

# CALL FOR PAPERS

## Spatial Cognition and Computation

### Special issue: Event-oriented approaches in geographic information science

**Editors: Kathleen Hornsby and Michael Worboys**

Phenomena in geographic spaces are dynamic and require models that explicitly address their constituent events and processes. Traditional geographic information technology is rooted in static approaches, usually founded on either the object-based paradigm, where the world is conceived as a collection of entities with properties that include spatial extent, or the field-based paradigm, where the fields are spatially varying attributes. A more complete reflection of the nature of geographic reality treats the dynamic aspects of phenomena as the primary objects of study. Concepts framed to address these dynamic aspects include events, processes, changes, actions, happenings, and occurrences.

This special issue follows the workshop ACTOR2002, held in Maine, USA in November 2002, with the aim of laying the foundations for a principled account of dynamic features of geographic space and of the objects, events and processes located therein.

**The editors solicit scientific papers that contribute to the clarification and definition of a research agenda for event-oriented approaches in geographic information science.**

Specific topics of interest include, but are not limited to:

- Upper-level ontologies of events and processes in the geographic domain.
- Geographic domain specific ontologies of events and processes, including the role of objects and fields in event-oriented approaches.
- Cognitive issues in event-based views of the geographic domain.
- Classification of existing event-based approaches in diverse fields (e.g. active systems, agent-based approaches, spatio-temporal information systems, process algebras), with reference to the geographic domain.
- Case studies, taken from the natural and artificial domains (for the artificial world, transportation is a possible test domain), in which event-based approaches are applied.
- Granularity and level of detail in geographic event spaces.
- Underlying temporal structures for event-based approaches.
- Computational aspects of modeling events in the geographic domain

The papers will be refereed according to the usual standards and procedures for the journal. Manuscripts should conform to the guidelines presented in the Publication Manual of the American Psychological Association (5th ed.) Help on preparing APA style manuscripts is available at the SCC website: <http://www2.sis.pitt.edu/~scc>. Any readable manuscript format is acceptable for initial submission and reviewing, although PDF is the preferred format, as manuscripts will be sent to reviewers in electronic form.

Papers should be submitted to either of the editors Kathleen Hornsby and Michael Worboys, at [actor2002@spatial.maine.edu](mailto:actor2002@spatial.maine.edu). Deadline for submissions: March 31<sup>st</sup>, 2003.