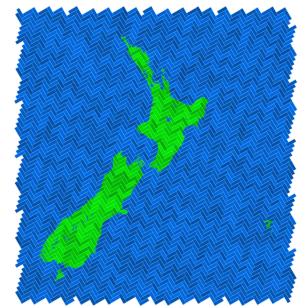
GIScience 2025: Second Call for Papers

giscience2025.org

The Thirteenth International Conference on Geographic Information Science will be held in Christchurch, New Zealand, on 26-29 August 2025, hosted by the University of Canterbury in collaboration with the GIScience academic research community across New Zealand.

GIScience 2025 is the flagship conference in geographic information science and continues the highly successful conference series which started in 2000.



The conference regularly attracts over 250 international participants from academia, industry, and government to discuss and advance the state-of-the-art in geographic information science. August 26 is dedicated to Workshops and Tutorials. The main conference runs from August 27 to 29 and includes a single refereed paper track and an abstract track for posters and demo submissions.

GIScience research spans the gamut of interrelated discovery activities related to geographic information *from* the invention of new computational instruments, the gathering of data via observation or experimentation, and discovery of descriptive generalizations patterns in data *through to* the creation of explanatory theories and the testing of theories. The GIScience conference series seeks submissions that make fundamental advances to the field through this multifaceted process. GIScience 2025 welcomes papers, posters and demos covering emerging topics and fundamental research findings across all sectors of geographic information science, including (but not limited to) the role of geographic information in geography, computer science, engineering, information science, linguistics, mathematics, cognitive science, philosophy, psychology, social science, and geostatistics. We welcome participation from community members sharing work at various stages of development, including position pieces, works in progress, as well as full papers for inclusion in the conference proceedings.

Important Dates

Friday, January 31, 2025 - Proceedings Paper submissions

Friday, February 14, 2025 – Full- and half-day Workshop and Tutorial proposals

Friday, April 4, 2025 - Abstract submissions, Demo submissions

Conference Topics

Contributions are invited from a wide range of disciplines related to geographic information science, such as geography, earth science, cognitive science, information science, computer science, linguistics, mathematics, philosophy, life sciences, and social science. Topics of interest include (but are not limited to):

- Agent-based modeling
- Computational geometry
- Events and processes
- GeoAl
- Geo-APIs
- Geo-knowledge graphs
- Geo-semantics
- Geographic information observatories
- Geographic information retrieval
- Geosimulation and spatio-temporal modelling
- Geovisualization and visual analytics
- High-performance computing algorithms for spatial-temporal data
- Human-Computer Interaction (with mobile devices)
- Image classification methods
- Internet of Things
- Location privacy
- Location-Based Services
- Navigation
- Replicability and reproducibility in GIScience
- Scene recognition
- Sensitivity analysis for spatial-temporal models
- Spatial and spatio-temporal statistics
- Spatial and temporal language
- Spatial aspects of social computing
- Spatial data infrastructures
- Spatial data structures and algorithms
- Spatially-explicit decision support
- Spatially-explicit machine learning
- Standardization and interoperability
- Time series analysis
- Trajectory and movement analysis
- Uncertainty quantification and error propagation
- Virtual reality

Proceedings paper submissions (January 31, 2025)

Submissions may range in length from 6 to 15 pages. Authors are invited to submit papers with a length that is commensurate with the contribution. High-quality submissions will be selected for oral presentation at the conference and published in the conference proceedings. Manuscripts must describe original work that has not been previously published or submitted for review elsewhere. Papers should be written in English and must not exceed 15 pages (not including references and appendices) in the required format. All paper submissions will be peer-reviewed by at least three members of the international program committee.

Proceedings Paper Submissions link:

https://openreview.net/group?id=giscience.org/GIScience/2025/Conference

GIScience proceedings will be published in LIPIcs, the Leibniz International Proceedings in Informatics series (https://www.dagstuhl.de/en/publications/lipics). LIPIcs volumes are peer-reviewed and published according to the principle of open access, i.e., they are available online and free of charge. Each article is published under a Creative Commons CC BY license (https://creativecommons.org/licenses/by/4.0/), where the authors retain their copyright. Also, each article is assigned a DOI and a URN. The digital archiving of each volume is done in cooperation with the Deutsche Nationalbibliothek/German National Library. A number of high-standing international conferences have already made the move to LIPIcs.

Formatting instructions

All proceedings paper submissions to GIScience, should follow the LIPIcs <u>instructions</u> <u>for authors</u> and use the LIPIcs LaTeX template. The GIScience review process is doubleblind, so please do not include any identifying information in the paper PDF.

Authors who are unfamiliar with LaTeX, but keen to try, are highly encouraged to use Overleaf, an online LaTeX editor that is easy to use and does not require any local installation. Overleaf comes with the LIPIcs class and template pre-loaded. Authors who want to use other text editors should stay close to the sample article's layout for their paper submitted for review. Should their papers be accepted for publication, they must be converted to LaTeX using the LIPIcs LaTeX class and template. Authors are responsible for the conversion of their papers to LaTeX.

Datasets / code repository

We encourage the sharing of open datasets and code alongside published proceedings papers to support the FAIR principles of scientific data management. GIScience 2025 will provide a dedicated Zenodo community for authors to optionally co-publish datasets or code. Each research artifact shared this way will have a unique DOI.

Abstract submissions (April 4, 2025)

For GIScience 2025 we also welcome abstract submissions. Accepted abstracts will be selected for oral or classic poster presentation. Abstracts provide an opportunity for participants to share work in progress, preliminary results, late-breaking research findings, and position statements.

Abstract submissions should include a 300-word abstract (no need to submit a full poster for review).

Abstract Submission Link:

https://docs.google.com/forms/d/e/1FAlpQLSeSupUdl1UWj-esHiDjU8lpH3tW6bh_skkO0PyCbGQCNYHt3g/viewform?usp=sharing

Demo submissions (April 4, 2025)

Demos provide a valuable opportunity to showcase cutting-edge research and receive direct feedback from the research community. Submissions should feature functional systems or platforms built on or extending advanced GIScience and data analytics technologies that go beyond commercial software or basic statistical analysis. Presentation space will be made available for presenting your demo at the conference.

Demo submissions should include a 300-word abstract along with up to three pages of visual representations of the demo. Inclusion of a link to a video demo is recommended where applicable.

Demo Submission Link:

https://docs.google.com/forms/d/e/1FAIpQLSd19RtdJALUoNDYOLjU0EqmwZjc6xZ6mn_frVhUmNSUpTD7UQ/viewform?usp=sharing

Abstract/Demo repository

Authors of accepted abstracts and demos will be given the option to archive their submission in the GIScience 2025 Zenodo community, which will provide a unique DOI and persistent link to each contribution.

Final decisions on acceptance and presentation format (oral presentation or poster) will be made by the Program Chairs.

Call for Workshops

We are seeking proposals for full- or half-day Workshops and Tutorials on specialized topics or on emergent research fields that will be of interest to the GIScience

community. These will take place prior to the main GIScience conference on 26 August 2025.

Workshops on a specific topic can be used for example to provide opportunities to present work in progress, with time allocated for discussion and participation, and tutorials can be used to address a single topic in depth or provide specific training in a new technique.

Please note, all organizers of a workshop/tutorial are expected to attend in person to help run the event.

Workshop/Tutorial proposals

To submit a proposal, please prepare the following for submission:

- Title of the workshop
- Workshop organizer(s)
- Format of workshop (full or half day)
- Previous related activities (if any)
- Description of topic, rationale, and reason why this is relevant to GIScience attendees (including the scope and novelty of the workshop)
- Any highlights (e.g., keynotes, panels, and other modes of discussion and participation)
- Intended program
- Brief timeline of planned activities
- Expected number of participants
- Any technical equipment etc. required
- A draft Call for Participation to be used to advertise the workshop on the GIScience 2025 conference website

Evaluation Criteria

Proposals will be assessed using the following criteria:

- Is it an appropriate topic for GIScience?
- Is the activity particularly timely or important?
- Is it likely to attract sufficient participants?
- Is it well-designed and likely to achieve the stated goal(s)?

- Are the organizers appropriate for the proposed topic?
- Have similar workshops been held in the recent past and if so, how does the proposal relate to those previous activities?

Submission Instructions

Workshop/Tutorial Proposal Submission link:

https://docs.google.com/forms/d/e/1FAIpQLSfFhzenulllu2zJe_PBG0Eq1BtxGS72cQ4jIYgmF0QBMivRFw/viewform

The workshop chairs, along with at least two other members of the Organising Committee will review all proposals.

If you have any queries about the workshops, please contact Mairéad de Róiste (mairead.deroiste@vuw.ac.nz) or Minh Kieu (minh.kieu@auckland.ac.nz).

- Workshops proposals due February 14, 2025
- Workshops notification February 28, 2025.

Conference Organizing Team

General chairs

- Benjamin Adams, University of Canterbury
- Mark Gahegan, University of Auckland

Local chairs

- Vanessa Bastos, University of Canterbury
- Carolynne Hultquist, University of Canterbury

Program chairs

- Katarzyna Sila-Nowicka, University of Auckland
- Kristin Stock, Massey University
- Antoni Moore, University of Otago
- David O'Sullivan, University of Auckland

Workshop/tutorial chairs

- Mairead de Roiste, Victoria University of Wellington
- Minh Kieu, University of Auckland

International chair

Song Gao, University of Wisconsin