



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

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### FROM THE CHAIR

Greetings SAM members and friends of SAM

I wanted to take a moment and brief you on the SAM-related activities held at the recent AAG meeting in Boston, MA. SAM was quite visible, sponsoring or co-sponsoring over twenty-five sessions including one session focused on graduate student papers. Winners from the 2008 student paper competition are announced in this newsletter.

Two new board members were elected for 3-year terms at the SAM business meeting. SAM welcomes Robert Gilmore Pontius Jr. (Clark University), who will fill the seat previously held by outgoing member Steven Manson (University of Minnesota). SAM also welcomes Michael Widener (Florida State University), who replaces outgoing student board member Scott Bridwell (University of Utah). SAM thanks both departing board members for their service.

The current SAM board is as follows:

Chair, Mark Horner, Florida State University, term expires 2009  
Vice-chair/treasurer, Ed Zolnik, George Mason University, term expires 2010

#### Board members

Darla Munroe, The Ohio State University, term expires 2009  
Robert Gilmore Pontius Jr., Clark University, term expires 2011  
Ningchuan Xiao, The Ohio State University, term expires 2010

#### Student representative

Michael Widener, Florida State University, term expires 2011

Lastly, it is never too early to start thinking about possible sessions for the 2009 AAG meeting in Las Vegas. We will be happy to post calls for papers to the SAM web site, as well as circulate them over the SAM list serve. Feel free to forward those to me at mhorner@fsu.edu. Please be sure to list SAM as a sponsor on the call for papers.

Best wishes for a happy and productive summer.

Mark W. Horner  
Department of Geography, Florida State University



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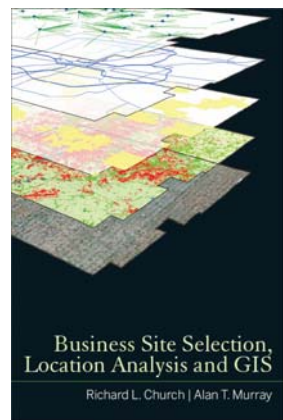
## NOTEWORTHY

**Luc Anselin elected to U.S. National Academy of Sciences.** At the April 29, 2008 meeting of the National Academy of Sciences, Luc Anselin was elected as a new member. Anselin is Foundation Professor of Geographical Sciences and Director of the School of Geographical Sciences at Arizona State University, where he is also Founding Director of the GeoDa Center for Geospatial Analysis and Computation.

**Alan Murray and Tony Grubestic** published a new book: *Critical Infrastructure: Reliability and Vulnerability* (Berlin: Springer, 2007).



**Richard Church and Alan Murray** published a new book: *Business Site Selection, Location Analysis and GIS* (New York: Wiley, 2008).



computation. This center will be devoted to the development of new spatial analytical methods, their implementation in software and their application to a wide range of empirical problems. It is the primary location for the development and support of the GeoDa software and PySAL library for spatial analysis. It will also be the new home of the International Regional Science Review. The GeoDa Center (<http://geodacenter.asu.edu>) will be directed by Luc Anselin together with a steering committee consisting of Alan Murray, Sergio Rey and Elizabeth Wentz. Murray and Rey will be joining the ASU School of Geographical Sciences in Fall 08. The Center also includes several affiliates from across campus, as well as Chris Lukinbeal, Robert Edsall, Soe Myint, Mark Schmeeckle, Emily Talen and Paul Torrens from the School of Geographical Sciences at ASU. Julia Koschinsky will serve as Research Director for the Center. During the academic year 08-09, the GeoDa Center will host Donna Peuquet (Penn State) as a Visiting Scholar as well as three Postdoctoral Scholars, Luis Galvis, Nancy Lozano-Gracia and Gianfranco Piras. Individuals interested in future visiting or post-doctoral positions at the GeoDa Center should contact Luc Anselin at [luc.anselin@asu.edu](mailto:luc.anselin@asu.edu).

### Imagery for Everyone

By February 2009, any Landsat archive scene selected by a user will be processed, at no charge, automatically to a standard product recipe and staged for electronic retrieval. In addition, newly acquired scenes meeting a cloud cover threshold of 20% or below will be processed to the standard recipe and placed on line for at least three months, after which they will remain available for selection from the archive. Details can be found in the USGS Technical Announcement ([http://landsat.usgs.gov/images/squares/USGS\\_Landsat\\_Imagery\\_Release.pdf](http://landsat.usgs.gov/images/squares/USGS_Landsat_Imagery_Release.pdf)). [Source: <http://landsat.usgs.gov/>]

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## NEWS

**GeoDa Center for Geospatial Analysis and Computation established at Arizona State University** Arizona State University has approved the creation of a new university-wide center focused on geospatial analysis and

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**JOBS** \*

**ARIZONA, PHOENIX 85287-5402** The Central Arizona–Phoenix Long-Term Ecological Research (CAP LTER) project at Arizona State University’s Global Institute of Sustainability is seeking a **Postdoctoral Research Associate** in Geography, Public Policy, Planning, Urban Studies, Environmental Studies, or related disciplines. An earned PhD within three years or less from the time of appointment is required along with experience with GIS and spatial analysis and demonstrated research experience in either coupled human-natural systems, human and political ecology, urban growth, urban environmental policies, or land-use policies. Also desired is experience with qualitative and quantitative research methods as well as interdisciplinary research training and a record of research publication. Position begins October 2008 and is for one year with the possibility of renewal for an additional year.

Apply: Send cover letter explaining interest in the position and relevant expertise; *curriculum vitae*; the name, phone number, and e-mail addresses of three references; and publication copies (no more than three) to Marcia Nation, CAP LTER Project Manager, Global Institute of Sustainability, PO Box 875402, Arizona State University, Tempe, AZ 85287-5402 [marcia.nation@asu.edu](mailto:marcia.nation@asu.edu). Materials due July 30, 2008. For inquiries, please contact Marcia Nation at 480-965-7951 or by e-mail. Position contingent upon funding. AA/EOE.

**UTAH, SALT LAKE CITY 84112-9155.** University of Utah. The Department of Geography invites applications for a tenure-track position at the **Assistant Professor** level starting July 2009. We seek a geographer with a research emphasis that complements department strengths in one (or more) of the following areas: i) **medical geography**; ii) **transportation**; iii) **human-environment**

**interactions**, including human dimensions of climate change; or, iv) **hazards**. Also desirable are technical strengths in **GIS, cartography** and/or **spatial analysis**.

The Department of Geography emphasizes scientific geography within the focus areas of urban/economic systems, Earth system science and geographic information science. The department offers Bachelors’, Masters’ and PhD degrees in geography. The department is home to the Digitally Integrated Geographic Information Technologies (DIGIT) Laboratory, a state-of-the-art GIS/remote sensing facility, the Center for Natural and Technological Hazards (CNTH), the Records of Environment and Disturbance (RED) Laboratory and the Snow Optics Laboratory (SOL). The department also administers a unique interdisciplinary Certificate Program in Geographic Information Science with the School of Computing. There are also opportunities for multidisciplinary research through the university’s Institute of Public and International Affairs.

The University of Utah is a comprehensive and diverse public institution located on the Wasatch Front urban corridor with easy access to research and recreational opportunities in the Rocky Mountains, Great Basin and the Colorado Plateau. Salt Lake City, home of the 2002 Winter Olympics, is a dynamic and high-tech metropolitan area with outstanding cultural and entertainment amenities, modest cost of living, and a sunny, dry four-season climate. For more information on the Department of Geography, see <http://www.geog.utah.edu>.

Submit a letter of application including research and teaching interests, *vitae*, teaching evaluations (if available) and the names, addresses, phone numbers and email addresses of three referees by September 29, 2008. Applications received after the deadline may be considered until the position is filled.

Apply: Harvey J. Miller, Chair, University of Utah / Department of Geography / 260 S Central Campus Drive, Room 270 / Salt Lake City UT 84112-9155.

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\* Unless otherwise noted, job entries listed were collected from AAG’s *Jobs in Geography* site (see [www.aag.org](http://www.aag.org)).

**OHIO, KENT 44242.**

The Department of Geography at the Kent State University invites applications for a renewable nine-month appointment as a full-time non-tenure track **Assistant Professor** of Geography to begin in August 2008. Compensation includes salary and benefits. The successful candidate will be expected to teach undergraduate courses such as Geography of the United States and Canada, World and Regional Geography, Introduction to Geography. Candidates with a regional specialty or ability to teach introductory level GIS and/or Statistical Methods in Geography are preferred.

The candidate selected for this position must meet eligibility requirements to work in the United States on the date the appointment is scheduled to begin and continue working legally, and must be able to communicate effectively in English.

Apply: Applicants should complete an academic data form and apply to the posting on line at: <http://jobs.kent.edu>. Please submit a cover letter describing qualifications, teaching experience, research interests and accomplishments; three names of reference, and current vita to Dr. Jay Lee, department chair, at the Department of Geography, 413 McGilvrey Hall, Kent State University, Kent, OH 44242-0001, or electronically to [jlee@kent.edu](mailto:jlee@kent.edu). Applicants are encouraged to visit the KSU website to learn more about Kent State University and the Geography programs (<http://www.kent.edu> and <http://dept.kent.edu/geography>).

Review of applications will begin on July 7, 2008 and will continue until a candidate accepts the appointment. Candidates with PhD preferred but with ABD status will also be considered.

**VIRGINIA, MANASSAS 20110-2203.**

George Mason University invites applications for a tenure-track **Assistant Professor** position in the **Administration of Justice Department** (ADJ) for Fall 2009. Requirements: PhD or near completion in a relevant field and record/promise of excellent scholarship and teaching. Area of specialization: crime and its

relationship to geography (crime and place, environmental criminology, hot spots policing and related areas). Desired skills: knowledge of geographic information systems and spatial statistics. The appointment includes affiliation with the Center for Evidence Based Crime Policy, Professor David Weisburd, Director.

ADJ is a multidisciplinary department (13 tenure-track and 10 term faculty). ADJ enrolls 600 undergraduates. Masters and doctoral programs in Justice, Law, and Crime Policy began in fall 2005. Faculty members hold doctorates in criminal justice, law, political science, psychology, sociology, and public administration. Faculty are very active in funded research in the U.S. and internationally. The ADJ Department is based at the Prince William campus in Manassas, Virginia, 35 miles west of Washington, DC and also has offices at the Fairfax and Arlington campuses, where classes are also offered. For more information visit <http://adj.gmu.edu/>.

Apply with equity/demographic information for position F6466Z on line at <http://jobs.gmu.edu>. Applicants should then submit a letter of interest, vita, official university transcript, teaching evaluations or other evidence of teaching effectiveness, examples of research publications, and three letters of recommendation. Review of applications will begin October 1 and continue until positions are filled. Submit applications to: Faculty Search Committee, Administration of Justice Program, 10900 University Blvd. MS 4F4, George Mason University, Manassas, VA 20110-2203. George Mason University is an affirmative action and equal opportunity employer. Women, minorities, and persons with disabilities are strongly encouraged to apply.

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**CALLS AND MEETINGS**

Call for Papers: **Spatial Data Mining: Methods and Applications**, A Special Issue of **Computers, Environment and Urban Systems**

## Guest Editors:

Diansheng Guo, University of South Carolina  
Jeremy Mennis, Temple University

In recent years, the volume of available spatial data pertaining to environmental and urban systems has increased dramatically due to the growing sophistication and ubiquity of geospatial technologies. Because of the size and complexity of these data sets, effective use of these data for planning and decision-making demands innovative analytical approaches. Spatial data mining addresses this issue by focusing on the discovery, interpretation, and presentation of information embedded in very large and complex geographic data sets. This special issue of CEUS invites submissions of original research contributions that focus on recent developments in spatial data mining, with direct relevance to environmental and urban issues. Contributions may be theoretical, methodological, or applied in nature. Research may address (but is not limited to) the following topics:

- Computational algorithms for extracting patterns from spatial data sets
- Geovisualization and exploratory analysis methods and applications
- Approaches for analyzing high-dimensional and/or noisy spatial data sets
- Approaches for analyzing spatio-temporal and path/network data types
- Knowledge representation and semantics in spatial data mining and visualization
- Applications of existing or new methods to social and/or physical science data
- Applications of existing or new methods to support decision-making and planning
- Collection and analysis of new types of geographic data (e.g. simulation data, activity data, sensor data, and mobile data)
- Collection, fusion, and analysis of heterogeneous or multimedia geographic data (e.g. text, image, video, etc.)

Authors are advised to email the editors at [spatialdatamining@gmail.com](mailto:spatialdatamining@gmail.com) of their intent to submit a manuscript by **August 15, 2008**. Manuscripts should be submitted through the Elsevier electronic system (<http://ees.elsevier.com/ceus/>) by **September 1, 2008**. Please make sure to select the Article Type "Special Issue: Spatial Data Mining". All

submissions will be peer-reviewed in line with Computers, Environment, and Urban Systems policy. The Guide for Authors is available at: ([http://www.elsevier.com/wps/find/journaldescription.cws\\_home/304/authorinstructions](http://www.elsevier.com/wps/find/journaldescription.cws_home/304/authorinstructions)).

## Schedule:

Submission deadline: September 1, 2008  
Editors' decision December 15, 2008  
Final version of papers due: January 31, 2009  
Editors' final decision: February 15, 2009

**GEOWS 2009, The International Conference on Advanced Geographic Information Systems & Web Services**, February 1-6, 2009 - Cancun, Mexico. General page: <http://www.iaria.org/conferences2009/GEOWS09.html>

Submission deadline: September 1, 2008

Submissions will be peer-reviewed, published by IEEE CPS, posted in IEEE Digital Library, and indexed with the major indexes.

Extended versions of selected papers will be published in IARIA Journals:  
<http://www.iariajournals.org>

Please note the Poster Forum special submission with on progress and challenging ideas. GEOWS 2009 Special Areas (details in the CfP on site):

- Fundamentals of geoinformation
- Syntax and semantic-based description
- Conceptual and logical models for GIS&WS
- Techniques for geographical representation
- Query languages and interfaces for GIS&WS
- Integrated architectures for geospatial information
- Web services and geospatial systems
- Semantic geo-spatial web
- Web mapping services interfaces
- 2D and 3D information visualization
- Geospatial data in net-centric environment
- Discovery, indexing and integration of geographical information systems
- Mining GIS&WS information
- Semantic interoperability of distributed geoservices
- Spatial data infrastructure

- Web services interoperability
- Distributed simulations and sensor webs
- Geographical search engines and web services
- Geoinformation processing
- Web-based geographic information systems
- Geoprocessing of distributed data
- Natural resource information systems
- Exploratory cartography and interfaces
- Digital geographical libraries
- Geospatial technology
- Telematics and GIS Applications
- Mobile & Wireless GIS
- Personalized services for GIS&WS
- Geology and hydrogeology geographical data
- Standardization of geodata and geoservices
- Environment and land surveying
- Oceanographic geoinformation
- Sensors and remote sensing
- Digital cartography
- Managing uncertainty in spatial information
- Automatic mapping (possibly web-based ...)
- Digital elevation/shape modeling
- Exploratory spatial data analysis
- Web-based visualization of statistical data within a geographic framework
- Tools and links between GIS and statistical software packages
- Business Mapping (spatial analysis for business processes as customer segmentation, churn analysis, etc.)

**GIScience 2008** (<http://www.giscience.org/>). The 5th International Conference on Geographic Information Science, September 23-26, 2008. Park City, Utah. TOPICS: Emerging topics and basic research findings across all sectors of geographic information science. The conference attracts leading GIScience researchers from all fields to reflect the interdisciplinary breadth of GIScience, including cognitive science, computer science, engineering, geography, information science, mathematics, philosophy, psychology, social science, and statistics. As GIScience focuses on advances in the fundamentals of Geographic Information Science, submission of GIS application papers is discouraged.

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## COMPETITIONS

### 2008 SAM GRADUATE STUDENT PAPER COMPETITION WINNERS

The SAM Board would like to acknowledge the winners of the 2008 SAM Graduate Student Paper Competition held at the Boston AAG. The co-winners of the competition were: **Yongwan Chun** (University of Texas-Dallas; paper title: Modeling Network Autocorrelation within Migration Flows by Spatial Eigenvectors) and **Jamison F. Conley** (Pennsylvania State University; paper title: Using Moment Invariants to Analyze Cluster Shapes and Hypothesize Potential Causes). Second place in the competition went to: **Neeti Neeti** (Clark University; paper title: Modeling Trends in Phenological Curve Shape Properties Using AVHRR-NDVI Data).

The Board would also like to acknowledge all of the participants for their efforts as well as the following faculty for taking time to judge this year's competition: Kevin Curtin (George Mason University), Darla Munroe (The Ohio State University), Dawn Parker (George Mason University), and Ningchuan Xiao (The Ohio State University).

**Garrison Award** The biennial William L. Garrison Award for Best Dissertation in Computational Geography supports innovative research into the computational aspects of geographic science. The award is one of the activities of the Marble Fund for Geographic Science of the Association of American Geographers (AAG). The Garrison award consists of a cash prize in the amount of \$3,500 and a formal certificate of merit. Nominations are due by **September 2, 2008**. A full description including eligibility and nominating procedures is available at [www.aag.org/Grantsawards/marble\\_garrison.htm](http://www.aag.org/Grantsawards/marble_garrison.htm). [Source: AAG Newsletter]

### Marble-Boyle Undergraduate

**Achievement Awards** These awards aim to recognize excellence in academic performance by undergraduate students from the United States and Canada who are putting forth a strong effort to bridge geographic science and computer science as well as to encourage

other students to embark upon similar programs. Each award consists of a \$700 cash prize, a \$200 credit for books published by ESRI Press, and a certificate of recognition. Application period is **June 15 to October 15, 2008**. For application procedures and full description visit

[www.aag.org/Grantsawards/marble\\_boyle.htm](http://www.aag.org/Grantsawards/marble_boyle.htm).

[Source: AAG Newsletter]

**AAG Grants and Competitions** The AAG offers numerous grants and awards. Visit the AAG website at [www.aag.org](http://www.aag.org) for a full listing including detailed descriptions, deadlines, and application procedures.

[Source: AAG Newsletter]

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## 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

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.

Please send your submission by email to Ningchuan Xiao (xiao.37@osu.edu). Photos or other images, with captions in an attached text file, are also welcome (GIF, JPG, or PNG).

## Officers

### Chair

#### **Mark Horner**

Department of Geography  
The Florida State University  
Tallahassee, FL 32306  
Email: mhorner@fsu.edu  
Term Expires: 2009

### Vice Chair/Treasurer

#### **Ed Zolnik**

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George Mason University  
4400 University Drive,  
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Term Expires: 2010

### Board Members

#### **Robert Gilmore Pontius, Jr.**

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#### **Darla Munroe**

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#### **Ningchuan Xiao**

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### Student Representative

#### **Michael Widener**

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