

Curriculum Vitae

Daoqin Tong

Education

- Ph.D. in Geography, 2007, The Ohio State University, Columbus, Ohio, USA.
- M.A.S. (Master of Applied Statistics) in Statistics, 2007, The Ohio State University, Columbus, Ohio, USA
- M.S. in Civil Engineering, 2004, The Ohio State University, Columbus, Ohio, USA
- B.S. in Civil Engineering, 2001, University of Shanghai for S & T, Shanghai, P.R.China

Academic/Professional Appointments

- **Assistant Professor** (Aug 2007 – present), Department of Geography and Regional Development, University of Arizona
- **Assistant Professor** (Oct 2007 – present), Graduate Interdisciplinary Program in Statistics, University of Arizona
- **Research Assistant** (2004 – 2007), Center for Urban and Regional Analysis, The Ohio State University
- **Teaching Assistant** (Fall 2006), Department of Geography, The Ohio State University
- **Research Assistant** (2002 – 2004), Department of Civil Engineering, The Ohio State University

Teaching

- Geography 553 – Advanced Location Theory (Spring 2009), University of Arizona
- Geography 458 – Geography of Transportation (Spring 2009), University of Arizona
- Geography/Planning 457/557 – Statistical Techniques in Geography, Regional Development and Planning (Fall 2008), University of Arizona
- Geography/Math 574G – Introduction to Geostatistics (Fall 2008), instructor, university of Arizona
- Geography 416C/516C – Urban Geographical Information Systems (Spring 2008), University of Arizona
- Geography 458/558 – Geography of Transportation (Spring 2008), University of Arizona
- Geography 553 – Locational Analysis (Fall 2007), University of Arizona
- Geography 607 – Geography Information Systems (Fall 2006), lab instructor, The Ohio State University

Research Grant

- \$5,000 (2009) (PI), “Maximizing the Participation in Farmers’ Markets”, funded by College of Social and Behavioral Sciences, University of Arizona

- \$1,800 College Small Grant (2007) (CoPI), funded by College of Social and Behavioral Sciences, University of Arizona
- \$ 3,000 Summer 2005 Research Grant Award for research toward the proposal of dissertation work, funded by Department of Geography, The Ohio State University

Publications

Journal Articles

- Zhang B., F. Schwartz and D. Tong (2009) “Application of artificial neural computation in Topex waveform data: a case study in water ratio regression”, *International Journal of Software Science and Computational Intelligence*, in press
- Murray A.T., D. Tong and K. Kim (2009) “Enhancing classic coverage location models”, submitted to *International Regional Science Review*. In press
- Tong D., A.T. Murray and N. Xiao (2009) “Heuristic in spatial analysis: a genetic algorithm for coverage maximization”, *Annals of Association of American Geographers* 99(4): 1-14
- Tong D. and A.T. Murray (2009) “Maximizing coverage of spatial demand for service”, *Papers in Regional Science* 88(1): 85-97
- Murray A.T. and D. Tong (2009) “Analyzing structure fires in Massachusetts: regional science and the media”, *Applied Geography* 29: 250-259
- Tong D. and S. Dall'erba (2009) “Spatial disparities in the Chinese ICT sector: a regional analysis”, *Région et Développement* 28: 111-129
- Tong D., C.J. Merry and B. Coifman (2009) “New perspectives on the use of GPS and GIS to support a highway performance study”, *Transactions in GIS* 13(1): 69-85
- Zhang B., F.W. Schwartz and D. Tong (2009) “Landsat sub-pixel analysis in mapping the impact of climatic variability on Prairie Pothole changes”, *Transactions in GIS* 3(2): 179-195
- Murray A.T., T.C. Matisziw, H. Wei and D. Tong (2008) “A geocomputational heuristic for coverage maximization in service facility siting”, *Transactions in GIS* 12(6): 757-773
- Murray A.T. and D. Tong (2007) “Coverage optimization in continuous space facility siting”, *International Journal of Geographical Information Science* 21:757-776

Peer-reviewed Proceedings

- Robert D. and D. Tong (2009) “Distance Value Model: Geospatial Implementation of Environmental Justice”, *The Transportation Research Board (TRB) 88th Annual Meeting*: 09-0181 (DVD)
- Zhang B., F. Schwartz and D. Tong (2008) “Application of artificial neural computation in Topex waveform data: a case study in water ratio regression”, *The International Conference on Cognitive Informatics 2008*, 232
- Tong D. and A.T. Murray (2006) “Geographic information science to enhance location coverage modeling”, *University Consortium for Geographic Information Science Summer Assembly*, online (<http://www.ucgis.org>)
- Fan B., B. Li, C. Ma and D. Tong (2002) Traffic control on urban expressways. *12th Annual Meeting of China System Engineering Academic Society*: 12 (in Chinese)

Other Peer-reviewed Publication

- Tong D. (2009) "Point pattern analysis" *Encyclopedia of Geography*, SAGE, accepted

Meetings and Conference Presentations

- Robert D. and D. Tong "Using Model Builder to Measure Environmental Justice in Transportation Plans", *2009 ESRI International User Conference*, San Diego, California, USA, July 13-17, 2009
- Liu Y., M. Momayez and D. Tong "Estimate soil moisture from remote sensing images through cokriging", *22nd Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP)*, Fort Worth, Texas, USA, March 29-April 2, 2009
- Shillington L. and D. Tong "Wireless mesh network design for emergency medical services in Tucson", *105th Annual Meeting of the Association of American Geographers*, Las Vegas, Nevada, USA, March 22-27, 2009
- Tong D. and R. Done "Optimizing environmental justice in transportation planning", *105th Annual Meeting of the Association of American Geographers*, Las Vegas, Nevada, USA, March 22-27, 2009
- Tong D. "Inexplicitly accounting for complementary coverage in regional coverage maximization", *48th Annual Meeting of the Western Regional Science Association*, Napa, California, USA, February 22-25, 2009
- Done R. and D. Tong "Distance value model: Geospatial implementation of environmental justice", *The Transportation Research Board 88th Annual Meeting*, Washington D.C., USA, January 11-15, 2009
- Tong D., H. Wei and A.T. Murray (2008) "An efficient vertex p-center problem solution", *55th North American Meeting of the Regional Science Association International*, Brooklyn, NY, USA, November 19-22, 2008
- Zhang B., F. Schwartz and D. Tong (2008) "Application of artificial neural computation in Topex waveform data: a case study in water ratio regression", *The 7th International Conference on Cognitive Informatics 2008*, Stanford University, California, USA, August 14-16, 2008
- Tong D., A.T. Murray, T. Grusbesic and S. Dall'erba (2008) "Coverage optimization for deploying a wireless mesh network", *Internal Symposium on Locational Decisions XI*, Santa Barbara, California, USA, June 25-July 2, 2008
- Tong D. "A new approach for regional coverage modeling", *104th Annual Meeting of the Association of American Geographers*, Boston, Massachusetts, USA, April 15-19, 2008
- Tong D., A.T. Murray and N. Xiao "Heuristics in facility location: a genetic algorithm for coverage maximization", *47th Annual Meeting of the Western Regional Science Association*, Hawaii, February 17-20, 2008
- Tong D. and A.T. Murray "Incorporating spatial information for solving a coverage maximization siting problem", *54th North American Meeting of the Regional Science Association International*, Savannah, Georgia, USA, November 7-10, 2007
- Murray A.T., T.C. Matisziw, D. Tong and H. Wei "GeoComputational approaches to coverage maximization in service facility siting", *GeoComputation 2007*, NUI Maynooth,

Ireland, September 3-5, 2007

- Tong D. and A.T. Murray “Addressing region-wide coverage issues”, *103rd Annual Meeting of the Association of American Geographers*, San Francisco, California, USA, April 17-21, 2007
- Tong D. and A.T. Murray “Spatial representation issues in maximizing regional coverage in the plane”, *53rd North American Meeting of the Regional Science Association International*, Toronto, Canada, November 16-18, 2006
- Tong D. and A.T. Murray “Geographic information science to enhance location coverage modeling”, *University Consortium for Geographic Information Science Summer Assembly*, Vancouver, Washington, USA, June 28-July 1, 2006
- Tong D., C.J. Merry and B. Coifman “Deriving transportation information from GPS probe vehicle data integrated with a GIS”, *GIS for Transportation Symposium*, Columbus, Ohio, USA, March 27-29, 2006
- Tong D. and A.T. Murray “Siting facility in the plane: partial coverage approach”, *102nd Annual Meeting of the Association of American Geographers*, Chicago, Illinois, USA, March 7-11, 2006
- Murray A.T. and D. Tong “Analyzing structure fires in Massachusetts: regional science and the media”, *45th Annual Meeting of the Western Regional Science Association*, Santa Fe, New Mexico, February 22-25, 2006
- Murray A.T. and D. Tong “Coverage in continuous space facility siting”, *52nd North American Meeting of the Regional Science Association International*, Las Vegas, Nevada, USA, November 10-12, 2005
- Murray A.T. and D. Tong “Threshold coverage optimization”, *Internal Symposium on Locational Decisions X*, Sevilla and Islantilla, Spain, June 2-8, 2005

Honors and Awards

- **Association for Women Faculty Travel Award** (2009), University of Arizona
- **Student Paper Award** (2006), University Consortium for Geographic Information Science Summer Assembly
- **Best Student Paper Award** (2006), 19th Annual GIS for Transportation Symposium
- **University Fellowship** (2002 - 2003), The Ohio State University

Invited Talks

- Tong D. “Coverage optimization and geostatistic”, *University of Arizona*
- Tong D. “Geographic information science to enhance facility location modeling and problem solution”, *Arizona State University*

Professional Services

- Session organizer, chair, 105th Annual Meeting of the Association of American Geographers

Seminars

- Tong D. “Geographic information science to enhance facility location modeling and problem solution.” Department of Civil Engineering, University of Arizona
- Tong D. “Regional coverage maximization and problem solution”, Department of system and industrial engineering, University of Arizona

Memberships

- Association of American Geographers
- The Regional Science Association International
- The Western Regional Science Association

Advising Committee

- Sandra Holland, Ph.D. from Geography
- Paula Decker, Ph.D. from Geography
- Luke Shillington, Master from Geography (chair)
- Monica Stephens, Master from Geography
- Jared Powell, Master from Geography
- Youfang Liu, Master from Mining
- Alice Tseng, GIS certificate
- Johanna Kraus, GIS certificate
- Davita Mueller, GIS certificate

Journal Reviewer

Environment and Planning B: Planning and Design; Geographical Analysis; Papers in Regional Science; Computers, Environment and Urban Systems; Journal of Geographical Systems; Annals of American Association of Geographers; 2009 Applied Geography Conference; International Journal of Applied Geospatial Research; Annals of Regional Science; Environment Management; Transportation Research Board