Record Nr. UNINA9910484914903321
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Titolo Spatial information theory: 9th International Conference, COSIT 2009

Aber Wrac'h, France, September 21-25, 2009, proceedings / / Kathleen Stewart Hornsby, Christophe Claramunt, Michel Denis, Gerard Ligozat

Pubbl/distr/stampa Berlin; ; Heidelberg, : Springer-Verlag, 2009

ISBN 3-642-03832-8

Edizione [1st ed. 2009.]

Descrizione fisica 1 online resource (XIII, 505 p.)

Collana Lecture notes in computer science, , 0302-9743 ; ; 5756

Classificazione DAT 600f

DAT 620f GEO 007f SS 4800

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Disciplina 910.285

Soggetti Geographic information systems

Geographical perception

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Note generali Bibliographic Level Mode of Issuance: Monograph

Nota di bibliografia Includes bibliographical references and index.

Nota di contenuto Cognitive Processing and Models for Spatial Cognition -- A Conceptual

Model of the Cognitive Processing of Environmental Distance

Information -- Spatial Cognition of Geometric Figures in the Context of Proportional Analogies -- Are Places Concepts? Familarity and Expertise Effects in Neighborhood Cognition -- Semantic Modeling -- A Metric Conceptual Space Algebra -- Grounding Geographic Categories in the Meaningful Environment -- Terabytes of Tobler: Evaluating the First Law in a Massive, Domain-Neutral Representation of World Knowledge

-- Spatial Reasoning -- Merging Qualitative Constraint Networks
Defined on Different Qualitative Formalisms -- Semi-automated
Derivation of Conceptual Neighborhood Graphs of Topological
Relations -- Exploiting Qualitative Spatial Constraints for Multihypothesis Topological Map Learning -- Comparing Relations with a
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Variables for Geographic Information Visualization -- SeaTouch: A Haptic and Auditory Maritime Environment for Non Visual Cognitive Mapping of Blind Sailors -- Spatial Knowledge -- Assigning Footprints to Dot Sets: An Analytical Survey -- Mental Tectonics - Rendering Consistent ?Maps -- To Be and Not To Be: 3-Valued Relations on Graphs -- Map Algebraic Characterization of Self-adapting Neighborhoods -- Scene and Visibility Modeling -- Scene Modelling and Classification Using Learned Spatial Relations -- A Qualitative Approach to Localization and Navigation Based on Visibility Information -- Showing Where To Go by Maps or Pictures: An Empirical Case Study at Subway Exits -- Spatial Modeling -- The Abduction of Geographic Information Science: Transporting Spatial Reasoning to the Realm of Purpose and Design -- An Algebraic Approach to Image Schemas for Geographic Space -- Spatio-terminological Inference for the Design of Ambient Environments -- Events and Processes -- Defining Spatial Entropy from Multivariate Distributions of Co-occurrences -- Case-Based Reasoning for Eliciting the Evolution of Geospatial Objects --Composing Models of Geographic Physical Processes -- Route Planning -- Decentralized Time Geography for Ad-Hoc Collaborative Planning --Adaptable Path Planning in Regionalized Environments -- An Analysis of Direction and Motion Concepts in Verbal Descriptions of Route Choices -- The Role of Angularity in Route Choice.

Sommario/riassunto

This book constitutes the refereed proceedings of the 9th International Conference on Spatial Information Theory, COSIT 2009 held in Aber Wrac'h, France in September 2009. The 30 revised full papers were carefully reviewed from 70 submissions. They are organized in topical sections on cognitive processing and models for spatial cognition, semantic modeling, spatial reasoning, spatial cognition, spatial knowledge, scene and visibility modeling, spatial modeling, events and processes, and route planning.