

# **Nina Lam, Professor**

## **Department of Environmental Sciences**

### **0. Appointments**

2013-pres E.L. Abraham Distinguished Professor of Louisiana Environmental Studies, Department of Environmental Sciences, Louisiana State University  
 2007-10 Chair, Department of Environmental Sciences  
 2006- pres Professor, Department of Environmental Sciences, Louisiana State University  
 2007- pres Adjunct Professor, Dept. of Oceanography and Coastal Sciences, LSU  
 2006- pres Adjunct Professor, Dept. of Geography & Anthropology, LSU  
 1997-06 Richard J. Russell Louisiana Studies Distinguished Professor, Dept. of Geography & Anthropology, LSU  
 1999-01 Program Director, Geography and Regional Science Program, National Science Foundation  
 1994-97 Professor, Department of Geography and Anthropology, LSU  
 1994-97 Adjunct Professor, Department of Epidemiology and Community Health, LSU  
 1985-94 Associate Professor, Department of Geography and Anthropology, LSU  
 1991-94 Adjunct Associate Professor, Department of Epidemiology and Community Health, LSU  
 1980-85 Assistant Professor, Department of Geography, Ohio State University

### **1.1 History of Assignments**

50% teaching, 50% research, 9-month appointment

### **1.2 Teaching**

#### **1.2.1 Documentation of Teaching Activities**

##### **Courses Taught At LSU-Environmental Sciences (since Fall 2006):**

ENVS 4149 – Design of Environmental Management Systems  
 ENVS 7050 – Spatial Modeling of Environmental Data  
 ENVS 7900 – Special Problems in Environmental Sciences  
 ENVS 7975 – Integrated Environmental Issues  
 ENVS 8000, ENVS 9000, GEOG 9000

##### **Courses Taught At LSU-Geography (Fall 1985-Spring 2006):**

Teaching load – 2 courses per semester

Regular courses taught:

GEOG 4045 – Environmental Remote Sensing  
 GEOG 4047 – Geographic Information Systems  
 GEOG 4049 – Advanced Computer Cartography  
 GEOG 7935 – Quantitative Methods for Geographical Analysis  
 GEOG 7973 – Advanced GIS Seminar  
 GEOG 8000, GEOG 9000

## Graduate Student Advising:

### Theses and Dissertations Directed as Major Professor & Immediate Student Placement

#### PhD (19):

- Cai, Heng. 2017. Assessing and modeling community resilience to coastal hazards using a Bayesian network. (Postdoc, LSU)
- Zou, Lei. 2017. Mining social media data for improved understanding of disaster resilience. (Postdoc, LSU)
- Li, Kenan. 2015. A spatial dynamic model of population changes in a vulnerable coastal environment. (Postdoc, University of Southern California, Keck School of Medicine).
- Kulkarni, Amit. 2012. An object-based image analysis approach for detecting urban impervious surfaces (GIS company in Dallas)
- Arenas, Helbert. 2011. An Agent-based simulation model for business reopenings in New Orleans Post Hurricane Katrina (post-doc in France)
- Liang, Wei. 2009. *An integrated agent-based microsimulation model for hurricane evacuation in New Orleans*. (USGS Wetlands Research Center through ASci Corporation, Lafayette, LA)
- Ju, Wenxu. 2008. *A genetic Bayesian approach for texture-aided urban land-use/land-cover classification*. (ESRI, Redlands, CA)
- Wang, Fei. 2007. Land-cover and land-use study using genetic algorithms, petri nets, and cellular automata. (tenure-track assistant professor, Louisiana Tech University, Ruston)
- Vinnakota, Srinivas. 2006. *Socioeconomic characteristics of cancer mortality in the United States of America: A spatial data mining approach*. (ESRI, Redlands, CA)
- Zhou, Guiyun. 2006. *Detecting the socioeconomic conditions of urban neighborhoods through wavelet analysis of remotely sensed imagery*. (Post-doc, Cal. State LA, now professor, University of Electronic Science and Technology of China in Chengdu, Sichuan, China)
- Xiao, Ke. 2003. *Fractal compression and analysis of remotely sensed imagery*. (LSU Medical Center)
- Zhao, Wei. 2001. *Multiscale analysis for characterization of remotely sensed images*. (ESRI, Redlands, CA)
- Myint, Soe Win. 2001. *Wavelet analysis and classification of urban environment using high-resolution multispectral image data*. (tenure-track asst. professor, U Oklahoma; now Professor at Arizona State U)
- Ozdenerol, Esra. 2000. *A spatial inquiry of infant low birth weight and cancer mortality in East Baton Rouge Parish, Louisiana*. (tenure-track asst. professor, now Professor at U. Memphis)
- Bark, Mihye. 2000. *Cancer mortality and environment in Louisiana: A geographical inquiry*. (Louisiana Department of Economic Development)
- Read, Jane. 1999. *Land-cover change detection for the tropics using remote sensing and geographic information systems*. (tenure-track asst. Professor, now associate professor, Syracuse U)
- Cherukuri, Rajabhushanam. 1997. *Land/water interface delineation using neural networks*. (NASA contractors, MD)
- Weigel, Stephanie. 1996. *Scale, resolution and resampling: Representation and analysis of remotely sensed landscapes across scale in geographic information systems*. (Post-doc, Colorado State U)
- Cao, Changyong. 1994. *Detecting the scale and resolution effects in remote sensing and GIS*. (Naval office, Washington DC)

#### M.S. Environmental Sciences (10):

- Cheng, Weijia. 2016. *Effects of landscape fragmentation on land loss*.
- Li, Chi. 2013. *Community resilience to coastal hazards: An analysis of two geographical scales in Louisiana*.
- Mata, Lillian. 2013. *An analysis of the prevalence of the West Nile Virus in relation to health resilience*

*along the Gulf of Mexico.*

- Tran, Quang. 2011. *Estimating greenhouse gas emissions in Louisiana at the parish scale.*
- LaRock, Danielle. 2011. *Temporal Changes in Quality of Life and Environment in New Orleans after Hurricane Katrina.*
- Li, Kenan. 2011. *Temporal changes of coastal community resilience in the Gulf of Mexico region.*
- Smith, Rebekah. 2010. *Historic Sediment Accretion Rates in a Louisiana Coastal Marsh and Implications for Sustainability.* (Co-chair with Dr. Jaye Cable).
- Perera, Priyan. 2009. *An environmental justice assessment of the Mississippi River industrial corridor in Louisiana.* 2009. (non-thesis research paper only)
- Baker, Ariele. 2009. *Creating an empirically derived community resilience index of the Gulf of Mexico region.*
- Tyrna, Abby. 2008. *Wetland mitigation banks and the no-net-loss requirement: an evaluation of the Section 404 Permit program in southeast Louisiana.*

#### M.S. Geography (15):

- Qin, Xiaojun. 2009. *A social vulnerability-based genetic algorithm to locate/allocate transit bus stops for disaster evacuation in New Orleans, Louisiana.* (Geography)
- Challuri, Sainath. 2006. *An analysis of public transit accessibility using the distance constrained P-median problem approach: Bus stop consolidation for the Capital Area Transit System of East Baton Rouge Parish, Louisiana.* (Geography)
- Kulkarni, Amit. 2004. *Evaluation of the impacts of Hurricane Hugo on the land cover of Francis Marion National Forest, South Carolina using remote sensing.* (Geography)
- DeWeese, Georgina. 2001. *Bottomland forest reconstruction and classification using General Land Office Surveys, remote sensing, and geographic information systems.* (Geography)
- Feng, WeiWen. 1998. *Predicting the spread of AIDS using artificial neural networks.* (Geography)
- Nicholas, Dennis. 1998. *Measuring development in the Lower Mississippi Delta: an integrated environmental approach.* (Geography)
- Hou, Ren-Rong. 1998. *A local-level approach in detecting scale effects on landscape indices.*
- Hupp, Robert. 1997. *Hazards analysis of extremely hazardous substance transport in Northwest Louisiana.* (Geography)
- Duvic, Lisa. 1996. *Evaluation of location-allocation analysis and GIS for site selection of potential Louisiana state parks.* (Geography)
- Dia, Ibrahima. 1996. *Assessing agricultural suitability of Senegalese landscape using GIS.* (Geography)
- Cherukuri, Rajabhushanam. 1994. *Evaluation of methods for the delineation of land/water conditions using AVHRR imagery.* (Geography)
- Campanella, Richard. 1993. *Mapping and measuring the cloud forests of Honduras for effective delimitation as natural reserves.* (Geography)
- Graham, Keith. 1987. *Conversion of the Louisiana Railroad Safety Information System to a geographic information system using the Intergraph computer system.* (Geography)
- Kuchar, Victor. 1984. *Line generalization: A comparison of three methods.* (at OSU) (Geography)
- Jiang, Ruo-Shan. 1984. *An evaluation of three curve generation methods.* (at OSU) (Geography)

#### Master of Engineering Sciences (As Co-chair) (3):

Eragani, Anuradha 2003; Kambalapally, Swathi 2002; Sagari, Vijay 2002

#### Master of Natural Sciences MNS (2):

Hampton Peele; Xiaoyun Kan 2004

I am presently serving as a major professor for 2 Ph.D. (Volodymyr Mihunov, Rachel Correll) and 1 M.S.

student (Kejin Wang) in Environmental Sciences.

Since 1980, I have served as a co-advisor, minor professor, and/or committee member for over 300 Masters and Ph.D. students in both Ohio State University and Louisiana State University.

### **Awards, lectureships or prizes that show recognition of teaching achievement**

- 2016 The Inaugural 2016 Carolyn Merry Mentoring Award, UCGIS
- 2016 The UCGIS Fellow Award, UCGIS
- 2011 Outstanding Faculty Research Award, School of the Coast & Environment, LSU
- 2010 LSU Distinguished Research Master
- 2008 LSU Rainmaker (Top 100 research and creative faculty at LSU)
- 2006 LSU Distinguished Faculty Award
- 2004 Outstanding Contributions in Remote Sensing Award, AAG Remote Sensing Specialty Group (for outstanding contributions to the field of remote sensing and to the geographic community through his/her remote sensing research, teaching, and outreach)
- 1980- 3 PhD students landed in doctoral granting departments as tenure-track assistant professors (Syracuse University, Arizona State University, University of Memphis)
- 1993- Mentored one PhD student to obtain a 4-year NASA graduate fellowship (Stephanie Weigel)  
Mentored five PhD students to compete and successfully acquire NSF Dissertation Research Grants (Jane Read, Guiyun Zhou, Wenxue Ju, Wei Liang, Helbert Arenas)

### **1.2.7 Research Support/Grant Activities aimed at advancing one's ability to teach**

(Note: some of the grants are also listed in the Research section because they also serve to increase research ability)

- Leitner M. and others 2017. Geospatial data collection technology for the social-, natural-, environmental-, and engineering sciences. LSU Student Technology Fee (STF) Program. \$69,077.
- Voyiadjis G. and others. 2016. Acquisition of gravimetric instrumentation in support of a new quasigeoid model for accurate elevations in Louisiana. Louisiana Board of Regents. \$153,000.
- Hooper-Bui L (PI), Armbrust K, **Lam NSN**, Lomnicki S, Reams M, Wilson V. 2016-2019. LSU-LSU Health Sciences Center Partnership for Undergraduate, Graduate, and Postdoctoral Mentored, Environmental Health Sciences Research Opportunities with EPA Scientists. \$2 million.
- Reynolds A, Zeynep A, Brown P. Environmental communication for coastal Louisiana. 2013. LSU Coastal Sustainability Studio. \$11,220. 08/01-13-07/31/14.
- Lam NSN**. 2004-2008. Understanding and measuring regional economic development using and integrated spatial data mining approach. Economic development assistantship to support a PhD student for four years. Funded by LSU Office of Research and Graduate Studies. Total: \$100,000
- Lam NSN**, Leitner M, Curtis A, Braud D, Lewis A. 2002. A proposal to enhance research and instruction in geographic information science at LSU. Funded by LSU-CAPITAL, \$100,000.
- Curtis A, **Lam NSN**, Leitner M, Anderson J. 2002. Funded by LSU Tech. Fee, primarily to upgrade facilities in the Computer Mapping Sciences Laboratory and the Map Library. \$47,342.
- McKillop, H., et al. 1994-1995. Mapping the past: archaeological field equipment to record spatial and temporal information. Louisiana Board of Regents. Approx: \$14,000. I am one of the investigators.
- National Resource Center Grant from the U.S. Department of Education at the Ohio State University. 1981. \$140,000 est. for the first year. My role was to develop a new course on Geography of

China.

## 1.2 Research and Creative Activity

### 1.3.1 Research Publications

#### **Books:**

Quattrochi DA, Wentz E, **Lam NSN**, Emerson CW. Eds. 2017. *Scale in Remote Sensing and GIScience Applications*. New York: Routledge. 401p.

**Lam NSN** and De Col L, eds. 2002. *Fractals in Geography*. Caldwell, NJ: The Blackburn Press. 308p. (A reprint of the 1993 edition).

**Lam NSN** and De Cola L, eds. 1993. *Fractals in Geography*. Englewood Cliffs, NJ: Prentice Hall. 308p.

#### **Book Chapters, Articles in Refereed Journals:**

\* refers to the students/post-doc of whom I was/am major advisor/sponsor.

103. **Lam NSN**, \*Cheng W, \*Zou L, \*Cai H. 2018. Effects of landscape fragmentation on land loss. *Remote Sensing of Environment* 209:253-262.
102. **Lam NSN**, \*Qiang Y, \*Li K, \*Cai H, \*Zou L, \*Mihunov V. 2018. Extending resilience assessment to dynamic system modeling: Perspectives on human dynamics and climate change research. In Shim JS, Chun I, Lim H. eds. Proceedings from the International Coastal Symposium (ICS)2018 (Busan, Republic of Korea). *Journal of Coastal Research*, Special Issue No. 85, pp. xxx-xxx. Coconut Creek (Florida), ISSN 0749—208.
101. \*Zou L, **Lam NSN**, \*Cai H, \*Qiang Y. 2018. Mining Twitter data for improved understanding of disaster resilience. *Annals of the American Association of Geographers*. DOI: 10.1080/24694452.2017.1421897
100. \*Cai H, **Lam NSN**, \*Zou L, \*Qiang Y. 2018. Modeling the dynamics of community resilience to coastal hazards using a Bayesian network. *Annals of the American Association of Geographers*. DOI: 10.1080/24694452.2017.1421896.
99. \*Li K, **Lam NSN**. 2018. Geographically weighted elastic net: A variable-selection and modeling method under the spatially nonstationary condition. *Annals of the American Association of Geographers*. DOI: 10.1080/24694452.2018.1425129
98. \*Li K, **Lam NSN**. 2018. A spatial dynamic model of population changes in a vulnerable coastal environment. *International Journal of Geographical Information Science*, 32(4): 685-710. DOI: 10.1080/13658816.2017.1407415.
97. \*Mihunov V, **Lam NSN**, \*Zou L, Rohli RV, Bushra N, Reams MA, Argote J. 2018. Community Resilience to Drought Hazard in South-Central United States. *Annals of the American Association of Geographers*, 108 (3): 739-755. DOI: 10.1080/24694452.2017.1372177.
96. \*Qiang Y, **Lam NSN**, \*Cai H, \*Zou L. 2017. Changes in exposure to flood hazards in the United States. *Annals of the American Association of Geographers* 107(6):1332-1350.
95. \*Li X, \*Zheng W, **Lam NSN**, Wang D, Yin L, Yin Z. 2017. Impact of land use on urban water-logging disaster: A case study of Beijing and New York cities. *Environmental Engineering and Management Journal*, 16(5), 1211-1216.
94. Reams MA, Harding AK, Subra W, **Lam NSN**, O'Connell G, Tidwell L, Anderson KA. 2017. Response, recovery, and resilience to oil spills and environmental disasters: Exploration and use of novel approaches to enhance community resilience. *Journal of Environmental Health* 80(2):8-15.
93. **Lam NSN**. 2017. Fractal analysis. *The International Encyclopedia of Geography: People, the*

- Earth, Environment, and Technology*. Edited by D. Richardson.
92. **Lam NSN**. 2017. Areal interpolation. *The International Encyclopedia of Geography: People, the Earth, Environment, and Technology*. Edited by D. Richardson.
  91. \*Li X, **Lam NSN**, \*Qiang Y, \*Li K, Yin L, Liu S, \*Zheng W. 2016. Measuring county resilience after the 2008 Wenchuan earthquake. *International Journal of Disaster Risk Science*. DOI 10.1007/s13753-016-0109-2. 20p.
  90. Rohli RV, Bushra N, **Lam NSN**, \*Zou L, \*Mihunov V, Reams MA, Argote JE. 2016. Drought indices as drought predictors in the south-central USA. *Natural Hazards*. DOI 10.1007/s11069-016-2376-z.
  89. Twilley RR, Bentley SJ, Chen Q, Edmonds DA, Hagen SC, **Lam NSN**, Willson CS, Xu KH, Braud D, Peele H, McCall A. 2016. Co-evolution of wetland landscapes, flooding and human settlement in the Mississippi River Delta Plain. *Sustainability Science*. DOI 10.1007/s11625-016-0374-4.
  88. \*Qiang Y, **Lam NSN**. 2016. The impact of Hurricane Katrina on urban growth in Louisiana: an analysis using data mining and simulation approaches. *International Journal of Geographical Information Science*. <http://dx.doi.org/10.1080/13658816.2016.1144886>.
  87. Paille M, Reams M, Argote J, **Lam NSN**, Kirby R. 2016. Influences on adaptive planning to reduce flood risks among parishes in South Louisiana. *Water* 8, 51, doi:10.3390/w8020057.
  86. \*Cai H, **Lam NSN**, \*Zou L, \*Qiang Y, \*Li K. 2016. Assessing community resilience to coastal hazards in the Lower Mississippi River Basin. *Water* 8(2), 46, doi:10.3390/w8020046. 18p.
  85. \*Zou L, Kent J, **Lam NSN**, \*Cai H, \*Qiang Y, \*Li K. 2016. Evaluating land subsidence rates and their implications for land loss in the Lower Mississippi River Basin. *Water* 8(1); doi:10.3390/w8010010. 15p.
  84. Bianchette T, Liu KB, \*Qiang Y, **Lam NSN**. 2016. Wetland accretion rates along coastal Louisiana: Spatial and temporal variability in light of Hurricane Isaac's impacts. *Water* 8(1); doi:10.3390/w8010000. 16p.
  83. **Lam NSN**, Reams M, \*Li K, \*Li C, \*Mata L. 2016. Measuring community resilience to coastal hazards along the Northern Gulf of Mexico. *Natural Hazards Review* 17(1):04015013.
  82. \*Li K, **Lam NSN**, \*Qiang Y, \*Zou L, \*Cai H. 2015. A cyberinfrastructure for community resilience assessment and visualization. *Cartographic and Geographic Information Science* 42:sup1, 34-39, DOI: 10.1080/15230406.2015.1060113.
  81. Leitner M, **Lam NSN**, Wang F, Wang L, Meng S, Kent J. 2015. Geographic information science and technology at Louisiana State University. *Cartography and Geographic Information Science* 42:sup1, 84-90, DOI: 10.1080/15230406.2015.1059255
  80. **Lam NSN**, \*Qiang Y, \*Arenas H, \*Brito P, and Liu KB. 2015. Mapping and assessing coastal resilience in the Caribbean region. *Cartography and Geographic Information Science*. 42:4, 315-322. DOI: 10.1080/15230406.2015.1040999.
  79. \*Liang W, **Lam NSN**, \*Qin X, \*Ju W. 2015. A two-level agent-based model for hurricane evacuation in New Orleans. *Journal of Homeland Security & Emergency Management*. ISSN (Online) 1547-7355, ISSN (Print) 2194-6361, DOI: 10.1515.jhsem-2014-0057, March 2015.
  78. \*Qiang Y, **Lam NSN**. 2015. Modeling land use and land cover changes in a vulnerable coastal region using artificial neural networks and cellular automata. *Environmental Monitoring and Assessment* 187:57. doi 10.1007/s10661-015-4298-8.
  77. **Lam NSN**. 2015. Fractal representation. In *Cartography in the Twentieth Century, Volume Six of History of Cartography*, edited by M. Monmonier. Chicago: The University of Chicago Press.
  76. \*Perera PKP, **Lam NSN**. 2014. An environmental justice assessment of the Mississippi River industrial corridor in Louisiana, U.S. using a GIS-based approach. *Applied Ecology and Environmental Research* 11(4): 681-697.
  75. **Lam NSN**, \*Arenas H, \*Brito P, Liu KB. 2014. Assessment of vulnerability and adaptive capacity to coastal hazards in the Caribbean region. *Journal of Coastal Research, Special Issue* 70, 473-478.

74. Liu KB, McCloskey TA, Blanchette TA, Keller G, **Lam NSN**, Cable JE, Arriola J. 2014. Hurricane Isaac storm surge deposition in a coastal wetland along Lake Pontchartrain, Southern Louisiana. *Journal of Coastal Research, Special Issue* 66, 266-271.
73. Nyerges T, Roderick M, Prager S, Bennett D, **Lam NSN**. 2014. Foundations of sustainability information representation theory: spatial-temporal dynamics of sustainable systems. *International Journal of Geographic Information Science* 28(5): 1165-1185.
72. \*Zheng W, \*Li X, **Lam NSN**, Wang X, Liu S, Yan J, Sun Z. 2013. Analysis of the geologic features and high-precision magnetic prospecting results of Jinsha Ruins. *Journal of Applied Sciences* 13(21): 4773-4781.
71. \*Zheng W, \*Li X, **Lam NSN**, Wang X, Sun Z, Liu S, Yao J. 2013. Application of multi-frequency electromagnetic profiling in studying the distribution of bronze in Jinsha Ruin Worship. *International Journal of Smart Sensing and Intelligent Systems* 6(2):733-751.
70. Reams MA, **Lam NSN**, Cale TM, Hinton CM. 2013. Applying a community resilience framework to examine household emergency planning and exposure-reducing behavior among residents of Louisiana's industrial corridor. *Journal of Emergency Management* 11(2): 108-120.
69. \*Zheng W, \*Li X, **Lam NSN**, Wang X, Liu S, Yu X, Sun Z, Yao J. 2013. Applications of integrated geophysical method in archaeological surveys of the ancient Shu Ruins. *Journal of Archaeological Science* 40:166-175.
68. \*Zheng W, \*Li X, **Lam NSN**, Wang X, Liu S, Sun Z. 2012. GIS application in archaeological synthesis detection system of Jinsha Ruins. *Journal of Convergence Information Technology* 7(23):460-467.
67. Reams MA, **Lam NSN**, \*Baker A. 2012. Measuring capacity for resilience among coastal counties of the U.S. Northern Gulf of Mexico Region. *American Journal of Climate Change* 1:194-204.
66. Reams MA, Clinton KW, **Lam NSN**. 2012. Achievement of climate planning objectives among U.S. member cities of the International Council for Local Environmental Initiatives. *Low Carbon Economy* 3:137-143.
65. **Lam NSN**, Kemp KK. 2012. Editorial, Reflections on geographic information science: special issue in honor of Michael Goodchild. *International Journal of Geographic Information Science* 26(12):2193-2196.
64. **Lam NSN**, \*Arenas H, Pace RK, LeSage JP, \*Campanella R. 2012. Predictors of Business Return in New Orleans after Hurricane Katrina. *PLoS One* 7(10): e47935. doi:10.1371/journal.pone.004793.
63. **Lam NSN**. 2012. Geospatial methods for reducing uncertainties in environmental health risk assessment: challenges and opportunities. *Annals of the Association of American Geographers* 102(5):942-950.
62. LeSage JP, Pace RK, **Lam NSN**, \*Campanella R, Liu X. 2011. Do what the neighbors do: reopening businesses after Hurricane Katrina. *Significance* 8(4) 160-163.
61. LeSage JP, Pace RK, **Lam NSN**, \*Campanella R, Liu X. 2011. New Orleans business recovery in the aftermath of Hurricane Katrina. *Journal of Royal Statistics Society A* 174, Part 4: 1007-1027.
60. LeSage JP, Pace RK, **Lam NSN**, \*Campanella R. 2011. Space-time modeling of natural disaster impacts. *Journal of Economic and Social Measurement* 36:169-191.
59. **Lam NSN**, Liu KB, \*Liang W, Blanchette TA, Platt WJ. 2011. Effects of hurricanes on the Gulf Coast Ecosystems: A remote sensing study of land cover change around Weeks Bay, Alabama. *Journal of Coastal Research, Special Issue* 64: 1707-1711.
58. \*Shu Y, **Lam NSN**. 2010. Spatial disaggregation of carbon dioxide emissions from road traffic based on multiple linear regression model. *Atmospheric Environment* (2010), doi:10.1016/j.atmosenv.2010.10.037.
57. \*Shu Y, **Lam NSN**, Reams M. 2010. A new method for estimating carbon dioxide emissions from transportation at fine spatial scales. *Environmental Research Letters* 5 (2010) 044008 (9pp),

- doi:10.1088/1748-9326/5/4/044008.
56. **Lam NSN**, Pace K, \*Campanella R, LeSage J, \*Arenas H. 2009. Business return in New Orleans: Decision making amid post-Katrina uncertainty. *PLoS One* 4(8):e6765. doi:10.1371/Journal.pone.0006765.
  55. **Lam NSN**. 2009. Fractal analysis. In Kitchin R, Thrift N (eds) *International Encyclopedia of Human Geography*. Volume 4, pp. 263-270. Oxford: Elsevier.
  54. **Lam NSN**. 2009. Spatial interpolation. In Kitchin R, Thrift N (eds) *International Encyclopedia of Human Geography*. Volume 10, pp. 369-376. Oxford: Elsevier.
  53. **Lam NSN**, \*Arenas H, \*Li Z, Liu KB. 2009. An estimate of population impacted by climate change along the U.S. coast. *Journal of Coastal Research*, Special Issue 56:1522-1526.
  52. Bianchette TA, Liu KB, **Lam NSN**, Kiage LM. 2009. Ecological impacts of Hurricane Ivan on the Gulf Coast of Alabama: A remote sensing study. *Journal of Coastal Research*, Special Issue 56:1622-1626.
  51. \*Ju W, **Lam NSN**. 2009. An improved algorithm for computing local fractal dimension using the triangular prism method. *Computers & Geosciences* 35:1224-1233.
  50. **Lam NSN**, \*Zhou GY, \*Ju W. 2008. Relating visual changes in images with spatial metrics. In *Understanding Dynamics of Geographic Domains*. Yuan M. and K. Hornsby, eds. Taylor & Francis, chapter 7, pp.115-130.
  49. **Lam NSN**. 2008. Methodologies for mapping land cover/land use and its change. *Advances in Land Remote Sensing: System, Modeling, Inversion and Application*. Liang, S. eds. Springer, Chap. 13.
  48. \*Zhou GY, **Lam NSN**. 2008. Reducing edge effects in the classification of high-resolution imagery. *Photogrammetric Engineering and Remote Sensing* 74(4):431-441.
  47. \*DeWeese GG, Grissino-Mayer HD, **Lam N**. 2007. Historical land-use/land-cover changes in a bottomland hardwood forest, Bayou Fountain, Louisiana. *Physical Geography* 28(4):345-349.
  46. Kiage L, Liu KB, Walker N, **Lam NSN**, Huh O. 2007. Recent land-cover/use change associated with land degradation in the Lake Baringo catchment, Kenya, East Africa: evidence from Landsat TM and ETM+. *International Journal of Remote Sensing* 28(19):1-25.
  45. Emerson CW, Chinniah S, **Lam NSN**, Quattrochi DA. 2007. Spatial and grayscale metadata for similarity searches of image databases. *GIScience & Remote Sensing* 44(2):182-201.
  44. \*Myint S, Mesev V, **Lam NSN** 2006. Urban textural analysis from remote sensor data: lacunarity measurements based on the differential box counting method. *Geographical Analysis* 34(4):371-390.
  43. \*Vinnakota S, **Lam NSN**. 2006. Socioeconomic inequality of cancer mortality in the United States: a spatial data mining approach. *International Journal of Health Geographics* 5:9.
  42. \*Ju W, **Lam NSN**, Chen J. 2006. Application of Kohonen self-organizing map for urban structure analysis. *Proceedings of IEEE Granular Computing* (refereed).
  41. Ridd M, et al. 2006. Documenting dynamics of human settlements, Chapter 10. *Remote Sensing of Human Settlements. Manual of Remote Sensing*, Vol. 4, John Wiley & Sons. (Lam was one of the authors).
  40. \*Myint SW, **Lam NSN**. 2005. A study of lacunarity-based texture analysis approaches to improve urban image classification. *Computers, Environment, Urban Systems* 29: 501-523.
  39. \*Zhou GY, **Lam NSN**. 2005. A comparison of fractal dimension estimators based on multiple surface generation algorithms. *Computers & Geosciences* 31:1260-1269.
  38. \*Myint SW, **Lam NSN**. 2005. Examining lacunarity approaches in comparison with fractal and spatial autocorrelation techniques for urban mapping. *Photogrammetric Engineering and Remote Sensing* 71(8):927-937.
  37. Emerson CW, **Lam NSN**, Quattrochi DA. 2005. A comparison of local variance, fractal dimension, Moran's I as aids to multispectral image classification. *International Journal of Remote Sensing*



- 26(8): 1575-1588.
36. **Lam NSN**, Catts D, McMaster R, Quattrochi D, Brown D. 2004. Scale. In *A Research Agenda for Geographic Information Science*, McMaster R, Ustry L, eds., Chapter 4, pp. 93-128. Bacon Raton, FL: CRC Press.
  35. \*Myint SW, **Lam NSN**, Tyler JM. 2004. Wavelet for urban spatial feature discrimination: comparisons with fractals, spatial autocorrelation, spatial co-occurrence approaches. *Photogrammetric Engineering and Remote Sensing* 70(8):803-812.
  34. **Lam NSN**, Emerson C, Quattrochi D. 2004. Quantitative spatial analysis of remotely sensed imagery. In *WorldMinds: Geographical Perspectives on 100 Problems*, Janelle DG, Warf B, Hansen K, eds., pp. 559-564. Dordrecht, Netherlands: Kluwer Academic Publishers.
  33. \*Ozdenerol E, **Lam NSN**. 2004. Detecting Spatial Clusters of Cancer Mortality in East Baton Rouge Parish, Louisiana. In *WorldMinds: Geographical Perspectives on 100 Problems*, Janelle DG, Warf B, Hansen K, eds., pp. 75-80. Dordrecht, Netherlands: Kluwer Academic Publishers.
  32. **Lam NSN**. 2004. Fractals and scale in environmental assessment and monitoring. In *Scale and Geographic Inquiry: Nature, Society, Method*, Sheppard E, McMaster R, eds., Chapter 1. Oxford, UK: Blackwell Publishing.
  31. \*Myint SW, **Lam NSN**, Tyler J. 2002. An evaluation of four different wavelet decomposition procedures for spatial feature discrimination in urban area. *Transactions in GIS* 6(4):403-429.
  30. **Lam NSN**, Qiu HL, Quattrochi DA, Emerson CW. 2002. An evaluation of fractal methods for characterizing image complexity. *Cartography and Geographic Information Science* 29(1):25-35.
  29. \*Read JM, **Lam NSN**. 2002. Spatial methods for characterizing land-cover changes for the tropics. *International Journal of Remote Sensing* 23(12):2457-2474.
  28. Quattrochi DA, Emerson CW, **Lam NSN**, Qiu HL. 2001. Fractal characterization of multitemporal remote sensing data. In *Modelling Scale in Geographical Information Science*, Tate N, Atkinson P, eds., pp. 13-34.
  27. **Lam NSN**. 2001. Spatial analysis for reducing uncertainties in human health risk assessment. *Acta Geographica Sinica* (in Chinese) 56(2):239-247.
  26. Emerson CW, **Lam NSN**, Quattrochi DA. 1999. Multiscale fractal analysis of image texture and pattern. *Photogrammetric Engineering and Remote Sensing* 65(1):51-61.
  25. Qiu HL, **Lam NSN**, Quattrochi DA, Gamon JA. 1999. Fractal characterization of hyperspectral imagery. *Photogrammetric Engineering and Remote Sensing* 65(1):63-71.
  24. **Lam NSN**, Quattrochi DA, Qiu HL, \*Zhao W. 1998. Environmental assessment and monitoring with image characterization and modeling system using multiscale remote sensing data. *Applied Geographic Studies* 2(2):77-93.
  23. \*Cao CY, **Lam NSN**. 1997. Understanding the scale and resolution effects in remote sensing and GIS. In *Scaling in Remote Sensing and GIS*, D. Quattrochi and M. Goodchild, eds., pp. 57-72. Boca Raton, Florida: CRC/Lewis Publishers.
  22. Quattrochi DA, **Lam NSN**, Qiu HL, \*Zhao W. 1997. Image characterization and modeling system (ICAMS): A geographic information system for the characterization and modeling of multiscale remote sensing data. In *Scaling in Remote Sensing and GIS*, D. Quattrochi and M. Goodchild, eds., pp. 295-307. Boca Raton, Florida: CRC/Lewis Publishers.
  21. Quiroga CA, Singh VP, **Lam NSN**. 1996. Land-use hydrology. In *Geographical Information Systems in Hydrology*, V. P. Singh and M. Fiorentino, eds., pp. 389-414. Netherlands: Kluwer Academic Publishers.
  20. **Lam NSN**, Liu KB. 1996. Use of space-filling curves in generating a national rural sampling frame for HIV/AIDS research. *The Professional Geographer* 48(3):321-332.
  19. **Lam NSN**, \*Fan M, Liu KB. 1996. Spatial-temporal spread of the AIDS epidemic: A correlogram analysis of four regions of the United States. *Geographical Analysis* 28(2):93-107.
  18. **Lam NSN**, Liu K B. 1994. Spread of AIDS in rural America, 1982-1990. *Journal of Acquired*

- Immune Deficiency Syndrome* 7:485-490.
17. **Lam NSN**, De Cola L. 1993. Fractal measurement. In *Fractals in Geography*, Lam NSN and De Cola L, eds, pp. 23-55. Englewood Cliffs, NJ: Prentice Hall.
  16. **Lam NSN** and De Cola L. 1993. Fractal simulation and interpolation. In *Fractals in Geography*, Lam NSN and De Cola L, eds, pp. 56-74. Englewood Cliffs, NJ: Prentice Hall.
  15. De Cola L, **Lam NSN**. 1993. Introduction to fractals in geography. In *Fractals in Geography*, Lam NSN and De Cola L, eds., pp. 3-22. Englewood Cliffs, NJ: Prentice Hall.
  14. De Cola L, **Lam NSN**. 1993. A fractal paradigm for Geography? In *Fractals in Geography*, Lam NSN and De Cola L, eds, pp. 75-83. Englewood Cliffs, NJ: Prentice Hall.
  13. **Lam NSN**, Qiu HL, Zhao R, \*Jiang N. 1993. A fractal analysis of cancer mortality patterns in China. In *Fractals in Geography*, Lam NSN and De Cola L, eds, pp. 247-261. Englewood Cliffs, NJ: Prentice Hall.
  12. Jaggi, S, Quattrochi D, **Lam NSN**. 1993. Implementation and operation of three fractal measurement algorithms for analysis of remote sensing data. *Computers and Geosciences* 19(6):745-767.
  11. **Lam NSN**, Qiu HL. 1992. The fractal nature of the Louisiana coastline. In *Geographical Snapshots of North America*, Janelle DG, ed., pp. 270-274. New York: The Guilford Press.
  10. **Lam NSN**, Quattrochi DA. 1992. On the issues of scale, resolution, fractal analysis in the Mapping Sciences. *The Professional Geographer* 44(1):89-99.
  9. Quattrochi DA, **Lam NSN**. 1991. Perspectives on integrating multiscale, multitemporal remote sensing data with geographic information systems. In *Proceedings: The Integration of Remote Sensing and Geographic Information Systems*, J. L. Star, ed., pp. 151-163. Bethesda, MD: American Society for Photogrammetry and Remote Sensing.
  8. Davis FW, Quattrochi DA, Ridd M K, **Lam NSN**, Walsh SJ, Michaelsen JC, Franklin J, Stow DA, Johannsen C J, Johnston CA. 1991. Environmental analysis using integrated GIS and remotely sensed data: Some research needs and priorities. *Photogrammetric Engineering and Remote Sensing* 57(6):689-697.
  7. McBride RA, Davis DW, Jones FW, Braud Jr. D, Lewis AJ, Streiffer HR, Penland S, **Lam NSN**, Williams SJ. 1990. Louisiana Coastal Geographic Information System Network (LCGISN). *Meridian* 5:57-59.
  6. **Lam NSN**. 1990. Description and measurement of Landsat-TM images using fractals. *Photogrammetric Engineering and Remote Sensing* 56(2):187-195.
  5. **Lam NSN**. 1986. Geographical patterns of cancer mortality in China. *Social Science and Medicine* 23(3):241-247.
  4. Liu KB, **Lam NSN**. 1985. Paleovegetational reconstruction based on modern and fossil pollen data: An application of discriminant analysis. *Annals of the Association of American Geographers* 75(1):115-130.
  3. **Lam NSN**. 1983. Spatial interpolation methods: A review. *The American Cartographer* 10(2):129-149.
  2. Goodchild MF, **Lam NSN**. 1980. Areal interpolation: A variant of the traditional spatial problem. *GeoProcessing* 1:297- 312.
  1. Goodchild MF, **Lam NSN**, Radke J. 1979. An approach to the study of nodal growth. *Canadian Journal of Regional Science* 2(1):67- 76.

### **Contributed Books:**

- Xu YJ, **Lam NSN**, Liu KB. Eds. 2016. A special issue on Resilience and Sustainability of the Mississippi River Delta as a Coupled Natural-Human System. *Water* (forthcoming).
- Lam NSN**, Kemp K, eds. 2012. A special issue on Reflections on Geographic Information Science:

- Papers in Honor of Michael Goodchild. *International Journal of Geographic Information Science* 26 (12):2193-2196.
- National Research Council. 2012. *Effective Tracking of Building Energy Use: Improving the Commercial Buildings and Residential Energy Consumption Surveys*. Panel on Redesigning the Commercial Building and the Residential Energy Consumption Surveys W.F. Eddy and K. Marton eds. Washington, DC: The National Academies Press. (Lam was on the committee and contributed to writing the book).
- Committee on Review of GIS Research and Applications at Housing and Urban Development, National Research Council. 2003. *GIS for Housing and Urban Development*. Washington, DC: The National Academies Press. (Lam was on the committee and contributed to writing the book).
- Committee on Earth System Science for Decisions about Human Welfare: Contributions of Remote Sensing, National Research Council. 2008. *Contributions of Land Remote Sensing for Decisions about Food Security and Human Health*. Washington, DC: The National Academies Press. (Lam was on the committee and contributed to writing the book).

### **Book/Software Reviews in Refereed Journals:**

- Lam NSN.** 2003. Book review on "Geographic Information Systems and Science" by Longley PA, Goodchild MF, Maguire DJ, Rhind DW, 2001. In *Annals of the Association of American Geographers* 93(1):259-261.
- Lam NSN.** 1997. Software review on SURFER. *Geo Info Systems* November 1997.
- Lam NSN.** 1994. Book review on "The Slow Plague: A Geography of the AIDS Pandemic" by Gould P, 1993. In *The Professional Geographer* 46(3):394-395.
- Lam NSN.** 1994. Book review on "An Introduction to Applied Geostatistics" by Isaaks EH, Srivastava RM, 1989. In *Geographical Analysis* 26(3):282-283.
- Lam NSN.** 1991. Software Review on "Atlas\*MapMaker, Version 4.0, 1989". In *The Professional Geographer* 43(3):363-364.
- Lam NSN.** 1989. Book review on "Thailand in Maps - Application of the Mapping System THEMAK2 to Atlas Cartography", by Bollmann J, et al., 1988. In *The American Cartographer* 16(4):300-301.
- Lam NSN.** 1989. Book review on "Geographical Systems and Systems of Geography - Essays in Honor of William Warntz", Coffey W, ed., 1988. In *Annals of the Association of American Geographers* 79(3):464-466.
- Lam NSN.** 1989. Book review on "Computers and the Representation of Geographical Data," by Shiryaev EE, translated by David VM, Protsenko NN, Rajabov YU, 1987. In *The Professional Geographer* 41(1):116-117.
- Lam NSN.** 1988. Book review on "Statistical Methods for Geographers," by Clark WAV, Hosking PL, 1986. In *The American Cartographer* 15(2):222-223.
- Lam NSN.** 1986. Book review on "Statistical Techniques in Geographical Analysis," by Shaw G, Wheeler D, 1985. In *The Professional Geographer* 38(1):124-125.
- Lam NSN.** 1984. Book review on "Statistical Applications in the Spatial Sciences," ed. Wrigley N, 1979. In *The American Cartographer* 11(1):89-90.

### **Other Publications:**

- Lam NSN.** 2017. Americans who live far from coasts should also be worried about flooding. *Conversation*, August 28, 2017. <http://theconversation.com/americans-who-live-far-from-coasts-should-also-be-worried-about-flooding-81012>
- Lam NSN.** 2017. Moving away from the coasts doesn't mean you're safe from flooding. The

- Washington Post. August 28, 2017.  
[https://www.washingtonpost.com/news/posteverything/wp/2017/08/29/moving-away-from-the-coasts-doesnt-mean-youre-safe-from-flooding/?utm\\_term=.b1852eebfccce](https://www.washingtonpost.com/news/posteverything/wp/2017/08/29/moving-away-from-the-coasts-doesnt-mean-youre-safe-from-flooding/?utm_term=.b1852eebfccce)
- Shelberg M, **Lam NSN**, Moellering H. 2014. Fractals 30 Years After: A Retrospective of “Measuring the Fractal Dimensions of Surfaces”. In *Auto-Carto Six Retrospective*, ed. Wellar B., University of Ottawa, pp. 134-140.
- Lam NSN**, Arenas H, Liu KB, Brito P. 2009. Assessing the coastal population at risk to sea level rise in the Caribbean Region. *Proceedings of the International Cartographic Conference*, Santiago, Chile. November 20, 2009.
- Brito PL, Arenas H, **Lam NSN**, Quintanilha JA. 2008. Recognition of urban patterns related to leptospirosis contamination risks using object based classification of aerial photography. Test areas: informal settlements of the railroad suburb of Salvador, Brazil. *Proceedings of IEEE International Geoscience And Remote Sensing Symposium (IGARSS 2008)*. Boston.
- Ju W, **Lam NSN**. 2007. Urban land use classification: Applying texture analysis and artificial intelligence. *Imaging Notes* 22(3):26-30.
- Arumugam M, Emerson CW, **Lam NSN**, Quattrochi QA. 2003. Classifying urban land covers using local indices of spatial complexity. *American Society for Photogrammetry and Remote Sensing Annual Conference Proceedings*, Anchorage, Alaska.
2002. *Strategic Plan for the Climate Change Program*. (I am one of the contributors for Chapter 8: Land use and land cover change). Published by the US Climate Change Science Program, Washington, DC (also available at <http://www.climatechange.gov>).
- Lam NSN**. 2001. Characterizing urban and related thermal land surface processes from high resolution remote sensing data using fractal and scale analysis. NASA Research Reports – 1998 NASA/ASEE Summer Fellowship Program, pp. XXIII-1 to -6.
- Lam NSN**. 1998. Geolibrary and statewide electronic atlas. Distributed Geolibraries Workshop Contributed White Papers, National Research Council (also available at <http://www2.nas.edu/besr/230a.html>).
- Lam NSN**. 1998. Scale and digital earth. Contributions of the UCGIS ten research priorities to Digital Earth. Also available at <http://www.ncgia.ucsb.edu/~good/ucgisde.html>.
- Lam NSN**, Qiu HL, Quattrochi D. 1997. An evaluation of fractal surface measurement methods using ICAMS (Image Characterization And Modeling System). *Technical Papers, ACSM/ASPRS Annual Convention, Vol. 5, Auto-Carto 13*, pp 377-386. Bethesda, MD: ASPRS/ACSM.
- Lam NSN**. 1996. A GIS for characterization and modeling of remote-sensing data. *LAURISA* (Newsletter of the Louisiana Chapter of the Urban & Regional Information Systems Association), October.
- Lam NSN**, Wayne L, Braud D. 1995. GIS and remote sensing at Louisiana State University. *Louisiana Parish Government* 30(4):12. (The official publication of the Police Jury Association of Louisiana.)
- LCGISN GeoSpatial Search Program User Manual*, 1995. Baton Rouge, LA: Coastal Studies Institute, LSU. 167p. (I am one of the many contributors.)
- Fan M, **Lam NSN**, Liu KB. 1993. Using GIS to model the spatial spread of the AIDS epidemic in the United States. *Technical Papers, 1993 Annual Convention of the ACSM/ASPRS*, New Orleans, pp. 186-195.
- Jaggi S, Quattrochi DA, **Lam NSN**. 1992. Multiresolution processing for fractal analysis of airborne remotely sensed data. *Proceedings of SPIE (International Society for Optical Engineering)*.
- Lam NSN**. 1989. Introduction. *Quick Guides to Software Holdings of Computer Mapping Sciences Laboratory*. Documentation No. 2, Department of Geography and Anthropology, LSU.
- Lam NSN**, Grim PJ, Jones F. 1987. Data integration in geographic information systems: An experiment. *Technical Papers, 1987 ASPRS-ACSM Annual Convention, Vol. 5, GIS/LIS*, pp. 53-62.
- Lam NSN**. 1985. A method for choropleth inversion. *Technical Papers, 45th Annual Meeting of the*

- American Congress on Surveying and Mapping*, pp. 365-373.
- Liu KB, **Lam NSN**. 1985. Discriminant analysis of late Quaternary pollen stratigraphies from Ontario. *Modeling and Simulation* 16(1):155-159.
- Lam NSN**, Liu KB. 1984. A geographic information system for the palynologists: An Ontario example. *Modeling and Simulation* 15(1):93-97.
- Lam NSN**. 1983. Estimating small-area data from choropleth map. *Modeling and Simulation* 14(3):895-899.
- Shelberg MC, **Lam NSN**, Moellering H. 1983. Measuring the fractal dimensions of surfaces. *Proceedings of the Sixth International Symposium on Computer-Assisted Cartography (Auto-Carto 6)* 2:319-328.
- Lam NSN**. 1983. An evaluation of areal interpolation methods. *Fifth International Symposium on Computer-Assisted Cartography (Auto-Carto 5)*, pp. 471-479.
- Shelberg MC, Moellering H, **Lam NSN**. 1983. Measuring the fractal dimensions of empirical curve. *Fifth International Symposium on Computer-Assisted Cartography (Auto-Carto 5)*, pp. 481-490.
- Lam NSN**. 1982. Areal interpolation using map overlay. *Modeling and Simulation* 13(3):953-959.
- Lam NSN**. 1981. The reliability problem of spatial interpolation models. *Modeling and Simulation* 12(3):869-876.
- Lam NSN**, Morse B. 1981. *PLUSX Version 2 User Notes*. Reports of the Numerical Cartography Laboratory, The Ohio State University, 36p.
- Lam NSN**. 1976. New trends in urban geography. *Teaching Through Learning*, No. 4 (in Chinese).

#### **Theses/Dissertations:**

- Lam NSN** 1980. *Methods and Problems of Areal Interpolation*. Ph.D. Dissertation, The University of Western Ontario, London, Ontario, Canada.
- Lam NSN** 1977. *Polygon Overlay: An Examination of An Algorithm and Related Problems*. M.S. Thesis, The University of Western Ontario, London, Ontario, Canada

### **1.3.3 Other Creative and Artistic Contributions**

- Lam NSN**, Quattrochi, D. A., Qiu, H.-L., Zhao, W. 1996. Developed ICAMS (Image Characterization And Modeling System), a software system to compute fractal dimensions and other spatial statistics for remote sensing images.
- Lam NSN** 1989. Created *the China County Boundary File*. Baton Rouge, LA: Geosciences Publications, Louisiana State University. (The digital boundary file includes more than 2000 counties in China and is available in different mapping software formats.)
- Lam NSN** 1989. Coordinated the publication of *Quick Guides to Software Holdings of Computer Mapping Sciences Laboratory*, Documentation No. 2, Department of Geography and Anthropology, LSU.
- Lam NSN** 1988. Coordinated the publication of *Quick Guides to Software Holdings of Computer Mapping Sciences Laboratory*, Documentation No. 1, Dept. of Geography and Anthropology, LSU.

### **1.3.4 Participation in Professional Meetings, Symposia, Workshops, and Conferences**

#### **Paper Presentation with Abstracts:**

- Zou L, **Lam NSN**, Cai H. 2018. The changing roles of social media in disaster resilience. *Annual Meetings of Association of American Geographers (AAG)* 2018, New Orleans. April 13, 2018.
- Correll RM, **Lam NSN**, Zou L, Cai H, Mihunov V. 2018. Move or stay? A dilemma for coastal Louisiana residents. *Annual Meetings of Association of American Geographers (AAG)* 2018, New Orleans. April 13, 2018.
- Li K, **Lam NSN**. 2018. Self-taught deep-learning convolutional neural network for features detection in unlabeled remote sensing images. *Annual Meetings of Association of American Geographers (AAG)* 2018, New Orleans. April 12, 2018.
- Qiang Y, **Lam NSN**, Zou L, Cai H. 2018. Artificial intelligence and deep learning in the modeling of coupled natural and *human dynamics*. *Annual Meetings of Association of American Geographers (AAG)* 2018, New Orleans. April 1, 2018.
- Zou L, **Lam NSN**, Cai H. 2017. Leveraging social media data to understand disaster resilience: A case study of Hurricane Isaac. Poster presented at the *American Geophysical Union (AGU) Fall Meeting*, New Orleans, December 13, 2017.
- Lam NSN**, Qiang Y, Cai H, Zou L. 2017. A national assessment of exposure to flood hazards in the United States. Paper presented at the *American Geophysical Union (AGU) Fall Meeting*, New Orleans, December 12, 2017.
- Cai H, **Lam NSN**, Zou L. 2017. A coupled natural-human modeling of the land loss probability in the Lower Mississippi River Basin. Paper presented at the *American Geophysical Union (AGU) Fall Meeting*, New Orleans, December 11, 2017.
- Lam NSN**, Cheng W. 2017. Scale matters: Identifying the effects of landscape fragmentation on land loss. Paper presented at the *28<sup>th</sup> International Cartographic Conference (ICC2017)*. Washington, DC. July 6, 2017.
- Zou L, **Lam NSN**, Cai H, Qiang Y. 2017. Visualizing Social Media Data for Improved Understanding of Disaster Resilience. Paper presented at the *28th International Cartographic Conference (ICC017)*, Washington D.C. July 5, 2017.
- Cai H, **Lam NSN**, Zou L, Qiang Y. Assessing the dynamics of resilience using a Bayesian Network in the Lower Mississippi River Basin. Paper presented at the International Cartographic Conference (ICC2017). Washington, DC. July 5, 2017.
- Mihunov V, Zou L, **Lam NSN**. 2017. Temporal changes of community resilience to drought hazard in South-Central United States. Paper presented at the *28<sup>th</sup> International Cartographic Conference (ICC2017)*, Washington D.C. July 3, 2017.
- Zou L, **Lam NSN**, Cai H, Qiang Y. 2017. Visualizing and Mining Twitter Data for Improved Understanding of Disaster Resilience. Paper presented at the *International Symposium on Location-based Social Media and Tracking Data (LSMTD) 2017*, Washington D.C. July 2, 2017.
- Liu, K.B., Bianchette, T.A., Zou, L., Qiang, Y., and **Lam NSN**. 2017. Contribution of recent hurricanes to wetland sedimentation in coastal Louisiana, Paper presented at the *European Geosciences Union (EGU) meeting*, Vienna, Austria, April 26, 2017.
- Cai H, **Lam NSN**. 2017. Modeling the dynamics of resilience using a Bayesian network: The case in the Lower Mississippi River Basin. *Annual Meetings of Association of American Geographers (AAG)* 2017, Boston MA. April 8, 2017
- Zou L, **Lam NSN**. 2017. Mining Social Media Data for Improved Understanding of Disaster Resilience. *Annual Meetings of Association of American Geographers (AAG)* 2017, Boston MA. April 7, 2017
- Bianchette, T.A., Liu, K.B., Zou, L., **Lam NSN**, and Qiang, Y. 2017. Spatial and temporal variability of wetland accretion rates throughout southern Louisiana: Impacts from Hurricanes Gustav and Isaac, Paper presented at the *Annual Meeting of the Association of American Geographers*, Boston, April 6, 2017.

- Mihunov V, Zou L, **Lam NSN**. 2017. Temporal changes of community resilience to drought hazard in South-Central United States. Paper presented at the *Annual Meeting of the Association of American Geographers*, Boston, April 6, 2017.
- Lam NSN**, Qiang Y, Li K, Cai H, Zou L, Mihunov V, 2017. Modeling coastal resilience: The case of the Mississippi River Delta. Paper presented at the *2017 Annual Meeting of the Association of American Geographers*, Boston. April 5, 2017.
- Zou L, **Lam NSN**, Cai H, Qiang Y. 2016. Social Sensing of Disaster Resilience through Twitter: A Case Study of Hurricane Sandy. *3rd International Conference on CyberGIS and Geospatial Data Science*, Urbana IL, U.S. (Poster presentation) July 26-28, 2016.
- Lam NSN**. 2016. A transdisciplinary approach to modeling coastal sustainability: the case of Mississippi River Delta. Paper presented at the *Association for Environmental Studies and Sciences (AESS)*, Washington DC. June 11, 2016.
- Qiang Y, **Lam NSN**, Zou L, Cai H, Li K. 2016. Modeling long-term human dynamics in response to natural hazard using remote sensing data. *Abstracts, the 2016 Annual Meeting of the American Association of Geographers*, San Francisco. April 1, 2016.
- Li K, **Lam NSN**. 2016. An agent-based model of population changes in a vulnerable coastal environment. *Abstracts, the 2016 Annual Meeting of the American Association of Geographers*, San Francisco. April 1, 2016.
- Cai H, **Lam NSN**. 2016. Assessing community resilience to coastal hazards in the Lower Mississippi River Basin. *Abstracts, the 2016 Annual Meeting of the American Association of Geographers*, San Francisco. March 30, 2016.
- Mihunov V, Zou L, **Lam NSN**. 2016. Community resilience to drought hazard in South-Central U.S. *Abstracts, the 2016 Annual Meeting of the American Association of Geographers*, San Francisco. March 29, 2016.
- Zou L, **Lam NSN**. 2016. The impact of Hurricane Katrina on population dynamics in the Lower Mississippi River Basin. *Abstracts, the 2016 Annual Meeting of the American Association of Geographers*, San Francisco. March 29, 2016.
- Lam NSN**, Qiang Y, Li K, Cai H, Zou L, Mihunov V. 2016. From resilience assessment to dynamic system modeling: some perspectives on human dynamics and climate change research. *Abstracts, the 2016 Annual Meeting of the American Association of Geographers*, San Francisco. March 29, 2016.
- Bianchette T, Liu KB, \*Qiang Y, **Lam NSN**. 2016. Wetland accretion rates along coastal Louisiana: Spatial and temporal variability in light of Hurricane Isaac's impacts. Paper presented at 2016 Ocean Science Meeting, New Orleans, Feb 25.
- Bushra N, Rohli R, **Lam NSN**, Zou L, Mihunov V, Reams M, Argote J. 2015. Drought indices as drought predictors in the South-central United States. Poster presented at American Geophysical Union (AGU) fall meeting, San Francisco, December 14, 2015.
- Lam NSN**. 2015. Mapping and assessing coastal resilience in the Caribbean region. Cartography and Geographic Information Science. Paper presented at the ICC 2015 (International Cartographic Conference) in Rio de Janeiro, August 27.
- Lam NSN**, Qiang Y, Liu KB. 2015. Analysis of land use and land cover changes in Mississippi Delta using a coupled natural-human system framework. Paper presented at the 2015 EARSeL Symposium (European Association of Remote Sensing Laboratories), June 18, 2015.
- Zou L, **Lam NSN**, Qiang Y, Li K, Cai H. 2015. A genetic algorithm optimized agent-based modeling of land loss and urban growth in the lower Mississippi River basin. *Abstracts, the 2015 Annual Meeting of the Association of American Geographers*, Chicago. April 25, 2015.
- Cai H, **Lam NSN**, Qiang Y, Li K, Zou L. 2015. Assessing the dynamics of coastal resilience using Bayesian networks. *Abstracts, the 2015 Annual Meeting of the Association of American Geographers*, Chicago. April 25, 2015.

- Li K, **Lam NSN**, Qiang Y, Zou L, Cai H. 2015. A cyberinfrastructure for community resilience assessment and visualization. *Abstracts, the 2015 Annual Meeting of the Association of American Geographers*, Chicago. April 23, 2015.
- Qiang Y, **Lam NSN**, Li K, Cai H, Zou L. 2015. Modeling the coupled natural and human dynamics in a vulnerable coastal system using cyberinfrastructure. *Abstracts, the 2015 Annual Meeting of the Association of American Geographers*, Chicago. April 21, 2015.
- Lam NSN**, Liu KB, Qiang Y, Reams M, Xu J, Rivera-Monroy V. 2014. Coupled natural-human dynamics in the Mississippi Delta. Paper presented at *the Deltas in Times of Climate Change II*. Rotterdam. September 25, 2014.
- Li K, **Lam NSN**. 2014. A hybrid model of cellular automata, Markov, and logistic regression for land change prediction in the Lower Mississippi River Basin. Student Poster Competition, the 30<sup>th</sup> Louisiana Remote Sensing and GIS Workshop, New Orleans, May 12-14. (Won the 3<sup>rd</sup> Prize).
- Zou L, **Lam NSN**, Cai H. 2014. Assessment of community resilience to drought hazards in Texas and Louisiana. Student Poster Competition, the 30<sup>th</sup> Louisiana Remote Sensing and GIS Workshop, New Orleans, May 12-14.
- Cai H, **Lam NSN**, Zou L. 2014. Predicting the resiliency of the East Coast counties after Hurricane Sandy. Student Poster Competition, the 30<sup>th</sup> Louisiana Remote Sensing and GIS Workshop, New Orleans, May 12-14.
- Lam NSN**, Arenas H\*, Brito P\*, Liu KB. 2014. Assessment of vulnerability and adaptive capacity to coastal hazards in the Caribbean region. Paper presented at the 2014 International Coastal Symposium, Durban, South Africa, April 13-16.
- Liu KB, McCloskey TA, Bianchette TA, Keller G, **Lam NSN**, Cable JE, Arriola J. 2014. Hurricane Isaac storm surge deposition in a coastal wetland along Lake Pontchartrain, Southern Louisiana. Paper presented at the 2014 International Coastal Symposium, Durban, South Africa, April 13-16.
- Li K, **Lam NSN**. 2014. Incorporating vulnerability in modeling population changes in a coastal environment. *Abstracts, the 2014 Annual Meeting of the Association of American Geographers* (CD-ROM), Tampa. April 12, 2014.
- Qiang Y, **Lam NSN**. 2014. Modeling land use and land cover changes in a vulnerable coastal region using artificial neural network. *Abstracts, the 2014 Annual Meeting of the Association of American Geographers* (CD-ROM), Tampa. April 11, 2014.
- Cai H, **Lam NSN**, Zou L. 2014. Predicting the resiliency of the east coast counties after Hurricane Sandy. *Abstracts, the 2014 Annual Meeting of the Association of American Geographers* (CD-ROM), Tampa. April 9, 2014.
- Nyerges T, Roderick M, Bennett D, Lam NSN, Prager, S. 2014. Towards resilient thinking about sustainable systems using CyberGIS. *Abstracts, the 2014 Annual Meeting of the Association of American Geographers* (CD-ROM), Tampa. April 9, 2014.
- Qiang Y, **Lam NSN**. 2014. Modeling land use and land cover changes in coastal Louisiana using artificial neural network. Paper presented at the 2014 State of the Coast Conference, New Orleans, March 18-20.
- Reams M, **Lam NSN**, Kirby R, Funder D. 2014. Assessing coastal community resilience in Louisiana and the Netherlands: conceptual and methodological challenges. Paper presented at the 2014 State of the Coast Conference, New Orleans, March 18-20.
- Reams M, **Lam NSN**, DeFrank L. 2014. Influences on community resilience: An examination of population return to New Orleans post-Katrina. Paper presented at the 2014 State of the Coast Conference, New Orleans, March 18-20.
- Goote E, Reams M, **Lam NSN**, Wilkins J, Daigle M, Land L, Sattler M, Atlinay Z. 2014. Influences on household and community-level mitigation efforts and adaptations to coastal hazards in Louisiana. Paper presented at the 2014 State of the Coast Conference, New Orleans, March 18-20.



- Paille B, Reams M, **Lam NSN**, Carney J. 2014. Planning and the pursuit of resilience in post-Katrina Louisiana: An examination of parish-level attitudes and actions. Paper presented at the 2014 State of the Coast Conference, New Orleans, March 18-20.
- Qiang Y, **Lam NSN**. 2013. Comparing the land use and land cover change between the north and south Louisiana using data mining. Paper presented at the 29<sup>th</sup> Louisiana Remote Sensing and GIS Workshop, Lafayette, April 23, 2013.
- Li C, **Lam NSN**, Reams M, Mata L. 2013. Coastal community resilience in Louisiana, 1995-2010. *Abstracts, the 2013 Annual Meeting of the Association of American Geographers* (CD-ROM), Los Angeles. April 10, 2013.
- Li K, **Lam NSN**. 2013. Modeling the coupled natural and human system in the Lower Mississippi River Delta region: Critical transitions simulation from a resilient perspective. *Abstracts, the 2013 Annual Meeting of the Association of American Geographers* (CD-ROM), Los Angeles. April 9, 2013.
- Lam NSN**, Reams M, Li K, Wang F, LaRock D, Baker A. 2012. On community resilience measurement: Bridging geospatial analysis and adaptive management. Paper presented at the Geoinformatics 2012 conference, Hong Kong, June 16, 2012.
- Lam NSN**, Li K, Wang F, Reams M, Baker A, LaRock D. 2012. Bridging geospatial analysis and adaptive management: An approach to resilience measurement. Paper presented at the University Consortium for Geographic Information Science 2012 Symposium. Washington DC, May 31, 2012.
- Li K, **Lam NSN**, Reams M. 2012. Temporal changes of coastal community resilience in the Gulf of Mexico region. Student poster competition in the 28<sup>th</sup> Louisiana Remote Sensing and GIS Workshop, Baton Rouge, April 24-25, 2012. (The poster won the first prize).
- Lam NSN**, Reams M, Li K\*, Mata L\*, Li C\*. 2012. On community resilience. Paper presented at the 28<sup>th</sup> Louisiana Remote Sensing and GIS Workshop, Baton Rouge, April 24, 2012.
- Wang F, **Lam NSN**, Reams M, Kulkarni A, Li K. 2012. A self-organization-based approach for measuring community resilience. *Abstracts, the 2012 Annual Meeting of the Association of American Geographers* (CD-ROM), New York. February 24, 2012.
- Reams M, **Lam NSN**. 2011. Influences on environmental risk perceptions and adaptive behaviors among residents of Louisiana's upper industrial corridor. Poster presented in the American Public Health Association, Washington DC, October 2011.
- Lam NSN**, Arenas H. 2011. Modeling and mapping the spatial-temporal dynamics of business recovery in New Orleans after Hurricane Katrina. *Abstract of the 25<sup>th</sup> International Cartographic Conference*. Paris, July 3-8, 2011.
- Lam NSN**, Liu KB, Liang W, Bianchette TA, Platt WJ. 2011. Effects of hurricanes on the Gulf Coast Ecosystems: A remote sensing study of land cover change around Weeks Bay, Alabama. *Abstract of the 11<sup>th</sup> International Coastal Symposium*, Lisbon, Szczecin, Poland, May 10, 2011.
- Arenas H, **Lam NSN**. 2011. Spatio-temporal dynamics of the business reopening process in New Orleans after Hurricane Katrina. *Abstracts, the 2010 Annual Meeting of the Association of American Geographers* (CD-ROM), Washington DC. April 15, 2010.
- LaRock D, **Lam NSN**, Braud D. 2011. Temporal changes in quality of life and environment in New Orleans after Hurricane Katrina. *Abstracts, the 2010 Annual Meeting of the Association of American Geographers* (CD-ROM), Washington DC. April 15, 2010.
- Li, K, LaRock D, **Lam NSN**, Reams M. 2011. Temporal changes of coastal community resilience in the Gulf of Mexico Region. *Abstracts, the 2010 Annual Meeting of the Association of American Geographers* (CD-ROM), Washington DC. April 15, 2010.
- Lam NSN**, Arenas H. 2011. Modeling and mapping the spatial-temporal dynamics of business recovery in New Orleans after Hurricane Katrina. *Abstract of the 25<sup>th</sup> International Cartographic Conference*. Paris, July 3-8, 2011.

- Lam NSN**, Liu KB, Liang W, Bianchette TA, Platt WJ. 2011. Effects of hurricanes on the Gulf Coast Ecosystems: A remote sensing study of land cover change around Weeks Bay, Alabama. *Abstract of the 11<sup>th</sup> International Coastal Symposium*, Lisbon, Szczecin, Poland, May 10, 2011.
- Arenas H, **Lam NSN**. 2011. Spatio-temporal dynamics of the business reopening process in New Orleans after Hurricane Katrina. *Abstracts, the 2010 Annual Meeting of the Association of American Geographers* (CD-ROM), Washington DC. April 15, 2010.
- LaRock D, **Lam NSN**, Braud D. 2011. Temporal changes in quality of life and environment in New Orleans after Hurricane Katrina. *Abstracts, the 2010 Annual Meeting of the Association of American Geographers* (CD-ROM), Washington DC. April 15, 2010.
- Li, K, LaRock D, **Lam NSN**, Reams M. 2011. Temporal changes of coastal community resilience in the Gulf of Mexico Region. *Abstracts, the 2010 Annual Meeting of the Association of American Geographers* (CD-ROM), Washington DC. April 15, 2010.
- Lam NSN**, Pace K, LeSage J, Campanella R. 2010. Modeling business return amid post-disaster uncertainties: New Orleans after Katrina. NSF-HSD (Human Social Dynamics) Grantees Conference. September 27-28, 2010. Washington DC.
- Lam NSN**, Reams M. 2010. On the development of a community resilience index. Meeting of the Center for Natural Resources Economics and Policy (CNREP), New Orleans, May 26-28, 2010.
- Reams M, **Lam NSN**. 2010. On the development of a community resilience index. 16<sup>th</sup> Annual International Symposium on Society and Resource Management (ISSRM), Corpus Christi, Texas, June 6-10, 2010.
- Arenas H, **Lam NSN**. 2010. Temporal dynamics of business reopening predictors in New Orleans after Katrina. *Abstracts, the 2010 Annual Meeting of the Association of American Geographers* (CD-ROM), Washington DC. April 15, 2010.
- Liu KB, Bianchette TA, **Lam NSN**, Platt WJ, Yao Q. 2010. Effects of hurricanes on coastal ecosystems around Weeks Bay, Alabama: Integrating paleotempestology with palynology and remote sensing. *Abstracts, the 2010 Annual Meeting of the Association of American Geographers* (CD-ROM), Washington DC. April 15, 2010.
- Wang F, **Lam NSN**. 2010. Detecting the processes of land-cover land-use change: A genetic Petri net based approach. *Abstracts, the 2010 Annual Meeting of the Association of American Geographers* (CD-ROM), Washington DC. April 14, 2010.
- Lam NSN**, Arenas H, Liu KB, Brito P. 2009. Assessing the coastal population at risk to sea level rise in the Caribbean Region. *Proceedings of the International Cartographic Conference*, Santiago, Chile. November 20, 2009.
- Reams M, **Lam NSN**. 2009. A framework for measuring community resilience, Association of Environmental Sciences and Studies (AESS), Inaugural Meeting, Madison, Wisconsin, October 13-17, 2009.
- Lam NSN**, Arenas H, Li Z, Liu KB. 2009. An estimate of population impacted by climate change along the U.S. coast. Paper presented at the 10<sup>th</sup> International Coastal Symposium, Lisbon, Portugal, April 14, 2009.
- Bianchette TA, Liu KB, **Lam NSN**, Kiage LM. 2009. Ecological impacts of Hurricane Ivan on the Gulf Coast of Alabama: A remote sensing study. Paper presented at the 10<sup>th</sup> International Coastal Symposium, Lisbon, Portugal, April 15, 2009.
- Lam NSN**, Reams M, Baker A, DeFrank L, Martin A. 2009. On the development of a community resilience index. *Abstracts, the 2009 Annual Meeting of the Association of American Geographers* (CD-ROM), Las Vegas, Nevada. March 26 2009.
- Arenas H, **Lam NSN**. 2009. Evaluating predictors for business recovery in New Orleans after Hurricane Katrina. *Abstracts, the 2009 Annual Meeting of the Association of American Geographers* (CD-ROM), Las Vegas, Nevada. March 26, 2009.

- Baker A, **Lam NSN**, Reams M, DeFrank L, Martin A. 2009. Creating an empirically derived resilience index for Louisiana and the Gulf of Mexico Region. *Abstracts, the 2009 Annual Meeting of the Association of American Geographers* (CD-ROM), Las Vegas, Nevada. March 25, 2009.
- Qin X, **Lam NSN**, Liang W. 2009. Using social vulnerability-based genetic algorithm to improve CAEP plan for disaster evacuation in New Orleans, Louisiana. *Abstracts, the 2009 Annual Meeting of the Association of American Geographers* (CD-ROM), Las Vegas, Nevada. March 23, 2009.
- Liang W, **Lam NSN**, Qin X. 2009. The simulation of different evacuation strategies for regional evacuation. *Abstracts, the 2009 Annual Meeting of the Association of American Geographers* (CD-ROM), Las Vegas, Nevada, March 23, 2009.
- Lam NSN**. 2008. Relating visual changes in images with spatial metrics. *Abstracts, the 2008 Annual Meeting of the Association of American Geographers* (CD-ROM), Boston, April 15.
- Ju W, **Lam NSN**. 2008. Integrating lacunarity analysis and support vector machines for land use/cover classification. *Abstracts, the 2008 Annual Meeting of the Association of American Geographers* (CD-ROM), Boston, April 17.
- Kulkarni A, **Lam NSN**. 2008. Impervious surface detection using object-based image analysis. *Abstracts, the 2008 Annual Meeting of the Association of American Geographers* (CD-ROM), Boston, April 17.
- Wang F, **Lam NSN**. 2008. Data mining, process mining, and spatiotemporal modeling for land-cover and land-use study. *Abstracts, the 2008 Annual Meeting of the Association of American Geographers* (CD-ROM), Boston, April 17.
- Lam NSN**, Pace K, Campanella R. 2007. Decision making among businesses in post-catastrophe uncertainty: How economic geographies re-form in New Orleans. *Abstracts, the 2007 Annual Meeting of the Association of American Geographers* (CD-ROM), San Francisco, April 20.
- Ju W, **Lam NSN** 2007. A genetic Bayesian approach for texture-aided urban land use/cover classification. *Abstracts, the 2007 Annual Meeting of the Association of American Geographers* (CD-ROM), San Francisco, April 20.
- Wang F, **Lam NSN** 2007. Land cover/land use classification, change detection, and predictive modeling using genetic algorithm and cellular automata. *Abstracts, the 2007 Annual Meeting of the Association of American Geographers* (CD-ROM), San Francisco, April 18.
- Lam NSN**, Pace K, Campanella R. 2006. Business return or not: The economic impacts of Katrina disaster on New Orleans. North American Regional Science Association Conference, Toronto, Canada, November 15-19, 2006
- Lam NSN**, Pace K, Campanella R. 2006. Decision making among businesses in post-catastrophe uncertainty: How economic geographies re-form in New Orleans. Workshop on Social science research of the Katrina Aftermath" organized by University of North Carolina-Charlotte on November 3-4, 2006, New Orleans.
- Lam NSN** 2006. Reducing uncertainties in health risk assessment: A spatial analysis framework. *IGU 2006 Brisbane Conference Proceedings* (CD-ROM), July 3-7.
- Zhou GY, **Lam NSN**, Pace K, Campanella R. 2006. Decision making among businesses in post-catastrophe uncertainty: How economic geographies re-form in New Orleans. *Abstracts, the 2006 Annual Meeting of the Association of American Geographers* (CD-ROM), Chicago.
- Wang F, **Lam NSN**. 2006. Machine learning algorithms for land-cover and land-use classification. *Abstracts, the 2006 Annual Meeting of the Association of American Geographers* (CD-ROM), Chicago, March 9.
- Kulkarni A, **Lam NSN** 2006. Change detection for Hurricane Hugo using local fractal triangular pris approach. *Abstracts, the 2006 Annual Meeting of the Association of American Geographers* (CD-ROM), Chicago, March 9.
- Lam NSN**, Emerson, C.W., and Quattrochi, D.A. 2005. A spatial metric for land cover identification and change detection. *Abstracts, The 9<sup>th</sup> International Symposium on Physical Measurement and*

- Signature in Remote Sensing*. Beijing, China. October 17-19.
- Emerson, C.W., Chinniah, S., **Lam NSN**, and Quattrochi, D.A. 2005. A region quadtree-based framework for similarity searches of image databases. *Geocomputation Workshop, Abstracts*. Ann Arbor, Michigan. August.
- Lam NSN**, Emerson, C.W., and Quattrochi, D.A. 2004. From fractals, wavelets to homeland security: Use of spatial techniques for change detection. *GIScience 2004 Abstracts*, Maryland, October.
- Lam NSN** 2004. From fractals, wavelets to homeland security: Use of spatial technologies for change detection. Paper presented at the 20<sup>th</sup> Annual Louisiana Remote Sensing and GIS Workshop, Lafayette, April 20.
- Emerson, C.W., Quattrochi, D.A., and **Lam NSN** 2004. An analysis of texture-based urban land cover classification. *Abstracts, The Association of American Geographers 100<sup>th</sup> Annual Meeting*, Philadelphia, March 17 (in CD-ROM).
- Lam NSN** 2003. Challenges in spatial analysis: An assessment. Keynote Speaker, Spatial Analysis and Modeling Specialty Group. *Abstracts, The Association of American Geographers 99th Annual Meeting*, New Orleans, March 6 (in CD-ROM).
- Emerson, C. W., **Lam NSN**, and Quattrochi, D. A. 2002. Image segmentation and classification using local fractal dimension and spatial autocorrelation. Poster presented at the American Geophysical Union Meeting, San Francisco, December.
- Emerson, C. W., Quattrochi, D. A., and **Lam NSN** 2002. Spatial metadata for global change investigations using remote sensing. *GIScience 2002 Abstracts*. Santa Barbara, CA: University of California Regents. pp. 239-241.
- Lam NSN** 2002. Trends and directions in GIS research: Some Perspectives. Keynote Speaker, GIS Specialty Group Plenary Session. *Abstracts, The Association of American Geographers 98th Annual Meeting*, Los Angeles, March 20 (in CD-ROM).
- Zhao, W. and **Lam NSN** 2002. Multiscale image characterization using fractal and wavelet techniques. *Abstracts, The Association of American Geographers 98th Annual Meeting*, Los Angeles, March 21 (in CD-ROM).
- Read, J. and **Lam NSN** 2000. Comparison of digital spatial pattern recognition indices for characterizing land cover from remote sensing data. *Abstracts, The Association of American Geographers 96th Annual Meeting*, Pittsburgh, April 3-9, 2000.
- Bark, M. and **Lam NSN** 2000. Detection of spatial clusters of lung cancer mortality in Louisiana, USA. Abstract, the International Geographical Congress, Seoul, Korea, August 2000.
- Lam NSN** 1999. Virtual seminar in GIS. *Abstracts, The Association of American Geographers 95th Annual Meeting*, March.
- Lam NSN** 1998. Spatial analysis in human health risk assessment. *Abstracts, the International Conference on China and the World in the 21<sup>st</sup> Century*, Hong Kong, August 13-15, p. 190 (in Chinese).
- Lam NSN**, Dugas, D., and Smith, K. 1998. A spatial analysis framework for human health risk assessment. *Abstracts, The Association of American Geographers 94th Annual Meeting*, 444. Boston.
- Qiu, H.-L., **Lam NSN**, Quattrochi, D. A. 1998. Characterizing hyperspectral imagery (AVIRIS) using fractal technique. *Abstracts, The Association of American Geographers 94th Annual Meeting*, 657. Boston.
- Quattrochi, D. A., Emerson, C. W., **Lam NSN**, and Laymon, C. 1998. Fractal analysis of Landsat satellite data using the Image Characterization And Modeling Systems. *Abstracts, The Association of American Geographers 94th Annual Meeting*, 658. Boston.
- Lam NSN**, Qiu, H.-L., Quattrochi, D. 1997. An evaluation of fractal surface measurement methods using ICAMS (Image Characterization And Modeling System). Paper presented in the ACSM/ASPRS Annual Convention in conjunction with Auto-Carto, Seattle, April.

- Quattrochi, D. A., **Lam NSN**, and Qiu, H.-L. 1997. The ICAMS (Image Characterization and Modeling System) for measuring, characterizing, and modeling multiscale remote-sensing data. Invited paper presented at the Annual Conference of Royal Geographic Society - Institute of British Geographers (RGS-IBG) , Exeter, UK, January
- Qiu, H.-L., **Lam NSN**, and Quattrochi, D. 1997. Characterizing remote-sensing images using ICAMS. *Abstracts, The Association of American Geographers 93<sup>rd</sup> Annual Meeting*, 216. Fort Worth.
- Read, J. and **Lam NSN** 1997. Methods of land-cover change detection for the Tropics using Landsat TM. *Abstracts, The Association of American Geographers 93<sup>rd</sup> Annual Meeting*, 220. Fort Worth.
- Zhao, W., **Lam NSN**, Qiu, H.-L., and Quattrochi, D. 1997. A fractal module for multispectral image analysis in ICAMS. *Abstracts, The Association of American Geographers 93<sup>rd</sup> Annual Meeting*, 299. Fort Worth.
- Lam NSN** and Liu, K. B. 1996. On generating a national rural sampling frame for HIV/AIDS research. *Annual Meeting of the Association of American Geographers Abstracts*, 162. Charlotte.
- Lam NSN**, Quattrochi, D., and Qiu, H. L. 1995. A GIS for the characterization and modeling of multi-scale remote-sensing data using fractals. *Proceedings of the Eleventh Annual Louisiana Remote Sensing and Geographic Information Systems Workshop*, 19. Lafayette, LA.
- Lam NSN** and Liu, K. B. 1995. Using a GIS to generate clusters of rural counties for acquired immune deficiency syndrome (AIDS) patient sampling. *Proceedings of the Eleventh Annual Louisiana Remote Sensing and Geographic Information Systems Workshop*, 15. Lafayette, LA.
- Lam NSN** and Quattrochi, D. 1995. A GIS for the characterization and modeling of multiscale remote-sensing data using fractals and selected spatial techniques. *Annual Meeting of the Association of American Geographers Abstracts*, 165-166. Chicago.
- Lam NSN** and Liu, K. B. 1995. Generating clusters of rural counties for AIDS patient sampling. Poster presented at the International Symposium on Computer Mapping in Epidemiology and Environmental Health, Tempa, FL. February.
- Lam NSN** and Song, Y. P. 1994. Neural network applications in wetland classification. Abstract of the *10th Annual Workshop on Remote Sensing and Geographic Information Systems for Coastal Management in Louisiana*, 25. LSU, May.
- Lam NSN** and Song, Y. P. 1994. A back-propagation neural network classifier for remote sensing image classification. *Annual Meeting of the Association of American Geographers Program Abstract*, 205. San Francisco. April.
- Lam NSN**, Algeo, K., Fan, M., and Liu, K. B. 1993. Gravity model-based predictions of the regional spread of AIDS in the United States. *Annual Meeting of the Association of American Geographers Program Abstracts*, 131. Atlanta, April.
- Fan, M., **Lam NSN**, and Liu, K. B. 1993. Using GIS to model the spatial spread of the AIDS epidemic in the United States. Paper presented at the 1993 ACSM/ASPRS Annual Convention, New Orleans, February.
- Lam NSN**, Liu, K. B., and Fan, M. 1992. Mapping and modeling the spread of AIDS in the United States during the last decade based on county data. *Technical Program Abstracts, 27th International Geographical Congress*, Washington, D. C., 340.
- Lam NSN** and Liu, K. B. 1992. Spatial analysis of the AIDS epidemic in the United States based on county data. *Annual Meeting of the Association of American Geographers Program Abstracts*, 129. San Diego.
- Quattrochi, D. A. and **Lam NSN** 1992. Fractal measurement for analysis of landscape characteristics from multiple scaled remote sensing data. *Annual Meeting of the Association of American Geographers Program Abstracts*, 197. San Diego.
- Lam NSN** 1990. The role of geographical scale in analyzing cancer mortality patterns in China. Paper presented at the 1990 IGU Regional Conference on Asian Pacific Countries, Beijing, China.
- Lam NSN**, Zhao, R., Jiang, N., and Qiu, H. L. 1990. The role of geographical scale in analyzing cancer

- mortality patterns in China. *Abstracts, IGU Regional Conference on Asian Pacific Countries* 2:13-12.
- Lam NSN** and Qiu H. L. 1990. An analysis of cancer mortality patterns in China using fractals. *Annual Meeting of the Association of American Geographers Program Abstracts*, 132.
- Lam NSN** and Liu, K. B. 1989. Geography of the AIDS epidemic in the United States based on county data. *Annual Meeting of the Association of American Geographers Program Abstracts*, 112.
- Lam NSN** and Qiu, H. L. 1988. The measurement and description of polygonal surfaces using fractals. *Abstracts of the 26th Congress of the International Geographical Union* 1:321.
- Liu, K. B. and **Lam NSN** 1988. Geography of the AIDS epidemic in Louisiana. *Annual Meeting of the Association of American Geographers Program Abstracts*, 113.
- Lam NSN**, Grim, P. J., and Jones, F. 1987. Data integration in geographic information systems: An experiment. Paper presented at the 1987 ASPRS-ACSM Annual Convention, Baltimore, Maryland.
- Lam NSN** 1987. Algorithms for generation and measurement of fractals: Do they match? *Annual Meeting of the Association of American Geographers Program Abstracts*, 56.
- Lam NSN** and Jiang R. S. 1986. An evaluation of curve generation methods. *Annual Meeting of the Association of American Geographers Program Abstracts*, 282.
- Liu, K. B. and **Lam NSN** 1985. Discriminant analysis of late Quaternary pollen stratigraphies from Ontario. Paper presented at the Sixteenth Conference on Modeling and Simulation, Pittsburgh.
- Lam NSN** 1985. A method for choropleth inversion. Paper presented at the 45th Annual Meeting of the American Congress on Surveying and Mapping, Washington, D.C.
- Lam NSN** 1985. Estimating small-area data from choropleth maps - An example using China's cancer data. *Annual Meeting of the Association of American Geographers Program Abstracts*, 229.
- Lam NSN** 1984. Cancer mortality patterns in China: A geographic information system approach. *Annual Meeting of the Association of American Geographers Program Abstracts*, 9. Washington DC
- Lam NSN** and Liu, K. B. 1984. A geographic information system for the palynologists: An Ontario example. Paper presented at the Fifteenth Conference on Modeling and Simulation, Pittsburgh.
- Shelberg, M. C., **Lam NSN**, and Moellering, H. 1983. Measuring the fractal dimensions of surfaces. Paper presented at the Sixth International Symposium on Computer-Assisted Cartography, Ottawa.
- Lam NSN** 1983. The effect of areal unit shape on its accuracy: A reassessment. *Annual Meeting of the Association of American Geographers Program Abstracts*, 49. Denver
- Lam NSN** 1983. Estimating small-area data from choropleth maps. Paper presented at the Fourteenth Conference on Modeling and Simulations, Pittsburgh.
- Lam NSN** 1982. Applications of areal interpolation: The case in Columbus, Ohio. *Annual Meeting of the Association of American Geographers Program Abstracts*, 110. San Antonio.
- Shelberg, M. C., Moellering, H., and **Lam NSN** 1982. Measuring the fractal dimensions of empirical cartographic curves. Paper presented at the Fifth International Symposium on Computer-Assisted Cartography. Washington, D.C.
- Lam NSN** 1981. An examination of the effect of interpolation models on isarithmic mapping. *Annual Meeting of the Association of American Geographers Program Abstracts*, 138. Los Angeles.
- Lam NSN** 1981. The reliability problem of spatial interpolation models. Paper presented at the Thirteenth Conference on Modeling and Simulation, Pittsburgh.
- Liu, K. B. and **Lam NSN** 1980. Reconstructing the post-glacial vegetational history of east-central Canada: A statistical approach based on modern and fossil pollen data. *Annual Meeting of the Association of American Geographers Program Abstracts*, 44. Louisville.
- Lam NSN** 1979. An application of automated map overlay procedures in spatial interpolation problems. *Annual Meeting of the Association of American Geographers Program Abstracts*, 189. Philadelphia.

- Liu, K. B. and **Lam NSN** 1979. Application of statistical techniques to the reconstruction of post-glacial vegetational changes from pollen data: An example from eastern Canada. Paper presented at the Annual Meeting of the Canadian Association of Geographers, Victoria, British Columbia.
- Radke, J. and **Lam NSN** 1978. A theoretical disturbance of a regular lattice. Paper presented at the Annual Meeting of the Canadian Association of Geographers, London, Ontario.
- Goodchild, M. F., **Lam NSN**, and Radke, J. 1978. An approach to the study of nodal growth. Paper presented at the Annual Meeting of Canadian Association of Regional Science, Waterloo, Ontario.
- Lam NSN** and Radke, J. 1978. A graph theoretical approach to input and output analysis. *Annual Meeting of the Association of American Geographers Program Abstracts*, 145. New Orleans.

### **Keynote/ Sponsored Speaker/Panel at Professional Meetings and Universities:**

- Lam NSN**. 2017. Panel member, Panel on Mentoring. UCGIS Symposium. Washington DC, May 22, 2017.
- Lam NSN**. 2017. Panel member, Coupled Natural-Human (CNH) Dynamics. *Annual Meeting of the Association of American Geographers*, Boston. April 7, 2017.
- Lam NSN**. 2015. Are happiest cities most resilient to disasters? Challenges in community resilience assessment. Presentation as External Advisor to the NSF IGERT GEEMap (Geoinformatics for Environmental and Energy Modeling and Prediction) Workshop, University of Iowa. October 17.
- Lam NSN**. 2015. UCGIS 20<sup>th</sup> Anniversary Retrospective Panel. UCGIS 2015 Symposium, Washington DC. May 29.
- Lam NSN**. 2015. Research Panel – Future Directions. UCGIS 2015 Symposium, Washington DC. May 30.
- Lam NSN**. 2015. Big Spatiotemporal (BiST) data analytics. Panelist, *Annual Meeting of the Association of American Geographers*, Chicago. April 25, 2015.
- Lam NSN**. 2015. Looking forward through a 20<sup>th</sup> year retrospective of UCGIS. Panelist, *Annual Meeting of the Association of American Geographers*, Chicago. April 23, 2015.
- Qiang Y, **Lam NSN**. 2015. Lecture in the CyberGIS workshop. Organized by the University of Illinois at Urbana Champaign. *Annual Meeting of the Association of American Geographers*, Chicago. April 24, 2015
- Lam NSN**. 2015. “Are happiest cities most resilient to disasters? – Challenges in community resilience assessment”. Chinese University of Hong Kong, Feb. 5, 2015.
- Liu KB, **Lam NSN**. 2015. “Pursuit of science – my life and family”. Chinese University of Hong Kong, Feb. 6, 2015.
- Lam NSN**. 2014. “Vulnerability, resilience, sustainability, and coupled natural-human systems: A geospatial research agenda”. C.P. Lo Lecture, University of Georgia. Oct 10, 2014.
- Lam NSN**. 2014. “Are happiest cities most resilient to disasters? – Challenges in community resilience assessment”. School of the Coast and Environment, Louisiana State University, Sept. 12, 2014.
- Lam NSN**. 2014. “Geospatial methods for reducing uncertainties in environmental health risk assessment: Challenges and opportunities”. Keynote presentation at the Central and Eastern European Conference on Health and the Environment. Cluj Napoca, Romania. May 25-30, 2014.
- Lam NSN**. 2014. “Business return in New Orleans after Katrina: Empirical findings and their implications to project development”. Presentation at 2014 Interlaw Conference, New Orleans, Feb 20-23, 2014.
- Lam NSN**. 2013. “Vulnerability, resilience, sustainability and coupled natural-human systems: A geospatial research agenda”. Chinese University of Hong Kong. June 20, 2013.
- Lam NSN**. 2013. CyberGIS symposium: CyberGIS and sustainability sciences – making connections. Panelist. *Annual Meeting of the Association of American Geographers*, Los Angeles. April 9,

2013.

- Lam NSN.** 2013. "Measuring coastal vulnerability, resilience, and sustainability". Workshop on Tropical Cyclones. La Paz, Mexico. March 18-21, 2013.
- Lam NSN.** 2013. Keynote Speaker, Flood Aware Conference, The Netherlands. January 31, 2013. (Keynote lecture title: "On measuring vulnerability, resilience, and sustainability". Also presented a general lecture to undergraduates, titled "The Mississippi River Delta as a coupled natural and human system").
- Lam NSN.** 2013. Community resilience and environmental assessment. *Symposium on Response, Recovery & Resilience*, LSU, Jan 29, 2013.
- Lam NSN.** 2012. The human dimension in coastal sustainability research. Presentation to the Water Institute. Dec. 12, 2012.
- Lam NSN.** 2012. "From disease to disaster: geospatial analysis for environmental decision making". John Borchert Lecturer, University of Minnesota. Nov 14, 2012.
- Lam NSN.** 2012. The human dimension in coastal sustainability. *A Forum on Coupled Natural-Human Dynamics in Vulnerable Coasts: Perspectives from Louisiana and the Netherlands*. Louisiana State University, Oct. 23, 2012.
- Lam NSN.** 2012. Invited Participant. CyberGIS'12: The First International Conference on Space, Time, and CyberGIS. University of Illinois at Urbana-Champaign, Aug. 6-8, 2012.
- Lam NSN.** 2012. External Advisor and presenter. "On Measuring Vulnerability, Resilience, and Sustainability". IGERT (GEEMAP-Geoinformatics for Energy and Environment Modeling and Prediction) Workshop, University of Iowa. July 30, 2012.
- Lam NSN.** 2012. Session organizer and discussant: Reflections on geographic information science: Paper session in honor of Michael Goodchild. *Annual Meeting of the Association of American Geographers*, New York. February 27, 2012.
- Lam NSN.** 2012. Panel member: Reflections on geographic information science: Panel session in honor of Michael Goodchild. *Annual Meeting of the Association of American Geographers*, New York. February 27, 2012.
- Lam NSN.** 2012. Invited Participant. Symposium on Geospatial Frontiers in Health and Social Environments, organized by AAG, San Diego, July 27-28, 2012.
- Lam NSN.** 2011. Invited Participant. UCGIS GEP (Geospatial Extension Program) Workshops, organized by UCGIS, Sept. and Nov. 2011
- Lam NSN.** 2011. Invited Participant. Workshop on a Framework for the Future of the Spatial Sciences. Catalina Island, CA. Apr. 25-27, 2011.
- Lam NSN.** 2009. Defining resilience index for coastal community - the GIS approach. Seminar presented jointly sponsored by the Department of Geography and Resource Management and Institute of Space and Earth Information Science, Chinese University of Hong Kong, June 10, 2009.
- Lam NSN.** 2008. Business return in New Orleans after Katrina: empirical findings and their implications to sustainable management. *Conference on Sustainable Management of Deltaic Ecosystems, School of the Coast and Environment*, LSU, August 2008.
- Lam NSN.** 2008. "Reducing uncertainties in health risk assessment through GIS and spatial analysis." Invited Speaker. *Symposium on GIS Technology: Sustaining the Future, Understanding the Past. Case Western Reserve University*. April 3.
- Lam NSN.** 2007. "Reducing uncertainties in health risk assessment through a spatial analysis framework". Invited talk, Dept. of Geography, Western Michigan University.
- Lam NSN.** 2005. "The crossroads of GIS and health information: Moving ahead to improve cancer control." Invited talk in the Workshop sponsored by National Cancer Institute and National Library of Medicine, June 16-17.
- Lam NSN.** 2005. US Operational Global Land Remote Sensing USGS Workshop Outcome. Invited panel member, AAG Annual Meeting, Denver, April 6.



- Lam NSN.** 2005. Women advancing geographic research. Invited panel member, AAG Annual Meeting, Denver, April 7.
- Lam NSN.** 2005. Invited speaker for a lecture and a workshop at Brigham Young University, March 17, 2005.
- Lam NSN.** 2005. Invited participant in the workshop: "U.S. Operational Global Land Remote Sensing: A Perspective for Geography in U.S. Geological Survey." Washington DC, Cosmo Club, September 22-23, 2004.
- Lam NSN.** 2004. Women in administration. Invited panel member, AAG 100<sup>th</sup> Annual Meeting, Philadelphia, March 18.
- Lam NSN.** 2004. Social Science Pre-NSF Roundtable, panel member, organized by LSU Office of Research and Graduate Studies. Jan. 30.
- Lam NSN.** 2003 Invited participant, Workshop on Homeland Security and GIS, organized by U. of Georgia, Amicalola Falls, GA., November.
- Lam NSN.** 2003. Challenges in spatial analysis: An assessment. Keynote Speaker, Spatial Analysis and Modeling Specialty Group Plenary Session at the Annual Meeting of the Association of American Geographers, New Orleans, March 6. Discussant: Jean Claude Thill.
- Lam NSN** 2002. Fractals for monitoring global change using remote sensing imagery. Invited Seminar at the LSU Department of Experimental Statistics, October 30.
- Lam NSN** 2002. Research strategies in a competitive environment: a geographer's perspective. Seminar presented as a Prominent Overseas Scholar at the University of Hong Kong, September 18.
- Lam NSN** 2002. Trends and directions in GIS research: Some Perspectives. Keynote Speaker, GIS Specialty Group Plenary Session at the Annual meeting of the Association of American Geographers, Los Angeles, March 20. Discussants: Tom Baerwald and Barbara Battenfield.
- Lam NSN** 2002. Monitoring environment and health via remote sensing and geographic information system technology. Saturday Science Seminar, LSU, Feb. 16, 2002.
- Lam NSN** 2001. Introductory comments. Symposium on Applied Geography, Department of Geography and Anthropology, LSU. March 22.
- Lam NSN** 2001. Reviewing, ethics & professional practice. I am one of the panel members. The session was organized by the Scientific Freedom & Responsibility Committee of the AAG and presented at the annual meeting of the Association of American Geographers, New York. March 2.
- Lam NSN** 2001. Fractals and scale in environmental assessment and monitoring. Invited speaker to the Department of Geography, University of Maryland, April 12.
- Lam NSN** 2000. Reducing uncertainties in applying spatial analysis in environmental health research. Department of Geography, George Washington University, Invited Speaker for the Geography Awareness Week, Washington, DC. November 15.
- Lam NSN** 2000. Grand challenges. Concluding Panel at the GIScience 2000 conference. Savannah, GA. October 29.
- Lam NSN** 2000. Reducing uncertainties in applying spatial analysis in environmental health research. Invited speaker at the Centers for Disease Control and Prevention-National Center for Health Statistics (CDC-NCHS), Hyattsville, Maryland. July 19.
- Lam NSN** 2000. Fractals and scale in environmental assessment and monitoring. Invited speaker to the Department of Geography, University of Minnesota as part of their yearlong lecture series to celebrate their 75<sup>th</sup> Anniversary, Feb. 18. My presentation was published in the book "*Scale and Geographic Inquiry: Nature, Society, and Method*".
- Lam NSN** 2000. Invited speaker on "Fractals and scale in environmental assessment and monitoring" to the Department of Geography, University of Delaware, March 17.
- Lam NSN** 2000. "Funding Opportunities for GIScience at the National Science Foundation" at the UCGIS (University Consortium on Geographic Information Science) meeting at Capitol Hill Club on February 4.

- Lam NSN 1998.** Geography in the 21<sup>st</sup> Century. Informal presentation in the Department of Geography and Anthropology, LSU. November 30.
- Lam NSN 1998.** Geography in the 21<sup>st</sup> Century. Invited Speaker for the Geography Awareness Week, Southwest Missouri State University, November 19.
- Lam NSN 1998.** The Faculty Summer Stipend Program. Workshop co-sponsored by the Office of Research and Graduate Studies and the Center for Faculty Development, LSU, October, 1998 (I am one of the three panel members).
- Lam NSN 1997.** The Faculty Summer Stipend Program. Workshop co-sponsored by the Office of Research and Graduate Studies and the Center for Faculty Development, LSU, October, 1997 (I am one of the three panel members).
- Lam NSN 1997.** Fractal characterization in remote sensing and GIS. Invited Lecture sponsored jointly by University of Alabama at Huntsville (Atmospheric Department) and NASA-Global Hydrology and Climate Center, Huntsville, May 28.
- Lam NSN 1997.** Experience and strategies of successfully funded faculty members. Presented as a member of the Social Sciences and Humanities Panel in "Competing in the World of Research and Sponsored Programs: A Two Day Grant Proposal Development Conference", Southern University, April 29.
- Lam NSN 1996.** The 1996 Summer Stipend Program. Workshop co-sponsored by the LSU Office of Sponsored Research and the Center for Faculty Development, LSU, October 11, 1995. (I am one of the panelist.)
- Lam NSN 1994.** Spread of AIDS in rural America: 1982-1990. Dept. of Epidemiology and Community Health, School of Veterinary Medicine, LSU, September.
- Lam NSN 1994.** The Summer Stipend Program. Workshop co-sponsored by the Office of Sponsored Research and the Center for Faculty Development, LSU, September. (I am one of the panelist.)
- Lam NSN 1994.** Truth and Consequences: An interactive forum discussion on research and personal responsibility to the people with whom, and the places where, we do our work. Sponsored by the Geography and Anthropology Society, LSU, February. (I am one of the panelist.)
- Lam NSN 1993.** Grant funding opportunities in humanities and social sciences. Workshop co-sponsored by the Office of Research and Economic Development and the Center for Faculty Development, LSU, March. (I am one of the panelist.)
- Lam NSN 1992.** The spatial diffusion of AIDS in the United States: past, present, and future. Presented in Sociology 7351 Seminar (Diffusion of Innovation), LSU, July 14.
- Lam NSN 1991.** Two invited lectures entitled "Future research and development in GIS" and "The use of raster and vector GIS" to the Center for Urban Planning and Environmental Management, University of Hong Kong, Hong Kong.
- Lam NSN 1991.** An invited lecture on "Fractals in geography" to the Department of Geography and Geology, University of Hong Kong, Hong Kong.
- Lam NSN 1991.** An invited lecture on "The geographical patterns of cancer mortality in China" to the Hong Kong Baptist College, Hong Kong.
- Lam NSN 1991.** An invited lecture on "Fractals in remote sensing" to the Gulf Coast Chapter of the Sigma Xi Society, NASA - Stennis Space Center, Mississippi.
- Lam NSN 1990.** Scale, resolution, fractals, cartography, GIS, and remote sensing: Some perspectives. Invited paper at the Second International Workshop on GIS, Beijing, China.
- Lam NSN 1990.** The role of geographical scale in analyzing cancer mortality patterns in China. Invited lecture to Department of Epidemiology and Community Health, School of Veterinary Medicine, LSU.
- Lam NSN 1989.** The new face of freedom - from Berlin to Beijing. LSU.
- Lam NSN 1989.** Geography in the 1990s - Mapping Sciences. Department of Geography and Anthropology Friday Forum, LSU, September.

- Lam NSN 1989.** Issues in designing multipurpose cadastre. Invited panel speaker, 1989 Fall Meeting of the Louisiana Society of Professional Surveyors, LSU.
- Lam NSN 1989.** Research and projects in CADGIS Lab. Presentations at the Chancellors and Deans visit to remote sensing and GIS facilities in LSU.
- Lam NSN 1988.** Fractal analysis of Landsat-TM images. Departmental Friday Forum, November, 1988.
- Lam NSN 1987.** Geographic information systems. Invited speaker, 1987 Fall Meeting of the Louisiana Society of Professional Surveyors, LSU.
- Lam NSN 1987.** Theory in geographic information systems. Invited lecturer in a graduate seminar in the School of Forestry, Wildlife, and Fisheries, LSU, April 6.
- Lam NSN 1986.** How long is the coastline of Louisiana? - fractal concepts and applications. Public lecture organized by the LSU Chapter of the American Society for Photogrammetry and Remote Sensing.
- Lam NSN Dec. 1986 - Jan. 1986.** Invited to present a series of lectures on geographic information systems, computer cartography, and remote sensing at Nanjing Institute of Geography, Chinese Academy of Sciences. Among the lecture topics are: recent developments in geographic information systems and remote sensing; applications of spatial analytic methods in cancer mortality studies; and spatial data structures and data base management systems
- Lam NSN 1985.** The concept of inversion: A theory in cartography. Invited paper presented at the First Scientific Geography Meeting, Athens, Georgia.

#### **Organizer and Chair of Meetings and Symposia:**

- 2018 Qiang Y, Lam NSN. 2018. Co-organizers of paper sessions on Deep Learning and Artificial Intelligence in Coupled Natural and Human Systems in the 2018 Annual Meeting of the American Association of Geographers, New Orleans.
- 2017 Xu Y, Chen Z, Lam NSN, Liu KB. 2017. Co-organizers of paper sessions on Recent Progress in Research of the World's Major River Deltas, AGU Fall Meeting, New Orleans.
- 2017 de Sherbinin A, Cervone G, Lam NSN. 2017. Co-organizers of paper sessions on People & Pixels 20<sup>th</sup> Anniversary, AGU Fall Meeting, New Orleans
- 2016 Qiang Y, Lam NSN. 2016. Co-organizers of Symposium on Human Dynamics Research: Climate Change I & II, in the 2016 Annual Meeting of the American Association of Geographers, San Francisco.2016.
- 2016 Qiang Y, Lam NSN. 2016. Co-organizers of Symposium on Human Dynamics Research: Climate Change I & II, in the 2016 Annual Meeting of the American Association of Geographers, San Francisco.
- 2012 A Forum on Coupled Natural-Human Dynamics in Vulnerable Coasts: Perspectives from Louisiana and the Netherlands. Louisiana State University, Oct. 23, 2012.
- 2012 Session organizer and discussant: Reflections on geographic information science: Paper session in honor of Michael Goodchild. Annual Meeting of the Association of American Geographers, New York. February 27, 2012.
- 2005 Chair, a paper session at the 9<sup>th</sup> International Symposium on Physical Measurement and Signature in Remote Sensing, Beijing, China, October.
- 2004 Chair, a paper session at GIScience 2004, Aldephi, Maryland. October.
- 2002 Chair, a paper session on "Spatial Uncertainty II" at GIScience 2002 meeting, Boulder, Colorado, Sept. 27.
- 2001 Organizer and co-chair of the session "Funding opportunities at the National Science Foundation" at the annual meeting of the Association of American Geographers, New York. March 1. (Lam, N.S.-N. and Baerwald, T.).
- 2001 Organizer and chair of a panel "Think Big II: Showcase of interdisciplinary projects" at the

- annual meeting of the Association of American Geographers, New York. March 1.
- 2000 Organizer and co-chair of a session “Funding opportunities at the National Science Foundation: Some advice on proposal writing” at the annual meeting of the Association of American Geographers, Pittsburgh, April 3-9.
- 2000 Organizer and chair of a panel “Think Big: how to develop successful collaborative proposals” presented at the annual meeting of the Association of American Geographers, Pittsburgh, April 3-9.
- 1998 Chair, research panel on "Scale", Univ. Consortium on Geographic Information Sciences
- 1993 Chair, a paper session at the 1993 ACSM/ASPRS Annual Convention, New Orleans, February.
- 1992 Chair, a paper session (on topological data structures) at the 5th International Symposium on Spatial Data Handling, Charleston, SC., August.
- 1991 I was one of eight geographers invited by NSF to participate in a workshop held at Miami on the Computational Geography Initiative in NSF. The workshop was organized by Tom Baerwald, then Program Director of the Geography and Regional Science Section, and John Wooley, then Director of the Division of Instrumentation and Resources, NSF.
- 1990 Chair, a paper session under Section 13 - Mathematical Models and Geographic Information System. IGU Regional Conference on Asian Pacific Countries, Beijing, China.
- 1990 Chair, two paper sessions and an open forum on GIS and remote sensing applications to Epidemiology and Parasitology, International Conference on Remote Sensing Applications to Epidemiology and Parasitology, LSU, June.
- 1987 Chair, a paper session on Geographic Information Systems at the Fourth Annual Symposium of the American Water Resources Association, Louisiana Section, Sept., 25, 1987.
- 1987 Chair, a special paper session on Fractals and Geographic Information Systems sponsored by the mathematical Models and Quantitative Methods Specialty Group at the Annual Meeting of the Association of American Geographers in Portland, Oregon.
- 1987 Invited participant to a special GIS seminar to discuss the field of GIS and the role of geographers in the field. The seminar was sponsored by the Association of American Geographers.
- 1985 Chair, A special paper session sponsored by the Cartography Specialty Group at the Annual Meeting of the Association of American Geographers in Detroit.
- 1985 Chair, a paper session at the First Scientific Geography Meeting in Athens, Georgia.
- 1984 Organizer and Chair, Several special paper sessions sponsored by the Mathematical Models and Quantitative Methods Specialty Group at the Annual Meeting of the Association of American Geographers in Washington, D.C.
- 1984 Organizer and Chair, a paper session in Regional Science Session #2, Modeling and Simulation Conference, Pittsburgh.
- 1983 Organizer and Chair, Special Session on Spatial Data Processing, Regional Science Session #2, Modeling and Simulation Conference, Pittsburgh.

### **1.3.5 Other Scholarly Activities or Other Contributions to the Profession**

#### **1.3.5.1 Membership in Professional Organizations**

Association of American Geographers (AAG)  
 American Society for Photogrammetry and Remote Sensing (ASPRS)  
 Cartography and Geographic Information Society (CaGIS)  
 University Consortium on Geographic Information Science (UCGIS)  
 Association of Environmental Studies and Sciences (AESS)

American Geophysical Union (AGU)  
 Chinese Professionals in Geographic Information Science (CPGIS)  
 Coastal Education & Research Foundation (CERF)

### 1.3.6 Awards, Lectureships, or Prizes that Show Recognition of Scholarly Achievement

- 2016 The Inaugural 2016 Carolyn Merry Mentoring Award, UCGIS
- 2016 The UCGIS Fellow Award, UCGIS
- 2011 Outstanding Faculty Research Award, School of the Coast & Environment, LSU
- 2010 LSU Distinguished Research Master
- 2008 LSU Rainmaker (Top 100 research and creative faculty at LSU)
- 2006 LSU Distinguished Faculty Award
- 2004 Outstanding Contributions in Remote Sensing Award, AAG Remote Sensing Specialty Group (for outstanding contributions to the field of remote sensing and to the geographic community through his/her remote sensing research, teaching, and outreach)
- 2003 Keynote Speaker, Spatial Analysis and Modeling Group, AAG, March 6.
- 2002 Invited as a Prominent Overseas Scholar, University of Hong Kong, Sept. 14-21.
- 2002 Keynote Speaker, GIS Specialty Group, AAG, March 21.
- 1997- Named as Richard J. Russell Louisiana Studies Distinguished Professor
- 1991-97 Adjunct Faculty, Department of Epidemiology and Community, School of Veterinary Medicine, LSU.
- 1990-92 Consultant, Lockheed Engineering Co., NASA - Stennis Space Center.
- 1984 The Andrew McNally Award. (To honor the best paper published by the American Congress on Surveying and Mapping in 1983. The paper entitled "Spatial Interpolation Methods: A Review" was published in *The American Cartographer* in 1983.)
- 1976-80 Special University Scholarship, University of Western Ontario, London, Ontario.
- 1977-78 McIntosh Award, University of Western Ontario, London, Ontario. (To honor the best incoming Ph.D. student in the Department of Geography.)

### 1.3.7 Research Support/Grant Activities

#### External Grants Received as Principal or Co-Principal Investigator:

- 2018 **Lam NSN**, Meyer M, Park SJ, Reams M, Yang SW, Lee KS. 2018. RAPID: The changing roles of social media in disaster resilience: The case of Hurricane Harvey. National Science Foundation. \$199,989. 01/01/2018-12/31/2019.
- 2016-20 **Lam NSN**, Meyer M, Park SJ, Reams M, Yang SW, Lee KS. 2016. IBSS-L: Understanding social and geographical disparities in disaster resilience through the use of social media. National Science Foundation. \$834,585. 09/01/2016-02/29/2020.
- 2015-17 **Lam NSN**, Qiang Y. 2015. A synthesis of resilience measurement methods and indices. Louisiana Sea Grant. \$49,940. 01/15/2015-01/15/2017.
- 2014-16 **Lam NSN**, Reams M, Rohli R. 2014. Community resilience to drought hazard: An analysis of drought exposure, impacts, and adaptations in south-central United States. U. S. Geological Survey. \$254,485. 09/01/2014-08/31/2016.
- 2014-15 Qiang Y, **Lam NSN**. Using CyberGIS to model the coupled natural and human dynamics in a vulnerable coastal system. University of Illinois at Urbana-Champaign. \$6,400. 08/2014-08/2015.

- 2014-18 Twilley R, Bentley S, Chen Q, **Lam NSN**, Xu K. 2014. Coastal SEES Collaborative Research: Changes in actual and perceived coastal flood risks due to river management strategies. NSF. \$1,600,000 (Total award), \$1,300,000 (LSU portion). 09/01/2014-08/31/2018.
- 2014-15 Reams M, **Lam NSN**. 2014. Louisiana Coastal Protection and Restoration Authority (CPRA) 2017 Master Plan update: Coastal community resilience program development and assessment. \$99,561. 04/01/2014 – 04/01/2015
- 2013-15 Reams M, **Lam NSN**. Applying insights from resilience theory to encourage “co-producing safety” in the Netherlands. Subaward from Hz University of Applied Sciences, the Netherlands. \$100,000. 04/2013-10/2014.
- 2012-16 **Lam NSN**, Liu KB, Reams MA, Rivera-Monroy V, Xu YJ, Pace K, Dismukes D. CNH: Coupled natural-human dynamics in a vulnerable coastal system. *National Science Foundation*. \$1,499,935. 09/01/12-02/28/17.
- 2012-15 Liu KB, **Lam NSN**, Bentley S. Addendum to Paleotempestology of the Caribbean Region: A multi-proxy, multi-site study of the spatial and temporal variability of Caribbean hurricane activity. *Inter-American Institute for Global Change Research (IAI)*. \$299,902. 03/01/12-10/01/14.
- 2010-13 **Lam NSN**, Reams M. Development of an empirical model for measuring community resilience. *U.S. Department of Agriculture/National Science Foundation*. \$390,028. 09/15/2010-09/15/2013.
- 2010-11 **Lam NSN**, Arenas H. Doctoral Dissertation Research: An agent-based simulation model for business reopening in New Orleans post Hurricane Katrina. *National Science Foundation*. \$8,716. 04/15/10-09/30/11.
- 2009-11 Pulsipher A, **Lam NSN**. Geographic Units for Socioeconomic Impact Analysis in the Gulf of Mexico Region. Mineral Management Services. \$439,876. 10/01/09-09/30/11.
- 2009-11 Reams M, **Lam NSN**. Developing indicators to measure socioeconomic impacts of OCS activities: A temporal analysis of counties within the Gulf of Mexico region. Mineral Management Services. \$186,564. 10/01/09-09/30/11.
- 2008-11 **Lam NSN**, Pace K, Campanella R, LeSage J. Modeling business return in New Orleans after Katrina: Its implications for Gulf of Mexico economic recovery. NOAA Gulf of Mexico Sea Grant Program. Award Total: \$199, 982. LSU portion: \$132,148. 02/01/08 – 01/31/11.
- 2008-09 Liu KB, **Lam NSN**, Platt W. Effects of past and recent hurricanes on Gulf Coast ecosystems: Implication for future climate changes. National Institute for Climate Change Research at Tulane University. \$77,000. 06/01/08-08/31/09.
- 2008-09 **Lam NSN**, Liang W. Doctoral Dissertation Research: An integrated agent-based microsimulation model for hurricane evacuation in New Orleans. NSF. \$7,809. 04/01/08-09/30/09.
- 2007-11 **Lam NSN**, Pace K., LeSage J, Campanella R. Collaborative Research: Modeling business return amid post-disaster uncertainties: New Orleans after Katrina. NSF. Award Total: \$622,412. LSU portion: \$356,474. 11/01/07-10/31/11.
- 2007-09 Reams M. and **Lam NSN** Socio-Economic responses to coastal land loss and hurricanes: Measuring resilience among Outer Continental Shelf (OCS) related coastal communities in Louisiana. MMS. \$209,472. 09/30/07-08/31/09.
- 2007-08 **Lam NSN** and Ju, W. Doctoral Dissertation Research: A genetic Bayesian approach for texture-aided urban land use/cover classification. NSF. \$11,816. 07/01/07-01/31/09.
- 2006-12 Liu, K.B., Bentley, S., **Lam NSN** and others. Paleotempestology of the Caribbean Region: A multi-proxy, multi-site study of the spatial and temporal variability of Caribbean hurricane activity. *Inter-American Institute for Global Change Research (IAI)*. \$698,300. 04/01/06-02/28/12.

- 2006-07 **Lam NSN** and Zhou, G. Doctoral Dissertation Research: Detecting the social-economic conditions of urban neighborhoods through a combined methodology of wavelet transform and artificial neural networks. National Science Foundation Dissertation Research Grant. \$7,142. 03/01/06-03/01/07.
- 2005-07 **Lam NSN**, Campanella, R., and Pace, K. Decision-making among businesses in post-catastrophe uncertainty: How economic geographies re-form in New Orleans. National Science Foundation. \$110,626. 11/01/05-10/31/07. plus supplement \$15,000.
- 2004-05 **Lam NSN** An integrated spatial data mining system for change and anomaly detection for decision support and risk assessment. Louisiana Board of Regents. \$19,890. 05/04-06/05.
- 2001-04 Emerson, C.W., Quattrochi, D. A., and **Lam NSN** Fractal and geostatistical metadata for monitoring global change using remote sensing imagery. NASA Intelligent Systems solicitation. \$519,761. LSU portion: \$153,391.
- 1998 **Lam NSN** NASA Summer Faculty Fellowship, Marshall Space Flight Center. \$10,000.
- 1997-99 **Lam NSN**, Leitner, M., Braud, D., and Jones, F. Geographic information systems and image processing equipment for the analysis and display of spatial data: enhancement in the era of information technology. Louisiana Board of Regents. \$150,000.
- 1995-99 **Lam NSN** Creating a world coverage of third-level political boundaries. World Health Organization, Pan American Health Organization, and Centers for Disease Control and Prevention. \$30,000 (est.).
- 1996 **Lam NSN** Parcel mapping of Madison County, Mississippi. Neel-Schaffer, Inc. \$23,577.
- 1996-97 **Lam NSN** and Read, J. Land-cover change detection for the Tropics using remote sensing and geographic information systems. National Science Foundation, Doctoral Dissertation Research Grant. \$9,995.
- 1996-97 **Lam NSN** Cancer statistics review. Louisiana Office of Public Health. \$9,990.
- 1994-96 **Lam NSN** A geographic information system for the characterization and modeling of multiscale remote-sensing data using fractals and selected spatial techniques. Co-investigators: Dale Quattrochi and Hong-lie Qiu. NASA. \$219,139
- 1994-95 **Lam NSN** and Liu, K. B. Development of rural clusters for AIDS patient sampling. RAND Cooperation. \$50,701.
- 1993-96 **Lam NSN** and Weigel, S. Scale, resolution, and representation in geographic information systems. NASA Graduate Fellowship to Ph.D. student Stephanie Weigel under supervision of Dr. Nina Lam. \$66,000.
- 1990-92 **Lam NSN** and Liu, K. B. Modeling the spatial dynamics of AIDS in the United States: A geographic information systems approach. Louisiana Board of Regents. \$83,219.
- 1994-95 Braud, D., **Lam NSN**, Lewis, A. J., Veeck, G., and Jones, F. Establishment of a comprehensive, statewide, on-line geographic information system of Louisiana. Louisiana Board of Regents. \$190,000.
- 1991-92 **Lam NSN**. Geographic information systems and image processing equipment for the analysis of spatial data. Louisiana Board of Regents. \$110,000. Other investigators are: Kesel, R., Liu, K.-B., Hirschboeck, K., Veeck, G., Jones, F., Edwards, J., and Mckillop, H.
- 1990-92 Quattrochi, D. and **Lam NSN**. The factor of scale in remote sensing as it affects analysis of landscape characteristics: An application of factor analysis to multiple source remotely sensed data. NASA - Stennis Space Center. \$22,000.
- 1990 **Lam NSN** Travel Grant to IGU Regional Meeting, Beijing, China. Recommended by U.S. National Committee for International Geographical Union (USNC/IGU). \$1,500. (My application which included a paper was ranked second in a national competition.)
- 1985 **Lam NSN** Geographic information system approach to the study of cancer mortality patterns in China. National Program for Advance Study and Research in China, U. S. National Academy of Sciences. \$40,360.

- 1983 **Lam NSN.** Designing a geographical information system for the cancer data of China. The Association of American Geographers Research Grant. \$500.

**Internal Grants Received (as PI or Co-PI only):**

- 2013-14 Reams M, Wilkins JG, **Lam NSN.** Influences on household and community-level mitigation efforts and adaptations to coastal hazards in Louisiana. LSU Coastal Sustainability Studio. \$35,000. 08/01/13-07/31/14.
- 2010-11 Pace K, **Lam NSN**, Reams M. Decision making in post-catastrophe uncertainty: An examination of impacts of the Gulf of Mexico oil spill on local businesses in coastal Louisiana. Louisiana State University (Office of Research and Economic Development). \$149,999. 09/01/10-08/31/11.
- 2005-09 **Lam NSN** Understanding and measuring regional economic development using and integrated spatial data mining approach. Economic development assistantship to support a PhD student for four years. Funded by LSU Office of Research and Graduate Studies. Total: \$100,000
- 2004-05 **Lam NSN** Associations between population characteristics, environment, and disease: A spatial data mining approach. Faculty Research Grant, Louisiana State University. \$10,000.
- 2002-04 **Lam NSN**, Leitner, M., Curtis, A., Braud, D., and Lewis, A. A proposal to enhance research and instruction in geographic information science at LSU. Funded by LSU-CAPITAL, \$100,000.
- 2002 Curtis, A., **Lam NSN**, Leitner, M., and Anderson, J. Funded by LSU Tech. Fee, primarily to upgrade facilities in the Computer Mapping Sciences Laboratory and the Map Library. \$47,342.
- 1986 **Lam NSN** Population estimation using Thematic Mapper data--A pilot study. Faculty Summer Research Grant, Louisiana State University. \$4000.
- 1980-81 **Lam NSN** An evaluation of areal interpolation models. Graduate School Research Grant, The Ohio State University. \$4,840.
- 1980-81 **Lam, N. S-N.**, Moellering, H., and Rayner, J. N. Implementation of the PLUSX mapping package. The Learning and Resources Grants, The Ohio State University. \$2,000.

**Other Participation (As an Investigator):**

- 2017 Leitner M. and others 2017. Geospatial data collection technology for the social-, natural-, environmental-, and engineering sciences. LSU Student Technology Fee (STF) Program. \$69,077.
- 2016 Voyiadjis G. and others. 2016. Acquisition of gravimetric instrumentation in support of a new quasigeoid model for accurate elevations in Louisiana. Louisiana Board of Regents. \$153,000.
- 2016-19 Hooper-Bui L (PI), Armbrust K, **Lam NSN**, Lomnicki S, Reams M, Wilson V. LSU-LSU Health Sciences Center Partnership for Undergraduate, Graduate, and Postdoctoral Mentored, Environmental Health Sciences Research Opportunities with EPA Scientists. \$2 million.
- 2013-14 Reynolds A, Zeynep A, Brown P. Environmental communication for coastal Louisiana. LSU Coastal Sustainability Studio. \$11,220. 08/01-13-07/31/14.
- 1994-95 McKillop, H., et al. Mapping the past: archaeological field equipment to record spatial and temporal information. Louisiana Board of Regents. Approx: \$14,000. I am one of the investigators.
- 1991-92 Hugh-Jones, M. (PI), Haynes, J. (Co-PI), **Lam NSN**, and Malone, J. Remote sensing and



- geographic information systems at the Louisiana State University School of Veterinary Medicine. Louisiana Board of Regents. \$76,000.
- 1990 Hugh-Jones, M. and **Lam** NSN Travel Grant for Professor Shupeng Chen, LSU Office of Research (BRSB Grant). \$2,263.
- 1989-94 Louisiana Coastal GIS Network, 1989-1994. (PI: Louisiana Geological Survey), supported by U.S. Geological Survey, (Year 1: \$199,851, Year 2: \$250,000, renewable for a total of 5 years.) I was involved in the proposal development and submission process and I participated in developing the framework for the Network and served on the Technical Committee for the first two years.
- 1981 National Resource Center Grant from the U.S. Department of Education. \$140,000 est. for the first year. My role was to develop a new course on Geography of China.

### **1.3.8 Theses/Dissertations Directed (Numbers only)**

Post-doctoral Research Associate directed: 6

Ph.D. directed and completed as major professor: 19

MS Theses directed and completed as major professor: 25

Master of Engineering Science Research Papers directed and completed as co-chair: 3

Master of Natural Sciences: 2

I am presently serving as a major professor for 2 PhD and 1 master students. Since 1980, I have served as a co-advisor, minor professor, and/or committee member for over 300 Masters and Ph.D. students in both the Ohio State University and Louisiana State University.

### **1.3.9 Major Areas of Research Interests**

Geographic information science, remote sensing, spatial modeling, disease to disaster

## **1.4 Service**

### **1.4.1 Student Organizations Advised**

1983-85 Advisor, Hong Kong Student Association, the Ohio State University

### **1.4.2 Recruitment of Students and Faculty**

2007-10 While I was chair of the Department of Environmental Sciences, I was responsible to recruit three faculty members, revamp the curriculum for all MS, Professional MS, and apply for the new PhD degree program, revamp the assessment matrix, develop flyers for student recruitment, and revamp the departmental website.

### **1.4.3 University Service**

University:

2016 Preproposal Review Committee, ORED

2012-13 Search Committee, Associate Vice Chancellor for Research and Economic Development

2013 Centers Review Committee, ORED  
 2010-14 Advisory Council, Communication Across the Curriculum  
 2010-14 Council Member, Research Council, Office of Research and Graduate Studies  
 2008-09 Search Committee, Dean of the School of the Coast and Environment, Academic Affairs  
 2006- Chancellor Distinguished Lecturer Committee, Off. Of Research and Graduate Studies  
 2004 College of Arts and Sciences Dean's search committee, Academic Affairs  
 2003 Program Review Committee for Dept. of Computer Science, Academic Affairs  
 2003-06 Elected to Grievance Committee, LSU Faculty Senate  
 2003 Mentor Committee for an assistant professor from Dept. Geology and Geophysics  
 2001 Internal IT Review Committee for LSU-CAPITAL  
 1999 Ad hoc Committee on academic program enhancement, Office of the Provost  
 1998-99 Research Foundation Committee, Office of Research and Graduate Studies  
 1997 LEEP (Louisiana Energy Enhancement Program) review panel, Office of Research and Graduate Studies  
 1995-96 Chair, ad hoc student appeal panel, appointed by Graduate School  
 1995-98 Elected to Senator, LSU Faculty Senate  
 1994-95 Member, two ad hoc committees (professional ethics and infrastructure) appointed by the Office of Research and Economic Development  
 1994-95 Admission, Standards, and Honors Committee, LSU Faculty Senate  
 1994-pres. LSU Representative, University Consortium for Geographic Information and Analysis  
 1993-99 Council on Research, Office of Research and Graduate Studies (2 terms)  
 1993-99 Chair, Social Sciences Research Development Group, Office of Research and Graduate Studies  
 1989- Council on Remote Sensing and GIS, Office of Research and Graduate Studies  
 1985-89 Co-Director, CADGIS Research Lab, jointly operated by the Department of Geography and Anthropology and the College of Design

#### School of Coast and Environment:

2013- Diversity Committee  
 2012-13 Awards Committee  
 2009- Prestigious Awards Committee  
 2008- Budget and Facilities Committee  
 2008- Shell Endowed Chair search committee  
 2006- Development of Computer Teaching Lab  
 2007 Shell Endowed Professor Job Advertisement Committee  
 2007 Grants and Contracts Manager Recruitment Committee

#### College of Arts and Sciences:

2003-05 Tenure and Promotion Committee  
 2004 Ad hoc Review Committee for a professorship  
 2003 Ad hoc Tenure Review Committee (for a special case)  
 1998-00 Tenure and Promotion Committee  
 1994 College of Arts and Sciences Policy Statement Committee  
 1987-88 College of Arts and Sciences Computing Committee  
 1985-87 Representative from the College of Arts and Sciences to a Working Group on Remote Sensing.

#### Department of Environmental Sciences:

2017 Chair, Search Committee for a spatial coastal/environmental scientist

2014-pres Chair, Assessment Committee  
 2014-pres Member, Awards Committee  
 2014-pres Member, Curriculum Committee  
 2014-15 Member, Search Committee (WISE position on energy analytics)  
 2014 Member, Dr. Crystal Johnson's tenure and promotion committee  
 2013 Faculty meeting minutes taker  
 2012 Chair, Dr. Margaret Reams' promotion to full professor Committee  
 2007-10 Department Chair  
 2007 PhD in Environmental Science Exploration Committee  
 2006 Development of Remote Sensing and GIS Research Lab

Department of Geography & Anthropology:

2005 Chair, Economic geographer specialty in China hiring committee  
 2003-05 Executive Committee; Graduate Committee; T&P Committee  
 2004 Established and Director, the Spatial Laboratory and the Global Laboratory  
 2003-06 Elected to Faculty Evaluation Committee  
 2003 Chair, 3-Year Review Committee for two faculty members  
 2002 Elected to the Faculty Advisory Committee  
 2002-06 IT Committee  
 1998- Tenure and Promotion Committee  
 1997- Established and directed Computer Mapping Science Annex (Rm. 253)  
 1996- Chair, Faculty Advisory Committee  
 1995-96 Chair, Research and Scholarship Committee  
 1995-96 Tenure and Promotion Committee  
 1994-95 Departmental Council  
 1994 Faculty 4th-year review committee  
 1993- Geosciences Publication committee

#### **1.4.4 Professional Service**

##### **1.4.4.1 Advisory Boards, Commissions, or Agencies**

**Editorship of Journals or Other Learned Publications:**

2015-16 Special Issue Co-editor, *Water*  
 2015-pres Editorial Board, *Southeastern Geographer*  
 2014-pres Editorial Board, *Applied Ecology and Environmental Research*  
 2011-12 Special Issue Editor, *International Journal of Geographic Information Science*  
 2005-09 Editorial Board, *The Professional Geographer*  
 2000-09 Editorial Board, *Annals of the American Association of Geographers* (reappointed)  
 1996-pres Editorial Board, *Cartography and Geographic Information Science*  
 1996-10 Associate Editor, *Geographic Information Sciences*  
 1992-pres Editorial Board, *Geographical Analysis*  
 1995-02 Editorial Board, *Geographical and Environmental Modeling*  
 1996-00 Editorial Board, *Applied Geography Studies*  
 1994-96 Editorial Board, *Geographic Information Sciences*  
 1984 Editor, *Newsletter of the Mathematical Models and Quantitative Methods Specialty Group, Association of American Geographers.*

**Office Held/Advisory Panels in Federal Organizations:**

- 2018 NSF Coupled Natural-Human Dynamics review panel
- 2017 NIEHS/NSF joint panel on Oceans and Human Health, Baltimore, Sept 20-22, 2017.
- 2017 NAS meeting on “Tracking community resilience: Gulf Research Program opportunity analysis”, Feb 15-16, 2017.
- 2014-18 Member of User Working Group, NASA Socioeconomic Data and Application Center (SEDAC) at Columbia University
- 2014 NSF Coupled Natural-Human Dynamics review panel
- 2013 Open Research Area Plus (joint program by UK, France, Germany, Netherlands, and NSF, USA) review panel, Berlin, October 2013
- 2013 NSF Coupled Natural-Human Dynamics review panel
- 2012 EPA STAR (Science to Achieve Results) Graduate Fellowship review panel
- 2009-11 NRC Committee on National Statistics’ Panel on Redesigning the Commercial Building and the Residential Energy Consumption Surveys
- 2009 NSF IGERT (Integrative Graduate Education and Research Traineeship) pre-proposal review Panel
- 2008 NSF IGERT pre-proposal review Panel
- 2007 NSF REU (Research Experiences for Undergraduates) Site Review Panel
- 2006 NSF Review Panel, Hydrologic Observatories
- 2006-08 National Research Council (NRC) - Mapping Science Committee
- 2005-06 NRC committee on Contributions of Remote Sensing for Decisions about Human Welfare
- 2004 Invited Participant, Land Remote Sensing Workshop, organized by USGS and AAG
- 2004 NSF Review Panel, Human Social Dynamics (Infrastructure)
- 2003 Strategic Planning meeting, NSF Geography and Regional Science Program
- 2003 NSF Review Panel, Pre-proposal for Science and Technology Centers
- 2002 NSF Review Panel, Integrated Graduate Education and Research Training (IGERT), Dec.
- 2002 NSF Review Panel, Major Research Instrumentation, May 2002
- 2002-03 Committee on Review of Geographic Information Systems Research and Applications at HUD: Current Programs and Future Prospects, National Research Council
- 2001 Member of an NIH Review Panel, Geographic-based Research in Cancer Control and Epidemiology
- 2001 NASA Review Panel, Land Cover Land Use Change Program, NASA Office of Earth Science, Feb. 28, 2001
- 2001 Chaired an NIH Review Panel, Geographic Research in Cancer Control and Epidemiology, March 8, 2001.
- 1998-00 Mapping Science Committee, National Research Council (Resigned in Aug. 1999)
- 1996 NSF Review Panel, Instrumentation and Laboratory Improvement Program
- 1994 NSF Review Panel, Instrumentation and Laboratory Improvement Program
- 1993 NSF Review Panel, Special Program on Collaborative Research in Geosciences, Geography, and Mathematical Sciences, Division of Mathematical Sciences
- 1993 NSF Review Panel, Instrumentation and Laboratory Improvement program.
- 1991 NSF Review Panel for Dissertation Improvement Grants, Geography and Regional Science Program.

**Offices Held in Professional Societies:**

- 2017-18 Awards Committee, Remote Sensing Specialty Group, AAG
- 2017-18 GIScience 2018 Program Committee

- 2018 UCGIS Carolyn Merry Mentoring Award Committee
- 2018 UCGIS Nomination Committee
- 2017 Chair, UCGIS Carolyn Merry Mentoring Award Committee
- 2016-18 UCGIS Fellow Selection Committee
- 2017-18 UCGIS Nomination Committee
- 2016 CyberGIS 2016 Program Committee
- 2015-16 Program Committee, GIScience 2016
- 2015-16 Program Committee, International Conference on Geographies of Health and Living in Cities (H-Cities), Hong Kong University
- 2015 Member, UCGIS Nominating Committee
- 2014 CyberGIS 2014 Program Committee
- 2013-14 Chair, UCGIS Nomination Committee
- 2013 GIScience 2014 Program Committee
- 2012 GIScience 2012 Program Committee
- 2010-13 UCGIS Awards Committee, Nomination Committee
- 2004-06 President-Elect, President, and Past President, University Consortium on Geographic Information Sciences (UCGIS)
- 2004-06 Awards Committee, AAG Remote Sensing Specialty Group
- 2004 GIScience 2004 Program Committee (to review and select manuscripts and abstracts)
- 2003-04 Chair, Research Projects Committee, UCGIS
- 2002 AAG Program Committee for the 2003 annual meeting at New Orleans
- 2002 Nominating Committee, University Consortium on Geographic Information Sciences
- 2002 GIScience 2002 Program Committee
- 2000-03 Elected to the Honors Committee, Association of American Geographers
- 1997-00 Elected to Board of Directors, University Consortium on Geographic Information Sciences (Resigned in Aug. 1999)
- 1998-99 Research Committee, University Consortium on Geographic Information Sciences
- 1998 Nominating Committee, University Consortium on Geographic Information Sciences
- 1996-98 Elected to Board of Directors, the Cartography and Geographic Information Society, American Congress on Surveying and Mapping
- 1995 Appointed to the 1997 Association of American Geographers Program Committee
- 1992-93 ACSM Program Committee, 1993 ACSM/ASPRS Annual Convention, New Orleans.
- 1990-93 Status of Women in Geography Committee, Association of American Geographers.
- 1990 Nominated as a candidate for the Nominating Committee, Association of American Geographers. (I was not elected.)
- 1990-91 Baltimore ACSM/ASPRS Auto-Carto 10 Conference Program Committee, American Congress on Surveying and Mapping and American Society for Photogrammetry and Remote Sensing. The Committee served as referees for the papers submitted to the Conference.
- 1989,90 Andrew McNally Award Committee for two consecutive years, American Congress on Surveying and Mapping. The Committee ranks all the articles published in *The American Cartographer* in a year and recommends the best one for the award that year.
- 1989-90 Conference Organizing Committee, International Conference on Remote Sensing Applications to Epidemiology and Parasitology, June 6-7, 1990, LSU.
- 1984-86 Chair, Mathematical Models and Quantitative Methods Specialty Group, Association of American Geographers.
- 1982-84 Chair, Ad Hoc Committee on Women in Mathematical Models and Quantitative Methods Specialty Group, Association of American Geographers.

**Other Services for Professional Societies, Agencies, Other Universities:**

Services/Office Held in Governmental Agencies Overseas:

- 2008-14 Panel member, Research Grants Council, Hong Kong Government, China  
 2009 Proposal reviewer, Netherlands Organization for Scientific Research

State Agencies:

- 2016 Contributing Experts for the RESTORE Act Center of Excellence Research Strategy, the Water Institute of the Gulf  
 2010-12 Coastal Best Practices Advisory Committee, Center for Planning Excellence (CPEX)

Program Review:

- 2012-16 External reviewer, IGERT-GEemap (Geoinformatics for Energy and Environment Modeling and Prediction) program, U of Iowa  
 2008 External program reviewer, Dept. of Geography, U Georgia  
 2006 External program reviewer, Dept. of Geography, U. of Minnesota  
 2005 External program reviewer, Dept. of Geography, U. of Buffalo  
 2003 External program reviewer, Dept. of Geography, U. of Connecticut  
 2002-05 External examiner, Master and Postgraduate Diploma in GIS, U. of Hong Kong  
 1996 Chaired a four-person extramural team reviewing the graduate programs in Geological Sciences and Geography at University of California, Riverside.

Personnel:

- 2016 External referee, promotion to Professor, U Kansas  
 2016 External referee, promotion to Professor, U Georgia  
 2016 External referee, tenure and promotion to Associate Professor, U Iowa  
 2015 External referee, promotion to Professor, U Georgia  
 2015 External referee, promotion to Professor, U Connecticut  
 2015 External referee, promotion to Professor, U North Texas  
 2014 External referee, promotion to Professor, U Minnesota  
 2014 External referee, tenure and promotion to Associate Professor, Georgia State U  
 2013 External referee, promotion to Professor, George Mason U  
 2013 External referee, promotion to Professor, Temple U  
 2013 External referee, promotion to Professor, U of Texas – Dallas  
 2012 External referee, promotion to Professor, Brigham Young U  
 2012 External referee, tenure and promotion to Associate Professor, U Buffalo  
 2011 External referee, promotion to Professor, Arizona State University  
 2011 External referee, promotion to Professor, U Miami  
 2009 External referee, promotion to Professor, U Iowa  
 2009 External referee, tenure and promotion to Associate Professor, U Iowa  
 2009 External referee, tenure and promotion to Associate Professor, U North Texas  
 2009 External referee, tenure and promotion to Associate Professor, Brigham Young U  
 2009 External referee, tenure and promotion to Associate Professor, U Georgia  
 2009 External referee, appointment to Assistant Professor, Chinese U of Hong Kong  
 2008 External referee, tenure as Associate Professor, U Sains Malaysia, Malaysia  
 2007 External referee, promotion to Professor, U Buffalo  
 2007 External referee, tenure and promotion to Associate Professor, U Georgia  
 2007 External referee, tenure as Associate Professor, East Carolina U  
 2007 External referee, tenure as Associate Professor, Hunter College

- 2006 External referee, appointment to professor and GIS program development, Harvard University (aborted due to conflict of interest)
- 2006 External referee, promotion to Professor, U Cincinnati
- 2006 External referee, tenure and promotion to Associate Professor, U Southern California
- 2006 External referee, promotion to associate professor, Hunter College
- 2006 External referee, tenure/promotion to associate professor, Florida State University
- 2005 External referee, tenure/promotion to associate professor, UT Dallas
- 2005 External referee, promotion to full professor, University of Western Ontario, Canada
- 2005 External referee, tenure and promotion to Associate Professor, West Virginia U
- 2005 External referee, appointment to Professor 2, Chinese University of Hong Kong
- 2004 External referee, promotion to full professor, Ohio State University
- 2004 External referee, promotion to full professor, U Oklahoma
- 2004 External referee, promotion to full professor, U Buffalo
- 2004 External referee, tenure/promotion to associate professor, Indiana U
- 2004 External referee, tenure/promotion to associate professor, Indiana State U
- 2003 External referee, promotion to full professor, U Georgia
- 2003 External referee, promotion to full professor, Kent State University
- 2003 External referee, tenure/promotion to associate professor, Arizona State University
- 2003 External referee, promotion to Professor I, Chinese University of Hong Kong (two cases)
- 2002 External referee, tenure/promotion to associate professor, U Cincinnati
- 2002 External referee, tenure/promotion to associate professor, U Iowa
- 2001 External referee, tenure/promotion to associate professor, Northern Illinois University
- 2001 External referee, tenure/promotion to associate professor, East Carolina University
- 2001 External referee, tenure/promotion to associate professor, University of Cincinnati
- 2000 External referee, tenure/promotion to associate professor, University of Cincinnati
- 2000 External referee, promotion to full professor, University of Tennessee
- 2000 External referee, promotion to full professor, University of Colorado-Boulder
- 1999 External referee, tenure/promotion to associate professor, University of Oklahoma
- 1999 External referee, tenure/promotion to associate professor, Ohio State University
- 1999 External referee, tenure/promotion to associate professor, Macalester College,
- 1999 External referee, promotion to full professor, University of Kansas
- 1999 External referee, tenure/promotion to associate professor, University at Buffalo
- 1999 External examiner, for a doctoral dissertation, Nanyang University, Singapore.
- 1998 External referee, promotion to full professor, University of Connecticut
- 1997 External referee, tenure and promotion to associate professor, U. of Massachusetts - Boston
- 1997 External referee for a grant application for the City University of New York.
- 1996 External referee for a tenure and full professor appointment for University of Southern California
- 1996 External referee for a tenure and promotion case for U. C. Berkeley
- 1994 External referee for a grant application for the Kansas NSF EPSCoR program.
- 1993 External referee for a grant application for the Idaho State Board of Education.
- 1993 External referee for a tenure and promotion case for Florida Atlantic University.
- 1992 External referee for a tenure and promotion case for U. C. Riverside.

### **Journals edited, Manuscripts, Books, and Proposals reviewed:**

Since 1983, I have served as anonymous reviewer regularly for over 450 manuscripts and proposals (on average 10-12/year) for the following journals, granting agencies, and publishing companies. Note the number does not include the grant proposals while serving on the NSF, NIH, NASA, Hong Kong review panels and manuscripts while serving on other regular committees.

Journals:

*International Journal of Disaster Risk Reduction*  
*Journal of Infrastructure Systems*  
*Health and Place*  
*Environmental Science and Policy*  
*Transactions in GIS*  
*Nature Climate Change*  
*Ecological Modeling*  
*Natural Hazards*  
*Sustainability*  
*Remote Sensing*  
*PLoS One*  
*The American Cartographer* (now called *Cartography and GIS*)  
*Annals of the Association of American Geographers*  
*Canadian Geographer*  
*Environment and Planning*  
*Geographical Analysis*  
*International Journal of Geographical Information Science*  
*International Journal of Remote Sensing*  
*The Ohio Journal of Science*  
*Photogrammetric Engineering and Remote Sensing*  
*The Professional Geographer*  
*Social Science and Medicine*  
*Tijdschrift Voor Economische En Sociale Geografie (Journal of Economic and Social Geography)*  
*Geosciences and Man*  
*Ecological Applications*  
*Geographical and Environmental Modeling*  
*Physics Review Letters*  
*Environment and Planning D*  
*International Journal of Health Geographics*  
*Remote Sensing of Environment*  
*Geocarto International*  
*Clinical Infectious Diseases*  
*Environmental Monitoring and Assessment Science*  
*Computers, Environment, and Urban Systems*  
*Transactions of GIS*  
*Discrete Dynamics for Nature and Society*

Publishers:

Guilford Press  
Oxford University Press  
Prentice Hall  
Wm. C. Brown Publishers  
Merrill Publishing Co.  
Lewis Publishers

Granting Agencies and others:

Hong Kong Health and Medical Research Fund  
NIH, NIENS



NASA

EPA

NSF -Geography & Regional Science; Computer Science; Archaeology; Instrumentation and Laboratory Improvement; Small Business Innovative Program, Information Technology, Biocomplexity, HSD, IGERT, International, Hydrological Sciences, and others

U.S. Department of Agriculture

University of Toledo (Graduate School Research Grant)

Nanyang University, Singapore

A proposal for CUNY-Albany

A proposal for Kansas State University (2007)

#### **1.4.5 Other External Services**

2009- Advisory Council, Louisiana Center for Planning Excellence

2009 Organize tour and presentation to the Department of Environmental Sciences for high-school students participating in the Louisiana Junior Science and Humanities Symposium, January 16.

2003 Presentation to a summer high-school honor class about GIS and remote sensing, and gave a tour on our lab facilities.

1996 Geography Bee judge

1989 Geography Bee judge