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Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 1329
Disciplina	910/.285
Soggetti	Computers Geographical information systems Database management Artificial intelligence Data structures (Computer science) Earth sciences Theory of Computation Geographical Information Systems/Cartography Database Management Artificial Intelligence Data Structures Earth Sciences, general
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Continuous change in spatial regions -- Qualitative representation of change -- Image-schemata-based spatial inferences: The container-surface algebra -- A city metaphor to support navigation in complex information spaces -- Using hierarchical spatial data structures for hierarchical spatial reasoning -- Structuring space with image schemata: Wayfinding in airports as a case study -- Fiat and bona fide Boundaries: Towards an ontology of spatially extended objects -- A representation-oriented taxonomy of gradation -- Classification as an

impediment to the reliable and valid use of spatial information: A
 disaggregate approach -- What maps mean to people: Denotation,
 connotation, and geographic visualization in land-use debates -- The
 algebraic structure of sets of regions -- Complex regions in topological
 queries -- A cognitive assessment of topological spatial relations:
 Results from an empirical investigation -- Voronoï diagrams on line
 segments: Measurements for contextual generalization purposes -- A
 qualitative coordinate language of location of figures within the ground
 -- Identification of fuzzy objects from field observation data -- Long-
 term spatial representations from pictorial and textual input -- Feature
 accumulation and route structuring in distance estimations — An
 interdisciplinary approach -- The perception and cognition of
 environmental distance: Direct sources of information -- Improving
 multi-purpose GIS design: Participative design -- Self-organization,
 cities, cognitive maps and information systems -- Cognitive
 requirements on making and interpreting maps -- From knowledge to
 words to wayfinding: Issues in the production and comprehension of
 route directions -- Spatial representation for pragmatic navigation --
 Partition and conquer -- Supporting emergence in spatial reasoning
 with shape algebras and formal logic -- Linear constraints: Geometric
 objects represented by inequalities! -- An event-based approach to
 spatial information -- Geocognostics — A new framework for spatial
 information theory -- Graphical modelling for geographic explanation
 -- Experiments using context and significance to enhance the
 reporting capabilities of gis -- Automatic summarization of
 radiographic imagery -- An automated system for name placement
 which complies with cartographic quality criteria: The hydrographic
 network -- Agent-based simulations of a city dynamics in a gis
 environment -- A logical approach to incorporating qualitative spatial
 reasoning into GIS (Extended Abstract) -- User interaction in a sketch-
 based GIS user interface -- Metrical refinement of topological relations
 -- Approximation of topological relations between fuzzy regions
 satisfying a linguistically described query.

Sommario/riassunto

This book constitutes the refereed proceedings of the 1997
 International Conference on Spatial Information Theory, COSIT'97, held
 in Laurel Highlands, Pennsylvania, USA, in October 1997. The 31
 revised full papers presented were carefully selected from a total of 66
 submissions. Also included are seven posters. The volume is divided
 into sections on representations of change, structuring of space,
 boundaries and gradations, topological models of space, formal models
 of space, cognitive aspects of spatial acquisition, novel use of spatial
 information, wayfinding and map interpretation, representations of
 spatial concepts, new approaches to spatial information.