



Call for Papers – GD 2024

32nd International Symposium on Graph Drawing and Network Visualization

September 18 – 20, 2024 – Vienna, Austria
<https://graphdrawing.github.io/gd2024/>

Graph Drawing is concerned with the geometric representation of graphs and constitutes the algorithmic core of **Network Visualization**. Graph Drawing and Network Visualization are motivated by applications where it is crucial to visually analyze and interact with relational datasets. Examples of such application areas include data science, social sciences, web computing, information systems, life sciences, geography, business intelligence, information security, and software engineering.

GD has been the main annual event in this area for more than 30 years. Its focus is on combinatorial and algorithmic aspects of graph drawing, their practical evaluation, as well as the design of network visualization systems and interfaces. Researchers and practitioners working on any aspects of graph drawing and network visualization are invited to contribute papers and posters and to participate in the symposium as well as the graph drawing contest.

GD 2024 will be held in Vienna, Austria, on September 18-20, 2024 with a reception on the evening of September 17. A pre-conference PhD school will take place September 16-17, 2024. GD 2024 is designed to be held on-site. It is expected that regular papers are presented on site by one of the authors. To address the global challenges and as an offer for authors who are unable to attend we allow for a limited number of remote presentations in the form of preproduced videos.

The code of conduct for the GD conference can be found at <http://graphdrawing.org/codeOfConduct.html>

Papers

We invite authors to submit papers describing original research of theoretical or practical significance to graph drawing and network visualization. To promote a balanced coverage of the field, GD has two distinct tracks, and papers submitted to one track will not compete with papers submitted to the other track. Regular papers must be submitted explicitly to one of the two tracks. However, all program committee members may review papers from either track.

Track 1: Combinatorial and algorithmic aspects

This track is mainly devoted to **fundamental theoretical graph drawing advances**, such as combinatorial aspects and algorithm design. The range of topics for this track includes (but is not limited to):

- Design and analysis of graph drawing algorithms
- Geometric and topological graph theory
- Computational topology of graphs on surfaces
- Graph representations
- Geometric algorithms and optimization

Track 2: Experimental, applied, and network visualization aspects

This track is mainly devoted to the **practical aspects of graph drawing**, such as experimental evaluations of graph drawing related algorithms, the development and/or evaluation of related libraries and tools, or systems and interfaces in different application areas. The range of topics for this track includes (but is not limited to):

- Engineering of graph drawing algorithms and network visualization systems
- Interfaces, methods, and high-quality tools for interacting with graphs and networks
- Benchmarks and experimental studies in the context of graph drawing and network visualization
- Cognitive studies on network visualization readability and user interaction
- Visualization of networks in real world applications

Authors of accepted applied papers are encouraged to show a demo of their software/system during the poster session.

Short papers

In addition to the above two tracks, there will be a separate category for short papers. Here we welcome smaller and less elaborate contributions on relevant topics. Papers in this category will be assigned a shorter time for presentation during the conference.

Remote presentation

For authors who cannot present their paper in person we offer the possibility for remote presentation. Authors of accepted papers in this category have to register for the conference. Papers in this category are evaluated and selected by the program committee by applying the same high standards as for the other tracks. In addition the authors have to submit a recording of their presentation two weeks after the submission of the paper. The remote submission chair can influence the score of papers in this track based on the quality of the recording and even reject submissions if the quality of the recording is inappropriate. There is a limit of six remote presentations.

Rules for submission

Results that have been previously published (or are scheduled for publication) in another conference proceedings or journal, as well as simultaneous submissions of results to other conferences with published proceedings or journals are not permitted. Each paper or poster must be presented at the conference by an author, otherwise the paper can be excluded from publication in the proceedings.

ChatGPT and similar large language models may be used to improve the paper's language, but its use should be mentioned as a footnote and the authors remain responsible for the full paper. In particular, the unattributed use of any such tools in the creation of the paper's scientific content is forbidden.

Submission format

Submissions must be formatted in accordance with the LIPICs proceedings guidelines. Authors must use the LaTeX class file *GD-lipics-v1.cls*, which is a wrapper around the standard LIPICs class. The *GD-lipics-v1.cls* class file and further instructions can be found on the conference webpage. Submissions must not exceed **500 lines**, (225 lines for short contributions) excluding front matter (title, authors, and affiliations), references, and a clearly marked appendix. The class files provide line counting which should be accurate in most cases. Authors should avoid substantial amounts of text in unnumbered lines.

To promote inclusion of figures in the submitted papers, submissions will have a strict limit on the number of text lines. Regular papers may have at most 500 lines, short papers 225 lines. We expect the main content of the paper to typically fit within 12 pages excluding references. For publishing purposes, the average length of final versions is limited to 20 pages (including everything). The claims of the paper should be fully substantiated. If this information does not fit within the line limit, the authors should include it in a clearly marked appendix, whose length is not constrained and which the reviewers may read at their own discretion.

Posters & Contest

Submissions of posters on graph drawing, network visualization, and related areas are solicited. The poster session will provide a forum for the communication of late-breaking research results (which may also appear elsewhere) to the GD community. Authors of posters should prepare an abstract (up to 2 pages in LIPICs style) that must be submitted together with the poster itself.

Details about the traditional **Graph Drawing Contest**, which is held at the conference, are provided at the web site <https://www.graphdrawing.org/gdcontest/contest2024>

Lightweight Double-Blind Review Process

The review process will be handled in a "**lightweight double-blind mode**". This means that authors are not allowed to reveal their identity in the submitted paper, but are free to disseminate draft versions of the paper prior to the conference and to give talks on the topic as they normally would. In particular, the submitted paper should not contain the authors' names, affiliations, and email addresses. References to their own related work are allowed, as long as the supporting text maintains anonymity (e.g., using sentences in the third person).

Members of the Program Committee will not have the identity of the authors of any paper revealed to them during the entire review process. To handle conflicts of interest effectively, authors will be offered the opportunity to declare conflicts of interest with PC members when they submit their paper.

Paper Submission, Proceedings and Special Issues

Papers should be submitted electronically via **EasyChair** at the web site <https://easychair.org/conferences/?conf=gd2024>. The proceedings will be published in the **Leibniz International Proceedings in Informatics (LIPICs)** series and are available open access.

Selected papers from both tracks will be invited for submission to a special issue of the **Journal of Graph Algorithms and Applications (JGAA)**. The authors of two selected papers in Track 2 will be invited to submit a substantially extended and enhanced version of their work to **IEEE Transactions on Visualization and Computer Graphics (TVCG)**. A special TVCG papers session at the Graph Drawing conference will also feature regular TVCG papers. Further details can be found at <https://www.computer.org/digital-library/journals/tvcg/tvcg-partners-with-conferences>

Important Dates

Abstract submission deadline	May 31
Paper submission deadline	June 07
Notification of paper acceptance	July 20
Poster submission deadline	August 16
Notification of poster acceptance	August 31
Final versions due	September 06
Contest submission deadline	September 01
Symposium	September 18-20

(all deadlines are understood to be 23:59 AoE)

Awards

For each of the two tracks, the Program Committee of GD 2024 will bestow a **Best Paper Award**. In addition, to recognize the effort of participants to present their work and to prepare their posters in a clear and elegant way, there will be a **Best Presentation Award** and a **Best Poster Award** voted on by the GD 2024 attendees.

Invited Speakers

Otfried Cheong, SCALGO, Denmark

Monika Henzinger, Institute of Science and Technology Austria

Program Committee

Daniel Archambault, Newcastle University

David Auber, University of Bordeaux

Benjamin Bach, University of Edinburgh

Martin Balko, Charles University in Prague

Carla Binucci, University of Perugia

Giuseppe Di Battista, Third University of Rome

Vida Dujmovic, University of Ottawa

Tim Dwyer, Monash University

David Eppstein, University of California, Irvine

Stefan Felsner (co-chair), Technical University Berlin

Tom Freeman, Janssen Research and Development

Michael Hoffmann, ETH Zurich

Seok-Hee Hong, University of Sydney

Yifan Hu, Amazon

Tony Huang, University of Technology Sydney

Jonathan Klawitter, University of Auckland

Karsten Klein (co-chair), Konstanz University

Linda Kleist, Technische Universität Braunschweig

Boris Klemz, University of Würzburg

Maarten Löffler, Utrecht University

Maurizio Patrignani, Third University of Rome

Arnaud Sallaberry, University of Montpellier

Manfred Scheucher, Technical University Berlin

Alessandra Tappini, University of Perugia

Géza Tóth, Rényi Institute, Budapest

Torsten Ueckerdt (remote submission chair), KIT Karlsruhe

Birgit Vogtenhuber, Graz University of Technology

Hsiang-Yun Wu, St. Pölten University of Applied Sciences

Organizing Committee

Doris Brazda, TU Wien, Austria

Thomas Depian, TU Wien, Austria

Alexander Dobler, TU Wien, Austria

Simon Dominik Fink, TU Wien, Austria

Robert Ganian (co-chair), TU Wien, Austria

Martin Nöllenburg (co-chair), TU Wien, Austria

Hsiang-Yun Wu, St. Pölten University of Applied Sciences

Contest Committee

Sara Di Bartolomeo, University of Konstanz, Germany

Fabian Klute (chair), UPC Barcelona, Spain

Wouter Meulemans, TU Eindhoven, Netherlands

Debajyoti Mondal, University of Saskatchewan, Canada

Jules Wulms, TU Eindhoven, Netherlands