



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

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FROM THE CHAIR

Dear SAM Members,

Welcome to the new issue of SAM Newsletter. It is a relatively quiet time before the 2010 AAG annual meeting in Washington, DC. But I would like to take this opportunity to highlight a few upcoming events.



SAM will sponsor a number of special sessions that include a wide range of topics in using quantitative and GIS methods to address spatial problems. Among these sessions, thanks to Dan Griffith and Geographical Analysis, we will have a plenary session featuring Peter Nijkamp from Free University. Vice Chair Ed Zolnik has also organized a student paper session.

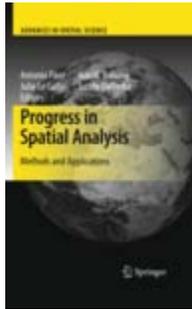
During the 2010 SAM business meeting, we will elect two new board members for the positions of the Vice Chair and a regular board member. I will circulate a call for nominations when we approach April. For SAM members who are interested in any of the two positions, the process is as simple as 1) sending me a note to express your interest and 2) attending the business meeting.

My agenda for the business meeting is wide open at this moment. While I would expect a continued discussion on student paper competition, I am sure many SAM members will have great ideas about how the specialty group should develop. Please send along your thoughts and we will make a productive meeting.

From Columbus, Happy Holidays to all SAM members!

Ningchuan Xiao
Department of Geography
The Ohio State University

NOTEWORTHY

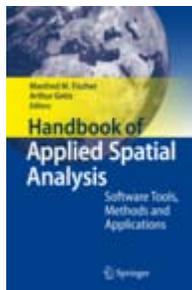


Editors **Antonio Páez** (School of Geography and Earth Sciences, McMaster University), **Julie Le Gallo** (Université de Franche-Comté CRESE), **Ron Buliung** (Department of Geography, University of Toronto Mississauga), and **Sandy Dall'erba** (University of Arizona) recently published "Progress in

Spatial Analysis: Methods and Applications". The edited volume includes 20 chapters from leading spatial analysts that survey basic and applied research in quantitative spatial analysis. The main sections of the volume include: (1) Theory and Methods, (2) Spatial Analysis of Land Use and Transportation Systems, (3) Economic and Political Geography, (4) Spatial Analysis of Population and Health Issues, and (5) Regional Applications. The book has been published as part of Springer's popular "Advances in Spatial Science" series.

Publisher's page:

http://www.springer.com/economics/regional+science/book/978-3-642-03324-7?detailsPage=otherBooks&CIPageCounter=CI_MORE_BOOKS_BY_AUTHOR3



Springer just published (with a 2010 imprint) "*Handbook of Applied Spatial Analysis*" edited by **Manfred M. Fischer** and **Arthur Getis**. This Handbook summarizes, explains, and demonstrates the nature of current models, methods, and techniques for the analysis of

spatial data. The book is designed to be a desk reference for all researchers just getting into the field of spatial data analysis as well as for seasoned spatial analysts. The volume features contributions from the very best scholars in the field. Their explanations are able to communicate the fundamental ideas of their subject area succinctly and accessibly. The Handbook begins by exploring the available software for spatial analysis and then describes briefly but clearly the many techniques embodied in the fields of exploratory spatial data analysis, spatial statistics, geostatistics, and spatial

econometrics. In addition, attention is given to the methods used for the analysis of remotely sensed data. Finally, a number of example sections are included that demonstrate the application of spatial analysis in the economic, environmental, and health sciences.

Publisher's page:

<http://www.springer.com/economics/regional+science/book/978-3-642-03646-0>

NEWS

News for the commission on geospatial analysis and modeling:

(1) The 3rd ICA Workshop on Geospatial Analysis and Modeling was successfully held in Gävle, Sweden, August 6-7, 2009, attracting over 70 participants from all over the world with 24 presentations and two invited keynote speeches. More details can be found at this site

<http://fromto.hig.se/~bjg/ica/workshop2009/>



(2) A theme issue on Geospatial Modeling of Urban Environments, guest edited by **Xiaobai Yao** and **Bin Jiang**, developed from the 2nd ICA Workshop on Geospatial Analysis and Modeling, 12-13 July 2007, Athens, GA, USA, has just been published; the reference detail is as follows:

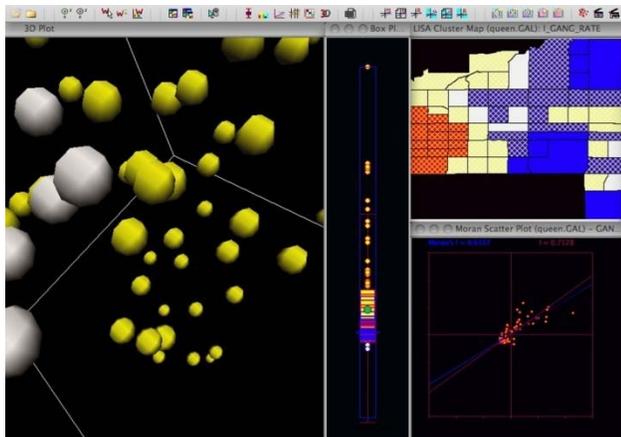
Yao X. and Jiang B. (editors 2009), Theme issue on geospatial modeling of urban environments, *Environment and Planning B: Planning and Design*, 36(5), Pion Ltd.

(3) The long waited book entitled “Geospatial Analysis and Modeling of Urban Structure and Dynamics” will come out next February; the reference detail is as follows:

Jiang B. and Yao X. (editors, 2010), *Geospatial Analysis and Modeling of Urban Structure and Dynamics*, Springer: Berlin, 440 pages,

News from the GeoDa Center for Geospatial Analysis and Computation at Arizona State University, a research center that develops state-of-the-art geospatial methods, implements them in free software, applies them in policy-relevant research, and disseminates them through training:

Professors **Luc Anselin** and **Serge Rey** were awarded a \$1.5 million research grant by the National Institute of Justice to develop "Flexible geospatial visual analytics and simulation technologies to enhance criminal justice decision support systems." The three year project will be carried out in the GeoDa Center for Geospatial Analysis and Computation at ASU. It will involve the refinement and development of methods for geospatial analysis, their incorporation into new software tools, and their application to selected case studies. The research will be carried out in collaboration with the East Valley Gang and Crime Information Fusion Center in Mesa, AZ, the Real Time Analysis and Critical Response Division of the Los Angeles Police Department, and crime analysts of the Police Departments of Tempe, AZ and others.



Crime patterns in a Phoenix area neighborhood are visualized in multiple linked views in OpenGeoDa, a free spatial analysis software program used by over 47,000

people globally. Such pattern detection can help crime analysts better understand where crimes occur and what they are related to, which can improve crime response strategies, including targeting of crime-related resources.

The National Science Foundation awarded a \$250,000 research grant to Professors **Alan Murray** and **Serge Rey** of the GeoDa Center and colleagues Professors **M. Griffin** and **T. Grubestic** to work on Spatial Analytical Framework for Examining Sex Offender Residency Issues over Space and Time. This research will develop a spatial analytical framework and toolbox for addressing convicted sex offender residency issues, facilitating access to a combination of new and existing exploratory and confirmatory statistical methods as well as new and existing spatial optimization models for analyzing impacts and evaluating/developing public policy associated with the management of convicted sex offenders.

For more information about the GeoDa Center's publications, spatial analysis software and news, go to the Center's website at <http://geodacenter.asu.edu/> or contact geodacenter@asu.edu.

JOBS

Assistant Professor, Dept. of Geography and Earth Sciences, Univ. of North Carolina at Charlotte. The University of North Carolina at Charlotte, Department of Geography and Earth Sciences is recruiting a tenure-track, Assistant Professor in landscape ecology and human-environment interaction for appointment in August 2010. Required qualifications include: 1) a doctoral degree in geography, ecology, environmental science or a related field at the time of appointment; 2) the ability to develop and maintain an externally funded research program; 3) the ability to teach geographical and environmental science courses at the graduate and undergraduate level; and 4) the ability to contribute to the department's interdisciplinary mission.

The successful candidate will play a major role in the human-environmental component of the rapidly growing PhD in Geography and Urban-Regional Analysis. Candidates with research interests in global change and ecological sustainability of urban environments are especially encouraged to apply.

Desired qualifications also include modeling of ecological processes in heterogeneous landscapes, particularly urban ecosystems, with technical expertise in the integration of field and GIS analytical methods. Preference will be given to candidates who strengthen bridges across Geographical and Earth Sciences curricula and research collaborations.

Review of applications will begin January 4, 2010 and continue until the position is filled. Applications must be made electronically at <https://jobs.uncc.edu> and must include: 1) letter of application describing teaching and research interests along with the applicant's ability to contribute to the department's mission, 2) a full curriculum vita, and 3) the names of three referees. The full job ad is available at <http://www.geoearth.uncc.edu>. UNC at Charlotte is an AA/EOE. For additional information, contact Dr. Ross Meentemeyer at rkmeente@uncc.edu.

Graduate Research Assistants. The Department of Geography at the University of New Mexico is seeking to hire several Graduate Research Assistants (GRAs) starting Fall 2010. GRAs are expected to be enrolled full-time in the MS in Geography program. Some of the specific research projects the GRAs will be working on include:

- Reverse geocoding and implications for geospatial privacy funded by the National Science Foundation. This research seeks to develop robust methods for the protection of geospatial privacy of individual level data using geographic masking techniques.
- Effects of data quality on predictive hotspot mapping funded by the National Institute of Justice. This research will examine the reliability of crime hotspot mapping techniques when faced with uncertain input data.

Qualified applicants should have an undergraduate degree in Geography or related field, with strong quantitative skills, including Geographic Information Systems and (spatial) statistics. Preferred qualifications include experience with geoprocessing tools in ArcGIS, including Modelbuilder and Python scripting. Affinity with public health and/or crime data is also desirable.

The GRA positions consist of a competitive monthly stipend, including tuition waiver and benefits. Those interested in the positions should apply to the MS

program in Geography and indicate that they would like to be considered for the GRA positions. Application deadline to be considered for Fall 2010 is February 1, 2010.

Applications materials can be accessed at <http://www.unm.edu/grad/admissions/admissions.html>. Details on the Department of Geography and the MS program in Geography can be found at <http://geography.unm.edu>. More details on the research projects can also be found at <http://www.paulzandbergen.com>.

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CALLS AND MEETINGS

AAG Sessions: SAM (Spatial Analysts and Modelers) will sponsor the following sessions in 2010 AAG Annual Conference:

Modeling Geographic Complexity

Time Geography: Its Past, Present and Future

Modeling Opium Poppy

Crime Modeling and Mapping

Geographically Weighted Regression

Classification Approaches in Neighborhood Research

In These Tough Economic Times (ITTET): Analyzing Recession Geography

New Methods in Point Pattern Analysis

High Performance Computing for Geographic Sciences

Geospatial Visualization: concepts, representation, implementation, and related topics

Open Source Tools & Standards in GIS Research and Education

Conceptualizing and Measuring Segregation: Spatial Scale, Population Structure and Population Dynamics

Geospatial methods and applications for biodiversity monitoring and conservation

Modeling H1N1

Spatial Interactions: Analysis and Modeling

Location and Spatial Analysis

Analysis of Multi-temporal Remotely Sensed Data: Methods and Applications

Emerging Trends in Geographic Data Analysis for Population Characterization

Health Care Workforce Geography

Call for Papers: Annals of the AAG 2012 Special Issue on Health. The Annals of the Association of American Geographers invites abstracts of papers to be considered for a special issue on the Geography of Health. This will be the third of a series of annual special fifth issues that highlight the work of geographers around a significant global theme. Papers are sought from a broad spectrum of scholars who address social, cultural, political, environmental, theoretical, and methodological issues focused on the geography of health, including original research in areas such as access to healthcare, spatial disparities in health outcomes, the effect of geographic context on health outcomes, mobility and health, environment and health, development and health, space-time modeling and GIS-based analysis of health outcomes, and other relevant areas. Abstracts of no more than 250 words should be submitted by 1 May 2010 to rmaier@aag.org. Final papers will be due (via Manuscript Central) by 1 December 2010 for publication in 2012. All submitted papers will be subject to full peer review.

2010 Summer Advanced Spatial Analysis Workshops in (a) GWR and (b) Spatial Pattern Analysis (First Announcement). The Population Research Institute (PRI) at Penn State and the Center for Spatially Integrated Social Science (CSISS) at UC Santa Barbara are pleased to announce the offering of two summer workshops in 2010 under the Advanced Spatial Analysis Training for Population Scientists program (funded by the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD)). This year both workshops will take place in July 2010 on the UC Santa Barbara campus with Don Janelle serving as the local coordinator.

These workshops have a participation cap and are highly competitive. Anyone interested in these workshops must complete an application form (to be posted on-line at the project website in mid-January 2010). Closing dates for receipt of an application will be March 31, 2010 and successful applicants will receive notification of invitation to participate by mid-April.

The workshops dates are:

Geographically Weighted Regression

12-16 July, 2010 (arrival day July 11th) The instructors include A. Stewart Fotheringham, Martin Charlton and Chris Brunson. A similar workshop was held at Penn State in 2008 and the format for the 2010 workshop will likely be similar.

See <http://www.csiss.org/GISPopSci/workshops/2008/PSU/agenda.php>

Spatial Pattern Analysis

19-23 July, 2010 (arrival day July 18th) The instructors include Art Getis, John Weeks and Jared Aldstadt. A similar workshop was held in 2008 at UCSB and the format for the 2010 workshops will likely be similar.

See <http://www.csiss.org/GISPopSci/workshops/2008/UCSB/agenda.php>

Please consult the training program website for updates: <http://www.csiss.org/GISPopSci/>

COMPETITIONS

SAM Student Paper Competition. The Spatial Analysis and Modeling (SAM) Specialty Group of the Association of American Geographers is sponsoring a student paper competition at the 2010 AAG Meeting in Washington, DC. Prizes will total a minimum of \$1000.

Papers may be of a theoretical or applied nature. They will be judged on the following criteria: 1) potential contribution to the use of mathematical models, statistical techniques and other technological and computational approaches for analyzing spatial phenomena in any subfield of geography; 2) appropriate and sound use of methodology; 3) originality; and 4) organization and written composition of the paper.

The deadline to enter the competition has passed (October 1, 2009). The deadline to submit completed papers in .doc or .pdf format to SAM Vice-Chair Ed Zolnik (ezolnik@gmu.edu) is February 1, 2010.

Entrants will present their papers in an AAG session sponsored or co-sponsored by SAM. A panel of judges will review the papers before the AAG meeting. The winner(s), if any, will be announced at the SAM specialty group business meeting and at the AAG Awards Luncheon. Winners should make themselves available to attend the Luncheon. The judges' decision, including the possibility of not awarding a prize, is final.

INFORMATION

Spatial Analysis and Modeling (SAM)

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.

Membership Dues

Regular: \$3

Student: \$1

Submissions

The newsletter reaches about eight hundred readers and is therefore an excellent venue for getting the word out on community news, departmental happenings, research findings, media appearances, book publications, and the like. We also invite you to submit commentaries or features of broad interest to specialty group members. The newsletter is a good place to post calls for papers, proposals, awards, grants, fellowships, and jobs. You can also make early announcements of special sessions or other activities for next year's AAG meeting in Washington.

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

Please send your submission by email to Fang Qiu (ffqiu@utdallas.edu) in text or rich text format. Photos or other images, with captions, are also welcome (GIF, JPG, or PNG).

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