

## Computer Science Seminar Series

### National Capital Region

# Teleconnecting Consumption to Environmental Impacts at Multiple Spatial Scales

**Speaker: Dr. Kuishuang Feng**  
University of Maryland College Park  
Friday, March 27, 2015  
1:00PM- 2:00PM, NVC 325

### Abstract

Globalization increases the interconnectedness of people and places around the world through markets, flows of capital, labor, services, information, and human migration. In such a connected world, goods and services consumed in one country are often produced in other countries and exchanged via international trade. Thus, local consumption is increasingly met by global supply chains that often involve large geographical distances. As such, local consumption can have negative impacts on both the local and global environment, contributing to climate change, water scarcity, deforestation and other land conversions, all of which impact important ecosystem services.

In this talk, I will first compare bottom-up and top-down approaches for life-cycle assessment. Then I will present some results on consumption-based CO<sub>2</sub> emissions, land use, and water use across 129 countries/regions based multi-regional input-output analysis (MRIO), a typical top-down approach.

### Biography



Dr. Kuishuang Feng is a Research Assistant Professor in the Department of Geographical Sciences at the University of Maryland, College Park (UMD). He is an expert in spatial economic modeling and related environmental issues. He has rich experience in developing regional, national and global economic models with extension of environmental parameters. He published extensively on ecological-economic modeling in high level scientific journals including Nature Climate Change, Proceedings of the National Academy of Sciences, Global Environmental Change, and Environmental Science & Technology. More information about his work can be found at:

<http://geog.umd.edu/facultyprofile/Feng/Kuishuang>