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Quality of Information and Communications Technology - Martin Shepperd
2020-08-31

This book constitutes the

refereed proceedings of the 13th International Conference on the Quality of Information and Communications Technology, QUATIC 2020,

held in Faro, Portugal*, in September 2020. The 27 full papers and 12 short papers were carefully reviewed and selected from 81 submissions. The papers are organized in topical sections: quality aspects in machine learning, AI and data analytics; evidence-based software quality engineering; human and artificial intelligences for software evolution; process modeling, improvement and assessment; software quality education and training; quality aspects in quantum computing; safety, security and privacy; ICT verification and validation; RE, MDD and agile. *The conference was held virtually due to the COVID-19 pandemic. *Infrared Thermal Imaging* - Michael Vollmer 2018-02-20 This new up-to-date edition of the successful handbook and ready reference retains the proven concept of the first, covering basic and advanced methods and applications in infrared imaging from two leading expert authors in the field. All chapters have been completely revised and

expanded and a new chapter has been added to reflect recent developments in the field and report on the progress made within the last decade. In addition there is now an even stronger focus on real-life examples, with 20% more case studies taken from science and industry. For ease of comprehension the text is backed by more than 590 images which include graphic visualizations and more than 300 infrared thermography figures. The latter include many new ones depicting, for example, spectacular views of phenomena in nature, sports, and daily life.

Hebden : Chemistry 11, a Workbook for Students - James A. Hebden 1998

Grade level: 11, s, t.

[Static Fields](#) - IPCS 2006

This book examines the health effects of exposure to static electric and magnetic fields found in selected industries, such as medical facilities with magnetic resonance imaging (MRI), high-energy physics research facilities and some transportation systems. To

date, research on their health effects lags far behind the rapid advances in technology. Electric and magnetic fields are generated by natural phenomena such as the Earth's magnetic field, thunderstorms, and by man-made sources that use electricity. When such fields do not vary with time they are referred to as static. For static electric fields, studies carried out to date suggest that the main effect is discomfort from electric discharges to the body. For static magnetic fields, acute effects are only likely to occur when there is movement of a person in the field. For example, a person moving within a relatively high field can experience sensations of vertigo and nausea, and sometimes a metallic taste in the mouth and perceptions of light flashes. Although only temporary, such effects may have a safety impact for workers executing delicate procedures, e.g. surgeons performing operations within MRI units. Even when at rest, a person will experience internal

body movement, such as blood flow or heart beat. When placed within a high magnetic field, electrical fields and currents are generated around the heart and major blood vessels that can impede the flow of blood. Possible effects range from minor changes in heartbeat to an increase in the risk of abnormal heart rhythms that might be life threatening.

Physics - Raymond A. Serway
2012

Building upon Serway and Jewetta's solid foundation in the modern classic text, *Physics for Scientists and Engineers*, this first Asia-Pacific edition of *Physics* is a practical and engaging introduction to *Physics*. Using international and local case studies and worked examples to add to the concise language and high quality artwork, this new regional edition further engages students and highlights the relevance of this discipline to their learning and lives.

Radiation Oncology Physics -
International Atomic Energy
Agency 2005

This publication is aimed at students and teachers involved in teaching programmes in field of medical radiation physics, and it covers the basic medical physics knowledge required in the form of a syllabus for modern radiation oncology. The information will be useful to those preparing for professional certification exams in radiation oncology, medical physics, dosimetry or radiotherapy technology.

Vogue on Location - Editors of American Vogue 2019-10-29 Wander the globe with decades of stunning photography and Vogue's most exotic fashion, travel, and lifestyle stories. Have fashion, will travel. That's the vision behind Vogue on Location, a journey in itself through the many spectacular voyages that the magazine took over the years. Spanning a century, this remarkable book includes dispatches and travel writing by journalistic icons like Jan Morris, Truman Capote, Lee Miller, Lesley Blanch, and Frances FitzGerald, as well as stunning editorials from legendary

photographers like Irving Penn, Henry Clarke, Helmut Newton, Arthur Elgort, Mario Testino, Peter Lindbergh, and Annie Leibovitz. With historic reportage and landmark fashion shoots in far-flung locales like India, Iran, Morocco, and Bali, Vogue on Location captures important moments in both travel and fashion history—and is sure to inspire a sense of fantasy and flight.

Essentials of College Physics - Raymond A. Serway 2007 ESSENTIALS OF COLLEGE PHYSICS provides a clear and logical presentation of the basic concepts and principles of physics without sacrificing any of the problem-solving support or conceptual understanding you will need. The powerful and interactive PhysicsNow™ is an online resource that uses a series of chapter-specific diagnostics to gauge your unique study needs, then provides a Personalized Learning Plan that maximizes your study time by focusing on the concepts you need to review most.

PhysicsNow™ also allows you to access Personal Tutor with SMARTHINKING, a live web-based tutoring service. Personal Tutor with SMARTHINKING features two-way audio, an interactive whiteboard for displaying presentation materials, and instant messaging for easy communication with your personal tutor.

Principles of Physics -
Raymond A. Serway 2014

The Book of L - G. Rozenberg
2012-12-06

This book is dedicated to Aristid Lindenmayer on the occasion of his 60th birthday on November 17, 1985. Contributions range from mathematics and theoretical computer science to biology. Aristid Lindenmayer introduced language-theoretic models for developmental biology in 1968. Since then the models have been customarily referred to as L systems. Lindenmayer's invention turned out to be one of the most beautiful examples of interdisciplinary science: work

in one area (developmental biology) induces most fruitful ideas in other areas (theory of formal languages and automata, and formal power series). As evident from the articles and references in this book, the interest in L systems is continuously growing. For newcomers the first contact with L systems usually happens via the most basic class of L systems, namely, DOL systems. Here "0" stands for zero context between developing cells. It has been a major typographical problem that printers are unable to distinguish between 0 (zero) and 0 (oh). Thus, DOL was almost always printed with "oh" rather than "zero", and also pronounced that way. However, this misunderstanding turned out to be very fortunate. The wrong spelling "DOL" of "DOL" could be read in the suggestive way: DO L Indeed, hundreds of researchers have followed this suggestion. Some of them appear as contributors to this book. Of the many who could not contribute, we in particular

regret the absence of A. Ehrenfeucht, G. Herman and H.A. Maurer whose influence in the theory of L systems has been most significant.

College Physics (With Physicsnow) - Raymond A. Serway 2005-02-01

This is the Loose-leaf version offered through the Alternative Select - Freedom Titles program. Please contact your Custom Editor to order and for additional details.

FUNDAMENTALS OF PHYSICS, 6TH ED - Halliday 2006-06

About The Book: No other book on the market today can match the success of Halliday, Resnick and Walker's *Fundamentals of Physics!* In a breezy, easy-to-understand style the book offers a solid understanding of fundamental physics concepts, and helps readers apply this conceptual understanding to quantitative problem solving. The extended edition provides coverage of developments in Physics in the last 100 years, including: Einstein and Relativity, Bohr and others and Quantum

Theory, and the more recent theoretical developments like String Theory. This book offers a unique combination of authoritative content and stimulating applications.

Fundamentals of Physics, Solutions Manual - Edward Derrinsh 1988-08-30

This third edition of the famous introductory physics text has been thoroughly revised and updated. The new edition contains two entirely new chapters: "Relativity" as the concluding chapter of the regular version, and "Particles and the Cosmos" as the concluding chapter of the extended version. New also are 16 essays, distributed throughout the text, on applications of physics to "real world" topics of student interest. Each essay is self-contained and is written by an expert in the topic. The body of the text contains more help in problem-solving and the chapter sections are shorter, making the material more accessible. There are more photos and diagrams than before, including attention-

getting chapter-head photos and captions. The number of worked examples has been increased, as has the number of questions, exercises, and problems. In addition, a thread of ideas from relativistic and quantum physics is weaved through the earlier chapters, preparing the way for the later chapters.

Beard on Pasta - James Beard
2015-09-01

Classic pasta dishes from America's 1st and most beloved master chef Whether you're entertaining guests or simply cooking for 1, pasta is sure to delight. The ultimate comfort food, it can be found in the cuisines of nearly every culture. James Beard, heralded by the New York Times as "the dean of American cookery" enriches our understanding of this culinary staple with his collection of recipes and commentary on store-bought versus homemade pasta, wine pairings, choosing the perfect cheese, and other insights. From familiar spaghetti entrées to more adventurous fare, such as udon noodle soup and

spätzle, Beard brings meals from all over the globe into the home chef's kitchen. Under the guidance of America's original gastronomic genius, the basic noodle is elevated in dishes such as basil lasagna, Portuguese fish stew with orzo, and cheddar angel hair soufflé. *Beard on Pasta* is full of easy-to-follow recipes, along with tips on preparation, sauce, and serving that you'll be eager to try. This comprehensive cookbook provides all the tools you need to make delectable and unforgettable pasta for any occasion.

Taking Chances - Lauren Brooke 2001

Amy's life has drastically changed. She's found herself taking on the huge responsibility of running Heartland, the horse refuge that was her mother's life work. The one constant for Amy has been her friendship with Ty, Heartland's 17-year-old stable hand. But the arrival of a new hand, Ben, throws everything off balance. By the time Amy realizes she's taken Ty for granted, it could be too

late.

High-Energy-Density

Physics - R. Paul Drake

2006-08-31

This book has two goals. One goal is to provide a means for those new to high-energy-density physics to gain a broad foundation from one text. The second goal is to provide a useful working reference for those in the field. This book has at least four possible applications in an academic context. It can be used for training in high-energy-density physics, in support of the growing number of university and laboratory research groups working in this area. It also can be used by schools with an emphasis on ultrafast lasers, to provide some introduction to issues present in all laser-target experiments with high-power lasers, and with thorough coverage of the material in Chap. 11 on relativistic systems. In addition, it could be used by physics, applied physics, or engineering departments to provide in a single course an introduction to the basics of

fluid mechanics and radiative transfer, with didactic applications. Finally, it could be used by astrophysics departments for a similar purpose, with the benefit of training the students in the similarities and differences between laboratory and astrophysical systems. The notation in this text is deliberately sparse and when possible a given symbol has only one meaning. A definition of the symbols used is given in Appendix A. In various cases, additional subscripts are added to distinguish among cases of the same quantity, as for example in the use of ρ and ρ_1 to distinguish the mass density in two different regions.

Quantum Nonlocality - Lev

Vaidman 2019-06-12

This book presents the current views of leading physicists on the bizarre property of quantum theory: nonlocality. Einstein viewed this theory as “spooky action at a distance” which, together with randomness, resulted in him being unable to accept quantum theory. The

contributions in the book describe, in detail, the bizarre aspects of nonlocality, such as Einstein-Podolsky-Rosen steering and quantum teleportation—a phenomenon which cannot be explained in the framework of classical physics, due its foundations in quantum entanglement. The contributions describe the role of nonlocality in the rapidly developing field of quantum information. Nonlocal quantum effects in various systems, from solid-state quantum devices to organic molecules in proteins, are discussed. The most surprising papers in this book challenge the concept of the nonlocality of Nature, and look for possible modifications, extensions, and new formulations—from retrocausality to novel types of multiple-world theories. These attempts have not yet been fully successful, but they provide hope for modifying quantum theory according to Einstein's vision.

Directory of Competitive Exams in India -

C++ Programming -

Debabrata BHATTACHARYA
2018-09-18

This book emphasizes the techniques you will need to communicate instructions to machines. It teaches you how to write computer programs and the entire process of C++ programming. I have always believed that a detailed programming book with lots of programming will help students in developing basics. Developing a program is a detailed process, which requires careful planning and accuracy. I have tried to keep the explanations simple, short and easy to understand. This book provides a very clear and easy representation of C++ programming.

Fundamentals of Fiber Lasers and Fiber Amplifiers - Valerii (Vartan) Ter-Mikirtychev
2013-11-19

This book covers the fundamental aspects of fiber lasers and fiber amplifiers, and includes a wide range of material from laser physics fundamentals to state-of-the-art topics, as well as industrial

applications in the rapidly growing field of quantum electronics. Emphasis is placed on the nonlinear processes taking place in fiber lasers and amplifiers, their similarities, differences to, and their advantages over other solid-state lasers. The reader will learn basic principles of solid-state physics and optical spectroscopy of laser active centers in fibers, main operational laser regimes, and practical recommendations and suggestions on fiber laser research, laser applications, and laser product development. The book will be useful for students, researchers, and professionals who work with lasers, in the optical communications, chemical and biological industries.

Modern Methods for
Multidimensional Dynamics
Computations in Chemistry -

Donald Leo Thompson 1998
This volume describes many of the key practical theoretical techniques that have been developed to treat chemical dynamics problems in many-atom systems. It contains

thorough treatments of fundamental theory and prescriptions for performing computations. The selection of methods, ranging from gas phase bimolecular reactions to complex processes in condensed phases, reflects the breadth of the field. The book is an excellent reference for proven and accepted methods as well as for theoretical approaches that are still being developed. It is appropriate for graduate students and other novices? who wish to begin working in chemical dynamics as well as active researchers who wish to acquire a wider knowledge of the field.

**Asymptotic Theory of
Quantum Statistical**

Inference - Masahito Hayashi
2005-02-21

' Quantum statistical inference, a research field with deep roots in the foundations of both quantum physics and mathematical statistics, has made remarkable progress since 1990. In particular, its asymptotic theory has been developed during this period. However, there has hitherto

been no book covering this remarkable progress after 1990; the famous textbooks by Holevo and Helstrom deal only with research results in the earlier stage (1960s-1970s). This book presents the important and recent results of quantum statistical inference. It focuses on the asymptotic theory, which is one of the central issues of mathematical statistics and had not been investigated in quantum statistical inference until the early 1980s. It contains outstanding papers after Holevo's textbook, some of which are of great importance but are not available now. The reader is expected to have only elementary mathematical knowledge, and therefore much of the content will be accessible to graduate students as well as research workers in related fields. Introductions to quantum statistical inference have been specially written for the book. Asymptotic Theory of Quantum Statistical Inference: Selected Papers will give the reader a new insight into physics and statistical

inference. Contents:Hypothesis TestingQuantum Cramér-Rao Bound in Mixed States ModelQuantum Cramér-Rao Bound in Pure States ModelGroup Symmetric Approach to Pure States ModelLarge Deviation Theory in Quantum EstimationFuther Topics on Quantum Statistical Inference Readership: Graduate students in quantum physics, mathematical physics, and probability and statistics. Keywords:Quantum Information;Estimation Theory;Statistics;Statistical Inference;Mathematical Physics;Asymptotic Theory;Hypothesis TestingReviews:"This book will give the scholars new insight into physics and statistical inference."Zentralblatt MATH ' *Quantum Theory: Concepts and Methods* - A. Peres 2006-06-01 There are many excellent books on quantum theory from which one can learn to compute energy levels, transition rates, cross sections, etc. The theoretical rules given in these books are routinely used by physicists to compute

observable quantities. Their predictions can then be compared with experimental data. There is no fundamental disagreement among physicists on how to use the theory for these practical purposes.

However, there are profound differences in their opinions on the ontological meaning of quantum theory. The purpose of this book is to clarify the conceptual meaning of quantum theory, and to explain some of the mathematical methods which it utilizes. This text is not concerned with specialized topics such as atomic structure, or strong or weak interactions, but with the very foundations of the theory. This is not, however, a book on the philosophy of science. The approach is pragmatic and strictly instrumentalist. This attitude will undoubtedly antagonize some readers, but it has its own logic: quantum phenomena do not occur in a Hilbert space, they occur in a laboratory.

College Physics - Raymond A. Serway 2003

This 5" by 7" paperback is a

section-by-section capsule of the textbook that provides a handy guide for looking up important concepts, equations, and problem-solving hints.

Conical Intersections -

Wolfgang Domcke 2004-07-14

It is widely recognized nowadays that conical intersections of molecular potential-energy surfaces play a key mechanistic role in the spectroscopy of polyatomic molecules, photochemistry and chemical kinetics. This invaluable book presents a systematic exposition of the current state of knowledge about conical intersections, which has been elaborated in research papers scattered throughout the chemical physics literature. Section I of the book provides a comprehensive analysis of the electronic-structure aspects of conical intersections. Section II shows the importance of conical intersections in chemical reaction dynamics and gives an overview of the computational techniques employed to describe the dynamics at conical

intersections. Finally, Section III deals with the role of conical intersections in the fields of molecular spectroscopy and laser control of chemical reaction dynamics. This book has been selected for coverage in: • CC / Physical, Chemical & Earth Sciences • Chemistry Citation Index(tm) • Index to Scientific Book Contents® (ISBC) Contents: Fundamental Concepts and Electronic Structure Theory Conical Intersections in Photoinduced and Collisional Dynamics Detection and Control of Chemical Dynamics at Conical Intersections Readership: Researchers in theoretical chemistry, molecular spectroscopy and photochemistry. Keywords: Conical Intersections; Photochemistry; Chemical Reaction Dynamics; Photo-dissociation; Diabetic

Review of the Department of Energy's Inertial Confinement Fusion Program - National Research Council 1997-04-24

Concepts in Statistical

Mechanics - Art Hobson 1987

"This reference reviews many principles and practices of microbiology in the cosmetic industry to address globalization of products. Supplying chapters from leading authorities around the world, this guide highlights emerging issues in nanotechnology, governmental regulation, and efficacy testing, as well as demonstrates the impact of microbiological testing in clinical studies." "Emphasizing the globalization of products in industry, this source ranges from discussions of the evolution of cosmetic and drug microbiology in different countries to preservative efficacy testing, hurdle technology, and nanotechnology ... introduces emerging 'lab on a chip' technologies for the testing of microorganisms and their products at the molecular level ... describes critical factors that must be considered in the testing and selection of preservatives for product formulations ... presents an overview of skin microbiology

... and updates progress on global harmonization of microbiological test methods."-- BOOK JACKET.

Laboratory Astrophysics - Guillermo M. Muñoz Caro 2018-10-11

This book focuses on the most recent, relevant, comprehensive and significant aspects in the well-established multidisciplinary field Laboratory Astrophysics. It focuses on astrophysical environments, which include asteroids, comets, the interstellar medium, and circumstellar and circumplanetary regions. Its scope lies between physics and chemistry, since it explores physical properties of the gas, ice, and dust present in those systems, as well as chemical reactions occurring in the gas phase, the bare dust surface, or in the ice bulk and its surface. Each chapter provides the necessary mathematical background to understand the subject, followed by a case study of the corresponding system. The book provides adequate material to help

interpret the observations, or the computer models of astrophysical environments. It introduces and describes the use of spectroscopic tools for laboratory astrophysics. This book is mainly addressed to PhD graduates working in this field or observers and modelers searching for information on ice and dust processes.

Collapsing Radiative Shock Experiments on the Omega Laser - Amy B. Reighard 2006

Waves and Oscillations - R. N. Chaudhuri 2001

This Book Explains The Various Dimensions Of Waves And Oscillations In A Simple And Systematic Manner. It Is An Unique Attempt At Presenting A Self-Contained Account Of The Subject With Step-By-Step Solutions Of A Large Number Of Problems Of Different Types. The Book Will Be Of Great Help Not Only To Undergraduate Students, But Also To Those Preparing For Various Competitive Examinations.

Atom Chips - Jakob Reichel 2011-08-24

This stimulating discussion of a rapidly developing field is divided into two parts. The first features tutorials in textbook style providing self-contained introductions to the various areas relevant to atom chip research. Part II contains research reviews that provide an integrated account of the current state in an active area of research where atom chips are employed, and explore possible routes of future progress. Depending on the subject, the length of the review and the relative weight of the 'review' and 'outlook' parts vary, since the authors include their own personal view and style in their accounts.

Physics for Scientists and Engineers - Paul A. Tipler
2007-05-01

The Sixth Edition of *Physics for Scientists and Engineers* offers a completely integrated text and media solution that will help students learn most effectively and will enable professors to customize their classrooms so that they teach most efficiently. The text

includes a new strategic problem-solving approach, an integrated Math Tutorial, and new tools to improve conceptual understanding. To simplify the review and use of the text, *Physics for Scientists and Engineers* is available in these versions: Volume 1 Mechanics/Oscillations and Waves/Thermodynamics (Chapters 1-20, R) 1-4292-0132-0 Volume 2 Electricity and Magnetism/Light (Chapters 21-33) 1-4292-0133-9 Volume 3 Elementary Modern Physics (Chapters 34-41) 1-4292-0134-7 Standard Version (Chapters 1-33, R) 1-4292-0124-X Extended Version (Chapters 1-41, R) 0-7167-8964-7

[Introduction to Radar Using Python and MATLAB](#) - Lee Andrew (Andy) Harrison
2019-10-31

This comprehensive resource provides readers with the tools necessary to perform analysis of various waveforms for use in radar systems. It provides information about how to produce synthetic aperture

(SAR) images by giving a tomographic formulation and implementation for SAR imaging. Tracking filter fundamentals, and each parameter associated with the filter and how each affects tracking performance are also presented. Various radar cross section measurement techniques are covered, along with waveform selection analysis through the study of the ambiguity function for each particular waveform from simple linear frequency modulation (LFM) waveforms to more complicated coded waveforms. The text includes the Python tool suite, which allows the reader to analyze and predict radar performance for various scenarios and applications. Also provided are MATLAB® scripts corresponding to the Python tools. The software includes a user-friendly graphical user interface (GUI) that provides visualizations of the concepts being covered. Users have full access to both the Python and MATLAB source code to modify for their application. With

examples using the tool suite are given at the end of each chapter, this text gives readers a clear understanding of how important target scattering is in areas of target detection, target tracking, pulse integration, and target discrimination.

Handbook of Drug Metabolism, Third Edition -

Paul G. Pearson 2016-04-26

The second edition of a bestseller, this book presents the latest innovative research methods that help break new ground by applying patterns, reuse, and design science to research. The book relies on familiar patterns to provide the solid fundamentals of various research philosophies and techniques as touchstones that demonstrate how to innovate research methods. Filled with practical examples of applying patterns to IT research with an emphasis on reusing research activities to save time and money, this book describes design science research in relation to other information systems research paradigms such as positivist and

interpretivist research.

Science, Music, And Mathematics: The Deepest Connections

- Michael

Edgeworth McIntyre

2021-11-03

Professor Michael Edgeworth McIntyre is an eminent scientist who has also had a part-time career as a musician. From a lifetime's thinking, he offers this extraordinary synthesis exposing the deepest connections between science, music, and mathematics, while avoiding equations and technical jargon. He begins with perception psychology and the dichotomization instinct and then takes us through biological evolution, human language, and acausality illusions all the way to the climate crisis and the weaponization of the social media, and beyond that into the deepest parts of theoretical physics — demonstrating our unconscious mathematical abilities. He also has an important message of hope for the future. Contrary to popular belief, biological evolution has given us not only the nastiest,

but also the most compassionate and cooperative parts of human nature. This insight comes from recognizing that biological evolution is more than a simple competition between selfish genes. Rather, he suggests, in some ways it is more like turbulent fluid flow, a complex process spanning a vast range of timescales. Professor McIntyre is a Fellow of the Royal Society of London (FRS) and has worked on problems as diverse as the Sun's magnetic interior, the Antarctic ozone hole, jet streams in the atmosphere, and the psychophysics of violin sound. He has long been interested in how different branches of science can better communicate with each other and with the public, harnessing aspects of neuroscience and psychology that point toward the deep 'lucidity principles' that underlie skilful communication.

Thawing Permafrost - J. van Huissteden 2020-01-01

This book provides a cross-disciplinary overview of permafrost and the carbon

cycle by providing an introduction into the geographical distribution of permafrost, with a focus on the distribution of permafrost and its soil carbon reservoirs. The chapters explain the basic physical properties and processes of permafrost soils: ice, mineral and organic components, and how these interact with climate, vegetation and geomorphological processes. In particular, the book covers the role of the large quantities of ice in many permafrost soils which are crucial to understanding carbon cycle processes. An explanation is given on how permafrost becomes loaded with ice and carbon. Gas hydrates are also introduced. Structures and processes formed by the intense freeze-thaw action in the active layer are considered (e.g. ice wedging, cryoturbation), and the processes that occur as the permafrost thaws, (pond and lake formation, erosion). The book introduces soil carbon accumulation and

decomposition mechanisms and how these are modified in a permafrost environment. A separate chapter deals with deep permafrost carbon, gas reservoirs and recently discovered methane emission phenomena from regions such as Northwest Siberia and the Siberian yedoma permafrost.

Fundamentals of Biomechanics
- Dawn L. Leger 2013-03-14

Extensively revised from a successful first edition, this book features a wealth of clear illustrations, numerous worked examples, and many problem sets. It provides the quantitative perspective missing from more descriptive texts, without requiring an advanced background in mathematics, and as such will be welcomed for use in courses such as biomechanics and orthopedics, rehabilitation and industrial engineering, and occupational or sports medicine.

Laser Interaction and Related Plasma Phenomena
- 1989

Dynamical Tunneling - Srihari

Keshavamurthy 2011-03-09

A prominent aspect of quantum theory, tunneling arises in a variety of contexts across several fields of study, including nuclear, atomic, molecular, and optical physics and has led to technologically relevant applications in mesoscopic science. Exploring mechanisms and consequences, *Dynamical Tunneling: Theory and Experiment* presents the work of international experts who discuss the considerable progress that has been achieved in this arena in the past two decades. Highlights in this volume include: A historical introduction and overview of dynamical tunneling, with case histories ranging from simple and emblematic to complex and involving experimental counterparts An emphasis on the semiclassical theory of tunneling put forth by various research groups using different approaches Developments in tunneling with cold atoms and molecular manifestations Advances in our ability to

perform delicate and precise experiments in atomic systems The visualization and control of photonic tunneling The role of dynamical tunneling on energy flow and localization in large molecules In the near future, complex tunneling processes occurring in few and many-body systems will be able to be predicted, understood, and controlled. Comprising all relevant topics and authors in the context of present-day research on dynamical tunneling, this self-contained volume provides readers with the basis for further discovery into the potential of this powerful phenomenon.

Physics. - David Halliday
2001-07-01

The publication of the first edition of *Physics* in 1960 launched the modern era of physics textbooks. It was a new paradigm then and, after 40 years, it continues to be the dominant model for all texts. The big change in the market has been a shift to a lower level, more accessible version of the model. *Fundamentals of Physics* is a good example of

this shift. In spite of this change, there continues to be a demand for the original version and, indeed, we are seeing a renewed interest in Physics as demographic changes have led

to greater numbers of well-prepared students entering university. Physics is the only book available for academics looking to teach a more demanding course.