

Dagstuhl Seminar 10131 Schedule:  
Spatial Representation and Reasoning in Language:  
Ontologies and Logics of Space

**Organizers:**

John Bateman, Anthony Cohn, James Pustejovsky

March 24, 2010

**Monday: March 29, 2010**

9.00 – 10.00 Introductions and Review of Goals (Organizers and Senior Representatives)

10.00 – 10.30 Orientation: Spatial and Temporal Ontologies and some relations to Language (John Bateman)

10.30 – 11.00 Orientation: Qualitative Spatiotemporal Reasoning (Anthony Cohn)

11.00 – 11.15 Coffee Break

11.15 – 11.45 Orientation: Spatial Language and Representation (James Pustejovsky)

11.45 – 12.15 Orientation: Logical Constraints of Representations (Ian Pratt-Hartmann)

12.15 – 14.00 Lunch

14.00 – 14.30 Orientation: Geographic Information Systems (Angela Schwering)

14.30 – 16.00 Panel 1: (5 minute position papers)

16.00 – 16.15 Break

16.15 – 17.30 Panel 2: (5 minute position papers)

## **Tuesday: March 30, 2010**

9.00 – 9.30 Review of Workgroup Topics

9.30 – 11.45 Workgroups:

1. Designing and reasoning with spatial ontologies  
(Leader: )
2. Representing and processing spatial information in language  
(Leader: )
3. Identifying appropriate spatial logics for linguistic expressiveness  
(Leader: )
4. Mapping and normalizing spatial representations for geospatial tasks and domains  
(Leader: )
5. Integrating temporal and spatial ontologies and logics for reasoning about motion and change  
(Leader: )

11.45 – 12.15 Workgroup Presentations (Each group should present 6 bullets that they are focusing on within their group.)

12.15 – 14.00 Lunch

14.00 – 17.00 Return to Workgroups

17.00 – 17.30 Workgroup Presentations (5-6 slides on what the group has worked on today)

## **Wednesday: March 31, 2010**

9:00 – 12:15 Prepare for Long Workgroup Presentations

12:15 – 14.00 Lunch

14.00 – 16.30 Workgroup Presentations (30 minute presentation from each group on results from break-out sessions)

16.30 – 17.30 Discussion of Results

## **Thursday: April 1, 2010**

9.00 – 12:00 Summary and Discussion: Where do we go from here?

## Workshop Goals and Milestones

There are five themes that we would like to address for this seminar:

1. Designing and reasoning with spatial ontologies;
2. Representing and processing spatial information in language;
3. Identifying appropriate spatial logics for linguistic expressiveness;
4. Mapping and normalizing spatial representations for geospatial tasks and domains;
5. Integrating temporal and spatial ontologies and logics for reasoning about motion and change.

We expect the following milestones and agreements to emerge:

1. Coordination on ontologies for space and time;
2. Initial consensus on spatial representations derived from language;
3. Strategies for mapping linguistically derived spatial information to GIS representations.