

Scott M. Robeson

Professor and Chair

Department of Geography
Indiana University
Bloomington, Indiana 47405 U.S.A.

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Education: Ph.D. Climatology, University of Delaware, 1992
M.Sc. Geography, University of British Columbia, 1987
B.A. Geography, University of Delaware, 1984

Professional Interests:

Recent climatic change and variability, focusing on variability derived from the historical instrumental record
Impacts of climatic variability on environmental systems, including renewable energy resources and climatically sensitive animal and plant species
Statistical and computational analysis of environmental change, including spatial statistics, time-series analysis, and image processing

Professional Experience:

<i>Chair</i>	Department of Geography, Indiana University, 2007-present
<i>Adjunct Professor</i>	Department of Statistics, Indiana University, 2006-present
<i>Professor</i>	Department of Geography, Indiana University, 2005-present
<i>Associate Professor</i>	Department of Geography, Indiana University, 1998-2005
<i>Assistant Professor</i>	Department of Geography, Indiana University, 1992-1998
<i>Graduate Fellow, Research Assistant, Teaching Assistant, and Instructor</i>	Department of Geography, University of Delaware, 1988-1992
<i>Graduate Fellow and Teaching Assistant</i>	Department of Geography, Univ of British Columbia, 1985-1987
<i>Research Assistant</i>	Department of Geography, University of Delaware, 1983-1984
<i>Meteorological Trainee</i>	National Climatic Data Center, NOAA, Asheville, NC, 1983-1984

Honorary and Professional Affiliations:

Member, Phi Beta Kappa
Member, American Geophysical Union
Member, American Meteorological Society
Member, Association of American Geographers

Awards:

Distinguished Alumni Lecturer, Dept of Geography, University of Delaware, 2007
Summer Faculty Fellowship, Indiana University, 2004
Paper of the Year Award, Climate Specialty Group, AAG, 2003
Trustees Teaching Award, Indiana University, 2001
Teaching Excellence Recognition Award, Indiana University, 1997, 1998, 1999
Outstanding Junior Faculty Award, Indiana University, 1996
Summer Faculty Fellowship, Indiana University, 1993
Profiled in *2000 Outstanding People of the 20th Century*, 1997
Profiled in *Who's Who in Science and Engineering*, 3rd ed., 4th ed., 5th ed., 6th ed.
Profiled in *Who's Who in the Midwest*, 25th ed., 26th ed.
Profiled in *Who's Who in the World*, 16th ed.

Research Activities:**Publications:** *Refereed Articles*

Hayes, J. J. and **S. M. Robeson** (2009) "Mapping spatial variability of landscape pattern change with moving-window metrics following a large wildfire in northeastern New Mexico, USA", *Physical Geography*, in press.

Willmott, C. J., K. Matsuura, and **S. M. Robeson**, (2009) "Ambiguities inherent in sums-of-squares-based error statistics," *Atmospheric Environment*, **43**, 749-752.

Robeson, S. M. (2008) "Applied climatology: Drought", *Progress in Physical Geography*, **32**, 303-309.

Ensor, L. A. and **S. M. Robeson** (2008) "Statistical characteristics of daily precipitation: Comparisons of gridded and point datasets," *Journal of Applied Meteorology and Climatology*, **47**, 2468-2476

Schoof, J. T., S. C. Pryor, and **S. M. Robeson** (2007) "Downscaling daily maximum and minimum temperature in the Midwestern USA: A hybrid empirical approach", *International Journal of Climatology*, **27**, 439-454.

Willmott, C. J., **S. M. Robeson**, and K. Matsuura (2007) "Geographic box plots," *Physical Geography*, **28**, 331-344.

Robeson, S. M. and L. A. Ensor (2006) "Comment: Daily Precipitation Grids for South America" *Bulletin of the American Meteorological Society*, **87**, 1095-1096.

Robeson, S. M. and J. A. Doty (2005) "Identifying rogue air-temperature stations using cluster analysis of percentile trends," *Journal of Climate*, **18**, 1275-1287.

- Janis, M. J., and **S. M. Robeson** (2004) "Determining the spatial representativeness of air-temperature records using variogram nugget time series," *Physical Geography*, **25**, 513-530.
- Robeson, S. M.** (2004) "Trends in time-varying percentiles of daily minimum and maximum temperature over North America," *Geophysical Research Letters*, **31**, L04203, doi:10.1029/2003GL019019.
COVER ARTICLE (28 FEBRUARY 2004) . ALSO SELECTED BY AGU EDITORS AS A "JOURNAL HIGHLIGHT" (<5% of American Geophysical Union papers are selected for Journal Highlights)
- Schoof, J. T. and **S. M. Robeson** (2003) "Seasonal and spatial variations of serial and cross-correlation matrices used by stochastic weather generators," *Climate Research*, **24**, 95-102.
- Batistella, M., **S. Robeson**, and E. Moran (2003) "Settlement design, forest fragmentation, and landscape change in Rondônia, Amazônia," *Photogrammetric Engineering and Remote Sensing*, **69**, 805-812.
- Robeson, S. M.** (2002) "Relationships between mean and standard deviation of air temperature: Implications for global warming," *Climate Research*, **22**, 205-213.
AAG CLIMATE SPECIALTY GROUP "PAPER OF THE YEAR AWARD" FOR 2003
- Robeson, S. M.** (2002) "Increasing growing-season length in Illinois during the 20th century," *Climatic Change*, **52**, 219-238.
- Burcsu, T. K., **S. M. Robeson**, and V. J. Meretsky (2001) "Identifying the distance of vegetative edge effects using Landsat TM data and geostatistical methods," *Geocarto International*, **16**, 59-68.
- Grimmond C. S. B., **S. M. Robeson**, and J. Schoof (2000) "Spatial variability of micro-climatic conditions within a mid-latitude deciduous forest," *Climate Research*, **15**, 137-149.
- Hook, K. W. and **S. M. Robeson** (1998) "Simulation of daily total wind energy using a time-series model," *Physical Geography*, **19**, 463-484.
- Robeson, S. M.** and M. J. Janis (1998) "Comparison of temporal and unresolved spatial variability in multiyear time-averages of air temperature," *Climate Research*, **10**, 15-26.
- Robeson, S. M.** and K. A. Shein (1997) "Spatial coherence and decay of wind speed and power in the north-central USA," *Physical Geography*, **18**, 479-495.
- Robeson, S. M.** (1997) "Spherical methods for spatial interpolation: Review and evaluation," *Cartography and Geographic Information Systems*, **24**, 3-20.

- Vörösmarty, C.J., C.J. Willmott, B.J. Choudhury, A.L. Schloss, T.K. Stearns, **S. M. Robeson**, and T. J. Dorman (1996) "Analyzing the discharge regime of a large tropical river through remote sensing, ground-based climatic data, and modeling," *Water Resources Research*, **32**, 3137-3150.
- Willmott, C. J., **S. M. Robeson**, M. J. Janis (1996) "Comparison of methods for estimating time-averaged precipitation using data from the USA," *International Journal of Climatology*, **16**, 1103-1115.
- Robeson, S. M.** (1995) "A spatial resampling perspective on the depiction of global air temperature anomalies," *Bulletin of the American Meteorological Society*, **76**, 1179-1183.
- Willmott, C. J. and **S. M. Robeson** (1995) "Climatologically aided interpolation (CAI) of terrestrial air temperature," *International Journal of Climatology*, **15**, 221-229.
- Robeson, S. M.** (1995) "Resampling of network-induced variability in estimates of terrestrial air temperature change," *Climatic Change*, **29**, 213-229.
- Robeson, S. M.** (1994) "Influence of spatial sampling and interpolation on estimates of terrestrial air temperature change," *Climate Research*, **4**, 119-126.
- Willmott, C. J., **S. M. Robeson**, and J. J. Feddema (1994) "Estimating continental and terrestrial precipitation averages from raingauge networks," *International Journal of Climatology*, **14**, 403-414.
- Hanson B., K. Klink, K. Matsuura, **S. M. Robeson**, and C. J. Willmott (1992) "Vector correlation: Review, exposition, and geographic application," *Annals of the Association of American Geographers*, **82**, 103-116.
- Willmott, C. J., **S. M. Robeson**, and J. J. Feddema (1991) "Influence of spatially variable instrument networks on climatic averages," *Geophysical Research Letters*, **18**, 2249-2251.
- Robeson, S. M.** and D. G. Steyn (1990) "Evaluation and comparison of statistical forecast models for daily maximum ozone concentrations," *Atmospheric Environment*, **24B**, 303-312.
- Robeson, S. M.** and D. G. Steyn (1989) "A conditional probability density function for forecasting ozone air quality data," *Atmospheric Environment*, **23**, 689-692.

Publications: *Invited Book Chapters*

- Robeson, S. M.** (2005) "Statistical climatology," pp. 687-694 in J. E. Oliver (ed.) *Encyclopedia of World Climatology*. Springer, New York.

Robeson, S. M. (1997) "Statistical considerations," pp. 22-35 in R. D. Thompson and A. Perry (eds.) *Applied Climatology: Principles and Practices*. Routledge, London.

Robeson, S. M. and C. J. Willmott (1996) "Spherical spatial interpolation and terrestrial air temperature variability," pp. 111-115 in M.F. Goodchild et al. (eds.) *GIS and Environmental Modeling: Progress and Research Issues*. GIS World, Ft. Collins, CO.

Publications: Monographs

Robeson, S. M. (1993) *Spatial Interpolation, Network Bias, and Terrestrial Air Temperature Variability*. Publications in Climatology Series, Volume 46. Center for Climatic Research, University of Delaware, Newark, DE. 51pp.

Publications: Other

Robeson, S. M. (2004) "Temperature trends for max, min, and in between," *Bulletin of the American Meteorological Society*, **85**, 500-501.

Robeson, S. M. (2004) "Trends in time-varying percentiles of daily minimum and maximum temperature over North America," *Preprints, 14th Conference on Applied Climatology* (Seattle, WA), American Meteorological Society, Boston, MA.

Schoof, J. T. and **S. M. Robeson** (2002) "Seasonal and spatial variations of serial and cross-correlation matrices used by stochastic weather generators," *Preprints, 13th Conference on Applied Climatology* (Portland, OR), American Meteorological Society, Boston, MA.

Legates, D. R., R. E. Davis, O. F. Frauenfeld, and **S. M. Robeson** (2000) "A non-correlation-based approach to the search for anthropogenic climate change signals," *Preprints, 15th Conference on Probability and Statistics in the Atmospheric Sciences* (Asheville, NC), American Meteorological Society, Boston, MA.

Robeson, S. M. (2000) "Increasing growing-season length in Illinois as an indicator of climatic change," *Preprints, 12th Conference on Applied Climatology* (Asheville, NC), American Meteorological Society, Boston, MA.

Grimmond, C. S. B., **S. M. Robeson**, and J. Schoof (1999) "Variability in below-canopy climatic conditions during the growing season within an eastern North American deciduous forest," in R. J. de Dear and J. C. Potter (eds.), *Proceedings of the International Conference on Biometeorology*, Sydney, Australia (ICBP03.05).

Robeson, S. M., C. S. B. Grimmond, and J. Schoof (1998) "Comparison of open-site and below-canopy climatic conditions within an eastern North American deciduous forest," pp. 84-187 in *23rd Conference on Agricultural and Forest Meteorology* (Albuquerque, NM), American Meteorological Society, Boston, MA.

Robeson, S. M. and K. A. Shein (1996) "Impacts of climatic variability on wind energy resources in the Dakotas," pp. 72-75 in *Symposium on Environmental Applications*, American Meteorological Society, Boston, MA.

Shein, K. A. and **S. M. Robeson** (1996) "Interannual, seasonal, and diurnal variability of wind power in the Midwest," pp. 597-605 in *Windpower 1995*, American Wind Energy Association, Washington, D.C.

Nicodemus, M. L., **S. M. Robeson**, and W. T. Hodge (1985) *Human Biometeorology, An Updated Selected Bibliography*. NOAA Tech. Memorandum NESDIS NCDC--4.

External Funding:*Funding as Principal Investigator:*

- National Science Foundation (NSF), “Hemispheric-scale changes in air-temperature probability distributions,” (\$119,963), 2005-2008. PI: **S. Robeson**.
- National Science Foundation (NSF), “Estimating recent climatic change via historical air-temperature frequency distributions,” (\$93,867), 2002-2005. PI: **S. Robeson**.
- National Oceanic and Atmospheric Administration (NOAA) and Department of Energy (DOE), “Searching for anthropogenic climate change signals using non-correlation-based approaches,” (\$50,000), 1999-2000. Co-PIs: D. Legates, R. Davis, and **S. Robeson**.
- National Institute for Global Environmental Change, Department of Energy (DOE), “The effect of variability in microclimate and regional climate on the productivity of neotropical migrant landbirds in midwestern forests, Part III,” (\$150,000), 1996-1997. Co-PIs: D. Whitehead, S. Grimmond, and **S. Robeson**.
- National Science Foundation (NSF), “Field instrumentation for environmental remote sensing,” (\$35,000), 1996-1999. Matching funds from Indiana University provide a total award of \$74,702. PI: **S. Robeson**.
- National Institute for Global Environmental Change, Department of Energy (DOE), “The effect of variability in microclimate and regional climate on the productivity of neotropical migrant landbirds in midwestern forests, Part II,” (\$153,423), 1995-1996. Co-PIs: D. Whitehead, S. Grimmond, and **S. Robeson**.
- National Science Foundation (NSF), “Impacts of climatic variability and climatic change on wind energy resources,” (\$25,000), 1995-1996. PI: **S. Robeson**.
- National Institute for Global Environmental Change, Department of Energy (DOE), “The effect of variability in microclimate and regional climate on the productivity of neotropical migrant landbirds in midwestern forests, Part I,” (\$90,000), 1994-1995. Co-PIs: D. Whitehead, S. Grimmond, and **S. Robeson**.

Supervision of Funded Research as Project Director:

- Department of Energy (DOE), “Disturbance, succession and forest carbon dynamics: an ecosystem-scale experiment at the UMBS Ameriflux site,” (\$141,200), 2007-2009. PI: D. Dragoni
- Department of Energy (DOE), “Ecosystem-Atmosphere Exchange of Carbon, Water and Energy over a mixed deciduous forest in the Midwest,” (\$630,500), 2007-2010. PI: D. Dragoni

Professional Presentations:

- Robeson, S. M.** and C. J. Willmott (2008) "Using geographic box plots to estimate climatic change," Association of American Geographers, Annual Meeting, Boston, MA.
- Robeson, S. M.** (2007) "Trends, Spatial Variability, and Persistence of Recent Thermal Anomalies," Distinguished Alumni Lecture, Department of Geography, University of Delaware.
- Robeson, S. M.** (2007) "On the spatial extent and intensity of recent thermal anomalies," Association of American Geographers, Annual Meeting, San Francisco, CA.
- Sato, N. and **S. M. Robeson** (2006) "Climate change and its potential impact on winter-road maintenance: Temporal trends in hazardous temperature days in the United States and Canada," Transportation Research Board, Washington, D.C.
- Hayes, J., **S. M. Robeson**, and C. M. Cowell (2005) "Spatial structure of regeneration and understory light in a transitional hardwood forest of western Indiana" Annual Meeting of the Association of American Geographers, Denver, CO.
- Robeson, S. M.** (2005) "Recent changes in interdiurnal and persistent air-temperature variability over North America," Annual Meeting of the Association of American Geographers, Denver, CO.
- Robeson, S. M.** (2004) "Global warming," Dean's Advisory Board, College of Arts and Science, Indiana University.
- Robeson, S. M.** (2004) "Identifying rogue air-temperature stations using cluster analysis of percentile trends," Annual Meeting of the Association of American Geographers, Philadelphia, PA.
- Hayes, J., C. M. Cowell, and **S. M. Robeson** (2004) "Comparing ranges of spatial variability in light levels and regeneration at Kieweg Woods, IN," Annual Meeting of the Association of American Geographers, Philadelphia, PA.
- Robeson, S. M.** (2004) "Detecting recent changes in North America's climatic variability," Department of Geography, University of Minnesota, Twin Cities.
- Robeson, S. M.** (2004) "Trends in time-varying percentiles of daily minimum and maximum temperature over North America," 14th Conference on Applied Climatology (Seattle, WA), American Meteorological Society.
- Robeson, S. M.** (2003) "Relationships between mean and standard deviation of air temperature: Implications for global warming," *Paper of the Year Presentation* (Climate Specialty Group), Annual Meeting of the Association of American Geographers, New Orleans, LA.
- Burcsu, T. K, **S. M. Robeson**, and V. J. Meretsky (2003) "Point-based semivariance analysis of timber clearings in a mountainous area," Annual Meeting of the Association of American Geographers, New Orleans, LA.
- Janis, M. J., and **S. M. Robeson** (2002) "Determining spatial representativeness of air temperature records: an application of variogram nugget time," Annual Meeting of the Association of American Geographers, Los Angeles, CA.
- Robeson, S. M.** (2002) "Heterogeneous climatic change: Differential trends in parameters of air-temperature frequency distributions," Annual Meeting of the Association of American Geographers, Los Angeles, CA.

- Schoof, J. T. and **S. M. Robeson** (2002) "Seasonal and spatial variations of serial and cross-correlation matrices used by stochastic weather generators," 13th Conference on Applied Climatology, American Meteorological Society, Portland, Oregon.
- Burcsu, T., **S. Robeson**, and V. Meretsky (2001) "Using Landsat TM Imagery to Identify Edge Effects Extent in a Mexican Conifer Forest," Ecological Society of America Annual Meeting, Madison, WI.
- Burcsu, T., **S. Robeson**, and V. Meretsky (2001) "Using semivariance and subpixel classification of landsat TM imagery to identify edge effects penetration distance," Annual Meeting of the Association of American Geographers, New York, NY.
- Robeson, S. M.** (2001) "Detecting climatic change via trends in air-temperature probability distributions," Annual Meeting of the Association of American Geographers, New York, NY.
- Robeson, S. M.** (2000) "Increasing growing-season length in Illinois as an indicator of climatic change," AMS 12th Conference on Applied Climatology, Asheville, North Carolina.
- Robeson, S. M.** (2000) "Variations in growing-season length and frost dates as indicators of climatic change," Annual Meeting of the Association of American Geographers, Pittsburgh, PA.
- Legates, D. R., R. E. Davis, O. F. Frauenfeld, and **S. M. Robeson** (2000) "A non-correlation-based approach to the search for anthropogenic climate change signals," AMS 15th Conference on Probability and Statistics in the Atmospheric Sciences, Asheville, NC.
- Legates, D. R., R. E. Davis, and **S. M. Robeson** (2000) "A non-correlation-based approach to the search for anthropogenic climate change signals," Annual Meeting of the Association of American Geographers, Pittsburgh, PA.
- Grimmond, C. S. B., **S. M. Robeson**, and J. Schoof (1999) "Variability in below-canopy climatic conditions during the growing season within an eastern North American deciduous forest," International Conference on Biometeorology, Sydney, Australia.
- Robeson, S. M.**, C. S. Grimmond, and J. Schoof (1998) "Spatial variability of below-canopy climatic conditions in a ridge-ravine landscape of a midwestern deciduous forest," 23rd Conference on Agricultural and Forest Meteorology, Albuquerque, NM.
- Robeson, S. M.** (1997) "Comparison of spatial interpolation and temporal substitution methods for representations of long-term air temperature in the United States," Association of American Geographers, Annual Meeting, Fort Worth, TX.
- Robeson, S. M.** (1997) "Spatial aspects of climatic variability and change," Department of Geography, Northern Illinois University.
- Robeson, S. M.** (1996) "Uncertainties in the instrumental record of climatic change," Workshop on Global Climatic Change, Indiana Center for Global Change and World Peace, Bloomington.
- Slusher, B.R., D.R. Whitehead, **S. Robeson** and C. S. Grimmond (1996) "The effects of within-site microclimatic variation and local weather patterns on the reproductive success of the Acadian Flycatcher (*Empidonax vireescens*)," Ecological Society of America, Annual Combined Meeting, Providence, RI.
- Robeson, S. M.** (1996) "Impacts of climatic variability on wind energy resources in the Dakotas," Association of American Geographers, Annual Meeting, Charlotte, NC.

- Janis, M. J. and **S. M. Robeson** (1996) "Detection of urban warming bias in historical surface air temperature records," AAG, Annual Meeting, Charlotte, NC.
- Shein, K. A. and **S. M. Robeson** (1995) "Interannual, seasonal, and diurnal variability of wind energy in the midwestern United States," Windpower '95, American Wind Energy Association Annual Meeting, Washington, D.C.
- Shein, K. A. and **S. M. Robeson** (1995) "Long-term variability of wind energy in the midwestern United States," Annual Meeting of the Association of American Geographers, Chicago.
- Matsuura, K., C. J. Willmott, and **S. M. Robeson** (1994) "Spatial interpolation of air temperature aided by a digital elevation map," Annual Meeting of the Association of American Geographers, San Francisco.
- Robeson, S. M.** (1994) "Resampling of network-induced variability in estimates of terrestrial air temperature change," Annual Meeting of the Association of American Geographers, San Francisco.
- Robeson, S. M.** (1994) "Detecting global warming," Department of Geography, Indiana University, Bloomington, IN.
- Robeson, S. M.** (1994) "Spatial analysis of air temperature change from the instrumental record," Department of Geography and Geology, Indiana State University, Terre Haute.
- Janis, M. J., C. J. Willmott, and **S. M. Robeson** (1993) "Multivariate interpolation of monthly precipitation in the United States," Annual Meeting of the Middle States Division of the AAG, Newark, DE.
- Robeson, S. M.** (1993) "Spatial analysis of climatic change from the instrumental record," Workshop on Changing Environments, Indiana Center for Global Change and World Peace, Bloomington.
- Willmott, C. J., and **S. M. Robeson** (1993) "Assessing terrestrial climate change from station air-temperature records," Annual Meeting of the Middle States Division of the AAG, Newark, DE.
- Robeson, S. M.** and C. J. Willmott (1993) "Spherical spatial interpolation and terrestrial air temperature variability," 2nd International Conference on Integrating GIS and Environmental Modeling, Breckenridge, CO.
- Robeson, S. M.**, C. J. Willmott, and M. J. Janis (1993) "Comparison of methods for estimating long-term mean precipitation in the United States," Association of American Geographers Annual Meeting, Atlanta.
- Robeson, S. M.** (1992) "Climatic change: global warming and ozone depletion," Indiana Center for Global Change and World Peace, Bloomington.
- Robeson, S. M.** (1992) "Spatial interpolation, network bias, and terrestrial air temperature variability," Department of Geography, University of Georgia, Athens.
- Robeson, S. M.** (1992) "Spatial interpolation, network bias, and terrestrial air temperature variability," Department of Geography, Indiana University, Bloomington
- Robeson, S. M.** (1992) "Effect of spatial interpolation on estimates of terrestrial air temperature change," Association of American Geographers Annual Meeting, San Diego.
- Robeson, S. M.** and C. J. Willmott (1991) "Spatial analysis and terrestrial temperature change," Association of American Geographers Annual Meeting, Miami.

- Willmott, C. J. and **S. M. Robeson** (1990) "Climate, climatic change and their representation in the instrumental record," Resource Technology '90, Washington, D.C.
- Willmott, C. J., K. M. Klink, D. R. Legates, and **S. M. Robeson** (1989) "A critical review of hypothesis testing," Association of American Geographers Annual Meeting, Baltimore.
- Robeson, S. M.** (1989) "A comparison of forecast models for daily maximum ozone concentrations," Association of American Geographers Annual Meeting, Baltimore.

Teaching Activities:

Student Research Committees:

Chair:

Jared Desrochers (M.S.), in progress, “Analyzing Snowfall Change and Teleconnection Relations with a Standardized Snowfall Index”

Benjamin Fraser (I.M.P.), in progress, “Sustainable Urban Ecology” (co-chair)

Scott McCammon (B.S.E.S.), in progress, “Climatic Considerations in Passive Solar Architecture”

Melissa Davis (M.S.), 2009, “Using Local and Synoptic Meteorological Conditions to Estimate the Probability of Santa Ana Events”

James Hayes (Ph.D.), 2008, “Spatial and Compositional Variability Associated with Forest Fire Severity in a Ponderosa Pine Forest of Northeastern New Mexico”

Noriyuki Sato (Ph.D.), 2008, “Impacts of Climatic Change and Variability on Winter-Road Maintenance in North America”

Leslie Ensor (M.S.), 2005, “Statistical Differences in Gridded and Point Precipitation Datasets in the Midwestern United States”

Jeffrey Doty (M.S.), 2003, “Radiant Land-Surface Temperature of a Deciduous Forest: The Effectiveness of Satellite Measurement and Tower-Based Validation”

Julie Hanson (M.A.), 2001, “Understanding Deforestation Processes in Northwestern Yucatan, Mexico through Geographical Information System Analysis of Satellite Imagery”

Michael Janis (Ph.D.), 2000, “Confounding Climatic Change: the Problem of Spatially Unrepresentative Air Temperature Records”

Kelley Hook (M.A.), 1998, “Development and Application of a Mathematical Time-Series Model to Simulate Daily Total Wind Energy”

Karsten Shein (M.A.), 1995, “Wind Speed Variability in the Midwestern United States 1961-1990: Implications for Wind Power Assessment”

Graduate Student Committees:**Member:**

Mark Bauer	Ph.D., Geol. Science	in progress.
Marc Bogonovich	Ph.D., Biology	in progress.
Fredi Birsan	Ph.D., Geography	in progress.
Bin Deng	Ph.D., Geography	in progress.
Shanon Donnelly	Ph.D., Geography	in progress.
Bassil El-Masri	Ph.D., Geography	in progress.
Norma Froelich	Ph.D., Geography	in progress.
Elizabeth Mack	Ph.D., Geography	in progress.
Dawn O'Neal	Ph.D., Biology	in progress.
Richard Thurau	Ph.D., Env. Science	in progress.
Theresa Burcsu	Ph.D., Env. Science	2006.
Wenjie Sun	Ph.D., Geography	2006.
Justin Schoof	Ph.D., Geography	2004.
Amy Lilienfeld	Ph.D., Geography	2003.
Mateus Batistella	Ph.D., Env. Science	2001.
David Travis	Ph.D., Geography	1994.
Danyell Dahn	M.A., Geography	in progress.
Debashish Ghosh	M.A., Geography	in progress.
Keshab Parajuli	M.S., Geography	in progress.
Charles Winkle	M.A., Geography	in progress.
Jessica Howe	M.S., Geography	2008.
Shanon Donnelly	M.A., Geography	2003.
Norma Froelich	M.S., Geography	2003.
Nathan Polderman	M.S., Geography	2002.
Noriyuki Sato	M.A., Geography	2001.
Sean Potter	M.S., Geography	2000.
Justin Schoof	M.S., Geography	1999.
Melanie Roy	M.A., Geography	1996.
Jane Southworth	M.A., Geography	1996.

Instructional Grants and Funding:

Research and the University Graduate School, Research Investment Fund Grant for Unix Workstations (Project Title: "Scale Dependence of Land-Atmosphere Interactions: Linking Local-Scale Processes to Regional-Scale Outcomes"), 2002, \$12,000. Co-developed with T. Evans, J. Odland, S. Grimmond, Geography.

College of Arts and Sciences, Course Development Grant for Intensive Summer Field Course in Geography (G135/G235), 2001, \$10,000. Co-developed with D. Conway, Geography.

Indiana University Campuswide Writing Program, Office of Academic Affairs and the Dean of Faculties, Writing-Teaching Course Development Grant for G336 (Environmental Remote Sensing), 1995, \$1500.

Indiana University Office of Information Technologies, New Computing Initiatives Program, "Data Sharing and Color Printing for the Department of Geography," 1995, \$19,175.

Indiana University Office of Information Technology, Student Technology Program, "Visual Imaging for the Departments of Anthropology and Geography" (with Kevin Hunt, Anthropology), 1994, \$13,324.

Indiana University Office of Information Technology, Student Technology Program, "Instructional Technology Equipment for Student Building 150" (with Kevin Hunt, Anthropology), 1994, \$22,800.

Indiana University College of Arts and Sciences, Course Development Grant for TOPICS course, E105: Environmental Change, 1994, \$1500.

Indiana University Departmental Computer Planning Program, "Unix Server for Climatological Analysis," 1993, \$28,900.

Indiana University Student Technology Program, "Color LCD Projection System," 1993, \$6,900.

Courses Taught:

	<i>Course</i>	<i># students</i>
<i>Spring 2009</i>	G250 Computer Methods in Geography	24
<i>Fall 2008</i>	G488/588 Applied Spatial Statistics	16
<i>Spring 2008</i>	G250/577 Computer Methods in Geography	16
<i>Fall 2007</i>	G488/588 Applied Spatial Statistics	16
<i>Spring 2007</i>	G250/577 Computer Methods in Geography	25
	G304/532 Physical Meteorology and Climatology	35
<i>Fall 2006</i>	G488/588 Applied Spatial Statistics	12
<i>Spring 2006</i>	G250 Computer Methods in Geography	20
	G304/532 Physical Meteorology and Climatology	36
<i>Spring 2005</i>	G235 Introduction to Geographic Methods	30
	G304 Physical Meteorology and Climatology	38
<i>Fall 2004</i>	G250/577 Computer Methods in Geography	12
	G488/588 Applied Spatial Statistics	15
<i>Spring 2004</i>	G235 Introduction to Geographic Methods	30
	G477/577 Applied Climatology	11
<i>Fall 2003</i>	G250/577 Computer Methods in Geography	12
	G488/588 Applied Spatial Statistics	16
<i>Spring 2003</i>	G235 Introduction to Geographic Methods	32
	G250/577 Computer Methods in Geography	15
<i>Fall 2002</i>	G477/577/602 Seminar in Atmospheric Science	9
	G488/588 Applied Spatial Statistics	14
<i>Spring 2002</i>	G235 Introduction to Geographic Methods	22
<i>Fall 2001</i>	G235 Introduction to Geographic Methods	27
	G488/588 Applied Spatial Statistics	16
<i>Spring 2001</i>	G489/589 Atmospheric Data Analysis	11
<i>Fall 2000</i>	G336 Environmental Remote Sensing	23
	G488/588 Applied Spatial Statistics	21
<i>Spring 2000</i>	G250 Computer Methods in Geography	12
<i>Spring 1999</i>	G304/G532 Physical Meteorology and Climatology	30
<i>Fall 1998</i>	G336 Environmental Remote Sensing	15
	G488 Applied Spatial Statistics	12
<i>Spring 1998</i>	G250 Computer Methods in Geography	16
	G304 Physical Meteorology and Climatology	22
<i>Fall 1997</i>	G109 Weather and Climate	124
	G488 Applied Spatial Statistics	10
<i>Spring 1997</i>	E105 Environmental Change	42
<i>Fall 1996</i>	G336 Environmental Remote Sensing	18
	G589 Atmospheric Data Analysis	6
<i>Spring 1996</i>	E105 Environmental Change	44
	G304 Physical Meteorology and Climatology	28
<i>Fall 1995</i>	G336 Environmental Remote Sensing	18
<i>Spring 1995</i>	G304 Physical Meteorology and Climatology	32
	G602 Seminar in Climatic Change	6
<i>Fall 1994</i>	E105/G305 Environmental Change	87
	G304 Physical Meteorology and Climatology	45

Courses Taught (cont'd):

<i>Spring 1994</i>	G304 Physical Meteorology and Climatology	42
	G336 Environmental Remote Sensing	30
<i>Fall 1993</i>	G304 Physical Meteorology and Climatology	35
	G489/G589 Atmospheric Data Analysis	9
<i>Spring 1993</i>	G109 Weather and Climate	133
	G304 Physical Meteorology and Climatology	34
<i>Fall 1992</i>	G304 Physical Meteorology and Climatology	34

Internship/Research/Readings Courses:G400: Internship in Geographical Analysis

I continue to administer several internships every year. When I was undergraduate advisor and director of the undergraduate program, I supervised over 10 internships per year from 1998-2002. The internship process includes contacting internship sponsors, monitoring internship activities, reading student reports, soliciting sponsor feedback (via questionnaire), and grading.

G450: Undergraduate Readings and Research in Geography:

I typically supervise 1-2 readings or research courses per semester for undergraduate students.

G830: Graduate Readings in Geography / G840: Graduate Research in Geography:

I supervise 1-2 readings or research courses per semester for graduate students.

Service Activities:**Professional Service:**Journal Articles Reviewed:

- *Annals of the Association of American Geographers*
- *Atmosphere-Ocean*
- *Atmospheric Environment*
- *Bulletin of the American Meteorological Society*
- *Cartography and Geographic Information Systems*
- *Climate Research*
- *Environmental Modelling and Software*
- *Geographical Analysis*
- *Geography Compass*
- *Geophysical Research Letters*
- *Global and Planetary Change*
- *International Journal of Biometeorology*
- *International Journal of Climatology*
- *International Journal of Geographic Information Science*
- *International Journal of Remote Sensing*
- *Journal of the Air and Waste Management Association*
- *Journal of the American Water Resources Association*
- *Journal of Applied Meteorology*
- *Journal of Applied Meteorology and Climatology*
- *Journal of Climate*
- *Journal of Environmental Engineering*
- *Journal of Geophysical Research – Atmospheres*
- *Journal of Hydrology*
- *Journal of Statistics Education*
- *Physical Geography*
- *Professional Geographer*
- *Southwestern Geographer*
- *Theoretical and Applied Climatology*
- *Water Resources Bulletin*
- *Water Resources Research*

Professional Service (cont'd):Proposals Reviewed:

- National Institute for Climatic Change Research, Department of Energy
- National Institute for Global Environmental Change, Department of Energy
- National Oceanic and Atmospheric Administration, Climate and Global Change Program
- National Science Foundation, Arctic System Science Program
- National Science Foundation, Geography and Regional Science Program
- National Science Foundation, Major Research Instrumentation Program
- National Science Foundation, Office of Polar Programs
- National Science and Engineering Research Council, Canada
- U.S. Civilian Research and Development Foundation

Professional Associations:

- Organizer and Chair of Climate Specialty Group Session on “Changing Climatic Variability: Detection and Impacts,” Annual Meeting of the Association of American Geographers, Denver, CO, 2005.
- Co-organizer of Climate Specialty Group Session on “Changes in Climatic Variability and Atmospheric Circulation,” Annual Meeting of the Association of American Geographers, Denver, CO, 2005.
- Award Committee, Paper of the Year Competition, Climate Specialty Group, Association of American Geographers, 2004, 2005, 2006.
- Electronic Communications Committee, Association of American Geographers, 1994-1998.
- Young Scholar Director, Board of Directors, Climate Specialty Group, Association of American Geographers, 1993-95.

Editorial Boards / Annual Reviewing:

- Editorial Board, *Physical Geography*, Bellwether Publishing, 2009-
- Editorial Board, *Geography Compass*, Blackwell Publishing, 2006-
- Annual Reviewer for “Applied Climatology”, *Progress in Physical Geography*, 2006-2008.

Professional Service (cont'd):Reviewer of Books, Book Chapters, and Reports for:

- Cambridge University Press
- W. H. Freeman
- Guilford Press
- Indiana University Press
- Prentice-Hall
- Routledge
- John Wiley & Sons
- U.S. Forest Service

External Examiner/Reviewer for Ph.D. Theses:

- University of Otago (New Zealand), Department of Geography. Jan Jojzisek, "Rainfall variability in the South Island of New Zealand." Supervisor: Professor Blair Fitzharris, 2006.
- Indian Institute of Technology, Civil Engineering Department. Shiva Nagendra, "Modelling of vehicular exhaust emissions for assessing the air quality near urban roads using artificial neural networks." Supervisor: Professor Mukesh Khare, 1999-2003.
- Indian Institute of Technology, Civil Engineering Department. Prateek Sharma, "Air quality modelling for an urban road intersection of Delhi City." Supervisor: Professor Mukesh Khare, 1997-99.

External Reviewer for Tenure and/or Promotion:

- Boston University (Geography)
- Georgia State University (Geosciences)
- University of Colorado (Geography)
- University of Delaware (Mathematical Sciences)
- University of Georgia (Geography)
- University of Kansas (Geography)
- University of South Carolina (Geography)

University Service:

- Advisory Board, Office of Sustainability, 2009-present.
- Search Committee, Director of Sustainability, 2008-2009.
- Sustainability Task Force (Working Group on Education, Outreach and Student Engagement), 2007-2008.
- BSES (Bachelor of Science in Environmental Science) Program Committee, 2002-2008.
- Outstanding Junior Faculty Award Selection Committee, Dean of Faculties, 2003, 2004.
- Bloomington Faculty Council (BFC), 1997-99.
 - BFC, Associate Instructor Affairs Committee, 1997-99.
- Academic Computing Policy Committee (ACPC), 1996-97.
- ACPC planning committee on Computing for Scholarly Activities, 1997.
- Frequently consulted by faculty and graduate students in other programs (at IU and elsewhere) regarding the availability and use of climatic data.

College Service:

- Multidisciplinary Science Building II, Oversight Committee, 2008-2010.
- Summer Science Outreach Committee, 2001-02.
- COAS Dissertation Year Fellowship Selection Committee, Spring 1996.

Departmental Service:

- Chair, Department of Geography, July 2007-present
- Director of Undergraduate Studies, July 2007-present
- Acting Chair, Department of Geography, August-December 2006.
- Library Committee, 2006-present
- Chair, Atmospheric Science Program, 2003-2004.
- Acting Chair, Department of Geography, June 2003.
- Undergraduate Advisor and Chair of Undergraduate Committee, 1998-2002.
- Chair, Climate and Meteorology Program, 1997-98.
- Chair, Computer and Equipment Committee, 1992-96. Administrative responsibility for departmental equipment and computing facilities. Submission of proposals for New Computing Initiatives and Student Technology programs. During my stint as chair of this committee, funded technology proposals for the Department of Geography totaled over \$90,000.
- Computer and Equipment Committee, 1996-2003.
- Graduate Curriculum Committee, 1992-98.
- Minority Recruitment Committee, 1993-97.
- Salary Committee, 1994, 1998.
- Honors Committee, 1993, 2000.
- Advisor, Geography Club. Encouraged undergraduates to organize informational meetings, bring in speakers, raise funds, 1993-98.

Community Service:

- Scientific advisor for numerous (more than 20) programs of “A Moment of Science,” National Public Radio (WFIU).
- Scientific advisor for several (approximately 5) programs of “Earth and Sky,” National Public Radio.
- Regularly answer questions from the community regarding weather, climate, and availability of climatic data and information.

2 September 2009