

Day 1: Wednesday, Nov 3, 2010	
7:00 – 8:00	Breakfast and Registration
8:00 – 8:10	Welcome
8:10 – 9:25	Paper Session 1
	Title: GIS Privacy
	Privacy-Preserving Matching of Spatial Datasets with Protection against Background Knowledge Gabriel Ghinita (Purdue University);Carmen Ruiz Vicente (Aalborg University);Ning Shang (Purdue University);Elisa Bertino (Purdue University)
	Privacy-Preserving Data-Oblivious Geometric Algorithms for Geographic Data David Eppstein (University of California, Irvine);Michael T. Goodrich (University of California, Irvine);Roberto Tamassia (Brown University)
	VeriPlace: A Privacy-Aware Location Proof Architecture Wanying Luo (University of Waterloo);Urs Hengartner (University of Waterloo)
9:25-10:25	Invited Lecture
	Speaker: Sebastian Thrun Title: Photographing the World Ground Up
10:25-10:50	Coffee Break
10:50-12:30	Paper Session 2
	Title: GeoWeb
	Deep integration of spatial query processing into native RDF triple stores Andreas Brodt (Universität Stuttgart);Daniela Nicklas (Carl von Ossietzky Universität Oldenburg);Bernhard Mitschang (Universität Stuttgart)
	Determining the Spatial Reader Scopes of News Sources Using Local Lexicons Gianluca Quercini (University of Maryland);Hanan Samet (University of Maryland);Jagan Sankaranarayanan (University of Maryland);Michael D. Lieberman (University of Maryland)
	An Efficient Location Extraction Algorithm by Leveraging Web Contextual Information Teng Qin (Peking University);Rong Xiao (Microsoft Research Asia);Lei Fang (Tsinghua University);Xing Xie (Microsoft Research Asia);Lei Zhang (Microsoft Research Asia)
	Supporting Location-Based Approximate-Keyword Queries Sattam Alsubaiee (University of California, Irvine);Alexander Behm (University of California, Irvine);Chen Li (University of California, Irvine)
12:30-14:00	Lunch (On your own)
14:00-15:30	Fast Forward Preview Session Session Chair:
15:30-16:00	Coffee Break

16:00-18:05	Paper Session 3 Title: Road Networks
	Best Point Detour Query in Road Networks Shuo Shang (The University of Queensland);Ke Deng (The University of Queensland);Kexin Xie (The University of Queensland)
	Probabilistic Modeling of Traffic Lanes from GPS Traces Yihua Chen (University of Washington);John Krumm (Microsoft Research)
	Scalable Shortest Paths Browsing on Land Surface Songhua Xing (University of Southern California);Cyrus Shahabi (University of Southern California)
	T-Drive: Driving Directions Based on Taxi Trajectories Jing Yuan (University of Science and Technology of China);Yu Zheng (Microsoft Research Asia);Chengyang Zhang;Wenlei Xie (Microsoft Research Asia);Xing Xie (Microsoft Research Asia);Guangzhong Sun (University of Science and Technology of China);Yan Huang (University of North Texas)
	Local Network Voronoi Diagram Sarana Nutanong (University of Melbourne);Egemen Tanin (University of Melbourne);Mohammed Eunus Ali (University of Melbourne);Lars Kulik (University of Melbourne)
18:30-19:15	ACM SIGSPATIAL Business Meeting (Open, Everyone Welcome)
19:30-23:00	Poster Reception, Demo Session, Ph.D. Showcase
Day 2: Thursday, Nov 4, 2010	
7:00 – 8:00	Breakfast and Registration
8:00 – 9:15	Paper Session 4 Title: Industrial Session
	Efficiently Locating Photographs in Many Panoramas Michael Kroepfl (Microsoft);Yonatan Wexler (Microsoft);Eyal Ofek (Microsoft Research)
	Location Disambiguation in Local Searches Using Gradient Boosted Decision Trees Ritesh J. Agrawal (AT&T Interactive);James G. Shanahan (AT&T Interactive Research)
	Detecting Nearly Duplicated Records in Location Datasets Yu Zheng (Microsoft Research Asia);Xixuan Feng (Microsoft Research Asia);Shuang Peng (Search Technology Center, Microsoft);James Fu (Search Technology Center, Microsoft);Xing Xie (Microsoft Research Asia)
	Geospatial Editing Over a Federated Cloud Geodatabase for the State of NSW Kalyan K. Janakiraman (Land and Property Management Authority & Macquarie University);Mehmet A. Orgun (Macquarie University);Abhaya Nayak (Macquarie University)
9:15-10:15	Invited Lecture

	<p>Speaker: Maneesh Agrawala Title: Designing Maps to Help People</p>
10:15-10:40	Coffee Break
10:40-12:45	<p>Paper Session 5 Title: Computational Geometry</p>
	<p>Cleaning Massive Sonar Point Clouds Lars Arge (Aarhus University);Kasper Green Larsen;Thomas Mølhave (Duke University);Freek van Walderveen (Aarhus University)</p>
	<p>Tolerance Geometry - Euclid's First Postulate for Points and Lines with Extension Gwen Wilke (Vienna University of Technology);Andrew U. Frank (Vienna University of Technology)</p>
	<p>Natural Neighbor Interpolation Based Grid DEM Construction Using a GPU Alex Beutel (Duke University);Thomas Mølhave (Duke University);Pankaj K. Agarwal (Duke University)</p>
	<p>Measuring Consistency with Respect to Topological Dependency Constraints M. Andrea Rodriguez (Universidad de Concepcion);Nieves Brisaboa (Universidade da Coruña);Yasna Meza (Universidad de Concepcion);Miguel R. Luaces (Universidade da Coruña)</p>
	<p>Optimal and Topologically Safe Simplification of Building Footprints Jan-Henrik Haurert (Universität Würzburg);Alexander Wolff (Universität Würzburg)</p>
12:45-14:00	Lunch (On your own)
14:00-16:05	<p>Paper Session 6 Title: Spatio-temporal Data</p>
	<p>An Algorithmic Framework for Segmenting Trajectories based on Spatio-Temporal Criteria Maike Buchin (TU Eindhoven);Anne Driemel (Utrecht University);Marc van Kreveld (Utrecht University);Vera Sacristán (Universitat Politècnica de Catalunya)</p>
	<p>A Lagrangian Approach for Storage of Spatio-Temporal Network Datasets: A Summary of Results Michael R. Evans (University of Minnesota);KwangSoo Yang (University of Minnesota);James M. Kang (University of Minnesota);Shashi Shekhar (University of Minnesota)</p>
	<p>Selecting Tracking Principals with Epoch Awareness Oliviu Ghica (Northwestern University);Goce Trajcevski (Northwestern University);Fan Zhou (University of Electronic Science and Technology of China);Roberto Tamassia (Brown University);Peter Scheuermann (Northwestern University)</p>
	<p>A Variant of Particle Filtering Using Historic Datasets for Tracking Complex Geospatial Phenomena Anand Panangadan (Jet Propulsion Laboratory);Ashit Talukder (Jet Propulsion Laboratory)</p>

	<p>Usability Analysis of Compression Algorithms for Position Data Streams Nicola Hönle (Universität Stuttgart);Matthias Grossmann (Universität Stuttgart);Steffen Reimann (Universität Stuttgart);Bernhard Mitschang (Universität Stuttgart)</p>
16:05-16:30	Coffee Break
16:30-18:10	<p>Paper Session 7 Title: Visualization</p>
	<p>Bridge Detection in Grid Terrains and Improved Drainage Enforcement Ryan Carlson (Swarthmore College);Andrew Danner (Swarthmore College)</p>
	<p>Annotating and Navigating Tourist Videos Bo Zhang (Microsoft Research Asia);Qinlin Li (Sun-Yatsen University);Hongyang Chao (Sun-Yatsen University);Bill Chen (Microsoft Corporation);Eyal Ofek (Microsoft Corporation);Ying-Qing Xu (Microsoft Research Asia)</p>
	<p>Bag-Of-Visual-Words and Spatial Extensions for Land-Use Classification Shawn Newsam (University of California at Merced);Yi Yang (University of California at Merced)</p>
	<p>Generating Synthetic Meta-data for Georeferenced Video Management Sakire Arslan Ay (University of Southern California);Seon Ho Kim (University of Southern California);Roger Zimmermann (National University of Singapore)</p>
18:30-19:30	Sponsor Demo Session
19:30-23:30	Banquet
Day 3: Friday, Nov 5, 2010	
7:00 – 8:00	Breakfast and Registration
8:00-10:05	<p>Paper Session 8 Title: Map Matching and Labeling</p>
	<p>On Map Matching of Wireless Positioning Data: A Selective Look-ahead Approach Matt Weber (Georgia Institute of Technology);Ling Liu (Georgia Institute of Technology);Kipp Jones (Skyhook Wireless);Michael J. Covington (Georgia Institute of Technology);Lama Nachman (Intel Corporation);Peter Pesti (Georgia Institute of Technology)</p>
	<p>Qualitative Matching of Spatial Information Jan Oliver Wallgrün (University of Bremen);Diedrich Wolter (University of Bremen);Kai-Florian Richter (University of Bremen)</p>
	<p>Dynamic One-Sided Boundary Labeling Martin Nöllenburg (Karlsruhe Institute of Technology and University of California, Irvine);Valentin Polishchuk (University of Helsinki);Mikko Sysikaski (University of Helsinki)</p>
	Beyond Rasters: Introducing The New OGC Web Coverage Service 2.0

	Peter Baumann (Jacobs University) Semi-Automatic Interpretation of Buildings and Settlement Areas in User-Generated Spatial Data Stefan Werder (Leibniz Universität Hannover);Birgit Kieler (Leibniz Universität Hannover);Monika Sester (Leibniz Universität Hannover)
10:05-10:35	Coffee Break
10:35-12:40	Paper Session 9 Title: Spatial Queries
	Energy-Efficient Processing of Spatio-Temporal Queries in Wireless Sensor Networks Markus Besthorn (Karlsruhe Institute of Technology);Klemens Böhm (Karlsruhe Institute of Technology);Erik Buchmann (Karlsruhe Institute of Technology);Stephan Kessler (Karlsruhe Institute of Technology)
	Verifying Spatial Queries Using Voronoi Neighbors Ling Hu (University of Southern California);Wei-Shinn Ku (Auburn University);Spiridon Bakiras (City University of New York);Cyrus Shahabi (University of Southern California)
	Easiest-to-Reach Neighbor Search Jie Shao (University of Melbourne);Lars Kulik (University of Melbourne);Egemen Tanin (University of Melbourne)
	Spatial Outlier Detection: Random Walk Based Approaches Xutong Liu (Virginia Tech);Chang-Tien Lu (Virginia Tech);Feng Chen (Virginia Tech)
	Topological Reasoning Between Complex Regions in Databases with Frequent Updates Arif Khan (University of Florida);Markus Schneider (University of Florida)
12:40-13:00	Closing Remarks and Adjournment of Conference

Poster Papers Program Schedule	
Fast Forward Preview Session: 14:00-15:30, Wednesday, Nov 3, 2010	
Poster Session: 19:30-23:00, Wednesday, Nov 3, 2010	
<p>9+-Intersection Calculi for Spatial Reasoning on the Topological Relations between Heterogeneous Objects Yohei Kurata (Tokyo Metropolitan University)</p> <p>A Managed Object Based Method for Representing Interactive and Dynamic Features Wan Wen (Aalborg University);Xing Lin (Peking University)</p> <p>A User Location Anonymization Method for Location Based Services in a Real Environment Akiyoshi Suzuki (Osaka University);Mayu Iwata (Osaka University);Yuki Arase (Microsoft Research Asia);Takahiro Hara (Osaka University);Xing Xie (Microsoft Research Asia);Shojiro Nishio (Osaka University)</p>	

Algorithms for Compressing GPS Trajectory Data: An Empirical Evaluation

Jonathan Muckell (University at Albany -- SUNY);Jeong-Hyon Hwang (University at Albany -- SUNY);Catherine T. Lawson (University at Albany -- SUNY);S. S. Ravi (University at Albany -- SUNY)

Augmented Internet Maps with Property Information from Aerial Imagery

Philipp Meixner (Graz University of Technology);Franz Leberl (Graz University of Technology)

On Continuous Monitoring Top-k Unsafe Moving Objects

Jian Wen (University of California, Riverside);Vassilis J. Tsotras (University of California, Riverside)

Decentralized Querying of Topological Relations Between Regions without Using Localization

Matt Duckham (University of Melbourne);Myeong Hun Jeong (University of Melbourne);Sanjiang Li (University of Technology Sydney);Jochen Renz (Australian National University)

Derivation of Road Network from Land Parcels

Jiantong Zhang (Technische Universität München);Yueqin Zhu (Technische Universität München and China University of Mining and Technology);Jukka Krisp (Technische Universität München);Liqiu Meng (Technische Universität München)

DualgridFF: a Robust, Consistent and Efficient Physical Data Model for Spatial Databases

Jose Antonio Cotelo-Lema (Universidade da Coruña);Miguel Rodríguez Luaces (Universidade da Coruña)

Efficient Indexing Structure for Scalable Processing of Spatial Alarms

Myungcheol Doo (Georgia Institute of Technology);Ling Liu (Georgia Institute of Technology);Nitya Narasimhan (Motorola Applied Research Center);Venu Vasudevan (Motorola Applied Research Center)

Evaluation of Cardinal Direction Developments between Moving Points

Tao Chen (University of Florida);Hechen Liu (University of Florida);Markus Schneider (University of Florida)

Exploiting Local Node Cache in Top-k Queries within Wireless Sensor Networks

Johannes Niedermayer (Ludwig-Maximilians-Universität München);Marioi A. Nascimento (University of Alberta);Matthias Renz (Ludwig-Maximilians-Universität München);Peer Kröger (Ludwig-Maximilians-Universität München);Hans-Peter Kriegel (Ludwig-Maximilians-Universität München)

Extracting Moving Regions from Spatial Data

Mark McKenney (Texas State University);James Webb (Texas State University)

Finding Similar Users Using Category-Based Location Histories

Xiangye Xiao (Microsoft Research Asia and Hong Kong University of Science and Technology);Yu Zheng (Microsoft Research Asia);Qiong Luo (Hong Kong University of Science and Technology);Xing Xie (Microsoft Research Asia)

GeoLinked Data and INSPIRE through an Application Case

Luis M. Vilches-Blázquez (Ontology Engineering Group);Boris Villazón-Terrazas (Ontology Engineering Group);Victor Saquicela (Ontology Engineering Group);Alexander de León (Ontology Engineering Group);Oscar Corcho (Ontology Engineering Group);Asunción Gómez-Pérez (Ontology Engineering Group)

Indexing Large-Scale Raster Geospatial Data Using Massively Parallel GPU Computing

Jianting Zhang (City College of New York);Simin You (City University of New York Graduate Center);Le Gruenwald (University of Oklahoma)

Kernelized Map Matching

Ahmed Jawad (Fraunhofer IAIS);Kristian Kersting (Fraunhofer IAIS)

Location Recommendation for Location-based Social Networks

Mao Ye (The Pennsylvania State University);Peifeng Yin;Wang-Chien Lee (The Pennsylvania State University)

Memory-Efficient A*-Search Using Sparse Embeddings

Franz Graf (Ludwig-Maximilians-Universität München);Hans-Peter Kriegel (Ludwig-Maximilians-Universität München);Matthias Renz (Ludwig-Maximilians-Universität München);Matthias Schubert (Ludwig-Maximilians-Universität München)

Spatial Probabilistic Modeling of Calls to Businesses

Ramaswamy Hariharan (AT&T Interactive Research);Ji Meng Loh (AT&T Labs - Research);James G. Shanahan (AT&T Interactive Research);Kenji Yamada (AT&T Interactive Research)

Modelling Spatial Video as part of a GIS Video Analysis Framework

Paul Lewis (National University of Ireland, Maynooth)

A Case for Time-Dependent Shortest Path Computation in Spatial Networks

Ugur Demiryurek (University of Southern California);Farnoush Banaei-Kashani (University of Southern California);Cyrus Shahabi (University of Southern California)

Optimal Network Location Queries

Parisa Ghaemi (University of Southern California);Kaveh Shahabi (University of Southern California);John P. Wilson (University of Southern California);Farnoush Banaei-Kashani (University of Southern California)

Quantitative Analysis of Simulated Erosion for Different Soils

Zhongxian Chen (Rensselaer Polytechnic Institute);Christopher Stuetzle (Rensselaer Polytechnic Institute);Barbara Cutler (Rensselaer Polytechnic Institute);Jared Gross;Randolph Franklin (Rensselaer Polytechnic Institute);Thomas Zimmie (Rensselaer Polytechnic Institute)

Querying the Future of Spatio-Temporal Objects

Philip Schmiegelt (Philipps-Universität Marburg);Bernhard Seeger (Philipps-Universität Marburg)

Regional Behavior Change Detection via Local Spatial Scan

Jing Dai (IBM T.J. Watson Research);Feng Chen (Virginia Tech);Sambit Sahu (IBM T.J. Watson Research);Milind Naphade (IBM T.J. Watson Research)

Reverse k-Nearest Neighbor Monitoring on Mobile Objects

Tobias Emrich (Ludwig-Maximilians-Universität München);Hans-Peter Kriegel (Ludwig-Maximilians-Universität München);Peer Kröger (Ludwig-Maximilians-Universität München);Matthias Renz (Ludwig-Maximilians-Universität München);Naixin Xu (Ludwig-Maximilians-Universität München);Andreas Züfle (Ludwig-Maximilians-Universität München)

Spatial Extensions to Kernel Methods

Alexei Pozdnoukhov (National University of Ireland, Maynooth)

sTrack: Tracking in Indoor Symbolic Space with RFID Sensors

Hye-Young Kang (Pusan National University);Joon-Seok Kim (Pusan National University);Ki-Joune Li (Pusan National University)

Spatial Indexing on Tetrahedral Meshes

Leila De Floriani (University of Genova);Riccardo Fellegara (University of Genova);Paola Magillo (University of Genova)

Time Geography Inverted: Recognizing Intentions in Space and Time

Peter Kiefer (Universität Bamberg);Martin Raubal (University of California, Santa Barbara);Christoph Schlieder (University of Bamberg)

Towards Quality Metrics for OpenStreetMap

Peter Mooney (National University of Ireland, Maynooth);Padraig Corcoran (National University of Ireland, Maynooth);Adam C. Winstanley (National University of Ireland, Maynooth)

Voronoi-Based Aggregate Nearest Neighbor Query Processing in Road Networks

Liang Zhu (Fudan University);Yinan Jing (Fudan University);Weiwei Sun (Fudan University);Dingding Mao (Fudan University);Peng Liu (Fudan University)

Ph.D. Showcase Program Schedule

Fast Forward Preview Session: 14:00-15:30, Wednesday, Nov 3, 2010

Ph.D Showcase Session: 19:30-23:00, Wednesday, Nov 3, 2010

3D Oceanographic Data Compression Using 3D-ODETLAP

You Li (RPI), Tsz-Yam Lau (RPI), Christopher S. Stuetzle (RPI), Peter Fox (RPI), and W. Randolph Franklin (RPI)

A Model for Progressive Transmission of Spatial Data based on Shape Complexity

Fangli Ying (NUI Maynooth, Ireland), Peter Mooney (Environmental Protection Agency, Ireland), Pdraig Corcoran (NUI Maynooth, Ireland), and Adam C. Winstanley (NUI Maynooth, Ireland)

Applications of Graph Algorithms in GIS

Stéphanie Vanhove (Ghent University) and Veerle Fack (Ghent University)

Haptic-GIS: Exploring the possibilities

Ricky Jacob (NUI Maynooth, Ireland), Peter Mooney (Environmental Protection Agency, Ireland), Pdraig Corcoran (NUI Maynooth, Ireland), and Adam C. Winstanley (NUI Maynooth, Ireland)

Slope Preserving Lossy Terrain Compression

Zhongyi Xie (RPI), W. Randolph Franklin (RPI), and Daniel M. Tracy (RPI)

Demonstration Program Schedule

Demonstration Session: 19:30-23:00, Wednesday, Nov 3, 2010

Analyzing Semantic Location Cloaking Techniques in a Probabilistic Grid-Based Map

Maria Luisa Damiani (University of Milan); Claudio Silvestri (University of Venice); Elisa Bertino (Purdue University)

Automatic Construction and Multi-level Visualization of Semantic Trajectories

Zhixian Yan (EPFL); Lazar Spremic (EPFL); Dipanjan Chakraborty (IBM Research, India); Christine Parent (University of Lausanne); Stefano Spaccapietra (EPFL); Karl Aberer (EPFL)

CBGIR: Content-Based Geographic Image Retrieval

Shawn Newsam (University of California at Merced); Daniel Leung (University of California at Merced); Oscar Caballero (University of California at Merced); Justin Floreza (University of California at Merced); Jesus Pulido (University of California at Merced)

A Spatio-Temporal-Textual Crime Search Engine

Xutong Liu (Virginia Tech); Changshu Jian (Virginia Tech); Chang-Tien Lu (Virginia Tech)

Exploring Labeled Spatial Datasets Using Association Analysis

Tomasz F. Stepinski (Lunar and Planetary Institute);Josue Salazar (Lunar and Planetary Institute);Wei Ding (University of Massachusetts Boston)

Geoblogging - User-Contributed Geospatial Data Collection and Fusion

Dieter Pfoser (Institute for the Management of Information Systems, Athena);Charikleia Lontou (Institute for the Management of Information Systems, Athena);Euthymios Drymonas (Institute for the Management of Information Systems, Athena);Savvas Georgiou (National Technical University of Athens)

GQBox: Geospatial Data Quality Assessment

Yassine Lassoued (CMRC, University College);Mohamed Reda Bouadjeneq (Alactel-Lucent Bell Labs);Omar Boucelma (LSIS - Aix-Marseille Université);Feranando Lemos (PRiSM, University of Versailles);Mokrane Bouzeghoub (PRiSM, University of Versailles)

INTACT: A Spatial Query Integrity Assurance Framework for Location-based Services

Chih-Jye Wang (Auburn University);Wei-Shinn Ku (Auburn University);Ling Hu (University of Southern California);Cyrus Shahabi (University of Southern California)

Keyword Search in Geospatial Database

Kavita V. V Ganeshan (International Institute of Information Technology, Bangalore);N. L. Sarda (Indian Institute of Technology, Bombay);Sanchit Gupta (Indian Institute of Technology, Bombay)

Ontuition: Intuitive Data Exploration via Ontology Navigation

Marco D. Adelfio (University of Maryland);Michael D. Lieberman (University of Maryland);Hanan Samet (University of Maryland);Kashif A. Firozvi (Georgetown University)

Real-Time Spatio-Temporal Analytics using Microsoft StreamInsight

Mohamed Ali (Microsoft SQL Server);Badrish Chandramouli (Microsoft Research);Balan S. Raman (Microsoft SQL Server);Ed Katibah (Microsoft SQL Server)

Strabo: A System for Extracting Road Vector Data from Raster Maps

Yao-Yi Chiang (University of Southern California);Craig A. Knoblock (University of Southern California)