



GEOS 2007

Second International Conference on GeoSpatial Semantics

November 29-30, 2007

Centro de Investigación en Computación, Mexico City, Mexico

PROGRAM

WEDNESDAY 28 NOVEMBER 2007 ALL DAY (MULTIPLE USE ROOM)

9:00-18:00 [CYTED](#)

18:00-20:00 Registration, Ice Break

THURSDAY 29 NOVEMBER 2007 MORNING (MULTIPLE USE ROOM)

7:00-9:00 Registration, Coffee, Breakfast

9:00-9:30 Opening Ceremony

9:30-11:15 Session 1 (Models and Languages for Geo-Ontologies: Chair – F. Fonseca)

9:30-10:00 *Two Types of Hierarchies in Geo-Spatial Ontologies*

Sumit Sen (India)

10:00-10:30 *Semantic Annotation of Maps Through Knowledge Provenance*

Nicholas Del Rio, Paulo Pinheiro da Silva, Ann Q. Gates, and Leonardo Salayandia (USA)

10:30-11:00 *Architecture for a Grounded Ontology of Geographic Information*

Allan Third, Brandon Bennett, and David Mallenby (United Kingdom)

11:00-11:15 *The Gravity Data Ontology: Laying the Foundation for Workflow-Driven Ontologies*

Ann Q. Gates, G. Randy Keller, Leonardo Salayandia, Paulo Pinheiro da Silva, and Flor Salcedo (USA)

11:15-11:45 Coffee Break

11:45-13:30 Session 4 (Ontology-based Spatial Information Retrieval: Chair – M. Moreno)

11:45-12:15 *Geographic Information Retrieval by Topological, Geographical, and Conceptual Matching*

Felix Mata (Mexico)

12:15-12:45 *A Rule-based Description Framework for the Composition of Geographic Information Services*

Michael Lutz, Roberto Lucchi, Anders Friis-Christensen, Nicole Ostländer (Italy)

12:45-13:15 *Algorithm, Implementation and Application of the SIM-DL Similarity Server*

Krzysztof Janowicz, Carsten Keßler, Mirco Schwarz, Marc Wilkes, Ilija Panov, Martin Espeter, Boris Bäumer (Germany)

13:15-13:30 *DAGIS: A Geospatial Semantic Web Services Discovery and Selection Framework*

Ashrafal Alam, Ganesh Subbiah, Latifur Khan, Bhavani Thuraisingham (USA)

13:30-15:00 Lunch



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THURSDAY 29 NOVEMBER 2007 EVENING (MULTIPLE USE ROOM)

- 15:00-17:15** **Session 2 (Formal Representations for Geospatial Data: Chair – S. Levashkin)**
- 15:00-15:30 *A Location and Action-Based Model for Route Descriptions*
David Brosset, Christophe Claramunt, and Eric Saux (France)
- 15:30-16:00 *Spatio-Temporal Conceptual Schema Development for Wide-Area Sensor Networks*
Mallikarjun Shankar, Alexandre Sorokine, Budhendra Bhaduri, David Resseguie, Shashi Shekhar, Jin Soung Yoo (USA)
- 16:00-16:30 Coffee Break
- 16:30-17:00 *Modeling Spatio-temporal Network Computations: A Summary of Results*
Betsy George and Shashi Shekhar (USA)
- 17:00-17:15 *Towards Semantics for Map Styles*
Neeharika Adabala (India)
- 19:00** **Banquet** (Restaurant [“Focolare”](#))

FRIDAY 30 NOVEMBER 2007 MORNING (MULTIPLE USE ROOM)

- 9:00-11:15** **Session 3 (Alignment and Integration of Geo-Ontologies: Chair – A. Rodriguez)**
- 9:00-9:15 *Semantic Similarity Applied to Generalization of Geospatial Data*
Marco Moreno-Ibarra (Mexico)
- 9:15-9:45 *Towards Effective Geographic Ontology Matching*
Guillermo Nudelman Hess, Cirano Iochpe, Alfio Ferrara, and Silvana Castano (Brazil, Italy)
- 9:45-10:15 Coffee Break
- 10:15-10:45 *An Algorithm for Merging Geographic Datasets Based On the Spatial Distributions of their Values*
Toni Navarrete and Josep Blat (Spain)
- 10:45-11:15 *Structure-Based Methods to Enhance Geospatial Ontology Alignment*
William Sunna and Isabel F. Cruz (Spain)
- 11:15-13:00** **Panel Discussion (Perspectives and Challenges in Geospatial Semantics and Related Conferences: Moderator – S. Levashkin)**
- 13:00-15:00** **Lunch**



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FRIDAY 30 NOVEMBER 2007 EVENING (MULTIPLE USE ROOM)

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| 15:00-16:45 | Session 5 (Integration of Semantics into Spatial Query Processing: Chair – M. Torres) |
| 15:00-15:30 | <i>Building Geospatial Ontologies from Geographical Databases</i> Miriam Baglioni, Maria Vittoria Masserotti, Chiara Renso, and Laura Spinsanti (Italy) |
| 15:30-16:00 | <i>Applying Spatial Reasoning to Topographical Data with a Grounded Geographical Ontology</i> David Mallenby and Brandon Bennett (United Kingdom) |
| 16:00-16:30 | <i>Supporting Complex Thematic, Spatial and Temporal Queries over Semantic Web Data</i> Matthew Perry, Amit P. Sheth, Farshad Hakimpour, and Prateek Jain (USA) |
| 16:30-17:00 | Coffee Break |

FRIDAY 30 NOVEMBER 2007 EVENING (FIRST FLOOR HALL – IN FRONT OF THE MULTIPLE USE ROOM)

17:00-19:00 Poster Session (Coordinator – M. Moreno)

Automatic Development of Ontology-based Knowledge Base using Consensus among User Profiles

José Luis Capote, Rafael Cruz, Osmani Herrera, Guillermo González, and Tatiana Delgado (Cuba)

Semantics in Spatial Data Infrastructures

Tatiana Delgado Fernández (Cuba)

Enhancing Geographical Information Retrieval using Ontologies Alignment in Tourism Context

Edgar Miranda, Roberto Zagal, Gerardo Sarabia, and Miguel Martínez (Mexico)

Geo-ontologies as Integration Structures of Knowledge, Data, and Metadata.

Rafael Oliva-Santos and Eduardo Garea-Llano (Cuba)

Semantic Description of Geomorphologic Concepts in Digital Elevation Models

Virginia Villegas and Paola Cortez (Mexico)