Second Call for Papers – GD2021
29th International Symposium on
Graph Drawing and Network Visualization
September 14-17, 2021 - Tübingen, Germany
http://algo.inf.uni-tuebingen.de/gd2021/

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, biology, geography, business intelligence, information security, or software engineering.

GD has been the main annual event in this area for more than 20 years. Its focus is on combinatorial and algorithmic aspects of graph drawing 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 and the graph drawing contest.

GD2021 will be held from September 14 to 17, 2021. A pre-conference PhD school is planned for September 13-14, 2021.

GD2021 will, like GD2020, be held virtually online, although we hope to arrange supplementary in-person activities for those who are able to travel to Tübingen (depending on numbers and any local restrictions in place at the time.) While this is disappointing, we also acknowledge the benefits of remote participation for those who are unable to travel – both presenters and attendees.

Papers

We invite authors to submit papers describing original research of theoretical or practical significance to graph drawing and network visualization. Regular papers must be submitted explicitly to one of two distinct tracks. Papers submitted to one track will not compete with papers submitted to the other track.

Track 1: Combinatorial and algorithmic aspects

This track is mainly devoted to **fundamental 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
- Geometric network design and optimization
- Geometric computing

Track 2: Experimental, applied, and network visualization aspects

This track is mainly devoted to the **practical aspects of graph drawing**, such as the development of network visualization systems and interfaces in different application areas. The range of topics for this track includes (but is not limited to):

- Visualization of graphs and networks in real world applications, including big data
- Engineering of network visualization algorithms and systems
- Experimental results in graph theory and algorithms
- Benchmarks and experimental studies of network visualization systems and user interfaces
- Cognitive studies on graph drawing readability and user interaction
- Interfaces and methods for interacting with graphs

Authors of applied papers will have the opportunity 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, describing theoretical or applied contributions of shorter length. Papers in this category will be assigned a shorter time for presentation during the conference.

Submission format

All submissions must be formatted using the appropriate LaTeX style file, either gd-llncs.cls for long papers or gd-llncs-short.cls for short papers; these are derived from the style file used for the conference series Lecture Notes in Computer Science (LNCS) provided by Springer. The default margins and fonts must not be modified; in particular, the use of packages such as *times.sty* is not allowed. Submissions that do not comply with this format risk rejection without consideration of their merits.

To promote inclusion of figures in the submitted papers, submissions will have a strict number of lines limit. Regular papers must have at most 400 lines, (excluding references and figures) and at most 14 pages (excluding references). Short papers must have at most 225 lines (excluding references and figures) and at most 7 pages (excluding references). The claims of the paper should be fully substantiated. If this information does not fit within the page limits, 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. All submissions will be handled through EasyChair at the web site https://easychair.org/conferences/?conf=gd2021

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 the LNCS style) that must be submitted together with the poster itself.

Details about the traditional **Graph Drawing Contest** held at the conference are provided on the conference web site.

Publication

All accepted papers (including the two-page poster abstracts) will appear in the conference proceedings, published by **Springer** in the **Lecture Notes in Computer Science (LNCS)** series. The LNCS proceedings will be made freely accessible to the GD community upon publication and openly accessible to anyone after four years.

Authors will be required to submit their accepted papers to the **arXiv repository**, in order to provide immediate and unrestricted open access to them. The self-archived arXiv papers shall consist of the LNCS proceedings version (identical, except for possibly changed references to the appendix resp. the arXiv version) plus an optional clearly marked appendix. This appendix could contain a long version of the entire paper or proofs that have been omitted from the main text. Subsequent submissions of revised versions of the paper to the arXiv (known as arXiv ``replacements'') are allowed. Upon submission of the camera-ready version of an accepted paper, the authors will be required to specify the arXiv identifier associated with the paper for inclusion in a **conference index**, which will be also published in the arXiv repository. Failure to comply with these guidelines will impede the publication of the paper.

Each paper or poster must be presented at the conference by an author (barring unforeseen circumstances), otherwise the paper will not be included in the proceedings.

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 TVCG papers session at the Graph Drawing conference will also feature regular TVCG papers.

Awards

For each of the two tracks, the Program Committee of GD2021 will give 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 GD2021 attendees.

Important Dates

Abstract submission deadline	June 2 (23:59 PDT)
Paper submission deadline	June 9 (23:59 PDT)
Notification of paper acceptance	July 19
Poster submission deadline	August 11 (23:59 PDT)
Notification of poster acceptance	August 20
Final versions due	August 31 (23:59 PDT)
Contest submission deadline	September 7 (23:59 PDT)
Symposium	September 14-17

Invited Speakers

Meirav Zehavi, Ben-Gurion University, Israel
Kim Marriott, Monash University, Australia

Program Committee

Md. Jawaherul Alam, Amazon Inc., USA
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Arthur van Goethem, TU Eindhoven, The Netherlands
Tatiana von Landesberger, Universität Rostock, Germany
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Kai Xu, Middlesex University, UK

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