

## SPECIALIST MEETING



# Spatial Search

December 8–9, 2014

Upham Hotel, Santa Barbara, California

Information search has become a fundamental element across the spectrum of human activities. Search engines process billions of queries each day and influence the visibility and accessibility of online content. Scientists search for meaningful patterns in massive datasets, while consumers search for products and services in a growing pool of options.

**The Center for Spatial Studies** at the University of California, Santa Barbara is hosting a specialist meeting, entitled *Spatial Search*. The meeting will bring together academic and industry representatives from **computational**, **geospatial**, and **cognitive** disciplines with interest in focused discussions to illuminate these matters and contribute toward the development of an interdisciplinary research agenda to advance spatial search, both from scientific and engineering viewpoints.

### Motivation

Operating at two levels, there is a spatial component at the core of search: **(1)** Search technologies rely on a spatial metaphor; we talk about going to our favorite websites to help search for small fragments in an overwhelmingly large space of documents, images, and videos. **(2)** Geographic space is increasingly important to index information and refine search strategies, relying on the geo-location of entities to

assess their relevance. While the spatial dimension of search is pervasive and foundational to many disciplines, it has never been adequately analyzed.

### Goals

The overarching goal of this specialist meeting is to put spatial search at the forefront of discussion, tackling research questions from three complementary strands: **computational**, **geospatial**, and **cognitive** strands.

### Means

About 35 experts from academia and industry will convene to share and develop visions, insights, and best practices. Plenary presentations and intense exchanges in small breakout discussion groups offer opportunities for knowledge transfer.

### Call for Applications

**To apply**, please submit a biograph form résumé with a photograph and a short position paper (in **one** Word document) discussing your perspective on the subject by **September 20, 2014**. Participants will be selected by the organizing committee and notified of their acceptance by **October 10**.

Please go to <http://spatial.ucsb.edu/2014/spatial-search/submissions> to submit an online application.

### Participants will address such questions as:

- What are the current challenges in spatial search?
- What are the limits of spatial indexing?
- What kinds of spatial search are utilized in geo-spatial domains?
- What disciplines' functionality is missing in current Geographic Information Systems?
- What do we know about how humans conceptualize and perform information searches?
- How do humans perform search of memory and of visual and aural stimuli?
- Can hypotheses and insights from the cognitive and neurosciences inform computational and geospatial search techniques?

For more information, see <http://spatial.ucsb.edu/2014/spatial-search>

### Speakers:

#### Stuart Card

Dept. of Computer Science

STANFORD UNIVERSITY

#### Miguel Eckstein

Dept. of Psychological & Brain Sciences

UNIVERSITY OF CALIFORNIA, SANTA BARBARA

#### Vanessa Murdock

MICROSOFT

#### Ross Purves

Dept. of Geography  
UNIVERSITY OF ZURICH

*Subject to approval, limited funding for travel and accommodation costs will be available to invited participants.*