

Mei-Po Kwan



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Affiliations

- Department of Geography and Geographic Information Science, University of Illinois at Urbana-Champaign (UIUC), Champaign, IL 61820, USA
- CyberGIS Center for Advanced Digital and Spatial Studies, UIUC
- Department of Human Geography and Spatial Planning, Faculty of Geosciences, Utrecht University, the Netherlands

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Education

- 1994 Ph.D. Geography, University of California, Santa Barbara
- 1989 M.A. Urban Planning, University of California, Los Angeles
- 1985 B.SoSci. Geography, Chinese University of Hong Kong

Professional Service

- Editor, *Annals of the Association of American Geographers* (Methods, Models, and GIS Section) (2006-present).
- Book series editor, *SAGE Advances in Geographic Information Science and Technology Series* (2009-present).
- General Chair, GIScience 2012 International Conference.
- Associate Editor, *Travel Behaviour and Society* (2013-present);

- *Geographical Analysis* (2003-2012).
- Editorial boards, *Journal of Transport Geography* (2008-present); *Applied Geography* (2014-present); *Geographical Analysis* (2000-2002; 2012-present); *Gender, Place and Culture* (2003-2006); *The Professional Geographer* (2005-2010).
- Charter Member, Community Influences on Health Behavior Study Section, Center for Scientific Review, National Institutes of Health (NIH) (2010-present).
- Advisory panelist or reviewer of grant proposals for 14 National Science Foundation programs, National Institutes of Health, European Research Council, Natural Sciences and Engineering Research Council of Canada, Australian Research Council, Austrian Science Fund, Research Foundation of Flanders, Royal Geographical Society (U.K.), Research Grants Council of Hong Kong, and Swiss National Science Foundation (1995-present).
- National Councillor, Association of American Geographers (2005-2008).
- Member, Board of Directors, University Consortium for Geographic Information Science (UCGIS) (2004-2006).
- Chair, Health and Medical Geography Specialty Group, Association of American Geographers (2014-15).
- Chair, GIS Specialty Group, Association of American Geographers (2005-2006).

Honors and Awards

- Distinguished Scholarship Honors, Association of American Geographers (2011) [\[Citation\]](#)
- Academic Advisor, Institute of Geographical Sciences and Natural Resources Research, Chinese Academy of Sciences, China (2010-12)
- Fellow, American Association for the Advancement of Science (AAAS) (since 2009)
- Belle van Zuylen Chair, Faculty of Geosciences, Utrecht University, The Netherlands (2009)
- University Consortium for Geographic Information Science (UCGIS) Research Award (2005)
- Edward L. Ullman Award, AAG Transportation Geography Specialty Group (2005)
- IGERT Distinguished Fellow, Institute of Transportation Studies, University of California, Davis (2005)
- Fellow, Royal Geographical Society (UK) (since 2004)
- Plenary Speaker, Centennial Presidential Plenary Session at the 100th Annual Meeting of the Association of American Geographers (2004)

Teaching

- Fundamentals of Geographic Information Systems
- Intermediate Geographic Information Systems
- GIS for Social Science and Business Research
- Design and Implementation for Geographic Information Systems
- Critical GIS and Human Geography

- Mapping and GIS Applications
- Map Reading and Interpretation
- Seminar in GIS and Cartography
- Geography of Transportation

Research Interests

My research addresses health, social, transport, economic, and environmental issues in urban areas through the application of innovative geographic information system (GIS) methods. I am interested in understanding how social differences (e.g., gender, race, ethnicity, and religion) shape urban residents' everyday experiences and perceptions/use of the built environment. I am also interested in studying how specific characteristics of the social and physical environment affect the well-being and behavior of different social groups (e.g., health behaviors and outcomes, access to jobs, social isolation, residential segregation, and spatial mobility).

My studies often rely on the primary data I collected through activity diary surveys and in-depth interviews. My geospatial methods cover a wide spectrum of quantitative, qualitative, and GIS techniques that are applicable to a wide variety of urban issues. My methods have several unique characteristics. They attempt to capture/reflect individual experience and thus are seldom based on aggregate data or conventional administrative units such as census tracts. Most of my work to date has been undertaken at very fine spatial scales (e.g., local streets, individual buildings, and even rooms inside a building). I have also developed methods that derive aggregate behavioral patterns (e.g., activity-travel patterns) from individual behavior. Further, my work has showcased how methods and perspectives thought to be incompatible can be integrated to bring forth new insights - e.g., the integration of GIS/quantitative spatial analysis with qualitative methods, and the integration of GIS/quantitative geography with feminist/critical geography.

- geographies of health and wellbeing - environmental health, contextual effects on health behaviors and outcomes, subjective wellbeing, access to health care, spatial disparities in health and wellbeing, protection of geoprivacy in health research;
- human mobility and time-geographic analysis of accessibility - spatial mobility and accessibility in space-time, access to jobs and urban opportunities, the spatial mismatch between jobs and residence;
- urban travel and sustainable transportation - interaction between land use and travel, environmental impact of suburbanization and commuting, effects of subjective experience on the use of urban space and facilities, and sustainable city;
- information and communication technologies (ICT) - the impact of Internet use and mobile communications on people's activity-travel patterns; interactions among ICT use, social networks, and gender division of domestic labor;
- geographies of urban China;
- emergency response to human and natural disasters in urban areas;
- geographies of crime and drug use/abuse;
- research method - Big Data analytics; collection and analysis of GPS

- data; 3D geovisualization; quantitative methods (geocomputation, spatial data analysis, structural equation models, hierarchical and multilevel models); qualitative methods (qualitative GIS, computer-aided qualitative data analysis, oral history, narrative analysis, visual narratives); mixed-method approaches; activity diary surveys;
- 3D GIS - 3D GIS data models for multi-story structures; analysis of the space-time trajectories of moving objects through visualization and data mining methods; real-time positioning technologies;
- critical GIS - knowledge, representation, power and geospatial technologies (GIS, GPS, remote sensing); the role of GIS in gender studies and feminist research;
- geographies of gender, race and religion;
- hybrid geographies - crossing the boundary between critical social theory and GIS/spatial analytical methods.

My research interests are quite diverse, but several overarching dimensions can be identified: (a) an emphasis on people's everyday experiences; (b) a focus on individual differences across multiple axes (e.g. gender, race and religion); (c) a recognition of the need to develop new methods for representing the complexities of human behavior and the urban environment; and (d) a concern for the social and policy implications of various issues - for example, mitigating the environmental impact of transportation, building more energy-efficient cities, and creating environmentally just cities.

Funded Projects

I have received research grants totaling about \$20 million from the National Science Foundation, the National Institutes of Health, the National Center for Geographic Information and Analysis (NCGIA), U.S. Department of Transportation, William T. Grant Foundation, Ameritech, and other sources. The following are some of my recent projects.

- "CISSDA: A Unified Cyberinfrastructure Framework for Scalable Spatiotemporal Data Analytics." National Science Foundation, Big Data Science & Engineering Program (\$300,000) 2013-2015. (Co-PI)
- "Linking Biological and Social Pathways to Adolescent Health and Well-Being." National Institute of Drug Abuse (\$255,194) 2013-2014. (SP)
- "Addressing Challenges for Geospatial Data-Intensive Research Communities: Research on Unique Confidentiality Risks & Geospatial Data Sharing within a Virtual Data Enclave." National Science Foundation (\$400,000) 2012-2014. (SP)
- "Adolescent Health and Development in Context." National Institutes of Health (\$3 million) 2011-2016. (Co-PI)
- "Activity Space, Social Network, and Community Influences on Adolescent Risk." William T. Grant Foundation (\$605,600) 2012-2014. (Co-PI)
- "Evolving HIV/STI Risk Environments of FSWs on the Mexico/U.S.

Border." National Institutes of Health (\$3.6 million) 2010-2014. (PI of OSU)

- "Tobacco Cessation Interventions with Ohio Appalachian Smokers." National Institute of Drug Abuse, National Institutes of Health (\$3.5 million) 2009-2014. (Co-PI)
- "Initiative in Population Research." National Institutes of Health (\$2.4 million), 2009-2014. (Co-PI)
- "Spatial Patterns of Social Isolation, Youthful Marijuana Use, and Sexual/HIV Risk." National Institute on Drug Abuse, National Institutes of Health (\$700,000), 2009-2011. (Co-PI)
- "Dynamics of Space and Time Use: Patterns, Causes, and Consequences for Crime and Problem Behaviors." National Science Foundation, Human and Social Dynamics Program (\$700,000), 2008-2010. (Co-PI)
- "Smokeless Tobacco Marketing Approaches to Ohio Appalachian Populations." National Cancer Institute, National Institutes of Health (\$360,000), 2008-2010. (Co-PI)
- "Segregation and Local Crime: An Integrated Spatial Analysis." National Science Foundation, Sociology and Law and Social Science Programs (\$250,000), 2005-2007. (Co-PI)
- "SPACE - Spatial Perspectives for Analysis in Curriculum Enhancement." National Science Foundation, CCLI National Dissemination Program (\$1.4 million), 2003-2006. (PI for OSU)
- "The Impact of Internet Use on Women's Activity Patterns and the Gender Division of Household Labor." National Science Foundation, Information Technology Research (NSF-ITR) Program (\$200,000), 2001-2003. (PI)

Selected Publications

1. Edited Books and Special Issues

- 2014. *Space-Time Research in GIScience*. Mei-Po Kwan and Tijs Neutens (Eds), special issue of *International Journal of Geographical Information Science*, forthcoming.
- 2014. *Space-Time Integration in Geography and GIScience: Research Frontiers in the U.S. and China*. Mei-Po Kwan, Douglas Richardson, Donggen Wang and Chenghu Zhou (Eds), Dordrecht: Springer, forthcoming.
- 2014. *International Encyclopedia of Geography: People, the Earth, Environment, and Technology*. (Section Editor) Wiley-Blackwell, in progress.
- 2014. *Spatio-Temporal Perspectives on Urban China's Mobility*,

Housing and Social Issues. Donggen Wang and Mei-Po Kwan (Eds), special issue of *Urban Geography*, in progress.

- 2013. *Geographies of Health, Disease, and Well-Being: Recent Advances in Theory and Method*. Mei-Po Kwan (Ed) New York: Routledge.
- 2013. *Weather, Geographical Contexts and Travel Behavior*. Martin Dijst, Lars Böcker, and Mei-Po Kwan (Eds), special issue of *Journal of Transport Geography*, Vol.28.
- 2013. *Space-time Behavior and Geography*. Mei-Po Kwan and Yanwei Chai (Eds), special issue of *Progress in Geography*, Vol.32, No.9 (in Chinese).
- 2012. *Geographic Information Science (Proceedings of the 7th International Conference on Geographic Information Science [GIScience 2012])* Ningchuan Xiao, Mei-Po Kwan, Michael Goodchild, and Shashi Shekhar (Eds). Berlin: Springer.
- 2012. [Geographies of Health](#). Mei-Po Kwan (Ed), special issue of *Annals of the Association of American Geographers*, Vol.102, No.5.
- 2012. *Critical Space-Time Geographies*. Tim Schwanen and Mei-Po Kwan (Eds), special issue of *Environment and Planning A*, Vol.44, No.9.
- 2010. *Time Geography and Urban Planning*. Yanwei Chai, Mei-Po Kwan, and Shih-Lung Shaw (Eds), special issue of *Urban Planning International*, Vol.25, No.6 (in Chinese).
- 2009. *The International Encyclopedia of Human Geography* 12-volume set with 8250 pages (Editors in Chief: Rob Kitchin and Nigel Thrift; Mei-Po Kwan as one of the co-editors) Amsterdam: Elsevier.
- 2009. *Critical Quantitative Geographies*. Mei-Po Kwan and Tim Schwanen (Eds), special issue of *Environment and Planning A*, Vol.41., No.2
- 2009. *Critical Quantitative Geographies 1: Beyond the Critical/Analytical Binary*. Mei-Po Kwan and Tim Schwanen (Eds), special issue of *The Professional Geographer*, Vol.61, No.3.
- 2009. *Critical Quantitative Geographies 2: Practical Engagements*. Tim Schwanen and Mei-Po Kwan (Eds), special issue of *The Professional Geographer*, Vol.61, No.4.
- 2009. *ICT, Everyday Life and Urban Change*. Martin Dijst, Mei-Po Kwan and Tim Schwanen (Eds), special issue of *Environment and Planning B*, Vol.36.
- 2008. *Transport: Critical Essays in Human Geography*. Susan Hanson and Mei-Po Kwan (Eds), Aldershot: Ashgate.
- 2008. *ICTs and the Decoupling of Everyday Activities, Space and*

Time. Tim Schwanen, Martin Dijst and Mei-Po Kwan (Eds), special issue of *Tijdschrift voor Economische en Sociale Geografie*, Vol.99, No.5.

- 2007. *Geographies of Muslim Identities: Diaspora, Gender and Belonging*. Cara Aitchison, Peter Hopkins and Mei-Po Kwan (Eds), Aldershot: Ashgate.
- 2007. *The Interaction between ICT and Human Activity-Travel Behavior*. Mei-Po Kwan, Martin Dijst and Tim Schwanen (Eds), special issue of *Transportation Research A*, Vol.41, No.2.
- 2006. *Qualitative Research and GIS*. Mei-Po Kwan and LaDona Knigge (Eds), special issue of *Environment and Planning A*, Vol.38, No.11.
- 2006. *The Internet, Changing Mobilities and Urban Dynamics.*, Tim Schwanen, Martin Dijst and Mei-Po Kwan (Eds), special issue of *Urban Geography*, Vol.27, No.7.
- 2005. *Critical GIS*. Francis Harvey, Mei-Po Kwan and Marianna Pavlovskaya (Eds), special issue of *Cartographica*, Vol.40, No.4.
- 2004. *Addressing the Social Implications of GIS in the Technical Realm: Public Health Data and GIS*. Mei-Po Kwan and Nadine Schuurman (Eds), special issue of *Cartographica*, Vol.39, No.2.
- 2004. *GIS and Social Science: New Rules of Engagement*. Nadine Schuurman and Mei-Po Kwan (Eds), special issue of *Cartographica*, Vol.39, No.1.
- 2003. *Accessibility in Space and Time: A Theme in Spatially Integrated Social Science*. Mei-Po Kwan, Donald Janelle and Michael Goodchild (Eds), special issue of *Journal of Geographical Systems*, Vol.5, No.1.
- 2002. *Feminist Geography and GIS*. Mei-Po Kwan (Ed), Special issue of *Gender, Place and Culture*, Vol.9, No.3.

2. Journal Articles and Book Chapters

- 2014. Assessing activity pattern similarity with multidimensional sequence alignment based on a multiobjective optimization evolutionary algorithm. *Geographical Analysis*, forthcoming. (Mei-Po Kwan, Ningchuan Xiao, and Guoxiang Ding)
- 2014. Space-time research in GIScience. *International Journal of Geographical Information Science*, forthcoming. (Mei-Po Kwan and Tijs Neutens)
- 2014. Gender differences in commute time and accessibility in Sofia, Bulgaria: A study using 3D geovisualization. *The Geographical Journal*, forthcoming. (Mei-Po Kwan and Alexander Kotsev)
- 2014. The shoemaker's son always goes barefoot: Implementations of GPS and other tracking technologies for geographic research.

Geoforum, forthcoming. (Noam Shoval, Mei-Po Kwan, Kristian H. Reinau, and Henrik Harder)

- 2014. Delimiting service area using adaptive crystal-growth Voronoi diagrams based on weighted planes: A case study in Haizhu District of Guangzhou in China. *Applied Geography*, forthcoming. (Jue Wang, Mei-Po Kwan, and LinBing Ma)
- 2014. Space-time measures of demand for service: Bridging location modeling and accessibility studies through a time-geographic framework. *Geografiska Annaler B*, forthcoming. (Fang Ren, Daoqin Tong, and Mei-Po Kwan)
- 2014. Assessing dynamic exposure to air pollution. In *Space-Time Integration in Geography and GIScience: Research Frontiers in the US and China*. Mei-Po Kwan, Douglas Richardson, Donggen Wang and Chenghu Zhou (eds). Dordrecht: Springer. (Mei-Po Kwan, Desheng Liu, and Jaclyn Vogliano)
- 2014. Mobility and travel activity patterns. In *The International Encyclopedia of the Social and Behavioral Sciences, Second Edition*. James Wright (ed). Oxford: Elsevier. (Joe Weber and Mei-Po Kwan)
- 2013. Beyond space (as we knew it): Toward temporally integrated geographies of segregation, health, and accessibility. *Annals of the Association of American Geographers*, 103(5): 1078-1086. (Mei-Po Kwan)
- 2013. Investigating commuting flexibility with GPS data and 3D geovisualizations: A case study of Beijing, China. *Journal of Transport Geography*, 32(1): 1-11. (Yue Shen, Mei-Po Kwan, and Yanwei Chai)
- 2013. [Spatial turn in health research](#). *Science*, 339: 1390-1392. (Douglas B. Richardson, Nora D. Volkow, Mei-Po Kwan, Robert M. Kaplan, Michael F. Goodchild, Robert T. Croyle)
- 2013. Exploring the unequal landscapes of healthcare accessibility in lower-income urban neighborhoods through qualitative inquiry. *Geoforum*, 50: 97-106. (Tim Hawthorne and Mei-Po Kwan)
- 2013. Adolescent health-risk behavior and community disorder. *PLoS ONE*, 8(11): e77667. (Sarah E. Wiehe, Mei-Po Kwan, Jeff Wilson, and J. Dennis Fortenberry) doi:10.1371/journal.pone.0077667
- 2013. The Internet and the gender division of household labour. *The Geographical Journal*, forthcoming. (Tim Schwanen, Mei-Po Kwan, and Fang Ren)
- 2013. Investigating the temporal dynamics of Internet activities. *Time & Society*, 22(2): 186-215. (Fang Ren, Mei-Po Kwan and Tim Schwanen)
- 2013. Social isolation of disadvantage and advantage: The reproduction of inequality in urban space. *Social Forces*, 92(1): 141-164. (Lauren J Krivo, Heather M. Washington, Ruth Peterson,

Christopher R. Browning, Catherine Calder, and Mei-Po Kwan)

- 2013. Geographical Analysis: Its first forty years. *Geographical Analysis*, 45(4): 1-27. (Daniel A. Griffith, Yongwan Chun, Morton E. O'Kelly, Brian J. L. Berry, Robert P. Haining, and Mei-Po Kwan).
- 2013. Exposure to weather and implications for travel behaviour: Introducing empirical evidence from Europe and Canada. *Journal of Transport Geography*, 28: 164-166. (Martin Dijst, Lars Böcker, and Mei-Po Kwan)
- 2013. Adolescent and adult perceptions of traditional and novel smokeless tobacco products and packaging in rural Ohio. *Tobacco Control*, forthcoming. (Sherry T. Liu, Julianan M. Nemeth, Elizabeth G. Klein, Amy K. Ferketich, Mei-Po Kwan, and Mary Ellen Wewers)
- 2013 Geographies of health, disease, and well-being. In *Geographies of Health, Disease, and Well-being*, Mei-Po Kwan (Ed). Taylor and Francis.
- 2013. GIS and health geography. In *The Wiley-Blackwell Encyclopedia of Health, Illness, Behavior, and Society*. William C. Cockerham, Robert Dingwall, and Stella R. Quah (Eds). Malden, MA: Wiley-Blackwell. (Mei-Po Kwan)
- 2012. [The uncertain geographic context problem](#). *Annals of the Association of American Geographers*, 102(5): 958-968. (Mei-Po Kwan) [[Abstract](#)]
- 2012. Geographies of health. *Annals of the Association of American Geographers*, 102(5): 891-892. (Mei-Po Kwan)
- 2012. [How GIS can help address the uncertain geographic context problem in social science research](#). *Annals of GIS*, 18(45): 245-255. (Mei-Po Kwan) [[Abstract](#)]
- 2012. Critical space-time geographies. *Environment and Planning A*, 44(9): 2043-2048. (Tim Schwanen and Mei-Po Kwan)
- 2012. Choice set formation with multiple flexible activities under space-time constraints. *International Journal of Geographical Information Science*, 26(5): 941-961. (Xiang Chen and Mei-Po Kwan)
- 2012. Factors influencing smokeless tobacco use in rural Ohio Appalachia. *Journal of Community Health*, 37(6): 1208-1217. (Julianna M. Nemeth, Sherry T. Liu, Elizabeth G. Klein, Amy K. Ferketich, Mei-Po Kwan, Mary Ellen Wewers)
- 2012. Smokeless tobacco marketing and sales practices in Appalachian Ohio following Federal regulations. *Nicotine & Tobacco Research*, 14(7): 880-884. (Elizabeth G. Klein, Amy K. Ferketich, Mahmoud Abdel-Rasoul, Mei-Po Kwan, Loren Kenda, and Mary Ellen Wewers)
- 2012. Using GIS and perceived distance to understand the unequal

geographies of healthcare in lower-income urban neighborhoods. *The Geographical Journal*, 178(1): 18-30. (Tim Hawthorne and Mei-Po Kwan)

- 2012. A model for evacuation risk assessment with consideration of pre- and post-disaster factors. *Computers, Environment and Urban Systems*, 36(3): 207-217. (Xiang Chen, Mei-Po Kwan, Qiang Li, and Jin Chen)
- 2011. [Visualization of socio-spatial isolation based on human activity patterns and social networks in space-time](#). *Tijdschrift voor Economische en Sociale Geografie*, 102(4): 468-485. (Jae Yong Lee and Mei-Po Kwan)
- 2011. Adolescent sexual intercourse and neighborhood social disorder. *Sexually Transmitted Infections*, 87(1), S1: A52-A53. (Sarah Wiehe, Mei-Po Kwan, S. Hoch, B. W. Brooks, A. Burgess, J. Wilson, and J. D. Fortenberry)
- 2011. Examining commuting patterns: Results from a journey-to-work model disaggregated by gender and occupation. *Urban Studies*, 48(5): 891-909. (Sunhee Sang, Morton O'Kelly and Mei-Po Kwan)
- 2011. 3D geographical information systems. In *McGraw-Hill Yearbook of Science and Technology*. New York: McGraw-Hill. (Mei-Po Kwan)
- 2010. A century of method-oriented scholarship in the Annals. *Annals of the Association of American Geographers*, 100(5): 1060-1075. (Mei-Po Kwan)
- 2010. Postscript. *Annals of the Association of American Geographers*, 100(5): 1107-1109. (Richard Aspinall, Mei-Po Kwan, Karl Zimmerer, and Audrey Kobayashi)
- 2010. Time geography and urban planning. *Urban Planning International*, 25(6): 1-3. (Yanwei Chai, Mei-Po Kwan, and Shih-Lung Shaw; in Chinese)
- 2010. Commercial density, residential concentration, and crime: Land use patterns and violence in neighborhood context. *Journal of Research in Crime and Delinquency*, 47: 329-357. (Christopher R. Browning, Reginald A. Byron, Catherine A. Calder, Lauren J. Krivo, Mei-Po Kwan, Jae-Yong Lee, and Ruth D. Peterson)
- 2010. [LiDAR assisted emergency response: Detection of transport network obstructions caused by major disasters](#). *Computers, Environment and Urban Systems*, 34: 179-188. (Mei-Po Kwan and Daniel M. Ransberger)
- 2010. Metropolitan area job accessibility and the working poor: Exploring local spatial variations of geographic context. *Urban Geography*, 31(4): 498-522. (E. Eric Boschmann and Mei-Po Kwan)
- 2010. The neoliberal straitjacket and public education in the U.S.: Understanding contemporary education reform and its implication for

urban contexts. *Urban Geography*, 31(2): 194-210. (Suzanna Klaf and Mei-Po Kwan)

- 2009. [From place-based to people-based exposure measures](#). *Social Science and Medicine*, 69(9): 1311-1313. (Mei-Po Kwan)
- 2009. Three recent developments in critical GIS. *Cartographica*, 44(1): 11-12. (Mei-Po Kwan)
- 2009. [Quantitative revolution 2: The critical \(re\)turn](#). *The Professional Geographer*, 61(3): 283-291. (Mei-Po Kwan and Tim Schwanen)
- 2009. Critical quantitative geographies. *Environment and Planning A*, 41(2): 261-264. (Mei-Po Kwan and Tim Schwanen)
- 2009. 'Doing' critical geographies with numbers. *The Professional Geographer*, 61(4): 459-464. (Tim Schwanen and Mei-Po Kwan)
- 2009. The impact of the Internet on human activity-travel patterns: Analysis of gender differences using multi-group structural equation models. *Journal of Transport Geography*, 17: 440-450. (Fang Ren and Mei-Po Kwan)
- 2009. Decomposing, transforming and contextualizing E-shopping. *Environment and Planning B*, 36: 195-203. (Martin Dijst, Mei-Po Kwan and Tim Schwanen)
- 2009. The impact of geographic context on e-shopping behavior. *Environment and Planning B*, 36: 262-273. (Fang Ren and Mei-Po Kwan)
- 2009. Quantification. In *The SAGE Handbook of Social Geographies*, 573-585. Susan J. Smith, Rachel Pain, Sallie A. Marston, and John Paul Jones III (eds.). London: Sage. (Mei-Po Kwan)
- 2009. GIS as qualitative research: Knowledge, participatory politics, and cartographies of affect. In *The Handbook for Qualitative Methods in Geography*, 286-303. eds. Dydia DeLyser, Stuart Aitken, Mike Crang, Steve Herbert and Linda McDowell. London: Sage. (Stuart Aitken and Mei-Po Kwan)
- 2009. Gendered rigidity of space-time constraints and human activity patterns: An activity-based approach. In *Transportation and Geography*, 951-959. Donggen Wang and Si-Ming Li (eds). Hong Kong: Hong Kong Society for Transportation Studies. (Mei-Po Kwan, Tim Schwanen and Fang Ren)
- 2009. Space-time paths. In *Manual of Geographic Information Systems*, 427-442. Marguerite Madden (ed.), Bethesda, MD: American Society for Photogrammetry and Remote Sensing. (Mei-Po Kwan)
- 2008. [Geo-Narrative: Extending geographic information systems for narrative analysis in qualitative and mixed-method research](#). *The Professional Geographer*, 60(4): 443-465. (Mei-Po Kwan and

Guoxiang Ding).[\[Abstract\]](#)

- 2008. From oral histories to visual narratives: Re-presenting the post-September 11 experiences of the Muslim women in the United States. *Social and Cultural Geography*, 9(6): 653-669. (Mei-Po Kwan) [\[Abstract\]](#)
- 2008. How fixed is fixed? Gendered rigidity of space-time constraints and geographies of everyday activities. *Geoforum*, 39(6): 2109-2121. (Tim Schwanen, Mei-Po Kwan, and Fang Ren)
- 2008. ICTs and the decoupling of everyday activities, space and time. *Tijdschrift voor Economische en Sociale Geografie*, 99(5): 519-527. (Tim Schwanen, Martin Dijst, and Mei-Po Kwan)
- 2008. Scale and accessibility: Implications for the analysis of land use-travel interaction. *Applied Geography*, 28: 110-123. (Mei-Po Kwan and Joe Weber) [\[Abstract\]](#)
- 2008. Mapping ambivalence: Exploring the geographies of community change and rails-to-trails development using photo-based Q-method and PPGIS. *Geoforum*, 39: 1058-1078. (Tim Hawthorne, John Krygier and Mei-Po Kwan)
- 2008. The Internet, mobile phone and space-time constraints. *Geoforum*, 39: 1362-1377. (Tim Schwanen and Mei-Po Kwan)
- 2008. Towards socially sustainable urban transportation: Progress and potential. *International Journal of Sustainable Transportation*, 2: 138-157. (E. Eric Boschmann and Mei-Po Kwan)
- 2008. Reconceptualizing sociogeographical context for the study of drug use, abuse, and addiction. In *Geography and Drug Addiction*, 445-454. Yonette Thomas, Douglas Richardson and Ivan Cheung (eds). Berlin: Springer. (Mei-Po Kwan, Ruth Peterson, Christopher Browning, Lori Burrington, Catherine Calder, and Lauren Krivo)
- 2008. Accessibility, e-shopping, and activity-travel patterns. In *Transportation and Management Science*, 707-716. H. P. Lo, Stephen C. H. Leung, and Susanna M. L. Tam (eds), Hong Kong: Hong Kong Society for Transportation Studies. (Mei-Po Kwan and Fang Ren)
- 2008. Analysis of human space-time behavior: Geovisualization and geocomputational approaches. In *Understanding Dynamics of Geographic Domains*, 93-113. Kathleen S. Hornsby and May Yuan (eds). New York: CRC Press. (Mei-Po Kwan and Fang Ren)
- 2008. Introduction. In *Transport: Critical Essays in Human Geography*, xiii-xv. eds. Susan Hanson and Mei-Po Kwan. Aldershot: Ashgate. (Susan Hanson and Mei-Po Kwan)
- 2008. Feminist perspectives on geographic information systems: Implications for geographic research. In *Gendered Innovations in Science and Engineering*, 97-108, ed. Londa Schiebinger. Palo Alto, CA: Stanford University Press. (Mei-Po Kwan)

- 2008. Critical GIS. In *Encyclopedia of Geographic Information Science*, ed. Karen Kemp. London: Sage. (Mei-Po Kwan)
- 2008. Analysis of human space-time behavior: Geovisualization and geocomputational approaches. In *Understanding Dynamics of Geographic Domains*, 93-113. Kathleen S. Hornsby and May Yuan (eds). New York: CRC Press. (Mei-Po Kwan and Fang Ren)
- 2008. Emergent methods in feminist geography. In *Handbook of Emergent Methods*, 613-624. Sharlene N. Hesse-Biber and Patricia Leavy (eds). New York: Guilford. (Mei-Po Kwan)
- 2007. [Mobile communications, social networks, and urban travel: Hypertext as a new metaphor for conceptualizing spatial interaction.](#) *The Professional Geographer*, 59(4): 434-446. (Mei-Po Kwan) [\[Abstract\]](#)
- 2007. Geovisualization of human hybrid activity-travel patterns. *Transactions in GIS*, 11(5): 721-744. (Fang Ren and Mei-Po Kwan) [\[Figures\]](#)
- 2007. The impact of real-time information on choices during the commute trip: Evidence from a travel simulator. *Growth and Change*, 38(4): 523-543. (Irene Casas and Mei-Po Kwan)
- 2007. [Affecting geospatial technologies: Toward a feminist politics of emotion.](#) *The Professional Geographer*, 59(1): 22-34. (Mei-Po Kwan) [\[Abstract\]](#) [\[Figures\]](#)
- 2007. The interaction between ICT and human activity-travel behavior. *Transportation Research A*, 41(2): 121-124. (Mei-Po Kwan, Martin Dijst and Tim Schwanen)
- 2007. Introduction: Geographies of Muslim identities. In *Geographies of Muslim Identities: Diaspora, Gender and Belonging*, 1-9. Cara Aitchison, Peter Hopkins and Mei-Po Kwan (eds). Aldershot: Ashgate. (Peter E. Hopkins, Mei-Po Kwan and Cara Aitchison)
- 2007. Hybrid GIS and cultural economic geography. In *Politics and Practice in Economic Geography*, 165-175, eds. Adam Tickell, Eric Sheppard, Jamie Peck and Trevor Barnes. London: Sage. (Mei-Po Kwan)
- 2006. [Doing qualitative research using GIS: An oxymoronic endeavor?](#) *Environment and Planning A*, 38(11): 1999-2002. (Mei-Po Kwan and LaDona Knigge)
- 2006. Transport geography in the age of mobile communications. *Journal of Transport Geography*, 14: 384-385. (Mei-Po Kwan)
- 2006. The Internet, changing mobilities and urban dynamics. *Urban Geography*, 27(7): 585-589. (Tim Schwanen, Martin Dijst and Mei-Po Kwan)
- 2006. GABRIEL: GIS activity-based travel simulator: Activity scheduling in the presence of real-time information. *Geoinformatica*,

10:469-493. (Mei-Po Kwan and Irene Casas)

- 2006. Geospatial ontology development and semantic analytics. *Transactions in GIS*, 10(4): 551-575. (I. Budak Arpinar, Amit Sheth, Cartic Ramakrishnan, Lynn Usery, Molly Azami and Mei-Po Kwan) [[Abstract](#)]
- 2006. Conceptualizing socially sustainable urban transport. In *Sustainable Transportation*. S.C. Wong, T.D. Hau, J.J. Wang, K.W. Chau, and H.W. Ho (eds.) Hung Hom, Hong Kong: The Hong Kong Society for Transportation Studies. (E. Eric Boschmann and Mei-Po Kwan)
- 2005. A combinatorial data model for representing topological relations among 3D geographic features in micro-spatial environment. *International Journal of Geographical Information Science*, 19(19): 1039-1056. (Jiyeong Lee and Mei-Po Kwan) [[Abstract](#)]
- 2005. Emergency response after 9/11: The potential of real-time 3D GIS for quick emergency response in micro-spatial environments. *Computers, Environment and Urban Systems*, 29(2): 93-113.. (Mei-Po Kwan and Jiyeong Lee) [[Abstract](#)]
- 2005. Critical GIS. *Cartographica*, 40(4): 1-4. (Francis Harvey, Mei-Po Kwan and Marianna Pavlovskaya)
- 2005. Measuring activity and action space/time: Are our methods keeping pace with evolving behaviour patterns? In *Integrated Land-Use and Transportation Models: Behavioural Foundations*, 101-132, eds. Martin E.H. Lee-Gosselin and Sean T. Doherty. Oxford: Pergamon-Elsevier. (Talia M. McCray, Martin E.H. Lee-Gosselin and Mei-Po Kwan)
- 2005. Accessibility and the quality of life: Time-geographic perspectives. In *Social Dimensions of Sustainable Transport: Transatlantic Perspectives*, 109-126, eds. Kieran Donaghy, Georg Rudinger and Stefan Poppelreuter. Aldershot: Ashgate. (Martin Dijst and Mei-Po Kwan)
- 2004. [Beyond difference: From canonical geography to hybrid geographies](#). *Annals of the Association of American Geographers*, 94(4): 756-763. (Mei-Po Kwan)
- 2004. [GIS methods in time-geographic research: Geocomputation and geovisualization of human activity patterns](#). *Geografiska Annaler B*, 86(4): 205-218. (Mei-Po Kwan) [[Abstract](#)]
- 2004. Protection of geoprivacy and accuracy of spatial information: How effective are geographical masks? *Cartographica*, 39(2):15-28. (Mei-Po Kwan, Irene Casas and Ben C. Schmitz) [[Abstract](#)]
- 2004. Issues of privacy protection and analysis of public health data. *Cartographica*, 39(2):1-4. (Mei-Po Kwan and Nadine Schuurman)
- 2004. Taking a walk on the social side of GIS. *Cartographica*, 39(1):1-

3. (Nadine Schuurman and Mei-Po Kwan)

- 2004. Geovisualization of human activity patterns using 3D GIS: A time-geographic approach. In *Spatially Integrated Social Science*, 48-66, eds. Michael F. Goodchild and Donald G. Janelle. New York: Oxford University Press. (Mei-Po Kwan and Jiyeong Lee) [[Abstract](#)] [[Figures](#)]
- 2004. 'Real' bodies, 'real' technologies. In *Geography and Technology*, 383-399, eds. Stanley D. Brunn, Susan L. Cutter and James W. Harrington. Norwell, MA: Kluwer. (Pamela Moss and Mei-Po Kwan)
- 2003. Gender troubles in the Internet era. *Feminist Media Studies*, 3(3): 371-374. (Mei-Po Kwan)
- 2003. [Individual accessibility revisited: Implications for geographical analysis in the twenty-first Century](#). *Geographical Analysis*, 35(4):341-353. (Mei-Po Kwan and Joe Weber) [[Abstract](#)]
- 2003. Accessibility in space and time: A theme in spatially integrated social science. *Journal of Geographical Systems*, 5(1):1-3. (Mei-Po Kwan, Donald G. Janelle and Michael F. Goodchild)
- 2003. Recent advances in accessibility research: Representation, methodology and applications. *Journal of Geographical Systems*, 5(1):129-138. (Mei-Po Kwan, Alan T. Murray, Morton O'Kelly and Michael Tiefelsdorf) [[Abstract](#)]
- 2003. Evaluating the effects of geographic contexts on individual accessibility: A multilevel approach. *Urban Geography*, 24(8):647-671. (Joe Weber and Mei-Po Kwan) [[Abstract](#)]
- 2003. Space-time accessibility measures: A geocomputational algorithm with a focus on the feasible opportunity set and possible activity duration. *Journal of Geographical Systems*, 5(1): 71-91. (Hyun-Mi Kim and Mei-Po Kwan) [[Abstract](#)] [[Figures](#)]
- 2003. Intelligent emergency response systems. In *The Geographical Dimensions of Terrorism*, 111-116, Susan L. Cutter, Douglas B. Richardson and Thomas J. Wilbanks (eds). New York: Routledge. (Mei-Po Kwan)
- 2002. [Feminist visualization: Re-envisioning GIS as a method in feminist geographic research](#). *Annals of the Association of American Geographers*, 92(4):645-661. (Mei-Po Kwan) [[Abstract](#)] [[Figures](#)]
- 2002. [Time, information technologies and the geographies of everyday life](#). *Urban Geography*, 23(5):471-482. (Mei-Po Kwan)
- 2002. Is GIS for women: Reflections on the critical discourse in the 1990s. *Gender, Place and Culture*, 9(3):271-279. (Mei-Po Kwan)
- 2002. Feminist geography and GIS. *Gender, Place and Culture*, 9(3):261-262. (Mei-Po Kwan)

- 2002. Bringing time back In: A study on the influence of travel time variations and facility opening hours on individual accessibility. *The Professional Geographer*, 54(2):226-240. (Joe Weber and Mei-Po Kwan) [[Abstract](#)] [[Figures](#)]
- 2002. Quantitative methods and feminist geographic research. In *Feminist Geography in Practice: Research and Methods*, 160-173, ed. Pamela Moss. Oxford: Blackwell. (Mei-Po Kwan)
- 2001. Cyberspatial cognition and individual access to information: The behavioral foundation of cybergeography. *Environment and Planning B*, 28(1):21-37. (Mei-Po Kwan) [[Abstract](#)] [[Figure](#)]
- 2000. [Interactive geovisualization of activity-travel patterns using three-dimensional geographical information systems: A methodological exploration with a large data set](#). *Transportation Research C*, 8:185-203. (Mei-Po Kwan) [[Abstract](#)] [[Figures](#)]
- 2000. Gender differences in space-time constraints. *Area*, 32(2):145-156. (Mei-Po Kwan) [[Abstract](#)]
- 2000. Analysis of human spatial behavior in a GIS environment: Recent developments and future prospects. *Journal of Geographical Systems*, 2(1):85-90. (Mei-Po Kwan) [[Abstract](#)]
- 2000. Distributed database design for mobile geographical applications. *Journal of Database Management*, 11(1):3-17. (Manhoi Choy, Mei-Po Kwan and Hong Va Leong). [[Abstract](#)]
- 2000. Interactive geovisualization of activity-travel patterns using 3D GIS. In *Geographic Information Systems in Transportation Research*, ed. Jean-Claude Thill. New York: Pergamon. (Mei-Po Kwan)
- 2000. Human extensibility and individual hybrid-accessibility in space-time: A multi-scale representation using GIS. In *Information, Place, and Cyberspace: Issues in Accessibility*, 241-256, ed. Donald Janelle and David Hodge. Berlin: Springer-Verlag. (Mei-Po Kwan) [[Abstract](#)] [[Figures](#)]
- 1999. [Gender, the home-work link, and space-time patterns of non-employment activities](#). *Economic Geography*, 75(4):370-394. (Mei-Po Kwan) [[Abstract](#)] [[Figures](#)]
- 1999. [Gender and individual access to urban opportunities: A study using space-time measures](#). *The Professional Geographer*, 51(2):210-227. (Mei-Po Kwan) [[Abstract](#)] [[Figures](#)]
- 1998. [Space-time and integral measures of individual accessibility: A comparative analysis using a point-based framework](#). *Geographical Analysis*, 30(3):191-216. (Mei-Po Kwan) [[Abstract](#)] [[Figures](#)]
- 1998. Network-based constraints-oriented choice set formation using GIS. *Geographical Systems*, 5:139-162. (Mei-Po Kwan and Xiao-Dong Hong) [[Abstract](#)]

- 1998. Information representation for driver decision support systems. In *Theoretical Foundations of Travel Choice Modelling*, 281-303, eds. Tommy Garling, Thomas Laitila and Kerstin Westin. New York: Pergamon. (Mei-Po Kwan, Reginald G. Golledge and Jon Speigle)
- 1997. GISICAS: An activity-based travel decision support system using a GIS-interfaced computational-process model. In *Activity-Based Approaches To Travel Analysis*, 263-282, edited by Dick F. Ettema and Harry J.P. Timmermans. New York: Pergamon. (Mei-Po Kwan)
- 1997. Computational process modelling of disaggregate travel behaviour. In *Recent Developments in Spatial Analysis: Spatial Statistics, Behavioural Modelling and Neurocomputing*, 171-185, edited by Manfred M. Fischer and Arthur Getis. Springer-Verlag: Berlin. (Mei-Po Kwan and Reginald G. Golledge)

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