

Download Free Ordered Sets Advances In Mathematics Pdf File Free

AI 2003: Advances in Artificial Intelligence Aug 04 2021 Consider the problem of a robot (algorithm, learning mechanism) moving along the real line attempting to locate a particular point p . To assist the mechanism, we assume that it can communicate with an Environment (“Oracle”) which guides it with information regarding the direction in which it should go. If the Environment is deterministic the problem is the “Deterministic Point - cation Problem” which has been studied rather thoroughly [1]. In its pioneering version [1] the problem was presented in the setting that the Environment could charge the robot a cost which was proportional to the distance it was from the point sought for. The question of having multiple communicating robots locate a point on the line has also been studied [1, 2]. In the stochastic version of this problem, we consider the scenario when the learning mechanism attempts to locate a point in an interval with stochastic (i. e. , possibly erroneous) instead of deterministic responses from the environment. Thus when it should really be moving to the “right” it may be advised to move to the “left” and vice versa. Apart from the problem being of importance in its own right, the stochastic pointlocationproblemalsohas potentialapplications insolvingoptimization problems. Inmanyoptimizationsolutions–forexampleinimageprocessing,p- tern recognition and neural computing [5, 9, 11, 12, 14, 16, 19], the algorithm worksits wayfromits currentsolutionto the optimal solutionbasedoninfor- tion that it currentlyhas. A crucialquestionis oneof determining the parameter whichtheoptimizationalgorithmshoulduse.

Congressional Serial Set Mar 19 2020

Advances in Type-2 Fuzzy Sets and Systems Aug 16 2022 This book explores recent developments in the theoretical foundations and novel applications of general and interval type-2 fuzzy sets and systems, including: algebraic properties of type-2 fuzzy sets, geometric-based definition of type-2 fuzzy set operators, generalizations of the continuous KM algorithm, adaptiveness and novelty of interval type-2 fuzzy logic controllers, relations between conceptual spaces and type-2 fuzzy sets, type-2 fuzzy logic systems versus perceptual computers; modeling human perception of real world concepts with type-2 fuzzy sets, different methods for generating membership functions of interval and general type-2 fuzzy sets, and applications of interval type-2 fuzzy sets to control, machine tooling, image processing and diet. The applications demonstrate the appropriateness of using type-2 fuzzy sets and systems in real world problems that are characterized by different degrees of uncertainty.

Fuzzy Sets, Fuzzy Logic, and Fuzzy Systems Jul 23 2020 This book consists of selected papers written by the founder of fuzzy set theory, Lotfi A Zadeh. Since Zadeh is not only the founder of this field, but has also been the principal contributor to its development over the last 30 years, the papers contain virtually all the major ideas in fuzzy set theory, fuzzy logic, and fuzzy systems in their historical context. Many of the ideas presented in the papers are still open to further development. The book is thus an important resource for anyone interested in the areas of fuzzy set theory, fuzzy logic, and fuzzy systems, as well as their applications. Moreover, the book is also intended to play a useful role in higher education, as a rich source of supplementary reading in relevant courses and seminars. The book contains a bibliography of all papers published by Zadeh in the period 1949-1995. It also contains an introduction that traces the development of Zadeh's ideas pertaining to fuzzy sets, fuzzy logic, and fuzzy systems via his papers. The ideas range from his 1965 seminal idea of the concept of a fuzzy set to ideas reflecting his current interest in computing with words μ a computing in which linguistic expressions are used in place of numbers. Places in the papers, where each idea is presented can easily be found by the reader via the Subject Index.

Advances in Tourism Destination Marketing Jun 21 2020 This volume provides original insight into the operational opportunities, challenges and constraints in managing Tourism Destination Marketing. It explores how the various tourist destination systems including tourist, places (as seen by the tourist), public and private tourism organisations and the social and physical environment can effectively communicate and co operate together at a profit for each. Advances in Destination Marketing offers a comprehensive review of a wide range of aspects related to marketing tourism products including networks in destinations, consumer experiences in destinations, destination branding, destination image, events in destinations and destination tourism products. Throughout the book a network analysis perspective is applied to offer alternative solutions of how each system can share network knowledge and system knowledge so profits can be created effectively and maximised. The exploration of new topics such as Destination Networks and Destination Branding as well as original international empirical research and case studies from well known researchers in the area, provides new thinking on Marketing Tourism Destinations. The relevance of the arguments and the salient conclusions are valuable in the study of an ever dynamic and burgeoning industry. This stimulating volume will be of interest to higher level students, academics, researchers within Tourism and practitioners in the industry.

Advances in Friction-Stir Welding and Processing Nov 07 2021 Friction-stir welding (FSW) is a solid-state joining process primarily used on aluminum, and is also widely used for joining dissimilar metals such as aluminum, magnesium, copper and ferrous alloys. Recently, a friction-stir processing (FSP) technique based on FSW has been used for microstructural modifications, the homogenized and refined microstructure along with the reduced porosity resulting in improved mechanical properties. Advances in friction-stir welding and processing deals with the processes involved in different metals and polymers, including their microstructural and mechanical properties, wear and corrosion behavior, heat flow, and simulation. The book is structured into ten chapters, covering applications of the technology; tool and welding design; material and heat flow; microstructural evolution; mechanical properties; corrosion behavior and wear properties. Later chapters cover mechanical alloying and FSP as a welding and casting repair technique; optimization and simulation of artificial neural networks; and FSW and FSP of polymers. Provides studies of the microstructural, mechanical, corrosion and wear properties of friction-stir welded and processed materials Considers heat generation, heat flow and material flow Covers simulation of FSW/FSP and use of artificial neural network in FSW/FSP

Transactions on Rough Sets XII Nov 26 2020 The LNCS journal Transactions on Rough Sets is devoted to the entire spectrum of rough sets related issues, from logical and mathematical foundations, through all aspects of rough set theory and its applications, such as data mining, knowledge discovery, and intelligent information processing, to relations between rough sets and other approaches to uncertainty, vagueness, and incompleteness, such as fuzzy sets and theory of evidence. This volume contains 8 revised selected papers from 11 submissions to the Rough Set and Knowledge Technology Conference (RSKT 2008), together with 5 papers introducing advances in rough set theory and its applications. The topics covered are: perceptually near Pawlak partitions, hypertext classification, topological space versus rough set theory in terms of lattice theory, feature extraction in interval-valued information systems, jumping emerging patterns (JEP), and rough set theory.

Advances in Applied and Computational Mathematics Mar 11 2022 .

Transactions on Rough Sets IV Jul 03 2021 Volume IV of the Transactions on Rough Sets (TRS) introduces a number of new advances in the theory and application of rough sets. Rough sets and - proximationspaceswereintroducedmorethan30yearsagobyZdzis lawPawlak. These advances have profound implications in a number of research areas such as the foundations of rough sets, approximate reasoning, arti?cial intelligence, bioinformatics,computationalintelligence, cognitivescience, intelligentsystems, datamining,machineintelligence,andsecurity. Inaddition,itisevidentfromthe papers included in this volume that the foundations and applications of rough sets is a very active research area worldwide. A total of 16 researchers from 7 countries are represented in this volume, namely, Canada, India, Norway, S- den, Poland, Russia and the United States of America. Evidence of the vigor, breadth and depth of research in the theory and applications of rough sets can be found in the 10 articles in this volume. Prof. Pawlak has contributed a treatise on the philosophical underpinnings of rough sets. In this treatise, observations are made about the Cantor notion of a set, antinomies arising from Cantor sets, the problem of vagueness (es- cially, vague (imprecise) concepts), fuzzy sets, rough sets, fuzzy vs. rough sets as well as logic and rough sets. Among the many vistas and research directions suggested by Prof. Pawlak, one of the most fruitful concerns the model for a rough membership function, which was incarnated in many di?erent forms since its introduction by Pawlakand Skowronin 1994. Recall, here, that Prof.

Advances in Digital Forensics III Oct 26 2020 Practically every crime now involves some aspect of digital evidence. This is the most recent volume in the Advances in Digital Forensics series. It describes original research results and innovative applications in the emerging discipline of digital forensics. In addition, it highlights some of the major technical and legal issues related to digital evidence and electronic crime investigations.

Advances in Secure Computing, Internet Services, and Applications Oct 18 2022 Technological advancements have extracted a vast amount of useful knowledge and information for applications and services. These developments have evoked intelligent solutions that have been utilized in efforts to secure this data and avoid potential complex problems. Advances in Secure Computing, Internet Services, and Applications presents current research on the applications of computational intelligence in order to focus on the challenge humans face when securing knowledge and data. This book is a vital reference source for researchers, lecturers, professors, students, and developers, who have interest in secure computing and recent advanced in real life applications.

Proceedings of International Joint Conference on Advances in Computational Intelligence Oct 06 2021 This book gathers outstanding research papers presented at the 5th International Joint Conference on Advances in Computational Intelligence (IJCACI 2021), held online during October 23–24, 2021. IJCACI 2021 is jointly organized by Jahangirnagar University (JU), Bangladesh, and South Asian University (SAU), India. The book presents the novel contributions in areas of computational intelligence and it serves as a reference material for advance research. The topics covered are collective intelligence, soft computing, optimization, cloud computing, machine learning, intelligent software, robotics, data science, data security, big data analytics, and signal and natural language processing.

Fuzzy Sets, Fuzzy Logic and Their Applications Sep 24 2020 The present book contains 20 articles collected from amongst the 53 total submitted manuscripts for the Special Issue “Fuzzy Sets, Fuzzy Loigic and Their Applications” of the MDPI journal Mathematics. The articles, which appear in the book in the series in which they were accepted, published in Volumes 7 (2019) and 8 (2020) of the journal, cover a wide range of topics connected to the theory and applications of fuzzy systems and their extensions and generalizations. This range includes, among others, management of the uncertainty in a fuzzy environment; fuzzy assessment methods of human-machine performance; fuzzy graphs; fuzzy topological and convergence spaces; bipolar fuzzy relations; type-2 fuzzy; and intuitionistic, interval-valued, complex, picture, and Pythagorean fuzzy sets, soft sets and algebras, etc. The applications presented are oriented to finance, fuzzy analytic hierarchy, green supply chain industries, smart health practice, and hotel selection. This wide range of topics makes the book interesting for all those working in the wider area of Fuzzy sets and systems and of fuzzy logic and for those who have the proper mathematical background who wish to become familiar with recent advances in fuzzy mathematics, which has entered to almost all sectors of human life and activity.

Recent Advances in Operator-Related Function Theory Jan 29 2021 The articles in this book are based on talks at a conference devoted to interrelations between function theory and the theory of operators. The main theme of the book is the role of Alexandrov-Clark measures. Two of the articles provide the introduction to the theory of Alexandrov-Clark measures and to its applications in the spectral theory of linear operators. The remaining articles deal with recent results in specific directions related to the theme of the book.

Advances in Geosciences Dec 20 2022 This invaluable volume set of Advances in Geosciences continues the excellent tradition of the Asia-Oceania scientific community in providing

the most up-to-date research results on a wide range of geosciences and environmental science. The information is vital to the understanding of the effects of climate change, extreme weathers on the most populated regions and fastest moving economies in the world. Besides, these volumes also highlight original papers from many prestigious research institutions which are conducting cutting edge studies in atmospheric physics, hydrological science and water resource, ocean science and coastal study, planetary exploration and solar system science, seismology, tsunamis, upper atmospheric physics and space science. Sample Chapter(s) Chapter 1: Results of Computing Amplitude and Phase of the VIF Wave Using Wave Hop Theory (689k)

Intelligent Decision Support May 13 2022 Intelligent decision support is based on human knowledge related to a specific part of a real or abstract world. When the knowledge is gained by experience, it is induced from empirical data. The data structure, called an information system, is a record of objects described by a set of attributes. Knowledge is understood here as an ability to classify objects. Objects being in the same class are indiscernible by means of attributes and form elementary building blocks (granules, atoms). In particular, the granularity of knowledge causes that some notions cannot be expressed precisely within available knowledge and can be defined only vaguely. In the rough sets theory created by Z. Pawlak each imprecise concept is replaced by a pair of precise concepts called its lower and upper approximation. These approximations are fundamental tools and reasoning about knowledge. The rough sets philosophy turned out to be a very effective, new tool with many successful real-life applications to its credit. It is worthwhile stressing that no auxiliary assumptions are needed about data, like probability or membership function values, which is its great advantage. The present book reveals a wide spectrum of applications of the rough set concept, giving the reader the flavor of, and insight into, the methodology of the newly developed disciplines. Although the book emphasizes applications, comparison with other related methods and further developments receive due attention.

Adaptive Mobile Computing Mar 31 2021 Adaptive Mobile Computing: Advances in Processing Mobile Data Sets explores the latest advancements in producing, processing and securing mobile data sets. The book provides the elements needed to deepen understanding of this trend which, over the last decade, has seen exponential growth in the number and capabilities of mobile devices. The pervasiveness, sensing capabilities and computational power of mobile devices have turned them into a fundamental instrument in everyday life for a large part of the human population. This fact makes mobile devices an incredibly rich source of data about the dynamics of human behavior, a pervasive wireless sensors network with substantial computational power and an extremely appealing target for a new generation of threats. Offers a coherent and realistic image of today's architectures, techniques, protocols, components, orchestration, choreography and development related to mobile computing Explains state-of-the-art technological solutions for the main issues hindering the development of next-generation pervasive systems including: supporting components for collecting data intelligently, handling resource and data management, accounting for fault tolerance, security, monitoring and control, addressing the relation with the Internet of Things and Big Data and depicting applications for pervasive context-aware processing Presents the benefits of mobile computing and the development process of scientific and commercial applications and platforms to support them Familiarizes readers with the concepts and technologies that are successfully used in the implementation of pervasive/ubiquitous systems

Advances in Fuzzy Sets, Possibility Theory, and Applications Feb 22 2023 Since its inception by Professor Lotfi Zadeh about 18 years ago, the theory of fuzzy sets has evolved in many directions, and is finding applications in a wide variety of fields in which the phenomena under study are too complex or too ill-defined to be analyzed by conventional techniques. Thus, by providing a basis for a systematic approach to approximate reasoning and inexact inference, the theory of fuzzy sets may well have a substantial impact on scientific methodology in the years ahead, particularly in the realms of psychology, economics, engineering, law, medicine, decision-analysis, information retrieval, and artificial intelligence. This volume consists of 24 selected papers invited by the editor, Professor Paul P. Wang. These papers cover the theory and applications of fuzzy sets, almost equal in number. We are very fortunate to have Professor A. Kaufmann to contribute an overview paper of the advances in fuzzy sets. One special feature of this volume is the strong participation of Chinese researchers in this area. The fact is that Chinese mathematicians, scientists and engineers have made important contributions to the theory and applications of fuzzy sets through the past decade. However, not until the visit of Professor A. Kaufmann to China in 1974 and again in 1980, did the Western World become fully aware of the important work of Chinese researchers. Now, Professor Paul Wang has initiated the effort to document these important contributions in this volume to expose them to the western researchers.

Advances in Knowledge Discovery and Data Mining Dec 16 2019 This book constitutes the refereed proceedings of the 5th Pacific-Asia Conference on Knowledge Discovery and Data Mining, PAKDD 2001, held in Hong Kong, China in April 2001. The 38 revised full papers and 22 short papers presented were carefully reviewed and selected from a total of 152 submissions. The book offers topical sections on Web mining, text mining, applications and tools, concept hierarchies, feature selection, interestingness, sequence mining, spatial and temporal mining, association mining, classification and rule induction, clustering, and advanced topics and new methods.

Fuzzy Sets and Operations Research Jan 09 2022 This book presents the latest advances in applying fuzzy sets and operations research technology and methods. It is the first fuzzy mathematics textbook for students in high school and technical secondary schools. Part of Springer's book series: Advances in Intelligent and Soft Computing, it includes the 36 best papers from the Ninth International Conference on Fuzzy Information and Engineering (ICFIE2017), organized by the Fuzzy Information and Engineering Branch of Operations Research Society of China and Operations Research Society of Guangdong Province in China. Every paper has been carefully peer-reviewed by leading experts. The areas covered include 1. Fuzzy Measure and Integral; 2. Fuzzy Topology and Algebras; 3. Classification and Recognition; 4. Control and Fuzziness; 5. Extension of Fuzzy Set and System; 6. Operations Research and Management (OR); The book is suitable for college, masters and doctoral students; educators in universities, colleges, middle and primary schools teaching mathematics, fuzzy sets and systems, operations research, information and engineering, as well as management, control. Discussing case applications, it is also a valuable reference resource for professionals interested in theoretical and practical research.

Advances in Fuzzy Sets, Intuitionistic Fuzzy Sets, Generalized Nets and Related Topics Jul 15 2022

Advances in Geosciences Nov 19 2022 Advances in Geosciences is the result of a concerted effort in bringing the latest results and planning activities related to earth and space science in Asia and the international arena. The volume editors are all leading scientists in their research fields covering six sections: Hydrological Science (HS), Planetary Science (PS), Solar Terrestrial (ST), Solid Earth (SE), Ocean Science (OS) and Atmospheric Science (AS). The main purpose is to highlight the scientific issues essential to the study of earthquakes, tsunamis, atmospheric dust storms, climate change, drought, flood, typhoons, monsoons, space weather, and planetary exploration. This volume is abstracted in NASA's Astrophysics Data System: <http://ads.harvard.edu> Contents: Volume 6: Hydrological Science (HS) Stochastic Generation of Multi-Site Rainfall Occurrences (R Srikanthan & G G S Pegram) Monte Carlo Simulation for Calculating Drought Characteristics (C Chaleerakrakoon & S Noikumsin) On Regional Estimation of Floods for Ungaged Sites (V-T-V Nguyen) and other papers Volume 7: Planetary Science (PS) Some Similarities and Differences Between the Mars and Venus Solar Wind Interactions (J-G Trotignin) Asteroid Compositions: Some Evidence from Polarimetry (A Cellino et al.) Formation of Alumina Nanoparticles in Plasma (M Kurumada & C Kaito) From Nuclear Blasts to Cosmic Bombardment (K O'Brien) and other papers Volume 8: Solar Terrestrial (ST) A New Perspective on the Relationship Between Substorms and Magnetic Storms (B T Tsurutani & W D Gonzalez) Comparative Measurements of Cosmic Radiation Monitors for Aircrew Exposure Assessment (I L Getley et al.) Modeling of Aircrew Radiation Exposure from Galactic Cosmic Rays and Solar Particle Events (M Takada et al.) and other papers Volume 9: Solid Earth (SE), Ocean Science (OS) & Atmospheric Science (AS) Seismic Characteristics of Strong Deep Focal Earthquakes and Associated Phenomena in Northeastern Asia (J Wang et al.) Moho Depths in the Indian Ocean Based on the Inversion of Satellite Gravity Data (D N Arabelos et al.) Post Earthquake Debris Management — An Overview (R Sarkar) and other papers Readership: Academics, researchers and postgraduate students in geosciences. Key Features: Provides an important source of new and not-yet-published results from the growing Asian and international geoscience community Presents a unique view of the rapid scientific progresses made by Asian researchers in topics crucial to the future of the global environment Highlights a first-hand description of how the largest scientific population in the world is working together to manage the environmental problems which will determine the economic and social growth of the world itself Keywords: Planetary Science; Atmosphere; Ionosphere; Magnetosphere

Advances in Questionnaire Design, Development, Evaluation and Testing Apr 19 2020 A new and updated definitive resource for survey questionnaire testing and evaluation Building on the success of the first Questionnaire Development, Evaluation, and Testing (QDET) conference in 2002, this book brings together leading papers from the Second International Conference on Questionnaire Design, Development, Evaluation, and Testing (QDET2) held in 2016. The volume assesses the current state of the art and science of QDET; examines the importance of methodological attention to the questionnaire in the present world of information collection; and ponders how the QDET field can anticipate new trends and directions as information needs and data collection methods continue to evolve. Featuring contributions from international experts in survey methodology, Advances in Questionnaire Design, Development, Evaluation and Testing includes latest insights on question characteristics, usability testing, web probing, and other pretesting approaches, as well as: Recent developments in the design and evaluation of digital and self-administered surveys Strategies for comparing and combining questionnaire evaluation methods Approaches for cross-cultural and cross-national questionnaire development New data sources and methodological innovations during the last 15 years Case studies and practical applications Advances in Questionnaire Design, Development, Evaluation and Testing serves as a forum to prepare researchers to meet the next generation of challenges, making it an excellent resource for researchers and practitioners in government, academia, and the private sector.

Advances in Intelligent Data Analysis. Reasoning about Data Dec 08 2021 This book constitutes the refereed proceedings of the Second International Symposium on Intelligent Data Analysis, IDA-97, held in London, UK, in August 1997. The volume presents 50 revised full papers selected from a total of 107 submissions. Also included is a keynote, Intelligent Data Analysis: Issues and Opportunities, by David J. Hand. The papers are organized in sections on exploratory data analysis, preprocessing and tools; classification and feature selection; medical applications; soft computing; knowledge discovery and data mining; estimation and clustering; data quality; qualitative models.

Advances in CMP Polishing Technologies Dec 28 2020 CMP and polishing are the most precise processes used to finish the surfaces of mechanical and electronic or semiconductor components. Advances in CMP/Polishing Technologies for Manufacture of Electronic Devices presents the latest developments and technological innovations in the field – making cutting-edge R&D accessible to the wider engineering community. Most of the applications of these processes are kept as confidential as possible (proprietary information), and specific details are not seen in professional or technical journals and magazines. This book makes these processes and applications accessible to a wider industrial and academic audience. Building on the fundamentals of tribology – the science of friction, wear and lubrication – the authors explore the practical applications of CMP and polishing across various market sectors. Due to the high pace of development of the electronics and semiconductors industry, many of the presented processes and applications come from these industries. Demystifies scientific developments and technological innovations, opening them up for new applications and process improvements in the semiconductor industry and other areas of precision engineering Explores stock removal mechanisms in CMP and polishing, and the challenges involved in predicting the outcomes of abrasive processes in high-precision environments The authors bring together the latest innovations and research from the USA and Japan

Rough Sets May 21 2020 The volume LNAI 12872 constitutes the proceedings of the International Joint Conference on Rough Sets, IJCRS 2021, Bratislava, Slovak Republic, in September 2021. The conference was held as a hybrid event due to the COVID-19 pandemic. The 13 full paper and 7 short papers presented were carefully reviewed and selected from 26 submissions, along with 5 invited papers. The papers are grouped in the following topical sections: core rough set models and methods, related methods and hybridization, and areas

of applications.

Novel Developments in Uncertainty Representation and Processing Oct 14 2019 This volume contains, first of all, the papers presented at the Fourteenth International Workshop on Intuitionistic Fuzzy Sets and Generalized Nets (IWIFSGN-2015) held on October 26-28, 2015 in Cracow, Poland. Moreover, the volume contains some papers of a particular relevance not presented at the Workshop. The Workshop is mainly devoted to the presentation of recent research results in the broadly perceived fields of intuitionistic fuzzy sets and generalized nets initiated by Professor Krassimir T. Atanassov whose constant inspiration and support is crucial for such a widespread growing popularity and recognition of these areas. The Workshop is a next edition of a series of the IWIFSGN Workshops organized for years by the Systems Research Institute, Polish Academy of Sciences, Warsaw, Poland, Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Sofia, Bulgaria, and WIT -- Warsaw School of Information Technology, Warsaw, Poland, and co-organized by: Matej Bel University, Banská Bystrica, Slovakia, Universidad Pública de Navarra, Pamplona, Spain, Universidade de Trás-os-Montes e Alto Douro, Vila Real, Portugal, Prof. Asen Zlatarov University, Burgas, Bulgaria, Complutense University, Madrid, Spain, and the University of Westminster, Harrow, UK.

An Introduction to Fuzzy Logic and Fuzzy Sets Jun 14 2022 This book is an excellent starting point for any curriculum in fuzzy systems fields such as computer science, mathematics, business/economics and engineering. It covers the basics leading to: fuzzy clustering, fuzzy pattern recognition, fuzzy database, fuzzy image processing, soft computing, fuzzy applications in operations research, fuzzy decision making, fuzzy rule based systems, fuzzy systems modeling, fuzzy mathematics. It is not a book designed for researchers - it is where you really learn the "basics" needed for any of the above-mentioned applications. It includes many figures and problem sets at the end of sections.

United States Congressional Serial Set Nov 14 2019

Advances in Knowledge Discovery and Management May 01 2021 The recent and novel research contributions collected in this book are extended and reworked versions of a selection of the best papers that were originally presented in French at the EGC'2011 Conference held in Brest, France, on January 2011. EGC stands for "Extraction et Gestion des connaissances" in French, and means "Knowledge Discovery and Management" or KDM. KDM is concerned with the works in computer science at the interface between data and knowledge; such as Data Mining, Knowledge Discovery, Business Intelligence, Knowledge Engineering and Semantic Web. This book is intended to be read by all researchers interested in these fields, including PhD or MSc students, and researchers from public or private laboratories. It concerns both theoretical and practical aspects of KDM. This book has been structured in two parts. The first part, entitled "Data Mining, classification and queries", deals with rule and pattern mining, with topological approaches and with OLAP. The second part of the book, entitled "Ontology and Semantic", is related to knowledge-based and user-centered approaches in KDM.

Advances and Applications of Fuzzy Sets and Logic Feb 27 2021

Rough Sets and Current Trends in Computing Feb 10 2022 In recent years rough set theory has attracted the attention of many researchers and practitioners all over the world, who have contributed essentially to its development and applications. We are observing a growing research interest in the foundations of rough sets, including the various logical, mathematical and philosophical aspects of rough sets. Some relationships have already been established between rough sets and other approaches, and also with a wide range of hybrid systems. As a result, rough sets are linked with decision system modeling and analysis of complex systems, fuzzy sets, neural networks, evolutionary computing, data mining and knowledge discovery, pattern recognition, machine learning, and approximate reasoning. In particular, rough sets are used in probabilistic reasoning, granular computing (including information granule calculi based on rough mereology), intelligent control, intelligent agent modeling, identification of autonomous systems, and process specification. Methods based on rough set theory alone or in combination with other approaches have been discovered with a wide range of applications in such areas as: acoustics, bioinformatics, business and finance, chemistry, computer engineering (e.g., data compression, digital image processing, digital signal processing, parallel and distributed computer systems, sensor fusion, fractal engineering), decision analysis and systems, economics, electrical engineering (e.g., control, signal analysis, power systems), environmental studies, informatics, medicine, molecular biology, musicology, neurology, robotics, social science, software engineering, spatial visualization, Web engineering, and Web mining.

Advances in Spatial and Temporal Databases Aug 24 2020 For researchers and professionals in the field of databases, this is a must-read text that gives them right up-to-the-minute information on their field. It represents the refereed proceedings of the 10th International Symposium on Spatial and Temporal Databases, held in Boston, USA in July 2007. The 26 revised full papers were thoroughly reviewed and selected from a total of 76 submissions. The papers are classified in numerous categories, each corresponding to a conference session. These include continuous monitoring; indexing and query processing; and mining.

Advances in Sonar Technology Sep 05 2021 The demand to explore the largest and also one of the richest parts of our planet, the advances in signal processing promoted by an exponential growth in computation power and a thorough study of sound propagation in the underwater realm, have led to remarkable advances in sonar technology in the last years. The work on hand is a sum of knowledge of several authors who contributed in various aspects of sonar technology. This book intends to give a broad overview of the advances in sonar technology of the last years that resulted from the research effort of the authors in both sonar systems and their applications. It is intended for scientist and engineers from a variety of backgrounds and even those that never had contact with sonar technology before will find an easy introduction with the topics and principles exposed here.

Advances and Applications of Fuzzy Sets and Logic Feb 16 2020

Mining Sequential Patterns from Large Data Sets Jun 02 2021 In many applications, e.g., bioinformatics, web access traces, system utilization logs, etc., the data is naturally in the form of sequences. It has been of great interests to analyze the sequential data to find their inherent characteristics. The sequential pattern is one of the most widely studied models to capture such characteristics. Examples of sequential patterns include but are not limited to protein sequence motifs and web page navigation traces. In this book, we focus on sequential pattern mining. To meet different needs of various applications, several models of sequential patterns have been proposed. We do not only study the mathematical definitions and application domains of these models, but also the algorithms on how to effectively and efficiently find these patterns. The objective of this book is to provide computer scientists and domain experts such as life scientists with a set of tools in analyzing and understanding the nature of various sequences by: (1) identifying the specific model(s) of sequential patterns that are most suitable, and (2) providing an efficient algorithm for mining these patterns. Chapter 1 INTRODUCTION Data Mining is the process of extracting implicit knowledge and discovery of interesting characteristics and patterns that are not explicitly represented in the databases. The techniques can play an important role in understanding data and in capturing intrinsic relationships among data instances. Data mining has been an active research area in the past decade and has been proved to be very useful.

Advances in Intelligent Information Systems Sep 17 2022 Intelligent Information Systems (IIS) can be defined as the next generation of Information Systems (IS) developed as a result of integration of AI and database (DB) technologies. IIS embody knowledge that allows them to exhibit intelligent behavior, allows them to cooperate with users and other systems in problem solving, discovery, retrieval, and manipulation of data and knowledge. For any IIS to serve its purpose, the information must be available when it is needed. This means that the computing systems used to store data and process the information, and the security controls used to protect it must be functioning correctly. This book covers some of the above topics and it is divided into four sections: Classification, Approximation and Data Security, Knowledge Management, and Application of IIS to medical and music domains.

Recent Advances in Numerical Methods and Applications II Jan 17 2020 This volume contains the proceedings of the 4th International Conference on Numerical Methods and Applications. The major topics covered include: general finite difference, finite volume, finite element and boundary element methods, general numerical linear algebra and parallel computations, numerical methods for nonlinear problems and multiscale methods, multigrid and domain decomposition methods, CFD computations, mathematical modeling in structural mechanics, and environmental and engineering applications. The volume reflects the current research trends in the specified areas of numerical methods and their applications. Contents: Computational Issues in Large Scale Eigenvalue Problems Combustion Modeling in Industrial Furnaces Monte Carlo Methods Multilevel Methods for Incompressible Viscous Flows Approximation of Nonlinear and Functional PDEs Solving Linear Systems with Error Control Regular Numerical Methods for Inverse and Ill-Posed Problems Multifield Problems Parallel and Distributed Numerical Computing with Applications Parameter-Robust Numerical Methods for Singularly Perturbed and Convection-Dominated Problems Finite Difference Methods Finite Element Methods Finite Volume Methods Boundary Element Methods Numerical Linear Algebra Numerical Methods for Nonlinear Problems Numerical Methods for Multiscale Problems Multigrid and Domain Decomposition Computational Fluid Dynamics Mathematical Modelling in Structural Mechanics Environmental Modelling Engineering Applications Readership: Researchers in applied mathematics and computational physics. Keywords: Numerical Methods and Applications; General Finite Difference; General Numerical Linear Algebra; Parallel Computations; Nonlinear Problems and Multiscale Methods

Advances in Algebra Apr 12 2022 This proceedings volume covers a range of research topics in algebra from the Southern Regional Algebra Conference (SRAC) that took place in March 2017. Presenting theory as well as computational methods, featured survey articles and research papers focus on ongoing research in algebraic geometry, ring theory, group theory, and associative algebras. Topics include algebraic groups, combinatorial commutative algebra, computational methods for representations of groups and algebras, group theory, Hopf-Galois theory, hypergroups, Lie superalgebras, matrix analysis, spherical and algebraic spaces, and tropical algebraic geometry. Since 1988, SRAC has been an important event for the algebra research community in the Gulf Coast Region and surrounding states, building a strong network of algebraists that fosters collaboration in research and education. This volume is suitable for graduate students and researchers interested in recent findings in computational and theoretical methods in algebra and representation theory.

Recent Advances in Fuzzy Sets Theory, Fractional Calculus, Dynamic Systems and Optimization Jan 21 2023 We describe in this book recent advances in fuzzy sets theory, fractional calculus, dynamic systems, and optimization. The book provides a setting for the discussion of recent developments in a wide variety of topics including partial differential equations, dynamic systems, optimization, numerical analysis, fuzzy sets theory, fractional calculus, and its applications. The book is aimed at bringing together contributions from leading academic scientists, researchers, and research scholars to exchange and share their experiences and research results on all aspects of applied mathematics, modeling, algebra, economics, finance, and applications. It also provides an interdisciplinary platform for researchers, practitioners, and educators to present the most recent innovations, trends, and concerns as well as practical challenges encountered and solutions adopted in the fields of applied mathematics. The published chapters address various aspects of academic scientists, researchers, and research scholars in many variety mathematical topics.

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