

JARED ALDSTADT

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PERSONAL

Born: May 14, 1972; Springville, NY
Citizenship: United States

EDUCATION

PhD. Joint Doctoral Program in Geography San Diego State University / May 2007
University of California, Santa Barbara

Dissertation: “Space-Time Analysis of Dengue Virus Transmission in Kamphaeng Phet, Thailand”

Committee: Arthur Getis (Chair, SDSU), Sergio Rey (SDSU), Michael Goodchild (UCSB), and Phaedon Kyriakidis (UCSB)

M.A. in Geography, San Diego State University December 2002

Thesis: “Testing the Goldschmidt Hypothesis: An Examination of the Farm Structure-Community Relationship in California’s San Joaquin Valley”

Committee: Arthur Getis (Chair, Geography), Sergio Rey (Geography), and Ramona Perez (Anthropology)

B.A. in Geography, The State University of New York at Buffalo December 1995

Certificate of Specialization in G.I.S./Cartography

PROFESSIONAL APPOINTMENTS

Fall 2006 Visiting Assistant Professor, Department of Geography, University at Buffalo

2007 - Present Assistant Professor, Department of Geography, University at Buffalo

RESEARCH EXPERIENCE

Graduate Research Associate, San Diego State University Department of Geography
August 1999 – July 2006

TEACHING EXPERIENCE

Classes Taught at University at Buffalo (2006 – Present)

Maps and Mapping – GEO 120	Fall 2006-2009
Geographies of Health – GEO 412/512	Fall 2007-2009, Fall 2011
Multivariate Statistics in Geography – Undergraduate – GEO 411	Spring 2007-2011
Multivariate Statistics in Geography – Graduate – GEO 509	Spring 2007-2011

Teaching Effectiveness and Technology Workshops

University at Buffalo Teaching and Learning Center: UBclicks	Fall 2010
University at Buffalo Teaching and Learning Center: SimplePresenter	Fall 2006

Instructor

<i>Advanced Spatial Analysis Workshop on Spatial Pattern Analysis</i>	July 2010
Center for Spatially Integrated Social Science, University of California, Santa Barbara and Population Research Institute at the Pennsylvania State University	

Instructor

<i>Advanced Spatial Analysis Workshop on Spatial Pattern Analysis</i>	July 2008
Center for Spatially Integrated Social Science, University of California, Santa Barbara and Population Research Institute at the Pennsylvania State University	

Instructor

<i>Spatial Data Analysis</i>	Spring 2005
Department of Geography, San Diego State University	

Participant

<i>Techniques of Teaching College Geography Courses</i>	Fall 2004
Department of Geography, San Diego State University	

Instructor

<i>Spatial Perspectives on Analysis for Curriculum Enhancement Workshop, Spatial Analysis and GIS for Undergraduate Course Enhancement in the Social Sciences</i>	August 2004
Center for Spatially Integrated Social Science	

Instructor

<i>Spatial Analysis (Week 2)</i>	August 2004
The Vespucci Initiative Summer School of GIScience	

Instructor

<i>Introduction to Spatial Pattern Analysis in a GIS Environment</i>	July 2002-04
Center for Spatially Integrated Social Science Workshop	

Laboratory Instructor

<i>Introduction to Spatial Pattern Analysis in a GIS Environment</i>	August 2001
Center for Spatially Integrated Social Science	

REFEREED JOURNAL ARTICLES (* - denotes paper with graduate student)

- *Widener, Michael, Neal Crago, and Jared Aldstadt (*forthcoming*) “Developing a parallel computational implementation of AMOEBA for large spatial datasets.” *International Journal of Geographical Information Science*
- *Duncan, Dustin, Jared Aldstadt, John Whalen, Steven M. Melly, and Steven L. Gortmaker (2011) “Validation of Walk Score for Estimating Neighborhood Walkability: An Analysis of 4 US Metropolitan Areas.” *International Journal of Environmental Research and Public Health*. 8 4160-4179.
- Aldstadt, Jared, Constantianus JM Koenraadt, Thanyalak Fansiri, Udom Kijchalao, Jason Richardson, James W. Jones, and Thomas W. Scott (2011) “Ecological modeling of *Aedes aegypti* (L.) pupal production in rural Kamphaeng Phet, Thailand.” *PLoS Neglected Tropical Diseases*. 5(1): e940. doi:10.1371/journal.pntd.0000940.
- Duque, Juan C., Jared Aldstadt, Ermilson Velasquez, Jose L. Franco, and Alejandro Betancourt (2011) “A computationally efficient method for delineating irregularly shaped spatial clusters.” *Journal of Geographical Systems*. 13(4) 355-372. doi:10.1007/s10109-010-0137-1.
- Mammen Jr., Mammen P., Chusak Pimgate, Constantianus J. M. Koenraadt, Alan L. Rothman, Jared Aldstadt, Ananda Nisalak, Richard G. Jarman, James W. Jones, Anon Srikiatkachorn, Charity Ann Ypil-Butac, Arthur Getis, Suwich Thammaphalo, Amy C. Morrison, Daniel H. Libraty, Sharone Green, and Thomas W. Scott (2008) “Spatial and Temporal Clustering of Dengue Virus Transmission in Thai Villages.” *PLoS Medicine* 5(11).
- Koenraadt, Constantianus JM, Jared Aldstadt, Udom Kijchalao, Ratana Sithiprasasna, Arthur Getis, James W. Jones, and Thomas W. Scott (2008). "Spatial and temporal patterns in pupal and adult production of the dengue vector *Aedes aegypti* in Kamphaeng Phet, Thailand." *American Journal of Tropical Medicine and Hygiene* 79(2) 230-238.
- Koenraadt, Constantianus JM, Jared Aldstadt, Udom Kijchalao, Ampornpan Kengluetcha, James W. Jones, and Thomas W. Scott (2007) “Spatial and temporal patterns in the recovery of *Aedes aegypti* (Diptera: Culicidae) populations after insecticide treatment.” *Journal of Medical Entomology* 44(1) 65-71.
- Aldstadt, Jared (2007) “An incremental Knox test for the determination of the interval between successive cases of an infectious disease.” *Stochastic Environmental Research and Risk Assessment* 21(5) 487-500.
- Aldstadt, Jared and Arthur Getis (2006) “Using AMOEBA to create a spatial weights matrix and identify spatial clusters.” *Geographical Analysis* 38(4) 327-343.
- Getis, Arthur and Jared Aldstadt (2004) “Constructing the spatial weights matrix using a local statistic.” *Geographical Analysis* 35(2) 90-104. Reprinted in Anselin, Luc and Sergio J. Rey (2010) *Perspectives on Spatial Data Analysis*. Springer, 147-163.

REFEREED BOOK CHAPTER

Aldstadt, Jared (2010) Spatial clustering. Manfred M. Fischer and Arthur Getis eds., *Handbook of applied spatial analysis: Software tools, methods, and applications*, Berlin: Springer-Verlag, 279-298.

ENCYCLOPEDIA ENTRY

Aldstadt, Jared (2010) "Getis, Arthur (1934-)." *Encyclopedia of Geography*. SAGE Publications. 4 Oct. 2010. <http://www.sage-ereference.com/geography/Article_n498.html>

NON-REFEREED PROCEEDINGS PAPER

Aldstadt, Jared and Arthur Getis (2002) "Point pattern analysis in an ArcGIS environment." Proceedings of the Center for Spatially Integrated Social Science Specialist Meeting on Spatial Data Analysis Software Tools

BOOK REVIEW

Yoo, Eun-Hye and Jared Aldstadt (2011) "Principles of Modeling Uncertainties in Spatial Data and Spatial Analysis, by Wenzhong Shi." *Journal of Regional Science* 51(4) 860-861.

EXTERNAL FUNDING

Title: Dengue vaccine and viral evolution in rural Thailand
Funding Agency: NIH
PI - Dr. Timothy Endy, SUNY Upstate Medical School
Annual Direct Costs: \$52,500
Funding Period: 7/1/2008 – 6/30/2012

Title: Flavivirus Infections: Pathogenesis and Prevention
Funding agency: NIH
PI – Dr. Alan L. Rothman, University of Rhode Island
Annual Direct Costs: \$59,237
Funding Period: 4/1/2008 – 3/31/2013

AWARDS

- Outstanding Graduate Student in Human Geography** 2006
SDSU Geography Department
- NSF Doctoral Dissertation Enhancement Grant** 2005
Analysis and Modeling of Dengue Virus Transmission in Space and Time
Supervisor Arthur Getis: \$4500
- Inductee: The Honor Society of Phi Kappa Phi** 2005
- Caldwell, Flores, Winters Inc. Award for Human Applications in GIS** 2002
SDSU Geography Department

CONFERENCE PRESENTATIONS

- Aldstadt, Jared (2011) "Ecological modeling of *Aedes aegypti* pupal production in rural Kamphaeng Phet, Thailand." Annual Meeting of the Association of American Geographers, Seattle, Washington
- Delmerico, Alan, Jared Aldstadt, and William Wieczorek (2011) "*Analysis of Diabetic Complications in Western New York using GWR*" Annual Meeting of the Association of American Geographers, Seattle, Washington
- Aldstadt, Jared (2010) "A local statistics method for finding neighborhoods in multivariate spatial data" Annual Meeting of the Association of American Geographers, Washington, DC
- Aldstadt, Jared (2009) "Moran Time Path Torque: A Local Indicator of Space-Time Dynamics" Annual Meeting of the Association of American Geographers, Las Vegas, NV
- Delmerico, Alan, Jared Aldstadt, and William Wieczorek (2009) "Under-diagnosis of diabetes and cardiovascular disease in self-reported health data" Annual Meeting of the Association of American Geographers, Las Vegas, NV
- Jankowska, Marta, Jared Aldstadt, Arthur Getis, John Weeks and Grant Fraley (2008) "An AMOEBA procedure for visualizing clusters" GIScience 2008, Park City, UT
- Aldstadt, Jared (2008) "Cluster sampling of dengue virus transmission" Annual Meeting of the Association of American Geographers, Boston, MA
- Delmerico, Alan, Jared Aldstadt, and William Wieczorek (2008) "Preliminary assessment of community risk factor for type-2 diabetes" Annual Meeting of the Association of American Geographers, Boston, MA
- Aldstadt, Jared (2008) "Disease associated with natural disasters, the case of dengue fever" Annual Conference of the Center for GeoHazards Studies, University at Buffalo, "Natural Disasters in Small Communities: How Can We Help?" Buffalo, NY

Aldstadt, Jared, Arthur Getis, and Kevin Schellinger (2007) "Multiple scale analysis of mosquito vector populations in a rural Thai village" North American Meetings of the Regional Science Association International, Savannah, GA

Getis, Arthur, Jared Aldstadt, Kristopher Kuzera, and Thomas Scott (2007) "The use of empirical mode decomposition for the study of the transmission of dengue hemorrhagic fever in Thailand" American Society of Tropical Medicine and Hygiene Annual Meeting, Philadelphia, PA

Aldstadt, Jared (2007) "An incremental Knox test for the determination of the serial interval between successive cases of an infectious disease" Annual Meeting of the Association of American Geographers, San Francisco, CA

Getis, Arthur, Kristopher Kuzera, Thomas Scott, and Jared Aldstadt (2007) "Identifying traveling waves of disease transmission over time and space using empirical mode decomposition: The case of dengue hemorrhagic fever in Thailand" Western Regional Science Association 46th Annual Meeting, Newport Beach, CA

Aldstadt, Jared and Mark Janikas (2006) "Exploratory spatial filtering of space-time data" Association of American Geographers Annual Meeting, Chicago, IL

Getis, Arthur and Jared Aldstadt (2006) "Does dengue hemorrhagic fever travel in waves?" Association of American Geographers Annual Meeting, Chicago, IL

Getis, Arthur and Jared Aldstadt (2005) "Using AMOEBA to create a spatial weights matrix and identify clusters" North American Meetings of the Regional Science Association International, Las Vegas, NV

Getis, Arthur, Jared Aldstadt, Karen Campbell, and Thomas Scott (2005) "Visualizing dengue hemorrhagic fever in time and space" American Society of Tropical Medicine and Hygiene Annual Meeting, Washington, DC

Getis, Arthur and Jared Aldstadt (2005) "Dengue fever and dengue hemorrhagic fever in time and space: A report on explorations and modeling in Thailand." 4th International Congress of Vector Ecology, Reno NV

Getis, Arthur and Jared Aldstadt (2005) "Dengue transmission in time and space: Models and methods" GEOMED 2005, Cambridge, UK

Aldstadt, Jared, Arthur Getis, Douglas A. Stow, and John R. Weeks (2004) "AMOEBA: A multidirectional optimum ecotope based analysis, with an application to the total fertility rates in Amman, Jordan." Association of American Geographers Annual Meeting, Philadelphia, PA

Getis, Arthur and Jared Aldstadt (2004) "Exploring total fertility rates in Amman, Jordan using AMOEBA" Western Regional Science Association, Maui, HI

Aldstadt, Jared and Arthur Getis (2003) "Specifying the spatial weights matrix with a local spatial statistic" North American Meetings of the Regional Science Association International, Philadelphia, PA

Aldstadt, Jared (2003) "Revisiting Goldschmidt: An examination of the farm structure-community relationship in California's San Joaquin Valley." Association of American Geographers Annual Meeting, New Orleans, LA

Getis, Arthur and Jared Aldstadt (2003) "Income and employment along the Mexico-US border: The role of geographic filtering for model development." 18th Pacific Regional Science Conference, Acapulco, Mexico

Baron, Kurt and Jared Aldstadt (2003) "An ArcGIS application of spatial statistics to precipitation modeling." ESRI User's Conference, San Diego, CA

Aldstadt, Jared and Arthur Getis (2002) "Partitioning heterogeneous spaces." GIScience 2002, Boulder, CO

Getis, Arthur and Jared Aldstadt (2001) "Creating an empirical spatial weights matrix with the use of local statistics." North American Meetings of the Regional Science Association International, Charleston, SC

THESES SUPERVISED (PRINCIPAL ADVISOR)

Whalen, John, MA, 2011, "Creating a Walkability Data Set and Prediction Map Using the Walkscore Algorithm"

Thompson, Kristin, MA, 2010, "Attracting international investment and promoting economic growth in the Buffalo Niagara Region"

Touré, Sory, BA (Honors), 2008, "Geographic information systems and agriculture in Sub-Saharan Africa"

Royal, Nathaniel, MA, 2007, "Guinea worm afoot: A distance sensitive model for the spread of guinea worm in Eastern Niger"

THESIS/PROJECT COMMITTEES

Trask, William, MA, 2011, "Using an Inverse Potential Model and an Inverse Gravity Model to Solve a Facility Location Problem."

Machado, Elia, PhD., 2010, "Assessing Vulnerability to Dengue Fever in Mexico under Global Change." Graduate School of Geography at Clark University

Collins, Heather, MA, 2010, "Integrated Environmental Data Analysis in Geography: Utilizing Techniques of Geographic Information Systems, Remote Sensing, Environmental Law and Public Policy"

Potts, James, PhD., 2010, "Description, classification, and prediction of dengue illnesses in a Thai pediatric cohort." Clinical and Population Health Research, University of Massachusetts Graduate School of Biomedical Sciences

Mandal-Konar, Reshmi, MA, 2009, "Potential accessibility to hospitals of elderly population in the City of Buffalo, by private car and public bus: A GIS-based study"

CURRENT ADVISEES

MA/MS

Conrow, Lindsay
Kankaew, Prasan
Lee, Jin Hyung

PhD.

Delmerico, Alan
Iverson, Lara
Kum, Susan

CURRENT COMMITTEES

PhD.

Bajo, Jorge
Copeland, Sam
Kedron, Peter
Knight, Jason
Kochenash, Cara
Majka, Kevin
Trgovac, Andrew

DEPARTMENTAL SERVICE

Member, Hiring Committee	2006-2007
Member, Graduate Brochure Committee	2008
Colloquium Coordinator	2008-2011
Hugh W. Calkins Applied GIS Award Committee	2010

UNIVERSITY SERVICE

Faculty Senator <i>ad interim</i>	2008-2009
Faculty Senator	2009-Present

PROFESSIONAL SERVICE

Invited Attendee/Presenter: Spatial-temporal Dynamics of Zoonotic Diseases Workshop Geomatics for Informed Decisions (GEOIDE), Mathematics of Information Technology and Complex Systems (MITACS), Toronto, Canada	August 9-10, 2010
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Invited Attendee/Presenter: Cluster Morphology Analysis Workshop Biomedware, Ann Arbor, MI	April 29-30, 2010
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Invited lecture: “GIS and sampling of dengue virus transmission” 5 th Annual GIS and Public Health Day at the University at Albany School of Public Health	May 5, 2009
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Invited lecture: “Cluster sampling of dengue virus transmission” Seminar at the Department of Social and Preventive Medicine, University at Buffalo	September 12, 2008
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Invited lecture: Workshop in Spatial Analysis in a GIS Environment: Part of a series entitled: <i>Health Applications in GIS: Data Visualization and Spatial Pattern Analysis</i> held at the University of Massachusetts Medical School	May 9, 2006
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Developer Space Time Analysis of Regional Systems (STARS) open source geocomputation project	2003-2006
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Invited Lecture: “Spatial autocorrelation in observational science.” Swiss Federal Institute for Environmental Science and Technology’s Limnological Research Center, Kastanienbaum, Switzerland	July 12, 2004
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Consulting: **June 2004**
County of San Diego Department of Planning and Land Use: Produced high-resolution precipitation map adopted by San Diego County Board of Supervisors for zoning and hydrological modeling purposes

Student Representative **2003-2005**
Association of American Geographers Spatial Analysis and Modeling Specialty Group

Invited Attendee:
Center for Spatially Integrated Social Science Specialist Meeting
Spatial Data Analysis Software Tools, Santa Barbara, CA **2002**

Reviewer:

Journal Manuscripts

<i>American Journal of Public Health</i>	2009, 2010, 2011
<i>American Journal of Tropical Medicine and Hygiene</i>	2009, 2010, 2011
<i>Annals of the Association of American Geographers</i>	2004, 2009, 2010, 2011
<i>Computers, Environment and Urban Systems</i>	2009, 2010, 2011
<i>Environment and Planning A</i>	2007
<i>Environmental Geochemistry and Health</i>	2008
<i>Environmental Health</i>	2011
<i>Geographical Analysis</i>	2006, 2009, 2010, 2011
<i>International Journal of Applied Geospatial Research</i>	2010, 2011
<i>International Journal of Geographical Information Science</i>	2008, 2009, 2010, 2011
<i>International Regional Science Review</i>	2007, 2008
<i>Journal of Geographical Systems</i>	2004, 2006, 2008, 2010, 2011
<i>Mathematical Geosciences</i>	2009, 2010
<i>Professional Geographer</i>	2007
<i>Population Ecology</i>	2010
<i>Stochastic Environmental Research and Risk Assessment</i>	2006
<i>Tropical Medicine & International Health</i>	2011
<i>Vaccine</i>	2011

Books and Book Chapters

<i>The ESRI Guide to GIS Analysis, Volume 2:</i> <i>Spatial Measurement & Statistics</i> by Andy Mitchell	2004
<i>Ecology of parasite-vector interaction</i> , Volume 3 in the series entitled, “Ecology and Control of Vectorborne Diseases”	2011

Proposals

<i>NSF – Division of Behavioral and Cognitive Sciences - ad hoc reviewer</i>	2011
<i>NSF – Division of Social and Economic Sciences - ad hoc reviewer</i>	2011

MEMBERSHIPS

Association of American Geographers
 Spatial Analysis and Modeling Specialty Group
 Medical Geography Specialty Group
The American Society of Tropical Medicine and Hygiene
The Regional Science Association International