

open:spatial:interfaces

GI_FORUM – Symposium and Exhibit
Geographic Information Science

GI_Forum

Salzburg, July 5 – 8, 2016

> www.gi-forum.org



Social Programme

TUESDAY, JULY 5

17:00
AudiMax
GI_Forum Opening
UIA Award Ceremony
Keynote
Big Data for Healthy Places:
How Mobility Data and Open Data Facilitate
an Ecological and Evidence-based Approach
to Healthier Built Environments
Harvey Miller, Ohio State University, USA

18:30
West Terrace
International Icebreaker

WEDNESDAY, JULY 6

12:00
EXPO Foyer
AGIT EXPO Opening
Business Lunch with the exhibitors

18:30
EXPO Foyer
EXPO Night
Postersession & get.together
with the exhibitors

21:00
UEFA Semi-Finals

THURSDAY, JULY 7

18:30
Piano Terrace
Evening Buffet
followed by: Award ceremony Poster
Competition & Best Student Paper Award 

21:00
UEFA Semi-Finals

FRIDAY, JULY 8

07:15
AGIT & GI_Forum Morning Run

15:30
Foyer
Closing Event
toasting to a successful GI_Forum 2017!

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open:spatial:interfaces

GI_Forum 2016 provides a platform for dialogue among geospatial minds in an ongoing effort to support the creation of an informed GeoInformation Society. Bearing in mind different perspectives from a variety of professions, presentations as well as workshops and exhibitions will concentrate on innovations in science, technologies, education.

This year's motto of the conference is **open:spatial:interfaces**. It sets the stage for keynote addresses, presentations, workshops, special sessions and exhibitions. that focus on contributions of geoinformation to a more just, ethical and sustainable society.

Together with its counterpart, the German language conference on Applied Geoinformatics – AGIT, GI_Forum and various SIG events (i.E. FOSSGIS, HGD-Symposium) have become an international annual event within the worldwide GIS community. The symposia and the innovative AGIT EXPO exhibit share more than 1000 participants, and offer stimulating social events.

We have lined up an interesting pool of keynote speakers: the conference opens on Tuesday with a talk by Harvey Miller on "How Mobility Data and Open Data Facilitate an Ecological and Evidence-based Approach to Healthier Built Environments". It is followed by the international icebreaker, which officially opens the English speaking conference. On Thursday, Katharyne Mitchell will present her thoughts on "Counter-Mapping and Insurgent Politics in Middle School", followed by a presentation by Melanie Gall on "Integrated disaster risk research: challenges and benefits".

The conference program consists of two thematic tracks and several special sessions. The GIScience track covers a variety of GIScience and Technology topics ranging from innovation in geospatial technologies, urban geoinformatics, to advances in spatial analysis, modelling and conceptualization of GI. Learning with Geomedia track focuses on citizenship and education, empirical research in education, and learning environments in primary and secondary education.

GI_Forum has always emphasized its efforts to connect young and experienced researchers, so we again have sessions in which students present their bachelor and master thesis topics and study project work. At the Young Researchers' Corner young scientists meet the keynote speakers in an informal atmosphere and discuss their research and receive impulses for their academic careers. Young researchers among you, watch out for these sessions offered on Thursday during which our keynote speakers will be available to you exclusively!

This year's program is a result of the active participation of, and contribution from GIScientists, industry representatives and educators, and we, the GI_Forum Team, thank you all for that! We are sure that GI_Forum 2016 together with AGIT and AGIT Expo will advance the dialogue, connect people, ideas and institutions and be a highlight of the GIS community event calendar.

*Adrijana Car, Thomas Jekel and
Julia Stepan*

Conference Office Opening Hours

Tuesday: 10:00 – 18:00
Wednesday: 08:30 – 18:00
Thursday: 08:30 – 18:00
Friday: 08:30 – 14:00

Tuesday, July 5

	13:00	14:30
L HS C3006 3 rd floor	L1. EDU Workshop BoK 2.0 I BoK 2.0 for Curriculum Design I <i>Gudrun Wallentin, University of Salzburg – Z_GIS, Austria</i>	Coffee / Tea break sponsored by GRINTEC
	15:00	16:30
B Blauer Hörsaal Ground fl.	B2. GIS Panel Discussion GI-Science and Data Science: Can they profit from each other? <i>Peter Mandl, Alps-Adria University, Austria</i>	Coffee / Tea break sponsored by GRINTEC
L HS C3006 3 rd floor	L2. EDU Workshop BoK 2.0 II BoK 2.0 for Curriculum Design II <i>Gudrun Wallentin, University of Salzburg – Z_GIS, Austria</i>	
	17:00	18:30
A Audi Max Ground fl.	A3. KEY Keynote GI_Forum Opening Big Data for Healthy Places: How Mobility Data and Open Data Facilitate an Ecological and Evidence-based Approach to Healthier Built Environments <i>Harvey Miller, The Ohio State University, USA</i>	GI_Forum Icebreaker

Young Researchers Corner – Programme

J10. YRC	Katharyne Mitchell Professor, Department of Geography, University of Washington, USA	Thursday, July 7, 2016, 11:30 - 13:00, HS 421, 2nd floor
J11. YRC	Harvey Miller Bob and Mary Reusche Chair in Geographic Information Science; Director of the Center for Urban and Regional Analysis; Professor in the Department of Geography, The Ohio State University, USA	Thursday, July 7, 2016, 14:00 - 15:30, HS 421, 2nd floor
J12. YRC	Anita Graser Researcher, Austrian Institute of Technology, Austria	Thursday, July 7, 2016, 16:30 - 18:30, HS 421, 2nd floor

	09:00	09:30	10:00	10:30	11:00	11:30	12:00
B Blauer Hörsaal Ground fl.	B4. GIS GIScienc Methods <i>Chair: Peter Mandl, Alps-Adria University, Austria</i>			B5. SPA Spatial Analysis <i>Chair: Jennifer Fu, Florida International University, USA</i>			AGIT EXPO Opening / Lunch break
	Toward A More Reliable VGI Quality Assessment Method Based On Trustworthiness <i>Amirmasoud Forati, University of Tehran, Iran</i>	Using geostatistical methods to automatically verify citizen science data on alien species <i>Karin Wannemacher, University of Applied Sciences Wiener Neustadt, Austria</i>	Context-aware thinning of artificial networks for map generalisation <i>Vincent van Altena, Vrije Universiteit Amsterdam, The Netherlands</i>	Quantitative population loss assessment: Seismic scenarios for Bucharest using 2002 census data <i>Dragos Toma-Danila, National Institute for Earth Physics, Romania</i>	Earthquake Loss Evaluation (ELE) for the City of Khujand, Sughd Province (Tajikistan) <i>Jafar Niyazov, Academy Science of Tajikistan, Tajikistan</i>	Visualization and spatial analysis of open data for evacuation planning <i>Jan Russnak, Masaryk University, Czech Republic</i>	
L HS C3006 3 rd floor	L4. EDU BoK 2.0 III Workshop BoK 2.0 for Curriculum Design III <i>Guðrun Wallentin, University of Salzburg – Z_GIS, Austria</i>						

	13:00	13:30	14:00	14:30
B Blauer Hörsaal Ground fl.	B6. EDU Curriculum Design 2.0 <i>Chair: Guðrun Wallentin, University of Salzburg – Z_GIS, Austria</i>			Coffee/Tea break sponsored by GRINTEC
	Curriculum Design in Upper-Level and Advanced GIS Classes: Are New Skills being Taught and Integrated? <i>Peter Kedron, Ryerson University, Canada</i>	Minor Programs in the Geospatial Domain – Referencing the Body of Knowledge <i>Adrijana Car, German University of Technology in Oman, Sultanate of Oman</i>	Some thoughts on the possible benefits of using VirlaBok for GI teaching design and GI course finding <i>Frans I. Rip, Wageningen University, The Netherlands</i>	
H HS 413 1 st floor	H6. EDU Prosuming Geoinformation <i>Chair: Jana Pokraka, University of Duisburg-Essen, Germany</i>			
	Journey to the End of the World Map – How Margins of World Maps Shape the Spatial Mind <i>Florian Hruby, CONABIO, Mexico</i>	On the question how Web 2.0 features support critical map reading <i>Tom Hoyer, Leibniz Institute for Regional Geography, Germany</i>	"Heaven. #shopping #Frankfurt #weekend #joy" – Hashtags, constructions of space and geographical education <i>Christina Reithmeier, Goethe-Universität Frankfurt am Main, Germany</i>	


	15:00	15:30	16:00	16:30
B Blauer Hörsaal Ground fl.	B7. UGI Urban Geoinformatics <i>Chair: Bernd Resch, University of Salzburg – Z_GIS, Austria</i>			Coffee / Tea break sponsored by GRINTEC
	Urban Emotions Bicycle Experience – enriching bicycle traffic planning with human sensor data <i>Peter Zeile, University of Kaiserslautern, Germany</i>	Positional Accuracy of Twitter and Instagram Images in Urban Environments <i>Sreten Cvetojevic, University of Florida, USA</i>	Volunteered Geo-Dynamic Information for Health Exposure Assessment – a FRESHER Case Study <i>Christoph Aubrecht, Austrian Institute of Technology, Austria</i>	
H HS 413 1 st floor	H7. EDU Spatial Citizenship & Diversity <i>Chair: Verena Schreiber, Pädagogische Hochschule Freiburg, Germany</i>			
	Spatial Citizenship for all!? Impulses from an Intersectionality Approach <i>Jana Pokraka, University of Duisburg-Essen, Germany</i>	A practical approach for gender- and diversity-informed geomeia education for teachers in training <i>Nicole Ferber, University of Salzburg – Z_GIS, Austria</i>	Genderspezifische Unterschiede der Lernwirksamkeit digitaler Lernwege in der Fernerkundung <i>Raimund Ditter, PH Heidelberg, Deutschland (Presentation in English)</i>	

	17:00	17:20	17:40	18:00	18:30
B Blauer Hörsaal Ground fl.	B8. TRA GIS for Transport Systems <i>Chair: Martin Loidl, University of Salzburg – Z_GIS, Austria</i>				AGIT EXPO-Night & Poster session EPSON IMAGIO YOUR VISION
	Keynote Geographic Information Systems for Transportation in the 21 st Century <i>Harvey Miller, The Ohio State University, USA</i>	Spatial Decision Support: Small-Scale Site Selection Model for Carsharing Services <i>Johannes Schwer, University of Augsburg, Germany</i>	Automatic lane level road network graph generation from Floating Car Data <i>Mario Dolancic, University of Salzburg, Austria</i>	Integrating Open Spaces Into OpenStreetMap Routing Graphs for Realistic Crossing Behavior in Pedestrian Navigation <i>Anita Graser, Austrian Institute of Technology, Austria</i>	
H HS 413 1 st floor	H8. EDU Citizen, Science & Participation <i>Chair: Karl Donert, European Association of Geographers, Belgium</i>				
	HCI-Evaluation of the GeoCitizen-reporting App for citizen participation in spatial planning <i>Karl Atzmanstorfer, University of Salzburg – Z_GIS, Austria</i>	Crowdsourcing of local spatial and historical knowledge <i>Daniel Vrbik, Technical University of Liberec, Czech Republic</i>	Measuring citizens fear of crime of using a web application – A case study <i>Andrea Pödör, Obuda University Alba Regia Technical Faculty, Hungary</i>		
M HS C3004 3 rd floor	M8. DAT Working with LiDAR Data: ArcGIS Workshop Working with LiDAR Data: ArcGIS <i>Michael E. Hodgson, University of South Carolina, USA</i>				

	09:00	10:30
B Blauer Hörsaal Ground fl.	B9. KEY EDU Keynote Keynote <i>Chair: Thomas Jekel, University of Salzburg, Austria</i> Counter-Mapping and Insurgent Politics in Middle School <i>Katharyne Mitchell, University of Washington, USA</i>	Coffee / Tea break sponsored by GRINTEC

	11:30	11:50	12:10	12:30	13:00
B Blauer Hörsaal Ground fl.	B10. GIS GIScience: Modelling <i>Chair: Wayne Forsythe, Ryerson University, Canada</i>				Lunch break / Reviewer meeting
	A model-sensor framework to predict homing pigeon flights in real time <i>Gudrun Wallentin, University of Salzburg – Z_GIS, Austria</i>	A Cookie-Cutter Approach for Determining Stays from Movement Data <i>Simon Gröchenig, Salzburg Research Forschungsgesellschaft m.b.H., Austria</i>	An Agent-Based Model for Exploring Wolf Recolonization in Austria <i>Stephen Crook, San Diego State University / University of California – Santa Barbara, USA</i>	Evaluating Brownian Bridge Movement Model to Determine Regularities of People's Movement <i>Verena Venek, Salzburg Research Forschungsgesellschaft mbH, Austria</i>	
D GI Studio Ground fl.	D10. EDU Innovations in Education <i>Chair: Inga Gryl, University of Duisburg-Essen, Germany</i>				
	Negotiating geographical thinking and political education through the GeoCapabilities approach <i>Anke Uhlenwinkel, Potsdam, Germany</i>	Innovativeness as Fresh Ground: From an Old Buzzword to New Praxis <i>Claudia Scharf, University of Duisburg-Essen, Germany</i>	An Adaptive Web-based Learning Module for the Problem-based Application of Remote Sensing in School <i>Vera Fuchsgruber, Heidelberg University of Education, Germany</i>	GI-Learner: a project to develop geospatial thinking learning lines in secondary schools <i>Karl Donert, European Association of Geographers, Belgium</i>	
G HS 414 1 st floor	G10. VGI VGI & Urban Planning Workshop VGI as a starting point in urban planning – case studies with a map-based survey tool from Finland <i>Tanja Seppänen, Dimenteq Oy, Finland</i>				
J HS 421 2 nd floor	J10. YRC Young researchers corner <i>Katharyne Mitchell, Professor, Department of Geography, University of Washington, USA</i>				

	14:00	14:30	15:00	15:30
B Blauer Hörsaal Ground fl.	B11. TEC GI Technology & Innovation <i>Chair: Damir Medak, Faculty of Geodesy, University of Zagreb, Croatia</i>			Coffee / Tea break sponsored by GRINTEC
	DSM generation in urban areas using triple stereo imagery <i>Kerstin Kulesa, University of Salzburg – Z_GIS, Austria</i>	UAV Workflow Optimization for the Acquisition of Photogrammetric Point Clouds in Forestry <i>Stuart Krause, Eberswalde University of Sustainable Development, Germany</i>	Airborne Geiger Mode LiDAR for Large Scale, High Resolution Wide Area Mapping <i>Thomas Bahr, Harris Corporation, Germany</i>	
H HS 413 1 st floor	H11. EDU GI Learner I Workshop GI Learner I: a GI-Learning line in secondary education: background and scientific research <i>Luc Zwartjes, Ghent University, Belgium</i>			
J HS 421 2 nd floor	J11. YRC Young researchers corner <i>Harvey Miller, Bob and Mary Reusche Chair in Geographic Information Science; Professor in the Department of Geography, The Ohio State University, USA</i>			

	16:30	16:50	17:10	17:30	18:00	18:30
B Blauer Hörsaal Ground fl.	B12. TEC GI Technology & Innovation <i>Chair: Jan-Peter Mund, Eberswalde University for Sustainable Development, Germany</i>					on the piano terrace // Poster Award // Best Student Paper Award sponsored by  esri
	Online-Visualization of Streaming Data <i>Caroline Atzl, RSA iSpace, Austria</i>	Indoor Positioning: Chances and implementation strategies of Bluetooth Low Energy <i>Christian Feil, RSA iSpace, Austria</i>	Participatory modeling of collective mobility decisions using HubNet <i>Anna Nägele , Ludwig-Maximilians-Universität München, Germany</i>	Switch the Button: Online/Offline Mobile Applications in an Agricultural Usage Context <i>Karl Atzmanstorfer, DK GIScience, Salzburg University, Austria</i>	GeocentraleApps – Discussing Practical Approaches to Data Integration for Modern Spatially Enabled Apps <i>Christoph Schaller, Bern University of Applied Sciences, Switzerland</i>	
H HS 413 1 st floor	H12. EDU GI Learner II Workshop GI Learner II: Prototype teaching material for a GI-Learning line in secondary education <i>Michaela Lindner-Fally, BORG Oberndorf, Austria</i>					
J HS 421 2 nd floor	J12. YRC Young researchers corner <i>Anita Graser, Researcher, Austrian Institute of Technology, Austria</i>					

	09:00	09:30	10:00	10:30
B Blauer Hörsaal Ground fl.	B13. VUL Integrated Assessment of Risk and Vulnerability <i>Chair: Stefan Kienberger, University of Salzburg – Z_GIS, Austria</i>			Coffee / Tea break sponsored by GRINTEC
	Keynote Integrated disaster risk research: challenges and benefits <i>Melanie Gall, University of South Carolina, USA</i>	Risk-informing development: Making use of geo- spatial data in UN development planning in Bosnia- Herzegovina <i>Jeremy Wetterwald, UNICEF, Bosnia and Herzegovina</i>	Community-level social vulnerability assessment: applying the SoVI model to Romanian settlements <i>Ibolya Torok, Babes-Bolyai University, Romania</i>	

	11:00	11:30	12:00	12:30
B Blauer Hörsaal Ground fl.	B14. VUL Integrated Assessment of Risk and Vulnerability <i>Chair: Marion Borderon, Department of Geoinformatics – Z_GIS, Austria</i>			Lunch break
	Development and validation of a sub- national multi- hazard risk index for the Philippines <i>Sabrina Wannowitz, United Nations University, Germany</i>	Assessing vulnerability along a dy- namic coastline: Example of the Sidi Frej touristic area in the Kerkennah archipelago (Tunisia) <i>Lucile Etienne, Université Paris, France</i>	Co-designing possible flooding solu- tions: Novel participatory mapping methods to identify flood management options from a UK borders case study <i>Steve Cinderby, Stockholm Environment Institute, United Kingdom</i>	

	13:30	14:00	14:30	15:00
B Blauer Hörsaal Ground fl.	B15. VUL Integrated Assessment of Risk and Vulnerability <i>Chair: Michael Hagenlocher, United Nations University, Japan</i>			Farewell with a glass of wine
	Integrated assessment for vulnerability to climate change in Germany – a process of co-production of knowledge <i>Stefan Schneiderbauer, EURAC.Research, Italy</i>	Climate change vulnerability assessment in Mauritania: supporting adaptation planning for agriculture and pastoralism <i>Stefan Kienberger, University of Salzburg – Z_GIS, Austria</i>	Community involvement in the civil protection through a smartphone app <i>Hagen Tischer, FU Berlin, Germany</i>	

Programme Topics

DAT	Data Acquisition
EDU	Learning with GI
GIS	Geographic Information Science
KEY	Keynote
TEC	Technology
TRA	Transportation Modelling
UGI	Urban Geoinformatics
VGI	Volunteered GI
YRC	Young researchers corner

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Speaker Resource Center

Prepare your talk in a designated room for speakers.
Where?
HS 415 on the 1st floor



GI_Forum Journal
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Special Sessions

- EDU L1, L2, L4, B6, H6 & H7
Workshop Tuesday | July 5 | 13:00 - 16:30 | HS C3006
Workshop Wednesday | July 6 | 9:00 - 10:30 | HS C3006
Wednesday | July 6, 2016 | afternoon (paper session)

GI-Curriculum Design 2.0

GI education is challenged by the pace of change in GIScience and Technologies. Curricula need to be revised regularly to equip future professionals with the conceptual and methodological competences to cope with dynamically changing technologies and IT environments. A twofold strategy is taken towards this direction: first, a revision of the current Body of Knowledge for GIScience and Technologies (GIS&T BoK). Second, the development of new ontology-based strategies and tools for curriculum development. The special session "GI-Curriculum Design 2.0" will offer hands-on experience to explore and test new interactive curriculum design tools. Second, a paper session will focus on Curriculum Design 2.0 from various perspectives, including its content base, didactical aspects and technology-supported design strategies.

Scope of the workshop "BoK 2.0 for Curriculum Design"

In this 'plugfest' workshop we will explore and test the 'VirLaBok'. The VirLaBok is a virtual laboratory to explore a revised version of the GIST&T BoK that was developed in the context of EU project 'Geographic Information – Need to Know' in a networked effort of 35 European partners. The VirLaBok aims to support curriculum design, as it allows definition of learning paths by browsing the BoK, selecting concepts, topics and units from different knowledge areas, visualizing the selected elements and linking those to e.g. existing courses or course modules stored in the VirLaBok. For the testing we will use worked examples and also invite you to test your own educational offerings.

Scope of the Curriculum Design 2.0 paper session

The paper session invites contributions on strategies, tools and contents for the design of 'modern' GI curricula. This includes conceptual work as well as best practice examples in the implementation of GI-related training and education.

- TRA B8
Wednesday | July 6 | 17:00 - 18:30 | Blauer HS

Spatial Perspectives on Transport Systems

Transport systems are spatial by their very nature. They rely on physical infrastructure, they connect locations and they facilitate the mobility of goods and people. However, the spatial dimension is not always considered explicitly in research and application. We think that concepts and tools rooting in geography and GIS have a lot to offer to better understand transport systems at various spatial and temporal scale levels and to foster holistic approaches!

- VUL B13, B14 & B15
Friday | July 8 | 09:00 – 15:00 | Blauer HS

Integrated Assessment of Risk and Vulnerability

Social and environmental systems are confronted with more frequent hazards (incl. natural hazards, diseases, etc.) and their impacts. This has been leading to an increase in the number of people affected, casualties and socio-economic and environmental losses. We believe that integrated assessment methods are required to represent, analyze and communicate risks in a way that is understandable and actionable to decision makers and communities at risk. This includes information on the stressor and the vulnerability of the system that is affected.

For this special session at the GI_Forum 2016 we called for contributions dealing with spatial analysis, integrated assessment and novel visualization/communication approaches to address such challenges. We thus invited researchers and practitioners to submit contributions tackling the following thematic and methodological topics:

Thematically: Contributions comprise topics such as integrated risk and vulnerability assessments in the field of disaster risk reduction, climate change adaptation or public health and beyond.

Methodologically: We sought for submissions which apply spatial statistics, index-based approaches/multi-criteria analysis, remote sensing and novel visualization/decision support tools for the assessment, analysis and communication of risk and vulnerability at different spatial and temporal scales.

Organisers



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