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ISGI 2007

2nd International Symposium on Generalization of Information

Geneva, Switzerland, October 1-3, 2007

This interdisciplinary Symposium is organized by CODATA-Germany

**CODATA, the Committee on
Data for Science and Technology
of the International Council of Science / ICSU**

in cooperation with



Important Dates

Call for Papers	Feb. 02, 2007
Abstract submission deadline	April 6, 2007
Notification of acceptance	June 1, 2007
Paper for publication	July 15, 2007
Printed Proceedings	Sept. 11, 2007
Symposium	Oct. 1-3, 2007

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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. form 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.

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

Trend analysis and application, Periodicity, use of transforms (Fourier transform / frequency space / attribute spaces, action spaces)

Generalization in the field of environmental science and GIS risk analysis

Symbolization, Categorization, Abstraction, Model Building

Ontology, Multiple Representations, Representation of Change / Transition

Information Mining

Dimensionality reduction, Clustering
Uncertainty propagation in
Generalization

Continuous vs. Step-by-step
generalization

Algebraic Properties of Generalization
Transforms (recursiveness, inverse
properties, invariants etc.)

Generalization of dynamic 3+ -dimen-
sional phenomena : e.g. of Movement
Patterns

Context