

# **COSIT05: Program**

## **Wednesday, September 14**

13:00-18:00 **Registration**

14:00-17:00 **Workshops**

## **Thursday, September 15**

7:30 **Registration**

8:30-9 **Opening Session**  
Chair: David Mark

09:00-10:00 **Keynote Talk: Barbara Landau.** Spatial Language, Spatial Thought: Parallels in Path Structure  
Chair: David Mark

10-10:30 break

10:30-12 **Session 1: Vagueness, Uncertainty, and Gradation**  
Chair: Andrew Frank

10:30 Anchoring: A New Approach to Handling Indeterminate Location in GIS  
Antony Galton and James Hood

11:00 Gradation and Map Analysis in Area-Class Maps  
Barry J. Kronenfeld

11:30 Simulation of obfuscation and negotiation for location privacy  
Matt Duckham and Lars Kulik

12:00-13:30 lunch break

13:30-15:00 **Session 2: Paths and Routes**  
Chair: Dan Montello

13:30 Investigating the Need for Eliminary Constraints in the User Interface of Bicycle Route Planners  
Hartwig H. Hochmair Claus Rinner

- 14:00 Path Memory in Real-World and Virtual Settings  
Adam Hutcheson and Gary L. Allen
- 14:30 Shortest Path Search from a Physical Perspective  
Takeshi Shirabe
- 15:00-15:30 break
- 15:30-17:00 **Session 3: Ontology and Semantics**  
Chair: Werner Kuhn
- 15:30 Operationalising 'sense of place' as a cognitive operator for semantics in place-based ontologies  
Pragya Agarwal
- 16:00 Data-driven Matching of Geospatial Schemas  
Steffen Volz
- 16:30 The Role of Spatial Relations in Automating the Semantic Annotation of Geodata  
Eva Klien and Michael Lutz
- 17:00-19:00 Posters & Wine
- Dinner on own

### **Friday, September 16**

- 08:30-10 **Session 4: Ontology and Spatial Relations**  
Chair:
- 08:30 Anatomical Information Science  
Barry Smith, Jose L.V. Mejino Jr., Stefan Schulz, Anand Kumar, and Cornelius Rosse
- 09:00 Matching Names and Definitions of Topological Operators  
Catharina Riedemann
- 09:30 Spatial Relations between Classes of Individuals  
Maureen Donnelly and Thomas Bittner
- 10:00-10:30 break
- 10:30-12 **Session 5: Spatial Reasoning**  
Chair: Christian Freksa

- 10:30 CASL Specifications of Qualitative Calculi  
Stefan Wöfl and Till Mossakowski
- 11:00 A spatial form of diversity  
Christophe Claramunt
- 11:30 Structure and Semantics of Arrow Diagrams  
Yohei Kurata and Max J. Egenhofer
- 12:00-13:30 lunch
- 13:30-5:00 **Session 6: Cognitive Maps and Spatial Reasoning**  
Chair: Stephen Hirtle
- 13:30 Cognitive maps are over 60  
Juval Portugali
- 14:00 Categorical methods in qualitative reasoning: The case for Weak Representations  
Gérard Ligozat
- 14:30 On internal cardinal direction relations  
Yu Liu, Xiaoming Wang, Xin Jin, Lun Wu
- 15:00-15:30 break
- 15:30-17:00 **Session 7: Time, Change, and Dynamics**  
Chair:
- 15:30 Dynamic Collectives and their Collective Dynamics  
Antony Galton
- 16:00 A linguistics-based framework for modeling spatio-temporal occurrences and  
purposive change  
Jeff T. Howarth and Helen Couclelis
- 16:30 Ordering events for dynamic geospatial domains  
Suzannah Hall and Kathleen Hornsby
- 18:00 Cash Bar
- 19:00 Banquet

## Saturday, September 17

09:00-10:00 **Keynote Talk: Wolfram Burgard.** Probabilistic Techniques for Mobile Robot Navigation  
Chair: Tony Cohn

10:00-10:30 break

10:30-12:00 **Session 8: Landmarks and Navigation**  
Chair: Gary Allen

10:30 Structural Saliency of Landmarks for Route Directions  
Alexander Klippel and Stephan Winter

11:00 Expert and Non-expert Knowledge of Loosely Structured Environments  
Sylvie Fontaine, Geoffrey Edwards, Barbara Tversky, and Michel Denis

11:30 Landmark Extraction: a Web Mining Approach  
Taro Tezuka and Katsumi Tanaka

12:00-13:30 lunch break

13:30-15:00 **Session 9: Geographic Information**  
Chair:

13:30 Satellite Images – a Source for Social Scientists? On handling multiple conceptualisations of space in geographical information systems  
Anders Wästfelt

14:00 3D Topographic data modeling: why rigidity is preferable to pragmatism  
Friso Penninga

14:30 Morse-Smale Decompositions for Modeling Terrain Knowledge  
Lidija Comic, Leila De Floriani, Laura Papaleo

15:00-15:30 break

15:30-17:00 **Session 10: Spatial Behavior**  
Chair: Sabine Timpf

15:30 2D-3D MultiAgent GeoSimulation with knowledge-based agents of customers' shopping behavior in a Shopping Mall  
Walid Ali and Bernard Moulin

- 16:00 Memory for Spatial Location: Influences of Environmental Cues and Task Field Rotation  
Sylvia Fitting, Douglas H. Wedell, Gary L. Allen
- 16:30 Network and Psychological Effects in Urban Movement  
Bill Hillier and Shinichi Iida
- 17:00-17:30 **Closing Session**  
Chairs: David Mark & Tony Cohn

**Sunday, September 18**

- 08:20-12:20 **Doctoral Consortium**  
Organizer and Chair: Femke Reitsma