Generalised Bi Ideals In Ordered Ternary Semigroups | ba8ed07bc5a4797df5de42e074e4369b

Fuzzy Sets and Operations ResearchNeutrosophic Set Approach to Algebraic StructuresFuzzy Abel Grassmann GroupoidsPorth: Pathophysiology 8th Ed + Bruyere: 100 Case Studies in PathophysiologyAlgebra, Geometry, Analysis and their ApplicationsNeutrosophic Set Approach for Characterizations of Left Almost SemigroupsApplications of Hyperstructure TheoryThe Elements of MechanicsGeneralized Principal Component AnalysisFuzzy Information and Engineering and DecisionA Short Course on Topological InsulatorsThe Journal of Fuzzy MathematicsDutch Book ArgumentsWaves in Oceanic and Coastal WatersMaking Choices in HealthModeling Ordered ChoicesFuzzy Information and EngineeringRegression Modeling StrategiesGraph Theory with ApplicationsSemihypergroup TheoryStatistical Learning with SparsityFuzzy Automata and LanguagesA Concise Course in Algebraic TopologyLectures on the Poisson ProcessAlgebraic Theory of SemigroupsNotes on Lie AlgebrasIssues in Artificial Intelligence, Robotics and Machine Learning: 2013 EditionMultiple-Criteria Decision-Making (MCDM) Techniques for Business Processes Information ManagementBandit AlgorithmsFoundations of Module and Ring TheoryAlgebra and its ApplicationsGeneralized Additive ModelsAlgebraic and Geometric SurgeryFuzzy and Neutrosophic Sets in SemigroupsModular Forms, a Computational ApproachFuzzy SemigroupsMetaheuristics for Bi-level OptimizationNeanderthal Lifeways, Subsistence and TechnologyMathematical ReviewsPure Mathematics and Applications

Fuzzy Sets and Operations Research

Lotfi Zadeh introduced the notion of a fuzzy subset of a set in 1965. Ris seminal paper has opened up new insights and applications in a wide range of scientific fields. Azriel Rosenfeld used the notion of a fuzzy subset to put forth cornerstone papers in several areas of mathematics, among other discplines. Rosenfeld is the father of fuzzy abstract algebra. Kuroki is re sponsible for much of fuzzy ideal theory of semigroups. Others who worked on fuzzy semigroup theory, such as Xie, are mentioned in the bibliogra phy. The purpose of this book is to present an up to date account of fuzzy subsemigroups and fuzzy ideals of a semigroup. We concentrate mainly on theoretical aspects, but we do include applications. The applications are in the areas of fuzzy coding theory, fuzzy finite state machines, and fuzzy languages. An extensive account of fuzzy automata and fuzzy languages is given in [100]. Consequently, we only consider results in these areas that have not appeared in [100] and that pertain to semigroups. In Chapter 1, we review some basic results on fuzzy subsets, semigroups, codes, finite state machines, and languages. The purpose of this chapter is to present basic results that are needed in the remainder of the book. In Chapter 2, we introduce certain fuzzy ideals of a semigroup, namely, fuzzy two-sided ideals, fuzzy bi-ideals, fuzzy interior ideals, fuzzy quasi ideals, and fuzzy generalized bi-ideals.

Neutrosophic Set Approach to Algebraic Structures

Fuzzy Abel Grassmann Groupoids

A comprehensive and rigorous introduction for graduate students and researchers, with applications in sequential decision-making problems.

Porth: Pathophysiology 8th Ed + Bruyere: 100 Case Studies in Pathophysiology

Issues in Artificial Intelligence, Robotics and Machine Learning: 2013 Edition is a ScholarlyEditions™ book that delivers timely, authoritative, and comprehensive information about Expert Systems. The editors have built Issues in Artificial Intelligence, Robotics and Machine Learning: 2013 Edition on the vast information databases of ScholarlyNews.™ You can expect the information about Expert Systems in this book to be deeper than what you can access anywhere else, as well as consistently reliable, authoritative, informed, and relevant. The content of Issues in Artificial Intelligence, Robotics and Machine Learning: 2013 Edition has been produced by the world's leading scientists, engineers, analysts, research institutions, and companies. All of the content is from peer-reviewed sources, and all of it is written, assembled, and edited by the editors at ScholarlyEditions™ and available exclusively from us. You now have a source you can cite with authority, confidence, and credibility. More information is available at http://www.ScholarlyEditions.com/.

Algebra, Geometry, Analysis and their Applications

The word "elements" in the title of this book does not convey the implica tion that its contents are "elementary" in the sense of "easy": it mainly means that no prerequisites are required, with the exception of some basic background in classical physics and calculus. It also signifies "devoted to the foundations". In fact, the arguments chosen are all very classical, and the formal or technical developments of this century are absent, as well as a detailed treatment of such problems as the theory of the planetary motions and other very concrete mechanical problems. This second meaning, however, is the result of the necessity of finishing this work in a reasonable amount of time rather than an a priori choice. Therefore a detailed review of the "few" results of ergodic theory, of the "many" results of statistical mechanics, of the classical theory of fields (elasticity and waves), and of quantum mechanics are also totally absent; they could constitute the subject of two additional volumes on mechanics. This book grew out of several courses on meccanica razionaie, i.e., essentially, theoretical mechanics, which I gave at the University of Rome during the years 1975-1978.

Neutrosophic Set Approach for Characterizations of Left Almost Semigroups

This book is an introduction to surgery theory: the standard classification method for high-dimensional manifolds. It is aimed at graduate students, who have already had a basic topology course, and would now like to understand the topology of high-dimensional manifolds. This text contains entry-level accounts of the various prerequisites of both algebra and topology, including basic homotopy and homology, Poincare duality, bundles, co-bordism, embeddings, immersions, Whitehead torsion, Poincare complexes, spherical fibrations and quadratic forms and formations. While concentrating on the basic mechanics of surgery, this book includes many worked examples, useful drawings for illustration of the algebra and references for further reading.

Applications of Hyperstructure Theory

The Elements of Mechanics

A modern introduction to the Poisson process, with general point processes and random measures, and applications to stochastic geometry.

Generalized Principal Component Analysis

Our beliefs come in degrees. I'm 70% confident it will rain tomorrow, and 0.001% sure my lottery ticket will win. What's more, we think these degrees of belief should abide by certain principles if they are

to be rational. For instance, you shouldn't believe that a person's taller than 6ft more strongly than you believe that they're taller than 5ft, since the former entails the latter. In Dutch Book arguments, we try to establish the principles of rationality for degrees of belief by appealing to their role in guiding decisions. In particular, we show that degrees of belief that don't satisfy the principles will always guide action in some way that is bad or undesirable. In this Element, we present Dutch Book arguments for the principles of Probabilism, Conditionalization, and the Reflection Principle, among others, and we formulate and consider the most serious objections to them.

Fuzzy Information and Engineering and Decision

Semihypergroup Theory is the first book devoted to the semihypergroup theory and it includes basic results concerning semigroup theory and algebraic hyperstructures, which represent the most general algebraic context in which reality can be modelled. Hyperstructures represent a natural extension of classical algebraic structures and they were introduced in 1934 by the French mathematician Marty. Since then, hundreds of papers have been published on this subject. Offers the first book devoted to the semihypergroup theory Presents an introduction to recent progress in the theory of semihypergroups Covers most of the mathematical ideas and techniques required in the study of semihypergroups Employs the notion of fundamental relations to connect semihypergroups to semigroups

A Short Course on Topological Insulators

The first edition of this book has established itself as one of the leading references on generalized additive models (GAMs), and the only book on the topic to be introductory in nature with a wealth of practical examples and software implementation. It is self-contained, providing the necessary background in linear models, linear mixed models, and generalized linear models (GLMs), before presenting a balanced treatment of the theory and applications of GAMs and related models. The author bases his approach on a framework of penalized regression splines, and while firmly focused on the practical aspects of GAMs, discussions include fairly full explanations of the theory underlying the methods. Use of R software helps explain the theory and illustrates the practical application of the methodology. Each chapter contains an extensive set of exercises, with solutions in an appendix or in the book's R data package gamair, to enable use as a course text or for self-study. Simon N. Wood is a professor of Statistical Science at the University of Bristol, UK, and author of the R package mgcv.

The Journal of Fuzzy Mathematics

This book presents some of the numerous applications of hyperstructures, especially those that were found and studied in the last fifteen years. There are applications to the following subjects: 1) geometry; 2) hypergraphs; 3) binary relations; 4) lattices; 5) fuzzy sets and rough sets; 6) automata; 7) cryptography; 8) median algebras, relation algebras; 9) combinatorics; 10) codes; 11) artificial intelligence; 12) probabilities. Audience: Graduate students and researchers.

Dutch Book Arguments

The huge number and broad range of the existing and potential applications of fuzzy logic have precipitated a veritable avalanche of books published on the subject. Most, however, focus on particular areas of application. Many do no more than scratch the surface of the theory that holds the power and promise of fuzzy logic. Fuzzy Automata and Languages: Theory and Applications offers the first in-depth treatment of the theory and mathematics of fuzzy automata and fuzzy languages. After introducing background material, the authors study max-min machines and max-product machines, developing their respective algebras and exploring properties such as equivalences, homomorphisms, irreducibility, and minimality. The focus then turns to fuzzy context-free grammars and languages, with special attention to trees, fuzzy dendrolanguage generating systems, and normal forms. A treatment of algebraic fuzzy automata theory follows, along with additional results on fuzzy languages, minimization of fuzzy automata, and recognition of fuzzy languages. Although the book is theoretical in nature, the authors also discuss applications in a variety of fields, including databases, medicine, learning systems, and pattern recognition. Much of the information on fuzzy languages is new and never before presented in book form. Fuzzy Automata and Languages incorporates virtually all of the important material published thus far. It stands alone as a complete reference on the subject and belongs on the shelves of anyone interested in fuzzy mathematics or its applications.

Waves in Oceanic and Coastal Waters

In this paper we have defined neutrosophic ideals, neutrosophic interior ideals, netrosophic quasi-ideals and neutrosophic bi-ideals (neutrosophic generalized bi-ideals) and proved some results related to them.

Making Choices in Health

Algebraic topology is a basic part of modern mathematics, and some knowledge of this area is indispensable for any advanced work relating to geometry, including topology itself, differential geometry, algebraic geometry, and Lie groups. This book provides a detailed treatment of algebraic topology both for teachers of the subject and for advanced graduate students in mathematics either specializing in this area or continuing on to other fields. J. Peter May's approach reflects the enormous internal developments within algebraic topology over the past several decades, most of which are largely unknown to mathematicians in other fields. But he also retains the classical presentations of various topics where appropriate. Most chapters end with problems that further explore and refine the concepts presented. The final four chapters provide sketches of substantial areas of algebraic topology that are normally omitted from introductory texts, and the book concludes with a list of suggested readings for those interested in delving further into the field.

Modeling Ordered Choices

The Second International Conference on Fuzzy Information and Engineering (ICFIE2007) is a major symposium for scientists, engineers and practitioners in China as well as the world to present their latest results, ideas, developments and applications in all areas of fuzzy information and knowledge engineering. It aims to strengthen relations between industry research laboratories and universities, and to create a primary symposium for world scientists.

Fuzzy Information and Engineering

"The Guide, in Part I, begins with a brief description of generalized CEA and how it relates to the two questions raised above. It then considers issues relating to study design, estimating costs, assessing health effects, discounting, uncertainty and sensitivity analysis, and reporting results. Detailed discussions of selected technical issues and applications are provided in a series of background papers, originally published in journals, but included in this book for easy reference in Part II." (from the back cover).

Regression Modeling Strategies

The articles appeared in this book have been contributed by well-known mathematician and scientists projecting the modern development in the subject. This book covers the following topics Geometry Algebra Functional Analysis Fuzzy Topology Complex Analysis TribologyPostgraduates and researchers working in the areas of mathematics and mathematical sciences will find this book to be of immense value.

Graph Theory with Applications

Semihypergroup Theory

This book discusses recent developments and the latest research in algebra and related topics. The book allows aspiring researchers to update their understanding of prime rings, generalized derivations, generalized semiderivations, regular semigroups, completely simple semigroups, module hulls, injective hulls, Baer modules, extending modules, local cohomology modules, orthogonal lattices, Banach algebras, multilinear polynomials, fuzzy ideals, Laurent power series, and Hilbert functions. All the contributing authors are leading international academicians and researchers in their respective fields. Most of the papers were presented at the international conference on Algebra and its Applications (ICAA-2014), held at Aligarh Muslim University, India, from December 15–17, 2014. The book also includes papers from mathematicians who couldn't attend the conference. The conference has emerged as a powerful forum offering researchers a venue to meet and discuss advances in algebra and its applications, inspiring further research directions.

Statistical Learning with Sparsity

This course-based primer provides newcomers to the field with a concise introduction to some of the core topics in the emerging field of topological insulators. The aim is to provide a basic understanding of edge states, bulk topological invariants, and of the bulk--boundary correspondence with as simple mathematical tools as possible. The present approach uses noninteracting lattice models of topological insulators, building gradually on these to arrive from the simplest one-dimensional case (the Su-Schrieffer-Heeger model for polyacetylene) to two-dimensional time-reversal invariant topological insulators (the Bernevig-Hughes-Zhang model for HgTe). In each case the discussion of simple toy models is followed by the formulation of the general arguments regarding topological insulators. The only prerequisite for the reader is a working knowledge in quantum mechanics, the relevant solid state physics background is provided as part of this self-contained text, which is complemented by end-of-chapter problems.

Fuzzy Automata and Languages

Many texts are excellent sources of knowledge about individual statistical tools, but the art of data analysis is about choosing and using multiple tools. Instead of presenting isolated techniques, this text emphasizes problem solving strategies that address the many issues arising when developing multivariable models using real data and not standard textbook examples. It includes imputation methods for dealing with missing data effectively, methods for dealing with nonlinear relationships and for making the estimation of transformations a formal part of the modeling process, methods for dealing with "too many variables to analyze and not enough observations," and powerful model validation techniques based on the bootstrap. This text realistically deals with model uncertainty and its effects on inference to achieve "safe data mining".

A Concise Course in Algebraic Topology

This marvellous and highly original book fills a significant gap in the extensive literature on classical modular forms. This is not just yet another introductory text to this theory, though it could certainly be used as such in conjunction with more traditional treatments. Its novelty lies in its computational emphasis throughout: Stein not only defines what modular forms are, but shows in illuminating detail how one can compute everything about them in practice. This is illustrated throughout the book with examples from his own (entirely free) software package SAGE, which really bring the subject to life while not detracting in any way from its theoretical beauty. The author is the leading expert in computations with modular forms, and what he says on this subject is all tried and tested and based on his extensive experience. As well as being an invaluable companion to those learning the theory in a more traditional way, this book will be a great help to those who wish to use modular forms in applications, such as in the explicit solution of Diophantine equations. There is also a useful Appendix by Gunnells on extensions to more general modular forms, which has enough in it to inspire many PhD theses for years to come. While the book's main readership will be graduate students in number theory, it will also be accessible to advanced undergraduates and useful to both specialists and non-specialists in number theory. --John E. Cremona, University of Nottingham William Stein is an associate professor of mathematics at the University of Washington at Seattle. He earned a PhD in mathematics from UC Berkeley and has held positions at Harvard University and UC San Diego. His current research interests lie in modular forms, elliptic curves, and computational mathematics.

Lectures on the Poisson Process

Algebraic Theory of Semigroups

The 150th anniversary of the discovery of the famous Neanderthal fossils gave reason for an international and interdisciplinary symposium in Bonn/Germany. The present book arose from this congress and focuses on multiple aspects of archaeological investigation on Neanderthal lifeways. In-depth studies of top-ranking scientists provide a detailed and comprehensive survey of contemporary research on our Pleistocene relatives. Examinations and debates are embedded in a variety of regions and time frames. Chronology, subsistence, land use, and cultural adaptations among late Neanderthals form the major trajectories of the book. The wide range of approaches involved, leads to an increasing understanding of the facets and the variability of Neanderthal behavioural patterns. The present volume is complemented by a paleontologically orientated publication of the same congress (edited by Gerd-Christian Weniger and Silvana Condemi).

Notes on Lie Algebras

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.

Issues in Artificial Intelligence, Robotics and Machine Learning: 2013 Edition

Information management is a common paradigm in modern decision-making. A wide range of decision-making techniques have been proposed in the literature to model complex business and engineering processes. In this Special Issue, 16 selected and peer-reviewed original research articles contribute to business information management in various current real-world problems by proposing crisp or uncertain multiple-criteria decision-making (MCDM) models and techniques, mostly including multi-attribute decision-making (MADM) approaches, in addition to a single paper proposing an interactive multi-objective decision-making (MODM) approach. Particular attention is devoted to information aggregation operators—65% of papers dealt with this item. The topics of this Special Issue gained attention in Europe and Asia. A total of 48 authors from seven countries contributed to this Issue. The papers are mainly concentrated in three application areas: supplier selection and rational order allocation, the evaluation and selection of goods or facilities, and personnel selection/partner selection. A number of new approaches are proposed that are expected to attract great interest from the research community.

Multiple-Criteria Decision-Making (MCDM) Techniques for Business Processes Information Management

Bandit Algorithms

This book introduces applications of mathematics and fuzzy mathematics in decision science, fuzzy geometric programming and fuzzy optimization as well as operations research and management, based on 44 research papers presented at three successful conferences: (1) The International Conference on Mathematics and Decision Science (ICMDS), September 12–15, 2016, Guangzhou University, Guangzhou, China (www.icodm2020.com). (2) Academic Conference on 30th Anniversary of Fuzzy Geometric Programming Advanced by Professor Cao Bingyuan and his 40 education years (ACFGPACE), July 30 to August 1, 2016, Guangzhou University, Guangzhou, China. (3) The third annual meeting of Guangdong Operational Research Society (TAMGORS), October 22–23, 2016, Foshan University, Guangdong, China. The book is a valuable resource for students, graduates, teachers and other professionals in the field of applied mathematics, artificial intelligence and computers, fuzzy systems and dec ision-making, as well as operations research and management.

Foundations of Module and Ring Theory

Discover New Methods for Dealing with High-Dimensional Data A sparse statistical model has only a small number of nonzero parameters or weights; therefore, it is much easier to estimate and interpret than a dense model. Statistical Learning with Sparsity: The Lasso and Generalizations presents methods that exploit sparsity to help recover the underlying signal in a set of data. Top experts in this rapidly evolving field, the authors describe the lasso for linear regression and a simple coordinate descent algorithm for its computation. They discuss the application of l1 penalties to generalized linear models and support vector machines, cover generalized penalties such as the elastic net and group lasso, and review numerical methods for optimization. They also present statistical inference methods for fitted (lasso) models, including the bootstrap, Bayesian methods, and recently developed approaches. In addition, the book examines matrix decomposition, sparse multivariate analysis, graphical models, and compressed sensing. It concludes with a survey of theoretical results for the lasso. In this age of big data, the number of features measured on a person or object can be large and might be larger than the number of observations. This book shows how the sparsity assumption allows us to tackle these problems and extract useful and reproducible patterns from big datasets. Data analysts, computer scientists, and theorists will appreciate this thorough and up-to-date treatment of sparse statistical modeling.

Algebra and its Applications

(Cartan sub Lie algebra, roots, Weyl group, Dynkin diagram, . . .) and the classification, as found by Killing and Cartan (the list of all semisimple Lie algebras consists of (1) the special- linear ones, i. e. all matrices (of any fixed dimension) with trace 0, (2) the orthogonal ones, i. e. all skewsymmetric ma trices (of any fixed dimension), (3) the symplectic ones, i. e. all matrices M (of any fixed even dimension) that satisfy M J = - J MT with a certain non-degenerate skewsymmetric matrix J, and (4) five special Lie algebras G2, F , E , E , E , of dimensions 14,52,78,133,248, the "exceptional Lie 4 6 7 s algebras" , that just somehow appear in the process). There is also a discus sion of the compact form and other real forms of a (complex) semisimple Lie algebra, and a section on automorphisms. The third chapter brings the theory of the finite dimensional representations of a semisimple Lie alge bra, with the highest or extreme weight as central notion. The proof for the existence of representations is an ad hoc version of the present standard proof, but avoids explicit use of the Poincare-Birkhoff-Witt theorem. Complete reducibility is proved, as usual, with J. H. C. Whitehead's proof (the first proof, by H. Weyl, was analytical-topological and used the exis tence of a compact form of the group in question). Then come H.

Generalized Additive Models

The topics discussed in this book are Int-soft semigroup, Int-soft left (right) ideal, Int-soft (generalized) bi-ideal, Int-soft quasi-ideal, Int-soft interior ideal, Int-soft left (right) duo semigroup, starshaped (∈, ∈∨ qk)-fuzzy set, quasi-starshaped (∈, ∈∨ qk)-fuzzy set, semidetached mapping, semidetached semigroup, (∈, ∈ ∨qk)-fuzzy subsemi-group, (qk, ∈ ∨qk)-fuzzy subsemigroup, (∈, ∈ ∨ qk)-fuzzy subsemigroup, (qk, ∈ ∨ qk)-fuzzy subsemigroup, (∈ ∨ qk, ∈ ∨ qk)-fuzzy subsemigroup, (∈, ∈∨ qkδ)-fuzzy subsemigroup, ∈∨ qkδ -level subsemigroup/bi-ideal, (∈, ∈∨ qkδ)-fuzzy (generalized) bi-ideal, δ-lower (δ-upper) approximation of fuzzy set, δ-lower (δ-upper) rough fuzzy subsemigroup, δ-rough fuzzy subsemigroup, Neutrosophic N -structure, neutrosophic N -subsemigroup, ε-neutrosophic N -subsemigroup, and neutrosophic N -product.

Algebraic and Geometric Surgery

Waves in Oceanic and Coastal Waters describes the observation, analysis and prediction of wind-generated waves in the open ocean, in shelf seas, and in coastal regions with islands, channels, tidal flats and inlets, estuaries, fjords and lagoons. Most of this richly illustrated book is devoted to the physical aspects of waves. After introducing observation techniques for waves, both at sea and from space, the book defines the parameters that characterise waves. Using basic statistical and physical concepts, the author discusses the prediction of waves in oceanic and coastal waters, first in terms of generalised observations, and then in terms of the more theoretical framework of the spectral energy balance. He gives the results of established theories and also the direction in which research is developing. The book ends with a description of SWAN (Simulating Waves Nearshore), the preferred computer model of the engineering community for predicting waves in coastal waters.

Fuzzy and Neutrosophic Sets in Semigroups

This book provides a comprehensive introduction to the latest advances in the mathematical theory and computational tools for modeling high-dimensional data drawn from one or multiple low-dimensional subspaces (or manifolds) and potentially corrupted by noise, gross errors, or outliers. This challenging task requires the development of new algebraic, geometric, statistical, and computational methods for efficient and robust estimation and segmentation of one or multiple subspaces. The book also presents interesting real-world applications of these new methods in image processing, image and video segmentation, face recognition and clustering, and hybrid system identification etc. This book is intended to serve as a textbook for graduate students and beginning researchers in data science, machine learning, computer vision, image and signal processing, and systems theory. It contains ample illustrations, examples, and exercises and is made largely self-contained with three Appendices which survey

basic concepts and principles from statistics, optimization, and algebraic-geometry used in this book. René Vidal is a Professor of Biomedical Engineering and Director of the Vision Dynamics and Learning Lab at The Johns Hopkins University. Yi Ma is Executive Dean and Professor at the School of Information Science and Technology at ShanghaiTech University. S. Shankar Sastry is Dean of the College of Engineering, Professor of Electrical Engineering and Computer Science and Professor of Bioengineering at the University of California, Berkeley.

Modular Forms, a Computational Approach

This book provides a complete background on metaheuristics to solve complex bi-level optimization problems (continuous/discrete, mono-objective/multi-objective) in a diverse range of application domains. Readers learn to solve large scale bi-level optimization problems by efficiently combining metaheuristics with complementary metaheuristics and mathematical programming approaches. Numerous real-world examples of problems demonstrate how metaheuristics are applied in such fields as networks, logistics and transportation, engineering design, finance and security.

Fuzzy Semigroups

Metaheuristics for Bi-level Optimization

Neanderthal Lifeways, Subsistence and Technology

This volume provides a comprehensive introduction to module theory and the related part of ring theory, including original results as well as the most recent work. It is a useful and stimulating study for those new to the subject as well as for researchers and serves as a reference volume. Starting form a basic understanding of linear algebra, the theory is presented and accompanied by complete proofs. For a module M, the smallest Grothendieck category containing it is denoted by o[M] and module theory is developed in this category. Developing the techniques in o[M] is no more complicated than in full module categories and the higher generality yields significant advantages: for example, module theory may be developed for rings without units and also for non-associative rings. Numerous exercises are included in this volume to give further insight into the topics covered and to draw attention to related results in the literature.

Mathematical Reviews

It is increasingly common for analysts to seek out the opinions of individuals and organizations using attitudinal scales such as degree of satisfaction or importance attached to an issue. Examples include levels of obesity, seriousness of a health condition, attitudes towards service levels, opinions on products, voting intentions, and the degree of clarity of contracts. Ordered choice models provide a relevant methodology for capturing the sources of influence that explain the choice made amongst a set of ordered alternatives. The methods have evolved to a level of sophistication that can allow for heterogeneity in the threshold parameters, in the explanatory variables (through random parameters), and in the decomposition of the residual variance. This book brings together contributions in ordered choice modeling from a number of disciplines, synthesizing developments over the last fifty years, and suggests useful extensions to account for the wide range of sources of influence on choice.

Pure Mathematics and Applications

Copyright code : ba8ed07bc5a4797df5de42e074e4369b