Call for Papers: The 33rd International Symposium on Graph Drawing and Network Visualization (GD 2025), September 24-26, 2025, Norrköping, Sweden

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 for which it is crucial to visually analyze and interact with relational datasets. Application areas include data science, social sciences, web computing, information systems, life sciences, geography, business intelligence, information security, and software engineering.

Graph Drawing has been the main annual conference in this area for more than 30 years. Its focus is on combinatorial and algorithmic aspects of graph drawing, their experimental 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 2025 will be held in Norrköping, Sweden, on September 24-26, 2025 with a reception on the evening of September 23. A preconference PhD school will take place September 22-23, 2025. GD 2025 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, as further explained below.

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

Important dates

Abstract submission deadline: June 3Paper submission deadline: June 10

- Author notification: July 23

Poster submission deadline: August 22

Poster notification: September 1

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 and algorithmic aspects. We aim at covering a diverse set of topics, which 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 advances and computing in graph drawing
- Combinatorics and optimization in graph drawing

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. We aim at covering a diverse set of topics, which 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 aesthetics and user interaction
- Visualization of networks in real world applications
- Machine learning methods in graph drawing & network visualization
- Graph drawing & network visualization for AI explainability

Authors of accepted papers in this track 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 track 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, which must be declared at submission time. 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 recorded talk and even reject submissions if the quality of the recorded talk is inappropriate. There is a limit of six remote presentations.

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 that must be submitted together with the poster itself. Each submission will thus consist of two pdf files (the abstract and the poster).

Details about the traditional **Graph Drawing Contest**, which is held at the conference, are provided at the website.

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, except for poster submissions. With the exception

of remote presentations, 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

The proceedings will be published in the <u>LIPIcs</u> series. To facilitate the process, submissions have to be prepared in accordance with the <u>LIPIcs author instructions</u>, the page provides links to the LIPIcs class file along with an example and detailed author instructions. For the submission, the use of the LaTeX class file <u>gd-lipics-v2.cls</u> is requested. The class file is a wrapper around the standard LIPIcs class and implements line counting, see <u>CG-linecount.pdf</u> for details. Submissions must not exceed the following limits:

- 500 lines for full papers,
- 225 lines for short papers,
- 80 lines for posters' abstracts.

The above limits do not include front matter (title, authors, and affiliations), references, or appendices. The class files provide line counting which should be accurate in most cases. Authors should avoid substantial amounts of text in unnumbered lines.

In addition, the main content of the paper must not exceed the following page limits excluding references:

- 15 pages for long papers,
- 7 pages for short papers,
- 3 pages posters' abstracts.

The claims of full and short papers 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. For poster submissions, no appendix is expected.

We also encourage authors to avoid "et al." in citations in favor of an equal mention of the surnames of all authors. For references with few authors, it is recommended to name all of them; if the number of authors is large, consider writing "(It is shown that) X [#]" or "The authors in [#] show that X" instead of "A et al. [#] show that X".

Paper Submission, Proceedings and Special Issues

Papers should be submitted electronically via <u>Easychair</u>. The proceedings will be published in the <u>Leibniz International Proceedings in Informatics (LIPIcs)</u> series and are available open access. Selected papers from Track 1 and Track 2 will be invited for submission to a special issue of the <u>Journal of Graph Algorithms and Applications (JGAA)</u>. The authors of two selected papers in Track 2 will be invited to submit a substantially extended and enhanced version of their work to <u>IEEE Transactions on Visualization and Computer Graphics (TVCG)</u>. 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

Lightweight Double-Blind Review Process

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 required to declare conflicts of interest with PC members when they submit their paper.

Poster submissions will be evaluated by the Program Committee in a **single-blind mode**. In particular, the submitted abstract should contain the authors' names, affiliations, and email addresses.

Awards

For each of the two tracks, the Program Committee of GD 2025 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 2025 attendees.