



The Association of American Geographers Spatial Analysis and Modeling Specialty Group Newsletter Spring 2016

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FROM THE CHAIR

Dear SAM Members,

Hope everyone is having a great spring term. The San Francisco AAG is just around the corner, and I expect to see many of you there. The SAM Specialty Group is sponsoring nearly 70 sessions at the AAG meeting (see the links in this newsletter), and we have planned several activities that would be of interest to the community.



This year's Plenary Speaker is **Professor Stewart Fotheringham** from Arizona State University who will give a talk titled "Dispelling some Myths about Geographically Weighted Regression" in Golden Gate Room, Hotel Nikko, 25th floor on Thursday, March 31 from 5:20 to 7:00PM. Please show up his lecture, and we will have a reception following his presentation.

Thanks to your help, I am excited to announce that we have two new SAM officers – **Dr. Carson Farmer** from University of Colorado for Vice president/Treasure and **Dr. Daoqin Tong** from the University of Arizona for a board member (2016-2019). They will bring high energy and skills to increase the visibility of our SAM related activities in coming years. I would also like to thank two outgoing officers – **Dr. Anthony Grubestic** and **Dr. Jennifer Miller** – who have helped various SAM activities in the past three years. Without their generous helps, SAM members would not have been able to receive timely information such as this newsletter!

I am also pleased to announce that we have a record number of students who applied for the John Odland Award Paper Sessions, also known as SAM Student Paper Competition. We will have three sessions scheduled on March 30th, Wednesday from 1:20 PM to 6:00PM in Monterrey I, Hotel Nikko, 3rd Floor. Please come join the sessions to hear a wide variety of topics presented by our member students.

Finally, but not the least, our SAM specialty group business meeting is scheduled from 7:10PM to 8:10PM in the same place where the John Odland Award Paper Sessions will take place. We will announce the awardees for John Odland Award, welcome the new SAM vice chair and board member, report

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our SAM activities, and discuss new SAM businesses. Please contact me at changh@pdx.edu if you have any questions or suggestions about our events and agenda items for the SAM business meeting. I look forward to seeing many of you in San Francisco soon!

Sincerely yours,



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

ANNOUNCEMENTS/NEWS

GIScience 2016 Workshop on "Rethinking the ABCs: Agent-Based Models and Complexity Science in the age of Big Data, CyberGIS, and Sensor networks" will be held on September 27th, 2016 in Montreal, Canada

(<http://sites.psu.edu/BigComplexityGISci>). We invite papers with a focus on concepts and methodological approaches such agent-based modeling, cellular automata, network theory, and scaling relations, amongst others, in the context of Big Data, CyberGIS and Sensor Networks, all of which are radically altering the computational platforms and data environments within which the models are executed. Paper submissions are welcome by email: BigComplexityGISci@gmail.com by May 1st, 2016.

SRMBD 2016 organizing committee cordially invites you to participate in "**The 1st Symposium on Research Methodologies in the Big Data Era (SRMBD 2016)**", to be held on May 13 – May 15, 2016 in State College, PA,

USA (<http://sites.psu.edu/SRMBD/>). The main objective of the symposium is to provide a forum for transdisciplinary discussions on current status and future directions of research methodologies in various disciplines. Focused themes are (big) data analytics, computational methods, and experiment design associated with advanced technologies.

The 12th International symposium on "**Spatial Accuracy Assessment in Natural Resources and Environmental Sciences**" (5-8 July 2016) is the latest in an academic conference series held every two years since 1994 under the auspices of the International Spatial Accuracy Research Association (ISARA, <http://www.spatial-accuracy.org/>). The Symposium is a unique place to bring together experts from environmental sciences, natural resources, spatial statistics, and geographic information science, among other disciplines, developing theory and methods for assessing and understanding spatial accuracies and spatial uncertainties in, for example, mapping, monitoring systems, and spatial simulation

platforms. This 12th edition of the symposia will focus on sensitivity analyses techniques for spatial modeling (ranking the importance of spatial input uncertainties) as well as the management of spatial uncertainty in Knowledge-Based Systems. The conference will treat other relevant accuracy and uncertainty topics, too. **Students are encouraged to submit and compete for the best Student Paper award, which will cover conference costs.**

The Modelling and Spatial Analysis Lab at the University of Waterloo is seeking two PhD students (and may consider highly skilled students interested in obtaining a Master's) with deep interests in agricultural systems, ecology, geography, or computer science to join our research team. Applicants do not need to have expertise or backgrounds in each of the above disciplines as unique expertise and depth in each of these disciplines is required to make novel scientific, empirical, and modelling advances and contribute to the success of the larger project. Specific knowledge and skills in ecological fieldwork (soil science and flora species identification), modelling (using GP/GPUs, agent-based modelling, ecosystem models), spatial analysis (GIS and spatial statistics), or experience conducting social surveys would be an asset. However, we are in search of the best applicant and fit with our research team so a keen individual seeking experience in these areas may be successful. Successful applicants will have additional opportunities to work on additional projects in wetland reclamation, modelling land-use and land cover change, and

other projects within the Modelling and Spatial Analysis Lab as well as in the broader Faculty of Environment.

Please visit the following website for additional details or contact Dr. Derek Robinson.

<http://env-emp-vlnx1.uwaterloo.ca/2016/03/25/seeking-graduate-students-for-fully-funded-research-on-agricultural-systems/>

Email: dtrobins@uwaterloo.ca

UCSB welcomes Professor Alan Murray to the Department of Geography. He previously held academic appointments at Drexel University, Arizona State University and Ohio State University. He is an editor of *International Regional Science Review*, and is associate editor for *Socio-Economic Planning Sciences* and *Annals of the Association of American Geographers*. His research and teaching interests include: geographic information science; land use planning; urban, regional, and natural resource planning and development; quantitative methods; infrastructure and transportation systems; spatial optimization; location modeling; databases and data structures; spatial representation; and techniques to support interactive planning and decision making. He is the author of two books and over 200 research articles, book chapters and proceedings papers.

Alan received his PhD in geography, MS in statistics and applied probability, and BS in mathematics, all from UCSB.

Professor Alan Murray presented with the 2015 Walter Isard Award for Scholarly Achievement

This award from the North American Regional Science Council is named in honor of Professor Walter Isard, the founder of the Regional Science Association and a leading scholar in the worldwide Regional Science community. Established in 1994, the award pays tribute to regional scientists who have made significant theoretical and methodological contributions to the field of Regional Science throughout their careers. Last year's president of the North American Regional Science Council, Rick Church, presented Alan with the award at the recent WRSA conference in Hawaii.

Mei-Po Kwan Receives the 2016 AAG E. Willard and Ruby S. Miller Award

Mei-Po Kwan, Department of Geography and Geographic Information Science at the University of Illinois at Urbana-Champaign, receives the 2016 E. Willard and Ruby S. Miller Award from the American Association of Geographers (AAG). The award "recognizes members of the Association who have made truly outstanding contributions to the geographic field due to their special competence in teaching or research." The award will be presented to Mei-Po at the Award Luncheon of the 2016 AAG annual meeting in San Francisco. The full citation about the award on the AAG website is available at: <http://news.aag.org/2016/03/2016-miller-award/>

SAM-SPONSORED SESSIONS AT 2016 AAG MEETING

[\[Spatiotemporal Symposium \] Time Geography: New Challenges and Opportunitie \(III\)](#)

[\[Spatiotemporal Symposium \] Time Geography: New Challenges and Opportunities \(I\)](#)

[\[Spatiotemporal Symposium \] Time Geography: New Challenges and Opportunities \(II\)](#)

[AAG 2016 CFP: CyberGIS for Understanding Complex Food, Energy, and Water Systems](#)

[Advanced Techniques for Remote Sensor Data Analysis in Urban Areas](#)

[Advances in Remote Sensing and Statistical Techniques for Detecting Anthropogenic Impacts in Grassland Ecosystems](#)

[Big Data and Geographic Information](#)

[Capturing Uncertainty in Computing- and Data-Intensive Spatial Decision-Making](#)

[Citizen Science for Environmental Monitoring and Hazards](#)

[Coding and App Development in Geography and GIS Education II](#)

[Conservation in the Anthropocene: Balancing Innovation with Caution?](#)

[Critical Infrastructure Spatial Datasets from Open Source: Techniques, Tools and Trends](#)

[Data-Intensive High-Performance Computing Approaches to Spatial Analytics](#)

[Degradation and Greening in Dry Lands - Two Sides of the Same Coin? 1](#)

[Degradation and Greening in Dry Lands - Two Sides of the Same Coin? 2](#)

[Geospatial Resources for Cancer Research and Cancer Control - Part 1](#)

[Geospatial Resources for Cancer Research and Cancer Control - Part 2](#)

[GeoWeb and Citizen Science](#)

[Hazards and GIScience](#)

[Hazards and GIScience - II](#)

[Hazards and GIScience III](#)

[Historical Spatial Epidemiology Panel](#)

[Innovative geospatial modeling tools and frameworks in monitoring surface water quantity and quality](#)

[Map and Spatial Pattern Comparison I](#)

[Map and Spatial Pattern Comparison II](#)

[Modeling and preventing infectious diseases](#)

[Modeling exposure to pollutants and associated health effects](#)

[Modelling the interactions of environmental stresses and social responses](#)

[New insights, approaches and challenges in the field of socio-hydrology 1](#)

[New insights, approaches and challenges in the field of socio-hydrology 2](#)

[Progress in commuting and accessibility modeling](#)

[Risk Communication and Resilience](#)

[Risk Communication and Resilience II](#)

[Spatial Analysis and Modeling \(SAM\) Specialty Group, American Association of Geographers & Geographical Analysis Plenary Lecture](#)

[Spatial Analysis and Modeling Specialty Group Business Meeting](#)

[Spatial Modeling of Human-Environment Interaction in the Anthropocene \(1\)](#)

[Spatial Optimization and Analysis I](#)

[Spatial Optimization and Analysis II](#)

[Spatial Optimization and Analysis III](#)

[Spatial Weights: Empirical practices](#)

[Spatial Weights: Theoretical Innovations](#)

[Spatiotemporal Symposium:](#)

[Spatiotemporal Big Data Analytics](#)

[Spatiotemporal Symposium:](#)

[Achievements, Gaps, and Future of Spatiotemporal Studies](#)

[Spatiotemporal Symposium: Complexity Theories in Geography I \(Dynamic Networks\)](#)

[Spatiotemporal Symposium: Complexity Theories in Geography II \(Agent-Based Modeling\)](#)

[Spatiotemporal Symposium: Geovisual Analytics I](#)

[Spatiotemporal Symposium: Geovisual Analytics II](#)

[Spatiotemporal Symposium: Space-Time Concepts in the GeoHumanities](#)

[Spatiotemporal Symposium: Spatial Strategic Management of Structure and Agency](#)

[Spatiotemporal Symposium:](#)

[Spatiotemporal Analytics in Earth Science](#)

[Special Session on Disruptive Innovation and the War On Drugs \(Part 3\) featuring Richard Brittan, Alcis Holdings Ltd. \(UK\)](#)

[Symposium on Human Dynamics](#)

[Research: Analysis of Movement Data](#)

[Symposium on Human Dynamics
Research: Climate Change I](#)

[Symposium on Human Dynamics
Research: Climate Change II](#)

[Symposium on Human Dynamics
Research: Modeling Human Dynamics 1](#)

[Symposium on Human Dynamics
Research: Modeling Human Dynamics 2](#)

[Symposium on Human Dynamics
Research: Panel Session on Prospects and
Challenges of Human Dynamics Research](#)

[Symposium on Human Dynamics
Research: Space-Time Analytics \(Looking
to the future of space-time analytics for
human dynamics research\)](#)

[Symposium on Human Dynamics
Research: Space-Time Analytics
\(Methods\)](#)

[Symposium on Human Dynamics
Research: Space-Time Analytics
\(Technologies\)](#)

[Symposium on Human Dynamics
Research: Space-Time Analytics \(Themes
and Applications\)](#)

[Symposium on Human Dynamics
Research: Visualization and Analytical
Tool Development](#)

[The Quest to Map Plant Species](#)

[Uncertainty and Quality Issues in Spatial
Data Analysis: Landscape and Feature](#)

[Uncertainty and Quality Issues in Spatial
Data Analysis: Mapping Survey data with
Error Information](#)

[Uncertainty and Quality Issues in Spatial
Data Analysis: Public Health and
Residential Space](#)

[Understanding and preventing non-
communicable diseases](#)

[Understanding Urban Dynamics Based on
Movement Big Data](#)

[Use of Earth Observation Data to
Estimate Renewable Energy Resources](#)

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.

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