

Fundamentals Of Information Theory 2nd Solution Manual

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Solutions Manual: Principles of Communications - Rodger E. Ziemer 1990

Principles of Physics: A Calculus-Based Text, Volume 1 - Raymond A. Serway
2012-01-01

PRINCIPLES OF PHYSICS is the only text specifically written for institutions that offer a calculus-based physics course for their life science majors. Authors Raymond A. Serway and John W. Jewett have revised the Fifth Edition of PRINCIPLES OF PHYSICS to include a new worked example format, new biomedical applications, two new Contexts features, a revised problem set based on an analysis of problem usage data from WebAssign, and a thorough revision of every piece of line art in the text. The Enhanced WebAssign course for PRINCIPLES OF PHYSICS is very robust, with all end-of-chapter problems, an interactive YouBook, and book-specific tutorials. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Theory and Design of Digital Communication Systems - Tri T. Ha 2010-10-28
Providing the underlying principles of digital communication and the design techniques of real-world systems, this textbook prepares senior undergraduate and graduate students for the engineering practices required in industry. Covering the core concepts, including modulation, demodulation, equalization, and channel coding, it provides step-by-step mathematical derivations to aid understanding of background material. In addition to describing the basic theory, the principles of system and subsystem design are introduced, enabling students to visualize the intricate connections between subsystems and understand how each aspect of the design supports the overall goal of achieving reliable communications. Throughout the book, theories are linked to practical applications with over 250 real-world examples, whilst 370 varied homework problems in three levels of difficulty enhance and extend the text material. With this textbook, students can understand how digital communication systems operate in the real world, learn how to design subsystems, and evaluate end-to-end performance with ease and confidence.

An Introduction to Single-User Information Theory - Fady Alajaji 2018-04-24

This book presents a succinct and mathematically rigorous treatment of the main pillars of Shannon's information theory, discussing the fundamental concepts and indispensable results of Shannon's mathematical theory of communications. It includes five meticulously written core chapters (with accompanying problems), emphasizing the key topics of information measures; lossless and lossy data compression; channel coding; and joint source-channel coding for single-user (point-to-point) communications systems. It also features two appendices covering necessary background material in real analysis and in probability theory and stochastic processes. The book is ideal for a one-semester foundational course on

information theory for senior undergraduate and entry-level graduate students in mathematics, statistics, engineering, and computing and information sciences. A comprehensive instructor's solutions manual is available.

Microeconomic Theory: Basic Principles and Extensions - Walter Nicholson
2016-08-22

Now readers can truly understand and apply the latest economic models while working directly with theoretical tools, real-world applications, and the popular new behavioral economics. This reader-friendly, market-leading book -- MICROECONOMIC THEORY: BASIC PRINCIPLES AND EXTENSIONS, 12E -- takes a calculus-based approach to provide the ideal level of mathematical rigor for the upper-level student of economics. Insightful graphic presentations help readers visually grasp the connections between the calculus and the algebraic and geometric approach to the same material. End-of-chapter problems present simple numerical/mathematical exercises, which strengthens the reader's intuition before they tackle the book's analytical, theoretical, behavioral, and complex problems. Unlike other more theoretical books, MICROECONOMIC THEORY, 12E closely connects all theory that is presented to real applications in the world today. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Catalog of Copyright Entries. Third Series - Library of Congress. Copyright Office
1965

Includes Part 1, Number 2: Books and Pamphlets, Including Serials and Contributions to Periodicals July - December)

Solutions Manual for Recursive Methods in Economic Dynamics - Claudio IRIGOYEN
2009-06-30

This solutions manual is a companion volume to the classic textbook Recursive Methods in Economic Dynamics by Nancy L. Stokey and Robert E. Lucas. Efficient and lucid in approach, this manual will greatly enhance the value of Recursive Methods as a text for self-study.

Student Solutions Manual for For All Practical Purposes - COMAP 2008-12-26
Contains complete solutions to odd-numbered problems in text.

Solutions Manual to Accompany Statistics and Probability with Applications for Engineers and Scientists - Bisham C. Gupta 2013-10-11

A solutions manual to accompany Statistics and Probability with Applications for Engineers and Scientists Unique among books of this kind, Statistics and Probability with Applications for Engineers and Scientists covers descriptive statistics first, then goes on to discuss the fundamentals of probability theory. Along with case studies, examples, and real-world data sets, the book incorporates clear instructions on how to use the statistical packages Minitab® and Microsoft®

Office Excel® to analyze various datasets. The book also features: Detailed discussions on sampling distributions, statistical estimation of population parameters, hypothesis testing, reliability theory, statistical quality control including Phase I and Phase II control charts, and process capability indices. A clear presentation of nonparametric methods and simple and multiple linear regression methods, as well as a brief discussion on logistic regression method. Comprehensive guidance on the design of experiments, including randomized block designs, one- and two-way layout designs, Latin square designs, random effects and mixed effects models, factorial and fractional factorial designs, and response surface methodology. A companion website containing data sets for Minitab and Microsoft Office Excel, as well as JMP® routines and results. Assuming no background in probability and statistics, *Statistics and Probability with Applications for Engineers and Scientists* features a unique, yet tried-and-true, approach that is ideal for all undergraduate students as well as statistical practitioners who analyze and illustrate real-world data in engineering and the natural sciences.

A Natural Introduction to Probability Theory - Ronald Meester 2003

"The book provides an introduction, in full rigour, of discrete and continuous probability, without using algebras or sigma-algebras; only familiarity with first-year calculus is required. Starting with the framework of discrete probability, it is already possible to discuss random walk, weak laws of large numbers and a first central limit theorem. After that, continuous probability, infinitely many repetitions, strong laws of large numbers, and branching processes are extensively treated. Finally, weak convergence is introduced and the central limit theorem is proved." "The theory is illustrated with many original and surprising examples and problems, taken from classical applications like gambling, geometry or graph theory, as well as from applications in biology, medicine, social sciences, sports, and coding theory."--BOOK JACKET.

Fundamentals of Convolutional Coding - Rolf Johannesson 2015-07-07

Fundamentals of Convolutional Coding, Second Edition, regarded as a bible of convolutional coding brings you a clear and comprehensive discussion of the basic principles of this field. Two new chapters on low-density parity-check (LDPC) convolutional codes and iterative coding Viterbi, BCJR, BEAST, list, and sequential decoding of convolutional codes. Distance properties of convolutional codes. Includes a downloadable solutions manual.

Student Solutions Manual with Study Guide for Serway/Jewett's Principles of Physics: A Calculus-Based Text, Volume 2 - Raymond A. Serway 2012-05-18

This two-volume manual features detailed solutions to 20 percent of the end-of-chapter problems from the text, plus lists of important equations and concepts, other study aids, and answers to selected end-of-chapter questions. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Fuzzy Logic with Engineering Applications - Timothy J. Ross 2009-12-01

The first edition of *Fuzzy Logic with Engineering Applications* (1995) was the first classroom text for undergraduates in the field. Now updated for the second time, this new edition features the latest advances in the field including material on expansion of the MLFE method using genetic algorithms, cognitive mapping, fuzzy agent-based models and total uncertainty. Redundant or obsolete topics have been removed, resulting in a more concise yet inclusive text that will ensure the book retains its broad appeal at the forefront of the literature. *Fuzzy Logic with Engineering Applications*, 3rd Edition is oriented mainly towards

methods and techniques. Every chapter has been revised, featuring new illustrations and examples throughout. Supporting MATLAB code is downloadable at www.wiley-europe.com/go/fuzzylogic. This will benefit student learning in all basic operations, the generation of membership functions, and the specialized applications in the latter chapters of the book, providing an invaluable tool for students as well as for self-study by practicing engineers.

1996 Fifth IEEE International Conference on Universal Personal Communications Record - 1996

Information Theory and Best Practices in the IT Industry - Sanjay Mohapatra 2012-02-21

□□□The importance of benchmarking in the service sector is well recognized as it helps in continuous improvement in products and work processes. Through benchmarking, companies have strived to implement best practices in order to remain competitive in the product-market in which they operate. However studies on benchmarking, particularly in the software development sector, have neglected using multiple variables and therefore have not been as comprehensive. *Information Theory and Best Practices in the IT Industry* fills this void by examining benchmarking in the business of software development and studying how it is affected by development process, application type, hardware platforms used, and many other variables. *Information Theory and Best Practices in the IT Industry* begins by examining practices of benchmarking productivity and critically appraises them. Next the book identifies different variables which affect productivity and variables that affect quality, developing useful equations that explain their relationships. Finally these equations and findings are applied to case studies. Utilizing this book, practitioners can decide about what emphasis they should attach to different variables in their own companies, while seeking to optimize productivity and defect density.

Elements of Information Theory - Thomas M. Cover 1991-08-26

Following a brief introduction and overview, early chapters cover the basic algebraic relationships of entropy, relative entropy and mutual information, AEP, entropy rates of stochastic processes and data compression, duality of data compression and the growth rate of wealth. Later chapters explore Kolmogorov complexity, channel capacity, differential entropy, the capacity of the fundamental Gaussian channel, the relationship between information theory and statistics, rate distortion and network information theories. The final two chapters examine the stock market and inequalities in information theory. In many cases the authors actually describe the properties of the solutions before the presented problems.

Error Correction Coding - Todd K. Moon 2020-12-22

Providing in-depth treatment of error correction *Error Correction Coding: Mathematical Methods and Algorithms*, 2nd Edition provides a comprehensive introduction to classical and modern methods of error correction. The presentation provides a clear, practical introduction to using a lab-oriented approach. Readers are encouraged to implement the encoding and decoding algorithms with explicit algorithm statements and the mathematics used in error correction, balanced with an algorithmic development on how to actually do the encoding and decoding. Both block and stream (convolutional) codes are discussed, and the mathematics required to understand them are introduced on a "just-in-time" basis as the reader progresses through the book. The second edition increases the impact and reach of the book, updating it to discuss recent important technological advances. New

material includes: Extensive coverage of LDPC codes, including a variety of decoding algorithms. A comprehensive introduction to polar codes, including systematic encoding/decoding and list decoding. An introduction to fountain codes. Modern applications to systems such as HDTV, DVBT2, and cell phones Error Correction Coding includes extensive program files (for example, C++ code for all LDPC decoders and polar code decoders), laboratory materials for students to implement algorithms, and an updated solutions manual, all of which are perfect to help the reader understand and retain the content. The book covers classical BCH, Reed Solomon, Golay, Reed Muller, Hamming, and convolutional codes which are still component codes in virtually every modern communication system. There are also fulsome discussions of recently developed polar codes and fountain codes that serve to educate the reader on the newest developments in error correction.

The Publishers' Trade List Annual - 1979

Information Theory, Inference and Learning Algorithms - David J. C. MacKay
2003-09-25

Information theory and inference, taught together in this exciting textbook, lie at the heart of many important areas of modern technology - communication, signal processing, data mining, machine learning, pattern recognition, computational neuroscience, bioinformatics and cryptography. The book introduces theory in tandem with applications. Information theory is taught alongside practical communication systems such as arithmetic coding for data compression and sparse-graph codes for error-correction. Inference techniques, including message-passing algorithms, Monte Carlo methods and variational approximations, are developed alongside applications to clustering, convolutional codes, independent component analysis, and neural networks. Uniquely, the book covers state-of-the-art error-correcting codes, including low-density-parity-check codes, turbo codes, and digital fountain codes - the twenty-first-century standards for satellite communications, disk drives, and data broadcast. Richly illustrated, filled with worked examples and over 400 exercises, some with detailed solutions, the book is ideal for self-learning, and for undergraduate or graduate courses. It also provides an unparalleled entry point for professionals in areas as diverse as computational biology, financial engineering and machine learning.

Nonequilibrium Thermodynamics - Yasar Demirel 2018-11-24

Nonequilibrium Thermodynamics: Transport and Rate Processes in Physical, Chemical and Biological Systems, Fourth Edition emphasizes the unifying role of thermodynamics in analyzing natural phenomena. This updated edition expands on the third edition by focusing on the general balance equations for coupled processes of physical, chemical and biological systems. Updates include stochastic approaches, self-organization criticality, ecosystems, mesoscopic thermodynamics, constructal law, quantum thermodynamics, fluctuation theory, information theory, and modeling the coupled biochemical systems. The book also emphasizes nonequilibrium thermodynamics tools, such as fluctuation theories, mesoscopic thermodynamic analysis, information theories, and quantum thermodynamics in describing and designing small scale systems. Provides a useful text for seniors and graduate students from diverse engineering and science programs Highlights the fundamentals of equilibrium thermodynamics, transport processes and chemical reactions Expands the theory of nonequilibrium thermodynamics and its use in coupled transport processes and chemical reactions in physical, chemical and biological systems Presents a unified analysis for transport and rate processes in various time and space scales Discusses stochastic approaches in thermodynamic

analysis, including fluctuation and information theories, mesoscopic nonequilibrium thermodynamics, constructal law and quantum thermodynamics
Networking Fundamentals - Kaveh Pahlavan 2009-04-20
Focusing on the physical layer, Networking Fundamentals provides essential information on networking technologies that are used in both wired and wireless networks designed for local area networks (LANs) and wide-area networks (WANs). The book starts with an overview of telecommunications followed by four parts, each including several chapters. Part I explains the principles of design and analysis of information networks at the lowest layers. It concentrates on the characteristics of the transmission media, applied transmission and coding, and medium access control. Parts II and III are devoted to detailed descriptions of important WANs and LANs respectively with Part II describing the wired Ethernet and Internet as well as cellular networks while Part III covers popular wired LANs and wireless LANs (WLANs), as well as wireless personal area network (WPAN) technologies. Part IV concludes by examining security, localization and sensor networking. The partitioned structure of the book allows flexibility in teaching the material, encouraging the reader to grasp the more simple concepts and to build on these foundations when moving onto more complex information. Networking Fundamentals contains numerous illustrations, case studies and tables to supplement the text, as well as exercises with solutions at the end of each chapter. There is also a companion website with password protected solutions manual for instructors along with other useful resources. Provides a unique holistic approach covering wireless communication technologies, wired technologies and networking One of the first textbooks to integrate all aspects of information networks while placing an emphasis on the physical layer and systems engineering aspects Contains numerous illustrations, case studies and tables to supplement the text, as well as exercises with solutions at the end of each chapter Companion website with password protected solutions manual and other useful resources
Principles of Helicopter Aerodynamics with CD Extra - Gordon J. Leishman
2006-04-24

Written by an internationally recognized teacher and researcher, this book provides a thorough, modern treatment of the aerodynamic principles of helicopters and other rotating-wing vertical lift aircraft such as tilt rotors and autogiros. The text begins with a unique technical history of helicopter flight, and then covers basic methods of rotor aerodynamic analysis, and related issues associated with the performance of the helicopter and its aerodynamic design. It goes on to cover more advanced topics in helicopter aerodynamics, including airfoil flows, unsteady aerodynamics, dynamic stall, and rotor wakes, and rotor-airframe aerodynamic interactions, with final chapters on autogiros and advanced methods of helicopter aerodynamic analysis. Extensively illustrated throughout, each chapter includes a set of homework problems. Advanced undergraduate and graduate students, practising engineers, and researchers will welcome this thoroughly revised and updated text on rotating-wing aerodynamics.

Solution Manual for Quantum Mechanics - Ahmed Ishtiaq 2014-03-11

This is the solution manual for Riazuddin's and Fayyazuddin's Quantum Mechanics (2nd edition). The questions in the original book were selected with a view to illustrate the physical concepts and use of mathematical techniques which show their universality in tackling various problems of different physical origins. This solution manual contains the text and complete solution of every problem in the original book. This book will be a useful reference for students looking to master the concepts introduced in Quantum Mechanics (2nd edition).

Thermal Physics - Ralph Baierlein 1999-07-15

Clear and reader-friendly, this is an ideal textbook for students seeking an introduction to thermal physics. Written by an experienced teacher and extensively class-tested, Thermal Physics provides a comprehensive grounding in thermodynamics, statistical mechanics, and kinetic theory. A key feature of this text is its readily accessible introductory chapters, which begin with a review of fundamental ideas. Entropy, conceived microscopically and statistically, and the Second Law of Thermodynamics are introduced early in the book. Throughout, topics are built on a conceptual foundation of four linked elements: entropy and the Second Law, the canonical probability distribution, the partition function, and the chemical potential. As well as providing a solid preparation in the basics of the subject, the text goes on to explain exciting recent developments such as Bose-Einstein condensation and critical phenomena. Key equations are highlighted throughout, and each chapter contains a summary of essential ideas and an extensive set of problems of varying degrees of difficulty. A free solutions manual is available for instructors (ISBN 0521 658608). Thermal Physics is suitable for both undergraduates and graduates in physics and astronomy.

Naval Training Bulletin - 1946

Network Information Theory - Abbas El Gamal 2011-12-08

This comprehensive treatment of network information theory and its applications provides the first unified coverage of both classical and recent results. With an approach that balances the introduction of new models and new coding techniques, readers are guided through Shannon's point-to-point information theory, single-hop networks, multihop networks, and extensions to distributed computing, secrecy, wireless communication, and networking. Elementary mathematical tools and techniques are used throughout, requiring only basic knowledge of probability, whilst unified proofs of coding theorems are based on a few simple lemmas, making the text accessible to newcomers. Key topics covered include successive cancellation and superposition coding, MIMO wireless communication, network coding, and cooperative relaying. Also covered are feedback and interactive communication, capacity approximations and scaling laws, and asynchronous and random access channels. This book is ideal for use in the classroom, for self-study, and as a reference for researchers and engineers in industry and academia.

Student Solutions Manual for Physical Chemistry - C. A. Trapp 2009-12-18

With its modern emphasis on the molecular view of physical chemistry, its wealth of contemporary applications, vivid full-color presentation, and dynamic new media tools, the thoroughly revised new edition is again the most modern, most effective full-length textbook available for the physical chemistry classroom. Available in Split Volumes For maximum flexibility in your physical chemistry course, this text is now offered as a traditional text or in two volumes. Volume 1: Thermodynamics and Kinetics; ISBN 1-4292-3127-0 Volume 2: Quantum Chemistry, Spectroscopy, and Statistical Thermodynamics; ISBN 1-4292-3126-2

Digital Video Transcoding for Transmission and Storage - Huifang Sun 2018-10-03

Professionals in the video and multimedia industries need a book that explains industry standards for video coding and how to convert the compressed information between standards. Digital Video Transcoding for Transmission and Storage answers this demand while also supplying the theories and principles of video compression and transcoding technologies. Emphasizing digital video transcoding techniques, this book summarizes its content via examples of practical methods for transcoder implementation. It relates almost all of its featured transcoding technologies to

practical applications. This volume takes a structured approach, starting with basic video transcoding concepts and progressing toward the most sophisticated systems. It summarizes material from research papers, lectures, and presentations. Organized into four parts, the text first provides the background of video coding theory, principles of video transmission, and video coding standards. The second part includes three chapters that explain the theory of video transcoding and practical problems. The third part explores buffer management, packet scheduling, and encryption in the transcoding. The book concludes by describing the application of transcoding, universal multimedia access with the emerging MPEG-21 standard, and the end-to-end test bed.

Information Theory and Network Coding - Raymond W. Yeung 2008-09-10

This book is an evolution from my book A First Course in Information Theory published in 2002 when network coding was still at its infancy. The last few years have witnessed the rapid development of network coding into a research field of its own in information science. With its root in information theory, network coding has not only brought about a paradigm shift in network communications at large, but also had significant influence on such specific research fields as coding theory, networking, switching, wireless communications, distributed data storage, cryptography, and optimization theory. While new applications of network coding keep emerging, the fundamental results that lay the foundation of the subject are more or less mature. One of the main goals of this book therefore is to present these results in a unifying and coherent manner. While the previous book focused only on information theory for discrete random variables, the current book contains two new chapters on information theory for continuous random variables, namely the chapter on differential entropy and the chapter on continuous-valued channels. With these topics included, the book becomes more comprehensive and is more suitable to be used as a textbook for a course in an electrical engineering department.

Solution Manual for Partial Differential Equations for Scientists and Engineers -

Stanley J. Farlow 2020-07-15

Originally published by John Wiley and Sons in 1983, Partial Differential Equations for Scientists and Engineers was reprinted by Dover in 1993. Written for advanced undergraduates in mathematics, the widely used and extremely successful text covers diffusion-type problems, hyperbolic-type problems, elliptic-type problems, and numerical and approximate methods. Dover's 1993 edition, which contains answers to selected problems, is now supplemented by this complete solutions manual.

Scientific and Technical Aerospace Reports - 1994

Scientific and Technical Books in Print - 1972

Elements of Information Theory - Thomas M. Cover 2012-11-28

The latest edition of this classic is updated with new problem sets and material. The Second Edition of this fundamental textbook maintains the book's tradition of clear, thought-provoking instruction. Readers are provided once again with an instructive mix of mathematics, physics, statistics, and information theory. All the essential topics in information theory are covered in detail, including entropy, data compression, channel capacity, rate distortion, network information theory, and hypothesis testing. The authors provide readers with a solid understanding of the underlying theory and applications. Problem sets and a telegraphic summary at the end of each chapter further assist readers. The

historical notes that follow each chapter recap the main points. The Second Edition features: * Chapters reorganized to improve teaching * 200 new problems * New material on source coding, portfolio theory, and feedback capacity * Updated references Now current and enhanced, the Second Edition of Elements of Information Theory remains the ideal textbook for upper-level undergraduate and graduate courses in electrical engineering, statistics, and telecommunications.

Physical Chemistry Student Solutions Manual - Charles Trapp 2006-08-11
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Principles of Physics: A Calculus-Based Text, Volume 2 - Raymond A. Serway
2012-02-01

PRINCIPLES OF PHYSICS is the only text specifically written for institutions that offer a calculus-based physics course for their life science majors. Authors Raymond A. Serway and John W. Jewett have revised the Fifth Edition of PRINCIPLES OF PHYSICS to include a new worked example format, new biomedical applications, two new Contexts features, a revised problem set based on an analysis of problem usage data from WebAssign, and a thorough revision of every piece of line art in the text. The Enhanced WebAssign course for PRINCIPLES OF PHYSICS is very robust, with all end-of-chapter problems, an interactive YouBook, and book-specific tutorials. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Information Theory - Robert B. Ash 1990-01-01

Developed by Claude Shannon and Norbert Wiener in the late Forties, information theory, or statistical communication theory, deals with the theoretical underpinnings of a wide range of communication devices: radio, television, radar, computers, telegraphy, and more. This book is an excellent introduction to the mathematics underlying the theory. Designed for upper-level undergraduates and first-year graduate students, the book treats three major areas: analysis of channel models and proof of coding theorems (Chapters 3, 7 and 8); study of specific coding systems (Chapters 2, 4, and 5); and study of statistical properties of information sources (Chapter 6). Among the topics covered are noiseless coding, the discrete memoryless channel, error correcting codes, information sources, channels with memory and continuous channels. The author has tried to keep the prerequisites to a minimum. However, students should have a knowledge of basic probability theory. Some measure and Hilbert space theory is helpful as well for the last two sections of Chapter 8, which treat time-continuous channels. An appendix summarizes the Hilbert space background and the results from the theory of stochastic processes necessary for these sections. The appendix is not self-contained, but will serve to pinpoint some of the specific equipment needed for the analysis of time-continuous channels. In addition to historic notes at the end of each chapter indicating the origin of some of the results, the author has also included 60 problems, with detailed solutions, making the book especially valuable for independent study.

Books in Series - 1985

Vols. for 1980- issued in three parts: Series, Authors, and Titles.

Using the Engineering Literature, Second Edition - Bonnie A. Osif 2016-04-19

With the encroachment of the Internet into nearly all aspects of work and life, it

seems as though information is everywhere. However, there is information and then there is correct, appropriate, and timely information. While we might love being able to turn to Wikipedia® for encyclopedia-like information or search Google® for the thousands of links on a topic, engineers need the best information, information that is evaluated, up-to-date, and complete. Accurate, vetted information is necessary when building new skyscrapers or developing new prosthetics for returning military veterans While the award-winning first edition of *Using the Engineering Literature* used a roadmap analogy, we now need a three-dimensional analysis reflecting the complex and dynamic nature of research in the information age. Using the *Engineering Literature, Second Edition* provides a guide to the wide range of resources available in all fields of engineering. This second edition has been thoroughly revised and features new sections on nanotechnology as well as green engineering. The information age has greatly impacted the way engineers find information. Engineers have an effect, directly and indirectly, on almost all aspects of our lives, and it is vital that they find the right information at the right time to create better products and processes.

Comprehensive and up to date, with expert chapter authors, this book fills a gap in the literature, providing critical information in a user-friendly format.

Understanding Machine Learning - Shai Shalev-Shwartz 2014-05-19

Introduces machine learning and its algorithmic paradigms, explaining the principles behind automated learning approaches and the considerations underlying their usage.

Introduction to Probability, Second Edition - Joseph K. Blitzstein 2019-02-08

Developed from celebrated Harvard statistics lectures, *Introduction to Probability* provides essential language and tools for understanding statistics, randomness, and uncertainty. The book explores a wide variety of applications and examples, ranging from coincidences and paradoxes to Google PageRank and Markov chain Monte Carlo (MCMC). Additional application areas explored include genetics, medicine, computer science, and information theory. The authors present the material in an accessible style and motivate concepts using real-world examples. Throughout, they use stories to uncover connections between the fundamental distributions in statistics and conditioning to reduce complicated problems to manageable pieces. The book includes many intuitive explanations, diagrams, and practice problems. Each chapter ends with a section showing how to perform relevant simulations and calculations in R, a free statistical software environment. The second edition adds many new examples, exercises, and explanations, to deepen understanding of the ideas, clarify subtle concepts, and respond to feedback from many students and readers. New supplementary online resources have been developed, including animations and interactive visualizations, and the book has been updated to dovetail with these resources. Supplementary material is available on Joseph Blitzstein's website www.stat110.net. The supplements include: Solutions to selected exercises Additional practice problems Handouts including review material and sample exams Animations and interactive visualizations created in connection with the edX online version of Stat 110. Links to lecture videos available on iTunes U and YouTube There is also a complete instructor's solutions manual available to instructors who require the book for a course.