

## LI AN

### (a) Professional Preparation

Beijing University	Economic geography	B.S., 1989
Chinese Academy of Sciences	Systems Ecology	M.S., 1992
Michigan State University	Probability & Statistics	M.S., 2002
Michigan State University	Systems Modeling	Ph.D., 2003
University of Michigan	Agent-based & statistical modeling	Postdoctoral fellow, 2005

### (b) Appointments

2009-present	Associate Professor, Dept. of Geography, San Diego State University
2005-2009	Assistant Professor, Dept. of Geography, San Diego State University
2003-2005	Postdoctoral Research Fellow, School of Natural Resources and Environment, University of Michigan
2008-present	Adjunct professor, Research Center of Eco-Environmental Sciences, Chinese Academy of Sciences

### (c) Publications (Five publications most closely related to the proposed project)

1. An, L. (2012). Modeling human decisions in coupled human and natural systems: review of agent-based models. *Ecological Modelling* 229(24): 25-36.
2. An, L., D. G. Brown, J. Nassauer, and B. Low (2011). Variations in Development of Exurban Residential Landscapes: Timing, Location, and Driving Forces. *Journal of Land Use Science* 6 (1): 13–32.
3. An, L., and J. Liu (2010). Long-Term Effects of Family Planning and Other Determinants of Fertility on Population and Environment: Agent-Based Modeling Evidence from Wolong Nature Reserve, China. *Population and Environment* 31: 427-459.
4. An, L., and D.G. Brown. 2008. Survival analysis in land-change science: integrating with GIScience to address temporal complexities. *Annals of Association of American Geographers* 98(2): 323-344.
5. An, L., G. He, Z. Liang, and J. Liu. 2006. Impacts of demographic and socioeconomic factors on spatio-temporal dynamics of panda habitats. *Biodiversity and Conservation* 15: 2343-2363.

### Five other significant publications

6. An, L., M. Linderman, Z. Ouyang, W. Chen, and J. Liu (2011). Long-term ecological effects of demographic and socioeconomic factors in Wolong Nature Reserve (China). In *The Demography and Geography of Homo Sapiens and Its Implications for Biological Diversity* (Richard P. Cincotta, and Deirdre Mageean, eds., Springer-Verlag).
7. An, L., M. Linderman, J. Qi, A. Shortridge, and J. Liu. 2005. Exploring complexity in a human-environment system: an agent-based spatial model for multidisciplinary and multi-scale integration. *Annals of Association of American Geographers* 95 (1): 54-79.
8. An, L., F. Lupi, J. Liu, M. Linderman, and J. Huang. 2002. Modeling the choice to switch from fuelwood to electricity: implications for giant panda habitat conservation. *Ecological Economics* 42(3): 445-457.

9. An, L., J. Liu, Z. Ouyang, M. Linderman, S. Zhou, and H. Zhang. 2001. Simulating demographic and socioeconomic processes on household level and implications for giant panda habitats. *Ecological Modelling* 140: 31-49.
10. Liu, J., M. Linderman, Z. Ouyang, L. An, J. Yang, and H. Zhang. 2000. Ecological degradation in protected areas: the case of Wolong Nature Reserve for giant pandas. *Science* 292: 98-101.

#### **(d) Synergistic Activities**

1. Chair of Spatial Analysis and Modeling (SAM) Specialty Group (elected), the Association of American Geographers, 2012-2015.
2. Organizer and speaker of The American Association for the Advancement of Science (AAAS) symposium "Mapping and disentangling human decisions in complex human-nature systems", Feb. 17-21, 2011, Washington, D.C.
3. Guest-editor of a special issue for the journal *Ecological Modeling* 229(24). March 2012 (based on the above AAAS symposium). The special issue is entitled "Mapping and Disentangling Human Decisions in Complex Human-Nature Systems".
4. Developed of a computational methodology called "pseudo-history analysis", which integrates agent-based modeling and statistical modeling. This project will bring new views on the validity and reliability of various statistical methods and sampling strategies.
5. Organizer of Session 5108 "Perspectives on Geographic Complexity I: Theory", and chaired Session 5408 "Perspectives on Geographic Complexity III: Applications I—Land Use" at The 2008 Annual meeting of The Association of American Geographers (April 15-19), 2008, Boston.

#### **(e) Collaborators & Other Affiliations**

- **Collaborators and Co-Editors:** William G. Axinn (University of Michigan--UM), David Lopez-Carr (University of California, Santa Barbara), Dirgha Ghimire (University of Michigan), Jianguo (Jack) Liu (Michigan State University—MSU), Zhiyun Ouyang (Chinese Academy of Sciences), Douglas Stow (San Diego State University--SDSU), John Weeks (SDSU), Scott Yabiku (Arizona State University), Yeqin Yang (Fanjingshan National Nature Reserve)
- **Graduate and Postdoctoral Advisors:** Jianguo (Jack) Liu (Ph.D. advisor, MSU), Daniel G. Brown (Postdoctoral advisor, University of Michigan), Rusong Wang (M.S. advisor, The Chinese Academy of Sciences)
- **Thesis Advisor and Postgraduate-Scholar Sponsor:** PhD students: Sarah Wandersee, Alex Zvollef, Ninghua Wang, Xinyue Ye, Arika ligmann-zielinska, Mary Freeman, Justin Stoler. M.S. students: Jeffrey LaMantia-Bishop, Kelly E. Kreueger, Heather D'Anna, Kira Withy-Allen, Danna Hinderle, Kelly Tait, Ke Zhu; Jing-Yi Chen, Sarah Hinton, Hua Liu, Mersee J. Madison\_Villar, Xuening Li, Anna Mitelberg, Wyson Pang, Wei Chen, Adam Wagschal.

#### **INFORMATION ABOUT CURRENT AND PENDING SUPPORT**

Current and Pending Support (**skipped**)