Paper Session:

1288 Spatial Data Mining and Big Data Analytics (2)

is scheduled on Tuesday, 4/21/2015, from 10:00 AM - 11:40 AM in 304 Classroom, University of Chicago Gleacher Center, 3rd Floor

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

Organizer(s):
Diansheng Guo - UNIVERSITY OF SOUTH CAROLINA
Harvey J. Miller - The Ohio State University
May Yuan - University of Texas - Dallas

Chair(s):
Donna J. Peuquet - Pennsylvania State University

Abstract(s):

10:00 AM Author(s): *Juntao Lai - University College London
Tao Cheng - University College London
Guy Lansley - University College London

Abstract Title: *Spatio-Temporal Patterns of Passengers' Interests at London Tube Stations*

10:20 AM Author(s): *Sarah Williams - MIT
Luc Anselin - Arizona State University

Abstract Title: *Digital Neighborhoods: Using Social Media to Expose a New Urban Economy*

10:40 AM Author(s): *Konstantin Greger - University of Tsukuba

Abstract Title: *A Spatio-Temporal Betweenness Centrality Measure for the Micro-Scale Estimation of Pedestrian Traffic*

11:00 AM Author(s): *Diansheng Guo - UNIVERSITY OF SOUTH CAROLINA

Abstract Title: *Statistical Analysis and Mapping of Big Mobility Data*

Session Description: Big and dynamic spatial data have been, and continue to be, collected with modern data acquisition techniques such as global positioning systems (GPS), high-resolution remote sensing, census surveys, and internet-based volunteered geographic information.While these data offer unprecedented opportunities to advance our understanding of complex geographic processes and phenomena, there are many challenging research questions in analyzing such data to obtain new knowledge. We invite research contributions in the theory, methodology, implementation, and application of spatial data mining, simulation, and visual analytics for big spatial data analytics. Potential topics include (but not limited to):

Theories and models to represent, quantify, and enable discovery of new types of spatial patterns and relationships;

Computational, statistical, and visual analytical methodologies for big data analytics, knowledge discovery, and decision support in geographic domains;

Domain-specific data analytics and applications: public health, spatial epidemiology, transportation, urban mobility, climate change, crime analysis, migration, geo-social networks, among others;

Simulation, benchmark data generation, complexity modeling, predictive analytics;

Big data collection, curating and management methodologies for heterogeneous data, e.g., texts, videos, images, etc.

Organizing Committee (in alphabetical order):

Clio Andris (Pennsylvania State University)
Diansheng Guo (University of South Carolina)
Jeremy Mennis (Temple University)
Harvey Miller (The Ohio State University)
Shaowen Wang (University of Illinois at Urbana-Champaign)
Chaowei Yang (George Mason University)
May Yuan (University of Texas at Dallas)

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