



## AAG Annual Meeting

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### Paper Session:

#### 3112 Spatiotemporal Thinking, Computing and Applications 10: Transportation

is scheduled on Thursday, 4/10/2014, from 8:00 AM - 9:40 AM in Room 12, TCC, First Floor

#### Sponsorship(s):

Cyberinfrastructure Specialty Group  
Spatial Analysis and Modeling Specialty Group  
Transportation Geography Specialty Group

#### Organizer(s):

[Chaowei Yang](#) - George Mason University  
[Weihe Wendy Guan](#) - Harvard University  
[Keith C. Clarke](#) - University Of California, Santa Barbara

#### Chair(s):

[Weihe Wendy Guan](#) - Harvard University

#### Abstract(s):

**8:00 AM Author(s):** \*Laure Charleux - University of Minnesota Duluth  
Alexis Conesa - Faculté de Géographie et Aménagement de Strasbourg - LIVE UMR CNRS 7362  
Thomas Leduc - CERMA - UMR CNRS 1563  
Joël Meissonnier - CEREMA  
Arnaud Piombini - Faculté de Géographie et Aménagement de Strasbourg - LIVE UMR CNRS 7362  
Cyprien Richer - CEREMA

Abstract Title: *Intermodal public transit and spatio-temporal activity of passengers during transfers.*

**8:20 AM Author(s):** \*Curtis J Denton - University of Connecticut  
Jeffrey P Osleeb, PhD - University of Connecticut

Abstract Title: *Access to Emergency Centers and Risk of Dying in a Motor Vehicle Accident*

**8:40 AM Author(s):** \*Kristian Larsen - University of Toronto  
Ron Buliung - University of Toronto Mississauga  
Guy Faulkner - University of Toronto

Abstract Title: *How does the built environment and traffic safety relate to physical activity levels when travelling to and from school*

**9:00 AM Author(s):** \*Christopher D Higgins - McMaster University  
Pavlos S Kanaroglou - McMaster University

Abstract Title: *Measuring Commute Satisfaction and the Effects of Congestion in Canadian Cities*

**9:20 AM Author(s):** Chih-Hao Wang - The Ohio State University  
\*Na Chen - The Ohio State University

Abstract Title: *Spatial Spillover of Public Transit on Job Accessibility: A Spatial*

### *Statistical Model for Transportation Equity in Columbus, Ohio*

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**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-Champaign
- Chaowei Yang, George Mason University
- Axing Zhu, Univ. of Wisconsin-Madison

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New Query