

VI. PUBLICATIONS-II (Peer-reviewed Journal Articles) (* indicating the corresponding author if I am not the first author)

- Xie, Y., Crary, D., Bai, Y., Cui, X. and Zhang, A. 2016. Modeling grassland ecosystem responses to coupled climate and socioeconomic influences from multi-spatial-and-temporal scales. *Journal of Environmental Informatics* (in press).
- Xie, Y. and Ma, T., 2015. A method for delineating a hierarchically networked structure of urban landscape. *Urban Geography* 36(6): 947-963 (Impact Factor 1.355).
- Chen, D., Cheng, J.H., Chu, P.F., Mi, J. Hu S.J., **Xie, Y.**, Tuvshintogtokh, I., & Bai, Y.F., 2015. Effect of diversity on biomass across grasslands on the Mongolian Plateau: contrasting effects between plants and soil nematodes, *Journal of Biogeography*, doi:10.1111/jbi.12683 (Impact Factor 4.59).
- Chen, D., Cheng, J.H., Chu, P.F., Mi, J. Hu S.J., **Xie, Y.**, Tuvshintogtokh, I., & Bai, Y.F., 2015. Regional-scale patterns of soil microbes and nematodes across grasslands on the Mongolian plateau: relationships with climate, soil, and plants, *Ecography* 38: 001–010, doi: 10.1111/ecog.01226 (Impact Factor 4.207).
- Xie, Y., Zhang, A. & Welsh, W. 2015. Mapping Wetlands and Phragmites Using Publically Available Remotely Sensed Images. *Photogrammetric Engineering & Remote Sensing*, 81(1): 69-78 (Impact Factor 2.07).
- Xie, Y., 2014. Advancing STEM Career and Learning through Civic Engagement. *Journal of Technology Education*, 26(1): 47 - 63.
- Sha, Z., Brown, D. G., **Xie, Y.**, Welsh W. F. & Bai, Y. 2014. Response of spectral vegetation indices to a stocking rate experiment in Inner Mongolia, China, *Remote Sensing Letters*, 5:10, 912-921, DOI: [10.1080/2150704X.2014.976882](https://doi.org/10.1080/2150704X.2014.976882) (Impact Factor 1.43).
- Mi, J., Li, J., Chen, D., **Xie, Y.**, & Bai, Y., 2014. Predominant control of moisture on soil organic carbon mineralization across a broad range of arid and semiarid ecosystems on the Mongolia plateau. *Landscape Ecology* (published online 18 May 2014; DOI 10.1007/s10980-014-0040-0) (Impact Factor 2.897).
- Chen, D., Mi, J., Chu, P., Cheng, J., Zhang, L., Pan, Q., **Xie, Y.**, & Bai, Y., 2014. Patterns and drivers of soil microbial communities along a precipitation gradient on the Mongolian Plateau. *Landscape Ecology* (published online 15 February 2014; DOI 10.1007/s10980-014-9996-z) (Impact Factor 2.897).
- Xie, Y., Henry, P.A., Bydlowski, D. & Musial, J., 2014. Linking Climate Change Education and Remote Sensing through the Integration of a Kite-Borne Remote Sensing System and Project-Based Learning, *International Journal of Technology and Science Education*, 4(3): 120-137.

- Xie, Y., Fan, S., 2014. Multi-city Sustainable Regional Urban Growth Simulation - MSRUGS: A Case Study along the Mid-Section of Silk Road of China. *Stochastic Environmental Research and Risk Assessment*, 28:829–841, DOI 10.1007/s00477-012-0680-z (Impact Factor 1.961).
- Zhang, A., Xie*, Y., 2014. A chaos-theory-based data-mining technique for image endmember extraction: Laypunov Index and Correlation Dimension (L&D). *IEEE Transactions on Geoscience and Remote Sensing*, 52(4), 1935-1947 (DOI: 10.1109/TGRS.2013.2256790) (Impact Factor 2.895).
- Xie, Y. & Reider, D., 2014. Integration of Innovative Technologies for Enhancing Students' Motivation for Science Learning and Career. *Journal of Science Education and Technology*, 23:370-380, DOI: 10.1007/s10956-013-9469-1 (Impact Factor 0.87).
- Brown, D.G., Agrawal, A., Sass, D.A., Wang, J., Hua, J., & Xie, Y., 2013. Responses to Climate and Economic Risks and Opportunities across National and Ecological Boundaries: Changing Household Strategies on the Mongolian Plateau, *Environmental Research Letters*, 8 (045011), [doi:10.1088/1748-9326/8/4/045011](https://doi.org/10.1088/1748-9326/8/4/045011), 9pp (Impact Factor 3.582).
- Ting, M., Zhou, C., Tao, P., & Xie, Y., 2013. A comparative analysis of changes in the phasing of temperature and satellite-derived greenness at northern latitudes, *Journal of Geographical Sciences*, 23(1): 57-66 (Impact Factor 0.907).
- Lan, H., Xie*, Y., 2013. A semi-ellipsoid-model based fuzzy classifier to map grassland in Inner Mongolia, China. *ISPRS Journal of Photogrammetry and Remote Sensing*, 85: 21-31(DOI: 10.1016/j.isprsjprs.2013.07.011) (Impact Factor 2.885).
- Li, S., Xie*, Y., Brown, D.G., Bai, B., Jinhua, J., & Judd, K., 2013. Spatial variability of the adaptation of grassland vegetation to climatic change in Inner Mongolia of China. *Applied Geography*, 43: 1-12, DOI: 10.1016/j.apgeog.2013.05.008 (Impact Factor 3.01).
- Liu, Y. and Xie*, Y. 2013. Measuring the dragging effect of natural resources on economic growth: evidence from a space-time panel filter modeling in China. *Annals of Association of American Geographers*, 103(6), 1539-1551. (Impact Factor 2.110).
- Li, S, and Xie*, Y. 2013. Investigating Coupled Impacts of Climate Change and Socioeconomic Transformation on Desertification by Using Multi-temporal Landsat Images: a Case Study in Central Xilingol, China, *IEEE Geoscience and Remote Sensing Letters*, 10(5): 1244-1248. (DOI: 10.1109/LGRS.2013.2257158) (Impact Factor 1.56).
- Liu, Y. and Xie*, Y. 2013. Asymmetric adjustment of the dynamic relationship between energy intensity and urbanization in China. *Energy Economics*, 36: 43-54 (DOI: 10.1016/j.eneco.2012.12.003) (Impact Factor 2.344).
- Xie, Y., Sha, Z., 2012. Quantitative Analysis of Driving Factors of Grassland Degradation: A Case Study in Xilin River Basin, Inner Mongolia。 *The Scientific World Journal*,

Volume 2012, Article ID 169724, 14 pages, doi:10.1100/2012/169724 (Impact Factor 1.730).

- Ye, X., and **Xie, Y.**, 2011. Re-examination of Zipf's Law and Urban Dynamic in China: A Regional Approach. *The Annals of Regional Science*, 49(1): 135-156, doi: 10.1007/s00168-011-0442-8 (Impact Factor 1.523).
- Xie, Y.**, Sha, Z., and Bai Y., 2010. Classifying historical remotely sensed imagery using a tempo-spatial feature evolution (T-SFE) model. *ISPRS Journal of Photogrammetry and Remote Sensing*, 65: 182-190 (Impact Factor 2.885).
- Fang, C.L. and **Xie, Y.**, 2010. Sustainable urban development in water-constrained Northwest China: A case study along the mid-section of Silk-Road – He-Xi Corridor. *Journal of Arid Environments* 74 (2010) 140–148 (Impact Factor 1.723).
- Sha, Z. and **Xie, Y.**, 2010. Design of service-oriented architecture for spatial data integration and its application in building web-based GIS systems. *Geo-Spatial Information Science*, 13(1): 8-15.
- Meng, X., **Xie, Y.**, and Bian, F., 2010. Distributed Geospatial Analysis through Web Processing Service: A Case Study of Earthquake Disaster Assessment, *Journal of Software*, 5(6): 671-679.
- Ma., T., Zhou, C., **Xie***, Y., and Qin, B., 2009. A discrete square global grid system based on the parallels plane projection. *International Journal of Geographic Information Science* Volume [23](#) (10): 1297 – 1313 (Impact Factor 1.472).
- Xie, Y., Sha, Z., Yu, M., Bai Y., and Zhang, L., 2009. A comparison of two models with Landsat data for estimating above ground grassland biomass in Inner Mongolia, China, *Ecological Modelling* 220: 1810-1818 (Impact Factor 2.326).
- Wilcox, D.A., and Xie, Y., 2008. Predicted Effects of Proposed New Regulation Plans on Sedge/Grass Meadows of Lake Ontario. *J. Great Lakes Res.* 34:745–754 (Impact Factor 1.521).
- Xie., Y., Sha, Z., and Yu, M., 2008. Remote sensing imagery in vegetation mapping: a review. *Journal of Plant Ecology* 1: 9-23 (Impact Factor 1.167).
- Sha, Z., Bai Y., **Xie***, Y., Yu, M., and Zhang, L., 2008. Using a hybrid fuzzy classifier (HFC) to map typical grassland vegetation in Xilin River Basin, Inner Mongolia, China, *International Journal of Remote Sensing* 29(8): 2317 – 2337 (Impact Factor 1.117).
- Fang, C., and **Xie***, Y., 2008. Site planning and guiding principles of hi-tech parks in China: Shenzhen as a case study, *Environment and Planning B, Planning and Design*, 35: 100-

121(Impact Factor 0.826).

- Xie, Y., Batty, M., and Zhao, K., 2007. Simulating Emergent Urban Form Using Agent-Based Modeling: Desakota in the Suzhou-Wuxian Region in China. *Annals of Association of American Geographers*, 97(3): 477-495 (Impact Factor 2.173).
- Xie, Y.**, and Ye, X., 2007. Comparative Tempo-Spatial Pattern Analysis: CTSPA. *International Journal of Geographic Information Science*, 21(1): 49-69 (Impact Factor 1.472).
- Wilcox, D., and **Xie, Y.**, 2007. Predicting Wetland Plant Community Responses to Proposed Water-Level-Regulation Plans for Lake Ontario: GIS-Based Modeling, *International Journal of Great Lakes Research* 33:751–773 (Impact Factor 1.521).
- Xie, Y., Fang, C., Lin, C., Gong, H., and Qiao, B., 2007. Tempo-Spatial Patterns of Land Use Changes and Urban Development in Globalizing China: A Study of Beijing, *Sensors* 7: 2881-2907 (Impact Factor 1.739).
- Xie, Y., and Brown, D., 2007. Simulation in Spatial Analysis and Modeling. *Computers, Environments and Urban Systems* 31(3): 229-231 (Impact Factor 1.795).
- Xie, Y., Fang, C., Qiao, B., and Ward, R., 2007. Urban System in West China: A Case Study along the Mid-Section of Ancient Silk Road – He-Xi Corridor, *Cities* 24(1): 60-73 (Impact Factor 1.143).
- Tian, G., Yang, Z. and **Xie, Y.**, 2007. Detecting Landscape Spatio-temporal Dynamic Pattern Using Remote Sensing and Lacunarity Index: A Case Study of Haikou City, China, *Environment and Planning B, Planning and Design* 34(3) 556 – 569 (Impact Factor 0.826).
- Xie, Y., M. Yu, Y. Bai, and X. Xing, 2006. Ecological Analysis of An Emerging Urban Landscape Pattern - Desakota: A Case Study in Suzhou, China. *Landscape Ecology* 21(8): 1297- 1309 (Impact Factor 3.061)
- Brown, D. and **Xie, Y.**, 2006. Spatial Agent-Based Modeling. *International Journal of Geographic Information Science* 20(9): 941-944 (Impact Factor 1.472).
- Xie, Y., 2005. A Prototype Web-based Community Decision Support System. *International Journal of Computer & Information Science*, 6(1): 48-57 (Impact Factor 0.421).
- Xie, Y., M. Yu, G. Tian, and X. Xing, 2005. Socio-economic driving forces of arable land conversion: a case study of Wuxian City, China. *Global Environmental Change* 15: 238-252 (Impact Factor 6.868).
- Yu, M., **Xie, Y.**, and Zhang, X., 2005. Quantification of Intrinsic Water Use Efficiency along a Moisture Gradient in Northeastern China, *J. Environmental Quality* 34: 1311-1318 (Impact Factor 2.32).

- Tian, G., Liu, J., **Xie, Y.**, Yang, Z., Zhuang, D., and Niu, Z., 2005. Analysis of spatio-temporal dynamic pattern and driving forces of urban land in China in 1990s using TM images and GIS, *Cities*, 22(6): 400–410 (Impact Factor 1.143).
- Xie, Y., D. Goby, R. Raymond, and R. Pizzy, 2004. Going Beyond Automatic Vehicle Location. *GIS Development*, 8(11): 30-33, November 2004 (ISSN 0971-9377).
- Xie, Y., and Z. Fan, 2003. Examine Urban Expansion from Remote Sensing and GIS: A Case Study in Beijing, *Asian Geographer*, 22(1/2): 119-132.
- Hunter, B. and **Xie, Y.**, 2001. Data Tools for Real-World Learning, *Learning & Leading with Technology*, 28(7): 18-24.
- Batty, M. and **Xie, Y.**, 1999. Self-organized Criticality and Urban Development, *Discrete Dynamics in Nature and Society*, 3:109-124.
- Batty, M., **Xie, Y.**, and Z. Sun, 1999. Modeling Urban Dynamics through GIS-Based Cellular Automata, *Computers, Environments and Urban Systems*, 23(3): 205-233.
- Xie, Y., and Batty, M., 1997. Automata-Based Exploration of Emergent Urban Form, *Geographical Systems*, Vol. 4:83-102.
- Klosterman, R. and Xie, Y., 1997. Retail Impact Analysis with Loosely Coupled GIS and a Spreadsheet, *International Planning Studies*, 2(2): 175-192.
- Batty, M. and **Xie, Y.**, 1997. Possible Urban Automata, *Environment and Planning B*, 24(2): 175-192.
- Batty, M. and **Xie, Y.**, 1996. Preliminary Evidence for a Theory of the Fractal City, *Environment and Planning A*, 28: 1745-1762.
- Xie, Y., 1996. A Generalized Model for Cellular Urban Dynamics, *Geographical Analysis*, 28(4): 350-373.
- Xie, Y., 1995. The Overlaid Network Algorithms for Areal Interpolation Problem, *Computers, Environments and Urban Systems*, 19(4): 287-306.
- Mesev, T.V., Batty, M., Longley, P.A., **Xie, Y.**, 1995. Morphology from Imagery: Detecting and Measuring the Density of Urban Land Use, *Environment and Planning A*, 27: 759-780.
- Xie, Y., and Costa, F., 1995. City Size and Socioeconomic Development in the People's Republic of China, *Asian Profile*, 23(3): 181-203.
- Batty, M. and **Xie, Y.**, 1994. From Cells to Cities, *Environment and Planning B*, 21: 31-48.

- Batty, M. and **Xie, Y.**, 1994. Modeling Inside GIS: Part II: Selecting and Calibrating Urban Models Using ARC-INFO, *International Journal of Geographical Information Systems*, 8(5): 451-470.
- Batty, M. and **Xie, Y.**, 1994. Modeling Inside GIS: Part I: Model Structures, Exploratory Spatial Data Analysis, and Aggregation, *International Journal of Geographical Information Systems*, 8(3): 291-307.
- Batty, M. and **Xie, Y.**, 1994. Urban Analysis in a GIS Environment: Population Density Modeling Using ARC/INFO, in S. Fotheringham and P. Rogerson (eds), *GIS and Spatial Analysis*, Taylor and Francis, London, pp.189-219.
- Xie, Y., 1993. Retrospective of China's Urbanization and Regional Development in the Era of Economic Reforms, *GeoJournal*, 29(2): 197-200.
- Xie, Y., and Costa, F., 1993. Theory and Practice of Urban Planning in Socialist China, *CITIES*, 10(2): 103-114.
- Xie, Y., and Dutt, A., 1993. Foreign Joint Ventures in the People's Republic of China, 1979 to 1985, *GeoJournal*, 29(4): 385-397.
- Xie, Y., and Costa, F., 1991. The Impact of Economic Reforms on the Urban Economy of the People's Republic of China, *The Professional Geographer*, 43(3): 318-335.
- Xie, Y., and Costa, F., 1991. Urban Design Practice in Socialist China, *Third World Planning Review*, 13(3): 277-296.
- Xie, Y., and Dutt, A., 1991. Spatial Disparities of Urban Socio-Economic Development in the People's Republic of China, *Geoforum*, 22(1): 55-67.
- Xie, Y., and Dutt, A., 1990. Perspectives on City-size and Investment Effectiveness in China, *GeoJournal*, 21(1/2): 33-38.
- Xie, Y., and Dutt, A., 1990. Regional Investment Effectiveness and Development Levels in China, *GeoJournal*, 20(4): 393-407.
- Fang, J. and **Xie, Y.**, 1990. Territorial Exploitation in Chinese Subtropical Mountainous Regions, South Anhui as a Case Study, *GeoJournal*, 21(1/2): 73-81.
- Yu, Y., Zhu, Y., and **Xie, Y.**, 1988. Assessing the Influence of Environmental Parameters on the Hydrological Cycle, *Hydrological Process*, Vol.2: 285-289.