

## **Curriculum Vitae - WEIFENG LI**

BSc, BEc, MSc (Peking); PhD (MIT)

Department of Urban Planning and Design, Knowles Building, The University of Hong Kong

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### **ACADEMIC QUALIFICATIONS**

Ph.D., Urban and Regional Planning, Massachusetts Institute of Technology (MIT), USA

M.Sc., Geography, Peking University, China

B.Ec., Economics, Peking University, China

B.Sc., Geography, Peking University, China

### **ACADEMIC POSITIONS**

Associate Professor, Department of Urban Planning and Design, HKU (2017- )

Assistant Professor, Department of Urban Planning and Design, HKU (2011-2017)

Fellow, Centre of Urban Studies and Urban Planning, The University of Hong Kong (2011- )

Fellow, Institute of Transport Studies, The University of Hong Kong (2013- )

Research Assistant, Energy Initiative, Massachusetts Institute of Technology, USA (2005-2011)

### **RESEARCH INTERESTS**

Environmental Sustainability associated with Urbanization and Transportation;

Urban Configuration and Air Pollution, Health Effects;

The Use of Urban Modeling, Remote Sensing and Big Data in Urban and Environmental Studies

### **MAJOR RESEARCH PROJECTS**

Neighbourhood Design and Energy Efficiency in Post-industrial Urban China: Evidence from Shenzhen and Hong Kong. PI, RGC Early Career Scheme (ECS), HK\$499,106, 2015-2017

Remote Sensing Monitoring of PM<sub>2.5</sub> Concentrations and Analysis of Socio-economic Driving Forces in Beijing-Tianjin-Hebei Based on VIIRS Data. PI, NSFC China General Program, RMB950,000, 2015-2018

A Study of Urban Living and Employment Compactness Based on Multi-source Spatio-temporal Data. Co-I, NSFC China General Program, RMB1,000,000, 2015-2018

Together in a Sustainable Transport Dream at the Two Bay Areas (One Dream, Two Bay Areas). Co-I, UC Davis - HKU Collaborations in Research Scheme, 2018-2020

Development of Remote Sensing-based Spatiotemporal Model to Estimate High-resolution Distribution of Ground-level PM<sub>2.5</sub> in Chinese cities. PI, HKU Seed Funding, 2017-2019

Planning for Resilient Cities: Linking Urban Resilience to Spatial Structure. PI, HKU Seed Funding, 2015-2017

Financing Rail-based Mass Transit through Value Capture in Chinese Cities: A case in Shenzhen. PI, HKU Seed Funding, 2013-2014

### **MAJOR PUBLICATION RECORDS**

#### ***Journal publications***

- **Li, W.** and Lin, J. (2019) Editorial: Special Issue on “Urbanization, Transportation and Air Quality in Developing Countries”. *Transportation Research Part D: Transport and Environment*, forthcoming.

- Guo, H., Chang, Z., Wu, J. and **Li, W.** (2019) Air pollution and lung cancer incidence in China: Who are faced with a greater effect? *Environmental International*, 132, 105077. (corresponding author)
- Song, J., **Li, W.** (2019) Linkage Between the Environment and Individual Resilience to Urban Flooding: A Case Study of Shenzhen, China. *Int. J. Environ. Res. Public Health*, 16(14), 2559. (corresponding author)
- Song, J., Chang, Z., **Li, W.**, Feng, Z., Wu, J., Cao, Q., and Liu, J. (2019) Resilience-vulnerability Balance to Urban Flooding: A Case Study in a Densely Populated Coastal City in China. *Cities*, 95: 102381. (corresponding author)
- Yao, F., Wu, J., **Li, W.**, and Peng, J. (2019) A spatially structured adaptive two-stage model for retrieving ground-level PM<sub>2.5</sub> concentrations from VIIRS AOD in China. *ISPRS Journal of Photogrammetry and Remote Sensing*, 151, pp. 263-276.
- Yao, F., Wu, J., **Li, W.**, and Peng, J. (2019) Estimating Daily PM<sub>2.5</sub> Concentrations in Beijing Using 750-M VIIRS IP AOD Retrievals and a Nested Spatiotemporal Statistical Model. *Remote Sensing*, 11(7), 841.
- Wu, J., Wang, L., and **Li, W.** (2018) Usage Patterns and Impact Factors of Public Bicycle Systems: Comparison between City Center and Suburban District in Shenzhen. *Journal of Urban Planning and Development*, 144 (3), 04018027. (Corresponding author)
- Liu, J., **Li, W.**, and Wu, J. (2018). A Framework for Delineating the Regional Boundaries of PM<sub>2.5</sub> Pollution: A Case Study of China. *Environmental Pollution*, 235, pp.642-651. (Corresponding author)
- Yao, F., Si, M., **Li, W.**, and Wu, J. (2018). A Multidimensional Comparison between MODIS and VIIRS AOD in Estimating Ground-level PM<sub>2.5</sub> Concentrations over a Heavily Polluted Region in China. *Science of The Total Environment*, 618, pp. 819-828. (Corresponding author)
- Liu, J., **Li, W.**, Wu, J., and Liu, Y. (2018). Visualizing the Intercity Correlation of PM<sub>2.5</sub> Time Series in the Beijing-Tianjin-Hebei Region using Ground-based Air Quality Monitoring Data. *PLoS ONE*, 13(2), 13(2). (Corresponding author)
- **Li, W.**, Cao, Q., Lang, K., and Wu, J. (2017) Linking Potential Heat Source and Sink to Urban Heat Island: Heterogeneous Effects of Landscape Pattern on Land Surface Temperature. *Science of the Total Environment*, 586, pp. 457-465.
- Zhou, X., Yeh, A.G., **Li, W.**, and Yue, Y. (2017). A commuting spectrum analysis of the jobs–housing balance and self-containment of employment with mobile phone location big data. *Environment and Planning B: Urban Analytics and City Science*, 45(3): pp.434–451
- Wu, J., Zhu, J., **Li, W.**, Xu, D., and Liu, J. (2017) Estimation of the PM<sub>2.5</sub> Health Effects in China during 2000–2011. *Environmental Science and Pollution Research*, 24(11), pp. 10695-10707. (Corresponding author)
- Wang, Z., Yao, F., **Li, W.** and Wu, J. (2017) Saturation Correction for Nighttime Lights Data Based on the Relative NDVI. *Remote Sensing*, 9 (7), 759, pp. 1-14.
- Wu, J., Yao, F., **Li, W.**, and Si, M. (2016) VIIRS-based Remote Sensing Estimation of Ground-level PM<sub>2.5</sub> Concentrations in Beijing–Tianjin–Hebei: A Spatiotemporal Statistical Model. *Remote Sensing of Environment*, 184, pp. 316-328. (Corresponding author)

- Liu, J., Li, J. and **Li, W.** (2016) Temporal Patterns in Fine Particulate Matter Time Series in Beijing: A Calendar View. *Scientific Reports*, 6, 32221, pp.1-6. (Corresponding author)
- Liu, J., **Li, W.**, and Li, J. (2016) Quality Screening for Air Quality Monitoring Data in China. *Environmental Pollution*, 216, pp. 720-723. (Corresponding author)
- Liu, J., Li, J., **Li, W.**, and Wu, J. (2016) Rethinking Big Data: A Review on the Data Quality and Usage Issues. *ISPRS Journal of Photogrammetry and Remote Sensing*, 115, pp. 134-142. (Corresponding author)
- Wu, J., Li, J., Peng, J., **Li, W.**, Xu, G., and Dong, C. (2015) Applying Land Use Regression Model to Estimate Spatial Variation of PM2.5 in Beijing, China. *Environmental Science and Pollution Research*, 22(9), pp. 7045-7061.
- Liu, J. and **Li, W.** (2014) A Nighttime Light Imagery Estimation of Ethnic Disparity in Economic Well-being in Mainland China and Taiwan (2001-2013). *Eurasian Geography and Economics*, 55, pp.691-714. (Corresponding author)
- Ma, L., Wu, J., **Li, W.**, Peng, J., and Liu, H. (2014) Evaluating Saturation Correction Methods for DMSP/OLS Nighttime Light Data: A Case Study from China's Cities. *Remote Sensing*, 6(10), 9853-9872.
- Wu, J., Wang, M., **Li, W.**, Peng, J., and Huang, L. (2014) *Impact of Urban Green Space on Residential Housing Price: Case Study in Shenzhen*. Journal of Urban Planning and Development, 10.1061/(ASCE)UP.1943-5444.0000241 , 05014023.
- Wu, J., He, S., Peng, J., **Li, W.**, and Zhong, X. (2013) Inter-calibration of DMSP-OLS Night-time Light Data by Using Invariant Region Method. *International Journal of Remote Sensing*, 34:20, pp. 7356-7368.
- Wu, J., Wang, Z., **Li, W.**, and Peng, J. (2013) Exploring Factors Affecting the Relationship between Light Consumption and GDP Based on DMSP/OLS Nighttime Satellite Imagery. *Remote Sensing of Environment*, 134, pp. 111-119.
- **Li, W.**, Wang, Y., Li, G. and Peng, J. (2005) Landscape and spatial changes associated with rapid urbanization in Shenzhen, China. *International Journal of Sustainable Development & World Ecology*, 12(3), pp. 314-325.

#### **Scholarly books, monographs and chapters**

- Pan, Q. and **Li, W.** (eds.) (2017) *Smart Growth and Sustainable Development: Selected Papers from the 9th International Association for China Planning Conference, Chongqing, China, June 19 - 21, 2015*. Springer International.
- Zhou, X., Liu, J., Yeh, A. G. O., Yue, Y., and **Li, W.** (2014). The Uncertain Geographic Context Problem in Identifying Activity Centers Using Mobile Phone Positioning Data and Point of Interest Data, pp 107-119. In Leung, Y. and Harvey, F. (eds.), *Advances in Spatial Data Handling and Analysis: Select Papers from the 16th IGU Spatial Data Handling Symposium*. Springer, New York, USA.
- Zhu, Y., Diao, M., Ferreira, J., **Li, W.** and Jiang, S. (2013). Flexible Geospatial Platform for Distributed and Collaborative Urban Modelling, pp. 375-394. In Geertman, S., Toppen, F. and Stillwell, J. (eds.) *Planning Support Systems for Sustainable Urban Development, Lecture Notes in Geoinformation and Cartography* 195. Springer-Verlag Berlin Heidelberg.
- Herzog, H., **W. Li**, H. Zhang, M. Diao, G. Singleton, and M. Bohm. (2007). *West Coast Regional Carbon Sequestration Partnership: Source Sink Characterization and*

*Geographic Information System Based Matching*. California Energy Commission, PIER Energy - Related Environmental Research Program, Report no. CEC-500-2007-053.

### **COURSES TAUGHT**

URBS4001 Advanced Urban Studies Studio, HKU  
URBS2004 Urban and Regional Development II, HKU  
URBP6901 Values in Planning, HKU  
URBP8002 International Planning Policy and Practice, HKU

### **RELEVANT SERVICES/AWARDS**

Associate Editor, *Journal of Transport and Land Use* (the official journal of the World Society for Transport and Land Use Research, published by University of Minnesota) (SSCI/Scopus) (2019- )

Track Chair, Transportation Planning, World Transport Convention (WTC) (2019- )

President, Hong Kong Geographic Information System Association (HKGISA) (2019-2021)

Board Member, International Conference on Computers in Urban Planning and Urban Management (CUPUM) (2018- )

Editorial Board, *Transportation Research Part D: Transport and Environment* (SCI, Elsevier) (2017- )

Finalist, Royal Town Planning Institute (RTPI) Early Career Researcher Award, 2017

Elected Board Member (2013-2017), International Association for China Planning (IACP)

Conference Chair, Governance and Planning in Transitional China, the 10<sup>th</sup> International Association for China (IACP) Annual Conference (350 attendees), Peking University, Beijing, 30 June-3 July, 2016

Conference Co-chair, New Urbanization: Smart Growth and Sustainable Development, the 9<sup>th</sup> International Association for China (IACP) Annual Conference (350 attendees), Chongqing University, Chongqing, China, June 19-21, 2015

Faculty Research Output Prize (Faculty of Architecture, HKU), 2014/2015

Refereed for: *Computers, Environment and Urban Systems; Habitat International; IEEE Transactions on Geoscience and Remote Sensing; International Journal of Sustainable Transportation; Journal of Cleaner Production; Journal of Transport Geography; Journal of Urban Planning and Development; Landscape and Urban Planning; Network and Spatial Economics; Remote Sensing; Urban Forestry and Urban Greening; Urban Geography; Urban Policy and Research; Urban Studies.*