

# Curriculum Vitae

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## NAME AND LAST NAME

Giordano Da Lozzo

## AFFILIATION

Department of Engineering, Roma Tre University; **Address:** Via della Vasca Navale, 79, 00146, Rome, Italy

## EDUCATION

### **THE ITALIAN MINISTRY OF EDUCATION, UNIVERSITIES AND RESEARCH**

ASSOCIATE PROFESSOR HABILITATION (09/H1 - INFORMATION PROCESSING SYSTEMS)

From 2022 to 2031

### **ROMA TRE UNIVERSITY**

PHD IN COMPUTER SCIENCE

**Thesis title:** Planar graphs with vertices in prescribed regions: models, algorithms, and complexity

Doctoral School of Engineering, Section of Informatics and Automation

May 2015 | Rome, IT

MASTER OF COMPUTER SCIENCE

**Thesis title:** Analysis and Design of a paradigm for the exploration and the visualization of relational data in mobile environment

Computur Networks Laboratory, Department of Informatics and Automation (DIA)

110/110 cum Laude

May 2010 | Rome, IT

## ACADEMIC AND PROFESSIONAL EXPERIENCE

### **ROMA TRE UNIVERSITY**

ASSISTANT PROFESSOR (RICERCATORE A TD, ART. 24, C. 3, LETTERA A), DELLA LEGGE 30/12/2010, N.240 )

Feb 2021 - Feb 2024 | Rome, IT

POSTDOCTORAL RESEARCHER (ASSEGNISTA DI RICERCA, ART. 22 DELLA LEGGE 30/12/2010, N. 240)

Oct 2017 – Jan 2021 | Rome, IT

### **UNIVERSITY OF CALIFORNIA, IRVINE**

ASSISTANT PROJECT SCIENTIST

Oct 2016 – Sept 2017 | Irvine, CA (USA)

### **ROMA TRE UNIVERSITY (PARTLY, CHARLES UNIVERSITY OF PRAGUE)**

PHD STUDENT AND POSTDOCTORAL RESEARCHER (ASSEGNISTA DI RICERCA, ART. 22, L. 30/12/2010, N. 240)

Jan 2012 – Sept 2016 | Rome, IT

### **RIPE NETWORK COORDINATION CENTER**

“LEONARDO DA VINCI PROGRAMME” FELLOW

June 2011 – Dec 2011 | Amsterdam, NL

### **INTER-UNIVERSITY CONSORTIUM FOR SUPERCOMPUTING APPLICATIONS IN UNIVERSITIES AND RESEARCH (CASPUR)**

RESEARCH COLLABORATOR

Feb 2011 – May 2011 | Rome, IT

### **GRID COMPUTING LABORATORY, ENGINEERING S.P.A.**

INTERN IN THE R&D DIVISION

Oct 2010 – Jan 2011 | Rome, IT

### **ROMA TRE UNIVERSITY**

RESEARCH COLLABORATOR

June 2010 – Sept 2010 | Rome, IT

## RESEARCH INTERESTS

My research interests are in Algorithm Engineering and Complexity, focused in particular on the theoretical questions arising from the **design and engineering of efficient algorithms for the analysis and visualization of networks**. The study of such questions has revealed to be central in modern, strategic, branches of Computer Science (and beyond) such as *Computer Networks, Data Science, Algorithmics for Big Data, Information Visualization, Digital Humanities, Social Network Analysis, Bioinformatics*, and many more.

Specifically, my primary area of research lies in *Graph Drawing*, a research field at the intersection of the areas of Computational Geometry, Combinatorial Optimization, Discrete Mathematics, and Graph Theory. Graph Drawing investigates algorithms and bounds to construct geometric and topological representations of graphs. My secondary area of research lies in *Computational Geometry* and *Graph Theory*. Computational Geometry is concerned with data structures and algorithms for solving problems exhibiting a geometric nature and with the numerical and computational issues related to the implementation of such algorithms. Applications of computational geometry include (but are not limited to) Robotics, Geographic Information Systems, Integrated Circuit Design, Computer-Aided Engineering, and Computer Vision. Graph Theory problems are concerned with the study of the properties of abstract graphs, both under the lenses of combinatorics and algorithmic complexity. Graph Theory finds applications in several areas of Science, including Computer Science, Physics, Chemistry, Biology, and Mathematics.

My research efforts revolve around the design and engineering of algorithms to construct representations of graphs with nice readability properties. I am deeply attracted by both combinatorial and geometric questions related to the representation of networks, especially those concerned with planarity and constrained graph embeddings in the plane and higher genus surfaces. I am involved in research projects exploring theoretical questions about the visualization of large and evolving networks, graph stories, big graphs and big data, graph databases, topological graph theory, visualizations for cybersecurity, knowledge graphs and knowledge representation, layouts of simultaneous and clustered networks, human-computer interaction, contact and hybrid representations of real-world graphs.

## AWARDS

- 2019 Best Paper at IPEC 2019
- 2016 Best Paper at SOFSEM 2016
- 2015 Best Poster at GD 2016
- 2011 Best MS thesis by AICA-Confindustria
- 2011 "Leonardo da Vinci Programme" Scholarship

## RESEARCH PROJECTS

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|-------------|--|----------------------------------|
| 2019 - 2021 | AHeAD "efficient Algorithms for HARnessing networked Data"<br><b>Role 1:</b> Work Package Leader<br><b>Role 2:</b> Research associate, employed within the project | MIUR (PRIN17)                    |
| 2017 - 2019 | MODE "MORphing graph Drawings Efficiently"<br><b>Role:</b> Participant   | MIUR (PRIN15)                    |
| 2017 - 2019 | MIUR-DAAD JMP N° 34120 "Algorithms and Models for Hybrid Representations of Locally-Dense Large Networks"<br><b>Role:</b> Participant                              | MIUR-DAAD Joint Mobility Program |
| 2016 - 2017 | STAC "The Space/Time Analysis for Cybersecurity program"<br><b>Role:</b> Assistant project scientist, employed within the project                                  | U.S. DARPA                       |
| 2014 - 2016 | AMANDA "Algorithmics for MAssive and Networked DAta"<br><b>Role:</b> Research associate, employed within the project   | MIUR (PRIN12)                    |
| 2012 - 2014 | LEONE "From global measurements to local management"<br><b>Role:</b> Research associate, employed within the project   | EU FP7 STREP                     |
| 2010 - 2013 | GraDr "Graph Drawing and Representation"<br><b>Role:</b> Participant   | EuroGIGA                         |
| 2010 - 2012 | AlgoDEEP "Algorithmic challenges for Data-intensivE processing on Emerging computing Platforms"<br><b>Role:</b> Participant  | MIUR (PRIN08)                    |

## RELEVANT ROLES IN PROJECTS OF NATIONAL INTEREST

- Work Package Leader of the WP2: "Engineering new algorithms for social networks" for Project AHeAD "efficient Algorithms for HARnessing networked Data" (**MIUR PRIN 2017**).

## RESEARCH STAYS

Sept 2016-Sept 2017	UC Irvine (Full-time Assistant Project Scientist - Step III)	California, USA
Dec 2019	Universität Tübingen (Visiting scholar fellow)	Germany
Jul 2018	Universität Tübingen (Visiting researcher)	Germany
Mar 2017	Universität Tübingen (Visiting researcher)	Germany
Mar 2017	Technische Universiteit Eindhoven (Visiting researcher)	The Netherlands
Nov 2014	Karlsruhe Institute of Technology (Visiting researcher)	Germany
Oct 2013 - Feb 2014	Charles University of Prague (Research fellow)	Czech Republic
Jun 2011 - Jan 2012	RIPE Network Coordination Center (Research fellow)	The Netherlands

## TEACHING EXPERIENCE

### PHD COURSES

2021	Co-teacher	Algorithmic Tools for Massive Network Analytics (16 hours) <b>website:</b> <a href="https://sites.google.com/view/algtools">https://sites.google.com/view/algtools</a>
2020	Main teacher	Algorithms for Big Data (10 hours) <b>website:</b> <a href="https://uniroma3.gitlab.io/compunet/gd/abd-phdcourse">https://uniroma3.gitlab.io/compunet/gd/abd-phdcourse</a>

### MASTER'S COURSES

2021-2022	Teacher	Algorithms for Big Data (2 CFU/6 CFU)
2020-2021	Teacher	Algorithms for Big Data (2 CFU/6 CFU)
2019-2020	Lecturer & Teaching Assitant	Theoretical Computer Science I and II
2019-2020	Lecturer & Teaching Assitant	Information Visualization
2018-2019	Lecturer & Teaching Assitant	Theoretical Computer Science I and II
2018-2019	Lecturer & Teaching Assitant	Information Visualization
2017-2018	Lecturer & Teaching Assitant	Theoretical Computer Science I and II
2015-2016	Lecturer & Teaching Assitant	Theoretical Computer Science I and II
2015-2016	Lecturer & Teaching Assitant	Information Visualization
2014-2015	Lecturer & Teaching Assitant	Information Visualization
2013-2014	Lecturer & Teaching Assitant	Information Visualization

### BACHELOR'S COURSES

2021-2022	Teacher	Elements of Computer Science and Linear Algebra (9 CFU)
2020-2021	Teacher	Elements of Computer Science and Linear Algebra (9 CFU)
2019-2020	Lecturer & Teaching Assitant	Fundations of Computer Science
2018-2019	Lecturer & Teaching Assitant	Fundations of Computer Science
2017-2018	Lecturer & Teaching Assitant	Fundations of Computer Science

## UNIVERSITY SERVICE

2021-present	Member of the Faculty Committee of the XXXVII cycle ("XXXVII ciclo") of the PhD program in Computer and Automation Engineering	Roma Tre University
2021-present	Member of the Faculty Committee of the Bachelor's/Master's degree program in Computer and Automation Engineering	Roma Tre University
2021-present	Member of the Faculty Committee of the Bachelor's degree program in Marine Technologies Engineering	Roma Tre University

## (CO-)SUPERVISED STUDENTS

2020	Fabrizio Grosso	Algorithms for the Visualization of Graphs on a Stream
2015	Francesco Elefante	Design of a Visualization System for Geo-referenced Graphs

## JOURNAL EDITORSHIP

2021 Guest editors: Special Issue on “Parameterized and Approximation Algorithms in Graph Drawing” of the Journal of Graph Algorithms and Applications (JGAA)  
G. Da Lozzo and Call for papers: <https://jgaa.info/docs/cfp-param-algo.pdf>  
P. Kindermann

## WORKSHOP ORGANIZATION

31 Sept, 2021 – 5 Co-organized with Summer Workshop on Graph Drawing (SWGD 2021)  
Aug 2021 Patrignani M. and **website:** <http://www.dia.uniroma3.it/~dalozzo/SWGD2021/>  
Frati F. Location: Castiglione del Lago, PG, Italy

## SERVICE TO THE COMMUNITY

### PROGRAM COMMITTEES

2022 34th Canadian Conference on Computational Geometry (CCCG 2022)  
2022 38th European Workshop on Computational Geometry (EuroCG 2022)  
2021 16th International Symposium on Algorithms and Data Structures (WADS'21)  
2019 27th International Symposium on Graph Drawing and Network Visualization (GD'19)  
2017 25th International Symposium on Graph Drawing and Network Visualization (GD'17)

### REFeree WORK

Project Funding: Czech Science Foundation (GA CR)

Journals: ACM Transactions on Algorithms (TALG), Algorithmica, Theoretical Computer Science (TCS), Journal of Graph Algorithms and Applications (JGAA), Journal of Visual Languages & Computing (JVLC), and Computational Geometry: Theory and Applications (CGTA)

Conferences: European Symposium on Algorithms (ESA), Symposium on Computational Geometry (SoCG), International Symposium on Graph Drawing & Network Visualization (GD), International Symposium on Algorithms and Computation (ISAAC), European Workshop on Computational Geometry (EuroCG), Canadian Conference on Computational Geometry (CCCG), International Conference on Algorithms and Discrete Applied Mathematics (CALDAM), and Symposium on Experimental Algorithms (SEA).  
**Editions:** CCCG 2022, EuroCG 2022, WADS 2021, GD 2020, ESA 2020 (Track A), EuroCG 2020, ESA 2019 (Track A), GD 2018, SoCG 2018, GD 2012, ISAAC 2017, EuroCG 2017, CIAC 2017, ISAAC 2016, GD 2016, CALDAM 2016, GD 2015, CALDAM 2015, ISAAC 2014, GD 2014, ESA 2014 (Track A), WALCOM 2014, GD 2013, and SEA 2013.

## INVITATION-ONLY WORKSHOPS

Mar 2022	Bertinoro Workshop on Graph Drawing (BWGD'22)	Bertinoro, IT
Sep 2021	Summer Workshop on Graph Drawing (SWGD '21)	Castiglione del Lago, IT
Feb 2021	Dagstuhl Seminar “Parameterized Complexity in Graph Drawing”	Dagstuhl, DE
Mar 2021	Bertinoro Workshop on Graph Drawing (BWGD'21)	Bertinoro, IT
Feb 2019	Workshop on Graph and Network Visualization (GNV'2019)	Heiligkreuztal, DE
Mar 2019	Bertinoro Workshop on Graph Drawing (BWGD'19)	Bertinoro, IT
Mar 2019	Dagstuhl Seminar “Beyond-Planar Graphs: Algorithmics and Combinatorics”	Dagstuhl, DE
Jul 2018	Workshop on Graph and Network Visualization (GNV'2018)	Heiligkreuztal, DE
Mar 2018	Bertinoro Workshop on Graph Drawing (BWGD'18)	Bertinoro, IT
Jun 2017	MRC Conference on Beyond Planarity: Crossing Numbers of Graphs	Snowbird, UT USA
Mar 2017	Bertinoro Workshop on Graph Drawing (BWGD'17)	Bertinoro, IT
Nov 2016	Dagstuhl Seminar “Beyond-Planar Graphs: Algorithmics and Combinatorics”	Dagstuhl, DE
Mar 2016	Bertinoro Workshop on Graph Drawing (BWGD'16)	Bertinoro, IT
Mar 2015	Bertinoro Workshop on Graph Drawing (BWGD'15)	Bertinoro, IT
Mar 2014	Bertinoro Workshop on Graph Drawing (BWGD'14)	Bertinoro, IT
Mar 2013	Bertinoro Workshop on Graph Drawing (BWGD'13)	Bertinoro, IT

## INVITED TALKS

2021 How to draw a graph: a gentle introduction to Graph Drawing LUISS University, Rome, IT

## CONFERENCE TALKS

SODA'21	2-Level Quasi-Planarity or How Caterpillars Climb (SPQR-)Trees	Alexandria, VA, USA
COCOON'20	On the Area Requirements of Planar Greedy Drawings of Triconnected Planar Graphs	Atlanta, GA, USA
GD'19	Graph Stories in Small Area	Prague, CZ
IWOCA'19	Reaching 3-Connectivity via Edge-edge Additions	Pisa, IT
ISAAC'18	Approximation Algorithms for Facial Cycles in Planar Embeddings	Jiaoxi, TW
GD'16	Beyond Level Planarity	Athens, GR
GD'15	Intersection-Link Representations of Graphs	Los Angeles, CA
GD'15	On the Relationship between Map Graphs and Clique Planar Graphs	Los Angeles, CA
CIAC'15	Planarity of Streamed Graphs	Paris, FR
ISAAC'14	Planar Embeddings with Small and Uniform Faces	Jeonju, KR
GD'14	The Importance of Being Proper (In Clustered-Level Planarity and T-Level Planarity)	Würzburg, DE
ICGT'14	SEFE = C-Planarity?	Grenoble, FR
GD'13	Drawing Non-planar Graphs with Crossing-free Subgraphs	Bordeaux, FR
WIV'12	Visual discovery of the correlation between BGP routing and round-trip delay active measurements	Boston, MA

## ATTENDED PH.D. SCHOOLS AND DOCTORAL COURSES

Sept 2018	Recent trends in Graph Drawing and Network Visualization" (taught by Patrizio Angelini, David Auber, Anna Lubiw, Hans-Jörg Schulz)	Barcelona, ES
Sept 2014	EuroGIGA PhD School: "Recent Trends in Graph Drawing – Curves, Crossings, and Constraints" (taught by David Eppstein, Fabrizio Frati, Stephen Kobourov, Maarten Löffler, Ignaz Rutter, André Schulz)	Würzburg, DE
June 2013	Computational Geometry and Graph Drawing (taught by Alexander Wolf and Maurizio Patrignani)	Rome, IT
Nov 2013	The Tutte Polynomial (taught by Jaroslav Nesetril and Andrew Goodall)	Prague, CZ
Jul 2013	Algorithmic Graph Theory (taught by Flavia Bonomo)	Rome, Italy
Feb 2013	Readings in Network Visualization (taught by Giuseppe Di Battista and Ioannis G. Tollis)	Rome, IT
Oct 2012	EuroGIGA Fall School 2012: "Graph- and GeoVisualization" (taught by Maurizio Patrignani, Martin Nöllenburg, Christophe Hurter, Jan-Henrik Haurert)	Würzburg, DE
Aug 2012	13th Max Planck Advanced Course on the Foundations of Computer Science (taught by Luca Trevisan, Berthold Vöcking, Avi Wigderson)	Saarbrücken, DE





## COMPUTER SKILLS

DBMS and query languages	DB2, PostgreSQL, MySQL, HSQLDB, SQLite, FQL, XQuery, XPath
Front-end and visualization	JavaScript libraries (D3.js, Vue, Angular, React, jQuery, Raphaël, Paper.js), Node.js sever platform (Express, Socket.IO, Redis.IO), SVG, HTML5 Canvas, OpenGL, OpenGL ES, WebGL (Three.js)
Programming languages	Java, J2EE (Jsp, Servlet), C, Objective-C, Python, PLaSM, MATLAB, JavaScript, TypeScript, Bash scripting, Turbo Pascal, Prolog, Golog, OCaml
Operating systems	Mac OS X, GNU/Linux distributions, MS Windows, Android OS, iOS
Cloud technologies systems	Google App Engine, Microsoft Windows Azure, force.com
Libraries for concurrent programming	POSIX Threads Programming, java.util.concurrent
Frameworks	NetworkX, NumPySciPy, Pandas, Java Plugin Framework (JPF), Apache Struts, Google Android SDK, Java Swing, Socket Programming, Facebook Graph API, Google Social Graph API
Markup and typesetting	LATEX2, BIBTEX2, Markdown, Gnuplot

# List of Publications

<http://www.dia.uniroma3.it/~dalozzo> [giordano.dalozzo@uniroma3.it](mailto:giordano.dalozzo@uniroma3.it)

## Links to Bibliographic Information

	Orcid	<a href="http://orcid.org/0000-0003-2396-5174">http://orcid.org/0000-0003-2396-5174</a>
	DBLP	<a href="https://dblp.uni-trier.de/pers/hd/l/Lozzo:Giordano_Da">https://dblp.uni-trier.de/pers/hd/l/Lozzo:Giordano_Da</a>
	Google Scholar	<a href="http://scholar.google.com/citations?user=2f0iSvUAAAAJ&amp;hl=en">http://scholar.google.com/citations?user=2f0iSvUAAAAJ&amp;hl=en</a>
	Homepage	<a href="http://www.dia.uniroma3.it/~dalozzo">http://www.dia.uniroma3.it/~dalozzo</a>

## Metrics Overview

Documents:	71	
Citations:	557	[source: Google Scholar – Dec 05, 2021]
H-index:	13	[source: Google Scholar – Dec 05, 2021]
i10-index:	19	[source: Google Scholar – Dec 05, 2021]

## PhD thesis and Book Chapters

- [1] Patrizio Angelini and Giordano Da Lozzo. Beyond clustered planar graphs. In Seok-Hee Hong and Takeshi Tokuyama, editors, *Beyond Planar Graphs*, Communications of NII Shonan Meetings, pages 211–235. Springer, 2020.
- [2] Giordano Da Lozzo. *Planar Graphs with Vertices in Prescribed Regions: models, algorithms, and complexity*. PhD thesis, Università degli Studi di Roma “Roma Tre”, Dottorato di Ricerca in Ingegneria, Sezione Informatica ed Automazione, XXVII Ciclo, 2015.

## Refereed Journal Articles

- [3] Fidel Barrera-Cruz, Manuel Borrizzo, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, Maurizio Patrignani, and Vincenzo Roselli. How to morph a tree on a small grid. *Discrete and Computational Geometry*, 2021. To Appear.
- [4] Giordano Da Lozzo, David Eppstein, Michael T. Goodrich, and Siddharth Gupta. C-planarity testing of embedded clustered graphs with bounded dual carving-width. *Algorithmica*, 83(8):2471–2502, 2021.
- [5] Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, Maurizio Patrignani, and Vincenzo Roselli. Upward planar morphs. *Algorithmica*, 82(10):2985–3017, 2020.
- [6] Giordano Da Lozzo, Giuseppe Di Battista, and Fabrizio Frati. Extending upward planar graph drawings. *Comput. Geom.*, 91:101668, 2020.
- [7] Giordano Da Lozzo, Anthony D’Angelo, and Fabrizio Frati. On planar greedy drawings of 3-connected planar graphs. *Discret. Comput. Geom.*, 63(1):114–157, 2020.
- [8] Patrizio Angelini, Michael A. Bekos, Franz J. Brandenburg, Giordano Da Lozzo, Giuseppe Di Battista, Walter Didimo, Michael Hoffmann, Giuseppe Liotta, Fabrizio Montecchiani, Ignaz Rutter, and Csaba D. Tóth. Simple  $k$ -planar graphs are simple  $((k+1)$ -quasiplanar. *J. Comb. Theory, Ser. B*, 142:1–35, 2020.
- [9] Patrizio Angelini and Giordano Da Lozzo. Clustered planarity with pipes. *Algorithmica*, 81(6):2484–2526, 2019.
- [10] Giordano Da Lozzo and Ignaz Rutter. Planarity of streamed graphs. *Theor. Comput. Sci.*, 799:1–21, 2019.
- [11] Patrizio Angelini, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, Maurizio Patrignani, and Ignaz Rutter. Beyond level planarity: Cyclic, torus, and simultaneous level planarity. *Theor. Comput. Sci.*, 804:161–170, 2020.
- [12] Manuel Borrizzo, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, and Maurizio Patrignani. Graph stories in small area. *J. Graph Algorithms Appl.*, 24(3):269–292, 2020.

- [13] Robin Anderson, Shuliang Bai, Fidel Barrera-Cruz, Éva Czabarka, Giordano Da Lozzo, Natalie L. F. Hobson, Jephian C.-H. Lin, Austin Mohr, Heather C. Smith, László A. Székely, and Hays Whitlatch. Analogies between the crossing number and the tangle crossing number. *Electr. J. Comb.*, 25(4):P4.24, 2018.
- [14] Patrizio Angelini, Giordano Da Lozzo, Marco Di Bartolomeo, Valentino Di Donato, Maurizio Patrignani, Vincenzo Roselli, and Ioannis G. Tollis. Algorithms and bounds for L-drawings of directed graphs. *Int. J. Found. Comput. Sci.*, 29(4):461–480, 2018.
- [15] Patrizio Angelini and Giordano Da Lozzo. 3-coloring arrangements of line segments with 4 slopes is hard. *Inf. Process. Lett.*, 137:47–50, 2018.
- [16] Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, and Maurizio Patrignani. Computing nodetrix representations of clustered graphs. *J. Graph Algorithms Appl.*, 22(2):139–176, 2018.
- [17] Giordano Da Lozzo, Vida Dujmovic, Fabrizio Frati, Tamara Mchedlidze, and Vincenzo Roselli. Drawing planar graphs with many collinear vertices. *JoCG*, 9(1):94–130, 2018.
- [18] Patrizio Angelini, Giordano Da Lozzo, Giuseppe Di Battista, Valentino Di Donato, Philipp Kindermann, Günter Rote, and Ignaz Rutter. Windrose planarity: Embedding graphs with direction-constrained edges. *ACM Trans. Algorithms*, 14(4):54:1–54:24, 2018.
- [19] Soroush Alamdari, Patrizio Angelini, Fidel Barrera-Cruz, Timothy M. Chan, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, Penny Haxell, Anna Lubiw, Maurizio Patrignani, Vincenzo Roselli, Sahil Singla, and Bryan T. Wilkinson. How to morph planar graph drawings. *SIAM J. Comput.*, 46(2):824–852, 2017.
- [20] Patrizio Angelini, Giordano Da Lozzo, Giuseppe Di Battista, and Fabrizio Frati. Strip planarity testing for embedded planar graphs. *Algorithmica*, 77(4):1022–1059, 2017.
- [21] Patrizio Angelini, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, Maurizio Patrignani, and Ignaz Rutter. Intersection-link representations of graphs. *Journal of Graph Algorithms and Applications*, 21(4):731–755, 2017.
- [22] Patrizio Angelini and Giordano Da Lozzo. SEFE = c-planarity? *The Computer Journal*, 59(12):1831–1838, 2016.
- [23] Patrizio Angelini, Carla Binucci, Giordano Da Lozzo, Walter Didimo, Luca Grilli, Fabrizio Montecchiani, Maurizio Patrignani, and Ioannis Tollis. Algorithms and bounds for drawing non-planar graphs with crossing-free subgraphs. *Computational Geometry: Theory and Applications*, 50:34–48, 2015.
- [24] Patrizio Angelini, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, Maurizio Patrignani, and Vincenzo Roselli. Relaxing the constraints of clustered planarity. *Computational Geometry: Theory and Applications*, 48(2):42–75, 2015.
- [25] Patrizio Angelini, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, and Vincenzo Roselli. The importance of being proper: (in clustered-level planarity and t-level planarity). *Theoretical Computer Science*, 571:1–9, 2015.
- [26] Patrizio Angelini, Giordano Da Lozzo, and Daniel Neuwirth. Advancements on SEFE and partitioned book embedding problems. *Theoretical Computer Science*, 575:71–89, 2015.
- [27] Giordano Da Lozzo, Giuseppe Di Battista, and Claudio Squarcella. Visual discovery of the correlation between BGP routing and round-trip delay active measurements. *Computing*, 96(1):67–77, 2014.
- [28] Giordano Da Lozzo, Giuseppe Di Battista, and Francesco Ingrassia. Drawing graphs on a smartphone. *Journal of Graph Algorithms and Applications*, 16(1):109–126, 2012.

## Refereed Conference Publications

- [29] Patrizio Angelini, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, and Maurizio Patrignani. 2-level quasi-planarity or how caterpillars climb (spqr-)trees. In Dániel Marx, editor, *Proceedings of the 2021 ACM-SIAM Symposium on Discrete Algorithms, SODA 2021, Virtual Conference, January 10 - 13, 2021*, pages 2779–2798. SIAM, 2021.
- [30] Steven Chaplick, Giordano Da Lozzo, Emilio Di Giacomo, Giuseppe Liotta, and Fabrizio Montecchiani. Planar drawings with few slopes of halin graphs and nested pseudotrees. In Anna Lubiw and Mohammad R. Salavatipour, editors, *Algorithms and Data Structures - 17th International Symposium, WADS 2021, Virtual Event, August 9-11, 2021, Proceedings*, volume 12808 of *Lecture Notes in Computer Science*, pages 271–285. Springer, 2021.
- [31] Sujoy Bhore, Giordano Da Lozzo, Fabrizio Montecchiani, and Martin Nöllenburg. On the upward book thickness problem: Combinatorial and complexity results. In Helen Purchase and Ignaz Rutter, editors, *Proc. 29th International Symposium on Graph Drawing and Network Visualization (GD 2021)*. Springer, 2021. To Appear.
- [32] Carlos Alegría, Manuel Borrizzo, Giordano Da Lozzo, Giuseppe Di Battista, Fabrizio Frati, and Maurizio Patrignani. Planar straight-line realizations of 2-trees with prescribed edge lengths. In Helen Purchase and Ignaz Rutter, editors, *Proc. 29th International Symposium on Graph Drawing and Network Visualization (GD 2021)*. Springer, 2021. To Appear.

- [33] Giordano Da Lozzo, Anthony D'Angelo, and Fabrizio Frati. On the area requirements of planar greedy drawings of triconnected planar graphs. In Donghyun Kim, R. N. Uma, Zhipeng Cai, and Dong Hoon Lee, editors, Computing and Combinatorics - 26th International Conference, COCOON 2020, Atlanta, GA, USA, August 29-31, 2020, Proceedings, volume 12273 of LNCS, pages 435–447. Springer, 2020.
- [34] Michael A. Bekos, Giordano Da Lozzo, Svenja Griesbach, Martin Gronemann, Fabrizio Montecchiani, and Chrysanthi N. Raftopoulou. Book embeddings of nonplanar graphs with small faces in few pages. In Sergio Cabello and Danny Z. Chen, editors, 36th International Symposium on Computational Geometry, SoCG 2020, June 23-26, 2020, Zürich, Switzerland, volume 164 of LIPIcs, pages 16:1–16:17. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2020.
- [35] Giordano Da Lozzo, David Eppstein, Michael T. Goodrich, and Siddharth Gupta. C-planarity testing of embedded clustered graphs with bounded dual carving-width. In Bart M. P. Jansen and Jan Arne Telle, editors, 14th International Symposium on Parameterized and Exact Computation, IPEC 2019, September 11-13, 2019, Munich, Germany, volume 148 of LIPIcs, pages 9:1–9:17. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2019. *Best paper*.
- [36] Juan José Besa Vial, Giordano Da Lozzo, and Michael T. Goodrich. Computing k-modal embeddings of planar digraphs. In Michael A. Bender, Ola Svensson, and Grzegorz Herman, editors, 27th Annual European Symposium on Algorithms, ESA 2019, September 9-11, 2019, Munich/Garching, Germany, volume 144 of LIPIcs, pages 19:1–19:16. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2019.
- [37] Manuel Borrizzo, Giordano Da Lozzo, Fabrizio Frati, and Maurizio Patrignani. Graph stories in small area. In Daniel Archambault and Csaba D. Tóth, editors, Graph Drawing and Network Visualization - 27th International Symposium, GD 2019, Prague, Czech Republic, September 17-20, 2019, Proceedings, volume 11904 of LNCS, pages 545–558. Springer, 2019.
- [38] Patrizio Angelini, Steven Chaplick, Sabine Cornelsen, Giordano Da Lozzo, and Vincenzo Roselli. Morphing contact representations of graphs. In Gill Barequet and Yusu Wang, editors, 35th International Symposium on Computational Geometry, SoCG 2019, June 18-21, 2019, Portland, Oregon, USA., volume 129 of LIPIcs, pages 10:1–10:16. Schloss Dagstuhl - Leibniz-Zentrum fuer Informatik, 2019.
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