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ISBN	3-319-23519-2
Descrizione fisica	1 online resource (Approx. 2000 p. 900 illus.)
Disciplina	005.74
Soggetti	Database management Information storage and retrieval Earth sciences Geographical information systems Statistics Environmental sciences Database Management Information Storage and Retrieval Earth Sciences, general Geographical Information Systems/Cartography Statistics for Social Sciences, Humanities, Law Math. Appl. in Environmental Science
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Basic Concepts -- Basic Storage and Retrieval Structure -- Cartography and Visualization -- Commercial GIS -- Commercial Spatial Databases -- Critical Evaluation of Standard Proposals -- Data Exchange and Interoperability -- Digital Road Map -- Emergency Evacuations -- Evacuation Planning and Operations -- GeoSensor Networks -- Geospatial Semantic Web -- GIS in Business Intelligence -- Routing -- GIS Issues and Applications -- Indoor Positioning -- Information Collection Using Sensor Network -- Open Source GIS Software -- Photogrammetry -- Representation of Inexact Spatial Information -- Road Network Databases -- Security and Privacy in Geospatial

Information Systems -- Spatial Analysis -- Spatial Aspects of Bioinformatics -- Spatial Aspects of Distributed Computing -- Spatial Aspects of Mobile Computing -- Spatial Association Discovery -- Spatial Colocation Rule Mining -- Spatial Constraint Databases -- Spatial Data Warehousing and Decision Support -- Spatial Database Modeling for Applications -- Spatial Indexing -- Spatial Outlier Detection -- Spatial Prediction -- Spatial Thinking -- Spatial Time Series -- Spatial Uncertainty and Imprecision -- Spatio-Temporal Data Modeling -- Spatio-Temporal Databases -- Statistical Modeling for Spatial Data -- Tesselation Data Models -- Use of Spatial Data for Simulation -- Qualitative Volunteered Data and Next-Generation Sensor Measurement -- Spatio-Temporal Prediction -- Synthesizing Multiple Viewpoints of Past, Present, and Future -- Spatial and Spatio-Temporal Computing Standards -- Spatial Computing Infrastructure -- Augmented Reality -- Collection, Fusion and Curation of Sensing Data -- Computational issues for Spatial Big Data -- Spatial Cognitive Assistance -- Spatial Computing for Human-Human Interaction/Collaboration -- Context-aware Spatial Computing -- Improving Spatial Abilities and Skills Developing Spatial Abilities and Talent in US Students?- Ubiquitous Computing -- Persistent Sensing and Monitoring -- Trustworthy Localization and Transportation Systems -- Understanding Geo-Privacy Concerns.

Sommario/riassunto

New In This Edition: This second edition of the Encyclopedia of GIS includes 30% to 50% new content. It provides up-to-date information on emerging topics such as spatial big data, smart-phone GIS, urban computing and mobile recommender systems. It also expands the first edition’s rich set of GIS-related commercial and societal applications such as geo-targeting, geo-fencing and understanding climate changes, while enabling more comprehensive coverage of classical GIS topics such as map projections, global positioning systems and spatial cognition. The entries explain the key software, data sets and processes used by geographers and computational scientists. Additionally, the reference emphasizes the role of GIS in business and mobile intelligence. By offering more diversified GIS-related topics from theory and research than most of the other available literature, the authors equip newcomers to the field with principles as well as applications. With an accessible breadth of content and intuitive A-Z organization, this new edition of the encyclopedia is an invaluable reference for newcomers to the field of GIS, as well as researchers, students, developers and professionals who are interested in exploring this new dynamic area. Praise For The First Edition: "The focus here, however, is on the mathematical and computational aspects of GIS … . This is very welcome to those practitioners who have been less exposed to some of the mathematical and computational aspects of GIS. This is also very welcome to the researcher or graduate student within any of the interdisciplinary areas that use GIS. … I highly recommend it." (Pascal V. Calarco, ACM Computing Reviews, November, 2008) "This single-volume reference work is a highly welcome … addition to the rapidly advancing field of geographic information systems. Peer-reviewed entries from over 300 contributors cover 41 topical subfields, with an overall emphasis on computational aspects of GIS. The volume is adequately illustrated with 723 figures and 90 tables in black and white. A full bibliography and concise list of entry terms are provided at the back of the work. … Summing Up: Highly recommended. Upper-division geography students through professionals." (C. E. Smith, CHOICE, Vol. 45 (11), 2008) "The encyclopedia is divided into 41 fields, each one an important sub-area within GIS. ... the editors’ organization of the material and comprehensive and systematic approach are superb

and shall give students, eager readers as well as researchers an understanding of the topics in quite full depth and breadth. … is lavishly illustrated with figures, graphs and tables, the design and execution of which are as perfect as the material they illustrate. … it is sturdy and opens out nicely for study and reference." (Current Engineering Practice, 2008).