# Postdoctoral Associate

Innovative and highly motivated candidates with strong track records of research productivity are invited to apply for a Postdoctoral Associate position with the Center for Systems Integration and Sustainability (CSIS) at Michigan State University. The position will involve interdisciplinary research that integrates spatial, socioeconomic, and environmental sciences, with a focus on the operationalization of the telecoupling framework (socioeconomic and environmental interactions between coupled human-natural systems over distances, http:///www.telecoupling.org). The successful candidate will have opportunities to work and collaborate on one or more of the following tasks:

- Develop spatially-explicit models and tools to describe and quantify socioeconomic and environmental interactions between coupled human-natural systems
- Compile and collect socioeconomic and environmental data at local, regional, national, and international scales to quantify various factors affecting feedbacks between global food security and land use
- Analyze and synthesize multi-scale data to understand relationships among various factors to facilitate modeling of feedbacks between food security and land use
- Modify or integrate existing global trade modeling approaches (e.g. GTAP, PEATSim) into the telecoupling framework using data and analyses listed above to allow simulation of long-term consequences for land use and food security under various scenarios (e.g., various decisions and policy options regarding land use and food security, changes in population size, climate, urbanization, biofuel demand etc.)

This is an exciting opportunity to join a dynamic interdisciplinary group with collaborators in Brazil, China, UK, US, and other countries. Selected candidates will have a unique opportunity to develop and expand collaborations within the Center and across international research groups. Preferred applicants will already have an interdisciplinary background with experience integrating GIS with analytical approaches from the economic, social, geographic, ecological, or/and agricultural sciences; have some basic experience in spatial analysis/modeling and good programming skills (e.g. Python, R, or C++); and have excellent communication skills and a PhD in a related field (e.g., computer science and engineering, conservation, ecology, economics, geography, environmental science, international trade, land science, spatial science, systems modeling and integration). This position is initially for one year, renewable depending on performance and funding. A competitive salary and benefit package will be offered commensurate with experience.

Application materials should include: (1) letter of application, (2) statement of professional goals and research experiences/interests (e.g., how experiences and interests fit with the tasks listed above), (3) CV or resume, (4) transcripts (unofficial ones are OK initially), (5) list of 3-4 references (names and contact information), and (6) up to three representative publications, models or software programs developed by the applicant.

Applicants are encouraged to submit their application materials as soon as possible. Please visit https://jobs.msu.edu (using posting number 5169) for more information and application submission. Applications are welcome until a suitable candidate is identified. Reviews of applications will begin on April 25, 2017. Start date is relatively flexible.  Questions can be emailed to:

 Dr. Jianguo (Jack) Liu
Rachel Carson Chair
Michigan State University
liuji@msu.edu
http://csis.msu.edu/people/jianguo-liu


** Dr. Liu will be at the telecoupling workshop on April 9 and telecoupling symposium on April 10 during the US-IALE meeting in Baltimore, and would be happy to meet with potential candidates. **