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Capital Karl Marx 2006-05-25 The "forgotten" second volume of Capital, Marx's world-shaking analysis of economics, politics, and history, contains the vital discussion of commodity, the cornerstone to Marx's theories.

Semiconductor Optics Claus F. Klingshirn 1997-02-03 Semiconductor Optics provides an introduction to and an overview of semiconductor optics from the IR through the visible to the UV, including linear and nonlinear optical properties, dynamics, magneto- and electrooptics, high-excitation effects, some applications, experimental techniques and group theory. Mathematics is kept as elementary as possible, enough for an intuitive understanding of the experimental results and techniques treated. The subjects covered extend from physics to materials science and optoelectronics.

Particles and Nuclei Bogdan Povh 2013-04-17 The fourth edition includes new developments, in particular a new section on the double beta decay including a discussion of the possibility of a neutrinoless decay and its implications for the standard model.

The Special Theory of Relativity Helmut Günther 2019-09-25 This book discusses in detail the special theory of relativity without including all the instruments of theoretical physics, enabling readers who are not budding theoretical physicists to develop competence in the field. An arbitrary but fixed inertial system is chosen, where the known velocity of light is measured. With respect to this system a moving clock loses time and a moving length contracts. The book then presents a definition of simultaneity for the other inertial frames without using the velocity of light. To do so it employs the known reciprocity principle, which in this context serves to provide a definition of simultaneity in the other inertial frames. As a consequence, the Lorentz transformation is deduced and the universal constancy of light is

established. With the help of a lattice model of the special theory of relativity the book provides a deeper understanding of the relativistic effects. Further, it discusses the key STR experiments and formulates and solves 54 problems in detail.

Verzeichnis lieferbarer Bücher 1987

Kürschners deutscher Gelehrten-Kalender 2009 Each volume includes "Wissenschaftliche zeitschriften."

Cavity Optomechanics Markus Aspelmeyer 2014-07-05 During the last few years cavity-optomechanics has emerged as a new field of research. This highly interdisciplinary field studies the interaction between micro and nano mechanical systems and light. Possible applications range from novel high-bandwidth mechanical sensing devices through the generation of squeezed optical or mechanical states to even tests of quantum theory itself. This is one of the first books in this relatively young field. It is aimed at scientists, engineers and students who want to obtain a concise introduction to the state of the art in the field of cavity optomechanics. It is valuable to researchers in nano science, quantum optics, quantum information, gravitational wave detection and other cutting edge fields. Possible applications include biological sensing, frequency comb applications, silicon photonics etc. The technical content will be accessible to those who have familiarity with basic undergraduate physics.

Quantum Machines: Measurement and Control of Engineered Quantum Systems Michel Devoret 2014-06-12 This book gathers the lecture notes of courses given at the 2011 summer school in theoretical physics in Les Houches, France, Session XCVI. What is a quantum machine? Can we say that lasers and transistors are quantum machines? After all, physicists advertise these devices as the two main spin-offs of the understanding of quantum mechanical phenomena. However, while quantum mechanics must be used to predict the wavelength of a laser and the operation voltage of a transistor, it does not intervene at the level of the signals processed by these systems. Signals involve macroscopic collective variables like voltages and currents in a circuit or the amplitude of the oscillating electric field in an electromagnetic cavity resonator. In a true quantum machine, the signal collective variables, which both inform the outside on the state of the machine and receive controlling instructions, must themselves be treated as quantum operators, just as the position of the electron in a hydrogen atom. Quantum superconducting circuits, quantum dots, and quantum nanomechanical resonators satisfy the definition of quantum machines. These mesoscopic systems exhibit a few collective dynamical variables, whose fluctuations are well in the quantum regime and whose measurement is essentially limited in precision by the Heisenberg uncertainty principle. Other engineered quantum systems based on natural, rather than artificial degrees of freedom can also qualify as quantum machines: trapped ions, single Rydbergen atoms in superconducting cavities, and lattices of ultracold atoms. This book provides the basic knowledge needed to understand

and investigate the physics of these novel systems.

Science at the Crossroads Herbert Dingle 1972

The Theory of electrons and its applications to the phenomena of light and radiant heat Hendrik A. Lorentz 1916

Carolus Stuardus Andreas Gryphius 2012-06 Dieses Werk ist Teil der Buchreihe TREDITION CLASSICS. Der Verlag tredition aus Hamburg veroffentlicht in der Buchreihe TREDITION CLASSICS Werke aus mehr als zwei Jahrtausenden. Diese waren zu einem Grossteil vergriffen oder nur noch antiquarisch erhaltlich. Mit der Buchreihe TREDITION CLASSICS verfolgt tredition das Ziel, tausende Klassiker der Weltliteratur verschiedener Sprachen wieder als gedruckte Bucher zu verlegen - und das weltweit! Die Buchreihe dient zur Bewahrung der Literatur und Forderung der Kultur. Sie tragt so dazu bei, dass viele tausend Werke nicht in Vergessenheit geraten

OLED Fundamentals Daniel J. Gaspar 2015-05-15 A Comprehensive Source for Taking on the Next Stage of OLED R&D OLED Fundamentals: Materials, Devices, and Processing of Organic Light-Emitting Diodes brings together key topics across the field of organic light-emitting diodes (OLEDs), from fundamental chemistry and physics to practical materials science and engineering aspects to design and manufacturing factors. Experts from top academic institutions, industry, and national laboratories provide thorough, up-to-date coverage on the most useful materials, devices, and design and fabrication methods for high-efficiency lighting. The first part of the book covers all the construction materials of OLED devices, from substrate to encapsulation. For the first time in book form, the second part addresses challenges in devices and processing, including architectures and methods for new OLED lighting and display technologies. The book is suitable for a broad audience, including materials scientists, device physicists, synthetic chemists, and electrical engineers. It can also serve as an introduction for graduate students interested in applied aspects of photophysics and electrochemistry in organic thin films.

Physics Briefs 1991

Analysis I Herbert Amann 2006-03-14 "This textbook provides an outstanding introduction to analysis. It is distinguished by its high level of presentation and its focus on the essential.'' (Zeitschrift für Analysis und ihre Anwendung 18, No. 4 - G. Berger, review of the first German edition) "One advantage of this presentation is that the power of the abstract concepts are convincingly demonstrated using concrete applications.'' (W. Grölz, review of the first German edition)

Fundamentals of Polarized Light Christian Brosseau 1998-10-15 Comprehensive coverage of light polarization theory and its practical applications in today's cutting-edge technologies Besides being indispensable to modern investigations into the physical world, light polarization is a fundamental component of

several revolutionary technological innovations in such diverse fields as telecommunications, pollution control, and medical diagnostics. Yet there is a conspicuous dearth of texts and professional references providing researchers and engineers with a unified, comprehensive treatment of basic light polarization theory and its applications to current microwave and optical technology. This book fills that gap in the literature. Fundamentals of Polarized Light serves equally well as an advanced text for physics and electrical engineering students and a professional reference for practicing engineers and researchers. It combines a rational, integrated presentation of the theory behind modern applications of light polarization with several demonstrations of current applications. A key feature of the book is that the analysis of polarized light and its interaction with linear optical media is presented from a statistical point of view. Topics covered include: * Historical foundations of polarized light * Classical radiation field theory and Maxwell's equations * Statistical theory of partial polarization, including a discussion of the thermodynamics of radiation fields * Propagation of polarized light through linear optical systems * Polarization transfer matrix methods for describing changes in polarization states that occur during reflection and refraction * Propagation of partially polarized waves in disordered systems and anisotropic media * Polarizers, compensators, and other optical components * Measurements of the Jones and Mueller polarization matrices

Quark Confinement And The Hadron Spectrum - Proceedings Of The International Conference Brambilla Nora Serafina 1995-03-29 Project Management for Engineers, as the title suggests, is a direct attempt at addressing the ever-increasing and specific needs for better project management of engineering students, practicing engineers and managers in the industry. It aims not only to present the principles and techniques of Project Management, but also to discuss project management standards, processes and requirements, such as PMBOK, IEEE and PRINCE.Each chapter begins with the basics of the theme being developed at a level understandable to an undergraduate, before more complex topics are introduced at the end of each section that are suitable for graduate students. For the practicing professionals or managers in the industry, the book also provides many real illustrations of practical application of the principles of Project Management.Through a realistic blend of theory and practical examples, as well as an integration of the engineering technical issues with business issues, this book seeks to remove the veil of mystery that has shrouded the profession from its very beginning.

Optics, Light and Lasers Dieter Meschede 2017-06-06 This new, updated and enlarged edition of the successful and exceptionally well-structured textbook features new chapters on such hot topics as optical angular momentum, microscopy beyond the resolution limit, metamaterials, femtocombs, and quantum cascade lasers. It provides comprehensive and coherent coverage of fundamental optics, laser physics, and important modern applications, while equally including some traditional aspects for the first time, such as the Collins integral or solid immersion lenses. Written for newcomers to the topic who will

benefit from the author's ability to explain difficult theories and effects in a straightforward and readily comprehensible way.

Thermodynamics and an Introduction to Thermostatistics Herbert B. Callen 1991-01-16 The only text to cover both thermodynamic and statistical mechanics--allowing students to fully master thermodynamics at the macroscopic level. Presents essential ideas on critical phenomena developed over the last decade in simple, qualitative terms. This new edition maintains the simple structure of the first and puts new emphasis on pedagogical considerations. Thermostatistics is incorporated into the text without eclipsing macroscopic thermodynamics, and is integrated into the conceptual framework of physical theory.

Numerical Recipes in C++ William H. Press 2007-12-01 Now the acclaimed Second Edition of Numerical Recipes is available in the C++ object-oriented programming language. Including and updating the full mathematical and explanatory contents of Numerical Recipes in C, this new version incorporates completely new C++ versions of the more than 300 Numerical Recipes routines that are widely recognized as the most accessible and practical basis for scientific computing. The product of a unique collaboration among four leading scientists in academic research and industry, Numerical Recipes is a complete text and reference book on scientific computing. In a self-contained manner it proceeds from mathematical and theoretical considerations to actual practical computer routines. Highlights include linear algebra, interpolation, special functions, random numbers, nonlinear sets of equations, optimization, eigensystems, Fourier methods and wavelets, statistical tests, ODEs and PDEs, integral equations and inverse theory. The authors approach to C++ preserves the efficient execution that C users expect, while simultaneously employing a clear, object-oriented interface to the routines. Tricks and tips for scientific computing in C++ are liberally included. The routines, in ANSI/ISO C++ source code, can thus be used with almost any existing C++ vector/matrix class library, according to user preference. A simple class library for stand-alone use is also included in the book. Both scientific programmers new to C++, and experienced C++ programmers who need access to the Numerical Recipes routines, can benefit from this important new version of an invaluable, classic text.

Women's Lived Experiences of the Gender Gap Angela Fitzgerald 2021-06-20 This book explores gender inequity and the gender gap from a range of perspectives including historical, motherhood, professional life and diversity. Using a narrative approach, the book shares diverse experiences and perspectives of the gender gap and the pervasive impact it has. Through authors' in-depth insights and critical analysis, each chapter addresses the gender gap by providing a nuanced understanding of the impact of the particular lens. It shares a holistic understanding of lived experiences of gender inequity. The book offers interdisciplinary insights into current political, social, economic and cultural impacts on women and their lived experiences of inequity. It provides multiple voices from across the world and draws on narrative approaches to

sharing evidence-based insights. It includes further insights and critique of each chapter to widen the perspectives shared as the gender gap is explored and provide rigorous discussion about what possibilities and challenges are inherent in the proposed solutions as well as offering new ones. Chapter 10 and chapter 11 are available open access under a Creative Commons Attribution 4.0 International License via link.springer.com.

Inverse Problems in Differential Equations G. Anger 1990-06-30 Elucidates the fundamental mathematical structures of inverse problems, analyzing both the information content and the solution of some inverse problems in which the information content of the coefficients and the source term of a given differential equation is not too large. In order to be accessib

Polarized Light Production and Use William A. Shurcliff 2018-11-11 This work has been selected by scholars as being culturally important and is part of the knowledge base of civilization as we know it. This work is in the public domain in the United States of America, and possibly other nations. Within the United States, you may freely copy and distribute this work, as no entity (individual or corporate) has a copyright on the body of the work. Scholars believe, and we concur, that this work is important enough to be preserved, reproduced, and made generally available to the public. To ensure a quality reading experience, this work has been proofread and republished using a format that seamlessly blends the original graphical elements with text in an easy-to-read typeface. We appreciate your support of the preservation process, and thank you for being an important part of keeping this knowledge alive and relevant.

Media and Convergence Management Sandra Diehl 2013-05-24 Convergence has gained an enormous amount of attention in media studies within the last several years. It is used to describe the merging of formerly distinct functions, markets and fields of application, which has changed the way companies operate and consumers perceive and process media content. These transformations have not only led business practices to change and required companies to adapt to new conditions, they also continue to have a lasting impact on research in this area. This book's main purpose is to shed some light on crucial phenomena of media and convergence management, while also addressing more specific issues brought about by innovations related to media, technologies, industries, business models, consumer behavior and content management. This book gathers insights from renowned academic researchers and pursues a highly interdisciplinary approach. It will serve as a valuable reference guide for students, practitioners and researchers interested in media convergence processes.

Theory of Heat Richard Becker 2012-12-06 The first objective of statistical mechanics is to explain the fundamental laws of thermodynamics from first principles based on the atomic structure of matter. This problem was attacked successfully first by MAXWELL and CLAUSIUS in studies on the kinetic theory of gases. It will be treated briefly in Sec. II-A, to gain some understanding and experience before dealing with more general problems. The second objective is

then to calculate thermodynamics quantities from the microscopic laws governing the atomic motion. Whenever we try to lay the foundation of thermodynamics on an atomistic theory, we are confronted with a very strange situation. The thermodynamical state of a system is defined uniquely by only a few quantities, such as pressure, volume, energy, temperature, flow velocities, etc. In contrast, the atomistic descrip tion needs an enormous number of variables to define a state, e. g. , positions and velocities of all the atoms involved in classical mechanics or Schrodinger's wave function of the corresponding N body-problem in quantum mechanics. Classical mechanics, for instance, can predict the future development only if all the positions and velocities are known, say at time t = 0. The number of values needed for this 23 purpose is of the order of 10 . Actually, only a few parameters are at our disposal from thermodynamics. Therefore, from thermodynamics we know almost nothing about the atomistic situation.

Börsenblatt für den deutschen Buchhandel 1978

Spinning the Semantic Web Dieter Fensel 2005 A guide to the Semantic Web, which will transform the Web into a structured network of resources organized by meaning and relationships.

Values-Based Innovation Management Henning Breuer 2017-09-16 Co-authored by two leading experts in the field, this unique and forward thinking new core textbook shows how innovation in processes, products, services, business models and networks may be managed by what we care about. The book combines theoretical insights with a strong practical element, featuring a wealth of case studies and tools to help innovators solve societal problems and realise their ideals. Readers are be encouraged to explore not only sustainability-orientation and values of privacy or safety, but also their own unique values as relevant drivers for change within and across organisations. Accompanied by a strong pedagogical framework, the book begins by reviewing the field of innovation management before going on to discuss innovation in processes, products and services, and finally providing the student with the methods and tools for implementing change. This textbook is the ideal companion for advanced undergraduate or postgraduate students studying innovation management or entrepreneurship. The book also provides an invaluable resource for entrepreneurs, innovation managers and consultants.

Physics and Literature Aura Heydenreich 2021-12-20 DIE REIHE: LITERATUR- UND NATURWISSENSCHAFTEN entsteht unter Federführung des Erlanger Forschungszentrums für Literatur- und Naturwissenschaften (ELINAS). Experten unterschiedlicher Fachkulturen führen darin ihre Methoden zusammen und fragen sowohl nach den Funktionen der Sprache in der naturwissenschaftlichen Forschung als auch nach den Verfahren der Modellierung naturwissenschaftlicher Erkenntnisse in der Literatur. Die Reihe versteht sich als ein interdisziplinäres Forum zur Reflexion der kulturellen Bedeutung natur- und literaturwissenschaftlicher Forschung sowie zur Ethik und Rhetorik wissenschaftlicher Argumentation.

The Statesman's Yearbook 2021 Palgrave Macmillan 2020-10-14 Now in its 157th edition, The Statesman's Yearbook continues to be the reference work of choice for accurate and reliable information on every country in the world. Covering political, economic, social and cultural aspects, the Yearbook is also available online for subscribing institutions.

Deutsche Nationalbibliographie und Bibliographie des im Ausland erschienenen deutschsprachigen Schriftums 1985

Mad about Physics Christopher Jargodzki 2002-02-28 Why is there eight times more ice in Antarctica than in the Arctic? Why can you warm your hands by blowing gently, and cool your hands by blowing hard? Why would a pitcher scuff a baseball?Which weighs more-a pound of feathers or a pound of iron? Let science experts Christopher Jargodzki and Franklin Potter guide you through the curiosities of physics and you'll find the answers to these and hundreds of other quirky conundrums. You'll discover why sounds carry well over water (especially in the summer), how a mouse can be levitated in a magnetic field, why backspin is so important when shooting a basketball, and whether women are indeed as strong as men. With nearly 400 questions and answers on everything from race cars to jumping fleas to vanishing elephants, Mad about Physics presents a comprehensive collection of braintwisters and paradoxes that will challenge and entertain even the brainiest of science lovers. Whether you're a physicist by trade or just want to give your brain a power workout, this collection of intriguing and unusual physics challenges will send you on a highly entertaining ride that reveals the relevance of physics in our everyday lives.

Sources of Quantum Mechanics B. L. Van Der Waerden 2007-01-01 Originally published: Amsterdam: North-Holland Pub. Co., 1967.

Thermodynamics and Statistical Mechanics Walter Greiner 2012-12-06 From the reviews: "This book excels by its variety of modern examples in solid state physics, magnetism, elementary particle physics [...] I can recommend it strongly as a valuable source, especially to those who are teaching basic statistical physics at our universities." Physicalia

Eight Lectures on Theoretical Physics Max Planck 1915

Atomic Structure and Spectral Lines Arnold Sommerfeld 1934

Modern Optics B. D. Guenther 2015 The most up-to-date treatment available on modern optics. The text gives an overview of the topics and an introduction to design practices for a number of applications. It provides the student with the foundations to enter into advanced courses in nonlinear optics, lens design, laser system design, and optical communications.

Statistical Physics Leo P. Kadanoff 2000 The material presented in this invaluable textbook has been tested in two courses. One of these is a graduate-

level survey of statistical physics; the other, a rather personal perspective on critical behavior. Thus, this book defines a progression starting at the book-learning part of graduate education and ending in the midst of topics at the research level. To supplement the research-level side the book includes some research papers. Several of these are classics in the field, including a suite of six works on self-organized criticality and complexity, a pair on diffusion-limited aggregation, some papers on correlations near critical points, a few of the basic sources on the development of the real-space renormalization group, and several papers on magnetic behavior in a plain geometry. In addition, the author has included a few of his own papers.

Teaching and Learning Mathematical Modelling Katrin Vorhölter 2020-10-08 This survey provides an overview of the German discussion on modelling and applications in schools. It considers the development from the beginning of the 20th century to the present, and discusses the term "mathematical model" as well as different representations of the modelling process as modelling cycles. Different trends in the historical and current debate on applications and modelling can be differentiated as perspectives of modelling. Modelling is now one of the six general mathematical competencies defined in the educational standards for mathematics introduced in Germany in 2003, and there have been several initiatives to implement modelling in schools, as well as a whole range of empirical research projects focusing on teachers or students in modelling processes. As a special kind for implementing modelling into school, modelling weeks and days carried out by various German universities have been established. This work was published by Saint Philip Street Press pursuant to a Creative Commons license permitting commercial use. All rights not granted by the work's license are retained by the author or authors.

Time and History Friedrich Stadler 2006-01-01 This wide-ranging collection of essays contains eighteen original articles by authors representing some of the most important recent work on Wittgenstein. It deals with questions pertaining to both the interpretation and application of Wittgenstein s thought and the editing of his works. Regarding the latter, it also addresses issues concerning scholarly electronic publishing. The collection is accompanied by a comprehensive introduction which lays out the content and arguments of each contribution. Contributors: Knut Erik Tranoy, Lars Hertzberg, Georg Henrik von Wright, Marie McGinn, Cora Diamond, James Conant, David G. Stern, Eike von Savigny, P.M.S. Hacker, Hans-Johann Glock, Allan Janik, Kristof Nyiri, Antonia Soulez, Brian McGuinness, Anthony Kenny, Joachim Schulte, Herbert Hrachovec, Cameron McEwen."

Atomic and Nuclear Physics Derek Leonard Livesey 1966