

## The Association of American Geographers Spatial Analysis and Modeling Specialty Group Newsletter Fall 2017

### Table of Contents

From the chair	1
Awards	2
Announcements	4
Publications	4
SAM-sponsored sessions	4
SAM-SG information	6

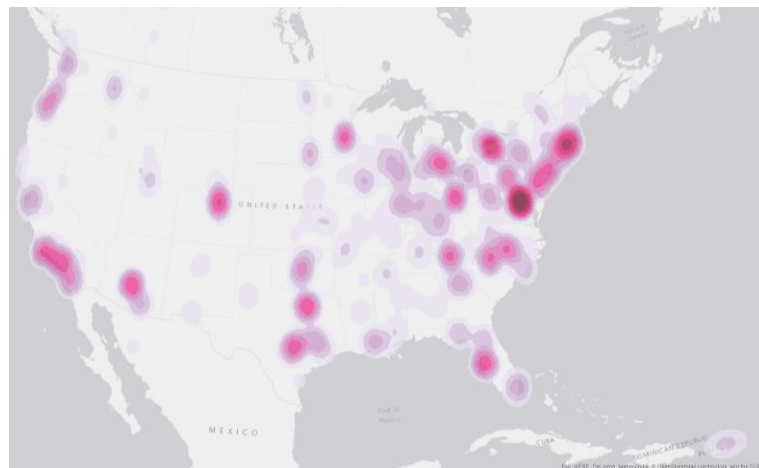
### FROM THE CHAIR

Dear SAM Members,

Many thanks to everyone who contributed to this edition of the SAM newsletter. I would like to express special appreciation to Daoqin Tong, our newsletter editor, who has made endless efforts for putting things together to make a nice piece of this newsletter. Thanks also go to our student director, Alex Hohl for his effort in updating our website and launching a SAM facebook ( <https://www.facebook.com/spatialanalysisandmodelling/>) and Eric Delmelle, SAM board member who made an interesting map showing where our SAM members come from (also see the map blow). SAM members have grown substantially in the last five years, making us one of the three largest specialty groups of the AAG. I encourage you to feed relevant news items to this social media. Additionally, I encourage you to check out SAM activities in 2017 posted in our group website.



SAM member distribution



SAM will sponsor many events at the New Orleans meeting. First, we expect to sponsor many paper and panel sessions. Without all of your support and enthusiasm, SAM would not have been able to organize them. Second, we will have two student paper competition sessions, and we expect to receive full papers of the invited students by the deadline. Thank you to Eric Demelle for organizing the paper sessions. Third, we will have a SAM plenary talk by Harvey

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Miller. Next year is the 50th anniversary of the Geographical Analysis, and we are particularly pleased to have him our speaker. Thank you to all who nominated qualified candidates this year. Fourth, we will announce SAM travel award recipients, and SAM board member Deb Ghosh has been organizing this. Fifth, we will announce emerging scholar award recipient. With multiple outstanding nominations, the SAM board members are currently reviewing nomination packages carefully. If you have any additional ideas for SAM-related events at New Orleans, please contact me or any SAM board members.

We will need to elect two new board members in early 2018 as both Deb and my terms expire in 2018. As approved at our last SAM business meeting, Carson will succeed me as a Chair for the next two years (2018-2020), so we will need to elect a new Vice Chair and a board member. If you are interested in becoming a board member and would like to know more about the responsibilities of these positions, please feel free to contact me or any other board members.

You are cordially invited to attend the 2018 SAM business meeting (tentatively scheduled on Friday during lunch time), to share your ideas on how the specialty group may advance and better serve the SAM community. Additionally, if you have any other ideas related to SAM activities, please contact me at [changh@pdx.edu](mailto:changh@pdx.edu) at any time. Thank you for reading this email, and I look forward to seeing many of you in New Orleans and working with you closely on SAM business.

Sincerely yours,



**Heejun Chang**  
**SAM Chair & Professor and Chair of Geography**  
**Portland State University**

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## AWARDS

[Dr. Daniel A. Griffith](#), Ashbel Smith Professor of Geospatial Information Sciences at the University of Texas at Dallas, has been elected the only 2017 **Foreign Fellow of the Royal Society of Canada** (the Academies of Arts, Humanities and Sciences of Canada). His

induction ceremony will take place in Winnipeg on November 24, 2017. Dan received a 2013 SAM Outstanding Service Award, and delivered the 2017 SAM-GA keynote lecture (which is forthcoming in *Spatial Statistics*). Dan also was an inaugural Nystrom awardee (1980), and received AAG distinguished scholarship honors in 2010.

[Dr. Mei-Po Kwan](#) was awarded the 2017 Alan Hay Award in Transport Geography from the Royal Geographical Society with the Institute of British Geographers (RGS-IBG). This award recognizes outstanding contributions to the field of Transport Geography. In addition, she gave the Brian Hoyle Annual Lecture in Transport Geography at the 2017 RGS-IBG Annual Meeting in London on August 31st. Kwan also received the Distinguished Scholar Award from the International Association of Chinese Professionals in Geographic Information Sciences (CPGIS) at the Geoinformatics annual conference in August 2017.

[Geographers at UCSB](#) was awarded a \$1.5 million National Science Foundation grant to evaluate urban wildfire patterns and resilience strategies.



The research team includes AAG-SAM members **Alan Murray** and **Richard Church**, along with Leila Carvalho, Dar Roberts and Charles Jones.

<http://www.news.ucsb.edu/2017/018147/where-there-s-smoke>

[https://nsf.gov/awardsearch/showAward?AWD\\_ID=1664173&HistoricalAwards=false](https://nsf.gov/awardsearch/showAward?AWD_ID=1664173&HistoricalAwards=false)

[Dr. Xinyue Ye](#) (Director, Computational Social Science Lab & Associate Professor, Department of Geography, Kent State University) received NSF SI2-SSE: GeoVisuals Software: Capturing, Managing, and Utilizing GeoSpatial Multimedia

Data for Collaborative Field Research, National Science Foundation, \$500,000, 2017-2020) as Co-PI (Computer Science PI). This project will: (1) Capture and transfer geospatial multimedia data in a variety of different field settings ranging from developed countries with advanced IT infrastructures, to countries that still lack a reliable access to the internet; (2) Manage and explore the collected data, when the data scale and dimensions impose technical challenges for non-IT professionals. (3) Apply qualitative, quantitative, and spatial data analysis with mining algorithms, visual representations, and interactions.

Dr. Xinyue Ye's team has developed the visual analytics software, *TrajAnalytics*, to help users extract deep insights from trajectory data with: Iterative, evolving information foraging and sense making; Interactive process using domain knowledge. It integrates scalable data management and interactive visualization with powerful computational capability with: Powerful computing platform; Easy access web-based gateway; Scalable data storage and management; Exploratory visualization. More details is at: <http://vis.cs.kent.edu/software.html>

[Dr. Andries Heyns won the 2017 Tom Rozwadowski medal](#) The award recognizes a member of the Operations Research Society for the best written contribution in a peer-reviewed journal.



The article for which Andries Heyns won the award is **A multi-resolution approach towards point-based multi-objective geospatial facility location**, which appears in *Computers, Environment and Urban Systems*.

## ANNOUNCEMENTS

**2018 Plenary Speaker** Prof. Harvey J. Miller from the Ohio State University has been selected by the SAM Specialty Group and the Editor of *Geographic Analysis* as the 2018 Plenary Speaker. Prof. Miller's seminal work has made significant contributions to time geography, transport geography, GIS and health.

**UCSB Geography Spatial Data Science faculty position** The University of California, Santa Barbara Department of Geography invites applications for a tenure-track position in spatial data science at the rank of Assistant Professor. The department seeks applicants with core research interests in inferential and computational analysis of spatial data, data mining, and machine learning in support of any substantive domain in the field of Geography or allied fields that rely on spatiotemporal data. The Department of Geography has strengths in three broadly defined areas: human geography; earth system science; and modeling, measurement, and computation. This position is most strongly associated with the third of these areas, but interest in one or both of the other systematic areas is also desirable. Preference will be given to candidates who have grounding in computational data analysis equivalent to, or exceeding, an M.S. in statistics, computer science, geoinformatics, or related fields, and will have a proven track record of collaboration with diverse disciplinary teams of scientists.

To apply, please log in to <https://recruit.ap.ucsb.edu/apply/JPF01091> to

submit your cover letter, curriculum vitae, statements of research and teaching interests, and names of three referees with their contact information. A Ph.D in an appropriate field is required by the date of appointment. Applications completed by November 15, 2017 will receive priority consideration, but the position will remain open until filled. The effective start date of the position is July 1, 2018 or later.

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## PUBLICATIONS

Tobler W. (2017) A New Companion for Mercator. *CAGIS*  
<http://dx.doi.org/10.1080/15230406.2017.1308883>  
 7. In press

Tobler W. (2017) Cartograms as Map Projections. *Choosing a Map Projection*, Lapine & Usery, eds. Springer. Pages 149-159  
 ISBN 978-3-319-51834-3

Heyns A. M. and J. H. van Vuuren (2016). A multi-resolution approach towards point-based multi-objective geospatial facility location. *Computers, Environment and Urban Systems* 57(1): 80-92.

Heyns A. M. and J. H. van Vuuren (2017) Multi-Type, Multi-Zone Facility Location. *Geographical Analysis*. doi:10.1111/gean.12131

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## SAM-SPONSORED SESSIONS AT 2018 AAG MEETING

[Advances in Computational Approaches for Geospatial Health Applications](#)

[Advances in Spatial Interaction Models and Methods](#)

[Analyzing movement data using GIS: Lagrangian and Eulerian perspectives](#)

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[Artificial Intelligence and Deep Learning Symposium: Applications and Frontiers in Coupled Natural Human Systems](#)

[Artificial Intelligence and Deep Learning Symposium: Deep Learning of Geospatial Patterns & Applications](#)

[Automated GISci for Network-based Decisions](#)

[Cognition, Behavior and Design](#)

[Computation for Public Engagement in Complex Problems: From Big Data, to Modeling, to Action](#)

[Geographic Research on Vector-Borne Diseases](#)

[Geography and Substance Use](#)

[Geographies of Climate Impacts](#)

[Geospatial Analysis of Dengue Fever](#)

[Geospatial Health Research Symposium](#)

[Geospatial Health Research Symposium: Chronic Disease](#)

[Geospatial Technologies for Urban Health](#)

[Geovisual Analytics](#)

[High-Resolution Population Modeling](#)

[Integrative Modeling for Coupled Natural-Human Systems](#)

[Quantitative Methods for GIS-based Land Systems Science](#)

[Remote Sensing Applications of Urban Phenomena: New Frontiers in Mapping and Estimation of Socio-Economic Aspects](#)

[Spatial Analysis and Modeling of Natural Disasters and Community Resilience](#)

[Sensitivity Analysis and Validation Methodologies of Spatially Explicit Agent-Based Modeling](#)

[Smart Cities and Urban Computing](#)

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[Spatial-Social Networks in GIS](#)

[Spatial Optimization and Analysis](#)

[Spatiotemporal Modeling of Landscape Processes and Impacts Using Remote Sensing](#)

[Spatiotemporal Symposium: Advances in Spatial Interaction Models and Methods in the Big Data Era I & II](#)

[Spatiotemporal Symposium: Spatiotemporal Visualization: Concepts, Tools, Platforms and related Topics](#)

[Spatiotemporal Symposium: Large-Scale Location-Based Social Network Computation and Visualization](#)

[Spatiotemporal Symposium: Spatial Interactions in the Big Data Era](#)

[Symposium on CyberGIS and Spatial Data Science](#)

[Symposium on Human Dynamics in Smart and Connected Communities: New Perspectives into Spatial Interactions in the Urban Environments](#)

[Symposium on Integrating Spatial Statistics within Open Source & Open Science](#)

[Symposium on New Horizons in Human Dynamics Research](#)

[The Nexus of Place and Space: Combining Qualitative and Quantitative Data and Methods](#)

[Trees in the City](#)

[Urban Green Infrastructure: Geospatial and Climate Application](#)

[Value-Based Praxis in Community-Based Participatory Research and Action for Social and Environmental Equity](#)

[Working with High-Precision Census Data: Limitations and Possibilities](#)

## INFORMATION

### Spatial Analysis and Modeling (SAM) Specialty Group

Our mission is to foster and maintain interaction, cooperation and community among individuals interested in the analysis of geo-referenced data, modeling of spatio-temporal processes and the use of analytical and computational techniques in solving geographic problems. The specialty group promotes the scientific study of physical, environmental and socioeconomic geography and the development, use and teaching of analytical cartography, GIS, remote sensing, spatial statistical, mathematical and computational techniques for spatial analysis. For more information, see the SAM-SG homepage (<http://sam-aag.org/>).

### Membership Dues

Regular: \$6  
Student: \$1

### Submissions

This newsletter reaches a large number of readers and is therefore an excellent venue for getting the word out on community news, departmental happenings, research findings, media appearances, and the like. It is also a good place to post calls for proposals, awards, grants, fellowships, and jobs. We also invite you to submit commentaries or features of broad interest to specialty group members.

The newsletter relies on volunteers to submit articles, so please take a moment to send along relevant items when they are solicited.

## Officers

### Chair

#### Heejun Chang

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Portland, OR 97201  
Email: [changh@pdx.edu](mailto:changh@pdx.edu)  
Term expires: 2018

### Vice Chair/Treasurer

#### Carson Farmer

Department of Geography  
University of Colorado  
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Term expires: 2019

### Board Members

#### Debarchana (Debs) Gosh

Department of Geography  
Storrs, CT  
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#### Daoqin Tong

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### Student Representative

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