



### Call for Papers

Contributions are solicited not only from the mathematical fields of numerical analysis, statistics, algebra etc. but from all fields of science and could cover aspects in

- Geometry, Potential, Force
- Emergence of Order
- Cognition, Patterns
- Change and its dynamics including macroscopic effects
- Characteristics of Generalization in the natural sciences, humanities, technical sciences, anthropological aspects
- Time, time structure and its relevance to Action Structures
- Behavior Representation, Complex Social Systems
- Singularities (of action space)
- Black and white views as a generalization principle, Contrast
- Symbolization, Categorization, Abstraction, Model Building
- Ontology, Multiple Representations, Representation Change / Transition
- Information Mining
- Dimensionality reduction, Clustering
- Trend analysis and application, Periodicity, use of transforms (Fourier transform / frequency space / attribute spaces, action spaces)
- Uncertainty propagation in Generalization
- Continuous vs. Step-by-step generalization
- Algebraic Properties of Generalization Transforms (recursiveness, inverse properties, invariants etc.)
- Generalization of dynamic 3+ - dimensional phenomena : e.g. of Movement Patterns
- Context

## ISGI 2005 International Symposium on Generalization of Information Berlin, Germany, September 14-16, 2005

This interdisciplinary  
Symposium is organized by  
**CODATA, the Committee  
on Data for Science and  
Technology of the  
International  
Council of Science ICSU**

in cooperation with

**ICA  
International Cartographic  
Association**

### Scope

Generalization as one of the basic principles of scientific work is also a basic tool for understanding our environment in all its appearances, influences and dynamic behavior.

The interdisciplinary treatment of the topic also includes the proliferation of best practice in the special types of generalization methods and techniques in the various sciences.

The term information is to be treated in its widest sense, i.e. from a semiotic structural point of view (syntax, semantics, and pragmatics), requirements of generalization in its theoretical basis, its complex application scenarios, its use in decision making, as well as its role in information society.

### Important Dates

Abstract submission deadline

March 7, 2005

Notification of acceptance

April 4, 2005

Paper for publication July 15, 2005

Printed Proceedings Sept. 1, 2005

Symposium Sept. 14-16, 2005

### Members of the Program Committee:

#### Symposium Chair

**Horst Kremers**

office@horst-kremers.de

[www.codata-germany.org/ISGI](http://www.codata-germany.org/ISGI)

Jacques-Octave Dubois, Paris, France

Nahum Gershon, USA

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Pavel Slavik, Czech Rep.

Alan Stevens, Reston, Va., U.S.A

Robert Weibel, Zurich, Switzerland

### Symposium Venue

The Berlin Institute of the Physikalisch-Technische Bundesanstalt (PTB)

Abbestr. 2-12, D- 10587 Berlin

<http://www.berlin.ptb.de>