

Fundamentals Of Geographic Information Systems 2nd Edition

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Fundamentals of Geographic Information Systems Michael N. DeMers 2000 The second edition of this well-received text on principles of geographic information systems (GIS) continues the author's style of "straight talk" in its presentation. The writing is accessible and easy to follow. Unlike most other texts, this book covers GIS design and modeling, reflecting the author's belief that modeling and analysis are at the heart of GIS. This enables students to understand how to use a GIS and what it does.

Industrial Clusters and Inter-firm Networks Charlie Karlsson 2005-01-01 'This well-edited volume should be on the shelf of every regional development agency library. Its seventeen chapters written by 31 predominantly academic contributors are divided into four coherent sections: the first on cluster and network modelling, the next on empirical analysis, a third on case studies, finishing with two chapters on policy analysis and strategies.' - Tony Jackson, *Journal of Economic Development* This book provides a state-of-the-art overview of spatial industrial clusters and inter-firm networks. Given the prevailing political belief that clusters can be a major vehicle for economic development and growth, it is important to have a sound understanding of clusters and how they emerge, grow, eventually stagnate and disappear. It is also vital to know when and how to apply policy measures to support cluster development in order to increase economic welfare. This book illuminates both the theoretical and empirical issues relating to clusters and inter-firm networks, and presents a number of interesting case studies from a variety of different countries.

Essentials of Medical Geology Olle Selinus 2013-03-30 *Essentials of Medical Geology* reviews the essential concepts and practical tools required to tackle environmental and public health problems. It is organized into four main sections. The first section deals with the fundamentals of environmental biology, the natural and anthropogenic sources of health elements that impact health and illustrate key biogeochemical transformations. The second section looks at the geological processes influencing human exposure to specific elements, such as radon, arsenic, fluorine, selenium and iodine. The third section presents the concepts and techniques of pathology, toxicology and epidemiology that underpin investigations into the human health effects of exposure to naturally occurring elements. The last section provides a toolbox of analytical approaches to environmental research and medical geology investigations. *Essentials of Medical Geology* was first published in 2005 and has since won three prestigious awards. The book has been recognized as a key book in both medical and geology fields and is widely used as textbook and reference book in these fields. For this revised edition, editors and authors have updated the content that evolved a lot during 2005 and added two new chapters, on public health, and agriculture and health. This updated volume can now continue to be used as a textbook and reference book for all who are interested in this important topic and its impacts the health and wellbeing of many millions of people all over the world. ·

Addresses key topics at the intersection of environmental science and human health · Developed by 60 international experts from 20 countries and edited by professionals from the International Medical Geology Association (IMGA) · Written in non-technical language for a broad spectrum of readers, ranging from students and professional researchers to policymakers and the general public · Includes color illustrations throughout, references for further investigation and other aids to the reader

Putting the Urban Poor on the Map 2000 "This publication presents a methodology for participative informal settlement upgrading with the support of information technology, the result of research and development activities carried out by UNCHS (Habitat) and a group of partners. Examining a number of experiences in the field, and through direct support to specific tool development activities, Habitat aims to consolidate a wealth of practical and field experiences into a methodological framework. The methodology refers to the project preparation phase, including community involvement protocols, and the information management system related to it. This methodology should be seen as a practical reference framework for programme managers and officials involved in designing and managing settlement upgrading projects and should assist policy makers and external support agencies in policy formulation and resource allocation. It will also provide a technical background to the Global Campaigns for Secure Tenure and for Good Urban Governance that UNCHS (Habitat) is launching in the year 2000"--p. 3.

Thinking about GIS Roger F. Tomlinson 2007 Describes how to implement a successful geographic information system.

Time-Integrative Geographic Information Systems Thomas Ott 2012-12-06 The book deals with the integration of temporal information in Geographic Information Systems. The main purpose of an historical or time-integrative GIS is to reproduce spatio-temporal processes or sequents of events in the real world in the form of a model. The model thus making them accessible for spatial query, analysis and visualization. This volume reflects both theoretical thoughts on the interrelations of space and time, as well as practical examples taken from various fields of application (e.g. business data warehousing, demographics, history and spatial analysis).

GIS in Land and Property Management Martin P. Ralphs 2003-09-02 Economists, geographers and surveyors are beginning to recognise the powerful tool which a Geographical Information System (GIS) offers in effective property management. It provides a means of managing land and property information digitally and in a geographical context, and allows for rapid access to information and a means of analyzing that information in a geographical context. *GIS in Land and Property Management* shows how to use GIS, both in principle and in practice. It introduces digital mapping and GIS, along with a brief history of the development of GIS and LIS, all with an emphasis on property. In presenting the spectrum of GIS applications in property management it gives a number of case studies from a variety of market sectors, and it analyzes the issues to provide guidance and a number of recommendations for the implementation of GIS. At the same time common themes and issues are drawn out to present a coherent message for students and practitioners. The book is useful for undergraduate and postgraduate students on land management, built environment, economics and geography courses, and for property professionals, in both public and private sectors, looking to GIS as a property management decision aid.

Encyclopedia of GIS Shashi Shekhar 2007-12-12 The *Encyclopedia of GIS* provides a comprehensive and authoritative guide, contributed by experts and peer-reviewed for accuracy, and alphabetically arranged for convenient access. The entries explain key software and processes used by geographers and computational scientists. Major overviews are provided for nearly 200 topics: Geoinformatics, Spatial Cognition, and Location-Based Services and more. Shorter entries define specific terms and concepts. The reference will be published as a print volume with abundant black and white art, and simultaneously as an XML online reference with hyperlinked citations, cross-references, four-color art, links to web-based maps, and other interactive features.

Manual of Geospatial Science and Technology John D. Bossler 2001-11-22 Professionals in local and national government and in the private sector frequently need to draw on Geographical Information Systems (GIS), Remote Sensing (RS) and Global Positioning Systems (GPS), often in an integrated manner. This manual shows a hands-on operator how to work across the range of geospatial science and technology, whether as a user

Spatial Data Analysis for Geographic Information Science Taher Buyong 2007

Data Warehousing and Knowledge Discovery Yahiko Kambayashi 2004-11-08 Within the last few years, data warehousing and knowledge discovery technology has established itself as a key technology for enterprises that wish to improve the quality of the results obtained from data analysis, decision support, and the automatic extraction of knowledge from data. The 6th International Conference on Data Warehousing and Knowledge Discovery (DaWaK 2004) continued a series of successful conferences dedicated to this topic. Its main objective was to bring together researchers and practitioners to discuss research issues and experience in developing and deploying data warehousing and knowledge discovery systems, applications, and solutions. The conference focused on the logical and physical design of data warehousing and knowledge discovery systems. The scope of the papers covers the most recent and relevant topics in the areas of data cubes and queries, multidimensional data models, XML data mining, data semantics and clustering, association rules, data mining techniques, data analysis and discovery, query optimization, data cleansing, data warehouse design and maintenance, and applications. These proceedings contain the technical papers selected for presentation at the conference. We received more than 100 papers, including 12 industrial papers, from over 33 countries, and the program committee finally selected 40 papers. The conference program included an invited talk by Kazuo Iwano, IBM Tokyo Research Lab, Japan. We would like to thank the DEXA 2004 Workshop General Chairs (Prof.

Spatial Decision Support Systems Ramanathan Sugumaran 2010-11-15 Although interest in Spatial Decision Support Systems (SDSS) continues to grow rapidly in a wide range of disciplines, students, planners, managers, and the research community have lacked a book that covers the fundamentals of SDSS along with the advanced design concepts required for building SDSS. Filling this need, *Spatial Decision Support Systems: Principles and Practices* provides a comprehensive examination of the various aspects of SDSS evolution, components, architecture, and implementation. It integrates research from a variety of disciplines, including the geosciences, to supply a complete overview of SDSS technologies and their application from an interdisciplinary perspective. This groundbreaking reference provides thorough coverage of the roots of SDSS. It explains the core principles of SDSS, how to use them in various decision making contexts, and how to design and develop them using readily available enabling technologies and commercial tools. The book consists of four major parts, each addressing different topic areas in SDSS: Presents an introduction to SDSS and the evolution of SDSS Covers the essential and optional components of SDSS Focuses on the design and implementation of SDSS Reviews SDSS applications from various domains and disciplines—investigating current challenges and future directions The text includes numerous detailed case studies, example applications, and methods for tailoring SDSS to your work environment. It also integrates sample code segments throughout. Addressing the technical and organizational challenges that affect the success or failure of SDSS, the book concludes by considering future directions of this rapidly emerging field of study.

Dissociative States 1999

An Introduction to Geographic Information Technology Suchandra Choudhury 2008-11-15 *Introduction to Geographic Information Technology* is an up-to-date introduction that provides a balanced treatment of concepts and techniques required for GIS and Remote Sensing. The book focuses on foundation, integration and practical applications of GIS, Remote Sensing, GPS and other areas of Geographic Information Technology. It also considers how the technology works. The book can be used to give the reader a quick tour through the world of Geographic Information Technology, to help the reader develop a thorough understanding of Geographic Information Technology or as a source of reference information. The authors are scientists, practitioners and teachers who understand student requirements in developing basic foundation required to build specific skills in Geographic Information Technology. The book presented with examples on the subject, makes the study of any branch of Geographic Information Technology from the broader context of geography in general to spatial information resource management in particular. It gives a wholesome coverage of GIS, Remote Sensing

and GPS principles as well as data structures, spatial database modeling and their applications.

Statistical Analysis with ArcView GIS Jay Lee 2001-05-16

Statistical Geoinformatics for Human Environment Interface Wayne L. Myers 2012-07-27 Statistical Geoinformatics for Human Environment Interface presents two paradigms for studying both space and interface with regard to human/environment: localization and multiple indicators. The first approach localizes thematic targets by treating space as a pattern of vicinities, with the pattern being a square grid and the placement of vicinities

Soft Computing and Intelligent Data Analysis in Oil Exploration M. Nikravesh 2003-04-22 This comprehensive book highlights soft computing and geostatistics applications in hydrocarbon exploration and production, combining practical and theoretical aspects. It spans a wide spectrum of applications in the oil industry, crossing many discipline boundaries such as geophysics, geology, petrophysics and reservoir engineering. It is complemented by several tutorial chapters on fuzzy logic, neural networks and genetic algorithms and geostatistics to introduce these concepts to the uninitiated. The application areas include prediction of reservoir properties (porosity, sand thickness, lithology, fluid), seismic processing, seismic and bio stratigraphy, time lapse seismic and core analysis. There is a good balance between introducing soft computing and geostatistics methodologies that are not routinely used in the petroleum industry and various applications areas. The book can be used by many practitioners such as processing geophysicists, seismic interpreters, geologists, reservoir engineers, petrophysicist, geostatisticians, asset managers and technology application professionals. It will also be of interest to academics to assess the importance of, and contribute to, R&D efforts in relevant areas.

Constraint Databases and Applications Bart Kuijpers 2004-06-02 The 1st International Symposium on the Applications of Constraint Databases (CDB2004) took place in Paris, France, on June 12–13, 2004, just before the ACM SIGMOD and PODS conferences. Since the publication of the paper "Constraint Query Languages" by Kan-lakis, Kuper and Revesz in 1990, the last decade has seen a growing interest in constraint database theory, query evaluation, and applications, reflected in a variety of conferences, journals, and books. Constraint databases have proven to be extremely flexible and adoptable in environments that relational database systems cannot serve well, such as geographic information systems and bioinformatics. This symposium brought together people from several diverse areas all contributing to the practice and the application of constraint databases. It was a continuation and extension of previous workshops held in Friedrichshafen, Germany (1995), Cambridge, USA (1996), Delphi, Greece (1997), and Seattle, USA (1998) as well as of the work in the comprehensive volume "Constraint Databases" edited by G. Kuper, L. Libkin and J. Paredaens (2000) and the textbook "Introduction to Constraint Databases" by P. Revesz (2002). The aim of the symposium was to open new and future directions in constraint database research; to address constraints over domains other than the reals; to contribute to a better implementation of constraint database systems, in particular of query evaluation; to address efficient query elimination; and to describe applications of constraint databases.

Mobile Location Services Andrew Jagoe 2003 -- Includes case studies based on real world solution deployments with Vicinity, ATX, Ford and Hutchison 3G.-- Insights into differences between solutions for US and European marketplaces.-- Includes a software development kit for building a basic Location Service Solution. Mobile applications must be much smarter than desktop web applications. These applications need to know user's location, surroundings, and provide directions on how to get there. Developers face many challenges, including how to pinpoint the user's location, how to retrieve relevant spatial data from map databases that are often 20 Gigabytes in size, and how to support multiple clients. The mobility provided by the proliferation of wireless devices, such as Palm Pilots and onboard navigation systems presents a new class of opportunities and problems for application developers. This book provides an end-to-end solution guide to understand the issues in location-based services and build solutions that will sell. Complete with software and industry case studies, this book is an essential companion to anyone wanting to build the next killer application. The more than one million auto-based telematics terminals that have been installed by year-end 2001 are ample testimony of the opportunities and attractiveness of the mobile location services market. This large and growing installed base of subscribers also provides multiple implementation examples, which are incorporated into the text

Perspectives in Medical Geography Amy J. Blatt 2014-06-11 Medical geography is a fascinating area of rapidly evolving study that aims to analyse and improve worldwide health issues based on the geographical factors which have an impact on them. Perspectives in Medical Geography will appeal to both novice and seasoned researchers looking to be informed on the latest theories and applications in the field. Chapters represent a wide range of industries, ranging from private/public universities to private companies to non-profit foundations. Contributors describe ways in which map and geography librarians can engage in public health research – creating data standards, archiving map collections and providing mapping/GIS services. In addition to compiling current theories and practices related to medical geography, this volume also features commentaries from two pre-eminent geography librarians, sharing their perspectives on this emerging field and how map and geographic information librarians can engage in health-related research through their profession. This book was originally published as two special issues of the Journal of Map & Geography Libraries.

International Journal of Advanced Remote Sensing and GIS Cloud Publications 2012-01-01 International Journal of Advanced Remote Sensing and GIS (IJARSG, ISSN 2320 – 0243) is an open-access peer-reviewed scholarly journal publishes original research papers, reviews, case study, case reports, and methodology articles in all aspects of Remote Sensing and GIS including associated fields. This Journal commits to working for quality and transparency in its publishing by following standard Publication Ethics and Policies.

GIS Fundamentals Stephen Wise 2018-09-03 With GIS technology increasingly available to a wider audience on devices from apps on smartphones to satnavs in cars, many people routinely use spatial data in a way which used to be the preserve of GIS specialists. However spatial data is stored and analyzed on a computer still tends to be described in academic texts and articles which require specialist knowledge or some training in computer science. Developed to introduce computer science literature to geography students, GIS Fundamentals, Second Edition provides an accessible examination of the underlying principles for anyone with no formal training in computer science. See What's New in the Second Edition: Coverage of the use of spatial data on the Internet Chapters on databases and on searching large databases for spatial queries Improved coverage on route-finding Improved coverage of heuristic approaches to solving real-world spatial problems International standards for spatial data The book begins with a brief but detailed introduction to how computers work and how they are programmed, giving anyone with no previous computer science background a foundation to understand the remainder of the book. As with all parts of the book there are also suggestions for further sources of reading. The book then describes the ways in which vector and raster data can be stored and how algorithms are designed to perform fundamental operations such as detecting where lines intersect. From these simple beginnings the book moves into the more complex structures used for handling surfaces and networks and contains a detailed account of what it takes to determine the shortest route between two places on a network. The final sections of the book review problems, such as the "Travelling Salesman" problem, which are so complex that it is not known whether an optimum solution exists. Using clear, concise language, but without sacrificing technical rigour, the book gives readers an understanding of what it takes to produce systems which allow them to find out where to make their next purchase and how to drive to the right place to collect it.

Wie Fundamentals of Geographic Information Systems (Gis), Second Edition, International Edition Demers 2005-05 The second edition of this well-received text on principles of geographic information systems (GIS) continues the author's style of "straight talk" in its presentation. The writing is accessible and easy to follow. Unlike most other texts, this book covers GIS design and modeling, reflecting the author's belief that modeling and analysis are at the heart of GIS. This enables students to understand how to use a GIS and what it does.

Geography

Collecting, Processing, and Integrating GPS Data Into GIS Robert J. Czerniak 2002

Introduction To Geographical Information Systems Prithvish Nag And Smita Sengupta 2008 In Indian context.

Wikibook of Health Informatics

GIS and Public Health, Second Edition Ellen K. Cromley 2011-10-28 Authoritative and comprehensive, this is the leading text and professional resource on using geographic information systems (GIS) to analyze and address public health problems. Basic GIS concepts and tools are explained, including ways to access and manage spatial databases. The book presents state-of-the-art methods for mapping and analyzing data on population, health events, risk factors, and health services, and for incorporating geographical knowledge into planning and policy. Numerous maps, diagrams, and real-world applications are featured. The companion Web page provides lab exercises with data that can be downloaded for individual or course use. New to This Edition*Incorporates major technological advances, such as Internet-based mapping systems and the rise of data from cell phones and other GPS-enabled devices.*Chapter on health disparities.*Expanded coverage of public participation GIS.*Companion Web page has all-new content.*Goes beyond the United States to encompass an international focus.

Fundamentals of Geographic Information Systems Michael N. DeMers 2008-04-04 Locate your place in the exciting field of GIS In existence since 1962, Geographical Information Systems (GIS) are really coming into their own today. And not just in your car's GPS system or your cell phone's tracking capabilities. GIS is finding applications throughout science, government, business, and industry, from regional and community planning, architecture, and transportation to public health, crime mapping, and national defense.

Michael DeMers's Fundamentals of Geographic Information, Fourth Edition brings an already essential text up to date, capturing the significant developments in the field and responding to the needs of a diverse set of readers, from geographers to students in a host of other fields. If you are a non-geographer or new to GIS, get a quick introduction to the "lay of the land" of GIS through the new "Spatial Learner's Permit" section. Then join in the excitement of discovery with GIS databases as you absorb the such concepts and skills as digital geographic data and maps, GIS data models, spatial analysis, measurement and classification, cartographic modeling, and GIS design. Responding to both the needs and technical skills of today's students, this Fourth Edition: * Makes concepts accessible to students from a wide range of backgrounds * Offers more practical and relevant coverage of GIS design and implementation * Reflects the latest changes in GIS applications * Examines in greater depth the underlying computer science behind GIS * Uncovers the most recent developments on GIS research * Expands coverage of the increasingly robust literature on cartographic visualization * Includes Web-based labs and links to current and updated dataset resources Taking an open-ended, hands-on approach that gets you to ask your own questions about the underlying concepts, the Fourth Edition helps you not only master the basics but acquire the active problem-solving skills that are a key component of success in the GIS industry.

Fundamentals of Spatial Analysis and Modelling Jay Gao 2021-12-15 This textbook provides comprehensive and in-depth explanations of all topics related to spatial analysis and spatiotemporal simulation, including how spatial data are acquired, represented digitally, and spatially aggregated. Also features the nature of space and how it is measured.

Descriptive, explanatory, and inferential analyses are covered for point, line, and area data. It captures the latest developments in spatiotemporal simulation with cellular automata and agent-based modelling, and through practical examples discusses how spatial analysis and modelling can be implemented in different computing platforms. A much-needed textbook for a course at upper undergraduate and postgraduate levels.

Geographic Information Systems, Remote Sensing and Mapping for the Development and Management of Marine Aquaculture James M. Kapetsky 2007 The objective of this document is to illustrate the ways in which Geographical Information Systems (GIS), remote sensing and mapping can play a role in the development and management of marine aquaculture. The perspective is global. The approach is to employ example applications that have been aimed at resolving many of the important issues in marine aquaculture. The underlying purpose is to stimulate the interest of individuals in the government, industry and educational sectors of marine aquaculture to make more effective use of these tools. A brief introduction to spatial tools and their use in the marine fisheries sector precedes the example applications. The most recent applications have been selected to be indicative of the state of the art, allowing readers to make their own assessments of the benefits and limitations of use of these tools in their own disciplines. Also published in

Chinese and Spanish.

Advances in Spatial Analysis and Decision Making Zhilin Li 2003-01-01 While traditional aspects of GIS have been growing rapidly in recent years, new developments have focused on the geographic information service and delivery, which will realise the benefits of spatial information to the community. The analysis and application of spatial information for decision support systems is an important development in realising these benefits. This book is a collection of peer-reviewed articles presented at the ISPRS Workshop on Spatial Analysis and Decision Making in Hong Kong in 2003. It covers topics such as image-based spatial analysis and decision making; 3-D modelling and analysis; general spatial analysis methodology; web- and mobile-based analysis; knowledge-based systems; integrated systems; visualisation and representation methodology, and some application systems.

Handbook of Agricultural Geophysics Barry Allred 2008-06-10 Precision farming, site infrastructure assessment, hydrologic monitoring, and environmental investigations — these are just a few current and potential uses of near-surface geophysical methods in agriculture. Responding to the growing demand for this technology, the Handbook of Agricultural Geophysics supplies a clear, concise overview of near-surface geophysical methods that can be used in agriculture and provides detailed descriptions of situations in which these techniques have been employed.

Mathematical Modelling in Geographical Information System, Global Positioning System and Digital Cartography Hari Shanker Sharma 2006 "Papers presented at the Training Programme on Mathematical Modelling in GIS/GPS and Digital Cartography, held at Jaipur during 1st February to 2nd March 2005".--[Source inconnue].

Environmental Health Perspectives 1993

Learning to Think Spatially National Research Council 2005-02-03 Spatial thinking is a constructive combination of concepts of space, tools of representation, and processes of reasoning—uses space to structure problems, find answers, and express solutions. It is powerful and pervasive in science, the workplace, and everyday life. By visualizing relationships within spatial structures, we can perceive, remember, and analyze the static and dynamic properties of objects and the relationships between objects. Despite its crucial role underpinning the National Standards for Science and Mathematics, spatial thinking is currently not systematically incorporated into the K-12 curriculum. Learning to Think Spatially: GIS as a Support System in the K-12 Curriculum examines how spatial thinking might be incorporated into existing standards-based instruction across the school curriculum. Spatial thinking must be recognized as a fundamental part of K-12 education and as an integrator and a facilitator for problem solving across the curriculum. With advances in computing technologies and the increasing availability of geospatial data, spatial thinking will play a significant role in the information-based economy of the 21st-century. Using appropriately designed support systems tailored to the K-12 context, spatial thinking can be taught formally to all students. A geographic information system (GIS) offers one example of a high-technology support system that can enable students and teachers to practice and apply spatial thinking in many areas of the curriculum.

Geographical Information Systems, 2 Volume Set Paul A. Longley 1999 From a review of the First Edition: "The book is timely, packed with useful background information, and thought-provoking in its treatment of future prospects . . . the definitive guide to GIS."-Photogrammetric Engineering & Remote Sensing The one-stop source for current and comprehensive information on GIS—now in a new edition The long-awaited Second Edition of Geographical Information Systems brings this definitive reference up-to-date with the latest developments in GIS techniques and practice. Completely restructured and rewritten by a select international team of almost 100 GIS experts, it remains the resource of choice for anyone seeking detailed, state-of-the-art information on all key aspects of this revolutionary spatial science technology—from underlying principles and methodology (Volume 1) to management and practical applications (Volume 2). Unmatched in scope by any other reference on the subject, Geographical Information Systems, Second Edition provides crucial background on basic GIS concepts and addresses the radical shifts and changes that have taken place in GIS technology and its uses. The new edition comes complete with color illustrations, helpful cross-referencing, plus an extensive bibliography, a list of acronyms, and more—a full range of features that make this landmark resource easier to use than ever. Volume 1 offers in-depth coverage of key GIS principles and technical issues, including: * Spatial representation, spatial distributions, and spatial data * Data quality, error detection, and spatial analysis * New GIS technology, from networked and "open" GIS to desktop environments * Current spatial database management methods * Data capture using the latest remote sensing and global positioning system (GPS) technologies * Techniques for transforming and linking geographical data

Fundamentals of GIS 2nd Edition Update with Integrated Lab Manual Michael N. DeMers 2003 The Updated Second Edition of Fundamentals of Geographic Information Systems includes thirteen laboratory exercises integrated into the text itself. The labs are linked to particular chapter where the concepts described in the reading can be practiced immediately in a laboratory setting. The second edition of this well-received text on principles of geographic information systems (GIS) continues the author's style of "straight talk" in its presentation. The writing is accessible and easy to follow. Unlike most other texts, this book covers GIS design and modeling, reflecting the belief that modeling and analysis are at the heart of GIS. This enables students to understand how to use a GIS and what it does.

The European Information Society Sara Fabrikant 2007-12-12 This book presents a state-of-the-art overview of ongoing GIScience research that has been presented at the 10th Conference of the Association of Geographic Information Laboratories for Europe (AGILE), held in Aalborg, Denmark. Included are 27 fully peer-reviewed papers not only covering basic GIScience research themes, but also ongoing research on technological advancements, as well as applied research on environmental modeling and management.

Geographic Information Science Max J. Egenhofer 2003-06-30 This book constitutes the refereed proceedings of the Second International Conference on Geographic Information Science, GIScience 2002, held in Boulder, Colorado, USA in September 2002. The 24 revised full papers presented were carefully reviewed and selected from 64 paper submissions. Among the topics addressed are Voronoi diagram representation, geospatial database design, vector data transmission, geographic information retrieval, geontologies, relative motion analysis, Web-based maps information retrieval, spatial pattern recognition, environmental decision support systems, multi-scale spatial databases, mobile journey planning, searching geographical data, indexing, terrain modeling, spatial allocation, distributed geographic internet information systems, and spatio-thematic information programming.