

Clusters of notable recent papers

The papers are results from long term, productive collaborations with research colleagues and students across many disciplinary boundaries, with a focus to provide practical insights through advanced urban analytics and modelling.

Dr Jin would welcome proposals for new, inter-disciplinary collaborations as well as within the traditional confines of architecture and urban design.

(a) Adaptive model zoning for land use, travel demand and traffic modelling – collaboration with Dr Hagen-Zanker of University of Surrey

Hagen-Zanker, A and Y Jin (2012a). The use of adaptive zoning for modelling choice of travel modes. *Transaction in GIS Vol 17*, pp706-723
(<http://onlinelibrary.wiley.com/doi/10.1111/j.1467-9671.2012.01372.x/abstract>). [pdf – paper a-1]

Hagen-Zanker, A and Y Jin (2012b). A new method of adaptive zoning for spatial interaction models. *Geographical Analysis Vol 44*, pp281-301
(<http://onlinelibrary.wiley.com/doi/10.1111/j.1538-4632.2012.00855.x/abstract>). [pdf – paper a-2]

Hagen-Zanker, A and Y Jin (2015). Adaptive zoning for efficient transport modelling in urban models. In Gervasi, O, B Murgante, S Misra, ML Gavrilova, AMAC Rocha, C Torre, D Taniar and BO Apduhan (eds.) (2015). *Computational Science and Its Applications – ICCSA 2015 Proceedings Part III*, Springer, Heidelberg, pp673-687. [pdf – paper a-3]

(b) Advanced structural equation models – collaboration with Kaveh Jahanshahi of Rand Europe (and more recently UK Dept for Transport) and Ian Williams of Ian Williams Services

Jahanshahi, K, Y Jin and IN Williams (2015). Direct and indirect influences on employed adults' travel in the UK: New insights from the National Travel Survey data 2002–2010. *Transportation Research Part A: Policy and Practice, Vol 80*, pp288-306.
(<http://www.sciencedirect.com/science/article/pii/S096585641500227X;%20commonly%20recognised%20as%20the%20top%20transportation%20research%20journal>). [pdf – open access]

Jahanshahi, K and Y Jin (2015). The built environment typologies in the UK and their influences on travel behaviour: new evidence through latent categorisation in structural equation modelling. *Journal of Transportation and Technology, 39:1*, 59-77
(<http://www.tandfonline.com/doi/full/10.1080/03081060.2015.1108083>) (Special issue paper selected from Universities Transport Research Groups Conference 2015). [pdf – open access]

Jahanshahi, K and Y Jin (2016). Trendbreaking Influences of Built Form on Travel in UK Cities: Evidence from New Quantifications of Within- and Between-Built-Form Variations. *Transportation Research Record: Journal of the Transportation Research Board, No. 2564*.
(<https://trid.trb.org/view/2016/C/1393764>) [pdf – paper b-3]

Jin, Y, K Jahanshahi, L Wan and X Rong (2018). Novel applications of structural equation models for car ownership and travel choice forecasting. Report funded by the UK Department for Transport T-TRIG Grant. Department for Transport, London.

(c) Smart data analytics – collaboration with CSIC and FIBE researchers

Deng, DB, S Denman, V Zachariadis and Y Jin, (2015). Estimating traffic delays and network speeds from low frequency GPS taxis traces for urban transport modelling. *European Journal of Transport and Infrastructure Research*, 15 (Smart Cities special issue), 639-661 (http://www.tbm.tudelft.nl/fileadmin/Faculteit/TBM/Onderzoek/EJTIR/Back_issues/15_4/2015_04b_01.pdf). [pdf – open access]

Rong, X., Jin, Y., & Long, Y (2015). Understanding Beijing's Urban Land Use Development 2004-2013 through online administrative data sources. *Recent Developments in Chinese Urban Planning*. Springer International Publishing, 2015: 183-217. [pdf – c-2]

Hillel, T, P Guthrie, M Elshafie and Y. Jin (2016). Assessing the discrepancies between recorded and commonly assumed journey times in London. *Proceedings of the International Conference on Smart Infrastructure and Construction*. Institute of Civil Engineers, London. [pdf – c-3]

Hillel, T, M Bierlaire, M Elshafie and Y Jin (2018; forthcoming). Validation of probability classifiers. 18th Swiss Transport Research Conference, Monte Verita.

Hillel, T, M Elshafie and Y Jin (2018; forthcoming). Recreating passenger mode choice-sets for transport simulation. *Journal of Smart Infrastructure and Construction*.

(d) Infrastructure design simulation and assessment – collaboration with both engineers and economists

Martani, C, Y Jin, K Soga and S Scholtes (2016). Design with uncertainty: the role of future options for infrastructure integration. *Computer-Aided Civil and Infrastructure Engineering (CACAIIE)* 10:733-748 (<http://onlinelibrary.wiley.com/doi/10.1111/mice.12214/abstract>) [open access paper]

Wu, P, Y Jin, Y Shi, H Shyu (2017). The impact of carbon emission costs on manufacturers' production and location decision. *International Journal of Production Economics* 193: 193–206. (<https://www.sciencedirect.com/science/article/pii/S0925527317302074>).

Cervero, R, Y Jin and S Denman (2018, forthcoming). Network design, built environment and bicycle commuting: A study of small and medium-sized cities in the UK. *Transport Policy*.

(e) Recursive dynamic and spatial equilibrium models as a new generation of integrated land use and transport models – collaboration across the City and Transport Group at Department of Architecture

Jin Y, M Echenique and A Hargreaves (2013). A recursive spatial equilibrium model for planning large-scale urban change. *Environment and Planning B: Planning and Design* (<http://epb.sagepub.com/content/40/6/1027.abstract>). [pdf – paper e-1]

Li, W and Y Jin (2014). Review on Applied Urban Modeling and New Trends of Urban Spatial Policy Models. *Urban Planning Forum*, 1:81-91
(http://www.oriprobe.com/Journals/csgghk/2014_1.html). [pdf – open access]

Jin, Y, S Denman, D Deng, X Rong, M Ma, L Wan, Q Mao, L Z, Y Long (2017). Environmental Impacts of Transformative Land Use and Transport Developments in the Greater Beijing Region: Insights from a New Dynamic Spatial Equilibrium Model. *Transportation Research Part D: Transport and Environment*. 52: 548–561
(<https://www.sciencedirect.com/science/article/pii/S1361920915302510>).

Wan, L and Y Jin (2017). Assessment of model validation outcomes of a new recursive spatial equilibrium model for the Greater Beijing. *Environment and Planning B: Urban Analytics and City Science*
(<http://journals.sagepub.com/doi/abs/10.1177/2399808317732575>).

Ma, M and Y Jin (2018; forthcoming). Economic impacts of alternative greenspace configurations in fast growing cities – the case of Greater Beijing. *Urban Studies*.

(f) Infrastructure, land use and urban development research – collaboration with colleagues at the World Bank

Jin, Y, RG Bullock, R Yu, N Zhou, J Nan, M Gao, Z Xu, C Guo, L Shi (2014a). Regional Economic Impact Analysis of High Speed Rail in China: main report and step by step guide for regional impact assessment. The World Bank
(http://www.worldbank.org/content/dam/Worldbank/document/EAP/China/high_speed-rail-%20in-china-en.pdf).

Jin, Y, RG Bullock and W Fang (2014b). Spatial proximity and productivity in an emerging economy: econometric findings from Guangdong Province, People’s Republic of China. Regional Economic Impact Analysis of High Speed Rail in China Working Paper. The World Bank. (<https://openknowledge.worldbank.org/handle/10986/19989>).

A selection of ‘Transport Topic’ briefing notes
(<http://documents.worldbank.org/curated/en/docsearch/collection-title/China%20transport%20topics>)