Jianghao WANG

Ph.D, Associate Professor

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Affiliations

Vocational

2018–now **Associate Professor**, Beijing, China.
State Key Laboratory of Resources & Environmental Information System,
Institute of Geographic Sciences & Natural Resources Research,
Chinese Academy of Sciences

2015–2017 **Assistant Professor**, Beijing, China.
State Key Laboratory of Resources & Environmental Information System,
Institute of Geographic Sciences & Natural Resources Research,
Chinese Academy of Sciences

2016–now **Associate Professor**, Beijing, China.
University of Chinese Academy of Sciences

Miscellaneous

2017–now **Research Affiliate**, Cambridge MA, US.
China Future City Lab, Massachusetts Institute of Technology: `http://cfclab.mit.edu`

2013–now **Associate Directors**, Beijing, China.
Beijing City Lab: `https://www.beijingcitylab.com/`

2012.09–11 **Visiting Scholar**, Wageningen, the Netherlands.
Department of Soil Geography and Landscape & ISRIC - World Soil Information, Wageningen University

Education

2010–2014 **Ph.D**, *Institute of Geographic Sciences & Natural Resources Research, Chinese Academy of Sciences, Beijing, China.*

2007–2010 **M.Sc**, *Institute of Geographic Sciences & Natural Resources Research, Chinese Academy of Sciences, Beijing, China.*

2003–2007 **B.Sc**, *Hohai University, Nanjing, China.*

Association Membership

committee member Urban Big Data Special Committee, **Chinese Society for Urban Studies**

secretary general Resources Mapping Special Committee, **China Society of Natural Resources**

member	**American Association of Geographers** (AAG)
member	**The Geographical Society of China**
member	**China Computer Society**

Teaching Experience

2016–2018	**Modern Cartography – Web Cartography**, *University of Chinese Academy of Sciences*. undergraduates, 30–40 students, 6 class hours
2016–2017	**Geographical Information Science Tutorial and Practice**, *University of Chinese Academy of Sciences*. undergraduates, 200 students, 20 class hours
2016	**Map Design and Making – Geo-spatial Big Data Mapping**, *University of Chinese Academy of Sciences*. undergraduates, 20–30 students, 3 class hours, Invited by Prof. Yingjie Wang
2016	**Spatio-temporal Big Data Analysis and Visualization**, *Tsinghua University*. undergraduates, 100 students, 4 class hours, Invited by Prof. Ying Long

Awards and Honors

2015	Young Scholar Nomination Paper Award, The 4th International Workshop on Regional, Urban and Spatial Economics in China
2015	Outstanding Graduates of IGSNRR, Chinese Academy of Sciences
2013, 2014	"three-good students" award of Chinese Academy of Sciences
2012	National Scholarship for Ph.D
2011, 2012	"three-good students" award of Chinese Academy of Sciences
2010	Outstanding Graduates of Chinese Academy of Sciences
2008, 2009	"three-good students" award of Chinese Academy of Sciences

Skills and Expertise

Major	Urban Studies and Planning, Spatial Statistics, Environments
Basic	Linux, MacOS, Windows, R, Python, SQL, C++, Shell, Javascript, HTML, LaTeX, Markdown, Github
Expertise	OSGeo, ArcGIS, GDAL/OGR, SAGA, GRASS, STATA, Mapbox, CartoDB, Web Map, Cloud Computation

Languages

Chinese	*mother tongue*
English	*first foreign language*

Research Projects

PUBLICATIONS

Peer-Reviewed Journal Articles

Forthcoming

Zheng, S., Zhang, X., Sun, , & **Wang, J.H.** The effect of a new subway line on local air quality: A case study in Changsha, Transportation Research Part D: Transport and Environment, `https://doi.org/10.1016/j.trd.2017.10.004`

Zhang, W., Derudder, B., **Wang, J.H.** & Witlox, F. (2019). An Analysis of the Determinants of the Multiplex Urban Networks in the Yangtze River Delta, Tijdschrift voor economische en sociale geografie, `https://doi.org/10.1111/tesg.12361`

2019

Zheng, S., **Wang, J.H.** [co-first leading author], Sun, C., Zhang, X. & Kahn, M.E. (2019). Air pollution lowers Chinese urbanites' expressed happiness on social media, **Nature Human Behaviour**, `https://doi.org/10.1038/s41562-018-0521-2`

Long, Y., **Wang, J.H.** [co-first leading author], Wu, K. & Zhang, J. (2018). Population Exposure to Ambient PM2.5 at the Subdistrict Level in China, International Journal of Environmental Research and Public Health, 15(12), 2683. `https://doi.org/10.3390/ijerph15122683`

Ma, T., Zhu, R., **Wang, J.H.**, Zhao, N., Pei, T., Du, Y., Zhou, C. & Chen, J. A proportional odds model of human mobility and migration patterns. International Journal of Geographical Information Science, 33(1), 81-98. `https://doi.org/10.1080/13658816.2018.1514608`

2018

Wu, W., **Wang, J.H.***, Dai, T. S., & Wang, X. (2018). The Geographical Legacies of Mountains: Impacts on Cultural Difference Landscapes, Annals of the Association of American Geographers, 108(1), 277-290. `http://dx.doi.org/10.1080/24694452.2017.1352481`

Jin, Y., Ge, Y.*, **Wang, J.H.***, Heuvelink, G. B. M., & Atkinson, P. Downscaling AMSR-2 Soil Moisture Data with Geographically Weighted Area-to-Area Regression Kriging, IEEE Transactions on Geoscience and Remote Sensing, 56(4), 2362-2376. `http://dx.doi.org/10.1109/TGRS.2017.2778420`

Jin, Y., Ge, Y.*, **Wang, J.H.***, & Heuvelink, G. B. M. (2018). Deriving temporally continuous soil moisture estimations at fine resolution by downscaling remotely sensed product, International Journal of Applied Earth Observation and Geoinformation, 68, 8-19. `https://doi.org/10.1016/j.jag.2018.01.010`

Jin, Y., Ge, Y.*, **Wang, J.H.***, Heuvelink, G.B.M., & Wang, L. (2018). Geographically Weighted Area-to-Point Regression Kriging for Spatial Downscaling in Remote Sensing. Remote Sensing, 10(4), 579. `https://doi.org/10.3390/rs10040579`

Zhang, W., Derudder, B., **Wang, J.H.***, Shen, W. (2018). Regionalisation in the Yangtze River Delta (China) from the perspective of inter-city daily mobility. Regional Studies, 52(4), 528-541. `http://dx.doi.org/10.1080/00343404.2017.1334878`

Cai, B., Li, W., Dhakal, S., & **Wang, J.H.** (2018). Source data supported high resolution carbon emissions inventory for urban areas of the Beijing-Tianjin-Hebei region: Spatial patterns, decomposition and policy implications, Journal of Environmental Management, 206, 786-799. `https://doi.org/10.1016/j.jenvman.2017.11.038`

Li, X., Liu, S., Li, H., Ma, Y., **Wang, J.H.**, Zhang, Y., et al. (2018). Intercomparison of six upscaling evapotranspiration methods: From site to the satellite pixel. Journal of Geophysical Research: Atmospheres, 123. `https://doi.org/10.1029/2018JD028422`

Jia, Y., Ge, Y., Ling, F., Guo, X., **Wang, J.H.**, Wang, L., Chen, Y. & Li, X. (2018). Urban Land Use Mapping by Combining Remote Sensing Imagery and Mobile Phone Positioning Data, Remote Sensing, 10(3), 446. `https://doi.org/10.3390/rs10030446`

Lei, C., Zhang, A., Qi, Q., Su, H., & **Wang, J.H.** (2018). Spatial-Temporal Analysis of Human Dynamics on Urban Land Use Patterns Using Social Media Data by Gender, ISPRS International Journal of Geo-Information, 7(9), 358. `https://doi.org/10.3390/ijgi7090358`

2017

Wu, W. & **Wang, J.H.***. (2017). Gentrification Effects of China's Urban Village Renewals, Urban Studies, 54(1), 214-229. `http://dx.doi.org/10.1177/0042098016631905`

2016

Wang, J.H., Deng, Y., Song C., & Tian D. (2016). Measuring time accessibility and its spatial characteristics in the urban areas of Beijing. Journal of Geographical Sciences, 26(12), 1754-1768. `http://dx.doi.org/10.1007/s11442-016-1356-2`

Wu, W., **Wang, J.H.***, & Dai, T. S. (2016). The Geography of Cultural Ties and Human Mobility: Big Data in Urban Contexts, Annals of the Association of American Geographers, 106(3), 612-630. `http://dx.doi.org/10.1080/00045608.2015.1121804`

Li Z., **Wang, J.H.** [co-first leading author], Tang, H., Huang, C., Yang, F., Chen, B., Wang, X., Xin, X., Ge, Y. (2016). Predicting Grassland Leaf Area Index in the Meadow Steppes of Northern China: A Comparative Study of Regression Approaches and Hybrid Geostatistical Methods. Remote Sensing, 8(8), 632. `http://dx.doi.org/10.3390/rs8080632`

Zhang, W., Derudder, B., **Wang, J.H.**, Shen, W & Witlox, F. (2016). Using Location-Based Social Media to Chart the Patterns of People Moving between Cities: The Case of Weibo-Users in the Yangtze River Delta. Journal of Urban Technology, 23(3), 91-111. `http://dx.doi.org/10.1080/10630732.2016.1177259`

Zheng, S., Hu, X., **Wang J. H.**, & Wang, R. (2016). Subways near the subway: Rail transit and neighborhood catering businesses in Beijing, Transport Policy, 51, 81–92. `http://dx.doi.org/10.1016/j.tranpol.2016.03.008`

Zhang, W. Y., Derudder, B., **Wang J. H.**, & Witlox, F. (2016). Approximating actual flows in physical infrastructure networks: the case of the Yangtze River Delta high-speed railway network, Bulletin of Geography. Social-Economic Series, 31, 145-160. `http://dx.doi.org/10.1515/bog-2016-0010`

2015

Wang, J.H., Ge, Y., Heuvelink, G. B. M., & Zhou, C. H. (2015). Upscaling in-situ soil moisture observation to pixel averages with space-time geostatistics. Remote Sensing, 7(9), 11372-11388. `http://doi.org/10.3390/rs70911372`

Ge, Y., **Wang, J.H.**, Heuvelink, G. B. M., Jin, R., Li, X., & Wang, J. F. (2015). Sampling design optimization of a wireless sensor network for monitoring ecohydrological processes in the Babao River basin, China. International Journal of Geographical Information Science, 29(1), 92-110. `http://doi.org/10.1080/13658816.2014.948446`

Liu, X., & **Wang J. H.***. (2015) The geography of Weibo. Environment and Planning A, 47(6), 1231-1234. `http://doi.org/10.1177/0308518x15594912`

Hu, M. G., **Wang, J.H.**, Ge, Y., Liu, M. X., Liu, S. M., Xu, Z. W., Xu, T. R. (2015). Scaling Flux Tower Observations of Sensible Heat Flux Using Weighted Area-to-Area Regression Kriging. Atmosphere, 6, 1032-1044. `http://doi.org/10.3390/atmos6081032`

Wu, T. J., Ge, Y., **Wang, J.H.**, Stein, A., Song, Y. Z., Du, Y. Y., & Ma, J. H. (2015). A WTLS-based method for remote sensing imagery registration. IEEE Transactions on Geoscience and Remote Sensing, 53(1), 102-116. `http://doi.org/10.1109/Tgrs.2014.2318705`

Ge, Y., Liang, Y. Z., **Wang, J.H.**, Zhao, Q. Y., & Liu, S. M. (2015). Upscaling sensible heat fluxes with area-to-area regression kriging. IEEE Geoscience and Remote Sensing Letters, 12(3), 656-660. `http://doi.org/10.1109/Lgrs.2014.2355871`

Liu, X.J., Song, Y., Wu, K., Wang, J.H., Li, D., & Long, Y. (2015). Understanding urban China with open data, Cities, 47, 53-61. `http://dx.doi.org/10.1016/j.cities.2015.03.006`

Cai, B., Wang, J., Long, Y., Li, W., Liu, J., Ni, Z., Bo, X., Li, D., **Wang, J.H.**, Chen, X.J., Gao, Q.X., Zhang, L. (2015) Evaluating the impact of odors from the 1955 landfills in China using a bottom-up approach. Journal of Environmental Management, 164, 206-214. `http://dx.doi.org/10.1016/j.jenvman.2015.09.009`

2014

Wang, J.H., Ge, Y., Heuvelink, G. B. M., & Zhou, C. H. (2014). Spatial sampling design for estimating regional GPP with spatial heterogeneities. IEEE Geoscience and Remote Sensing Letters, 11(2), 539-543. `http://doi.org/10.1109/Lgrs.2013.2274453`

Wang, J.H., Ge, Y., Song, Y. Z., & Li, X. (2014). A geostatistical approach to upscale soil moisture with unequal precision observations. IEEE Geoscience and Remote Sensing Letters, 11(12), 2125-2129. `http://doi.org/10.1109/Lgrs.2014.2321429`

Ge, Y., Avitabile, V., Heuvelink, G. B. M., **Wang, J.H.**, & Herold, M. (2014). Fusion of pan-tropical biomass maps using weighted averaging and regional calibration data. International Journal of Applied Earth Observation and Geoinformation, 31, 13-24. `http://doi.org/10.1016/j.jag.2014.02.011`

Kang, J., Li, X., Jin, R., Ge, Y., Wang, J. F., & **Wang, J.H.** (2014). Hybrid optimal design of the eco-hydrological wireless sensor network in the middle reach of the Heihe river basin, China. Sensors, 14(10), 19095-19114. `http://doi.org/10.3390/S141019095`

Ding, Y. L., Ge, Y., Hu, M. G., Wang, J. F., **Wang, J.H.**, Zheng, X. M., & Zhao, K. (2014). Comparison of spatial sampling strategies for ground sampling and validation of MODIS LAI products. International Journal of Remote Sensing, 35(20), 7230-7244. `http://doi.org/10.1080/01431161.2014.967889`

2012

Wang, J.H., Ge, Y., Heuvelink, G. B. M., Zhou, C. H., & Brus, D. (2012). Effect of the sampling design of ground control points on the geometric correction of remotely sensed imagery. International Journal of Applied Earth Observation and Geoinformation, 18, 91-100. `http://doi.org/10.1016/j.jag.2012.01.001`

Ge, Y., Wu, T. J., **Wang, J.H.**, Ma, J. H., & Du, Y. Y. (2012). Scaled total-least-squares-based registration for optical remote sensing imagery. Earth Science Informatics, 5(3-4), 137-152. `http://doi.org/10.1007/s12145-012-0103-1`

2011

Wang, L., Deng, Y., Liu, S. H., & **Wang, J.H.** (2011). Research on urban spheres of influence based on improved field model in central China. Journal of Geographical Sciences, 21(3), 489-502. `http://doi.org/10.1007/s11442-011-0859-0`

2010

Deng, Y., Liu, S. H., Wang, L., Ma, H. Q., & **Wang, J.H.** (2010). Field modeling method for identifying urban sphere of influence: A case study on central China. Chinese Geographical Science, 20(4), 353-362. `http://doi.org/10.1007/s11769-010-0408-2`

Deng, Y., Liu, S. H., Zhang, W. T., Wang, L., & **Wang, J.H.** (2010). General multidimensional cloud model and its application on spatial clustering in Zhanjiang, Guangdong. Journal of Geographical Sciences, 20(5), 787-798. `http://doi.org/10.1007/s11442-010-0811-8`

Book Chapter

2017   Pei, T., Xu, J., Gong, J., Liu, X., **Wang, J.H.**, Du, S., Qin, C., Yang, L. & Wan, Y. (2017). Spatial Analysis and Simulation. The Geographical Sciences During 1986—2015: From the Classics To the Frontiers (pp. 339-366). Singapore: Springer Singapore.

Working Paper

2016

Zhang, P., **Wang, J.H.** [co-first leading author] & Zhang, J.J., Can China Feed Itself under Climate Change? A High-Resolution Analysis. Social Science Research Network, (August 10, 2016), Available at SSRN: `http://ssrn.com/abstract=2821412`.

Wu, W., **Wang, J.H.** , Li, C., & Wang, M., The Geography of City Liveliness and Land Use Configurations: Evidence from Location-Based Big Data in Beijing. Spatial Economic Research Center (SERC) Discussion Paper 201, `http://cep.lse.ac.uk/_new/publications/abstract.asp?index=5128`

2014

Long, Y., **Wang, J.H.** [co-first leading author], Wu, K., Zhang, J.J., Population exposure to ambient PM2.5 at the subdistrict level in China. Available at SSRN. `http://dx.doi.org/10.2139/ssrn.2486602`.

Long, Y., Wu, K., **Wang, J.H.** , Shen, Z.J., Big models: From beijing to the whole China. `http://arxiv.org/abs/1406.6417`