. Patrignani "A Note on 3D Orthogonal Drawings with Direction Constrained Edges". *Information Processing Letters*, 90(2), pp. 97-101, 2004.

DOI:10.1016/j.ipl.2004.01.015.

Conference Papers

- [C81] M. A. Bekos, G. Di Battista, E. Di Giacomo, W. Didimo, M. Kaufmann, and F. Montecchiani "On the Complexity of Recognizing k^+ -Real Face Graphs". In *Proceedings of* 32^{nd} *International Symposium on Graph Drawing and Network Visualization (GD 2024)*, (to appear).
- [C80] E. Di Giacomo, H. Förster, D. Kokhovich, T. Mchedlidze, F. Montecchiani, A. Symvonis, A. Villedieu "On 1-Bend Upward Point-Set Embeddings of st-Digraphs" In Proceedings of 16th Latin American Theoretical Informatics (LATIN 2024), volume 14578 of Lecture Notes in Computer Science, pp. 3–18, 2024. DOI:10.1007/978-3-031-55598-5_1.
- [C79] E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani, G. Ortali "On the Parameterized Complexity of Bend-Minimum Orthogonal Planarity" In *Proceedings of 31st International Symposium on Graph Drawing (GD 2023)*, volume 14466 of Lecture Notes in Computer Science, pp. 53–65, 2023.
 DOI:10.1007/978-3-031-49275-4_4
- [C78] E. Di Giacomo, B. Di Martino, W. Didimo, A. Esposito, G. Liotta, F. Montecchiani "Design of a Process and a Container-Based Cloud Architecture for the Automatic Generation of Storyline Visualizations". In *Proceedings of 37th International Conference on Advanced Information Networking and Applications (AINA 2023)*, volume 655 of Lecture Notes in Networks and Systems, pp. 90–99, 2023.
 DOI:10.1007/978-3-031-28694-0_9
- [C77] S. Chaplick, E. Di Giacomo, F. Frati, R. Ganian, C. N. Raftopoulou, K. Simonov "Parameterized Algorithms for Upward Planarity". In *Proceedings of* 38th *International Symposium on Computational Geometry (SoCG 2022)*, volume 224 of LI-PIcs, pp. 26:1–26:16, 2022.

DOI:10.4230/LIPIcs.SoCG.2022.26

[C76] S. Chaplick, E. Di Giacomo, F. Frati, R. Ganian, C. N. Raftopoulou, K. Simonov "Testing Upward Planarity of Partial 2-Trees". In *Proceedings of* 30th *International Symposium on Graph Drawing (GD 2022)*, volume 12868 of Lecture Notes in Computer Science, pp. 175–187, 2022. **DOI**:10.1007/978-3-031-22203-0_13

[C75] C. Binucci, E. Di Giacomo, W. J. Lenhart, G. Liotta, F. Montecchiani, M. Nöllenburg, A. Symvonis "On the Complexity of the Storyplan Problem". In *Proceedings* of 30th International Symposium on Graph Drawing (GD 2022), volume 12868 of Lecture Notes in Computer Science, pp. 304–318, 2022. **DOI**:10.1007/978-3-031-22203-0 22

[C74] E. Di Giacomo, W. Didimo, F. Montecchiani, A. Tappini "A User Study on Hybrid Graph Visualizations". In Proceedings of 29th International Symposium on Graph Drawing (GD 2021), volume 12868 of Lecture Notes in Computer Science, pp. 21-38, 2021.

DOI:10.1007/978-3-030-92931-2_2

[C73] C. Binucci, E. Di Giacomo, G. Liotta, A. Tappini "Quasi-upward Planar Drawings with Minimum Curve Complexity". In Proceedings of 29th International Symposium on Graph Drawing (GD 2021), volume 12868 of Lecture Notes in Computer Science, pp. 195-209, 2021.

DOI:10.1007/978-3-030-92931-2_14

[C72] SChaplick, G. Da Lozzo, E. Di Giacomo, G. Liotta, F. Montecchiani "Planar Drawings with Few Slopes of Halin Graphs and Nested Pseudotrees". In Proceedings of 17th International Symposium on Algorithms and Data Structures (WADS 2021), volume 12808 of Lecture Notes in Computer Science, pp. 271-285, 2021. **DOI**:10.1007/978-3-030-83508-8_20

[C71] E. Di Giacomo, J. Hančl, G. Liotta "2-Colored Point-Set Embeddings of Partial 2-Trees". In Proceedings of 14th International Conference and Workshops on Algorithms and Computation (WALCOM 2021), volume 12635 of Lecture Notes in Computer Science, pp. 247-259, 2020.

DOI:10.1007/978-3-030-68211-8_20

[C70] E. Di Giacomo, W. Didimo, L. Grilli, G. Liotta, F. Montecchiani "Visual Analytics for Financial Crime Detection at the University of Perugia". In Proceedings of AVI 2020 Workshops, AVI-BDA and ITAVIS, volume 12585 of Lecture Notes in Computer Science, pp. 195–200, 2020.

DOI:10.1007/978-3-030-68007-7_14

[C69] EDi Giacomo, WDidimo, GLiotta, FMontecchiani, ATappini "Storyline Visualizations with Ubiquitous Actors". In Proceedings of 28th International Symposium on Graph Drawing (GD 2020), volume 12590 of Lecture Notes in Computer Science, pp. 324-332, 2020.

DOI:10.1007/978-3-030-68766-3_25

[C68] F. De Luca, E. Di Giacomo, S.-H. Hong, S. G. Kobourov, W. Lenhart, G. Liotta, H. Meijer, A. Tappini, S. K. Wismath "Packing Trees into 1-Planar Graphs". In Proceedings of 13th International Conference and Workshops on Algorithms and Computation (WALCOM 2020), volume 12049 of Lecture Notes in Computer Science, pp. 81-93, 2020.

DOI:10.1007/978-3-030-39881-1_8

[C67] C. Binucci, G. Da Lozzo, E. Di Giacomo, W. Didimo, T. Mchedlidze, M. Patrignani "Upward Book Embeddings of st-Graphs". In *Proceedings of* 35th *International Symposium on Computational Geometry (SoCG 2019)*, volume 129 of LIPIcs, pp. 13:1–13:22, 2019.

DOI:10.4230/LIPIcs.SoCG.2019.13

[C66] E. Di Giacomo, G. Liotta, F. Montecchiani "Sketched Representations and Orthogonal Planarity of Bounded Treewidth Graphs". In *Proceedings of* 27th *International Symposium on Graph Drawing (GD 2019)*, volume 11904 of Lecture Notes in Computer Science, pp. 379–392, 2019.

DOI:10.1007/978-3-030-35802-0_29

[C65] E. Di Giacomo, W. J. Lenhart, G. Liotta, T. W. Randolph, A. Tappini "(k,p)-Planarity: A Relaxation of Hybrid Planarity". In *Proceedings of* 12^{th} *International Conference and Workshops on Algorithms and Computation (WALCOM 2019)*, volume 11355 of Lecture Notes in Computer Science, pp. 148–159, 2019.

DOI:10.1007/978-3-030-10564-8_12

[C64] M. A. Bekos, E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani "Universal Slope Sets for Upward Planar Drawings". In *Proceedings of* 26th *International Symposium on Graph Drawing (GD 2018)*, volume 11282 of Lecture Notes in Computer Science, pp. 77–91, 2018.

DOI:10.1007/978-3-030-04414-5_6

[C63] E. Di Giacomo, P. Eades, G. Liotta, H. Meijer, F. Montecchiani "Polyline Drawings with Topological Constraints". In *Proceedings of* 29th *International Symposium* on Algorithms and Computation (ISAAC 2018), volume 123 of LIPIcs, pp. 39:1– 39:13, 2018.

DOI:10.4230/LIPIcs.ISAAC.2018.39

[C62] M. A. Bekos, E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani, C. N. Rafto-poulou "Edge Partitions of Optimal 2-plane and 3-plane Graphs". In *Proceedings of* 44th *International Workshop on Graph-Theoretic Concepts in Computer Science, (WG 2018)*, volume 11159 of Lecture Notes in Computer Science, pp. 27–39, 2018.

DOI:10.1007/978-3-030-00256-5_3

[C61] E. Di Giacomo, L. Gasieniec, G. Liotta, A. Navarra "Colored Point-Set Embeddings of Acyclic Graphs". In Proceedings of 25th International Symposium on Graph Drawing (GD 2017), volume 10692 of Lecture Notes in Computer Science, pp. 413-425, 2018.

DOI:10.1007/978-3-319-73915-1_32

[C60] E. Di Giacomo, G. Liotta, M. Patrignani, A. Tappini "NodeTrix Planarity Testing with Small Clusters". In Proceedings of 25th International Symposium on Graph Drawing (GD 2017), volume 10692 of Lecture Notes in Computer Science, pp. 479-491, 2018.

DOI:10.1007/978-3-319-73915-1_37

[C59] F. De Luca, E. Di Giacomo, W. Didimo, S. G. Kobourov, G. Liotta "An Experimental Study on the Ply Number of Straight-Line Drawings". In Proceedings of 11th International Conference and Workshops on Algorithms and Computation (WAL-COM 2017), volume 10167 of Lecture Notes in Computer Science, pp. 135–148, 2017.

DOI:10.1007/978-3-319-53925-6_11

[C58] E. Di Giacomo, G. Liotta, F. Montecchiani "1-Bend Upward Planar Drawings of SP-Digraphs". In Proceedings of 24th International Symposium on Graph Drawing (GD 2016), volume 9801 of Lecture Notes in Computer Science, pp. 123-130, 2016.

DOI:10.1007/978-3-319-50106-2_10

[C57] 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". In Proceedings of 24th International Symposium on Graph Drawing (GD 2016), volume 9801 of Lecture Notes in Computer Science, pp. 251– 265, 2016.

DOI:10.1007/978-3-319-50106-2_20

[C56] E. Di Giacomo, W. Didimo, W. S. Evans, G. Liotta, H. Meijer, F. Montecchiani, S. K. Wismath "Ortho-Polygon Visibility Representations of Embedded Graphs". In Proceedings of 24^{th} International Symposium on Graph Drawing (GD 2016), volume 9801 of Lecture Notes in Computer Science, pp. 280–294, 2016. **DOI**:10.1007/978-3-319-50106-2_22

[C55] C. Binucci, E. Di Giacomo, I. Hossein, G. Liotta "1-page and 2-page Drawings with Bounded Number of Crossings per Edge". In Proceedings of 26th International Workshop on Combinatorial Algorithms (IWOCA 2015), volume 9538 of Lecture Notes in Computer Science, pp. 38–51, 2015.

DOI:10.1007/978-3-319-29516-9_4

- [C54] E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani "Network Visualization Retargeting". In Proceedings of 6th International Conference on Information, Intelligence, Systems and Applications (IISA 2015), IEEE, 2015. DOI:10.1109/IISA.2015.7388095
- [C53] C. Binucci, F. De Luca, E. Di Giacomo, G. Liotta, F. Montecchiani "VisFLOWer: Visual Analysis of Touristic Flows". In Proceedings of 6th International Conference on Information, Intelligence, Systems and Applications (IISA 2015), IEEE, 2015. DOI:10.1109/IISA.2015.7388006
- [C52] E. Di Giacomo, W. Didimo, S.-H. Hong, M. Kaufmann, S. Kobourov, G. Liotta, K. Misue, A. Symvonis and H.-C. Yen "Low Ply Graph Drawing". In *Proceedings of* 6th *International Conference on Information, Intelligence, Systems and Applications (IISA 2015)*, IEEE, 2015.
 DOI:10.1109/IISA.2015.7388020
- [C51] E. Di Giacomo, W. Didimo, G. Liotta, H. Meijer, S. K. Wismath "Planar and Quasi Planar Simultaneous Geometric Embedding". In *Proceedings of* 22nd *Internatio*nal Symposium on Graph Drawing (GD 2014), volume 8871 of Lecture Notes in Computer Science, pp. 52–63, 2014. DOI:10.1007/978-3-662-45803-7_5
- [C50] E. Di Giacomo, G. Liotta, F. Montecchiani "Drawing Outer 1-planar graphs with few slopes". In *Proceedings of* 22nd *International Symposium on Graph Drawing* (GD 2014), volume 8871 of Lecture Notes in Computer Science, pp. 174–185, 2014.
 - **DOI**:10.1007/978-3-662-45803-7_15
- [C49] C. Binucci, E. Di Giacomo, W. Didimo, F. Montecchiani, M. Patrignani, I. G. Tollis "Fan-planar Graphs: Combinatorial Properties and Complexity Results". In *Proceedings of* 22nd *International Symposium on Graph Drawing (GD 2014)*, volume 8871 of Lecture Notes in Computer Science, pp. 186–197, 2014.
 DOI:10.1007/978-3-662-45803-7_16
- [C48] E. Di Giacomo, W. Didimo, M. Kaufmann, G. Liotta, F. Montecchiani "Upward-rightward planar drawings". In Proceedings of 5th International Conference on Information, Intelligence, Systems and Applications (IISA 2014), IEEE, pp. 145-150, 2014.
 - DOI:10.1109/IISA.2014.6878792
- [C47] E. Di Giacomo, G. Liotta, and F. Montecchiani "The planar slope number of subcubic graphs". In *Proceedings of* 11th Latin American Theoretical Informatics Symposium (LATIN 2014), volume 8392 of Lecture Notes in Computer Science, pp. 132–143, 2014.
 - **DOI**:10.1007/978-3-642-54423-1_12

[C46] E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani, and I. G. Tollis "Exploring Complex Drawings via Edge Stratification". In Proceedings of 21th International Symposium on Graph Drawing (GD 2013), volume 8242 of Lecture Notes in Computer Science, pp. 304-315, 2013.

DOI:10.1007/978-3-319-03841-4_27

- [C45] E. Di Giacomo, G. Liotta, T. Mchedlidze "Lower and Upper Bounds for Long Induced Paths in 3-Connected Planar Graphs". In *Proceedings of* 39th International Workshop on Graph Theoretic Concepts in Computer Science (WG 2013), volume 8165 of Lecture Notes in Computer Science, pp. 213–224, 2013. **DOI**:10.1007/978-3-642-45043-3_19
- [C44] E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani "Area Requirement of Graph Drawings with Few Crossings per Edge". 29th European Workshop on Computational Geometry (EUROCG 2013), 2013.
- [C43] E. Di Giacomo, G. Liotta, H. Meijer "The Approximate Rectangle of Influence Drawability Problem". In Proceedings of 20th International Symposium on Graph Drawing (GD 2012), volume 7704 of Lecture Notes in Computer Science, pp. 114– 125, 2013. **DOI**:10.1007/978-3-642-36763-2_11
- [C42] E. Di Giacomo, W. Didimo, G. Liotta, F. Montecchiani "h-quasi planar Drawings of Bounded Treewidth Graphs in Linear Area". In *Proceedings of* 38th International Workshop on Graph Theoretic Concepts in Computer Science (WG 2012), volume 7551 of Lecture Notes in Computer Science, pp. 91–102, 2012. **DOI**:10.1007/978-3-642-34611-8_12
- [C41] E. Di Giacomo, W. Didimo, L. Grilli, G. Liotta, S. A. Romeo "Heuristics for the Maximum 2-layer RAC Subgraph Problem". In Md. S. Rahman and S.-I. Nakano, editors, Proceedings of 6th Workshop on Algorithms and Computation (WALCOM 2012), volume 7157 of Lecture Notes in Computer Science, pp. 211–216, 2012. **DOI**:10.1007/978-3-642-28076-4_21
- [C40] E. Di Giacomo, F. Frati, R. Fulek, L. Grilli, M. Krug "Orthogeodesic Point-Set Embedding of Trees". In M. van Kreveld and B. Speckmann, editors, Proceedings of 19th International Symposium on Graph Drawing (GD 2011), volume 7034 of Lecture Notes in Computer Science, pp. 52–63, 2012. **DOI**:10.1007/978-3-642-25878-7_6
- [C39] E. Di Giacomo, L. Grilli, M. Krug, G. Liotta, I. Rutter "Hamiltonian Orthogeodesic Alternating Paths". In Proceedings of the International Workshop on Combinatorial Algorithms (IWOCA 2011), volume 7056 of Lecture Notes in Computer Science, pp. 170-181, 2011.

DOI:10.1007/978-3-642-25011-8_13

[C38] E. Di Giacomo, W. Didimo, P. Eades, G. Liotta "2-Layer Right Angle Crossing Drawings". In *Proceedings of the International Workshop on Combinatorial Al*gorithms (IWOCA 2011), volume 7056 of Lecture Notes in Computer Science, pp. 156–169, 2011.

DOI:10.1007/978-3-642-25011-8_13

[C37] E. Di Giacomo, W. Didimo, G. Liotta, H. Meijer "Drawing a Tree as a Minimum Spanning Tree Approximation". In O. Cheong, K.-Y. Chwa, and K. Park, editors, *Proceedings of* 21st *International Symposium on Algorithms and Computation (ISAAC 2010), Part II*, volume 6507 of Lecture Notes in Computer Science, pp. 61–72, 2010.

DOI:10.1007/978-3-642-17514-5_6

[C36] E. Di Giacomo, W. Didimo, G. Liotta, P. Palladino "Visual Analysis of Financial Crimes". In G. Santucci editor, *Proceedings of Advanced Visual Interfaces 2010* (AVI 2010), ACM Press, pp. 393-394, 2010. DOI:10.1145/1842993.1843073

- [C35] E. Di Giacomo, G. Liotta, S. Federici "Information Visualization Techniques for Motion Impaired People". In *Proceedings of 3rd International Conference on Health Informatics (HEALTHINF 2010)*, INSTICC Press, pp. 361–366, 2010. DOI:10.5220/0002758403610366
- [C34] E. Di Giacomo, G. Liotta "The Hamiltonian Augmentation Problem and its Applications to Graph Drawing". In Md. S. Rahman and S. Fujita, editors, *Proceedings of 4th Workshop on Algorithms and Computation (WALCOM 2010)*, volume 5941 of Lecture Notes in Computer Science, pp. 35–46, 2010.
 DOI:10.1007/978-3-642-11440-3_4
- [C33] C. Binucci, E. Di Giacomo, W. Didimo, A. Rextin "Switch-Regular Upward Planar Embeddings of Trees". In Md. S. Rahman and S. Fujita, editors, *Proceedings of* 4th Workshop on Algorithms and Computation (WALCOM 2010), volume 5941 of Lecture Notes in Computer Science, pp. 58–69, 2010. DOI:10.1007/978-3-642-11440-3_6
- [C32] E. Di Giacomo, W. Didimo, G. Liotta, H. Meijer "Area, Curve Complexity, and Crossing Resolution of non-Planar Graph Drawings". In D. Eppstein and E. Gansner, editors, *Proceedings of* 17th *International Symposium on Graph Drawing (GD* 2009), volume 5849 of Lecture Notes in Computer Science, pp. 15–20, 2010. DOI:10.1007/978-3-642-11805-0_4
- [C31] E. Di Giacomo, F. Giordano, G. Liotta "Upward Topological Book Embeddings of DAGs". Proceedings of 7th Japan Conference on Computational Geometry and Graphs (JCCGG 2009), pp. 131-132, 2009.

- [C30] M. L. Mele, S. Borsci, A. Rugo, S. Federici, G. Liotta, F. Trotta, E. Di Giacomo "An Accessible Web Searching: An On-going Research Project". In P. L. Emiliani, L. Burzagli, A. Como, F. Gabbanini, A.-L. Salminen, editors, Assistive Technology from Adapted Equipment to Inclusive Environments - AAATE 2009, volume 25 of Assistive Technology Research Series, p. 854, 2009. **DOI**:10.3233/978-1-60750-042-1-854
- [C29] C. Binucci, E. Di Giacomo, W. Didimo, A. Estrella-Balderrama, F. Frati, S. G. Kobourov, G. Liotta "On Directed Graphs with an Upward Straight-line Embedding into Every Point Set". Proceedings of 21th Canadian Conference on Computational Geometry (CCCG 2009), pp. 21-24, 2009.
- [C28] E. Di Giacomo, W. Didimo, G. Liotta, P. Palladino "Visual Analysis of One-To-Many Matched Graphs". In M. Patrignani and I. G. Tollis, editors, Proceedings of 16th International Symposium on Graph Drawing (GD 2008), volume 5417 of Lecture Notes in Computer Science, pp. 133-144, 2009. **DOI**:10.1007/978-3-642-00219-9_14
- [C27] E. Di Giacomo, W. Didimo, G. Liotta, H. Meijer, S. K. Wismath "Constrained Point-set Embeddability of Planar Graphs". In M. Patrignani and I. G. Tollis, editors, Proceedings of 16th International Symposium on Graph Drawing (GD 2008), volume 5417 of Lecture Notes in Computer Science, pp. 360-371, 2009. **DOI**:10.1007/978-3-642-00219-9_35
- [C26] E. Di Giacomo, W. Didimo, L. Grilli, G. Liotta, P. Palladino "WhatsOnWeb+, an Enhanced Visual Search Clustering Engine". In Proceedings of IEEE Pacific Visualization Symposium 2008, pp 167-174, 2008. **DOI**:10.1109/PACIFICVIS.2008.4475473
- [C25] E. Di Giacomo, G. Liotta, F. Trotta "Drawing Colored Graphs with Constrained Vertex Positions and Few Bends per Edge". In S. Hong and T. Nishizeki, editors, Proceedings of 15th International Symposium on Graph Drawing (GD 2007), volume 4875 of Lecture Notes in Computer Science, pp. 315-326, 2008. **DOI**:10.1007/978-3-540-77537-9_31
- [C24] E. Di Giacomo, W. Didimo, G. Liotta, H. Meijer, S. K. Wismath "Point-set Embeddings of Trees with Edge Constraints". In S. Hong and T. Nishizeki, editors, Proceedings of 15th International Symposium on Graph Drawing (GD 2007), volume 4875 of Lecture Notes in Computer Science, pp. 113-124, 2008. **DOI**:10.1007/978-3-540-77537-9_14
- [C23] E. Di Giacomo, W. Didimo, M. van Kreveld, G. Liotta, B. Speckmann "Matched Drawings of Planar Graphs". In S. Hong and T. Nishizeki, editors, Proceedings of 15th International Symposium on Graph Drawing (GD 2007), volume 4875 of

Lecture Notes in Computer Science, pp. 183-194, 2008. **DOI**:10.1007/978-3-540-77537-9_19

- [C22] M. Badent, E. Di Giacomo, G. Liotta "Drawing Colored Graphs on Colored Points". In Frank K. H. A. Dehne, Jörg-Rüdiger Sack and Norbert Zeh, editors, *Proceedings of* 10th Workshop on Algorithms and Data Structures (WADS 2007), volume 4619 of Lecture Notes in Computer Science, pp. 102-113, 2007.
 DOI:10.1007/978-3-540-73951-7_10
- [C21] M. Badent, C. Binucci, E. Di Giacomo, W. Didimo, S. Felsner, F. Giordano, J. Kratochvìl, P. Palladino, M. Patrignani, F. Trotta "Homotetic Triangle Contact Representations of Planar Graphs". *Proceedings of* 19th Canadian Conference on Computational Geometry (CCCG 2007), pp. 233–236, 2007.
- [C20] E. Di Giacomo, W. Didimo, G. Liotta, H. Meijer, F. Trotta, S. K. Wismath "k-colored Point-set Embeddability of Outerplanar Graphs". In M. Kaufmann and D. Wagner, editors, *Proceedings of* 14th *International Symposium on Graph Drawing* (GD 2006), volume 4372 of Lecture Notes in Computer Science, pp. 318-329, 2007.

DOI:10.1007/978-3-540-70904-6_31

[C19] E. Di Giacomo, L. Grilli, G. Liotta "Drawing Bipartite Graphs on Two Curves". In M. Kaufmann and D. Wagner, editors, *Proceedings of* 14th *International Symposium on Graph Drawing (GD 2006)*, volume 4372 of Lecture Notes in Computer Science, pp. 380-385, 2007.

DOI:10.1007/978-3-540-70904-6_36

- [C18] E. Di Giacomo, W. Didimo, G. Liotta "Radial Drawings of Graphs: Geometric Constraints and Trade-offs". In M. Kaufmann and D. Wagner, editors, *Proceedings* of 14th International Symposium on Graph Drawing (GD 2006), volume 4372 of Lecture Notes in Computer Science, pp. 355-366, 2007. DOI:10.1007/978-3-540-70904-6_34
- [C17] E. Di Giacomo, G. Liotta, F. Trotta "On Embedding a Graph on Two Sets of Points". 22nd European Workshop on Computational Geometry (EUROCG 2006), 2006.
- [C16] E. Di Giacomo, G. Liotta, F. Trotta "How to Embed a Path onto Two Sets of Points". In P. Healy and N. Nikolov, editors, *Proceedings of* 13th *International Symposium on Graph Drawing (GD 2005)*, volume 3843 of Lecture Notes in Computer Science, pp. 111-116, 2006.

DOI:10.1007/11618058_11

[C15] E. Di Giacomo, G. Liotta, H. Meijer, and S. K. Wismath "Volume Requirements of 3D Upward Drawings". In P. Healy and N. Nikolov, editors, *Proceedings of* 13th International Symposium on Graph Drawing (GD 2005), volume 3843 of Lecture Notes in Computer Science, pp. 101-110, 2006.

DOI:10.1007/11618058_10

[C14] E. Di Giacomo, W. Didimo, L. Grilli, G. Liotta "WhatsOnWeb: Using Graph Drawing to Search the Web". In P. Healy and N. Nikolov, editors, *Proceedings of* 13th International Symposium on Graph Drawing (GD 2005), volume 3843 of Lecture Notes in Computer Science, pp. 480-491, 2006.

DOI:10.1007/11618058 43

- [C13] E. Di Giacomo, G. Liotta, "A Note on Simultaneous Embedding of Planar Graphs". 21st European Workshop on Computational Geometry (EUROCG 2005), 2005.
- [C12] E. Di Giacomo, W. Didimo, L. Grilli, G. Liotta "A Topology-driven Approach to the Design of Web Meta-search Clustering Engines". In Peter Vojtás, Mária Bieliková, Bernadette Charron-Bost and Ondrej Sýkora, editors, Proocedings of 31st Annual Conference on Current Trends in Theory and Practice of Informatics (SOFSEM 2005), volume 3381 of Lecture Notes in Computer Science, pp. 106-116, 2005. **DOI**:10.1007/978-3-540-30577-4_14
- [C11] E. Di Giacomo, W. Didimo, G. Liotta, M. J. Suderman "Hamiltonian-with-handles Graphs and the k-spine Drawability Problem". In J. Pach, editor, Proceedings of 12th International Symposium on Graph Drawing (GD 2004), volume 3383 of Lecture Notes in Computer Science, pp. 262-272, 2004. **DOI**:10.1007/978-3-540-31843-9_27
- [C10] E. Di Giacomo, W. Didimo, G. Liotta, H. Meijer "Computing Radial Drawings on the Minimum Number of Circles". In J. Pach, editor, Proceedings of 12th International Symposium on Graph Drawing (GD 2004), volume 3383 of Lecture Notes in Computer Science, pp. 251-261, 2004.

DOI:10.1007/978-3-540-31843-9_26

[C9] E. Di Giacomo "Drawing Series-Parallel Graphs on Restricted Integer 3D Grids". In G. Liotta, editor, Proceedings of 11th International Symposium on Graph Drawing (GD 2003), volume 2912 of Lecture Notes in Computer Science, pp. 238-246, 2004.

DOI:10.1007/978-3-540-24595-7_22

[C8] E. Di Giacomo, W. Didimo "Straight-line Drawings of 2-Outerplanar Graphs on Two Curves". In G. Liotta, editor, *Proceedings of* 11th *International Symposium on* Graph Drawing (GD 2003), volume 2912 of Lecture Notes in Computer Science, pp. 419-424, 2004.

DOI:10.1007/978-3-540-24595-7_39

[C7] E. Di Giacomo, H. Meijer "Track Drawings of Graphs with Constant Queue Number". In G. Liotta, editor, *Proceedings of* 11th *International Symposium on Graph Drawing (GD 2003)*, volume 2912 of Lecture Notes in Computer Science, pp. 214-225, 2004.

DOI:10.1007/978-3-540-24595-7_20

[C6] E. Di Giacomo, W. Didimo, G. Liotta, S. K. Wismath "Drawing Planar Graphs on a Curve". In H. L. Bodlaender, editor, *Proceedings of* 29th Workshop on Graph Theoretic Concepts in Computer Science (WG 2003), volume 2880 of Lecture Notes in Computer Science, pp. 192-204, 2003.

DOI:10.1007/978-3-540-39890-5_17

[C5] E. Di Giacomo, G. Liotta, M. Patrignani "Orthogonal 3D Shapes of Theta Graphs". In M. T. Goodrich and S. G. Kobourov, editors, *Proceedings of* 10th *International Symposium on Graph Drawing (GD 2002)*, volume 2528 of Lecture Notes in Computer Science, pp. 142–149, 2002.

DOI:10.1007/3-540-36151-0_14

[C4] E. Di Giacomo, W. Didimo, G. Liotta, S. K. Wismath "Book Embeddings and Point-Set Embeddings of Series-Parallel Digraphs". In M. T. Goodrich and S. G. Kobourov, editors, *Proceedings of* 10th *International Symposium on Graph Dra-wing (GD 2002)*, volume 2528 of Lecture Notes in Computer Science, pp. 162–173, 2002.

DOI:10.1007/3-540-36151-0_16

- [C3] E. Di Giacomo, G. Liotta, S. K. Wismath "Drawing Series-Parallel Graphs on a Box". *Proceedings of* 14th Canadian Conference on Computational Geometry (CCCG 2002), 2002.
- [C2] E. Di Giacomo, G. Liotta, "WAVE". In P. Mutzel, M. Jünger and S. Leipert, editors, Proceedings of the 9th International Symposium on Graph Drawing (GD 2001), volume 2265 of Lecture Notes in Computer Science, pp. 440–441, 2002. DOI:10.1007/3-540-45848-4_36
- [C1] C. Demetrescu, E. Di Giacomo, I. Finocchi, G. Liotta, "Visualizing Geometric Algorithms with WAVE: System Demonstration". 10th Annual Fall Workshop on Computational Geometry, Stony Brook NY, 2000.