

CURRICULUM VITAE

Fahui Wang

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[updated on 10/13/2017]

Educational Background:

- 12/1995 Ph.D. City and Regional Planning, The Ohio State University
(Dissertation: Spatial Equilibrium Models of Systems of Cities with Interurban
Transportation Costs; Advisor: Jean-Michel Guldmann)
- 09/1993 M.A. Economics, The Ohio State University
- 07/1988 B.S. Geography, Peking University, Beijing, P. R. China
(Senior thesis: Rank-Size Models in China 1949-1986; Advisor: Zhaoliang Hu)

Teaching and Other Professional Experience:

- 08/2007—present: Professor, Department of Geography and Anthropology, Louisiana State University
Professorships
 - 08/2014—present: James J. Parsons Professor, Department of Geography and Anthropology, Louisiana State University
 - 08/2009—07/2012: Fred B. Kniffen Professor, Department of Geography and Anthropology, Louisiana State University
- *Administrative Positions*
 - 01/2014—present: Chair, Department of Geography and Anthropology, Louisiana State University
 - 08/2007—07/2013: Director, Chinese Culture and Commerce Program, Louisiana State University
- 08/2002—07/2007: Associate Professor, Department of Geography, Northern Illinois University
- 08/1996—07/2002: Assistant Professor, Department of Geography, Northern Illinois University
- 12/1995—04/1996: Senior Planner, North Delta Planning and Development District, Mississippi
- 07/1988—08/1991: Instructor, Department of Geography, Peking University

Research Interests:

Subjects: Urban, Transportation, Health, Crime

Methods: GIS, Computational Methods, Spatial Statistics

BOOKS (total = 4)

- 1) Shi, X. and F. Wang (editors). 2016. *Applications of Geospatial Information Technologies in Public Health*. Beijing: Higher Education Press, ISBN 978-7-04-044052-2 (in Chinese, 277 pages) [施讯、王法辉 (编), 2016, 《地理信息技术在公共卫生与健康领域的应用》, 高等教育出版社, 北京, 277 页]
- 2) Wang, F. 2015. *Quantitative Methods and Socioeconomic Applications in GIS* (2nd ed.) Boca Raton, FL: CRC Press. ISBN 978-1-4665-8472-3 (301 pages)

Forthcoming in Chinese in 2018, Beijing: Commercial Press. [王法辉 (著), 刘凌波、朱丽霞 (译), 2018, 《GIS 和数量方法在社会经济研究中的应用》, 商务印书馆, 北京]
- 3) Wang, F. 2006. *Quantitative Methods and Applications in GIS*. Boca Raton, FL: CRC Press, 301 Pages. ISBN 0-8493-2795-4.

2009, in Chinese, Beijing: Commercial Press. [王法辉 (著), 姜世国、滕骏华 (译), 2009, 《基于 GIS 的数量方法与应用》, 商务印书馆, 北京, 313 页, ISBN 978-7-100-06092-9]
- 4) Wang, F. (editor). 2005. *Geographic Information Systems and Crime Analysis*. Hershey, PA: Idea Group Publishing. ISBN 159140454-1

PAPERS (total = 120)

I. Refereed Journal Articles in English [total = 87, SSCI/SCI = 66; * indicates Social Science Citation Index (SSCI) or Science Citation Index (SCI) journals; 41/87 as 1st author, and 68/87 as **corresponding author** (with **F Wang** in **bold**)]

2017

- a) ***Wang, F.**, Y. Hu, S. Wang, and X. Li. 2017. Local Indicator of Colocation Quotient with a statistical significance test: examining spatial association of crime and facilities. *Professional Geographer* 69: 22-31. DOI: 10.1080/00330124.2016.1157498
- b) *Jia, P., **F. Wang**, and I. Xierali. 2017. Using a Huff-Based Model to Delineate Hospital Service Areas. *Professional Geographer* 69: 522-530. DOI:10.1080/00330124.2016.1266950
- c) Hu, Y., **F. Wang**, and C. G. Wilmot. 2017. Commuting variability by wage groups in Baton Rouge 1990-2010. *Papers in Applied Geography* 3: 14-29. DOI: 10.1080/23754931.2016.1248577

- d) *Luo, J., L. Tian, L. Luo, H. Yi and **F. Wang**. 2017. Two-Step Optimization for Spatial Accessibility Improvement: A case study of health care planning in rural China. *BioMed Research International* 2017, Article ID 2094654, doi:10.1155/2017/2094654
- e) *Onega, T, J Alford-Teaster and F Wang. Population-based geographic access to National Cancer Institute (NCI) Cancer Center parent and satellite facilities. *Cancer* 123: 3305-3311. DOI: 10.1002/cncr.30727
- f) *Jia, P., **F. Wang**, and I. Xierali. 2017. Delineating hierarchical Hospital Service Areas in Florida. *Geographical Review* 107: 608-623. DOI: 10.1111/j.1931-0846.2016.12207.x
- g) *Li, X., F. Wang, and S. Xiao. 2017. A two-step approach to planning new facilities towards equal accessibility. *Environment and Planning B: Urban Analytics and City Science*. DOI: 10.1177/0265813516657083
- h) *Hu, Y., **F. Wang**, and I. Xierali. 2017. Automated delineation of Hospital Service Areas and Hospital Referral Regions by modularity optimization. *Health Services Research*. DOI: 10.1111/1475-6773.12616
- i) ***Wang, F.** Inverted Two-Step Floating Catchment Area method for measuring facility crowdedness. Forthcoming in *Professional Geographer*. DOI: 10.1080/00330124.2017.1365308

2016

*Hu, Y. and **F. Wang**. 2016. Temporal trends of intraurban commuting in Baton Rouge 1990-2010. *Annals of the American Association of Geographers* 106: 470-479. DOI: 10.1080/00045608.2015.1113117

2015

- a) *Mu, L., **F. Wang**, V. W. Chen and X. Wu. 2015. A place-oriented, mixed-level regionalization method for constructing geographic areas in health data dissemination and analysis. *Annals of the Association of American Geographers* 105: 48-66. NIHMSID 676196
- b) *Xu, Y., M. Wen and **F. Wang**. 2015. Multilevel built environment features and individual odds of overweight and obesity in Utah. *Applied Geography* 60: 197-203. Doi: 10.1016/j.apgeog.2014.10.006. NIHMSID 676190.

- c) *Jia, P., I. Xierali and **F. Wang**. 2015. Evaluating and re-demarcating the Hospital Service Areas in Florida. *Applied Geography* 60: 248-253. Doi: 10.1016/j.apgeog.2014.10.008
- d) **Wang, F.** and T. Onega. 2015. Accessibility of cancer care: disparities, outcomes and mitigation. *Annals of GIS* 21: 119-125. DOI: 10.1080/19475683.2015.1007893
- e) *Hu, Y. and **F. Wang**. 2015. Decomposing excess commuting: a Monte Carlo simulation approach. *Journal of Transport Geography* 44: 43-52. doi:10.1016/j.jtrangeo.2015.03.002
- f) *Xu, Y. and **F. Wang**. 2015. Built environment and obesity by urbanicity in the U.S. *Health & Place* 34: 19-29. doi:10.1016/j.healthplace.2015.03.010. NIHMSID 676154.
- g) *Leitner, M., N. N. S. Lam, F. Wang, L. Wang, S. Meng and J. Kent. 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
- h) *Ikram, S. Z., Y. Hu and **F. Wang**. 2015. Disparities in spatial accessibility of pharmacies in Baton Rouge, Louisiana. *Geographical Review* 105: 492-510
- i) **Wang, F.** and L. K. Robert. 2015. Constructing Geographic Areas by REDCAP and MLR for Analysis of Homicide Rates: A Case Study of New Orleans, Louisiana. *Papers in Applied Geography* 1: 295-306

2014

- a) ***Wang, F.**, C. Chen, C. Xiu and P. Zhang. 2014. Location analysis of retail stores in Changchun, China: A street centrality perspective. *Cities* 41: 54-63. Doi: 10.1016/j.cities.2014.05.005
- b) *Williams, S. and **F. Wang**. 2014. Disparities in accessibility of public high schools, in metropolitan Baton Rouge, Louisiana 1990-2010. *Urban Geography* 35: 1066-1083. Doi:10.1080/02723638.2014.936668
- c) *Wang, J., H. Mo and **F. Wang**. 2014. Evolution of air transport network of China 1930-2012. *Journal of Transport Geography* 40: 145-158. Doi: 10.1016/j.jtrangeo.2014.02.002
- d) ***Wang, F.**, Q. Tang and L. Wang. 2014. Post-Katrina population loss and uneven recovery in New Orleans 2000-2010. *Geographical Review* 104: 310-327. doi/10.1111/j.1931-0846.2014.12028.x

- e) *Joseph, M., **F. Wang** and L. Wang. 2014. GIS-based assessment of urban environmental quality in Port-au-Prince, Haiti. *Habitat International* 41: 33-40. Doi: 10.1016/j.habitatint.2013.06.009
- f) *Liu, Y., F. Wang, C. Kang, Y. Gao, and Y. Lu. 2014. Analyzing relatedness by toponym co-occurrences on web pages. *Transactions in GIS* 18: 89-107. Doi: 10.1111/tgis.12023
- g) ***Wang, F.**, L. Zhang, G. Zhang and H. Zhang. 2014. Mapping and spatial analysis of multiethnic toponyms in Yunnan, China. *Cartography and Geographic Information Science* 41: 86-99. Doi: 10.1080/15230406.2013.831529

2013

- a) ***Wang, F.**, M. Wen, and Y. Xu. 2013. Population-adjusted street connectivity, urbanicity and risk of obesity in the U.S. *Applied Geography* 41: 1-14. Doi: 10.1016/j.apgeog.2013.03.006. NIHMS 459623
- b) ***Wang, F.** and Q. Tang. 2013. Planning toward equal accessibility to services: a quadratic programming approach. *Environment and Planning B-Planning & Design* 40: 195-212. Doi:10.1068/b37096
- c) *Xiao, Y., **F. Wang**, Y. Liu and J. Wang. 2013. Reconstructing gravitational attractions of major cities in China from air passenger flow data, 2001-2008: a Particle Swarm Optimization approach. *Professional Geographer* 65: 265-282. Doi:10.1080/00330124.2012.679445.
- d) **Wang, F.** and W. Wang. 2013. Modeling population settlement patterns using a density function approach: New Orleans before and after Hurricane Katrina. *Cityscape: A Journal of Policy Development and Research* 15: 329-339

2012

- a) ***Wang, F.**, D. Guo and S. McLafferty. 2012. Constructing geographic areas for cancer data analysis: a case study on late-stage breast cancer risk in Illinois. *Applied Geography* 35: 1-11. Doi:10.1016/j.apgeog.2012.04.005. PMID22736875 (PMCID: PMC3379893)
- b) **Wang, F.** 2012. Why police and policing need GIS: an overview. *Annals of GIS* 18: 159-171. doi.10.1080/19475683.2012.691900
- c) *Liu, Y., F. Wang, Y. Xiao, and S. Gao. 2012. Urban land uses and traffic 'source-sink areas': Evidence from GPS-enabled taxi data in Shanghai. 2012. *Landscape and Urban Planning* 106: 73-87. doi:10.1016/j.landurbplan.2012.02.012

- d) *Joseph, M., L. Wang and **F. Wang**. 2012. Using Landsat imagery and census data for urban population density modeling in Port-au-Prince, Haiti. *GIScience & Remote Sensing* 49: 228–250.
- e) ***Wang, F.**, G. Wang, J.F. Hartmann and W. Luo. 2012. Sinification of Zhuang place names in Guangxi, China: A GIS-based spatial analysis approach. *Transactions of the Institute of British Geographers* 37: 317-333. doi: 10.1111/j.1475-5661.2011.00471.x
- f) *Porta, S., V. Latora, **F. Wang** et al. 2012. Street centrality and location of economic activities in Barcelona. *Urban Studies* 49: 1471–1488. doi: 10.1177/0042098011422570.
- g) ***Wang, F.** 2012. Measurement, optimization and impact of health care accessibility: a methodological review. *Annals of the Association of American Geographers* 102: 1104-1112. DOI:10.1080/00045608.2012.657146. PMC3547595

2011

- a) **Wang, F.** and Y. Xu. 2011. Estimating O-D travel time matrix by Google Maps API: implementation, advantages and implications. *Annals of GIS* 17: 199-209.
- b) *McLafferty, S., F. Wang, L. Luo and J. Butler. 2011. Rural-urban inequalities in late-stage breast cancer: spatial and social dimensions of risk and access. *Environment and Planning B-Planning & Design* 38: 726-740. PMC3547633
- c) *Dai, D. and F. Wang. 2011. Geographic disparities in accessibility to food stores in southwest Mississippi, *Environment and Planning B-Planning & Design* 38: 659-677. doi 10.1068/b36149.
- d) *Wang, J., H. Mo, F. Wang, and F. Jin. 2011. Exploring the network structure and nodal centrality of China's air transport network: A complex network approach. *Journal of Transport Geography* 19: 712-721. doi:10.1016/j.jtrangeo.2010.08.012
- e) *Antipova, A., **F. Wang** and C. Wilmot. 2011. Urban land uses, socio-demographic attributes and commuting: a multilevel modeling approach. *Applied Geography* 31: 1010-1018. Doi: 10.1016/j.apgeog.2011.02.001.
- f) ***Wang, F.**, A. Antipova and S. Porta. 2011. Street centrality and land use intensity in Baton Rouge, Louisiana. *Journal of Transport Geography* 19: 285-293. doi:10.1016/j.jtrangeo.2010.01.004

2010

- a) *Luo, L., S. McLafferty and F. Wang. 2010. Analyzing spatial aggregation error in statistical models of late-stage cancer risk: a Monte Carlo simulation approach, *International Journal of Health Geographics* 9:51. PMID20959015 (PMCID: PMC2970586)
- b) Antipova, A. and **F. Wang**. 2010. Land use impacts on trip chaining propensity for workers and non-workers in Baton Rouge, Louisiana. *Annals of GIS* 16: 141-154.
- c) *Elkin, E. B., N. M. Ishill, J. G. Snow, K. S. Panageas, P. B. Bach, L. Liberman, F. Wang, D. Schrag. 2010. Geographic access and the use of screening mammography. *Medical Care* 48: 349-356. doi: 10.1097/MLR.0b013e3181ca3ecb. PMID20195174 (NIHMS311688)
- d) **Wang, F.**, L. Luo and S. McLafferty. 2010. Healthcare access, socioeconomic factors and late-stage cancer diagnosis: an exploratory spatial analysis and public policy implication. *International Journal of Public Policy* 5: 237-258. doi:10.1504/IJPP.2010.030606. PMC3540777
- e) Luo, W., J. F. Hartmann and F. Wang. 2010. Terrain characteristics and Tai toponyms: A GIS analysis of Muang, Chiang and Viang. *GeoJournal* 75: 93–104. doi: 10.1007/s10708-009-9291-8.
- f) *Joseph, M. and **F. Wang**. 2010. Population density patterns in Port-au-Prince, Haiti: A model of Latin American city? *Cities* 27: 127-136. doi:10.1016/j.cities.2009.12.002.

2009

- a) Driskell, L. and **F. Wang**. 2009. Mapping digital divide in neighborhoods: Wi-Fi access in Baton Rouge, Louisiana. *Annals of GIS* 15: 35-46.
- b) *Wang, J., F. Jin, H. Mo, and F. Wang. 2009. Spatiotemporal evolution of China's railway network in the 20th century: an accessibility approach. *Transportation Research Part A: Policy and Practice* 43: 765-778.
- c) *Feng, J., **F. Wang** and Y.-X. Zhou. 2009. The spatial restructuring of population in metropolitan Beijing: Toward polycentricity in the post-reform era. *Urban Geography* 30: 779-802.
- d) *McLafferty, S. and F. Wang. 2009. Rural reversal? Rural-urban disparities in late-stage cancer risk in Illinois. *Cancer* 115: 2755-2764. PMID19434667 (PMCID: PMC2774239)

- e) *Porta, S., V. Latora, F. Wang et al. 2009. Street centrality and densities of retails and services in Bologna, Italy. *Environment and Planning B-Planning & Design* 36: 450-465.

2008

- a) Chen Y. and F. Wang. 2008. Fourier analysis of an expanded gravity model for spatio-temporal interactions. *Far East Journal of Dynamical Systems* 10: 325-347.
- b) ***Wang, F.** and M. Arnold. 2008. Localized income inequality, concentrated disadvantage and homicide. *Applied Geography* 28: 259-270.
- c) Teng, J., **F. Wang** and Y. Liu. 2008. An efficient algorithm for raster-to-vector data conversion. *Geographic Information Sciences* 14: 54-62.
- d) *Mu, L. and **F. Wang**. 2008. A scale-space clustering method: mitigating the effect of scale in the analysis of zone-based data. *Annals of the Association of American Geographers* 98: 85-101.
- e) ***Wang, F.**, S. McLafferty, V. Escamilla and L. Luo. 2008. Late-stage breast cancer diagnosis and health care access in Illinois. *Professional Geographer* 60: 54-69. PMID 18458760 (PMCID: PMC2367325)

2007

Wang, F. 2007. Job access in disadvantaged neighborhoods in Cleveland, 1980-2000: implications for spatial mismatch and association with crime patterns. *Cityscape: A Journal of Policy Development and Research* 9: 95-121.

2006

Wang, F., J. Hartmann, W. Luo and P. Huang. 2006. GIS-based spatial analysis of Tai place names in southern China: an exploratory study of methodology. *Geographic Information Sciences* 12: 1-9.

2005

- a) **Wang, F.**, F. Jin and C. Gu. 2005. GIS-based method for delineating urban hinterlands in Northeast China. *Geographic Information Sciences* 11: 113-121.
- b) *Gu, C., **F. Wang** and G. Liu. 2005. The structure of social space in Beijing in 1998: a socialist city in transition. *Urban Geography* 26: 167-192.
- c) ***Wang, F.** 2005. Job access and homicide patterns in Chicago: an analysis at multiple geographic levels based on scale-space theory. *Journal of Quantitative Criminology* 21: 195-217.

- d) ***Wang, F.** and W. Luo. 2005. Assessing spatial and nonspatial factors for healthcare access: Towards an integrated approach to defining health professional shortage areas. *Health & Place* 11: 131-146. PMID15629681

2004

- a) *Jin, F., **F. Wang** and Y. Liu. 2004. Geographic patterns of air passenger transport in China 1980-98: Imprints of economic growth, regional inequality and network development. *Professional Geographer* 56: 471-487.
- b) ***Wang, F.** 2004. Spatial clusters of cancers in Illinois 1986-2000. *Journal of Medical Systems* 28: 237-256. PMID15446615
- c) *Luo, W., F. Wang and C. Douglass. 2004. Temporal changes of access to primary health care in Illinois (1990-2000) and policy implications. *Journal of Medical Systems* 28: 287-299. PMID15446618

2003

- a) *Luo, W. and **F. Wang.** 2003. Measures of spatial accessibility to health care in a GIS environment: synthesis and a case study in Chicago region. *Environment and Planning B-Planning & Design* 30: 865-884. doi:10.1068/b29120
- b) ***Wang, F.** 2003. Job proximity and accessibility for workers of various wage groups. *Urban Geography* 24: 253-271.

2002

- a) ***Wang, F.** and W. W. Minor. 2002. Where the jobs are: employment access and crime patterns in Cleveland. *Annals of the Association of American Geographers* 92: 435-450.
- b) **Wang, F.** 2002. The geography of the wages: Chinese cities 1989 and 1997. *Asia Pacific Viewpoint* 43: 257-272.
- c) **Wang, F.** 2002. Distance decay of population densities from major cities in China. *Current Politics and Economics of China* 3: 545-555.

2001

- a) ***Wang, F.** 2001. Regional density functions and growth patterns in major plains of China, 1982-90. *Papers in Regional Science* 80: 231-240.

b) ***Wang, F.** 2001. Explaining intraurban variations of commuting by job proximity and workers' characteristics. *Environment and Planning B-Planning & Design* 28: 169-182.

c) **Wang, F.** 2001. Wage differentials among Chinese cities. *TRIALOG* 68: 4-8.

2000

***Wang, F.** 2000. Modeling commuting patterns in Chicago in a GIS environment: a job accessibility perspective. *Professional Geographer* 52: 120-133.

1999

a) **Wang, F.** and Y. Meng. 1999. Analyzing urban population change patterns in Shenyang, China 1982-90: density function and spatial association approaches. *Geographic Information Sciences* 5: 121-130.

b) ***Wang, F.** 1999. Modeling a central place system with interurban transport costs and complex rural hinterlands. *Regional Science and Urban Economics* 29: 381-409.

c) ***Wang, F.** and Y. Zhou. 1999. Modeling urban population densities in Beijing 1982-90: suburbanisation and its causes. *Urban Studies* 36: 271-287.

d) *Guldmann, J.-M. and F. Wang. 1999. Optimizing the natural gas supply mix of local distribution utilities. *European Journal of Operational Research* 112: 598-612.

1998

a) **Wang, F.** and J. A. Van Loo. 1998. Citizen participation in the North Delta Mississippi Community Development Block Grants, Empowerment Zones and Enterprise Communities. *Planning Practice and Research* 13: 443-451.

b) *Guldmann, J.-M. and F. Wang. 1998. Population and employment density functions revisited: a spatial interaction approach. *Papers in Regional Science* 77: 189-211.

c) **Wang, F.** 1998. Modeling traffic emission rates with artificial neural networks. *Environment and Geographical Modelling* 2: 103-113.

d) ***Wang, F.** 1998. Urban population distribution with various road networks: a simulation approach. *Environment and Planning B-Planning & Design* 25: 265-278.

1997

*Wang, F. and J.-M. Guldmann. 1997. A spatial equilibrium model for region size, urbanization ratio, and rural structure. *Environment and Planning A* 29: 929-941.

1996

*Wang, F. and J.-M. Guldmann. 1996. Simulating urban density with a gravity-based model. *Socio-Economic Planning Sciences* 30: 245-256.

II. Book Chapters in English (total = 14)

Wong, D.W.S., Wang, F., 2018. Spatial analysis methods. In: Huang, B. (Ed.), *Comprehensive Geographic Information Systems*. Vol. 1, pp. 125–147. Oxford: Elsevier. <http://dx.doi.org/10.1016/B978-0-12-409548-9.09598-1>

Luo, W., Hartmann, J., Wang, F., Pingwen, H., Sysamouth, V., Li, J., Cang, X., 2018. GIS in Comparative-Historical Linguistics Research: Tai Languages. In: Huang, B. (Ed.), *Comprehensive Geographic Information Systems*. Vol. 3, pp. 157–180. Oxford: Elsevier. <http://dx.doi.org/10.1016/B978-0-12-409548-9.09663-9>

Wang, F., C. Fu and X. Shi. 2015. Planning towards maximum equality in accessibility of NCI Cancer Centers in the U.S., in *Spatial Analysis in Health Geography* (eds. P. Kanaroglou, E. Delmelle, and A. Paez). Farnham, Surrey, England: Ashgate, 261-274.

Croitoru, A., D. Guo, F. Wang, et al. 2011. Spatial data analysis and geoinformation extraction (Chapter 5), in *Advanced Geoinformation Science* (eds. C.P. Yang, D.W.S. Wong, Q. Miao, and R. Yang). Boca Raton, FL: CRC Press, 145-203 [refereed].

Aron, J. L., S. Luzzadder-Beach, M. Sun, F. Wang, et al. 2011. Environmental and related applications (Chapter 8), in *Advanced Geoinformation Science* (eds. C.P. Yang, D.W.S. Wong, Q. Miao, and R. Yang). Boca Raton, FL: CRC Press, 303-349 [refereed].

Mu, L., F. Wang and S. McLafferty. 2010. Analyzing spatial patterns of late-stage breast cancer in Chicago region: a modified scale-space clustering approach (Chapter 18), in *Geospatial Analysis and Modelling of Urban Structure and Dynamics* (eds. B. Jiang and X. Yao). Dordrecht, the Netherlands: Springer Science+Business Media B.V., 355-371 [refereed].

Wang, F. and Y. Feliberty. 2010. Spatial distribution of toxic release inventory sites in Chicago area: is there environmental inequity? *Geospatial Techniques in Urban Hazard and Disaster Analysis* (ed. Pamela S. Showalter and Yongmei Lu), Springer, 157-177 [refereed].

Porta S, Latora V, Wang F, Rueda S, Cormenzana B, Càrdenas F, Latora L, Strano E, Belli E, Cardillo A, Scellato S. 2009. Correlating Densities of Centrality and Activities in

Cities: the Cases of Bologna (IT) and Barcelona (ES), in *Planning, Complexity and New ICT* (ed. Rabino G, Castiglioni M), Alinea, Firenze, 37-45 [refereed].

Wang, F. 2009. Factor analysis and principal-components analysis, in *International Encyclopedia of Human Geography*, Vol. 4 (editors-in-chief: Rob Kitchin and Nigel Thrift), Oxford, UK: Elsevier, 1-7.

Wang, F. and W. Luo. 2005. GIS-based accessibility measures and application, in *Encyclopedia of Information Science and Technology* (ed. Mehdi Khosrow-Pour), Hershey, PA: Idea Group Publishing, 1284-1287 [refereed]

Wang, F. and V. O'Brien. 2005. Constructing geographic areas for analysis of homicide in small populations: testing the herding-culture-of-honor proposition, in *GIS and Crime Analysis* (ed. Fahui Wang), Hershey, PA: Idea Group Publishing, 84-100 [refereed]

Zhou, Y-X. and F. Wang. 2004. Suburbanization in Beijing, in *Changing China: A Geographical Appraisal* (eds. Chiao-min Hsieh and Max Lu eds), Boulder, Colorado: Westview Press, 311-325 [refereed]

Luo, W. and F. Wang. 2003. Spatial accessibility to primary care and physician shortage area designation: a case study in Illinois with GIS approaches, in *Geographic Information Systems and Health Applications* (eds. Omar Khan and Ric Skinner), Hershey, PA: Idea Group Publishing, 260-278 [refereed]

Wang, F., 1993. Statistical models of city-size distribution in China, in *Urban Development in China and South-East Asia* (eds. K.C. Tan, W. Taubmann, S. Ye), Bremen, Germany: Bremen University, 29-39 [refereed]

III. Articles in Chinese [中文论文, total = 19]

Refereed Journal Papers in Chinese (total = 12)

[8/12 as 1st author, and 9/12 as **corresponding author** (with 王法辉 in bold)]

王法辉.1989. “中国封建社会长期延续的地理思考” 《经济地理》 9 卷 1 期 44-49 页

王法辉.1989. “我国城市规模分布的统计模式研究” 《城市问题》 8 卷 1 期 14-20 页

杨齐、王法辉.1990. “城镇发展条件的评价方法—以漳州市为例” 《地域研究与开发》 9 卷 3 期 20-27 页

王法辉、金凤君、曾光.2003. “我国航空客运网络的空间演化机制与模式研究” 《地理科学》 23 卷 5 期 519-525 页

顾朝林、王法辉、刘贵利.2003. “北京城市社会区分析” 《地理学报》 58 卷 6 期 917-926 页

王法辉、金凤君、曾光.2004. “区域人口密度函数与增长模式:兼论城市吸引范围划分的 GIS 方法” 《地理研究》 23 卷 1 期 97-103 页

王法辉、胡忆东.2010. “芝加哥制造业发展过程及区位因素分析” 《地理科学》 30 卷 2 期 175-183 页

- 王法辉, 2011, “社会科学和公共政策的空间化和 GIS 的应用” 《地理学报》 66 卷 8 期 1089-1100 页
- 王法辉、王冠雄、李小娟, 2013, “广西壮语地名分布与演化的 GIS 分析”, 《地理研究》 32 卷 3 期 487-496 页
- 陈晨、王法辉、修春亮, 2013, “长春市商业网点空间分布与交通网络中心性关系研究”, 《经济地理》 33 卷 10 期 40-47 页
- 王法辉、刘瑜、王姣娥, 2014, “交通网络与城市结构研究: 理论框架与中美两国实证案例”, 《地理科学进展》 33 卷 10 期 1289-1299 页
- 刘瑜、康朝贵、王法辉, 2014, “大数据驱动的人类移动模式和模型研究”, 《武汉大学学报(信息科学版)》 06 期 660-666 页

Book Chapters in Chinese (total = 7)

- 王法辉, 2010, “为什么人文学与社会科学亟需 GIS?”, 《空间综合人文学与社会科学》 (林琿, 赖进贵, 周成虎编) (科学出版社), 3-16 页
- 王冠雄、王法辉等, 2010, “基于 GIS 的壮语地名空间分布研究——以广西壮族自治区为例”, 《空间综合人文学与社会科学》 (林琿, 赖进贵, 周成虎编) (科学出版社), 162-176 页
- 蔡颖、侯杨方、王法辉, 2012, “1936-1946 中国人口密度的分布和变化”, 《中國近代城市文化的動態發展: 人文空間的新視野》 (蘇基朗主編) 浙江大學出版社, 99-116 页
- 张佩瑶、苏基朗、林琿、王法辉, 2012, “从历史 GIS 角度看民国中西医服务与城市交通的关系”, 《中國近代城市文化的動態發展: 人文空間的新視野》 (蘇基朗主編) 浙江大學出版社, 84-98 页
- 王法辉、罗卫、程杨, 2016, “就医便捷度的度量、影响与优化”, 《地理信息技术在公共卫生与健康领域的应用》 (施讯、王法辉编), 高等教育出版社, 183-209 页
- 罗卫、依玛木·西尔艾力、王法辉, 2016, “美国缺医区划分的实践与改进前景”, 《地理信息技术在公共卫生与健康领域的应用》 (施讯、王法辉编), 高等教育出版社, 227-246 页
- 王法辉、陶卓霖、程杨, 2017, “医疗服务的空间分布、区划和优化布局”, 《地理信息科学前沿》 (林琿、施讯、叶信岳编), 高等教育出版社, ? -? 页

Research Grants:

8/14/2017-7/31/2019: Tracy Omega and Fahui Wang (equal co-PIs). “Automated Delineation of Cancer Service Areas”, National Cancer Institute (NCI), National Institutes of Health (NIH), Grant No. 1R21CA212687-01A1, \$392,344.

10/1/2012-9/30/2015: Cecile C Guin (PI), Juan J Barthelemy, Matthew R Lee, Tracey Rizzuto, Edward Shihadeh, Fahui Wang. “Evaluation of Project BRAVE (Baton Rouge

Area Violence Elimination)”, Office of Juvenile Justice and Delinquency Prevention (OJJDP), U.S. Department of Justice, Grant No. 2012-PB-FX-K001, \$1,499,993.

9/1/2011-8/31/2014: Christopher D. White (PI), Jeffrey S. Hanor, Chacko J. John, Mark J. Kaiser, Mileva Radonjic, Mayank Tyagi, Fahui Wang, “Innovative Geothermal Heat Extraction by Wellbore Energy Conversion, Zero Mass Withdrawal, and Engineered Pycnal Flow”, U.S. Department of Energy, Grant No. DE-EE0005125, \$997,332.

9/1/2009-8/31/2011: Fahui Wang and Yu Liu, “Evolutions of Transport Networks and Systems of Cities in China 1906-2008,” Oversea Collaborative Project, National Natural Science Foundation of China, Grant No. 40928001, 200,000 RMB (equivalent to US\$35,000).

8/1/2009-7/31/2010: Fahui Wang, Vivien Chen and Xiaocheng Wu, “Constructing Geographic Areas in GIS for Cancer Data Analysis,” SEER-RRSS Program, National Cancer Institute (NCI), Grant No. NCI-N01-PC-54402, \$63,529.

9/15/2006-2/28/2011: John Hartmann, Fahui Wang and Wei Luo, “A Regional Approach to Spatial Analysis of Tai Toponyms in Southern China and Southeast Asia Using GIS,” National Science Foundation (NSF), Grant No. BCS-0623108, \$124,963.

4/1/2005-3/31/2007: Fahui Wang and Sara McLafferty, “Late-Stage Cancer Clusters and Healthcare Access,” National Cancer Institute (NCI), National Institutes of Health (NIH), Grant No. 1-R21-CA114501-01, \$207,585.

4/1/2004-9/30/2005: Fahui Wang, “Job Access in Disadvantaged Neighborhoods in Cleveland, 1980-2000: Implications for Spatial Mismatch and Association with Crime Patterns,” U.S. Department of Housing and Urban Development (HUD), Grant No. G2A62172, \$40,000.

09/2001-03/2004: Wei Luo, Fahui Wang and Carolina Douglass, “Primary-Care Physician Shortage Areas and Health Care Accessibility: A GIS Approach,” Agency for Healthcare Research and Quality (AHRQ), U.S. Department of Health and Human Services (DHHS), Grant No. 1-R03-HS11764-01, \$100,000.

01/2000-12/2001: Fahui Wang and W. William Minor, “Is Job Accessibility Relevant to Crime Patterns: A GIS Approach,” National Institute of Justice (NIJ), U.S. Department of Justice (DOJ), Grant No. 2000-IJ-CX-0023, \$34,996.

06/1997—05/1998: Fahui Wang, “Commuting Pattern, Job Accessibility and Juvenile Crimes in Chicago: A Research Framework for Three Stepwise Projects,” 1997-1998 Faculty Fellowship of the Social Science Research Institute, Northern Illinois University (NIU), \$11,036.

Graduate Students (Completed Year):

Louisiana State University

- PhD: Angela Antipova (2010), Myrtho Joseph (2012), Yanqing Xu (2014), Cong Fu (2015), Peng Jia (2015), Yujie Hu (2016)
- MS: Luke Driskell (2010), Weijie Wang (2012), Shaun Williams (2012), Ling Zhang (2012), Keenan Robert (2013), Samina Ikram (2014), Xuan Kuai (2015)

Northern Illinois University

- MS: Richard D Minnick (1999), Mark L Healy (2001), Shuhei Hayakawa* (2002), Larry J Lindenmier (2002), Matthew K Fitzgibbon (2003), Van O'Brien (2004), Aaron S McLean** (2004), Jodi L Heitkamp (2006), Martin T Arnold (2007), Yvette C Feliberty (2007), Lan Luo (2007)
[* Master students chose the 2-star-paper option, and completed a star paper under my supervision; ** Master students chose the 2-star-paper option, and completed both star papers under my supervision; others completed the thesis option.]

Services:

Honors and Others:

- Awards
 - 2015 Outstanding Article of the Year Award – Policy Winner, Healthcare Cost and Utilization Project (H-CUP), Agency for Healthcare Research and Quality, U.S. Department of Health and Human Services.
 - 2015: International Association of Chinese Professionals in Geographic Information Science (CPGIS) Excellence in Education Award
 - 2015: LSU Rainmaker Senior Scholar (for outstanding research, scholarship and creative activity)
 - 2009: LSU Rainmaker (for outstanding research, scholarship and creative activity)
 - 2006: International Association of Chinese Professionals in Geographic Information Science (CPGIS) Best Service Award
- Editorial boards:
 - *Annals of the Association of American Geographers* (2010-2013),
 - *Annals of GIS* (2008-),
 - *Applied Geography* (2014-),
 - *Chinese Geographical Science* (2007-)
- Grant review panels:
 - Geography and Spatial Sciences Program, National Science Foundation (2014-2015)

- Center for Scientific Review (CSR), National Institutes of Health (HSOD, 2006; SBIR, 2008, 2009; HDEP, 2012)
- Geospatial Technologies Program, National Institute of Justice (2010)
- Community Development Work-Study Program, U.S. Department of Housing and Urban Development (2001)
- Expert reviewer for international agencies:
 - Hong Kong Research Council (2009, 2011-)
 - National Natural Science Foundation of China (2009-)
 - Chang Jiang Scholars Program, Ministry of Education, China (2011, 2012, 2014, 2016)
 - Habilitation at the Institute of Geography, Heidelberg University, Germany (2015)
 - The Netherlands Organisation for Scientific Research (NWO) (2014)
- Other notable professional services
 - 2014- : University Consortium for Geographic Information Science's (UCGIS) Geographic Information Science & Technology Body of Knowledge (GIS&T BoK) Task Force Steering Committee
 - 2010-2012: Board of Directors, Applied Geography Conferences, Inc.
 - 2004-2007: Vice-Chair, Spatial Analysis and Modeling (SAM) Specialty Group, Association of American Geographers (AAG)
 - 2001-2002: President, International Association of Chinese Professionals in Geographic Information Science (CPGIS)

Peer reviewer for more than 70 journals

Notable Talks:

- May 5, 2007, “Geographic Inequality in Healthcare Access and Late-Stage Breast Cancer in Illinois”, invited speaker at the Memorial Sloan-Kettering Cancer Center (MSKCC), New York.
- October 16, 2008, “Geographic Disparities in Late-Stage Cancer and Health Care Access”, Dickey Center for International Understanding Speaker Series, Dartmouth College, Hanover, New Hampshire.
- March 16, 2009, “Why Social Sciences and Humanities Need GIS”, keynote speaker, 1st International Conference on Spatially-integrated Social Sciences and Humanities, Hong Kong.
- December 3, 2009, “Spatial Social Sciences and Public Policy”, Bo-Ya Distinguished Speaker Series (博雅论坛), Central China Normal University, Wuhan, China.

- April 21, 2010, “Public Policy Lessons from the US-China Comparative Urban Studies”, keynote speaker, Hubei Provincial Government Meeting on Urbanization, Wuhan, China.
- June 18, 2010, “GIS-Based Analysis of Accessibility: Measurement, Optimization and Impact”, keynote speaker, 18th International Conference on GeoInformatics, Beijing, China.
- August 9, 2010, “Inequality in Healthcare Access and Late-stage Cancer Diagnosis”, invited speaker at the Cancer Prevention Institute of California (CPIC), Fremont, California.
- September 21, 2010, “Urbanization, Urban Development and Digital City”, Pingshan Distinguished Speaker Series (坪山论坛), Shenzhen, China.
- April 12, 2011, “Inequality in Healthcare Access and Late-stage Cancer Diagnosis”, Huntsman Cancer Institute Cancer, Control and Population Sciences Research Program Visiting Scholar Series, University of Utah, Salt Lake City, Utah.
- July 19, 2011, “Why Police and Policing Need GIS?” keynote speaker, 1st National Conference on GIS Applications in Police in Beijing, China.
- July 11, 2012, “Quantifying Qualitative Issues in Geography”, Shi-jian Distinguished Speaker Series (石坚论坛), Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, Beijing, China.
- December 4, 2012, “Quantifying Qualitative Spatial Issues in GIS-based Crime Analysis”, keynote speaker, 2nd National Conference on GIS Applications in Police in Beijing, China.
- May 26, 2013, “Transport Networks and Human Settlement: A Sino-US Comparative Perspective”, invited speaker, Eighth Shanghai Forum (上海论坛), Shanghai, China.
- June 19, 2013, “Quantifying Qualitative Spatial Issues in GIS”, keynote speaker, 4th International Conference on Spatially-integrated Social Sciences and Humanities, Kaifeng, China.
- June 16, 2014, “Disparities in Healthcare Accessibility: Measure, Outcomes and Mitigation”, invited speaker, High-Level Forum on Fostering International Geospatial Health Research Collaborations, The Chinese University of Hong Kong, Hong Kong, China.
- November 7-9, 2014, “Transportation, Human Mobility and Public Policy”, invited speaker, Beijing Forum (北京论坛), Beijing, China.
- June 22, 2015, “The Matters of Geography (GIS) in Social Sciences and Public policy”, keynote speaker, 6th International Conference on Spatially-integrated Social Sciences and Humanities, Wuhan, China.
- July 4, 2015, “Quantifying Qualitative Issues in GIS-Based Crime Analysis”, keynote speaker, the International Conference on Crime Geography, Guangzhou, China.
- December 23, 2016, “Tell Better Stories in GIS”, invited speaker, Zhizhuo Undergraduate Forum (知卓本科论坛), College of Remote Sensing, Wuhan University, China.

- Jan 23, 2017, “GIS-Powered Social Sciences and Public Policy”, Kinder Institute for Urban Research, Rice University
- May 12, 2017, “Three GIS-Automated Tools for Public Health Studies and Beyond”, keynote speaker, COHPA Research Methods Workshop, University of Central Florida, Orlando, FL.
- June 16, 2017, “GIS-Powered Social Sciences, Public Policy & Planning”, Université Grenoble Alpes, France.

For more information on the publications, visit:

- <http://scholar.google.com/citations?user=b7GNV6UAAAAJ&hl=en&oi=ao> (Google Scholar, 4,515 citations, h-index=32)
- <http://www.researcherid.com/rid/H-4302-2013> (Web of Science, 1,624 citations, h-index=21)
- https://www.researchgate.net/profile/Fahui_Wang (Research Gate)
- <http://www.ncbi.nlm.nih.gov/myncbi/browse/collection/48070244/?sort=date&direction=ascending> (MyBibliography, US National Library of Medicine)