Paper Session:

2412 Spatiotemporal Thinking, Computing and Applications 7: Public Health

is scheduled on Wednesday, 4/9/2014, from 12:40 PM - 2:20 PM in Room 12, TCC, First Floor

Sponsorship(s):
Health and Medical Geography Specialty Group
Cyberinfrastructure Specialty Group
Spatial Analysis and Modeling Specialty Group

Organizer(s):
Chaowei Yang - George Mason University
Keith C. Clarke - University Of California, Santa Barbara
Shaowen Wang - University of Illinois at Urbana-Champaign

Chair(s):
Weihe Wendy Guan - Harvard University

Abstract(s):

12:40 PM Author(s): *LIANG MAO - University of Florida

Abstract Title: *Are social-distancing strategies cost-effective in controlling flu epidemics?*

1:00 PM Author(s): *Yiqing Shang - Geography Department, University of Iowa
Liping Long - Mississippi State University
Xiu-Feng Wan - Mississippi State University
Margaret Carrel - University of Iowa

Abstract Title: *Spatiotemporal Analysis of Phylogeographic patterns of H1N1 in China 2009-2010*

1:20 PM Author(s): *Blake Byron Walker - Simon Fraser University
Ajit Auluck - British Columbia Cancer Agency
Miriam Rosin - British Columbia Cancer Agency
Nadine Schuurman - Simon Fraser University

Abstract Title: *Spatial-temporal analysis for investigating variations in head/neck cancer sites and access to treatment centres in British Columbia, Canada*

1:40 PM Author(s): *Cory Morin - University of Arizona

Abstract Title: *Modeled Impacts of Climate Variability and Projected Climate Change on Dengue Virus Transmission in San Juan, Puerto Rico*

Session Description: Many 21st century challenges, such as climate change, natural disaster and interdisciplinary discovery, exist within a 4-dimensional (3D space and 1D time) framework. Integrating our understanding and methods across all four dimensions would lead to new approaches to help us address the challenges by providing: 1) new methodologies to improve our knowledge; 2) new computational tools and software to advance relevant technologies; and 3) applications to directly address the challenges. For example, how could we save thousands more lives if an earthquake hits a densely populated area or a huge volcano erupted near a major city? A spatiotemporally aware and optimized approach could help advance GIScience, Cyberinfrastructure, Cloud

Computing, Big Data, Social Media, Digital Earth and future generations of GIS and geographic solutions. A better understanding of the spatiotemporal linkage among different domains of geography would enable us to
address problems that were previously unsolvable. The NSF Spatiotemporal Innovation Center is established to collectively investigate just such solutions.

Following the success of last year's spatiotemporal thinking, computing and application sessions, we are organizing a series of sessions (paper, illustrative, interactive, and panel) on STCA to move the discussion forward and to build a research agenda. Possible topics include but are not limited to:

1. Are there undiscovered spatiotemporal principles or laws?
2. How to detect spatiotemporal patterns from observation and simulations?
3. How to analyze spatiotemporal patterns in various geographic sciences, such as climate change, ocean science, environmental science, disaster and sustainability studies.
4. How to formulate and/or utilize spatiotemporal thinking as a methodology and conceptualization process in geographic science discovery and application.
5. What are the new computing, software, and application products to address spatiotemporal problems?
6. How can spatiotemporal thinking and computing be used to manage and develop cloud computing and Big Data solutions?
7. Does a spatiotemporal approach facilitate better understanding of the physical and social sciences, such as climate change, energy, political, and population sciences?
8. How to educate the next generation workforce with spatiotemporal knowledge and methods?
9. How best to communicate spatiotemporal knowledge.

Organizers
- Peter Bol, Harvard University
- Keith Clarke, University of California at Santa Barbara
- Jeff Dozier, University of California at Santa Barbara
- Michael Goodchild, University of California at Santa Barbara/ESRI
- Wendy Guan, Harvard University
- Diansheng Guo, Univ. of Southern Carolina
- Paul Houser, George Mason University
- Qunying Huang, Univ. of Wisconsin-Madison
- Shaowen Wang, Univ. of Illinois at Urbana-Champagne
- Chaowei Yang, George Mason University
- Axing Zhu, Univ. of Wisconsin-Madison

New Query