



GIScience 2020

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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

Highlights

- List of workshops and tutorials
- Thematic seminar
- New deadlines for full and short papers
- New deadlines for travel grants
- Opening of registration
- Convenient accommodation in student residencies
- LOT offers discounted flights

Dear All,

We have been approached by many of you to accommodate these extraordinary circumstances such as closed universities and companies, entertaining children at home while working, difficulties in coordinating work and carrying out experiments, and so on.

As of now, we expect the conference to go forward in mid September 2020. While this is not in our hands, ensuring the quality of the review process and publishing your papers is. We already received a healthy load of full papers, and we are thankful for your contributions to GIScience 2020. The review of these papers will start this week. Accepted papers will be published.

In addition, we will leave the GIScience 2020 submission system for full papers open as a rolling deadline, i.e., we will start the review of papers as they come in and hope you will not wait until the last day to submit them.

Finally, we understand that reviewers may not be able to perform their work due to the outbreak and we are committed to handling the process in a way that minimizes disruptions, e.g., by assigning additional reviewers.

Organizing Committee

Poznań – San Diego – Santa Barbara

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, medicine, 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

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Conference Program at Glance

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

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. Accepted workshops are listed below:

- **W1: Advancing Movement Data Science** [Full Day]. Organizers: Somayeh Dodge, Urška Demšar, Patrick Laube, Katarzyna Siła-Nowicka, Robert Weibel - <https://somayehdodge.info/amd-giscience/amd2020/>
- **W2: Methods, Models, and Resources for Geospatial Knowledge Graphs and GeoAI** [Full Day]. Organizers: Gengchen Mai, Yingjie Hu, Song Gao, Ling Cai, Bruno Martins, Johannes Scholz, Jing Gao - <https://stko.geog.ucsb.edu/geokg-geoai2020/>
- **W3: 3rd International Workshop on Spatial Cognition and Artificial Intelligence** [Full Day]. Organizers: Maria Vasardani, Kai-Florian Richter - <http://aicogsci.net/events/spatial-cognition-artificial-intelligence-workshop-series/3rd-international-workshop-on-spatial-cognition-artificial-intelligence/>
- **W4: Semantic technology for geographic question answering** [Half Day - Morning]. Organizers: Martin Tomko, Simon Scheider, Manolis Koubarakis, Sara Lafia - <http://spatial.ucsb.edu/giscience-geoQA-2020>
- **W5: Mapping the three cultures: Bridging GIScience, the social sciences and the humanities** [Half Day - Afternoon]. Organizers: Stefano De Sabbata, Andrea Ballatore, Zoe Gardner - <https://sdesabbata.github.io/bridging-cultures-giscience-2020>
- **W6: GeoScale – 1st International Workshop for Scalable Geographic Methods and Computing Platforms** [Half Day - Afternoon]. Organizers: Gautam Thakur, Kevin Sparks, Caiwen Ding - <https://geoscale.github.io/>
- **W7: Towards universal segmentation of geodata** [Half Day - Morning]. Organizers: Jarosław Jasiewicz, Paweł Netzel, Jacek Niesterowicz, Jakub Nowosad, Tomasz Stepinski, Mateusz Ośko, Przemysław Szarwark - <http://sil.uc.edu/cms/index.php?id=giscience2020-workshop>
- **W8: Social Sensing: Analysing Human-generated Data** [Half Day - Morning]. Organizers: Bernd Resch, Monica Stephens, Alexander Zipf, Sara Fabrikant, Ming-Hsiang Tsou - <http://socialsensing.sbg.ac.at/>

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**.

Venue: Faculty of Geosciences, Adam Mickiewicz University in Poznań, Campus Morasko, Collegium Geographicum

Time: 15 September 2020, 9:00-18:00

Standard fee: €50 (after July 31, 2020 – €75)

Student fee: €30 (after July 31, 2020 – €50)

Thematic Seminar

We are pleased to announce that the GIScience 2020 Conference will host a Thematic Seminar on **Integrated qualitative and quantitative data in geodiversity mapping** organised by the Working Group on Landform Assessment for Geodiversity of the International Association of Geomorphologists. The seminar will be focused on new research in GIScience-based geodiversity, including the purposes, methods, workflows, models and implementation. We are convinced that the Seminar will be an excellent occasion to bring together scientists and practitioners from different countries and exchange experience on mapping, assessment and implementation of geodiversity. Following the introductory and regular lectures there will be a computer laboratory open for participants. Seminar participants can submit titles and abstracts of their oral presentations and posters to the address of Dr. Joanna Gudowicz (Gudowicz@amu.edu.pl) until **July 31, 2020**.

Topics can address, but are not limited to:

- Theoretical frameworks for geodiversity matters – valuing abiotic nature
- Practical frameworks for mapping and assessment of geodiversity - possible areas of application
- Optimal degree of data detail for assessment of geodiversity at the global, regional and local scales
- Criteria and designs used for mapping and assessment of geodiversity
- Geocomputational procedures of geodiversity factor maps and their normalization
- Combining factor maps into the final geodiversity map (AHP and map algebra)
- Regionalisation and segmentation on geodiversity maps

Target audience: MS/PhD students, Postdocs and professionals engaged in geodiversity, geosites, geoconservation, geoparks, geoheritage and geotourism around the world (max. 30 participants)

Pre-requisite for participants: Interest in quantitative and qualitative analysis of complex land systems, Interest in science-practice interfaces, Basic knowledge in ArcGIS, Option: Laptop with ArcGIS installed

The Seminar will be supported by the journal *Quaestiones Geographicae* that may consider the Seminar papers in transdisciplinary approach for publication.

Organizer: Prof. Dr. Zbigniew Zwoliński (ZbZw@amu.edu.pl)

Co-organizers: Dr. Joanna Gudowicz, Dr. Jacek Niesterowicz, MA Alicja Najwer

Venue: Faculty of Geosciences, Adam Mickiewicz University in Poznań, Campus Morasko, *Collegium Geographicum*

Time: 15 September 2020, 9:00-18:00

Fee: €40 (after July 31, 2020 – €60)

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. Important dates for full paper track:

- Full paper submission: **April 20, 2020**
- Full paper rebuttal phase: **April 30-May 7, 2020**
- Full paper notification: **May 22, 2020**
- Camera-ready papers: **June 14, 2020**
- Full paper author registration deadline: **July 31, 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: **June 5, 2020**
- Short paper notification: **July 9, 2020**
- Camera-ready papers: **July 19, 2020**
- Short paper author registration deadline: **July 31, 2020**

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

Formatting instructions for short 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 **15 May 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 31 May 2020. In order to receive the grant, the successful applicants must register for the conference by 15 June 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 is open from 1 March 2020 at 12:00 AM CET at the URL: giscience2020.syskonf.pl/. After registering, you will receive a confirmation email. Note that payment data will be sent by email to each registered participant after June 1, 2020. Electronic registration will close on 31 July 2020. After that date, the registration will be still 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	300 Euro	400 Euro
Student conference registration ¹	200 Euro	250 Euro
On-Site conference registration	N/A	500 Euro
Thematic seminar registration	40 Euro	60 Euro
Standard workshop/tutorial registration	50 Euro	75 Euro
Student workshop/tutorial registration ¹	30 Euro	50 Euro
Full-day field trip	50 Euro	N/A

¹ Available to full-time students currently enrolled at a higher education institution, upon presentation of a copy of your current student ID card at the registration desk.

Cancellations: Should a refund be required, please email 2020giscience@gmail.com with your booking details.

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 30-45 minute drive time by public transportation from the city centre. 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

Organizing Committee offer affordable accommodation in the student residences [Hanka](#) and [Jowita](#) dormitories at a very convenient distance from the place of the congress. Single and double rooms are available. After selecting this option in the registration form, its cost will be added to the conference fee.

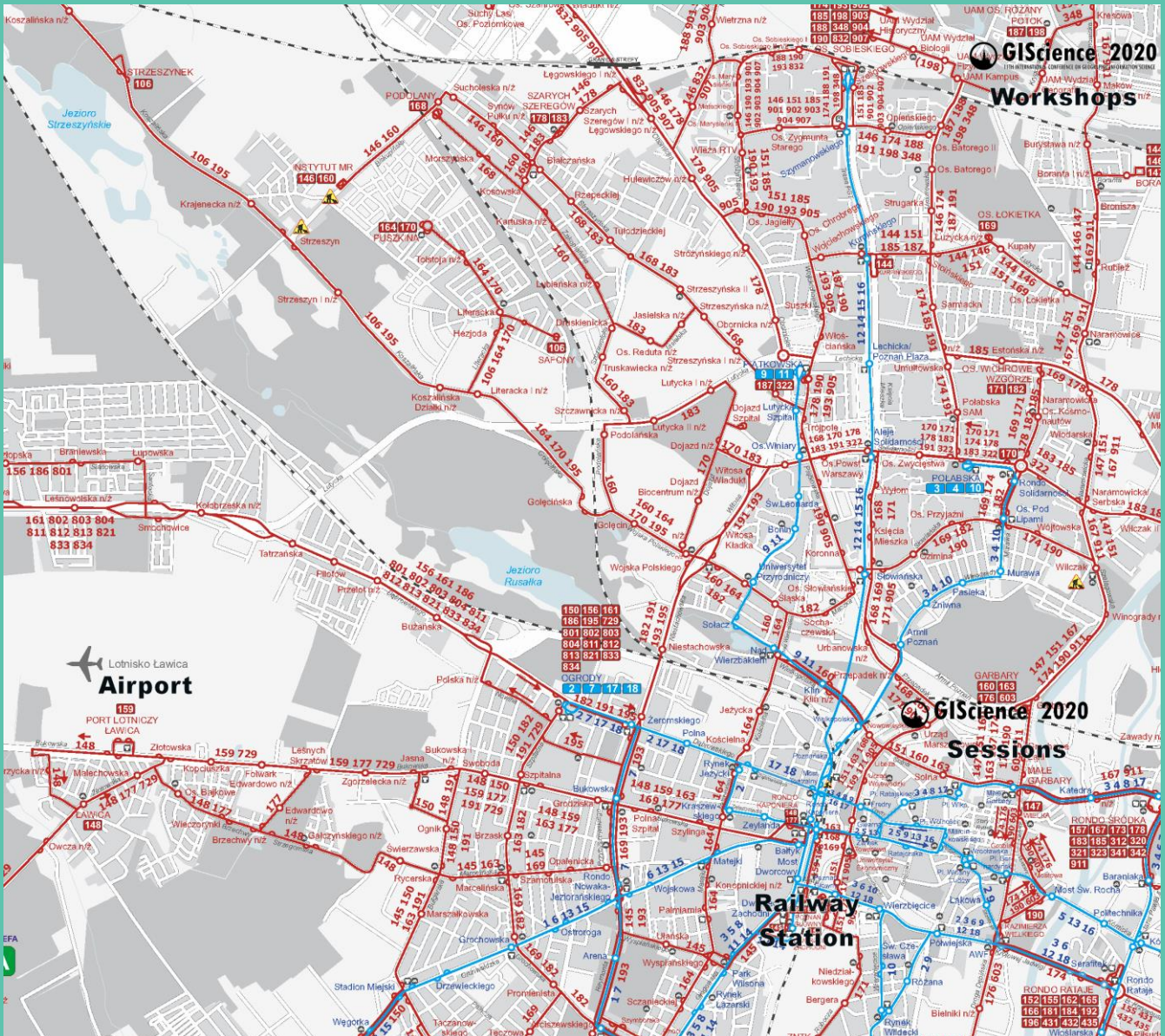
More over, Poznan offers a variety of accommodations ranging from inexpensive hostels through comfortable two- to five-star hotels. Rainbow Tours travel agency has prepared a special offer for guests of The 11th International Conference on Geographic Information Science 2020. By using the form (https://www.giscience.org/doc/GISCIENCE_2020_Hotel_Reservation_form.doc) you can make a reservation in one of the hotels listed in the attachment. There are also many Airbnb options and rental apartments. Most of the hotels and apartments are located in the city centre. And of course you can use always Booking.com:

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.

LOT Polish Airlines offer discounted flights to/from the conference if you use flights with their aircraft fleet. We will give details soon.



Poznań 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

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

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If you have any questions please do not hesitate to contact us at: 2020giscience@gmail.com

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