Sunday, September 16

9:00am – 4:00pm ICA Commissions and working groups
(Commissions and working groups require pre-registration)

**Workshop on Internet and Geospatial Technologies – Judicial room**
Jointly sponsored by the ICA Commission on Maps and the Internet and the ICA Commission on Open Source Geospatial Technologies.

**Workshop on Designing and Conducting User Studies – Legislative A room**
Jointly sponsored by the ICA Commission on Cognitive Visualization and the ICA Commission on Use and User Issues.

**Working Group on the International Map Year – Legislative B room**
Working Group web site: [www.bengtrystedt.se](http://www.bengtrystedt.se)
Monday, September 17

8:15 – 10:00 Opening session / plenary – Congressional room
Welcome and introductions

Plenary speaker:
Mark DeMulder – Director of the United States Geological Survey’s National Geospatial Program

10:00 – 10:30 Coffee break – Legislative Foyer

10:30 – 12:00
Session 1 – Map use, design, and analysis – Legislative A room

Chair: Ian Muehlenhaus

Cartographic styles between traditional and original (towards a cartographic style model)
Sidonie Christophe
Institut Geographique National (IGN-France)

Maintaining detail and color definition when integrating color and grayscale rasters
Rajinder Nagi
Esri

Thinking inside the box: mapping the microstructure of urban environments (and why it matters)
Seth E. Spielman
University of Colorado

Beyond Biased: Exploring the relationship between map design style and map reader persuasion
Ian Muehlenhaus
University of Wisconsin – La Crosse

Session 2 – Volunteered geographic information – Legislative B room

Chair: Barbara Poore

WikiGIS: Collaborative production of spatial knowledge and data
Stéphane Rosche and Robert D. Feick
University of Laval

Automating the Ushahidi platform for live crisis mapping
Patrick Meier
CrisisMappers

Neogeography map users and uses
Corne P.J.M. van Elzakker, Mosa Moseme
University of Twente

Using volunteers to update the National Map of the USGS
Barbara Poore, Eric Wolf, and Greg Matthews
USGS
Session 3 – Analytical cartography – Judicial room

Chair: Harold Moellering

Representation of Terrain Data Using Mathematical “Drill” Operator
Christopher Stuetzle, W. Randolph Franklin
Rensselaer Polytechnic Institute

Voronoi methods for spatial selection
Alan Saalfeld
Ohio State University

Cartograms for non-political redistricting
Alan Saalfeld
Ohio State University

The scope of analytical cartography and its relationship to GIScience
Harold Moellering
Ohio State University

12:00 – 1:30 Lunch

1:30 – 3:00

Session 4 – Map use, design, and analysis – Legislative A room

Chair: Eric Wolf

What do we know about the space time cube from a cartographic and usability perspective?
Irma Kveladze, Menno-Jan Kraak
University of Twente

Conflicts in neogeography maps
Tanmoy Das, Corne P.J.M. van Elzakker, Menno-Jan Kraak
University of Twente

Landcover Data to Derive Related Ancillary Variables for Dasymetric Modeling
Stefan Leyk, Barbara Buttenfield, Nicholas Nagle, Alexander K. Stum
University of Colorado

Aggregating data quality metrics for item level metadata
Eric Wolf
University of Colorado

Session 5 – Applications – Legislative B room

Chair: Susanne Bleisch

Measuring and monitoring long term disaster recovery using remote sensing: A case study of post Katrina New Orleans
Reginald S. Archer, Keith C. Clarke
University of California, Santa Barbara

Mapping Social Activities and Concepts with Social Media (Twitter) and Web Search Engines (Yahoo and Bing): A Case Study in U.S. Presidential Election.
Ming-Hsiang Tsou, Juei-An Yang, Daniel Lusher, Dipak Gupta, Jean Gawron, Brian Spitzberg, An Li
San Diego State University

3D Modeling of an Inca Site with Fine-scale Terrestrial LiDAR
Boleslo E. Romero
University of California, Santa Barbara

Challenges in collecting, using, and representing geospatial data for emergency response
Sarah Battersby, Michael E. Hodgson, Bruce A. Davis, Shufan Liu, Leanne Sulewski
University of South Carolina
**Session 6 – Generalization – Judicial room**

**Chair:** Robert Weibel

- **Multiscale design for The National Map of the United States: Roads, Populated places, boundaries, and landcover**
  
  Cynthia Brewer, Lawrence Stanislawski, Barbara Buttenfield, Paolo Raposo, Kevin Sparks, and Michael Howard
  *Pennsylvania State University*

- **Automated metric assessment of line simplification in humid landscapes**
  
  Lawrence Stanislawski, Paolo Raposo, Michael Howard, Barbara Buttenfield
  *USGS*

- **Effects of generalization on DEM resolution**
  
  Andrew Stauffer, Barbara Buttenfield, Larry Stanislawski
  *University of Colorado*

- **Towards task-oriented on-the-fly generalization of point data using spatial indexes**
  
  Pia Bereuter, Robert Weibel
  *University of Zurich*

  **3:00 – 3:30 Coffee break – Legislative Foyer**

  **3:30 – 5:00**

  **Session 7 – Geospatial modeling – Legislative A room**

  **Chair:** Sarah Battersby

- **Determining the size of Wyoming: The integration of different types of databases, coordinate errors, and geometric position**
  
  William J. Gribb, Lawrence M. Ostresh
  *University of Wyoming*

- **Geospatial Modeling of Urban Landscape Changes through an Agent-based Approach**
  
  Ting Liu, Xiaojun Yang
  *Florida State University*

- **Support vector machines for landscape mapping for remote sensor imagery**
  
  Dee Shi, Xiaojun Yang
  *Florida State University*

- **Challenges in supporting extraction of knowledge about environmental objects and events from geosensor data**
  
  Susanne Bleisch, Matt Duckham, Allison Kealy, Kai-Florian Richter, Stephan Winter, Stuart Kininmonth, Alex Kippel, Patrick Laube, Jarod Lyon, David Medyckyj-Scott, Tim Wark
  *University of Melbourne*
Session 8 – Map projections – Legislative B room
Sponsored by the ICA Commission on Map Projections

Chair: Michael Finn

The space oblique conic projection
Liucheng Ren, Keith C. Clarke, and Chenghu Zhou
Chinese Academy of Sciences

The web Mercator projection: The wall map distortion
E. Lynn Usery
USGS

Blending world map projections
Bernhard Jenny and Tom Patterson
Oregon State University

Performance issues associated with grid computing and raster map projections
Babak Behzad, Yan Liu, Eric Schook, Michael Finn, David Mattli, and Shaowen Wang
University of Illinois at Urbana-Champaign

Session 9 – Space – time – Judicial room

Chair: Caglar Koylu

An alternative framework for managing and mapping space-time data
Aileen Buckley
Esri

Cartographic visualization of temporal aspects of spatial data
Otakar Čerba, Klára Brašnová
University of West Bohemia

Multiple view geovisualization of tourist activities in space and time at different scales
Jinfeng Zhao, Pip Forer, Qian Sun and David Simmons
University of Auckland

Mapping social relationships across space and time
Caglar Koylu
University of South Carolina

5:00 – 6:00 USNC meeting – Congressional room

5:00 – 8:00 Poster session
Poster presenters available to discuss posters with participants

6:00 – 8:00 CaGIS Business meeting / welcome reception – Plaza restaurant
Poster session

Hybrid approach for georeferencing RadarSat2 images
A. Haddoud, M. Belhadj Aissa, F. Hocine, M. Fekir, A. BelhadjAissa
University of Science and Technology Houari Boumediene

Internet image search engines in designing pictographic map symbols
Jari Korpi
Aalto University

Experiments on sea bottom relief modeling and cartographic representation: White Sea case study
S. M. Koshel, S. L. Nikiforov, A. S. Koshel
Lomonosov Moscow State University

A framework enabling art maps on mobile devices for walking tours
Min Lu, Masatoshi Arikawa
The University of Tokyo

How to integrate a map with a story telling in common operation picture
Pekka Luokkala
Aalto University School of Engineering

Aspects that affect performance on GIS: An interface analysis
André Luiz de Alencar Mendonça, Marcio Augusto Reolon Schmidt, Luciene Stamato Delazari
Universidade Federal do Paraná

Simultaneous cartographic generalization of electronic navigational charts
Dandan Miao
University of New Hampshire

Mapping potential Metro Rail ridership in Los Angeles County
Bin (Owen) Mo
California State University, Los Angeles

Embedding photographs in a time-geographic representation
Antoni Moore
University of Otago

Morphometric mapping of topography by slope and aspect flowline hachures
Timofey Samsonov
Lomonosov Moscow State University

Template based modular design for personalized maps
Chen Yufen, Ye Haiyun
Zhengzhou Institute of Surveying and Mapping
Tuesday, September 18

8:30 – 10:00 Opening session / plenary – Congressional room
Presentation of CaGIS Distinguished Career Award to Lynn Usery

Sara Fabrikant – University of Zurich, Department of Geography, Head of Geographic Information Visualization & Analysis Unit

10:00 – 10:30 Coffee break – Legislative Foyer

10:30 – 12:00

Session 10 - Geospatial data models – Legislative A room
Chair: Howard Veregin

Data Mining of Collaboratively Collected Geographic Crime Information Using an Unsupervised Neural Network Approach
Julian Hagenauer, Marco Helbich, Michael Leitner, Jerry Ratcliffe, and Spencer Chainey
Louisiana State University

The impact of aggregation effects and spatial non-stationarity on migration models and mapping outcomes
Galen Maclaurin, Stefan Leyk, Lori M. Hunter
University of Colorado

A hybrid geospatial simulation model for moving objects
George Technitis, Robert Weibel
University of Zurich

Analysis of web-usage statistics to evaluate the effectiveness of online maps for community outreach
Howard Veregin, AJ Wortley
Wisconsin State Cartographer’s Office

Session 11 – Map use, design, and analysis – Legislative B room
Chair: Bernhard Jenny

Recycling cartographic masterworks: Challenges in adapting example-based texture synthesis for panoramic map creation
Helen Jenny and Bernhard Jenny
Oregon State University

An agent-based approach to point-feature label placement
Hyeyoung Kim and Ningchuan Xiao
Ohio State University

A raster-based neighborhood model for evaluating complexity in dynamic maps
Michael DuBois
University of South Carolina

Characterizing the quality of a navigator’s route
Michael Hendricks
United States Military Academy
Session 12 – Applications – Judicial room
Chair: Daniel Cole

Land Gain in Northern Sri Lanka
Jayanthi Wijesekera, Atula Senaratne, Jagath Gunatilake
University of Peradeniya

Reconstructing historic glacier states based on terrestrial oblique photographs
Samuel Wisemann, Ladina Steiner, Claudio Bozzini, Lorenz Hurni
ETH Zurich

Landscape analyses of selected archaeological sites in western Mongolia
Daniel G. Cole, Catherine (Ke) Chen
Smithsonian Institute

12:00 – 1:30 Lunch

1:30 – 3:00
Session 13 – Education; Using and understanding geographic information – Legislative A room
Chair: Dave McDermott

Cartographic education in geomatics curriculum
Otakar Čerba, Václav Čada, Martina Vichrová, Karel Jedlička, Karel Janečka, Jakub Šilhavý, Jan Ježek
University of West Bohemia

Evaluation of use of 3D maps to virtual navigation
Marcio Augusto Reolon Schmidt, Luciene Stamato Delazari, Andre Luiz de Alencar Mendonca
UFPR

Do stereoscopic displays improve learning in introductory physical geography classes?
Dave McDermott, Terry Slocum, Alan Halfen, Travis White, Dan Hirmas, Stephen Egbert, Paul Atchley, William Johnson, Aaron Gilbreath
Haskell Indian Nations University
Session 14 – Visual analytics / geovisualization – Legislative B room

Chair: Keith Clarke

Evaluating implicit visualization of geographic uncertainty for public policy decision support
Stephanie Deitrick
Arizona State University

Accommodating data reliability in determining map classes: A heuristic approach
Min Sun, David W. Wong, Barry Kronenfeld
George Mason University

Methods for cartographic visualization of linguistic data in support of area formation dialectology
Pius Sibler, Robert Weibel, Elvira Glaser, Gabriela Bart
University of Zurich

Automation and Visualization in Geographic Immersive Virtual Environments
Thomas J. Pingel, Keith C. Clarke
University of California, Santa Barbara

Session 15 – Mobile and web mapping – Judicial room

Chair: Terje Midtbø

Orthoimage or map visualization in use of geoportals
Charlotte Hoarau
IGN-France

On the new generation of digital mini-atlases
Alexander Wolodtschenko
TU Dresden

ExoMars Rover localization and topographic mapping: Pre-launch pancam modeling and accuracy assessment
Rongxing Li, Ding Li, Xuelian Meng, Andrew Coates, Jan-Peter Muller, Andrew Griffiths, Gerhard Paar, and Jurgen Oberst
Ohio State University

Are indoor positioning systems mature for cartographic tasks: Evaluating the performance of a commercial indoor positioning system
Terje Midtbø, Alexander S. Nossum, Robert Nordan
Norwegian University of Science and Technology

3:00 – 3:30 Coffee break – Legislative Foyer
3:30 – 4:45

Session 16 – Ontology and semantics – Legislative A room
Chair: Harold Moellering

Using Ontology Based Knowledge Discovery in Location Based Services
Ali Mousavi
University of Calgary

Mapping from geospatial semantics
E. Lynn Usery
USGS

Topographic triple data predicate semantics
Dalia Varanka
USGS

Session 17 – Data integration – Legislative B room
Chair: Kaile Bower

Improving river network completion under absence of height samples using geometry-based induced terrain approaches
Tsz-Yam Lau, W. Randolph Franklin
Rensselaer Polytechnic Institute

Research and Development Agenda Supporting the Census Bureau's Geographic Support System Initiative
Timothy Traino
US Census

Session 18 – Cartography – Judicial room
Chair: Terry Slocum

The symbology of segregation: Maps, landscape, and ideologies in Jim Crow era Columbia, South Carolina
Elbie Bentley
University of South Carolina

International map year
Bengt Rystedt, Ferjan Ormeling
International Cartographic Association

Does cartography still exist?
László Zentai
Eotvos University

5:00 – 6:30 Joint panel: AutoCarto / GIScience – Governors room