Paper Session:

2647 Land Change Modeling II: Applications and Decision Making

is scheduled on Wednesday, 4/22/2015, from 5:20 PM - 7:00 PM in Toronto, Hyatt, West Tower, Gold Level

Sponsorship(s):
Geographic Information Science and Systems Specialty Group
Remote Sensing Specialty Group
Spatial Analysis and Modeling Specialty Group

Organizer(s):
Ting Liu - Northeastern Illinois University
Xiaojun Yang - Florida State University

Chair(s):
Ting Liu - Northeastern Illinois University

Abstract(s):

5:20 PM Author(s): *Wei Li - Peking University, University of Michigan
Ginger Allington, Ph.D. - University of Michigan
Dan Brown, Professor - University of Michigan

Abstract Title: *A system dynamics approach for modelling coupled natural and human systems on the Mongolia Plateau*

5:40 PM Author(s): *Shougeng Hu - Department of Land Resource Management, China University of Geosciences, Wuhan, Hubei 430074, China
qiuming cheng - Department of Earth and Space Science and Engineering, Department of Geography, York University, Toronto, 4700 Keel Street, Ontario, Canada M3J 1P3

Abstract Title: *Multivariate geostatistical methods for analysis of relationship between land price and natural and human environmental elements at a city scales*

6:00 PM Author(s): *David Massey - Indiana University
Rinku Roy Chowdhury - Indiana University

Abstract Title: *Modelling a Peri-Urban Landscape in the Greater Miami Metropolitan Region*

6:20 PM Author(s): *Timothy T Kennedy - University of Wisconsin - Stevens Point

Abstract Title: *Modeling the Multi-dimensional Factors of Parcelization and Land-use Change in Rural Wisconsin*

6:40 PM Author(s): *Ting Liu - Northeastern Illinois University
Xiaojun Yang - Florida State University

Abstract Title: *Multi-scale Modeling of the Factors Driving Urban Land Use Changes*

Session Description: Land changes are complex processes in which human and natural systems interact over space and time. And geospatial modeling techniques can enhance our understanding of the land change process. Over the past several decades, various modeling approaches have been developed, including statistical models, rule-

based models, mathematical optimization, cellular automata, agent-based models, and hybrid models. They provide insights into the functioning of land changes at aggregated and individual levels, across various spatio-temporal scales, as well as in human, natural, or the coupled systems. This session provides a forum for researchers to exchange new ideas in theories, methods, and techniques relating to the development of geospatial models for land change simulation. Topics may include but are not limited to:

- Model conceptualization: representation of complexity, human-environment interactions, decision-making, and spatial and temporal scales;
- Model implementation: data integration, computational algorithms, and parameter calibration;
- Model validation: landscape pattern characterization, uncertainty, and error measurements;
- Model applications: scenario design, implementation, and applications; and
- Roles of GIS and remote sensing in land change modeling.

New Query