

A Unified Approach To The Diffusion Of Innovations In

Mental disorders arise from neural and psychological mechanisms that have been built and shaped by natural selection across our evolutionary history. Looking at psychopathology through the lens of evolution is the only way to understand the deeper nature of mental disorders and turn a mass of behavioral, genetic, and neurobiological findings into a coherent, theoretically grounded discipline. The rise of evolutionary psychopathology is part of an exciting scientific movement in psychology and medicine -- a movement that is fundamentally transforming the way we think about health and disease. Evolutionary Psychopathology takes steps toward a unified approach to psychopathology, using the concepts of life history theory -- a biological account of how individual differences in development, physiology and behavior arise from tradeoffs in survival and reproduction -- to build an integrative framework for mental disorders. This book reviews existing evolutionary models of specific conditions and connects them in a broader perspective, with the goal of explaining the large-scale patterns of risk and comorbidity that characterize psychopathology. Using the life history framework allows for a seamless integration of mental disorders with normative individual differences in personality and cognition, and offers new conceptual tools for the analysis of developmental, genetic, and neurobiological data. The concepts presented in Evolutionary Psychopathology are used to derive a new taxonomy of mental disorders, the Fast-Slow-Defense (FSD) model. The FSD model is the first classification system explicitly based on evolutionary concepts, a biologically grounded alternative to transdiagnostic models. The book reviews a wide range of common mental disorders, discusses their classification in the FSD model, and identifies functional subtypes within existing diagnostic categories.

Starting with the useful concept of an elementary integral defined (axiomatically) on a family of elementary functions, this treatment examines the general theory of the integral, Lebesgue integral in n space, the Riemann-Stieltjes integral, and more. "The exposition is fresh and sophisticated, and will engage the interest of accomplished mathematicians." – Sci-Tech Book News. 1966 edition.

Very Good,No Highlights or Markup,all pages are intact.

Rubinstein is the pioneer of the well-known score function and cross-entropy methods. Accessible to a broad audience of engineers, computer scientists, mathematicians, statisticians and in general anyone, theorist and practitioner, who is interested in smart simulation, fast optimization,

learning algorithms, and image processing.

Variational Methods in Mathematical Physics

Large Scale Linear and Integer Optimization: A Unified Approach

Quantum Chemistry

A Unified Approach to Measuring Poverty and Inequality

A Unified Approach to Combinatorial Optimization, Monte-Carlo Simulation and Machine Learning

Transient Stability of Power Systems

The market liberalization is expected to affect drastically the operation of power systems, which under economical pressure and increasing amount of transactions are being operated much closer to their limits than previously. These changes put the system operators faced with rather different and much more problematic scenarios than in the past. They have now to calculate available transfer capabilities and manage congestion problems in a near on line environment, while operating the transmission system under extremely stressed conditions. This requires highly reliable and efficient software aids, which today are non-existent, or not yet in use. One of the most problematic issues, very much needed but not yet en countered today, is on-line dynamic security assessment and control, enabling the power system to withstand unexpected contingencies without experiencing voltage or transient instabilities. This monograph is devoted to a unified approach to transient stability assessment and control, called Single Machine Equivalent (SIME).

The approach taken in this book is, to studies monitored over time, what the Central Limit Theorem is to studies with only one analysis. Just as the Central Limit Theorem shows that test statistics involving very different types of clinical trial outcomes are asymptotically normal, this book shows that the joint distribution of the test statistics at different analysis times is asymptotically multivariate normal with the correlation structure of Brownian motion (the "B-value") - irrespective of the test statistic. Thus, this book offers statisticians an accessible, incremental approach to understanding Brownian motion as related to clinical trials.

This book is a presentation of a qualitative theory of chemical bonding, stressing the physical processes which occur on bond formation. It differs from most (if not all) other books in that it does not seek to "rationalise" the phenomena of bonding by a series of mnemonic rules. A principal feature is a unified and consistent treatment across all types of bonding in organic, inorganic, and physical chemistry. Each chapter has an Assignment Section containing "problems" which might be usefully attempted to improve the understanding of the new material in that chapter. The new edition has had several appendices added which give support to concepts which, if included in the main text, would have hindered the main thrust of the presentation. These new appendices are an attempt to clarify oversights and errors which have been tacitly ignored and which have now become part of the conventional wisdom.

This book presents a unified approach to the analysis of structures by combining classical and matrix method of analysis. It is designed to provide a thorough understanding of the basic concepts of structural analysis and to develop intuitive perception in students.

1. Fundamentals

A Unified Approach - Its Principles, Assessment, Control and Mitigation

The Cross-Entropy Method

Algorithms Sequential & Parallel: A Unified Approach

A Unified Approach

Legal Drafting by Design

A Unified Approach to the Finite Element Method and Error Analysis Procedures provides an in-depth background to better understanding of finite element results and techniques for improving accuracy of finite element methods. Thus, the reader is able to identify and eliminate errors contained in finite element models. Three different error analysis techniques are systematically developed from a common theoretical foundation: 1) modeling errors in individual elements; 2) discretization errors in the overall model; 3) point-wise errors in the final stress or strain results. Thoroughly class tested with undergraduate and graduate students. A Unified Approach to the Finite Element Method and Error Analysis Procedures is sure to become an essential resource for students as well as practicing engineers and researchers. New, simpler element formulation techniques, model-independent results, and error measures New polynomial-based methods for identifying critical points New procedures for evaluating shear/strain accuracy Accessible to undergraduates, insightful to researchers, and useful to practitioners Taylor series (polynomial) based Intuitive elemental and point-wise error measures Essential background information provided in 12 appendices

Philosophy of Science: A Unified Approach combines a general introduction to philosophy of science with an integrated survey of all its important subfields. As the book's subtitle suggests, this excellent overview is guided methodologically by "a unified approach" to philosophy of science: behind the diversity of scientific fields one can recognize a methodological unity of the sciences. This unity is worked out in this book, revealing all the while important differences between subject areas. Structurally, this comprehensive book offers a two-part approach, which makes it an excellent introduction for students new to the field and a useful resource for more advanced students. Each chapter is divided into two sections. The first section assumes no foreknowledge of the subject introduced, and the second section builds upon the first by bringing into the conversation more advanced, complementary topics. Definitions, key propositions, examples and figures overview all of the core material. At the end of every chapter there are selected readings and exercises (with solutions at the end of the book). The book also includes a comprehensive bibliography and an index.

This book is an introduction to the theory and practice of poverty measurement. On completing this book you will be able to perform sophisticated analyses of income or consumption distribution for any standard household dataset using the ADePT program (a free download from the World Bank s website).

This book focuses on management in school administration. It explains that school administrators play a vital role in the success of a school. Therefore, it is of the utmost importance that these leaders and future school leaders understand how to be integrative thinkers. It has been proven that integrative thinkers are more effective leaders and effective leaders create successful work environments. Further it elaborates on school-based management which involves the formal change in the structures of school governance that leads to a more democratic administrative approach in which planning and decision making are devolved to the individual school and role of principal where the conceptual notion at work here is that of creating a bridge between the performance field and a practice field. It also emphasizes on superintendent preparation and training school leadership preparation etc.

Vector Calculus, Linear Algebra, and Differential Forms

Structural Mechanics

Evolutionary Computation

System Dynamics

Information Transmission, Modulation, and Noise

A Unified Approach to Boundary Value Problems

This is a textbook about linear and integer linear optimization. There is a growing need in industries such as airline, trucking, and financial engineering to solve very large linear and integer linear optimization problems. Building these models requires uniquely trained individuals. Not only must they have a thorough understanding of the theory behind mathematical programming, they must have substantial knowledge of how to solve very large models in today's computing environment. The major goal of the book is to develop the theory of linear and integer linear optimization in a unified manner and then demonstrate how to use this theory in a modern computing environment to solve very large real world problems. After presenting introductory material in Part I, Part II of this book is devoted to the theory of linear and integer linear optimization. This theory is developed using two simple, but unifying ideas: projection and inverse projection. Through projection we take a system of linear inequalities and replace some of the variables with additional linear inequalities. Inverse projection, the dual of this process, involves replacing linear inequalities with additional variables. Fundamental results such as weak and strong duality, theorems of the alternative, complementary slackness, sensitivity analysis, finite basis the orem, etc. are all explained using projection or inverse projection. Indeed, a unique feature of this book is that these fundamental results are developed and explained before the simplex and interior point algorithms are presented.

Designed to provide engineers with quick access to current and practical information on the dynamics of structure and foundation, this unique work, consisting of two separately available volumes, serves as a complete reference, especially for those involved with earthquake or dynamic analysis, or the design of machine foundations in the oil, gas, a

This lively text offers a unique, holistic approach to human diversity for undergraduate courses in fields including anthropology, medicine, human ecology, and general education. Leading medical anthropologist Elisa Sobo rises to the challenge of truly integrating biology and culture. Her inviting writing style and fascinating examples make important new ideas from complexity theory and epigenetics accessible to undergraduates from all disciplines, regardless of academic background. Students learn to conceptualize human biology and culture concurrently—as an adaptive biocultural capacity that has helped to produce the rich range of human diversity seen today. With clearly structured topics, an extensive glossary and suggestions for further reading, this text makes a complex, interdisciplinary topic a joy to teach.

"Through investigations of real-life contexts, students develop a rich understanding of important mathematics that makes sense to them and which, in turn, enables them to make sense out of new situations and problems."--Page 1.

Transport Phenomena

The Study of Society

Philosophy of Science

A Unified Approach to Assessment and Control

Educational Management

Principles of Wireless Networks

A classic treatise that defined the field of applied demand analysis. Consumer Demand in the United States: Prices, Income, and Consumption Behavior is now fully updated and expanded for a new generation. Consumption expenditures by households in the United States account for about 70% of America's GDP. The primary focus in this book is on how households adjust these expenditures in response to changes in price and income. Econometric estimates of price and income elasticities are obtained for an exhaustive array of goods and services using data from surveys conducted by the Bureau of Labor Statistics, providing a better understanding of consumer demand. Practical models for forecasting future price and income elasticities are also demonstrated. Fully revised with over a dozen new chapters and appendices, the book revisits the original Taylor-Houthakker models while examining new material as well, such as the use of quantile regression and the stationarity of consumer preference. It also explores the emerging connection between neuroscience and consumer behavior, integrating the economic literature on demand theory with psychology literature. The most comprehensive treatment of the topic to date, this volume will be an essential resource for any researcher, student or professional economist working on consumer behavior or demand theory, as well as investors and policymakers concerned with the impact of economic fluctuations.

This book teaches the basic equations of transport phenomena in a unified manner and uses the analogy between heat transfer and mass and momentum to explain the more difficult concepts. Part I covers the basic concepts in transport phenomena. Part II covers applications in greater detail. Part III deals with the transport properties. The three transport phenomena, heat, mass, and momentum transfer-are treated in depth through simultaneous (or parallel) developments. Transport properties such as viscosity, thermal conductivity, and mass diffusion coefficient are introduced in a simple manner early on and then applied throughout the rest of the book. Advanced discussion is provided separately. An entire chapter is devoted to the crucial material of non-Newtonian phenomena. This book covers heat transfer as it pertains to transport phenomena, and covers mass transfer as it relates to the analogy with heat and momentum. The book includes a complete treatment of fluid mechanics for Ch. E's. The treatment begins with Newton's law and including laminar flow, turbulent flow, fluid statics, and boundary layers, flow past immersed bodies, and basic and advanced design in pipes, heat exchangers, and agitation vessels. This text is the only one to cover modern agitation design and scale-up thoroughly. The chapter on turbulence covers not only traditional approaches but also includes the most contemporary concepts of the transition and of coherent

structures in turbulence. The book includes an extensive treatment of fluidization. Computer programs and numerical methods are integrated throughout the text, especially in the example problems.

Generalized Linear Models: A Unified Approach provides an introduction to and overview of GLMs, with each chapter carefully laying the groundwork for the next. The Second Edition provides examples using real data from multiple fields in the social sciences such as psychology, education, economics, and political science, including data on voting intentions in the

2016 U.S. Republican presidential primaries. The Second Edition also strengthens material on the exponential family form, including a new discussion on the multinomial distribution, adds more information on how to interpret results and make inferences in the chapter on estimation procedures; and has a new section on extensions to generalized linear models.

Software scripts, supporting documentation, data for the examples, and some extended mathematical derivations are available on the authors' websites (http://jefgill.org/publications/generalized-linear-models-unified-approach-0) as well as through the txxttt(R) package txxttt(GLMpack). Supporting material (data and code) to replicate the examples in the book can be found in the 7GLMpack7 package on CRAN or on the website https://github.com/smtorres/GLMpack. T2171311

A novel approach to analysing initial-boundary value problems for integrable partial differential equations (PDEs) in two dimensions, based on ideas of the inverse scattering transform that the author introduced in 1997. This method is unique in also yielding novel integral representations for linear PDEs. Several new developments are addressed in the book, including

new transform method for linear evolution equations on the half-line and on the finite interval; analytical inversion of certain integrals such as the attenuated Radon transform and the Dirichlet-to-Neumann map for a moving boundary; integral representations for linear boundary value problems; analytical and numerical methods for elliptic PDEs in a convex polygon;

and integrable nonlinear PDEs. An epilogue provides a list of problems on which the author's new approach has been used, offers open problems, and gives a glimpse into how the method might be applied to problems in three dimensions.

Integral, Measure, and Derivative

Location Theory

A Unified Approach with Applications

Theory and Practice

Managing Software Requirements

A Unified Approach to Mode-Locking and Random Lasers

This thesis reveals the utility of pursuing a statistical physics approach in the description of wave interactions in multimode optical systems. To that end, the appropriate Hamiltonian models are derived and their limits of applicability are discussed. The versatility of the framework allows the characterization of ordered and disordered lasers in open and closed cavities in a unified scheme, from standard mode-locking to random lasers. With the use of replica method and Monte Carlo simulations, the models are categorized on the basis of universal properties, and nontrivial predictions of experimental relevance are obtained. In particular, the approach makes it possible to nonperturbatively treat the interplay between disorder and nonlinearity and to envisage novel and fascinating physical phenomena such as glassy random lasers, providing a novel way to experimentally investigate replica symmetry breaking.

Designed for upper-level survey legal drafting courses, this groundbreaking text explains drafting using a common vocabulary that applies to any legal document based on a fundamental rule structure, including statutes and other forms of public drafting. This unified drafting approach gives students a common denominator approach to drafting all kinds of legal documents. In addition, students can use the techniques they've learned to deconstruct, interpret, and revise any kind of legal document composed of rules. This common-sense approach of teaching/learning a single vocabulary and set of skills to use in drafting any rules-based legal document is an innovative model for U.S. legal drafting courses, though it has been used in other countries for decades. Key Features: A unified approach that teaches students the general skills of drafting rules of law—duties, discretionary authority, and declarations, including their conditions in legal tests. Practice applying those skills to drafting a range of documents, including contracts, statutes, regulations, and other. Coverage of how courts interpret the rules and how to draft anticipating what the courts will do. An understanding of how law governs human behavior through the rules that students learn to draft. A wide range of classroom exercises on the detail of drafting. Additional drafting assignments, for use in and out of class, that help students learn how to use the rules and to accomplish clients' goals.

This book is a comprehensive account of the essential features of the chemistry of organic compounds of natural origin. The objective has been to condense the encyclopedic range of the subject into a medium-sized book by taking a radically different approach.

A clear and comprehensive introduction to the field of evolutionary computation that takes an integrated approach. Evolutionary computation, the use of evolutionary systems as computational processes for solving complex problems, is a tool used by computer scientists and engineers who want to harness the power of evolution to build useful new artifacts, by biologists interested in developing and testing better models of natural evolutionary systems, and by artificial life scientists for designing and implementing new artificial evolutionary worlds. In this clear and comprehensive introduction to the field, Kenneth De Jong presents an integrated view of the state of the art in evolutionary computation. Although other books have described such particular areas of the field as genetic algorithms, genetic programming, evolution strategies, and evolutionary programming, Evolutionary Computation is noteworthy for considering these systems as specific instances of a more general class of evolutionary algorithms. This useful overview of a fragmented field is suitable for classroom use or as a reference for computer scientists and engineers.

Discrete Mathematics

A Unified Approach to the Design and Applications of Bounded Higher-order Convection Schemes

Statistical Physics of Wave Interactions

A unified approach

Dynamics of Human Biocultural Diversity

Towards a unified approach for the adaptive solution of evolution phase changes

Although modern location theory is now more than 90 years old, the focus of researchers in this area has been mainly problem oriented. However, a common theory, which keeps the essential characteristics of classical location models, is still missing. This monograph addresses this issue. A flexible location problem called the Ordered Median Problem was introduced. For all three main subareas of location theory (continuous, network and discrete location) structural properties of the OMP are presented and solution approaches provided. Numerous illustrations and examples help the reader to become familiar with this new location model. By using OMP classical results of location theory can be applied to a wide range of problems and sometimes even simpler way. Algorithms enable the reader to solve very flexible location models with a single implementation. In addition, the code of some algorithms is available for download.

This book provides a unified account of the theory required to establish upper and lower bounds.

Equip yourself for success with a state-of-the-art approach to algorithms available only in Miller/Boxer's ALGORITHMS SEQUENTIAL AND PARALLEL: A UNIFIED APPROACH, 3E. This unique and functional text gives you an introduction to algorithms and paradigms for modern computing systems, integrating the study of parallel and sequential algorithms with a focused presentation. With a wide range of practical exercises and engaging examples drawn from fundamental application domains, this book prepares you to design, analyze, and implement algorithms for modern computing systems. Important Notice: Media content referenced within the product description or the product text may not be present in the ebook version.

A unified foundation for understanding and building any wireless network. A true systems approach to wireless networking Air interference design and network operation Planning, mobility management, radio resources, power management, and security 3G, WLANs, HIPERLAN, WATM, Bluetooth, WPAN, OFDM, UWB, wireless geolocation, and more. This book is the first to present a unified common foundation for understanding and building any contemporary wireless network, voice or data-- from PCS to wireless LANs, Bluetooth to IMT-2000 3G. Using extensive practical examples, Kaveh Pahlavan and Prashant Krishnamurthy present a true systems approach, illuminating the principles, commonalities, and differences of specific implementation issues associated with virtually every leading wireless system. Coverage includes: Air interference design; wireless medium characteristics, media access, and an exceptionally thorough discussion of physical layer issues Wireless network operation: planning, mobility management, radio resources, power management, and more. Implementation of cellular telephone and mobile data networks based on CDMA, TDMA, and GSM Key wideband local access technologies: IEEE 802.11 WLANs, HIPERLAN, and connection-based voice-oriented WATM Emerging OFDM and Ultrawideband (UWB) technologies Ad hoc networking, Bluetooth, and WPAN Wireless geolocation and indoor localization techniques and systems The most detailed discussions of channel characteristics and deployment tools available in any book Whether you're an electrical engineer, telecommunications/networkingspecialist, or software professional, "Principles of Wireless Networks" brings together the insights and techniques you need to begin building any wireless network.

Generalized Linear Models

Chemistry of Natural Products

A Unified Approach to the Finite Element Method and Error Analysis Procedures

Contemporary Mathematics in Context

A Unified Approach of Education

Statistical Monitoring of Clinical Trials

This treatment examines the general theory of the integral, Lebesgue integral in n-space, the Riemann-Stieltjes integral, and more. "The exposition is fresh and sophisticated, and will engage the interest of accomplished mathematicians." – Sci-Tech Book News. 1966 edition.

This book presents a complete and unified treatment of the fundamental themes of structural mechanics, ranging from the traditional to the most advanced topics, covering mechanics of linear elastic solids, theory of beam systems, and phenomena of structural failure. The book considers explicitly all the static and kinetic operators of structural mechanics with their dual character. Topics relating to structural symmetry are covered in a single chapter while dynamics is dealt with at various points. The logical presentation allows the clear introduction of topics such as finite element methods, automatic calculation of framed beam systems, plate and shell theory, theory of plasticity, and fracture mechanics. Numerous worked examples, exercises with complete solutions and illustrations make it accessible both as a text for students and as a reference for research workers and practicing engineers.

The first edition (in German) had the prevailing character of a textbook owing to the choice of material and the manner of its presentation. This second (translated, revised, and extended) edition, however, includes in its new parts considerably more recent and advanced results and thus goes partially beyond the textbook level. We should emphasize here that the primary intentions of this book are to provide (so far as possible given the restrictions of space) a self-contained presentation of some modern developments in the direct methods of the calculus of variations in applied mathematics and mathematical physics from a unified point of view and to link it to the traditional approach. These modern developments are, according to our background and interests: (I) Thomas-Fermi theory and related theories, and (II) global systems of semilinear elliptic partial-differential equations and the existence of weak solutions and their regularity. Although the direct method in the calculus of variations can naturally be considered part of nonlinear functional analysis, we have not tried to present our material in this way. Some recent books on nonlinear functional analysis in this spirit are those by K. Deimling (Nonlinear Functional Analysis, Springer, Berlin Heidelberg 1985) and E. Zeidler (Nonlinear Functional Analysis and Its Applications, Vols. 1-4; Springer, New York 1986-1990).

A Unified Approach Second Edition

Fouling in Membranes and Thermal Units

Evolutionary Psychopathology

Dynamics of Structure and Foundation - A Unified Approach

Integral, Measure and Derivative

A Unified Approach to Communication Systems