



GIScience 2020

www.giscience.org

Poznań (Poland) – 15-18 September 2020

11th International Conference on Geographic Information Science

HONORARY PATRONAGE

HM Rector of Adam Mickiewicz University in Poznań Professor Andrzej Lesicki
The Mayor of Poznań Jacek Jaśkowiak

We are pleased to announce the 11th International Conference on Geographic Information Science in Poznań. Hosted at Adam Mickiewicz University in Poznań (AMU), GIScience 2020, the flagship conference in the field of geographic information science continues the highly successful conference series that started in 2000. Past conferences have been held in Melbourne (2018), Montreal (2016), Vienna (2014), Columbus (OH, 2012), Zürich (2010), Park City (UT, 2008), Münster (2006), College Park (MD, 2004), Boulder (CO, 2002), and Savannah (GA, 2000). The biennial conference series typically attracts over 300 international participants from academia, industry, and government from across the globe discussing the state-of-the-art in geographic information science. The GIScience conference series is deeply interdisciplinary

The GIScience conference series has always had a focus on fundamental research themes and questions. GIScience 2020 welcomes papers covering emerging topics and findings across all sectors of geographic information science, including the role of geographic information in geography, earth science, cognitive science, information science, computer science, engineering, linguistics, mathematics, statistics, philosophy, life sciences, and social science and humanities. GIScience 2020 will cover a broad spectrum of research topics in geographic information science. It attracts contributions from experts in geo-visualization, geographic information retrieval, geostatistics, geosemantics, geosimulation, spatial optimization, transportation, computational geometry, and data structures. Topics of interest are not restricted to the geospatial realm but involve spatial and temporal information more broadly, and include (but are not limited to):

- Agent-based modelling
 - Computational geometry
 - Events and processes
 - GeoAI
 - Geo-APIs
 - Geoknowledge graphs
 - Geosemantics
 - Geographic information observatories
 - Geographic information retrieval
 - Geosimulation and spatial-temporal modelling
 - Geo visualisation 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 and augmented reality
- ...and much more.

Organization

Department of Geoinformation, Institute of Geoecology and Geoinformation, Adam Mickiewicz University in Poznań, Poland

Organizing Committee

General Chair: *Prof. Piotr Jankowski (San Diego State University, AMU)*

Program Chairs: *Prof. Krzysztof Janowicz (University of California, Santa Barbara); Prof Judith Versteegen (University of Münster)*

Local Organization Chair: *Prof. Zbigniew Zwoliński (AMU)*

Publicity Chairs: *Prof. Alfred Stach (AMU); Prof. Clio Andris (Georgia Institute of Technology)*

Workshops Chairs: *Dr. Marcin Winowski (AMU); Prof. Grant McKenzie (McGill University)*

Sponsorship Chair: *Prof. Bernd Resch (University of Salzburg)*

Local Arrangements and Logistics (AMU): *Dr. Joanna Gudowicz, Dr. Robert Kruszyk, Prof. Jarosław Jasiewicz, Dr. Paweł Matulewski, Prof. Małgorzata Mazurek, M.Sc. Alicja Najwer, Dr. Justyna Weltrowska*

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Webmaster: *Dr. Jakub Nowosad (AMU), nowosad@amu.edu.pl*

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Conference Program at Glance

Tuesday 15.09	Wednesday 16.09	Thursday 17.09	Friday 18.09	Saturday 19.09
Workshops and tutorials Opening ceremony Icebreaker	Plenary session – Keynote 1 Thematic sessions	Plenary session – Keynote 2 Thematic sessions Official dinner	Thematic sessions Closing ceremony	Optional: Full-day field trip

Keynote Speakers

Will be announced

Call for workshops & tutorials

The first day of the conference, September 15, 2020, is dedicated to workshops and tutorials. They will take place in a modern facility of the Faculty of Geographical and Geological Sciences, located on the AMU campus Morasko, located 8 km north from the city centre. We are seeking submissions for full or half day workshops and tutorials on specialized topics or emerging research fields that may be of interest to the GIScience community. Workshops are intended to provide an opportunity for researchers to present work in progress, obtain feedback from colleagues, and discuss future directions for the field. Tutorials offer an opportunity for an interactive, deep-dive into a single topic. To submit a workshop or tutorial proposal, please prepare and submit the following three items as a single PDF document:

- 1) One page containing: Title of the workshop or tutorial; Event organizer(s) and their affiliations; Format of workshop/tutorial (full or half day); Description of topic and what is relevant to the community and conference attendees; Scope and novelty of the workshop/tutorial; Previous related workshops/tutorials (if any);
- 2) One page containing: The intended program committee (for workshops); Brief schedule (timeline) of planned workshop activities; Expected number of participants; Technical equipment and supplies required;
- 3) A draft Call for Participation to be used to advertise the event on the conference website.

NOTE: If you have identified a topic of interest and would like to suggest a workshop or tutorial, but have not been able to locate collaborators, please contact Grant McKenzie (grant.mckenzie@mcgill.ca) for possible matches.

A single PDF, as well as related questions, should be submitted via e-mail to Grant McKenzie (grant.mckenzie@mcgill.ca) and Marcin Winowski (marwin@amu.edu.pl).

Workshops proposals deadline: **February 10, 2020**

Workshops notification: **February 24, 2020**

Evaluation criteria for workshops and tutorials: 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 or tutorials been held in the recent past, and if so how does the proposal relate to those previous activities?

Accepted workshops whose organizers wish to have the proceedings included in the GIScience digital conference proceedings must submit a single volume PDF of their proceedings to the Workshop Chairs by **August 1, 2020**.

Call for papers

The conference offers two separate paper tracks, one for full papers and the other for short papers, both of which will undergo full peer-review. Authors of accepted papers will be given the opportunity to present their work at the conference in an oral presentation or as a poster.

GIScience 2020 proceedings will be published in the Leibniz International Proceedings in Informatics series (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 (creativecommons.org/licenses/by/3.0/), 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. The cost of conference proceedings is based on the current rate of 60 Euro per paper charged by Schloss Dagstuhl for publishing in the Leibniz International Proceedings in Informatics.

Full paper track

Full research papers will be thoroughly reviewed by at least three members of the international program committee. For this edition of the GIScience series, we will include an optional rebuttal phase during which authors can respond to the (initial) reviews. The rebuttal phase provides an opportunity to address misunderstandings, answer questions, or provide further details on issues that remained unclear to the reviewers. The reviewers will be able to react to these rebuttals by adjusting their review scores, if appropriate. Review criteria include novelty, significance of results as compared to previous work, the quality of the presented evaluations (if applicable), the clarity of the research statement, as well as the quality of writing and supporting illustrations. High-quality submissions will be accepted for presentation at the conference and published in LIPIcs, the Leibniz International Proceedings in Informatics series. Manuscripts must describe original work that has neither been published before, nor is currently under review elsewhere. Papers must be written in English and should not exceed fifteen pages (including title, figures, and references) in the required layout (see below).

Important dates for full paper track:

- Full paper submissions: **March 16, 2020**
- Full paper rebuttal phase: **April 24-30, 2020**
- Full paper notification: **May 15, 2020**
- Camera-ready papers: **June 1, 2020**
- Full paper author registration deadline: **June 1, 2020**

Short paper track

Short papers can report on the latest breaking results, present visions for the future of the field, or describe early work and experiments, as well as novel application areas. Short papers will also be reviewed by at least three reviewers. Review criteria include novelty, expected impact of early results, evaluation or evaluation plans for the future, plausibility of presented visions, as well as the quality of writing and supporting illustrations. Accepted papers in this track will be selected for either oral or poster presentations. Short papers must be written in English and should not exceed six pages (including title, figures, and references) in the requested LIPICs layout. In addition, each submission must include Short Paper as a subtitle.

Important dates for short paper track:

- Short paper submission: **May 25, 2020**
- Short paper notification: **July 3, 2020**
- Camera-ready papers: **July 15, 2020**
- Short paper author registration deadline: **July 15, 2020**

The submission webpage for both tracks of GIScience 2020 is: easychair.org/conferences/?conf=giscience2020

Formatting instructions for both paper tracks

The layout of any PDF submission to GIScience, whether full paper or short paper, should follow the 2019 template provided by LIPICs (drops.dagstuhl.de/styles/lipics-v2019/lipics-v2019-authors.tgz). LIPICs also provides a LaTeX class and template for papers. Authors unfamiliar with LaTeX, but keen to try, are highly encouraged to use Overleaf (www.overleaf.com), 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 word processors or 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 will have to be converted to LaTeX using the LIPICs LaTeX class and template. Authors are responsible for the conversion of their papers to LaTeX. There are also commercial conversion services such as wordtotext.com/upload providing a one-step solution in case you do not want to do the conversion yourself.

Call for grants

The Organising Committee of **GIScience 2020**, the 11th International Conference on Geographical Information Science in Poznań, Poland, 15-18th September 2020, invites travel grant applications from PhD students. Thanks to the generosity of conference sponsors, several travel grants of 300 Euros each will be allocated on competitive bases to student applicants attending the conference. All PhD students including those at an early stage of their program are encouraged to apply. In order to be considered, the applicants must submit the following files in the pdf format before **1 April 2020**:

- Application form (https://www.giscience.org/doc/name_grant.doc)
- One page CV
- Title and one page summary of PhD research project.

Applications should be submitted electronically to: 2020giscience@gmail.com.

All applicants will be notified on the result of their application by 1 May 2020. In order to receive the grant, the successful applicants must register for the conference by 31 May 2020.

Information for presenters

Oral presentations should be prepared in Power Point or Adobe Reader format. The presentation time is 15 minutes + 5 minutes for discussion. Posters can be prepared in A0 format in portrait orientation.

Social program

Friday, 18 September, after closing ceremony – Poznań sightseeing (about 4 hours): Royal-Imperial Route (Cathedral Island - Chwaliszewo - Old Town and Old Market - The City Center, The Enigma Codebreakers, the exhibition)

Saturday, 19 September, 9:00-17:00 – Poznań – Kórnik (Kórnik Arboretum and Castle) – lunch – Rogalin (Palace, paintings gallery) – Wielkopolski National Park – Poznań

e-Registration

Registration will be open on 1 March 2020 at 12:00 AM CET at the URL: giscience2020.syskonf.pl/. After registration, you receive email with bank account information.

Electronic registration will close on 31 July 2020. After that date, the registration will be possible by writing an e-mail to Organizing Committee: 2020giscience@gmail.com.

Conference Fees

The conference fees cover a 3-day public transportation pass, catered lunches and coffee breaks served at the conference venue, conference materials, and the banquet for each participant.

Registration Fees	Until 31 July 2020	From 1 August 2020
Full conference registration ¹	300 Euro	400 Euro
Student conference registration ^{1, 2}	200 Euro	250 Euro
On-Site conference registration ¹	N/A	500 Euro
Standard full day workshop/tutorial registration ³	50 Euro	75 Euro
Standard half-day workshop/tutorial registration ⁴	30 Euro	45 Euro
Student full-day workshop/tutorial registration ^{2, 3}	40 Euro	60 Euro
Student half-day workshop/tutorial registration ^{2, 4}	20 Euro	30 Euro
Full-day field trip	50 Euro	N/A

¹ Includes full conference registration, including conference icebreaker reception, conference attendance 16-18 September, public transportation pass, morning and afternoon coffee breaks at the conference, conference dinner and conference pack with conference proceedings.

² Available to full-time students currently enrolled at a higher education institution, upon presentation of a copy of your current student ID card.

³ Includes full-day workshop/tutorial attendance on 15 September, coffee breaks and lunch.

⁴ Includes half-day workshop/tutorial attendance on 15 September and coffee break.

Cancellations will be accepted until 31 July 2020. Refunds will be made less a 60.00 Euro cancellation fee. Should a refund be required, please email giscience2020@gmail.com with your booking details. There will be no refunds issued after 31 July 2020.

Conference Venue

Poznan is a major city in Western Poland (pop. 538,000 in 2017) located ~300 km west of Warsaw, Poland and ~300 km east of Berlin, Germany. Adam Mickiewicz University in Poznań with its 50+ thousand students is the largest institution of higher education in the city, also known for its strong technical university, university of medical sciences, university of business & economics, and university of arts.

The workshops/tutorials (September 15) will be held in a modern facility of the Faculty of Geographical and Geological Sciences, *Gollegium Geographicum*, on campus of AMU located 30 minute drive time by public transportation from the city center. The conference sessions (September 16-18) will take place in a modern facility of the Faculty of Law and Administration, *Collegium Iuridicum Novum*, located in the city centre.

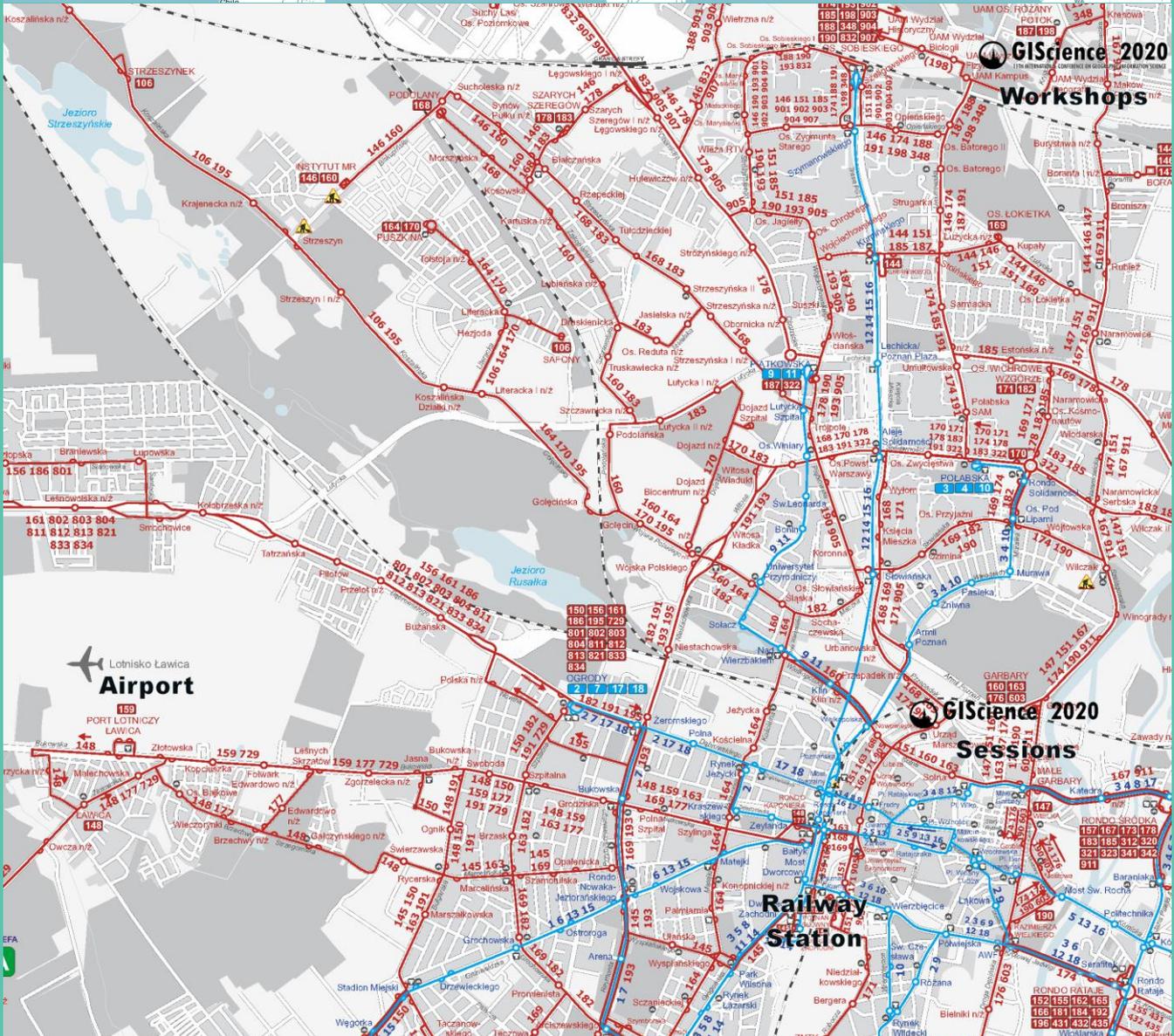
Accommodations

Poznan offers a variety of accommodations ranging from inexpensive hostels through comfortable two- to five-star hotels (see form at https://www.giscience.org/doc/GISCIENCE_2020_Hotel_Reservation_form.doc). There are also many Airbnb options and rental apartments. Most of the hotels and apartments are located in the city centre.

https://www.booking.com/accommodation/city/pl/poznan.en-gb.html?selected_currency=EUR;changed_currency=1;top_currency=1

Transportation

Poznan is well connected with Warsaw and Berlin by an interstate highway, by rail (multiple convenient trains), and by air (direct flights from Frankfurt, Munich, Warsaw and other European cities). The city can be reached by train in under 3 hours traveling from either Berlin or Warsaw or in 1 hour by air from Frankfurt, Munich, Warsaw or Copenhagen, 2 hours from Dublin, London, or Rome, etc.



Poznan has a robust public transportation system (street cars/trams and buses) and efficient private transportation (Uber, Bolt, itaxi, mytaxi, taxi companies). The campus of the AMU, where workshops and tutorials will be held, can be reached by public transport in 30 minutes from the city center. Collegium Iuridicum Novum where the conference session will be held is located near the city center and within walking distance from many hotels.

Sponsors

Platinum Sponsor: ESRI, Redlands

Gold Sponsor: MGGP Aero, Tarnów

Silver Sponsor: ESRI Polska, Warszawa

Sponsor: Committee of Geographical Sciences of the Polish Academy of Sciences, Warszawa

If you are interested in sponsoring the conference, please contact Bernd Resch at bernd.resch@sbg.ac.at.

Partners

Polish Association for Spatial Information

AGILE - Association of Geographic Information Laboratories in Europe

Media partners

Geoforum.pl

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The logo for GIScience 2020 Poznań is set against a light blue background. It features several location pins in blue and dark grey. Some pins contain circular images of Poznań: a modern building, a large Gothic-style building, and a church spire. The word "POZNAŃ" is written in bold, black, uppercase letters. Below it, the word "GIScience" is in a large, bold, black font, followed by "2020" in an even larger, bold, black font. At the bottom, the full name of the conference is written in a smaller, black, uppercase font.

POZNAŃ

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If you have any questions please do not hesitate to contact us at: 2020giscience@gmail.com
Follow us on Twitter at [@GIScience_conf](https://twitter.com/GIScience_conf)